Department of Veterans Affairs Salt Lake City Health Care System

Final

700 South 1600 East PCE Plume
AOU-1: East Side Springs
Remedial Investigation Report

Appendices H-5, H-6, I, J and K

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H-5
2015/2016 TO-15 Data Validation Report

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REVISED FINAL

Salt Lake City VA Medical Center
CERCLA Environmental Assessment and Cleanup

700 South 1600 East PCE Plume AOU-1: East Side Springs 2015/2016 TO-15 Data Validation Report

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Acronyms and Abbreviations

AOU-1	Accelerated Operable Unit-1
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH2M	CH2M HILL, Inc.
COC	Chain of custody
EA	EA Engineering, Science, and Technology, Inc. (prior to 12 December 2014) or EA Engineering, Science, and Technology, Inc., PBC (12 December 2014 and thereafter)
EDD	Electronic data deliverables
EPA	U.S. Environmental Protection Agency
FD	Field duplicate
FE	First Environment, Inc.
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
PCE	Tetrachloroethene
PDF	portable document format
QA	Quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality control
SAP	Sampling Analysis Plan
SDG	Sample delivery group
SIM	Select ion monitoring
TIC	Tentatively identified compound
VA	Veterans Affairs
VI	Vapor intrusion

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1.0 Introduction

Air samples were collected and analyzed during the 2015 and 2016 Veterans Affairs (VA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation in support of the Department of Veteran's Affairs remedial investigation of Accelerated Operable Unit 1 (AOU-1), part of the 700 South 1600 East Tetrachloroethene (PCE) Plume in Salt Lake City, Utah. Analytical data were evaluated by CH2M HILL, Inc. (CH2M) as described in the AOU-1 Quality Assurance Project Plan (QAPP) (First Environment, Inc. [FE] 2014) or QAPP Update Revision 1 (EA Engineering, Science, and Technology, Inc., PBC [EA] 2016). Field methods for the 2016 vapor intrusion (VI) program were assessed for compliance with the sampling methods described in the AOU-1 Sampling and Analysis Plan (SAP) (FE 2014b). This data quality evaluation report summarizes the results of the quality assurance (QA) and quality control (QC) activities prescribed in the QAPP and SAP and provides a data usability evaluation. The QAPP identifies the method-specific QC requirements for each analytical parameter and matrix and defines a plan to test that the correct sampling, analytical, and data reduction procedures are followed by using audits and data validation.

This report is a data quality evaluation designed to summarize data issues. The evaluation in this report primarily addresses the laboratory components of the data life cycle starting with preparation of the sample chain-of-custody form and delivery of the samples to the laboratory through delivery of the level IV data package and electronic data deliverables (EDDs) by the laboratory. Details of field QC are provided in other reports, and are therefore not repeated in this report. However, this information (field QC) is summarized in Section 4 for completeness.

While the validation described in this report represents an assessment of the quality of the analytical data as compared to project-specific analytical data quality objectives, there remain limitations to the determination of data usability for the VI data collected during January through April 2015. Specifically, review and verification of the information related to the integrity of the sample, i.e., sample documentation, sample identification, sample collection protocols, e.g., that occur prior to sample analysis, is outside the purview of the chemical data validation presented in this report. An independent sample integrity verification and usability assessment is being performed. Usability of the validated chemical data presented in this document is dependent upon the outcome of that assessment. The validated data, as presented in this report, can be used only to the extent that accepts the sample integrity verification determines suitability for use in the RI report. If it is concluded, based on the sample integrity verification usability assessment, that the sample January through April 2015 TO-15 data are usable and meet project objectives, the data herein can be used with no restrictions other than those identified within the validation report and as indicated by data qualification. The final user of the data in this report should review both the chemical data validation as well as the [sample integrity verification usability assessment] to assess final data usability.

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2.0 Analytical Data

Between January 21, 2015, and May 24, 2016, 61 native environmental air samples and 13 air field duplicates (FDs) were collected by FE or CH2M. Samples were analyzed by ALS Laboratory Group, Ltd. (ALS), in Salt Lake City, Utah. The laboratory placed the samples into 20 sample delivery groups (SDGs). Tables 1 and 2 present summaries of the samples collected. A total of three methods were used to analyze the environmental samples. Selected samples were analyzed for one or more of the following analytes/methods:

- Polycyclic aromatic hydrocarbons by U.S. Environmental Protection Agency (EPA) Method TO-13
- Volatile organic compounds by EPA Method TO-15
- Volatile organic compounds by EPA Method TO-15 Select Ion Monitoring (SIM).

The SDGs were evaluated by qualified chemists for data quality. Analytical performance was initially validated on an SDG basis or an analytical batch basis. The association of laboratory QC samples and environmental samples from the same analytical batch is determined by the laboratory lot control number. Analyte lists were unique based on the associated QAPP.

The QAPP specifies that 90 percent of all samples will receive an EPA Tier 2B validation review, and 10 percent of the samples for each analysis performed will receive an EPA Tier 4 validation review. These validation goals were met. The validation of data included a review of the following criteria:

1. Chain-of-custody (COC) documentation
2. Holding-time compliance
3. Required QC samples at the specified frequencies
4. Method blanks
5. Laboratory control sample (LCS)
6. Surrogate spike recoveries
7. Analytical spike data
8. Matrix spike/matrix spike duplicate samples on a site and location basis
9. Initial and continuing calibration information and other method-specific criteria as defined by the QAPP
10. For EPA Tier 4, raw instrument data review and recalculation of the data.

Field samples were also reviewed to ascertain field compliance and data quality issues.

Data flags were assigned according to the QC acceptance limits defined in the QAPP. The data validation flags are summarized in Tables 1-5 of this report. These flags, and the reason for each flag, were entered into the electronic database and are available to data users. Multiple flags can routinely be applied to a

specific sample method/matrix/analyte combination, but there will be only one final flag. A final flag is applied to the data on the basis of the flags entered into the database and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

Data flags can be separated into the following two categories to be used in estimating both laboratory contractual and analytical completeness:

- Flags caused by laboratory deviation from requirements in the QAPP
- Flags applied because of the nature of the sample matrix or analytical method limitations.

The database keeps track of the type of protocol violation, and contractual and analytical completeness during data validation.

The data flags are defined in the QAPP as follows:

- J = Analyte was present but the reported value may not be accurate or precise.
- UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R = Result has been rejected for use.
- U = This analyte was analyzed for but not detected at the specified detection limit.

2.1 Findings

The overall summaries of the data validation findings are contained in Tables 1 through 10 and summarized in the following sections:

- **Table 1: Sample Summary by Chain of Custody (COC) – Data Summary.** Presents the sample identifiers, sampling dates, and SDG sorted by COC number.
- **Table 2: Sample Chronology – Data Summary.** Presents the sample identifiers, methods, sampling dates, received dates, extraction dates, and analysis dates sorted by SDG number.
- **Table 3: Overall Flagging Summary.** Presents the number of occurrences for each data validation reason by method.
- **Table 4: Blank Contamination – Qualified Data.** Presents the data qualified because of blank contamination.
- **Table 5: Field Duplicate Precision – Qualified Data.** Presents the results that are qualified because of FD precision exceedances.
- **Table 6: Laboratory Control Sample – Qualified Data.** Presents the data qualified because of laboratory accuracy exceedances.

- **Table 7: Surrogate Recovery – Qualified Data.** Presents the results that are qualified because of surrogate recovery exceedances.

- **Table 8: Calibration Criteria – Qualified Data.** Presents the results that are qualified because of calibration criteria exceedances.

- **Table 9: Internal Standards – Qualified Data.** Presents the results that are qualified because of internal standard exceedances.

- **Table 10: Site Completeness by Analyte – Qualified Data.** Presents the percent completeness by method, analyte, and matrix.

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3.0 Overall Flagging Summary

The frequency of field and laboratory QC samples and the associated control criteria are specified in the QAPP. These control criteria were used to evaluate the laboratory data. The method-specific discussions contained in the following subsections, only the criteria exceedances that impact data qualification are discussed. Any laboratory flags applied to the data that were not consistent with the data flags listed in the QAPP were marked as invalid and replaced with the appropriate data flag (e.g., "J", "U," or "UJ"). The number of flagged data is compared to the total number of results to give a percentage of flagged data for each QC criteria (see Section 3.2).

3.1 General Comments

3.1.1 Hard Copy Data Deliverable and Electronic Data Deliverable

The non-detected data results for the FE EDDs do not match the hard copy provided by the laboratory and remain as such. The effected samples were collected by FE from January 21, 2015, through April 1, 2015, and the ALS data packages are 1502226, 1503581, 1503747, 1505133, 1506345, 1507913, 1509608, 1509661, 1509795, 1510351, 1510353, 1510555, 1510559, and 1510561.

3.1.2 Canister Sample Identification and Laboratory Reported Sample Identification

The laboratory logged the FE samples with sample identifications that in some cases did not match the canister sample identifications provided by the field team on the COC form. The FE field team also provided incorrect sample identifications on the COC forms in certain instances. No sample identification issues have been resolved. The ALS data packages in question are 1510353, 1510555, 1510559, and 1510561.

3.1.3 Tentatively Identified Compounds

Tentatively identified compounds (TICs) were provided by the laboratory for the FE data, although not requested or specified by the QAPP. CH2M collected samples prior to the QAPP completion in December 2015 and TICs were provided although not requested. The remaining CH2M data do not include TICs. TICs are not included in the tables for this report.

3.1.4 Low-level Detects

Sample results between the method detection limit and the reporting limit have been flagged "J" and are represented in Table 2. The qualified results represent values determined at levels where the true value of the measured chemical could not be quantified with a high degree of confidence. The laboratory met the QAPP specified reporting limits. All data flagged for low-level imprecision were the result of the sample concentrations and not laboratory related. These qualified results should be considered as estimates.

3.1.5 EPA Method TO-13 (Polycyclic Aromatic Hydrocarbons)

Laboratory Control Sample. Table 6 lists the specific field samples associated with LCS recovery criteria exceedances. Eighteen sample results had criteria exceedances. All associated non-detected results were flagged "UJ."

Surrogate Recovery. Table 7 lists the specific field samples and their associated surrogate recovery exceedance. Surrogate recoveries outside the acceptance limits affected 85 sample results. The associated non-detected results were flagged "UJ."

3.1.6 EPA Method TO-15 (Volatile Organic Compounds)

Blanks. Table 4 lists specific field samples and their associated laboratory blank criteria exceedances. A total of 14 sample detected concentrations were less than five times (or ten times for common laboratory contaminants) the blank concentrations. The associated results were flagged "U."

Field Duplicates. Table 5 lists the specific field samples and their associated FD precision criteria exceedances. Twenty-six FD pairs had criteria exceedances. Forty-four associated detected results were flagged "J" and eight non-detected results were flagged "UJ."

Laboratory Control Sample. Table 6 lists the specific field samples associated with LCS and/or Laboratory Control Sample Duplicate (LCSD) recovery and LCS relative percent difference criteria exceedances. Ninety-nine sample results had criteria exceedances. Sixty-six associated detected results were flagged "J" and 33 associated non-detected results were flagged "UJ."

Calibration. Table 8 lists the specific field samples and their associated calibration criteria exceedances. A total of 117 sample concentrations were affected by calibration criteria exceedances. Seventy-one associated detected results were flagged "J." Forty-six associated non-detected results were flagged "UJ."

Several calibration observations are related to detections greater than the instrument calibration range. The reported results are marginally above the calibration range. All results that exceeded the calibration range are either well above or below the soil gas screening levels and the data are usable as flagged.

3.1.7 EPA Method TO-15 SIM (Volatile Organic Compounds)

Laboratory Control Sample. Table 6 lists the specific field samples associated with LCS recovery and LCS relative percent difference criteria exceedances. One sample result had criteria exceedances. The associated detected result was flagged "J."

Calibration. Table 8 lists the specific field sample and associated calibration criteria exceedance. A total of 11 sample concentrations were reported at concentrations greater than the instrument calibration range. The associated detected results were flagged "J."

A single result for trichloroethene is just slightly greater than the calibration range and an order of magnitude greater than the indoor air screening level and the data is usable as flagged. The remaining calibration exceedances were related to PCE. The chromatogram and signal for the highest reported concentration of PCE was reviewed. The analyte peak shape was good and no signal saturation was noted. All PCE results that exceed the calibration range are also greater than the indoor air screening level and the data is usable as flagged.

Internal Standard. Table 9 lists the specific field sample and associated internal standard criteria exceedance. A total of one sample concentration was affected by internal standard criteria exceedance. The associated non-detected result was flagged "UJ."

3.2 Overall Evaluation

Completeness is calculated and reported for each method and analyte combination as outlined in the QAPP. The number of valid (i.e., not qualified with an "R" flag) results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set. The data is considered 100 percent complete, pending the resolution of an on-going QC review of the FE data being performed by a third party QC Contractor, under contract to VA. A summary of the completeness calculations can be found in Table 10.

- Of 3,501 normal and FD data points, 96 detected results and 146 non-detected results (6.9 percent) were qualified as estimated concentrations because of QC exceedances. Blank contamination resulted in 14 detected results being flagged as non-detects (0.4 percent).

- Evaluation of 100 percent of the chemical data was performed by using the QAPP as a guide for data quality evaluation. No systematic protocol errors were identified on the basis of the QA/QC program set up or during the monitoring of the field or laboratory efforts with the following exceptions:

    1. The laboratory failed to dilute some EPA Method TO-15 and TO-15SIM analyte concentrations to less than the highest standard of the calibration range. This had little impact to the data usability (see Sections 3.1.5, 3.1.6, and 3.1.7).

    2. The inconsistency between the FE COC canister sample identifications and laboratory sample identifications as discussed in Section 3.1 has not been addressed and without further information, the COC forms appear to be compromised. As noted above, the FE data and field forms are currently being evaluated by the QC Contractor to confirm the accuracy of the COC documentation.

    3. The non-detected data results for the FE EDDs do not match the hard copy provided by the laboratory and remain as such (see Section 3.1). The inconsistency between EDD and hard copy results are currently being evaluated by the QC Contractor.

The CH2M sample data collected between December 3, 2015, and May 24, 2016, is usable as flagged. The FE data as detailed in Section 3.1 should not be used without resolution of the inconsistencies between the COC and data packages, and correction of the discrepancy between the hard copy data package and EDD non-detect values. Once the QC review of the FE data is completed by the QC Contractor, re-evaluation of any revised data is recommended.

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4.0 Field Quality Control

The 2016 VI fieldwork was performed per the approved SAP (FE 2014b), with the exception of one minor deviation regarding the sample naming convention outlined in the SAP, Table 3. The naming convention in the SAP was not followed during 2016 VI sampling, although a similar sample naming convention was followed. The naming convention was used consistently throughout the field, laboratory, and data validation programs to track the samples. Therefore, this deviation from the specified naming convention had no effect on the overall usability of the data.

Presentation of a brief summary of the QC related to the 2015 VI fieldwork performed by FE was part of the scope of this project. However, at the time of this report the 2015 VI field documentation review and data verification QC review is ongoing by a third party QC Contractor. This data is therefore not available at the time of this report.

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5.0 Data Management

All raw data will be maintained on file in the laboratory in accordance with the data requirements provided in the QAPP. Complete documentation of sample preparation and analysis and associated QC information will be maintained in a manner that allows easy retrieval. The following minimum documentation was kept for this project:

- Original work order, COC forms, and other pertinent documents received with the samples
- Records of communications between the laboratory, field personnel, and the client
- Corrective action reports
- Laboratory data reports
- Laboratory logbooks and all raw sample preparation and analytical data
- Electronic data and all pertinent standard operating procedures

The minimum field records retained for this project included correspondence, COC forms, field notes, field equipment performance records, maintenance logs, field procedures, corrective action reports, field personnel files, and project-related reports.

The receipt of electronic and portable document format (PDF) laboratory data were logged into the sample tracking program to determine completeness and contractor turnaround time compliance.

CH2M chemists uploaded electronic data into the validation program. All data validation was performed by a semi-automated data validation program that uses laboratory PDF report and electronic data simultaneously. All validation flags and discoveries were entered into the validation database and linked directly to each individual data point.

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6.0 References

EA Engineering Science, and Technology, Inc., PBC. 2016. *Final Quality Assurance Project Plan Update Revision 1, 700 South 1600 East PCE Plume, AOU-1: East Side Springs, Salt Lake City, Utah*. February

First Environment, Inc. (FE). 2014. *Quality Assurance Project Plan, 700 South 1600 East PCE Plume, AOU-1: East Side Springs*, Salt Lake City, Utah. Revision 0. October.

First Environment, Inc. (FE). 2014b. Sampling *and Analysis Plan, 700 South 1600 East PCE Plume, AOU-1: East Side Springs*, Salt Lake City, Utah. October.

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Tables

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TABLE 1

Sample Summary by Chain of Custody (COC) - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
1502226					
	21-Jan-15	AIR	A-0017H-TO-001-BAS / N	1502226	ALSS
			A-0017H-TO-002-OUT / N	1502226	ALSS
			A-0017H-TO-003-GAS / N	1502226	ALSS
1503581					
	03-Feb-15	AIR	A-0019H-020415-TO-001-HAL / N	1503581	ALSS
			A-0019H-020415-TO-002-B2 / N	1503581	ALSS
			A-0019H-020415-TO-003-STO / N	1503581	ALSS
1503747					
	05-Feb-15	AIR	A-0018H-020615-TO-001 / N	1503747	ALSS
			A-0018H-020615-TO-002 / N	1503747	ALSS
1505133					
	18-Feb-15	AIR	A-0018H-021915-TO-001 / N	1505133	ALSS
			A-0018H-021915-TO-002 / N	1505133	ALSS
			A-0018H-021915-TO-003 / N	1505133	ALSS
1506345					
	02-Mar-15	AIR	A-0011-H-030315-TO-001 / N	1506345	ALSS
			A-0011-H-030315-TO-002 / N	1506345	ALSS
			A-0011-H-030315-TO-003 / N	1506345	ALSS
			A-0011-H-030315-TO-004 / FD	1506345	ALSS
1507913					
	19-Mar-15	AIR	A-0000H-031915-TO-010 / FD	1507913	ALSS
			A-0007H-031915-TO-001-LLL / N	1507913	ALSS
			A-0027H-031915-TO-001-BAS / N	1507913	ALSS
			A-0027H-031915-TO-002-OUT / N	1507913	ALSS
1509608					
	02-Apr-15	AIR	A-0028-S-040215-TO-001 / N	1509608	ALSS
			A-0036H-040415-TO-001 / N	1509608	ALSS
			A-0037H-040305-SG-001-4' / N	1509608	ALSS
1509661					
	02-Apr-15	AIR	A-0037H-SG-002 / N	1509661	ALSS

TABLE 1

Sample Summary by Chain of Custody (COC) - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
1509795					
	07-Apr-15	AIR	A0022S-040715-TO-001-CAFE / N	1509795	ALSS
			A0022S-040715-TO-002-CR330 / N	1509795	ALSS
			A0037H-040715-TO-001-LAU / N	1509795	ALSS
			A0037H-040715-TO-002-BR2 / N	1509795	ALSS
			A0037H-040715-TO-003-BAS / FD	1509795	ALSS
1510351					
	07-Apr-15	AIR	A-0026H-040715-SG-001A / N	1510351	ALSS
			A-0026H-040715-SG-001D / FD	1510351	ALSS
			A-0026H-040715-TO-001-PAN / N	1510351	ALSS
			A-0026H-040715-TO-003-OUT / N	1510351	ALSS
			A-0026H-040715-TO-004 / FD	1510351	ALSS
1510353					
	09-Apr-15	AIR	A-0003H-040915-SG-001-4 / N	1510353	ALSS
			A-0003H-040915-TO-001-LIV / N	1510353	ALSS
			A-0003H-040915-TO-002-BAS / N	1510353	ALSS
			A-0003H-040915-TO-003-BBB / FD	1510353	ALSS
	10-Apr-15		A-0008H-041015-SG-001A-4 / N	1510353	ALSS
			A-0008H-041015-SG-001B-4 / FD	1510353	ALSS
			A-0008H-041015-TO-001-BAS / N	1510353	ALSS
	08-Apr-15		A-0026H-040815-SG-001-4 / N	1510353	ALSS
			A-0026H-040815-SG-002-4 / FD	1510353	ALSS
			A-0026H-040815-SG-003-4 / N	1510353	ALSS
			A-0026H-040815-TO-001-PAN / N	1510353	ALSS
			A-0026H-040815-TO-003-OUT / N	1510353	ALSS
1510555					
	13-Apr-15	AIR	A-0011-H-041315-SG-001 / N	1510555	ALSS
			A-0011-H-041315-TO-001-BA5 / N	1510555	ALSS
	14-Apr-15		A-0031-S-041415-SG-002A4 / N	1510555	ALSS
1510559					
	11-Apr-15	AIR	A-0011H-041415-SG-001A8 / N	1510559	ALSS
			A-0030H-041115-SG-001A / N	1510559	ALSS
			A-0030H-041115-TO-001-LAU / N	1510559	ALSS

TABLE 1

Sample Summary by Chain of Custody (COC) - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory
1510559					
	11-Apr-15	AIR	A-0030H-041115-TO-002-OUT / N	1510559	ALSS
			A-0030H-041115-TO-003-AAA / FD	1510559	ALSS
			A-0030H-041115-TO-004BLK / N	1510559	ALSS
			A-0031-S-041515-SG-001A 4 / N	1510559	ALSS
1510561					
	11-Apr-15	AIR	A-0011H-041315-SG-001 / N	1510561	ALSS
1534300					
	03-Dec-15	AIR	A-0003H-120415-TO-001-DIN / N	1534300	ALSS
			A-0003H-120415-TO-002-BAS / N	1534300	ALSS
			A-0003H-120415-TO-002-BAS-D / FD	1534300	ALSS
1606379					
	03-Mar-16	AIR	A-0003H-030316-IA-BAS / N	1606379	ALSS
	01-Mar-16		A-0011H-030116-IA-012A-LLL / N	1606379	ALSS
1607440					
	12-Mar-16	AIR	A-0040H-031216-IA-BAS / N	1607440	ALSS
1607459					
	08-Mar-16	AIR	A-0037H-030816-IA-LAU / N	1607459	ALSS
	12-Mar-16		A-0040H-031216-IA-BAS-D / FD	1607459	ALSS
			A-0040H-031216-IA-KIT / N	1607459	ALSS
1608222					
	16-Mar-16	AIR	A-0017H-031616-IA-BAS / N	1608222	ALSS
			A-0018H-031616-IA-BAS / N	1608222	ALSS
			A-0023-031616-IA-BA1 / N	1608222	ALSS
			A-0051-031616-IA-BAS / N	1608222	ALSS
			A-0051-031616-IA-BAS-D / FD	1608222	ALSS
1614564					
	23-May-16	AIR	A-0053H-052316-SG-001-6'(0037) / N	1614564	ALSS
			A-0053H-052316-SG-001-6'(0050) / N	1614564	ALSS
	24-May-16		A-0053H-052416-IA-BAS / N	1614564	ALSS
			A-0053H-052416-IA-BAS-D / FD	1614564	ALSS

TABLE 1

Sample Summary by Chain of Custody (COC) - Data Summary

CoC Number	Sample Date	Matrix	Sample ID / QAQC Type	SDG	Laboratory

QAQC Type

N = normal environmental sample
FD = field duplicate

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALSS	1502226	A-0017H-TO-001-BAS	EPA TO-15 SIM	1/21/2015	1/21/2015		1/28/2015
		A-0017H-TO-002-OUT	EPA TO-15 SIM	1/21/2015	1/21/2015		1/28/2015
		A-0017H-TO-003-GAS	EPA TO-15	1/21/2015	1/21/2015		1/22/2015
		A-0017H-TO-003-GAS	EPA TO-15	1/21/2015	1/21/2015		1/23/2015
	1503581	A-0019H-020415-TO-001-HAL	EPA TO-15 SIM	2/3/2015	2/4/2015		2/10/2015
		A-0019H-020415-TO-002-B2	EPA TO-15 SIM	2/3/2015	2/4/2015		2/10/2015
		A-0019H-020415-TO-003-STO	EPA TO-15 SIM	2/3/2015	2/4/2015		2/10/2015
	1503747	A-0018H-020615-TO-001	EPA TO-15 SIM	2/5/2015	2/6/2015		2/10/2015
		A-0018H-020615-TO-002	EPA TO-15 SIM	2/5/2015	2/6/2015		2/10/2015
	1505133	A-0018H-021915-TO-001	EPA TO-15	2/18/2015	2/20/2015		2/23/2015
		A-0018H-021915-TO-002	EPA TO-15	2/18/2015	2/20/2015		2/23/2015
		A-0018H-021915-TO-003	EPA TO-15	2/18/2015	2/20/2015		2/23/2015
	1506345	A-0011-H-030315-TO-001	EPA TO-15	3/2/2015	3/3/2015		3/5/2015
		A-0011-H-030315-TO-002	EPA TO-15	3/2/2015	3/3/2015		3/5/2015
		A-0011-H-030315-TO-003	EPA TO-15	3/2/2015	3/3/2015		3/5/2015
		A-0011-H-030315-TO-004	EPA TO-15	3/2/2015	3/3/2015		3/5/2015
	1507913	A-0000H-031915-TO-010	EPA TO-15	3/19/2015	3/19/2015		3/23/2015
		A-0007H-031915-TO-001-LLL	EPA TO-15	3/19/2015	3/19/2015		3/23/2015
		A-0027H-031915-TO-001-BAS	EPA TO-15	3/19/2015	3/19/2015		3/23/2015
		A-0027H-031915-TO-002-OUT	EPA TO-15	3/19/2015	3/19/2015		3/23/2015
	1509608	A-0028-S-040215-TO-001	EPA TO-15	4/2/2015	4/6/2015		4/7/2015
		A-0036H-040415-TO-001	EPA TO-15	4/2/2015	4/6/2015		4/8/2015
		A-0037H-040305-SG-001-4'	EPA TO-15	4/2/2015	4/6/2015		4/7/2015
	1509661	A-0037H-SG-002	EPA TO-15	4/2/2015	4/6/2015		4/8/2015
	1509795	A0022S-040715-TO-001-CAFE	EPA TO-15	4/7/2015	4/7/2015		4/8/2015
		A0022S-040715-TO-002-CR330	EPA TO-15	4/7/2015	4/7/2015		4/10/2015
		A0037H-040715-TO-001-LAU	EPA TO-15	4/7/2015	4/7/2015		4/8/2015
		A0037H-040715-TO-002-BR2	EPA TO-15	4/7/2015	4/7/2015		4/8/2015
		A0037H-040715-TO-003-BAS	EPA TO-15	4/7/2015	4/7/2015		4/8/2015
	1510351	A-0026H-040715-SG-001A	EPA TO-13	4/7/2015	4/10/2015	4/14/2015	4/16/2015
		A-0026H-040715-SG-001D	EPA TO-13	4/7/2015	4/10/2015	4/14/2015	4/16/2015
		A-0026H-040715-TO-001-PAN	EPA TO-13	4/7/2015	4/10/2015	4/14/2015	4/16/2015
		A-0026H-040715-TO-003-OUT	EPA TO-13	4/7/2015	4/10/2015	4/14/2015	4/16/2015
		A-0026H-040715-TO-004	EPA TO-13	4/7/2015	4/10/2015	4/14/2015	4/16/2015
	1510353	A-0003H-040915-SG-001-4	EPA TO-15	4/9/2015	4/10/2015		4/15/2015

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALSS	1510353	A-0003H-040915-TO-001-LIV	EPA TO-15	4/9/2015	4/10/2015		4/15/2015
		A-0003H-040915-TO-002-BAS	EPA TO-15	4/9/2015	4/10/2015		4/15/2015
		A-0003H-040915-TO-003-BBB	EPA TO-15	4/9/2015	4/10/2015		4/15/2015
		A-0008H-041015-SG-001A-4	EPA TO-15	4/10/2015	4/10/2015		4/15/2015
		A-0008H-041015-SG-001A-4	EPA TO-15	4/10/2015	4/10/2015		4/16/2015
		A-0008H-041015-SG-001B-4	EPA TO-15	4/10/2015	4/10/2015		4/15/2015
		A-0008H-041015-SG-001B-4	EPA TO-15	4/10/2015	4/10/2015		4/16/2015
		A-0008H-041015-TO-001-BAS	EPA TO-15	4/10/2015	4/10/2015		4/15/2015
		A-0026H-040815-SG-001-4	EPA TO-15	4/8/2015	4/10/2015		4/15/2015
		A-0026H-040815-SG-001-4	EPA TO-15	4/8/2015	4/10/2015		4/16/2015
		A-0026H-040815-SG-002-4	EPA TO-15	4/8/2015	4/10/2015		4/15/2015
		A-0026H-040815-SG-003-4	EPA TO-15	4/8/2015	4/10/2015		4/15/2015
		A-0026H-040815-SG-003-4	EPA TO-15	4/8/2015	4/10/2015		4/16/2015
		A-0026H-040815-TO-001-PAN	EPA TO-15	4/8/2015	4/10/2015		4/15/2015
		A-0026H-040815-TO-003-OUT	EPA TO-15	4/8/2015	4/10/2015		4/15/2015
	1510555	A-0011-H-041315-SG-001	EPA TO-13	4/13/2015	4/15/2015	4/17/2015	4/20/2015
		A-0011-H-041315-TO-001-BA5	EPA TO-13	4/13/2015	4/15/2015	4/17/2015	4/20/2015
		A-0031-S-041415-SG-002A4	EPA TO-13	4/14/2015	4/15/2015	4/17/2015	4/20/2015
	1510559	A-0011H-041415-SG-001A8	EPA TO-15	4/11/2015	4/15/2015		4/20/2015
		A-0030H-041115-SG-001A	EPA TO-15	4/11/2015	4/15/2015		4/20/2015
		A-0030H-041115-TO-001-LAU	EPA TO-15	4/11/2015	4/15/2015		4/20/2015
		A-0030H-041115-TO-002-OUT	EPA TO-15	4/11/2015	4/15/2015		4/20/2015
		A-0030H-041115-TO-003-AAA	EPA TO-15	4/11/2015	4/15/2015		4/20/2015
		A-0030H-041115-TO-004BLK	EPA TO-15	4/11/2015	4/15/2015		4/20/2015
		A-0031-S-041515-SG-001A 4	EPA TO-15	4/11/2015	4/15/2015		4/21/2015
	1510561	A-0011H-041315-SG-001	EPA TO-15	4/11/2015	4/15/2015		4/21/2015
	1534300	A-0003H-120415-TO-001-DIN	EPA TO-15	12/3/2015	12/7/2015		12/10/2015
		A-0003H-120415-TO-001-DIN	EPA TO-15 SIM	12/3/2015	12/7/2015		12/10/2015
		A-0003H-120415-TO-002-BAS	EPA TO-15	12/3/2015	12/7/2015		12/10/2015
		A-0003H-120415-TO-002-BAS	EPA TO-15 SIM	12/3/2015	12/7/2015		12/10/2015
		A-0003H-120415-TO-002-BAS-D	EPA TO-15	12/3/2015	12/7/2015		12/10/2015
		A-0003H-120415-TO-002-BAS-D	EPA TO-15 SIM	12/3/2015	12/7/2015		12/10/2015
	1606379	A-0003H-030316-IA-BAS	EPA TO-15	3/3/2016	3/3/2016		3/10/2016
		A-0003H-030316-IA-BAS	EPA TO-15 SIM	3/3/2016	3/3/2016		3/11/2016
		A-0011H-030116-IA-012A-LLL	EPA TO-15	3/1/2016	3/3/2016		3/10/2016

TABLE 2

Sample Chronology - Data Summary

Laboratory	SDG	Sample ID	Method	Sample Date	Receive Date	Extract Date	Analysis Date
ALSS	1606379	A-0011H-030116-IA-012A-LLL	EPA TO-15 SIM	3/1/2016	3/3/2016		3/11/2016
	1607440	A-0040H-031216-IA-BAS	EPA TO-15	3/12/2016	3/14/2016		3/14/2016
		A-0040H-031216-IA-BAS	EPA TO-15	3/12/2016	3/14/2016		3/15/2016
		A-0040H-031216-IA-BAS	EPA TO-15 SIM	3/12/2016	3/14/2016		3/15/2016
	1607459	A-0037H-030816-IA-LAU	EPA TO-15	3/8/2016	3/14/2016		3/21/2016
		A-0037H-030816-IA-LAU	EPA TO-15 SIM	3/8/2016	3/14/2016		3/15/2016
		A-0040H-031216-IA-BAS-D	EPA TO-15	3/12/2016	3/14/2016		3/21/2016
		A-0040H-031216-IA-BAS-D	EPA TO-15 SIM	3/12/2016	3/14/2016		3/15/2016
		A-0040H-031216-IA-KIT	EPA TO-15	3/12/2016	3/14/2016		3/21/2016
		A-0040H-031216-IA-KIT	EPA TO-15 SIM	3/12/2016	3/14/2016		3/15/2016
	1608222	A-0017H-031616-IA-BAS	EPA TO-15	3/16/2016	3/21/2016		4/2/2016
		A-0017H-031616-IA-BAS	EPA TO-15 SIM	3/16/2016	3/21/2016		4/4/2016
		A-0018H-031616-IA-BAS	EPA TO-15	3/16/2016	3/21/2016		4/2/2016
		A-0018H-031616-IA-BAS	EPA TO-15 SIM	3/16/2016	3/21/2016		4/4/2016
		A-0023-031616-IA-BA1	EPA TO-15	3/16/2016	3/21/2016		4/2/2016
		A-0023-031616-IA-BA1	EPA TO-15 SIM	3/16/2016	3/21/2016		4/4/2016
		A-0051-031616-IA-BAS	EPA TO-15	3/16/2016	3/21/2016		4/2/2016
		A-0051-031616-IA-BAS	EPA TO-15 SIM	3/16/2016	3/21/2016		4/4/2016
		A-0051-031616-IA-BAS-D	EPA TO-15	3/16/2016	3/21/2016		4/2/2016
		A-0051-031616-IA-BAS-D	EPA TO-15 SIM	3/16/2016	3/21/2016		4/4/2016
	1614564	A-0053H-052316-SG-001-6'(0037)	EPA TO-15	5/23/2016	5/24/2016		5/24/2016
		A-0053H-052316-SG-001-6'(0050)	EPA TO-15	5/23/2016	5/24/2016		5/24/2016
		A-0053H-052416-IA-BAS	EPA TO-15	5/24/2016	5/24/2016		5/24/2016
		A-0053H-052416-IA-BAS	EPA TO-15 SIM	5/24/2016	5/24/2016		5/25/2016
		A-0053H-052416-IA-BAS-D	EPA TO-15	5/24/2016	5/24/2016		5/24/2016
		A-0053H-052416-IA-BAS-D	EPA TO-15 SIM	5/24/2016	5/24/2016		5/25/2016

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TABLE 3

Overall Flagging Summary

Method	Matrix	Validation Reason	Qualifier*	Qualifier Type	Number of Affected Analytes
EPA TO-13	AIR				
Category =	LaboratoryControlSample	LCS recovery less than the lower control limit			
			UJ	Protocol	26
Category =	SurrogateRecovery	Surrogate recovery less than the lower control limit			
			UJ	Other	85
EPA TO-15	AIR				
Category =	Blank	Laboratory blank contamination greater than the method detection limit			
			U	Protocol	2
Category =	Blank	Laboratory blank contamination less than the reporting limit			
			U	Protocol	12
Category =	Calibration	Continuing calibration recovery greater than the upper control limit			
			J	Protocol	13
Category =	Calibration	Continuing calibration recovery less than the lower control limit			
			J	Protocol	25
			UJ	Protocol	31
Category =	Calibration	Initial calibration RSD exceeded			
			UJ	Protocol	15
			J	Protocol	9
Category =	Calibration	Result greater than linear calibration range			
			J	Protocol	10
			J	Protocol	13
Category =	Calibration	Second source verification std. recovery greater than the upper control limit			
			J	Protocol	1
Category =	FieldDuplicate	Field duplicate RPD criteria exceeded			
			UJ	Other	8
			J	Other	44
Category =	LaboratoryControlSample	LCS recovery greater than the upper control limit			
			J	Protocol	32
Category =	LaboratoryControlSample	LCS recovery less than the lower control limit			
			J	Protocol	33

TABLE 3

Overall Flagging Summary

Method	Matrix	Validation Reason	Qualifier*	Qualifier Type	Number of Affected Analytes
			UJ	Protocol	35
Category =	LaboratoryControlSample	LCS RPD criteria exceeded			
			J	Protocol	5
Category =	LaboratoryControlSample	LCSD recovery greater than the upper control limit			
			J	Protocol	10
Category =	LaboratoryControlSample	LCSD recovery less than the lower control limit			
			J	Protocol	30
			UJ	Protocol	27
EPA TO-15 SIM	AIR				
Category =	Calibration	Result greater than linear calibration range			
			J	Protocol	2
			J	Protocol	9
Category =	InternalStandard	Internal standard response greater than the upper control limit			
			UJ	Protocol	1
Category =	LaboratoryControlSample	LCS recovery greater than the upper control limit			
			J	Protocol	1
Category =	LaboratoryControlSample	LCS RPD criteria exceeded			
			J	Protocol	1

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

U = This analyte was analyzed for but not detected at the specified detection limit.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Qualifier Type:

Protocol = Flagging due to contractor/laboratory protocol violations.
Other = Flagging due to sample, matrix, or field issues not related to Quality Assurance Project Plan (QAPP) or Sampling and Analysis Plan (SAP) protocol.

TABLE 4

Blank Contamination - Qualified Data

Method	Matrix	Analyte / Sample ID	Result	Blank Contamination Qualifier*	Criteria	Comments
EPA TO-15	AIR	**2-Hexanone**				
		A-0053H-052416-IA-BAS	1.7 ug/m3	U	LB>MDL	blank target = 0.312ppb
		A-0053H-052416-IA-BAS-D	1.7 ug/m3	U	LB>MDL	blank target = 0.312ppb
EPA TO-15	AIR	**Acetone**				
		A-0027H-031915-TO-002-OUT	6.5 ug/m3	U	LB<RL	blank target = 0.521ppb
EPA TO-15	AIR	**Benzene**				
		A-0028-S-040215-TO-001	1.1 ug/m3	U	LB<RL	blank target = 0.22ppb
		A-0036H-040415-TO-001	1.1 ug/m3	U	LB<RL	blank target = 0.22ppb
		A-0037H-040305-SG-001-4'	1.8 ug/m3	U	LB<RL	blank target = 0.22ppb
EPA TO-15	AIR	**Methylene chloride**				
		A0022S-040715-TO-001-CAFE	1.9 ug/m3	U	LB<RL	blank target = 0.231ppb
		A0022S-040715-TO-002-CR330	1.4 ug/m3	U	LB<RL	blank target = 0.239ppb
		A-0028-S-040215-TO-001	1.1 ug/m3	U	LB<RL	blank target = 0.221ppb
		A-0036H-040415-TO-001	1.1 ug/m3	U	LB<RL	blank target = 0.221ppb
		A-0037H-040305-SG-001-4'	2 ug/m3	U	LB<RL	blank target = 0.221ppb
		A0037H-040715-TO-001-LAU	1.2 ug/m3	U	LB<RL	blank target = 0.231ppb
		A0037H-040715-TO-002-BR2	1.1 ug/m3	U	LB<RL	blank target = 0.231ppb
		A0037H-040715-TO-003-BAS	1.2 ug/m3	U	LB<RL	blank target = 0.231ppb

Blank target = concentration of field or laboratory blank.

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

U = This analyte was analyzed for but not detected at the specified detection limit.

Criteria:

LB<RL = Laboratory blank contamination less than the reporting limit

LB>MDL = Laboratory blank contamination greater than the method detection limit

Units:

ug/m3 = micrograms per meter cubed

ppb = parts per billion

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TABLE 5

Field Duplicate Precision - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Field Duplicate Qualifier*	Criteria
EPA TO-15	AIR		**1,2,4-Trimethylbenzene**			
		A-0008H-041015-SG-001A-4		2.9 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		0.85 ug/m3	J	FD>RPD
		A-0040H-031216-IA-BAS		4.1 ug/m3	J	FD>RPD
		A-0040H-031216-IA-BAS-D		0.74 ug/m3	UJ	FD>RPD
EPA TO-15	AIR		**1,3-Butadiene**			
		A-0040H-031216-IA-BAS		1.2 ug/m3	J	FD>RPD
		A-0040H-031216-IA-BAS-D		0.33 ug/m3	UJ	FD>RPD
EPA TO-15	AIR		**Acetone**			
		A-0003H-040915-TO-002-BAS		52 ug/m3	J	FD>RPD
		A-0003H-040915-TO-003-BBB		12 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001A-4		780 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		390 ug/m3	J	FD>RPD
		A-0026H-040815-SG-001-4		200 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		67 ug/m3	J	FD>RPD
		A-0051-031616-IA-BAS		13 ug/m3	J	FD>RPD
		A-0051-031616-IA-BAS-D		7.8 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Carbon disulfide**			
		A-0026H-040815-SG-001-4		2.7 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		0.68 ug/m3	J	FD>RPD
		A-0051-031616-IA-BAS		0.47 ug/m3	UJ	FD>RPD
		A-0051-031616-IA-BAS-D		1.7 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Chloroform**			
		A-0008H-041015-SG-001A-4		5.4 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		2.5 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Dichlorodifluoromethane**			
		A-0040H-031216-IA-BAS		2.8 ug/m3	J	FD>RPD
		A-0040H-031216-IA-BAS-D		0.74 ug/m3	UJ	FD>RPD
		A-0051-031616-IA-BAS		0.74 ug/m3	UJ	FD>RPD
		A-0051-031616-IA-BAS-D		2.6 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Heptane**			

TABLE 5

Field Duplicate Precision - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Field Duplicate Qualifier*	Criteria
		A-0008H-041015-SG-001A-4		16 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		45 ug/m3	J	FD>RPD
		A-0026H-040815-SG-001-4		6.4 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		1.1 ug/m3	J	FD>RPD
EPA TO-15	AIR		**m,p-Xylene**			
		A-0008H-041015-SG-001A-4		6.7 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		2.5 ug/m3	J	FD>RPD
		A-0026H-040815-SG-001-4		5.4 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		2.7 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Methyl chloride**			
		A-0051-031616-IA-BAS		0.31 ug/m3	UJ	FD>RPD
		A-0051-031616-IA-BAS-D		1.7 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Methyl ethyl ketone**			
		A-0026H-040815-SG-001-4		38 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		9.3 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Methyl isobutyl ketone**			
		A-0008H-041015-SG-001A-4		2.4 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		5.6 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Methylene chloride**			
		A-0003H-040915-TO-002-BAS		81 ug/m3	J	FD>RPD
		A-0003H-040915-TO-003-BBB		0.71 ug/m3	J	FD>RPD
		A-0040H-031216-IA-BAS		210 ug/m3	J	FD>RPD
		A-0040H-031216-IA-BAS-D		0.52 ug/m3	UJ	FD>RPD
EPA TO-15	AIR		**n-Hexane**			
		A-0008H-041015-SG-001A-4		23 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		51 ug/m3	J	FD>RPD
		A-0026H-040815-SG-001-4		9.7 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		1.3 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Toluene**			
		A-0008H-041015-SG-001A-4		11 ug/m3	J	FD>RPD
		A-0008H-041015-SG-001B-4		3.6 ug/m3	J	FD>RPD

TABLE 5

Field Duplicate Precision - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Field Duplicate Qualifier*	Criteria
		A-0026H-040815-SG-001-4		4.6 ug/m3	J	FD>RPD
		A-0026H-040815-SG-002-4		1.8 ug/m3	J	FD>RPD
EPA TO-15	AIR		**Vinyl acetate**			
		A-0051-031616-IA-BAS		1.8 ug/m3	J	FD>RPD
		A-0051-031616-IA-BAS-D		0.53 ug/m3	UJ	FD>RPD

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

FD>RPD = Field duplicate relative percent difference criteria exceeded

Units:

ug/m3 = micrograms per meter cubed

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TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
EPA TO-13	AIR		**Acenaphthylene**				
		A-0011-H-041315-SG-001 / N		4.2 ug/m3	UJ	%R = 56.954 LCL=60 UCL=120	LCS<LCL
		A-0011-H-041315-SG-001 / N		4.2 ug/m3	UJ	%R = 51.957 LCL=60 UCL=120	LCS<LCL
		A-0011-H-041315-TO-001-BA5 / N		4.2 ug/m3	UJ	%R = 51.957 LCL=60 UCL=120	LCS<LCL
		A-0011-H-041315-TO-001-BA5 / N		4.2 ug/m3	UJ	%R = 56.954 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-SG-001A / N		4.2 ug/m3	UJ	%R = 46.097 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-SG-001A / N		4.2 ug/m3	UJ	%R = 55.971 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-SG-001D / FD		4.2 ug/m3	UJ	%R = 46.097 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-SG-001D / FD		4.2 ug/m3	UJ	%R = 55.971 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-001-PAN / N		4.2 ug/m3	UJ	%R = 46.097 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-001-PAN / N		4.2 ug/m3	UJ	%R = 55.971 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-003-OUT / N		4.2 ug/m3	UJ	%R = 55.971 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-003-OUT / N		4.2 ug/m3	UJ	%R = 46.097 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-004 / FD		4.2 ug/m3	UJ	%R = 46.097 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-004 / FD		4.2 ug/m3	UJ	%R = 55.971 LCL=60 UCL=120	LCS<LCL
		A-0031-S-041415-SG-002A4 / N		4.2 ug/m3	UJ	%R = 51.957 LCL=60 UCL=120	LCS<LCL
		A-0031-S-041415-SG-002A4 / N		4.2 ug/m3	UJ	%R = 56.954 LCL=60 UCL=120	LCS<LCL
EPA TO-13	AIR		**Benzo(a)anthracene**				
		A-0026H-040715-SG-001A / N		4.2 ug/m3	UJ	%R = 58.685 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-SG-001D / FD		4.2 ug/m3	UJ	%R = 58.685 LCL=60 UCL=120	LCS<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0026H-040715-TO-001-PAN / N		4.2 ug/m3	UJ	%R = 58.685 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-003-OUT / N		4.2 ug/m3	UJ	%R = 58.685 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-004 / FD		4.2 ug/m3	UJ	%R = 58.685 LCL=60 UCL=120	LCS<LCL
EPA TO-13	AIR		**Benzo(a)pyrene**				
		A-0026H-040715-SG-001A / N		4.2 ug/m3	UJ	%R = 58.593 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-SG-001D / FD		4.2 ug/m3	UJ	%R = 58.593 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-001-PAN / N		4.2 ug/m3	UJ	%R = 58.593 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-003-OUT / N		4.2 ug/m3	UJ	%R = 58.593 LCL=60 UCL=120	LCS<LCL
		A-0026H-040715-TO-004 / FD		4.2 ug/m3	UJ	%R = 58.593 LCL=60 UCL=120	LCS<LCL
EPA TO-15	AIR		**1,2,4-Trichlorobenzene**				
		A-0017H-TO-003-GAS / N		7.4 ug/m3	UJ	%R = 60.879 LCL=70 UCL=130	LCS<LCL
		A-0017H-TO-003-GAS / N		7.4 ug/m3	UJ	%R = 62.206 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**1,2-Dichloroethane**				
		A0022S-040715-TO-001-CAFE / N		2 ug/m3	UJ	%R = 68.622 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-001-CAFE / N		2 ug/m3	UJ	%R = 68.118 LCL=70 UCL=130	LCSD<LCL
		A0022S-040715-TO-002-CR330 / N		2 ug/m3	UJ	%R = 69.721 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		2 ug/m3	UJ	%R = 65.795 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		2 ug/m3	UJ	%R = 69.39 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		2 ug/m3	UJ	%R = 65.795 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		2 ug/m3	UJ	%R = 69.39 LCL=70 UCL=130	LCSD<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0037H-040305-SG-001-4' / N		2 ug/m3	UJ	%R = 65.795 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		2 ug/m3	UJ	%R = 69.39 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-001-LAU / N		2 ug/m3	UJ	%R = 68.622 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		2 ug/m3	UJ	%R = 68.118 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-002-BR2 / N		2 ug/m3	UJ	%R = 68.622 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-002-BR2 / N		2 ug/m3	UJ	%R = 68.118 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-003-BAS / FD		2 ug/m3	UJ	%R = 68.622 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-003-BAS / FD		2 ug/m3	UJ	%R = 68.118 LCL=70 UCL=130	LCSD<LCL
		A-0037H-SG-002 / N		2 ug/m3	UJ	%R = 68.622 LCL=70 UCL=130	LCS<LCL
		A-0037H-SG-002 / N		2 ug/m3	UJ	%R = 68.118 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**1,3-Butadiene**				
		A-0028-S-040215-TO-001 / N		1.1 ug/m3	UJ	%R = 64.955 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		1.1 ug/m3	UJ	%R = 67.838 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		1.1 ug/m3	UJ	%R = 64.955 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		1.1 ug/m3	UJ	%R = 67.838 LCL=70 UCL=130	LCSD<LCL
		A-0037H-040305-SG-001-4' / N		1.1 ug/m3	UJ	%R = 64.955 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		1.1 ug/m3	UJ	%R = 67.838 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**2-Hexanone**				
		A-0003H-030316-IA-BAS / N		1.2 ug/m3	UJ	%R = 47.296 LCL=70 UCL=130	LCS<LCL
		A-0003H-030316-IA-BAS / N		1.2 ug/m3	UJ	%R = 50.605 LCL=70 UCL=130	LCS<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0011H-030116-IA-012A-LLL / N		1.2 ug/m3	UJ	%R = 47.296 LCL=70 UCL=130	LCS<LCL
		A-0011H-030116-IA-012A-LLL / N		1.2 ug/m3	UJ	%R = 50.605 LCL=70 UCL=130	LCS<LCL
EPA TO-15	AIR		**4-Ethyl toluene**				
		A-0018H-021915-TO-001 / N		0.99 ug/m3	J	%R = 136.04 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-001 / N		0.99 ug/m3	J	%R = 141.36 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		0.81 ug/m3	J	%R = 136.04 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		0.81 ug/m3	J	%R = 141.36 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		1 ug/m3	J	%R = 141.36 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		1 ug/m3	J	%R = 136.04 LCL=70 UCL=130	LCS>UCL
EPA TO-15	AIR		**Acetone**				
		A-0011-H-030315-TO-001 / N		11 ug/m3	J	%R = 65.63 LCL=70 UCL=130	LCS<LCL
		A-0011-H-030315-TO-002 / N		15 ug/m3	J	%R = 65.63 LCL=70 UCL=130	LCS<LCL
		A-0011-H-030315-TO-003 / N		4.8 ug/m3	J	%R = 65.63 LCL=70 UCL=130	LCS<LCL
		A-0011-H-030315-TO-004 / FD		12 ug/m3	J	%R = 65.63 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-001-CAFE / N		10 ug/m3	J	%R = 65.07 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-001-CAFE / N		10 ug/m3	J	%R = 65.324 LCL=70 UCL=130	LCSD<LCL
		A0022S-040715-TO-002-CR330 / N		3.3 ug/m3	J	%R = 57.502 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-002-CR330 / N		3.3 ug/m3	J	%R = 63.701 LCL=70 UCL=130	LCSD<LCL
		A-0028-S-040215-TO-001 / N		7.3 ug/m3	J	%R = 63.913 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		7.3 ug/m3	J	%R = 67.992 LCL=70 UCL=130	LCSD<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0036H-040415-TO-001 / N		16 ug/m3	J	%R = 63.913 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		16 ug/m3	J	%R = 67.992 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-001-LAU / N		20 ug/m3	J	%R = 65.07 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		20 ug/m3	J	%R = 65.324 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-002-BR2 / N		28 ug/m3	J	%R = 65.07 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-002-BR2 / N		28 ug/m3	J	%R = 65.324 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-003-BAS / FD		23 ug/m3	J	%R = 65.07 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-003-BAS / FD		23 ug/m3	J	%R = 65.324 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**Bromoform**				
		A-0018H-021915-TO-001 / N		1.5 ug/m3	J	%R = 133.74 LCL=70 UCL=130	LCS>UCL
EPA TO-15	AIR		**Bromomethane**				
		A-0028-S-040215-TO-001 / N		1.9 ug/m3	UJ	%R = 65.771 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		1.9 ug/m3	UJ	%R = 69.647 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		1.9 ug/m3	UJ	%R = 65.771 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		1.9 ug/m3	UJ	%R = 69.647 LCL=70 UCL=130	LCSD<LCL
		A-0037H-040305-SG-001-4' / N		1.9 ug/m3	UJ	%R = 65.771 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		1.9 ug/m3	UJ	%R = 69.647 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**Dichlorodifluoromethane**				
		A0022S-040715-TO-001-CAFE / N		1.7 ug/m3	J	%R = 60.903 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-001-CAFE / N		1.7 ug/m3	J	%R = 60.859 LCL=70 UCL=130	LCSD<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A0022S-040715-TO-002-CR330 / N		1.8 ug/m3	J	%R = 65.967 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-002-CR330 / N		1.8 ug/m3	J	%R = 52.697 LCL=70 UCL=130	LCSD<LCL
		A-0028-S-040215-TO-001 / N		1.3 ug/m3	J	%R = 56.308 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		1.3 ug/m3	J	%R = 59.986 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		1.3 ug/m3	J	%R = 56.308 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		1.3 ug/m3	J	%R = 59.986 LCL=70 UCL=130	LCSD<LCL
		A-0037H-040305-SG-001-4' / N		1.3 ug/m3	J	%R = 56.308 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		1.3 ug/m3	J	%R = 59.986 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-001-LAU / N		1.5 ug/m3	J	%R = 60.903 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		1.5 ug/m3	J	%R = 60.859 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-002-BR2 / N		1.5 ug/m3	J	%R = 60.903 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-002-BR2 / N		1.5 ug/m3	J	%R = 60.859 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-003-BAS / FD		1.5 ug/m3	J	%R = 60.903 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-003-BAS / FD		1.5 ug/m3	J	%R = 60.859 LCL=70 UCL=130	LCSD<LCL
		A-0037H-SG-002 / N		1.4 ug/m3	J	%R = 60.859 LCL=70 UCL=130	LCS<LCL
		A-0037H-SG-002 / N		1.4 ug/m3	J	%R = 60.903 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**Ethyl benzene**				
		A-0018H-021915-TO-001 / N		1.4 ug/m3	J	%R = 135.38 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-001 / N		1.4 ug/m3	J	%R = 141.07 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		1.1 ug/m3	J	%R = 135.38 LCL=70 UCL=130	LCS>UCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0018H-021915-TO-002 / N		1.1 ug/m3	J	%R = 141.07 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		1.3 ug/m3	J	%R = 141.07 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		1.3 ug/m3	J	%R = 135.38 LCL=70 UCL=130	LCS>UCL
EPA TO-15	AIR		**Freon 11**				
		A0022S-040715-TO-001-CAFE / N		1.2 ug/m3	J	%R = 68.574 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-001-CAFE / N		1.2 ug/m3	J	%R = 68.393 LCL=70 UCL=130	LCSD<LCL
		A0022S-040715-TO-002-CR330 / N		1.1 ug/m3	J	%R = 66.902 LCL=70 UCL=130	LCSD<LCL
		A-0028-S-040215-TO-001 / N		2.8 ug/m3	UJ	%R = 66.172 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		2.8 ug/m3	UJ	%R = 66.172 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		0.87 ug/m3	J	%R = 66.172 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		0.87 ug/m3	J	%R = 68.574 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		0.87 ug/m3	J	%R = 68.393 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-002-BR2 / N		0.91 ug/m3	J	%R = 68.574 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-002-BR2 / N		0.91 ug/m3	J	%R = 68.393 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-003-BAS / FD		0.87 ug/m3	J	%R = 68.574 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-003-BAS / FD		0.87 ug/m3	J	%R = 68.393 LCL=70 UCL=130	LCSD<LCL
		A-0037H-SG-002 / N		0.91 ug/m3	J	%R = 68.574 LCL=70 UCL=130	LCS<LCL
		A-0037H-SG-002 / N		0.91 ug/m3	J	%R = 68.393 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**Freon 114**				
		A0022S-040715-TO-001-CAFE / N		3.5 ug/m3	UJ	%R = 68.144 LCL=70 UCL=130	LCS<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A0022S-040715-TO-001-CAFE / N		3.5 ug/m3	UJ	%R = 68.412 LCL=70 UCL=130	LCSD<LCL
		A-0028-S-040215-TO-001 / N		3.5 ug/m3	UJ	%R = 63.357 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		3.5 ug/m3	UJ	%R = 67.382 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		3.5 ug/m3	UJ	%R = 63.357 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		3.5 ug/m3	UJ	%R = 67.382 LCL=70 UCL=130	LCSD<LCL
		A-0037H-040305-SG-001-4' / N		3.5 ug/m3	UJ	%R = 63.357 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		3.5 ug/m3	UJ	%R = 67.382 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-001-LAU / N		3.5 ug/m3	UJ	%R = 68.144 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		3.5 ug/m3	UJ	%R = 68.412 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-002-BR2 / N		3.5 ug/m3	UJ	%R = 68.144 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-002-BR2 / N		3.5 ug/m3	UJ	%R = 68.412 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-003-BAS / FD		3.5 ug/m3	UJ	%R = 68.144 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-003-BAS / FD		3.5 ug/m3	UJ	%R = 68.412 LCL=70 UCL=130	LCSD<LCL
		A-0037H-SG-002 / N		3.5 ug/m3	UJ	%R = 68.144 LCL=70 UCL=130	LCS<LCL
		A-0037H-SG-002 / N		3.5 ug/m3	UJ	%R = 68.412 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**Hexachloro-1,3-butadiene**				
		A-0017H-TO-003-GAS / N		11 ug/m3	UJ	%R = 47.941 LCL=70 UCL=130	LCS<LCL
		A-0017H-TO-003-GAS / N		11 ug/m3	UJ	%R = 52.932 LCL=70 UCL=130	LCSD<LCL
		A0022S-040715-TO-002-CR330 / N		11 ug/m3	UJ	%R = 59.893 LCL=70 UCL=130	LCS<LCL
EPA TO-15	AIR		**m,p-Xylene**				

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0018H-021915-TO-001 / N		5.4 ug/m3	J	%R = 131.49 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-001 / N		5.4 ug/m3	J	%R = 132.83 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		4.2 ug/m3	J	%R = 131.49 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		4.2 ug/m3	J	%R = 132.83 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		4.6 ug/m3	J	%R = 131.49 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		4.6 ug/m3	J	%R = 132.83 LCL=70 UCL=130	LCS>UCL
EPA TO-15	AIR		**Methyl chloride**				
		A0022S-040715-TO-001-CAFE / N		0.96 ug/m3	J	%R = 69.862 LCL=70 UCL=130	LCS<LCL
		A0022S-040715-TO-001-CAFE / N		0.96 ug/m3	J	%R = 69.216 LCL=70 UCL=130	LCSD<LCL
		A0022S-040715-TO-002-CR330 / N		0.93 ug/m3	J	%R = 61.918 LCL=70 UCL=130	LCSD<LCL
		A0022S-040715-TO-002-CR330 / N		0.93 ug/m3	J	RPD = 40.05 Limit =25	LCSRPD
		A-0028-S-040215-TO-001 / N		0.73 ug/m3	J	%R = 60.775 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		0.73 ug/m3	J	%R = 64.13 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		0.71 ug/m3	J	%R = 60.775 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		0.71 ug/m3	J	%R = 64.13 LCL=70 UCL=130	LCSD<LCL
		A-0037H-040305-SG-001-4' / N		0.52 ug/m3	J	%R = 60.775 LCL=70 UCL=130	LCS<LCL
		A-0037H-040305-SG-001-4' / N		0.52 ug/m3	J	%R = 64.13 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-001-LAU / N		0.83 ug/m3	J	%R = 69.862 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-001-LAU / N		0.83 ug/m3	J	%R = 69.216 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-002-BR2 / N		1 ug/m3	J	%R = 69.862 LCL=70 UCL=130	LCS<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A0037H-040715-TO-002-BR2 / N		1 ug/m3	J	%R = 69.216 LCL=70 UCL=130	LCSD<LCL
		A0037H-040715-TO-003-BAS / FD		0.92 ug/m3	J	%R = 69.862 LCL=70 UCL=130	LCS<LCL
		A0037H-040715-TO-003-BAS / FD		0.92 ug/m3	J	%R = 69.216 LCL=70 UCL=130	LCSD<LCL
EPA TO-15	AIR		**Methyl ethyl ketone**				
		A-0017H-031616-IA-BAS / N		3.4 ug/m3	J	%R = 132.97 LCL=70 UCL=130	LCSD>UCL
		A-0018H-031616-IA-BAS / N		2.1 ug/m3	J	%R = 132.97 LCL=70 UCL=130	LCSD>UCL
		A-0023-031616-IA-BA1 / N		1.1 ug/m3	J	%R = 132.97 LCL=70 UCL=130	LCSD>UCL
		A-0051-031616-IA-BAS / N		2.2 ug/m3	J	%R = 132.97 LCL=70 UCL=130	LCSD>UCL
		A-0051-031616-IA-BAS-D / FD		0.83 ug/m3	J	%R = 132.97 LCL=70 UCL=130	LCSD>UCL
EPA TO-15	AIR		**o-Xylene**				
		A-0018H-021915-TO-001 / N		2.1 ug/m3	J	%R = 133.78 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		1.5 ug/m3	J	%R = 133.78 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		2.3 ug/m3	J	%R = 133.78 LCL=70 UCL=130	LCS>UCL
EPA TO-15	AIR		**Styrene**				
		A-0018H-021915-TO-003 / N		1.9 ug/m3	J	%R = 143.38 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		1.9 ug/m3	J	%R = 150.08 LCL=70 UCL=130	LCS>UCL
		A-0037H-040305-SG-001-4' / N		0.66 ug/m3	J	%R = 136.82 LCL=70 UCL=130	LCSD>UCL
		A0037H-040715-TO-002-BR2 / N		1.4 ug/m3	J	%R = 130.18 LCL=70 UCL=130	LCS>UCL
		A0037H-040715-TO-002-BR2 / N		1.4 ug/m3	J	%R = 131.8 LCL=70 UCL=130	LCSD>UCL
		A-0037H-SG-002 / N		2 ug/m3	J	%R = 131.8 LCL=70 UCL=130	LCSD>UCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
EPA TO-15	AIR		**Tetrachloroethene**				
		A-0018H-021915-TO-001 / N		18 ug/m3	J	%R = 130.3 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-001 / N		18 ug/m3	J	%R = 134.3 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		5.8 ug/m3	J	%R = 130.3 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-002 / N		5.8 ug/m3	J	%R = 134.3 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		2.5 ug/m3	J	%R = 130.3 LCL=70 UCL=130	LCS>UCL
		A-0018H-021915-TO-003 / N		2.5 ug/m3	J	%R = 134.3 LCL=70 UCL=130	LCS>UCL
		A0022S-040715-TO-002-CR330 / N		1.9 ug/m3	J	%R = 130.83 LCL=70 UCL=130	LCSD>UCL
EPA TO-15	AIR		**Tetrahydrofuran**				
		A-0017H-031616-IA-BAS / N		2.9 ug/m3	J	RPD = 26.59 Limit =25	LCSRPD
		A-0018H-031616-IA-BAS / N		1.7 ug/m3	J	RPD = 26.59 Limit =25	LCSRPD
		A-0040H-031216-IA-BAS-D / FD		14 ug/m3	J	RPD = 26.77 Limit =25	LCSRPD
		A-0040H-031216-IA-KIT / N		15 ug/m3	J	RPD = 26.77 Limit =25	LCSRPD
EPA TO-15	AIR		**Vinyl acetate**				
		A-0051-031616-IA-BAS / N		1.8 ug/m3	J	%R = 130.84 LCL=70 UCL=130	LCS>UCL
		A-0051-031616-IA-BAS / N		1.8 ug/m3	J	%R = 137.39 LCL=70 UCL=130	LCSD>UCL
EPA TO-15	AIR		**Vinyl chloride**				
		A-0028-S-040215-TO-001 / N		1.3 ug/m3	UJ	%R = 66.052 LCL=70 UCL=130	LCS<LCL
		A-0028-S-040215-TO-001 / N		1.3 ug/m3	UJ	%R = 68.938 LCL=70 UCL=130	LCSD<LCL
		A-0036H-040415-TO-001 / N		1.3 ug/m3	UJ	%R = 66.052 LCL=70 UCL=130	LCS<LCL
		A-0036H-040415-TO-001 / N		1.3 ug/m3	UJ	%R = 68.938 LCL=70 UCL=130	LCSD<LCL
		A-0037H-040305-SG-001-4' / N		1.3 ug/m3	UJ	%R = 66.052 LCL=70 UCL=130	LCS<LCL

TABLE 6

Laboratory Control Sample - Qualified Data

Method	Matrix	Sample ID / QAQC Type	Analyte	Result	LCS Qualifier*	LCS Recovery	Criteria
		A-0037H-040305-SG-001-4' / N		1.3 ug/m3	UJ	%R = 68.938 LCL=70 UCL=130	LCSD<LCL
EPA TO-15 SIM	AIR		**Trichloroethene**				
		A-0017H-TO-002-OUT / N		0.29 ug/m3	J	%R = 130.43 LCL=70 UCL=130	LCS>UCL
		A-0017H-TO-002-OUT / N		0.29 ug/m3	J	RPD = 26.39 Limit =25	LCSRPD

* The most severe flag for each analyte becomes the final validation flag.

QAQC Type

N = Normal Environmental Sample
FD = Field Duplicate

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

LCS<LCL = LCS recovery less than the lower control limit

LCS>UCL = LCS recovery greater than the upper control limit

LCSD<LCL = LCSD recovery less than the lower control limit

LCSD>UCL = LCSD recovery greater than the upper control limit

LCSRPD = LCS relative percent difference criteria exceeded

Units:

ug/m3 = micrograms per meter cubed
%R = percent recovery

TABLE 7

Surrogate Recovery - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
EPA TO-13	AIR		**2-Methylnaphthalene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Acenaphthene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Acenaphthylene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Anthracene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Benzo(a)anthracene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Benzo(a)pyrene**				

TABLE 7

Surrogate Recovery - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Benzo(b)fluoranthene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Benzo(g,h,i)perylene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Benzo(k)fluoranthene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Chrysene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Dibenzo(a,h)anthracene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL

TABLE 7

Surrogate Recovery - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Fluoranthene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Fluorene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Indeno(1,2,3-cd)pyrene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Naphthalene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Phenanthrene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL

TABLE 7

Surrogate Recovery - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL
EPA TO-13	AIR		**Pyrene**				
		A-0026H-040715-SG-001A		4.2 ug/m3	UJ	%R=32.174 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-SG-001D		4.2 ug/m3	UJ	%R=29.162 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-001-PAN		4.2 ug/m3	UJ	%R=28.882 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-003-OUT		4.2 ug/m3	UJ	%R=24.59 LCL=35 UCL=114	Sur<LCL
		A-0026H-040715-TO-004		4.2 ug/m3	UJ	%R=23.11 LCL=35 UCL=114	Sur<LCL

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

Sur<LCL = Surrogate recovery less than the lower control limit

Units:

ug/m3 = micrograms per meter cubed
%R = percent recovery

TABLE 8

Calibration Criteria - Qualified Data

Method	Matrix	Analyte	Sample ID	Result	Calibration Qualifier*	Criteria
EPA TO-15	AIR	**1,2,4-Trimethylbenzene**				
			A-0000H-031915-TO-010	2.3 ug/m3	J	IC%RSD
			A-0007H-031915-TO-001-LLL	2.5 ug/m3	UJ	IC%RSD
			A0022S-040715-TO-001-CAFE	2.5 ug/m3	UJ	IC%RSD
			A0022S-040715-TO-002-CR330	2.5 ug/m3	UJ	IC%RSD
			A-0027H-031915-TO-001-BAS	2.3 ug/m3	J	IC%RSD
			A-0027H-031915-TO-002-OUT	2.5 ug/m3	UJ	IC%RSD
			A-0028-S-040215-TO-001	2.5 ug/m3	UJ	IC%RSD
			A-0036H-040415-TO-001	2.5 ug/m3	UJ	IC%RSD
			A-0037H-040305-SG-001-4'	1.2 ug/m3	J	IC%RSD
			A0037H-040715-TO-001-LAU	2.5 ug/m3	UJ	IC%RSD
			A0037H-040715-TO-002-BR2	2.5 ug/m3	UJ	IC%RSD
			A0037H-040715-TO-003-BAS	2.5 ug/m3	UJ	IC%RSD
			A-0037H-SG-002	2.8 ug/m3	J	IC%RSD
EPA TO-15	AIR	**1,2-Dichloroethane**				
			A0022S-040715-TO-001-CAFE	2 ug/m3	UJ	CCV<LCL
			A0022S-040715-TO-002-CR330	2 ug/m3	UJ	CCV<LCL
			A-0028-S-040215-TO-001	2 ug/m3	UJ	CCV<LCL
			A-0036H-040415-TO-001	2 ug/m3	UJ	CCV<LCL
			A-0037H-040305-SG-001-4'	2 ug/m3	UJ	CCV<LCL
			A0037H-040715-TO-001-LAU	2 ug/m3	UJ	CCV<LCL
			A0037H-040715-TO-002-BR2	2 ug/m3	UJ	CCV<LCL
			A0037H-040715-TO-003-BAS	2 ug/m3	UJ	CCV<LCL
			A-0037H-SG-002	2 ug/m3	UJ	CCV<LCL
EPA TO-15	AIR	**1,3-Butadiene**				
			A-0028-S-040215-TO-001	1.1 ug/m3	UJ	CCV<LCL
			A-0036H-040415-TO-001	1.1 ug/m3	UJ	CCV<LCL
			A-0037H-040305-SG-001-4'	1.1 ug/m3	UJ	CCV<LCL
EPA TO-15	AIR	**2-Hexanone**				
			A-0003H-030316-IA-BAS	1.2 ug/m3	UJ	CCV<LCL
			A-0011H-030116-IA-012A-LLL	1.2 ug/m3	UJ	CCV<LCL
EPA TO-15	AIR	**4-Ethyl toluene**				
			A-0018H-021915-TO-001	0.99 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-002	0.81 ug/m3	J	CCV>UCL

TABLE 8

Calibration Criteria - Qualified Data

Method	Matrix	Analyte	Sample ID	Result	Calibration Qualifier*	Criteria
			A-0018H-021915-TO-003	1 ug/m3	J	CCV>UCL
EPA TO-15	AIR	**Acetone**				
			A-0003H-040915-TO-002-BAS	52 ug/m3	J	>ICLinearRange
			A-0003H-120415-TO-001-DIN	51 ug/m3	J	>ICLinearRange
			A-0003H-120415-TO-002-B	49 ug/m3	J	>ICLinearRange
			A-0008H-041015-SG-001A-4	780 ug/m3	J	>ICLinearRange
			A-0011H-041315-SG-001	730 ug/m3	J	>ICLinearRange
			A-0018H-021915-TO-001	15 ug/m3	J	IC%RSD
			A-0018H-021915-TO-002	22 ug/m3	J	IC%RSD
			A-0018H-021915-TO-003	55 ug/m3	J	>ICLinearRange
			A0022S-040715-TO-001-CAFE	10 ug/m3	J	CCV<LCL
			A0022S-040715-TO-002-CR330	3.3 ug/m3	J	CCV<LCL
			A-0026H-040815-SG-002-4	67 ug/m3	J	>ICLinearRange
			A-0028-S-040215-TO-001	7.3 ug/m3	J	CCV<LCL
			A-0030H-041115-SG-001A	520 ug/m3	J	>ICLinearRange
			A-0030H-041115-TO-004BLK	450 ug/m3	J	>ICLinearRange
			A-0031-S-041515-SG-001A 4	730 ug/m3	J	>ICLinearRange
			A-0036H-040415-TO-001	16 ug/m3	J	CCV<LCL
			A-0037H-040305-SG-001-4'	220 ug/m3	J	>ICLinearRange
			A0037H-040715-TO-001-LAU	20 ug/m3	J	CCV<LCL
			A0037H-040715-TO-002-BR2	28 ug/m3	J	CCV<LCL
			A0037H-040715-TO-003-BAS	23 ug/m3	J	CCV<LCL
			A-0037H-SG-002	280 ug/m3	J	>ICLinearRange
EPA TO-15	AIR	**Bromomethane**				
			A-0028-S-040215-TO-001	1.9 ug/m3	UJ	CCV<LCL
			A-0036H-040415-TO-001	1.9 ug/m3	UJ	CCV<LCL
			A-0037H-040305-SG-001-4'	1.9 ug/m3	UJ	CCV<LCL
EPA TO-15	AIR	**Dichlorodifluoromethane**				
			A0022S-040715-TO-001-CAFE	1.7 ug/m3	J	CCV<LCL
			A0022S-040715-TO-002-CR330	1.8 ug/m3	J	CCV<LCL
			A-0028-S-040215-TO-001	1.3 ug/m3	J	CCV<LCL
			A-0036H-040415-TO-001	1.3 ug/m3	J	CCV<LCL
			A-0037H-040305-SG-001-4'	1.3 ug/m3	J	CCV<LCL
			A0037H-040715-TO-001-LAU	1.5 ug/m3	J	CCV<LCL

TABLE 8

Calibration Criteria - Qualified Data

Method	Matrix	Analyte	Sample ID	Result	Calibration Qualifier*	Criteria
			A0037H-040715-TO-002-BR2	1.5 ug/m3	J	CCV<LCL
			A0037H-040715-TO-003-BAS	1.5 ug/m3	J	CCV<LCL
			A-0037H-SG-002	1.4 ug/m3	J	CCV<LCL
EPA TO-15	AIR	**Ethyl benzene**				
			A-0018H-021915-TO-001	1.4 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-002	1.1 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-003	1.3 ug/m3	J	CCV>UCL
EPA TO-15	AIR	**Freon 11**				
			A0022S-040715-TO-001-CAFE	1.2 ug/m3	J	CCV<LCL
			A-0028-S-040215-TO-001	2.8 ug/m3	UJ	CCV<LCL
			A-0036H-040415-TO-001	2.8 ug/m3	UJ	CCV<LCL
			A-0037H-040305-SG-001-4'	0.87 ug/m3	J	CCV<LCL
			A0037H-040715-TO-001-LAU	0.87 ug/m3	J	CCV<LCL
			A0037H-040715-TO-002-BR2	0.91 ug/m3	J	CCV<LCL
			A0037H-040715-TO-003-BAS	0.87 ug/m3	J	CCV<LCL
			A-0037H-SG-002	0.91 ug/m3	J	CCV<LCL
EPA TO-15	AIR	**Freon 114**				
			A0022S-040715-TO-001-CAFE	3.5 ug/m3	UJ	CCV<LCL
			A-0028-S-040215-TO-001	3.5 ug/m3	UJ	CCV<LCL
			A-0036H-040415-TO-001	3.5 ug/m3	UJ	CCV<LCL
			A-0037H-040305-SG-001-4'	3.5 ug/m3	UJ	CCV<LCL
			A0037H-040715-TO-001-LAU	3.5 ug/m3	UJ	CCV<LCL
			A0037H-040715-TO-002-BR2	3.5 ug/m3	UJ	CCV<LCL
			A0037H-040715-TO-003-BAS	3.5 ug/m3	UJ	CCV<LCL
			A-0037H-SG-002	3.5 ug/m3	UJ	CCV<LCL
EPA TO-15	AIR	**m,p-Xylene**				
			A-0018H-021915-TO-001	5.4 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-002	4.2 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-003	4.6 ug/m3	J	CCV>UCL
EPA TO-15	AIR	**Methyl chloride**				
			A-0028-S-040215-TO-001	0.73 ug/m3	J	CCV<LCL
			A-0036H-040415-TO-001	0.71 ug/m3	J	CCV<LCL
			A-0037H-040305-SG-001-4'	0.52 ug/m3	J	CCV<LCL
			A-0037H-SG-002	1 ug/m3	UJ	CCV<LCL

TABLE 8

Calibration Criteria - Qualified Data

Method	Matrix	Analyte	Sample ID	Result	Calibration Qualifier*	Criteria
EPA TO-15	AIR	**Methyl ethyl ketone**				
			A-0030H-041115-SG-001A	180 ug/m3	J	>ICLinearRange
			A-0030H-041115-TO-004BLK	180 ug/m3	J	>ICLinearRange
			A-0037H-SG-002	63 ug/m3	J	>ICLinearRange
EPA TO-15	AIR	**Methylene chloride**				
			A-0003H-040915-TO-002-B	81 ug/m3	J	>ICLinearRange
EPA TO-15	AIR	**n-Hexane**				
			A-0008H-041015-TO-001-B	78 ug/m3	J	>ICLinearRange
			A-0037H-SG-002	190 ug/m3	J	>ICLinearRange
EPA TO-15	AIR	**Styrene**				
			A-0018H-021915-TO-003	1.9 ug/m3	J	CCV>UCL
			A0022S-040715-TO-001-CAFE	2.1 ug/m3	UJ	IC%RSD
			A0022S-040715-TO-002-CR330	2.1 ug/m3	UJ	IC%RSD
			A-0028-S-040215-TO-001	2.1 ug/m3	UJ	IC%RSD
			A-0036H-040415-TO-001	2.1 ug/m3	UJ	IC%RSD
			A-0037H-040305-SG-001-4'	0.66 ug/m3	J	IC%RSD
			A0037H-040715-TO-001-LAU	2.1 ug/m3	UJ	IC%RSD
			A0037H-040715-TO-002-BR2	1.4 ug/m3	J	IC%RSD
			A0037H-040715-TO-003-BAS	2.1 ug/m3	UJ	IC%RSD
			A-0037H-SG-002	2 ug/m3	J	IC%RSD
EPA TO-15	AIR	**Tetrachloroethene**				
			A-0018H-021915-TO-001	18 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-002	5.8 ug/m3	J	CCV>UCL
			A-0018H-021915-TO-003	2.5 ug/m3	J	CCV>UCL
			A-0053H-052316-SG-001-6'(0037)	2000 ug/m3	J	>ICLinearRange
			A-0053H-052316-SG-001-6'(0050)	1500 ug/m3	J	>ICLinearRange
EPA TO-15	AIR	**Toluene**				
			A-0003H-040915-TO-001-LIV	83 ug/m3	J	>ICLinearRange
			A-0008H-041015-TO-001-BAS	150 ug/m3	J	>ICLinearRange
			A-0036H-040415-TO-001	150 ug/m3	J	>ICLinearRange
EPA TO-15	AIR	**Vinyl acetate**				
			A-0051-031616-IA-BAS	1.8 ug/m3	J	ICVS>UCL
EPA TO-15	AIR	**Vinyl chloride**				

TABLE 8

Calibration Criteria - Qualified Data

Method	Matrix	Analyte	Sample ID	Result	Calibration Qualifier*	Criteria
			A-0028-S-040215-TO-001	1.3 ug/m3	UJ	CCV<LCL
			A-0036H-040415-TO-001	1.3 ug/m3	UJ	CCV<LCL
			A-0037H-040305-SG-001-4'	1.3 ug/m3	UJ	CCV<LCL
EPA TO-15 SIM	AIR	**Tetrachloroethene**				
			A-0011H-030116-IA-012A-LLL	12 ug/m3	J	>ICLinearRange
			A-0017H-031616-IA-BAS	10 ug/m3	J	>ICLinearRange
			A-0017H-TO-001-BAS	6.8 ug/m3	J	>ICLinearRange
			A-0018H-020615-TO-001	23 ug/m3	J	>ICLinearRange
			A-0018H-031616-IA-BAS	12 ug/m3	J	>ICLinearRange
			A-0040H-031216-IA-BAS	74 ug/m3	J	>ICLinearRange
			A-0040H-031216-IA-BAS-D	78 ug/m3	J	>ICLinearRange
			A-0040H-031216-IA-KIT	59 ug/m3	J	>ICLinearRange
			A-0053H-052416-IA-BAS	13 ug/m3	J	>ICLinearRange
			A-0053H-052416-IA-BAS-D	13 ug/m3	J	>ICLinearRange
EPA TO-15 SIM	AIR	**Trichloroethene**				
			A-0040H-031216-IA-BAS-D	5.4 ug/m3	J	>ICLinearRange

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = Analyte was present but the reported value may not be accurate or precise.

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

>ICLinearRange	=	Result greater than linear calibration range
CCV<LCL	=	Continuing calibration recovery less than the lower control limit
CCV>UCL	=	Continuing calibration recovery greater than the upper control limit
IC%RSD	=	Initial calibration relative standard deviation exceeded
ICVS>UCL	=	Second source verification standard recovery greater than the upper control limit

Units:

ug/m3 = micrograms per meter cubed

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TABLE 9

Internal Standards - Qualified Data

Method	Matrix	Sample ID	Analyte	Result	Internal Standard Qualifier*	Criteria
EPA TO-15 SIM	AIR		**Trichloroethene**			
		A-0017H-TO-001-BAS		0.27 ug/m3	UJ	IS>UCL

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

UJ = The analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Criteria:

IS>UCL = Internal standard response greater than the upper control limit

Units:

ug/m3 = micrograms per meter cubed

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TABLE 10

Site Completeness by Analyte - Qualified Data

Method	Analyte	Units	Number of Occurrences						Completeness (%)	
			Analyses	Detects	Non-detects	Blank Flags	J-Flags	Contractor Total R-Flags	Contractor	Overall
EPA TO-13	2-Methylnaphthalene	UG/M3	8		8		5		100	100
EPA TO-13	Acenaphthene	UG/M3	8		8		5		100	100
EPA TO-13	Acenaphthylene	UG/M3	8		8		8		100	100
EPA TO-13	Anthracene	UG/M3	8		8		5		100	100
EPA TO-13	Benzo(a)anthracene	UG/M3	8		8		5		100	100
EPA TO-13	Benzo(a)pyrene	UG/M3	8		8		5		100	100
EPA TO-13	Benzo(b)fluoranthene	UG/M3	8		8		5		100	100
EPA TO-13	Benzo(g,h,i)perylene	UG/M3	8		8		5		100	100
EPA TO-13	Benzo(k)fluoranthene	UG/M3	8		8		5		100	100
EPA TO-13	Chrysene	UG/M3	8		8		5		100	100
EPA TO-13	Dibenzo(a,h)anthracene	UG/M3	8		8		5		100	100
EPA TO-13	Fluoranthene	UG/M3	8		8		5		100	100
EPA TO-13	Fluorene	UG/M3	8		8		5		100	100
EPA TO-13	Indeno(1,2,3-cd)pyrene	UG/M3	8		8		5		100	100
EPA TO-13	Naphthalene	UG/M3	8		8		5		100	100
EPA TO-13	Phenanthrene	UG/M3	8		8		5		100	100
EPA TO-13	Pyrene	UG/M3	8		8		5		100	100
EPA TO-15	1,1,1-Trichloroethane	UG/M3	59	7	52		4		100	100
EPA TO-15	1,1,2,2-Tetrachloroethane	UG/M3	59	1	58		1		100	100
EPA TO-15	1,1,2-Trichloroethane	UG/M3	59		59				100	100
EPA TO-15	1,1-Dichloroethane	UG/M3	59		59				100	100
EPA TO-15	1,1-Dichloroethene	UG/M3	59	1	58		1		100	100
EPA TO-15	1,2,4-Trichlorobenzene	UG/M3	42		42		1		100	100
EPA TO-15	1,2,4-Trimethylbenzene	UG/M3	59	32	27		32		100	100
EPA TO-15	1,2-Dibromoethane	UG/M3	59		59				100	100
EPA TO-15	1,2-Dichlorobenzene	UG/M3	59		59				100	100
EPA TO-15	1,2-Dichloroethane	UG/M3	59	4	55		12		100	100
EPA TO-15	1,2-Dichloropropane	UG/M3	59	1	58		1		100	100
EPA TO-15	1,3,5-Trimethylbenzene	UG/M3	59	18	41		14		100	100
EPA TO-15	1,3-Butadiene	UG/M3	59	6	53		9		100	100

TABLE 10

Site Completeness by Analyte - Qualified Data

Method	Analyte	Units	Number of Occurrences						Completeness (%)	
			Analyses	Detects	Non-detects	Blank Flags	J-Flags	Contractor Total R-Flags	Contractor	Overall
EPA TO-15	1,3-Dichlorobenzene	UG/M3	59		59				100	100
EPA TO-15	1,4-Dichlorobenzene	UG/M3	59	2	57				100	100
EPA TO-15	1,4-Dioxane	UG/M3	2		2				100	100
EPA TO-15	2-Hexanone	UG/M3	59	6	53		4		100	100
EPA TO-15	4-Ethyl toluene	UG/M3	59	17	42		14		100	100
EPA TO-15	Acetone	UG/M3	59	58	1		30		100	100
EPA TO-15	Benzene	UG/M3	59	49	10		29		100	100
EPA TO-15	Benzyl chloride	UG/M3	42		42				100	100
EPA TO-15	Bromodichloromethane	UG/M3	59		59				100	100
EPA TO-15	Bromoform	UG/M3	59	1	58		1		100	100
EPA TO-15	Bromomethane	UG/M3	59	2	57		3		100	100
EPA TO-15	Carbon disulfide	UG/M3	59	21	38		12		100	100
EPA TO-15	Carbon tetrachloride	UG/M3	59	3	56		3		100	100
EPA TO-15	Chlorobenzene	UG/M3	59		59				100	100
EPA TO-15	Chloroform	UG/M3	59	29	30		18		100	100
EPA TO-15	cis-1,2-Dichloroethene	UG/M3	43	1	42				100	100
EPA TO-15	cis-1,3-Dichloropropene	UG/M3	59		59				100	100
EPA TO-15	Cyclohexane	UG/M3	59	27	32		12		100	100
EPA TO-15	Dibromochloromethane	UG/M3	59		59				100	100
EPA TO-15	Dichlorodifluoromethane	UG/M3	59	45	14		28		100	100
EPA TO-15	Ethyl acetate	UG/M3	59	35	24		23		100	100
EPA TO-15	Ethyl benzene	UG/M3	59	35	24		22		100	100
EPA TO-15	Ethyl chloride	UG/M3	59	2	57		2		100	100
EPA TO-15	Freon 11	UG/M3	59	46	13		46		100	100
EPA TO-15	Freon 113	UG/M3	59	2	57		2		100	100
EPA TO-15	Freon 114	UG/M3	59		59		8		100	100
EPA TO-15	Heptane	UG/M3	59	38	21		21		100	100
EPA TO-15	Hexachloro-1,3-butadiene	UG/M3	42		42		2		100	100
EPA TO-15	m,p-Xylene	UG/M3	59	53	6		24		100	100
EPA TO-15	Methyl chloride	UG/M3	59	50	9		25		100	100

TABLE 10

Site Completeness by Analyte - Qualified Data

Method	Analyte	Units	Number of Occurrences						Contractor Completeness (%)	Overall Completeness (%)
			Analyses	Detects	Non-detects	Blank Flags	J-Flags	Contractor Total R-Flags		
EPA TO-15	Methyl ethyl ketone	UG/M3	59	51	8		26		100	100
EPA TO-15	Methyl isobutyl ketone	UG/M3	59	14	45		11		100	100
EPA TO-15	Methyl t-butyl ether	UG/M3	59		59				100	100
EPA TO-15	Methylene chloride	UG/M3	59	43	16		32		100	100
EPA TO-15	n-Hexane	UG/M3	59	44	15		20		100	100
EPA TO-15	o-Xylene	UG/M3	59	38	21		27		100	100
EPA TO-15	Styrene	UG/M3	59	13	46		17		100	100
EPA TO-15	Tetrachloroethene	UG/M3	43	28	15		16		100	100
EPA TO-15	Tetrahydrofuran	UG/M3	59	14	45		7		100	100
EPA TO-15	Toluene	UG/M3	59	57	2		18		100	100
EPA TO-15	trans-1,2-Dichloroethene	UG/M3	59		59				100	100
EPA TO-15	trans-1,3-Dichloropropene	UG/M3	59		59				100	100
EPA TO-15	Trichloroethene	UG/M3	43	5	38		1		100	100
EPA TO-15	Vinyl acetate	UG/M3	59	3	56		2		100	100
EPA TO-15	Vinyl chloride	UG/M3	43		43		3		100	100
EPA TO-15 SIM	1,4-Dioxane	UG/M3	16	1	15				100	100
EPA TO-15 SIM	cis-1,2-Dichloroethene	UG/M3	23	3	20				100	100
EPA TO-15 SIM	Tetrachloroethene	UG/M3	23	21	2		10		100	100
EPA TO-15 SIM	trans-1,2-Dichloroethene	UG/M3	7		7				100	100
EPA TO-15 SIM	Trichloroethene	UG/M3	23	8	15		3		100	100
EPA TO-15 SIM	Vinyl chloride	UG/M3	23		23				100	100

Units:
ug/m3 = microgram per meter cubed

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H-6
Addendum to the 2015/2016 Data Validation Report

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TECHNICAL MEMORANDUM

TO: Lynne Welsh, Department of Veterans Affairs
Susan Fairclough, Department of Veterans Affairs

FROM: Pamela Moss, EA Engineering, Science, and Technology, Inc., PBC

DATE: 8 November 2018

SUBJECT: Addendum to the 2015/2016 Data Validation Report, 700 South 1600 East PCE Plume AOU-1: East Side Springs, Salt Lake City, Utah

1. Introduction

Air samples were collected and analyzed during the 2015 Department of Veterans Affairs (VA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) vapor intrusion (VI) investigation at Accelerated Operable Unit 1 (AOU-1), 700 South 1600 East Tetrachloroethene (PCE) Plume, Salt Lake City, Utah. Sampling and analysis was to be conducted in accordance with the AOU-1 Sampling and Analysis Plan and AOU-1 Quality Assurance Project Plan (Appendices A and B of First Environment, Inc. [FE] 2015). This technical memorandum summarizes the results of the third-party quality assurance (QA) review conducted on the VI sampling data collected during January through April 2015 as contracted by the U.S. Army Corps of Engineers, Kansas City District for VA.

1.1 Purpose

The purpose of this technical memorandum is to present the limitations associated with the 2015 VI data collected in support of the VI investigation at AOU-1. Review and verification of the 2015 VI data, including HAPSITE® data and analytical laboratory data for volatile organic compounds (U.S. Environmental Protection Agency [EPA] TO-15) and a limited set of polynuclear aromatic hydrocarbons (EPA TO-13), conducted by an independent third-party subcontractor is summarized in the Final Quality Assurance Summary Report (USACE 2017). The VA review of the third-party summary report is summarized in the memorandum: Analysis of the Final Quality Assurance Review Summary Report and the AOU-1 2015 HAPSITE and SUMMA Sample Collection Documentation of 700 S 1600 E PCE Plume Superfund Site (VA 2017). The VA memorandum identifies information and discrepancies that impact the integrity of the sample results and potential use of the data to achieve project data quality objectives. The discrepancies include field and laboratory sample documentation, sample collection protocols, chain of custody records, laboratory analytical request forms, and sample identification. The VA memorandum was provided to the Utah Department of Environmental Quality and EPA for review and acceptance of the 2015 VI data. The regulator acceptance of data usability for the 2015 VI data is documented in the email from Ms. Vera Moritz with EPA to Ms. Lynne Welsh with VA, dated 7 September 2017, and the associated attachment to the email included in Attachment 1 of this technical memorandum.

2. Validation Findings

The analytical laboratory data validation findings of the third-party QA and the data usability review performed by VA and EPA are presented in Attachment 2. The validation findings for the 2015 HAPSITE® screening data determined this data was not usable to support the quantitative risk evaluation

since the method and calibration files used to analyze field samples could not be located and therefore the data could not be regenerated or validated. However, the HAPSITE® screening data were deemed usable to assess whether preliminary contaminants of potential concern (PCOPCs) concentrations exceeded risk-based screening levels as related to sampling structures. Some structures and locations were targeted for additional sampling in subsequent mobilizations (2016 and 2017) to verify HAPSITE® detections or non-detections of PCOPCs.

3. Results

The 2015 VI TO-15 data determined to be usable to achieve project data quality objectives is presented in Table 1. All other TO-15 data collected in 2015 was deemed not acceptable and was not included in the AOU-1 Remedial Investigation Report (EA 2018).

TABLE 1
2015 Vapor Intrusion TO-15 Usable Sample Data

Sample ID	Sample Matrix
A-0003H-040915-TO-001-LIV	Indoor Air
A-0003H-040915-TO-002-BAS	Indoor Air
A-0003H-040915-TO-003-BBB	Indoor Air
A-0003H-040915-SG-001-4	Soil Gas
A-0008H-041015-TO-001-BAS	Indoor Air
A-0008H-041015-SG-001A-4	Soil Gas
A-0008H-041015-SG-001B-4	Soil Gas
A-0026H-040815-SG-002-4	Soil Gas
A-0026H-040815-SG-003-4	Soil Gas
A-0026H-040815-TO-001-PAN	Indoor Air
A-0026H-040815-TO-003-OUT	Outdoor Air
A-0030H-041115-TO-001-BAS	Indoor Air
A-0030H-041115-TO-002-OUT	Outdoor Air
A-0030H-041115-TO-003-OUT	Outdoor Air
A-0030H-041115-SG-001A-6	Soil Gas
A-0036H-040415-TO-001-BAS	Indoor Air

4. Summary

The 2015 VI HAPSITE® and laboratory data were reviewed for compliance to project requirements and for completeness and accuracy of sampling and analysis information. Sample documentation and results were determined to be accurate and usable to achieve project data quality objectives for the 16 TO-15 sample locations identified in Table 1 above and included in the AOU-1 Remedial Investigation Report risk evaluation (EA 2018). HAPSITE® screening data collected in 2015 was deemed not usable to achieve data quality objectives however, still usable to screen PCOPCs and was further supported by additional confirmation sampling events conducted in 2016 and 2017..

5. References

EA Engineering, Science and Technology, Inc., PBC. 2018. *700 South 1600 East PCE Plume AOU-1: East Side Springs Remedial Investigation Report.* Draft Final. November.

First Environment, Inc. 2015. *Remedial Investigation Work Plan, AOU 1: East Side Springs, 700 South 1600 East PCE Plume*, Salt Lake City, Utah. Final. July.

Department of Veterans Affairs. 2017. *Analysis of the Final Quality Assurance Summary Report and the AOU-1 2015 HAPSITE and SUMMA Sample Collection Documentation of 700 S 1600 E PCE Plume Superfund Site.* July.

U.S. Army Corps of Engineers. 2017. *Final Quality Assurance Summary Report AOU-1 Third Party Quality Assurance Review of Vapor Intrusion Field Survey Documentation for the 700 South 1600 East PCE Plume Superfund Site, Veterans Administration Salt Lake City Health Care System CERCLA Program, Salt Lake City, Utah.* June.

Table

1 2015 Vapor Intrusion TO-15 Usable Sample Data

Attachments

1 Regulatory Correspondence
2 Validation Findings and Data Usability

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Attachment 1
Documentation of Regulatory Concurrence

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Attachments: Comments on Final Quality Assurance Summary Report_090517.docx

AOU-1 2015 2015 Data and 3rd Party QA Summary Report VA Memorandum on v3....pdf

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From: Moritz, Vera [mailto:Moritz.Vera@epa.gov]
Sent: Thursday, September 07, 2017 2:25 PM
To: Welsh, D Lynne <DLynne.Welsh@va.gov>; Thomas Daniels <tdaniels@utah.gov>; Aguilar, Mark <Aguilar.Mark@epa.gov>; C. Mark Aguilar <1cma@comcast.net>
Subject: [EXTERNAL] 2015 VI data review

Lynne – As requested in your email dated 07/31/2017, which conveyed the "AOU-1 2015 Data…" file attached above, please find EPA's response. Please feel free to call if you would like to discuss further.

Vera Moritz
Remedial Project Manager (RPM)
EPA Region 8 – Federal Facilities
303-312-6981
Moritz.vera@epa.gov

Comments on Final Quality Assurance Summary Report

AOU-1 2015 Data Review, 700 S 1600 E PCE Plume

Based on a review of the Final Quality Assurance Summary Report AOU-1 Third Party Quality Assurance Review of Vapor Intrusion Field Survey Documentation for the 700 South 1600 East PCE Plume Superfund Site, the VA Sample Verification Review Forms, and the VA memo dated July 28, 2017 regarding the QA review, we note the following:

A. EPA utilized the following process to review the materials submitted:
    a. Using the VA Sample Verification Review Forms as a site by site organizational tool, we reviewed the final QA report and all field documentation included in the report to confirm support of the VA's determination of usability or to disagree with the VA's determination.
    b. In order of preference, we utilized field log books (FLBs), chain-of-custody forms (COCs), and then analytical request forms (ARFs), as the latter two appeared to have been amended/corrected with less documentation than the FLBs.
    c. We did not utilize the electronic field forms (EFFs) because these were not identified as a method of field documentation in the QAPP and because there was no date/time stamp information in the metadata to indicate when the entries and changes were made to the EFFs.

B. The samples for which we agree with the VA usability determinations are:
    a. 0003H
    b. 0008H
    c. 0026H, #7, 8, 9 and 10
    d. 0030H, # 1, 2, 3, and 4
    e. 0036H

C. The samples which we cannot support until further documentation is provided and information verified are:
    a. 0011H
        i. #5 – cannot support until COC is provided and verified.
        ii. #6 – cannot support until COC and logbook documentation is provided and verified.
        iii. #8 – cannot support until COC is provided and verified.
    b. 0026H

i. #3 – cannot support without resolution of inconsistent sample names and dates; VA form notes the sample as A-0026H-IA-001-040815-PAN. The “8” highlighted in the sample ID appears to be an artifact of the VA form; however, with so many sample ID discrepancies, we would like confirmation from the VA prior to final EPA determination of usability. We will also need the COC for this sample to verify.

ii. #4 - cannot support without resolution of inconsistent sample names and dates; VA form notes the sample as A-0026H-BG-003-040815. The “8” highlighted in the sample ID appears to be an artifact of the VA form; however, with so many sample ID discrepancies, we would like confirmation from the VA prior to final EPA determination of usability. We will also need the COC for this sample to verify.

iii. #5 – cannot support until COC is provided and verified.

D. The samples which were determined to be usable by VA, but EPA cannot support are:
   a. 0011H - #4 – a final canister vacuum not recorded in original field documentation.
   b. 0017H - #1, 2, and 3 – canisters IDs were not present at the time of sampling and were added in December 2016.

E. We agree with all samples rejected by VA, as indicated by the “No” entry on Table VI, VA RPM Decision of Sample Acceptance of the VA Sample Verification Review Forms.

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Attachment 2
Validation Findings and Data Usability

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ATTACHMENT 2

2015 Vapor Intrusion Sample Locations, HAPSITE® and TO-15

Revised Addendum to the 2015/2016 Data Validation Report Technical Memorandum

700 South 1600 East PCE Plume AOU-1: East Side Springs, Salt Lake City, Utah

Structure Number	HAPSITE® Indoor Air Real-Time Screening Conducted (1)	HAPSITE® Outdoor Air Real-Time Screening Conducted (1)	HAPSITE® Soil Gas Real-Time Screening Conducted (1)	TO-15 Indoor Air Sample Collected	TO-15 Outdoor Air Sample Collected	TO-15 Soil Gas Sample Collected, Near Slab	TO-15 Soil Gas Sample Collected, Open Field	Data Usability for Risk Evaluation
0001-H	X	X	X					Not usable
0002-H	X	X	X					Not usable
0003-H	X	X	X	X		X		Accepted TO-15 indoor air and soil gas data (4 locations)
0004-H	X	X	X					Not usable
0005-H	X	X	X					Not usable
0006-H	X	X	X					Not usable
0007-H	X		X	X				Not usable
0008-H	X	X	X	X		X		Accepted TO-15 indoor air and soil gas data (3 locations)
0009-H	X	X	X					Not usable
0010-H	X	X	X					Not usable
0011-H	X	X	X	X	X	X		Not usable
0012-H	X	X	X					Not usable
0013-H	X	X	X					Not usable
0014-H	X	X	X					Not usable
0015-H	X	X	X					Not usable
0016-H	X	X	X					Not usable
0017-H	X	X	X	X	X	X		Not usable
0018-H	X	X	X	X	X		X	Not usable
0019-B	X	X	X	X				Not usable
0020-C	X	X	X					Not usable
0021-S	X	X	X					Not usable
0022-S	X	X	X	X				Not usable
0023-H	X	X	X					Not usable
0024-H	X	X	X					Not usable
0025-H	X	X	X					Not usable
0026-H	X	X	X	X	X	X	X	Accepted TO-15 indoor air, outdoor air and soil gas data (4 locations)
0027-H	X	X	X	X	X			Not usable

ATTACHMENT 2

2015 Vapor Intrusion Sample Locations, HAPSITE® and TO-15

Revised Addendum to the 2015/2016 Data Validation Report Technical Memorandum

700 South 1600 East PCE Plume AOU-1: East Side Springs, Salt Lake City, Utah

Structure Number	HAPSITE® Indoor Air Real-Time Screening Conducted (1)	HAPSITE® Outdoor Air Real-Time Screening Conducted (1)	HAPSITE® Soil Gas Real-Time Screening Conducted (1)	TO-15 Indoor Air Sample Collected	TO-15 Outdoor Air Sample Collected	TO-15 Soil Gas Sample Collected, Near Slab	TO-15 Soil Gas Sample Collected, Open Field	Data Usability for Risk Evaluation
0028-S	X	X	X	X				Not usable
0029-H	X	X	X					Not usable
0030-H	X	X	X	X	X		X	Accepted TO-15 indoor air, outdoor air and soil gas data (4 locations)
0031-S	X		X				X	Not usable
0032-H	X	X	X					Not usable
0033-H	X	X	X					Not usable
0036-H	X	X	X	X				Accepted TO-15 indoor air data (1 location)
0037-H	X	X	X	X		X		Not usable
0038-H	X	X						Not usable

NOTES:

1. Due to documented field and laboratory discrepancies with the HAPSITE® data, it is not considered usable to support the risk evaluation for the AOU-1 Remedial Investigation. This table only reflects where this data was collected in the field at the 36 structures investigated in 2015, for the purposes of illustrating where follow-up SUMMA canister samples were collected for TO-15 analysis.

Data that is usable for the AOU-1 Remedial Investigation is shown in blue.

Appendix I
Shallow Groundwater Field Monitoring Data

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TABLE I-1
2016 Shallow Groundwater Investigation – Water Quality Measurements Collected During Installation of Temporary Groundwater Monitoring Points and Piezometers
700 South 1600 East PCE Plume AOU-1: East Side Springs Remedial Investigation Report
Department of Veterans Affairs Salt Lake City Health Care System

Location ID	Sample Date	Temperature (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	pH	Turbidity (NTU)
GW-01	03/04/16	11.0	1303	4.54	134.6	6.38	620
GW-03	02/26/16	10.1	1520	9.90	211.9	6.98	>1000
GW-04	02/26/16	12.9	1567	10.10 (3)	86.4	7.06	>1000
GW-05	02/26/16	12.4	1566	5.45	52.9	6.93	>1000
GW-06	02/26/16	10.2	1448	10.81	63.4	7.35	395
GW-07	02/26/16	11.2	966	8.45	140.0	6.98	393
GW-08	02/28/16	15.7	1639	4.92	111.2	7.36	>1000
GW-09	02/26/16	15.6	1281	7.80	56.6	7.46	213
GW-10	02/27/16	13.6	2526	2.10	121.5	6.85	4.17
	07/12/16	14.4	2989	0.85	264.1	6.93	185
	09/20/16	16.6	2810	0.61	79.0	7.07	406
GW-11	02/27/16	12.3	1444	3.11	864.0	6.85	>1000
	07/11/16	13.2	1464	4.37	233.2	7.02	966
	09/19/16	14.6	1406	3.17	27.2	7.14	223
GW-12	03/01/16	13.7	2302	7.56	55.0	7.50	>1000
GW-13	03/04/16	16.4	1456	4.35	30.0	7.00	149
GW-14	03/02/16	13.9	1968	0.13	-74.6	6.71	369
GW-15	02/29/16	10.6	1422	1.35	99.8	6.45	6.77
GW-16	02/28/16	11.0	1513	8.80	100.7	6.86	>1000
	07/11/16	20.1	1587	3.25	213.9	7.17	935
	09/19/16	19.3	1526	2.62	26.1	7.17	83.6
GW-17(1)	03/01/16	--	--	--	--	--	--
GW-18	03/01/16	11.9	1728	10.42 (3)	135.8	7.50	>1000
GW-20	03/01/16	12.9	1516	1.71	60.2	6.81	276
	07/11/16	14.9	1303	2.61	164.3	6.86	206
	09/19/16	17.0	1265	0.79	-33.7	7.00	13.9
GW-21	03/01/16	12.3	1557	4.52	-81.4	6.96	102
GW-22	03/01/16	9.7	1106	5.50	57.6	7.04	>1000
GW-23(2)	02/22/16	11.3	1648	2.43	3.3	--	>1000
GW-24	02/23/16	11.2	1191	7.21	181.2	7.40	9.24
GW-25	02/29/16	15.9	1352	5.71	99.0	7.02	>1000
GW-26	02/27/16	15.1	2091	7.22	96.1	7.15	>1000
GW-27	03/05/16	13.6	1580	5.36	79.9	6.81	72.4
GW-28	03/05/16	14.8	1639	4.00	-26.0	6.96	>1000
GW-31	02/28/16	15.6	2057	5.91	19.1	6.67	838
GW-39(2)	02/22/16	12.8	1984	4.40	107.8	--	51.8

TABLE I-1
2016 Shallow Groundwater Investigation – Water Quality Measurements Collected During Installation of Temporary Groundwater Monitoring Points and Piezometers
700 South 1600 East PCE Plume AOU-1: East Side Springs Remedial Investigation Report
Department of Veterans Affairs Salt Lake City Health Care System

Location ID	Sample Date	Temperature (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	pH	Turbidity (NTU)
GW-40	03/03/16	17.0	1480	6.81	46.1	7.15	>1000
GW-43	03/03/16	12.3	1458	5.27	138.8	6.51	170
GW-46	02/24/16	17.7	1638	5.78	55.3	7.08	>1000
GW-48	02/25/16	12.1	1529	11.00 (3)	43.2	7.24	>1000
GW-49	02/25/16	9.7	1764	4.77	81.9	6.85	4.64
	07/12/16	18.0	1631	1.49	220.5	7.01	297
	09/20/16	17.0	1455	1.23	41.1	7.14	33.2
GW-50	02/29/16	8.3	1699	0.52	22.3	6.61	165
	07/12/16	17.9	1247	5.78	67.9	7.31	467
	09/20/16	18.1	1178	0.83	-39.0	7.30	540
GW-51	03/04/16	12.3	1495	3.59	-13.9	6.80	6.12
GW-52	03/03/16	16.3	1593	6.20	83.5	6.62	55.4
	07/12/16	14.1	1605	6.90	269.7	7.11	138
	09/20/16	14.8	1488	6.50	19.6	7.20	157
GW-53	03/03/16	11.7	1507	2.00	26.8	6.56	428
	07/11/16	13.9	1656	0.60	231.0	6.97	800
	09/19/16	16.5	1583	0.61	69.4	7.03	61.5
GW-55	03/04/16	15.5	1645	7.50	85.5	6.94	>1000
GW-59	03/05/16	13.2	1590	0.25	-3.3	6.86	25.5
	07/11/16	16.8	2018	3.96	31.7	7.21	40.2
	09/19/16	18.9	1770	0.68	-56.4	7.22	49.7
GW-60	03/08/16	13.7	1778	3.99	130.4	6.70	441
GW-61	03/05/16	13.1	1664	3.85	9.0	6.51	44.1
	07/12/16	15.2	1801	4.23	272.1	6.96	115
	09/20/16	17.8	1731	3.38	75.7	7.04	186
GW-62	03/08/16	13.6	1429	5.10	121.6	6.87	42.6

NOTES:
1. Water quality not collected due to low groundwater recharge and an insufficient volume of groundwater collected.
2. Field data for pH was not collected due to a water quality meter malfunction.
3. Dissolved Oxygen (DO) measurements are near saturation and may be anomalous.

-- = Not measured.
> = Greater than.
°C = Degrees Centigrade.
µS/cm = Microsiemen(s) per centimeter.
ID = Identification.
mg/L = Milligram(s) per liter.
mV = Millivolt.
NTU = Nephelometric Turbidity Unit.
ORP = Oxidation-reduction potential.

TABLE I-2
2016 Geoprobe Groundwater Screening - Volatile Organic Compound Results
700 South 1600 East PCE Plume AOU-1: East Side Springs Remedial Investigation Report
Department of Veterans Affairs Salt Lake City Health Care System

		cis-1,2-dichloroethene[2]	Tetrachloroethene[2]	Trichloroethene[2]	Vinyl Chloride[2]
EPA Analytical Method		SW8260C	SW8260C	SW8260C	SW8260C
Screening Concentration for Field Decision Making[1] [3]		NS	15	1.2	0.15
Unit of Measure		µg/L	µg/L	µg/L	µg/L
Location ID	**Sample Collection Date**				
GW-01	03/04/16	<0.3 U	0.74 J	<0.3 U	<0.3 U
GW-03	02/26/16	<0.3 U	0.43 J	<0.3 U	<0.3 U
GW-04	02/26/16	<0.3 U	11	0.3 J	<0.3 U
GW-05	02/26/16	<0.3 U	1.4	<0.3 U	<0.3 U
GW-06	02/26/16	0.48 J	3	1.1	<0.3 U
GW-07	-	-	-	-	-
GW-08	02/27/16	<0.3 U	4.7	1.3	<0.3 U
GW-09	02/26/16	0.64 J	0.72 J	2.2	<0.3 U
GW-10	02/27/16	<0.3 U	1.3	<0.3 U	<0.3 U
GW-11	02/27/16	0.45 J	41	0.89 J	<0.3 U
GW-12	03/02/16	<0.3 U	3.9	<0.3 U	<0.3 U
GW-13	03/04/16	<0.3 U	17	<0.3 U	<0.3 U
GW-14	03/02/16	<0.3 U	1.3	1.2	<0.3 U
GW-15	02/29/16	<0.3 U	26	0.51 J	<0.3 U
GW-16	02/28/16	<0.3 U	17	0.5 J	<0.3 U
GW-17	-	-	-	-	-
GW-18	03/02/16	<0.3 U	6.6	2	<0.3 U
GW-20	03/01/16	<0.3 U	46	1.3	<0.3 U
GW-21	03/01/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-22	03/01/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-23	02/22/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-24	02/25/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-25	02/29/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-26	02/28/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-27	03/05/16	<0.3 U	20	<0.3 U	<0.3 U
GW-28	03/05/16	<0.3 U	42	0.45 J	<0.3 U
GW-31	02/28/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-39	02/23/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-40	03/03/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-43	03/03/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-46	02/24/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U

TABLE I-2
2016 Geoprobe Groundwater Screening - Volatile Organic Compound Results
700 South 1600 East PCE Plume AOU-1: East Side Springs Remedial Investigation Report
Department of Veterans Affairs Salt Lake City Health Care System

		cis-1,2-dichloroethene[2]	Tetrachloroethene[2]	Trichloroethene[2]	Vinyl Chloride[2]
EPA Analytical Method		SW8260C	SW8260C	SW8260C	SW8260C
Screening Concentration for Field Decision Making[1] [3]		NS	15	1.2	0.15
Unit of Measure		µg/L	µg/L	µg/L	µg/L
Location ID	**Sample Collection Date**				
GW-48	03/03/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-49	02/25/16	<0.3 U	0.92 J	<0.3 U	<0.3 U
GW-50	02/29/16	1	2.4	1.6	<0.3 U
GW-51	03/04/16	<0.3 U	18	<0.3 U	<0.3 U
GW-52	03/03/16	<0.3 U	43	0.54 J	<0.3 U
GW-53	03/03/16	<0.3 U	34	0.78 J	<0.3 U
GW-55	03/05/16	<0.3 U	<0.3 U	<0.3 U	<0.3 U
GW-59	03/05/16	49	0.31 J	6.5	<0.3 U
GW-60	03/08/16	<0.3 U	7.6	0.96 J	<0.3 U
GW-61	03/05/16	<0.3 U	2.5	<0.3 U	<0.3 U
GW-62	03/08/16	<0.3 U	16	<0.3 U	<0.3 U

NOTES:
1. Groundwater screening samples were collected during the Geoprobe® investigation to direct the placement of temporary groundwater monitoring points. The screening results were utilized, in consultation with the VA, to select placement of temporary groundwater monitoring points.
2. Laboratory analysis by ALS Environmental, Salt Lake City, Utah.
3. 1,4-dioxane was not included in this quick-turn around field screening analysis because it was not commonly used in association with PCE.

- = Location not sampled for screening analyses.
µg/L = Microgram(s) per liter.
AOU-1 = Accelerated Operable Unit 1.
EPA = U.S. Environmental Protection Agency.
ID = Identification.
J = Estimated value.
NS = No standard specified.
PCE = Tetrachloroethene.
U = Compound was analyzed for, but not detected.
VA = U.S. Department of Veterans Affairs.
Values that exceed the Field Screening Concentrations are shaded gray.

Appendix J
Laboratory Analytical Reports

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Laboratory Analytical Data Reports for 2015 and 2016 vapor intrusion (VI) sampling are included in this appendix. Additional Laboratory Analytical Data Reports are included in the following Data Validation Reports for the 700 South 1600 East PCE Plume AOU-1: East Side Springs (Appendix H):

2017 VI data: *2017 VI Investigation Field Data Report Accelerated Operable Unit 1 700 South 1600 East PCE Plume.*

2016 groundwater data: *2016 Groundwater Data Validation Report 700 South 1600 East PCE Plume AOU-1: East Side Springs, Salt Lake City, Utah.*

2016 surface water and stormwater data: *2016 Surface Water and Stormwater Data Validation Report 700 South 1600 East PCE Plume AOU-1: East Side Springs, Salt Lake City, Utah.*

2016 soil data: *700 South 1600 East PCE Plume AOU-1: East Side Springs 2016 Soil Data Validation Report.*

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J-1
2015 VAPOR INTRUSION ANALYTICAL DATA

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15 (SIM)**	**Client:**	First Environment, Inc
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1502226**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received two summa canister for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: 4-Bromofluorobenzene tune check is not applicable for SIM mode.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the method. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP. The response factors of the TO-15 analytes were acceptable when compared to the average response from the initial calibration curve.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants, except for carbon tetrachloride which was below the PQL.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-K. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid — September 3, 2015

Date

ANALYTICAL REPORT

Report Date: January 28, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1502226**
Project ID: 0017-H, Sunnyside Dr. 012115
Purchase Order: 0017-H, Sunnyside Dr

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0017H-TO-001-BAS	1502226001	01/21/15	01/21/15	0017-H, Sunnyside Dr
A-0017H-TO-002-OUT	1502226002	01/21/15	01/21/15	0017-H, Sunnyside Dr
A-0017H-TO-003-GAS	1502226003	01/21/15	01/21/15	0017-H, Sunnyside Dr

ANALYTICAL REPORT

Workorder: 34-1502226
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0017H-TO-001-BAS | Sampling Site: 0017-H, Sunnyside Dr | Collected: 01/21/2015
Lab ID: 1502226001 | Media: Summa 6 Liter Canister | Received: 01/21/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2799 (HBN: 142763) | **Percent Solid:** NA
Analyzed: 01/28/2015 01:24 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**1.0**	**6.8**	0.050	1	E

Sample ID: A-0017H-TO-002-OUT | Sampling Site: 0017-H, Sunnyside Dr | Collected: 01/21/2015
Lab ID: 1502226002 | Media: Summa 6 Liter Canister | Received: 01/21/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2799 (HBN: 142763) | **Percent Solid:** NA
Analyzed: 01/28/2015 02:02 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	**0.054**	**0.29**	0.050	1	
Tetrachloroethene	**0.15**	**1.0**	0.050	1	

Sample ID: A-0017H-TO-003-GAS | Sampling Site: 0017-H, Sunnyside Dr | Collected: 01/21/2015
Lab ID: 1502226003 | Media: Summa 6 Liter Canister | Received: 01/21/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2800 (HBN: 142772) | **Percent Solid:** NA
Analyzed: 01/22/2015 15:31 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.21	1.2	0.15	0.50	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1502226
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0017H-TO-003-GAS
Lab ID: 1502226003
Matrix: Air

Sampling Site: 0017-H, Sunnyside Dr
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 01/21/2015
Received: 01/21/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2800 (HBN: 142772)
Analyzed: 01/22/2015 15:31

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Carbon disulfide	0.48	1.5	0.15	0.50	1	J
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**15**	**45**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	0.2	1.0	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.32	1.3	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.32	1.3	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.8**	**6.6**	0.15	0.50	1	
2-Hexanone	**1.2**	**4.8**	0.30	1.0	1	
Tetrachloroethene	0.39	2.7	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.28	1.2	0.15	0.50	1	J
m,p-Xylene	**1.4**	**6.1**	0.15	0.50	1	
o-Xylene	**0.57**	**2.5**	0.15	0.50	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1502226
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0017H-TO-003-GAS
Lab ID: 1502226003
Matrix: Air
Sampling Site: 0017-H, Sunnyside Dr
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 01/21/2015
Received: 01/21/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2800 (HBN: 142772)
Analyzed: 01/22/2015 15:31
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	0.50	1	U
1,3,5-Trimethylbenzene	0.17	0.83	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**0.71**	**3.5**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2800 (HBN: 142772)
Analyzed: 01/23/2015 09:17
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**100**	**240**	3.0	5.0	10	B

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2800 (HBN: 142772)
Analyzed: 01/22/2015 15:31
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	43	7.56	1	J
Isopropyl Alcohol	25	8.14	1	J
Pentanal	21	11.92	1	J
Hexanal	16	14.14	1	J
Heptanal	7.8	16.20	1	J

Comments

Quality Control: **EPA TO-15 - (HBN: 142772)**

Acetone was found in the blank above the reporting limit.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 01/28/2015 15:01	/S/ Jorden Baum 01/28/2015 15:01

ANALYTICAL REPORT

Workorder: 34-1502226
Client: First Environment
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 01/28/2015 15:01	/S/ Thomas J. Masoian 01/28/2015 14:01

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1502226
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1502226

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2799 (HBN: 142763)		
Analyzed By:	Lisa M. Reid		

Blank

MB: 431293
Analyzed: 01/27/2015 14:46
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
trans-1,2-Dichloroethene	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 431294
Analyzed: 01/27/2015 13:31
Dilution: 1
Units: ppb

LCSD: 431292
Analyzed: 01/27/2015 14:08
Dilution: 1
Units: ppb

Analyte	LCS Result	Target	% Rec	QC Limits		LCSD Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.497	0.500	99.4	17.5	153.7	0.476	95.2	4.33	0.0	25.0
trans-1,2-Dichloroethene	0.533	0.500	107	72.0	123.1	0.476	95.1	11.4	0.0	25.0
cis-1,2-Dichloroethene	0.499	0.500	99.7	65.2	131.2	0.402	80.4	21.5	0.0	25.0
Trichloroethene	0.500	0.500	99.9	68.4	123.4	0.652 *	130 *	26.5 *	0.0	25.0
Tetrachloroethene	0.472	0.500	94.4	63.6	127.9	0.524	105	10.5	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
431294-LCS	0.514	0.500	103
431292-LCSD	0.542	0.500	108
431293-MB	0.466	0.500	93.1
1502226001	0.553	0.500	111
1502226002	0.517	0.500	103

QC Data Approved and Reviewed by

Lisa M. Reid	Thomas J. Masoian	1/28/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
● - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1502226**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2800 (HBN: 142772)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 431332
Analyzed: 01/22/2015 12:15

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	* 0.527	0.3	0.500
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1502226

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2800 (HBN: 142772)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 431332
Analyzed: 01/22/2015 12:15
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	0.500
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 431330
Analyzed: 01/22/2015 10:25
Dilution: 1
Units: ppb

LCSD: 431331
Analyzed: 01/22/2015 11:01
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	9.99	10.0	99.9	59.3	135.1	10.6	106	5.95	0.0	25.0
Chloromethane	9.36	10.0	93.6	55.2	137.4	9.63	96.3	2.85	0.0	25.0
Freon 114	9.67	10.0	96.7	64.6	128.0	10.0	100	3.74	0.0	25.0
Vinyl chloride	9.44	10.0	94.4	61.8	132.3	9.94	99.4	5.14	0.0	25.0
1,3-Butadiene	9.08	10.0	90.8	58.0	138.3	9.55	95.5	5.02	0.0	25.0
Bromomethane	9.06	10.0	90.6	63.3	129.9	9.44	94.4	4.09	0.0	25.0
Chloroethane	9.10	10.0	91.0	57.6	137.1	9.47	94.7	4.03	0.0	25.0
Freon 11	9.77	10.0	97.7	58.9	132.8	10.1	101	2.94	0.0	25.0
Freon 113	9.55	10.0	95.5	68.5	120.0	9.80	98.0	2.60	0.0	25.0
1,1-Dichloroethene	9.32	10.0	93.2	67.2	125.1	9.36	93.6	0.384	0.0	25.0
Acetone	8.04	10.0	80.4	42.5	146.0	8.18	81.8	1.79	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1502226

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2800 (HBN: 142772)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 431330
Analyzed: 01/22/2015 10:25
Dilution: 1
Units: ppb

LCSD: 431331
Analyzed: 01/22/2015 11:01
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	9.21	10.0	92.1	63.9	128.8	9.50	95.0	3.08	0.0	25.0
Methylene chloride	9.05	10.0	90.5	63.7	127.9	9.35	93.5	3.32	0.0	25.0
trans-1,2-Dichloroethene	9.78	10.0	97.8	68.1	124.6	10.3	103	5.39	0.0	25.0
Methyl t-butyl ether	10.5	10.0	105	60.8	138.0	10.8	108	2.86	0.0	25.0
Vinyl acetate	10.5	10.0	105	59.3	141.1	10.8	108	2.74	0.0	25.0
2-Butanone	9.95	10.0	99.5	51.7	144.2	10.1	101	1.12	0.0	25.0
cis-1,2-Dichloroethene	9.79	10.0	97.9	69.8	124.3	10.4	104	5.75	0.0	25.0
1,1-Dichloroethane	9.55	10.0	95.5	67.7	123.6	9.95	99.5	4.14	0.0	25.0
Ethyl acetate	10.7	10.0	107	53.4	156.9	10.3	103	3.88	0.0	25.0
Hexane	9.75	10.0	97.5	62.4	129.5	9.93	99.3	1.80	0.0	25.0
Chloroform	9.59	10.0	95.9	67.3	121.8	9.80	98.0	2.24	0.0	25.0
Tetrahydrofuran	10.3	10.0	103	50.6	155.3	10.6	106	3.01	0.0	25.0
1,2-Dichloroethane	9.92	10.0	99.2	62.4	130.5	10.1	101	1.99	0.0	25.0
1,1,1-Trichloroethane	9.70	10.0	97.0	60.4	127.7	9.86	98.6	1.63	0.0	25.0
Carbon tetrachloride	9.64	10.0	96.4	58.2	130.6	9.74	97.4	1.03	0.0	25.0
Benzene	9.82	10.0	98.2	64.1	127.3	10.1	101	3.04	0.0	25.0
Cyclohexane	8.80	10.0	88.0	61.9	123.6	9.14	91.4	3.83	0.0	25.0
Trichloroethene	9.70	10.0	97.0	62.4	126.8	10.1	101	4.06	0.0	25.0
1,2-Dichloropropane	9.40	10.0	94.0	60.7	130.6	9.81	98.1	4.31	0.0	25.0
Bromodichloromethane	9.62	10.0	96.2	62.9	128.3	9.66	96.6	0.422	0.0	25.0
Heptane	9.75	10.0	97.5	59.5	133.4	10.0	100	2.47	0.0	25.0
cis-1,3-Dichloropropene	10.2	10.0	102	64.1	133.6	10.5	105	2.42	0.0	25.0
4-Methyl-2-pentanone	10.1	10.0	101	73.5	150.0	10.3	103	1.73	0.0	25.0
trans-1,3-Dichloropropene	10.3	10.0	103	78.5	148.7	10.6	106	3.32	0.0	25.0
1,1,2-Trichloroethane	9.62	10.0	96.2	65.0	126.6	9.86	98.6	2.48	0.0	25.0
Toluene	10.4	10.0	104	75.6	139.4	10.7	107	3.06	0.0	25.0
2-Hexanone	10.6	10.0	106	80.8	158.8	10.7	107	0.817	0.0	25.0
Tetrachloroethene	9.67	10.0	96.7	60.7	126.6	10.3	103	6.49	0.0	25.0
Dibromochloromethane	10.0	10.0	100	62.4	130.9	10.4	104	3.50	0.0	25.0
1,2-Dibromoethane	9.98	10.0	99.8	64.4	129.0	10.4	104	3.67	0.0	25.0
Chlorobenzene	9.70	10.0	97.0	62.8	126.9	10.2	102	5.28	0.0	25.0
Ethyl benzene	11.0	10.0	110	75.9	148.5	11.3	113	2.36	0.0	25.0
m,p-Xylene	21.5	20.0	107	73.7	144.9	22.6	113	4.85	0.0	25.0
o-Xylene	10.6	10.0	106	74.7	147.4	11.1	111	5.03	0.0	25.0
Styrene	11.0	10.0	110	75.9	158.1	11.7	117	5.97	0.0	25.0
Bromoform	10.4	10.0	104	59.7	136.0	10.7	107	2.92	0.0	25.0
1,1,2,2-Tetrachloroethane	9.89	10.0	98.9	59.3	134.8	10.3	103	4.03	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1502226

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2800 (HBN: 142772)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 431330	LCSD: 431331
Analyzed:	01/22/2015 10:25	01/22/2015 11:01
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	10.9	10.0	109	69.0	163.3	11.2	112	3.50	0.0	25.0
1,3,5-Trimethylbenzene	10.9	10.0	109	64.2	155.1	11.4	114	4.81	0.0	25.0
1,2,4-Trimethylbenzene	11.1	10.0	111	59.7	169.4	11.4	114	2.26	0.0	25.0
1,3-Dichlorobenzene	10.9	10.0	109	58.6	157.6	11.2	112	2.33	0.0	25.0
1,4-Dichlorobenzene	10.6	10.0	106	57.7	137.2	11.2	112	5.60	0.0	25.0
Benzyl chloride	11.9	10.0	119	60.1	182.5	12.0	120	1.03	0.0	25.0
1,2-Dichlorobenzene	10.3	10.0	103	56.5	140.0	10.8	108	4.40	0.0	25.0
1,2,4-Trichlorobenzene	6.09	10.0	60.9	3.6	224.6	6.22	62.2	2.16	0.0	25.0
Hexachlorobutadiene	4.79	10.0	47.9	25.3	155.9	5.29	52.9	9.90	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
431330-LCS	20.2	20.0	101
431331-LCSD	20.4	20.0	102
431332-MB	18.6	20.0	92.9
1502149001	20.6	20.0	103
1502226003	21.2	20.0	106

Comments

Acetone was found in the blank above the reporting limit.

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	1/28/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
● - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

13920/#1 (Full) #2 (Sim)

1502226

ANALYTICAL REQUEST FORM

1. ☒ **REGULAR Status**

☐ **RUSH Status Requested - ADDITIONAL CHARGE** 1502226
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 1/15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (678) 787-2295
Fax Telephone (973) 334-0128
E-mail Address Egr@Firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. **Sample Collection**
Sampling Site 0017-H, Sunnyside Dr.
Industrial Process NA -
Date of Collection 1/21/15
Time Collected 1225 - 1245
Date of Shipment 1/21/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-0017H-TO-001-BAS	Air	24hr/6L	TO-15 VOCs SIM	ug/m3	#0163
A-0017H-TO-002-OUT	"	24hr/6L	TO-15 VOCs - SIM	ug/m3	#0244
A-0017H-TO-003-GAS	"	24hr/6L	TO-15 VOC full scan	ug/m3	#0376

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments SIM Target Compounds - PCE, TCE, cis 1,2-DCE, and Vinyl Chloride

Possible Contamination and/or Chemical Hazards _____

7. **Chain of Custody (Optional)**

Relinquished by	Edward Reid	Date/Time	1/21/15
Received by	[signature]	Date/Time	01/21/15 16:35
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment

Account No:

Project/Job/Task: DEPVA020 B-U+SLC CERCLA

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
* 0163	12-30-14	>25	~4		27	01	001TH-TO-001	Basement	
0224	12-30-14	↓		↓					
0122	12-29-14								
* 0244	12-18-14		~4		26	0.5	001TH-TO-002	outdoor air	
* 0376	12-30-14	↓		↓	27	1	001TH-TO-003	Soil Gas	
VFR Serial No.:									
0532	01-19-15		~4						
0338	↓		↓				001-HTO-003	Soil Gas	
0149		26			26		001TH-TO-002	outdoor	
0520		27			27		001TH-TO-001	Basement	
0301	↓		↓	↓					

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	01-19-15 11:00		to First Envir for Sampling
		01/21/15 16:35	Sample receipt

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2799 Created: 1/28/2015 13:32 Instrument: 5972-W HBN: 142763

Rule: EPA TO-15 SIM, Air Analyst: L. Reid Status: RE

Workorder: 1502226

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	431294	LCS for HBN 142763 (IVOA/2799)				LCS	1		ETO15SIM1Q			3/29/2015	1/27/2015
2	431292	LCSD for HBN 142763 (IVOA/2799				LCSD	1		ETO15SIM1Q			3/29/2015	1/27/2015
3	431293	MB for HBN 142763 (IVOA/2799)				MB	1		ETO15SIM1Q			3/29/2015	1/27/2015
4	1502226001	A-0017H-TO-001-BAS				SAMPLE	1	1502226001-A	ETO15SIM.1	5480		1/28/2015	1/28/2015
	* E|Result exceeds calibration range												
5	1502226002	A-0017H-TO-002-OUT				SAMPLE	1	1502226002-A	ETO15SIM.1	5480		1/28/2015	1/28/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	WA21IV	Area BCM	Area 1,4DFB	Area CB-d5
0.5 ppb v/v Continuing Cal Std		15739	26903	35444
	Upper Limit	22035	37664	49622
	Lower limit	9443	16142	21266

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB		Area CB-d5
BL-	WA23BLK	16076	23267		28834
QC-	WA21ICV	15739	26903		35444
QD-	WA22LCSD	17166	21459		33528
A-0017-HTO-001-BAS	FEI1502226001	16128	47156	*	32349
A-0017H-TO-002-OUT	FEI1502226002	14652	19566		29046

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	WA21IV	RT BCM	RT 1,4DFB	RT CB-d5
0.5 ppb v/v Continuing Cal Std		10.14	11.60	15.37
	Upper Limit	10.64	12.10	15.87
	Lower limit	9.64	11.10	14.87

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	WA23BLK	10.16	11.65	15.39
QC-	WA21ICV	10.14	11.60	15.37
QD-	WA22LCSD	10.15	11.65	15.39
A-0017-HTO-001-BAS	FEI1502226001	10.21	11.65	15.38
A-0017H-TO-002-OUT	FEI1502226002	10.17	11.65	15.38

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

1502226

[For lab use only]

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 1/15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (678) 787-2295
Fax Telephone (973) 334-0928
E-mail Address EJR@FirstEnvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site 0017-H, Sunnyside Dr.
Industrial Process NA
Date of Collection 1/21/15
Time Collected 1225 - 1245
Date of Shipment 1/21/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-0017H-TO-001-BAS	Air	24hr/6L	TO-15 VOCs SIM	ug/m3	10163
A-0017H-TO-002-OUT	"	24hr/6L	TO-15 VOCs - SIM	ug/m3	10244
A-0017H-TO-003-BAS	"	24hr/6L	TO-15 VOC full list	ug/m3	10376

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % 5. µg/m³ 6. ____ (other) Please indicate one or more units in the column entitled Units**

Comments SIM Target Compounds - PCE, TCE, cis 1,2-DCE, and Vinyl Chloride

Possible Contamination and/or Chemical Hazards _____

7. Chain of Custody (Optional)

Relinquished by	Ed Reid	Date/Time	1/21/15
Received by		Date/Time	01/21/15 16:35
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

Analyst Notebook

1502226

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min Run Sim method Here
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is SIMTI5AK (HBN 142763)

The following compounds in the CCS were outside of +-30%: NA

There seemed to be a matrix problem interfering with ISTD's - samples were run 3 times in this run. The reported samples had the best ISTD recoveries.

01-28-15

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

Response Factor Report 5972-W

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration

Calibration Files
500 =WA16S05.D 1000 =WA15S1.D 200 =WA17S02.D
50 =WA19S005.D 100 =WA18S01.D

		Compound	500	1000	200	50	100	Avg	%RSD
1)		ISTD bromochlorometha	ISTD						
2)		dichlorodifluorometha	2.426	1.985	2.717	3.790	3.155	2.815	24.59
3)		freon 114	1.723	1.432	1.875	2.613	2.192	1.967	23.04
4)		vinyl chloride	0.602	0.507	0.658	0.906	0.770	0.688	22.42
5)		1,3-Butadiene	0.387	0.323	0.419	0.576	0.502	0.441	22.42
6)		bromomethane	0.429	0.352	0.470	0.657	0.545	0.491	23.72
7)		chloroethane	0.293	0.244	0.328	0.472	0.354	0.338	25.25
8)		trichlorofluoromethan	1.320	1.104	1.444	1.988	1.628	1.497	22.33
9)		freon 113	1.484	1.231	1.626	2.231	1.866	1.688	22.56
10)		1,1-dichloroethene	0.458	0.375	0.504	0.688	0.570	0.519	22.77
11)		methylene chloride	1.235	1.030	1.372	2.027	1.612	1.455	26.34
12)		trans-1,2-dichloroeth	0.603	0.499	0.664	0.847	0.708	0.664	19.39
13)		methyl t-butyl ether	1.523	1.381	1.516	1.885	1.631	1.587	11.89
14)		2-butanone	2.346	1.923	2.791	4.811	3.515	3.077	36.86
15)		cis-1,2-dichloroethen	0.323	0.318	0.342	0.381	0.371	0.347	8.18
16)		1,1-dichloroethane	1.572	1.328	1.678	2.249	1.913	1.748	20.03
17)		chloroform	1.670	1.426	1.808	2.463	2.105	1.894	21.20
18)		1,2-dichloroethane	1.190	1.036	1.286	1.688	1.413	1.322	18.61
19)	I	ISTD 1,4-difluorobenz	ISTD						
20)		~~1,1,1-trichloroethane~~	~~0.841~~	~~0.594~~	~~0.922~~	~~1.653~~	~~1.144~~	~~1.031~~	~~38.78~~
21)		~~carbon tetrachloride~~	~~0.995~~	~~0.701~~	~~1.144~~	~~2.172~~	~~1.442~~	~~1.291~~	~~43.44~~
22)		~~benzene~~	~~0.987~~	~~0.717~~	~~1.082~~	~~1.834~~	~~1.301~~	~~1.184~~	~~35.41~~
23)		~~Cyclohexane~~	~~0.131~~	~~0.086~~	~~0.162~~	~~0.434~~	~~0.254~~	~~0.213~~	~~64.63~~
24)		trichloroethene	0.344	0.251	0.369	0.628	0.441	0.406	34.79
25)		~~1,2-dichloropropane~~	~~0.410~~	~~0.300~~	~~0.465~~	~~0.789~~	~~0.544~~	~~0.502~~	~~36.57~~
26)		~~bromodichloromethane~~	~~0.803~~	~~0.633~~	~~0.976~~	~~1.659~~	~~1.174~~	~~1.065~~	~~36.13~~
27)		Heptane	0.749	0.565	0.711	1.128	0.826	0.796	26.20
28)		cis-1,3-dichloroprope	0.447	0.346	0.474	0.751	0.561	0.516	29.48
29)		trans-1,3-dichloropro	0.361	0.279	0.374	0.605	0.425	0.409	29.70
30)		~~1,1,2-trichloroethane~~	~~0.342~~	~~0.253~~	~~0.383~~	~~0.627~~	~~0.469~~	~~0.415~~	~~34.23~~
31)	I	ISTD chlorobenzene-d5	ISTD						
32)		toluene	0.566	0.529	0.596	0.801	0.707	0.640	17.49
33)		tetrachloroethene	0.228	0.195	0.253	0.388	0.317	0.276	27.80
34)		~~dibromochloromethane~~	~~0.560~~	~~0.470~~	~~0.635~~	~~1.026~~	~~0.825~~	~~0.703~~	~~31.66~~
35)		1,2-dibromoethane	0.374	0.319	0.407	0.577	0.486	0.433	23.34
36)		chlorobenzene	0.151	0.175	0.199	0.251	0.232	0.202	20.22
37)		ethyl benzene	0.127	0.124	0.133	0.187	0.153	0.145	17.98
38)		m,p-xylene	0.170	0.171	0.162	0.198	0.182	0.176	7.92
39)		o-xylene	0.155	0.156	0.145	0.181	0.166	0.161	8.62
40)		bromoform	0.266	0.230	0.304	0.442	0.364	0.321	26.11
41)		1,1,2,2-tetrachloroet	0.381	0.333	0.459	0.625	0.536	0.467	25.13
42)	S	Bromofluorobenzene	0.319	0.344	0.301	0.276	0.290	0.306	8.65

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Z 01-27-15

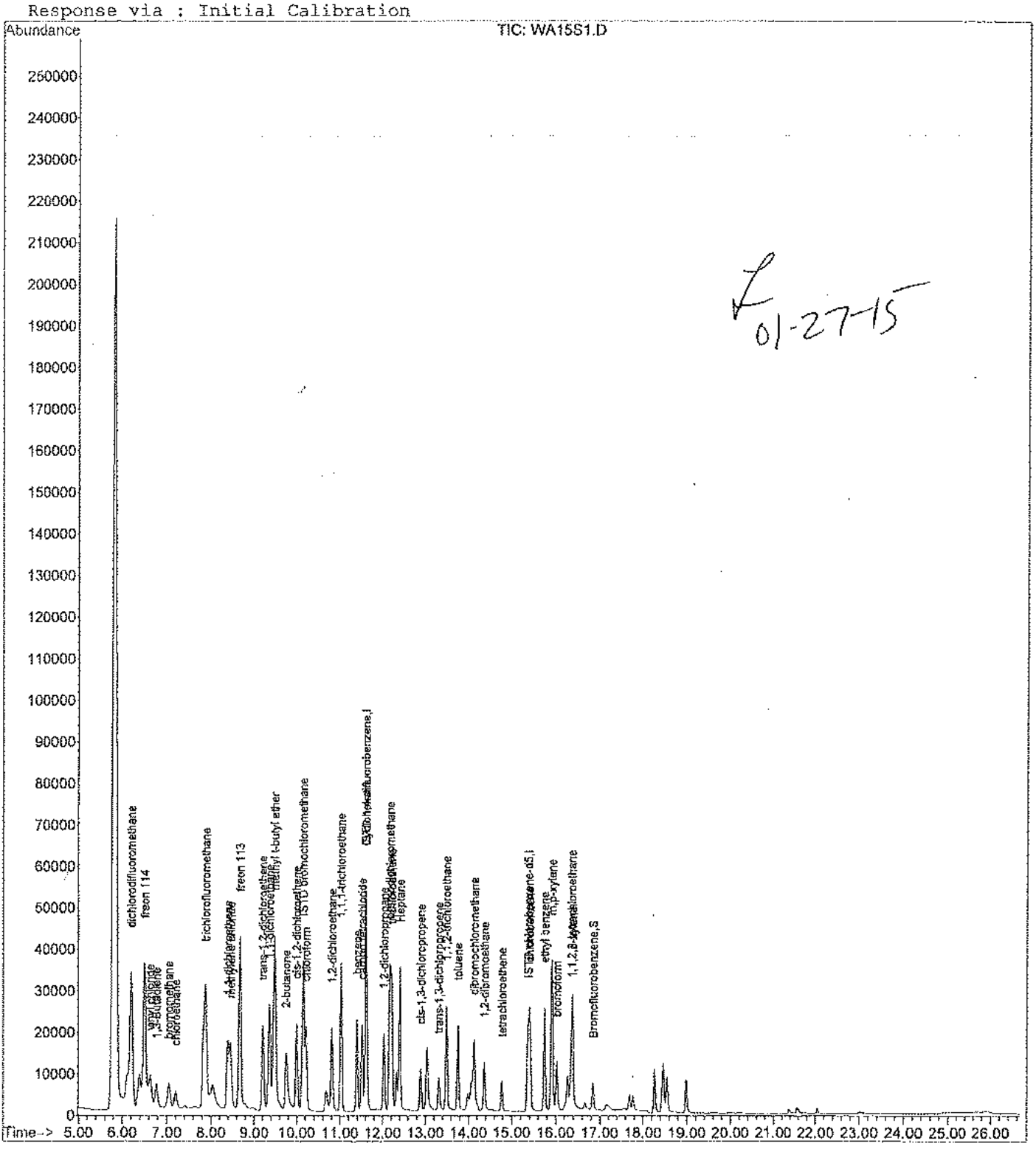
(#) = Out of Range

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA15S1.D
Acq Time : 01/27/2015 09:18 Operator: TJM
Sample : 1.0PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:48 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA15S1.D
Acq Time : 01/27/2015 09:18 Operator: TJM
Sample : 1.0PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:48 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 12:27:03 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.13	128	19911	500.0000	ppt		110.72
19) ISTD 1,4-difluorobenzene	11.60	114	43408	500.0000	ppt		135.07
31) ISTD chlorobenzene-d5	15.37	117	46296	500.0000	ppt		115.73
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.84	75	15917	561.7626	ppt		112.35%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.20	85	79064	705.3906	ppt		99
3) freon 114	6.50	85	57030	728.0390	ppt		99
4) vinyl chloride	6.62	62	20185	736.3717	ppt		99
5) 1,3-Butadiene	6.77	54	12869	732.4276	ppt	#	1
6) bromomethane	7.04	94	14008	717.0101	ppt		99
7) chloroethane	7.20	64	9697	720.3283	ppt		99
8) trichlorofluoromethane	7.87	101	43971	737.6284	ppt		98
9) freon 113	8.67	101	49040	729.7295	ppt	#	23
10) 1,1-dichloroethene	8.39	96	14922	721.8574	ppt		97
11) methylene chloride	8.46	49	41016	707.8195	ppt		90
12) trans-1,2-dichloroethene	9.21	96	19868	751.4693	ppt		92
13) methyl t-butyl ether	9.49	73	54977	869.8461	ppt		89
14) 2-butanone	9.74	43	76592	625.0370	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	12652	915.8532	ppt		85
16) 1,1-dichloroethane	9.36	63	52868	759.6162	ppt		96
17) chloroform	10.22	83	56781	752.6969	ppt	#	18
18) 1,2-dichloroethane	10.80	62	41269	783.6772	ppt		98
20) 1,1,1-trichloroethane	11.02	97	51540	575.9363	ppt	#	18
21) carbon tetrachloride	11.51	117	60817	542.8337	ppt	#	1
22) benzene	11.39	78	62246	605.6186	ppt	#	48
23) Cyclohexane	11.60	84	7425	401.1639	ppt	#	100
24) trichloroethene	12.21	130	21749	616.3163	ppt		92
25) 1,2-dichloropropane	12.03	63	26056	598.2951	ppt		87
26) bromodichloromethane	12.17	83	54932	594.1333	ppt		99
27) Heptane	12.40	43	49082	710.4606	ppt	#	19
28) cis-1,3-dichloropropene	12.89	75	30063	671.0242	ppt	#	9
29) trans-1,3-dichloropropene	13.31	75	24264	683.4133	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	21945	609.4395	ppt		96
32) toluene	13.76	91	48994	827.3311	ppt	#	22
33) tetrachloroethene	14.78	164	18075	706.0648	ppt	#	1
34) dibromochloromethane	14.13	129	43550	669.0202	ppt	#	11
35) 1,2-dibromoethane	14.37	107	29497	736.2859	ppt	#	3
36) chlorobenzene	15.40	112	16244	869.3354	ppt	#	71
37) ethyl benzene	15.74	106	11446	853.7077	ppt		97
38) m,p-xylene	15.91	106	31586	1933.8758	ppt		71
39) o-xylene	16.38	106	14406	969.1199	ppt		88
40) bromoform	16.02	173	21292	716.4347	ppt		100
41) 1,1,2,2-tetrachloroethane	16.35	83	30858	713.5854	ppt	#	18

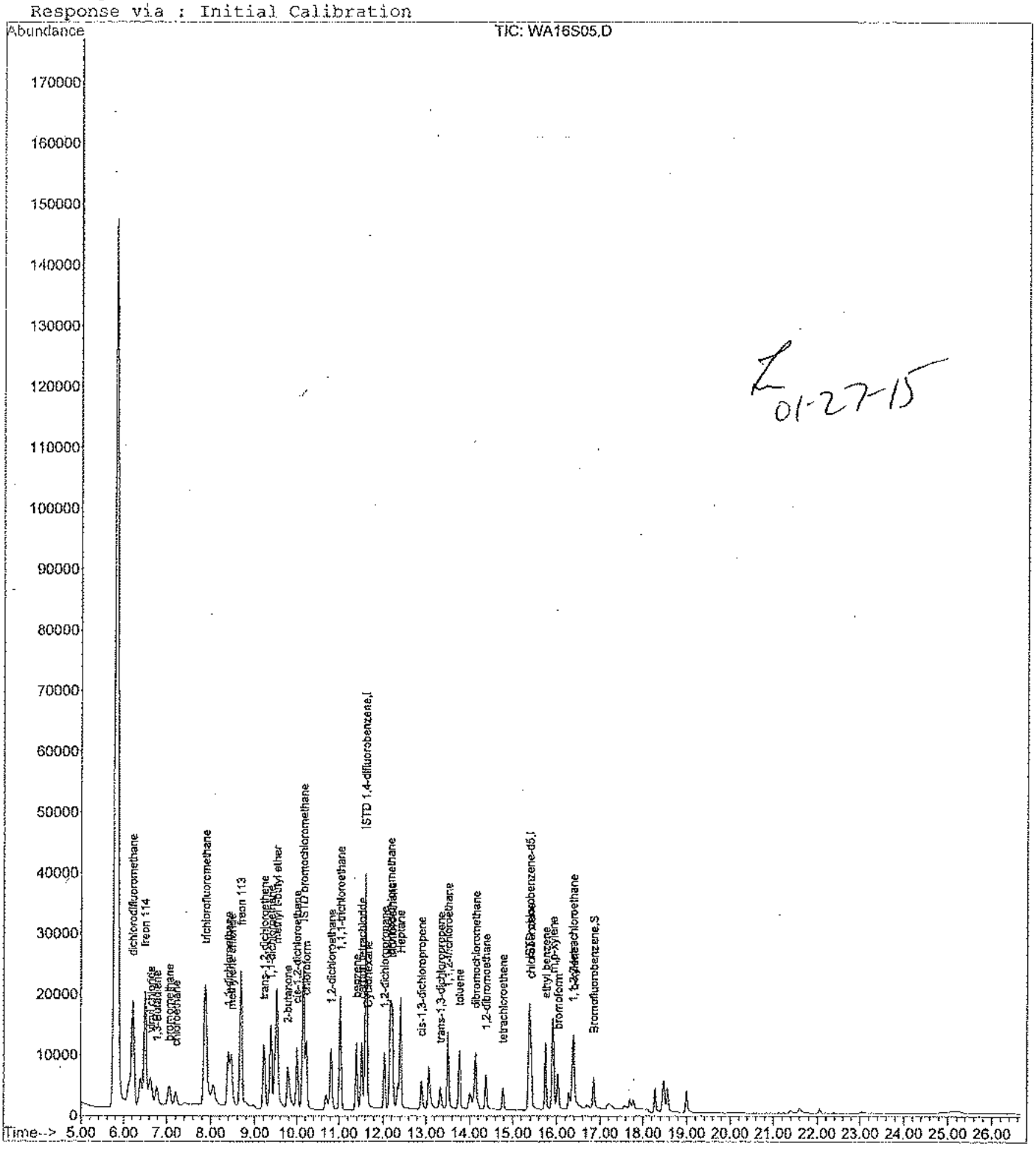
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA16S05.D
Acq Time : 01/27/2015 09:56 Operator: TJM
Sample : 0.5PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:26 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA16S05.D
Acq Time : 01/27/2015 09:56 Operator: TJM
Sample : 0.5PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:26 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 12:04:34 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	17984	500.0000	ppt		100.00
19) ISTD 1,4-difluorobenzene	11.60	114	32138	500.0000	ppt		100.00
31) ISTD chlorobenzene-d5	15.38	117	40004	500.0000	ppt		100.00
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	12776	521.8270	ppt		104.37%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.21	85	43626	430.9263	ppt		99
3) freon 114	6.49	85	30993	438.0480	ppt		99
4) vinyl chloride	6.63	62	10822	437.1019	ppt		98
5) 1,3-Butadiene	6.77	54	6954	438.1889	ppt	#	1
6) bromomethane	7.05	94	7717	437.3251	ppt		99
7) chloroethane	7.20	64	5273	433.6682	ppt		98
8) trichlorofluoromethane	7.88	101	23746	441.0304	ppt		98
9) freon 113	8.68	101	26697	439.8258	ppt	#	23
10) 1,1-dichloroethene	8.40	96	8244	441.5390	ppt		100
11) methylene chloride	8.46	49	22204	424.2357	ppt		92
12) trans-1,2-dichloroethene	9.21	96	10837	453.8089	ppt		88
13) methyl t-butyl ether	9.52	73	27387	479.7474	ppt		83
14) 2-butanone	9.77	43	42191	381.1965	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	5800	464.8378	ppt		90
16) 1,1-dichloroethane	9.37	63	28273	449.7591	ppt		95
17) chloroform	10.22	83	30031	440.7514	ppt	#	18
18) 1,2-dichloroethane	10.81	62	21392	449.7503	ppt		98
20) 1,1,1-trichloroethane	11.03	97	27034	408.0292	ppt	#	18
21) carbon tetrachloride	11.51	117	31964	385.3487	ppt	#	1
22) benzene	11.39	78	31709	416.6978	ppt	#	48
23) Cyclohexane	11.65	84	4209	307.1534	ppt	#	100
24) trichloroethene	12.22	130	11042	422.6326	ppt		92
25) 1,2-dichloropropane	12.04	63	13170	408.4551	ppt		88
26) bromodichloromethane	12.17	83	28379	414.5783	ppt		99
27) Heptane	12.40	43	24059	470.3772	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	14379	433.4964	ppt	#	9
29) trans-1,3-dichloropropene	13.32	75	11615	441.8666	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	10999	412.5714	ppt		97
32) toluene	13.76	91	22626	442.1649	ppt	#	22
33) tetrachloroethene	14.78	164	9129	412.6953	ppt	#	1
34) dibromochloromethane	14.14	129	22395	398.1459	ppt	#	11
35) 1,2-dibromoethane	14.38	107	14981	432.7624	ppt	#	3
36) chlorobenzene	15.40	112	6037	373.9001	ppt	#	66
37) ethyl benzene	15.75	106	5087	439.0937	ppt		98
38) m,p-xylene	15.92	106	13572	961.6518	ppt		71
39) o-xylene	16.39	106	6201	482.7651	ppt		90
40) bromoform	16.03	173	10633	414.0531	ppt		100
41) 1,1,2,2-tetrachloroethane	16.36	83	15244	407.9596	ppt	#	18

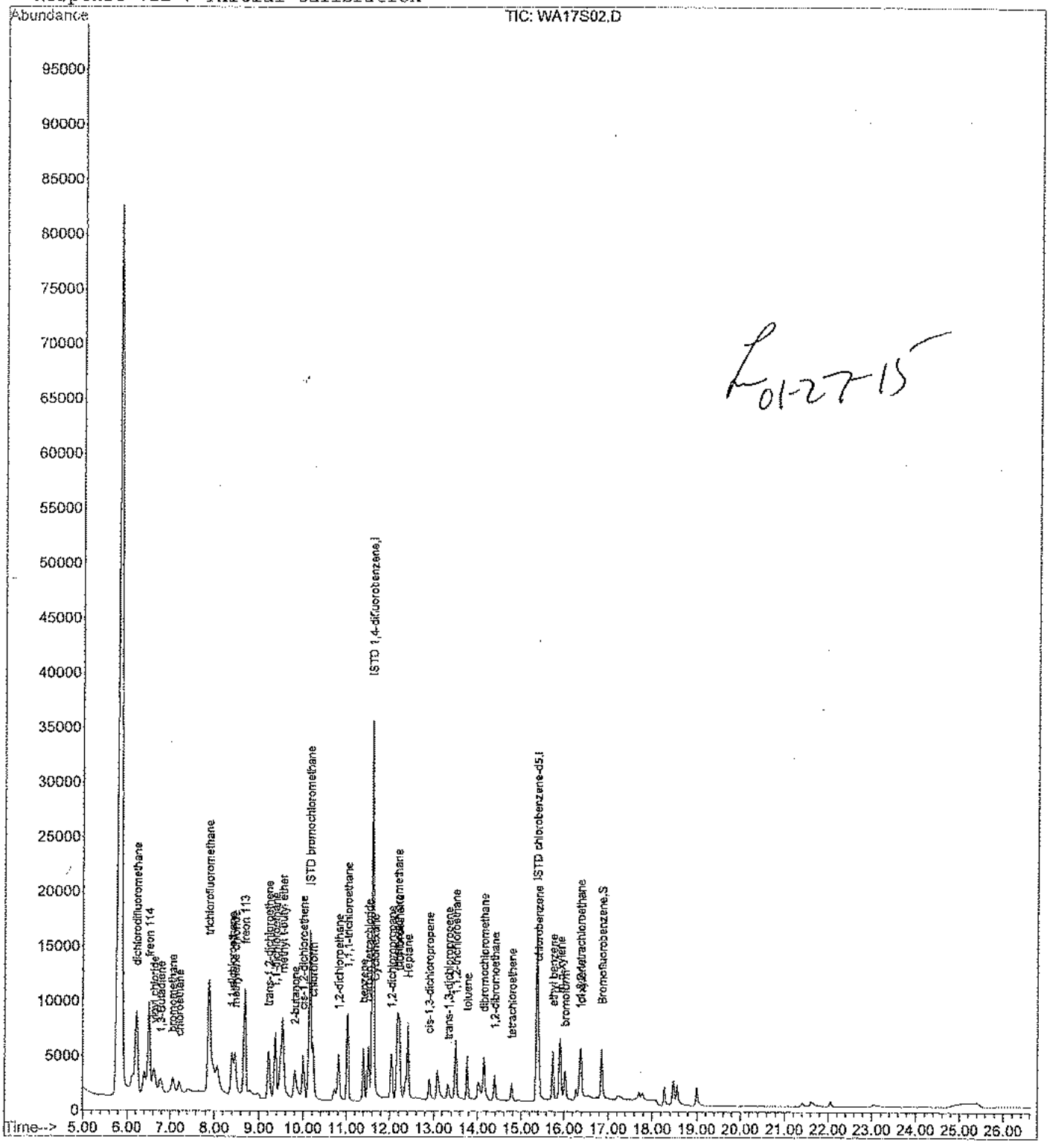
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA17S02.D
Acq Time : 01/27/2015 10:34 Operator: TJM
Sample : 0.2 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:22 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA17S02.D
Acq Time : 01/27/2015 10:34 Operator: TJM
Sample : 0.2 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:22 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 12:03:17 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	17787	500.0000	ppt		98.90
19) ISTD 1,4-difluorobenzene	11.60	114	31797	500.0000	ppt		98.94
31) ISTD chlorobenzene-d5	15.37	117	39758	500.0000	ppt		99.39
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	11971	495.4222	ppt		99.08%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.22	85	19330	211.6349	ppt		100
3) freon 114	6.50	85	13341	205.1768	ppt		100
4) vinyl chloride	6.63	62	4678	209.3701	ppt		96
5) 1,3-Butadiene	6.78	54	2981	209.3336	ppt	#	1
6) bromomethane	7.05	94	3344	202.9338	ppt		97
7) chloroethane	7.20	64	2332	215.3373	ppt		99
8) trichlorofluoromethane	7.88	101	10272	205.5803	ppt		98
9) freon 113	8.67	101	11567	207.2196	ppt	#	23
10) 1,1-dichloroethene	8.40	96	3588	213.6563	ppt		97
11) methylene chloride	8.46	49	9764	205.7998	ppt		92
12) trans-1,2-dichloroethene	9.21	96	4722	216.1954	ppt		84
13) methyl t-butyl ether	9.54	73	10788	208.6848	ppt	#	73
14) 2-butanone	9.81	43	19855	230.6458	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	2434	199.7396	ppt		99
16) 1,1-dichloroethane	9.37	63	11936	208.0516	ppt		97
17) chloroform	10.22	83	12863	205.1970	ppt	#	18
18) 1,2-dichloroethane	10.81	62	9148	231.0627	ppt		97
20) 1,1,1-trichloroethane	11.03	97	11724	205.4737	ppt	#	18
21) carbon tetrachloride	11.51	117	14546	217.2133	ppt	#	1
22) benzene	11.39	78	13758	214.6893	ppt	#	48
23) Cyclohexane	11.65	84	2056	194.9777	ppt	#	100
24) trichloroethene	12.22	130	4696	207.9446	ppt		93
25) 1,2-dichloropropane	12.04	63	5919	214.9153	ppt		94
26) bromodichloromethane	12.17	83	12419	208.1672	ppt		97
27) Heptane	12.41	43	9040	207.4226	ppt	#	19
28) cis-1,3-dichloropropene	12.89	75	6031	210.7438	ppt	#	9
29) trans-1,3-dichloropropene	13.33	75	4753	212.9415	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	4867	206.7551	ppt		98
32) toluene	13.76	91	9474	205.7118	ppt	#	22
33) tetrachloroethene	14.78	164	4031	202.0678	ppt	#	1
34) dibromochloromethane	14.14	129	10094	212.5440	ppt	#	11
35) 1,2-dibromoethane	14.38	107	6478	209.0139	ppt	#	3
36) chlorobenzene	15.40	112	3169	206.2134	ppt	#	55
37) ethyl benzene	15.75	106	2122	201.9357	ppt		96
38) m,p-xylene	15.92	106	5151	395.8745	ppt		71
39) o-xylene	16.38	106	2303	194.3833	ppt		88
40) bromoform	16.03	173	4828	207.1455	ppt		100
41) 1,1,2,2-tetrachloroethane	16.36	83	7307	216.7072	ppt	#	18

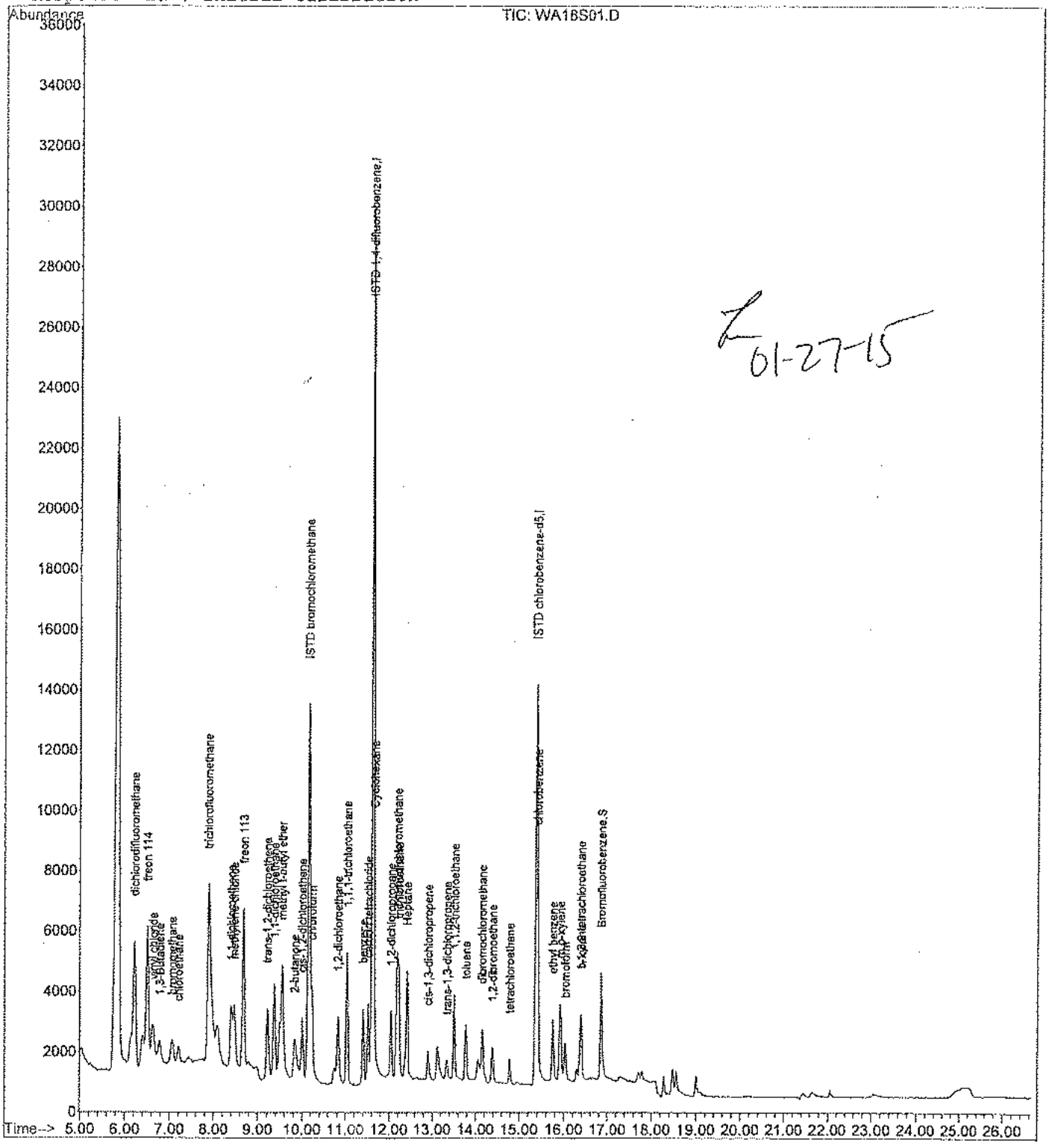
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA18S01.D
Acq Time : 01/27/2015 11:12 Operator: TJM
Sample : 0.1 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:22 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA18S01.D
Acq Time : 01/27/2015 11:12 Operator: TJM
Sample : 0.1 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:22 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 12:03:34 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	17238	500.0000	ppt		95.85
19) ISTD 1,4-difluorobenzene	11.60	114	28076	500.0000	ppt		87.36
31) ISTD chlorobenzene-d5	15.38	117	33603	500.0000	ppt		84.00
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	9742	477.0234	ppt		95.40%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.21	85	10878	122.8911	ppt		100
3) freon 114	6.50	85	7558	119.9396	ppt		99
4) vinyl chloride	6.63	62	2654	122.5663	ppt		98
5) 1,3-Butadiene	6.78	54	1729	125.2817	ppt	#	1
6) bromomethane	7.05	94	1879	117.6605	ppt		98
7) chloroethane	7.20	64	1221	116.3382	ppt	#	43
8) trichlorofluoromethane	7.87	101	5613	115.9144	ppt		97
9) freon 113	8.68	101	6432	118.8973	ppt	#	23
10) 1,1-dichloroethene	8.39	96	1965	120.7374	ppt		98
11) methylene chloride	8.46	49	5557	120.8575	ppt		91
12) trans-1,2-dichloroethene	9.22	96	2440	115.2726	ppt		90
13) methyl t-butyl ether	9.56	73	5624	112.2564	ppt	#	75
14) 2-butanone	9.83	43	12118	145.2521	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	1280	108.3851	ppt		97
16) 1,1-dichloroethane	9.37	63	6594	118.5979	ppt		97
17) chloroform	10.22	83	7258	119.4707	ppt	#	18
18) 1,2-dichloroethane	10.82	62	4871	120.7025	ppt		98
20) 1,1,1-trichloroethane	11.03	97	6424	127.5079	ppt	#	18
21) carbon tetrachloride	11.52	117	8096	136.9191	ppt	#	1
22) benzene	11.39	78	7303	129.0646	ppt	#	48
23) Cyclohexane	11.65	84	1428	153.3702	ppt	#	100
24) trichloroethene	12.23	130	2476	124.1713	ppt		94
25) 1,2-dichloropropane	12.04	63	3055	125.6265	ppt		96
26) bromodichloromethane	12.18	83	6591	125.1203	ppt		97
27) Heptane	12.40	43	4638	120.5228	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	3152	124.7391	ppt	#	9
29) trans-1,3-dichloropropene	13.34	75	2387	121.1144	ppt	#	9
30) 1,1,2-trichloroethane	13.51	97	2633	126.6767	ppt		93
32) toluene	13.77	91	4749	122.0041	ppt	#	22
33) tetrachloroethene	14.78	164	2132	126.4498	ppt	#	1
34) dibromochloromethane	14.14	129	5542	138.0698	ppt	#	11
35) 1,2-dibromoethane	14.38	107	3263	124.5655	ppt	#	3
36) chlorobenzene	15.40	112	1560	120.1063	ppt	#	34
37) ethyl benzene	15.75	106	1029	115.8590	ppt		97
38) m,p-xylene	15.92	106	2446	222.4175	ppt	#	69
39) o-xylene	16.39	106	1115	111.3490	ppt		87
40) bromoform	16.03	173	2443	124.0162	ppt		100
41) 1,1,2,2-tetrachloroethane	16.36	83	3605	126.4987	ppt	#	18

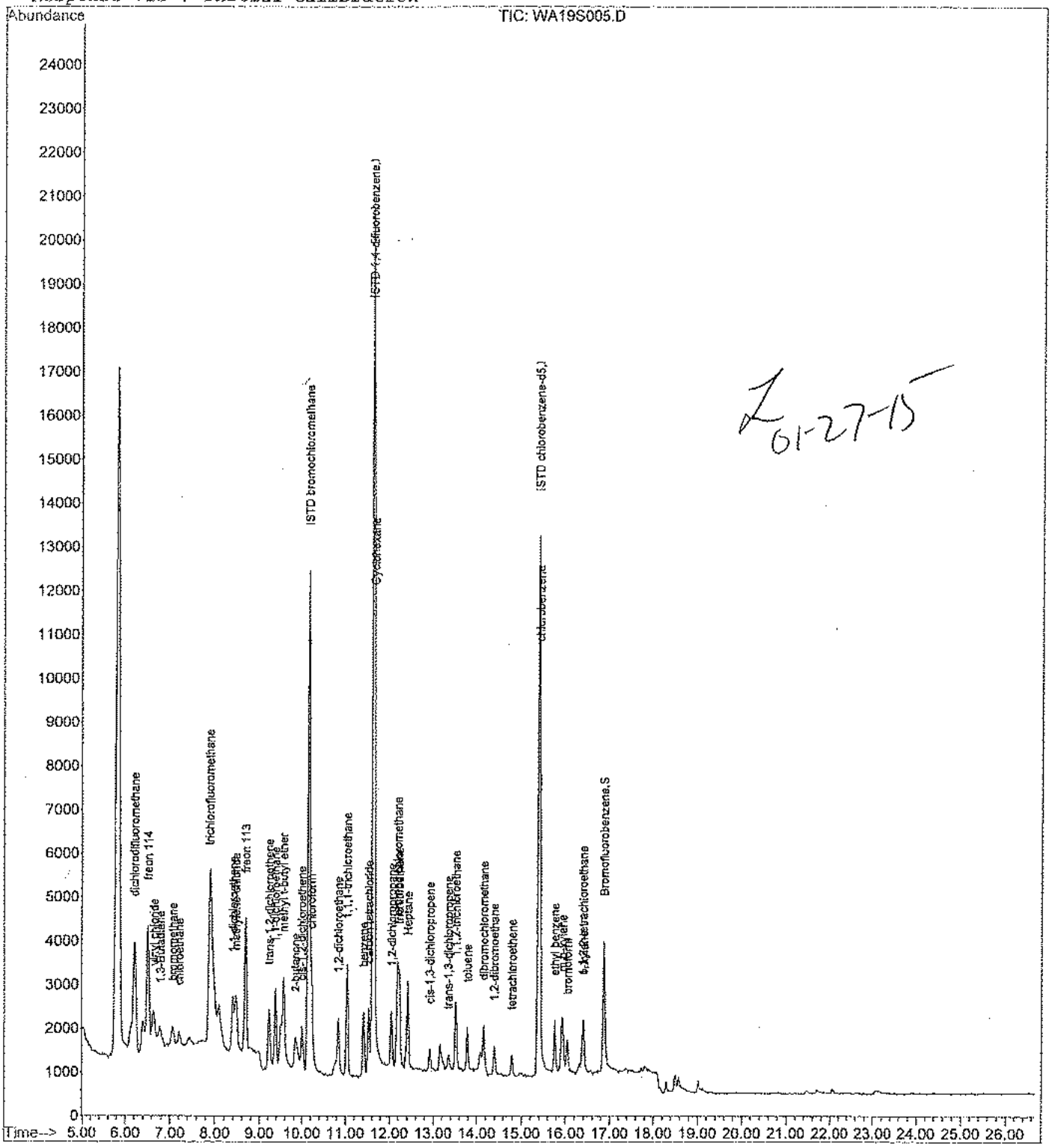
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA19S005.D
Acq Time : 01/27/2015 11:49 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:45 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA19S005.D
Acq Time : 01/27/2015 11:49 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Jan 27 12:45 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 12:27:03 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.15	128	17090	500.0000	ppt		95.03
19) ISTD 1,4-difluorobenzene	11.60	114	23021	500.0000	ppt		71.63
31) ISTD chlorobenzene-d5	15.38	117	32194	500.0000	ppt		80.48
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.86	75	8881	450.7358	ppt		90.15%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.20	85	6477	67.3249	ppt		98
3) freon 114	6.50	85	4465	66.4085	ppt		100
4) vinyl chloride	6.63	62	1548	65.7946	ppt		91
5) 1,3-Butadiene	6.78	54	984	65.2478	ppt	#	1
6) bromomethane	7.06	94	1123	66.9699	ppt		95
7) chloroethane	7.20	64	806	69.7556	ppt	#	43
8) trichlorofluoromethane	7.87	101	3398	66.4119	ppt		94
9) freon 113	8.68	101	3812	66.0869	ppt	#	23
10) 1,1-dichloroethene	8.41	96	1176	66.2800	ppt		99
11) methylene chloride	8.46	49	3464	69.6463	ppt		93
12) trans-1,2-dichloroethene	9.22	96	1447	63.7642	ppt		90
13) methyl t-butyl ether	9.56	73	3221	59.3749	ppt	#	60
14) 2-butanone	9.85	43	8222	78.1719	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	651	54.9033	ppt		98
16) 1,1-dichloroethane	9.37	63	3843	64.3314	ppt	#	66
17) chloroform	10.23	83	4209	65.0050	ppt	#	18
18) 1,2-dichloroethane	10.82	62	2884	63.8057	ppt		95
20) 1,1,1-trichloroethane	11.04	97	3806	80.1945	ppt	#	18
21) carbon tetrachloride	11.52	117	5000	84.1506	ppt	#	1
22) benzene	11.40	78	4221	77.4370	ppt	#	48
23) Cyclohexane	11.65	84	998	101.6720	ppt	#	100
24) trichloroethene	12.23	130	1446	77.2642	ppt		90
25) 1,2-dichloropropane	12.05	63	1816	78.6265	ppt		92
26) bromodichloromethane	12.18	83	3819	77.8850	ppt		97
27) Heptane	12.42	43	2597	70.8819	ppt	#	19
28) cis-1,3-dichloropropene	12.91	75	1729	72.7690	ppt	#	9
29) trans-1,3-dichloropropene	13.34	75	1393	73.9806	ppt	#	9
30) 1,1,2-trichloroethane	13.52	97	1444	75.6150	ppt		99
32) toluene	13.77	91	2578	62.6020	ppt	#	22
33) tetrachloroethene	14.79	164	1250	70.2174	ppt	#	1
34) dibromochloromethane	14.15	129	3302	72.9452	ppt	#	11
35) 1,2-dibromoethane	14.39	107	1859	66.7293	ppt	#	3
36) chlorobenzene	15.40	112	809	62.2603	ppt	#	2
37) ethyl benzene	15.77	106	601	64.4612	ppt		90
38) m,p-xylene	15.93	106	1274	112.1688	ppt	#	68
39) o-xylene	16.40	106	584	56.4957	ppt		96
40) bromoform	16.04	173	1423	68.8547	ppt		100
41) 1,1,2,2-tetrachloroethane	16.38	83	2012	66.9075	ppt	#	18

(#) = qualifier out of range (m) = manual integration

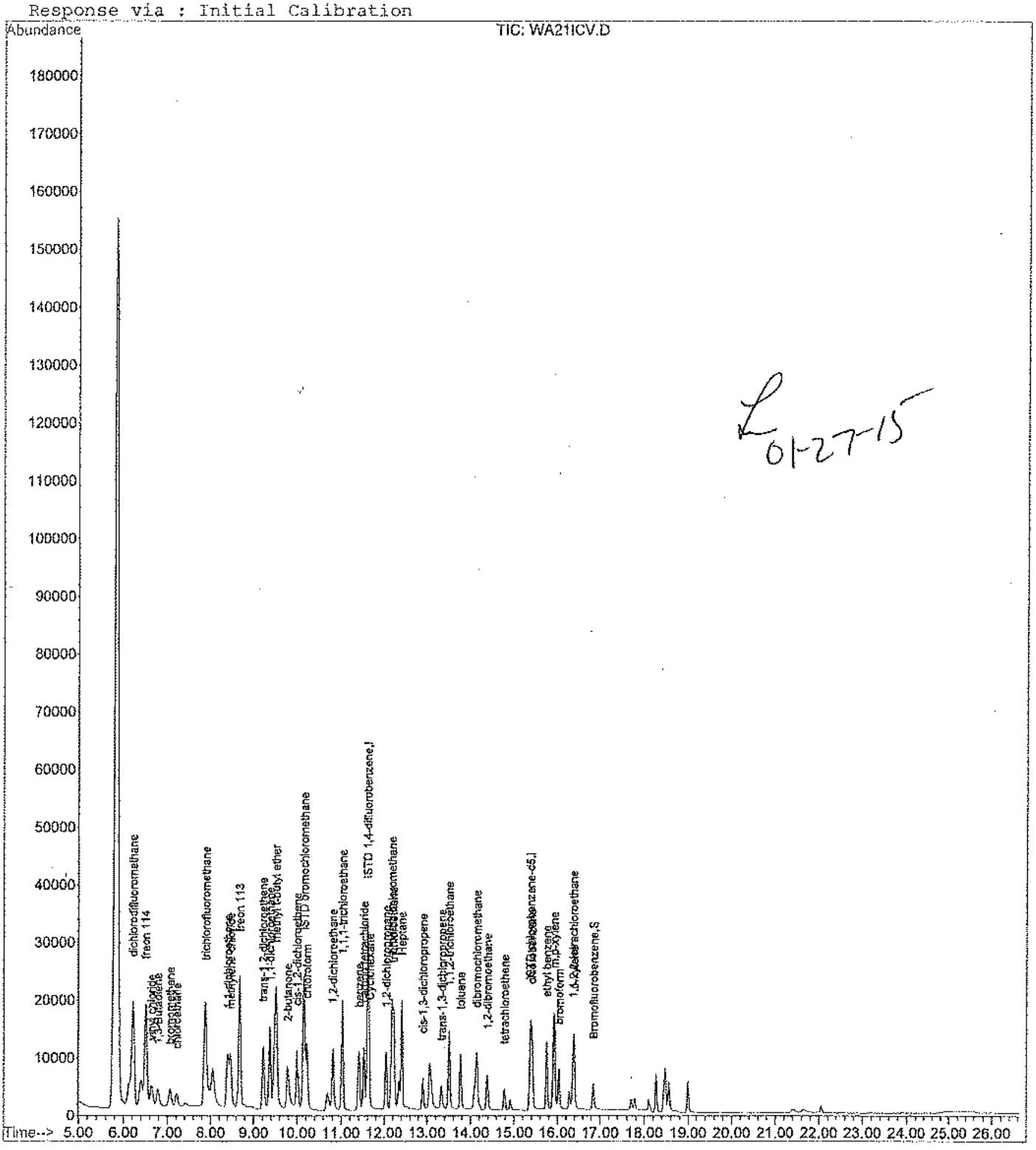
Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA21ICV.D
Acq Time : 01/27/2015 13:31 Operator: TJM
Sample : 0.5PPB STD ICV Inst : 5972-W
Misc : 26664 Multiplr: 1.00

1QC

Quant Time: Jan 27 14:42 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA21ICV.D
Acq Time : 01/27/2015 13:31 1QC
Sample : 0.5PPB STD ICV
Misc : 26664

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Jan 27 14:42 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	15739	500.0000	ppt		87.52
19) ISTD 1,4-difluorobenzene	11.60	114	26903	500.0000	ppt		83.71
31) ISTD chlorobenzene-d5	15.37	117	35444	500.0000	ppt		88.60
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	11142	513.6361	ppt		102.73%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.21	85	44931	507.1225	ppt		99
3) freon 114	6.50	85	29428	475.2564	ppt		97
4) vinyl chloride	6.63	62	10771	497.0961	ppt		97
5) 1,3-Butadiene	6.78	54	6975	502.2038	ppt	#	1
6) bromomethane	7.05	94	7226	467.9108	ppt		99
7) chloroethane	7.21	64	5141	483.1218	ppt		99
8) trichlorofluoromethane	7.88	101	23228	492.9456	ppt		98
9) freon 113	8.68	101	27049	509.1885	ppt	#	23
10) 1,1-dichloroethene	8.41	96	8288	507.2126	ppt		94
11) methylene chloride	8.47	49	24663	538.4322	ppt		88
12) trans-1,2-dichloroethene	9.22	96	11137	532.8945	ppt		90
13) methyl t-butyl ether	9.52	73	27788	556.2046	ppt		78
14) 2-butanone	9.78	43	45268	467.3364	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	5444	498.5408	ppt		88
16) 1,1-dichloroethane	9.37	63	29562	537.3423	ppt		95
17) chloroform	10.23	83	31145	522.3016	ppt	#	18
18) 1,2-dichloroethane	10.82	62	22576	542.3457	ppt		98
20) 1,1,1-trichloroethane	11.03	97	27490	495.6485	ppt	#	18
21) carbon tetrachloride	11.52	117	32195	463.6597	ppt	#	1
22) benzene	11.40	78	29070	456.3540	ppt	#	48
23) Cyclohexane	11.65	84	4518	393.8589	ppt	#	100
24) trichloroethene	12.22	130	10928	499.6594	ppt		94
25) 1,2-dichloropropane	12.04	63	13626	504.8300	ppt		91
26) bromodichloromethane	12.18	83	29666	517.7100	ppt		99
27) Heptane	12.40	43	26001	607.2630	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	15739	566.8290	ppt	#	9
29) trans-1,3-dichloropropene	13.33	75	12878	585.2460	ppt	#	9
30) 1,1,2-trichloroethane	13.51	97	11692	523.9054	ppt		99
32) toluene	13.76	91	23140	510.3881	ppt	#	22
33) tetrachloroethene	14.78	164	9253	472.1169	ppt	#	1
34) dibromochloromethane	14.14	129	23863	478.8251	ppt	#	11
35) 1,2-dibromoethane	14.38	107	18909	616.5069	ppt	#	3
36) chlorobenzene	15.40	112	6587	460.4503	ppt	#	67
37) ethyl benzene	15.75	106	5491	534.9431	ppt		100
38) m,p-xylene	15.92	106	14544	1163.1040	ppt		72
39) o-xylene	16.39	106	6518	572.7290	ppt		88
40) bromoform	16.03	173	12487	548.8062	ppt		100
41) 1,1,2,2-tetrachloroethane	16.36	83	20814	628.6870	ppt	#	18

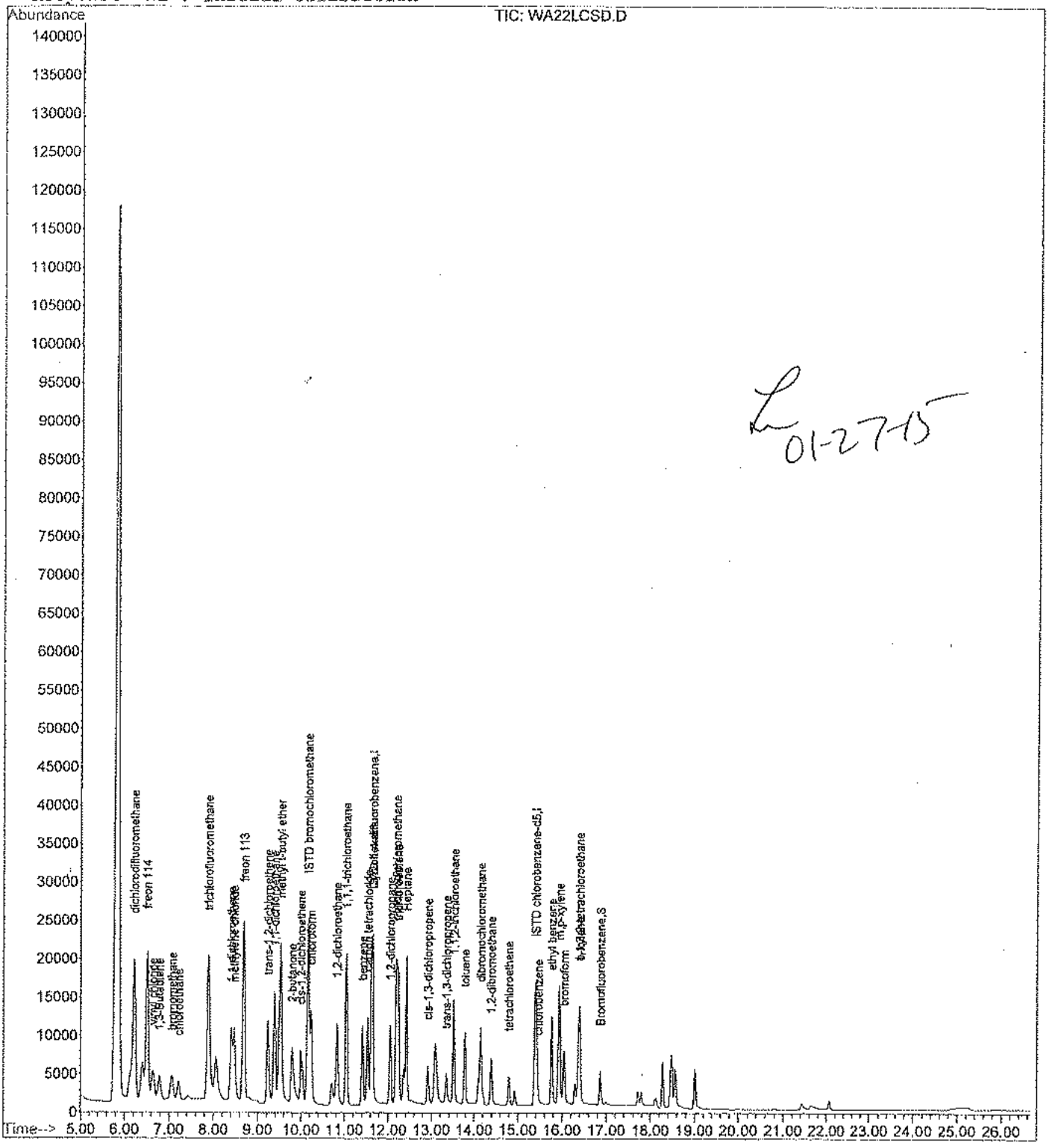
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA22LCSD.D
Acq Time : 01/27/2015 14:08 Operator: TJM
Sample : QD- Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Jan 27 14:43 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-27-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA22LCSD.D
Acq Time : 01/27/2015 14:08 Operator: TJM
Sample : QD- Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Jan 27 14:43 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.15	128	17166	500.0000 ppt		95.45
19) ISTD 1,4-difluorobenzene	11.65	114	21459	500.0000 ppt		66.77
31) ISTD chlorobenzene-d5	15.39	117	33528	500.0000 ppt		83.81
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.86	75	11118	541.8188 ppt		108.36%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.21	85	47063	487.0286 ppt		99
3) freon 114	6.50	85	31970	473.3887 ppt		98
4) vinyl chloride	6.63	62	11250	476.0415 ppt		97
5) 1,3-Butadiene	6.78	54	7211	476.0355 ppt	#	1
6) bromomethane	7.07	94	7661	454.8399 ppt		99
7) chloroethane	7.21	64	5465	470.8767 ppt		99
8) trichlorofluoromethane	7.89	101	24366	474.1104 ppt		98
9) freon 113	8.69	101	28289	488.2621 ppt	#	23
10) 1,1-dichloroethene	8.41	96	8571	480.9277 ppt		98
11) methylene chloride	8.47	49	24798	496.3749 ppt		89
12) trans-1,2-dichloroethene	9.23	96	10841	475.6094 ppt		93
13) methyl t-butyl ether	9.53	73	28202	517.5654 ppt		88
14) 2-butanone	9.79	43	43975	416.2480 ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	4787	401.9334 ppt		97
16) 1,1-dichloroethane	9.38	63	29859	497.6231 ppt		95
17) chloroform	10.23	83	32307	496.7498 ppt	#	18
18) 1,2-dichloroethane	10.82	62	22753	501.1594 ppt		98
20) 1,1,1-trichloroethane	11.04	97	28454	643.1817 ppt	#	18
21) carbon tetrachloride	11.53	117	34334	619.9070 ppt	#	1
22) benzene	11.41	78	30045	591.3169 ppt	#	48
23) Cyclohexane	11.65	84	6840	747.5527 ppt	#	100
24) trichloroethene	12.23	130	11377	652.1574 ppt		94
25) 1,2-dichloropropane	12.05	63	14260	662.3499 ppt		90
26) bromodichloromethane	12.19	83	30248	661.7828 ppt		99
27) Heptane	12.42	43	26359	771.8039 ppt	#	19
28) cis-1,3-dichloropropene	12.91	75	15822	714.3772 ppt	#	9
29) trans-1,3-dichloropropene	13.34	75	12765	727.2808 ppt	#	9
30) 1,1,2-trichloroethane	13.52	97	12234	687.2643 ppt		97
32) toluene	13.78	91	23050	537.4563 ppt	#	22
33) tetrachloroethene	14.79	164	9723	524.4479 ppt	#	1
34) dibromochloromethane	14.15	129	24733	524.6428 ppt	#	11
35) 1,2-dibromoethane	14.39	107	16254	560.2279 ppt	#	3
36) chlorobenzene	15.45	112	5572	411.7573 ppt		85
37) ethyl benzene	15.76	106	5583	574.9881 ppt		97
38) m,p-xylene	15.93	106	14330	1211.4792 ppt		72
39) o-xylene	16.40	106	6463	600.3494 ppt		94
40) bromoform	16.04	173	12600	585.4186 ppt		100
41) 1,1,2,2-tetrachloroethane	16.38	83	20876	666.5938 ppt	#	18

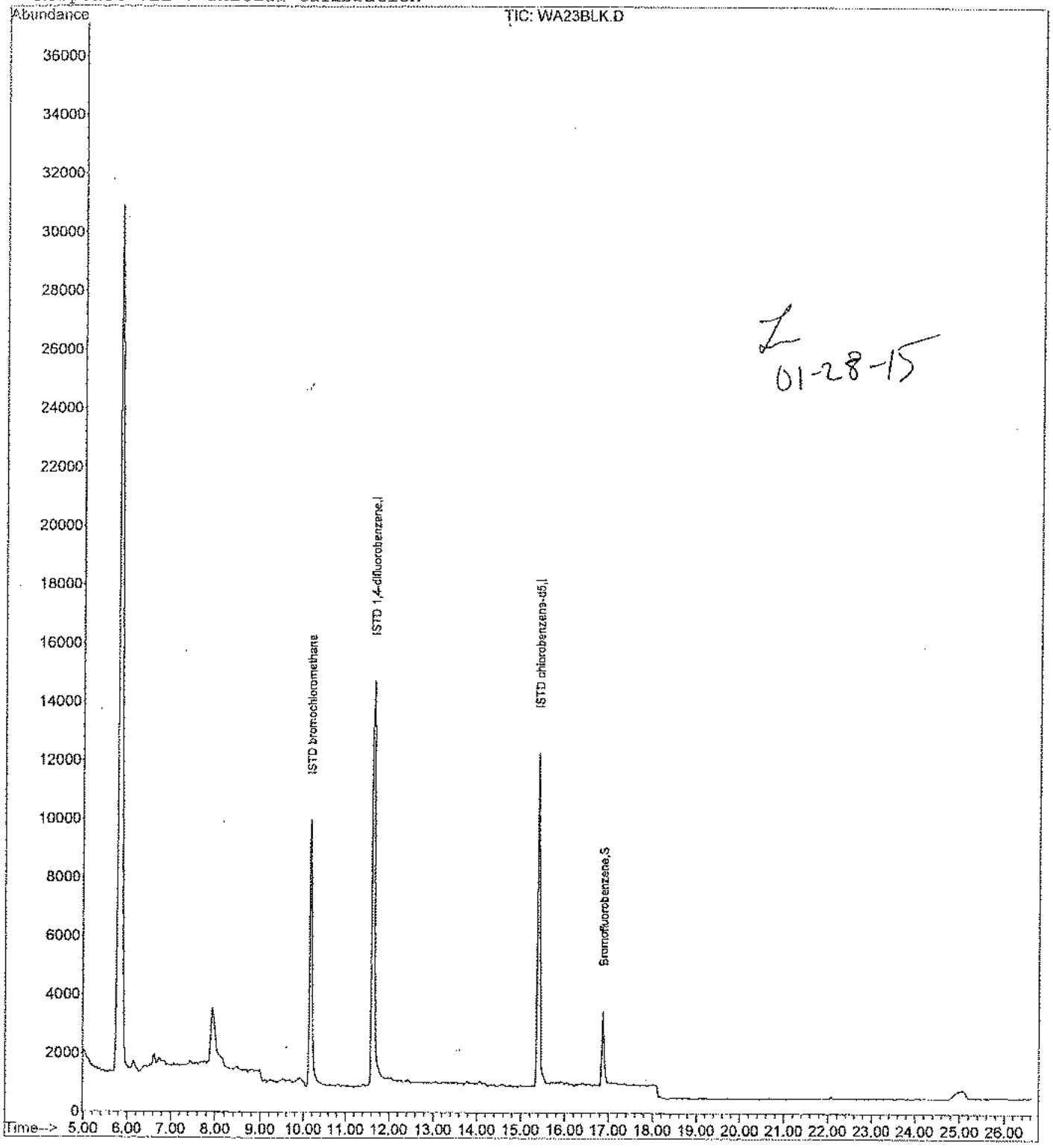
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA23BLK.D
Acq Time : 01/27/2015 14:46 Operator: TJM
Sample : BL- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Jan 28 12:39 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



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01-28-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA23BLK.D
Acq Time : 01/27/2015 14:46 Operator: TJM
Sample : BL- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Jan 28 12:39 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.16	128	16076	500.0000 ppt	89.39
19) ISTD 1,4-difluorobenzene	11.65	114	23267	500.0000 ppt	72.40
31) ISTD chlorobenzene-d5	15.39	117	28834	500.0000 ppt	72.08
System Monitoring Compounds					%Recovery
42) Bromofluorobenzene	16.87	75	8218	465.6894 ppt	93.14%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) freon 114	0.00	85		Not Detected	
4) vinyl chloride	0.00	62		Not Detected	
5) 1,3-Butadiene	0.00	54		Not Detected	
6) bromomethane	0.00	94		Not Detected	
7) chloroethane	0.00	64		Not Detected	
8) trichlorofluoromethane	0.00	101		Not Detected	
9) freon 113	0.00	101		Not Detected	
10) 1,1-dichloroethene	0.00	96		Not Detected	
11) methylene chloride	0.00	49		Not Detected	
12) trans-1,2-dichloroethene	0.00	96		Not Detected	
13) methyl t-butyl ether	0.00	73		Not Detected	
14) 2-butanone	0.00	43		Not Detected	
15) cis-1,2-dichloroethene	0.00	96		Not Detected	
16) 1,1-dichloroethane	0.00	63		Not Detected	
17) chloroform	0.00	83		Not Detected	
18) 1,2-dichloroethane	0.00	62		Not Detected	
20) 1,1,1-trichloroethane	0.00	97		Not Detected	
21) carbon tetrachloride	0.00	117		Not Detected	
22) benzene	0.00	78		Not Detected	
23) Cyclohexane	0.00	84		Not Detected	
24) trichloroethene	0.00	130		Not Detected	
25) 1,2-dichloropropane	0.00	63		Not Detected	
26) bromodichloromethane	0.00	83		Not Detected	
27) Heptane	0.00	43		Not Detected	
28) cis-1,3-dichloropropene	0.00	75		Not Detected	
29) trans-1,3-dichloropropene	0.00	75		Not Detected	
30) 1,1,2-trichloroethane	0.00	97		Not Detected	
32) toluene	0.00	91		Not Detected	
33) tetrachloroethene	0.00	164		Not Detected	
34) dibromochloromethane	0.00	129		Not Detected	
35) 1,2-dibromoethane	0.00	107		Not Detected	
36) chlorobenzene	0.00	112		Not Detected	
37) ethyl benzene	0.00	106		Not Detected	
38) m,p-xylene	0.00	106		Not Detected	
39) o-xylene	0.00	106		Not Detected	
40) bromoform	0.00	173		Not Detected	
41) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	

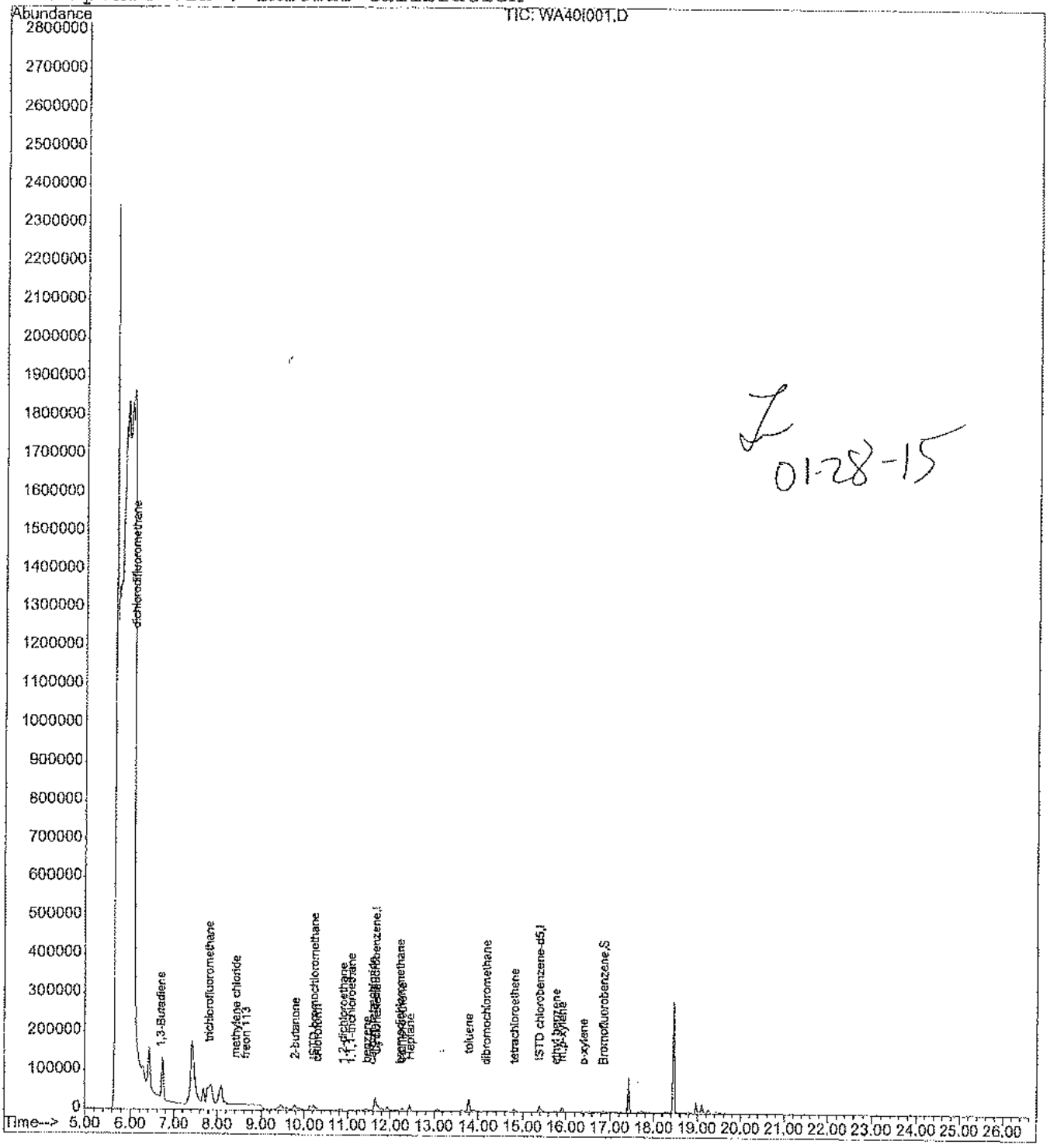
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA40I001.D
Acq Time : 01/28/2015 01:24 Operator: TJM
Sample : 1502226001 Inst : 5972-W
Misc : A-0017H-TO-001-BAS Multiplr: 1.00

Quant Time: Jan 28 8:18 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



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Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA40I001.D
Acq Time : 01/28/2015 01:24 Operator: TJM
Sample : 1502226001 Inst : 5972-W
Misc : A-0017H-TO-001-BAS Multiplr: 1.00

Quant Time: Jan 28 8:18 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.21	128	16128	500.0000 ppt		89.68
19) ISTD 1,4-difluorobenzene	11.65	114	47156	500.0000 ppt		146.73
31) ISTD chlorobenzene-d5	15.38	117	32349	500.0000 ppt		80.86
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.85	75	10945	552.8279 ppt		110.57%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.06	85	11312	124.5956 ppt	#	95
3) freon 114	0.00	85		Not Detected		
4) vinyl chloride	0.00	62		Not Detected		
5) 1,3-Butadiene	6.68	54	1038	72.9340 ppt	#	1
6) bromomethane	0.00	94		Not Detected		
7) chloroethane	0.00	64		Not Detected		
8) trichlorofluoromethane	7.81	101	7838	162.3264 ppt		98
9) freon 113	8.64	101	2505	46.0184 ppt	#	23
10) 1,1-dichloroethene	0.00	96		Not Detected		
11) methylene chloride	8.42	49	8483	180.7304 ppt	#	81
12) trans-1,2-dichloroethene	0.00	96		Not Detected		
13) methyl t-butyl ether	0.00	73		Not Detected		
14) 2-butanone	9.78	43	70183	707.0772 ppt	#	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected		
16) 1,1-dichloroethane	0.00	63		Not Detected		
17) chloroform	10.29	83	22486	367.9950 ppt	#	18
18) 1,2-dichloroethane	10.87	62	1289	30.2189 ppt	#	42
20) 1,1,1-trichloroethane	11.09	97	1085	11.1607 ppt	#	18
21) carbon tetrachloride	11.56	117	5401	44.3761 ppt	#	1
22) benzene	11.44	78	19532	174.9312 ppt	#	48
23) Cyclohexane	11.68	84	6993	347.7937 ppt	#	100
24) trichloroethene	12.26	130	816	21.2857 ppt		88
25) 1,2-dichloropropane	0.00	63		Not Detected		
26) bromodichloromethane	12.21	83	3281	32.6661 ppt		84
27) Heptane	12.44	43	19295	257.0960 ppt	#	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected		
29) trans-1,3-dichloropropene	0.00	75		Not Detected		
30) 1,1,2-trichloroethane	0.00	97		Not Detected		
32) toluene	13.78	91	61339	1482.3670 ppt	#	22
33) tetrachloroethene	14.80	164	17974	1004.8323 ppt	#	1
34) dibromochloromethane	14.16	129	1083	23.8102 ppt	#	11
35) 1,2-dibromoethane	0.00	107		Not Detected		
36) chlorobenzene	0.00	112		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

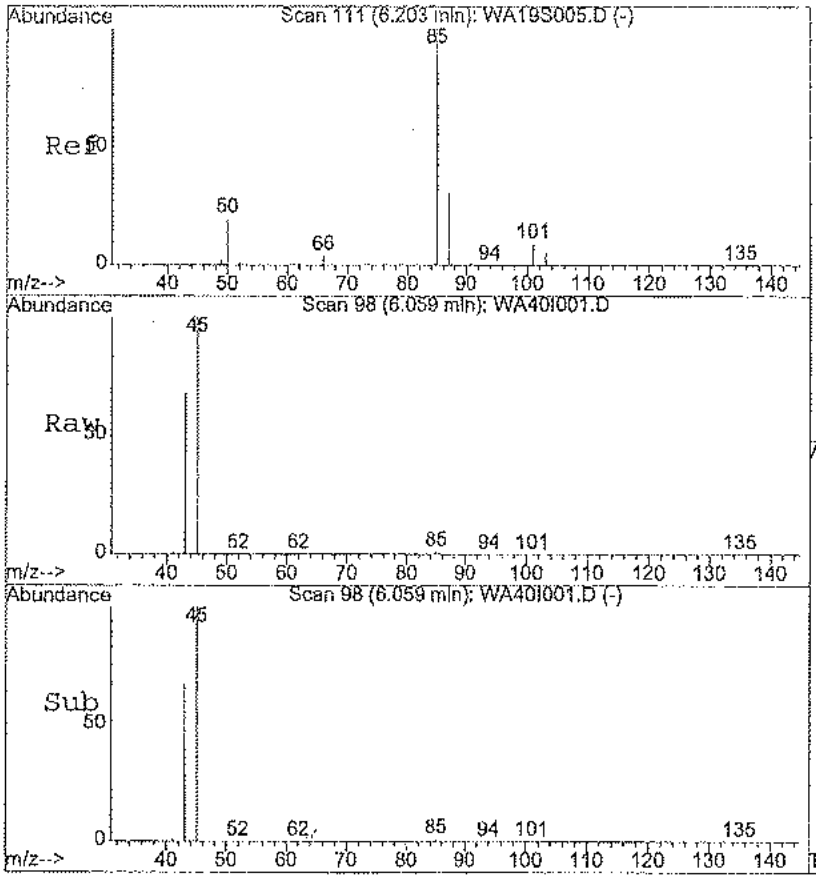
Data File : J:\W\2015\JAN15W\27JAN15W\WA40I001.D
Acq Time : 01/28/2015 01:24 Operator: TJM
Sample : 1502226001 Inst : 5972-W
Misc : A-0017H-TO-001-BAS Multiplr: 1.00

Quant Time: Jan 28 8:18 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	ethyl benzene	15.76	106	1538	164.1702	ppt	92
38)	m,p-xylene	15.92	106	9004	788.9547	ppt	80
39)	o-xylene	16.39	106	2422	233.1798	ppt	91
40)	bromoform	0.00	173		Not Detected		
41)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		

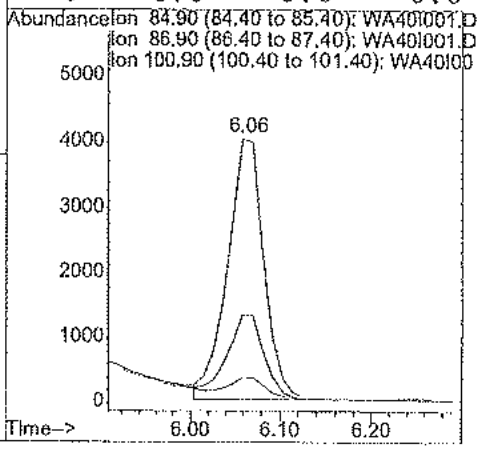
(#) = qualifier out of range (m) = manual integration

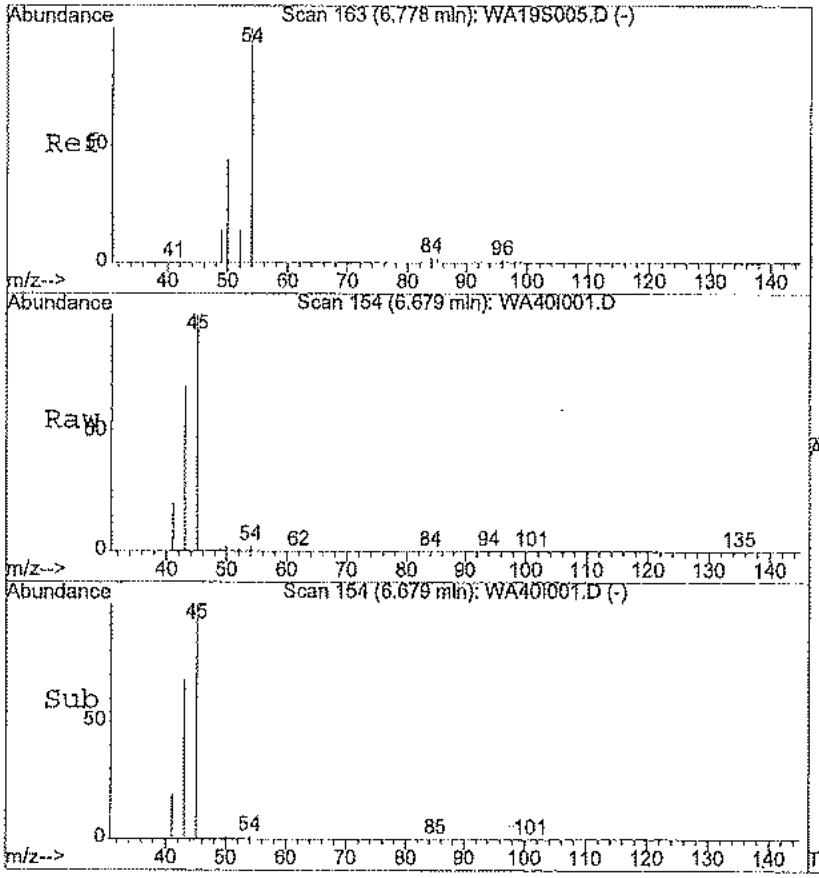


#2
dichlorodifluoromethane
Concen: 124.60 ppt
RT: 6.06 min Scan# 98
Delta R.T. -0.13 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:84.9 Resp: 11312

Ion	Ratio	Lower	Upper
85	100		
87	34.5	25.4	38.0
101	10.3	6.7	10.1#
0	0.0	0.0	0.0

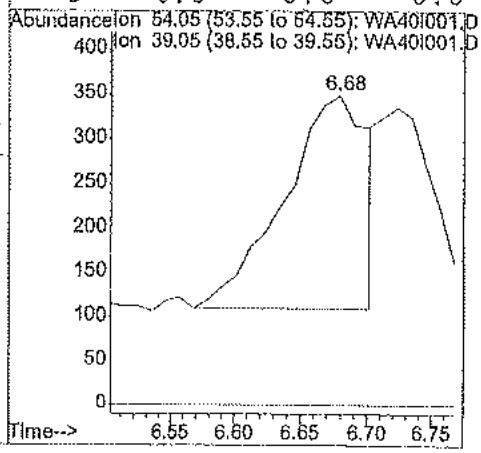


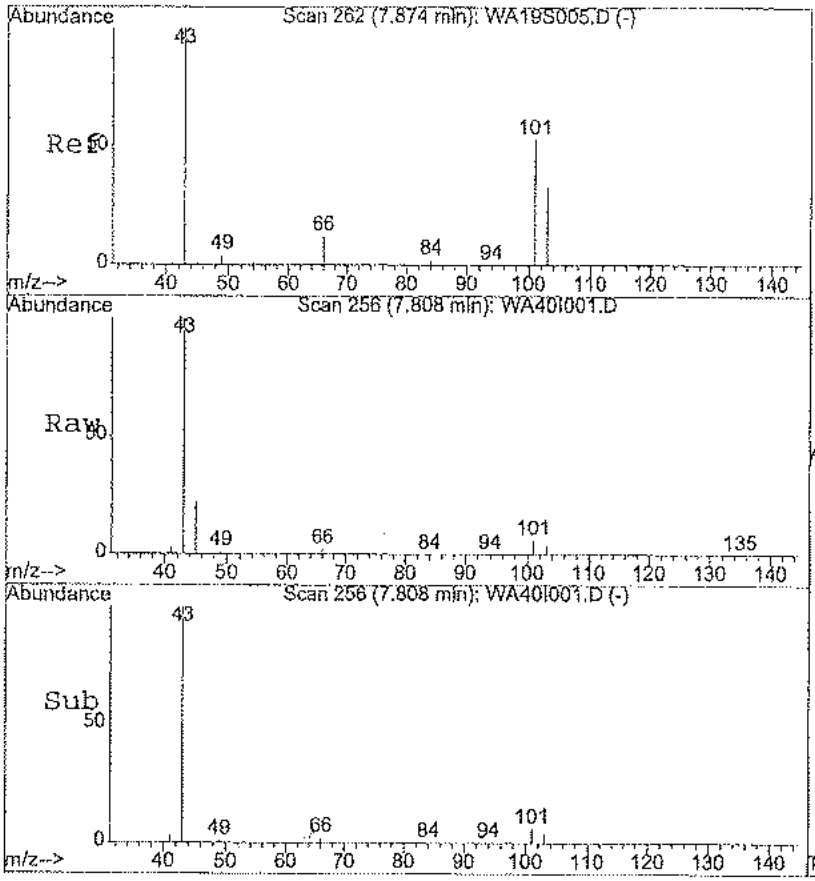


#5
1,3-Butadiene
Concen: 72.93 ppt
RT: 6.68 min Scan# 154
Delta R.T. -0.09 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:54.05 Resp: 1038

Ion	Ratio	Lower	Upper
54	100		
39	0.0	137.4	206.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

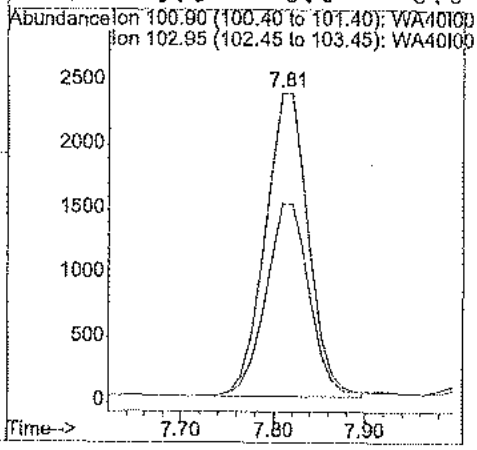


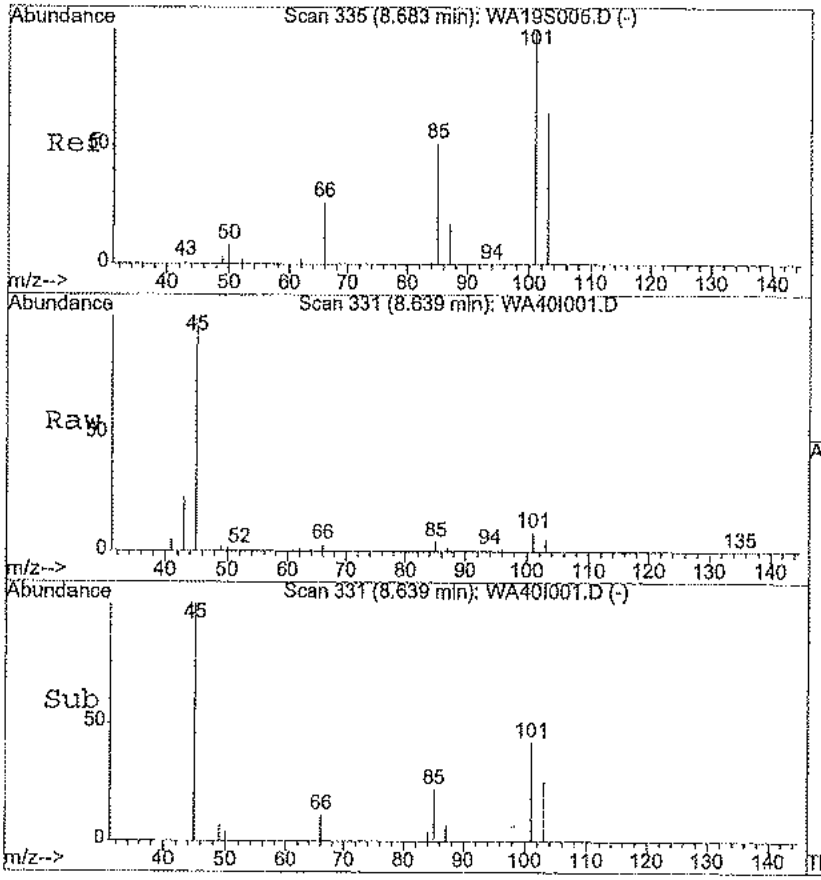


#8
trichlorofluoromethane
Concen: 162.33 ppt
RT: 7.81 min Scan# 256
Delta R.T. -0.05 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:100.9 Resp: 7838

Ion	Ratio	Lower	Upper
101	100		
103	64.7	52.7	79.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

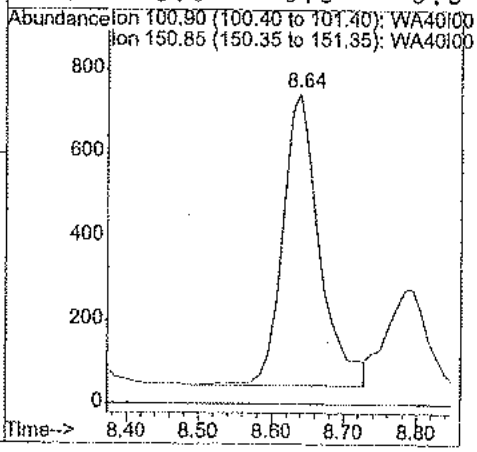


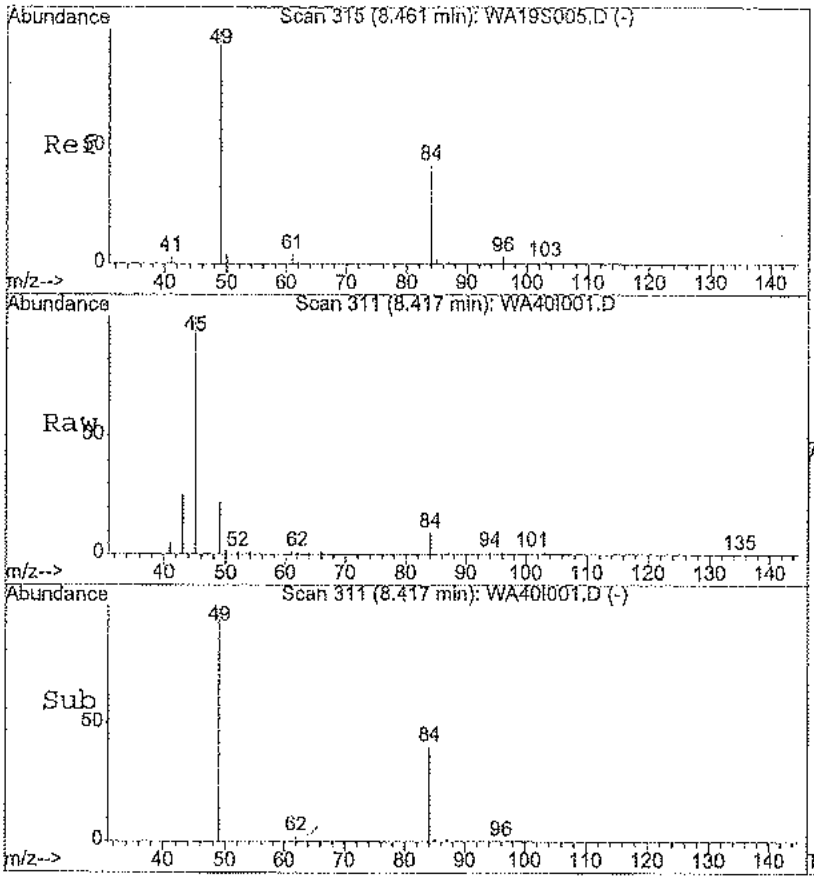


#9
freon 113
Concen: 46.02 ppt
RT: 8.64 min Scan# 331
Delta R.T. -0.03 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:100.9 Resp: 2505

Ion	Ratio	Lower	Upper
101	100		
151	0.0	45.5	68.3#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

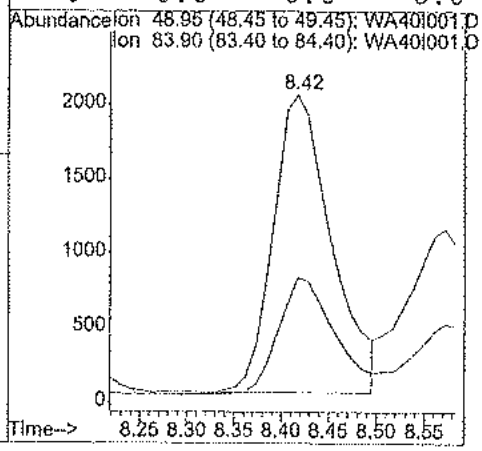


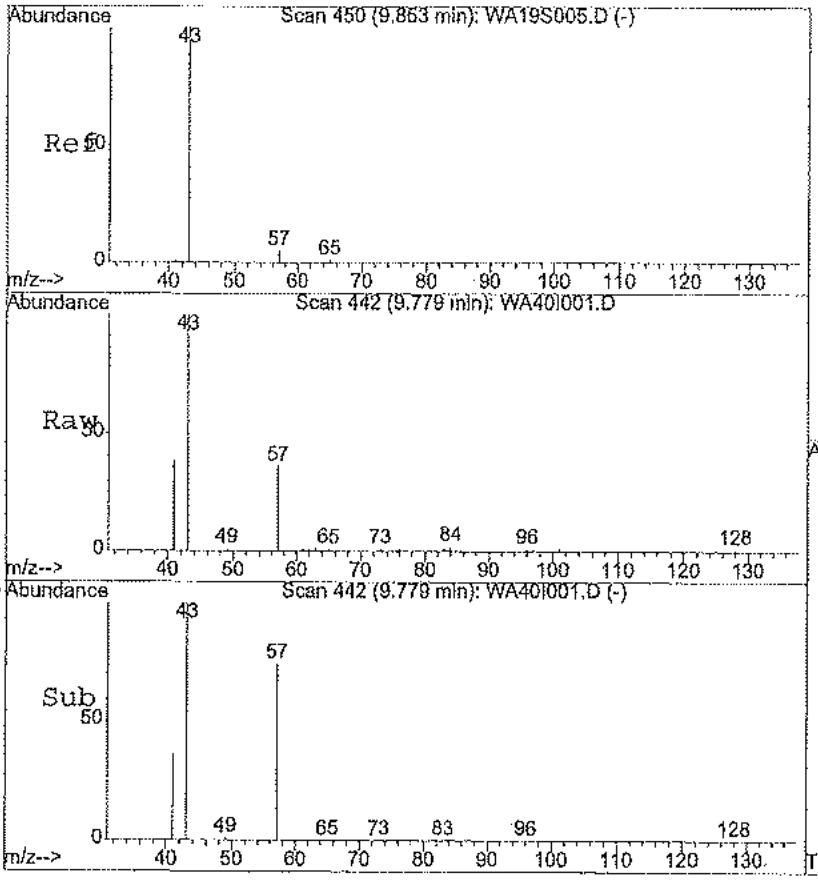


#11
methylene chloride
Concen: 180.73 ppt
RT: 8.42 min Scan# 311
Delta R.T. -0.03 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:48.95 Resp: 8483

Ion	Ratio	Lower	Upper
49	100		
84	38.7	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

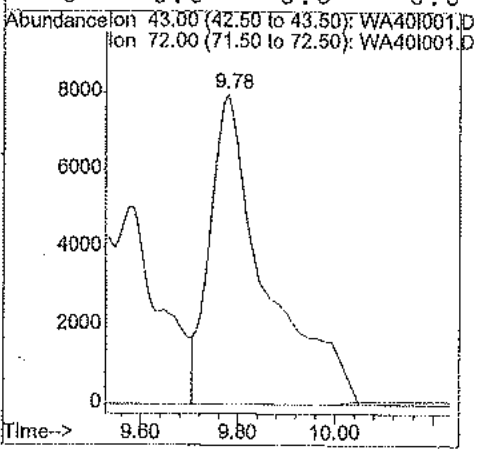


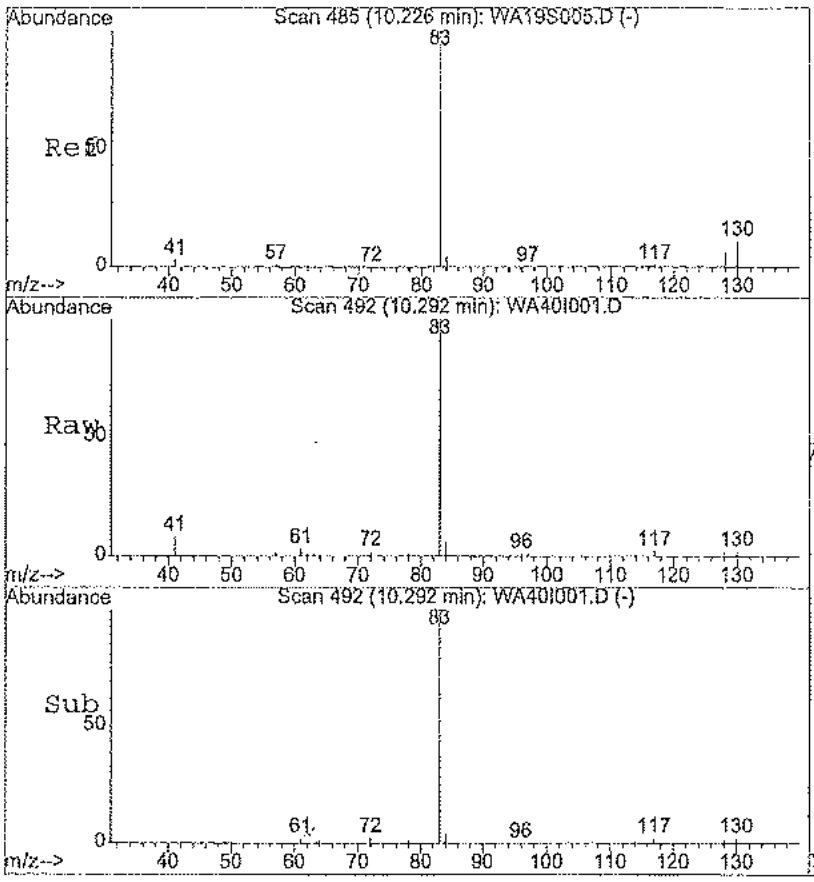


#14
2-butanone
Concen: 707.08 ppt
RT: 9.78 min Scan# 442
Delta R.T. -0.06 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:43 Resp: 70183

Ion	Ratio	Lower	Upper
43	100		
72	0.0	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

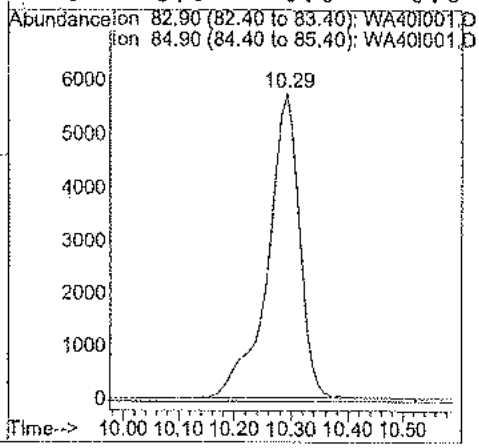


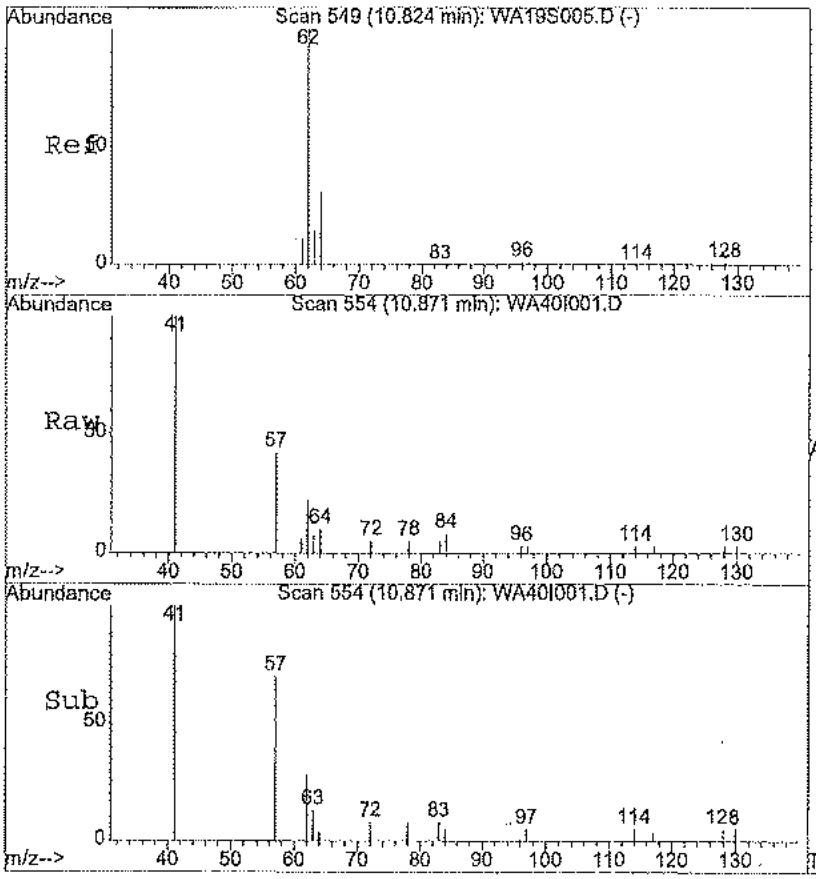


#17
chloroform
Concen: 367.99 ppt
RT: 10.29 min Scan# 492
Delta R.T. 0.08 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:82.9 Resp: 22486

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.8	77.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

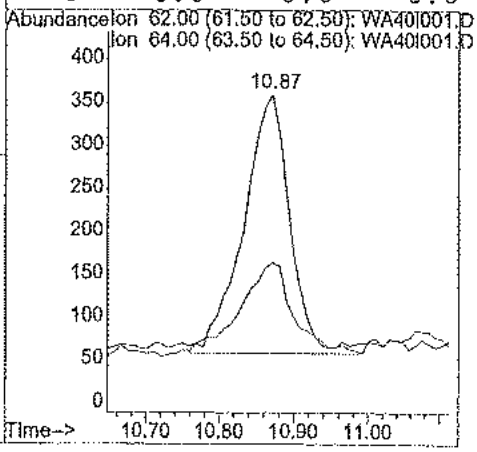


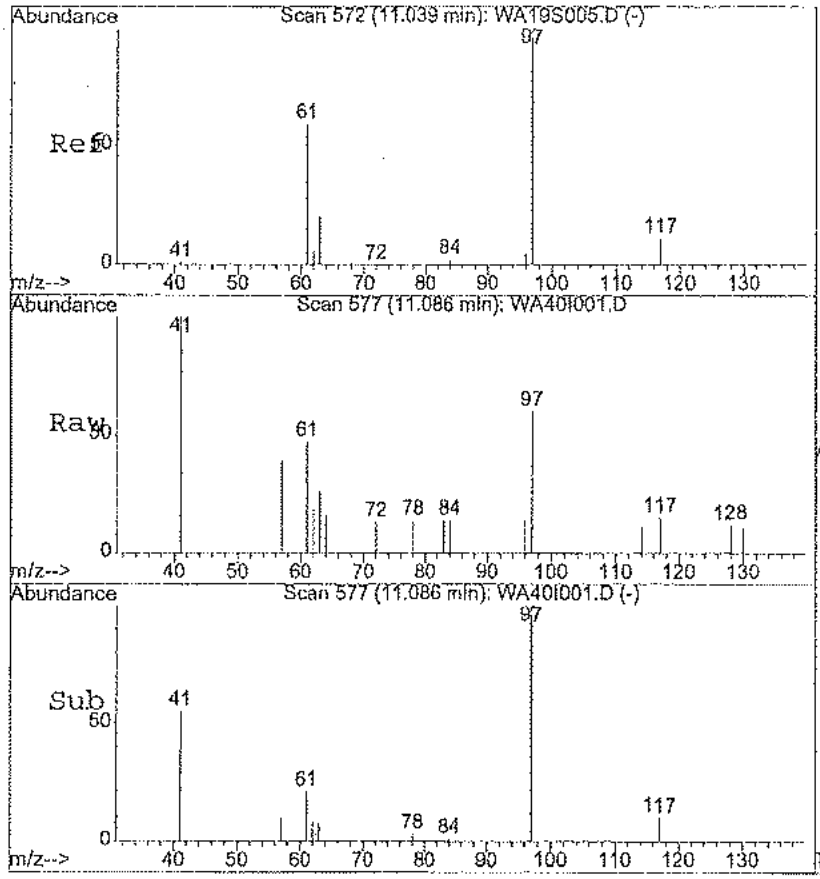


#18
1,2-dichloroethane
Concen: 30.22 ppt
RT: 10.87 min Scan# 554
Delta R.T. 0.06 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:62 Resp: 1289

Ion	Ratio	Lower	Upper
62	100		
64	0.0	26.2	39.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

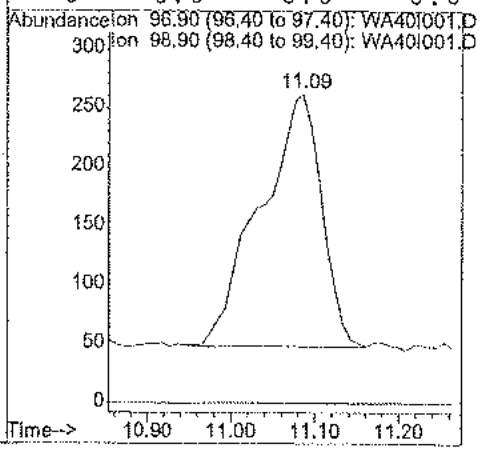


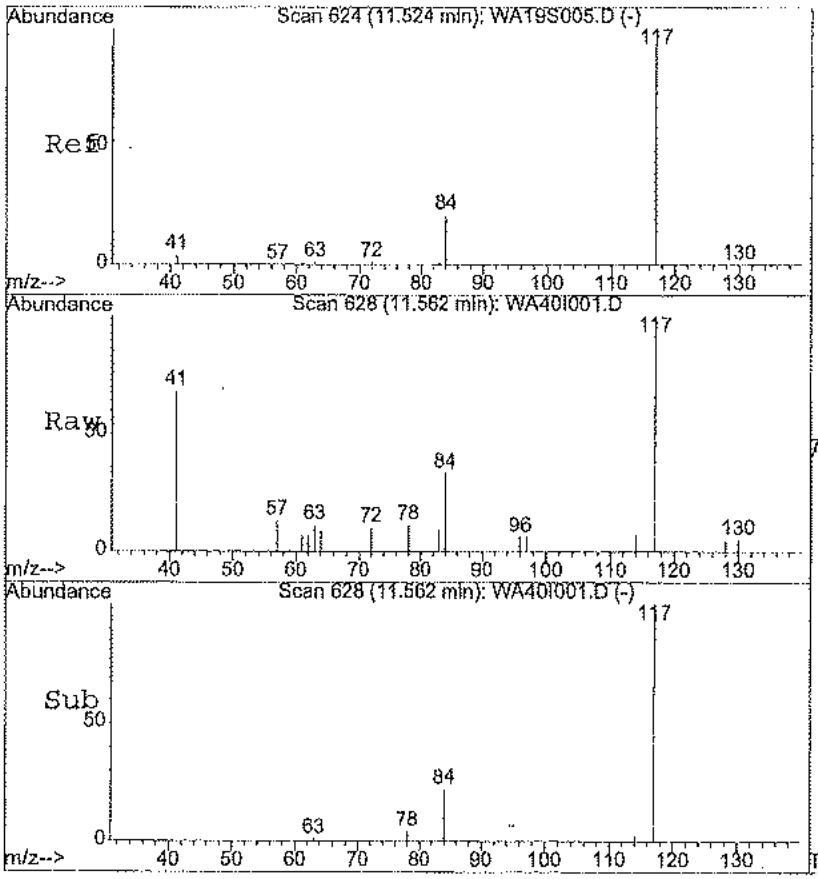


#20
1,1,1-trichloroethane
Concen: 11.16 ppt
RT: 11.09 min Scan# 577
Delta R.T. 0.07 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:96.9 Resp: 1085

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.2	76.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

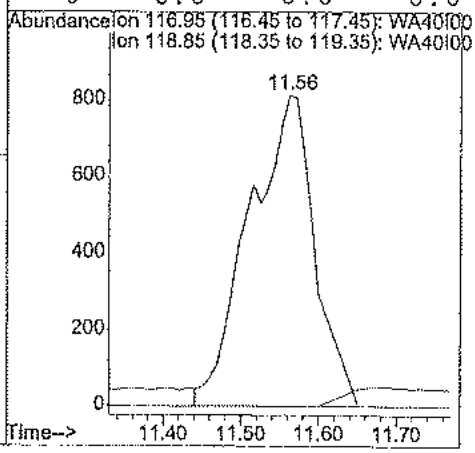


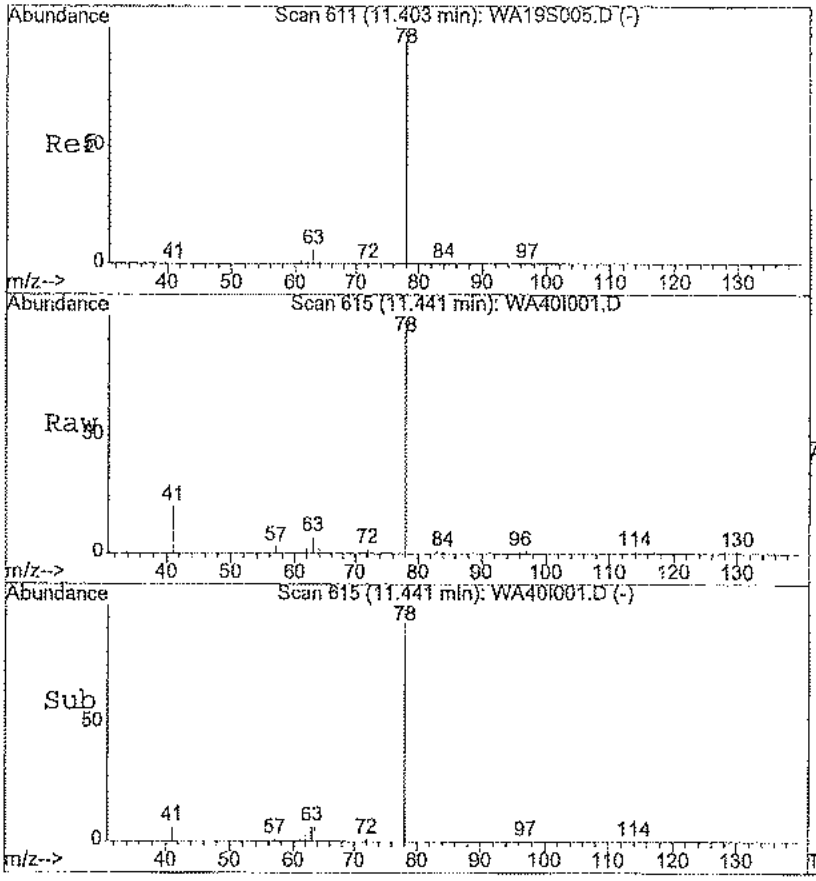


#21
carbon tetrachloride
Concen: 44.38 ppt
RT: 11.56 min Scan# 628
Delta R.T. 0.05 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:116.95 Resp: 5401

Ion	Ratio	Lower	Upper
117	100		
119	0.0	77.5	116.3#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

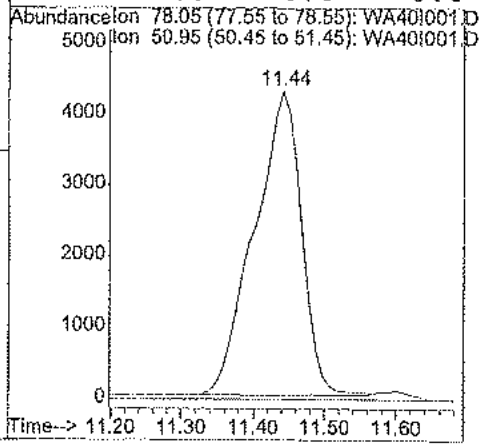


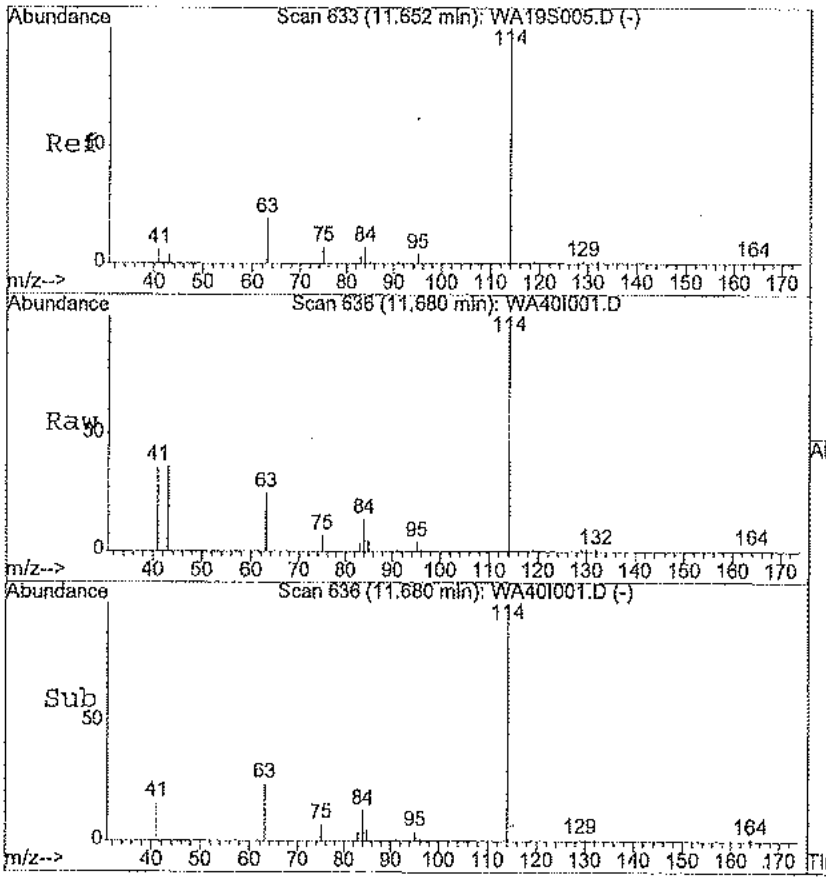


#22
benzene
Concen: 174.93 ppt
RT: 11.44 min Scan# 615
Delta R.T. 0.05 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:78.05 Resp: 19532

Ion	Ratio	Lower	Upper
78	100		
51	0.0	21.4	32.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

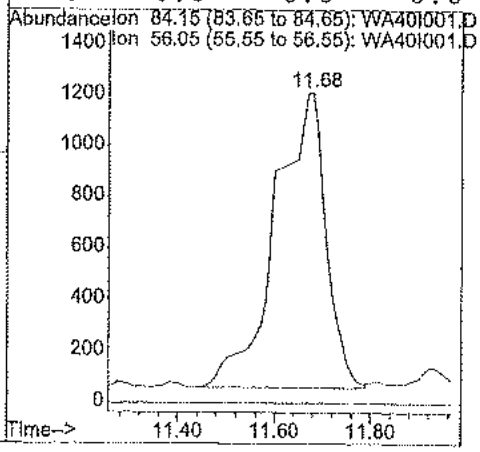


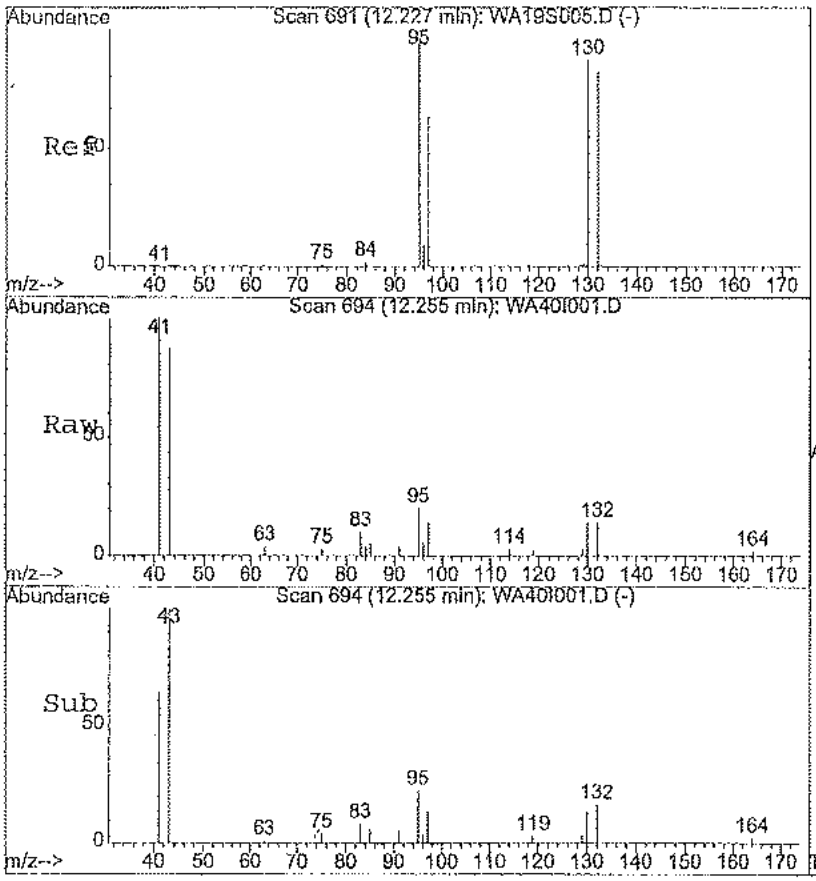


#23
Cyclohexane
Concen: 347.79 ppt
RT: 11.68 min Scan# 636
Delta R.T. 0.08 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:84.15 Resp: 6993

Ion	Ratio	Lower	Upper
84	100		
56	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

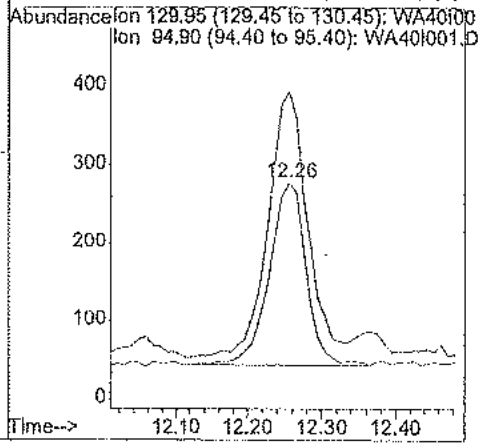


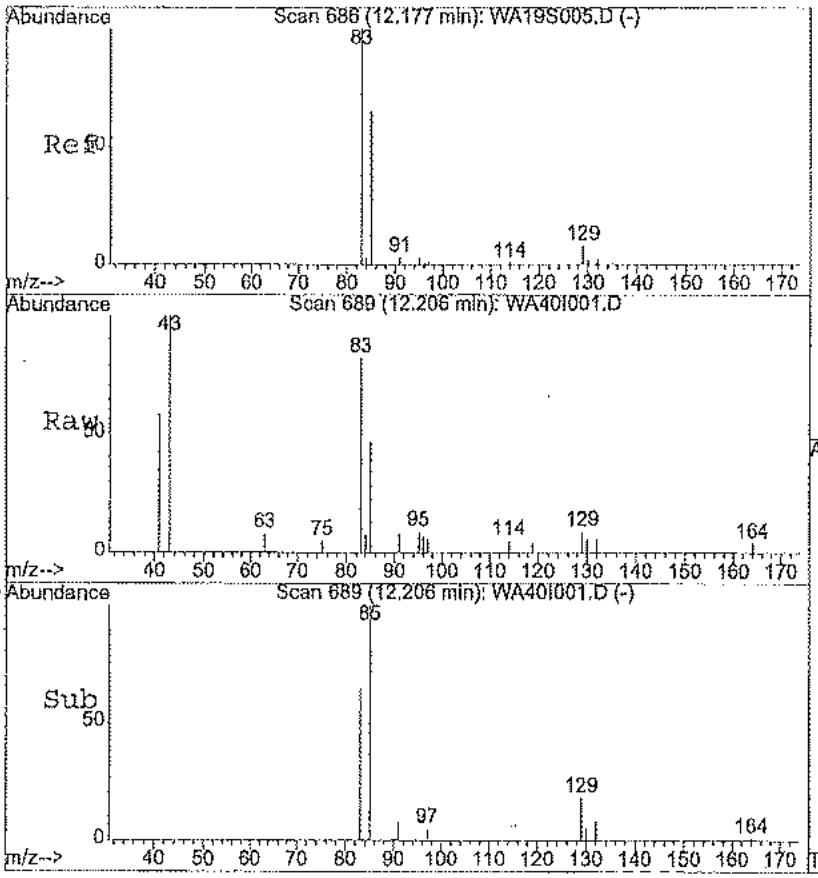


#24
trichloroethene
Concen: 21.29 ppt
RT: 12.26 min Scan# 694
Delta R.T. 0.04 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:129.95 Resp: 816

Ion	Ratio	Lower	Upper
130	100		
95	145.5	104.8	157.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

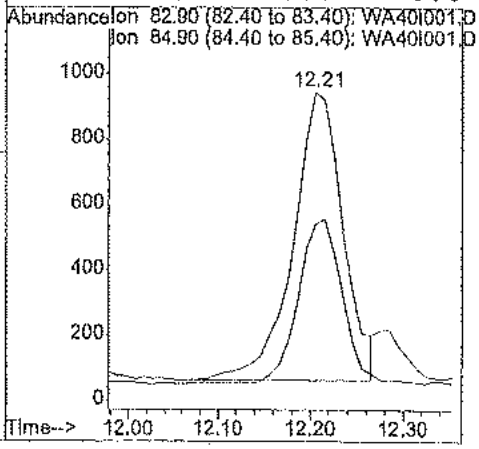


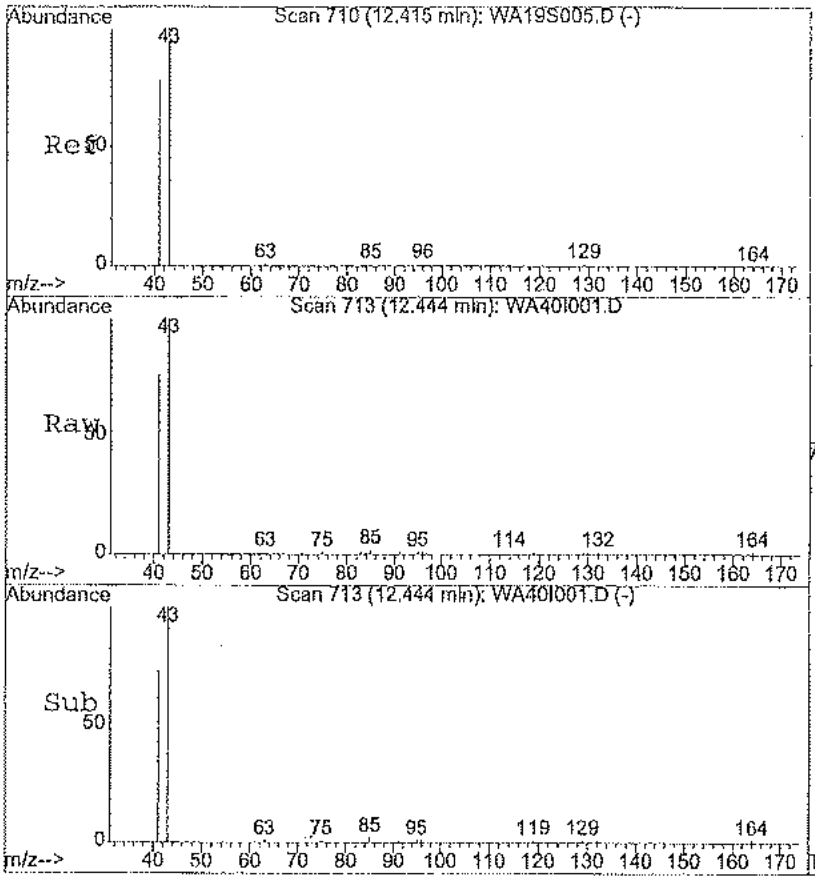


#26
bromodichloromethane
Concen: 32.67 ppt
RT: 12.21 min Scan# 689
Delta R.T. 0.04 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:82.9 Resp: 3281

Ion	Ratio	Lower	Upper
83	100		
85	50.5	50.3	75.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

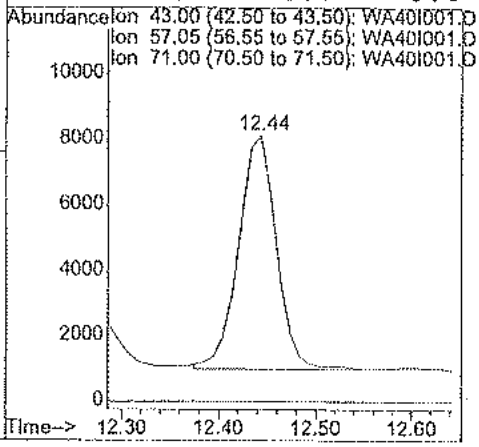


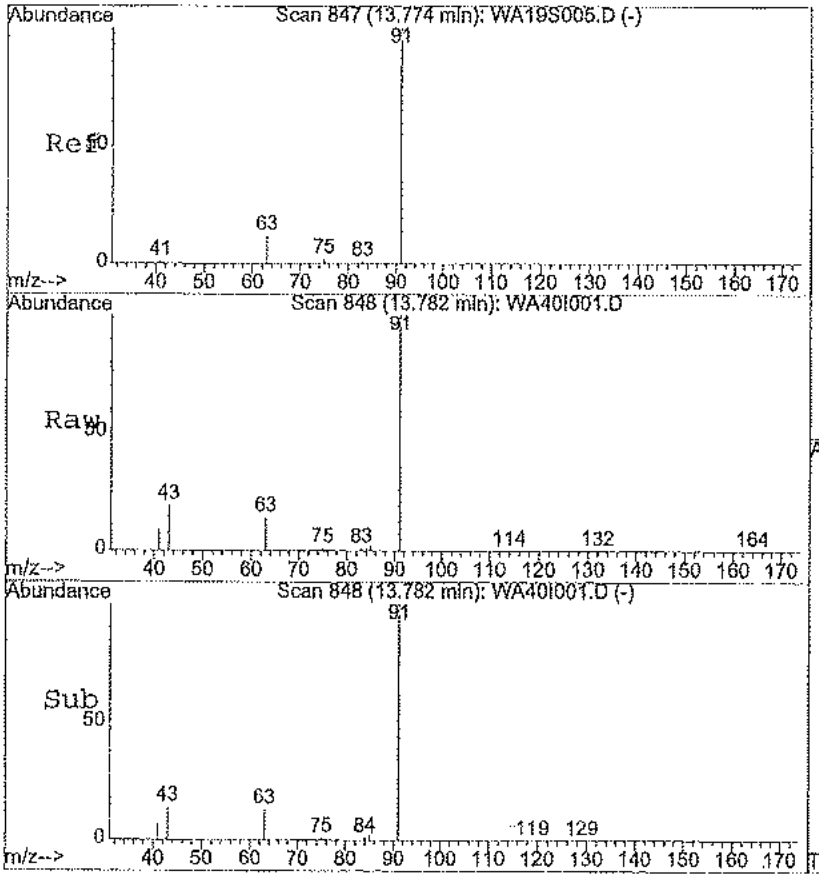


#27
Heptane
Concen: 257.10 ppt
RT: 12.44 min Scan# 713
Delta R.T. 0.04 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:43 Resp: 19295

Ion	Ratio	Lower	Upper
43	100		
57	0.0	64.0	96.0#
71	0.0	16.0	24.0#
0	0.0	0.0	0.0

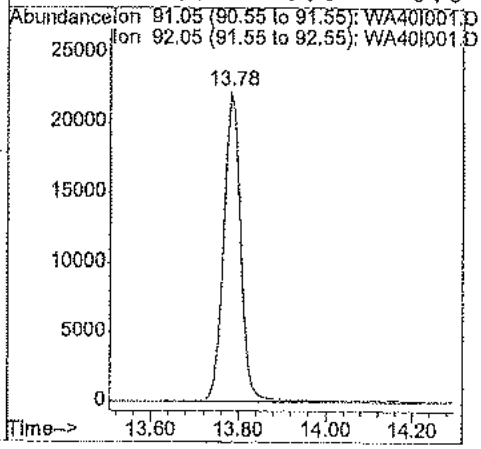


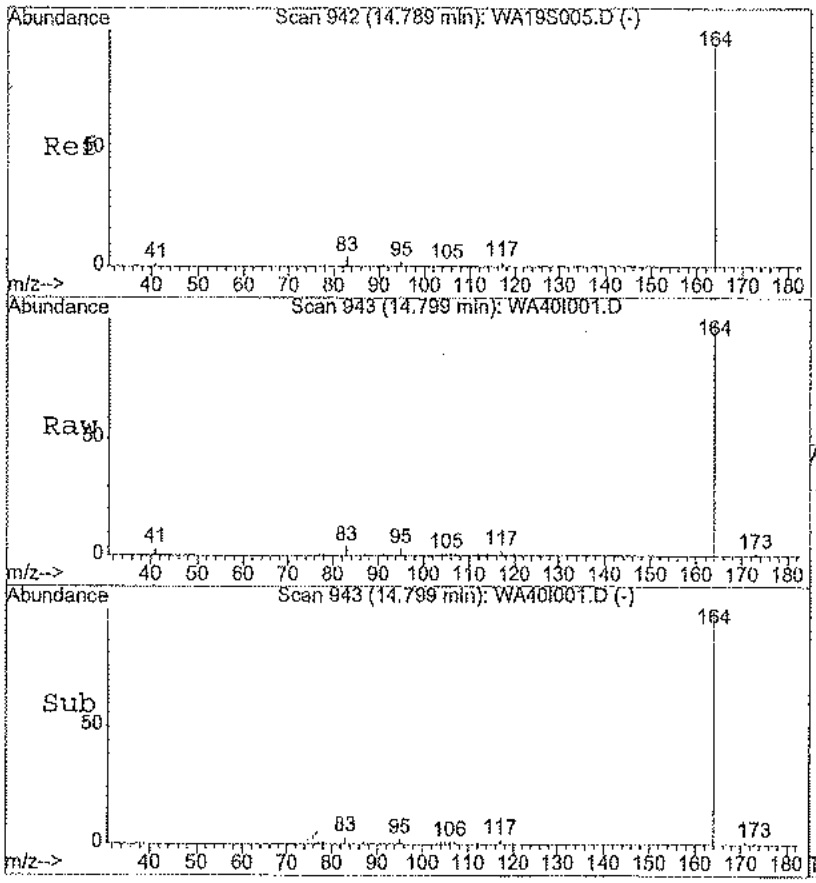


#32
toluene
Concen: 1482.37 ppt
RT: 13.78 min Scan# 848
Delta R.T. 0.02 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:91.05 Resp: 61339

Ion	Ratio	Lower	Upper
91	100		
92	0.0	46.3	69.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

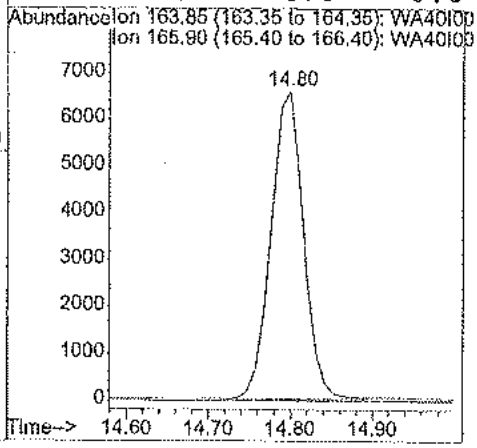


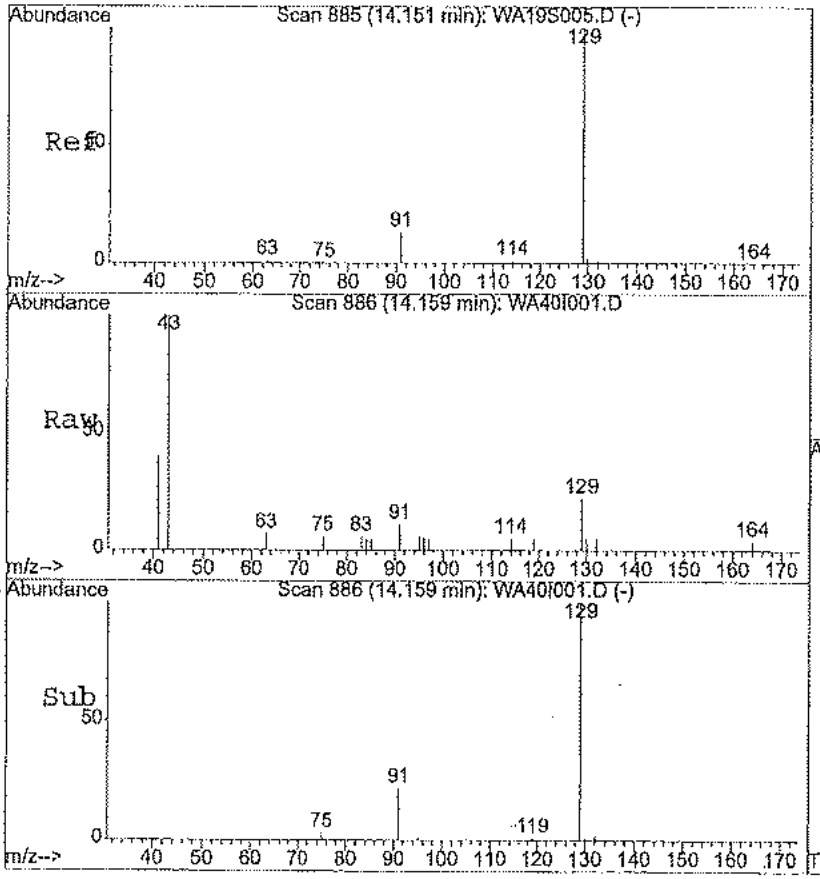


#33
tetrachloroethene
Concen: 1004.83 ppt
RT: 14.80 min Scan# 943
Delta R.T. 0.02 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:163.85 Resp: 17974

Ion	Ratio	Lower	Upper
164	100		
166	0.0	102.6	154.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

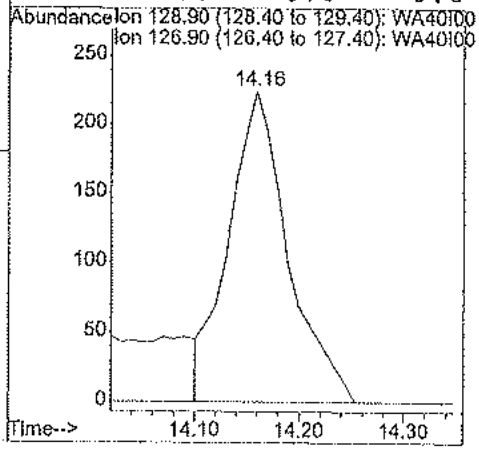


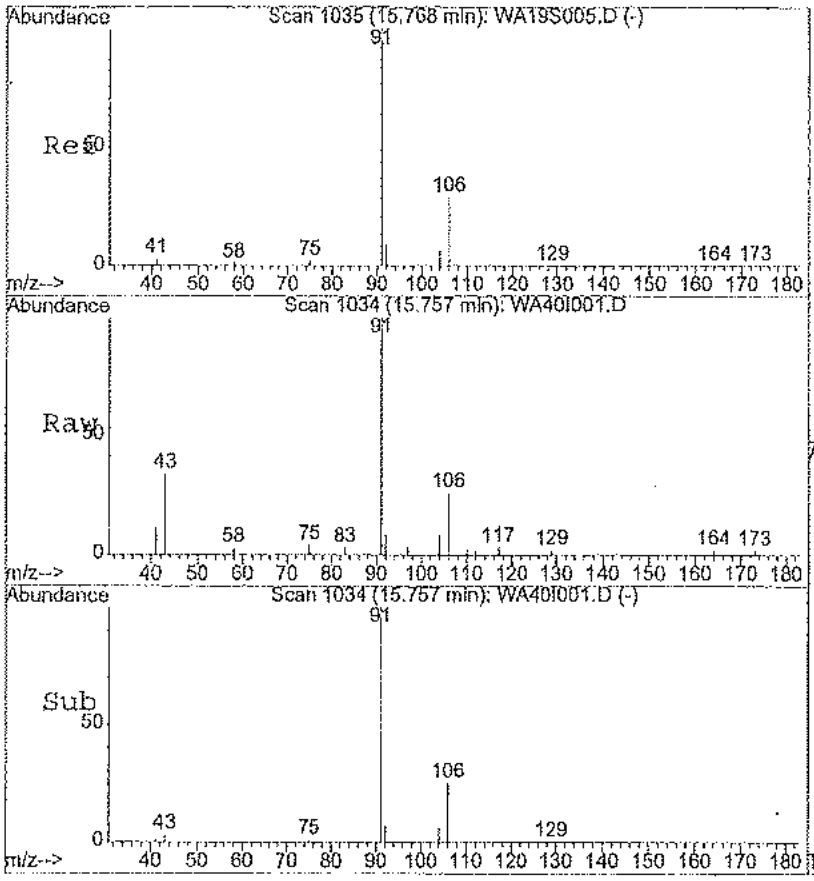


#34
dibromochloromethane
Concen: 23.81 ppt
RT: 14.16 min Scan# 886
Delta R.T. 0.02 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:128.9 Resp: 1083

Ion	Ratio	Lower	Upper
129	100		
127	0.0	62.0	93.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

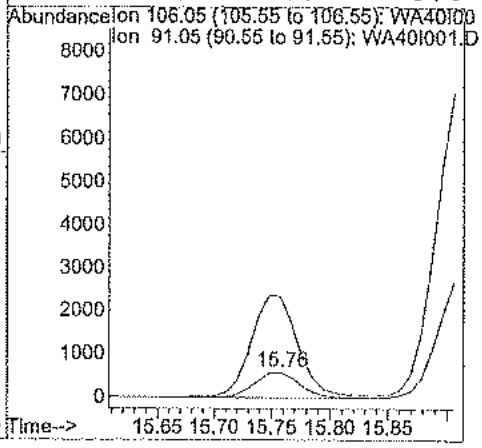


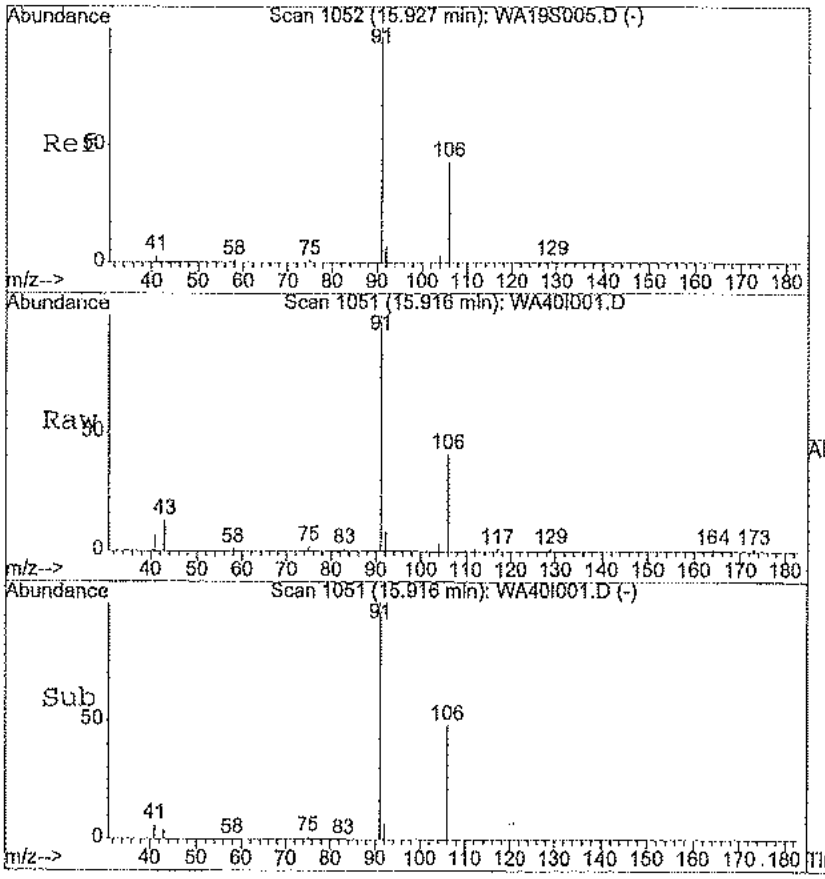


#37
ethyl benzene
Concen: 164.17 ppt
RT: 15.76 min Scan# 1034
Delta R.T. 0.01 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:106.05 Resp: 1538

Ion	Ratio	Lower	Upper
106	100		
91	420.0	321.4	482.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

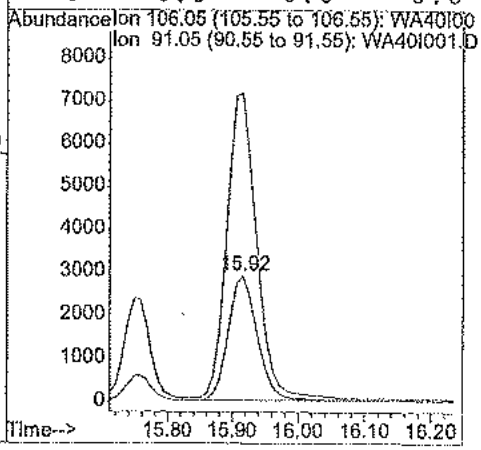


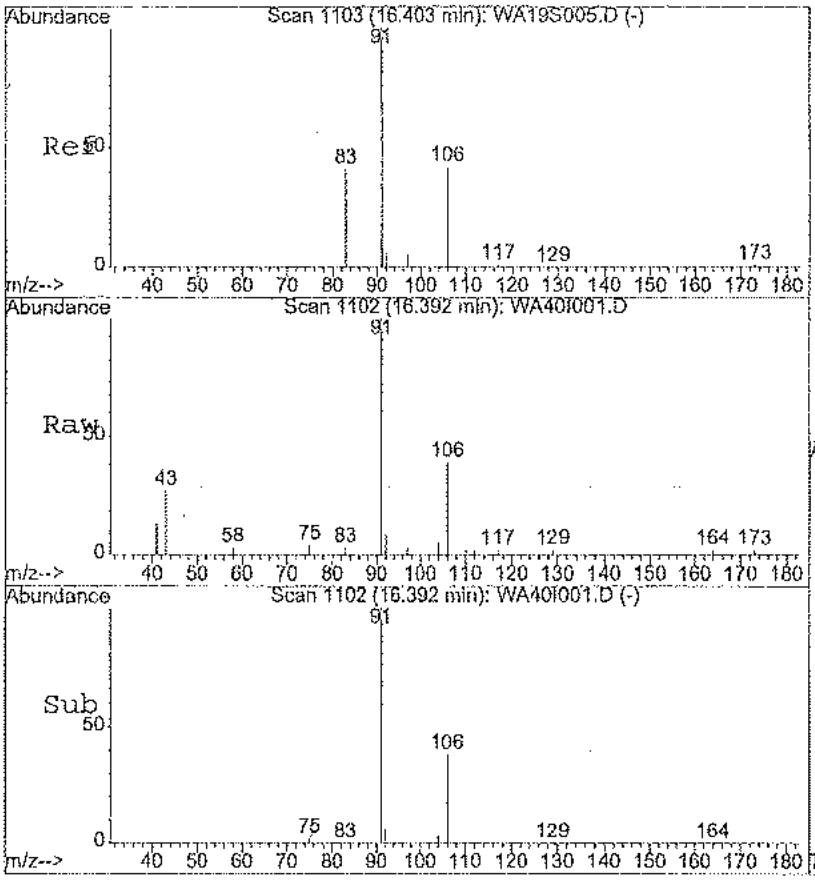


#38
m,p-xylene
Concen: 788.95 ppt
RT: 15.92 min Scan# 1051
Delta R.T. -0.00 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:106.05 Resp: 9004

Ion	Ratio	Lower	Upper
106	100		
91	250.3	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

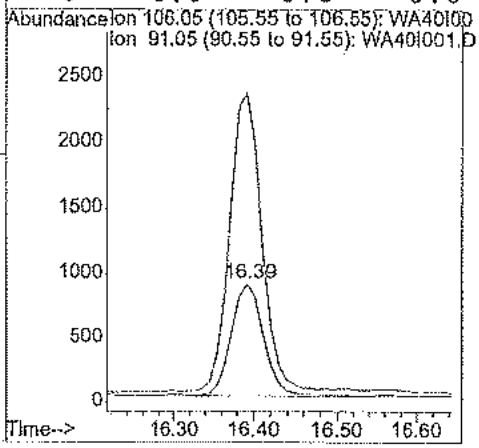




#39
o-xylene
Concen: 233.18 ppt
RT: 16.39 min Scan# 1102
Delta R.T. -0.00 min
Lab File: WA40I001.D
Acq: 01/28/2015 01:24

Tgt Ion:106.05 Resp: 2422

Ion	Ratio	Lower	Upper
106	100		
91	257.8	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

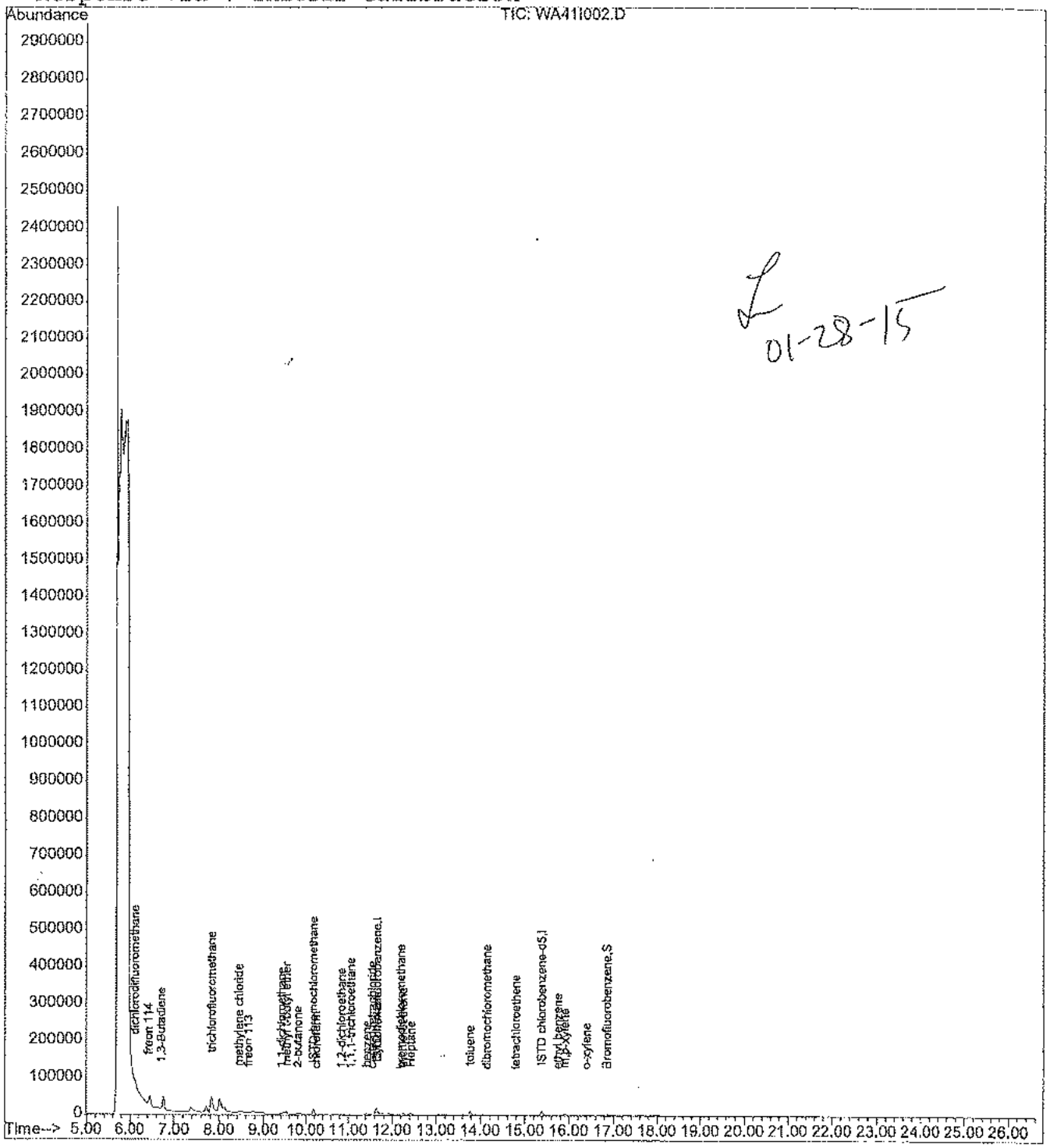


Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA41I002.D
Acq Time : 01/28/2015 02:02 Operator: TJM
Sample : 1502226002 Inst : 5972-W
Misc : A-0017H-TO-002-OUT Multiplr: 1.00

Quant Time: Jan 28 8:18 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration



01-28-15

Quantitation Report

Data File : J:\W\2015\JAN15W\27JAN15W\WA41I002.D
Acq Time : 01/28/2015 02:02 Operator: TJM
Sample : 1502226002 Inst : 5972-W
Misc : A-0017H-TO-002-OUT Multiplr: 1.00

Quant Time: Jan 28 8:18 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.17	128	14652	500.0000	ppt		81.47
19) ISTD 1,4-difluorobenzene	11.65	114	19566	500.0000	ppt		60.88
31) ISTD chlorobenzene-d5	15.38	117	29046	500.0000	ppt		72.61
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	9199	517.4750	ppt		103.49%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.12	85	15841	192.0568	ppt		99
3) freon 114	6.43	85	884	15.3356	ppt	#	32
4) vinyl chloride	0.00	62		Not Detected			
5) 1,3-Butadiene	6.70	54	1211	93.6613	ppt	#	1
6) bromomethane	0.00	94		Not Detected			
7) chloroethane	0.00	64		Not Detected			
8) trichlorofluoromethane	7.83	101	7184	163.7698	ppt		98
9) freon 113	8.65	101	1667	33.7088	ppt	#	23
10) 1,1-dichloroethene	0.00	96		Not Detected			
11) methylene chloride	8.44	49	3080	72.2297	ppt	#	79
12) trans-1,2-dichloroethene	0.00	96		Not Detected			
13) methyl t-butyl ether	9.54	73	533	11.4600	ppt	#	1
14) 2-butanone	9.80	43	34671	384.4898	ppt	#	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected			
16) 1,1-dichloroethane	9.40	63	611	11.9300	ppt	#	66
17) chloroform	10.25	83	3503	63.1035	ppt	#	18
18) 1,2-dichloroethane	10.83	62	1256	32.4115	ppt	#	42
20) 1,1,1-trichloroethane	11.06	97	747	18.5190	ppt	#	18
21) carbon tetrachloride	11.54	117	5811	115.0696	ppt	#	1
22) benzene	11.42	78	15601	336.7503	ppt	#	48
23) Cyclohexane	11.65	84	2384	285.7587	ppt	#	100
24) trichloroethene	12.24	130	856	53.8153	ppt		84
25) 1,2-dichloropropane	0.00	63		Not Detected			
26) bromodichloromethane	12.19	83	921	22.0997	ppt	#	19
27) Heptane	12.42	43	8019	257.5169	ppt	#	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected			
29) trans-1,3-dichloropropene	0.00	75		Not Detected			
30) 1,1,2-trichloroethane	0.00	97		Not Detected			
32) toluene	13.77	91	22386	602.5181	ppt	#	22
33) tetrachloroethene	14.79	164	2380	148.1837	ppt	#	1
34) dibromochloromethane	14.15	129	794	19.4415	ppt	#	11
35) 1,2-dibromoethane	0.00	107		Not Detected			
36) chlorobenzene	0.00	112		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

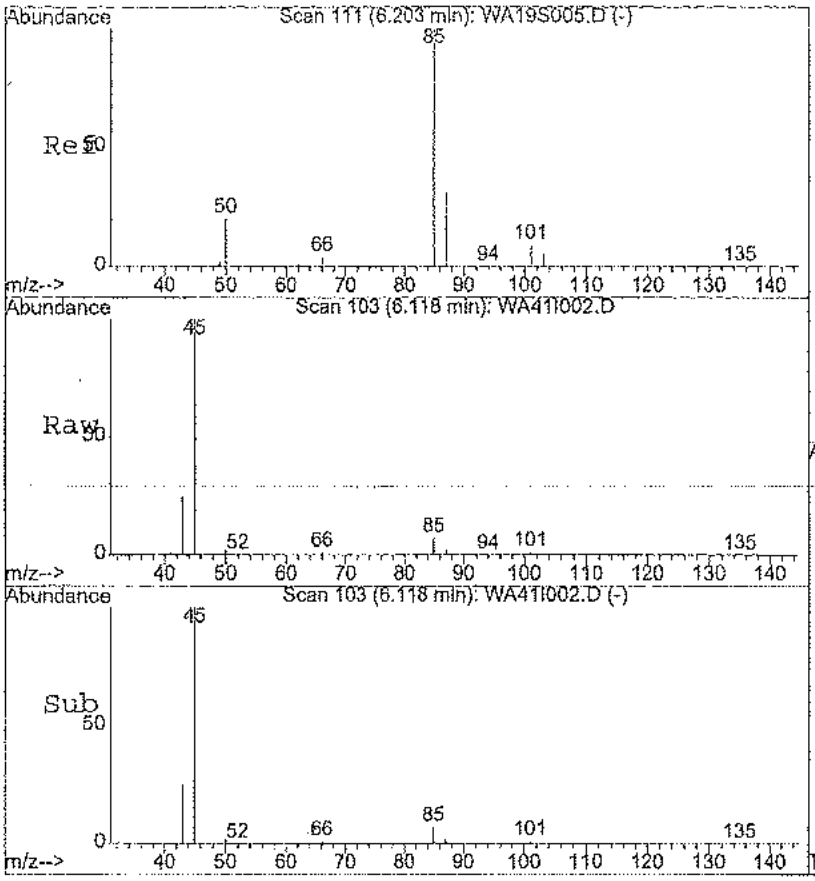
Data File : J:\W\2015\JAN15W\27JAN15W\WA41I002.D
Acq Time : 01/28/2015 02:02 Operator: TJM
Sample : 1502226002 Inst : 5972-W
Misc : A-0017H-TO-002-OUT Multiplr: 1.00

Quant Time: Jan 28 8:18 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37) ethyl benzene	15.75	106	566	67.2867	ppt	86
38) m,p-xylene	15.92	106	2967	289.5400	ppt	81
39) o-xylene	16.39	106	855	91.6764	ppt	100
40) bromoform	0.00	173		Not Detected		
41) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected		

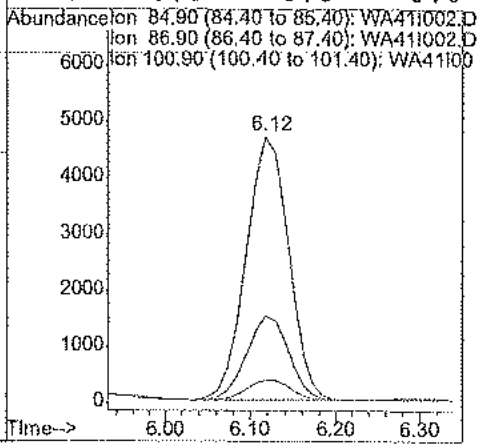
(#) = qualifier out of range (m) = manual integration

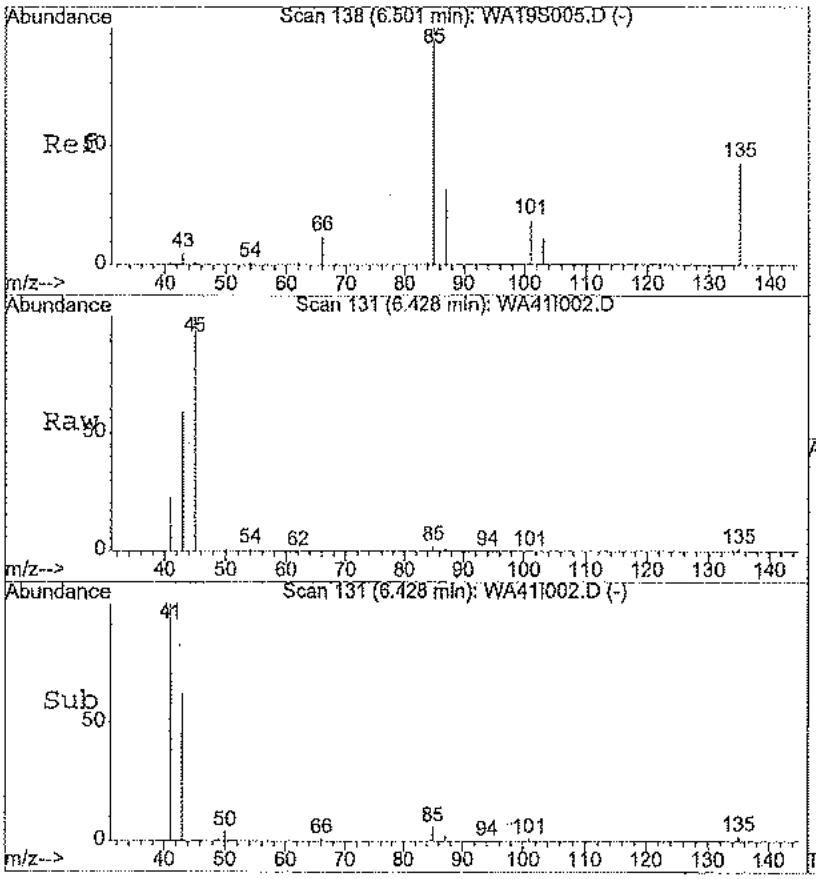


#2
dichlorodifluoromethane
Concen: 192.06 ppt
RT: 6.12 min Scan# 103
Delta R.T. -0.07 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:84.9 Resp: 15841

Ion	Ratio	Lower	Upper
85	100		
87	32.2	25.4	38.0
101	8.1	6.7	10.1
0	0.0	0.0	0.0

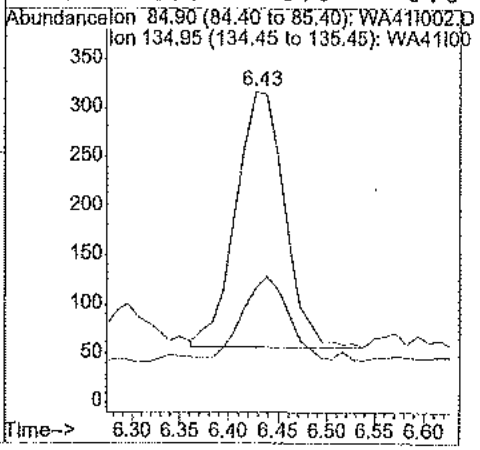


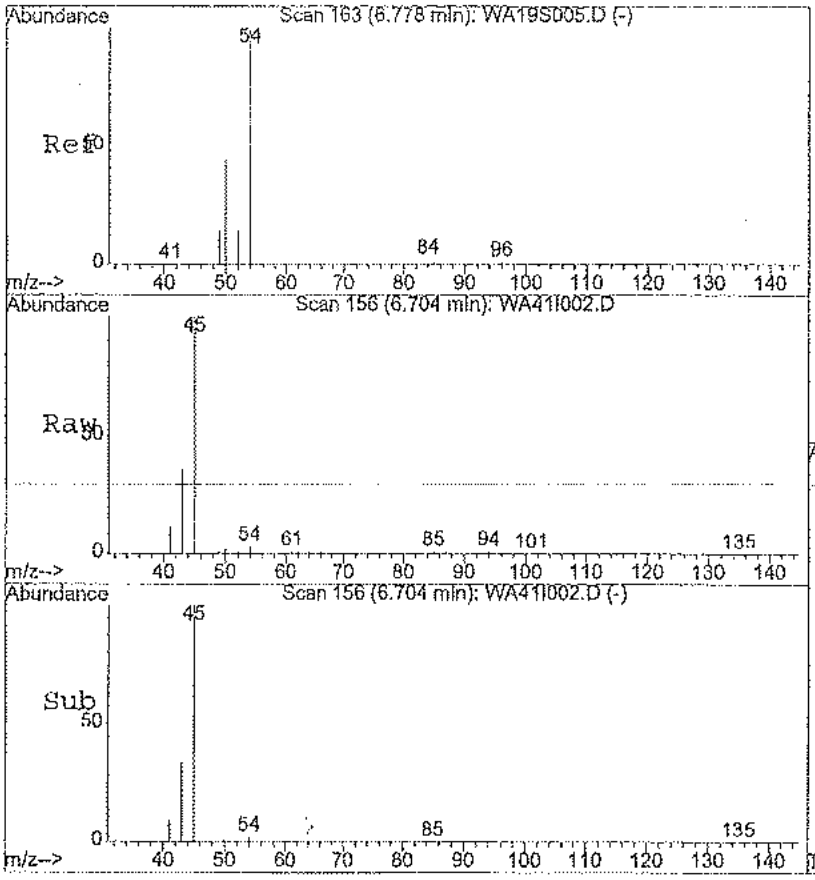


#3
freon 114
Concen: 15.34 ppt
RT: 6.43 min Scan# 131
Delta R.T. -0.05 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:84.9 Resp: 884

Ion	Ratio	Lower	Upper
85	100		
135	0.0	35.1	52.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

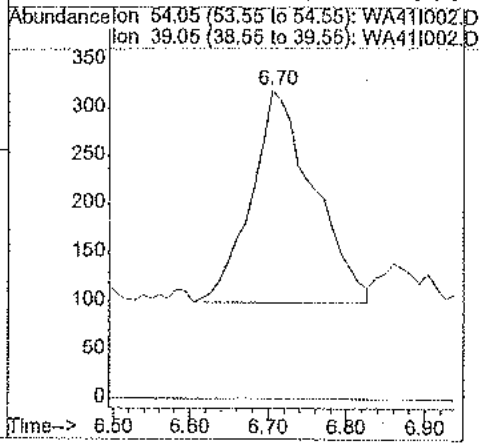


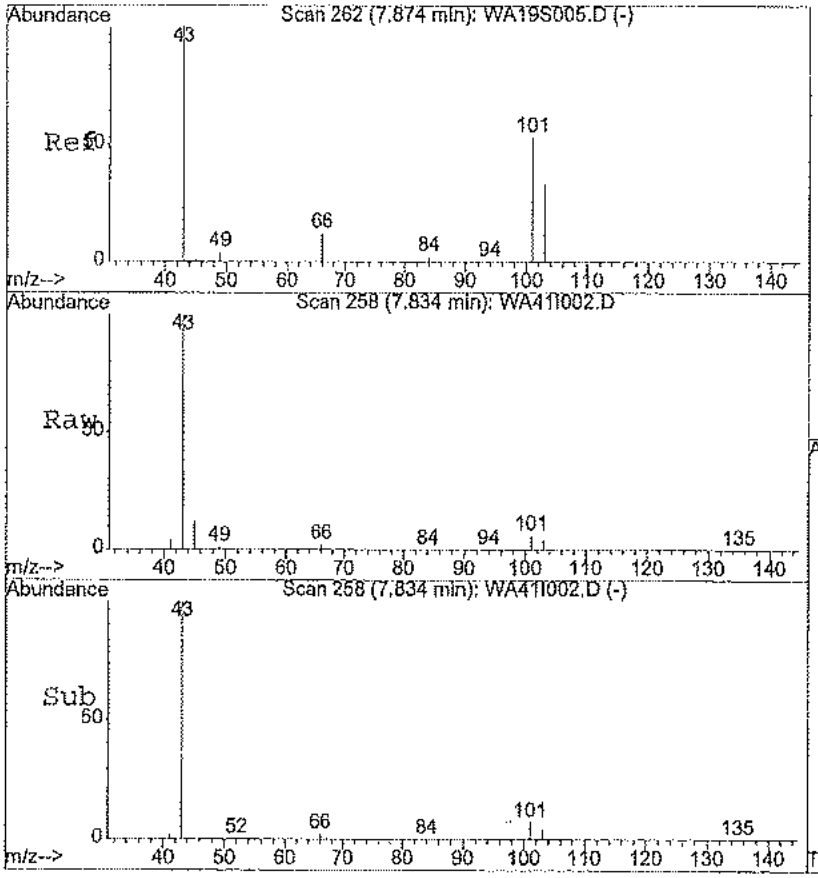


#5
1,3-Butadiene
Concen: 93.66 ppt
RT: 6.70 min Scan# 156
Delta R.T. -0.06 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:54.05 Resp: 1211

Ion	Ratio	Lower	Upper
54	100		
39	0.0	137.4	206.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

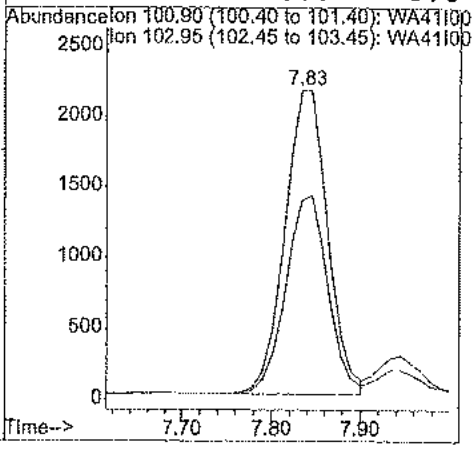


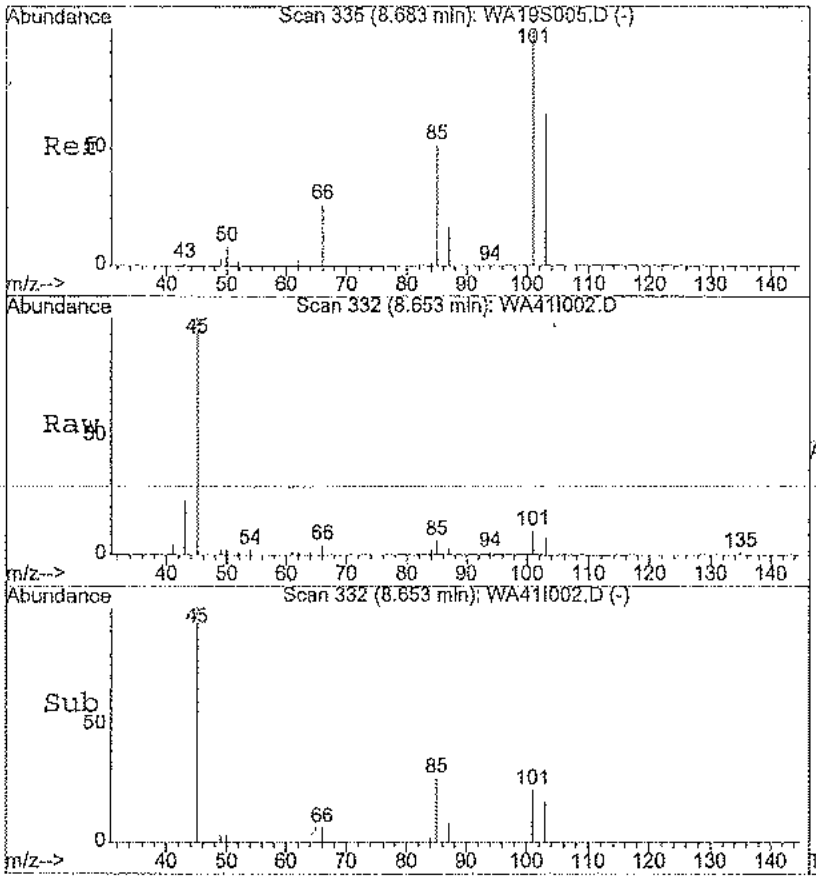


#8
trichlorofluoromethane
Concen: 163.77 ppt
RT: 7.83 min Scan# 258
Delta R.T. -0.03 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:100.9 Resp: 7184

Ion	Ratio	Lower	Upper
101	100		
103	64.0	52.7	79.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

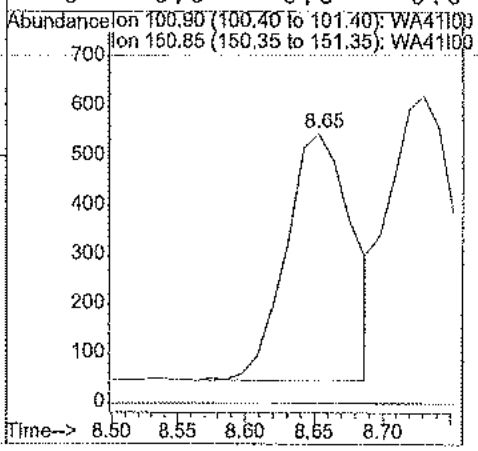


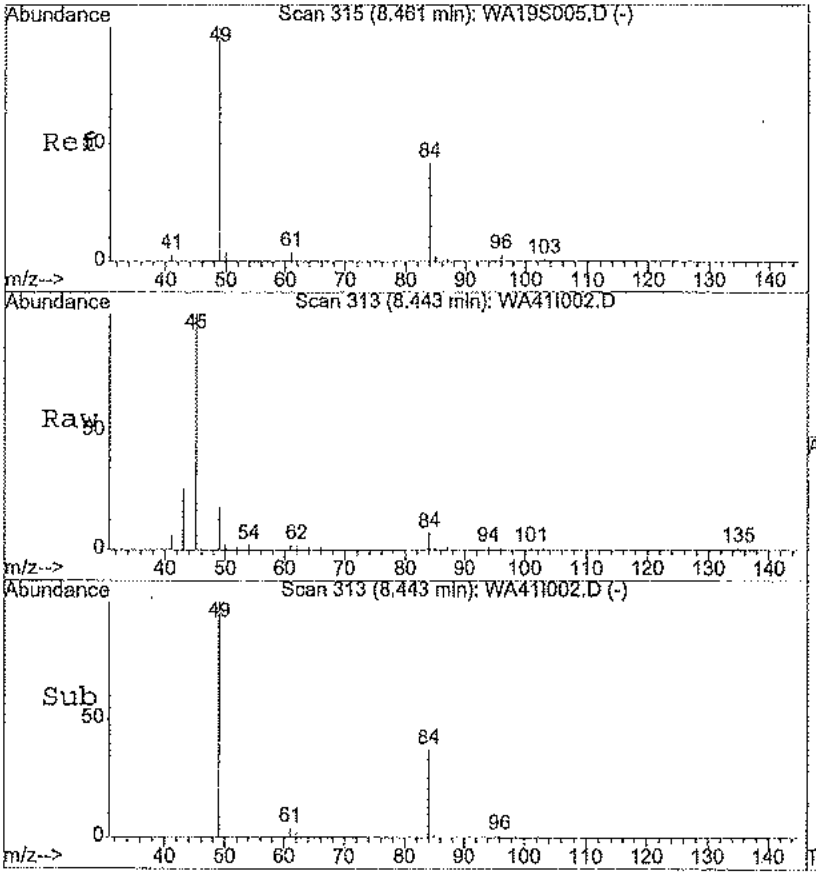


#9
freon 113
Concen: 33.71 ppt
RT: 8.65 min Scan# 332
Delta R.T. -0.02 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:100.9 Resp: 1667

Ion	Ratio	Lower	Upper
101	100		
151	0.0	45.5	68.3#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

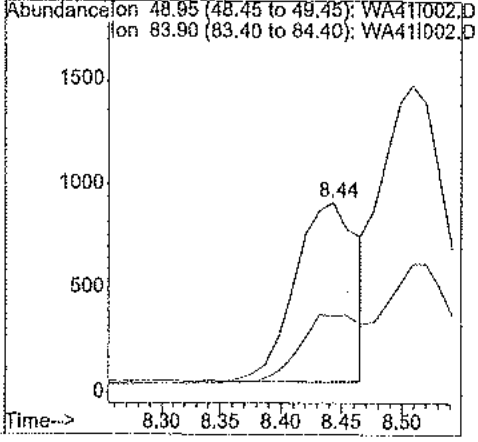


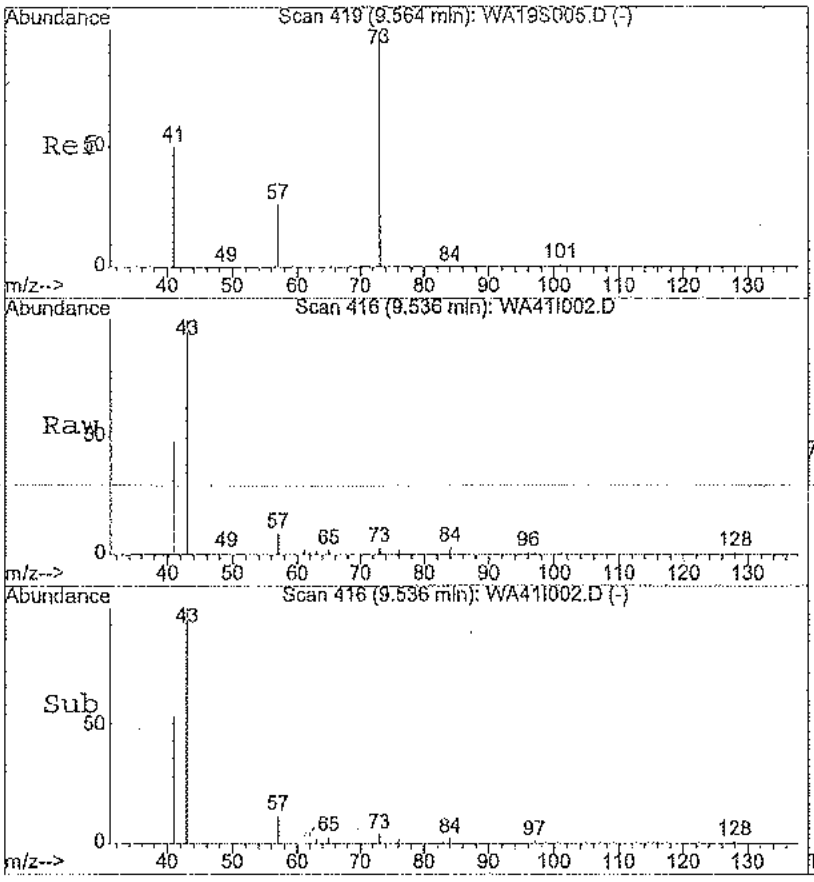


#11
methylene chloride
Concen: 72.23 ppt
RT: 8.44 min Scan# 313
Delta R.T. -0.01 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:48.95 Resp: 3080

Ion	Ratio	Lower	Upper
49	100		
84	37.5	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

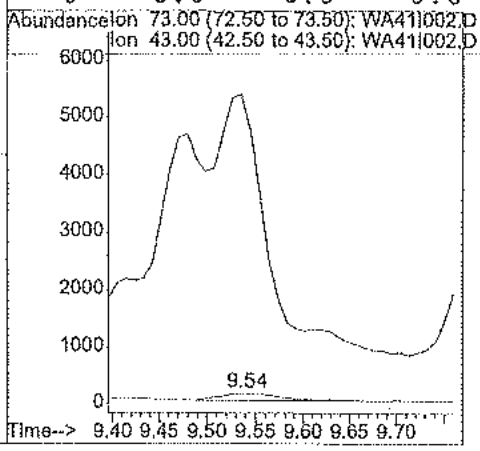


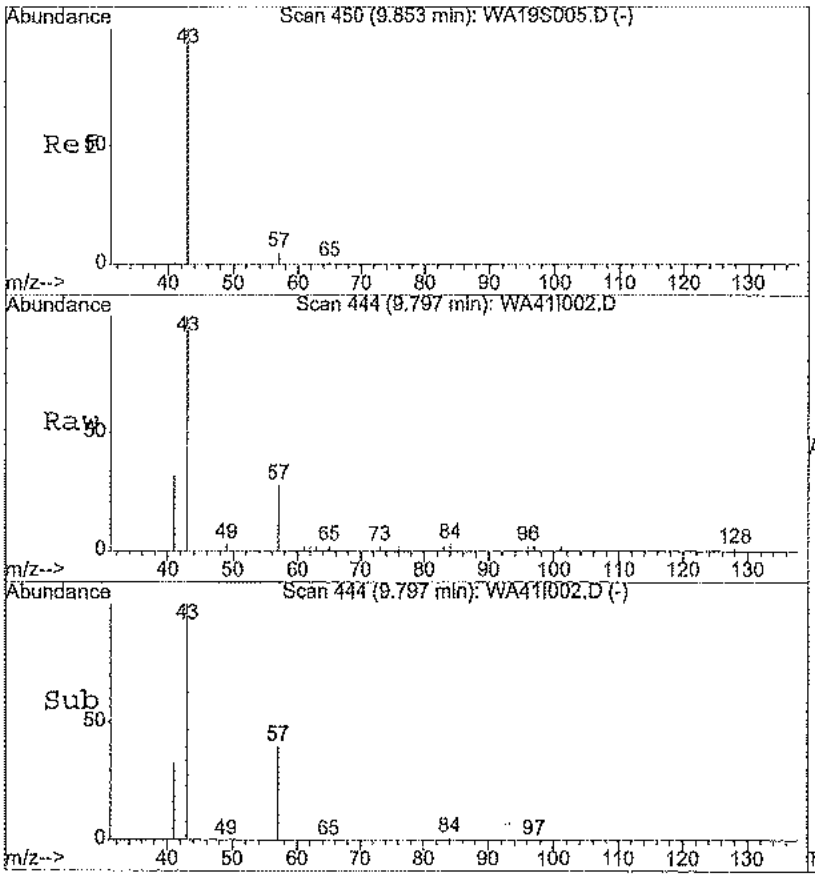


#13
methyl t-butyl ether
Concen: 11.46 ppt
RT: 9.54 min Scan# 416
Delta R.T. -0.02 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:73 Resp: 533

Ion	Ratio	Lower	Upper
73	100		
43	3348.2	128.2	192.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

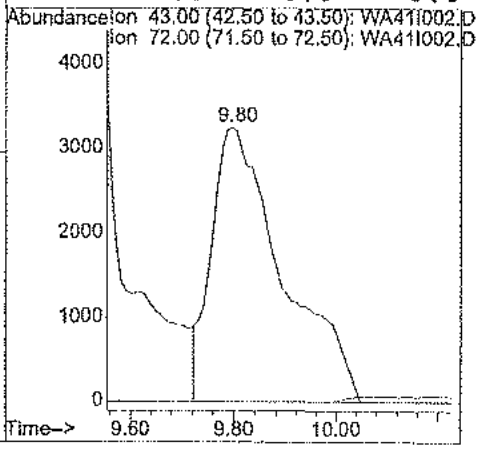


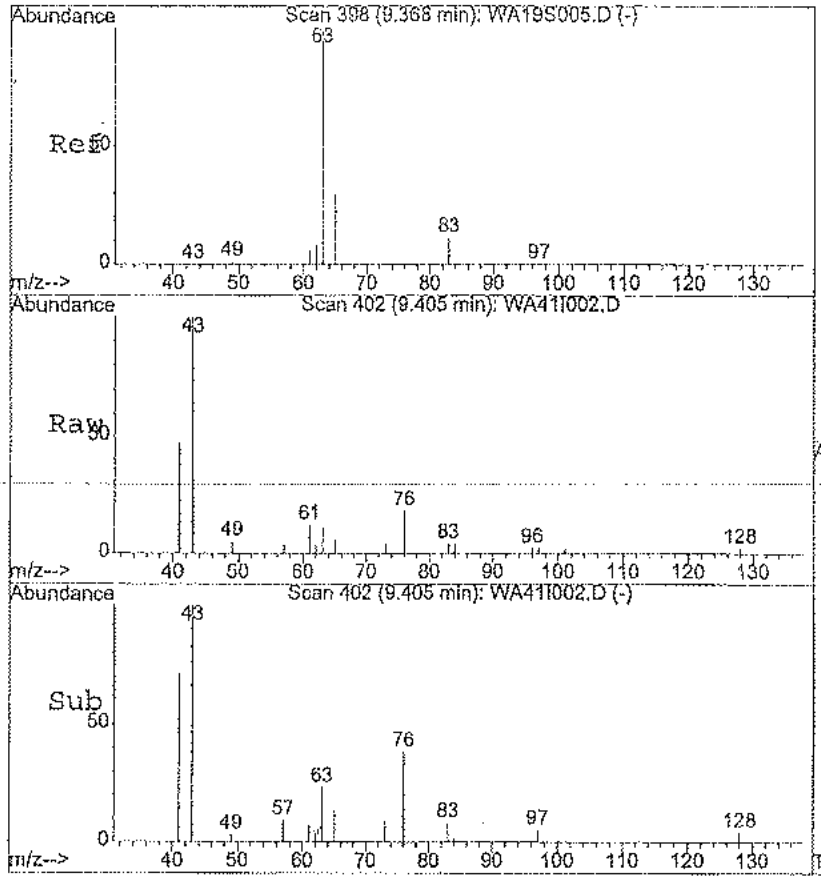


#14
2-butanone
Concen: 384.49 ppt
RT: 9.80 min Scan# 444
Delta R.T. -0.05 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:43 Resp: 34671

Ion	Ratio	Lower	Upper
43	100		
72	0.0	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

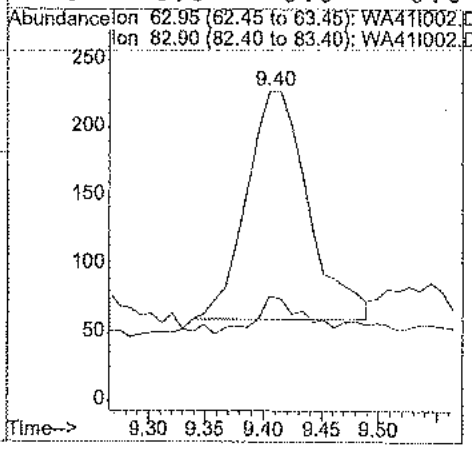


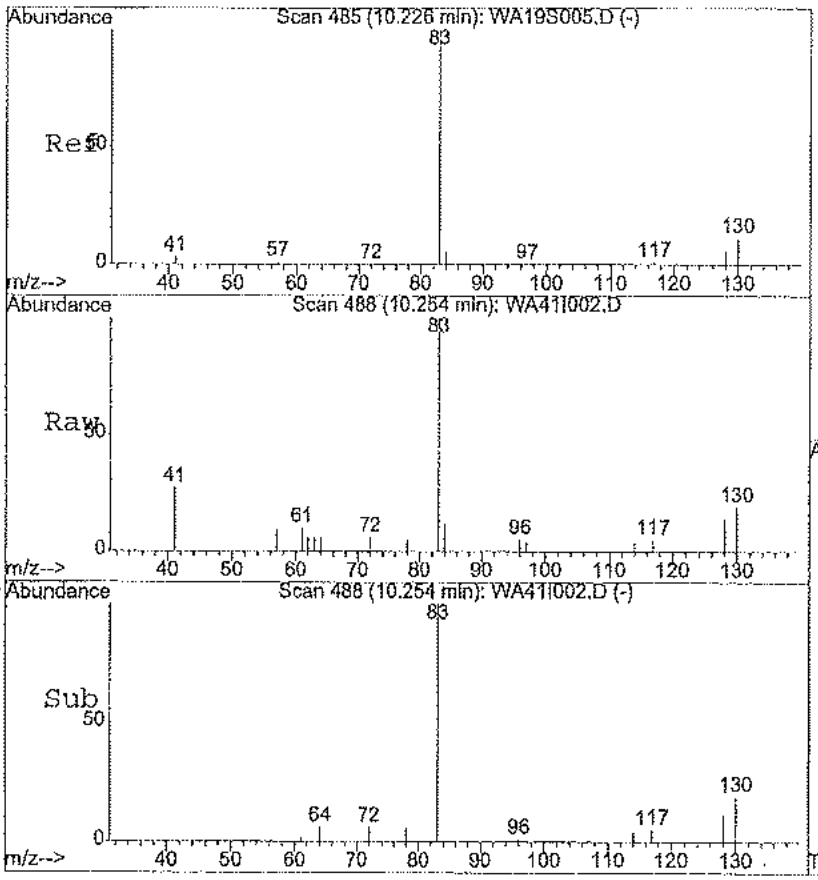


#16
1,1-dichloroethane
Concen: 11.93 ppt
RT: 9.40 min Scan# 402
Delta R.T. 0.05 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:62.95 Resp: 611

Ion	Ratio	Lower	Upper
63	100		
83	0.0	11.0	16.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

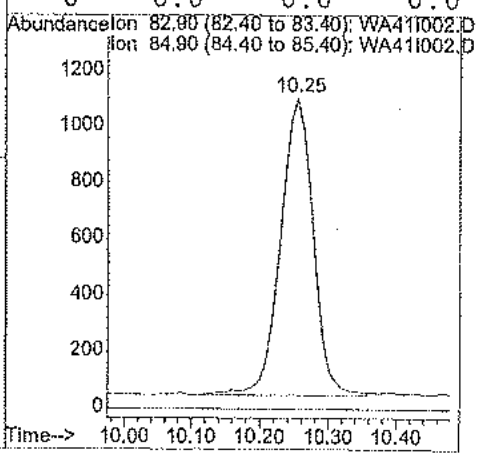


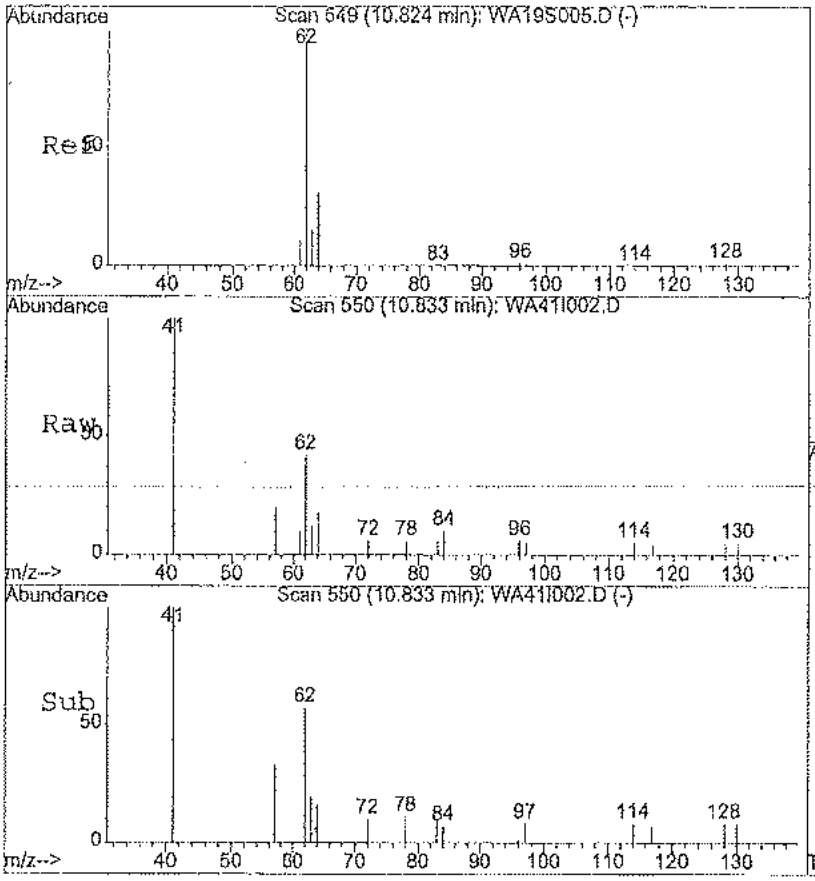


#17
chloroform
Concen: 63.10 ppt
RT: 10.25 min Scan# 488
Delta R.T. 0.04 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:82.9 Resp: 3503

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.8	77.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

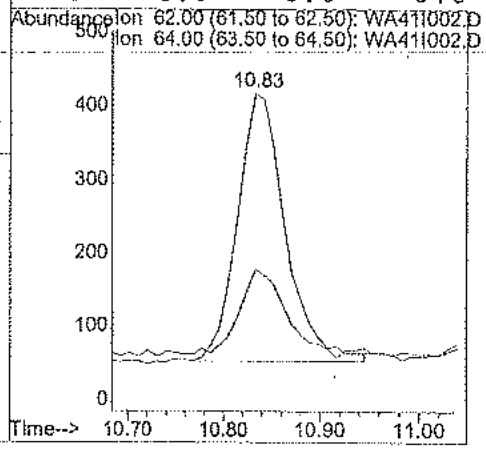


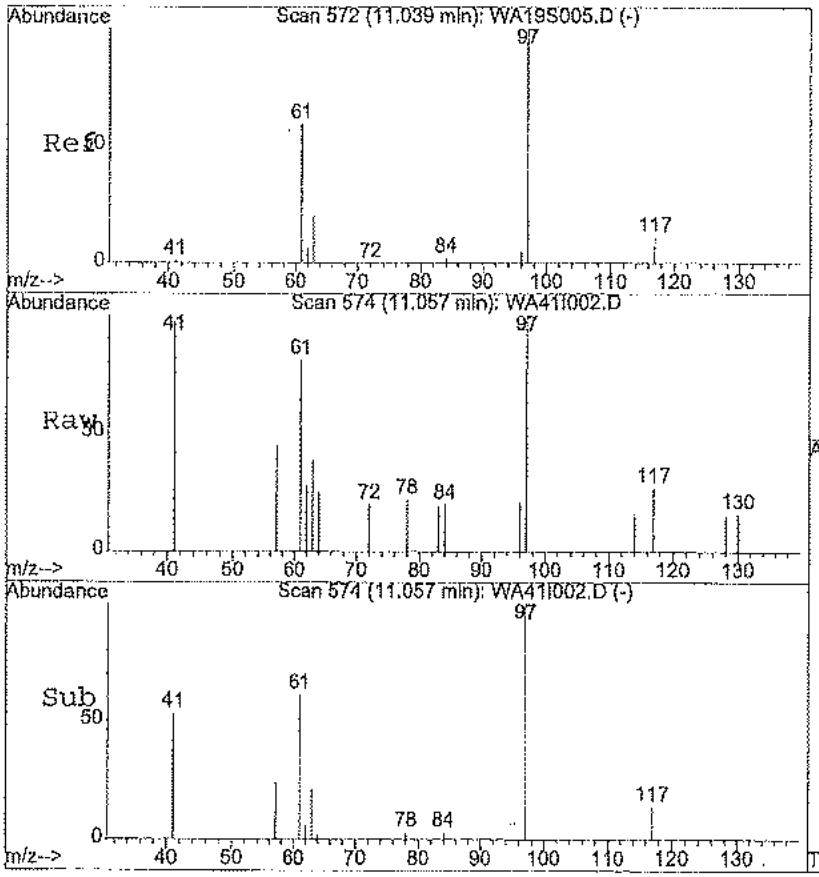


#18
1,2-dichloroethane
Concen: 32.41 ppt
RT: 10.83 min Scan# 550
Delta R.T. 0.02 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:62 Resp: 1256

Ion	Ratio	Lower	Upper
62	100		
64	0.0	26.2	39.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

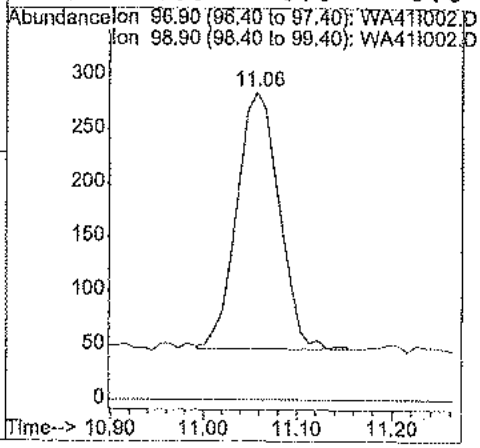


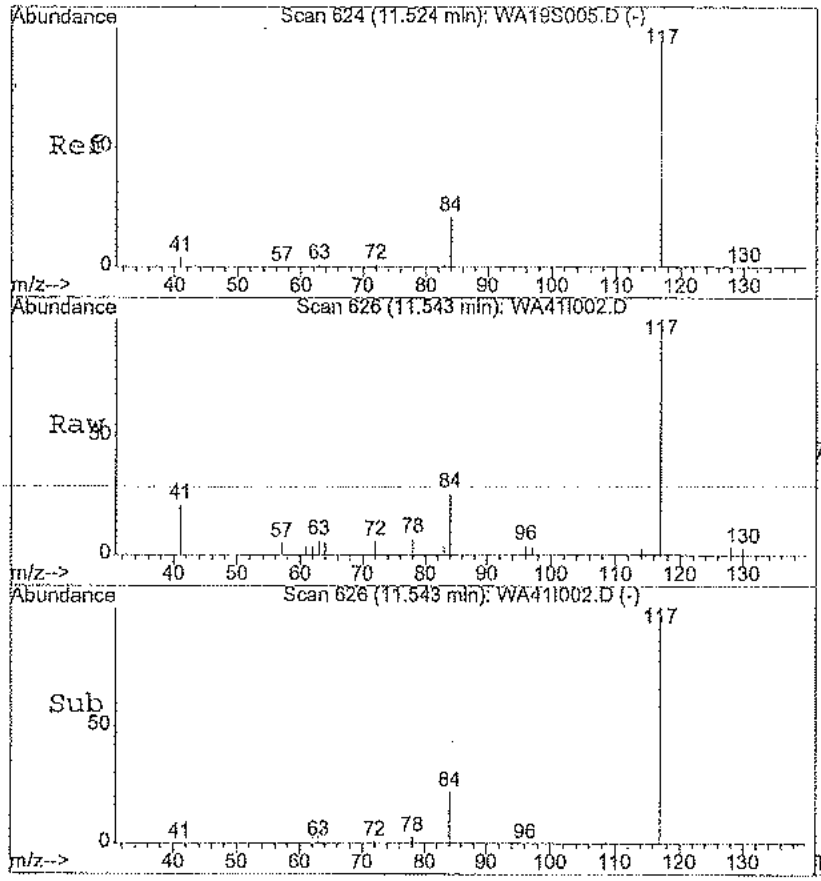


#20
1,1,1-trichloroethane
Concen: 18.52 ppt
RT: 11.06 min Scan# 574
Delta R.T. 0.04 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:96.9 Resp: 747

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.2	76.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

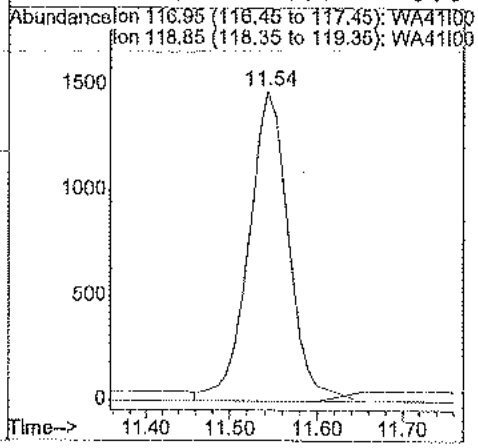


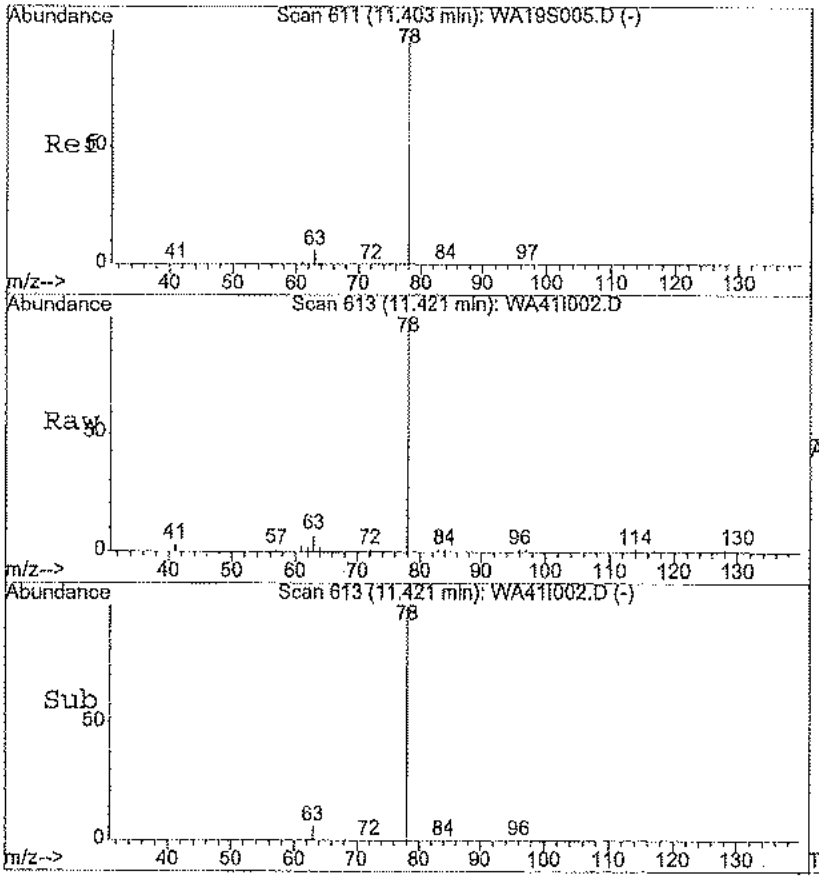


#21
carbon tetrachloride
Concen: 115.07 ppt
RT: 11.54 min Scan# 626
Delta R.T. 0.03 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:116.95 Resp: 5811

Ion	Ratio	Lower	Upper
117	100		
119	0.0	77.5	116.3#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

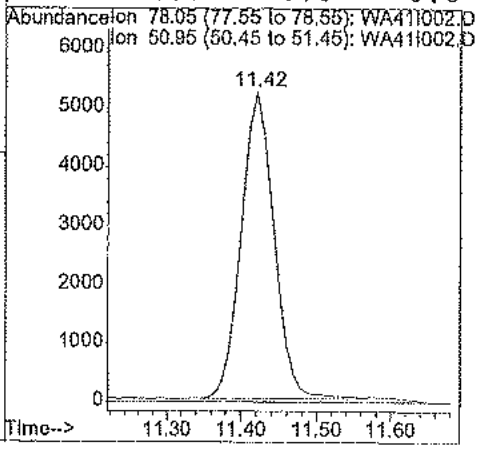


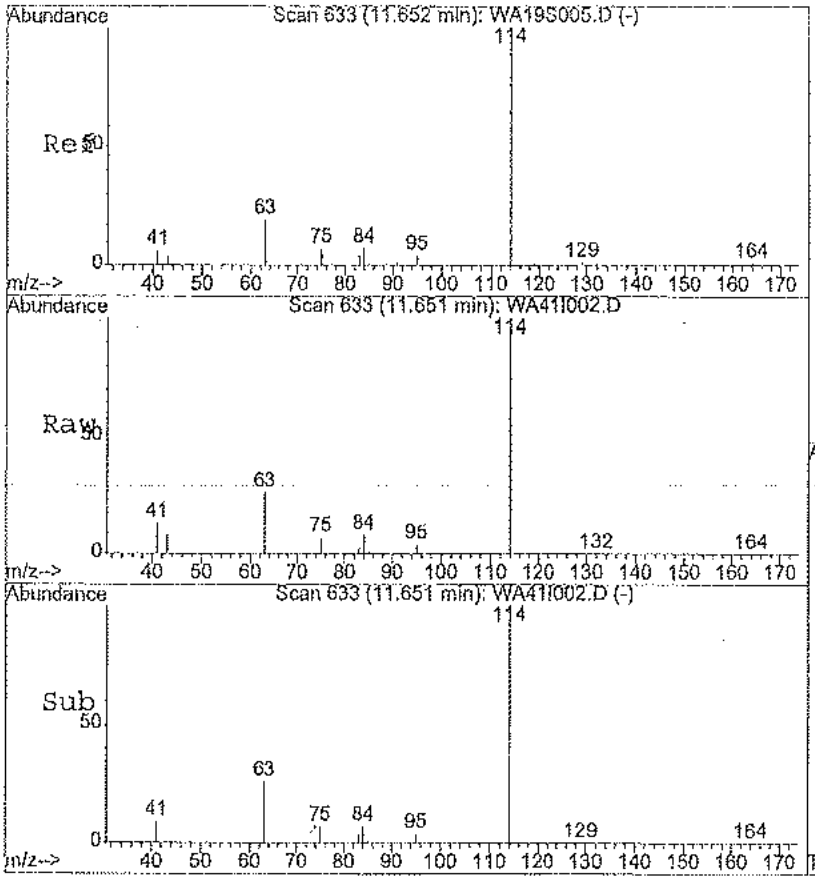


#22
benzene
Concen: 336.75 ppt
RT: 11.42 min Scan# 613
Delta R.T. 0.03 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:78.05 Resp: 15601

Ion	Ratio	Lower	Upper
78	100		
51	0.0	21.4	32.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

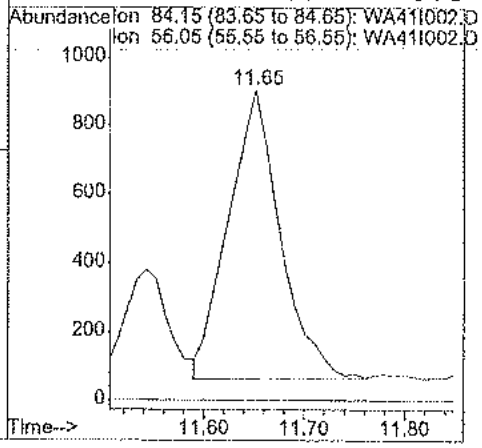


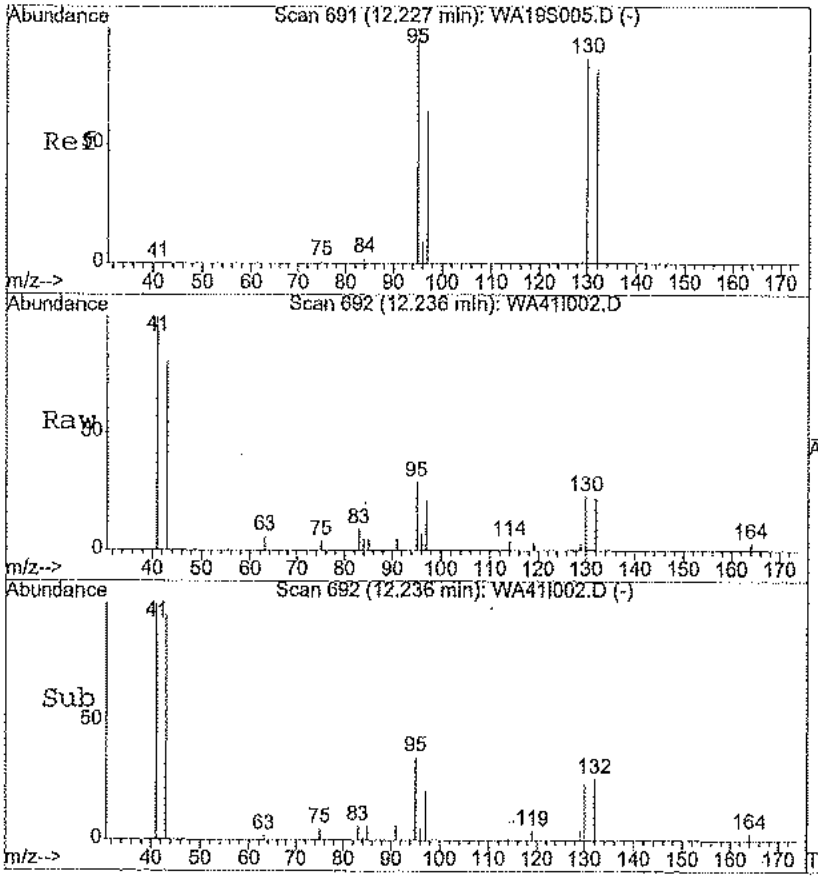


#23
Cyclohexane
Concen: 285.76 ppt
RT: 11.65 min Scan# 633
Delta R.T. 0.05 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:84.15 Resp: 2384

Ion	Ratio	Lower	Upper
84	100		
56	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

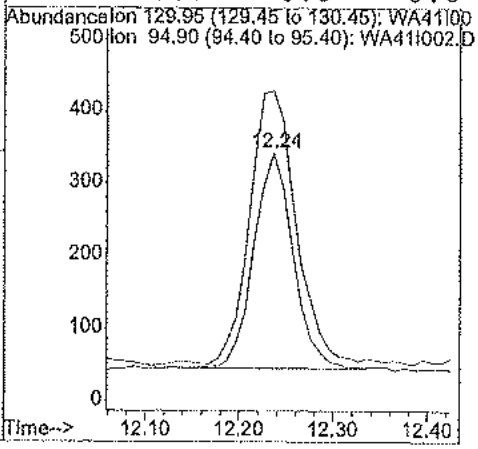


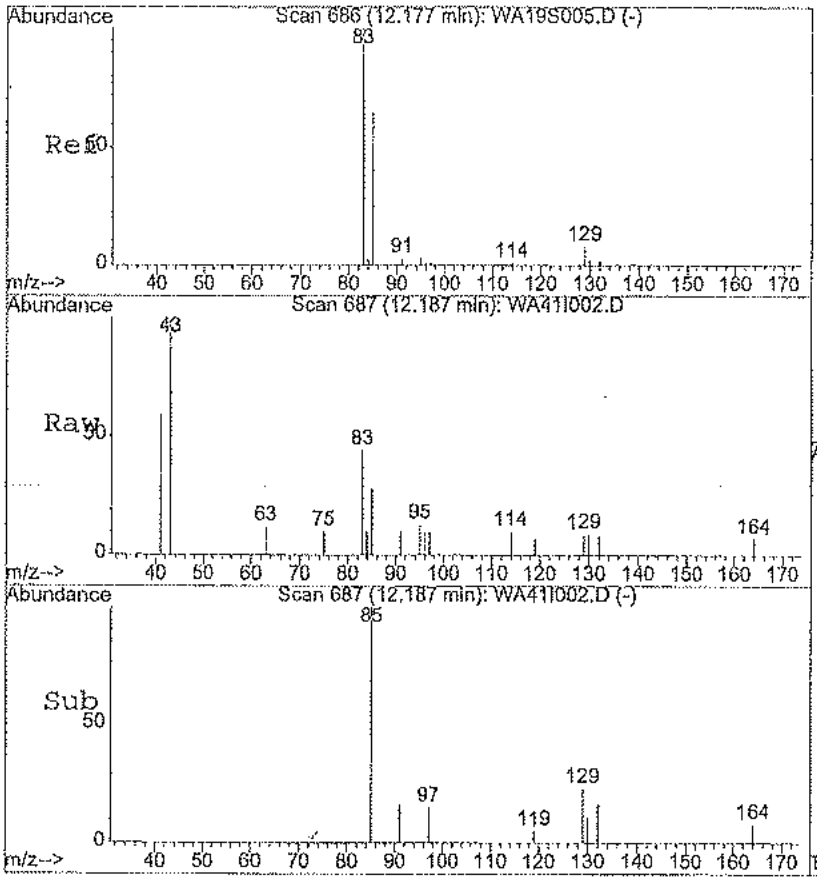


#24
trichloroethene
Concen: 53.82 ppt
RT: 12.24 min Scan# 692
Delta R.T. 0.02 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:129.95 Resp: 856

Ion	Ratio	Lower	Upper
130	100		
95	150.2	104.8	157.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

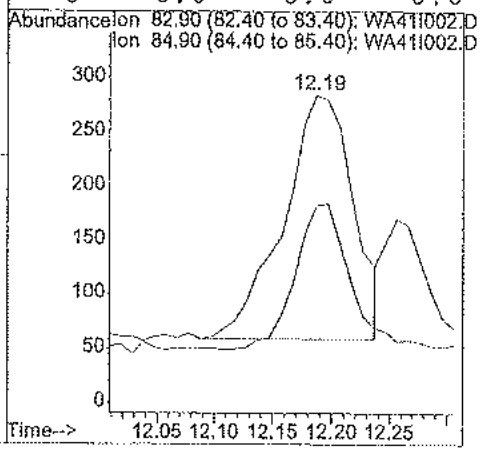


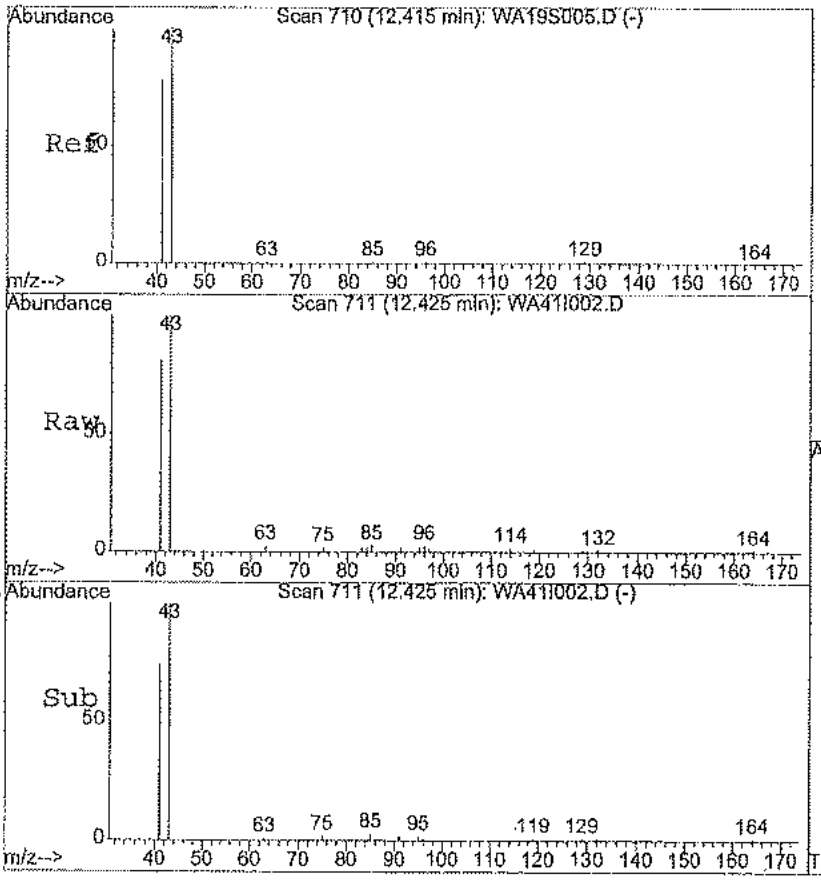


#26
bromodichloromethane
Concen: 22.10 ppt
RT: 12.19 min Scan# 687
Delta R.T. 0.02 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:82.9 Resp: 921

Ion	Ratio	Lower	Upper
83	100		
85	0.0	50.3	75.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

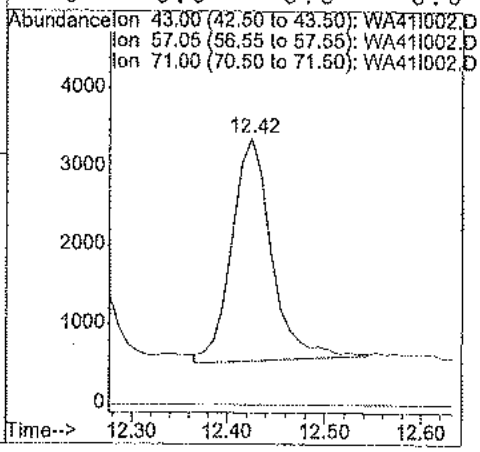


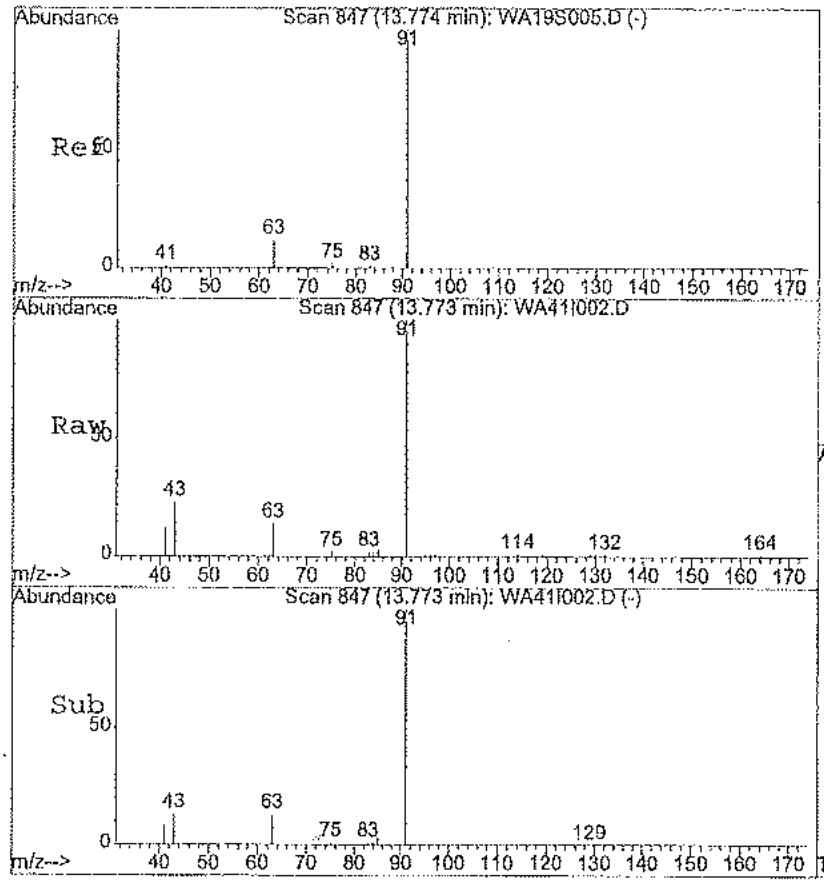


#27
Heptane
Concen: 257.52 ppt
RT: 12.42 min Scan# 711
Delta R.T. 0.02 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:43 Resp: 8019

Ion	Ratio	Lower	Upper
43	100		
57	0.0	64.0	96.0#
71	0.0	16.0	24.0#
0	0.0	0.0	0.0

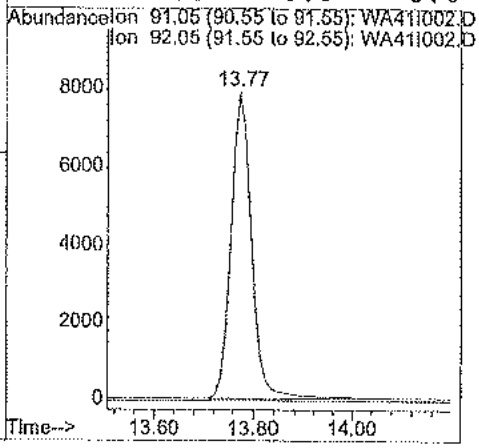


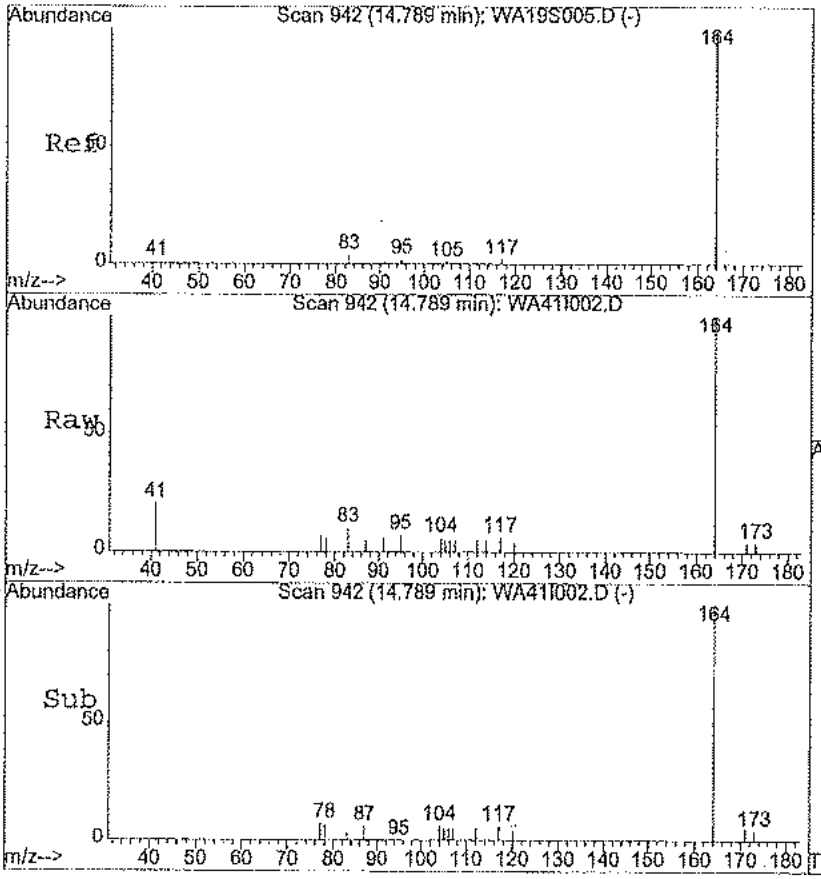


#32
toluene
Concen: 602.52 ppt
RT: 13.77 min Scan# 847
Delta R.T. 0.01 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:91.05 Resp: 22386

Ion	Ratio	Lower	Upper
91	100		
92	0.0	46.3	69.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

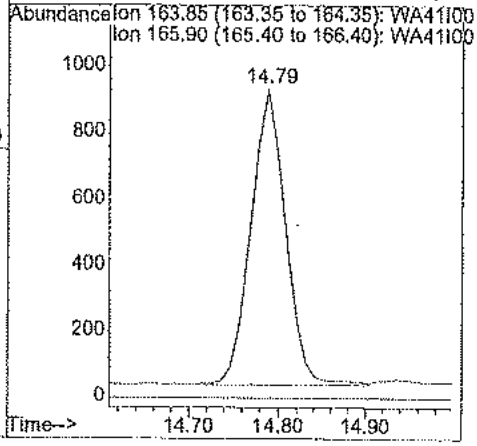


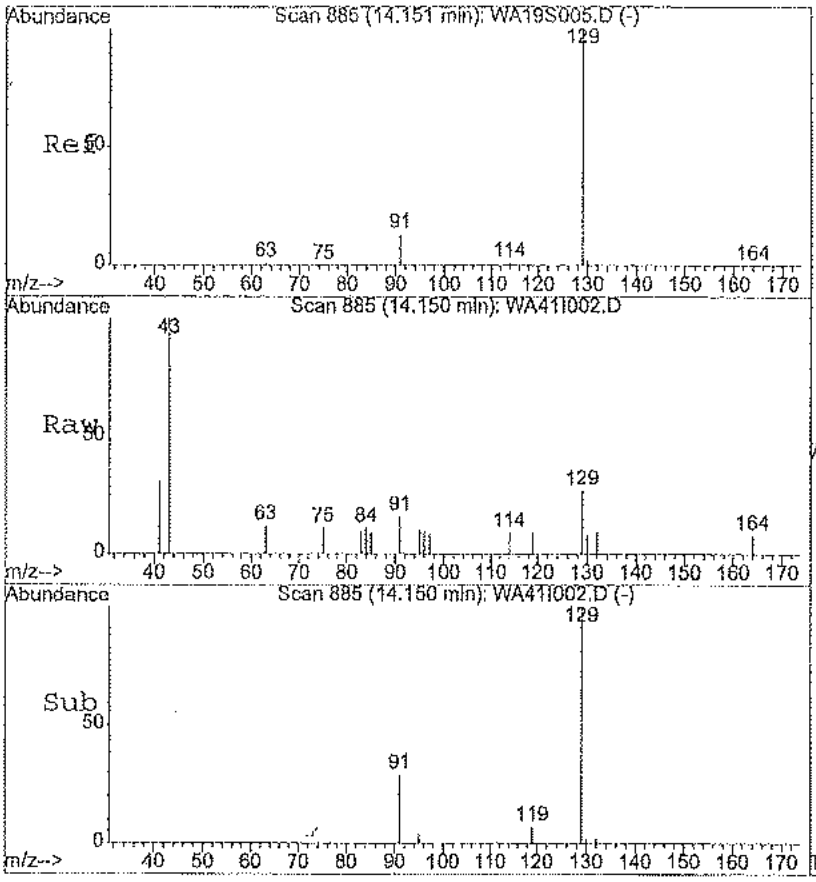


#33
tetrachloroethene
Concen: 148.18 ppt
RT: 14.79 min Scan# 942
Delta R.T. 0.01 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:163.85 Resp: 2380

Ion	Ratio	Lower	Upper
164	100		
166	0.0	102.6	154.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

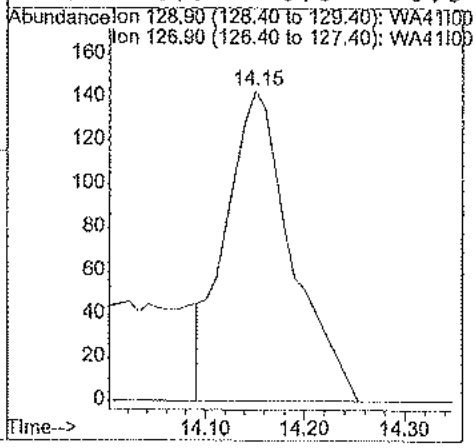


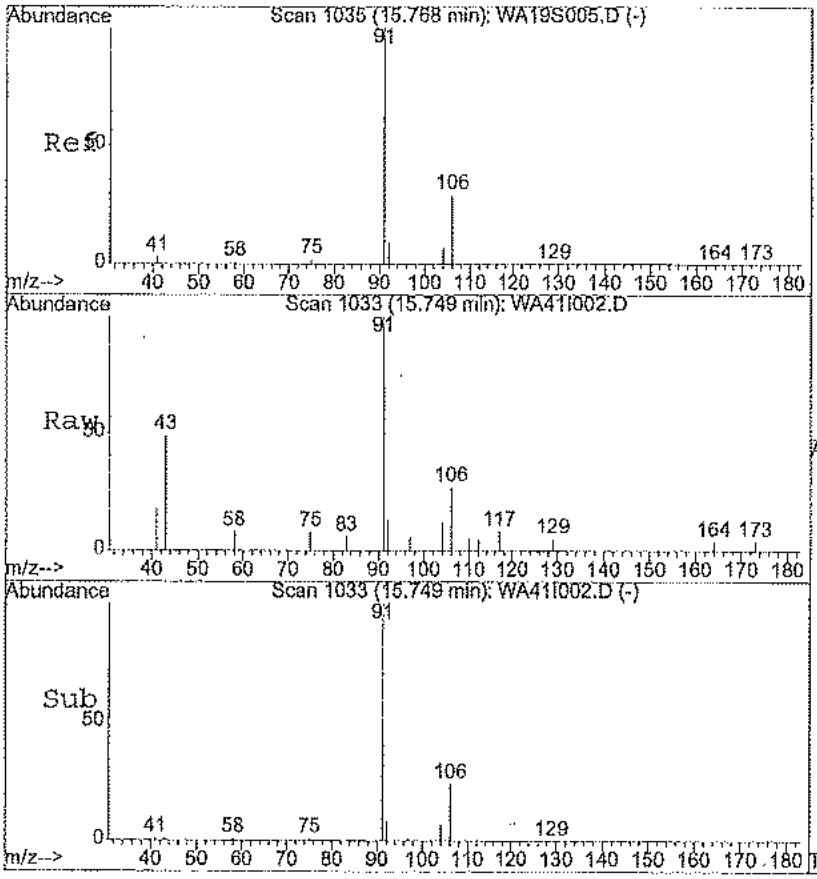


#34
dibromochloromethane
Concen: 19.44 ppt
RT: 14.15 min Scan# 885
Delta R.T. 0.01 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:128.9 Resp: 794

Ion	Ratio	Lower	Upper
129	100		
127	0.0	62.0	93.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

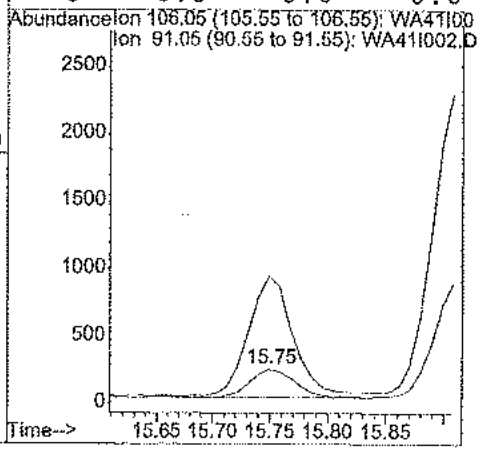


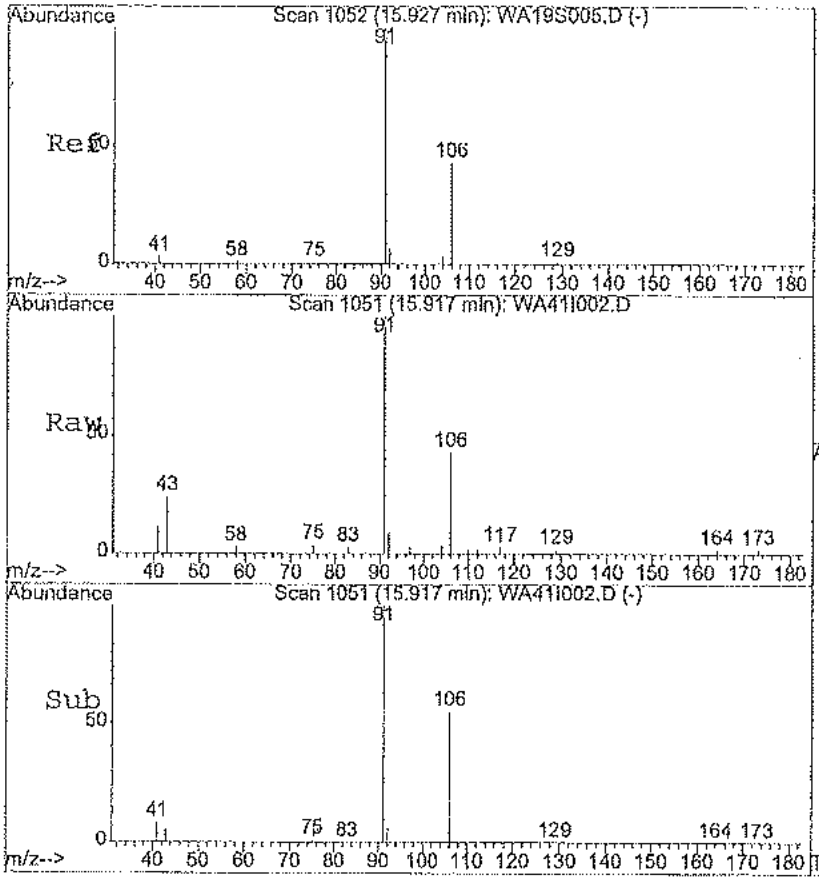


#37
ethyl benzene
Concen: 67.29 ppt
RT: 15.75 min Scan# 1033
Delta R.T. 0.00 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:106.05 Resp: 566

Ion	Ratio	Lower	Upper
106	100		
91	434.6	321.4	482.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

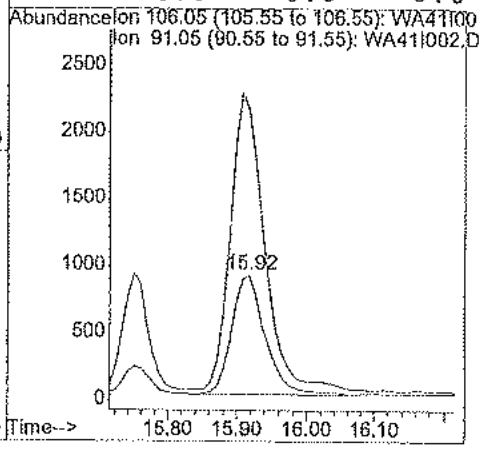


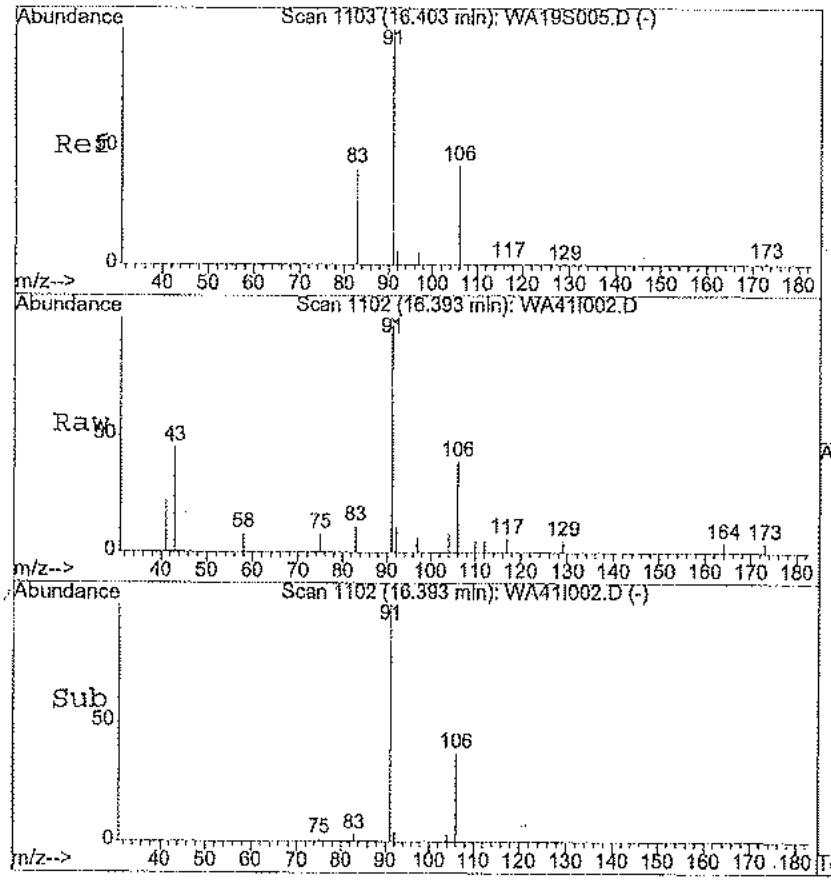


#38
m,p-xylene
Concen: 289.54 ppt
RT: 15.92 min Scan# 1051
Delta R.T. 0.00 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:106.05 Resp: 2967

Ion	Ratio	Lower	Upper
106	100		
91	252.3	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

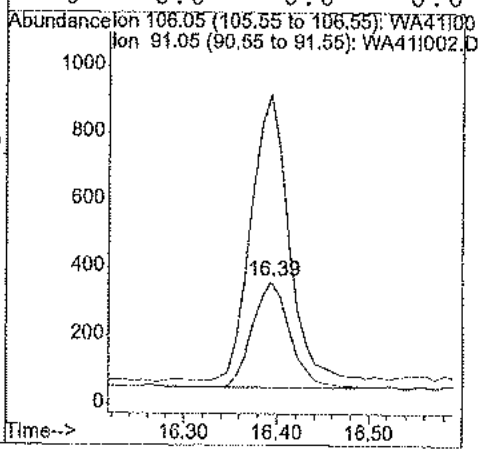




#39
o-xylene
Concen: 91.68 ppt
RT: 16.39 min Scan# 1102
Delta R.T. 0.00 min
Lab File: WA41I002.D
Acq: 01/28/2015 02:02

Tgt Ion:106.05 Resp: 855

Ion	Ratio	Lower	Upper
106	100		
91	274.3	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15 (SIM)**	**Client:**	First Environment, Inc
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1503581**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canister for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene tune check is not applicable for SIM mode.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the method. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP. The response factors of the TO-15 analytes were acceptable when compared to the average response from the initial calibration curve.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants, except for carbon tetrachloride which was below the PQL.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-W. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Jorden Baum — September 16, 2015

Date

ANALYTICAL REPORT
Amended 20151023

Report Date: February 11, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1503581**
Project ID: 0019H-737 S. 1300 E 020415
Purchase Order: 0019H-737 S. 1300 E

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0019H-020415-TO-001-HAL	1503581001	02/03/15	02/04/15	0019H-737 S. 1300 E
A-0019H-020415-TO-002-BR2	1503581002	02/03/15	02/04/15	0019H-737 S. 1300 E
A-0019H-020415-TO-003-STO4	1503581003	02/03/15	02/04/15	0019H-737 S. 1300 E

ANALYTICAL REPORT
Amended 20151023

Workorder: 34-1503581
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0019H-020415-TO-001-HAL | Sampling Site: 0019H-737 S. 1300 E | Collected: 02/03/2015
Lab ID: 1503581001 | Media: Summa 6 Liter Canister | Received: 02/04/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2808 (HBN: 143502) | **Percent Solid:** NA
Analyzed: 02/10/2015 17:18 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**0.067**	**0.45**	0.050	1	

Sample ID: A-0019H-020415-TO-002-BR2 | Sampling Site: 0019H-737 S. 1300 E | Collected: 02/03/2015
Lab ID: 1503581002 | Media: Summa 6 Liter Canister | Received: 02/04/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2808 (HBN: 143502) | **Percent Solid:** NA
Analyzed: 02/10/2015 17:55 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	ND	<0.34	0.050	1	

Sample ID: A-0019H-020415-TO-003-STO4 | Sampling Site: 0019H-737 S. 1300 E | Collected: 02/03/2015
Lab ID: 1503581003 | Media: Summa 6 Liter Canister | Received: 02/04/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2808 (HBN: 143502) | **Percent Solid:** NA
Analyzed: 02/10/2015 18:34 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	**0.097**	**0.52**	0.050	1	
Tetrachloroethene	**0.33**	**2.2**	0.050	1	

ANALYTICAL REPORT
Amended 20151023

Workorder: 34-1503581
Client: First Environment
Project Manager: Kevin W. Griffiths

Comments

Quality Control: **EPA TO-15 - (HBN: 143502)**

The QC/QD recoveries for cis-1,2-dichloroethene were above the upper limit. The samples did not contain cis-1,2-dichloroethene.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Jorden Baum 02/11/2015 11:02	/S/ Thomas J. Masoian 02/11/2015 12:02

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT
Amended 20151023

Workorder: 34-1503581
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1503581

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2808 (HBN: 143502)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 433180
Analyzed: 02/10/2015 16:40
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
trans-1,2-Dichloroethene	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 433181
Analyzed: 02/11/2015 09:47
Dilution: 1
Units: ppb

LCSD: 433182
Analyzed: 02/11/2015 10:24
Dilution: 1
Units: ppb

Analyte	LCS Result	Target	% Rec	QC Limits		LCSD Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.899	1.00	89.9	17.5	153.7	0.966	96.6	7.15	0.0	25.0
trans-1,2-Dichloroethene	1.10	1.00	110	72.0	123.1	1.09	109	0.513	0.0	25.0
cis-1,2-Dichloroethene	1.63	1.00	* 163	65.2	131.2	1.59	* 159	2.93	0.0	25.0
Trichloroethene	1.06	1.00	106	68.4	123.4	1.07	107	0.564	0.0	25.0
Tetrachloroethene	0.925	1.00	92.5	63.6	127.9	1.14	114	21.1	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
433180-MB	0.422	0.500	84.3
1503581001	0.518	0.500	104
1503581002	0.475	0.500	94.9
1503581003	0.473	0.500	94.7
1503747001	0.488	0.500	97.6
1503747002	0.470	0.500	94.1
433181-LCS	0.417	0.500	83.5
433182-LCSD	0.435	0.500	87.1

Comments

The QC/QD recoveries for cis-1,2-dichloroethene were above the upper limit. The samples did not contain cis-1,2-dichloroethene.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1503581

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2808 (HBN: 143502)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

QC Data Approved and Reviewed by

Jorden Baum	Thomas J. Masoian	2/11/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◒ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

13920/#2

1503581

ANALYTICAL REQUEST FORM

1503581

1. ☒ **REGULAR Status**

☐ **RUSH Status Requested - ADDITIONAL CHARGE**
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 2/4/2015 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (973) 787-2295
Fax Telephone (973) 334-1928
E-mail Address erj@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. **Sample Collection**
Sampling Site 00194 - 737 S. 1300 E
Industrial Process NA
Date of Collection 2/3 - 2/4/2015
Time Collected 1350-1450
Date of Shipment 2/4/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. **REQUEST FOR ANALYSES**

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
1 0224 A	00194-020415-TO-001-HMAir	6L Sum	TO-14A-SIM = PCE, TCE, DCE, VC	ug/M3
1 0114 A	00194-020415-TO-002-BSAir	6L "	"	"
1 0122 A	00194-020415-TO-003-SHD Air	6L "	"	"

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. ____ (other) Please indicate one or more units in the column entitled Units**

Comments SIM = Tetrachloroethene, Trichloroethene, cis,1,2-Dichloroethene, and vinyl chloride

Possible Contamination and/or Chemical Hazards _____

7. **Chain of Custody (Optional)**

Relinquished by	[signature]	Date/Time	2/4/15 -
Received by	[signature]	Date/Time	02/04/15 1540
Relinquished by		Date/Time	
Received by		Date/Time	

Canister Chain of Custody

Client: First Environment, Inc

Account No:

Project/Job/Task: VA SLG CERCLA SIA - AOU-1 DEPUA030B-000G.M

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0224	12-30-14	725			27	2	00194-TO-001-HAL	2nd floor Hallway	
0114	↓	↓			28	2	00194-TO-002-BR2	1st floor Suite	
0122	↓	↓			25	~~25~~ 2	00HH-TO-003-STO4	Basement Storeroom	
VFR Serial No.:									
0532	01-19-15	724	74		27	2	00194-TO-001-HAL	2nd floor Hall	
0330	↓	724	↓		28	2	00194-TO-002-BR2	1st Floor Suite	
0301	↓	724	↓	↓	25	~~2~~ 2	00194-TO-003-STO4	Basement Store	

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
[signature]	2/04/15	[signature] 02/04/15	Return to lab
		15:40	Sample receipt

Return to:
ALS Environmental
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2808 | Created: 2/11/2015 11:11 | Instrument: 5972-W | HBN: 143502

Rule: EPA TO-15 SIM, Air | Analyst: J. Baum | Status: RE

Workorder: 1503581

Workorder: 1503747

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	433180	MB for HBN 143502 (IVOA/2808)				MB	1		ETO15SIM1Q			4/12/2015	2/10/2015
2	1503581001	A-0019H-020415-TD-001-HAL				SAMPLE	1	1503581001-A	ETO15SIM.1	5480		2/11/2015	2/10/2015
3	1503581002	A-0019H-020415-TD-002-B2				SAMPLE	1	1503581002-A	ETO15SIM.1	5480		2/11/2015	2/10/2015
4	1503581003	A-0019H-020415-TD-003-STO				SAMPLE	1	1503581003-A	ETO15SIM.1	5480		2/11/2015	2/10/2015
5	1503747001	A-0018H-020615-TO-001				SAMPLE	1	1503747001-A	ETO15SIM.1	5480		2/13/2015	2/10/2015
	** E\Result exceeds calibration range*												
6	1503747002	A-0018H-020615-TO-002				SAMPLE	1	1503747002-A	ETO15SIM.1	5480		2/13/2015	2/10/2015
7	433181	LCS for HBN 143502 (IVOA/2808)				LCS	1		ETO15SIM1Q			4/12/2015	2/11/2015
8	433182	LCSD for HBN 143502 (IVOA/2808				LCSD	1		ETO15SIM1Q			4/12/2015	2/11/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	WB35ICV	Area BCM	Area 1,4DFB	Area CB-d5
1.0 ppb v/v Continuing Cal Std		13965	50448	31860
	Upper Limit	19551	70627	44604
	Lower limit	8379	30269	19116

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	WB29BLK	12371	46426	19577
QC-	WB35ICV	13965	50448	31860
QD-	WB36LCSD	13953	50781	26901
A-0019H-020415-TD-001-HAL	FEI1503581001	13306	50159	23719
A-0019H-020415-TD-002-B2	FEI1503581002	11422	44566	20410
A-0019H-020415-TD-003-STO	FEI1503581003	13058	44157	24562
A-0018H-020615-TO-001	FEI1503747001	13076	44582	24835
A-0018H-020615-TO-002	FEI1503747002	11096	43157	20536

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	WB35ICV	RT BCM	RT 1,4DFB	RT CB-d5
1.0 ppb v/v Continuing Cal Std		10.09	11.57	15.33
	Upper Limit	10.59	12.07	15.83
	Lower limit	9.59	11.07	14.83

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	WB29BLK	10.14	11.62	15.37
QC-	WB35ICV	10.09	11.57	15.33
QD-	WB36LCSD	10.09	11.57	15.33
A-0019H-020415-TD-001-HAL	FEI1503581001	10.18	11.64	15.36
A-0019H-020415-TD-002-B2	FEI1503581002	10.17	11.63	15.37
A-0019H-020415-TD-003-STO	FEI1503581003	10.16	11.63	15.36
A-0018H-020615-TO-001	FEI1503747001	10.17	11.63	15.36
A-0018H-020615-TO-002	FEI1503747002	10.16	11.63	15.36

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Calibration Files
500 =WA16S05.D 1000 =WA15S1.D 200 =WA17S02.D
50 =WA19S005.D 100 =WA18S01.D

		Compound	500	1000	200	50	100	Avg	%RSD
1)		ISTD bromochlorometha	----------ISTD----------						
2)		dichlorodifluorometha	3.979	3.318	5.217	5.970	5.099	4.716	22.41
3)		freon 114	2.605	2.202	3.360	3.854	3.322	3.069	21.44
4)		vinyl chloride	0.990	0.852	1.236	1.411	1.218	1.142	19.29
5)		1,3-Butadiene	0.670	0.577	0.861	0.963	0.858	0.786	20.01
6)		bromomethane	0.634	0.535	0.806	0.978	0.812	0.753	22.90
7)		chloroethane	0.456	0.394	0.602	0.692	0.629	0.555	22.48
8)		trichlorofluoromethan	1.976	1.697	2.547	2.959	2.529	2.342	21.42
9)		freon 113	2.416	2.101	3.088	3.549	3.028	2.837	20.29
10)		1,1-dichloroethene	0.761	0.649	0.978	1.123	0.994	0.901	21.28
11)		methylene chloride	2.386	1.994	3.570	5.875	4.114	3.588	42.94
12)		trans-1,2-dichloroeth	1.031	0.899	1.347	1.439	1.253	1.194	18.77
13)		methyl t-butyl ether	2.632	2.498	2.973	2.891	2.587	2.716	7.54
14)		2-butanone	3.775	3.631	4.332	4.766	3.928	4.086	11.29
15)		cis-1,2-dichloroethen	0.802	0.771	0.889	0.873	0.796	0.826	6.26
16)		1,1-dichloroethane	2.731	2.428	3.511	3.615	3.348	3.127	16.62
17)		chloroform	2.879	2.506	3.635	3.913	3.535	3.294	17.64
18)		1,2-dichloroethane	2.090	1.889	2.569	2.749	2.418	2.343	14.97
19)	I	ISTD 1,4-difluorobenz	----------ISTD----------						
20)		1,1,1-trichloroethane	0.633	0.536	0.747	1.014	0.863	0.759	24.78
21)		carbon tetrachloride	0.601	0.517	0.722	0.974	0.845	0.732	25.12
22)		benzene	0.828	0.738	0.951	1.258	1.077	0.971	21.16
23)		Cyclohexane	0.305	0.267	0.357	0.520	0.428	0.376	26.91
24)		trichloroethene	0.269	0.230	0.296	0.402	0.348	0.309	21.79
25)		1,2-dichloropropane	0.422	0.375	0.394	0.512	0.438	0.428	12.28
26)		bromodichloromethane	0.699	0.599	0.813	1.073	0.931	0.823	22.72
27)		Heptane	0.658	0.655	0.642	0.733	0.679	0.673	5.33
28)		cis-1,3-dichloroprope	0.377	0.359	0.417	0.500	0.452	0.421	13.54
29)		trans-1,3-dichloropro	0.301	0.286	0.310	0.375	0.332	0.321	10.81
30)		1,1,2-trichloroethane	0.279	0.242	0.316	0.413	0.359	0.322	20.75
31)	I	ISTD chlorobenzene-d5	----------ISTD----------						
32)		toluene	1.142	0.994	1.267	1.636	1.491	1.306	19.83
33)		tetrachloroethene	0.418		0.530	0.718	0.658	0.581	23.05
34)		dibromochloromethane	1.006	0.786	1.274	1.720	1.588	1.275	30.56
35)		1,2-dibromoethane	0.832	0.657	0.870	1.165	1.024	0.910	21.28
36)		chlorobenzene	0.355	0.309	0.363	0.482	0.435	0.389	17.69
37)		ethyl benzene	0.261	0.236	0.280	0.353	0.319	0.290	15.92
38)		m,p-xylene	0.360	0.333	0.352	0.400	0.374	0.364	6.87
39)		o-xylene	0.326	0.297	0.322	0.377	0.335	0.331	8.76
40)		bromoform	0.518	0.409	0.638	0.878	0.778	0.644	29.43
41)		1,1,2,2-tetrachloroet	0.799	0.647	0.967	1.317	1.116	0.969	27.07

(#) = Out of Range
SIMT15AL.M Thu Sep 10 16:42:28 2015 Page 1

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Calibration Files
500 =WA16S05.D 1000 =WA15S1.D 200 =WA17S02.D
50 =WA19S005.D 100 =WA18S01.D

	Compound	500	1000	200	50	100	Avg	%RSD
42) S	Bromofluorobenzene	0.380	0.417	0.333	0.298	0.312	0.348	14.26

Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15
Sample : 1.0PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

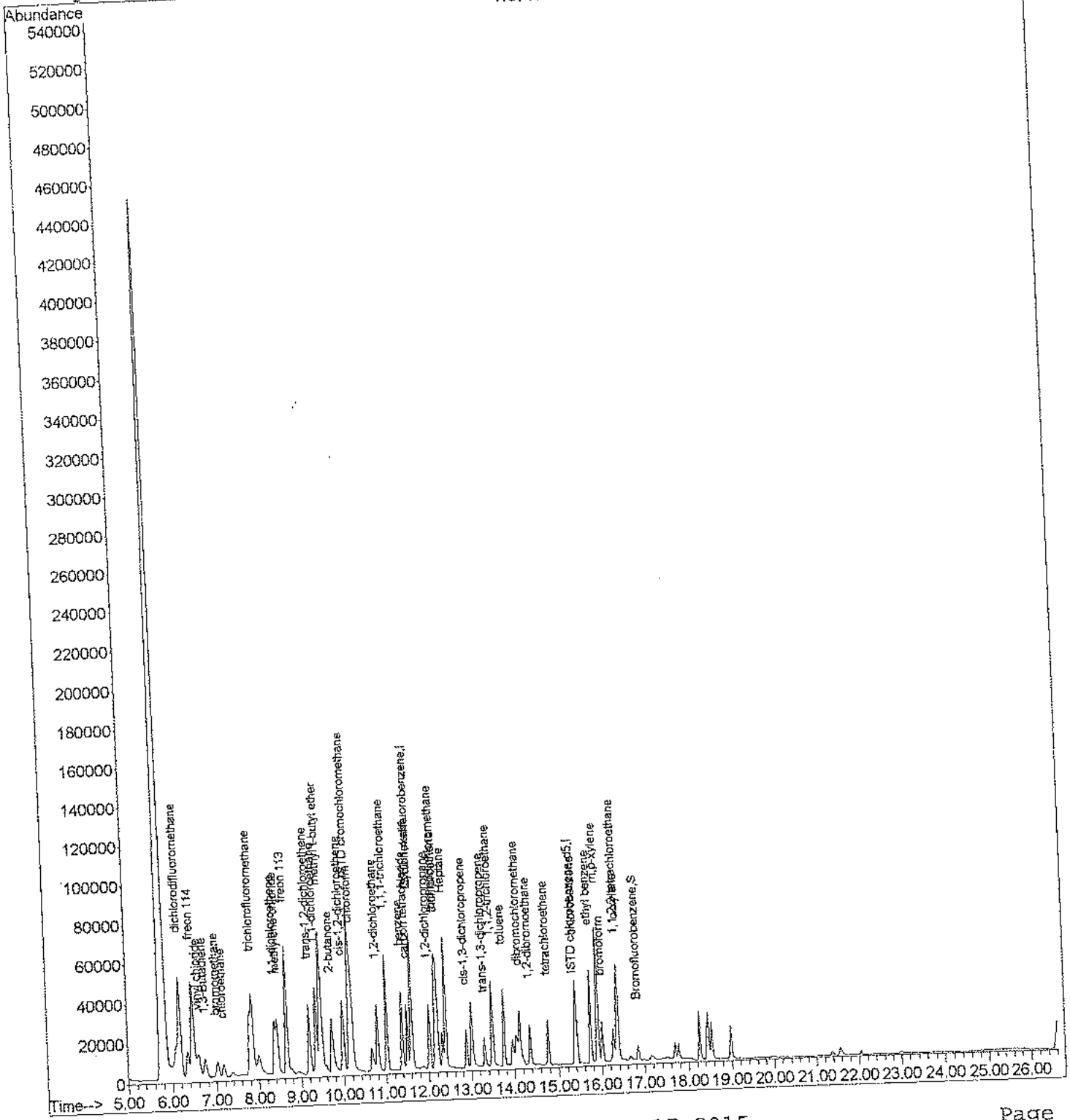
Quant Time: Feb 10 16:16 2015

Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

JD 09-16-15

TIC: WA15S1.D



Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15
Sample : 1.0PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:16 2015

Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	R.T.	QIon	Response	Conc	Units		Area%
Internal Standards							
1) ISTD bromochloromethane	10.12	128	17948	500.0000	ppt		99.80
19) ISTD 1,4-difluorobenzene	11.60	114	75432	500.0000	ppt		234.71#
31) ISTD chlorobenzene-d5	15.36	117	44410	500.0000	ppt		111.01
							%Recovery
System Monitoring Compounds							
42) Bromofluorobenzene	16.84	75	18540	682.1251	ppt		136.43%
							Qvalue
Target Compounds							
2) dichlorodifluoromethane	6.17	85	119092	1178.7195	ppt		99
3) freon 114	6.46	85	79047	1119.4732	ppt		94
4) vinyl chloride	6.61	62	30601	1238.4571	ppt		99
5) 1,3-Butadiene	6.74	54	20720	1308.2376	ppt	#	1
6) bromomethane	7.03	94	19188	1089.5718	ppt		98
7) chloroethane	7.17	64	14137	1165.0038	ppt		100
8) trichlorofluoromethane	7.86	101	60924	1133.8006	ppt		98
9) freon 113	8.65	101	75429	1245.1647	ppt	#	23
10) 1,1-dichloroethene	8.38	96	23298	1250.3166	ppt		90
11) methylene chloride	8.44	49	71565	1370.0831	ppt		87
12) trans-1,2-dichloroethene	9.19	96	32253	1353.3317	ppt		97
13) methyl t-butyl ether	9.47	73	89674	1574.0007	ppt	#	67
14) 2-butanone	9.72	43	130333	1179.9232	ppt	#	64
15) cis-1,2-dichloroethene	9.98	96	27679	2222.7677	ppt		86
16) 1,1-dichloroethane	9.35	63	87142	1389.0115	ppt		95
17) chloroform	10.20	83	89954	1322.8622	ppt	#	18
18) 1,2-dichloroethane	10.79	62	67790	1428.0911	ppt		98
20) 1,1,1-trichloroethane	11.01	97	80925	520.3875	ppt	#	18
21) carbon tetrachloride	11.51	117	77928	400.2668	ppt	#	1
22) benzene	11.39	78	111354	623.4588	ppt	#	48
23) Cyclohexane	11.62	84	40316	1253.4788	ppt	#	100
24) trichloroethene	12.21	130	34740	566.5110	ppt		98
25) 1,2-dichloropropane	12.02	63	56623	748.1948	ppt	#	68
26) bromodichloromethane	12.16	83	90311	562.0997	ppt		99
27) Heptane	12.40	43	98745	822.5210	ppt	#	19
28) cis-1,3-dichloropropene	12.88	75	54135	695.3415	ppt	#	9
29) trans-1,3-dichloropropene	13.31	75	43148	699.3520	ppt	#	9
30) 1,1,2-trichloroethane	13.49	97	36554	584.1765	ppt		99
32) toluene	13.76	91	88323	1554.7943	ppt	#	22
33) tetrachloroethene	14.78	164	29669	1208.1805	ppt	m	1
34) dibromochloromethane	14.13	129	69849	1118.5979	ppt	#	11
35) 1,2-dibromoethane	14.37	107	58374	1518.9756	ppt	#	3
36) chlorobenzene	15.40	112	27472	1532.6655	ppt	#	63

(#) = qualifier out of range (m) = manual integration

Acq Time : 02/10/2015 12:15
Sample : 1.0PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:16 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.74	106	20983	1631.4949	ppt		98
38)	m,p-xylene	15.91	106	59192	3777.9801	ppt		74
39)	o-xylene	16.38	106	26397	1851.1915	ppt		93
40)	bromoform	16.02	173	36347	1274.9449	ppt		100
41)	1,1,2,2-tetrachloroethane	16.35	83	57503	1386.2175	ppt	#	18

(#) = qualifier out of range (m) = manual integration

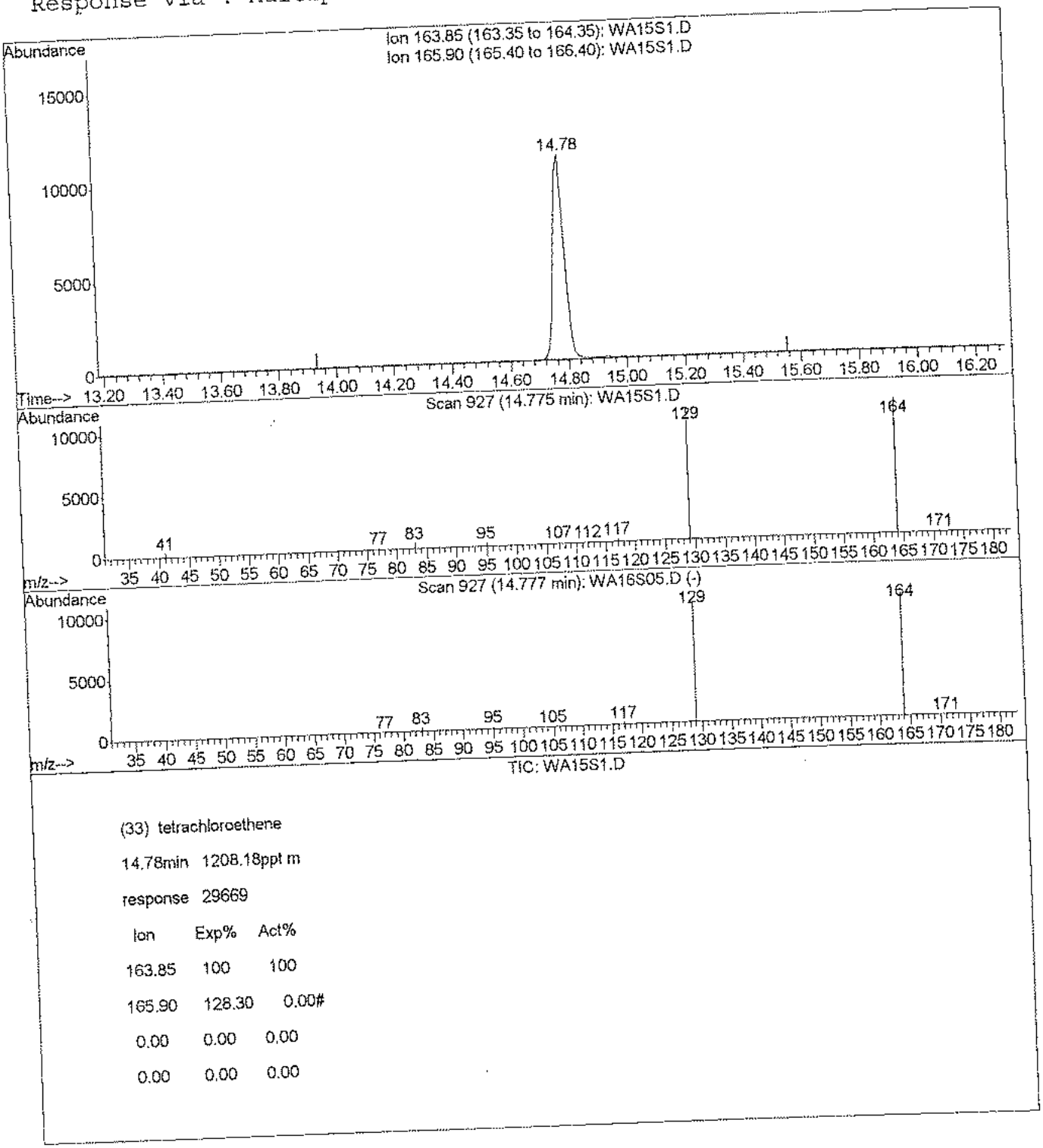
Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15
Sample : 1.0PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:16 2015

Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



(33) tetrachloroethene

14.78min 1208.18ppt m

response 29669

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Sample : 0.5PPB STD
Misc : 26743

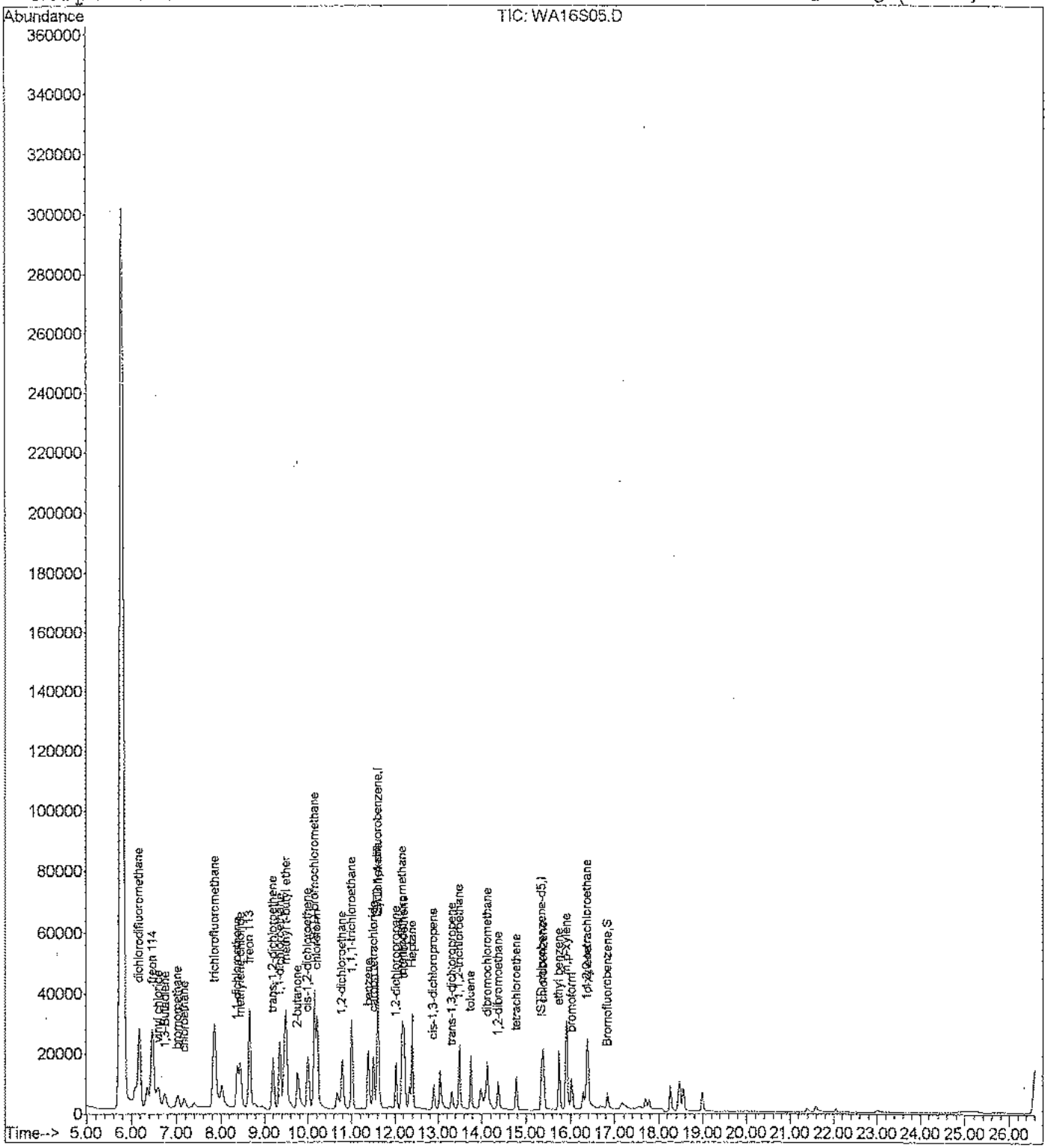
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:17 2015

Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

JD 09-16-15



Data File : J:\W\2015\FEB15W\10FEB15W\WA16S05.D
Acq Time : 02/10/2015 12:52
Sample : 0.5PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:17 2015

Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 12:40:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	R.T.	QIon	Response	Conc	Units		Area%
Internal Standards							
1) ISTD bromochloromethane	10.13	128	16396	500.0000	ppt		91.17
19) ISTD 1,4-difluorobenzene	11.61	114	66543	500.0000	ppt		207.05#
31) ISTD chlorobenzene-d5	15.36	117	35852	500.0000	ppt		89.62
							%Recovery
System Monitoring Compounds							
42) Bromofluorobenzene	16.84	75	13635	592.8645	ppt		118.57%
							Qvalue
Target Compounds							
2) dichlorodifluoromethane	6.17	85	65237	645.6817	ppt		100
3) freon 114	6.47	85	42714	614.1046	ppt		96
4) vinyl chloride	6.61	62	16233	653.5292	ppt		98
5) 1,3-Butadiene	6.75	54	10988	681.0135	ppt	#	1
6) bromomethane	7.03	94	10391	601.1049	ppt		99
7) chloroethane	7.17	64	7481	619.7348	ppt		96
8) trichlorofluoromethane	7.86	101	32405	611.6777	ppt		98
9) freon 113	8.65	101	39613	648.9250	ppt	#	23
10) 1,1-dichloroethene	8.38	96	12483	663.2303	ppt		95
11) methylene chloride	8.44	49	39114	723.8299	ppt		89
12) trans-1,2-dichloroethene	9.20	96	16911	693.2967	ppt		92
13) methyl t-butyl ether	9.49	73	43156	726.8360	ppt	#	67
14) 2-butanone	9.75	43	61897	552.1308	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	13148	916.2935	ppt		87
16) 1,1-dichloroethane	9.35	63	44783	694.0295	ppt		94
17) chloroform	10.21	83	47208	682.1656	ppt	#	18
18) 1,2-dichloroethane	10.80	62	34268	700.0166	ppt		98
20) 1,1,1-trichloroethane	11.01	97	42095	310.2986	ppt	#	18
21) carbon tetrachloride	11.51	117	40004	239.7595	ppt	#	1
22) benzene	11.39	78	55116	348.5668	ppt	#	48
23) Cyclohexane	11.62	84	20293	611.0565	ppt	#	100
24) trichloroethene	12.21	130	17929	334.7615	ppt		94
25) 1,2-dichloropropane	12.02	63	28075	408.2875	ppt	#	68
26) bromodichloromethane	12.16	83	46533	330.4291	ppt		98
27) Heptane	12.40	43	43772	404.2551	ppt	#	19
28) cis-1,3-dichloropropene	12.88	75	25089	363.5378	ppt	#	9
29) trans-1,3-dichloropropene	13.31	75	20045	367.1235	ppt	#	9
30) 1,1,2-trichloroethane	13.49	97	18555	337.8495	ppt		99
32) toluene	13.76	91	40948	779.4835	ppt	#	22
33) tetrachloroethene	14.78	164	14996	688.9030	ppt	m	1
34) dibromochloromethane	14.13	129	36050	656.1356	ppt	#	11
35) 1,2-dibromoethane	14.37	107	29814	830.9198	ppt	#	3
36) chlorobenzene	15.40	112	12715	775.7807	ppt	#	68

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\10FEB15W\WA16S05.D
Acq Time : 02/10/2015 12:52
Sample : 0.5PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:17 2015

Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 12:40:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
37) ethyl benzene	15.74	106	9375	781.3853 ppt		99
38) m,p-xylene	15.91	106	25841	1724.9286 ppt		73
39) o-xylene	16.38	106	11685	862.8446 ppt		96
40) bromoform	16.02	173	18569	725.7555 ppt		100
41) 1,1,2,2-tetrachloroethane	16.36	83	28636	753.7130 ppt	#	18

(#) = qualifier out of range (m) = manual integration

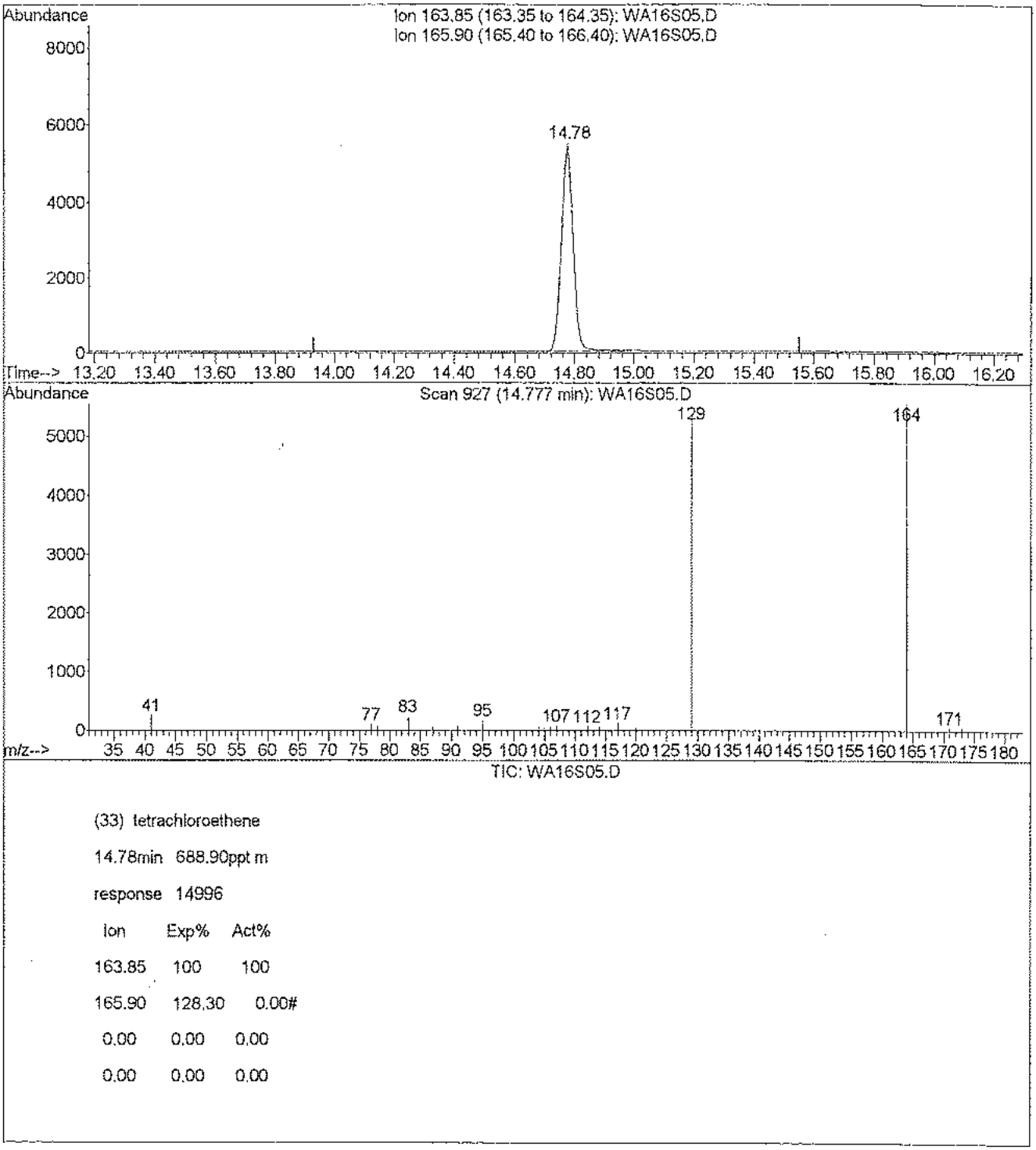
Acq Time : 02/10/2015 12:52
Sample : 0.5PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:17 2015

Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



(33) tetrachloroethene

14.78min 688.90ppt m

response 14996

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

WA16S05.D SIMT15AL.M Fri Sep 11 13:50:11 2015

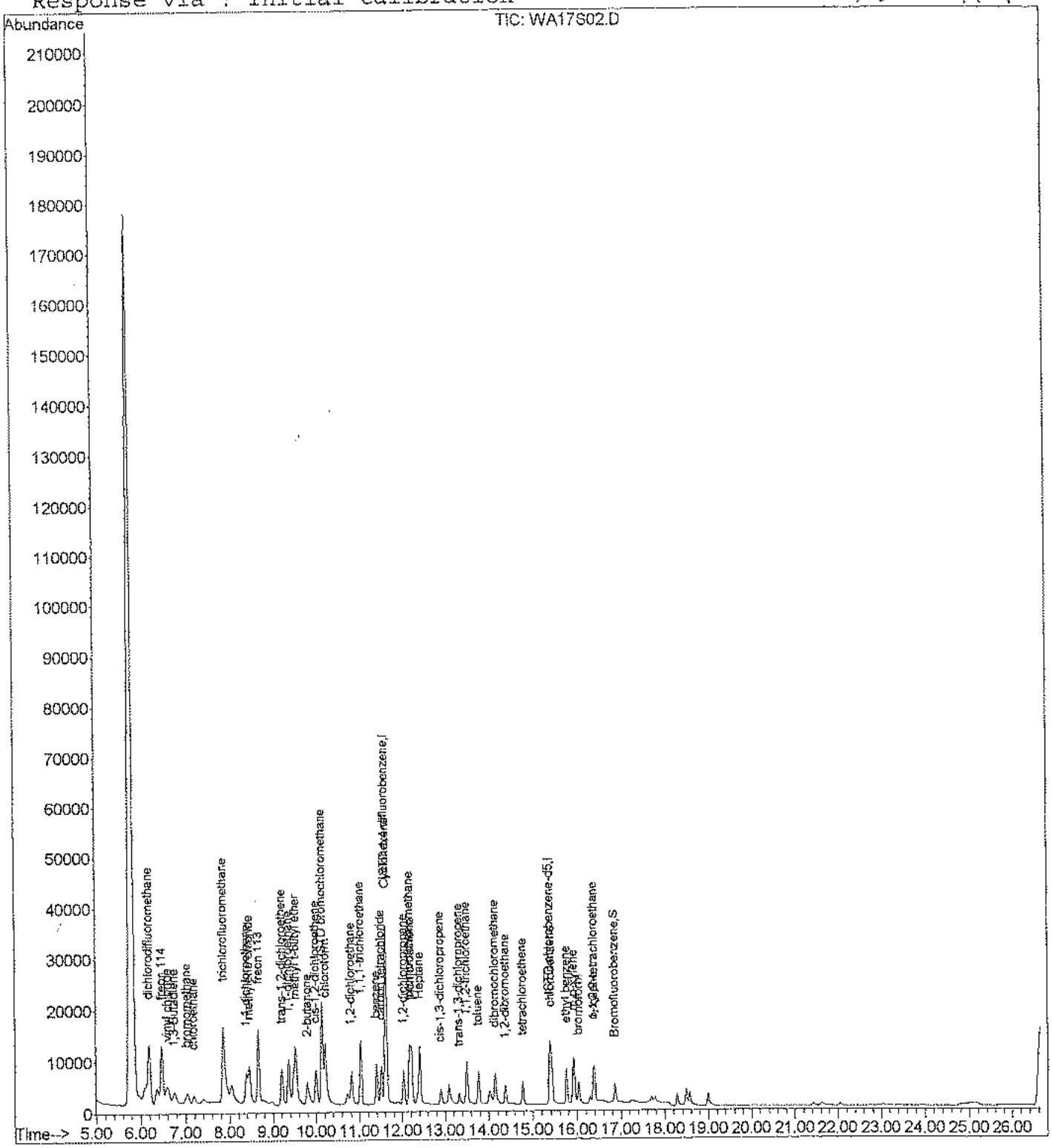
Data File : J:\W\2015\FEB15W\10FEB15W\WA17S02.D
Acq Time : 02/10/2015 13:30
Sample : 0.2 PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 15:14 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

TO 09-16-15



Data File : J:\W\2015\FEB15W\10FEB15W\WA17S02.D
Acq Time : 02/10/2015 13:30
Sample : 0.2 PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 15:14 2015

Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 13:11:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	R.T.	QIon	Response	Conc	Units		Area%
Internal Standards							
1) ISTD bromochloromethane	10.13	128	13508	500.0000	ppt		82.39
19) ISTD 1,4-difluorobenzene	11.61	114	58990	500.0000	ppt		88.65
31) ISTD chlorobenzene-d5	15.37	117	29602	500.0000	ppt		82.57
							%Recovery
System Monitoring Compounds							
42) Bromofluorobenzene	16.85	75	9860	500.2315	ppt		100.05%
							Qvalue
Target Compounds							
2) dichlorodifluoromethane	6.18	85	28187	307.6156	ppt		100
3) freon 114	6.47	85	18157	292.5343	ppt		96
4) vinyl chloride	6.60	62	6678	295.9857	ppt		96
5) 1,3-Butadiene	6.75	54	4650	313.6695	ppt	#	1
6) bromomethane	7.02	94	4355	283.7613	ppt		100
7) chloroethane	7.18	64	3253	300.4770	ppt		95
8) trichlorofluoromethane	7.85	101	13762	291.6277	ppt		98
9) freon 113	8.66	101	16687	301.6180	ppt	#	23
10) 1,1-dichloroethene	8.38	96	5284	308.2287	ppt		96
11) methylene chloride	8.45	49	19290	380.1880	ppt		89
12) trans-1,2-dichloroethene	9.20	96	7280	324.8158	ppt		87
13) methyl t-butyl ether	9.52	73	16063	292.5317	ppt	#	65
14) 2-butanone	9.80	43	23404	233.8505	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	4806	333.4741	ppt		96
16) 1,1-dichloroethane	9.36	63	18972	319.2655	ppt		95
17) chloroform	10.21	83	19642	309.0887	ppt	#	18
18) 1,2-dichloroethane	10.82	62	13879	307.0834	ppt		98
20) 1,1,1-trichloroethane	11.02	97	17632	152.8702	ppt	#	18
21) carbon tetrachloride	11.51	117	17040	122.9179	ppt	#	1
22) benzene	11.39	78	22442	164.4861	ppt	#	48
23) Cyclohexane	11.63	84	8413	250.7916	ppt	#	100
24) trichloroethene	12.21	130	6993	152.9230	ppt		96
25) 1,2-dichloropropane	12.03	63	9306	151.9504	ppt		89
26) bromodichloromethane	12.17	83	19173	159.1043	ppt		99
27) Heptane	12.41	43	15137	161.2977	ppt	#	19
28) cis-1,3-dichloropropene	12.89	75	9829	165.1395	ppt	#	9
29) trans-1,3-dichloropropene	13.32	75	7323	155.8655	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	7465	158.1867	ppt		99
32) toluene	13.77	91	15008	298.9572	ppt	#	22
33) tetrachloroethene	14.78	164	6279	311.2687	ppt	#	1
34) dibromochloromethane	14.14	129	15084	297.8536	ppt	#	11
35) 1,2-dibromoethane	14.38	107	10298	293.9085	ppt	#	3
36) chlorobenzene	15.40	112	4303	269.8619	ppt	#	71

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\10FEB15W\WA17S02.D
Acq Time : 02/10/2015 13:30
Sample : 0.2 PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 15:14 2015

Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 13:11:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37) ethyl benzene	15.75	106	3321	288.8600	ppt		99
38) m,p-xylene	15.92	106	8331	569.5254	ppt		71
39) o-xylene	16.39	106	3817	289.0495	ppt		91
40) bromoform	16.03	173	7560	313.5506	ppt		100
41) 1,1,2,2-tetrachloroethane	16.37	83	11447	315.2100	ppt	#	18

(#) = qualifier out of range (m) = manual integration

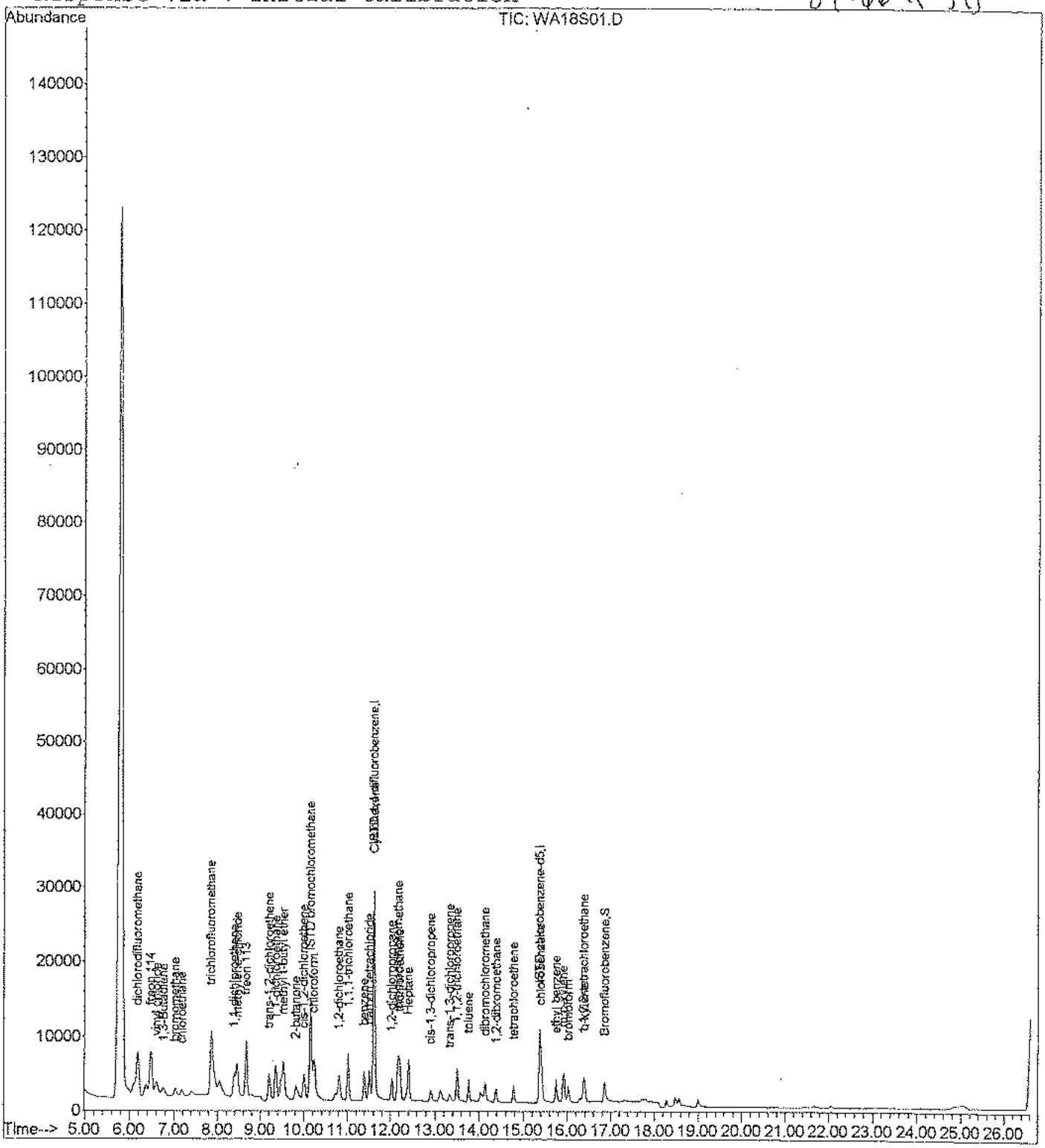
Sample : 0.1 PPB STD
Misc : 26743

Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 15:49 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

09-06-15 JG



Data File : J:\W\2015\FEB15W\10FEB15W\WA18S01.D
Acq Time : 02/10/2015 14:08
Sample : 0.1 PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 15:49 2015

Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:28:53 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	R.T.	QIon	Response	Conc	Units		Area%
Internal Standards							
1) ISTD bromochloromethane	10.14	128	14862	500.0000	ppt		90.64
19) ISTD 1,4-difluorobenzene	11.61	114	53025	500.0000	ppt		79.69
31) ISTD chlorobenzene-d5	15.37	117	24875	500.0000	ppt		69.38
							%Recovery
System Monitoring Compounds							
42) Bromofluorobenzene	16.85	75	7768	448.7273	ppt		89.75%
							Qvalue
Target Compounds							
2) dichlorodifluoromethane	6.19	85	15156	95.3544	ppt		99
3) freon 114	6.47	85	9875	94.9147	ppt		97
4) vinyl chloride	6.61	62	3620	94.3188	ppt		97
5) 1,3-Butadiene	6.75	54	2549	97.3397	ppt	#	1
6) bromomethane	7.03	94	2415	95.7335	ppt		99
7) chloroethane	7.18	64	1871	100.6207	ppt		96
8) trichlorofluoromethane	7.86	101	7516	95.0389	ppt		98
9) freon 113	8.67	101	9001	94.5545	ppt	#	23
10) 1,1-dichloroethene	8.38	96	2956	98.8095	ppt		98
11) methylene chloride	8.45	49	12227	120.1622	ppt		89
12) trans-1,2-dichloroethene	9.20	96	3724	91.8699	ppt		91
13) methyl t-butyl ether	9.55	73	7689	81.1743	ppt	#	62
14) 2-butanone	9.82	43	11676	77.9037	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	2367	86.1390	ppt		97
16) 1,1-dichloroethane	9.36	63	9953	93.3169	ppt		96
17) chloroform	10.21	83	10507	94.2437	ppt	#	18
18) 1,2-dichloroethane	10.82	62	7188	90.4217	ppt		98
20) 1,1,1-trichloroethane	11.02	97	9151	85.1986	ppt	#	18
21) carbon tetrachloride	11.51	117	8963	77.4513	ppt	#	1
22) benzene	11.39	78	11420	86.1038	ppt	#	48
23) Cyclohexane	11.63	84	4544	103.2305	ppt	#	100
24) trichloroethene	12.22	130	3693	86.3276	ppt		95
25) 1,2-dichloropropane	12.04	63	4641	79.0150	ppt		89
26) bromodichloromethane	12.17	83	9876	86.3156	ppt		98
27) Heptane	12.41	43	7203	77.8025	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	4791	82.5424	ppt	#	9
29) trans-1,3-dichloropropene	13.33	75	3526	78.2911	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	3807	85.5739	ppt		100
32) toluene	13.77	91	7416	110.5865	ppt	#	22
33) tetrachloroethene	14.78	164	3276	120.8786	ppt	#	1
34) dibromochloromethane	14.14	129	7898	119.5563	ppt	#	11
35) 1,2-dibromoethane	14.39	107	5093	109.4803	ppt	#	3
36) chlorobenzene	15.40	112	2165	108.4981	ppt	#	56

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\10FEB15W\WA18S01.D
Acq Time : 02/10/2015 14:08
Sample : 0.1 PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 15:49 2015

Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:28:53 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37) ethyl benzene	15.75	106	1585	104.4001	ppt		99
38) m,p-xylene	15.92	106	3726	192.3491	ppt	#	68
39) o-xylene	16.39	106	1665	94.4551	ppt		91
40) bromoform	16.03	173	3870	118.4156	ppt		100
41) 1,1,2,2-tetrachloroethane	16.37	83	5550	112.2012	ppt	#	18

(#) = qualifier out of range (m) = manual integration

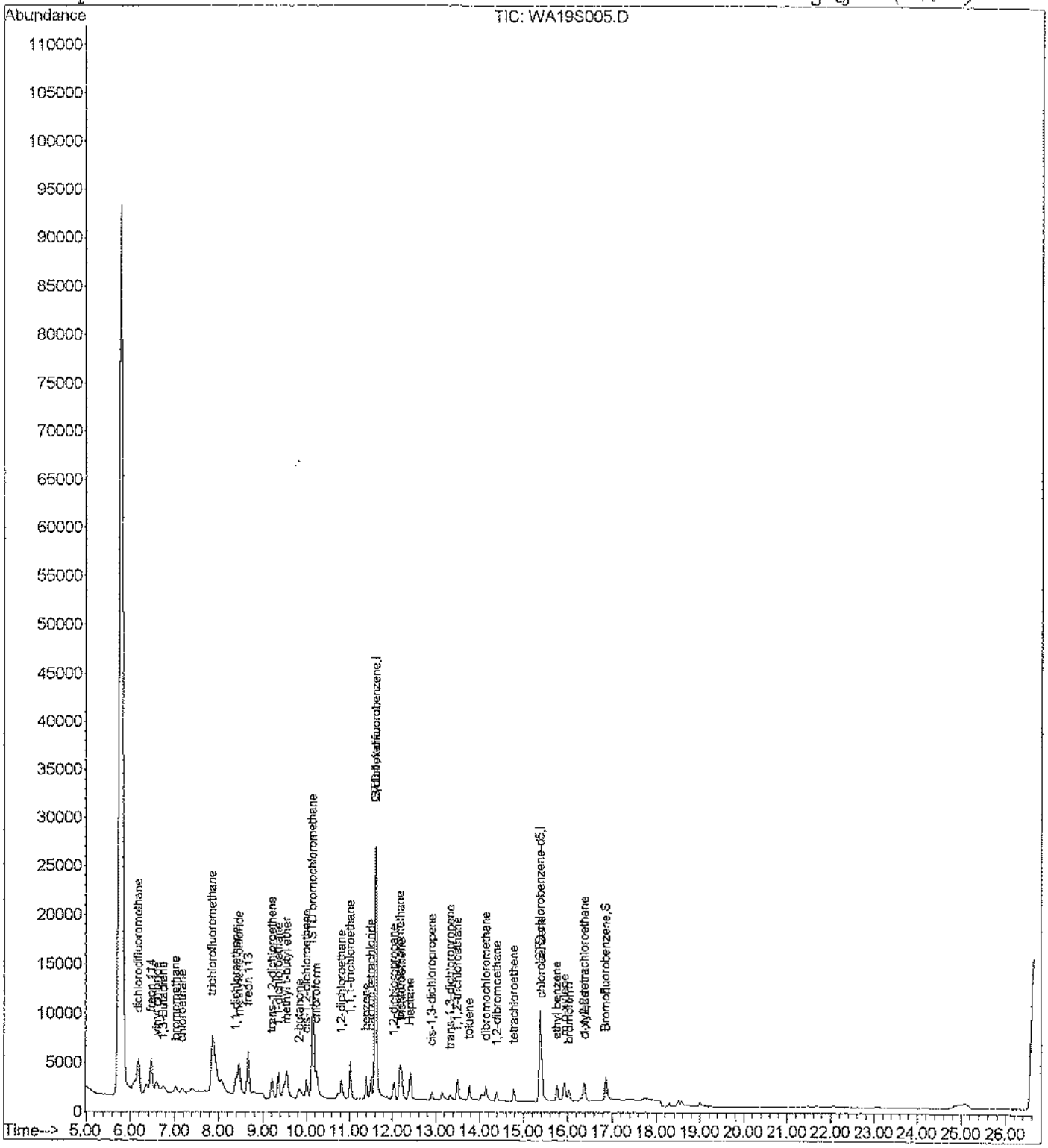
Sample : 0.05PPB STD
Misc : 26743

Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

JJ 09-16-15



Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46
Sample : 0.05PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:29:59 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	14732	500.0000	ppt		89.85
19) ISTD 1,4-difluorobenzene	11.62	114	52267	500.0000	ppt		78.55
31) ISTD chlorobenzene-d5	15.37	117	23685	500.0000	ppt		66.06
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.86	75	7058	433.3803	ppt		86.68%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	8795	69.7361	ppt		97
3) freon 114	6.47	85	5677	68.3124	ppt		97
4) vinyl chloride	6.61	62	2079	67.8188	ppt		92
5) 1,3-Butadiene	6.75	54	1418	67.9500	ppt	#	1
6) bromomethane	7.03	94	1441	71.0058	ppt		99
7) chloroethane	7.18	64	1019	67.7271	ppt	#	43
8) trichlorofluoromethane	7.86	101	4359	68.8907	ppt		99
9) freon 113	8.67	101	5229	68.9773	ppt	#	23
10) 1,1-dichloroethene	8.39	96	1655	68.9895	ppt		95
11) methylene chloride	8.46	49	8655	104.2415	ppt		90
12) trans-1,2-dichloroethene	9.20	96	2120	66.9096	ppt		94
13) methyl t-butyl ether	9.55	73	4259	57.4764	ppt	#	62
14) 2-butanone	9.84	43	7021	58.1861	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	1286	59.9587	ppt		100
16) 1,1-dichloroethane	9.36	63	5326	63.3484	ppt		96
17) chloroform	10.21	83	5765	65.1420	ppt	#	18
18) 1,2-dichloroethane	10.82	62	4050	64.5152	ppt		99
20) 1,1,1-trichloroethane	11.02	97	5298	57.1720	ppt	#	18
21) carbon tetrachloride	11.51	117	5093	50.1557	ppt	#	1
22) benzene	11.40	78	6577	57.9576	ppt	#	48
23) Cyclohexane	11.62	84	2720	72.6525	ppt	#	100
24) trichloroethene	12.22	130	2103	56.7523	ppt		94
25) 1,2-dichloropropane	12.04	63	2675	52.9132	ppt		86
26) bromodichloromethane	12.17	83	5607	57.0539	ppt		100
27) Heptane	12.41	43	3829	48.6942	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	2613	53.0660	ppt	#	9
29) trans-1,3-dichloropropene	13.33	75	1962	51.1369	ppt	#	9
30) 1,1,2-trichloroethane	13.51	97	2157	56.5717	ppt		92
32) toluene	13.77	91	3874	71.7957	ppt	#	22
33) tetrachloroethene	14.78	164	1701	77.3331	ppt	m	1
34) dibromochloromethane	14.14	129	4073	75.7019	ppt	#	11
35) 1,2-dibromoethane	14.39	107	2760	73.5728	ppt	#	3
36) chlorobenzene	15.40	112	1141	70.2727	ppt	#	27

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46
Sample : 0.05PPB STD
Misc : 26743

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:29:59 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

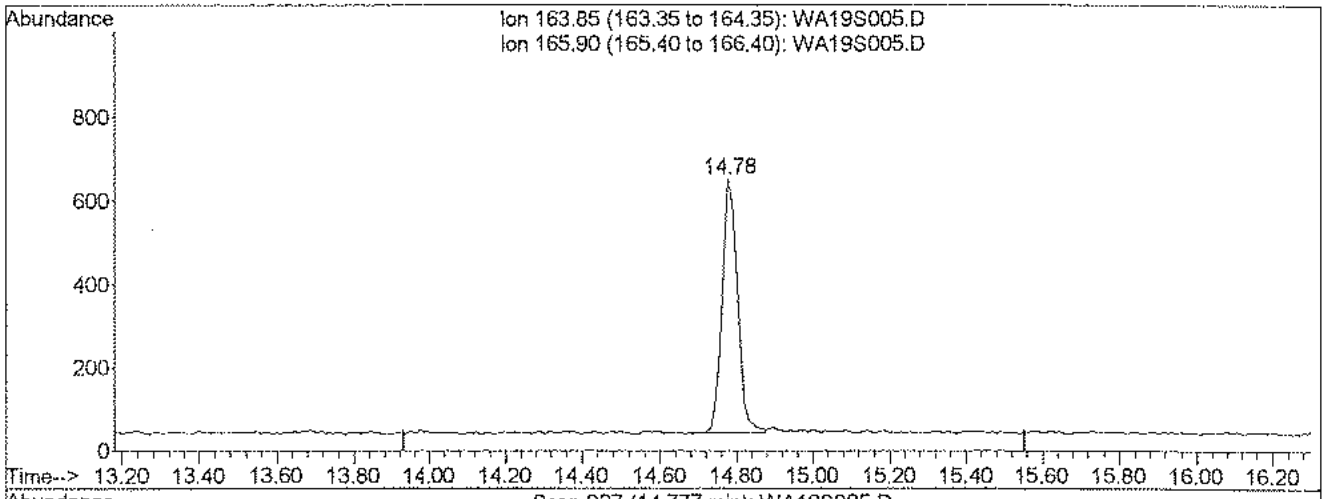
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.76	106	835	68.6696	ppt		95
38)	m,p-xylene	15.93	106	1894	123.5782	ppt	#	68
39)	o-xylene	16.40	106	893	64.4916	ppt		85
40)	bromoform	16.03	173	2080	78.8176	ppt		100
41)	1,1,2,2-tetrachloroethane	16.37	83	3120	79.2894	ppt	#	18

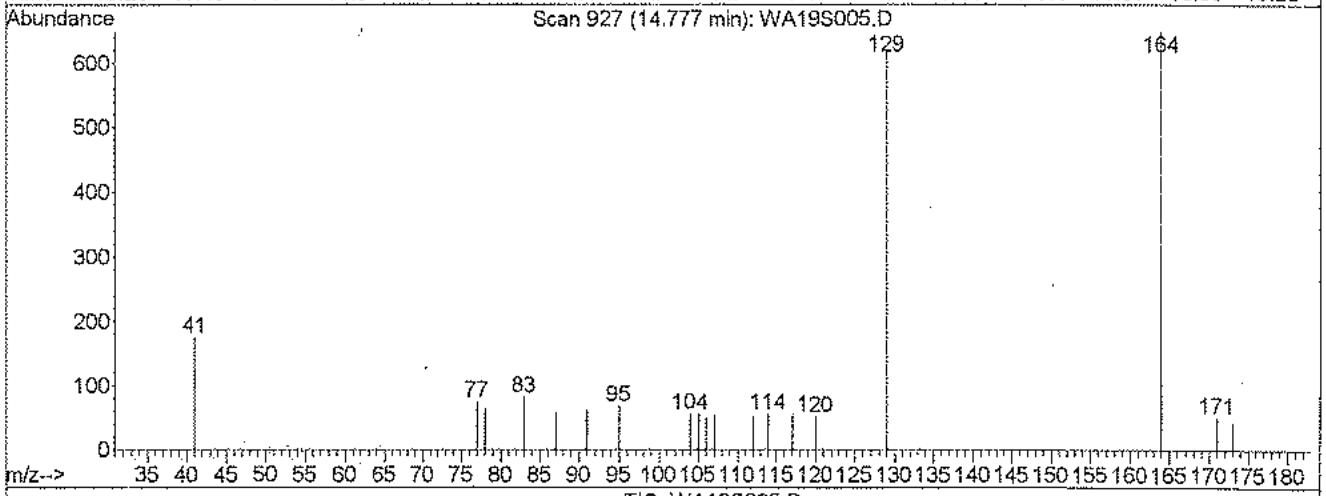
(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration





TIC: WA19S005.D

(33) tetrachloroethene

14.78min 77.33ppt m

response 1701

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

143502

Analyst Notebook

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is S1MT15AL-M (HBN 143502)

The following compounds in the CCS were outside of +-30%:

cis-1,2-DCE recoveries in the 0-/20 were above the historical limits

No cis-1,2-DCE were detected in any of the samples

2.11.15

JordenBaum 02-11-15

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Continuing Calibration Report 5972-W

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Continuing Calibration File: WA16S05.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%
1		ISTD bromochloromethane	1.000	1.000	0.0	100
2		dichlorodifluoromethane	4.716	3.979	15.6	100
3		freon 114	3.069	2.605	15.1	100
4		vinyl chloride	1.142	0.990	13.3	100
5		1,3-Butadiene	0.786	0.670	14.7	100
6		bromomethane	0.753	0.634	15.8	100
7		chloroethane	0.555	0.456	17.7	100
8		trichlorofluoromethane	2.342	1.976	15.6	100
9		freon 113	2.837	2.416	14.8	100
10		1,1-dichloroethene	0.901	0.761	15.5	100
11		methylene chloride	3.588	2.386	33.5#	100
12		trans-1,2-dichloroethene	1.194	1.031	13.6	100
13		methyl t-butyl ether	2.716	2.632	3.1	100
14		2-butanone	4.086	3.775	7.6	100
15		cis-1,2-dichloroethene	0.826	0.802	3.0	100
16		1,1-dichloroethane	3.127	2.731	12.6	100
17		chloroform	3.294	2.879	12.6	100
18		1,2-dichloroethane	2.343	2.090	10.8	100
19	I	ISTD 1,4-difluorobenzene	1.000	1.000	0.0	100
20		1,1,1-trichloroethane	0.759	0.633	16.6	100
21		carbon tetrachloride	0.732	0.601	17.9	100
22		benzene	0.971	0.828	14.7	100
23		Cyclohexane	0.376	0.305	18.8	100
24		trichloroethene	0.309	0.269	12.9	100
25		1,2-dichloropropane	0.428	0.422	1.5	100
26		bromodichloromethane	0.823	0.699	15.0	100
27		Heptane	0.673	0.658	2.3	100
28		cis-1,3-dichloropropene	0.421	0.377	10.4	100
29		trans-1,3-dichloropropene	0.321	0.301	6.2	100
30		1,1,2-trichloroethane	0.322	0.279	13.4	100
31	I	ISTD chlorobenzene-d5	1.000	1.000	0.0	100
32		toluene	1.306	1.142	12.6	100
33		tetrachloroethene	0.581	0.418	28.0	100
34		dibromochloromethane	1.275	1.006	21.1	100
35		1,2-dibromoethane	0.910	0.832	8.6	100
36		chlorobenzene	0.389	0.355	8.8	100
37		ethyl benzene	0.290	0.261	9.8	100
38		m,p-xylene	0.364	0.360	1.0	100
39		o-xylene	0.331	0.326	1.7	100
40		bromoform	0.644	0.518	19.6	100
41		1,1,2,2-tetrachloroethane	0.969	0.799	17.6	100

(#) = Out of Range

Continuing Calibration Report 5972-W

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Continuing Calibration File: WA16S05.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%
42 S	Bromofluorobenzene	0.348	0.380	-9.2	100

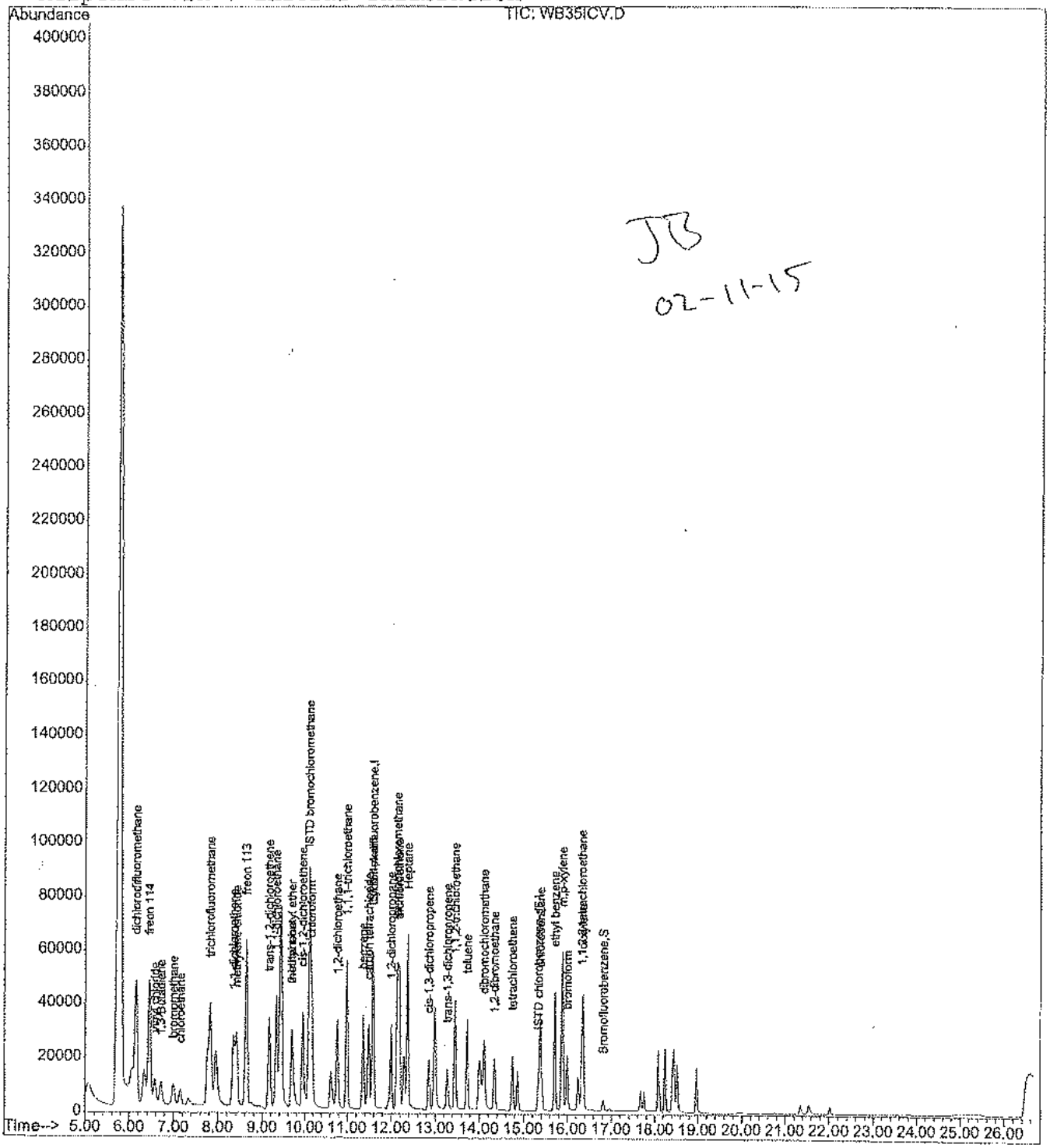
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB35ICV.D
Acq Time : 02/11/2015 09:47 Operator: TJM
Sample : ~~0.5PPB STD ICV~~ ICV/QC Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:36 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB35ICV.D
Acq Time : 02/11/2015 09:47 Operator: TJM
Sample : ~~0.5PPB~~ STD ICV/QC Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:36 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.09	128	13965	500.0000 ppt		85.17
19) ISTD 1,4-difluorobenzene	11.57	114	50448	500.0000 ppt		75.81
31) ISTD chlorobenzene-d5	15.33	117	31860	500.0000 ppt		88.87
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.81	75	9261	417.3653 ppt		83.47%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.15	85	112822	856.4642 ppt		99
3) freon 114	6.44	85	74488	869.0868 ppt		95
4) vinyl chloride	6.57	62	28664	899.0519 ppt		100
5) 1,3-Butadiene	6.72	54	19003	866.0471 ppt	#	1
6) bromomethane	6.99	94	18159	863.4466 ppt		98
7) chloroethane	7.15	64	13452	868.3380 ppt		99
8) trichlorofluoromethane	7.82	101	58621	896.3254 ppt		98
9) freon 113	8.62	101	73095	922.5915 ppt	#	23
10) 1,1-dichloroethene	8.34	96	22347	887.7826 ppt		88
11) methylene chloride	8.41	49	70352	702.1103 ppt		86
12) trans-1,2-dichloroethene	9.16	96	36511	1094.9856 ppt		79
13) methyl t-butyl ether	9.69	73	944	12.4435 ppt	#	1
14) 2-butanone	9.69	43	111910	980.5483 ppt	#	64
15) cis-1,2-dichloroethene	9.96	96	37695	1633.2471 ppt		95
16) 1,1-dichloroethane	9.31	63	83684	958.2369 ppt		95
17) chloroform	10.17	83	86767	943.1876 ppt	#	18
18) 1,2-dichloroethane	10.77	62	67153	1026.2152 ppt		98
20) 1,1,1-trichloroethane	10.98	97	77602	1013.9350 ppt	#	18
21) carbon tetrachloride	11.48	117	74417	1007.7454 ppt	#	1
22) benzene	11.35	78	92174	941.2896 ppt	#	48
23) Cyclohexane	11.59	84	37539	990.7658 ppt	#	100
24) trichloroethene	12.17	130	33085	1060.0637 ppt		95
25) 1,2-dichloropropane	11.99	63	55598	1286.8573 ppt		85
26) bromodichloromethane	12.13	83	86600	1043.0327 ppt		99
27) Heptane	12.37	43	96191	1416.3291 ppt	#	19
28) cis-1,3-dichloropropene	12.85	75	52363	1233.2457 ppt	#	9
29) trans-1,3-dichloropropene	13.28	75	43304	1336.6763 ppt	#	9
30) 1,1,2-trichloroethane	13.46	97	34250	1054.7577 ppt		100
32) toluene	13.73	91	76183	915.4155 ppt	#	22
33) tetrachloroethene	14.74	164	26127	924.5158 ppt	#	1
34) dibromochloromethane	14.10	129	66102	813.8853 ppt	#	11
35) 1,2-dibromoethane	14.33	107	54536	941.0288 ppt	#	3
36) chlorobenzene	15.37	112	44218	1784.5811 ppt		86

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB35ICV.D
Acq Time : 02/11/2015 09:47 Operator: TJM
Sample : 0.5PPB STD ICV/QC Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:36 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
37) ethyl benzene	15.71	106	19126	1035.4944 ppt		98
38) m,p-xylene	15.88	106	50147	2162.4249 ppt		76
39) o-xylene	16.36	106	22687	1074.2375 ppt		92
40) bromoform	15.99	173	36496	888.9007 ppt		100
41) 1,1,2,2-tetrachloroethane	16.32	83	61401	994.2803 ppt	#	18

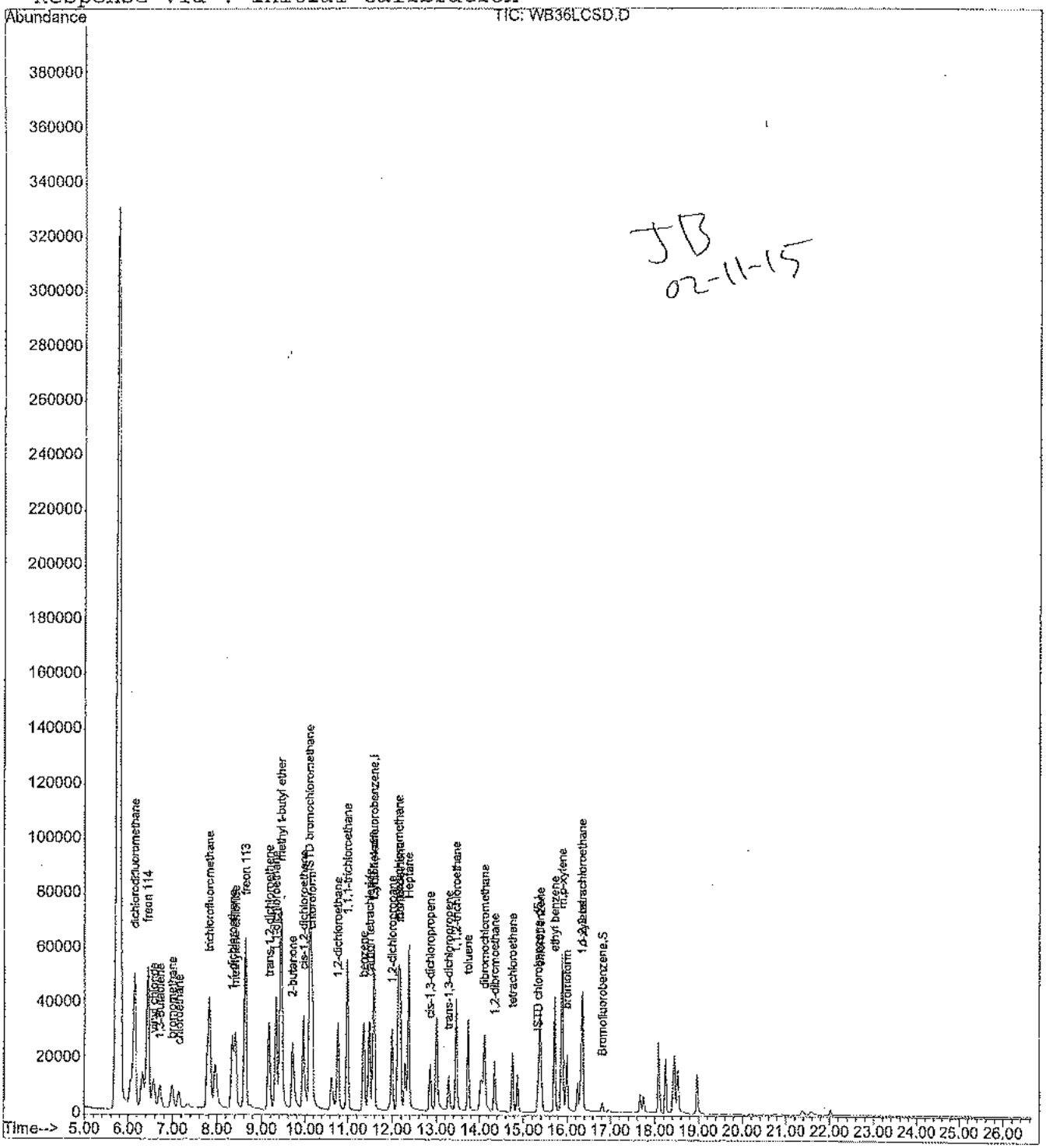
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB36LCSD.D
Acq Time : 02/11/2015 10:24 Operator: TJM
Sample : QD- Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:57 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB36LCSD.D
Acq Time : 02/11/2015 10:24 Operator: TJM
Sample : QD- Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:57 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.09	128	13953	500.0000	ppt		85.10
19) ISTD 1,4-difluorobenzene	11.57	114	50781	500.0000	ppt		76.31
31) ISTD chlorobenzene-d5	15.33	117	26901	500.0000	ppt		75.03
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.81	75	8157	435.3777	ppt		87.08%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.15	85	121129	920.3159	ppt		99
3) freon 114	6.44	85	81926	956.6915	ppt		97
4) vinyl chloride	6.57	62	30762	965.6859	ppt		98
5) 1,3-Butadiene	6.71	54	19320	881.2514	ppt	#	1
6) bromomethane	6.99	94	20276	964.9375	ppt		100
7) chloroethane	7.15	64	14387	929.4917	ppt		100
8) trichlorofluoromethane	7.82	101	62833	961.5539	ppt		98
9) freon 113	8.63	101	74908	946.2879	ppt	#	23
10) 1,1-dichloroethene	8.34	96	23443	932.1246	ppt		95
11) methylene chloride	8.41	49	69229	691.4970	ppt		89
12) trans-1,2-dichloroethene	9.16	96	36293	1089.3837	ppt		75
13) methyl t-butyl ether	9.44	73	87654	1156.4184	ppt		80
14) 2-butanone	9.69	43	97640	856.2512	ppt	#	64
15) cis-1,2-dichloroethene	9.96	96	36574	1586.0393	ppt		96
16) 1,1-dichloroethane	9.31	63	84219	965.1924	ppt		95
17) chloroform	10.17	83	87438	951.2990	ppt	#	18
18) 1,2-dichloroethane	10.76	62	64270	983.0026	ppt		98
20) 1,1,1-trichloroethane	10.98	97	77990	1012.3224	ppt	#	18
21) carbon tetrachloride	11.48	117	76043	1023.0117	ppt	#	1
22) benzene	11.35	78	89857	911.6107	ppt	#	48
23) Cyclohexane	11.59	84	38284	1003.8026	ppt	#	100
24) trichloroethene	12.18	130	33492	1066.0673	ppt		93
25) 1,2-dichloropropane	11.99	63	53229	1223.9459	ppt		84
26) bromodichloromethane	12.13	83	84854	1015.3015	ppt		98
27) Heptane	12.37	43	90370	1321.8942	ppt	#	19
28) cis-1,3-dichloropropene	12.85	75	48719	1139.8984	ppt	#	9
29) trans-1,3-dichloropropene	13.28	75	39334	1206.1714	ppt	#	9
30) 1,1,2-trichloroethane	13.46	97	34628	1059.4055	ppt		99
32) toluene	13.73	91	74537	1060.7412	ppt	#	22
33) tetrachloroethene	14.74	164	27273	1142.9705	ppt	#	1
34) dibromochloromethane	14.10	129	65711	958.2173	ppt	#	11
35) 1,2-dibromoethane	14.34	107	53346	1090.1815	ppt	#	3
36) chlorobenzene	15.38	112	44987	2150.3125	ppt		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB36LCSD.D
Acq Time : 02/11/2015 10:24 Operator: TJM
Sample : QD- Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:57 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37) ethyl benzene	15.71	106	18727	1200.7958	ppt		99
38) m,p-xylene	15.88	106	49841	2545.4242	ppt		73
39) o-xylene	16.36	106	22988	1289.1450	ppt		91
40) bromoform	15.99	173	36397	1049.9072	ppt		100
41) 1,1,2,2-tetrachloroethane	16.33	83	58599	1123.8309	ppt	#	18

(#) = qualifier out of range (m) = manual integration

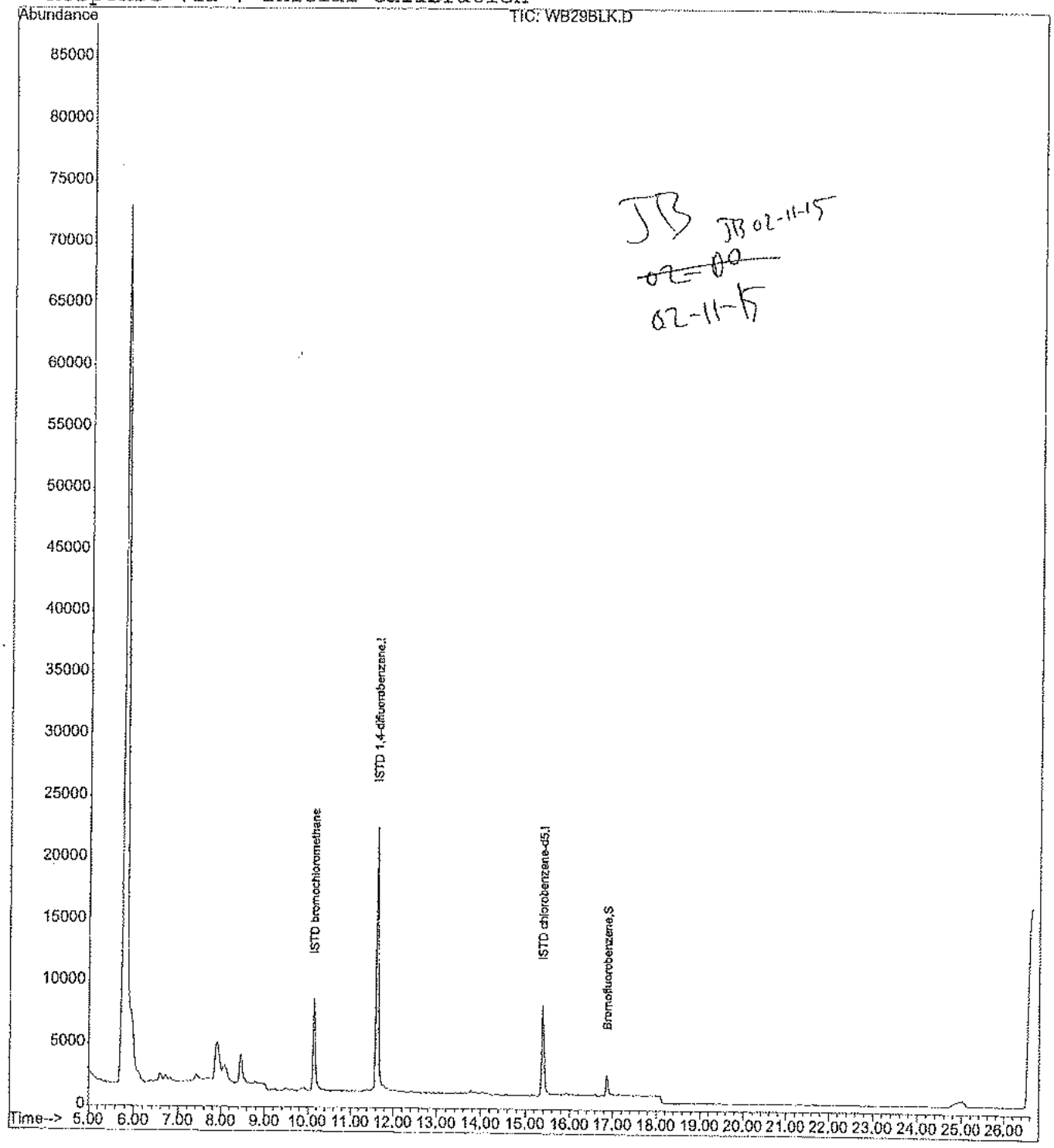
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB29BLK.D
Acq Time : 02/10/2015 16:40
Sample : BL-
Misc :

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 9:20 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB 02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB29BLK.D
Acq Time : 02/10/2015 16:40 Operator: TJM
Sample : BL- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 11 9:20 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) ISTD bromochloromethane	10.14	128	12371	500.0000	ppt	75.45
19) ISTD 1,4-difluorobenzene	11.62	114	46426	500.0000	ppt	69.77
31) ISTD chlorobenzene-d5	15.37	117	19577	500.0000	ppt	54.61
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.86	75	5748	421.5749	ppt	84.31%
Target Compounds						Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected		
3) freon 114	0.00	85		Not Detected		
4) vinyl chloride	0.00	62		Not Detected		
5) 1,3-Butadiene	0.00	54		Not Detected		
6) bromomethane	0.00	94		Not Detected		
7) chloroethane	0.00	64		Not Detected		
8) trichlorofluoromethane	0.00	101		Not Detected		
9) freon 113	0.00	101		Not Detected		
10) 1,1-dichloroethene	0.00	96		Not Detected		
11) methylene chloride	0.00	49		Not Detected		
12) trans-1,2-dichloroethene	0.00	96		Not Detected		
13) methyl t-butyl ether	0.00	73		Not Detected		
14) 2-butanone	0.00	43		Not Detected		
15) cis-1,2-dichloroethene	0.00	96		Not Detected		
16) 1,1-dichloroethane	0.00	63		Not Detected		
17) chloroform	0.00	83		Not Detected		
18) 1,2-dichloroethane	0.00	62		Not Detected		
20) 1,1,1-trichloroethane	0.00	97		Not Detected		
21) carbon tetrachloride	0.00	117		Not Detected		
22) benzene	0.00	78		Not Detected		
23) Cyclohexane	0.00	84		Not Detected		
24) trichloroethene	0.00	130		Not Detected		
25) 1,2-dichloropropane	0.00	63		Not Detected		
26) bromodichloromethane	0.00	83		Not Detected		
27) Heptane	0.00	43		Not Detected		
28) cis-1,3-dichloropropene	0.00	75		Not Detected		
29) trans-1,3-dichloropropene	0.00	75		Not Detected		
30) 1,1,2-trichloroethane	0.00	97		Not Detected		
32) toluene	0.00	91		Not Detected		
33) tetrachloroethene	0.00	164		Not Detected		
34) dibromochloromethane	0.00	129		Not Detected		
35) 1,2-dibromoethane	0.00	107		Not Detected		
36) chlorobenzene	0.00	112		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB29BLK.D
Acq Time : 02/10/2015 16:40
Sample : BL-
Misc :

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 9:20 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37) ethyl benzene	0.00	106		Not Detected	
38) m,p-xylene	0.00	106		Not Detected	
39) o-xylene	0.00	106		Not Detected	
40) bromoform	0.00	173		Not Detected	
41) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	

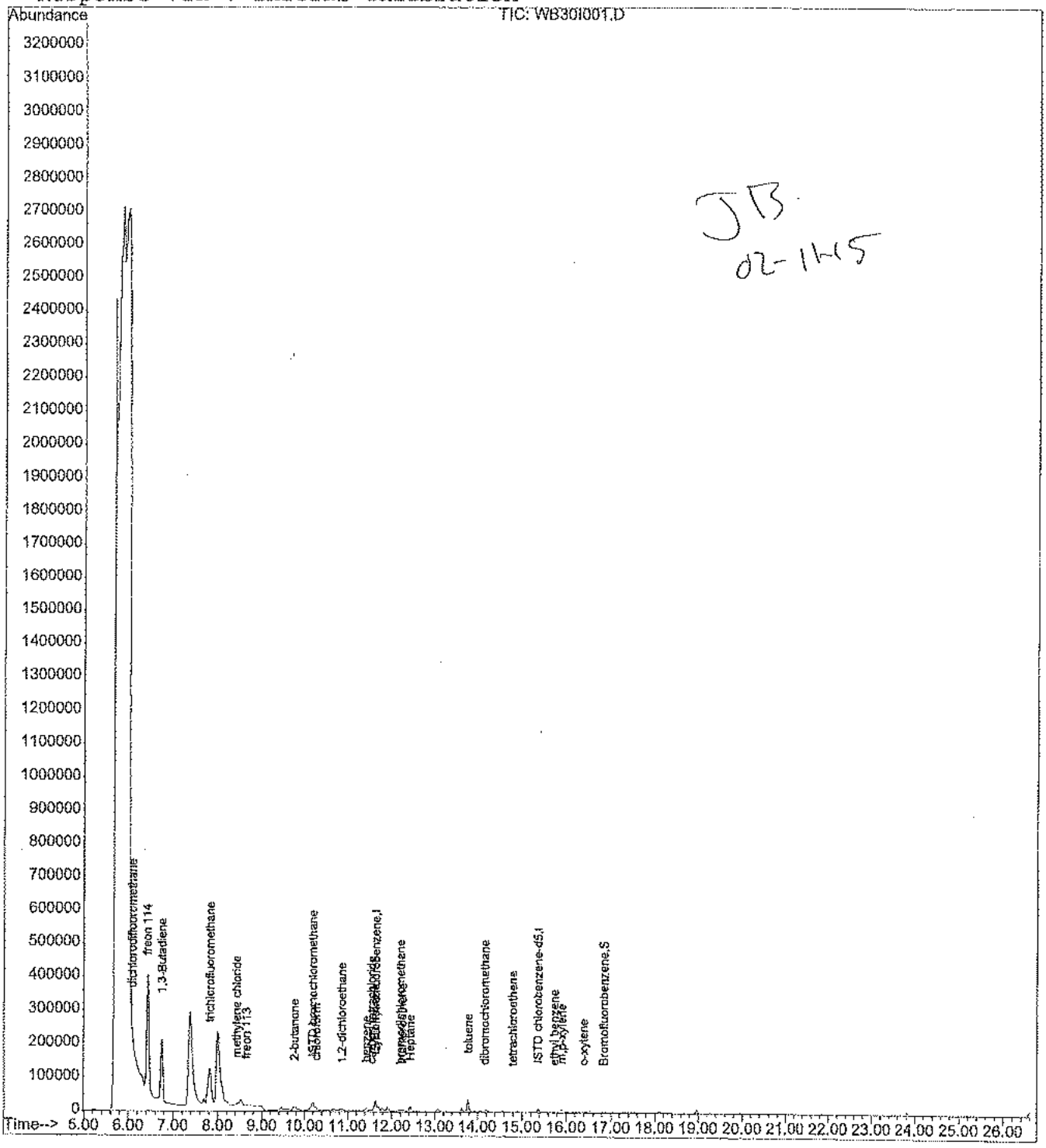
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB30I001.D
Acq Time : 02/10/2015 17:18 Operator: TJM
Sample : 1503581001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0224 Multiplr: 1.00

Quant Time: Feb 11 9:40 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JTB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB30I001.D
Acq Time : 02/10/2015 17:18 Operator: TJM
Sample : 1503581001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0224 Multiplr: 1.00

Quant Time: Feb 11 9:40 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.18	128	13306	500.0000 ppt		81.15
19) ISTD 1,4-difluorobenzene	11.64	114	50159	500.0000 ppt		75.38
31) ISTD chlorobenzene-d5	15.36	117	23719	500.0000 ppt		66.16
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.84	75	8557	517.9995 ppt		103.60%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.08	85	18366	146.3267 ppt		100
3) freon 114	6.41	85	836	10.2371 ppt	#	32
4) vinyl chloride	0.00	62		Not Detected		
5) 1,3-Butadiene	6.75	54	2148	102.7418 ppt	#	1
6) bromomethane	0.00	94		Not Detected		
7) chloroethane	0.00	64		Not Detected		
8) trichlorofluoromethane	7.82	101	11337	181.9299 ppt		98
9) freon 113	8.64	101	3280	43.4499 ppt	#	23
10) 1,1-dichloroethene	0.00	96		Not Detected		
11) methylene chloride	8.42	49	11892	124.5596 ppt	#	83
12) trans-1,2-dichloroethene	0.00	96		Not Detected		
13) methyl t-butyl ether	0.00	73		Not Detected		
14) 2-butanone	9.75	43	57749	531.0531 ppt	#	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected		
16) 1,1-dichloroethane	0.00	63		Not Detected		
17) chloroform	10.27	83	28798	328.5483 ppt	#	18
18) 1,2-dichloroethane	10.85	62	5404	86.6726 ppt		100
20) 1,1,1-trichloroethane	0.00	97		Not Detected		
21) carbon tetrachloride	11.55	117	6021	82.0054 ppt	#	1
22) benzene	11.43	78	15108	155.1733 ppt	#	48
23) Cyclohexane	11.62	84	7455	197.8933 ppt	#	100
24) trichloroethene	12.24	130	689	22.2032 ppt		83
25) 1,2-dichloropropane	0.00	63		Not Detected		
26) bromodichloromethane	12.19	83	4348	52.6702 ppt		85
27) Heptane	12.43	43	19457	288.1381 ppt	#	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected		
29) trans-1,3-dichloropropene	0.00	75		Not Detected		
30) 1,1,2-trichloroethane	0.00	97		Not Detected		
32) toluene	13.78	91	48453	782.0423 ppt	#	22
33) tetrachloroethene	14.79	164	1411	67.0658 ppt	#	1
34) dibromochloromethane	14.15	129	935	15.4636 ppt	#	11
35) 1,2-dibromoethane	0.00	107		Not Detected		
36) chlorobenzene	0.00	112		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB30I001.D
Acq Time : 02/10/2015 17:18 Operator: TJM
Sample : 1503581001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0224 Multiplr: 1.00

Quant Time: Feb 11 9:40 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	ethyl benzene	15.75	106	1090	79.2683	ppt	95
38)	m,p-xylene	15.91	106	5483	317.5877	ppt	82
39)	o-xylene	16.38	106	1842	117.1554	ppt	97
40)	bromoform	0.00	173		Not Detected		
41)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		

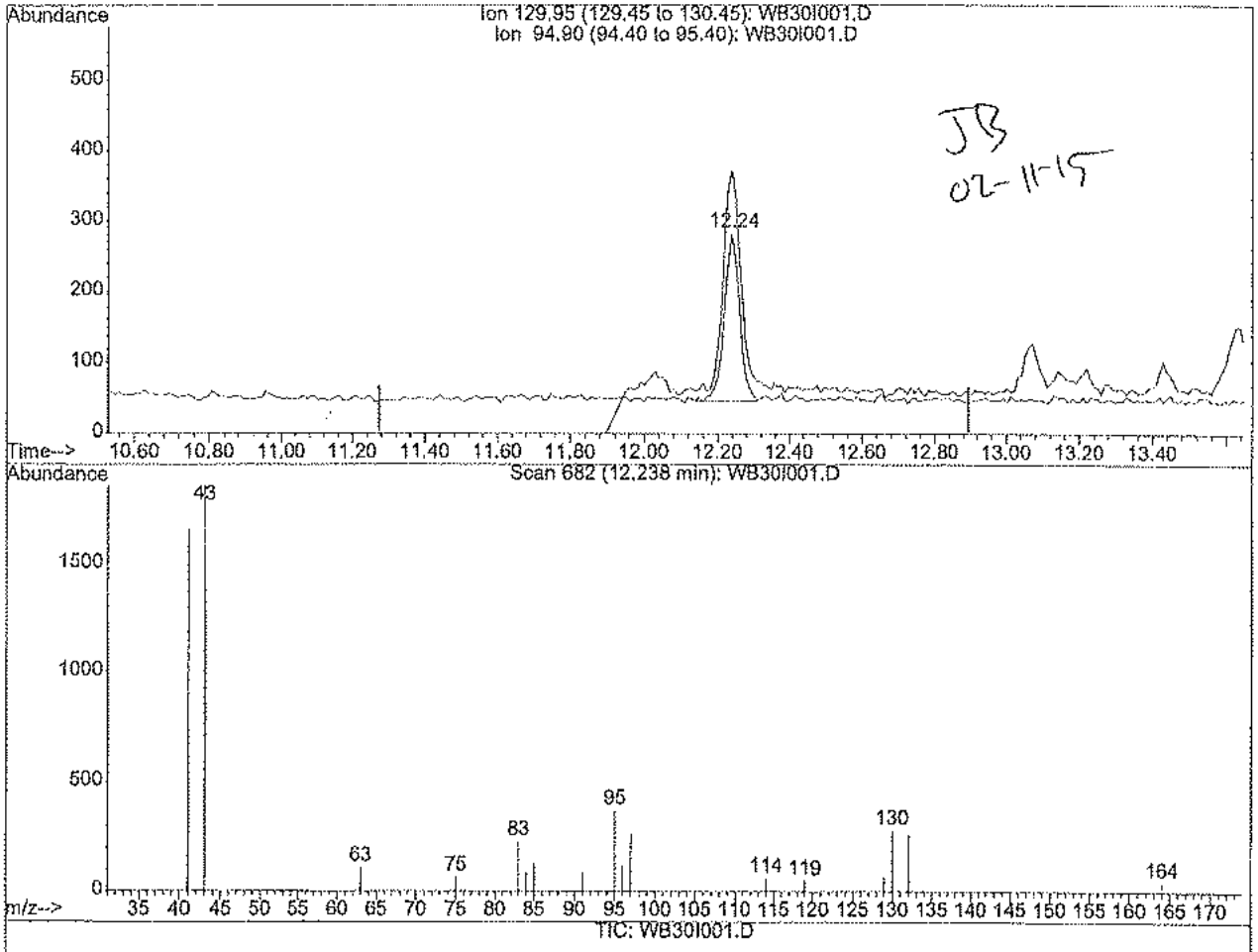
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WB30I001.D
Acq Time : 02/10/2015 17:18 Operator: TJM
Sample : 1503581001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0224 Multiplr: 1.00

Quant Time: Feb 11 9:40 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



JB
02-11-15

(24) Trichloroethene

12.24min 22.20ppt

response 689

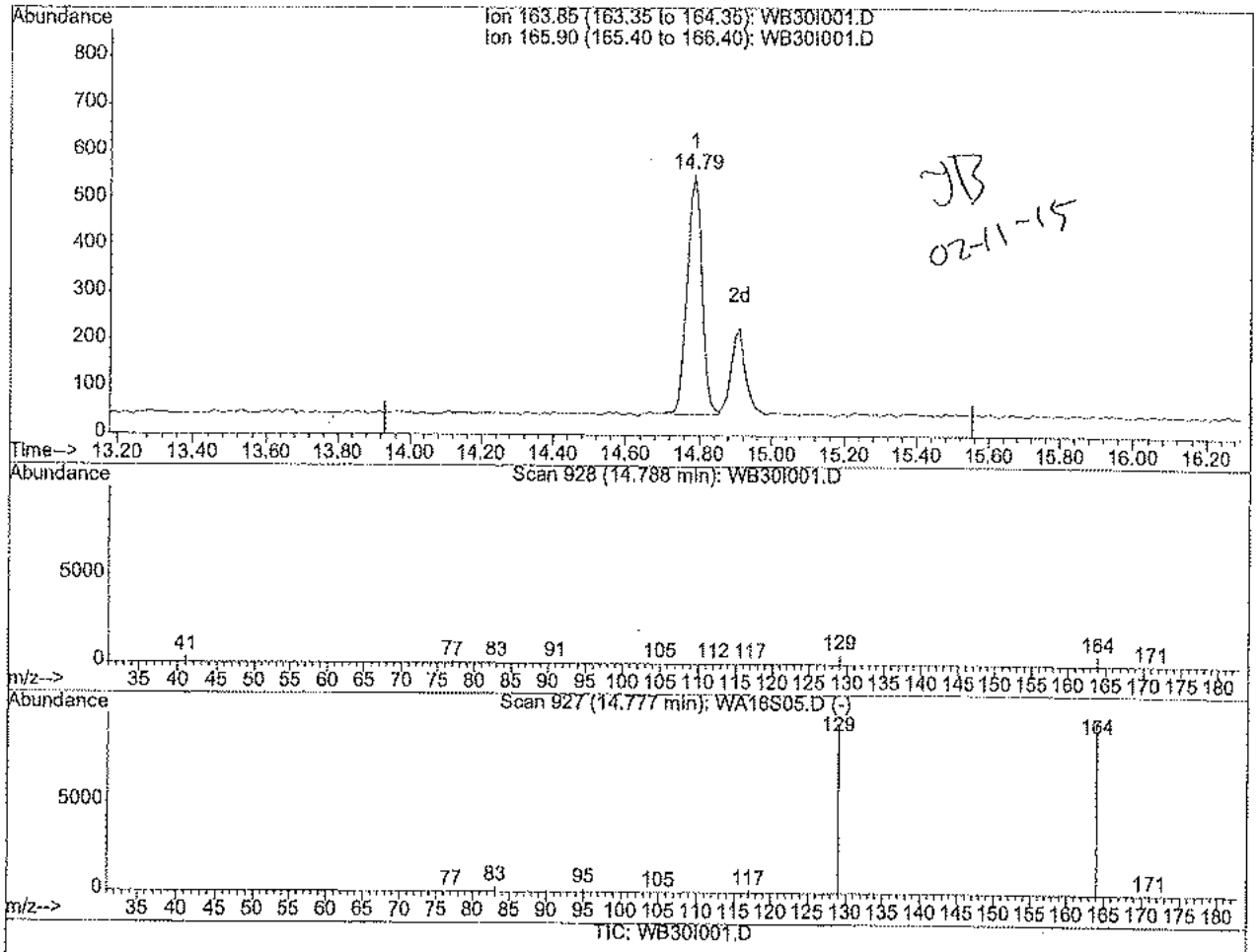
Ion	Exp%	Act%
129.95	100	100
94.90	131.00	150.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WB30I001.D
Acq Time : 02/10/2015 17:18 Operator: TJM
Sample : 1503581001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0224 Multiplr: 1.00

Quant Time: Feb 11 9:40 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



(33) tetrachloroethene

14.79min 67.07ppt

response 1411

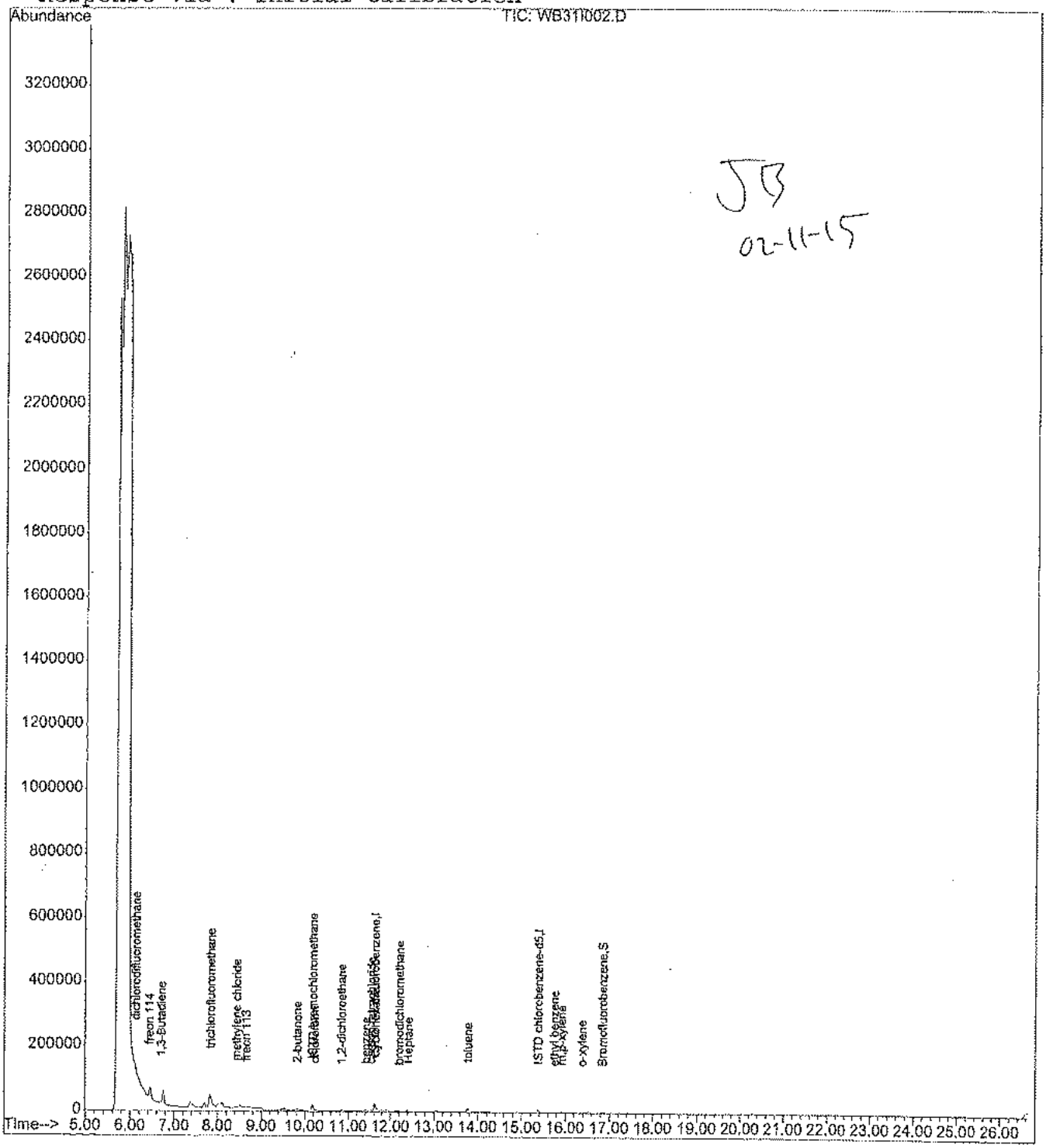
Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB31I002.D
Acq Time : 02/10/2015 17:55 Operator: TJM
Sample : 1503581002 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0114 Multiplr: 1.00

Quant Time: Feb 11 9:38 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB31I002.D
Acq Time : 02/10/2015 17:55 Operator: TJM
Sample : 1503581002 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0114 Multiplr: 1.00

Quant Time: Feb 11 9:38 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.17	128	11422	500.0000 ppt		69.66
19) ISTD 1,4-difluorobenzene	11.63	114	44566	500.0000 ppt		66.97
31) ISTD chlorobenzene-d5	15.37	117	20410	500.0000 ppt		56.93
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.85	75	6745	474.5075 ppt		94.90%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.12	85	23134	214.7163 ppt		100
3) freon 114	6.43	85	844	12.0398 ppt	#	32
4) vinyl chloride	0.00	62		Not Detected		
5) 1,3-Butadiene	6.70	54	1008	56.1667 ppt	#	1
6) bromomethane	0.00	94		Not Detected		
7) chloroethane	0.00	64		Not Detected		
8) trichlorofluoromethane	7.83	101	10393	194.2908 ppt		98
9) freon 113	8.64	101	2004	30.9256 ppt	#	23
10) 1,1-dichloroethene	0.00	96		Not Detected		
11) methylene chloride	8.43	49	5127	62.5592 ppt		89
12) trans-1,2-dichloroethene	0.00	96		Not Detected		
13) methyl t-butyl ether	0.00	73		Not Detected		
14) 2-butanone	9.82	43	25627	274.5343 ppt	#	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected		
16) 1,1-dichloroethane	0.00	63		Not Detected		
17) chloroform	10.24	83	3681	48.9224 ppt	#	18
18) 1,2-dichloroethane	10.82	62	1347	25.1675 ppt	#	42
20) 1,1,1-trichloroethane	0.00	97		Not Detected		
21) carbon tetrachloride	11.54	117	6013	92.1744 ppt	#	1
22) benzene	11.41	78	13695	158.3132 ppt	#	48
23) Cyclohexane	11.65	84	2707	80.8755 ppt	#	100
24) trichloroethene	0.00	130		Not Detected		
25) 1,2-dichloropropane	0.00	63		Not Detected		
26) bromodichloromethane	12.19	83	772	10.5254 ppt	#	19
27) Heptane	12.42	43	8331	138.8568 ppt	#	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected		
29) trans-1,3-dichloropropene	0.00	75		Not Detected		
30) 1,1,2-trichloroethane	0.00	97		Not Detected		
32) toluene	13.78	91	23489	440.5827 ppt	#	22
33) tetrachloroethene	0.00	164		Not Detected		
34) dibromochloromethane	0.00	129		Not Detected		
35) 1,2-dibromoethane	0.00	107		Not Detected		
36) chlorobenzene	0.00	112		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB31I002.D
Acq Time : 02/10/2015 17:55 Operator: TJM
Sample : 1503581002 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0114 Multiplr: 1.00

Quant Time: Feb 11 9:38 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37) ethyl benzene	15.74	106	655	55.3564 ppt	95
38) m,p-xylene	15.91	106	3227	217.2190 ppt	79
39) o-xylene	16.39	106	963	71.1791 ppt	95
40) bromoform	0.00	173		Not Detected	
41) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	

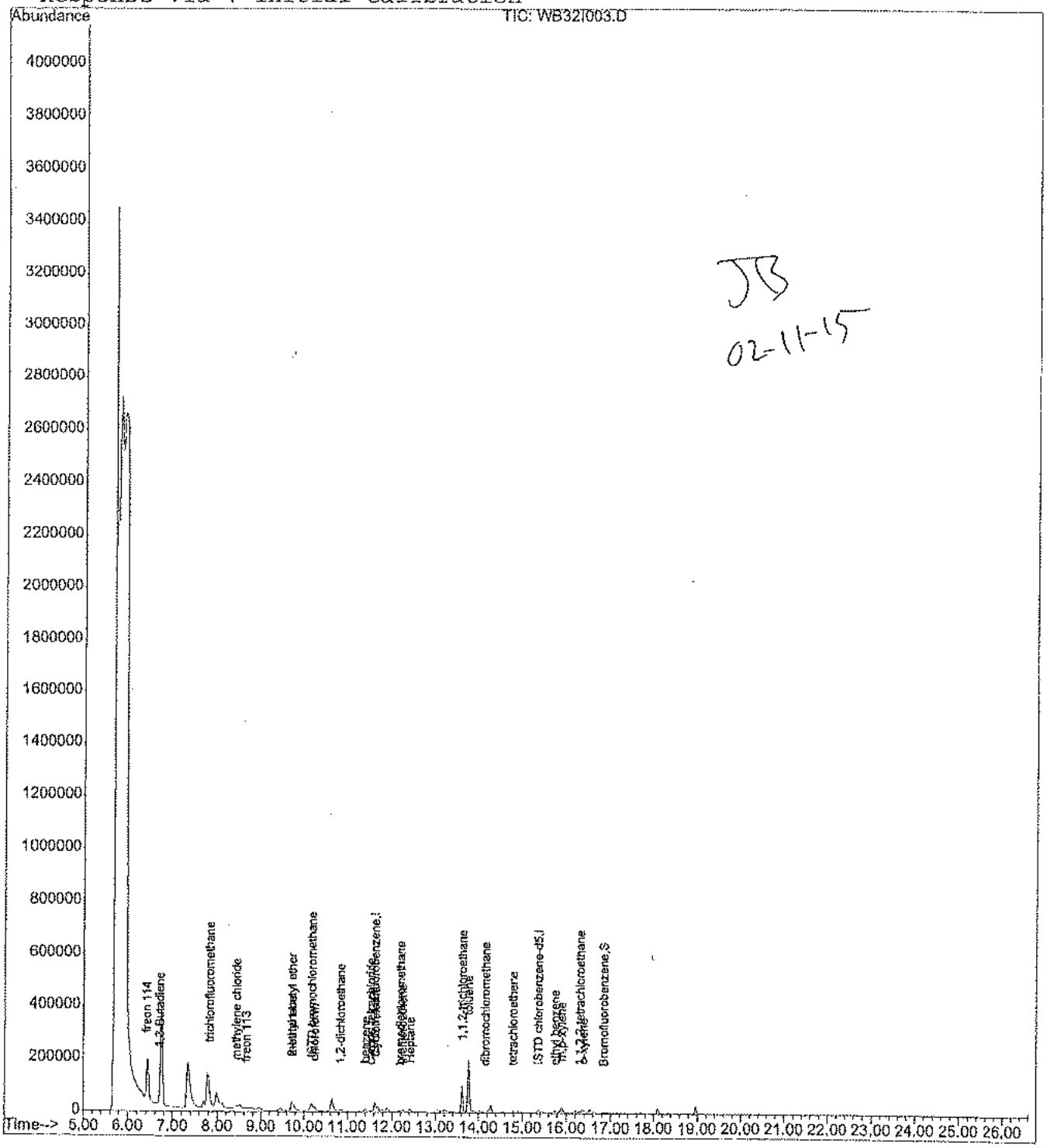
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB32I003.D
Acq Time : 02/10/2015 18:34 Operator: TJM
Sample : 1503581003 Inst : 5972-W
Misc : FIRST ENVIROSIM 0122 Multiplr: 1.00

Quant Time: Feb 11 9:41 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB32I003.D
Acq Time : 02/10/2015 18:34 Operator: TJM
Sample : 1503581003 Inst : 5972-W
Misc : FIRST ENVIROSIM 0122 Multiplr: 1.00

Quant Time: Feb 11 9:41 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.16	128	13058	500.0000 ppt		79.64
19) ISTD 1,4-difluorobenzene	11.63	114	44157	500.0000 ppt		66.36
31) ISTD chlorobenzene-d5	15.36	117	24562	500.0000 ppt		68.51
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.84	75	8096	473.2722 ppt		94.65%
Target Compounds						Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected		
3) freon 114	6.42	85	832	10.3816 ppt	#	32
4) vinyl chloride	0.00	62		Not Detected		
5) 1,3-Butadiene	6.70	54	4915	239.5561 ppt	#	1
6) bromomethane	0.00	94		Not Detected		
7) chloroethane	0.00	64		Not Detected		
8) trichlorofluoromethane	7.82	101	10690	174.8053 ppt		99
9) freon 113	8.64	101	3119	42.1019 ppt	#	23
10) 1,1-dichloroethene	0.00	96		Not Detected		
11) methylene chloride	8.42	49	21670	231.2875 ppt		87
12) trans-1,2-dichloroethene	0.00	96		Not Detected		
13) methyl t-butyl ether	9.72	73	772	10.8831 ppt	#	1
14) 2-butanone	9.72	43	177283	1661.2365 ppt	#	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected		
16) 1,1-dichloroethane	0.00	63		Not Detected		
17) chloroform	10.25	83	41435	481.6983 ppt	#	18
18) 1,2-dichloroethane	10.82	62	2072	33.8631 ppt		94
20) 1,1,1-trichloroethane	0.00	97		Not Detected		
21) carbon tetrachloride	11.54	117	6892	106.6273 ppt	#	1
22) benzene	11.41	78	17489	204.0442 ppt	#	48
23) Cyclohexane	11.64	84	13031	392.9257 ppt	#	100
24) trichloroethene	12.23	130	2645	96.8213 ppt		95
25) 1,2-dichloropropane	0.00	63		Not Detected		
26) bromodichloromethane	12.18	83	3212	44.1977 ppt	#	83
27) Heptane	12.42	43	17372	292.2294 ppt	#	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected		
29) trans-1,3-dichloropropene	0.00	75		Not Detected		
30) 1,1,2-trichloroethane	13.62	97	2052	72.1961 ppt		97
32) toluene	13.77	91	96950	1511.0890 ppt	#	22
33) tetrachloroethene	14.78	164	7196	330.2919 ppt	#	1
34) dibromochloromethane	14.14	129	656	10.4769 ppt	#	11
35) 1,2-dibromoethane	0.00	107		Not Detected		
36) chlorobenzene	0.00	112		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB32I003.D
Acq Time : 02/10/2015 18:34 Operator: TJM
Sample : 1503581003 Inst : 5972-W
Misc : FIRST ENVIROSIM 0122 Multiplr: 1.00

Quant Time: Feb 11 9:41 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.74	106	2844	199.7263	ppt		91
38)	m,p-xylene	15.90	106	15226	851.6555	ppt		81
39)	o-xylene	16.38	106	4636	284.7401	ppt		97
40)	bromoform	0.00	173		Not Detected			
41)	1,1,2,2-tetrachloroethane	16.30	83	708	14.8713	ppt	#	18

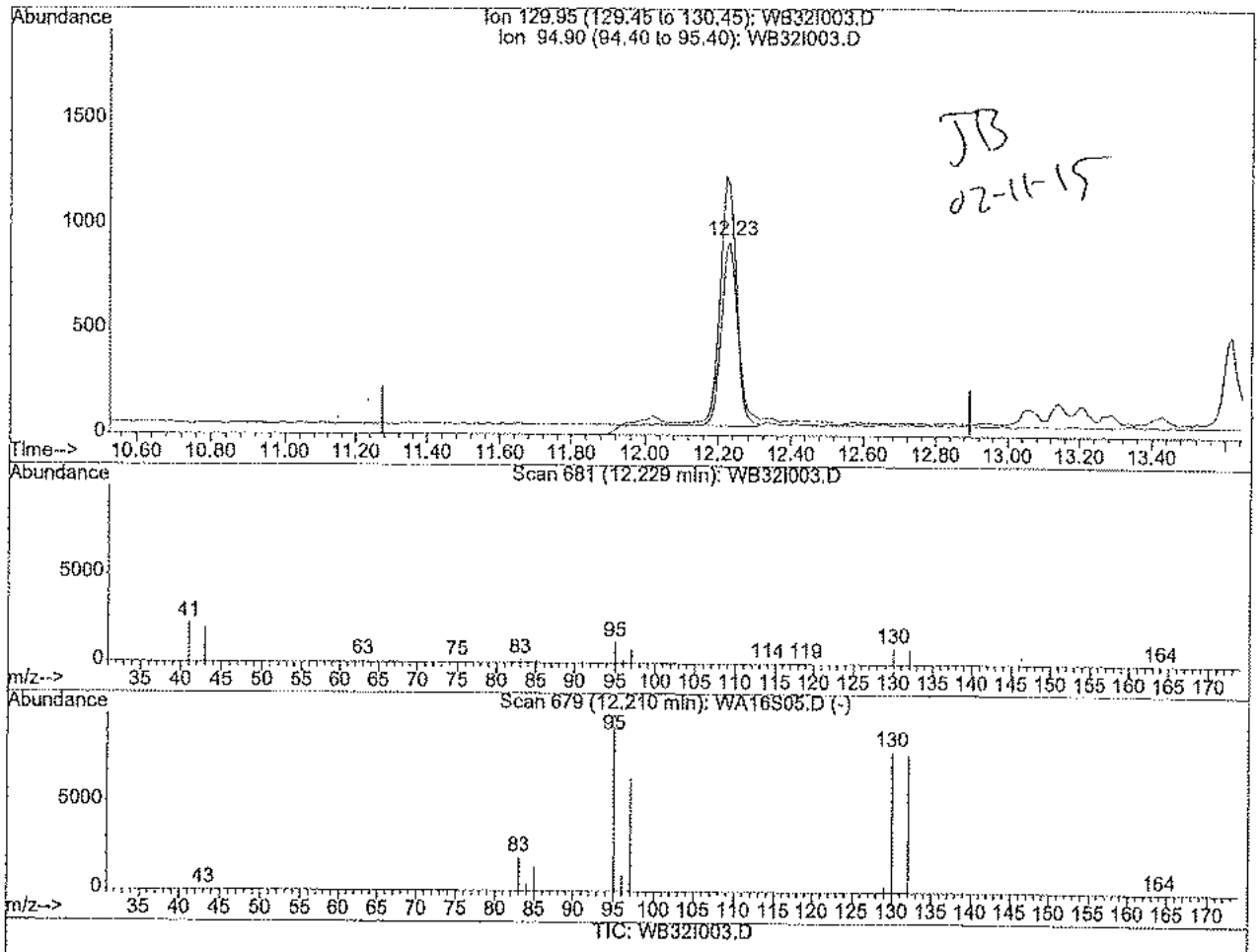
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WB32I003.D
Acq Time : 02/10/2015 18:34 Operator: TJM
Sample : 1503581003 Inst : 5972-W
Misc : FIRST ENVIROSIM 0122 Multiplr: 1.00

Quant Time: Feb 11 9:41 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



JB
02-11-15

(24) trichloroethene

12.23min 96.82ppt

response 2645

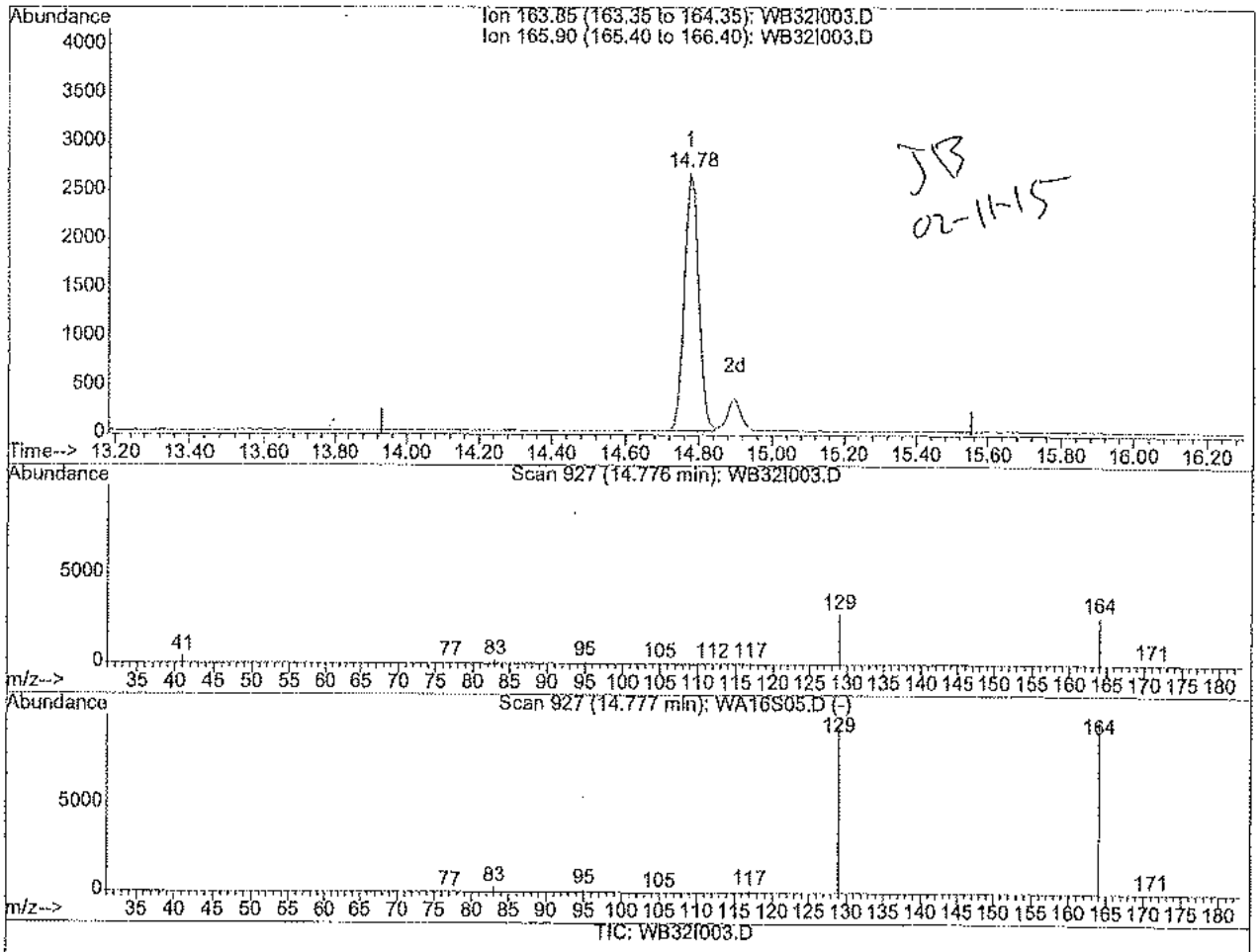
Ion	Exp%	Act%
129.95	100	100
94.90	131.00	136.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WB32I003.D
Acq Time : 02/10/2015 18:34 Operator: TJM
Sample : 1503581003 Inst : 5972-W
Misc : FIRST ENVIROSIM 0122 Multiplr: 1.00

Quant Time: Feb 11 9:41 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



(33) tetrachloroethene

14.78min 330.29ppt

response 7196

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15 (SIM)**	**Client:**	First Environment, Inc
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1503747**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received two summa canister for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene tune check is not applicable for SIM mode.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the method. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP. The response factors of the TO-15 analytes were acceptable when compared to the average response from the initial calibration curve.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants, except for carbon tetrachloride which was below the PQL.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-W. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Jorden Baum — September 16, 2015

Date

ANALYTICAL REPORT
Amended 20151030

Report Date: February 11, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1503747**
Project ID: 0018-H-Alpine Place 020615
Purchase Order: 0018-H-Alpine Place

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0018H-020615-TO-001-BR1	1503747001	02/05/15	02/06/15	0018-H-Alpine Place
A-0018H-020615-TO-002-OUT	1503747002	02/05/15	02/06/15	0018-H-Alpine Place

ANALYTICAL REPORT
Amended 20151030

Workorder: 34-1503747
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-020615-TO-001-BR1 | Sampling Site: 0018-H-Alpine Place | Collected: 02/05/2015
Lab ID: 1503747001 | Media: Summa 6 Liter Canister | Received: 02/06/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2808 (HBN: 143502) | **Percent Solid:** NA
Analyzed: 02/10/2015 19:12 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	**0.068**	**0.37**	0.050	1	
Tetrachloroethene	**3.4**	**23**	0.050	1	E

Sample ID: A-0018H-020615-TO-002-OUT | Sampling Site: 0018-H-Alpine Place | Collected: 02/05/2015
Lab ID: 1503747002 | Media: Summa 6 Liter Canister | Received: 02/06/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5972-W
Batch: IVOA/2808 (HBN: 143502) | **Percent Solid:** NA
Analyzed: 02/10/2015 19:50 | **Report Basis:** Wet

Analyte	ppb	ug/m³	RL (ppb)	Dilution	Qual.
Vinyl chloride	ND	<0.13	0.050	1	
trans-1,2-Dichloroethene	ND	<0.20	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	ND	<0.34	0.050	1	

Comments

Quality Control: EPA TO-15 - (HBN: 143502)

The QC/QD recoveries for cis-1,2-dichloroethene were above the upper limit. The samples did not contain cis-1,2-dichloroethene.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Jorden Baum 02/11/2015 11:02	/S/ Thomas J. Masoian 02/11/2015 12:02

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT
Amended 20151030

Workorder: 34-1503747
Client: First Environment
Project Manager: Kevin W. Griffiths

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1503747

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2808 (HBN: 143502)		
Analyzed By:	Jorden Baum		

Blank

MB: 433180
Analyzed: 02/10/2015 16:40
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
trans-1,2-Dichloroethene	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 433181
Analyzed: 02/11/2015 09:47
Dilution: 1
Units: ppb

LCSD: 433182
Analyzed: 02/11/2015 10:24
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.899	1.00	89.9	17.5	153.7	0.966	96.6	7.15	0.0	25.0
trans-1,2-Dichloroethene	1.10	1.00	110	72.0	123.1	1.09	109	0.513	0.0	25.0
cis-1,2-Dichloroethene	1.63	1.00	* 163	65.2	131.2	1.59	* 159	2.93	0.0	25.0
Trichloroethene	1.06	1.00	106	68.4	123.4	1.07	107	0.564	0.0	25.0
Tetrachloroethene	0.925	1.00	92.5	63.6	127.9	1.14	114	21.1	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
433180-MB	0.422	0.500	84.3
1503581001	0.518	0.500	104
1503581002	0.475	0.500	94.9
1503581003	0.473	0.500	94.7
1503747001	0.488	0.500	97.6
1503747002	0.470	0.500	94.1
433181-LCS	0.417	0.500	83.5
433182-LCSD	0.435	0.500	87.1

Comments

The QC/QD recoveries for cis-1,2-dichloroethene were above the upper limit. The samples did not contain cis-1,2-dichloroethene.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1503747**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2808 (HBN: 143502)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

QC Data Approved and Reviewed by

Jorden Baum	Thomas J. Masoian	2/11/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
◓ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

W 1503747

ANALYTICAL REQUEST FORM

1503747

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 2/ /15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reed
Telephone (973) 787-2295
Fax Telephone (973) 334-0003
E-mail Address esr@firstenvironment.com
Billing Address (if different from above)

4. Quote No. _____
ALS Project Manager Kevin Griffin

5. **Sample Collection**
Sampling Site 0018-H - Maple Place
Industrial Process NA
Date of Collection 2/5-6/2015
Time Collected _____
Date of Shipment 2/6/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. **REQUEST FOR ANALYSES**

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
0377	A-001814-020615-TO-001 OUT	AIR	6L	TO-14 - Stm, PCE, TCE, DCE, VC	ug/m3
0239	A-001814-020615-TO-002 BR1	AIR	6L	" "	ug/m3

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments TO-15 sim = Tetrachloroethene, trichloroethene, cis 1,2-dichloroethene, vinyl Chloride

Per Client communication of 10-16-2015, TO-001-OUT is TO-001-BR1 (collected in canister ID# 0377), and TO-002-BR1 is TO-002-OUT (collected in canister ID# 0239).

Possible Contamination and/or Chemical Hazards _____

7. **Chain of Custody (Optional)**

Relinquished by	Edward Reed	Date/Time	02/06/15
Received by		Date/Time	02/06/15 11:10
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environmental

Account No:

Project/Job/Task: VA SLC GERULA Site 9 AOU-1

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Per client communication of 10-30-2015, TO-001-OUT was incorrectly identified on Canister COC and should have been TO-002-OUT. Client Sample Identification	Other Client Information	ALS use only
0488	01-2015	7.25		JLG					
0239	"	"		"	26	2	00134-TO-001-OUT	outdoor ambient	
0257	"	"		"					
0443	"	"		"					
0377	"	"		"	27	2	00134-TO-001-BR1	Basement Bedroom	
VFR Serial No.:									
0520	02-04-15		3.8	JG	27		00134-TO-001-BR1	Basement Bedroom	
0594	"		"	"	26		00134-TO-002-OUT	Outdoor ambient	
0595	"								
0592	"								
0593	"								

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-04-15 0930		Fedex pickup
		02/06/15 11:10	sample receipt

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2808 Created: 2/11/2015 11:11 Instrument: 5972-W HBN: 143502

Rule: EPA TO-15 SIM, Air Analyst: J. Baum Status: RE

Workorder: 1503581

Workorder: 1503747

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	433180	MB for HBN 143502 (IVOA/2808)				MB	1		ETO15SIM1Q			4/12/2015	2/10/2015
2	1503581001	A-0019H-020415-TD-001-HA1				SAMPLE	1	1503581001-A	ETO15SIM.1	5480		2/11/2015	2/10/2015
3	1503581002	A-0019H-020415-TD-002-B2				SAMPLE	1	1503581002-A	ETO15SIM.1	5480		2/11/2015	2/10/2015
4	1503581003	A-0019H-020415-TD-003-STO				SAMPLE	1	1503581003-A	ETO15SIM.1	5480		2/11/2015	2/10/2015
5	1503747001	A-0018H-020615-TO-001				SAMPLE	1	1503747001-A	ETO15SIM.1	5480		2/13/2015	2/10/2015
		* E|Result exceeds calibration range											
6	1503747002	A-0018H-020615-TO-002				SAMPLE	1	1503747002-A	ETO15SIM.1	5480		2/13/2015	2/10/2015
7	433181	LCS for HBN 143502 (IVOA/2808)				LCS	1		ETO15SIM1Q			4/12/2015	2/11/2015
8	433182	LCSD for HBN 143502 (IVOA/2808				LCSD	1		ETO15SIM1Q			4/12/2015	2/11/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	WB35ICV	Area BCM	Area 1,4DFB	Area CB-d5
1.0 ppb v/v Continuing Cal Std		13965	50448	31860
	Upper Limit	19551	70627	44604
	Lower limit	8379	30269	19116

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	WB29BLK	12371	46426	19577
QC-	WB35ICV	13965	50448	31860
QD-	WB36LCSD	13953	50781	26901
A-0019H-020415-TD-001-HAL	FEI1503581001	13306	50159	23719
A-0019H-020415-TD-002-B2	FEI1503581002	11422	44566	20410
A-0019H-020415-TD-003-STO	FEI1503581003	13058	44157	24562
A-0018H-020615-TO-001	FEI1503747001	13076	44582	24835
A-0018H-020615-TO-002	FEI1503747002	11096	43157	20536

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	WB35ICV	RT BCM	RT 1,4DFB	RT CB-d5
1.0 ppb v/v Continuing Cal Std		10.09	11.57	15.33
	Upper Limit	10.59	12.07	15.83
	Lower limit	9.59	11.07	14.83

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	WB29BLK	10.14	11.62	15.37
QC-	WB35ICV	10.09	11.57	15.33
QD-	WB36LCSD	10.09	11.57	15.33
A-0019H-020415-TD-001-HAL	FEI1503581001	10.18	11.64	15.36
A-0019H-020415-TD-002-B2	FEI1503581002	10.17	11.63	15.37
A-0019H-020415-TD-003-STO	FEI1503581003	10.16	11.63	15.36
A-0018H-020615-TO-001	FEI1503747001	10.17	11.63	15.36
A-0018H-020615-TO-002	FEI1503747002	10.16	11.63	15.36

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Response Factor Report 5972-W

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Calibration Files
500 =WA16S05.D 1000 =WA15S1.D 200 =WA17S02.D
50 =WA19S005.D 100 =WA18S01.D

		Compound	500	1000	200	50	100	Avg	%RSD
1)		ISTD bromochlorometha	ISTD						
2)		dichlorodifluorometha	3.979	3.318	5.217	5.970	5.099	4.716	22.41
3)		freon 114	2.605	2.202	3.360	3.854	3.322	3.069	21.44
4)		vinyl chloride	0.990	0.852	1.236	1.411	1.218	1.142	19.29
5)		1,3-Butadiene	0.670	0.577	0.861	0.963	0.858	0.786	20.01
6)		bromomethane	0.634	0.535	0.806	0.978	0.812	0.753	22.90
7)		chloroethane	0.456	0.394	0.602	0.692	0.629	0.555	22.48
8)		trichlorofluoromethan	1.976	1.697	2.547	2.959	2.529	2.342	21.42
9)		freon 113	2.416	2.101	3.088	3.549	3.028	2.837	20.29
10)		1,1-dichloroethene	0.761	0.649	0.978	1.123	0.994	0.901	21.28
11)		methylene chloride	2.386	1.994	3.570	5.875	4.114	3.588	42.94
12)		trans-1,2-dichloroeth	1.031	0.899	1.347	1.439	1.253	1.194	18.77
13)		methyl t-butyl ether	2.632	2.498	2.973	2.891	2.587	2.716	7.54
14)		2-butanone	3.775	3.631	4.332	4.766	3.928	4.086	11.29
15)		cis-1,2-dichloroethen	0.802	0.771	0.889	0.873	0.796	0.826	6.26
16)		1,1-dichloroethane	2.731	2.428	3.511	3.615	3.348	3.127	16.62
17)		chloroform	2.879	2.506	3.635	3.913	3.535	3.294	17.64
18)		1,2-dichloroethane	2.090	1.889	2.569	2.749	2.418	2.343	14.97
19)	I	ISTD 1,4-difluorobenz	ISTD						
20)		1,1,1-trichloroethane	0.633	0.536	0.747	1.014	0.863	0.759	24.78
21)		carbon tetrachloride	0.601	0.517	0.722	0.974	0.845	0.732	25.12
22)		benzene	0.828	0.738	0.951	1.258	1.077	0.971	21.16
23)		Cyclohexane	0.305	0.267	0.357	0.520	0.428	0.376	26.91
24)		trichloroethene	0.269	0.230	0.296	0.402	0.348	0.309	21.79
25)		1,2-dichloropropane	0.422	0.375	0.394	0.512	0.438	0.428	12.28
26)		bromodichloromethane	0.699	0.599	0.813	1.073	0.931	0.823	22.72
27)		Heptane	0.658	0.655	0.642	0.733	0.679	0.673	5.33
28)		cis-1,3-dichloroprope	0.377	0.359	0.417	0.500	0.452	0.421	13.54
29)		trans-1,3-dichloropro	0.301	0.286	0.310	0.375	0.332	0.321	10.81
30)		1,1,2-trichloroethane	0.279	0.242	0.316	0.413	0.359	0.322	20.75
31)	I	ISTD chlorobenzene-d5	ISTD						
32)		toluene	1.142	0.994	1.267	1.636	1.491	1.306	19.83
33)		tetrachloroethene	0.418		0.530	0.718	0.658	0.581	23.05
34)		dibromochloromethane	1.006	0.786	1.274	1.720	1.588	1.275	30.56
35)		1,2-dibromoethane	0.832	0.657	0.870	1.165	1.024	0.910	21.28
36)		chlorobenzene	0.355	0.309	0.363	0.482	0.435	0.389	17.69
37)		ethyl benzene	0.261	0.236	0.280	0.353	0.319	0.290	15.92
38)		m,p-xylene	0.360	0.333	0.352	0.400	0.374	0.364	6.87
39)		o-xylene	0.326	0.297	0.322	0.377	0.335	0.331	8.76
40)		bromoform	0.518	0.409	0.638	0.878	0.778	0.644	29.43
41)		1,1,2,2-tetrachloroet	0.799	0.647	0.967	1.317	1.116	0.969	27.07

(#) = Out of Range

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Calibration Files
500 =WA16S05.D 1000 =WA15S1.D 200 =WA17S02.D
50 =WA19S005.D 100 =WA18S01.D

		Compound	500	1000	200	50	100	Avg	%RSD
42)	S	Bromofluorobenzene	0.380	0.417	0.333	0.298	0.312	0.348	14.26

(#) = Out of Range

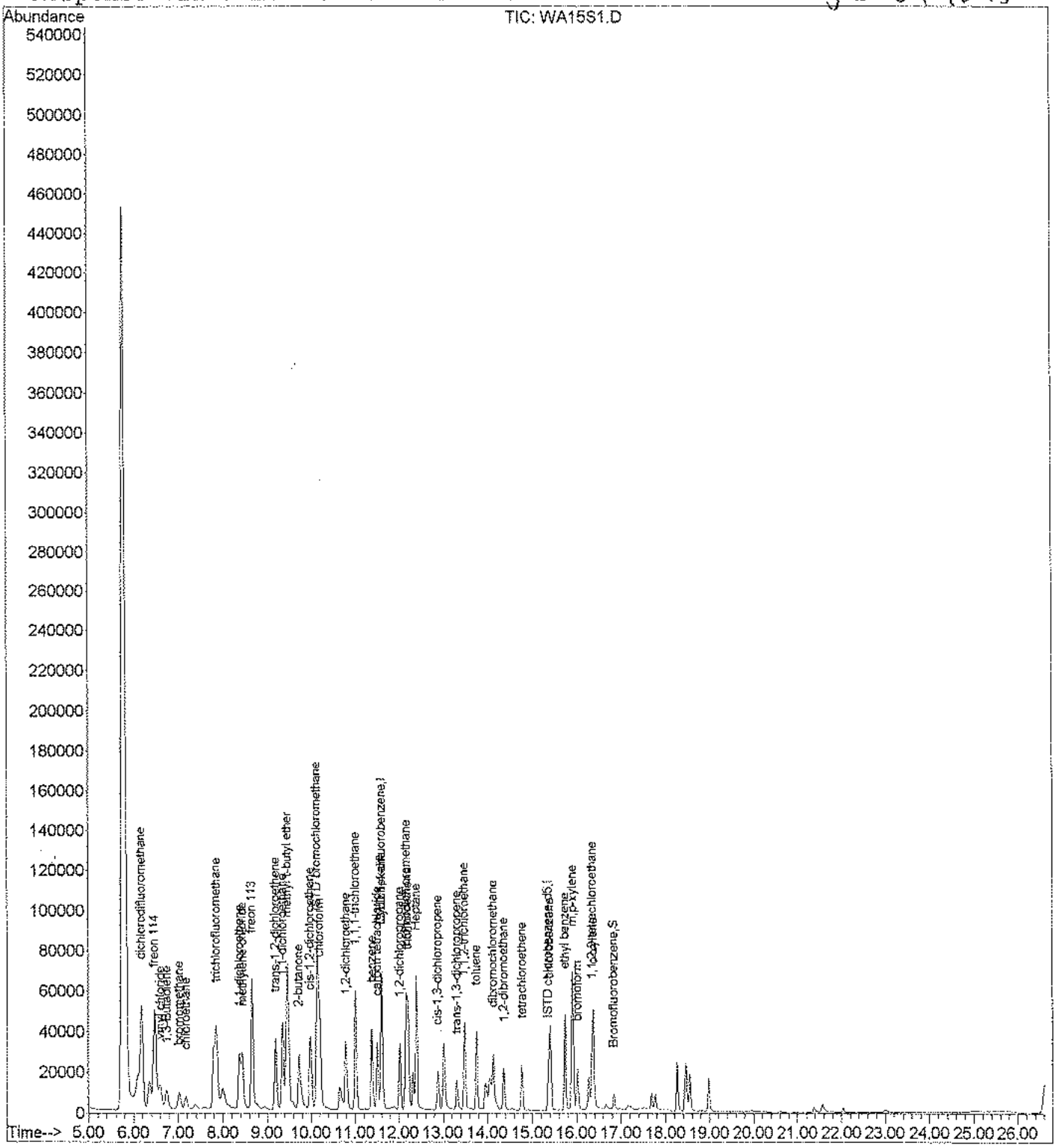
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15 Operator: TJM
Sample : 1.0PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:16 2015 Quant Results File: SIMT15AK.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

JB 09-16-15



Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15 Operator: TJM
Sample : 1.0PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:16 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.12	128	17948	500.0000	ppt		99.80
19) ISTD 1,4-difluorobenzene	11.60	114	75432	500.0000	ppt		234.71#
31) ISTD chlorobenzene-d5	15.36	117	44410	500.0000	ppt		111.01
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.84	75	18540	682.1251	ppt		136.43%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	119092	1178.7195	ppt		99
3) freon 114	6.46	85	79047	1119.4732	ppt		94
4) vinyl chloride	6.61	62	30601	1238.4571	ppt		99
5) 1,3-Butadiene	6.74	54	20720	1308.2376	ppt	#	1
6) bromomethane	7.03	94	19188	1089.5718	ppt		98
7) chloroethane	7.17	64	14137	1165.0038	ppt		100
8) trichlorofluoromethane	7.86	101	60924	1133.8006	ppt		98
9) freon 113	8.65	101	75429	1245.1647	ppt	#	23
10) 1,1-dichloroethene	8.38	96	23298	1250.3166	ppt		90
11) methylene chloride	8.44	49	71565	1370.0831	ppt		87
12) trans-1,2-dichloroethene	9.19	96	32253	1353.3317	ppt		97
13) methyl t-butyl ether	9.47	73	89674	1574.0007	ppt	#	67
14) 2-butanone	9.72	43	130333	1179.9232	ppt	#	64
15) cis-1,2-dichloroethene	9.98	96	27679	2222.7677	ppt		86
16) 1,1-dichloroethane	9.35	63	87142	1389.0115	ppt		95
17) chloroform	10.20	83	89954	1322.8622	ppt	#	18
18) 1,2-dichloroethane	10.79	62	67790	1428.0911	ppt		98
20) 1,1,1-trichloroethane	11.01	97	80925	520.3875	ppt	#	18
21) carbon tetrachloride	11.51	117	77928	400.2668	ppt	#	1
22) benzene	11.39	78	111354	623.4588	ppt	#	48
23) Cyclohexane	11.62	84	40316	1253.4788	ppt	#	100
24) trichloroethene	12.21	130	34740	566.5110	ppt		98
25) 1,2-dichloropropane	12.02	63	56623	748.1948	ppt	#	68
26) bromodichloromethane	12.16	83	90311	562.0997	ppt		99
27) Heptane	12.40	43	98745	822.5210	ppt	#	19
28) cis-1,3-dichloropropene	12.88	75	54135	695.3415	ppt	#	9
29) trans-1,3-dichloropropene	13.31	75	43148	699.3520	ppt	#	9
30) 1,1,2-trichloroethane	13.49	97	36554	584.1765	ppt		99
32) toluene	13.76	91	88323	1554.7943	ppt	#	22
33) tetrachloroethene	14.78	164	29669	1208.1805	ppt	m	1
34) dibromochloromethane	14.13	129	69849	1118.5979	ppt	#	11
35) 1,2-dibromoethane	14.37	107	58374	1518.9756	ppt	#	3
36) chlorobenzene	15.40	112	27472	1532.6655	ppt	#	63

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15 Operator: TJM
Sample : 1.0PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:16 2015 Quant Results File: SIMT15AK.RES

Quant Method : J:\W\METHODS\SIMT15AK.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Jan 27 13:24:49 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.74	106	20983	1631.4949	ppt		98
38)	m,p-xylene	15.91	106	59192	3777.9801	ppt		74
39)	o-xylene	16.38	106	26397	1851.1915	ppt		93
40)	bromoform	16.02	173	36347	1274.9449	ppt		100
41)	1,1,2,2-tetrachloroethane	16.35	83	57503	1386.2175	ppt	#	18

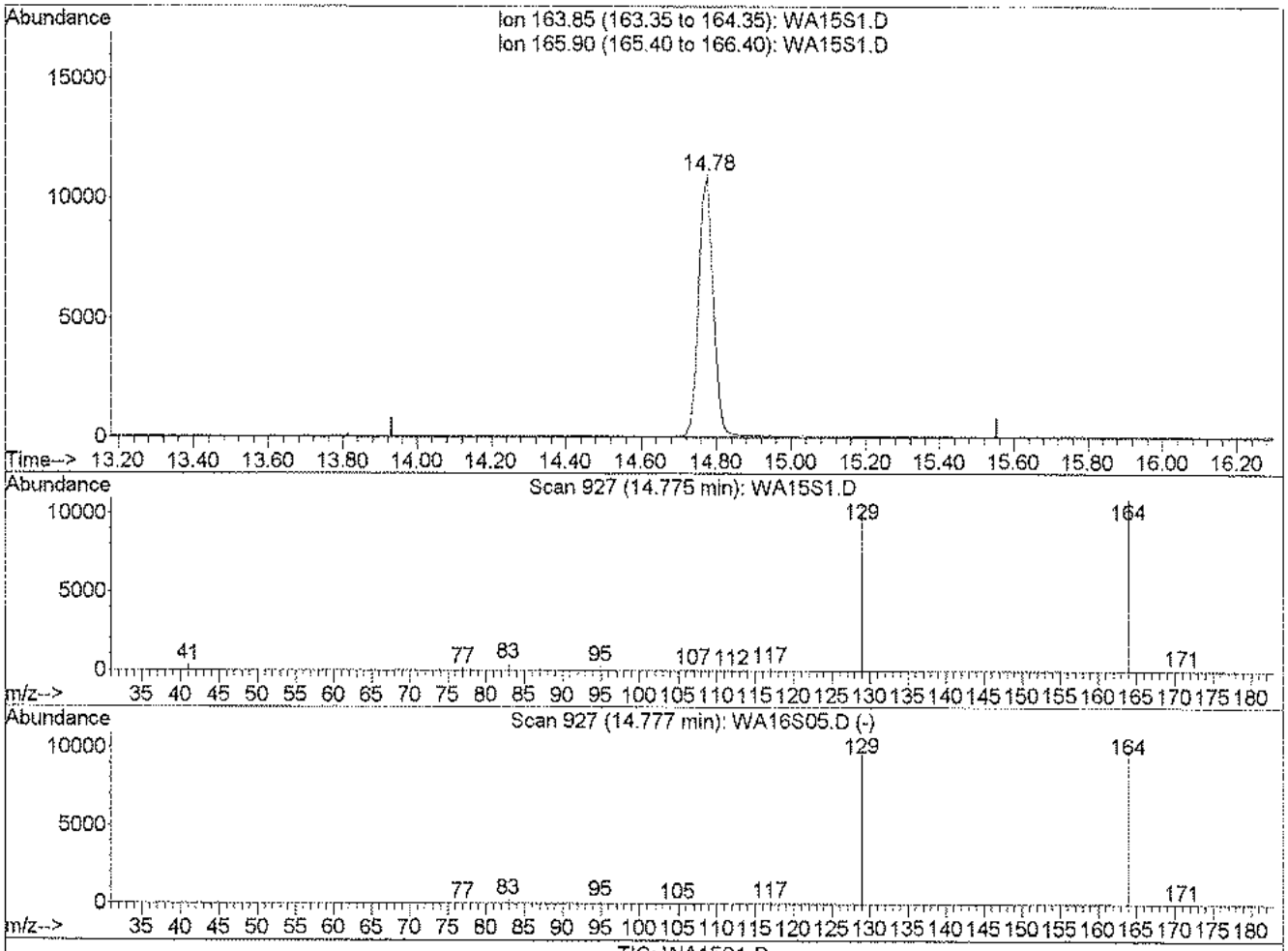
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WA15S1.D
Acq Time : 02/10/2015 12:15 Operator: TJM
Sample : 1.0PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:16 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



TIC: WA15S1.D

(33) tetrachloroethene

14.78min 1208.18ppt m

response 29669

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

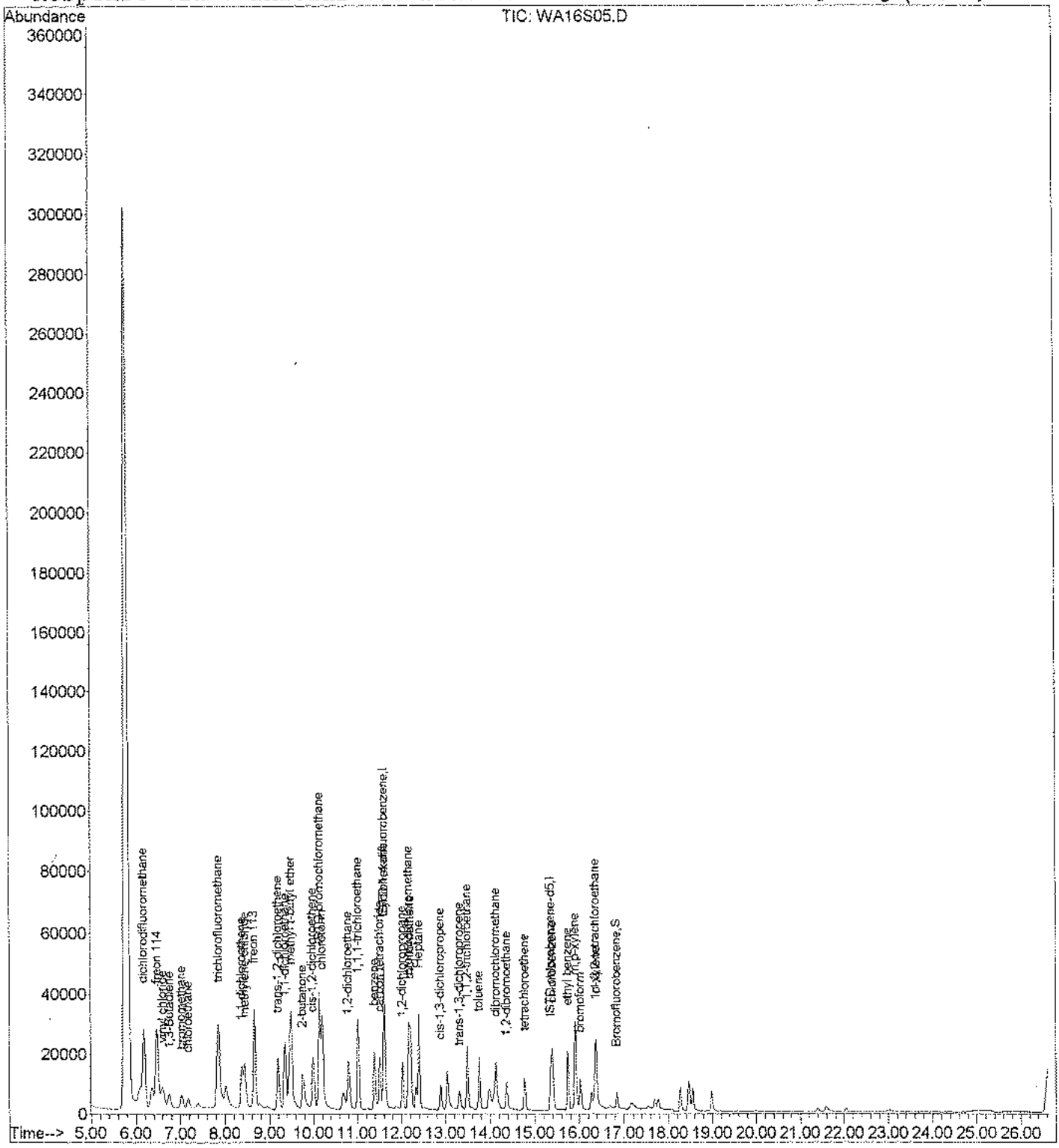
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA16S05.D
Acq Time : 02/10/2015 12:52 Operator: TJM
Sample : 0.5PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:17 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

TJB 09-16-15



Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA16S05.D
Acq Time : 02/10/2015 12:52 Operator: TJM
Sample : 0.5PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:17 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 12:40:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.13	128	16396	500.0000	ppt		91.17
19) ISTD 1,4-difluorobenzene	11.61	114	66543	500.0000	ppt		207.05#
31) ISTD chlorobenzene-d5	15.36	117	35852	500.0000	ppt		89.62
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.84	75	13635	592.8645	ppt		118.57%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	65237	645.6817	ppt		100
3) freon 114	6.47	85	42714	614.1046	ppt		96
4) vinyl chloride	6.61	62	16233	653.5292	ppt		98
5) 1,3-Butadiene	6.75	54	10988	681.0135	ppt	#	1
6) bromomethane	7.03	94	10391	601.1049	ppt		99
7) chloroethane	7.17	64	7481	619.7348	ppt		96
8) trichlorofluoromethane	7.86	101	32405	611.6777	ppt		98
9) freon 113	8.65	101	39613	648.9250	ppt	#	23
10) 1,1-dichloroethene	8.38	96	12483	663.2303	ppt		95
11) methylene chloride	8.44	49	39114	723.8299	ppt		89
12) trans-1,2-dichloroethene	9.20	96	16911	693.2967	ppt		92
13) methyl t-butyl ether	9.49	73	43156	726.8360	ppt	#	67
14) 2-butanone	9.75	43	61897	552.1308	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	13148	916.2935	ppt		87
16) 1,1-dichloroethane	9.35	63	44783	694.0295	ppt		94
17) chloroform	10.21	83	47208	682.1656	ppt	#	18
18) 1,2-dichloroethane	10.80	62	34268	700.0166	ppt		98
20) 1,1,1-trichloroethane	11.01	97	42095	310.2986	ppt	#	18
21) carbon tetrachloride	11.51	117	40004	239.7595	ppt	#	1
22) benzene	11.39	78	55116	348.5668	ppt	#	48
23) Cyclohexane	11.62	84	20293	611.0565	ppt	#	100
24) trichloroethene	12.21	130	17929	334.7615	ppt		94
25) 1,2-dichloropropane	12.02	63	28075	408.2875	ppt	#	68
26) bromodichloromethane	12.16	83	46533	330.4291	ppt		98
27) Heptane	12.40	43	43772	404.2551	ppt	#	19
28) cis-1,3-dichloropropene	12.88	75	25089	363.5378	ppt	#	9
29) trans-1,3-dichloropropene	13.31	75	20045	367.1235	ppt	#	9
30) 1,1,2-trichloroethane	13.49	97	18555	337.8495	ppt		99
32) toluene	13.76	91	40948	779.4835	ppt	#	22
33) tetrachloroethene	14.78	164	14996	688.9030	ppt	m	1
34) dibromochloromethane	14.13	129	36050	656.1356	ppt	#	11
35) 1,2-dibromoethane	14.37	107	29814	830.9198	ppt	#	3
36) chlorobenzene	15.40	112	12715	775.7807	ppt	#	68

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA16S05.D
Acq Time : 02/10/2015 12:52 Operator: TJM
Sample : 0.5PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:17 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 12:40:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.74	106	9375	781.3853	ppt		99
38)	m,p-xylene	15.91	106	25841	1724.9286	ppt		73
39)	o-xylene	16.38	106	11685	862.8446	ppt		96
40)	bromoform	16.02	173	18569	725.7555	ppt		100
41)	1,1,2,2-tetrachloroethane	16.36	83	28636	753.7130	ppt	#	18

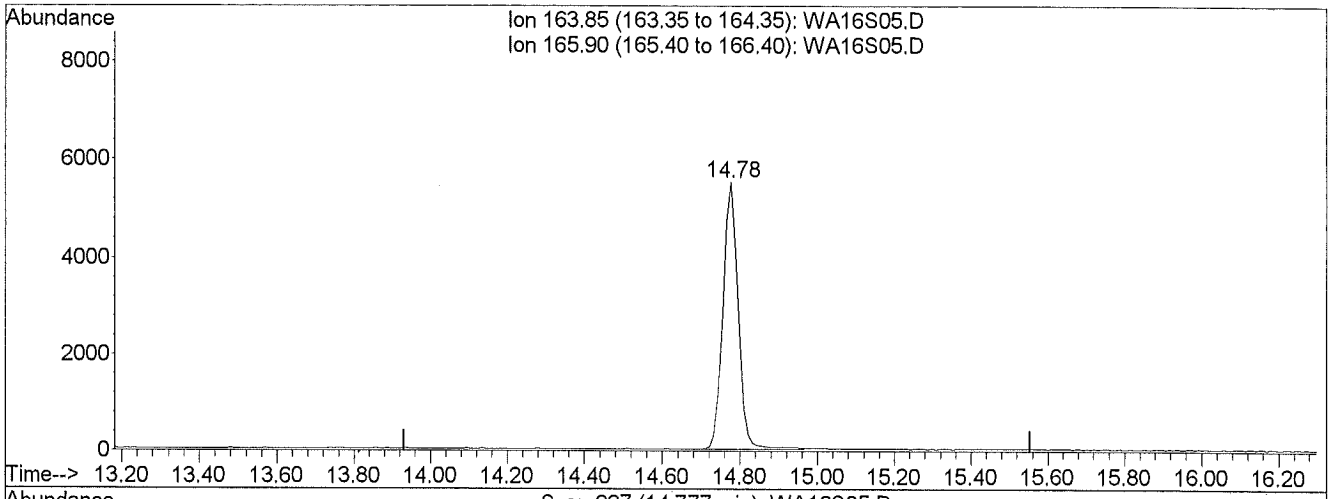
(#) = qualifier out of range (m) = manual integration

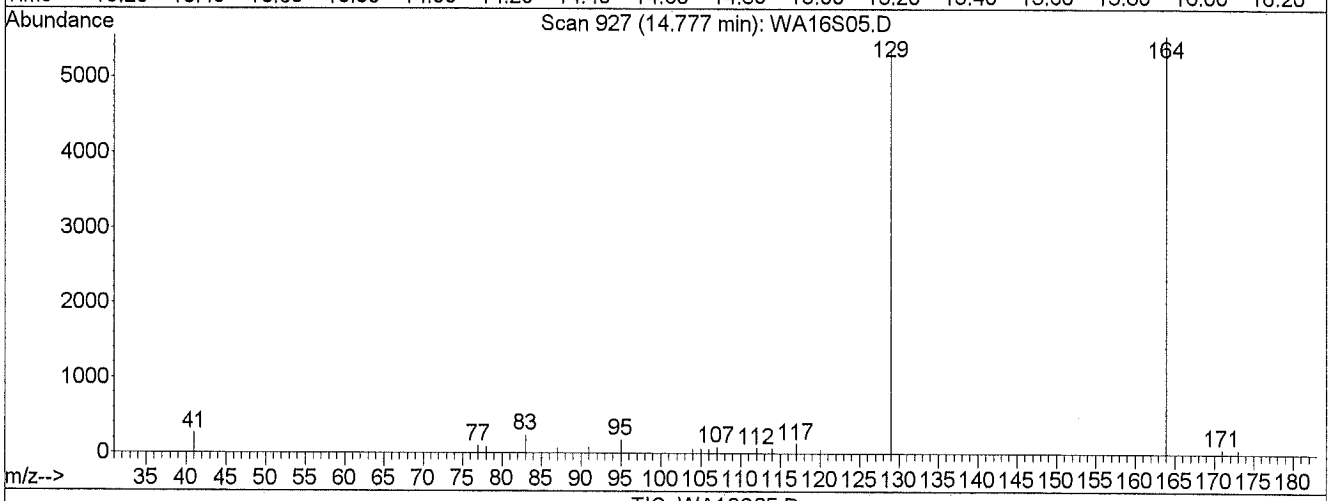
Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WA16S05.D
Acq Time : 02/10/2015 12:52 Operator: TJM
Sample : 0.5PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:17 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration





TIC: WA16S05.D

(33) tetrachloroethene

14.78min 688.90ppt m

response 14996

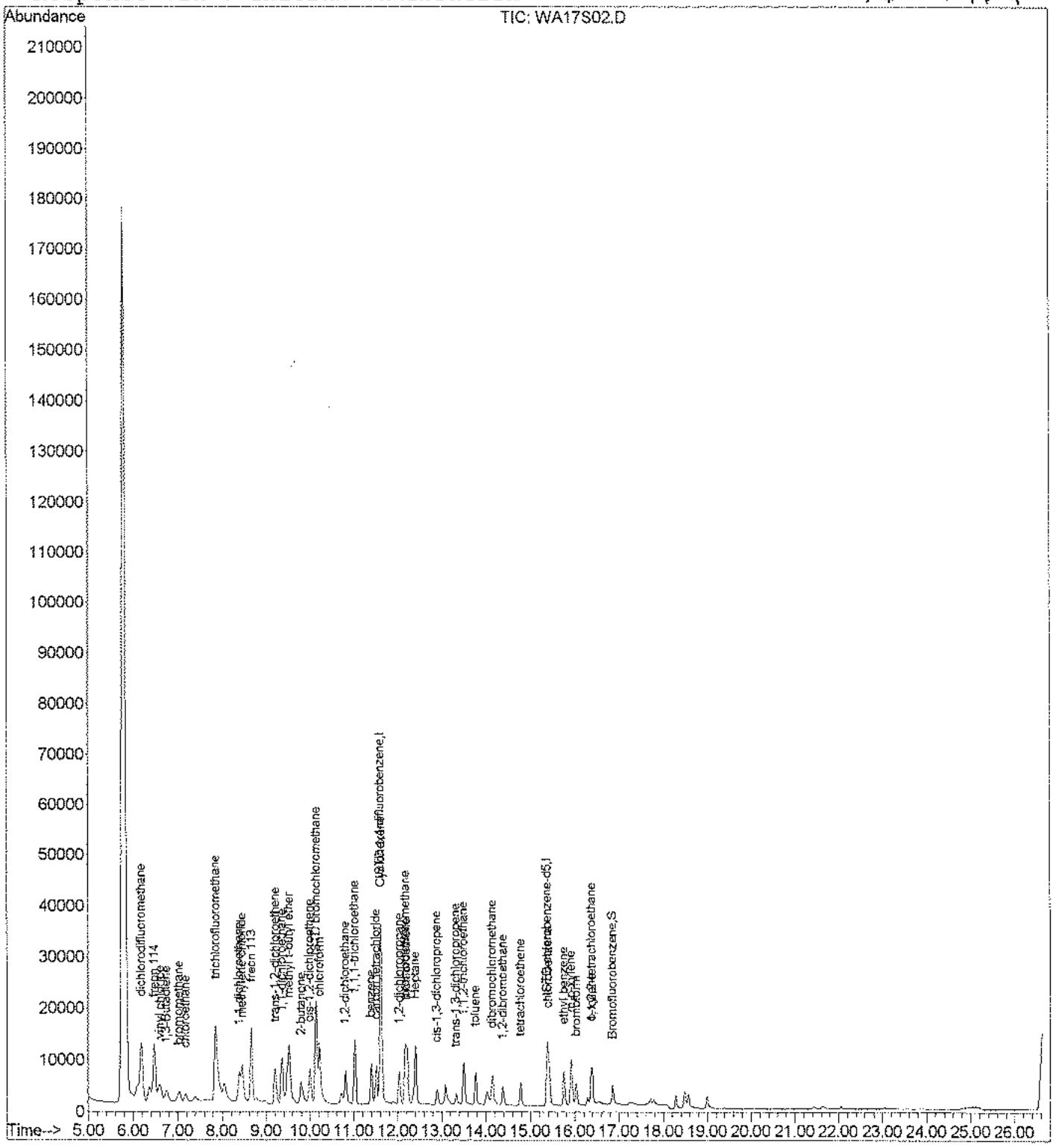
Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\W\2015\FEB15W\10FEB15W\WA17S02.D
Acq Time : 02/10/2015 13:30 Operator: TJM
Sample : 0.2 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 15:14 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

TO 09-16-15



Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA17S02.D
Acq Time : 02/10/2015 13:30 Operator: TJM
Sample : 0.2 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 15:14 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 13:11:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.13	128	13508	500.0000	ppt		82.39
19) ISTD 1,4-difluorobenzene	11.61	114	58990	500.0000	ppt		88.65
31) ISTD chlorobenzene-d5	15.37	117	29602	500.0000	ppt		82.57
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	9860	500.2315	ppt		100.05%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.18	85	28187	307.6156	ppt		100
3) freon 114	6.47	85	18157	292.5343	ppt		96
4) vinyl chloride	6.60	62	6678	295.9857	ppt		96
5) 1,3-Butadiene	6.75	54	4650	313.6695	ppt	#	1
6) bromomethane	7.02	94	4355	283.7613	ppt		100
7) chloroethane	7.18	64	3253	300.4770	ppt		95
8) trichlorofluoromethane	7.85	101	13762	291.6277	ppt		98
9) freon 113	8.66	101	16687	301.6180	ppt	#	23
10) 1,1-dichloroethene	8.38	96	5284	308.2287	ppt		96
11) methylene chloride	8.45	49	19290	380.1880	ppt		89
12) trans-1,2-dichloroethene	9.20	96	7280	324.8158	ppt		87
13) methyl t-butyl ether	9.52	73	16063	292.5317	ppt	#	65
14) 2-butanone	9.80	43	23404	233.8505	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	4806	333.4741	ppt		96
16) 1,1-dichloroethane	9.36	63	18972	319.2655	ppt		95
17) chloroform	10.21	83	19642	309.0887	ppt	#	18
18) 1,2-dichloroethane	10.82	62	13879	307.0834	ppt		98
20) 1,1,1-trichloroethane	11.02	97	17632	152.8702	ppt	#	18
21) carbon tetrachloride	11.51	117	17040	122.9179	ppt	#	1
22) benzene	11.39	78	22442	164.4861	ppt	#	48
23) Cyclohexane	11.63	84	8413	250.7916	ppt	#	100
24) trichloroethene	12.21	130	6993	152.9230	ppt		96
25) 1,2-dichloropropane	12.03	63	9306	151.9504	ppt		89
26) bromodichloromethane	12.17	83	19173	159.1043	ppt		99
27) Heptane	12.41	43	15137	161.2977	ppt	#	19
28) cis-1,3-dichloropropene	12.89	75	9829	165.1395	ppt	#	9
29) trans-1,3-dichloropropene	13.32	75	7323	155.8655	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	7465	158.1867	ppt		99
32) toluene	13.77	91	15008	298.9572	ppt	#	22
33) tetrachloroethene	14.78	164	6279	311.2687	ppt	#	1
34) dibromochloromethane	14.14	129	15084	297.8536	ppt	#	11
35) 1,2-dibromoethane	14.38	107	10298	293.9085	ppt	#	3
36) chlorobenzene	15.40	112	4303	269.8619	ppt	#	71

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA17S02.D
Acq Time : 02/10/2015 13:30 Operator: TJM
Sample : 0.2 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 15:14 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 13:11:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.75	106	3321	288.8600	ppt		99
38)	m,p-xylene	15.92	106	8331	569.5254	ppt		71
39)	o-xylene	16.39	106	3817	289.0495	ppt		91
40)	bromoform	16.03	173	7560	313.5506	ppt		100
41)	1,1,2,2-tetrachloroethane	16.37	83	11447	315.2100	ppt	#	18

(#) = qualifier out of range (m) = manual integration

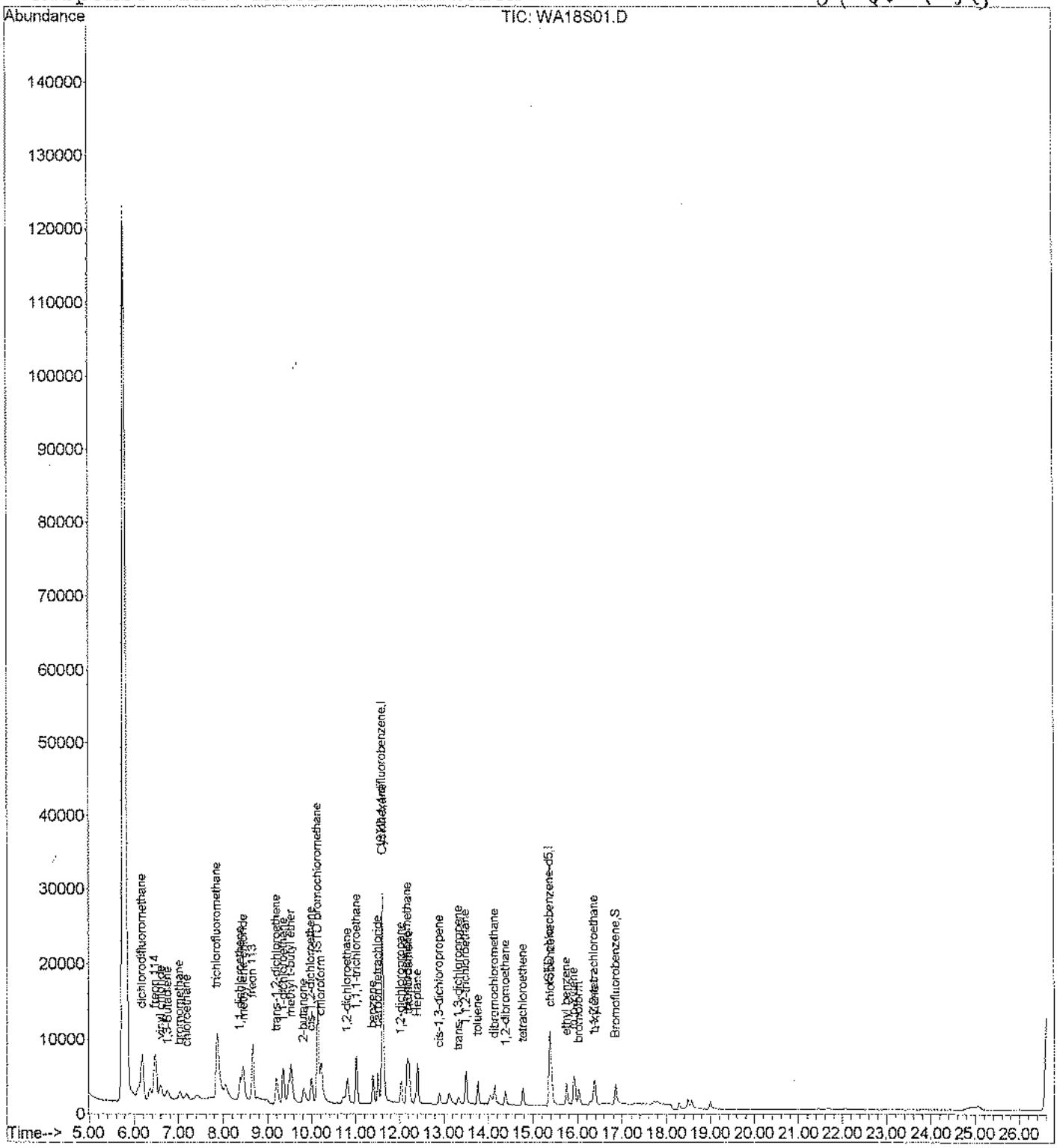
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA18S01.D
Acq Time : 02/10/2015 14:08 Operator: TJM
Sample : 0.1 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 15:49 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

09-06-15 JJ



Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA18S01.D
Acq Time : 02/10/2015 14:08 Operator: TJM
Sample : 0.1 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 15:49 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:28:53 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	14862	500.0000	ppt		90.64
19) ISTD 1,4-difluorobenzene	11.61	114	53025	500.0000	ppt		79.69
31) ISTD chlorobenzene-d5	15.37	117	24875	500.0000	ppt		69.38
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.85	75	7768	448.7273	ppt		89.75%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	15156	95.3544	ppt		99
3) freon 114	6.47	85	9875	94.9147	ppt		97
4) vinyl chloride	6.61	62	3620	94.3188	ppt		97
5) 1,3-Butadiene	6.75	54	2549	97.3397	ppt	#	1
6) bromomethane	7.03	94	2415	95.7335	ppt		99
7) chloroethane	7.18	64	1871	100.6207	ppt		96
8) trichlorofluoromethane	7.86	101	7516	95.0389	ppt		98
9) freon 113	8.67	101	9001	94.5545	ppt	#	23
10) 1,1-dichloroethene	8.38	96	2956	98.8095	ppt		98
11) methylene chloride	8.45	49	12227	120.1622	ppt		89
12) trans-1,2-dichloroethene	9.20	96	3724	91.8699	ppt		91
13) methyl t-butyl ether	9.55	73	7689	81.1743	ppt	#	62
14) 2-butanone	9.82	43	11676	77.9037	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	2367	86.1390	ppt		97
16) 1,1-dichloroethane	9.36	63	9953	93.3169	ppt		96
17) chloroform	10.21	83	10507	94.2437	ppt	#	18
18) 1,2-dichloroethane	10.82	62	7188	90.4217	ppt		98
20) 1,1,1-trichloroethane	11.02	97	9151	85.1986	ppt	#	18
21) carbon tetrachloride	11.51	117	8963	77.4513	ppt	#	1
22) benzene	11.39	78	11420	86.1038	ppt	#	48
23) Cyclohexane	11.63	84	4544	103.2305	ppt	#	100
24) trichloroethene	12.22	130	3693	86.3276	ppt		95
25) 1,2-dichloropropane	12.04	63	4641	79.0150	ppt		89
26) bromodichloromethane	12.17	83	9876	86.3156	ppt		98
27) Heptane	12.41	43	7203	77.8025	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	4791	82.5424	ppt	#	9
29) trans-1,3-dichloropropene	13.33	75	3526	78.2911	ppt	#	9
30) 1,1,2-trichloroethane	13.50	97	3807	85.5739	ppt		100
32) toluene	13.77	91	7416	110.5865	ppt	#	22
33) tetrachloroethene	14.78	164	3276	120.8786	ppt	#	1
34) dibromochloromethane	14.14	129	7898	119.5563	ppt	#	11
35) 1,2-dibromoethane	14.39	107	5093	109.4803	ppt	#	3
36) chlorobenzene	15.40	112	2165	108.4981	ppt	#	56

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA18S01.D
Acq Time : 02/10/2015 14:08 Operator: TJM
Sample : 0.1 PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 15:49 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:28:53 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.75	106	1585	104.4001	ppt		99
38)	m,p-xylene	15.92	106	3726	192.3491	ppt	#	68
39)	o-xylene	16.39	106	1665	94.4551	ppt		91
40)	bromoform	16.03	173	3870	118.4156	ppt		100
41)	1,1,2,2-tetrachloroethane	16.37	83	5550	112.2012	ppt	#	18

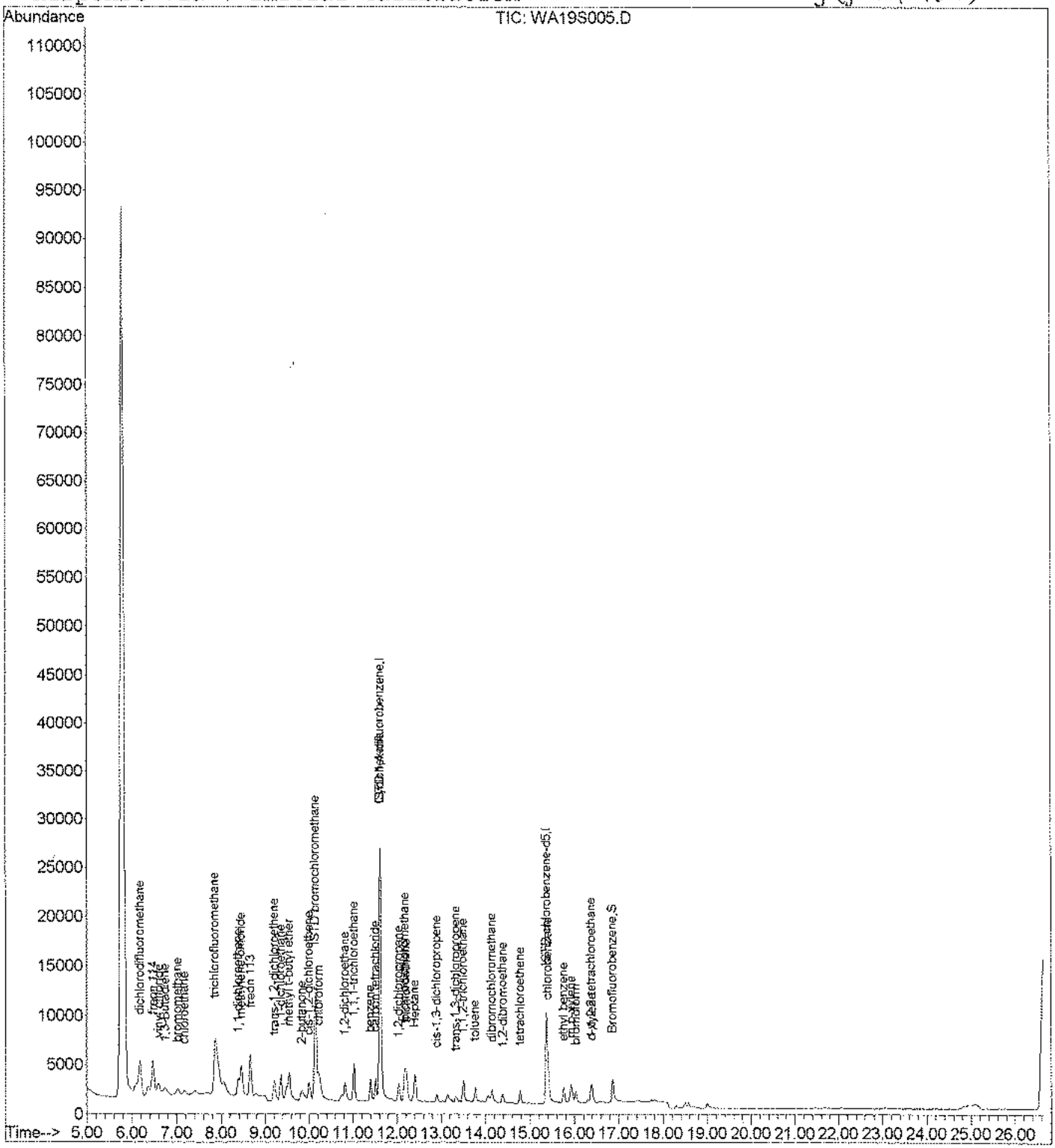
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration JJ 09-16-15



Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:29:59 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	14732	500.0000	ppt		89.85
19) ISTD 1,4-difluorobenzene	11.62	114	52267	500.0000	ppt		78.55
31) ISTD chlorobenzene-d5	15.37	117	23685	500.0000	ppt		66.06
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.86	75	7058	433.3803	ppt		86.68%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	8795	69.7361	ppt		97
3) freon 114	6.47	85	5677	68.3124	ppt		97
4) vinyl chloride	6.61	62	2079	67.8188	ppt		92
5) 1,3-Butadiene	6.75	54	1418	67.9500	ppt	#	1
6) bromomethane	7.03	94	1441	71.0058	ppt		99
7) chloroethane	7.18	64	1019	67.7271	ppt	#	43
8) trichlorofluoromethane	7.86	101	4359	68.8907	ppt		99
9) freon 113	8.67	101	5229	68.9773	ppt	#	23
10) 1,1-dichloroethene	8.39	96	1655	68.9895	ppt		95
11) methylene chloride	8.46	49	8655	104.2415	ppt		90
12) trans-1,2-dichloroethene	9.20	96	2120	66.9096	ppt		94
13) methyl t-butyl ether	9.55	73	4259	57.4764	ppt	#	62
14) 2-butanone	9.84	43	7021	58.1861	ppt	#	64
15) cis-1,2-dichloroethene	9.99	96	1286	59.9587	ppt		100
16) 1,1-dichloroethane	9.36	63	5326	63.3484	ppt		96
17) chloroform	10.21	83	5765	65.1420	ppt	#	18
18) 1,2-dichloroethane	10.82	62	4050	64.5152	ppt		99
20) 1,1,1-trichloroethane	11.02	97	5298	57.1720	ppt	#	18
21) carbon tetrachloride	11.51	117	5093	50.1557	ppt	#	1
22) benzene	11.40	78	6577	57.9576	ppt	#	48
23) Cyclohexane	11.62	84	2720	72.6525	ppt	#	100
24) trichloroethene	12.22	130	2103	56.7523	ppt		94
25) 1,2-dichloropropane	12.04	63	2675	52.9132	ppt		86
26) bromodichloromethane	12.17	83	5607	57.0539	ppt		100
27) Heptane	12.41	43	3829	48.6942	ppt	#	19
28) cis-1,3-dichloropropene	12.90	75	2613	53.0660	ppt	#	9
29) trans-1,3-dichloropropene	13.33	75	1962	51.1369	ppt	#	9
30) 1,1,2-trichloroethane	13.51	97	2157	56.5717	ppt		92
32) toluene	13.77	91	3874	71.7957	ppt	#	22
33) tetrachloroethene	14.78	164	1701	77.3331	ppt	m	1
34) dibromochloromethane	14.14	129	4073	75.7019	ppt	#	11
35) 1,2-dibromoethane	14.39	107	2760	73.5728	ppt	#	3
36) chlorobenzene	15.40	112	1141	70.2727	ppt	#	27

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 14:29:59 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	ethyl benzene	15.76	106	835	68.6696	ppt		95
38)	m,p-xylene	15.93	106	1894	123.5782	ppt	#	68
39)	o-xylene	16.40	106	893	64.4916	ppt		85
40)	bromoform	16.03	173	2080	78.8176	ppt		100
41)	1,1,2,2-tetrachloroethane	16.37	83	3120	79.2894	ppt	#	18

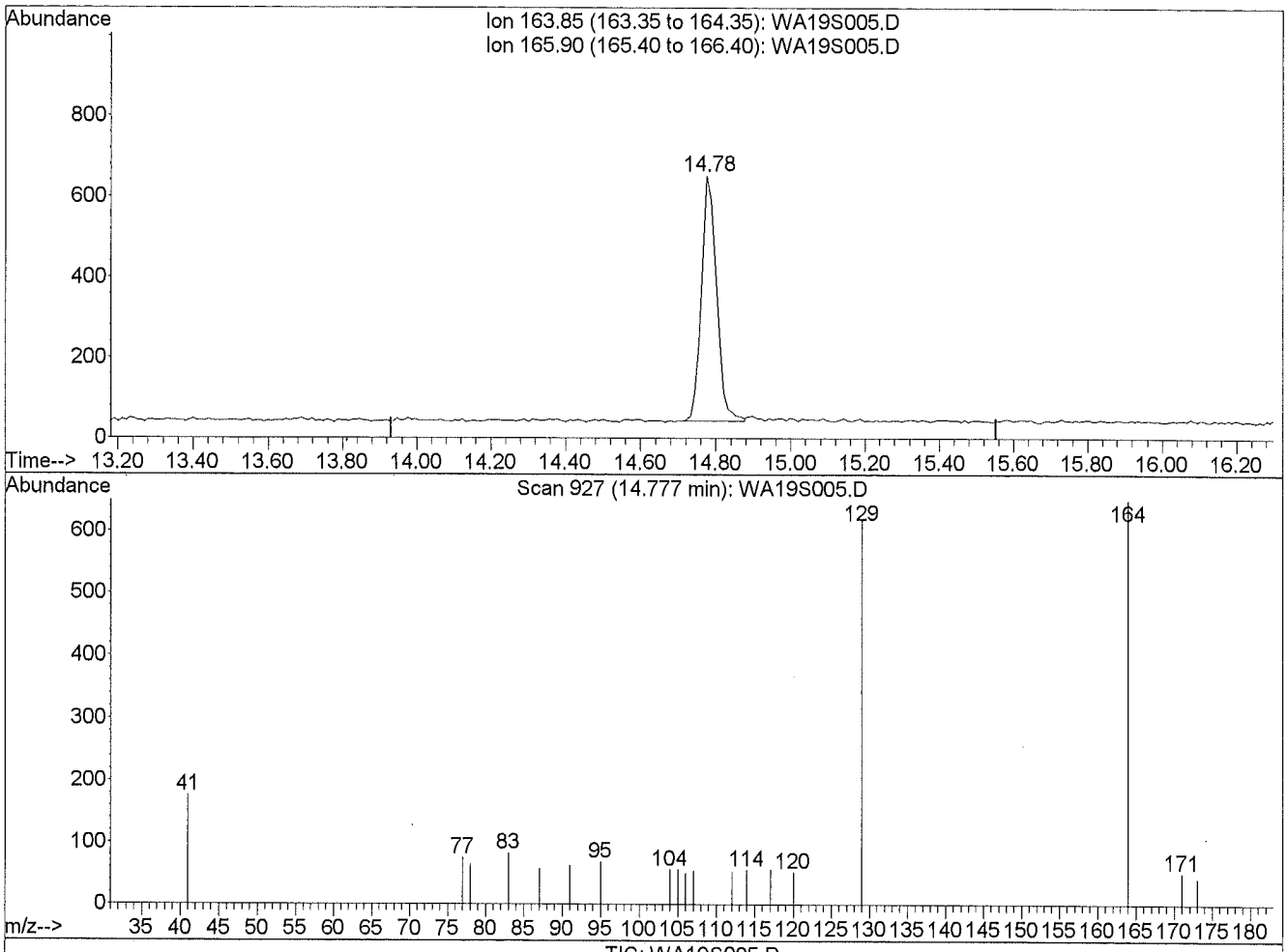
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WA19S005.D
Acq Time : 02/10/2015 14:46 Operator: TJM
Sample : 0.05PPB STD Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 10 16:13 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



TIC: WA19S005.D

(33) tetrachloroethene

14.78min 77.33ppt m

response 1701

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

143502

Analyst Notebook

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is S1MT15ALM (HBN 143502)

The following compounds in the CCS were outside of +-30%:

Cis-1,2-DCE recoveries in the QC/QD were above the historical limits

No Cis-1,2-DCE were detected in any of the samples

2.11.15

JordenBaum 02-11-15

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ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
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Continuing Calibration Report 5972-W

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Continuing Calibration File: WA16S05.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%
1		ISTD bromochloromethane	1.000	1.000	0.0	100
2		dichlorodifluoromethane	4.716	3.979	15.6	100
3		freon 114	3.069	2.605	15.1	100
4		vinyl chloride	1.142	0.990	13.3	100
5		1,3-Butadiene	0.786	0.670	14.7	100
6		bromomethane	0.753	0.634	15.8	100
7		chloroethane	0.555	0.456	17.7	100
8		trichlorofluoromethane	2.342	1.976	15.6	100
9		freon 113	2.837	2.416	14.8	100
10		1,1-dichloroethene	0.901	0.761	15.5	100
11		methylene chloride	3.588	2.386	33.5#	100
12		trans-1,2-dichloroethene	1.194	1.031	13.6	100
13		methyl t-butyl ether	2.716	2.632	3.1	100
14		2-butanone	4.086	3.775	7.6	100
15		cis-1,2-dichloroethene	0.826	0.802	3.0	100
16		1,1-dichloroethane	3.127	2.731	12.6	100
17		chloroform	3.294	2.879	12.6	100
18		1,2-dichloroethane	2.343	2.090	10.8	100
19	I	ISTD 1,4-difluorobenzene	1.000	1.000	0.0	100
20		1,1,1-trichloroethane	0.759	0.633	16.6	100
21		carbon tetrachloride	0.732	0.601	17.9	100
22		benzene	0.971	0.828	14.7	100
23		Cyclohexane	0.376	0.305	18.8	100
24		trichloroethene	0.309	0.269	12.9	100
25		1,2-dichloropropane	0.428	0.422	1.5	100
26		bromodichloromethane	0.823	0.699	15.0	100
27		Heptane	0.673	0.658	2.3	100
28		cis-1,3-dichloropropene	0.421	0.377	10.4	100
29		trans-1,3-dichloropropene	0.321	0.301	6.2	100
30		1,1,2-trichloroethane	0.322	0.279	13.4	100
31	I	ISTD chlorobenzene-d5	1.000	1.000	0.0	100
32		toluene	1.306	1.142	12.6	100
33		tetrachloroethene	0.581	0.418	28.0	100
34		dibromochloromethane	1.275	1.006	21.1	100
35		1,2-dibromoethane	0.910	0.832	8.6	100
36		chlorobenzene	0.389	0.355	8.8	100
37		ethyl benzene	0.290	0.261	9.8	100
38		m,p-xylene	0.364	0.360	1.0	100
39		o-xylene	0.331	0.326	1.7	100
40		bromoform	0.644	0.518	19.6	100
41		1,1,2,2-tetrachloroethane	0.969	0.799	17.6	100

(#) = Out of Range

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration

Continuing Calibration File: WA16S05.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%
42 S	Bromofluorobenzene	0.348	0.380	-9.2	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

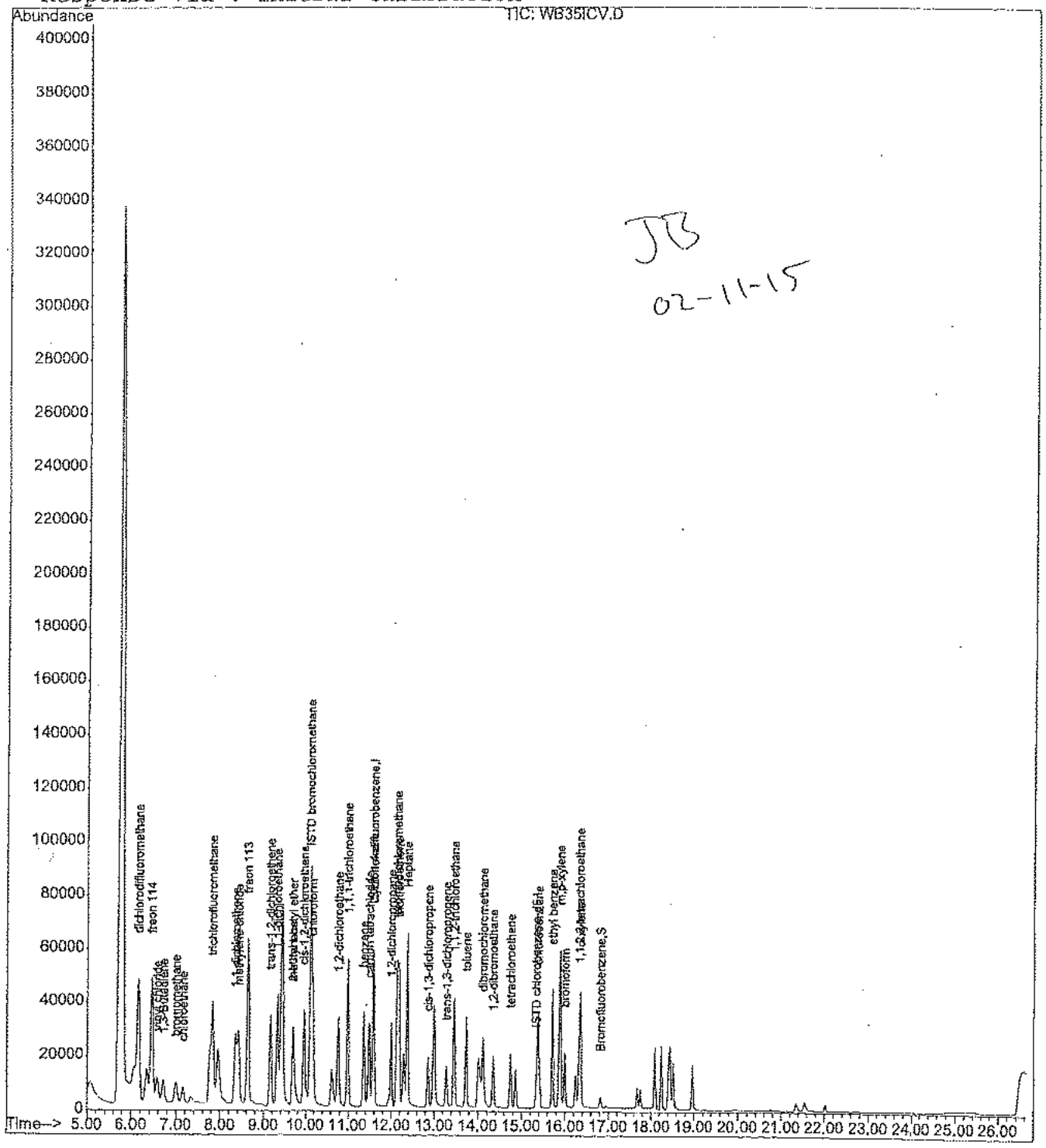
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB35ICV.D
Acq Time : 02/11/2015 09:47
Sample : ~~0.5PPB STD ICV~~ ICV/90
Misc : 26664

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 10:36 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB35ICV.D
Acq Time : 02/11/2015 09:47 Operator: TJM
Sample : ~~0.5PPB~~ STD ICV / QC Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:36 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.09	128	13965	500.0000	ppt		85.17
19) ISTD 1,4-difluorobenzene	11.57	114	50448	500.0000	ppt		75.81
31) ISTD chlorobenzene-d5	15.33	117	31860	500.0000	ppt		88.87
System Monitoring Compounds							%Recovery
42) Bromofluorobenzene	16.81	75	9261	417.3653	ppt		83.47%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.15	85	112822	856.4642	ppt		99
3) freon 114	6.44	85	74488	869.0868	ppt		95
4) vinyl chloride	6.57	62	28664	899.0519	ppt		100
5) 1,3-Butadiene	6.72	54	19003	866.0471	ppt	#	1
6) bromomethane	6.99	94	18159	863.4466	ppt		98
7) chloroethane	7.15	64	13452	868.3380	ppt		99
8) trichlorofluoromethane	7.82	101	58621	896.3254	ppt		98
9) freon 113	8.62	101	73095	922.5915	ppt	#	23
10) 1,1-dichloroethene	8.34	96	22347	887.7826	ppt		88
11) methylene chloride	8.41	49	70352	702.1103	ppt		86
12) trans-1,2-dichloroethene	9.16	96	36511	1094.9856	ppt		79
13) methyl t-butyl ether	9.69	73	944	12.4435	ppt	#	1
14) 2-butanone	9.69	43	111910	980.5483	ppt	#	64
15) cis-1,2-dichloroethene	9.96	96	37695	1633.2471	ppt		95
16) 1,1-dichloroethane	9.31	63	83684	958.2369	ppt		95
17) chloroform	10.17	83	86767	943.1876	ppt	#	18
18) 1,2-dichloroethane	10.77	62	67153	1026.2152	ppt		98
20) 1,1,1-trichloroethane	10.98	97	77602	1013.9350	ppt	#	18
21) carbon tetrachloride	11.48	117	74417	1007.7454	ppt	#	1
22) benzene	11.35	78	92174	941.2896	ppt	#	48
23) Cyclohexane	11.59	84	37539	990.7658	ppt	#	100
24) trichloroethene	12.17	130	33085	1060.0637	ppt		95
25) 1,2-dichloropropane	11.99	63	55598	1286.8573	ppt		85
26) bromodichloromethane	12.13	83	86600	1043.0327	ppt		99
27) Heptane	12.37	43	96191	1416.3291	ppt	#	19
28) cis-1,3-dichloropropene	12.85	75	52363	1233.2457	ppt	#	9
29) trans-1,3-dichloropropene	13.28	75	43304	1336.6763	ppt	#	9
30) 1,1,2-trichloroethane	13.46	97	34250	1054.7577	ppt		100
32) toluene	13.73	91	76183	915.4155	ppt	#	22
33) tetrachloroethene	14.74	164	26127	924.5158	ppt	#	1
34) dibromochloromethane	14.10	129	66102	813.8853	ppt	#	11
35) 1,2-dibromoethane	14.33	107	54536	941.0288	ppt	#	3
36) chlorobenzene	15.37	112	44218	1784.5811	ppt		86

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB35ICV.D
Acq Time : 02/11/2015 09:47 Operator: TJM
Sample : 0.5PPB STD ICV/QC Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:36 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37) ethyl benzene	15.71	106	19126	1035.4944	ppt		98
38) m,p-xylene	15.88	106	50147	2162.4249	ppt		76
39) o-xylene	16.36	106	22687	1074.2375	ppt		92
40) bromoform	15.99	173	36496	888.9007	ppt		100
41) 1,1,2,2-tetrachloroethane	16.32	83	61401	994.2803	ppt	#	18

(#) = qualifier out of range (m) = manual integration

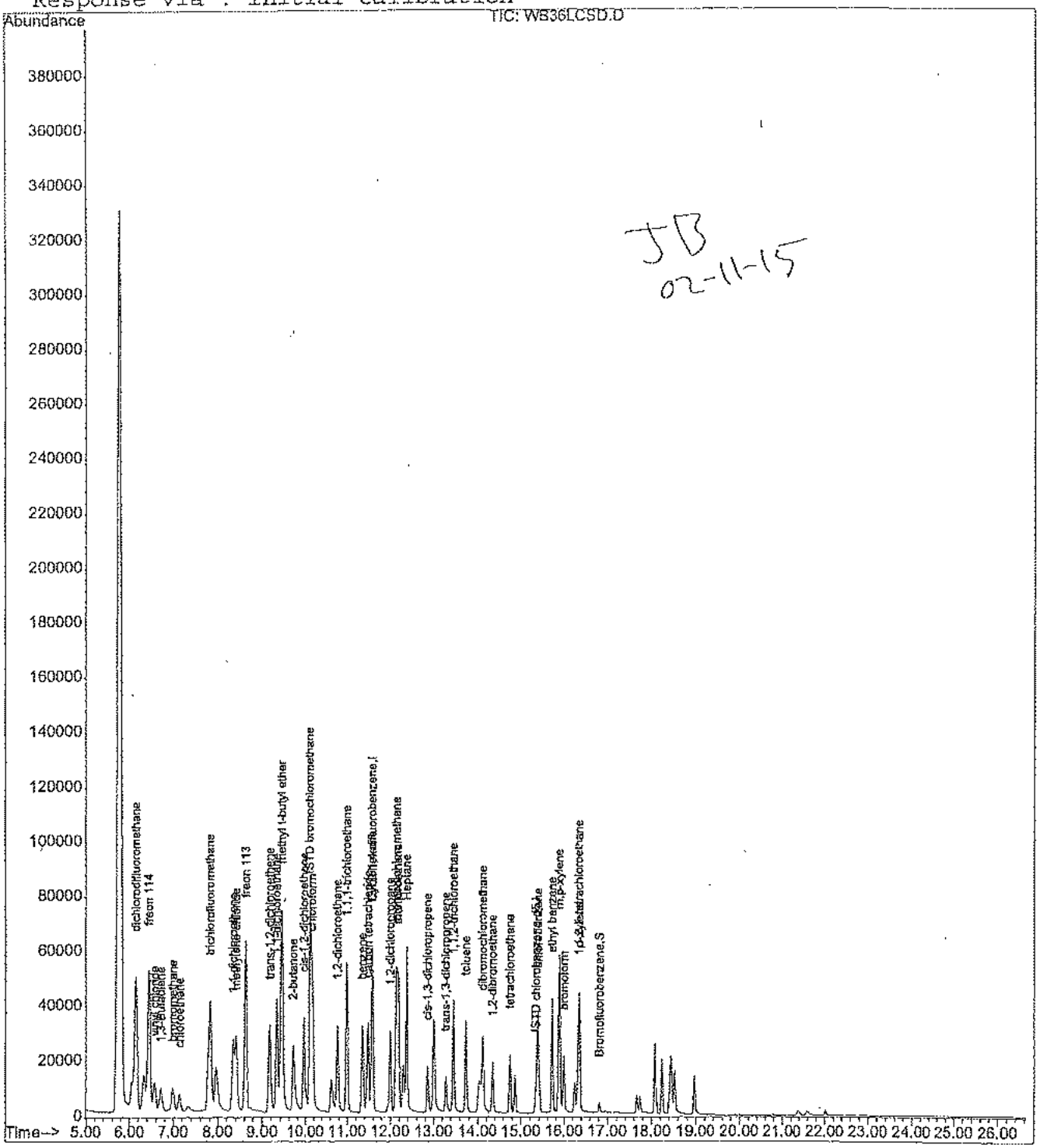
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB36LCSD.D
Acq Time : 02/11/2015 10:24
Sample : QD-
Misc : 26664

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 10:57 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB36LCSD.D
Acq Time : 02/11/2015 10:24
Sample : QD-
Misc : 26664

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 10:57 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.09	128	13953	500.0000 ppt		85.10
19) ISTD 1,4-difluorobenzene	11.57	114	50781	500.0000 ppt		76.31
31) ISTD chlorobenzene-d5	15.33	117	26901	500.0000 ppt		75.03
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.81	75	8157	435.3777 ppt		87.08%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.15	85	121129	920.3159 ppt		99
3) freon 114	6.44	85	81926	956.6915 ppt		97
4) vinyl chloride	6.57	62	30762	965.6859 ppt		98
5) 1,3-Butadiene	6.71	54	19320	881.2514 ppt	#	1
6) bromomethane	6.99	94	20276	964.9375 ppt		100
7) chloroethane	7.15	64	14387	929.4917 ppt		100
8) trichlorofluoromethane	7.82	101	62833	961.5539 ppt		98
9) freon 113	8.63	101	74908	946.2879 ppt	#	23
10) 1,1-dichloroethene	8.34	96	23443	932.1246 ppt		95
11) methylene chloride	8.41	49	69229	691.4970 ppt		89
12) trans-1,2-dichloroethene	9.16	96	36293	1089.3837 ppt		75
13) methyl t-butyl ether	9.44	73	87654	1156.4184 ppt		80
14) 2-butanone	9.69	43	97640	856.2512 ppt	#	64
15) cis-1,2-dichloroethene	9.96	96	36574	1586.0393 ppt		96
16) 1,1-dichloroethane	9.31	63	84219	965.1924 ppt		95
17) chloroform	10.17	83	87438	951.2990 ppt	#	18
18) 1,2-dichloroethane	10.76	62	64270	983.0026 ppt		98
20) 1,1,1-trichloroethane	10.98	97	77990	1012.3224 ppt	#	18
21) carbon tetrachloride	11.48	117	76043	1023.0117 ppt	#	1
22) benzene	11.35	78	89857	911.6107 ppt	#	48
23) Cyclohexane	11.59	84	38284	1003.8026 ppt	#	100
24) trichloroethene	12.18	130	33492	1066.0673 ppt		93
25) 1,2-dichloropropane	11.99	63	53229	1223.9459 ppt		84
26) bromodichloromethane	12.13	83	84854	1015.3015 ppt		98
27) Heptane	12.37	43	90370	1321.8942 ppt	#	19
28) cis-1,3-dichloropropene	12.85	75	48719	1139.8984 ppt	#	9
29) trans-1,3-dichloropropene	13.28	75	39334	1206.1714 ppt	#	9
30) 1,1,2-trichloroethane	13.46	97	34628	1059.4055 ppt		99
32) toluene	13.73	91	74537	1060.7412 ppt	#	22
33) tetrachloroethene	14.74	164	27273	1142.9705 ppt	#	1
34) dibromochloromethane	14.10	129	65711	958.2173 ppt	#	11
35) 1,2-dibromoethane	14.34	107	53346	1090.1815 ppt	#	3
36) chlorobenzene	15.38	112	44987	2150.3125 ppt		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB36LCSD.D
Acq Time : 02/11/2015 10:24 Operator: TJM
Sample : QD- Inst : 5972-W
Misc : 26664 Multiplr: 1.00

Quant Time: Feb 11 10:57 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37) ethyl benzene	15.71	106	18727	1200.7958	ppt		99
38) m,p-xylene	15.88	106	49841	2545.4242	ppt		73
39) o-xylene	16.36	106	22988	1289.1450	ppt		91
40) bromoform	15.99	173	36397	1049.9072	ppt		100
41) 1,1,2,2-tetrachloroethane	16.33	83	58599	1123.8309	ppt	#	18

(#) = qualifier out of range (m) = manual integration

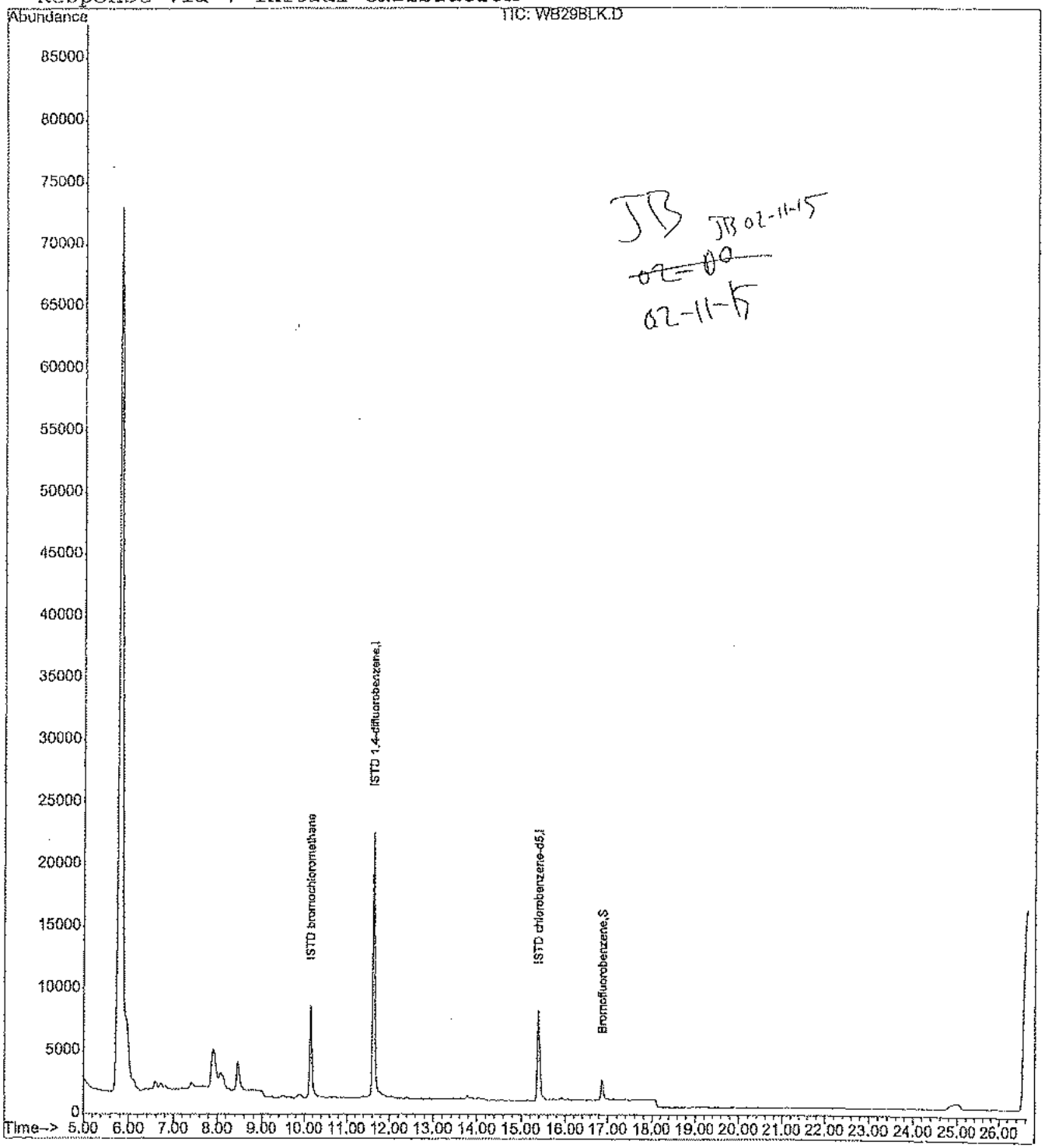
Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB29BLK.D
Acq Time : 02/10/2015 16:40
Sample : BL-
Misc :

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 9:20 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB 02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB29BLK.D
Acq Time : 02/10/2015 16:40 Operator: TJM
Sample : BL- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 11 9:20 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.14	128	12371	500.0000 ppt	75.45
19) ISTD 1,4-difluorobenzene	11.62	114	46426	500.0000 ppt	69.77
31) ISTD chlorobenzene-d5	15.37	117	19577	500.0000 ppt	54.61
System Monitoring Compounds					%Recovery
42) Bromofluorobenzene	16.86	75	5748	421.5749 ppt	84.31%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) freon 114	0.00	85		Not Detected	
4) vinyl chloride	0.00	62		Not Detected	
5) 1,3-Butadiene	0.00	54		Not Detected	
6) bromomethane	0.00	94		Not Detected	
7) chloroethane	0.00	64		Not Detected	
8) trichlorofluoromethane	0.00	101		Not Detected	
9) freon 113	0.00	101		Not Detected	
10) 1,1-dichloroethene	0.00	96		Not Detected	
11) methylene chloride	0.00	49		Not Detected	
12) trans-1,2-dichloroethene	0.00	96		Not Detected	
13) methyl t-butyl ether	0.00	73		Not Detected	
14) 2-butanone	0.00	43		Not Detected	
15) cis-1,2-dichloroethene	0.00	96		Not Detected	
16) 1,1-dichloroethane	0.00	63		Not Detected	
17) chloroform	0.00	83		Not Detected	
18) 1,2-dichloroethane	0.00	62		Not Detected	
20) 1,1,1-trichloroethane	0.00	97		Not Detected	
21) carbon tetrachloride	0.00	117		Not Detected	
22) benzene	0.00	78		Not Detected	
23) Cyclohexane	0.00	84		Not Detected	
24) trichloroethene	0.00	130		Not Detected	
25) 1,2-dichloropropane	0.00	63		Not Detected	
26) bromodichloromethane	0.00	83		Not Detected	
27) Heptane	0.00	43		Not Detected	
28) cis-1,3-dichloropropene	0.00	75		Not Detected	
29) trans-1,3-dichloropropene	0.00	75		Not Detected	
30) 1,1,2-trichloroethane	0.00	97		Not Detected	
32) toluene	0.00	91		Not Detected	
33) tetrachloroethene	0.00	164		Not Detected	
34) dibromochloromethane	0.00	129		Not Detected	
35) 1,2-dibromoethane	0.00	107		Not Detected	
36) chlorobenzene	0.00	112		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB29BLK.D
Acq Time : 02/10/2015 16:40 Operator: TJM
Sample : BL- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 11 9:20 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37) ethyl benzene	0.00	106		Not Detected	
38) m,p-xylene	0.00	106		Not Detected	
39) o-xylene	0.00	106		Not Detected	
40) bromoform	0.00	173		Not Detected	
41) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	

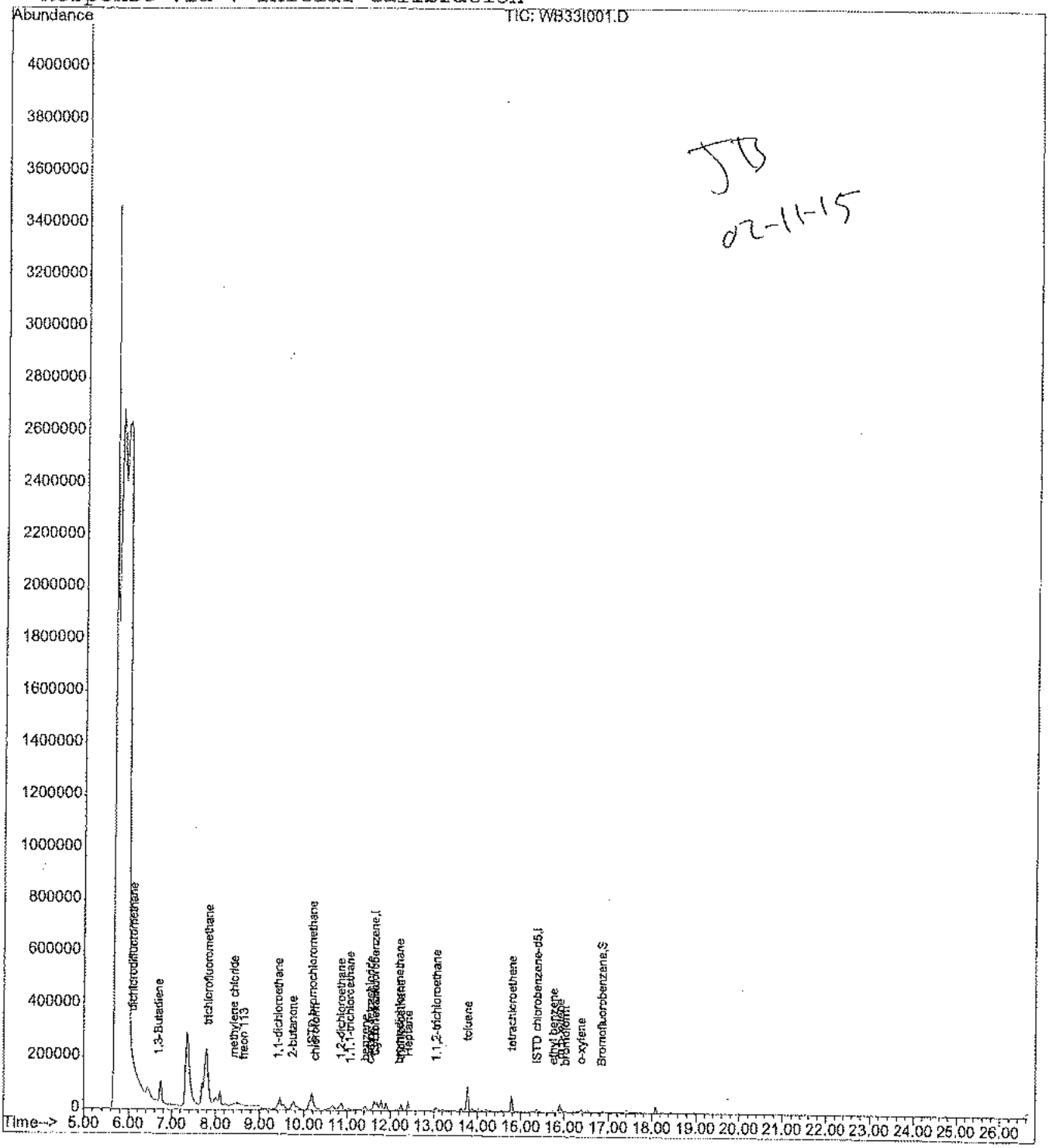
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB33I001.D
Acq Time : 02/10/2015 19:12 Operator: TJM
Sample : 1503747001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0377 Multiplr: 1.00

Quant Time: Feb 11 9:42 2015 Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



JB
02-11-15

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB33I001.D
Acq Time : 02/10/2015 19:12 Operator: TJM
Sample : 1503747001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0377 Multiplr: 1.00

Quant Time: Feb 11 9:42 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.17	128	13076	500.0000 ppt	79.75
19) ISTD 1,4-difluorobenzene	11.63	114	44582	500.0000 ppt	67.00
31) ISTD chlorobenzene-d5	15.36	117	24835	500.0000 ppt	69.27
System Monitoring Compounds					%Recovery
42) Bromofluorobenzene	16.84	75	8437	487.7846 ppt	97.56%
Target Compounds					Qvalue
2) dichlorodifluoromethane	6.08	85	18944	153.5865 ppt	100
3) freon 114	0.00	85		Not Detected	
4) vinyl chloride	0.00	62		Not Detected	
5) 1,3-Butadiene	6.68	54	1585	77.1462 ppt #	1
6) bromomethane	0.00	94		Not Detected	
7) chloroethane	0.00	64		Not Detected	
8) trichlorofluoromethane	7.82	101	11135	181.8313 ppt	96
9) freon 113	8.63	101	3399	45.8183 ppt #	23
10) 1,1-dichloroethene	0.00	96		Not Detected	
11) methylene chloride	8.41	49	20582	219.3727 ppt #	80
12) trans-1,2-dichloroethene	0.00	96		Not Detected	
13) methyl t-butyl ether	0.00	73		Not Detected	
14) 2-butanone	9.73	43	118578	1109.6097 ppt #	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected	
16) 1,1-dichloroethane	9.41	63	939	11.4832 ppt #	66
17) chloroform	10.26	83	14798	171.7958 ppt #	18
18) 1,2-dichloroethane	10.83	62	3472	56.6655 ppt	99
20) 1,1,1-trichloroethane	11.05	97	6581	97.3001 ppt #	18
21) carbon tetrachloride	11.54	117	6188	94.8229 ppt #	1
22) benzene	11.42	78	33386	385.8012 ppt #	48
23) Cyclohexane	11.65	84	14728	439.8620 ppt #	100
24) trichloroethene	12.23	130	1878	68.0896 ppt	85
25) 1,2-dichloropropane	0.00	63		Not Detected	
26) bromodichloromethane	12.19	83	3142	42.8224 ppt #	57
27) Heptane	12.42	43	45794	762.9968 ppt #	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected	
29) trans-1,3-dichloropropene	0.00	75		Not Detected	
30) 1,1,2-trichloroethane	13.06	97	560	19.5148 ppt #	1
32) toluene	13.77	91	166820	2571.5200 ppt #	22
33) tetrachloroethene	14.78	164	75900	3445.4675 ppt #	1
34) dibromochloromethane	0.00	129		Not Detected	
35) 1,2-dibromoethane	0.00	107		Not Detected	
36) chlorobenzene	0.00	112		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB33I001.D
Acq Time : 02/10/2015 19:12 Operator: TJM
Sample : 1503747001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0377 Multiplr: 1.00

Quant Time: Feb 11 9:42 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37) ethyl benzene	15.74	106	3350	232.6752 ppt	94
38) m,p-xylene	15.90	106	19473	1077.2352 ppt	80
39) o-xylene	16.38	106	6266	380.6232 ppt	96
40) bromoform	16.02	173	1474	46.0561 ppt	100
41) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	

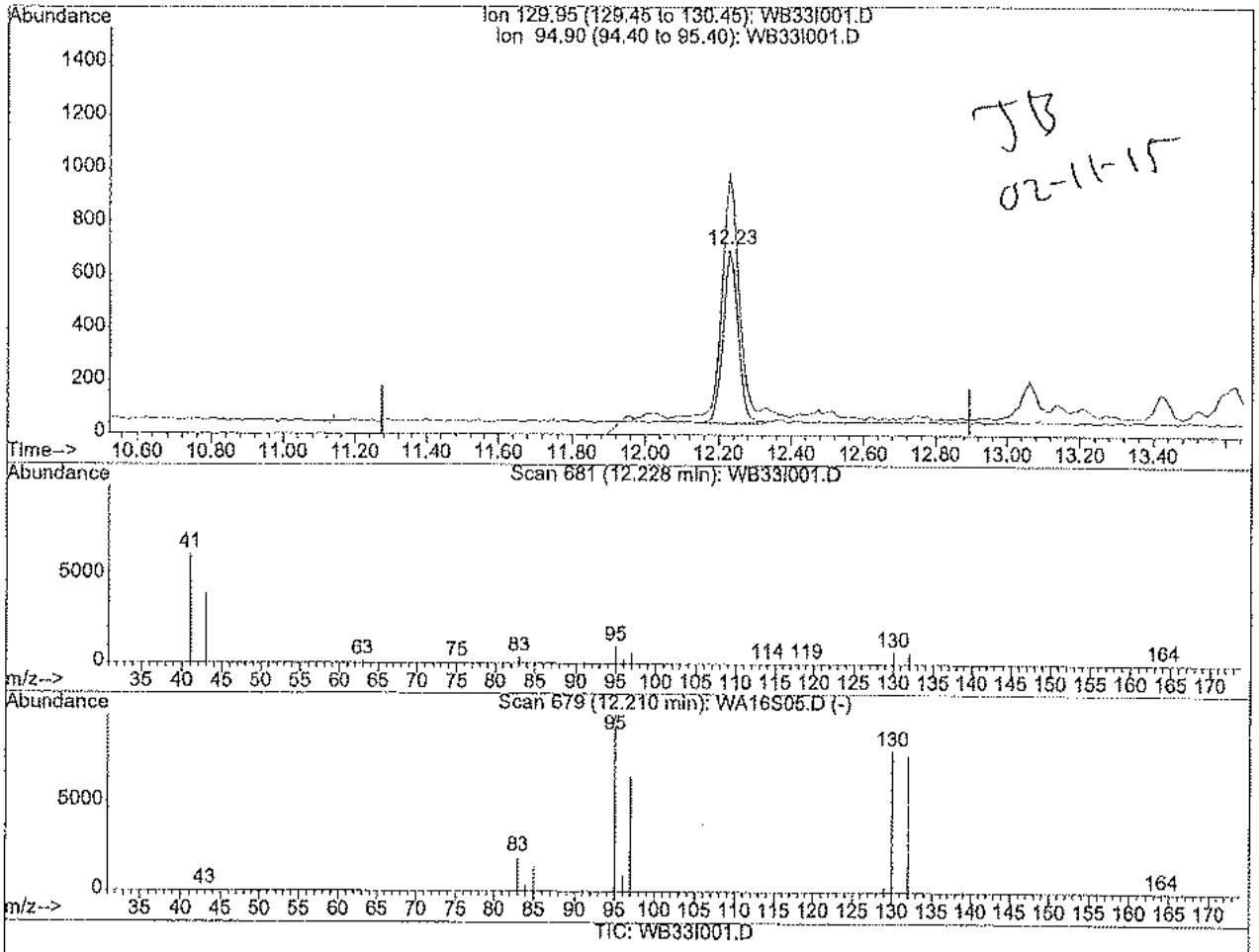
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WB33I001.D
Acq Time : 02/10/2015 19:12 Operator: TJM
Sample : 1503747001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0377 Multiplr: 1.00

Quant Time: Feb 11 9:42 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



JB 02-11-15

(24) trichloroethene

12.23min 68.09ppt

response 1878

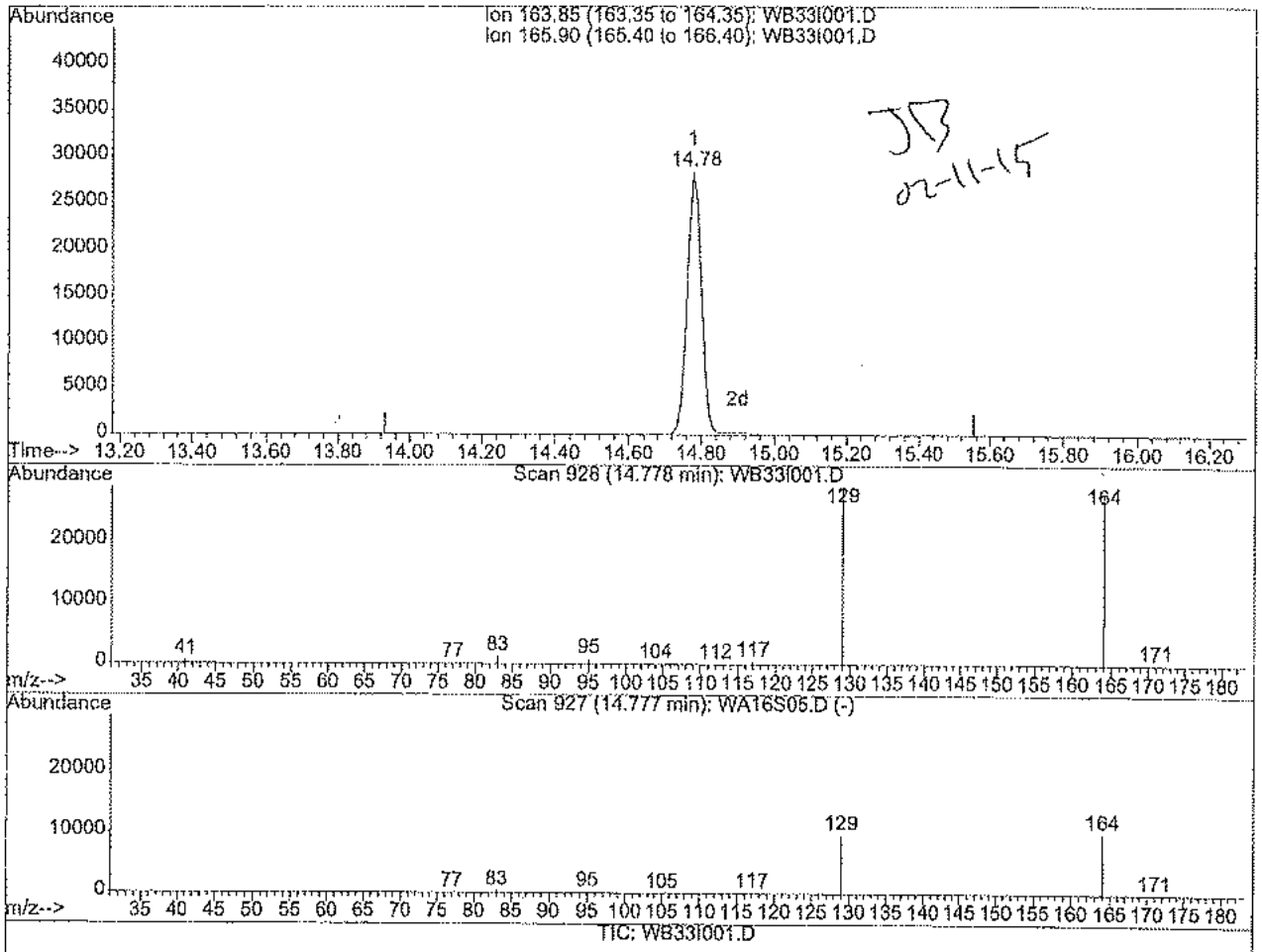
Ion	Exp%	Act%
129.95	100	100
94.90	131.00	148.83
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\10FEB15W\WB33I001.D
Acq Time : 02/10/2015 19:12 Operator: TJM
Sample : 1503747001 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0377 Multiplr: 1.00

Quant Time: Feb 11 9:42 2015 Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



JB 02-11-15

(33) tetrachloroethene

14.78min 3445.47ppt

rosponse 75900

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

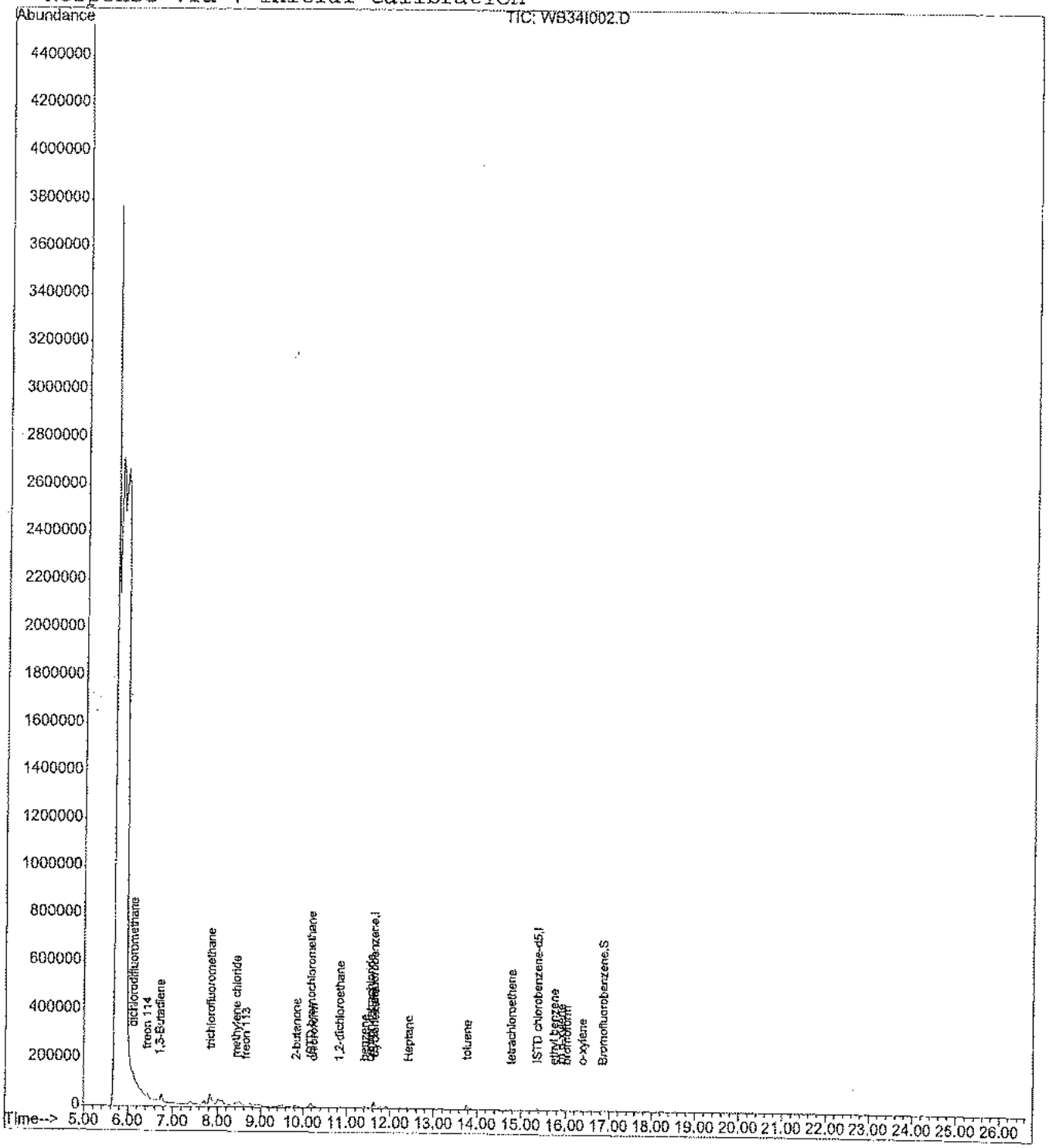
Data File : J:\W\2015\FEB15W\10FEB15W\WB34I002.D
Acq Time : 02/10/2015 19:50
Sample : 1503747002
Misc : FIRST ENVIRO SIM 0239

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 9:43 2015

Quant Results File: SIMT15AL.RES

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB34I002.D
Acq Time : 02/10/2015 19:50 Operator: TJM
Sample : 1503747002 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0239 Multiplr: 1.00

Quant Time: Feb 11 9:43 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.16	128	11096	500.0000 ppt		67.68
19) ISTD 1,4-difluorobenzene	11.63	114	43157	500.0000 ppt		64.86
31) ISTD chlorobenzene-d5	15.36	117	20536	500.0000 ppt		57.28
System Monitoring Compounds						%Recovery
42) Bromofluorobenzene	16.84	75	6728	470.4076 ppt		94.08%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.10	85	22869	218.4928 ppt		100
3) freon 114	6.43	85	816	11.9823 ppt	#	32
4) vinyl chloride	0.00	62		Not Detected		
5) 1,3-Butadiene	6.70	54	1228	70.4356 ppt	#	1
6) bromomethane	0.00	94		Not Detected		
7) chloroethane	0.00	64		Not Detected		
8) trichlorofluoromethane	7.83	101	10421	200.5379 ppt		99
9) freon 113	8.64	101	2049	32.5490 ppt	#	23
10) 1,1-dichloroethene	0.00	96		Not Detected		
11) methylene chloride	8.42	49	11133	139.8349 ppt	#	79
12) trans-1,2-dichloroethene	0.00	96		Not Detected		
13) methyl t-butyl ether	0.00	73		Not Detected		
14) 2-butanone	9.83	43	20199	222.7432 ppt	#	64
15) cis-1,2-dichloroethene	0.00	96		Not Detected		
16) 1,1-dichloroethane	0.00	63		Not Detected		
17) chloroform	10.24	83	1837	25.1320 ppt	#	18
18) 1,2-dichloroethane	10.82	62	1132	21.7718 ppt	#	42
20) 1,1,1-trichloroethane	0.00	97		Not Detected		
21) carbon tetrachloride	11.54	117	5955	94.2656 ppt	#	1
22) benzene	11.41	78	16775	200.2489 ppt	#	48
23) Cyclohexane	11.65	84	2467	76.1115 ppt	#	100
24) trichloroethene	0.00	130		Not Detected		
25) 1,2-dichloropropane	0.00	63		Not Detected		
26) bromodichloromethane	0.00	83		Not Detected		
27) Heptane	12.42	43	8291	142.7018 ppt	#	19
28) cis-1,3-dichloropropene	0.00	75		Not Detected		
29) trans-1,3-dichloropropene	0.00	75		Not Detected		
30) 1,1,2-trichloroethane	0.00	97		Not Detected		
32) toluene	13.77	91	32154	599.4115 ppt	#	22
33) tetrachloroethene	14.78	164	740	40.6243 ppt	#	1
34) dibromochloromethane	0.00	129		Not Detected		
35) 1,2-dibromoethane	0.00	107		Not Detected		
36) chlorobenzene	0.00	112		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\10FEB15W\WB34I002.D
Acq Time : 02/10/2015 19:50 Operator: TJM
Sample : 1503747002 Inst : 5972-W
Misc : FIRST ENVIRO SIM 0239 Multiplr: 1.00

Quant Time: Feb 11 9:43 2015 Quant Results File: SIMT15AL.RES

Quant Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15SIM

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	ethyl benzene	15.74	106	790	66.3561 ppt	99
38)	m,p-xylene	15.90	106	4001	267.6668 ppt	79
39)	o-xylene	16.38	106	1248	91.6785 ppt	98
40)	bromoform	16.02	173	942	35.5950 ppt	100
41)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

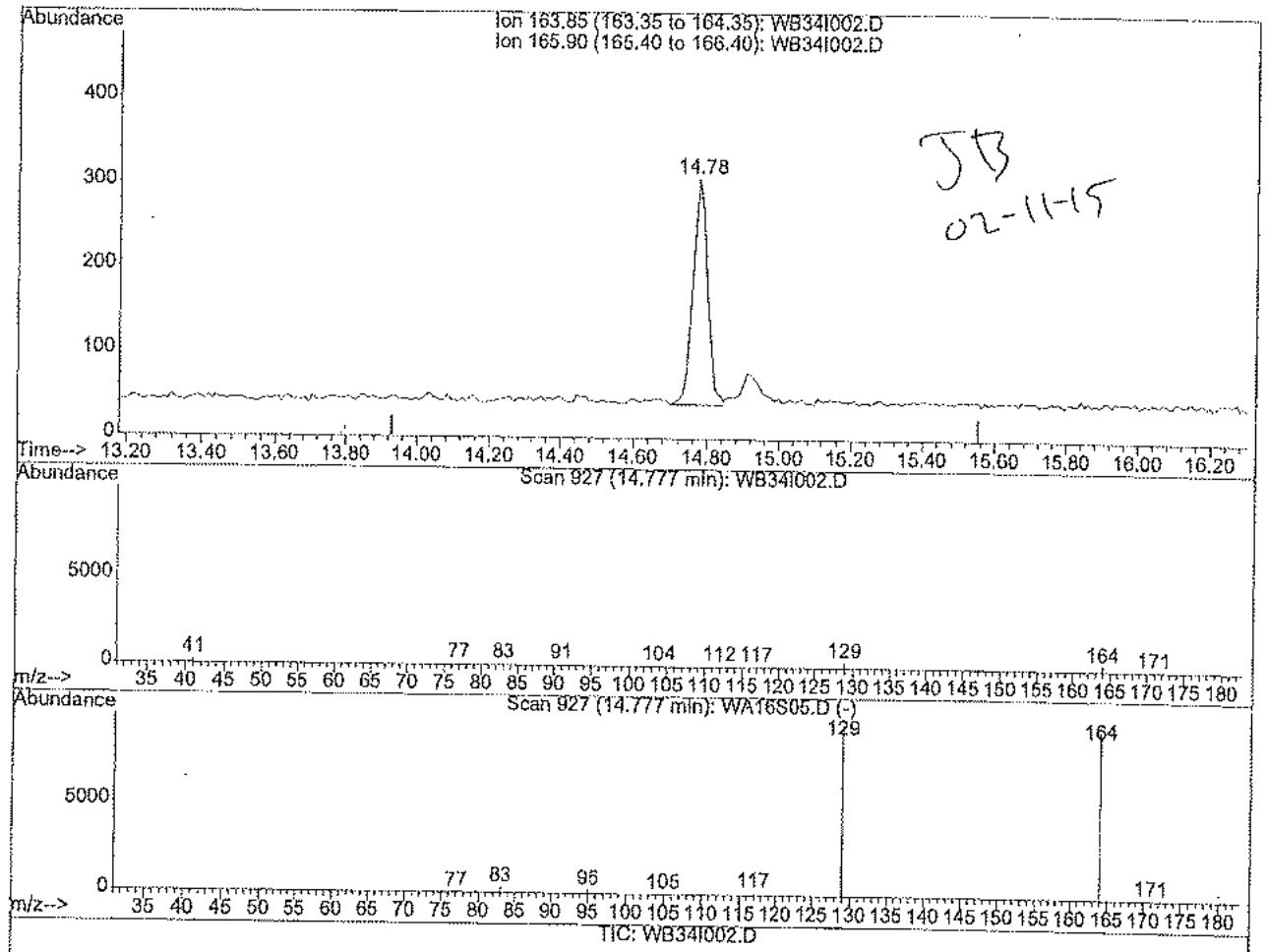
Data File : J:\W\2015\FEB15W\10FEB15W\WB34I002.D
Acq Time : 02/10/2015 19:50
Sample : 1503747002
Misc : FIRST ENVIRO SIM 0239

Operator: TJM
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 11 9:43 2015

Quant Results File: temp.res

Method : J:\W\METHODS\SIMT15AL.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST for SIM
Last Update : Tue Feb 10 15:19:27 2015
Response via : Multiple Level Calibration



(33) tetrachloroethene

14.78min 40.62ppt

response 740

Ion	Exp%	Act%
163.85	100	100
165.90	128.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1505133**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-W. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Jorden Baum — September 11, 2015

Date

ANALYTICAL REPORT
Amended 20151028

Report Date: February 26, 2015

Ed Reid
First Environment
91 Fulton Street
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Boonton, NJ 07005

Phone: (678) 787-2295
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Workorder: **34-1505133**
Project ID: 0018-H-AOU-1 VI 022015
Purchase Order: 0018-H-AOU-1 VI

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0018H-021915-TO-001	1505133001	02/18/15	02/20/15	0018-H-AOU-1 VI
A-0018H-021915-TO-002	1505133002	02/18/15	02/20/15	0018-H-AOU-1 VI
A-0018H-021915-SG-003	1505133003	02/18/15	02/20/15	0018-H-AOU-1 VI

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-021915-TO-001
Lab ID: 1505133001
Matrix: Air
Sampling Site: 0018-H-AOU-1 VI
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 02/18/2015
Received: 02/20/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 17:24
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	0.38	0.78	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**6.5**	**15**	0.30	0.50	1	
Carbon disulfide	0.48	1.5	0.15	0.50	1	J
Methylene chloride	**0.54**	**1.9**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.70**	**2.1**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	**0.80**	**2.4**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	0.22	1.4	0.15	0.50	1	J
Benzene	**0.51**	**1.6**	0.15	0.50	1	
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**1.1**	**4.7**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-021915-TO-001
Lab ID: 1505133001
Matrix: Air
Sampling Site: 0018-H-AOU-1 VI
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 02/18/2015
Received: 02/20/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 17:24
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**1.9**	**7.0**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**2.7**	**18**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.33	1.4	0.15	0.50	1	J
m,p-Xylene	**1.3**	**5.4**	0.15	0.50	1	
o-Xylene	0.49	2.1	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	0.15	1.6	0.15	0.50	1	J
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.2	0.99	0.15	0.50	1	J
1,3,5-Trimethylbenzene	0.18	0.88	0.15	0.50	1	J
1,2,4-Trimethylbenzene	0.33	1.6	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 17:24
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	100	7.37	1	J
Isopropyl Alcohol	2.4	8.02	1	J

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-021915-TO-002
Lab ID: 1505133002
Matrix: Air
Sampling Site: 0018-H-AOU-1 VI
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 02/18/2015
Received: 02/20/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 18:00
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	0.33	0.68	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**9.3**	**22**	0.30	0.50	1	
Carbon disulfide	0.21	0.65	0.15	0.50	1	J
Methylene chloride	0.49	1.7	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.62**	**1.8**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	0.23	1.5	0.15	0.50	1	J
Benzene	0.49	1.6	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.43	1.8	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-021915-TO-002
Lab ID: 1505133002
Matrix: Air
Sampling Site: 0018-H-AOU-1 VI
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 02/18/2015
Received: 02/20/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 18:00
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**1.6**	**6.2**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.86**	**5.8**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.26	1.1	0.15	0.50	1	J
m,p-Xylene	**0.97**	**4.2**	0.15	0.50	1	
o-Xylene	0.34	1.5	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.16	0.81	0.15	0.50	1	J
1,3,5-Trimethylbenzene	0.16	0.77	0.15	0.50	1	J
1,2,4-Trimethylbenzene	0.29	1.4	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 18:00
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	660	7.34	1	J
Isopropyl Alcohol	3.2	7.99	1	J

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-021915-SG-003
Lab ID: 1505133003
Matrix: Air
Sampling Site: 0018-H-AOU-1 VI
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 02/18/2015
Received: 02/20/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2827 (HBN: 144350)
Analyzed: 02/23/2015 18:36
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	0.39	0.80	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**23**	**55**	0.30	0.50	1	E
Carbon disulfide	**0.55**	**1.7**	0.15	0.50	1	
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.32	0.93	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	0.22	1.4	0.15	0.50	1	J
Benzene	0.46	1.5	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.33	1.4	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0018H-021915-SG-003 | Sampling Site: 0018-H-AOU-1 VI | Collected: 02/18/2015
Lab ID: 1505133003 | Media: Summa 6 Liter Canister | Received: 02/20/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Batch:** IVOA/2827 (HBN: 144350) | **Analyzed:** 02/23/2015 18:36 | **Instrument ID:** 5972-W | **Percent Solid:** NA | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**1.8**	**6.7**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.37	2.5	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.3	1.3	0.15	0.50	1	J
m,p-Xylene	**1.1**	**4.6**	0.15	0.50	1	
o-Xylene	**0.54**	**2.3**	0.15	0.50	1	
Styrene	0.46	1.9	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.21	1.0	0.15	0.50	1	J
1,3,5-Trimethylbenzene	0.22	1.1	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**0.56**	**2.8**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Batch:** IVOA/2827 (HBN: 144350) | **Analyzed:** 02/23/2015 18:36 | **Instrument ID:** 5972-W | **Percent Solid:** NA | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	12	7.38	1	J
Isopropyl Alcohol	43	7.98	1	J

Comments

Quality Control: EPA TO-15 - (HBN: 144350)

The following compounds in the CCV were outside of +/- 30%: bromomethane, 1,1-dichloroethane, tetrachloroethane, ethyl benzene, m,p-xylene, styrene, 4-ethyl toluene.

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Jorden Baum 02/26/2015 10:02	/S/ Thomas J. Masoian 02/26/2015 12:02

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1505133
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1505133**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2827 (HBN: 144350)
Analyzed By: Jorden Baum

Blank

MB: 435209
Analyzed: 02/23/2015 16:12

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	0.500
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1505133

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2827 (HBN: 144350)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 435209
Analyzed: 02/23/2015 16:12
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	0.500
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 435207
Analyzed: 02/23/2015 14:24
Dilution: 1
Units: ppb

LCSD: 435208
Analyzed: 02/23/2015 15:01
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	8.50	10.0	85.0	59.3	135.1	8.39	83.9	1.27	0.0	25.0
Chloromethane	8.55	10.0	85.5	55.2	137.4	8.63	86.3	0.961	0.0	25.0
Freon 114	10.7	10.0	107	64.6	128.0	10.7	107	0.374	0.0	25.0
Vinyl chloride	10.5	10.0	105	61.8	132.3	10.4	104	1.18	0.0	25.0
1,3-Butadiene	10.7	10.0	107	58.0	138.3	10.3	103	3.97	0.0	25.0
Bromomethane	13.6	10.0	* 136	63.3	129.9	13.3	* 133	2.45	0.0	25.0
Chloroethane	12.1	10.0	121	57.6	137.1	11.7	117	2.97	0.0	25.0
Freon 11	12.7	10.0	127	58.9	132.8	12.6	126	0.971	0.0	25.0
Freon 113	12.3	10.0	* 123	68.5	120.0	12.1	* 121	1.52	0.0	25.0
1,1-Dichloroethene	13.8	10.0	* 138	67.2	125.1	13.6	* 136	1.44	0.0	25.0
Acetone	7.69	10.0	76.9	42.5	146.0	7.87	78.7	2.39	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1505133

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2827 (HBN: 144350)
Analyzed By: Jorden Baum

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 435207
Analyzed: 02/23/2015 14:24
Dilution: 1
Units: ppb

LCSD: 435208
Analyzed: 02/23/2015 15:01
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	10.8	10.0	108	63.9	128.8	10.7	107	0.624	0.0	25.0
Methylene chloride	9.66	10.0	96.6	63.7	127.9	9.79	97.9	1.26	0.0	25.0
trans-1,2-Dichloroethene	12.2	10.0	122	68.1	124.6	12.2	122	0.205	0.0	25.0
Methyl t-butyl ether	11.9	10.0	119	60.8	138.0	12.1	121	2.26	0.0	25.0
Vinyl acetate	10.0	10.0	100	59.3	141.1	10.3	103	2.36	0.0	25.0
2-Butanone	10.0	10.0	100	51.7	144.2	10.4	104	3.68	0.0	25.0
cis-1,2-Dichloroethene	12.0	10.0	120	69.8	124.3	12.3	123	2.58	0.0	25.0
1,1-Dichloroethane	10.1	10.0	101	67.7	123.6	10.4	104	2.99	0.0	25.0
Ethyl acetate	11.0	10.0	110	53.4	156.9	11.5	115	4.70	0.0	25.0
Hexane	9.76	10.0	97.6	62.4	129.5	9.52	95.2	2.54	0.0	25.0
Chloroform	10.5	10.0	105	67.3	121.8	10.7	107	1.81	0.0	25.0
Tetrahydrofuran	10.1	10.0	101	50.6	155.3	10.5	105	3.62	0.0	25.0
1,2-Dichloroethane	10.2	10.0	102	62.4	130.5	10.7	107	4.76	0.0	25.0
1,1,1-Trichloroethane	11.4	10.0	114	60.4	127.7	11.8	118	4.07	0.0	25.0
Carbon tetrachloride	11.3	10.0	113	58.2	130.6	11.6	116	2.55	0.0	25.0
Benzene	11.6	10.0	116	64.1	127.3	12.1	121	4.44	0.0	25.0
Cyclohexane	10.7	10.0	107	61.9	123.6	10.9	109	1.65	0.0	25.0
Trichloroethene	12.8	10.0	* 128	62.4	126.8	13.2	* 132	2.82	0.0	25.0
1,2-Dichloropropane	10.5	10.0	105	60.7	130.6	11.1	111	5.64	0.0	25.0
Bromodichloromethane	11.1	10.0	111	62.9	128.3	11.7	117	5.38	0.0	25.0
Heptane	10.6	10.0	106	59.5	133.4	11.1	111	4.16	0.0	25.0
cis-1,3-Dichloropropene	12.0	10.0	120	64.1	133.6	12.5	125	3.60	0.0	25.0
4-Methyl-2-pentanone	10.6	10.0	106	73.5	150.0	11.2	112	5.68	0.0	25.0
trans-1,3-Dichloropropene	12.3	10.0	123	78.5	148.7	13.0	130	5.81	0.0	25.0
1,1,2-Trichloroethane	12.2	10.0	122	65.0	126.6	12.8	* 128	4.67	0.0	25.0
Toluene	12.0	10.0	120	75.6	139.4	12.9	129	6.79	0.0	25.0
2-Hexanone	10.6	10.0	106	80.8	158.8	11.1	111	5.04	0.0	25.0
Tetrachloroethene	13.0	10.0	* 130	60.7	126.6	13.4	* 134	3.02	0.0	25.0
Dibromochloromethane	11.9	10.0	119	62.4	130.9	12.5	125	5.20	0.0	25.0
1,2-Dibromoethane	11.8	10.0	118	64.4	129.0	12.5	125	5.37	0.0	25.0
Chlorobenzene	12.1	10.0	121	62.8	126.9	12.7	127	4.52	0.0	25.0
Ethyl benzene	13.5	10.0	135	75.9	148.5	14.1	141	4.12	0.0	25.0
m,p-Xylene	26.3	20.0	131	73.7	144.9	26.6	133	1.01	0.0	25.0
o-Xylene	13.0	10.0	130	74.7	147.4	13.4	134	3.24	0.0	25.0
Styrene	14.3	10.0	143	75.9	158.1	15.0	150	4.57	0.0	25.0
Bromoform	13.0	10.0	130	59.7	136.0	13.4	134	2.85	0.0	25.0
1,1,2,2-Tetrachloroethane	10.3	10.0	103	59.3	134.8	10.9	109	5.05	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1505133

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2827 (HBN: 144350)		
Analyzed By:	Jorden Baum		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 435207					LCSD: 435208				
	Analyzed: 02/23/2015 14:24					Analyzed: 02/23/2015 15:01				
	Dilution: 1					Dilution: 1				
	Units: ppb					Units: ppb				
Analyte	**Result**	**Target**	**% Rec**	**QC Limits**		**Result**	**% Rec**	**RPD**	**QC Limits**	
4-Ethyl toluene	13.6	10.0	136	69.0	163.3	14.1	141	3.84	0.0	25.0
1,3,5-Trimethylbenzene	11.8	10.0	118	64.2	155.1	12.1	121	2.62	0.0	25.0
1,2,4-Trimethylbenzene	11.6	10.0	116	59.7	169.4	12.2	122	5.48	0.0	25.0
1,3-Dichlorobenzene	11.7	10.0	117	58.6	157.6	12.2	122	3.85	0.0	25.0
1,4-Dichlorobenzene	10.7	10.0	107	57.7	137.2	11.0	110	2.50	0.0	25.0
Benzyl chloride	10.4	10.0	104	60.1	182.5	11.2	112	7.73	0.0	25.0
1,2-Dichlorobenzene	10.8	10.0	108	56.5	140.0	11.2	112	3.57	0.0	25.0
1,2,4-Trichlorobenzene	10.8	10.0	108	0.0	235.7	10.6	106	2.43	0.0	25.0
Hexachlorobutadiene	7.36	10.0	73.6	25.3	155.9	7.91	79.1	7.23	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	**Result**	**Target**	**% Recovery**
435207-LCS	18.9	20.0	94.4
435208-LCSD	19.5	20.0	97.6
435209-MB	17.5	20.0	87.5
1505133001	19.1	20.0	95.3
1505133002	19.1	20.0	95.6
1505133003	19.3	20.0	96.5
1505139001	41.3	20.0	* 206
1505139002	40.5	20.0	* 202

Comments

The following compounds in the CCV were outside of +/- 30%: bromomethane, 1,1-dichloroethane, tetrachloroethane, ethyl benzene, m,p-xylene, styrene, 4-ethyl toluene.

QC Data Approved and Reviewed by

Jorden Baum	Thomas J. Masoian	2/26/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
◆ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

W 1505133

ANALYTICAL REQUEST FORM

1505133

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 2/20/15 Purchase Order No. _____

3. Company Name Flint Environmental, Inc

Address 91 Fulton Street
Boonton, NJ 07005

Person to Contact Ed Reed

Telephone (973) 787-2295

Fax Telephone ( ) 973-334-0023

E-mail Address ejr@flintenvironmental.com

Billing Address (if different from above)
Same

4. Quote No. _____

ALS Project Manager Kevin Griffin

5. Sample Collection

Sampling Site 0018-H - AOU-1 VI

Industrial Process NA

Date of Collection 02/18/2015 - 02/19/2015

Time Collected 1600-1700

Date of Shipment 2/20/15

Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Matrix*	Sample Volume	ANALYSES REQUESTED - Use method number if known	Units**
0595	A-0018H-021915-TO-001	Air	6L Summa	TO-15 & VOCs	ug/m3
0149	A-0018H-021915-TO-002	"	"	TO-15 - VOCs	"
0597	A-0018H-021915-SG-003	"	"	TO-15 VOCs	"

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % 5. µg/m³ 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments Please run dilutions if initial analysis exceeds upper cal limit.

Possible Contamination and/or Chemical Hazards PCE/TCE - 0-10 ppbv

7. Chain of Custody (Optional)

Relinquished by	Edward Reed	Date/Time	2/20/15 -
Received by	Dawn Hall	Date/Time	2-20-15 8:21
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Enviro.

Account No:

Project/Job/Task: VA SG Central - DEPVA030-B-0006.2

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0488	01-20-15	7.5		JG	26	1	0018-K-021815-SG-003-GAS		
0239	"	"		"					
0257									
0443					26	1	0018-K-021815-	TO-001-BAS	
0227					25	1	0018-K-021815-	TO-002-LIV	
VFR Serial No.:									
0520	02-04-15		~3.8	JB					
0594									
0595					—		0018-K-021815	TO-001	
0592					—		0018-K-021815	SG-003	
~~0595~~ 149					→		0018-K-021815	TO-002	

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-04-15 09:30		Pick up at lab
	02/20/15	Dawn Hall 2-20-15 8:21	Delivered to lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2827
Rule: EPA TO-15, Air

Created: 2/26/2015 10:48
Analyst: J. Baum

Instrument: 5972-W
Status: WP

HBN: 144350

Workorder: 1505133
Workorder: 1505139

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	435207	LCS for HBN 144350 (IVOA/2827)				LCS	1		ETO15...1Q			4/27/2015	2/23/2015
2	435208	LCSD for HBN 144350 (IVOA/2827				LCSD	1		ETO15...1Q			4/27/2015	2/23/2015
3	435202	RLVS for HBN 144350 (IVOA/2827				RLVS	1		ETO15...1Q	6186		2/27/2015	2/23/2015
4	435209	MB for HBN 144350 (IVOA/2827)				MB	1		ETO15...1Q			4/27/2015	2/23/2015
5	1505133001	A-0018H-021915-TO-001				SAMPLE	1	1505133001-A	ETO15....1	5480		2/27/2015	2/23/2015
6	1505133002	A-0018H-021915-TO-002				SAMPLE	1	1505133002-A	ETO15....1	5480		2/27/2015	2/23/2015
7	1505133003	A-0018H-021915-TO-003				SAMPLE	1	1505133003-A	ETO15....1	5480		2/27/2015	2/23/2015
	*E|Result exceeds calibration range												
8	1505139001	KD-SP101-021815				SAMPLE	1	1505139001-A	ETO15....1	5975		2/27/2015	2/23/2015
	*E|Result exceeds calibration range												
9	1505139002	KD-SP101-021815_DUP				SAMPLE	1	1505139002-A	ETO15....1	5975		2/27/2015	2/23/2015
	*E|Result exceeds calibration range												

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	WC57LCS	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		215566	1138553	7999268
	Upper Limit	301792	1593974	11198975
	Lower limit	129340	683132	4799561

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	WC60BLK	206067	1042797	678225
QC-	WC57LCS	215566	1138553	799268
QD-	WC58LCSD	213246	1104345	773642
TO-001	FEI1505733001	169023	889816	665862
TO-002	FEI1505733002	169285	894031	669985
TO-003	FEI1505733003	171542	917367	656147

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	WC57LCS	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		10.13	11.60	15.36
	Upper Limit	10.63	12.10	15.86
	Lower limit	9.63	11.10	14.86

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	WC60BLK	10.14	11.60	15.36
QC-	WC57LCS	10.13	11.60	15.36
QD-	WC58LCSD	10.13	11.60	15.36
TO-001	FEI1505733001	10.18	11.64	15.37
TO-002	FEI1505733002	10.18	11.64	15.37
TO-003	FEI1505733003	10.18	11.64	15.37

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Response Factor Report 5972-W

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

Calibration Files
1 =WC14S1.D 2 =WC13S2.D 5 =WC12S5.D
10 =WC09LCS.D 20 =WC11S20.D 0.5 =WC15S05.D

		Compound	1	2	5	10	20	0.5	Avg		%RSD
1)		ISTD bromochlorometha	----------			ISTD	----------				
2)		dichlorodifluoromet	4.884	7.818	5.925	5.729	5.488	5.254	5.850		17.62
3)		chloromethane	2.737	3.850	3.101	2.924	2.762	2.784	3.026		14.07
4)		freon 114	4.209	6.213	4.910	4.578	4.356	4.436	4.784		15.46
5)		vinyl chloride	2.002	2.848	2.265	2.090	2.003	2.023	2.205		14.98
6)		1,3-Butadiene	1.507	2.101	1.746	1.622	1.560	1.565	1.684		13.08
7)		bromomethane	1.097	1.634	1.295	1.139	1.136	1.163	1.244		16.29
8)		chloroethane	0.907	1.310	1.039	0.919	0.927	0.842	0.991		17.04
9)		Ethanol	0.732	0.983	0.705	0.507	0.486	1.076	0.748		32.28
10)		Isopropyl Alcohol	3.289	4.924	3.997	2.869	3.043	4.870	3.832		23.75
11)		trichlorofluorometh	3.059	4.284	3.398	3.098	3.071	2.961	3.312		15.06
12)		freon 113	3.408	4.707	3.699	3.256	3.066	3.421	3.593		16.26
13)		1,1-dichloroethene	1.131	1.653	1.281	1.064	1.061	1.039	1.205		19.63
14)		acetone	0.714	0.709	0.498	0.431	0.434	1.089	0.646	E1	39.0
15)		carbon disulfide	6.657	8.949	7.030	6.218	5.777	6.888	6.920		15.83
16)		methylene chloride	4.045	5.535	4.245	3.738	3.470	4.139	4.195		17.05
17)		trans-1,2-dichloroe	1.607	2.346	1.897	1.715	1.673	1.539	1.796		16.44
18)		methyl t-butyl ethe	4.507	6.907	5.676	5.168	5.265	4.862	5.397		15.51
19)		vinyl acetate	1.010	1.500	1.206	1.177	1.137	1.104	1.189	E1	14.0
20)		2-butanone	6.106	9.470	7.867	7.333	7.377	6.957	7.518		14.92
21)		cis-1,2-dichloroeth	1.685	2.525	2.056	1.885	1.824	1.680	1.943		16.36
22)		1,1-dichloroethane	4.677	6.639	5.310	4.923	4.634	4.877	5.177		14.60
23)		Ethyl Acetate	0.763	1.242	0.979	0.923	0.923	0.809	0.940		17.91
24)		Hexane	4.125	6.003	4.779	4.381	4.010	4.258	4.593		16.11
25)		chloroform	4.550	6.154	4.867	4.360	4.017	4.719	4.778		15.41
26)		Tetrahydrofuran	3.135	4.835	3.995	3.796	3.840	3.391	3.832		15.28
27)		1,2-dichloroethane	3.339	4.811	3.834	3.610	3.400	3.593	3.764		14.39
28)	I	ISTD 1,4-difluorobenz	----------			ISTD	----------				
29)		1,1,1-trichloroetha	0.690	0.960	0.783	0.708	0.689	0.716	0.758		13.87
30)		carbon tetrachlorid	0.648	0.888	0.717	0.649	0.617	0.676	0.699		14.06
31)		benzene	1.036	1.492	1.242	1.143	1.088	1.077	1.180		14.31
32)		Cyclohexane	0.530	0.715	0.558	0.507	0.459	0.588	0.560		15.71
33)		trichloroethene	0.322	0.460	0.372	0.336	0.321	0.342	0.359		14.78
34)		1,2-dichloropropane	0.508	0.669	0.557	0.511	0.487	0.542	0.546		12.03
35)		bromodichloromethan	0.851	1.136	0.944	0.859	0.813	0.914	0.919		12.61
36)		1,4-Dioxane		0.198	0.177	0.108	0.107		0.148		31.52
37)		Heptane	0.401	0.577	0.485	0.433	0.395	0.400	0.449		15.94
38)		cis-1,3-dichloropro	0.516	0.788	0.680	0.625	0.630	0.535	0.629		15.85
39)		4-methyl-2-pentanon	0.893	1.605	1.463	1.233	1.350	0.962	1.251		22.40
40)		trans-1,3-dichlorop	0.400	0.636	0.542	0.513	0.516	0.417	0.504		17.15
41)		1,1,2-trichloroetha	0.336	0.460	0.382	0.348	0.338	0.364	0.372		12.62
42)	I	ISTD chlorobenzene-d5	----------			ISTD	----------				

(#) = Out of Range

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

Calibration Files
1 =WC14S1.D 2 =WC13S2.D 5 =WC12S5.D
10 =WC09LCS.D 20 =WC11S20.D 0.5 =WC15S05.D

		Compound	1	2	5	10	20	0.5	Avg	%RSD
43)		toluene	1.287	1.935	1.599	1.468	1.357	1.406	1.509	15.53
44)		2-hexanone	0.906	1.879	1.785	1.497	1.634	0.907	1.435	29.95
45)		tetrachloroethene	0.385	0.550	0.444	0.402	0.377	0.407	0.428	15.08
46)		dibromochloromethan	0.788	1.050	0.851	0.758	0.714	0.860	0.837	14.15
47)		1,2-dibromoethane	0.707	0.977	0.800	0.723	0.681	0.772	0.777	13.80
48)		chlorobenzene	0.844	1.102	0.899	0.809	0.757	0.948	0.893	13.70
49)		ethyl benzene	0.333	0.479	0.414	0.379	0.368	0.328	0.384	14.77
50)		m,p-xylene	0.432	0.632	0.517	0.477	0.443	0.441	0.490	15.55
51)		o-xylene	0.378	0.563	0.462	0.419	0.396	0.401	0.436	15.62
52)		styrene	0.483	0.787	0.712	0.635	0.629	0.463	0.618	20.45
53)		bromoform	0.482	0.626	0.516	0.442	0.435	0.516	0.503	13.89
54)		1,1,2,2-tetrachloro	0.934	1.113	0.975	0.824	0.926	0.999	0.962	9.94
55)	S	Bromofluorobenzene	0.561	0.562	0.570	0.567	0.582	0.539	0.564	2.53
56)		Cumene	0.407	0.587	0.480	0.441	0.410	0.418	0.457	15.13
57)		4-ethyl toluene	0.722	1.080	1.093	0.955	1.178	0.616	0.941	23.90
58)		1,3,5-trimethylbenz	0.750	0.977	0.922	0.798	1.128	0.695	0.878	18.42
59)		1,2,4-trimethylbenz	0.572	0.780	0.847	0.722	1.191	0.501	0.769	31.70
60)		m-dichlorobenzene	0.367	0.442	0.481	0.377	0.573	0.336	0.429	20.51
61)		p-dichlorobenzene	0.339	0.426	0.437	0.374	0.597	0.334	0.418	23.42
62)		Benzyl Chloride	0.383	0.506	0.708	0.597	1.071	0.323	0.598	45.24
63)		o-dichlorobenzene	0.302	0.353	0.432	0.341	0.577	0.273	0.380	29.10
64)		1,2,4-trichlorobenz	0.082	0.121	0.169	0.074	0.073	0.048	0.094	45.98
65)		Naphthalene	0.100	0.171	0.315	0.137	0.141	0.176	0.173	42.96
66)		hexachloro-1,3-buta	0.241	0.185	0.184	0.091	0.077	0.242	0.170	41.94

(#) = Out of Range

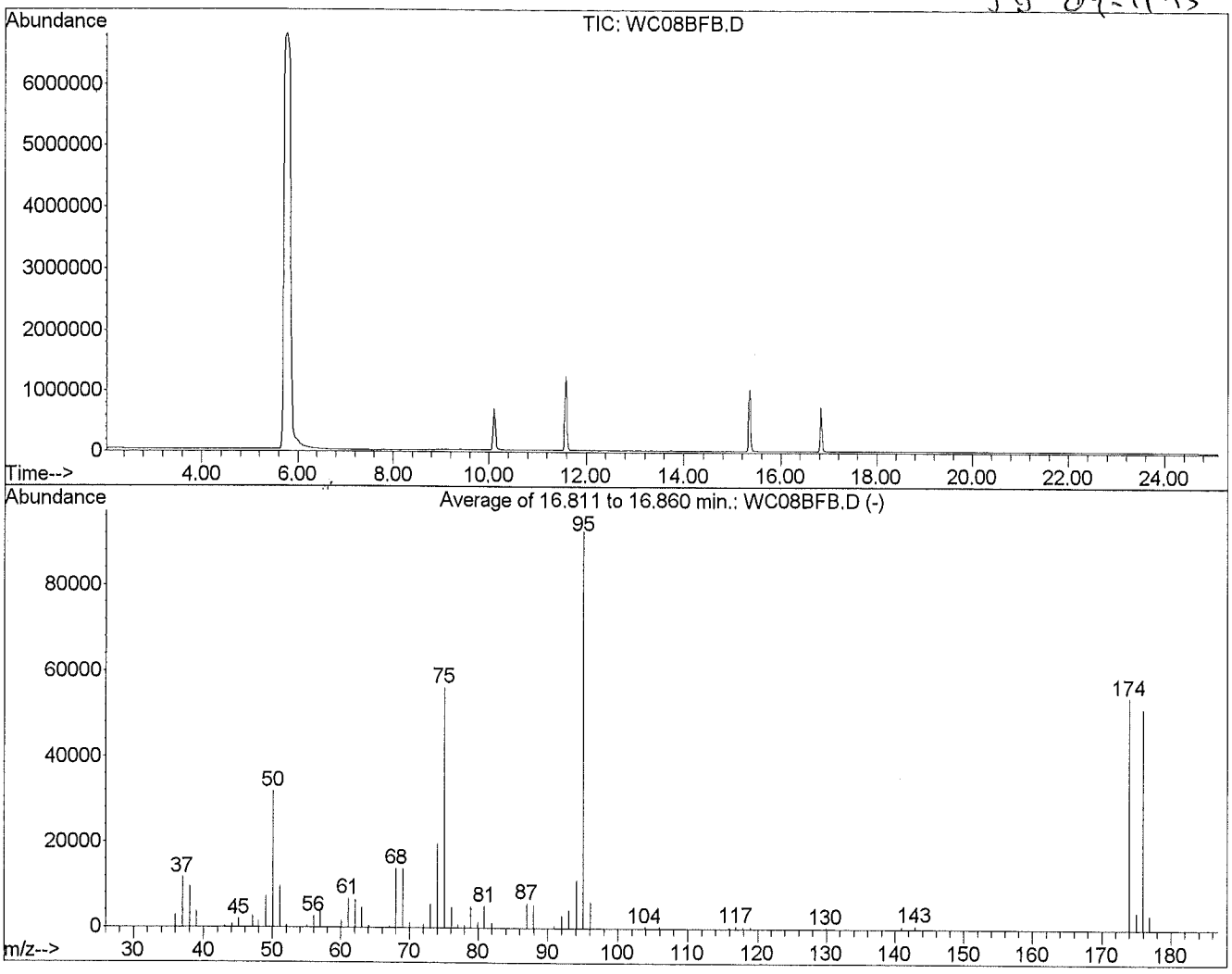
3/90 BFB

Data File : J:\W\2015\FEB15W\17FEB15W\WC08BFB.D
Acq Time : 02/17/2015 12:59
Sample : BFB
Misc : 107IS31246

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST

TT 09-11-15



Peak Apex is scan: 1494

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	34.4	31846	PASS
75	95	30	66	60.8	56207	PASS
95	95	100	100	100.0	92512	PASS
96	95	5	9	6.5	6004	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	58.6	54225	PASS
175	174	5	9	7.3	3976	PASS
176	174	93	101	95.2	51648	PASS
177	176	5	9	6.5	3374	PASS

Average of 16.811 to 16.860 min.: WC08BFB.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2754	51.10	9602	67.05	288	78.90	4919
37.00	11604	52.05	460	68.00	13808	79.95	1323
38.00	9373	55.00	419	69.00	13795	80.90	5059
39.00	3583	56.00	2629	70.00	1072	81.95	1058
43.10	289	57.00	4302	72.00	674	87.00	5706
44.05	734	58.05	61	73.00	5425	87.95	5319
45.05	1912	60.05	1577	74.05	19504	90.90	377
47.05	2585	61.05	6722	75.05	56207	92.00	2743
47.95	1325	62.05	6376	76.05	4690	93.00	4181
49.00	7213	63.05	4539	77.00	698	94.05	11122
50.10	31846	64.05	373	78.00	580	95.05	92512

Average of 16.811 to 16.860 min.: WC08BFB.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	6004	173.95	54225				
103.90	415	174.95	3976				
105.95	397	175.90	51648				
115.95	233	176.85	3374				
116.90	619						
117.90	239						
118.90	401						
127.90	148						
129.90	226						
140.90	627						
142.90	729						

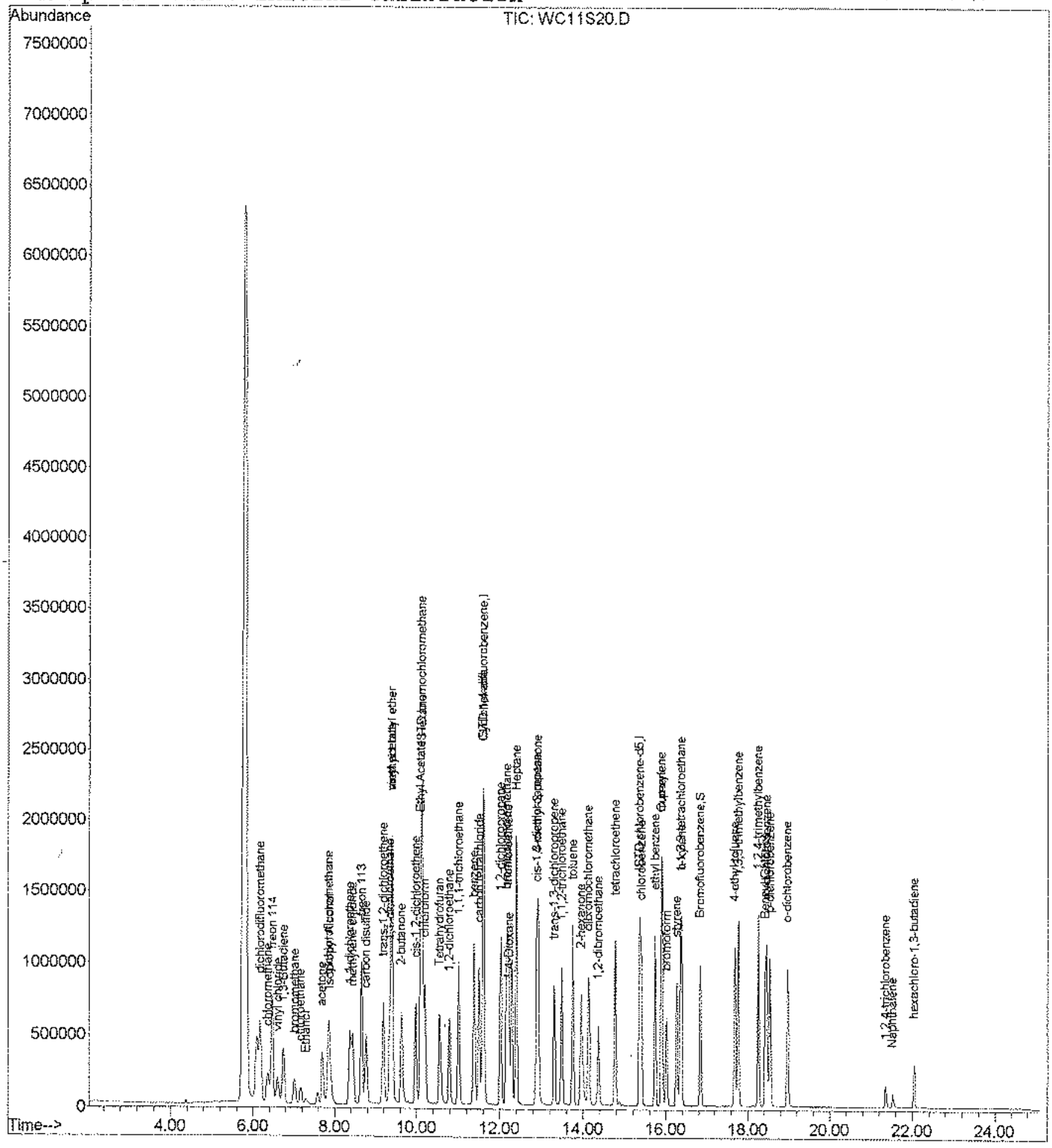
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC11S20.D
Acq Time : 02/17/2015 14:48 Operator: LMR
Sample : 20 PPB Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:21 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

JD 09-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC11S20.D
Acq Time : 02/17/2015 14:48 Operator: LMR
Sample : 20 PPB Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:21 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:20:11 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	219219	20.0000	ppb		99.81
28) ISTD 1,4-difluorobenzene	11.59	114	1188462	20.0000	ppb		99.02
42) ISTD chlorobenzene-d5	15.35	117	841259	20.0000	ppb		102.91
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	490009	20.6702	ppb		103.35%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	1203146	18.7639	ppb		99
3) chloromethane	6.36	50	605532	18.2544	ppb		100
4) freon 114	6.47	85	954926	18.2142	ppb		92
5) vinyl chloride	6.59	62	439160	18.1677	ppb		100
6) 1,3-Butadiene	6.74	54	342069	18.5360	ppb		88
7) bromomethane	7.02	94	248953	18.2566	ppb		98
8) chloroethane	7.17	64	203141	18.7089	ppb		98
9) Ethanol	7.29	45	106513	12.9888	ppb		100
10) Isopropyl Alcohol	7.88	45	667183	15.8849	ppb		100
11) trichlorofluoromethane	7.84	101	673324	18.5487	ppb		98
12) freon 113	8.65	101	672167	17.0681	ppb		86
13) 1,1-dichloroethene	8.37	96	232613	17.6136	ppb	#	65
14) acetone	7.69	43	951936	13.4476	ppb		94
15) carbon disulfide	8.77	76	1266500	16.6977	ppb	#	91
16) methylene chloride	8.44	49	760639	16.5413	ppb	#	75
17) trans-1,2-dichloroethene	9.18	96	366673	18.6261	ppb		84
18) methyl t-butyl ether	9.39	73	1154224	19.5104	ppb	#	58
19) vinyl acetate	9.39	43	2493162	19.1303	ppb		99
20) 2-butanone	9.63	43	1617211	19.6243	ppb		96
21) cis-1,2-dichloroethene	9.98	96	399910	18.7807	ppb		92
22) 1,1-dichloroethane	9.34	63	1015830	17.9023	ppb	#	92
23) Ethyl Acetate	10.09	61	202369	19.6418	ppb		100
24) Hexane	10.14	57	879029	17.4624	ppb		100
25) chloroform	10.20	83	880708	16.8166	ppb		99
26) Tetrahydrofuran	10.55	42	841864	20.0429	ppb		100
27) 1,2-dichloroethane	10.79	62	745325	18.0641	ppb		98
29) 1,1,1-trichloroethane	11.01	97	818481	18.1777	ppb		99
30) carbon tetrachloride	11.51	117	733609	17.6543	ppb		98
31) benzene	11.38	78	1292796	18.4426	ppb		97
32) Cyclohexane	11.61	84	545980	16.4215	ppb	#	100
33) trichloroethene	12.20	130	381358	17.8889	ppb		99
34) 1,2-dichloropropane	12.02	63	578702	17.8429	ppb	#	77
35) bromodichloromethane	12.16	83	966116	17.6846	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC11S20.D
Acq Time : 02/17/2015 14:48 Operator: LMR
Sample : 20 PPB Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:21 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:20:11 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.23	88	127634	0.8244	ppb	m	62
37)	Heptane	12.39	71	469873	17.6278	ppb		89
38)	cis-1,3-dichloropropene	12.87	75	749078	20.0415	ppb	#	64
39)	4-methyl-2-pentanone	12.91	43	1604403	21.5851	ppb		97
40)	trans-1,3-dichloropropene	13.30	75	613033	20.4757	ppb		96
41)	1,1,2-trichloroethane	13.48	97	402094	18.2089	ppb		97
43)	toluene	13.75	91	1141763	17.9921	ppb		98
44)	2-hexanone	13.95	43	1374477	29.0891	ppb		92
45)	tetrachloroethene	14.77	164	316888	17.6198	ppb		100
46)	dibromochloromethane	14.12	129	600395	17.0552	ppb		100
47)	1,2-dibromoethane	14.36	107	572989	17.5409	ppb		99
48)	chlorobenzene	15.39	112	636545	16.9431	ppb		97
49)	ethyl benzene	15.74	106	309284	19.1717	ppb		98
50)	m,p-xylene	15.90	106	745008	36.1214	ppb		71
51)	o-xylene	16.38	106	333174	18.1519	ppb		86
52)	styrene	16.26	104	529400	20.3592	ppb	#	82
53)	bromoform	16.01	173	365721	17.2873	ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	779161	19.2571	ppb		98
56)	Cumene	15.90	105	345272	17.9537	ppb	#	13
57)	4-ethyl toluene	17.68	105	990813	25.0428	ppb		98
58)	1,3,5-trimethylbenzene	17.77	105	949320	25.6968	ppb	#	86
59)	1,2,4-trimethylbenzene	18.25	105	1001810	30.9790	ppb		89
60)	m-dichlorobenzene	18.45	146	481899	26.6805	ppb		96
61)	p-dichlorobenzene	18.53	146	502350	28.5905	ppb		95
62)	Benzyl Chloride	18.41	91	900716	35.8171	ppb		99
63)	o-dichlorobenzene	18.98	146	484992	30.3733	ppb		96
64)	1,2,4-trichlorobenzene	21.35	180	61095	15.3885	ppb		99
65)	Naphthalene	21.52	128	118641	16.2819	ppb		97
66)	hexachloro-1,3-butadiene	22.05	225	64610	9.0366	ppb		95

(#) = qualifier out of range (m) = manual integration

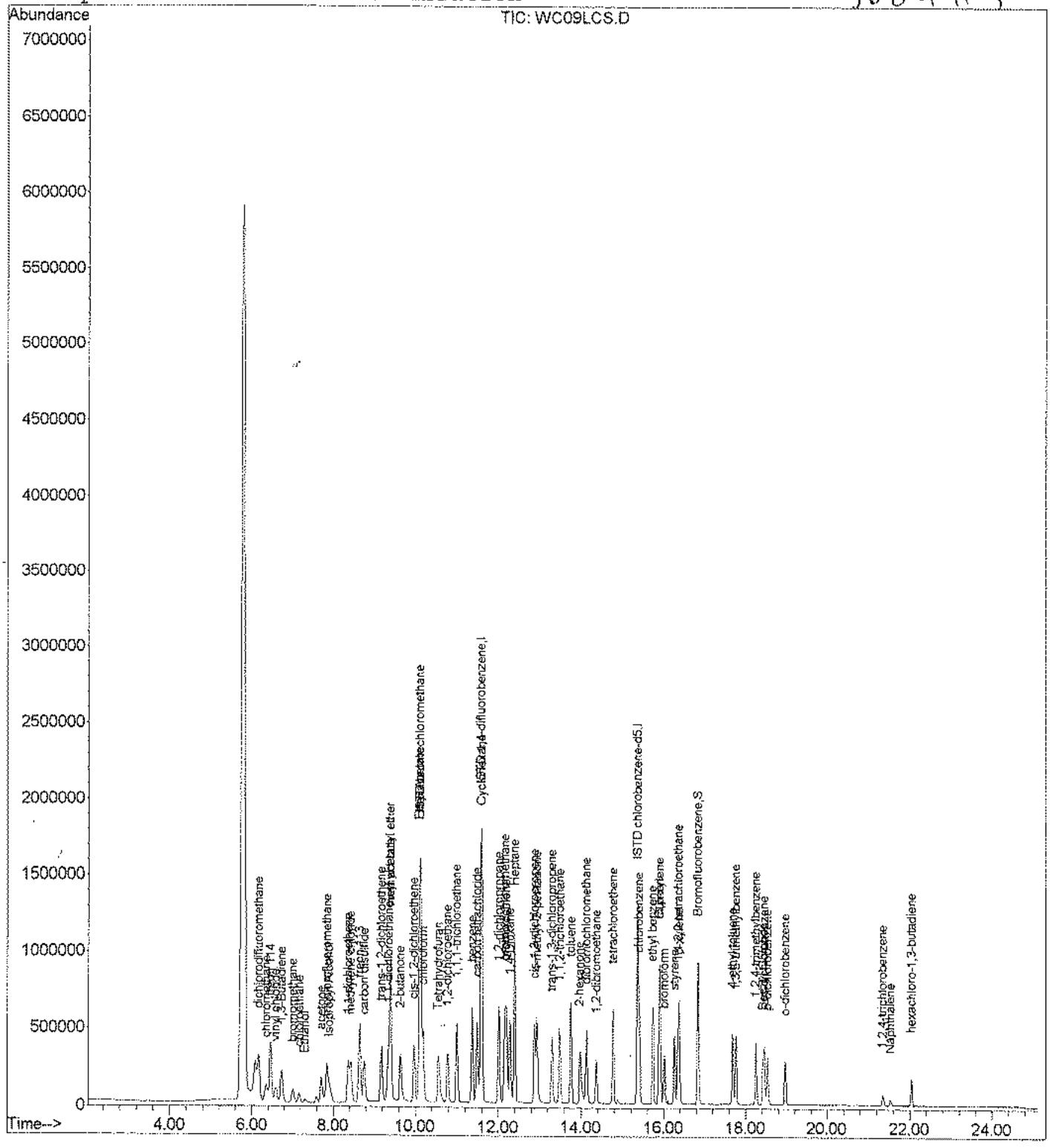
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC09LCS.D
Acq Time : 02/17/2015 13:35 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:19 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

JB 09-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC09LCS.D
Acq Time : 02/17/2015 13:35 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:19 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:17:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	219633	20.0000	ppb		100.00
28) ISTD 1,4-difluorobenzene	11.58	114	1200220	20.0000	ppb		100.00
42) ISTD chlorobenzene-d5	15.35	117	817449	20.0000	ppb		86.26
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	463854	20.2858	ppb		101.43%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.16	85	629138	9.7933	ppb		99
3) chloromethane	6.35	50	321140	9.6628	ppb		99
4) freon 114	6.46	85	502726	9.5709	ppb		89
5) vinyl chloride	6.58	62	229473	9.4752	ppb		99
6) 1,3-Butadiene	6.73	54	178108	9.6331	ppb		89
7) bromomethane	7.01	94	125098	9.1566	ppb		97
8) chloroethane	7.16	64	100870	9.2724	ppb		99
9) Ethanol	7.30	45	55726	6.7827	ppb		100
10) Isopropyl Alcohol	7.90	45	315040	7.4866	ppb		100
11) trichlorofluoromethane	7.84	101	340177	9.3535	ppb		97
12) freon 113	8.64	101	357557	9.0622	ppb		85
13) 1,1-dichloroethene	8.37	96	116886	8.8340	ppb	#	59
14) acetone	7.70	43	473446	6.6755	ppb		94
15) carbon disulfide	8.76	76	682819	8.9854	ppb	#	91
16) methylene chloride	8.42	49	410481	8.9098	ppb	#	75
17) trans-1,2-dichloroethene	9.17	96	188332	9.5488	ppb		83
18) methyl t-butyl ether	9.39	73	567495	9.5745	ppb	#	49
19) vinyl acetate	9.39	43	1292571	9.8993	ppb		99
20) 2-butanone	9.64	43	805247	9.7530	ppb		96
21) cis-1,2-dichloroethene	9.97	96	207038	9.7047	ppb		90
22) 1,1-dichloroethane	9.34	63	540631	9.5098	ppb	#	91
23) Ethyl Acetate	10.10	61	101387	9.8220	ppb		100
24) Hexane	10.13	57	481156	9.5404	ppb		100
25) chloroform	10.20	83	478815	9.1255	ppb		99
26) Tetrahydrofuran	10.56	42	416849	9.9055	ppb		100
27) 1,2-dichloroethane	10.79	62	396396	9.5892	ppb		98
29) 1,1,1-trichloroethane	11.01	97	425117	9.3490	ppb		98
30) carbon tetrachloride	11.50	117	389357	9.2781	ppb		97
31) benzene	11.38	78	685857	9.6883	ppb		97
32) Cyclohexane	11.61	84	304392	9.0656	ppb	#	100
33) trichloroethene	12.19	130	201504	9.3597	ppb		99
34) 1,2-dichloropropane	12.02	63	306612	9.3610	ppb	#	79
35) bromodichloromethane	12.15	83	515342	9.3408	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC09LCS.D
Acq Time : 02/17/2015 13:35 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:19 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:17:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.27	88	65084	0.4084	ppb	m	41
37)	Heptane	12.39	71	259569	9.6426	ppb		88
38)	cis-1,3-dichloropropene	12.87	75	374777	9.9365	ppb	#	64
39)	4-methyl-2-pentanone	12.93	43	739667	9.8976	ppb		97
40)	trans-1,3-dichloropropene	13.30	75	307969	10.1506	ppb		97
41)	1,1,2-trichloroethane	13.48	97	209098	9.3431	ppb		96
43)	toluene	13.75	91	599934	9.9454	ppb		98
44)	2-hexanone	13.97	43	612057	13.6740	ppb		92
45)	tetrachloroethene	14.77	164	164107	9.4549	ppb		100
46)	dibromochloromethane	14.12	129	309783	9.1358	ppb		100
47)	1,2-dibromoethane	14.36	107	295500	9.4449	ppb		100
48)	chlorobenzene	15.39	112	330791	9.1639	ppb		99
49)	ethyl benzene	15.74	106	154962	10.0623	ppb		98
50)	m,p-xylene	15.90	106	389764	19.7076	ppb		71
51)	o-xylene	16.38	106	171104	9.6864	ppb		87
52)	styrene	16.26	104	259568	10.3460	ppb	#	83
53)	bromoform	16.01	173	180752	8.7213	ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	336602	8.6972	ppb		99
56)	Cumene	15.90	105	180357	9.5847	ppb	#	12
57)	4-ethyl toluene	17.68	105	390465	10.2662	ppb		99
58)	1,3,5-trimethylbenzene	17.76	105	326060	9.2313	ppb		88
59)	1,2,4-trimethylbenzene	18.25	105	295193	9.5988	ppb		89
60)	m-dichlorobenzene	18.45	146	154002	8.8821	ppb		96
61)	p-dichlorobenzene	18.53	146	152797	9.0856	ppb		95
62)	Benzyl Chloride	18.42	91	244135	10.2626	ppb		100
63)	o-dichlorobenzene	18.97	146	139407	9.1744	ppb		96
64)	1,2,4-trichlorobenzene	21.36	180	30448	7.9802	ppb		99
65)	Naphthalene	21.53	128	55842	8.0528	ppb		96
66)	hexachloro-1,3-butadiene	22.05	225	37360	5.3016	ppb		95

(#) = qualifier out of range (m) = manual integration

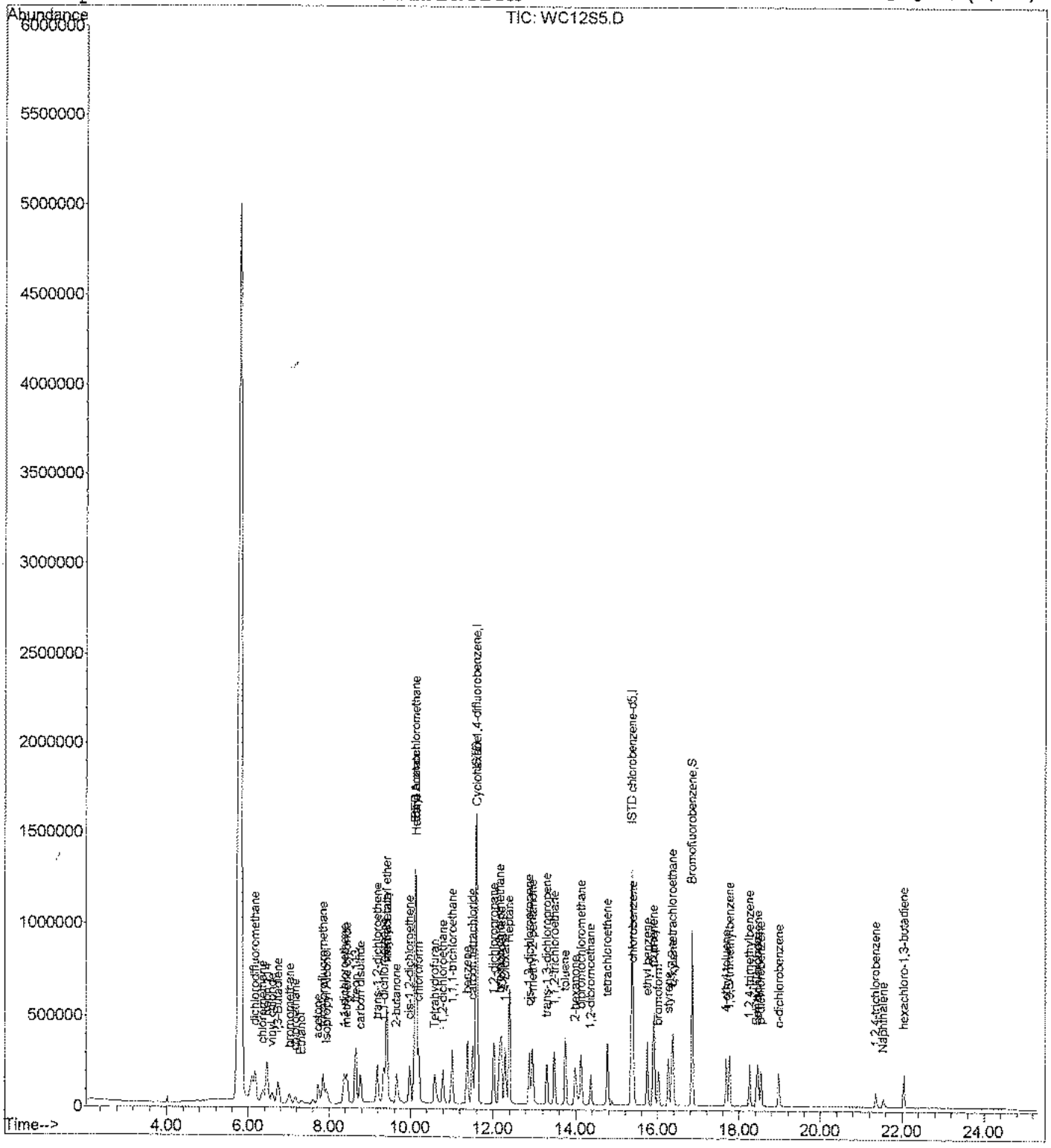
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC12S5.D
Acq Time : 02/17/2015 15:25 Operator: LMR
Sample : 5 PPB Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:41 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

DB 09-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC12S5.D
Acq Time : 02/17/2015 15:25 Operator: LMR
Sample : 5 PPB Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:41 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:21:34 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	232576	20.0000	ppb		105.89
28) ISTD 1,4-difluorobenzene	11.59	114	1249071	20.0000	ppb		104.07
42) ISTD chlorobenzene-d5	15.35	117	845029	20.0000	ppb		103.37
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	481461	20.2190	ppb		101.10%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	344532	5.0646	ppb		99
3) chloromethane	6.35	50	180281	5.1226	ppb		99
4) freon 114	6.46	85	285511	5.1323	ppb		91
5) vinyl chloride	6.59	62	131687	5.1349	ppb		100
6) 1,3-Butadiene	6.73	54	101516	5.1850	ppb		90
7) bromomethane	7.01	94	75322	5.2064	ppb		97
8) chloroethane	7.16	64	60437	5.2465	ppb		97
9) Ethanol	7.32	45	40967	4.7088	ppb		100
10) Isopropyl Alcohol	7.92	45	232429	5.2161	ppb		100
11) trichlorofluoromethane	7.84	101	197581	5.1303	ppb		99
12) freon 113	8.65	101	215098	5.1482	ppb		86
13) 1,1-dichloroethene	8.37	96	74464	5.3146	ppb	#	70
14) acetone	7.72	43	289350	3.8528	ppb		94
15) carbon disulfide	8.76	76	408731	5.0793	ppb	#	92
16) methylene chloride	8.43	49	246795	5.0587	ppb	#	78
17) trans-1,2-dichloroethene	9.18	96	110293	5.2809	ppb		88
18) methyl t-butyl ether	9.41	73	329998	5.2577	ppb	#	60
19) vinyl acetate	9.40	43	701154	5.0710	ppb		99
20) 2-butanone	9.64	43	457433	5.2321	ppb		96
21) cis-1,2-dichloroethene	9.97	96	119524	5.2908	ppb		92
22) 1,1-dichloroethane	9.34	63	308760	5.1289	ppb	#	92
23) Ethyl Acetate	10.11	61	56943	5.2094	ppb		100
24) Hexane	10.14	57	277854	5.2027	ppb		100
25) chloroform	10.20	83	282991	5.0932	ppb		98
26) Tetrahydrofuran	10.59	42	232288	5.2127	ppb		100
27) 1,2-dichloroethane	10.79	62	222930	5.0928	ppb		99
29) 1,1,1-trichloroethane	11.01	97	244544	5.1676	ppb		98
30) carbon tetrachloride	11.50	117	223942	5.1277	ppb		97
31) benzene	11.38	78	387739	5.2630	ppb		97
32) Cyclohexane	11.61	84	174218	4.9857	ppb	#	100
33) trichloroethene	12.19	130	116129	5.1831	ppb		100
34) 1,2-dichloropropane	12.02	63	174013	5.1049	ppb	#	78
35) bromodichloromethane	12.15	83	294659	5.1320	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC12S5.D
Acq Time : 02/17/2015 15:25 Operator: LMR
Sample : 5 PPB Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 18 9:41 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:21:34 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.30	88	55147	0.3410	ppb		93
37)	Heptane	12.39	71	151406	5.4045	ppb		92
38)	cis-1,3-dichloropropene	12.87	75	212288	5.4041	ppb		97
39)	4-methyl-2-pentanone	12.95	43	456730	5.8465	ppb		97
40)	trans-1,3-dichloropropene	13.30	75	169125	5.3748	ppb		99
41)	1,1,2-trichloroethane	13.48	97	119386	5.1441	ppb		97
43)	toluene	13.75	91	337772	5.2989	ppb		99
44)	2-hexanone	13.99	43	377195	7.9472	ppb		92
45)	tetrachloroethene	14.77	164	93789	5.1916	ppb		99
46)	dibromochloromethane	14.12	129	179880	5.0870	ppb		100
47)	1,2-dibromoethane	14.36	107	169105	5.1537	ppb		99
48)	chlorobenzene	15.39	112	189834	5.0303	ppb		98
49)	ethyl benzene	15.74	106	87486	5.3988	ppb		99
50)	m,p-xylene	15.89	106	218494	10.5463	ppb		71
51)	o-xylene	16.38	106	97599	5.2936	ppb		87
52)	styrene	16.26	104	150453	5.7602	ppb	#	82
53)	bromoform	16.01	173	108973	5.1281	ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	206040	5.0696	ppb		100
56)	Cumene	15.90	105	101389	5.2486	ppb	#	14
57)	4-ethyl toluene	17.69	105	230939	5.8109	ppb		98
58)	1,3,5-trimethylbenzene	17.76	105	194694	5.2466	ppb		89
59)	1,2,4-trimethylbenzene	18.26	105	178847	5.5058	ppb		90
60)	m-dichlorobenzene	18.46	146	101688	5.6049	ppb		95
61)	p-dichlorobenzene	18.53	146	92350	5.2325	ppb		95
62)	Benzyl Chloride	18.42	91	149472	5.9173	ppb		100
63)	o-dichlorobenzene	18.97	146	91192	5.6855	ppb		95
64)	1,2,4-trichlorobenzene	21.36	180	35656	8.9409	ppb		98
65)	Naphthalene	21.53	128	66458	9.0798	ppb		95
66)	hexachloro-1,3-butadiene	22.05	225	38953	5.4238	ppb		95

(#) = qualifier out of range (m) = manual integration

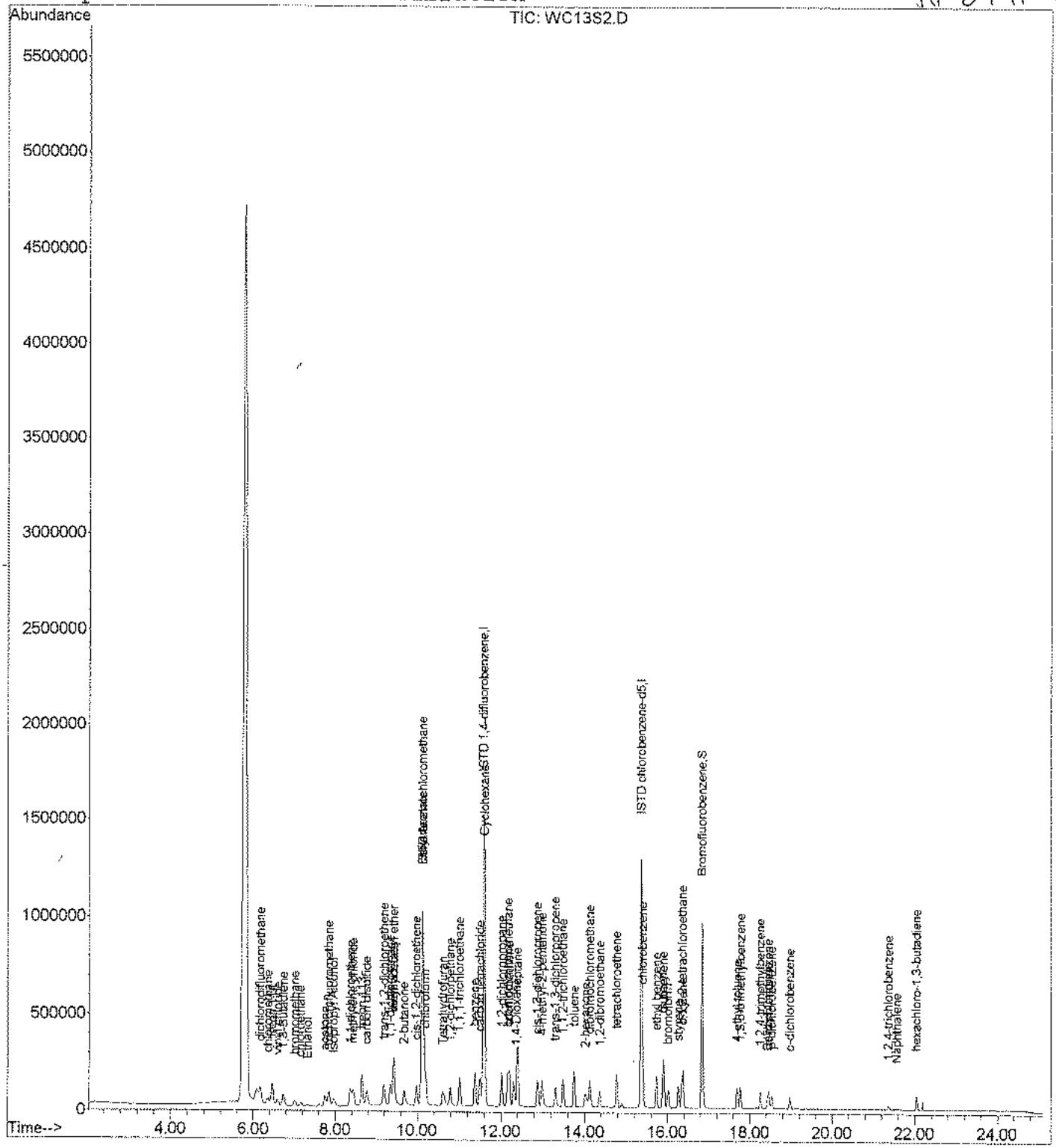
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC13S2.D
Acq Time : 02/17/2015 16:01 Operator: LMR
Sample : 2 PPB Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 18 9:22 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

TT 09-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC13S2.D
Acq Time : 02/17/2015 16:01 Operator: LMR
Sample : 2 PPB Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 18 9:22 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 17 15:42:44 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	236824	20.0000	ppb		107.83
28) ISTD 1,4-difluorobenzene	11.59	114	1298996	20.0000	ppb		108.23
42) ISTD chlorobenzene-d5	15.36	117	853999	20.0000	ppb		90.12
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	479898	20.6192	ppb		103.10%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	185158	3.2086	ppb		99
3) chloromethane	6.36	50	91184	3.1361	ppb		98
4) freon 114	6.46	85	147146	2.9683	ppb		92
5) vinyl chloride	6.60	62	67456	3.1088	ppb		100
6) 1,3-Butadiene	6.73	54	49764	3.0097	ppb		92
7) bromomethane	7.01	94	38691	2.7635	ppb		95
8) chloroethane	7.17	64	31018	3.0071	ppb		98
9) Ethanol	7.34	45	23289	3.6119	ppb		100
10) Isopropyl Alcohol	7.96	45	116602	3.2645	ppb		100
11) trichlorofluoromethane	7.85	101	101459	2.8042	ppb		98
12) freon 113	8.65	101	111468	3.0201	ppb		87
13) 1,1-dichloroethene	8.37	96	39142	3.0868	ppb		75
14) acetone	7.75	43	167883	3.1101	ppb		94
15) carbon disulfide	8.76	76	211944	3.1621	ppb	#	91
16) methylene chloride	8.44	49	131075	3.2233	ppb	#	78
17) trans-1,2-dichloroethene	9.19	96	55550	3.0637	ppb		87
18) methyl t-butyl ether	9.43	73	163568	3.0647	ppb	#	57
19) vinyl acetate	9.41	43	355224	3.1421	ppb		100
20) 2-butanone	9.68	43	224266	3.0354	ppb		96
21) cis-1,2-dichloroethene	9.97	96	59809	3.0694	ppb		93
22) 1,1-dichloroethane	9.34	63	157239	3.1214	ppb	#	92
23) Ethyl Acetate	10.13	61	29413	3.3557	ppb		100
24) Hexane	10.13	57	142160	3.3360	ppb		100
25) chloroform	10.20	83	145745	3.0715	ppb		99
26) Tetrahydrofuran	10.61	42	114501	3.1803	ppb		100
27) 1,2-dichloroethane	10.79	62	113928	3.0458	ppb		98
29) 1,1,1-trichloroethane	11.01	97	124742	2.8435	ppb		98
30) carbon tetrachloride	11.50	117	115345	2.7965	ppb		97
31) benzene	11.38	78	193841	2.9539	ppb		96
32) Cyclohexane	11.62	84	92864	2.8440	ppb	#	100
33) trichloroethene	12.20	130	59770	2.8364	ppb		98
34) 1,2-dichloropropane	12.02	63	86966	2.9372	ppb	#	78
35) bromodichloromethane	12.16	83	147575	2.8282	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC13S2.D
Acq Time : 02/17/2015 16:01 Operator: LMR
Sample : 2 PPB Inst : 5972-W
Misc : 26743 Multiplr: 1.00

Quant Time: Feb 18 9:22 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 17 15:42:44 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.35	88	25663	0.1546	ppb	m	28
37)	Heptane	12.39	71	74991	3.0952	ppb		77
38)	cis-1,3-dichloropropene	12.88	75	102422	2.8996	ppb		99
39)	4-methyl-2-pentanone	12.98	43	208543	2.8980	ppb		99
40)	trans-1,3-dichloropropene	13.30	75	82558	2.8468	ppb		98
41)	1,1,2-trichloroethane	13.49	97	59816	2.7847	ppb		96
43)	toluene	13.75	91	165269	2.8515	ppb		98
44)	2-hexanone	14.02	43	160499	2.6902	ppb	m	38
45)	tetrachloroethene	14.78	164	47003	2.5920	ppb		98
46)	dibromochloromethane	14.13	129	89701	2.6320	ppb		99
47)	1,2-dibromoethane	14.36	107	83402	2.7056	ppb		100
48)	chlorobenzene	15.40	112	94149	2.6270	ppb		91
49)	ethyl benzene	15.73	106	40943	2.7010	ppb		99
50)	m,p-xylene	15.91	106	107964	5.6607	ppb		71
51)	o-xylene	16.38	106	48059	2.7988	ppb		87
52)	styrene	16.26	104	67173	2.6203	ppb	#	83
53)	bromoform	16.02	173	53502	2.5340	ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	95071	2.5614	ppb		100
56)	Cumene	15.91	105	50137	2.6219	ppb	#	13
57)	4-ethyl toluene	17.69	105	92227	2.3788	ppb		99
58)	1,3,5-trimethylbenzene	17.77	105	83448	2.4318	ppb		91
59)	1,2,4-trimethylbenzene	18.26	105	66637	2.1848	ppb		91
60)	m-dichlorobenzene	18.46	146	37764	2.1747	ppb		97
61)	p-dichlorobenzene	18.54	146	36367	2.1786	ppb		93
62)	Benzyl Chloride	18.43	91	43177	1.7452	ppb		100
63)	o-dichlorobenzene	18.98	146	30174	1.9189	ppb		97
64)	1,2,4-trichlorobenzene	21.36	180	10313	2.3778	ppb		99
65)	Naphthalene	21.57	128	14595	2.1377	ppb	#	73
66)	hexachloro-1,3-butadiene	22.05	225	15804	1.9835	ppb		95

(#) = qualifier out of range (m) = manual integration

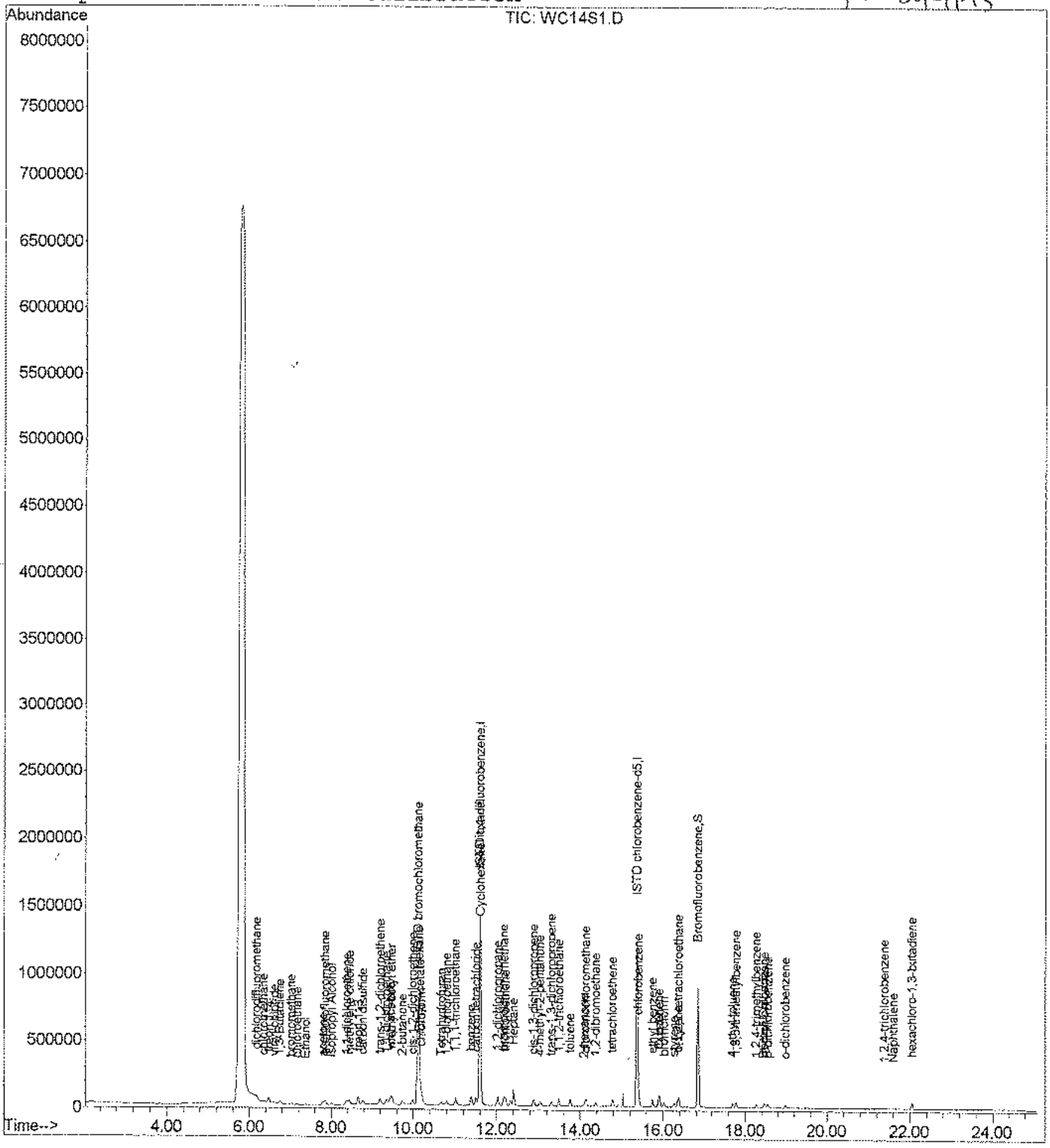
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC14S1.D
Acq Time : 02/17/2015 16:37 Operator: LMR
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 18 9:15 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

TO 09-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC14S1.D
Acq Time : 02/17/2015 16:37 Operator: LMR
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 18 9:15 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 17 17:29:17 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.12	128	230292	20.0000	ppb		104.85
28) ISTD 1,4-difluorobenzene	11.60	114	1266639	20.0000	ppb		105.53
42) ISTD chlorobenzene-d5	15.36	117	823550	20.0000	ppb		86.90
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.85	95	461760	20.2720	ppb		101.36%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	56238	0.8820	ppb	#	98
3) chloromethane	6.36	50	31514	0.9844	ppb		98
4) freon 114	6.47	85	48469	0.9099	ppb		89
5) vinyl chloride	6.60	62	23057	0.9722	ppb		97
6) 1,3-Butadiene	6.75	54	17356	0.9653	ppb		96
7) bromomethane	7.02	94	12637	0.8579	ppb		99
8) chloroethane	7.17	64	10445	0.9406	ppb		95
9) Ethanol	7.38	45	8425	1.1664	ppb		100
10) Isopropyl Alcohol	8.01	45	37866	0.9555	ppb		100
11) trichlorofluoromethane	7.85	101	35220	0.9240	ppb		99
12) freon 113	8.66	101	39244	0.9918	ppb		85
13) 1,1-dichloroethene	8.38	96	13022	0.9553	ppb	#	70
14) acetone	7.79	43	82171	1.3840	ppb	#	92
15) carbon disulfide	8.77	76	76650	1.0448	ppb	#	92
16) methylene chloride	8.44	49	46580	1.0416	ppb	#	77
17) trans-1,2-dichloroethene	9.19	96	18500	0.9418	ppb		84
18) methyl t-butyl ether	9.47	73	51896	0.8953	ppb	#	52
19) vinyl acetate	9.44	43	116273	0.9369	ppb		99
20) 2-butanone	9.73	43	70309	0.8645	ppb		95
21) cis-1,2-dichloroethene	9.99	96	19402	0.9198	ppb		87
22) 1,1-dichloroethane	9.35	63	53854	0.9782	ppb	#	90
23) Ethyl Acetate	10.18	61	8791	0.8933	ppb	m#	100
24) Hexane	10.15	57	47495	0.9991	ppb		100
25) chloroform	10.21	83	52395	1.0207	ppb		98
26) Tetrahydrofuran	10.67	42	36100	0.9022	ppb		100
27) 1,2-dichloroethane	10.80	62	38442	0.9467	ppb		97
29) 1,1,1-trichloroethane	11.02	97	43695	0.9415	ppb		98
30) carbon tetrachloride	11.51	117	41045	0.9463	ppb		95
31) benzene	11.39	78	65613	0.9312	ppb		97
32) Cyclohexane	11.62	84	33536	0.9672	ppb	#	100
33) trichloroethene	12.20	130	20392	0.9193	ppb		99
34) 1,2-dichloropropane	12.03	63	32166	1.0066	ppb	#	77
35) bromodichloromethane	12.16	83	53903	0.9747	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC14S1.D
Acq Time : 02/17/2015 16:37 Operator: LMR
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 18 9:15 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 17 17:29:17 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	11.59	88	261860	1.6089	ppb	#	25
37)	Heptane	12.40	71	25418	0.9658	ppb		83
38)	cis-1,3-dichloropropene	12.89	75	32680	0.8626	ppb		92
39)	4-methyl-2-pentanone	13.04	43	56553	0.7228	ppb		97
40)	trans-1,3-dichloropropene	13.32	75	25338	0.8162	ppb		95
41)	1,1,2-trichloroethane	13.49	97	21265	0.9363	ppb		94
43)	toluene	13.76	91	52978	0.8834	ppb		98
44)	2-hexanone	14.08	43	37294	0.7511	ppb		95
45)	tetrachloroethene	14.77	164	15873	0.8692	ppb		97
46)	dibromochloromethane	14.13	129	32462	0.9388	ppb		100
47)	1,2-dibromoethane	14.37	107	29107	0.9220	ppb		99
48)	chlorobenzene	15.40	112	34759	0.9525	ppb	#	73
49)	ethyl benzene	15.75	106	13698	0.8792	ppb		98
50)	m,p-xylene	15.91	106	35594	1.8019	ppb		75
51)	o-xylene	16.39	106	15571	0.8767	ppb		89
52)	styrene	16.27	104	19877	0.7585	ppb	#	83
53)	bromoform	16.02	173	19844	0.9317	ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	38459	1.0061	ppb		99
56)	Cumene	15.91	105	16758	0.8432	ppb	#	11
57)	4-ethyl toluene	17.70	105	29727	0.7483	ppb		100
58)	1,3,5-trimethylbenzene	17.77	105	30865	0.8720	ppb		92
59)	1,2,4-trimethylbenzene	18.27	105	23557	0.7529	ppb		92
60)	m-dichlorobenzene	18.47	146	15116	0.8571	ppb		95
61)	p-dichlorobenzene	18.55	146	13944	0.8229	ppb		95
62)	Benzyl Chloride	18.44	91	15775	0.6362	ppb		94
63)	o-dichlorobenzene	18.98	146	12424	0.7838	ppb		99
64)	1,2,4-trichlorobenzene	21.40	180	3366	0.7458	ppb		96
65)	Naphthalene	21.59	128	4129	0.5819	ppb	#	73
66)	hexachloro-1,3-butadiene	22.06	225	9912	1.2424	ppb		94

(#) = qualifier out of range (m) = manual integration

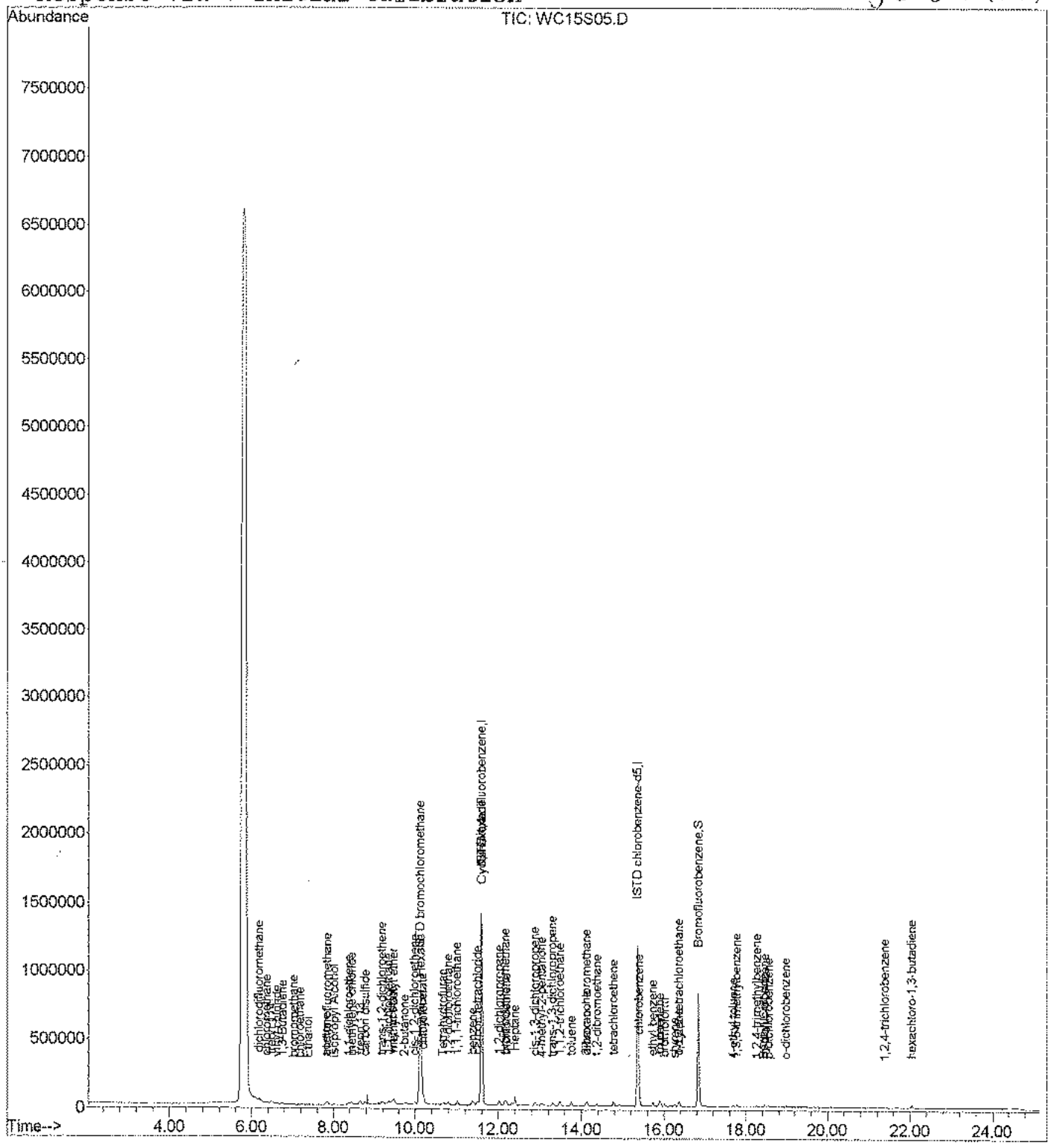
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC15S05.D
Acq Time : 02/17/2015 17:13 Operator: LMR
Sample : 0.5 PPB Inst : 5972-W
Misc : 0303 0303-2215 Multiplr: 1.00

Quant Time: Feb 18 9:16 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

JD 02-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC15S05.D
Acq Time : 02/17/2015 17:13 Operator: LMR
Sample : 0.5 PPB Inst : 5972-W
Misc : 0303 0303-2215 Multiplr: 1.00

Quant Time: Feb 18 9:16 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 17 17:29:43 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.12	128	236343	20.0000	ppb		107.61
28) ISTD 1,4-difluorobenzene	11.59	114	1273798	20.0000	ppb		106.13
42) ISTD chlorobenzene-d5	15.35	117	808935	20.0000	ppb		85.36
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.84	95	436181	19.3168	ppb		96.58%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	31044	0.4712	ppb	#	97
3) chloromethane	6.38	50	16449	0.4863	ppb		95
4) freon 114	6.48	85	26211	0.4813	ppb		92
5) vinyl chloride	6.62	62	11956	0.4836	ppb		92
6) 1,3-Butadiene	6.75	54	9247	0.4923	ppb		98
7) bromomethane	7.03	94	6872	0.4700	ppb		90
8) chloroethane	7.19	64	4976	0.4350	ppb	#	68
9) Ethanol	7.38	45	6357	0.8136	ppb		100
10) Isopropyl Alcohol	8.03	45	28772	0.6926	ppb		100
11) trichlorofluoromethane	7.86	101	17493	0.4533	ppb		100
12) freon 113	8.66	101	20212	0.4933	ppb	#	84
13) 1,1-dichloroethene	8.39	96	6141	0.4397	ppb	#	57
14) acetone	7.82	43	64370	0.9825	ppb		95
15) carbon disulfide	8.78	76	40701	0.5273	ppb	#	90
16) methylene chloride	8.45	49	24458	0.5165	ppb	#	77
17) trans-1,2-dichloroethene	9.19	96	9095	0.4453	ppb		82
18) methyl t-butyl ether	9.48	73	28726	0.4748	ppb	#	49
19) vinyl acetate	9.44	43	65233	0.4971	ppb		98
20) 2-butanone	9.74	43	41106	0.4848	ppb	#	92
21) cis-1,2-dichloroethene	9.99	96	9929	0.4516	ppb		84
22) 1,1-dichloroethane	9.35	63	28818	0.4971	ppb	#	90
23) Ethyl Acetate	10.19	61	4778	0.3036	ppb	m	100
24) Hexane	10.15	57	25156	0.4965	ppb		100
25) chloroform	10.21	83	27881	0.5171	ppb		99
26) Tetrahydrofuran	10.68	42	20037	0.4721	ppb		100
27) 1,2-dichloroethane	10.80	62	21228	0.4999	ppb		100
29) 1,1,1-trichloroethane	11.01	97	22799	0.4898	ppb		100
30) carbon tetrachloride	11.51	117	21542	0.4977	ppb		96
31) benzene	11.39	78	34306	0.4773	ppb		97
32) Cyclohexane	11.61	84	18728	0.5382	ppb	#	100
33) trichloroethene	12.20	130	10886	0.4921	ppb		97
34) 1,2-dichloropropane	12.02	63	17270	0.5224	ppb	#	79
35) bromodichloromethane	12.17	83	29094	0.5192	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC15S05.D
Acq Time : 02/17/2015 17:13 Operator: LMR
Sample : 0.5 PPB Inst : 5972-W
Misc : 0303 0303-2215 Multiplr: 1.00

Quant Time: Feb 18 9:16 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 17 17:29:43 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	11.59	88	263912	1.5937	ppb	#	24
37)	Heptane	12.40	71	12738	0.4713	ppb		81
38)	cis-1,3-dichloropropene	12.88	75	17031	0.4421	ppb		93
39)	4-methyl-2-pentanone	13.05	43	30620	0.3902	ppb		93
40)	trans-1,3-dichloropropene	13.31	75	13272	0.4253	ppb		96
41)	1,1,2-trichloroethane	13.48	97	11602	0.5050	ppb		91
43)	toluene	13.76	91	28440	0.4910	ppb		98
44)	2-hexanone	14.12	43	18335	0.4049	ppb	#	86
45)	tetrachloroethene	14.77	164	8239	0.4798	ppb		98
46)	dibromochloromethane	14.13	129	17386	0.5265	ppb		99
47)	1,2-dibromoethane	14.37	107	15603	0.5143	ppb		98
48)	chlorobenzene	15.40	112	19170	0.5461	ppb	#	47
49)	ethyl benzene	15.74	106	6637	0.4412	ppb		97
50)	m,p-xylene	15.91	106	17837	0.9315	ppb		77
51)	o-xylene	16.38	106	8102	0.4740	ppb		86
52)	styrene	16.26	104	9370	0.3759	ppb	#	81
53)	bromoform	16.01	173	10445	0.5124	ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	20208	0.5361	ppb		96
56)	Cumene	15.91	105	8444	0.4431	ppb	#	12
57)	4-ethyl toluene	17.70	105	12448	0.3261	ppb		99
58)	1,3,5-trimethylbenzene	17.78	105	14059	0.4015	ppb		95
59)	1,2,4-trimethylbenzene	18.27	105	10128	0.3289	ppb		94
60)	m-dichlorobenzene	18.46	146	6798	0.3909	ppb		94
61)	p-dichlorobenzene	18.54	146	6749	0.4054	ppb		89
62)	Benzyl Chloride	18.43	91	6531	0.2713	ppb	#	65
63)	o-dichlorobenzene	18.99	146	5529	0.3566	ppb		94
64)	1,2,4-trichlorobenzene	21.41	180	969	0.2251	ppb	#	2
65)	Naphthalene	0.00	128		Not Detected			
66)	hexachloro-1,3-butadiene	22.05	225	4884	0.6135	ppb		93

(#) = qualifier out of range (m) = manual integration

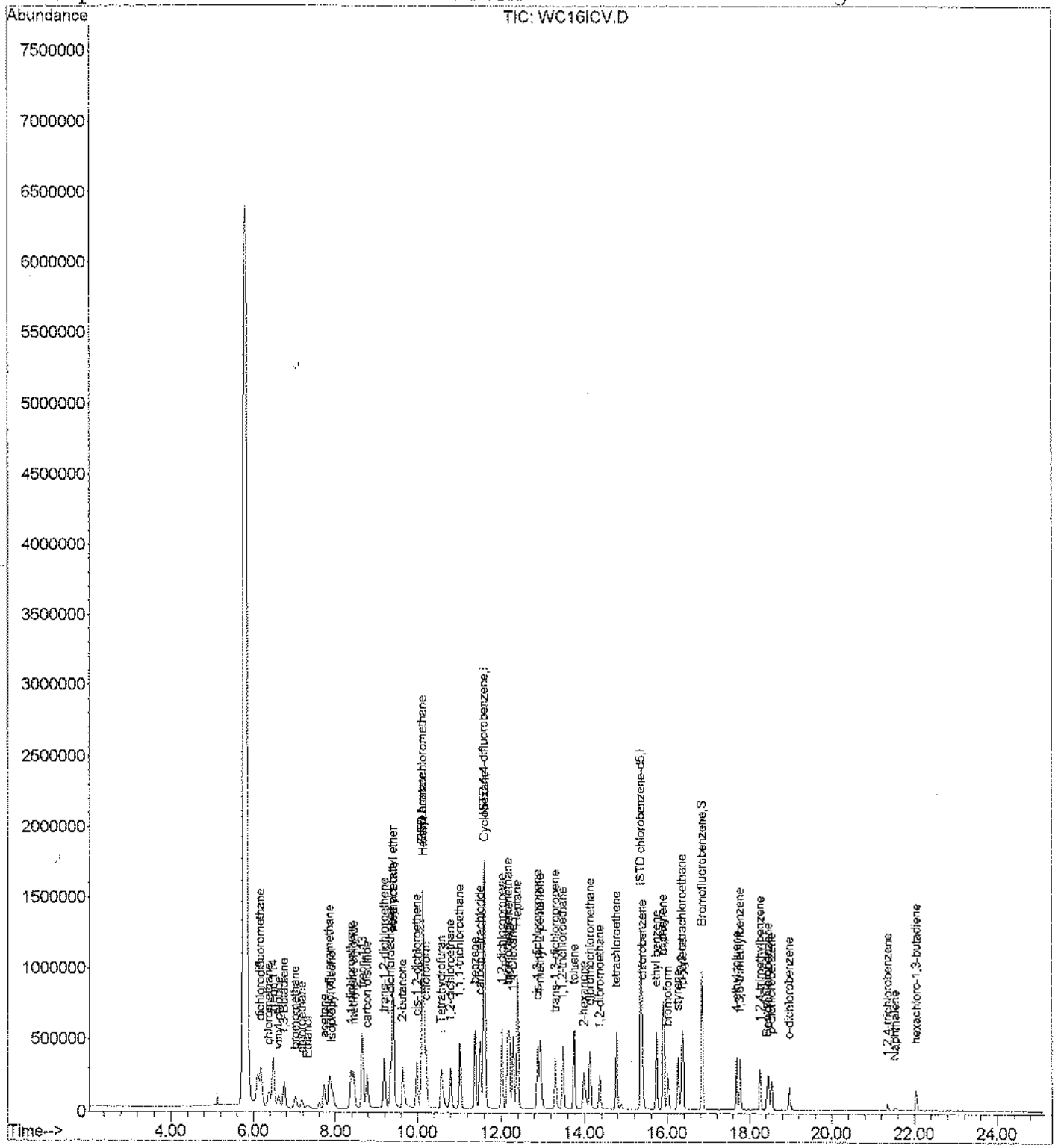
Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC16ICV.D
Acq Time : 02/17/2015 17:52 Operator: LMR
Sample : 10 PPB ICV Inst : 5972-W
Misc : 0425 0425-2515 Multiplr: 1.00

Quant Time: Feb 18 9:43 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration

JD 09-11-15



Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC16ICV.D
Acq Time : 02/17/2015 17:52 Operator: LMR
Sample : 10 PPB ICV Inst : 5972-W
Misc : 0425 0425-2515 Multiplr: 1.00

Quant Time: Feb 18 9:43 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	226048	20.0000	ppb		102.92
28) ISTD 1,4-difluorobenzene	11.59	114	1249275	20.0000	ppb		104.09
42) ISTD chlorobenzene-d5	15.35	117	819020	20.0000	ppb		100.19
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.84	95	465156	20.1546	ppb		100.77%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	580517	8.7800	ppb		99
3) chloromethane	6.37	50	292343	8.5467	ppb		100
4) freon 114	6.47	85	454227	8.4009	ppb		90
5) vinyl chloride	6.61	62	209550	8.4070	ppb		100
6) 1,3-Butadiene	6.75	54	160885	8.4547	ppb		92
7) bromomethane	7.02	94	116478	8.2837	ppb		98
8) chloroethane	7.17	64	96497	8.6187	ppb		99
9) Ethanol	7.32	45	67772	8.0148	ppb		100
10) Isopropyl Alcohol	7.92	45	360040	8.3132	ppb		100
11) trichlorofluoromethane	7.86	101	311473	8.3212	ppb		98
12) freon 113	8.66	101	342573	8.4360	ppb		86
13) 1,1-dichloroethene	8.38	96	119885	8.8035	ppb		71
14) acetone	7.72	43	452710	6.2020	ppb		94
15) carbon disulfide	8.78	76	621692	7.9489	ppb	#	91
16) methylene chloride	8.44	49	387894	8.1806	ppb	#	78
17) trans-1,2-dichloroethene	9.19	96	171020	8.4249	ppb		85
18) methyl t-butyl ether	9.41	73	537076	8.8042	ppb	#	44
19) vinyl acetate	9.41	43	1254481	9.3350	ppb		99
20) 2-butanone	9.64	43	755301	8.8885	ppb		96
21) cis-1,2-dichloroethene	9.99	96	184849	8.4187	ppb		92
22) 1,1-dichloroethane	9.35	63	486611	8.3166	ppb	#	92
23) Ethyl Acetate	10.11	61	89591	8.4330	ppb		100
24) Hexane	10.14	57	425594	8.1993	ppb		100
25) chloroform	10.20	83	436155	8.0765	ppb		99
26) Tetrahydrofuran	10.58	42	392282	9.0572	ppb		100
27) 1,2-dichloroethane	10.79	62	349643	8.2182	ppb		98
29) 1,1,1-trichloroethane	11.02	97	378347	7.9937	ppb		98
30) carbon tetrachloride	11.50	117	353165	8.0852	ppb		97
31) benzene	11.38	78	619677	8.4098	ppb		96
32) Cyclohexane	11.62	84	275991	7.8969	ppb	#	100
33) trichloroethene	12.20	130	177610	7.9259	ppb		99
34) 1,2-dichloropropane	12.02	63	270392	7.9310	ppb	#	77
35) bromodichloromethane	12.16	83	448681	7.8132	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\17FEB15W\WC16ICV.D
Acq Time : 02/17/2015 17:52 Operator: LMR
Sample : 10 PPB ICV Inst : 5972-W
Misc : 0425 0425-2515 Multiplr: 1.00

Quant Time: Feb 18 9:43 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 18 08:23:48 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.29	88	65257	7.0827	ppb		96
37)	Heptane	12.40	71	231811	8.2733	ppb		91
38)	cis-1,3-dichloropropene	12.88	75	323921	8.2446	ppb		95
39)	4-methyl-2-pentanone	12.94	43	671083	8.5890	ppb		97
40)	trans-1,3-dichloropropene	13.30	75	253975	8.0700	ppb		100
41)	1,1,2-trichloroethane	13.48	97	181016	7.7983	ppb		97
43)	toluene	13.76	91	514576	8.3290	ppb		98
44)	2-hexanone	13.98	43	492278	8.3786	ppb		92
45)	tetrachloroethene	14.77	164	140082	8.0004	ppb		100
46)	dibromochloromethane	14.13	129	259867	7.5824	ppb		99
47)	1,2-dibromoethane	14.37	107	245334	7.7143	ppb		100
48)	chlorobenzene	15.40	112	276580	7.5617	ppb		100
49)	ethyl benzene	15.73	106	131022	8.3422	ppb		99
50)	m,p-xylene	15.90	106	325124	16.1915	ppb		71
51)	o-xylene	16.37	106	143925	8.0542	ppb		86
52)	styrene	16.26	104	212735	8.4033	ppb	#	82
53)	bromoform	16.02	173	151202	7.3413	ppb		100
54)	1,1,2,2-tetrachloroethane	16.34	83	271373	6.8891	ppb		98
56)	Cumene	15.90	105	149657	7.9933	ppb	#	12
57)	4-ethyl toluene	17.68	105	303247	7.8727	ppb		97
58)	1,3,5-trimethylbenzene	17.76	105	250831	6.9740	ppb		90
59)	1,2,4-trimethylbenzene	18.25	105	208779	6.6314	ppb		90
60)	m-dichlorobenzene	18.46	146	109188	6.2094	ppb		95
61)	p-dichlorobenzene	18.54	146	98687	5.7691	ppb		95
62)	Benzyl Chloride	18.42	91	135866	5.5494	ppb		100
63)	o-dichlorobenzene	18.97	146	84700	5.4485	ppb		94
64)	1,2,4-trichlorobenzene	21.35	180	21346	5.5226	ppb		98
65)	Naphthalene	21.54	128	36987	5.2138	ppb	#	90
66)	hexachloro-1,3-butadiene	22.04	225	30393	4.3663	ppb		95

(#) = qualifier out of range (m) = manual integration

Analyst Notebook

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is T015wc.15.M (HBN 144020)

The following compounds in the CCS were outside of +-30%:

bromomethane, 1,1-dichloroethane, tetrachloroethene, ethyl benzene, m/p-xylene, styrene, 4-ethyltoluene

Jordan Baum
J — C — B
02-24-15

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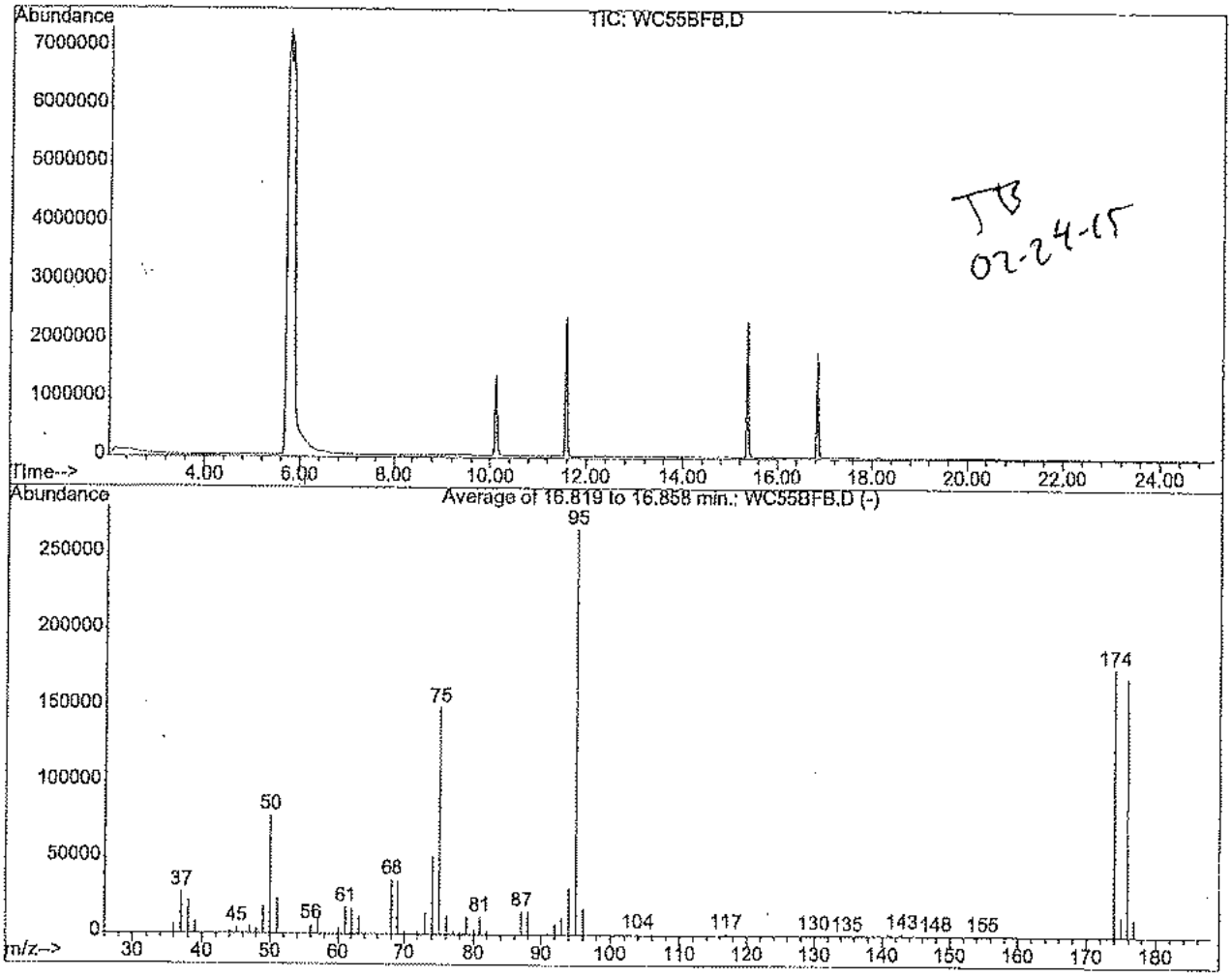
144350

Data File : J:\W\2015\FEB15W\23FEB15W\WC55BFB.D
Acq Time : 02/23/2015 13:12
Sample : BFB
Misc : 107IS31246

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST



TB 02-24-15

Peak Apex is scan: 1499

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.3	78202	PASS
75	95	30	66	55.9	149316	PASS
95	95	100	100	100.0	266980	PASS
96	95	5	9	6.6	17571	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	65.9	175999	PASS
175	174	5	9	7.5	13202	PASS
176	174	93	101	96.6	170090	PASS
177	176	5	9	6.7	11339	PASS

BFB 5972-W 02/23/2015 13:12

Average of 16.819 to 16.858 min.: WC55BFB.D

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	6280	50.00	78202	64.00	1098	77.00	2024
37.00	27285	51.05	23316	65.05	76	77.95	1639
38.00	22001	52.00	1113	67.05	1120	78.95	12130
39.00	7855	55.00	1268	68.00	35911	79.95	3074
43.05	543	56.00	6269	69.00	35084	80.85	11787
44.05	1952	57.00	10713	70.00	2642	81.90	2408
45.05	3952	58.00	537	72.00	2011	85.95	198
46.00	259	60.05	4046	73.00	14253	87.00	15470
47.05	5624	61.05	17522	74.05	50948	87.90	14778
48.00	3183	62.05	16328	75.05	149316	90.95	1318
49.00	17921	63.05	11749	76.05	13047	92.00	7567

Average of 16.819 to 16.858 min.: WC55BFB.D

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	11389	117.90	919	145.90	246		
94.00	31161	118.90	1348	147.90	442		
95.00	266980	127.85	818	154.90	457		
96.00	17571	128.85	278	156.85	179		
97.00	512	129.90	872	171.95	74		
103.90	1267	130.90	223	173.95	175999		
104.90	413	134.90	374	174.95	13202		
105.95	1236	136.85	272	175.85	170090		
114.90	82	140.90	1907	176.85	11339		
115.90	939	141.95	71	177.90	170		
116.90	1687	142.90	1971				

Continuing Calibration Report 5972-W

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration

Continuing Calibration File: WC57LCS.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	
1		ISTD bromochloromethane	1.000	1.000	0.0	98	
2		dichlorodifluoromethane	5.850	4.970	15.0	85	
3		chloromethane	3.026	2.587	14.5	87	
4		freon 114	4.784	5.121	-7.1	110	
5		vinyl chloride	2.205	2.316	-5.0	109	
6		1,3-Butadiene	1.684	1.796	-6.7	109	
7		bromomethane	1.244	1.692	-36.0#	146	
8		chloroethane	0.991	1.197	-20.8	128	
9		Ethanol	0.748	0.708	5.3	137	TC
10		Isopropyl Alcohol	3.832	3.896	-1.7	133	TC
11		trichlorofluoromethane	3.312	4.214	-27.2	134	
12		freon 113	3.593	4.404	-22.6	133	
13		1,1-dichloroethene	1.205	1.662	-37.9#	153	
14		acetone	6.458	4.964	23.1	113	
15		carbon disulfide	6.920	7.454	-7.7	118	
16		methylene chloride	4.195	4.054	3.4	106	
17		trans-1,2-dichloroethene	1.796	2.193	-22.1	125	
18		methyl t-butyl ether	5.397	6.402	-18.6	122	
19		vinyl acetate	11.890	11.935	-0.4	100	
20		2-butanone	7.518	7.528	-0.1	101	
21		cis-1,2-dichloroethene	1.943	2.322	-19.5	121	
22		1,1-dichloroethane	5.177	5.238	-1.2	104	
23		Ethyl Acetate	0.940	1.033	-9.9	110	
24		Hexane	4.593	4.483	2.4	100	
25		chloroform	4.778	5.037	-5.4	113	
26		Tetrahydrofuran	3.832	3.881	-1.3	100	
27		1,2-dichloroethane	3.764	3.830	-1.7	104	
28	I	ISTD 1,4-difluorobenzene	1.000	1.000	0.0	95	
29		1,1,1-trichloroethane	0.758	0.862	-13.7	115	
30		carbon tetrachloride	0.699	0.788	-12.7	115	
31		benzene	1.180	1.369	-16.0	114	
32		Cyclohexane	0.560	0.599	-7.0	112	
33		trichloroethene	0.359	0.461	-28.5	130	
34		1,2-dichloropropane	0.546	0.571	-4.6	106	
35		bromodichloromethane	0.919	1.019	-10.8	113	
36		1,4-Dioxane	0.148	0.181	-22.6	158	TC
37		Heptane	0.449	0.477	-6.3	105	
38		cis-1,3-dichloropropene	0.629	0.757	-20.4	115	
39		4-methyl-2-pentanone	1.251	1.322	-5.7	102	
40		trans-1,3-dichloropropene	0.504	0.617	-22.5	114	
41		1,1,2-trichloroethane	0.372	0.453	-21.8	123	
42	I	ISTD chlorobenzene-d5	1.000	1.000	0.0	98	

(#) = Out of Range

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration

Continuing Calibration File: WC57LCS.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

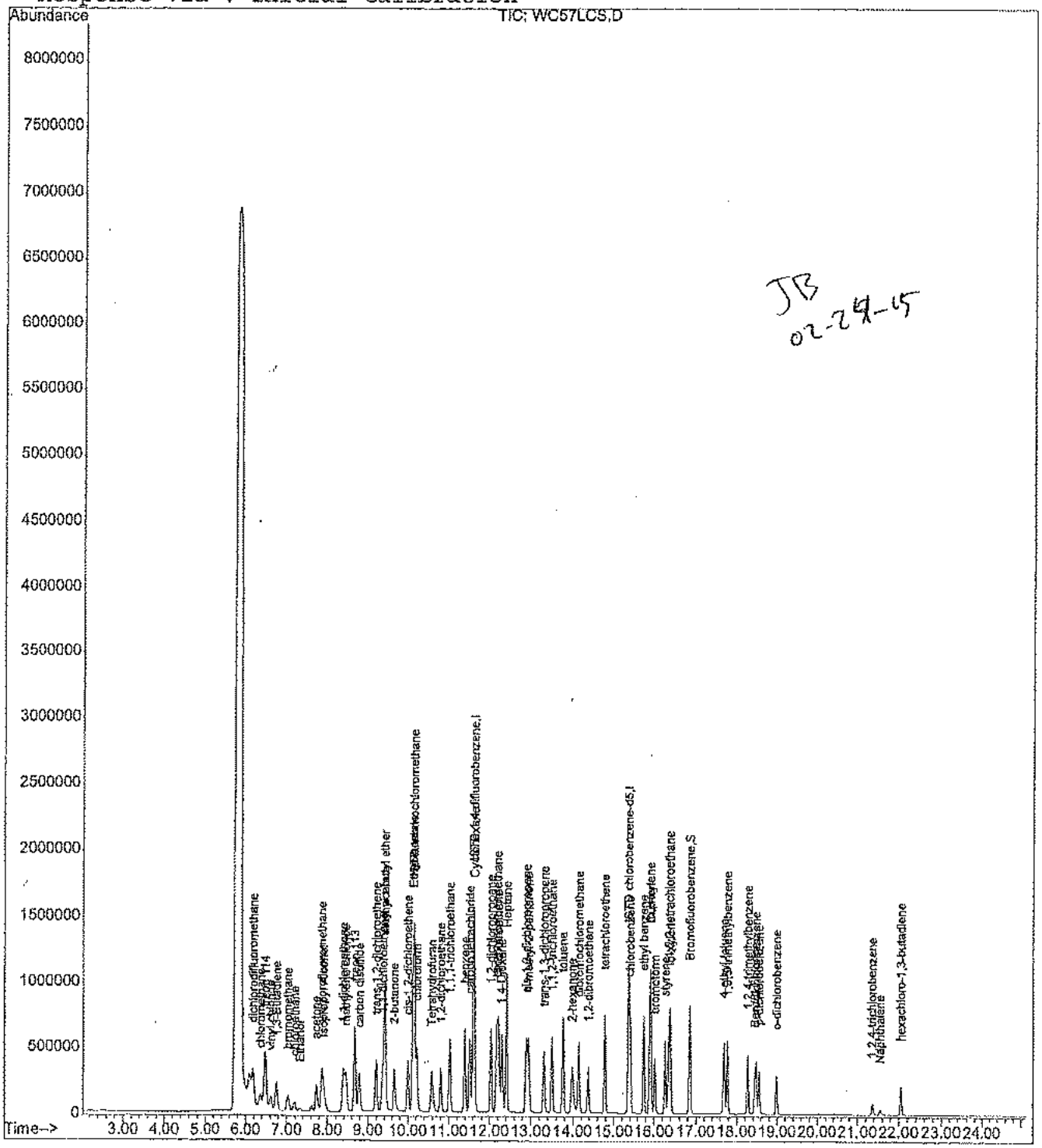
		Compound	AvgRF	CCRF	%Dev	Area%	
43		toluene	1.509	1.817	-20.4	121	
44		2-hexanone	1.435	1.517	-5.7	99	
45		tetrachloroethene	0.428	0.557	-30.3#	136	
46		dibromochloromethane	0.837	0.995	-18.9	128	
47		1,2-dibromoethane	0.777	0.918	-18.2	124	
48		chlorobenzene	0.893	1.081	-21.0	131	
49		ethyl benzene	0.384	0.519	-35.4#	134	
50		m,p-xylene	0.490	0.645	-31.5#	132	
51		o-xylene	0.436	0.565	-29.5	132	
52		styrene	0.618	0.886	-43.4#	136	
53		bromoform	0.503	0.654	-30.0	145	
54		1,1,2,2-tetrachloroethane	0.962	0.992	-3.2	118	
55	S	Bromofluorobenzene	0.564	0.532	5.6	92	
56		Cumene	0.457	0.597	-30.7#	132	TC
57		4-ethyl toluene	0.941	1.280	-36.0#	131	
58		1,3,5-trimethylbenzene	0.878	1.034	-17.7	127	
59		1,2,4-trimethylbenzene	0.769	0.891	-15.8	121	
60		m-dichlorobenzene	0.429	0.503	-17.1	130	
61		p-dichlorobenzene	0.418	0.447	-6.9	117	
62		Benzyl Chloride	0.598	0.621	-3.9	102	TC
63		o-dichlorobenzene	0.380	0.411	-8.2	118	
64		1,2,4-trichlorobenzene	0.094	0.102	-8.4	134	TC
65		Naphthalene	0.173	0.169	2.7	121	TC
66		hexachloro-1,3-butadiene	0.170	0.125	26.4	134	TC

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : J:\W\2015\FEB15W\23FEB15W\WC57LCS.D
Acq Time : 02/23/2015 14:24 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 23 14:57 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration



JB 02-24-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC57LCS.D
Acq Time : 02/23/2015 14:24 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 23 14:57 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Feb 19 18:02:29 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.13	128	215566	20.0000	ppb		98.15
28) ISTD 1,4-difluorobenzene	11.60	114	1138553	20.0000	ppb		94.86
42) ISTD chlorobenzene-d5	15.36	117	799268	20.0000	ppb		97.78
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.85	95	425449	18.8897	ppb		94.45%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.18	85	535630	8.4951	ppb		99
3) chloromethane	6.37	50	278794	8.5469	ppb		99
4) freon 114	6.48	85	551990	10.7054	ppb		98
5) vinyl chloride	6.60	62	249676	10.5039	ppb		99
6) 1,3-Butadiene	6.75	54	193626	10.6700	ppb		79
7) bromomethane	7.03	94	182409	13.6034	ppb		97
8) chloroethane	7.18	64	128977	12.0798	ppb		100
9) Ethanol	7.31	45	76334	9.4664	ppb		100
10) Isopropyl Alcohol	7.91	45	419918	10.1672	ppb		100
11) trichlorofluoromethane	7.86	101	454168	12.7234	ppb		98
12) freon 113	8.67	101	474724	12.2588	ppb		92
13) 1,1-dichloroethene	8.38	96	179115	13.7925	ppb		98
14) acetone	7.72	43	535041	7.6864	ppb	#	89
15) carbon disulfide	8.78	76	803373	10.7713	ppb	#	92
16) methylene chloride	8.45	49	436963	9.6635	ppb		90
17) trans-1,2-dichloroethene	9.20	96	236322	12.2080	ppb		93
18) methyl t-butyl ether	9.41	73	690050	11.8619	ppb		80
19) vinyl acetate	9.41	43	1286375	10.0377	ppb	#	97
20) 2-butanone	9.64	43	811369	10.0126	ppb		99
21) cis-1,2-dichloroethene	9.99	96	250279	11.9529	ppb		89
22) 1,1-dichloroethane	9.36	63	564525	10.1174	ppb		94
23) Ethyl Acetate	10.12	61	111342	10.9899	ppb		100
24) Hexane	10.15	57	483211	9.7619	ppb		100
25) chloroform	10.22	83	542915	10.5423	ppb		99
26) Tetrahydrofuran	10.58	42	418256	10.1265	ppb		100
27) 1,2-dichloroethane	10.81	62	412791	10.1742	ppb		97
29) 1,1,1-trichloroethane	11.02	97	490645	11.3744	ppb		99
30) carbon tetrachloride	11.51	117	448562	11.2679	ppb		97
31) benzene	11.40	78	779311	11.6047	ppb		91
32) Cyclohexane	11.63	84	340868	10.7018	ppb	#	100
33) trichloroethene	12.21	130	262383	12.8475	ppb		90
34) 1,2-dichloropropane	12.04	63	325109	10.4633	ppb	#	73
35) bromodichloromethane	12.17	83	579869	11.0797	ppb		100

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\23FEB15W\WC57LCS.D
Acq Time : 02/23/2015 14:24 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 26696 Multiplr: 1.00

Quant Time: Feb 23 14:57 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Feb 19 18:02:29 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.27	88	102914	12.2561	ppb		95
37)	Heptane	12.41	71	271460	10.6305	ppb		95
38)	cis-1,3-dichloropropene	12.89	75	431127	12.0404	ppb	#	77
39)	4-methyl-2-pentanone	12.94	43	752327	10.5653	ppb		94
40)	trans-1,3-dichloropropene	13.32	75	351490	12.2546	ppb		89
41)	1,1,2-trichloroethane	13.49	97	257762	12.1845	ppb		99
43)	toluene	13.76	91	726077	12.0428	ppb		98
44)	2-hexanone	13.97	43	606191	10.5724	ppb	#	87
45)	tetrachloroethene	14.78	164	222649	13.0302	ppb		99
46)	dibromochloromethane	14.14	129	397827	11.8946	ppb		100
47)	1,2-dibromoethane	14.38	107	366956	11.8238	ppb		98
48)	chlorobenzene	15.41	112	431945	12.1012	ppb		88
49)	ethyl benzene	15.75	106	207499	13.5381	ppb		90
50)	m,p-xylene	15.91	106	515345	26.2990	ppb	#	65
51)	o-xylene	16.39	106	225840	12.9506	ppb		81
52)	styrene	16.27	104	354226	14.3382	ppb	#	78
53)	bromoform	16.02	173	261261	12.9984	ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	396611	10.3173	ppb		100
56)	Cumene	15.91	105	238758	13.0673	ppb	#	20
57)	4-ethyl toluene	17.70	105	511378	13.6041	ppb		96
58)	1,3,5-trimethylbenzene	17.77	105	413211	11.7727	ppb	#	87
59)	1,2,4-trimethylbenzene	18.27	105	355897	11.5836	ppb	#	87
60)	m-dichlorobenzene	18.47	146	200936	11.7093	ppb		93
61)	p-dichlorobenzene	18.55	146	178504	10.6930	ppb		95
62)	Benzyl Chloride	18.43	91	248248	10.3902	ppb		96
63)	o-dichlorobenzene	18.98	146	164150	10.8202	ppb		93
64)	1,2,4-trichlorobenzene	21.37	180	40897	10.8423	ppb		100
65)	Naphthalene	21.54	128	67343	9.7275	ppb		95
66)	hexachloro-1,3-butadiene	22.06	225	50002	7.3609	ppb		95

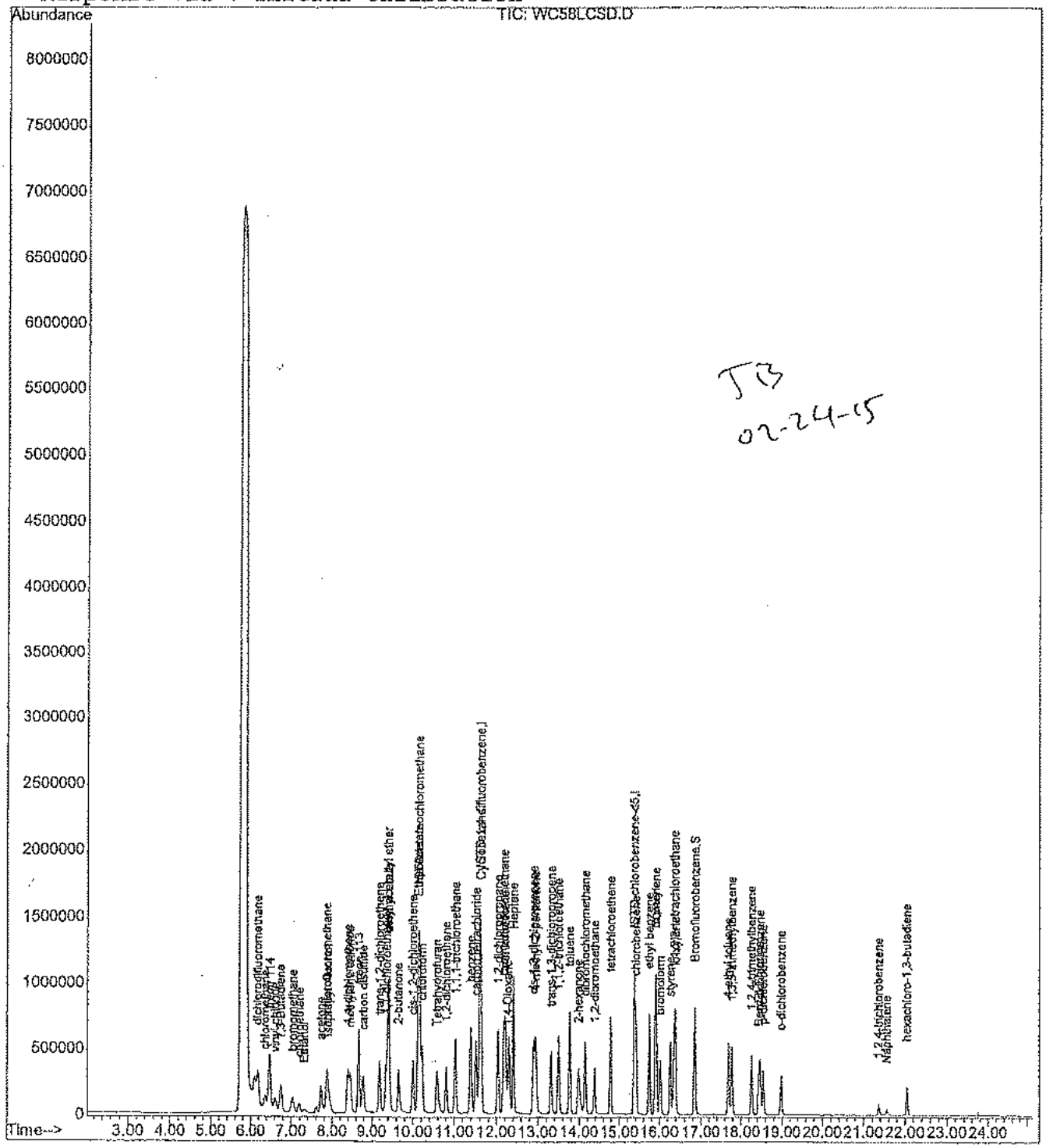
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC58LCSD.D
Acq Time : 02/23/2015 15:01 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:11 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration



JB
02-24-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC58LCSD.D
Acq Time : 02/23/2015 15:01 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:11 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.13	128	213246	20.0000	ppb		97.09
28) ISTD 1,4-difluorobenzene	11.60	114	1104345	20.0000	ppb		92.01
42) ISTD chlorobenzene-d5	15.36	117	773642	20.0000	ppb		94.64
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.85	95	425408	19.5135	ppb		97.57%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	523151	8.3874	ppb		99
3) chloromethane	6.38	50	278455	8.6294	ppb		98
4) freon 114	6.49	85	543966	10.6646	ppb		98
5) vinyl chloride	6.61	62	244110	10.3815	ppb		99
6) 1,3-Butadiene	6.75	54	184085	10.2546	ppb		81
7) bromomethane	7.04	94	176071	13.2736	ppb		98
8) chloroethane	7.20	64	123852	11.7260	ppb		100
9) Ethanol	7.31	45	79109	9.9172	ppb		100
10) Isopropyl Alcohol	7.91	45	428814	10.4955	ppb		100
11) trichlorofluoromethane	7.86	101	444915	12.5998	ppb		99
12) freon 113	8.67	101	462549	12.0743	ppb		92
13) 1,1-dichloroethene	8.40	96	174665	13.5962	ppb		100
14) acetone	7.73	43	542091	7.8724	ppb	#	90
15) carbon disulfide	8.79	76	789762	10.7040	ppb	#	92
16) methylene chloride	8.45	49	437724	9.7857	ppb		88
17) trans-1,2-dichloroethene	9.20	96	234252	12.2327	ppb		93
18) methyl t-butyl ether	9.41	73	698200	12.1326	ppb		80
19) vinyl acetate	9.41	43	1303050	10.2785	ppb	#	97
20) 2-butanone	9.65	43	832718	10.3879	ppb		99
21) cis-1,2-dichloroethene	9.99	96	254078	12.2663	ppb		89
22) 1,1-dichloroethane	9.36	63	575361	10.4238	ppb		94
23) Ethyl Acetate	10.12	61	115447	11.5191	ppb		100
24) Hexane	10.15	57	466008	9.5168	ppb		100
25) chloroform	10.22	83	546882	10.7349	ppb		100
26) Tetrahydrofuran	10.58	42	428981	10.4992	ppb		100
27) 1,2-dichloroethane	10.81	62	428254	10.6701	ppb		97
29) 1,1,1-trichloroethane	11.03	97	495659	11.8466	ppb		98
30) carbon tetrachloride	11.52	117	446343	11.5594	ppb		98
31) benzene	11.40	78	790226	12.1317	ppb		92
32) Cyclohexane	11.63	84	336141	10.8803	ppb	#	100
33) trichloroethene	12.21	130	261801	13.2161	ppb		92
34) 1,2-dichloropropane	12.04	63	333631	11.0702	ppb	#	73
35) bromodichloromethane	12.17	83	593507	11.6916	ppb		100

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\23FEB15W\WC58LCSD.D
Acq Time : 02/23/2015 15:01 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:11 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

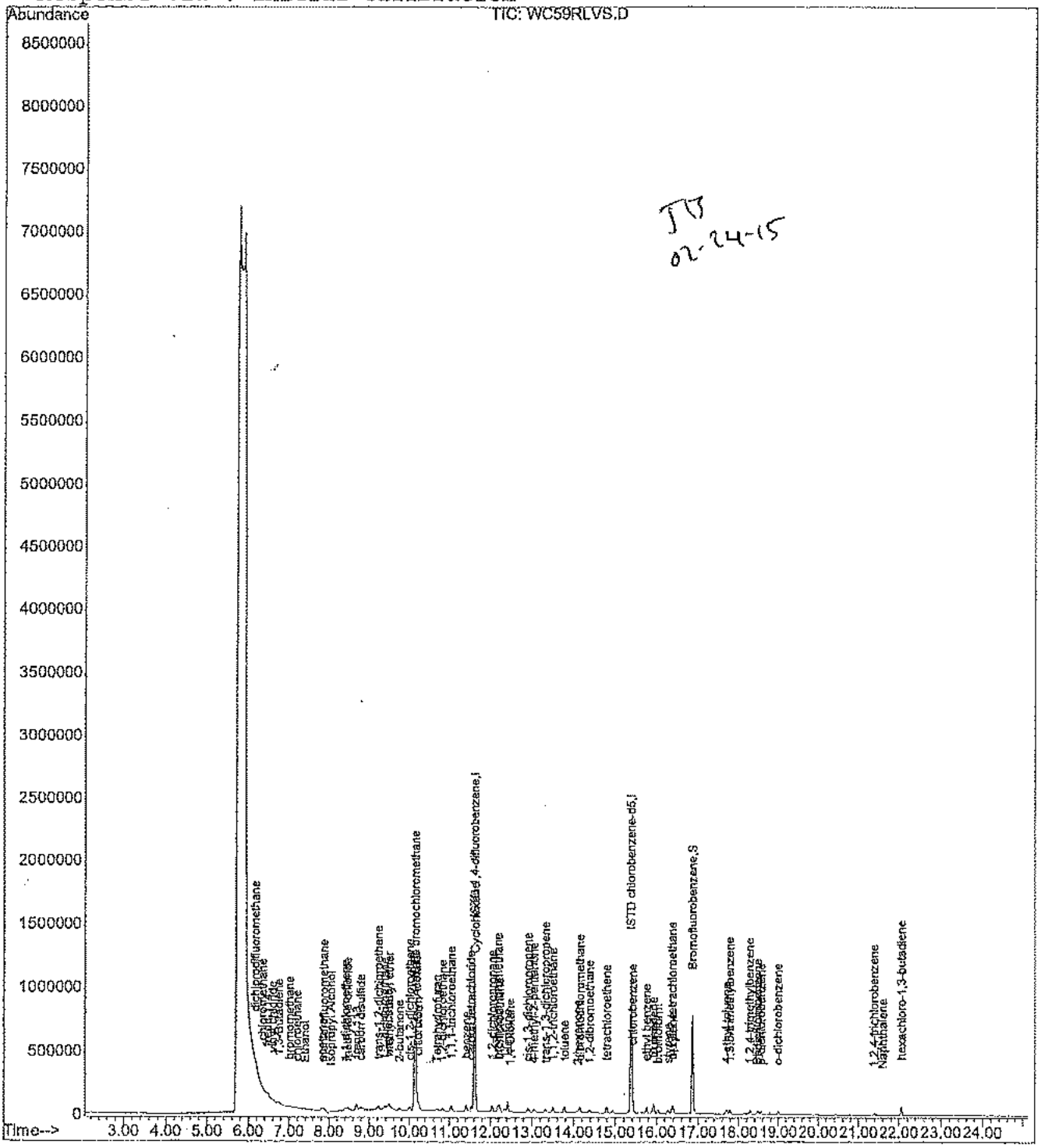
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) 1,4-Dioxane	12.26	88	118118	14.5025	ppb		92
37) Heptane	12.41	71	274515	11.0832	ppb		96
38) cis-1,3-dichloropropene	12.89	75	433488	12.4813	ppb	#	75
39) 4-methyl-2-pentanone	12.94	43	772380	11.1829	ppb		94
40) trans-1,3-dichloropropene	13.32	75	361343	12.9884	ppb		91
41) 1,1,2-trichloroethane	13.49	97	261979	12.7675	ppb		100
43) toluene	13.76	91	752236	12.8899	ppb		98
44) 2-hexanone	13.98	43	617104	11.1192	ppb	#	87
45) tetrachloroethene	14.78	164	222116	13.4296	ppb		99
46) dibromochloromethane	14.14	129	405640	12.5299	ppb		100
47) 1,2-dibromoethane	14.38	107	374787	12.4761	ppb		98
48) chlorobenzene	15.41	112	437392	12.6597	ppb		90
49) ethyl benzene	15.75	106	209294	14.1075	ppb		91
50) m,p-xylene	15.91	106	503881	26.5657	ppb	#	66
51) o-xylene	16.39	106	225810	13.3778	ppb		81
52) styrene	16.27	104	358881	15.0078	ppb	#	78
53) bromoform	16.02	173	260200	13.3744	ppb		100
54) 1,1,2,2-tetrachloroethane	16.36	83	403753	10.8510	ppb		100
56) Cumene	15.91	105	234094	13.2365	ppb	#	20
57) 4-ethyl toluene	17.69	105	514347	14.1363	ppb		96
58) 1,3,5-trimethylbenzene	17.77	105	410579	12.0852	ppb	#	87
59) 1,2,4-trimethylbenzene	18.26	105	363928	12.2374	ppb		88
60) m-dichlorobenzene	18.46	146	202129	12.1690	ppb		94
61) p-dichlorobenzene	18.54	146	177158	10.9639	ppb		96
62) Benzyl Chloride	18.43	91	259597	11.2251	ppb		96
63) o-dichlorobenzene	18.99	146	164658	11.2132	ppb		94
64) 1,2,4-trichlorobenzene	21.37	180	38636	10.5821	ppb		100
65) Naphthalene	21.54	128	66597	9.9384	ppb	#	95
66) hexachloro-1,3-butadiene	22.06	225	52032	7.9135	ppb		94

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\23FEB15W\WC59RLVS.D
Acq Time : 02/23/2015 15:37 Operator: LMR
Sample : RLVS- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:36 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration



JT 02-24-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC59RLVS.D
Acq Time : 02/23/2015 15:37 Operator: LMR
Sample : RLVS- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:36 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.15	128	220590	20.0000	ppb		100.44
28) ISTD 1,4-difluorobenzene	11.62	114	1156434	20.0000	ppb		96.35
42) ISTD chlorobenzene-d5	15.37	117	787243	20.0000	ppb		96.30
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	406472	18.3228	ppb		91.61%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	31722	0.4917	ppb	#	98
3) chloromethane	6.36	50	20733	0.6211	ppb		94
4) freon 114	6.48	85	35411	0.6711	ppb		95
5) vinyl chloride	6.60	62	16994	0.6987	ppb		96
6) 1,3-Butadiene	6.75	54	13221	0.7120	ppb		94
7) bromomethane	7.03	94	12206	0.8895	ppb		97
8) chloroethane	7.19	64	8820	0.8073	ppb		99
9) Ethanol	7.39	45	6775	0.8210	ppb		100
10) Isopropyl Alcohol	8.03	45	28021	0.6630	ppb	m JB 02-24-15	100
11) trichlorofluoromethane	7.87	101	32914	0.9011	ppb		98
12) freon 113	8.68	101	32556	0.8215	ppb		88
13) 1,1-dichloroethene	8.40	96	10983	0.8265	ppb		92
14) acetone	7.81	43	72151	1.0129	ppb		94
15) carbon disulfide	8.79	76	61632	0.8075	ppb	#	91
16) methylene chloride	8.47	49	32099	0.6937	ppb	#	85
17) trans-1,2-dichloroethene	9.22	96	15826	0.7989	ppb		99
18) methyl t-butyl ether	9.50	73	45211	0.7595	ppb		76
19) vinyl acetate	9.46	43	86487	0.6595	ppb		100
20) 2-butanone	9.75	43	62056	0.7484	ppb	m JB	64
21) cis-1,2-dichloroethene	10.01	96	16788	0.7835	ppb		100
22) 1,1-dichloroethane	9.38	63	41640	0.7293	ppb		93
23) Ethyl Acetate	10.19	61	6566	0.6333	ppb		100
24) Hexane	10.17	57	36198	0.7146	ppb		100
25) chloroform	10.23	83	41717	0.7916	ppb		97
26) Tetrahydrofuran	10.70	42	26597	0.6293	ppb		100
27) 1,2-dichloroethane	10.82	62	30564	0.7362	ppb		98
29) 1,1,1-trichloroethane	11.04	97	36847	0.8410	ppb		96
30) carbon tetrachloride	11.52	117	33540	0.8295	ppb		97
31) benzene	11.41	78	56773	0.8323	ppb		92
32) Cyclohexane	11.64	84	28419	0.8784	ppb	#	100
33) trichloroethene	12.22	130	18949	0.9135	ppb		91
34) 1,2-dichloropropane	12.05	63	24330	0.7709	ppb	#	75
35) bromodichloromethane	12.18	83	43375	0.8160	ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\W\2015\FEB15W\23FEB15W\WC59RLVS.D
Acq Time : 02/23/2015 15:37 Operator: LMR
Sample : RLVS- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:36 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.49	88	5516	0.6467	ppb	#	1
37)	Heptane	12.42	71	19748	0.7614	ppb		91
38)	cis-1,3-dichloropropene	12.90	75	27312	0.7510	ppb		99
39)	4-methyl-2-pentanone	13.04	43	47668	0.6591	ppb		98
40)	trans-1,3-dichloropropene	13.33	75	20879	0.7167	ppb		97
41)	1,1,2-trichloroethane	13.50	97	18315	0.8524	ppb		100
43)	toluene	13.78	91	49037	0.8258	ppb		99
44)	2-hexanone	14.09	43	33360	0.5907	ppb		99
45)	tetrachloroethene	14.79	164	15346	0.9118	ppb		98
46)	dibromochloromethane	14.15	129	28712	0.8716	ppb		99
47)	1,2-dibromoethane	14.39	107	25599	0.8374	ppb		100
48)	chlorobenzene	15.42	112	31175	0.8867	ppb	#	76
49)	ethyl benzene	15.76	106	13482	0.8931	ppb		87
50)	m,p-xylene	15.92	106	33860	1.7543	ppb		71
51)	o-xylene	16.40	106	15437	0.8987	ppb		83
52)	styrene	16.28	104	19243	0.7908	ppb	#	82
53)	bromoform	16.03	173	18973	0.9584	ppb		100
54)	1,1,2,2-tetrachloroethane	16.37	83	33597	0.8873	ppb		98
56)	Cumene	15.92	105	15440	0.8579	ppb	#	17
57)	4-ethyl toluene	17.71	105	31850	0.8602	ppb		95
58)	1,3,5-trimethylbenzene	17.78	105	32382	0.9367	ppb		89
59)	1,2,4-trimethylbenzene	18.28	105	27223	0.8996	ppb		88
60)	m-dichlorobenzene	18.48	146	16208	0.9589	ppb		94
61)	p-dichlorobenzene	18.56	146	15305	0.9308	ppb		91
62)	Benzyl Chloride	18.45	91	16251	0.6906	ppb		97
63)	o-dichlorobenzene	18.99	146	14741	0.9865	ppb		94
64)	1,2,4-trichlorobenzene	21.39	180	8195	2.2058	ppb		97
65)	Naphthalene	21.60	128	10836	1.5891	ppb	#	73
66)	hexachloro-1,3-butadiene	22.06	225	16856	2.5193	ppb		93

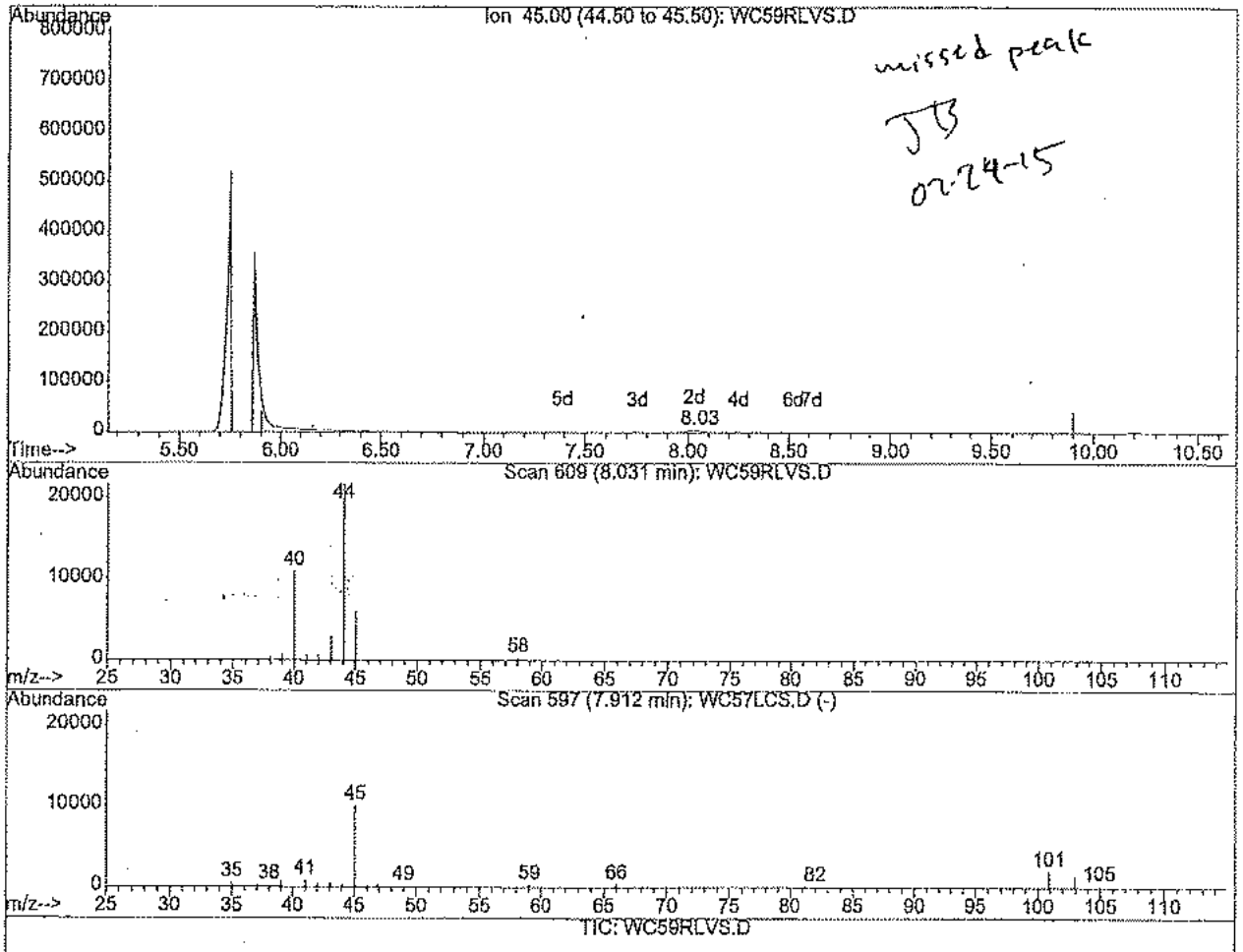
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\23FEB15W\WC59RLVS.D
Acq Time : 02/23/2015 15:37 Operator: LMR
Sample : RLVS- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:36 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Multiple Level Calibration



TIC: WC59RLVS.D

(10) Isopropyl Alcohol

8.03min 0.66ppb m

response 28021

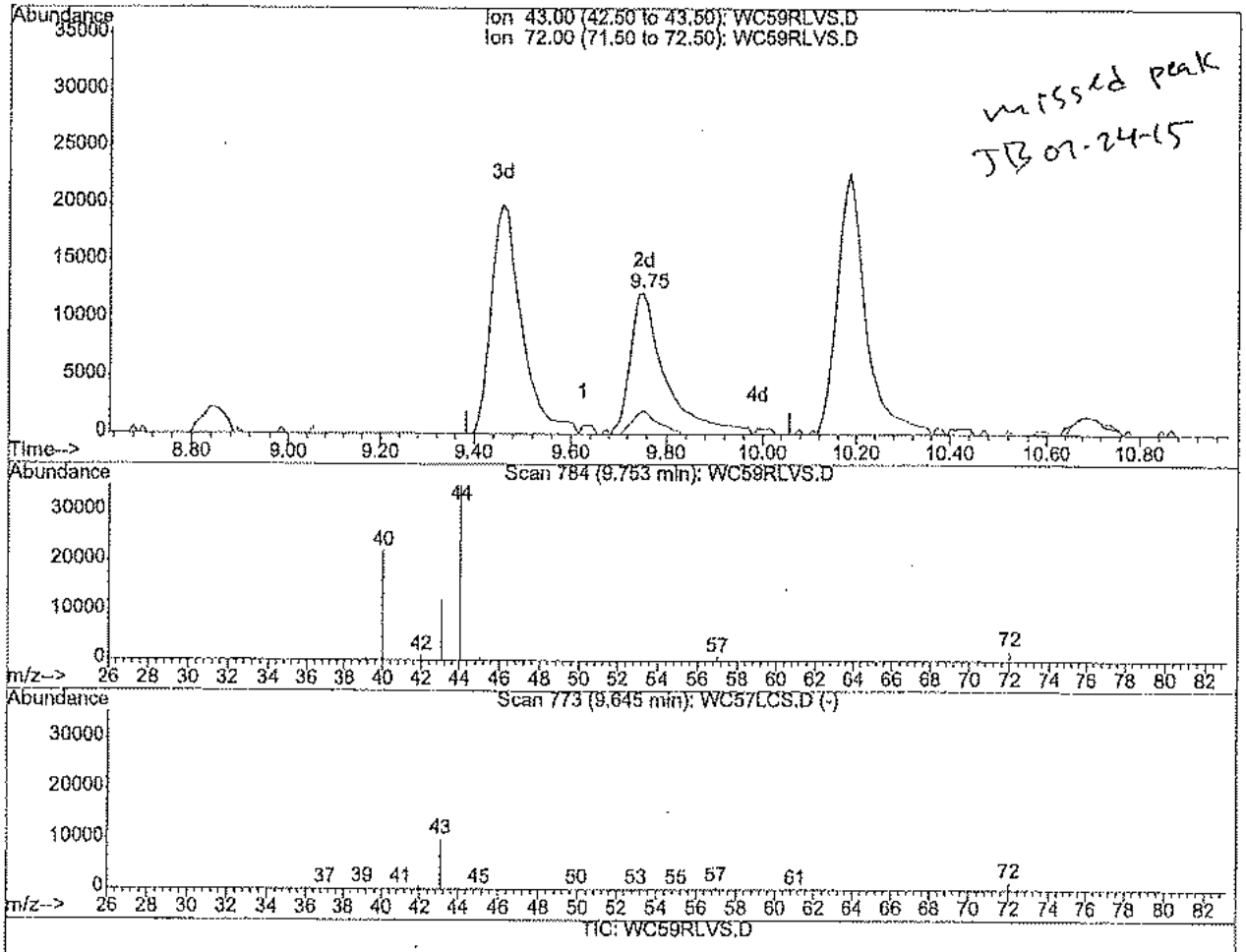
Ion	Exp%	Act%
45.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\23FEB15W\WC59RLVS.D
Acq Time : 02/23/2015 15:37 Operator: LMR
Sample : RLVS- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:36 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Multiple Level Calibration



(20) 2-butanone

9.75min 0.75ppb m

response 62056

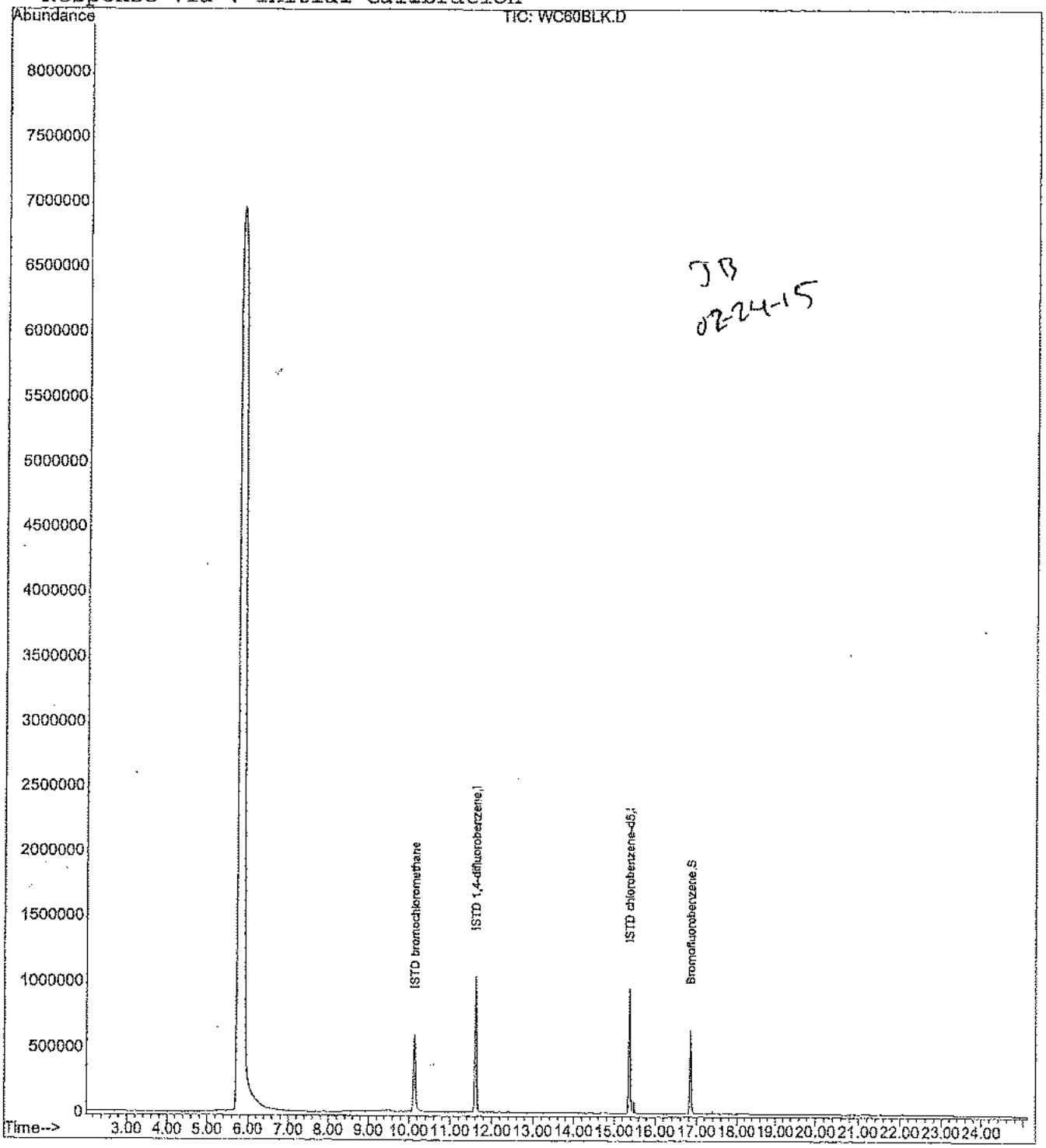
Ion	Exp%	Act%
43.00	100	100
72.00	14.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC60BLK.D
Acq Time : 02/23/2015 16:12 Operator: LMR
Sample : BLK- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:37 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration



JB
02-24-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC60BLK.D
Acq Time : 02/23/2015 16:12 Operator: LMR
Sample : BLK- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:37 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.14	128	206067	20.0000 ppb	93.82
28) ISTD 1,4-difluorobenzene	11.60	114	1042797	20.0000 ppb	86.88
42) ISTD chlorobenzene-d5	15.36	117	678225	20.0000 ppb	82.97
System Monitoring Compounds					%Recovery
55) Bromofluorobenzene	16.85	95	334554	17.5050 ppb	87.53%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	0.00	50		Not Detected	
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	0.00	45		Not Detected	
10) Isopropyl Alcohol	0.00	45		Not Detected	
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	0.00	43		Not Detected	
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	0.00	49		Not Detected	
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	0.00	43		Not Detected	
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	0.00	78		Not Detected	
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC60BLK.D
Acq Time : 02/23/2015 16:12 Operator: LMR
Sample : BLK- Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Feb 24 7:37 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected	
37)	Heptane	0.00	71		Not Detected	
38)	cis-1,3-dichloropropene	0.00	75		Not Detected	
39)	4-methyl-2-pentanone	0.00	43		Not Detected	
40)	trans-1,3-dichloropropene	0.00	75		Not Detected	
41)	1,1,2-trichloroethane	0.00	97		Not Detected	
43)	toluene	0.00	91		Not Detected	
44)	2-hexanone	0.00	43		Not Detected	
45)	tetrachloroethene	0.00	164		Not Detected	
46)	dibromochloromethane	0.00	129		Not Detected	
47)	1,2-dibromoethane	0.00	107		Not Detected	
48)	chlorobenzene	0.00	112		Not Detected	
49)	ethyl benzene	0.00	106		Not Detected	
50)	m,p-xylene	0.00	106		Not Detected	
51)	o-xylene	0.00	106		Not Detected	
52)	styrene	0.00	104		Not Detected	
53)	bromoform	0.00	173		Not Detected	
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56)	Cumene	0.00	105		Not Detected	
57)	4-ethyl toluene	0.00	105		Not Detected	
58)	1,3,5-trimethylbenzene	0.00	105		Not Detected	
59)	1,2,4-trimethylbenzene	0.00	105		Not Detected	
60)	m-dichlorobenzene	0.00	146		Not Detected	
61)	p-dichlorobenzene	0.00	146		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	o-dichlorobenzene	0.00	146		Not Detected	
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected	

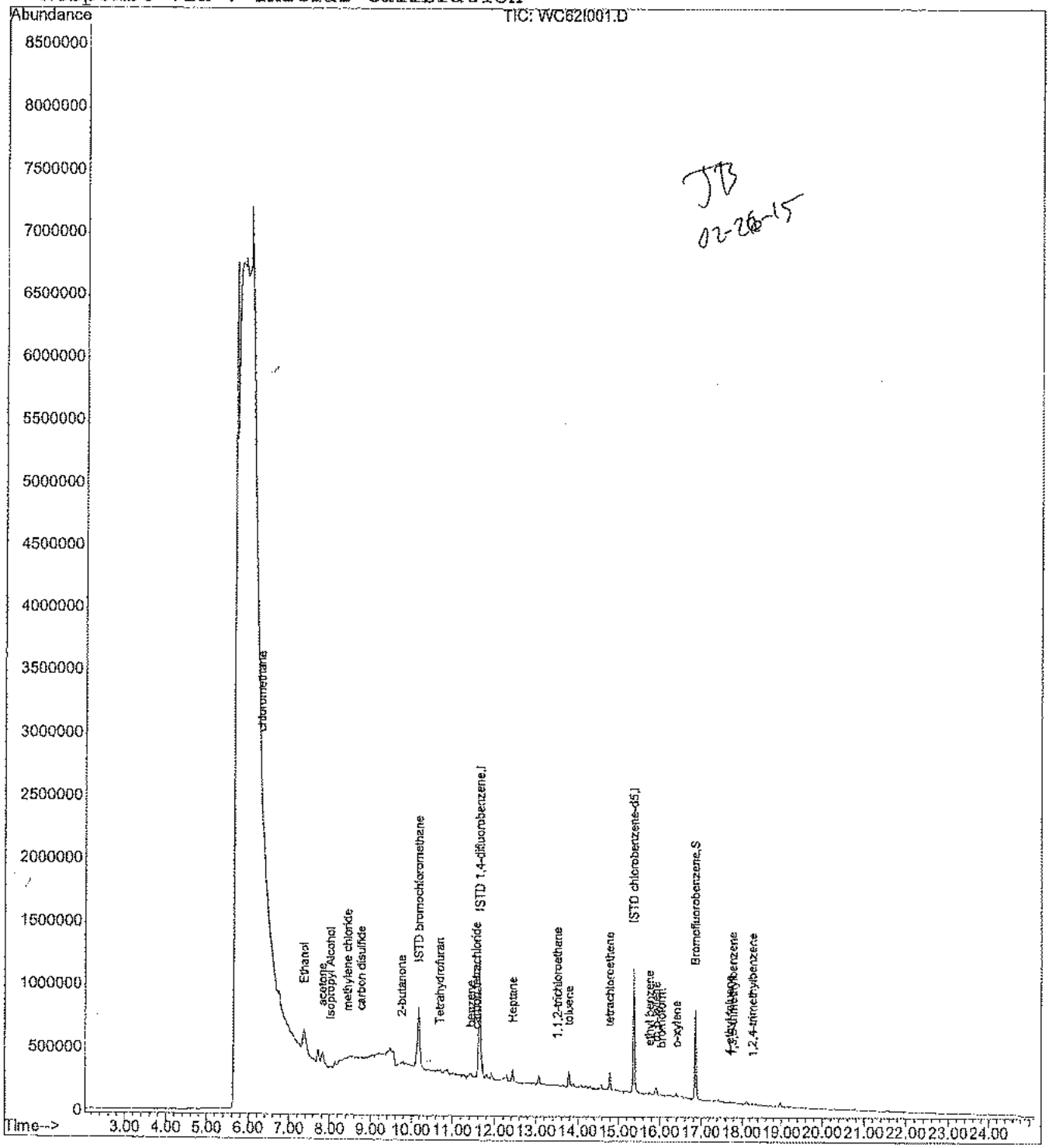
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC62I001.D
Acq Time : 02/23/2015 17:24 Operator: LMR
Sample : ~~1505I33001~~ 1505I33001 Inst : 5972-W
Misc : 0595 TO-001 Multiplr: 1.00

Quant Time: Feb 25 14:58 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Initial Calibration



JB
02-26-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC62I001.D
Acq Time : 02/23/2015 17:24 Operator: LMR
Sample : 1505733001 Inst : 5972-W
Misc : 0595 TO-001 Multiplr: 1.00

Quant Time: Feb 25 14:58 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.18	128	169023	20.0000 ppb		76.96
28) ISTD 1,4-difluorobenzene	11.64	114	889816	20.0000 ppb		74.14
42) ISTD chlorobenzene-d5	15.37	117	665862	20.0000 ppb		81.46
System Monitoring Compounds						%Recovery
55) Bromofluorobenzene	16.85	95	357767	19.0672 ppb		95.34%
Target Compounds						Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected		
3) chloromethane	6.31	50	9713	0.3798 ppb		91
4) freon 114	0.00	85		Not Detected		
5) vinyl chloride	0.00	62		Not Detected		
6) 1,3-Butadiene	0.00	54		Not Detected		
7) bromomethane	0.00	94		Not Detected		
8) chloroethane	0.00	64		Not Detected		
9) Ethanol	7.37	45	654222	103.4724 ppb	T1C	100
10) Isopropyl Alcohol	8.02	45	77774	2.4016 ppb	T1C	100
11) trichlorofluoromethane	0.00	101		Not Detected		
12) freon 113	0.00	101		Not Detected		
13) 1,1-dichloroethene	0.00	96		Not Detected		
14) acetone	7.82	43	355175	6.5074 ppb	m	63
15) carbon disulfide	8.77	76	27883	0.4768 ppb	#	90
16) methylene chloride	8.43	49	19220	0.5421 ppb	m	78
17) trans-1,2-dichloroethene	0.00	96		Not Detected		
18) methyl t-butyl ether	0.00	73		Not Detected		
19) vinyl acetate	0.00	43		Not Detected		
20) 2-butanone	9.75	43	44379	0.6985 ppb		96
21) cis-1,2-dichloroethene	0.00	96		Not Detected		
22) 1,1-dichloroethane	0.00	63		Not Detected		
23) Ethyl Acetate	0.00	61		Not Detected		
24) Hexane	0.00	57		Not Detected		
25) chloroform	0.00	83		Not Detected		
26) Tetrahydrofuran	10.68	42	25887	0.7993 ppb		100
27) 1,2-dichloroethane	0.00	62		Not Detected		
29) 1,1,1-trichloroethane	0.00	97		Not Detected		
30) carbon tetrachloride	11.56	117	6709	0.2156 ppb	m	96
31) benzene	11.43	78	26573	0.5063 ppb		96
32) Cyclohexane	0.00	84		Not Detected		
33) trichloroethene	0.00	130		Not Detected		
34) 1,2-dichloropropane	0.00	63		Not Detected		
35) bromodichloromethane	0.00	83		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC62I001.D
Acq Time : 02/23/2015 17:24 Operator: LMR
Sample : 1505733001 Inst : 5972-W
Misc : 0595 TO-001 Multiplr: 1.00

Quant Time: Feb 25 14:58 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	12.44	71	22895	1.1472 ppb		88
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	0.00	43		Not Detected		
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	13.51	97	2393	0.1447 ppb		97 <MRL
43)	toluene	13.77	91	93433	1.8602 ppb		100
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	14.79	164	38255	2.6874 ppb		99
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	15.75	106	4226	0.3310 ppb		99
50)	m,p-xylene	15.91	106	20438	1.2520 ppb		76
51)	o-xylene	16.39	106	7054	0.4855 ppb		94
52)	styrene	0.00	104		Not Detected		
53)	bromoform	16.03	173	2502	0.1494 ppb		100
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		Not Detected		
57)	4-ethyl toluene	17.70	105	6299	0.2011 ppb	#	90
58)	1,3,5-trimethylbenzene	17.77	105	5208	0.1781 ppb		99
59)	1,2,4-trimethylbenzene	18.27	105	8360	0.3266 ppb		91
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	0.00	146		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

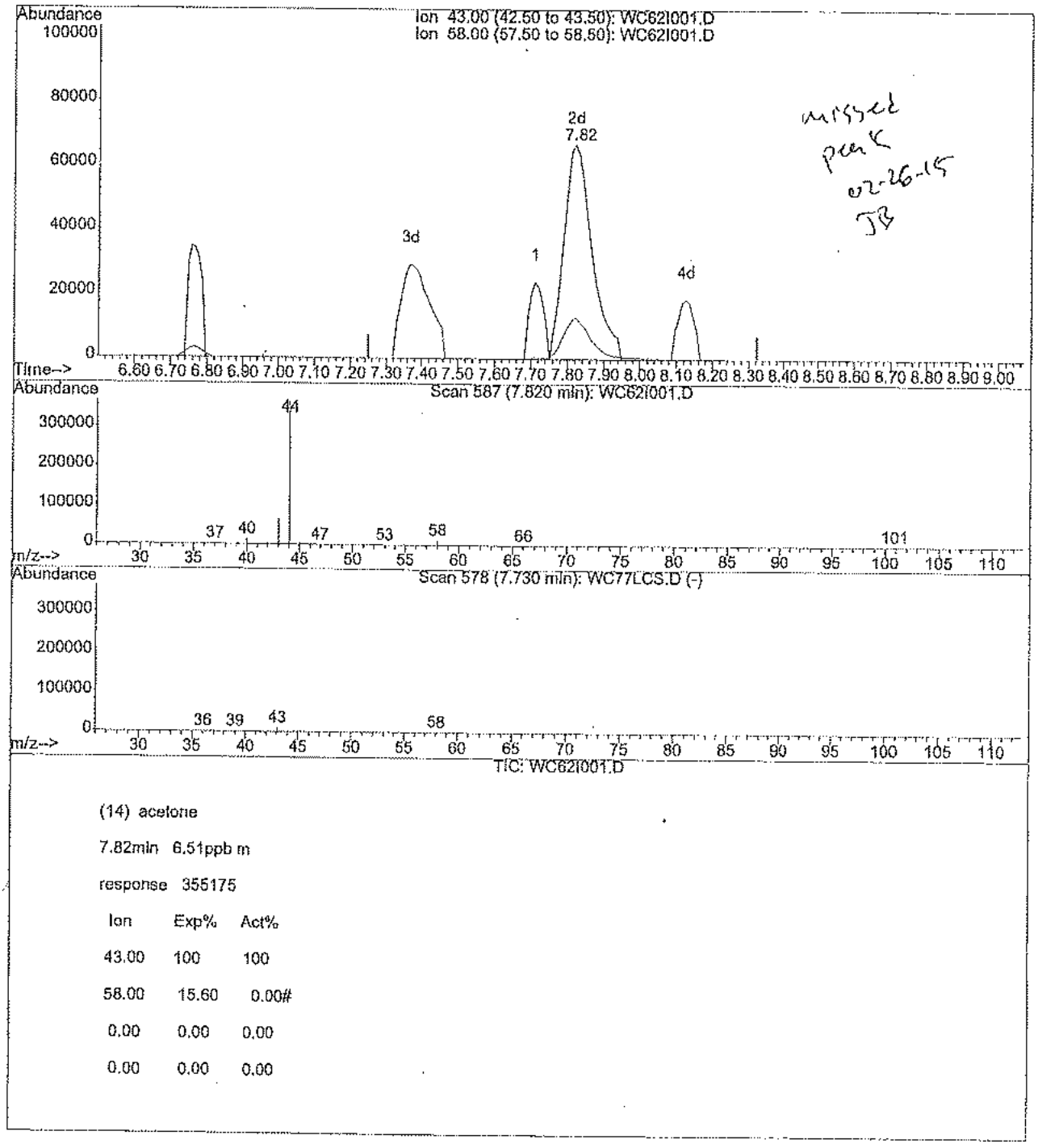
Data File : J:\W\2015\FEB15W\23FEB15W\WC62I001.D
Acq Time : 02/23/2015 17:24
Sample : 1505733001
Misc : 0595 TO-001

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Feb 25 14:20 2015

Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Multiple Level Calibration



(14) acetone

7.82min 6.51ppb m

response 355175

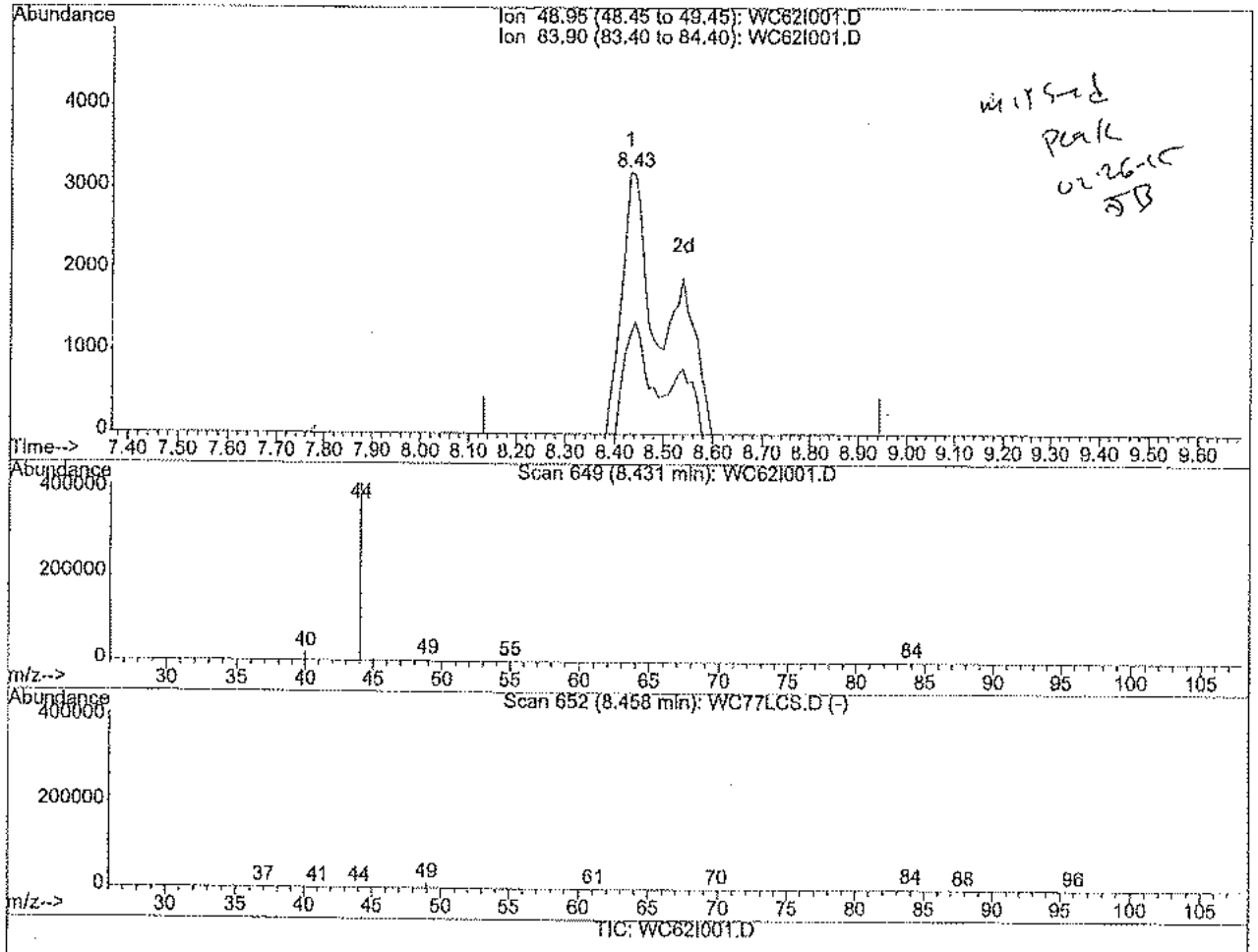
Ion	Exp%	Act%
43.00	100	100
58.00	15.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\23FEB15W\WC62I001.D
Acq Time : 02/23/2015 17:24 Operator: LMR
Sample : 1505733001 Inst : 5972-W
Misc : 0595 TO-001 Multiplr: 1.00

Quant Time: Feb 25 14:21 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Multiple Level Calibration



(16) methylene chloride

8.43min 0.54ppb m

response 19220

Ion	Exp%	Act%
48.95	100	100
83.90	52.00	23.80#
0.00	0.00	0.00
0.00	0.00	0.00

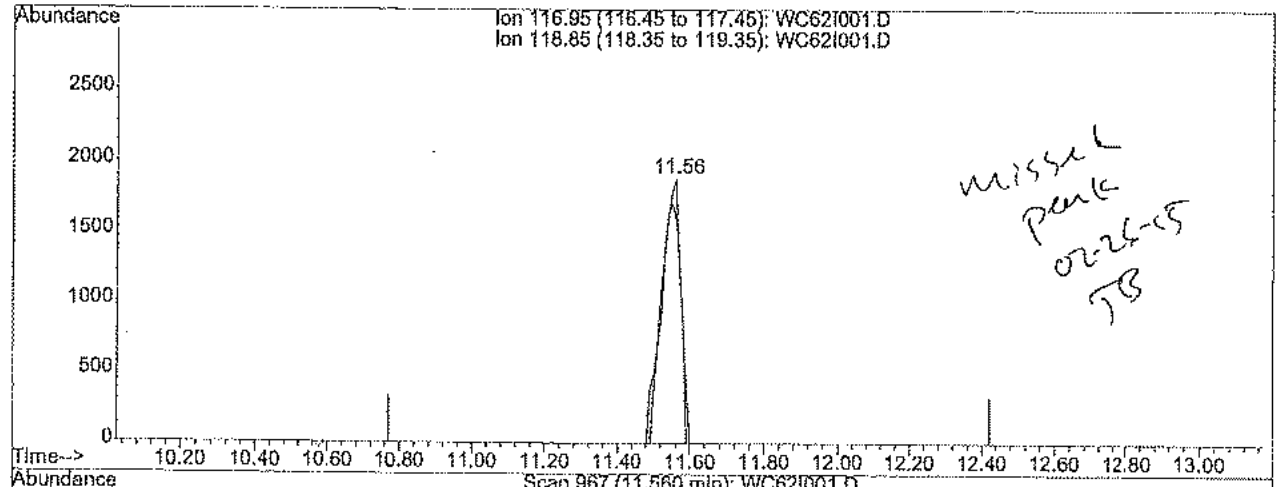
WC62I001.D T015WC15.M Wed Feb 25 14:21:37 2015

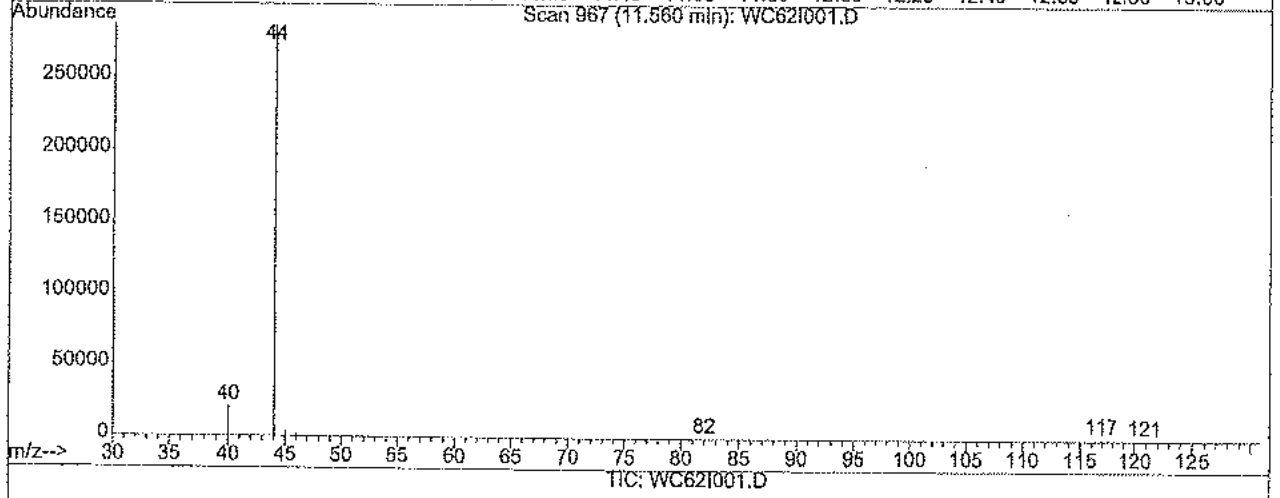
Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\23FEB15W\WC62I001.D
Acq Time : 02/23/2015 17:24 Operator: LMR
Sample : 1505733001 Inst : 5972-W
Misc : 0595 TO-001 Multiplr: 1.00

Quant Time: Feb 25 14:58 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Multiple Level Calibration





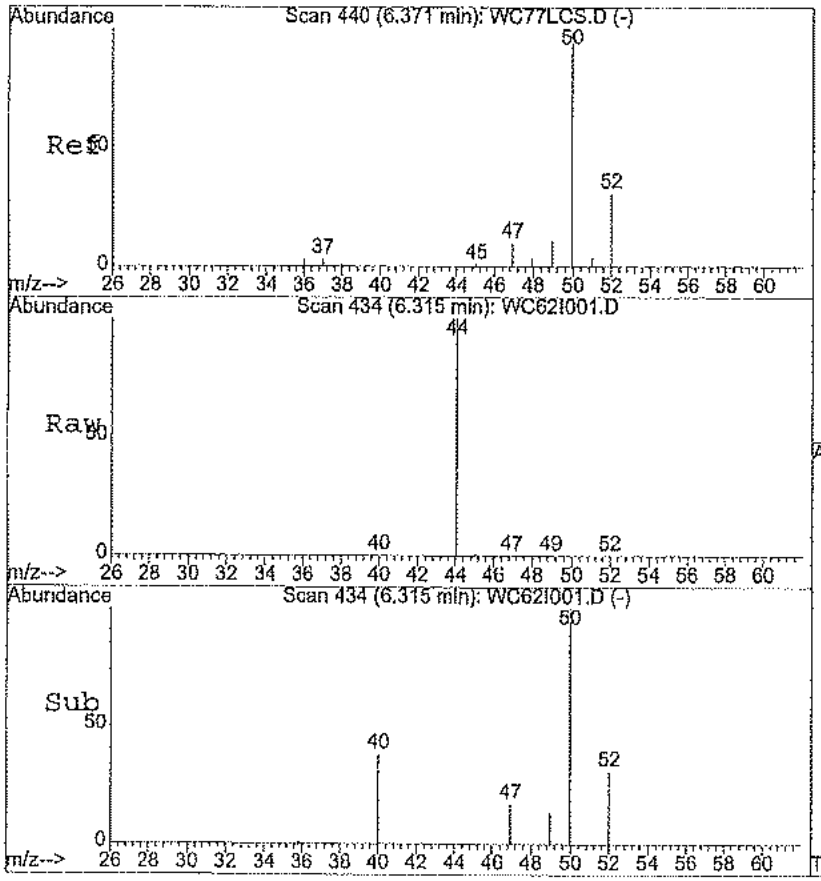
TIC: WC62I001.D

(30) carbon tetrachloride

11.56min 0.22ppb m

response 6709

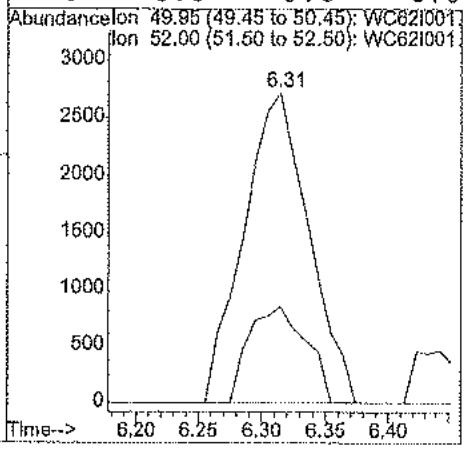
Ion	Exp%	Act%
116.95	100	100
118.85	96.90	93.44
0.00	0.00	0.00
0.00	0.00	0.00

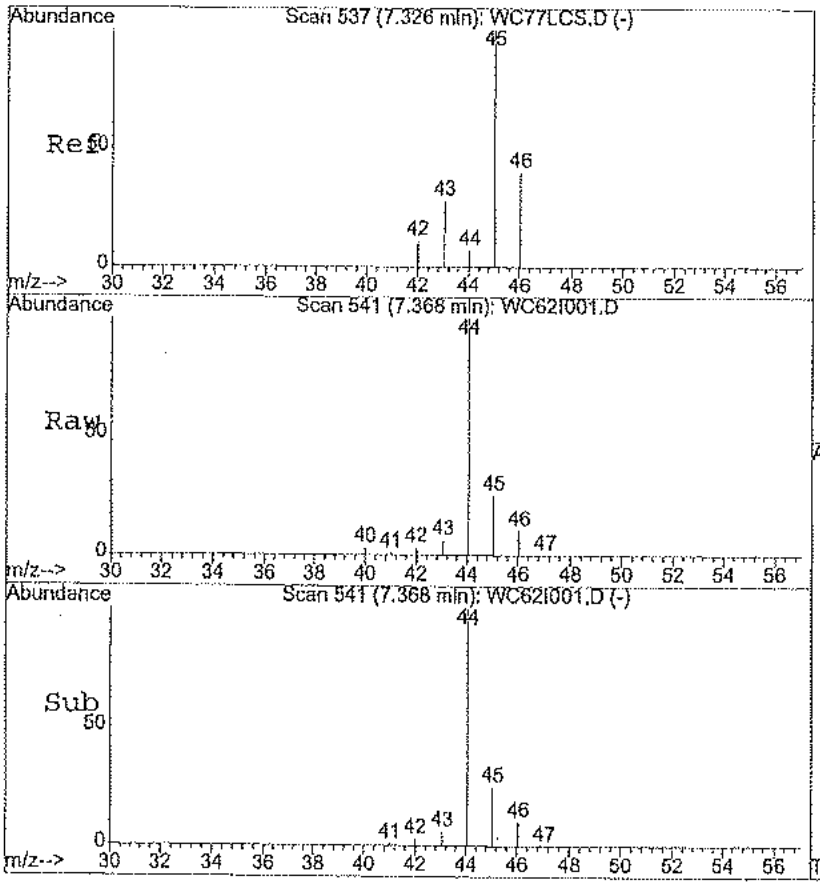


#3
chloromethane
Concen: 0.38 ppb
RT: 6.31 min Scan# 434
Delta R.T. -0.03 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:49.95 Resp: 9713

Ion	Ratio	Lower	Upper
50	100		
52	27.2	25.7	38.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

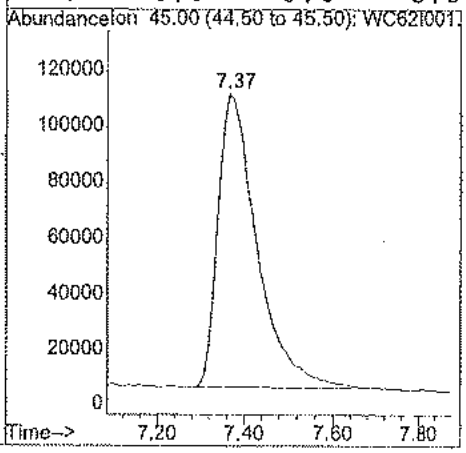


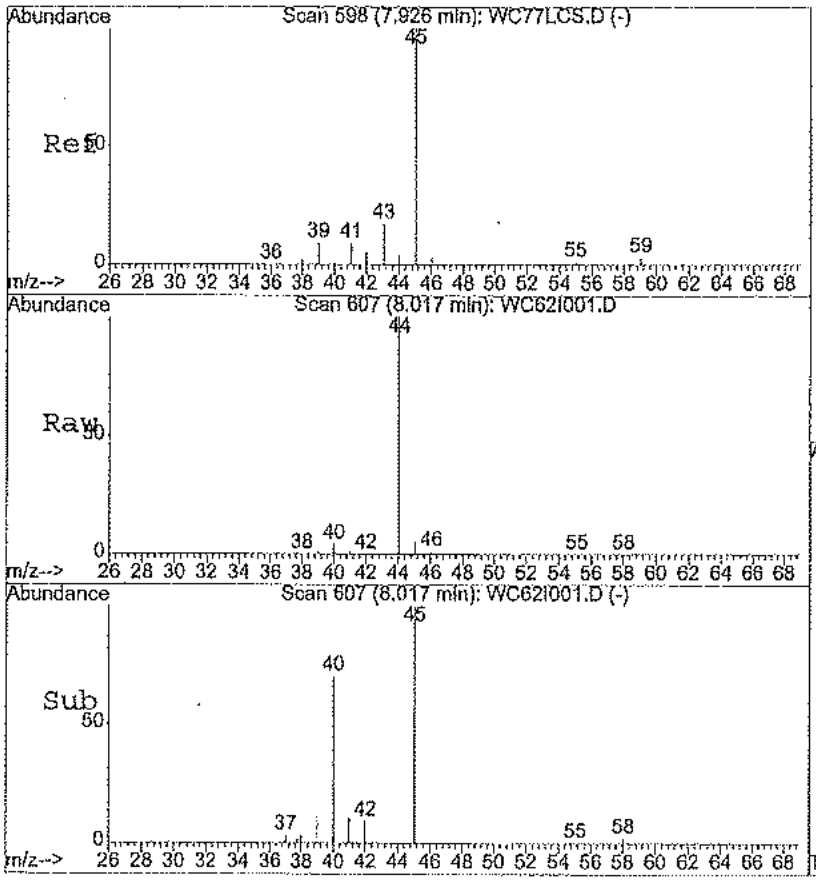


#9
Ethanol
Concen: 103.47 ppb
RT: 7.37 min Scan# 541
Delta R.T. 0.07 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:45 Resp: 654222

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

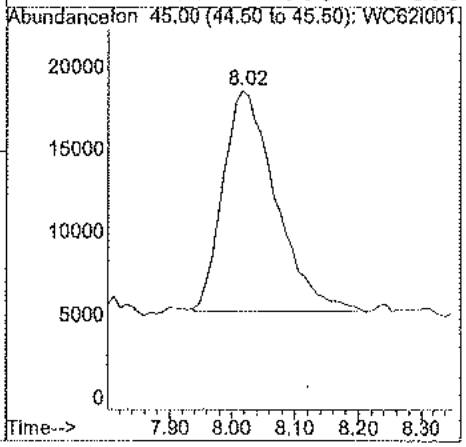


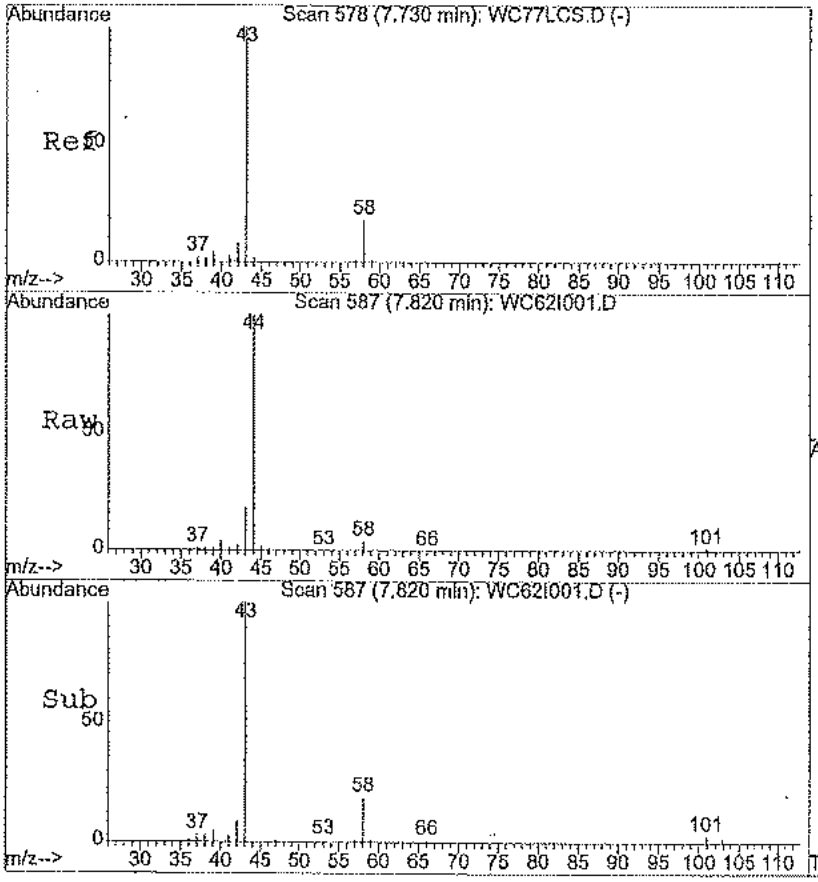


#10
Isopropyl Alcohol
Concen: 2.40 ppb
RT: 8.02 min Scan# 607
Delta R.T. 0.11 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:45 Resp: 77774

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

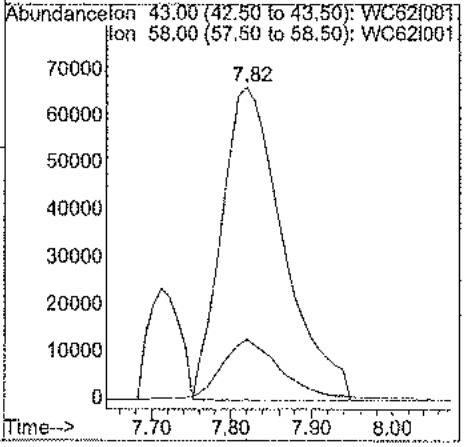


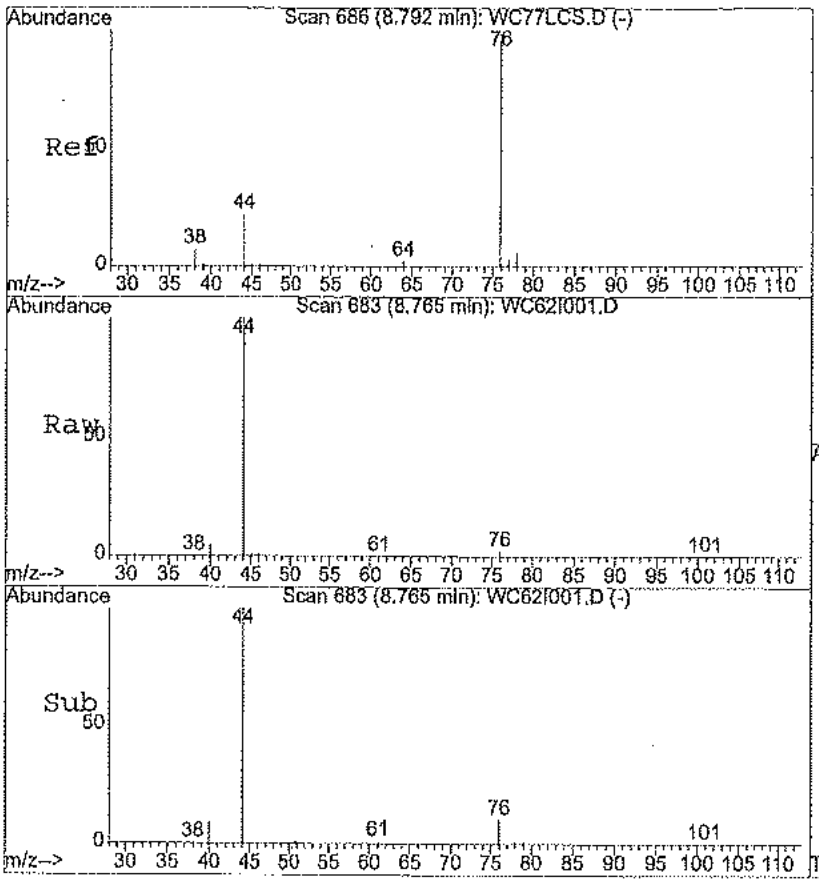


#14
acetone
Concen: 6.51 ppb m
RT: 7.82 min Scan# 587
Delta R.T. 0.12 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:43 Resp: 355175

Ion	Ratio	Lower	Upper
43	100		
58	0.0	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

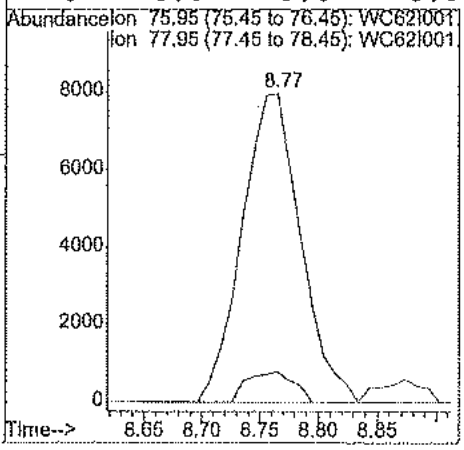


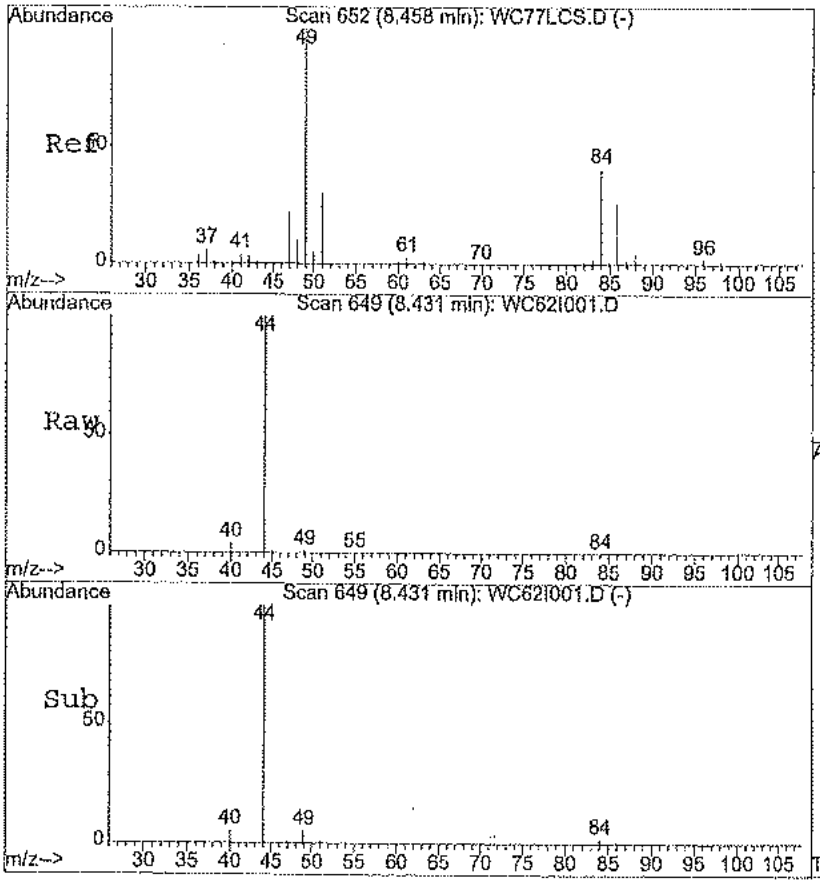


#15
carbon disulfide
Concen: 0.48 ppb
RT: 8.77 min Scan# 683
Delta R.T. 0.01 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:75.95 Resp: 27883

Ion	Ratio	Lower	Upper
76	100		
78	7.8	9.4	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

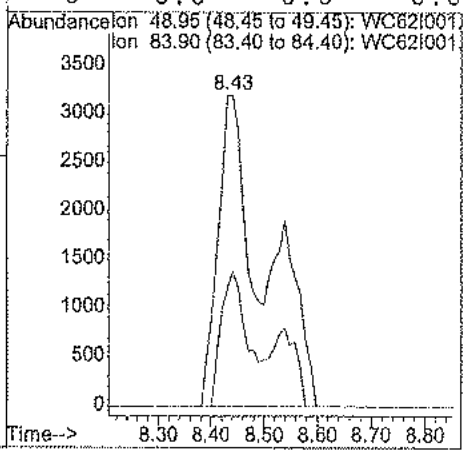


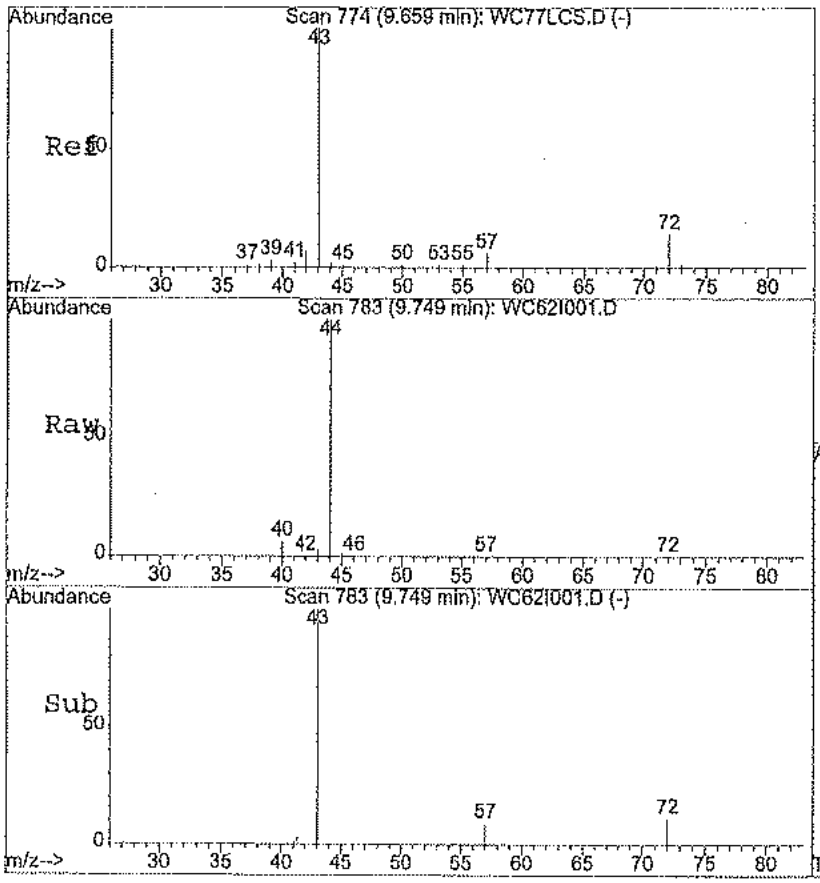


#16
methylene chloride
Concen: 0.54 ppb m
RT: 8.43 min Scan# 649
Delta R.T. 0.01 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:48.95 Resp: 19220

Ion	Ratio	Lower	Upper
49	100		
84	23.8	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

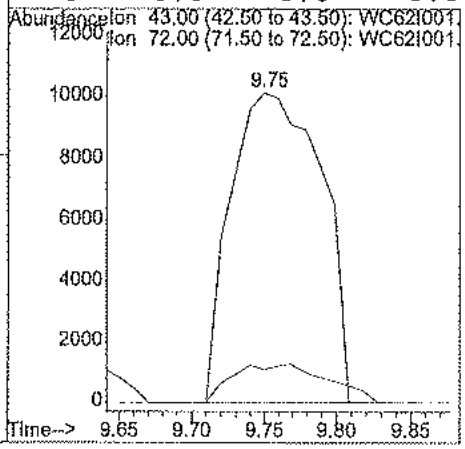


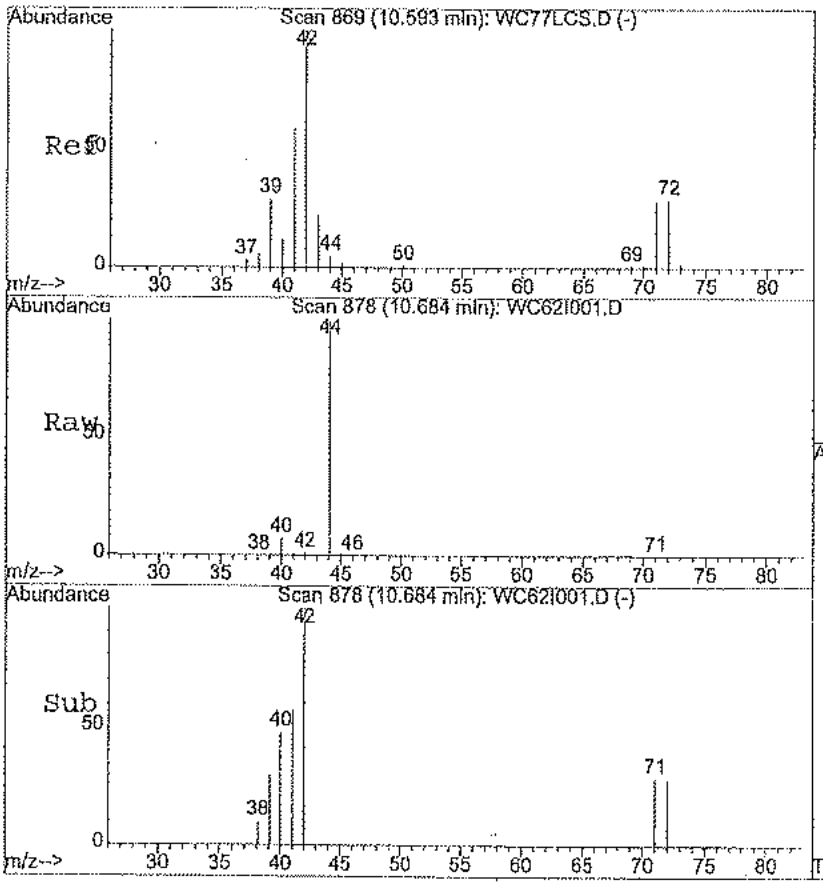


#20
2-butanone
Concen: 0.70 ppb
RT: 9.75 min Scan# 783
Delta R.T. 0.11 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:43 Resp: 44379

Ion	Ratio	Lower	Upper
43	100		
72	13.0	11.8	17.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

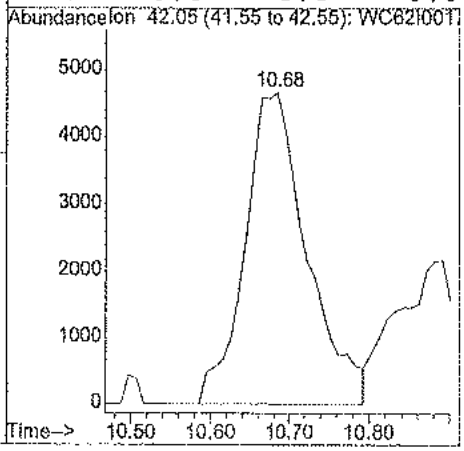


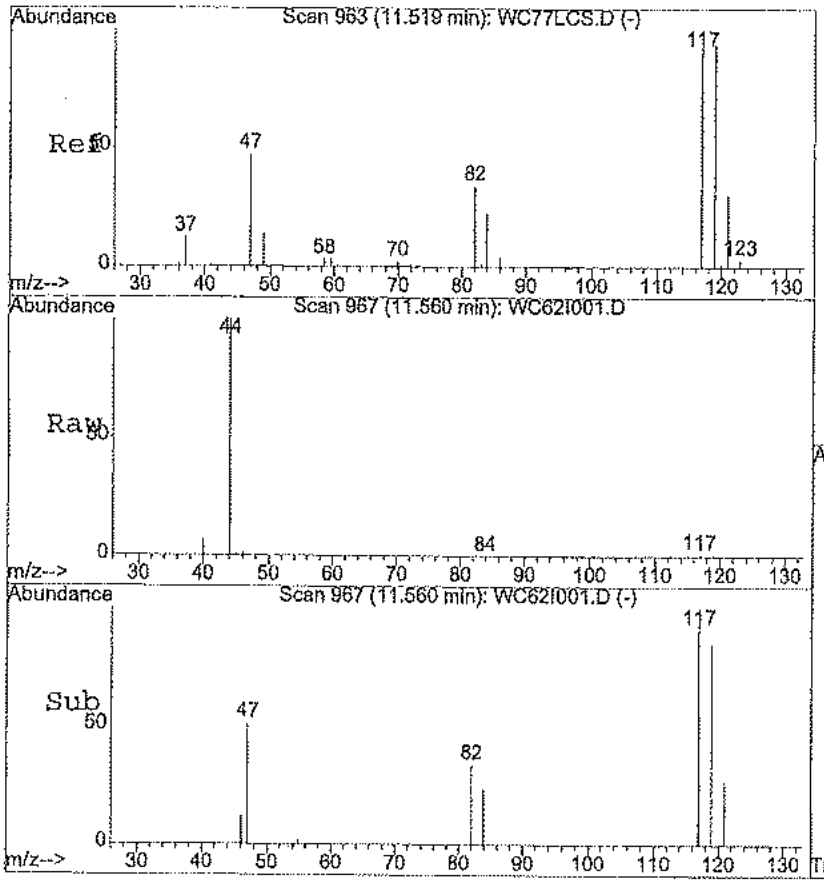


#26
Tetrahydrofuran
Concen: 0.80 ppb
RT: 10.68 min Scan# 878
Delta R.T. 0.12 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:42.05 Resp: 25887

Ion	Ratio	Lower	Upper
42	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

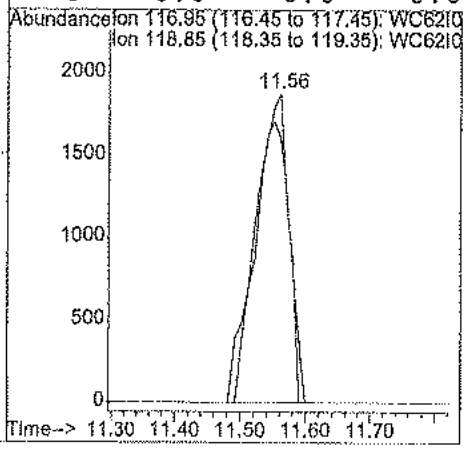


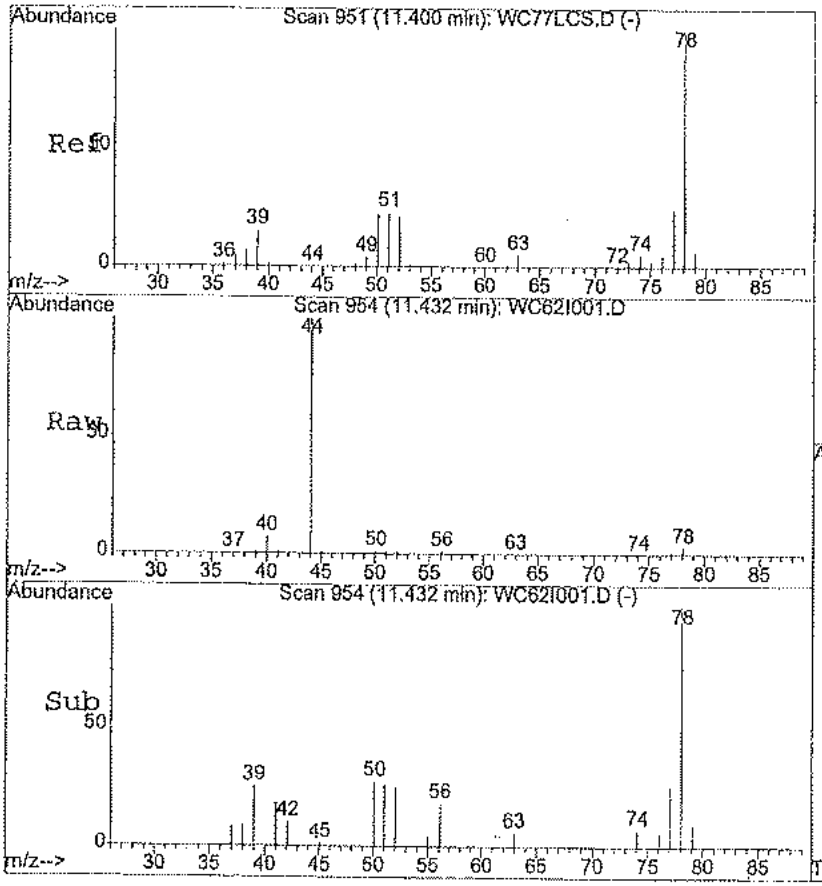


#30
carbon tetrachloride
Concen: 0.22 ppb m
RT: 11.56 min Scan# 967
Delta R.T. 0.07 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:116.95 Resp: 6709

Ion	Ratio	Lower	Upper
117	100		
119	93.4	77.5	116.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

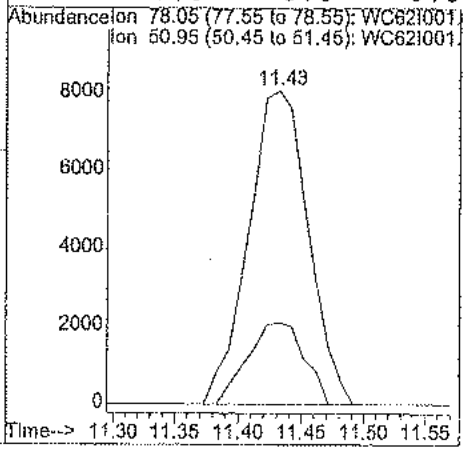


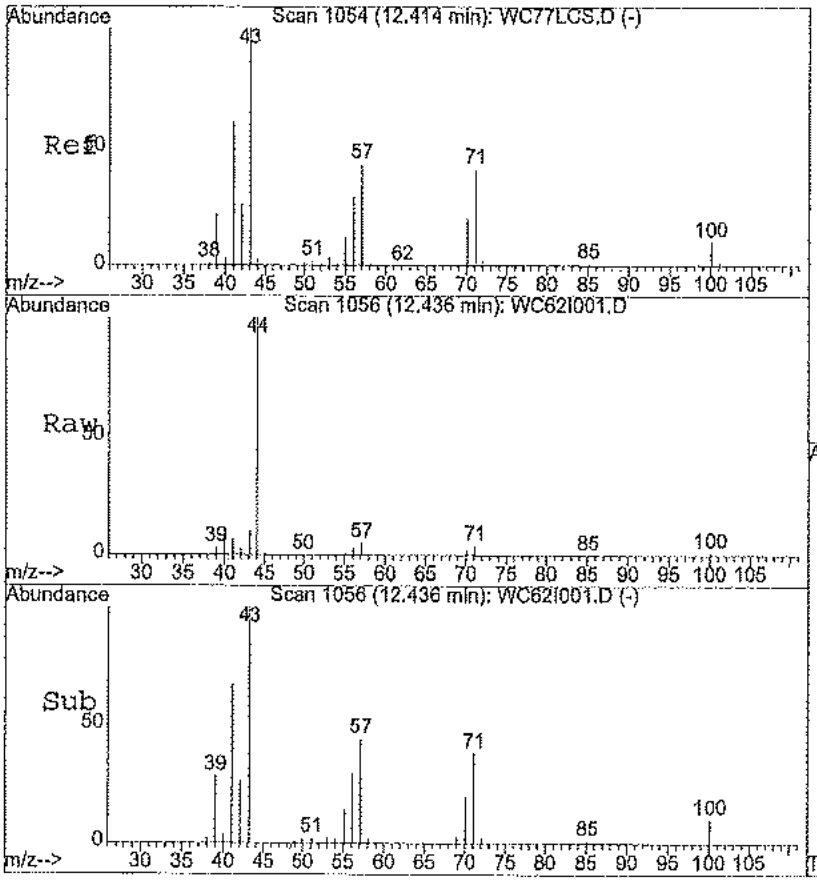


#31
benzene
Concen: 0.51 ppb
RT: 11.43 min Scan# 954
Delta R.T. 0.06 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:78.05 Resp: 26573

Ion	Ratio	Lower	Upper
78	100		
51	24.7	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

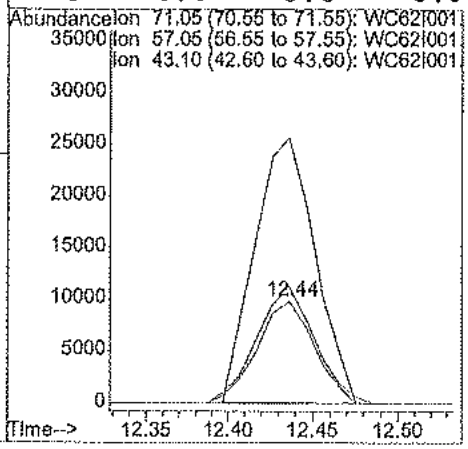


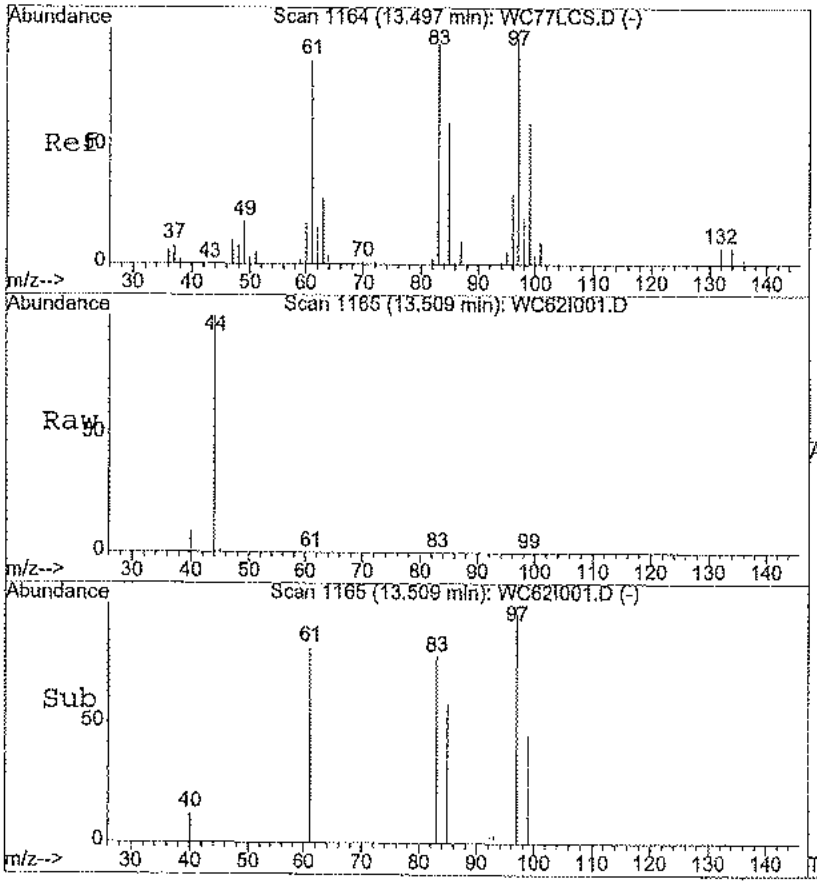


#37
Heptane
Concen: 1.15 ppb
RT: 12.44 min Scan# 1056
Delta R.T. 0.05 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:71.05 Resp: 22895

Ion	Ratio	Lower	Upper
71	100		
57	116.5	86.3	129.5
43	277.3	203.4	305.0
0	0.0	0.0	0.0

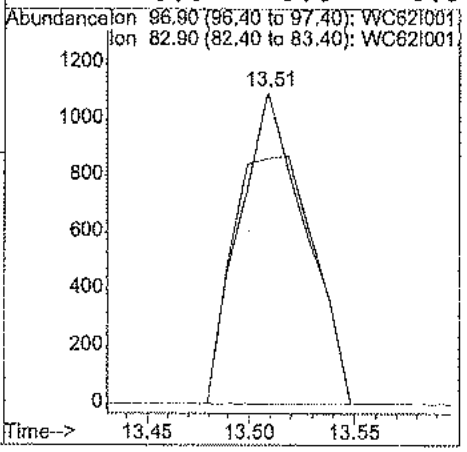


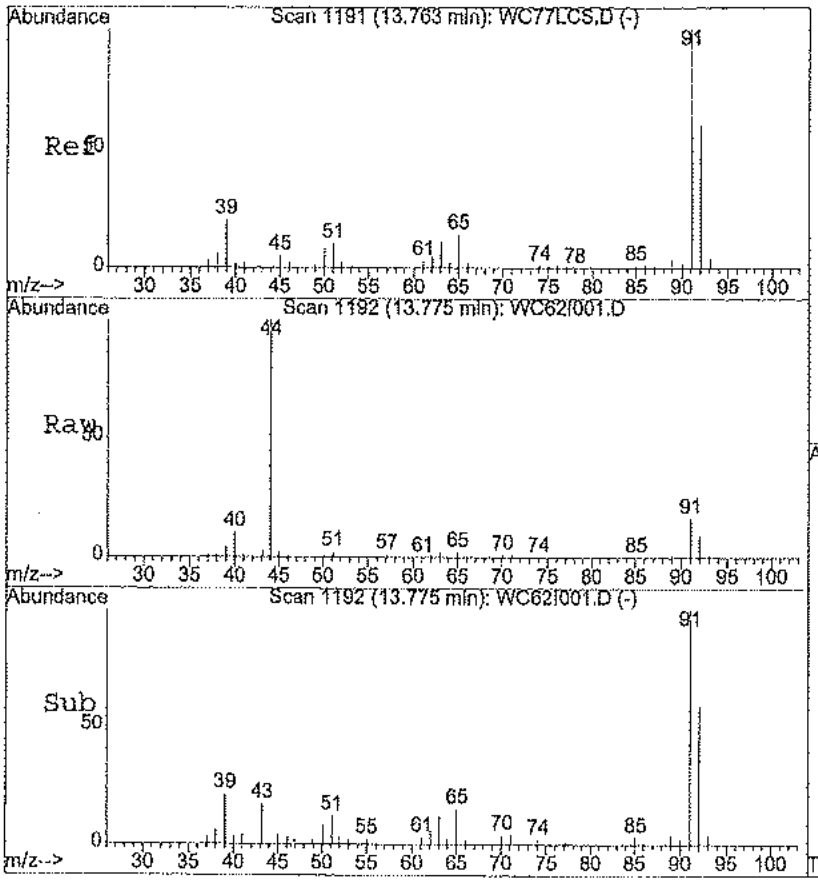


#41
1,1,2-trichloroethane
Concen: 0.14 ppb
RT: 13.51 min Scan# 1165
Delta R.T. 0.03 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:96.9 Resp: 2393

Ion	Ratio	Lower	Upper
97	100		
83	98.9	76.6	115.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

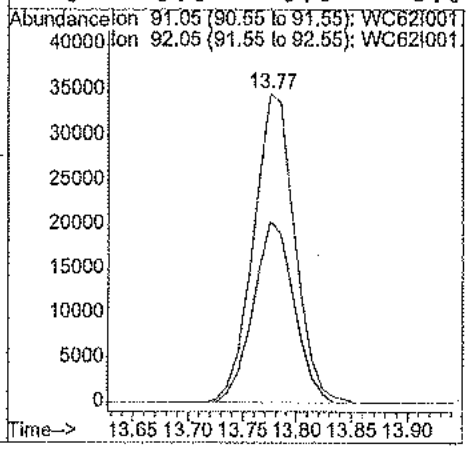


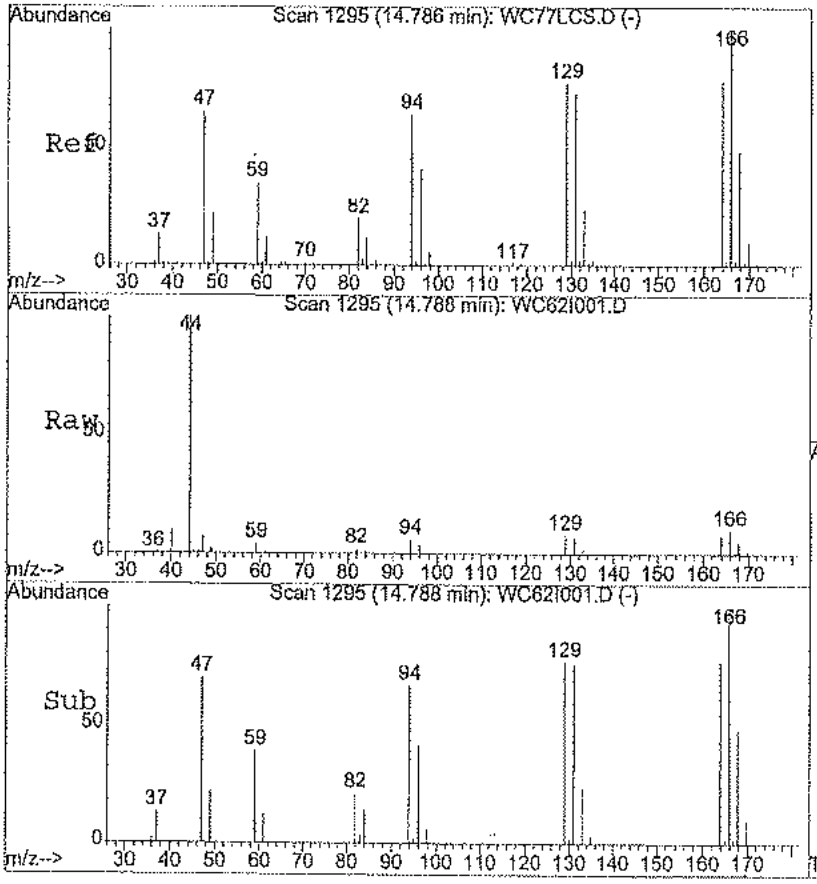


#43
toluene
Concen: 1.86 ppb
RT: 13.77 min Scan# 1192
Delta R.T. 0.03 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:91.05 Resp: 93433

Ion	Ratio	Lower	Upper
91	100		
92	58.1	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

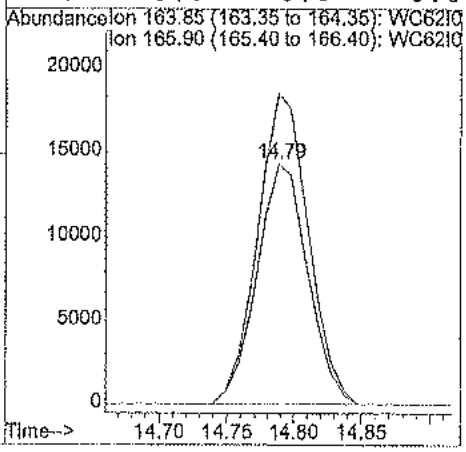


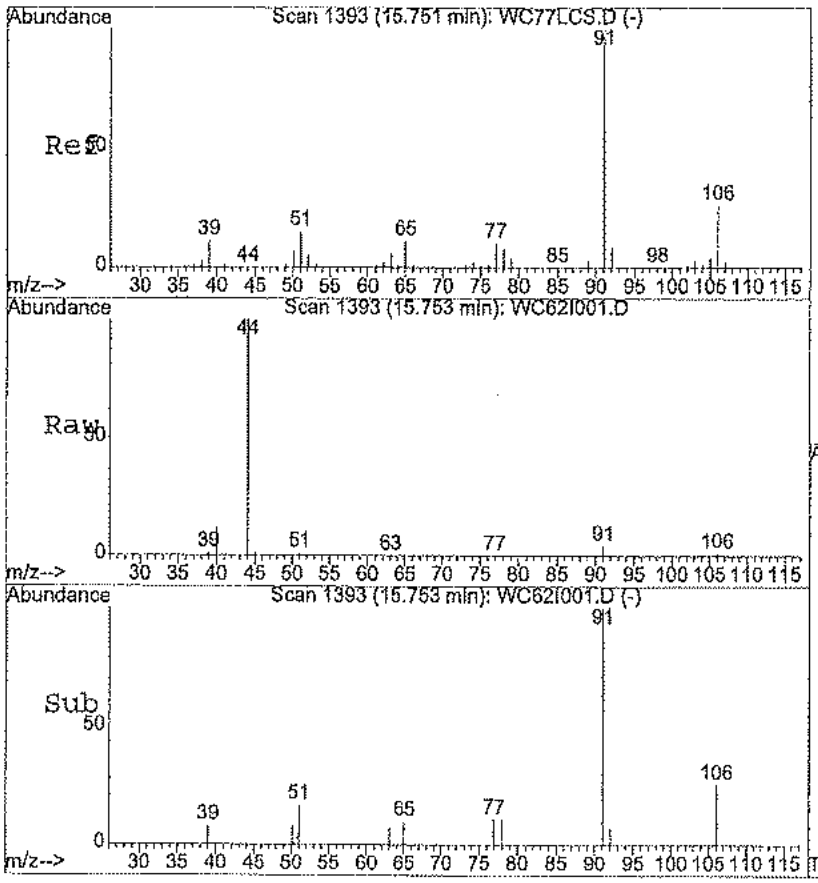


#45
tetrachloroethene
Concen: 2.69 ppb
RT: 14.79 min Scan# 1295
Delta R.T. 0.02 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:163.85 Resp: 38255

Ion	Ratio	Lower	Upper
164	100		
166	128.9	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

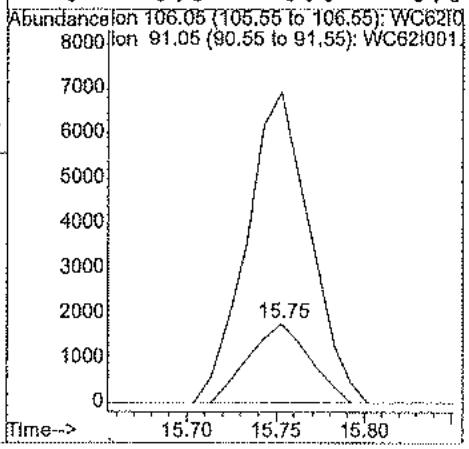


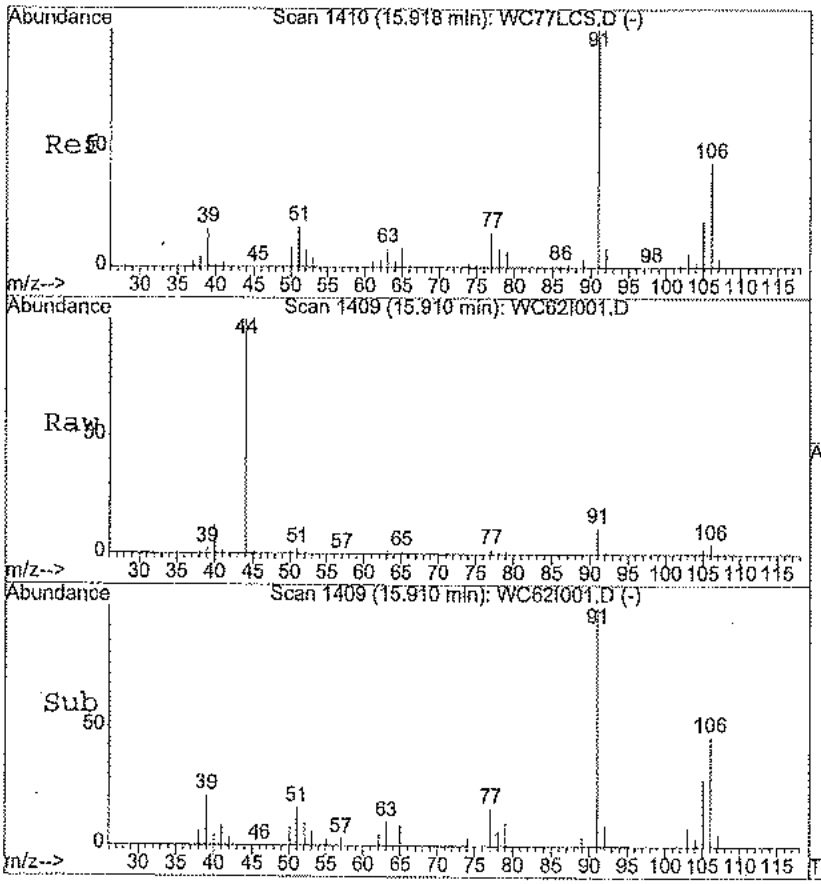


#49
ethyl benzene
Concen: 0.33 ppb
RT: 15.75 min Scan# 1393
Delta R.T. 0.02 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:106.05 Resp: 4226

Ion	Ratio	Lower	Upper
106	100		
91	405.1	321.4	482.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

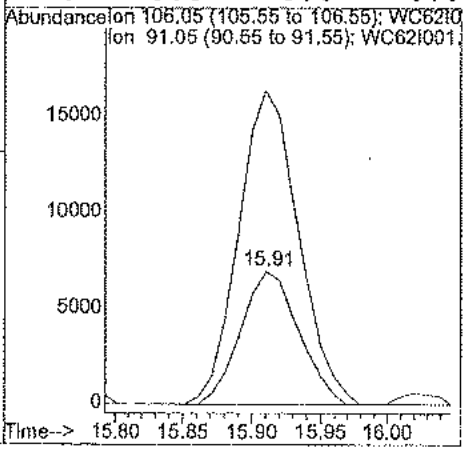


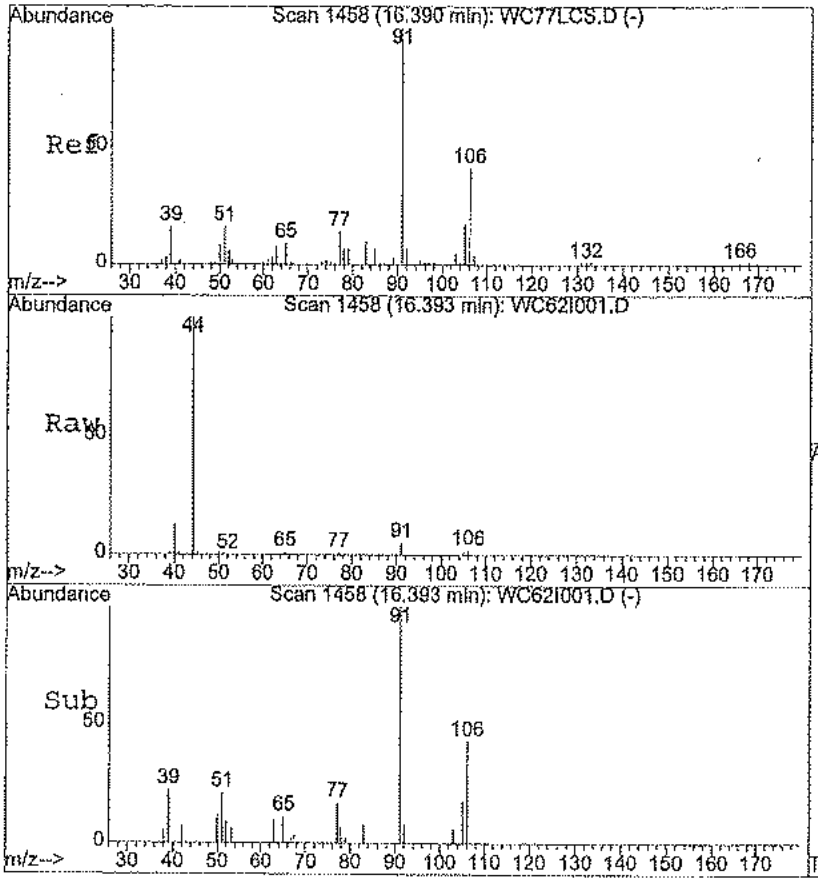


#50
m,p-xylene
Concen: 1.25 ppb
RT: 15.91 min Scan# 1409
Delta R.T. 0.01 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:106.05 Resp: 20438

Ion	Ratio	Lower	Upper
106	100		
91	241.9	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

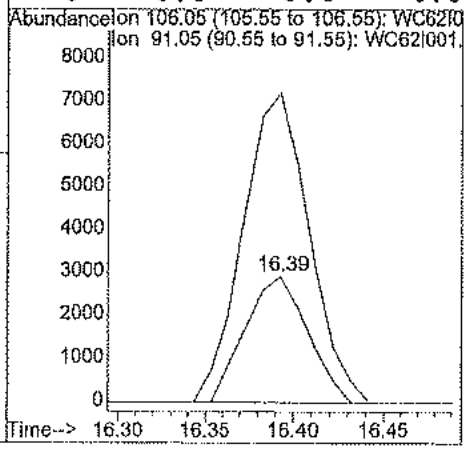


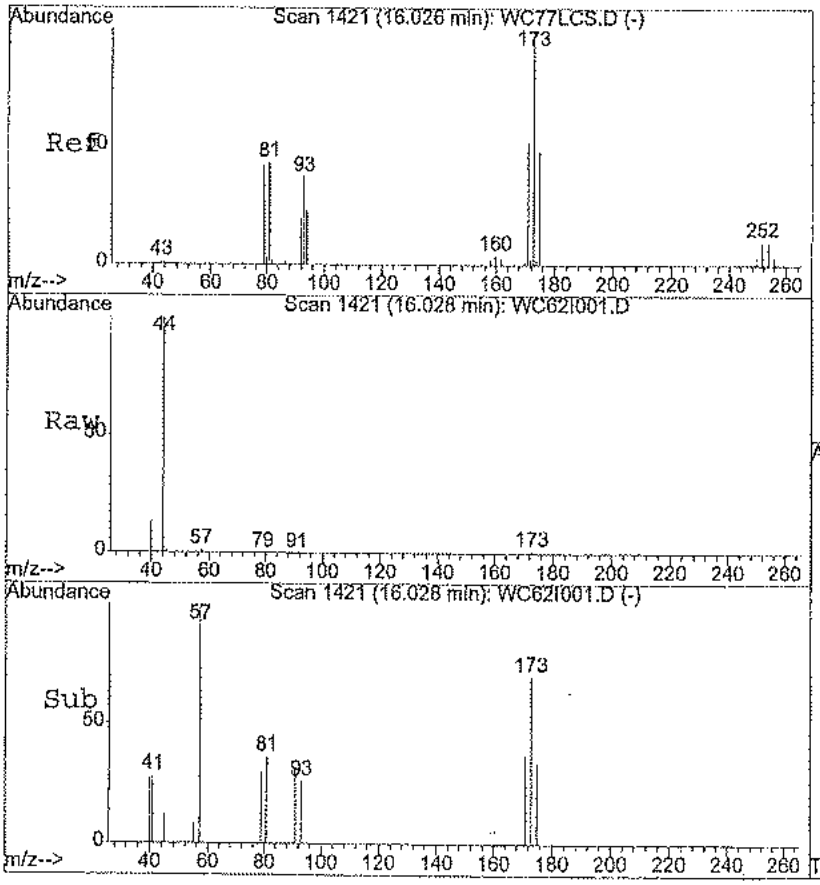


#51
o-xylene
Concen: 0.49 ppb
RT: 16.39 min Scan# 1458
Delta R.T. 0.02 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:106.05 Resp: 7054

Ion	Ratio	Lower	Upper
106	100		
91	263.0	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

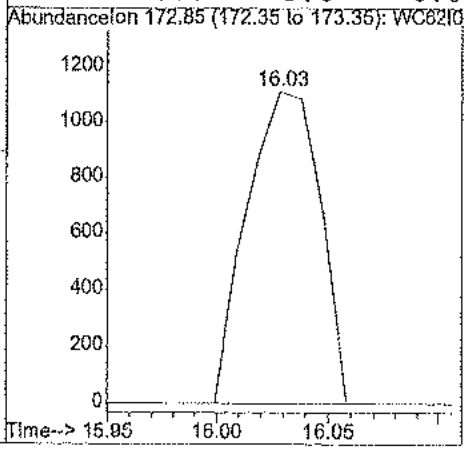


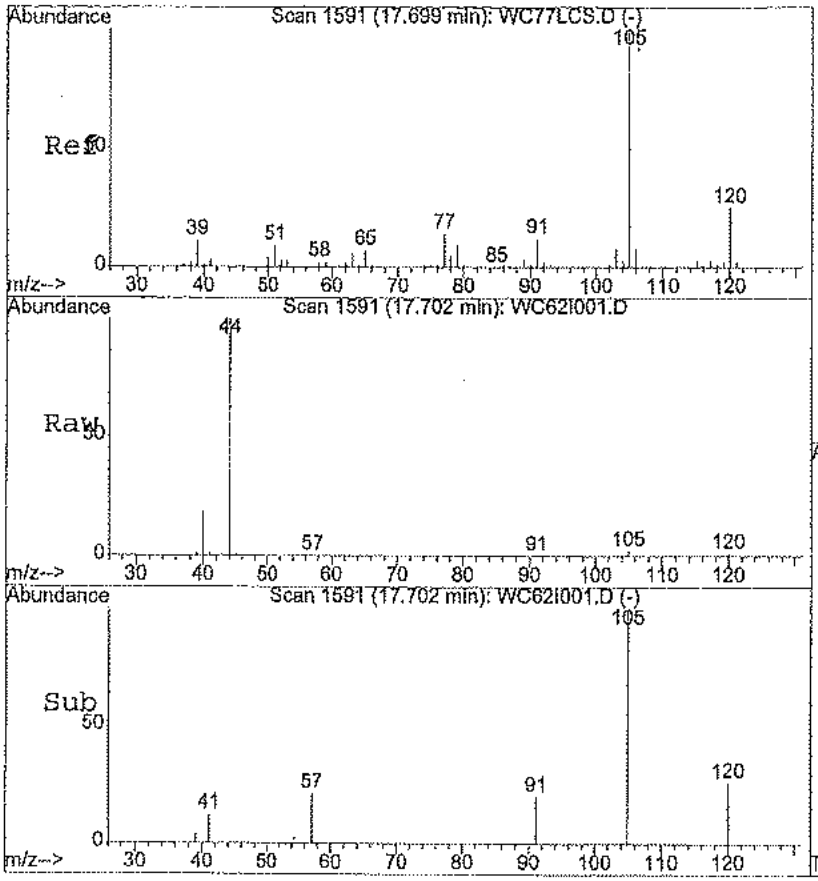


#53
bromoform
Concen: 0.15 ppb
RT: 16.03 min Scan# 1421
Delta R.T. 0.02 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:172.85 Resp: 2502

Ion	Ratio	Lower	Upper
173	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

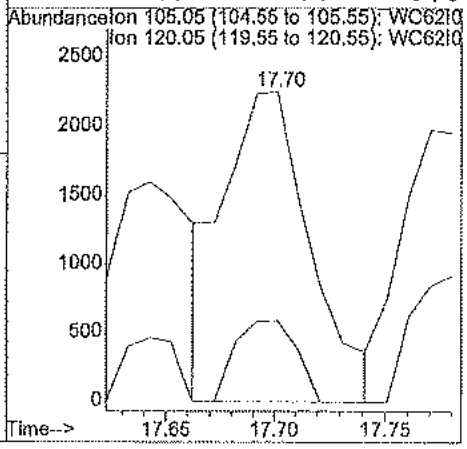


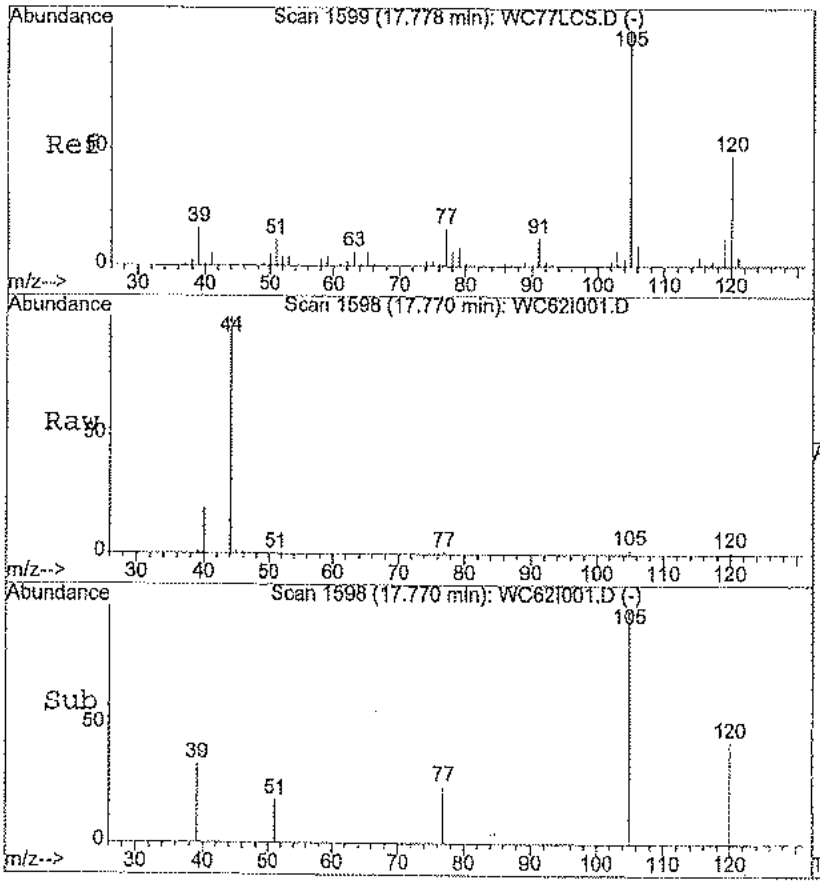


#57
4-ethyl toluene
Concen: 0.20 ppb
RT: 17.70 min Scan# 1591
Delta R.T. 0.03 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:105.05 Resp: 6299

Ion	Ratio	Lower	Upper
105	100		
120	18.7	19.0	28.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

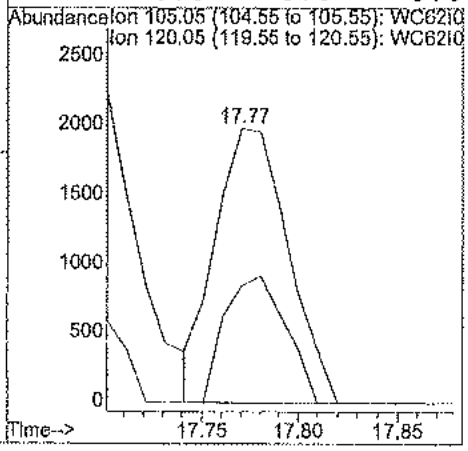


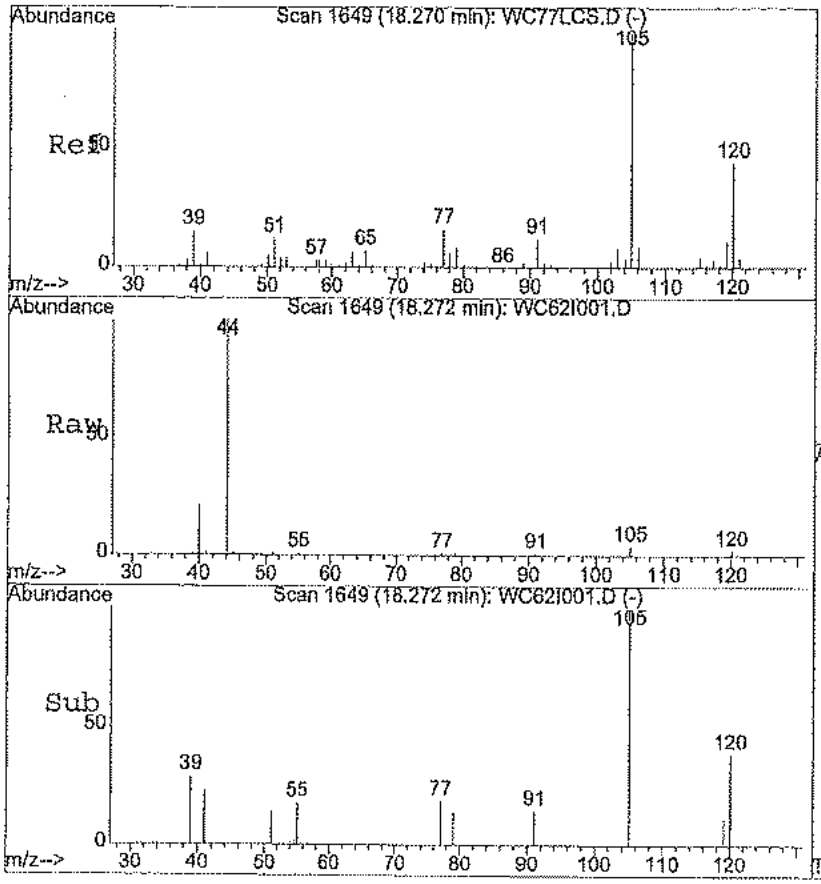


#58
1,3,5-trimethylbenzene
Concen: 0.18 ppb
RT: 17.77 min Scan# 1598
Delta R.T. 0.01 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:105.05 Resp: 5208

Ion	Ratio	Lower	Upper
105	100		
120	38.9	30.4	45.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

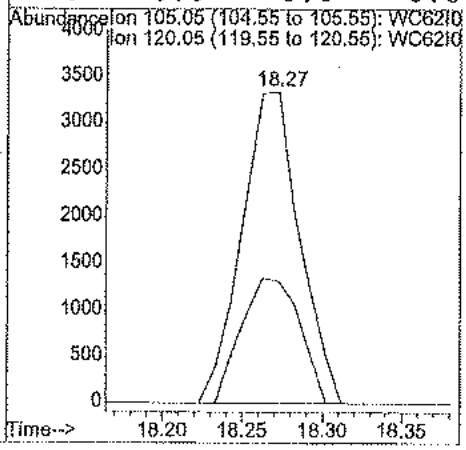




#59
1,2,4-trimethylbenzene
Concen: 0.33 ppb
RT: 18.27 min Scan# 1649
Delta R.T. 0.03 min
Lab File: WC62I001.D
Acq: 02/23/2015 17:24

Tgt Ion:105.05 Resp: 8360

Ion	Ratio	Lower	Upper
105	100		
120	40.6	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

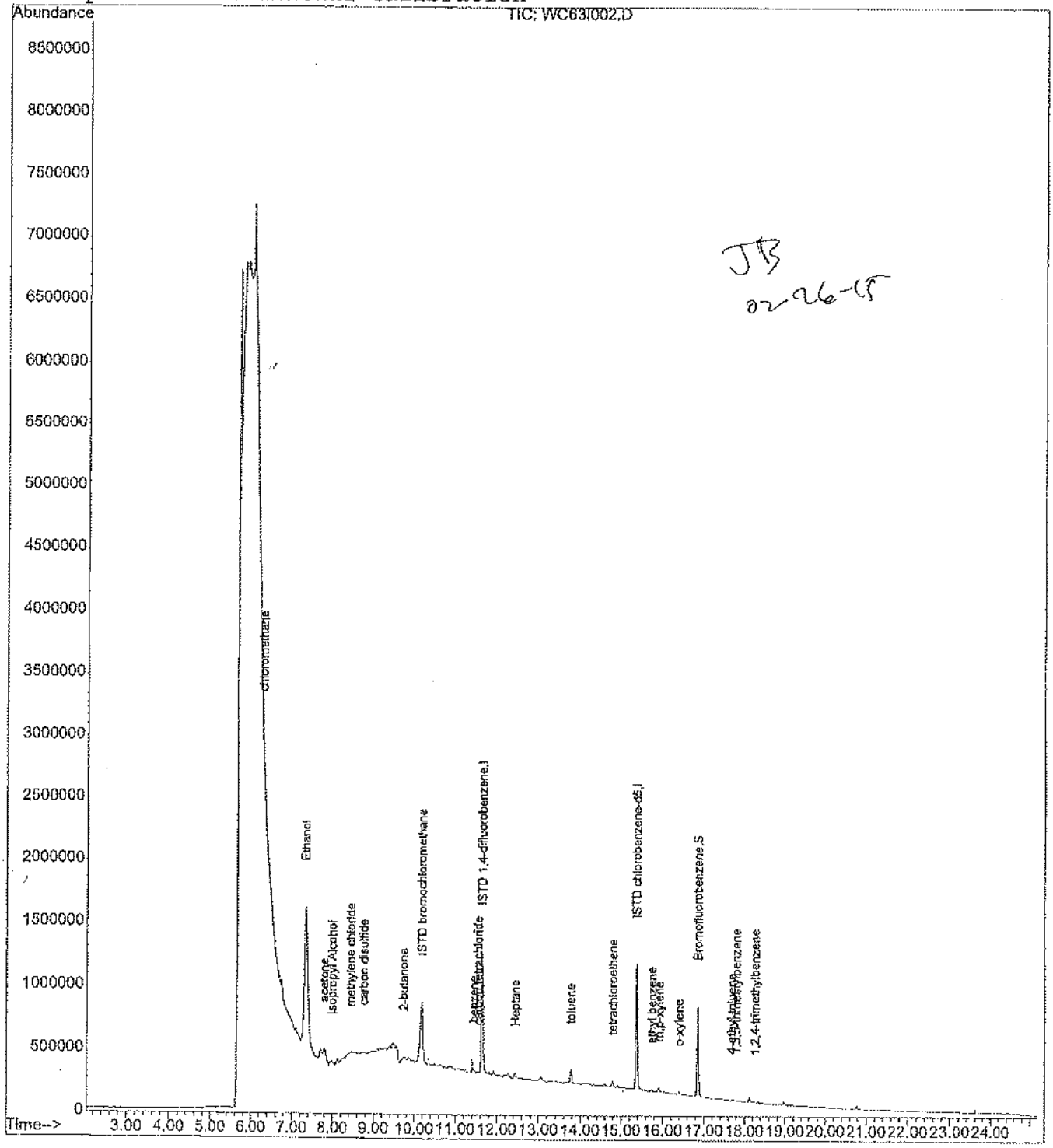


Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC63I002.D
Acq Time : 02/23/2015 18:00 Operator: LMR
Sample : ~~1505733002~~ 1505133602 Inst : 5972-W
Misc : 0149TO-002 Multiplr: 1.00

Quant Time: Feb 25 14:57 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Initial Calibration



JB 02-26-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC63I002.D
Acq Time : 02/23/2015 18:00 Operator: LMR
Sample : 1505733002 Inst : 5972-W
Misc : 0149TO-002 Multiplr: 1.00

Quant Time: Feb 25 14:57 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.18	128	169285	20.0000 ppb	77.08
28) ISTD 1,4-difluorobenzene	11.64	114	894031	20.0000 ppb	74.49
42) ISTD chlorobenzene-d5	15.37	117	669985	20.0000 ppb	81.96
System Monitoring Compounds					%Recovery
55) Bromofluorobenzene	16.85	95	361150	19.1290 ppb	95.65%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	6.29	50	8495	0.3316 ppb	100
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	7.34	45	4209082	664.6820 ppb	100
10) Isopropyl Alcohol	7.99	45	104852	3.2328 ppb	100
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.80	43	510527	9.3393 ppb	99
15) carbon disulfide	8.76	76	12203	0.2083 ppb #	69
16) methylene chloride	8.43	49	17482	0.4923 ppb m	74
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	9.73	43	39337	0.6181 ppb	97
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	11.55	117	7262	0.2323 ppb	100
31) benzene	11.43	78	25963	0.4924 ppb	96
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC63I002.D
Acq Time : 02/23/2015 18:00 Operator: LMR
Sample : 1505733002 Inst : 5972-W
Misc : 0149TO-002 Multiplr: 1.00

Quant Time: Feb 25 14:57 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	12.44	71	8608	0.4293 ppb		77
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	0.00	43		Not Detected		
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	0.00	97		Not Detected		
43)	toluene	13.77	91	82806	1.6385 ppb		98
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	14.79	164	12260	0.8560 ppb		99
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	15.75	106	3387	0.2636 ppb		100
50)	m,p-xylene	15.91	106	15883	0.9669 ppb		73
51)	o-xylene	16.39	106	4956	0.3390 ppb		94
52)	styrene	0.00	104		Not Detected		
53)	bromoform	0.00	173		Not Detected		
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		Not Detected		
57)	4-ethyl toluene	17.69	105	5191	0.1647 ppb	#	82
58)	1,3,5-trimethylbenzene	17.78	105	4638	0.1576 ppb		96
59)	1,2,4-trimethylbenzene	18.27	105	7437	0.2888 ppb		93
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	0.00	146		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

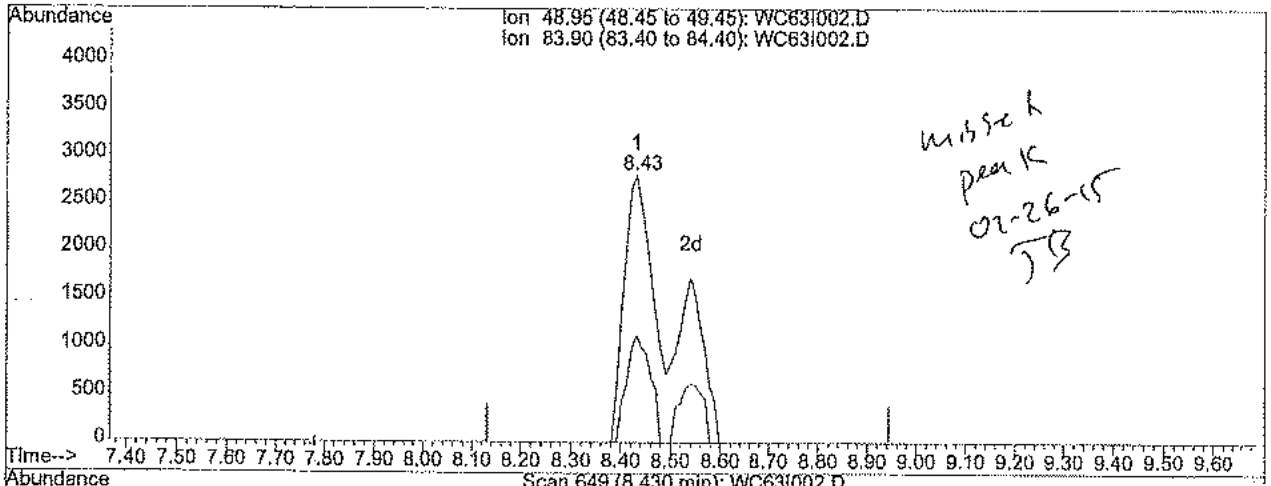
(#) = qualifier out of range (m) = manual integration

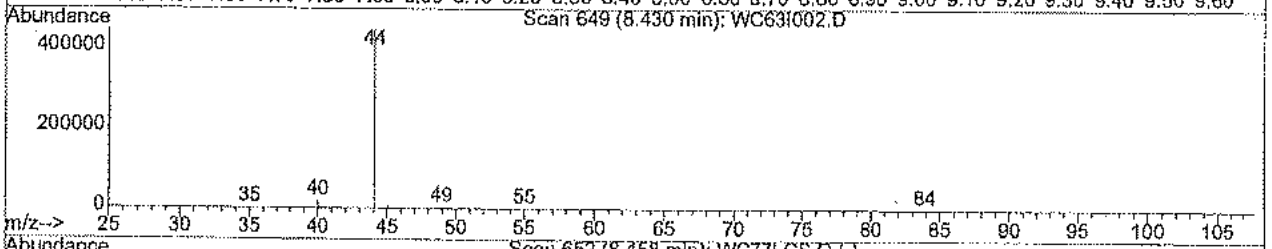
Quantitation Report (Qedit)

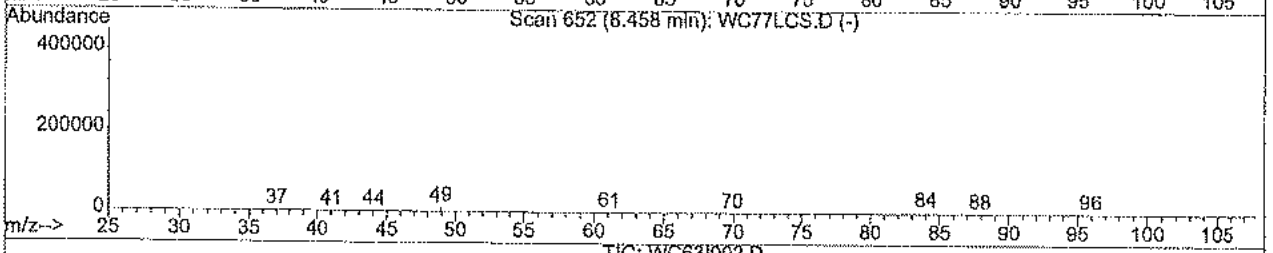
Data File : J:\W\2015\FEB15W\23FEB15W\WC63I002.D
Acq Time : 02/23/2015 18:00 Operator: LMR
Sample : 1505733002 Inst : 5972-W
Misc : 0149TO-002 Multiplr: 1.00

Quant Time: Feb 25 14:33 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Multiple Level Calibration







TIC: WC63I002.D

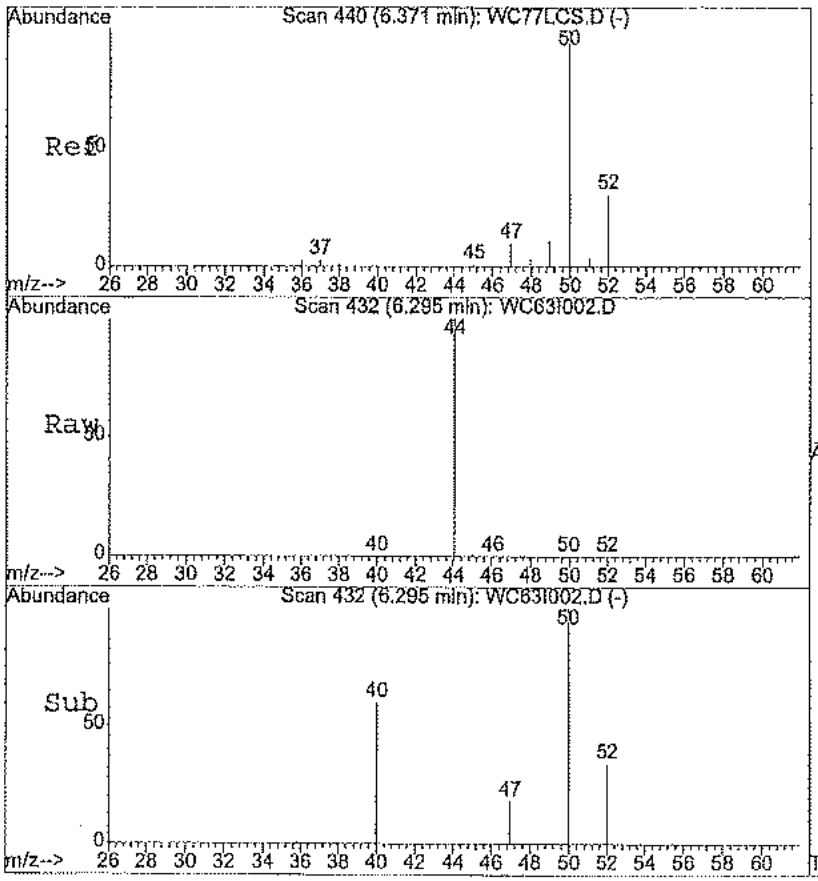
(16) methylene chloride

8.43min 0.49ppb m

response 17482

Ion	Exp%	Act%
48.95	100	100
83.90	52.00	21.20#
0.00	0.00	0.00
0.00	0.00	0.00

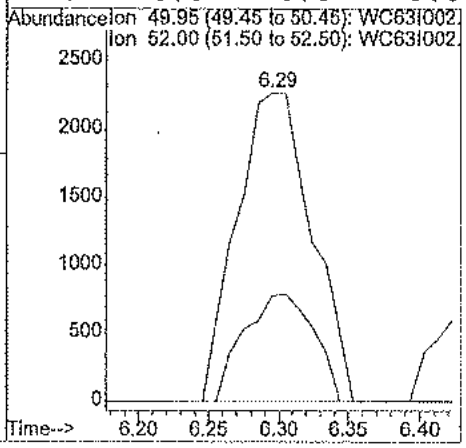
Misset peak 02-26-15 JB

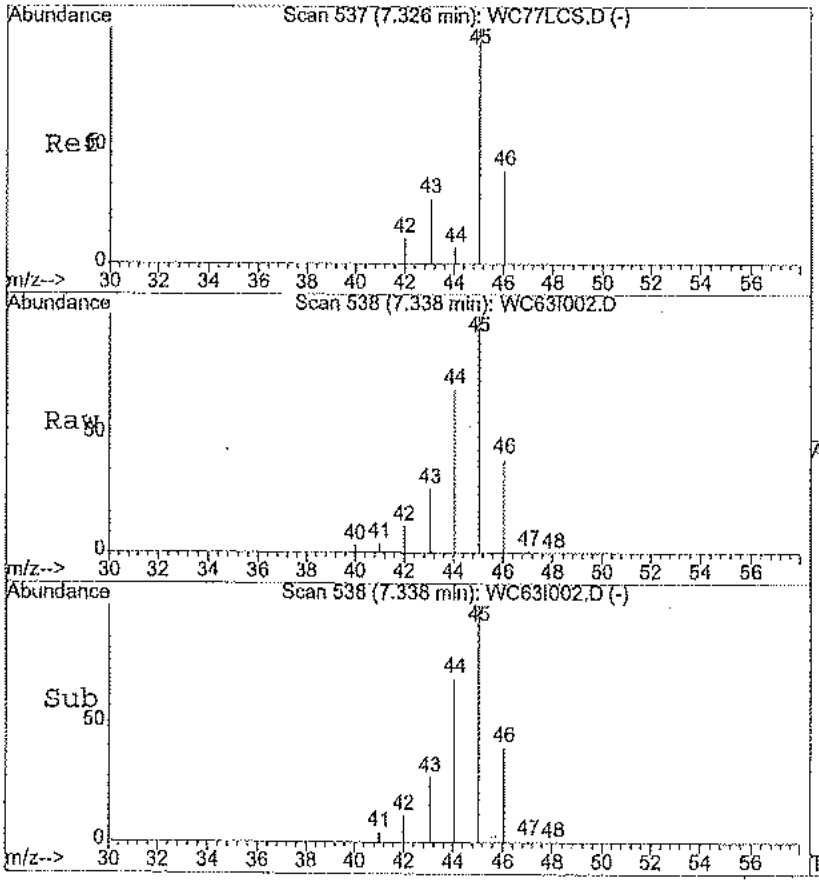


#3
chloromethane
Concen: 0.33 ppb
RT: 6.29 min Scan# 432
Delta R.T. -0.05 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:49.95 Resp: 8495

Ion	Ratio	Lower	Upper
50	100		
52	32.1	25.7	38.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

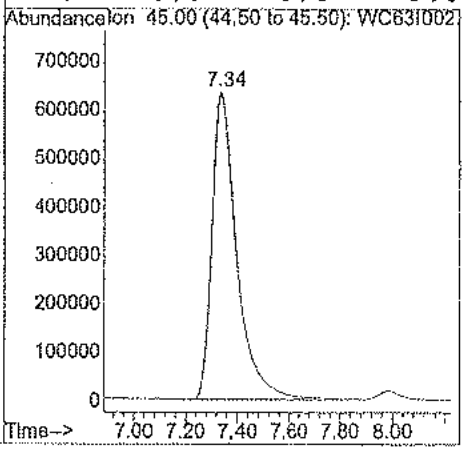


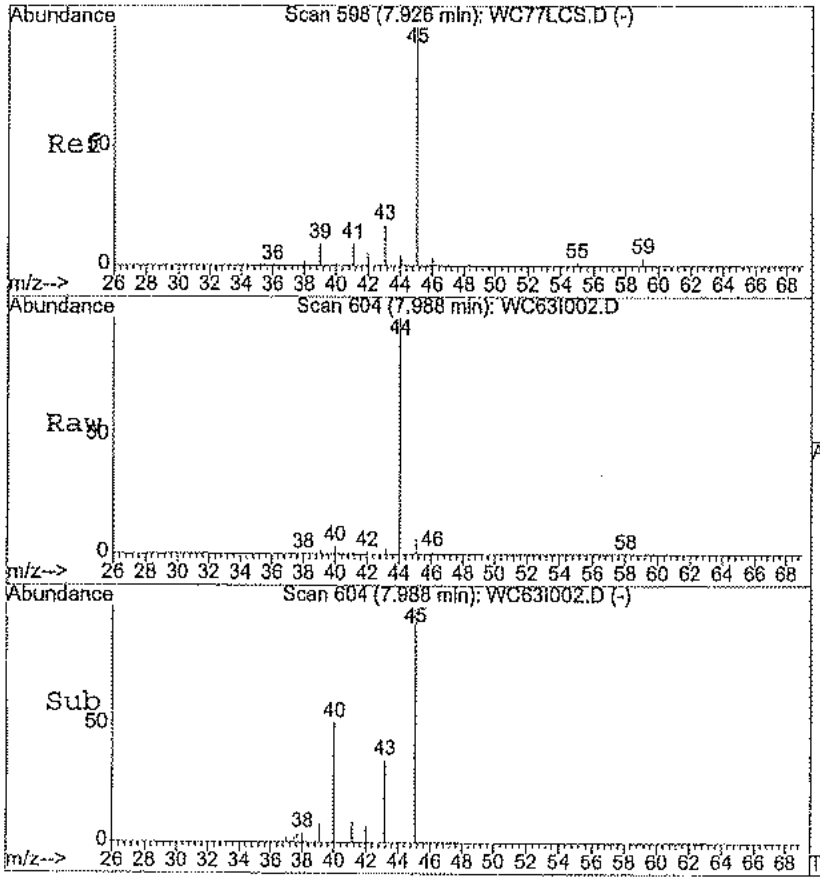


#9
Ethanol
Concen: 664.68 ppb
RT: 7.34 min Scan# 538
Delta R.T. 0.04 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:45 Resp: 4209082

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

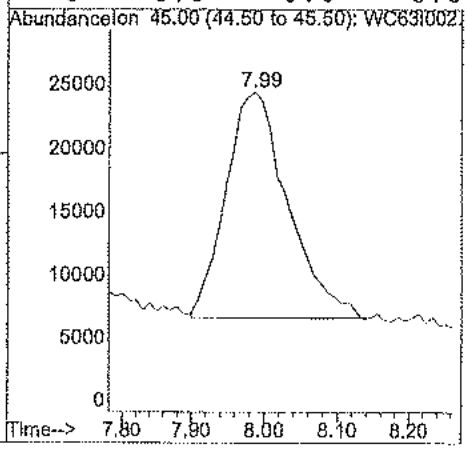


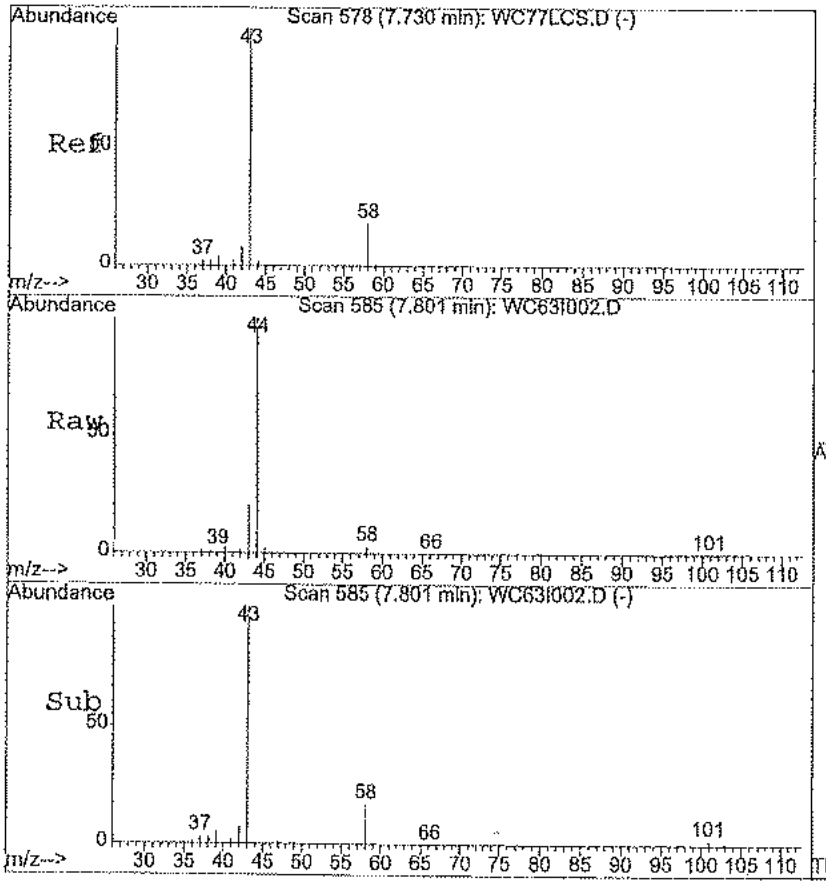


#10
Isopropyl Alcohol
Concen: 3.23 ppb
RT: 7.99 min Scan# 604
Delta R.T. 0.08 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:45 Resp: 104852

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

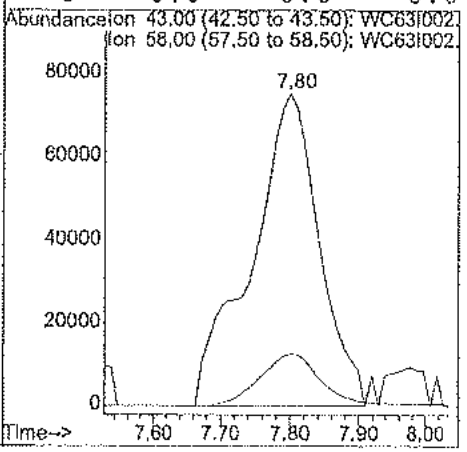


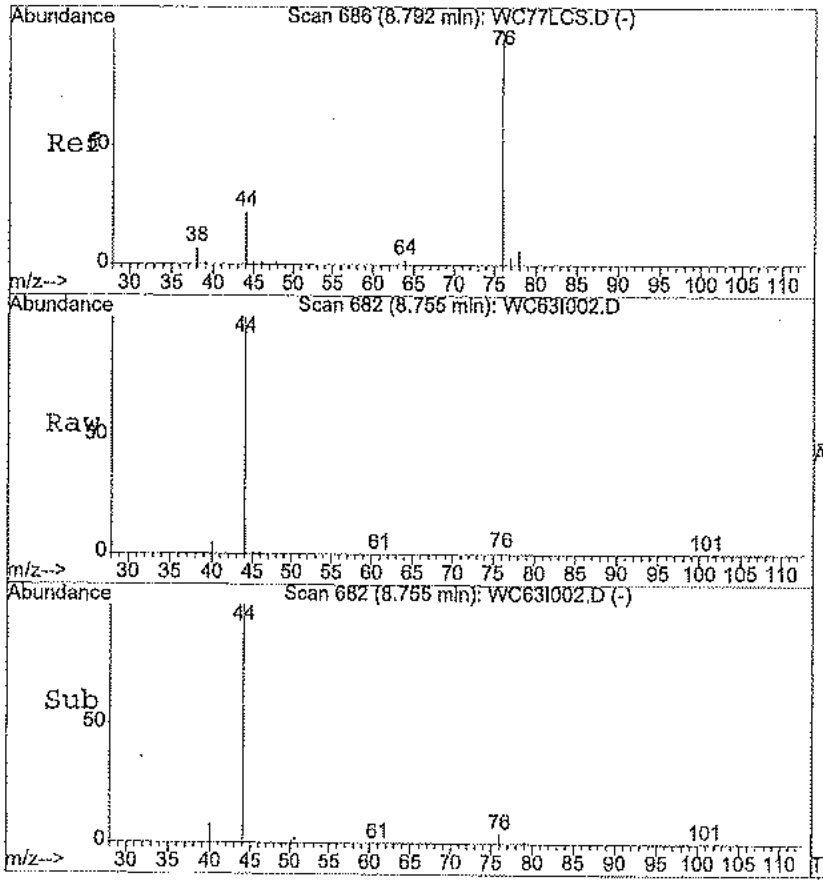


#14
acetone
Concen: 9.34 ppb
RT: 7.80 min Scan# 585
Delta R.T. 0.10 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:43 Resp: 510527

Ion	Ratio	Lower	Upper
43	100		
58	15.2	12.5	18.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

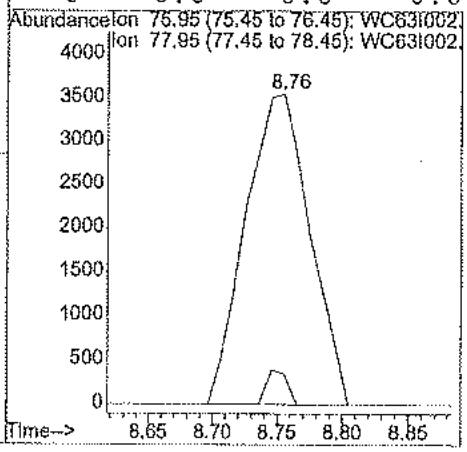


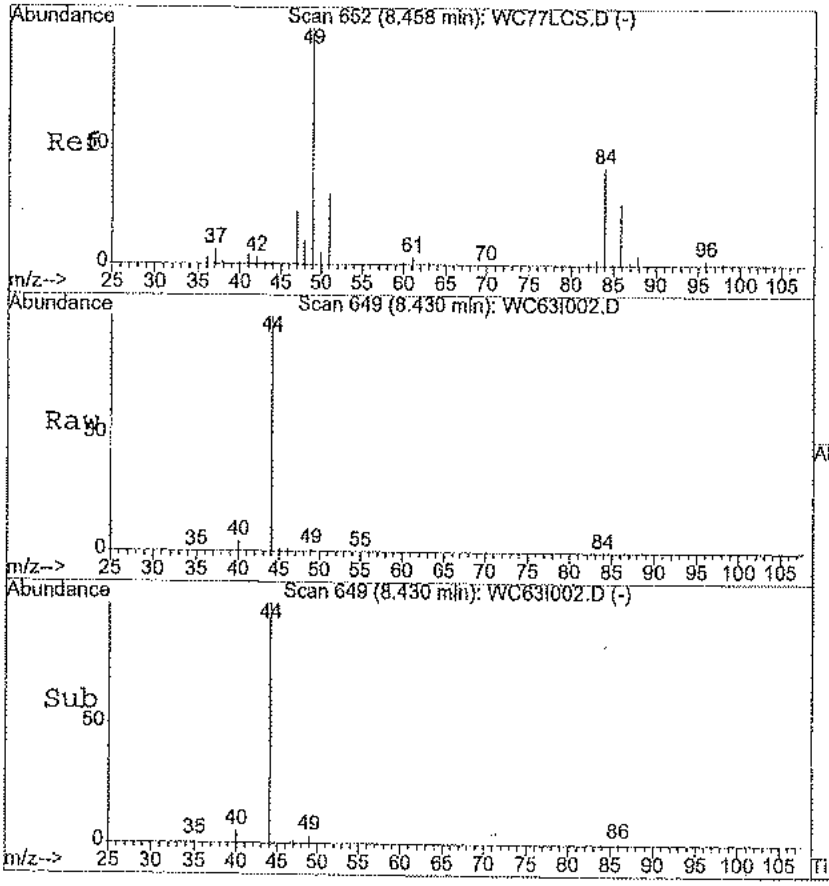


#15
carbon disulfide
Concen: 0.21 ppb
RT: 8.76 min Scan# 682
Delta R.T. -0.00 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:75.95 Resp: 12203

Ion	Ratio	Lower	Upper
76	100		
78	0.0	9.4	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

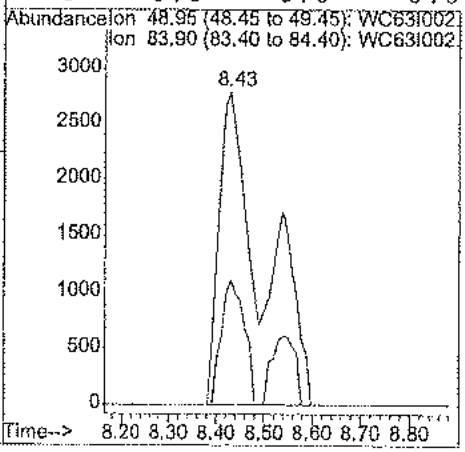


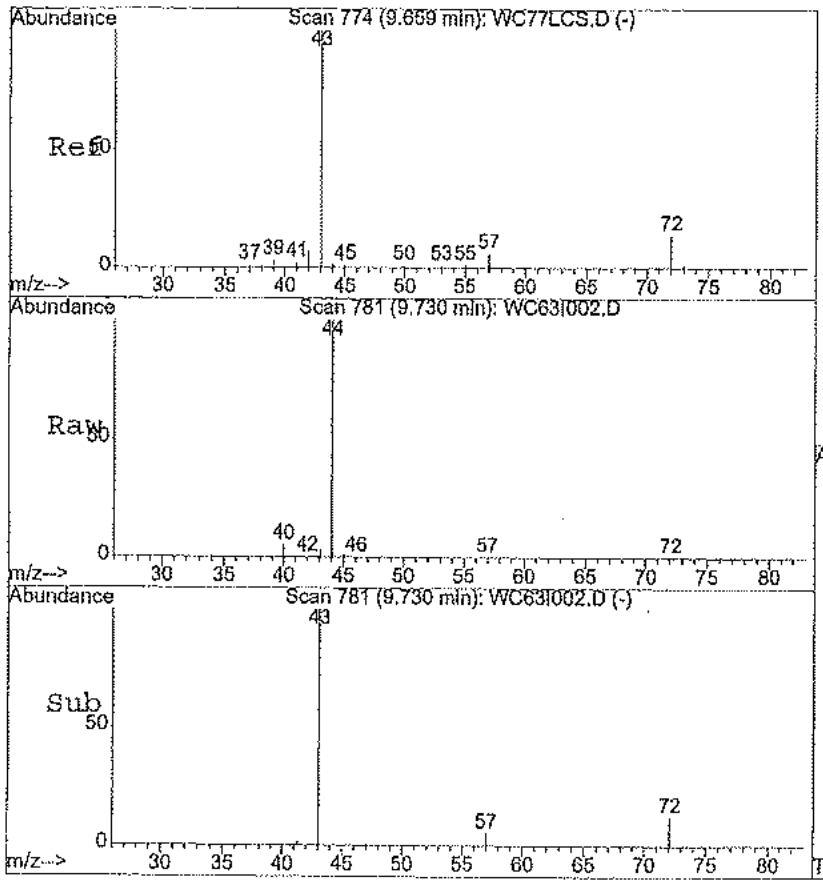


#16
methylene chloride
Concen: 0.49 ppb m
RT: 8.43 min Scan# 649
Delta R.T. 0.01 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:48.95 Resp: 17482

Ion	Ratio	Lower	Upper
49	100		
84	21.2	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

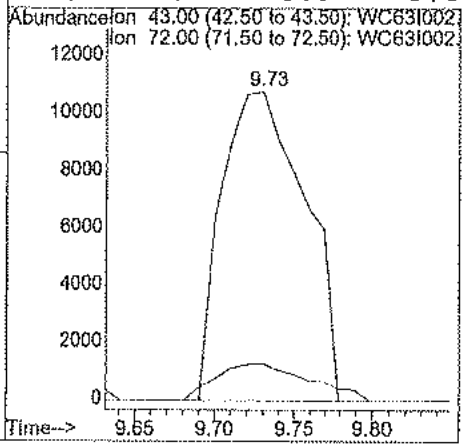


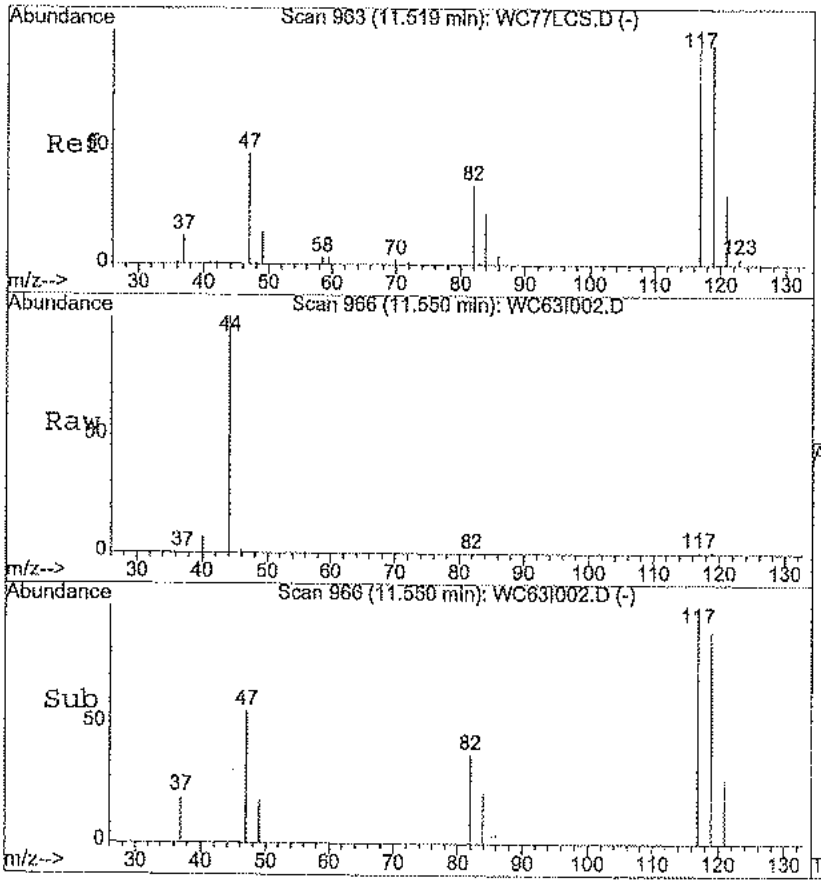


#20
2-butanone
Concen: 0.62 ppb
RT: 9.73 min Scan# 781
Delta R.T. 0.09 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:43 Resp: 39337

Ion	Ratio	Lower	Upper
43	100		
72	13.5	11.8	17.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

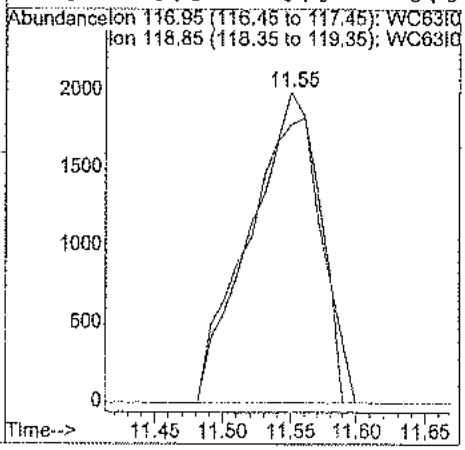


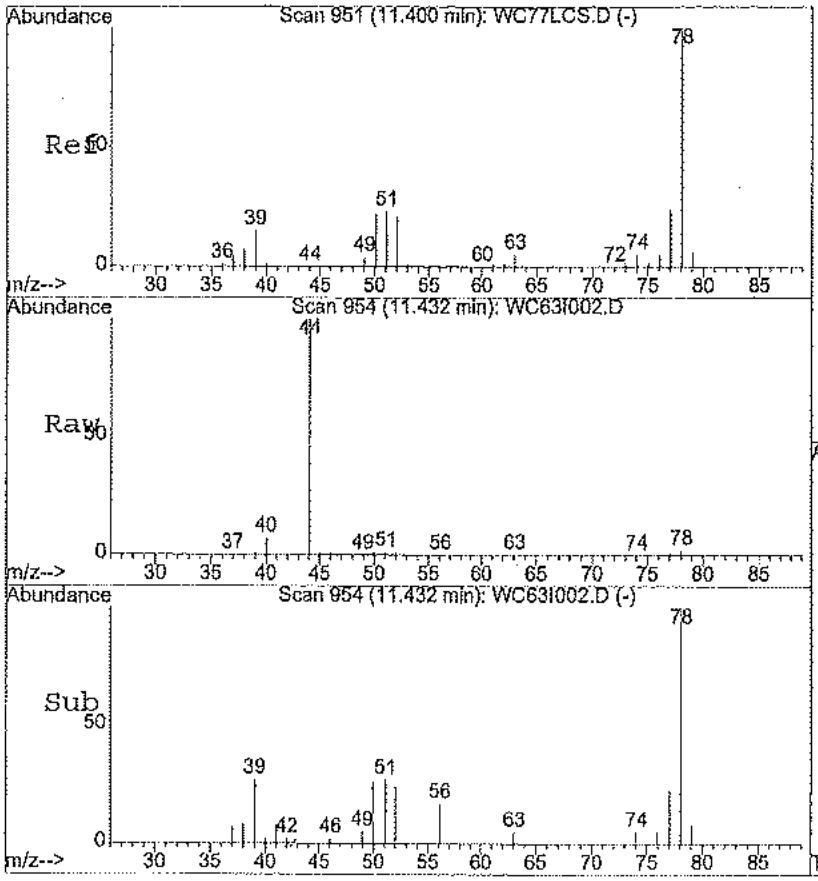


#30
carbon tetrachloride
Concen: 0.23 ppb
RT: 11.55 min Scan# 966
Delta R.T. 0.06 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:116.95 Resp: 7262

Ion	Ratio	Lower	Upper
117	100		
119	97.4	77.5	116.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

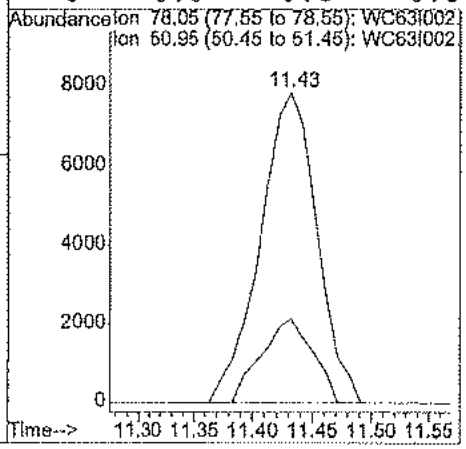


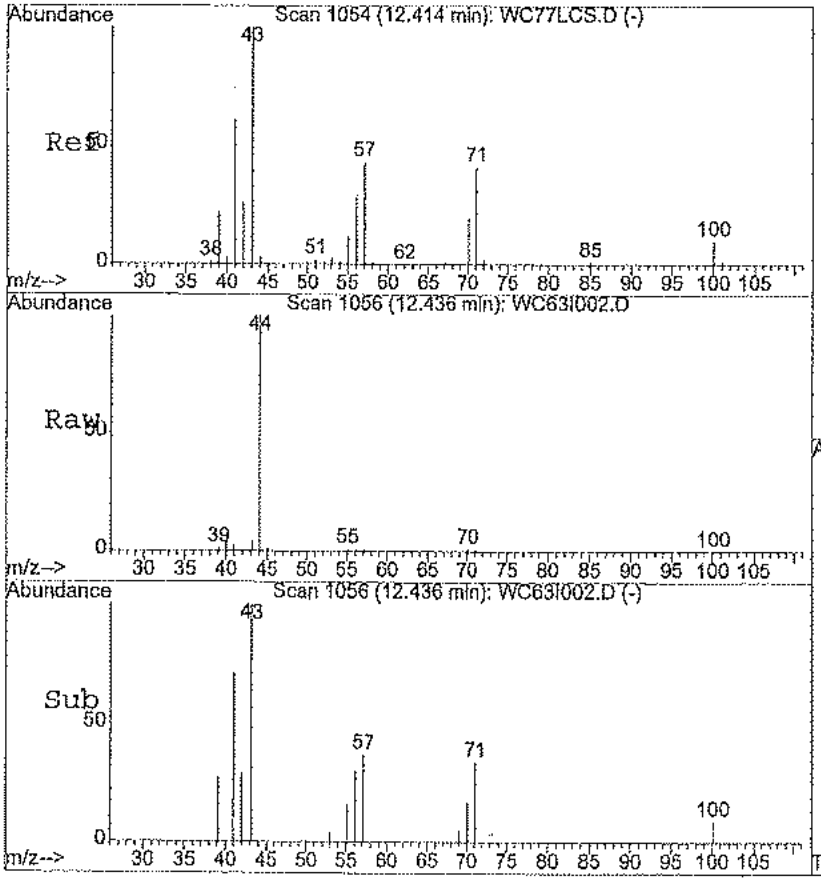


#31
benzene
Concen: 0.49 ppb
RT: 11.43 min Scan# 954
Delta R.T. 0.06 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:78.05 Resp: 25963

Ion	Ratio	Lower	Upper
78	100		
51	24.7	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

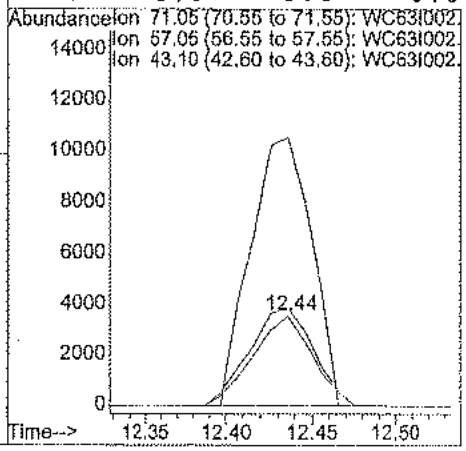


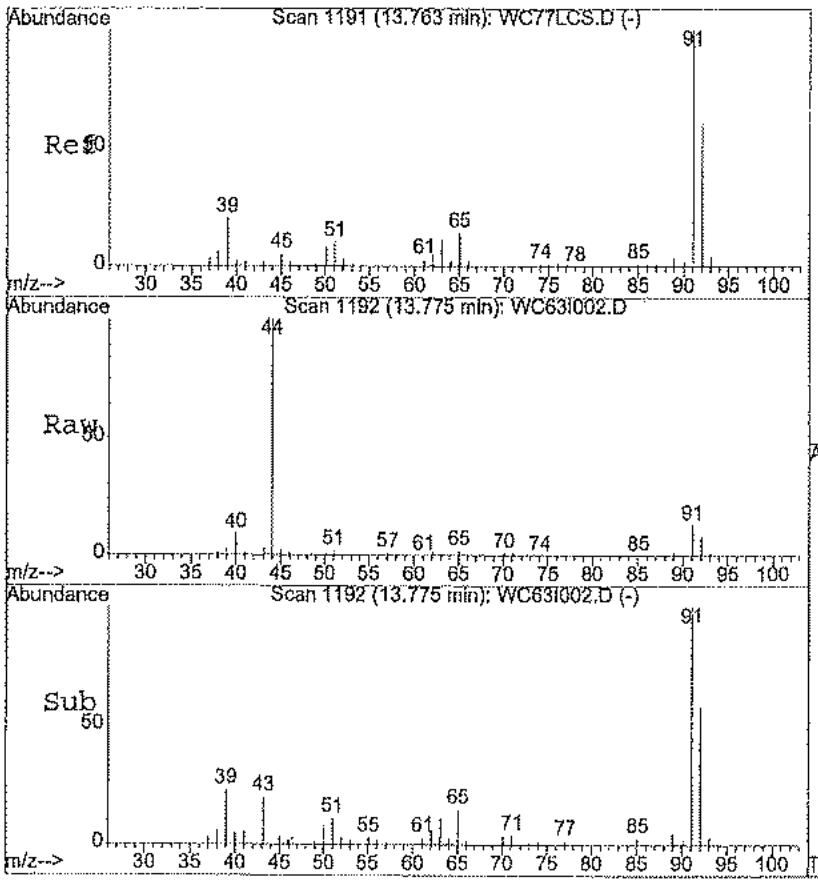


#37
Heptane
Concen: 0.43 ppb
RT: 12.44 min Scan# 1056
Delta R.T. 0.05 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:71.05 Resp: 8608

Ion	Ratio	Lower	Upper
71	100		
57	117.9	86.3	129.5
43	303.7	203.4	305.0
0	0.0	0.0	0.0

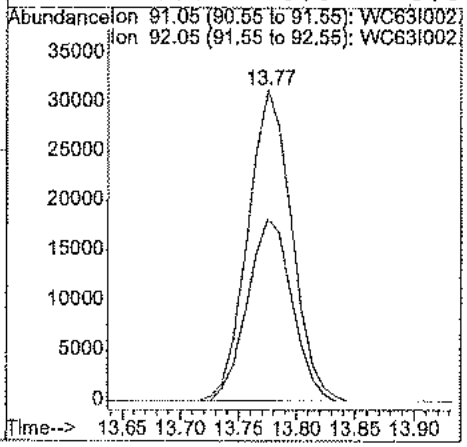


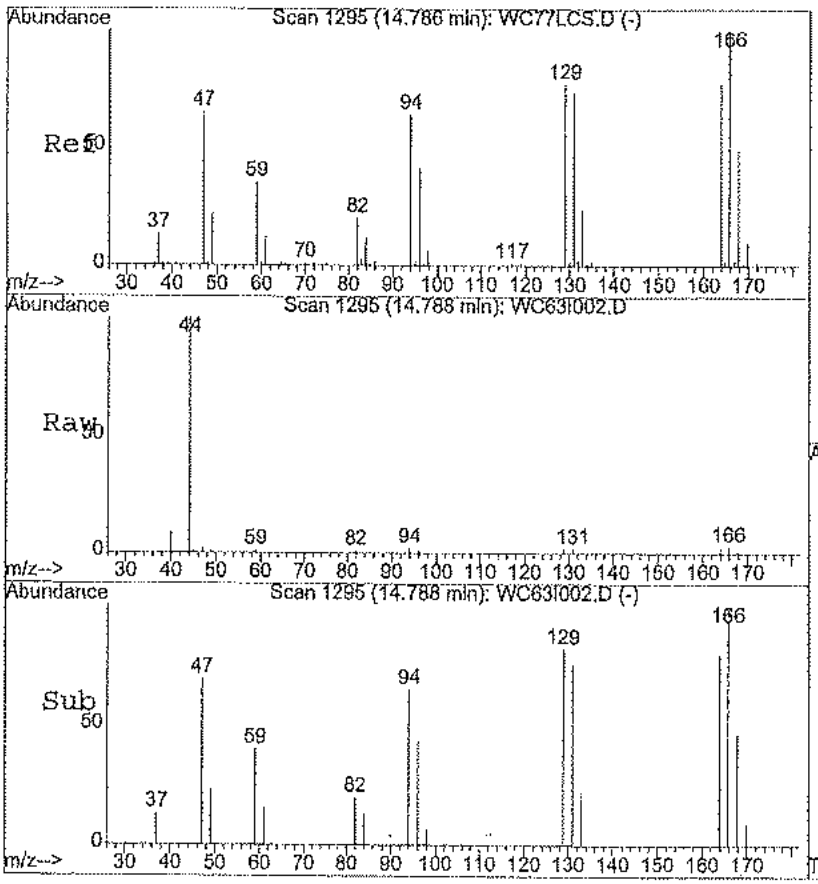


#43
toluene
Concen: 1.64 ppb
RT: 13.77 min Scan# 1192
Delta R.T. 0.03 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:91.05 Resp: 82806

Ion	Ratio	Lower	Upper
91	100		
92	59.3	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

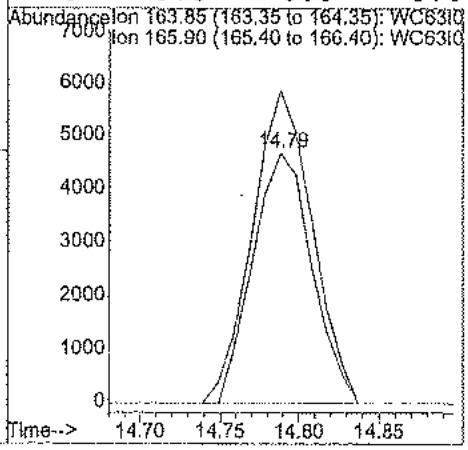


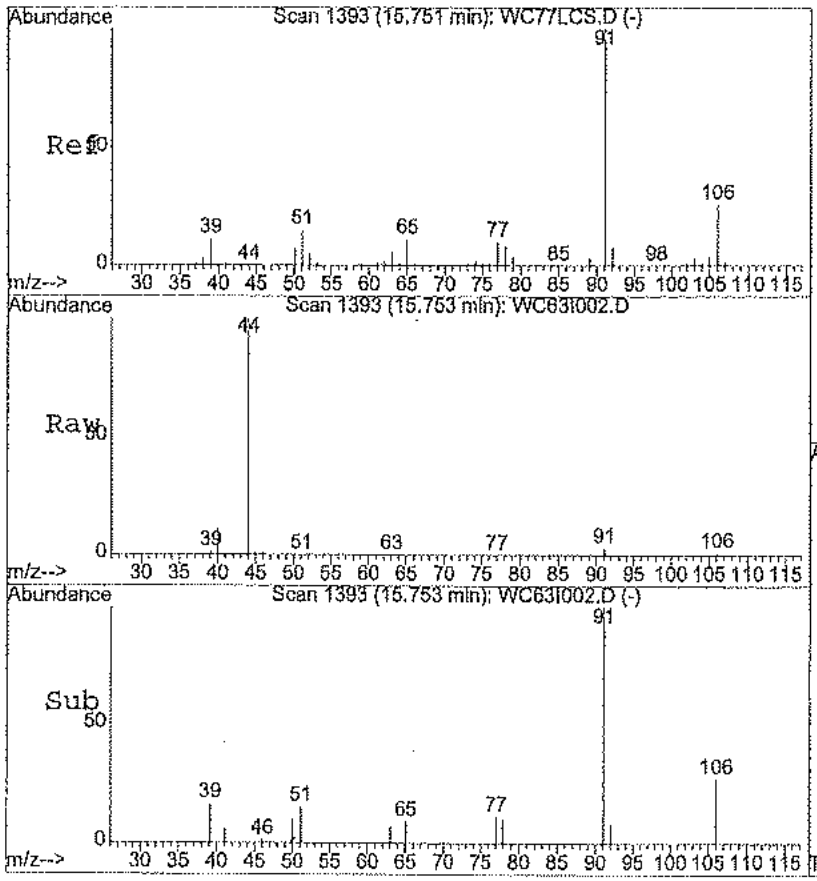


#45
tetrachloroethene
Concen: 0.86 ppb
RT: 14.79 min Scan# 1295
Delta R.T. 0.02 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:163.85 Resp: 12260

Ion	Ratio	Lower	Upper
164	100		
166	126.8	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

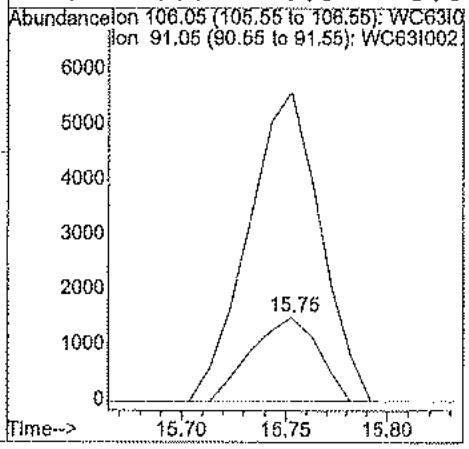


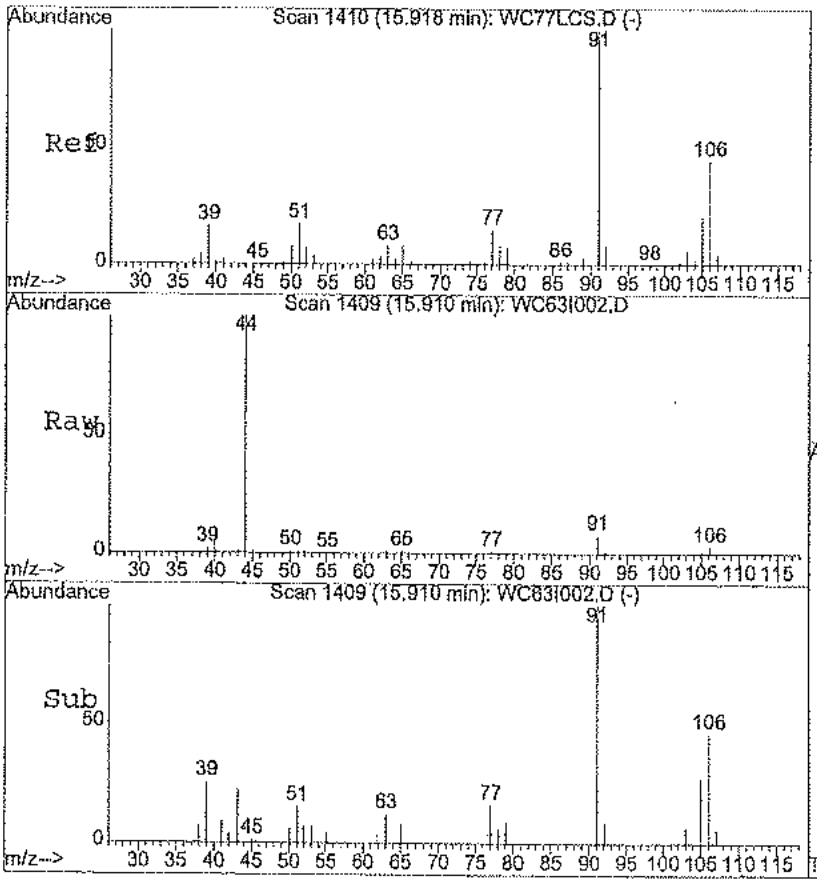


#49
ethyl benzene
Concen: 0.26 ppb
RT: 15.75 min Scan# 1393
Delta R.T. 0.02 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:106.05 Resp: 3387

Ion	Ratio	Lower	Upper
106	100		
91	402.1	321.4	482.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

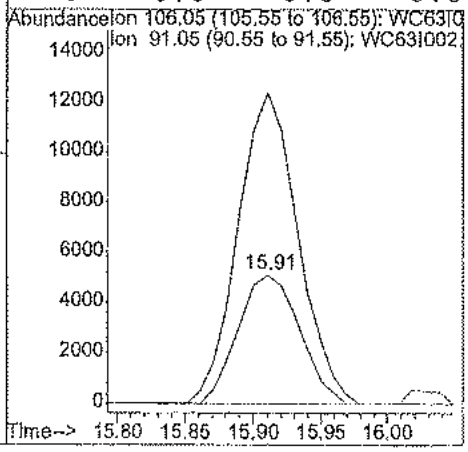


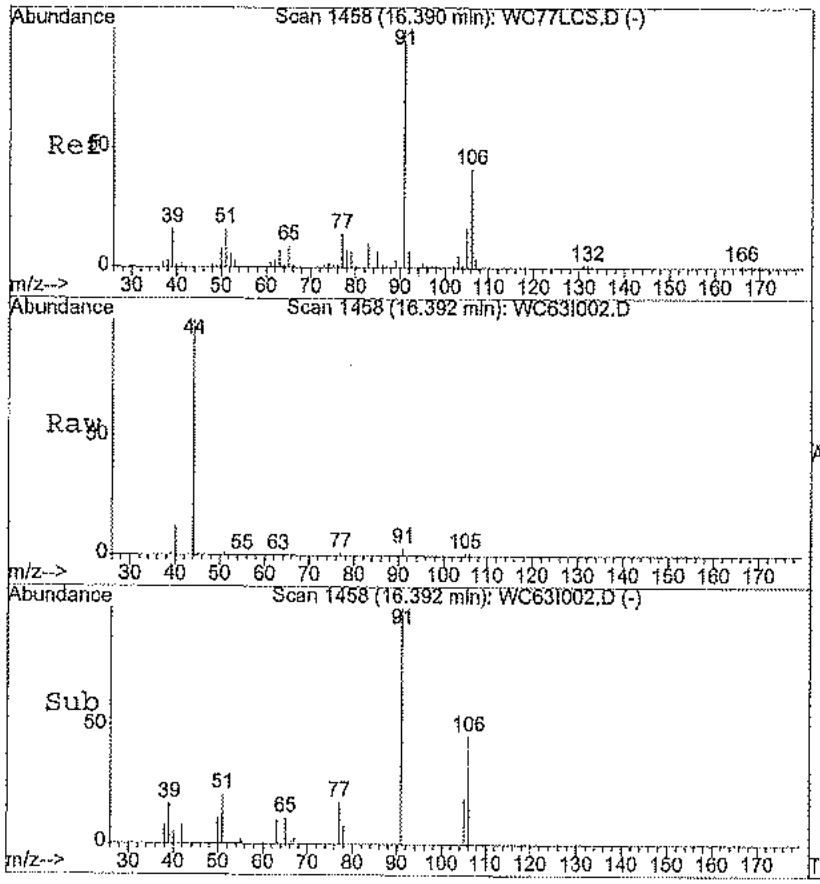


#50
m,p-xylene
Concen: 0.97 ppb
RT: 15.91 min Scan# 1409
Delta R.T. 0.01 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:106.05 Resp: 15883

Ion	Ratio	Lower	Upper
106	100		
91	237.3	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

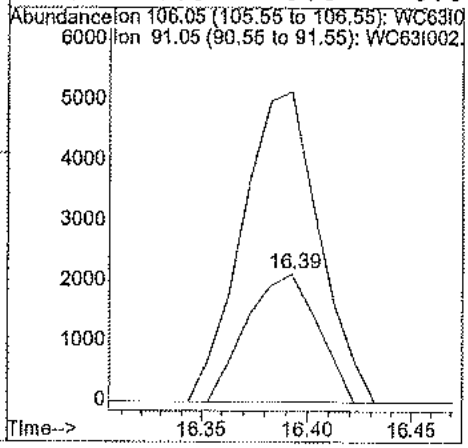


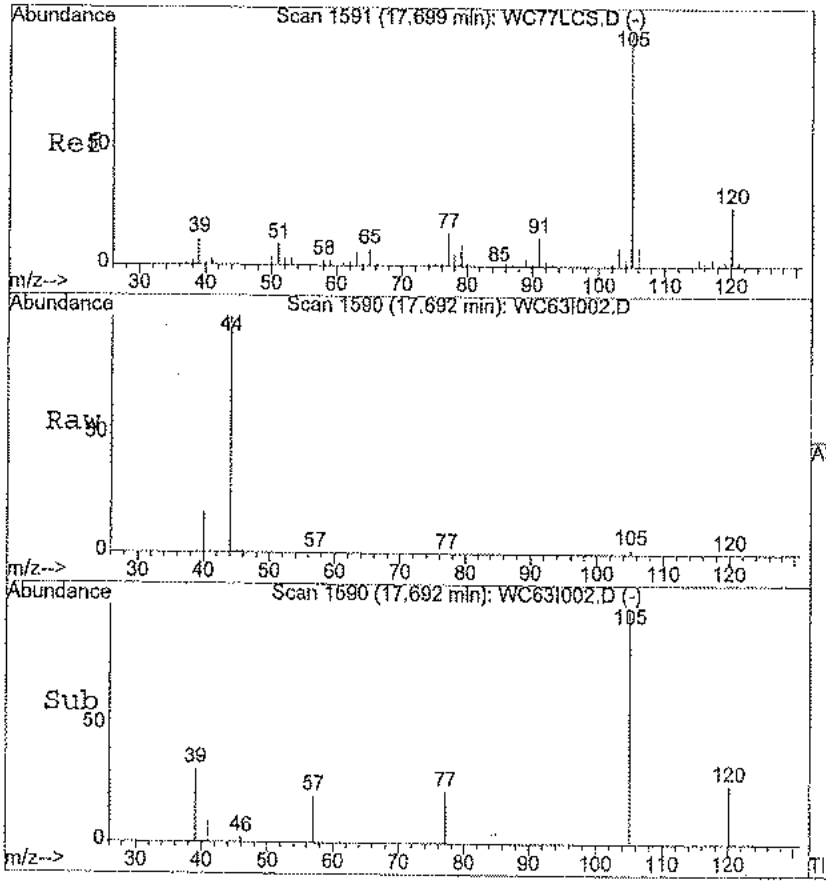


#51
o-xylene
Concen: 0.34 ppb
RT: 16.39 min Scan# 1458
Delta R.T. 0.02 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:106.05 Resp: 4956

Ion	Ratio	Lower	Upper
106	100		
91	261.8	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

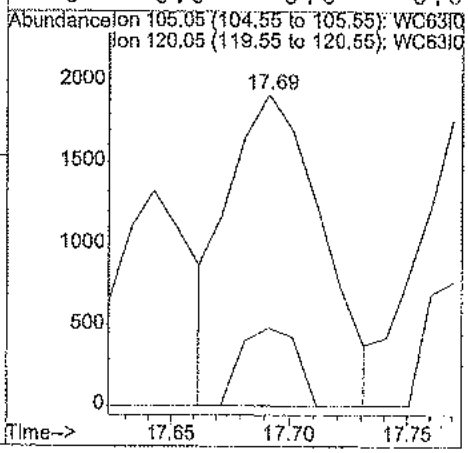


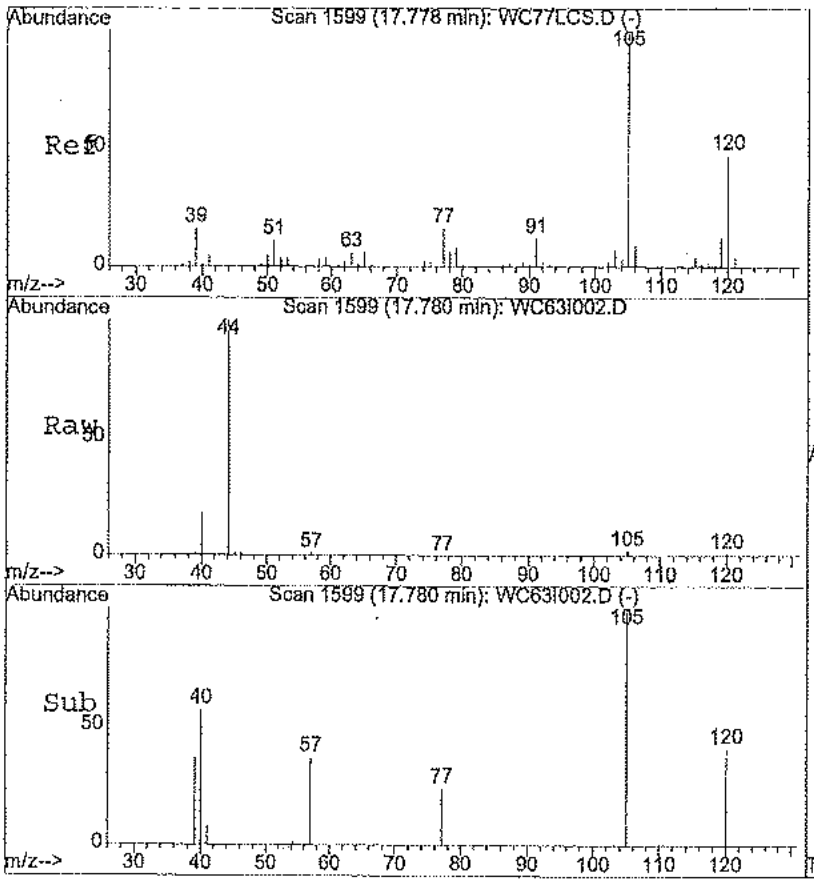


#57
4-ethyl toluene
Concen: 0.16 ppb
RT: 17.69 min Scan# 1590
Delta R.T. 0.02 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:105.05 Resp: 5191

Ion	Ratio	Lower	Upper
105	100		
120	14.9	19.0	28.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

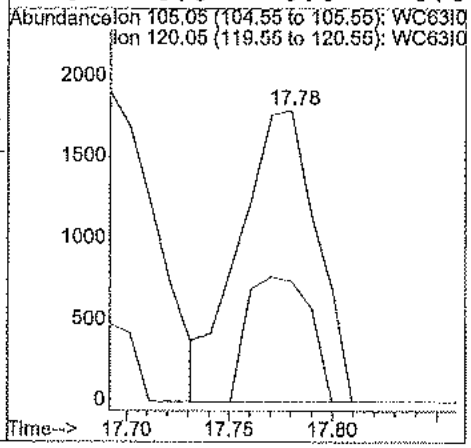


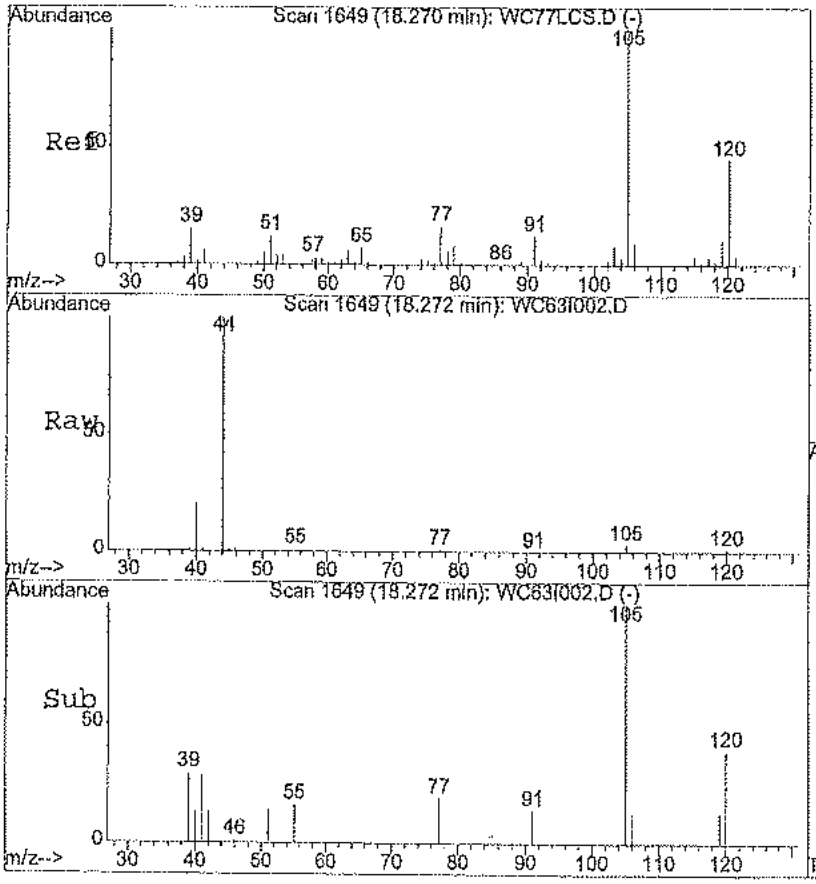


#58
1,3,5-trimethylbenzene
Concen: 0.16 ppb
RT: 17.78 min Scan# 1599
Delta R.T. 0.02 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:105.05 Resp: 4638

Ion	Ratio	Lower	Upper
105	100		
120	35.4	30.4	45.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

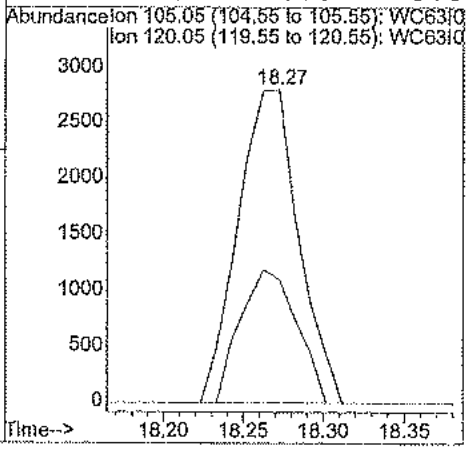




#59
1,2,4-trimethylbenzene
Concen: 0.29 ppb
RT: 18.27 min Scan# 1649
Delta R.T. 0.03 min
Lab File: WC63I002.D
Acq: 02/23/2015 18:00

Tgt Ion:105.05 Resp: 7437

Ion	Ratio	Lower	Upper
105	100		
120	39.6	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

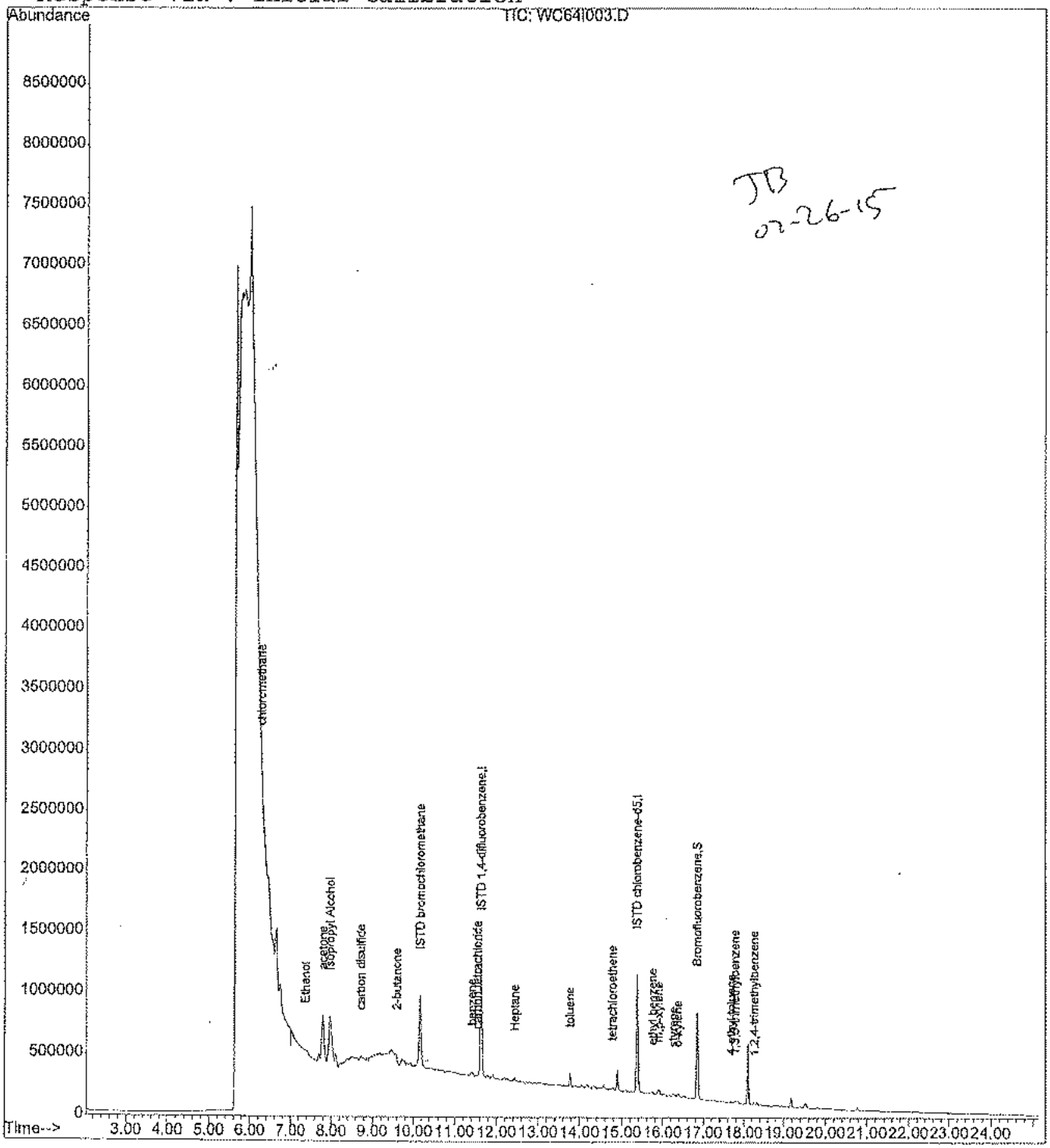


Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC64I003.D
Acq Time : 02/23/2015 18:36 Operator: LMR
Sample : ~~1505733003~~ 1505133003 Inst : 5972-W
Misc : 0592 TO-003 Multiplr: 1.00

Quant Time: Feb 25 14:59 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Initial Calibration



JB
02-26-15

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC64I003.D
Acq Time : 02/23/2015 18:36 Operator: LMR
Sample : 1505733003 Inst : 5972-W
Misc : 0592 TO-003 Multiplr: 1.00

Quant Time: Feb 25 14:59 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.18	128	171542	20.0000 ppb	78.10
28) ISTD 1,4-difluorobenzene	11.64	114	917367	20.0000 ppb	76.43
42) ISTD chlorobenzene-d5	15.37	117	656147	20.0000 ppb	80.27
System Monitoring Compounds					%Recovery
55) Bromofluorobenzene	16.84	95	356826	19.2986 ppb	96.49%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	6.29	50	10036	0.3866 ppb	91
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	7.38	45	79293	12.3569 ppb TIC	100
10) Isopropyl Alcohol	7.98	45	1404225	42.7251 ppb TIC	100
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.80	43	1280863	23.1231 ppb m JB 10-15	63
15) carbon disulfide	8.74	76	32604	0.5493 ppb #	92
16) methylene chloride	0.00	49		Not Detected	
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	9.61	43	20326	0.3152 ppb #	9
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	11.55	117	6977	0.2175 ppb m JB	98
31) benzene	11.42	78	24628	0.4552 ppb	98
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\FEB15W\23FEB15W\WC64I003.D
Acq Time : 02/23/2015 18:36 Operator: LMR
Sample : 1505733003 Inst : 5972-W
Misc : 0592 TO-003 Multiplr: 1.00

Quant Time: Feb 25 14:59 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Feb 24 06:51:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	12.44	71	6783	0.3297 ppb		83
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	0.00	43		Not Detected		
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	0.00	97		Not Detected		
43)	toluene	13.77	91	87839	1.7747 ppb		99
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	14.79	164	5173	0.3688 ppb		95
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	15.74	106	3824	0.3039 ppb		98
50)	m,p-xylene	15.91	106	17178	1.0678 ppb		74
51)	o-xylene	16.38	106	7741	0.5407 ppb		91
52)	styrene	16.27	104	9278	0.4575 ppb		84
53)	bromoform	0.00	173		Not Detected		
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		Not Detected		
57)	4-ethyl toluene	17.69	105	6492	0.2104 ppb	#	81
58)	1,3,5-trimethylbenzene	17.77	105	6393	0.2219 ppb		99
59)	1,2,4-trimethylbenzene	18.26	105	14162	0.5615 ppb		92
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	0.00	146		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

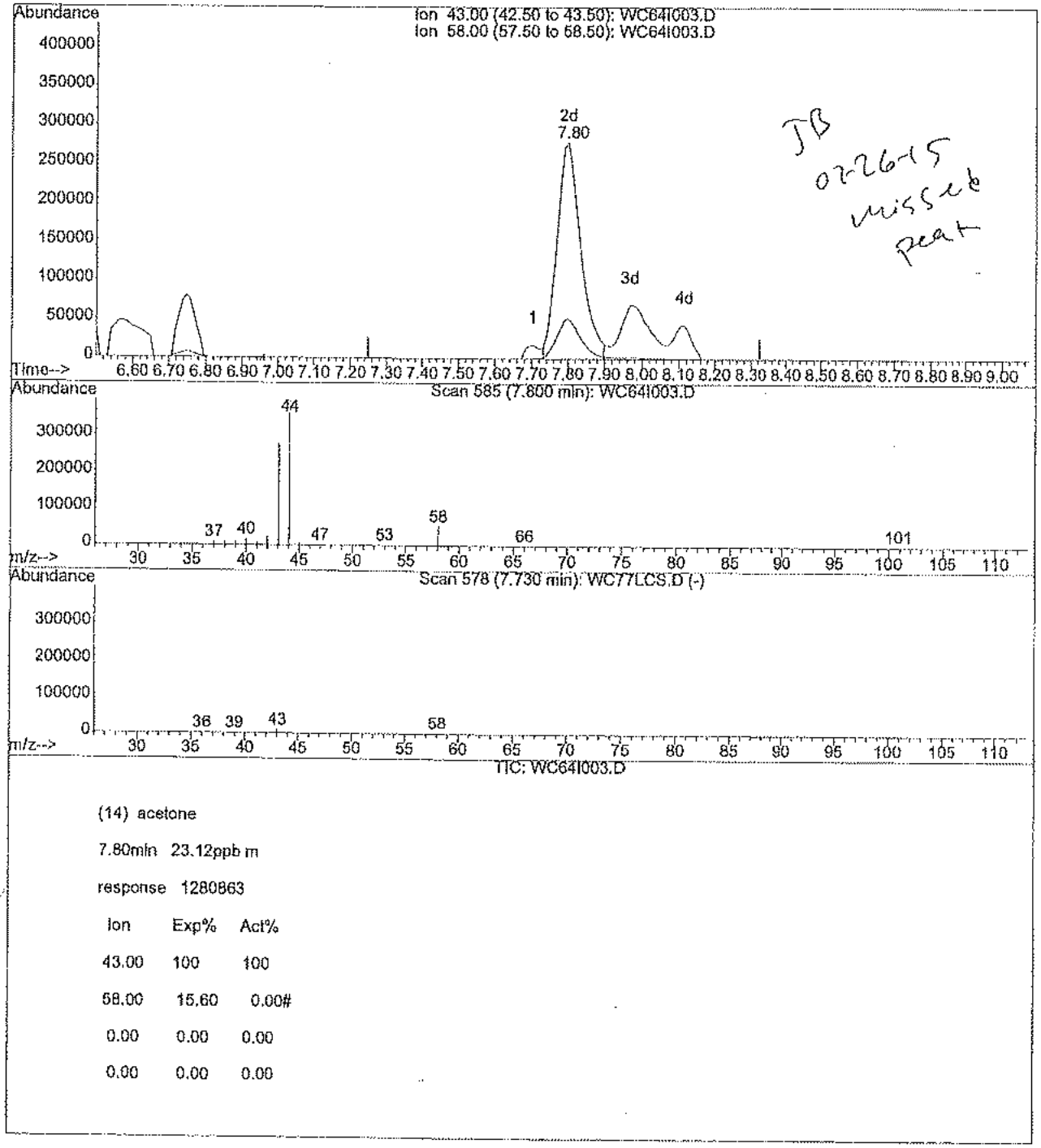
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\23FEB15W\WC64I003.D
Acq Time : 02/23/2015 18:36 Operator: LMR
Sample : 1505733003 Inst : 5972-W
Misc : 0592 TO-003 Multiplr: 1.00

Quant Time: Feb 25 14:45 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Multiple Level Calibration



(14) acetone

7.80min 23.12ppb m

response 1280863

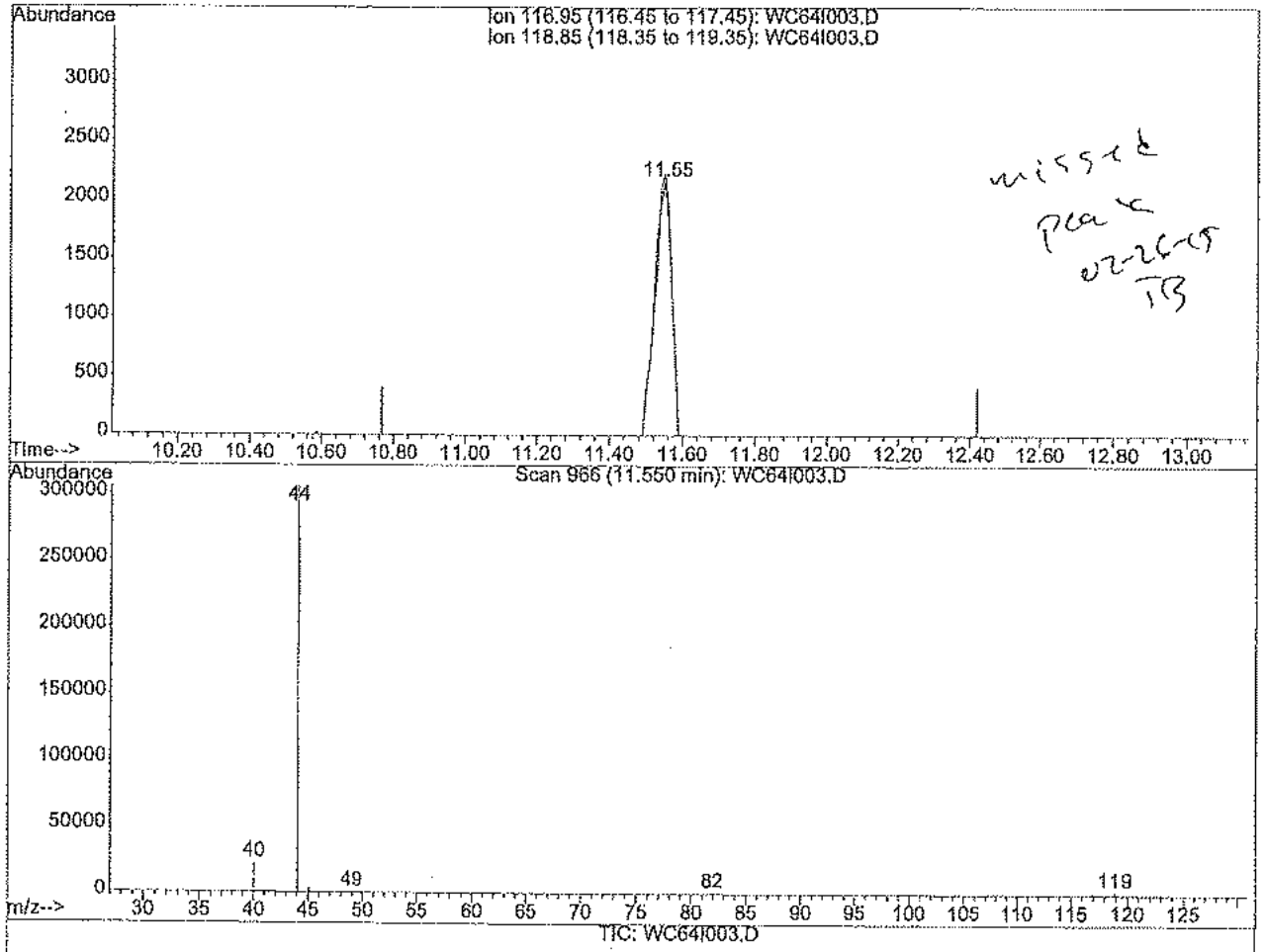
Ion	Exp%	Act%
43.00	100	100
58.00	15.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\FEB15W\23FEB15W\WC64I003.D
Acq Time : 02/23/2015 18:36 Operator: LMR
Sample : 1505733003 Inst : 5972-W
Misc : 0592 TO-003 Multiplr: 1.00

Quant Time: Feb 25 14:59 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Feb 25 14:02:16 2015
Response via : Multiple Level Calibration

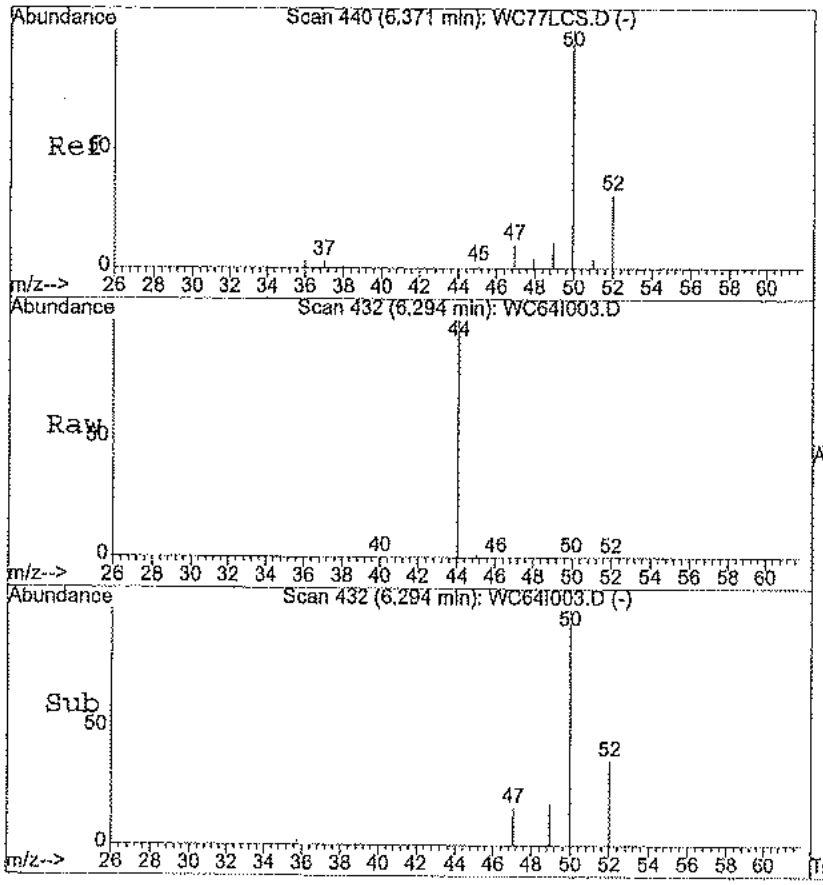


(30) carbon tetrachloride

11.55min 0.22ppb m

response 6977

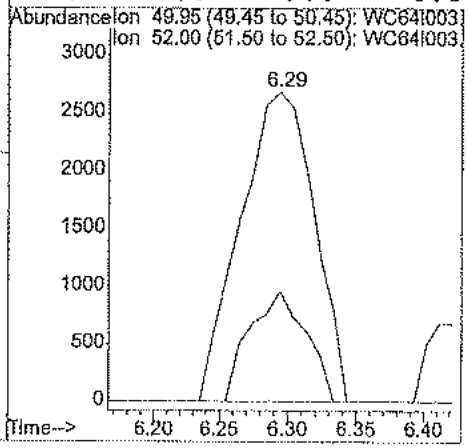
Ion	Exp%	Act%
116.95	100	100
118.85	96.90	98.47
0.00	0.00	0.00
0.00	0.00	0.00

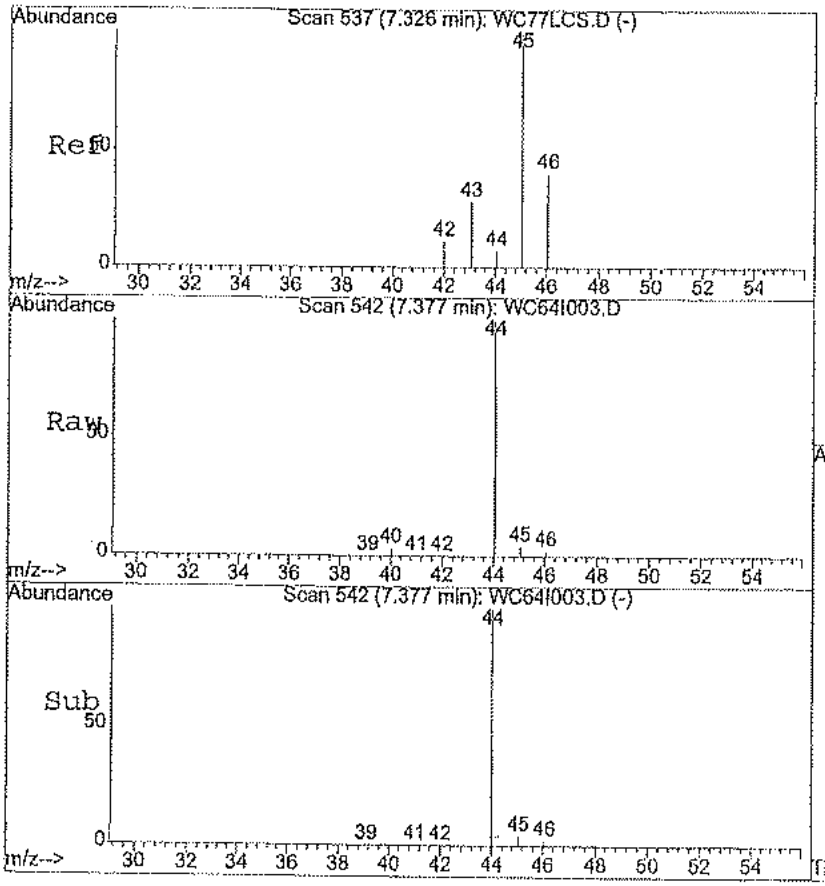


#3
chloromethane
Concen: 0.39 ppb
RT: 6.29 min Scan# 432
Delta R.T. -0.05 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:49.95 Resp: 10036

Ion	Ratio	Lower	Upper
50	100		
52	27.3	25.7	38.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

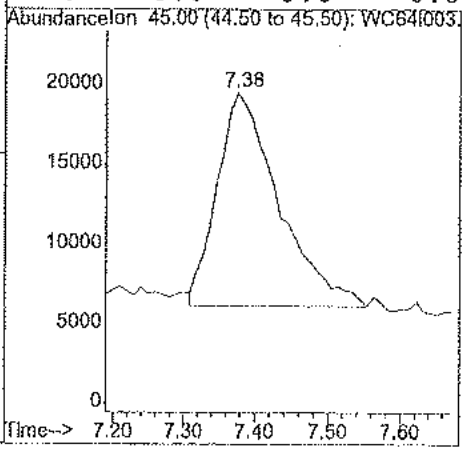


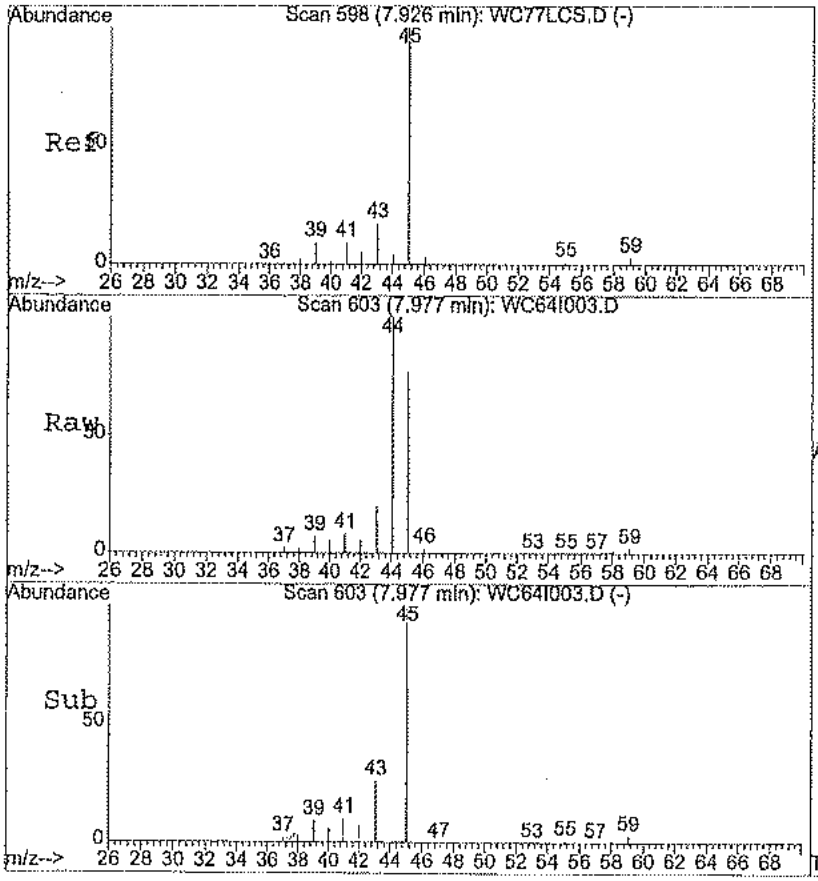


#9
Ethanol
Concen: 12.36 ppb
RT: 7.38 min Scan# 542
Delta R.T. 0.07 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:45 Resp: 79293

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

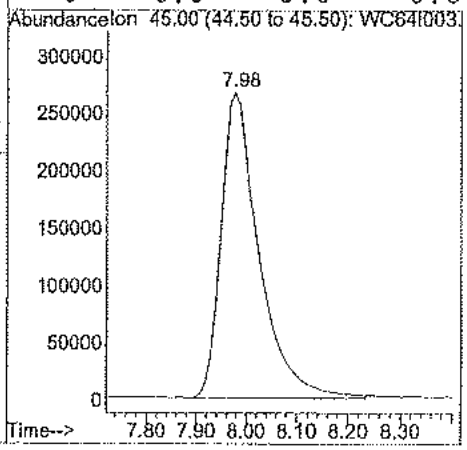


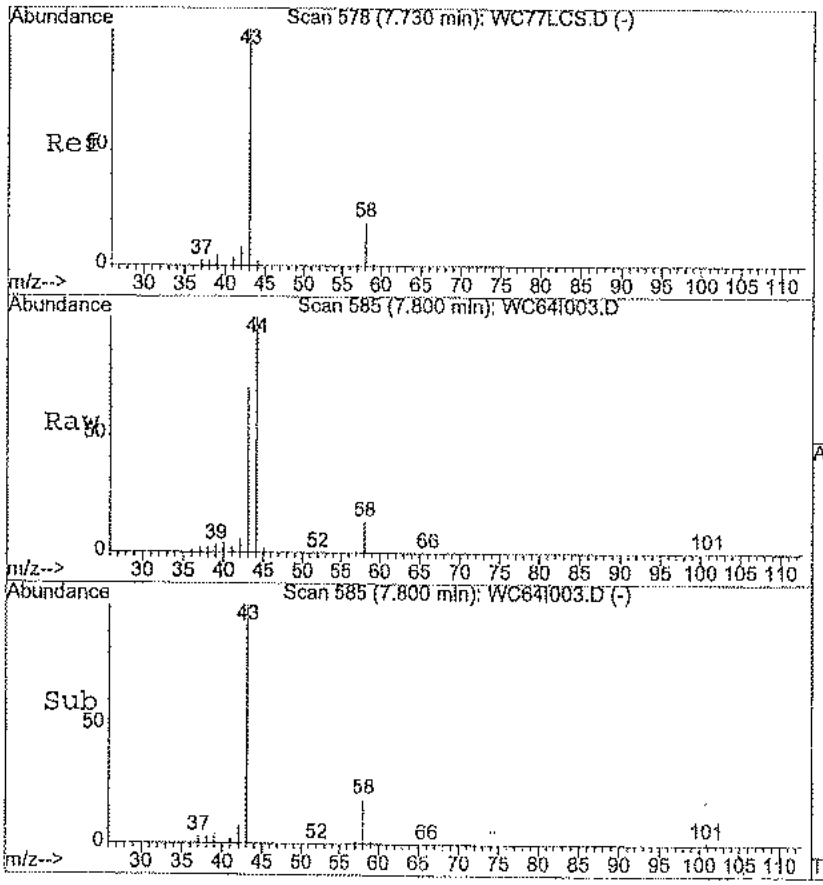


#10
Isopropyl Alcohol
Concen: 42.73 ppb
RT: 7.98 min Scan# 603
Delta R.T. 0.07 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:45 Resp: 1404225

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

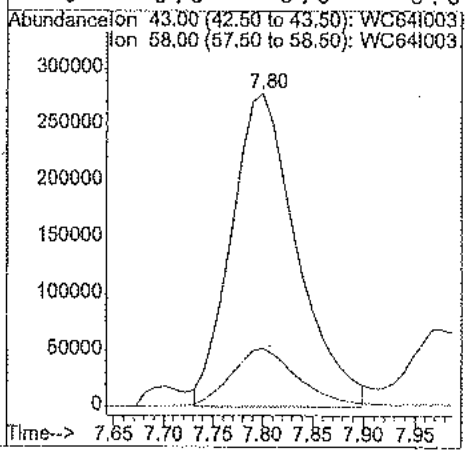


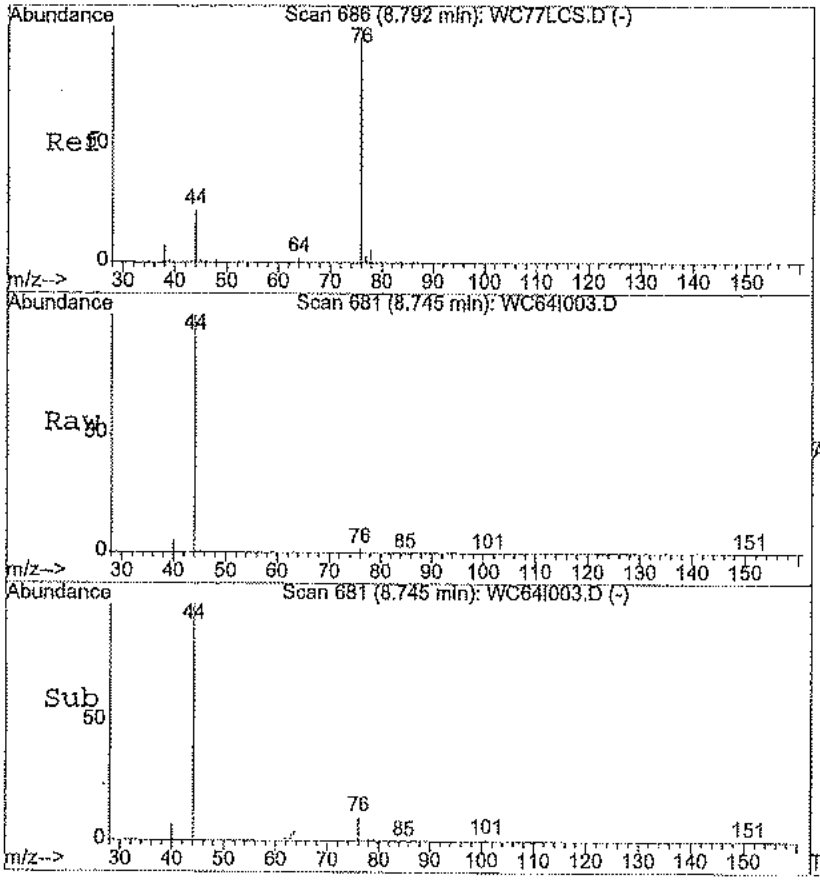


#14
acetone
Concen: 23.12 ppb m
RT: 7.80 min Scan# 585
Delta R.T. 0.10 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:43 Resp: 1280863

Ion	Ratio	Lower	Upper
43	100		
58	0.0	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

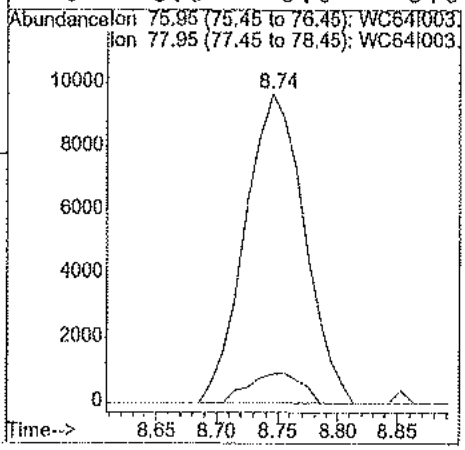


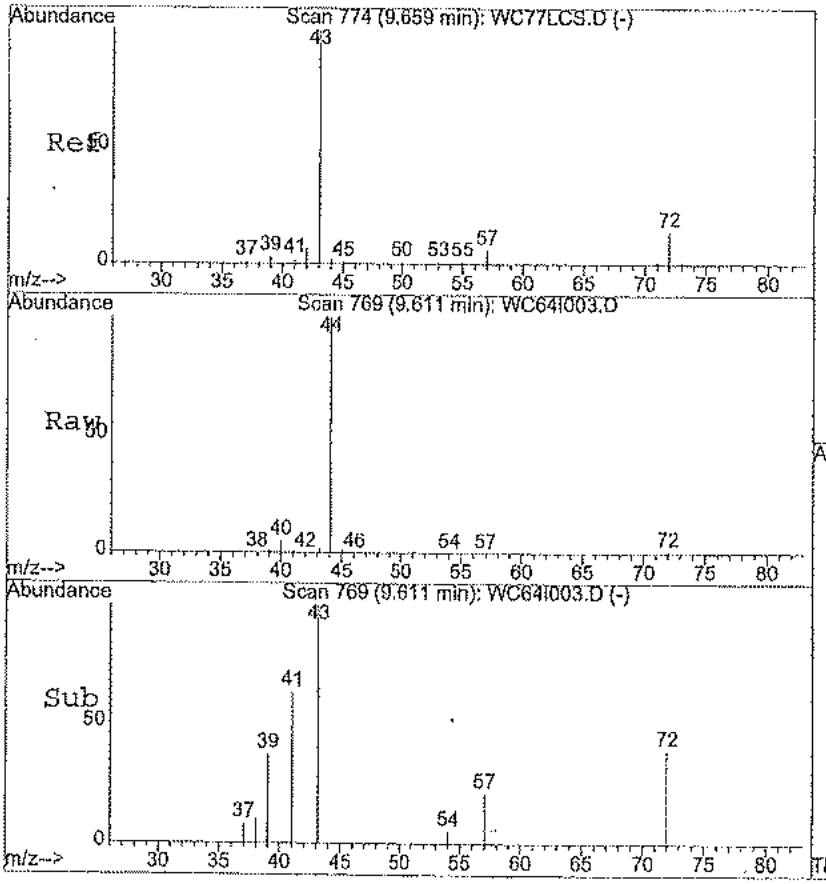


#15
carbon disulfide
Concen: 0.55 ppb
RT: 8.74 min Scan# 681
Delta R.T. -0.01 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:75.95 Resp: 32604

Ion	Ratio	Lower	Upper
76	100		
78	8.5	9.4	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

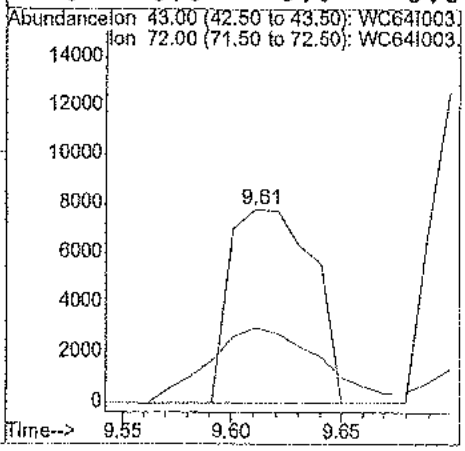


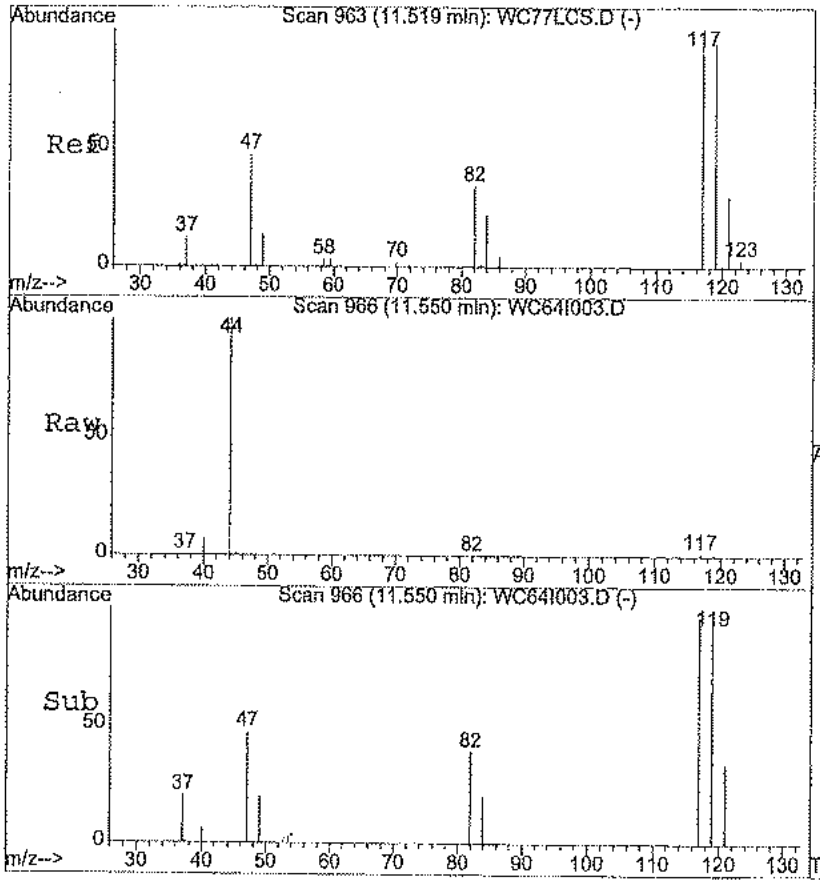


#20
2-butanone
Concen: 0.32 ppb
RT: 9.61 min Scan# 769
Delta R.T. -0.02 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:43 Resp: 20326

Ion	Ratio	Lower	Upper
43	100		
72	52.2	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

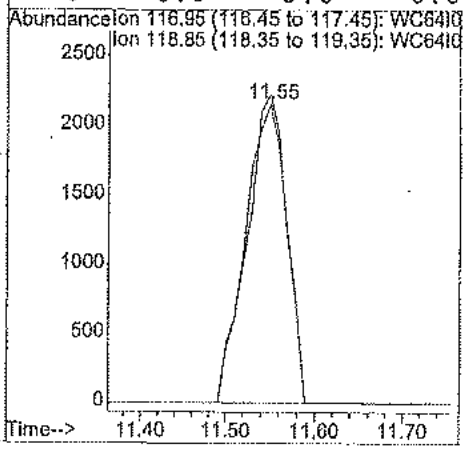


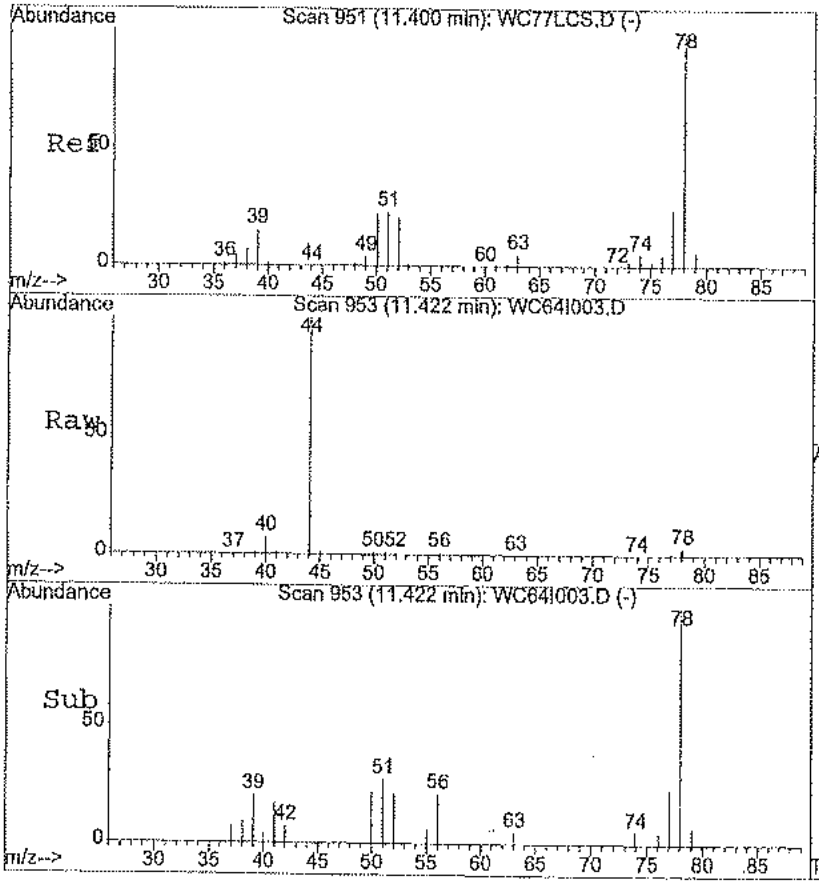


#30
carbon tetrachloride
Concen: 0.22 ppb m
RT: 11.55 min Scan# 966
Delta R.T. 0.05 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:116.95 Resp: 6977

Ion	Ratio	Lower	Upper
117	100		
119	98.5	77.5	116.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

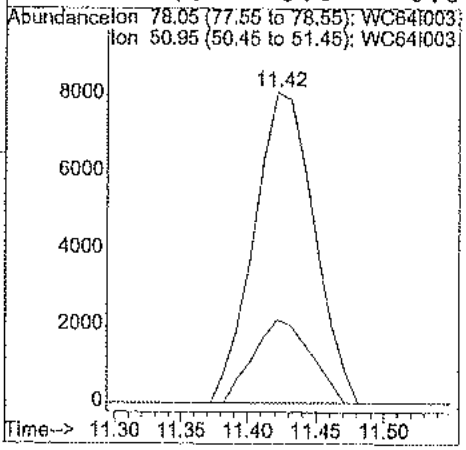


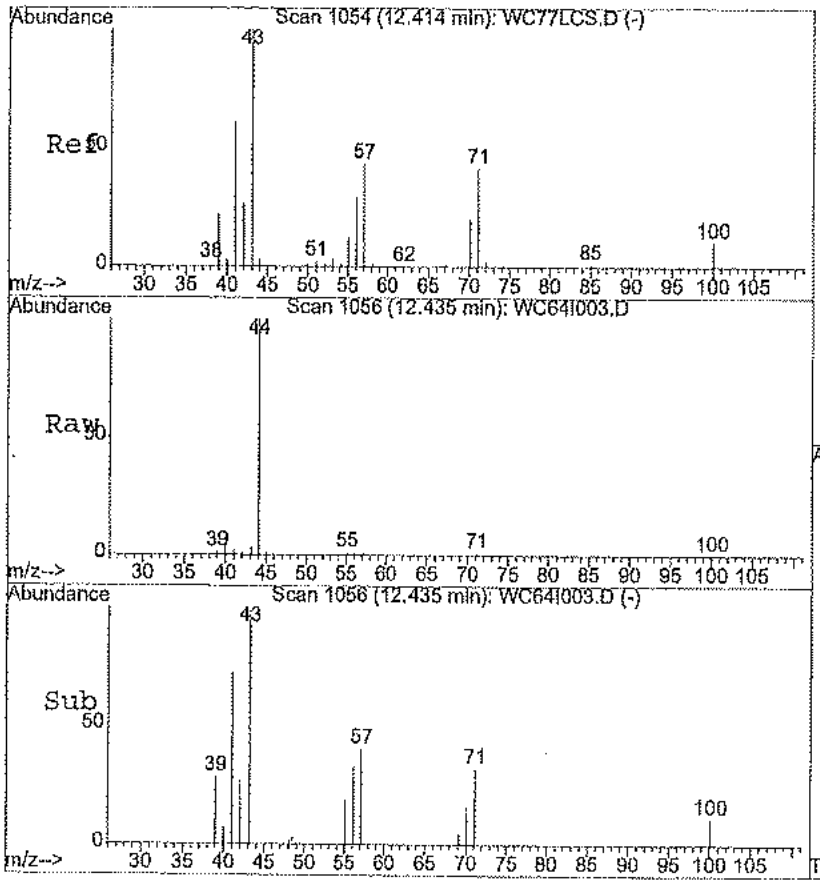


#31
benzene
Concen: 0.46 ppb
RT: 11.42 min Scan# 953
Delta R.T. 0.04 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:78.05 Resp: 24628

Ion	Ratio	Lower	Upper
78	100		
51	25.4	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

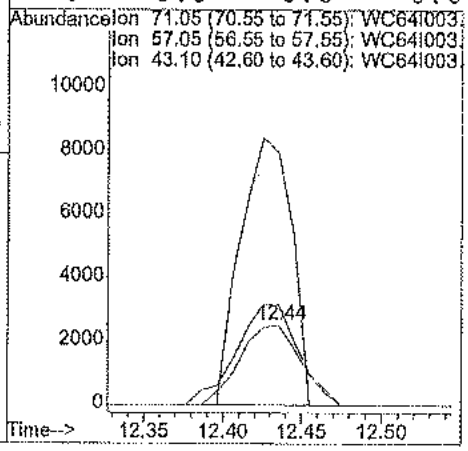


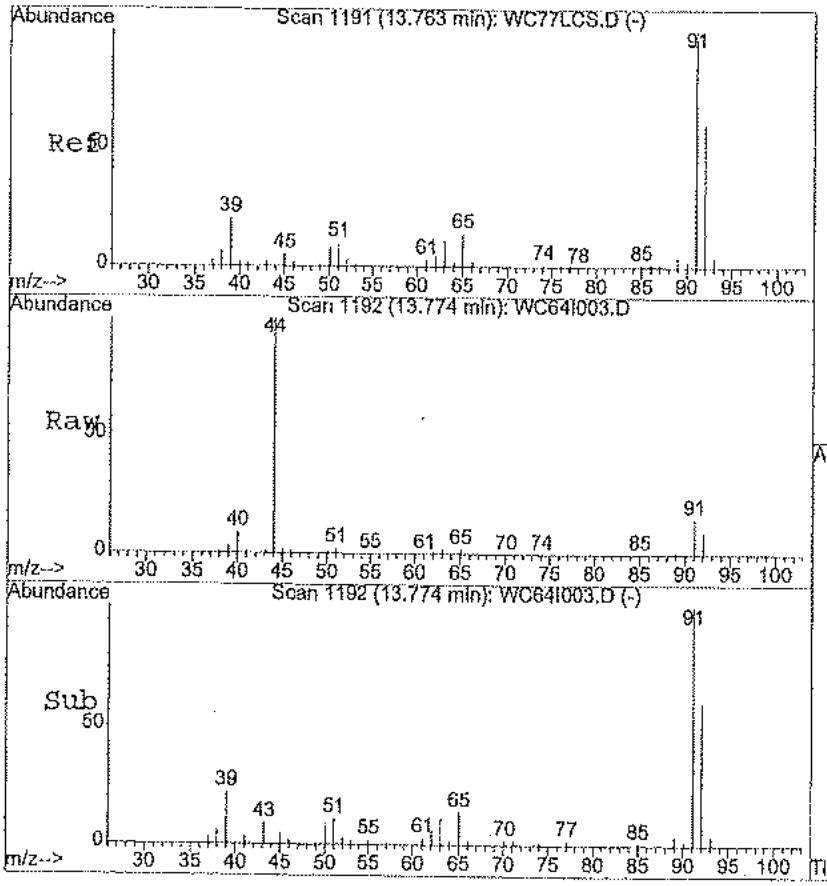


#37
Heptane
Concen: 0.33 ppb
RT: 12.44 min Scan# 1056
Delta R.T. 0.04 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:71.05 Resp: 6783

Ion	Ratio	Lower	Upper
71	100		
57	129.2	86.3	129.5
43	282.3	203.4	305.0
0	0.0	0.0	0.0

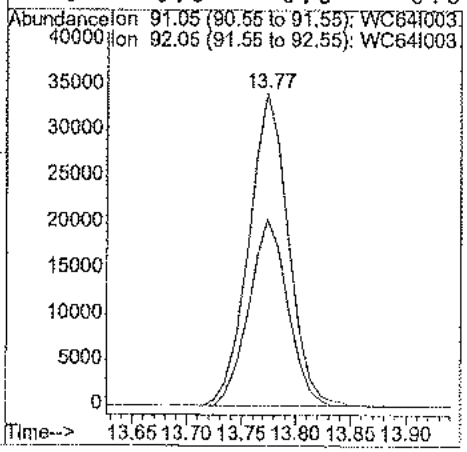


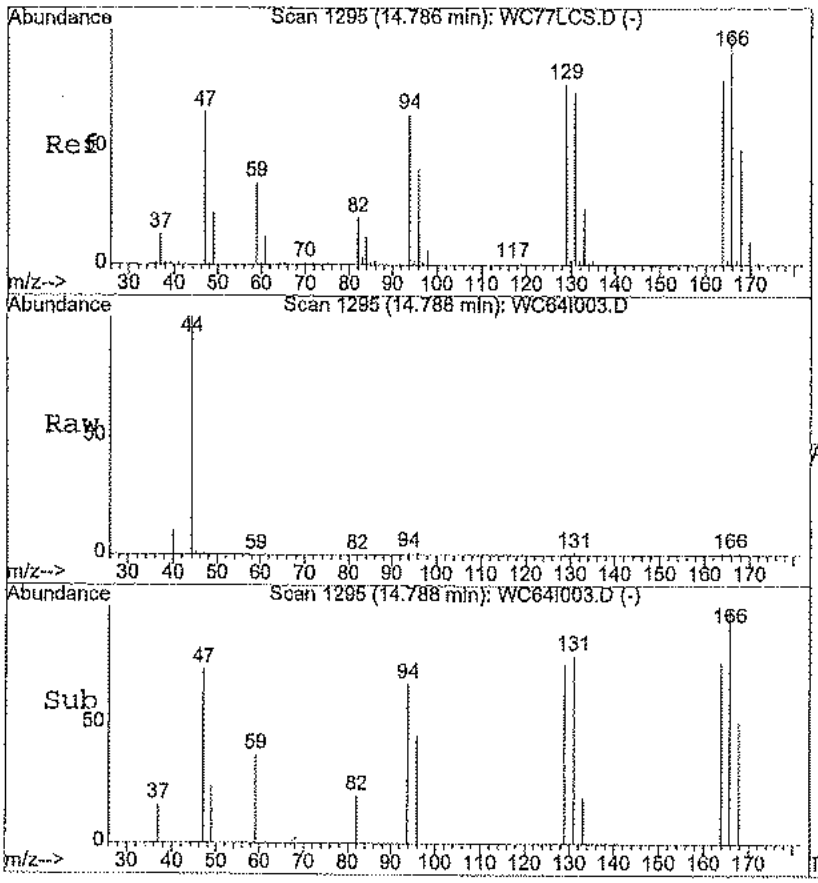


#43
toluene
Concen: 1.77 ppb
RT: 13.77 min Scan# 1192
Delta R.T. 0.02 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:91.05 Resp: 87839

Ion	Ratio	Lower	Upper
91	100		
92	58.9	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

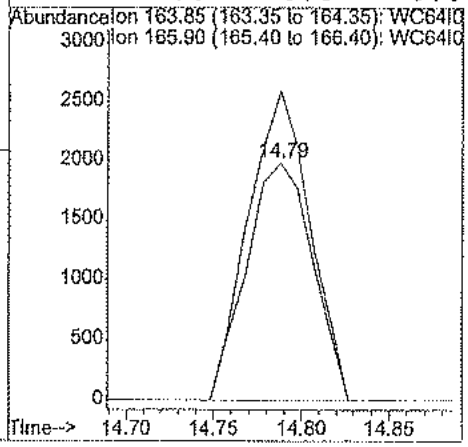


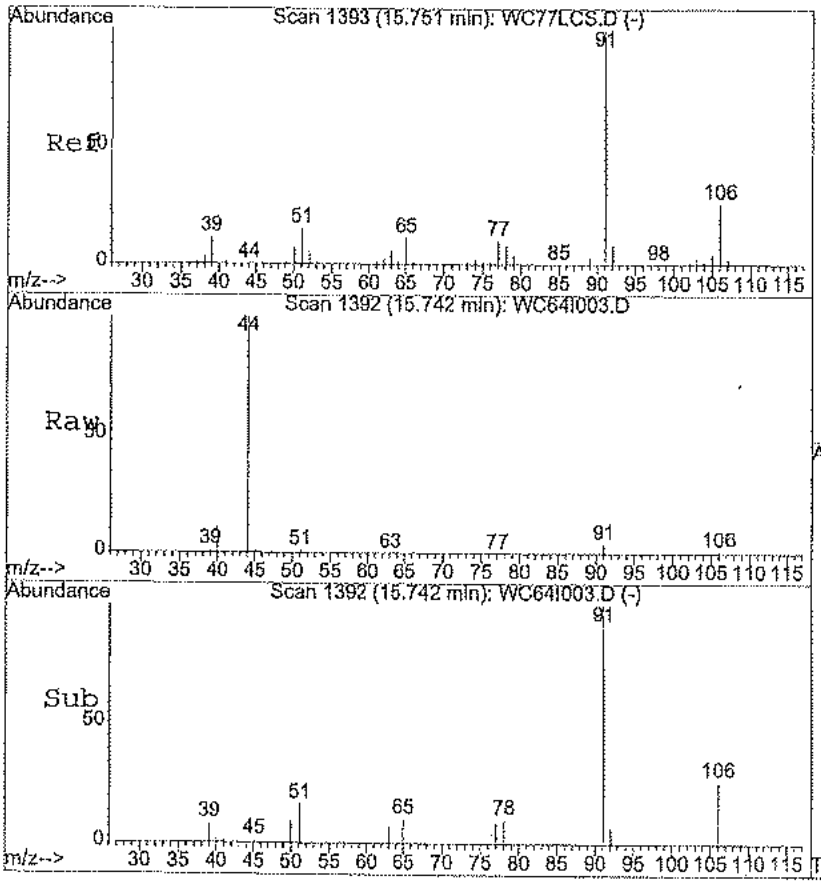


#45
tetrachloroethene
Concen: 0.37 ppb
RT: 14.79 min Scan# 1295
Delta R.T. 0.02 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:163.85 Resp: 5173

Ion	Ratio	Lower	Upper
164	100		
166	122.1	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

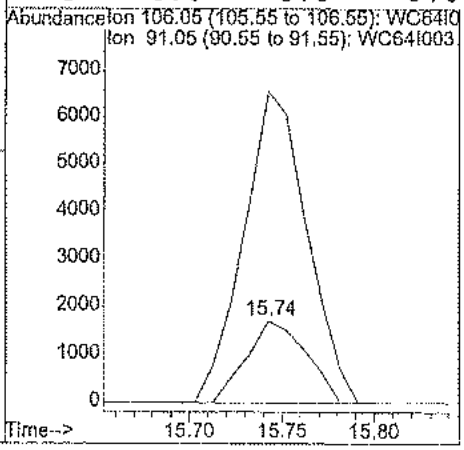


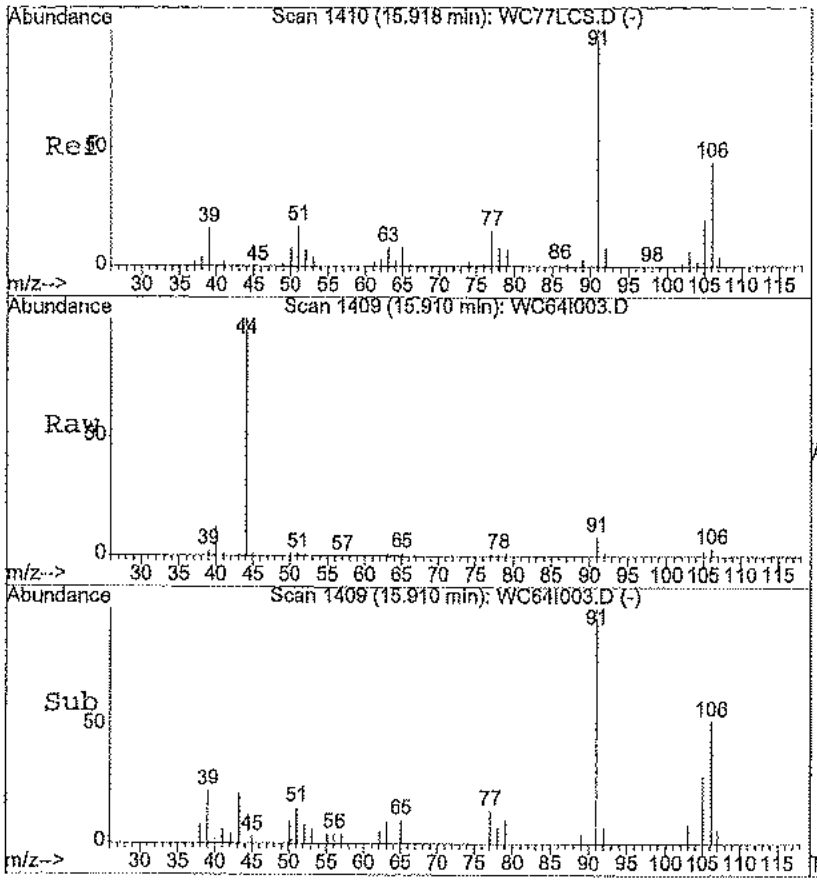


#49
ethyl benzene
Concen: 0.30 ppb
RT: 15.74 min Scan# 1392
Delta R.T. 0.01 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:106.05 Resp: 3824

Ion	Ratio	Lower	Upper
106	100		
91	406.5	321.4	482.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

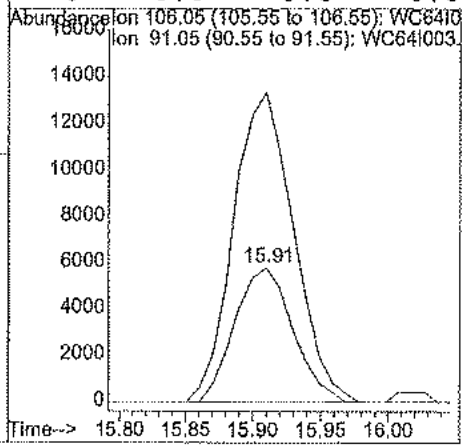


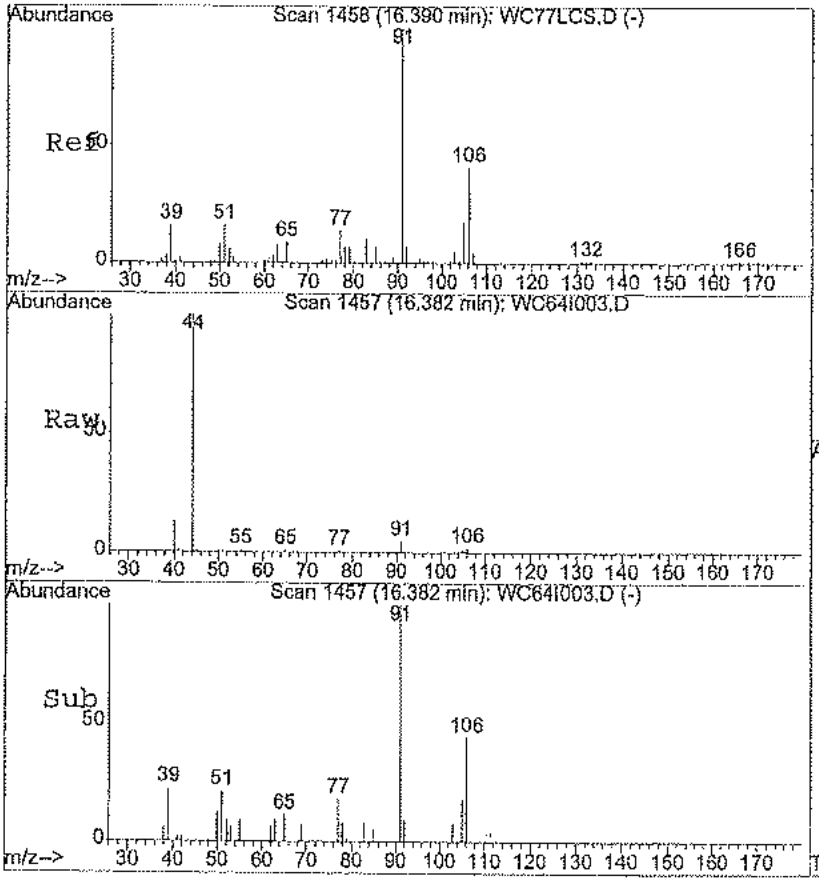


#50
m,p-xylene
Concen: 1.07 ppb
RT: 15.91 min Scan# 1409
Delta R.T. 0.01 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:106.05 Resp: 17178

Ion	Ratio	Lower	Upper
106	100		
91	239.0	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

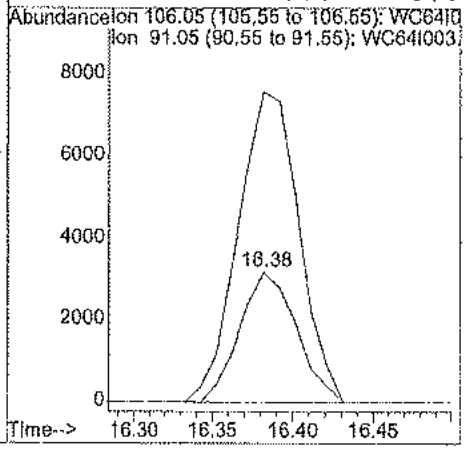


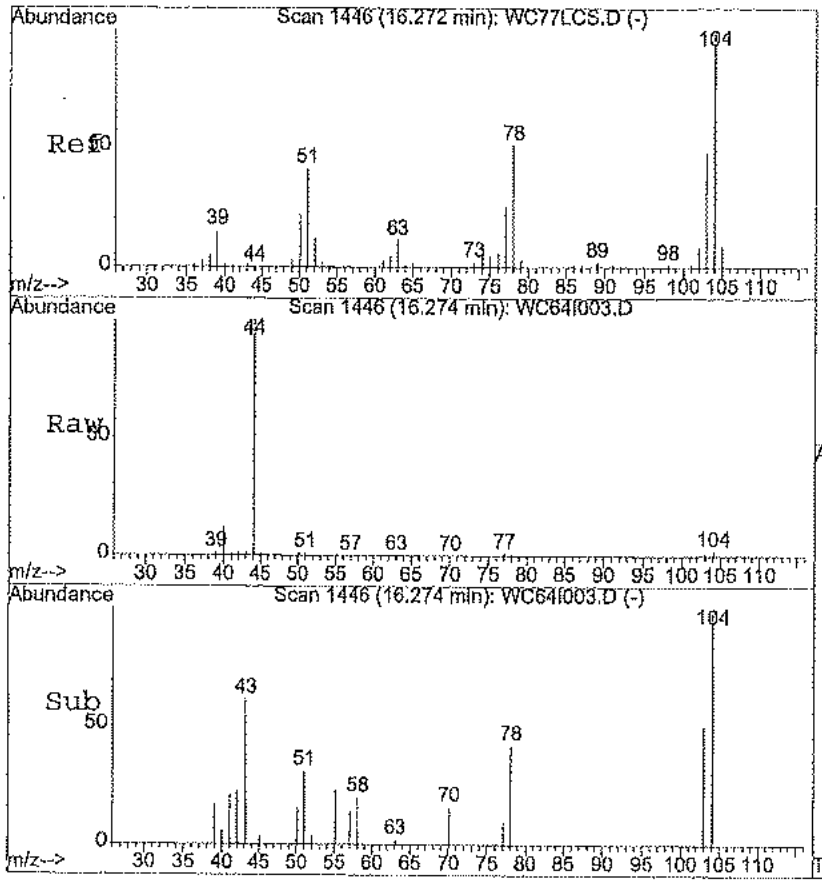


#51
o-xylene
Concen: 0.54 ppb
RT: 16.38 min Scan# 1457
Delta R.T. 0.01 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:106.05 Resp: 7741

Ion	Ratio	Lower	Upper
106	100		
91	257.0	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

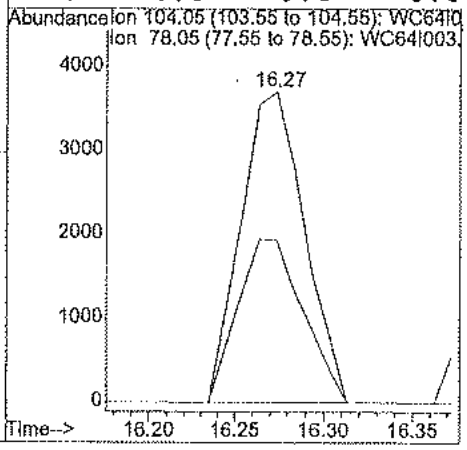


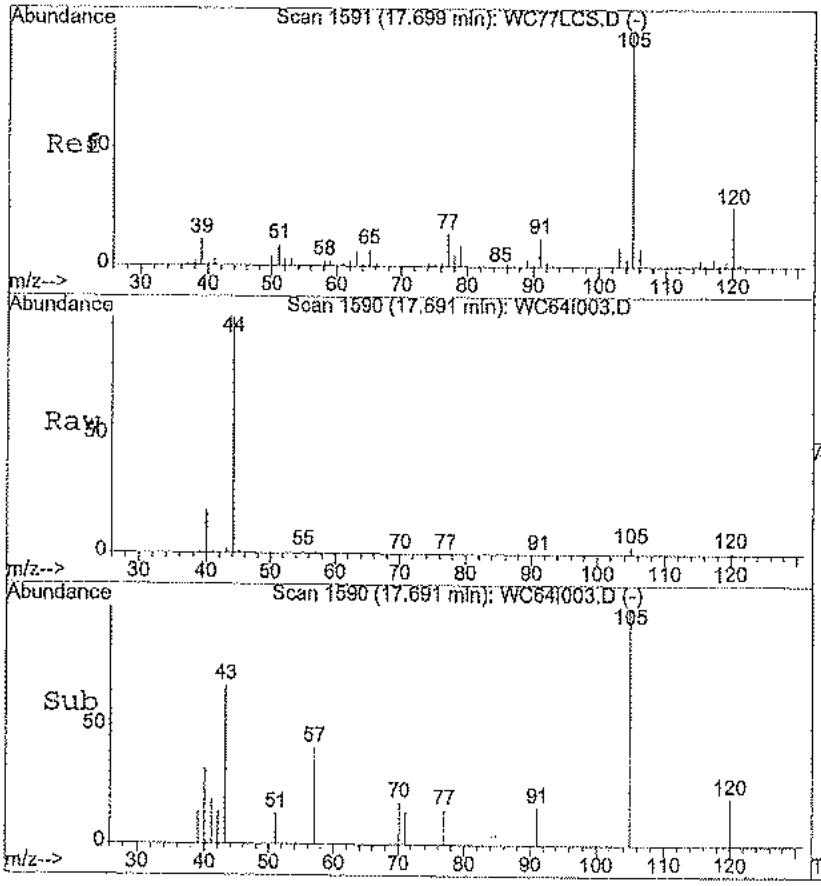


#52
styrene
Concen: 0.46 ppb
RT: 16.27 min Scan# 1446
Delta R.T. 0.02 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:104.05 Resp: 9278

Ion	Ratio	Lower	Upper
104	100		
78	53.9	53.5	80.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

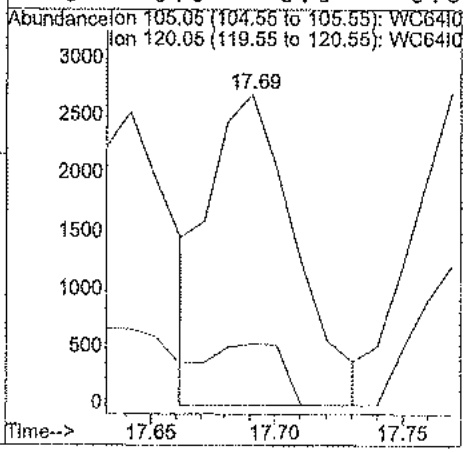


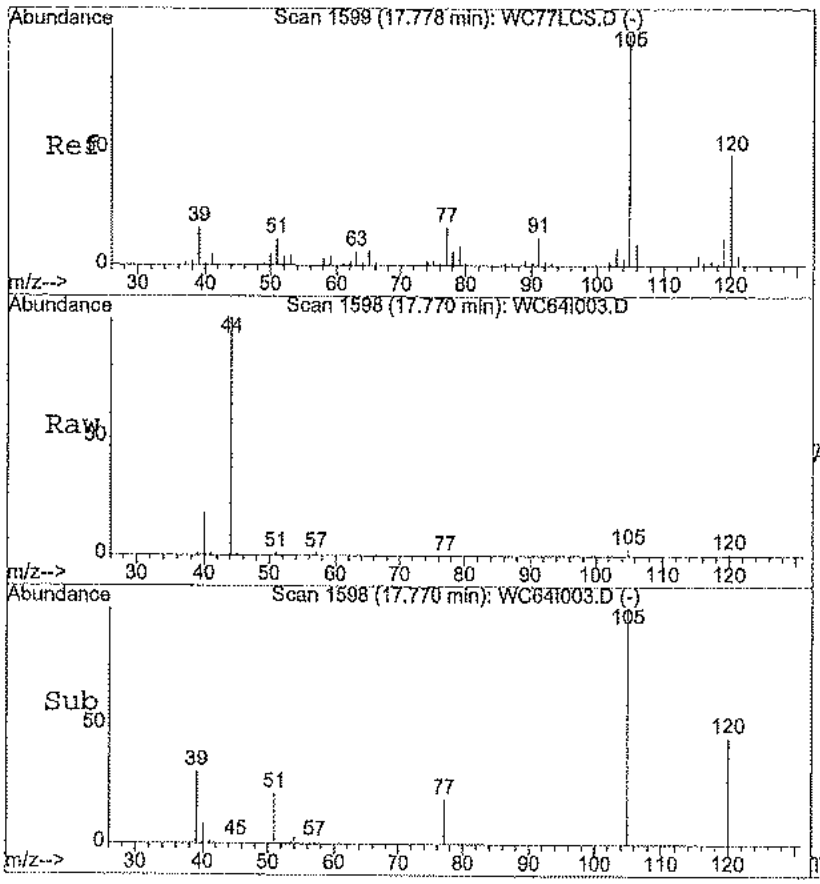


#57
4-ethyl toluene
Concen: 0.21 ppb
RT: 17.69 min Scan# 1590
Delta R.T. 0.02 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:105.05 Resp: 6492

Ion	Ratio	Lower	Upper
105	100		
120	14.3	19.0	28.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

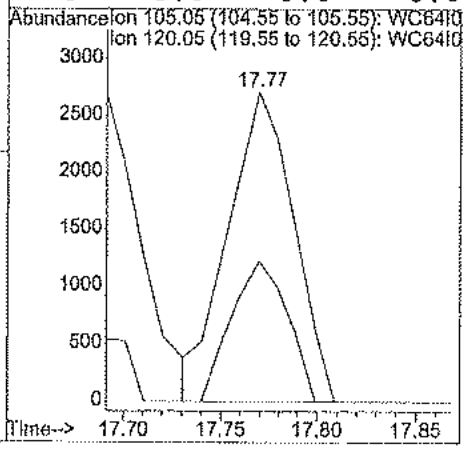


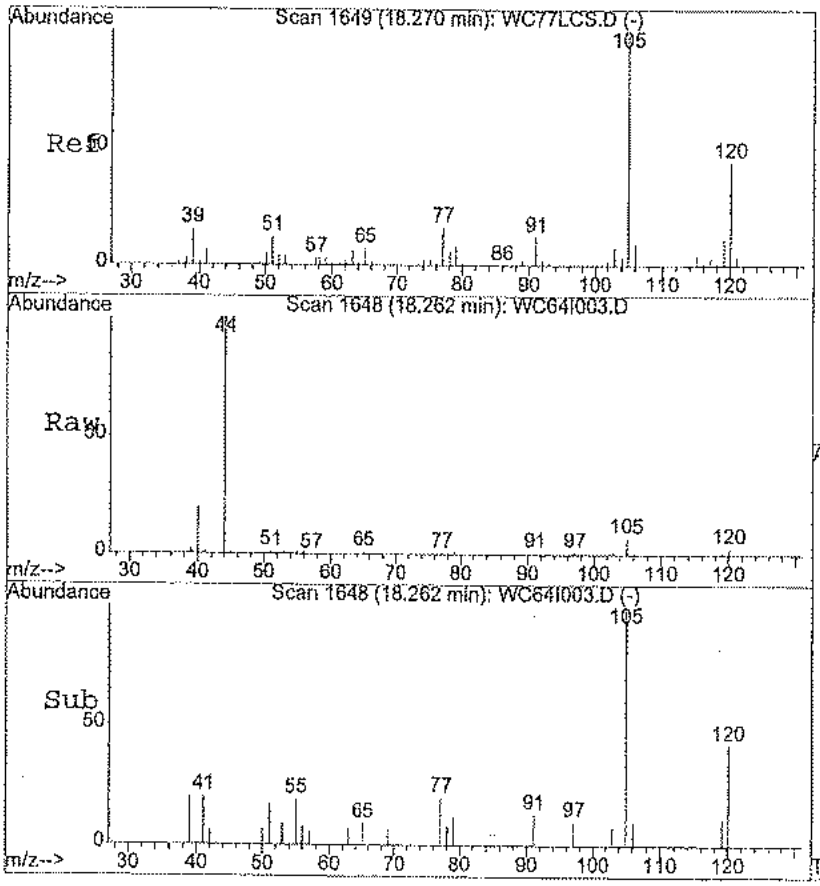


#58
1,3,5-trimethylbenzene
Concen: 0.22 ppb
RT: 17.77 min Scan# 1598
Delta R.T. 0.01 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:105.05 Resp: 6393

Ion	Ratio	Lower	Upper
105	100		
120	38.9	30.4	45.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

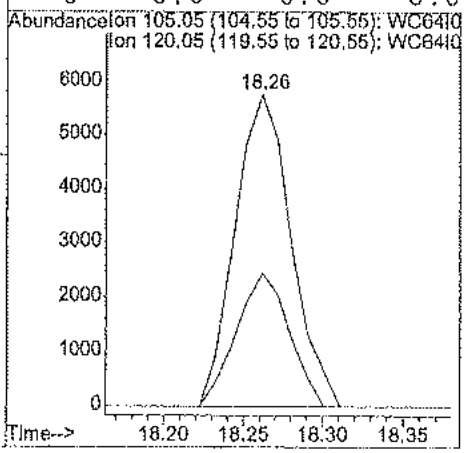




#59
1,2,4-trimethylbenzene
Concen: 0.56 ppb
RT: 18.26 min Scan# 1648
Delta R.T. 0.02 min
Lab File: WC64I003.D
Acq: 02/23/2015 18:36

Tgt Ion:105.05 Resp: 14162

Ion	Ratio	Lower	Upper
105	100		
120	40.2	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1506345**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received four summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-W. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{A_x}{A_{is}}\right]\left[\frac{C_{is}}{C_x}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)}\right]$$

Concentration in ug/m^3 : $$C = \mathbf{ppb\ v/v\ (MW/24.45)}$$

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

September 13, 2015

Jorden Baum

Date

ANALYTICAL REPORT

Report Date: March 09, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1506345**
Project ID: 0011-H; AOU-1 VI Testing
Purchase Order: 0011-H; AOU-1 VI Tes

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0011-H-030315-TO-001	1506345001	03/02/15	03/03/15	0011-H; AOU-1 VI Tes
A-0011-H-030315-TO-002	1506345002	03/02/15	03/03/15	0011-H; AOU-1 VI Tes
A-0011-H-030315-TO-003	1506345003	03/02/15	03/03/15	0011-H; AOU-1 VI Tes
A-0011-H-030315-TO-004	1506345004	03/02/15	03/03/15	0011-H; AOU-1 VI Tes

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-001
Lab ID: 1506345001
Matrix: Air

Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 14:12

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**4.8**	**11**	0.30	0.50	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**0.89**	**3.1**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.47	1.4	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.21	0.68	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-001
Lab ID: 1506345001
Matrix: Air

Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 14:12

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**0.57**	**2.2**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**2.5**	**17**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.17	0.74	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	0.50	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 14:12

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Isobutane	160	6.43	1	J
Ethanol	160	7.32	1	J
Isopropyl Alcohol	61	7.94	1	J

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-002
Lab ID: 1506345002
Matrix: Air

Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 14:48

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	0.38	0.78	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**6.2**	**15**	0.30	0.50	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**1.1**	**3.8**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.44	1.3	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.26	0.83	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-002
Lab ID: 1506345002
Matrix: Air
Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 14:48
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**0.76**	**2.8**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.90**	**6.1**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.18	0.79	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	0.50	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 14:48
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Isobutane	200	6.42	1	J
.alpha.-Pinene	2.4	17.40	1	J
Ethanol	250	7.34	1	J
Isopropyl Alcohol	4.9	7.98	1	J

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-003
Lab ID: 1506345003
Matrix: Air

Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 15:24

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	0.4	0.83	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**2.0**	**4.8**	0.30	0.50	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.35	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.22	0.69	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-003
Lab ID: 1506345003
Matrix: Air

Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 15:24

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	0.36	1.4	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	ND	<0.65	0.15	0.50	1	U
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	0.50	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 15:24

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	4.3	7.36	1	J

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-004
Lab ID: 1506345004
Matrix: Air

Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 16:01

Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	0.38	0.78	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**5.0**	**12**	0.30	0.50	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**0.95**	**3.3**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.22	0.70	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-030315-TO-004
Lab ID: 1506345004
Matrix: Air
Sampling Site: 0011-H; AOU-1 VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 03/02/2015
Received: 03/03/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 16:01
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**0.53**	**2.0**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**2.5**	**17**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.17	0.73	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	0.50	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2837 (HBN: 144873)
Analyzed: 03/05/2015 16:01
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	170	7.33	1	J
Isopropyl Alcohol	56	7.94	1	J

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Jorden Baum 03/06/2015 11:03	/S/ Thomas J. Masoian 03/09/2015 09:03

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1506345
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1506345**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2837 (HBN: 144873)
Analyzed By: Jorden Baum

Blank

MB: 436764
Analyzed: 03/04/2015 21:18

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	0.500
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1506345

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2837 (HBN: 144873)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 436764
Analyzed: 03/04/2015 21:18
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	0.500
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 436762
Analyzed: 03/04/2015 19:29
Dilution: 1
Units: ppb

LCSD: 436763
Analyzed: 03/04/2015 20:42
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	9.21	10.0	92.1	59.3	135.1	9.70	97.0	5.20	0.0	25.0
Chloromethane	8.90	10.0	89.0	55.2	137.4	9.43	94.3	5.80	0.0	25.0
Freon 114	9.76	10.0	97.6	64.6	128.0	9.36	93.6	4.21	0.0	25.0
Vinyl chloride	9.86	10.0	98.6	61.8	132.3	9.50	95.0	3.72	0.0	25.0
1,3-Butadiene	9.88	10.0	98.8	58.0	138.3	9.45	94.5	4.40	0.0	25.0
Bromomethane	10.3	10.0	103	63.3	129.9	9.10	91.0	12.2	0.0	25.0
Chloroethane	9.44	10.0	94.4	57.6	137.1	9.01	90.1	4.61	0.0	25.0
Freon 11	10.5	10.0	105	58.9	132.8	9.02	90.2	14.9	0.0	25.0
Freon 113	10.1	10.0	101	68.5	120.0	9.21	92.1	9.23	0.0	25.0
1,1-Dichloroethene	10.8	10.0	108	67.2	125.1	9.17	91.7	15.9	0.0	25.0
Acetone	7.34	10.0	73.4	42.5	146.0	6.56	65.6	11.2	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1506345

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2837 (HBN: 144873)
Analyzed By: Jorden Baum

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 436762
Analyzed: 03/04/2015 19:29
Dilution: 1
Units: ppb

LCSD: 436763
Analyzed: 03/04/2015 20:42
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	9.89	10.0	98.9	63.9	128.8	8.90	89.0	10.6	0.0	25.0
Methylene chloride	9.50	10.0	95.0	63.7	127.9	8.89	88.9	6.68	0.0	25.0
trans-1,2-Dichloroethene	10.6	10.0	106	68.1	124.6	9.51	95.1	11.0	0.0	25.0
Methyl t-butyl ether	10.9	10.0	109	60.8	138.0	9.70	97.0	11.3	0.0	25.0
Vinyl acetate	10.5	10.0	105	59.3	141.1	10.4	104	1.41	0.0	25.0
2-Butanone	10.3	10.0	103	51.7	144.2	9.65	96.5	6.06	0.0	25.0
cis-1,2-Dichloroethene	10.6	10.0	106	69.8	124.3	9.21	92.1	14.4	0.0	25.0
1,1-Dichloroethane	9.85	10.0	98.5	67.7	123.6	9.37	93.7	4.99	0.0	25.0
Ethyl acetate	11.6	10.0	116	53.4	156.9	9.95	99.5	15.2	0.0	25.0
Hexane	10.1	10.0	101	62.4	129.5	9.34	93.4	7.54	0.0	25.0
Chloroform	10.1	10.0	101	67.3	121.8	8.88	88.8	12.8	0.0	25.0
Tetrahydrofuran	10.8	10.0	108	50.6	155.3	9.84	98.4	9.72	0.0	25.0
1,2-Dichloroethane	10.3	10.0	103	62.4	130.5	9.06	90.6	12.8	0.0	25.0
1,1,1-Trichloroethane	10.4	10.0	104	60.4	127.7	9.05	90.5	13.6	0.0	25.0
Carbon tetrachloride	9.99	10.0	99.9	58.2	130.6	9.28	92.8	7.37	0.0	25.0
Benzene	10.5	10.0	105	64.1	127.3	9.07	90.7	14.3	0.0	25.0
Cyclohexane	9.81	10.0	98.1	61.9	123.6	8.81	88.1	10.7	0.0	25.0
Trichloroethene	10.6	10.0	106	62.4	126.8	9.02	90.2	15.9	0.0	25.0
1,2-Dichloropropane	10.1	10.0	101	60.7	130.6	9.17	91.7	9.90	0.0	25.0
Bromodichloromethane	10.3	10.0	103	62.9	128.3	8.87	88.7	15.2	0.0	25.0
Heptane	10.4	10.0	104	59.5	133.4	9.36	93.6	11.0	0.0	25.0
cis-1,3-Dichloropropene	11.2	10.0	112	64.1	133.6	9.36	93.6	18.2	0.0	25.0
4-Methyl-2-pentanone	11.0	10.0	110	73.5	150.0	10.1	101	8.98	0.0	25.0
trans-1,3-Dichloropropene	11.5	10.0	115	78.5	148.7	9.35	93.5	21.0	0.0	25.0
1,1,2-Trichloroethane	10.5	10.0	105	65.0	126.6	8.53	85.3	20.5	0.0	25.0
Toluene	11.3	10.0	113	75.6	139.4	9.32	93.2	18.9	0.0	25.0
2-Hexanone	12.4	10.0	124	80.8	158.8	10.3	103	18.1	0.0	25.0
Tetrachloroethene	11.2	10.0	112	60.7	126.6	8.77	87.7	24.4	0.0	25.0
Dibromochloromethane	10.7	10.0	107	62.4	130.9	8.28	82.8	* 25.3	0.0	25.0
1,2-Dibromoethane	11.0	10.0	110	64.4	129.0	8.57	85.7	* 25.2	0.0	25.0
Chlorobenzene	10.7	10.0	107	62.8	126.9	8.22	82.2	* 25.9	0.0	25.0
Ethyl benzene	11.7	10.0	117	75.9	148.5	8.97	89.7	* 26.1	0.0	25.0
m,p-Xylene	22.0	20.0	110	73.7	144.9	17.8	89.0	21.3	0.0	25.0
o-Xylene	11.4	10.0	114	74.7	147.4	8.80	88.0	* 25.4	0.0	25.0
Styrene	12.7	10.0	127	75.9	158.1	9.40	94.0	* 29.6	0.0	25.0
Bromoform	11.0	10.0	110	59.7	136.0	8.22	82.2	* 28.9	0.0	25.0
1,1,2,2-Tetrachloroethane	9.87	10.0	98.7	59.3	134.8	8.15	81.5	19.1	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1506345

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2837 (HBN: 144873)		
Analyzed By:	Jorden Baum		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 436762	LCSD: 436763
Analyzed:	03/04/2015 19:29	03/04/2015 20:42
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	11.7	10.0	117	69.0	163.3	9.58	95.8	19.5	0.0	25.0
1,3,5-Trimethylbenzene	10.8	10.0	108	64.2	155.1	9.05	90.5	17.8	0.0	25.0
1,2,4-Trimethylbenzene	10.7	10.0	107	59.7	169.4	9.79	97.9	9.24	0.0	25.0
1,3-Dichlorobenzene	10.0	10.0	100	58.6	157.6	8.84	88.4	12.8	0.0	25.0
1,4-Dichlorobenzene	9.81	10.0	98.1	57.7	137.2	8.80	88.0	10.9	0.0	25.0
Benzyl chloride	9.87	10.0	98.7	60.1	182.5	10.5	105	5.76	0.0	25.0
1,2-Dichlorobenzene	9.49	10.0	94.9	56.5	140.0	9.28	92.8	2.26	0.0	25.0
1,2,4-Trichlorobenzene	14.5	10.0	145	0.0	235.7	13.2	132	9.09	0.0	25.0
Hexachlorobutadiene	9.28	10.0	92.8	25.3	155.9	9.81	98.1	5.53	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
436762-LCS	21.3	20.0	107
436763-LCSD	20.2	20.0	101
436764-MB	19.3	20.0	96.7
1506160001	19.4	20.0	97.0
1506160002	19.1	20.0	95.3
1506160003	21.1	20.0	106
1506160004	19.7	20.0	98.3
1506217001	20.4	20.0	102
1506217002	19.3	20.0	96.6
1506217003	20.6	20.0	103
1506345001	20.0	20.0	99.9
1506345002	20.7	20.0	103
1506345003	20.2	20.0	101
1506345004	20.3	20.0	102

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1506345**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2837 (HBN: 144873)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

QC Data Approved and Reviewed by

Jorden Baum	Thomas J. Masoian	3/9/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◒ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1506345

ANALYTICAL REQUEST FORM

1506345

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 3/3/15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton St
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (678) 787-2295
Fax Telephone 973 334-0003
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Guillen

5. **Sample Collection**
Sampling Site 0011-H & ADV-1 VI Testing
Industrial Process NA
Date of Collection 3/2 - 3/3/15
Time Collected _____
Date of Shipment 3/3/15
Chain of Custody No. NA

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-0011-H-030315-TO-001	Air	6L Summa	TO-15A VOCs	ug/m3	0579
A-0011-H-030315-TO-002	Air	"	"	"	0109
A-0011-H-030315-TO-003	Air	"	"	"	0750
A-0011-H-030315-TO-004	Air	"	"	"	0531

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments Please run dilutions if concentrations exceed upper range of calibration

Possible Contamination and/or Chemical Hazards PCE/TCE

7. **Chain of Custody (Optional)**

Relinquished by	[signature]	Date/Time	03/03/15 -
Received by	[signature]	Date/Time	3/3/15 717
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment

Account No:

Project/Job/Task: DEPVA030-B-0006.2 - AOU-1 VI

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0129	02-09-15	725		JB	26		0011-H-TO-002-BR1	main level Bedroom	
0531	02-12-15	↓		↓	27		0011-H-TO-004-BAS	Basement	
0250	02-12-15				27		0011-H-TO-003-OUT	outdoor ambient-pitch	
0216	02-17-15								
0579	02-09-15	↓		↓	26		0011-H-TO-001-BR2	Basement Bedroom	0257
VFR Serial No.:									
0570	02-24-15		23.8	JB			0011-H-TO-003-OUT		
0497	↓		↓	↓			0011-H-TO-004-BAS		
~~0538~~ 393							0011-H-TO-002-BR1		
0600									
0593	↓		↓	↓			0011-H-TO-001-BR2		

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-24-15		Pick up at lab
	03-03-15		Drop at Lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2837 Created: 3/5/2015 18:28 Instrument: 5972-W HBN: 144873

Rule: EPA TO-15, Air Analyst: J. Baum Status: RE

Workorder: 1506160
Workorder: 1506217
Workorder: 1506345

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	436678	RLVS for HBN 144873 [IVOA/2837				RLVS	1		ETO15...1Q	6186		3/9/2015	3/4/2015
2	436762	LCS for HBN 144873 (IVOA/2837)				LCS	1		ETO15...1Q			5/5/2015	3/4/2015
3	436763	LCSD for HBN 144873 (IVOA/2837				LCSD	1		ETO15...1Q			5/5/2015	3/4/2015
4	436764	MB for HBN 144873 (IVOA/2837)				MB	1		ETO15...1Q			5/5/2015	3/4/2015
5	1506160001	1501018				SAMPLE	1	1506160001-A	ETO15....1	5975		3/9/2015	3/5/2015
6	1506160002	1501009				SAMPLE	1	1506160002-A	ETO15....1	5975		3/9/2015	3/5/2015
	* E\Result exceeds calibration range												
7	1506160003	1501101				SAMPLE	1	1506160003-A	ETO15....1	5975		3/9/2015	3/5/2015
	* E\Result exceeds calibration range												
8	1506160004	1501091				SAMPLE	1	1506160004-A	ETO15....1	5975		3/9/2015	3/5/2015
	* E\Result exceeds calibration range												
9	1506217001	Sub-1				SAMPLE	1	1506217001-A	ETO15....1	6171		3/10/2015	3/5/2015
10	1506217002	Sub-3				SAMPLE	1	1506217002-A	ETO15....1	6171		3/10/2015	3/5/2015
	* E\Result exceeds calibration range												
11	1506217003	Sub-2				SAMPLE	1	1506217003-A	ETO15....1	6171		3/10/2015	3/5/2015
12	1506345001	A-0011-H-030315-TO-001				SAMPLE	1	1506345001-A	ETO15....1	5480		3/10/2015	3/5/2015
13	1506345002	A-0011-H-030315-TO-002				SAMPLE	1	1506345002-A	ETO15....1	5480		3/10/2015	3/5/2015
14	1506345003	A-0011-H-030315-TO-003				SAMPLE	1	1506345003-A	ETO15....1	5480		3/10/2015	3/5/2015
15	1506345004	A-0011-H-030315-TO-004				SAMPLE	1	1506345004-A	ETO15....1	5480		3/10/2015	3/5/2015

TO15WD15.M
144873

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	WD25S10	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		163793	847414	542667
	Upper Limit	229310	1186380	759734
	Lower limit	98276	508448	325600

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	WD28BLK	154572	810454	493361
QC-	WD25S10	163793	847414	542667
QD-	WD27ICV	157707	814296	528912
A-0011-H-030315-	FEI1506345001	131589	708961	481461
A-0011-H-0303	FEI1506345002	131356	703772	472949
A-0011-H-0303	FEI1506345003	129849	684250	456291
A-0011-H-0303	FEI1506345004	124285	677275	465068

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	WD25S10	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		10.11	11.59	15.35
	Upper Limit	10.61	12.09	15.85
	Lower limit	9.61	11.09	14.85

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	WD28BLK	10.11	11.58	15.34
QC-	WD25S10	10.11	11.59	15.35
QD-	WD27ICV	10.11	11.58	15.35
A-0011-H-030315-	FEI1506345001	10.15	11.60	15.34
A-0011-H-0303	FEI1506345002	10.15	11.61	15.34
A-0011-H-0303	FEI1506345003	10.13	11.60	15.34
A-0011-H-0303	FEI1506345004	10.14	11.60	15.34

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Response Factor Report 5972-W

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

Calibration Files
1 =WD22S1.D 2 =WD23S2.D 5 =WD24S5.D
10 =WD25S10.D 20 =WD26S20.D 0.5 =WD21S05.D

		Compound	1	2	5	10	20	0.5	Avg	%RSD	
1)		ISTD bromochlorometha	----------			ISTD	----------				
2)		dichlorodifluoromet	4.370	5.181	4.457	4.614	4.615	4.843	4.680	6.28	
3)		chloromethane	2.598	2.896	2.594	2.490	2.481	3.024	2.680	8.41	
4)		freon 114	4.538	5.230	4.539	4.595	4.556	5.000	4.743	6.28	
5)		vinyl chloride	2.092	2.392	2.091	2.117	2.094	2.221	2.168	5.56	
6)		1,3-Butadiene	1.586	1.832	1.541	1.616	1.617	1.677	1.645	6.20	
7)		bromomethane	1.412	1.635	1.381	1.402	1.413	1.473	1.453	6.51	
8)		chloroethane	1.118	1.209	1.013	1.014	1.051	1.264	1.112	9.49	
9)		Ethanol	0.941	0.671	0.627	0.590	0.483	1.194	0.751	35.31	TIC
10)		Isopropyl Alcohol	4.021	3.874	3.439	3.548	3.056	4.546	3.747	13.83	TIC
11)		trichlorofluorometh	3.956	4.374	3.777	3.928	3.943	4.239	4.036	5.53	
12)		freon 113	3.892	4.414	3.768	3.792	3.745	4.138	3.958	6.72	
13)		1,1-dichloroethene	1.281	1.456	1.267	1.327	1.302	1.273	1.318	5.42	
14)		acetone	0.784	0.583	0.472	0.479	0.486	1.211	0.669	E1 43.4	
15)		carbon disulfide	6.822	7.949	6.708	6.771	6.626	7.596	7.079	7.81	
16)		methylene chloride	4.199	4.435	3.850	3.892	3.808	4.891	4.179	10.16	
17)		trans-1,2-dichloroe	1.885	2.179	1.919	1.995	2.040	1.900	1.986	5.62	
18)		methyl t-butyl ethe	5.653	6.296	5.867	6.158	6.395	5.768	6.023	5.02	
19)		vinyl acetate	1.083	1.234	1.161	1.216	1.264	1.153	1.185	E1 5.5	
20)		2-butanone	6.563	7.336	7.108	7.492	7.742	8.133	7.396	7.29	
21)		cis-1,2-dichloroeth	2.101	2.371	2.185	2.219	2.207	2.148	2.205	4.17	
22)		1,1-dichloroethane	5.325	5.787	5.203	5.180	5.191	5.695	5.397	5.06	
23)		Ethyl Acetate	0.784	1.015	0.953	1.034	1.025	0.754	0.928	13.66	
24)		Hexane	4.418	4.905	4.406	4.487	4.430	4.613	4.543	4.25	
25)		chloroform	5.314	5.737	5.118	5.077	4.892	5.625	5.294	6.24	
26)		Tetrahydrofuran	3.410	3.874	3.713	3.985	4.024	3.415	3.737	7.32	
27)		1,2-dichloroethane	4.032	4.255	3.974	4.019	4.073	4.146	4.083	2.51	
28)	I	ISTD 1,4-difluorobenz	----------			ISTD	----------				
29)		1,1,1-trichloroetha	0.891	0.974	0.866	0.876	0.872	0.940	0.903	4.86	
30)		carbon tetrachlorid	0.863	0.902	0.781	0.784	0.781	0.899	0.835	7.14	
31)		benzene	1.322	1.436	1.307	1.337	1.328	1.366	1.349	3.46	
32)		Cyclohexane	0.666	0.712	0.600	0.603	0.586	0.748	0.652	10.27	
33)		trichloroethene	0.430	0.484	0.442	0.436	0.432	0.461	0.447	4.70	
34)		1,2-dichloropropane	0.592	0.621	0.555	0.571	0.574	0.617	0.588	4.51	
35)		bromodichloromethan	1.042	1.133	1.027	1.029	1.017	1.107	1.059	4.57	
36)		1,4-Dioxane	0.094	0.162	0.160	0.153	0.117	0.057	0.124	34.29	TIC
37)		Heptane	0.477	0.535	0.497	0.490	0.470	0.476	0.491	4.82	
38)		cis-1,3-dichloropro	0.663	0.728	0.693	0.742	0.766	0.622	0.703	7.63	
39)		4-methyl-2-pentanon	1.165	1.321	1.221	1.346	1.446	1.049	1.258	11.31	
40)		trans-1,3-dichlorop	0.505	0.583	0.555	0.603	0.631	0.464	0.557	11.27	
41)		1,1,2-trichloroetha	0.428	0.464	0.424	0.428	0.425	0.448	0.436	3.75	
42)	I	ISTD chlorobenzene-d5	----------			ISTD	----------				

(#) = Out of Range

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

Calibration Files
1 =WD22S1.D 2 =WD23S2.D 5 =WD24S5.D
10 =WD25S10.D 20 =WD26S20.D 0.5 =WD21S05.D

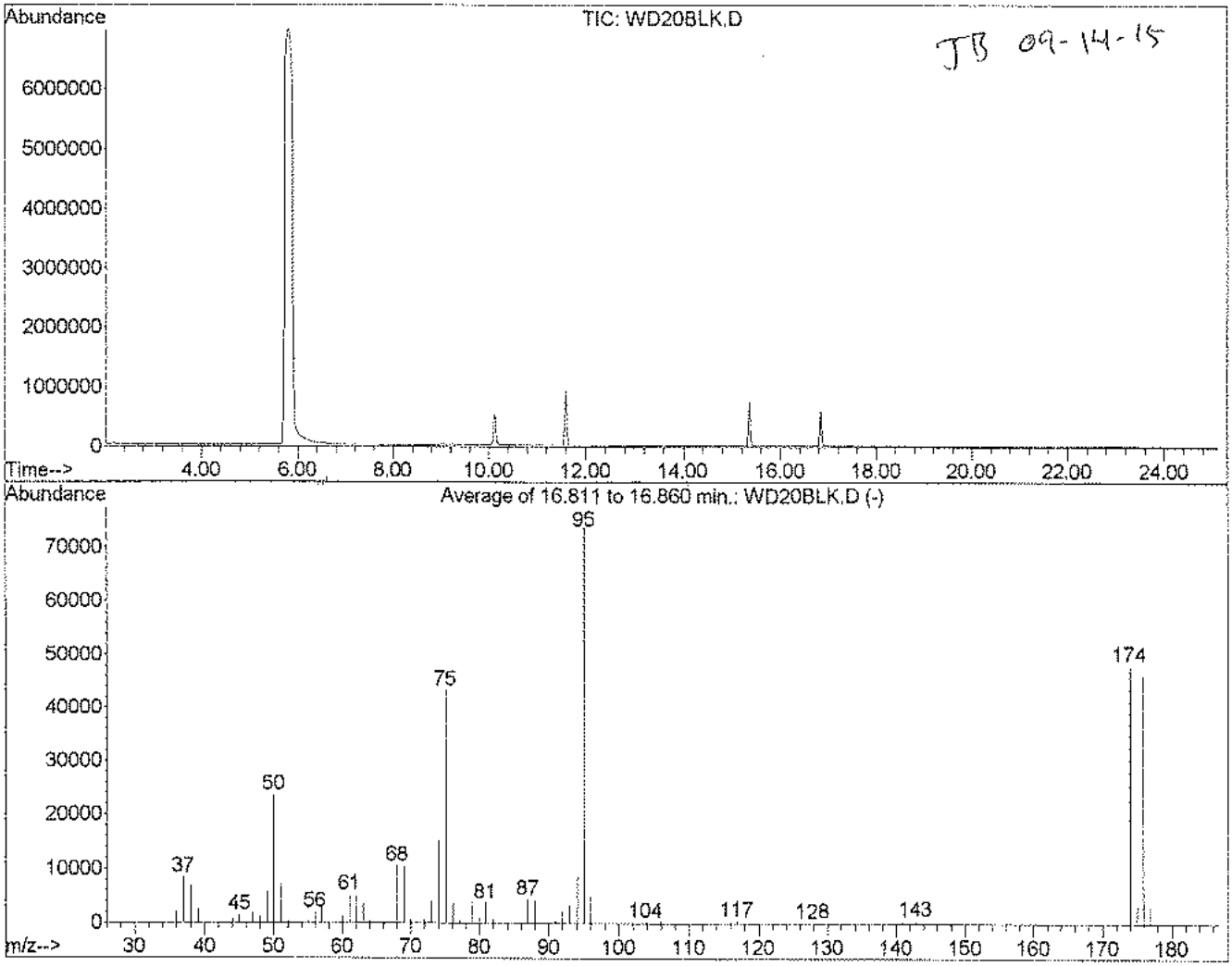
		Compound	1	2	5	10	20	0.5	Avg	%RSD	
43)		toluene	1.677	1.918	1.793	1.869	1.810	1.733	1.800	4.86	
44)		2-hexanone	1.208	1.603	1.463	1.736	1.760	0.997	1.461	20.87	
45)		tetrachloroethene	0.529	0.607	0.553	0.562	0.536	0.543	0.555	5.05	
46)		dibromochloromethan	1.057	1.156	1.022	1.038	1.002	1.129	1.067	5.79	
47)		1,2-dibromoethane	0.912	0.987	0.908	0.945	0.930	0.923	0.934	3.11	
48)		chlorobenzene	1.108	1.174	1.072	1.084	1.050	1.181	1.111	4.90	
49)		ethyl benzene	0.438	0.505	0.472	0.505	0.493	0.437	0.475	6.58	
50)		m,p-xylene	0.589	0.634	0.594	0.607	0.607	0.566	0.599	3.80	
51)		o-xylene	0.534	0.565	0.522	0.555	0.542	0.493	0.535	4.81	
52)		styrene	0.638	0.766	0.785	0.846	0.861	0.556	0.742	16.24	
53)		bromoform	0.649	0.682	0.621	0.641	0.621	0.670	0.647	3.87	
54)		1,1,2,2-tetrachloro	1.102	1.052	0.958	0.989	0.970	1.153	1.037	7.59	
55)	S	Bromofluorobenzene	0.567	0.588	0.594	0.617	0.593	0.574	0.589	2.97	
56)		Cumene	0.548	0.588	0.553	0.561	0.563	0.513	0.554	4.44	TC
57)		4-ethyl toluene	0.945	1.020	1.059	1.166	1.217	0.844	1.042	13.27	
58)		1,3,5-trimethylbenz	0.893	0.937	0.900	0.991	1.006	0.839	0.928	6.85	
59)		1,2,4-trimethylbenz	0.702	0.722	0.733	0.837	0.899	0.609	0.750	13.72	
60)		m-dichlorobenzene	0.444	0.463	0.435	0.456	0.480	0.432	0.452	4.05	
61)		p-dichlorobenzene	0.400	0.411	0.389	0.423	0.457	0.413	0.415	5.62	
62)		Benzyl Chloride	0.474	0.499	0.478	0.581	0.705	0.415	0.525	19.60	TC
63)		o-dichlorobenzene	0.389	0.378	0.338	0.378	0.421	0.369	0.379	7.14	
64)		1,2,4-trichlorobenz	0.046	0.093	0.065	0.102	0.079	0.074	0.076	26.12	TC
65)		Naphthalene	0.060	0.125	0.091	0.168	0.156	0.270	0.145	50.43	TC
66)		hexachloro-1,3-buta	0.232	0.172	0.119	0.144	0.095	0.239	0.167	35.43	TC

(#) = Out of Range

Data File : J:\W\2015\MAR15W\04MAR15W\WD20BLK.D
Acq Time : 03/04/2015 16:29
Sample : BL-
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST



Peak Apex is scan: 1493

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	31.9	23499	PASS
75	95	30	66	58.7	43253	PASS
95	95	100	100	100.0	73720	PASS
96	95	5	9	6.7	4966	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	65.3	48113	PASS
175	174	5	9	7.3	3509	PASS
176	174	93	101	95.9	46137	PASS
177	176	5	9	6.6	3065	PASS

Average of 16.811 to 16.860 min.: WD20BLK.D

Modified:BL-subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2020	51.05	7082	68.00	10476	79.95	975
37.00	8376	52.00	252	69.00	10411	80.85	3711
38.00	6842	55.00	284	70.00	707	81.90	811
39.05	2586	56.00	1944	72.00	565	86.95	4371
43.05	140	57.00	3267	73.00	4110	87.95	4231
44.05	650	60.00	1183	74.05	14893	90.95	334
45.05	1406	61.05	5157	75.05	43253	91.95	2121
47.00	1771	62.05	4920	76.05	3634	93.00	3336
48.00	1041	63.05	3525	77.00	501	94.05	9034
49.00	5508	64.00	244	77.95	377	95.05	73720
50.00	23499	67.10	147	78.90	3773	96.00	4966

Average of 16.811 to 16.860 min.: WD20BLK.D

Modified:BL-subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.90	324	175.85	46137				
105.95	317	176.85	3065				
115.90	205						
116.90	454						
117.90	131						
118.90	335						
127.85	120						
140.90	482						
142.90	560						
173.95	48113						
174.95	3509						

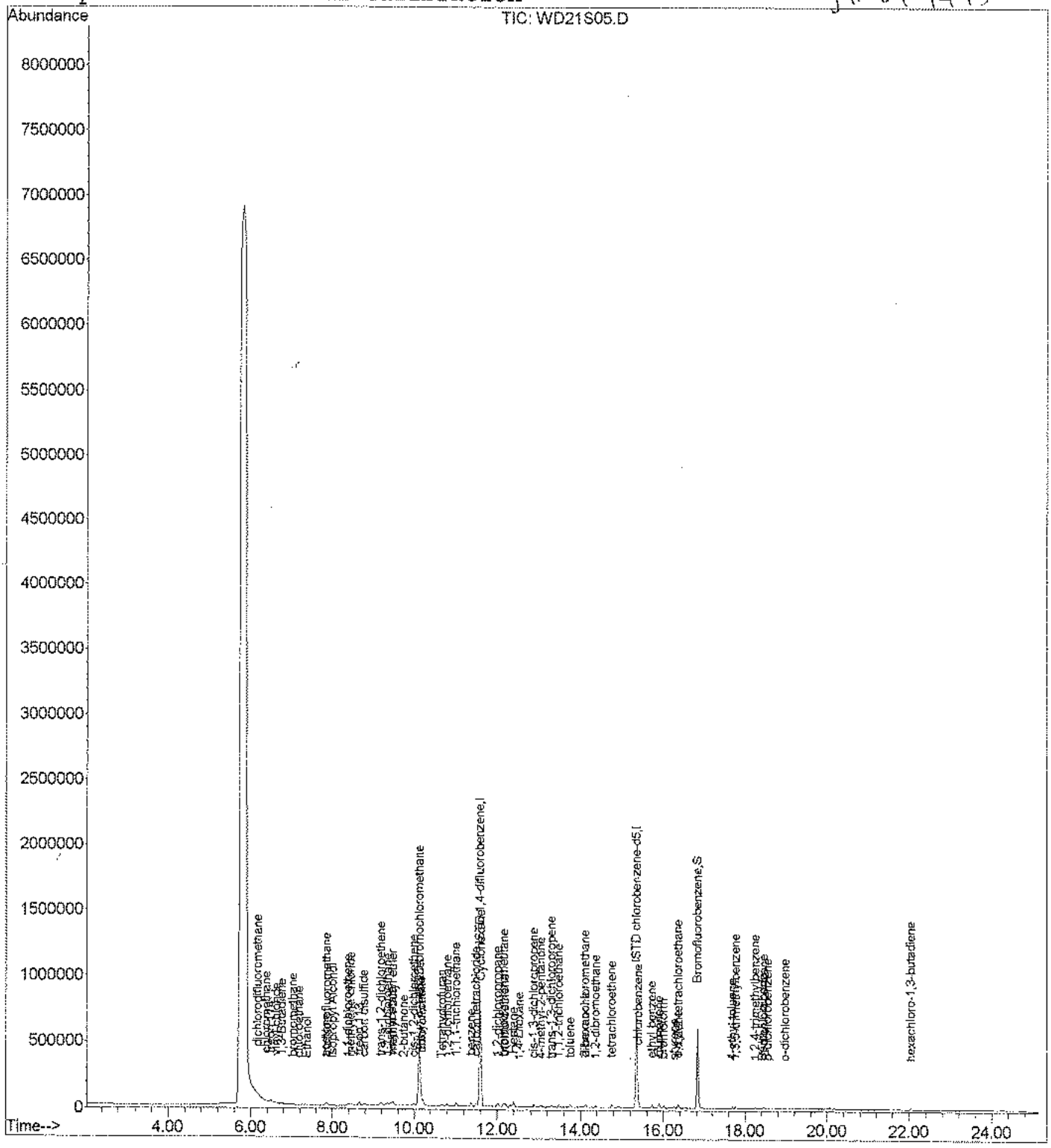
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD21S05.D
Acq Time : 03/04/2015 17:05 Operator: JCB
Sample : 0.5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:06 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JD 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD21S05.D
Acq Time : 03/04/2015 17:05 Operator: JCB
Sample : 0.5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:06 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Mon Mar 02 10:32:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.12	128	158132	20.0000	ppb		72.00
28) ISTD 1,4-difluorobenzene	11.59	114	825673	20.0000	ppb		68.79
42) ISTD chlorobenzene-d5	15.35	117	526538	20.0000	ppb		64.41
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	302075	20.3590	ppb		101.79%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	19146	0.4139	ppb	#	91
3) chloromethane	6.38	50	11954	0.4996	ppb		89
4) freon 114	6.48	85	19765	0.5226	ppb		90
5) vinyl chloride	6.61	62	8779	0.5035	ppb		94
6) 1,3-Butadiene	6.76	54	6628	0.4979	ppb		95
7) bromomethane	7.04	94	5823	0.5920	ppb		97
8) chloroethane	7.19	64	4998	0.6381	ppb	#	43
9) Ethanol	7.39	45	4721	0.7981	ppb		100
10) Isopropyl Alcohol	8.03	45	17972	0.5932	ppb		100
11) trichlorofluoromethane	7.87	101	16757	0.6399	ppb		94
12) freon 113	8.67	101	16358	0.5758	ppb		88
13) 1,1-dichloroethene	8.38	96	5032	0.5282	ppb	#	62
14) acetone	7.83	43	47877	0.9376	ppb		97
15) carbon disulfide	8.78	76	30028	0.5488	ppb	#	91
16) methylene chloride	8.45	49	19337	0.5830	ppb	#	78
17) trans-1,2-dichloroethene	9.19	96	7513	0.5291	ppb		86
18) methyl t-butyl ether	9.48	73	22802	0.5343	ppb	#	70
19) vinyl acetate	9.44	43	45591	0.4850	ppb	#	96
20) 2-butanone	9.75	43	32153	0.5409	ppb	#	87
21) cis-1,2-dichloroethene	9.98	96	8492	0.5529	ppb		99
22) 1,1-dichloroethane	9.35	63	22513	0.5500	ppb	#	88
23) Ethyl Acetate	10.18	61	2980	0.4010	ppb		100
24) Hexane	10.14	57	18236	0.5022	ppb		100
25) chloroform	10.20	83	22236	0.5886	ppb		99
26) Tetrahydrofuran	10.68	42	13500	0.4456	ppb		100
27) 1,2-dichloroethane	10.80	62	16391	0.5507	ppb		99
29) 1,1,1-trichloroethane	11.02	97	19408	0.6204	ppb		97
30) carbon tetrachloride	11.50	117	18558	0.6428	ppb		93
31) benzene	11.38	78	28197	0.5790	ppb		95
32) Cyclohexane	11.62	84	15442	0.6685	ppb	#	100
33) trichloroethene	12.20	130	9509	0.6420	ppb		92
34) 1,2-dichloropropane	12.02	63	12741	0.5654	ppb		80
35) bromodichloromethane	12.16	83	22844	0.6019	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD21S05.D
Acq Time : 03/04/2015 17:05 Operator: JCB
Sample : 0.5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:06 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Mon Mar 02 10:32:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	12.52	88	1176	0.1931 ppb	#	51
37)	Heptane	12.40	71	9833	0.5310 ppb		92
38)	cis-1,3-dichloropropene	12.88	75	12841	0.4945 ppb		93
39)	4-methyl-2-pentanone	13.05	43	21643	0.4191 ppb		91
40)	trans-1,3-dichloropropene	13.31	75	9577	0.4604 ppb		91
41)	1,1,2-trichloroethane	13.48	97	9243	0.6025 ppb		100
43)	toluene	13.74	91	22817	0.5745 ppb		99
44)	2-hexanone	14.11	43	13118	0.3473 ppb	#	87
45)	tetrachloroethene	14.76	164	7151	0.6353 ppb		94
46)	dibromochloromethane	14.13	129	14865	0.6747 ppb		99
47)	1,2-dibromoethane	14.36	107	12147	0.5941 ppb		98
48)	chlorobenzene	15.40	112	15540	0.6609 ppb	#	65
49)	ethyl benzene	15.73	106	5758	0.5703 ppb		91
50)	m,p-xylene	15.90	106	14903	1.1545 ppb		71
51)	o-xylene	16.37	106	6488	0.5648 ppb		87
52)	styrene	16.25	104	7322	0.4499 ppb	#	76
53)	bromoform	16.01	173	8823	0.6663 ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	15178	0.5993 ppb		99
56)	Cumene	15.90	105	6750	0.5608 ppb	#	21
57)	4-ethyl toluene	17.69	105	11107	0.4485 ppb		95
58)	1,3,5-trimethylbenzene	17.77	105	11042	0.4775 ppb		92
59)	1,2,4-trimethylbenzene	18.26	105	8017	0.3961 ppb		96
60)	m-dichlorobenzene	18.46	146	5688	0.5031 ppb	#	87
61)	p-dichlorobenzene	18.54	146	5440	0.4947 ppb	#	91
62)	Benzyl Chloride	18.43	91	5459	0.3468 ppb	#	65
63)	o-dichlorobenzene	18.98	146	4854	0.4857 ppb		88
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	22.04	225	3151	0.7041 ppb	#	84

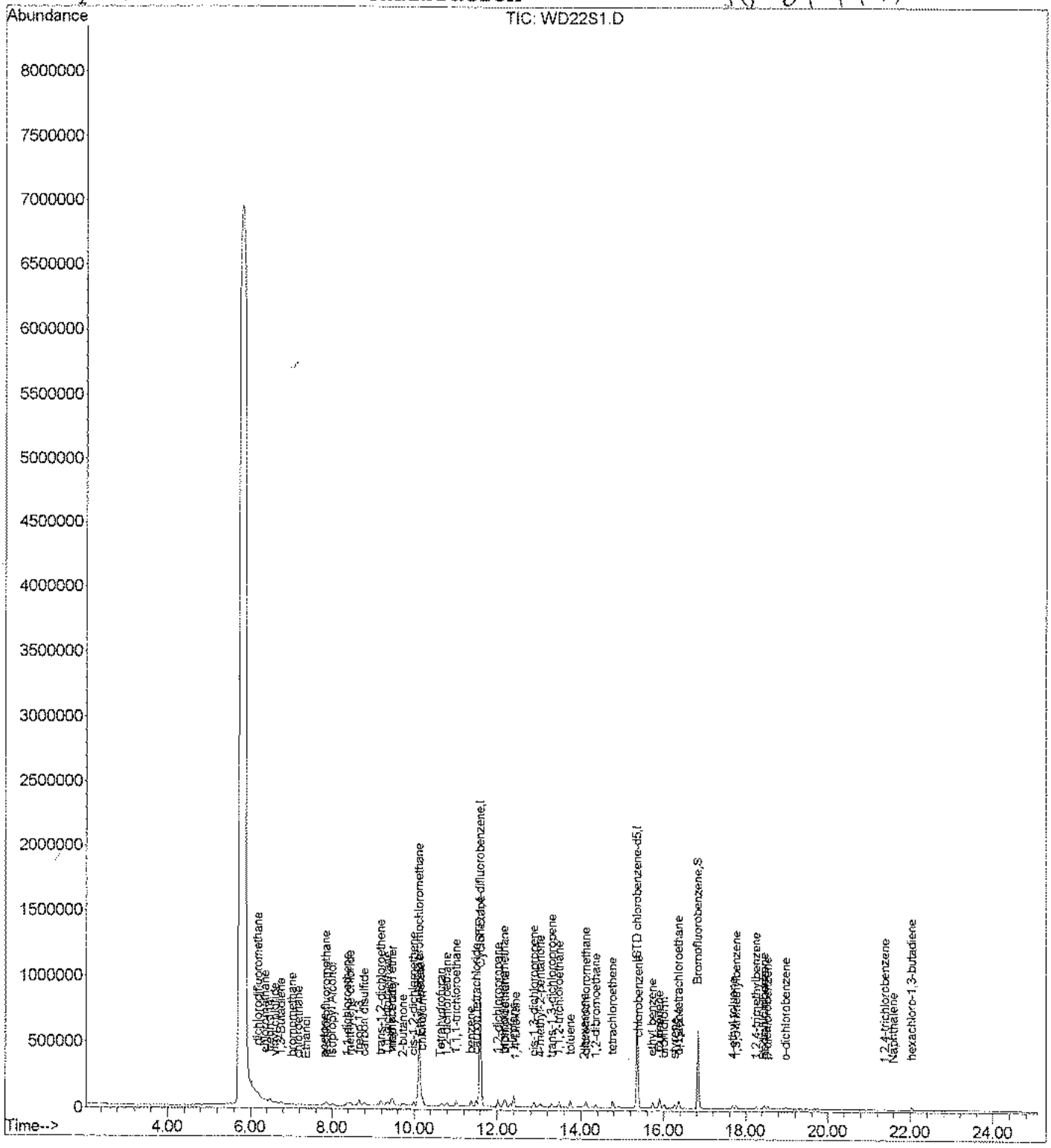
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD22S1.D
Acq Time : 03/04/2015 17:41 Operator: JCB
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:08 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration TB 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD22S1.D
Acq Time : 03/04/2015 17:41 Operator: JCB
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:08 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:47:51 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.12	128	158825	20.0000	ppb		72.31
28) ISTD 1,4-difluorobenzene	11.59	114	811932	20.0000	ppb		67.65
42) ISTD chlorobenzene-d5	15.35	117	525722	20.0000	ppb		64.31
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	298118	19.9202	ppb		99.60%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.19	85	34705	0.7559	ppb	#	98
3) chloromethane	6.37	50	20633	0.8473	ppb		95
4) freon 114	6.49	85	36035	0.9303	ppb		95
5) vinyl chloride	6.61	62	16610	0.9345	ppb		97
6) 1,3-Butadiene	6.76	54	12597	0.9319	ppb		93
7) bromomethane	7.03	94	11210	1.0894	ppb		96
8) chloroethane	7.18	64	8881	1.0541	ppb		90
9) Ethanol	7.37	45	7470	1.2250	ppb		100
10) Isopropyl Alcohol	8.01	45	31931	1.0643	ppb		100
11) trichlorofluoromethane	7.86	101	31414	1.1223	ppb		99
12) freon 113	8.66	101	30910	1.0485	ppb		87
13) 1,1-dichloroethene	8.37	96	10172	1.0298	ppb		76
14) acetone	7.79	43	62279	1.1774	ppb		100
15) carbon disulfide	8.78	76	54174	0.9693	ppb	#	89
16) methylene chloride	8.44	49	33349	0.9720	ppb	#	80
17) trans-1,2-dichloroethene	9.19	96	14967	1.0154	ppb		95
18) methyl t-butyl ether	9.47	73	44891	1.0188	ppb		76
19) vinyl acetate	9.44	43	85970	0.9043	ppb		100
20) 2-butanone	9.72	43	52118	0.8507	ppb		95
21) cis-1,2-dichloroethene	9.98	96	16683	1.0397	ppb		99
22) 1,1-dichloroethane	9.35	63	42284	1.0022	ppb	#	92
23) Ethyl Acetate	10.17	61	6222	0.8417	ppb		100
24) Hexane	10.14	57	35082	0.9497	ppb		100
25) chloroform	10.21	83	42197	1.0780	ppb		99
26) Tetrahydrofuran	10.65	42	27077	0.8889	ppb		100
27) 1,2-dichloroethane	10.80	62	32021	1.0456	ppb		95
29) 1,1,1-trichloroethane	11.01	97	36152	1.1200	ppb		98
30) carbon tetrachloride	11.50	117	35025	1.1716	ppb		94
31) benzene	11.38	78	53649	1.0764	ppb		93
32) Cyclohexane	11.61	84	27043	1.1364	ppb	#	100
33) trichloroethene	12.19	130	17438	1.1347	ppb		95
34) 1,2-dichloropropane	12.02	63	24045	1.0609	ppb	#	79
35) bromodichloromethane	12.15	83	42287	1.0947	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD22S1.D
Acq Time : 03/04/2015 17:41 Operator: JCB
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:08 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:47:51 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.45	88	3832	0.7295	ppb	#	64
37)	Heptane	12.39	71	19360	1.0338	ppb		94
38)	cis-1,3-dichloropropene	12.88	75	26932	1.0309	ppb		99
39)	4-methyl-2-pentanone	13.02	43	47306	0.9209	ppb		97
40)	trans-1,3-dichloropropene	13.31	75	20501	0.9869	ppb		99
41)	1,1,2-trichloroethane	13.48	97	17378	1.1104	ppb		98
43)	toluene	13.75	91	44092	1.0731	ppb		97
44)	2-hexanone	14.07	43	31752	0.8332	ppb		97
45)	tetrachloroethene	14.76	164	13917	1.1760	ppb		97
46)	dibromochloromethane	14.12	129	27779	1.1984	ppb		98
47)	1,2-dibromoethane	14.36	107	23969	1.1373	ppb		100
48)	chlorobenzene	15.39	112	29127	1.1890	ppb		88
49)	ethyl benzene	15.74	106	11514	1.0903	ppb		98
50)	m,p-xylene	15.89	106	30946	2.3030	ppb	#	69
51)	o-xylene	16.38	106	14032	1.1817	ppb		82
52)	styrene	16.26	104	16781	1.0074	ppb	#	79
53)	bromoform	16.01	173	17054	1.2274	ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	28962	1.1157	ppb		99
56)	Cumene	15.90	105	14396	1.1577	ppb	#	16
57)	4-ethyl toluene	17.69	105	24832	0.9653	ppb		98
58)	1,3,5-trimethylbenzene	17.76	105	23469	0.9896	ppb		91
59)	1,2,4-trimethylbenzene	18.26	105	18455	0.8923	ppb		92
60)	m-dichlorobenzene	18.46	146	11671	0.9969	ppb		96
61)	p-dichlorobenzene	18.54	146	10513	0.9280	ppb		96
62)	Benzyl Chloride	18.43	91	12463	0.7733	ppb		96
63)	o-dichlorobenzene	18.97	146	10224	0.9834	ppb		96
64)	1,2,4-trichlorobenzene	21.40	180	1220	0.4704	ppb		92
65)	Naphthalene	21.61	128	1581	0.3183	ppb	#	73
66)	hexachloro-1,3-butadiene	22.05	225	6110	1.3703	ppb		94

(#) = qualifier out of range (m) = manual integration

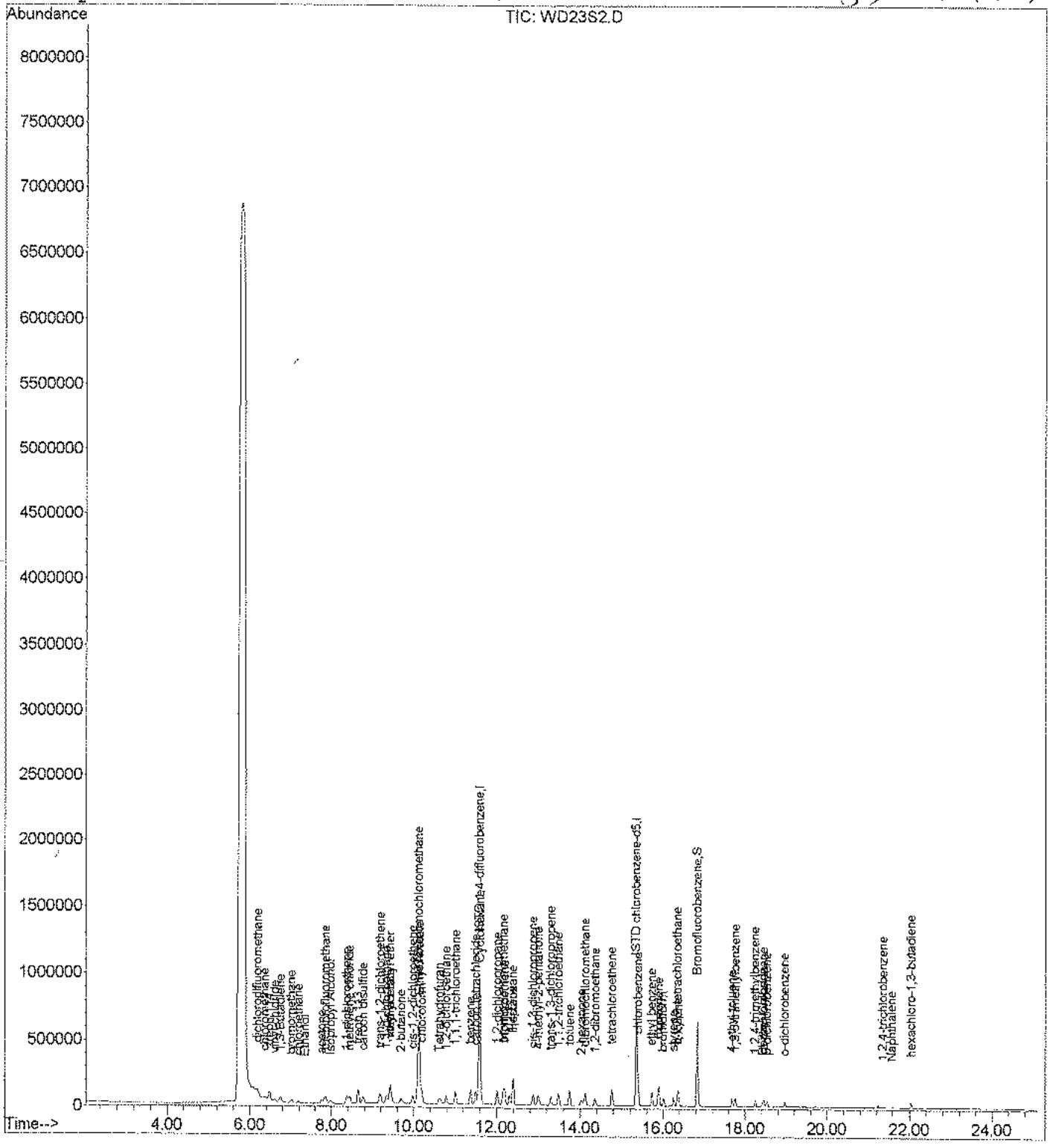
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD23S2.D
Acq Time : 03/04/2015 18:17 Operator: JCB
Sample : 2 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:08 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD23S2.D
Acq Time : 03/04/2015 18:17 Operator: JCB
Sample : 2 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:08 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:48:20 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	168558	20.0000	ppb		76.75
28) ISTD 1,4-difluorobenzene	11.58	114	868415	20.0000	ppb		72.35
42) ISTD chlorobenzene-d5	15.34	117	550846	20.0000	ppb		67.39
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	323957	20.6211	ppb		103.11%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.18	85	87322	1.8191	ppb		99
3) chloromethane	6.37	50	48808	1.9030	ppb		100
4) freon 114	6.48	85	88161	2.1208	ppb		95
5) vinyl chloride	6.61	62	40315	2.1231	ppb		95
6) 1,3-Butadiene	6.75	54	30882	2.1361	ppb		90
7) bromomethane	7.02	94	27565	2.4262	ppb		96
8) chloroethane	7.19	64	20377	2.2057	ppb		96
9) Ethanol	7.35	45	11315	1.6726	ppb		100
10) Isopropyl Alcohol	7.98	45	65303	1.9868	ppb		100
11) trichlorofluoromethane	7.85	101	73728	2.3809	ppb		98
12) freon 113	8.66	101	74400	2.3274	ppb		89
13) 1,1-dichloroethene	8.38	96	24550	2.2959	ppb		78
14) acetone	7.77	43	98254	1.7198	ppb		97
15) carbon disulfide	8.77	76	133982	2.2501	ppb	#	92
16) methylene chloride	8.44	49	74750	2.0407	ppb	#	81
17) trans-1,2-dichloroethene	9.18	96	36725	2.2904	ppb		95
18) methyl t-butyl ether	9.44	73	106118	2.1939	ppb	#	73
19) vinyl acetate	9.42	43	207984	2.0406	ppb		99
20) 2-butanone	9.70	43	123662	1.8834	ppb		98
21) cis-1,2-dichloroethene	9.98	96	39971	2.2693	ppb		99
22) 1,1-dichloroethane	9.34	63	97550	2.1352	ppb	#	93
23) Ethyl Acetate	10.15	61	17117	2.1741	ppb		100
24) Hexane	10.14	57	82682	2.0871	ppb		100
25) chloroform	10.20	83	96708	2.2694	ppb		100
26) Tetrahydrofuran	10.62	42	65307	1.9962	ppb		100
27) 1,2-dichloroethane	10.79	62	71726	2.1426	ppb		96
29) 1,1,1-trichloroethane	11.01	97	84590	2.3513	ppb		99
30) carbon tetrachloride	11.50	117	78361	2.3372	ppb		97
31) benzene	11.38	78	124681	2.2515	ppb		94
32) Cyclohexane	11.61	84	61799	2.3373	ppb	#	100
33) trichloroethene	12.20	130	41995	2.4394	ppb		95
34) 1,2-dichloropropane	12.02	63	53900	2.1688	ppb	#	78
35) bromodichloromethane	12.16	83	98371	2.3041	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD23S2.D
Acq Time : 03/04/2015 18:17 Operator: JCB
Sample : 2 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:08 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:48:20 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.38	88	14077	2.6238	ppb	#	1
37)	Heptane	12.39	71	46448	2.2573	ppb		95
38)	cis-1,3-dichloropropene	12.87	75	63182	2.1780	ppb		99
39)	4-methyl-2-pentanone	12.99	43	114755	2.0163	ppb		97
40)	trans-1,3-dichloropropene	13.30	75	50664	2.2049	ppb		99
41)	1,1,2-trichloroethane	13.47	97	40305	2.3154	ppb		98
43)	toluene	13.75	91	105636	2.3554	ppb		98
44)	2-hexanone	14.03	43	88304	2.1373	ppb		95
45)	tetrachloroethene	14.76	164	33448	2.5610	ppb		98
46)	dibromochloromethane	14.12	129	63701	2.4961	ppb		99
47)	1,2-dibromoethane	14.36	107	54358	2.3609	ppb		100
48)	chlorobenzene	15.39	112	64676	2.4061	ppb		100
49)	ethyl benzene	15.73	106	27812	2.4083	ppb		91
50)	m,p-xylene	15.90	106	69886	4.7229	ppb	#	69
51)	o-xylene	16.37	106	31150	2.3676	ppb		82
52)	styrene	16.25	104	42219	2.3239	ppb	#	80
53)	bromoform	16.00	173	37546	2.4501	ppb		100
54)	1,1,2,2-tetrachloroethane	16.34	83	57959	2.0722	ppb		99
56)	Cumene	15.90	105	32390	2.3685	ppb	#	18
57)	4-ethyl toluene	17.68	105	56183	2.0082	ppb		99
58)	1,3,5-trimethylbenzene	17.76	105	51618	2.0237	ppb		90
59)	1,2,4-trimethylbenzene	18.25	105	39776	1.7862	ppb		90
60)	m-dichlorobenzene	18.45	146	25527	2.0227	ppb		95
61)	p-dichlorobenzene	18.53	146	22640	1.8631	ppb		94
62)	Benzyl Chloride	18.42	91	27481	1.5880	ppb		98
63)	o-dichlorobenzene	18.98	146	20834	1.8448	ppb		95
64)	1,2,4-trichlorobenzene	21.37	180	5101	1.9962	ppb		96
65)	Naphthalene	21.56	128	6901	1.3746	ppb	#	73
66)	hexachloro-1,3-butadiene	22.04	225	9457	2.0408	ppb		91

(#) = qualifier out of range (m) = manual integration

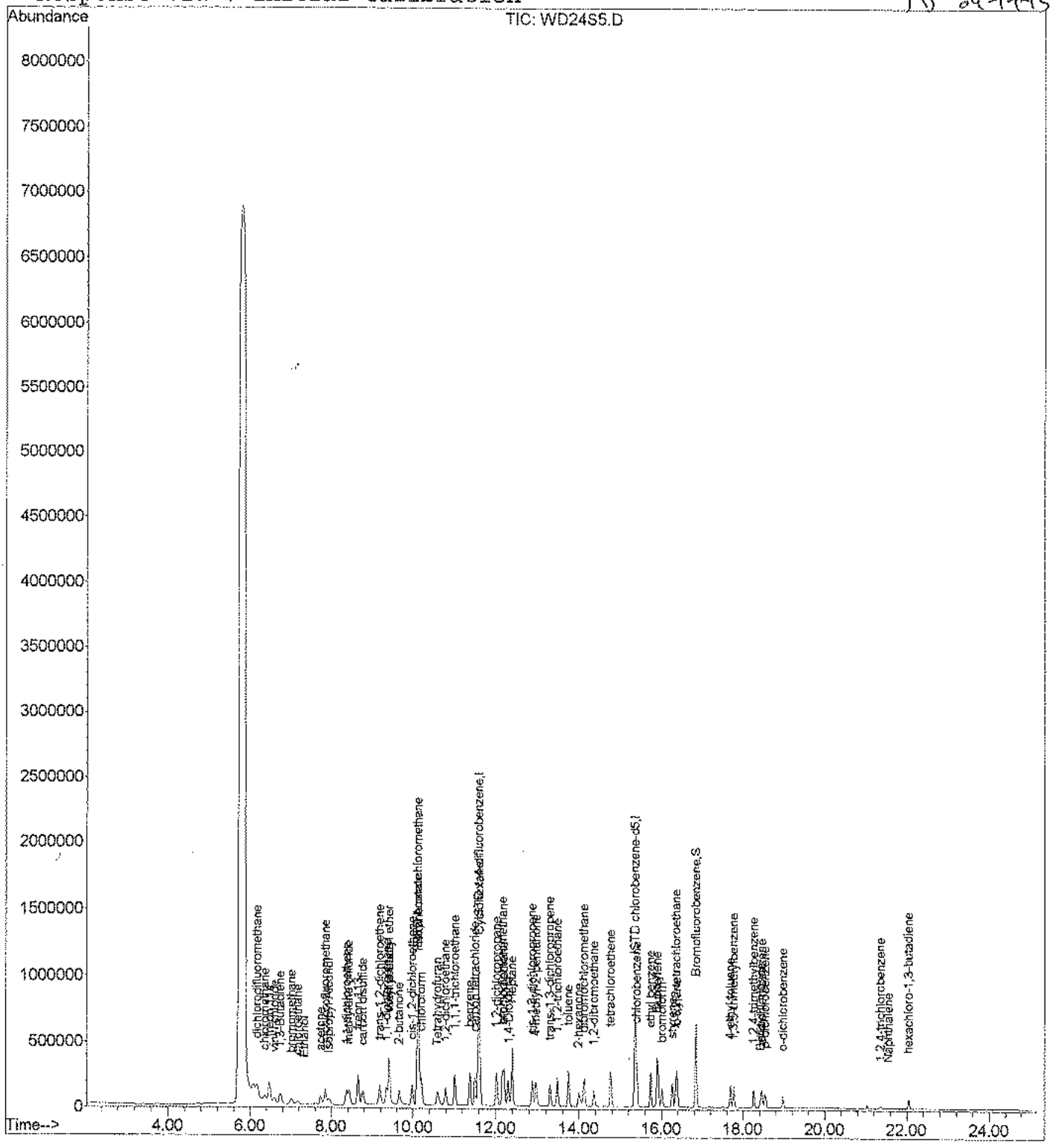
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD24S5.D
Acq Time : 03/04/2015 18:53 Operator: JCB
Sample : 5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:09 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JJ 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD24S5.D
Acq Time : 03/04/2015 18:53 Operator: JCB
Sample : 5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:09 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:49:00 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.12	128	165916	20.0000	ppb		75.54
28) ISTD 1,4-difluorobenzene	11.59	114	871406	20.0000	ppb		72.60
42) ISTD chlorobenzene-d5	15.35	117	561439	20.0000	ppb		68.68
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	333223	20.6528	ppb		103.26%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	184854	4.2394	ppb		99
3) chloromethane	6.36	50	107577	4.4962	ppb		99
4) freon 114	6.47	85	188274	4.7592	ppb		95
5) vinyl chloride	6.59	62	86745	4.8032	ppb		98
6) 1,3-Butadiene	6.74	54	63900	4.6109	ppb		91
7) bromomethane	7.02	94	57288	5.1215	ppb		97
8) chloroethane	7.17	64	42030	4.6939	ppb		98
9) Ethanol	7.33	45	26014	4.1773	ppb		100
10) Isopropyl Alcohol	7.93	45	142642	4.6158	ppb		100
11) trichlorofluoromethane	7.85	101	156660	5.1186	ppb		99
12) freon 113	8.65	101	156305	5.0321	ppb		89
13) 1,1-dichloroethene	8.38	96	52570	5.1267	ppb		81
14) acetone	7.74	43	195606	3.5896	ppb		94
15) carbon disulfide	8.77	76	278240	4.8619	ppb	#	92
16) methylene chloride	8.43	49	159686	4.6239	ppb	#	81
17) trans-1,2-dichloroethene	9.18	96	79593	5.1177	ppb		98
18) methyl t-butyl ether	9.41	73	243353	5.2035	ppb	#	71
19) vinyl acetate	9.41	43	481490	4.9820	ppb		98
20) 2-butanone	9.66	43	294831	4.7801	ppb		98
21) cis-1,2-dichloroethene	9.98	96	90638	5.2929	ppb		97
22) 1,1-dichloroethane	9.34	63	215824	4.9282	ppb		94
23) Ethyl Acetate	10.12	61	39520	5.3143	ppb		100
24) Hexane	10.14	57	182761	4.8766	ppb		100
25) chloroform	10.20	83	212279	5.1314	ppb		100
26) Tetrahydrofuran	10.59	42	154019	4.9886	ppb		100
27) 1,2-dichloroethane	10.79	62	164832	5.1216	ppb		98
29) 1,1,1-trichloroethane	11.01	97	188698	5.2127	ppb		99
30) carbon tetrachloride	11.51	117	170218	5.0438	ppb		97
31) benzene	11.38	78	284736	5.1623	ppb		93
32) Cyclohexane	11.61	84	130642	4.9284	ppb	#	100
33) trichloroethene	12.19	130	96201	5.5145	ppb		93
34) 1,2-dichloropropane	12.02	63	120867	4.9166	ppb	#	79
35) bromodichloromethane	12.15	83	223677	5.2239	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD24S5.D
Acq Time : 03/04/2015 18:53 Operator: JCB
Sample : 5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:09 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:49:00 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.32	88	34868	6.8020	ppb	#	88
37)	Heptane	12.39	71	108176	5.3186	ppb		97
38)	cis-1,3-dichloropropene	12.87	75	151036	5.2686	ppb		100
39)	4-methyl-2-pentanone	12.96	43	266091	4.8339	ppb		98
40)	trans-1,3-dichloropropene	13.31	75	120857	5.3292	ppb		98
41)	1,1,2-trichloroethane	13.48	97	92332	5.2780	ppb		100
43)	toluene	13.75	91	251707	5.5165	ppb		98
44)	2-hexanone	14.00	43	205331	5.0304	ppb		93
45)	tetrachloroethene	14.77	164	77624	5.7170	ppb		98
46)	dibromochloromethane	14.12	129	143402	5.4099	ppb		99
47)	1,2-dibromoethane	14.36	107	127430	5.4191	ppb		100
48)	chlorobenzene	15.40	112	150446	5.4250	ppb		93
49)	ethyl benzene	15.74	106	66279	5.5745	ppb		94
50)	m,p-xylene	15.90	106	166706	11.0457	ppb	#	68
51)	o-xylene	16.38	106	73219	5.4550	ppb		87
52)	styrene	16.26	104	110137	5.9783	ppb	#	79
53)	bromoform	16.01	173	87100	5.4860	ppb		100
54)	1,1,2,2-tetrachloroethane	16.35	83	134420	4.7630	ppb		100
56)	Cumene	15.90	105	77618	5.5669	ppb	#	18
57)	4-ethyl toluene	17.69	105	148669	5.2656	ppb		98
58)	1,3,5-trimethylbenzene	17.76	105	126368	4.8961	ppb		90
59)	1,2,4-trimethylbenzene	18.26	105	102875	4.5877	ppb		90
60)	m-dichlorobenzene	18.46	146	60989	4.7052	ppb		94
61)	p-dichlorobenzene	18.54	146	54576	4.4314	ppb		93
62)	Benzyl Chloride	18.42	91	67162	3.8145	ppb		97
63)	o-dichlorobenzene	18.98	146	47458	4.0816	ppb		94
64)	1,2,4-trichlorobenzene	21.36	180	9067	3.6667	ppb		97
65)	Naphthalene	21.56	128	12830	2.6166	ppb	#	73
66)	hexachloro-1,3-butadiene	22.05	225	16735	3.5909	ppb		93

(#) = qualifier out of range (m) = manual integration

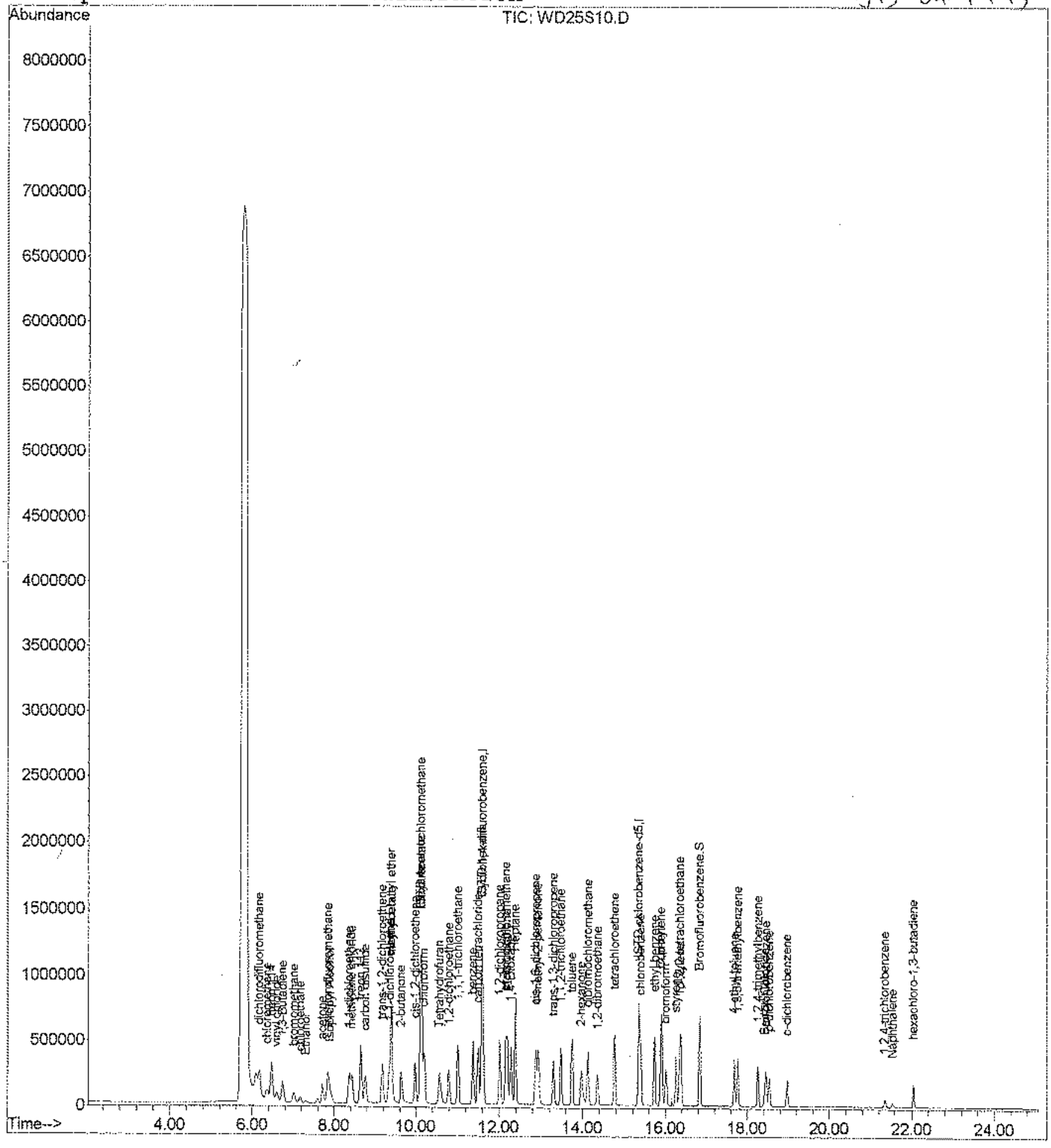
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD25S10.D
Acq Time : 03/04/2015 19:29 Operator: JCB
Sample : 10 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:09 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JTB 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD25S10.D
Acq Time : 03/04/2015 19:29 Operator: JCB
Sample : 10 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:09 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:49:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.11	128	163793	20.0000	ppb		74.58
28) ISTD 1,4-difluorobenzene	11.59	114	847414	20.0000	ppb		70.60
42) ISTD chlorobenzene-d5	15.35	117	542667	20.0000	ppb		66.39
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	334728	21.3168	ppb		106.58%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	377849	9.2067	ppb		99
3) chloromethane	6.36	50	203957	8.8956	ppb		99
4) freon 114	6.46	85	376343	9.7633	ppb		95
5) vinyl chloride	6.60	62	173401	9.8570	ppb		98
6) 1,3-Butadiene	6.74	54	132361	9.8772	ppb		87
7) bromomethane	7.01	94	114794	10.2866	ppb		97
8) chloroethane	7.17	64	83070	9.4357	ppb		98
9) Ethanol	7.30	45	48358	8.0035	ppb		100
10) Isopropyl Alcohol	7.91	45	290576	9.7688	ppb		100
11) trichlorofluoromethane	7.85	101	321662	10.4670	ppb		98
12) freon 113	8.65	101	310573	10.0972	ppb		90
13) 1,1-dichloroethene	8.37	96	108693	10.7566	ppb		81
14) acetone	7.71	43	392355	7.3420	ppb		95
15) carbon disulfide	8.76	76	554518	9.8920	ppb	#	92
16) methylene chloride	8.43	49	318756	9.4997	ppb	#	80
17) trans-1,2-dichloroethene	9.19	96	163409	10.6224	ppb		97
18) methyl t-butyl ether	9.39	73	504290	10.8613	ppb	#	72
19) vinyl acetate	9.39	43	995556	10.5024	ppb		98
20) 2-butanone	9.63	43	613552	10.2509	ppb		99
21) cis-1,2-dichloroethene	9.98	96	181762	10.6405	ppb		97
22) 1,1-dichloroethane	9.35	63	424234	9.8460	ppb	#	93
23) Ethyl Acetate	10.10	61	84698	11.5944	ppb		100
24) Hexane	10.13	57	367446	10.0700	ppb		100
25) chloroform	10.19	83	415822	10.0972	ppb		100
26) Tetrahydrofuran	10.57	42	326379	10.8451	ppb		100
27) 1,2-dichloroethane	10.79	62	329134	10.2974	ppb		98
29) 1,1,1-trichloroethane	11.01	97	371163	10.3707	ppb		98
30) carbon tetrachloride	11.50	117	332394	9.9901	ppb		97
31) benzene	11.37	78	566604	10.4733	ppb		94
32) Cyclohexane	11.61	84	255649	9.8050	ppb	#	100
33) trichloroethene	12.20	130	184705	10.5805	ppb		94
34) 1,2-dichloropropane	12.01	63	241872	10.1248	ppb	#	79
35) bromodichloromethane	12.16	83	436108	10.3280	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD25S10.D
Acq Time : 03/04/2015 19:29 Operator: JCB
Sample : 10 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:09 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:49:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.28	88	64980	13.3480	ppb		97
37)	Heptane	12.40	71	207541	10.4493	ppb		99
38)	cis-1,3-dichloropropene	12.88	75	314493	11.2428	ppb	#	67
39)	4-methyl-2-pentanone	12.93	43	570504	11.0077	ppb		96
40)	trans-1,3-dichloropropene	13.30	75	255622	11.5422	ppb		94
41)	1,1,2-trichloroethane	13.48	97	181208	10.4712	ppb		100
43)	toluene	13.74	91	507079	11.2730	ppb		98
44)	2-hexanone	13.97	43	471124	12.3998	ppb		90
45)	tetrachloroethene	14.77	164	152506	11.1997	ppb		99
46)	dibromochloromethane	14.13	129	281666	10.6729	ppb		99
47)	1,2-dibromoethane	14.36	107	256343	11.0424	ppb		100
48)	chlorobenzene	15.40	112	293993	10.6565	ppb		91
49)	ethyl benzene	15.73	106	136961	11.6515	ppb		93
50)	m,p-xylene	15.89	106	329270	22.0473	ppb	#	67
51)	o-xylene	16.37	106	150475	11.3623	ppb		83
52)	styrene	16.25	104	229631	12.6626	ppb	#	79
53)	bromoform	16.01	173	173992	10.9986	ppb		100
54)	1,1,2,2-tetrachloroethane	16.34	83	268476	9.8709	ppb		100
56)	Cumene	15.90	105	152274	11.0288	ppb	#	17
57)	4-ethyl toluene	17.68	105	316317	11.6565	ppb		97
58)	1,3,5-trimethylbenzene	17.76	105	268942	10.8223	ppb		88
59)	1,2,4-trimethylbenzene	18.25	105	227190	10.7365	ppb		89
60)	m-dichlorobenzene	18.46	146	123777	10.0493	ppb		96
61)	p-dichlorobenzene	18.54	146	114691	9.8148	ppb		93
62)	Benzyl Chloride	18.42	91	157750	9.8702	ppb		98
63)	o-dichlorobenzene	18.97	146	102684	9.4942	ppb		95
64)	1,2,4-trichlorobenzene	21.35	180	27794	14.4837	ppb		99
65)	Naphthalene	21.54	128	45685	12.2474	ppb	#	92
66)	hexachloro-1,3-butadiene	22.04	225	39081	9.2831	ppb		95

(#) = qualifier out of range (m) = manual integration

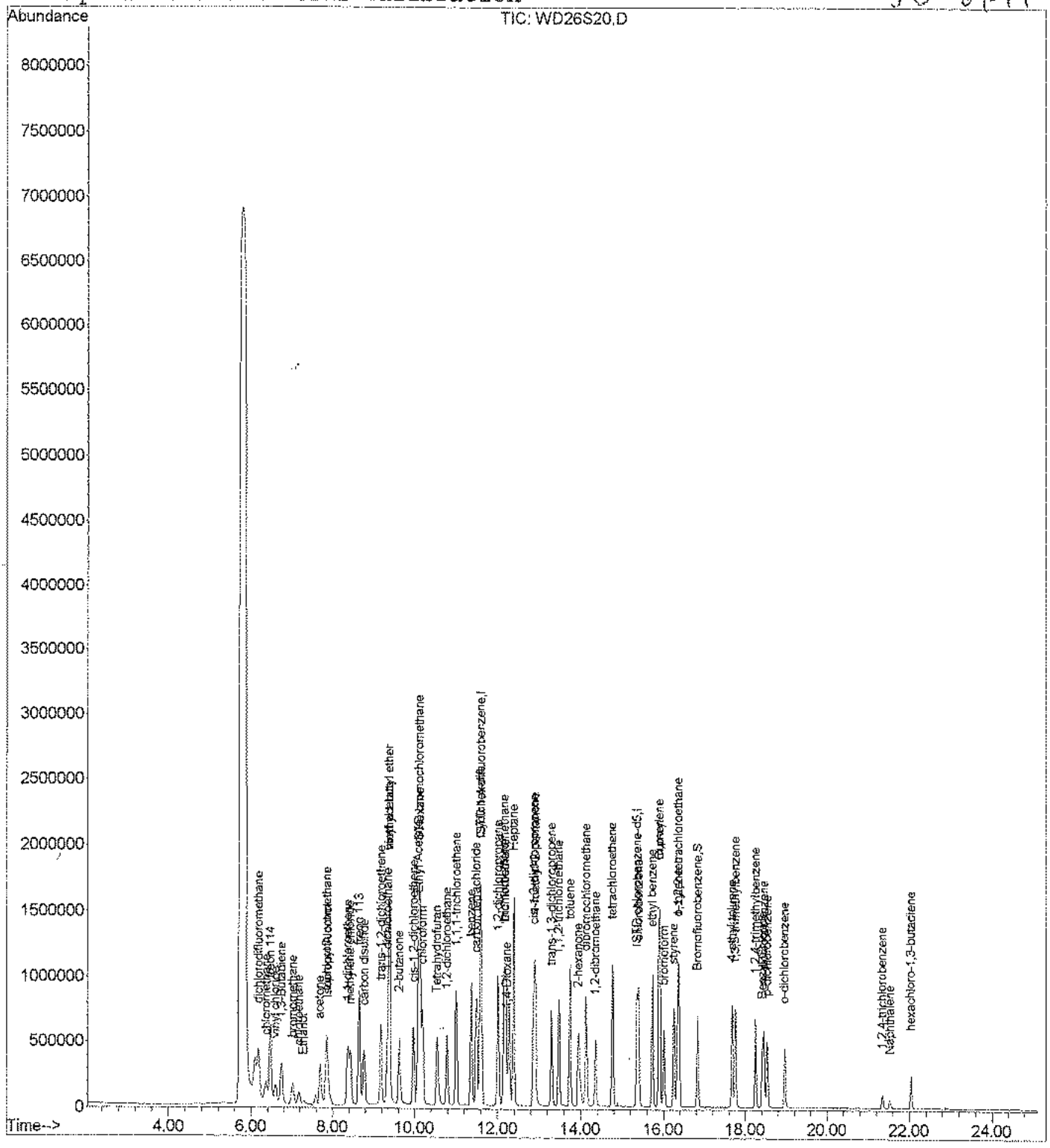
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD26S20.D
Acq Time : 03/04/2015 20:06 Operator: JCB
Sample : 20 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:10 2015 Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD26S20.D
Acq Time : 03/04/2015 20:06 Operator: JCB
Sample : 20 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:10 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:05 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.10	128	161007	20.0000	ppb		98.30
28) ISTD 1,4-difluorobenzene	11.59	114	846920	20.0000	ppb		99.94
42) ISTD chlorobenzene-d5	15.35	117	568507	20.0000	ppb		104.76
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.82	95	337167	20.2088	ppb		101.04%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.18	85	743117	19.1297	ppb		99
3) chloromethane	6.36	50	399475	18.1946	ppb		98
4) freon 114	6.47	85	733565	19.3479	ppb		95
5) vinyl chloride	6.60	62	337207	19.4584	ppb		99
6) 1,3-Butadiene	6.75	54	260280	19.7704	ppb		88
7) bromomethane	7.02	94	227538	20.0970	ppb		98
8) chloroethane	7.17	64	169153	19.2600	ppb		99
9) Ethanol	7.30	45	77739	12.8479	ppb		100
10) Isopropyl Alcohol	7.88	45	491986	16.3175	ppb		100
11) trichlorofluoromethane	7.85	101	634825	20.2677	ppb		98
12) freon 113	8.65	101	602925	19.4777	ppb		90
13) 1,1-dichloroethene	8.37	96	209700	20.3878	ppb		78
14) acetone	7.69	43	782307	14.7121	ppb		94
15) carbon disulfide	8.76	76	1066823	19.1030	ppb	#	92
16) methylene chloride	8.43	49	613159	18.4739	ppb	#	80
17) trans-1,2-dichloroethene	9.18	96	328403	21.1901	ppb		97
18) methyl t-butyl ether	9.38	73	1029703	21.9233	ppb	#	72
19) vinyl acetate	9.38	43	2035828	21.7274	ppb		98
20) 2-butanone	9.62	43	1246472	21.1092	ppb		98
21) cis-1,2-dichloroethene	9.98	96	355382	20.6139	ppb		98
22) 1,1-dichloroethane	9.34	63	835780	19.5738	ppb		93
23) Ethyl Acetate	10.08	61	165111	22.5262	ppb		100
24) Hexane	10.13	57	713206	19.8059	ppb		100
25) chloroform	10.19	83	787633	19.0049	ppb		100
26) Tetrahydrofuran	10.55	42	647828	21.7123	ppb		100
27) 1,2-dichloroethane	10.78	62	655711	20.5112	ppb		98
29) 1,1,1-trichloroethane	11.01	97	738450	19.9842	ppb		98
30) carbon tetrachloride	11.50	117	661173	19.3267	ppb		97
31) benzene	11.37	78	1124943	20.2911	ppb		94
32) Cyclohexane	11.61	84	496236	18.5602	ppb	#	100
33) trichloroethene	12.19	130	365803	20.1504	ppb		93
34) 1,2-dichloropropane	12.01	63	486548	20.0241	ppb	#	78
35) bromodichloromethane	12.15	83	861307	19.8436	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD26S20.D
Acq Time : 03/04/2015 20:06 Operator: JCB
Sample : 20 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:10 2015 Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:05 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.23	88	98938	19.0917	ppb		90
37)	Heptane	12.39	71	398322	19.6659	ppb		99
38)	cis-1,3-dichloropropene	12.87	75	649149	22.5498	ppb	#	67
39)	4-methyl-2-pentanone	12.91	43	1225026	23.2889	ppb		96
40)	trans-1,3-dichloropropene	13.29	75	534410	23.4701	ppb		94
41)	1,1,2-trichloroethane	13.48	97	359671	20.1446	ppb		100
43)	toluene	13.74	91	1029225	20.9946	ppb		98
44)	2-hexanone	13.94	43	1000305	24.4362	ppb		89
45)	tetrachloroethene	14.76	164	304812	20.2856	ppb		99
46)	dibromochloromethane	14.12	129	569650	19.6604	ppb		100
47)	1,2-dibromoethane	14.35	107	528701	20.8392	ppb		99
48)	chlorobenzene	15.39	112	596905	19.7645	ppb		91
49)	ethyl benzene	15.72	106	280258	21.7091	ppb		93
50)	m,p-xylene	15.89	106	689996	42.4312	ppb	#	67
51)	o-xylene	16.36	106	308025	21.2167	ppb		82
52)	styrene	16.25	104	489347	24.4687	ppb	#	79
53)	bromoform	16.01	173	353262	20.1684	ppb		100
54)	1,1,2,2-tetrachloroethane	16.34	83	551218	18.8259	ppb		100
56)	Cumene	15.89	105	320171	21.2984	ppb	#	17
57)	4-ethyl toluene	17.67	105	691842	23.5115	ppb		97
58)	1,3,5-trimethylbenzene	17.75	105	572124	21.2287	ppb		88
59)	1,2,4-trimethylbenzene	18.24	105	510888	22.4929	ppb		88
60)	m-dichlorobenzene	18.45	146	272602	20.5279	ppb		96
61)	p-dichlorobenzene	18.53	146	259652	20.8164	ppb		94
62)	Benzyl Chloride	18.41	91	400521	24.0292	ppb		96
63)	o-dichlorobenzene	18.96	146	239454	20.8086	ppb		95
64)	1,2,4-trichlorobenzene	21.34	180	44835	20.9243	ppb		99
65)	Naphthalene	21.52	128	88811	21.8843	ppb		97
66)	hexachloro-1,3-butadiene	22.04	225	54125	11.6156	ppb		94

(#) = qualifier out of range (m) = manual integration

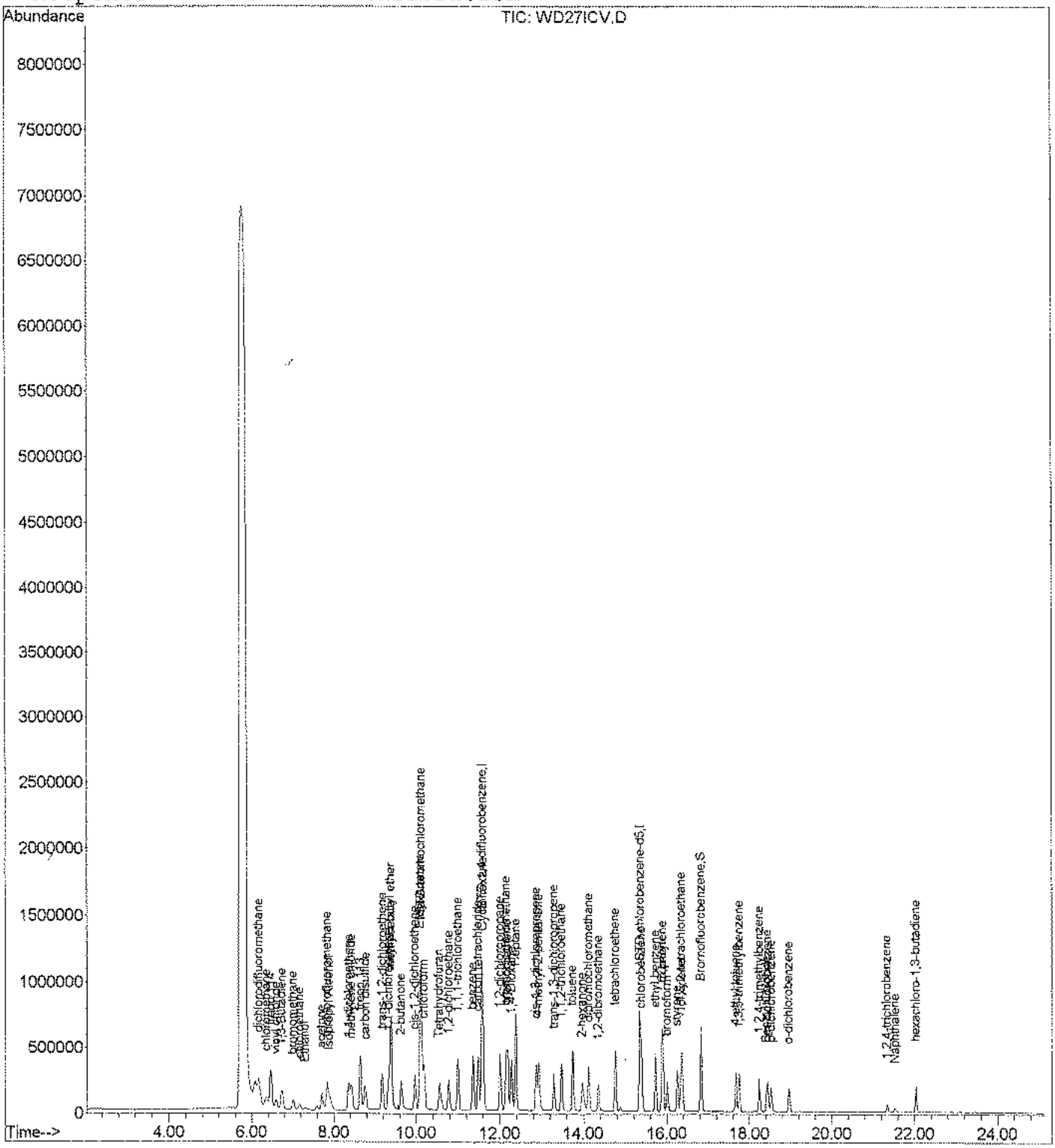
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD27ICV.D
Acq Time : 03/04/2015 20:42 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:14 2015 Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB 09-14-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD27ICV.D
Acq Time : 03/04/2015 20:42 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:14 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.10	128	157707	20.0000	ppb		96.28
28) ISTD 1,4-difluorobenzene	11.58	114	814296	20.0000	ppb		96.09
42) ISTD chlorobenzene-d5	15.35	117	528912	20.0000	ppb		97.47
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.83	95	314325	20.1893	ppb		100.95%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.17	85	357903	9.6985	ppb		99
3) chloromethane	6.35	50	199239	9.4264	ppb		100
4) freon 114	6.46	85	350095	9.3607	ppb		95
5) vinyl chloride	6.59	62	162343	9.4970	ppb		98
6) 1,3-Butadiene	6.74	54	122587	9.4522	ppb		89
7) bromomethane	7.01	94	104277	9.1034	ppb		97
8) chloroethane	7.17	64	78984	9.0108	ppb		99
9) Ethanol	7.31	45	52277	8.8266	ppb		100
10) Isopropyl Alcohol	7.90	45	274647	9.2947	ppb		100
11) trichlorofluoromethane	7.84	101	286980	9.0174	ppb		98
12) freon 113	8.65	101	287337	9.2060	ppb		89
13) 1,1-dichloroethene	8.37	96	95298	9.1704	ppb		74
14) acetone	7.70	43	346288	6.5631	ppb		95
15) carbon disulfide	8.77	76	496679	8.8984	ppb	#	92
16) methylene chloride	8.43	49	292826	8.8856	ppb	#	79
17) trans-1,2-dichloroethene	9.18	96	148974	9.5114	ppb		95
18) methyl t-butyl ether	9.39	73	460677	9.7003	ppb	#	62
19) vinyl acetate	9.40	43	967694	10.3553	ppb	#	98
20) 2-butanone	9.63	43	562627	9.6476	ppb		98
21) cis-1,2-dichloroethene	9.97	96	160109	9.2070	ppb		99
22) 1,1-dichloroethane	9.34	63	398597	9.3664	ppb	#	93
23) Ethyl Acetate	10.09	61	72806	9.9543	ppb		100
24) Hexane	10.12	57	334543	9.3386	ppb		100
25) chloroform	10.19	83	370877	8.8847	ppb		100
26) Tetrahydrofuran	10.56	42	289941	9.8398	ppb		100
27) 1,2-dichloroethane	10.78	62	291565	9.0556	ppb		98
29) 1,1,1-trichloroethane	11.00	97	332774	9.0497	ppb		98
30) carbon tetrachloride	11.49	117	315522	9.2797	ppb		98
31) benzene	11.36	78	498375	9.0718	ppb		94
32) Cyclohexane	11.61	84	234021	8.8093	ppb	#	100
33) trichloroethene	12.19	130	164216	9.0190	ppb		94
34) 1,2-dichloropropane	12.00	63	219672	9.1697	ppb	#	78
35) bromodichloromethane	12.15	83	382391	8.8686	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD27ICV.D
Acq Time : 03/04/2015 20:42 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 5 10:14 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.27	88	58167	11.5260	ppb		98
37)	Heptane	12.39	71	187047	9.3604	ppb		98
38)	cis-1,3-dichloropropene	12.87	75	267830	9.3638	ppb		96
39)	4-methyl-2-pentanone	12.93	43	515498	10.0625	ppb		97
40)	trans-1,3-dichloropropene	13.29	75	211956	9.3479	ppb		97
41)	1,1,2-trichloroethane	13.47	97	151387	8.5276	ppb		100
43)	toluene	13.74	91	443859	9.3235	ppb		98
44)	2-hexanone	13.96	43	399498	10.3394	ppb		90
45)	tetrachloroethene	14.76	164	128695	8.7652	ppb		100
46)	dibromochloromethane	14.12	129	233719	8.2799	ppb		100
47)	1,2-dibromoethane	14.36	107	211739	8.5723	ppb		100
48)	chlorobenzene	15.39	112	241462	8.2157	ppb		92
49)	ethyl benzene	15.72	106	112627	8.9650	ppb		95
50)	m,p-xylene	15.89	106	282161	17.7996	ppb	#	68
51)	o-xylene	16.36	106	124482	8.7977	ppb		84
52)	styrene	16.25	104	184499	9.4006	ppb	#	81
53)	bromoform	16.01	173	140749	8.2221	ppb		100
54)	1,1,2,2-tetrachloroethane	16.33	83	223509	8.1478	ppb		99
56)	Cumene	15.89	105	129989	8.8676	ppb	#	17
57)	4-ethyl toluene	17.67	105	264001	9.5830	ppb		96
58)	1,3,5-trimethylbenzene	17.75	105	222077	9.0513	ppb		89
59)	1,2,4-trimethylbenzene	18.24	105	194252	9.7892	ppb		88
60)	m-dichlorobenzene	18.45	146	105569	8.8391	ppb		96
61)	p-dichlorobenzene	18.53	146	96677	8.8002	ppb		93
62)	Benzyl Chloride	18.41	91	145258	10.4552	ppb		98
63)	o-dichlorobenzene	18.96	146	93021	9.2822	ppb		94
64)	1,2,4-trichlorobenzene	21.34	180	26728	13.2251	ppb		97
65)	Naphthalene	21.53	128	43532	11.3290	ppb	#	91
66)	hexachloro-1,3-butadiene	22.04	225	43328	9.8110	ppb		95

(#) = qualifier out of range (m) = manual integration

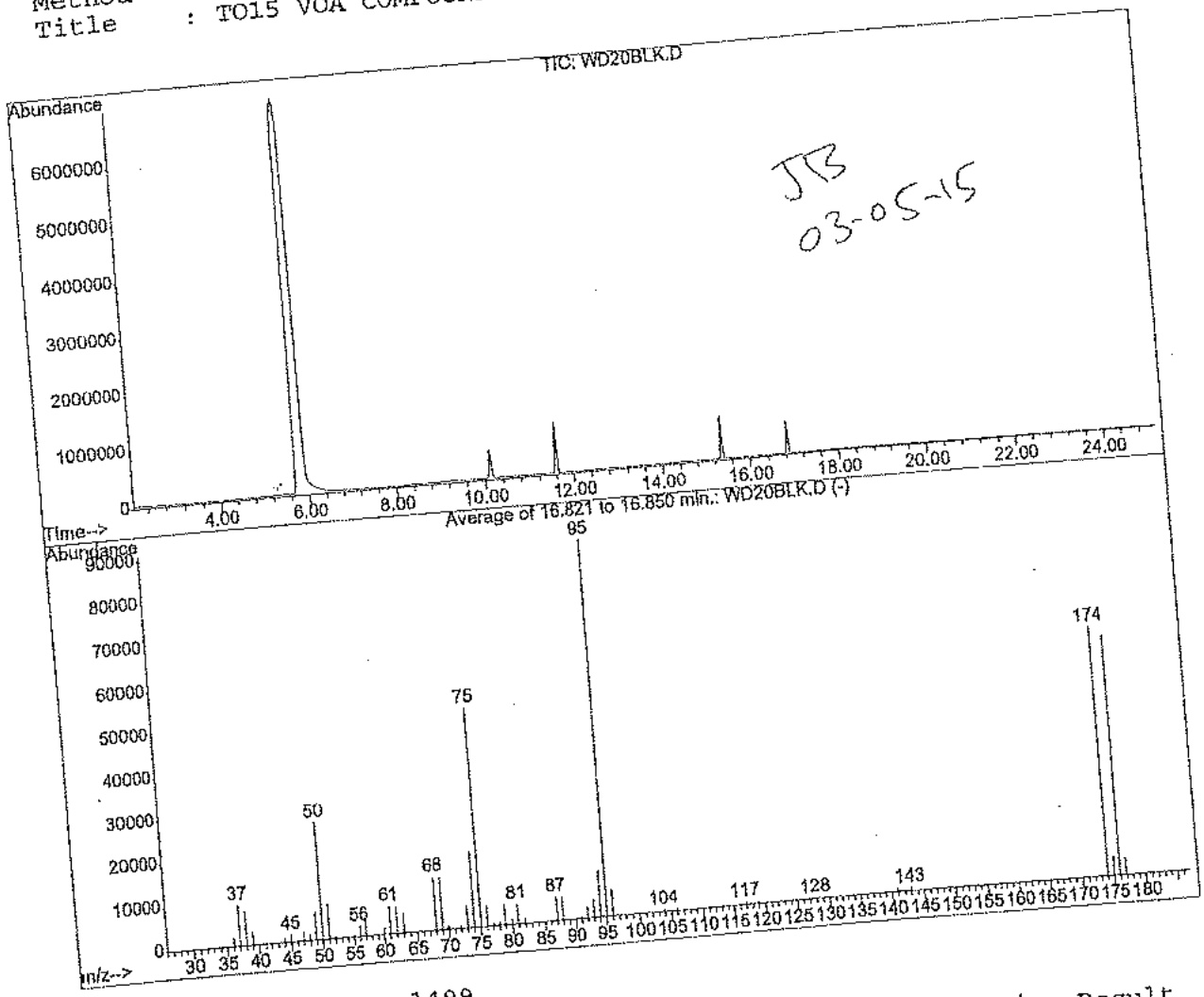
144873
436678

3/90 BFB

Data File : J:\W\2015\MAR15W\04MAR15W\WD20BLK.D
Acq Time : 03/04/2015 16:29
Sample : BL-
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST



JB 03-05-15

Peak Apex is scan: 1499

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	31.0	26944	PASS
75	95	30	66	58.3	50615	PASS
95	95	100	100	100.0	86777	PASS
96	95	5	9	7.0	6089	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	66.4	57603	PASS
175	174	5	9	7.5	4322	PASS
176	174	93	101	96.3	55463	PASS
177	176	5	9	6.8	3793	PASS

BL- 5972-W 03/04/2015 16:29

Average of 16.821 to 16.850 min.: WD20BLK.D

Modified: BL-subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2412	51.05	8624	68.00	12805	79.95	1180
37.00	10103	52.00	378	69.00	12762	80.85	4527
38.00	8397	55.00	426	70.00	925	81.90	994
39.05	3082	56.00	2387	72.00	743	86.95	5418
43.05	210	57.00	3993	73.00	5075	87.90	5134
44.05	682	60.05	1437	74.05	18290	90.95	502
45.05	1618	61.05	6328	75.05	52643	91.95	2612
47.00	2144	62.05	6063	76.05	4465	93.00	4107
48.00	1265	63.05	4341	77.00	658	94.05	11156
49.00	6697	64.00	366	77.95	565	95.05	89999
50.00	28632	67.10	220	78.90	4611	96.00	6089

Average of 16.821 to 16.850 min.: WD20BLK.D

Modified: BL-subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.90	487	175.85	57138				
105.95	475	176.85	3793				
115.90	308						
116.90	682						
117.90	197						
118.90	503						
127.85	180						
140.90	724						
142.90	745						
173.95	58964						
174.95	4322						

144873

Analyst Notebook

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is TO15 WD15.M (HBN 144873)

The following compounds in the CCS were outside of +-30%:

Jordan Baum
JB
03-05-15

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
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Continuing Calibration Report 5972-W

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

Continuing Calibration File: WD25S10.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%
1	ISTD bromochloromethane	1.000	1.000	0.0	100
2	dichlorodifluoromethane	4.680	4.614	1.4	100
3	chloromethane	2.680	2.490	7.1	100
4	freon 114	4.743	4.595	3.1	100
5	vinyl chloride	2.168	2.117	2.3	100
6	1,3-Butadiene	1.645	1.616	1.7	100
7	bromomethane	1.453	1.402	3.5	100
8	chloroethane	1.112	1.014	8.8	100
9	Ethanol	0.751	0.590	21.4	100
10	Isopropyl Alcohol	3.747	3.548	5.3	100
11	trichlorofluoromethane	4.036	3.928	2.7	100
12	freon 113	3.958	3.792	4.2	100
13	1,1-dichloroethene	1.318	1.327	-0.7	100
14	acetone	6.691	4.791	28.4	100
15	carbon disulfide	7.079	6.771	4.3	100
16	methylene chloride	4.179	3.892	6.9	100
17	trans-1,2-dichloroethene	1.986	1.995	-0.5	100
18	methyl t-butyl ether	6.023	6.158	-2.2	100
19	vinyl acetate	11.851	12.156	-2.6	100
20	2-butanone	7.396	7.492	-1.3	100
21	cis-1,2-dichloroethene	2.205	2.219	-0.6	100
22	1,1-dichloroethane	5.397	5.180	4.0	100
23	Ethyl Acetate	0.928	1.034	-11.5	100
24	Hexane	4.543	4.487	1.2	100
25	chloroform	5.294	5.077	4.1	100
26	Tetrahydrofuran	3.737	3.985	-6.6	100
27	1,2-dichloroethane	4.083	4.019	1.6	100
28 I	ISTD 1,4-difluorobenzene	1.000	1.000	0.0	100
29	1,1,1-trichloroethane	0.903	0.876	3.0	100
30	carbon tetrachloride	0.835	0.784	6.1	100
31	benzene	1.349	1.337	0.9	100
32	Cyclohexane	0.652	0.603	7.5	100
33	trichloroethene	0.447	0.436	2.5	100
34	1,2-dichloropropane	0.588	0.571	3.0	100
35	bromodichloromethane	1.059	1.029	2.8	100
36	1,4-Dioxane	0.124	0.153	-23.7	100
37	Heptane	0.491	0.490	0.2	100
38	cis-1,3-dichloropropene	0.703	0.742	-5.7	100
39	4-methyl-2-pentanone	1.258	1.346	-7.0	100
40	trans-1,3-dichloropropene	0.557	0.603	-8.3	100
41	1,1,2-trichloroethane	0.436	0.428	1.9	100
42 I	ISTD chlorobenzene-d5	1.000	1.000	0.0	100

(#) = Out of Range

Continuing Calibration Report 5972-W

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

Continuing Calibration File: WD25S10.D

Min. RRF : 0.001 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%
43	toluene	1.800	1.869	-3.8	100
44	2-hexanone	1.461	1.736	-18.8	100
45	tetrachloroethene	0.555	0.562	-1.2	100
46	dibromochloromethane	1.067	1.038	2.7	100
47	1,2-dibromoethane	0.934	0.945	-1.2	100
48	chlorobenzene	1.111	1.084	2.5	100
49	ethyl benzene	0.475	0.505	-6.3	100
50	m,p-xylene	0.599	0.607	-1.2	100
51	o-xylene	0.535	0.555	-3.7	100
52	styrene	0.742	0.846	-14.0	100
53	bromoform	0.647	0.641	0.9	100
54	1,1,2,2-tetrachloroethane	1.037	0.989	4.6	100
55 S	Bromofluorobenzene	0.589	0.617	-4.8	100
56	Cumene	0.554	0.561	-1.2	100
57	4-ethyl toluene	1.042	1.166	-11.9	100
58	1,3,5-trimethylbenzene	0.928	0.991	-6.8	100
59	1,2,4-trimethylbenzene	0.750	0.837	-11.6	100
60	m-dichlorobenzene	0.452	0.456	-1.0	100
61	p-dichlorobenzene	0.415	0.423	-1.8	100
62	Benzyl Chloride	0.525	0.581	-10.7	100
63	o-dichlorobenzene	0.379	0.378	0.1	100
64	1,2,4-trichlorobenzene	0.076	0.102	-34.0#	100
65	Naphthalene	0.145	0.168	-15.9	100
66	hexachloro-1,3-butadiene	0.167	0.144	13.7	100

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD25S10.D
Acq Time : 03/04/2015 19:29
Sample : 10 PPB
Misc :

QC

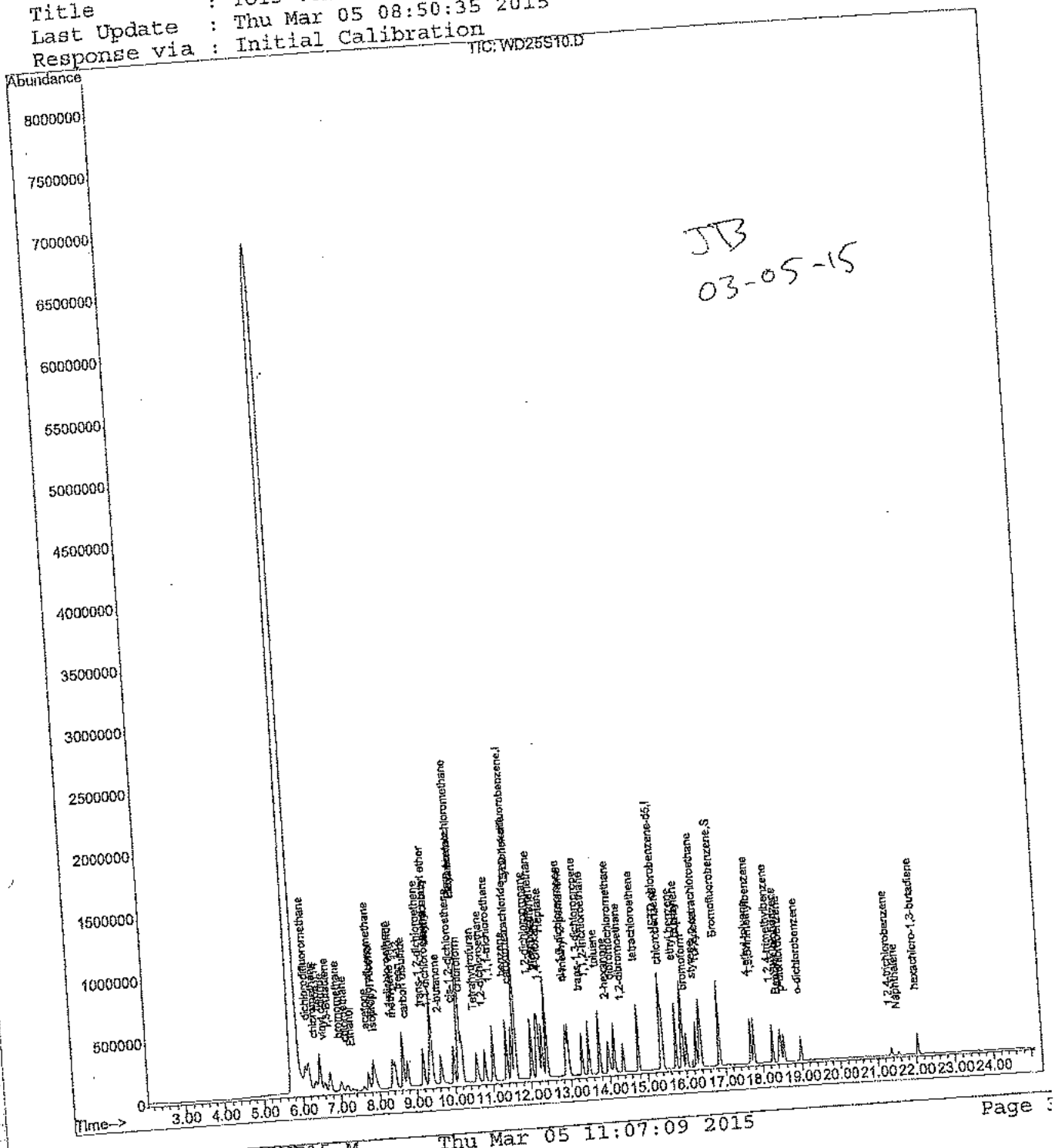
Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Results File: T015WC15.RES

Quant Time: Mar 5 9:09 2015

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB
03-05-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD25S10.D
Acq Time : 03/04/2015 19:29
Sample : 10 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:09 2015

Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:49:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	R.T.	QIon	Response	Conc Units		Area%
Internal Standards						
1) ISTD bromochloromethane	10.11	128	163793	20.0000 ppb		74.58
28) ISTD 1,4-difluorobenzene	11.59	114	847414	20.0000 ppb		70.60
42) ISTD chlorobenzene-d5	15.35	117	542667	20.0000 ppb		66.39
						%Recovery
System Monitoring Compounds						
55) Bromofluorobenzene	16.83	95	334728	21.3168 ppb		106.58%
						Qvalue
Target Compounds						
2) dichlorodifluoromethane	6.17	85	377849	9.2067 ppb		99
3) chloromethane	6.36	50	203957	8.8956 ppb		99
4) freon 114	6.46	85	376343	9.7633 ppb		95
5) vinyl chloride	6.60	62	173401	9.8570 ppb		98
6) 1,3-Butadiene	6.74	54	132361	9.8772 ppb		87
7) bromomethane	7.01	94	114794	10.2866 ppb		97
8) chloroethane	7.17	64	83070	9.4357 ppb		98
9) Ethanol	7.30	45	48358	8.0035 ppb		100
10) Isopropyl Alcohol	7.91	45	290576	9.7688 ppb		100
11) trichlorofluoromethane	7.85	101	321662	10.4670 ppb		98
12) freon 113	8.65	101	310573	10.0972 ppb		90
13) 1,1-dichloroethene	8.37	96	108693	10.7566 ppb		81
14) acetone	7.71	43	392355	7.3420 ppb		95
15) carbon disulfide	8.76	76	554518	9.8920 ppb	#	92
16) methylene chloride	8.43	49	318756	9.4997 ppb	#	80
17) trans-1,2-dichloroethene	9.19	96	163409	10.6224 ppb		97
18) methyl t-butyl ether	9.39	73	504290	10.8613 ppb	#	72
19) vinyl acetate	9.39	43	995556	10.5024 ppb		98
20) 2-butanone	9.63	43	613552	10.2509 ppb		99
21) cis-1,2-dichloroethene	9.98	96	181762	10.6405 ppb		97
22) 1,1-dichloroethane	9.35	63	424234	9.8460 ppb	#	93
23) Ethyl Acetate	10.10	61	84698	11.5944 ppb		100
24) Hexane	10.13	57	367446	10.0700 ppb		100
25) chloroform	10.19	83	415822	10.0972 ppb		100
26) Tetrahydrofuran	10.57	42	326379	10.8451 ppb		98
27) 1,2-dichloroethane	10.79	62	329134	10.2974 ppb		98
29) 1,1,1-trichloroethane	11.01	97	371163	10.3707 ppb		9
30) carbon tetrachloride	11.50	117	332394	9.9901 ppb		9
31) benzene	11.37	78	566604	10.4733 ppb		10
32) Cyclohexane	11.61	84	255649	9.8050 ppb	#	9
33) trichloroethene	12.20	130	184705	10.5805 ppb		7
34) 1,2-dichloropropane	12.01	63	241872	10.1248 ppb	#	9
35) bromodichloromethane	12.16	83	436108	10.3280 ppb		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD25S10.D
Acq Time : 03/04/2015 19:29
Sample : 10 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:09 2015

Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:49:27 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36) 1,4-Dioxane	12.28	88	64980	13.3480 ppb		97
37) Heptane	12.40	71	207541	10.4493 ppb		99
38) cis-1,3-dichloropropene	12.88	75	314493	11.2428 ppb	#	67
39) 4-methyl-2-pentanone	12.93	43	570504	11.0077 ppb		96
40) trans-1,3-dichloropropene	13.30	75	255622	11.5422 ppb		94
41) 1,1,2-trichloroethane	13.48	97	181208	10.4712 ppb		100
43) toluene	13.74	91	507079	11.2730 ppb		98
44) 2-hexanone	13.97	43	471124	12.3998 ppb		90
45) tetrachloroethene	14.77	164	152506	11.1997 ppb		99
46) dibromochloromethane	14.13	129	281666	10.6729 ppb		99
47) 1,2-dibromoethane	14.36	107	256343	11.0424 ppb		100
48) chlorobenzene	15.40	112	293993	10.6565 ppb		91
49) ethyl benzene	15.73	106	136961	11.6515 ppb		93
50) m,p-xylene	15.89	106	329270	22.0473 ppb	#	67
51) o-xylene	16.37	106	150475	11.3623 ppb		83
52) styrene	16.25	104	229631	12.6626 ppb	#	79
53) bromoform	16.01	173	173992	10.9986 ppb		100
54) 1,1,2,2-tetrachloroethane	16.34	83	268476	9.8709 ppb		100
56) Cumene	15.90	105	152274	11.0288 ppb	#	17
57) 4-ethyl toluene	17.68	105	316317	11.6565 ppb		97
58) 1,3,5-trimethylbenzene	17.76	105	268942	10.8223 ppb		88
59) 1,2,4-trimethylbenzene	18.25	105	227190	10.7365 ppb		89
60) m-dichlorobenzene	18.46	146	123777	10.0493 ppb		96
61) p-dichlorobenzene	18.54	146	114691	9.8148 ppb		93
62) Benzyl Chloride	18.42	91	157750	9.8702 ppb		98
63) o-dichlorobenzene	18.97	146	102684	9.4942 ppb		95
64) 1,2,4-trichlorobenzene	21.35	180	27794	14.4837 ppb		99
65) Naphthalene	21.54	128	45685	12.2474 ppb	#	92
66) hexachloro-1,3-butadiene	22.04	225	39081	9.2831 ppb		95

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD27ICV.D
Acq Time : 03/04/2015 20:42
Sample : 10 PPB ICV
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

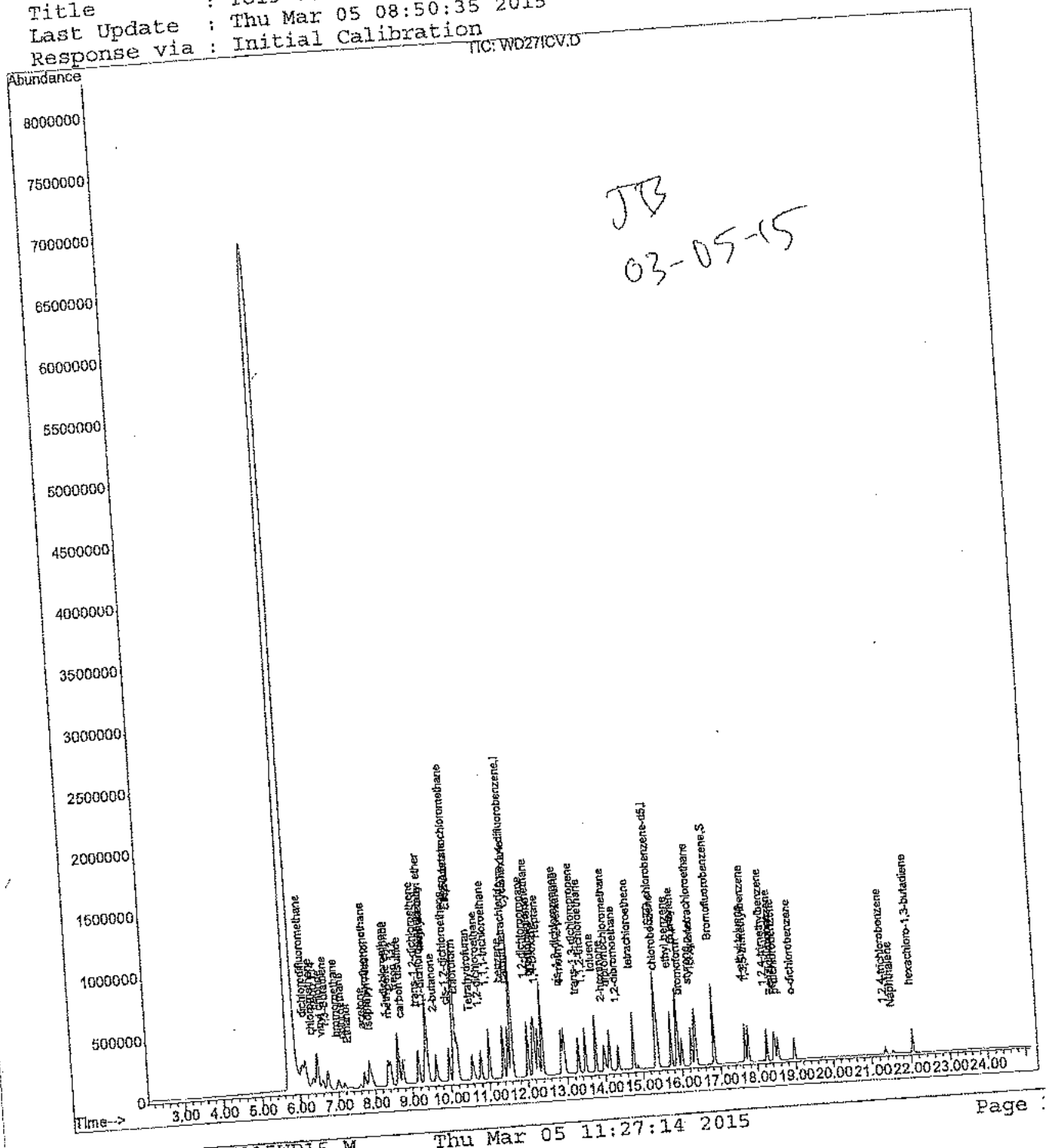
QD

Quant Time: Mar 5 9:14 2015

Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB
03-05-15



Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD27ICV.D
Acq Time : 03/04/2015 20:42
Sample : 10 PPB ICV
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:14 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	R.T.	QIon	Response	Conc Units		Area%
Internal Standards						
1) ISTD bromochloromethane	10.10	128	157707	20.0000 ppb		96.28
28) ISTD 1,4-difluorobenzene	11.58	114	814296	20.0000 ppb		96.09
42) ISTD chlorobenzene-d5	15.35	117	528912	20.0000 ppb		97.47
						%Recovery
System Monitoring Compounds						
55) Bromofluorobenzene	16.83	95	314325	20.1893 ppb		100.95%
						Qvalue
Target Compounds						
2) dichlorodifluoromethane	6.17	85	357903	9.6985 ppb		99
3) chloromethane	6.35	50	199239	9.4264 ppb		100
4) freon 114	6.46	85	350095	9.3607 ppb		95
5) vinyl chloride	6.59	62	162343	9.4970 ppb		98
6) 1,3-Butadiene	6.74	54	122587	9.4522 ppb		89
7) bromomethane	7.01	94	104277	9.1034 ppb		97
8) chloroethane	7.17	64	78984	9.0108 ppb		99
9) Ethanol	7.31	45	52277	8.8266 ppb		100
10) Isopropyl Alcohol	7.90	45	274647	9.2947 ppb		100
11) trichlorofluoromethane	7.84	101	286980	9.0174 ppb		98
12) freon 113	8.65	101	287337	9.2060 ppb		89
13) 1,1-dichloroethene	8.37	96	95298	9.1704 ppb		74
14) acetone	7.70	43	346288	6.5631 ppb		95
15) carbon disulfide	8.77	76	496679	8.8984 ppb	#	92
16) methylene chloride	8.43	49	292826	8.8856 ppb	#	79
17) trans-1,2-dichloroethene	9.18	96	148974	9.5114 ppb		95
18) methyl t-butyl ether	9.39	73	460677	9.7003 ppb	#	62
19) vinyl acetate	9.40	43	967694	10.3553 ppb	#	98
20) 2-butanone	9.63	43	562627	9.6476 ppb		98
21) cis-1,2-dichloroethene	9.97	96	160109	9.2070 ppb		99
22) 1,1-dichloroethane	9.34	63	398597	9.3664 ppb	#	93
23) Ethyl Acetate	10.09	61	72806	9.9543 ppb		100
24) Hexane	10.12	57	334543	9.3386 ppb		10(
25) chloroform	10.19	83	370877	8.8847 ppb		10(
26) Tetrahydrofuran	10.56	42	289941	9.8398 ppb		10(
27) 1,2-dichloroethane	10.78	62	291565	9.0556 ppb		9!
29) 1,1,1-trichloroethane	11.00	97	332774	9.0497 ppb		9
30) carbon tetrachloride	11.49	117	315522	9.2797 ppb		9
31) benzene	11.36	78	498375	9.0718 ppb		9
32) Cyclohexane	11.61	84	234021	8.8093 ppb	#	10
33) trichloroethene	12.19	130	164216	9.0190 ppb		9
34) 1,2-dichloropropane	12.00	63	219672	9.1697 ppb	#	7
35) bromodichloromethane	12.15	83	382391	8.8686 ppb		1(

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD27ICV.D
Acq Time : 03/04/2015 20:42
Sample : 10 PPB ICV
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:14 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36) 1,4-Dioxane	12.27	88	58167	11.5260 ppb		98
37) Heptane	12.39	71	187047	9.3604 ppb		98
38) cis-1,3-dichloropropene	12.87	75	267830	9.3638 ppb		96
39) 4-methyl-2-pentanone	12.93	43	515498	10.0625 ppb		97
40) trans-1,3-dichloropropene	13.29	75	211956	9.3479 ppb		97
41) 1,1,2-trichloroethane	13.47	97	151387	8.5276 ppb		100
43) toluene	13.74	91	443859	9.3235 ppb		98
44) 2-hexanone	13.96	43	399498	10.3394 ppb		90
45) tetrachloroethene	14.76	164	128695	8.7652 ppb		100
46) dibromochloromethane	14.12	129	233719	8.2799 ppb		100
47) 1,2-dibromoethane	14.36	107	211739	8.5723 ppb		100
48) chlorobenzene	15.39	112	241462	8.2157 ppb		92
49) ethyl benzene	15.72	106	112627	8.9650 ppb		95
50) m,p-xylene	15.89	106	282161	17.7996 ppb	#	68
51) o-xylene	16.36	106	124482	8.7977 ppb		84
52) styrene	16.25	104	184499	9.4006 ppb	#	81
53) bromoform	16.01	173	140749	8.2221 ppb		100
54) 1,1,2,2-tetrachloroethane	16.33	83	223509	8.1478 ppb		99
56) Cumene	15.89	105	129989	8.8676 ppb	#	17
57) 4-ethyl toluene	17.67	105	264001	9.5830 ppb		96
58) 1,3,5-trimethylbenzene	17.75	105	222077	9.0513 ppb		89
59) 1,2,4-trimethylbenzene	18.24	105	194252	9.7892 ppb		88
60) m-dichlorobenzene	18.45	146	105569	8.8391 ppb		96
61) p-dichlorobenzene	18.53	146	96677	8.8002 ppb		93
62) Benzyl Chloride	18.41	91	145258	10.4552 ppb		98
63) o-dichlorobenzene	18.96	146	93021	9.2822 ppb		94
64) 1,2,4-trichlorobenzene	21.34	180	26728	13.2251 ppb		97
65) Naphthalene	21.53	128	43532	11.3290 ppb	#	91
66) hexachloro-1,3-butadiene	22.04	225	43328	9.8110 ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

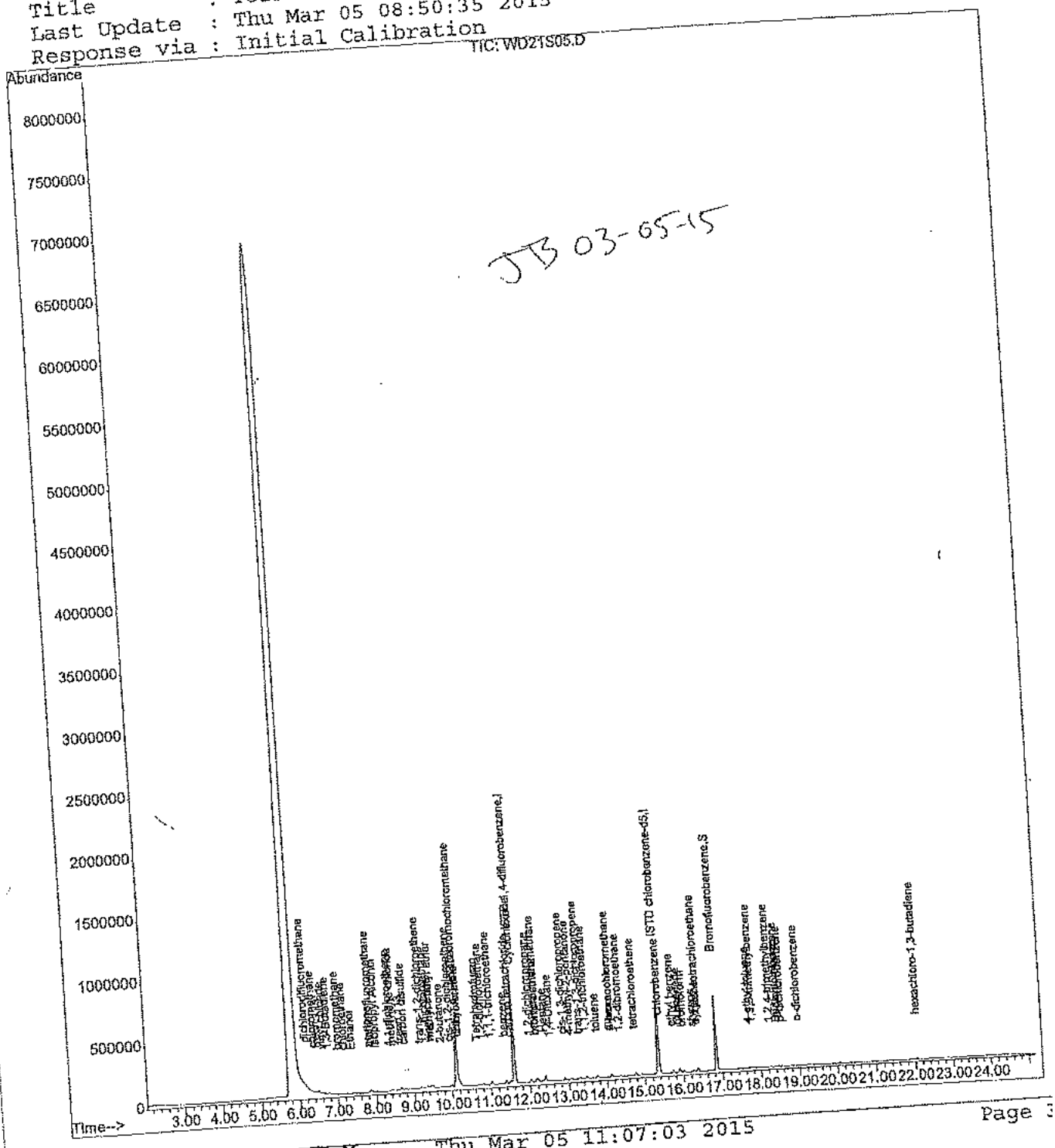
Data File : J:\W\2015\MAR15W\04MAR15W\WD21S05.D
Acq Time : 03/04/2015 17:05
Sample : 0.5 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:06 2015

Quant Results File: T015WC15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration



JB 03-05-15

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD21S05.D
Acq Time : 03/04/2015 17:05
Sample : 0.5 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:06 2015

Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Mon Mar 02 10:32:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	R.T.	QIon	Response	Conc	Units		Area%
Internal Standards							
1) ISTD bromochloromethane	10.12	128	158132	20.0000	ppb		72.00
28) ISTD 1,4-difluorobenzene	11.59	114	825673	20.0000	ppb		68.79
42) ISTD chlorobenzene-d5	15.35	117	526538	20.0000	ppb		64.41
						%Recovery	
System Monitoring Compounds							
55) Bromofluorobenzene	16.83	95	302075	20.3590	ppb		101.79%
						Qvalue	
Target Compounds							
2) dichlorodifluoromethane	6.19	85	19146	0.4139	ppb	#	91
3) chloromethane	6.38	50	11954	0.4996	ppb		89
4) freon 114	6.48	85	19765	0.5226	ppb		90
5) vinyl chloride	6.61	62	8779	0.5035	ppb		94
6) 1,3-Butadiene	6.76	54	6628	0.4979	ppb		95
7) bromomethane	7.04	94	5823	0.5920	ppb		97
8) chloroethane	7.19	64	4998	0.6381	ppb	#	43
9) Ethanol	7.39	45	4721	0.7981	ppb		100
10) Isopropyl Alcohol	8.03	45	17972	0.5932	ppb		100
11) trichlorofluoromethane	7.87	101	16757	0.6399	ppb		94
12) freon 113	8.67	101	16358	0.5758	ppb		88
13) 1,1-dichloroethene	8.38	96	5032	0.5282	ppb	#	62
14) acetone	7.83	43	47877	0.9376	ppb		97
15) carbon disulfide	8.78	76	30028	0.5488	ppb	#	91
16) methylene chloride	8.45	49	19337	0.5830	ppb	#	78
17) trans-1,2-dichloroethene	9.19	96	7513	0.5291	ppb		86
18) methyl t-butyl ether	9.48	73	22802	0.5343	ppb	#	70
19) vinyl acetate	9.44	43	45591	0.4850	ppb	#	96
20) 2-butanone	9.75	43	32153	0.5409	ppb	#	87
21) cis-1,2-dichloroethene	9.98	96	8492	0.5529	ppb		99
22) 1,1-dichloroethane	9.35	63	22513	0.5500	ppb	#	88
23) Ethyl Acetate	10.18	61	2980	0.4010	ppb		100
24) Hexane	10.14	57	18236	0.5022	ppb		100
25) chloroform	10.20	83	22236	0.5886	ppb		99
26) Tetrahydrofuran	10.68	42	13500	0.4456	ppb		100
27) 1,2-dichloroethane	10.80	62	16391	0.5507	ppb		9[illegible]
29) 1,1,1-trichloroethane	11.02	97	19408	0.6204	ppb		9[illegible]
30) carbon tetrachloride	11.50	117	18558	0.6428	ppb		9[illegible]
31) benzene	11.38	78	28197	0.5790	ppb		9[illegible]
32) Cyclohexane	11.62	84	15442	0.6685	ppb	#	10
33) trichloroethene	12.20	130	9509	0.6420	ppb		9
34) 1,2-dichloropropane	12.02	63	12741	0.5654	ppb		8
35) bromodichloromethane	12.16	83	22844	0.6019	ppb		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD21S05.D
Acq Time : 03/04/2015 17:05
Sample : 0.5 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 9:06 2015

Quant Results File: T015WC15.RES

Quant Method : J:\W\METHODS\T015WC15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Mon Mar 02 10:32:36 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36) 1,4-Dioxane	12.52	88	1176	0.1931 ppb	#	51
37) Heptane	12.40	71	9833	0.5310 ppb		92
38) cis-1,3-dichloropropene	12.88	75	12841	0.4945 ppb		93
39) 4-methyl-2-pentanone	13.05	43	21643	0.4191 ppb		91
40) trans-1,3-dichloropropene	13.31	75	9577	0.4604 ppb		91
41) 1,1,2-trichloroethane	13.48	97	9243	0.6025 ppb		100
43) toluene	13.74	91	22817	0.5745 ppb		99
44) 2-hexanone	14.11	43	13118	0.3473 ppb	#	87
45) tetrachloroethene	14.76	164	7151	0.6353 ppb		94
46) dibromochloromethane	14.13	129	14865	0.6747 ppb		99
47) 1,2-dibromoethane	14.36	107	12147	0.5941 ppb		98
48) chlorobenzene	15.40	112	15540	0.6609 ppb	#	65
49) ethyl benzene	15.73	106	5758	0.5703 ppb		91
50) m,p-xylene	15.90	106	14903	1.1545 ppb		71
51) o-xylene	16.37	106	6488	0.5648 ppb		87
52) styrene	16.25	104	7322	0.4499 ppb	#	76
53) bromoform	16.01	173	8823	0.6663 ppb		100
54) 1,1,2,2-tetrachloroethane	16.35	83	15178	0.5993 ppb		99
56) Cumene	15.90	105	6750	0.5608 ppb	#	21
57) 4-ethyl toluene	17.69	105	11107	0.4485 ppb		95
58) 1,3,5-trimethylbenzene	17.77	105	11042	0.4775 ppb		92
59) 1,2,4-trimethylbenzene	18.26	105	8017	0.3961 ppb		96
60) m-dichlorobenzene	18.46	146	5688	0.5031 ppb	#	87
61) p-dichlorobenzene	18.54	146	5440	0.4947 ppb	#	91
62) Benzyl Chloride	18.43	91	5459	0.3468 ppb	#	65
63) o-dichlorobenzene	18.98	146	4854	0.4857 ppb		88
64) 1,2,4-trichlorobenzene	0.00	180		Not Detected		
65) Naphthalene	0.00	128		Not Detected		
66) hexachloro-1,3-butadiene	22.04	225	3151	0.7041 ppb	#	84

(#) = qualifier out of range (m) = manual integration

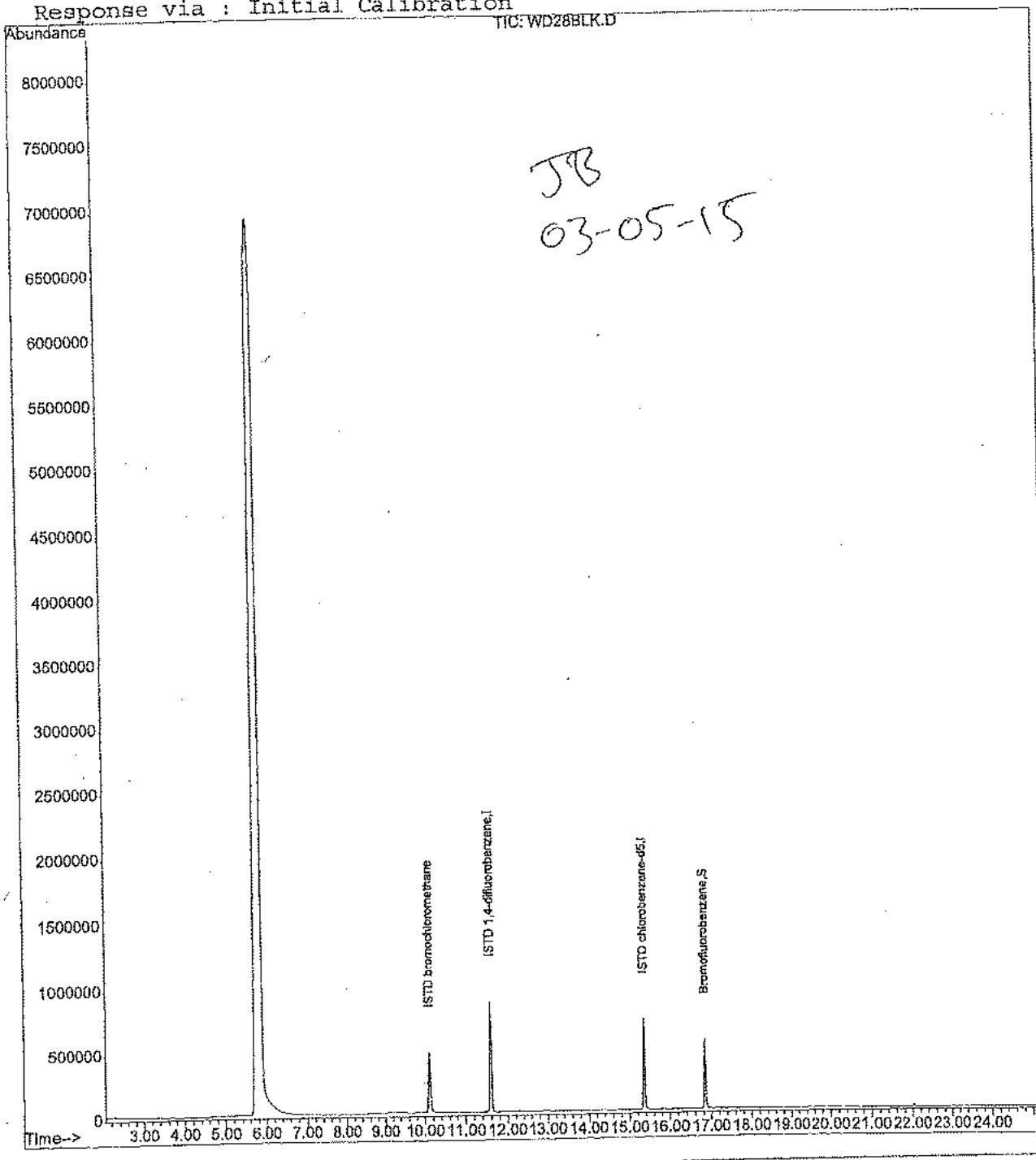
Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD28BLK.D
Acq Time : 03/04/2015 21:18
Sample : BL-
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 8:55 2015 Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration



JB
03-05-15

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD28BLK.D
Acq Time : 03/04/2015 21:18
Sample : BL-
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 8:55 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.11	128	154572	20.0000 ppb	94.37
28) ISTD 1,4-difluorobenzene	11.58	114	810454	20.0000 ppb	95.64
42) ISTD chlorobenzene-d5	15.34	117	493361	20.0000 ppb	90.91
System Monitoring Compounds					%Recovery
55) Bromofluorobenzene	16.83	95	280922	19.3440 ppb	96.72%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	0.00	50		Not Detected	
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	0.00	45		Not Detected	
10) Isopropyl Alcohol	0.00	45		Not Detected	
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	0.00	43		Not Detected	
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	0.00	49		Not Detected	
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	0.00	43		Not Detected	
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	0.00	78		Not Detected	
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\04MAR15W\WD28BLK.D
Acq Time : 03/04/2015 21:18
Sample : BL-
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 8:55 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) 1,4-Dioxane	0.00	88		Not Detected	
37) Heptane	0.00	71		Not Detected	
38) cis-1,3-dichloropropene	0.00	75		Not Detected	
39) 4-methyl-2-pentanone	0.00	43		Not Detected	
40) trans-1,3-dichloropropene	0.00	75		Not Detected	
41) 1,1,2-trichloroethane	0.00	97		Not Detected	
43) toluene	0.00	91		Not Detected	
44) 2-hexanone	0.00	43		Not Detected	
45) tetrachloroethene	0.00	164		Not Detected	
46) dibromochloromethane	0.00	129		Not Detected	
47) 1,2-dibromoethane	0.00	107		Not Detected	
48) chlorobenzene	0.00	112		Not Detected	
49) ethyl benzene	0.00	106		Not Detected	
50) m,p-xylene	0.00	106		Not Detected	
51) o-xylene	0.00	106		Not Detected	
52) styrene	0.00	104		Not Detected	
53) bromoform	0.00	173		Not Detected	
54) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56) Cumene	0.00	105		Not Detected	
57) 4-ethyl toluene	0.00	105		Not Detected	
58) 1,3,5-trimethylbenzene	0.00	105		Not Detected	
59) 1,2,4-trimethylbenzene	0.00	105		Not Detected	
60) m-dichlorobenzene	0.00	146		Not Detected	
61) p-dichlorobenzene	0.00	146		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) o-dichlorobenzene	0.00	146		Not Detected	
64) 1,2,4-trichlorobenzene	0.00	180		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD36I001.D
Acq Time : 03/05/2015 14:12
Sample : 1506345001
Misc : A-0011-H-030315-TO-001 0579

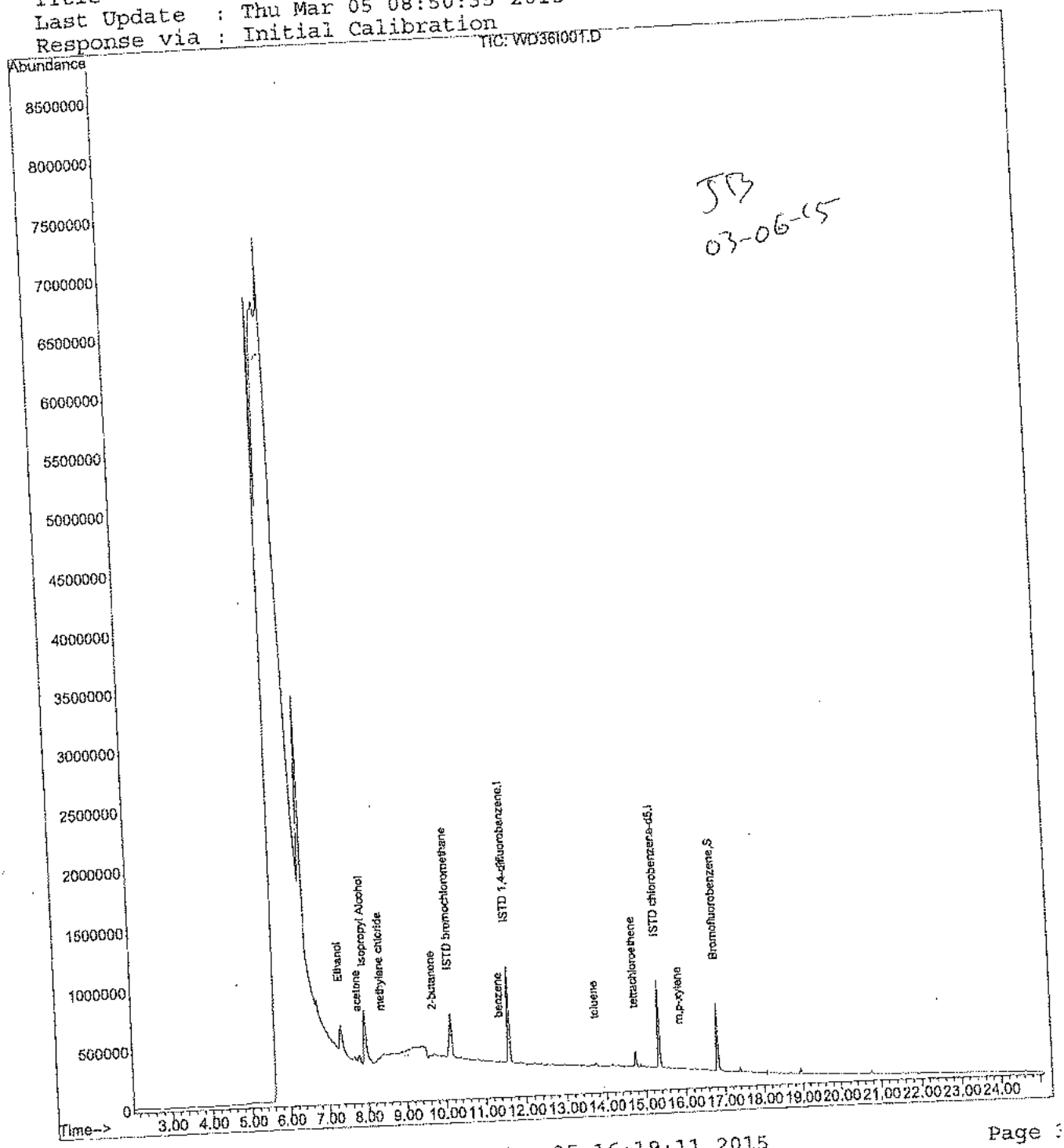
Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:01 2015

Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB
03-06-15



Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD36I001.D
Acq Time : 03/05/2015 14:12
Sample : 1506345001
Misc : A-0011-H-030315-TO-001 0579

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:01 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	R.T.	QIon	Response	Conc Units	Area%
Internal Standards					
1) ISTD bromochloromethane	10.15	128	131589	20.0000 ppb	80.34
28) ISTD 1,4-difluorobenzene	11.60	114	708961	20.0000 ppb	83.66
42) ISTD chlorobenzene-d5	15.34	117	481461	20.0000 ppb	88.72
				%Recovery	
System Monitoring Compounds					
55) Bromofluorobenzene	16.82	95	283259	19.9870 ppb	99.94%
				Qvalue	
Target Compounds					
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	0.00	50		Not Detected	
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	7.32	45	775660	156.9582 ppb	100
10) Isopropyl Alcohol	7.94	45	1509071	61.2069 ppb	100
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.77	43	212551	4.8280 ppb	m JT03-06 63
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	8.40	49	24446	0.8890 ppb	m JT03-06 77
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	9.70	43	22677	0.4660 ppb #	89
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	11.40	78	10165	0.2125 ppb	9
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD36I001.D
Acq Time : 03/05/2015 14:12
Sample : 1506345001
Misc : A-0011-H-030315-TO-001 0579

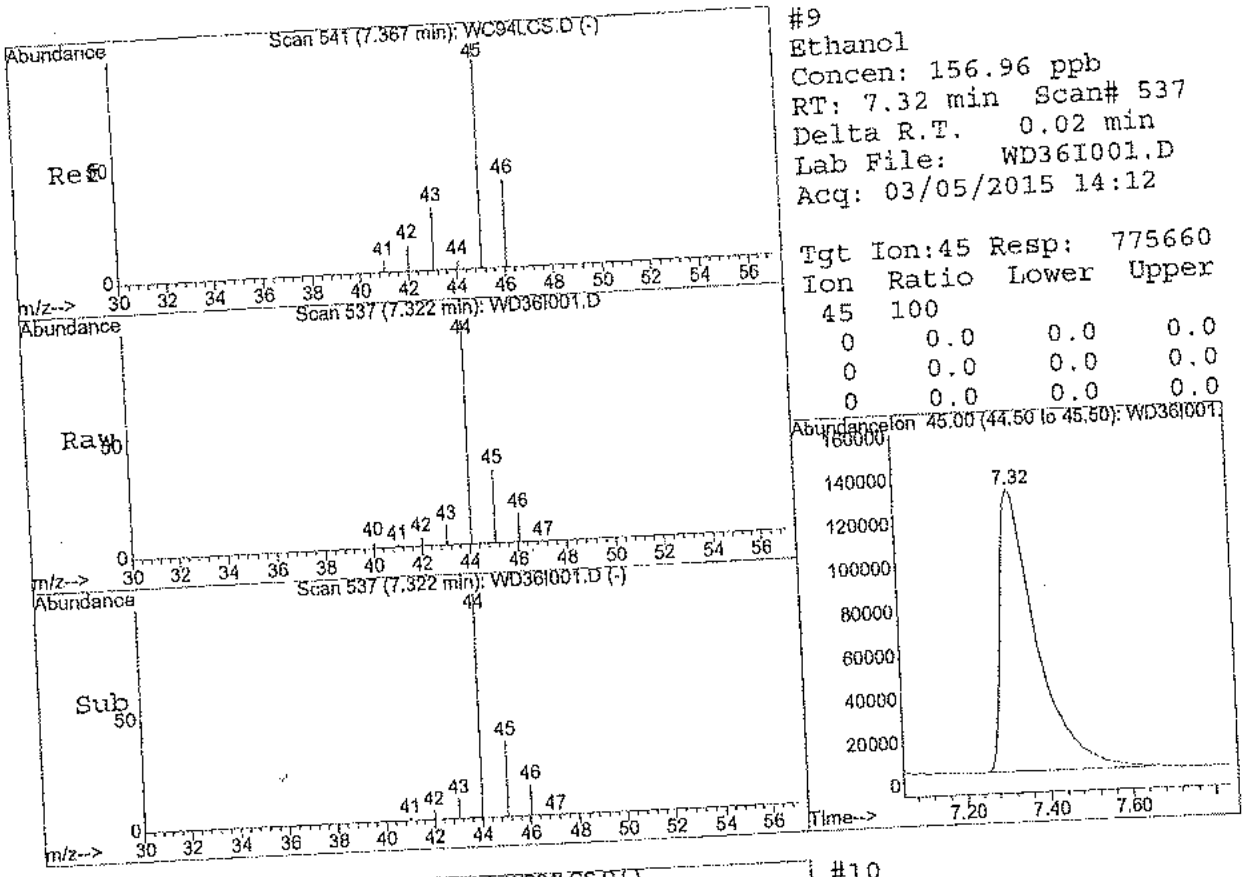
Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:01 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

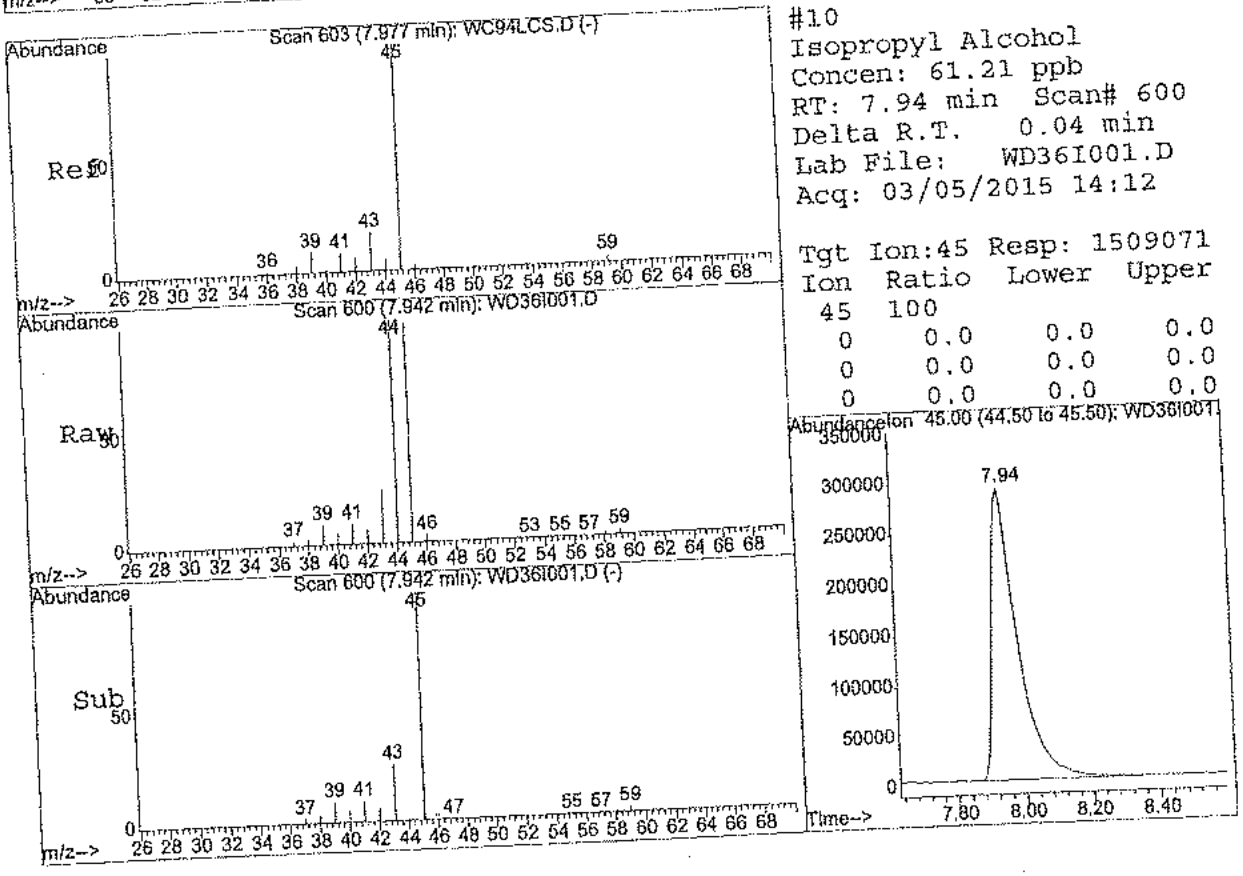
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) 1,4-Dioxane	0.00	88		Not Detected	
37) Heptane	0.00	71		Not Detected	
38) cis-1,3-dichloropropene	0.00	75		Not Detected	
39) 4-methyl-2-pentanone	0.00	43		Not Detected	
40) trans-1,3-dichloropropene	0.00	75		Not Detected	
41) 1,1,2-trichloroethane	0.00	97		Not Detected	
43) toluene	13.75	91	24784	0.5719 ppb	100
44) 2-hexanone	0.00	43		Not Detected	
45) tetrachloroethene	14.76	164	32860	2.4586 ppb	99
46) dibromochloromethane	0.00	129		Not Detected	
47) 1,2-dibromoethane	0.00	107		Not Detected	
48) chlorobenzene	0.00	112		Not Detected	
49) ethyl benzene	0.00	106		Not Detected	
50) m,p-xylene	15.88	106	2475	0.1715 ppb	80
51) o-xylene	0.00	106		Not Detected	
52) styrene	0.00	104		Not Detected	
53) bromoform	0.00	173		Not Detected	
54) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56) Cumene	0.00	105		Not Detected	
57) 4-ethyl toluene	0.00	105		Not Detected	
58) 1,3,5-trimethylbenzene	0.00	105		Not Detected	
59) 1,2,4-trimethylbenzene	0.00	105		Not Detected	
60) m-dichlorobenzene	0.00	146		Not Detected	
61) p-dichlorobenzene	0.00	146		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) o-dichlorobenzene	0.00	146		Not Detected	
64) 1,2,4-trichlorobenzene	0.00	180		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) hexachloro-1,3-butadiene	0.00	225		Not Detected	



#9
Ethanol
Concen: 156.96 ppb
RT: 7.32 min Scan# 537
Delta R.T. 0.02 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:45 Resp: 775660

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#10
Isopropyl Alcohol
Concen: 61.21 ppb
RT: 7.94 min Scan# 600
Delta R.T. 0.04 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:45 Resp: 1509071

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Quantitation Report (Qedit)

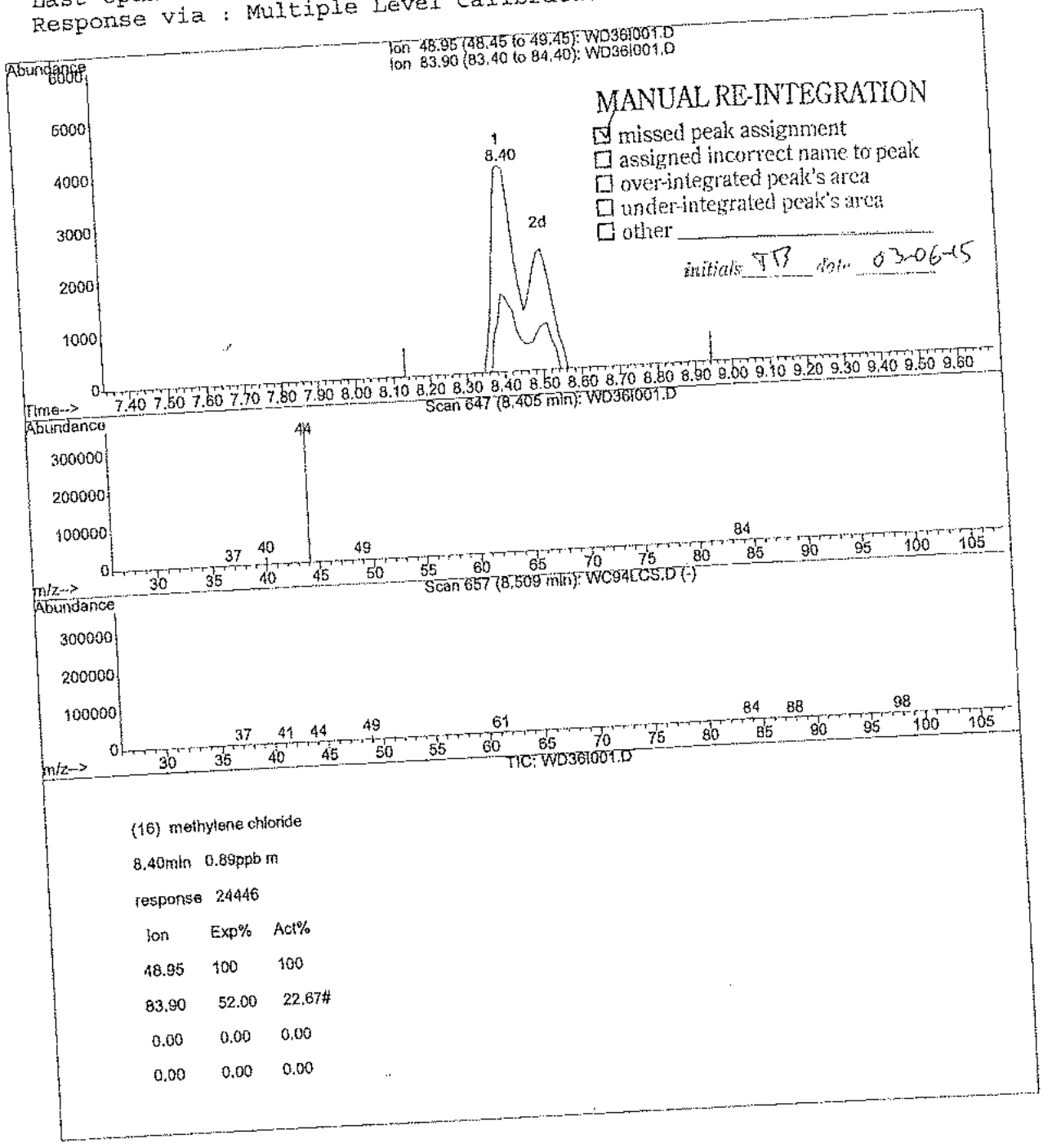
Data File : J:\W\2015\MAR15W\05MAR15W\WD36I001.D
Acq Time : 03/05/2015 14:12
Sample : 1506345001
Misc : A-0011-H-030315-TO-001 0579

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:00 2015

Quant Results File: temp.res

Method : J:\W\METHODS\TO15WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration



(16) methylene chloride

8.40min 0.89ppb m

response 24446

Ion	Exp%	Act%
48.95	100	100
83.90	52.00	22.67#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

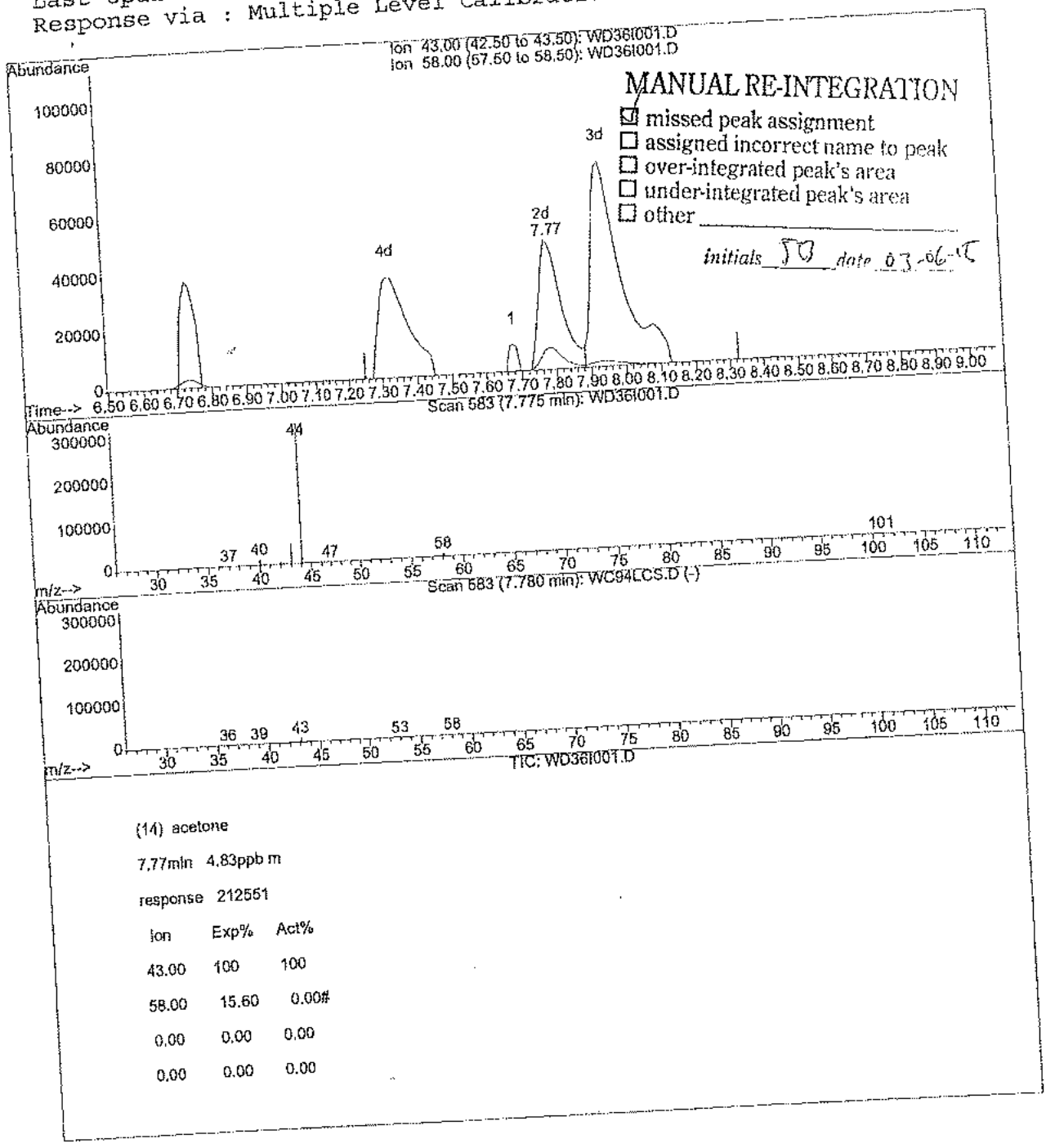
Data File : J:\W\2015\MAR15W\05MAR15W\WD36I001.D
Acq Time : 03/05/2015 14:12
Sample : 1506345001
Misc : A-0011-H-030315-TO-001 0579

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:00 2015

Quant Results File: temp.res

Method : J:\W\METHODS\TO15WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration

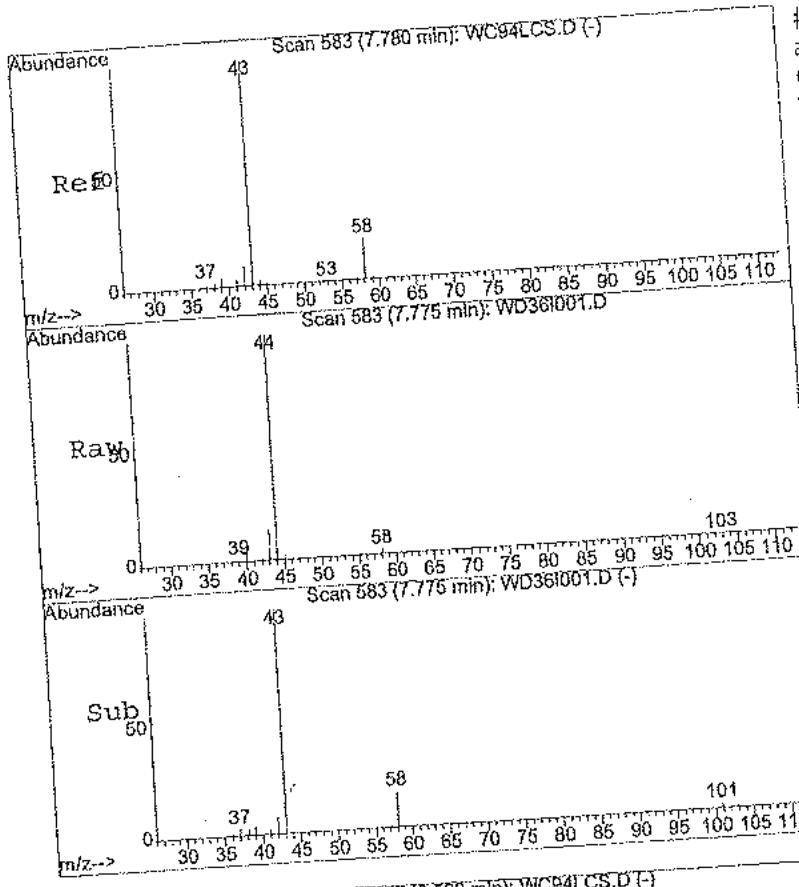


(14) acetone

7.77min 4.83ppb m

response 212551

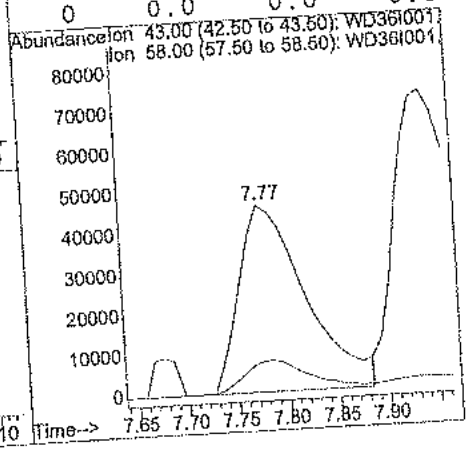
Ion	Exp%	Act%
43.00	100	100
58.00	15.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

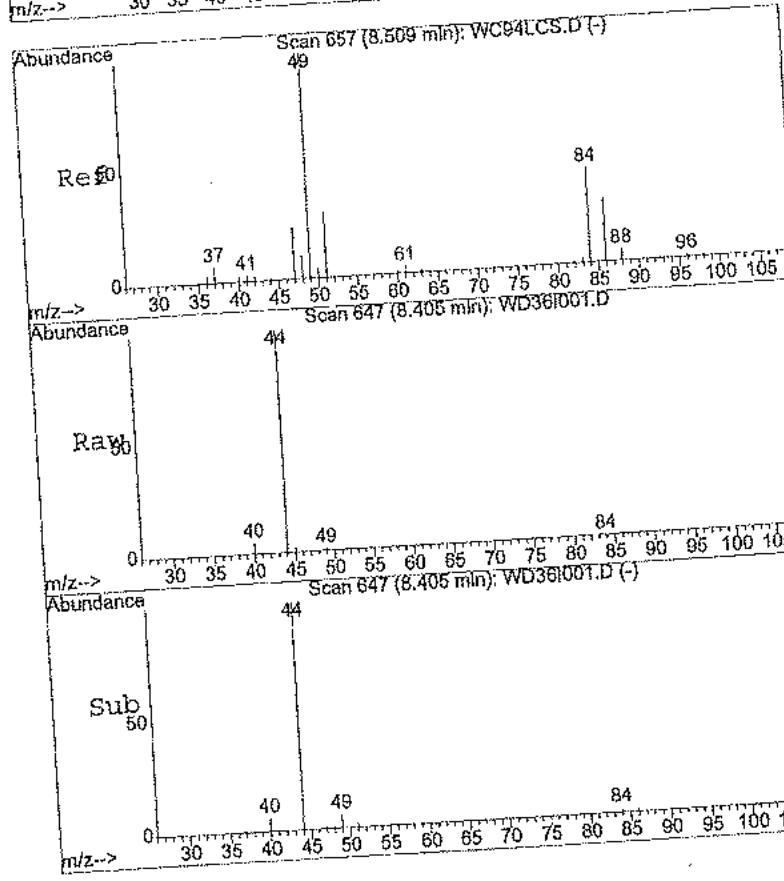


#14
acetone
Concen: 4.83 ppb m
RT: 7.77 min Scan# 583
Delta R.T. 0.08 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:43 Resp: 212551

Ion	Ratio	Lower	Upper
43	100		
58	0.0	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

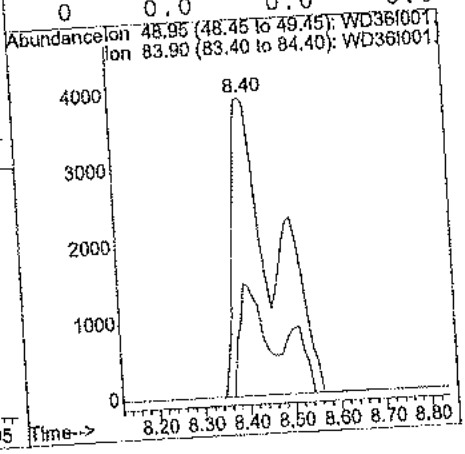


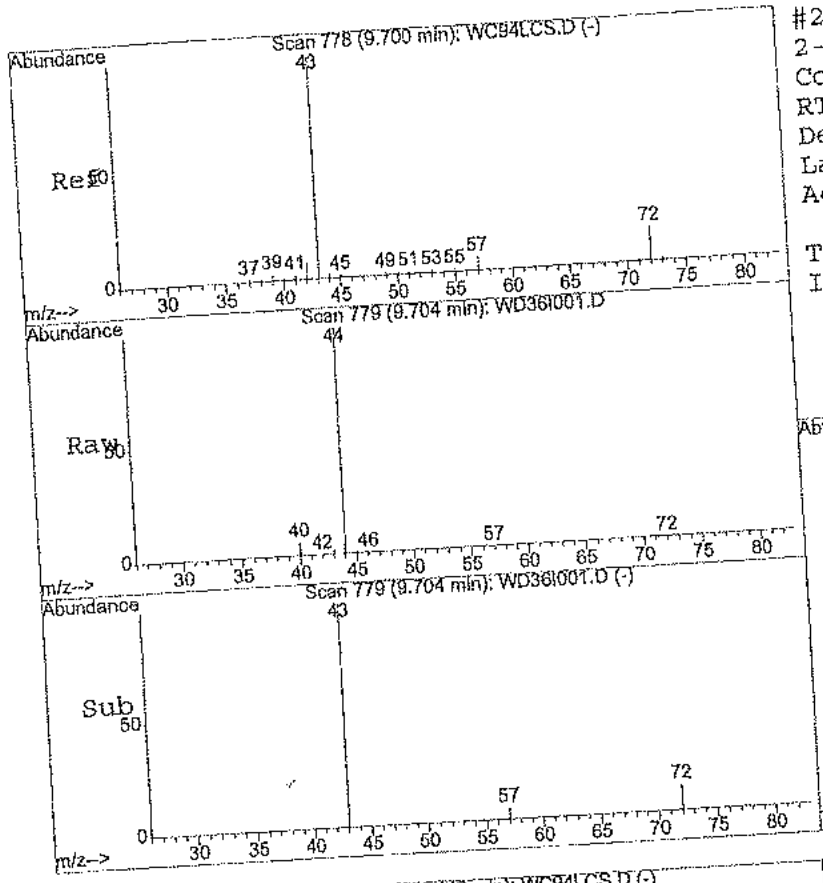


#16
methylene chloride
Concen: 0.89 ppb m
RT: 8.40 min Scan# 647
Delta R.T. -0.02 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:48.95 Resp: 24446

Ion	Ratio	Lower	Upper
49	100		
84	22.7	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

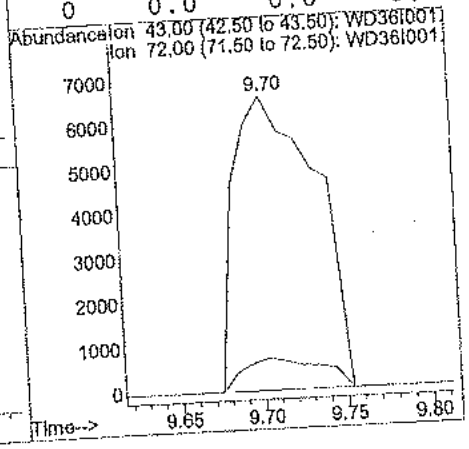


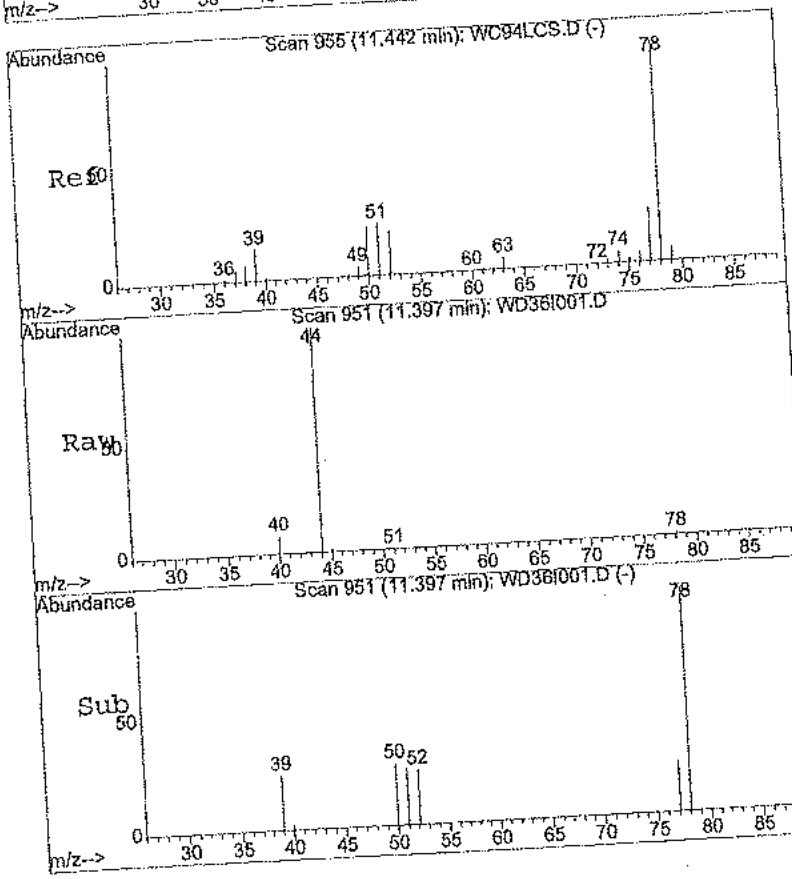


#20
2-butanone
Concen: 0.47 ppb
RT: 9.70 min Scan# 779
Delta R.T. 0.07 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:43 Resp: 22677

Ion	Ratio	Lower	Upper
43	100		
72	10.3	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

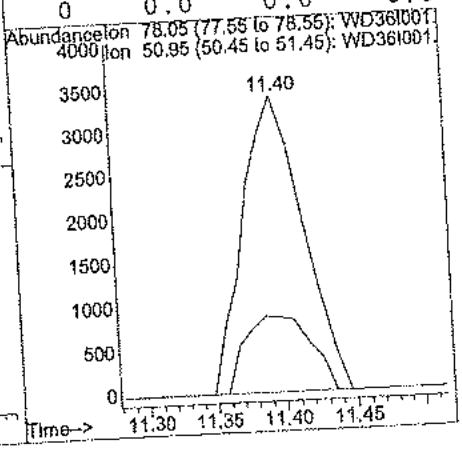


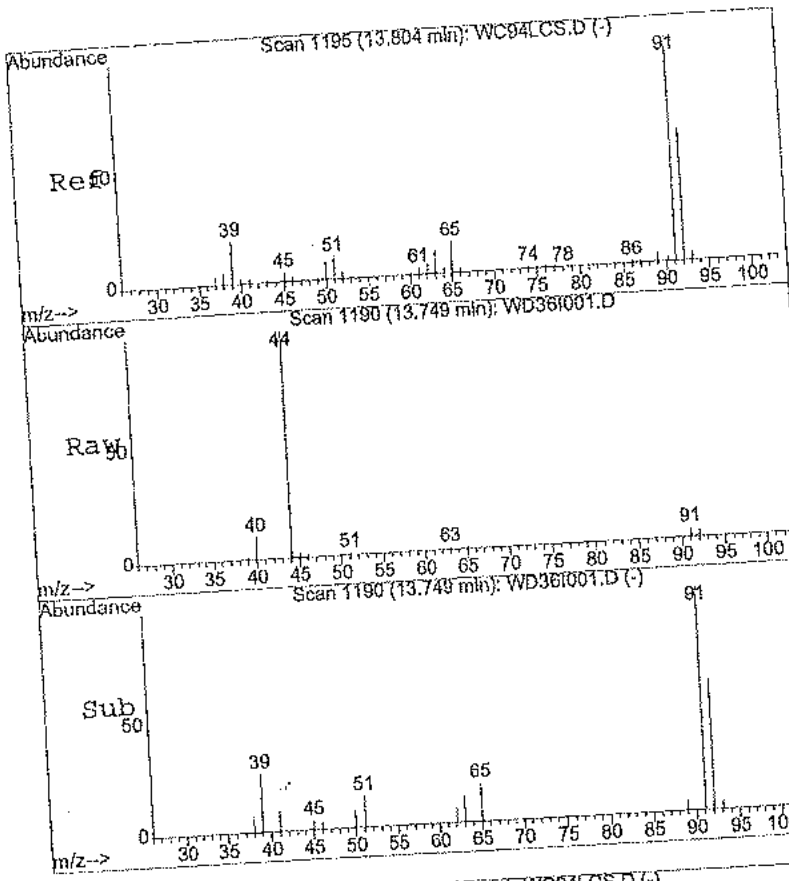


#31
benzene
Concen: 0.21 ppb
RT: 11.40 min Scan# 951
Delta R.T. 0.02 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:78.05 Resp: 10165

Ion	Ratio	Lower	Upper
78	100		
51	27.8	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

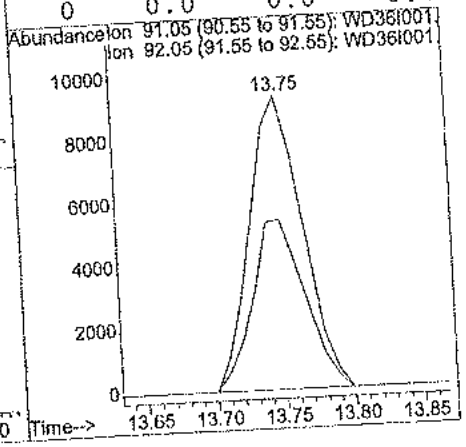


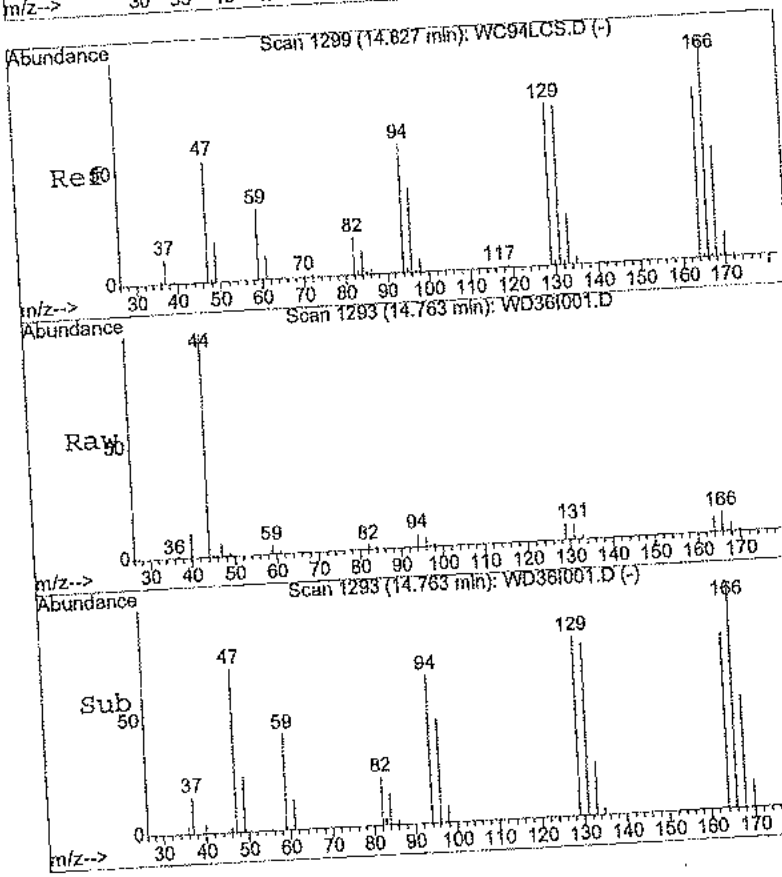


#43
toluene
Concen: 0.57 ppb
RT: 13.75 min Scan# 1190
Delta R.T. -0.00 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:91.05 Resp: 24784

Ion	Ratio	Lower	Upper
91	100		
92	57.6	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

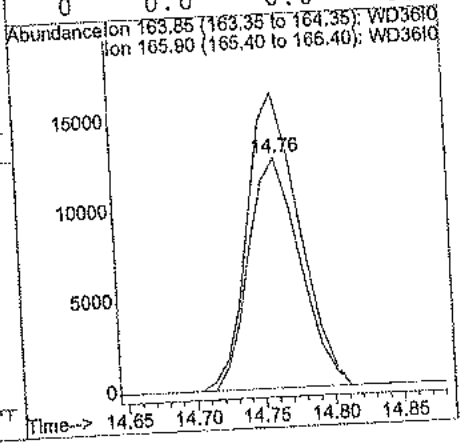


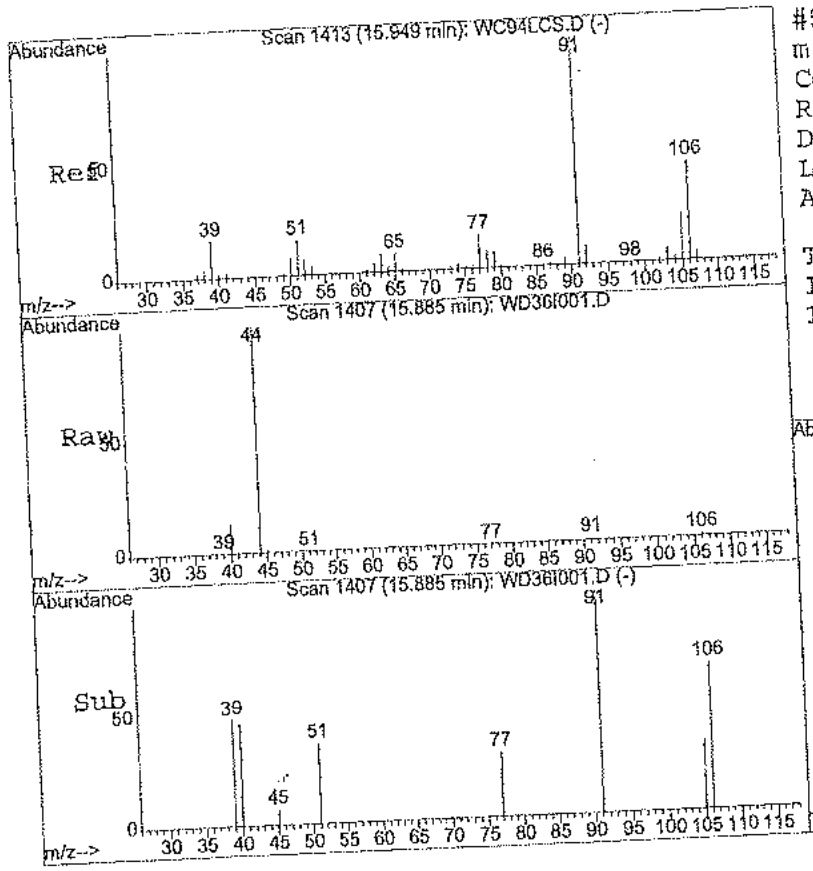


#45
tetrachloroethene
Concen: 2.46 ppb
RT: 14.76 min Scan# 1293
Delta R.T. -0.01 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:163.85 Resp: 3286

Ion	Ratio	Lower	Upper
164	100		
166	129.8	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

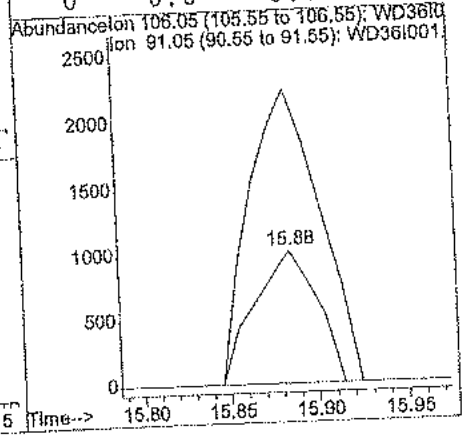




#50
m,p-xylene
Concen: 0.17 ppb
RT: 15.88 min Scan# 1407
Delta R.T. -0.02 min
Lab File: WD36I001.D
Acq: 03/05/2015 14:12

Tgt Ion:106.05 Resp: 2475

Ion	Ratio	Lower	Upper
106	100		
91	250.9	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

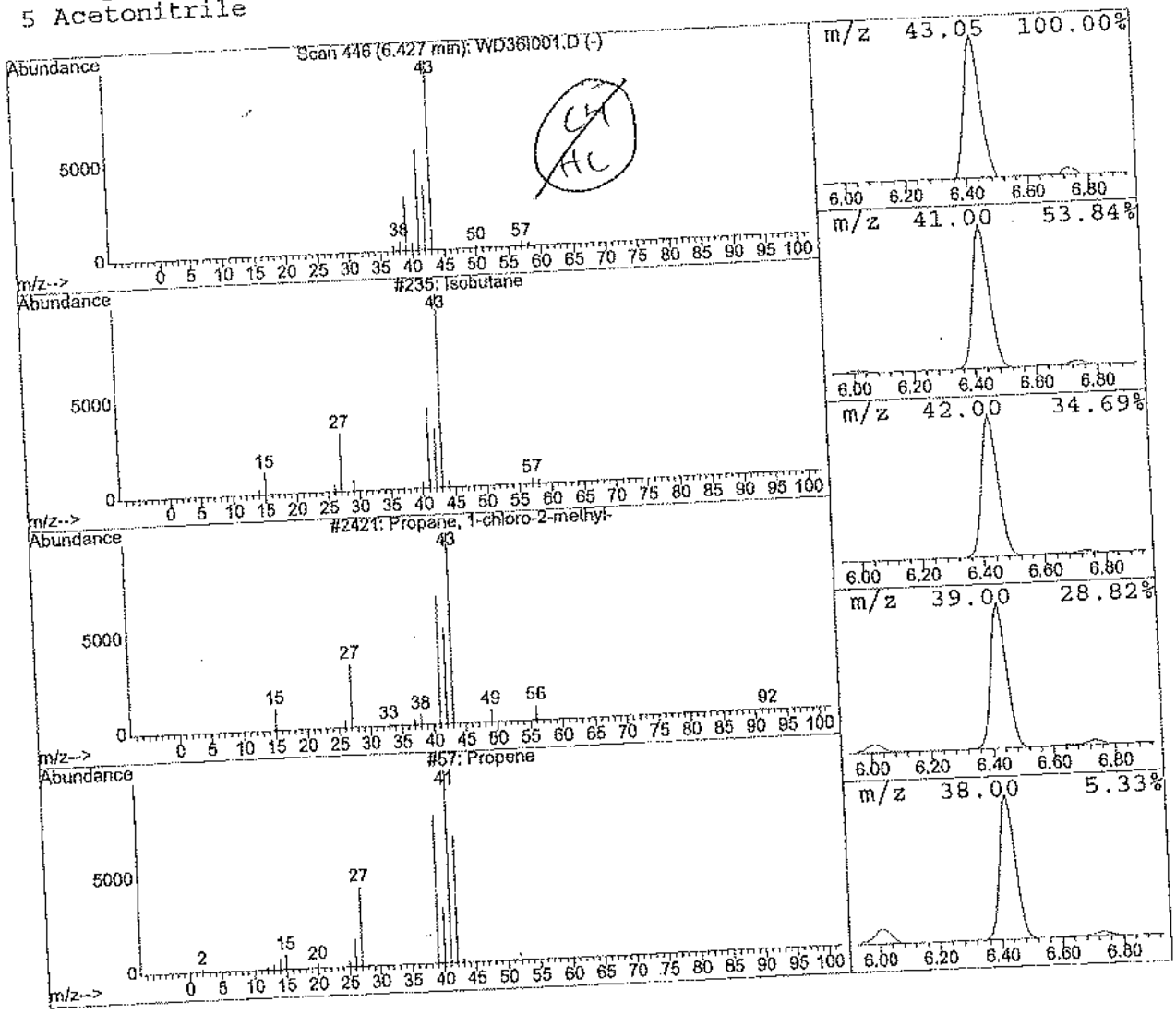
Data File : J:\W\2015\MAR15W\05MAR15W\WD36I001.D
Acq Time : 03/05/2015 14:12
Sample : 1506345001
Misc : A-0011-H-030315-TO-001 0579

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.43	158.31 ppb	14186925	ISTD bromochloromethane	1792246

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	235	000075-28-5	42.00
2	Propane, 1-chloro-2-methyl-	2421	000513-36-0	9.00
3	Propene	57	000115-07-1	7.00
4	Propane, 2-nitro-	2156	000079-46-9	4.00
5	Acetonitrile	51	000075-05-8	3.00



Quantitation Report

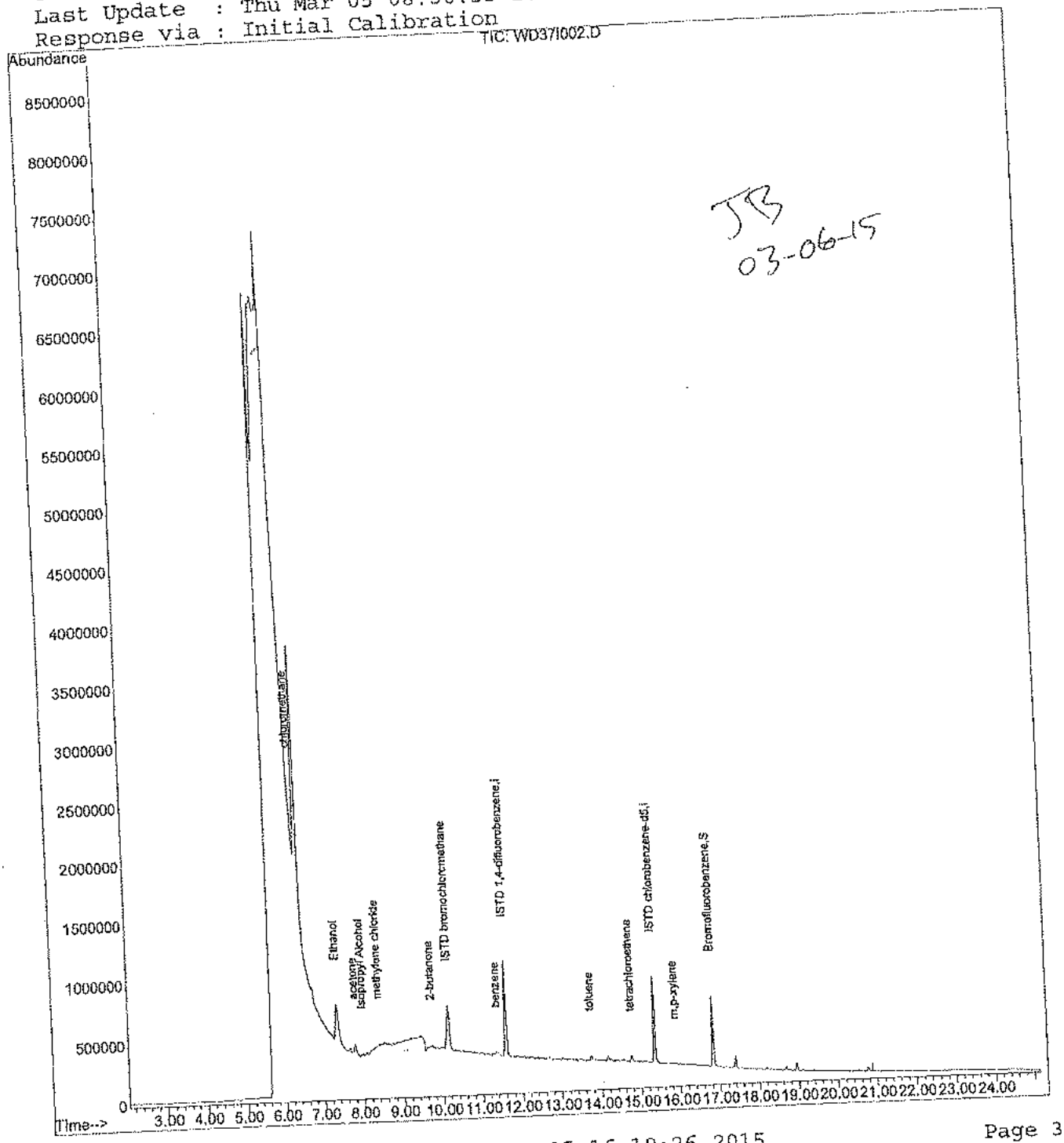
Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:04 2015

Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration



JB
03-06-15

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:04 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	R.T.	QIon	Response	Conc Units	Area%
Internal Standards					
1) ISTD bromochloromethane	10.15	128	131356	20.0000 ppb	80.20
28) ISTD 1,4-difluorobenzene	11.61	114	703772	20.0000 ppb	83.05
42) ISTD chlorobenzene-d5	15.34	117	472949	20.0000 ppb	87.15
				%Recovery	
System Monitoring Compounds					
55) Bromofluorobenzene	16.82	95	287934	20.6826 ppb	103.41%
				Qvalue	
Target Compounds					
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	6.29	50	6625	0.3763 ppb	89
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	7.34	45	1215007	246.2981 ppb	100
10) Isopropyl Alcohol	7.98	45	121449	4.9346 ppb	100
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.79	43	274324	6.2422 ppb	63
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	8.39	49	30142	1.0981 ppb	77
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	9.72	43	21255	0.4376 ppb	97
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	11.39	78	12408	0.2613 ppb	9
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:04 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) 1,4-Dioxane	0.00	88		Not Detected	
37) Heptane	0.00	71		Not Detected	
38) cis-1,3-dichloropropene	0.00	75		Not Detected	
39) 4-methyl-2-pentanone	0.00	43		Not Detected	
40) trans-1,3-dichloropropene	0.00	75		Not Detected	
41) 1,1,2-trichloroethane	0.00	97		Not Detected	
43) toluene	13.75	91	32144	0.7551 ppb	98
44) 2-hexanone	0.00	43		Not Detected	
45) tetrachloroethene	14.76	164	11767	0.8963 ppb	99
46) dibromochloromethane	0.00	129		Not Detected	
47) 1,2-dibromoethane	0.00	107		Not Detected	
48) chlorobenzene	0.00	112		Not Detected	
49) ethyl benzene	0.00	106		Not Detected	
50) m,p-xylene	15.88	106	2580	0.1820 ppb	80
51) o-xylene	0.00	106		Not Detected	
52) styrene	0.00	104		Not Detected	
53) bromoform	0.00	173		Not Detected	
54) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56) Cumene	0.00	105		Not Detected	
57) 4-ethyl toluene	0.00	105		Not Detected	
58) 1,3,5-trimethylbenzene	0.00	105		Not Detected	
59) 1,2,4-trimethylbenzene	0.00	105		Not Detected	
60) m-dichlorobenzene	0.00	146		Not Detected	
61) p-dichlorobenzene	0.00	146		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) o-dichlorobenzene	0.00	146		Not Detected	
64) 1,2,4-trichlorobenzene	0.00	180		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) hexachloro-1,3-butadiene	0.00	225		Not Detected	

Quantitation Report (Qedit)

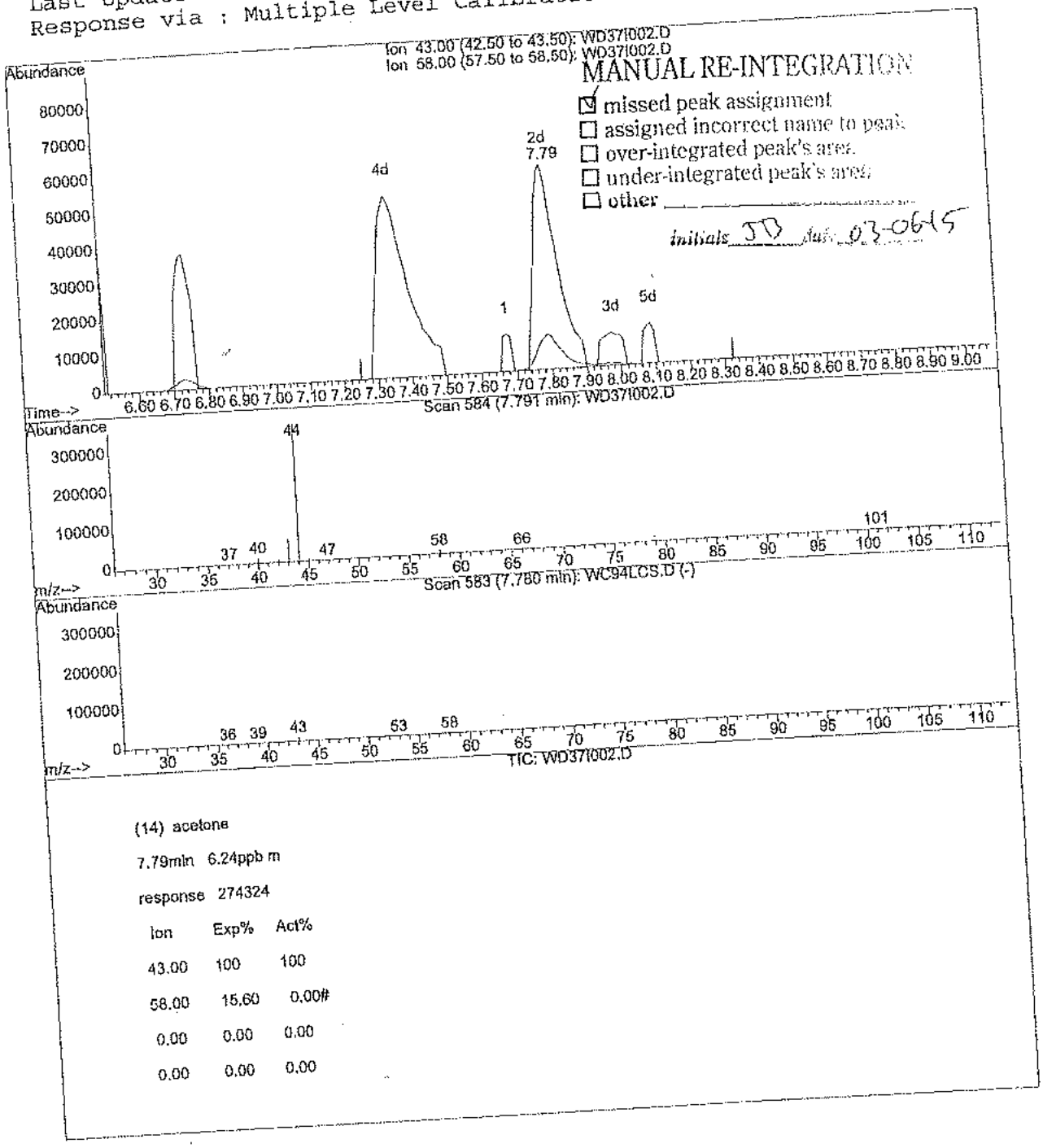
Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:02 2015

Quant Results File: temp.res

Method : J:\W\METHODS\TO15WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration



Quantitation Report (Qedit)

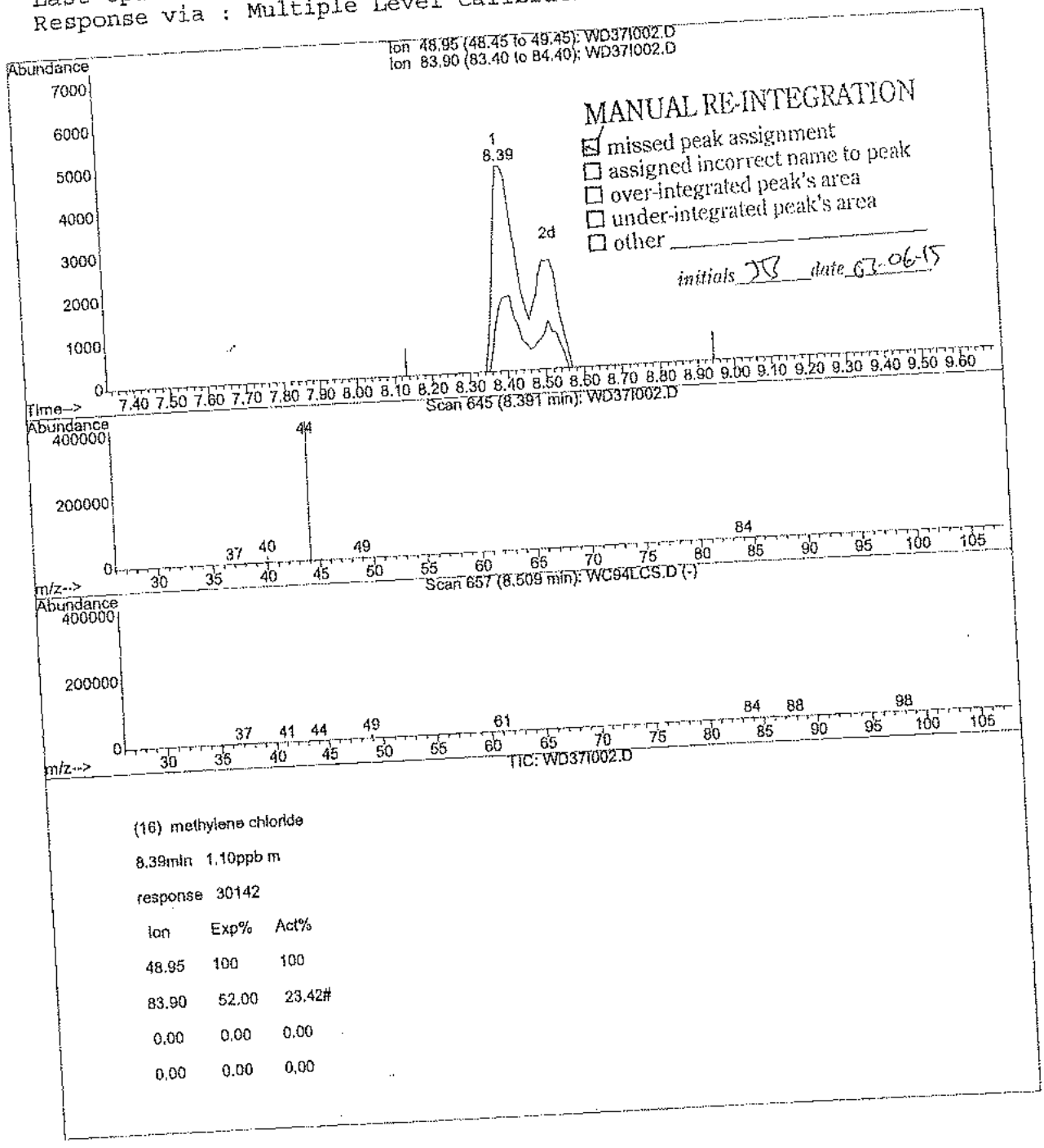
Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:03 2015

Quant Results File: temp.res

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration

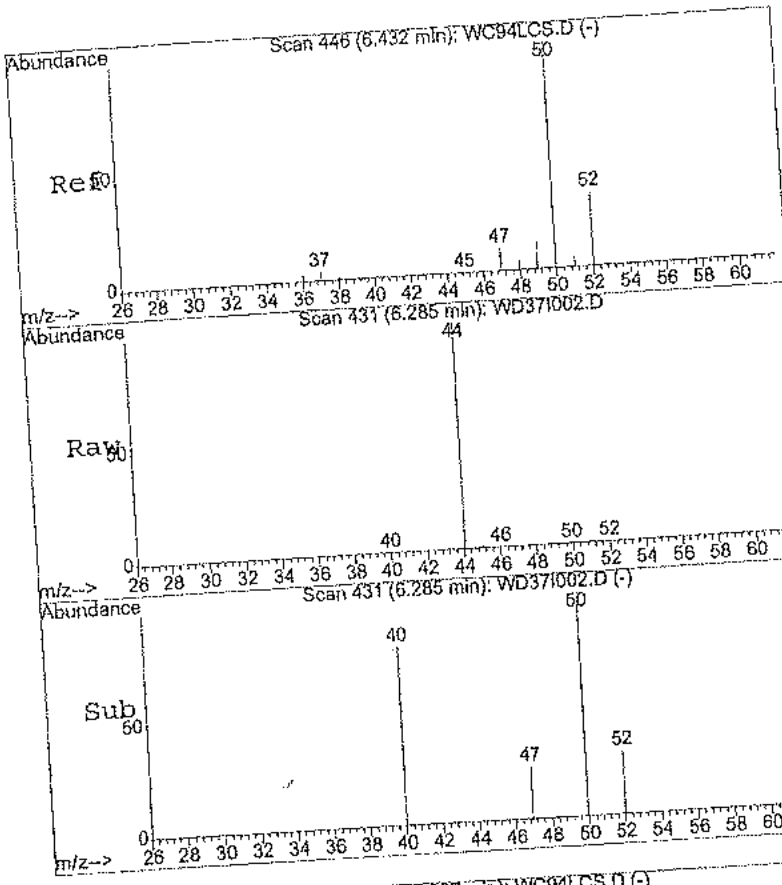


(16) methylene chloride

8.39min 1.10ppb m

response 30142

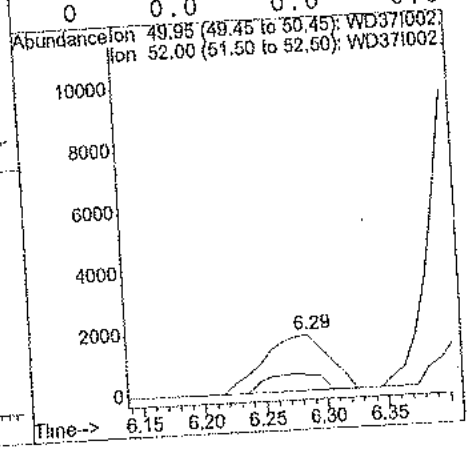
Ion	Exp%	Act%
48.95	100	100
83.90	52.00	23.42#
0.00	0.00	0.00
0.00	0.00	0.00

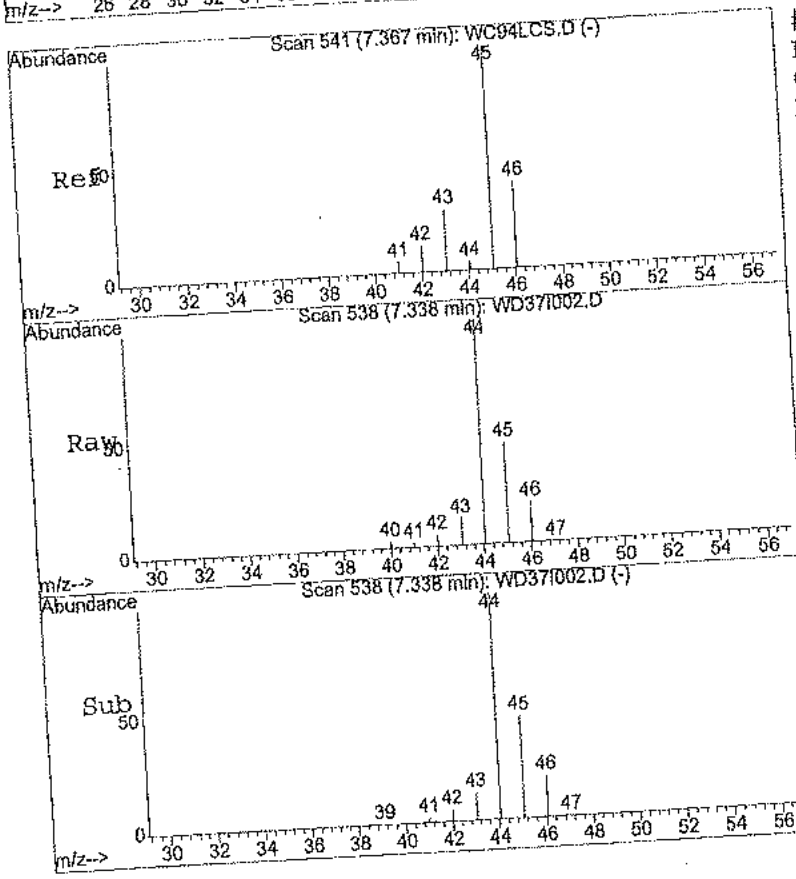


#3
chloromethane
Concen: 0.38 ppb
RT: 6.29 min Scan# 431
Delta R.T. -0.06 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:49.95 Resp: 6625

Ion	Ratio	Lower	Upper
50	100		
52	25.8	25.7	38.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

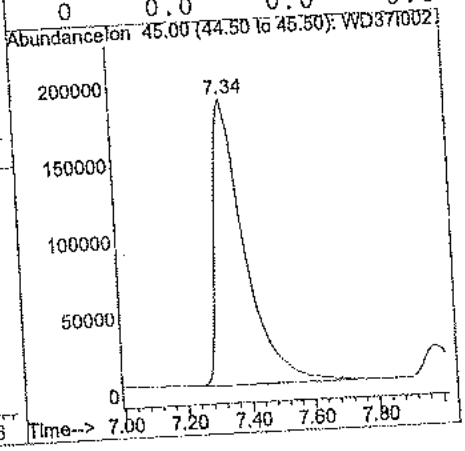


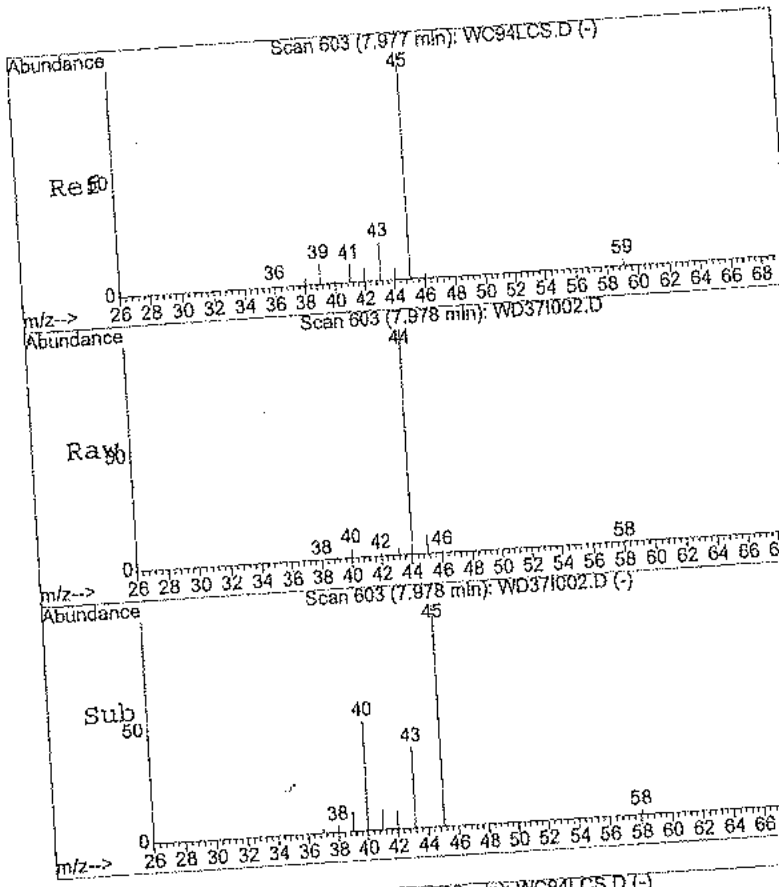


#9
Ethanol
Concen: 246.30 ppb
RT: 7.34 min Scan# 538
Delta R.T. 0.04 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:45 Resp: 1215007

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

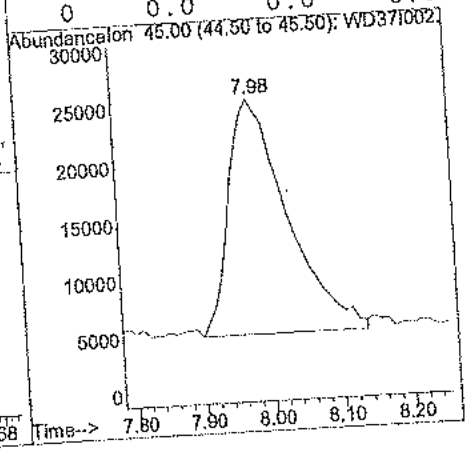


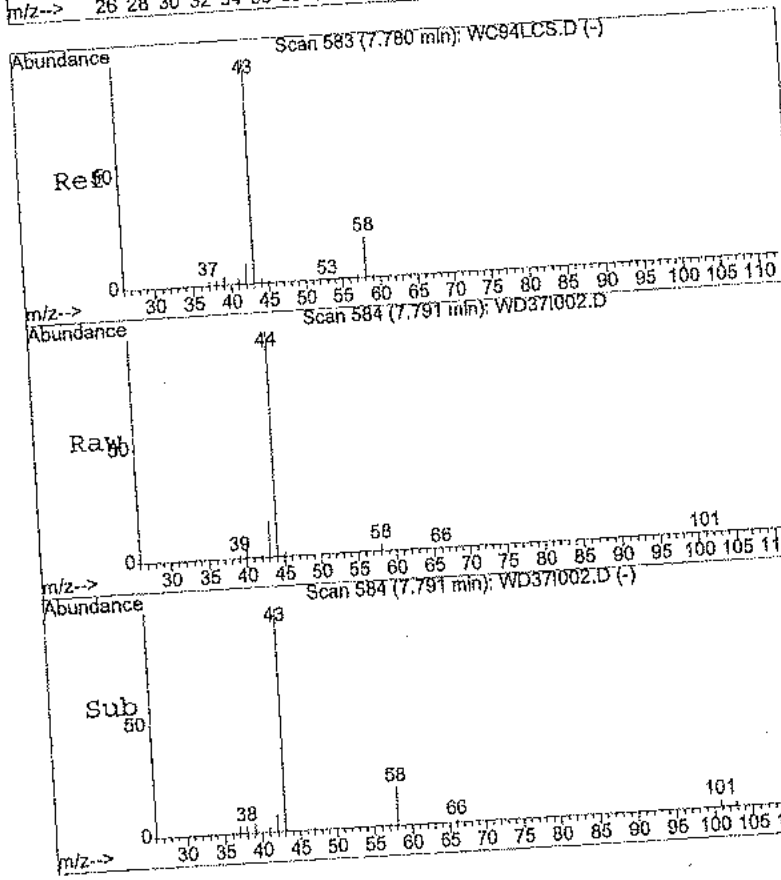


#10
Isopropyl Alcohol
Concen: 4.93 ppb
RT: 7.98 min Scan# 603
Delta R.T. 0.07 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:45 Resp: 121449

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

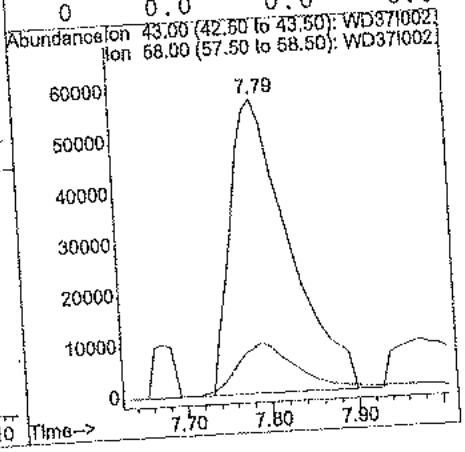


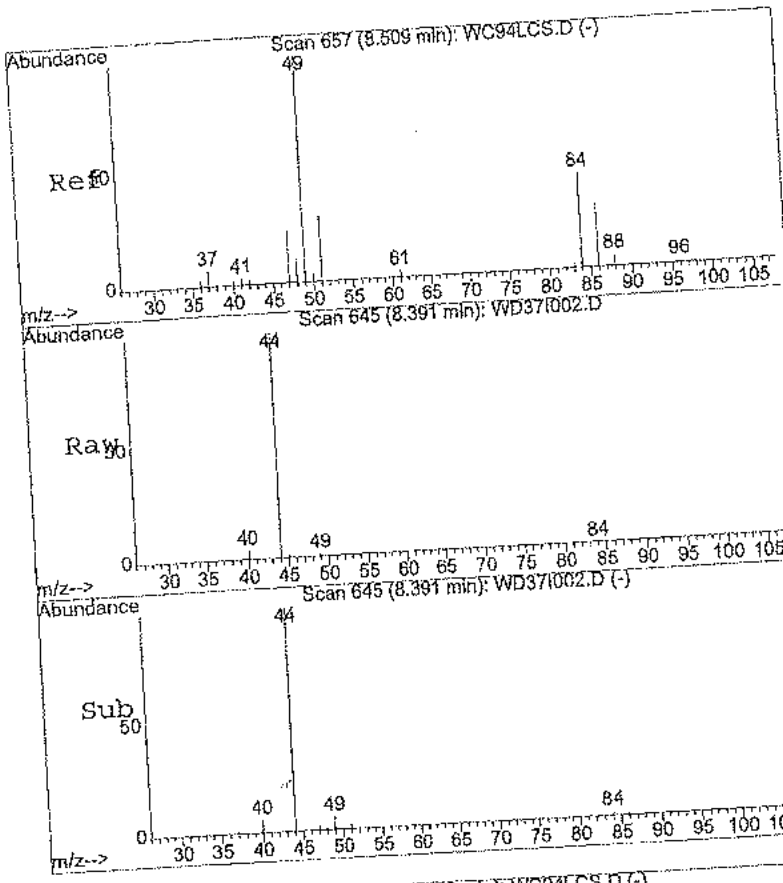


#14
acetone
Concen: 6.24 ppb m
RT: 7.79 min Scan# 584
Delta R.T. 0.09 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:43 Resp: 274324

Ion	Ratio	Lower	Upper
43	100		
58	0.0	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

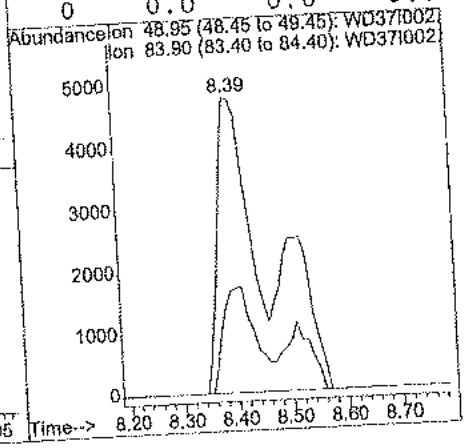


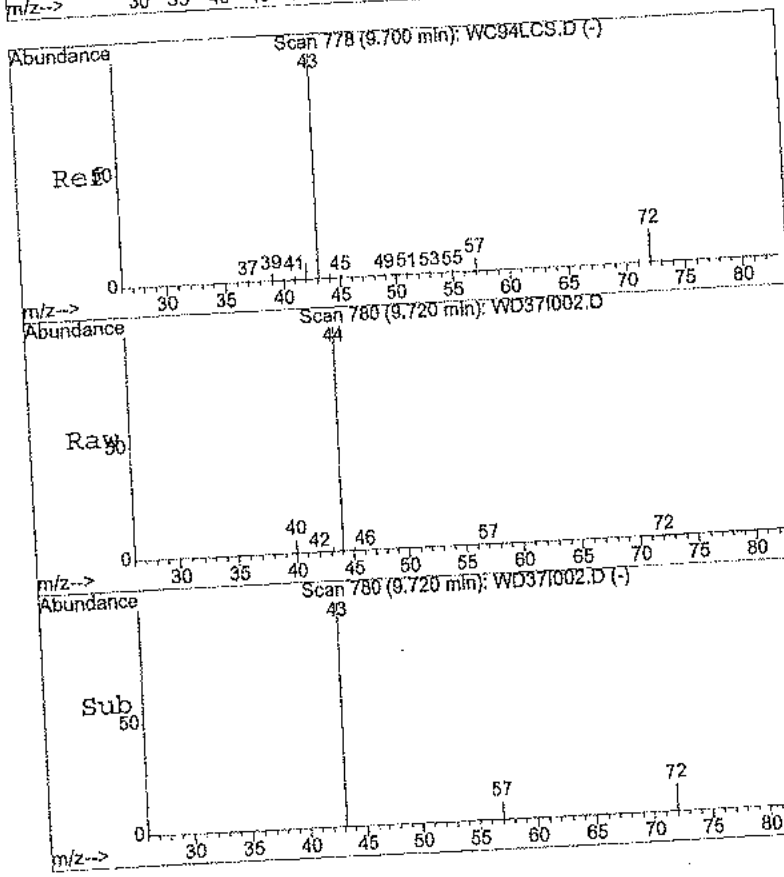


#16
methylene chloride
Concen: 1.10 ppb m
RT: 8.39 min Scan# 645
Delta R.T. -0.03 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:48.95 Resp: 30142

Ion	Ratio	Lower	Upper
49	100		
84	23.4	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

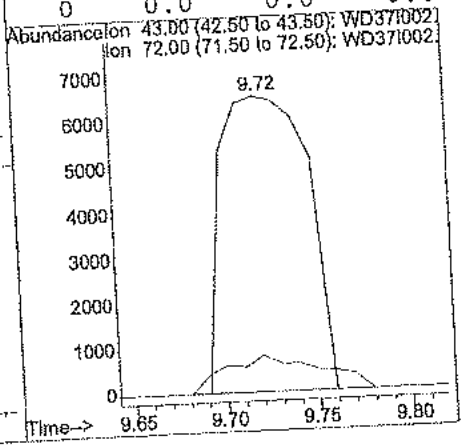


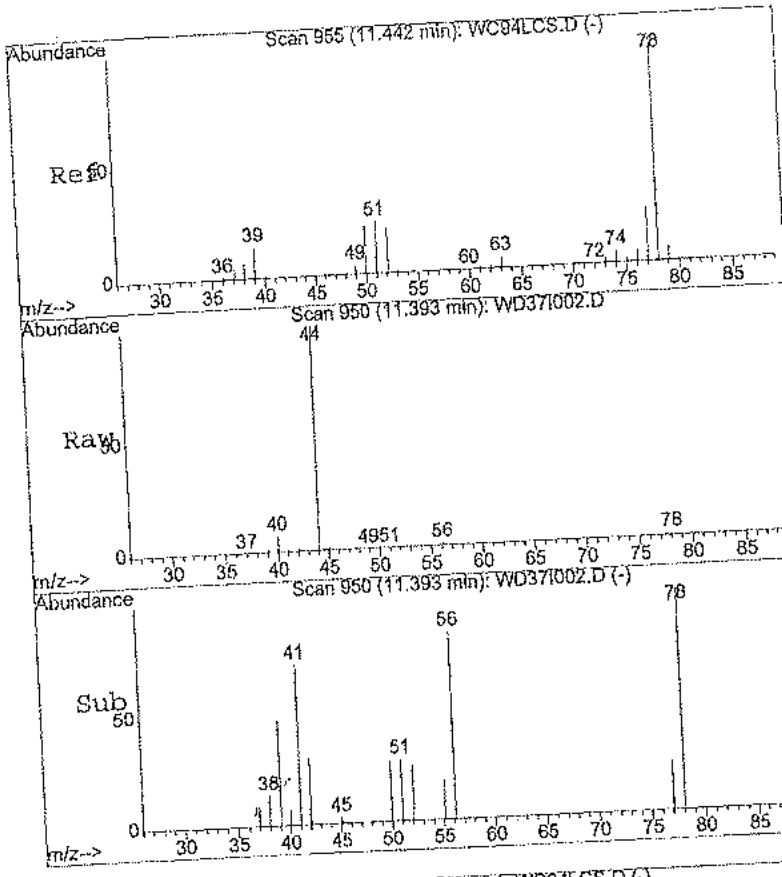


#20
2-butanone
Concen: 0.44 ppb
RT: 9.72 min Scan# 780
Delta R.T. 0.08 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:43 Resp: 21255

Ion	Ratio	Lower	Upper
43	100		
72	13.6	11.8	17.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

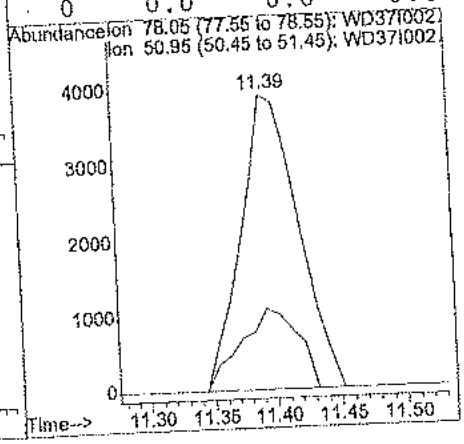


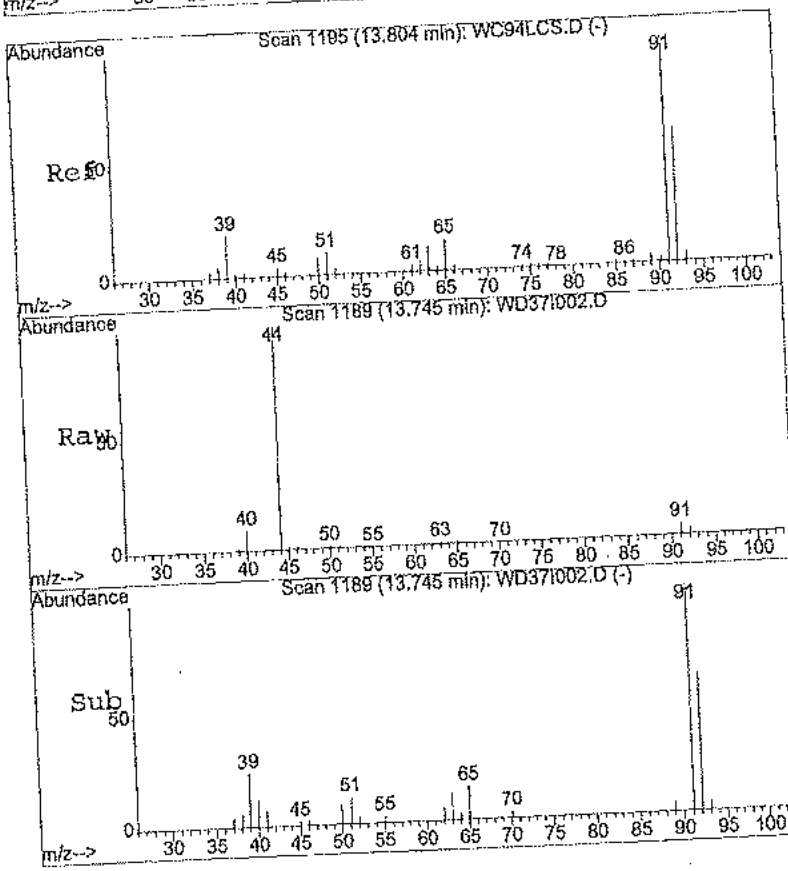


#31
benzene
Concen: 0.26 ppb
RT: 11.39 min Scan# 950
Delta R.T. 0.02 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:78.05 Resp: 12408

Ion	Ratio	Lower	Upper
78	100		
51	27.7	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

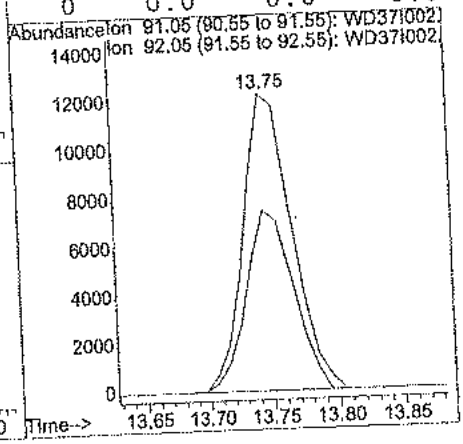


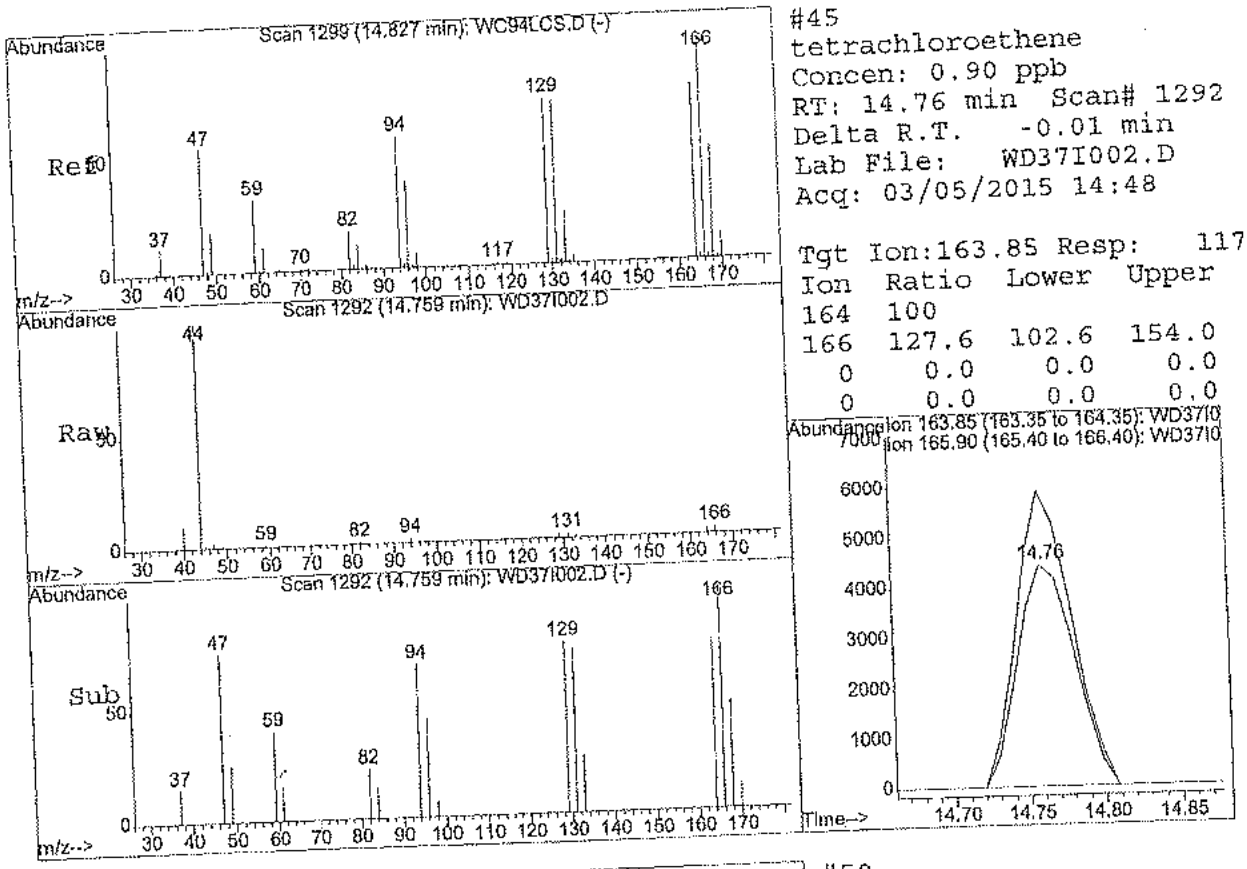


#43
toluene
Concen: 0.76 ppb
RT: 13.75 min Scan# 1189
Delta R.T. -0.00 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:91.05 Resp: 32144

Ion	Ratio	Lower	Upper
91	100		
92	59.7	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

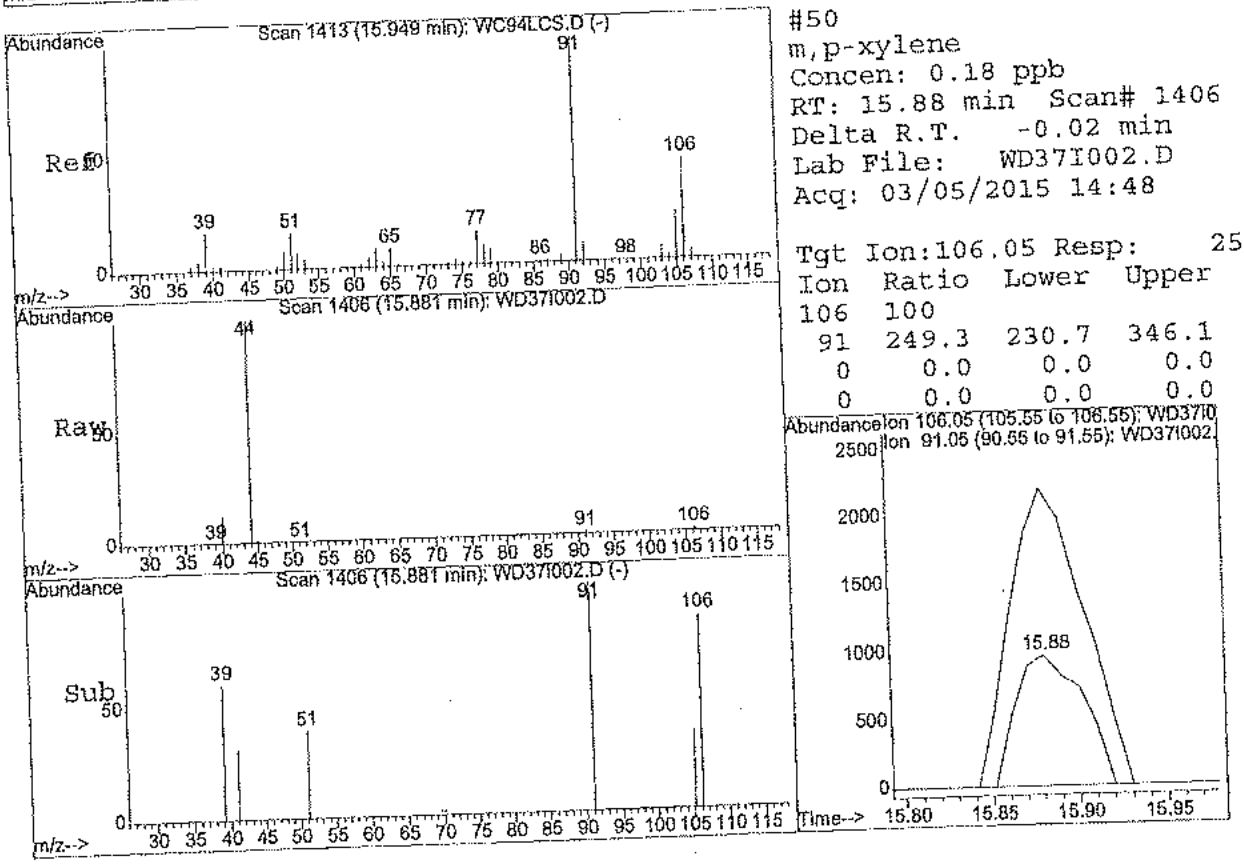




#45
tetrachloroethene
Concen: 0.90 ppb
RT: 14.76 min Scan# 1292
Delta R.T. -0.01 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:163.85 Resp: 11767

Ion	Ratio	Lower	Upper
164	100		
166	127.6	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#50
m,p-xylene
Concen: 0.18 ppb
RT: 15.88 min Scan# 1406
Delta R.T. -0.02 min
Lab File: WD37I002.D
Acq: 03/05/2015 14:48

Tgt Ion:106.05 Resp: 2580

Ion	Ratio	Lower	Upper
106	100		
91	249.3	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Library Search Compound Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

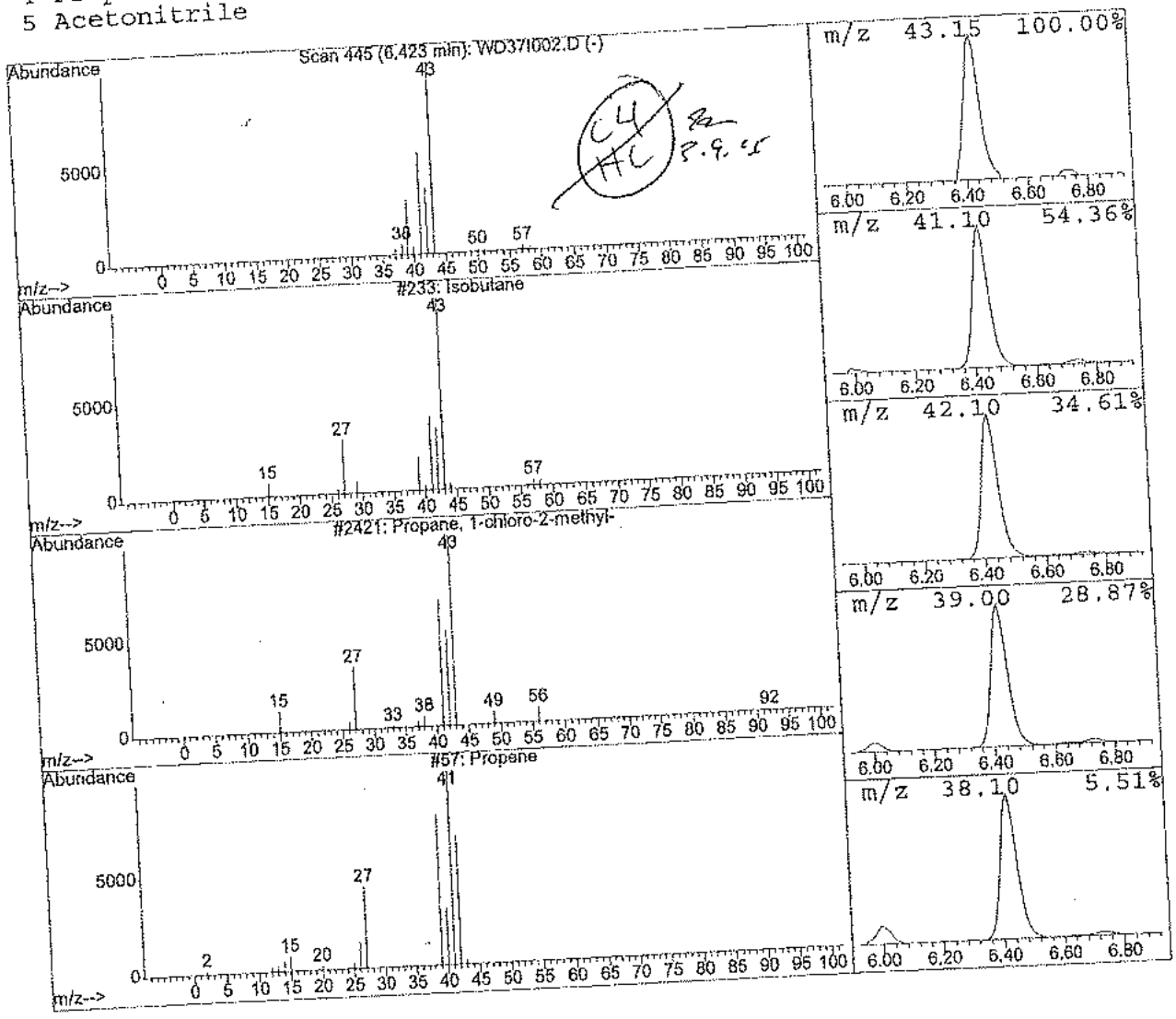
Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\TO15WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.42	199.02 ppb	15436586	ISTD bromochloromethane	1551295

Hit# of 20

Tentative ID	Ref#	CAS#	Qual
1 Isobutane	233	000075-28-5	42.00
2 Propane, 1-chloro-2-methyl-	2421	000513-36-0	9.00
3 Propene	57	000115-07-1	7.00
4 Propane, 2-nitro-	2156	000079-46-9	4.00
5 Acetonitrile	51	000075-05-8	3.00



Library Search Compound Report

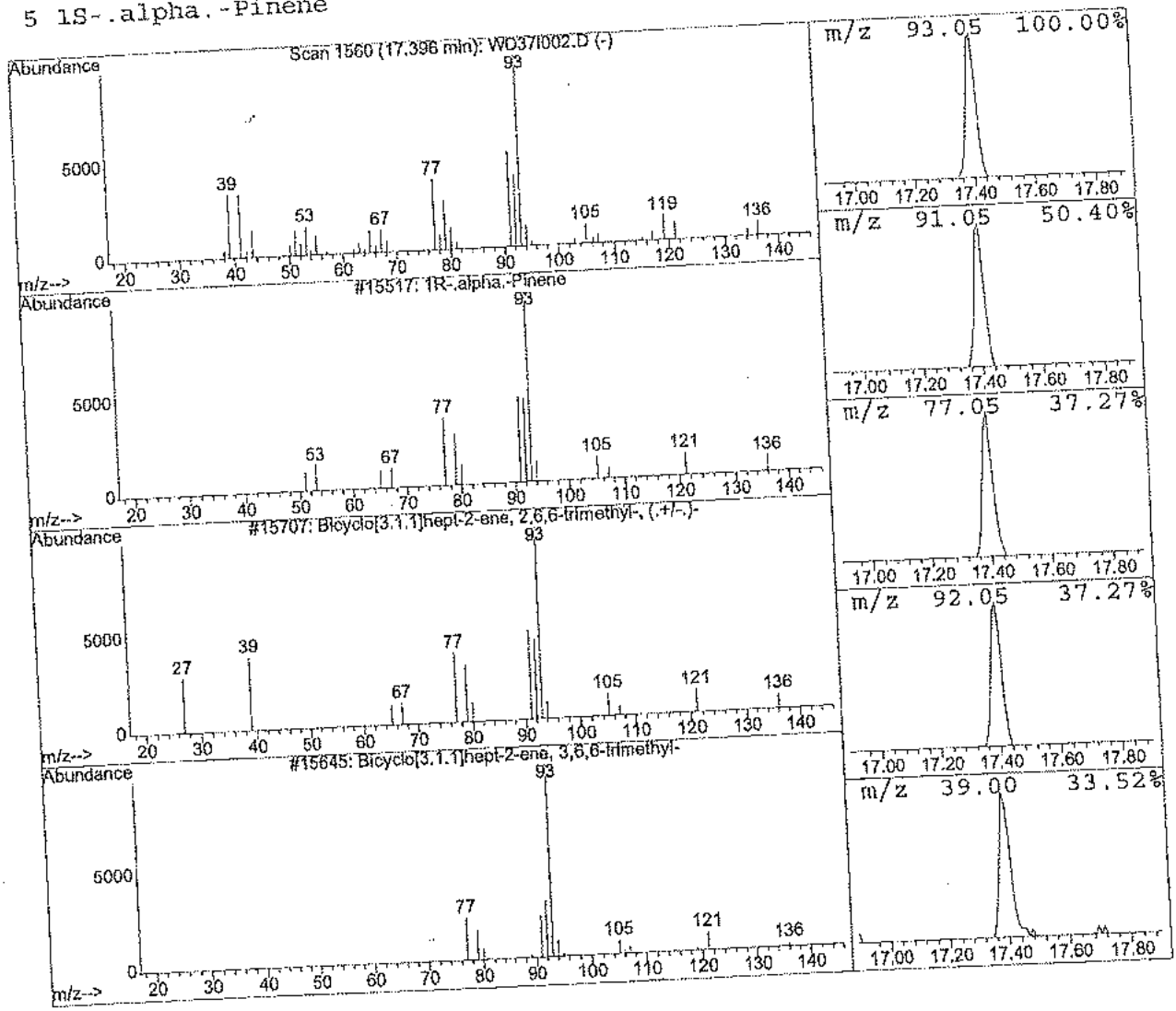
Data File : J:\W\2015\MAR15W\05MAR15W\WD37I002.D
Acq Time : 03/05/2015 14:48
Sample : 1506345002
Misc : A-0011-H-030315-TO-002 0129

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.40	2.40 ppb	248043	ISTD chlorobenzene-d5	2064508

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1R-.alpha.-Pinene	15517	007785-70-8	97.00
2	Bicyclo[3.1.1]hept-2-ene, 2,6,6-tri	15707	002437-95-8	96.00
3	Bicyclo[3.1.1]hept-2-ene, 3,6,6-tri	15645	004889-83-2	90.00
4	.beta.-Pinene	15500	000127-91-3	87.00
5	1S-.alpha.-Pinene	15514	007785-26-4	87.00



Quantitation Report

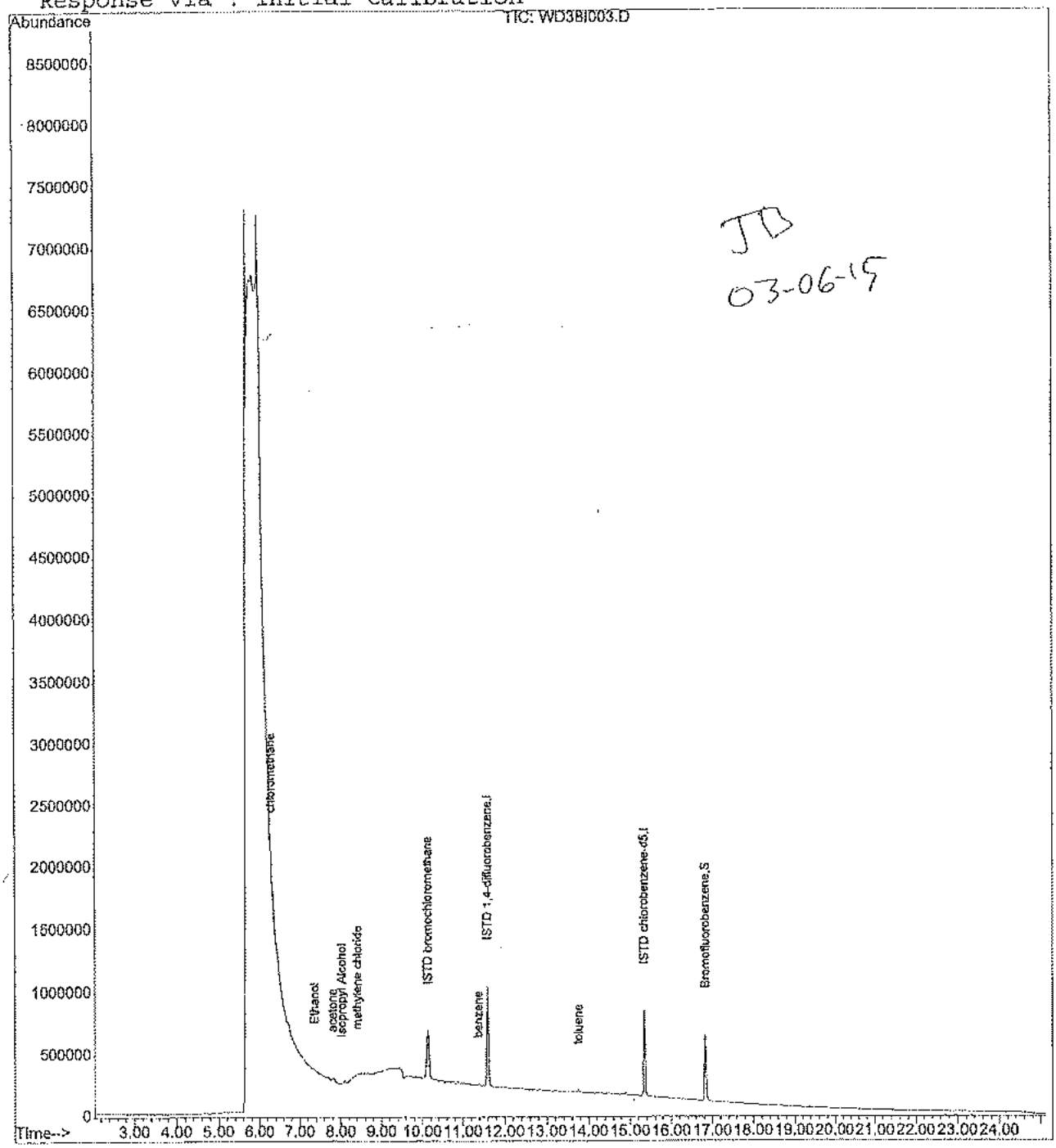
Data File : J:\W\2015\MAR15W\05MAR15W\WD38I003.D
Acq Time : 03/05/2015 15:24
Sample : 1506345003
Misc : A-0011-H-030315-TO-003 0250

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:07 2015

Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration



JD
03-06-15

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD38I003.D
Acq Time : 03/05/2015 15:24
Sample : 1506345003
Misc : A-0011-H-030315-TO-003 0250

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:07 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	R.T.	QIon	Response	Conc Units	Area%
Internal Standards					
1) ISTD bromochloromethane	10.13	128	129849	20.0000 ppb	79.28
28) ISTD 1,4-difluorobenzene	11.60	114	684250	20.0000 ppb	80.75
42) ISTD chlorobenzene-d5	15.34	117	456291	20.0000 ppb	84.08
				%Recovery	
System Monitoring Compounds					
55) Bromofluorobenzene	16.82	95	271047	20.1803 ppb	100.90%
				Qvalue	
Target Compounds					
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	6.29	50	7017	0.4032 ppb	93
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	7.36	45	21365	4.3812 ppb	100
10) Isopropyl Alcohol	8.02	45	18905	0.7770 ppb	100
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.81	43	87224	2.0078 ppb #	91
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	8.41	49	9628	0.3548 ppb m	62
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	0.00	43		Not Detected	
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	11.39	78	9976	0.2161 ppb	9
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD38I003.D
Acq Time : 03/05/2015 15:24
Sample : 1506345003
Misc : A-0011-H-030315-TO-003 0250

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:07 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) 1,4-Dioxane	0.00	88		Not Detected	
37) Heptane	0.00	71		Not Detected	
38) cis-1,3-dichloropropene	0.00	75		Not Detected	
39) 4-methyl-2-pentanone	0.00	43		Not Detected	
40) trans-1,3-dichloropropene	0.00	75		Not Detected	
41) 1,1,2-trichloroethane	0.00	97		Not Detected	
43) toluene	13.74	91	14881	0.3623 ppb	100
44) 2-hexanone	0.00	43		Not Detected	
45) tetrachloroethene	0.00	164		Not Detected	
46) dibromochloromethane	0.00	129		Not Detected	
47) 1,2-dibromoethane	0.00	107		Not Detected	
48) chlorobenzene	0.00	112		Not Detected	
49) ethyl benzene	0.00	106		Not Detected	
50) m,p-xylene	0.00	106		Not Detected	
51) o-xylene	0.00	106		Not Detected	
52) styrene	0.00	104		Not Detected	
53) bromoform	0.00	173		Not Detected	
54) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56) Cumene	0.00	105		Not Detected	
57) 4-ethyl toluene	0.00	105		Not Detected	
58) 1,3,5-trimethylbenzene	0.00	105		Not Detected	
59) 1,2,4-trimethylbenzene	0.00	105		Not Detected	
60) m-dichlorobenzene	0.00	146		Not Detected	
61) p-dichlorobenzene	0.00	146		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) o-dichlorobenzene	0.00	146		Not Detected	
64) 1,2,4-trichlorobenzene	0.00	180		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) hexachloro-1,3-butadiene	0.00	225		Not Detected	

Quantitation Report (Qedit)

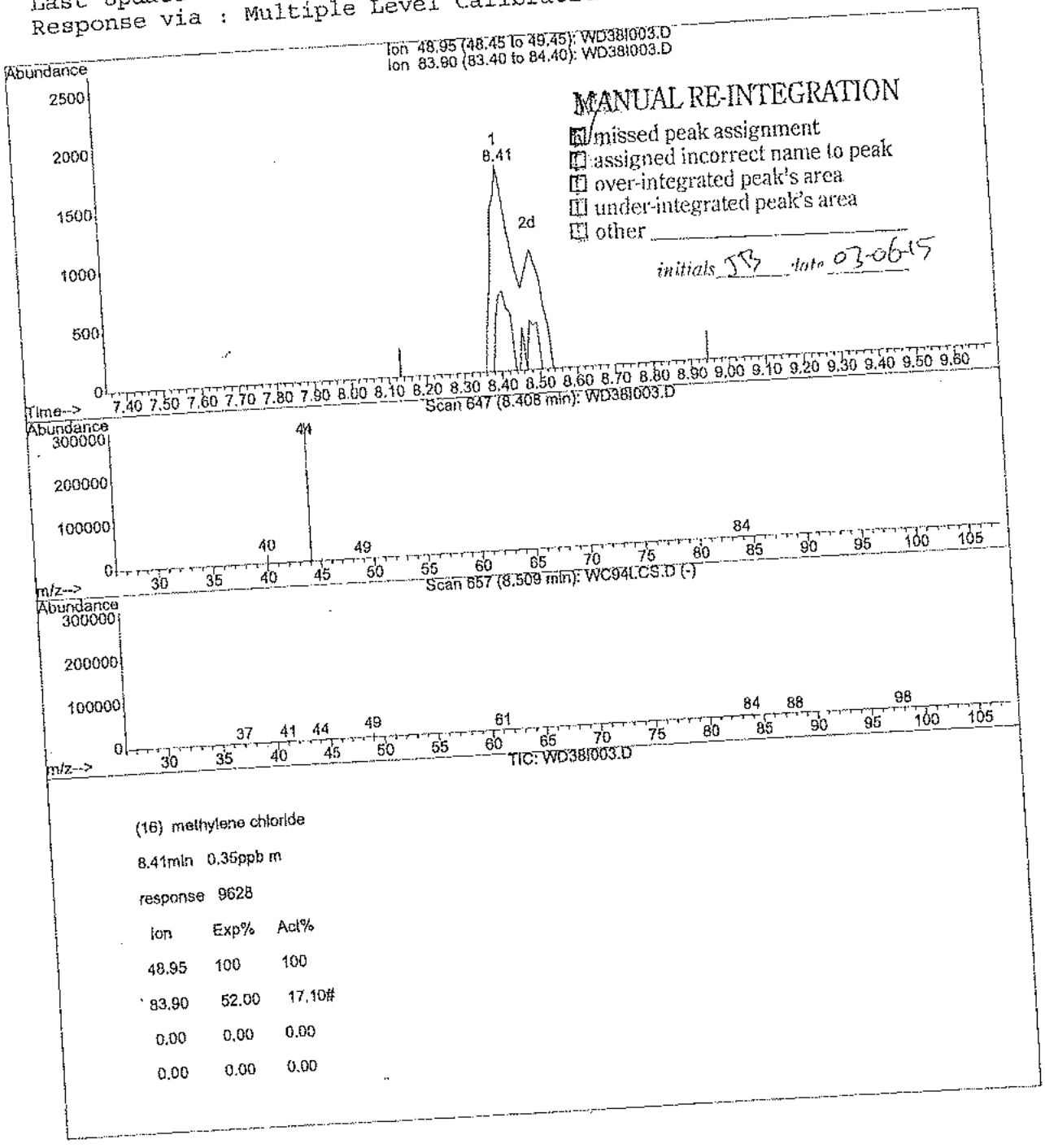
Data File : J:\W\2015\MAR15W\05MAR15W\WD38I003.D
Acq Time : 03/05/2015 15:24
Sample : 1506345003
Misc : A-0011-H-030315-TO-003 0250

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:06 2015

Quant Results File: temp.res

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration

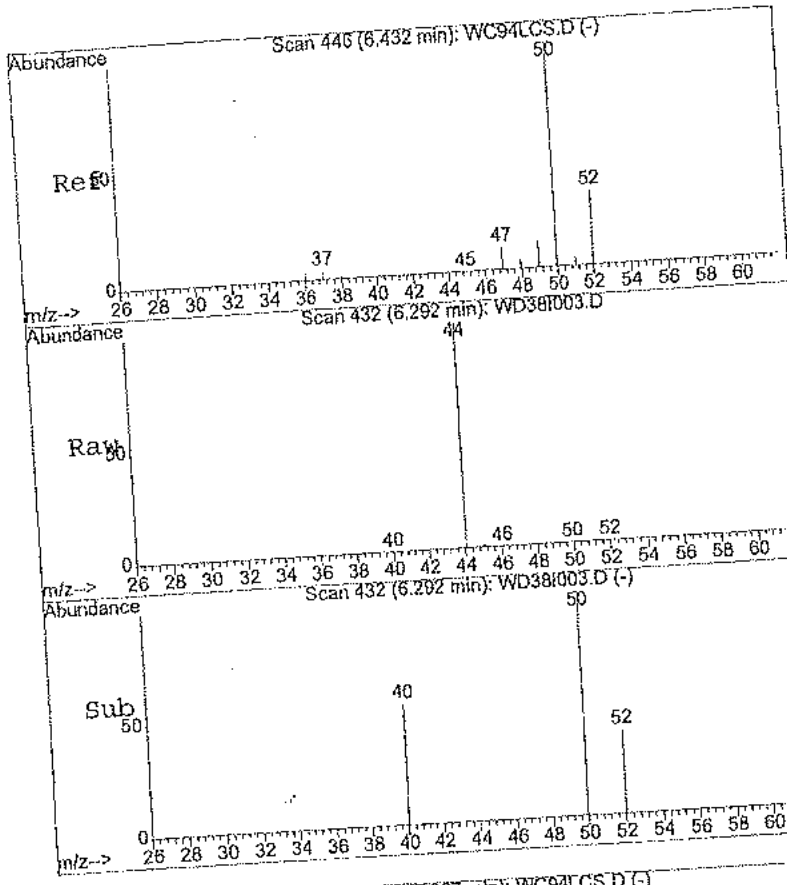


(16) methylene chloride

8.41min 0.35ppb m

response 9628

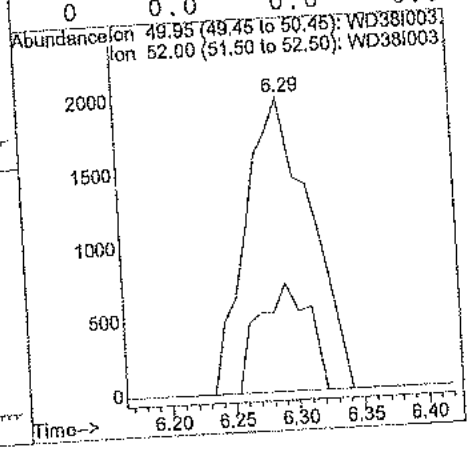
Ion	Exp%	Act%
48.95	100	100
83.90	52.00	17.10#
0.00	0.00	0.00
0.00	0.00	0.00

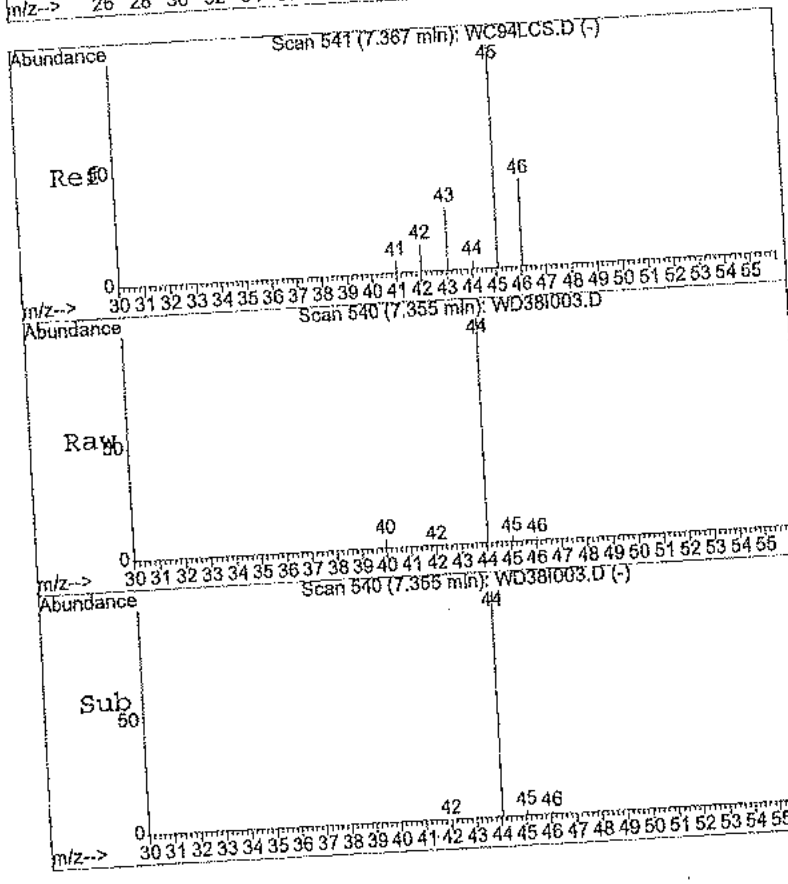


#3
chloromethane
Concen: 0.40 ppb
RT: 6.29 min Scan# 432
Delta R.T. -0.06 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:49.95 Resp: 7017

Ion	Ratio	Lower	Upper
50	100		
52	28.2	25.7	38.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

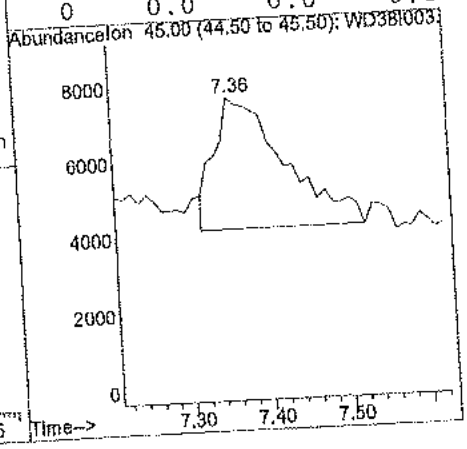


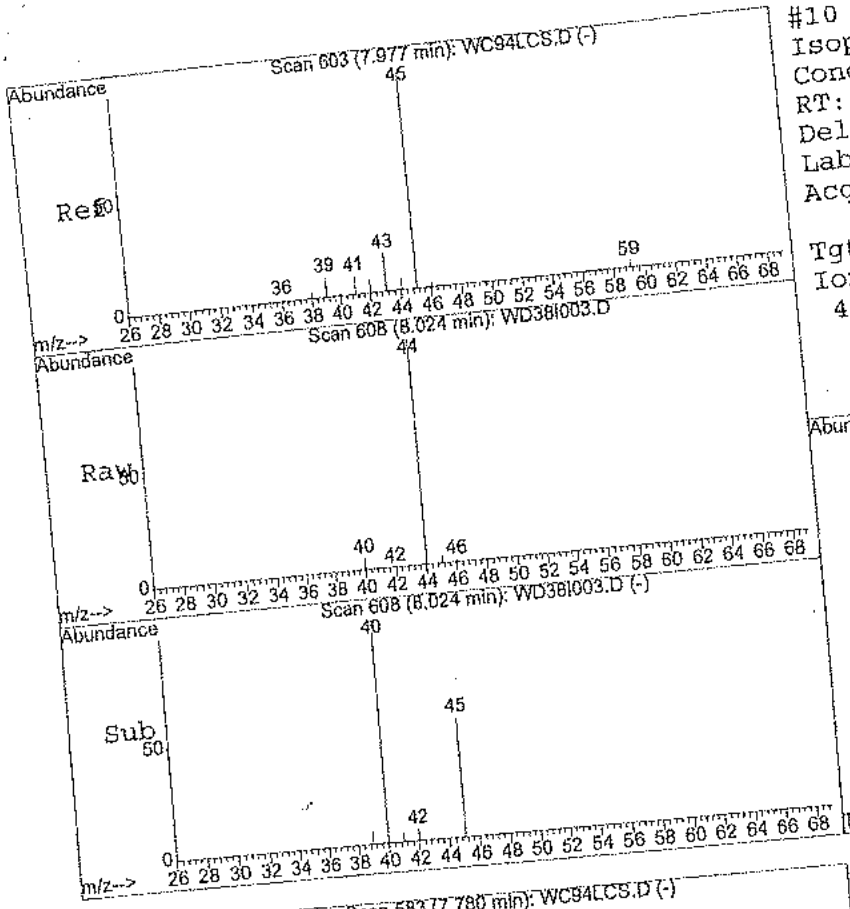


#9
Ethanol
Concen: 4.38 ppb
RT: 7.36 min Scan# 540
Delta R.T. 0.05 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:45 Resp: 21365

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

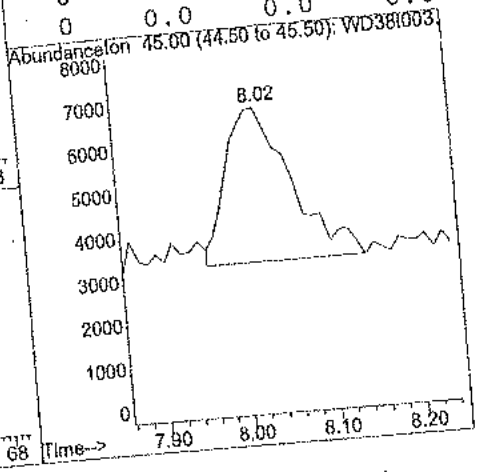


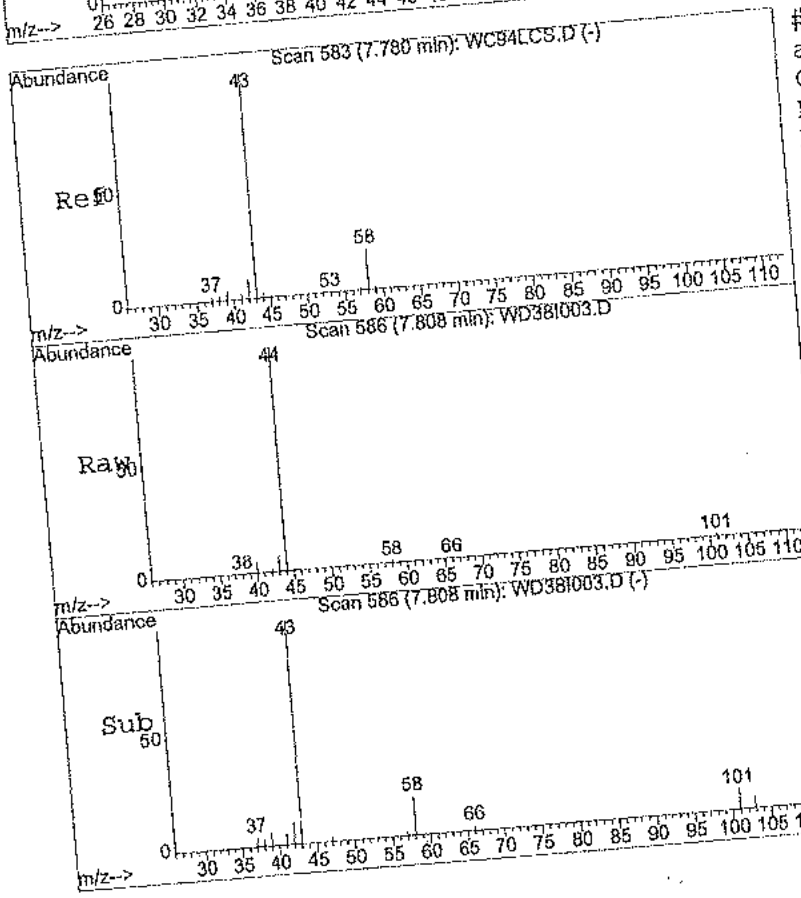


#10
Isopropyl Alcohcl
Concen: 0.78 ppb
RT: 8.02 min Scan# 60
Delta R.T. 0.12 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:45 Resp: 18905

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

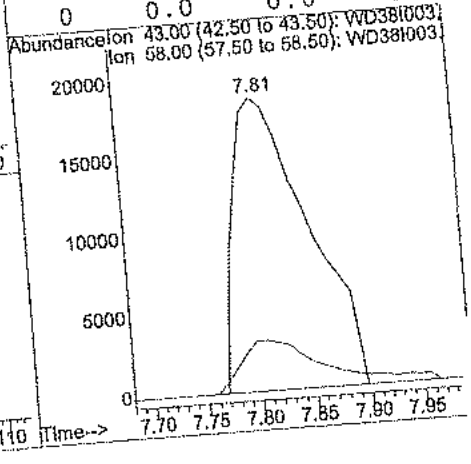


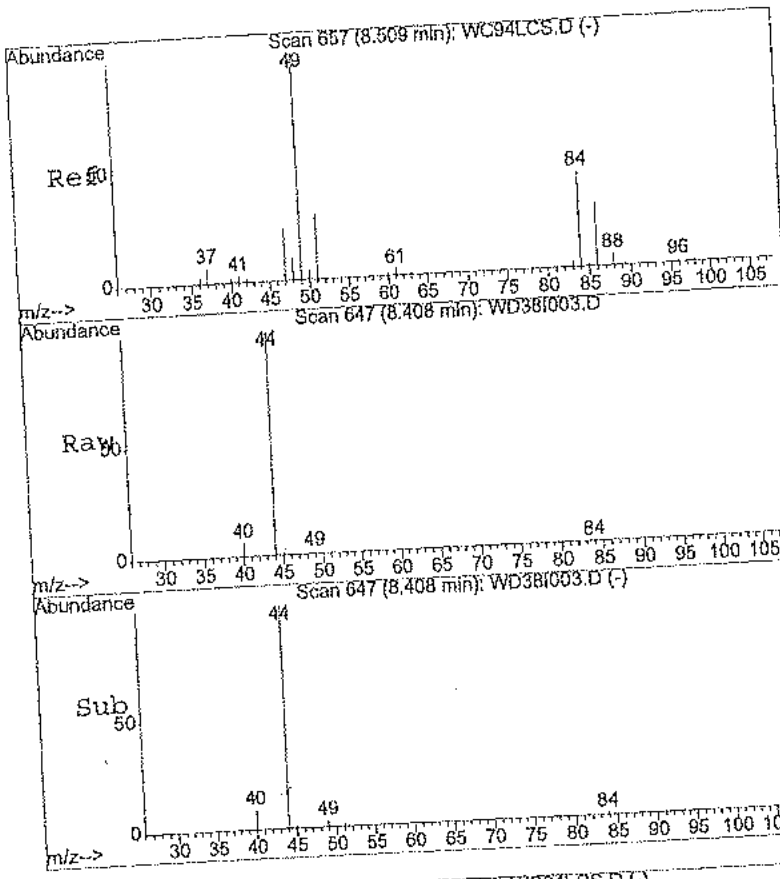


#14
acetone
Concen: 2.01 ppb
RT: 7.81 min Scan# 586
Delta R.T. 0.11 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:43 Resp: 87224

Ion	Ratio	Lower	Upper
43	100		
58	19.4	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

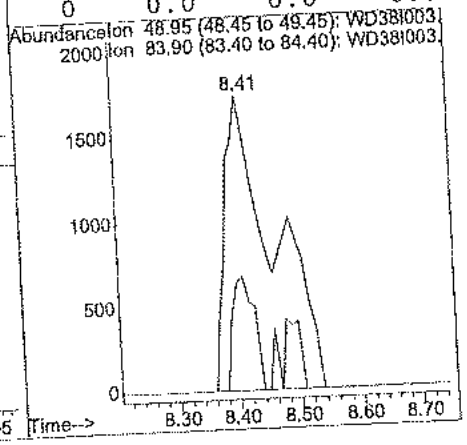


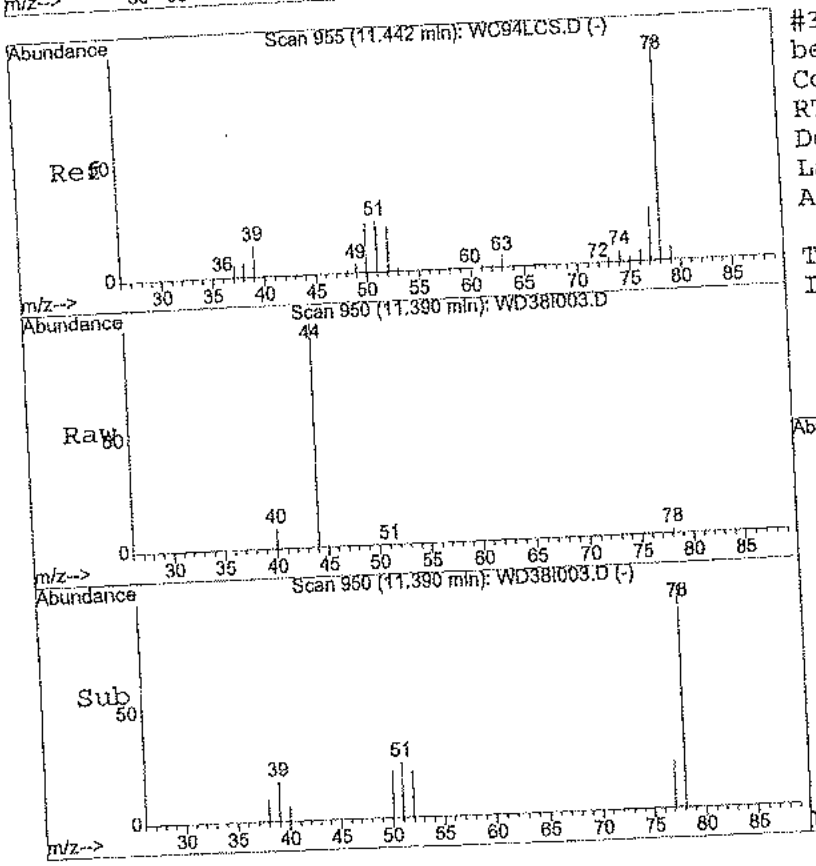


#16
methylene chloride
Concen: 0.35 ppb m
RT: 8.41 min Scan# 647
Delta R.T. -0.02 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:48.95 Resp: 9628

Ion	Ratio	Lower	Upper
49	100		
84	17.1	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

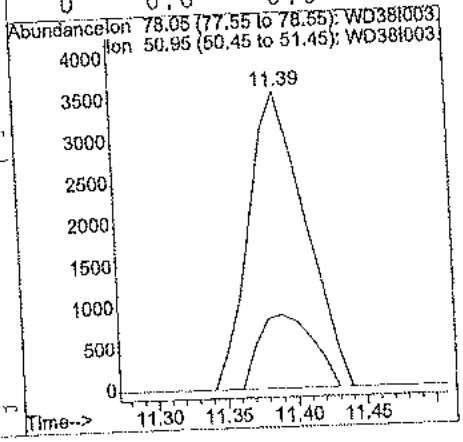


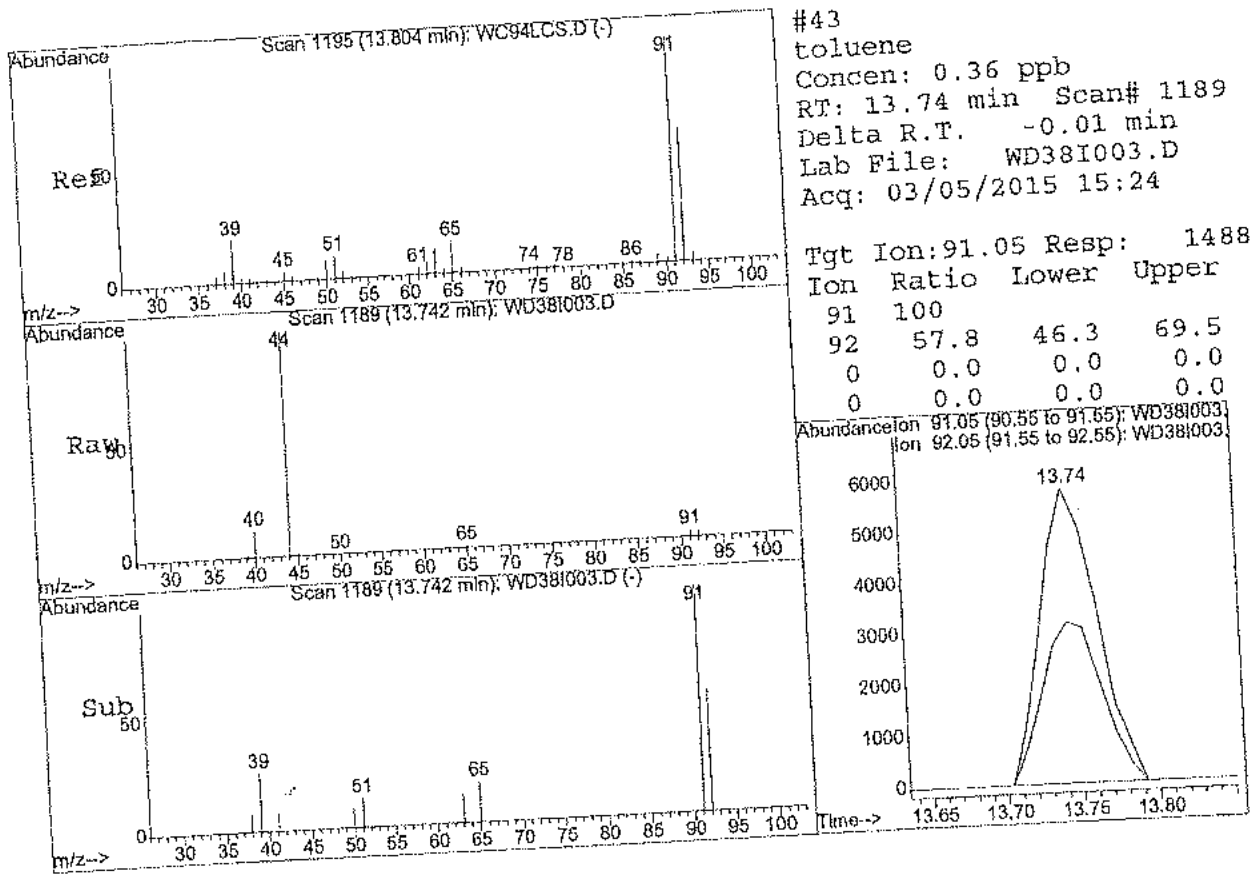


#31
benzene
Concen: 0.22 ppb
RT: 11.39 min Scan# 950
Delta R.T. 0.01 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:78.05 Resp: 9976

Ion	Ratio	Lower	Upper
78	100		
51	23.8	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0





#43
toluene
Concen: 0.36 ppb
RT: 13.74 min Scan# 1189
Delta R.T. -0.01 min
Lab File: WD38I003.D
Acq: 03/05/2015 15:24

Tgt Ion:91.05 Resp: 14881

Ion	Ratio	Lower	Upper
91	100		
92	57.8	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD39I004.D
Acq Time : 03/05/2015 16:01
Sample : 1506345004
Misc : A-0011-H-030315-TO-004 0531

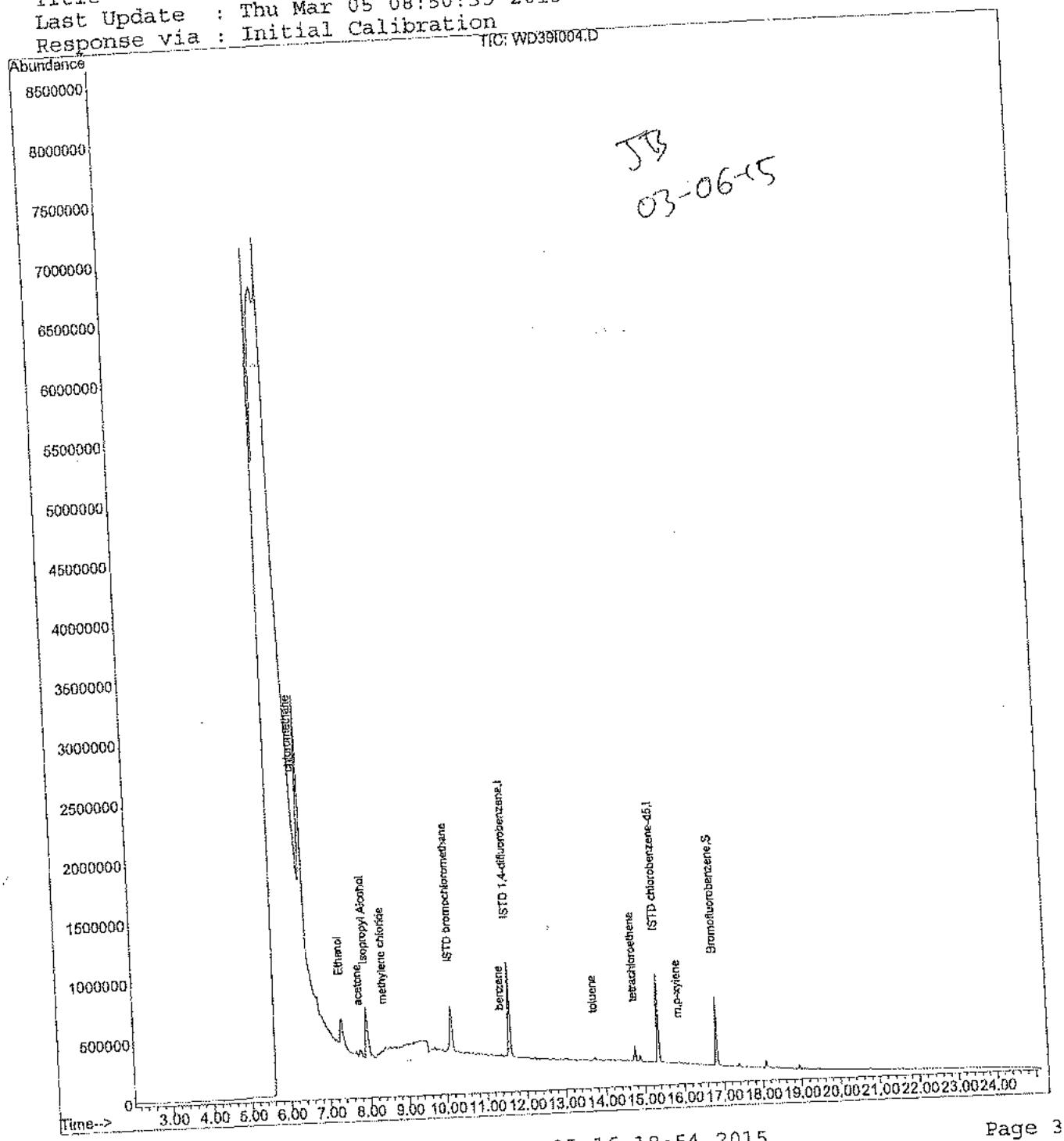
Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:15 2015

Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration

JB
03-06-15



Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD39I004.D
Acq Time : 03/05/2015 16:01
Sample : 1506345004
Misc : A-0011-H-030315-TO-004 0531

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:15 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.14	128	124285	20.0000 ppb	75.88
28) ISTD 1,4-difluorobenzene	11.60	114	677275	20.0000 ppb	79.92
42) ISTD chlorobenzene-d5	15.34	117	465068	20.0000 ppb	85.70
					%Recovery
System Monitoring Compounds					
55) Bromofluorobenzene	16.82	95	278141	20.3177 ppb	101.59%
					Qvalue
Target Compounds					
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	6.29	50	6300	0.3782 ppb #	86
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	7.33	45	810674	173.6840 ppb	100
10) Isopropyl Alcohol	7.94	45	1305904	56.0793 ppb	100
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.77	43	207101	4.9806 ppb m JB 03-06-15	63
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	8.40	49	24798	0.9548 ppb m JB	74
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	0.00	43		Not Detected	
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	11.39	78	9974	0.2183 ppb	99
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\05MAR15W\WD39I004.D
Acq Time : 03/05/2015 16:01
Sample : 1506345004
Misc : A-0011-H-030315-TO-004 0531

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:15 2015

Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) 1,4-Dioxane	0.00	88		Not Detected	
37) Heptane	0.00	71		Not Detected	
38) cis-1,3-dichloropropene	0.00	75		Not Detected	
39) 4-methyl-2-pentanone	0.00	43		Not Detected	
40) trans-1,3-dichloropropene	0.00	75		Not Detected	
41) 1,1,2-trichloroethane	0.00	97		Not Detected	
43) toluene	13.75	91	22379	0.5346 ppb	99
44) 2-hexanone	0.00	43		Not Detected	
45) tetrachloroethene	14.76	164	31823	2.4650 ppb	98
46) dibromochloromethane	0.00	129		Not Detected	
47) 1,2-dibromoethane	0.00	107		Not Detected	
48) chlorobenzene	0.00	112		Not Detected	
49) ethyl benzene	0.00	106		Not Detected	
50) m,p-xylene	15.88	106	2359	0.1692 ppb	80
51) o-xylene	0.00	106		Not Detected	
52) styrene	0.00	104		Not Detected	
53) bromoform	0.00	173		Not Detected	
54) 1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56) Cumene	0.00	105		Not Detected	
57) 4-ethyl toluene	0.00	105		Not Detected	
58) 1,3,5-trimethylbenzene	0.00	105		Not Detected	
59) 1,2,4-trimethylbenzene	0.00	105		Not Detected	
60) m-dichlorobenzene	0.00	146		Not Detected	
61) p-dichlorobenzene	0.00	146		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) o-dichlorobenzene	0.00	146		Not Detected	
64) 1,2,4-trichlorobenzene	0.00	180		Not Detected	
65) Naphthalene	0.00	128		Not Detected	
66) hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

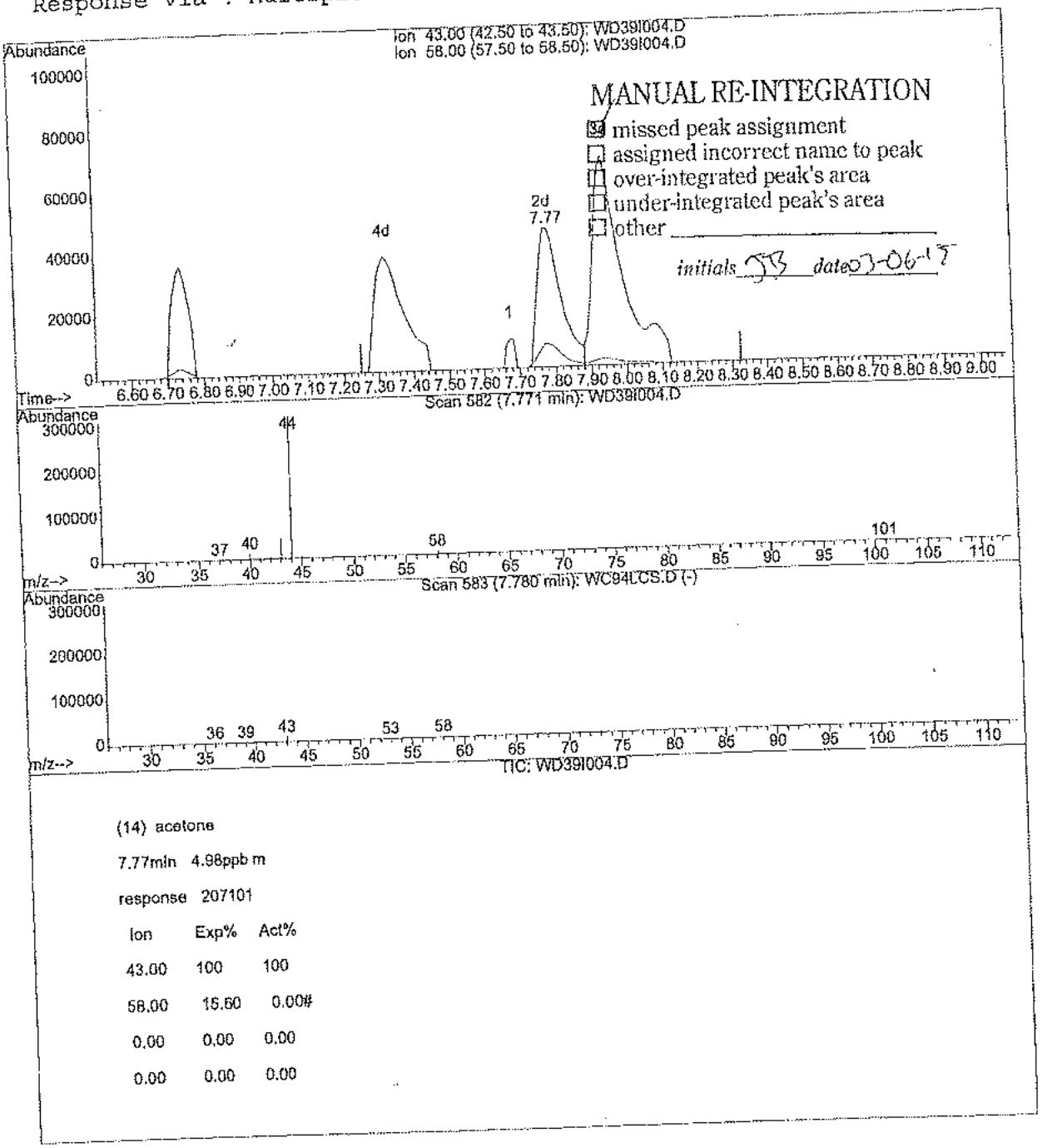
Data File : J:\W\2015\MAR15W\05MAR15W\WD39I004.D
Acq Time : 03/05/2015 16:01
Sample : 1506345004
Misc : A-0011-H-030315-TO-004 0531

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:14 2015

Quant Results File: temp.res

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration



(14) acetone

7.77min 4.98ppb m

response 207101

Ion	Exp%	Act%
43.00	100	100
58.00	15.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

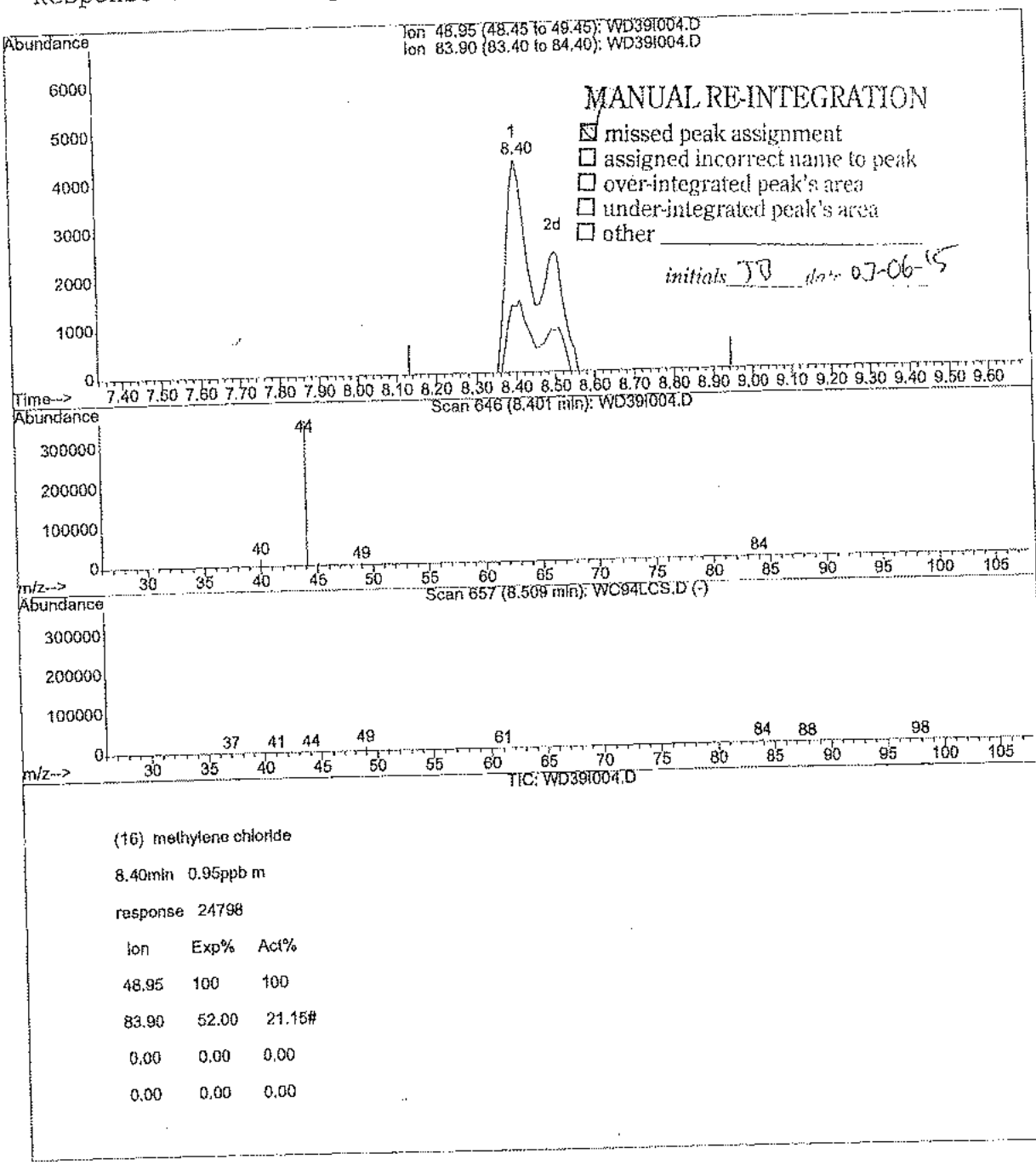
Data File : J:\W\2015\MAR15W\05MAR15W\WD39I004.D
Acq Time : 03/05/2015 16:01
Sample : 1506345004
Misc : A-0011-H-030315-TO-004 0531

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 5 16:14 2015

Quant Results File: temp.res

Method : J:\W\METHODS\TO15WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Multiple Level Calibration

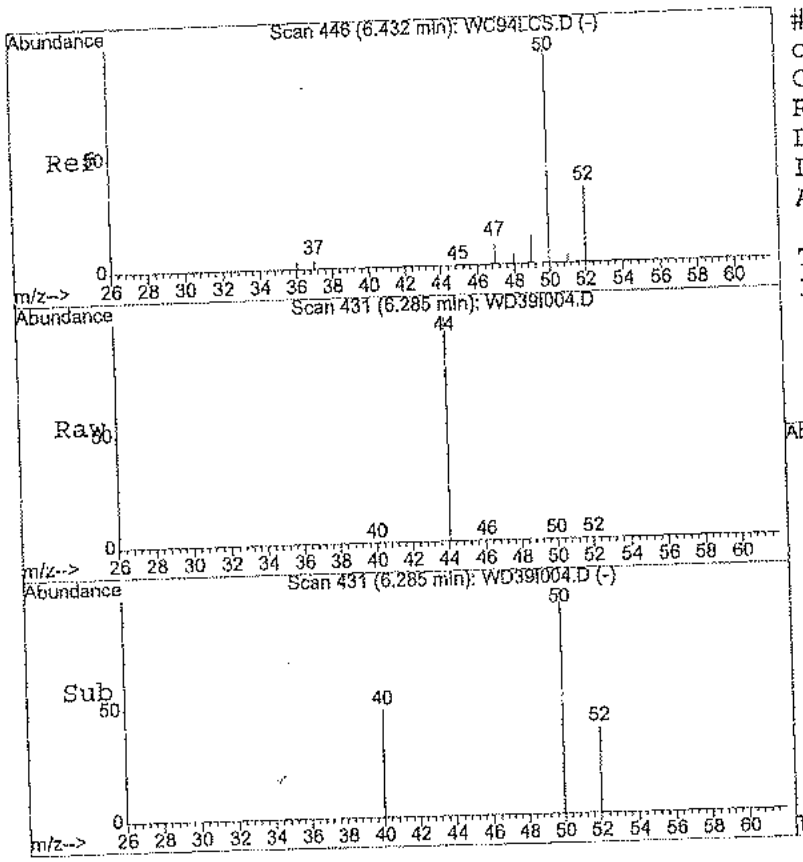


(16) methylene chloride

8.40min 0.95ppb m

response 24798

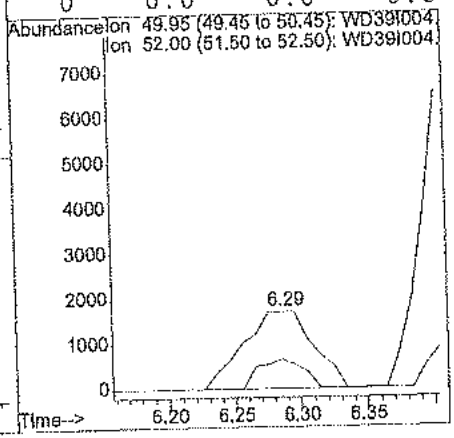
Ion	Exp%	Act%
48.95	100	100
83.90	52.00	21.15#
0.00	0.00	0.00
0.00	0.00	0.00

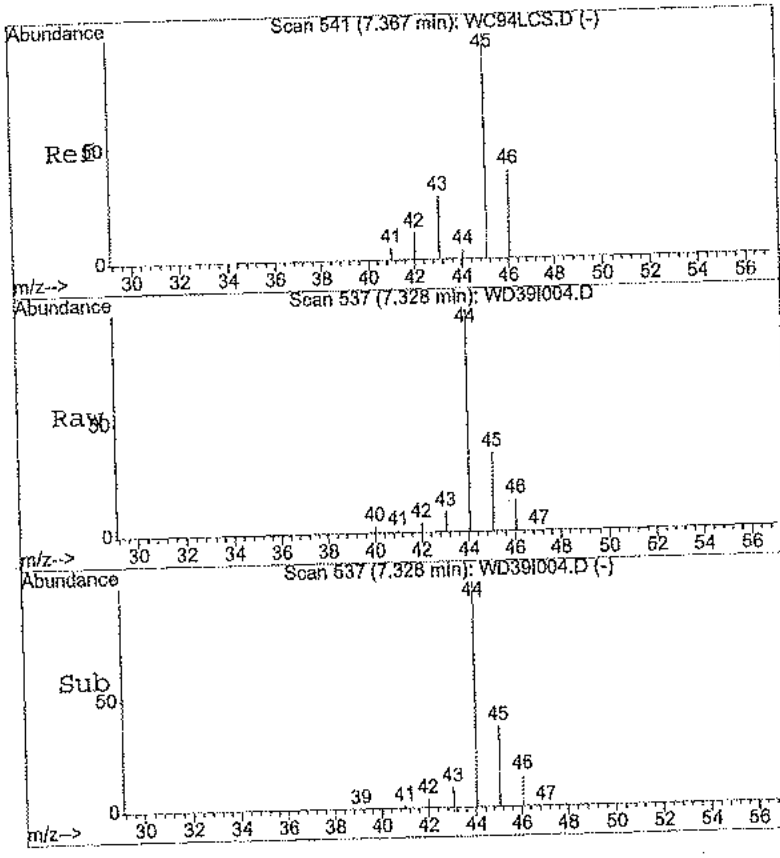


#3
chloromethane
Concen: 0.38 ppb
RT: 6.29 min Scan# 431
Delta R.T. -0.06 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:49.95 Resp: 6300

Ion	Ratio	Lower	Upper
50	100		
52	24.3	25.7	38.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

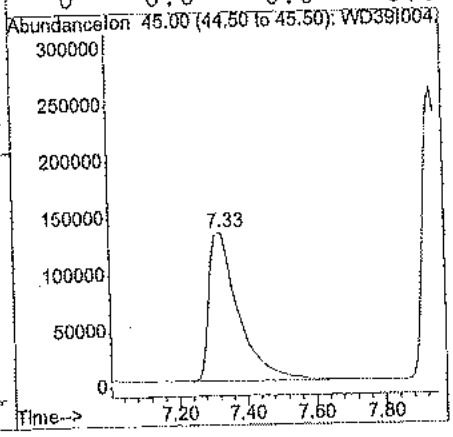


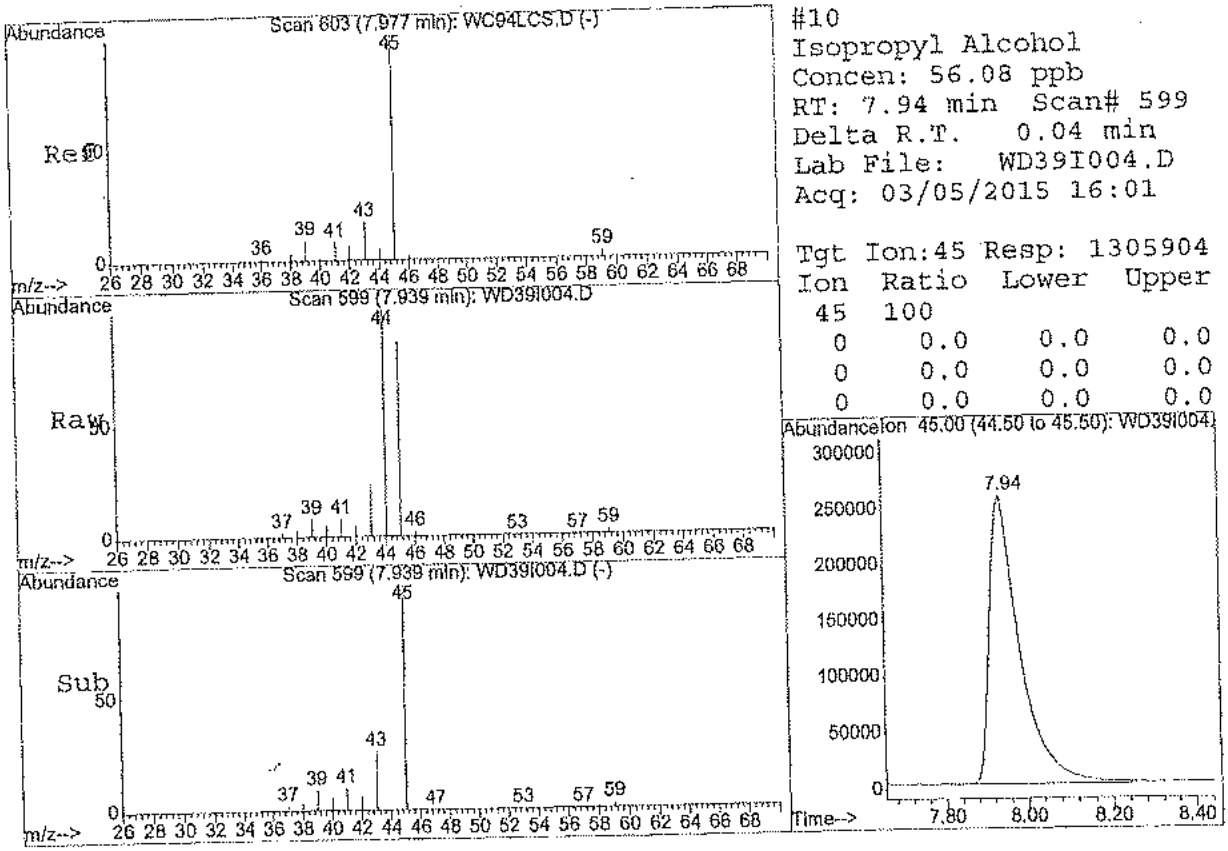


#9
Ethanol
Concen: 173.68 ppb
RT: 7.33 min Scan# 537
Delta R.T. 0.03 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:45 Resp: 810674

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

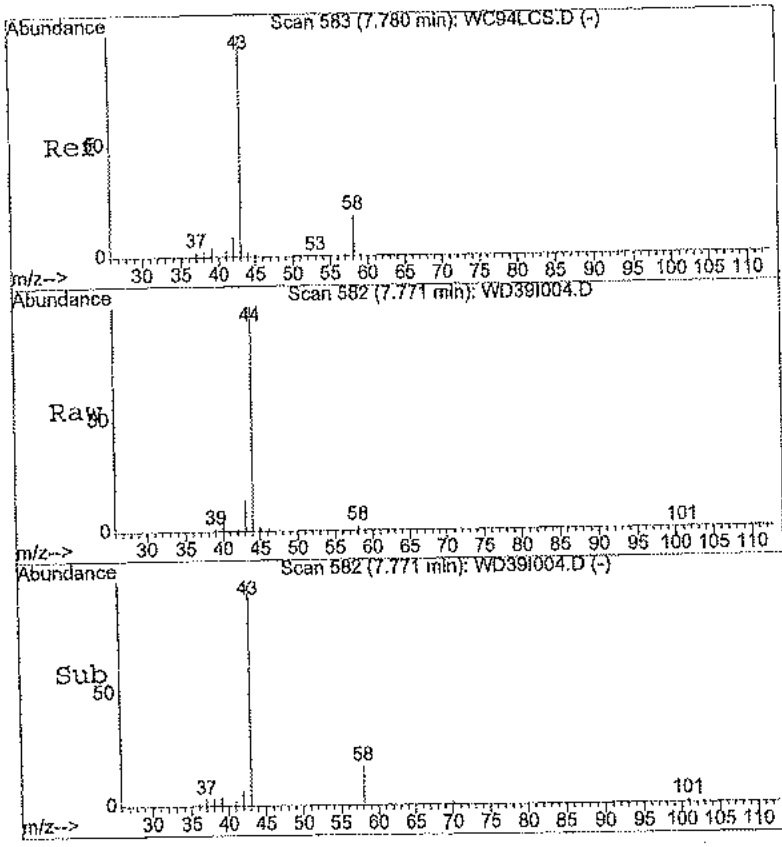




#10
Isopropyl Alcohol
Concen: 56.08 ppb
RT: 7.94 min Scan# 599
Delta R.T. 0.04 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:45 Resp: 1305904

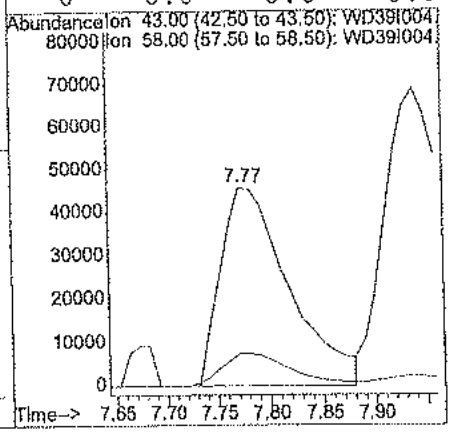
Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

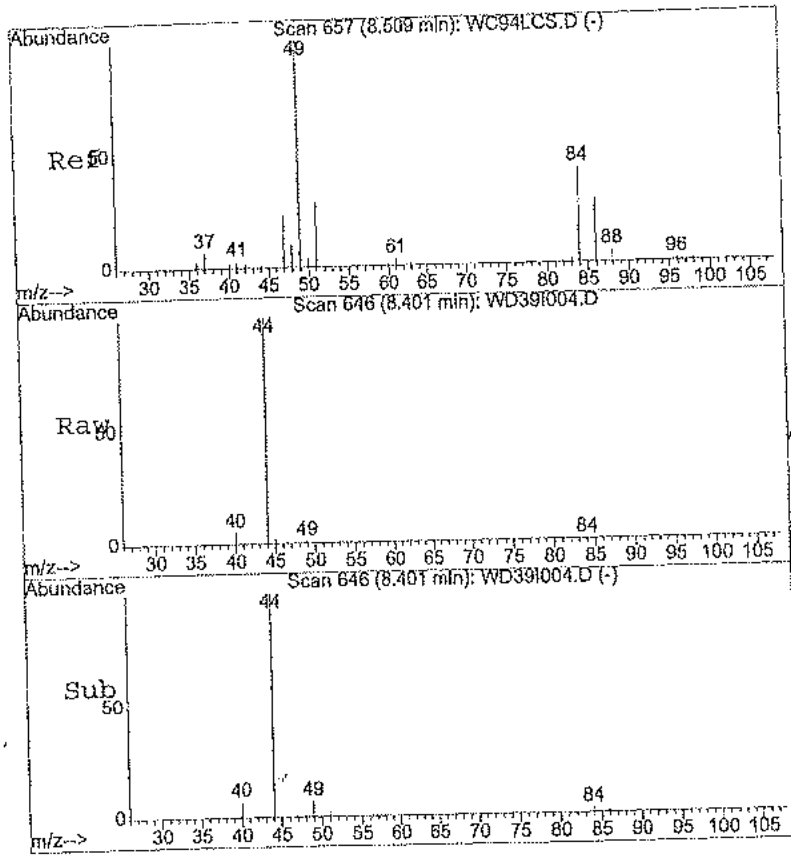


#14
acetone
Concen: 4.98 ppb m
RT: 7.77 min Scan# 582
Delta R.T. 0.07 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:43 Resp: 207101

Ion	Ratio	Lower	Upper
43	100		
58	0.0	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

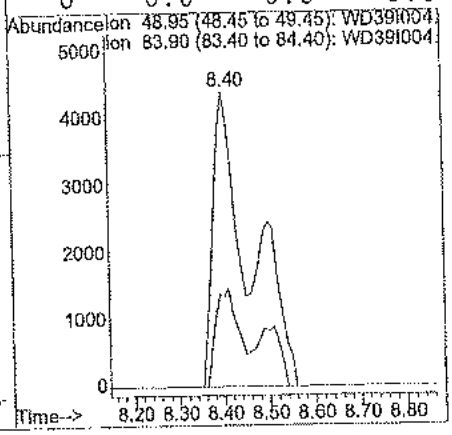


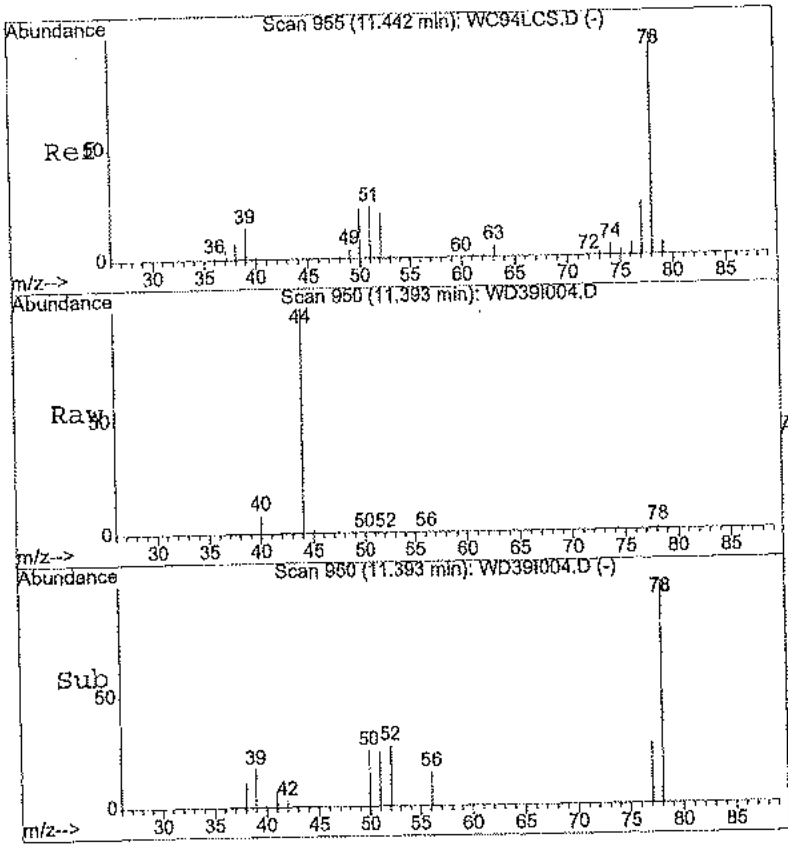


#16
methylene chloride
Concen: 0.95 ppb m
RT: 8.40 min Scan# 646
Delta R.T. -0.02 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:48.95 Resp: 24798

Ion	Ratio	Lower	Upper
49	100		
84	21.1	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

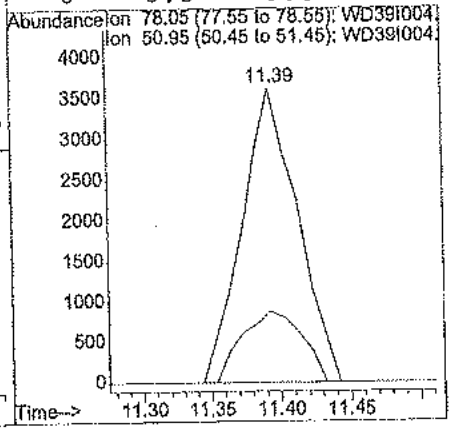


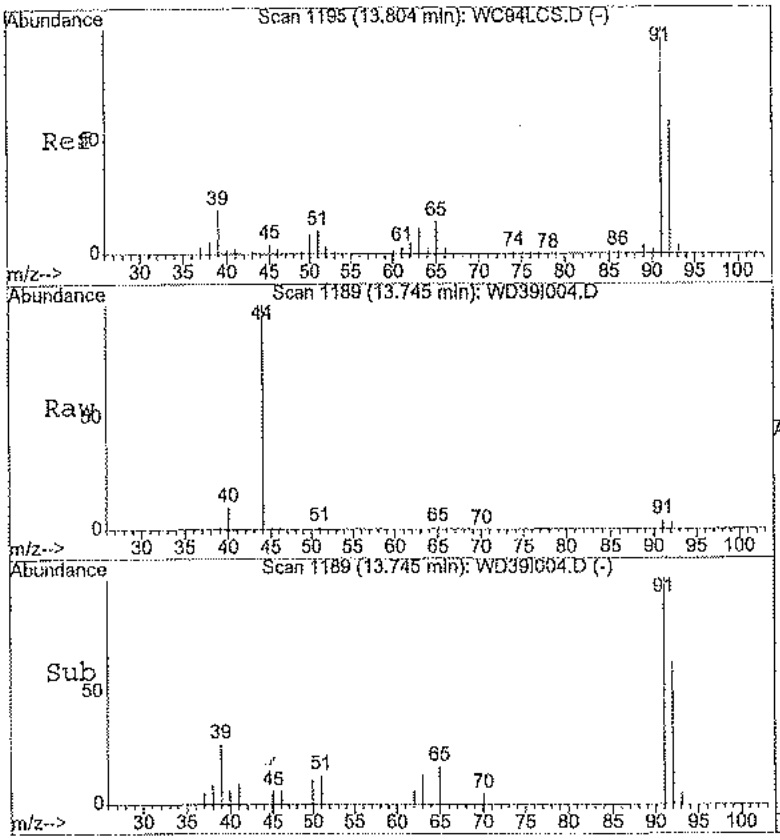


#31
benzene
Concen: 0.22 ppb
RT: 11.39 min Scan# 950
Delta R.T. 0.02 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:78.05 Resp: 9974

Ion	Ratio	Lower	Upper
78	100		
51	26.0	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

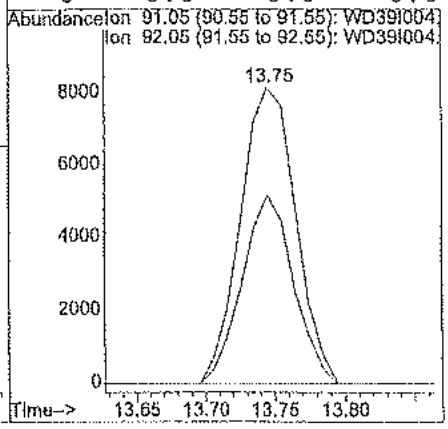


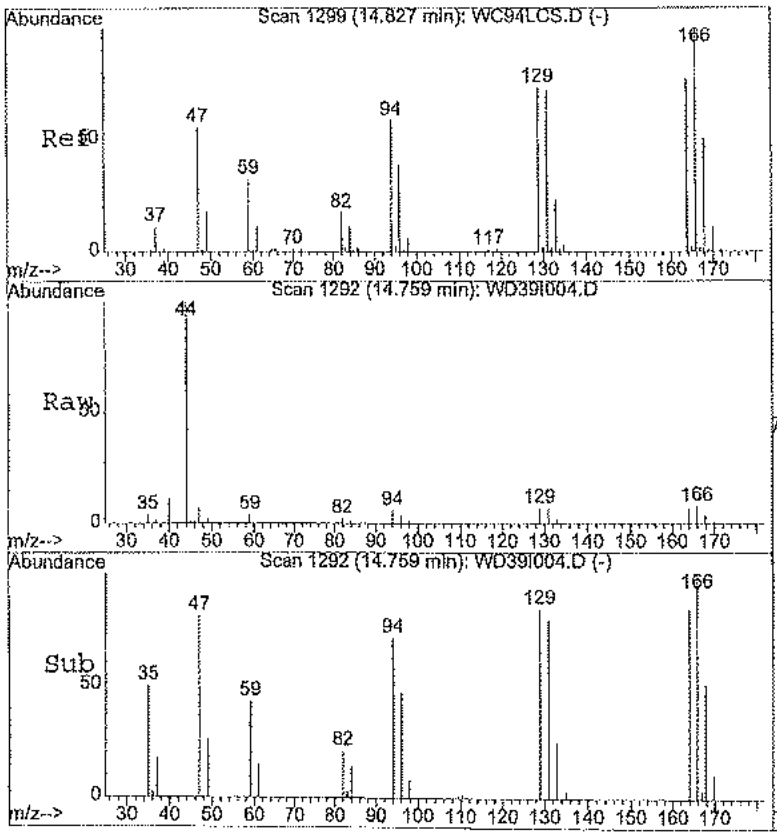


#43
toluene
Concen: 0.53 ppb
RT: 13.75 min Scan# 1189
Delta R.T. -0.00 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:91.05 Resp: 22379

Ion	Ratio	Lower	Upper
91	100		
92	58.9	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

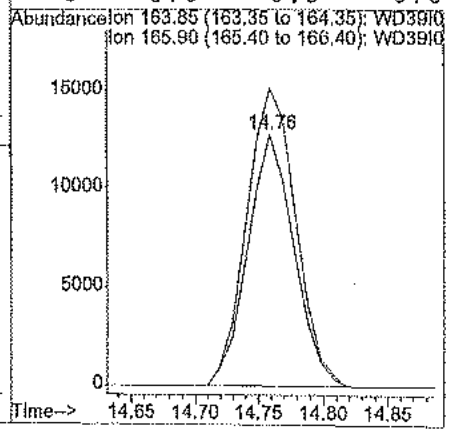


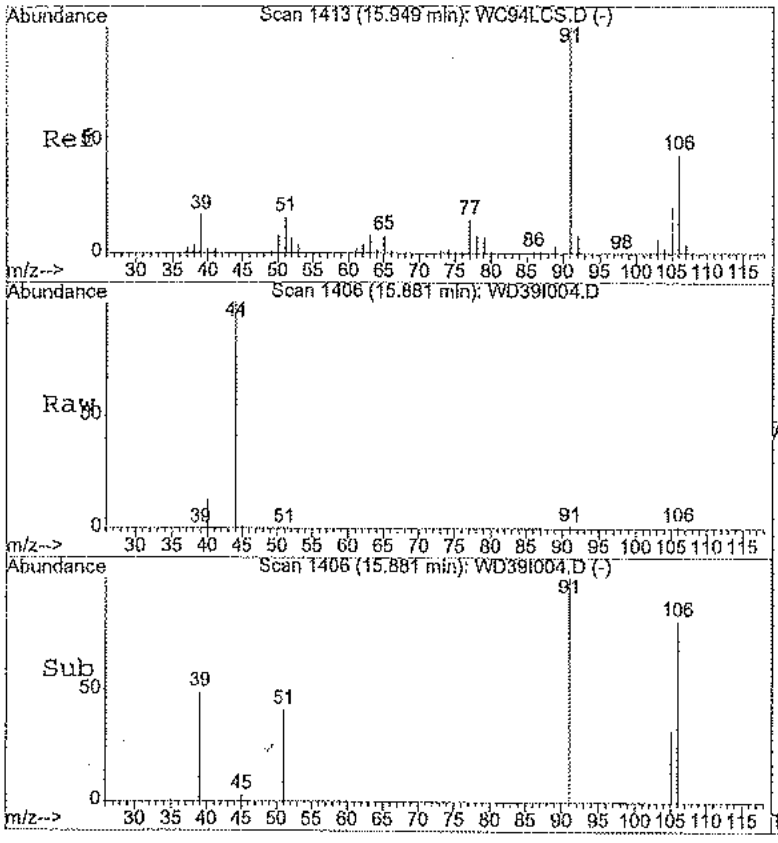


#45
tetrachloroethene
Concen: 2.46 ppb
RT: 14.76 min Scan# 1292
Delta R.T. -0.01 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:163.85 Resp: 31823

Ion	Ratio	Lower	Upper
164	100		
166	125.8	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

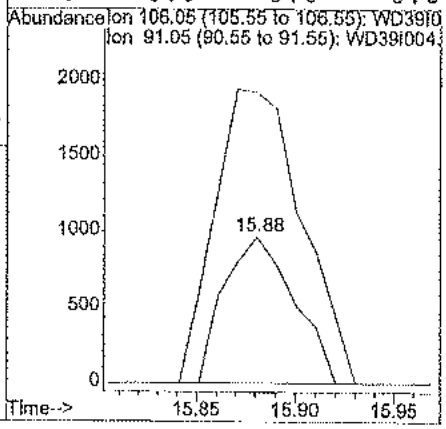




#50
m,p-xylene
Concen: 0.17 ppb
RT: 15.88 min Scan# 1406
Delta R.T. -0.02 min
Lab File: WD39I004.D
Acq: 03/05/2015 16:01

Tgt Ion:106.05 Resp: 2359

Ion	Ratio	Lower	Upper
106	100		
91	249.7	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1507913**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received four summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-W. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$RRF = \left[\frac{A_x}{A_{is}}\right]\left[\frac{C_{is}}{C_x}\right]$$

Where A_x is the area of the characteristic ion for the compound to be measured, A_{is} is the area of the characteristic ion for the internal standard , C_{is} is the concentration of the internal standard, and C_x is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)}\right]$$

Concentration in ug/m^3 : $$C = \textbf{ppb v/v (MW/24.45)}$$

Where I_s is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid — September 14, 2015

Date

ANALYTICAL REPORT
Amended 20151028

Report Date: March 26, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
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Workorder: **34-1507913**
Project ID: VA SLC CERCLA VI
Purchase Order: DEPVA030B-0006.4

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site VA
A-0027H-031915-TO-001-BAS	1507913001	03/19/15	03/19/15	SLC CERCLA VI VA
A-0027H-031915-TO-002-OUT	1507913002	03/19/15	03/19/15	SLC CERCLA VI VA
A-0007H-031915-TO-001-LLL	1507913003	03/19/15	03/19/15	SLC CERCLA VI VA
A-0000H-031915-TO-010	1507913004	03/19/15	03/19/15	SLC CERCLA VI VA

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0027H-031915-TO-001-BAS
Lab ID: 1507913001
Matrix: Air
Sampling Site: VA SLC CERCLA VI
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/19/2015
Received: 03/19/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2858 (HBN: 145905)
Analyzed: 03/23/2015 14:49
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.24	1.2	0.15	0.50	1	J
Chloromethane	0.41	0.84	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.29	1.6	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**9.2**	**22**	0.30	1.0	1	
Carbon disulfide	0.24	0.76	0.15	0.50	1	J
Methylene chloride	0.32	1.1	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**1.1**	**3.3**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	**0.82**	**2.9**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	**0.58**	**2.4**	0.15	0.50	1	
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.26	0.84	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.41	1.7	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0027H-031915-TO-001-BAS
Lab ID: 1507913001
Matrix: Air
Sampling Site: VA SLC CERCLA VI
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/19/2015
Received: 03/19/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2858 (HBN: 145905)
Analyzed: 03/23/2015 14:49
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**2.6**	**9.7**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	**0.57**	**2.5**	0.15	0.50	1	
o-Xylene	0.24	1.1	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.15	0.74	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.21	1.0	0.15	0.50	1	J
1,2,4-Trimethylbenzene	0.48	2.3	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	**0.70**	**4.2**	0.15	0.50	1	
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2858 (HBN: 145905)
Analyzed: 03/23/2015 14:49
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	67	7.36	1	J
Isopropyl Alcohol	19	7.98	1	J
Nonane	3.1	16.55	1	J
.alpha.-Pinene	2.7	17.44	1	J
Decane	2.5	18.35	1	J

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0027H-031915-TO-002-OUT
Lab ID: 1507913002
Matrix: Air
Sampling Site: VA SLC CERCLA VI
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/19/2015
Received: 03/19/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2858 (HBN: 145905)
Analyzed: 03/23/2015 15:26
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.21	1.0	0.15	0.50	1	J
Chloromethane	0.35	0.73	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.18	1.0	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**2.7**	**6.5**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.2	0.69	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.2	0.59	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.21	0.76	0.15	1.0	1	J
Hexane	0.18	0.64	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.23	0.74	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0027H-031915-TO-002-OUT | Sampling Site: VA SLC CERCLA VI | Collected: 03/19/2015
Lab ID: 1507913002 | Media: Summa 6 Liter Canister | Received: 03/19/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 15:26 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	0.3	1.1	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	**0.81**	**3.5**	0.15	0.50	1	
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Sample ID: A-0007H-031915-TO-001-LLL | Sampling Site: VA SLC CERCLA VI | Collected: 03/19/2015
Lab ID: 1507913003 | Media: Summa 6 Liter Canister | Received: 03/19/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 16:03 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.3	1.5	0.15	0.50	1	J
Chloromethane	0.38	0.79	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U

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ANALYTICAL REPORT
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Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0007H-031915-TO-001-LLL
Lab ID: 1507913003
Matrix: Air
Sampling Site: VA SLC CERCLA VI
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/19/2015
Received: 03/19/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2858 (HBN: 145905)
Analyzed: 03/23/2015 16:03
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.21	1.2	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**11**	**25**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**0.71**	**2.5**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.25	0.87	0.15	0.50	1	J
Chloroform	0.17	0.85	0.15	0.50	1	J
Tetrahydrofuran	0.45	1.3	0.15	0.50	1	J
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.19	0.61	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.2	0.82	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**2.1**	**7.9**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.71**	**4.8**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0007H-031915-TO-001-LLL | Sampling Site: VA SLC CERCLA VI | Collected: 03/19/2015
Lab ID: 1507913003 | Media: Summa 6 Liter Canister | Received: 03/19/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 16:03 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Ethyl benzene	0.28	1.2	0.15	0.50	1	J
m,p-Xylene	**0.97**	**4.2**	0.15	0.50	1	
o-Xylene	0.28	1.2	0.15	0.50	1	J
Styrene	**1.3**	**5.6**	0.15	0.50	1	
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 16:03 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	190	7.31	1	J
Isopropyl Alcohol	5.6	7.95	1	J
Limonene	6.9	18.98	1	J

Sample ID: A-0000H-031915-TO-010 | Sampling Site: VA SLC CERCLA VI | Collected: 03/19/2015
Lab ID: 1507913004 | Media: Summa 6 Liter Canister | Received: 03/19/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 16:40 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.24	1.2	0.15	0.50	1	J
Chloromethane	0.41	0.84	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0000H-031915-TO-010
Lab ID: 1507913004
Matrix: Air
Sampling Site: VA SLC CERCLA VI
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/19/2015
Received: 03/19/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2858 (HBN: 145905)
Analyzed: 03/23/2015 16:40
Instrument ID: 5972-W
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.28	1.6	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**7.9**	**19**	0.30	1.0	1	
Carbon disulfide	**1.4**	**4.3**	0.15	0.50	1	
Methylene chloride	**0.63**	**2.2**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.63**	**1.9**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.17	0.63	0.15	1.0	1	J
Hexane	**0.64**	**2.3**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	0.43	1.7	0.15	0.50	1	J
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.22	0.70	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	0.45	2.2	0.15	0.50	1	J
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.36	1.5	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**2.2**	**8.3**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.75**	**5.1**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0000H-031915-TO-010 | Sampling Site: VA SLC CERCLA VI | Collected: 03/19/2015
Lab ID: 1507913004 | Media: Summa 6 Liter Canister | Received: 03/19/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 16:40 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.47	2.1	0.15	0.50	1	J
o-Xylene	0.17	0.76	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.15	0.74	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.23	1.1	0.15	0.50	1	J
1,2,4-Trimethylbenzene	0.46	2.3	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	**0.80**	**4.8**	0.15	0.50	1	
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5972-W
Batch: IVOA/2858 (HBN: 145905) | **Percent Solid:** NA
Analyzed: 03/23/2015 16:40 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	81	7.31	1	J
Isopropyl Alcohol	17	7.94	1	J
Nonane	3.3	16.55	1	J
Decane	2.2	18.35	1	J

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 03/26/2015 08:03	/S/ Jorden Baum 03/26/2015 10:03

Laboratory Contact Information

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Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT
Amended 20151028

Workorder: 34-1507913
Client: First Environment
Project Manager: Kevin W. Griffiths

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1507913**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2858 (HBN: 145905)
Analyzed By: Lisa M. Reid

Blank

MB: 439298
Analyzed: 03/23/2015 13:34

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	0.521	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1507913

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2858 (HBN: 145905)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 439298
Analyzed: 03/23/2015 13:34
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 439296
Analyzed: 03/23/2015 09:11
Dilution: 1
Units: ppb

LCSD: 439297
Analyzed: 03/23/2015 09:47
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	10.3	10.0	103	59.3	135.1	10.2	102	1.11	0.0	25.0
Chloromethane	7.87	10.0	78.7	55.2	137.4	7.51	75.1	4.59	0.0	25.0
Freon 114	9.92	10.0	99.2	64.6	128.0	9.96	99.6	0.408	0.0	25.0
Vinyl chloride	8.91	10.0	89.1	61.8	132.3	8.98	89.8	0.774	0.0	25.0
1,3-Butadiene	8.85	10.0	88.5	58.0	138.3	8.78	87.8	0.750	0.0	25.0
Bromomethane	10.0	10.0	100	63.3	129.9	9.31	93.1	7.16	0.0	25.0
Chloroethane	9.13	10.0	91.3	57.6	137.1	8.04	80.4	12.7	0.0	25.0
Freon 11	11.1	10.0	111	58.9	132.8	11.0	110	0.922	0.0	25.0
Freon 113	10.1	10.0	101	68.5	120.0	10.2	102	1.08	0.0	25.0
1,1-Dichloroethene	11.1	10.0	111	67.2	125.1	10.1	101	9.40	0.0	25.0
Acetone	7.71	10.0	77.1	42.5	146.0	7.67	76.7	0.460	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1507913

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2858 (HBN: 145905)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 439296
Analyzed: 03/23/2015 09:11
Dilution: 1
Units: ppb

LCSD: 439297
Analyzed: 03/23/2015 09:47
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	8.94	10.0	89.4	63.9	128.8	9.08	90.8	1.57	0.0	25.0
Methylene chloride	8.20	10.0	82.0	63.7	127.9	7.04	70.4	15.3	0.0	25.0
trans-1,2-Dichloroethene	10.0	10.0	100	68.1	124.6	9.93	99.3	0.976	0.0	25.0
Methyl t-butyl ether	10.5	10.0	105	60.8	138.0	10.3	103	2.21	0.0	25.0
Vinyl acetate	9.52	10.0	95.2	59.3	141.1	9.22	92.2	3.23	0.0	25.0
2-Butanone	8.63	10.0	86.3	51.7	144.2	8.43	84.3	2.34	0.0	25.0
cis-1,2-Dichloroethene	9.56	10.0	95.6	69.8	124.3	9.42	94.2	1.47	0.0	25.0
1,1-Dichloroethane	8.99	10.0	89.9	67.7	123.6	8.70	87.0	3.25	0.0	25.0
Ethyl acetate	9.47	10.0	94.7	53.4	156.9	9.33	93.3	1.51	0.0	25.0
Hexane	8.37	10.0	83.7	62.4	129.5	8.12	81.2	3.08	0.0	25.0
Chloroform	9.45	10.0	94.5	67.3	121.8	9.16	91.6	3.08	0.0	25.0
Tetrahydrofuran	9.06	10.0	90.6	50.6	155.3	9.06	90.6	0.0640	0.0	25.0
1,2-Dichloroethane	9.69	10.0	96.9	62.4	130.5	9.20	92.0	5.25	0.0	25.0
1,1,1-Trichloroethane	9.92	10.0	99.2	60.4	127.7	9.61	96.1	3.16	0.0	25.0
Carbon tetrachloride	10.1	10.0	101	58.2	130.6	9.63	96.3	4.33	0.0	25.0
Benzene	9.14	10.0	91.4	64.1	127.3	9.15	91.5	0.0809	0.0	25.0
Cyclohexane	8.42	10.0	84.2	61.9	123.6	8.17	81.7	2.93	0.0	25.0
Trichloroethene	10.1	10.0	101	62.4	126.8	9.87	98.7	2.38	0.0	25.0
1,2-Dichloropropane	8.96	10.0	89.6	60.7	130.6	8.79	87.9	1.93	0.0	25.0
Bromodichloromethane	9.71	10.0	97.1	62.9	128.3	9.46	94.6	2.57	0.0	25.0
Heptane	8.80	10.0	88.0	59.5	133.4	8.75	87.5	0.584	0.0	25.0
cis-1,3-Dichloropropene	10.4	10.0	104	64.1	133.6	9.54	95.4	8.29	0.0	25.0
4-Methyl-2-pentanone	9.39	10.0	93.9	73.5	150.0	9.11	91.1	3.08	0.0	25.0
trans-1,3-Dichloropropene	11.0	10.0	110	78.5	148.7	10.2	102	7.83	0.0	25.0
1,1,2-Trichloroethane	9.46	10.0	94.6	65.0	126.6	9.06	90.6	4.33	0.0	25.0
Toluene	10.1	10.0	101	75.6	139.4	9.83	98.3	2.94	0.0	25.0
2-Hexanone	9.61	10.0	96.1	80.8	158.8	9.59	95.9	0.173	0.0	25.0
Tetrachloroethene	9.96	10.0	99.6	60.7	126.6	9.71	97.1	2.53	0.0	25.0
Dibromochloromethane	9.91	10.0	99.1	62.4	130.9	9.66	96.6	2.56	0.0	25.0
1,2-Dibromoethane	10.1	10.0	101	64.4	129.0	9.90	99.0	1.75	0.0	25.0
Chlorobenzene	9.43	10.0	94.3	62.8	126.9	9.69	96.9	2.67	0.0	25.0
Ethyl benzene	10.8	10.0	108	75.9	148.5	11.2	112	3.66	0.0	25.0
m,p-Xylene	21.1	20.0	106	73.7	144.9	20.6	103	2.34	0.0	25.0
o-Xylene	10.5	10.0	105	74.7	147.4	10.6	106	0.626	0.0	25.0
Styrene	12.0	10.0	120	75.9	158.1	11.5	115	3.88	0.0	25.0
Bromoform	10.4	10.0	104	59.7	136.0	10.2	102	1.89	0.0	25.0
1,1,2,2-Tetrachloroethane	9.37	10.0	93.7	59.3	134.8	9.23	92.3	1.50	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1507913

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2858 (HBN: 145905)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 439296
Analyzed: 03/23/2015 09:11
Dilution: 1
Units: ppb

LCSD: 439297
Analyzed: 03/23/2015 09:47
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	11.6	10.0	116	69.0	163.3	10.9	109	6.38	0.0	25.0
1,3,5-Trimethylbenzene	11.8	10.0	118	64.2	155.1	11.5	115	2.41	0.0	25.0
1,2,4-Trimethylbenzene	12.5	10.0	125	59.7	169.4	12.0	120	4.34	0.0	25.0
1,3-Dichlorobenzene	10.8	10.0	108	58.6	157.6	10.3	103	5.04	0.0	25.0
1,4-Dichlorobenzene	10.0	10.0	100	57.7	137.2	9.81	98.1	2.15	0.0	25.0
Benzyl chloride	13.1	10.0	131	60.1	182.5	12.3	123	6.51	0.0	25.0
1,2-Dichlorobenzene	11.2	10.0	112	56.5	140.0	10.5	105	6.36	0.0	25.0
1,2,4-Trichlorobenzene	12.6	10.0	126	0.0	235.7	8.96	89.6	* 33.6	0.0	25.0
Hexachlorobutadiene	11.1	10.0	111	25.3	155.9	9.15	91.5	19.1	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
439296-LCS	20.9	20.0	104
439297-LCSD	20.6	20.0	103
439298-MB	19.0	20.0	95.0
1507913001	20.0	20.0	99.8
1507913002	18.7	20.0	93.5
1507913003	19.2	20.0	96.0
1507913004	19.6	20.0	98.1

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	3/26/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
◓ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

W 1507913

ANALYTICAL REQUEST FORM

1507913

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 3/19/15 Purchase Order No. _____

3. Company Name First Environment, INC
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (678) 787-2295
Fax Telephone (973) 334-0003
E-mail Address esr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site VA SLC GEROLA VI
Industrial Process _____
Date of Collection 03/19/15
Time Collected Multiple
Date of Shipment 03/ /15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
1-00271H-031915-TO-001	Air	6L Summa	TO-15A	5	0307
A-00071H-031915-TO-002	"	"	"	"	0100
A-00071H-031915-TO-003	"	"	"	"	0128
A-00071H-031915-TO-010	"	"	"	"	0447

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCE / TCE / VC

7. Chain of Custody (Optional)

Relinquished by	[signature]	Date/Time	3/19/15 - 1125
Received by	[signature]	Date/Time	3/19/15 1125
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment, Inc

Account No:

Project/Job/Task: DEPA030B-0006.Y - VA SLC CERCLA SITE

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0367	03-02-15	>25		JB	28	2	002TH-031915-TO-001-BAS	Basement	
0100	↓	↓		↓	28	1	002TH-031915-TO-002-OUT	Outdoor Ambient	
0428					27	2	002TH-031915-TO-001-LLL	Basement Living R	
0499					25	0	002TH-031915-TO-010	Duplicate	
~~0379~~	02-09-15	~~>25~~							QR
VFR Serial No.:									
0194	03-09-15		23.8	JB			Paired w/ 0367		
0433	↓		↓	↓			paired w/ 0100		
0014							Paired w/ 0428		
0432							Paired w/ 0499		
~~0600~~	~~02-24-15~~								QR

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
[signature]	03-09-15	[signature] 03-09-15.	Pick up from lab
x [signature]	3/19/15		Return cans to lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2858 Created: 3/26/2015 08:34 Instrument: 5972-W HBN: 145905

Rule: EPA TO-15, Air Analyst: L. Reid Status: WP

Workorder: 1507913

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	439296	LCS for HBN 145905 (IVOA/2858)				LCS	1		ETO15...1Q			5/25/2015	3/23/2015
2	439297	LCSD for HBN 145905 (IVOA/2858				LCSD	1		ETO15...1Q			5/25/2015	3/23/2015
3	439295	RLVS for HBN 145905 [IVOA/2858				RLVS	1		ETO15...1Q	5320		3/26/2015	3/23/2015
4	439298	MB for HBN 145905 (IVOA/2858)				MB	1		ETO15...1Q			5/25/2015	3/23/2015
5	1507913001	A-0027H-031915-TO-001-BAS				SAMPLE	1	1507913001-A	ETO15....1	5480		3/26/2015	3/23/2015
6	1507913002	A-0027H-031915-TO-002-OUT				SAMPLE	1	1507913002-A	ETO15....1	5480		3/26/2015	3/23/2015
7	1507913003	A-0007H-031915-TO-001-LLL				SAMPLE	1	1507913003-A	ETO15....1	5480		3/26/2015	3/23/2015
8	1507913004	A-0007H-031915-TO-010				SAMPLE	1	1507913004-A	ETO15....1	5480		3/26/2015	3/23/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	WF01ILCS	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		113374	567635	343577
	Upper Limit	158724	794689	481008
	Lower limit	68024	340581	206146

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	WF07TEST	122464	595711	362682
QC-	WF01LCS	113374	567635	343577
QD-	WF02LCSD	118911	597150	349092
A-0027H-031915-TO-001 BAS	FEI1507913001	121438	616143	387617
A-0027H-031915-TO-002 OUT	FEI1507913002	121592	633344	401848
A-0007H-031915-TO-001 LLL	FEI1507913003	123067	629666	406620
A-0007H-031915-TO-010	FEI1507913004	129945	645611	398602

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	WF01ILCS	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		10.15	11.62	15.38
	Upper Limit	10.65	12.12	15.88
	Lower limit	9.65	11.12	14.88

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	WF07TEST	10.16	11.62	15.38
QC-	WF01LCS	10.15	11.62	15.38
QD-	WF02LCSD	10.16	11.62	15.38
A-0027H-031915-TO-001 BAS	FEI1507913001	10.19	11.64	15.39
A-0027H-031915-TO-002 OUT	FEI1507913002	10.17	11.63	15.38
A-0007H-031915-TO-001 LLL	FEI1507913003	10.18	11.65	15.38
A-0007H-031915-TO-010	FEI1507913004	10.16	11.63	15.38

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Analyst Notebook

145905

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is TO15WE15 (HBN 145631)

The following compounds in the CCS were outside of +-30%: NA

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP, Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

Response Factor Report 5972-W 145631

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration

Calibration Files
1 =WE34S1.D 2 =WE35S2.D 5 =WE36S5.D
10 =WE37S10.D 20 =WE38S20.D 0.5 =WE33S05.D

		Compound	1	2	5	10	20	0.5	Avg	%RSD
1)		ISTD bromochlorometha	ISTD							
2)		dichlorodifluoromet	6.043	9.054	7.401	6.390	5.999	6.629	6.919	16.82
3)		chloromethane	2.928	4.258	3.269	2.840	2.615	3.348	3.210	18.12
4)		freon 114	5.908	9.367	7.231	6.272	5.782	6.714	6.879	19.35
5)		vinyl chloride	2.383	3.737	2.931	2.589	2.400	2.547	2.764	18.65
6)		1,3-Butadiene	1.699	2.612	2.107	1.850	1.737	1.932	1.989	17.02
7)		bromomethane	1.990	3.120	2.402	2.101	1.966	2.197	2.296	18.88
8)		chloroethane	1.227	2.028	1.553	1.335	1.256	1.393	1.465	20.41
9)		Ethanol	0.280	1.097	0.839	0.715	0.553	0.576	0.676	41.15 TIC
10)		Isopropyl Alcohol	1.898	6.897	4.737	4.460	3.586	3.393	4.162	40.13 TIC
11)		trichlorofluorometh	5.787	8.690	6.756	5.903	5.607	6.292	6.506	17.62
12)		freon 113	5.312	8.246	6.136	5.460	5.061	5.840	6.009	19.31
13)		1,1-dichloroethene	1.767	2.887	2.254	2.040	1.882	1.900	2.122	19.34
14)		acetone	8.868	9.142	6.410	5.503	5.313		7.047	26.07
15)		carbon disulfide	0.810	1.250	0.976	0.834	0.783	0.919	0.929	E1 18.6
16)		methylene chloride	5.331	7.143	5.320	4.591	4.282	6.082	5.458	19.04
17)		trans-1,2-dichloroe	2.288	3.656	2.877	2.556	2.457	2.366	2.700	18.92
18)		methyl t-butyl ethe	0.652	1.020	0.787	0.714	0.695	0.672	0.757	E1 18.1
19)		vinyl acetate	1.113	1.785	1.393	1.218	1.197	1.180	1.314	E1 18.9
20)		2-butanone	0.786	1.136	0.837	0.767	0.766	0.873	0.861	E1 16.3
21)		cis-1,2-dichloroeth	2.339	3.976	3.064	2.651	2.555	2.517	2.850	21.11
22)		1,1-dichloroethane	5.730	9.109	6.728	5.751	5.526	6.377	6.537	20.49
23)		Ethyl Acetate	0.798	1.581	1.207	1.074	1.054	0.740	1.076	28.28
24)		Hexane	4.490	7.135	5.397	4.619	4.416	4.852	5.152	20.07
25)		chloroform	6.171	9.658	7.204	5.989	5.686	6.937	6.941	20.90
26)		Tetrahydrofuran	3.136	5.458	4.224	3.810	3.727	3.186	3.924	21.80
27)		1,2-dichloroethane	4.469	7.220	5.453	4.532	4.517	5.133	5.221	20.26
28)	I	ISTD 1,4-difluorobenz	ISTD							
29)		1,1,1-trichloroetha	1.108	1.707	1.268	1.114	1.052	1.247	1.249	19.18
30)		carbon tetrachlorid	1.072	1.658	1.228	1.073	1.023	1.209	1.210	19.35
31)		benzene	1.401	2.208	1.693	1.432	1.392	1.504	1.605	19.68
32)		Cyclohexane	0.771	1.142	0.834	0.712	0.656	0.942	0.843	21.00
33)		trichloroethene	0.514	0.841	0.638	0.550	0.538	0.560	0.607	20.11
34)		1,2-dichloropropane	0.594	0.911	0.682	0.576	0.573	0.639	0.662	19.42
35)		bromodichloromethan	1.223	1.912	1.428	1.207	1.184	1.324	1.380	20.01
36)		1,4-Dioxane	0.117	0.289	0.211	0.186	0.135		0.188	36.39 TIC
37)		Heptane	0.501	0.838	0.618	0.524	0.503	0.537	0.587	22.20
38)		cis-1,3-dichloropro	0.674	1.145	0.941	0.803	0.824	0.681	0.845	21.02
39)		4-methyl-2-pentanon	1.139	2.091	1.557	1.400	1.458	1.207	1.475	23.01
40)		trans-1,3-dichlorop	0.532	0.961	0.804	0.692	0.694	0.527	0.702	23.58
41)		1,1,2-trichloroetha	0.511	0.780	0.590	0.501	0.485	0.518	0.564	19.85
42)	I	ISTD chlorobenzene-d5	ISTD							

(#) = Out of Range

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration

Calibration Files
1 =WE34S1.D 2 =WE35S2.D 5 =WE36S5.D
10 =WE37S10.D 20 =WE38S20.D 0.5 =WE33S05.D

		Compound	1	2	5	10	20	0.5	Avg	%RSD	
43)		toluene	2.026	3.381	2.658	2.158	2.157	2.057	2.406	22.02	
44)		2-hexanone	1.390	2.890	2.150	1.943	1.991		2.072	26.02	
45)		tetrachloroethene	0.726	1.172	0.883	0.721	0.718	0.794	0.835	21.15	
46)		dibromochloromethan	1.417	2.206	1.642	1.360	1.332	1.527	1.581	20.70	
47)		1,2-dibromoethane	1.124	1.836	1.435	1.190	1.190	1.221	1.333	20.15	
48)		chlorobenzene	1.435	2.212	1.636	1.390	1.349	1.578	1.600	19.97	
49)		ethyl benzene	0.523	0.901	0.731	0.627	0.613	0.494	0.648	23.10	
50)		m,p-xylene	0.706	1.176	0.923	0.789	0.779	0.691	0.844	21.61	
51)		o-xylene	0.596	1.085	0.840	0.714	0.702	0.591	0.755	24.64	
52)		styrene	0.735	1.520	1.278	1.096	1.122	0.685	1.073	29.78	
53)		bromoform	0.896	1.492	1.142	0.968	0.928	0.935	1.060	21.58	
54)		1,1,2,2-tetrachloro	1.253	2.282	1.657	1.413	1.327	1.443	1.563	24.19	
55)	S	Bromofluorobenzene	0.554	0.577	0.593	0.598	0.612	0.567	0.583	3.67	
56)		Cumene							0.000#	-1.00	
57)		4-ethyl toluene	1.028	2.384	1.908	1.718	1.760		1.760	27.67	
58)		1,3,5-trimethylbenz	1.100	2.135	1.673	1.497	1.405	1.043	1.476	27.22	
59)		1,2,4-trimethylbenz	0.761	1.908	1.500	1.343	1.342	0.749	1.267	35.29	
60)		m-dichlorobenzene	0.581	1.231	0.947	0.790	0.765	0.616	0.822	29.18	
61)		p-dichlorobenzene	0.527	1.175	0.878	0.747	0.719		0.809	29.64	
62)		Benzyl Chloride	0.582	1.606	1.221	1.096	1.078	0.592	1.029	38.06	TIC
63)		o-dichlorobenzene	0.492	1.118	0.871	0.733	0.692	0.514	0.737	31.82	
64)		1,2,4-trichlorobenz	0.123	0.600	0.521	0.322	0.188	0.152	0.318	63.40	TIC
65)		Naphthalene	0.151	1.144	1.073	0.647	0.398	0.178	0.599	72.49	TIC
66)		hexachloro-1,3-buta	0.360	0.809	0.675	0.481	0.252	0.575	0.525	38.94	TIC

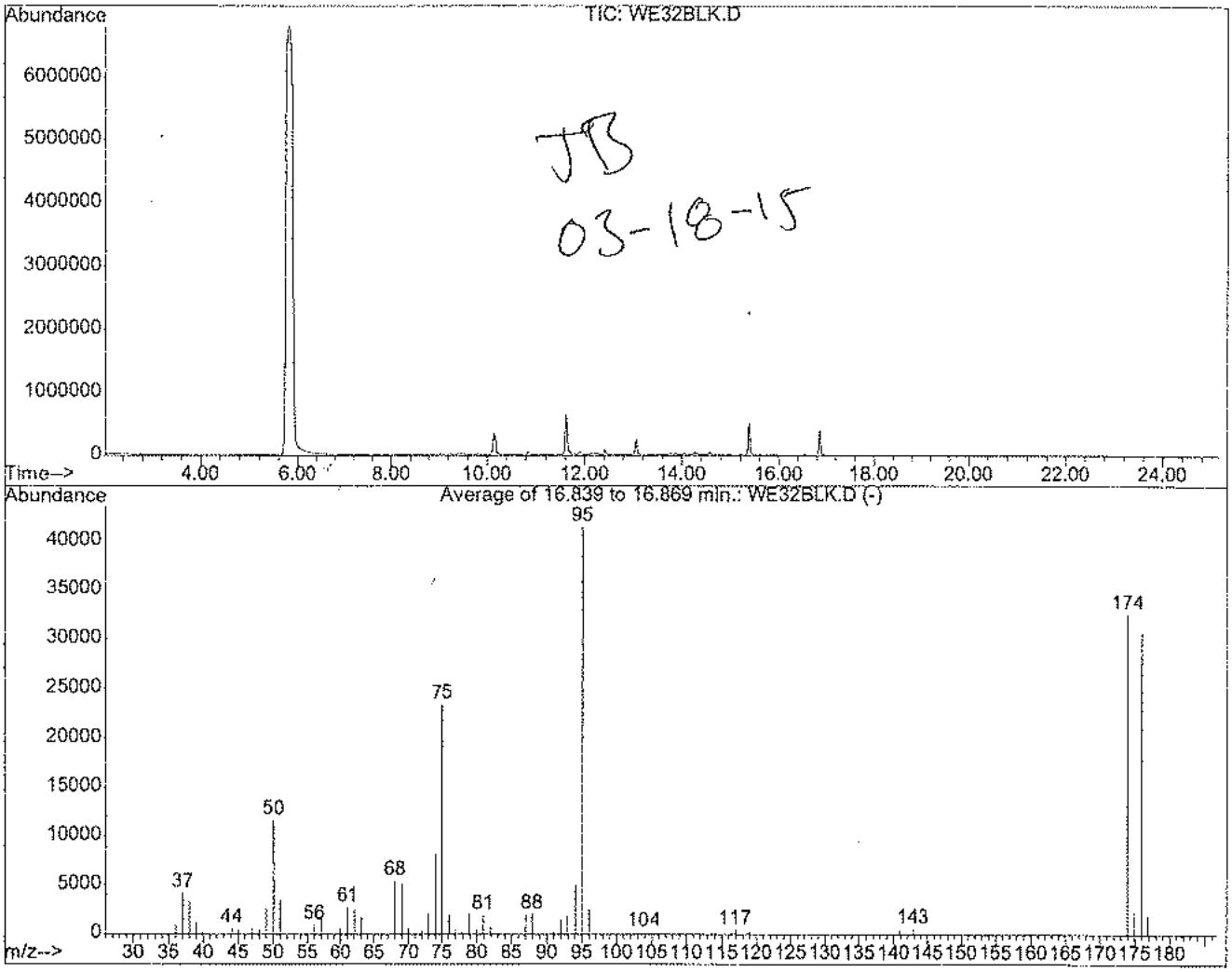
(#) = Out of Range

3/90 BFB

Data File : J:\W\2015\MAR15W\18MAR15W\WE32BLK.D
Acq Time : 03/18/2015 14:36
Sample : BL-
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST



Peak Apex is scan: 1503

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	28.2	11698	PASS
75	95	30	66	56.4	23424	PASS
95	95	100	100	100.0	41520	PASS
96	95	5	9	6.0	2500	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	78.4	32540	PASS
175	174	5	9	7.4	2402	PASS
176	174	93	101	94.4	30706	PASS
177	176	5	9	6.7	2048	PASS

Average of 16.839 to 16.869 min.: WE32BLK.D

Modified:BL-subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1013	51.00	3472	69.00	5204	80.85	1981
37.00	4230	55.00	201	70.00	658	81.90	710
38.00	3337	56.00	946	72.00	389	87.00	2023
39.00	1273	57.00	1596	73.00	2147	87.90	2064
40.00	194	59.95	680	74.05	8306	90.95	198
44.05	559	61.05	2744	75.05	23424	91.95	1411
45.00	518	62.05	2535	76.05	1955	92.95	1840
47.05	582	63.05	1695	76.95	486	94.05	5135
47.95	491	63.95	201	77.95	246	95.05	41520
49.00	2574	67.00	107	78.90	2185	96.05	2500
50.05	11698	68.00	5472	79.95	429	103.90	224

Average of 16.839 to 16.869 min.: WE32BLK.D

Modified:BL-subtracted

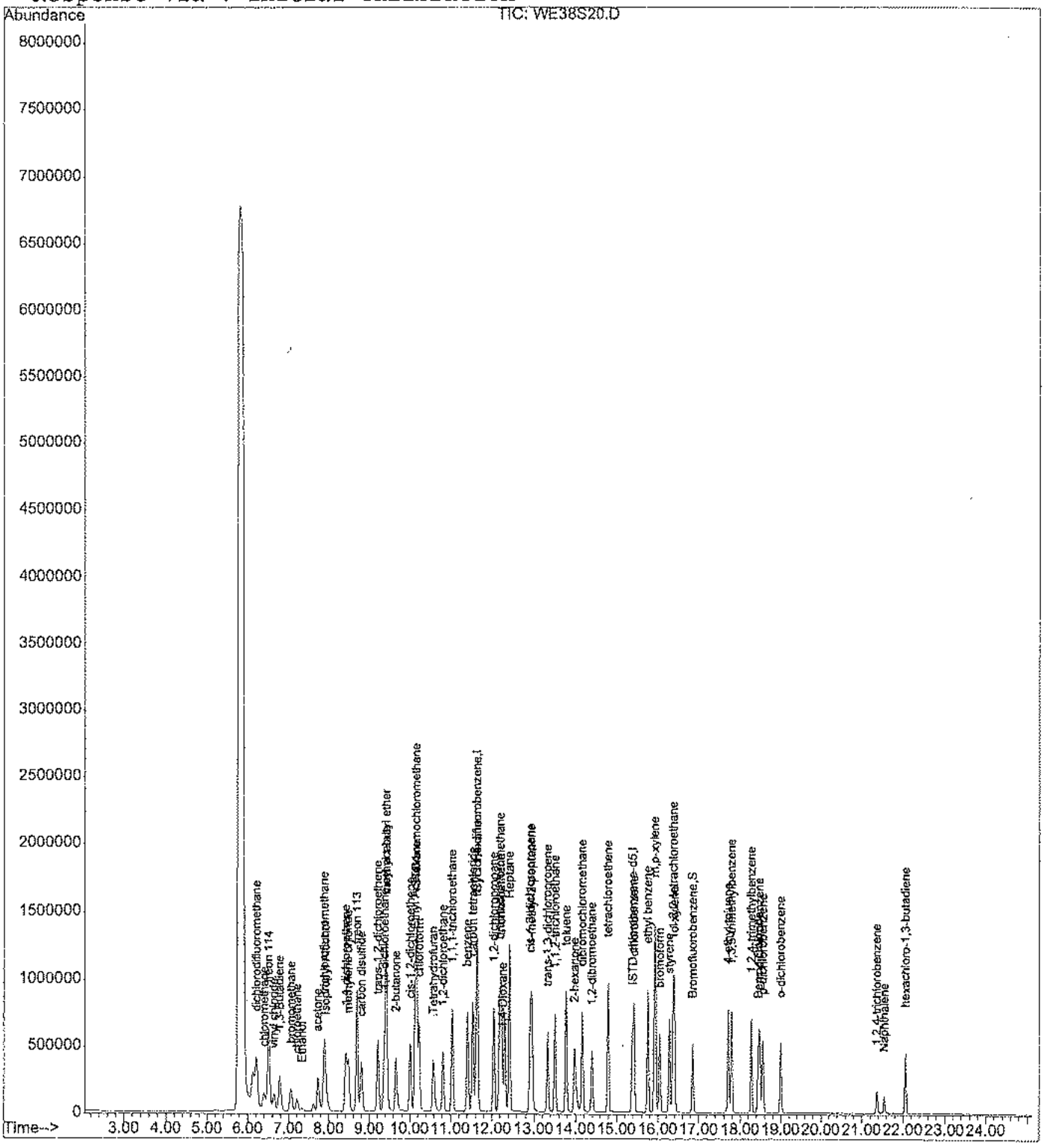
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.95	186						
116.90	511						
118.90	315						
140.90	451						
142.85	597						
173.95	32540						
174.95	2402						
175.95	30706						
176.90	2048						

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE38S20.D
Acq Time : 03/18/2015 18:14 Operator: JCB
Sample : 20 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:03 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE38S20.D
Acq Time : 03/18/2015 18:14 Operator: JCB
Sample : 20 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:03 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:51:37 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	128996	20.0000	ppb		99.92
28) ISTD 1,4-difluorobenzene	11.62	114	654921	20.0000	ppb		99.45
42) ISTD chlorobenzene-d5	15.38	117	406444	20.0000	ppb		100.44
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	248586	21.0833	ppb		105.42%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.22	85	773811	17.9365	ppb		100
3) chloromethane	6.40	50	337326	16.4090	ppb		98
4) freon 114	6.51	85	745878	17.3257	ppb		97
5) vinyl chloride	6.64	62	309593	17.6907	ppb		98
6) 1,3-Butadiene	6.78	54	224007	17.6348	ppb		87
7) bromomethane	7.06	94	253670	17.8445	ppb		98
8) chloroethane	7.21	64	162033	17.5561	ppb		99
9) Ethanol	7.34	45	71358	16.6444	ppb		100
10) Isopropyl Alcohol	7.93	45	462562	17.6054	ppb		100
11) trichlorofluoromethane	7.89	101	723319	18.0049	ppb		98
12) freon 113	8.69	101	652898	17.4844	ppb		96
13) 1,1-dichloroethene	8.41	96	242789	18.5889	ppb		97
14) acetone	7.73	43	685419	13.4221	ppb		94
15) carbon disulfide	8.80	76	1009560	17.2267	ppb	#	92
16) methylene chloride	8.47	49	552386	15.9212	ppb		92
17) trans-1,2-dichloroethene	9.22	96	316917	18.6797	ppb		90
18) methyl t-butyl ether	9.42	73	896755	18.6040	ppb		91
19) vinyl acetate	9.42	43	1543834	18.0566	ppb	#	96
20) 2-butanone	9.66	43	988342	17.7729	ppb		98
21) cis-1,2-dichloroethene	10.02	96	329649	18.3033	ppb		88
22) 1,1-dichloroethane	9.38	63	712866	17.0536	ppb		96
23) Ethyl Acetate	10.12	61	136021	9.5062	ppb		100
24) Hexane	10.16	57	569688	17.1383	ppb		100
25) chloroform	10.23	83	733459	16.7029	ppb		99
26) Tetrahydrofuran	10.59	42	480763	18.7609	ppb		100
27) 1,2-dichloroethane	10.82	62	582734	17.5549	ppb		98
29) 1,1,1-trichloroethane	11.04	97	689103	17.2602	ppb		99
30) carbon tetrachloride	11.53	117	669677	17.4774	ppb		97
31) benzene	11.40	78	911899	17.4669	ppb		92
32) Cyclohexane	11.65	84	429449	15.7813	ppb	#	100
33) trichloroethene	12.23	130	352240	18.2612	ppb		88
34) 1,2-dichloropropane	12.04	63	375262	17.2951	ppb		83
35) bromodichloromethane	12.19	83	775675	17.5241	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE38S20.D
Acq Time : 03/18/2015 18:14 Operator: JCB
Sample : 20 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:03 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:51:37 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.27	88	88294	15.7647	ppb		96
37)	Heptane	12.43	71	329596	17.3175	ppb		93
38)	cis-1,3-dichloropropene	12.90	75	539855	19.7392	ppb	#	67
39)	4-methyl-2-pentanone	12.94	43	955100	19.7958	ppb		95
40)	trans-1,3-dichloropropene	13.32	75	454835	20.0927	ppb		92
41)	1,1,2-trichloroethane	13.51	97	317526	17.4991	ppb		97
43)	toluene	13.77	91	876595	18.3673	ppb		98
44)	2-hexanone	13.97	43	809106	20.9565	ppb		90
45)	tetrachloroethene	14.79	164	291710	17.8263	ppb		100
46)	dibromochloromethane	14.15	129	541387	17.4600	ppb		99
47)	1,2-dibromoethane	14.39	107	483507	18.4527	ppb		99
48)	chlorobenzene	15.42	112	548457	17.4080	ppb		87
49)	ethyl benzene	15.75	106	248978	19.5056	ppb		91
50)	m,p-xylene	15.92	106	633343	38.2206	ppb	#	68
51)	o-xylene	16.40	106	285315	19.2818	ppb		82
52)	styrene	16.27	104	455994	21.8037	ppb	#	81
53)	bromoform	16.04	173	377242	18.3983	ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	539553	17.6620	ppb		99
56)	Cumene	0.00	105		Not Detected			
57)	4-ethyl toluene	17.70	105	715494	22.8948	ppb		96
58)	1,3,5-trimethylbenzene	17.78	105	571168	19.9456	ppb		88
59)	1,2,4-trimethylbenzene	18.27	105	545528	22.4936	ppb		89
60)	m-dichlorobenzene	18.48	146	310888	19.7645	ppb		95
61)	p-dichlorobenzene	18.56	146	292120	19.8073	ppb		94
62)	Benzyl Chloride	18.44	91	438341	22.3018	ppb		96
63)	o-dichlorobenzene	18.99	146	281136	20.0055	ppb		94
64)	1,2,4-trichlorobenzene	21.37	180	76496	12.5680	ppb		99
65)	Naphthalene	21.55	128	161820	14.2606	ppb		98
66)	hexachloro-1,3-butadiene	22.06	225	102428	10.0960	ppb		95

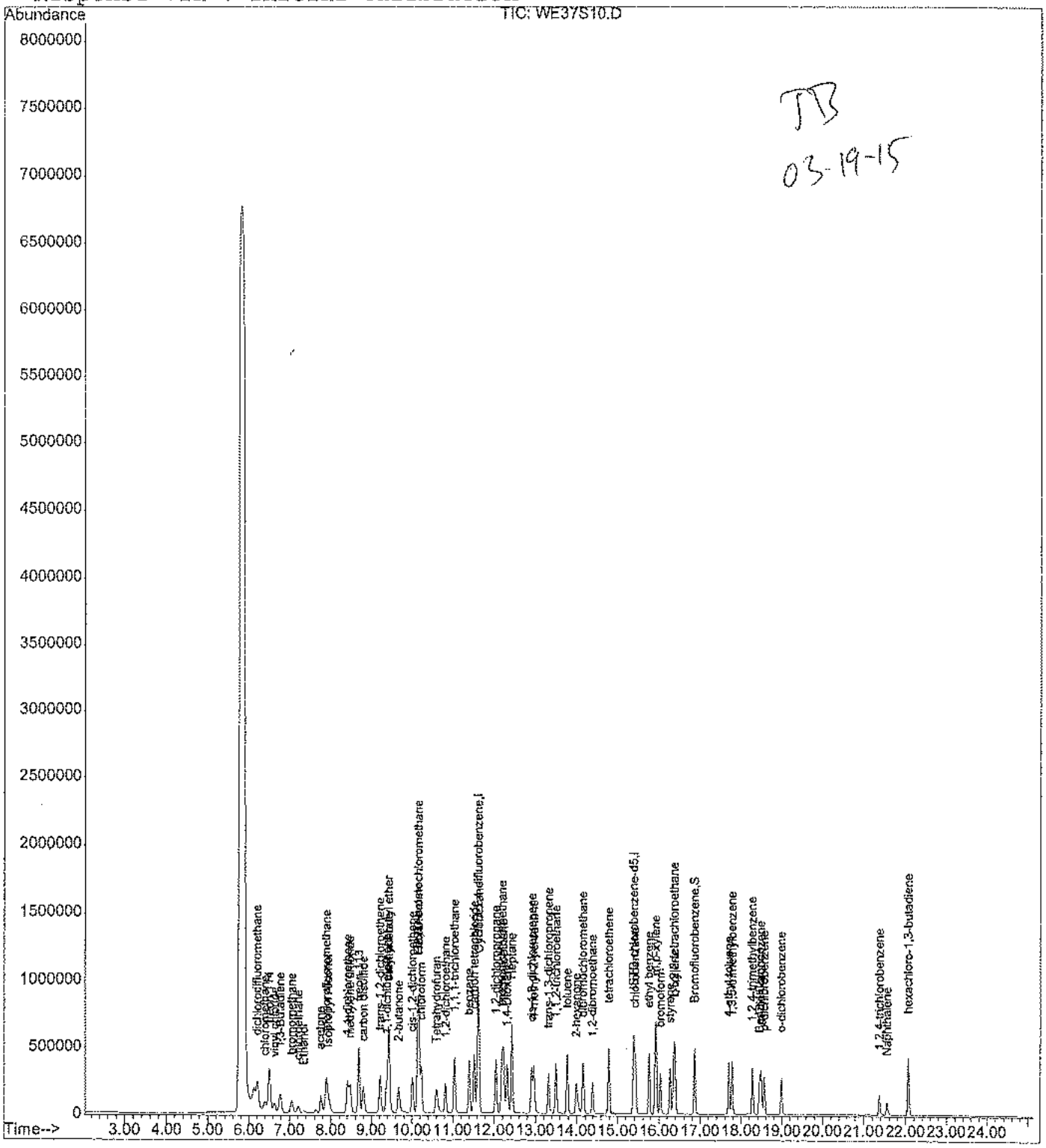
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE37S10.D
Acq Time : 03/18/2015 17:37 Operator: JCB
Sample : 10 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:02 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



TB
03-19-15

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE37S10.D
Acq Time : 03/18/2015 17:37 Operator: JCB
Sample : 10 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:02 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:50:59 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	129104	20.0000	ppb		78.82
28) ISTD 1,4-difluorobenzene	11.62	114	658525	20.0000	ppb		77.71
42) ISTD chlorobenzene-d5	15.38	117	404663	20.0000	ppb		74.57
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	241974	20.5018	ppb		102.51%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.21	85	412512	9.9963	ppb		99
3) chloromethane	6.39	50	183339	9.0770	ppb		100
4) freon 114	6.50	85	404846	9.8066	ppb		98
5) vinyl chloride	6.64	62	167102	9.8250	ppb		99
6) 1,3-Butadiene	6.78	54	119424	9.5834	ppb		88
7) bromomethane	7.05	94	135646	10.0666	ppb		98
8) chloroethane	7.21	64	86169	9.6903	ppb		100
9) Ethanol	7.34	45	46124	11.0946	ppb		100
10) Isopropyl Alcohol	7.94	45	287926	11.3740	ppb		100
11) trichlorofluoromethane	7.89	101	381076	10.0069	ppb		98
12) freon 113	8.69	101	352461	9.9065	ppb		97
13) 1,1-dichloroethene	8.41	96	131707	10.7038	ppb		93
14) acetone	7.74	43	355253	7.0567	ppb		93
15) carbon disulfide	8.81	76	538385	9.4512	ppb	#	92
16) methylene chloride	8.47	49	296363	8.7237	ppb		94
17) trans-1,2-dichloroethene	9.22	96	164994	10.0748	ppb		88
18) methyl t-butyl ether	9.43	73	461039	9.7712	ppb		92
19) vinyl acetate	9.44	43	786303	9.1917	ppb	#	96
20) 2-butanone	9.67	43	495287	8.9303	ppb		98
21) cis-1,2-dichloroethene	10.02	96	171132	9.7450	ppb		85
22) 1,1-dichloroethane	9.38	63	371266	9.0065	ppb		96
23) Ethyl Acetate	10.13	61	69319	4.8549	ppb		100
24) Hexane	10.17	57	298166	9.0009	ppb		100
25) chloroform	10.23	83	386609	8.9976	ppb		100
26) Tetrahydrofuran	10.60	42	245968	9.5206	ppb		100
27) 1,2-dichloroethane	10.82	62	292562	8.9549	ppb		98
29) 1,1,1-trichloroethane	11.04	97	366634	9.4394	ppb		99
30) carbon tetrachloride	11.53	117	353181	9.5593	ppb		98
31) benzene	11.40	78	471544	9.0727	ppb		92
32) Cyclohexane	11.65	84	234411	8.7576	ppb	#	100
33) trichloroethene	12.23	130	180934	9.6386	ppb		90
34) 1,2-dichloropropane	12.04	63	189596	8.7012	ppb		82
35) bromodichloromethane	12.18	83	397294	9.1262	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE37S10.D
Acq Time : 03/18/2015 17:37 Operator: JCB
Sample : 10 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:02 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:50:59 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.29	88	61152	11.2124	ppb		99
37)	Heptane	12.42	71	172393	9.0963	ppb		92
38)	cis-1,3-dichloropropene	12.91	75	264327	9.7295	ppb	#	68
39)	4-methyl-2-pentanone	12.96	43	461044	9.5617	ppb		96
40)	trans-1,3-dichloropropene	13.32	75	227840	10.2286	ppb		93
41)	1,1,2-trichloroethane	13.51	97	164916	9.2424	ppb		96
43)	toluene	13.78	91	436598	9.3807	ppb		98
44)	2-hexanone	13.99	43	393161	10.4170	ppb		91
45)	tetrachloroethene	14.80	164	145875	9.2581	ppb		100
46)	dibromochloromethane	14.15	129	275164	9.2381	ppb		100
47)	1,2-dibromoethane	14.39	107	240746	9.5303	ppb		99
48)	chlorobenzene	15.42	112	281286	9.2730	ppb		87
49)	ethyl benzene	15.75	106	126809	10.3120	ppb		90
50)	m,p-xylene	15.93	106	319399	20.1100	ppb	#	68
51)	o-xylene	16.39	106	144540	10.1836	ppb		86
52)	styrene	16.29	104	221803	11.1017	ppb	#	80
53)	bromoform	16.04	173	195769	10.1362	ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	285991	9.8668	ppb		99
56)	Cumene	0.00	105		Not Detected			
57)	4-ethyl toluene	17.70	105	347652	11.8850	ppb		96
58)	1,3,5-trimethylbenzene	17.78	105	302856	11.2982	ppb		89
59)	1,2,4-trimethylbenzene	18.27	105	271783	12.1115	ppb		90
60)	m-dichlorobenzene	18.48	146	159784	10.9923	ppb		96
61)	p-dichlorobenzene	18.56	146	151133	11.1209	ppb		94
62)	Benzyl Chloride	18.44	91	221799	12.4377	ppb		96
63)	o-dichlorobenzene	18.99	146	148269	11.5868	ppb		95
64)	1,2,4-trichlorobenzene	21.37	180	65159	12.2495	ppb		99
65)	Naphthalene	21.55	128	131007	13.5311	ppb		97
66)	hexachloro-1,3-butadiene	22.06	225	97261	10.8481	ppb		94

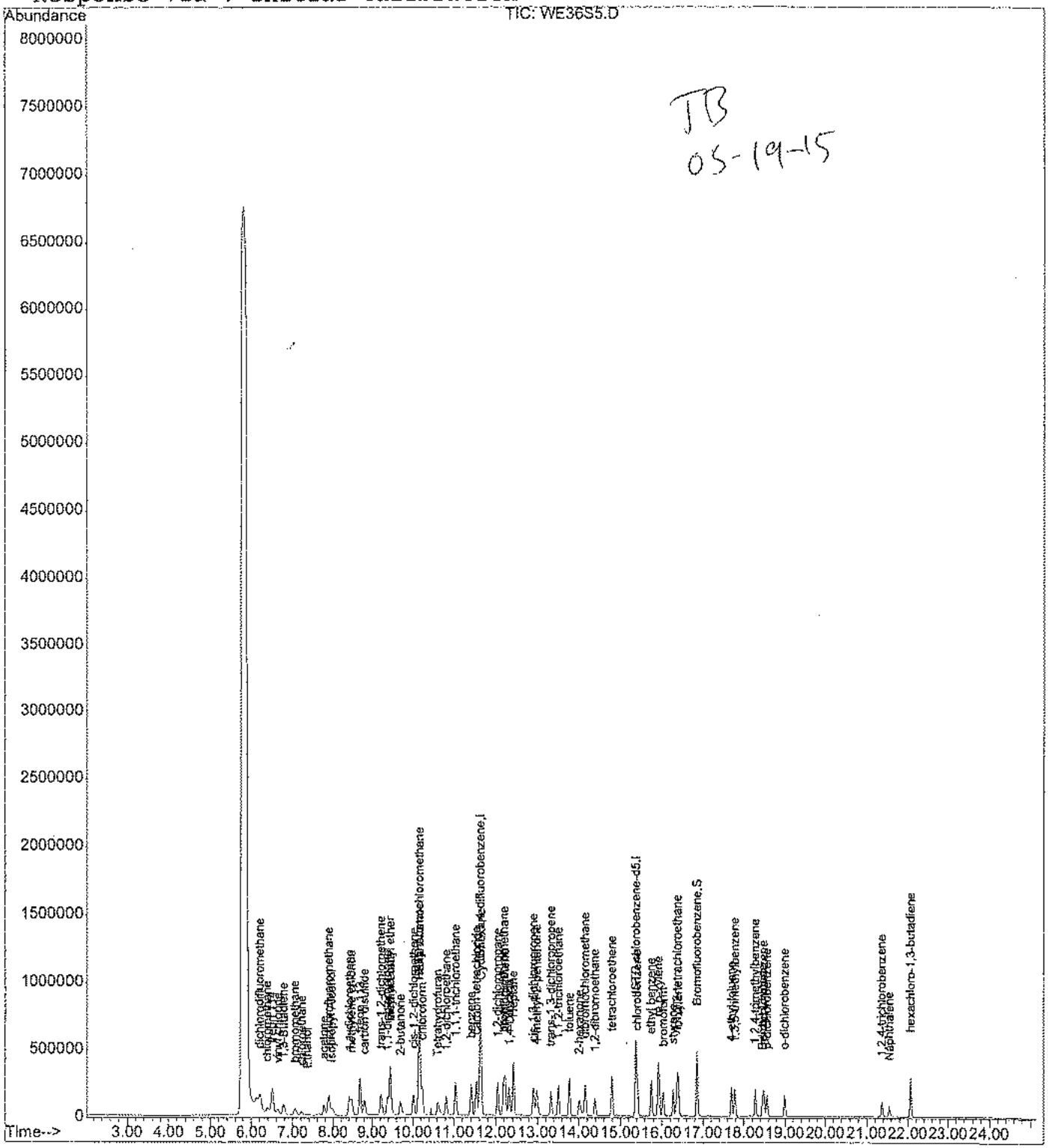
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE36S5.D
Acq Time : 03/18/2015 17:01 Operator: JCB
Sample : 5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:01 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



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05-19-15

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE36S5.D
Acq Time : 03/18/2015 17:01 Operator: JCB
Sample : 5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:01 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:49:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.15	128	129810	20.0000	ppb		79.25
28) ISTD 1,4-difluorobenzene	11.62	114	665997	20.0000	ppb		78.59
42) ISTD chlorobenzene-d5	15.38	117	397529	20.0000	ppb		73.25
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.85	95	235569	20.3119	ppb		101.56%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.22	85	240195	6.2704	ppb		100
3) chloromethane	6.39	50	106077	5.4181	ppb		99
4) freon 114	6.50	85	234649	6.0794	ppb		97
5) vinyl chloride	6.64	62	95113	5.8738	ppb		98
6) 1,3-Butadiene	6.78	54	68375	5.7376	ppb		89
7) bromomethane	7.05	94	77955	6.2645	ppb		99
8) chloroethane	7.22	64	50393	6.0298	ppb		99
9) Ethanol	7.36	45	27216	6.8879	ppb		100
10) Isopropyl Alcohol	7.97	45	153735	6.3928	ppb		100
11) trichlorofluoromethane	7.89	101	219252	6.2524	ppb		98
12) freon 113	8.69	101	199114	5.9952	ppb		96
13) 1,1-dichloroethene	8.41	96	73132	6.4689	ppb		95
14) acetone	7.77	43	208012	4.2638	ppb		93
15) carbon disulfide	8.80	76	316777	5.8691	ppb	#	92
16) methylene chloride	8.47	49	172659	5.3016	ppb		92
17) trans-1,2-dichloroethene	9.22	96	93355	6.0501	ppb		90
18) methyl t-butyl ether	9.44	73	255392	5.6409	ppb		87
19) vinyl acetate	9.44	43	452149	5.4151	ppb	#	97
20) 2-butanone	9.68	43	271639	4.9934	ppb		98
21) cis-1,2-dichloroethene	10.01	96	99442	5.9524	ppb		88
22) 1,1-dichloroethane	9.37	63	218326	5.4858	ppb		95
23) Ethyl Acetate	10.14	61	39166	2.7814	ppb		100
24) Hexane	10.17	57	175160	5.4339	ppb		100
25) chloroform	10.23	83	233775	5.7093	ppb		99
26) Tetrahydrofuran	10.61	42	137083	5.3919	ppb		100
27) 1,2-dichloroethane	10.82	62	176978	5.6635	ppb		97
29) 1,1,1-trichloroethane	11.04	97	211180	5.7000	ppb		99
30) carbon tetrachloride	11.53	117	204436	5.8599	ppb		98
31) benzene	11.41	78	281840	5.5895	ppb		92
32) Cyclohexane	11.65	84	138825	5.3869	ppb	#	100
33) trichloroethene	12.23	130	106200	5.9344	ppb		91
34) 1,2-dichloropropane	12.04	63	113545	5.3229	ppb		82
35) bromodichloromethane	12.19	83	237810	5.6894	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE36S5.D
Acq Time : 03/18/2015 17:01 Operator: JCB
Sample : 5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:01 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:49:55 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	12.34	88	35142	6.7158 ppb		88
37)	Heptane	12.43	71	102835	5.5601 ppb		93
38)	cis-1,3-dichloropropene	12.90	75	156745	6.0058 ppb		100
39)	4-methyl-2-pentanone	12.98	43	259179	5.5256 ppb		97
40)	trans-1,3-dichloropropene	13.33	75	133908	6.3335 ppb		94
41)	1,1,2-trichloroethane	13.51	97	98210	5.7350 ppb		96
43)	toluene	13.77	91	264164	6.1639 ppb		97
44)	2-hexanone	14.01	43	213623	6.1382 ppb		94
45)	tetrachloroethene	14.80	164	87749	6.0997 ppb		99
46)	dibromochloromethane	14.15	129	163228	6.0001 ppb		100
47)	1,2-dibromoethane	14.38	107	142642	6.1834 ppb		99
48)	chlorobenzene	15.42	112	162628	5.8229 ppb		89
49)	ethyl benzene	15.75	106	72601	6.4680 ppb		91
50)	m,p-xylene	15.92	106	183390	12.6360 ppb		71
51)	o-xylene	16.39	106	83513	6.4801 ppb		85
52)	styrene	16.28	104	127023	7.0599 ppb	#	79
53)	bromoform	16.04	173	113493	6.5808 ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	164720	6.2976 ppb		100
56)	Cumene	0.00	105		Not Detected		
57)	4-ethyl toluene	17.70	105	189644	7.3156 ppb		97
58)	1,3,5-trimethylbenzene	17.78	105	166277	6.9944 ppb		89
59)	1,2,4-trimethylbenzene	18.27	105	149113	7.6460 ppb		89
60)	m-dichlorobenzene	18.48	146	94123	7.4810 ppb		93
61)	p-dichlorobenzene	18.56	146	87274	7.4407 ppb		94
62)	Benzyl Chloride	18.44	91	121377	8.0608 ppb		95
63)	o-dichlorobenzene	18.99	146	86520	8.0060 ppb		94
64)	1,2,4-trichlorobenzene	21.37	180	51757	13.9344 ppb		99
65)	Naphthalene	21.55	128	106589	17.0240 ppb		98
66)	hexachloro-1,3-butadiene	22.06	225	67083	9.6294 ppb		96

(#) = qualifier out of range (m) = manual integration

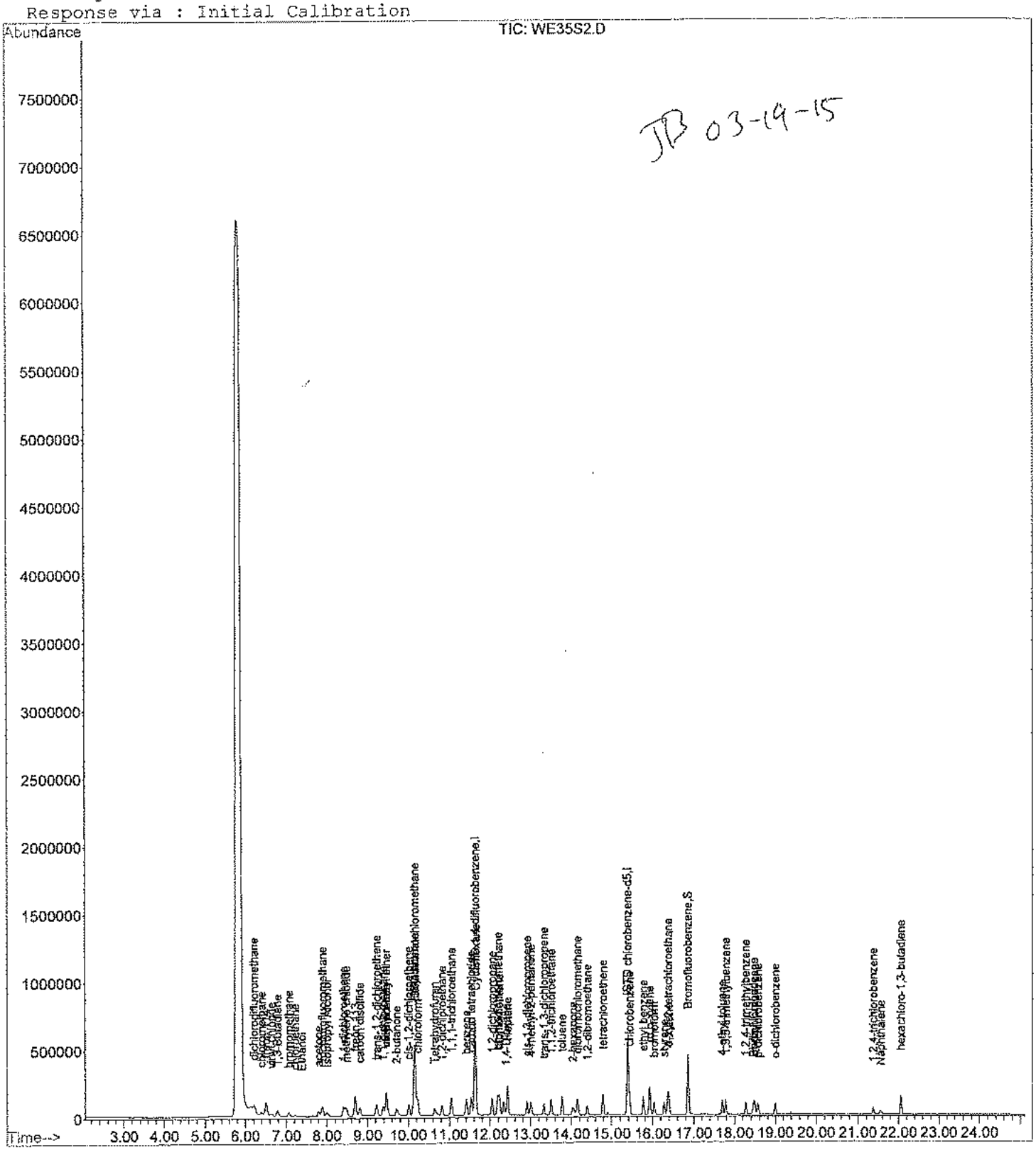
Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE35S2.D
Acq Time : 03/18/2015 16:25
Sample : 2 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 9:00 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



JB 03-19-15

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE35S2.D
Acq Time : 03/18/2015 16:25 Operator: JCB
Sample : 2 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:00 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 18 16:04:50 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.15	128	129374	20.0000	ppb		78.99
28) ISTD 1,4-difluorobenzene	11.62	114	655625	20.0000	ppb		77.37
42) ISTD chlorobenzene-d5	15.38	117	389437	20.0000	ppb		71.76
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.85	95	224720	19.7167	ppb		98.58%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.21	85	117139	3.4451	ppb		98
3) chloromethane	6.40	50	55088	3.0530	ppb		97
4) freon 114	6.51	85	121191	3.5637	ppb		96
5) vinyl chloride	6.65	62	48341	3.2911	ppb		100
6) 1,3-Butadiene	6.78	54	33798	3.0626	ppb		91
7) bromomethane	7.06	94	40363	3.7367	ppb		99
8) chloroethane	7.22	64	26235	3.5232	ppb		98
9) Ethanol	7.39	45	14191	4.0789	ppb		100
10) Isopropyl Alcohol	8.00	45	89230	4.3088	ppb		100
11) trichlorofluoromethane	7.90	101	112430	3.7111	ppb		98
12) freon 113	8.69	101	106682	3.6826	ppb		95
13) 1,1-dichloroethene	8.41	96	37347	3.8402	ppb		98
14) acetone	7.80	43	118270	2.6253	ppb		95
15) carbon disulfide	8.81	76	161758	3.3091	ppb	#	92
16) methylene chloride	8.48	49	92418	3.1289	ppb		92
17) trans-1,2-dichloroethene	9.22	96	47294	3.4305	ppb		93
18) methyl t-butyl ether	9.46	73	131929	3.2244	ppb		89
19) vinyl acetate	9.45	43	230917	2.9882	ppb	#	97
20) 2-butanone	9.71	43	146908	2.9450	ppb		100
21) cis-1,2-dichloroethene	10.01	96	51434	3.4472	ppb		87
22) 1,1-dichloroethane	9.38	63	117850	3.2661	ppb		95
23) Ethyl Acetate	10.16	61	20456	1.5238	ppb		100
24) Hexane	10.17	57	92306	3.1055	ppb		100
25) chloroform	10.23	83	124944	3.4154	ppb		100
26) Tetrahydrofuran	10.64	42	70610	2.9880	ppb		100
27) 1,2-dichloroethane	10.82	62	93408	3.3423	ppb		99
29) 1,1,1-trichloroethane	11.05	97	111903	3.4465	ppb		100
30) carbon tetrachloride	11.54	117	108723	3.5984	ppb		97
31) benzene	11.41	78	144789	3.1880	ppb		92
32) Cyclohexane	11.65	84	74863	3.2522	ppb	#	100
33) trichloroethene	12.23	130	55121	3.5186	ppb		90
34) 1,2-dichloropropane	12.05	63	59706	3.0753	ppb		85
35) bromodichloromethane	12.19	83	125335	3.3973	ppb		99
36) 1,4-Dioxane	12.37	88	18962	4.4260	ppb	m	1
37) Heptane	12.42	71	54938	3.3193	ppb		96
38) cis-1,3-dichloropropene	12.91	75	75080	3.2071	ppb		99
39) 4-methyl-2-pentanone	13.00	43	137068	3.2657	ppb		98
40) trans-1,3-dichloropropene	13.33	75	62995	3.3595	ppb		97
41) 1,1,2-trichloroethane	13.51	97	51166	3.3818	ppb		97
43) toluene	13.78	91	131673	3.5362	ppb		99
44) 2-hexanone	14.04	43	112528	3.7611	ppb		96
45) tetrachloroethene	14.80	164	45636	3.7222	ppb		97

JB 03-19-15

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE35S2.D
Acq Time : 03/18/2015 16:25
Sample : 2 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 9:00 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 18 16:04:50 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
46)	dibromochloromethane	14.15	129	85921	3.6966 ppb		99
47)	1,2-dibromoethane	14.39	107	71492	3.6027 ppb		99
48)	chlorobenzene	15.43	112	86152	3.5910 ppb		92
49)	ethyl benzene	15.76	106	35103	3.6153 ppb		94
50)	m,p-xylene	15.93	106	91631	7.3548 ppb		70
51)	o-xylene	16.40	106	42261	3.8635 ppb		84
52)	styrene	16.28	104	59195	3.8994 ppb	#	79
53)	bromoform	16.04	173	58097	4.0725 ppb		100
54)	1,1,2,2-tetrachloroethane	16.37	83	88888	4.1093 ppb		100
56)	Cumene	0.00	105		Not Detected		
57)	4-ethyl toluene	17.70	105	92848	4.4280 ppb		99
58)	1,3,5-trimethylbenzene	17.79	105	83131	4.2845 ppb	#	86
59)	1,2,4-trimethylbenzene	18.28	105	74292	4.8692 ppb		90
60)	m-dichlorobenzene	18.48	146	47926	4.8727 ppb		95
61)	p-dichlorobenzene	18.55	146	45753	5.0771 ppb		94
62)	Benzyl Chloride	18.45	91	62560	5.6073 ppb		97
63)	o-dichlorobenzene	19.00	146	43540	5.3188 ppb		95
64)	1,2,4-trichlorobenzene	21.37	180	23363	11.7265 ppb		98
65)	Naphthalene	21.56	128	44565	15.7670 ppb	#	95
66)	hexachloro-1,3-butadiene	22.07	225	31510	6.6253 ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

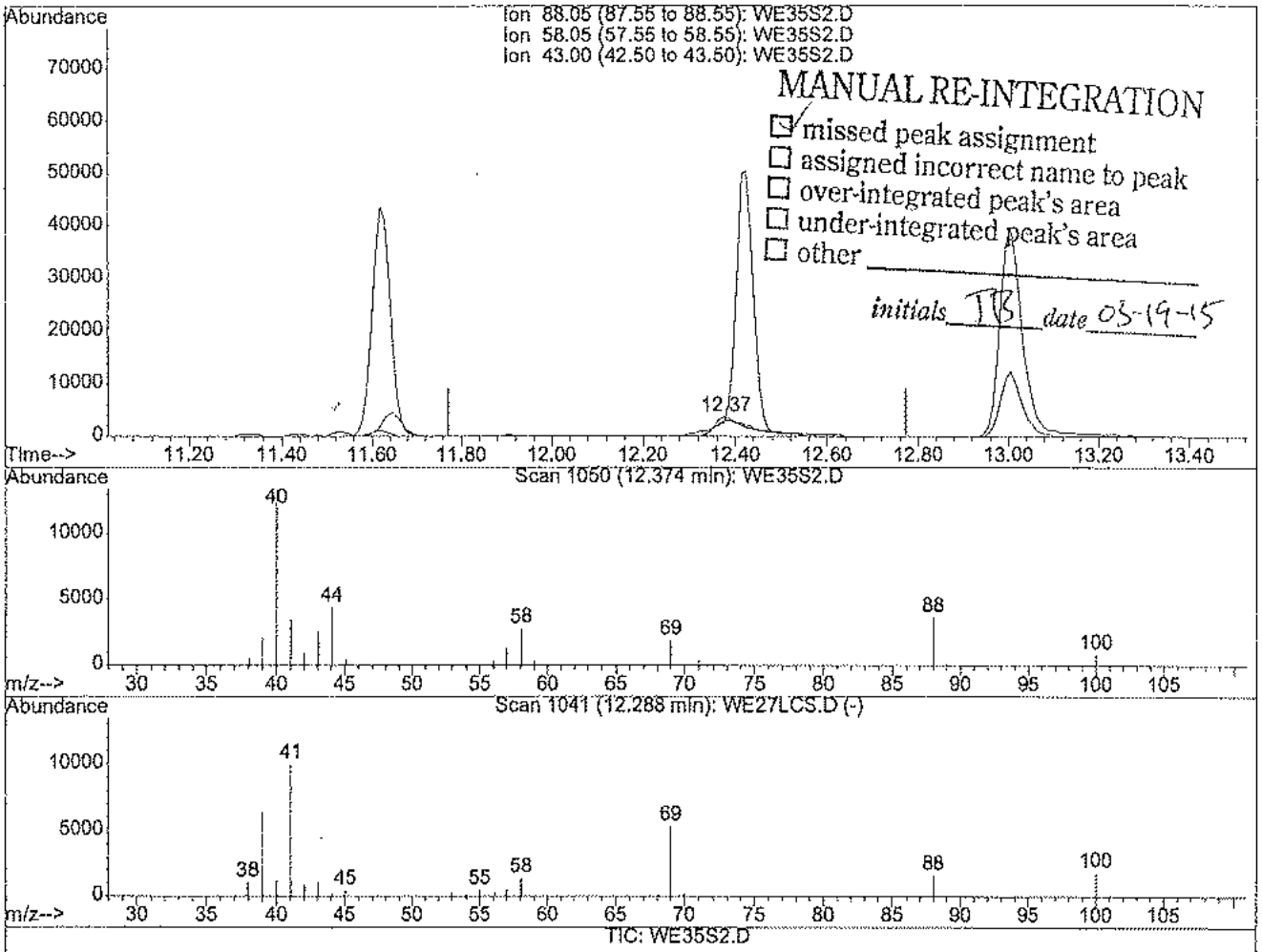
Data File : J:\W\2015\MAR15W\18MAR15W\WE35S2.D
Acq Time : 03/18/2015 16:25
Sample : 2 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 8:59 2015

Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:52:05 2015
Response via : Multiple Level Calibration



TIC: WE35S2.D

(36) 1,4-Dioxane

12.37min 4.43ppb m

response 18962

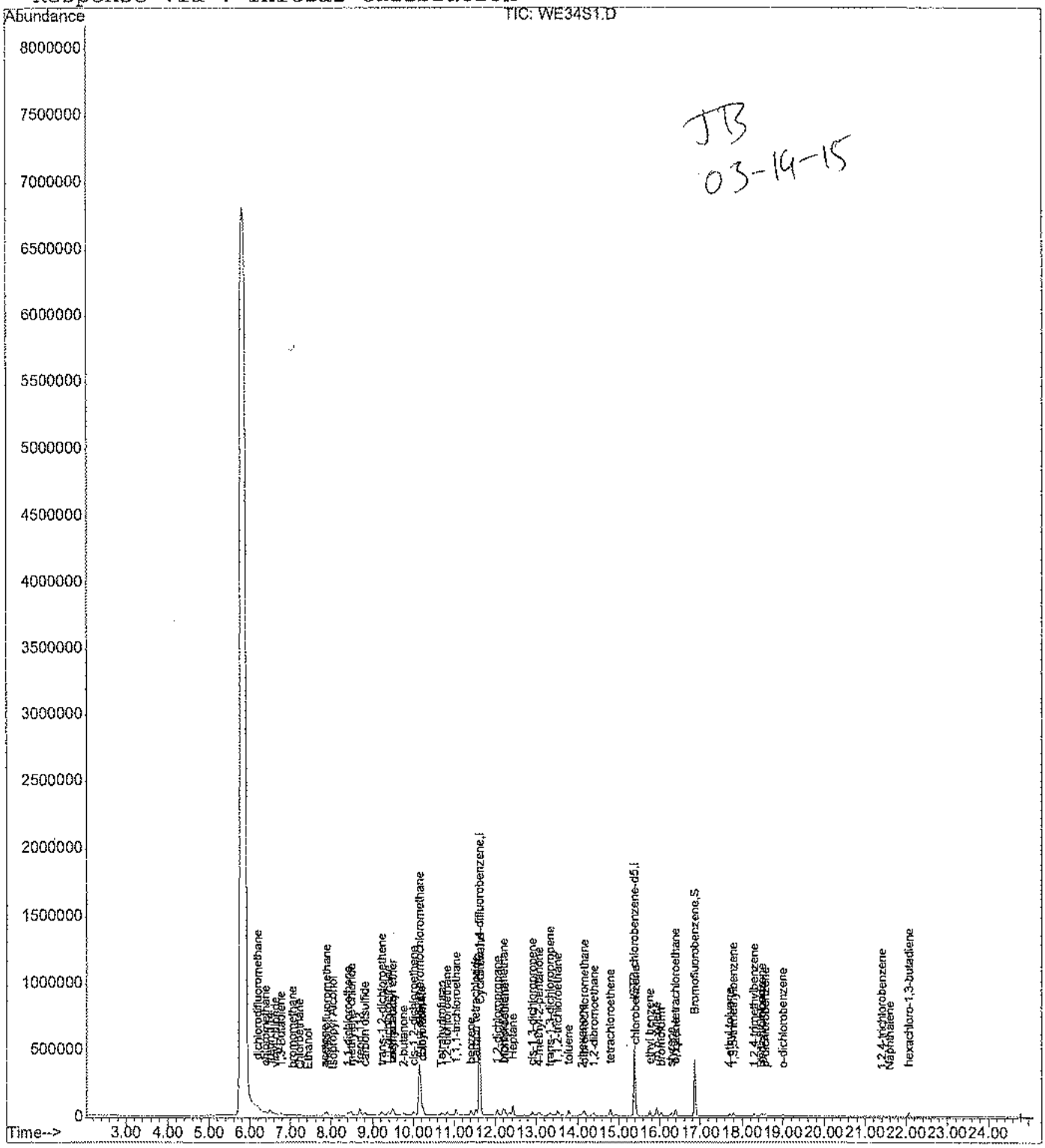
Ion	Exp%	Act%
88.05	100	100
58.05	66.40	99.15#
43.00	52.20	753.93#
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE34S1.D
Acq Time : 03/18/2015 15:49 Operator: JCB
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 8:58 2015 Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



JB
03-19-15

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE34S1.D
Acq Time : 03/18/2015 15:49 Operator: JCB
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 8:58 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 18 15:33:47 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.15	128	129198	20.0000	ppb		78.88
28) ISTD 1,4-difluorobenzene	11.62	114	654585	20.0000	ppb		77.25
42) ISTD chlorobenzene-d5	15.38	117	382049	20.0000	ppb		70.40
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	211573	18.8509	ppb		94.25%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.22	85	39034	1.2139	ppb	#	97
3) chloromethane	6.39	50	18915	1.0708	ppb		91
4) freon 114	6.51	85	38168	1.1749	ppb		100
5) vinyl chloride	6.65	62	15392	1.0722	ppb		96
6) 1,3-Butadiene	6.78	54	10975	1.0069	ppb		93
7) bromomethane	7.06	94	12857	1.2650	ppb		99
8) chloroethane	7.22	64	7926	1.0829	ppb	#	86
9) Ethanol	7.43	45	1806	0.4314	ppb		100
10) Isopropyl Alcohol	8.05	45	12262	0.5339	ppb		100
11) trichlorofluoromethane	7.89	101	37384	1.3218	ppb		96
12) freon 113	8.70	101	34312	1.2522	ppb		96
13) 1,1-dichloroethene	8.42	96	11416	1.2424	ppb		99
14) acetone	7.83	43	57288	1.3054	ppb		99
15) carbon disulfide	8.80	76	52309	1.1026	ppb	#	90
16) methylene chloride	8.48	49	34436	1.2177	ppb		93
17) trans-1,2-dichloroethene	9.23	96	14782	1.1087	ppb		90
18) methyl t-butyl ether	9.50	73	42121	1.0550	ppb		92
19) vinyl acetate	9.47	43	71879	0.9353	ppb		99
20) 2-butanone	9.77	43	50752	1.0481	ppb	#	92
21) cis-1,2-dichloroethene	10.01	96	15112	1.0320	ppb		90
22) 1,1-dichloroethane	9.39	63	37017	1.0399	ppb		93
23) Ethyl Acetate	10.21	61	5154	0.5175	ppb		mjb 03-19-15 100
24) Hexane	10.17	57	29004	0.9797	ppb		100
25) chloroform	10.23	83	39862	1.1194	ppb		98
26) Tetrahydrofuran	10.70	42	20261	0.8480	ppb		100
27) 1,2-dichloroethane	10.83	62	28871	1.0522	ppb		97
29) 1,1,1-trichloroethane	11.05	97	36265	1.1612	ppb		97
30) carbon tetrachloride	11.53	117	35100	1.2094	ppb		98
31) benzene	11.41	78	45847	1.0208	ppb		91
32) Cyclohexane	11.65	84	25229	1.1257	ppb	#	100
33) trichloroethene	12.23	130	16837	1.1093	ppb		89
34) 1,2-dichloropropane	12.05	63	19442	1.0035	ppb		85
35) bromodichloromethane	12.19	83	40028	1.1167	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE34S1.D
Acq Time : 03/18/2015 15:49 Operator: JCB
Sample : 1 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 8:58 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 18 15:33:47 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected			
37)	Heptane	12.43	71	16403	1.0006	ppb		96
38)	cis-1,3-dichloropropene	12.91	75	22071	0.9467	ppb		99
39)	4-methyl-2-pentanone	13.07	43	37286	0.8868	ppb		98
40)	trans-1,3-dichloropropene	13.33	75	17427	0.9383	ppb		96
41)	1,1,2-trichloroethane	13.51	97	16725	1.1414	ppb		94
43)	toluene	13.78	91	38708	1.0929	ppb		99
44)	2-hexanone	14.10	43	26543	0.9225	ppb		93
45)	tetrachloroethene	14.80	164	13866	1.2160	ppb		97
46)	dibromochloromethane	14.16	129	27069	1.2500	ppb		98
47)	1,2-dibromoethane	14.39	107	21474	1.1428	ppb		99
48)	chlorobenzene	15.42	112	27409	1.2184	ppb		100
49)	ethyl benzene	15.76	106	9998	1.0805	ppb		96
50)	m,p-xylene	15.93	106	26986	2.2778	ppb		70
51)	o-xylene	16.40	106	11380	1.0803	ppb		90
52)	styrene	16.28	104	14035	0.9622	ppb	#	82
53)	bromoform	16.04	173	17124	1.2966	ppb		100
54)	1,1,2,2-tetrachloroethane	16.37	83	23940	1.1544	ppb		100
56)	Cumene	0.00	105		Not Detected			
57)	4-ethyl toluene	17.71	105	19642	0.9674	ppb		100
58)	1,3,5-trimethylbenzene	17.79	105	21022	1.1442	ppb		91
59)	1,2,4-trimethylbenzene	18.28	105	14545	0.9842	ppb		92
60)	m-dichlorobenzene	18.49	146	11097	1.2045	ppb		93
61)	p-dichlorobenzene	18.57	146	10070	1.1937	ppb		92
62)	Benzyl Chloride	18.46	91	11122	1.0491	ppb		97
63)	o-dichlorobenzene	19.00	146	9399	1.2202	ppb		91
64)	1,2,4-trichlorobenzene	21.41	180	2354	1.3766	ppb		87
65)	Naphthalene	21.61	128	2888	1.1631	ppb	#	73
66)	hexachloro-1,3-butadiene	22.07	225	6885	1.6168	ppb		93

(#) = qualifier out of range (m) = manual integration

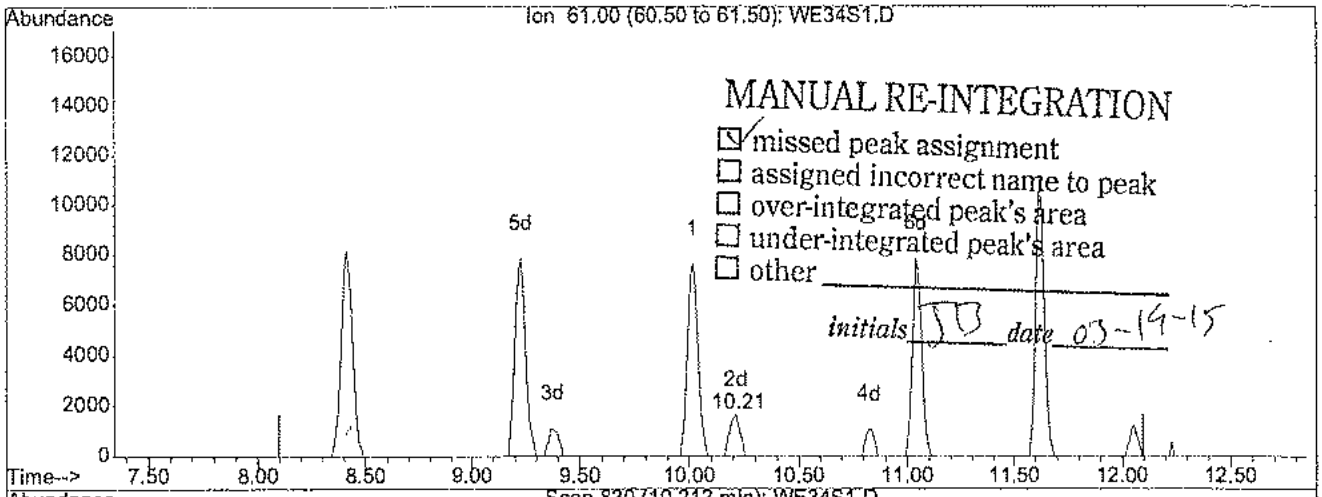
Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\18MAR15W\WE34S1.D
Acq Time : 03/18/2015 15:49
Sample : 1 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 8:57 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:52:05 2015
Response via : Multiple Level Calibration



TIC: WE34S1.D

(23) Ethyl Acetate

10.21min 0.52ppb m

response 5154

Ion	Exp%	Act%
61.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

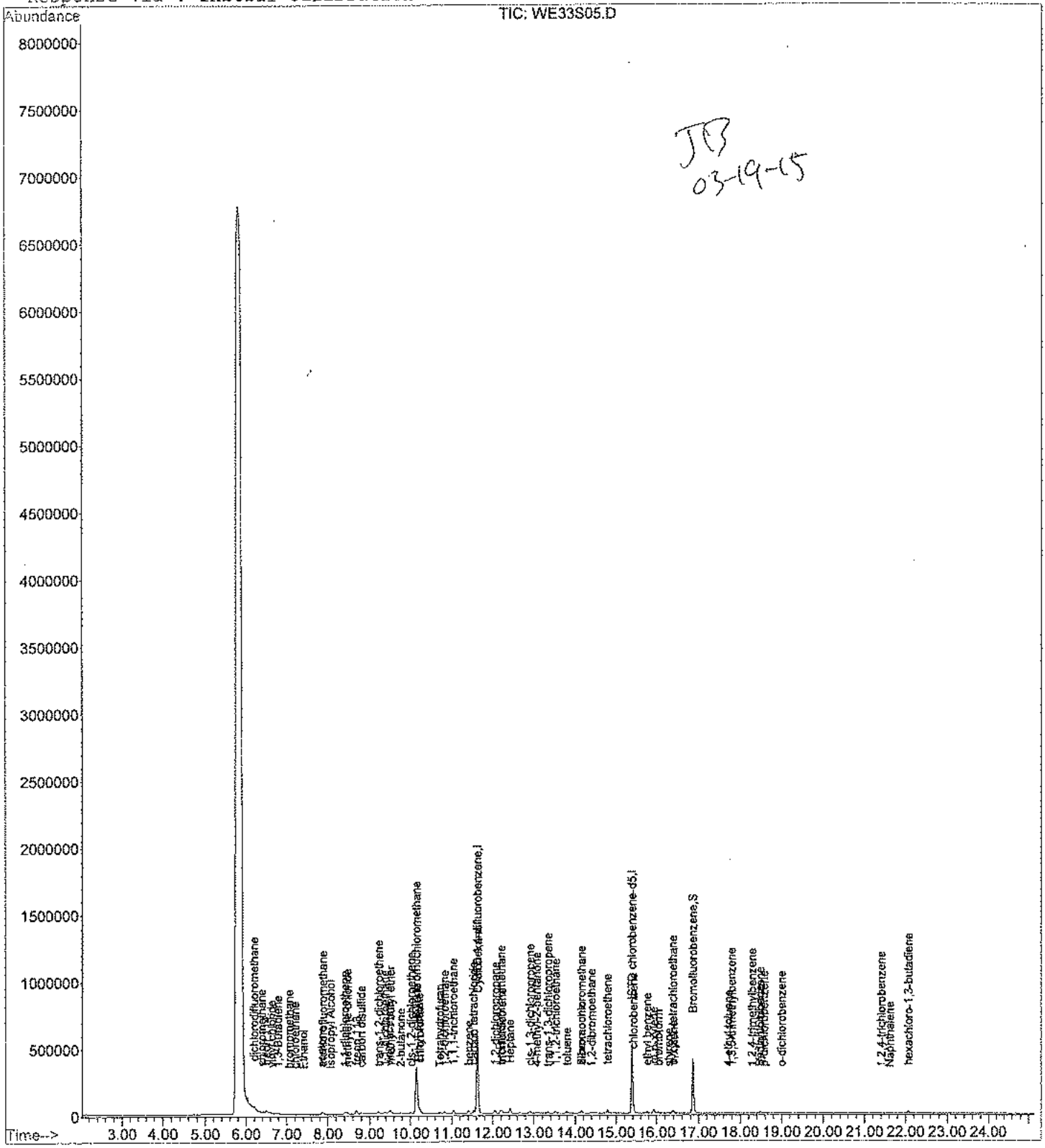
Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE33S05.D
Acq Time : 03/18/2015 15:13
Sample : 0.5 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 8:57 2015 Quant Results File: T015WD15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



JCB
03-19-15

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE33S05.D
Acq Time : 03/18/2015 15:13
Sample : 0.5 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 8:57 2015 Quant Results File: TO15WD15.RES

Quant Method : J:\W\METHODS\TO15WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.15	128	124219	20.0000 ppb		75.84
28) ISTD 1,4-difluorobenzene	11.62	114	629457	20.0000 ppb		74.28
42) ISTD chlorobenzene-d5	15.38	117	363521	20.0000 ppb		66.99
System Monitoring Compounds						%Recovery
55) Bromofluorobenzene	16.86	95	205998	19.2513 ppb		96.26%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.21	85	20586	0.7082 ppb	#	97
3) chloromethane	6.40	50	10396	0.6245 ppb	#	86
4) freon 114	6.51	85	20850	0.7078 ppb		98
5) vinyl chloride	6.64	62	7909	0.5874 ppb		97
6) 1,3-Butadiene	6.77	54	5999	0.5873 ppb		95
7) bromomethane	7.06	94	6824	0.7563 ppb		95
8) chloroethane	7.20	64	4325	0.6264 ppb	#	74
9) Ethanol	7.41	45	1788	0.3833 ppb		100
10) Isopropyl Alcohol	8.07	45	10537	0.4527 ppb		100
11) trichlorofluoromethane	7.89	101	19540	0.7795 ppb		98
12) freon 113	8.69	101	18135	0.7377 ppb		95
13) 1,1-dichloroethene	8.40	96	5900	0.7208 ppb		93
14) acetone	7.84	43	39512	0.9507 ppb		98
15) carbon disulfide	8.81	76	28537	0.6491 ppb	#	88
16) methylene chloride	8.47	49	18886	0.7276 ppb		92
17) trans-1,2-dichloroethene	9.22	96	7349	0.5957 ppb		95
18) methyl t-butyl ether	9.52	73	20855	0.5575 ppb		88
19) vinyl acetate	9.47	43	36655	0.4980 ppb		99
20) 2-butanone	9.77	43	27126	0.5905 ppb	#	88
21) cis-1,2-dichloroethene	10.02	96	7816	0.5706 ppb		94
22) 1,1-dichloroethane	9.38	63	19803	0.5908 ppb	#	89
23) Ethyl Acetate	10.22	61	2299	0.3991 ppb	m	100
24) Hexane	10.17	57	15067	0.5340 ppb		100
25) chloroform	10.24	83	21542	0.6552 ppb		100
26) Tetrahydrofuran	10.71	42	9895	0.4263 ppb		100
27) 1,2-dichloroethane	10.83	62	15939	0.6285 ppb		99
29) 1,1,1-trichloroethane	11.04	97	19618	0.6902 ppb		98
30) carbon tetrachloride	11.53	117	19022	0.7237 ppb		94
31) benzene	11.42	78	23660	0.5571 ppb		94
32) Cyclohexane	11.64	84	14820	0.7217 ppb	#	100
33) trichloroethene	12.23	130	8810	0.6259 ppb		89
34) 1,2-dichloropropane	12.05	63	10050	0.5427 ppb		88
35) bromodichloromethane	12.19	83	20830	0.6250 ppb		98
36) 1,4-Dioxane	0.00	88		Not Detected		
37) Heptane	12.43	71	8445	0.5467 ppb		93
38) cis-1,3-dichloropropene	12.91	75	10716	0.4847 ppb		94
39) 4-methyl-2-pentanone	13.08	43	18996	0.4797 ppb		91
40) trans-1,3-dichloropropene	13.34	75	8296	0.4733 ppb		94
41) 1,1,2-trichloroethane	13.51	97	8150	0.5939 ppb		98
43) toluene	13.79	91	18694	0.5713 ppb		99
44) 2-hexanone	14.13	43	11522	0.4339 ppb	#	82
45) tetrachloroethene	14.79	164	7212	0.7147 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE33S05.D
Acq Time : 03/18/2015 15:13
Sample : 0.5 PPB
Misc :

Operator: JCB
Inst : 5972-W
Multiplr: 1.00

Quant Time: Mar 19 8:57 2015 Quant Results File: T015WD15.RES

Quant Method : J:\W\METHODS\T015WD15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 05 08:50:35 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	dibromochloromethane	14.15	129	13877	0.7153	ppb		97
47)	1,2-dibromoethane	14.39	107	11097	0.6537	ppb		100
48)	chlorobenzene	15.42	112	14344	0.7101	ppb		83
49)	ethyl benzene	15.77	106	4486	0.5195	ppb		98
50)	m,p-xylene	15.92	106	12556	1.1524	ppb	#	67
51)	o-xylene	16.41	106	5374	0.5526	ppb		89
52)	styrene	16.29	104	6223	0.4613	ppb	#	74
53)	bromoform	16.04	173	8493	0.7219	ppb		100
54)	1,1,2,2-tetrachloroethane	16.38	83	13115	0.6956	ppb		96
56)	Cumene	0.00	105		Not Detected			
57)	4-ethyl toluene	17.71	105	8824	0.4660	ppb		96
58)	1,3,5-trimethylbenzene	17.79	105	9481	0.5622	ppb		90
59)	1,2,4-trimethylbenzene	18.29	105	6807	0.4991	ppb		94
60)	m-dichlorobenzene	18.49	146	5600	0.6822	ppb	#	92
61)	p-dichlorobenzene	18.57	146	5184	0.6866	ppb	#	88
62)	Benzyl Chloride	18.46	91	5383	0.5637	ppb	#	65
63)	o-dichlorobenzene	19.00	146	4675	0.6787	ppb		92
64)	1,2,4-trichlorobenzene	21.42	180	1383	0.9957	ppb		88
65)	Naphthalene	21.60	128	1622	0.6142	ppb	#	73
66)	hexachloro-1,3-butadiene	22.07	225	5225	1.7214	ppb		95

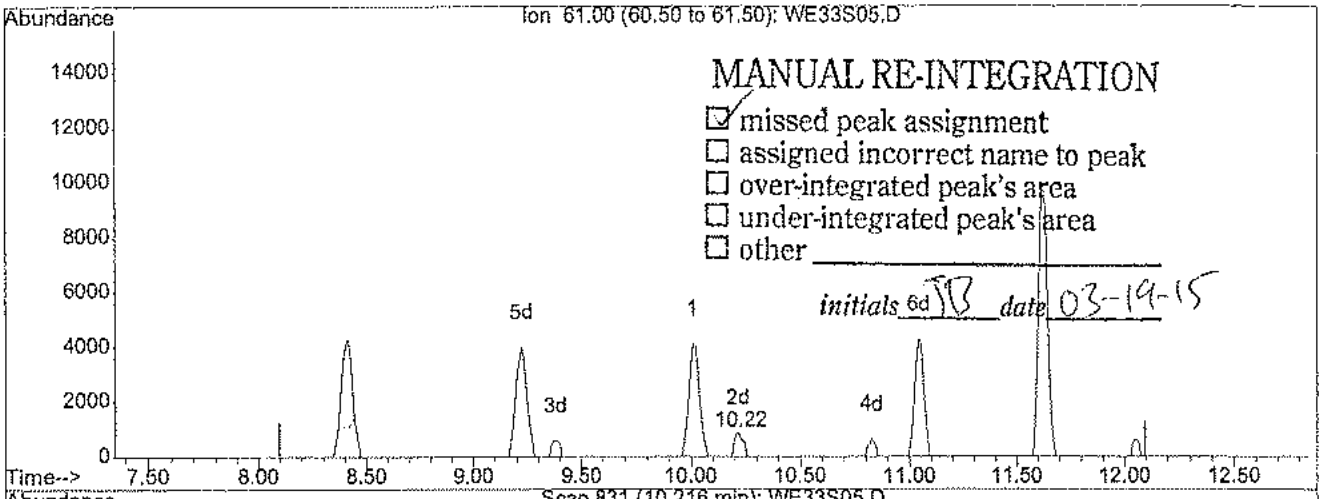
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\18MAR15W\WE33S05.D
Acq Time : 03/18/2015 15:13 Operator: JCB
Sample : 0.5 PPB Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 8:56 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 08:52:05 2015
Response via : Multiple Level Calibration



TIC: WE33S05.D

(23) Ethyl Acetate

10.22min 0.40ppb m

response 2299

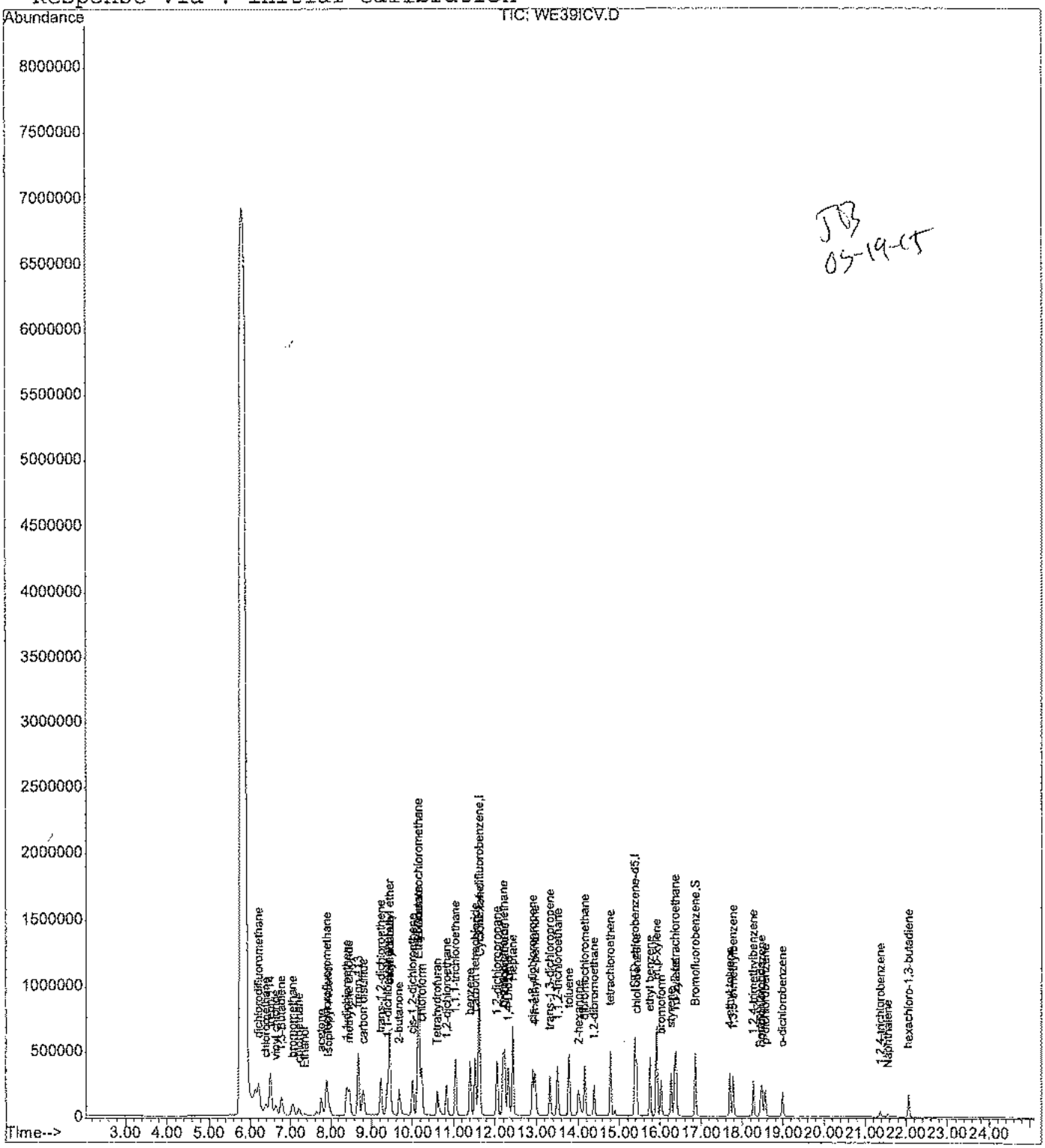
Ion	Exp%	Act%
61.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE39ICV.D
Acq Time : 03/18/2015 18:50 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:16 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE39ICV.D
Acq Time : 03/18/2015 18:50 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:16 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.14	128	132245	20.0000	ppb		102.43
28) ISTD 1,4-difluorobenzene	11.62	114	675801	20.0000	ppb		102.62
42) ISTD chlorobenzene-d5	15.38	117	401937	20.0000	ppb		99.33
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.85	95	236218	20.1517	ppb		100.76%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.21	85	376006	8.2182	ppb		99
3) chloromethane	6.39	50	175421	8.2657	ppb		100
4) freon 114	6.50	85	386679	8.5011	ppb		98
5) vinyl chloride	6.64	62	161004	8.8087	ppb		99
6) 1,3-Butadiene	6.78	54	118878	9.0369	ppb		89
7) bromomethane	7.06	94	134343	8.8480	ppb		98
8) chloroethane	7.21	64	87970	9.0799	ppb		100
9) Ethanol	7.36	45	40347	9.0207	ppb		100
10) Isopropyl Alcohol	7.95	45	202157	7.3458	ppb		100
11) trichlorofluoromethane	7.89	101	400920	9.3195	ppb		98
12) freon 113	8.69	101	332411	8.3661	ppb		96
13) 1,1-dichloroethene	8.41	96	116547	8.3077	ppb		99
14) acetone	7.75	43	367234	7.8808	ppb		94
15) carbon disulfide	8.80	76	523719	8.5292	ppb	#	92
16) methylene chloride	8.47	49	287823	7.9749	ppb		89
17) trans-1,2-dichloroethene	9.22	96	166238	9.3116	ppb		89
18) methyl t-butyl ether	9.43	73	457321	9.1410	ppb		85
19) vinyl acetate	9.43	43	821794	9.4559	ppb	#	96
20) 2-butanone	9.67	43	495700	8.7084	ppb		99
21) cis-1,2-dichloroethene	10.01	96	174024	9.2331	ppb		86
22) 1,1-dichloroethane	9.37	63	378513	8.7570	ppb		95
23) Ethyl Acetate	10.13	61	70506	9.9121	ppb		100
24) Hexane	10.16	57	312702	9.1801	ppb		100
25) chloroform	10.23	83	399630	8.7079	ppb		99
26) Tetrahydrofuran	10.59	42	230233	8.8741	ppb	m	100
27) 1,2-dichloroethane	10.82	62	299531	8.6767	ppb		97
29) 1,1,1-trichloroethane	11.04	97	374587	8.8738	ppb		99
30) carbon tetrachloride	11.53	117	356510	8.7165	ppb		97
31) benzene	11.40	78	502939	9.2737	ppb		91
32) Cyclohexane	11.65	84	238163	8.3645	ppb	#	100
33) trichloroethene	12.23	130	184093	8.9799	ppb		88
34) 1,2-dichloropropane	12.04	63	201013	8.9815	ppb		80
35) bromodichloromethane	12.19	83	404001	8.6664	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\18MAR15W\WE39ICV.D
Acq Time : 03/18/2015 18:50 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:16 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.31	88	46936	7.4050	ppb		96
37)	Heptane	12.42	71	173572	8.7553	ppb		92
38)	cis-1,3-dichloropropene	12.90	75	265410	9.2973	ppb	#	69
39)	4-methyl-2-pentanone	12.96	43	445499	8.9363	ppb		95
40)	trans-1,3-dichloropropene	13.32	75	226596	9.5545	ppb		93
41)	1,1,2-trichloroethane	13.51	97	162755	8.5379	ppb		97
43)	toluene	13.77	91	457852	9.4682	ppb		98
44)	2-hexanone	14.00	43	364595	8.7537	ppb		92
45)	tetrachloroethene	14.79	164	148880	8.8668	ppb		100
46)	dibromochloromethane	14.15	129	273281	8.6022	ppb		100
47)	1,2-dibromoethane	14.38	107	240706	8.9878	ppb		100
48)	chlorobenzene	15.42	112	272012	8.4582	ppb		87
49)	ethyl benzene	15.75	106	122108	9.3760	ppb		90
50)	m,p-xylene	15.92	106	308039	18.1584	ppb	#	68
51)	o-xylene	16.39	106	140088	9.2349	ppb		83
52)	styrene	16.27	104	211853	9.8278	ppb	#	79
53)	bromoform	16.04	173	177665	8.3394	ppb		100
54)	1,1,2,2-tetrachloroethane	16.36	83	237585	7.5643	ppb		99
56)	Cumene	0.00	105		No Calib		#	
57)	4-ethyl toluene	17.70	105	296649	8.3876	ppb		97
58)	1,3,5-trimethylbenzene	17.78	105	247597	8.3493	ppb		90
59)	1,2,4-trimethylbenzene	18.27	105	212488	8.3429	ppb		90
60)	m-dichlorobenzene	18.48	146	119865	7.2597	ppb		95
61)	p-dichlorobenzene	18.56	146	110014	6.7652	ppb		93
62)	Benzyl Chloride	18.44	91	138154	6.6775	ppb		97
63)	o-dichlorobenzene	18.99	146	98795	6.6739	ppb		94
64)	1,2,4-trichlorobenzene	21.37	180	23622	3.6994	ppb		99
65)	Naphthalene	21.56	128	38479	3.1981	ppb	#	93
66)	hexachloro-1,3-butadiene	22.06	225	41329	3.9144	ppb		95

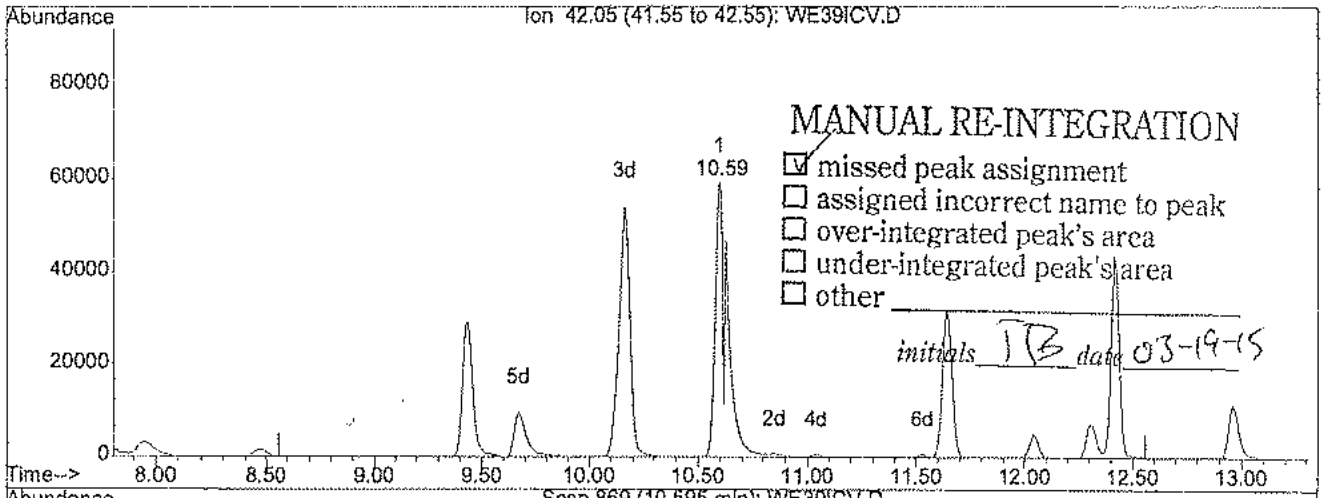
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\18MAR15W\WE39ICV.D
Acq Time : 03/18/2015 18:50 Operator: JCB
Sample : 10 PPB ICV Inst : 5972-W
Misc : Multiplr: 1.00

Quant Time: Mar 19 9:16 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Multiple Level Calibration



TIC: WE39ICV.D

(26) Tetrahydrofuran

10.59min 8.87ppb m

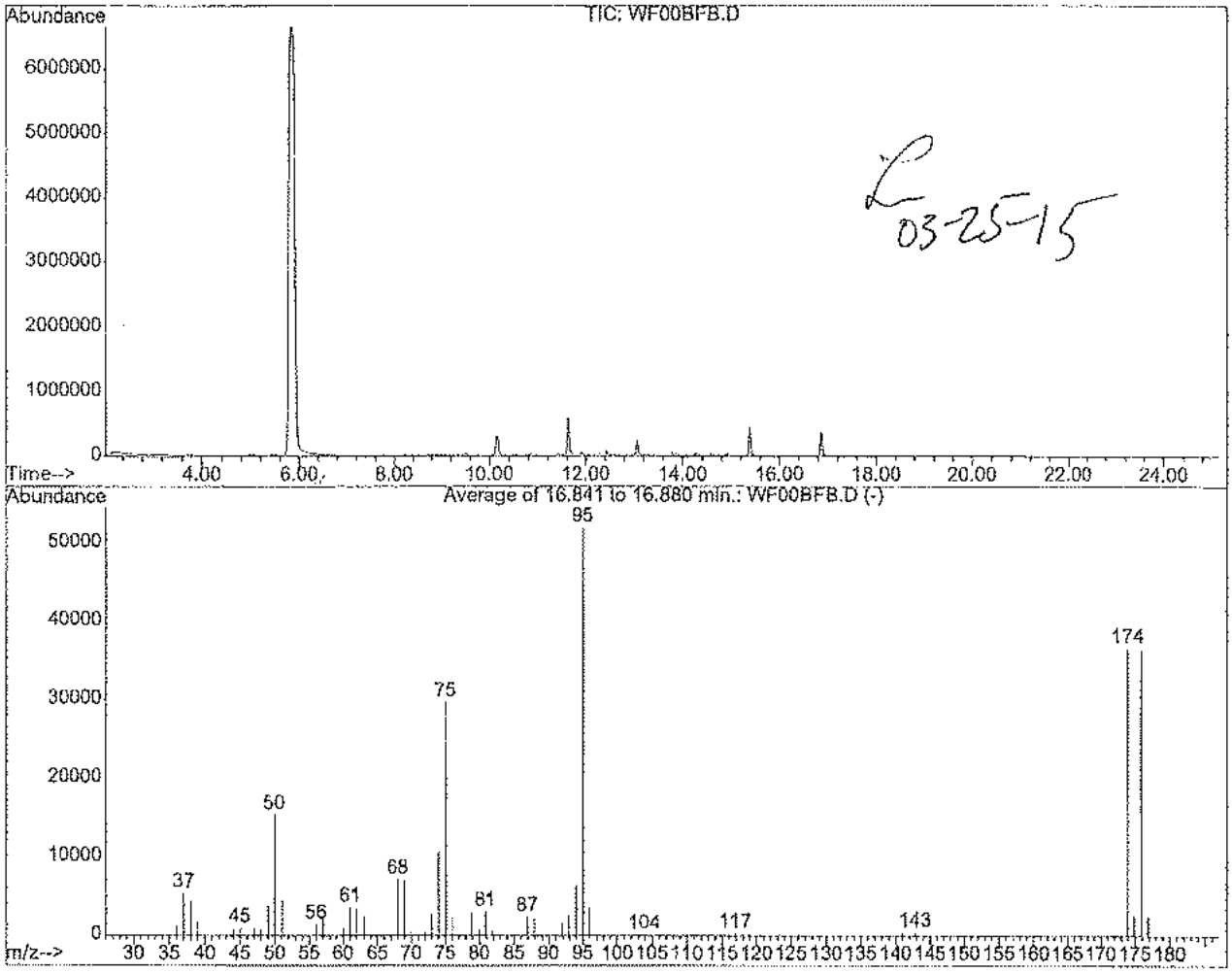
response 230233

Ion	Exp%	Act%
42.05	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\W\2015\MAR15W\23MAR15W\WF00BFB.D
Acq Time : 03/23/2015 08:34
Sample : BFB
Misc : 107IS31246 (2)

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST



03-25-15

Peak Apex is scan: 1498

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.5	15332	PASS
75	95	30	66	57.0	29622	PASS
95	95	100	100	100.0	51963	PASS
96	95	5	9	6.6	3447	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	70.3	36530	PASS
175	174	5	9	7.3	2676	PASS
176	174	93	101	99.2	36234	PASS
177	176	5	9	6.6	2386	PASS

Average of 16.841 to 16.880 min.: WF00BFB.D

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1216	55.00	78	71.95	402	86.90	2358
37.00	5363	56.00	1380	73.00	2834	87.90	2276
38.00	4416	57.00	2188	74.05	10557	90.95	155
39.00	1802	60.00	885	75.05	29622	91.95	1637
44.00	684	61.00	3573	76.05	2571	92.95	2480
45.00	937	61.95	3294	76.95	184	94.00	6401
47.00	803	63.00	2415	77.95	165	94.95	51963
47.95	689	63.95	78	78.85	2814	95.95	3447
49.00	3736	68.00	7108	79.90	787	103.90	85
49.95	15332	69.00	7008	80.85	3007	105.95	79
51.00	4522	70.00	472	81.90	634	116.90	287

Average of 16.841 to 16.880 min.: WF00BFB.D

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.90	164						
140.85	433						
142.85	445						
173.90	36530						
174.85	2676						
175.85	36234						
176.85	2386						

Evaluate Continuing Calibration Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF01LCS.D
Acq Time : 03/23/2015 09:11 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1		ISTD bromochloromethane	1.000	1.000	0.0	88	0.04	
2		dichlorodifluoromethane	6.919	7.153	-3.4	98	0.07	
3		chloromethane	3.210	2.525	21.3	78	0.07	
4		freon 114	6.879	6.822	0.8	96	0.07	
5		vinyl chloride	2.764	2.463	10.9	84	0.07	
6		1,3-Butadiene	1.989	1.760	11.5	84	0.06	
7		bromomethane	2.296	2.297	-0.0	96	0.06	
8		chloroethane	1.465	1.338	8.7	88	0.06	
9		Ethanol	0.676	0.493	27.1	61	0.06	NC
10		Isopropyl Alcohol	4.162	3.614	13.2	71	0.05	NC
11		trichlorofluoromethane	6.506	7.230	-11.1	108	0.06	
12		freon 113	6.009	6.042	-0.5	97	0.06	
13		1,1-dichloroethene	2.122	2.363	-11.4	102	0.05	
14		acetone	7.047	5.430	22.9	87	0.06	
15		carbon disulfide	9.286	8.304	10.6	87	0.05	
16		methylene chloride	5.458	4.478	18.0	86	0.06	
17		trans-1,2-dichloroethene	2.700	2.707	-0.3	93	0.05	
18		methyl t-butyl ether	7.566	7.940	-4.9	98	0.05	
19		vinyl acetate	13.143	12.511	4.8	90	0.05	
20		2-butanone	8.609	7.425	13.8	85	0.04	
21		cis-1,2-dichloroethene	2.850	2.724	4.4	90	0.05	
22		1,1-dichloroethane	6.537	5.875	10.1	90	0.05	
23		Ethyl Acetate	1.076	1.018	5.4	83	0.04	
24		Hexane	5.152	4.313	16.3	82	0.05	
25		chloroform	6.941	6.558	5.5	96	0.04	
26		Tetrahydrofuran	3.924	3.556	9.4	82	0.04	
27		1,2-dichloroethane	5.221	5.060	3.1	98	0.04	
28	I	ISTD 1,4-difluorobenzene	1.000	1.000	0.0	86	0.04	
29		1,1,1-trichloroethane	1.249	1.239	0.8	96	0.03	
30		carbon tetrachloride	1.210	1.217	-0.6	98	0.04	
31		benzene	1.605	1.468	8.5	88	0.04	
32		Cyclohexane	0.843	0.709	15.9	86	0.04	
33		trichloroethene	0.607	0.613	-1.0	96	0.04	
34		1,2-dichloropropane	0.662	0.593	10.4	89	0.03	
35		bromodichloromethane	1.380	1.340	2.9	96	0.04	
36		1,4-Dioxane	0.188	0.176	6.4	82	0.02	NC
37		Heptane	0.587	0.517	11.9	85	0.03	
38		cis-1,3-dichloropropene	0.845	0.876	-3.7	94	0.03	
39		4-methyl-2-pentanone	1.475	1.385	6.1	85	0.02	
40		trans-1,3-dichloropropene	0.702	0.773	-10.1	96	0.03	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF01LCS.D
Acq Time : 03/23/2015 09:11 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

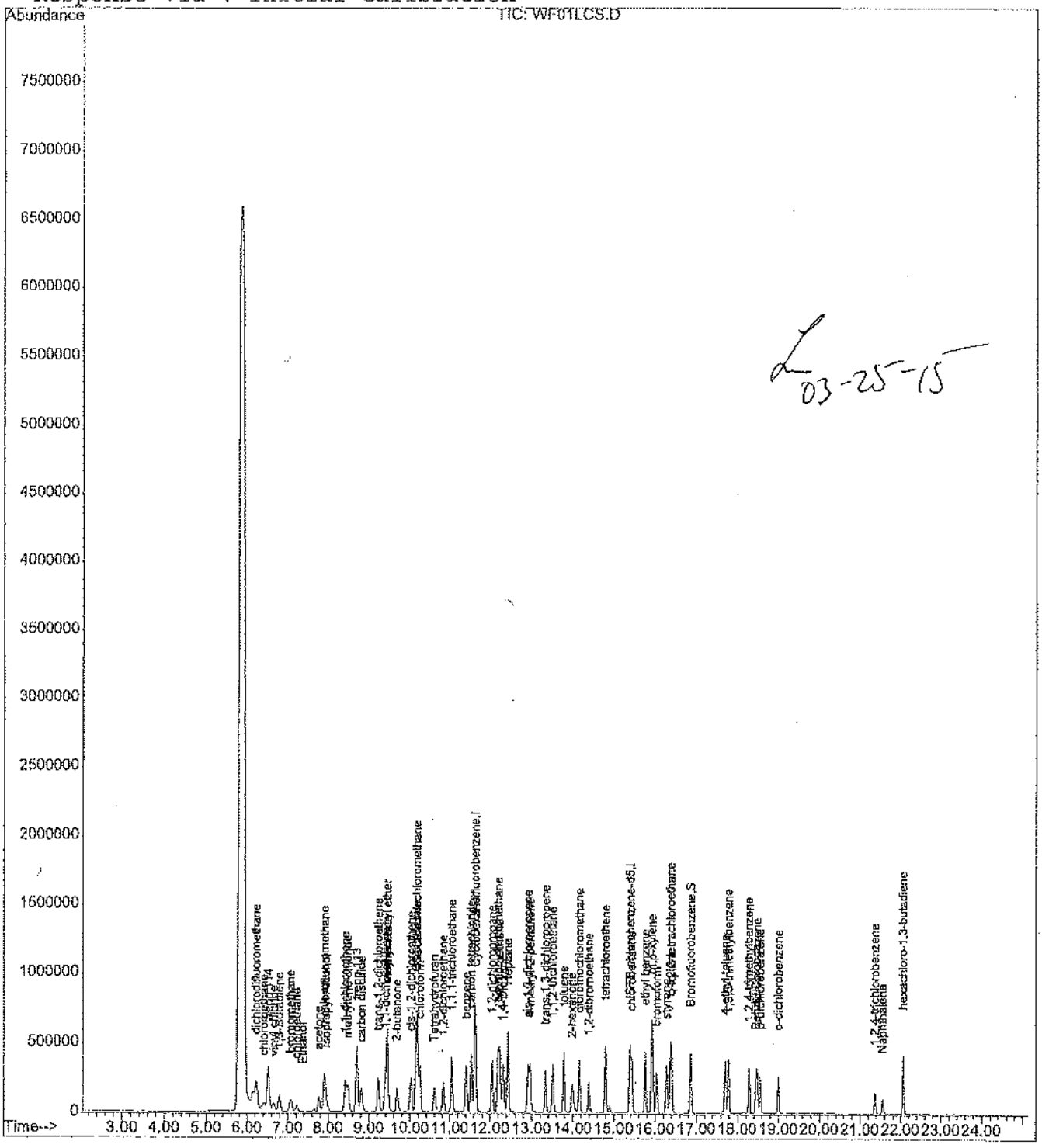
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
41		1,1,2-trichloroethane	0.564	0.534	5.3	92	0.03	
42	I	ISTD chlorobenzene-d5	1.000	1.000	0.0	85	0.03	
43		toluene	2.406	2.436	-1.2	96	0.03	
44		2-hexanone	2.072	1.991	3.9	87	0.01	
45		tetrachloroethene	0.835	0.832	0.4	98	0.02	
46		dibromochloromethane	1.581	1.567	0.9	98	0.03	
47		1,2-dibromoethane	1.333	1.342	-0.7	96	0.03	
48		chlorobenzene	1.600	1.509	5.7	92	0.03	
49		ethyl benzene	0.648	0.699	-7.9	95	0.02	
50		m,p-xylene	0.844	0.891	-5.6	96	0.02	
51		o-xylene	0.755	0.793	-5.0	94	0.02	
52		styrene	1.073	1.284	-19.7	99	0.02	
53		bromoform	1.060	1.101	-3.9	97	0.03	
54		1,1,2,2-tetrachloroethane	1.563	1.465	6.3	88	0.02	
55	S	Bromofluorobenzene	0.583	0.608	-4.3	86	0.03	
56		Cumene	0.000	0.835	0.0	0#	0.02	
57		4-ethyl toluene	1.760	2.043	-16.1	101	0.03	
58		1,3,5-trimethylbenzene	1.476	1.735	-17.5	98	0.02	
59		1,2,4-trimethylbenzene	1.267	1.589	-25.4	100	0.03	
60		m-dichlorobenzene	0.822	0.890	-8.3	96	0.03	
61		p-dichlorobenzene	0.809	0.811	-0.2	92	0.02	
62		Benzyl Chloride	1.029	1.353	-31.5#	105	0.02	TIC
63		o-dichlorobenzene	0.737	0.827	-12.2	96	0.02	
64		1,2,4-trichlorobenzene	0.318	0.400	-25.8	105	0.01	TIC
65		Naphthalene	0.599	0.739	-23.4	97	0.01	TIC
66		hexachloro-1,3-butadiene	0.525	0.582	-10.9	103	0.02	TIC

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF01LCS.D
Acq Time : 03/23/2015 09:11 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:36 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Initial Calibration



03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF01LCS.D
Acq Time : 03/23/2015 09:11 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:36 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.15	128	113374	20.0000	ppb		87.82
28) ISTD 1,4-difluorobenzene	11.62	114	567635	20.0000	ppb		86.20
42) ISTD chlorobenzene-d5	15.38	117	343577	20.0000	ppb		84.90
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	208930	20.8513	ppb		104.26%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.23	85	405505	10.3382	ppb		99
3) chloromethane	6.42	50	143139	7.8673	ppb		99
4) freon 114	6.53	85	386729	9.9173	ppb		92
5) vinyl chloride	6.65	62	139600	8.9089	ppb	m	44
6) 1,3-Butadiene	6.79	54	99759	8.8458	ppb		87
7) bromomethane	7.07	94	130227	10.0046	ppb		99
8) chloroethane	7.22	64	75872	9.1347	ppb		99
9) Ethanol	7.36	45	27959	7.2915	ppb		100
10) Isopropyl Alcohol	7.95	45	204876	8.6838	ppb		100
11) trichlorofluoromethane	7.90	101	409819	11.1120	ppb		98
12) freon 113	8.70	101	342521	10.0554	ppb		100
13) 1,1-dichloroethene	8.42	96	133959	11.1383	ppb		82
14) acetone	7.76	43	307838	7.7058	ppb		98
15) carbon disulfide	8.81	76	470710	8.9419	ppb	#	92
16) methylene chloride	8.48	49	253817	8.2032	ppb		98
17) trans-1,2-dichloroethene	9.22	96	153464	10.0269	ppb		84
18) methyl t-butyl ether	9.44	73	450123	10.4947	ppb		98
19) vinyl acetate	9.44	43	709208	9.5188	ppb	#	95
20) 2-butanone	9.68	43	420922	8.6255	ppb		95
21) cis-1,2-dichloroethene	10.02	96	154426	9.5571	ppb		84
22) 1,1-dichloroethane	9.39	63	333016	8.9869	ppb		98
23) Ethyl Acetate	10.14	61	57735	9.4677	ppb		100
24) Hexane	10.18	57	244509	8.3729	ppb		100
25) chloroform	10.24	83	371769	9.4491	ppb		99
26) Tetrahydrofuran	10.60	42	201555	9.0619	ppb		100
27) 1,2-dichloroethane	10.83	62	286824	9.6916	ppb		98
29) 1,1,1-trichloroethane	11.04	97	351736	9.9203	ppb		99
30) carbon tetrachloride	11.54	117	345300	10.0512	ppb		97
31) benzene	11.42	78	416566	9.1447	ppb		93
32) Cyclohexane	11.65	84	201306	8.4172	ppb	#	100
33) trichloroethene	12.23	130	174079	10.1096	ppb		85
34) 1,2-dichloropropane	12.05	63	168360	8.9559	ppb		87
35) bromodichloromethane	12.19	83	380197	9.7099	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF01LCS.D
Acq Time : 03/23/2015 09:11 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:36 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.29	88	50000	9.3916	ppb		99
37)	Heptane	12.42	71	146615	8.8048	ppb		90
38)	cis-1,3-dichloropropene	12.90	75	248616	10.3686	ppb	#	64
39)	4-methyl-2-pentanone	12.95	43	393227	9.3908	ppb		94
40)	trans-1,3-dichloropropene	13.33	75	219258	11.0068	ppb		95
41)	1,1,2-trichloroethane	13.51	97	151451	9.4589	ppb		95
43)	toluene	13.78	91	418447	10.1232	ppb		98
44)	2-hexanone	13.98	43	342010	9.6063	ppb		91
45)	tetrachloroethene	14.79	164	142955	9.9601	ppb		99
46)	dibromochloromethane	14.15	129	269221	9.9139	ppb		99
47)	1,2-dibromoethane	14.39	107	230614	10.0736	ppb		99
48)	chlorobenzene	15.42	112	259245	9.4304	ppb		85
49)	ethyl benzene	15.76	106	120106	10.7887	ppb		87
50)	m,p-xylene	15.92	106	306245	21.1191	ppb	#	67
51)	o-xylene	16.40	106	136276	10.5095	ppb		85
52)	styrene	16.28	104	220526	11.9679	ppb	#	79
53)	bromoform	16.04	173	189205	10.3896	ppb		100
54)	1,1,2,2-tetrachloroethane	16.37	83	251682	9.3742	ppb		99
56)	Cumene	0.00	105		No Calib		#	
57)	4-ethyl toluene	17.71	105	350921	11.6075	ppb		97
58)	1,3,5-trimethylbenzene	17.79	105	298123	11.7607	ppb		91
59)	1,2,4-trimethylbenzene	18.28	105	272940	12.5367	ppb		92
60)	m-dichlorobenzene	18.48	146	152840	10.8292	ppb		97
61)	p-dichlorobenzene	18.55	146	139379	10.0268	ppb		96
62)	Benzyl Chloride	18.44	91	232437	13.1428	ppb		95
63)	o-dichlorobenzene	19.00	146	141990	11.2211	ppb		96
64)	1,2,4-trichlorobenzene	21.37	180	68632	12.5741	ppb		100
65)	Naphthalene	21.54	128	126875	12.3361	ppb		100
66)	hexachloro-1,3-butadiene	22.07	225	100017	11.0820	ppb		95

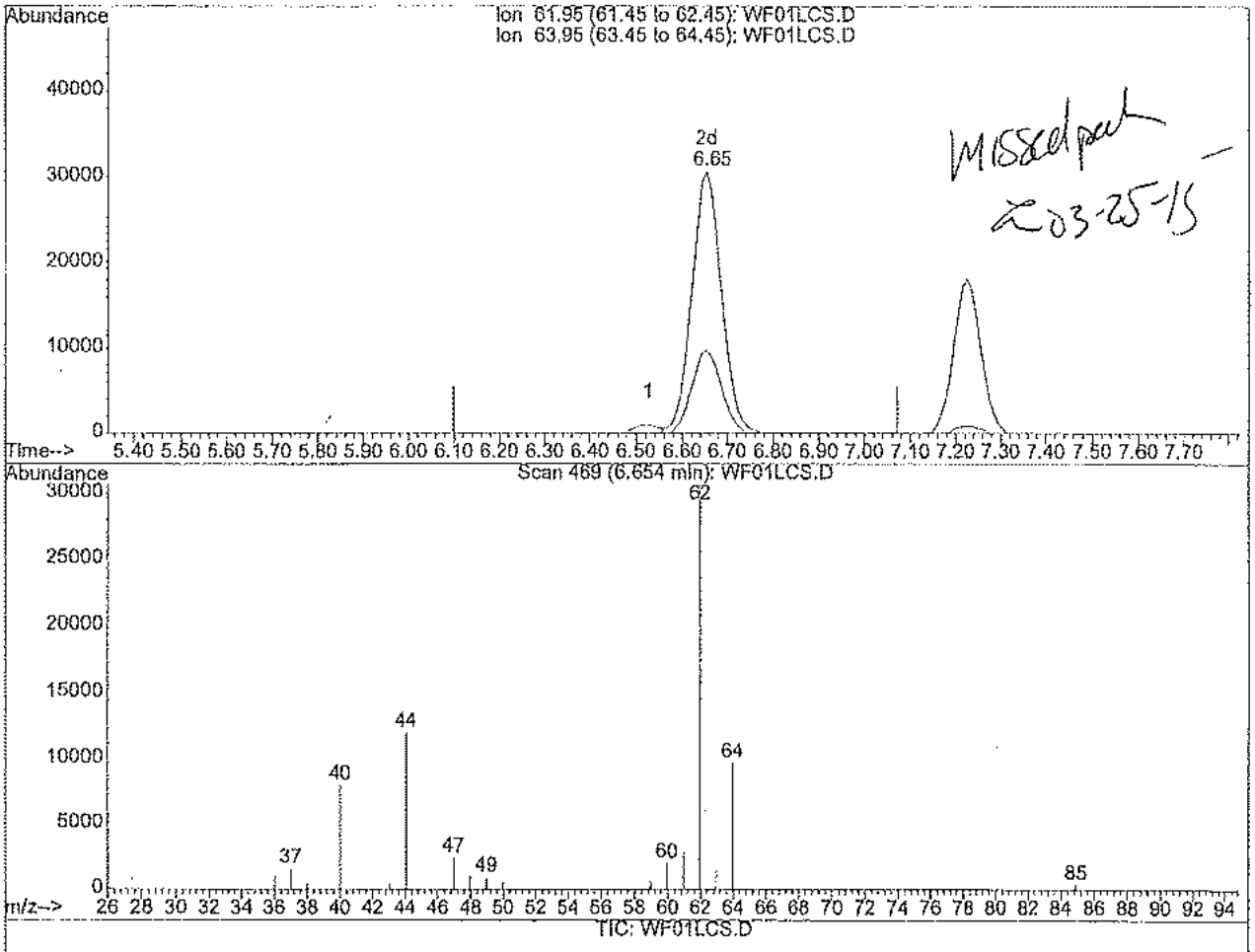
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF01LCS.D
Acq Time : 03/23/2015 09:11 Operator: LMR
Sample : QC- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:36 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Multiple Level Calibration



(5) vinyl chloride

6.65min 8.91ppb m

response 139600

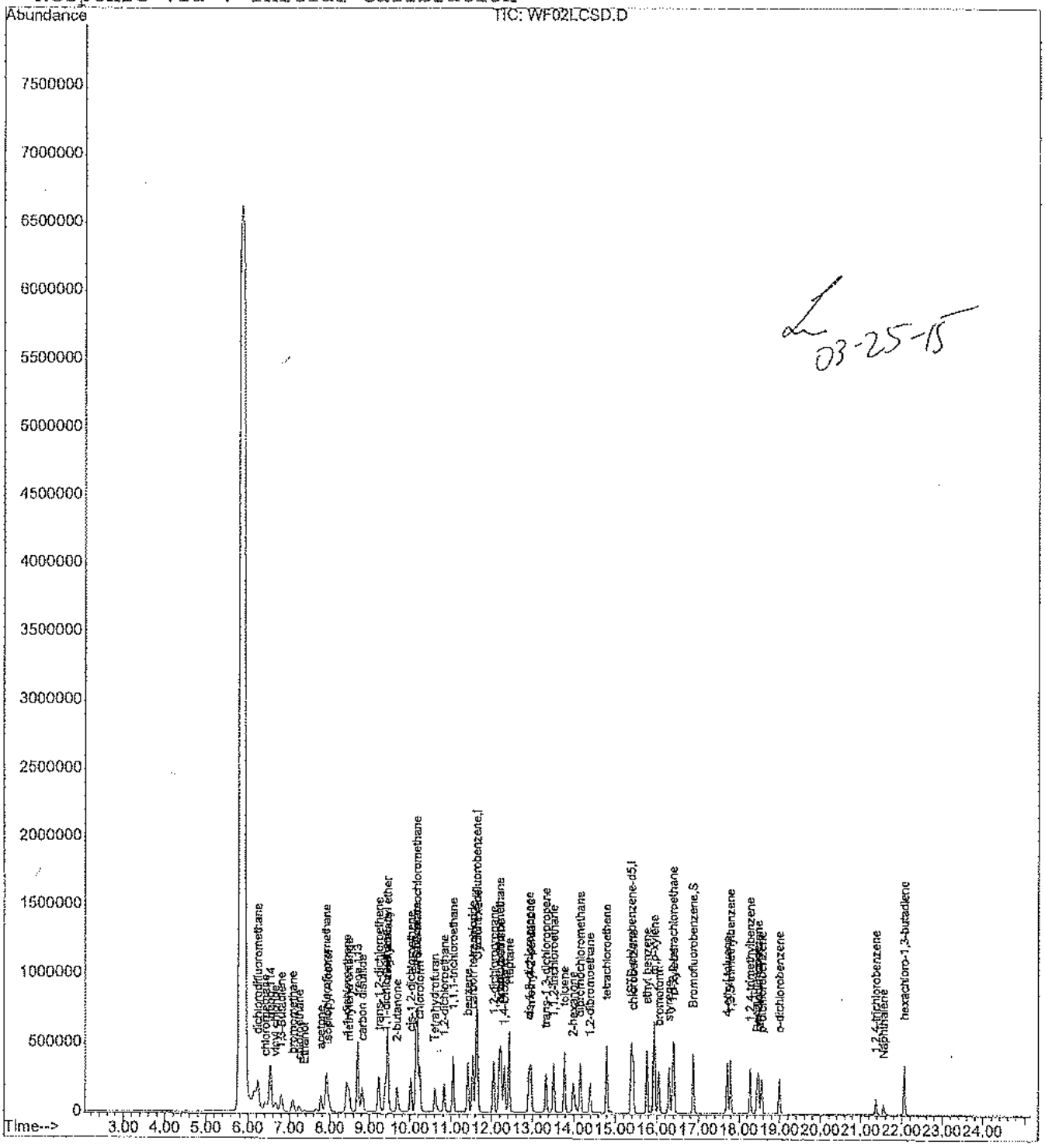
Ion	Exp%	Act%
61.96	100	100
63.95	31.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF02LCSD.D
Acq Time : 03/23/2015 09:47 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:38 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Initial Calibration



L 03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF02LCSD.D
Acq Time : 03/23/2015 09:47 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:38 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.16	128	118911	20.0000	ppb		92.10
28) ISTD 1,4-difluorobenzene	11.62	114	597150	20.0000	ppb		90.68
42) ISTD chlorobenzene-d5	15.38	117	349092	20.0000	ppb		86.27
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	210058	20.6327	ppb		103.16%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.24	85	420615	10.2241	ppb		99
3) chloromethane	6.42	50	143394	7.5143	ppb		99
4) freon 114	6.54	85	407272	9.9578	ppb		91
5) vinyl chloride	6.65	62	147554	8.9780	ppb	m	44
6) 1,3-Butadiene	6.80	54	103849	8.7797	ppb		88
7) bromomethane	7.08	94	127156	9.3138	ppb		99
8) chloroethane	7.23	64	70064	8.0427	ppb		100
9) Ethanol	7.36	45	31167	7.7496	ppb		100
10) Isopropyl Alcohol	7.95	45	226203	9.1413	ppb		100
11) trichlorofluoromethane	7.90	101	425880	11.0098	ppb		98
12) freon 113	8.70	101	363134	10.1641	ppb		99
13) 1,1-dichloroethene	8.42	96	127886	10.1382	ppb		79
14) acetone	7.77	43	321387	7.6703	ppb		96
15) carbon disulfide	8.82	76	501518	9.0835	ppb	#	92
16) methylene chloride	8.48	49	228321	7.0356	ppb		94
17) trans-1,2-dichloroethene	9.23	96	159399	9.9297	ppb		82
18) methyl t-butyl ether	9.44	73	461820	10.2661	ppb		97
19) vinyl acetate	9.44	43	720165	9.2157	ppb	#	95
20) 2-butanone	9.67	43	431289	8.4264	ppb		95
21) cis-1,2-dichloroethene	10.02	96	159610	9.4180	ppb		82
22) 1,1-dichloroethane	9.39	63	338116	8.6996	ppb		98
23) Ethyl Acetate	10.14	61	59645	9.3255	ppb		100
24) Hexane	10.18	57	248668	8.1188	ppb		100
25) chloroform	10.24	83	378086	9.1622	ppb		99
26) Tetrahydrofuran	10.60	42	211263	9.0561	ppb		100
27) 1,2-dichloroethane	10.83	62	285441	9.1957	ppb		98
29) 1,1,1-trichloroethane	11.05	97	358524	9.6120	ppb		100
30) carbon tetrachloride	11.53	117	347864	9.6254	ppb		97
31) benzene	11.42	78	438583	9.1522	ppb		92
32) Cyclohexane	11.65	84	205653	8.1740	ppb	#	100
33) trichloroethene	12.23	130	178836	9.8725	ppb		85
34) 1,2-dichloropropane	12.06	63	173735	8.7851	ppb		85
35) bromodichloromethane	12.19	83	389832	9.4638	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF02LCSD.D
Acq Time : 03/23/2015 09:47 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:38 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.29	88	56307	10.0535	ppb		99
37)	Heptane	12.43	71	153339	8.7534	ppb		86
38)	cis-1,3-dichloropropene	12.91	75	240738	9.5438	ppb	#	64
39)	4-methyl-2-pentanone	12.96	43	401142	9.1063	ppb		94
40)	trans-1,3-dichloropropene	13.33	75	213283	10.1777	ppb		94
41)	1,1,2-trichloroethane	13.51	97	152574	9.0581	ppb		95
43)	toluene	13.78	91	412838	9.8297	ppb		98
44)	2-hexanone	13.99	43	346899	9.5897	ppb		89
45)	tetrachloroethene	14.79	164	141621	9.7113	ppb		98
46)	dibromochloromethane	14.15	129	266624	9.6631	ppb		99
47)	1,2-dibromoethane	14.39	107	230265	9.8994	ppb		100
48)	chlorobenzene	15.42	112	270543	9.6860	ppb		83
49)	ethyl benzene	15.76	106	126584	11.1910	ppb		86
50)	m,p-xylene	15.92	106	303986	20.6321	ppb	#	68
51)	o-xylene	16.40	106	139343	10.5763	ppb		83
52)	styrene	16.28	104	215546	11.5128	ppb	#	80
53)	bromoform	16.04	173	188649	10.1954	ppb		100
54)	1,1,2,2-tetrachloroethane	16.37	83	251911	9.2345	ppb		99
56)	Cumene	0.00	105		No Calib		#	
57)	4-ethyl toluene	17.71	105	334501	10.8896	ppb		98
58)	1,3,5-trimethylbenzene	17.78	105	295716	11.4814	ppb		91
59)	1,2,4-trimethylbenzene	18.28	105	265544	12.0043	ppb		92
60)	m-dichlorobenzene	18.48	146	147661	10.2969	ppb		97
61)	p-dichlorobenzene	18.56	146	138612	9.8141	ppb		95
62)	Benzyl Chloride	18.44	91	221282	12.3143	ppb		96
63)	o-dichlorobenzene	18.99	146	135369	10.5289	ppb		96
64)	1,2,4-trichlorobenzene	21.38	180	49678	8.9578	ppb		99
65)	Naphthalene	21.55	128	90512	8.6615	ppb		99
66)	hexachloro-1,3-butadiene	22.07	225	83872	9.1463	ppb		95

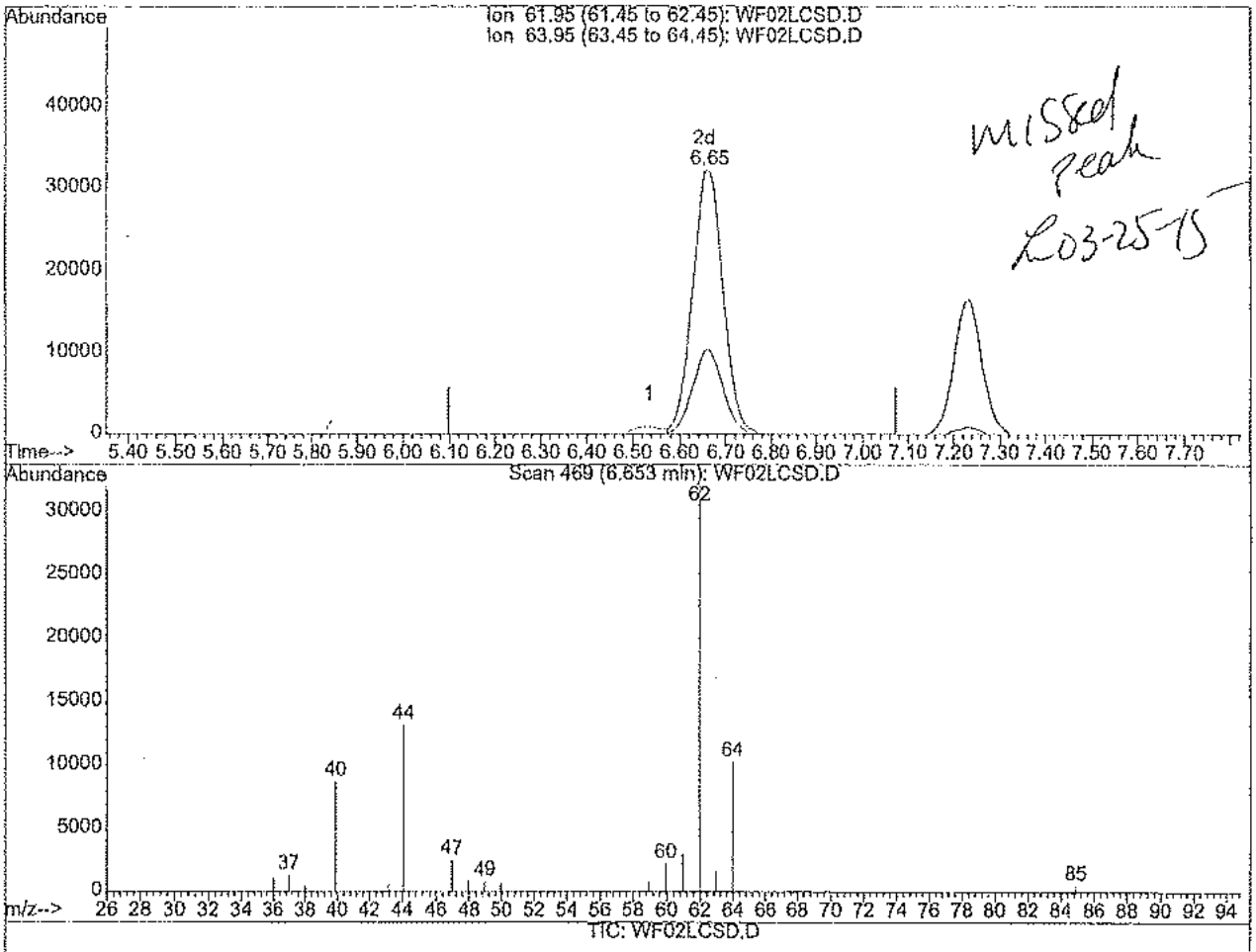
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF02LCSD.D
Acq Time : 03/23/2015 09:47 Operator: LMR
Sample : QD- Inst : 5972-W
Misc : 27464 Multiplr: 1.00

Quant Time: Mar 25 13:38 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Multiple Level Calibration



(5) vinyl chloride

6.65min 8.98ppb m

response 147554

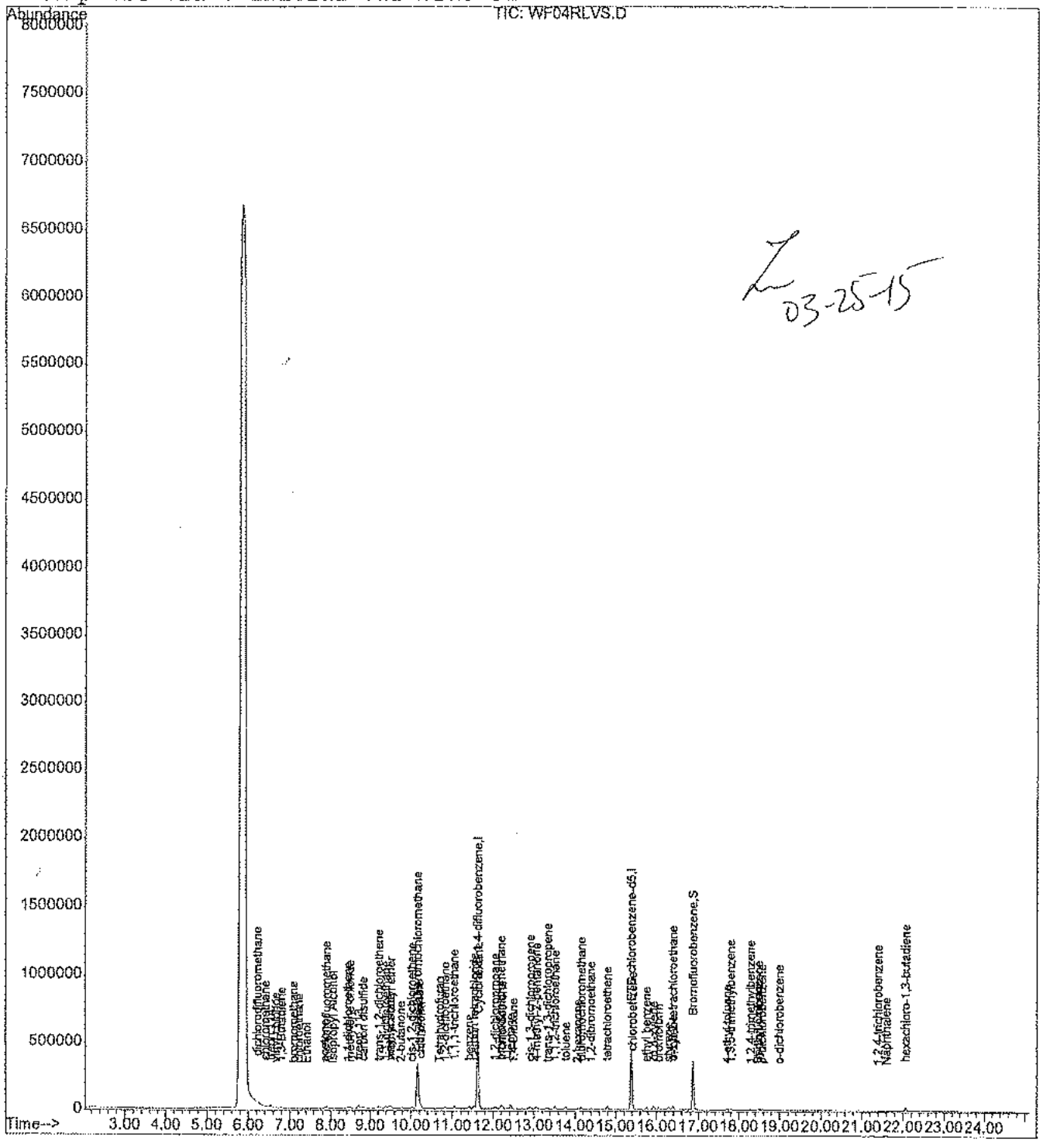
Ion	Exp%	Act%
61.95	100	100
63.95	31.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF04RLVS.D
Acq Time : 03/23/2015 11:05 Operator: LMR
Sample : RLVS- 0.5 Inst : 5972-W
Misc : 27425 Multiplr: 1.00

Quant Time: Mar 25 14:33 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Initial Calibration



03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF04RLVS.D
Acq Time : 03/23/2015 11:05 Operator: LMR
Sample : RLVS- 0.5 Inst : 5972-W
Misc : 27425 Multiplr: 1.00

Quant Time: Mar 25 14:33 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.16	128	125531	20.0000	ppb		97.23
28) ISTD 1,4-difluorobenzene	11.63	114	615270	20.0000	ppb		93.43
42) ISTD chlorobenzene-d5	15.38	117	337445	20.0000	ppb		83.39
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	192105	19.5205	ppb		97.60%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.23	85	22792	0.5248	ppb	#	96
3) chloromethane	6.42	50	9548	0.4740	ppb	#	86
4) freon 114	6.53	85	20980	0.4859	ppb		89
5) vinyl chloride	6.66	62	6575	0.3790	ppb	#	83
6) 1,3-Butadiene	6.80	54	4572	0.3661	ppb		83
7) bromomethane	7.08	94	7343	0.5095	ppb		96
8) chloroethane	7.24	64	3666	0.3986	ppb	#	43
9) Ethanol	7.41	45	1077	0.2537	ppb		100
10) Isopropyl Alcohol	8.05	45	11165	0.4274	ppb		100
11) trichlorofluoromethane	7.90	101	24452	0.5988	ppb		98
12) freon 113	8.70	101	20265	0.5373	ppb		99
13) 1,1-dichloroethene	8.43	96	7100	0.5332	ppb		79
14) acetone	7.85	43	36587	0.8271	ppb		96
15) carbon disulfide	8.82	76	29288	0.5025	ppb	#	87
16) methylene chloride	8.49	49	15879	0.4635	ppb		95
17) trans-1,2-dichloroethene	9.23	96	8621	0.5087	ppb		80
18) methyl t-butyl ether	9.52	73	23526	0.4954	ppb		90
19) vinyl acetate	9.48	43	40725	0.4937	ppb		98
20) 2-butanone	9.77	43	26211	0.4851	ppb		94
21) cis-1,2-dichloroethene	10.02	96	8817	0.4928	ppb		81
22) 1,1-dichloroethane	9.39	63	19835	0.4834	ppb	#	92
23) Ethyl Acetate	10.21	61	2860	0.4236	ppb	m	100
24) Hexane	10.18	57	15104	0.4671	ppb		100
25) chloroform	10.24	83	22138	0.5082	ppb		99
26) Tetrahydrofuran	10.70	42	10353	0.4204	ppb		100
27) 1,2-dichloroethane	10.83	62	16249	0.4959	ppb		99
29) 1,1,1-trichloroethane	11.05	97	20703	0.5387	ppb		100
30) carbon tetrachloride	11.54	117	20311	0.5455	ppb		98
31) benzene	11.42	78	24575	0.4977	ppb		93
32) Cyclohexane	11.65	84	14546	0.5611	ppb	#	100
33) trichloroethene	12.24	130	9747	0.5222	ppb		85
34) 1,2-dichloropropane	12.05	63	10158	0.4985	ppb		90
35) bromodichloromethane	12.19	83	22315	0.5258	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF04RLVS.D
Acq Time : 03/23/2015 11:05 Operator: LMR
Sample : RLVS- 0.5 Inst : 5972-W
Misc : 27425 Multiplr: 1.00

Quant Time: Mar 25 14:33 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	1,4-Dioxane	12.49	88	1212	0.2100	ppb	#	1
37)	Heptane	12.42	71	8267	0.4580	ppb		96
38)	cis-1,3-dichloropropene	12.91	75	11617	0.4470	ppb		97
39)	4-methyl-2-pentanone	13.05	43	17634	0.3885	ppb		96
40)	trans-1,3-dichloropropene	13.34	75	9207	0.4264	ppb		100
41)	1,1,2-trichloroethane	13.51	97	9015	0.5194	ppb		91
43)	toluene	13.78	91	20329	0.5007	ppb		96
44)	2-hexanone	14.08	43	12871	0.3681	ppb		99
45)	tetrachloroethene	14.79	164	7909	0.5611	ppb		99
46)	dibromochloromethane	14.15	129	14530	0.5448	ppb		98
47)	1,2-dibromoethane	14.39	107	11263	0.5009	ppb		97
48)	chlorobenzene	15.42	112	14226	0.5269	ppb		86
49)	ethyl benzene	15.76	106	4973	0.4548	ppb		92
50)	m,p-xylene	15.93	106	13868	0.9737	ppb	#	66
51)	o-xylene	16.41	106	6683	0.5248	ppb		82
52)	styrene	16.29	104	9527	0.5264	ppb	#	75
53)	bromoform	16.04	173	9549	0.5339	ppb		100
54)	1,1,2,2-tetrachloroethane	16.38	83	12640	0.4793	ppb		95
56)	Cumene	0.00	105		No Calib		#	
57)	4-ethyl toluene	17.72	105	12222	0.4116	ppb		93
58)	1,3,5-trimethylbenzene	17.80	105	11376	0.4569	ppb		93
59)	1,2,4-trimethylbenzene	18.28	105	8263	0.3864	ppb		97
60)	m-dichlorobenzene	18.48	146	5454	0.3935	ppb	#	93
61)	p-dichlorobenzene	18.56	146	5317	0.3895	ppb	#	90
62)	Benzyl Chloride	18.46	91	6139	0.3534	ppb	#	65
63)	o-dichlorobenzene	19.01	146	5049	0.4063	ppb		92
64)	1,2,4-trichlorobenzene	21.40	180	1741	0.3248	ppb	#	75
65)	Naphthalene	21.59	128	1608	0.1592	ppb	#	73
66)	hexachloro-1,3-butadiene	22.07	225	7433	0.8386	ppb		92

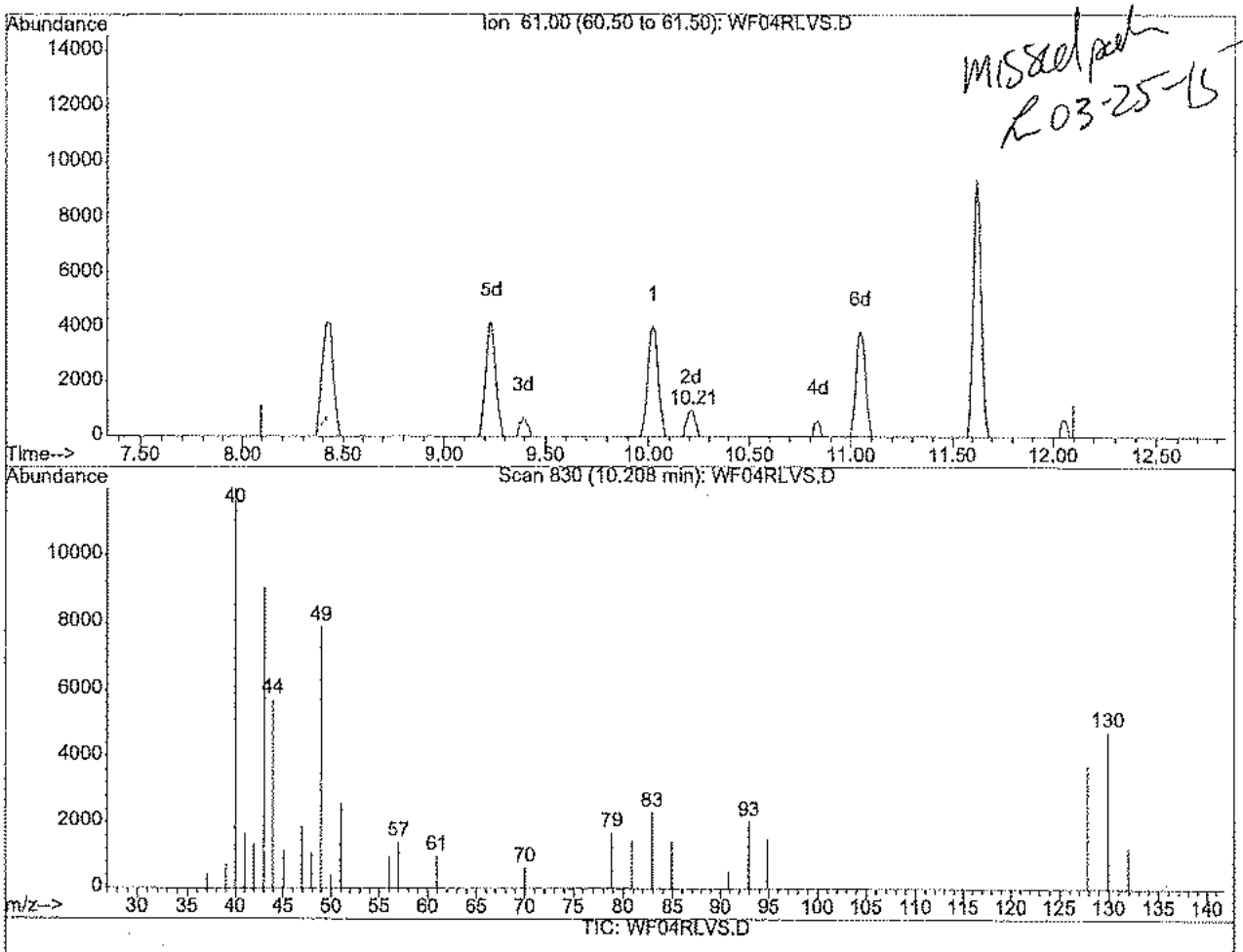
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF04RLVS.D
Acq Time : 03/23/2015 11:05 Operator: LMR
Sample : RLVS- 0.5 Inst : 5972-W
Misc : 27425 Multiplr: 1.00

Quant Time: Mar 25 14:33 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration



Missed peak
L 03-25-15

(23) Ethyl Acetate

10.21min 0.42ppb m

response 2860

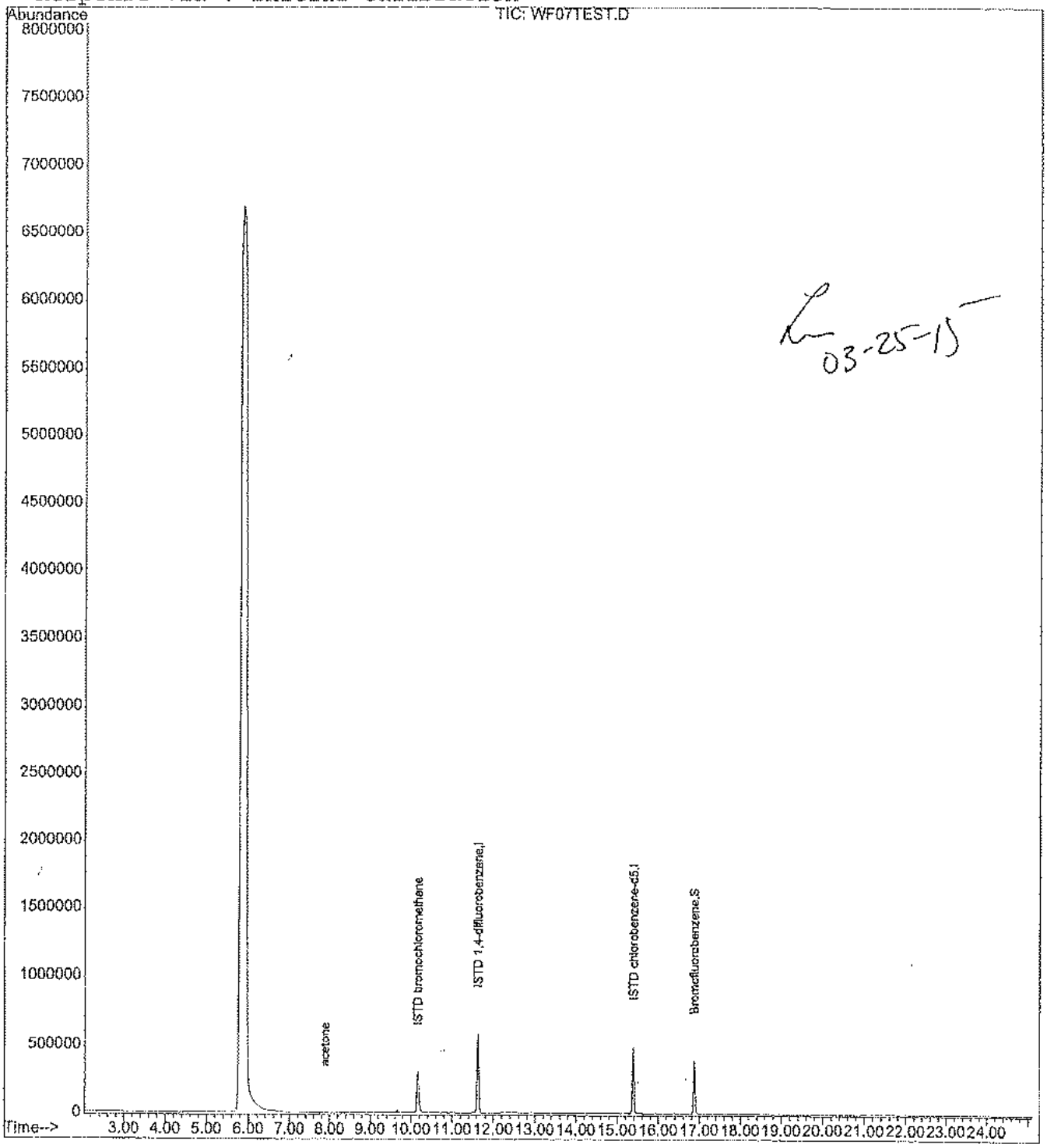
Ion	Exp%	Act%
61.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF07TEST.D
Acq Time : 03/23/2015 13:34 Operator: LMR
Sample : BL- 0007 Inst : 5972-W
Misc : 0007/0011/0046/0024/0028/0074/0010/0076 Multiplr: 1.00

Quant Time: Mar 25 13:42 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Initial Calibration



03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF07TEST.D
Acq Time : 03/23/2015 13:34 Operator: LMR
Sample : BL- 0007 Inst : 5972-W
Misc : 0007/0011/0046/0024/0028/0074/0010/0076 Multiplr: 1.00

Quant Time: Mar 25 13:42 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) ISTD bromochloromethane	10.16	128	122464	20.0000 ppb	94.86
28) ISTD 1,4-difluorobenzene	11.62	114	595711	20.0000 ppb	90.46
42) ISTD chlorobenzene-d5	15.38	117	362682	20.0000 ppb	89.63
System Monitoring Compounds					%Recovery
55) Bromofluorobenzene	16.86	95	200928	18.9964 ppb	94.98%
Target Compounds					Qvalue
2) dichlorodifluoromethane	0.00	85		Not Detected	
3) chloromethane	0.00	50		Not Detected	
4) freon 114	0.00	85		Not Detected	
5) vinyl chloride	0.00	62		Not Detected	
6) 1,3-Butadiene	0.00	54		Not Detected	
7) bromomethane	0.00	94		Not Detected	
8) chloroethane	0.00	64		Not Detected	
9) Ethanol	0.00	45		Not Detected	
10) Isopropyl Alcohol	0.00	45		Not Detected	
11) trichlorofluoromethane	0.00	101		Not Detected	
12) freon 113	0.00	101		Not Detected	
13) 1,1-dichloroethene	0.00	96		Not Detected	
14) acetone	7.88	43	22487	0.5211 ppb #	77
15) carbon disulfide	0.00	76		Not Detected	
16) methylene chloride	0.00	49		Not Detected	
17) trans-1,2-dichloroethene	0.00	96		Not Detected	
18) methyl t-butyl ether	0.00	73		Not Detected	
19) vinyl acetate	0.00	43		Not Detected	
20) 2-butanone	0.00	43		Not Detected	
21) cis-1,2-dichloroethene	0.00	96		Not Detected	
22) 1,1-dichloroethane	0.00	63		Not Detected	
23) Ethyl Acetate	0.00	61		Not Detected	
24) Hexane	0.00	57		Not Detected	
25) chloroform	0.00	83		Not Detected	
26) Tetrahydrofuran	0.00	42		Not Detected	
27) 1,2-dichloroethane	0.00	62		Not Detected	
29) 1,1,1-trichloroethane	0.00	97		Not Detected	
30) carbon tetrachloride	0.00	117		Not Detected	
31) benzene	0.00	78		Not Detected	
32) Cyclohexane	0.00	84		Not Detected	
33) trichloroethene	0.00	130		Not Detected	
34) 1,2-dichloropropane	0.00	63		Not Detected	
35) bromodichloromethane	0.00	83		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF07TEST.D
Acq Time : 03/23/2015 13:34 Operator: LMR
Sample : BL- 0007 Inst : 5972-W
Misc : 0007/0011/0046/0024/0028/0074/0010/0076 Multiplr: 1.00

Quant Time: Mar 25 13:42 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Tue Mar 24 15:44:20 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected	
37)	Heptane	0.00	71		Not Detected	
38)	cis-1,3-dichloropropene	0.00	75		Not Detected	
39)	4-methyl-2-pentanone	0.00	43		Not Detected	
40)	trans-1,3-dichloropropene	0.00	75		Not Detected	
41)	1,1,2-trichloroethane	0.00	97		Not Detected	
43)	toluene	0.00	91		Not Detected	
44)	2-hexanone	0.00	43		Not Detected	
45)	tetrachloroethene	0.00	164		Not Detected	
46)	dibromochloromethane	0.00	129		Not Detected	
47)	1,2-dibromoethane	0.00	107		Not Detected	
48)	chlorobenzene	0.00	112		Not Detected	
49)	ethyl benzene	0.00	106		Not Detected	
50)	m,p-xylene	0.00	106		Not Detected	
51)	o-xylene	0.00	106		Not Detected	
52)	styrene	0.00	104		Not Detected	
53)	bromoform	0.00	173		Not Detected	
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected	
56)	Cumene	0.00	105		Not Detected	
57)	4-ethyl toluene	0.00	105		Not Detected	
58)	1,3,5-trimethylbenzene	0.00	105		Not Detected	
59)	1,2,4-trimethylbenzene	0.00	105		Not Detected	
60)	m-dichlorobenzene	0.00	146		Not Detected	
61)	p-dichlorobenzene	0.00	146		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	o-dichlorobenzene	0.00	146		Not Detected	
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected	
65)	Naphthalene	0.00	128		Not Detected	
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected	

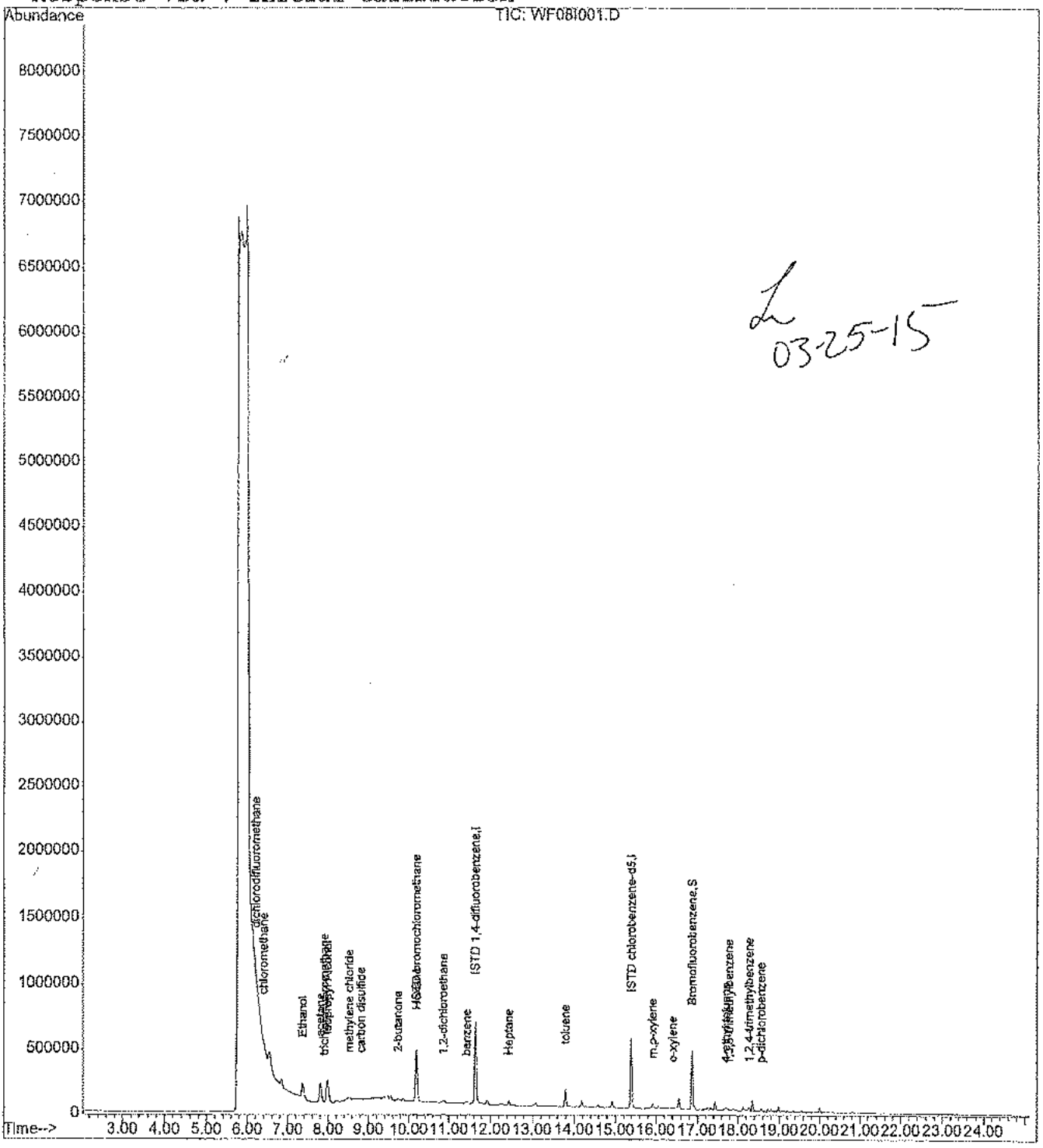
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:45 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Initial Calibration



L 03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:45 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.19	128	121438	20.0000	ppb		94.06
28) ISTD 1,4-difluorobenzene	11.64	114	616143	20.0000	ppb		93.56
42) ISTD chlorobenzene-d5	15.39	117	387617	20.0000	ppb		95.79
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.87	95	225646	19.9609	ppb		99.80%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.22	85	9907	0.2358	ppb	#	90
3) chloromethane	6.41	50	7929	0.4069	ppb		93
4) freon 114	0.00	85		Not Detected			
5) vinyl chloride	0.00	62		Not Detected			
6) 1,3-Butadiene	0.00	54		Not Detected			
7) bromomethane	0.00	94		Not Detected			
8) chloroethane	0.00	64		Not Detected			
9) Ethanol	7.36	45	274675	66.8764	ppb	TIC	100
10) Isopropyl Alcohol	7.98	45	472543	18.6990	ppb	TIC	100
11) trichlorofluoromethane	7.89	101	11548	0.2923	ppb		96
12) freon 113	0.00	101		Not Detected			
13) 1,1-dichloroethene	0.00	96		Not Detected			
14) acetone	7.80	43	394338	9.2155	ppb		98
15) carbon disulfide	8.82	76	13706	0.2431	ppb	#	69
16) methylene chloride	8.53	49	10755	0.3245	ppb		91
17) trans-1,2-dichloroethene	0.00	96		Not Detected			
18) methyl t-butyl ether	0.00	73		Not Detected			
19) vinyl acetate	0.00	43		Not Detected			
20) 2-butanone	9.73	43	59134	1.1313	ppb	m	72
21) cis-1,2-dichloroethene	0.00	96		Not Detected			
22) 1,1-dichloroethane	0.00	63		Not Detected			
23) Ethyl Acetate	0.00	61		Not Detected			
24) Hexane	10.21	57	25671	0.8207	ppb		100
25) chloroform	0.00	83		Not Detected			
26) Tetrahydrofuran	0.00	42		Not Detected			
27) 1,2-dichloroethane	10.86	62	18490	0.5833	ppb		96
29) 1,1,1-trichloroethane	0.00	97		Not Detected			
30) carbon tetrachloride	0.00	117		Not Detected			
31) benzene	11.44	78	13025	0.2634	ppb		96
32) Cyclohexane	0.00	84		Not Detected			
33) trichloroethene	0.00	130		Not Detected			
34) 1,2-dichloropropane	0.00	63		Not Detected			
35) bromodichloromethane	0.00	83		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:45 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	12.45	71	7358	0.4071 ppb		88
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	0.00	43		Not Detected		
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	0.00	97		Not Detected		
43)	toluene	13.79	91	119489	2.5623 ppb		98
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	0.00	164		Not Detected		
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	0.00	106		Not Detected		
50)	m,p-xylene	15.92	106	9331	0.5704 ppb		74
51)	o-xylene	16.41	106	3567	0.2438 ppb		83
52)	styrene	0.00	104		Not Detected		
53)	bromoform	0.00	173		Not Detected		
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		No Calib #		
57)	4-ethyl toluene	17.72	105	5091	0.1493 ppb	m	91
58)	1,3,5-trimethylbenzene	17.78	105	5955	0.2082 ppb		100
59)	1,2,4-trimethylbenzene	18.29	105	11741	0.4780 ppb		92
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	18.56	146	10938	0.6975 ppb		94
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

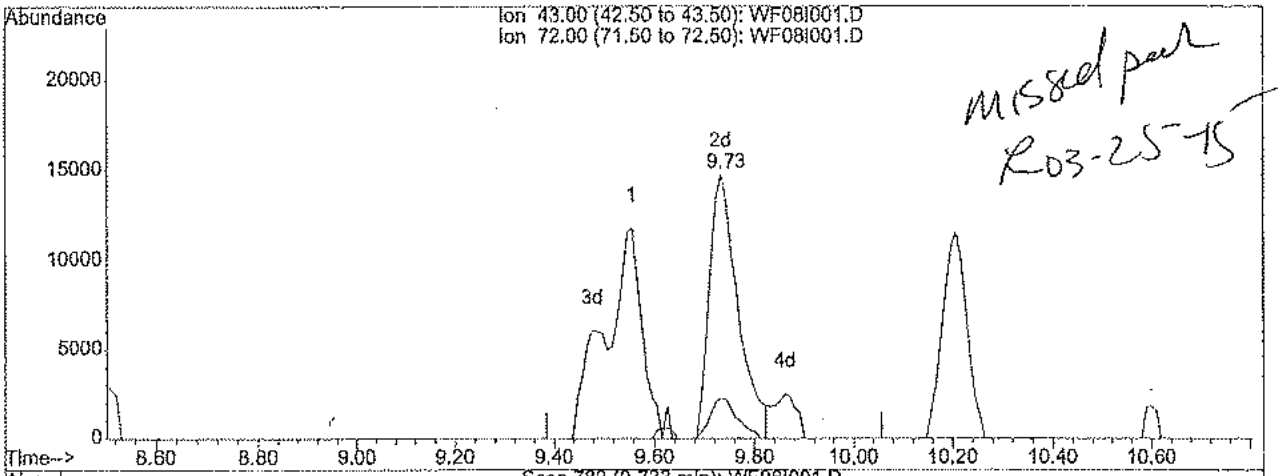
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

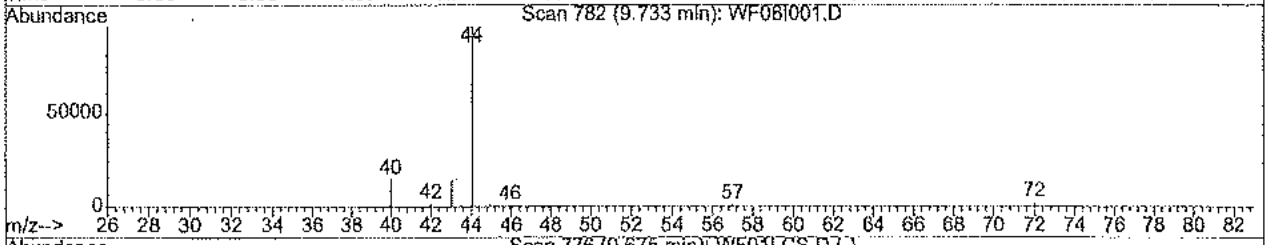
Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

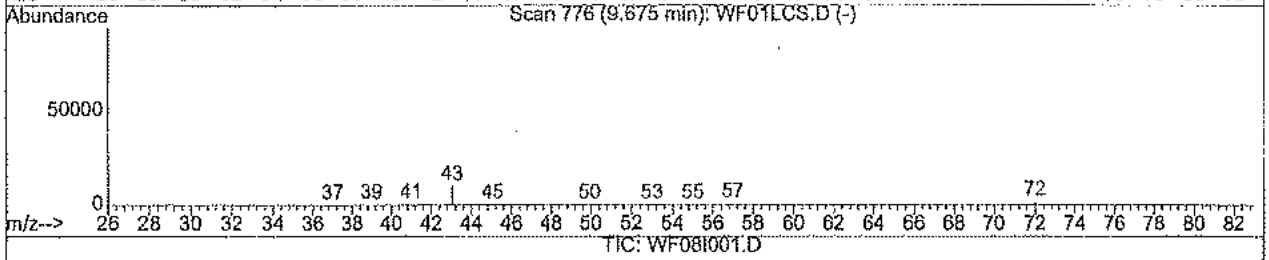
Quant Time: Mar 25 13:44 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration



Missed peak
R03-25-15





TIC: WF08I001.D

(20) 2-butanone

9.73min 1.13ppb m

response 59134

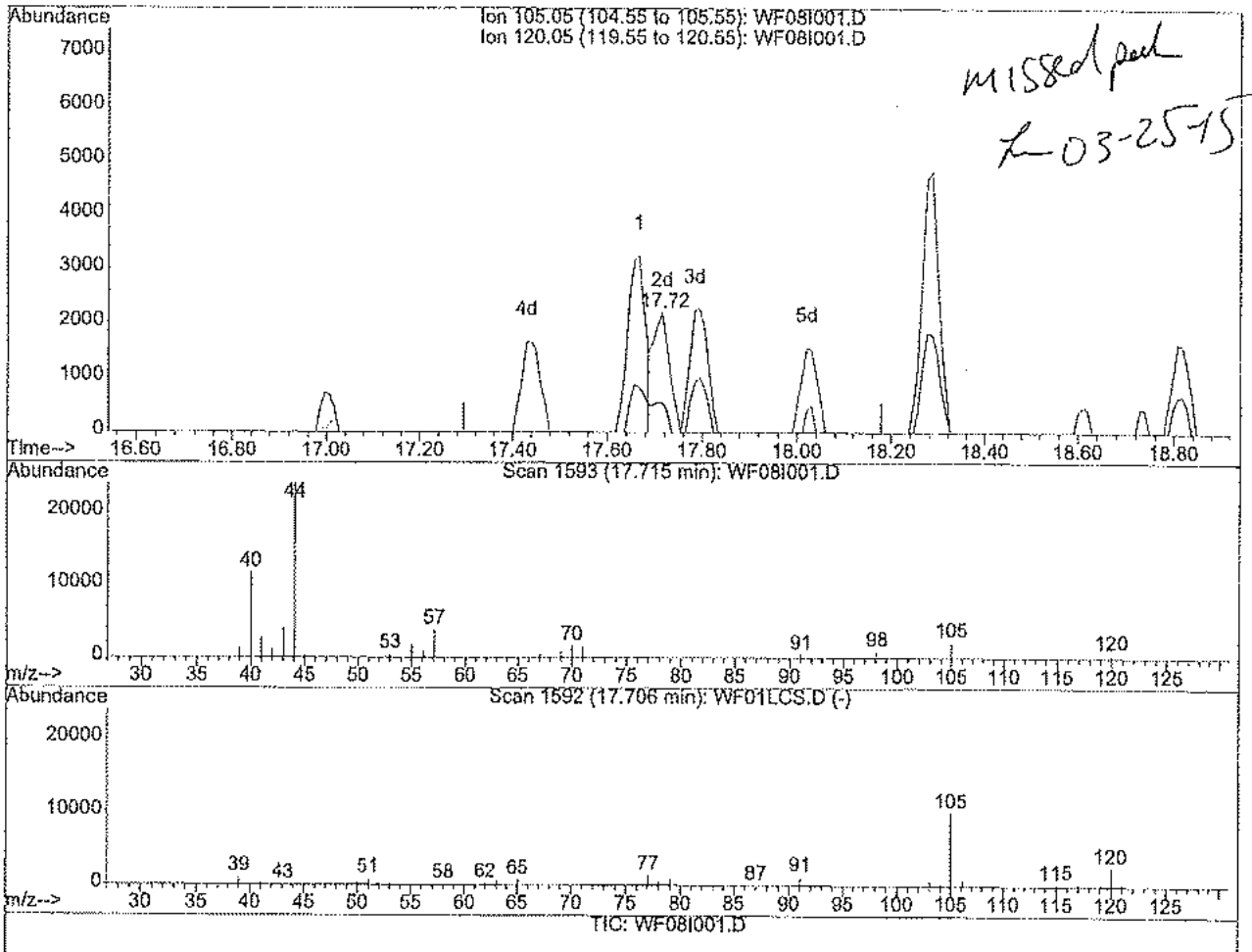
Ion	Exp%	Act%
43.00	100	100
72.00	14.70	2.04#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:45 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration

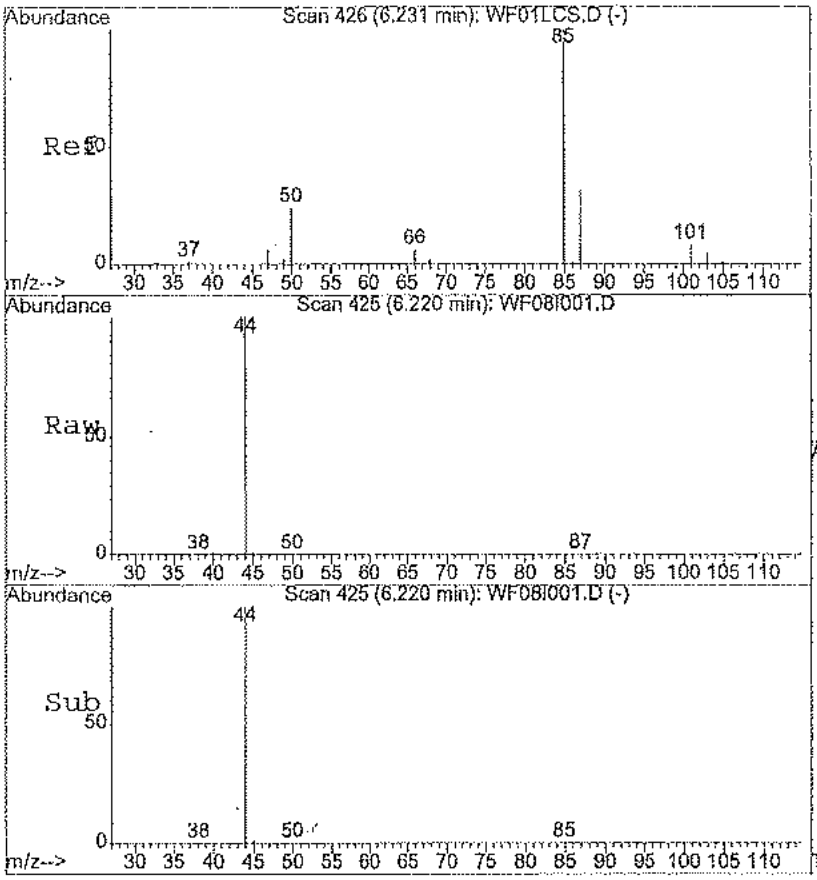


(57) 4-ethyl toluene

17.72min 0.15ppb m

response 5091

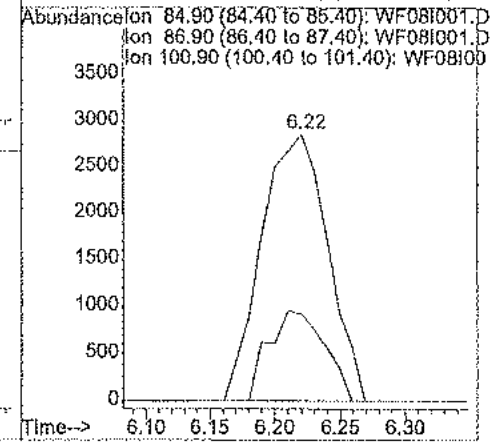
Ion	Exp%	Act%
105.05	100	100
120.05	23.70	45.94#
0.00	0.00	0.00
0.00	0.00	0.00

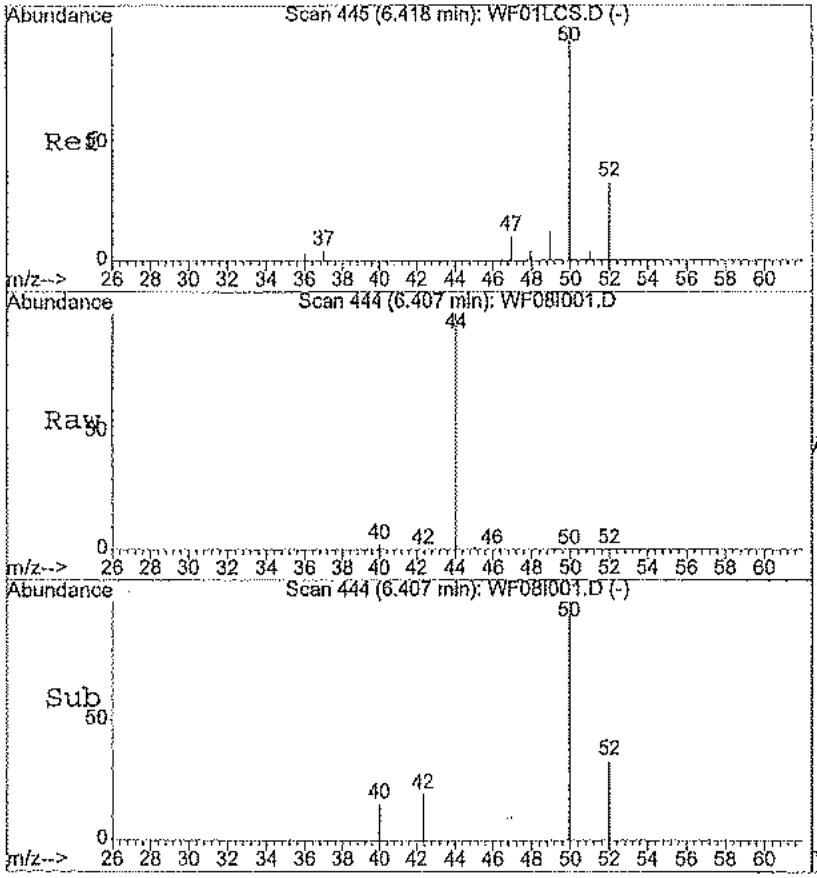


#2
dichlorodifluoromethane
Concen: 0.24 ppb
RT: 6.22 min Scan# 425
Delta R.T. 0.06 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:84.9 Resp: 9907

Ion	Ratio	Lower	Upper
85	100		
87	28.3	25.4	38.0
101	0.0	6.7	10.1#
0	0.0	0.0	0.0

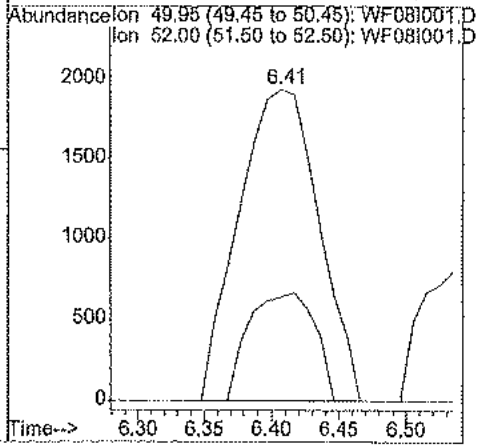


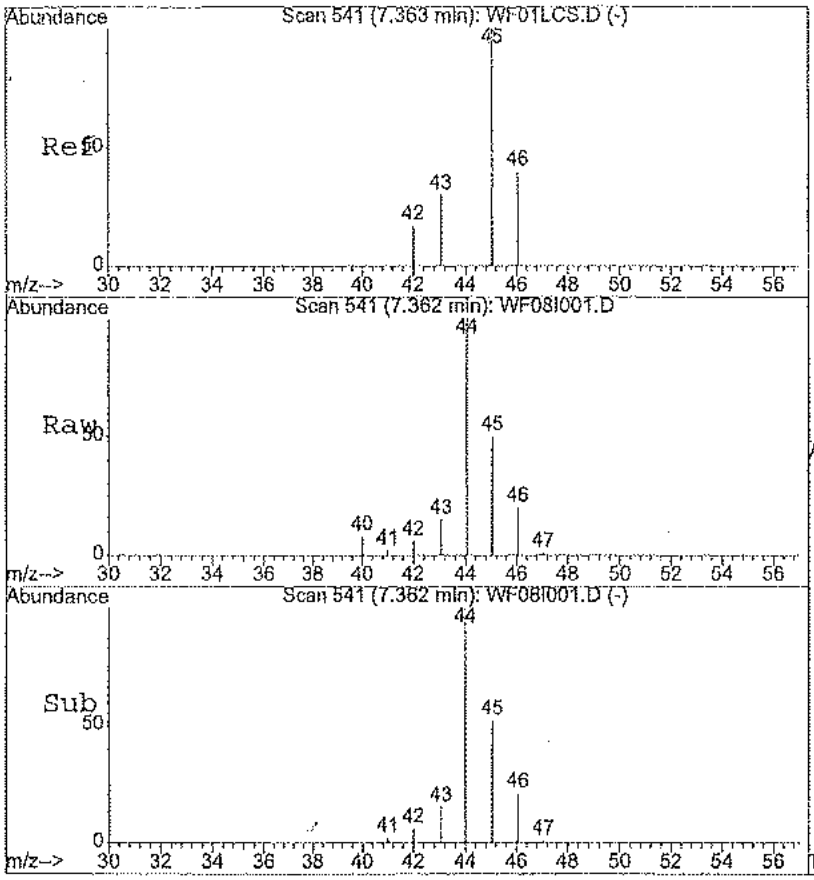


#3
chloromethane
Concen: 0.41 ppb
RT: 6.41 min Scan# 444
Delta R.T. 0.06 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:49.95 Resp: 7929

Ion	Ratio	Lower	Upper
50	100		
52	28.1	25.7	38.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

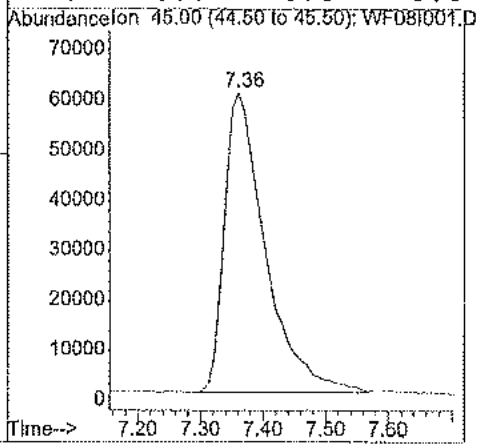


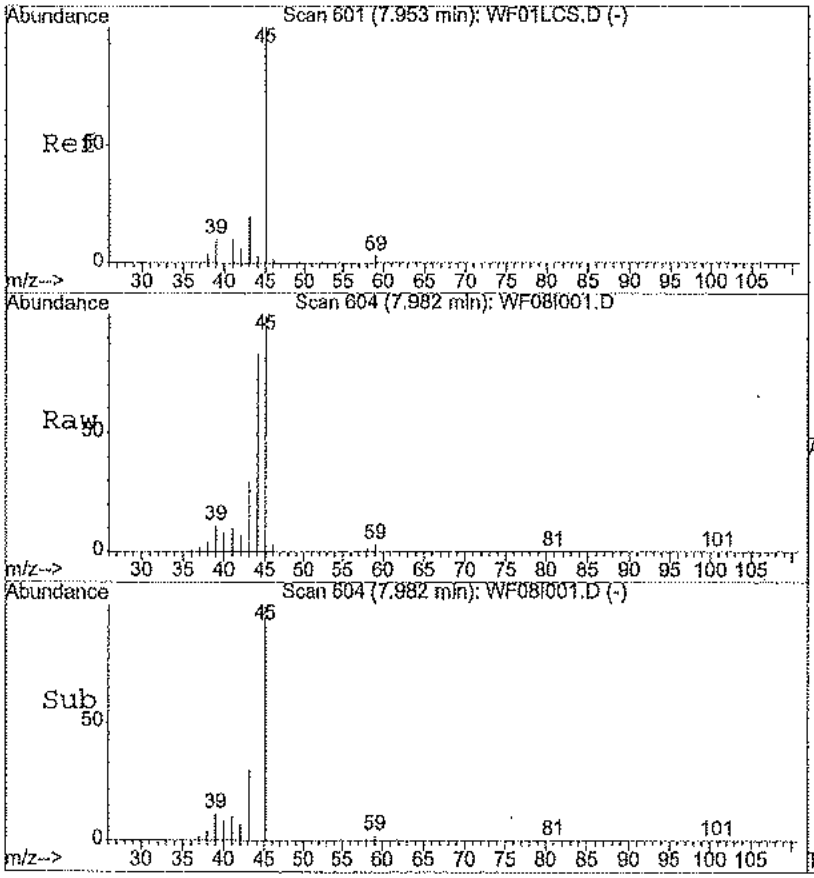


#9
Ethanol
Concen: 66.88 ppb
RT: 7.36 min Scan# 541
Delta R.T. 0.06 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:45 Resp: 274675

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

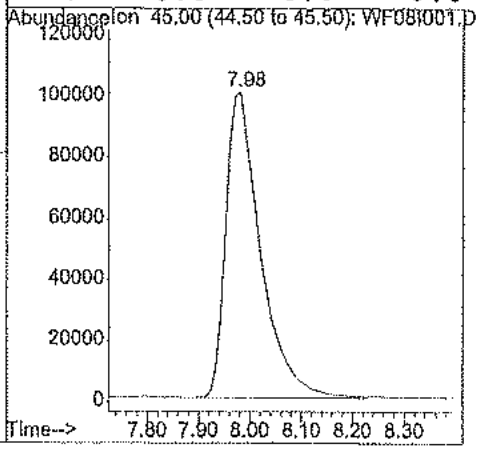


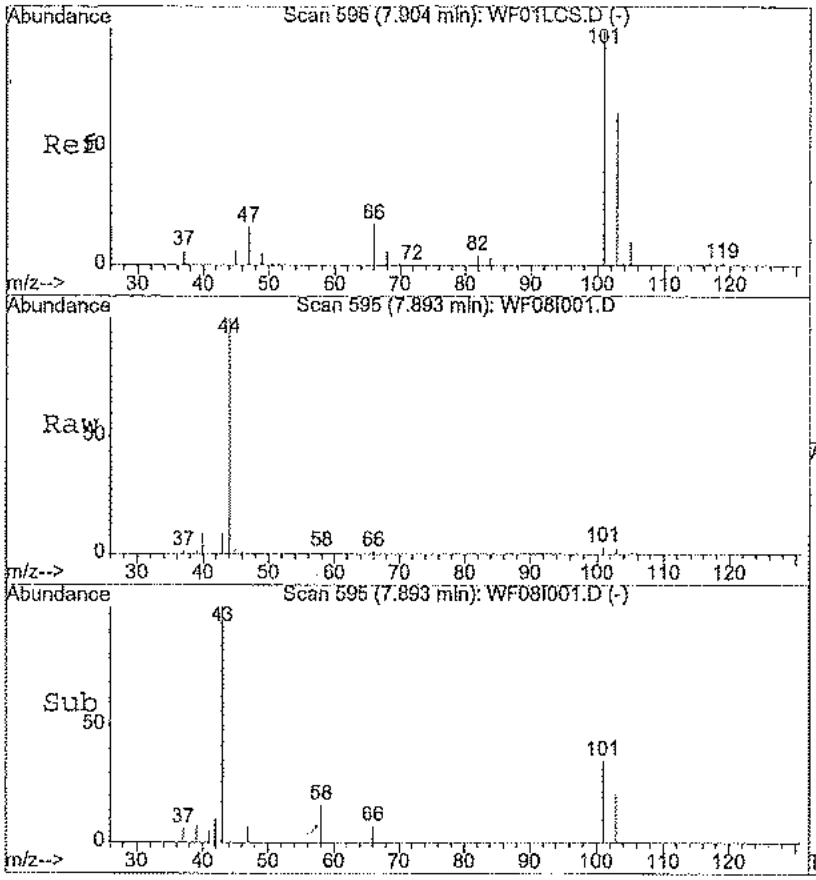


#10
Isopropyl Alcohol
Concen: 18.70 ppb
RT: 7.98 min Scan# 604
Delta R.T. 0.08 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:45 Resp: 472543

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

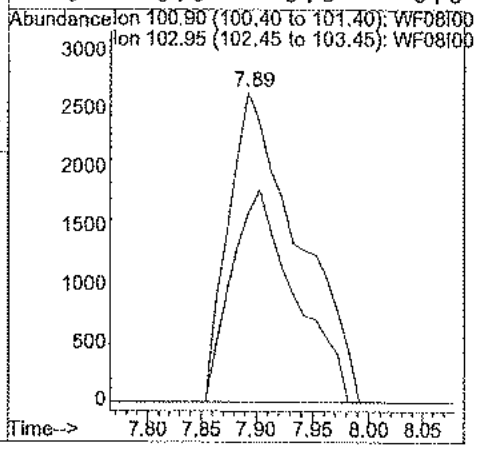


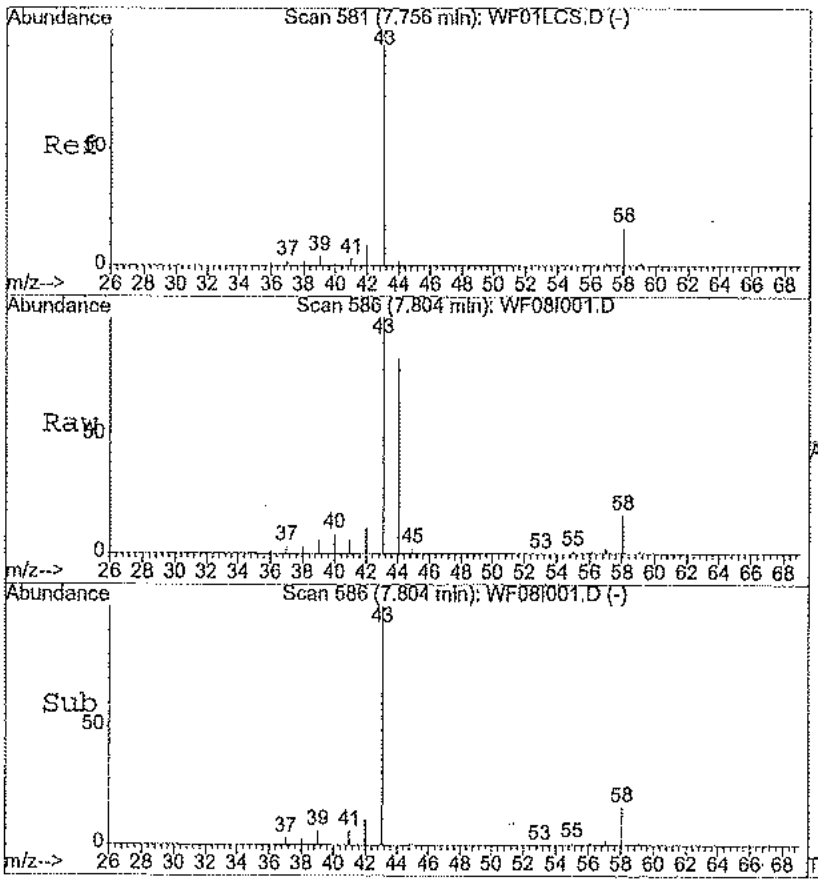


#11
trichlorofluoromethane
Concen: 0.29 ppb
RT: 7.89 min Scan# 595
Delta R.T. 0.05 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:100.9 Resp: 11548

Ion	Ratio	Lower	Upper
101	100		
103	62.8	52.7	79.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

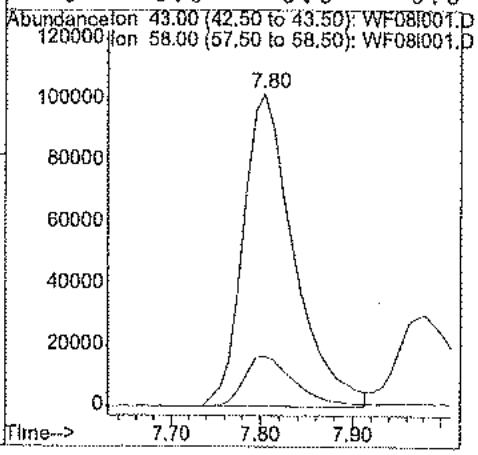


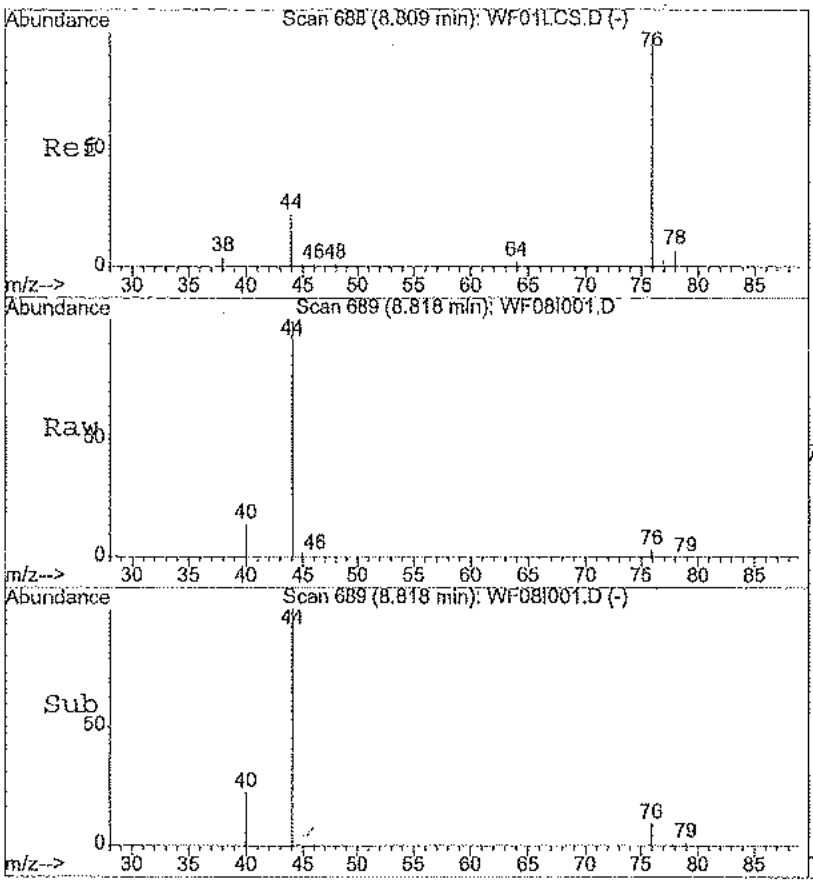


#14
acetone
Concen: 9.22 ppb
RT: 7.80 min Scan# 586
Delta R.T. 0.11 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:43 Resp: 394338

Ion	Ratio	Lower	Upper
43	100		
58	16.3	12.5	18.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

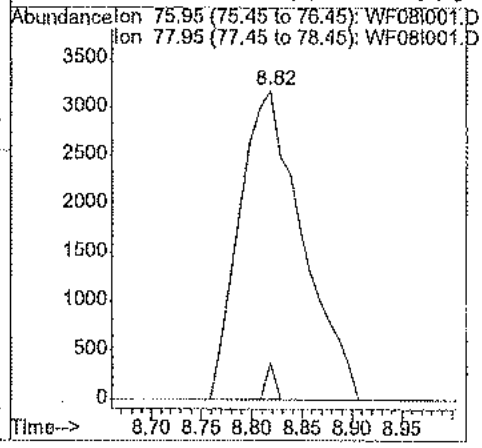


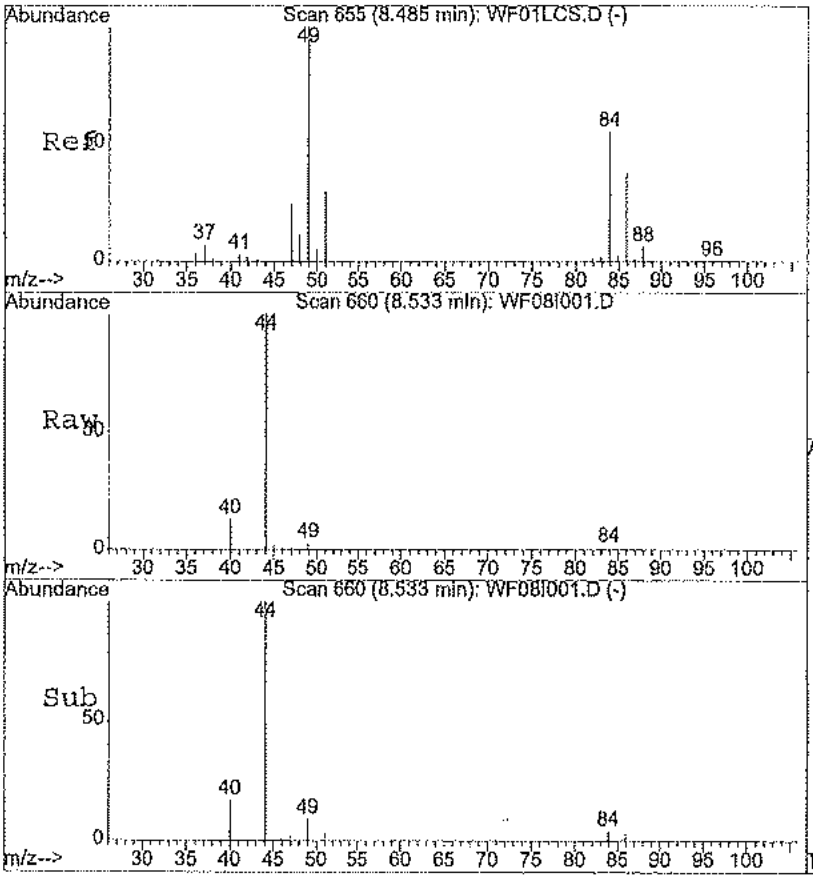


#15
carbon disulfide
Concen: 0.24 ppb
RT: 8.82 min Scan# 689
Delta R.T. 0.06 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:75.95 Resp: 13706

Ion	Ratio	Lower	Upper
76	100		
78	0.0	9.4	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

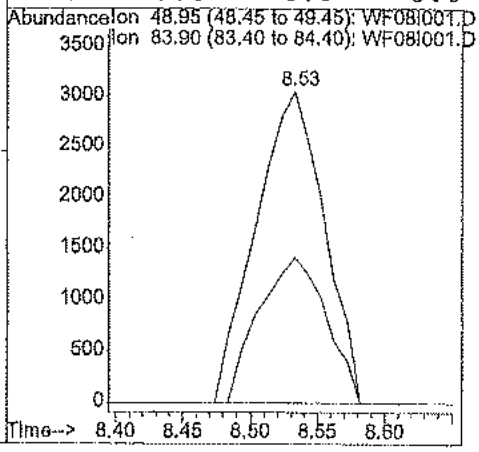


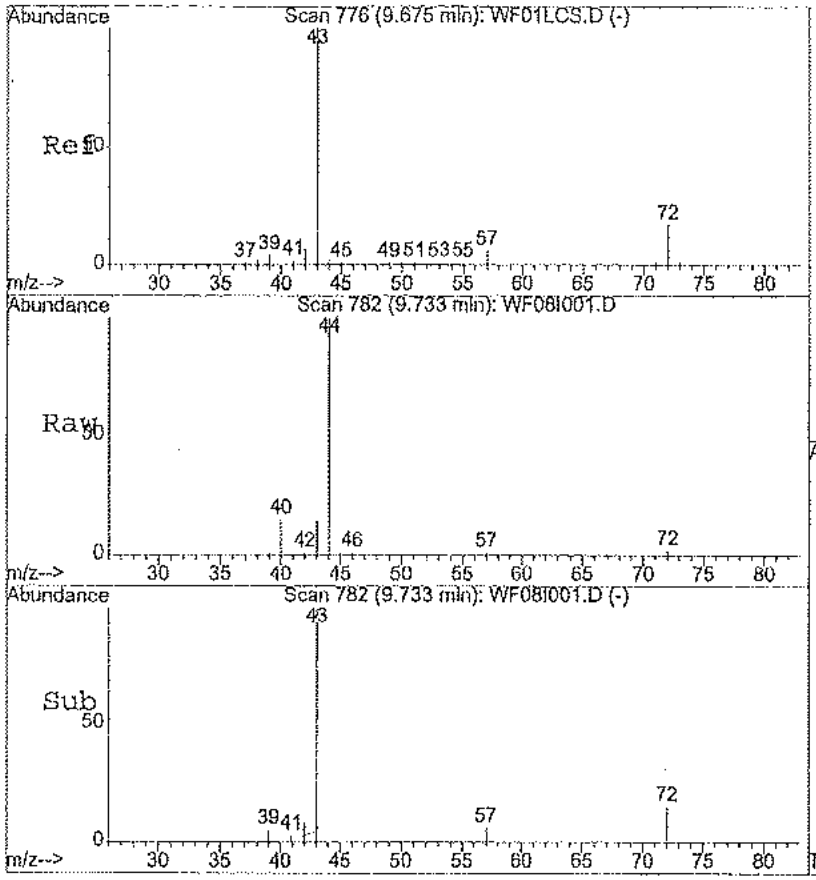


#16
methylene chloride
Concen: 0.32 ppb
RT: 8.53 min Scan# 660
Delta R.T. 0.11 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:48.95 Resp: 10755

Ion	Ratio	Lower	Upper
49	100		
84	46.0	41.6	62.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

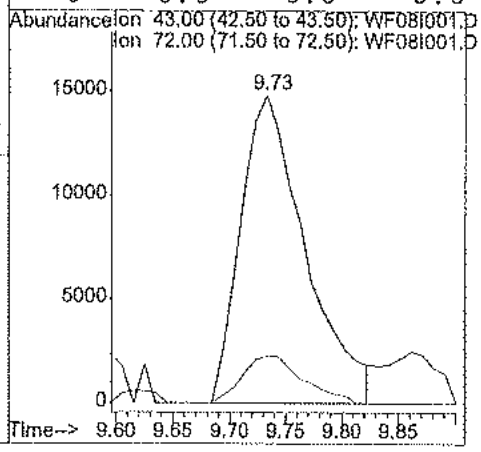


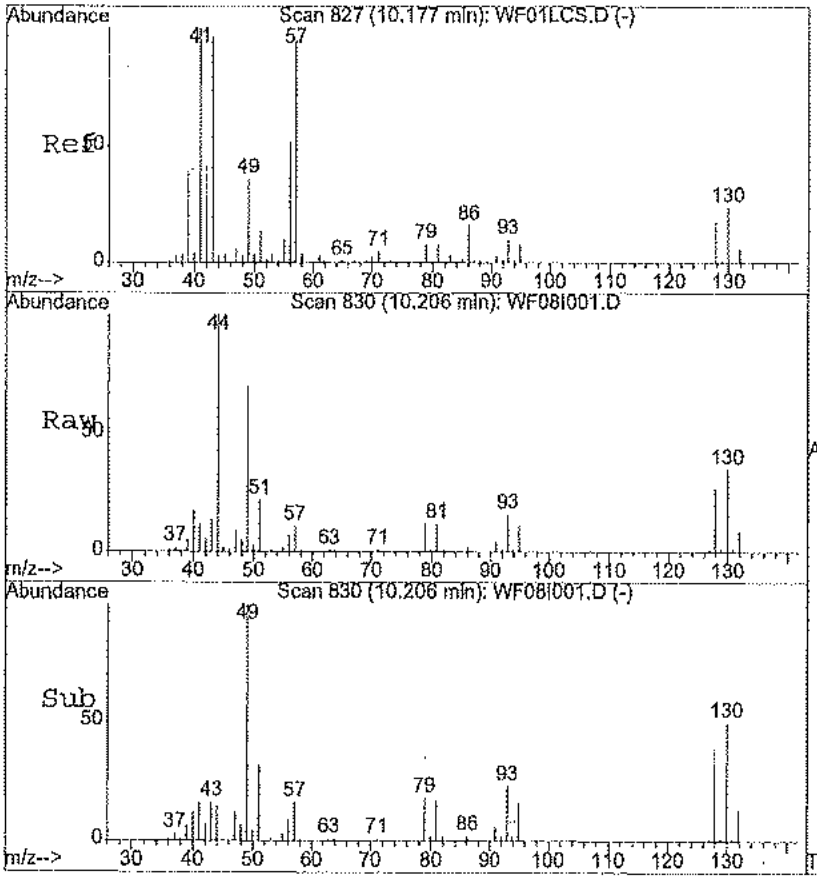


#20
2-butanone
Concen: 1.13 ppb m
RT: 9.73 min Scan# 782
Delta R.T. 0.10 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:43 Resp: 59134

Ion	Ratio	Lower	Upper
43	100		
72	2.0	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

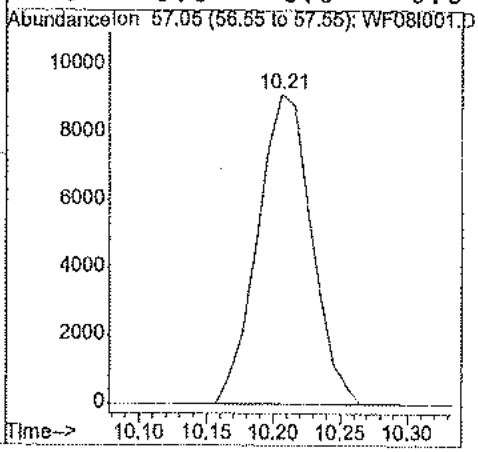


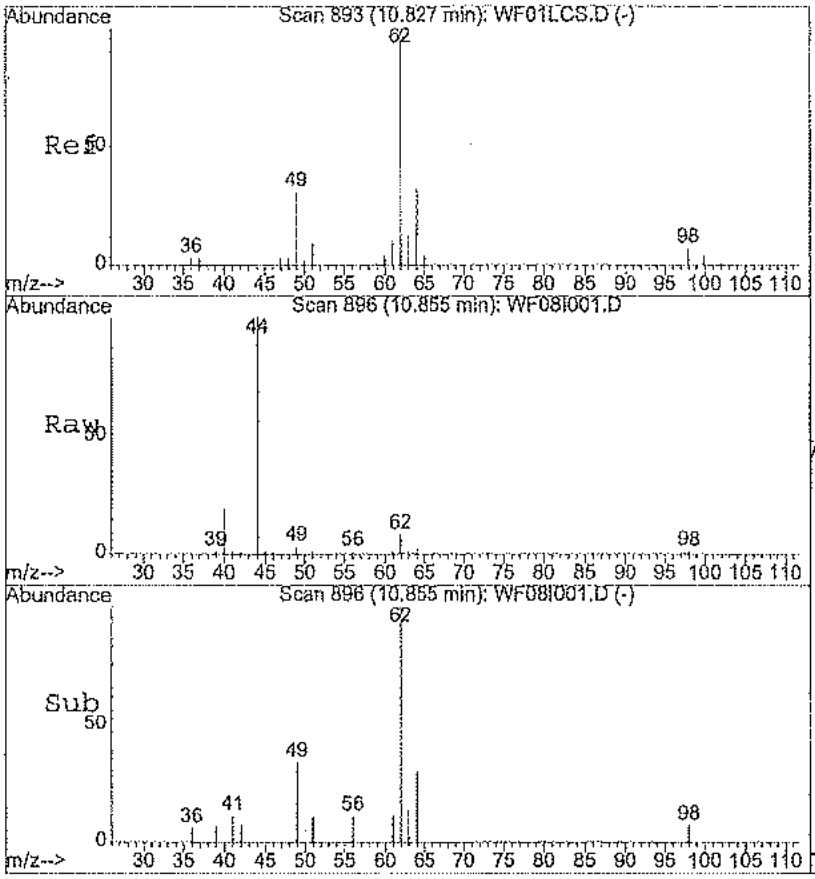


#24
Hexane
Concen: 0.82 ppb
RT: 10.21 min Scan# 830
Delta R.T. 0.08 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:57.05 Resp: 25671

Ion	Ratio	Lower	Upper
57	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

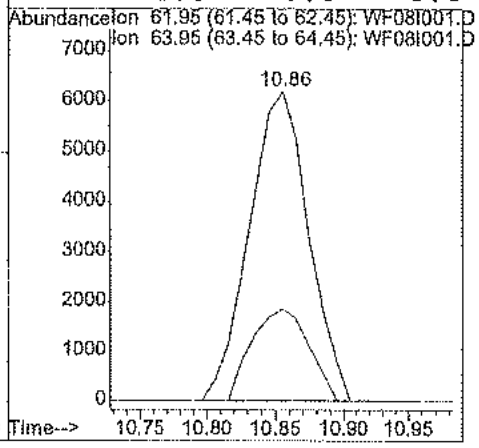


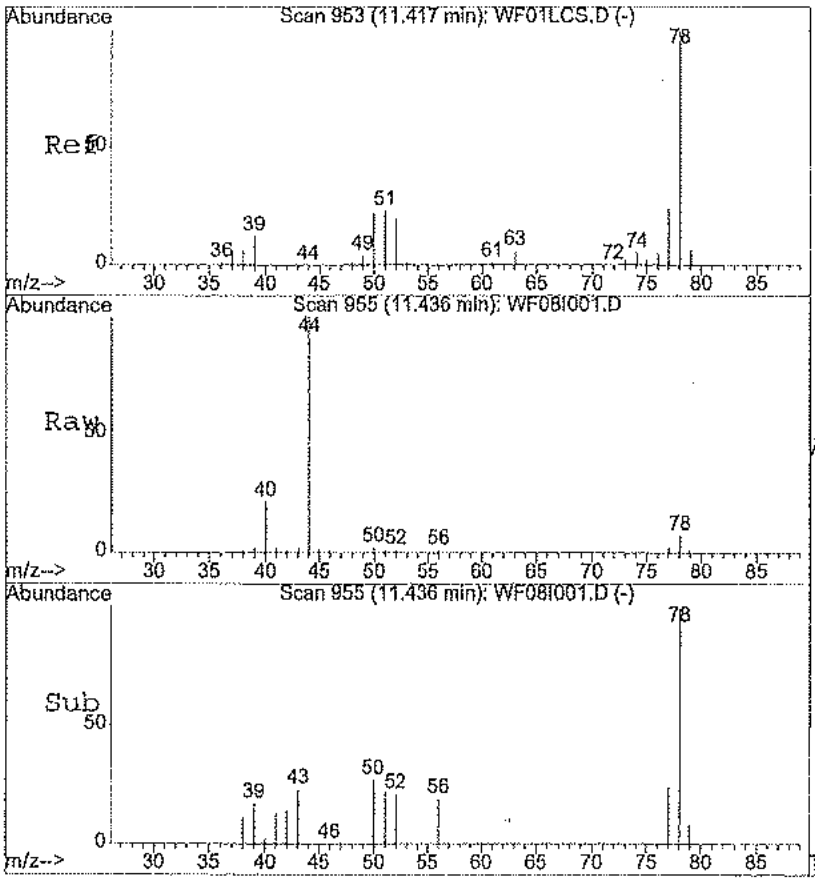


#27
1,2-dichloroethane
Concen: 0.58 ppb
RT: 10.86 min Scan# 896
Delta R.T. 0.07 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:61.95 Resp: 18490

Ion	Ratio	Lower	Upper
62	100		
64	28.6	24.7	37.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

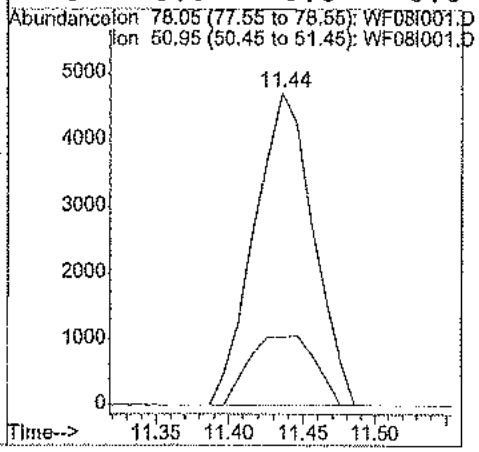


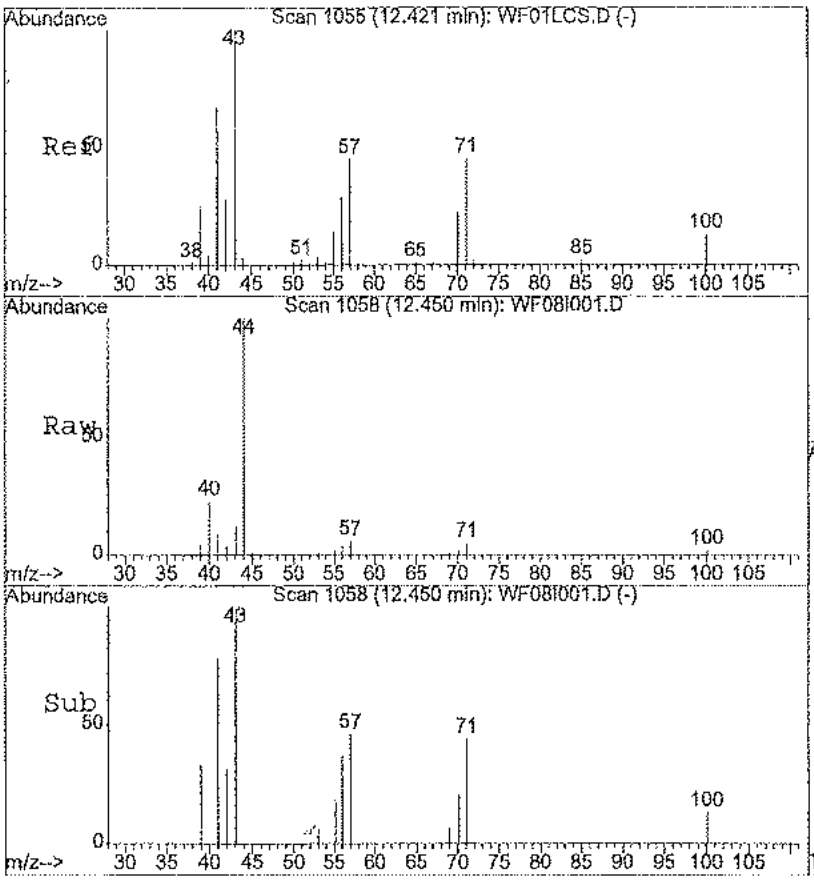


#31
benzene
Concen: 0.26 ppb
RT: 11.44 min Scan# 955
Delta R.T. 0.06 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:78.05 Resp: 13025

Ion	Ratio	Lower	Upper
78	100		
51	24.9	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

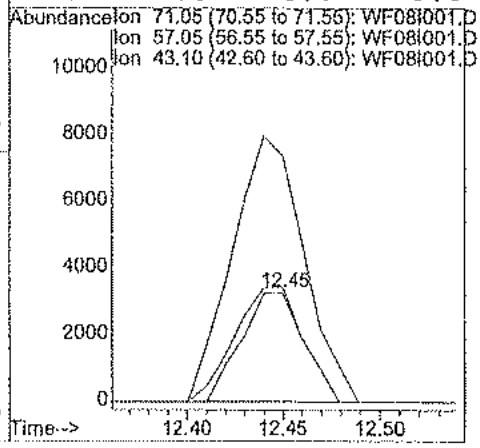


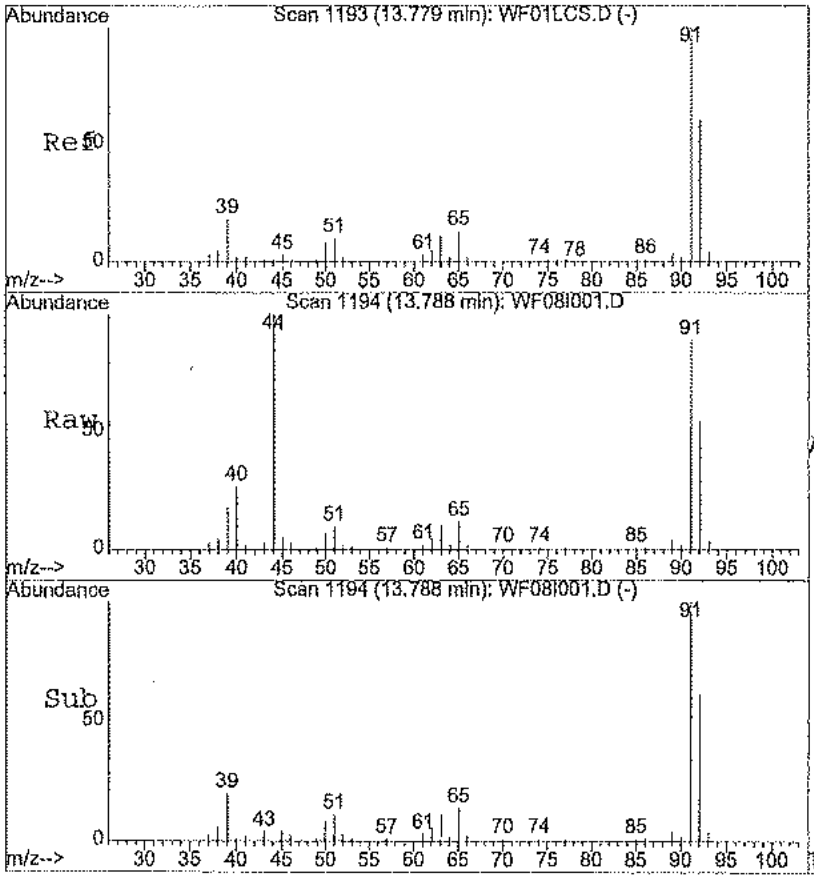


#37
Heptane
Concen: 0.41 ppb
RT: 12.45 min Scan# 1058
Delta R.T. 0.06 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:71.05 Resp: 7358

Ion	Ratio	Lower	Upper
71	100		
57	114.3	86.3	129.5
43	280.1	203.4	305.0
0	0.0	0.0	0.0

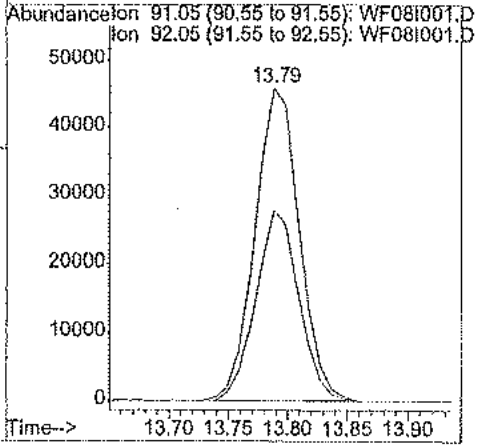


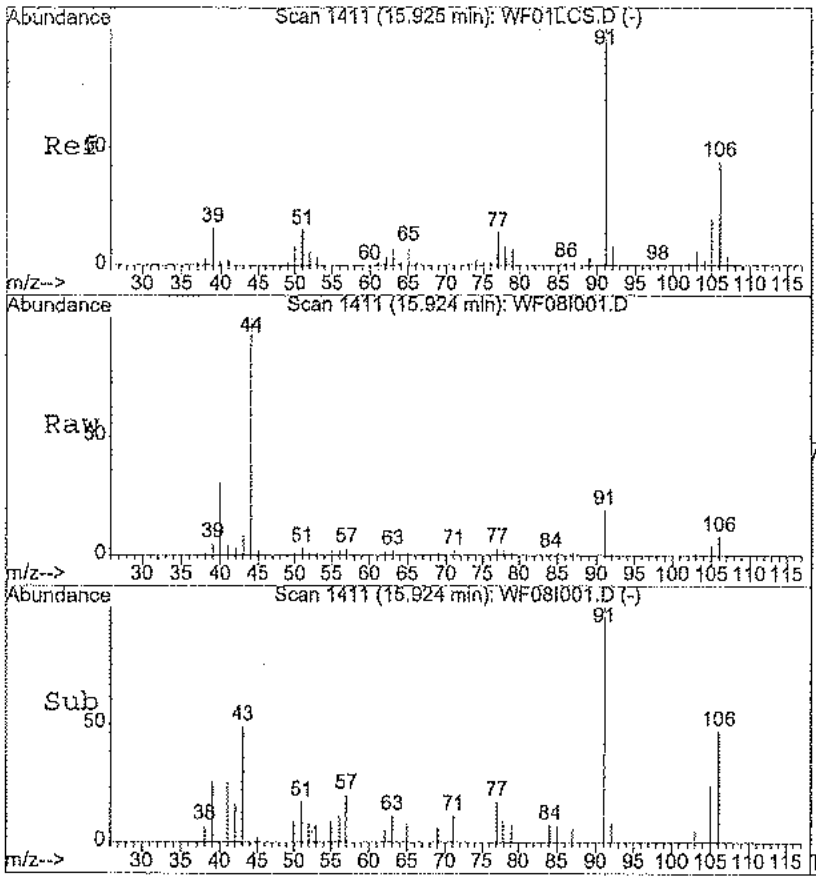


#43
toluene
Concen: 2.56 ppb
RT: 13.79 min Scan# 1194
Delta R.T. 0.04 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:91.05 Resp: 119489

Ion	Ratio	Lower	Upper
91	100		
92	59.1	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

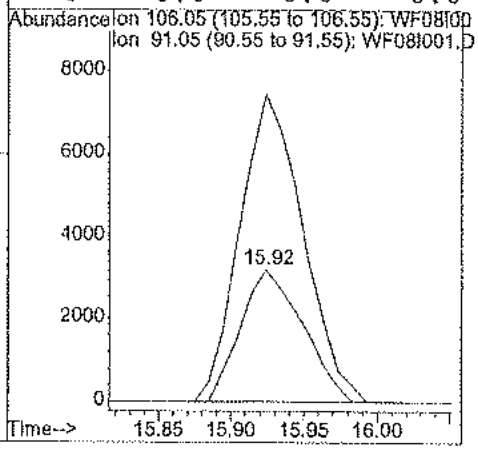


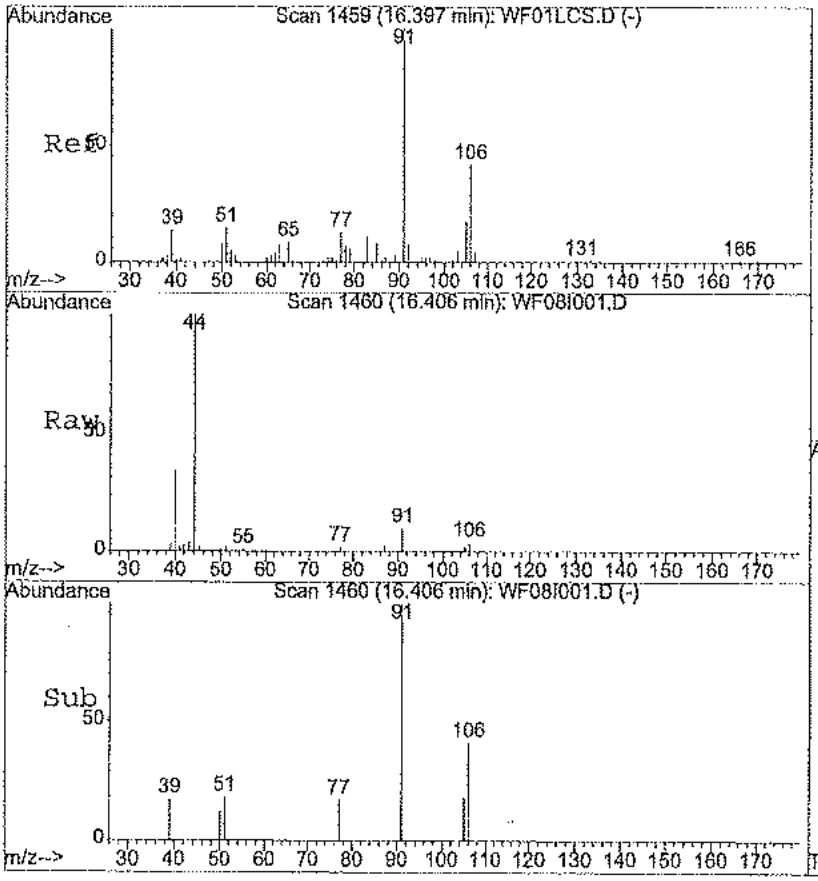


#50
m,p-xylene
Concen: 0.57 ppb
RT: 15.92 min Scan# 1411
Delta R.T. 0.02 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:106.05 Resp: 9331

Ion	Ratio	Lower	Upper
106	100		
91	238.7	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

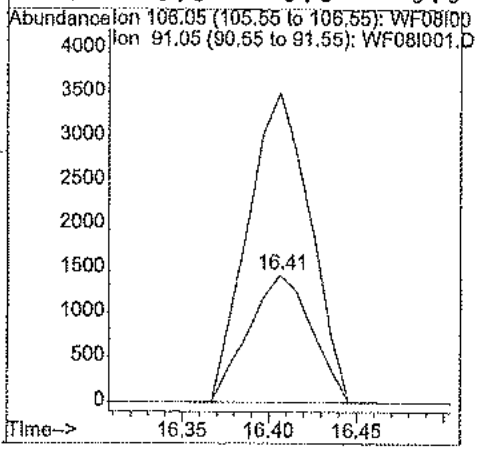


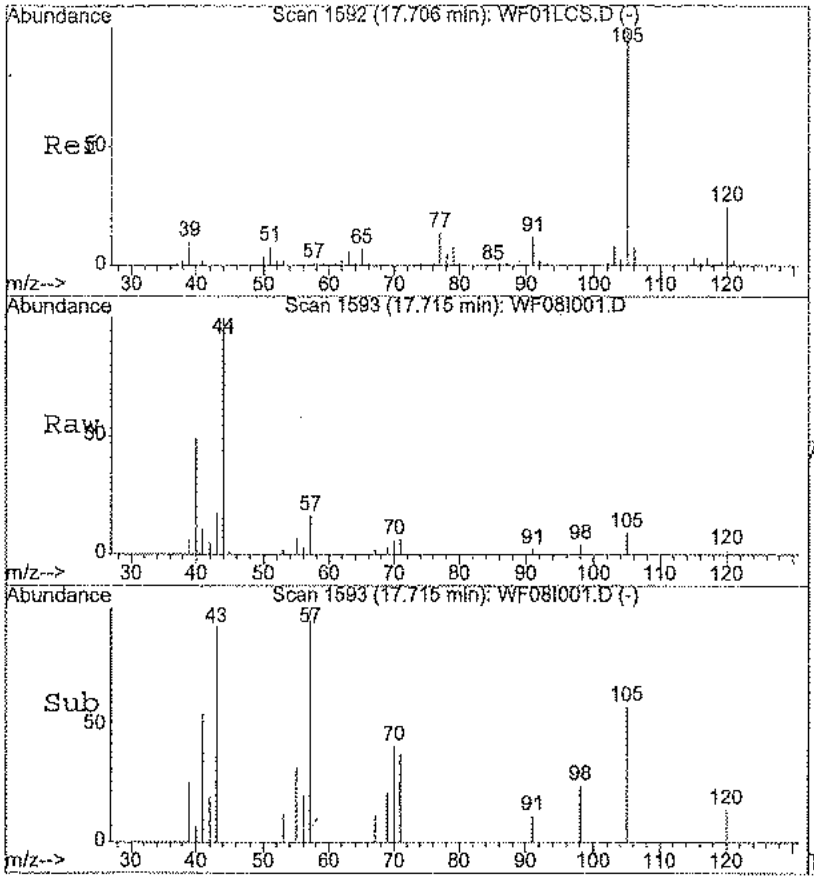


#51
o-xylene
Concen: 0.24 ppb
RT: 16.41 min Scan# 1460
Delta R.T. 0.03 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:106.05 Resp: 3567

Ion	Ratio	Lower	Upper
106	100		
91	242.4	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

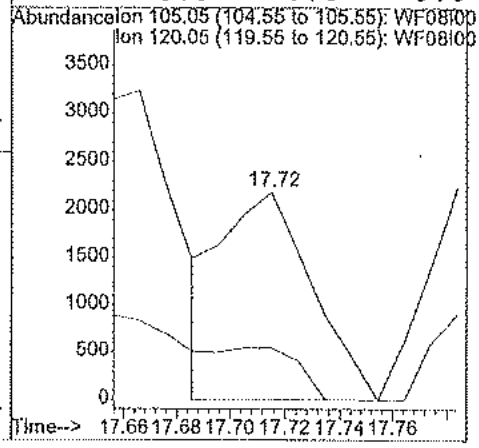


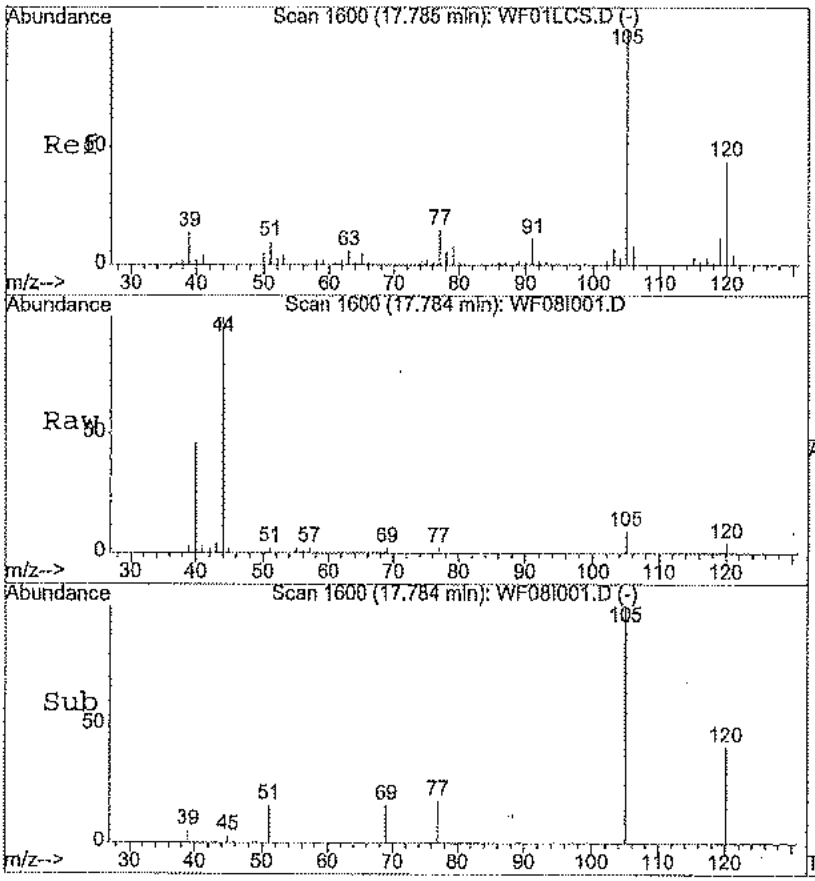


#57
4-ethyl toluene
Concen: 0.15 ppb m
RT: 17.72 min Scan# 1593
Delta R.T. 0.04 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:105.05 Resp: 5091

Ion	Ratio	Lower	Upper
105	100		
120	45.9	19.0	28.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

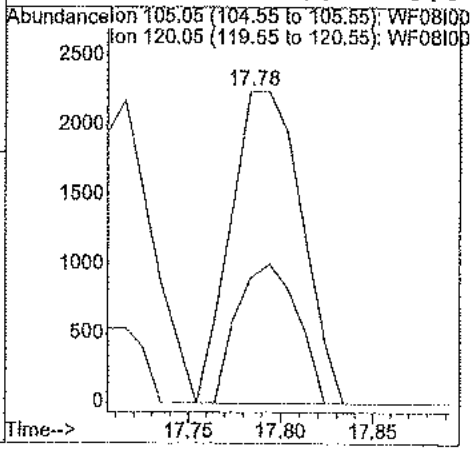


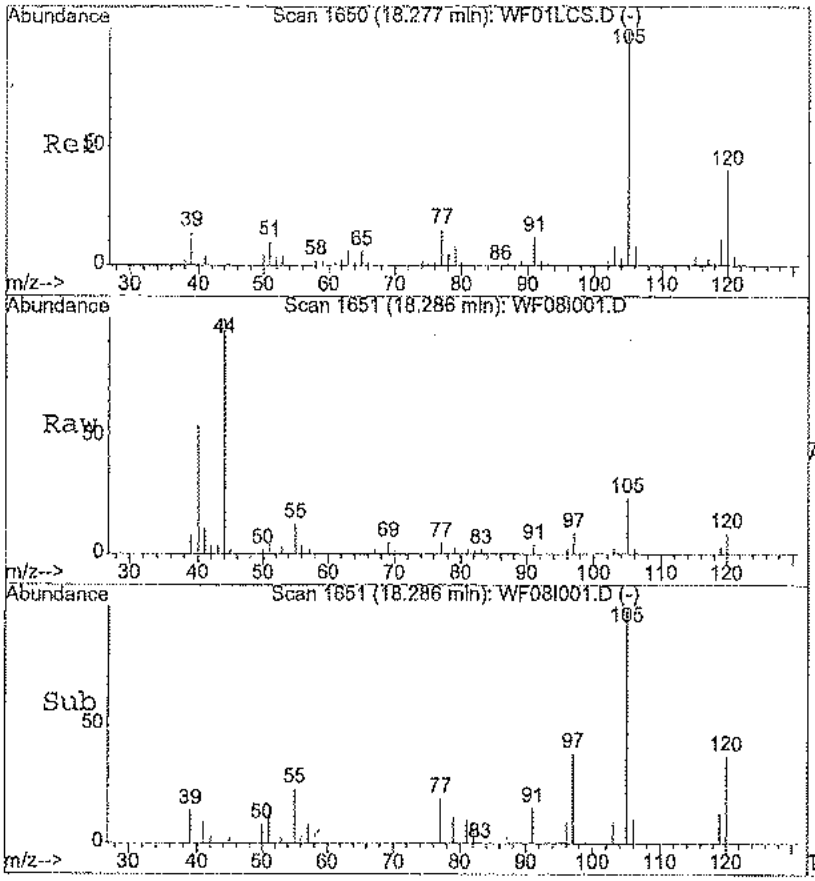


#58
1,3,5-trimethylbenzene
Concen: 0.21 ppb
RT: 17.78 min Scan# 1600
Delta R.T. 0.02 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:105.05 Resp: 5955

Ion	Ratio	Lower	Upper
105	100		
120	38.2	30.4	45.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

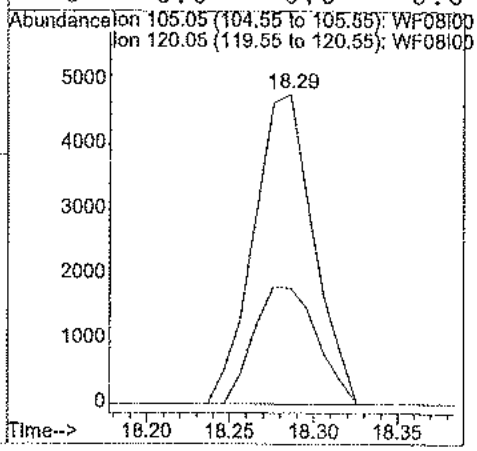


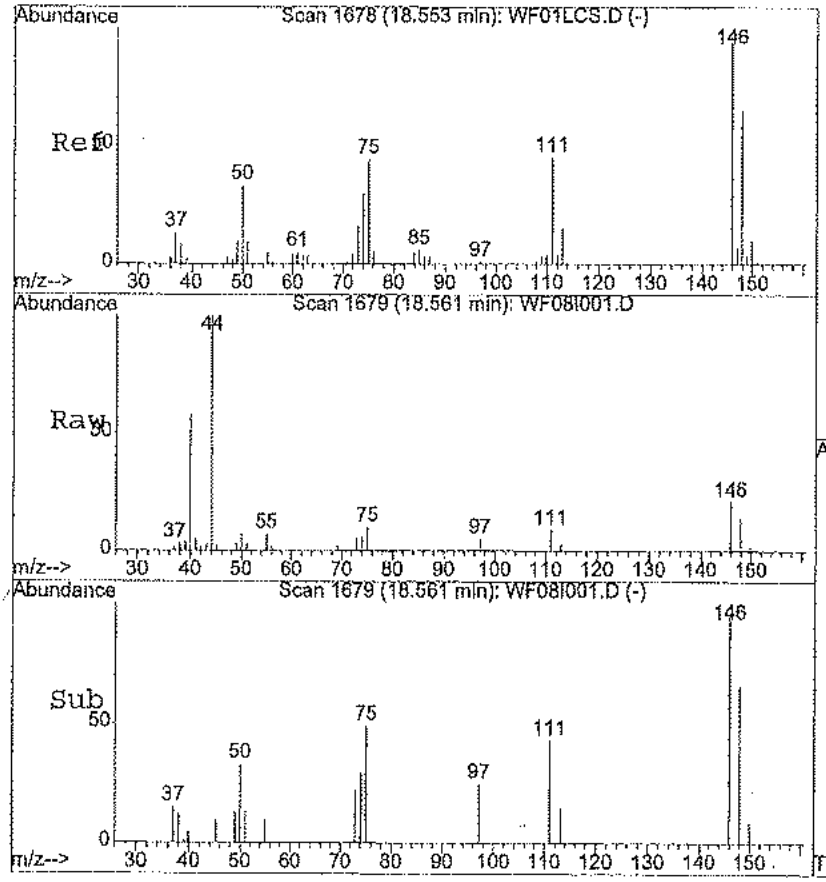


#59
1,2,4-trimethylbenzene
Concen: 0.48 ppb
RT: 18.29 min Scan# 1651
Delta R.T. 0.04 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:105.05 Resp: 11741

Ion	Ratio	Lower	Upper
105	100		
120	39.9	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

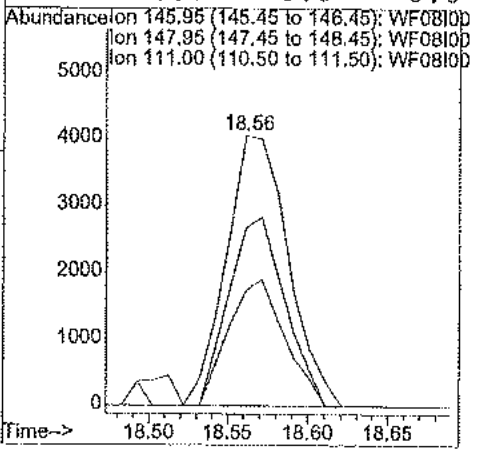




#61
p-dichlorobenzene
Concen: 0.70 ppb
RT: 18.56 min Scan# 1679
Delta R.T. 0.03 min
Lab File: WF08I001.D
Acq: 03/23/2015 14:49

Tgt Ion:145.95 Resp: 10938

Ion	Ratio	Lower	Upper
146	100		
148	63.5	51.7	77.5
111	42.8	40.4	60.6
0	0.0	0.0	0.0



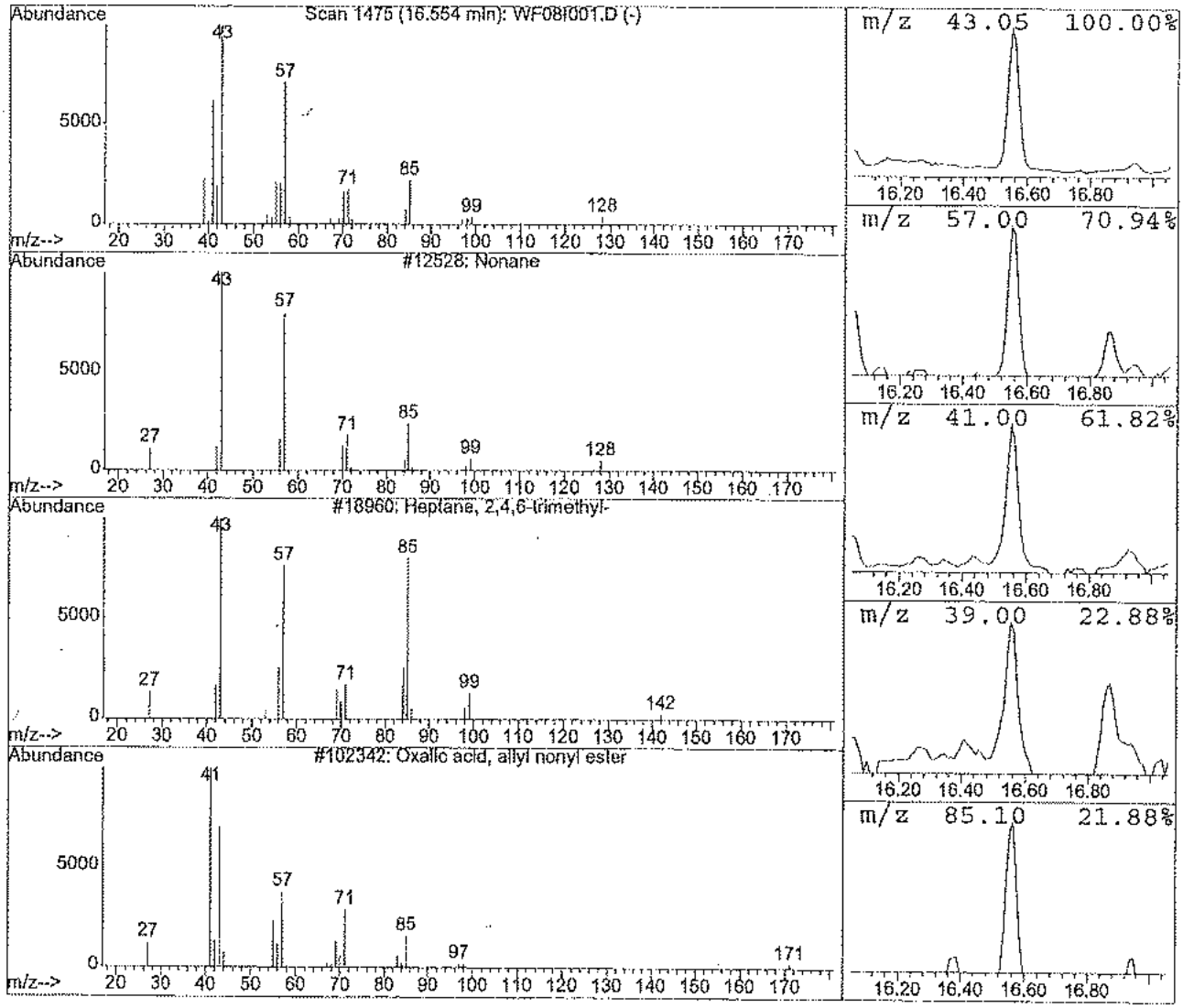
Library Search Compound Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.55	3.14 ppb	232481	ISTD chlorobenzene-d5	1480676

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12528	000111-84-2	83.00
2	Heptane, 2,4,6-trimethyl-	18960	002613-61-8	72.00
3	Oxalic acid, allyl nonyl ester	102342	1000309-23-7	64.00
4	1-Decanol, 2-ethyl-	49047	021078-65-9	59.00
5	Hexane, 2,4-dimethyl-	7568	000589-43-5	59.00



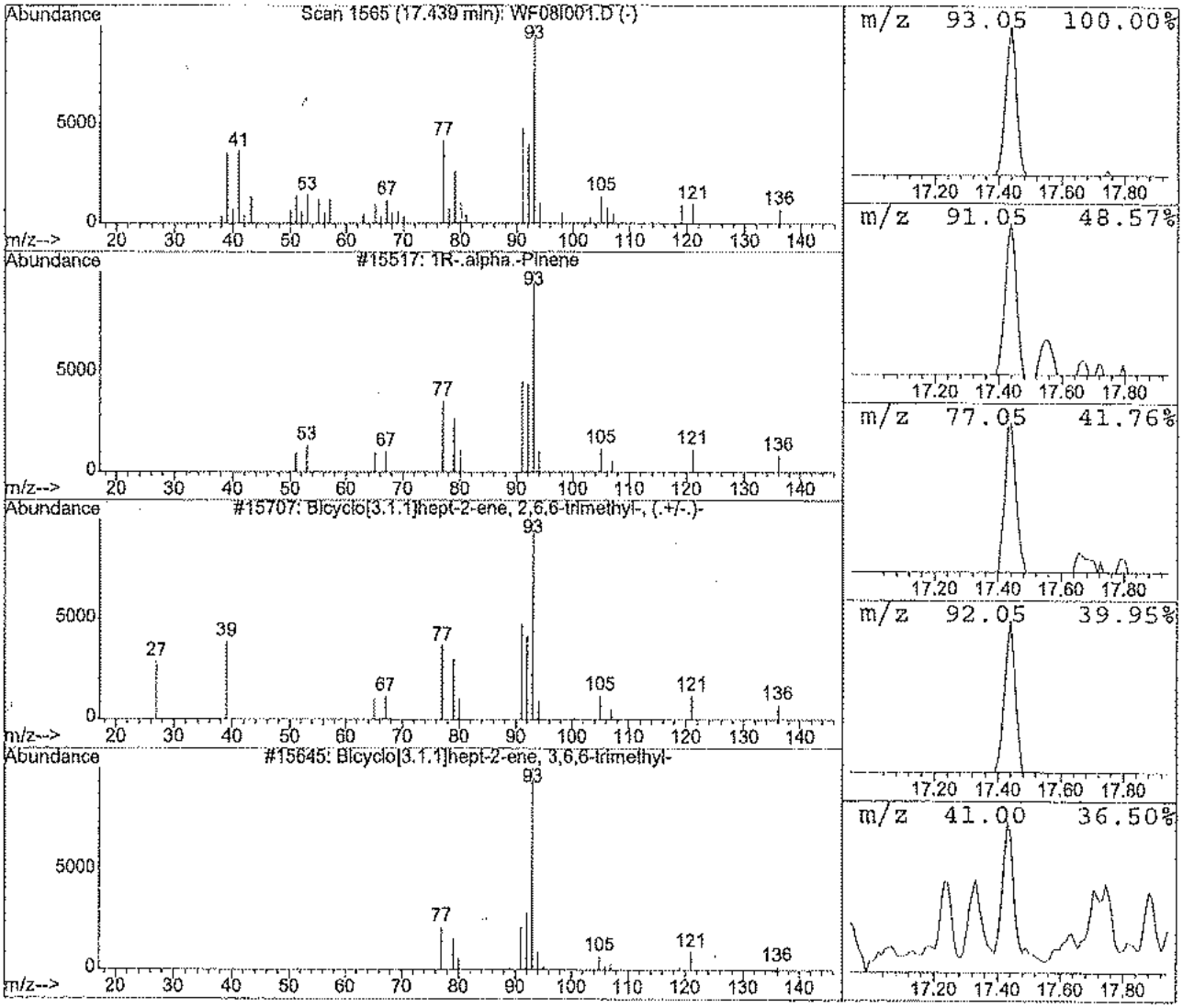
Library Search Compound Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.44	2.73 ppb	202376	ISTD chlorobenzene-d5	1480676

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1R-.alpha.-Pinene	15517	007785-70-8	98.00
2	Bicyclo[3.1.1]hept-2-ene, 2,6,6-tri	15707	002437-95-8	96.00
3	Bicyclo[3.1.1]hept-2-ene, 3,6,6-tri	15645	004889-83-2	91.00
4	alpha.-Pinene	15511	000080-56-8	90.00
5	1,3,6-Octatriene, 3,7-dimethyl-, (E	15616	003779-61-1	80.00



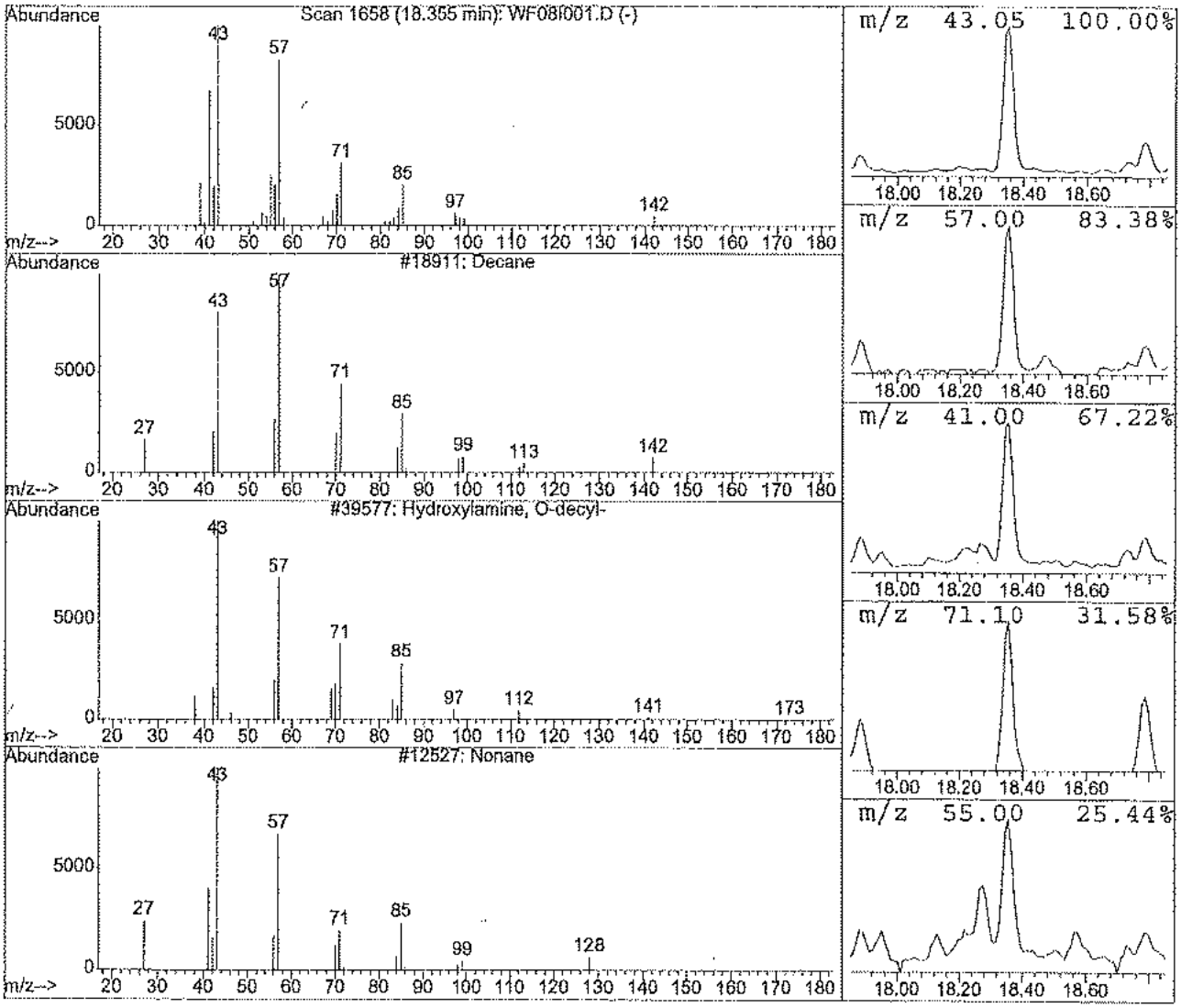
Library Search Compound Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF08I001.D
Acq Time : 03/23/2015 14:49 Operator: LMR
Sample : 1507913001 Inst : 5972-W
Misc : 0367 A-0027H 031915-TO-001 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.35	2.49 ppb	184264	ISTD chlorobenzene-d5	1480676

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18911	000124-18-5	91.00
2	Hydroxylamine, O-decyl-	39577	029812-79-1	72.00
3	Nonane	12527	000111-84-2	64.00
4	Decane, 2,9-dimethyl-	37495	001002-17-1	59.00
5	Undecane	27914	001120-21-4	59.00

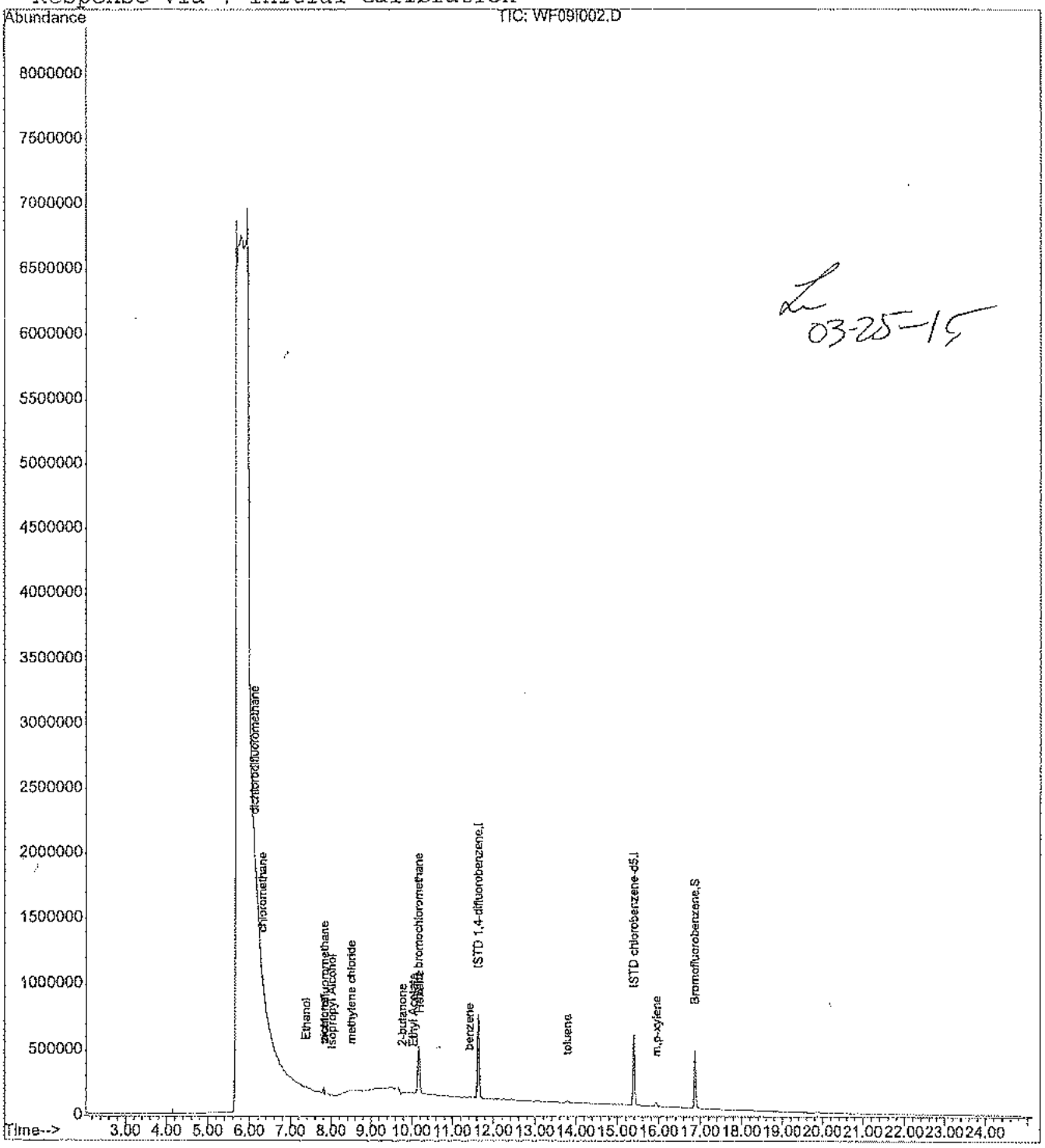


Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF09I002.D
Acq Time : 03/23/2015 15:26 Operator: LMR
Sample : 1507913002 Inst : 5972-W
Misc : 0100 A-0027 031915-TO-002 Multiplr: 1.00

Quant Time: Mar 25 13:46 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Initial Calibration



03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF09I002.D
Acq Time : 03/23/2015 15:26 Operator: LMR
Sample : 1507913002 Inst : 5972-W
Misc : 0100 A-0027 031915-TO-002 Multiplr: 1.00

Quant Time: Mar 25 13:46 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.17	128	121592	20.0000	ppb		94.18
28) ISTD 1,4-difluorobenzene	11.63	114	633344	20.0000	ppb		96.18
42) ISTD chlorobenzene-d5	15.38	117	401848	20.0000	ppb		99.30
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	219093	18.6949	ppb		93.47%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.12	85	8677	0.2063	ppb	#	88
3) chloromethane	6.32	50	6861	0.3516	ppb	#	83
4) freon 114	0.00	85		Not Detected			
5) vinyl chloride	0.00	62		Not Detected			
6) 1,3-Butadiene	0.00	54		Not Detected			
7) bromomethane	0.00	94		Not Detected			
8) chloroethane	0.00	64		Not Detected			
9) Ethanol	7.38	45	17701	4.3043	ppb		100
10) Isopropyl Alcohol	8.02	45	21229	0.8390	ppb		100
11) trichlorofluoromethane	7.83	101	7133	0.1803	ppb		99
12) freon 113	0.00	101		Not Detected			
13) 1,1-dichloroethene	0.00	96		Not Detected			
14) acetone	7.80	43	116846	2.7272	ppb	#	91
15) carbon disulfide	0.00	76		Not Detected			
16) methylene chloride	8.50	49	6547	0.1973	ppb	#	70
17) trans-1,2-dichloroethene	0.00	96		Not Detected			
18) methyl t-butyl ether	0.00	73		Not Detected			
19) vinyl acetate	0.00	43		Not Detected			
20) 2-butanone	9.77	43	10519	0.2010	ppb	#	84
21) cis-1,2-dichloroethene	0.00	96		Not Detected			
22) 1,1-dichloroethane	0.00	63		Not Detected			
23) Ethyl Acetate	10.03	61	1376	0.2104	ppb		100
24) Hexane	10.20	57	5709	0.1823	ppb		100
25) chloroform	0.00	83		Not Detected			
26) Tetrahydrofuran	0.00	42		Not Detected			
27) 1,2-dichloroethane	0.00	62		Not Detected			
29) 1,1,1-trichloroethane	0.00	97		Not Detected			
30) carbon tetrachloride	0.00	117		Not Detected			
31) benzene	11.43	78	11759	0.2314	ppb		93
32) Cyclohexane	0.00	84		Not Detected			
33) trichloroethene	0.00	130		Not Detected			
34) 1,2-dichloropropane	0.00	63		Not Detected			
35) bromodichloromethane	0.00	83		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

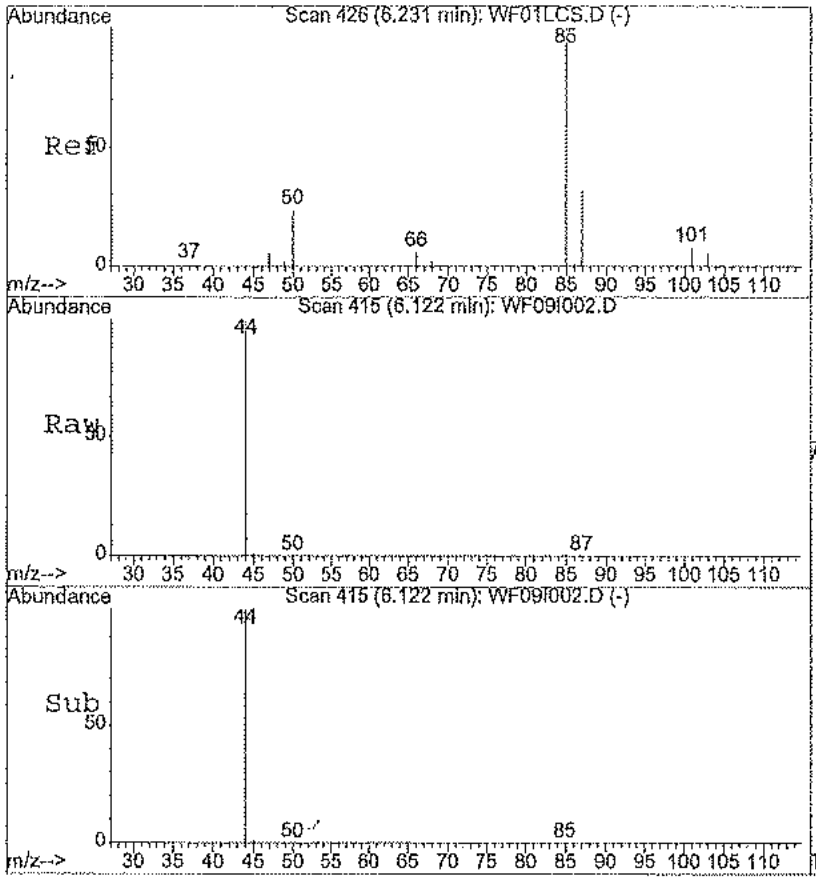
Data File : J:\W\2015\MAR15W\23MAR15W\WF09I002.D
Acq Time : 03/23/2015 15:26 Operator: LMR
Sample : 1507913002 Inst : 5972-W
Misc : 0100 A-0027 031915-TO-002 Multiplr: 1.00

Quant Time: Mar 25 13:46 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	0.00	71		Not Detected		
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	0.00	43		Not Detected		
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	0.00	97		Not Detected		
43)	toluene	13.78	91	14398	0.2978 ppb		96
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	0.00	164		Not Detected		
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	0.00	106		Not Detected		
50)	m,p-xylene	15.93	106	13771	0.8120 ppb	#	66
51)	o-xylene	0.00	106		Not Detected		
52)	styrene	0.00	104		Not Detected		
53)	bromoform	0.00	173		Not Detected		
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		No Calib	#	
57)	4-ethyl toluene	0.00	105		Not Detected		
58)	1,3,5-trimethylbenzene	0.00	105		Not Detected		
59)	1,2,4-trimethylbenzene	0.00	105		Not Detected		
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	0.00	146		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

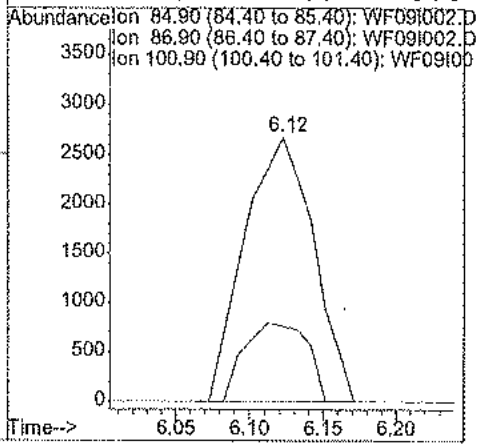
(#) = qualifier out of range (m) = manual integration

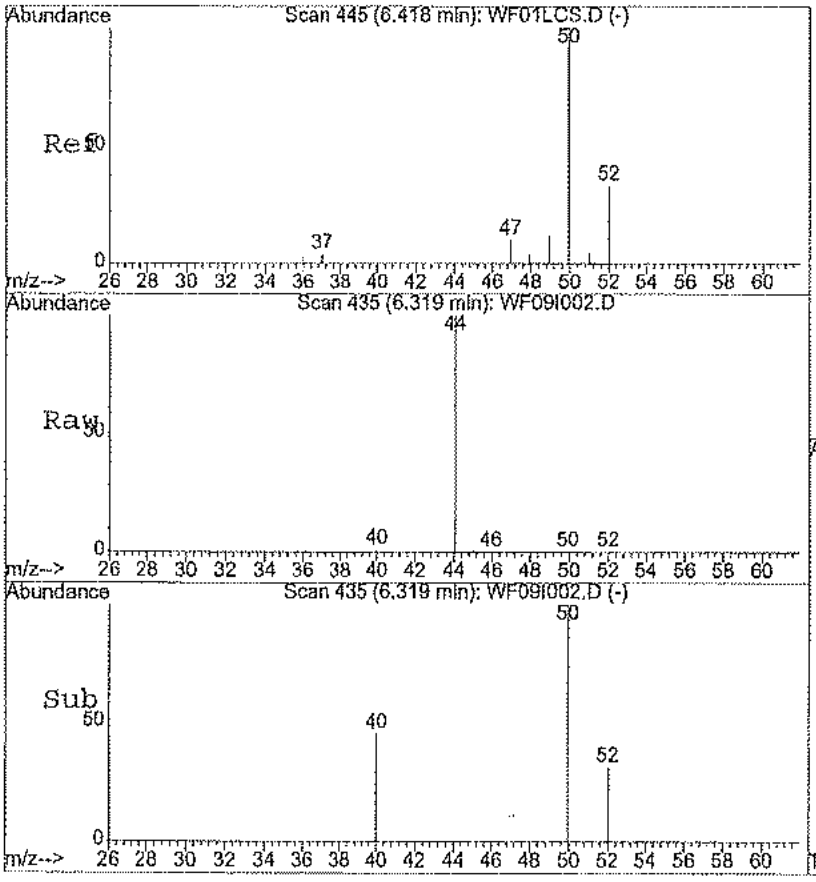


#2
dichlorodifluoromethane
Concen: 0.21 ppb
RT: 6.12 min Scan# 415
Delta R.T. -0.04 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:84.9 Resp: 8677

Ion	Ratio	Lower	Upper
85	100		
87	26.9	25.4	38.0
101	0.0	6.7	10.1#
0	0.0	0.0	0.0

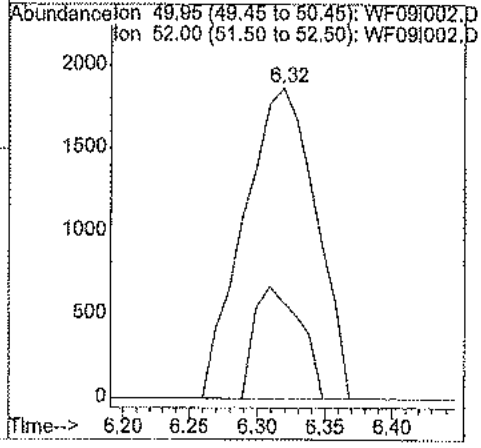


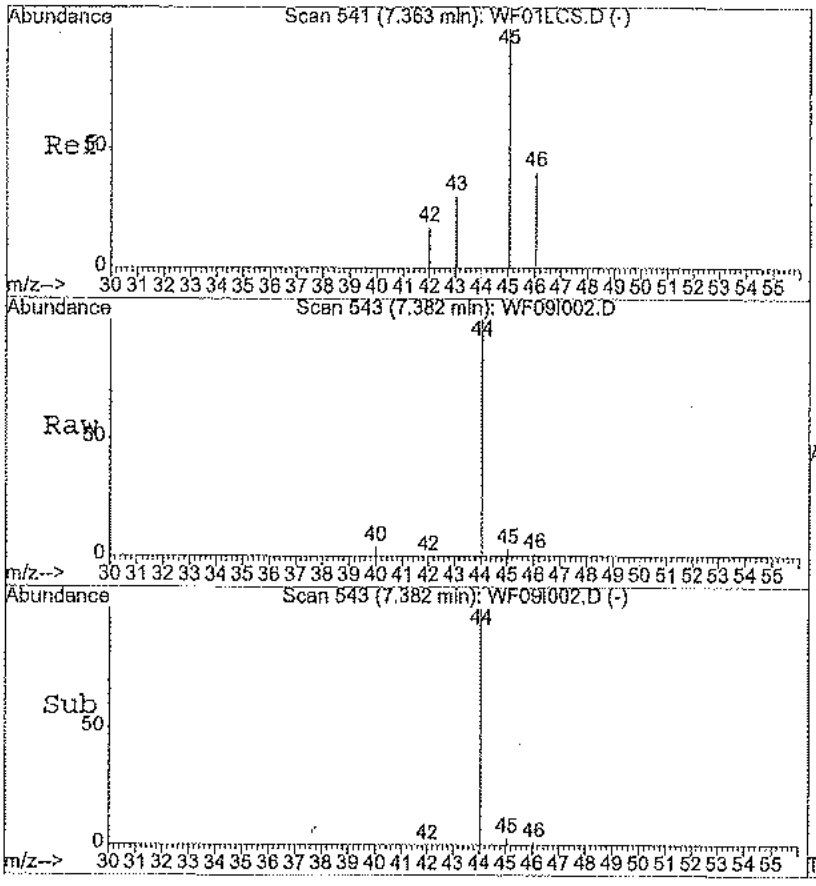


#3
chloromethane
Concen: 0.35 ppb
RT: 6.32 min Scan# 435
Delta R.T. -0.03 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:49.95 Resp: 6861

Ion	Ratio	Lower	Upper
50	100		
52	22.8	25.7	38.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

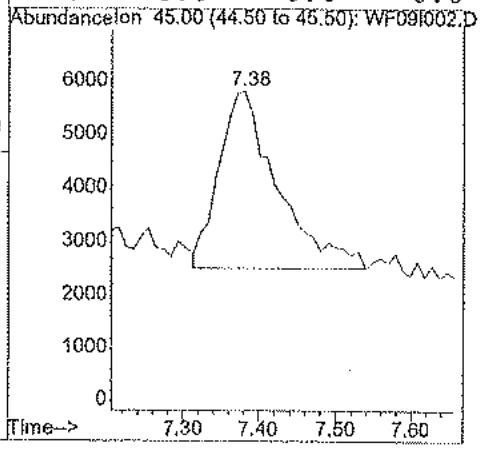


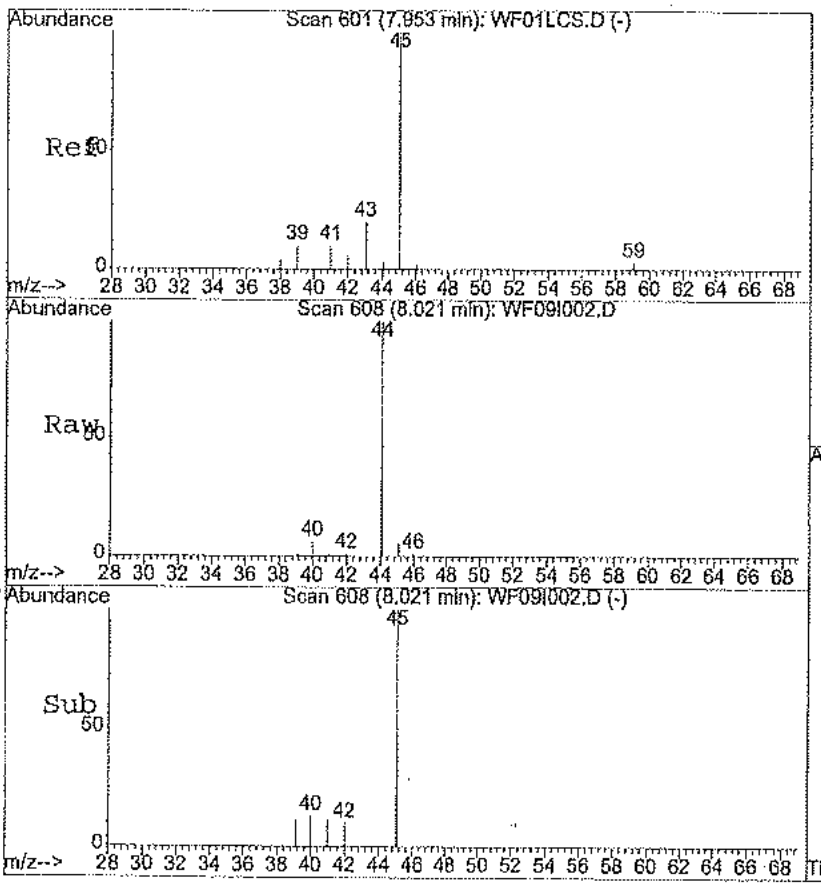


#9
Ethanol
Concen: 4.30 ppb
RT: 7.38 min Scan# 543
Delta R.T. 0.08 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:45 Resp: 17701

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

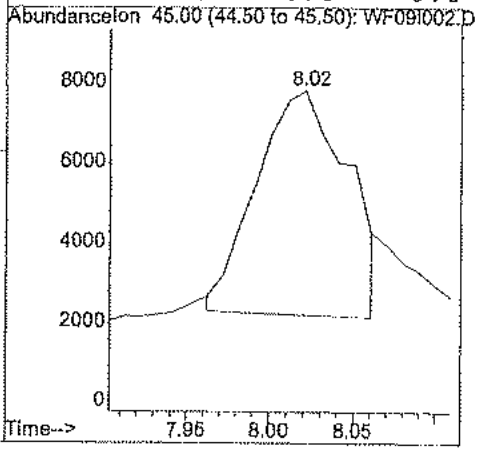


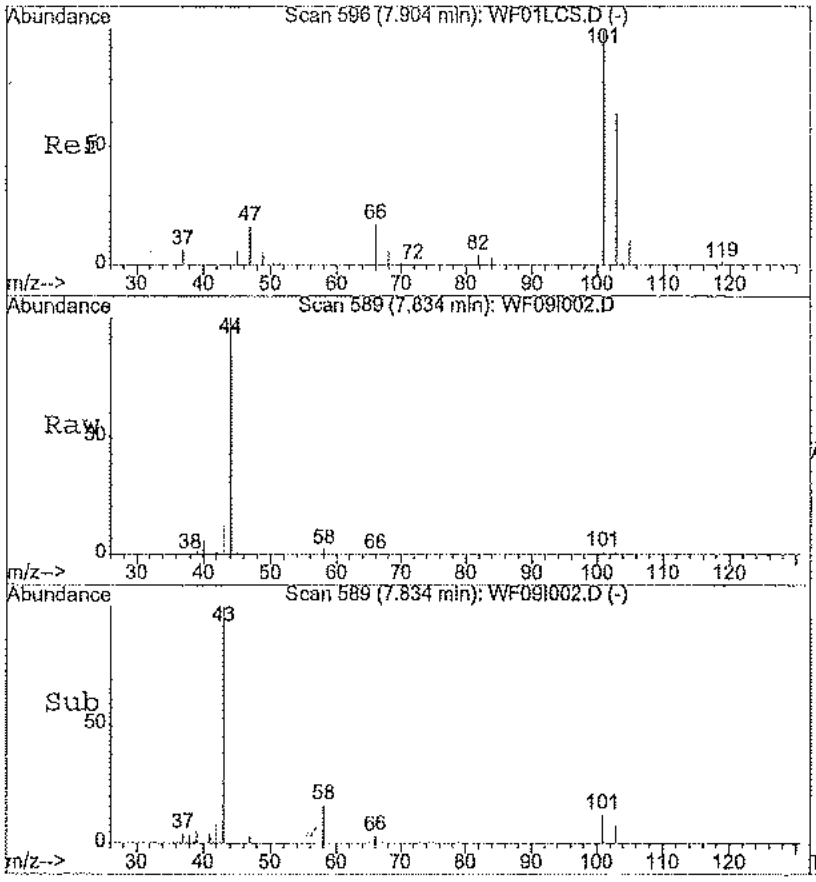


#10
Isopropyl Alcohol
Concen: 0.84 ppb m
RT: 8.02 min Scan# 608
Delta R.T. 0.12 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:45 Resp: 21229

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

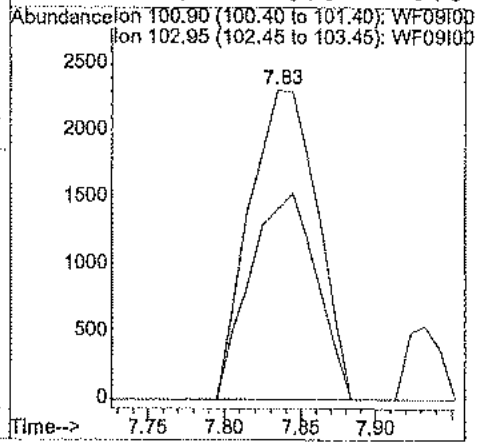


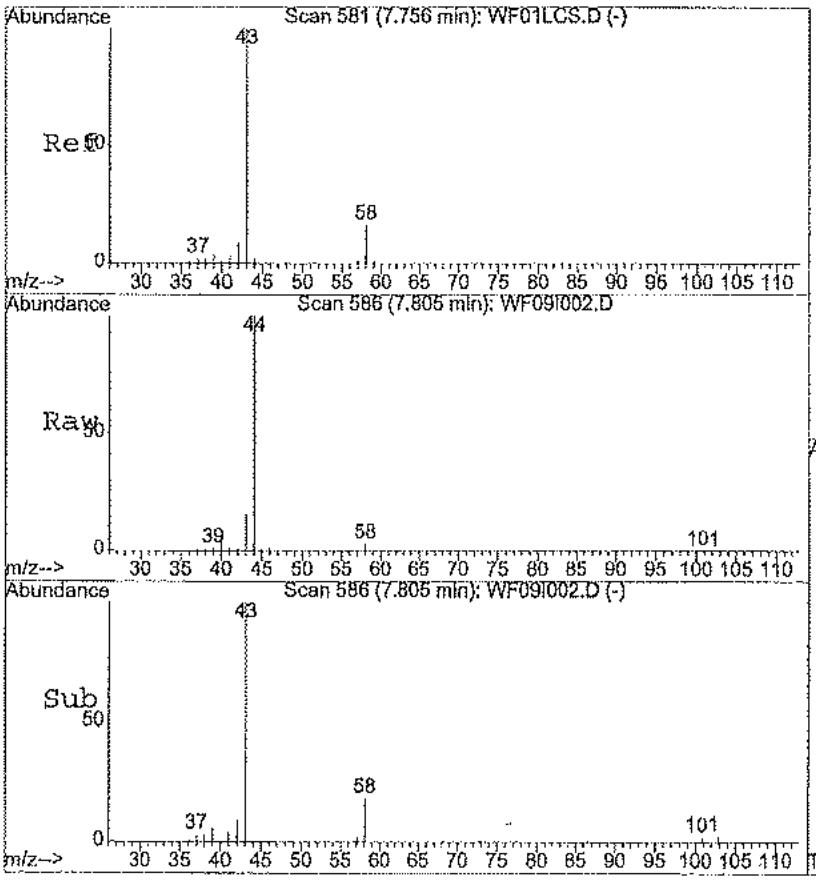


#11
trichlorofluoromethane
Concen: 0.18 ppb
RT: 7.83 min Scan# 589
Delta R.T. -0.01 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:100.9 Resp: 7133

Ion	Ratio	Lower	Upper
101	100		
103	65.1	52.7	79.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

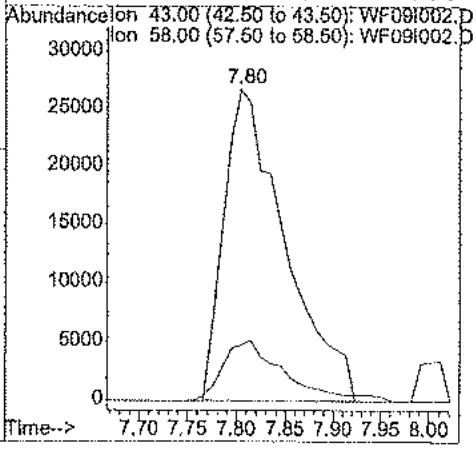


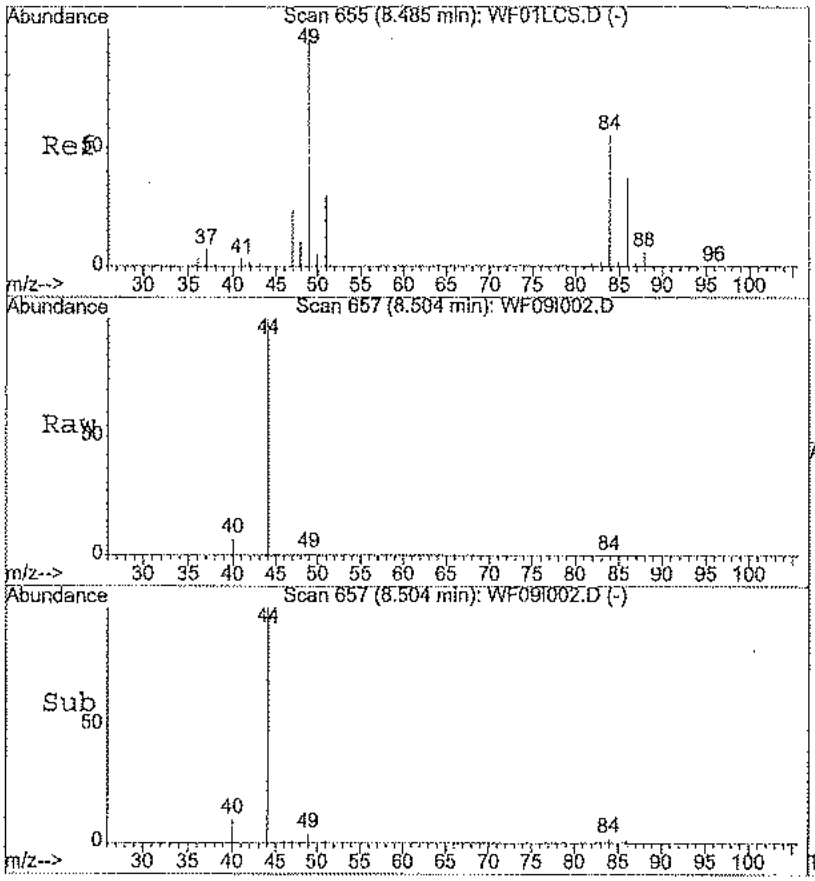


#14
acetone
Concen: 2.73 ppb
RT: 7.80 min Scan# 586
Delta R.T. 0.11 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:43 Resp: 116846

Ion	Ratio	Lower	Upper
43	100		
58	19.4	12.5	18.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

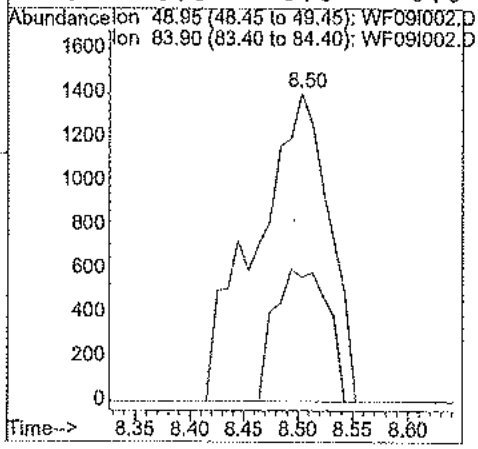


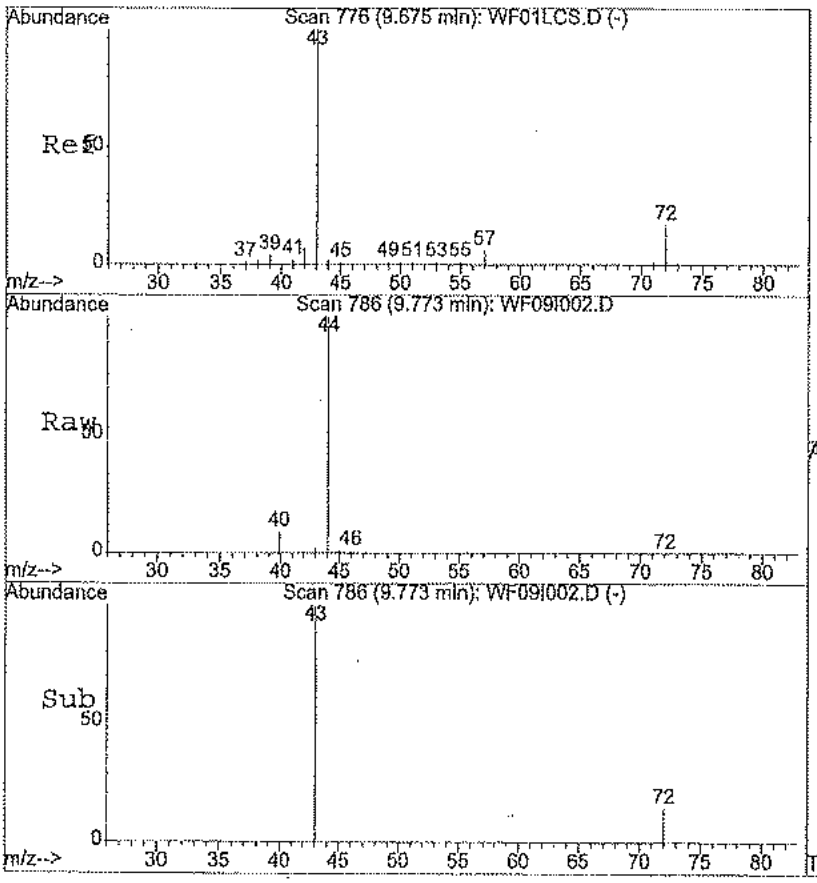


#16
methylene chloride
Concen: 0.20 ppb
RT: 8.50 min Scan# 657
Delta R.T. 0.08 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:48.95 Resp: 6547

Ion	Ratio	Lower	Upper
49	100		
84	31.2	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

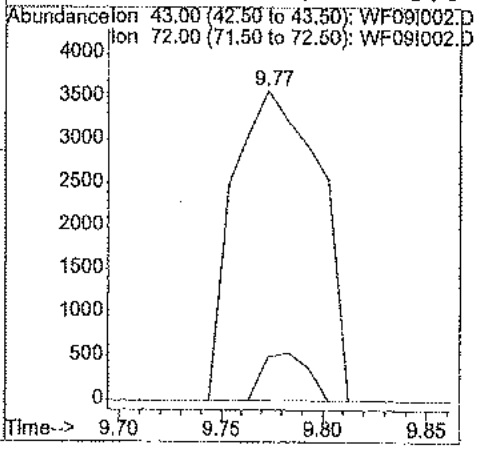


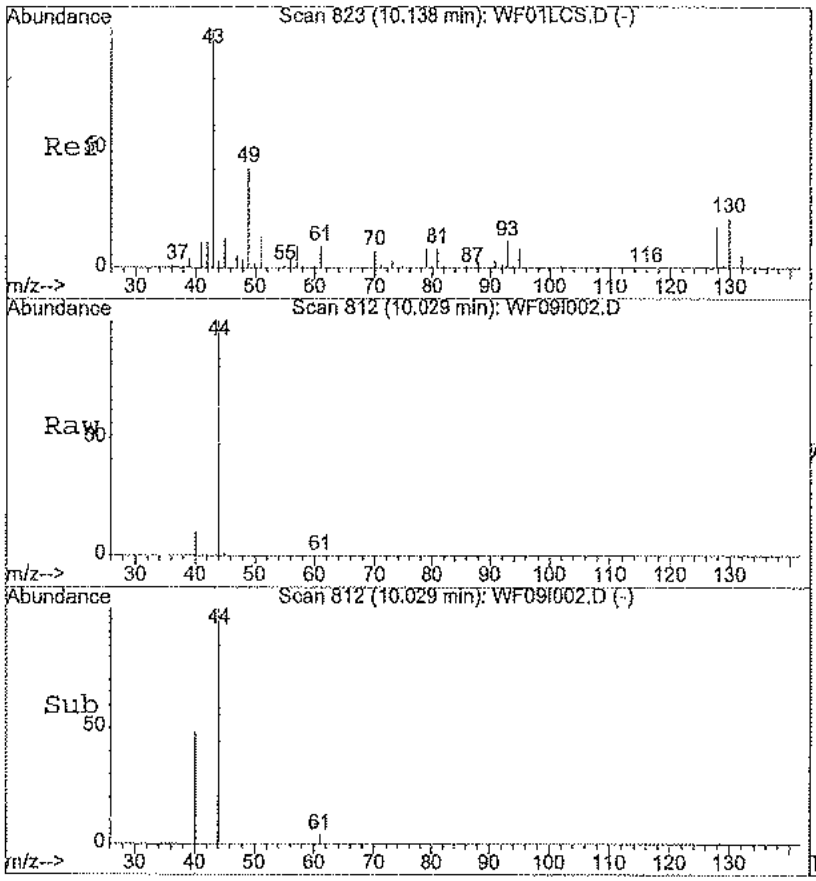


#20
2-butanone
Concen: 0.20 ppb
RT: 9.77 min Scan# 786
Delta R.T. 0.14 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:43 Resp: 10519

Ion	Ratio	Lower	Upper
43	100		
72	7.9	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

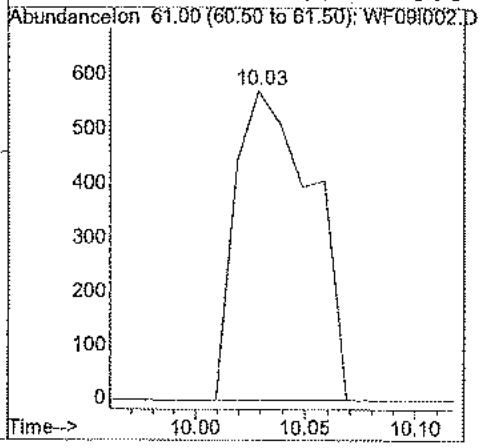


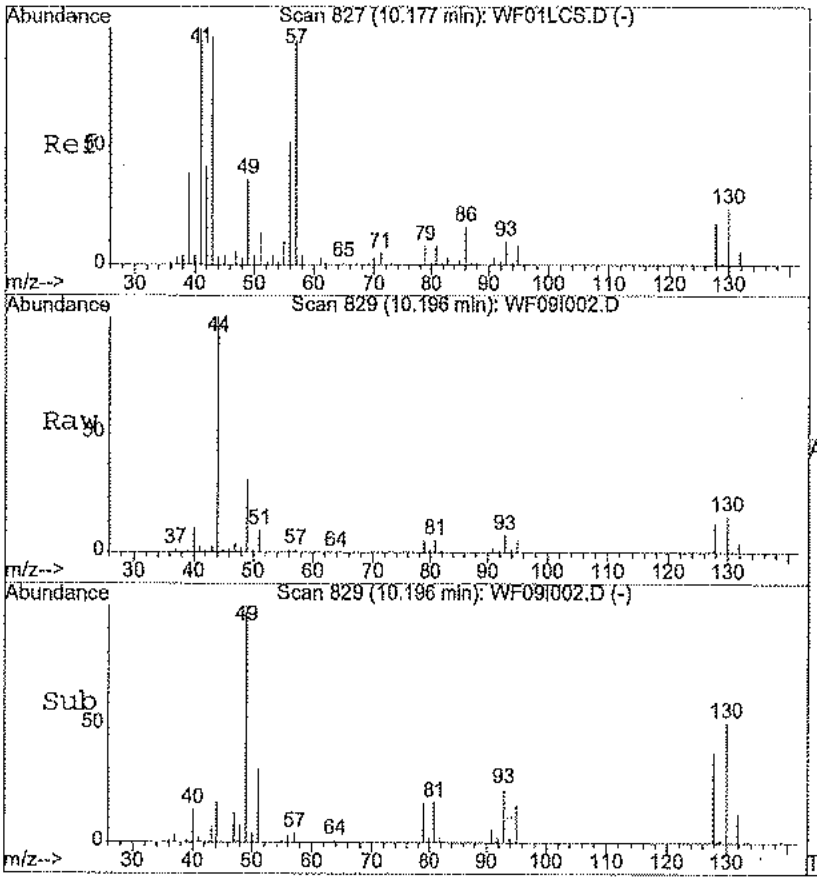


#23
Ethyl Acetate
Concen: 0.21 ppb
RT: 10.03 min Scan# 812
Delta R.T. -0.07 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:61 Resp: 1376

Ion	Ratio	Lower	Upper
61	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

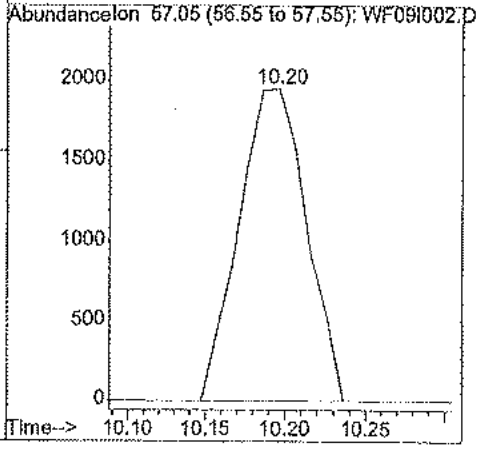


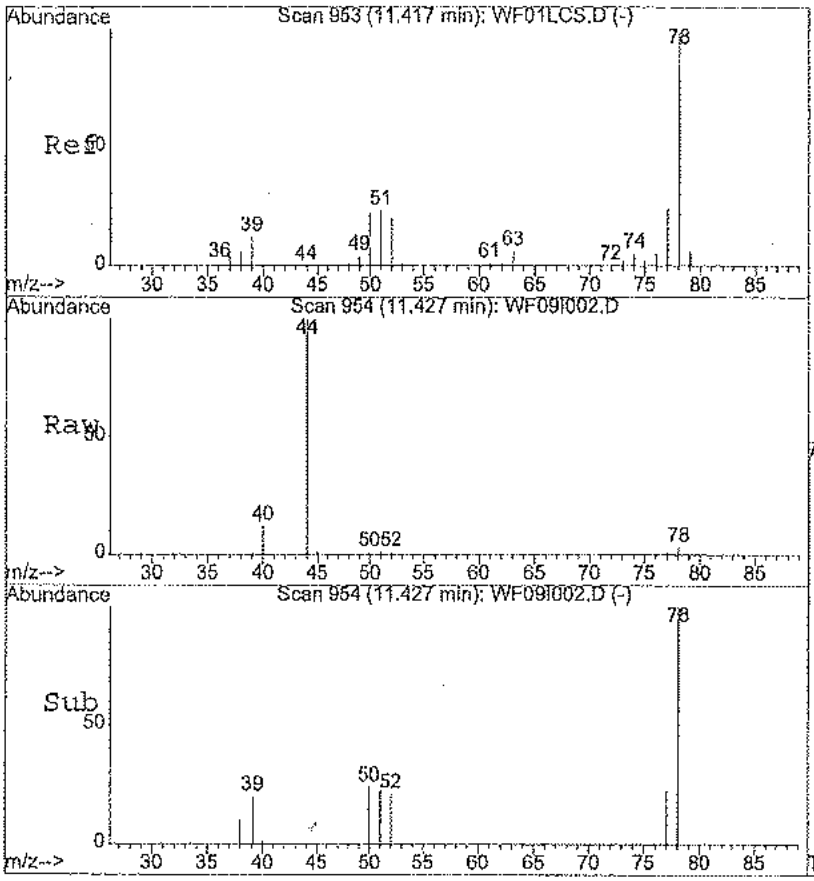


#24
Hexane
Concen: 0.18 ppb
RT: 10.20 min Scan# 829
Delta R.T. 0.07 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:57.05 Resp: 5709

Ion	Ratio	Lower	Upper
57	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

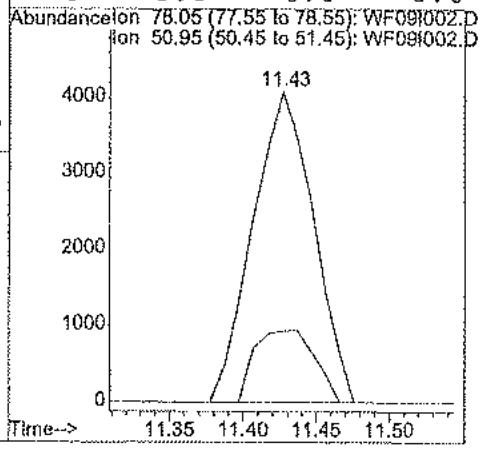


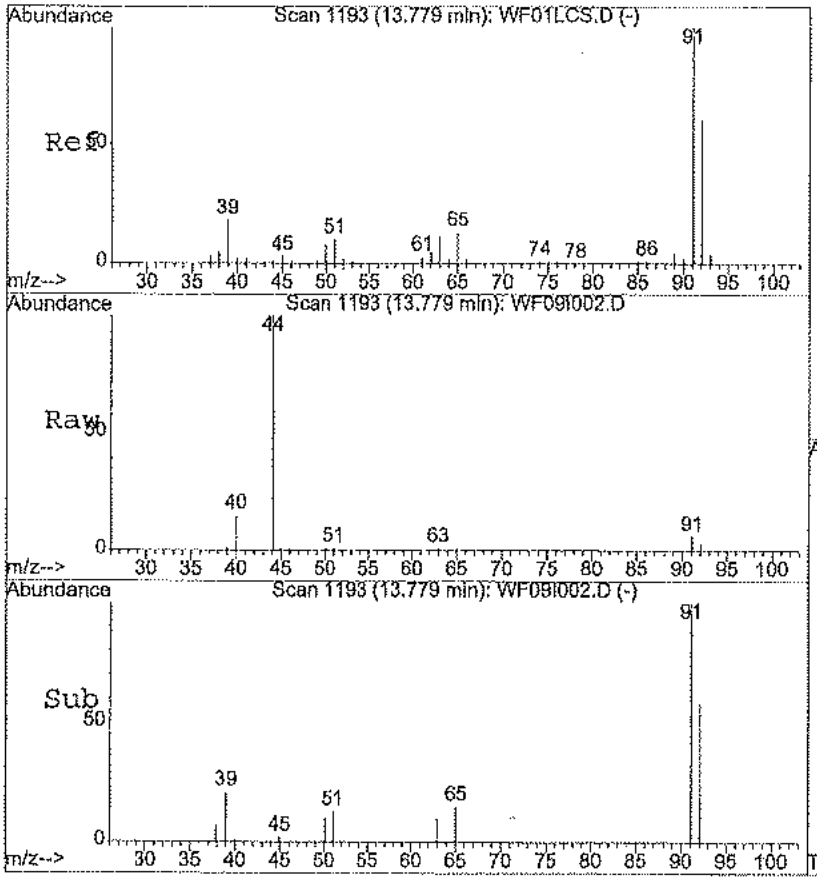


#31
benzene
Concen: 0.23 ppb
RT: 11.43 min Scan# 954
Delta R.T. 0.05 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:78.05 Resp: 11759

Ion	Ratio	Lower	Upper
78	100		
51	22.8	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

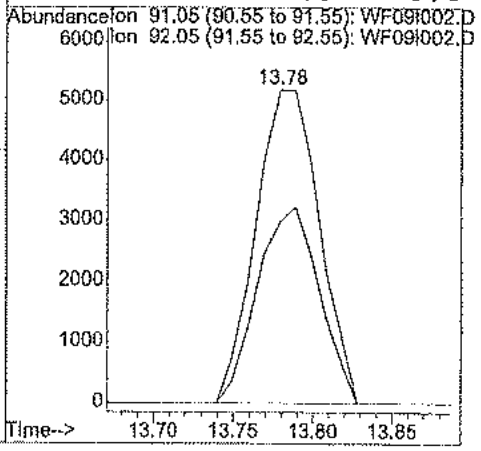


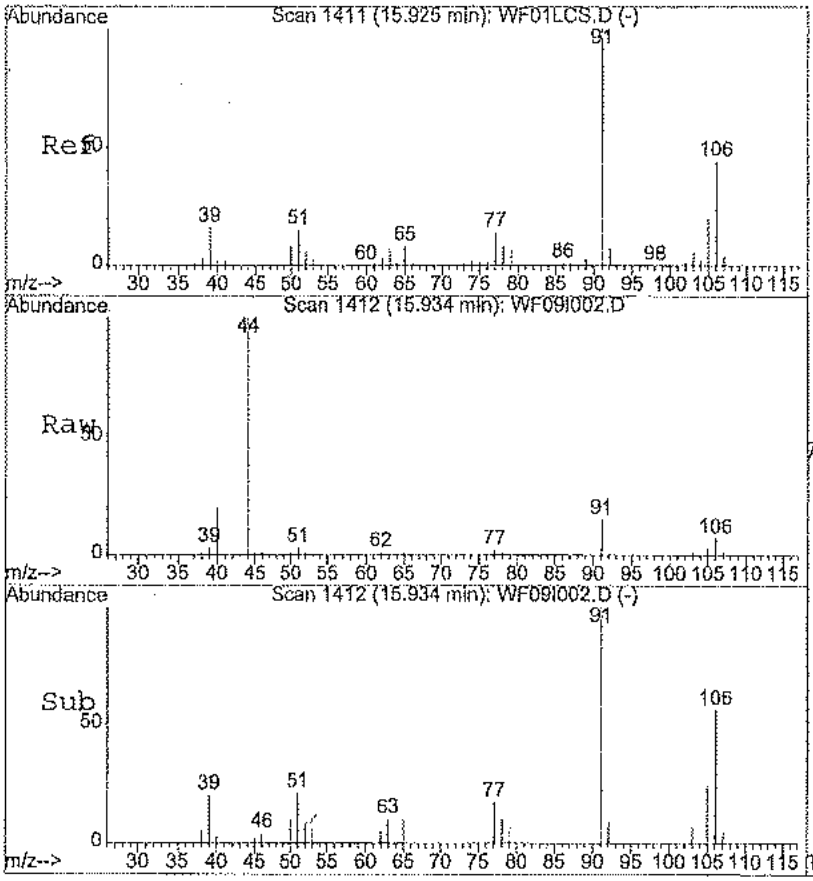


#43
toluene
Concen: 0.30 ppb
RT: 13.78 min Scan# 1193
Delta R.T. 0.03 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:91.05 Resp: 14398

Ion	Ratio	Lower	Upper
91	100		
92	60.9	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

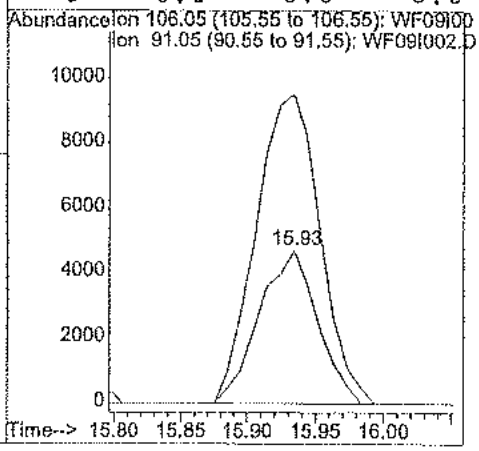




#50
m,p-xylene
Concen: 0.81 ppb
RT: 15.93 min Scan# 1412
Delta R.T. 0.03 min
Lab File: WF09I002.D
Acq: 03/23/2015 15:26

Tgt Ion:106.05 Resp: 13771

Ion	Ratio	Lower	Upper
106	100		
91	223.9	230.7	346.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

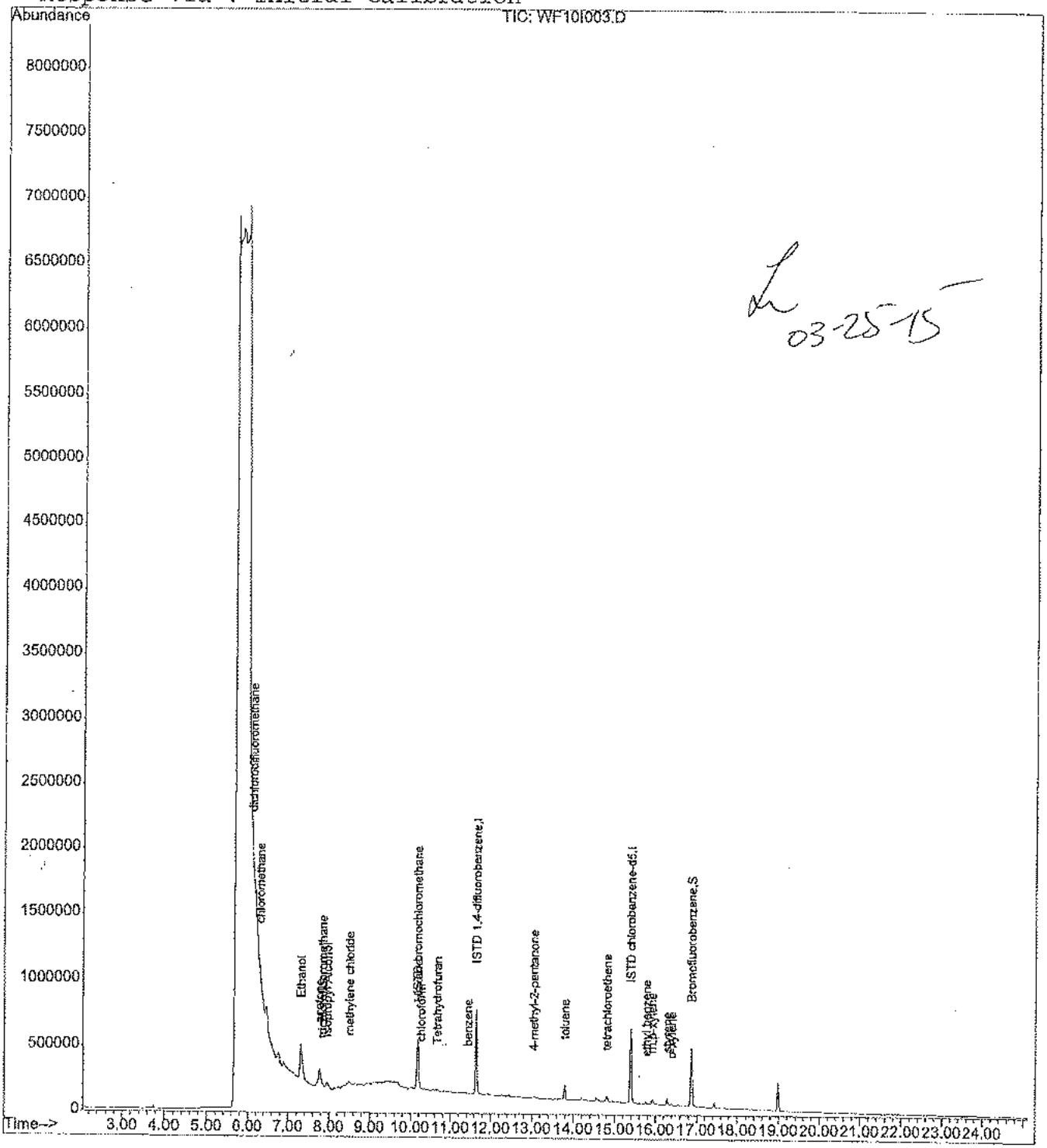


Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF10I003.D
Acq Time : 03/23/2015 16:03 Operator: LMR
Sample : 1507913003 Inst : 5972-W
Misc : 0428 A-0007H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:47 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Initial Calibration



03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF10I003.D
Acq Time : 03/23/2015 16:03 Operator: LMR
Sample : 1507913003 Inst : 5972-W
Misc : 0428 A-0007H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:47 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) ISTD bromochloromethane	10.18	128	123067	20.0000	ppb		95.32
28) ISTD 1,4-difluorobenzene	11.65	114	629666	20.0000	ppb		95.62
42) ISTD chlorobenzene-d5	15.38	117	406620	20.0000	ppb		100.48
System Monitoring Compounds							%Recovery
55) Bromofluorobenzene	16.86	95	227744	19.2050	ppb		96.02%
Target Compounds							Qvalue
2) dichlorodifluoromethane	6.12	85	12927	0.3036	ppb	#	95
3) chloromethane	6.31	50	7553	0.3824	ppb	#	83
4) freon 114	0.00	85		Not Detected			
5) vinyl chloride	0.00	62		Not Detected			
6) 1,3-Butadiene	0.00	54		Not Detected			
7) bromomethane	0.00	94		Not Detected			
8) chloroethane	0.00	64		Not Detected			
9) Ethanol	7.31	45	779376	187.2464	ppb		100
10) Isopropyl Alcohol	7.95	45	142698	5.5720	ppb		100
11) trichlorofluoromethane	7.85	101	8515	0.2127	ppb		96
12) freon 113	0.00	101		Not Detected			
13) 1,1-dichloroethene	0.00	96		Not Detected			
14) acetone	7.77	43	457151	10.5420	ppb		97
15) carbon disulfide	0.00	76		Not Detected			
16) methylene chloride	8.51	49	23788	0.7083	ppb	m	26
17) trans-1,2-dichloroethene	0.00	96		Not Detected			
18) methyl t-butyl ether	0.00	73		Not Detected			
19) vinyl acetate	0.00	43		Not Detected			
20) 2-butanone	0.00	43		Not Detected			
21) cis-1,2-dichloroethene	0.00	96		Not Detected			
22) 1,1-dichloroethane	0.00	63		Not Detected			
23) Ethyl Acetate	0.00	61		Not Detected			
24) Hexane	10.20	57	7825	0.2469	ppb		100
25) chloroform	10.27	83	7410	0.1735	ppb		97
26) Tetrahydrofuran	10.66	42	10889	0.4510	ppb		100
27) 1,2-dichloroethane	0.00	62		Not Detected			
29) 1,1,1-trichloroethane	0.00	97		Not Detected			
30) carbon tetrachloride	0.00	117		Not Detected			
31) benzene	11.44	78	9725	0.1925	ppb		94
32) Cyclohexane	0.00	84		Not Detected			
33) trichloroethene	0.00	130		Not Detected			
34) 1,2-dichloropropane	0.00	63		Not Detected			
35) bromodichloromethane	0.00	83		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF10I003.D
Acq Time : 03/23/2015 16:03 Operator: LMR
Sample : 1507913003 Inst : 5972-W
Misc : 0428 A-0007H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:47 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	0.00	71		Not Detected		
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	13.04	43	9338	0.2010 ppb		97
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	0.00	97		Not Detected		
43)	toluene	13.79	91	102465	2.0945 ppb		99
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	14.80	164	12023	0.7078 ppb		98
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	15.77	106	3744	0.2842 ppb		94
50)	m,p-xylene	15.93	106	16579	0.9660 ppb		72
51)	o-xylene	16.41	106	4367	0.2846 ppb		86
52)	styrene	16.29	104	28908	1.3256 ppb	#	81
53)	bromoform	0.00	173		Not Detected		
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		No Calib	#	
57)	4-ethyl toluene	0.00	105		Not Detected		
58)	1,3,5-trimethylbenzene	0.00	105		Not Detected		
59)	1,2,4-trimethylbenzene	0.00	105		Not Detected		
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	0.00	146		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

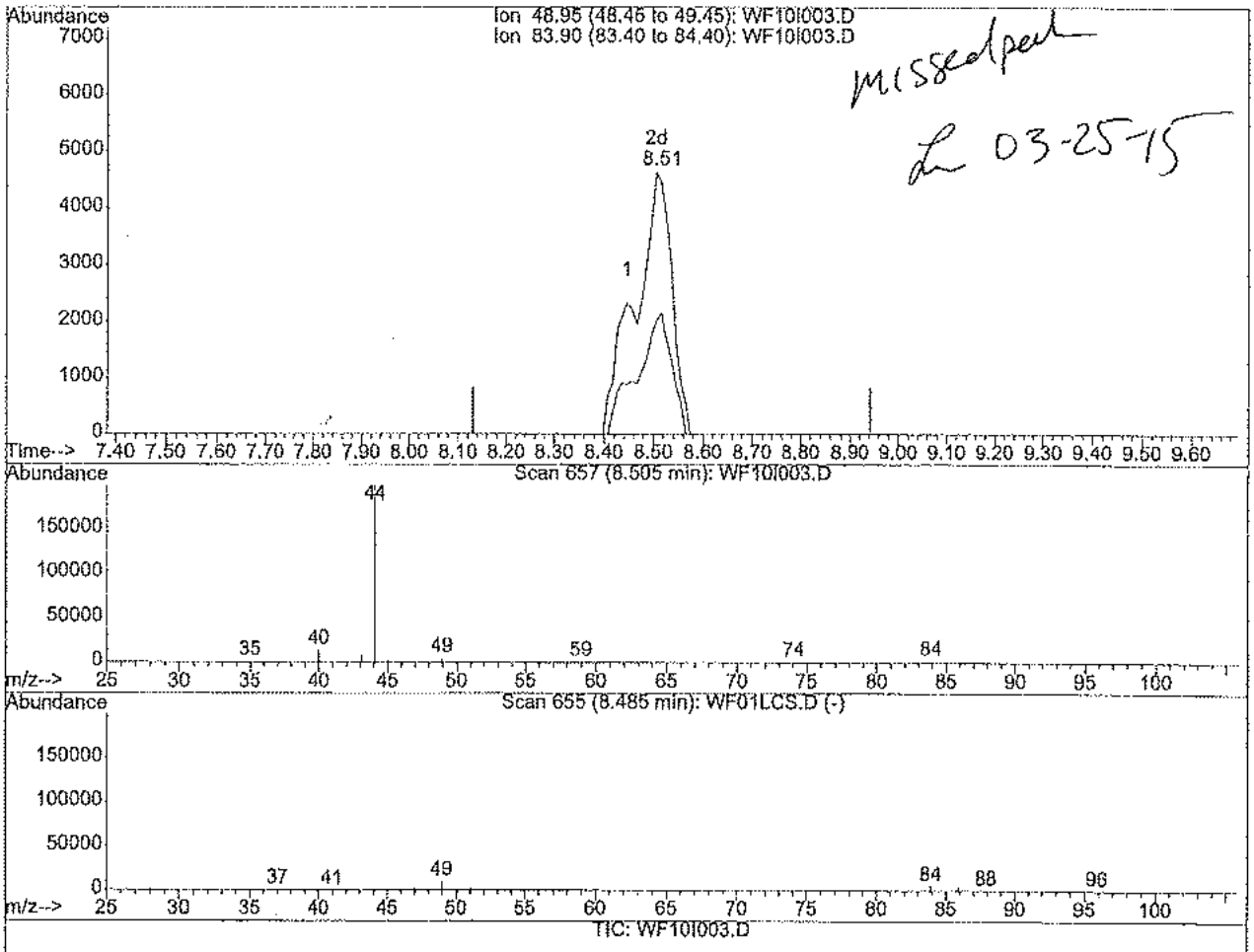
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF10I003.D
Acq Time : 03/23/2015 16:03 Operator: LMR
Sample : 1507913003 Inst : 5972-W
Misc : 0428 A-0007H 031915-TO-001 Multiplr: 1.00

Quant Time: Mar 25 13:46 2015 Quant Results File: temp.res

Method : J:\W\METHODS\TO15WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration



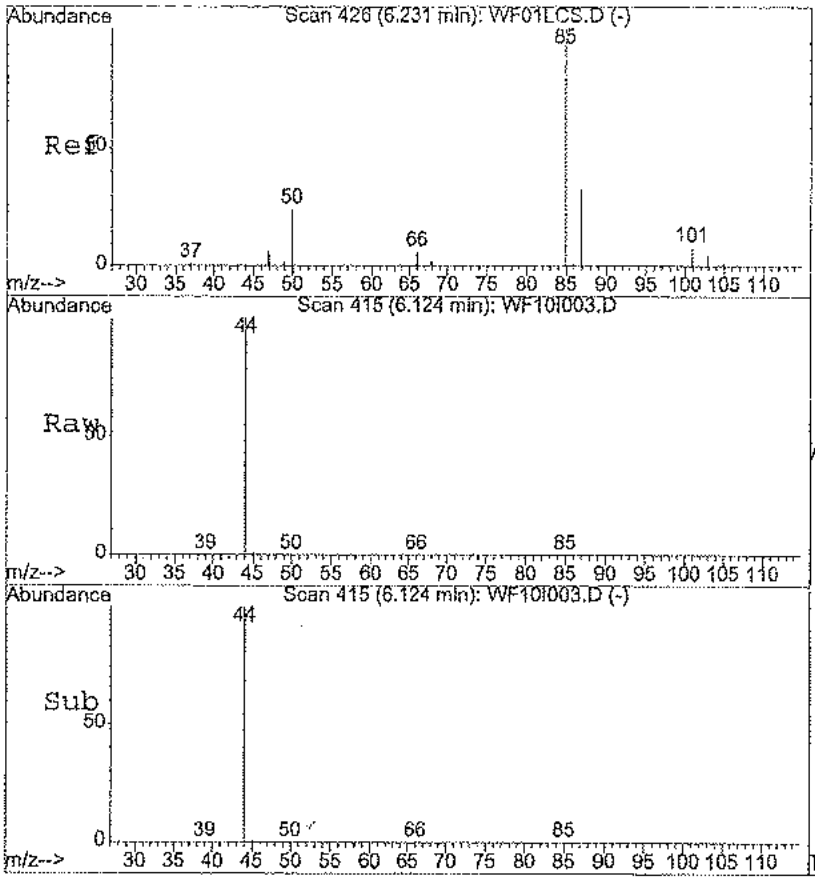
TIC: WF10I003.D

(16) methylene chloride

8.51min 0.71ppb m

response 23788

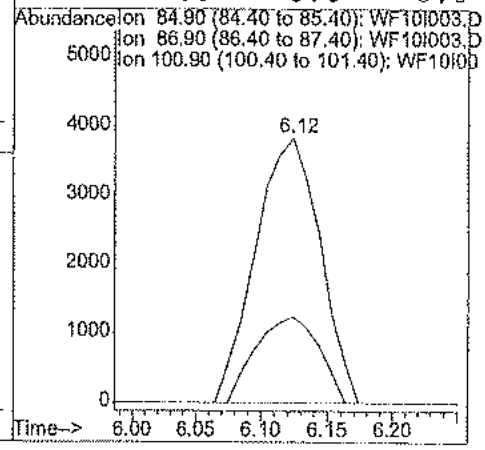
Ion	Exp%	Act%
48.95	100	100
83.90	52.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

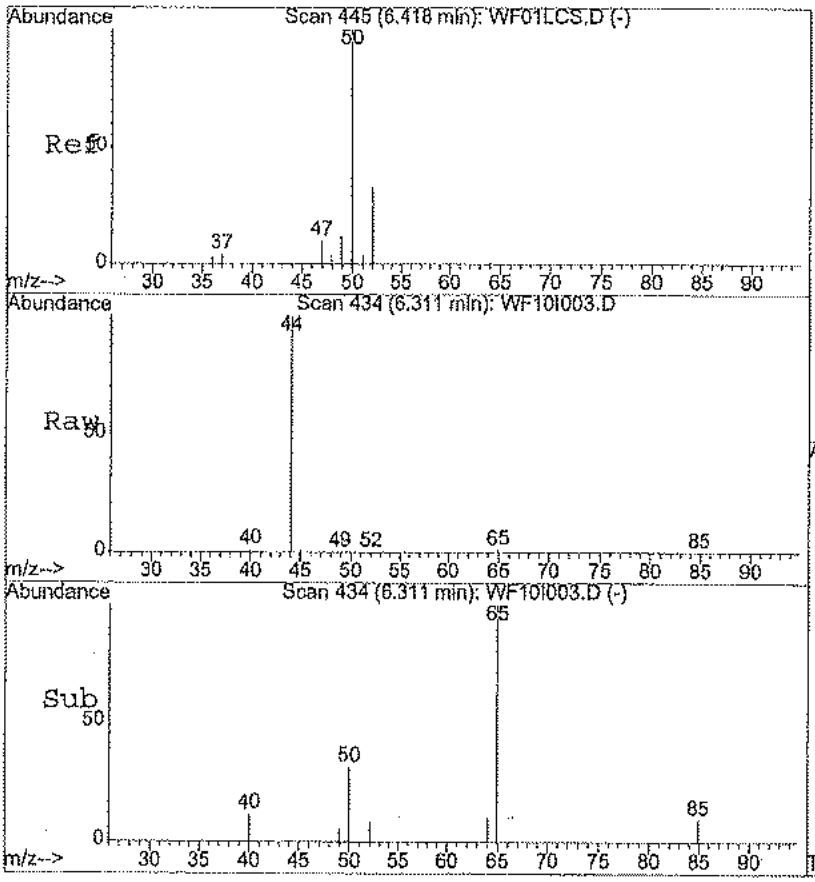


#2
dichlorodifluoromethane
Concen: 0.30 ppb
RT: 6.12 min Scan# 415
Delta R.T. -0.04 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:84.9 Resp: 12927

Ion	Ratio	Lower	Upper
85	100		
87	31.5	25.4	38.0
101	0.0	6.7	10.1#
0	0.0	0.0	0.0

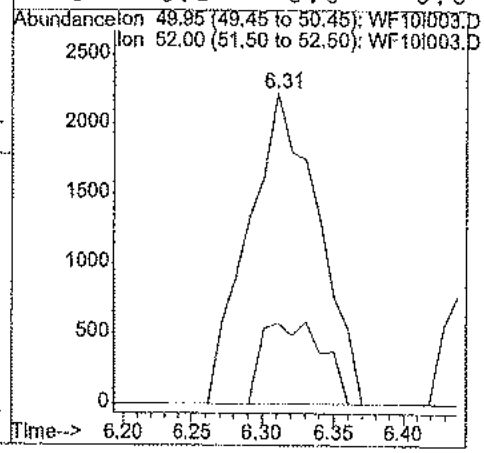


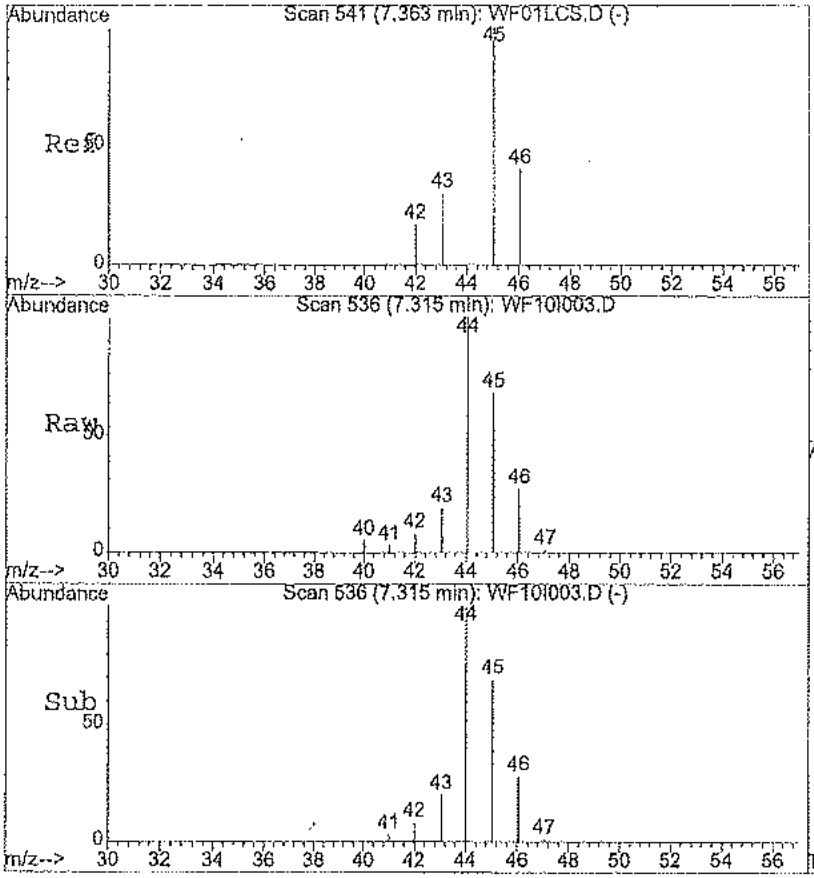


#3
chloromethane
Concen: 0.38 ppb
RT: 6.31 min Scan# 434
Delta R.T. -0.04 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:49.95 Resp: 7553

Ion	Ratio	Lower	Upper
50	100		
52	22.7	25.7	38.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

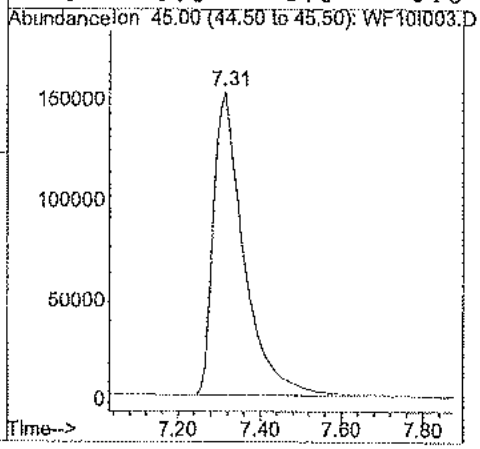


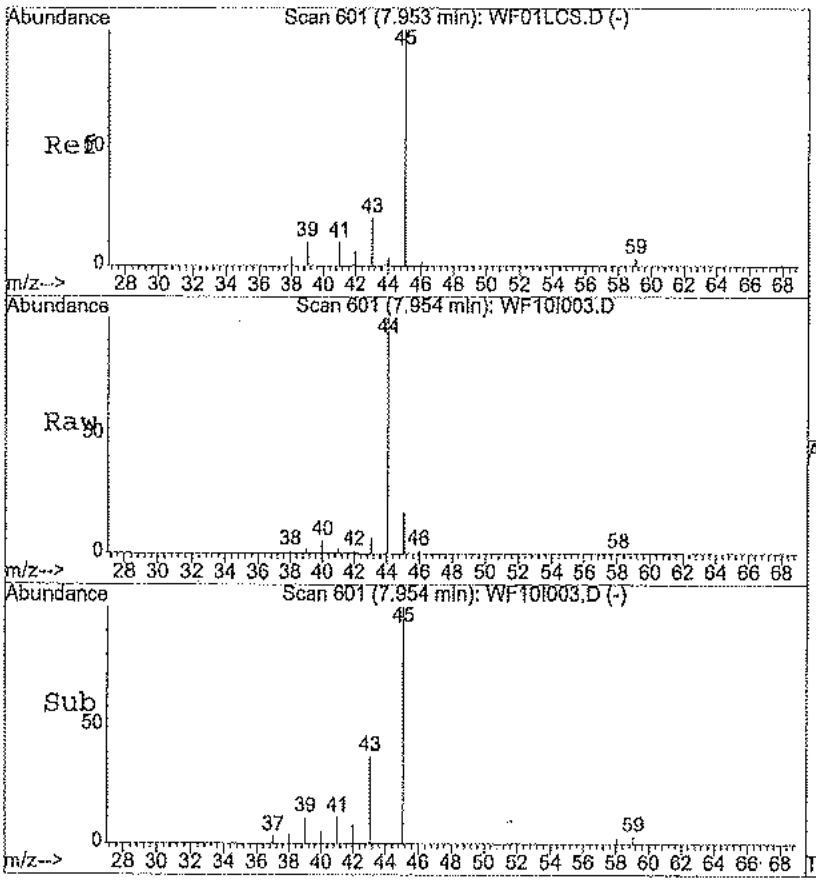


#9
Ethanol
Concen: 187.25 ppb
RT: 7.31 min Scan# 536
Delta R.T. 0.01 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:45 Resp: 779376

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

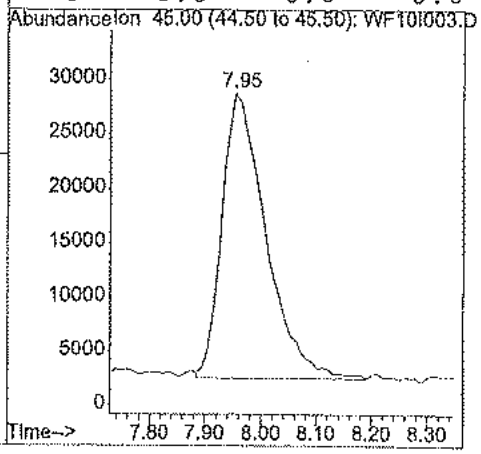


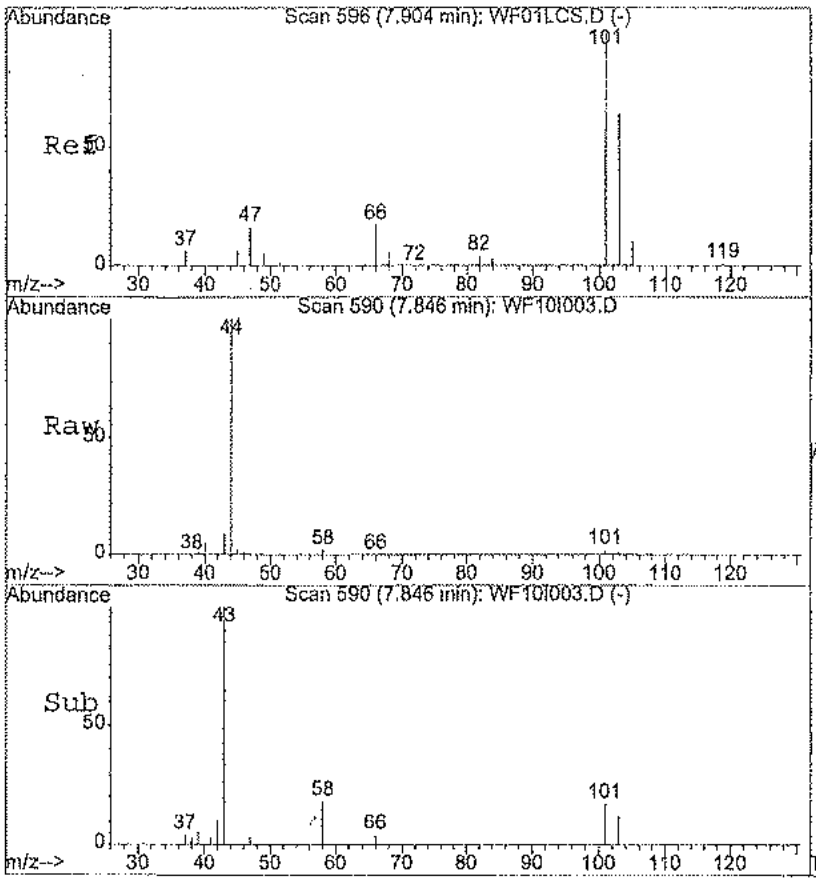


#10
Isopropyl Alcohol
Concen: 5.57 ppb
RT: 7.95 min Scan# 601
Delta R.T. 0.05 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:45 Resp: 142698

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

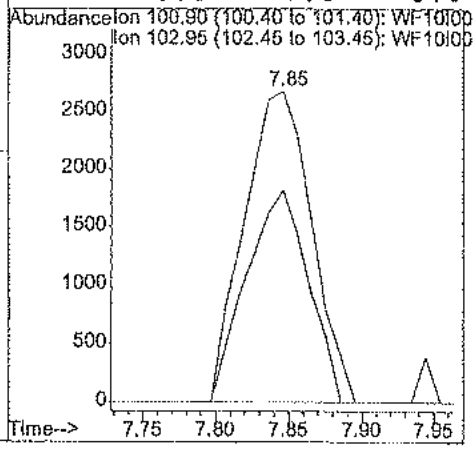


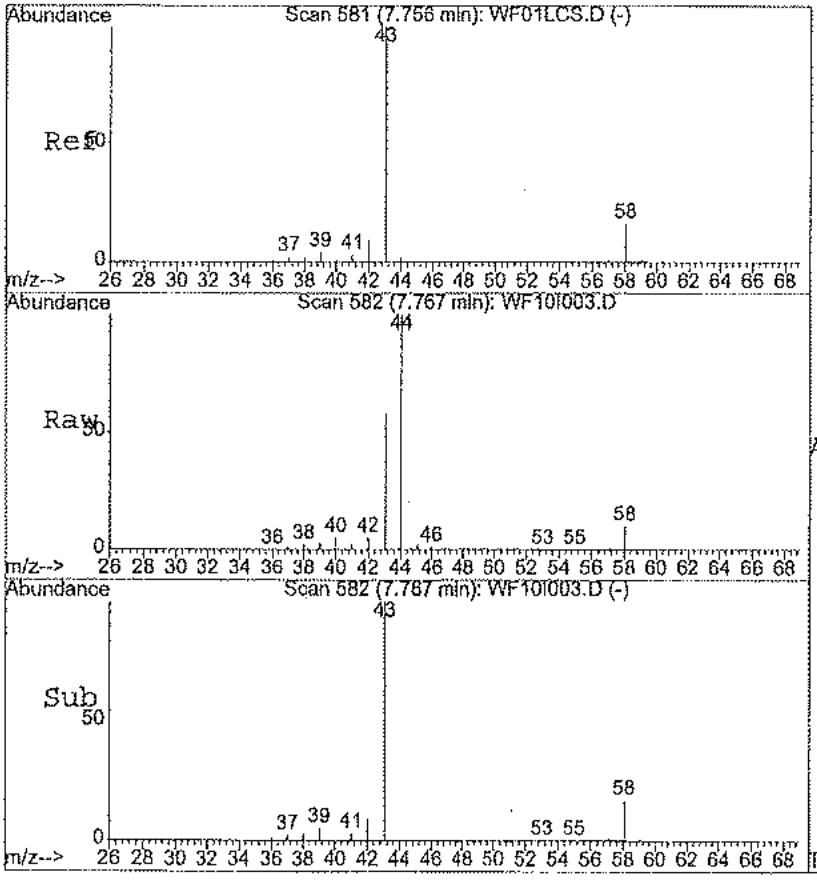


#11
trichlorofluoromethane
Concen: 0.21 ppb
RT: 7.85 min Scan# 590
Delta R.T. 0.00 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:100.9 Resp: 8515

Ion	Ratio	Lower	Upper
101	100		
103	62.5	52.7	79.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

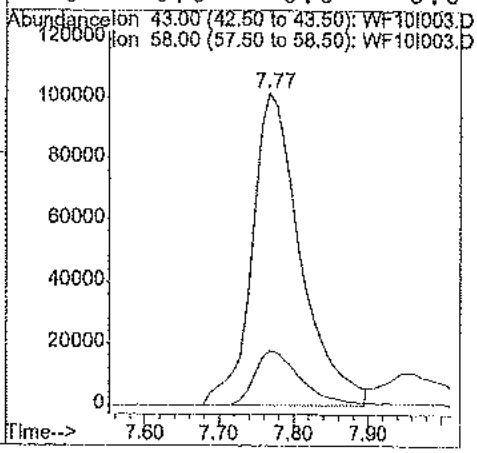


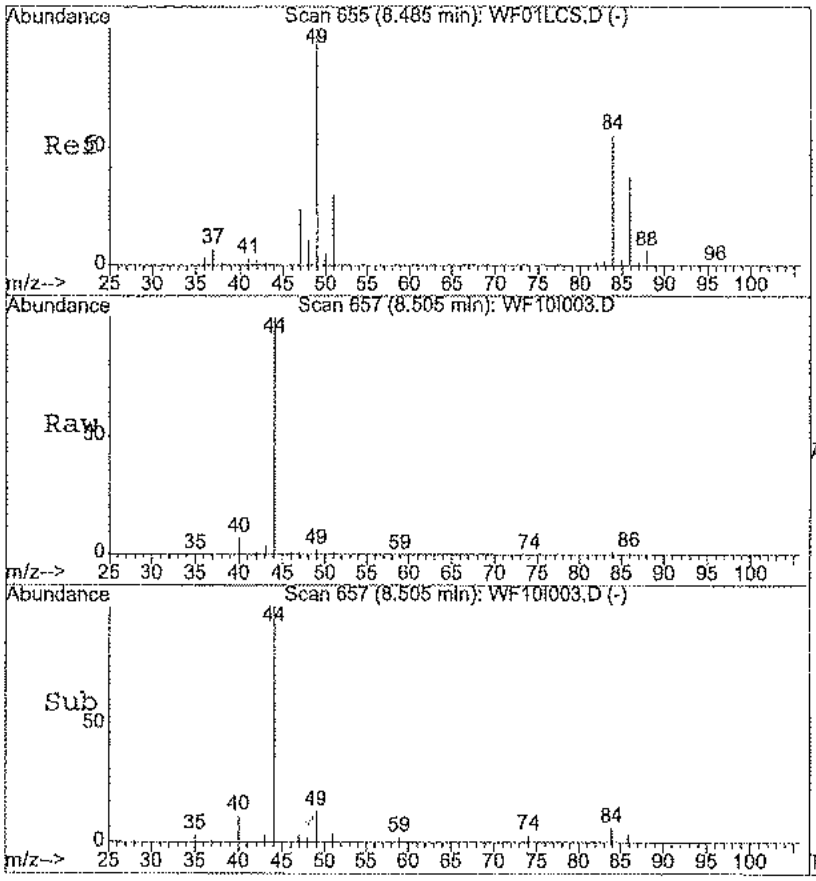


#14
acetone
Concen: 10.54 ppb
RT: 7.77 min Scan# 582
Delta R.T. 0.07 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:43 Resp: 457151

Ion	Ratio	Lower	Upper
43	100		
58	16.7	12.5	18.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

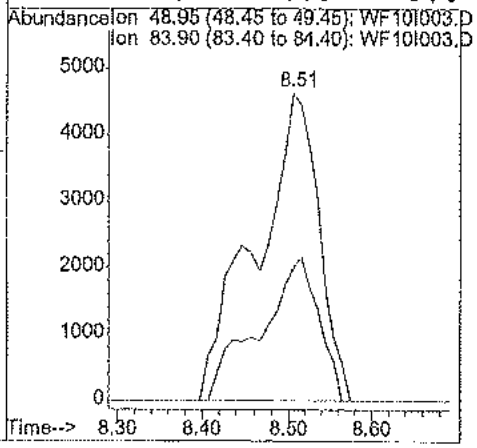


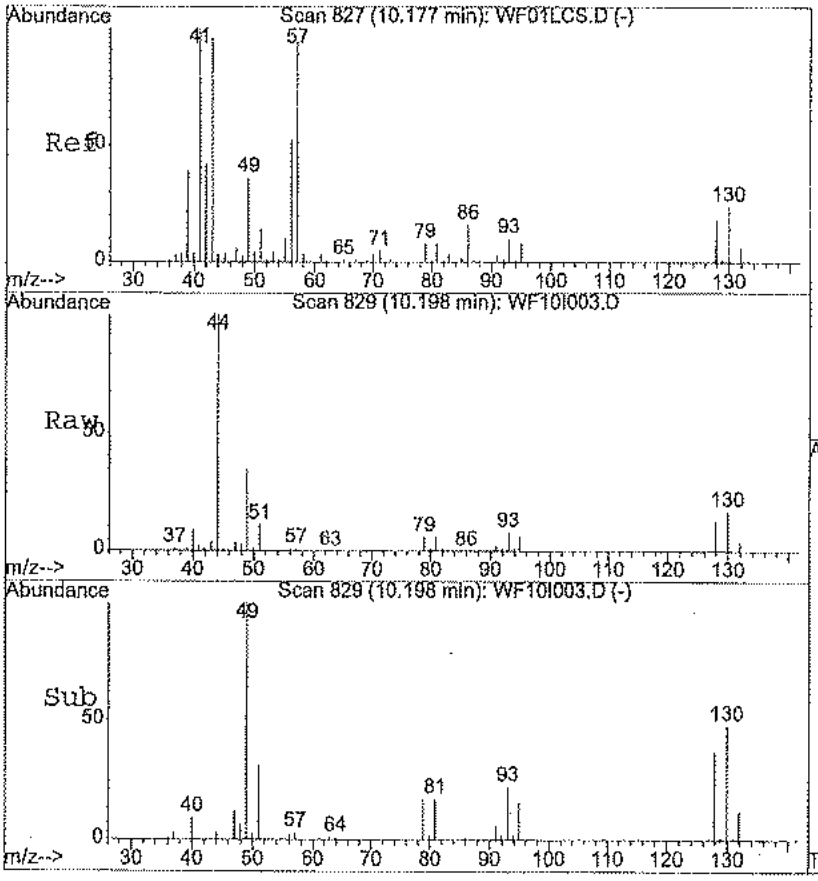


#16
methylene chloride
Concen: 0.71 ppb m
RT: 8.51 min Scan# 657
Delta R.T. 0.08 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:48.95 Resp: 23788

Ion	Ratio	Lower	Upper
49	100		
84	0.0	41.6	62.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

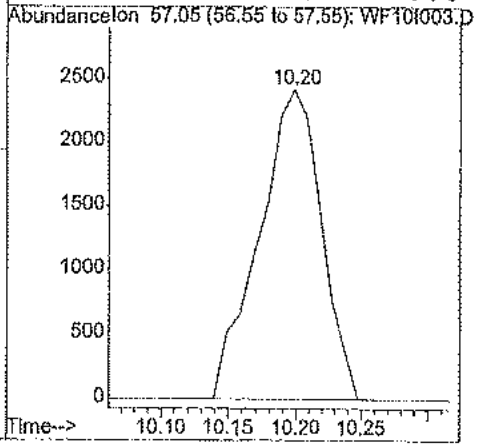


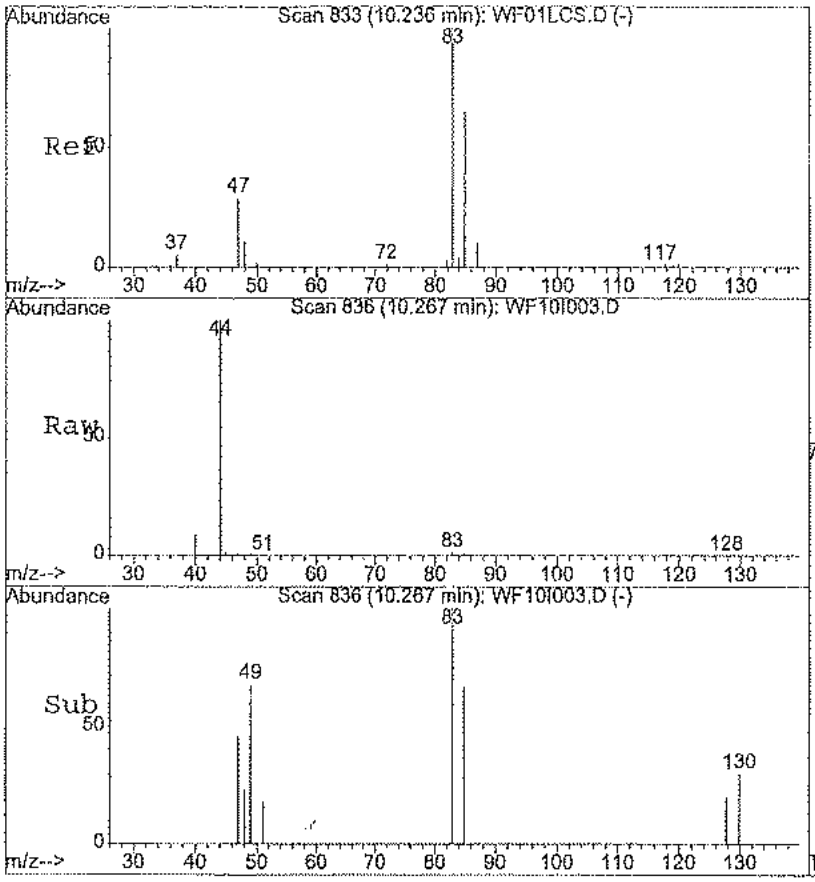


#24
Hexane
Concen: 0.25 ppb
RT: 10.20 min Scan# 829
Delta R.T. 0.07 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:57.05 Resp: 7825

Ion	Ratio	Lower	Upper
57	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

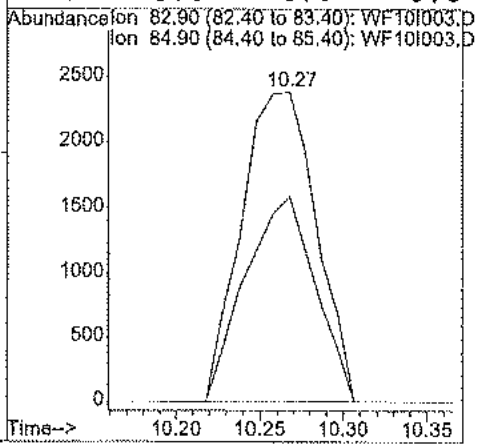


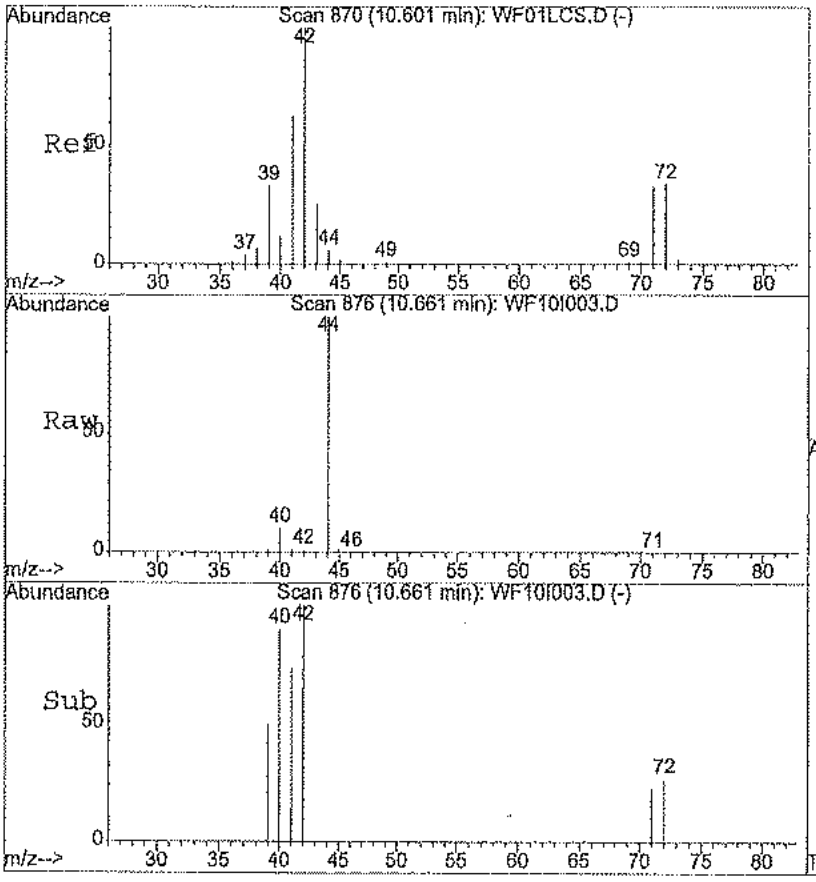


#25
chloroform
Concen: 0.17 ppb
RT: 10.27 min Scan# 836
Delta R.T. 0.07 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:82.9 Resp: 7410

Ion	Ratio	Lower	Upper
83	100		
85	62.4	51.8	77.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

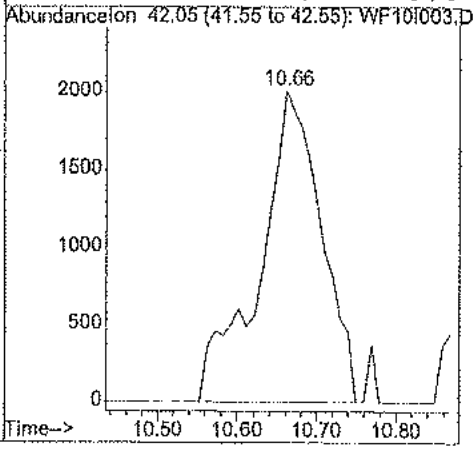


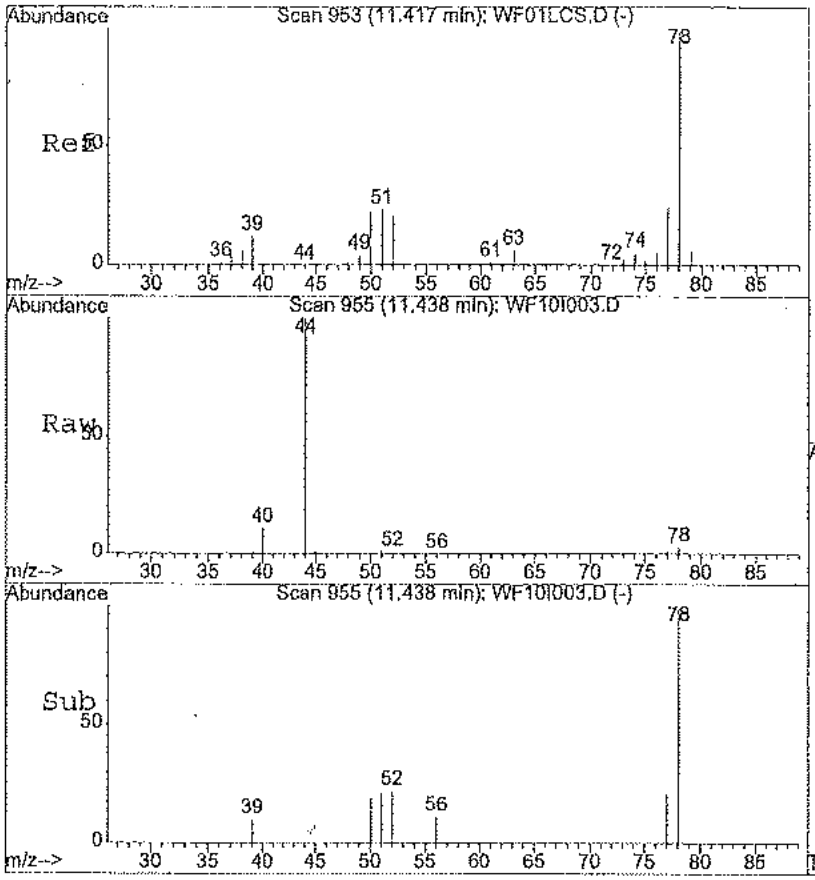


#26
Tetrahydrofuran
Concen: 0.45 ppb
RT: 10.66 min Scan# 876
Delta R.T. 0.10 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:42.05 Resp: 10889

Ion	Ratio	Lower	Upper
42	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

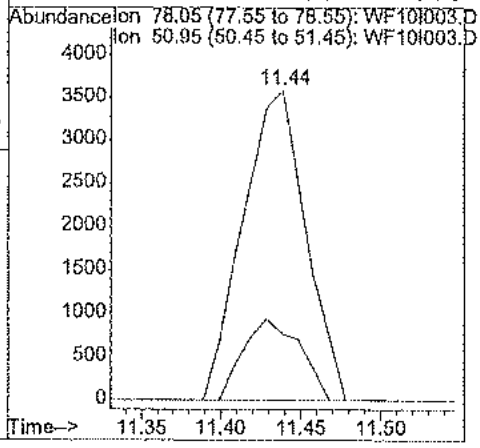


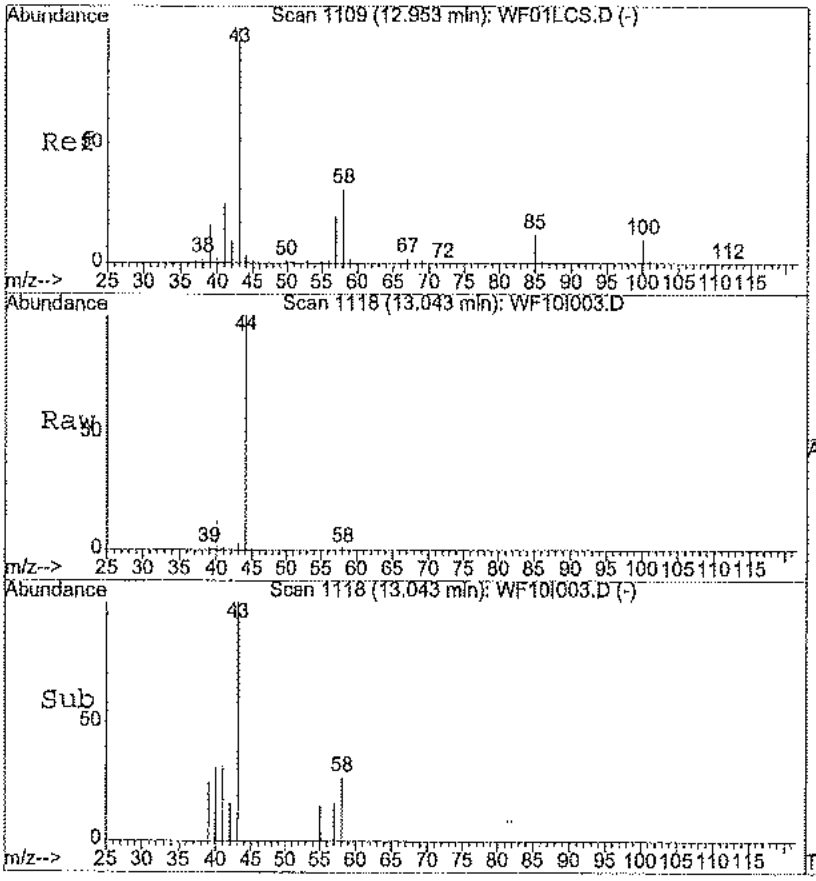


#31
benzene
Concen: 0.19 ppb
RT: 11.44 min Scan# 955
Delta R.T. 0.06 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:78.05 Resp: 9725

Ion	Ratio	Lower	Upper
78	100		
51	23.7	21.4	32.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

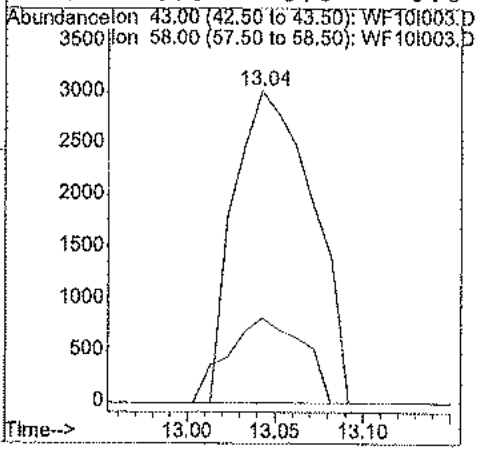


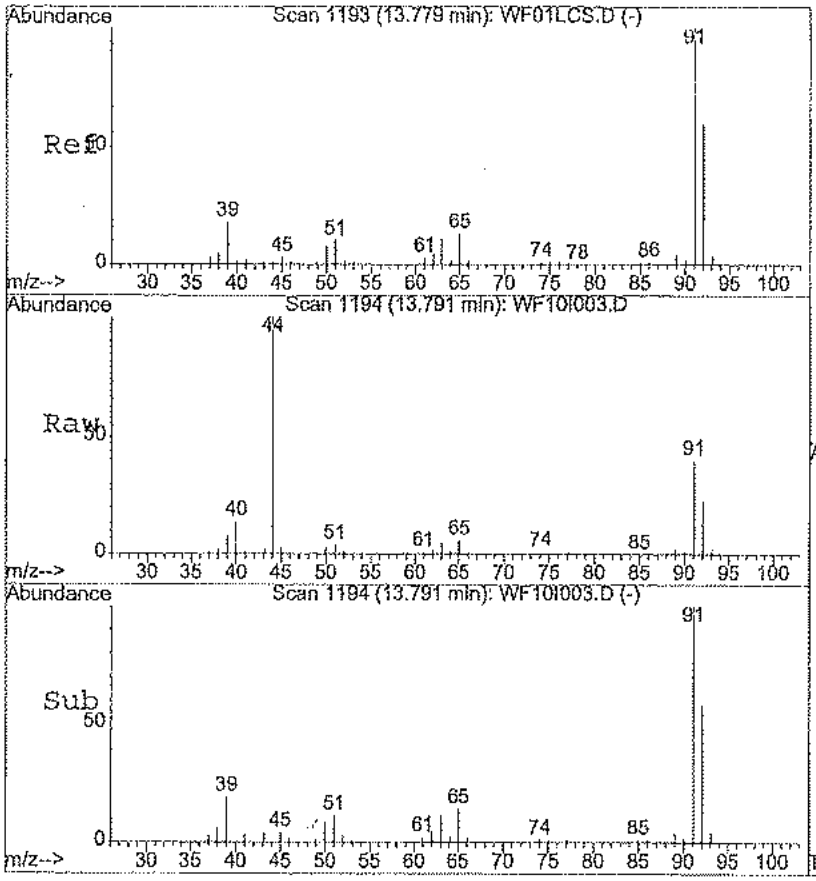


#39
4-methyl-2-pentanone
Concen: 0.20 ppb
RT: 13.04 min Scan# 1118
Delta R.T. 0.11 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:43 Resp: 9338

Ion	Ratio	Lower	Upper
43	100		
58	26.5	22.6	34.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

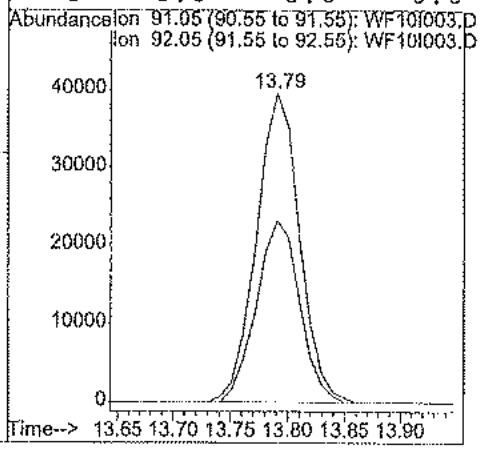


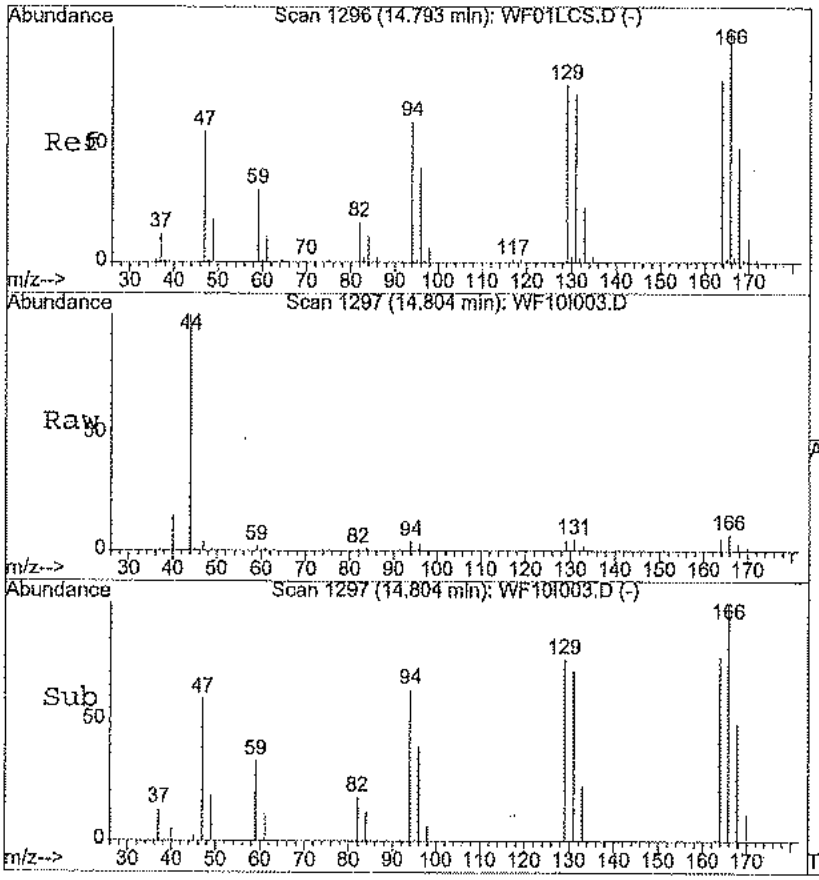


#43
toluene
Concen: 2.09 ppb
RT: 13.79 min Scan# 1194
Delta R.T. 0.04 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:91.05 Resp: 102465

Ion	Ratio	Lower	Upper
91	100		
92	58.8	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

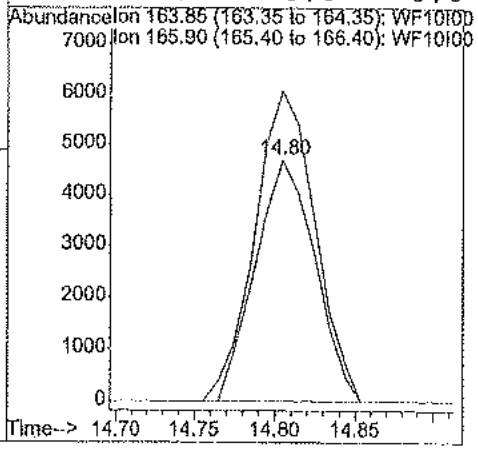


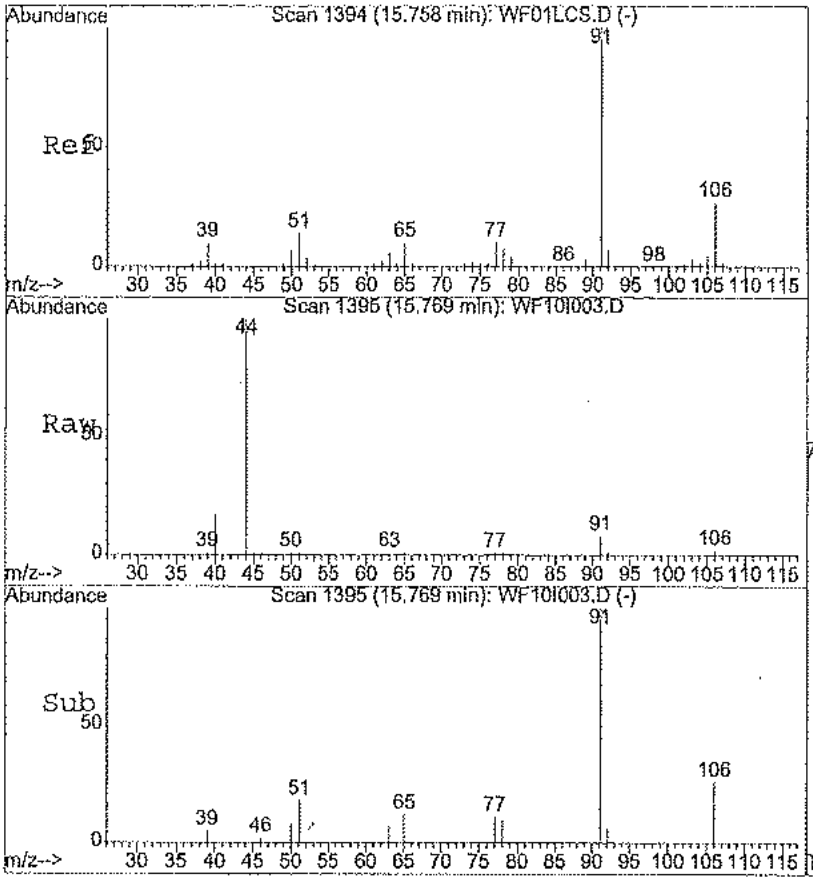


#45
tetrachloroethene
Concen: 0.71 ppb
RT: 14.80 min Scan# 1297
Delta R.T. 0.03 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:163.85 Resp: 12023

Ion	Ratio	Lower	Upper
164	100		
166	130.7	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

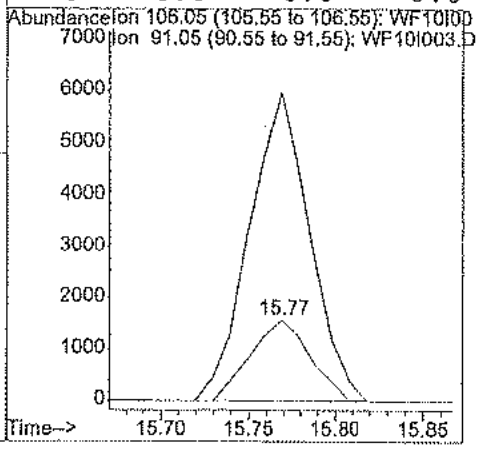


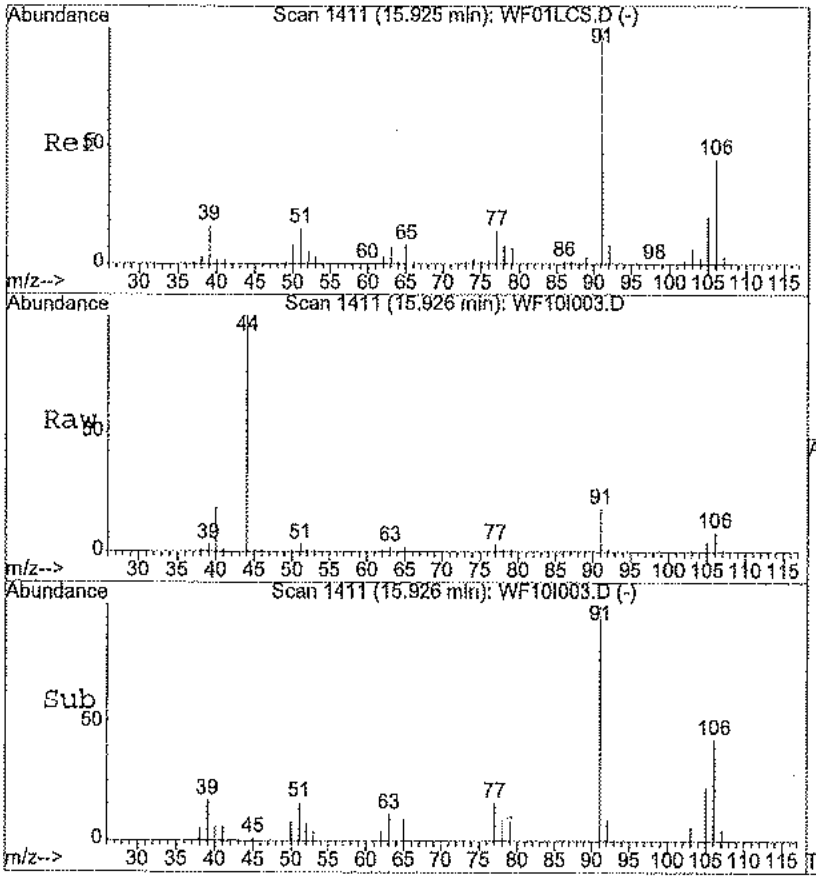


#49
ethyl benzene
Concen: 0.28 ppb
RT: 15.77 min Scan# 1395
Delta R.T. 0.03 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:106.05 Resp: 3744

Ion	Ratio	Lower	Upper
106	100		
91	386.6	321.4	482.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

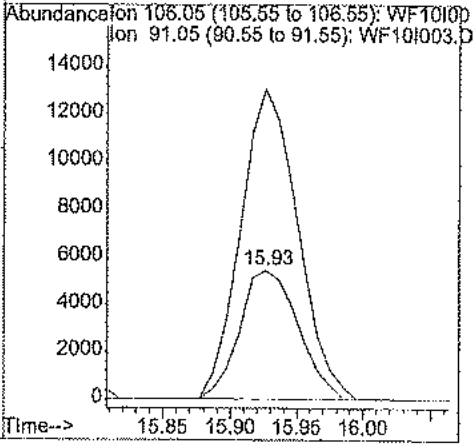


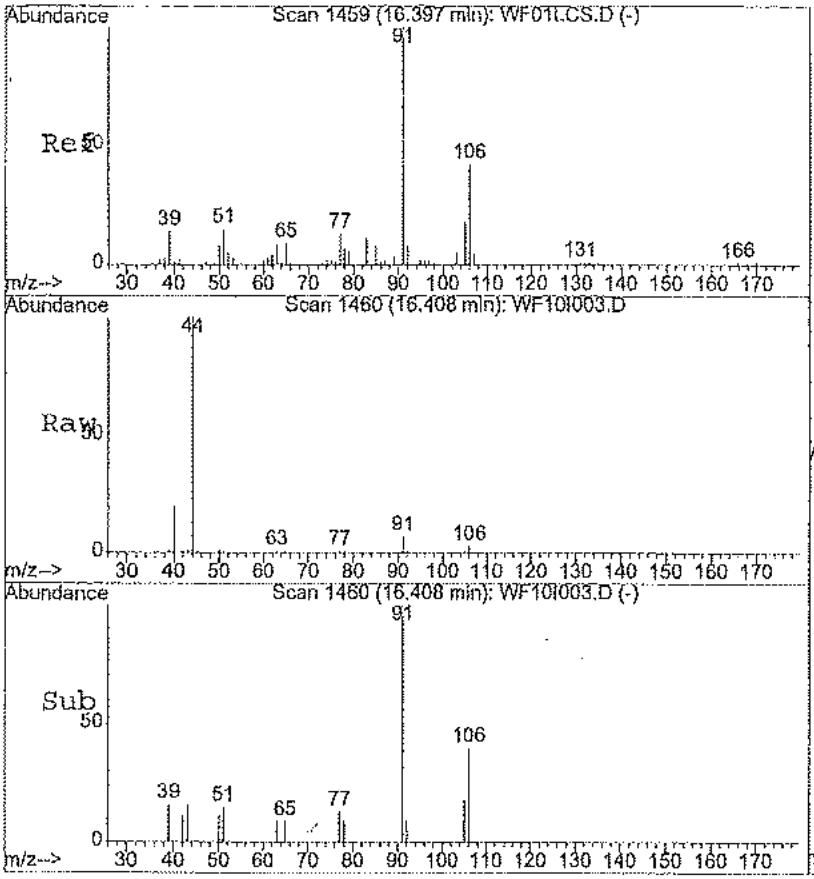


#50
m,p-xylene
Concen: 0.97 ppb
RT: 15.93 min Scan# 1411
Delta R.T. 0.02 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:106.05 Resp: 16579

Ion	Ratio	Lower	Upper
106	100		
91	235.1	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

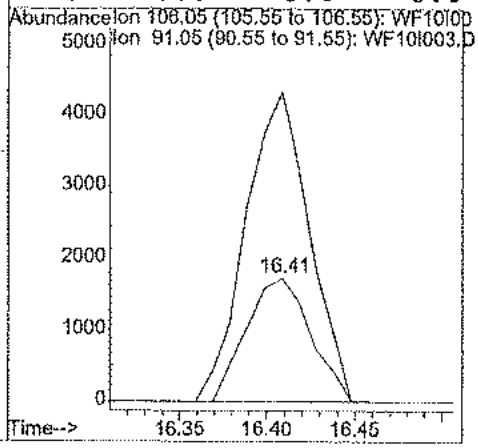


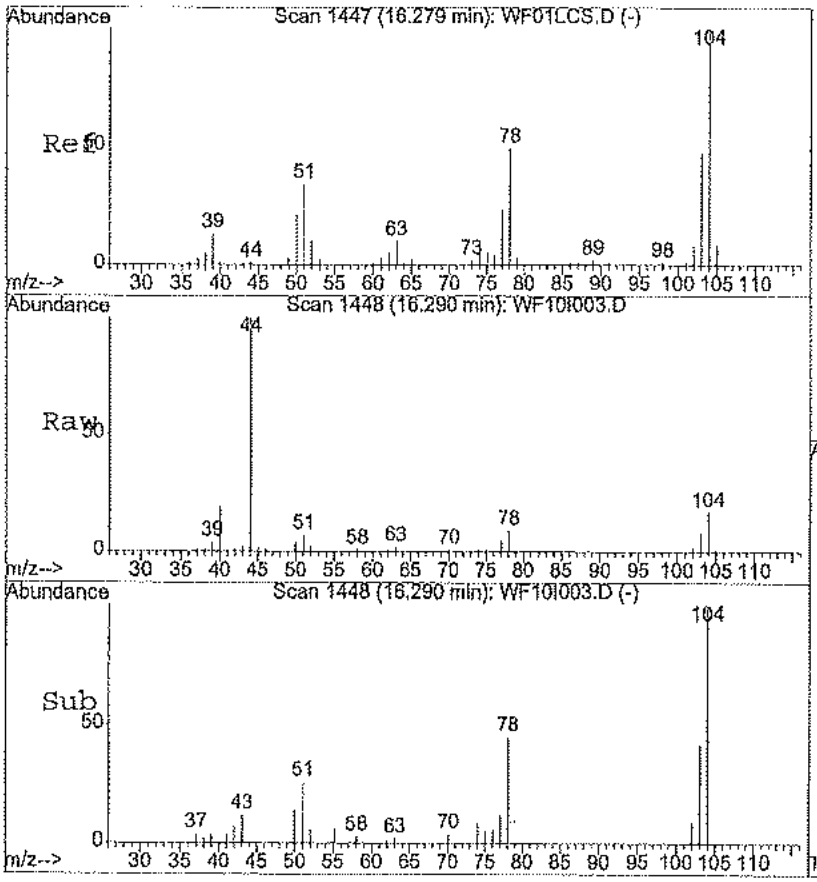


#51
o-xylene
Concen: 0.28 ppb
RT: 16.41 min Scan# 1460
Delta R.T. 0.03 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:106.05 Resp: 4367

Ion	Ratio	Lower	Upper
106	100		
91	247.9	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

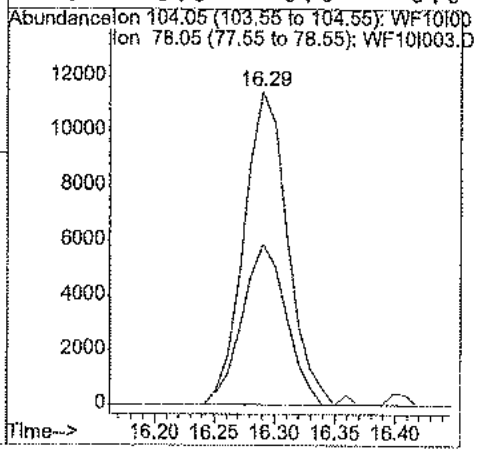




#52
styrene
Concen: 1.33 ppb
RT: 16.29 min Scan# 1448
Delta R.T. 0.03 min
Lab File: WF10I003.D
Acq: 03/23/2015 16:03

Tgt Ion:104.05 Resp: 28908

Ion	Ratio	Lower	Upper
104	100		
78	51.9	53.5	80.3#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



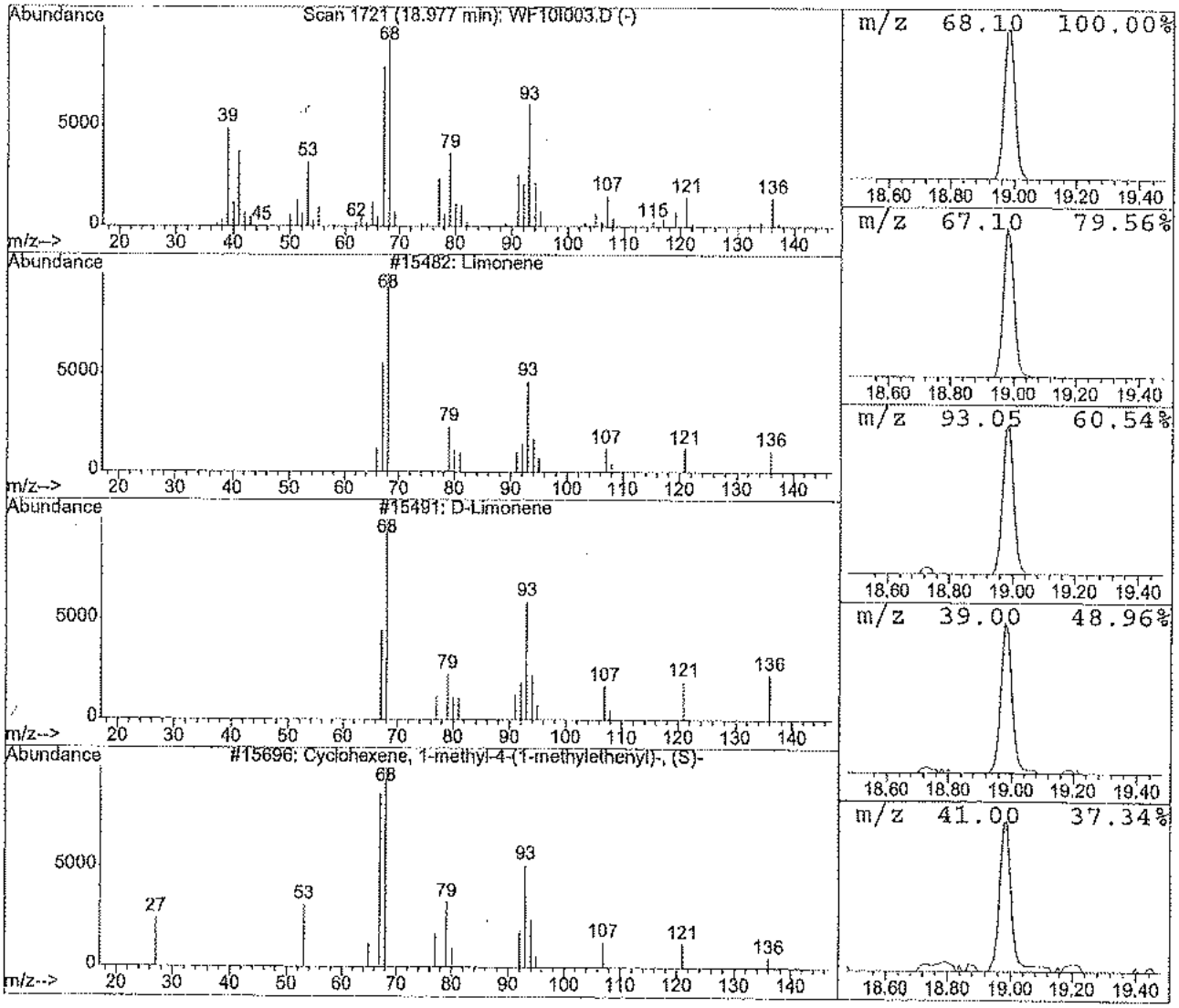
Library Search Compound Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF10I003.D
Acq Time : 03/23/2015 16:03 Operator: LMR
Sample : 1507913003 Inst : 5972-W
Misc : 0428 A-0007H 031915-TO-001 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.98	6.88 ppb	536669	ISTD chlorobenzene-d5	1559043

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Limonene	15482	000138-86-3	94.00
2	D-Limonene	15491	005989-27-5	91.00
3	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	91.00
4	Cyclohexene, 1-methyl-5-(1-methylet	15692	001461-27-4	74.00
5	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	49.00

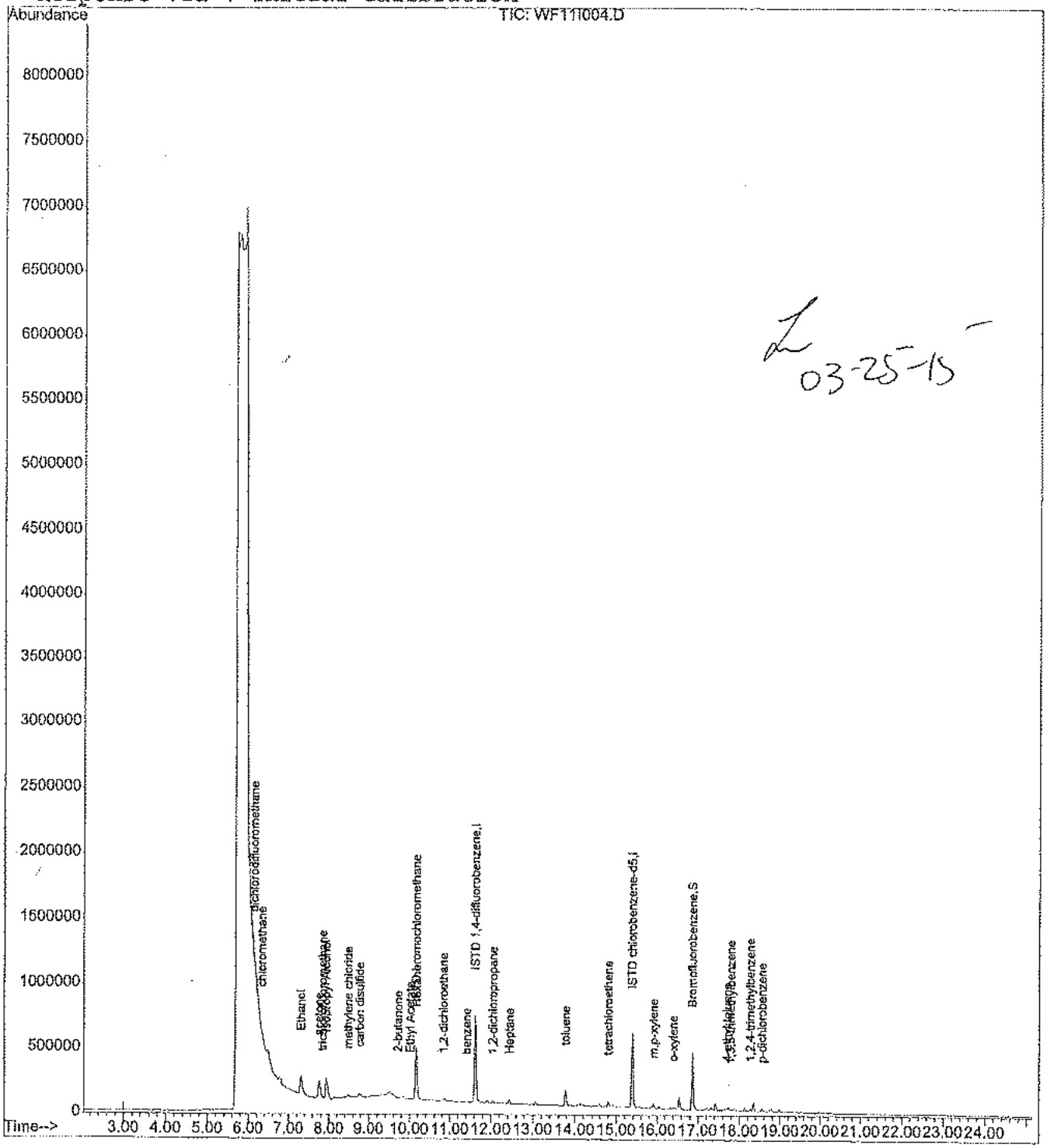


Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Quant Time: Mar 25 13:49 2015 Quant Results File: T015WE15.RES

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Initial Calibration



03-25-15

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Quant Time: Mar 25 13:49 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) ISTD bromochloromethane	10.16	128	129945	20.0000 ppb		100.65
28) ISTD 1,4-difluorobenzene	11.63	114	645611	20.0000 ppb		98.04
42) ISTD chlorobenzene-d5	15.38	117	398602	20.0000 ppb		98.50
System Monitoring Compounds						%Recovery
55) Bromofluorobenzene	16.85	95	227972	19.6109 ppb		98.05%
Target Compounds						Qvalue
2) dichlorodifluoromethane	6.15	85	10928	0.2431 ppb	#	89
3) chloromethane	6.34	50	8489	0.4071 ppb	#	86
4) freon 114	0.00	85		Not Detected		
5) vinyl chloride	0.00	62		Not Detected		
6) 1,3-Butadiene	0.00	54		Not Detected		
7) bromomethane	0.00	94		Not Detected		
8) chloroethane	0.00	64		Not Detected		
9) Ethanol	7.31	45	356066	81.0175 ppb		100
10) Isopropyl Alcohol	7.94	45	471406	17.4328 ppb		100
11) trichlorofluoromethane	7.85	101	11711	0.2770 ppb		96
12) freon 113	0.00	101		Not Detected		
13) 1,1-dichloroethene	0.00	96		Not Detected		
14) acetone	7.76	43	360760	7.8789 ppb		95
15) carbon disulfide	8.77	76	82825	1.3727 ppb	#	91
16) methylene chloride	8.49	49	22300	0.6288 ppb		91
17) trans-1,2-dichloroethene	0.00	96		Not Detected		
18) methyl t-butyl ether	0.00	73		Not Detected		
19) vinyl acetate	0.00	43		Not Detected		
20) 2-butanone	9.71	43	35271	0.6306 ppb	m	~~81~~
21) cis-1,2-dichloroethene	0.00	96		Not Detected		
22) 1,1-dichloroethane	0.00	63		Not Detected		
23) Ethyl Acetate	10.02	61	1221	0.1747 ppb		100
24) Hexane	10.18	57	21451	0.6409 ppb		100
25) chloroform	0.00	83		Not Detected		
26) Tetrahydrofuran	0.00	42		Not Detected		
27) 1,2-dichloroethane	10.83	62	14610	0.4307 ppb		99
29) 1,1,1-trichloroethane	0.00	97		Not Detected		
30) carbon tetrachloride	0.00	117		Not Detected		
31) benzene	11.42	78	11414	0.2203 ppb	#	90
32) Cyclohexane	0.00	84		Not Detected		
33) trichloroethene	0.00	130		Not Detected		
34) 1,2-dichloropropane	12.06	63	9695	0.4534 ppb	m	92
35) bromodichloromethane	0.00	83		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Quant Time: Mar 25 13:49 2015 Quant Results File: T015WE15.RES

Quant Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Thu Mar 19 09:14:04 2015
Response via : Initial Calibration
DataAcq Meth : TO15_F

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	1,4-Dioxane	0.00	88		Not Detected		
37)	Heptane	12.44	71	6818	0.3600 ppb		94
38)	cis-1,3-dichloropropene	0.00	75		Not Detected		
39)	4-methyl-2-pentanone	0.00	43		Not Detected		
40)	trans-1,3-dichloropropene	0.00	75		Not Detected		
41)	1,1,2-trichloroethane	0.00	97		Not Detected		
43)	toluene	13.78	91	106235	2.2153 ppb		98
44)	2-hexanone	0.00	43		Not Detected		
45)	tetrachloroethene	14.80	164	12456	0.7480 ppb		99
46)	dibromochloromethane	0.00	129		Not Detected		
47)	1,2-dibromoethane	0.00	107		Not Detected		
48)	chlorobenzene	0.00	112		Not Detected		
49)	ethyl benzene	0.00	106		Not Detected		
50)	m,p-xylene	15.92	106	7953	0.4727 ppb		71
51)	o-xylene	16.40	106	2625	0.1745 ppb		100
52)	styrene	0.00	104		Not Detected		
53)	bromoform	0.00	173		Not Detected		
54)	1,1,2,2-tetrachloroethane	0.00	83		Not Detected		
56)	Cumene	0.00	105		No Calib #		
57)	4-ethyl toluene	17.71	105	5091	0.1452 ppb	m	92
58)	1,3,5-trimethylbenzene	17.79	105	6632	0.2255 ppb		98
59)	1,2,4-trimethylbenzene	18.27	105	11699	0.4632 ppb		95
60)	m-dichlorobenzene	0.00	146		Not Detected		
61)	p-dichlorobenzene	18.56	146	12832	0.7957 ppb		94
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	o-dichlorobenzene	0.00	146		Not Detected		
64)	1,2,4-trichlorobenzene	0.00	180		Not Detected		
65)	Naphthalene	0.00	128		Not Detected		
66)	hexachloro-1,3-butadiene	0.00	225		Not Detected		

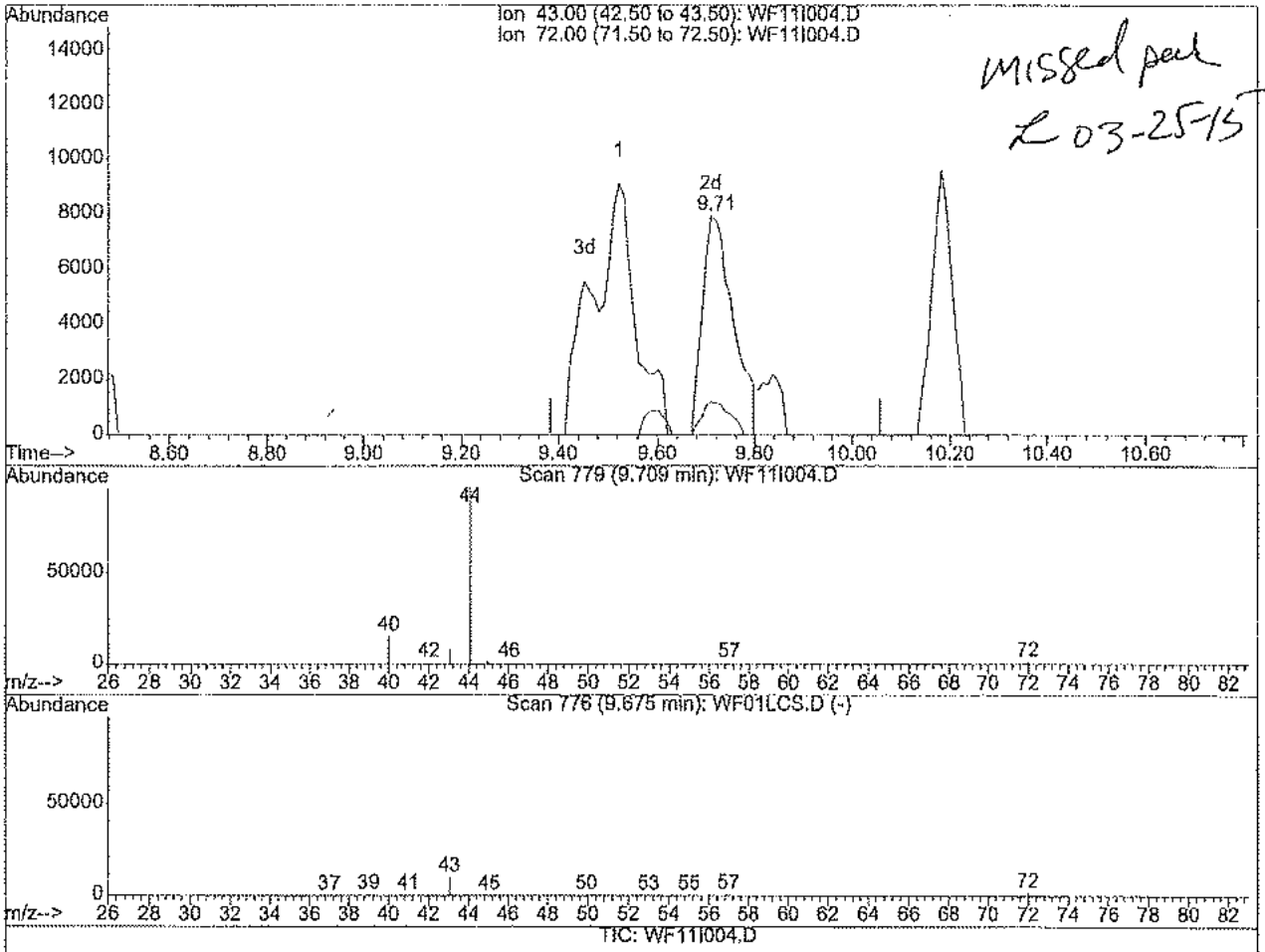
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Quant Time: Mar 25 13:48 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration



missed peak
L 03-25-15

(20) 2-butanone

9.71min 0.63ppb m

response 35271

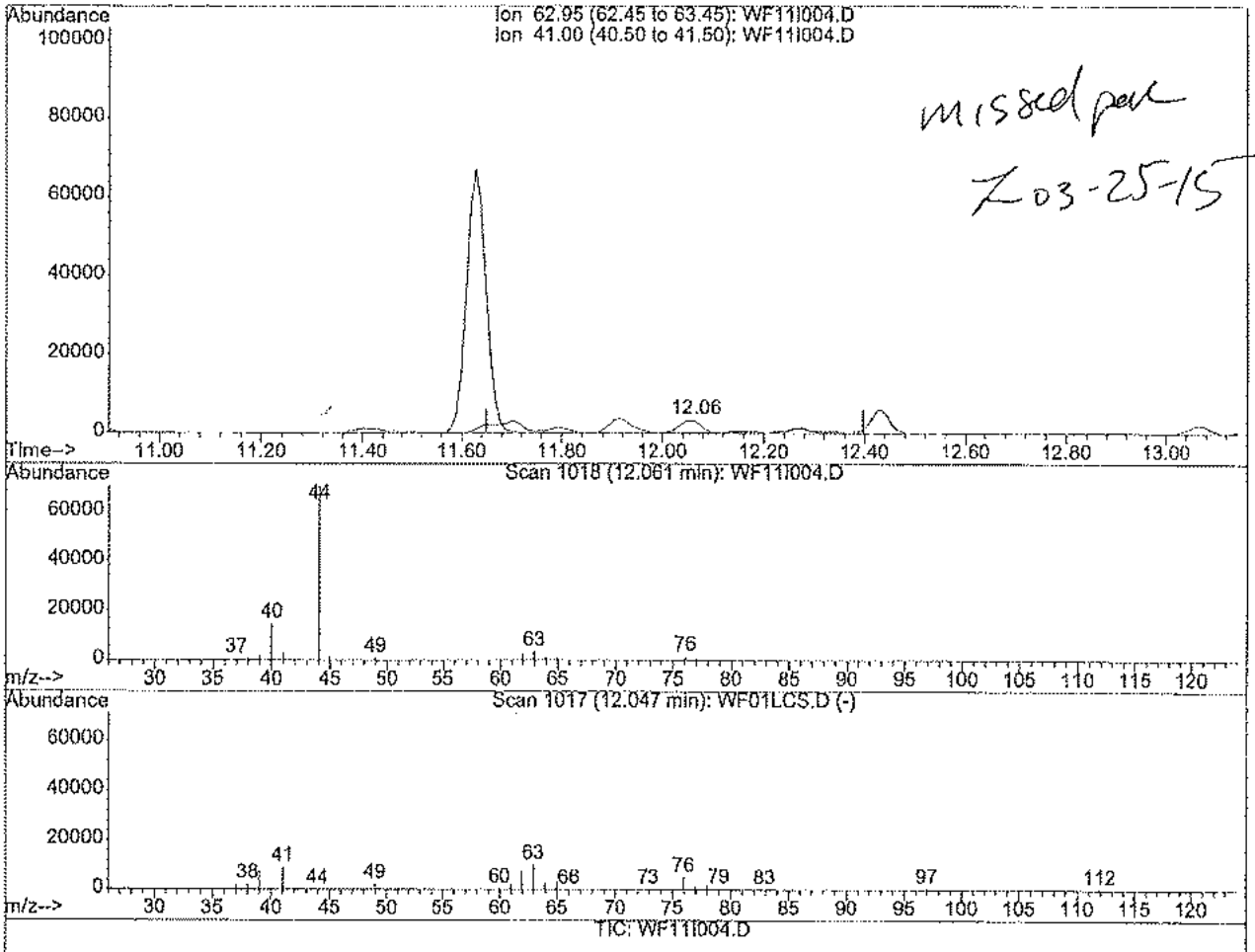
Ion	Exp%	Act%
43.00	100	100
72.00	14.70	7.15#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Quant Time: Mar 25 13:49 2015 Quant Results File: temp.res

Method : J:\W\METHODS\TO15WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration



missed per
Z 03-25-15

(34) 1,2-dichloropropane

12.06min 0.45ppb m

response 9695

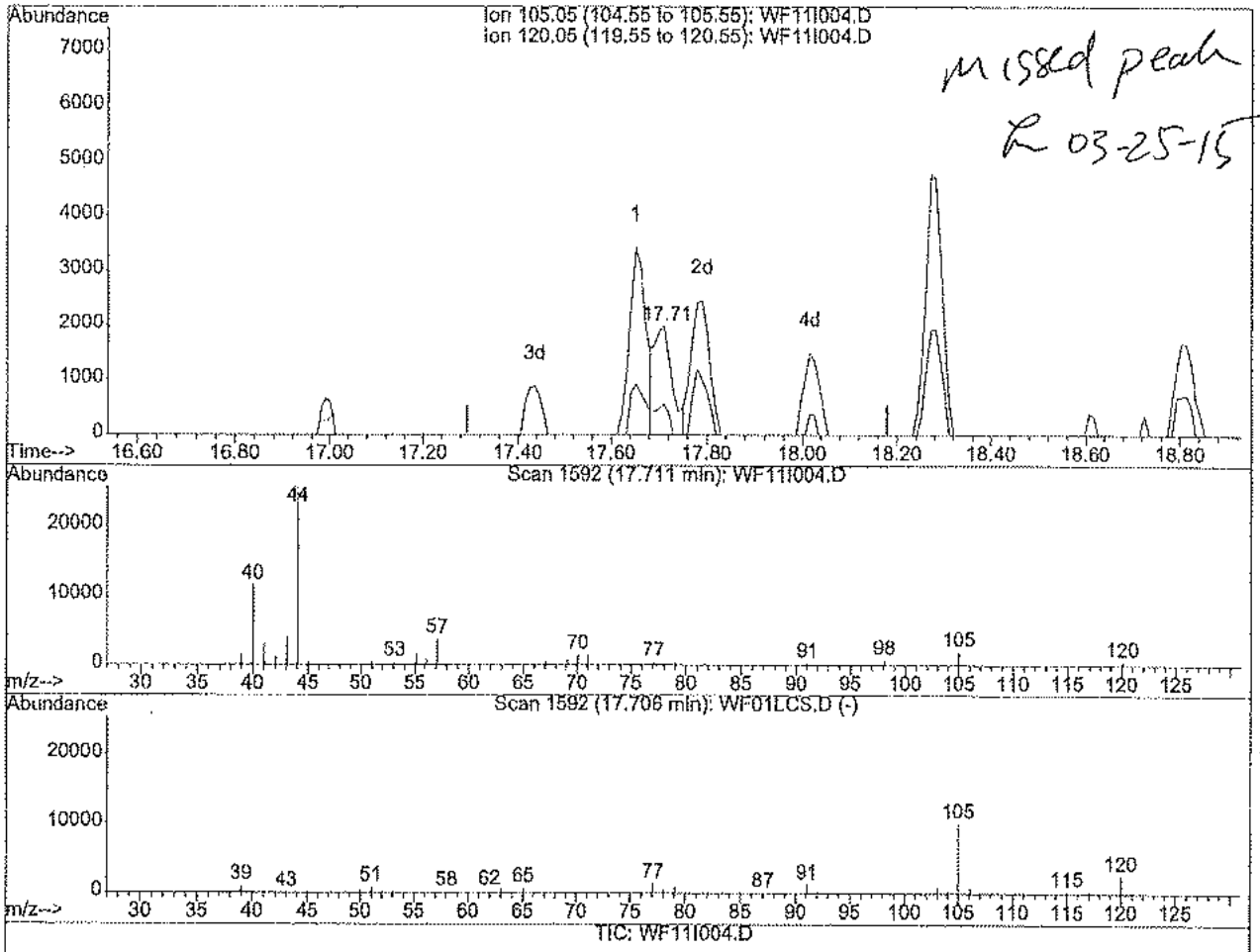
Ion	Exp%	Act%
62.95	100	100
41.00	104.70	98.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Quant Time: Mar 25 13:49 2015 Quant Results File: temp.res

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Last Update : Wed Mar 25 13:43:54 2015
Response via : Multiple Level Calibration

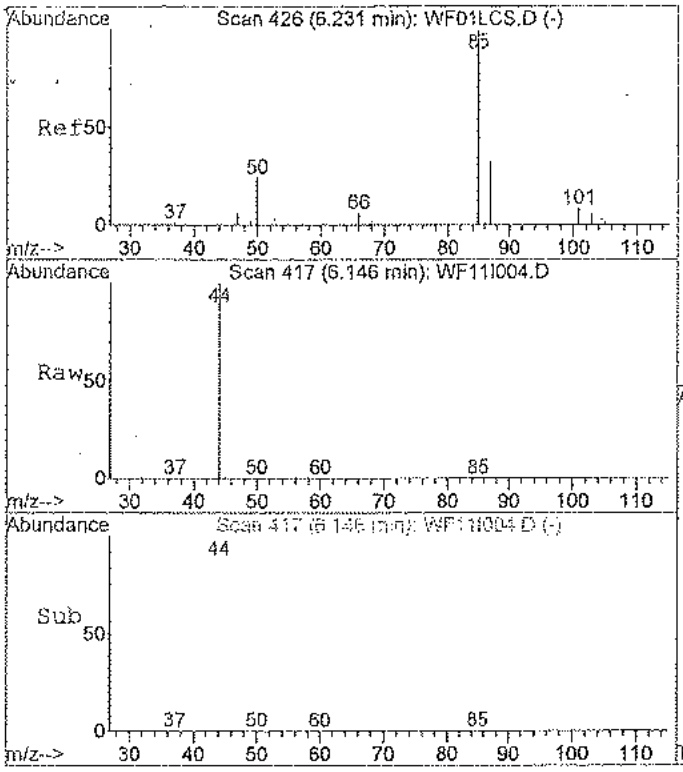


(57) 4-ethyl toluene

17.71min 0.15ppb m

response 5091

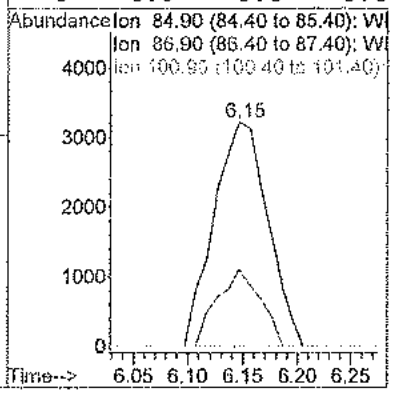
Ion	Exp%	Act%
105.05	100	100
120.05	23.70	44.71#
0.00	0.00	0.00
0.00	0.00	0.00

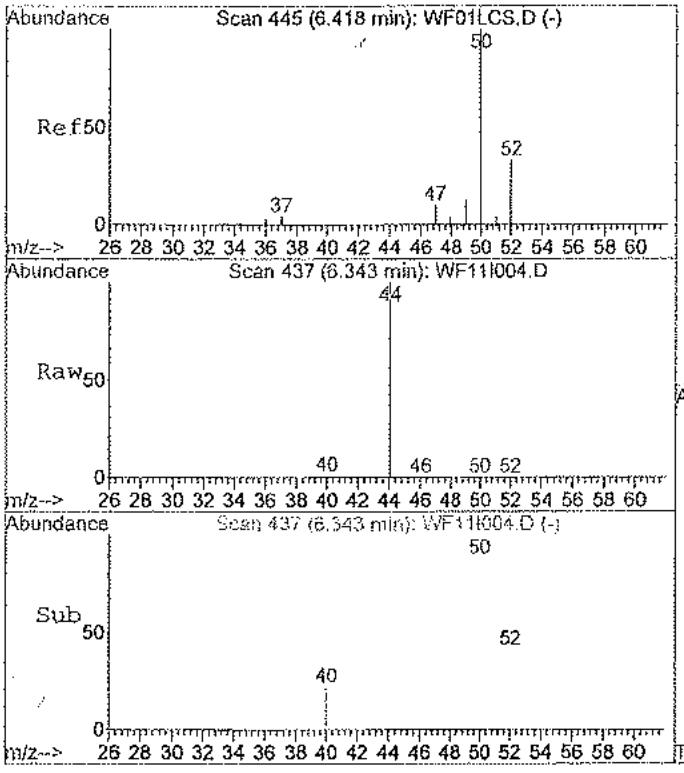


#2
dichlorodifluoromethane
Concen: 0.24 ppb
RT: 6.15 min Scan# 417
Delta R.T. -0.01 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:84.9 Resp: 10928

Ion	Ratio	Lower	Upper
85	100		
87	27.5	25.4	38.0
101	0.0	6.7	10.1#
0	0.0	0.0	0.0

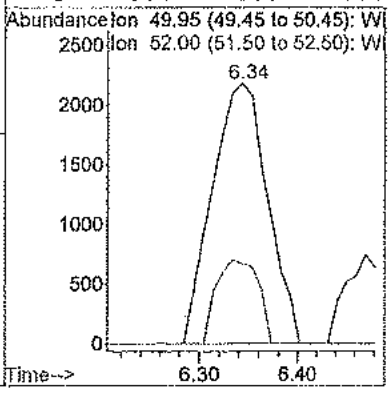


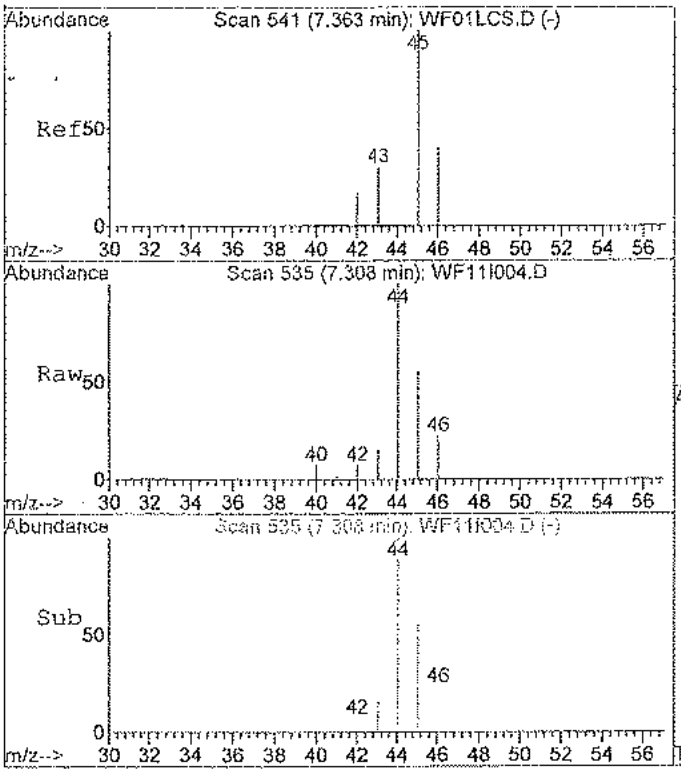


#3
chloromethane
Concen: 0.41 ppb
RT: 6.34 min Scan# 437
Delta R.T. -0.00 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:49.95 Resp: 8489

Ion	Ratio	Lower	Upper
50	100		
52	24.4	25.7	38.5#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

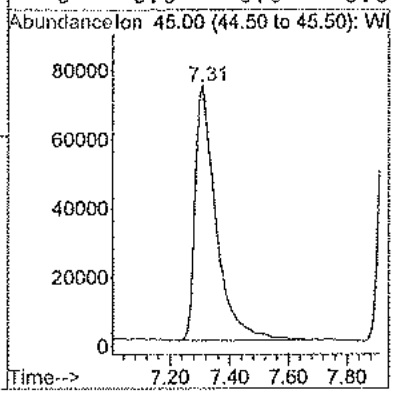


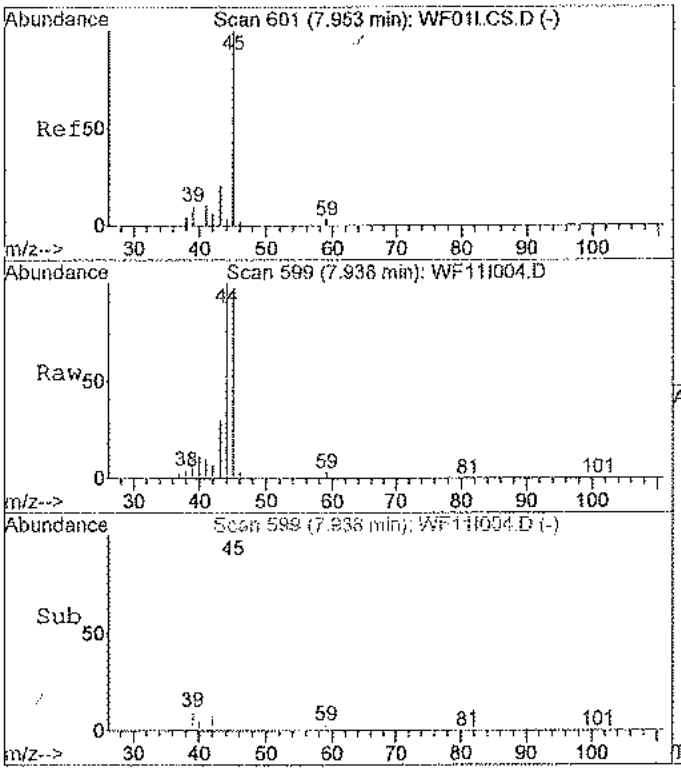


#9
Ethanol
Concen: 81.02 ppb
RT: 7.31 min Scan# 535
Delta R.T. 0.01 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:45 Resp: 356066

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

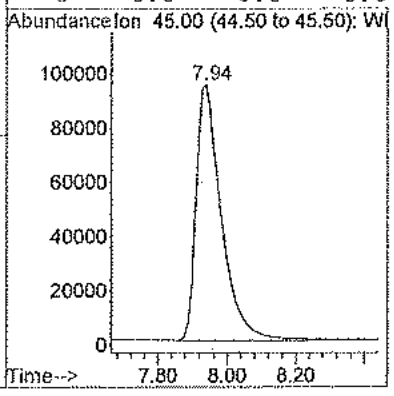


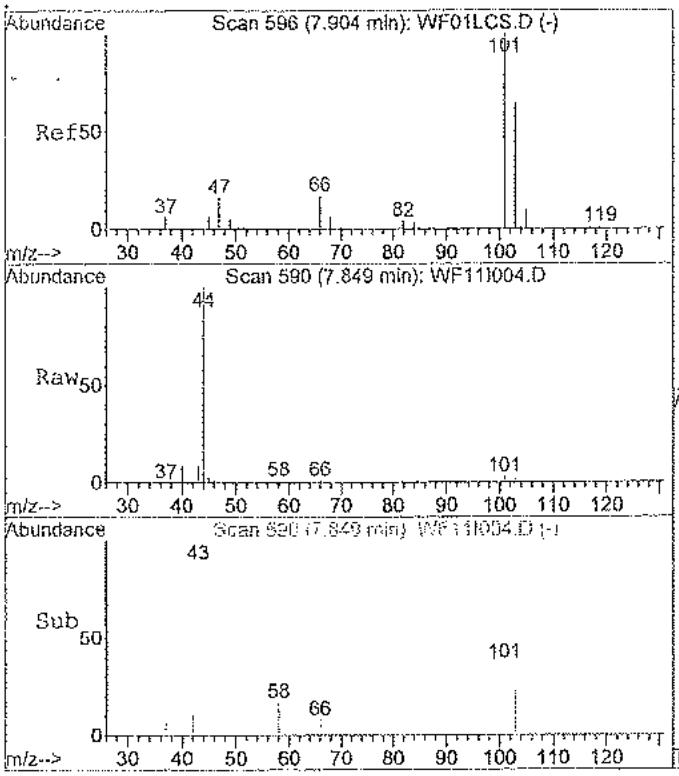


#10
Isopropyl Alcohol
Concen: 17.43 ppb
RT: 7.94 min Scan# 599
Delta R.T. 0.03 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:45 Resp: 471406

Ion	Ratio	Lower	Upper
45	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

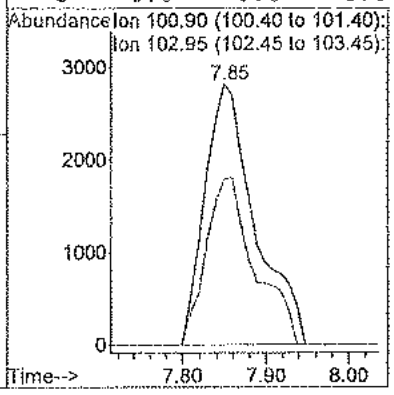


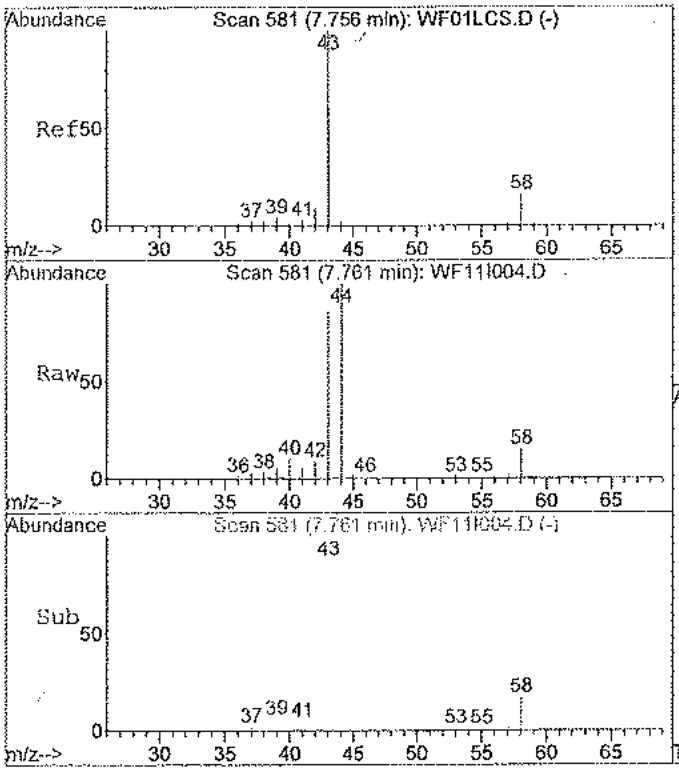


#11
trichlorofluoromethane
Concen: 0.28 ppb
RT: 7.85 min Scan# 590
Delta R.T. 0.01 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:100.9 Resp: 11711

Ion	Ratio	Lower	Upper
101	100		
103	62.6	52.7	79.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

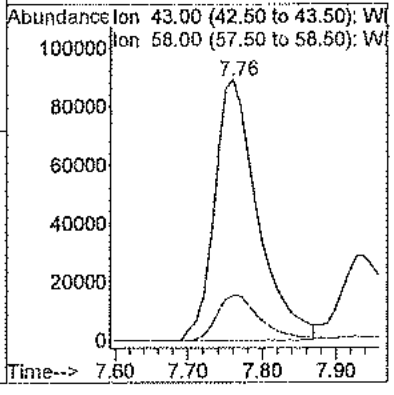


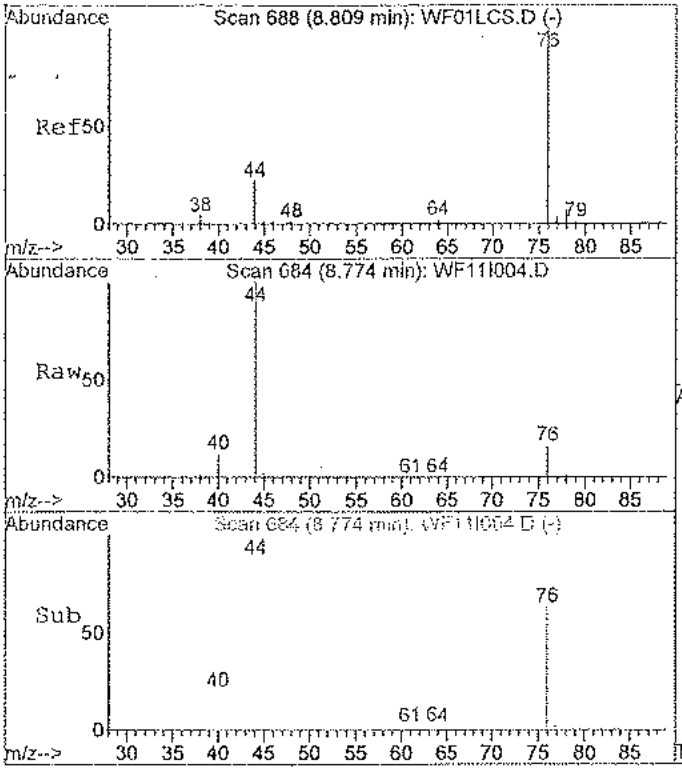


#14
acetone
Concen: 7.88 ppb
RT: 7.76 min Scan# 581
Delta R.T. 0.06 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:43 Resp: 360760

Ion	Ratio	Lower	Upper
43	100		
58	17.5	12.5	18.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

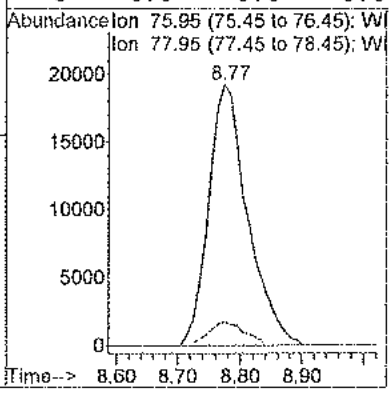


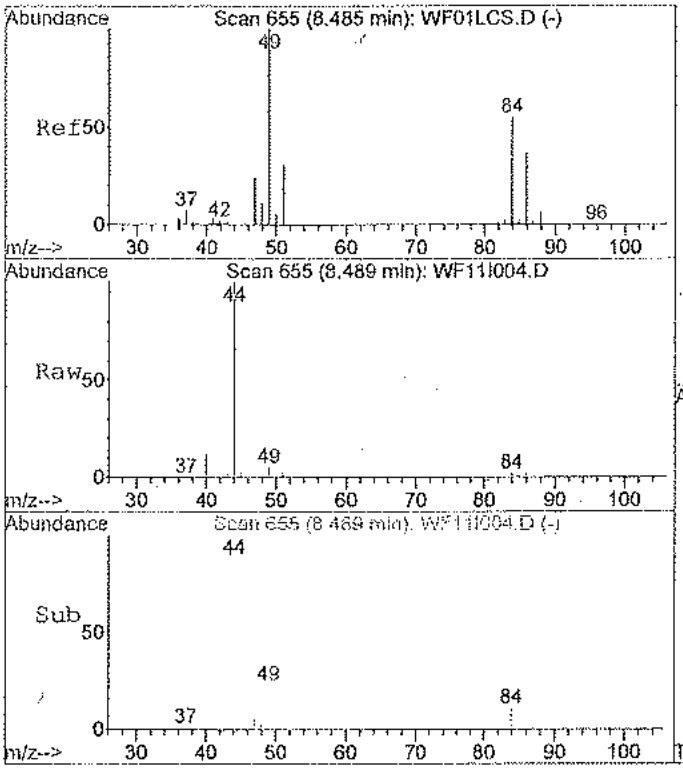


#15
carbon disulfide
Concen: 1.37 ppb
RT: 8.77 min Scan# 684
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:75.95 Resp: 82825

Ion	Ratio	Lower	Upper
76	100		
78	8.2	9.4	14.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

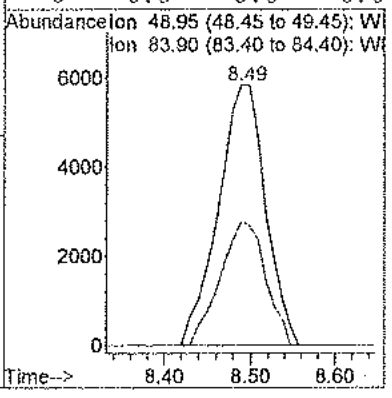


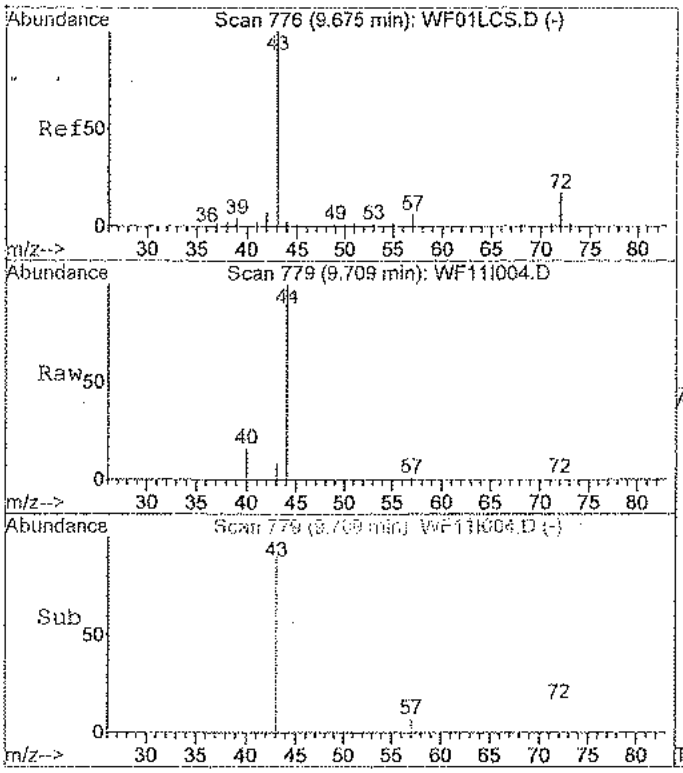


#16
methylene chloride
Concen: 0.63 ppb
RT: 8.49 min Scan# 655
Delta R.T. 0.06 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:48.95 Resp: 22300

Ion	Ratio	Lower	Upper
49	100		
84	45.7	41.6	62.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

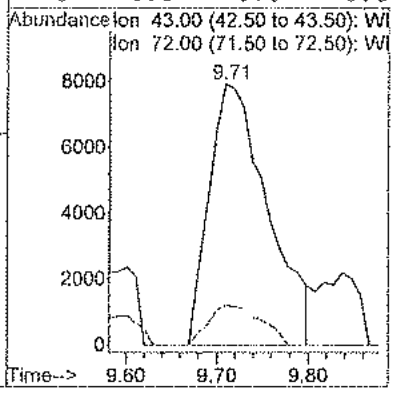


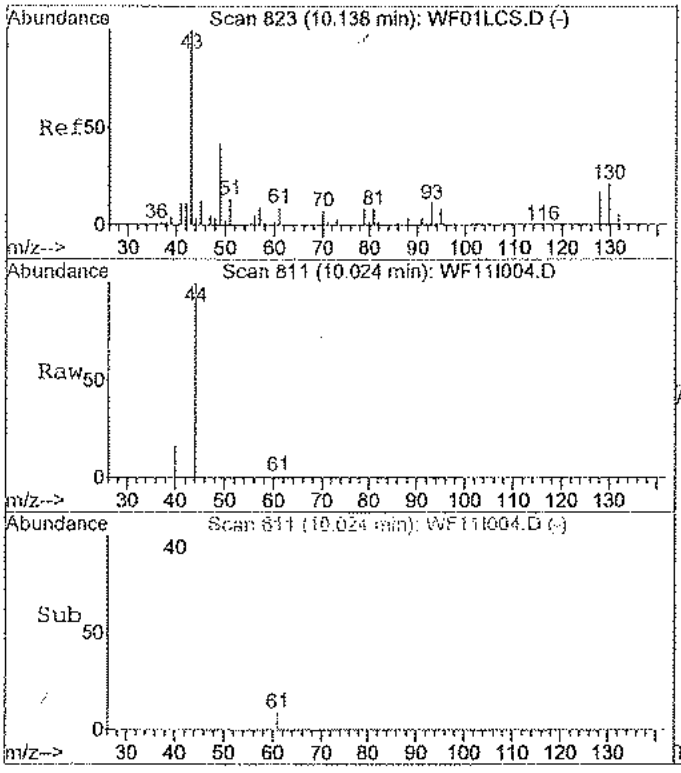


#20
2-butanone
Concen: 0.63 ppb m
RT: 9.71 min Scan# 779
Delta R.T. 0.07 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:43 Resp: 35271

Ion	Ratio	Lower	Upper
43	100		
72	7.2	11.8	17.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

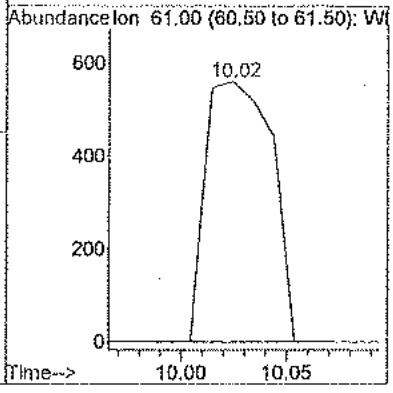


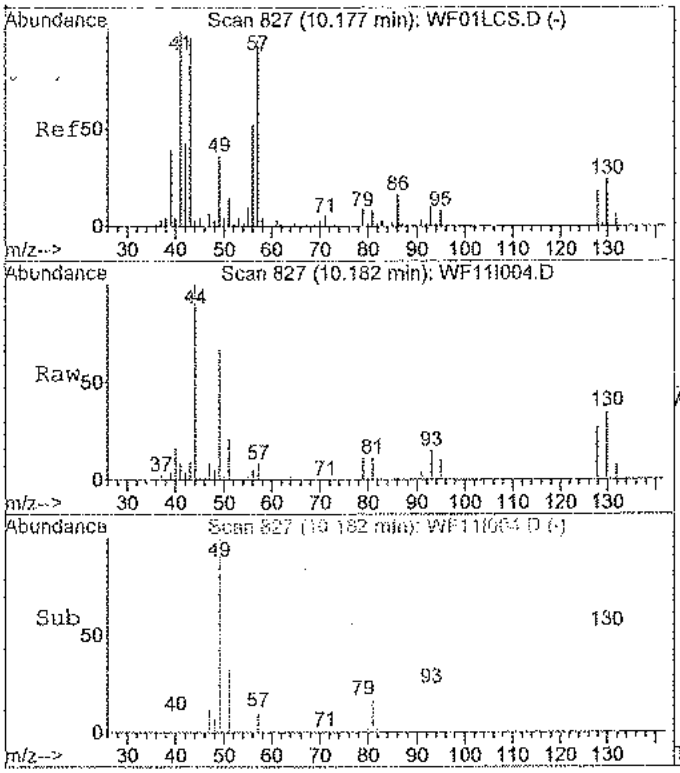


#23
Ethyl Acetate
Concen: 0.17 ppb
RT: 10.02 min Scan# 811
Delta R.T. -0.07 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:61 Resp: 1221

Ion	Ratio	Lower	Upper
61	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

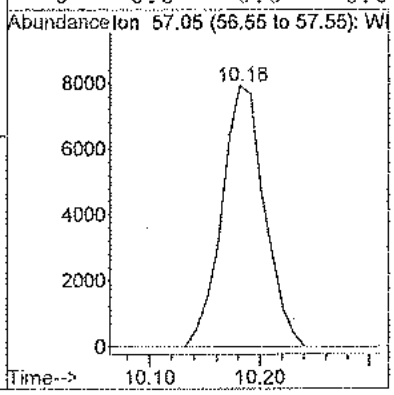


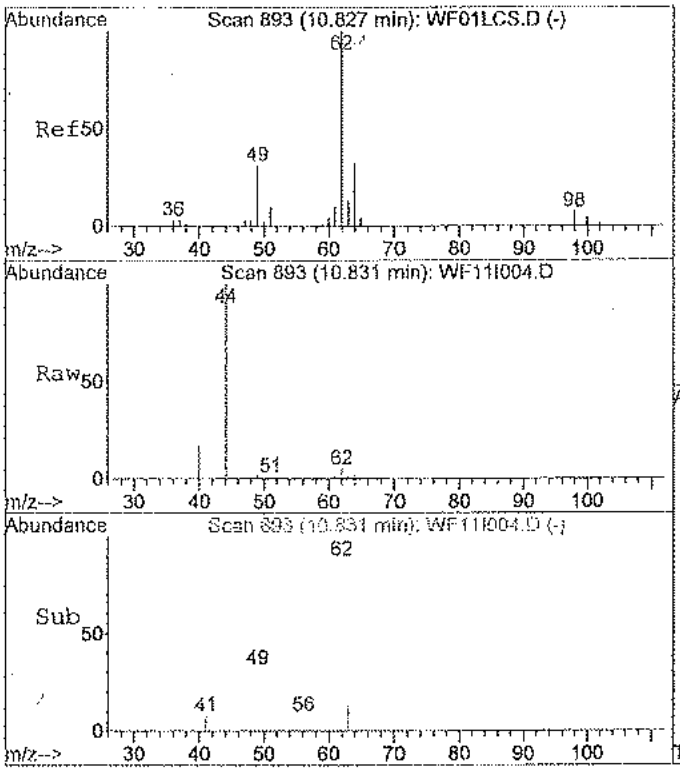


#24
Hexane
Concen: 0.64 ppb
RT: 10.18 min Scan# 827
Delta R.T. 0.05 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:57.05 Resp: 21451

Ion	Ratio	Lower	Upper
57	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

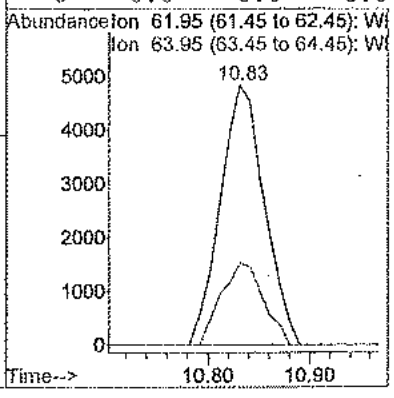


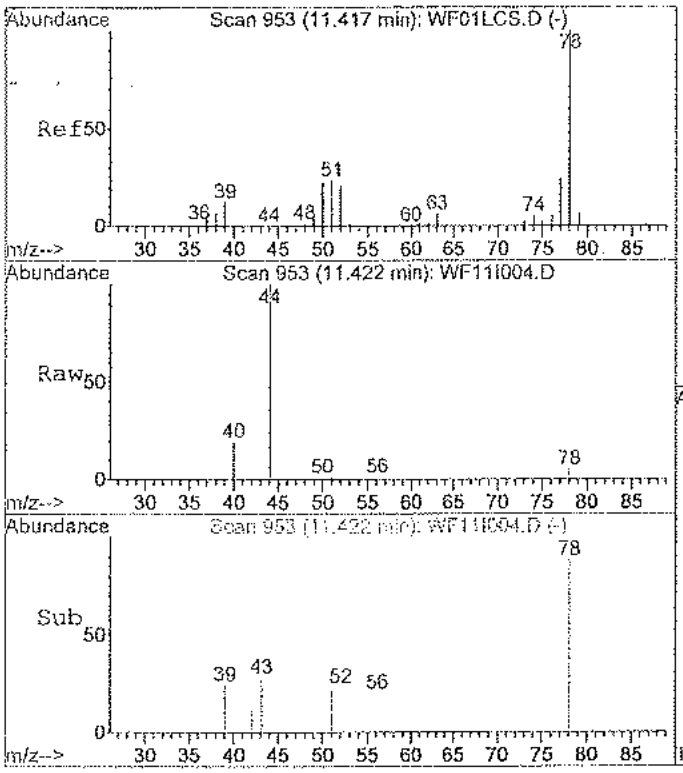


#27
1,2-dichloroethane
Concen: 0.43 ppb
RT: 10.83 min Scan# 893
Delta R.T. 0.04 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:61.95 Resp: 14610

Ion	Ratio	Lower	Upper
62	100		
64	30.4	24.7	37.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

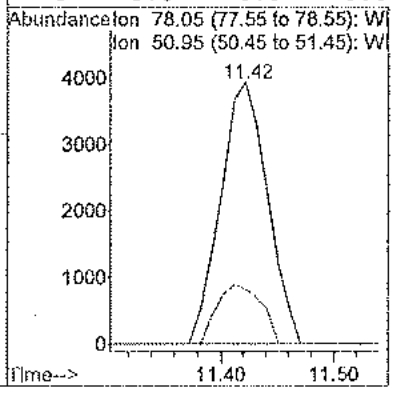


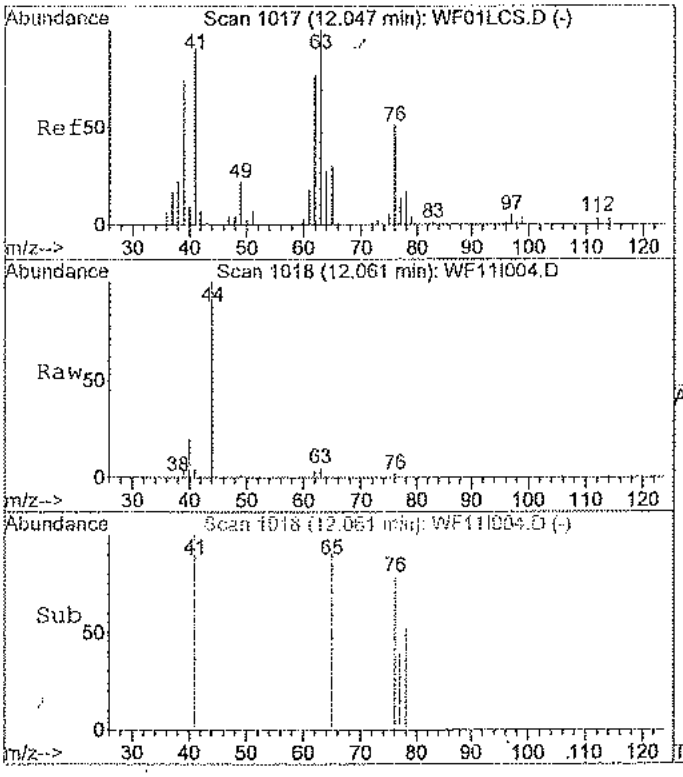


#31
benzene
Concen: 0.22 ppb
RT: 11.42 min Scan# 953
Delta R.T. 0.04 min
Lab File: WF111004.D
Acq: 03/23/2015 16:40

Tgt Ion:78.05 Resp: 11414

Ion	Ratio	Lower	Upper
78	100		
51	21.3	21.4	32.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

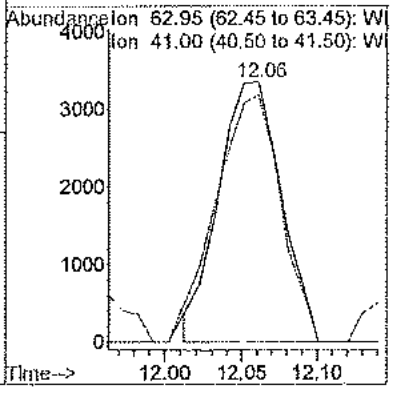


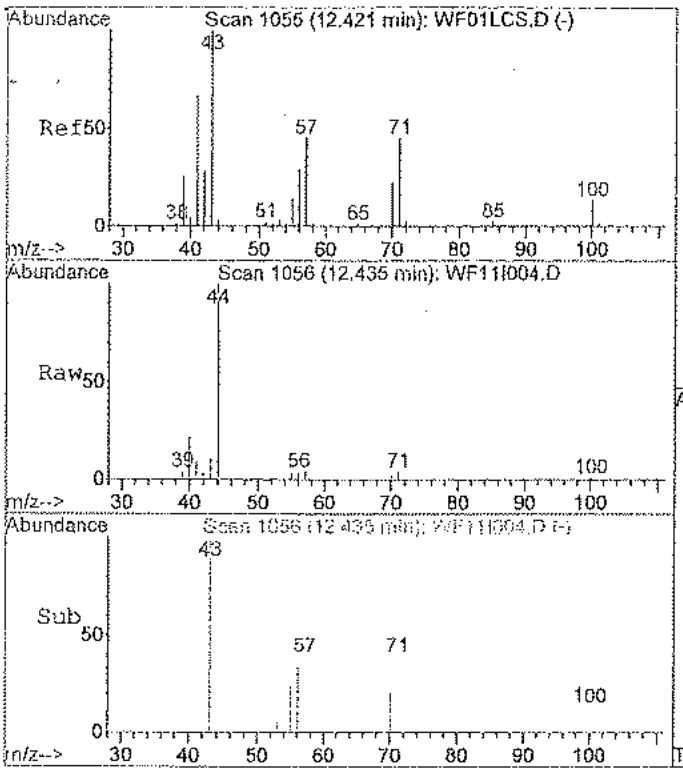


#34
1,2-dichloropropane
Concen: 0.45 ppb m
RT: 12.06 min Scan# 1018
Delta R.T. 0.04 min
Lab File: WF111004.D
Acq: 03/23/2015 16:40

Tgt Ion:62.95 Resp: 9695

Ion	Ratio	Lower	Upper
63	100		
41	98.9	83.8	125.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

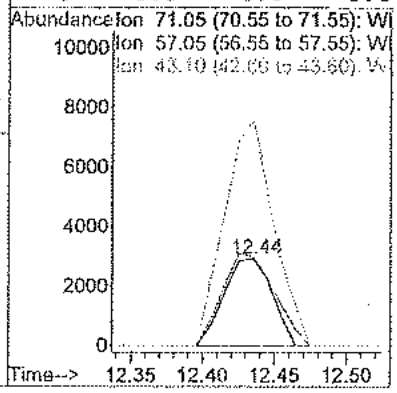


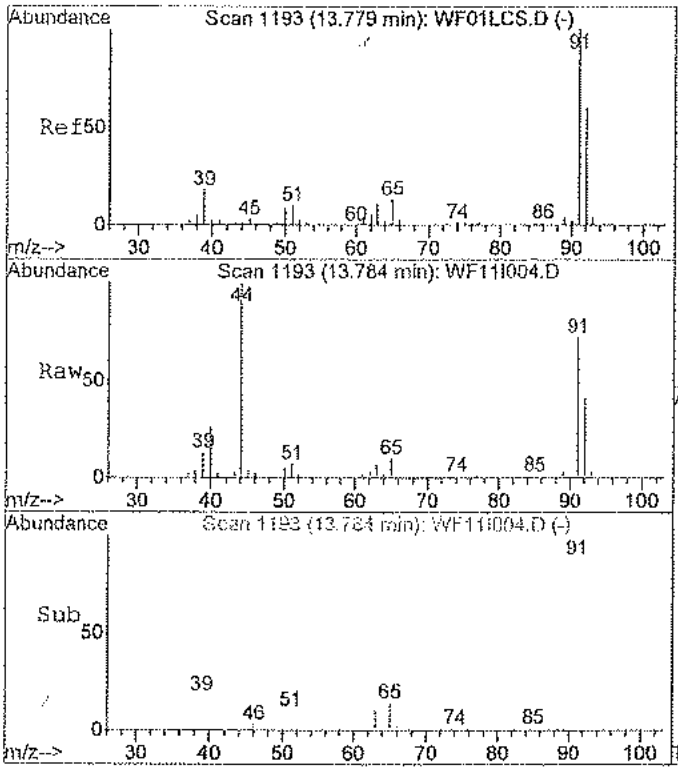


#37
Heptane
Concen: 0.36 ppb
RT: 12.44 min Scan# 1056
Delta R.T. 0.04 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:71.05 Resp: 6818

Ion	Ratio	Lower	Upper
71	100		
57	114.5	86.3	129.5
43	264.7	203.4	305.0
0	0.0	0.0	0.0

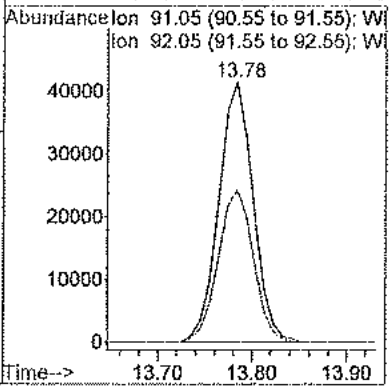


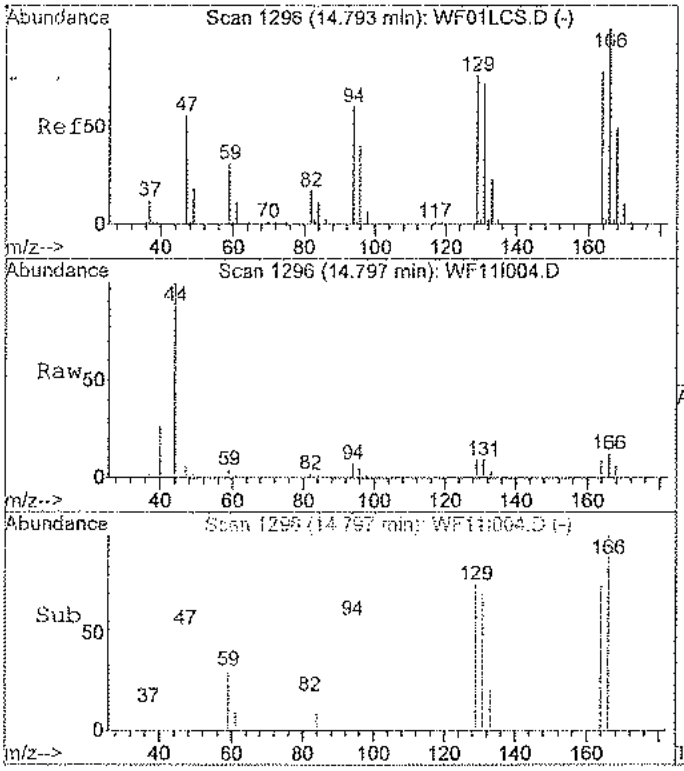


#43
toluene
Concen: 2.22 ppb
RT: 13.78 min Scan# 1193
Delta R.T. 0.03 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:91.05 Resp: 106235

Ion	Ratio	Lower	Upper
91	100		
92	59.7	46.3	69.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

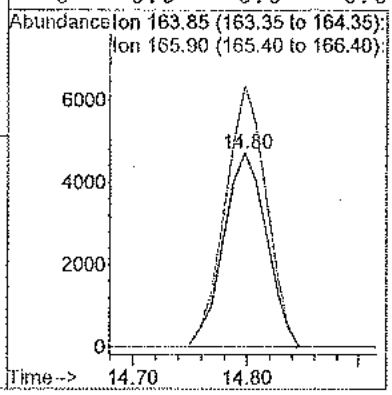


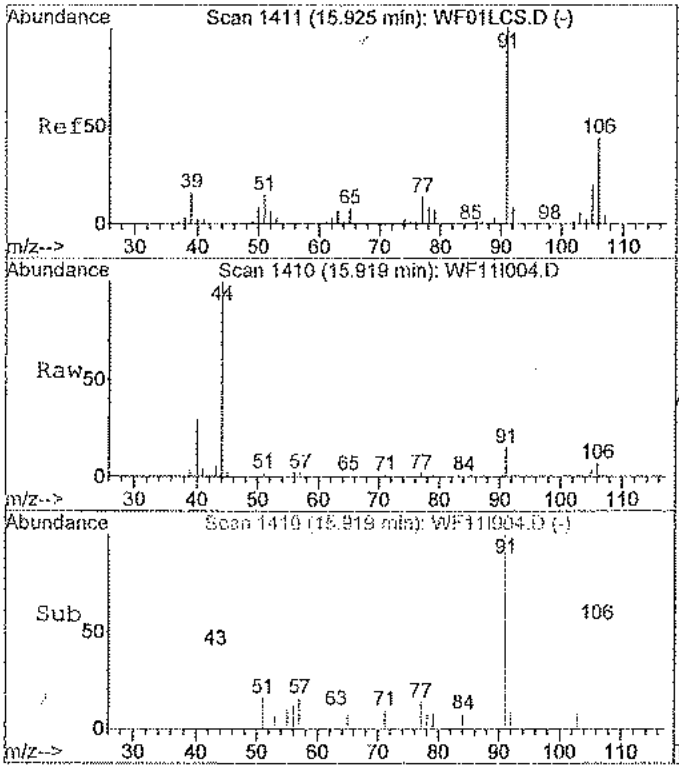


#45
tetrachloroethene
Concen: 0.75 ppb
RT: 14.80 min Scan# 1296
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:163.85 Resp: 12456

Ion	Ratio	Lower	Upper
164	100		
166	129.1	102.6	154.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

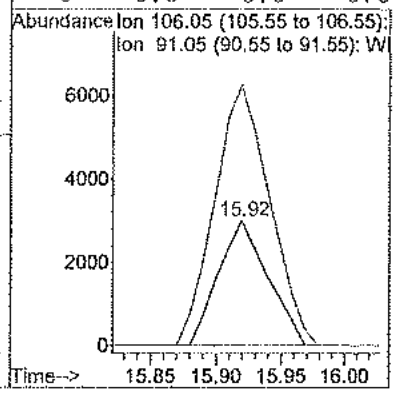


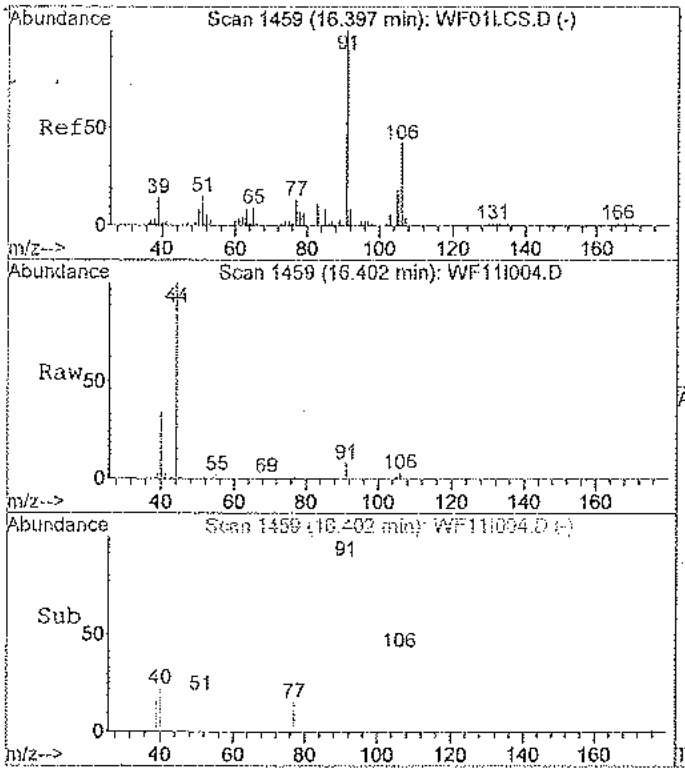


#50
m,p-xylene
Concen: 0.47 ppb
RT: 15.92 min Scan# 1410
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:106.05 Resp: 7953

Ion	Ratio	Lower	Upper
106	100		
91	232.3	230.7	346.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

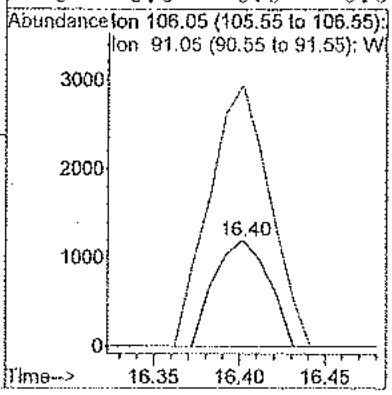


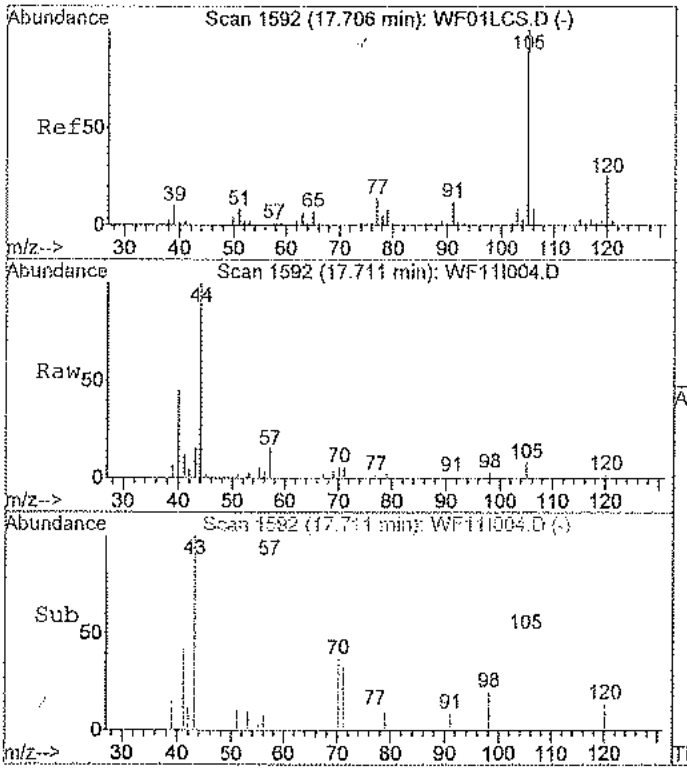


#51
o-xylene
Concen: 0.17 ppb
RT: 16.40 min Scan# 1459
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:106.05 Resp: 2625

Ion	Ratio	Lower	Upper
106	100		
91	274.0	218.9	328.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

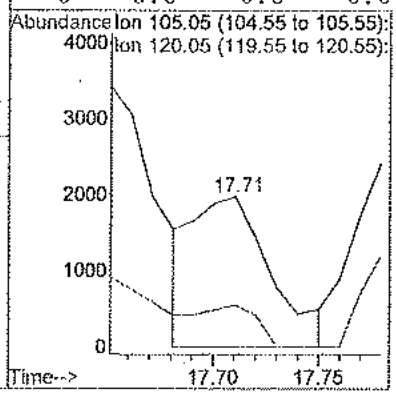


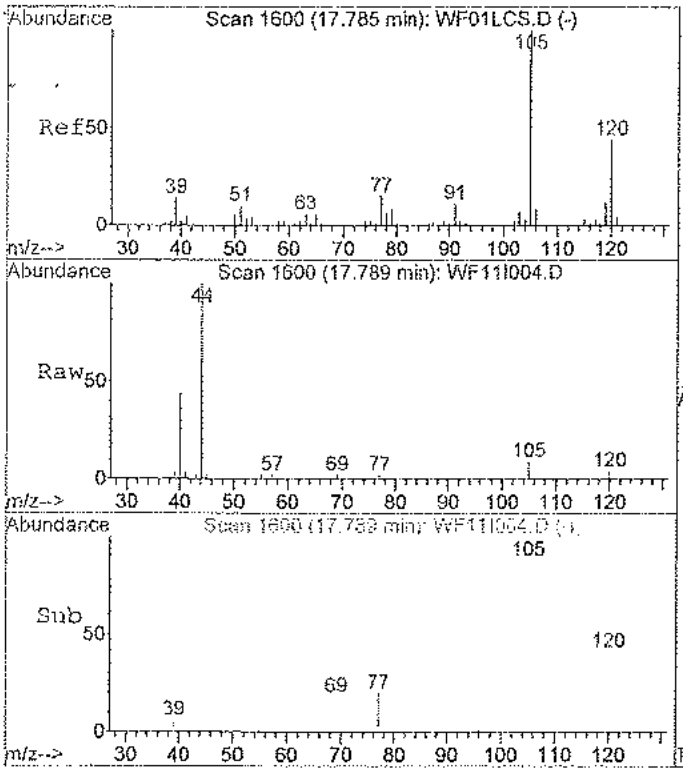


#57
4-ethyl toluene
Concen: 0.15 ppb m
RT: 17.71 min Scan# 1592
Delta R.T. 0.04 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:105.05 Resp: 5091

Ion	Ratio	Lower	Upper
105	100		
120	44.7	19.0	28.4#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

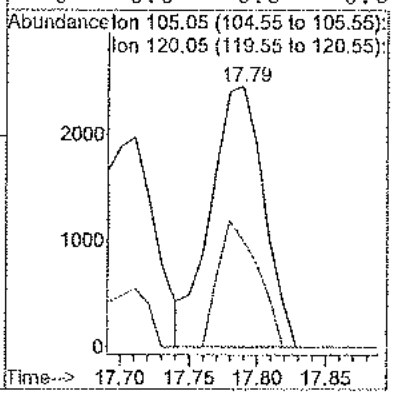


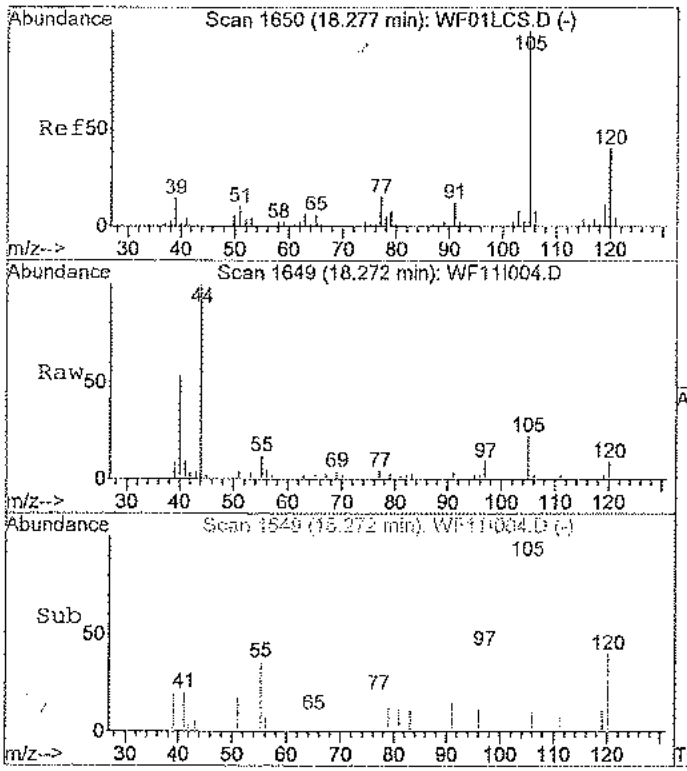


#58
1,3,5-trimethylbenzene
Concen: 0.23 ppb
RT: 17.79 min Scan# 1600
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:105.05 Resp: 6632

Ion	Ratio	Lower	Upper
105	100		
120	36.5	30.4	45.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

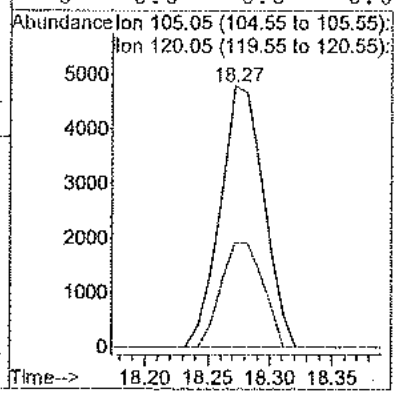


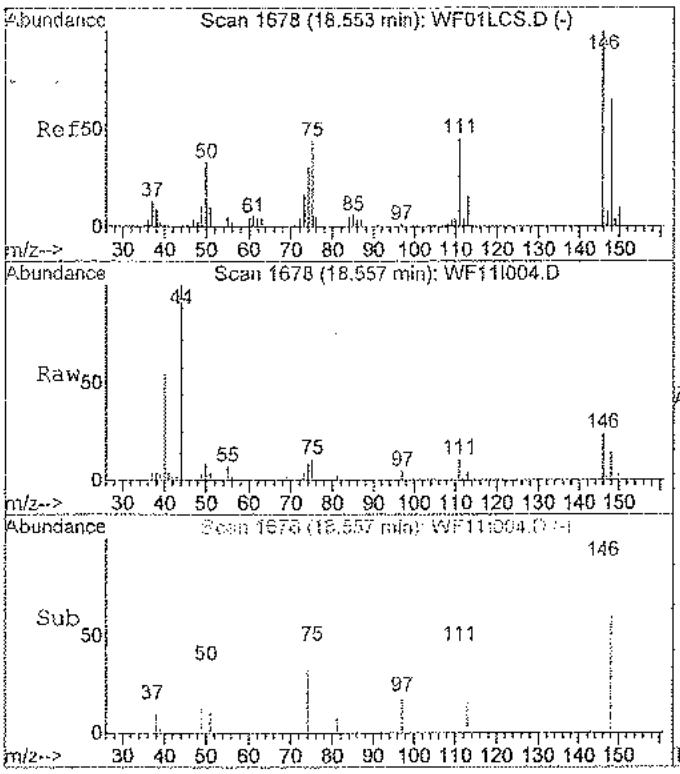


#59
1,2,4-trimethylbenzene
Concen: 0.46 ppb
RT: 18.27 min Scan# 1649
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:105.05 Resp: 11699

Ion	Ratio	Lower	Upper
105	100		
120	38.5	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

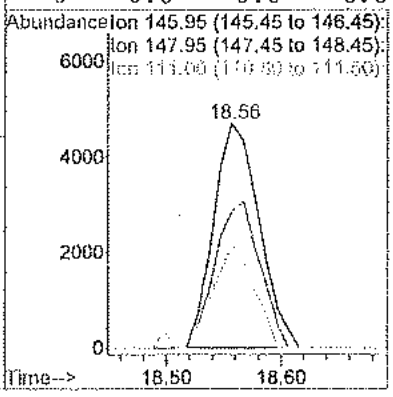




#61
p-dichlorobenzene
Concen: 0.80 ppb
RT: 18.56 min Scan# 1678
Delta R.T. 0.02 min
Lab File: WF11I004.D
Acq: 03/23/2015 16:40

Tgt Ion:145.95 Resp: 12832

Ion	Ratio	Lower	Upper
146	100		
148	63.8	51.7	77.5
111	41.7	40.4	60.6
0	0.0	0.0	0.0



Library Search Compound Report

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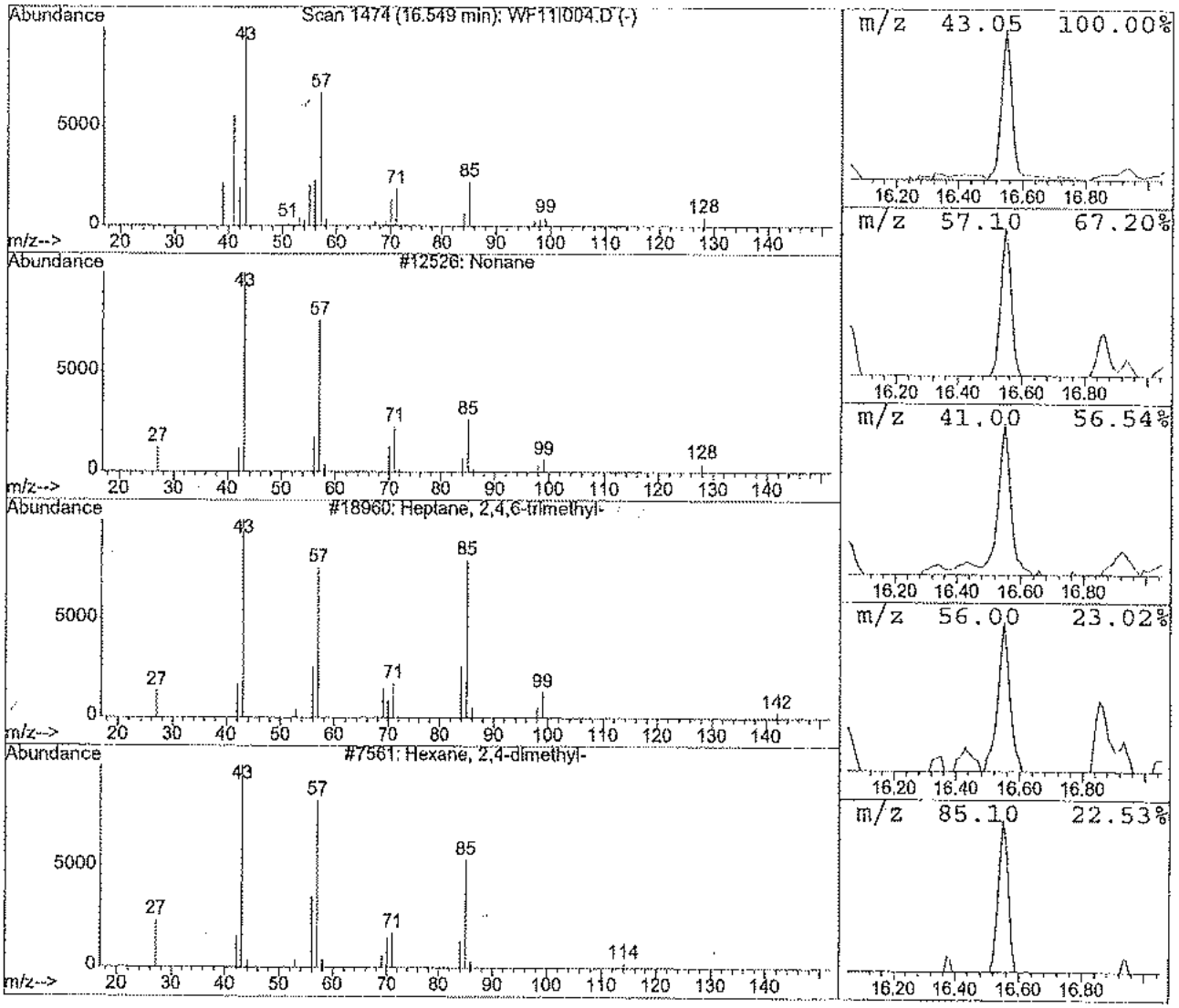
Acq Time : 03/23/2015 16:40 Operator: LMR
Sample : 1507913004 Inst : 5972-W
Misc : 0499 A-0000H 031915-TO-010 Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.55	3.30 ppb	243699	ISTD chlorobenzene-d5	1475535

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12526	000111-84-2	90.00
2	Heptane, 2,4,6-trimethyl-	18960	002613-61-8	72.00
3	Hexane, 2,4-dimethyl-	7561	000589-43-5	64.00
4	Octane	7546	000111-65-9	56.00
5	Oxalic acid, allyl nonyl ester	102342	1000309-23-7	50.00



Library Search Compound Report

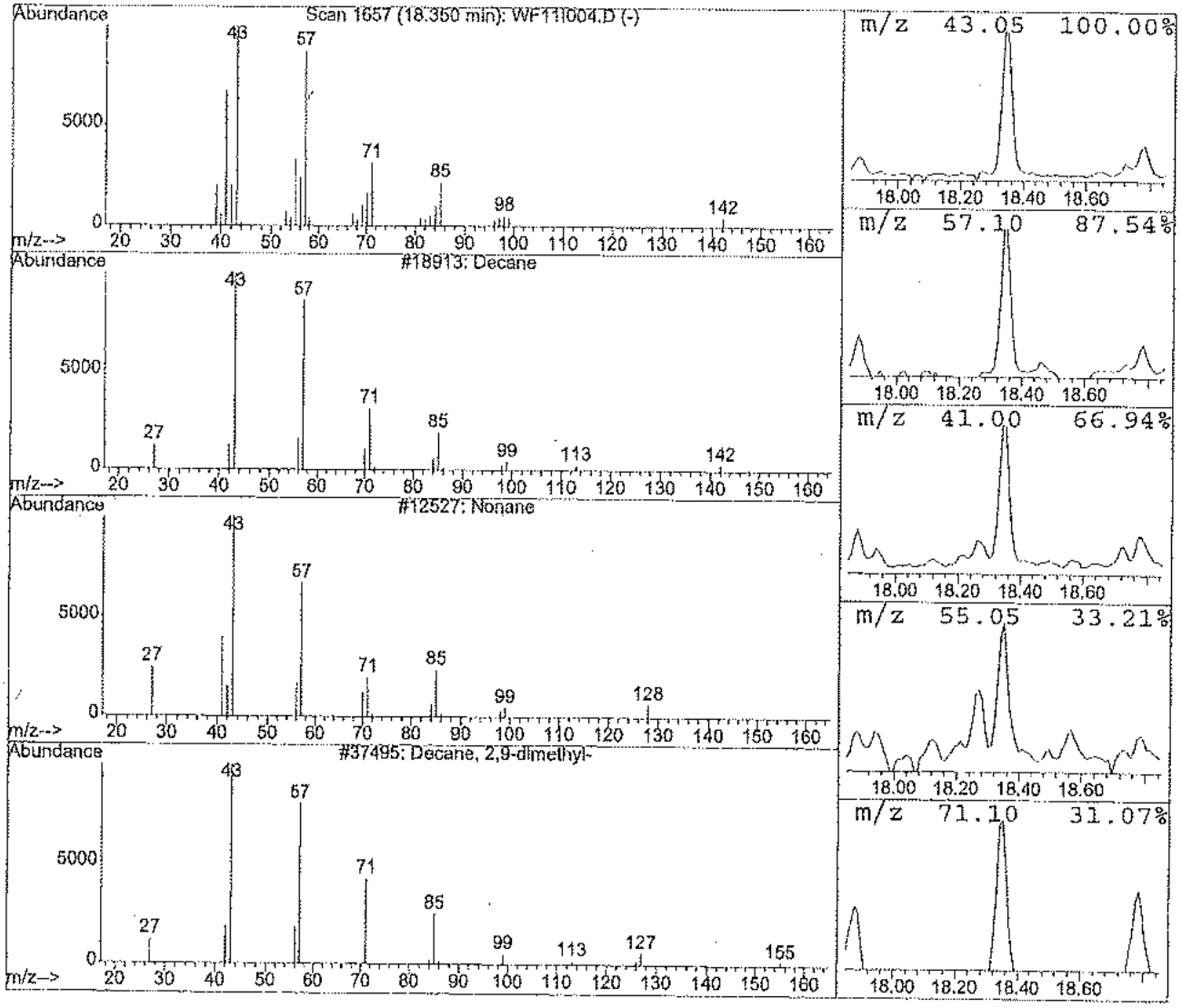
Data File : J:\W\2015\MAR15W\23MAR15W\WF11I004.D
Acq Time : 03/23/2015 16:40
Sample : 1507913004
Misc : 0499 A-0000H 031915-TO-010

Operator: LMR
Inst : 5972-W
Multiplr: 1.00

Method : J:\W\METHODS\T015WE15.M (RTE Integrator)
Title : TO15 VOA COMPOUND LIST
Library : D:\DATABASE\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.35	2.23 ppb	164181	ISTD chlorobenzene-d5	1475535

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18913	000124-18-5	72.00
2	Nonane	12527	000111-84-2	64.00
3	Decane, 2,9-dimethyl-	37495	001002-17-1	59.00
4	Undecane	27914	001120-21-4	53.00
5	Tetradecyl fluoride	71780	073180-09-3	50.00



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1509608**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-K. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

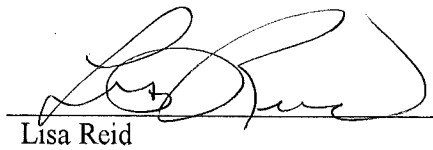
Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.



Lisa Reid

September 15, 2015

Date

ANALYTICAL REPORT

Report Date: April 08, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1509608**
Project ID: VA SLC CERCLA-VI Testing
Purchase Order: VA SLC CERCLA-VI Tes

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0028-S-040215-TO-001	1509608001	04/02/15	04/06/15	VA SLC CERCLA-VI Tes
A-0037H-040315-SG-001-4'	1509608002	04/02/15	04/06/15	VA SLC CERCLA-VI Tes
A-0036H-040415-TO-001	1509608003	04/02/15	04/06/15	VA SLC CERCLA-VI Tes

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0028-S-040215-TO-001
Lab ID: 1509608001
Matrix: Air

Sampling Site: VA SLC CERCLA-VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/07/2015 23:13

Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.26	1.3	0.15	0.50	1	J
Chloromethane	0.35	0.73	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**3.1**	**7.3**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.3	1.1	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.17	0.59	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	**0.59**	**1.7**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.33	1.1	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0028-S-040215-TO-001
Lab ID: 1509608001
Matrix: Air
Sampling Site: VA SLC CERCLA-VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/07/2015 23:13
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	0.25	0.94	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	ND	<0.65	0.15	0.50	1	U
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/07/2015 23:13
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	8.8	6.31	1	J

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-040315-SG-001-4'
Lab ID: 1509608002
Matrix: Air
Sampling Site: VA SLC CERCLA-VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/07/2015 23:56
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.26	1.3	0.15	0.50	1	J
Chloromethane	0.25	0.52	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.15	0.87	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**92**	**220**	0.30	1.0	1	E
Carbon disulfide	**0.68**	**2.1**	0.15	0.50	1	
Methylene chloride	**0.58**	**2.0**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**9.6**	**28**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.22	0.78	0.15	1.0	1	J
Hexane	**1.2**	**4.1**	0.15	0.50	1	
Chloroform	0.33	1.6	0.15	0.50	1	J
Tetrahydrofuran	0.37	1.1	0.15	0.50	1	J
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.56**	**1.8**	0.15	0.50	1	
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**0.78**	**3.2**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-040315-SG-001-4'
Lab ID: 1509608002
Matrix: Air
Sampling Site: VA SLC CERCLA-VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/07/2015 23:56
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**2.0**	**7.7**	0.15	0.50	1	
2-Hexanone	0.74	3.0	0.30	1.0	1	J
Tetrachloroethene	0.26	1.7	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.24	1.0	0.15	0.50	1	J
m,p-Xylene	0.47	2.1	0.15	0.50	1	J
o-Xylene	0.19	0.84	0.15	0.50	1	J
Styrene	0.16	0.66	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.25	1.2	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/07/2015 23:56
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	10	5.09	1	J
Acetaldehyde	25	5.53	1	J
1-Propene, 2-methyl-	3.7	5.70	1	J
Ethanol	30	6.31	1	J
Isopropyl Alcohol	140	6.99	1	J
2-Propanol, 2-methyl-	3.0	7.56	1	J
Heptane, 2,4-dimethyl-	3.4	15.50	1	J
Acetophenone	5.7	20.04	1	J

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0036H-040415-TO-001
Lab ID: 1509608003
Matrix: Air

Sampling Site: VA SLC CERCLA-VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/08/2015 00:40

Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.27	1.3	0.15	0.50	1	J
Chloromethane	0.34	0.71	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**6.8**	**16**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.31	1.1	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.31	0.90	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**1.7**	**6.0**	0.15	1.0	1	
Hexane	0.19	0.67	0.15	0.50	1	J
Chloroform	0.22	1.1	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.36	1.1	0.15	0.50	1	J
Cyclohexane	0.25	0.85	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0036H-040415-TO-001
Lab ID: 1509608003
Matrix: Air

Sampling Site: VA SLC CERCLA-VI Tes
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/08/2015 00:40

Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**40**	**150**	0.15	0.50	1	E
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.53**	**3.6**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.19	0.83	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2870 (HBN: 146672)
Analyzed: 04/08/2015 00:40

Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	28	5.16	1	J
Isobutane	57	5.52	1	J
Ethanol	430	6.29	1	J
Isopropyl Alcohol	7.7	6.98	1	J
Cyclohexane, 1-methyl-3-propyl-	2.0	19.00	1	J
Decane	5.8	19.10	1	J
Decane, 4-methyl-	2.0	19.57	1	J
Limonene	6.1	19.76	1	J

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Comments

Quality Control: **EPA TO-15 - (HBN: 146672)**

The following compounds in the CCS were outside of +/- 30%: Dichlorodifluoromethane, Chloromethane, Freon 114, Vinyl Chloride, 1,3-Butadiene, Bromomethane, Acetone, Trichlorofluoromethane and 1,2-Dichloroethane

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 04/08/2015 11:04	/S/ Steven J. Sagers 04/08/2015 14:04

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1509608
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1509608**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2870 (HBN: 146672)
Analyzed By: Lisa M. Reid

Blank

MB: 441411
Analyzed: 04/07/2015 16:40

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	0.221	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	0.220	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509608

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2870 (HBN: 146672)		
Analyzed By:	Lisa M. Reid		

Blank

MB: 441411
Analyzed: 04/07/2015 16:40
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 441409
Analyzed: 04/07/2015 14:31
Dilution: 1
Units: ppb

LCSD: 441410
Analyzed: 04/07/2015 15:13
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	5.63	10.0	* 56.3	59.3	135.1	6.00	60.0	6.33	0.0	25.0
Chloromethane	6.08	10.0	60.8	55.2	137.4	6.41	64.1	5.37	0.0	25.0
Freon 114	6.34	10.0	* 63.4	64.6	128.0	6.74	67.4	6.16	0.0	25.0
Vinyl chloride	6.61	10.0	66.1	61.8	132.3	6.89	68.9	4.28	0.0	25.0
1,3-Butadiene	6.50	10.0	65.0	58.0	138.3	6.78	67.8	4.34	0.0	25.0
Bromomethane	6.58	10.0	65.8	63.3	129.9	6.96	69.6	5.72	0.0	25.0
Chloroethane	8.66	10.0	86.6	57.6	137.1	9.24	92.4	6.52	0.0	25.0
Freon 11	6.62	10.0	66.2	58.9	132.8	7.03	70.3	6.05	0.0	25.0
Freon 113	10.2	10.0	102	68.5	120.0	10.9	109	5.91	0.0	25.0
1,1-Dichloroethene	8.69	10.0	86.9	67.2	125.1	9.27	92.7	6.37	0.0	25.0
Acetone	6.39	10.0	63.9	42.5	146.0	6.80	68.0	6.18	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509608

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2870 (HBN: 146672)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 441409
Analyzed: 04/07/2015 14:31
Dilution: 1
Units: ppb

LCSD: 441410
Analyzed: 04/07/2015 15:13
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result		% Rec	RPD	QC Limits	
Carbon disulfide	10.6	10.0	106	63.9	128.8	11.3		113	6.52	0.0	25.0
Methylene chloride	8.95	10.0	89.5	63.7	127.9	9.54		95.4	6.40	0.0	25.0
trans-1,2-Dichloroethene	11.9	10.0	119	68.1	124.6	12.7	*	127	6.72	0.0	25.0
Methyl t-butyl ether	11.0	10.0	110	60.8	138.0	11.7		117	6.05	0.0	25.0
Vinyl acetate	12.5	10.0	125	59.3	141.1	13.1		131	5.41	0.0	25.0
2-Butanone	8.96	10.0	89.6	51.7	144.2	9.54		95.4	6.33	0.0	25.0
cis-1,2-Dichloroethene	12.2	10.0	122	69.8	124.3	13.1	*	131	6.69	0.0	25.0
1,1-Dichloroethane	9.29	10.0	92.9	67.7	123.6	9.86		98.6	5.95	0.0	25.0
Ethyl acetate	10.6	10.0	106	53.4	156.9	11.1		111	4.49	0.0	25.0
Hexane	10.5	10.0	105	62.4	129.5	11.0		110	4.92	0.0	25.0
Chloroform	7.93	10.0	79.3	67.3	121.8	8.37		83.7	5.41	0.0	25.0
Tetrahydrofuran	10.3	10.0	103	50.6	155.3	10.8		108	5.00	0.0	25.0
1,2-Dichloroethane	6.58	10.0	65.8	62.4	130.5	6.94		69.4	5.32	0.0	25.0
1,1,1-Trichloroethane	7.71	10.0	77.1	60.4	127.7	8.10		81.0	5.03	0.0	25.0
Carbon tetrachloride	7.38	10.0	73.8	58.2	130.6	7.77		77.7	5.20	0.0	25.0
Benzene	12.3	10.0	123	64.1	127.3	13.0	*	130	4.93	0.0	25.0
Cyclohexane	9.84	10.0	98.4	61.9	123.6	10.3		103	4.83	0.0	25.0
Trichloroethene	11.4	10.0	114	62.4	126.8	12.0		120	5.50	0.0	25.0
1,2-Dichloropropane	11.2	10.0	112	60.7	130.6	11.8		118	6.02	0.0	25.0
Bromodichloromethane	8.11	10.0	81.1	62.9	128.3	8.67		86.7	6.59	0.0	25.0
Heptane	11.6	10.0	116	59.5	133.4	12.3		123	5.40	0.0	25.0
cis-1,3-Dichloropropene	11.4	10.0	114	64.1	133.6	12.2		122	7.18	0.0	25.0
4-Methyl-2-pentanone	9.13	10.0	91.3	73.5	150.0	9.66		96.6	5.64	0.0	25.0
trans-1,3-Dichloropropene	10.8	10.0	108	78.5	148.7	11.6		116	7.33	0.0	25.0
1,1,2-Trichloroethane	10.2	10.0	102	65.0	126.6	11.0		110	7.85	0.0	25.0
Toluene	11.9	10.0	119	75.6	139.4	12.8		128	7.21	0.0	25.0
2-Hexanone	9.59	10.0	95.9	80.8	158.8	10.1		101	4.84	0.0	25.0
Tetrachloroethene	12.1	10.0	121	60.7	126.6	12.9	*	129	6.68	0.0	25.0
Dibromochloromethane	9.21	10.0	92.1	62.4	130.9	9.96		99.6	7.89	0.0	25.0
1,2-Dibromoethane	10.5	10.0	105	64.4	129.0	11.2		112	6.77	0.0	25.0
Chlorobenzene	9.86	10.0	98.6	62.8	126.9	10.6		106	6.86	0.0	25.0
Ethyl benzene	11.2	10.0	112	75.9	148.5	11.9		119	6.43	0.0	25.0
m,p-Xylene	19.1	20.0	95.3	73.7	144.9	20.3		101	6.20	0.0	25.0
o-Xylene	9.34	10.0	93.4	74.7	147.4	9.88		98.8	5.61	0.0	25.0
Styrene	13.0	10.0	130	75.9	158.1	13.7		137	5.42	0.0	25.0
Bromoform	9.93	10.0	99.3	59.7	136.0	10.6		106	6.73	0.0	25.0
1,1,2,2-Tetrachloroethane	8.81	10.0	88.1	59.3	134.8	9.31		93.1	5.59	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509608

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2870 (HBN: 146672)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS:	441409
Analyzed:	04/07/2015 14:31
Dilution:	1
Units:	ppb

LCSD:	441410
Analyzed:	04/07/2015 15:13
Dilution:	1
Units:	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	11.0	10.0	110	69.0	163.3	11.5	115	4.87	0.0	25.0
1,3,5-Trimethylbenzene	9.65	10.0	96.5	64.2	155.1	10.2	102	5.21	0.0	25.0
1,2,4-Trimethylbenzene	10.9	10.0	109	59.7	169.4	11.5	115	5.18	0.0	25.0
1,3-Dichlorobenzene	9.51	10.0	95.1	58.6	157.6	9.90	99.0	4.10	0.0	25.0
1,4-Dichlorobenzene	9.95	10.0	99.5	57.7	137.2	10.3	103	3.43	0.0	25.0
Benzyl chloride	10.7	10.0	107	60.1	182.5	11.1	111	4.37	0.0	25.0
1,2-Dichlorobenzene	10.4	10.0	104	56.5	140.0	10.9	109	4.43	0.0	25.0
1,2,4-Trichlorobenzene	13.5	10.0	135	0.0	235.7	14.2	142	5.70	0.0	25.0
Hexachlorobutadiene	7.94	10.0	79.4	25.3	155.9	8.29	82.9	4.37	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
441409-LCS	16.6	20.0	83.0
441410-LCSD	16.6	20.0	82.8
441411-MB	16.6	20.0	83.1
1509185002	16.7	20.0	83.5
1509383001	17.0	20.0	85.0
1509383002	16.8	20.0	84.1
1509673001	17.0	20.0	85.0
1509608001	16.1	20.0	80.3
1509608002	16.4	20.0	82.1
1509608003	16.4	20.0	82.1
1509669001	16.4	20.0	82.0
1509185001	16.6	20.0	82.8

Comments

The following compounds in the CCS were outside of +/- 30%: Dichlorodifluoromethane, Chloromethane, Freon 114, Vinyl Chloride, 1,3-Butadiene, Bromomethane, Acetone, Trichlorofluoromethane and 1,2-Dichloroethane

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509608

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2870 (HBN: 146672)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

QC Data Approved and Reviewed by

Lisa M. Reid	Steven J. Sagers	4/8/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◒ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1509608

ANALYTICAL REQUEST FORM 1509608

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/ 15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton St,
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone 973 334-0003 / cell - 678-787-2295
Fax Telephone 973 334-1928
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site VA SLC CERCLA - VI Testing
Industrial Process NA
Date of Collection 04/02/15 –
Time Collected multiple
Date of Shipment 4/ 15
Chain of Custody No. NA

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-10028-S-040215-TO-001	Air	6L sumo	TO-15	5	0379
A-10037H-040305-SG-001-4'	Air	"	TO-15	5	0119
A-10036H-040415-TO-001	Air	"	TO-15	5	0537
A-10037H-SG-002	Air	1 Utility Tedlar	TO-15	5	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards Low levels - PCE, TCE, cis 1,2-DCE, VC

7. Chain of Custody (Optional)

Relinquished by		Date/Time	4/ 15 –
Received by	Dawn Hall	Date/Time	4/6/15 8:33
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environmental Inc

Account No:

Project/Job/Task: VA GERCLA SITE - DEPVA030-8-0006.04

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0129	02-09-15	29.5		JB					
0531	02-12-15	〃		〃					
0250	02-12-15	〃		〃					
0216	02-17-15	〃		〃					
0379	02-05-15	〃		〃	25"	1	9-00285-0402IS-TO-001-STD		
VFR Serial No.:									
0570	02-24-15		218	JB					
0497	〃		〃	〃					
0532	〃		〃	〃				Pair w/ 0519	
0600	〃		〃	〃				Pair w/ 0379	
0393	〃		〃	〃					

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-24-15		Pickup at lab
	04/16		

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment, Inc.	Project/Job/Task: VA CERCLA Site - DEPVA030B-000604
Account No:	

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0119	02-09-15	7.25		JB	27		A-00371+-040315-SG-001-4		
0537	"	"			25		A-00361+-040415 TO-001-A-AS		
VFR Serial No.:									
0441	02-24-15		~3.8	JB					
0017	"						Paired w/ # 0537		

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-24-15		Return to lab
	4/15		

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

DataChem Laboratories, Inc. - Summa® Canister Request

			Delivery By:	Date: 4/6/15	Time: AM [X] PM [ ]		
Requested By:	Kevin Griffiths	Ext:	302	Request Date:	4/2-15		
Client Purchase Order Number:		Account Number: 8001		Task: 46	Section: Pm		
Analyte:	VOCs						
Analytical Method:	TO15						
Summa Type:	6 Liter Summa [X]		6 Liter Sulfur [ ]		Mini Canister [ ]		Mini Sulfur [ ]
Quantity:	12						
Trip Blanks:							
Regulator Type:	Passive Sampler [X]		Sulfur Sampler [ ]		Mini Passive Sampler [ ]		Mini Sulfur Sampler [ ]
Quantity:	12						
Sampling Time:	24 hour regulator						
Special Instructions:							
Additional Equipment Needed: Holsters:		Quantity Needed:					
Additional Equipment Needed: Tubing:		Quanity:		Length:			
Chain of Custody: Yes [X] No [ ]		Labels: Yes [ ] No [ ]		Seals: Yes [ ] No [ ]			
Canister Cleaning Certificate Included: Yes [ ] No [ ]		Method of Payment for Shipping					
Bill Client for Shipping: Yes [ ] No [X]							
Company Name		Contact Name					
First Environment		Ed Reid					
Address		City, State, ZIP					
Pick-up at Lab—Monday Afternoon							
		Telephone:					

Canister ID Numbers (Internal Use)			Regulator ID Numbers (Internal Use)		
0162	0271		0473	0392	
0221	0143		0467	0149	
0262			0432		
0097			0570		
0933			0014		
0144			0519		
0122			0570		
6384			0497		
0137			0018		
0255			0451		

Tracking Information:

Batch Worklist

Batch: IVOA/ 2870 Created: 4/8/2015 11:32 Instrument: 5975-K HBN: 146672
Rule: EPA TO-15, Air Analyst: L. Reid Status: WP

Workorder: 1509185
Workorder: 1509383
Workorder: 1509608
Workorder: 1509669
Workorder: 1509673

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	441409	LCS for HBN 146672 (IVOA/2870)				LCS	1		ETO15...1Q			6/7/2015	4/7/2015
2	441410	LCSD for HBN 146672 (IVOA/2870				LCSD	1		ETO15...1Q			6/7/2015	4/7/2015
3	441408	RLVS for HBN 146672 (IVOA/2870				RLVS	1		ETO15...1Q	5320		4/8/2015	4/7/2015
4	441411	MB for HBN 146672 (IVOA/2870)				MB	1		ETO15...1Q			6/7/2015	4/7/2015
5	1509673001	Apollo 11 +EMS DT				SAMPLE	1	1509673001-A	ETO15....1	6171		4/13/2015	4/7/2015
6	1509185001	HRM312: VP-6: A033115				SAMPLE	1	1509185001-A	ETO15....1	5975		4/8/2015	4/8/2015
	*E\Result exceeds calibration range												
7	1509185002	HRM312: VP-13: A033115				SAMPLE	1	1509185002-A	ETO15....1	5975		4/8/2015	4/7/2015
	*E\Result exceeds calibration range												
8	1509383001	LA0402UMC-VOC01				SAMPLE	1	1509383001-A	ETO15....1	5003		4/10/2015	4/7/2015
	*E\Result exceeds calibration range												
9	1509383002	LA0402UMC-VOC02				SAMPLE	1	1509383002-A	ETO15....1	5003		4/10/2015	4/7/2015
	*E\Result exceeds calibration range												
10	1509608001	A-0028-S-040215-TO-001				SAMPLE	1	1509608001-A	ETO15....1	5480		4/13/2015	4/7/2015
11	1509608002	A-0037H-040305-SG-001-4'				SAMPLE	1	1509608002-A	ETO15....1	5480		4/13/2015	4/7/2015
	*E\Result exceeds calibration range												
12	1509608003	A-0036H-040415-TO-001				SAMPLE	1	1509608003-A	ETO15....1	5480		4/13/2015	4/8/2015
	*E\Result exceeds calibration range												
13	1509669001	FPCAASZQ15				SAMPLE	1	1509669001-A	ETO15....1	5975		4/13/2015	4/8/2015
14	1509673001	Apollo 11 +EMS DT				SAMPLE	1	1509673001-A	ETO15....1	6171		4/13/2015	4/7/2015
	*RERUN[5320,ORI												
	*E\Result exceeds calibration range												

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	KD54S10	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		956608	12570135	10924044
	Upper Limit	1339251	17598189	15293662
	Lower limit	573965	7542081	6554426

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	KD58BLK	939776	12320200	10240965
QC-	KD54S10	956608	12570135	10924044
QD-	KD55S10	946176	12531273	10899145
A-0028-S-040215-TO-001	FEI1509608001	914752	11596968	10117887
A-0037H-040305-SG-001-4	FEI1509608002	835200	10479622	9385255
A-0036H-040415-TO-001	FEI1509608003	886592	11321416	9760312

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD54S10	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		9.61	11.39	15.77
	Upper Limit	10.11	11.89	16.27
	Lower limit	9.11	10.89	15.27

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	KD58BLK	9.60	11.38	15.77
QC-	KD54S10	9.61	11.39	15.77
QD-	KD55S10	9.61	11.39	15.77
A-0028-S-040215-TO-001	FEI1509608001	9.62	11.40	15.77
A-0037H-040305-SG-001-4	FEI1509608002	9.63	11.41	15.78
A-0036H-040415-TO-001	FEI1509608003	9.62	11.39	15.78

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Analyst Notebook

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is TO15KC15 (HBN 146582)

The following compounds in the CCS were outside of +-30%:

Dichlorodifluoromethane
Chloromethane
Freon 114
Vinyl Chloride
1,3-Butadiene
Bromomethane
Acetone
Trichlorofluoromethane
1,2-Dichloroethane

Dilutions 1509185001+002 = 1:500DL for all analytes

1509673001 Diluted 1:5 for Acetone
2-Butanone
Tetrahydrofuran

Analyst Signature: [signature] 04-07-15

Response Factor Report 5975-K

HBN 146582

Method Path : J:\K\METHODS\
Method File : TO15KC15.m
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response Via : Initial Calibration

Calibration Files
.5 =KD11S05.D 1 =KD10S1.D 2 =KD09S2.D 5 =KD08S5.D 10 =KD07S10.D 20 =KD06S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	1.555	1.785	1.688	1.842	1.886	1.727	1.747		6.80	TIC
3)		Dichlorodifluo...	1.173	1.261	1.151	1.233	1.276	1.294	1.231	E1	4.66	
4)		Chloromethane	2.256	2.244	2.094	2.182	2.220	2.105	2.183		3.20	
5)		Freon 114	9.065	9.757	8.863	9.562	9.803	9.750	9.467		4.26	
6)		Vinyl Chloride	2.828	2.996	2.613	2.828	2.850	2.768	2.814		4.42	
7)		1,3-Butadiene	2.110	2.137	1.796	1.999	2.078	2.022	2.024		6.09	
8)		Bromomethane	3.349	3.676	3.055	3.324	3.380	3.339	3.354		5.89	
9)		Chloroethane	1.466	1.522	1.279	1.416	1.400	1.263	1.391		7.38	
10)		Acrolein	0.351	0.818	0.786	0.875	0.918	0.891	0.773		27.49	TIC
11)		Acetone	5.806	5.678	5.023	5.166	5.109	5.164	5.324		6.20	
12)		Trichlorofluor...	1.261	1.320	1.167	1.299	1.329	1.377	1.292	E1	5.59	
13)		Ethanol	0.805	0.875	0.779	0.824	0.822	0.715	0.803		6.68	TIC
14)		Isopropyl Alcohol	3.462	3.775	3.812	4.373	4.467	4.181	4.012		9.75	TIC
15)		1,1-Dichloroet...	3.623	4.258	4.055	4.774	4.960	5.040	4.452		12.67	
16)		Methylene Chlo...	3.601	3.313	2.658	2.798	2.668	2.544	2.930		14.52	
17)		Freon 113	5.560	6.119	5.726	6.086	6.115	5.918	5.921		3.94	
18)		Carbon Disulfide	6.661	7.192	6.787	7.398	7.452	7.094	7.097		4.51	
19)		trans-1,2-Dich...	2.330	2.654	2.618	2.942	3.001	2.901	2.741		9.31	
20)		1,1-Dichloroet...	4.432	4.955	4.602	5.094	5.122	5.124	4.888		6.11	
21)		methyl t-butyl...	5.295	6.625	7.504	8.442	8.754	8.862	7.580		18.57	
22)		Vinyl Acetate	0.455	0.606	0.690	0.739	0.739	0.765	0.666		17.65	
23)		2-Butanone	3.877	4.590	5.037	5.406	5.543	5.713	5.028		13.76	
24)		cis-1,2-Dichlo...	2.234	2.570	2.478	2.982	3.086	3.155	2.751		13.63	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.055	0.062	0.065	0.065	0.067	0.063	0.063		6.54	
27)		Hexane	0.224	0.264	0.258	0.292	0.301	0.302	0.274		11.13	
28)		Chloroform	0.558	0.616	0.566	0.611	0.614	0.649	0.602		5.70	
29)		Tetrahydrofuran	0.128	0.158	0.187	0.206	0.214	0.218	0.185		19.24	
30)		1,2-Dichloroet...	0.383	0.425	0.386	0.420	0.429	0.470	0.419		7.69	

Method Path : J:\K\METHODS\
Method File : TO15KC15.m

31)		1,1,1-Trichlor...	0.639	0.719	0.649	0.732	0.745	0.808	0.715	8.86	
32)		Benzene	0.447	0.549	0.504	0.590	0.604	0.621	0.553	12.08	
33)		Carbon Tetrach...	0.758	0.854	0.766	0.853	0.879	0.957	0.845	8.78	
34)		Cyclohexane	0.365	0.345	0.290	0.304	0.303	0.303	0.318	9.21	
35)		1,2-Dichloropr...	0.165	0.191	0.183	0.198	0.205	0.208	0.191	8.36	
36)		Bromodichlorom...	0.545	0.628	0.589	0.636	0.664	0.720	0.630	9.57	
37)		1,4-Dioxane	0.086	0.117	0.133	0.154	0.160	0.150	0.133	21.09	TIC
38)		Trichloroethene	0.292	0.357	0.353	0.394	0.399	0.409	0.367	11.85	
39)		Methyl Methacr...	0.136	0.181	0.210	0.237	0.247	0.253	0.211	21.43	TIC
40)		Heptane	0.138	0.190	0.191	0.222	0.231	0.244	0.203	18.91	
41)		cis-1,3-Dichlo...	0.242	0.292	0.325	0.371	0.409	0.441	0.347	21.49	
42)		4-Methyl-2-Pen...	0.296	0.412	0.495	0.541	0.557	0.577	0.480	22.39	
43)		trans-1,3-Dich...	0.236	0.283	0.309	0.366	0.420	0.466	0.347	24.97	
44)		1,1,2-Trichlor...	0.273	0.306	0.297	0.297	0.309	0.325	0.301	5.72	
45)		Toluene	0.501	0.669	0.734	0.835	0.914	0.988	0.774	22.83	
46)		2-Hexanone	0.234	0.335	0.427	0.501	0.529	0.570	0.433	29.62	
47)		Dibromochlorom...	0.577	0.676	0.659	0.683	0.745	0.831	0.695	12.33	
48)		1,2-Dibromoethane	0.393	0.456	0.466	0.495	0.538	0.586	0.489	13.79	
49)		Tetrachloroethene	0.336	0.393	0.383	0.424	0.456	0.496	0.415	13.64	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.941	0.987	0.937	0.928	0.960	0.979	0.955	2.50	
52)		Ethylbenzene	0.812	1.040	1.186	1.397	1.507	1.621	1.260	24.18	
53)		m,p-Xylene	0.759	1.089	1.133	1.233	1.281	1.374	1.145	18.78	
54)		Bromoform	0.541	0.611	0.589	0.649	0.685	0.743	0.636	11.32	
55)		Styrene	0.366	0.498	0.611	0.776	0.865	0.941	0.676	32.93	
56)		1,1,2,2-Tetrac...	0.698	0.761	0.679	0.705	0.704	0.719	0.711	3.90	
57)		o-Xylene	0.758	1.106	1.166	1.270	1.316	1.415	1.172	19.66	
58)	S	Bromofluoroben...	0.698	0.691	0.691	0.693	0.704	0.744	0.704	2.92	
59)		4-Ethyl Toluene		0.907	1.104	1.497	1.636	1.812	1.391	27.01	
60)		1,3,5-Trimethy...	0.759	1.282	1.312	1.477	1.528	1.635	1.332	23.32	
61)		1,2,4-Trimethy...	0.579	0.921	0.976	1.297	1.400	1.546	1.120	32.05	
62)		Benzyl Chloride	0.546	0.741	0.699	0.905	1.016	1.176	0.847	27.10	TIC
63)		m-Dichlorobenzene	0.750	0.937	0.831	0.898	0.926	0.994	0.889	9.71	
64)		p-Dichlorobenzene	0.639	0.826	0.770	0.849	0.869	0.948	0.817	12.84	
65)		o-Dichlorobenzene	0.592	0.722	0.632	0.739	0.775	0.851	0.719	13.13	
66)		1,2,4-Trichlor...		0.209	0.142	0.206	0.263	0.321	0.228	29.46	TIC
67)		Naphthalene		0.421	0.287	0.613	0.806	0.936	0.612	43.54	TIC
68)		Hexachloro-1,3...	0.367	0.429	0.215	0.253	0.261	0.278	0.301	26.83	TIC

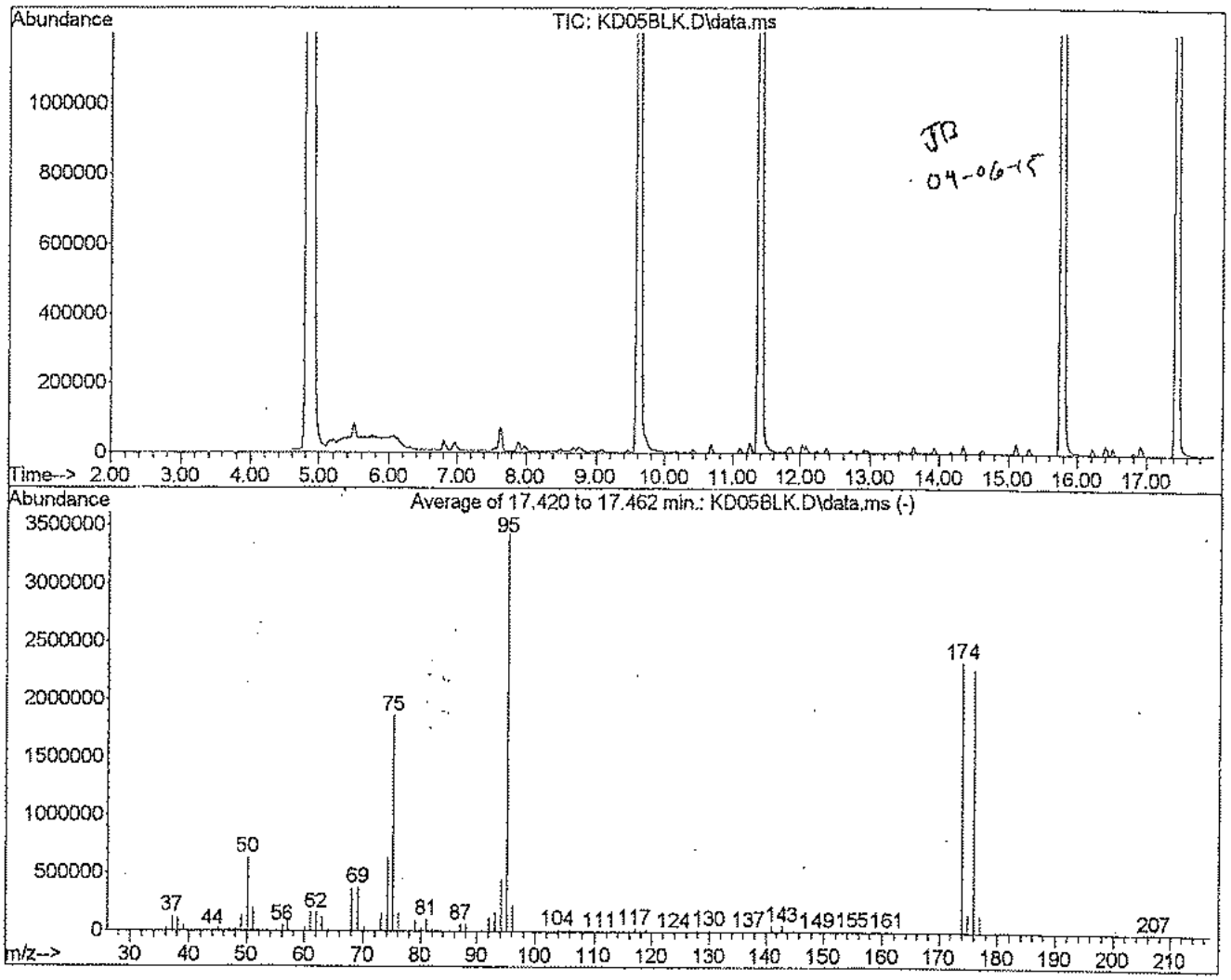
(#) = Out of Range

BFB

Data File : J:\K\2015\APR15K\03APR15K\KD05BLK.D
Acq Time : 04/03/2015 11:53
Sample : TEST BLANK
Misc : 107IS31245
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : 5975-K
Multiplr: 1.00

Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15



Peak Apex is scan: Average of 17.420 to 17.462 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.32	628631	PASS
75	95	30	66	54.19	1859093	PASS
95	95	100	100	100.00	3430518	PASS
96	95	5	9	6.32	216673	PASS
173	174	0.00	2	0.57	13240	PASS
174	95	50	120	68.20	2339547	PASS
175	174	5	9	6.89	161180	PASS
176	174	93	101	96.89	2266717	PASS
177	176	5	9	6.33	143399	PASS

KD05BLK.D TO15KB15.m Fri Apr 03 13:08:05 2015

Average of 17.420 to 17.462 min.: KD05BLK.D\data.ms
TEST BLANK
Modified:subtracted

m/z	Abundance
36.10	22523.0
37.10	128019.0
38.10	116333.0
39.10	46598.0
40.10	1474.0
43.10	985.0
44.10	14181.0
45.10	25125.0
46.00	464.0
46.20	1180.0
47.10	20343.0
48.10	17747.0
49.05	131375.0
50.10	628631.0
51.05	194805.0
52.10	8810.0
53.10	610.0
54.10	215.0
55.05	7622.0
56.10	48078.0
57.05	87357.0
58.05	3086.0
59.05	216.0
60.10	28554.0
61.05	158789.0
62.05	159272.0
63.10	120102.0
64.10	11358.0
65.15	3029.0
65.90	45.0
66.15	419.0
67.10	7828.0
68.05	355666.0
69.10	372046.0
70.10	25664.0
71.10	755.0
72.05	17781.0
73.05	155752.0
74.10	632503.0
75.10	1859093.0
76.05	155614.0
77.10	13437.0
78.05	6495.0
79.00	91573.0
80.00	26504.0
81.00	98777.0
82.00	19107.0
83.05	2141.0
84.00	58.0
86.05	1680.0
87.05	65313.0
88.00	62328.0
89.90	48.0
91.00	12865.0
92.05	116616.0
93.10	163261.0
94.10	443953.0
95.10	3430518.0
96.10	216673.0
97.10	6391.0
98.00	44.0
102.95	1575.0
104.00	16697.0
105.00	5482.0
106.00	16542.0
106.95	3808.0
110.00	2200.0
110.95	3370.0
111.95	2681.0
113.00	3391.0
115.00	4136.0
116.00	14741.0
117.00	26209.0
117.95	15680.0
119.00	21183.0
119.95	799.0
121.95	1009.0
123.00	1138.0
123.95	2608.0
124.95	1271.0
125.95	1590.0
126.95	1294.0
128.00	15830.0
129.00	7599.0
130.00	15860.0
130.95	6294.0
132.00	750.0

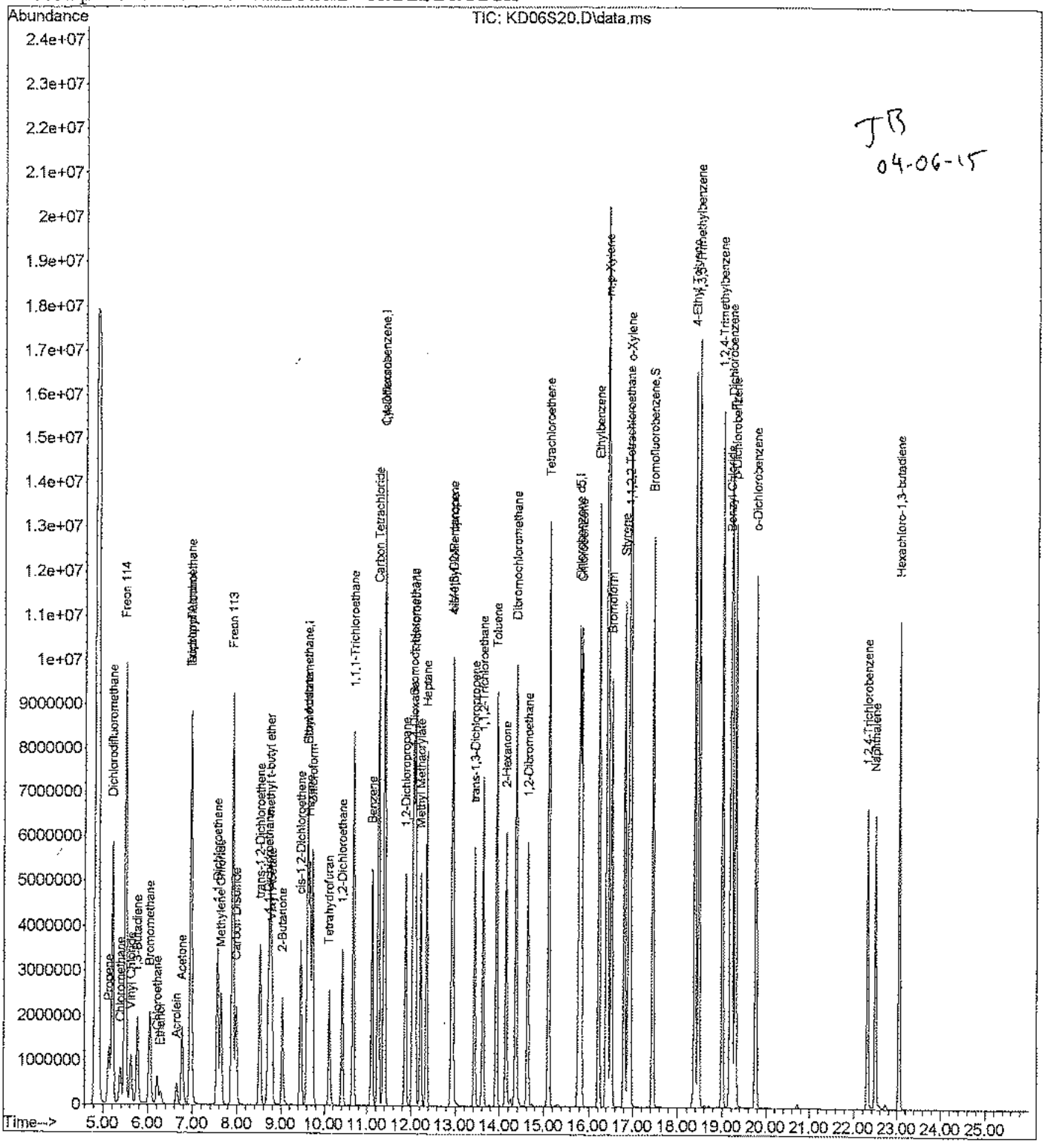
133.95	1179.0
135.00	7892.0
135.95	1344.0
137.00	8206.0
138.00	105.0
138.95	1648.0
139.95	3129.0
141.00	54037.0
142.00	5771.0
143.00	54716.0
144.00	3331.0
145.00	4680.0
146.00	5824.0
146.95	2804.0
148.00	10834.0
148.95	2518.0
150.00	4633.0
150.95	292.0
151.90	117.0
152.05	1726.0
153.05	2665.0
153.95	2684.0
155.00	9997.0
155.95	1399.0
157.00	6843.0
157.95	761.0
159.00	5662.0
160.00	430.0
160.95	5887.0
161.95	270.0
171.05	96.0
171.30	50.0
172.05	3245.0
173.05	13240.0
174.00	2339547.0
174.95	161180.0
176.00	2266717.0
177.00	143399.0
178.05	3774.0
207.15	347.0

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 10:40:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	750080	20.0000	ppb		74.44
25) 1,4-Difluorobenzene	11.39	114	9930623	20.0000	ppb		77.89
50) Chlorobenzene d5	15.77	117	8985663	20.0000	ppb		86.20
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6687341	25.6539	ppb		128.27%
Target Compounds							Qvalue
2) Propene	5.13	41	1295313	22.2578	ppb	#	89
3) Dichlorodifluoromethane	5.21	85	9703521	31.9325	ppb		99
4) Chloromethane	5.38	50	1578805	27.3352	ppb		99
5) Freon 114	5.49	135	7313241	29.1472	ppb		89
6) Vinyl Chloride	5.62	62	2076589	26.5260	ppb		97
7) 1,3-Butadiene	5.76	54	1516327	27.7273	ppb	#	69
8) Bromomethane	6.04	94	2504440	26.7276	ppb		99
9) Chloroethane	6.21	64	947096	20.0976	ppb	#	90
10) Acrolein	6.65	56	668209	20.6442	ppb		96
11) Acetone	6.77	43	3873335	26.2613	ppb	#	76
12) Trichlorofluoromethane	6.96	101	10329271	27.7153	ppb		100
13) Ethanol	6.28	45	536141	18.6960	ppb	#	82
14) Isopropyl Alcohol	6.96	45	3136418	21.0753	ppb	#	86
15) 1,1-Dichloroethene	7.56	61	3780234	23.5261	ppb	#	68
16) Methylene Chloride	7.63	84	1908290	19.0593	ppb	#	73
17) Freon 113	7.90	151	4439221	19.1814	ppb	#	65
18) Carbon Disulfide	7.98	76	5321102	19.5281	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	2176109	17.9972	ppb	#	74
20) 1,1-Dichloroethane	8.70	63	3843057	21.2869	ppb		99
21) methyl t-butyl ether	8.74	73	6647380	20.1036	ppb		98
22) Vinyl Acetate	8.79	86	573539	18.6428	ppb	#	1
23) 2-Butanone	9.02	43	4284971	25.1430	ppb	#	74
24) cis-1,2-Dichloroethene	9.45	96	2366504	18.8428	ppb	#	74
26) Ethyl Acetate	9.61	61	630291	19.8079	ppb	#	1
27) Hexane	9.66	57	2997413	19.7433	ppb	#	44
28) Chloroform	9.72	83	6449910	24.0110	ppb		98
29) Tetrahydrofuran	10.11	42	2160194	22.7692	ppb	#	75
30) 1,2-Dichloroethane	10.41	62	4668691	27.6892	ppb		95
31) 1,1,1-Trichloroethane	10.68	97	8021763	25.1596	ppb	#	96
32) Benzene	11.10	78	6168281	18.1227	ppb	#	91
33) Carbon Tetrachloride	11.25	117	9502007	26.0649	ppb		99
34) Cyclohexane	11.38	84	3008012	17.8630	ppb	#	65
35) 1,2-Dichloropropane	11.87	63	2064179	18.3333	ppb	#	81

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 10:40:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	7148037	25.6764	ppb		99
37)	1,4-Dioxane	12.06	88	1494339	19.4467	ppb	#	90
38)	Trichloroethene	12.09	130	4060572	19.1453	ppb	#	90
39)	Methyl Methacrylate	12.22	69	2512968	21.4870	ppb	#	84
40)	Heptane	12.36	71	2418881	19.5868	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	4382818	22.1276	ppb		94
42)	4-Methyl-2-Pentanone	12.93	43	5728297	27.5240	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	4623655	24.9945	ppb	#	90
44)	1,1,2-Trichloroethane	13.62	97	3223167	21.0346	ppb	#	87
45)	Toluene	13.93	91	9808660	20.9115	ppb		96
46)	2-Hexanone	14.14	43	5657471	31.6263	ppb	#	77
47)	Dibromochloromethane	14.36	129	8255690	26.3256	ppb		99
48)	1,2-Dibromoethane	14.63	107	5820614	23.6785	ppb		98
49)	Tetrachloroethene	15.11	166	4926974	19.5478	ppb	#	75
51)	Chlorobenzene	15.82	112	8794643	19.2938	ppb	#	90
52)	Ethylbenzene	16.21	91	14564160	21.1462	ppb		90
53)	m,p-Xylene	16.41	91	24691602	44.8735	ppb		86
54)	Bromoform	16.51	173	6678261	24.8044	ppb		100
55)	Styrene	16.80	104	8451717	22.5223	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	6457522	22.2398	ppb	#	97
57)	o-Xylene	16.93	91	12713527	22.9074	ppb		87
59)	4-Ethyl Toluene	18.38	105	16279170	23.1414	ppb		92
60)	1,3,5-Trimethylbenzene	18.47	105	14693855	23.4298	ppb		87
61)	1,2,4-Trimethylbenzene	19.00	105	13894088	23.4873	ppb		88
62)	Benzyl Chloride	19.18	91	10566186	28.3707	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	8931148	23.3464	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	8520114	23.4450	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	7644466	22.3683	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	2882147	23.9363	ppb	#	96
67)	Naphthalene	22.49	128	8407841	29.6380	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	2499375	18.3745	ppb		98

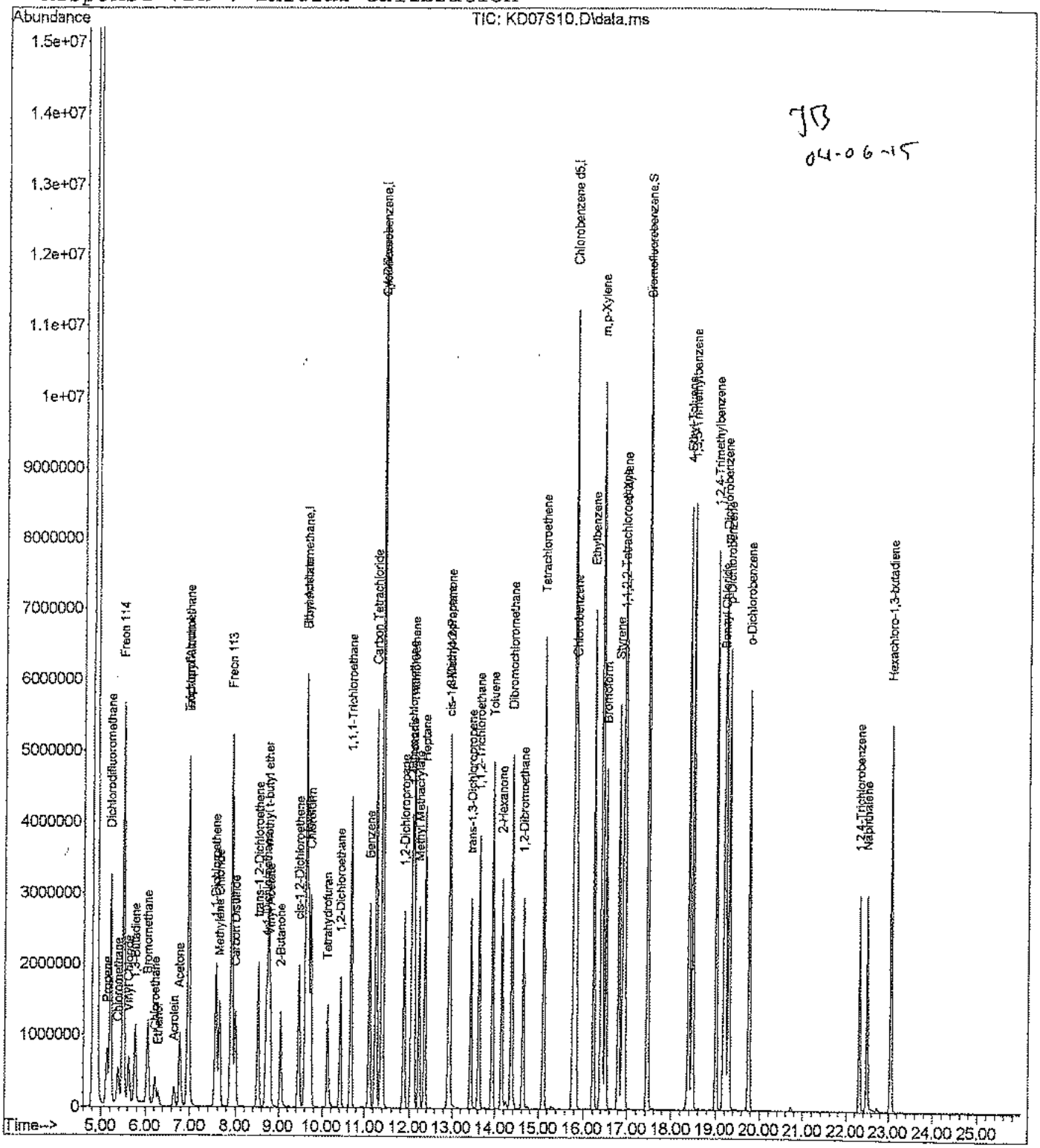
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:08:27 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	853056	20.0000	ppb		84.66
25) 1,4-Difluorobenzene	11.39	114	11154772	20.0000	ppb		87.50
50) Chlorobenzene d5	15.77	117	9642600	20.0000	ppb		92.50
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6786430	23.2459	ppb		116.23%
Target Compounds							Qvalue
2) Propene	5.13	41	804493	11.8232	ppb		92
3) Dichlorodifluoromethane	5.21	85	5441557	14.2229	ppb		99
4) Chloromethane	5.38	50	946849	13.4500	ppb		99
5) Freon 114	5.49	135	4181399	13.5403	ppb		90
6) Vinyl Chloride	5.62	62	1215488	12.8747	ppb		98
7) 1,3-Butadiene	5.76	54	886462	13.3163	ppb	#	75
8) Bromomethane	6.04	94	1441846	12.7189	ppb		100
9) Chloroethane	6.21	64	597269	11.0694	ppb	#	92
10) Acrolein	6.65	56	391387	10.6056	ppb		96
11) Acetone	6.77	43	2179247	12.1328	ppb	#	80
12) Trichlorofluoromethane	6.96	101	5669597	12.4895	ppb		100
13) Ethanol	6.28	45	350819	10.6493	ppb	#	81
14) Isopropyl Alcohol	6.96	45	1905366	11.0270	ppb	#	87
15) 1,1-Dichloroethene	7.55	61	2115552	11.1963	ppb	#	72
16) Methylene Chloride	7.63	84	1137873	9.9439	ppb	#	75
17) Freon 113	7.90	151	2608054	9.9254	ppb	#	68
18) Carbon Disulfide	7.98	76	3178671	10.2737	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1280165	9.4136	ppb	#	78
20) 1,1-Dichloroethane	8.70	63	2184720	10.4794	ppb		99
21) methyl t-butyl ether	8.74	73	3733706	9.8799	ppb		97
22) Vinyl Acetate	8.79	86	315299	9.1887	ppb	#	1
23) 2-Butanone	9.02	43	2364058	11.6542	ppb	#	76
24) cis-1,2-Dichloroethene	9.45	96	1316235	9.2550	ppb	#	77
26) Ethyl Acetate	9.61	61	375123	10.4073	ppb	#	1
27) Hexane	9.66	57	1678862	9.7926	ppb	#	45
28) Chloroform	9.72	83	3423681	10.8925	ppb		100
29) Tetrahydrofuran	10.12	42	1192959	10.9016	ppb	#	76
30) 1,2-Dichloroethane	10.41	62	2389917	11.7556	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	4155442	11.0486	ppb	#	96
32) Benzene	11.10	78	3370874	8.9028	ppb	#	92
33) Carbon Tetrachloride	11.25	117	4903973	11.3566	ppb		99
34) Cyclohexane	11.38	84	1690278	8.9983	ppb	#	63
35) 1,2-Dichloropropane	11.87	63	1141694	9.0725	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:08:27 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	3703679	11.2665	ppb		99
37)	1,4-Dioxane	12.06	88	892565	10.3544	ppb	#	91
38)	Trichloroethene	12.09	130	2223088	9.3336	ppb	#	91
39)	Methyl Methacrylate	12.22	69	1377516	10.3490	ppb		88
40)	Heptane	12.36	71	1287339	9.2513	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	2281732	10.0710	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	3105103	12.4610	ppb	#	80
43)	trans-1,3-Dichloropropene	13.42	75	2342205	10.8586	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	1725588	9.8512	ppb	#	88
45)	Toluene	13.93	91	5097056	9.5561	ppb		97
46)	2-Hexanone	14.14	43	2951837	13.4806	ppb	#	78
47)	Dibromochloromethane	14.36	129	4153529	11.2130	ppb		99
48)	1,2-Dibromoethane	14.62	107	2999558	10.4927	ppb		98
49)	Tetrachloroethene	15.11	166	2542697	8.9555	ppb	#	76
51)	Chlorobenzene	15.82	112	4630252	9.4054	ppb	#	90
52)	Ethylbenzene	16.21	91	7265486	9.6696	ppb		91
53)	m,p-Xylene	16.40	91	12352672	20.2827	ppb		87
54)	Bromoform	16.51	173	3301892	11.0641	ppb		100
55)	Styrene	16.80	104	4169746	10.1520	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	16.90	83	3392518	10.5267	ppb	#	97
57)	o-Xylene	16.93	91	6346298	10.2688	ppb		88
59)	4-Ethyl Toluene	18.38	105	7885935	10.1292	ppb		93
60)	1,3,5-Trimethylbenzene	18.47	105	7366856	10.5295	ppb		87
61)	1,2,4-Trimethylbenzene	18.99	105	6747753	10.2213	ppb		89
62)	Benzyl Chloride	19.18	91	4897425	11.6241	ppb		90
63)	m-Dichlorobenzene	19.21	146	4463307	10.4262	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	4190228	10.3243	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	3737737	9.8371	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	1267608	9.4943	ppb	#	96
67)	Naphthalene	22.49	128	3884468	11.8529	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	1258470	8.3538	ppb		97

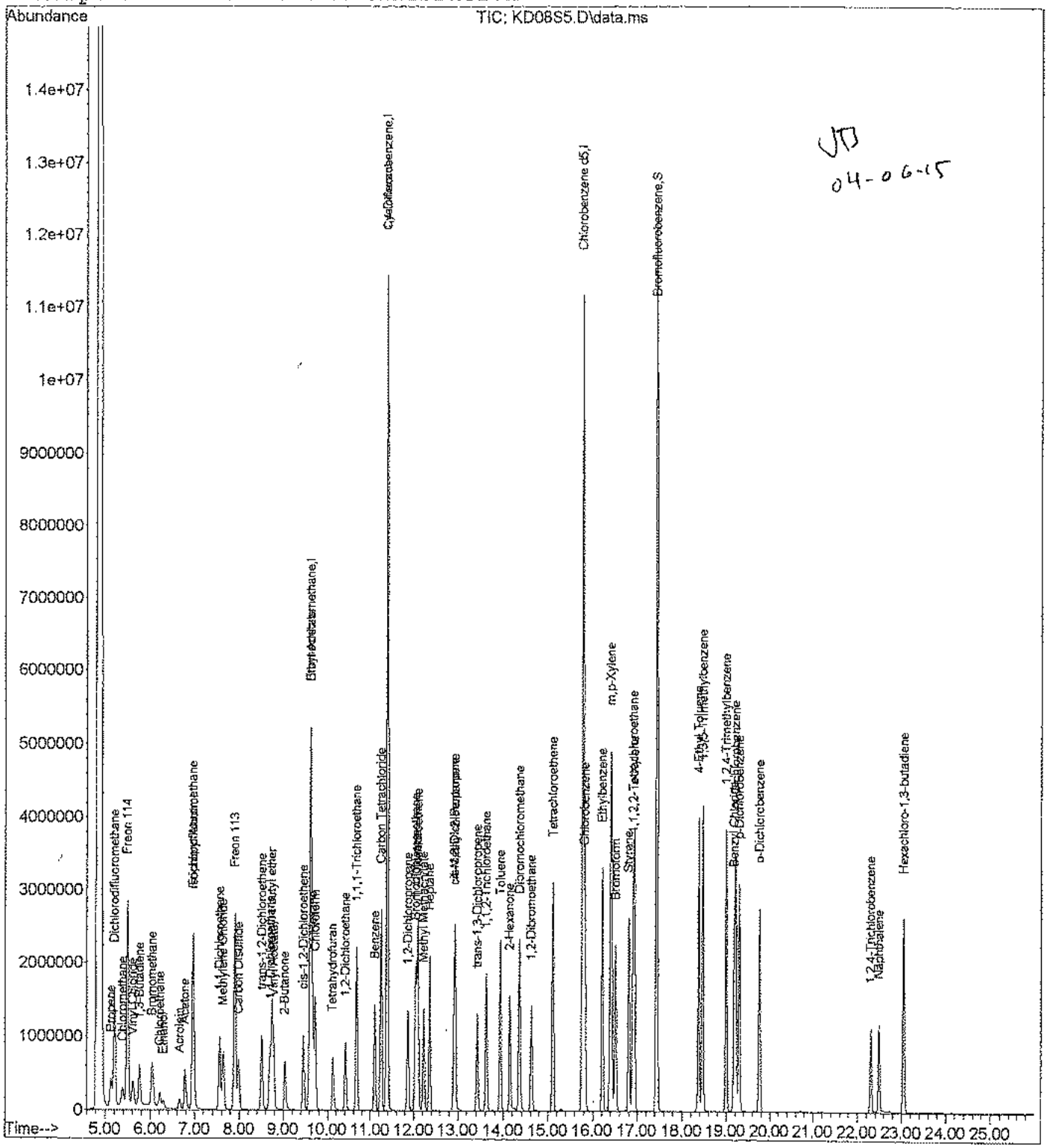
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:54:44 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	877312	20.0000	ppb		102.84
25) 1,4-Difluorobenzene	11.39	114	11425839	20.0000	ppb		102.43
50) Chlorobenzene d5	15.77	117	9519111	20.0000	ppb		98.72
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6600538	22.1497	ppb		110.75%
Target Compounds							Qvalue
2) Propene	5.13	41	403950	5.5173	ppb		92
3) Dichlorodifluoromethane	5.21	85	2703501	6.2740	ppb		99
4) Chloromethane	5.38	50	478541	6.1176	ppb		98
5) Freon 114	5.49	135	2097315	6.1149	ppb		90
6) Vinyl Chloride	5.62	62	620326	5.9900	ppb		98
7) 1,3-Butadiene	5.76	54	438480	5.9635	ppb	#	73
8) Bromomethane	6.04	94	729075	5.8708	ppb		99
9) Chloroethane	6.21	64	310463	5.4472	ppb	#	92
10) Acrolein	6.65	56	191869	4.9975	ppb		96
11) Acetone	6.78	43	1133094	5.7525	ppb	#	80
12) Trichlorofluoromethane	6.96	101	2849648	5.7467	ppb		99
13) Ethanol	6.29	45	180747	5.1667	ppb	#	76
14) Isopropyl Alcohol	6.97	45	959029	5.2238	ppb	#	83
15) 1,1-Dichloroethene	7.56	61	1047101	5.2156	ppb	#	73
16) Methylene Chloride	7.64	84	613667	5.1419	ppb	#	78
17) Freon 113	7.90	151	1334838	4.9056	ppb	#	68
18) Carbon Disulfide	7.98	76	1622633	5.0374	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	645227	4.6232	ppb	#	79
20) 1,1-Dichloroethane	8.70	63	1117261	5.1113	ppb		99
21) methyl t-butyl ether	8.74	73	1851618	4.7279	ppb		96
22) Vinyl Acetate	8.79	86	162144	4.6817	ppb	#	1
23) 2-Butanone	9.03	43	1185778	5.4479	ppb	#	76
24) cis-1,2-Dichloroethene	9.45	96	653954	4.4902	ppb	#	77
26) Ethyl Acetate	9.62	61	185779	4.9267	ppb	#	1
27) Hexane	9.66	57	833998	4.7217	ppb	#	45
28) Chloroform	9.72	83	1744251	5.2525	ppb		99
29) Tetrahydrofuran	10.12	42	588758	5.1242	ppb	#	76
30) 1,2-Dichloroethane	10.42	62	1199664	5.4781	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	2091583	5.2478	ppb	#	96
32) Benzene	11.10	78	1685758	4.3954	ppb	#	92
33) Carbon Tetrachloride	11.25	117	2435481	5.3064	ppb		99
34) Cyclohexane	11.38	84	869170	4.5444	ppb	#	57
35) 1,2-Dichloropropane	11.87	63	564362	4.4016	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:54:44 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	1817744	5.2107	ppb		99
37)	1,4-Dioxane	12.07	88	440074	4.9458	ppb	#	91
38)	Trichloroethene	12.09	130	1125856	4.6254	ppb	#	91
39)	Methyl Methacrylate	12.22	69	677678	4.9095	ppb		89
40)	Heptane	12.36	71	635496	4.4841	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	1060120	4.5282	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	1545639	5.7373	ppb	#	80
43)	trans-1,3-Dichloropropene	13.42	75	1045754	4.6254	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	848242	4.6701	ppb	#	88
45)	Toluene	13.93	91	2385169	4.3515	ppb		96
46)	2-Hexanone	14.14	43	1430658	5.9609	ppb	#	77
47)	Dibromochloromethane	14.36	129	1952351	4.9776	ppb		99
48)	1,2-Dibromoethane	14.62	107	1412695	4.7210	ppb		98
49)	Tetrachloroethene	15.11	166	1209941	4.1879	ppb	#	76
51)	Chlorobenzene	15.82	112	2207876	4.5101	ppb	#	88
52)	Ethylbenzene	16.21	91	3324004	4.4381	ppb		92
53)	m,p-Xylene	16.41	91	5866772	9.5369	ppb		88
54)	Bromoform	16.51	173	1545621	5.1165	ppb		99
55)	Styrene	16.80	104	1847116	4.4971	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	1677222	5.1028	ppb	#	97
57)	o-Xylene	16.93	91	3021166	4.8204	ppb		89
59)	4-Ethyl Toluene	18.38	105	3562613	4.5524	ppb		94
60)	1,3,5-Trimethylbenzene	18.47	105	3514872	4.9344	ppb		88
61)	1,2,4-Trimethylbenzene	18.99	105	3086167	4.6142	ppb		89
62)	Benzyl Chloride	19.18	91	2154065	5.0052	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	2136710	4.8907	ppb	#	94
64)	p-Dichlorobenzene	19.29	146	2019596	4.8907	ppb	#	93
65)	o-Dichlorobenzene	19.76	146	1758744	4.5748	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	490873	3.6839	ppb	#	96
67)	Naphthalene	22.49	128	1458492	4.2825	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	601100	3.9421	ppb		97

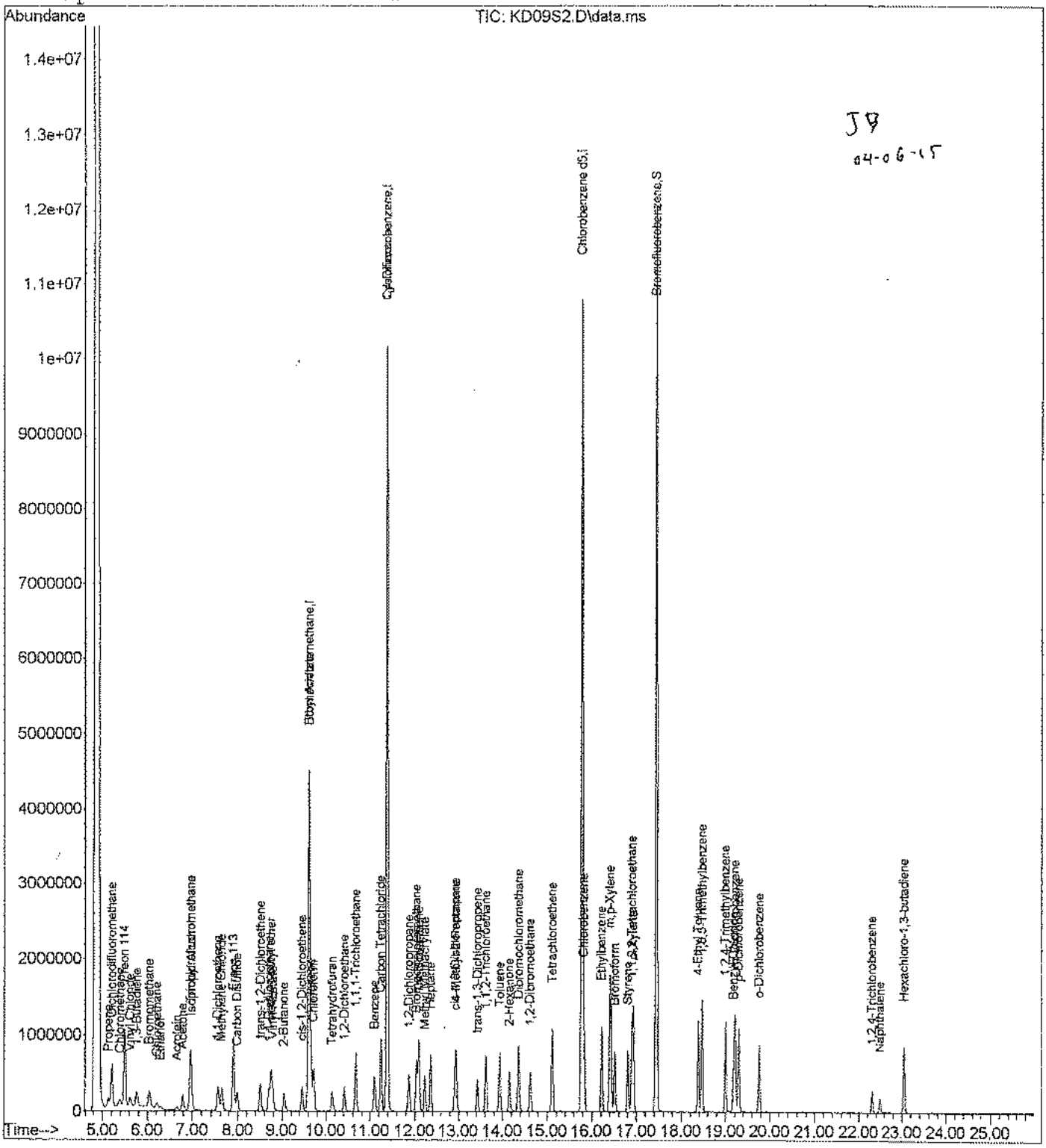
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 14:52:06 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.60	130	852800	20.0000	ppb		99.97
25) 1,4-Difluorobenzene	11.38	114	10992213	20.0000	ppb		98.54
50) Chlorobenzene d5	15.77	117	9097744	20.0000	ppb		94.35
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6282804	21.4193	ppb		107.10%
Target Compounds							Qvalue
2) Propene	5.14	41	143994	1.9598	ppb	#	90
3) Dichlorodifluoromethane	5.21	85	981839	2.1845	ppb		99
4) Chloromethane	5.39	50	178608	2.2112	ppb		96
5) Freon 114	5.49	135	755863	2.1333	ppb		89
6) Vinyl Chloride	5.62	62	222860	2.1032	ppb		99
7) 1,3-Butadiene	5.76	54	153154	2.0329	ppb	#	68
8) Bromomethane	6.04	94	260495	2.0566	ppb		98
9) Chloroethane	6.21	64	109032	1.9227	ppb	#	90
10) Acrolein	6.65	56	67046	1.7969	ppb		96
11) Acetone	6.79	43	428380	2.1163	ppb	#	79
12) Trichlorofluoromethane	6.96	101	995151	1.9724	ppb		99
13) Ethanol	6.29	45	66443	1.9097	ppb	#	72
14) Isopropyl Alcohol	6.98	45	325062	1.7845	ppb	#	76
15) 1,1-Dichloroethene	7.55	61	345790	1.7397	ppb	#	71
16) Methylene Chloride	7.64	84	226664	1.9276	ppb	#	76
17) Freon 113	7.90	151	488323	1.8491	ppb	#	70
18) Carbon Disulfide	7.98	76	578771	1.8394	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	223251	1.6656	ppb	#	79
20) 1,1-Dichloroethane	8.70	63	392456	1.8295	ppb		99
21) methyl t-butyl ether	8.75	73	639909	1.6916	ppb		95
22) Vinyl Acetate	8.79	86	58836	1.7919	ppb	#	1
23) 2-Butanone	9.04	43	429513	1.9682	ppb	#	75
24) cis-1,2-Dichloroethene	9.46	96	211314	1.5185	ppb	#	77
26) Ethyl Acetate	9.62	61	71777	1.9699	ppb	#	1
27) Hexane	9.66	57	283583	1.6843	ppb	#	44
28) Chloroform	9.71	83	622047	1.9101	ppb		98
29) Tetrahydrofuran	10.13	42	205095	1.8374	ppb	#	72
30) 1,2-Dichloroethane	10.41	62	423868	1.9423	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	713039	1.8222	ppb	#	95
32) Benzene	11.10	78	554493	1.5396	ppb	#	91
33) Carbon Tetrachloride	11.25	117	842392	1.8651	ppb		100
34) Cyclohexane	11.38	84	319197	1.7630	ppb	#	32
35) 1,2-Dichloropropane	11.87	63	200981	1.6637	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 14:52:06 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	647589	1.8939	ppb		99
37)	1,4-Dioxane	12.08	88	146187	1.7188	ppb	#	88
38)	Trichloroethene	12.09	130	387659	1.6765	ppb	#	91
39)	Methyl Methacrylate	12.23	69	230721	1.7430	ppb		88
40)	Heptane	12.36	71	210322	1.5751	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	357391	1.6115	ppb		96
42)	4-Methyl-2-Pentanone	12.94	43	544198	2.0175	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	339597	1.5646	ppb	#	92
44)	1,1,2-Trichloroethane	13.62	97	326588	1.8742	ppb	#	87
45)	Toluene	13.93	91	807266	1.5590	ppb		96
46)	2-Hexanone	14.15	43	469470	1.9363	ppb	#	76
47)	Dibromochloromethane	14.36	129	724269	1.8946	ppb		99
48)	1,2-Dibromoethane	14.63	107	511893	1.7733	ppb		97
49)	Tetrachloroethene	15.11	166	421477	1.5588	ppb	#	76
51)	Chlorobenzene	15.82	112	852845	1.8241	ppb	#	83
52)	Ethylbenzene	16.21	91	1079424	1.5119	ppb		92
53)	m,p-Xylene	16.40	91	2061052	3.4570	ppb		88
54)	Bromoform	16.51	173	536068	1.8173	ppb		99
55)	Styrene	16.80	104	556007	1.4211	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	617509	1.9102	ppb	#	96
57)	o-Xylene	16.93	91	1061237	1.7412	ppb		88
59)	4-Ethyl Toluene	18.38	105	1004145	1.3381	ppb		95
60)	1,3,5-Trimethylbenzene	18.47	105	1193466	1.7127	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	888076	1.3717	ppb		90
62)	Benzyl Chloride	19.18	91	636095	1.5160	ppb		91
63)	m-Dichlorobenzene	19.21	146	755992	1.7639	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	700082	1.7321	ppb	#	93
65)	o-Dichlorobenzene	19.76	146	575363	1.5422	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	129152	1.0359	ppb	#	95
67)	Naphthalene	22.49	128	261197	0.7958	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	196043	1.3162	ppb		97

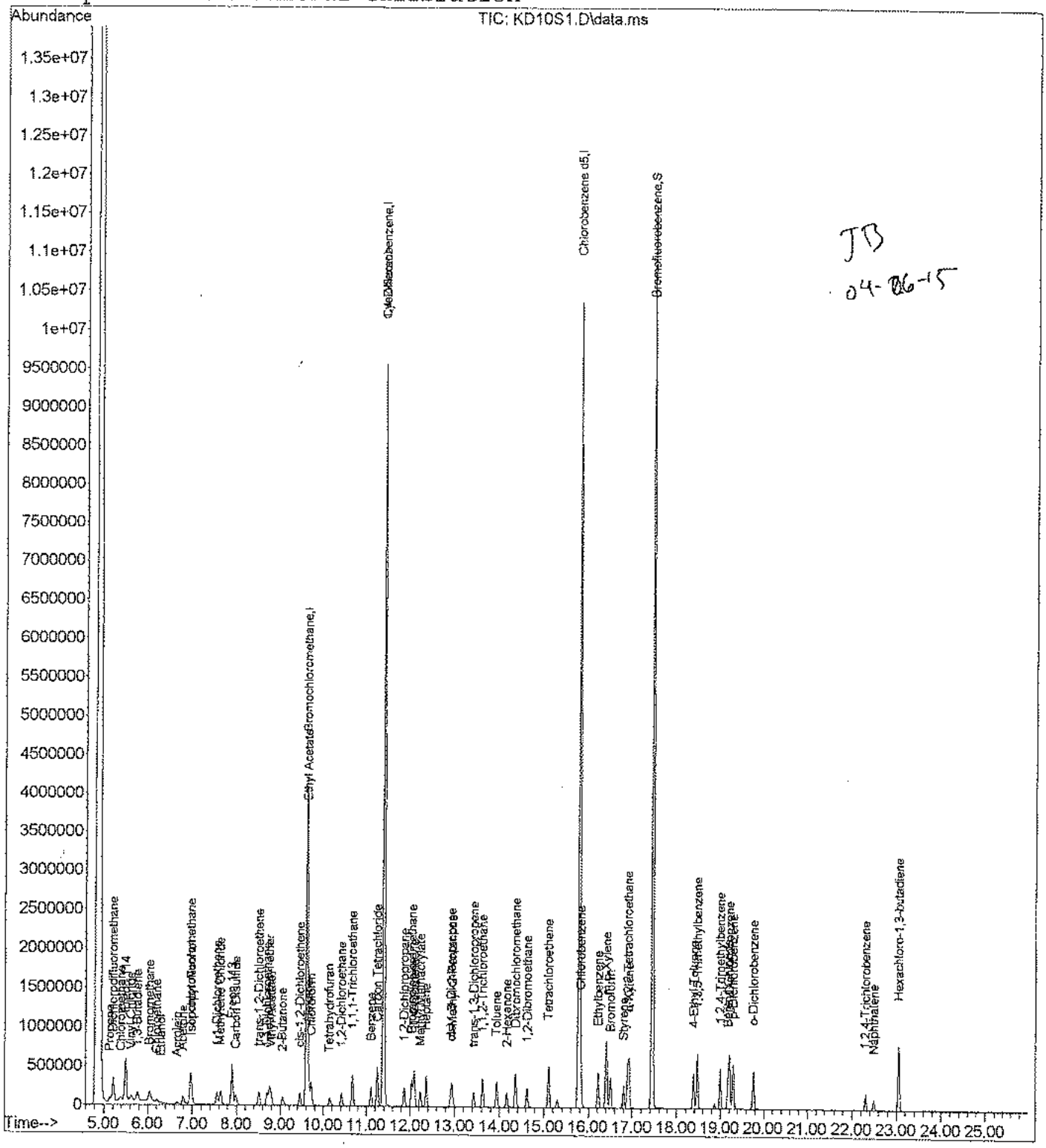
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:13:41 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	817216	20.0000	ppb		95.80
25) 1,4-Difluorobenzene	11.39	114	10517653	20.0000	ppb		94.29
50) Chlorobenzene d5	15.77	117	8726033	20.0000	ppb		90.49
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6032342	20.8249	ppb		104.12%
Target Compounds							Qvalue
2) Propene	5.14	41	72941	1.0554	ppb	#	89
3) Dichlorodifluoromethane	5.21	85	515112	1.1671	ppb		99
4) Chloromethane	5.39	50	91672	1.1618	ppb		93
5) Freon 114	5.50	135	398678	1.1560	ppb		90
6) Vinyl Chloride	5.62	62	122423	1.2030	ppb		98
7) 1,3-Butadiene	5.77	54	87322	1.2076	ppb	#	79
8) Bromomethane	6.03	94	150196	1.2370	ppb		97
9) Chloroethane	6.20	64	62200	1.1860	ppb	#	92
10) Acrolein	6.66	56	33444	0.9870	ppb		95
11) Acetone	6.79	43	232003	1.1747	ppb	#	81
12) Trichlorofluoromethane	6.96	101	539323	1.1218	ppb		100
13) Ethanol	6.29	45	35763	1.0978	ppb	#	74
14) Isopropyl Alcohol	6.99	45	154251	0.9120	ppb	#	67
15) 1,1-Dichloroethene	7.56	61	173975	0.9525	ppb	#	73
16) Methylene Chloride	7.63	84	135365	1.2416	ppb	#	76
17) Freon 113	7.90	151	250040	1.0385	ppb	#	68
18) Carbon Disulfide	7.98	76	293852	1.0171	ppb	#	63
19) trans-1,2-Dichloroethene	8.51	96	108459	0.9071	ppb	#	78
20) 1,1-Dichloroethane	8.70	63	202469	1.0286	ppb		97
21) methyl t-butyl ether	8.75	73	270714	0.7917	ppb		95
22) Vinyl Acetate	8.79	86	24768	0.8431	ppb	#	1
23) 2-Butanone	9.05	43	187539	0.9062	ppb	#	76
24) cis-1,2-Dichloroethene	9.46	96	105019	0.8581	ppb	#	79
26) Ethyl Acetate	9.63	61	32691	0.9699	ppb	#	1
27) Hexane	9.67	57	138880	0.9303	ppb	#	41
28) Chloroform	9.72	83	324148	1.0765	ppb		99
29) Tetrahydrofuran	10.15	42	82957	0.8087	ppb	#	72
30) 1,2-Dichloroethane	10.41	62	223417	1.0888	ppb		97
31) 1,1,1-Trichloroethane	10.68	97	378244	1.0488	ppb	#	96
32) Benzene	11.10	78	288736	0.9222	ppb	#	92
33) Carbon Tetrachloride	11.25	117	449312	1.0738	ppb		99
34) Cyclohexane	11.38	84	181196	1.1212	ppb	#	8
35) 1,2-Dichloropropane	11.87	63	100700	0.9434	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:13:41 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.03	83	330460	1.0382	ppb		99
37)	1,4-Dioxane	12.09	88	61344	0.7996	ppb	#	85
38)	Trichloroethene	12.09	130	187550	0.9119	ppb		92
39)	Methyl Methacrylate	12.23	69	95445	0.7997	ppb		90
40)	Heptane	12.36	71	99811	0.8513	ppb	#	66
41)	cis-1,3-Dichloropropene	12.91	75	153699	0.7741	ppb		94
42)	4-Methyl-2-Pentanone	12.94	43	216450	0.8450	ppb	#	77
43)	trans-1,3-Dichloropropene	13.42	75	149026	0.7576	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	161122	1.0048	ppb	#	87
45)	Toluene	13.93	91	351964	0.7678	ppb		94
46)	2-Hexanone	14.16	43	175975	0.7603	ppb	#	72
47)	Dibromochloromethane	14.36	129	355311	0.9933	ppb		100
48)	1,2-Dibromoethane	14.62	107	239795	0.9029	ppb		99
49)	Tetrachloroethene	15.10	166	206583	0.8698	ppb	#	75
51)	Chlorobenzene	15.82	112	430513	0.9882	ppb	#	74
52)	Ethylbenzene	16.22	91	453709	0.6988	ppb		93
53)	m,p-Xylene	16.41	91	950645	1.7063	ppb		88
54)	Bromoform	16.51	173	266374	0.9469	ppb		100
55)	Styrene	16.80	104	217331	0.6130	ppb	#	92
56)	1,1,2,2-Tetrachloroethane	16.90	83	331903	1.0709	ppb	#	96
57)	o-Xylene	16.93	91	482525	0.8452	ppb		89
59)	4-Ethyl Toluene	18.38	105	395789	0.5823	ppb		94
60)	1,3,5-Trimethylbenzene	18.47	105	559166	0.8546	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	401810	0.6793	ppb		91
62)	Benzyl Chloride	19.18	91	323385	0.8196	ppb		91
63)	m-Dichlorobenzene	19.21	146	408776	1.0020	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	360275	0.9389	ppb	#	94
65)	o-Dichlorobenzene	19.77	146	315025	0.9033	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	91091	0.8143	ppb	#	96
67)	Naphthalene	22.49	128	183564	0.6166	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	187180	1.3232	ppb		97

(#) = qualifier out of range (m) = manual integration

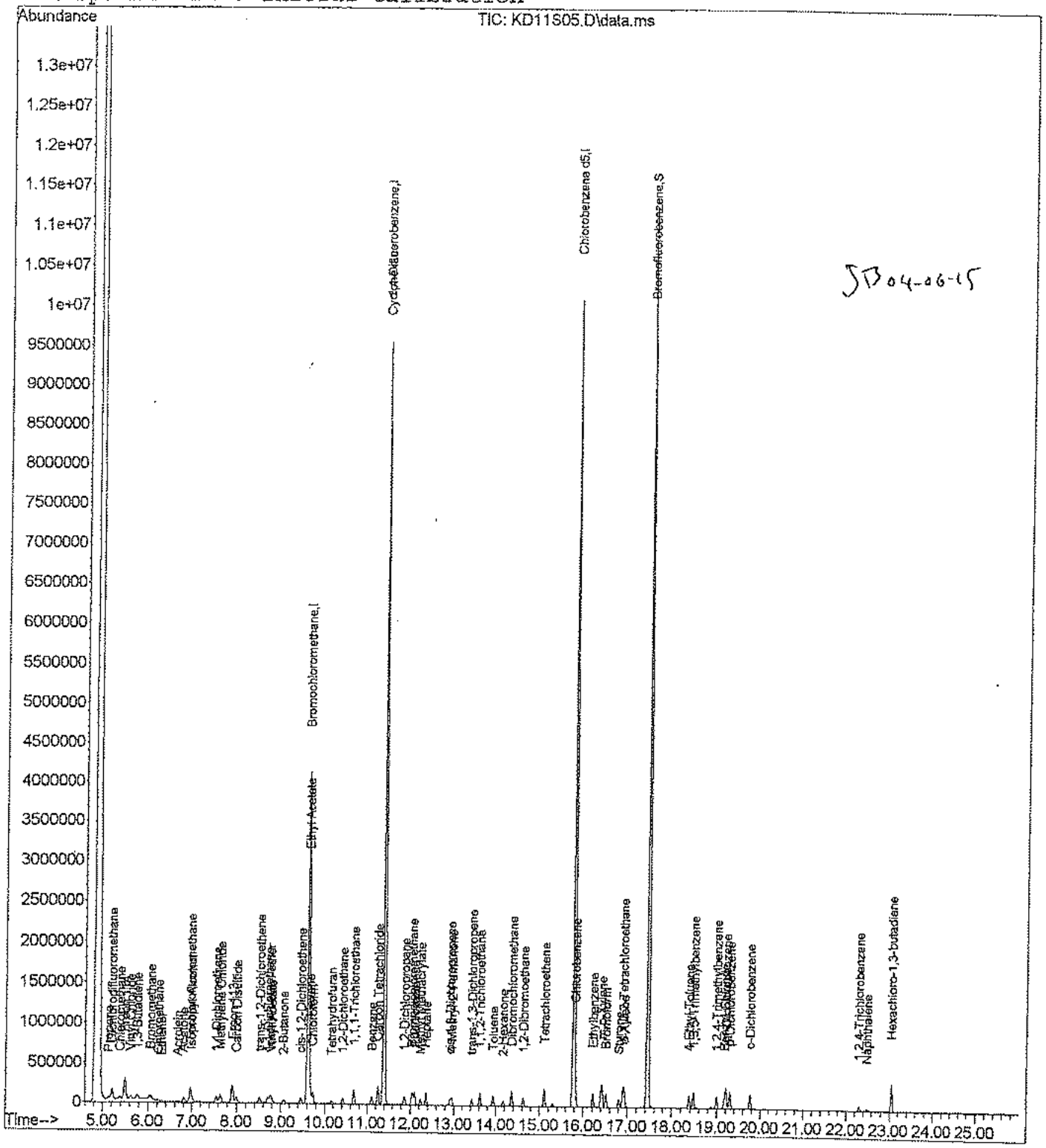
Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D
Acq Time : 04/03/2015 16:13
Sample : 0.5 ppb std (100 mL)
Misc : 23369
MS Integration Params: rteint.p

Vial: 3
Operator:
Inst : 5975-K
Multiplr: 1.00

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB 04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:56:52 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	810432	20.0000	ppb		95.00
25) 1,4-Difluorobenzene	11.39	114	10390053	20.0000	ppb		93.14
50) Chlorobenzene d5	15.77	117	8387076	20.0000	ppb		86.98
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5853092	20.4250	ppb		102.13%
Target Compounds							Qvalue
2) Propene	5.13	41	31505	0.4438	ppb	#	86
3) Dichlorodifluoromethane	5.21	85	237739	0.5033	ppb		99
4) Chloromethane	5.39	50	45711	0.5458	ppb		93
5) Freon 114	5.49	135	183655	0.5001	ppb		88
6) Vinyl Chloride	5.62	62	57294	0.5285	ppb		95
7) 1,3-Butadiene	5.76	54	42758	0.5529	ppb	#	75
8) Bromomethane	6.05	94	67845	0.5227	ppb		100
9) Chloroethane	6.22	64	29697	0.5450	ppb	#	93
10) Acrolein	6.65	56	7103	0.2073	ppb		92
11) Acetone	6.80	43	117629	0.5665	ppb	#	80
12) Trichlorofluoromethane	6.96	101	255436	0.5067	ppb		100
13) Ethanol	6.29	45	16301	0.4919	ppb	#	73
14) Isopropyl Alcohol	7.00	45	70145	0.4178	ppb	#	54
15) 1,1-Dichloroethene	7.56	61	73413	0.3994	ppb	#	74
16) Methylene Chloride	7.64	84	72950	0.6435	ppb	#	73
17) Freon 113	7.90	151	112652	0.4654	ppb	#	65
18) Carbon Disulfide	7.99	76	134948	0.4661	ppb	#	61
19) trans-1,2-Dichloroethene	8.52	96	47206	0.4062	ppb	#	80
20) 1,1-Dichloroethane	8.70	63	89803	0.4523	ppb		98
21) methyl t-butyl ether	8.76	73	107275	0.3260	ppb		94
22) Vinyl Acetate	8.79	86	9225	0.3229	ppb	#	1
23) 2-Butanone	9.07	43	78559	0.3772	ppb	#	75
24) cis-1,2-Dichloroethene	9.46	96	45269	0.3839	ppb	#	80
26) Ethyl Acetate	9.63	61	14407	0.4298	ppb	#	1
27) Hexane	9.66	57	58299	0.3973	ppb	#	40
28) Chloroform	9.72	83	145024	0.4699	ppb		100
29) Tetrahydrofuran	10.17	42	33250	0.3309	ppb	#	69
30) 1,2-Dichloroethane	10.42	62	99363	0.4687	ppb		96
31) 1,1,1-Trichloroethane	10.68	97	165858	0.4500	ppb	#	95
32) Benzene	11.10	78	116092	0.3831	ppb	#	91
33) Carbon Tetrachloride	11.25	117	197020	0.4567	ppb		99
34) Cyclohexane	11.38	84	94750	0.5811	ppb	#	1
35) 1,2-Dichloropropane	11.87	63	42737	0.4109	ppb	#	79

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:56:52 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	12.03	83	141486	0.4360	ppb		97
37) 1,4-Dioxane	12.11	88	22340	0.3008	ppb	#	83
38) Trichloroethene	12.09	130	75775	0.3782	ppb		92
39) Methyl Methacrylate	12.23	69	35394	0.3051	ppb		89
40) Heptane	12.36	71	35821	0.3158	ppb	#	69
41) cis-1,3-Dichloropropene	12.91	75	62942	0.3301	ppb		95
42) 4-Methyl-2-Pentanone	12.96	43	76973	0.2994	ppb	#	77
43) trans-1,3-Dichloropropene	13.42	75	61396	0.3238	ppb	#	91
44) 1,1,2-Trichloroethane	13.62	97	70846	0.4439	ppb	#	86
45) Toluene	13.93	91	130196	0.2985	ppb		97
46) 2-Hexanone	14.17	43	60662	0.2620	ppb	#	69
47) Dibromochloromethane	14.36	129	149934	0.4139	ppb		100
48) 1,2-Dibromoethane	14.63	107	102034	0.3891	ppb		97
49) Tetrachloroethene	15.11	166	87377	0.3827	ppb	#	76
51) Chlorobenzene	15.82	112	197223	0.4757	ppb		95
52) Ethylbenzene	16.22	91	170268	0.2899	ppb		93
53) m,p-Xylene	16.41	91	318194	0.6094	ppb		90
54) Bromoform	16.51	173	113390	0.4183	ppb		99
55) Styrene	16.80	104	76698	0.2420	ppb	#	89
56) 1,1,2,2-Tetrachloroethane	16.90	83	146352	0.4850	ppb	#	94
57) o-Xylene	16.93	91	158856	0.2970	ppb		90
59) 4-Ethyl Toluene	18.38	105	137788	0.2295	ppb		92
60) 1,3,5-Trimethylbenzene	18.47	105	159197	0.2591	ppb		92
61) 1,2,4-Trimethylbenzene	19.00	105	121396	0.2278	ppb		95
62) Benzyl Chloride	19.18	91	114550	0.3076	ppb	#	89
63) m-Dichlorobenzene	19.21	146	157355	0.4026	ppb	#	94
64) p-Dichlorobenzene	19.30	146	133952	0.3679	ppb	#	92
65) o-Dichlorobenzene	19.77	146	124185	0.3825	ppb	#	93
66) 1,2,4-Trichlorobenzene	22.32	180	29851	0.3120	ppb	#	95
67) Naphthalene	22.49	128	39377	0.1533	ppb		97
68) Hexachloro-1,3-butadiene	23.05	225	76931	0.5747	ppb		95

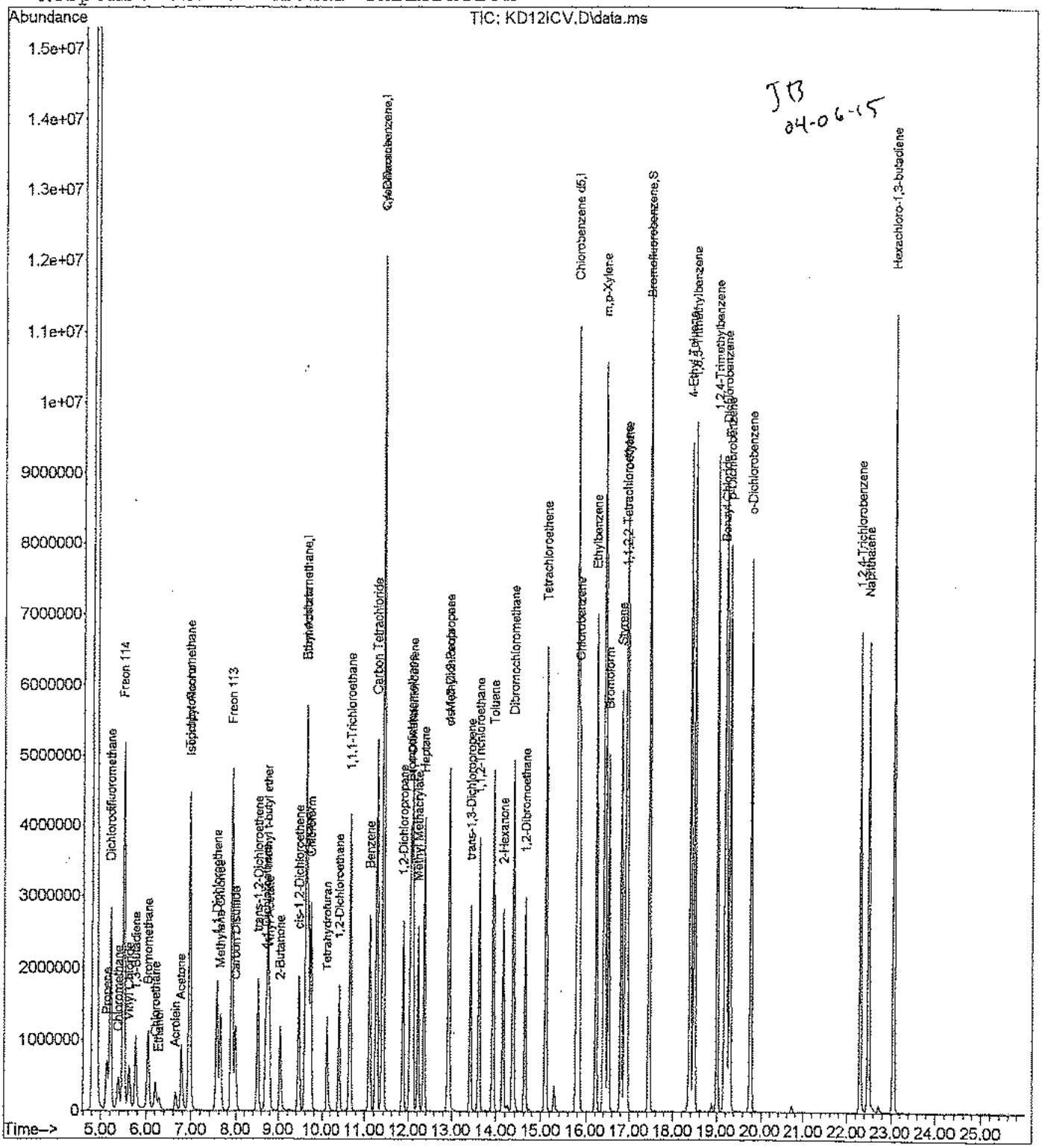
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	820480	20.0000	ppb		96.18
25) 1,4-Difluorobenzene	11.39	114	10647551	20.0000	ppb		95.45
50) Chlorobenzene d5	15.77	117	9420376	20.0000	ppb		97.70
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6798333	20.5155	ppb		102.58%
Target Compounds							Qvalue
2) Propene	5.13	41	689589	9.6206	ppb	#	91
3) Dichlorodifluoromethane	5.21	85	4798133	9.4993	ppb		99
4) Chloromethane	5.38	50	850681	9.4970	ppb		100
5) Freon 114	5.49	135	3804446	9.7961	ppb		89
6) Vinyl Chloride	5.62	62	1139804	9.8736	ppb		97
7) 1,3-Butadiene	5.76	54	824830	9.9351	ppb	#	73
8) Bromomethane	6.04	94	1354710	9.8464	ppb		99
9) Chloroethane	6.21	64	576986	10.1124	ppb	#	90
10) Acrolein	6.65	56	350077	11.0382	ppb		96
11) Acetone	6.77	43	1957860	8.9635	ppb	#	78
12) Trichlorofluoromethane	6.96	101	5184574	9.7802	ppb		100
13) Ethanol	6.29	45	310616	9.4246	ppb	#	78
14) Isopropyl Alcohol	6.97	45	1724115	10.4762	ppb	#	85
15) 1,1-Dichloroethene	7.56	61	1927246	10.5531	ppb	#	71
16) Methylene Chloride	7.64	84	1043417	8.6801	ppb	#	75
17) Freon 113	7.90	151	2351461	9.6811	ppb	#	66
18) Carbon Disulfide	7.98	76	2876516	9.8796	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1160634	10.3213	ppb	#	77
20) 1,1-Dichloroethane	8.70	63	2015335	10.0499	ppb		99
21) methyl t-butyl ether	8.74	73	3337466	10.7323	ppb		96
22) Vinyl Acetate	8.79	86	294201	10.7719	ppb	#	1
23) 2-Butanone	9.03	43	2126965	10.3126	ppb	#	75
24) cis-1,2-Dichloroethene	9.45	96	1221606	10.8251	ppb	#	76
26) Ethyl Acetate	9.62	61	330742	9.8432	ppb	#	1
27) Hexane	9.66	57	1561598	10.7227	ppb	#	45
28) Chloroform	9.72	83	3260356	10.1657	ppb		100
29) Tetrahydrofuran	10.12	42	1096645	11.1359	ppb	#	75
30) 1,2-Dichloroethane	10.42	62	2323545	10.4264	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	3952140	10.3789	ppb	#	96
32) Benzene	11.10	78	3229354	10.9754	ppb	#	92
33) Carbon Tetrachloride	11.25	117	4680758	10.4091	ppb		99
34) Cyclohexane	11.38	84	1576608	9.3032	ppb	#	61
35) 1,2-Dichloropropane	11.87	63	1094083	10.7316	ppb	#	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

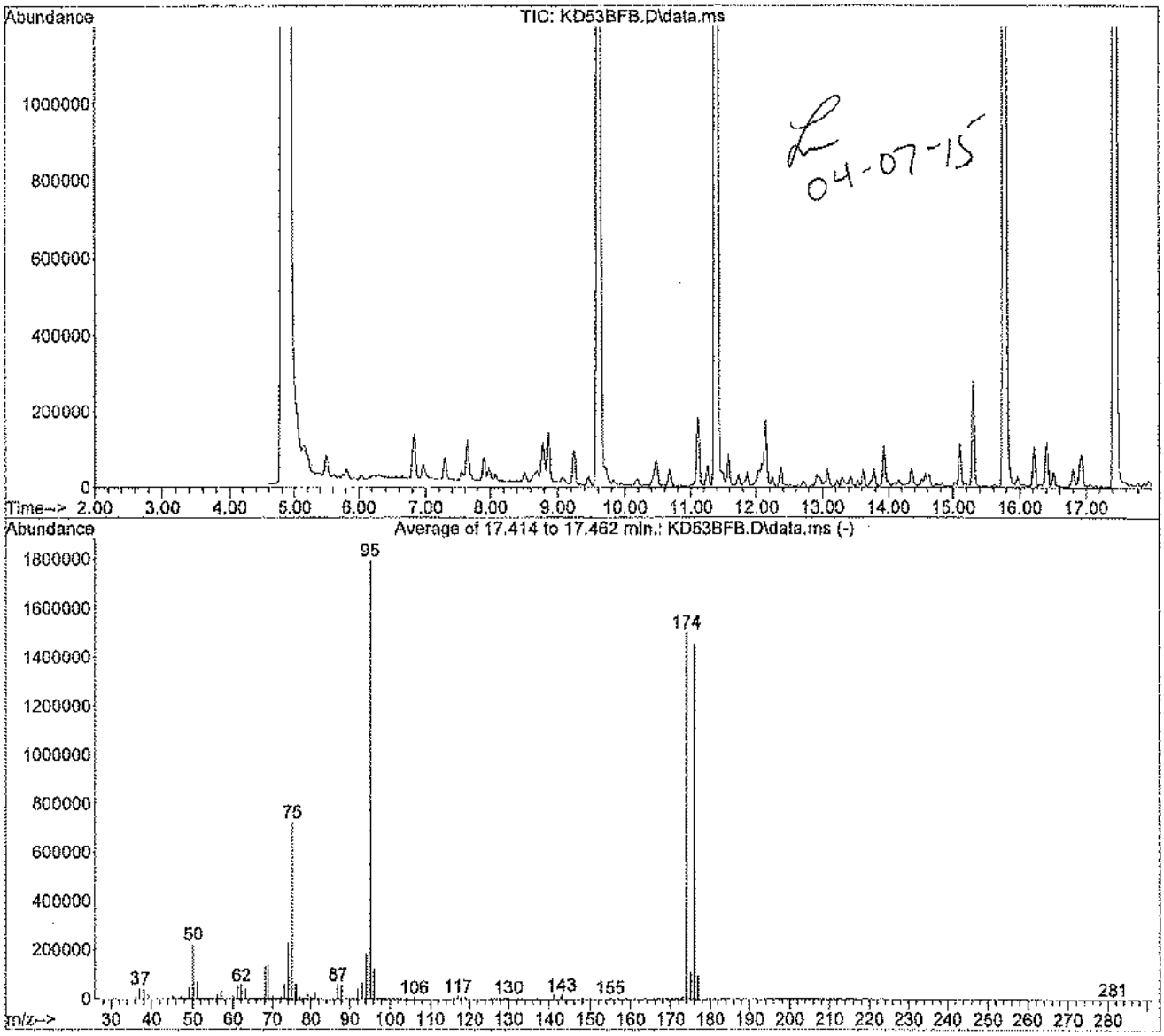
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	3591510	10.7013	ppb		99
37)	1,4-Dioxane	12.07	88	806037	11.3521	ppb	#	90
38)	Trichloroethene	12.09	130	2118279	10.8385	ppb	#	91
39)	Methyl Methacrylate	12.22	69	1266130	11.2809	ppb		87
40)	Heptane	12.36	71	1232509	11.4241	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	2204672	11.9383	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	2752159	10.7786	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	2283190	12.3692	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	1704946	10.6328	ppb	#	88
45)	Toluene	13.93	91	4948030	12.0144	ppb		97
46)	2-Hexanone	14.14	43	2644947	11.4869	ppb	#	77
47)	Dibromochloromethane	14.36	129	4119385	11.1300	ppb		100
48)	1,2-Dibromoethane	14.63	107	2954550	11.3531	ppb		98
49)	Tetrachloroethene	15.11	166	2481948	11.2416	ppb	#	76
51)	Chlorobenzene	15.82	112	4608421	10.2420	ppb	#	89
52)	Ethylbenzene	16.22	91	7402117	12.4674	ppb		91
53)	m,p-Xylene	16.41	91	12603982	23.3752	ppb		87
54)	Bromoform	16.51	173	3494285	11.6580	ppb		99
55)	Styrene	16.80	104	4336299	13.6164	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	16.90	83	3818509	11.4060	ppb	#	97
57)	o-Xylene	16.93	91	6624344	12.0020	ppb		87
59)	4-Ethyl Toluene	18.38	105	8931972	14.9465	ppb		93
60)	1,3,5-Trimethylbenzene	18.47	105	8296197	13.2217	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	8073811	15.3075	ppb		89
62)	Benzyl Chloride	19.18	91	6508203	16.3083	ppb	#	90
63)	m-Dichlorobenzene	19.21	146	5421596	12.9430	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	5220153	13.5705	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	4935481	14.5810	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	2839810	26.4276	ppb	#	96
67)	Naphthalene	22.49	128	8696228	30.1471	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	2632699	18.5985	ppb		98

(#) = qualifier out of range (m) = manual integration

BFB

Data File : J:\K\2015\APR15K\07APR15K\KD53BFB.D Vial: 1
Acq Time : 04/07/2015 13:47 Operator:
Sample : BFB Inst : 5975-K
Misc : 107IS31253 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15



Peak Apex is scan: Average of 17.414 to 17.462 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	12.36	221753	PASS
75	95	30	66	40.27	722368	PASS
95	95	100	100	100.00	1793863	PASS
96	95	5	9	6.61	118593	PASS
173	174	0.00	2	0.52	7838	PASS
174	95	50	120	83.60	1499634	PASS
175	174	5	9	6.97	104452	PASS
176	174	93	101	96.65	1449415	PASS
177	176	5	9	6.49	94131	PASS

KD53BFB.D TO15KC15.m Wed Apr 08 09:01:23 2015

Average of 17.414 to 17.462 min.: KD53BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.10	7034.0
37.10	41716.0
38.10	38285.0
39.10	15369.0
40.05	491.0
41.15	190.0
43.10	281.0
44.05	4247.0
45.10	8533.0
46.05	283.0
46.25	200.0
47.10	13711.0
48.10	5840.0
49.10	43219.0
50.10	221753.0
51.10	69129.0
52.10	3087.0
55.05	2535.0
56.10	15169.0
57.10	29688.0
58.00	473.0
58.15	602.0
60.10	9868.0
61.10	53111.0
62.10	54279.0
63.10	40131.0
64.10	3842.0
65.10	673.0
67.05	3117.0
68.10	132025.0
69.05	134193.0
70.10	9660.0
71.05	318.0
72.10	6349.0
73.10	56837.0
74.10	224554.0
75.10	722368.0
76.10	61753.0
77.05	7593.0
78.05	4768.0
79.00	22933.0
80.05	7488.0
81.00	24721.0
82.00	5295.0
83.05	599.0
86.00	1171.0
87.00	57285.0
88.00	56231.0
91.00	3869.0
92.10	41360.0
93.10	63830.0
94.10	184579.0
95.10	1793863.0
96.10	118593.0
97.10	3492.0
103.00	484.0
104.00	5223.0
104.95	1997.0
106.00	5277.0
107.00	1429.0
109.95	469.0
111.00	341.0
111.95	562.0
113.00	801.0
114.95	1428.0
116.00	4560.0
117.00	9064.0
118.00	5130.0
119.00	7360.0
119.90	66.0
121.90	285.0
122.95	351.0
123.95	865.0
124.20	63.0
125.05	395.0
125.95	638.0
126.95	414.0
128.00	5765.0
129.05	2961.0
130.00	5983.0
131.00	2415.0
132.00	173.0
134.00	309.0
135.00	2681.0
135.85	219.0
136.10	46.0
137.00	2625.0
139.05	486.0
139.95	945.0

141.00	14375.0
141.95	1733.0
143.00	15410.0
144.00	833.0
145.05	1188.0
145.95	2481.0
146.95	1289.0
148.05	4219.0
149.00	1233.0
150.00	1730.0
151.90	300.0
152.05	553.0
153.00	1464.0
154.00	1185.0
155.00	4452.0
156.05	491.0
157.00	3144.0
158.00	180.0
158.95	1992.0
161.00	1739.0
172.00	1113.0
173.05	7838.0
174.00	1499634.0
175.00	104452.0
176.00	1449415.0
177.00	94131.0
178.00	2569.0
281.20	45.0

Evaluate Continuing Calibration Report

Data Path : J:\K\2015\APR15K\07APR15K\
Data File : KD54S10.D
Acq On : 04/07/2015 14:31
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 07 15:02:08 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Bromochloromethane	1.000	1.000	0.0	112	0.00	
2		Propene	1.747	1.497	14.3	89	0.02	TIC
3		Dichlorodifluoromethane	12.312	6.933	43.7#	61	0.00	
4		Chloromethane	2.183	1.327	39.2#	67	0.00	
5		Freon 114	9.467	5.998	36.6#	69	0.00	
6		Vinyl Chloride	2.814	1.859	33.9#	73	0.00	
7		1,3-Butadiene	2.024	1.315	35.0#	71	0.00	
8		Bromomethane	3.354	2.206	34.2#	73	0.00	
9		Chloroethane	1.391	1.204	13.4	96	0.00	
10		Acrolein	0.773	0.847	-9.6	103	0.00	TIC
11		Acetone	5.324	3.403	36.1#	75	0.00	
12		Trichlorofluoromethane	12.922	8.551	33.8#	72	0.00	
13		Ethanol	0.803	0.698	13.1	95	-0.04	TIC
14		Isopropyl Alcohol	4.012	3.739	6.8	94	-0.03	TIC
15		1,1-Dichloroethene	4.452	3.870	13.1	88	0.00	
16		Methylene Chloride	2.930	2.621	10.5	110	0.00	
17		Freon 113	5.921	6.063	-2.4	111	0.00	
18		Carbon Disulfide	7.097	7.511	-5.8	113	0.00	
19		trans-1,2-Dichloroethene	2.741	3.252	-18.6	122	0.00	
20		1,1-Dichloroethane	4.888	4.542	7.1	99	0.00	
21		methyl t-butyl ether	7.580	8.345	-10.1	107	0.00	
22		Vinyl Acetate	0.666	0.829	-24.5	126	-0.01	
23		2-Butanone	5.028	4.504	10.4	91	-0.01	
24		cis-1,2-Dichloroethene	2.751	3.367	-22.4	122	0.00	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00	
26		Ethyl Acetate	0.063	0.067	-6.3	112	-0.01	
27		Hexane	0.274	0.287	-4.7	107	0.00	
28		Chloroform	0.602	0.477	20.8	88	-0.01	
29		Tetrahydrofuran	0.185	0.191	-3.2	100	0.00	
30		1,2-Dichloroethane	0.419	0.275	34.4#	72	-0.01	
31		1,1,1-Trichloroethane	0.715	0.551	22.9	83	0.00	
32		Benzene	0.553	0.682	-23.3	127	-0.01	
33		Carbon Tetrachloride	0.845	0.623	26.3	80	0.00	
34		Cyclohexane	0.318	0.313	1.6	116	0.00	
35		1,2-Dichloropropane	0.191	0.214	-12.0	118	-0.01	
36		Bromodichloromethane	0.630	0.511	18.9	87	-0.01	
37		1,4-Dioxane	0.133	0.171	-28.6	120	0.00	TIC
38		Trichloroethene	0.367	0.419	-14.2	118	-0.01	
39		Methyl Methacrylate	0.211	0.246	-16.6	112	-0.01	TIC
40		Heptane	0.203	0.236	-16.3	115	0.00	
41		cis-1,3-Dichloropropene	0.347	0.395	-13.8	109	-0.01	
42		4-Methyl-2-Pentanone	0.480	0.438	8.7	89	0.00	
43		trans-1,3-Dichloropropene	0.347	0.373	-7.5	100	-0.01	
44		1,1,2-Trichloroethane	0.301	0.306	-1.7	111	0.00	
45		Toluene	0.774	0.924	-19.4	114	0.00	
46		2-Hexanone	0.433	0.415	4.2	88	0.00	
47		Dibromochloromethane	0.695	0.640	7.9	97	0.00	
48		1,2-Dibromoethane	0.489	0.512	-4.7	107	0.00	
49		Tetrachloroethene	0.415	0.501	-20.7	124	0.00	

Evaluate Continuing Calibration Report

Data Path : J:\K\2015\APR15K\07APR15K\
Data File : KD54S10.D
Acq On : 04/07/2015 14:31
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 07 15:02:08 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50	I	Chlorobenzene d5	1.000	1.000	0.0	113	0.00	
51		Chlorobenzene	0.955	0.942	1.4	111	0.00	
52		Ethylbenzene	1.260	1.409	-11.8	106	0.00	
53		m,p-Xylene	1.145	1.090	4.8	96	0.00	
54		Bromoform	0.636	0.632	0.6	105	0.00	
55		Styrene	0.676	0.876	-29.6	115	0.00	
56		1,1,2,2-Tetrachloroethane	0.711	0.626	12.0	101	0.00	
57		o-Xylene	1.172	1.095	6.6	94	0.00	
58	S	Bromofluorobenzene	0.704	0.584	17.0	94	0.00	
59		4-Ethyl Toluene	1.391	1.526	-9.7	106	0.00	
60		1,3,5-Trimethylbenzene	1.332	1.285	3.5	95	0.00	
61		1,2,4-Trimethylbenzene	1.120	1.225	-9.4	99	0.00	
62		Benzyl Chloride	0.847	0.904	-6.7	101	0.00	
63		m-Dichlorobenzene	0.889	0.845	4.9	103	0.00	
64		p-Dichlorobenzene	0.817	0.813	0.5	106	0.00	
65		o-Dichlorobenzene	0.719	0.747	-3.9	109	0.00	
66		1,2,4-Trichlorobenzene	0.228	0.307	-34.6#	132	0.00	T/C
67		Naphthalene	0.612	0.814	-33.0#	114	0.00	T/C
68		Hexachloro-1,3-butadiene	0.301	0.239	20.6	104	0.00	T/C

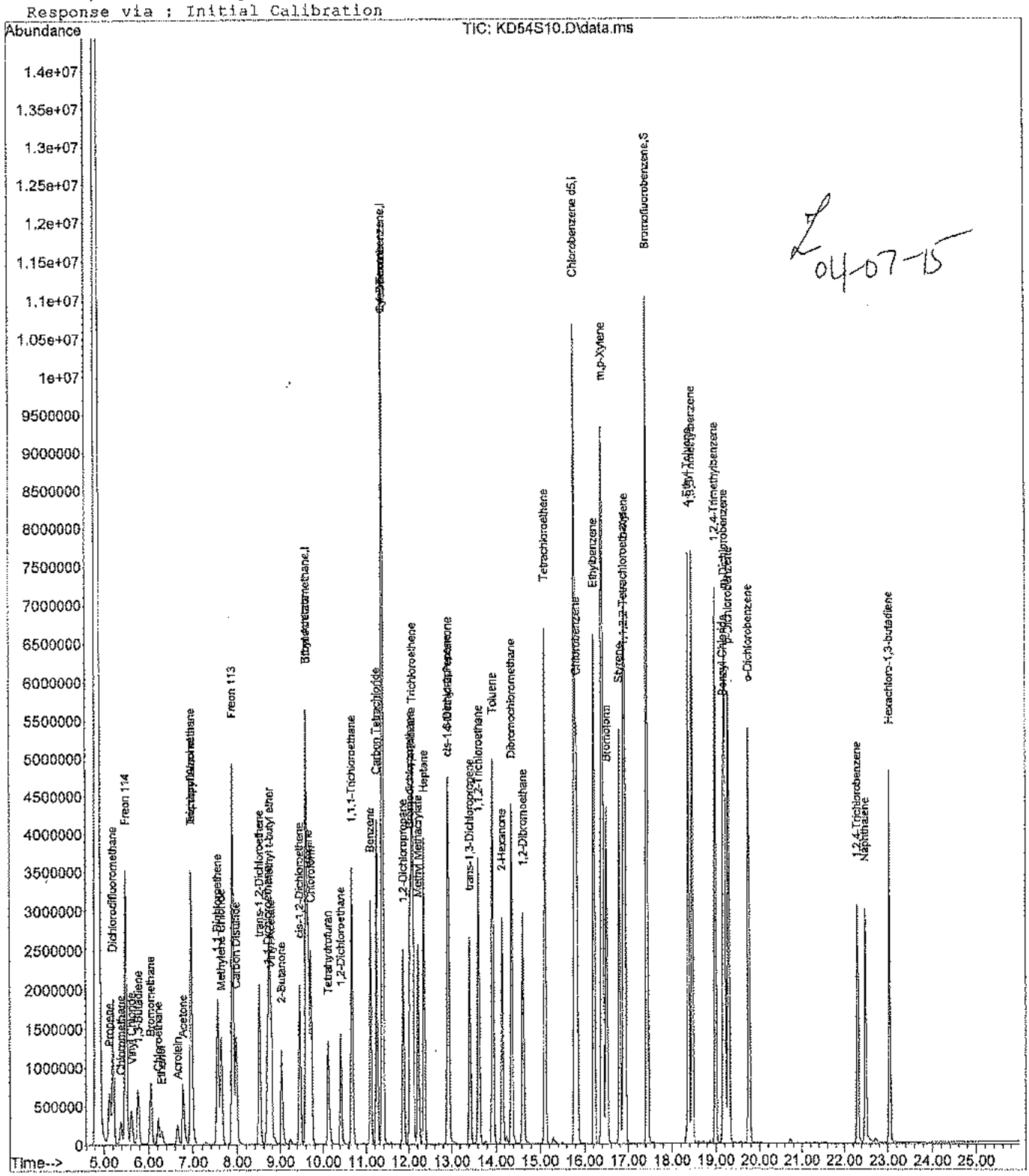
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD54S10.D Vial: 2
Acq.Time : 04/07/2015 14:31 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 15:02:08 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



04-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD54S10.D Vial: 2
Acq Time : 04/07/2015 14:31 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 15:02:08 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	956608	20.0000	ppb		112.14
25) 1,4-Difluorobenzene	11.39	114	12570135	20.0000	ppb		112.69
50) Chlorobenzene d5	15.77	117	10924044	20.0000	ppb		113.29
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6382305	16.6089	ppb		83.04%
Target Compounds							Qvalue
2) Propene	5.13	41	716238	8.5704	ppb		98 TIC
3) Dichlorodifluoromethane	5.21	85	3316069	5.6309	ppb		100
4) Chloromethane	5.39	50	634711	6.0776	ppb		99
5) Freon 114	5.50	135	2868821	6.3357	ppb		95
6) Vinyl Chloride	5.62	62	889017	6.6052	ppb		98
7) 1,3-Butadiene	5.77	54	628748	6.4956	ppb		85
8) Bromomethane	6.04	94	1055037	6.5771	ppb		100
9) Chloroethane	6.21	64	576072	8.6596	ppb		97
10) Acrolein	6.65	56	405048	10.9540	ppb	#	98 TIC
11) Acetone	6.78	43	1627676	6.3914	ppb		95
12) Trichlorofluoromethane	6.96	101	4089859	6.6172	ppb		99
13) Ethanol	6.29	45	333819	8.6873	ppb	#	81 TIC
14) Isopropyl Alcohol	6.97	45	1788231	9.3195	ppb		97 TIC
15) 1,1-Dichloroethene	7.56	61	1851187	8.6942	ppb		92
16) Methylene Chloride	7.64	84	1253724	8.9455	ppb		92
17) Freon 113	7.90	151	2900144	10.2409	ppb	#	81
18) Carbon Disulfide	7.98	76	3592569	10.5831	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	1555654	11.8655	ppb		93
20) 1,1-Dichloroethane	8.70	63	2172681	9.2928	ppb		99
21) methyl t-butyl ether	8.74	73	3991589	11.0092	ppb		96
22) Vinyl Acetate	8.79	86	396528	12.4525	ppb	#	1
23) 2-Butanone	9.03	43	2154293	8.9587	ppb		88
24) cis-1,2-Dichloroethene	9.46	96	1610531	12.2406	ppb		93
26) Ethyl Acetate	9.61	61	420644	10.6040	ppb	#	1
27) Hexane	9.67	57	1802897	10.4861	ppb	#	57
28) Chloroform	9.72	83	3000938	7.9257	ppb		100
29) Tetrahydrofuran	10.12	42	1197906	10.3036	ppb		87
30) 1,2-Dichloroethane	10.41	62	1731022	6.5795	ppb		99
31) 1,1,1-Trichloroethane	10.68	97	3464785	7.7074	ppb		99
32) Benzene	11.10	78	4285736	12.3378	ppb	#	98
33) Carbon Tetrachloride	11.25	117	3918117	7.3805	ppb		100
34) Cyclohexane	11.38	84	1968702	9.8401	ppb	#	83
35) 1,2-Dichloropropane	11.87	63	1342552	11.1546	ppb		98
36) Bromodichloromethane	12.04	83	3214055	8.1119	ppb		99
37) 1,4-Dioxane	12.07	88	1073755	12.8096	ppb		96 TIC
38) Trichloroethene	12.09	130	2630351	11.4001	ppb		98
39) Methyl Methacrylate	12.22	69	1543589	11.6495	ppb	#	83 TIC
40) Heptane	12.36	71	1481240	11.6296	ppb	#	86
41) cis-1,3-Dichloropropene	12.91	75	2484083	11.3939	ppb		99
42) 4-Methyl-2-Pentanone	12.93	43	2752261	9.1304	ppb	#	91
43) trans-1,3-Dichloropropene	13.42	75	2342658	10.7502	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	1922122	10.1538	ppb		97
45) Toluene	13.93	91	5809766	11.9492	ppb		100
46) 2-Hexanone	14.14	43	2608114	9.5945	ppb	#	92
47) Dibromochloromethane	14.36	129	4023256	9.2076	ppb		99
48) 1,2-Dibromoethane	14.63	107	3215919	10.4674	ppb		99
49) Tetrachloroethene	15.11	166	3149626	12.0838	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD54S10.D Vial: 2
Acq Time : 04/07/2015 14:31 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 15:02:08 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue	
51) Chlorobenzene	15.82	112	5142971	9.8567	ppb		97	
52) Ethylbenzene	16.21	91	7694527	11.1760	ppb		97	
53) m,p-Xylene	16.40	91	11911424	19.0500	ppb		95	
54) Bromoform	16.51	173	3450720	9.9280	ppb		99	
55) Styrene	16.80	104	4786000	12.9599	ppb		98	
56) 1,1,2,2-Tetrachloroethane	16.90	83	3419436	8.8081	ppb		100	
57) o-Xylene	16.93	91	5978515	9.3409	ppb		96	
59) 4-Ethyl Toluene	18.38	105	8337621	10.9735	ppb		97	
60) 1,3,5-Trimethylbenzene	18.47	105	7020144	9.6481	ppb		96	
61) 1,2,4-Trimethylbenzene	19.00	105	6688799	10.9360	ppb		96	
62) Benzyl Chloride	19.18	91	4938502	10.6716	ppb		98	
63) m-Dichlorobenzene	19.21	146	4617321	9.5056	ppb		96	
64) p-Dichlorobenzene	19.30	146	4439902	9.9534	ppb		96	
65) o-Dichlorobenzene	19.76	146	4081597	10.3986	ppb		97	
66) 1,2,4-Trichlorobenzene	22.31	180	1676888	13.4573	ppb	#	97	TIC
67) Naphthalene	22.49	128	4447208	13.2950	ppb		98	TIC
68) Hexachloro-1,3-butadiene	23.05	225	1303276	7.9396	ppb		98	TIC

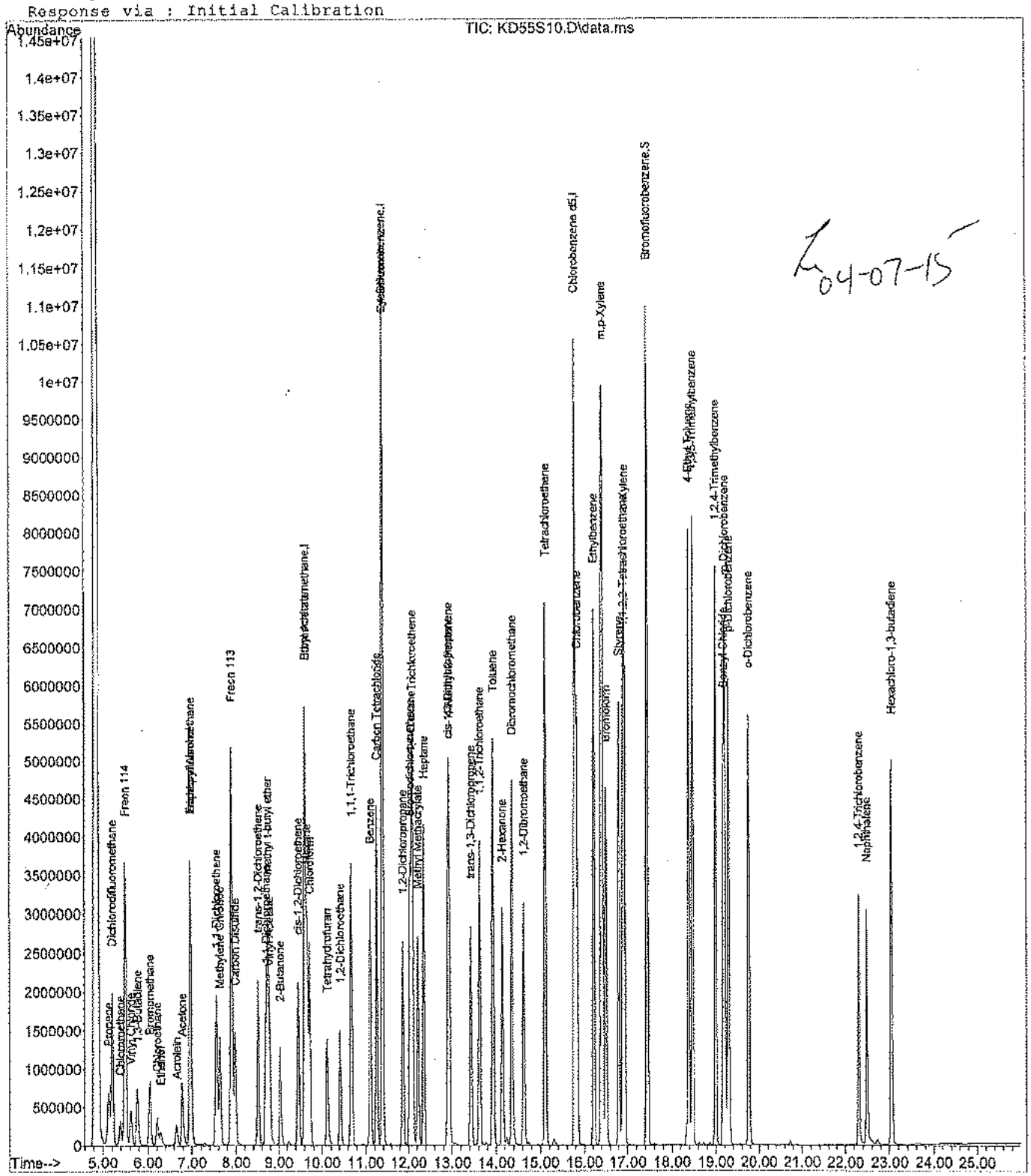
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD55S10.D Vial: 2
Acq Time : 04/07/2015 15:13 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 16:01:24 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



04-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD55S10.D Vial: 2
Acq Time : 04/07/2015 15:13 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 16:01:24 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	946176	20.0000	ppb		110.92
25) 1,4-Difluorobenzene	11.39	114	12531273	20.0000	ppb		112.34
50) Chlorobenzene d5	15.77	117	10899145	20.0000	ppb		113.03
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6352098	16.5681	ppb		82.84%
Target Compounds							Qvalue
2) Propene	5.13	41	758245	9.1731	ppb		98
3) Dichlorodifluoromethane	5.21	85	3494110	5.9986	ppb		100
4) Chloromethane	5.39	50	662439	6.4130	ppb		99
5) Freon 114	5.50	135	3017781	6.7382	ppb		95
6) Vinyl Chloride	5.62	62	917738	6.8938	ppb		99
7) 1,3-Butadiene	5.76	54	649489	6.7839	ppb		85
8) Bromomethane	6.04	94	1105039	6.9648	ppb		99
9) Chloroethane	6.21	64	608200	9.2434	ppb		98
10) Acrolein	6.65	56	427539	11.6898	ppb	#	99
11) Acetone	6.78	43	1712652	6.7992	ppb		95
12) Trichlorofluoromethane	6.96	101	4297625	7.0301	ppb		99
13) Ethanol	6.29	45	348856	9.1787	ppb	#	78
14) Isopropyl Alcohol	6.97	45	1869116	9.8485	ppb		98
15) 1,1-Dichloroethene	7.55	61	1951487	9.2663	ppb		92
16) Methylene Chloride	7.63	84	1322047	9.5370	ppb		92
17) Freon 113	7.90	151	3043461	10.8655	ppb	#	82
18) Carbon Disulfide	7.98	76	3792934	11.2965	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1645716	12.6909	ppb		93
20) 1,1-Dichloroethane	8.70	63	2280717	9.8624	ppb		99
21) methyl t-butyl ether	8.74	73	4194429	11.6962	ppb		96
22) Vinyl Acetate	8.79	86	414018	13.1451	ppb	#	1
23) 2-Butanone	9.03	43	2270072	9.5443	ppb		88
24) cis-1,2-Dichloroethene	9.45	96	1703310	13.0885	ppb		93
26) Ethyl Acetate	9.61	61	438603	11.0910	ppb	#	1
27) Hexane	9.66	57	1887997	11.0152	ppb	#	57
28) Chloroform	9.72	83	3158168	8.3669	ppb		100
29) Tetrahydrofuran	10.12	42	1255495	10.8325	ppb		87
30) 1,2-Dichloroethane	10.41	62	1819968	6.9391	ppb		99
31) 1,1,1-Trichloroethane	10.67	97	3632246	8.1049	ppb		99
32) Benzene	11.10	78	4488754	12.9624	ppb	#	98
33) Carbon Tetrachloride	11.25	117	4114453	7.7744	ppb		100
34) Cyclohexane	11.38	84	2059768	10.3272	ppb	#	83
35) 1,2-Dichloropropane	11.87	63	1421423	11.8466	ppb		98
36) Bromodichloromethane	12.04	83	3422652	8.6652	ppb		99
37) 1,4-Dioxane	12.07	88	1126468	13.4802	ppb		96
38) Trichloroethene	12.09	130	2770475	12.0446	ppb		98
39) Methyl Methacrylate	12.22	69	1628089	12.3253	ppb	#	83
40) Heptane	12.36	71	1558636	12.2752	ppb	#	86
41) cis-1,3-Dichloropropene	12.91	75	2660718	12.2420	ppb		98
42) 4-Methyl-2-Pentanone	12.93	43	2902977	9.6603	ppb	#	91
43) trans-1,3-Dichloropropene	13.42	75	2513119	11.5682	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	2072866	10.9841	ppb		97
45) Toluene	13.93	91	6225134	12.8432	ppb		99
46) 2-Hexanone	14.14	43	2728920	10.0700	ppb	#	92
47) Dibromochloromethane	14.36	129	4340365	9.9642	ppb		100
48) 1,2-Dibromoethane	14.63	107	3430373	11.2000	ppb		98
49) Tetrachloroethene	15.11	166	3356963	12.9192	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD55S10.D Vial: 2
Acq Time : 04/07/2015 15:13 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 16:01:24 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	15.82	112	5495925	10.5572	ppb		97
52)	Ethylbenzene	16.22	91	8186852	11.9183	ppb		96
53)	m,p-Xylene	16.41	91	12643918	20.2677	ppb		96
54)	Bromoform	16.51	173	3682383	10.6187	ppb		99
55)	Styrene	16.80	104	5041062	13.6817	ppb		98
56)	1,1,2,2-Tetrachloroethane	16.90	83	3607871	9.3147	ppb		100
57)	o-Xylene	16.93	91	6309454	9.8805	ppb		96
59)	4-Ethyl Toluene	18.38	105	8734348	11.5220	ppb		97
60)	1,3,5-Trimethylbenzene	18.47	105	7378545	10.1638	ppb		96
61)	1,2,4-Trimethylbenzene	19.00	105	7028618	11.5179	ppb		96
62)	Benzyl Chloride	19.18	91	5147670	11.1490	ppb		98
63)	m-Dichlorobenzene	19.21	146	4799780	9.9038	ppb		96
64)	p-Dichlorobenzene	19.30	146	4584500	10.3010	ppb		96
65)	o-Dichlorobenzene	19.76	146	4257063	10.8704	ppb		96
66)	1,2,4-Trichlorobenzene	22.31	180	1771139	14.2462	ppb	#	97
67)	Naphthalene	22.49	128	4567272	13.6851	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	1358346	8.2940	ppb		98

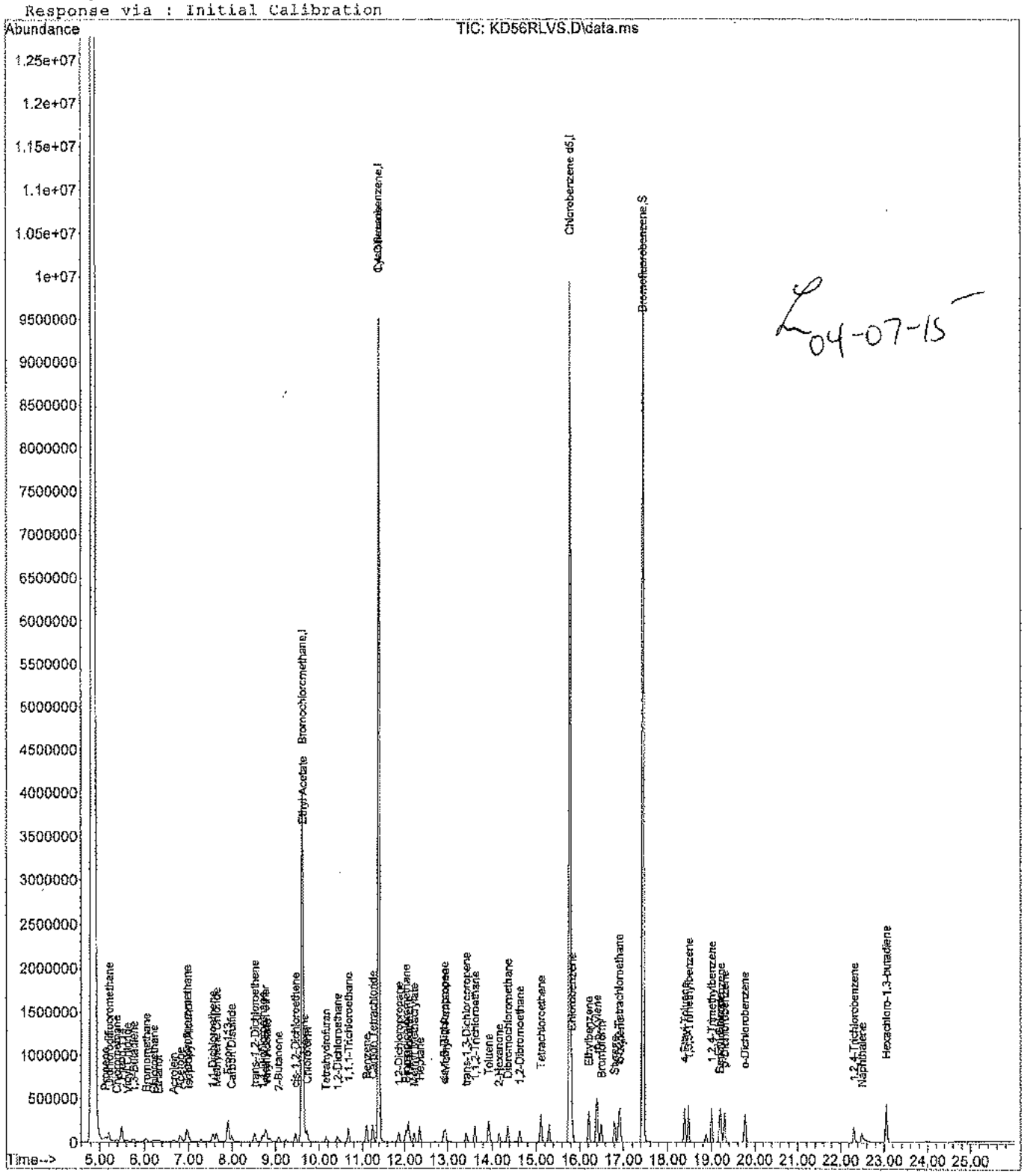
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD56RLVS.D Vial: 3
Acq Time : 04/07/2015 15:55 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 16:35:43 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



4-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD56RLVS.D Vial: 3
Acq Time : 04/07/2015 15:55 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 16:35:43 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	966848	20.0000	ppb		113.34
25) 1,4-Difluorobenzene	11.39	114	12641143	20.0000	ppb		113.32
50) Chlorobenzene d5	15.77	117	10382461	20.0000	ppb		107.67
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6132207	16.7905	ppb		83.95%
Target Compounds							Qvalue
2) Propene	5.13	41	37303	0.4416	ppb		95
3) Dichlorodifluoromethane	5.21	85	156024	0.2621	ppb		99
4) Chloromethane	5.39	50	29899	0.2833	ppb		99
5) Freon 114	5.50	135	135270	0.2956	ppb		95
6) Vinyl Chloride	5.62	62	39916	0.2934	ppb		98
7) 1,3-Butadiene	5.76	54	28551	0.2918	ppb	#	71
8) Bromomethane	6.04	94	49142	0.3031	ppb		100
9) Chloroethane	6.21	64	26874	0.3997	ppb		97
10) Acrolein	6.66	56	18666	0.4995	ppb	#	94
11) Acetone	6.80	43	120506	0.4682	ppb		89
12) Trichlorofluoromethane	6.96	101	195177	0.3124	ppb		98
13) Ethanol	6.31	45	15609	0.4019	ppb	#	73
14) Isopropyl Alcohol	7.00	45	88360	0.4556	ppb		99
15) 1,1-Dichloroethene	7.56	61	86287	0.4010	ppb		90
16) Methylene Chloride	7.63	84	86453	0.6103	ppb		90
17) Freon 113	7.90	151	137311	0.4797	ppb	#	80
18) Carbon Disulfide	7.98	76	170702	0.4975	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	74197	0.5599	ppb		94
20) 1,1-Dichloroethane	8.70	63	101191	0.4282	ppb		99
21) methyl t-butyl ether	8.76	73	184114	0.5024	ppb		96
22) Vinyl Acetate	8.79	86	19438	0.6040	ppb	#	1
23) 2-Butanone	9.06	43	104791	0.4312	ppb	#	85
24) cis-1,2-Dichloroethene	9.45	96	73878	0.5556	ppb		93
26) Ethyl Acetate	9.63	61	20568	0.5156	ppb	#	1
27) Hexane	9.66	57	85416	0.4940	ppb	#	57
28) Chloroform	9.72	83	138549	0.3639	ppb		100
29) Tetrahydrofuran	10.15	42	54846	0.4691	ppb		86
30) 1,2-Dichloroethane	10.41	62	79763	0.3015	ppb		98
31) 1,1,1-Trichloroethane	10.67	97	160482	0.3550	ppb		97
32) Benzene	11.10	78	261863	0.7496	ppb		97
33) Carbon Tetrachloride	11.25	117	183491	0.3437	ppb		99
34) Cyclohexane	11.38	84	102956	0.5117	ppb	#	1
35) 1,2-Dichloropropane	11.87	63	61288	0.5064	ppb		98
36) Bromodichloromethane	12.04	83	140706	0.3531	ppb		99
37) 1,4-Dioxane	12.10	88	48833	0.5793	ppb	#	93
38) Trichloroethene	12.09	130	119881	0.5167	ppb		97
39) Methyl Methacrylate	12.23	69	67888	0.5095	ppb	#	84
40) Heptane	12.36	71	65128	0.5085	ppb	#	85
41) cis-1,3-Dichloropropene	12.91	75	108784	0.4962	ppb		98
42) 4-Methyl-2-Pentanone	12.94	43	121350	0.4003	ppb	#	90
43) trans-1,3-Dichloropropene	13.42	75	103547	0.4725	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	95081	0.4995	ppb		97
45) Toluene	13.93	91	268400	0.5489	ppb		100
46) 2-Hexanone	14.16	43	106929	0.3911	ppb	#	92
47) Dibromochloromethane	14.35	129	182113	0.4144	ppb		100
48) 1,2-Dibromoethane	14.62	107	147287	0.4767	ppb		99
49) Tetrachloroethene	15.11	166	149454	0.5702	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD56RLVS.D Vial: 3
Acq Time : 04/07/2015 15:55 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 07 16:35:43 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	15.82	112	259685	0.5237	ppb		97
52) Ethylbenzene	16.21	91	388091	0.5931	ppb		97
53) m,p-Xylene	16.40	91	607194	1.0217	ppb		97
54) Bromoform	16.51	173	159267	0.4821	ppb		99
55) Styrene	16.80	104	214727	0.6118	ppb		98
56) 1,1,2,2-Tetrachloroethane	16.90	83	191065	0.5178	ppb		98
57) o-Xylene	16.93	91	311409	0.5119	ppb		96
59) 4-Ethyl Toluene	18.38	105	404837	0.5606	ppb		97
60) 1,3,5-Trimethylbenzene	18.47	105	370035	0.5351	ppb		96
61) 1,2,4-Trimethylbenzene	19.00	105	349563	0.6013	ppb		97
62) Benzyl Chloride	19.18	91	227782	0.5179	ppb		98
63) m-Dichlorobenzene	19.21	146	259826	0.5628	ppb		97
64) p-Dichlorobenzene	19.30	146	253860	0.5988	ppb		96
65) o-Dichlorobenzene	19.76	146	242725	0.6506	ppb		96
66) 1,2,4-Trichlorobenzene	22.31	180	92910	0.7845	ppb	#	97
67) Naphthalene	22.49	128	242577	0.7630	ppb	#	91
68) Hexachloro-1,3-butadiene	23.05	225	117771	0.7549	ppb		97

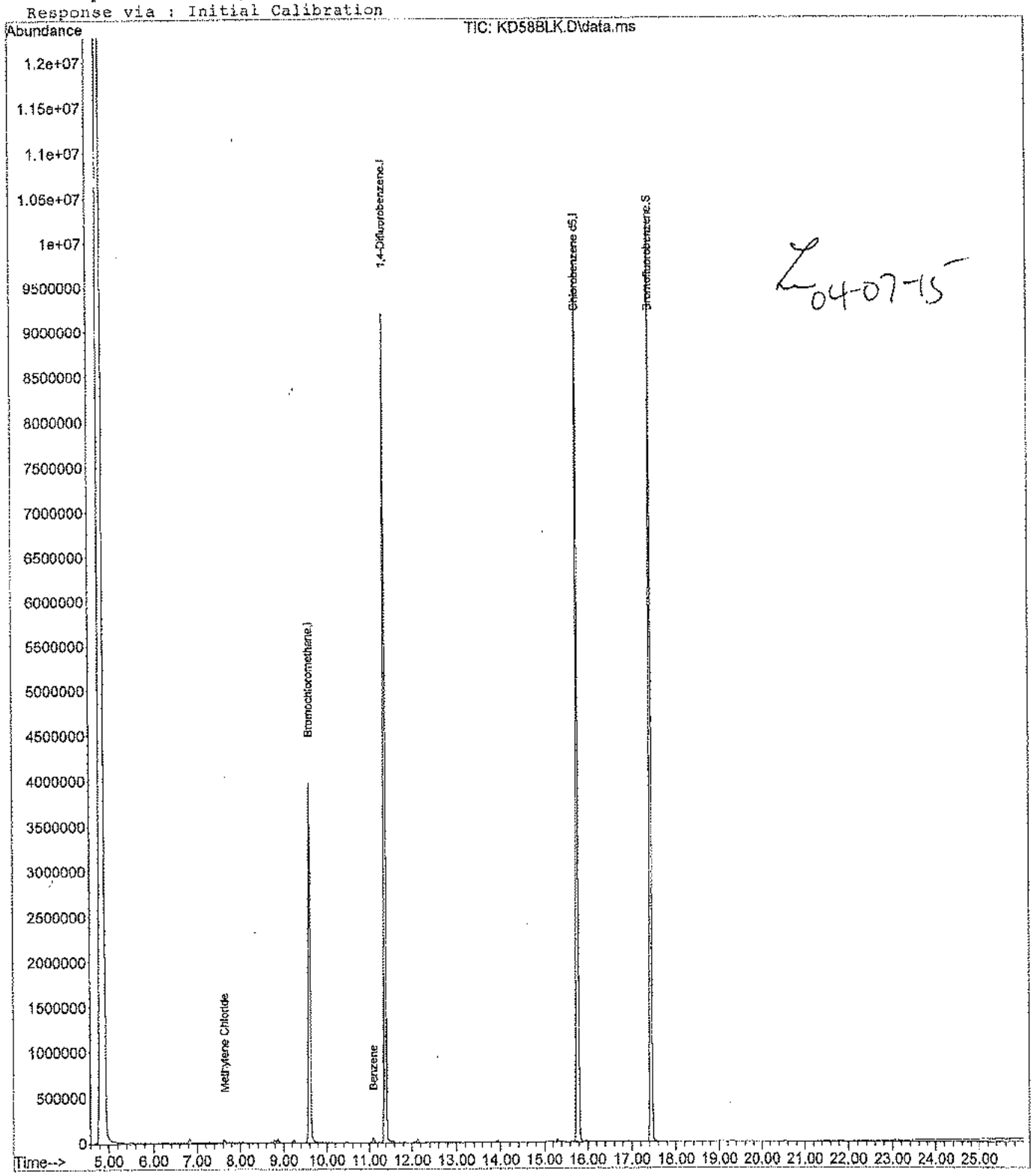
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD58BLK.D Vial: 4
Acq Time : 04/07/2015 16:40 Operator:
Sample : BL- Inst : 5975-K
Misc : 0200/0359/0129/0257/0224/488/0217/0228 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 08:33:45 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



04-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD58BLK.D Vial: 4
Acq Time : 04/07/2015 16:40 Operator:
Sample : BL- Inst : 5975-K
Misc : 0200/0359/0129/0257/0224/488/0217/0228 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 08:33:45 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.60	130	939776	20.0000 ppb	110.17
25) 1,4-Difluorobenzene	11.38	114	12320200	20.0000 ppb	110.45
50) Chlorobenzene d5	15.77	117	10240965	20.0000 ppb	106.21
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	5989616	16.6267 ppb	83.13%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.64	84	30369	0.2206 ppb	91
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.10	78	75002	0.2203 ppb	97
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD58BLK.D Vial: 4
Acq Time : 04/07/2015 16:40 Operator:
Sample : BL- Inst : 5975-K
Misc : 0200/0359/0129/0257/0224/488/0217/0228 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 08:33:45 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	Qlon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

1509608

[For lab use only]

ANALYTICAL REQUEST FORM

1. [X] REGULAR Status

[ ] RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/15 Purchase Order No. _____ 4. Quote No. _____

3. Company Name First Environment, Inc ALS Project Manager Kevin Griffith

Address 91 Fulton St, Boonton, NJ 07005 5. Sample Collection

Person to Contact Ed Reid Sampling Site VA SLC CERCLA - VI Testing

Telephone 973 334-0003 / Cell - 678-787-2245 Industrial Process NA

Fax Telephone 973 334-1928 Date of Collection 04/02/15 –

E-mail Address ejr@firstenvironment.com Time Collected multiple

Billing Address (if different from above) Date of Shipment 4/15

Same Chain of Custody No. NA

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-00328-S-040215-TO-001	Air	6L Summa	TO-15	5	0379
A-00371-040315-SG-001	Air	"	TO-15	5	0119
A-00361-040415-TO-001	Air	"	TO-15	5	0537
A-00371-SG-002	Air	1 Outside Tedlar	TO-15	5	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % 5. µg/m³ 6. ____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards Low levels - PCE, TCE, cis-1,2-DCE, VC

7. Chain of Custody (Optional)

Relinquished by		Date/Time	4/15 –
Received by	Desiree Hall	Date/Time	4/16/15 8:33
Relinquished by		Date/Time	
Received by		Date/Time	

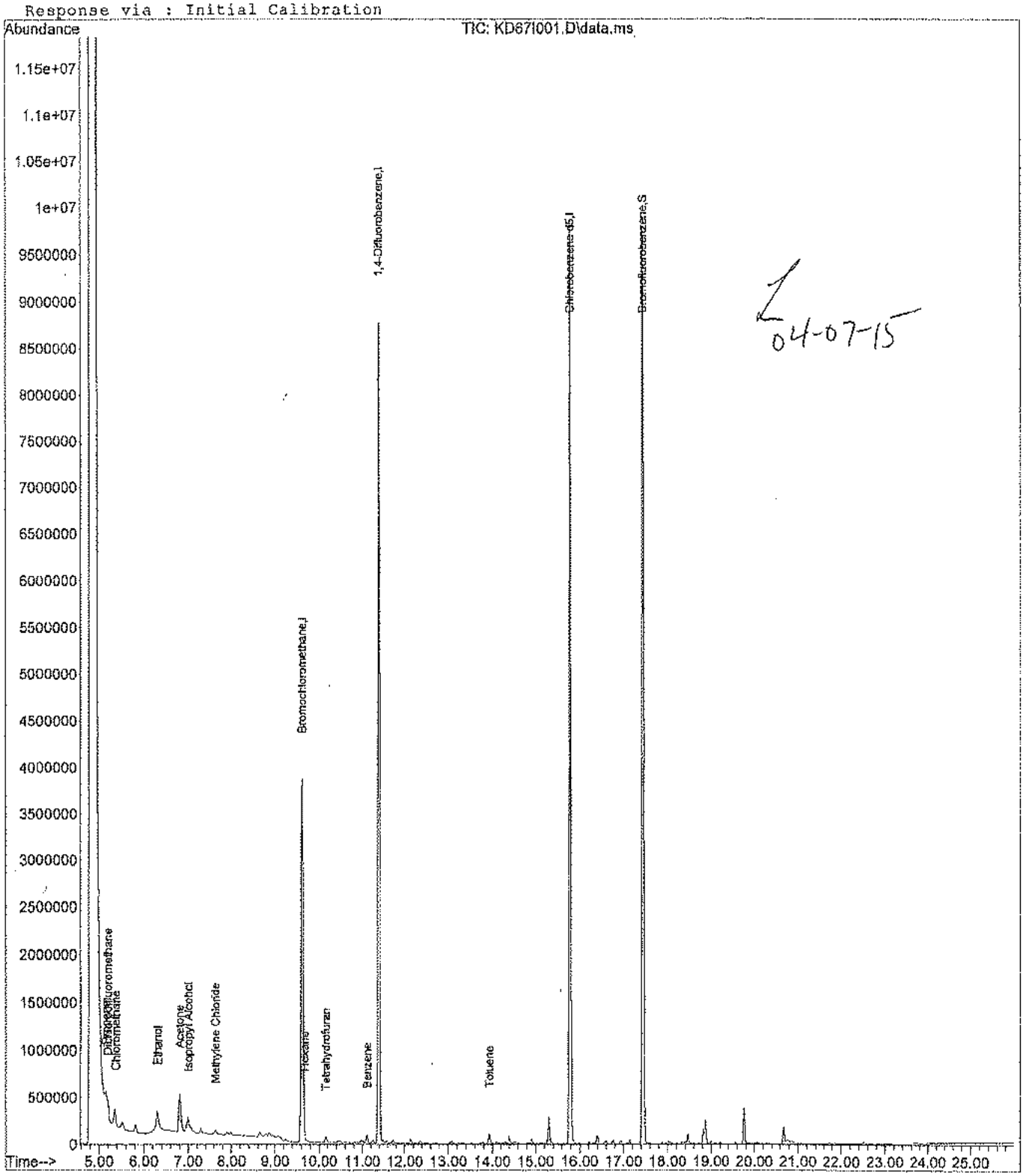
960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD67I001.D Vial: 11
Acq Time : 04/07/2015 23:13 Operator:
Sample : 1509608001 Inst : 5975-K
Misc : 0379 A-0028-S-040215-T0-001 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 08:39:15 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



04-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD67I001.D Vial: 11
Acq Time : 04/07/2015 23:13 Operator:
Sample : 1509608001 Inst : 5975-K
Misc : 0379 A-0028-S-040215-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 08:39:15 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.62	130	914752	20.0000 ppb	107.23
25) 1,4-Difluorobenzene	11.40	114	11596968	20.0000 ppb	103.96
50) Chlorobenzene d5	15.77	117	10117887	20.0000 ppb	104.93
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	5717631	16.0647 ppb	80.32%
Target Compounds					Qvalue
2) Propene	5.15	41	44626	0.5584 ppb #	63 TIC 4/07
3) Dichlorodifluoromethane	5.20	85	146465	0.2601 ppb #	88
4) Chloromethane	5.38	50	35098	0.3515 ppb	94
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	6.79	43	753275	3.0932 ppb	94
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	6.31	45	322752	8.7836 ppb #	77 TIC
14) Isopropyl Alcohol	6.99	45	292086	1.5919 ppb	99 TIC 4/07
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.64	84	40801	0.3044 ppb	90
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	9.67	57	26534	0.1673 ppb #	81
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	10.16	42	63469	0.5917 ppb #	83
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.11	78	107121	0.3343 ppb #	95
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.93	91	112143	0.2500 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

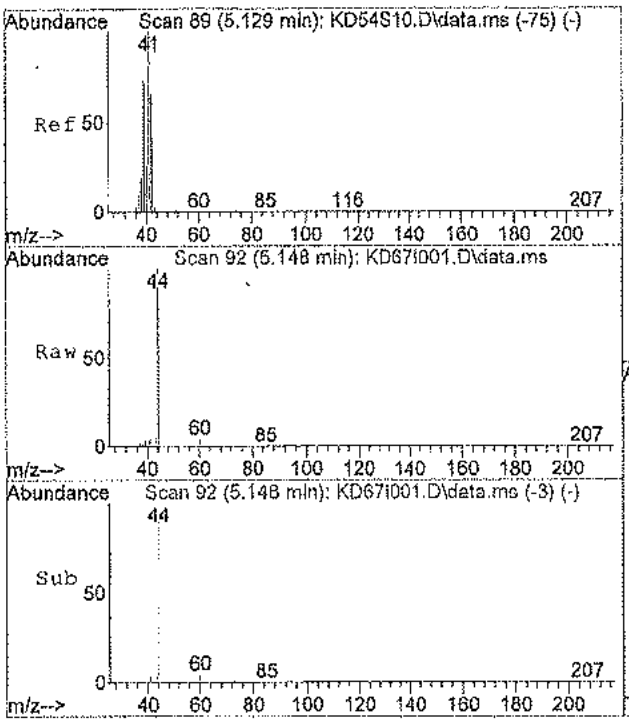
Data File : J:\K\2015\APR15K\07APR15K\KD67I001.D Vial: 11
Acq Time : 04/07/2015 23:13 Operator:
Sample : 1509608001 Inst : 5975-K
Misc : 0379 A-0028-S-040215-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 08:39:15 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

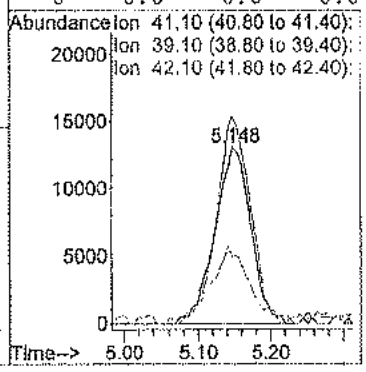
(#) = qualifier out of range (m) = manual integration

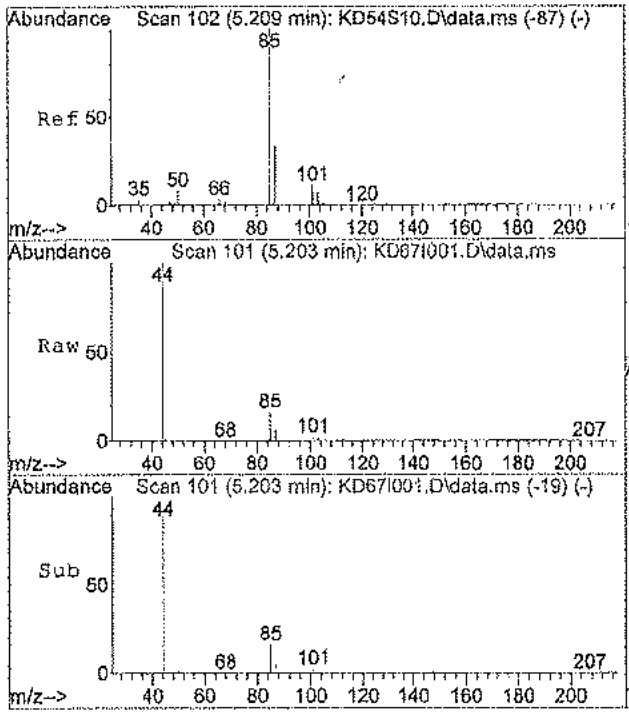


#2
Propene
Concen: 0.56 ppb
RT: 5.15 min Scan# 92
Delta R.T. 0.04 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:41.1 Resp: 44626

Ion	Ratio	Lower	Upper
41	100		
39	111.0	56.2	84.4#
42	48.7	53.8	80.6#
0	0.0	0.0	0.0

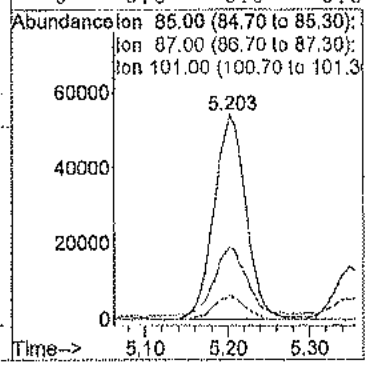


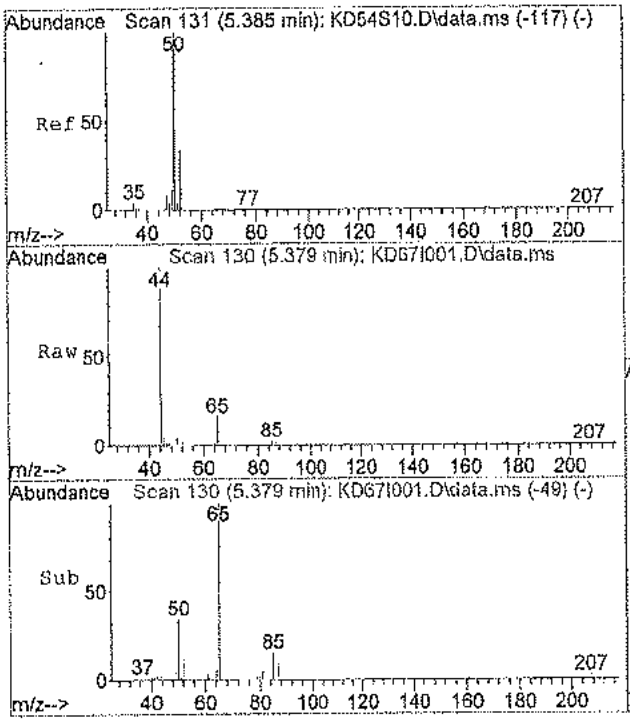


#3
Dichlorodifluoromethane
Concen: 0.26 ppb
RT: 5.20 min Scan# 101
Delta R.T. 0.00 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:85 Resp: 146465

Ion	Ratio	Lower	Upper
85	100		
87	41.0	26.1	39.1#
101	10.8	8.0	12.0
0	0.0	0.0	0.0

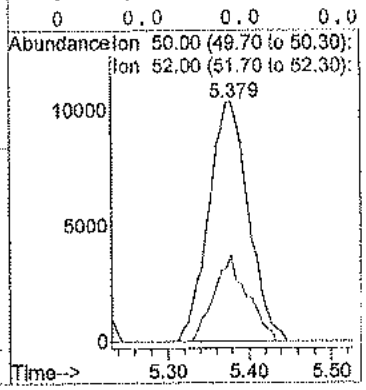


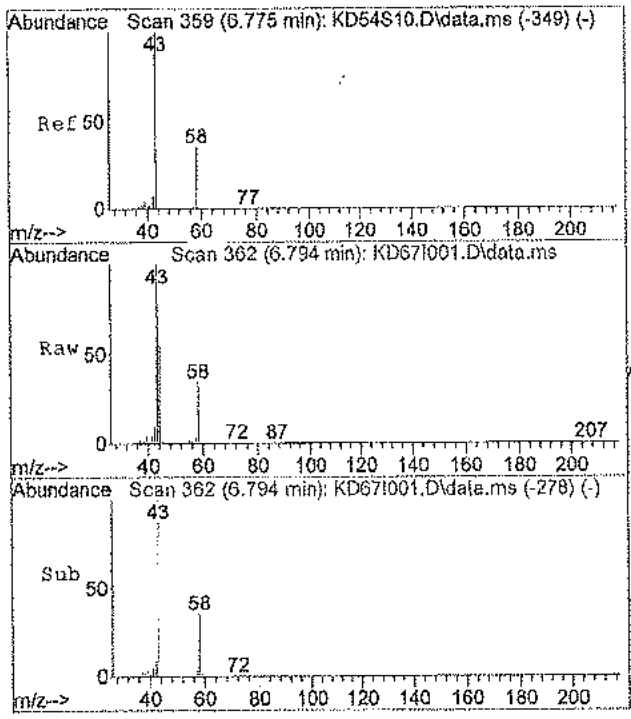


#4
Chloromethane
Concen: 0.35 ppb
RT: 5.38 min Scan# 130
Delta R.T. -0.01 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:50 Resp: 35098

Ion	Ratio	Lower	Upper
50	100		
52	29.9	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

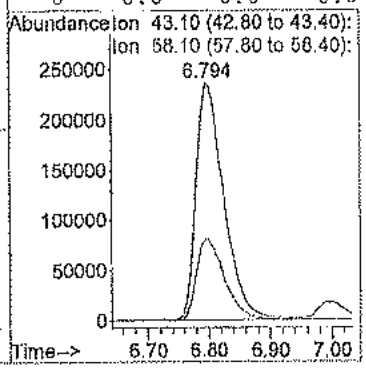


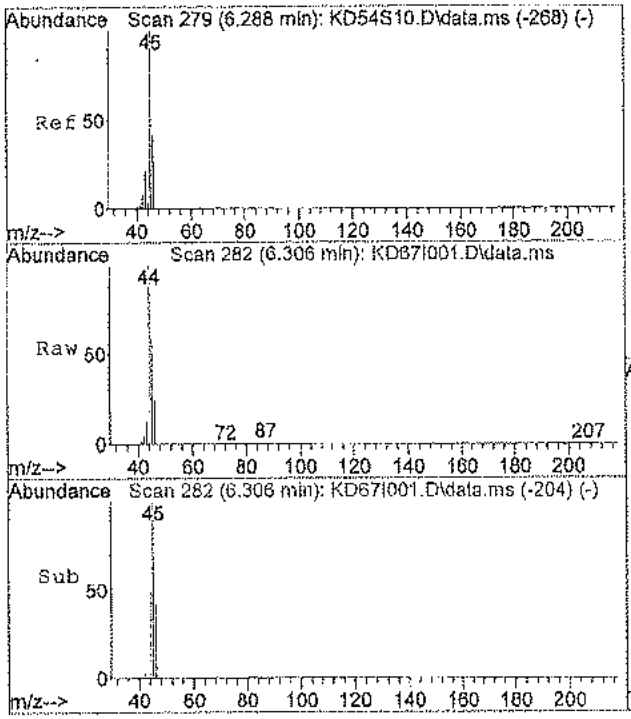


#11
Acetone
Concen: 3.09 ppb
RT: 6.79 min Scan# 362
Delta R.T. 0.01 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:43.1 Resp: 753275

Ion	Ratio	Lower	Upper
43	100		
58	35.0	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

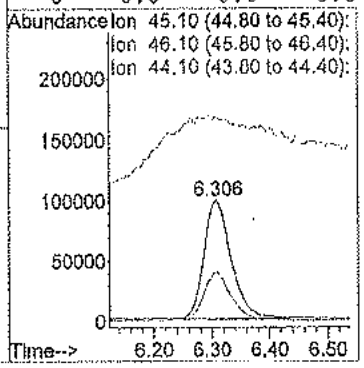


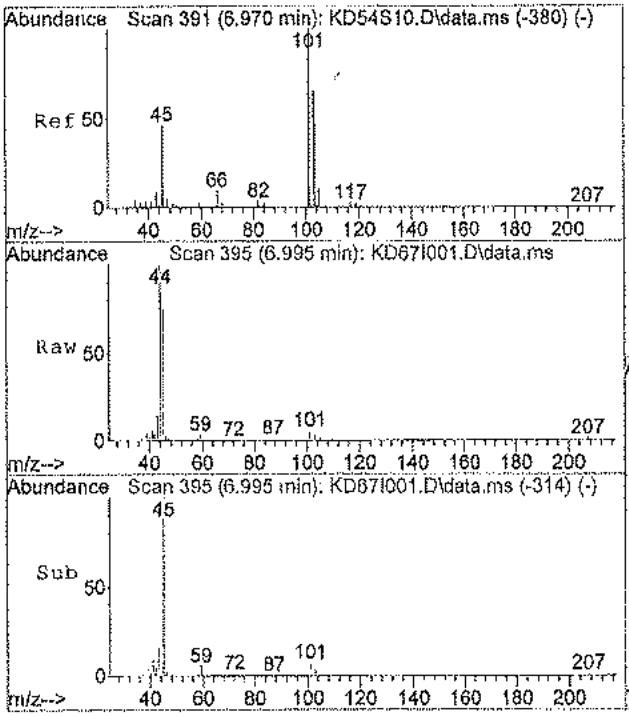


#13
Ethanol
Concen: 8.78 ppb
RT: 6.31 min Scan# 282
Delta R.T. -0.02 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:45.1 Resp: 322752

Ion	Ratio	Lower	Upper
45	100		
46	40.7	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

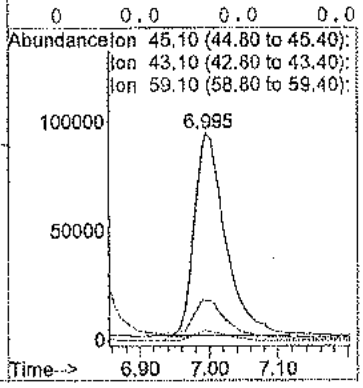


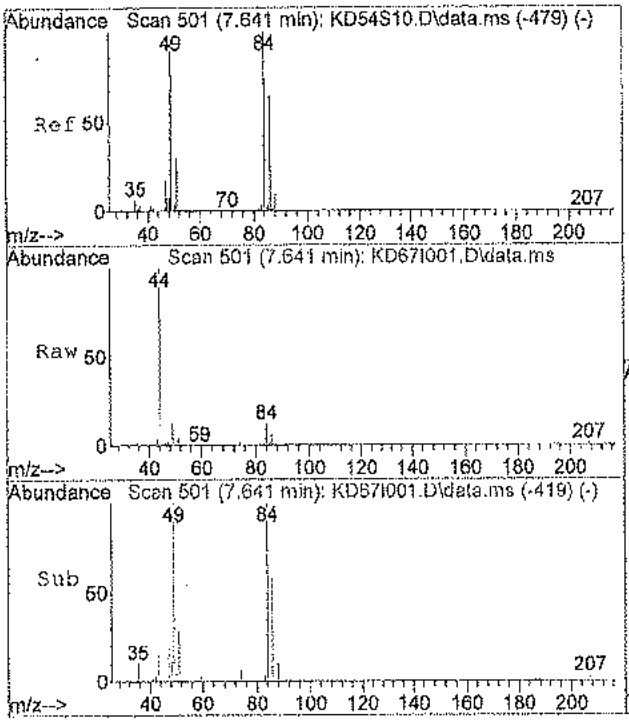


#14
Isopropyl Alcohol
Concen: 1.59 ppb
RT: 6.99 min Scan# 395
Delta R.T. -0.01 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:45.1 Resp: 292086

Ion	Ratio	Lower	Upper
45	100		
43	19.3	15.8	23.6
59	4.5	3.2	4.8
0	0.0	0.0	0.0

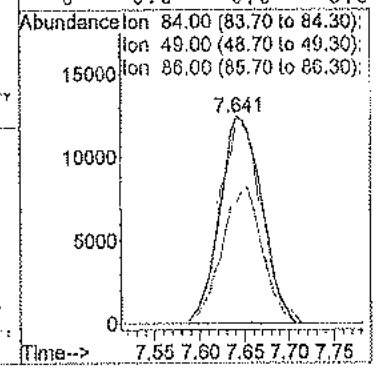


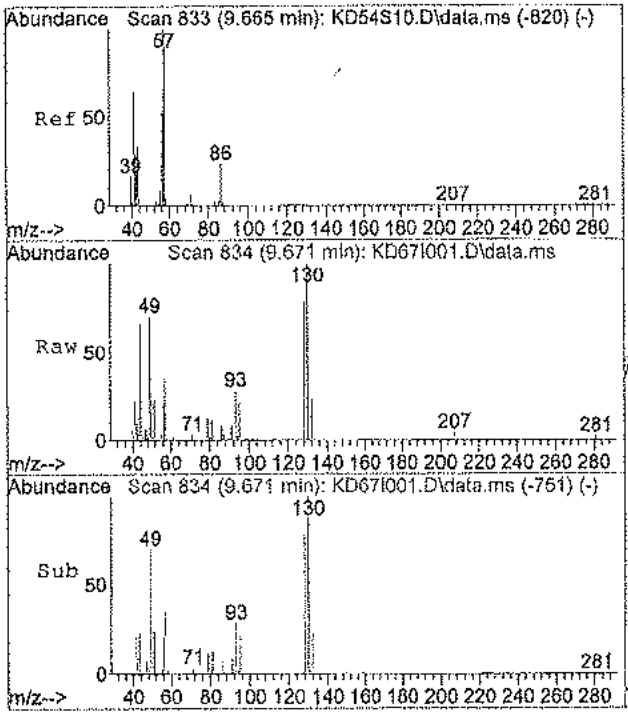


#16
Methylene Chloride
Concen: 0.30 ppb
RT: 7.64 min Scan# 501
Delta R.T. 0.00 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:84 Resp: 40801

Ion	Ratio	Lower	Upper
84	100		
49	98.4	66.6	100.0
86	63.9	51.6	77.4
0	0.0	0.0	0.0

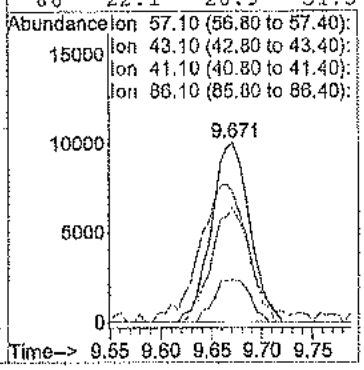


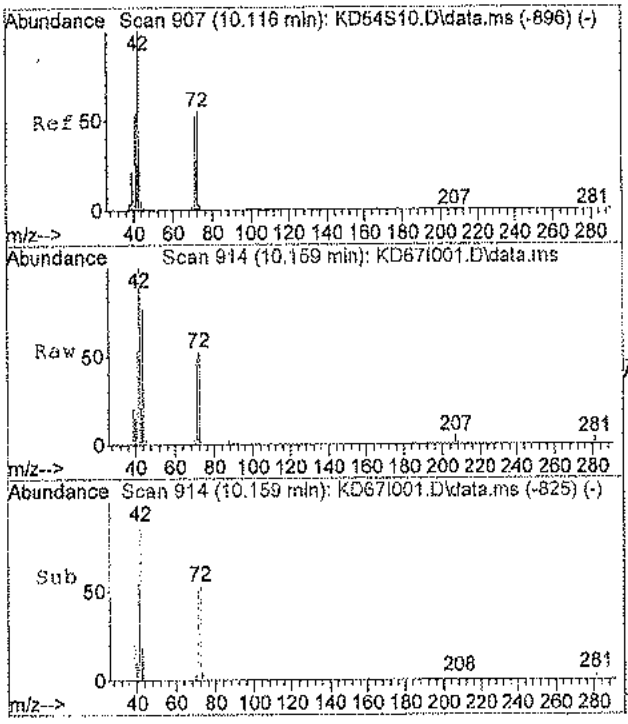


#27
Hexane
Concen: 0.17 ppb
RT: 9.67 min Scan# 834
Delta R.T. 0.01 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:57.1 Resp: 26534

Ion	Ratio	Lower	Upper
57	100		
43	99.1	57.3	85.9#
41	63.3	47.0	70.4
86	22.1	20.9	31.3

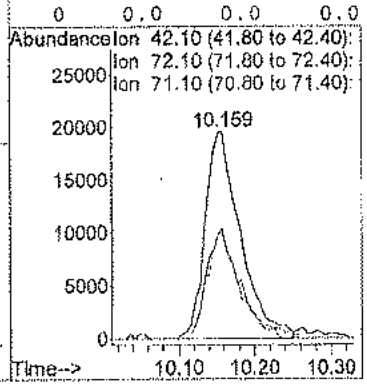


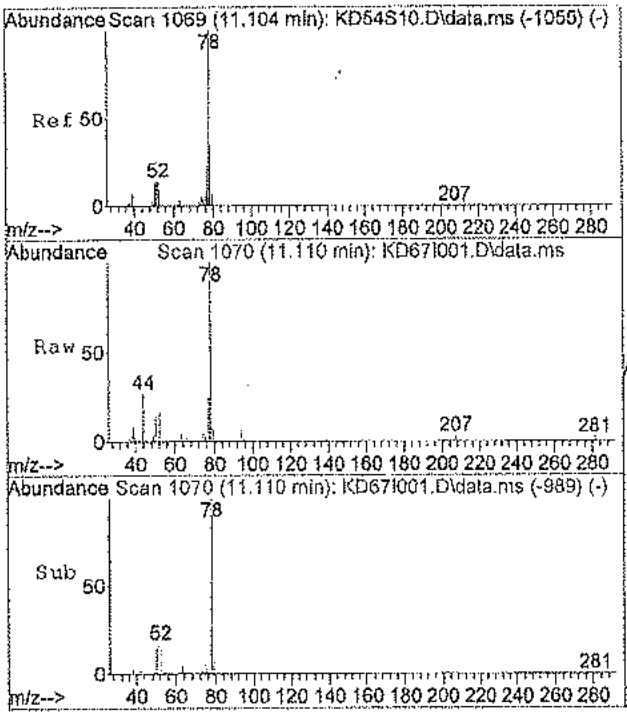


#29
Tetrahydrofuran
Concen: 0.59 ppb
RT: 10.16 min Scan# 914
Delta R.T. 0.04 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:42.1 Resp: 63469

Ion	Ratio	Lower	Upper
42	100		
72	50.8	51.5	77.3#
71	47.6	47.5	71.3
0	0.0	0.0	0.0

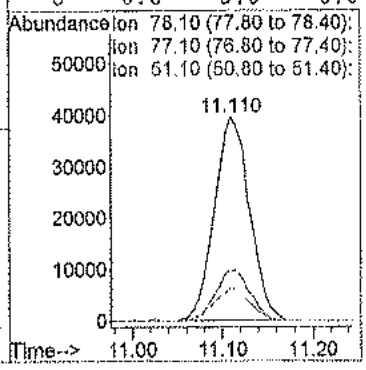


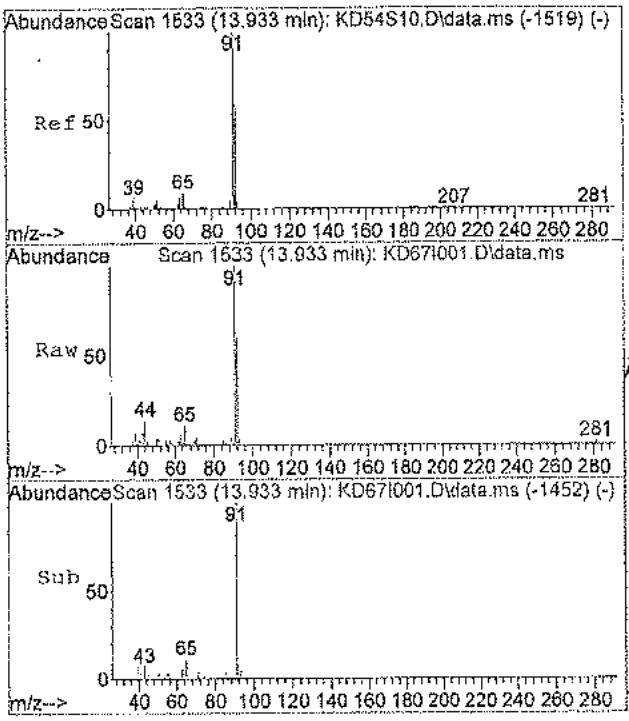


#32
Benzene
Concen: 0.33 ppb
RT: 11.11 min Scan# 1070
Delta R.T. -0.01 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:78.1 Resp: 107121

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.4
51	15.6	9.5	14.3#
0	0.0	0.0	0.0

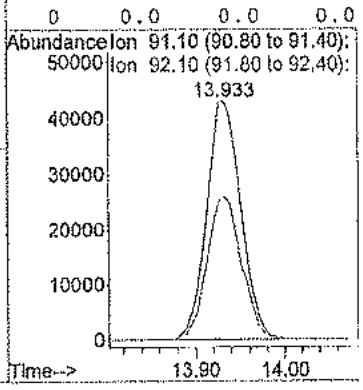




#45
Toluene
Concen: 0.25 ppb
RT: 13.93 min Scan# 1533
Delta R.T. -0.01 min
Lab File: KD67I001.D
Acq: 04/07/2015 23:13

Tgt Ion:91.1 Resp: 112143

Ion	Ratio	Lower	Upper
91	100		
92	60.4	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

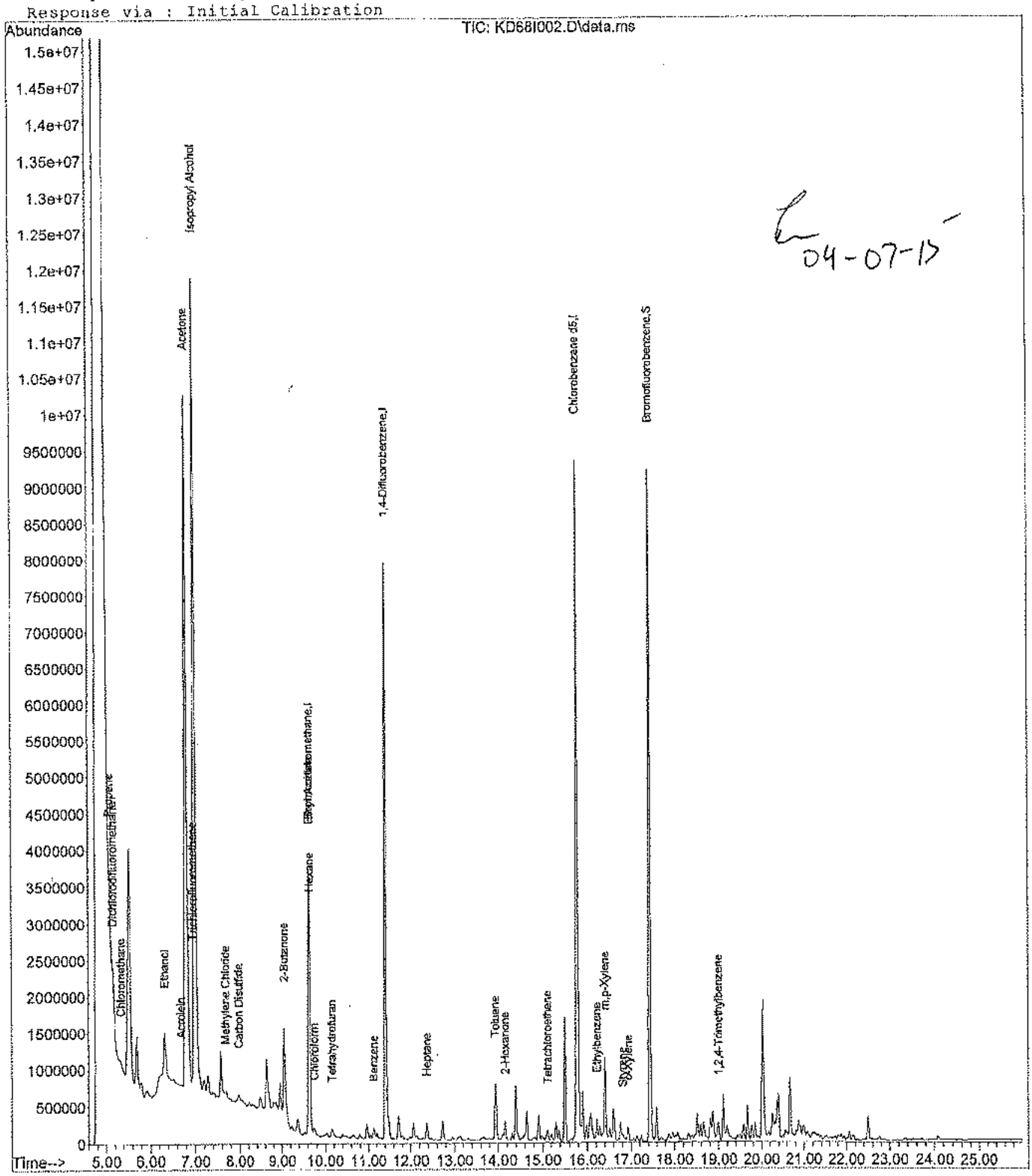


Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq.Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 09:46:47 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



04-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 09:46:47 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%	
1) Bromochloromethane	9.63	130	835200	20.0000 ppb	97.91	
25) 1,4-Difluorobenzene	11.41	114	10479622	20.0000 ppb	93.95	
50) Chlorobenzene d5	15.78	117	9385255	20.0000 ppb	97.33	
System Monitoring Compounds					%Recovery	
58) Bromofluorobenzene	17.44	95	5421394	16.4215 ppb	82.11%	
Target Compounds					Qvalue	
2) Propene	5.09	41	752459	10.3127 ppb	91	TIC
3) Dichlorodifluoromethane	5.17	85	133582	0.2598 ppb	97	
4) Chloromethane	5.34	50	22855	0.2507 ppb	96	
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	6.69	56	17169	0.5318 ppb #	92	TIC 2/102
11) Acetone	6.79	43	20533320	92.3486 ppb	95	
12) Trichlorofluoromethane	6.95	101	83551	0.1548 ppb	98	
13) Ethanol	6.31	45	1012072	30.1668 ppb #	76	TIC
14) Isopropyl Alcohol	6.99	45	23291458	139.0308 ppb	98	TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	7.68	84	70750	0.5782 ppb	90	
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	7.97	76	201074	0.6784 ppb #	62	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	9.06	43	2020405	9.6233 ppb #	87	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	9.65	61	7154	0.2163 ppb #	1	
27) Hexane	9.66	57	166734	1.1632 ppb #	84	
28) Chloroform	9.75	83	104802	0.3320 ppb	100	
29) Tetrahydrofuran	10.16	42	36021	0.3716 ppb #	83	
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	11.12	78	163125	0.5633 ppb #	93	
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	0.00	130		Not Detected		
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	12.37	71	82382	0.7758 ppb #	82	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected		
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	13.94	91	826601	2.0393 ppb	100	
46) 2-Hexanone	14.15	43	167818	0.7405 ppb #	47	
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	15.12	166	55535	0.2556 ppb #	87	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

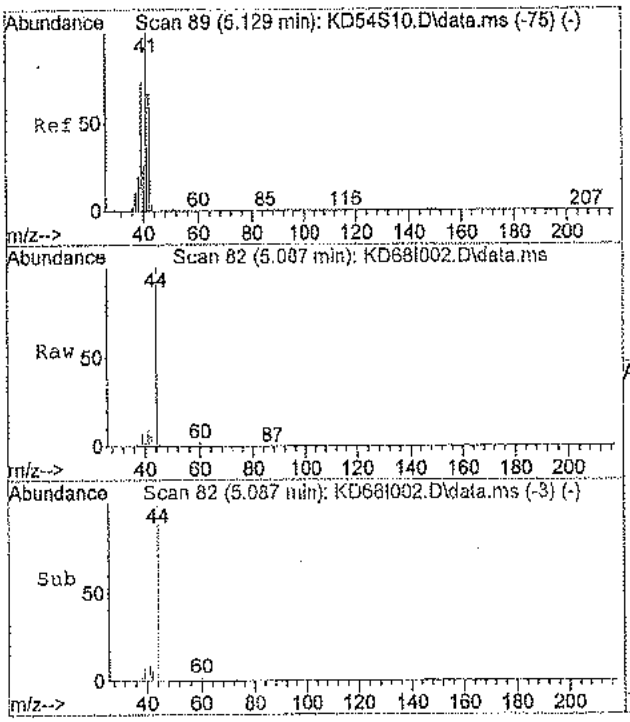
Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 09:46:47 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	16.22	91	142626	0.2411 ppb	97
53) m,p-Xylene	16.40	91	254605	0.4740 ppb	96
54) Bromoform	0.00	173		Not Detected	
55) Styrene	16.80	104	49380	0.1556 ppb	97
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	16.93	91	105939	0.1927 ppb	92
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	19.00	105	130659	0.2486 ppb	97
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

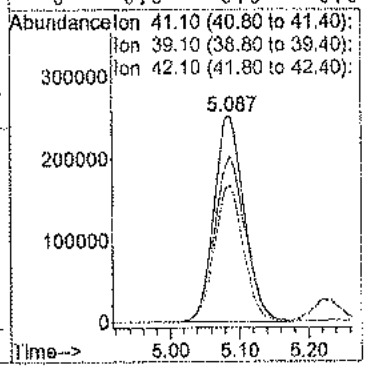
(#) = qualifier out of range (m) = manual integration

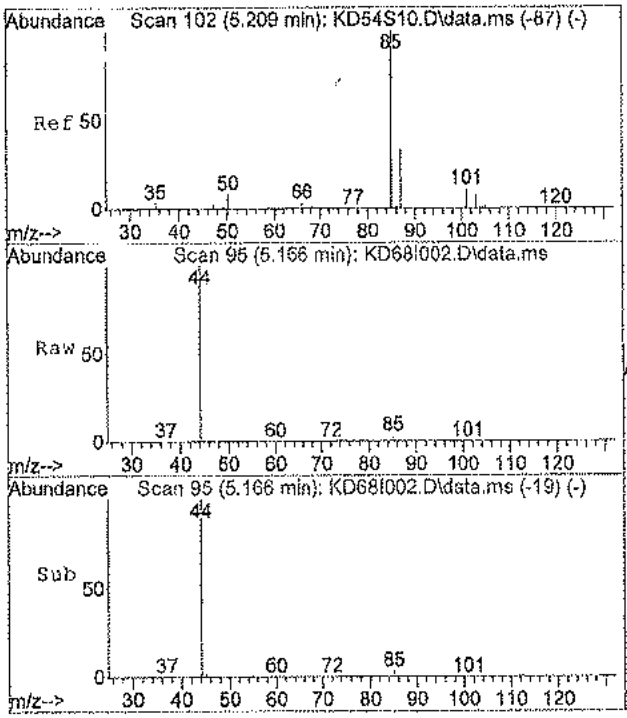


#2
Propene
Concen: 10.31 ppb
RT: 5.09 min Scan# 82
Delta R.T. -0.02 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:41.1 Resp: 752459

Ion	Ratio	Lower	Upper
41	100		
39	82.4	56.2	84.4
42	64.3	53.8	80.6
0	0.0	0.0	0.0

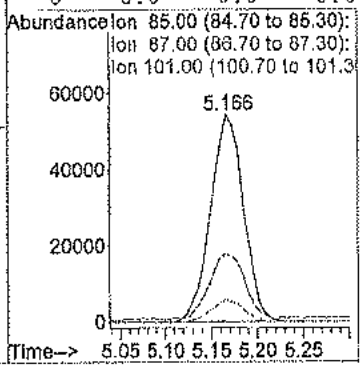


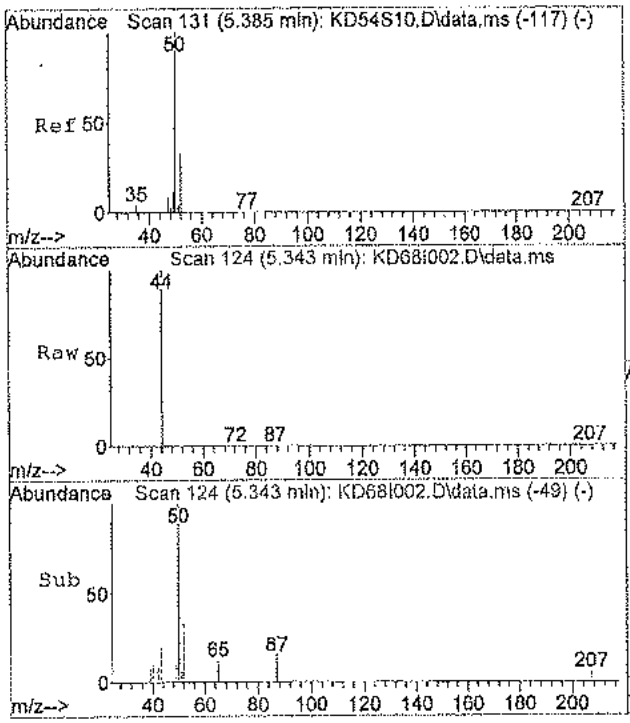


#3
Dichlorodifluoromethane
Concen: 0.26 ppb
RT: 5.17 min Scan# 95
Delta R.T. -0.04 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:85 Resp: 133582

Ion	Ratio	Lower	Upper
85	100		
87	34.7	26.1	39.1
101	10.2	8.0	12.0
0	0.0	0.0	0.0

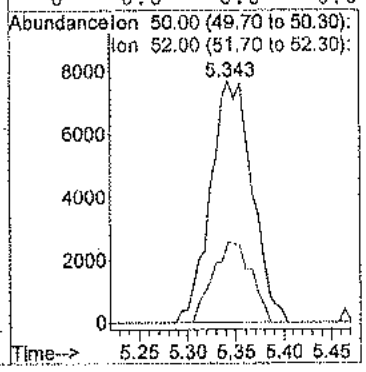


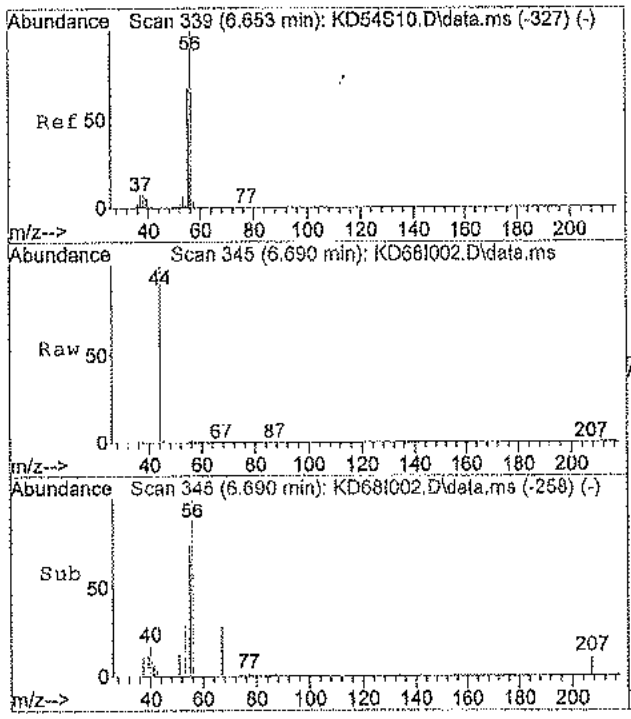


#4
Chloromethane
Concen: 0.25 ppb
RT: 5.34 min Scan# 124
Delta R.T. -0.04 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:50 Resp: 22855

Ion	Ratio	Lower	Upper
50	100		
52	30.8	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

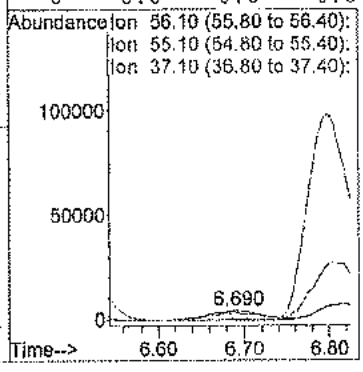


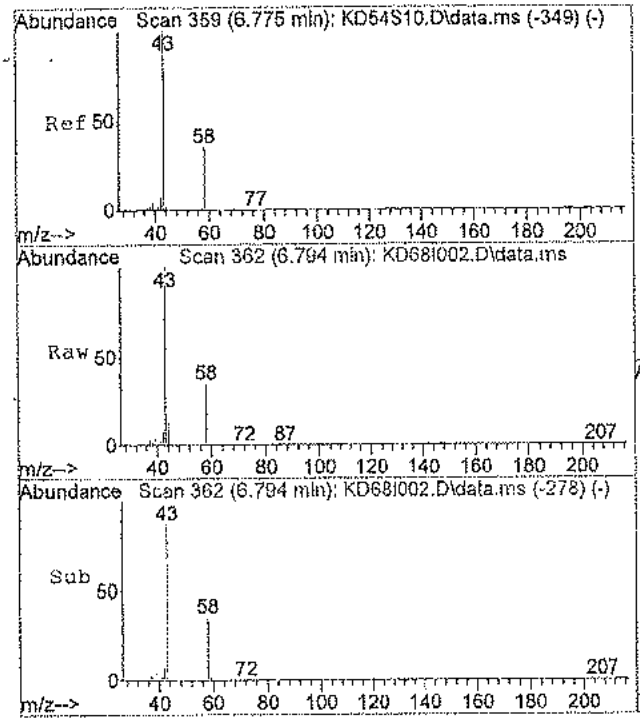


#10
Acrolein
Concen: 0.53 ppb
RT: 6.69 min Scan# 345
Delta R.T. 0.03 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:56.1 Resp: 17169

Ion	Ratio	Lower	Upper
56	100		
55	73.6	55.1	82.7
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

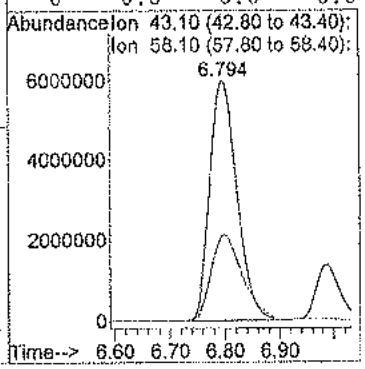


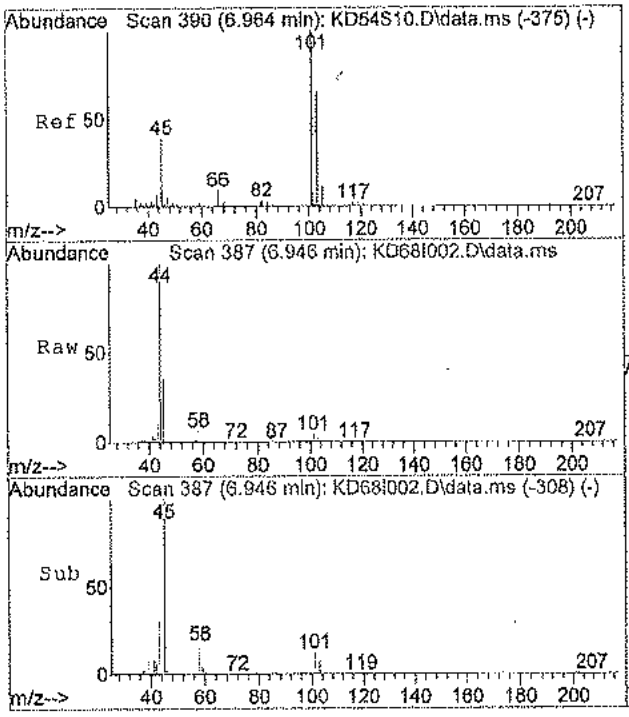


#11
Acetone
Concen: 92.35 ppb
RT: 6.79 min Scan# 362
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:43.1 Resp:20533320

Ion	Ratio	Lower	Upper
43	100		
58	41.3	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

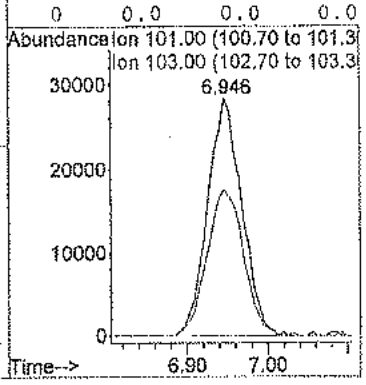


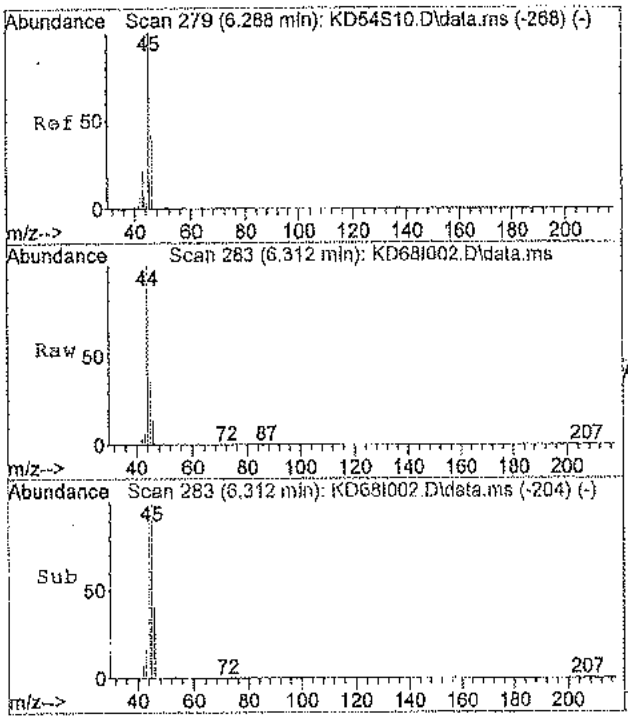


#12
Trichlorofluoromethane
Concen: 0.15 ppb
RT: 6.95 min Scan# 387
Delta R.T. -0.02 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:101 Resp: 83551

Ion	Ratio	Lower	Upper
101	100		
103	66.1	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

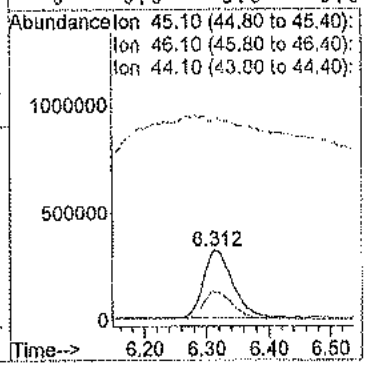


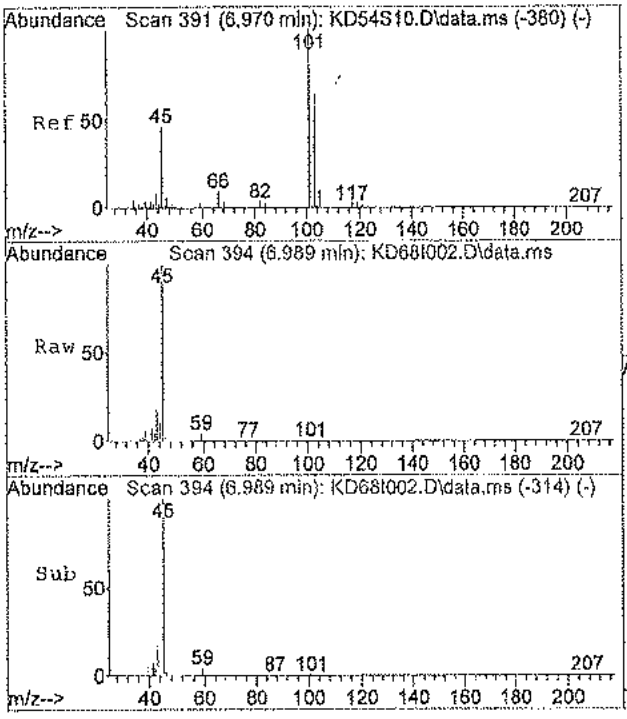


#13
Ethanol
Concen: 30.17 ppb
RT: 6.31 min Scan# 283
Delta R.T. -0.02 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:45.1 Resp: 1012072

Ion	Ratio	Lower	Upper
45	100		
46	41.3	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

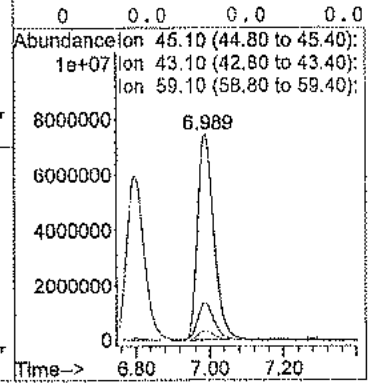


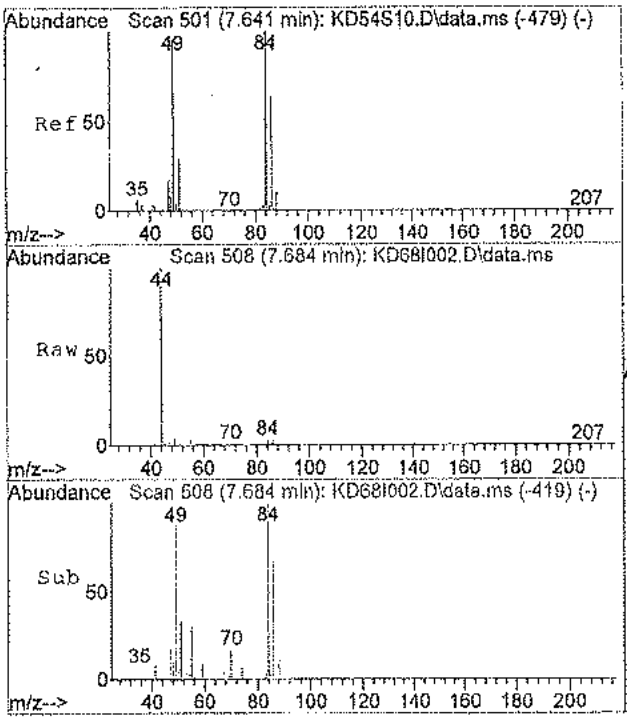


#14
Isopropyl Alcohol
Concen: 139.03 ppb
RT: 6.99 min Scan# 394
Delta R.T. -0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:45.1 Resp:23291458

Ion	Ratio	Lower	Upper
45	100		
43	18.4	15.8	23.6
59	4.3	3.2	4.8
0	0.0	0.0	0.0

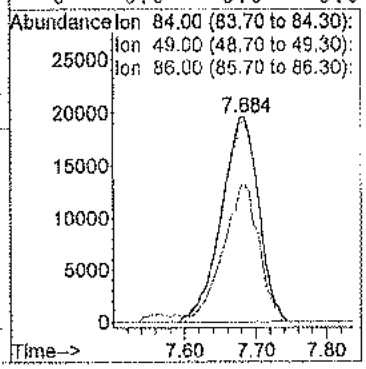


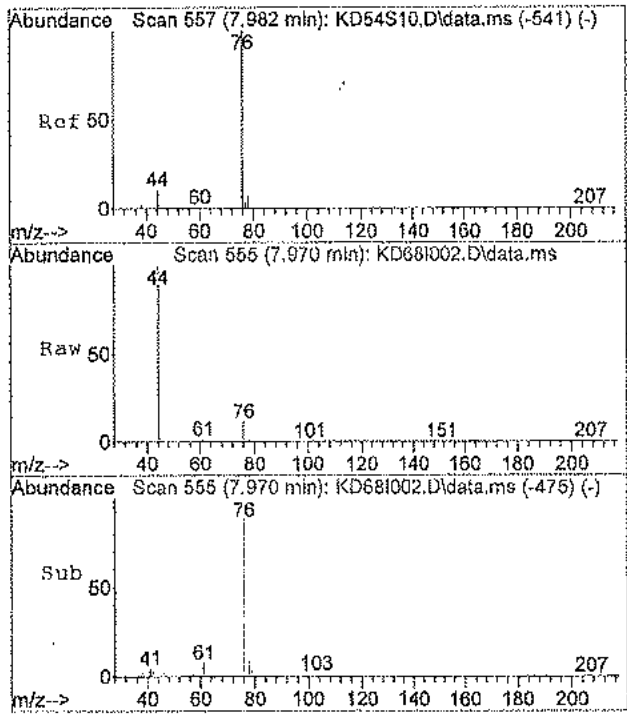


#16
Methylene Chloride
Concen: 0.58 ppb
RT: 7.68 min Scan# 508
Delta R.T. 0.04 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:84 Resp: 70750

Ion	Ratio	Lower	Upper
84	100		
49	99.2	66.6	100.0
86	64.4	51.6	77.4
0	0.0	0.0	0.0

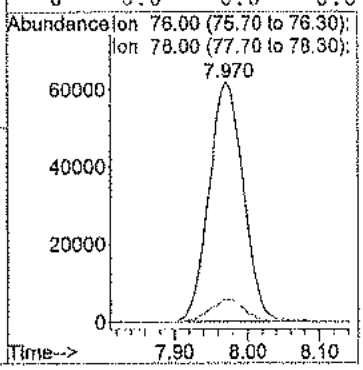


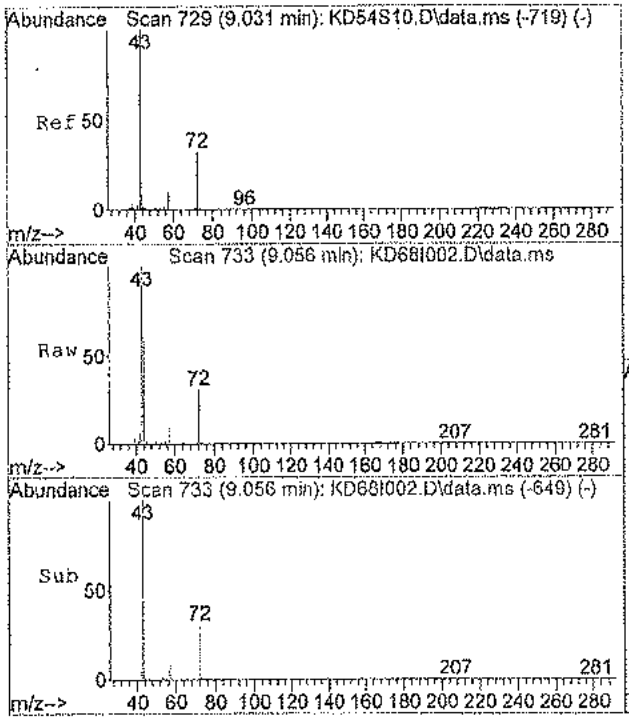


#18
Carbon Disulfide
Concen: 0.68 ppb
RT: 7.97 min Scan# 555
Delta R.T. -0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:76 Resp: 201074

Ion	Ratio	Lower	Upper
76	100		
78	9.4	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

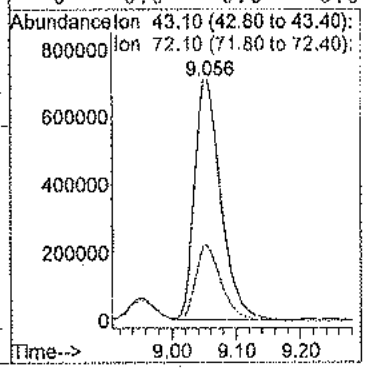


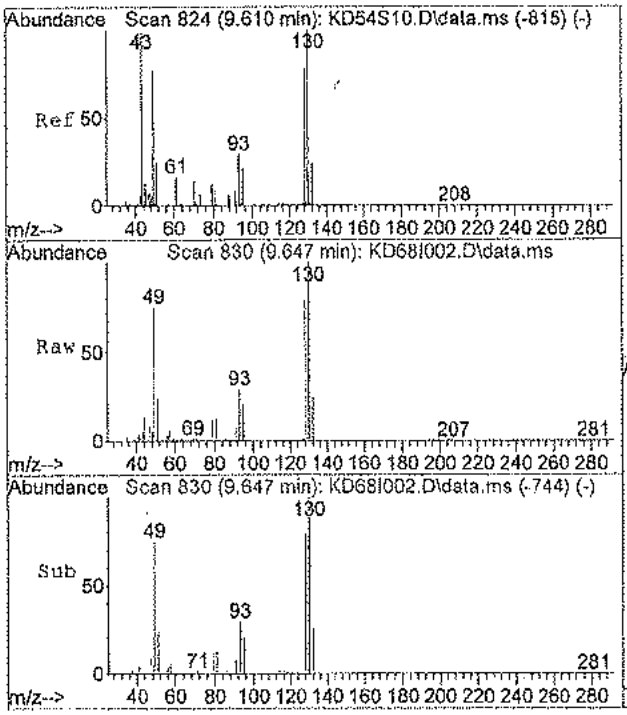


#23
2-Butanone
Concen: 9.62 ppb
RT: 9.06 min Scan# 733
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:43.1 Resp: 2020405

Ion	Ratio	Lower	Upper
43	100		
72	31.1	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

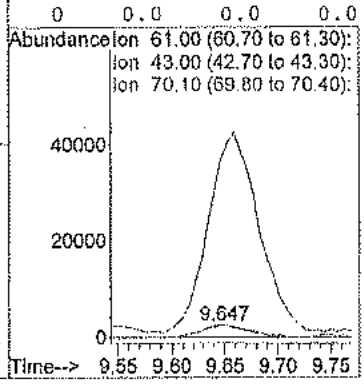


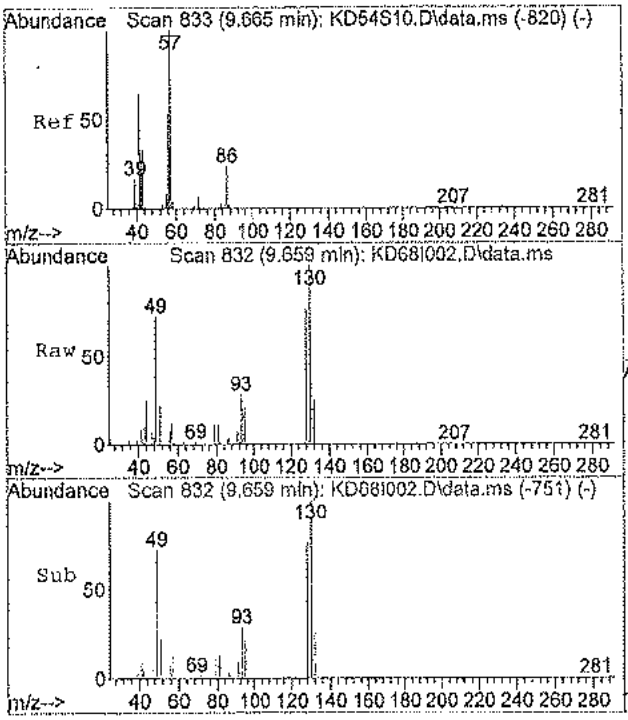


#26
Ethyl Acetate
Concen: 0.22 ppb
RT: 9.65 min Scan# 830
Delta R.T. 0.02 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:61 Resp: 7154

Ion	Ratio	Lower	Upper
61	100		
43	1925.1	144.0	216.0#
70	104.5	13.6	20.4#
0	0.0	0.0	0.0

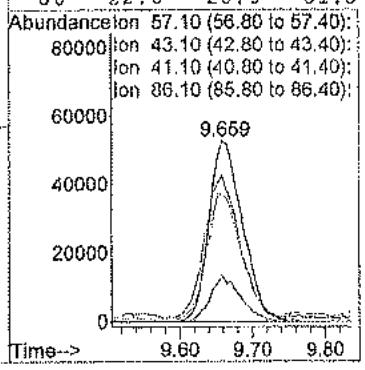


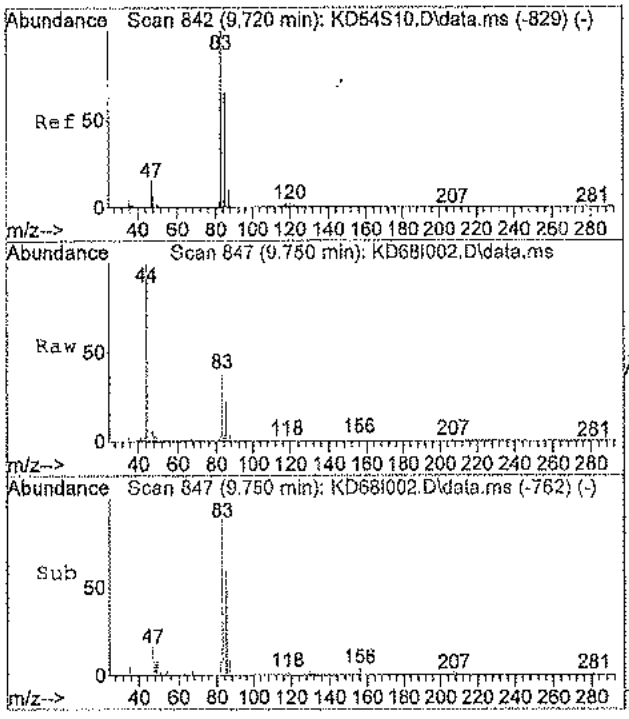


#27
Hexane
Concen: 1.16 ppb
RT: 9.66 min Scan# 832
Delta R.T. -0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:57.1 Resp: 166734

Ion	Ratio	Lower	Upper
57	100		
43	82.6	57.3	85.9
41	75.7	47.0	70.4#
86	22.6	20.9	31.3

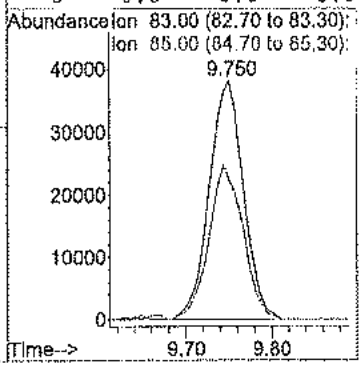


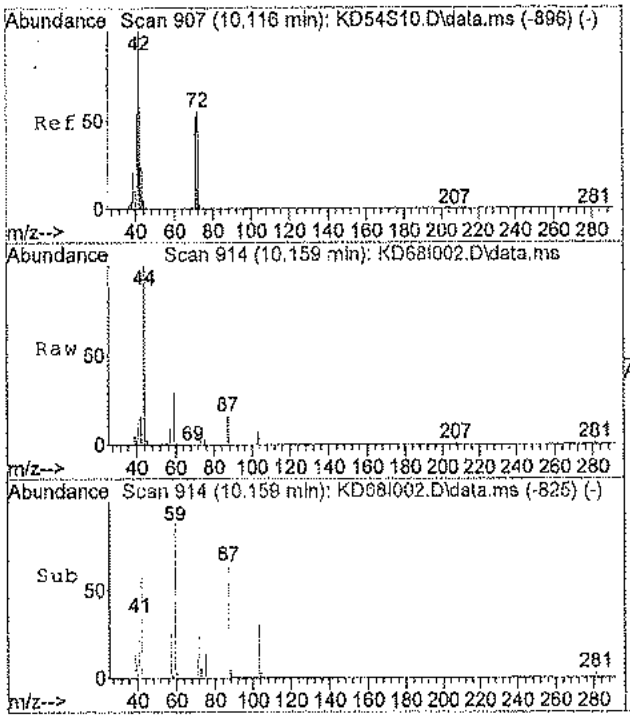


#28
Chloroform
Concen: 0.33 ppb
RT: 9.75 min Scan# 847
Delta R.T. 0.02 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:83 Resp: 104802

Ion	Ratio	Lower	Upper
83	100		
85	65.1	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

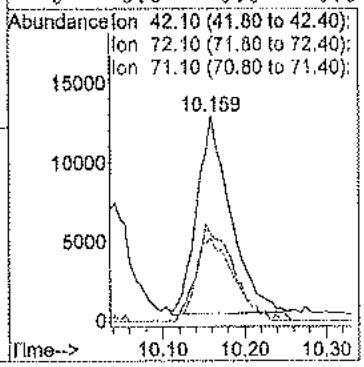


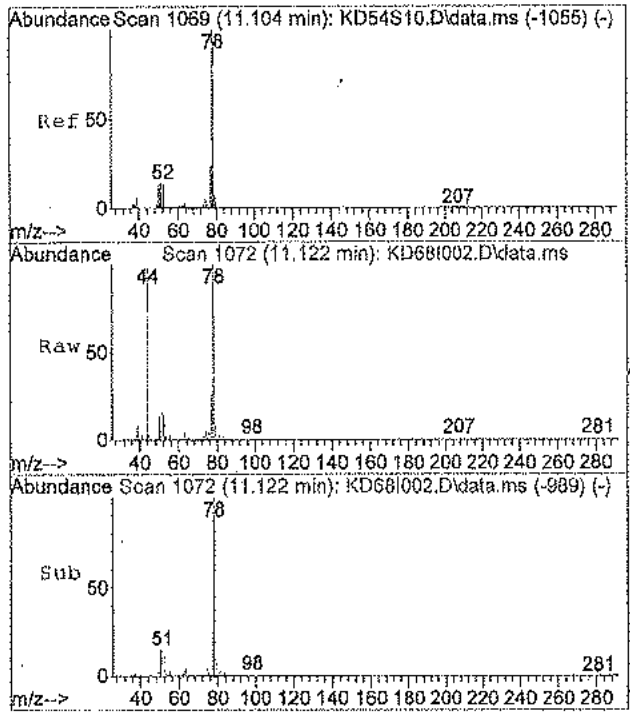


#29
Tetrahydrofuran
Concen: 0.37 ppb
RT: 10.16 min Scan# 914
Delta R.T. 0.04 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:42.1 Resp: 36021

Ion	Ratio	Lower	Upper
42	100		
72	51.1	51.5	77.3#
71	47.2	47.5	71.3#
0	0.0	0.0	0.0

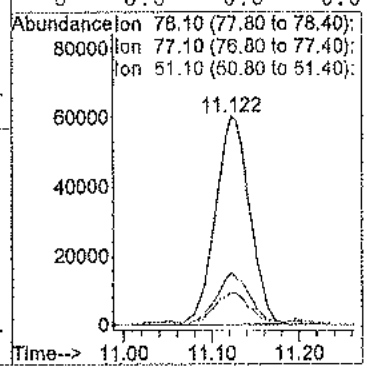


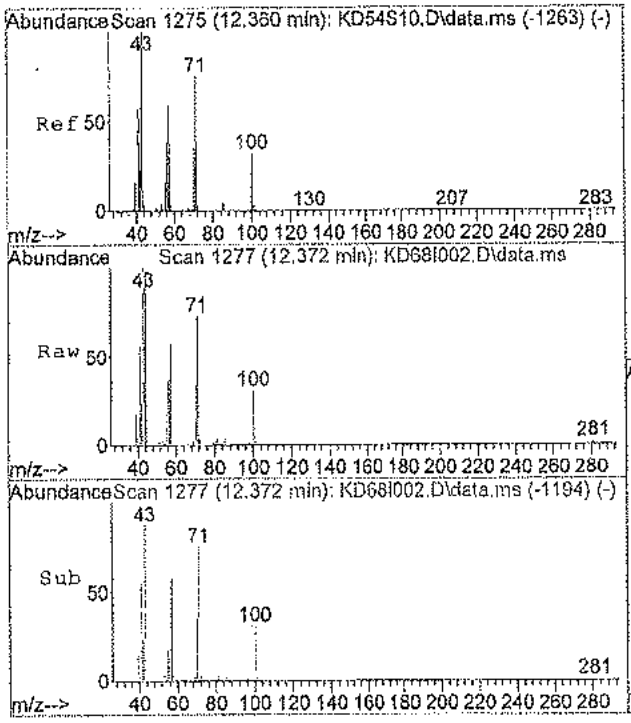


#32
Benzene
Concen: 0.56 ppb
RT: 11.12 min Scan# 1072
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:78.1 Resp: 163125

Ion	Ratio	Lower	Upper
78	100		
77	25.0	18.2	27.4
51	16.1	9.5	14.3#
0	0.0	0.0	0.0

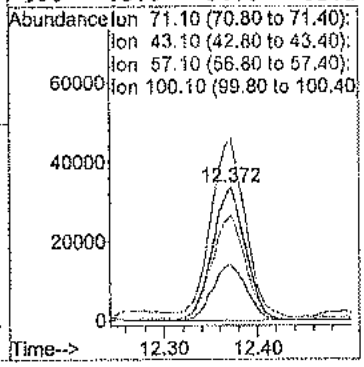


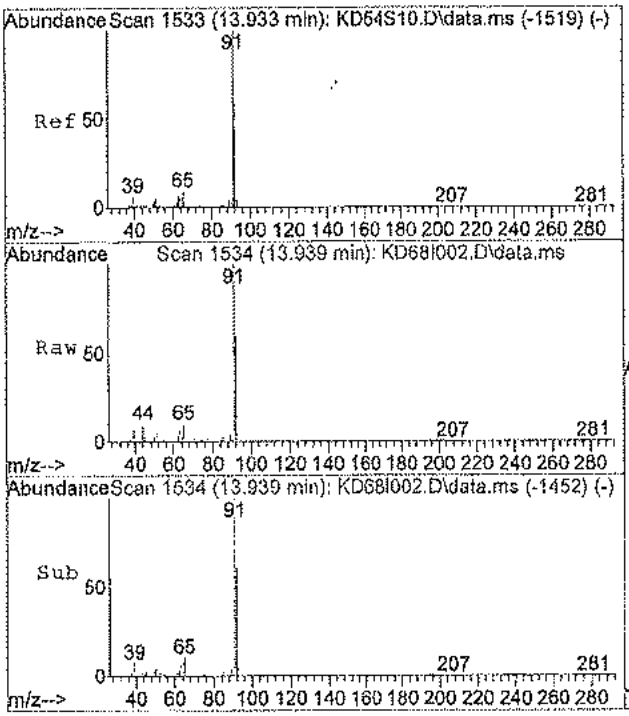


#40
Heptane
Concen: 0.78 ppb
RT: 12.37 min Scan# 1277
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:71.1 Resp: 82382

Ion	Ratio	Lower	Upper
71	100		
43	140.7	87.3	130.9#
57	80.6	57.8	86.6
100	43.5	34.8	52.2

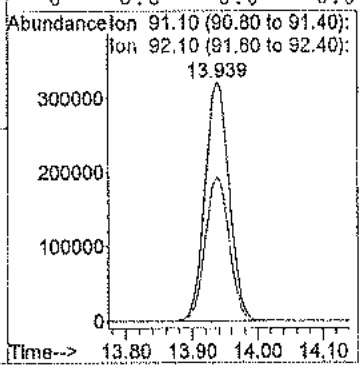


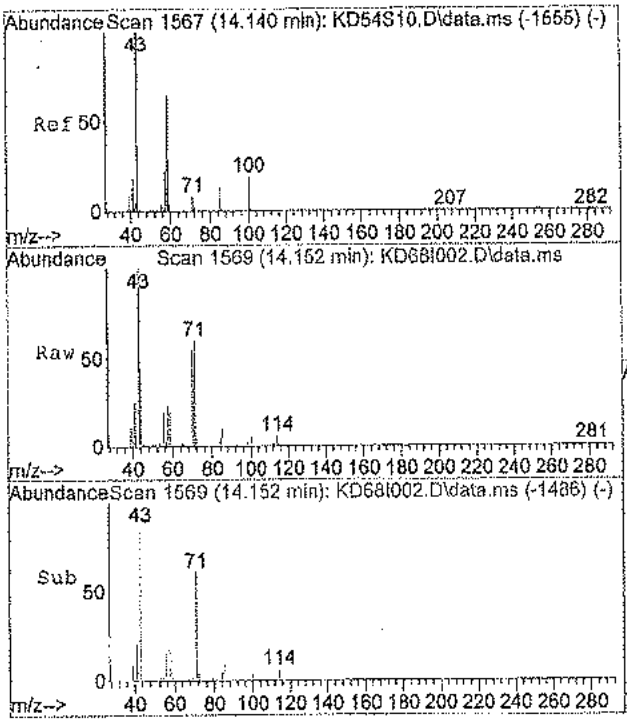


#45
Toluene
Concen: 2.04 ppb
RT: 13.94 min Scan# 1534
Delta R.T. 0.00 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:91.1 Resp: 826601

Ion	Ratio	Lower	Upper
91	100		
92	59.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

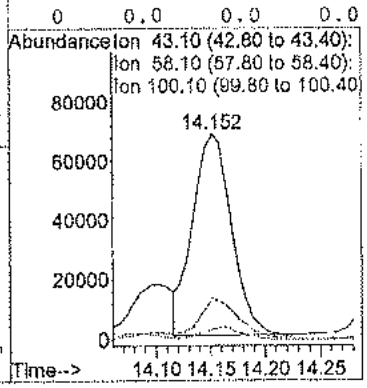


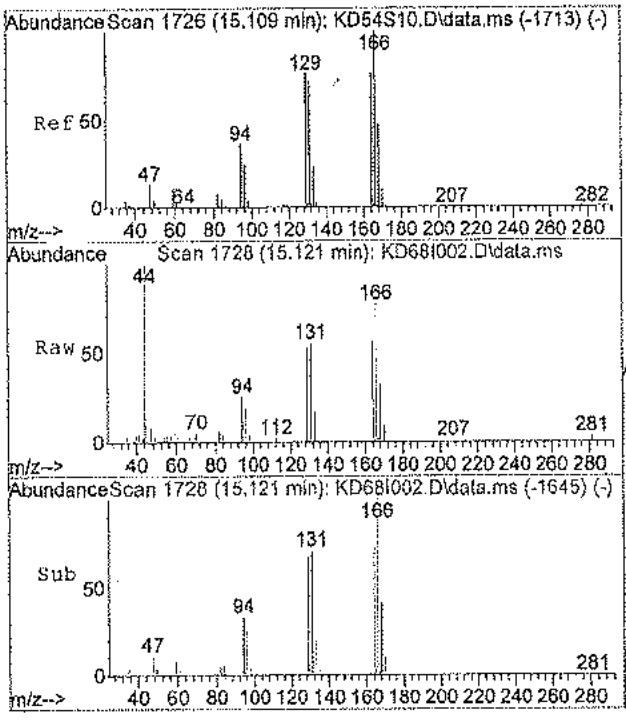


#46
2-Hexanone
Concen: 0.74 ppb
RT: 14.15 min Scan# 1569
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:43.1 Resp: 167818

Ion	Ratio	Lower	Upper
43	100		
58	20.5	54.7	82.1#
100	6.0	19.6	29.4#
0	0.0	0.0	0.0

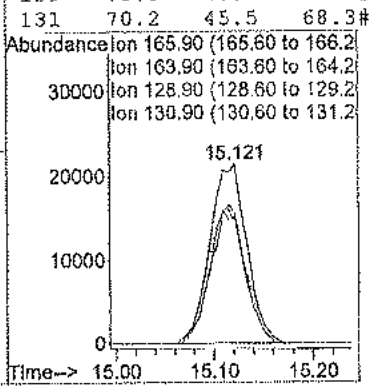


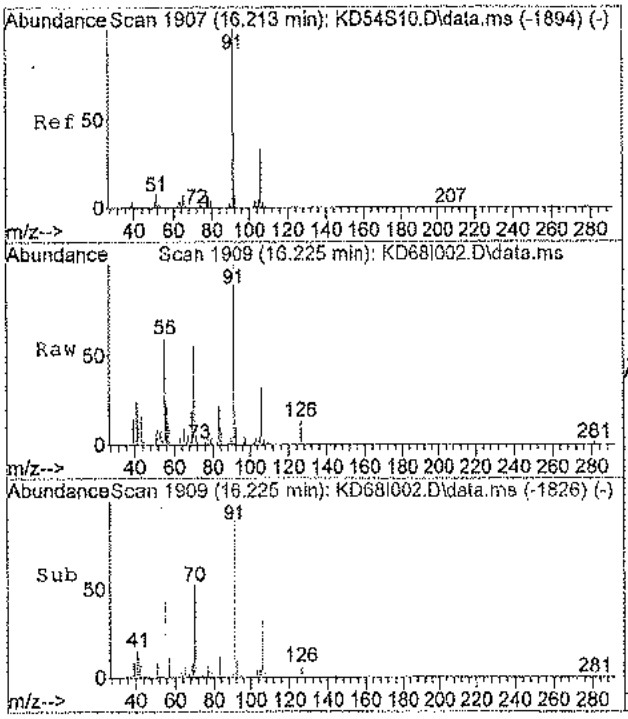


#49
Tetrachloroethene
Concen: 0.26 ppb
RT: 15.12 min Scan# 1728
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:165.9 Resp: 55535

Ion	Ratio	Lower	Upper
166	100		
164	74.3	61.0	91.4
129	73.8	45.9	68.9#
131	70.2	45.5	68.3#

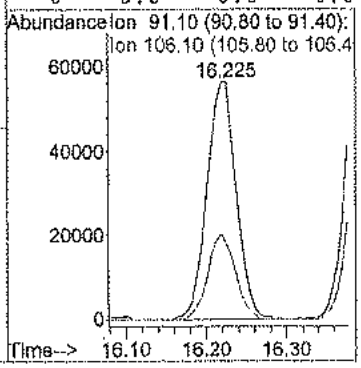


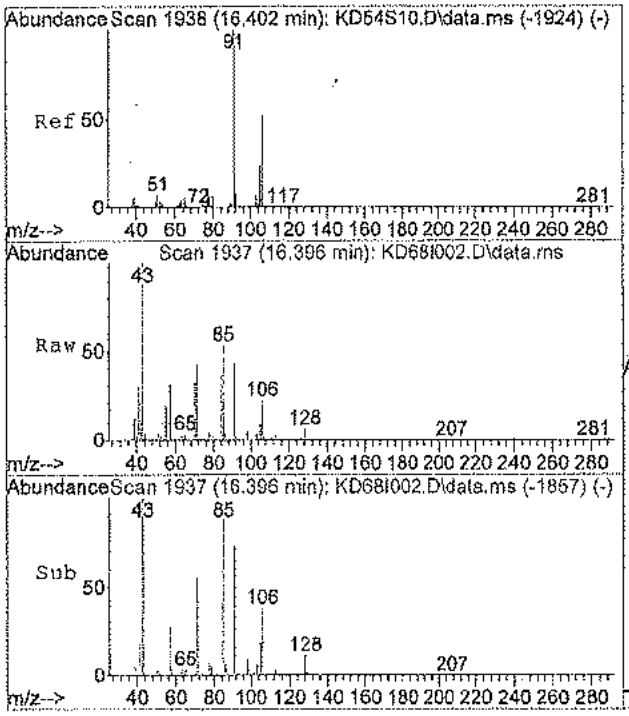


#52
Ethylbenzene
Concen: 0.24 ppb
RT: 16.22 min Scan# 1909
Delta R.T. 0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:91.1 Resp: 142626

Ion	Ratio	Lower	Upper
91	100		
106	33.6	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

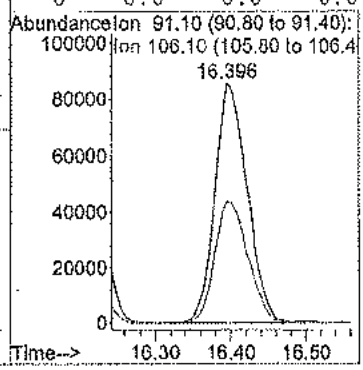


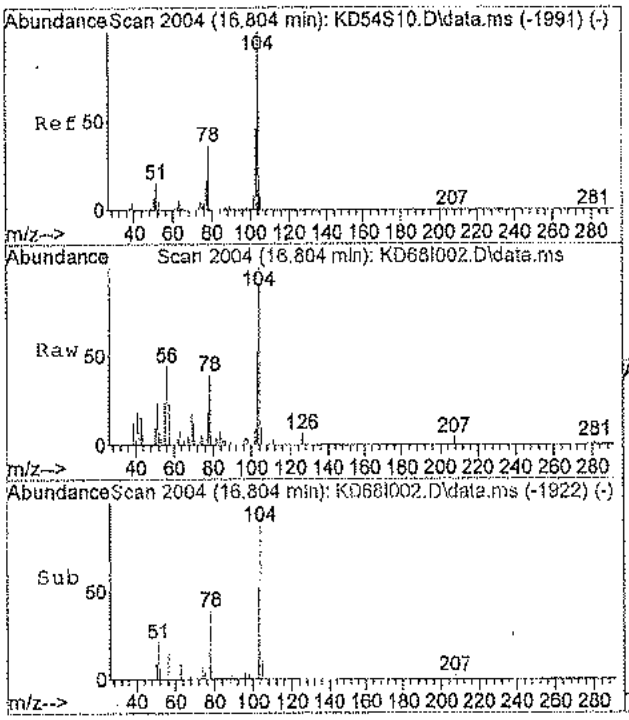


#53
m,p-Xylene
Concen: 0.47 ppb
RT: 16.40 min Scan# 1937
Delta R.T. -0.01 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:91.1 Resp: 254605

Ion	Ratio	Lower	Upper
91	100		
106	52.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

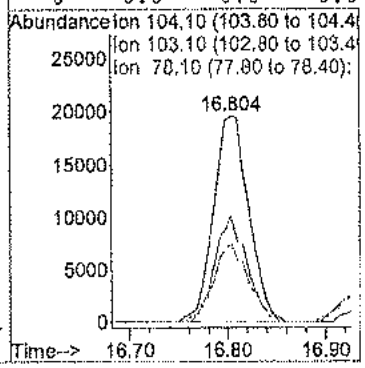


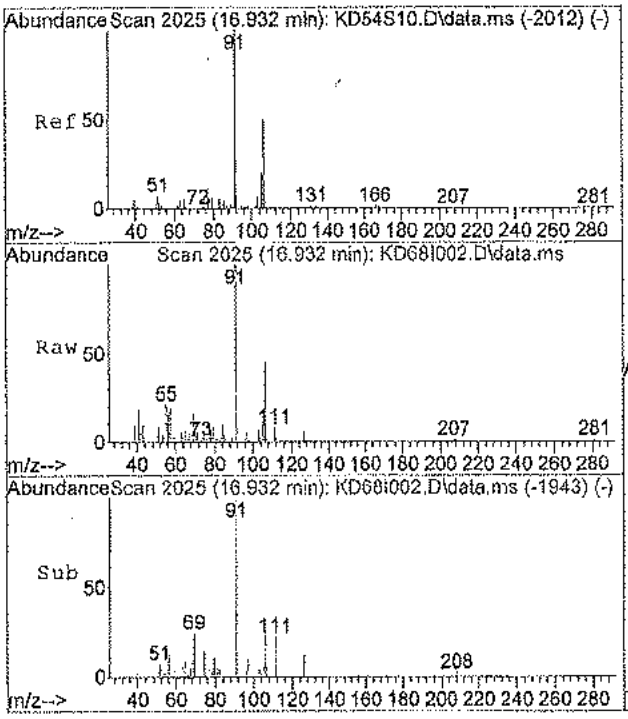


#55
Styrene
Concen: 0.16 ppb
RT: 16.80 min Scan# 2004
Delta R.T. -0.00 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:104.1 Resp: 49380

Ion	Ratio	Lower	Upper
104	100		
103	47.3	36.6	54.8
78	36.3	27.7	41.5
0	0.0	0.0	0.0

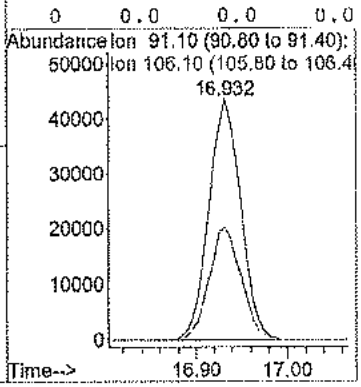


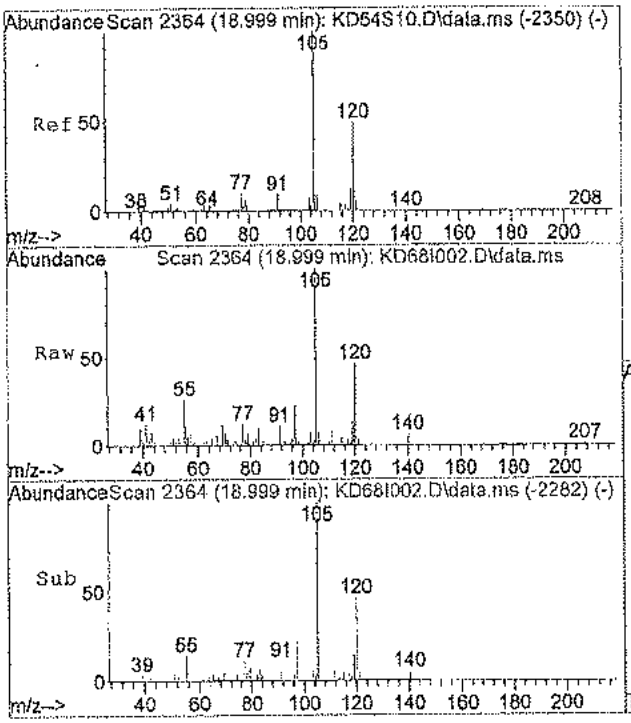


#57
o-Xylene
Concen: 0.19 ppb
RT: 16.93 min Scan# 2025
Delta R.T. 0.00 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:91.1 Resp: 105939

Ion	Ratio	Lower	Upper
91	100		
106	46.8	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

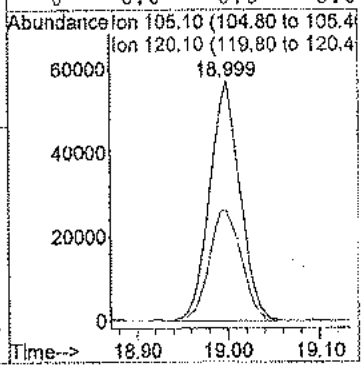




#61
1,2,4-Trimethylbenzene
Concen: 0.25 ppb
RT: 19.00 min Scan# 2364
Delta R.T. -0.00 min
Lab File: KD68I002.D
Acq: 04/07/2015 23:56

Tgt Ion:105,1 Resp: 130659

Ion	Ratio	Lower	Upper
105	100		
120	49.0	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



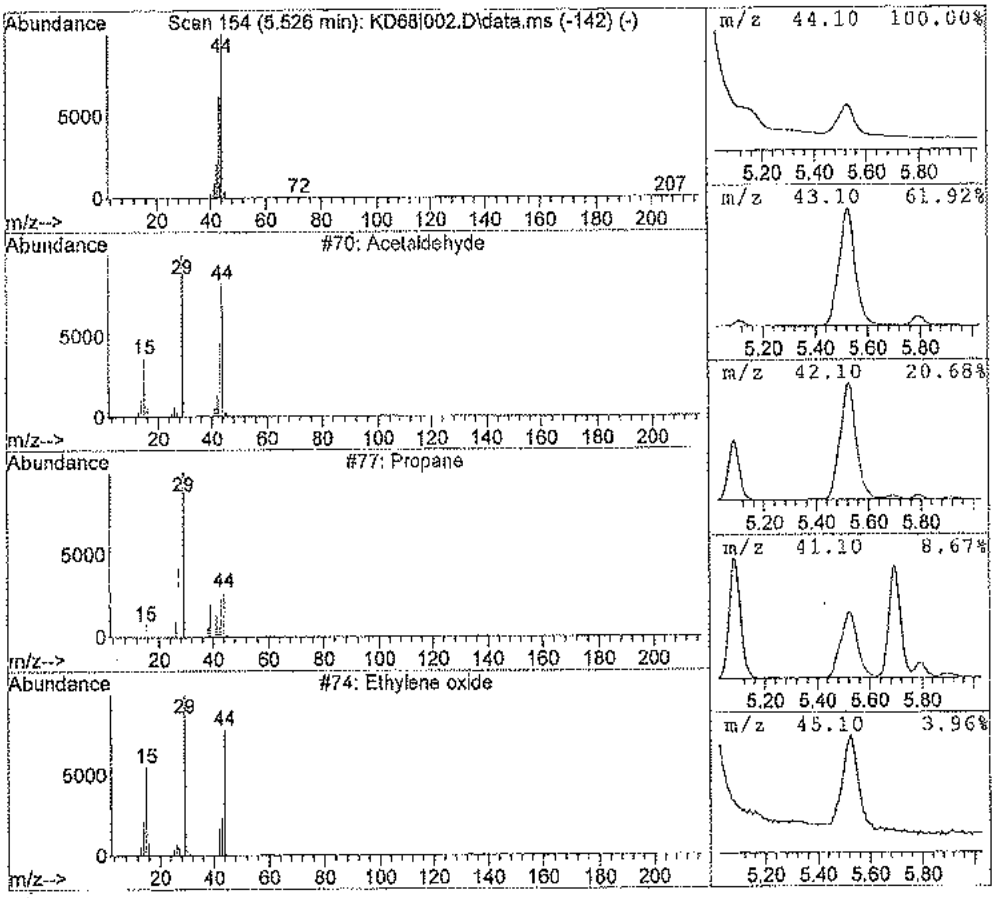
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD681002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
5.53	25.14 ppb	13753377	Bromochloromethane	10941905

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	70	000075-07-0	74.00
2	Propane	77	000074-98-6	5.00
3	Ethylene oxide	74	000075-21-8	5.00
4	Alanine	2136	000056-41-7	4.00
5	Ethyne, fluoro-	76	002713-09-9	3.00



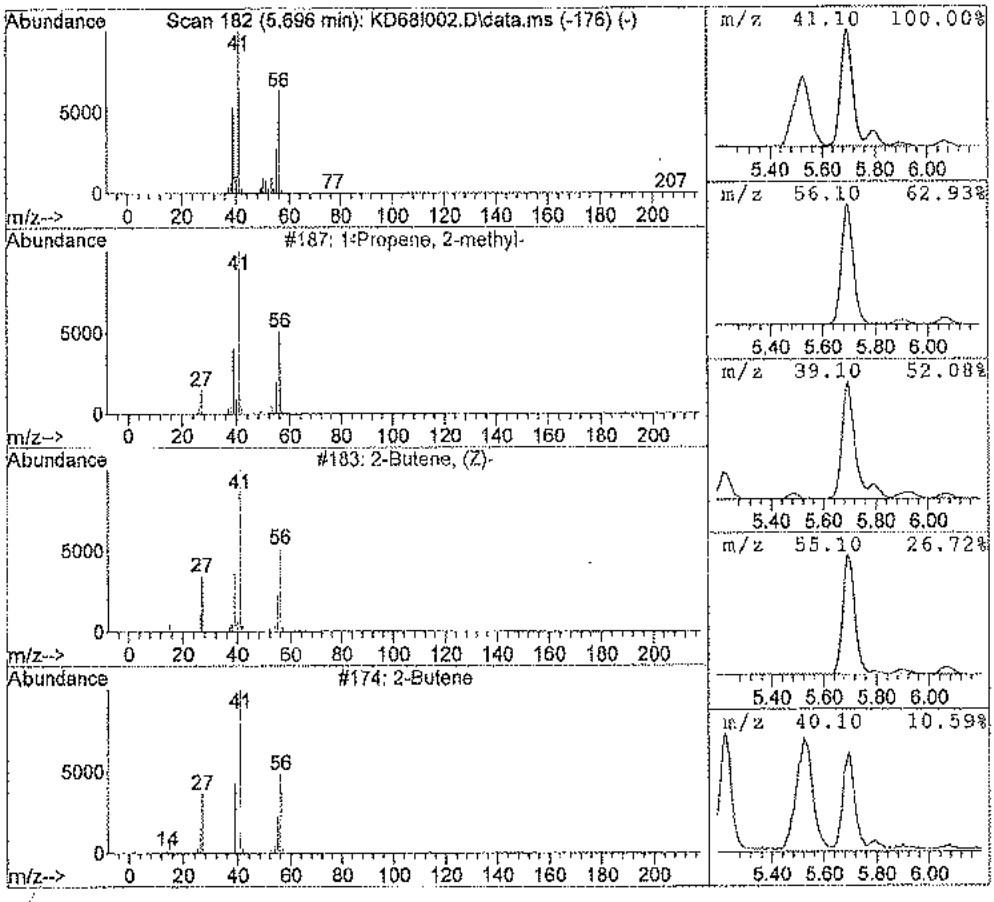
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
5.70	3.65 ppb	1997434	Bromochloromethane	10941905

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Propene, 2-methyl-	187	000115-11-7	90.00
2	2-Butene, (Z)-	183	000590-18-1	74.00
3	2-Butene	174	000107-01-7	72.00
4	1-Butene	172	000106-98-9	58.00
5	Cyclobutane	177	000287-23-0	50.00



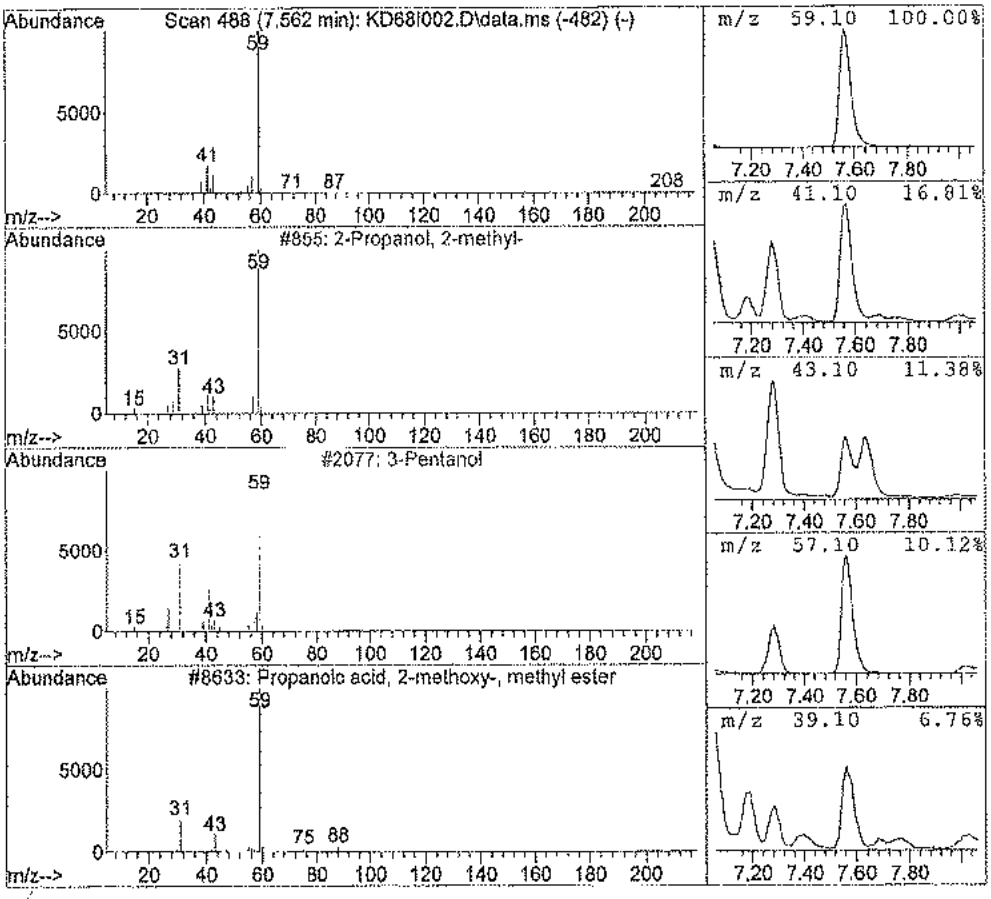
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.56	3.04 ppb	1662869	Bromochloromethane	10941905

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Propanol, 2-methyl	855	000075-65-0	64.00
2	3-Pentanol	2077	000584-02-1	64.00
3	Propanoic acid, 2-methoxy-, methyl	8633	017639-76-8	9.00
4	1,2-Butanediol	2279	000584-03-2	9.00
5	Propanoic acid, 2-hydroxy-2-methyl-	4667	000594-61-6	9.00



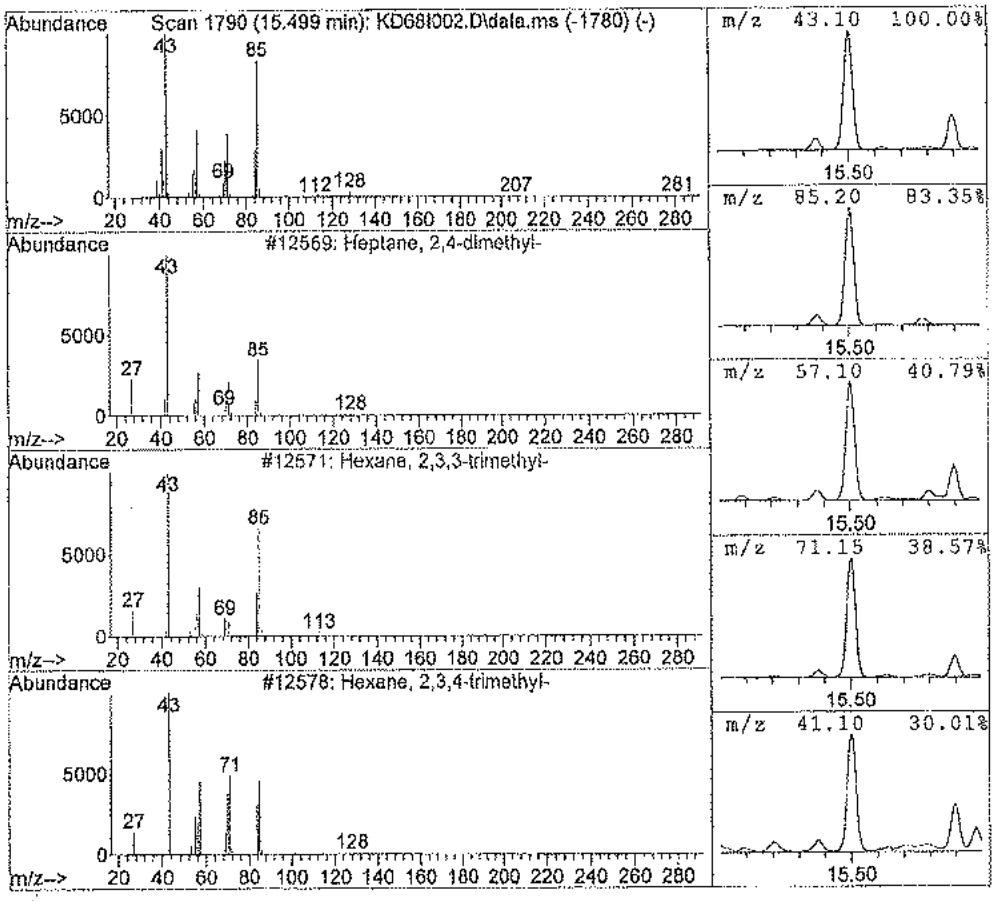
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
15.50	3.37 ppb	3963879	Chlorobenzene d5	23505521

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 2,4-dimethyl-	12559	002213-23-2	94.00
2	Hexane, 2,3,3-trimethyl-	12571	016747-28-7	53.00
3	Hexane, 2,3,4-trimethyl-	12578	000921-47-1	53.00
4	2,2-Dimethylvaleroyl chloride	22716	015721-22-9	50.00
5	Pentane, 2,3,3,4-tetramethyl-	12600	016747-38-9	50.00



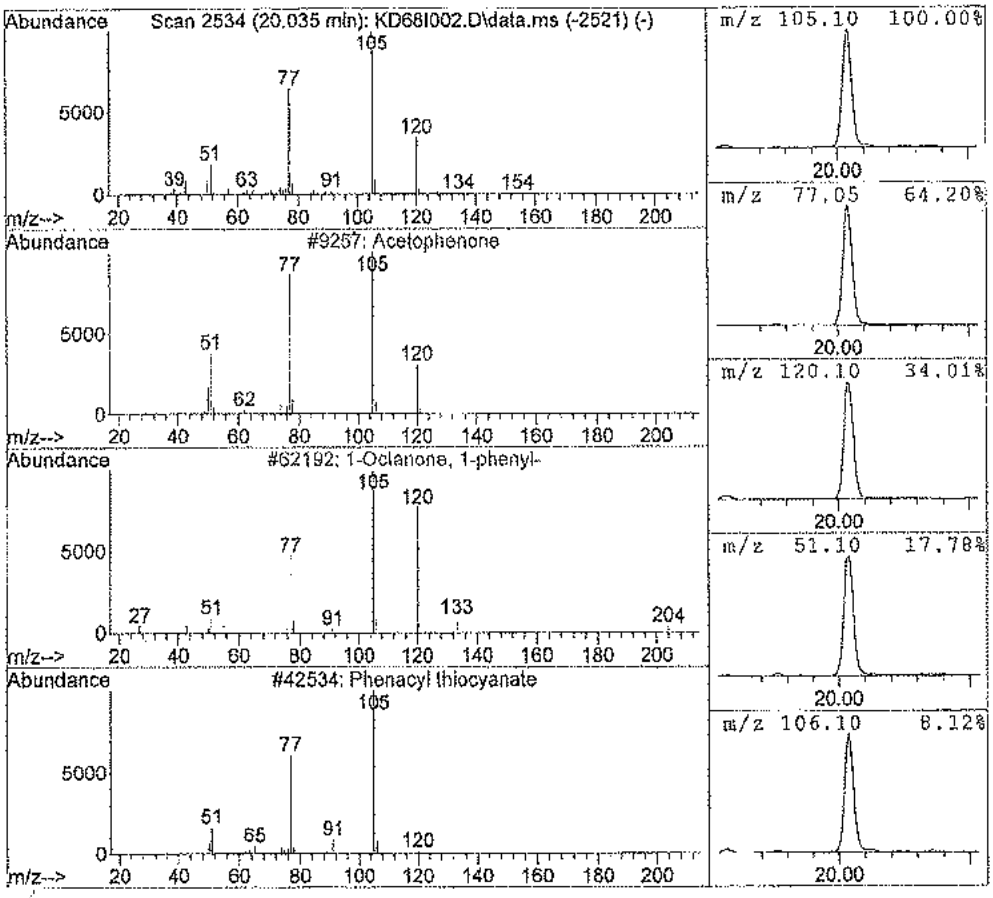
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD68I002.D Vial: 12
Acq Time : 04/07/2015 23:56 Operator:
Sample : 1509608002 Inst : 5975-K
Misc : 0119 A-0037H-040305-SG-001-4 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.04	5.72 ppb	6725411	Chlorobenzene d5	23505521

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetophenone	9257	000098-86-2	94.00
2	1-Octanone, 1-phenyl-	62192	001674-37-9	72.00
3	Phenacyl thiocyanate	42534	005399-30-4	64.00
4	1,2-Propanedione, 1-phenyl-	22903	000579-07-7	64.00
5	Benzeneacetic acid, .alpha.-oxo-, m	33576	015206-55-0	59.00

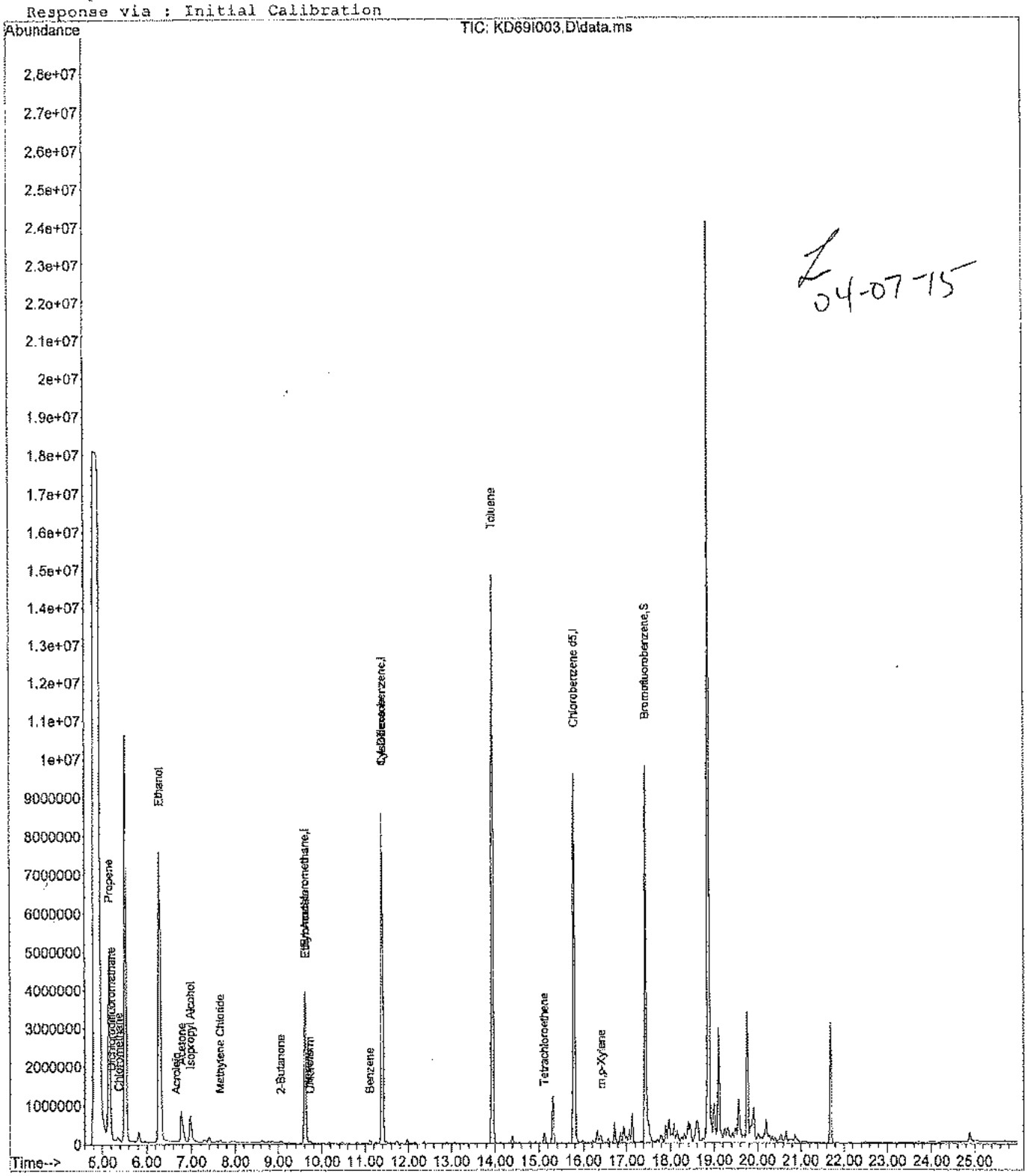


Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 09:48:09 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 09:02:17 2015
Response via : Initial Calibration



04-07-15

Quantitation Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 09:48:09 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.62	130	886592	20.0000 ppb	103.93
25) 1,4-Difluorobenzene	11.39	114	11321416	20.0000 ppb	101.49
50) Chlorobenzene d5	15.78	117	9760312	20.0000 ppb	101.22
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	5638124	16.4217 ppb	82.11%
Target Compounds					Qvalue
2) Propene	5.16	41	2144830	27.6917 ppb #	43 TIC
3) Dichlorodifluoromethane	5.21	85	148289	0.2717 ppb	96
4) Chloromethane	5.38	50	33168	0.3427 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	6.67	56	11515	0.3360 ppb #	94 TIC 2/10 Za
11) Acetone	6.78	43	1603921	6.7955 ppb	94
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	6.29	45	15355476	431.1693 ppb #	80 TIC
14) Isopropyl Alcohol	6.98	45	1359651	7.6455 ppb	98 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.65	84	40103	0.3087 ppb	90
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	9.06	43	68055	0.3054 ppb	88
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	9.63	61	59251	1.6584 ppb #	1
27) Hexane	9.67	57	29661	0.1915 ppb #	49
28) Chloroform	9.72	83	74944	0.2198 ppb	99
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.10	78	111202	0.3554 ppb #	97
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	11.39	84	44321	0.2460 ppb #	1
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.94	91	17395385	39.7241 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	15.12	166	124381	0.5298 ppb #	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

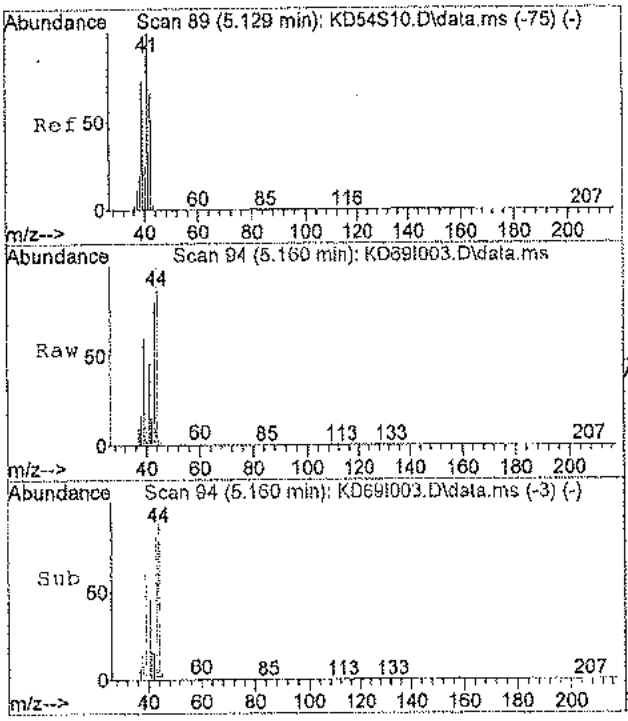
Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 09:48:09 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	16.40	91	106774	0.1911 ppb	95
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

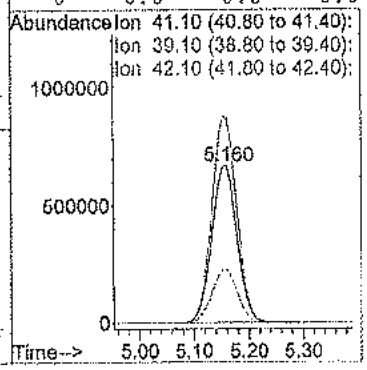
(#) = qualifier out of range (m) = manual integration

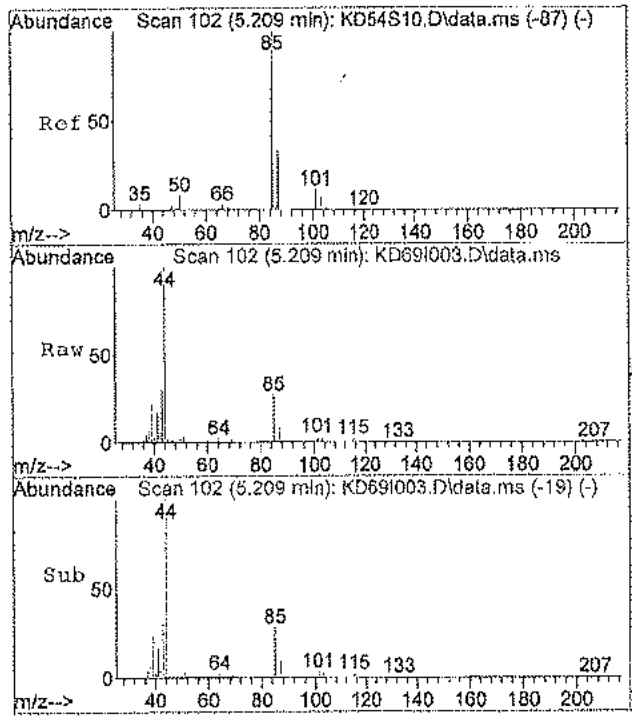


#2
Propene
Concen: 27.69 ppb
RT: 5.16 min Scan# 94
Delta R.T. 0.05 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:41.1 Resp: 2144830

Ion	Ratio	Lower	Upper
41	100		
39	130.5	56.2	84.4#
42	34.7	53.8	80.6#
0	0.0	0.0	0.0

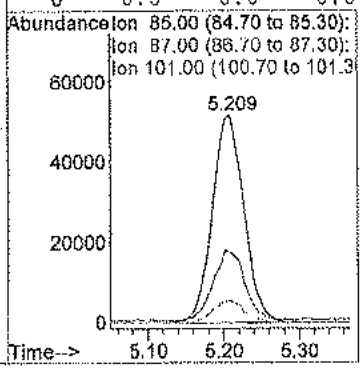


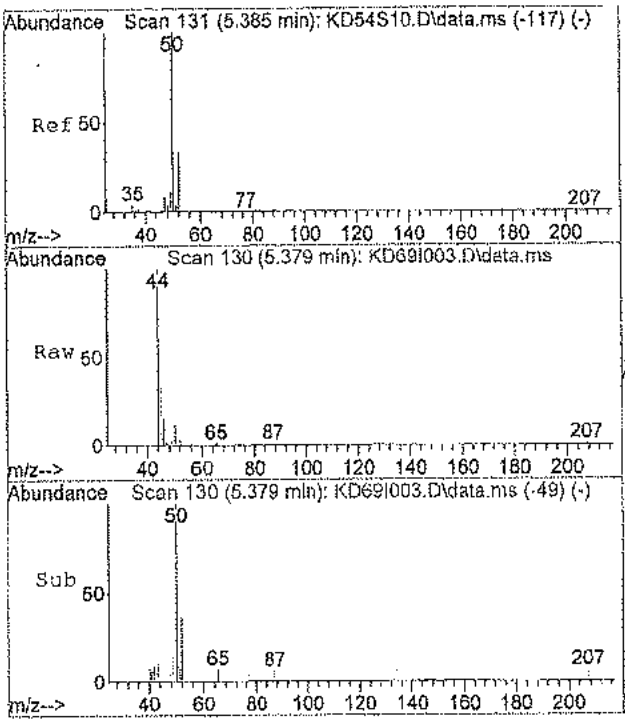


#3
Dichlorodifluoromethane
Concen: 0.27 ppb
RT: 5.21 min Scan# 102
Delta R.T. 0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:85 Resp: 148289

Ion	Ratio	Lower	Upper
85	100		
87	35.1	26.1	39.1
101	10.6	8.0	12.0
0	0.0	0.0	0.0

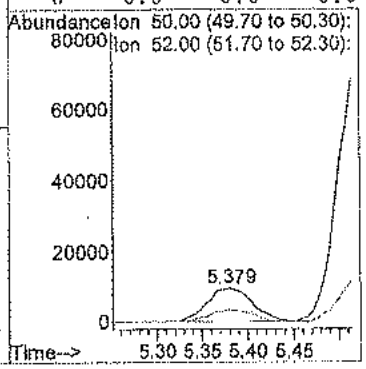


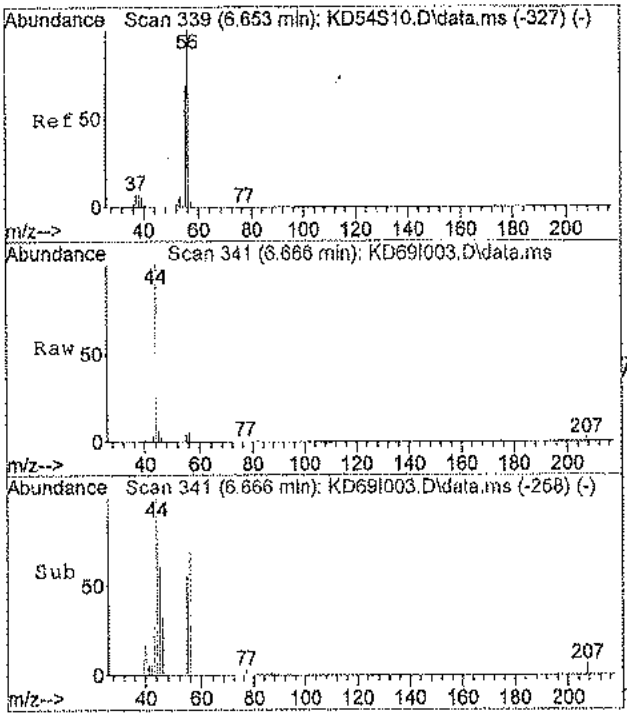


#4
Chloromethane
Concen: 0.34 ppb
RT: 5.38 min Scan# 130
Delta R.T. -0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:50 Resp: 33168

Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

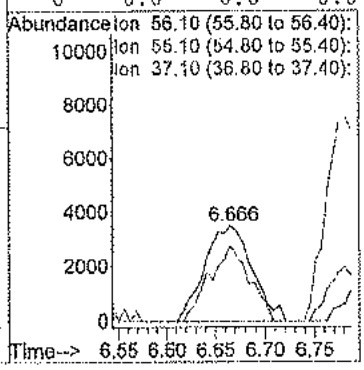


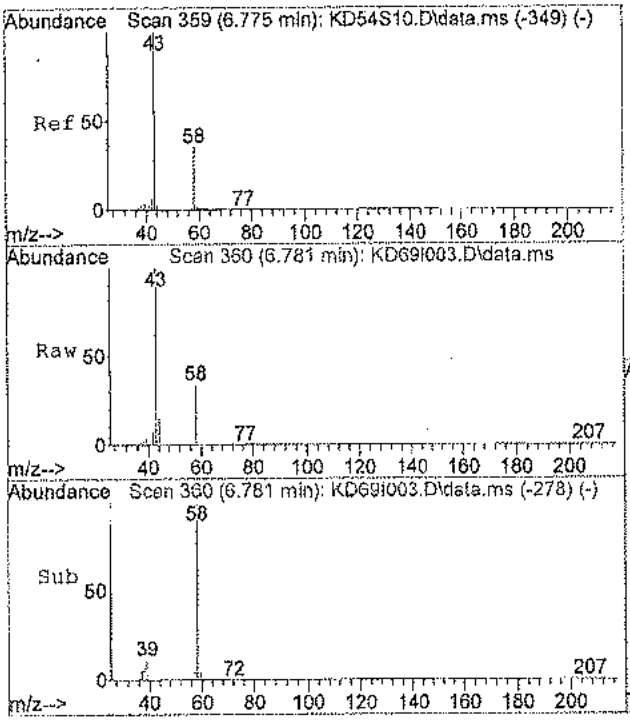


#10
Acrolein
Concen: 0.34 ppb
RT: 6.67 min Scan# 341
Delta R.T. 0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:56.1 Resp: 11515

Ion	Ratio	Lower	Upper
56	100		
55	66.6	55.1	82.7
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

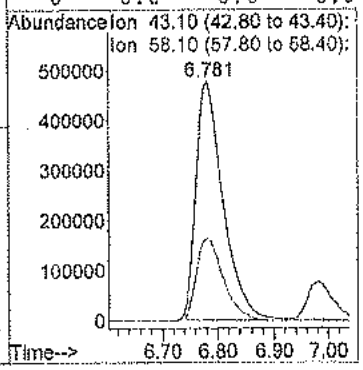


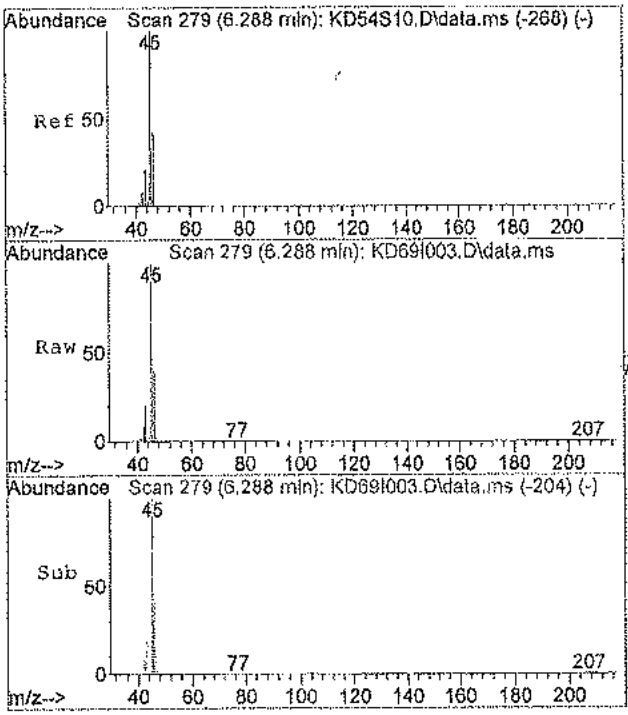


#11
Acetone
Concen: 6.80 ppb
RT: 6.78 min Scan# 360
Delta R.T. -0.00 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:43.1 Resp: 1603921

Ion	Ratio	Lower	Upper
43	100		
58	34.5	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

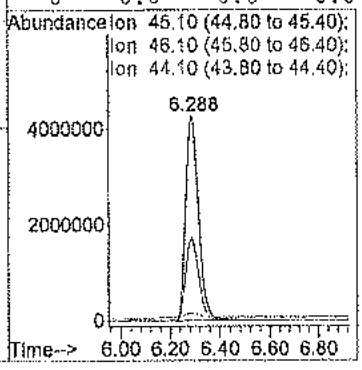


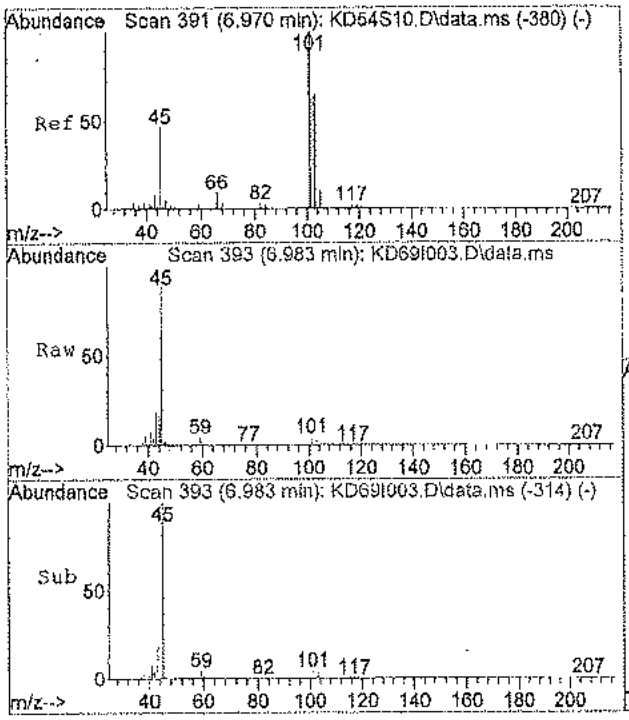


#13
Ethanol
Concen: 431.17 ppb
RT: 6.29 min Scan# 279
Delta R.T. -0.04 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:45.1 Resp:15355476

Ion	Ratio	Lower	Upper
45	100		
46	40.5	32.4	48.6
44	3.4	23.4	35.2#
0	0.0	0.0	0.0

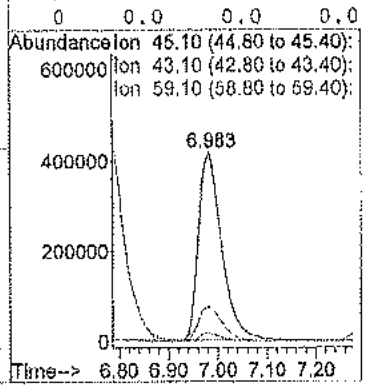


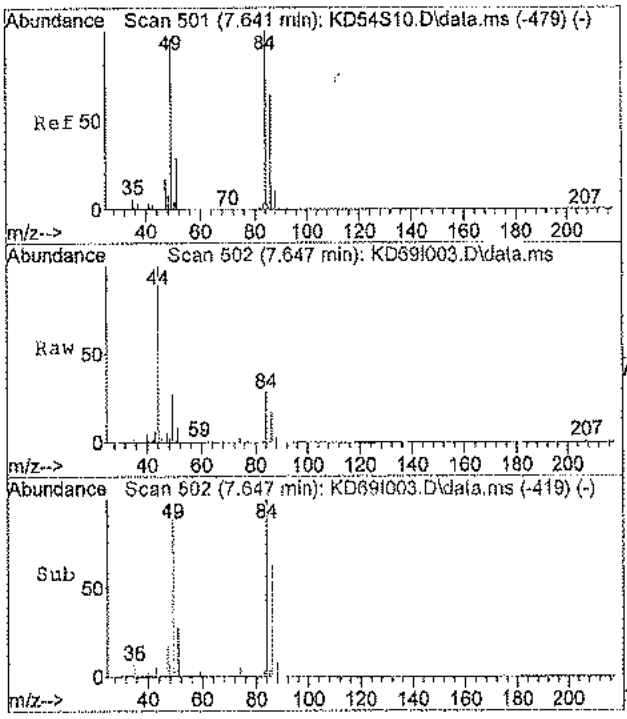


#14
Isopropyl Alcohol
Concen: 7.65 ppb
RT: 6.98 min Scan# 393
Delta R.T. -0.02 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:45.1 Resp: 1359651

Ion	Ratio	Lower	Upper
45	100		
43	18.5	15.8	23.6
59	4.3	3.2	4.8
0	0.0	0.0	0.0

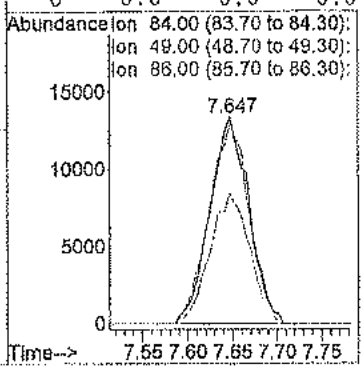


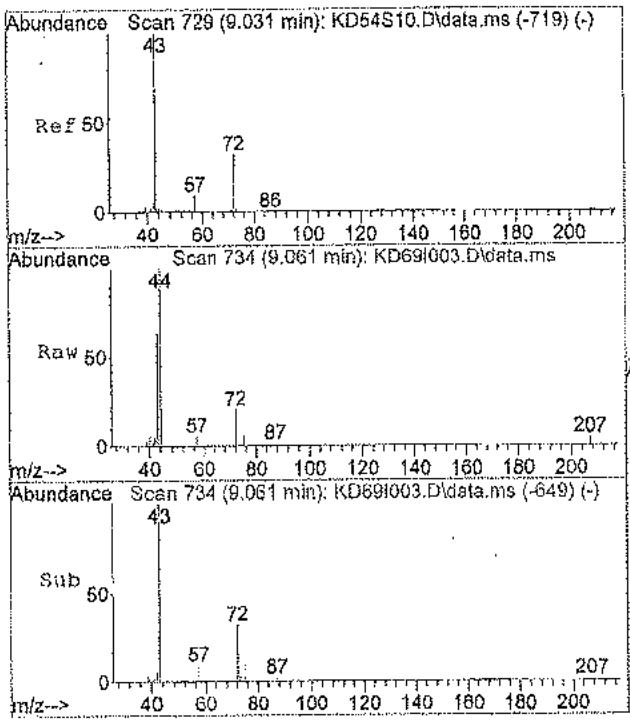


#16
Methylene Chloride
Concen: 0.31 ppb
RT: 7.65 min Scan# 502
Delta R.T. 0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:84 Resp: 40103

Ion	Ratio	Lower	Upper
84	100		
49	99.3	66.6	100.0
86	63.8	51.6	77.4
0	0.0	0.0	0.0

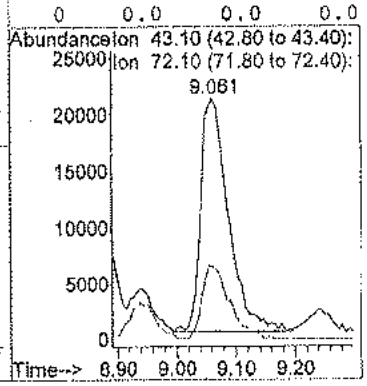


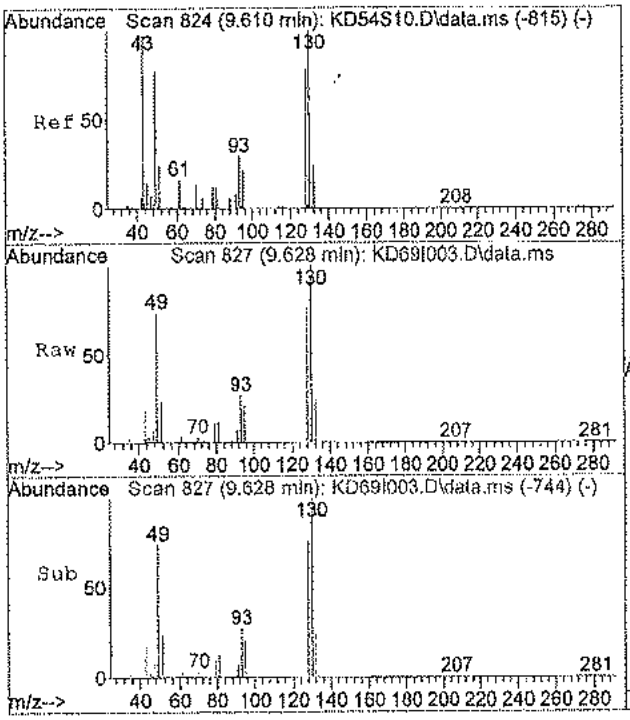


#23
2-Butanone
Concen: 0.31 ppb
RT: 9.06 min Scan# 734
Delta R.T. 0.02 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:43.1 Resp: 68055

Ion	Ratio	Lower	Upper
43	100		
72	31.4	31.1	46.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

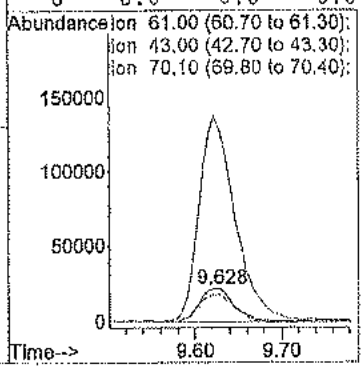


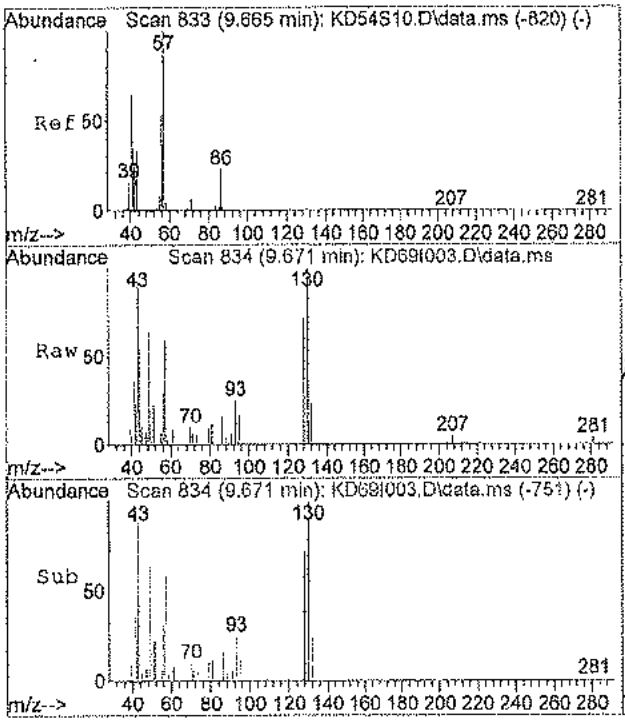


#26
Ethyl Acetate
Concen: 1.66 ppb
RT: 9.63 min Scan# 827
Delta R.T. 0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:61 Resp: 59251

Ion	Ratio	Lower	Upper
61	100		
43	653.3	144.0	216.0#
70	84.2	13.6	20.4#
0	0.0	0.0	0.0

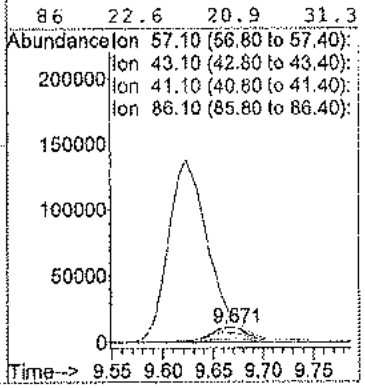


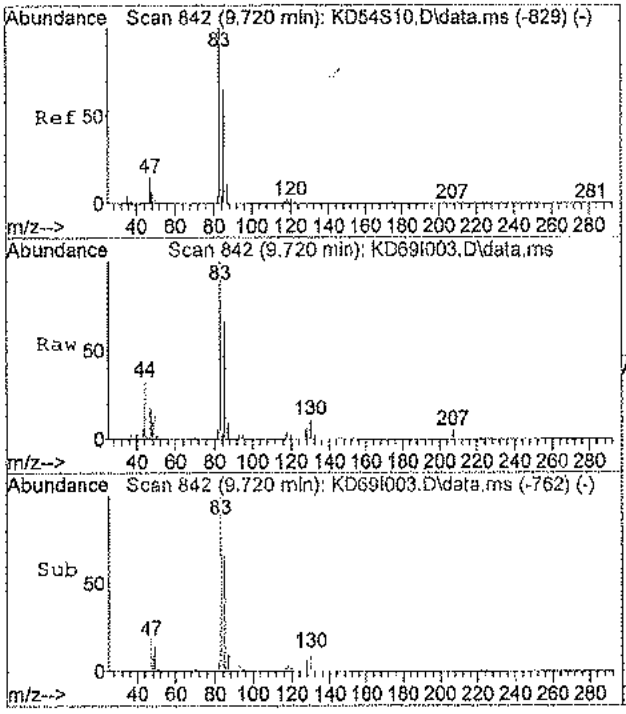


#27
Hexane
Concen: 0.19 ppb
RT: 9.67 min Scan# 834
Delta R.T. 0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:57.1 Resp: 29661

Ion	Ratio	Lower	Upper
57	100		
43	0.0	57.3	85.9#
41	79.7	47.0	70.4#
86	22.6	20.9	31.3

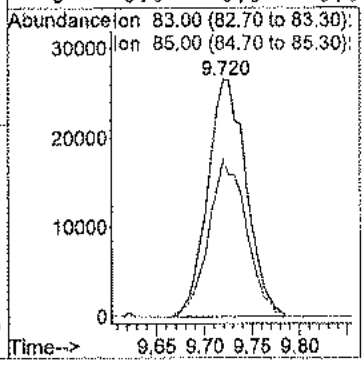


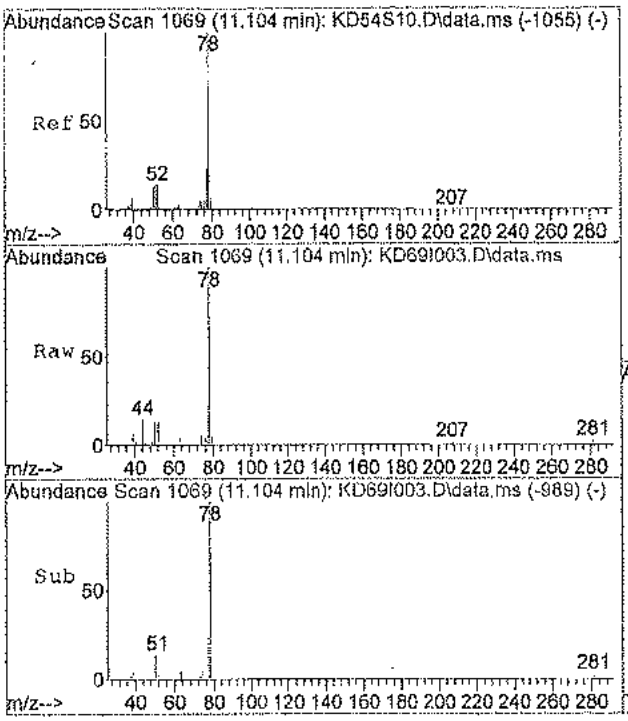


#28
Chloroform
Concen: 0.22 ppb
RT: 9.72 min Scan# 842
Delta R.T. -0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:83 Resp: 74944

Ion	Ratio	Lower	Upper
83	100		
85	64.8	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

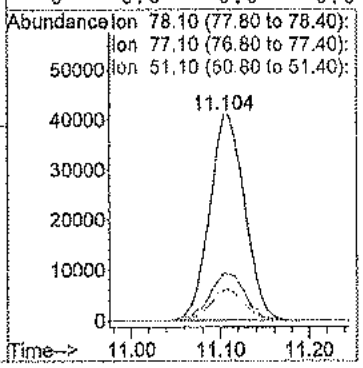


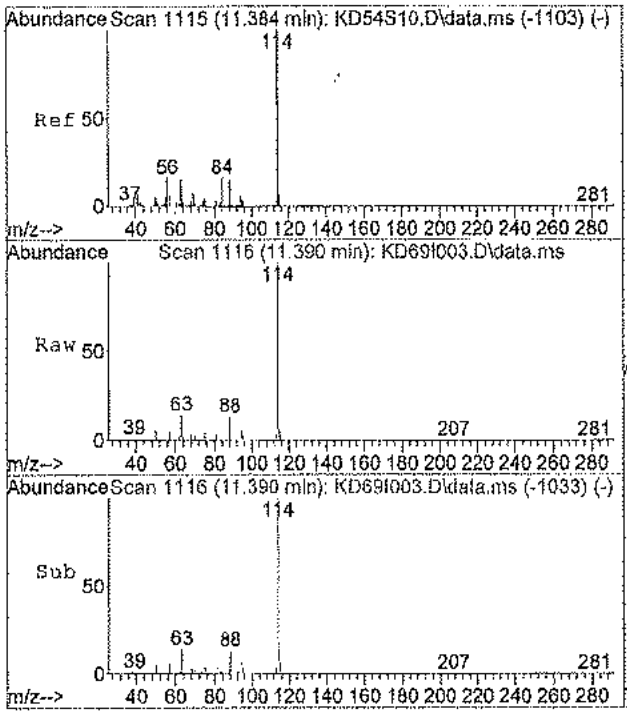


#32
Benzene
Concen: 0.36 ppb
RT: 11.10 min Scan# 1069
Delta R.T. -0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:78.1 Resp: 111202

Ion	Ratio	Lower	Upper
78	100		
77	23.3	18.2	27.4
51	14.7	9.5	14.3#
0	0.0	0.0	0.0

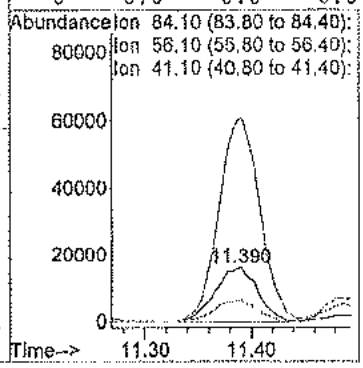


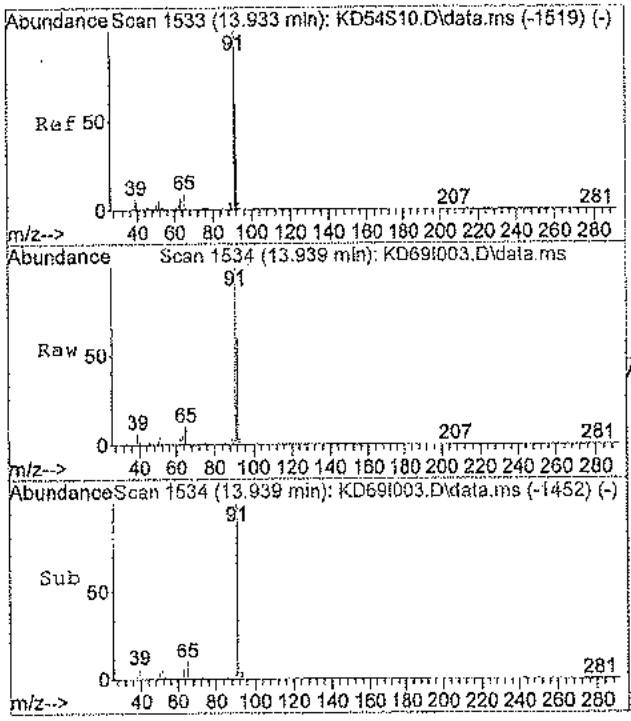


#34
Cyclohexane
Concen: 0.25 ppb
RT: 11.39 min Scan# 1116
Delta R.T. 0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:84.1 Resp: 44321

Ion	Ratio	Lower	Upper
84	100		
56	365.4	67.3	100.9#
41	40.0	30.2	45.4
0	0.0	0.0	0.0

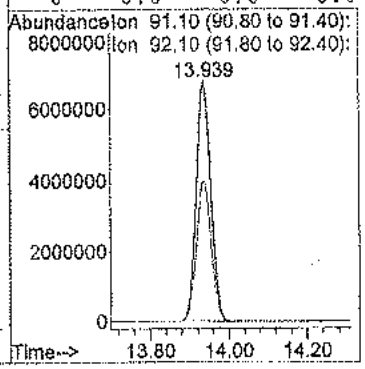


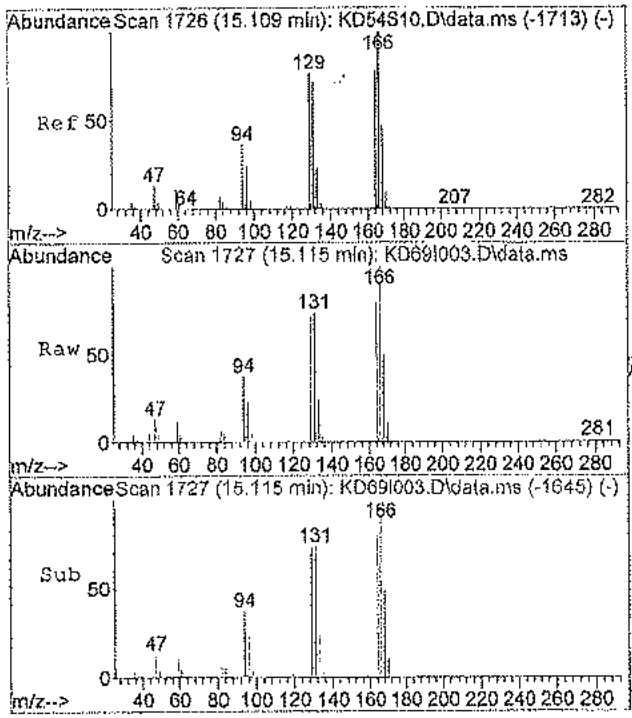


#45
Toluene
Concen: 39.72 ppb
RT: 13.94 min Scan# 1534
Delta R.T. -0.00 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:91.1 Resp:17395385

Ion	Ratio	Lower	Upper
91	100		
92	59.3	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

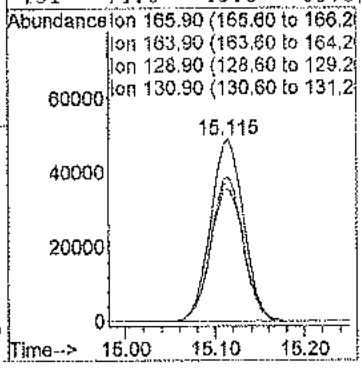


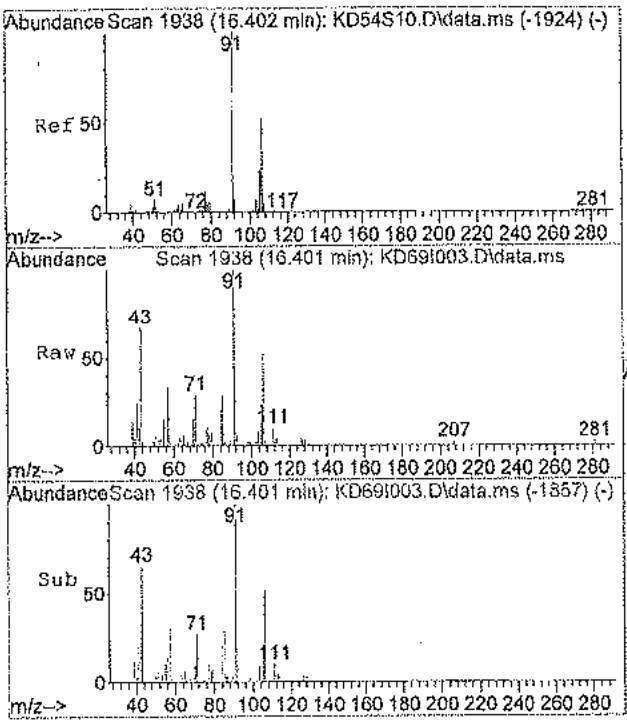


#49
Tetrachloroethene
Concen: 0.53 ppb
RT: 15.12 min Scan# 1727
Delta R.T. -0.00 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:165.9 Resp: 124381

Ion	Ratio	Lower	Upper
166	100		
164	79.8	61.0	91.4
129	75.5	45.9	68.9#
131	74.0	45.5	68.3#

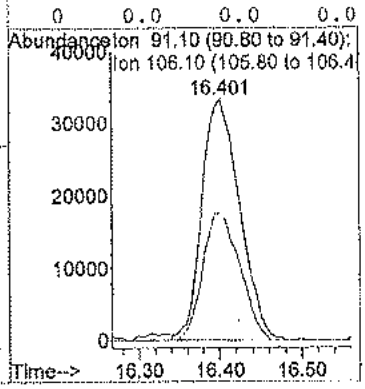




#53
m,p-Xylene
Concen: 0.19 ppb
RT: 16.40 min Scan# 1938
Delta R.T. -0.01 min
Lab File: KD69I003.D
Acq: 04/08/2015 00:40

Tgt Ion:91.1 Resp: 106774

Ion	Ratio	Lower	Upper
91	100		
106	52.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



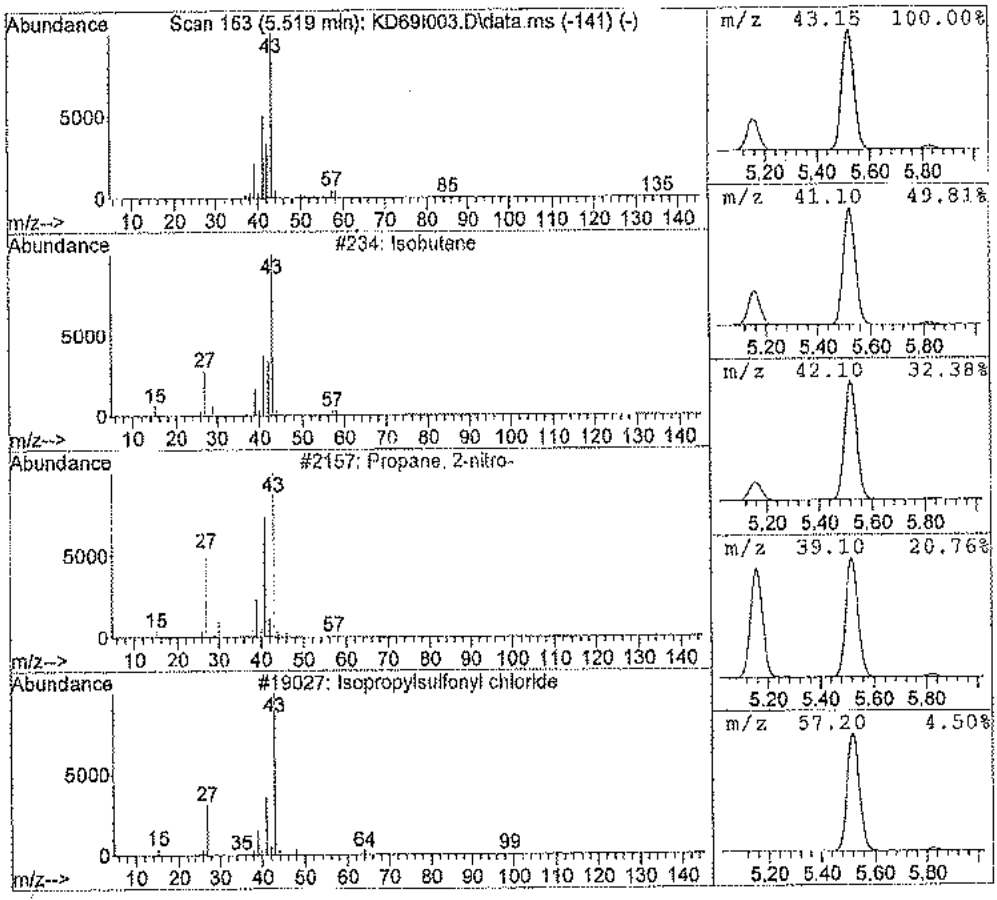
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multipir: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
5.52	56.75 ppb	33068309	Bromochloromethane	11654014

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Propane, 2-nitro-	2157	000079-46-9	9.00
3	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
4	Propane, 1-chloro-2-methyl-	2419	000513-36-0	4.00
5	5-Methyloxazolidine	1869	058328-22-6	4.00



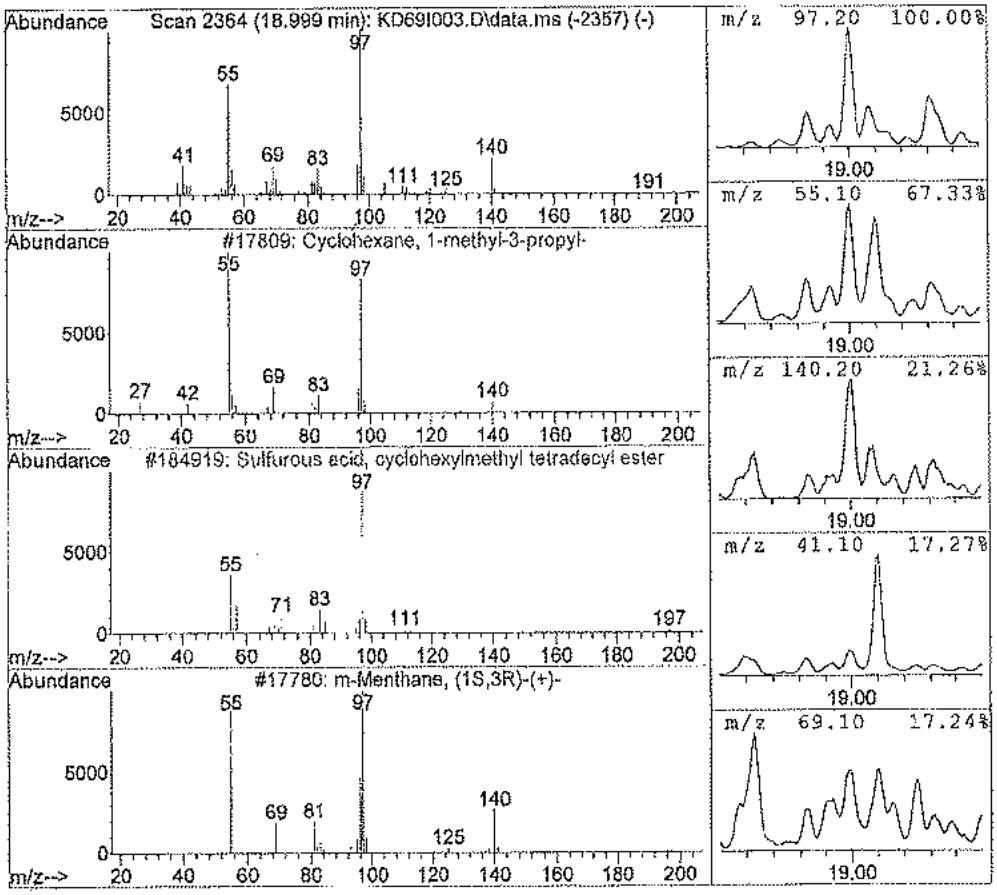
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-T0-001 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.00	2.01 ppb	2541468	Chlorobenzene d5	25283386

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane, 1-methyl-3-propyl-	17809	004291-80-9	83.00
2	Sulfurous acid, cyclohexylmethyl te	184919	1000309-22-2	72.00
3	m-Menthane, (1S,3R)-(+)-	17780	013837-66-6	72.00
4	Sulfurous acid, cyclohexylmethyl he	196393	1000309-22-4	72.00
5	Cyclohexane, 1-methyl-4-(1-methylet	17856	001678-82-6	64.00



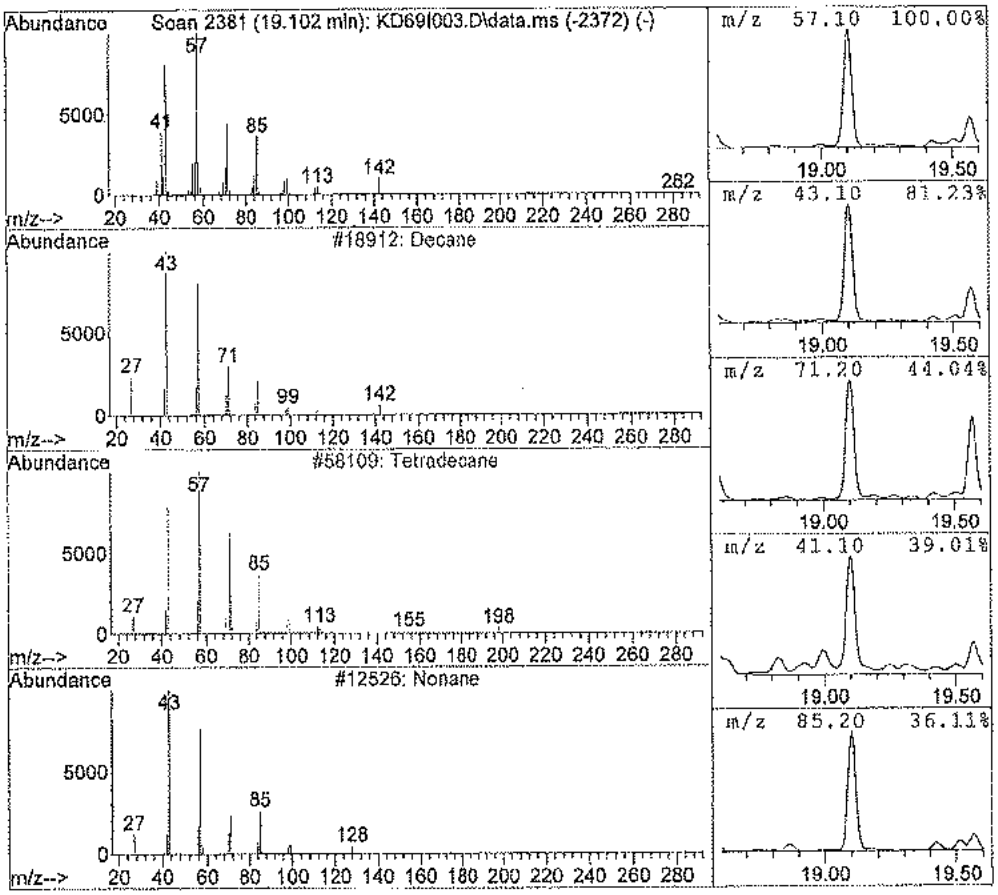
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.10	5.80 ppb	7328768	Chlorobenzene d5	25283386

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18912	000124-18-5	95.00
2	Tetradecane	58109	000629-59-4	86.00
3	Nonane	12526	000111-84-2	80.00
4	Pentadecane	68974	000629-62-9	78.00
5	Undecane, 2,7-dimethyl-	47647	017301-24-5	59.00



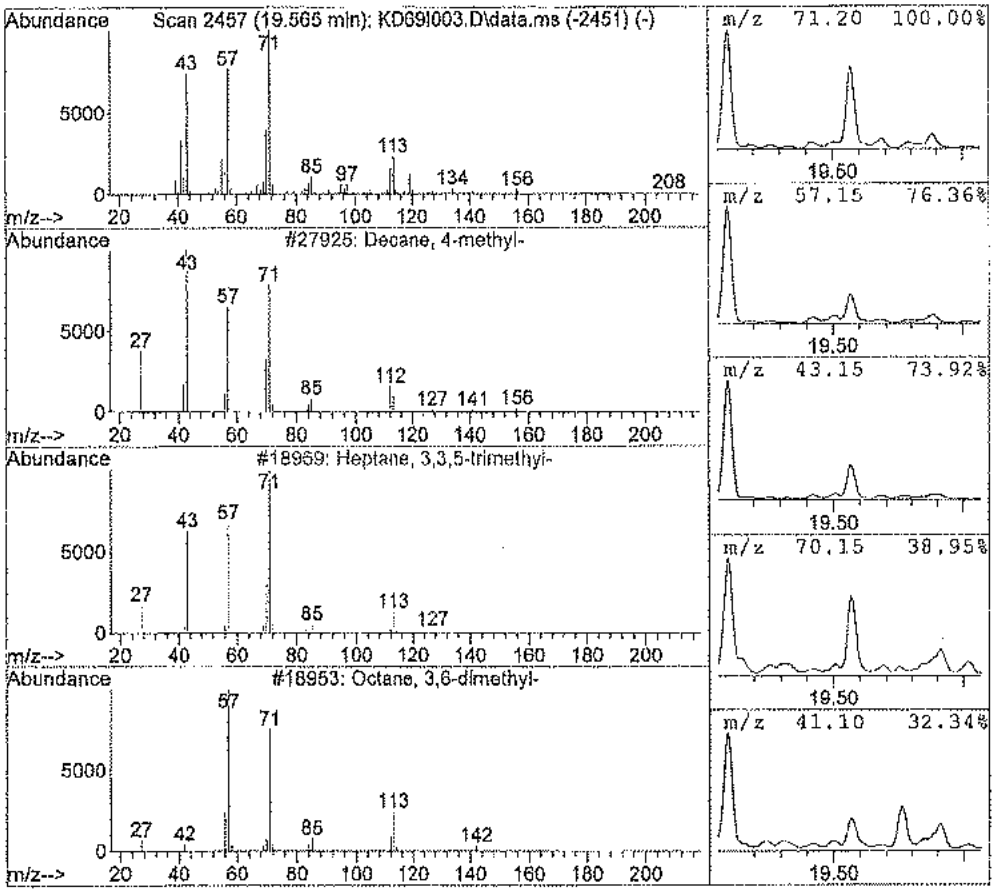
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.57	2.01 ppb	2546583	Chlorobenzene d5	25283386

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 4-methyl-	27925	002847-72-5	87.00
2	Heptane, 3,3,5-trimethyl-	18969	007154-80-5	80.00
3	Octane, 3,6-dimethyl-	18953	015869-94-0	53.00
4	Octane, 2-bromo-	53451	000557-35-7	50.00
5	Heptane, 3,3-dimethyl-	12567	004032-86-4	47.00



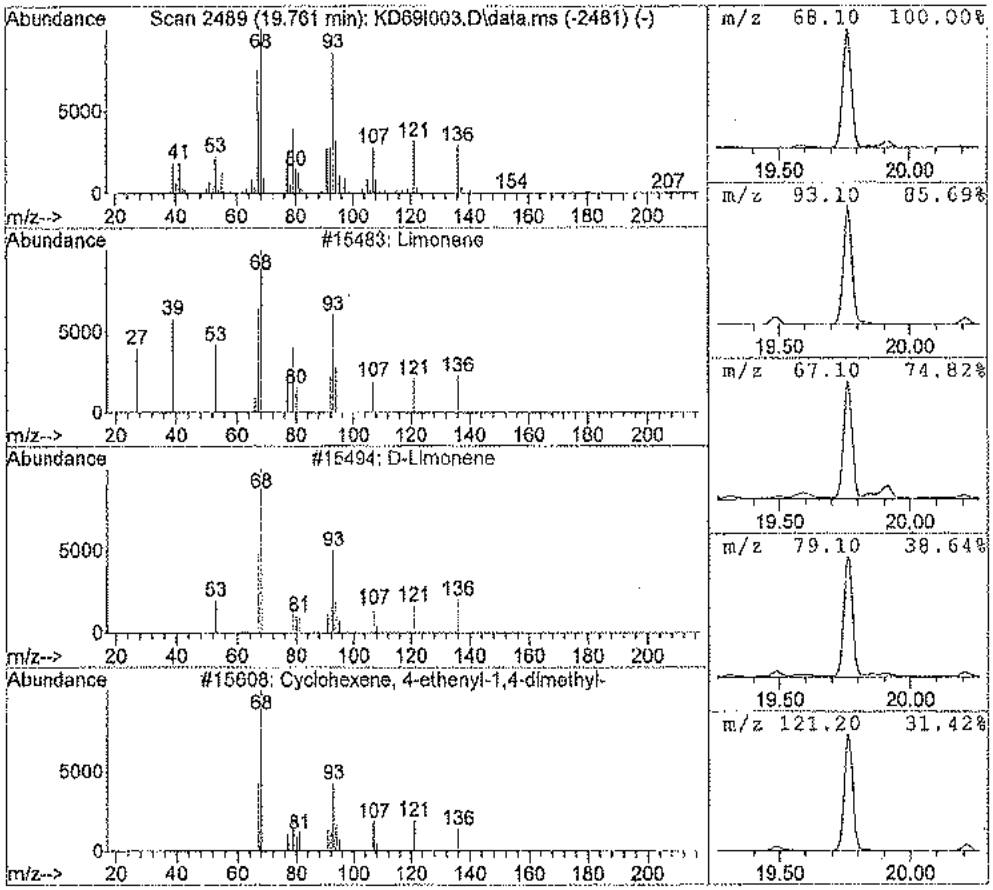
Library Search Compound Report

Data File : J:\K\2015\APR15K\07APR15K\KD69I003.D Vial: 13
Acq Time : 04/08/2015 00:40 Operator:
Sample : 1509608003 Inst : 5975-K
Misc : 0537 A-0036H-040415-TO-001 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.76	6.11 ppb	7726173	Chlorobenzene d5	25283386

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Limonene	15483	000138-86-3	91.00
2	D-Limonene	15494	005989-27-5	89.00
3	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	83.00
4	1,5-Cyclooctadiene, 1,5-dimethyl-	15593	003760-14-3	72.00
5	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	70.00



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1509661**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received one tedlar bag for VOA analysis. The sample was analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-K. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid — September 15, 2015

Date

ANALYTICAL REPORT

Report Date: April 13, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1509661**
Project ID: VA SLC CERCLA-VI Testing
Purchase Order: NA

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0037H-SG-002	1509661001	04/02/15	04/06/15	VA SLC CERCLA-VI

ANALYTICAL REPORT

Workorder: 34-1509661
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-SG-002
Lab ID: 1509661001
Matrix: Air
Sampling Site: VA SLC CERCLA-VI
Media: SKC 232-01, Tedlar Bag 1L
Sampling Parameter: NA
Collected: 04/02/2015
Received: 04/06/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 16:06
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.28	1.4	0.15	0.50	1	J
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.16	0.91	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**120**	**280**	0.30	1.0	1	E
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**2.8**	**9.6**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	**1.3**	**4.5**	0.15	0.50	1	
2-Butanone	**21**	**63**	0.15	0.50	1	E
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.94	3.4	0.15	1.0	1	J
Hexane	**53**	**190**	0.15	0.50	1	E
Chloroform	0.31	1.5	0.15	0.50	1	J
Tetrahydrofuran	**0.92**	**2.7**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.35	1.1	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.18	0.75	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	**0.73**	**3.0**	0.15	0.50	1	
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1509661
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-SG-002 | Sampling Site: VA SLC CERCLA-VI | Collected: 04/02/2015
Lab ID: 1509661001 | Media: SKC 232-01, Tedlar Bag 1L | Received: 04/06/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Batch:** IVOA/2873 (HBN: 146887) | **Analyzed:** 04/08/2015 16:06 | **Instrument ID:** 5975-K | **Percent Solid:** NA | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**13**	**49**	0.15	0.50	1	
2-Hexanone	**2.4**	**9.7**	0.30	1.0	1	
Tetrachloroethene	0.47	3.2	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.35	1.5	0.15	0.50	1	J
m,p-Xylene	**0.99**	**4.3**	0.15	0.50	1	
o-Xylene	0.39	1.7	0.15	0.50	1	J
Styrene	0.47	2.0	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	**0.58**	**2.8**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Batch:** IVOA/2873 (HBN: 146887) | **Analyzed:** 04/08/2015 16:06 | **Instrument ID:** 5975-K | **Percent Solid:** NA | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	68	6.31	1	J
Isopropyl Alcohol	160	6.98	1	J
Cyclopentane, methyl-	3.3	10.47	1	J
2-Pentanone	3.2	11.45	1	J
Heptane, 2,4-dimethyl-	3.5	15.50	1	J
2-Nonene	3.4	16.08	1	J
Phenol	5.1	18.15	1	J
1-Hexanol, 2-ethyl-	9.7	19.36	1	J
Acetic acid, phenyl ester	3.8	19.83	1	J
Decane, 3,7-dimethyl-	5.2	20.24	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1509661
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-SG-002 | Sampling Site: VA SLC CERCLA-VI | Collected: 04/02/2015
Lab ID: 1509661001 | Media: SKC 232-01, Tedlar Bag 1L | Received: 04/06/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-K
Batch: IVOA/2873 (HBN: 146887) | **Percent Solid:** NA
Analyzed: 04/08/2015 16:06 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Nonanal	3.3	20.66	1	J
Decane, 3,6-dimethyl-	6.9	20.98	1	J
Acetic acid, 2-ethylhexyl ester	11	21.41	1	J

Comments

Quality Control: EPA TO-15 - (HBN: 146887)

The following compounds in the CCV were outside of +/- 30%: Dichlorodifluoromethane, chloromethane, vinyl chloride, trichlorofluoromethane, acetone and 1,2-dichloroethane.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Jorden Baum 04/13/2015 10:04	/S/ Lisa M. Reid 04/13/2015 14:04

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: 34-1509661
Client: First Environment
Project Manager: Kevin W. Griffiths

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1509661**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2873 (HBN: 146887)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 442017
Analyzed: 04/08/2015 15:22

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	0.231	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509661

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2873 (HBN: 146887)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 442017
Analyzed: 04/08/2015 15:22
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442015
Analyzed: 04/08/2015 13:04
Dilution: 1
Units: ppb

LCSD: 442016
Analyzed: 04/08/2015 13:49
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	6.09	10.0	60.9	59.3	135.1	6.09	60.9	0.0723	0.0	25.0
Chloromethane	6.99	10.0	69.9	55.2	137.4	6.92	69.2	0.929	0.0	25.0
Freon 114	6.81	10.0	68.1	64.6	128.0	6.84	68.4	0.393	0.0	25.0
Vinyl chloride	7.42	10.0	74.2	61.8	132.3	7.33	73.3	1.21	0.0	25.0
1,3-Butadiene	7.42	10.0	74.2	58.0	138.3	7.30	73.0	1.54	0.0	25.0
Bromomethane	7.30	10.0	73.0	63.3	129.9	7.23	72.3	1.06	0.0	25.0
Chloroethane	9.17	10.0	91.7	57.6	137.1	9.33	93.3	1.65	0.0	25.0
Freon 11	6.86	10.0	68.6	58.9	132.8	6.84	68.4	0.264	0.0	25.0
Freon 113	10.4	10.0	104	68.5	120.0	10.3	103	0.559	0.0	25.0
1,1-Dichloroethene	8.99	10.0	89.9	67.2	125.1	8.98	89.8	0.164	0.0	25.0
Acetone	6.51	10.0	65.1	42.5	146.0	6.53	65.3	0.390	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509661

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2873 (HBN: 146887)
Analyzed By: Jorden Baum

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442015
Analyzed: 04/08/2015 13:04
Dilution: 1
Units: ppb

LCSD: 442016
Analyzed: 04/08/2015 13:49
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	10.9	10.0	109	63.9	128.8	10.8	108	0.396	0.0	25.0
Methylene chloride	9.20	10.0	92.0	63.7	127.9	9.14	91.4	0.588	0.0	25.0
trans-1,2-Dichloroethene	12.2	10.0	122	68.1	124.6	12.1	121	0.107	0.0	25.0
Methyl t-butyl ether	11.1	10.0	111	60.8	138.0	11.1	111	0.550	0.0	25.0
Vinyl acetate	12.7	10.0	127	59.3	141.1	12.5	125	1.98	0.0	25.0
2-Butanone	9.17	10.0	91.7	51.7	144.2	9.16	91.6	0.184	0.0	25.0
cis-1,2-Dichloroethene	12.5	10.0	* 125	69.8	124.3	12.5	* 125	0.144	0.0	25.0
1,1-Dichloroethane	9.58	10.0	95.8	67.7	123.6	9.58	95.8	0.0020	0.0	25.0
Ethyl acetate	10.9	10.0	109	53.4	156.9	10.6	106	2.63	0.0	25.0
Hexane	10.8	10.0	108	62.4	129.5	10.7	107	1.50	0.0	25.0
Chloroform	8.23	10.0	82.3	67.3	121.8	8.15	81.5	0.980	0.0	25.0
Tetrahydrofuran	10.6	10.0	106	50.6	155.3	10.5	105	0.522	0.0	25.0
1,2-Dichloroethane	6.86	10.0	68.6	62.4	130.5	6.81	68.1	0.737	0.0	25.0
1,1,1-Trichloroethane	7.94	10.0	79.4	60.4	127.7	7.93	79.3	0.0353	0.0	25.0
Carbon tetrachloride	7.60	10.0	76.0	58.2	130.6	7.60	76.0	0.0078	0.0	25.0
Benzene	12.4	10.0	124	64.1	127.3	12.2	122	1.46	0.0	25.0
Cyclohexane	10.0	10.0	100	61.9	123.6	10.0	100	0.200	0.0	25.0
Trichloroethene	11.6	10.0	116	62.4	126.8	11.6	116	0.0863	0.0	25.0
1,2-Dichloropropane	11.5	10.0	115	60.7	130.6	11.5	115	0.399	0.0	25.0
Bromodichloromethane	8.47	10.0	84.7	62.9	128.3	8.50	85.0	0.371	0.0	25.0
Heptane	11.9	10.0	119	59.5	133.4	12.0	120	0.778	0.0	25.0
cis-1,3-Dichloropropene	11.7	10.0	117	64.1	133.6	11.8	118	1.00	0.0	25.0
4-Methyl-2-pentanone	9.41	10.0	94.1	73.5	150.0	9.44	94.4	0.294	0.0	25.0
trans-1,3-Dichloropropene	11.0	10.0	110	78.5	148.7	11.2	112	1.56	0.0	25.0
1,1,2-Trichloroethane	10.4	10.0	104	65.0	126.6	10.5	105	0.934	0.0	25.0
Toluene	12.3	10.0	123	75.6	139.4	12.3	123	0.350	0.0	25.0
2-Hexanone	9.97	10.0	99.7	80.8	158.8	9.89	98.9	0.808	0.0	25.0
Tetrachloroethene	12.4	10.0	124	60.7	126.6	12.3	123	0.650	0.0	25.0
Dibromochloromethane	9.49	10.0	94.9	62.4	130.9	9.52	95.2	0.293	0.0	25.0
1,2-Dibromoethane	10.7	10.0	107	64.4	129.0	10.8	108	0.298	0.0	25.0
Chlorobenzene	10.1	10.0	101	62.8	126.9	10.2	102	0.551	0.0	25.0
Ethyl benzene	11.4	10.0	114	75.9	148.5	11.4	114	0.422	0.0	25.0
m,p-Xylene	19.5	20.0	97.4	73.7	144.9	19.5	97.5	0.0924	0.0	25.0
o-Xylene	9.55	10.0	95.5	74.7	147.4	9.53	95.3	0.181	0.0	25.0
Styrene	13.0	10.0	130	75.9	158.1	13.2	132	1.24	0.0	25.0
Bromoform	10.2	10.0	102	59.7	136.0	10.2	102	0.401	0.0	25.0
1,1,2,2-Tetrachloroethane	9.11	10.0	91.1	59.3	134.8	9.08	90.8	0.435	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509661

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2873 (HBN: 146887)		
Analyzed By:	Jorden Baum		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 442015	LCSD: 442016
Analyzed:	04/08/2015 13:04	04/08/2015 13:49
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	11.0	10.0	110	69.0	163.3	11.0	110	0.537	0.0	25.0
1,3,5-Trimethylbenzene	9.79	10.0	97.9	64.2	155.1	9.71	97.1	0.800	0.0	25.0
1,2,4-Trimethylbenzene	11.1	10.0	111	59.7	169.4	11.0	110	0.471	0.0	25.0
1,3-Dichlorobenzene	9.53	10.0	95.3	58.6	157.6	9.47	94.7	0.612	0.0	25.0
1,4-Dichlorobenzene	9.87	10.0	98.7	57.7	137.2	9.81	98.1	0.607	0.0	25.0
Benzyl chloride	10.8	10.0	108	60.1	182.5	10.8	108	0.204	0.0	25.0
1,2-Dichlorobenzene	10.4	10.0	104	56.5	140.0	10.4	104	0.240	0.0	25.0
1,2,4-Trichlorobenzene	13.5	10.0	135	0.0	235.7	13.5	135	0.148	0.0	25.0
Hexachlorobutadiene	7.97	10.0	79.7	25.3	155.9	8.08	80.8	1.31	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
442015-LCS	16.7	20.0	83.6
442016-LCSD	16.9	20.0	84.7
442017-MB	16.3	20.0	81.4
1509661001	17.5	20.0	87.7
1509795001	16.8	20.0	84.0
1509795002	17.1	20.0	85.6
1509795003	16.9	20.0	84.4
1509795004	17.1	20.0	85.5

Comments

The following compounds in the CCV were outside of +/- 30%: Dichlorodifluoromethane, chloromethane, vinyl chloride, trichlorofluoromethane, acetone and 1,2-dichloroethane.

QC Data Approved and Reviewed by

Jorden Baum	Lisa M. Reid	4/13/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◆ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1509661

1509661

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton St, Boonton, NJ 07005
Person to Contact Ed Reid
Telephone 973 334-0003 / Cell - 678-787-2295
Fax Telephone 973 334-1928
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site VA SLC CERCLA - VI Testing
Industrial Process NA
Date of Collection 04/02/15 –
Time Collected multiple
Date of Shipment 4/ /15
Chain of Custody No. NA

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-00028-S-040215-TO-001	Air	6L Summa	TO-15	5	0379
A-00371-040305-SG-001	Air	"	TO-15	5	0119
A-00361-040415-TO-001	Air	"	TO-15	5	0537
A-00371-SG-002	Air	1 Utility Tedlar	TO-15	5	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards low levels - PCE, TCE, cis 1,2-DCE, VC

7. Chain of Custody (Optional)

Relinquished by		Date/Time	4/ /15 –
Received by	Desiree Hall	Date/Time	4/6/15 8:33
Relinquished by		Date/Time	
Received by		Date/Time	

Batch Worklist

Batch: IVOA/ 2873 | Created: 4/13/2015 09:47 | Instrument: 5975-K | HBN: 146887

Rule: EPA TO-15, Air | Analyst: L. Reid | Status: WP

Workorder: 1509661

Workorder: 1509795

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442015	LCS for HBN 146887 (IVOA/2873)				LCS	1		ETO15...1Q			6/12/2015	4/8/2015
2	442016	LCSD for HBN 146887 (IVOA/2873				LCSD	1		ETO15...1Q			6/12/2015	4/8/2015
3	441980	RLVS for HBN 146887 (IVOA/2873				RLVS	1		ETO15...1Q	5320		4/13/2015	4/8/2015
4	442017	MB for HBN 146887 (IVOA/2873)				MB	1		ETO15...1Q			6/12/2015	4/8/2015
5	1509661001	A-0037H-SG-002				SAMPLE	1	1509661001-A	ETO15....1	5480		4/13/2015	4/8/2015
	* E Result exceeds calibration range												
6	1509795001	A0037H-040715-TO-001-LAU				SAMPLE	1	1509795001-A	ETO15....1	5480		4/14/2015	4/8/2015
7	1509795002	A0037H-040715-TO-002-BR2				SAMPLE	1	1509795002-A	ETO15....1	5480		4/14/2015	4/8/2015
8	1509795003	A0037H-040715-TO-003-BAS				SAMPLE	1	1509795003-A	ETO15....1	5480		4/14/2015	4/8/2015
9	1509795004	A00225-040715-TO-001-CAFE				SAMPLE	1	1509795004-A	ETO15....1	5480		4/14/2015	4/8/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	KD73S10	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		868736	11369418	9770945
	Upper Limit	1216230	15917185	13679323
	Lower limit	521242	6821651	5862567

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	KD76BLK	794432	10544084	8873735
QC-	KD73S10	868736	11369418	9770945
QD-	KD74S10	864512	11351211	960028
A-0037H-SG-002	FEI1509661001	791616	9752444	8722531

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD73S10	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		9.61	11.39	15.77
	Upper Limit	10.11	11.89	16.27
	Lower limit	9.11	10.89	15.27

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	KD76BLK	9.61	11.39	15.78
QC-	KD73S10	9.61	11.39	15.77
QD-	KD74S10	9.61	11.39	15.77
A-0037H-SG-002	FEI1509661001	9.62	11.40	15.77

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Analyst Notebook

146887

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is TO15KC15.M (HBN 146582)

The following compounds in the CCS were outside of +-30%: Dichlorodifluoromethane
Chloromethane
Vinyl Chloride
Trichlorofluoromethane
Acetone
1,2-Dichloroethane

for 1509795005 see 146913

Analyst Signature: JCB
Jordan Baum
04-12-15

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
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Response Factor Report 5975-K

HBN 146582

Method Path : J:\K\METHODS\
Method File : TO15KC15.m
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response Via : Initial Calibration

Calibration Files
.5 =KD11S05.D 1 =KD10S1.D 2 =KD09S2.D 5 =KD08S5.D 10 =KD07S10.D 20 =KD06S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	1.555	1.785	1.688	1.842	1.886	1.727	1.747		6.80	TIC
3)		Dichlorodifluo...	1.173	1.261	1.151	1.233	1.276	1.294	1.231	E1	4.66	
4)		Chloromethane	2.256	2.244	2.094	2.182	2.220	2.105	2.183		3.20	
5)		Freon 114	9.065	9.757	8.863	9.562	9.803	9.750	9.467		4.26	
6)		Vinyl Chloride	2.828	2.996	2.613	2.828	2.850	2.768	2.814		4.42	
7)		1,3-Butadiene	2.110	2.137	1.796	1.999	2.078	2.022	2.024		6.09	
8)		Bromomethane	3.349	3.676	3.055	3.324	3.380	3.339	3.354		5.89	
9)		Chloroethane	1.466	1.522	1.279	1.416	1.400	1.263	1.391		7.38	
10)		Acrolein	0.351	0.818	0.786	0.875	0.918	0.891	0.773		27.49	TIC
11)		Acetone	5.806	5.678	5.023	5.166	5.109	5.164	5.324		6.20	
12)		Trichlorofluor...	1.261	1.320	1.167	1.299	1.329	1.377	1.292	E1	5.59	
13)		Ethanol	0.805	0.875	0.779	0.824	0.822	0.715	0.803		6.68	TIC
14)		Isopropyl Alcohol	3.462	3.775	3.812	4.373	4.467	4.181	4.012		9.75	TIC
15)		1,1-Dichloroet...	3.623	4.258	4.055	4.774	4.960	5.040	4.452		12.67	
16)		Methylene Chlo...	3.601	3.313	2.658	2.798	2.668	2.544	2.930		14.52	
17)		Freon 113	5.560	6.119	5.726	6.086	6.115	5.918	5.921		3.94	
18)		Carbon Disulfide	6.661	7.192	6.787	7.398	7.452	7.094	7.097		4.51	
19)		trans-1,2-Dich...	2.330	2.654	2.618	2.942	3.001	2.901	2.741		9.31	
20)		1,1-Dichloroet...	4.432	4.955	4.602	5.094	5.122	5.124	4.888		6.11	
21)		methyl t-butyl...	5.295	6.625	7.504	8.442	8.754	8.862	7.580		18.57	
22)		Vinyl Acetate	0.455	0.606	0.690	0.739	0.739	0.765	0.666		17.65	
23)		2-Butanone	3.877	4.590	5.037	5.406	5.543	5.713	5.028		13.76	
24)		cis-1,2-Dichlo...	2.234	2.570	2.478	2.982	3.086	3.155	2.751		13.63	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.055	0.062	0.065	0.065	0.067	0.063	0.063		6.54	
27)		Hexane	0.224	0.264	0.258	0.292	0.301	0.302	0.274		11.13	
28)		Chloroform	0.558	0.616	0.566	0.611	0.614	0.649	0.602		5.70	
29)		Tetrahydrofuran	0.128	0.158	0.187	0.206	0.214	0.218	0.185		19.24	
30)		1,2-Dichloroet...	0.383	0.425	0.386	0.420	0.429	0.470	0.419		7.69	

Method Path : J:\K\METHODS\
Method File : TO15KC15.m

31)		1,1,1-Trichlor...	0.639	0.719	0.649	0.732	0.745	0.808	0.715	8.86	
32)		Benzene	0.447	0.549	0.504	0.590	0.604	0.621	0.553	12.08	
33)		Carbon Tetrach...	0.758	0.854	0.766	0.853	0.879	0.957	0.845	8.78	
34)		Cyclohexane	0.365	0.345	0.290	0.304	0.303	0.303	0.318	9.21	
35)		1,2-Dichloropr...	0.165	0.191	0.183	0.198	0.205	0.208	0.191	8.36	
36)		Bromodichlorom...	0.545	0.628	0.589	0.636	0.664	0.720	0.630	9.57	
37)		1,4-Dioxane	0.086	0.117	0.133	0.154	0.160	0.150	0.133	21.09	TIC
38)		Trichloroethene	0.292	0.357	0.353	0.394	0.399	0.409	0.367	11.85	
39)		Methyl Methacr...	0.136	0.181	0.210	0.237	0.247	0.253	0.211	21.43	TIC
40)		Heptane	0.138	0.190	0.191	0.222	0.231	0.244	0.203	18.91	
41)		cis-1,3-Dichlo...	0.242	0.292	0.325	0.371	0.409	0.441	0.347	21.49	
42)		4-Methyl-2-Pen...	0.296	0.412	0.495	0.541	0.557	0.577	0.480	22.39	
43)		trans-1,3-Dich...	0.236	0.283	0.309	0.366	0.420	0.466	0.347	24.97	
44)		1,1,2-Trichlor...	0.273	0.306	0.297	0.297	0.309	0.325	0.301	5.72	
45)		Toluene	0.501	0.669	0.734	0.835	0.914	0.988	0.774	22.83	
46)		2-Hexanone	0.234	0.335	0.427	0.501	0.529	0.570	0.433	29.62	
47)		Dibromochlorom...	0.577	0.676	0.659	0.683	0.745	0.831	0.695	12.33	
48)		1,2-Dibromoethane	0.393	0.456	0.466	0.495	0.538	0.586	0.489	13.79	
49)		Tetrachloroethene	0.336	0.393	0.383	0.424	0.456	0.496	0.415	13.64	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.941	0.987	0.937	0.928	0.960	0.979	0.955	2.50	
52)		Ethylbenzene	0.812	1.040	1.186	1.397	1.507	1.621	1.260	24.18	
53)		m,p-Xylene	0.759	1.089	1.133	1.233	1.281	1.374	1.145	18.78	
54)		Bromoform	0.541	0.611	0.589	0.649	0.685	0.743	0.636	11.32	
55)		Styrene	0.366	0.498	0.611	0.776	0.865	0.941	0.676	32.93	
56)		1,1,2,2-Tetrac...	0.698	0.761	0.679	0.705	0.704	0.719	0.711	3.90	
57)		o-Xylene	0.758	1.106	1.166	1.270	1.316	1.415	1.172	19.66	
58)	S	Bromofluoroben...	0.698	0.691	0.691	0.693	0.704	0.744	0.704	2.92	
59)		4-Ethyl Toluene		0.907	1.104	1.497	1.636	1.812	1.391	27.01	
60)		1,3,5-Trimethy...	0.759	1.282	1.312	1.477	1.528	1.635	1.332	23.32	
61)		1,2,4-Trimethy...	0.579	0.921	0.976	1.297	1.400	1.546	1.120	32.05	
62)		Benzyl Chloride	0.546	0.741	0.699	0.905	1.016	1.176	0.847	27.10	TIC
63)		m-Dichlorobenzene	0.750	0.937	0.831	0.898	0.926	0.994	0.889	9.71	
64)		p-Dichlorobenzene	0.639	0.826	0.770	0.849	0.869	0.948	0.817	12.84	
65)		o-Dichlorobenzene	0.592	0.722	0.632	0.739	0.775	0.851	0.719	13.13	
66)		1,2,4-Trichlor...		0.209	0.142	0.206	0.263	0.321	0.228	29.46	TIC
67)		Naphthalene		0.421	0.287	0.613	0.806	0.936	0.612	43.54	TIC
68)		Hexachloro-1,3...	0.367	0.429	0.215	0.253	0.261	0.278	0.301	26.83	TIC

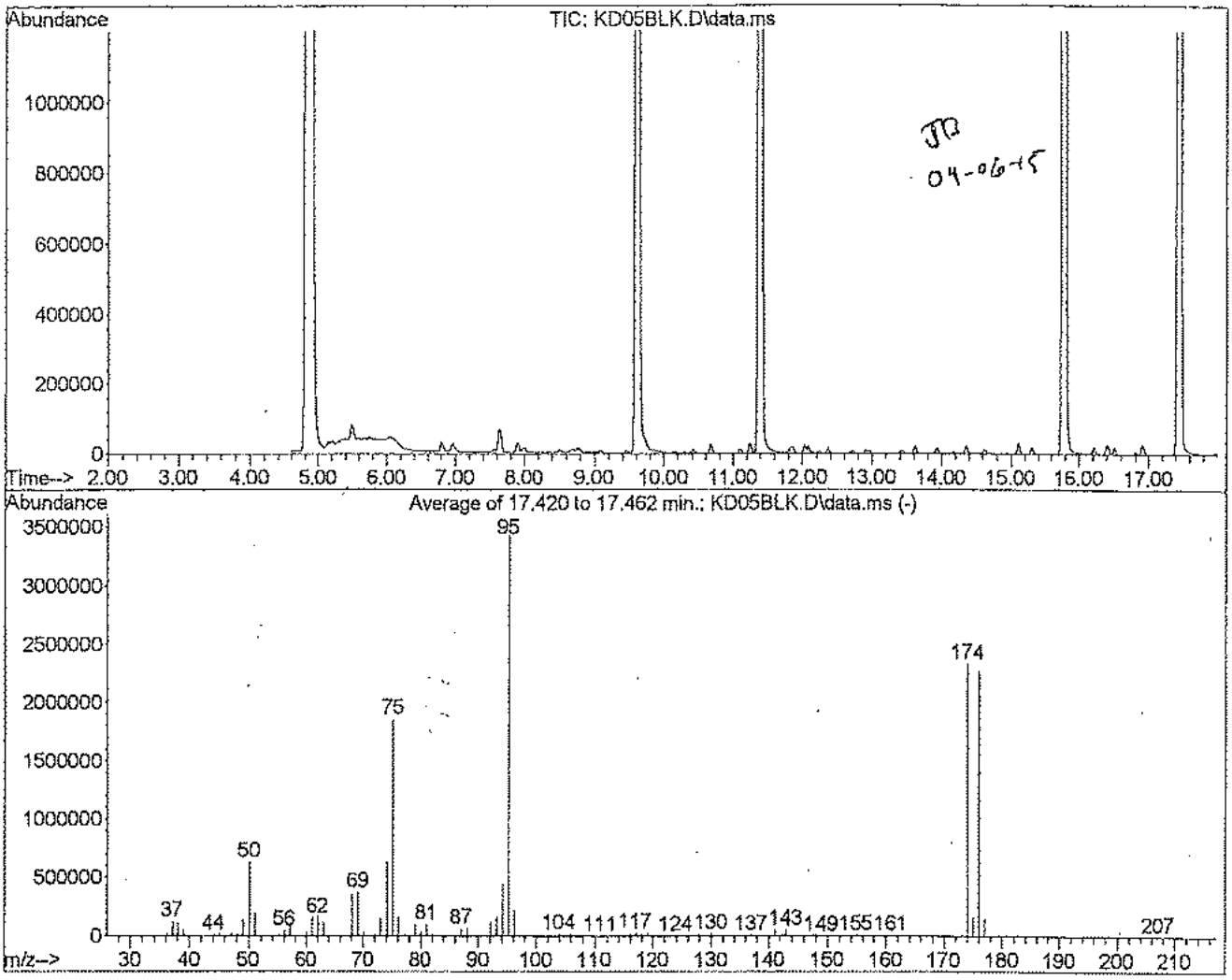
(#) = Out of Range

BFB

Data File : J:\K\2015\APR15K\03APR15K\KD05BLK.D
Acq Time : 04/03/2015 11:53
Sample : TEST BLANK
Misc : 107IS31245
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : 5975-K
Multiplr: 1.00

Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15



Peak Apex is scan: Average of 17.420 to 17.462 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.32	628631	PASS
75	95	30	66	54.19	1859093	PASS
95	95	100	100	100.00	3430518	PASS
96	95	5	9	6.32	216673	PASS
173	174	0.00	2	0.57	13240	PASS
174	95	50	120	68.20	2339547	PASS
175	174	5	9	6.89	161180	PASS
176	174	93	101	96.89	2266717	PASS
177	176	5	9	6.33	143399	PASS

Average of 17.420 to 17.462 min.: KD05BLK.D\data.ms
TEST BLANK
Modified:subtracted

m/z	Abundance
36.10	22523.0
37.10	128019.0
38.10	116333.0
39.10	46598.0
40.10	1474.0
43.10	985.0
44.10	14181.0
45.10	25125.0
46.00	464.0
46.20	1180.0
47.10	20343.0
48.10	17747.0
49.05	131375.0
50.10	628631.0
51.05	194805.0
52.10	8810.0
53.10	610.0
54.10	215.0
55.05	7622.0
56.10	48078.0
57.05	87357.0
58.05	3086.0
59.05	216.0
60.10	28554.0
61.05	158789.0
62.05	159272.0
63.10	120102.0
64.10	11358.0
65.15	3029.0
65.90	45.0
66.15	419.0
67.10	7828.0
68.05	355666.0
69.10	372046.0
70.10	25664.0
71.10	755.0
72.05	17781.0
73.05	155752.0
74.10	632503.0
75.10	1859093.0
76.05	155614.0
77.10	13437.0
78.05	6495.0
79.00	91573.0
80.00	26504.0
81.00	98777.0
82.00	19107.0
83.05	2141.0
84.00	58.0
86.05	1680.0
87.05	65313.0
88.00	62328.0
89.90	48.0
91.00	12865.0
92.05	116616.0
93.10	163261.0
94.10	443953.0
95.10	3430518.0
96.10	216673.0
97.10	6391.0
98.00	44.0
102.95	1575.0
104.00	16697.0
105.00	5482.0
106.00	16542.0
106.95	3808.0
110.00	2200.0
110.95	3370.0
111.95	2681.0
113.00	3391.0
115.00	4136.0
116.00	14741.0
117.00	26209.0
117.95	15680.0
119.00	21183.0
119.95	799.0
121.95	1009.0
123.00	1138.0
123.95	2608.0
124.95	1271.0
125.95	1590.0
126.95	1294.0
128.00	15830.0
129.00	7599.0
130.00	15860.0
130.95	6294.0
132.00	750.0

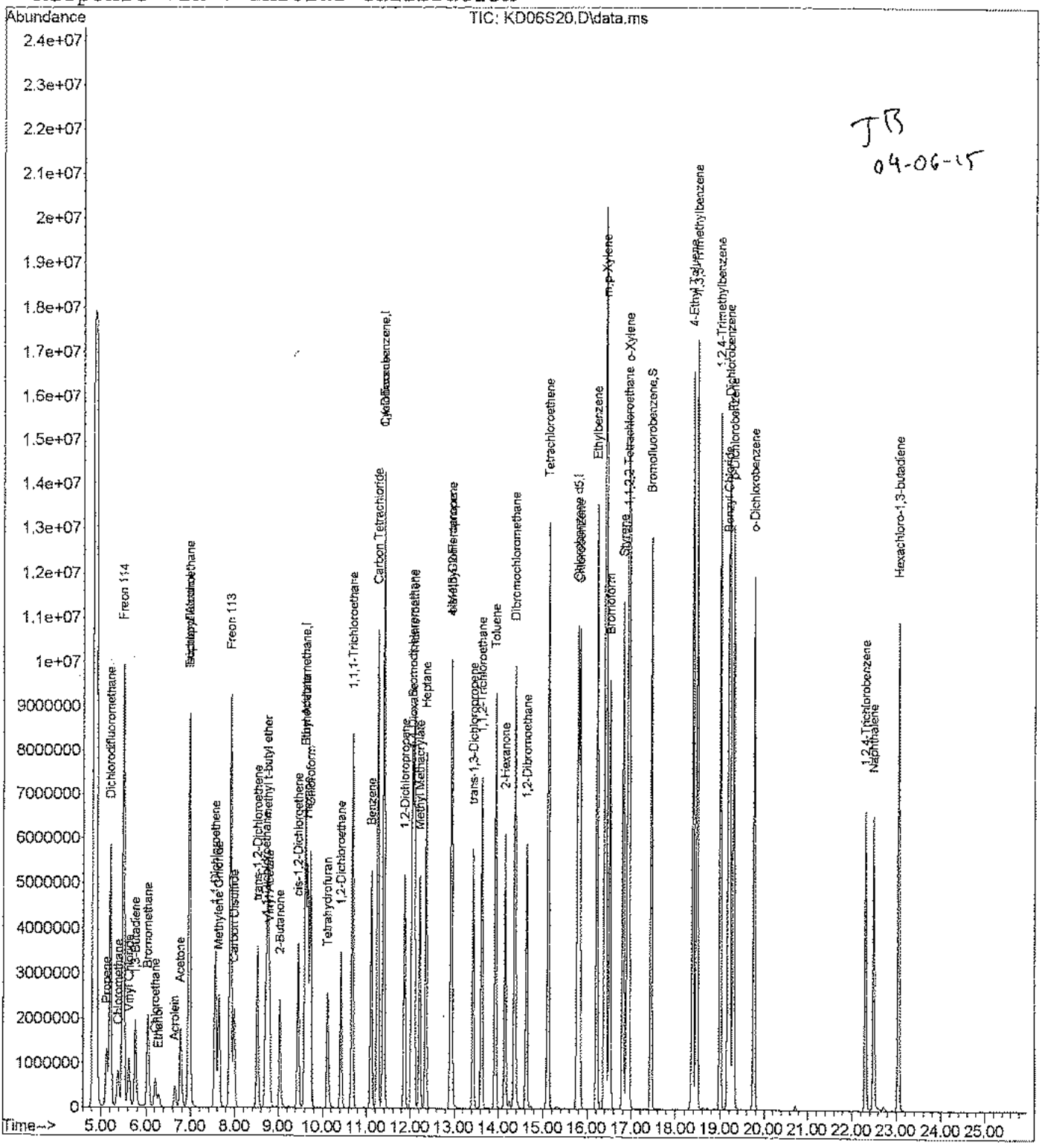
133.95	1179.0
135.00	7892.0
135.95	1344.0
137.00	8206.0
138.00	105.0
138.95	1648.0
139.95	3129.0
141.00	54037.0
142.00	5771.0
143.00	54716.0
144.00	3331.0
145.00	4680.0
146.00	5824.0
146.95	2804.0
148.00	10834.0
148.95	2518.0
150.00	4633.0
150.95	292.0
151.90	117.0
152.05	1726.0
153.05	2665.0
153.95	2684.0
155.00	9997.0
155.95	1399.0
157.00	6843.0
157.95	761.0
159.00	5662.0
160.00	430.0
160.95	5887.0
161.95	270.0
171.05	96.0
171.30	50.0
172.05	3245.0
173.05	13240.0
174.00	2339547.0
174.95	161180.0
176.00	2266717.0
177.00	143399.0
178.05	3774.0
207.15	347.0

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 10:40:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	750080	20.0000	ppb		74.44
25) 1,4-Difluorobenzene	11.39	114	9930623	20.0000	ppb		77.89
50) Chlorobenzene d5	15.77	117	8985663	20.0000	ppb		86.20
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6687341	25.6539	ppb		128.27%
Target Compounds							Qvalue
2) Propene	5.13	41	1295313	22.2578	ppb	#	89
3) Dichlorodifluoromethane	5.21	85	9703521	31.9325	ppb		99
4) Chloromethane	5.38	50	1578805	27.3352	ppb		99
5) Freon 114	5.49	135	7313241	29.1472	ppb		89
6) Vinyl Chloride	5.62	62	2076589	26.5260	ppb		97
7) 1,3-Butadiene	5.76	54	1516327	27.7273	ppb	#	69
8) Bromomethane	6.04	94	2504440	26.7276	ppb		99
9) Chloroethane	6.21	64	947096	20.0976	ppb	#	90
10) Acrolein	6.65	56	668209	20.6442	ppb		96
11) Acetone	6.77	43	3873335	26.2613	ppb	#	76
12) Trichlorofluoromethane	6.96	101	10329271	27.7153	ppb		100
13) Ethanol	6.28	45	536141	18.6960	ppb	#	82
14) Isopropyl Alcohol	6.96	45	3136418	21.0753	ppb	#	86
15) 1,1-Dichloroethene	7.56	61	3780234	23.5261	ppb	#	68
16) Methylene Chloride	7.63	84	1908290	19.0593	ppb	#	73
17) Freon 113	7.90	151	4439221	19.1814	ppb	#	65
18) Carbon Disulfide	7.98	76	5321102	19.5281	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	2176109	17.9972	ppb	#	74
20) 1,1-Dichloroethane	8.70	63	3843057	21.2869	ppb		99
21) methyl t-butyl ether	8.74	73	6647380	20.1036	ppb		98
22) Vinyl Acetate	8.79	86	573539	18.6428	ppb	#	1
23) 2-Butanone	9.02	43	4284971	25.1430	ppb	#	74
24) cis-1,2-Dichloroethene	9.45	96	2366504	18.8428	ppb	#	74
26) Ethyl Acetate	9.61	61	630291	19.8079	ppb	#	1
27) Hexane	9.66	57	2997413	19.7433	ppb	#	44
28) Chloroform	9.72	83	6449910	24.0110	ppb		98
29) Tetrahydrofuran	10.11	42	2160194	22.7692	ppb	#	75
30) 1,2-Dichloroethane	10.41	62	4668691	27.6892	ppb		95
31) 1,1,1-Trichloroethane	10.68	97	8021763	25.1596	ppb	#	96
32) Benzene	11.10	78	6168281	18.1227	ppb	#	91
33) Carbon Tetrachloride	11.25	117	9502007	26.0649	ppb		99
34) Cyclohexane	11.38	84	3008012	17.8630	ppb	#	65
35) 1,2-Dichloropropane	11.87	63	2064179	18.3333	ppb	#	81

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 10:40:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	7148037	25.6764	ppb		99
37)	1,4-Dioxane	12.06	88	1494339	19.4467	ppb	#	90
38)	Trichloroethene	12.09	130	4060572	19.1453	ppb	#	90
39)	Methyl Methacrylate	12.22	69	2512968	21.4870	ppb	#	84
40)	Heptane	12.36	71	2418881	19.5868	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	4382818	22.1276	ppb		94
42)	4-Methyl-2-Pentanone	12.93	43	5728297	27.5240	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	4623655	24.9945	ppb	#	90
44)	1,1,2-Trichloroethane	13.62	97	3223167	21.0346	ppb	#	87
45)	Toluene	13.93	91	9808660	20.9115	ppb		96
46)	2-Hexanone	14.14	43	5657471	31.6263	ppb	#	77
47)	Dibromochloromethane	14.36	129	8255690	26.3256	ppb		99
48)	1,2-Dibromoethane	14.63	107	5820614	23.6785	ppb		98
49)	Tetrachloroethene	15.11	166	4926974	19.5478	ppb	#	75
51)	Chlorobenzene	15.82	112	8794643	19.2938	ppb	#	90
52)	Ethylbenzene	16.21	91	14564160	21.1462	ppb		90
53)	m,p-Xylene	16.41	91	24691602	44.8735	ppb		86
54)	Bromoform	16.51	173	6678261	24.8044	ppb		100
55)	Styrene	16.80	104	8451717	22.5223	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	6457522	22.2398	ppb	#	97
57)	o-Xylene	16.93	91	12713527	22.9074	ppb		87
59)	4-Ethyl Toluene	18.38	105	16279170	23.1414	ppb		92
60)	1,3,5-Trimethylbenzene	18.47	105	14693855	23.4298	ppb		87
61)	1,2,4-Trimethylbenzene	19.00	105	13894088	23.4873	ppb		88
62)	Benzyl Chloride	19.18	91	10566186	28.3707	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	8931148	23.3464	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	8520114	23.4450	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	7644466	22.3683	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	2882147	23.9363	ppb	#	96
67)	Naphthalene	22.49	128	8407841	29.6380	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	2499375	18.3745	ppb		98

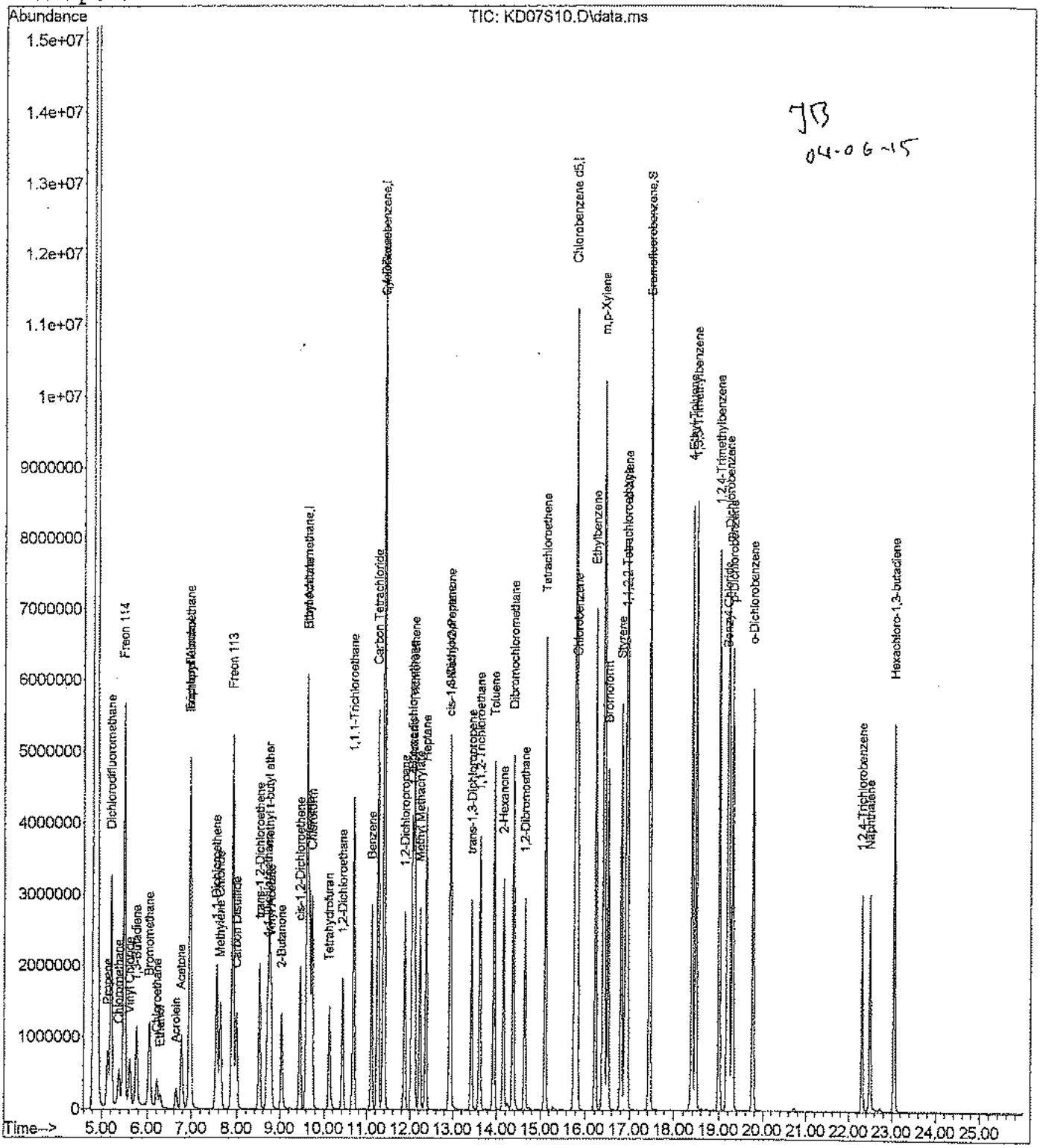
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:08:27 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	853056	20.0000	ppb		84.66
25) 1,4-Difluorobenzene	11.39	114	11154772	20.0000	ppb		87.50
50) Chlorobenzene d5	15.77	117	9642600	20.0000	ppb		92.50
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6786430	23.2459	ppb		116.23%
Target Compounds							Qvalue
2) Propene	5.13	41	804493	11.8232	ppb		92
3) Dichlorodifluoromethane	5.21	85	5441557	14.2229	ppb		99
4) Chloromethane	5.38	50	946849	13.4500	ppb		99
5) Freon 114	5.49	135	4181399	13.5403	ppb		90
6) Vinyl Chloride	5.62	62	1215488	12.8747	ppb		98
7) 1,3-Butadiene	5.76	54	886462	13.3163	ppb	#	75
8) Bromomethane	6.04	94	1441846	12.7189	ppb		100
9) Chloroethane	6.21	64	597269	11.0694	ppb	#	92
10) Acrolein	6.65	56	391387	10.6056	ppb		96
11) Acetone	6.77	43	2179247	12.1328	ppb	#	80
12) Trichlorofluoromethane	6.96	101	5669597	12.4895	ppb		100
13) Ethanol	6.28	45	350819	10.6493	ppb	#	81
14) Isopropyl Alcohol	6.96	45	1905366	11.0270	ppb	#	87
15) 1,1-Dichloroethene	7.55	61	2115552	11.1963	ppb	#	72
16) Methylene Chloride	7.63	84	1137873	9.9439	ppb	#	75
17) Freon 113	7.90	151	2608054	9.9254	ppb	#	68
18) Carbon Disulfide	7.98	76	3178671	10.2737	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1280165	9.4136	ppb	#	78
20) 1,1-Dichloroethane	8.70	63	2184720	10.4794	ppb		99
21) methyl t-butyl ether	8.74	73	3733706	9.8799	ppb		97
22) Vinyl Acetate	8.79	86	315299	9.1887	ppb	#	1
23) 2-Butanone	9.02	43	2364058	11.6542	ppb	#	76
24) cis-1,2-Dichloroethene	9.45	96	1316235	9.2550	ppb	#	77
26) Ethyl Acetate	9.61	61	375123	10.4073	ppb	#	1
27) Hexane	9.66	57	1678862	9.7926	ppb	#	45
28) Chloroform	9.72	83	3423681	10.8925	ppb		100
29) Tetrahydrofuran	10.12	42	1192959	10.9016	ppb	#	76
30) 1,2-Dichloroethane	10.41	62	2389917	11.7556	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	4155442	11.0486	ppb	#	96
32) Benzene	11.10	78	3370874	8.9028	ppb	#	92
33) Carbon Tetrachloride	11.25	117	4903973	11.3566	ppb		99
34) Cyclohexane	11.38	84	1690278	8.9983	ppb	#	63
35) 1,2-Dichloropropane	11.87	63	1141694	9.0725	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:08:27 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	3703679	11.2665	ppb		99
37)	1,4-Dioxane	12.06	88	892565	10.3544	ppb	#	91
38)	Trichloroethene	12.09	130	2223088	9.3336	ppb	#	91
39)	Methyl Methacrylate	12.22	69	1377516	10.3490	ppb		88
40)	Heptane	12.36	71	1287339	9.2513	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	2281732	10.0710	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	3105103	12.4610	ppb	#	80
43)	trans-1,3-Dichloropropene	13.42	75	2342205	10.8586	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	1725588	9.8512	ppb	#	88
45)	Toluene	13.93	91	5097056	9.5561	ppb		97
46)	2-Hexanone	14.14	43	2951837	13.4806	ppb	#	78
47)	Dibromochloromethane	14.36	129	4153529	11.2130	ppb		99
48)	1,2-Dibromoethane	14.62	107	2999558	10.4927	ppb		98
49)	Tetrachloroethene	15.11	166	2542697	8.9555	ppb	#	76
51)	Chlorobenzene	15.82	112	4630252	9.4054	ppb	#	90
52)	Ethylbenzene	16.21	91	7265486	9.6696	ppb		91
53)	m,p-Xylene	16.40	91	12352672	20.2827	ppb		87
54)	Bromoform	16.51	173	3301892	11.0641	ppb		100
55)	Styrene	16.80	104	4169746	10.1520	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	16.90	83	3392518	10.5267	ppb	#	97
57)	o-Xylene	16.93	91	6346298	10.2688	ppb		88
59)	4-Ethyl Toluene	18.38	105	7885935	10.1292	ppb		93
60)	1,3,5-Trimethylbenzene	18.47	105	7366856	10.5295	ppb		87
61)	1,2,4-Trimethylbenzene	18.99	105	6747753	10.2213	ppb		89
62)	Benzyl Chloride	19.18	91	4897425	11.6241	ppb		90
63)	m-Dichlorobenzene	19.21	146	4463307	10.4262	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	4190228	10.3243	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	3737737	9.8371	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	1267608	9.4943	ppb	#	96
67)	Naphthalene	22.49	128	3884468	11.8529	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	1258470	8.3538	ppb		97

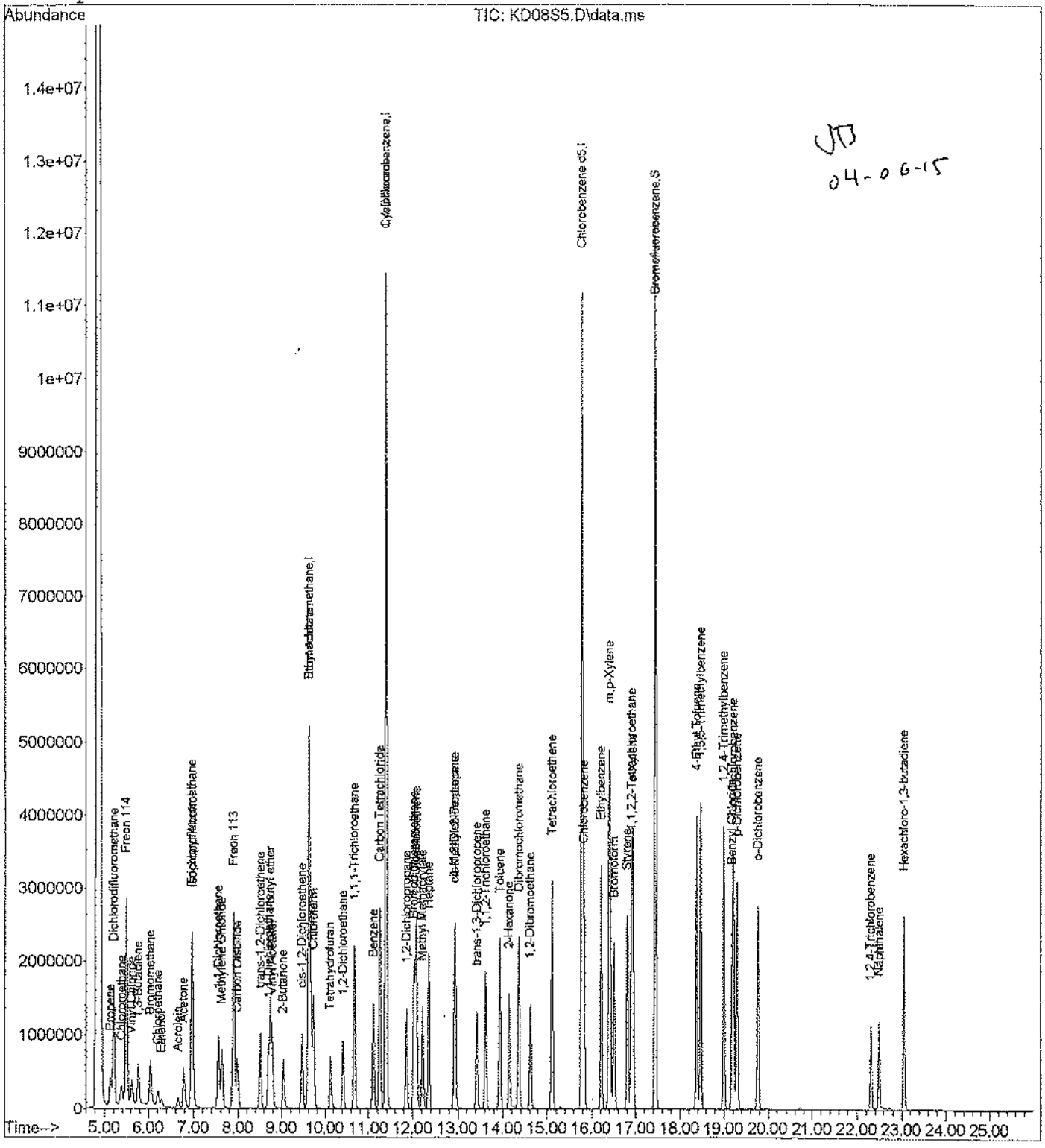
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



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04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:54:44 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	877312	20.0000	ppb		102.84
25) 1,4-Difluorobenzene	11.39	114	11425839	20.0000	ppb		102.43
50) Chlorobenzene d5	15.77	117	9519111	20.0000	ppb		98.72
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	17.44	95	6600538	22.1497	ppb		110.75%
Target Compounds							**Qvalue**
2) Propene	5.13	41	403950	5.5173	ppb		92
3) Dichlorodifluoromethane	5.21	85	2703501	6.2740	ppb		99
4) Chloromethane	5.38	50	478541	6.1176	ppb		98
5) Freon 114	5.49	135	2097315	6.1149	ppb		90
6) Vinyl Chloride	5.62	62	620326	5.9900	ppb		98
7) 1,3-Butadiene	5.76	54	438480	5.9635	ppb	#	73
8) Bromomethane	6.04	94	729075	5.8708	ppb		99
9) Chloroethane	6.21	64	310463	5.4472	ppb	#	92
10) Acrolein	6.65	56	191869	4.9975	ppb		96
11) Acetone	6.78	43	1133094	5.7525	ppb	#	80
12) Trichlorofluoromethane	6.96	101	2849648	5.7467	ppb		99
13) Ethanol	6.29	45	180747	5.1667	ppb	#	76
14) Isopropyl Alcohol	6.97	45	959029	5.2238	ppb	#	83
15) 1,1-Dichloroethene	7.56	61	1047101	5.2156	ppb	#	73
16) Methylene Chloride	7.64	84	613667	5.1419	ppb	#	78
17) Freon 113	7.90	151	1334838	4.9056	ppb	#	68
18) Carbon Disulfide	7.98	76	1622633	5.0374	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	645227	4.6232	ppb	#	79
20) 1,1-Dichloroethane	8.70	63	1117261	5.1113	ppb		99
21) methyl t-butyl ether	8.74	73	1851618	4.7279	ppb		96
22) Vinyl Acetate	8.79	86	162144	4.6817	ppb	#	1
23) 2-Butanone	9.03	43	1185778	5.4479	ppb	#	76
24) cis-1,2-Dichloroethene	9.45	96	653954	4.4902	ppb	#	77
26) Ethyl Acetate	9.62	61	185779	4.9267	ppb	#	1
27) Hexane	9.66	57	833998	4.7217	ppb	#	45
28) Chloroform	9.72	83	1744251	5.2525	ppb		99
29) Tetrahydrofuran	10.12	42	588758	5.1242	ppb	#	76
30) 1,2-Dichloroethane	10.42	62	1199664	5.4781	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	2091583	5.2478	ppb	#	96
32) Benzene	11.10	78	1685758	4.3954	ppb	#	92
33) Carbon Tetrachloride	11.25	117	2435481	5.3064	ppb		99
34) Cyclohexane	11.38	84	869170	4.5444	ppb	#	57
35) 1,2-Dichloropropane	11.87	63	564362	4.4016	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:54:44 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	1817744	5.2107	ppb		99
37)	1,4-Dioxane	12.07	88	440074	4.9458	ppb	#	91
38)	Trichloroethene	12.09	130	1125856	4.6254	ppb	#	91
39)	Methyl Methacrylate	12.22	69	677678	4.9095	ppb		89
40)	Heptane	12.36	71	635496	4.4841	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	1060120	4.5282	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	1545639	5.7373	ppb	#	80
43)	trans-1,3-Dichloropropene	13.42	75	1045754	4.6254	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	848242	4.6701	ppb	#	88
45)	Toluene	13.93	91	2385169	4.3515	ppb		96
46)	2-Hexanone	14.14	43	1430658	5.9609	ppb	#	77
47)	Dibromochloromethane	14.36	129	1952351	4.9776	ppb		99
48)	1,2-Dibromoethane	14.62	107	1412695	4.7210	ppb		98
49)	Tetrachloroethene	15.11	166	1209941	4.1879	ppb	#	76
51)	Chlorobenzene	15.82	112	2207876	4.5101	ppb	#	88
52)	Ethylbenzene	16.21	91	3324004	4.4381	ppb		92
53)	m,p-Xylene	16.41	91	5866772	9.5369	ppb		88
54)	Bromoform	16.51	173	1545621	5.1165	ppb		99
55)	Styrene	16.80	104	1847116	4.4971	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	1677222	5.1028	ppb	#	97
57)	o-Xylene	16.93	91	3021166	4.8204	ppb		89
59)	4-Ethyl Toluene	18.38	105	3562613	4.5524	ppb		94
60)	1,3,5-Trimethylbenzene	18.47	105	3514872	4.9344	ppb		88
61)	1,2,4-Trimethylbenzene	18.99	105	3086167	4.6142	ppb		89
62)	Benzyl Chloride	19.18	91	2154065	5.0052	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	2136710	4.8907	ppb	#	94
64)	p-Dichlorobenzene	19.29	146	2019596	4.8907	ppb	#	93
65)	o-Dichlorobenzene	19.76	146	1758744	4.5748	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	490873	3.6839	ppb	#	96
67)	Naphthalene	22.49	128	1458492	4.2825	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	601100	3.9421	ppb		97

(#) = qualifier out of range (m) = manual integration

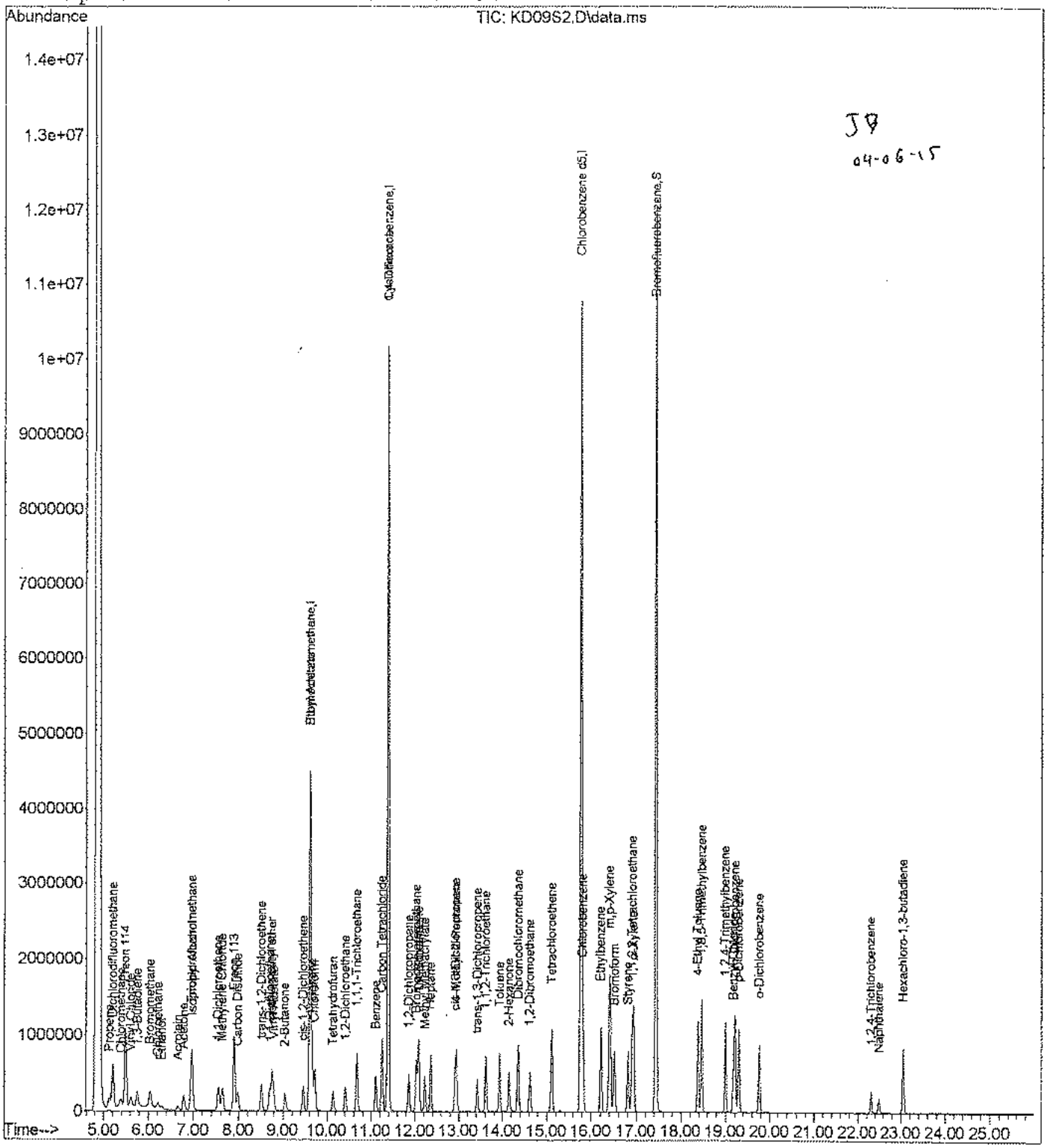
Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration

JB
04-06-15



Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 14:52:06 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.60	130	852800	20.0000	ppb		99.97
25) 1,4-Difluorobenzene	11.38	114	10992213	20.0000	ppb		98.54
50) Chlorobenzene d5	15.77	117	9097744	20.0000	ppb		94.35
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6282804	21.4193	ppb		107.10%
Target Compounds							Qvalue
2) Propene	5.14	41	143994	1.9598	ppb	#	90
3) Dichlorodifluoromethane	5.21	85	981839	2.1845	ppb		99
4) Chloromethane	5.39	50	178608	2.2112	ppb		96
5) Freon 114	5.49	135	755863	2.1333	ppb		89
6) Vinyl Chloride	5.62	62	222860	2.1032	ppb		99
7) 1,3-Butadiene	5.76	54	153154	2.0329	ppb	#	68
8) Bromomethane	6.04	94	260495	2.0566	ppb		98
9) Chloroethane	6.21	64	109032	1.9227	ppb	#	90
10) Acrolein	6.65	56	67046	1.7969	ppb		96
11) Acetone	6.79	43	428380	2.1163	ppb	#	79
12) Trichlorofluoromethane	6.96	101	995151	1.9724	ppb		99
13) Ethanol	6.29	45	66443	1.9097	ppb	#	72
14) Isopropyl Alcohol	6.98	45	325062	1.7845	ppb	#	76
15) 1,1-Dichloroethene	7.55	61	345790	1.7397	ppb	#	71
16) Methylene Chloride	7.64	84	226664	1.9276	ppb	#	76
17) Freon 113	7.90	151	488323	1.8491	ppb	#	70
18) Carbon Disulfide	7.98	76	578771	1.8394	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	223251	1.6656	ppb	#	79
20) 1,1-Dichloroethane	8.70	63	392456	1.8295	ppb		99
21) methyl t-butyl ether	8.75	73	639909	1.6916	ppb		95
22) Vinyl Acetate	8.79	86	58836	1.7919	ppb	#	1
23) 2-Butanone	9.04	43	429513	1.9682	ppb	#	75
24) cis-1,2-Dichloroethene	9.46	96	211314	1.5185	ppb	#	77
26) Ethyl Acetate	9.62	61	71777	1.9699	ppb	#	1
27) Hexane	9.66	57	283583	1.6843	ppb	#	44
28) Chloroform	9.71	83	622047	1.9101	ppb		98
29) Tetrahydrofuran	10.13	42	205095	1.8374	ppb	#	72
30) 1,2-Dichloroethane	10.41	62	423868	1.9423	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	713039	1.8222	ppb	#	95
32) Benzene	11.10	78	554493	1.5396	ppb	#	91
33) Carbon Tetrachloride	11.25	117	842392	1.8651	ppb		100
34) Cyclohexane	11.38	84	319197	1.7630	ppb	#	32
35) 1,2-Dichloropropane	11.87	63	200981	1.6637	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 14:52:06 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	647589	1.8939	ppb		99
37)	1,4-Dioxane	12.08	88	146187	1.7188	ppb	#	88
38)	Trichloroethene	12.09	130	387659	1.6765	ppb	#	91
39)	Methyl Methacrylate	12.23	69	230721	1.7430	ppb		88
40)	Heptane	12.36	71	210322	1.5751	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	357391	1.6115	ppb		96
42)	4-Methyl-2-Pentanone	12.94	43	544198	2.0175	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	339597	1.5646	ppb	#	92
44)	1,1,2-Trichloroethane	13.62	97	326588	1.8742	ppb	#	87
45)	Toluene	13.93	91	807266	1.5590	ppb		96
46)	2-Hexanone	14.15	43	469470	1.9363	ppb	#	76
47)	Dibromochloromethane	14.36	129	724269	1.8946	ppb		99
48)	1,2-Dibromoethane	14.63	107	511893	1.7733	ppb		97
49)	Tetrachloroethene	15.11	166	421477	1.5588	ppb	#	76
51)	Chlorobenzene	15.82	112	852845	1.8241	ppb	#	83
52)	Ethylbenzene	16.21	91	1079424	1.5119	ppb		92
53)	m,p-Xylene	16.40	91	2061052	3.4570	ppb		88
54)	Bromoform	16.51	173	536068	1.8173	ppb		99
55)	Styrene	16.80	104	556007	1.4211	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	617509	1.9102	ppb	#	96
57)	o-Xylene	16.93	91	1061237	1.7412	ppb		88
59)	4-Ethyl Toluene	18.38	105	1004145	1.3381	ppb		95
60)	1,3,5-Trimethylbenzene	18.47	105	1193466	1.7127	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	888076	1.3717	ppb		90
62)	Benzyl Chloride	19.18	91	636095	1.5160	ppb		91
63)	m-Dichlorobenzene	19.21	146	755992	1.7639	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	700082	1.7321	ppb	#	93
65)	o-Dichlorobenzene	19.76	146	575363	1.5422	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	129152	1.0359	ppb	#	95
67)	Naphthalene	22.49	128	261197	0.7958	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	196043	1.3162	ppb		97

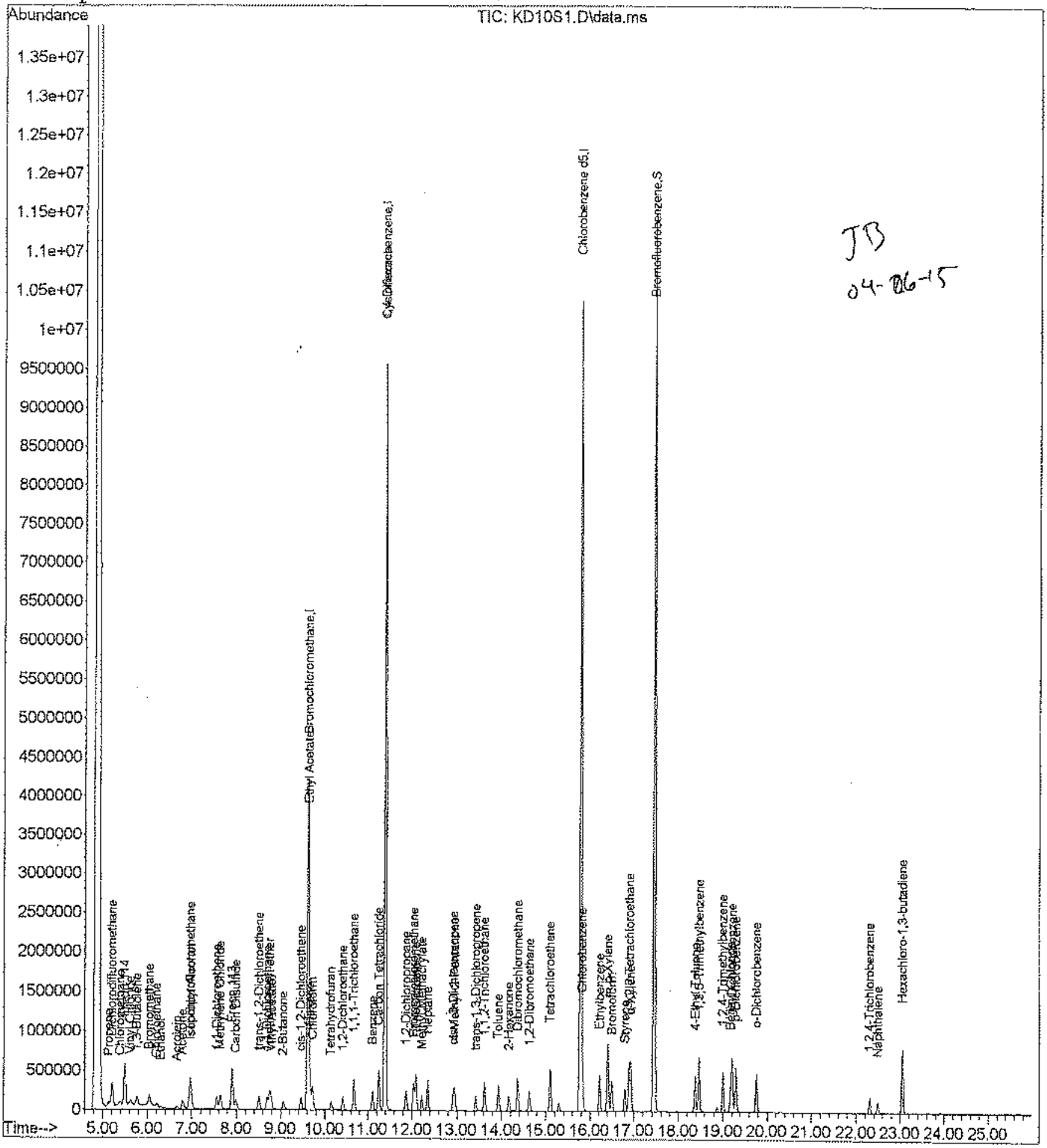
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:13:41 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	817216	20.0000	ppb		95.80
25) 1,4-Difluorobenzene	11.39	114	10517653	20.0000	ppb		94.29
50) Chlorobenzene d5	15.77	117	8726033	20.0000	ppb		90.49
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	17.44	95	6032342	20.8249	ppb		104.12%
Target Compounds							**Qvalue**
2) Propene	5.14	41	72941	1.0554	ppb	#	89
3) Dichlorodifluoromethane	5.21	85	515112	1.1671	ppb		99
4) Chloromethane	5.39	50	91672	1.1618	ppb		93
5) Freon 114	5.50	135	398678	1.1560	ppb		90
6) Vinyl Chloride	5.62	62	122423	1.2030	ppb		98
7) 1,3-Butadiene	5.77	54	87322	1.2076	ppb	#	79
8) Bromomethane	6.03	94	150196	1.2370	ppb		97
9) Chloroethane	6.20	64	62200	1.1860	ppb	#	92
10) Acrolein	6.66	56	33444	0.9870	ppb		95
11) Acetone	6.79	43	232003	1.1747	ppb	#	81
12) Trichlorofluoromethane	6.96	101	539323	1.1218	ppb		100
13) Ethanol	6.29	45	35763	1.0978	ppb	#	74
14) Isopropyl Alcohol	6.99	45	154251	0.9120	ppb	#	67
15) 1,1-Dichloroethene	7.56	61	173975	0.9525	ppb	#	73
16) Methylene Chloride	7.63	84	135365	1.2416	ppb	#	76
17) Freon 113	7.90	151	250040	1.0385	ppb	#	68
18) Carbon Disulfide	7.98	76	293852	1.0171	ppb	#	63
19) trans-1,2-Dichloroethene	8.51	96	108459	0.9071	ppb	#	78
20) 1,1-Dichloroethane	8.70	63	202469	1.0286	ppb		97
21) methyl t-butyl ether	8.75	73	270714	0.7917	ppb		95
22) Vinyl Acetate	8.79	86	24768	0.8431	ppb	#	1
23) 2-Butanone	9.05	43	187539	0.9062	ppb	#	76
24) cis-1,2-Dichloroethene	9.46	96	105019	0.8581	ppb	#	79
26) Ethyl Acetate	9.63	61	32691	0.9699	ppb	#	1
27) Hexane	9.67	57	138880	0.9303	ppb	#	41
28) Chloroform	9.72	83	324148	1.0765	ppb		99
29) Tetrahydrofuran	10.15	42	82957	0.8087	ppb	#	72
30) 1,2-Dichloroethane	10.41	62	223417	1.0888	ppb		97
31) 1,1,1-Trichloroethane	10.68	97	378244	1.0488	ppb	#	96
32) Benzene	11.10	78	288736	0.9222	ppb	#	92
33) Carbon Tetrachloride	11.25	117	449312	1.0738	ppb		99
34) Cyclohexane	11.38	84	181196	1.1212	ppb	#	8
35) 1,2-Dichloropropane	11.87	63	100700	0.9434	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:13:41 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.03	83	330460	1.0382	ppb		99
37)	1,4-Dioxane	12.09	88	61344	0.7996	ppb	#	85
38)	Trichloroethene	12.09	130	187550	0.9119	ppb		92
39)	Methyl Methacrylate	12.23	69	95445	0.7997	ppb		90
40)	Heptane	12.36	71	99811	0.8513	ppb	#	66
41)	cis-1,3-Dichloropropene	12.91	75	153699	0.7741	ppb		94
42)	4-Methyl-2-Pentanone	12.94	43	216450	0.8450	ppb	#	77
43)	trans-1,3-Dichloropropene	13.42	75	149026	0.7576	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	161122	1.0048	ppb	#	87
45)	Toluene	13.93	91	351964	0.7678	ppb		94
46)	2-Hexanone	14.16	43	175975	0.7603	ppb	#	72
47)	Dibromochloromethane	14.36	129	355311	0.9933	ppb		100
48)	1,2-Dibromoethane	14.62	107	239795	0.9029	ppb		99
49)	Tetrachloroethene	15.10	166	206583	0.8698	ppb	#	75
51)	Chlorobenzene	15.82	112	430513	0.9882	ppb	#	74
52)	Ethylbenzene	16.22	91	453709	0.6988	ppb		93
53)	m,p-Xylene	16.41	91	950645	1.7063	ppb		88
54)	Bromoform	16.51	173	266374	0.9469	ppb		100
55)	Styrene	16.80	104	217331	0.6130	ppb	#	92
56)	1,1,2,2-Tetrachloroethane	16.90	83	331903	1.0709	ppb	#	96
57)	o-Xylene	16.93	91	482525	0.8452	ppb		89
59)	4-Ethyl Toluene	18.38	105	395789	0.5823	ppb		94
60)	1,3,5-Trimethylbenzene	18.47	105	559166	0.8546	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	401810	0.6793	ppb		91
62)	Benzyl Chloride	19.18	91	323385	0.8196	ppb		91
63)	m-Dichlorobenzene	19.21	146	408776	1.0020	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	360275	0.9389	ppb	#	94
65)	o-Dichlorobenzene	19.77	146	315025	0.9033	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	91091	0.8143	ppb	#	96
67)	Naphthalene	22.49	128	183564	0.6166	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	187180	1.3232	ppb		97

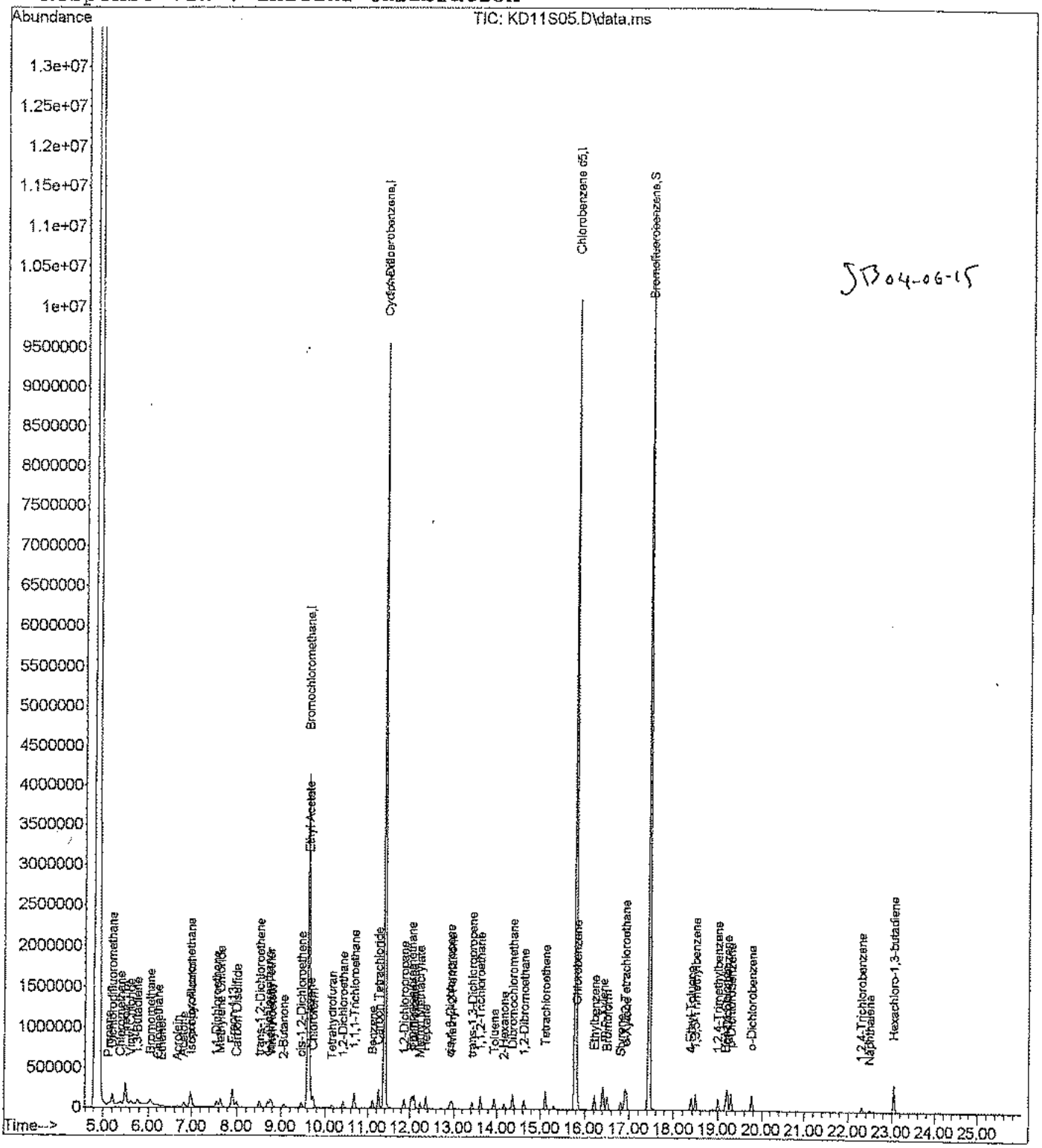
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JTB 04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:56:52 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	810432	20.0000	ppb		95.00
25) 1,4-Difluorobenzene	11.39	114	10390053	20.0000	ppb		93.14
50) Chlorobenzene d5	15.77	117	8387076	20.0000	ppb		86.98
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5853092	20.4250	ppb		102.13%
Target Compounds							Qvalue
2) Propene	5.13	41	31505	0.4438	ppb	#	86
3) Dichlorodifluoromethane	5.21	85	237739	0.5033	ppb		99
4) Chloromethane	5.39	50	45711	0.5458	ppb		93
5) Freon 114	5.49	135	183655	0.5001	ppb		88
6) Vinyl Chloride	5.62	62	57294	0.5285	ppb		95
7) 1,3-Butadiene	5.76	54	42758	0.5529	ppb	#	75
8) Bromomethane	6.05	94	67845	0.5227	ppb		100
9) Chloroethane	6.22	64	29697	0.5450	ppb	#	93
10) Acrolein	6.65	56	7103	0.2073	ppb		92
11) Acetone	6.80	43	117629	0.5665	ppb	#	80
12) Trichlorofluoromethane	6.96	101	255436	0.5067	ppb		100
13) Ethanol	6.29	45	16301	0.4919	ppb	#	73
14) Isopropyl Alcohol	7.00	45	70145	0.4178	ppb	#	54
15) 1,1-Dichloroethene	7.56	61	73413	0.3994	ppb	#	74
16) Methylene Chloride	7.64	84	72950	0.6435	ppb	#	73
17) Freon 113	7.90	151	112652	0.4654	ppb	#	65
18) Carbon Disulfide	7.99	76	134948	0.4661	ppb	#	61
19) trans-1,2-Dichloroethene	8.52	96	47206	0.4062	ppb	#	80
20) 1,1-Dichloroethane	8.70	63	89803	0.4523	ppb		98
21) methyl t-butyl ether	8.76	73	107275	0.3260	ppb		94
22) Vinyl Acetate	8.79	86	9225	0.3229	ppb	#	1
23) 2-Butanone	9.07	43	78559	0.3772	ppb	#	75
24) cis-1,2-Dichloroethene	9.46	96	45269	0.3839	ppb	#	80
26) Ethyl Acetate	9.63	61	14407	0.4298	ppb	#	1
27) Hexane	9.66	57	58299	0.3973	ppb	#	40
28) Chloroform	9.72	83	145024	0.4699	ppb		100
29) Tetrahydrofuran	10.17	42	33250	0.3309	ppb	#	69
30) 1,2-Dichloroethane	10.42	62	99363	0.4687	ppb		96
31) 1,1,1-Trichloroethane	10.68	97	165858	0.4500	ppb	#	95
32) Benzene	11.10	78	116092	0.3831	ppb	#	91
33) Carbon Tetrachloride	11.25	117	197020	0.4567	ppb		99
34) Cyclohexane	11.38	84	94750	0.5811	ppb	#	1
35) 1,2-Dichloropropane	11.87	63	42737	0.4109	ppb	#	79

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:56:52 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.03	83	141486	0.4360	ppb		97
37)	1,4-Dioxane	12.11	88	22340	0.3008	ppb	#	83
38)	Trichloroethene	12.09	130	75775	0.3782	ppb		92
39)	Methyl Methacrylate	12.23	69	35394	0.3051	ppb		89
40)	Heptane	12.36	71	35821	0.3158	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	62942	0.3301	ppb		95
42)	4-Methyl-2-Pentanone	12.96	43	76973	0.2994	ppb	#	77
43)	trans-1,3-Dichloropropene	13.42	75	61396	0.3238	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	70846	0.4439	ppb	#	86
45)	Toluene	13.93	91	130196	0.2985	ppb		97
46)	2-Hexanone	14.17	43	60662	0.2620	ppb	#	69
47)	Dibromochloromethane	14.36	129	149934	0.4139	ppb		100
48)	1,2-Dibromoethane	14.63	107	102034	0.3891	ppb		97
49)	Tetrachloroethene	15.11	166	87377	0.3827	ppb	#	76
51)	Chlorobenzene	15.82	112	197223	0.4757	ppb		95
52)	Ethylbenzene	16.22	91	170268	0.2899	ppb		93
53)	m,p-Xylene	16.41	91	318194	0.6094	ppb		90
54)	Bromoform	16.51	173	113390	0.4183	ppb		99
55)	Styrene	16.80	104	76698	0.2420	ppb	#	89
56)	1,1,2,2-Tetrachloroethane	16.90	83	146352	0.4850	ppb	#	94
57)	o-Xylene	16.93	91	158856	0.2970	ppb		90
59)	4-Ethyl Toluene	18.38	105	137788	0.2295	ppb		92
60)	1,3,5-Trimethylbenzene	18.47	105	159197	0.2591	ppb		92
61)	1,2,4-Trimethylbenzene	19.00	105	121396	0.2278	ppb		95
62)	Benzyl Chloride	19.18	91	114550	0.3076	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	157355	0.4026	ppb	#	94
64)	p-Dichlorobenzene	19.30	146	133952	0.3679	ppb	#	92
65)	o-Dichlorobenzene	19.77	146	124185	0.3825	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.32	180	29851	0.3120	ppb	#	95
67)	Naphthalene	22.49	128	39377	0.1533	ppb		97
68)	Hexachloro-1,3-butadiene	23.05	225	76931	0.5747	ppb		95

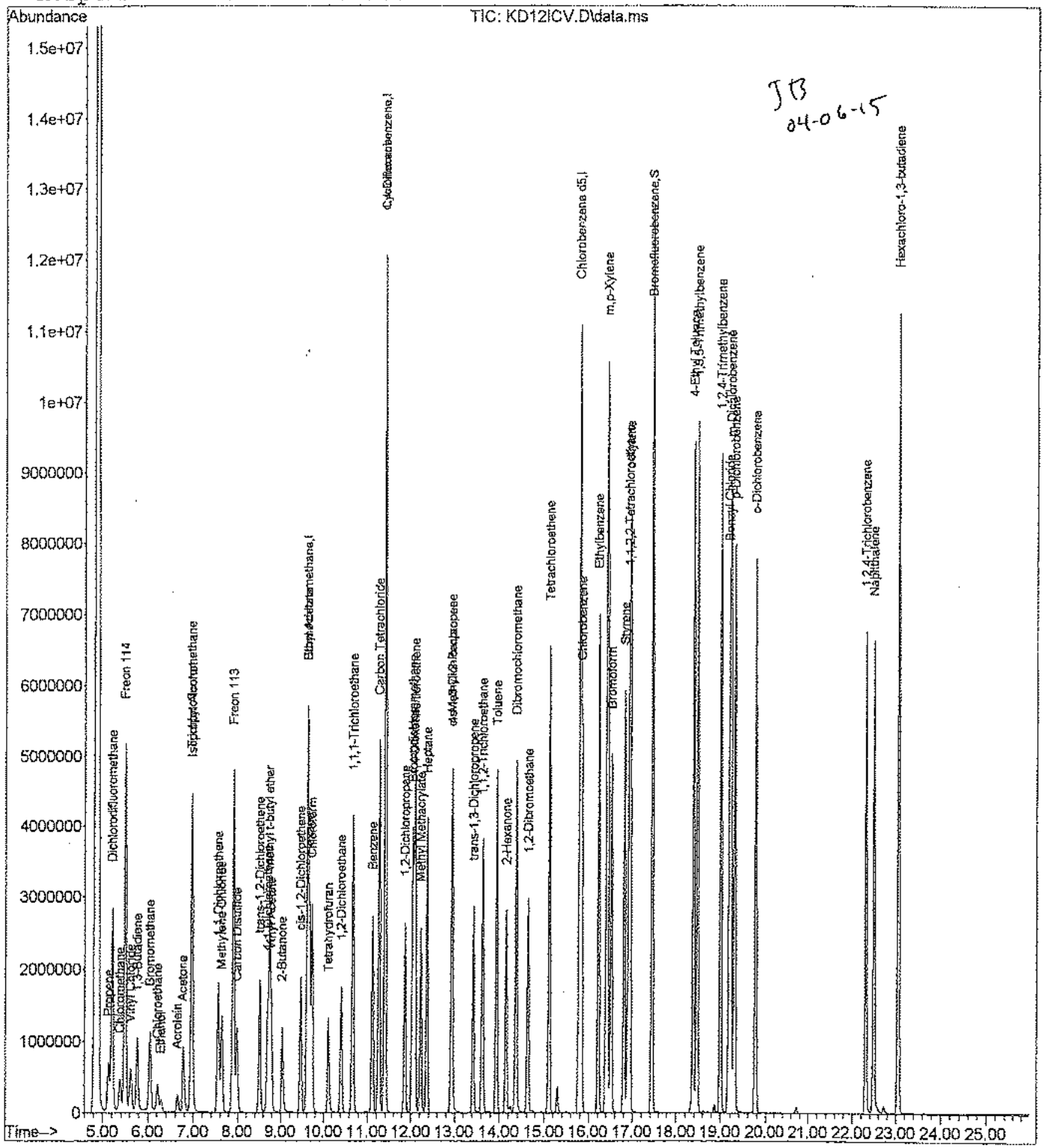
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	820480	20.0000	ppb		96.18
25) 1,4-Difluorobenzene	11.39	114	10647551	20.0000	ppb		95.45
50) Chlorobenzene d5	15.77	117	9420376	20.0000	ppb		97.70
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6798333	20.5155	ppb		102.58%
Target Compounds							Qvalue
2) Propene	5.13	41	689589	9.6206	ppb	#	91
3) Dichlorodifluoromethane	5.21	85	4798133	9.4993	ppb		99
4) Chloromethane	5.38	50	850681	9.4970	ppb		100
5) Freon 114	5.49	135	3804446	9.7961	ppb		89
6) Vinyl Chloride	5.62	62	1139804	9.8736	ppb		97
7) 1,3-Butadiene	5.76	54	824830	9.9351	ppb	#	73
8) Bromomethane	6.04	94	1354710	9.8464	ppb		99
9) Chloroethane	6.21	64	576986	10.1124	ppb	#	90
10) Acrolein	6.65	56	350077	11.0382	ppb		96
11) Acetone	6.77	43	1957860	8.9635	ppb	#	78
12) Trichlorofluoromethane	6.96	101	5184574	9.7802	ppb		100
13) Ethanol	6.29	45	310616	9.4246	ppb	#	78
14) Isopropyl Alcohol	6.97	45	1724115	10.4762	ppb	#	85
15) 1,1-Dichloroethene	7.56	61	1927246	10.5531	ppb	#	71
16) Methylene Chloride	7.64	84	1043417	8.6801	ppb	#	75
17) Freon 113	7.90	151	2351461	9.6811	ppb	#	66
18) Carbon Disulfide	7.98	76	2876516	9.8796	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1160634	10.3213	ppb	#	77
20) 1,1-Dichloroethane	8.70	63	2015335	10.0499	ppb		99
21) methyl t-butyl ether	8.74	73	3337466	10.7323	ppb		96
22) Vinyl Acetate	8.79	86	294201	10.7719	ppb	#	1
23) 2-Butanone	9.03	43	2126965	10.3126	ppb	#	75
24) cis-1,2-Dichloroethene	9.45	96	1221606	10.8251	ppb	#	76
26) Ethyl Acetate	9.62	61	330742	9.8432	ppb	#	1
27) Hexane	9.66	57	1561598	10.7227	ppb	#	45
28) Chloroform	9.72	83	3260356	10.1657	ppb		100
29) Tetrahydrofuran	10.12	42	1096645	11.1359	ppb	#	75
30) 1,2-Dichloroethane	10.42	62	2323545	10.4264	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	3952140	10.3789	ppb	#	96
32) Benzene	11.10	78	3229354	10.9754	ppb	#	92
33) Carbon Tetrachloride	11.25	117	4680758	10.4091	ppb		99
34) Cyclohexane	11.38	84	1576608	9.3032	ppb	#	61
35) 1,2-Dichloropropane	11.87	63	1094083	10.7316	ppb	#	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

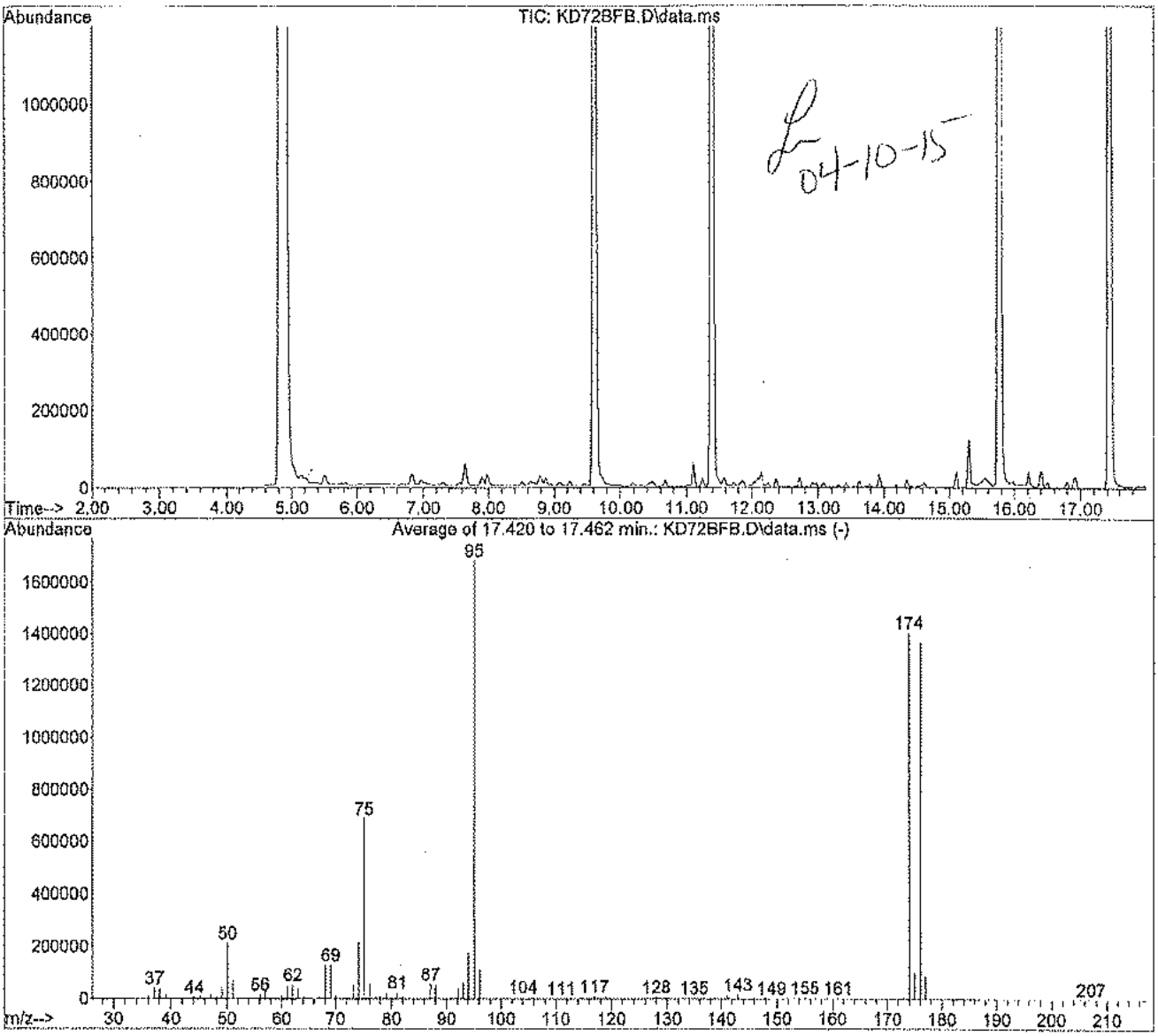
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	3591510	10.7013	ppb		99
37)	1,4-Dioxane	12.07	88	806037	11.3521	ppb	#	90
38)	Trichloroethene	12.09	130	2118279	10.8385	ppb	#	91
39)	Methyl Methacrylate	12.22	69	1266130	11.2809	ppb		87
40)	Heptane	12.36	71	1232509	11.4241	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	2204672	11.9383	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	2752159	10.7786	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	2283190	12.3692	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	1704946	10.6328	ppb	#	88
45)	Toluene	13.93	91	4948030	12.0144	ppb		97
46)	2-Hexanone	14.14	43	2644947	11.4869	ppb	#	77
47)	Dibromochloromethane	14.36	129	4119385	11.1300	ppb		100
48)	1,2-Dibromoethane	14.63	107	2954550	11.3531	ppb		98
49)	Tetrachloroethene	15.11	166	2481948	11.2416	ppb	#	76
51)	Chlorobenzene	15.82	112	4608421	10.2420	ppb	#	89
52)	Ethylbenzene	16.22	91	7402117	12.4674	ppb		91
53)	m,p-Xylene	16.41	91	12603982	23.3752	ppb		87
54)	Bromoform	16.51	173	3494285	11.6580	ppb		99
55)	Styrene	16.80	104	4336299	13.6164	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	16.90	83	3818509	11.4060	ppb	#	97
57)	o-Xylene	16.93	91	6624344	12.0020	ppb		87
59)	4-Ethyl Toluene	18.38	105	8931972	14.9465	ppb		93
60)	1,3,5-Trimethylbenzene	18.47	105	8296197	13.2217	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	8073811	15.3075	ppb		89
62)	Benzyl Chloride	19.18	91	6508203	16.3083	ppb	#	90
63)	m-Dichlorobenzene	19.21	146	5421596	12.9430	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	5220153	13.5705	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	4935481	14.5810	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	2839810	26.4276	ppb	#	96
67)	Naphthalene	22.49	128	8696228	30.1471	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	2632699	18.5985	ppb		98

(#) = qualifier out of range (m) = manual integration

BFB

Data File : J:\K\2015\APR15K\08APR15K\KD72BFB.D Vial: 1
Acq Time : 04/08/2015 12:20 Operator:
Sample : BFB Inst : 5975-K
Misc : 107IS31253 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15



Peak Apex is scan: Average of 17.420 to 17.462 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	12.57	211476	PASS
75	95	30	66	40.78	686232	PASS
95	95	100	100	100.00	1682688	PASS
96	95	5	9	6.50	109432	PASS
173	174	0.00	2	0.54	7619	PASS
174	95	50	120	83.44	1404064	PASS
175	174	5	9	7.04	98822	PASS
176	174	93	101	96.93	1360896	PASS
177	176	5	9	6.48	88207	PASS

KD72BFB.D TO15KC15.m Fri Apr 10 08:40:45 2015

Average of 17.420 to 17.462 min.: KD72BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.10	6798.0
37.10	41099.0
38.10	36983.0
39.15	15056.0
40.00	444.0
43.10	650.0
44.10	4160.0
45.10	8863.0
46.20	575.0
47.10	13199.0
48.10	5532.0
49.10	41016.0
50.10	211476.0
51.10	66548.0
52.10	2919.0
55.10	2498.0
56.10	14572.0
57.10	28122.0
58.10	1138.0
60.10	9114.0
61.10	50199.0
62.10	52203.0
63.10	38064.0
64.10	3609.0
65.15	464.0
67.05	2725.0
68.10	125609.0
69.10	128459.0
70.10	9129.0
71.10	211.0
72.10	6205.0
73.10	53148.0
74.10	213399.0
75.10	686232.0
76.10	58794.0
77.10	7155.0
78.00	4567.0
79.00	22760.0
80.05	7156.0
81.00	24008.0
82.00	4969.0
83.05	553.0
86.00	1187.0
87.05	55465.0
88.00	52853.0
91.00	3844.0
92.10	39873.0
93.10	60732.0
94.10	177520.0
95.10	1682688.0
96.10	109432.0
97.10	2950.0
102.95	508.0
104.00	5305.0
105.00	1859.0
106.00	5104.0
107.00	1390.0
109.95	461.0
111.00	825.0
112.00	513.0
112.95	814.0
114.95	1340.0
116.00	4508.0
117.00	8517.0
118.00	4659.0
119.00	7182.0
120.00	154.0
121.95	254.0
122.90	109.0
123.05	244.0
123.95	863.0
124.95	337.0
125.95	522.0
126.95	439.0
128.00	5837.0
128.95	2875.0
130.00	5819.0
131.00	2368.0
132.00	106.0
134.05	113.0
135.00	2511.0
135.95	295.0
137.00	2435.0
138.95	443.0
140.00	934.0
141.00	14037.0
141.95	1697.0
143.00	14862.0
143.95	799.0

145.05	1220.0
146.00	2453.0
146.95	1145.0
148.00	4164.0
149.00	1089.0
150.00	1753.0
151.95	779.0
153.05	1343.0
154.00	1108.0
155.00	4105.0
155.95	433.0
157.00	3137.0
158.10	47.0
159.00	1906.0
161.00	1760.0
172.00	985.0
173.05	7619.0
174.00	1404064.0
175.05	98822.0
176.00	1360896.0
177.00	88207.0
178.05	2505.0
207.10	344.0

Evaluate Continuing Calibration Report

Data Path : J:\K\2015\APR15K\08APR15K\
Data File : KD73S10.D
Acq On : 04/08/2015 13:04
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:48:23 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Bromochloromethane	1.000	1.000	0.0	102	-0.09	
2		Propene	1.747	1.574	9.9	85	-0.17	TC
3		Dichlorodifluoromethane	12.312	7.499	39.1#	60	-0.18	
4		Chloromethane	2.183	1.525	30.1#	70	-0.18	
5		Freon 114	9.467	6.451	31.9#	67	-0.18	
6		Vinyl Chloride	2.814	2.089	25.8	75	-0.18	
7		1,3-Butadiene	2.024	1.501	25.8	74	-0.18	
8		Bromomethane	3.354	2.449	27.0	74	-0.18	
9		Chloroethane	1.391	1.276	8.3	93	-0.17	
10		Acrolein	0.773	0.875	-13.2	97	-0.15	
11		Acetone	5.324	3.465	34.9#	69	-0.14	
12		Trichlorofluoromethane	12.922	8.861	31.4#	68	-0.15	
13		Ethanol	0.803	0.720	10.3	89	-0.15	TC
14		Isopropyl Alcohol	4.012	3.894	2.9	89	-0.13	TC
15		1,1-Dichloroethene	4.452	4.002	10.1	82	-0.13	
16		Methylene Chloride	2.930	2.695	8.0	103	-0.13	
17		Freon 113	5.921	6.156	-4.0	103	-0.13	
18		Carbon Disulfide	7.097	7.728	-8.9	106	-0.13	
19		trans-1,2-Dichloroethene	2.741	3.333	-21.6	113	-0.12	
20		1,1-Dichloroethane	4.888	4.681	4.2	93	-0.10	
21		methyl t-butyl ether	7.580	8.424	-11.1	98	-0.10	
22		Vinyl Acetate	0.666	0.846	-27.0	117	-0.10	
23		2-Butanone	5.028	4.612	8.3	85	-0.09	
24		cis-1,2-Dichloroethene	2.751	3.438	-25.0	113	-0.09	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	-0.05	
26		Ethyl Acetate	0.063	0.069	-9.5	104	-0.08	
27		Hexane	0.274	0.296	-8.0	100	-0.09	
28		Chloroform	0.602	0.496	17.6	82	-0.09	
29		Tetrahydrofuran	0.185	0.195	-5.4	93	-0.07	
30		1,2-Dichloroethane	0.419	0.287	31.5#	68	-0.07	
31		1,1,1-Trichloroethane	0.715	0.568	20.6	78	-0.07	
32		Benzene	0.553	0.683	-23.5	115	-0.06	
33		Carbon Tetrachloride	0.845	0.642	24.0	74	-0.07	
34		Cyclohexane	0.318	0.319	-0.3	107	-0.06	
35		1,2-Dichloropropane	0.191	0.220	-15.2	110	-0.05	
36		Bromodichloromethane	0.630	0.534	15.2	82	-0.04	
37		1,4-Dioxane	0.133	0.173	-30.1#	110	-0.04	
38		Trichloroethene	0.367	0.425	-15.8	109	-0.04	
39		Methyl Methacrylate	0.211	0.248	-17.5	102	-0.03	TC
40		Heptane	0.203	0.241	-18.7	107	-0.03	
41		cis-1,3-Dichloropropene	0.347	0.406	-17.0	101	0.00	
42		4-Methyl-2-Pentanone	0.480	0.451	6.0	83	0.00	
43		trans-1,3-Dichloropropene	0.347	0.383	-10.4	93	0.01	
44		1,1,2-Trichloroethane	0.301	0.315	-4.7	104	0.02	
45		Toluene	0.774	0.950	-22.7	106	0.03	
46		2-Hexanone	0.433	0.431	0.5	83	0.04	
47		Dibromochloromethane	0.695	0.660	5.0	90	0.04	
48		1,2-Dibromoethane	0.489	0.524	-7.2	99	0.05	
49		Tetrachloroethene	0.415	0.512	-23.4	115	0.06	

Evaluate Continuing Calibration Report

Data Path : J:\K\2015\APR15K\08APR15K\
Data File : KD73S10.D
Acq On : 04/08/2015 13:04
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:48:23 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50	I	Chlorobenzene d5	1.000	1.000	0.0	101	0.08	
51		Chlorobenzene	0.955	0.968	-1.4	102	0.08	
52		Ethylbenzene	1.260	1.431	-13.6	96	0.09	
53		m,p-Xylene	1.145	1.115	2.6	88	0.10	
54		Bromoform	0.636	0.649	-2.0	96	0.10	
55		Styrene	0.676	0.880	-30.2#	103	0.10	
56		1,1,2,2-Tetrachloroethane	0.711	0.648	8.9	93	0.10	
57		o-Xylene	1.172	1.119	4.5	86	0.11	
58	S	Bromofluorobenzene	0.704	0.588	16.5	85	0.11	
59		4-Ethyl Toluene	1.391	1.525	-9.6	94	0.13	
60		1,3,5-Trimethylbenzene	1.332	1.304	2.1	86	0.13	
61		1,2,4-Trimethylbenzene	1.120	1.238	-10.5	90	0.13	
62		Benzyl Chloride	0.847	0.916	-8.1	91	0.13	TIC
63		m-Dichlorobenzene	0.889	0.848	4.6	93	0.13	
64		p-Dichlorobenzene	0.817	0.806	1.3	94	0.14	
65		o-Dichlorobenzene	0.719	0.747	-3.9	98	0.14	
66		1,2,4-Trichlorobenzene	0.228	0.309	-35.5#	119	0.15	TIC
67		Naphthalene	0.612	0.805	-31.5#	101	0.15	TIC
68		Hexachloro-1,3-butadiene	0.301	0.240	20.3	93	0.15	TIC

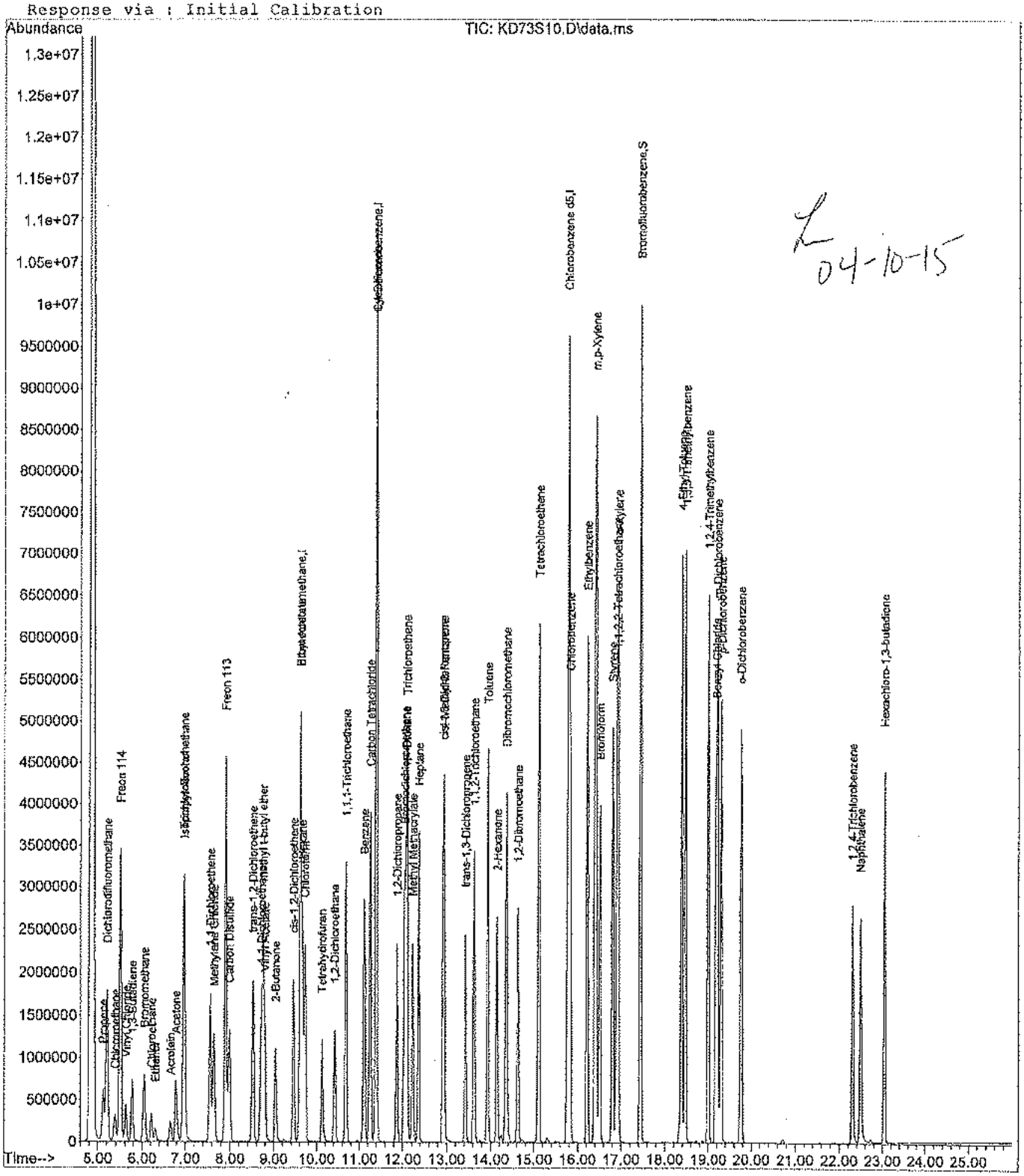
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD73S10.D Vial: 2
Acq Time : 04/08/2015 13:04 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 13:48:23 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD73S10.D Vial: 2
Acq Time : 04/08/2015 13:04 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 13:48:23 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	868736	20.0000	ppb		101.84
25) 1,4-Difluorobenzene	11.39	114	11369418	20.0000	ppb		101.92
50) Chlorobenzene d5	15.77	117	9770945	20.0000	ppb		101.33
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5748497	16.7250	ppb		83.62%
Target Compounds							Qvalue
2) Propene	5.13	41	683664	9.0081	ppb		99 TIC
3) Dichlorodifluoromethane	5.21	85	3257188	6.0904	ppb		100
4) Chloromethane	5.39	50	662591	6.9863	ppb		100
5) Freon 114	5.50	135	2802124	6.8144	ppb		93
6) Vinyl Chloride	5.62	62	907318	7.4231	ppb		97
7) 1,3-Butadiene	5.76	54	651889	7.4159	ppb		85
8) Bromomethane	6.04	94	1063823	7.3027	ppb		99
9) Chloroethane	6.21	64	554265	9.1746	ppb		97
10) Acrolein	6.66	56	380123	11.3198	ppb	#	98 TIC
11) Acetone	6.78	43	1504913	6.5071	ppb		96
12) Trichlorofluoromethane	6.96	101	3848977	6.8574	ppb		99
13) Ethanol	6.31	45	312956	8.9682	ppb	#	79 TIC
14) Isopropyl Alcohol	6.98	45	1691625	9.7078	ppb		98 TIC
15) 1,1-Dichloroethene	7.56	61	1738372	8.9901	ppb		91
16) Methylene Chloride	7.64	84	1170456	9.1961	ppb		91
17) Freon 113	7.90	151	2674055	10.3977	ppb	#	80
18) Carbon Disulfide	7.98	76	3356741	10.8886	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	1447781	12.1597	ppb		93
20) 1,1-Dichloroethane	8.70	63	2033203	9.5758	ppb		99
21) methyl t-butyl ether	8.74	73	3659149	11.1131	ppb		96
22) Vinyl Acetate	8.79	86	367398	12.7047	ppb	#	1
23) 2-Butanone	9.04	43	2003457	9.1742	ppb	#	87
24) cis-1,2-Dichloroethene	9.46	96	1493144	12.4963	ppb		92
26) Ethyl Acetate	9.62	61	389462	10.8548	ppb	#	1
27) Hexane	9.66	57	1682797	10.8213	ppb	#	57
28) Chloroform	9.72	83	2818907	8.2312	ppb		100
29) Tetrahydrofuran	10.12	42	1110765	10.5631	ppb		87
30) 1,2-Dichloroethane	10.41	62	1632958	6.8623	ppb		99
31) 1,1,1-Trichloroethane	10.68	97	3226817	7.9361	ppb		99
32) Benzene	11.11	78	3882853	12.3585	ppb	#	97
33) Carbon Tetrachloride	11.25	117	3651129	7.6039	ppb		100
34) Cyclohexane	11.38	84	1813802	10.0233	ppb	#	81
35) 1,2-Dichloropropane	11.87	63	1251520	11.4965	ppb		97
36) Bromodichloromethane	12.04	83	3036117	8.4721	ppb		99
37) 1,4-Dioxane	12.07	88	982626	12.9605	ppb		96
38) Trichloroethene	12.09	130	2417163	11.5825	ppb		98
39) Methyl Methacrylate	12.22	69	1410801	11.7718	ppb	#	84 TIC
40) Heptane	12.36	71	1371330	11.9038	ppb	#	85
41) cis-1,3-Dichloropropene	12.91	75	2305224	11.6902	ppb		99
42) 4-Methyl-2-Pentanone	12.93	43	2565815	9.4108	ppb	#	90
43) trans-1,3-Dichloropropene	13.42	75	2175040	11.0351	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	1787867	10.4420	ppb		97
45) Toluene	13.93	91	5400654	12.2809	ppb		100
46) 2-Hexanone	14.15	43	2450260	9.9657	ppb	#	90
47) Dibromochloromethane	14.36	129	3751644	9.4928	ppb		99
48) 1,2-Dibromoethane	14.63	107	2980671	10.7262	ppb		99
49) Tetrachloroethene	15.11	166	2911515	12.3500	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD73S10.D Vial: 2
Acq Time : 04/08/2015 13:04 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 13:48:23 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue	
51)	Chlorobenzene	15.82	112	4727562	10.1298	ppb		97	
52)	Ethylbenzene	16.21	91	6991704	11.3536	ppb		96	
53)	m,p-Xylene	16.41	91	10891537	19.4746	ppb		95	
54)	Bromoform	16.51	173	3171673	10.2020	ppb		99	
55)	Styrene	16.80	104	4299856	13.0175	ppb		97	
56)	1,1,2,2-Tetrachloroethane	16.90	83	3164970	9.1147	ppb		100	
57)	o-Xylene	16.93	91	5468115	9.5517	ppb		96	
59)	4-Ethyl Toluene	18.38	105	7447964	10.9595	ppb		97	
60)	1,3,5-Trimethylbenzene	18.47	105	6368876	9.7860	ppb		95	
61)	1,2,4-Trimethylbenzene	19.00	105	6048851	11.0568	ppb		96	
62)	Benzyl Chloride	19.10	91	4476366	10.8145	ppb		97	TIC
63)	m-Dichlorobenzene	19.21	146	4141623	9.5325	ppb		96	
64)	p-Dichlorobenzene	19.30	146	3938518	9.8714	ppb		96	
65)	o-Dichlorobenzene	19.76	146	3650550	10.3980	ppb		96	
66)	1,2,4-Trichlorobenzene	22.31	180	1507202	13.5230	ppb	#	97	TIC
67)	Naphthalene	22.49	128	3933907	13.1483	ppb		99	TIC
68)	Hexachloro-1,3-butadiene	23.05	225	1170361	7.9713	ppb		98	TIC

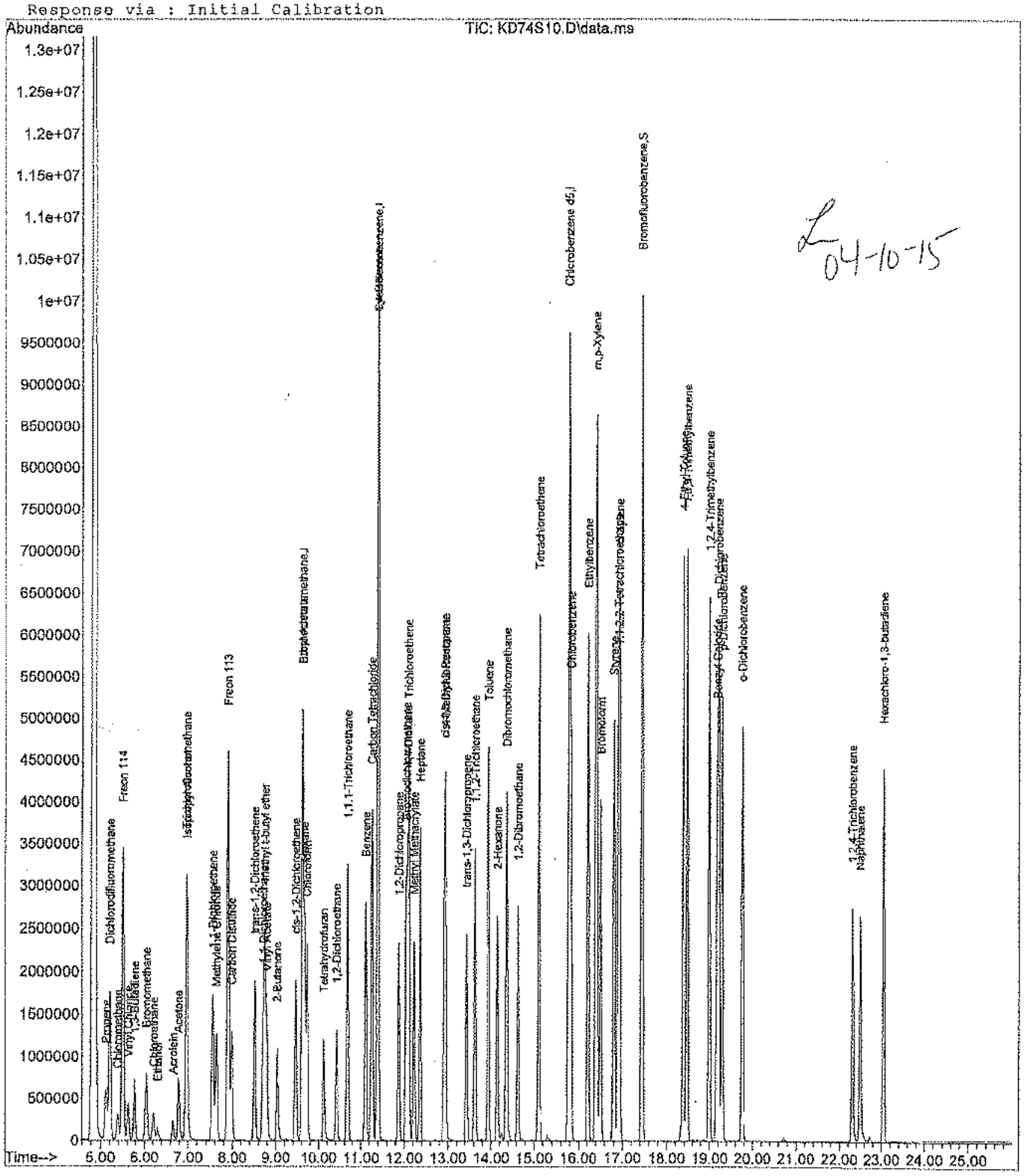
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD74S10.D Vial: 2
Acq Time : 04/08/2015 13:49 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 15:17:35 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD74S10.D Vial: 2
Acq Time : 04/08/2015 13:49 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 15:17:35 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	864512	20.0000	ppb		101.34
25) 1,4-Difluorobenzene	11.39	114	11351211	20.0000	ppb		101.76
50) Chlorobenzene d5	15.77	117	9760028	20.0000	ppb		101.22
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5814317	16.9354	ppb		84.68%
Target Compounds							Qvalue
2) Propene	5.12	41	668417	8.8503	ppb		98
3) Dichlorodifluoromethane	5.21	85	3238982	6.0859	ppb		100
4) Chloromethane	5.39	50	653272	6.9217	ppb		100
5) Freon 114	5.50	135	2799485	6.8413	ppb		93
6) Vinyl Chloride	5.62	62	891999	7.3334	ppb		98
7) 1,3-Butadiene	5.76	54	638776	7.3022	ppb		83
8) Bromomethane	6.04	94	1047493	7.2257	ppb		99
9) Chloroethane	6.21	64	560722	9.3268	ppb		97
10) Acrolein	6.65	56	379384	11.3530	ppb	#	99
11) Acetone	6.78	43	1503426	6.5324	ppb		95
12) Trichlorofluoromethane	6.96	101	3820201	6.8394	ppb		100
13) Ethanol	6.31	45	306385	8.8228	ppb	#	77
14) Isopropyl Alcohol	6.98	45	1671246	9.6377	ppb		99
15) 1,1-Dichloroethene	7.56	61	1727098	8.9755	ppb		91
16) Methylene Chloride	7.64	84	1157936	9.1422	ppb		91
17) Freon 113	7.90	151	2646273	10.3399	ppb	#	80
18) Carbon Disulfide	7.98	76	3327342	10.8459	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1439293	12.1475	ppb		93
20) 1,1-Dichloroethane	8.70	63	2023374	9.5761	ppb		99
21) methyl t-butyl ether	8.74	73	3621327	11.0520	ppb		95
22) Vinyl Acetate	8.79	86	358463	12.4563	ppb	#	1
23) 2-Butanone	9.04	43	1990035	9.1572	ppb	#	87
24) cis-1,2-Dichloroethene	9.46	96	1483655	12.4776	ppb		92
26) Ethyl Acetate	9.62	61	378738	10.5728	ppb	#	1
27) Hexane	9.67	57	1654995	10.6596	ppb	#	56
28) Chloroform	9.72	83	2786939	8.1509	ppb		100
29) Tetrahydrofuran	10.12	42	1103247	10.5085	ppb		87
30) 1,2-Dichloroethane	10.41	62	1618360	6.8118	ppb		99
31) 1,1,1-Trichloroethane	10.68	97	3220516	7.9333	ppb		99
32) Benzene	11.10	78	3820504	12.1796	ppb	#	97
33) Carbon Tetrachloride	11.25	117	3644997	7.6033	ppb		99
34) Cyclohexane	11.38	84	1807166	10.0026	ppb	#	81
35) 1,2-Dichloropropane	11.87	63	1254449	11.5418	ppb		97
36) Bromodichloromethane	12.04	83	3042527	8.5036	ppb		99
37) 1,4-Dioxane	12.07	88	974536	12.8744	ppb		96
38) Trichloroethene	12.09	130	2415430	11.5928	ppb		98
39) Methyl Methacrylate	12.22	69	1404458	11.7377	ppb	#	84
40) Heptane	12.36	71	1379897	11.9973	ppb	#	85
41) cis-1,3-Dichloropropene	12.91	75	2324711	11.8079	ppb		98
42) 4-Methyl-2-Pentanone	12.93	43	2569252	9.4385	ppb	#	90
43) trans-1,3-Dichloropropene	13.42	75	2205814	11.2092	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	1801821	10.5404	ppb		97
45) Toluene	13.93	91	5411103	12.3244	ppb		99
46) 2-Hexanone	14.15	43	2426646	9.8855	ppb	#	91
47) Dibromochloromethane	14.36	129	3756616	9.5206	ppb		99
48) 1,2-Dibromoethane	14.63	107	2984594	10.7576	ppb		99
49) Tetrachloroethene	15.11	166	2888062	12.2701	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD74S10.D Vial: 2
Acq Time : 04/08/2015 13:49 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 15:17:35 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	15.82	112	4748527	10.1861	ppb		96
52)	Ethylbenzene	16.21	91	7013714	11.4021	ppb		96
53)	m,p-Xylene	16.41	91	10889405	19.4925	ppb		95
54)	Bromoform	16.51	173	3180791	10.2428	ppb		99
55)	Styrene	16.80	104	4348618	13.1799	ppb		97
56)	1,1,2,2-Tetrachloroethane	16.90	83	3147706	9.0751	ppb		99
57)	o-Xylene	16.93	91	5452110	9.5344	ppb		96
59)	4-Ethyl Toluene	18.38	105	7479655	11.0184	ppb		97
60)	1,3,5-Trimethylbenzene	18.47	105	6311038	9.7079	ppb		96
61)	1,2,4-Trimethylbenzene	19.00	105	6013562	11.0046	ppb		96
62)	Benzyl Chloride	19.18	91	4462084	10.7920	ppb		97
63)	m-Dichlorobenzene	19.21	146	4111746	9.4744	ppb		96
64)	p-Dichlorobenzene	19.30	146	3910328	9.8117	ppb		97
65)	o-Dichlorobenzene	19.76	146	3655288	10.4231	ppb		96
66)	1,2,4-Trichlorobenzene	22.31	180	1503241	13.5025	ppb	#	96
67)	Naphthalene	22.49	128	3962928	13.2601	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	1184477	8.0765	ppb		97

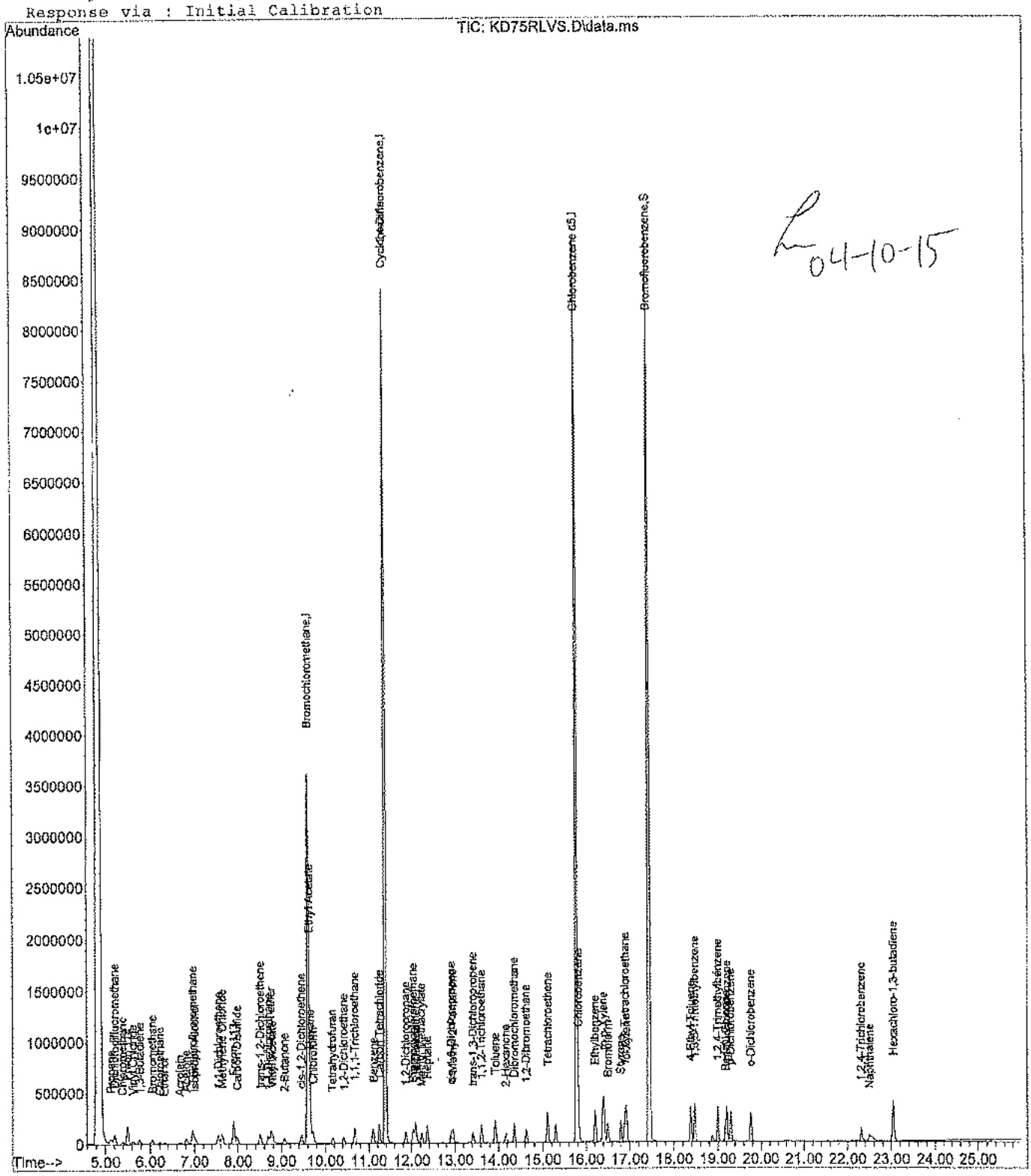
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD75RLVS.D Vial: 3
Acq Time : 04/08/2015 14:35 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (300 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:18 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD75RLVS.D Vial: 3
Acq Time : 04/08/2015 14:35 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:18 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	840576	20.0000	ppb		98.54
25) 1,4-Difluorobenzene	11.39	114	11007219	20.0000	ppb		98.68
50) Chlorobenzene d5	15.77	117	9103767	20.0000	ppb		94.41
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5278116	16.4818	ppb		82.41%
Target Compounds							Qvalue
2) Propene	5.13	41	34441	0.4690	ppb		94
3) Dichlorodifluoromethane	5.21	85	154579	0.2987	ppb		99
4) Chloromethane	5.39	50	31937	0.3480	ppb		99
5) Freon 114	5.50	135	132334	0.3326	ppb		93
6) Vinyl Chloride	5.62	62	42359	0.3582	ppb		99
7) 1,3-Butadiene	5.77	54	29559	0.3475	ppb		84
8) Bromomethane	6.04	94	49292	0.3497	ppb		100
9) Chloroethane	6.21	64	26072	0.4460	ppb		96
10) Acrolein	6.67	56	17022	0.5239	ppb	#	98
11) Acetone	6.81	43	100563	0.4494	ppb		98
12) Trichlorofluoromethane	6.96	101	182176	0.3354	ppb		98
13) Ethanol	6.31	45	14796	0.4382	ppb	#	39
14) Isopropyl Alcohol	7.01	45	86335	0.5121	ppb		94
15) 1,1-Dichloroethene	7.55	61	79752	0.4263	ppb		90
16) Methylene Chloride	7.64	84	79680	0.6470	ppb		91
17) Freon 113	7.90	151	125676	0.5050	ppb	#	81
18) Carbon Disulfide	7.98	76	159782	0.5357	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	66455	0.5768	ppb		92
20) 1,1-Dichloroethane	8.70	63	94787	0.4614	ppb		97
21) methyl t-butyl ether	8.76	73	167852	0.5269	ppb		95
22) Vinyl Acetate	8.80	86	17961	0.6419	ppb	#	1
23) 2-Butanone	9.07	43	94813	0.4487	ppb	#	87
24) cis-1,2-Dichloroethene	9.45	96	67300	0.5821	ppb		92
26) Ethyl Acetate	9.64	61	18645	0.5368	ppb	#	1
27) Hexane	9.66	57	78229	0.5196	ppb	#	56
28) Chloroform	9.72	83	129598	0.3909	ppb		99
29) Tetrahydrofuran	10.16	42	53735	0.5278	ppb		86
30) 1,2-Dichloroethane	10.41	62	76142	0.3305	ppb		98
31) 1,1,1-Trichloroethane	10.67	97	149633	0.3801	ppb		98
32) Benzene	11.10	78	192965	0.6344	ppb	#	96
33) Carbon Tetrachloride	11.25	117	169612	0.3649	ppb		100
34) Cyclohexane	11.38	84	92186	0.5262	ppb	#	1
35) 1,2-Dichloropropane	11.87	63	58519	0.5552	ppb		99
36) Bromodichloromethane	12.04	83	136719	0.3941	ppb		99
37) 1,4-Dioxane	12.11	88	42783	0.5829	ppb		99
38) Trichloroethene	12.09	130	111637	0.5525	ppb		98
39) Methyl Methacrylate	12.23	69	61017	0.5259	ppb	#	87
40) Heptane	12.36	71	60033	0.5383	ppb	#	80
41) cis-1,3-Dichloropropene	12.91	75	102654	0.5377	ppb		96
42) 4-Methyl-2-Pentanone	12.95	43	113980	0.4318	ppb	#	88
43) trans-1,3-Dichloropropene	13.42	75	94031	0.4928	ppb		96
44) 1,1,2-Trichloroethane	13.62	97	85098	0.5134	ppb		95
45) Toluene	13.93	91	245796	0.5773	ppb		100
46) 2-Hexanone	14.16	43	99248	0.4169	ppb	#	88
47) Dibromochloromethane	14.36	129	169237	0.4423	ppb		100
48) 1,2-Dibromoethane	14.63	107	137523	0.5112	ppb		99
49) Tetrachloroethene	15.11	166	139275	0.6102	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD75RLVS.D Vial: 3
Acq Time : 04/08/2015 14:35 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:18 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	15.82	112	237695	0.5466	ppb		97
52) Ethylbenzene	16.21	91	338492	0.5900	ppb		97
53) m,p-Xylene	16.41	91	545397	1.0467	ppb		96
54) Bromoform	16.51	173	142058	0.4904	ppb		99
55) Styrene	16.80	104	187836	0.6103	ppb		99
56) 1,1,2,2-Tetrachloroethane	16.90	83	174321	0.5388	ppb		97
57) o-Xylene	16.93	91	282215	0.5291	ppb		96
59) 4-Ethyl Toluene	18.38	105	351103	0.5545	ppb		97
60) 1,3,5-Trimethylbenzene	18.47	105	329544	0.5435	ppb		94
61) 1,2,4-Trimethylbenzene	19.00	105	307670	0.6036	ppb		97
62) Benzyl Chloride	19.18	91	206349	0.5351	ppb		96
63) m-Dichlorobenzene	19.21	146	230556	0.5695	ppb		97
64) p-Dichlorobenzene	19.30	146	218953	0.5890	ppb	#	96
65) o-Dichlorobenzene	19.76	146	215260	0.6581	ppb		96
66) 1,2,4-Trichlorobenzene	22.31	180	87072	0.8385	ppb		97
67) Naphthalene	22.50	128	98766	0.3543	ppb		98
68) Hexachloro-1,3-butadiene	23.05	225	107835	0.7883	ppb		98

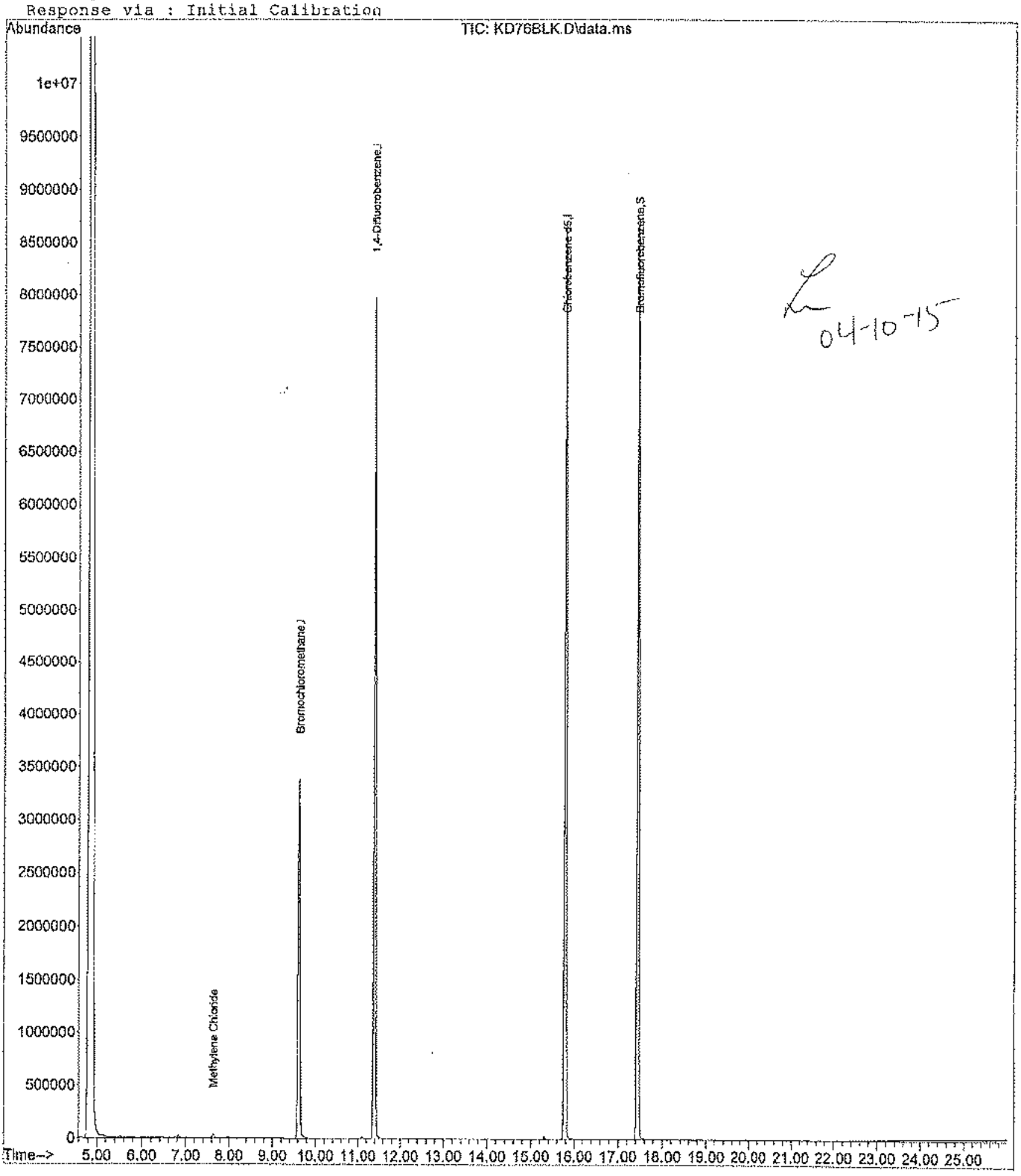
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD76BLK.D Vial: 4
Acq Time : 04/08/2015 15:22 Operator:
Sample : BL- 0159 Inst : 5975-K
Misc : 0159/0240/0448/0388/0531/0226/0376/0202 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:28 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD76BLK.D Vial: 4
Acq Time : 04/08/2015 15:22 Operator:
Sample : BL- 0159 Inst : 5975-K
Misc : 0159/0240/0448/0388/0531/0226/0376/0202 Multipir: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:28 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.61	130	794432	20.0000 ppb	93.13
25) 1,4-Difluorobenzene	11.39	114	1054404	20.0000 ppb	94.53
50) Chlorobenzene d5	15.78	117	8873735	20.0000 ppb	92.03
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	5080828	16.2770 ppb	81.39%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.63	84	26943	0.2315 ppb	91
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD76BLK.D Vial: 4
Acq Time : 04/08/2015 15:22 Operator:
Sample : BL- 0159 Inst : 5975-K
Misc : 0159/0240/0448/0388/0531/0226/0376/0202 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:28 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

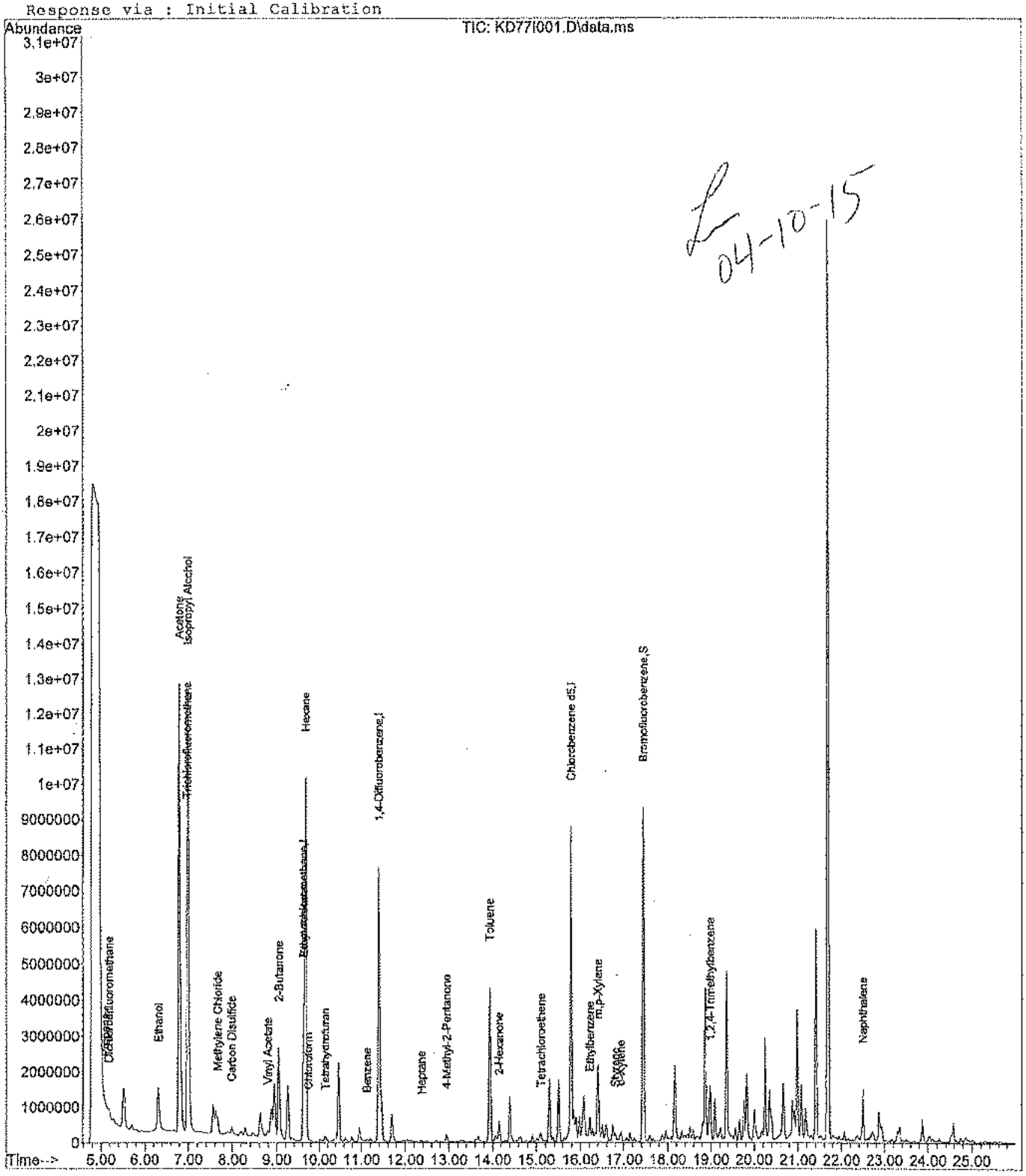
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 13:43:31 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 13:43:31 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	9.62	130	791616	20.0000 ppb		92.80
25) 1,4-Difluorobenzene	11.40	114	9752444	20.0000 ppb		87.43
50) Chlorobenzene d5	15.77	117	8722531	20.0000 ppb		90.46
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	17.44	95	5381869	17.5403 ppb		87.70%
Target Compounds						Qvalue
2) Propene	5.11	41	66585	0.9628 ppb	#	86 TIC <10%
3) Dichlorodifluoromethane	5.18	85	135873	0.2788 ppb		100
4) Chloromethane	0.00	50		Not Detected		
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	6.78	43	24651336	116.9735 ppb		100
12) Trichlorofluoromethane	6.96	101	82500	0.1613 ppb		97
13) Ethanol	6.31	45	2158148	67.0696 ppb	#	77 TIC
14) Isopropyl Alcohol	6.98	45	25616781	161.3299 ppb		98 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	7.67	84	321299	2.7703 ppb	#	89
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	7.98	76	82245	~~0.2928 ppb~~	#	81 LOQ 4-10-15
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	8.79	86	33557	1.2735 ppb	#	1
23) 2-Butanone	9.04	43	4267483	21.4453 ppb	#	86
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	9.63	61	28926	0.9399 ppb	#	1
27) Hexane	9.68	57	7012385	52.5699 ppb		88
28) Chloroform	9.74	83	91287	0.3108 ppb		98
29) Tetrahydrofuran	10.14	42	83169	0.9221 ppb		87
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	11.12	78	95288	0.3536 ppb	#	94
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	0.00	130		Not Detected		
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	12.37	71	18022	0.1824 ppb	#	75
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	12.94	43	170895	0.7307 ppb	#	89
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	13.93	91	4951567	13.1265 ppb		99
46) 2-Hexanone	14.15	43	500261	2.3720 ppb	#	86
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	15.11	166	94962	0.4696 ppb	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

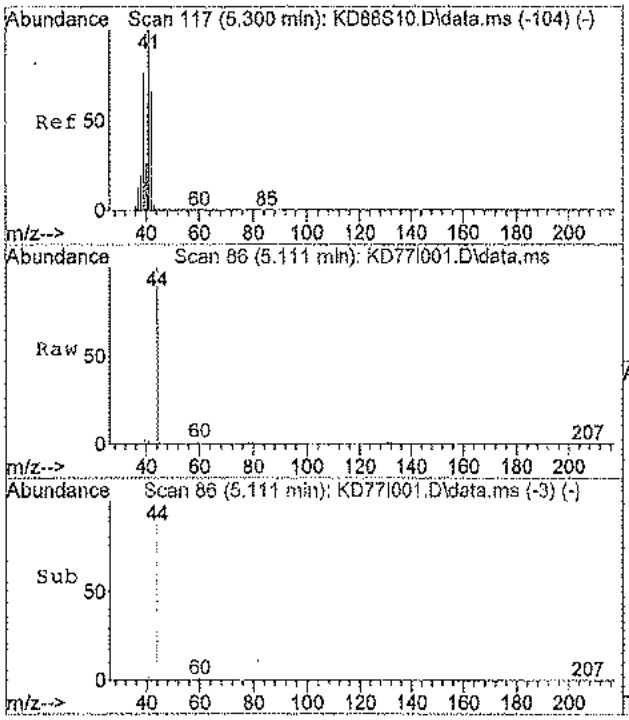
Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 13:43:31 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	16.21	91	193856	0.3526 ppb	96
53) m,p-Xylene	16.40	91	492290	0.9860 ppb	95
54) Bromoform	0.00	173		Not Detected	
55) Styrene	16.80	104	139372	0.4727 ppb	97
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	16.93	91	199811	0.3910 ppb	95
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	18.99	105	282196	0.5778 ppb	95
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	22.49	128	103588	0.3878 ppb	#(<70%)
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

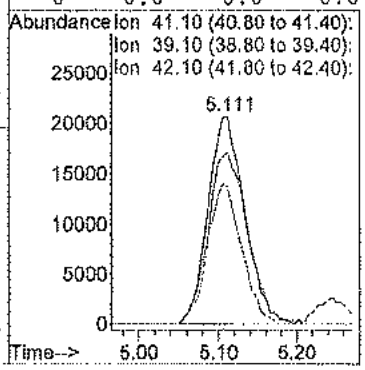
(#) = qualifier out of range (m) = manual integration

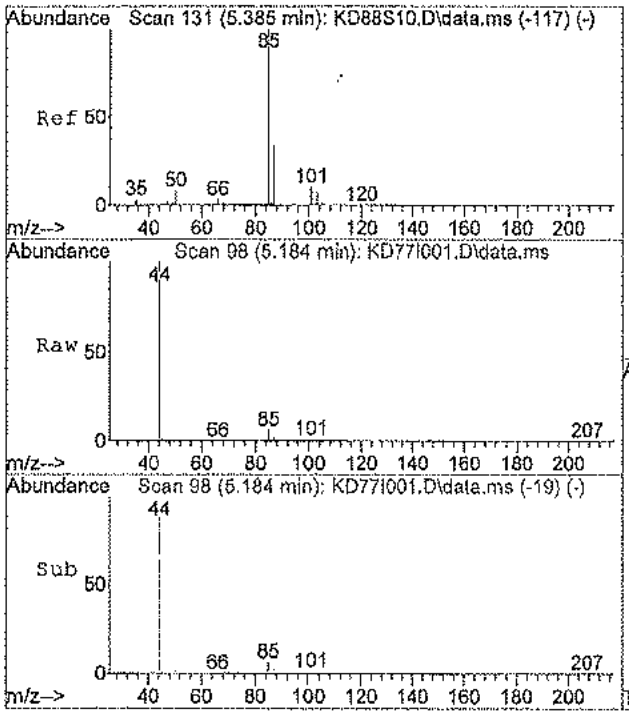


#2
Propene
Concen: 0.96 ppb
RT: 5.11 min Scan# 86
Delta R.T. 0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:41.1 Resp: 66585

Ion	Ratio	Lower	Upper
41	100		
39	88.9	56.2	84.4#
42	62.8	53.8	80.6
0	0.0	0.0	0.0

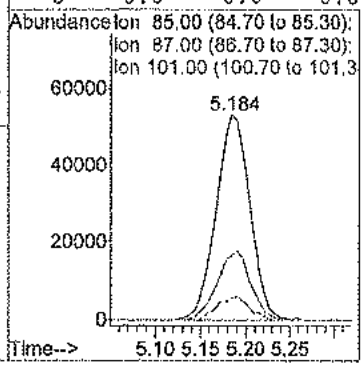


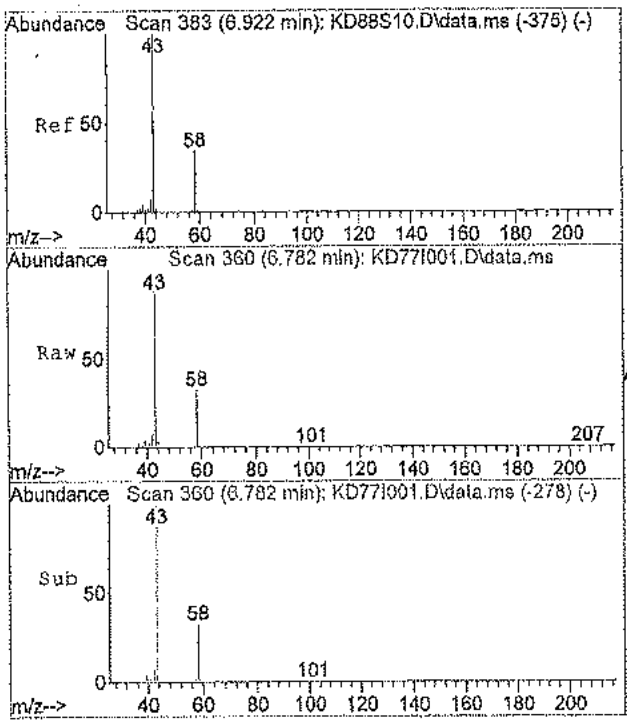


#3
Dichlorodifluoromethane
Concen: 0.28 ppb
RT: 5.18 min Scan# 98
Delta R.T. -0.02 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:85 Resp: 135873

Ion	Ratio	Lower	Upper
85	100		
87	32.5	26.1	39.1
101	10.4	8.0	12.0
0	0.0	0.0	0.0

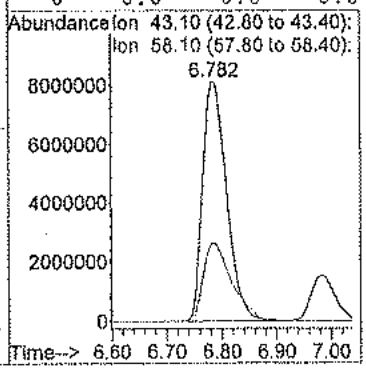


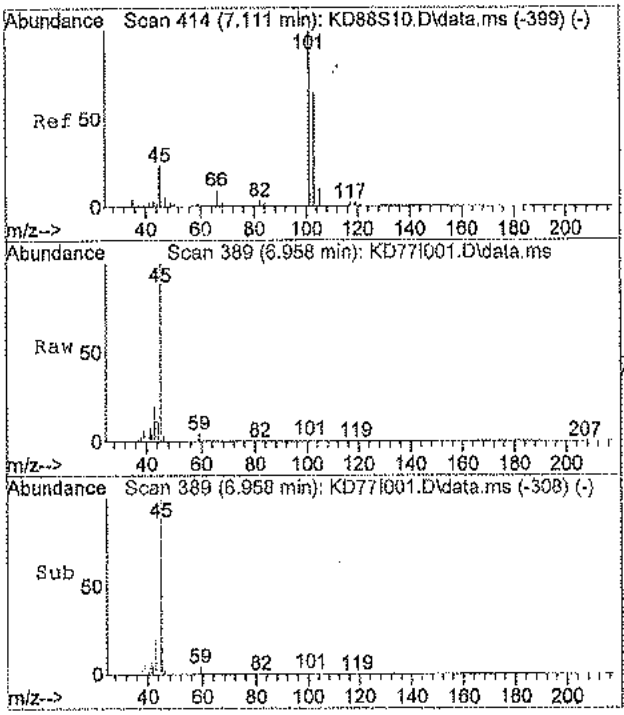


#11
Acetone
Concen: 116.97 ppb
RT: 6.78 min Scan# 360
Delta R.T. 0.00 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:43.1 Resp:24651336

Ion	Ratio	Lower	Upper
43	100		
58	38.5	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

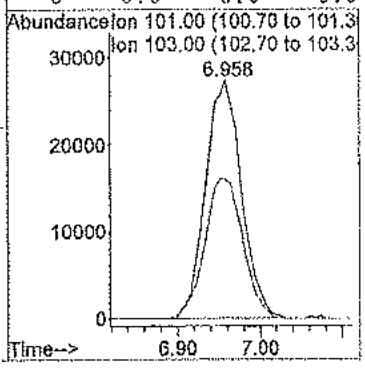


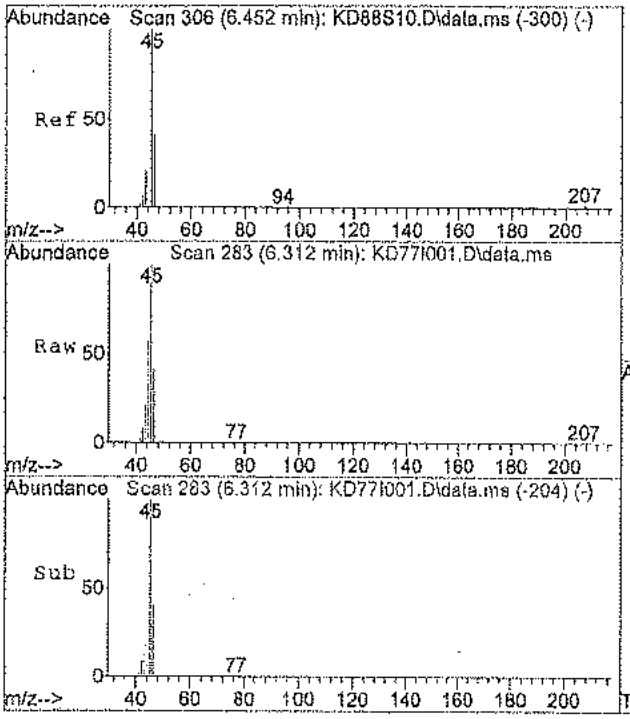


#12
Trichlorofluoromethane
Concen: 0.16 ppb
RT: 6.96 min Scan# 389
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:101 Resp: 82500

Ion	Ratio	Lower	Upper
101	100		
103	62.3	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

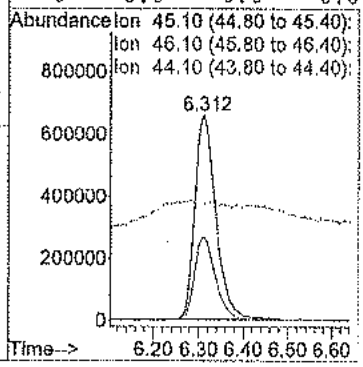


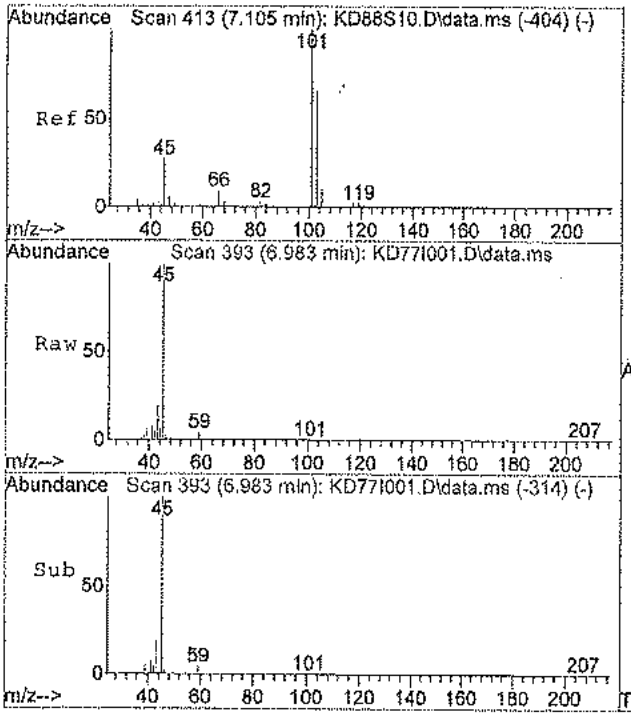


#13
Ethanol
Concen: 67.87 ppb
RT: 6.31 min Scan# 283
Delta R.T. -0.02 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:45.1 Resp: 2158148

Ion	Ratio	Lower	Upper
45	100		
46	40.9	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

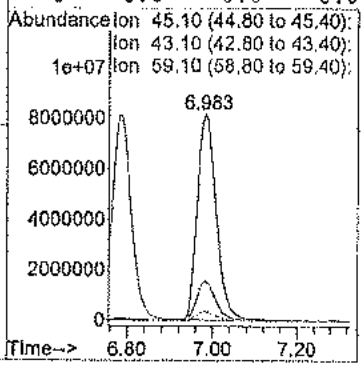


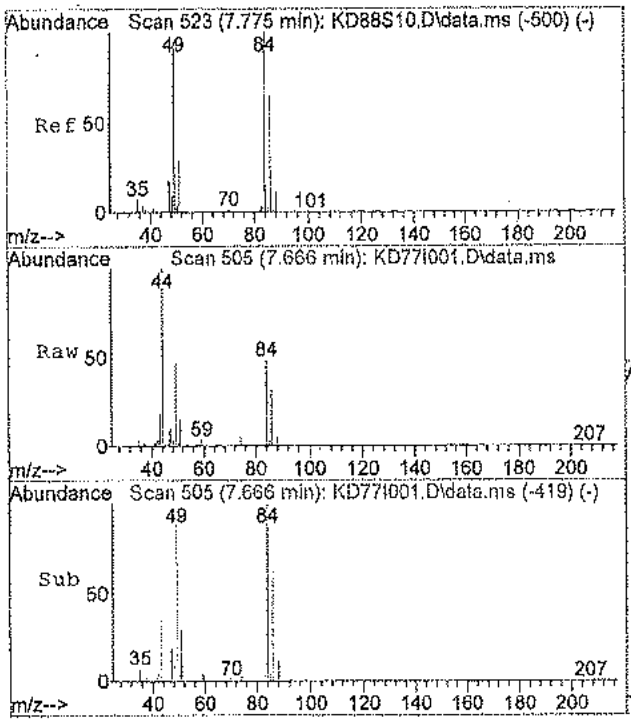


#14
Isopropyl Alcohol
Concen: 161.33 ppb
RT: 6.98 min Scan# 393
Delta R.T. -0.02 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:45.1 Resp:25616781

Ion	Ratio	Lower	Upper
45	100		
43	18.9	15.8	23.6
59	4.3	3.2	4.8
0	0.0	0.0	0.0

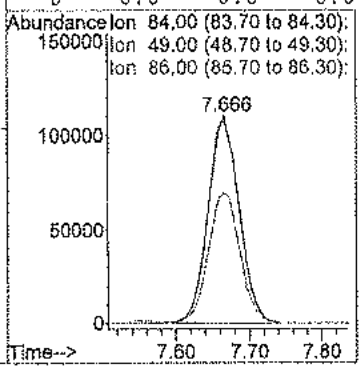


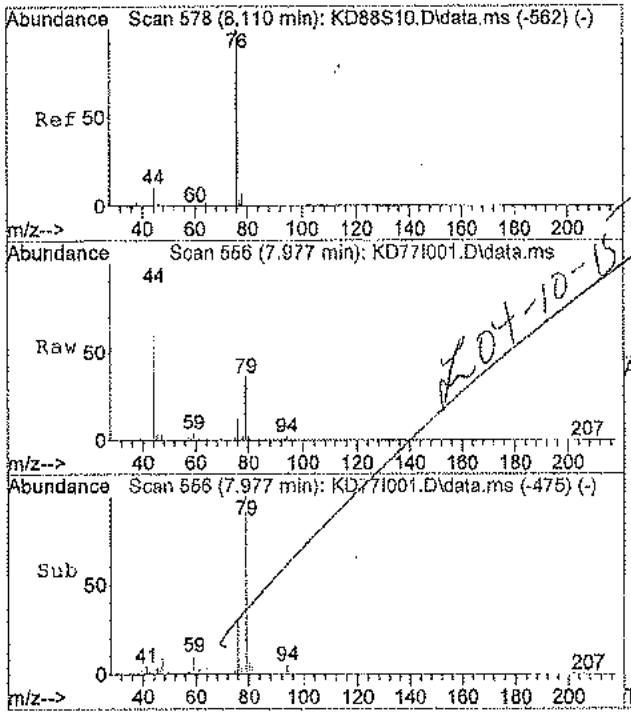


#16
Methylene Chloride
Concen: 2.77 ppb
RT: 7.67 min Scan# 505
Delta R.T. 0.02 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:84 Resp: 321299

Ion	Ratio	Lower	Upper
84	100		
49	100.9	66.6	100.0#
86	64.4	51.6	77.4
0	0.0	0.0	0.0

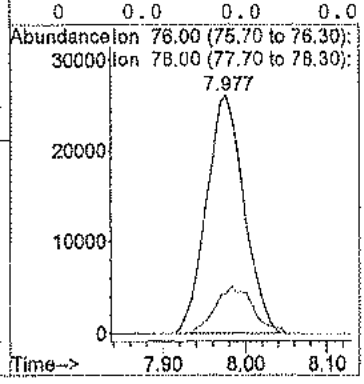


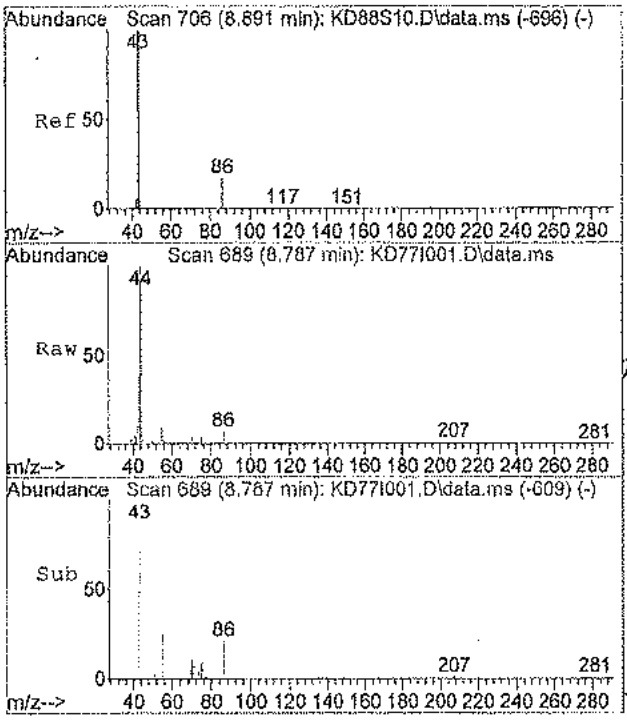


#18
Carbon Disulfide
Concen: 0.29 ppb
RT: 7.98 min Scan# 556
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:76 Resp: 82245

Ion	Ratio	Lower	Upper
76	100		
78	19.5	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

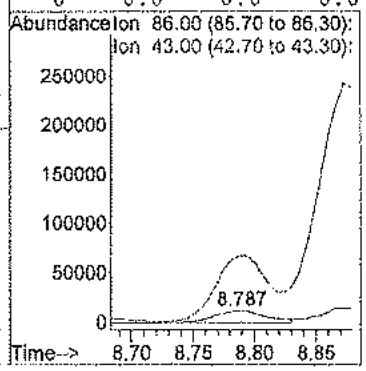


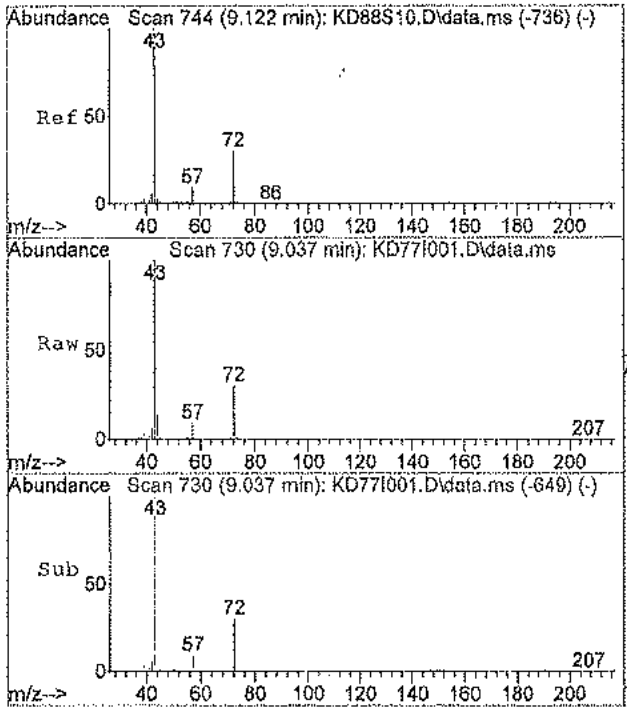


#22
Vinyl Acetate
Concen: 1.27 ppb
RT: 8.79 min Scan# 689
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:86 Resp: 33557

Ion	Ratio	Lower	Upper
86	100		
43	584.5	144.0	216.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

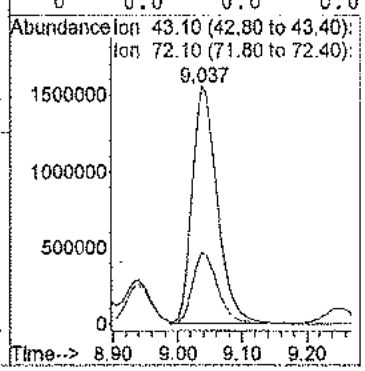


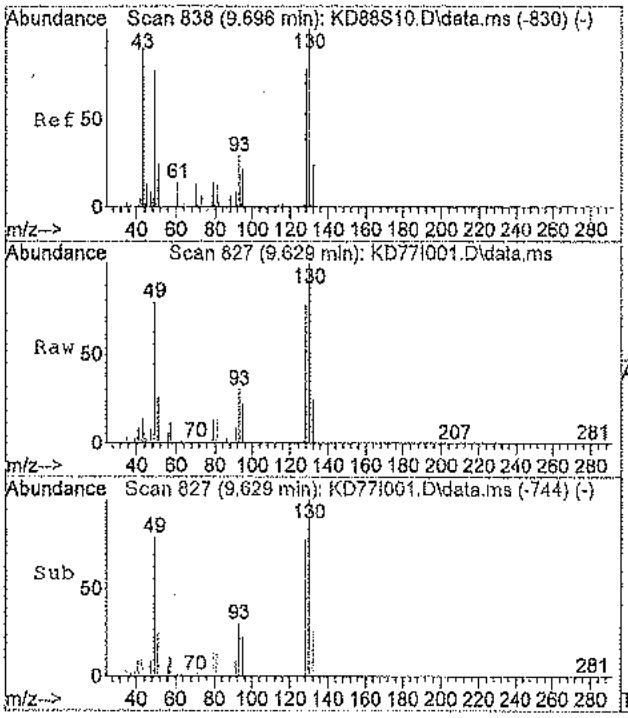


#23
2-Butanone
Concen: 21.45 ppb
RT: 9.04 min Scan# 730
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:43.1 Resp: 4267483

Ion	Ratio	Lower	Upper
43	100		
72	30.2	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

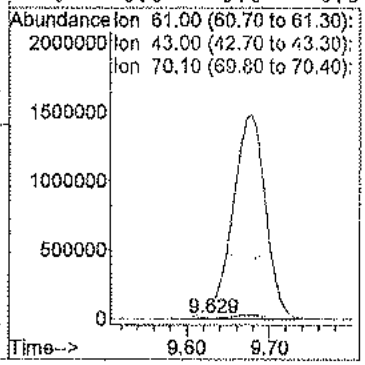


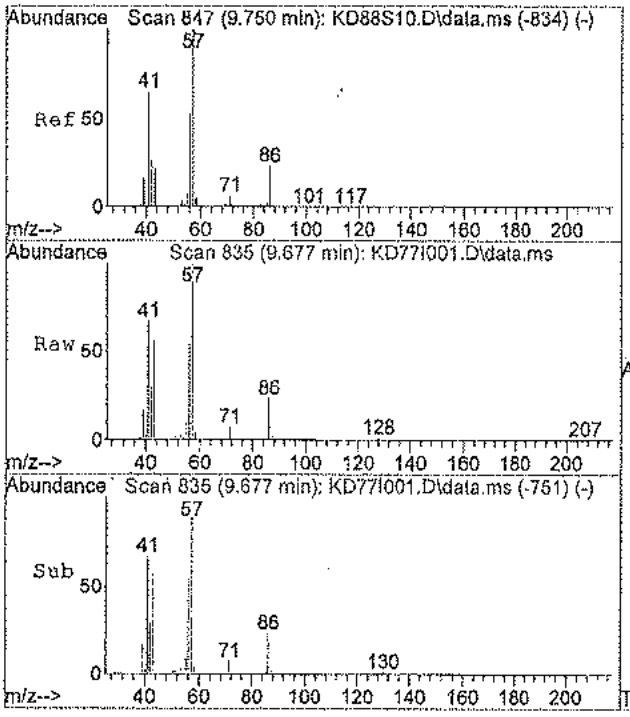


#26
Ethyl Acetate
Concen: 0.94 ppb
RT: 9.63 min Scan# 827
Delta R.T. 0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:61 Resp: 28926

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	0.0	13.6	20.4#
0	0.0	0.0	0.0

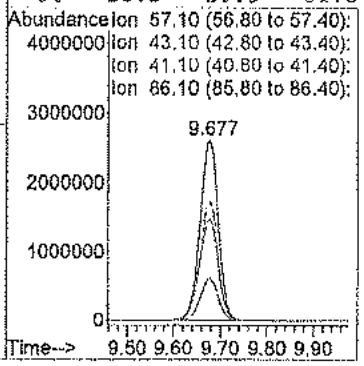


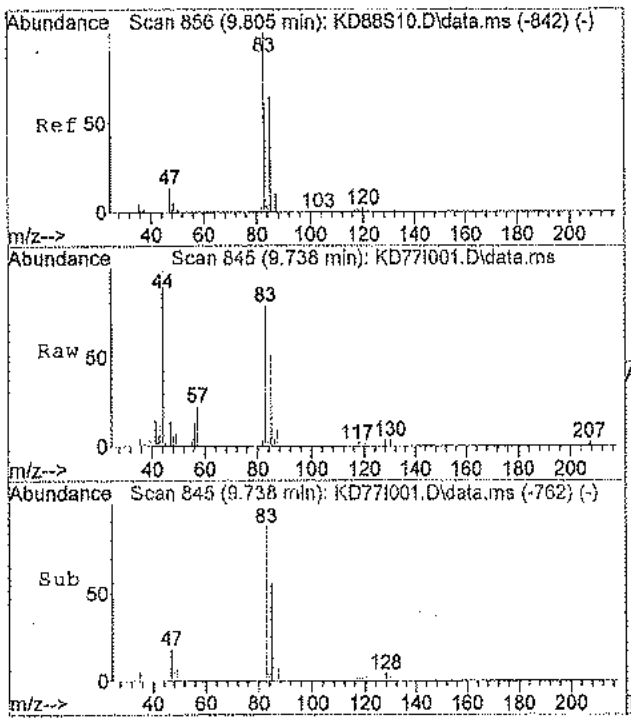


#27
Hexane
Concen: 52.57 ppb
RT: 9.68 min Scan# 835
Delta R.T. 0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:57.1 Resp: 7012385

Ion	Ratio	Lower	Upper
57	100		
43	59.1	57.3	85.9
41	67.1	47.0	70.4
86	23.2	20.9	31.3

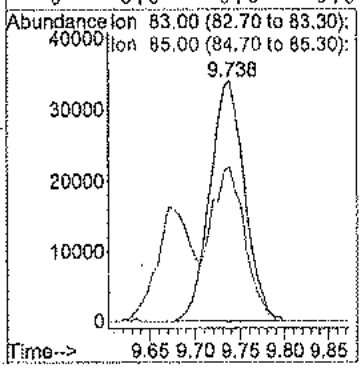


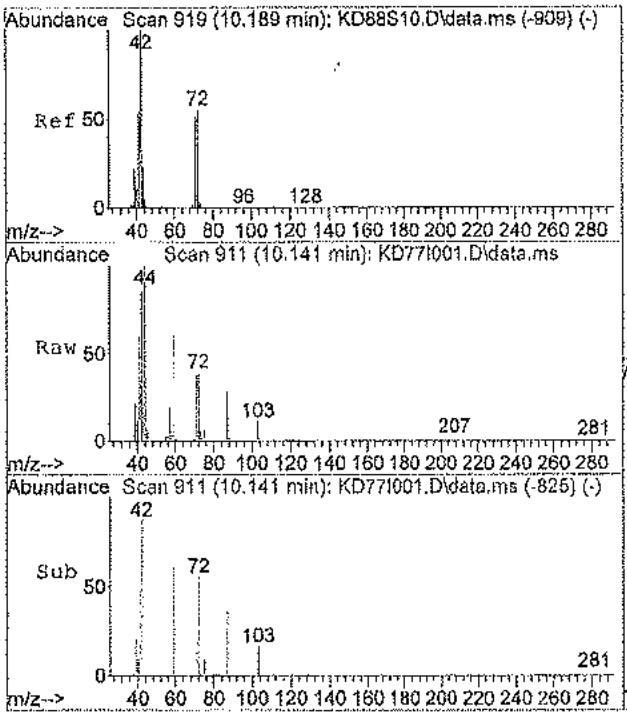


#28
Chloroform
Concen: 0.31 ppb
RT: 9.74 min Scan# 845
Delta R.T. 0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:83 Resp: 91287

Ion	Ratio	Lower	Upper
83	100		
85	64.0	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

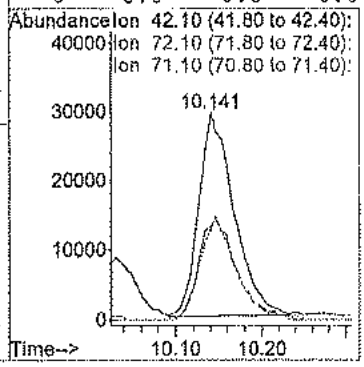


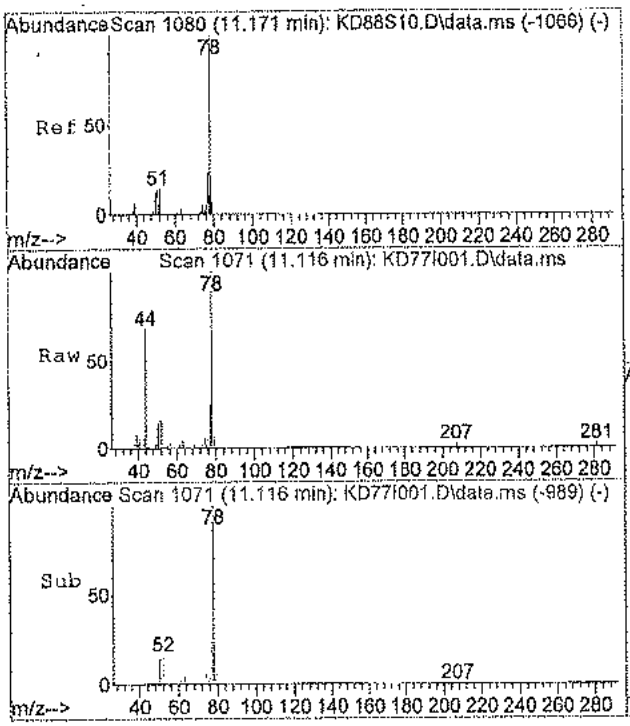


#29
Tetrahydrofuran
Concen: 0.92 ppb
RT: 10.14 min Scan# 911
Delta R.T. 0.02 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:42.1 Resp: 83169

Ion	Ratio	Lower	Upper
42	100		
72	52.5	51.5	77.3
71	50.9	47.5	71.3
0	0.0	0.0	0.0

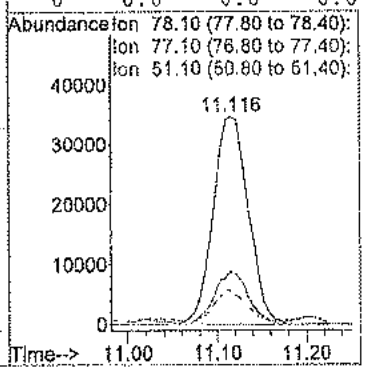


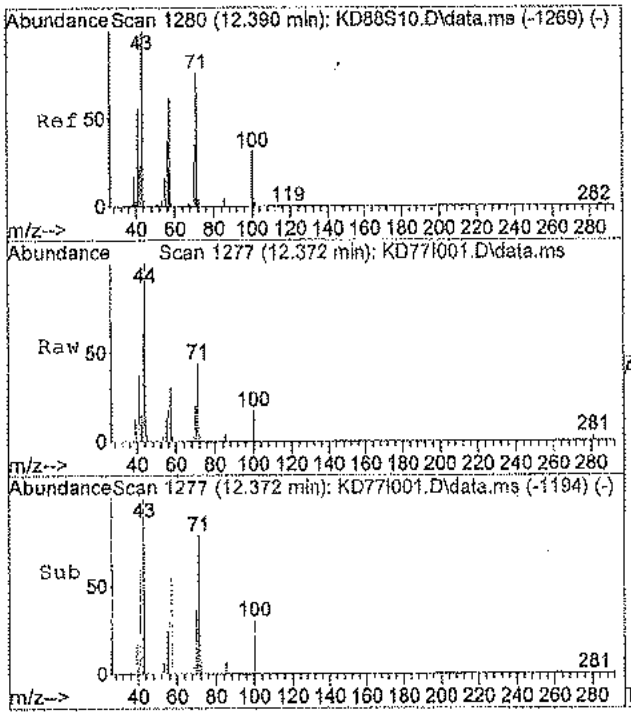


#32
Benzene
Concen: 0.35 ppb
RT: 11.12 min Scan# 1071
Delta R.T. 0.00 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:78.1 Resp: 95288

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.4
51	16.0	9.5	14.3#
0	0.0	0.0	0.0

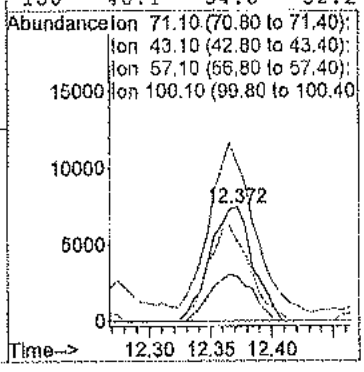


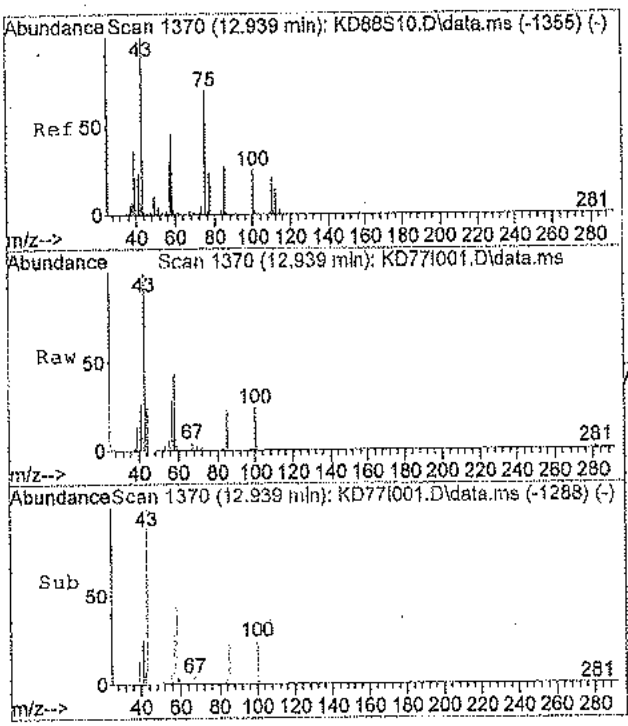


#40
Heptane
Concen: 0.18 ppb
RT: 12.37 min Scan# 1277
Delta R.T. 0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:71.1 Resp: 18022

Ion	Ratio	Lower	Upper
71	100		
43	153.0	87.3	130.9#
57	81.7	57.8	86.6
100	40.1	34.8	52.2

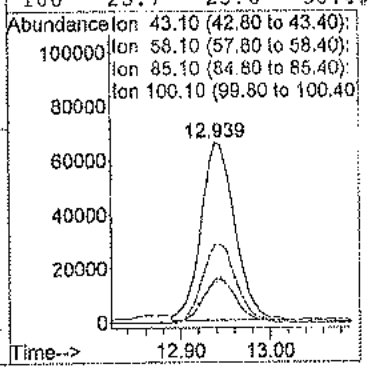


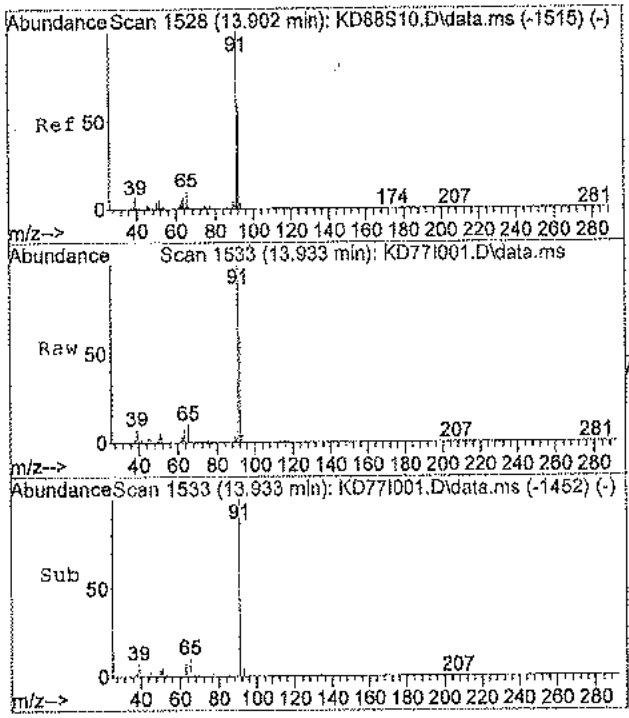


#42
4-Methyl-2-Pentanone
Concen: 0.73 ppb
RT: 12.94 min Scan# 1370
Delta R.T. 0.00 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:43.1 Resp: 170895

Ion	Ratio	Lower	Upper
43	100		
58	44.2	39.5	59.3
85	25.0	25.1	37.7#
100	23.7	25.6	38.4#

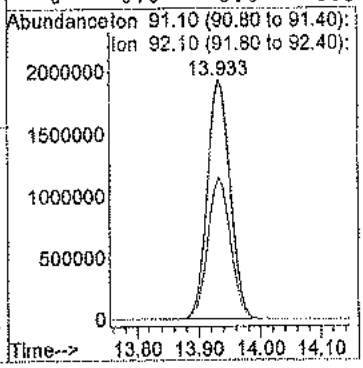


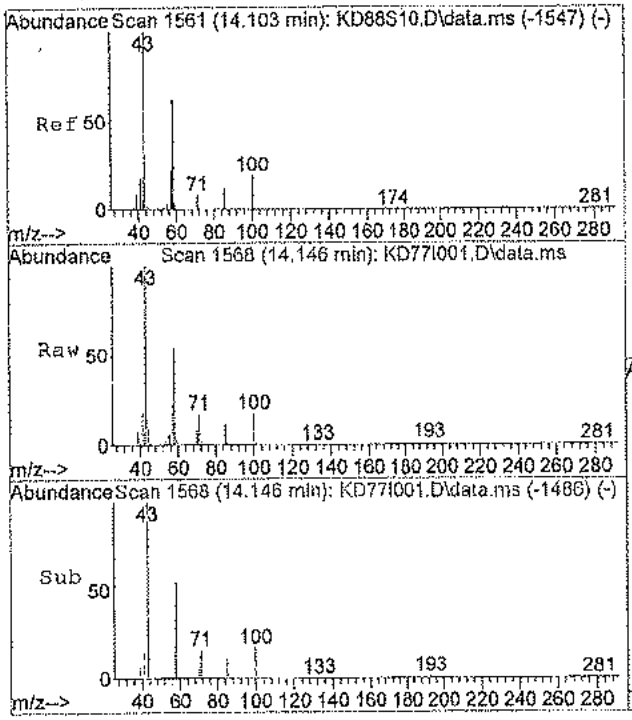


#45
Toluene
Concen: 13.13 ppb
RT: 13.93 min Scan# 1533
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:91.1 Resp: 4951567

Ion	Ratio	Lower	Upper
91	100		
92	59.1	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

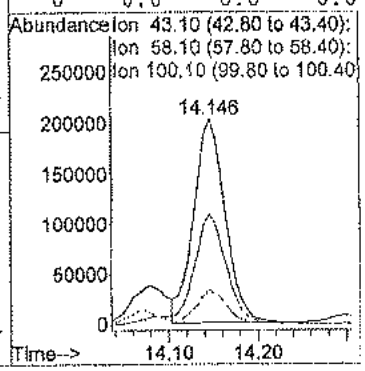


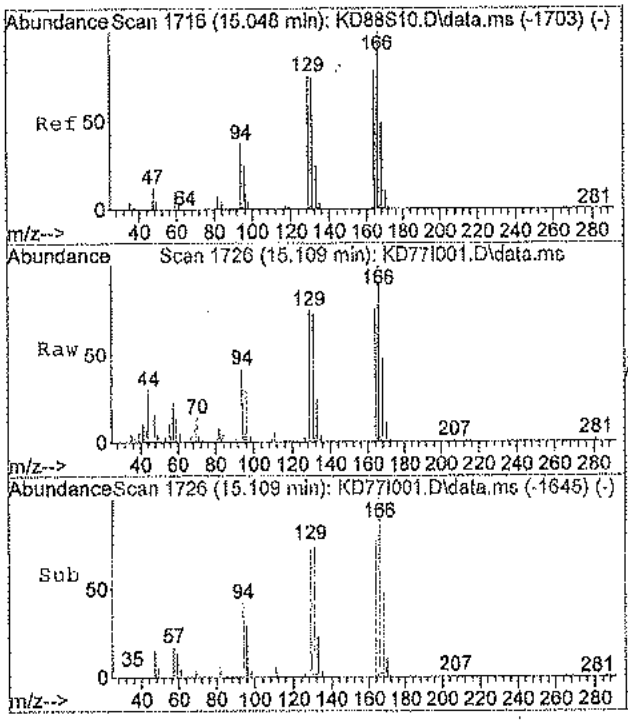


#46
2-Hexanone
Concen: 2.37 ppb
RT: 14.15 min Scan# 1568
Delta R.T. 0.00 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:43.1 Resp: 500261

Ion	Ratio	Lower	Upper
43	100		
58	58.3	54.7	82.1
100	16.4	19.6	29.4#
0	0.0	0.0	0.0

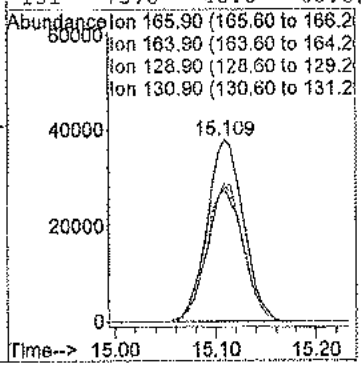


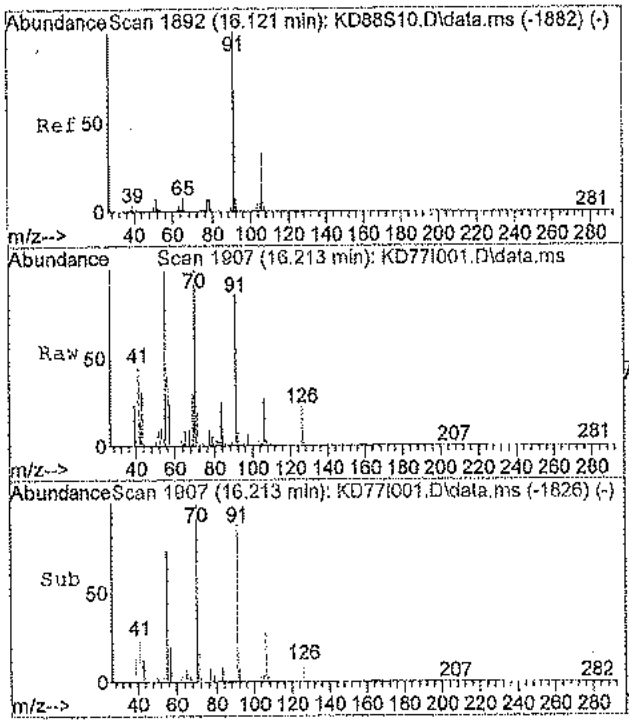


#49
Tetrachloroethene
Concen: 0.47 ppb
RT: 15.11 min Scan# 1726
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:165.9 Resp: 94962

Ion	Ratio	Lower	Upper
166	100		
164	77.0	61.0	91.4
129	76.0	45.9	68.9#
131	73.3	45.5	68.3#

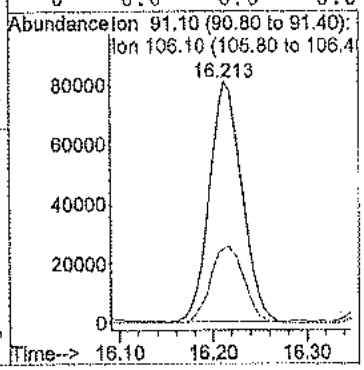


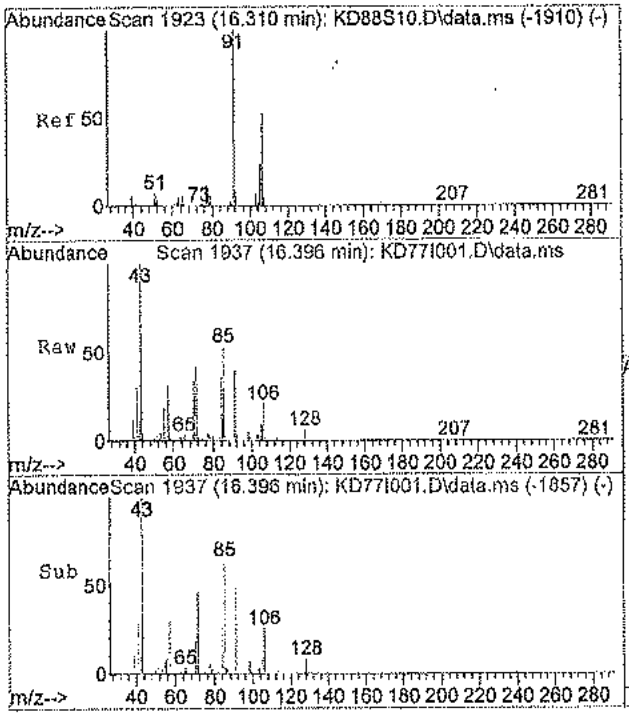


#52
Ethylbenzene
Concen: 0.35 ppb
RT: 16.21 min Scan# 1907
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:91.1 Resp: 193856

Ion	Ratio	Lower	Upper
91	100		
106	33.1	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

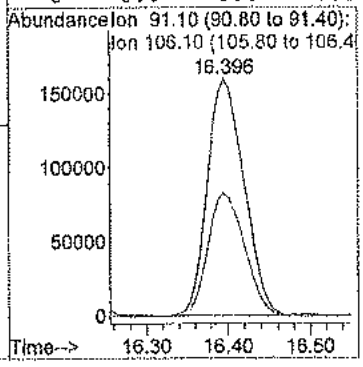


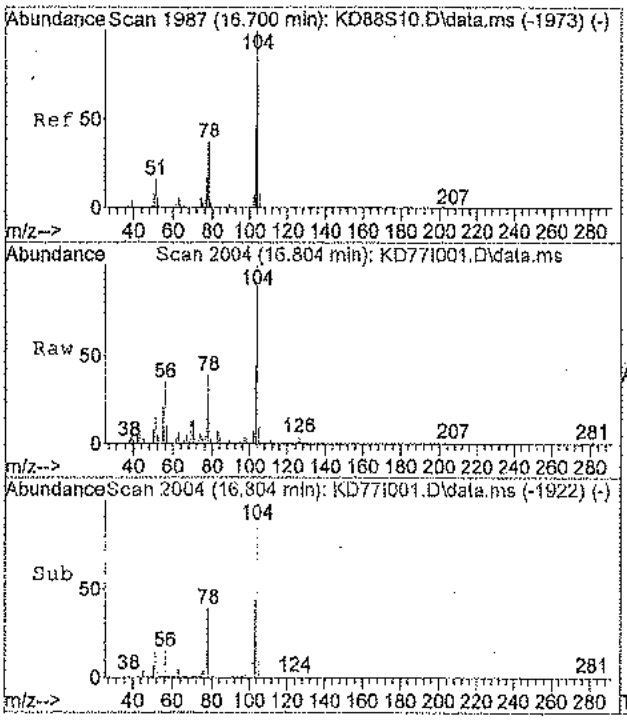


#53
m,p-Xylene
Concen: 0.99 ppb
RT: 16.40 min Scan# 1937
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:91.1 Resp: 492290

Ion	Ratio	Lower	Upper
91	100		
106	52.1	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

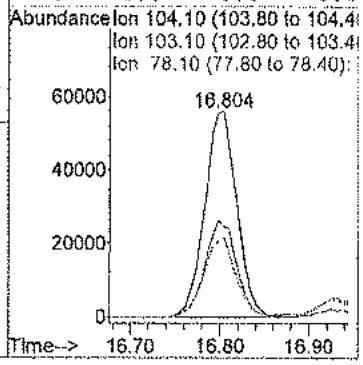


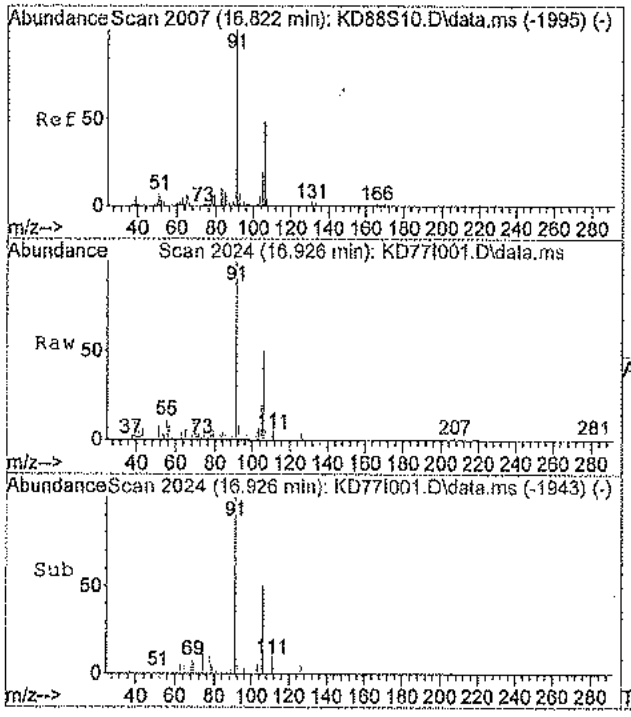


#55
Styrene
Concen: 0.47 ppb
RT: 16.80 min Scan# 2004
Delta R.T. 0.00 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:104.1 Resp: 139372

Ion	Ratio	Lower	Upper
104	100		
103	46.1	36.6	54.8
78	38.2	27.7	41.5
0	0.0	0.0	0.0

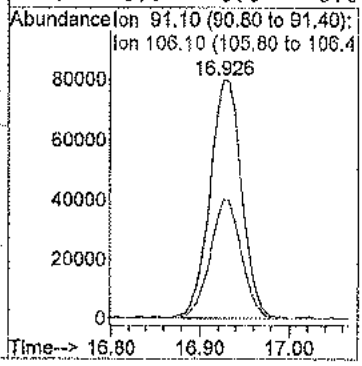


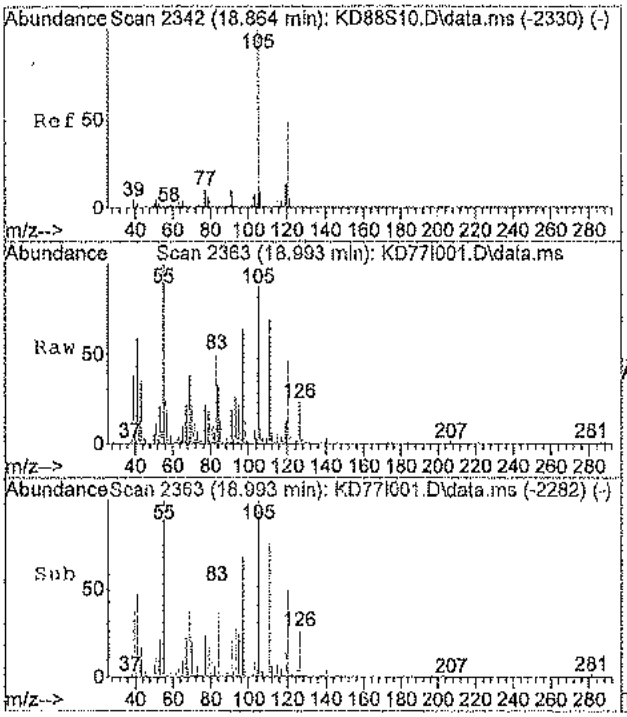


#57
o-Xylene
Concen: 0.39 ppb
RT: 16.93 min Scan# 2024
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:91.1 Resp: 199811

Ion	Ratio	Lower	Upper
91	100		
106	49.1	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

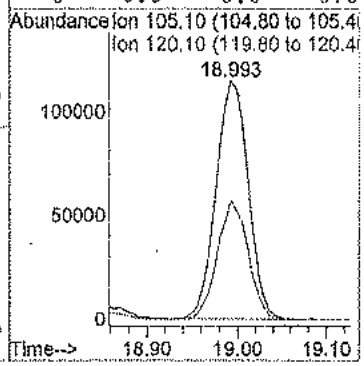


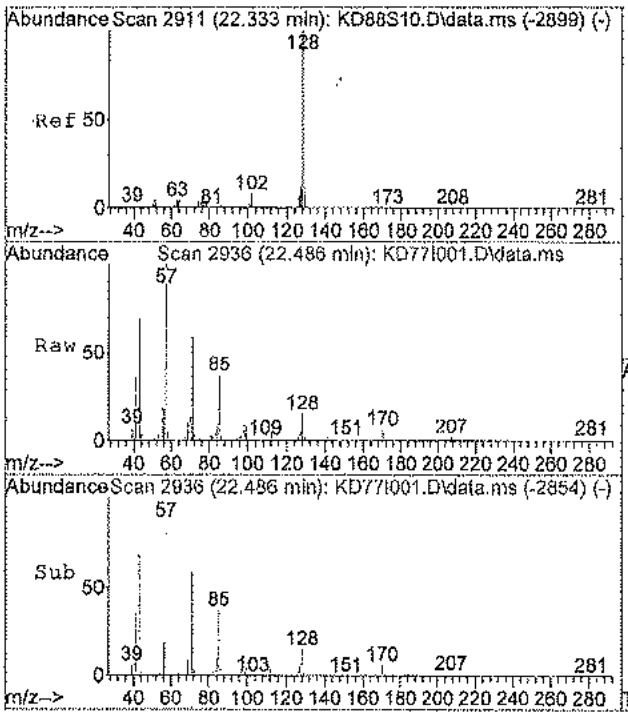


#61
1,2,4-Trimethylbenzene
Concen: 0.58 ppb
RT: 18.99 min Scan# 2363
Delta R.T. -0.01 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:105.1 Resp: 282196

Ion	Ratio	Lower	Upper
105	100		
120	47.4	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

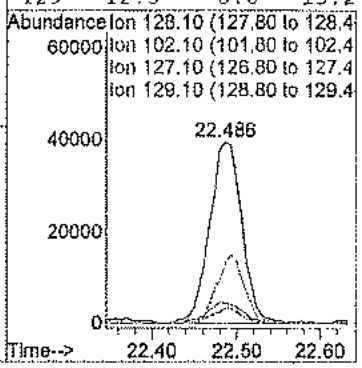




#67
Naphthalene
Concen: 0.39 ppb
RT: 22.49 min Scan# 2936
Delta R.T. -0.00 min
Lab File: KD77I001.D
Acq: 04/08/2015 16:06

Tgt Ion:128.1 Resp: 103588

Ion	Ratio	Lower	Upper
128	100		
102	7.4	6.7	10.1
127	33.4	10.0	15.0#
129	12.3	8.8	13.2



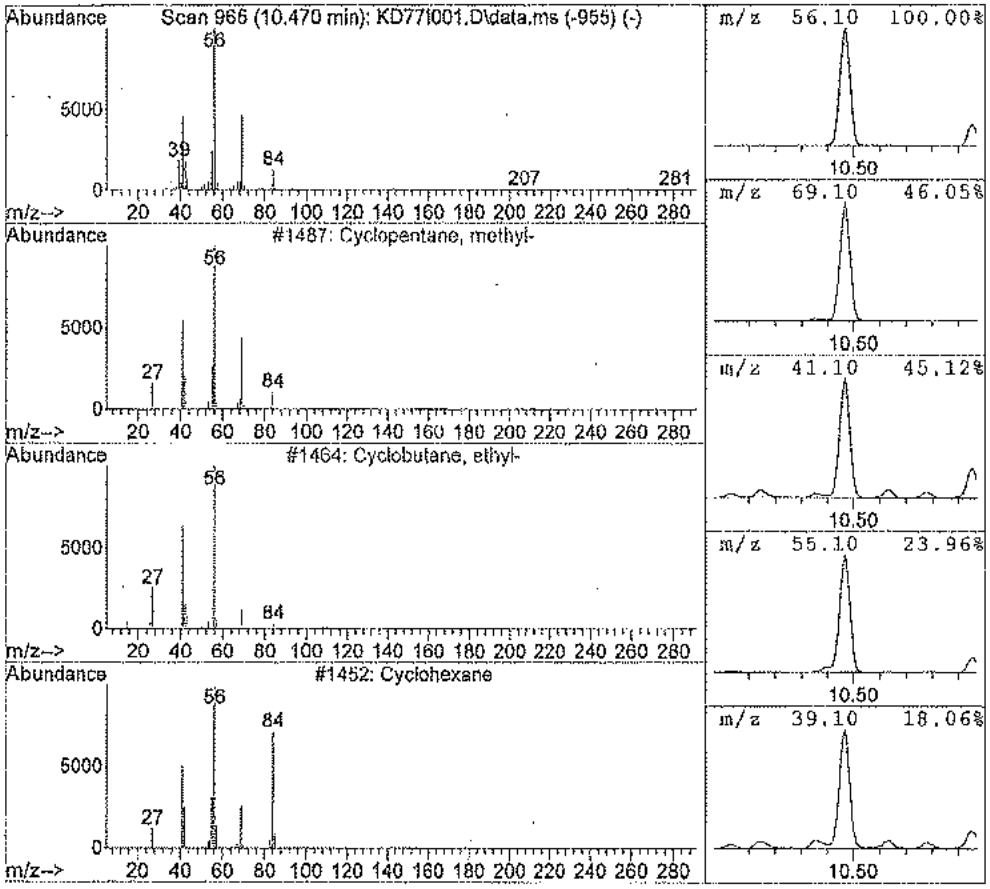
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.47	3.30 ppb	6124393	Bromochloromethane	37131928

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	94.00
2	Cyclobutane, ethyl-	1464	004806-61-5	78.00
3	Cyclohexane	1452	000110-82-7	78.00
4	1H-Tetrazole, 5-methyl-	1323	004076-36-2	72.00
5	Cyclopentane, 1,1-dimethyl-	3365	001638-26-2	56.00



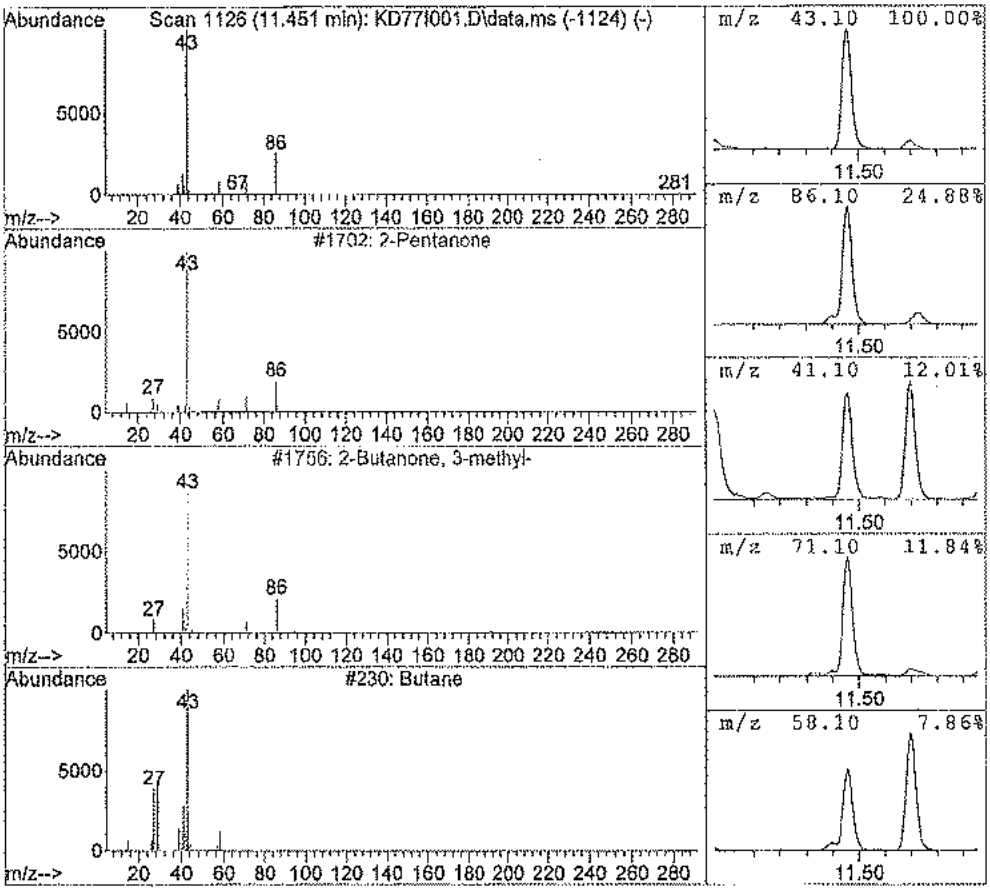
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
11.45	3.21 ppb	3187771	1,4-Difluorobenzene	19872022

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Pentanone	1702	000107-87-9	64.00
2	2-Butanone, 3-methyl-	1756	000563-80-4	50.00
3	Butane	230	000106-97-8	7.00
4	Acetic acid ethenyl ester	1670	000108-05-4	7.00
5	3-Pentanone	1699	000096-22-0	5.00



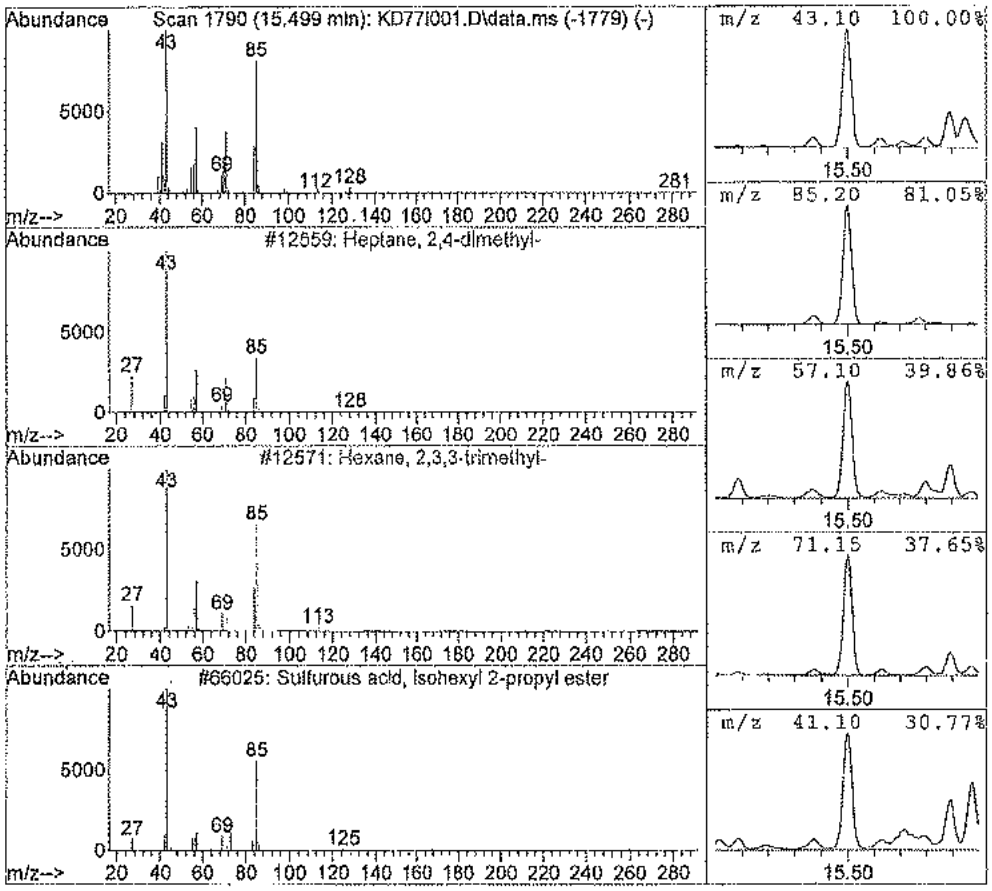
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
15.50	3.51 ppb	4083128	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 2,4-dimethyl-	12559	002213-23-2	90.00
2	Hexane, 2,3,3-trimethyl-	12571	016747-28-7	64.00
3	Sulfurous acid, isohexyl 2-propyl e	66025	1000309-11-6	59.00
4	Pentane, 3-ethyl-2,4-dimethyl-	12606	001068-87-7	59.00
5	2,2-Dimethylvaleroyl chloride	22716	015721-22-9	53.00



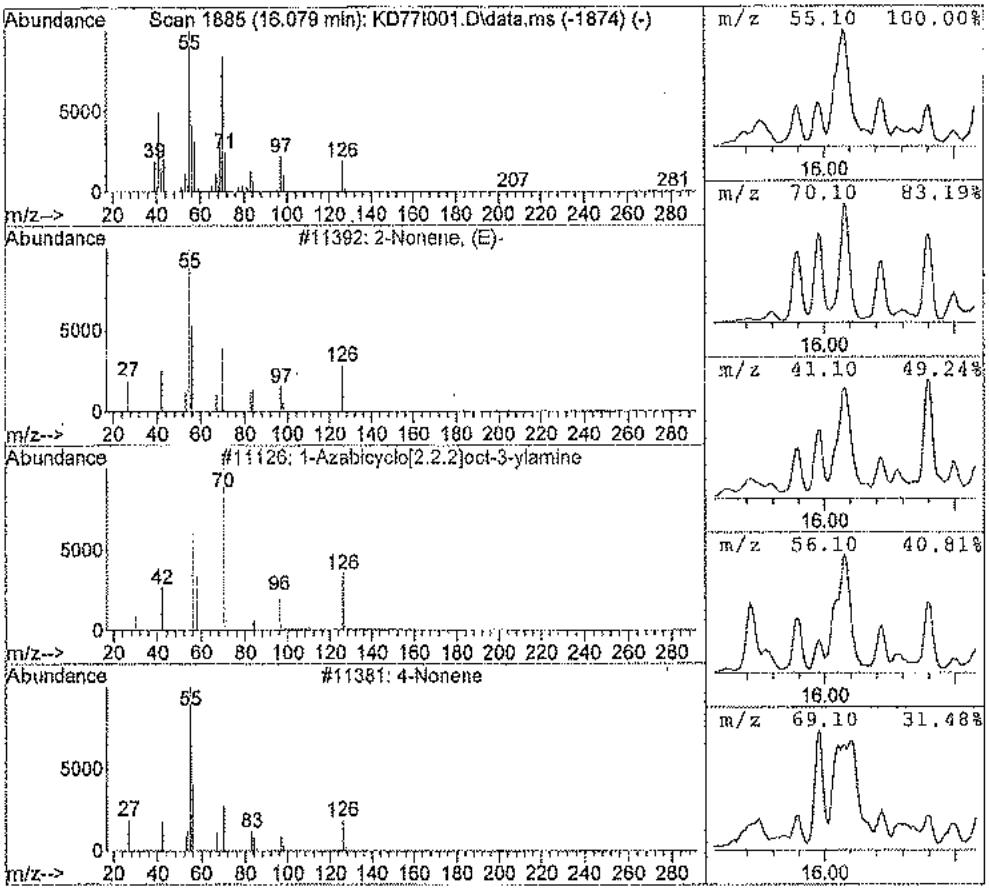
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.08	3.35 ppb	3896609	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Nonene, (E)-	11392	006434-78-2	53.00
2	1-Azabicyclo[2.2.2]oct-3-ylamine	11126	006238-14-8	50.00
3	4-Nonene	11381	002198-23-4	49.00
4	3-Nonene	11375	020063-77-8	45.00
5	cis-4-Nonene	11383	010405-84-2	43.00



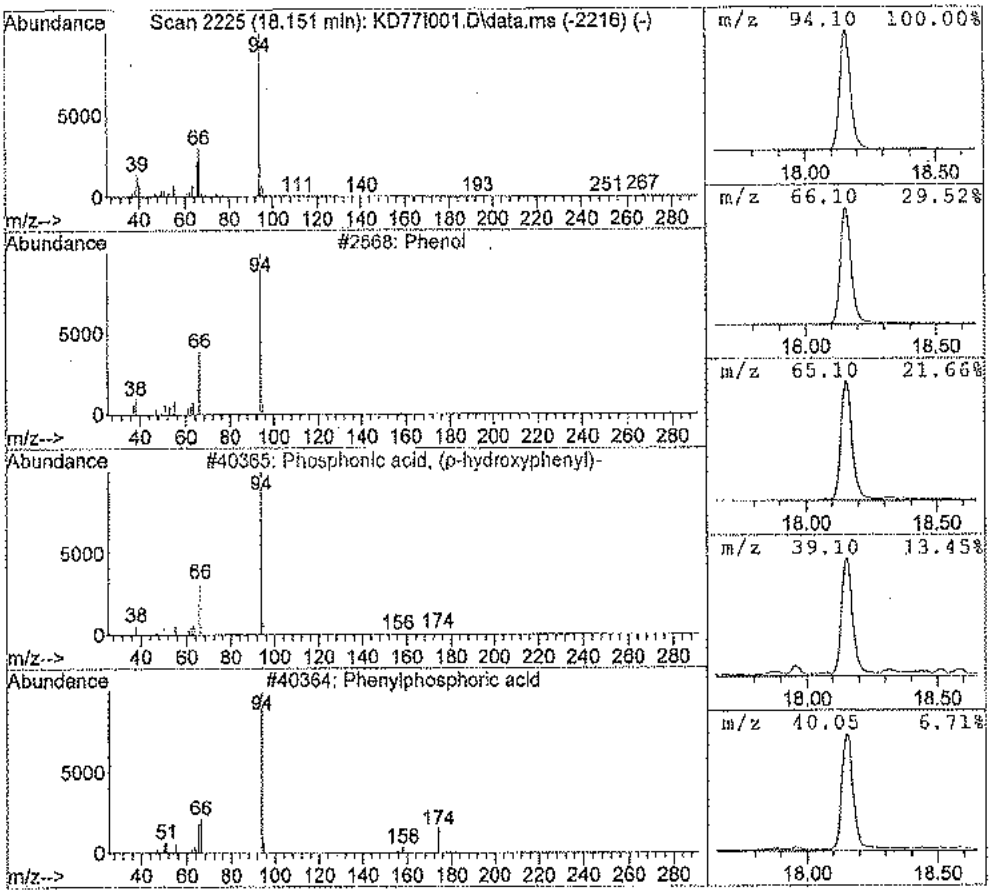
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.15	5.09 ppb	5913152	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Phenol	2568	000108-95-2	91.00
2	Phosphonic acid, (p-hydroxyphenyl)-	40365	033795-18-5	90.00
3	Phenylphosphoric acid	40364	000701-64-4	83.00
4	Benzene, ethoxy-	9790	000103-73-1	83.00
5	Acetic acid, phenyl ester	16111	000122-79-2	78.00



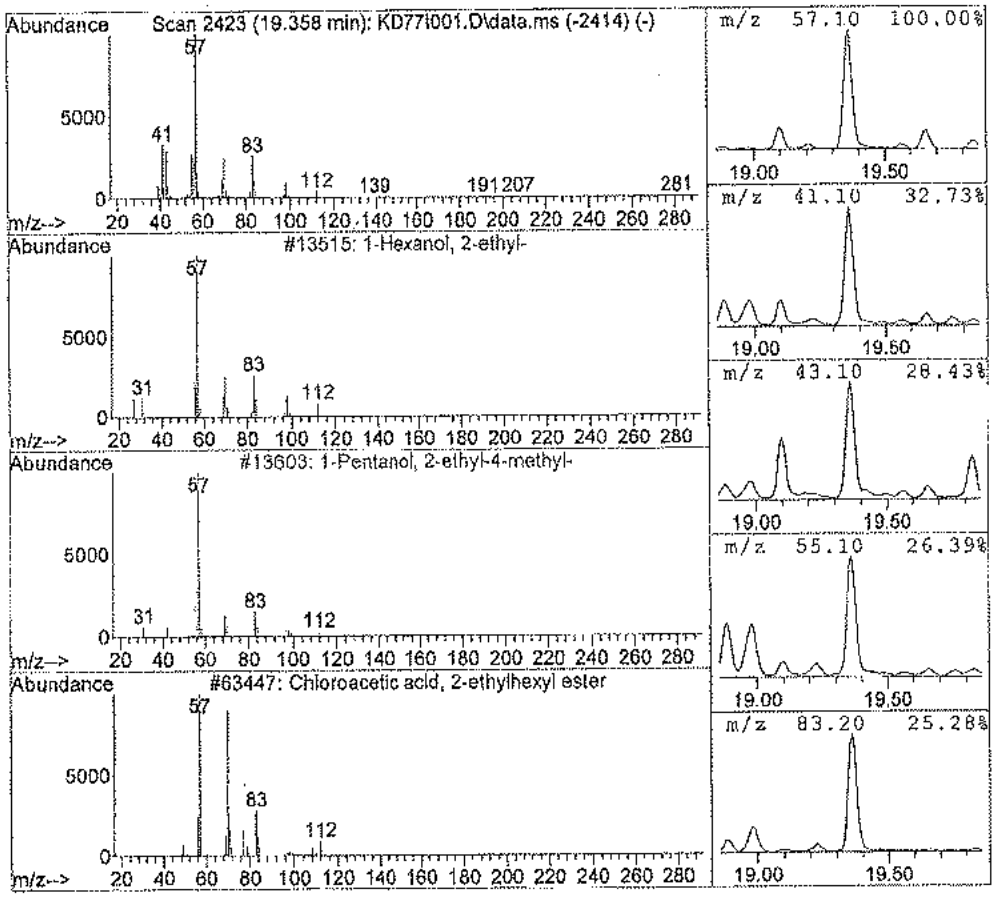
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.36	9.71 ppb	11286452	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13515	000104-76-7	83.00
2	1-Pentanol, 2-ethyl-4-methyl-	13603	000106-67-2	56.00
3	Chloroacetic acid, 2-ethylhexyl est	63447	005345-58-4	53.00
4	Heptane, 1,1'-oxybis-	70368	000629-64-1	50.00
5	2-Decene, 5-methyl-, (Z)-	26598	074645-86-6	47.00



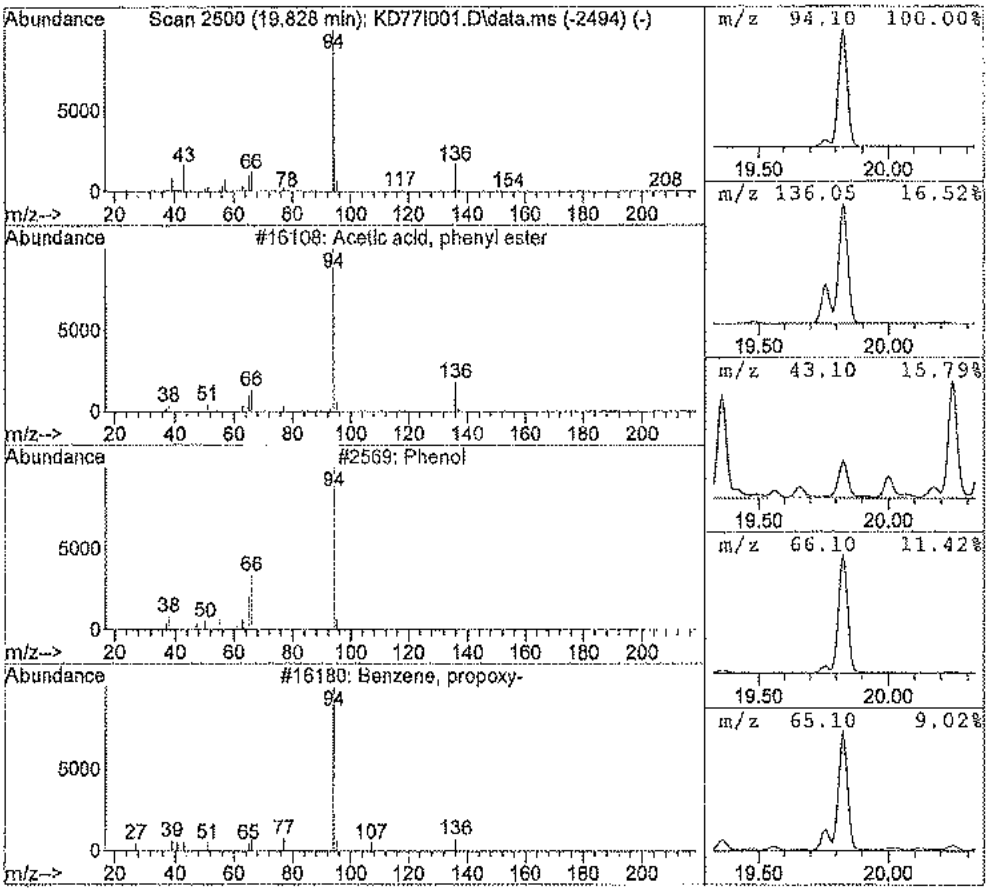
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.83	3.77 ppb	4383840	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, phenyl ester	16108	000122-79-2	91.00
2	Phenol	2569	000108-95-2	80.00
3	Benzene, propoxy-	16180	000622-85-5	72.00
4	Allophanic acid, phenyl ester	45007	049615-54-5	64.00
5	Carbamic acid, phenyl ester	16465	000622-46-8	64.00



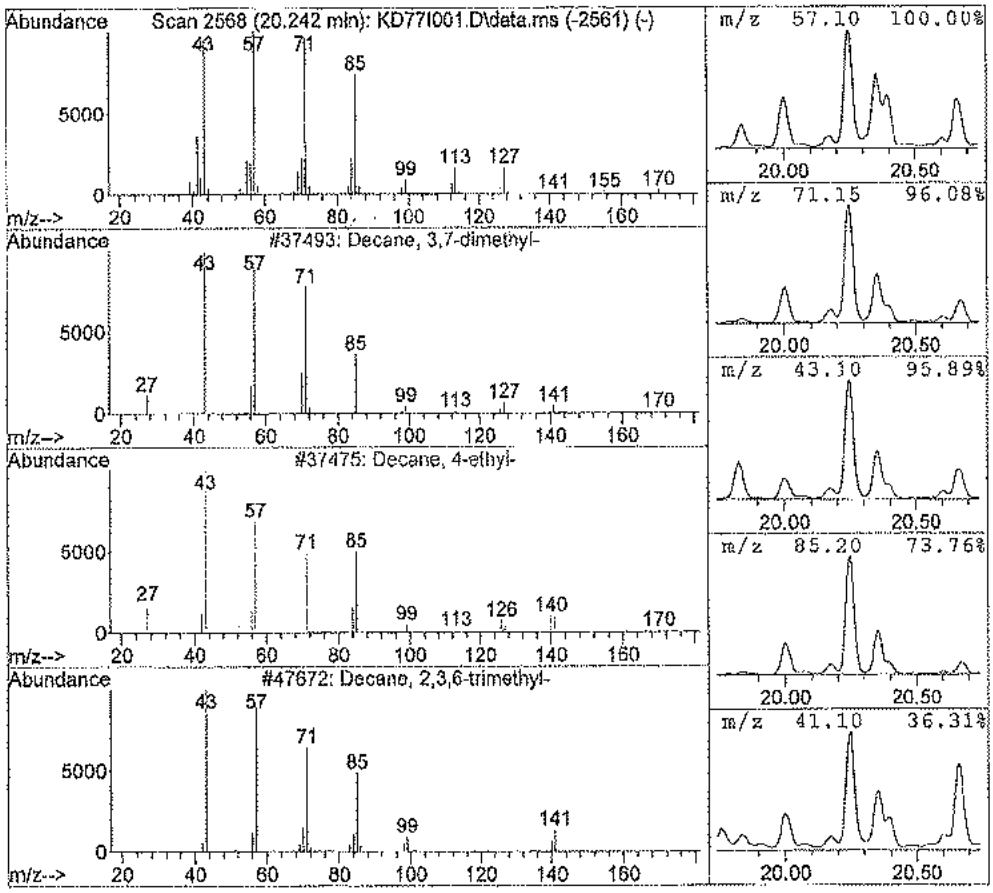
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.24	5.24 ppb	6084184	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 3,7-dimethyl-	37493	017312-54-8	81.00
2	Decane, 4-ethyl-	37475	001636-44-8	80.00
3	Decane, 2,3,6-trimethyl-	47672	062238-12-4	64.00
4	Decane, 3,6-dimethyl-	37498	017312-53-7	64.00
5	Heptane, 2,4-dimethyl-	12559	002213-23-2	58.00



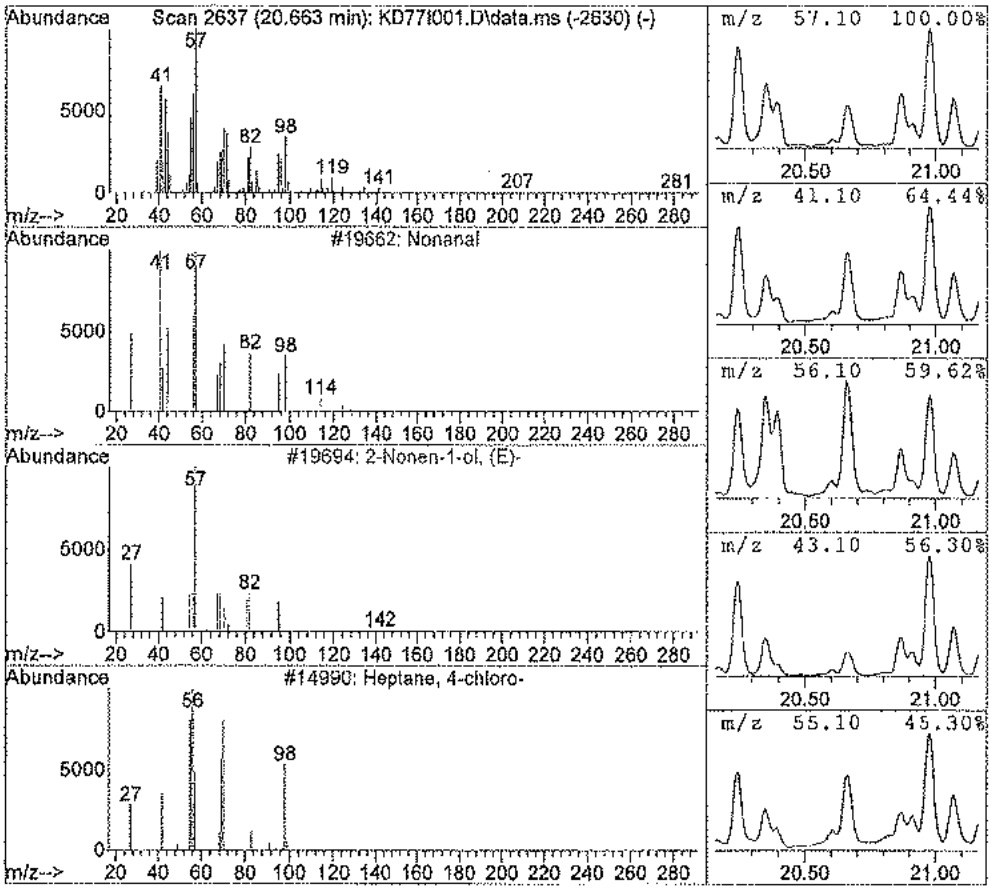
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.66	3.26 ppb	3792323	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonanal	19662	000124-19-6	72.00
2	2-Nonen-1-ol, (E)-	19694	031502-14-4	38.00
3	Heptane, 4-chloro-	14990	000998-95-8	35.00
4	1-Heptene	3269	000592-76-7	27.00
5	1-Pentene, 3,4-dimethyl-	3329	007385-78-6	22.00



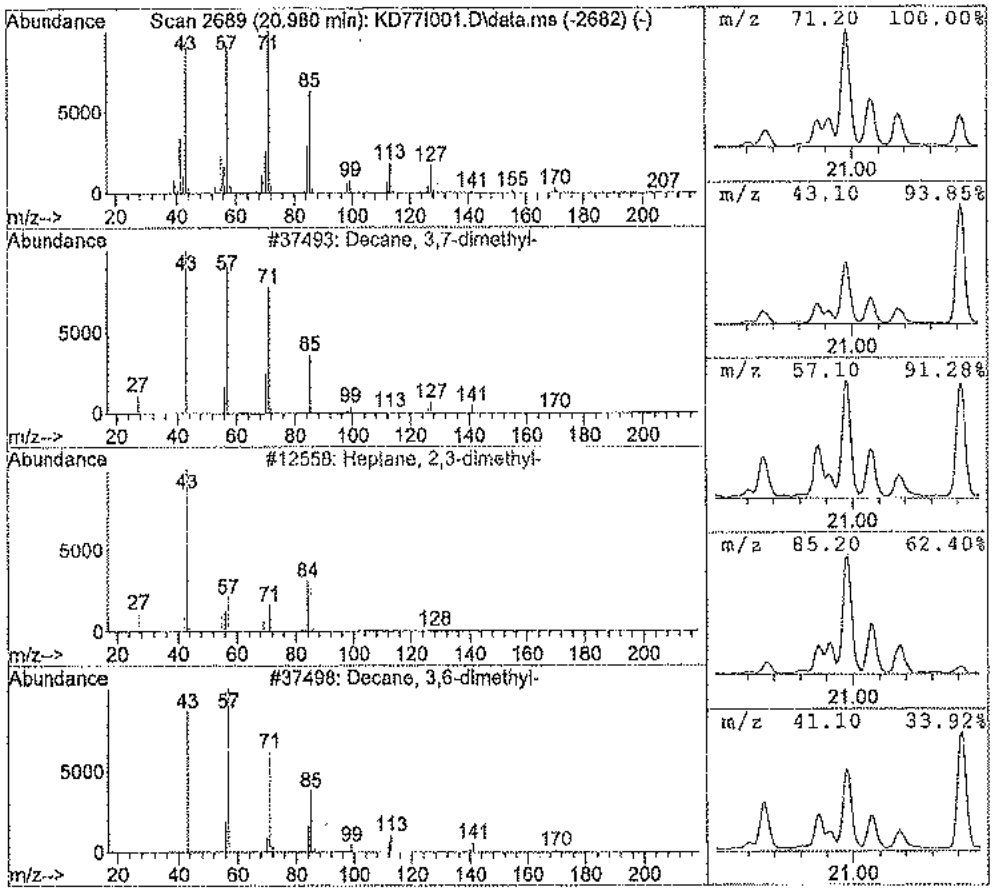
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037B-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.98	6.94 ppb	8065442	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 3,7-dimethyl-	37493	017312-54-8	87.00
2	Heptane, 2,3-dimethyl-	12558	003074-71-3	59.00
3	Decane, 3,6-dimethyl-	37498	017312-53-7	58.00
4	Sulfurous acid, hexyl 2-pentyl este	86604	1000309-15-6	53.00
5	Nonane, 1-iodo-	101292	004282-42-2	53.00



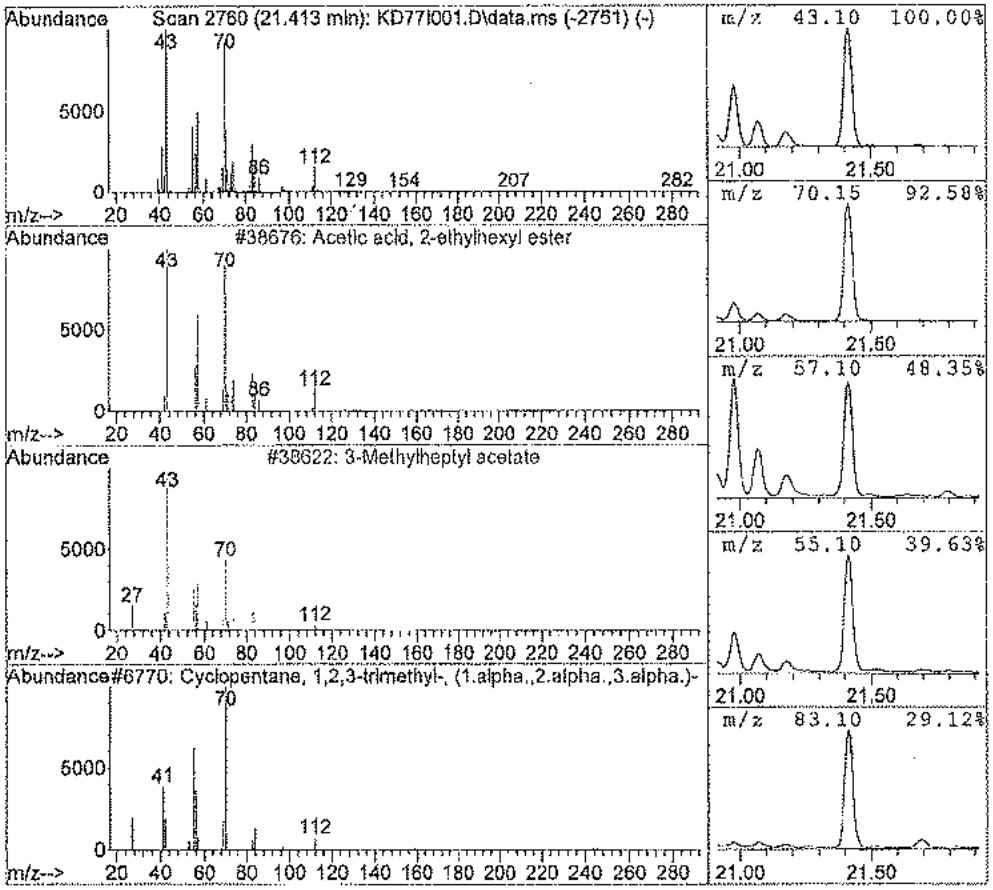
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD77I001.D Vial: 7
Acq Time : 04/08/2015 16:06 Operator:
Sample : 1509661001 Inst : 5975-K
Misc : A-0037H-SG-002/001 Tedlar Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
21.41	11.37 ppb	13212084	Chlorobenzene d5	23236767

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, 2-ethylhexyl ester	38676	000103-09-3	91.00
2	3-Methylheptyl acetate	38622	072218-58-7	83.00
3	Cyclopentane, 1,2,3-trimethyl-, (1.	6770	002613-69-6	68.00
4	2-Propenoic acid, 2-ethylhexyl este	47312	000103-11-7	64.00
5	1-Octene	6558	000111-66-0	53.00



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1509795**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received five summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-K. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Jorden Baum — September 15, 2015

Date

ANALYTICAL REPORT
Amended 20151012

Report Date: April 13, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1509795**
Project ID: VA SLC CERCLA
Purchase Order: DEPVA030 B-0006.2

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A0037H-040715-TO-001-LAU	1509795001	04/07/15	04/07/15	VA SLC CERCLA
A0037H-040715-TO-002-BR2	1509795002	04/07/15	04/07/15	VA SLC CERCLA
A0037H-040715-TO-003-BAS	1509795003	04/07/15	04/07/15	VA SLC CERCLA
A-0022S-040715-TO-001-CAFE	1509795004	04/07/15	04/07/15	VA SLC CERCLA
A-0022S-040715-TO-002-CR330	1509795005	04/07/15	04/07/15	VA SLC CERCLA

ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A0037H-040715-TO-001-LAU
Lab ID: 1509795001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 16:51
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.31	1.5	0.15	0.50	1	J
Chloromethane	0.4	0.83	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.16	0.87	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**8.5**	**20**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.35	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.48	1.4	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.38	1.4	0.15	1.0	1	J
Hexane	**0.72**	**2.5**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.51**	**1.6**	0.15	0.50	1	
Cyclohexane	**0.58**	**2.0**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.31	1.3	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A0037H-040715-TO-001-LAU
Lab ID: 1509795001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 16:51
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**1.9**	**7.2**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.45	3.1	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.21	0.93	0.15	0.50	1	J
m,p-Xylene	**0.51**	**2.2**	0.15	0.50	1	
o-Xylene	0.18	0.80	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 16:51
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	89	6.29	1	J

ANALYTICAL REPORT
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Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A0037H-040715-TO-002-BR2
Lab ID: 1509795002
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 17:35
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.31	1.5	0.15	0.50	1	J
Chloromethane	0.49	1.0	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.16	0.91	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**12**	**28**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.32	1.1	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.86**	**2.5**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**1.4**	**5.0**	0.15	1.0	1	
Hexane	**0.95**	**3.3**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.49	1.6	0.15	0.50	1	J
Cyclohexane	0.33	1.1	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**0.59**	**2.4**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT
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Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A0037H-040715-TO-002-BR2 | Sampling Site: VA SLC CERCLA | Collected: 04/07/2015
Lab ID: 1509795002 | Media: Summa 6 Liter Canister | Received: 04/07/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-K
Batch: IVOA/2873 (HBN: 146887) | **Percent Solid:** NA
Analyzed: 04/08/2015 17:35 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**1.8**	**6.6**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.94**	**6.4**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.76**	**3.3**	0.15	0.50	1	
m,p-Xylene	**1.1**	**4.7**	0.15	0.50	1	
o-Xylene	0.44	1.9	0.15	0.50	1	J
Styrene	0.33	1.4	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-K
Batch: IVOA/2873 (HBN: 146887) | **Percent Solid:** NA
Analyzed: 04/08/2015 17:35 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Limonene	3.6	19.76	1	J
Ethanol	470	6.30	1	J
Isopropyl Alcohol	2.2	7.00	1	J

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Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A0037H-040715-TO-003-BAS
Lab ID: 1509795003
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 18:21
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.3	1.5	0.15	0.50	1	J
Chloromethane	0.45	0.92	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.15	0.87	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**9.6**	**23**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.34	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.50**	**1.5**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.58	2.1	0.15	1.0	1	J
Hexane	**0.78**	**2.8**	0.15	0.50	1	
Chloroform	0.19	0.93	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.47	1.5	0.15	0.50	1	J
Cyclohexane	0.45	1.6	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.31	1.3	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A0037H-040715-TO-003-BAS
Lab ID: 1509795003
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 18:21
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**2.1**	**8.0**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.64**	**4.4**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.19	0.84	0.15	0.50	1	J
m,p-Xylene	0.44	1.9	0.15	0.50	1	J
o-Xylene	0.16	0.70	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 18:21
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	140	6.29	1	J
Isopropyl Alcohol	2.2	6.99	1	J

ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0022S-040715-TO-001-CAFE
Lab ID: 1509795004
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 19:07
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.34	1.7	0.15	0.50	1	J
Chloromethane	0.47	0.96	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.21	1.2	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**4.3**	**10**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**0.56**	**1.9**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.38	1.1	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.23	0.82	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.34	1.1	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	0.37	2.0	0.15	0.50	1	J
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.2	0.82	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0022S-040715-TO-001-CAFE
Lab ID: 1509795004
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 04/07/2015
Received: 04/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 19:07
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**0.91**	**3.4**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.57**	**3.9**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.43	1.9	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2873 (HBN: 146887)
Analyzed: 04/08/2015 19:07
Instrument ID: 5975-K
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	21	6.29	1	J
Isopropyl Alcohol	4.8	6.98	1	J

ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0022S-040715-TO-002-CR330 | Sampling Site: VA SLC CERCLA | Collected: 04/07/2015
Lab ID: 1509795005 | Media: Summa 6 Liter Canister | Received: 04/07/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-K
Batch: IVOA/2874 (HBN: 146913) | **Percent Solid:** NA
Analyzed: 04/10/2015 14:08 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.36	1.8	0.15	0.50	1	J
Chloromethane	0.45	0.93	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.2	1.1	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**1.4**	**3.3**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.39	1.4	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.23	0.75	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.23	0.93	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0022S-040715-TO-002-CR330 | Sampling Site: VA SLC CERCLA | Collected: 04/07/2015
Lab ID: 1509795005 | Media: Summa 6 Liter Canister | Received: 04/07/2015
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Instrument ID:** 5975-K
Batch: IVOA/2874 (HBN: 146913) | **Percent Solid:** NA
Analyzed: 04/10/2015 14:08 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	0.45	1.7	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.28	1.9	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.32	1.4	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Instrument ID:** 5975-K
Batch: IVOA/2874 (HBN: 146913) | **Percent Solid:** NA
Analyzed: 04/10/2015 14:08 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	8.3	6.23	1	J
Isopropyl Alcohol	9.4	6.91	1	J

Comments

Quality Control: EPA TO-15 - (HBN: 146887)

The following compounds in the CCV were outside of +/- 30%: Dichlorodifluoromethane, chloromethane, vinyl chloride, trichlorofluoromethane, acetone and 1,2-dichloroethane.

Quality Control: EPA TO-15 - (HBN: 146913)

The following compounds in the CCV were outside of +/- 30%: Acetone, dichlorofluoromethane, 1,2-dichloroethane, styrene.

ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
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Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Jorden Baum 04/13/2015 11:04	/S/ Lisa M. Reid 04/13/2015 14:04

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT
Amended 20151012

Workorder: 34-1509795
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Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1509795**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2873 (HBN: 146887)
Analyzed By: Jorden Baum

Blank

MB: 442017
Analyzed: 04/08/2015 15:22

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	0.231	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509795

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2873 (HBN: 146887)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 442017
Analyzed: 04/08/2015 15:22
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442015
Analyzed: 04/08/2015 13:04
Dilution: 1
Units: ppb

LCSD: 442016
Analyzed: 04/08/2015 13:49
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	6.09	10.0	60.9	59.3	135.1	6.09	60.9	0.0723	0.0	25.0
Chloromethane	6.99	10.0	69.9	55.2	137.4	6.92	69.2	0.929	0.0	25.0
Freon 114	6.81	10.0	68.1	64.6	128.0	6.84	68.4	0.393	0.0	25.0
Vinyl chloride	7.42	10.0	74.2	61.8	132.3	7.33	73.3	1.21	0.0	25.0
1,3-Butadiene	7.42	10.0	74.2	58.0	138.3	7.30	73.0	1.54	0.0	25.0
Bromomethane	7.30	10.0	73.0	63.3	129.9	7.23	72.3	1.06	0.0	25.0
Chloroethane	9.17	10.0	91.7	57.6	137.1	9.33	93.3	1.65	0.0	25.0
Freon 11	6.86	10.0	68.6	58.9	132.8	6.84	68.4	0.264	0.0	25.0
Freon 113	10.4	10.0	104	68.5	120.0	10.3	103	0.559	0.0	25.0
1,1-Dichloroethene	8.99	10.0	89.9	67.2	125.1	8.98	89.8	0.164	0.0	25.0
Acetone	6.51	10.0	65.1	42.5	146.0	6.53	65.3	0.390	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509795

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2873 (HBN: 146887)
Analyzed By: Jorden Baum

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442015
Analyzed: 04/08/2015 13:04
Dilution: 1
Units: ppb

LCSD: 442016
Analyzed: 04/08/2015 13:49
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	10.9	10.0	109	63.9	128.8	10.8	108	0.396	0.0	25.0
Methylene chloride	9.20	10.0	92.0	63.7	127.9	9.14	91.4	0.588	0.0	25.0
trans-1,2-Dichloroethene	12.2	10.0	122	68.1	124.6	12.1	121	0.107	0.0	25.0
Methyl t-butyl ether	11.1	10.0	111	60.8	138.0	11.1	111	0.550	0.0	25.0
Vinyl acetate	12.7	10.0	127	59.3	141.1	12.5	125	1.98	0.0	25.0
2-Butanone	9.17	10.0	91.7	51.7	144.2	9.16	91.6	0.184	0.0	25.0
cis-1,2-Dichloroethene	12.5	10.0	* 125	69.8	124.3	12.5	* 125	0.144	0.0	25.0
1,1-Dichloroethane	9.58	10.0	95.8	67.7	123.6	9.58	95.8	0.0020	0.0	25.0
Ethyl acetate	10.9	10.0	109	53.4	156.9	10.6	106	2.63	0.0	25.0
Hexane	10.8	10.0	108	62.4	129.5	10.7	107	1.50	0.0	25.0
Chloroform	8.23	10.0	82.3	67.3	121.8	8.15	81.5	0.980	0.0	25.0
Tetrahydrofuran	10.6	10.0	106	50.6	155.3	10.5	105	0.522	0.0	25.0
1,2-Dichloroethane	6.86	10.0	68.6	62.4	130.5	6.81	68.1	0.737	0.0	25.0
1,1,1-Trichloroethane	7.94	10.0	79.4	60.4	127.7	7.93	79.3	0.0353	0.0	25.0
Carbon tetrachloride	7.60	10.0	76.0	58.2	130.6	7.60	76.0	0.0078	0.0	25.0
Benzene	12.4	10.0	124	64.1	127.3	12.2	122	1.46	0.0	25.0
Cyclohexane	10.0	10.0	100	61.9	123.6	10.0	100	0.200	0.0	25.0
Trichloroethene	11.6	10.0	116	62.4	126.8	11.6	116	0.0863	0.0	25.0
1,2-Dichloropropane	11.5	10.0	115	60.7	130.6	11.5	115	0.399	0.0	25.0
Bromodichloromethane	8.47	10.0	84.7	62.9	128.3	8.50	85.0	0.371	0.0	25.0
Heptane	11.9	10.0	119	59.5	133.4	12.0	120	0.778	0.0	25.0
cis-1,3-Dichloropropene	11.7	10.0	117	64.1	133.6	11.8	118	1.00	0.0	25.0
4-Methyl-2-pentanone	9.41	10.0	94.1	73.5	150.0	9.44	94.4	0.294	0.0	25.0
trans-1,3-Dichloropropene	11.0	10.0	110	78.5	148.7	11.2	112	1.56	0.0	25.0
1,1,2-Trichloroethane	10.4	10.0	104	65.0	126.6	10.5	105	0.934	0.0	25.0
Toluene	12.3	10.0	123	75.6	139.4	12.3	123	0.350	0.0	25.0
2-Hexanone	9.97	10.0	99.7	80.8	158.8	9.89	98.9	0.808	0.0	25.0
Tetrachloroethene	12.4	10.0	124	60.7	126.6	12.3	123	0.650	0.0	25.0
Dibromochloromethane	9.49	10.0	94.9	62.4	130.9	9.52	95.2	0.293	0.0	25.0
1,2-Dibromoethane	10.7	10.0	107	64.4	129.0	10.8	108	0.298	0.0	25.0
Chlorobenzene	10.1	10.0	101	62.8	126.9	10.2	102	0.551	0.0	25.0
Ethyl benzene	11.4	10.0	114	75.9	148.5	11.4	114	0.422	0.0	25.0
m,p-Xylene	19.5	20.0	97.4	73.7	144.9	19.5	97.5	0.0924	0.0	25.0
o-Xylene	9.55	10.0	95.5	74.7	147.4	9.53	95.3	0.181	0.0	25.0
Styrene	13.0	10.0	130	75.9	158.1	13.2	132	1.24	0.0	25.0
Bromoform	10.2	10.0	102	59.7	136.0	10.2	102	0.401	0.0	25.0
1,1,2,2-Tetrachloroethane	9.11	10.0	91.1	59.3	134.8	9.08	90.8	0.435	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509795

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2873 (HBN: 146887)		
Analyzed By:	Jorden Baum		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 442015	LCSD: 442016
Analyzed:	04/08/2015 13:04	04/08/2015 13:49
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	11.0	10.0	110	69.0	163.3	11.0	110	0.537	0.0	25.0
1,3,5-Trimethylbenzene	9.79	10.0	97.9	64.2	155.1	9.71	97.1	0.800	0.0	25.0
1,2,4-Trimethylbenzene	11.1	10.0	111	59.7	169.4	11.0	110	0.471	0.0	25.0
1,3-Dichlorobenzene	9.53	10.0	95.3	58.6	157.6	9.47	94.7	0.612	0.0	25.0
1,4-Dichlorobenzene	9.87	10.0	98.7	57.7	137.2	9.81	98.1	0.607	0.0	25.0
Benzyl chloride	10.8	10.0	108	60.1	182.5	10.8	108	0.204	0.0	25.0
1,2-Dichlorobenzene	10.4	10.0	104	56.5	140.0	10.4	104	0.240	0.0	25.0
1,2,4-Trichlorobenzene	13.5	10.0	135	0.0	235.7	13.5	135	0.148	0.0	25.0
Hexachlorobutadiene	7.97	10.0	79.7	25.3	155.9	8.08	80.8	1.31	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
442015-LCS	16.7	20.0	83.6
442016-LCSD	16.9	20.0	84.7
442017-MB	16.3	20.0	81.4
1509661001	17.5	20.0	87.7
1509795001	16.8	20.0	84.0
1509795002	17.1	20.0	85.6
1509795003	16.9	20.0	84.4
1509795004	17.1	20.0	85.5

Comments

The following compounds in the CCV were outside of +/- 30%: Dichlorodifluoromethane, chloromethane, vinyl chloride, trichlorofluoromethane, acetone and 1,2-dichloroethane.

QC Data Approved and Reviewed by

Jorden Baum	Lisa M. Reid	4/13/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◆ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1509795**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2874 (HBN: 146913)
Analyzed By: Jorden Baum

Blank

MB: 442049
Analyzed: 04/10/2015 13:03

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	0.239	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509795

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2874 (HBN: 146913)
		Prepared By:	NA	**Analyzed By:**	Jorden Baum

Blank

MB: 442049
Analyzed: 04/10/2015 13:03
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442047
Analyzed: 04/10/2015 10:08
Dilution: 1
Units: ppb

LCSD: 442048
Analyzed: 04/10/2015 11:13
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	6.60	10.0	66.0	59.3	135.1	5.27	* 52.7	22.4	0.0	25.0
Chloromethane	9.29	10.0	92.9	55.2	137.4	6.19	61.9 *	40.1	0.0	25.0
Freon 114	7.92	10.0	79.2	64.6	128.0	7.20	72.0	9.48	0.0	25.0
Vinyl chloride	9.27	10.0	92.7	61.8	132.3	8.52	85.2	8.48	0.0	25.0
1,3-Butadiene	8.97	10.0	89.7	58.0	138.3	8.16	81.6	9.48	0.0	25.0
Bromomethane	8.65	10.0	86.5	63.3	129.9	8.04	80.4	7.30	0.0	25.0
Chloroethane	10.0	10.0	100	57.6	137.1	8.84	88.4	12.7	0.0	25.0
Freon 11	7.27	10.0	72.7	58.9	132.8	6.69	66.9	8.31	0.0	25.0
Freon 113	10.8	10.0	108	68.5	120.0	10.2	102	5.63	0.0	25.0
1,1-Dichloroethene	9.59	10.0	95.9	67.2	125.1	8.79	87.9	8.69	0.0	25.0
Acetone	5.75	10.0	57.5	42.5	146.0	6.37	63.7	10.2	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509795

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2874 (HBN: 146913)
Analyzed By: Jorden Baum

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442047
Analyzed: 04/10/2015 10:08
Dilution: 1
Units: ppb

LCSD: 442048
Analyzed: 04/10/2015 11:13
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	11.2	10.0	112	63.9	128.8	10.6	106	5.54	0.0	25.0
Methylene chloride	9.59	10.0	95.9	63.7	127.9	8.88	88.8	7.71	0.0	25.0
trans-1,2-Dichloroethene	12.4	10.0	124	68.1	124.6	11.9	119	4.01	0.0	25.0
Methyl t-butyl ether	11.3	10.0	113	60.8	138.0	11.0	110	2.15	0.0	25.0
Vinyl acetate	12.7	10.0	127	59.3	141.1	12.6	126	0.875	0.0	25.0
2-Butanone	8.51	10.0	85.1	51.7	144.2	8.93	89.3	4.80	0.0	25.0
cis-1,2-Dichloroethene	12.9	10.0	* 129	69.8	124.3	12.4	124	3.80	0.0	25.0
1,1-Dichloroethane	10.1	10.0	101	67.7	123.6	9.31	93.1	7.92	0.0	25.0
Ethyl acetate	9.32	10.0	93.2	53.4	156.9	10.7	107	13.8	0.0	25.0
Hexane	10.5	10.0	105	62.4	129.5	10.6	106	0.785	0.0	25.0
Chloroform	8.11	10.0	81.1	67.3	121.8	8.23	82.3	1.49	0.0	25.0
Tetrahydrofuran	9.20	10.0	92.0	50.6	155.3	10.6	106	13.8	0.0	25.0
1,2-Dichloroethane	6.97	10.0	69.7	62.4	130.5	7.24	72.4	3.71	0.0	25.0
1,1,1-Trichloroethane	8.15	10.0	81.5	60.4	127.7	8.30	83.0	1.90	0.0	25.0
Carbon tetrachloride	7.90	10.0	79.0	58.2	130.6	7.86	78.6	0.524	0.0	25.0
Benzene	12.7	10.0	127	64.1	127.3	12.8	* 128	1.14	0.0	25.0
Cyclohexane	10.3	10.0	103	61.9	123.6	10.5	105	2.57	0.0	25.0
Trichloroethene	12.2	10.0	122	62.4	126.8	12.1	121	0.198	0.0	25.0
1,2-Dichloropropane	11.9	10.0	119	60.7	130.6	11.7	117	1.66	0.0	25.0
Bromodichloromethane	8.73	10.0	87.3	62.9	128.3	8.61	86.1	1.34	0.0	25.0
Heptane	11.9	10.0	119	59.5	133.4	12.3	123	3.17	0.0	25.0
cis-1,3-Dichloropropene	12.0	10.0	120	64.1	133.6	12.4	124	2.72	0.0	25.0
4-Methyl-2-pentanone	8.45	10.0	84.5	73.5	150.0	9.51	95.1	11.8	0.0	25.0
trans-1,3-Dichloropropene	11.5	10.0	115	78.5	148.7	12.0	120	4.16	0.0	25.0
1,1,2-Trichloroethane	10.7	10.0	107	65.0	126.6	10.7	107	0.0279	0.0	25.0
Toluene	12.7	10.0	127	75.6	139.4	13.0	130	1.79	0.0	25.0
2-Hexanone	8.02	10.0	* 80.2	80.8	158.8	10.1	101	22.6	0.0	25.0
Tetrachloroethene	12.9	10.0	* 129	60.7	126.6	13.1	* 131	1.23	0.0	25.0
Dibromochloromethane	9.08	10.0	90.8	62.4	130.9	10.3	103	12.7	0.0	25.0
1,2-Dibromoethane	10.5	10.0	105	64.4	129.0	11.6	116	9.97	0.0	25.0
Chlorobenzene	10.6	10.0	106	62.8	126.9	10.8	108	2.40	0.0	25.0
Ethyl benzene	11.8	10.0	118	75.9	148.5	12.4	124	4.89	0.0	25.0
m,p-Xylene	20.0	20.0	100	73.7	144.9	21.5	108	7.20	0.0	25.0
o-Xylene	9.37	10.0	93.7	74.7	147.4	10.5	105	11.2	0.0	25.0
Styrene	13.0	10.0	130	75.9	158.1	14.2	142	8.91	0.0	25.0
Bromoform	10.3	10.0	103	59.7	136.0	11.6	116	12.2	0.0	25.0
1,1,2,2-Tetrachloroethane	7.88	10.0	78.8	59.3	134.8	9.76	97.6	21.2	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1509795

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2874 (HBN: 146913)		
Analyzed By:	Jorden Baum		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 442047					LCSD: 442048				
	Analyzed: 04/10/2015 10:08					Analyzed: 04/10/2015 11:13				
	Dilution: 1					Dilution: 1				
	Units: ppb					Units: ppb				
Analyte	**Result**	**Target**	**% Rec**	**QC Limits**		**Result**	**% Rec**	**RPD**	**QC Limits**	
4-Ethyl toluene	10.1	10.0	101	69.0	163.3	12.3	123	19.5	0.0	25.0
1,3,5-Trimethylbenzene	9.00	10.0	90.0	64.2	155.1	12.8	128 *	35.2	0.0	25.0
1,2,4-Trimethylbenzene	9.73	10.0	97.3	59.7	169.4	13.0	130 *	28.5	0.0	25.0
1,3-Dichlorobenzene	8.43	10.0	84.3	58.6	157.6	9.83	98.3	15.3	0.0	25.0
1,4-Dichlorobenzene	8.74	10.0	87.4	57.7	137.2	10.7	107	20.1	0.0	25.0
Benzyl chloride	8.42	10.0	84.2	60.1	182.5	10.6	106	23.2	0.0	25.0
1,2-Dichlorobenzene	8.79	10.0	87.9	56.5	140.0	11.8	118 *	29.4	0.0	25.0
1,2,4-Trichlorobenzene	8.16	10.0	81.6	0.0	235.7	14.6	146 *	56.7	0.0	25.0
Hexachlorobutadiene	5.99	10.0	59.9	25.3	155.9	10.6	106 *	56.0	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene		
QC Limits	67.7	129.9	
Units	ppb		
Lab ID	**Result**	**Target**	**% Recovery**
442047-LCS	16.0	20.0	80.2
442048-LCSD	14.3	20.0	71.3
442049-MB	17.3	20.0	86.3
1509795005	17.0	20.0	85.1

Comments

The following compounds in the CCV were outside of +/- 30%: Acetone, dichlorofluoromethane, 1,2-dichloroethane, styrene.

QC Data Approved and Reviewed by

Jorden Baum	Lisa M. Reid	4/13/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
◆ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

W 1509795

ANALYTICAL REQUEST FORM

1509795

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4- -15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact _____
Telephone (973) 787-2295
Fax Telephone (973) 334-0928
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site VA SLC GEROA Site
Industrial Process N/A
Date of Collection 04/07/2015
Time Collected ≈ 0800 (multiple)
Date of Shipment 4/7/2015
Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A00239-040715-TO-001-6AU	Air	6L Summa	TO-15	5	0216
A00239-040715-TO-002-BR2	"	"	"	"	0133
A00239-040715-TO-003-BAS	Air	"	"	"	0089
A-00225-040715-TO-004-CAFE	"	"	"	"	0199
A-00225-040715-TO-005-CR330	"	"	"	"	0260

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCE, TCE, 1,DBCE, VC

7. Chain of Custody (Optional)

Relinquished by	[signature]	Date/Time	4/07/15 — 1900
Received by	[signature]	Date/Time	4/7/15 1456
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment, Inc

Account No:

Project/Job/Task: VA SUC GERLACH, DEPVA030 B-0006.2

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0199	03-02-15	725		JB	25	4	A-00225-040715 TO-001-CANS		
0260	"	"		"	27	2	A-00225-040715 TO-002-CANS330		
0537	"	"		"			0037-		
0089	"	"		"	26	1	A-[illegible]-040715- TO-003-CANS		
0133	"	"		JB	27	0.5	A-0037[illegible]-040715 TO-007-CANS		
VFR Serial No.:									
0375	03-09-15		~3.8	JB			paired w/ 0199		
0017	"		"	"					
0460	"		"	"			paired w/ 0089		
0092	"		"	"			paired w/ 0133		
0191	"		"	"			paired w/ 0260		

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
[signature]	03-09-15	[signature]	Pick up for lab
[signature]	04/07/15		Deliver to lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment

Account No:

Project/Job/Task: VA SLC GERCLA - DEFVA030B0006.7

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0129	02-09-15	7.25		JB					
0531	02-12-15	1		1					
0250	02-12-15								
0216	02-17-15				25	1	0037 A-0037-040715 TO-001-L2W		
0579	02-09-15	↓		↓					
VFR Serial No.:									
0570	02-24-15		2.8	JB					
0497									
0532									
0600									
0393	↓		↓	↓					

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-24-15		Pickup from lab
	04/07/15		Deliver to lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment

Account No:

Project/Job/Task: VASCCERCA, DEPUA030-B-0006.2

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0119	02-09-15	7.25		JB					
VFR Serial No.:									
0421	02-24-15		~3.8	JB			Pared w/ 0216		

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	02-24-15		Pickup from Lab
	04/07/15		Brought to Lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2873
Rule: EPA TO-15, Air

Created: 4/13/2015 09:47
Analyst: L. Reid

Instrument: 5975-K
Status: WP

HBN: 146887

Workorder: 1509661
Workorder: 1509795

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgn	Expire Date	Due Date	Run Date
1	442015	LCS for HBN 146887 (IVOA/2873)				LCS	1		ETO15...1Q			6/12/2015	4/8/2015
2	442016	LCSD for HBN 146887 (IVOA/2873				LCSD	1		ETO15...1Q			6/12/2015	4/8/2015
3	441980	RLVS for HBN 146887 (IVOA/2873				RLVS	1		ETO15...1Q	5320		4/13/2015	4/8/2015
4	442017	MB for HBN 146887 (IVOA/2873)				MB	1		ETO15...1Q			6/12/2015	4/8/2015
5	1509661001	A-0037H-SG-002				SAMPLE	1	1509661001-A	ETO15....1	5480		4/13/2015	4/8/2015
	* E)Result exceeds calibration range												
6	1509795001	A0037H-040715-TO-001-LAU				SAMPLE	1	1509795001-A	ETO15....1	5480		4/14/2015	4/8/2015
7	1509795002	A0037H-040715-TO-002-BR2				SAMPLE	1	1509795002-A	ETO15....1	5480		4/14/2015	4/8/2015
8	1509795003	A0037H-040715-TO-003-BA5				SAMPLE	1	1509795003-A	ETO15....1	5480		4/14/2015	4/8/2015
9	1509795004	A00225-040715-TO-001-CAFE				SAMPLE	1	1509795004-A	ETO15....1	5480		4/14/2015	4/8/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	KD73S10	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		868736	11369418	9770945
	Upper Limit	1216230	15917185	13679323
	Lower limit	521242	6821651	5862567

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	KD76BLK	794432	10544084	8873735
QC-	KD73S10	868736	11369418	9770945
QD-	KD74S10	864512	11351211	960028
A-0037H-040715-TO-001-LAU	FEI1509795001	738688	9507819	8289040
A-0037H-040715-TO-002-BR2	FEI1509795002	668608	8114241	7120257
A-0037H-040715-TO-003-BA5	FEI1509795003	751168	9825228	8751973
A00225-040715-TO-001-CAFE	FEI1509795004	758784	9575719	8716652

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD73S10	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		9.61	11.39	15.77
	Upper Limit	10.11	11.89	16.27
	Lower limit	9.11	10.89	15.27

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	KD76BLK	9.61	11.39	15.78
QC-	KD73S10	9.61	11.39	15.77
QD-	KD74S10	9.61	11.39	15.77
A-0037H-040715-TO-001-LAU	FEI1509795001	9.62	11.40	15.77
A-0037H-040715-TO-002-BR2	FEI1509795002	9.62	11.39	15.77
A-0037H-040715-TO-003-BA5	FEI1509795003	9.62	11.39	15.77
A00225-040715-TO-001-CAFE	FEI1509795004	9.61	11.39	15.77

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	KD88S10	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		826432	11376827	9702676
	Upper Limit	1157005	15927558	13583746
	Lower limit	495859	6826096	5821606

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	KD91BLK	397312	* 4637689	* 4126607
QC-	KD88S10	826432	11376827	9702676
QD-	KD89S10	686656	8899557	7722723
A-00225-040715-TO-002-CR330	FEI1509795005	742912	9619474	8241616

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD73S10	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		9.61	11.39	15.77
	Upper Limit	10.11	11.89	16.27
	Lower limit	9.11	10.89	15.27

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
BL-	KD91BLK	9.70	11.44	15.69
QC-	KD73S10	9.70	11.45	15.69
QD-	KD89S10	9.68	11.43	15.75
A-00225-040715-TO-002-CR330	FEI1509795005	9.56	11.35	15.67

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Analyst Notebook

146887

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is TO15KC15.M (HBN 146582)

The following compounds in the CCS were outside of +-30%: Dichlorodifluoromethane
Chloromethane
Vinyl Chloride
Trichlorofluoromethane
Acetone
1,2-Dichloroethane

for 1509795005 see 1469B

Analyst Signature: J C B
Jorden Baum
04-12-15

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Response Factor Report 5975-K

HBN 146582

Method Path : J:\K\METHODS\
Method File : TO15KC15.m
Title : TO-15
Last Update : Tue Apr 07 10:41:02 2015
Response Via : Initial Calibration

Calibration Files
.5 =KD11S05.D 1 =KD10S1.D 2 =KD09S2.D 5 =KD08S5.D 10 =KD07S10.D 20 =KD06S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	1.555	1.785	1.688	1.842	1.886	1.727	1.747		6.80	TIC
3)		Dichlorodifluo...	1.173	1.261	1.151	1.233	1.276	1.294	1.231	E1	4.66	
4)		Chloromethane	2.256	2.244	2.094	2.182	2.220	2.105	2.183		3.20	
5)		Freon 114	9.065	9.757	8.863	9.562	9.803	9.750	9.467		4.26	
6)		Vinyl Chloride	2.828	2.996	2.613	2.828	2.850	2.768	2.814		4.42	
7)		1,3-Butadiene	2.110	2.137	1.796	1.999	2.078	2.022	2.024		6.09	
8)		Bromomethane	3.349	3.676	3.055	3.324	3.380	3.339	3.354		5.89	
9)		Chloroethane	1.466	1.522	1.279	1.416	1.400	1.263	1.391		7.38	
10)		Acrolein	0.351	0.818	0.786	0.875	0.918	0.891	0.773		27.49	TIC
11)		Acetone	5.806	5.678	5.023	5.166	5.109	5.164	5.324		6.20	
12)		Trichlorofluor...	1.261	1.320	1.167	1.299	1.329	1.377	1.292	E1	5.59	
13)		Ethanol	0.805	0.875	0.779	0.824	0.822	0.715	0.803		6.68	TIC
14)		Isopropyl Alcohol	3.462	3.775	3.812	4.373	4.467	4.181	4.012		9.75	TIC
15)		1,1-Dichloroet...	3.623	4.258	4.055	4.774	4.960	5.040	4.452		12.67	
16)		Methylene Chlo...	3.601	3.313	2.658	2.798	2.668	2.544	2.930		14.52	
17)		Freon 113	5.560	6.119	5.726	6.086	6.115	5.918	5.921		3.94	
18)		Carbon Disulfide	6.661	7.192	6.787	7.398	7.452	7.094	7.097		4.51	
19)		trans-1,2-Dich...	2.330	2.654	2.618	2.942	3.001	2.901	2.741		9.31	
20)		1,1-Dichloroet...	4.432	4.955	4.602	5.094	5.122	5.124	4.888		6.11	
21)		methyl t-butyl...	5.295	6.625	7.504	8.442	8.754	8.862	7.580		18.57	
22)		Vinyl Acetate	0.455	0.606	0.690	0.739	0.739	0.765	0.666		17.65	
23)		2-Butanone	3.877	4.590	5.037	5.406	5.543	5.713	5.028		13.76	
24)		cis-1,2-Dichlo...	2.234	2.570	2.478	2.982	3.086	3.155	2.751		13.63	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.055	0.062	0.065	0.065	0.067	0.063	0.063		6.54	
27)		Hexane	0.224	0.264	0.258	0.292	0.301	0.302	0.274		11.13	
28)		Chloroform	0.558	0.616	0.566	0.611	0.614	0.649	0.602		5.70	
29)		Tetrahydrofuran	0.128	0.158	0.187	0.206	0.214	0.218	0.185		19.24	
30)		1,2-Dichloroet...	0.383	0.425	0.386	0.420	0.429	0.470	0.419		7.69	

Method Path : J:\K\METHODS\
Method File : TO15KC15.m

31)		1,1,1-Trichlor...	0.639	0.719	0.649	0.732	0.745	0.808	0.715	8.86	
32)		Benzene	0.447	0.549	0.504	0.590	0.604	0.621	0.553	12.08	
33)		Carbon Tetrach...	0.758	0.854	0.766	0.853	0.879	0.957	0.845	8.78	
34)		Cyclohexane	0.365	0.345	0.290	0.304	0.303	0.303	0.318	9.21	
35)		1,2-Dichloropr...	0.165	0.191	0.183	0.198	0.205	0.208	0.191	8.36	
36)		Bromodichlorom...	0.545	0.628	0.589	0.636	0.664	0.720	0.630	9.57	
37)		1,4-Dioxane	0.086	0.117	0.133	0.154	0.160	0.150	0.133	21.09	TIC
38)		Trichloroethene	0.292	0.357	0.353	0.394	0.399	0.409	0.367	11.85	
39)		Methyl Methacr...	0.136	0.181	0.210	0.237	0.247	0.253	0.211	21.43	TIC
40)		Heptane	0.138	0.190	0.191	0.222	0.231	0.244	0.203	18.91	
41)		cis-1,3-Dichlo...	0.242	0.292	0.325	0.371	0.409	0.441	0.347	21.49	
42)		4-Methyl-2-Pen...	0.296	0.412	0.495	0.541	0.557	0.577	0.480	22.39	
43)		trans-1,3-Dich...	0.236	0.283	0.309	0.366	0.420	0.466	0.347	24.97	
44)		1,1,2-Trichlor...	0.273	0.306	0.297	0.297	0.309	0.325	0.301	5.72	
45)		Toluene	0.501	0.669	0.734	0.835	0.914	0.988	0.774	22.83	
46)		2-Hexanone	0.234	0.335	0.427	0.501	0.529	0.570	0.433	29.62	
47)		Dibromochlorom...	0.577	0.676	0.659	0.683	0.745	0.831	0.695	12.33	
48)		1,2-Dibromoethane	0.393	0.456	0.466	0.495	0.538	0.586	0.489	13.79	
49)		Tetrachloroethene	0.336	0.393	0.383	0.424	0.456	0.496	0.415	13.64	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.941	0.987	0.937	0.928	0.960	0.979	0.955	2.50	
52)		Ethylbenzene	0.812	1.040	1.186	1.397	1.507	1.621	1.260	24.18	
53)		m,p-Xylene	0.759	1.089	1.133	1.233	1.281	1.374	1.145	18.78	
54)		Bromoform	0.541	0.611	0.589	0.649	0.685	0.743	0.636	11.32	
55)		Styrene	0.366	0.498	0.611	0.776	0.865	0.941	0.676	32.93	
56)		1,1,2,2-Tetrac...	0.698	0.761	0.679	0.705	0.704	0.719	0.711	3.90	
57)		o-Xylene	0.758	1.106	1.166	1.270	1.316	1.415	1.172	19.66	
58)	S	Bromofluoroben...	0.698	0.691	0.691	0.693	0.704	0.744	0.704	2.92	
59)		4-Ethyl Toluene		0.907	1.104	1.497	1.636	1.812	1.391	27.01	
60)		1,3,5-Trimethy...	0.759	1.282	1.312	1.477	1.528	1.635	1.332	23.32	
61)		1,2,4-Trimethy...	0.579	0.921	0.976	1.297	1.400	1.546	1.120	32.05	
62)		Benzyl Chloride	0.546	0.741	0.699	0.905	1.016	1.176	0.847	27.10	TIC
63)		m-Dichlorobenzene	0.750	0.937	0.831	0.898	0.926	0.994	0.889	9.71	
64)		p-Dichlorobenzene	0.639	0.826	0.770	0.849	0.869	0.948	0.817	12.84	
65)		o-Dichlorobenzene	0.592	0.722	0.632	0.739	0.775	0.851	0.719	13.13	
66)		1,2,4-Trichlor...		0.209	0.142	0.206	0.263	0.321	0.228	29.46	TIC
67)		Naphthalene		0.421	0.287	0.613	0.806	0.936	0.612	43.54	TIC
68)		Hexachloro-1,3...	0.367	0.429	0.215	0.253	0.261	0.278	0.301	26.83	TIC

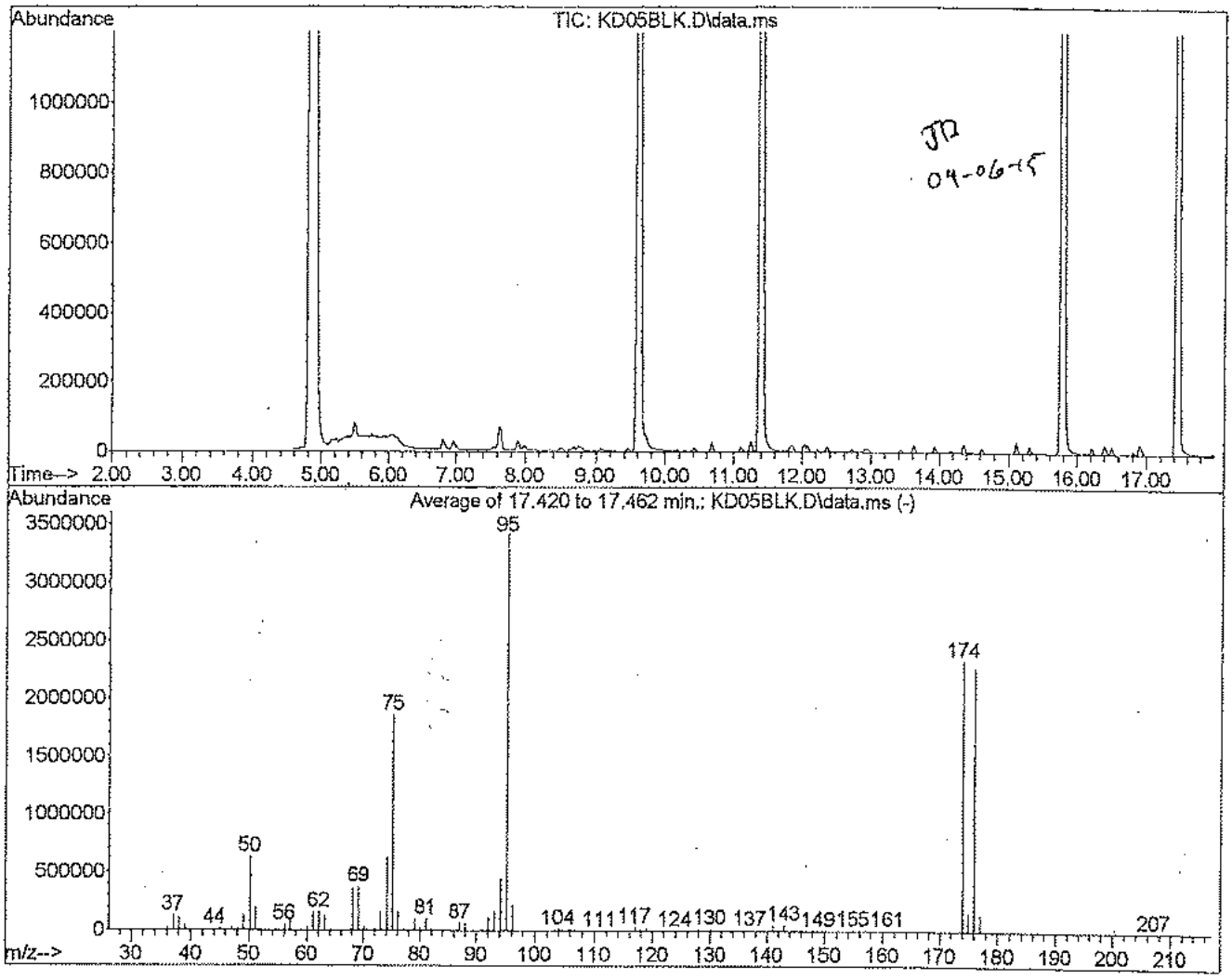
(#) = Out of Range

BFB

Data File : J:\K\2015\APR15K\03APR15K\KD05BLK.D
Acq Time : 04/03/2015 11:53
Sample : TEST BLANK
Misc : 107IS31245
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : 5975-K
Multiplr: 1.00

Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15



Peak Apex is scan: Average of 17.420 to 17.462 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.32	628631	PASS
75	95	30	66	54.19	1859093	PASS
95	95	100	100	100.00	3430518	PASS
96	95	5	9	6.32	216673	PASS
173	174	0.00	2	0.57	13240	PASS
174	95	50	120	68.20	2339547	PASS
175	174	5	9	6.89	161180	PASS
176	174	93	101	96.89	2266717	PASS
177	176	5	9	6.33	143399	PASS

Average of 17.420 to 17.462 min.: KD05BLK.D\data.ms
TEST BLANK
Modified: subtracted

m/z	Abundance
36.10	22523.0
37.10	128019.0
38.10	116333.0
39.10	46598.0
40.10	1474.0
43.10	985.0
44.10	14181.0
45.10	25125.0
46.00	464.0
46.20	1180.0
47.10	20343.0
48.10	17747.0
49.05	131375.0
50.10	628631.0
51.05	194805.0
52.10	8810.0
53.10	610.0
54.10	215.0
55.05	7622.0
56.10	48078.0
57.05	87357.0
58.05	3086.0
59.05	216.0
60.10	28554.0
61.05	158789.0
62.05	159272.0
63.10	120102.0
64.10	11358.0
65.15	3029.0
65.90	45.0
66.15	419.0
67.10	7828.0
68.05	355666.0
69.10	372046.0
70.10	25664.0
71.10	755.0
72.05	17781.0
73.05	155752.0
74.10	632503.0
75.10	1859093.0
76.05	155614.0
77.10	13437.0
78.05	6495.0
79.00	91573.0
80.00	26504.0
81.00	98777.0
82.00	19107.0
83.05	2141.0
84.00	58.0
86.05	1680.0
87.05	65313.0
88.00	62328.0
89.90	48.0
91.00	12865.0
92.05	116616.0
93.10	163261.0
94.10	443953.0
95.10	3430518.0
96.10	216673.0
97.10	6391.0
98.00	44.0
102.95	1575.0
104.00	16697.0
105.00	5482.0
106.00	16542.0
106.95	3808.0
110.00	2200.0
110.95	3370.0
111.95	2681.0
113.00	3391.0
115.00	4136.0
116.00	14741.0
117.00	26209.0
117.95	15680.0
119.00	21183.0
119.95	799.0
121.95	1009.0
123.00	1138.0
123.95	2608.0
124.95	1271.0
125.95	1590.0
126.95	1294.0
128.00	15830.0
129.00	7599.0
130.00	15860.0
130.95	6294.0
132.00	750.0

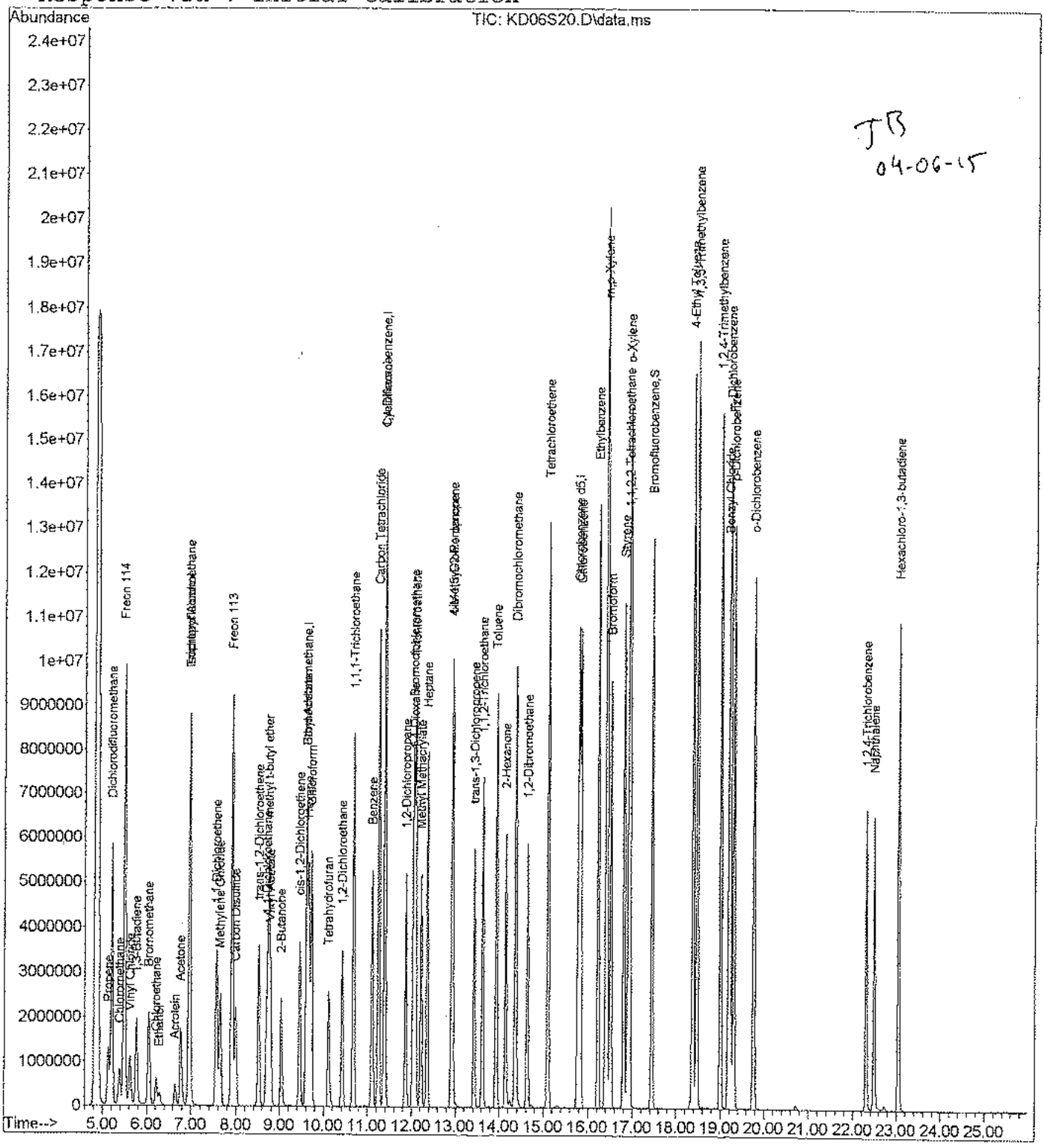
133.95	1179.0
135.00	7892.0
135.95	1344.0
137.00	8206.0
138.00	105.0
138.95	1648.0
139.95	3129.0
141.00	54037.0
142.00	5771.0
143.00	54716.0
144.00	3331.0
145.00	4680.0
146.00	5824.0
146.95	2804.0
148.00	10834.0
148.95	2518.0
150.00	4633.0
150.95	292.0
151.90	117.0
152.05	1726.0
153.05	2665.0
153.95	2684.0
155.00	9997.0
155.95	1399.0
157.00	6843.0
157.95	761.0
159.00	5662.0
160.00	430.0
160.95	5887.0
161.95	270.0
171.05	96.0
171.30	50.0
172.05	3245.0
173.05	13240.0
174.00	2339547.0
174.95	161180.0
176.00	2266717.0
177.00	143399.0
178.05	3774.0
207.15	347.0

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 10:40:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	750080	20.0000	ppb		74.44
25) 1,4-Difluorobenzene	11.39	114	9930623	20.0000	ppb		77.89
50) Chlorobenzene d5	15.77	117	8985663	20.0000	ppb		86.20
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6687341	25.6539	ppb		128.27%
Target Compounds							Qvalue
2) Propene	5.13	41	1295313	22.2578	ppb	#	89
3) Dichlorodifluoromethane	5.21	85	9703521	31.9325	ppb		99
4) Chloromethane	5.38	50	1578805	27.3352	ppb		99
5) Freon 114	5.49	135	7313241	29.1472	ppb		89
6) Vinyl Chloride	5.62	62	2076589	26.5260	ppb		97
7) 1,3-Butadiene	5.76	54	1516327	27.7273	ppb	#	69
8) Bromomethane	6.04	94	2504440	26.7276	ppb		99
9) Chloroethane	6.21	64	947096	20.0976	ppb	#	90
10) Acrolein	6.65	56	668209	20.6442	ppb		96
11) Acetone	6.77	43	3873335	26.2613	ppb	#	76
12) Trichlorofluoromethane	6.96	101	10329271	27.7153	ppb		100
13) Ethanol	6.28	45	536141	18.6960	ppb	#	82
14) Isopropyl Alcohol	6.96	45	3136418	21.0753	ppb	#	86
15) 1,1-Dichloroethene	7.56	61	3780234	23.5261	ppb	#	68
16) Methylene Chloride	7.63	84	1908290	19.0593	ppb	#	73
17) Freon 113	7.90	151	4439221	19.1814	ppb	#	65
18) Carbon Disulfide	7.98	76	5321102	19.5281	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	2176109	17.9972	ppb	#	74
20) 1,1-Dichloroethane	8.70	63	3843057	21.2869	ppb		99
21) methyl t-butyl ether	8.74	73	6647380	20.1036	ppb		98
22) Vinyl Acetate	8.79	86	573539	18.6428	ppb	#	1
23) 2-Butanone	9.02	43	4284971	25.1430	ppb	#	74
24) cis-1,2-Dichloroethene	9.45	96	2366504	18.8428	ppb	#	74
26) Ethyl Acetate	9.61	61	630291	19.8079	ppb	#	1
27) Hexane	9.66	57	2997413	19.7433	ppb	#	44
28) Chloroform	9.72	83	6449910	24.0110	ppb		98
29) Tetrahydrofuran	10.11	42	2160194	22.7692	ppb	#	75
30) 1,2-Dichloroethane	10.41	62	4668691	27.6892	ppb		95
31) 1,1,1-Trichloroethane	10.68	97	8021763	25.1596	ppb	#	96
32) Benzene	11.10	78	6168281	18.1227	ppb	#	91
33) Carbon Tetrachloride	11.25	117	9502007	26.0649	ppb		99
34) Cyclohexane	11.38	84	3008012	17.8630	ppb	#	65
35) 1,2-Dichloropropane	11.87	63	2064179	18.3333	ppb	#	81

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD06S20.D Vial: 2
Acq Time : 04/03/2015 12:38 Operator:
Sample : 20.0 ppb std (400 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:08:20 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 10:40:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	7148037	25.6764	ppb		99
37)	1,4-Dioxane	12.06	88	1494339	19.4467	ppb	#	90
38)	Trichloroethene	12.09	130	4060572	19.1453	ppb	#	90
39)	Methyl Methacrylate	12.22	69	2512968	21.4870	ppb	#	84
40)	Heptane	12.36	71	2418881	19.5868	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	4382818	22.1276	ppb		94
42)	4-Methyl-2-Pentanone	12.93	43	5728297	27.5240	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	4623655	24.9945	ppb	#	90
44)	1,1,2-Trichloroethane	13.62	97	3223167	21.0346	ppb	#	87
45)	Toluene	13.93	91	9808660	20.9115	ppb		96
46)	2-Hexanone	14.14	43	5657471	31.6263	ppb	#	77
47)	Dibromochloromethane	14.36	129	8255690	26.3256	ppb		99
48)	1,2-Dibromoethane	14.63	107	5820614	23.6785	ppb		98
49)	Tetrachloroethene	15.11	166	4926974	19.5478	ppb	#	75
51)	Chlorobenzene	15.82	112	8794643	19.2938	ppb	#	90
52)	Ethylbenzene	16.21	91	14564160	21.1462	ppb		90
53)	m,p-Xylene	16.41	91	24691602	44.8735	ppb		86
54)	Bromoform	16.51	173	6678261	24.8044	ppb		100
55)	Styrene	16.80	104	8451717	22.5223	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	6457522	22.2398	ppb	#	97
57)	o-Xylene	16.93	91	12713527	22.9074	ppb		87
59)	4-Ethyl Toluene	18.38	105	16279170	23.1414	ppb		92
60)	1,3,5-Trimethylbenzene	18.47	105	14693855	23.4298	ppb		87
61)	1,2,4-Trimethylbenzene	19.00	105	13894088	23.4873	ppb		88
62)	Benzyl Chloride	19.18	91	10566186	28.3707	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	8931148	23.3464	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	8520114	23.4450	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	7644466	22.3683	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	2882147	23.9363	ppb	#	96
67)	Naphthalene	22.49	128	8407841	29.6380	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	2499375	18.3745	ppb		98

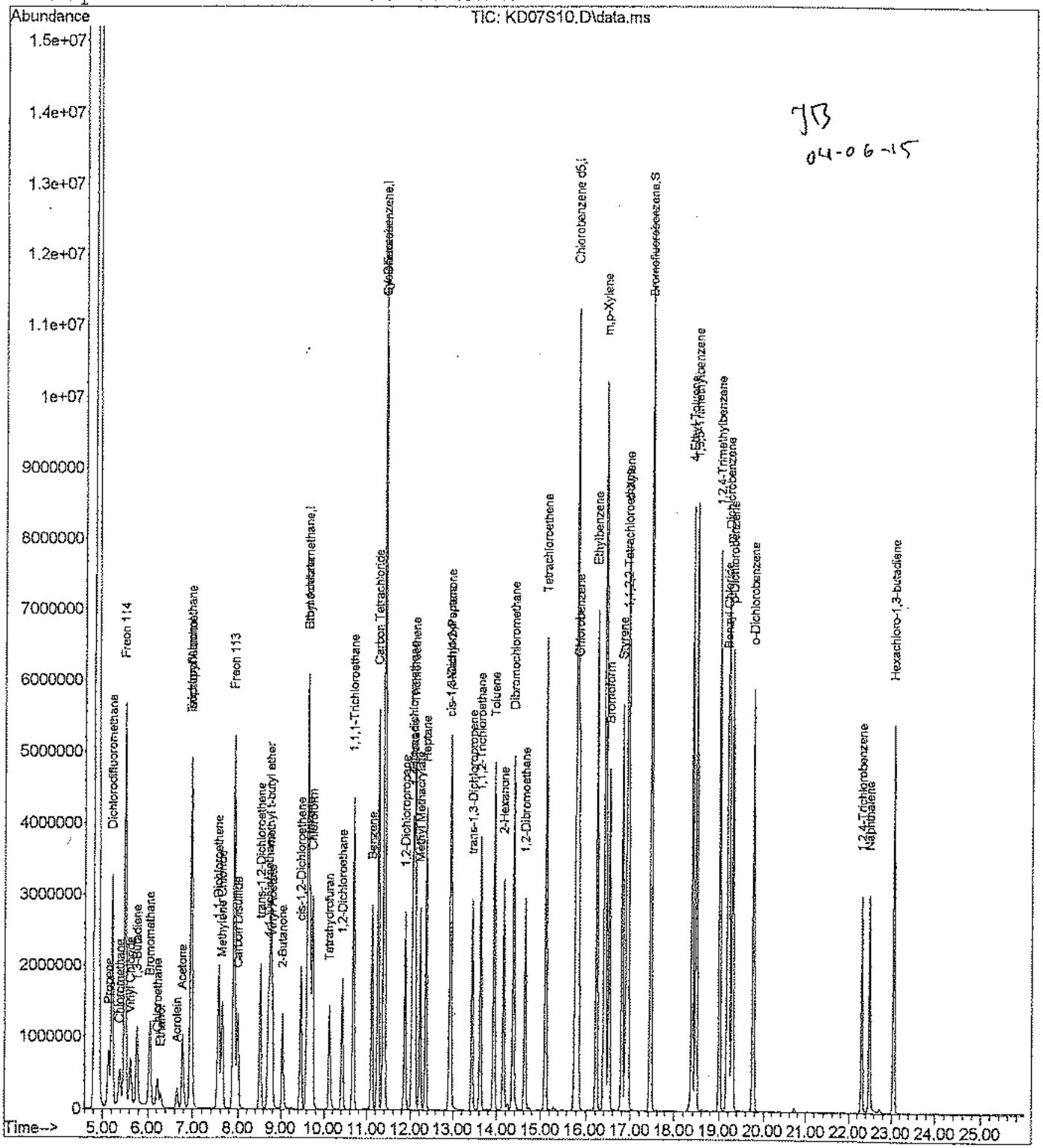
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:08:27 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	853056	20.0000	ppb		84.66
25) 1,4-Difluorobenzene	11.39	114	11154772	20.0000	ppb		87.50
50) Chlorobenzene d5	15.77	117	9642600	20.0000	ppb		92.50
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6786430	23.2459	ppb		116.23%
Target Compounds							Qvalue
2) Propene	5.13	41	804493	11.8232	ppb		92
3) Dichlorodifluoromethane	5.21	85	5441557	14.2229	ppb		99
4) Chloromethane	5.38	50	946849	13.4500	ppb		99
5) Freon 114	5.49	135	4181399	13.5403	ppb		90
6) Vinyl Chloride	5.62	62	1215488	12.8747	ppb		98
7) 1,3-Butadiene	5.76	54	886462	13.3163	ppb	#	75
8) Bromomethane	6.04	94	1441846	12.7189	ppb		100
9) Chloroethane	6.21	64	597269	11.0694	ppb	#	92
10) Acrolein	6.65	56	391387	10.6056	ppb		96
11) Acetone	6.77	43	2179247	12.1328	ppb	#	80
12) Trichlorofluoromethane	6.96	101	5669597	12.4895	ppb		100
13) Ethanol	6.28	45	350819	10.6493	ppb	#	81
14) Isopropyl Alcohol	6.96	45	1905366	11.0270	ppb	#	87
15) 1,1-Dichloroethene	7.55	61	2115552	11.1963	ppb	#	72
16) Methylene Chloride	7.63	84	1137873	9.9439	ppb	#	75
17) Freon 113	7.90	151	2608054	9.9254	ppb	#	68
18) Carbon Disulfide	7.98	76	3178671	10.2737	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1280165	9.4136	ppb	#	78
20) 1,1-Dichloroethane	8.70	63	2184720	10.4794	ppb		99
21) methyl t-butyl ether	8.74	73	3733706	9.8799	ppb		97
22) Vinyl Acetate	8.79	86	315299	9.1887	ppb	#	1
23) 2-Butanone	9.02	43	2364058	11.6542	ppb	#	76
24) cis-1,2-Dichloroethene	9.45	96	1316235	9.2550	ppb	#	77
26) Ethyl Acetate	9.61	61	375123	10.4073	ppb	#	1
27) Hexane	9.66	57	1678862	9.7926	ppb	#	45
28) Chloroform	9.72	83	3423681	10.8925	ppb		100
29) Tetrahydrofuran	10.12	42	1192959	10.9016	ppb	#	76
30) 1,2-Dichloroethane	10.41	62	2389917	11.7556	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	4155442	11.0486	ppb	#	96
32) Benzene	11.10	78	3370874	8.9028	ppb	#	92
33) Carbon Tetrachloride	11.25	117	4903973	11.3566	ppb		99
34) Cyclohexane	11.38	84	1690278	8.9983	ppb	#	63
35) 1,2-Dichloropropane	11.87	63	1141694	9.0725	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD07S10.D Vial: 2
Acq Time : 04/03/2015 13:23 Operator:
Sample : 10.0 ppb std (200 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 13:54:27 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:08:27 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	3703679	11.2665	ppb		99
37)	1,4-Dioxane	12.06	88	892565	10.3544	ppb	#	91
38)	Trichloroethene	12.09	130	2223088	9.3336	ppb	#	91
39)	Methyl Methacrylate	12.22	69	1377516	10.3490	ppb		88
40)	Heptane	12.36	71	1287339	9.2513	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	2281732	10.0710	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	3105103	12.4610	ppb	#	80
43)	trans-1,3-Dichloropropene	13.42	75	2342205	10.8586	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	1725588	9.8512	ppb	#	88
45)	Toluene	13.93	91	5097056	9.5561	ppb		97
46)	2-Hexanone	14.14	43	2951837	13.4806	ppb	#	78
47)	Dibromochloromethane	14.36	129	4153529	11.2130	ppb		99
48)	1,2-Dibromoethane	14.62	107	2999558	10.4927	ppb		98
49)	Tetrachloroethene	15.11	166	2542697	8.9555	ppb	#	76
51)	Chlorobenzene	15.82	112	4630252	9.4054	ppb	#	90
52)	Ethylbenzene	16.21	91	7265486	9.6696	ppb		91
53)	m,p-Xylene	16.40	91	12352672	20.2827	ppb		87
54)	Bromoform	16.51	173	3301892	11.0641	ppb		100
55)	Styrene	16.80	104	4169746	10.1520	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	16.90	83	3392518	10.5267	ppb	#	97
57)	o-Xylene	16.93	91	6346298	10.2688	ppb		88
59)	4-Ethyl Toluene	18.38	105	7885935	10.1292	ppb		93
60)	1,3,5-Trimethylbenzene	18.47	105	7366856	10.5295	ppb		87
61)	1,2,4-Trimethylbenzene	18.99	105	6747753	10.2213	ppb		89
62)	Benzyl Chloride	19.18	91	4897425	11.6241	ppb		90
63)	m-Dichlorobenzene	19.21	146	4463307	10.4262	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	4190228	10.3243	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	3737737	9.8371	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	1267608	9.4943	ppb	#	96
67)	Naphthalene	22.49	128	3884468	11.8529	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	1258470	8.3538	ppb		97

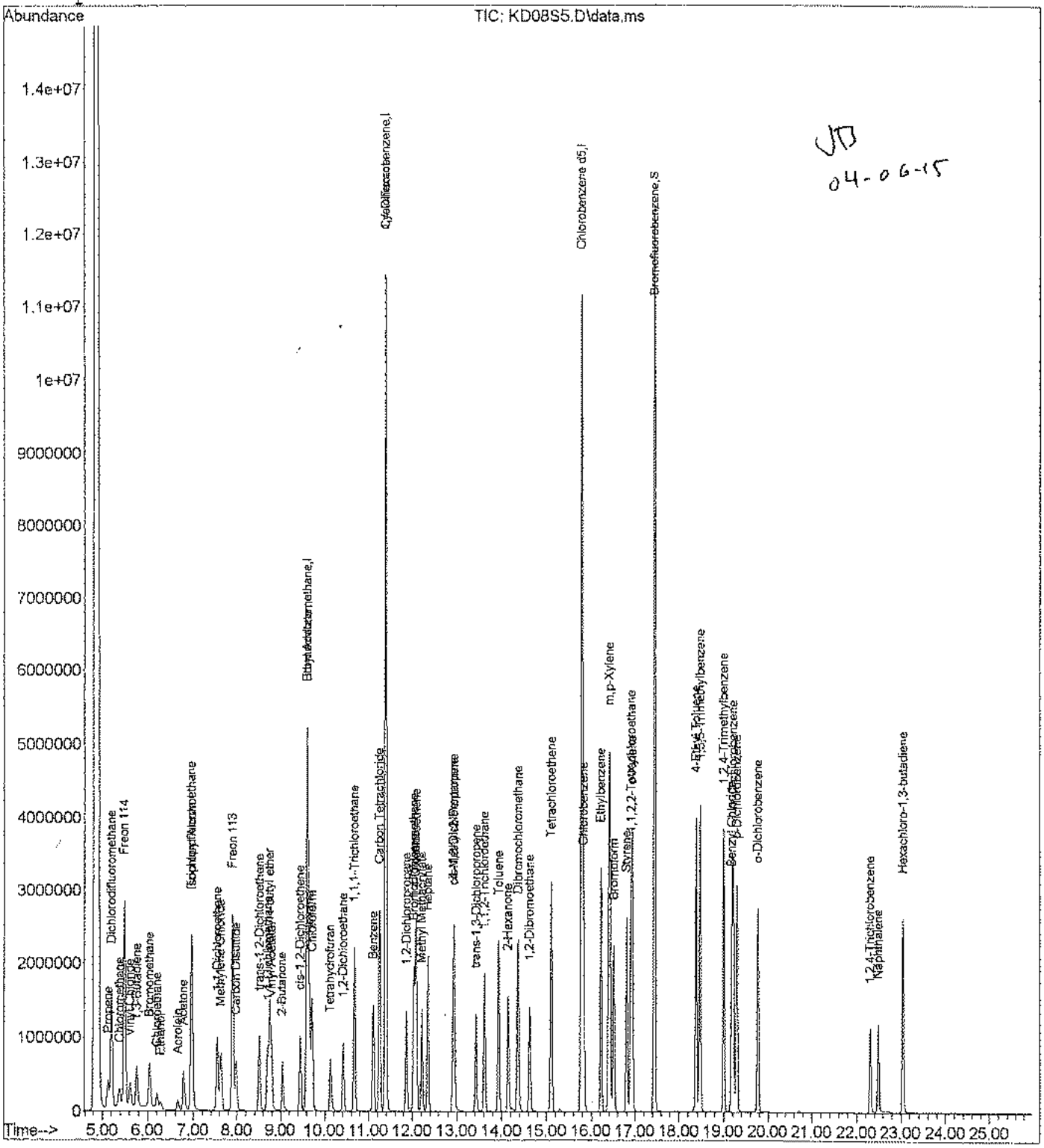
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JD
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:54:44 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	877312	20.0000	ppb		102.84
25) 1,4-Difluorobenzene	11.39	114	11425839	20.0000	ppb		102.43
50) Chlorobenzene d5	15.77	117	9519111	20.0000	ppb		98.72
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	17.44	95	6600538	22.1497	ppb		110.75%
Target Compounds							**Qvalue**
2) Propene	5.13	41	403950	5.5173	ppb		92
3) Dichlorodifluoromethane	5.21	85	2703501	6.2740	ppb		99
4) Chloromethane	5.38	50	478541	6.1176	ppb		98
5) Freon 114	5.49	135	2097315	6.1149	ppb		90
6) Vinyl Chloride	5.62	62	620326	5.9900	ppb		98
7) 1,3-Butadiene	5.76	54	438480	5.9635	ppb	#	73
8) Bromomethane	6.04	94	729075	5.8708	ppb		99
9) Chloroethane	6.21	64	310463	5.4472	ppb	#	92
10) Acrolein	6.65	56	191869	4.9975	ppb		96
11) Acetone	6.78	43	1133094	5.7525	ppb	#	80
12) Trichlorofluoromethane	6.96	101	2849648	5.7467	ppb		99
13) Ethanol	6.29	45	180747	5.1667	ppb	#	76
14) Isopropyl Alcohol	6.97	45	959029	5.2238	ppb	#	83
15) 1,1-Dichloroethene	7.56	61	1047101	5.2156	ppb	#	73
16) Methylene Chloride	7.64	84	613667	5.1419	ppb	#	78
17) Freon 113	7.90	151	1334838	4.9056	ppb	#	68
18) Carbon Disulfide	7.98	76	1622633	5.0374	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	645227	4.6232	ppb	#	79
20) 1,1-Dichloroethane	8.70	63	1117261	5.1113	ppb		99
21) methyl t-butyl ether	8.74	73	1851618	4.7279	ppb		96
22) Vinyl Acetate	8.79	86	162144	4.6817	ppb	#	1
23) 2-Butanone	9.03	43	1185778	5.4479	ppb	#	76
24) cis-1,2-Dichloroethene	9.45	96	653954	4.4902	ppb	#	77
26) Ethyl Acetate	9.62	61	185779	4.9267	ppb	#	1
27) Hexane	9.66	57	833998	4.7217	ppb	#	45
28) Chloroform	9.72	83	1744251	5.2525	ppb		99
29) Tetrahydrofuran	10.12	42	588758	5.1242	ppb	#	76
30) 1,2-Dichloroethane	10.42	62	1199664	5.4781	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	2091583	5.2478	ppb	#	96
32) Benzene	11.10	78	1685758	4.3954	ppb	#	92
33) Carbon Tetrachloride	11.25	117	2435481	5.3064	ppb		99
34) Cyclohexane	11.38	84	869170	4.5444	ppb	#	57
35) 1,2-Dichloropropane	11.87	63	564362	4.4016	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD08S5.D Vial: 2
Acq Time : 04/03/2015 14:06 Operator:
Sample : 5.0 ppb std (100 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 14:51:57 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 13:54:44 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	1817744	5.2107	ppb		99
37)	1,4-Dioxane	12.07	88	440074	4.9458	ppb	#	91
38)	Trichloroethene	12.09	130	1125856	4.6254	ppb	#	91
39)	Methyl Methacrylate	12.22	69	677678	4.9095	ppb		89
40)	Heptane	12.36	71	635496	4.4841	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	1060120	4.5282	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	1545639	5.7373	ppb	#	80
43)	trans-1,3-Dichloropropene	13.42	75	1045754	4.6254	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	848242	4.6701	ppb	#	88
45)	Toluene	13.93	91	2385169	4.3515	ppb		96
46)	2-Hexanone	14.14	43	1430658	5.9609	ppb	#	77
47)	Dibromochloromethane	14.36	129	1952351	4.9776	ppb		99
48)	1,2-Dibromoethane	14.62	107	1412695	4.7210	ppb		98
49)	Tetrachloroethene	15.11	166	1209941	4.1879	ppb	#	76
51)	Chlorobenzene	15.82	112	2207876	4.5101	ppb	#	88
52)	Ethylbenzene	16.21	91	3324004	4.4381	ppb		92
53)	m,p-Xylene	16.41	91	5866772	9.5369	ppb		88
54)	Bromoform	16.51	173	1545621	5.1165	ppb		99
55)	Styrene	16.80	104	1847116	4.4971	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	1677222	5.1028	ppb	#	97
57)	o-Xylene	16.93	91	3021166	4.8204	ppb		89
59)	4-Ethyl Toluene	18.38	105	3562613	4.5524	ppb		94
60)	1,3,5-Trimethylbenzene	18.47	105	3514872	4.9344	ppb		88
61)	1,2,4-Trimethylbenzene	18.99	105	3086167	4.6142	ppb		89
62)	Benzyl Chloride	19.18	91	2154065	5.0052	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	2136710	4.8907	ppb	#	94
64)	p-Dichlorobenzene	19.29	146	2019596	4.8907	ppb	#	93
65)	o-Dichlorobenzene	19.76	146	1758744	4.5748	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	490873	3.6839	ppb	#	96
67)	Naphthalene	22.49	128	1458492	4.2825	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	601100	3.9421	ppb		97

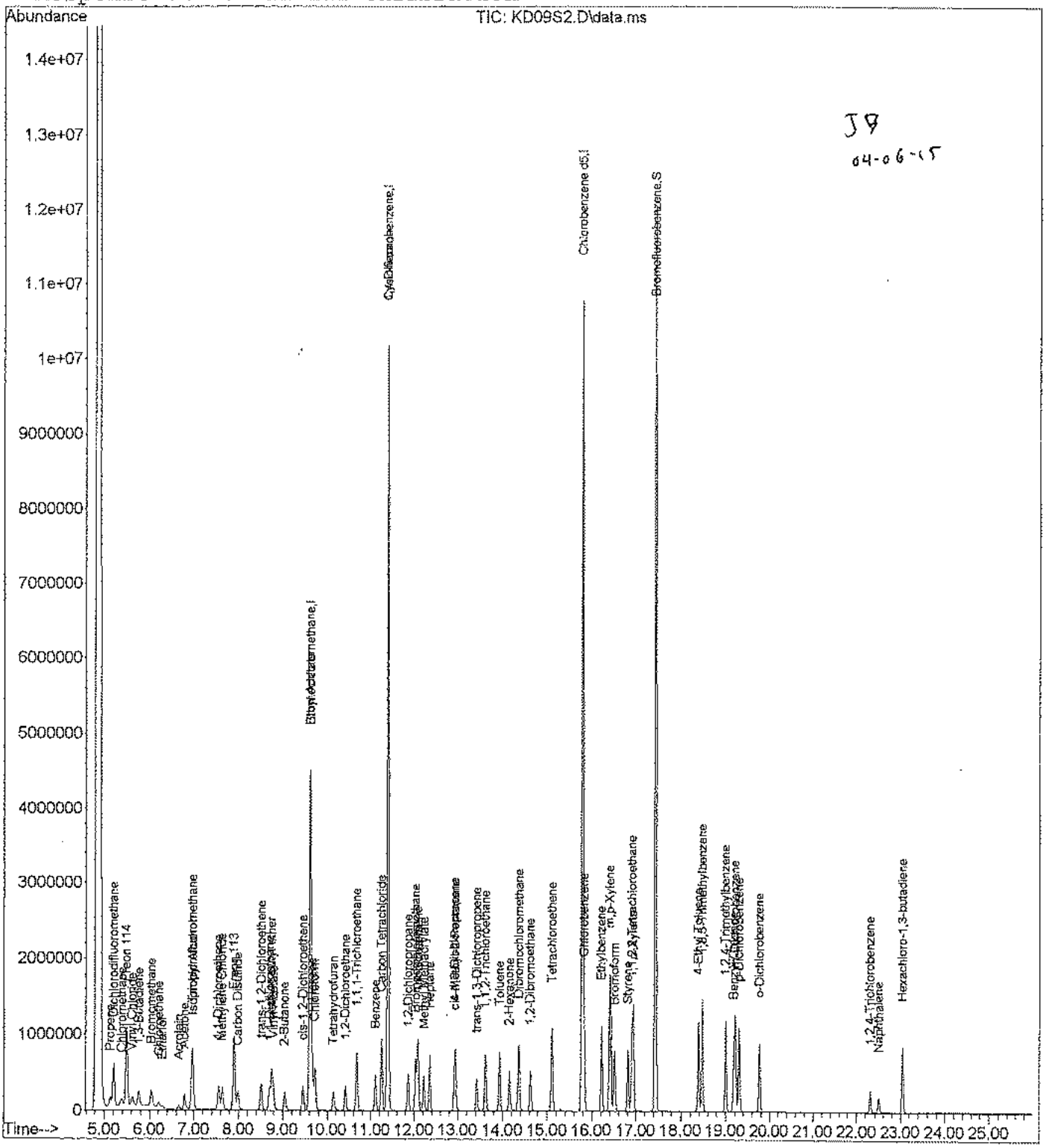
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



J9
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 14:52:06 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.60	130	852800	20.0000	ppb		99.97
25) 1,4-Difluorobenzene	11.38	114	10992213	20.0000	ppb		98.54
50) Chlorobenzene d5	15.77	117	9097744	20.0000	ppb		94.35
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6282804	21.4193	ppb		107.10%
Target Compounds							Qvalue
2) Propene	5.14	41	143994	1.9598	ppb	#	90
3) Dichlorodifluoromethane	5.21	85	981839	2.1845	ppb		99
4) Chloromethane	5.39	50	178608	2.2112	ppb		96
5) Freon 114	5.49	135	755863	2.1333	ppb		89
6) Vinyl Chloride	5.62	62	222860	2.1032	ppb		99
7) 1,3-Butadiene	5.76	54	153154	2.0329	ppb	#	68
8) Bromomethane	6.04	94	260495	2.0566	ppb		98
9) Chloroethane	6.21	64	109032	1.9227	ppb	#	90
10) Acrolein	6.65	56	67046	1.7969	ppb		96
11) Acetone	6.79	43	428380	2.1163	ppb	#	79
12) Trichlorofluoromethane	6.96	101	995151	1.9724	ppb		99
13) Ethanol	6.29	45	66443	1.9097	ppb	#	72
14) Isopropyl Alcohol	6.98	45	325062	1.7845	ppb	#	76
15) 1,1-Dichloroethene	7.55	61	345790	1.7397	ppb	#	71
16) Methylene Chloride	7.64	84	226664	1.9276	ppb	#	76
17) Freon 113	7.90	151	488323	1.8491	ppb	#	70
18) Carbon Disulfide	7.98	76	578771	1.8394	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	223251	1.6656	ppb	#	79
20) 1,1-Dichloroethane	8.70	63	392456	1.8295	ppb		99
21) methyl t-butyl ether	8.75	73	639909	1.6916	ppb		95
22) Vinyl Acetate	8.79	86	58836	1.7919	ppb	#	1
23) 2-Butanone	9.04	43	429513	1.9682	ppb	#	75
24) cis-1,2-Dichloroethene	9.46	96	211314	1.5185	ppb	#	77
26) Ethyl Acetate	9.62	61	71777	1.9699	ppb	#	1
27) Hexane	9.66	57	283583	1.6843	ppb	#	44
28) Chloroform	9.71	83	622047	1.9101	ppb		98
29) Tetrahydrofuran	10.13	42	205095	1.8374	ppb	#	72
30) 1,2-Dichloroethane	10.41	62	423868	1.9423	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	713039	1.8222	ppb	#	95
32) Benzene	11.10	78	554493	1.5396	ppb	#	91
33) Carbon Tetrachloride	11.25	117	842392	1.8651	ppb		100
34) Cyclohexane	11.38	84	319197	1.7630	ppb	#	32
35) 1,2-Dichloropropane	11.87	63	200981	1.6637	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD09S2.D Vial: 2
Acq Time : 04/03/2015 14:47 Operator:
Sample : 2.0 ppb std (40 mL) Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:13:29 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 14:52:06 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	647589	1.8939	ppb		99
37)	1,4-Dioxane	12.08	88	146187	1.7188	ppb	#	88
38)	Trichloroethene	12.09	130	387659	1.6765	ppb	#	91
39)	Methyl Methacrylate	12.23	69	230721	1.7430	ppb		88
40)	Heptane	12.36	71	210322	1.5751	ppb	#	70
41)	cis-1,3-Dichloropropene	12.91	75	357391	1.6115	ppb		96
42)	4-Methyl-2-Pentanone	12.94	43	544198	2.0175	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	339597	1.5646	ppb	#	92
44)	1,1,2-Trichloroethane	13.62	97	326588	1.8742	ppb	#	87
45)	Toluene	13.93	91	807266	1.5590	ppb		96
46)	2-Hexanone	14.15	43	469470	1.9363	ppb	#	76
47)	Dibromochloromethane	14.36	129	724269	1.8946	ppb		99
48)	1,2-Dibromoethane	14.63	107	511893	1.7733	ppb		97
49)	Tetrachloroethene	15.11	166	421477	1.5588	ppb	#	76
51)	Chlorobenzene	15.82	112	852845	1.8241	ppb	#	83
52)	Ethylbenzene	16.21	91	1079424	1.5119	ppb		92
53)	m,p-Xylene	16.40	91	2061052	3.4570	ppb		88
54)	Bromoform	16.51	173	536068	1.8173	ppb		99
55)	Styrene	16.80	104	556007	1.4211	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	16.90	83	617509	1.9102	ppb	#	96
57)	o-Xylene	16.93	91	1061237	1.7412	ppb		88
59)	4-Ethyl Toluene	18.38	105	1004145	1.3381	ppb		95
60)	1,3,5-Trimethylbenzene	18.47	105	1193466	1.7127	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	888076	1.3717	ppb		90
62)	Benzyl Chloride	19.18	91	636095	1.5160	ppb		91
63)	m-Dichlorobenzene	19.21	146	755992	1.7639	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	700082	1.7321	ppb	#	93
65)	o-Dichlorobenzene	19.76	146	575363	1.5422	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	129152	1.0359	ppb	#	95
67)	Naphthalene	22.49	128	261197	0.7958	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	196043	1.3162	ppb		97

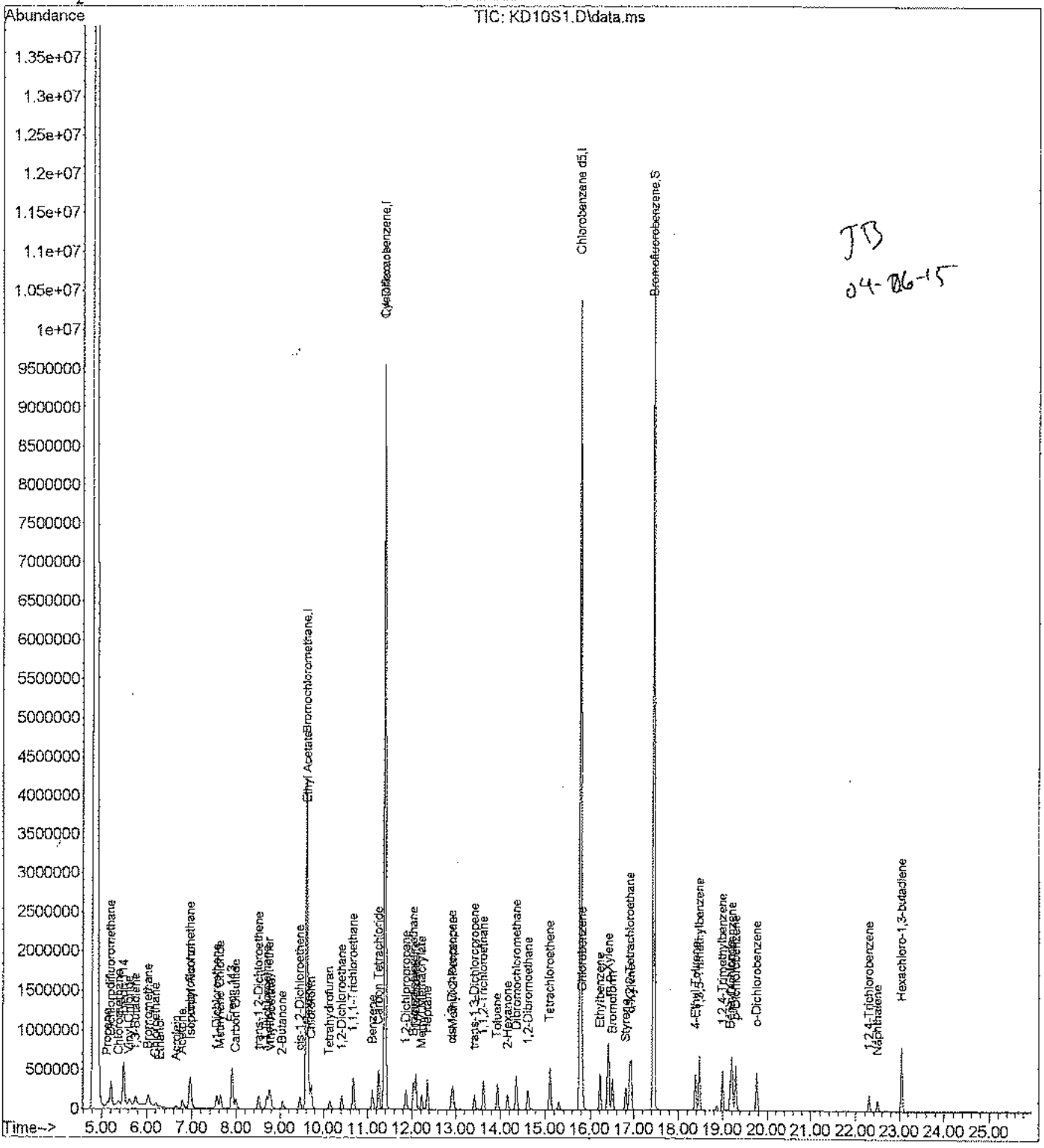
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB
04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:13:41 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	817216	20.0000	ppb		95.80
25) 1,4-Difluorobenzene	11.39	114	10517653	20.0000	ppb		94.29
50) Chlorobenzene d5	15.77	117	8726033	20.0000	ppb		90.49
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6032342	20.8249	ppb		104.12%
Target Compounds							Qvalue
2) Propene	5.14	41	72941	1.0554	ppb	#	89
3) Dichlorodifluoromethane	5.21	85	515112	1.1671	ppb		99
4) Chloromethane	5.39	50	91672	1.1618	ppb		93
5) Freon 114	5.50	135	398678	1.1560	ppb		90
6) Vinyl Chloride	5.62	62	122423	1.2030	ppb		98
7) 1,3-Butadiene	5.77	54	87322	1.2076	ppb	#	79
8) Bromomethane	6.03	94	150196	1.2370	ppb		97
9) Chloroethane	6.20	64	62200	1.1860	ppb	#	92
10) Acrolein	6.66	56	33444	0.9870	ppb		95
11) Acetone	6.79	43	232003	1.1747	ppb	#	81
12) Trichlorofluoromethane	6.96	101	539323	1.1218	ppb		100
13) Ethanol	6.29	45	35763	1.0978	ppb	#	74
14) Isopropyl Alcohol	6.99	45	154251	0.9120	ppb	#	67
15) 1,1-Dichloroethene	7.56	61	173975	0.9525	ppb	#	73
16) Methylene Chloride	7.63	84	135365	1.2416	ppb	#	76
17) Freon 113	7.90	151	250040	1.0385	ppb	#	68
18) Carbon Disulfide	7.98	76	293852	1.0171	ppb	#	63
19) trans-1,2-Dichloroethene	8.51	96	108459	0.9071	ppb	#	78
20) 1,1-Dichloroethane	8.70	63	202469	1.0286	ppb		97
21) methyl t-butyl ether	8.75	73	270714	0.7917	ppb		95
22) Vinyl Acetate	8.79	86	24768	0.8431	ppb	#	1
23) 2-Butanone	9.05	43	187539	0.9062	ppb	#	76
24) cis-1,2-Dichloroethene	9.46	96	105019	0.8581	ppb	#	79
26) Ethyl Acetate	9.63	61	32691	0.9699	ppb	#	1
27) Hexane	9.67	57	138880	0.9303	ppb	#	41
28) Chloroform	9.72	83	324148	1.0765	ppb		99
29) Tetrahydrofuran	10.15	42	82957	0.8087	ppb	#	72
30) 1,2-Dichloroethane	10.41	62	223417	1.0888	ppb		97
31) 1,1,1-Trichloroethane	10.68	97	378244	1.0488	ppb	#	96
32) Benzene	11.10	78	288736	0.9222	ppb	#	92
33) Carbon Tetrachloride	11.25	117	449312	1.0738	ppb		99
34) Cyclohexane	11.38	84	181196	1.1212	ppb	#	8
35) 1,2-Dichloropropane	11.87	63	100700	0.9434	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD10S1.D Vial: 3
Acq Time : 04/03/2015 15:30 Operator:
Sample : 1.0 ppb std (200 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 15:56:43 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:13:41 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.03	83	330460	1.0382	ppb		99
37)	1,4-Dioxane	12.09	88	61344	0.7996	ppb	#	85
38)	Trichloroethene	12.09	130	187550	0.9119	ppb		92
39)	Methyl Methacrylate	12.23	69	95445	0.7997	ppb		90
40)	Heptane	12.36	71	99811	0.8513	ppb	#	66
41)	cis-1,3-Dichloropropene	12.91	75	153699	0.7741	ppb		94
42)	4-Methyl-2-Pentanone	12.94	43	216450	0.8450	ppb	#	77
43)	trans-1,3-Dichloropropene	13.42	75	149026	0.7576	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	161122	1.0048	ppb	#	87
45)	Toluene	13.93	91	351964	0.7678	ppb		94
46)	2-Hexanone	14.16	43	175975	0.7603	ppb	#	72
47)	Dibromochloromethane	14.36	129	355311	0.9933	ppb		100
48)	1,2-Dibromoethane	14.62	107	239795	0.9029	ppb		99
49)	Tetrachloroethene	15.10	166	206583	0.8698	ppb	#	75
51)	Chlorobenzene	15.82	112	430513	0.9882	ppb	#	74
52)	Ethylbenzene	16.22	91	453709	0.6988	ppb		93
53)	m,p-Xylene	16.41	91	950645	1.7063	ppb		88
54)	Bromoform	16.51	173	266374	0.9469	ppb		100
55)	Styrene	16.80	104	217331	0.6130	ppb	#	92
56)	1,1,2,2-Tetrachloroethane	16.90	83	331903	1.0709	ppb	#	96
57)	o-Xylene	16.93	91	482525	0.8452	ppb		89
59)	4-Ethyl Toluene	18.38	105	395789	0.5823	ppb		94
60)	1,3,5-Trimethylbenzene	18.47	105	559166	0.8546	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	401810	0.6793	ppb		91
62)	Benzyl Chloride	19.18	91	323385	0.8196	ppb		91
63)	m-Dichlorobenzene	19.21	146	408776	1.0020	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	360275	0.9389	ppb	#	94
65)	o-Dichlorobenzene	19.77	146	315025	0.9033	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.31	180	91091	0.8143	ppb	#	96
67)	Naphthalene	22.49	128	183564	0.6166	ppb		98
68)	Hexachloro-1,3-butadiene	23.05	225	187180	1.3232	ppb		97

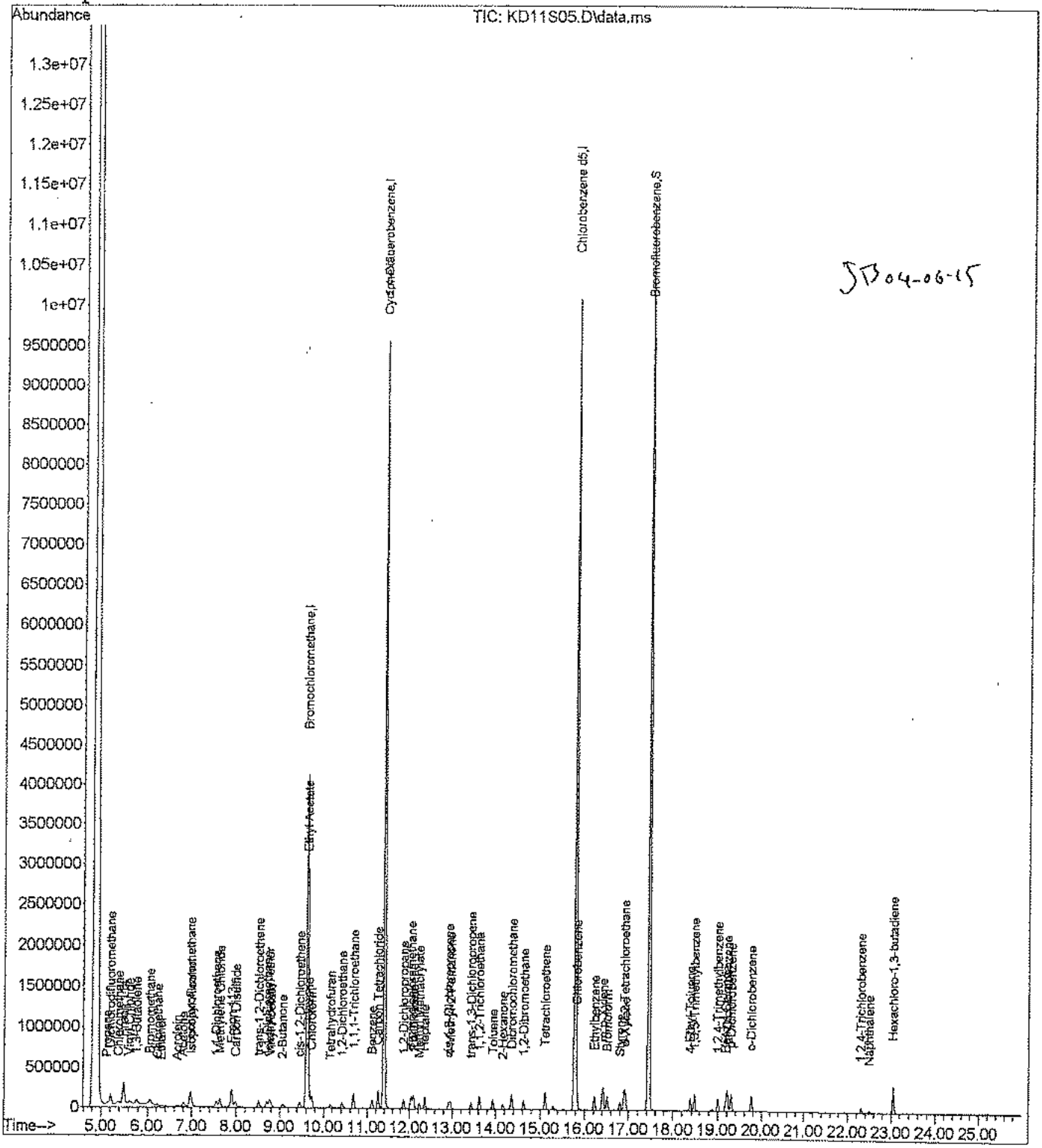
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JD 04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:56:52 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	810432	20.0000	ppb		95.00
25) 1,4-Difluorobenzene	11.39	114	10390053	20.0000	ppb		93.14
50) Chlorobenzene d5	15.77	117	8387076	20.0000	ppb		86.98
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5853092	20.4250	ppb		102.13%
Target Compounds							Qvalue
2) Propene	5.13	41	31505	0.4438	ppb	#	86
3) Dichlorodifluoromethane	5.21	85	237739	0.5033	ppb		99
4) Chloromethane	5.39	50	45711	0.5458	ppb		93
5) Freon 114	5.49	135	183655	0.5001	ppb		88
6) Vinyl Chloride	5.62	62	57294	0.5285	ppb		95
7) 1,3-Butadiene	5.76	54	42758	0.5529	ppb	#	75
8) Bromomethane	6.05	94	67845	0.5227	ppb		100
9) Chloroethane	6.22	64	29697	0.5450	ppb	#	93
10) Acrolein	6.65	56	7103	0.2073	ppb		92
11) Acetone	6.80	43	117629	0.5665	ppb	#	80
12) Trichlorofluoromethane	6.96	101	255436	0.5067	ppb		100
13) Ethanol	6.29	45	16301	0.4919	ppb	#	73
14) Isopropyl Alcohol	7.00	45	70145	0.4178	ppb	#	54
15) 1,1-Dichloroethene	7.56	61	73413	0.3994	ppb	#	74
16) Methylene Chloride	7.64	84	72950	0.6435	ppb	#	73
17) Freon 113	7.90	151	112652	0.4654	ppb	#	65
18) Carbon Disulfide	7.99	76	134948	0.4661	ppb	#	61
19) trans-1,2-Dichloroethene	8.52	96	47206	0.4062	ppb	#	80
20) 1,1-Dichloroethane	8.70	63	89803	0.4523	ppb		98
21) methyl t-butyl ether	8.76	73	107275	0.3260	ppb		94
22) Vinyl Acetate	8.79	86	9225	0.3229	ppb	#	1
23) 2-Butanone	9.07	43	78559	0.3772	ppb	#	75
24) cis-1,2-Dichloroethene	9.46	96	45269	0.3839	ppb	#	80
26) Ethyl Acetate	9.63	61	14407	0.4298	ppb	#	1
27) Hexane	9.66	57	58299	0.3973	ppb	#	40
28) Chloroform	9.72	83	145024	0.4699	ppb		100
29) Tetrahydrofuran	10.17	42	33250	0.3309	ppb	#	69
30) 1,2-Dichloroethane	10.42	62	99363	0.4687	ppb		96
31) 1,1,1-Trichloroethane	10.68	97	165858	0.4500	ppb	#	95
32) Benzene	11.10	78	116092	0.3831	ppb	#	91
33) Carbon Tetrachloride	11.25	117	197020	0.4567	ppb		99
34) Cyclohexane	11.38	84	94750	0.5811	ppb	#	1
35) 1,2-Dichloropropane	11.87	63	42737	0.4109	ppb	#	79

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD11S05.D Vial: 3
Acq Time : 04/03/2015 16:13 Operator:
Sample : 0.5 ppb std (100 mL) Inst : 5975-K
Misc : 23369 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:33:45 2015 Results File: TO15KB15.RES

Quant Method : J:\K\METHODS\TO15KB15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 15:56:52 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.03	83	141486	0.4360	ppb		97
37)	1,4-Dioxane	12.11	88	22340	0.3008	ppb	#	83
38)	Trichloroethene	12.09	130	75775	0.3782	ppb		92
39)	Methyl Methacrylate	12.23	69	35394	0.3051	ppb		89
40)	Heptane	12.36	71	35821	0.3158	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	62942	0.3301	ppb		95
42)	4-Methyl-2-Pentanone	12.96	43	76973	0.2994	ppb	#	77
43)	trans-1,3-Dichloropropene	13.42	75	61396	0.3238	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	70846	0.4439	ppb	#	86
45)	Toluene	13.93	91	130196	0.2985	ppb		97
46)	2-Hexanone	14.17	43	60662	0.2620	ppb	#	69
47)	Dibromochloromethane	14.36	129	149934	0.4139	ppb		100
48)	1,2-Dibromoethane	14.63	107	102034	0.3891	ppb		97
49)	Tetrachloroethene	15.11	166	87377	0.3827	ppb	#	76
51)	Chlorobenzene	15.82	112	197223	0.4757	ppb		95
52)	Ethylbenzene	16.22	91	170268	0.2899	ppb		93
53)	m,p-Xylene	16.41	91	318194	0.6094	ppb		90
54)	Bromoform	16.51	173	113390	0.4183	ppb		99
55)	Styrene	16.80	104	76698	0.2420	ppb	#	89
56)	1,1,2,2-Tetrachloroethane	16.90	83	146352	0.4850	ppb	#	94
57)	o-Xylene	16.93	91	158856	0.2970	ppb		90
59)	4-Ethyl Toluene	18.38	105	137788	0.2295	ppb		92
60)	1,3,5-Trimethylbenzene	18.47	105	159197	0.2591	ppb		92
61)	1,2,4-Trimethylbenzene	19.00	105	121396	0.2278	ppb		95
62)	Benzyl Chloride	19.18	91	114550	0.3076	ppb	#	89
63)	m-Dichlorobenzene	19.21	146	157355	0.4026	ppb	#	94
64)	p-Dichlorobenzene	19.30	146	133952	0.3679	ppb	#	92
65)	o-Dichlorobenzene	19.77	146	124185	0.3825	ppb	#	93
66)	1,2,4-Trichlorobenzene	22.32	180	29851	0.3120	ppb	#	95
67)	Naphthalene	22.49	128	39377	0.1533	ppb		97
68)	Hexachloro-1,3-butadiene	23.05	225	76931	0.5747	ppb		95

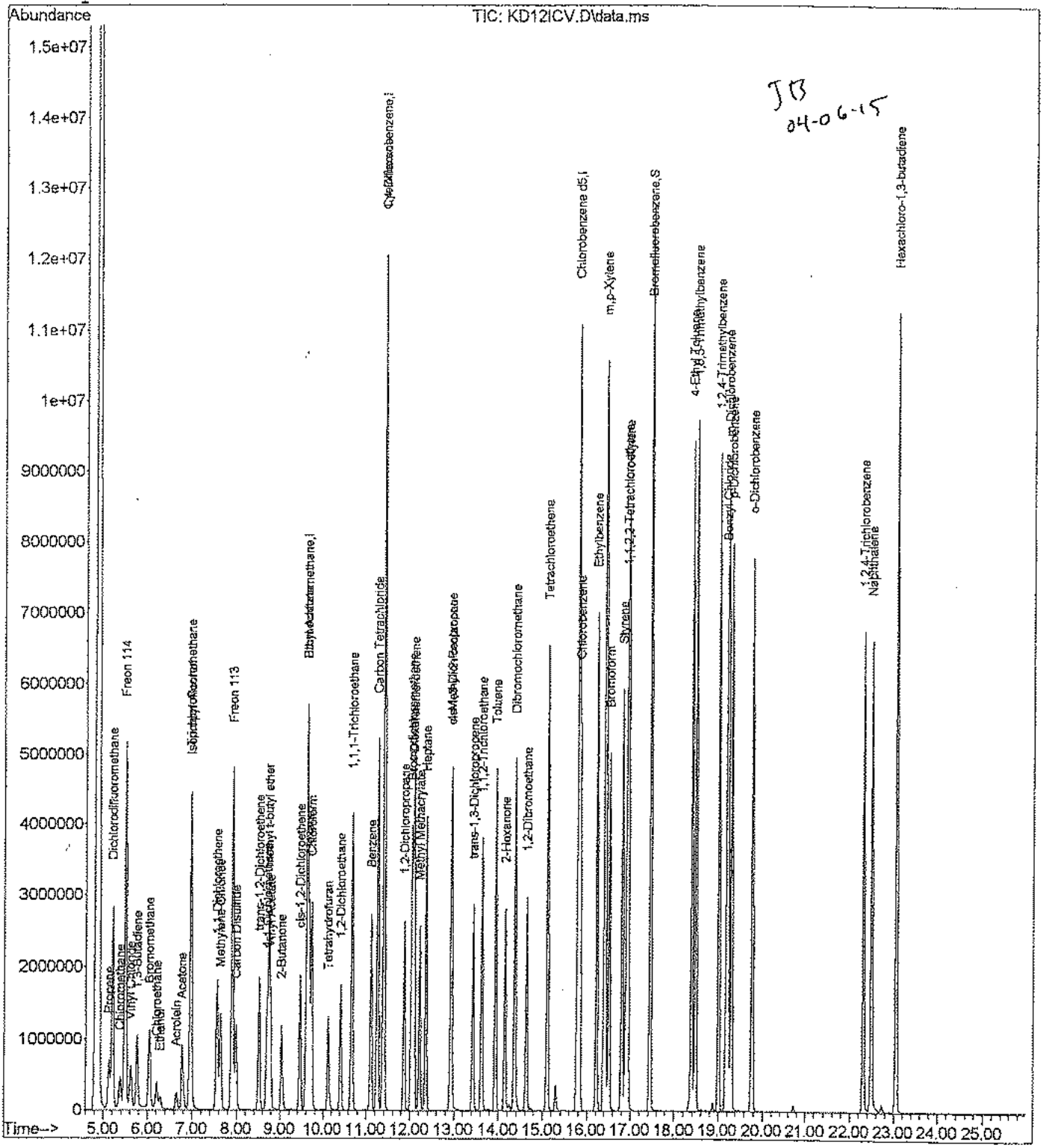
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration



JB 04-06-15

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	820480	20.0000	ppb		96.18
25) 1,4-Difluorobenzene	11.39	114	10647551	20.0000	ppb		95.45
50) Chlorobenzene d5	15.77	117	9420376	20.0000	ppb		97.70
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	6798333	20.5155	ppb		102.58%
Target Compounds							Qvalue
2) Propene	5.13	41	689589	9.6206	ppb	#	91
3) Dichlorodifluoromethane	5.21	85	4798133	9.4993	ppb		99
4) Chloromethane	5.38	50	850681	9.4970	ppb		100
5) Freon 114	5.49	135	3804446	9.7961	ppb		89
6) Vinyl Chloride	5.62	62	1139804	9.8736	ppb		97
7) 1,3-Butadiene	5.76	54	824830	9.9351	ppb	#	73
8) Bromomethane	6.04	94	1354710	9.8464	ppb		99
9) Chloroethane	6.21	64	576986	10.1124	ppb	#	90
10) Acrolein	6.65	56	350077	11.0382	ppb		96
11) Acetone	6.77	43	1957860	8.9635	ppb	#	78
12) Trichlorofluoromethane	6.96	101	5184574	9.7802	ppb		100
13) Ethanol	6.29	45	310616	9.4246	ppb	#	78
14) Isopropyl Alcohol	6.97	45	1724115	10.4762	ppb	#	85
15) 1,1-Dichloroethene	7.56	61	1927246	10.5531	ppb	#	71
16) Methylene Chloride	7.64	84	1043417	8.6801	ppb	#	75
17) Freon 113	7.90	151	2351461	9.6811	ppb	#	66
18) Carbon Disulfide	7.98	76	2876516	9.8796	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1160634	10.3213	ppb	#	77
20) 1,1-Dichloroethane	8.70	63	2015335	10.0499	ppb		99
21) methyl t-butyl ether	8.74	73	3337466	10.7323	ppb		96
22) Vinyl Acetate	8.79	86	294201	10.7719	ppb	#	1
23) 2-Butanone	9.03	43	2126965	10.3126	ppb	#	75
24) cis-1,2-Dichloroethene	9.45	96	1221606	10.8251	ppb	#	76
26) Ethyl Acetate	9.62	61	330742	9.8432	ppb	#	1
27) Hexane	9.66	57	1561598	10.7227	ppb	#	45
28) Chloroform	9.72	83	3260356	10.1657	ppb		100
29) Tetrahydrofuran	10.12	42	1096645	11.1359	ppb	#	75
30) 1,2-Dichloroethane	10.42	62	2323545	10.4264	ppb		96
31) 1,1,1-Trichloroethane	10.67	97	3952140	10.3789	ppb	#	96
32) Benzene	11.10	78	3229354	10.9754	ppb	#	92
33) Carbon Tetrachloride	11.25	117	4680758	10.4091	ppb		99
34) Cyclohexane	11.38	84	1576608	9.3032	ppb	#	61
35) 1,2-Dichloropropane	11.87	63	1094083	10.7316	ppb	#	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\03APR15K\KD12ICV.D Vial: 4
Acq Time : 04/03/2015 16:58 Operator:
Sample : 10 ppb std (200 mL) Inst : 5975-K
Misc : 27464 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 03 17:34:20 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 03 17:33:55 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.04	83	3591510	10.7013	ppb		99
37)	1,4-Dioxane	12.07	88	806037	11.3521	ppb	#	90
38)	Trichloroethene	12.09	130	2118279	10.8385	ppb	#	91
39)	Methyl Methacrylate	12.22	69	1266130	11.2809	ppb		87
40)	Heptane	12.36	71	1232509	11.4241	ppb	#	69
41)	cis-1,3-Dichloropropene	12.91	75	2204672	11.9383	ppb		95
42)	4-Methyl-2-Pentanone	12.93	43	2752159	10.7786	ppb	#	79
43)	trans-1,3-Dichloropropene	13.42	75	2283190	12.3692	ppb	#	91
44)	1,1,2-Trichloroethane	13.62	97	1704946	10.6328	ppb	#	88
45)	Toluene	13.93	91	4948030	12.0144	ppb		97
46)	2-Hexanone	14.14	43	2644947	11.4869	ppb	#	77
47)	Dibromochloromethane	14.36	129	4119385	11.1300	ppb		100
48)	1,2-Dibromoethane	14.63	107	2954550	11.3531	ppb		98
49)	Tetrachloroethene	15.11	166	2481948	11.2416	ppb	#	76
51)	Chlorobenzene	15.82	112	4608421	10.2420	ppb	#	89
52)	Ethylbenzene	16.22	91	7402117	12.4674	ppb		91
53)	m,p-Xylene	16.41	91	12603982	23.3752	ppb		87
54)	Bromoform	16.51	173	3494285	11.6580	ppb		99
55)	Styrene	16.80	104	4336299	13.6164	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	16.90	83	3818509	11.4060	ppb	#	97
57)	o-Xylene	16.93	91	6624344	12.0020	ppb		87
59)	4-Ethyl Toluene	18.38	105	8931972	14.9465	ppb		93
60)	1,3,5-Trimethylbenzene	18.47	105	8296197	13.2217	ppb		88
61)	1,2,4-Trimethylbenzene	19.00	105	8073811	15.3075	ppb		89
62)	Benzyl Chloride	19.18	91	6508203	16.3083	ppb	#	90
63)	m-Dichlorobenzene	19.21	146	5421596	12.9430	ppb	#	93
64)	p-Dichlorobenzene	19.30	146	5220153	13.5705	ppb	#	94
65)	o-Dichlorobenzene	19.76	146	4935481	14.5810	ppb	#	94
66)	1,2,4-Trichlorobenzene	22.31	180	2839810	26.4276	ppb	#	96
67)	Naphthalene	22.49	128	8696228	30.1471	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	2632699	18.5985	ppb		98

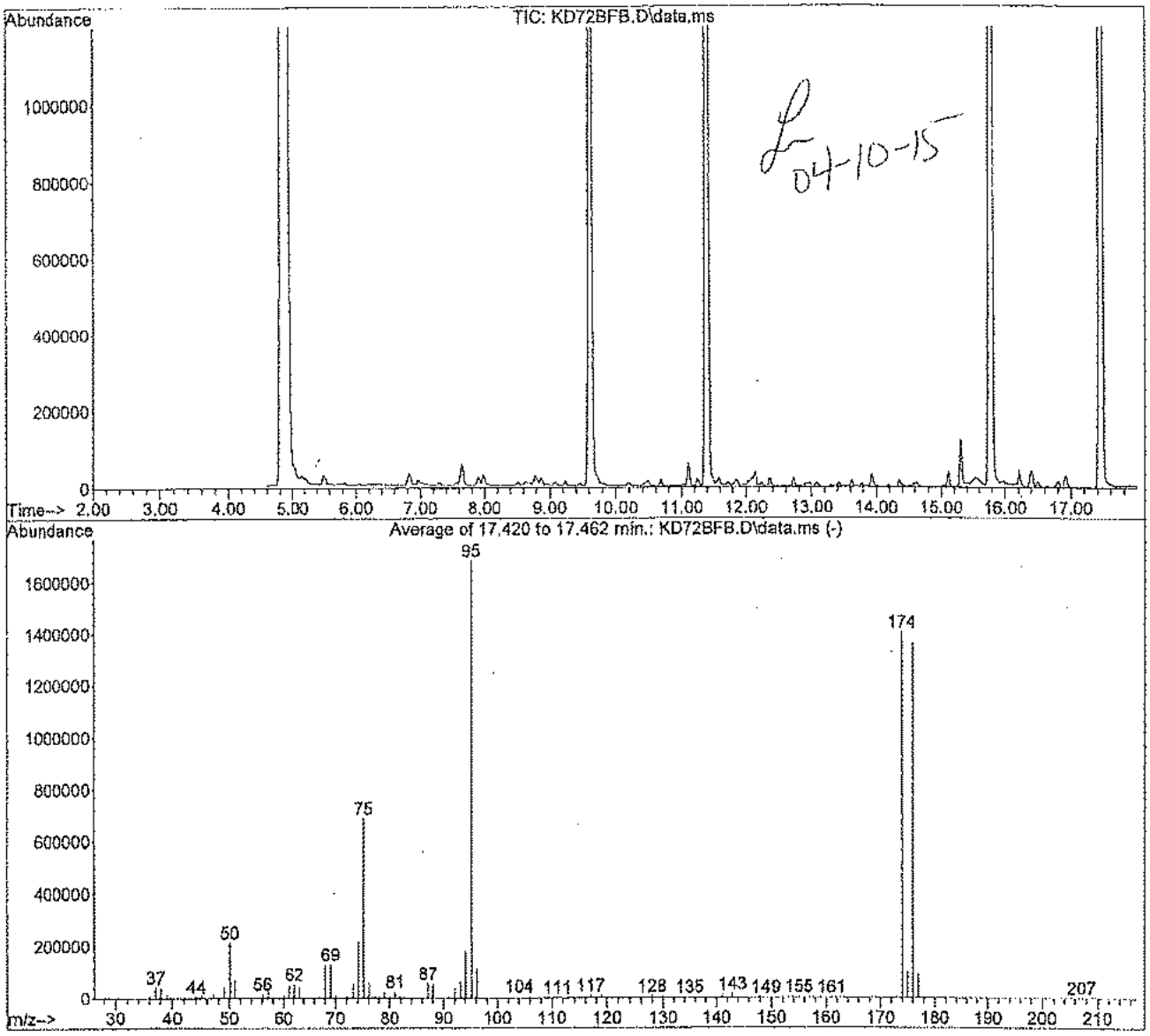
(#) = qualifier out of range (m) = manual integration

BFB

Data File : J:\K\2015\APR15K\08APR15K\KD72BFB.D
Acq Time : 04/08/2015 12:20
Sample : BFB
Misc : 107IS31253
MS Integration Params: rteint.p

Vial: 1
Operator:
Inst : 5975-K
Multiplr: 1.00

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15



04-10-15

Peak Apex is scan: Average of 17.420 to 17.462 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	12.57	211476	PASS
75	95	30	66	40.78	686232	PASS
95	95	100	100	100.00	1682688	PASS
96	95	5	9	6.50	109432	PASS
173	174	0.00	2	0.54	7619	PASS
174	95	50	120	83.44	1404064	PASS
175	174	5	9	7.04	98822	PASS
176	174	93	101	96.93	1360896	PASS
177	176	5	9	6.48	88207	PASS

Average of 17.420 to 17.462 min.: KD72BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.10	6798.0
37.10	41099.0
38.10	36983.0
39.15	15056.0
40.00	444.0
43.10	650.0
44.10	4160.0
45.10	8863.0
46.20	575.0
47.10	13199.0
48.10	5532.0
49.10	41016.0
50.10	211476.0
51.10	66548.0
52.10	2919.0
55.10	2498.0
56.10	14572.0
57.10	28122.0
58.10	1138.0
60.10	9114.0
61.10	50199.0
62.10	52203.0
63.10	38064.0
64.10	3609.0
65.15	464.0
67.05	2725.0
68.10	125609.0
69.10	128459.0
70.10	9129.0
71.10	211.0
72.10	6205.0
73.10	53148.0
74.10	213399.0
75.10	686232.0
76.10	58794.0
77.10	7155.0
78.00	4567.0
79.00	22760.0
80.05	7156.0
81.00	24008.0
82.00	4969.0
83.05	553.0
86.00	1187.0
87.05	55465.0
88.00	52853.0
91.00	3844.0
92.10	39873.0
93.10	60732.0
94.10	177520.0
95.10	1682688.0
96.10	109432.0
97.10	2950.0
102.95	508.0
104.00	5305.0
105.00	1859.0
106.00	5104.0
107.00	1390.0
109.95	461.0
111.00	825.0
112.00	513.0
112.95	814.0
114.95	1340.0
116.00	4508.0
117.00	8517.0
118.00	4659.0
119.00	7182.0
120.00	154.0
121.95	254.0
122.90	109.0
123.05	244.0
123.95	863.0
124.95	337.0
125.95	522.0
126.95	439.0
128.00	5837.0
128.95	2875.0
130.00	5819.0
131.00	2368.0
132.00	106.0
134.05	113.0
135.00	2511.0
135.95	295.0
137.00	2435.0
138.95	443.0
140.00	934.0
141.00	14037.0
141.95	1697.0
143.00	14862.0
143.95	799.0

145.05	1220.0
146.00	2453.0
146.95	1145.0
148.00	4164.0
149.00	1089.0
150.00	1753.0
151.95	779.0
153.05	1343.0
154.00	1108.0
155.00	4105.0
155.95	433.0
157.00	3137.0
158.10	47.0
159.00	1906.0
161.00	1760.0
172.00	985.0
173.05	7619.0
174.00	1404064.0
175.05	98822.0
176.00	1360896.0
177.00	88207.0
178.05	2505.0
207.10	344.0

Evaluate Continuing Calibration Report

Data Path : J:\K\2015\APR15K\08APR15K\
Data File : KD73S10.D
Acq On : 04/08/2015 13:04
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:48:23 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	102	-0.09
2		Propene	1.747	1.574	9.9	85	-0.17 TC
3		Dichlorodifluoromethane	12.312	7.499	39.1#	60	-0.18
4		Chloromethane	2.183	1.525	30.1#	70	-0.18
5		Freon 114	9.467	6.451	31.9#	67	-0.18
6		Vinyl Chloride	2.814	2.089	25.8	75	-0.18
7		1,3-Butadiene	2.024	1.501	25.8	74	-0.18
8		Bromomethane	3.354	2.449	27.0	74	-0.18
9		Chloroethane	1.391	1.276	8.3	93	-0.17
10		Acrolein	0.773	0.875	-13.2	97	-0.15
11		Acetone	5.324	3.465	34.9#	69	-0.14
12		Trichlorofluoromethane	12.922	8.861	31.4#	68	-0.15
13		Ethanol	0.803	0.720	10.3	89	-0.15 TC
14		Isopropyl Alcohol	4.012	3.894	2.9	89	-0.13 TC
15		1,1-Dichloroethene	4.452	4.002	10.1	82	-0.13
16		Methylene Chloride	2.930	2.695	8.0	103	-0.13
17		Freon 113	5.921	6.156	-4.0	103	-0.13
18		Carbon Disulfide	7.097	7.728	-8.9	106	-0.13
19		trans-1,2-Dichloroethene	2.741	3.333	-21.6	113	-0.12
20		1,1-Dichloroethane	4.888	4.681	4.2	93	-0.10
21		methyl t-butyl ether	7.580	8.424	-11.1	98	-0.10
22		Vinyl Acetate	0.666	0.846	-27.0	117	-0.10
23		2-Butanone	5.028	4.612	8.3	85	-0.09
24		cis-1,2-Dichloroethene	2.751	3.438	-25.0	113	-0.09
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	-0.05
26		Ethyl Acetate	0.063	0.069	-9.5	104	-0.08
27		Hexane	0.274	0.296	-8.0	100	-0.09
28		Chloroform	0.602	0.496	17.6	82	-0.09
29		Tetrahydrofuran	0.185	0.195	-5.4	93	-0.07
30		1,2-Dichloroethane	0.419	0.287	31.5#	68	-0.07
31		1,1,1-Trichloroethane	0.715	0.568	20.6	78	-0.07
32		Benzene	0.553	0.683	-23.5	115	-0.06
33		Carbon Tetrachloride	0.845	0.642	24.0	74	-0.07
34		Cyclohexane	0.318	0.319	-0.3	107	-0.06
35		1,2-Dichloropropane	0.191	0.220	-15.2	110	-0.05
36		Bromodichloromethane	0.630	0.534	15.2	82	-0.04
37		1,4-Dioxane	0.133	0.173	-30.1#	110	-0.04
38		Trichloroethene	0.367	0.425	-15.8	109	-0.04
39		Methyl Methacrylate	0.211	0.248	-17.5	102	-0.03 TC
40		Heptane	0.203	0.241	-18.7	107	-0.03
41		cis-1,3-Dichloropropene	0.347	0.406	-17.0	101	0.00
42		4-Methyl-2-Pentanone	0.480	0.451	6.0	83	0.00
43		trans-1,3-Dichloropropene	0.347	0.383	-10.4	93	0.01
44		1,1,2-Trichloroethane	0.301	0.315	-4.7	104	0.02
45		Toluene	0.774	0.950	-22.7	106	0.03
46		2-Hexanone	0.433	0.431	0.5	83	0.04
47		Dibromochloromethane	0.695	0.660	5.0	90	0.04
48		1,2-Dibromoethane	0.489	0.524	-7.2	99	0.05
49		Tetrachloroethene	0.415	0.512	-23.4	115	0.06

Evaluate Continuing Calibration Report

Data Path : J:\K\2015\APR15K\08APR15K\
Data File : KD73S10.D
Acq On : 04/08/2015 13:04
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:48:23 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50	I	Chlorobenzene d5	1.000	1.000	0.0	101	0.08	
51		Chlorobenzene	0.955	0.968	-1.4	102	0.08	
52		Ethylbenzene	1.260	1.431	-13.6	96	0.09	
53		m,p-Xylene	1.145	1.115	2.6	88	0.10	
54		Bromoform	0.636	0.649	-2.0	96	0.10	
55		Styrene	0.676	0.880	-30.2#	103	0.10	
56		1,1,2,2-Tetrachloroethane	0.711	0.648	8.9	93	0.10	
57		o-Xylene	1.172	1.119	4.5	86	0.11	
58	S	Bromofluorobenzene	0.704	0.588	16.5	85	0.11	
59		4-Ethyl Toluene	1.391	1.525	-9.6	94	0.13	
60		1,3,5-Trimethylbenzene	1.332	1.304	2.1	86	0.13	
61		1,2,4-Trimethylbenzene	1.120	1.238	-10.5	90	0.13	
62		Benzyl Chloride	0.847	0.916	-8.1	91	0.13	TK
63		m-Dichlorobenzene	0.889	0.848	4.6	93	0.13	
64		p-Dichlorobenzene	0.817	0.806	1.3	94	0.14	
65		o-Dichlorobenzene	0.719	0.747	-3.9	98	0.14	
66		1,2,4-Trichlorobenzene	0.228	0.309	-35.5#	119	0.15	TK
67		Naphthalene	0.612	0.805	-31.5#	101	0.15	TK
68		Hexachloro-1,3-butadiene	0.301	0.240	20.3	93	0.15	TK

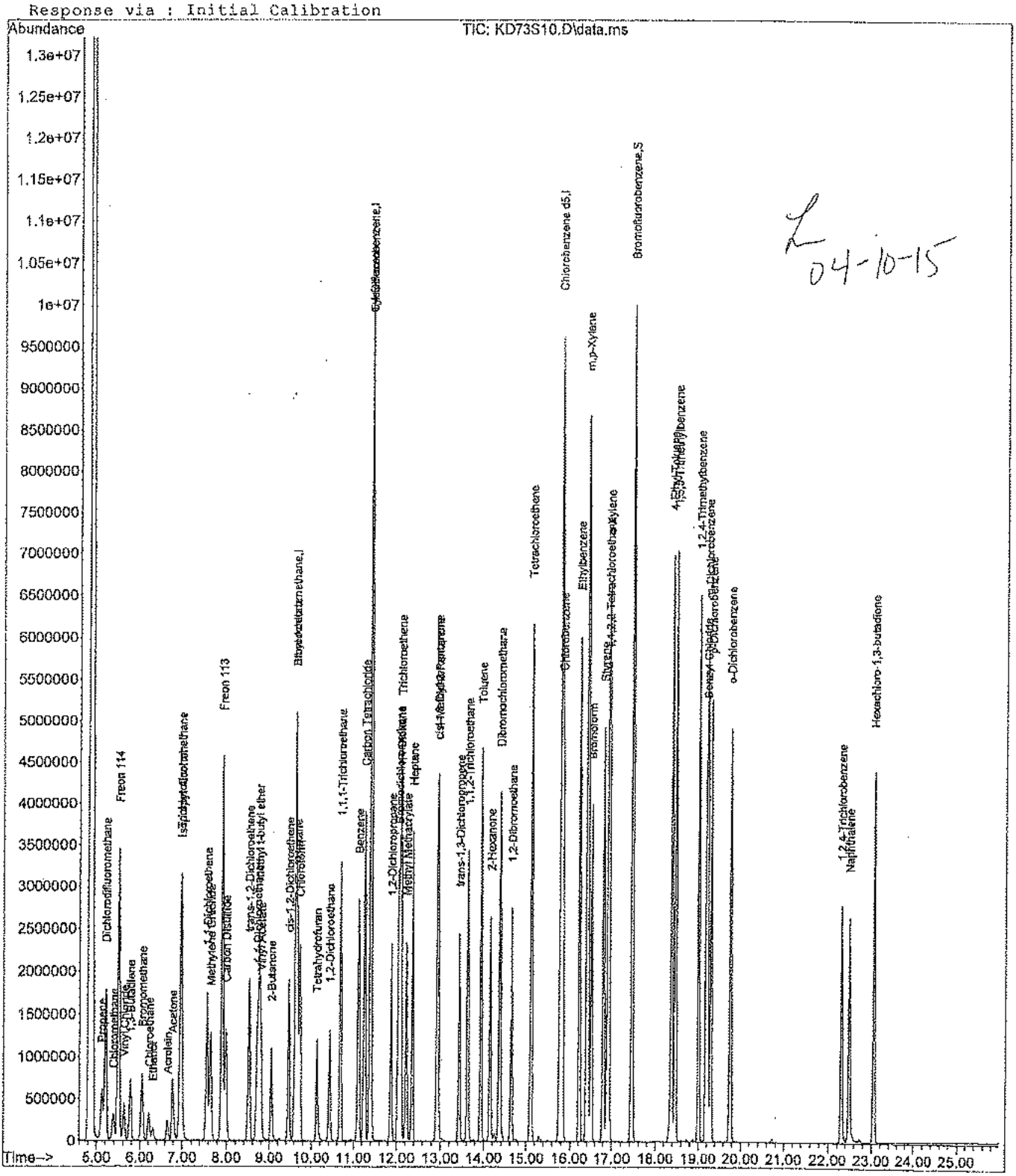
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD73S10.D Vial: 2
Acq Time : 04/08/2015 13:04 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 13:48:23 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD73S10.D Vial: 2
Acq Time : 04/08/2015 13:04 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 13:48:23 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	868736	20.0000	ppb		101.84
25) 1,4-Difluorobenzene	11.39	114	11369418	20.0000	ppb		101.92
50) Chlorobenzene d5	15.77	117	9770945	20.0000	ppb		101.33
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5748497	16.7250	ppb		83.62%
Target Compounds							Qvalue
2) Propene	5.13	41	603664	9.0081	ppb		99 TIC
3) Dichlorodifluoromethane	5.21	85	3257188	6.0904	ppb		100
4) Chloromethane	5.39	50	662591	6.9863	ppb		100
5) Freon 114	5.50	135	2802124	6.8144	ppb		93
6) Vinyl Chloride	5.62	62	907318	7.4231	ppb		97
7) 1,3-Butadiene	5.76	54	651889	7.4159	ppb		85
8) Bromomethane	6.04	94	1063823	7.3027	ppb		99
9) Chloroethane	6.21	64	554265	9.1746	ppb		97
10) Acrolein	6.66	56	380123	11.3198	ppb	#	98 TIC
11) Acetone	6.78	43	1504913	6.5071	ppb		96
12) Trichlorofluoromethane	6.96	101	3848977	6.8574	ppb		99
13) Ethanol	6.31	45	312956	8.9682	ppb	#	79 TIC
14) Isopropyl Alcohol	6.98	45	1691625	9.7078	ppb		98 TIC
15) 1,1-Dichloroethene	7.56	61	1738372	8.9901	ppb		91
16) Methylene Chloride	7.64	84	1170456	9.1961	ppb		91
17) Freon 113	7.90	151	2674055	10.3977	ppb	#	80
18) Carbon Disulfide	7.98	76	3356741	10.8886	ppb	#	62
19) trans-1,2-Dichloroethene	8.51	96	1447781	12.1597	ppb		93
20) 1,1-Dichloroethane	8.70	63	2033203	9.5758	ppb		99
21) methyl t-butyl ether	8.74	73	3659149	11.1131	ppb		96
22) Vinyl Acetate	8.79	86	367398	12.7047	ppb	#	1
23) 2-Butanone	9.04	43	2003457	9.1742	ppb	#	87
24) cis-1,2-Dichloroethene	9.46	96	1493144	12.4963	ppb		92
26) Ethyl Acetate	9.62	61	389462	10.8548	ppb	#	1
27) Hexane	9.66	57	1682797	10.8213	ppb	#	57
28) Chloroform	9.72	83	2818907	8.2312	ppb		100
29) Tetrahydrofuran	10.12	42	1110765	10.5631	ppb		87
30) 1,2-Dichloroethane	10.41	62	1632958	6.8623	ppb		99
31) 1,1,1-Trichloroethane	10.68	97	3226817	7.9361	ppb		99
32) Benzene	11.11	78	3882853	12.3585	ppb	#	97
33) Carbon Tetrachloride	11.25	117	3651129	7.6039	ppb		100
34) Cyclohexane	11.38	84	1813802	10.0233	ppb	#	81
35) 1,2-Dichloropropane	11.87	63	1251520	11.4965	ppb		97
36) Bromodichloromethane	12.04	83	3036117	8.4721	ppb		99
37) 1,4-Dioxane	12.07	88	982626	12.9605	ppb		96
38) Trichloroethene	12.09	130	2417163	11.5825	ppb		98
39) Methyl Methacrylate	12.22	69	1410801	11.7718	ppb	#	84 TIC
40) Heptane	12.36	71	1371330	11.9038	ppb	#	85
41) cis-1,3-Dichloropropene	12.91	75	2305224	11.6902	ppb		99
42) 4-Methyl-2-Pentanone	12.93	43	2565815	9.4108	ppb	#	90
43) trans-1,3-Dichloropropene	13.42	75	2175040	11.0351	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	1787867	10.4420	ppb		97
45) Toluene	13.93	91	5400654	12.2809	ppb		100
46) 2-Hexanone	14.15	43	2450260	9.9657	ppb	#	90
47) Dibromochloromethane	14.36	129	3751644	9.4928	ppb		99
48) 1,2-Dibromoethane	14.63	107	2980671	10.7262	ppb		99
49) Tetrachloroethene	15.11	166	2911515	12.3500	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD73S10.D Vial: 2
Acq Time : 04/08/2015 13:04 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 13:48:23 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue	
51)	Chlorobenzene	15.82	112	4727562	10.1298	ppb		97	
52)	Ethylbenzene	16.21	91	6991704	11.3536	ppb		96	
53)	m,p-Xylene	16.41	91	10891537	19.4746	ppb		95	
54)	Bromoform	16.51	173	3171673	10.2020	ppb		99	
55)	Styrene	16.80	104	4299856	13.0175	ppb		97	
56)	1,1,2,2-Tetrachloroethane	16.90	83	3164970	9.1147	ppb		100	
57)	o-Xylene	16.93	91	5468115	9.5517	ppb		96	
59)	4-Ethyl Toluene	18.38	105	7447964	10.9595	ppb		97	
60)	1,3,5-Trimethylbenzene	18.47	105	6368876	9.7860	ppb		95	
61)	1,2,4-Trimethylbenzene	19.00	105	6048851	11.0568	ppb		96	
62)	Benzyl Chloride	19.18	91	4476366	10.8145	ppb		97	TIC
63)	m-Dichlorobenzene	19.21	146	4141623	9.5325	ppb		96	
64)	p-Dichlorobenzene	19.30	146	3938518	9.8714	ppb		96	
65)	o-Dichlorobenzene	19.76	146	3650550	10.3980	ppb		96	
66)	1,2,4-Trichlorobenzene	22.31	180	1507202	13.5230	ppb	#	97	TIC
67)	Naphthalene	22.49	128	3933907	13.1483	ppb		99	TIC
68)	Hexachloro-1,3-butadiene	23.05	225	1170361	7.9713	ppb		98	TIC

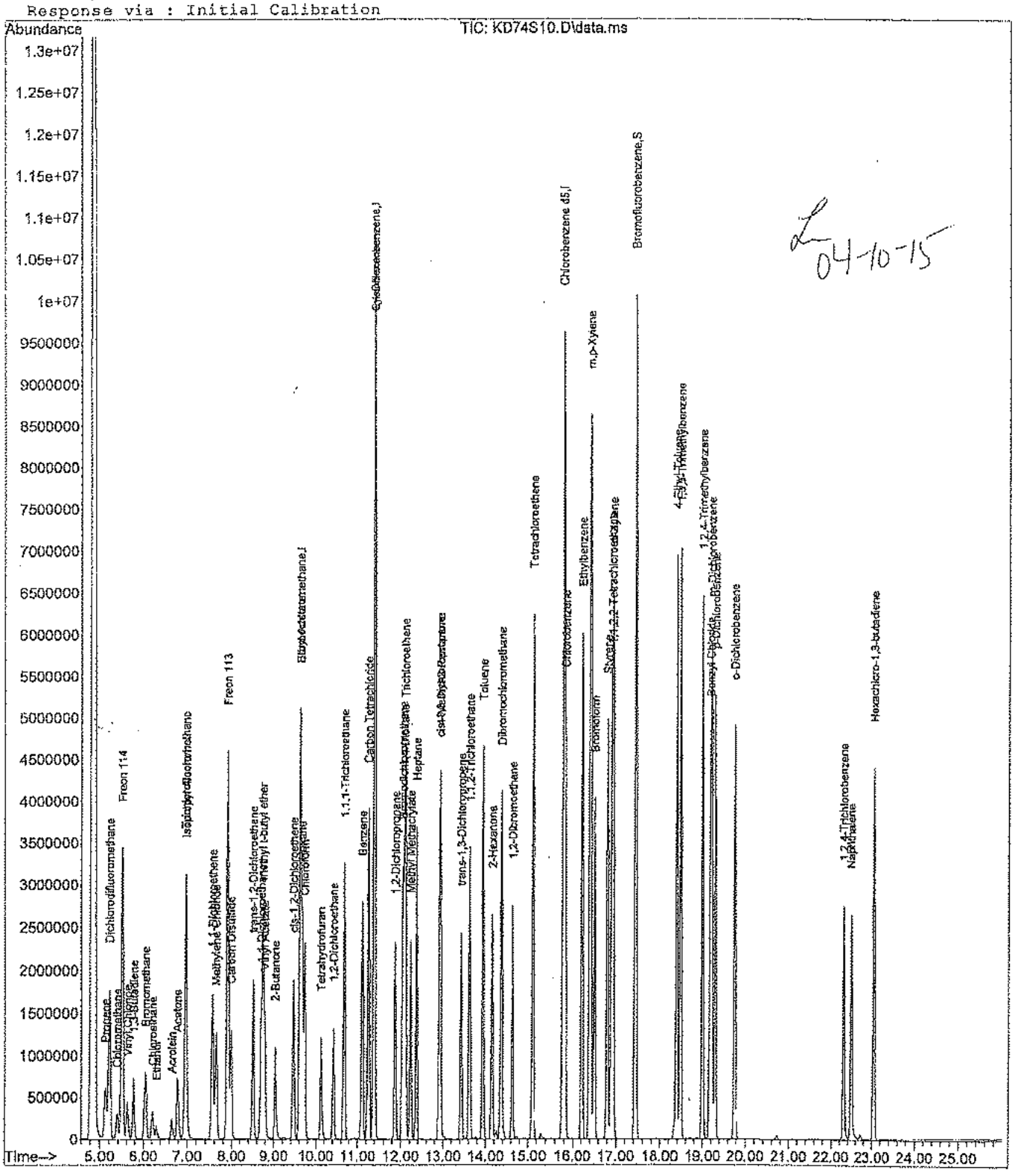
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD74S10.D Vial: 2
Acq Time : 04/08/2015 13:49 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 15:17:35 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD74S10.D Vial: 2
Acq Time : 04/08/2015 13:49 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 15:17:35 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	864512	20.0000	ppb		101.34
25) 1,4-Difluorobenzene	11.39	114	11351211	20.0000	ppb		101.76
50) Chlorobenzene d5	15.77	117	9760028	20.0000	ppb		101.22
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5814317	16.9354	ppb		84.68%
Target Compounds							Qvalue
2) Propene	5.12	41	668417	8.8503	ppb		98
3) Dichlorodifluoromethane	5.21	85	3238982	6.0859	ppb		100
4) Chloromethane	5.39	50	653272	6.9217	ppb		100
5) Freon 114	5.50	135	2799485	6.8413	ppb		93
6) Vinyl Chloride	5.62	62	891999	7.3334	ppb		98
7) 1,3-Butadiene	5.76	54	638776	7.3022	ppb		83
8) Bromomethane	6.04	94	1047493	7.2257	ppb		99
9) Chloroethane	6.21	64	560722	9.3268	ppb		97
10) Acrolein	6.65	56	379384	11.3530	ppb	#	99
11) Acetone	6.78	43	1503426	6.5324	ppb		95
12) Trichlorofluoromethane	6.96	101	3820201	6.8394	ppb		100
13) Ethanol	6.31	45	306385	8.8228	ppb	#	77
14) Isopropyl Alcohol	6.98	45	1671246	9.6377	ppb		99
15) 1,1-Dichloroethene	7.56	61	1727098	8.9755	ppb		91
16) Methylene Chloride	7.64	84	1157936	9.1422	ppb		91
17) Freon 113	7.90	151	2646273	10.3399	ppb	#	80
18) Carbon Disulfide	7.98	76	3327342	10.8459	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	1439293	12.1475	ppb		93
20) 1,1-Dichloroethane	8.70	63	2023374	9.5761	ppb		99
21) methyl t-butyl ether	8.74	73	3621327	11.0520	ppb		95
22) Vinyl Acetate	8.79	86	358463	12.4563	ppb	#	1
23) 2-Butanone	9.04	43	1990035	9.1572	ppb	#	87
24) cis-1,2-Dichloroethene	9.46	96	1483655	12.4776	ppb		92
26) Ethyl Acetate	9.62	61	378738	10.5728	ppb	#	1
27) Hexane	9.67	57	1654995	10.6596	ppb	#	56
28) Chloroform	9.72	83	2786939	8.1509	ppb		100
29) Tetrahydrofuran	10.12	42	1103247	10.5085	ppb		87
30) 1,2-Dichloroethane	10.41	62	1618360	6.8118	ppb		99
31) 1,1,1-Trichloroethane	10.68	97	3220516	7.9333	ppb		99
32) Benzene	11.10	78	3820504	12.1796	ppb	#	97
33) Carbon Tetrachloride	11.25	117	3644997	7.6033	ppb		99
34) Cyclohexane	11.38	84	1807166	10.0026	ppb	#	81
35) 1,2-Dichloropropane	11.87	63	1254449	11.5418	ppb		97
36) Bromodichloromethane	12.04	83	3042527	8.5036	ppb		99
37) 1,4-Dioxane	12.07	88	974536	12.8744	ppb		96
38) Trichloroethene	12.09	130	2415430	11.5928	ppb		98
39) Methyl Methacrylate	12.22	69	1404458	11.7377	ppb	#	84
40) Heptane	12.36	71	1379897	11.9973	ppb	#	85
41) cis-1,3-Dichloropropene	12.91	75	2324711	11.8079	ppb		98
42) 4-Methyl-2-Pentanone	12.93	43	2569252	9.4385	ppb	#	90
43) trans-1,3-Dichloropropene	13.42	75	2205814	11.2092	ppb		97
44) 1,1,2-Trichloroethane	13.62	97	1801821	10.5404	ppb		97
45) Toluene	13.93	91	5411103	12.3244	ppb		99
46) 2-Hexanone	14.15	43	2426646	9.8855	ppb	#	91
47) Dibromochloromethane	14.36	129	3756616	9.5206	ppb		99
48) 1,2-Dibromoethane	14.63	107	2984594	10.7576	ppb		99
49) Tetrachloroethene	15.11	166	2888062	12.2701	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD74S10.D Vial: 2
Acq Time : 04/08/2015 13:49 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 08 15:17:35 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	15.82	112	4748527	10.1861	ppb		96
52)	Ethylbenzene	16.21	91	7013714	11.4021	ppb		96
53)	m,p-Xylene	16.41	91	10889405	19.4925	ppb		95
54)	Bromoform	16.51	173	3180791	10.2428	ppb		99
55)	Styrene	16.80	104	4348618	13.1799	ppb		97
56)	1,1,2,2-Tetrachloroethane	16.90	83	3147706	9.0751	ppb		99
57)	o-Xylene	16.93	91	5452110	9.5344	ppb		96
59)	4-Ethyl Toluene	18.38	105	7479655	11.0184	ppb		97
60)	1,3,5-Trimethylbenzene	18.47	105	6311038	9.7079	ppb		96
61)	1,2,4-Trimethylbenzene	19.00	105	6013562	11.0046	ppb		96
62)	Benzyl Chloride	19.18	91	4462084	10.7920	ppb		97
63)	m-Dichlorobenzene	19.21	146	4111746	9.4744	ppb		96
64)	p-Dichlorobenzene	19.30	146	3910328	9.8117	ppb		97
65)	o-Dichlorobenzene	19.76	146	3655288	10.4231	ppb		96
66)	1,2,4-Trichlorobenzene	22.31	180	1503241	13.5025	ppb	#	96
67)	Naphthalene	22.49	128	3962928	13.2601	ppb		99
68)	Hexachloro-1,3-butadiene	23.05	225	1184477	8.0765	ppb		97

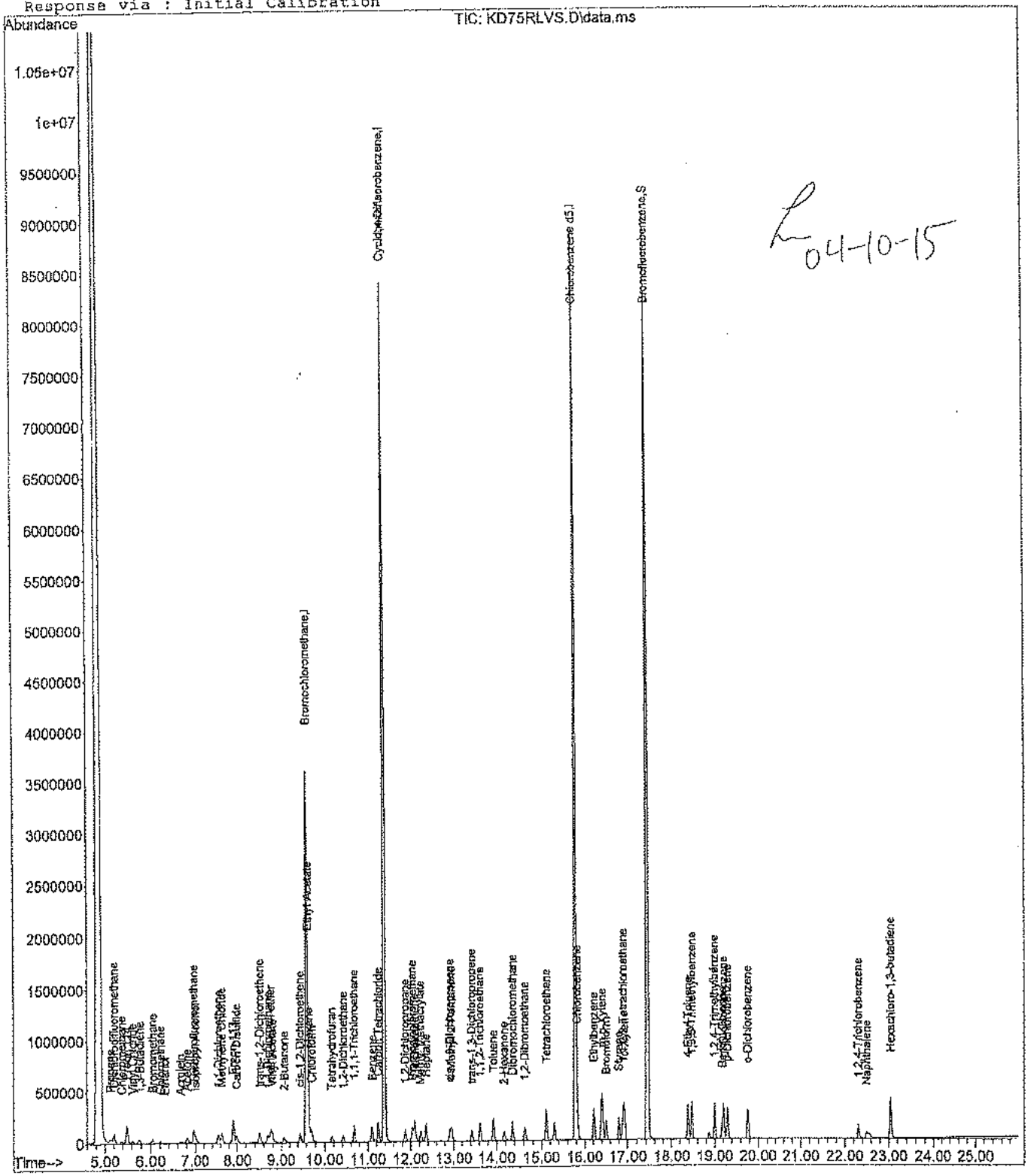
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD75RLVS.D Vial: 3
Acq Time : 04/08/2015 14:35 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:18 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD75RLVS.D Vial: 3
Acq Time : 04/08/2015 14:35 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:18 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	840576	20.0000	ppb		98.54
25) 1,4-Difluorobenzene	11.39	114	11007219	20.0000	ppb		98.68
50) Chlorobenzene d5	15.77	117	9103767	20.0000	ppb		94.41
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.44	95	5278116	16.4818	ppb		82.41%
Target Compounds							Qvalue
2) Propene	5.13	41	34441	0.4690	ppb		94
3) Dichlorodifluoromethane	5.21	85	154579	0.2987	ppb		99
4) Chloromethane	5.39	50	31937	0.3480	ppb		99
5) Freon 114	5.50	135	132334	0.3326	ppb		93
6) Vinyl Chloride	5.62	62	42359	0.3582	ppb		99
7) 1,3-Butadiene	5.77	54	29559	0.3475	ppb		84
8) Bromomethane	6.04	94	49292	0.3497	ppb		100
9) Chloroethane	6.21	64	26072	0.4460	ppb		96
10) Acrolein	6.67	56	17022	0.5239	ppb	#	98
11) Acetone	6.81	43	100563	0.4494	ppb		98
12) Trichlorofluoromethane	6.96	101	182176	0.3354	ppb		98
13) Ethanol	6.31	45	14796	0.4382	ppb	#	39
14) Isopropyl Alcohol	7.01	45	86335	0.5121	ppb		94
15) 1,1-Dichloroethene	7.55	61	79752	0.4263	ppb		90
16) Methylene Chloride	7.64	84	79680	0.6470	ppb		91
17) Freon 113	7.90	151	125676	0.5050	ppb	#	81
18) Carbon Disulfide	7.98	76	159782	0.5357	ppb	#	61
19) trans-1,2-Dichloroethene	8.51	96	66455	0.5768	ppb		92
20) 1,1-Dichloroethane	8.70	63	94787	0.4614	ppb		97
21) methyl t-butyl ether	8.76	73	167852	0.5269	ppb		95
22) Vinyl Acetate	8.80	86	17961	0.6419	ppb	#	1
23) 2-Butanone	9.07	43	94813	0.4487	ppb	#	87
24) cis-1,2-Dichloroethene	9.45	96	67300	0.5821	ppb		92
26) Ethyl Acetate	9.64	61	18645	0.5368	ppb	#	1
27) Hexane	9.66	57	78229	0.5196	ppb	#	56
28) Chloroform	9.72	83	129598	0.3909	ppb		99
29) Tetrahydrofuran	10.16	42	53735	0.5278	ppb		86
30) 1,2-Dichloroethane	10.41	62	76142	0.3305	ppb		98
31) 1,1,1-Trichloroethane	10.67	97	149633	0.3801	ppb		98
32) Benzene	11.10	78	192965	0.6344	ppb	#	96
33) Carbon Tetrachloride	11.25	117	169612	0.3649	ppb		100
34) Cyclohexane	11.38	84	92186	0.5262	ppb	#	1
35) 1,2-Dichloropropane	11.87	63	58519	0.5552	ppb		99
36) Bromodichloromethane	12.04	83	136719	0.3941	ppb		99
37) 1,4-Dioxane	12.11	88	42783	0.5829	ppb		99
38) Trichloroethene	12.09	130	111637	0.5525	ppb		98
39) Methyl Methacrylate	12.23	69	61017	0.5259	ppb	#	87
40) Heptane	12.36	71	60033	0.5383	ppb	#	80
41) cis-1,3-Dichloropropene	12.91	75	102654	0.5377	ppb		96
42) 4-Methyl-2-Pentanone	12.95	43	113980	0.4318	ppb	#	88
43) trans-1,3-Dichloropropene	13.42	75	94031	0.4928	ppb		96
44) 1,1,2-Trichloroethane	13.62	97	85098	0.5134	ppb		95
45) Toluene	13.93	91	245796	0.5773	ppb		100
46) 2-Hexanone	14.16	43	99248	0.4169	ppb	#	88
47) Dibromochloromethane	14.36	129	169237	0.4423	ppb		100
48) 1,2-Dibromoethane	14.63	107	137523	0.5112	ppb		99
49) Tetrachloroethene	15.11	166	139275	0.6102	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD75RLVS.D Vial: 3
Acq Time : 04/08/2015 14:35 Operator:
Sample : RLVS Inst : 5975-K
Misc : 23369 (100 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:18 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	Qlon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	15.82	112	237695	0.5466	ppb		97
52) Ethylbenzene	16.21	91	338492	0.5900	ppb		97
53) m,p-Xylene	16.41	91	545397	1.0467	ppb		96
54) Bromoform	16.51	173	142058	0.4904	ppb		99
55) Styrene	16.80	104	187836	0.6103	ppb		99
56) 1,1,2,2-Tetrachloroethane	16.90	83	174321	0.5388	ppb		97
57) o-Xylene	16.93	91	282215	0.5291	ppb		96
59) 4-Ethyl Toluene	18.38	105	351103	0.5545	ppb		97
60) 1,3,5-Trimethylbenzene	18.47	105	329544	0.5435	ppb		94
61) 1,2,4-Trimethylbenzene	19.00	105	307670	0.6036	ppb		97
62) Benzyl Chloride	19.18	91	206349	0.5351	ppb		96
63) m-Dichlorobenzene	19.21	146	230556	0.5695	ppb		97
64) p-Dichlorobenzene	19.30	146	218953	0.5890	ppb	#	96
65) o-Dichlorobenzene	19.76	146	215260	0.6581	ppb		96
66) 1,2,4-Trichlorobenzene	22.31	180	87072	0.8385	ppb		97
67) Naphthalene	22.50	128	98766	0.3543	ppb		98
68) Hexachloro-1,3-butadiene	23.05	225	107835	0.7883	ppb		98

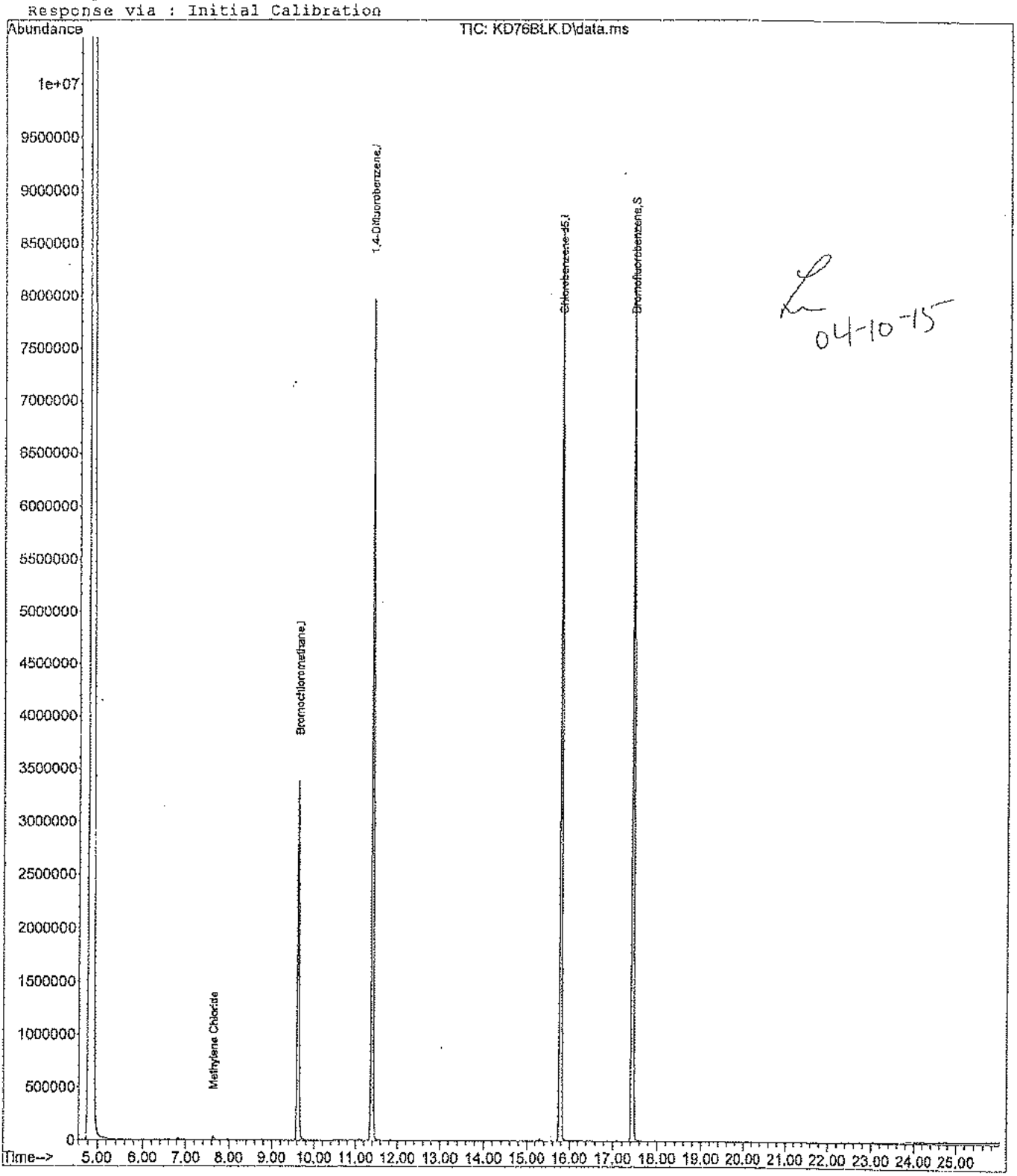
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD76BLK.D Vial: 4
Acq Time : 04/08/2015 15:22 Operator:
Sample : BL- 0159 Inst : 5975-K
Misc : 0159/0240/0448/0388/0531/0226/0376/0202 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:28 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



04-10-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD76BLK.D Vial: 4
Acq Time : 04/08/2015 15:22 Operator:
Sample : BL- D159 Inst : 5975-K
Misc : 0159/0240/0448/0388/0531/0226/0376/0202 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:28 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.61	130	794432	20.0000 ppb	93.13
25) 1,4-Difluorobenzene	11.39	114	10544084	20.0000 ppb	94.53
50) Chlorobenzene d5	15.78	117	8873735	20.0000 ppb	92.03
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	5080828	16.2770 ppb	81.39%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.63	84	26943	0.2315 ppb	91
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD76BLK.D Vial: 4
Acq-Time : 04/08/2015 15:22 Operator:
Sample : BL- 0159 Inst : 5975-K
Misc : 0159/0240/044B/0388/0531/0226/0376/0202 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 08:42:28 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

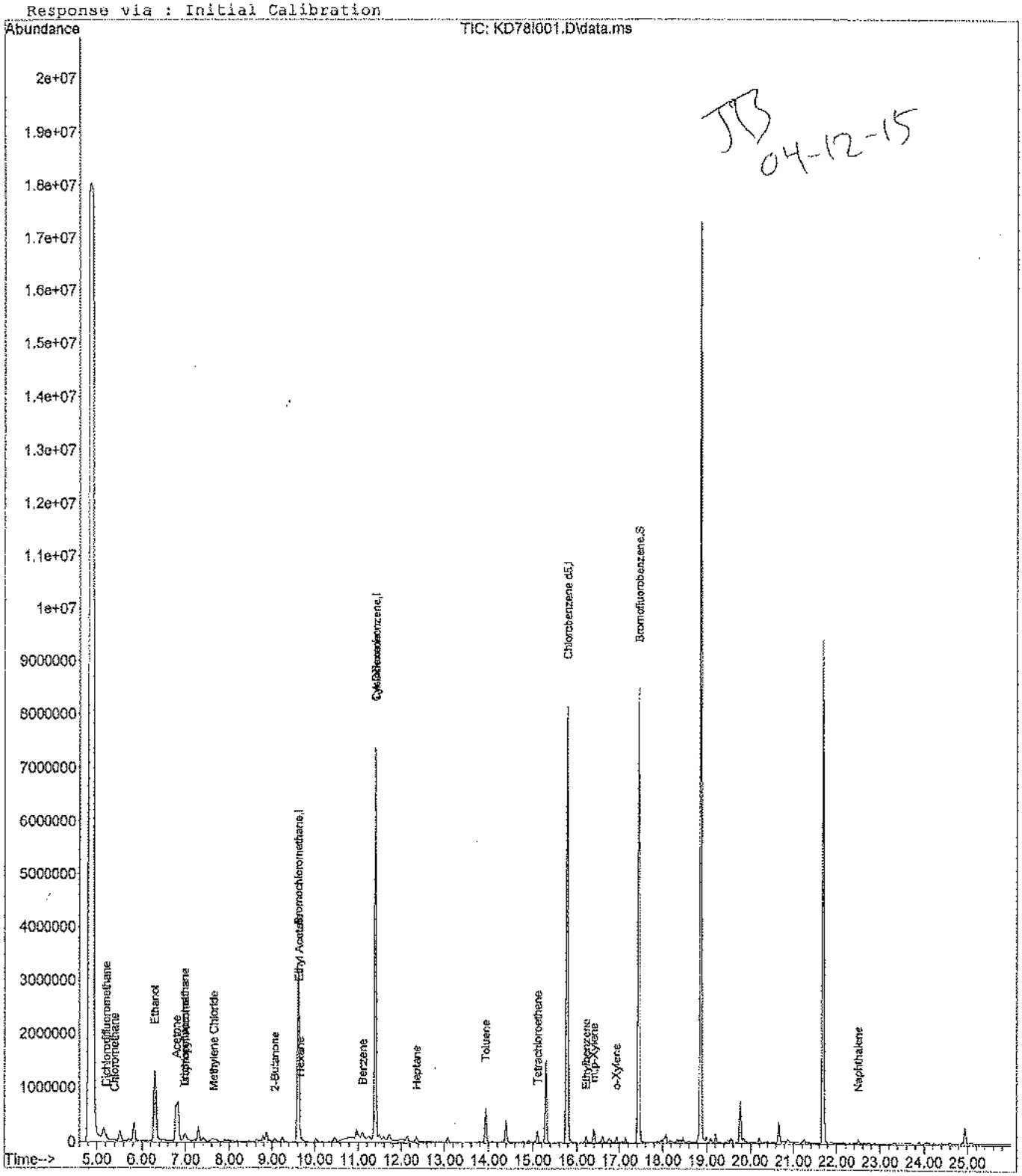
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD78I001.D Vial: 8
Acq Time : 04/08/2015 16:51 Operator:
Sample : 1509795001 Inst : 5975-K
Misc : TO-001 LAB 0216 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:26:06 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD78I001.D Vial: 8
Acq.Time : 04/08/2015 16:51 Operator:
Sample : 1509795001 Inst : 5975-K
Misc : TO-001 LAU 0216 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:26:06 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	Qion	Response	Conc Units	Area%
1) Bromochloromethane	9.61	130	738688	20.0000 ppb	86.59
25) 1,4-Difluorobenzene	11.39	114	9507819	20.0000 ppb	85.24
50) Chlorobenzene d5	15.77	117	8289040	20.0000 ppb	85.96
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	4900832	16.8079 ppb	84.04%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	5.21	85	140111	0.3081 ppb	100
4) Chloromethane	5.39	50	32584	0.4040 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	6.78	43	1672426	8.5045 ppb #	84
12) Trichlorofluoromethane	6.97	101	74290	0.1557 ppb	96
13) Ethanol	6.29	45	2649355	89.2869 ppb	79
14) Isopropyl Alcohol	6.99	45	263124	1.7758 ppb	96
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.64	84	37556	0.3470 ppb	92
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	9.06	43	88525	0.4767 ppb	89
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	9.63	61	11314	0.3771 ppb #	1
27) Hexane	9.67	57	93968	0.7226 ppb #	52
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.10	78	134364	0.5114 ppb #	94
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	11.38	84	87916	0.5810 ppb #	1
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	12.36	71	29953	0.3109 ppb #	78
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.93	91	702878	1.9113 ppb	100
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	15.10	166	88663	0.4497 ppb #	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

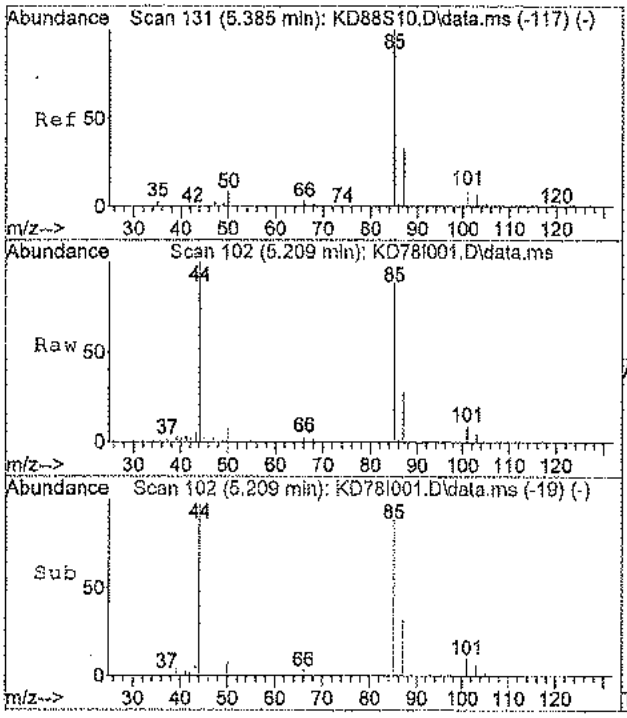
Data File : J:\K\2015\APR15K\08APR15K\KD78I001.D Vial: 8
Acq Time : 04/08/2015 16:51 Operator:
Sample : 1509795001 Inst : 5975-K
Misc : TO-001 LAU 0216 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:26:06 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	16.21	91	112116	0.2146 ppb	95
53)	m,p-Xylene	16.40	91	240228	0.5063 ppb	94
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	16.93	91	89496	0.1843 ppb	96
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	22.49	128	41970	0.1654 ppb TIC 71%88	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

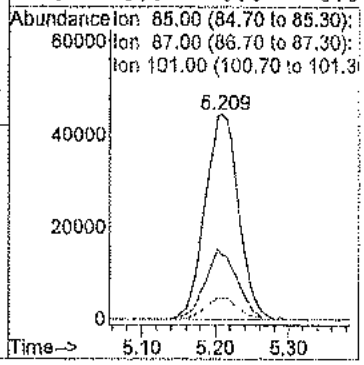
(#) = qualifier out of range (m) = manual integration

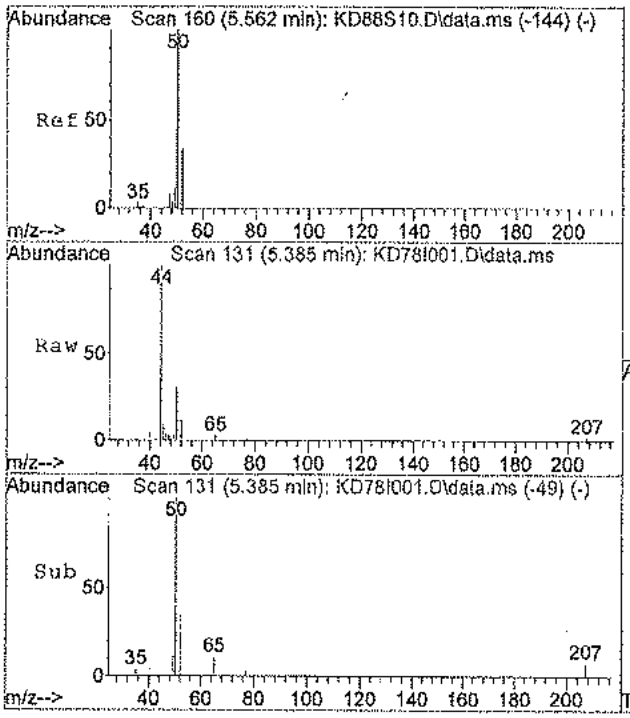


#3
Dichlorodifluoromethane
Concen: 0.31 ppb
RT: 5.21 min Scan# 102
Delta R.T. 0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:85 Resp: 140111

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.1	39.1
101	9.9	8.0	12.0
0	0.0	0.0	0.0

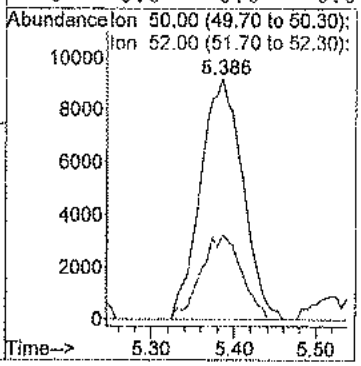


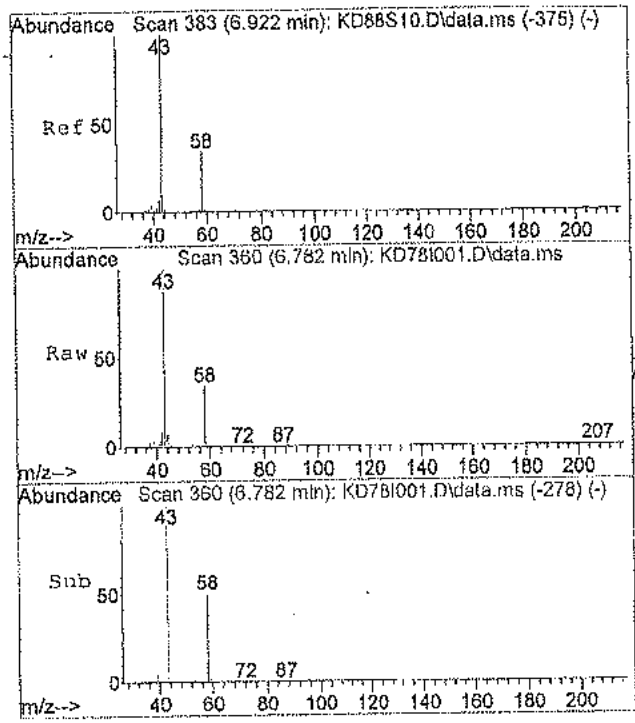


#4
Chloromethane
Concen: 0.40 ppb
RT: 5.39 min Scan# 131
Delta R.T. -0.00 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:50 Resp: 32584

Ion	Ratio	Lower	Upper
50	100		
52	33.9	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

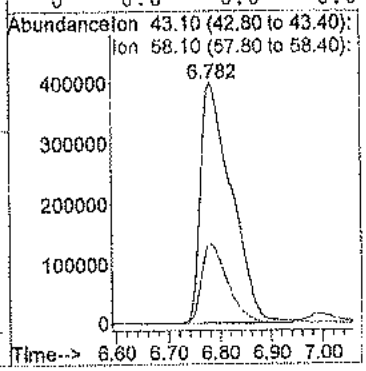


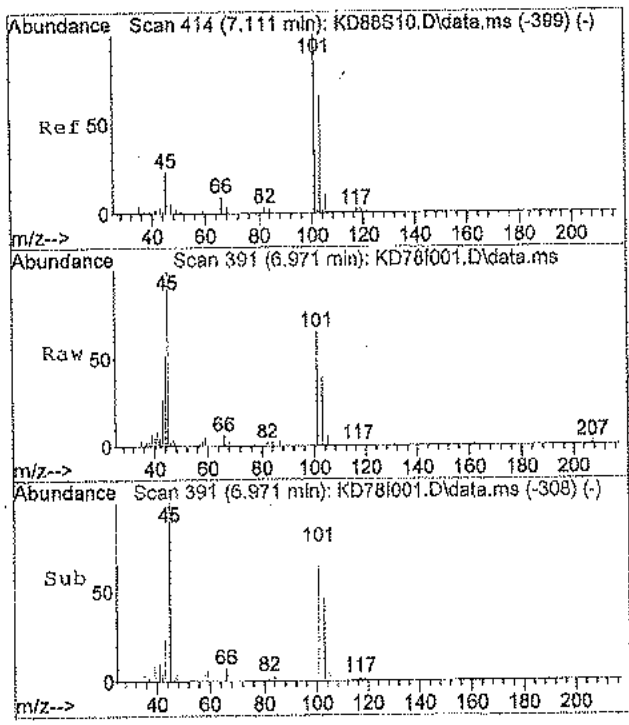


#11
Acetone
Concen: 8.50 ppb
RT: 6.78 min Scan# 360
Delta R.T. -0.00 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:43.1 Resp: 1672426

Ion	Ratio	Lower	Upper
43	100		
58	28.6	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

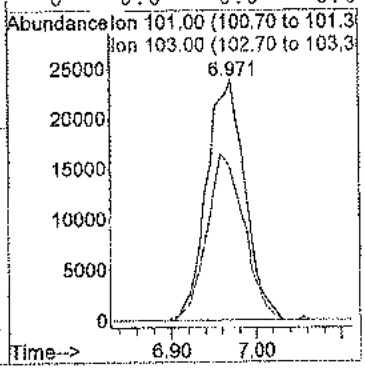


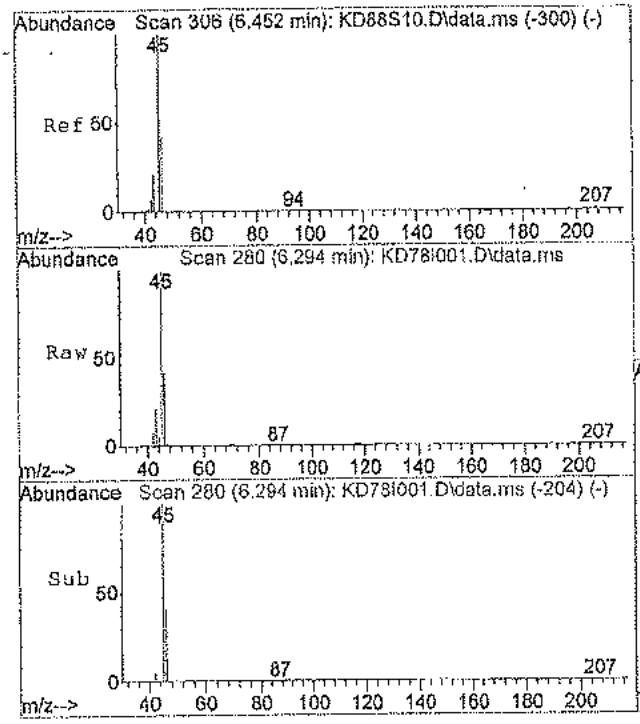


#12
Trichlorofluoromethane
Concen: 0.16 ppb
RT: 6.97 min Scan# 391
Delta R.T. 0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:101 Resp: 74290

Ion	Ratio	Lower	Upper
101	100		
103	67.3	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

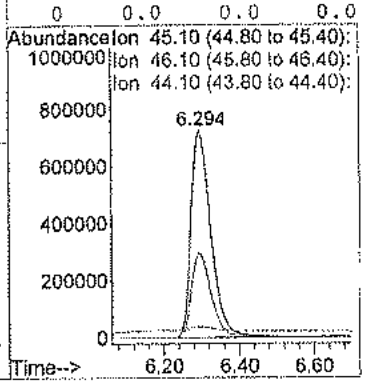


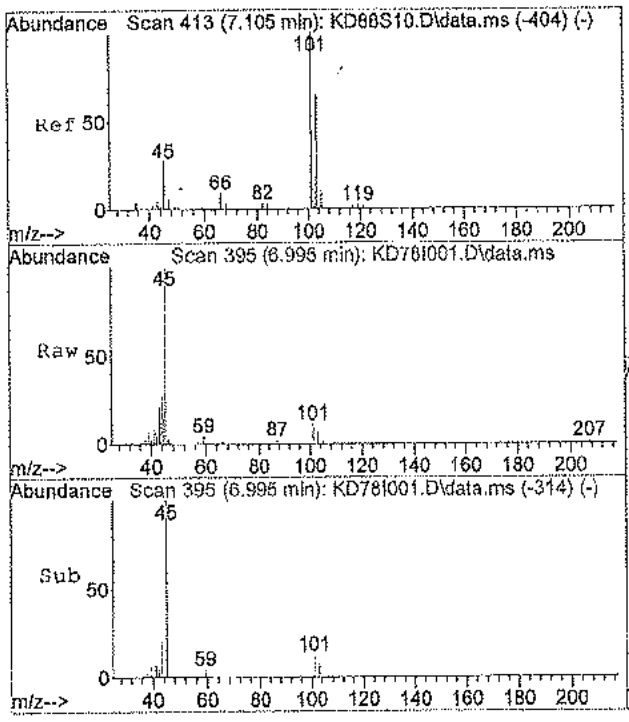


#13
Ethanol
Concen: 89.29 ppb
RT: 6.29 min Scan# 280
Delta R.T. -0.04 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:45.1 Resp: 2649355

Ion	Ratio	Lower	Upper
45	100		
46	41.1	32.4	48.6
44	2.8	23.4	35.2#
0	0.0	0.0	0.0

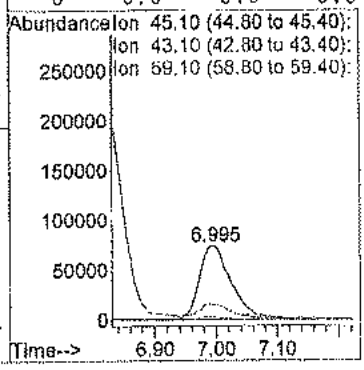


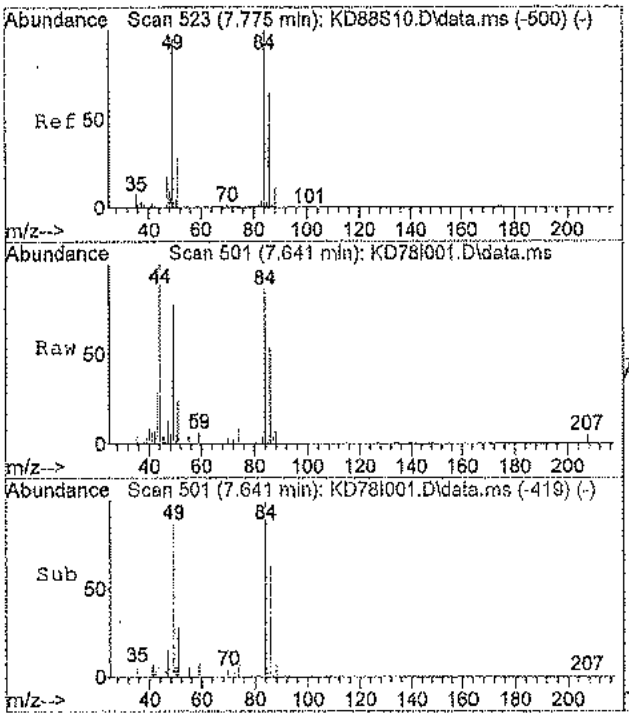


#14
Isopropyl Alcohol
Concen: 1.78 ppb
RT: 6.99 min Scan# 395
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:45.1 Resp: 263124

Ion	Ratio	Lower	Upper
45	100		
43	22.1	15.8	23.6
59	4.1	3.2	4.8
0	0.0	0.0	0.0

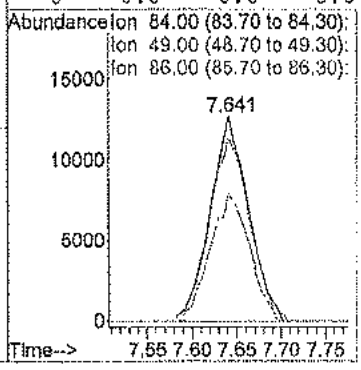


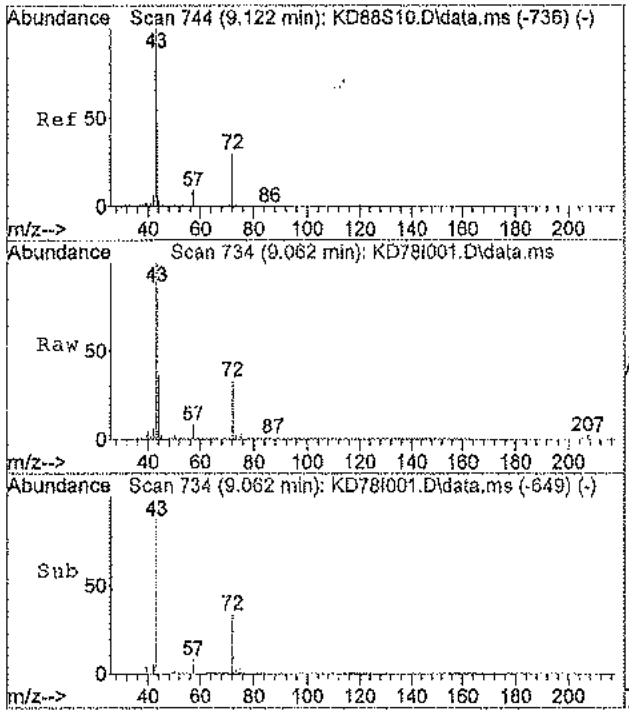


#16
Methylene Chloride
Concen: 0.35 ppb
RT: 7.64 min Scan# 501
Delta R.T. -0.00 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:84 Resp: 37556

Ion	Ratio	Lower	Upper
84	100		
49	95.3	66.6	100.0
86	64.1	51.6	77.4
0	0.0	0.0	0.0

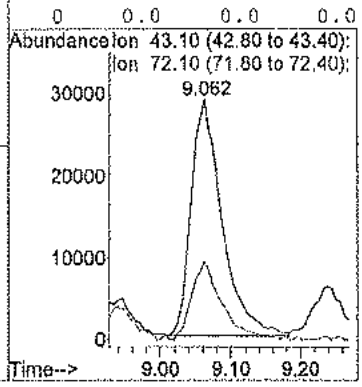


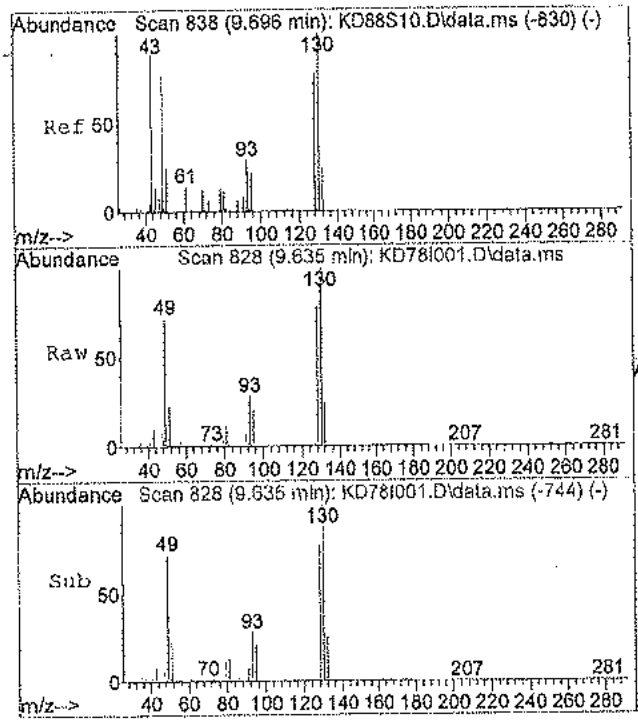


#23
2-Butanone
Concen: 0.48 ppb
RT: 9.06 min Scan# 734
Delta R.T. 0.02 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:43.1 Resp: 88525

Ion	Ratio	Lower	Upper
43	100		
72	32.3	31.1	46.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

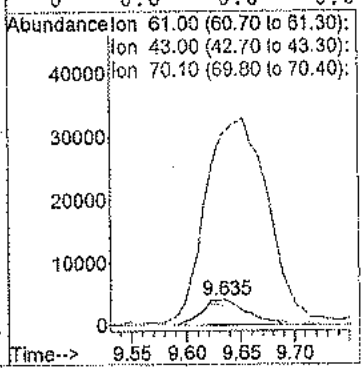


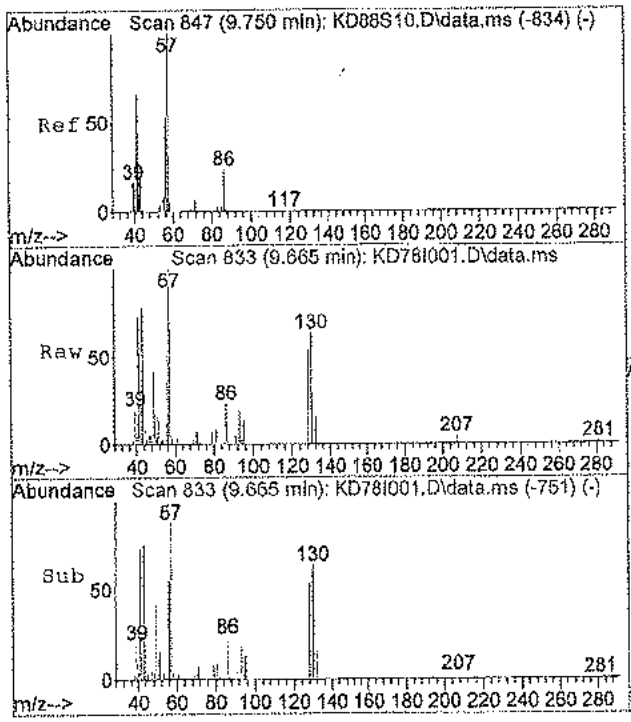


#26
Ethyl Acetate
Concen: 0.38 ppb
RT: 9.63 min Scan# 828
Delta R.T. 0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:61 Resp: 11314

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	90.8	13.6	20.4#
0	0.0	0.0	0.0

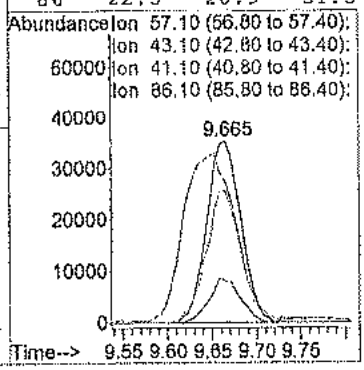


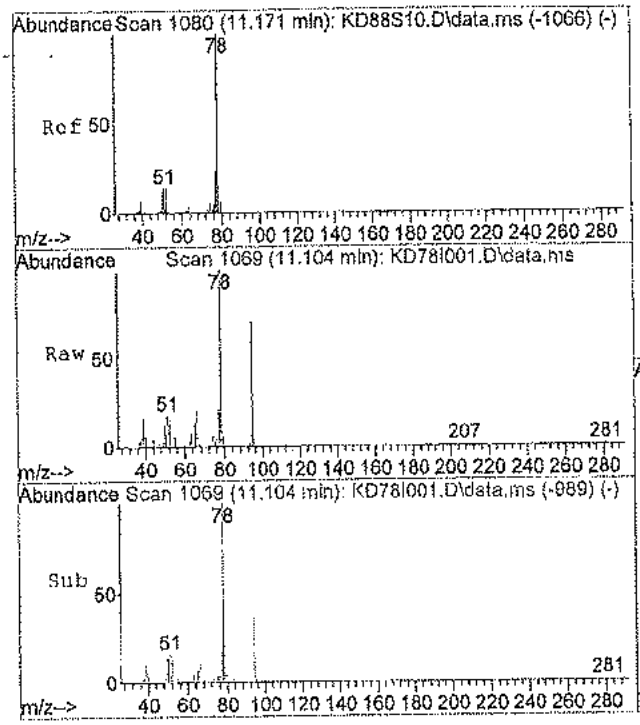


#27
Hexane
Concen: 0.72 ppb
RT: 9.67 min Scan# 833
Delta R.T. -0.00 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:57.1 Resp: 93968

Ion	Ratio	Lower	Upper
57	100		
43	141.5	57.3	85.9#
41	74.5	47.0	70.4#
86	22.3	20.9	31.3

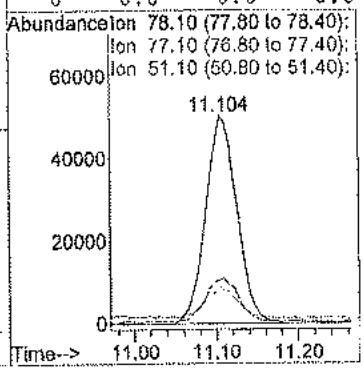


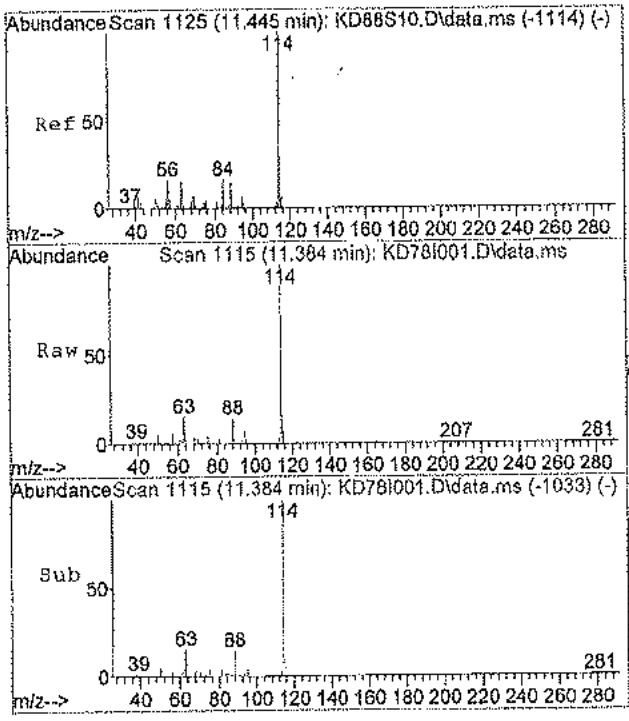


#32
Benzene
Concen: 0.51 ppb
RT: 11.10 min Scan# 1069
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:78.1 Resp: 134364

Ion	Ratio	Lower	Upper
78	100		
77	24.8	18.2	27.4
51	15.2	9.5	14.3#
0	0.0	0.0	0.0

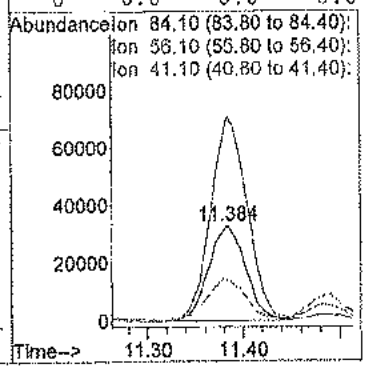


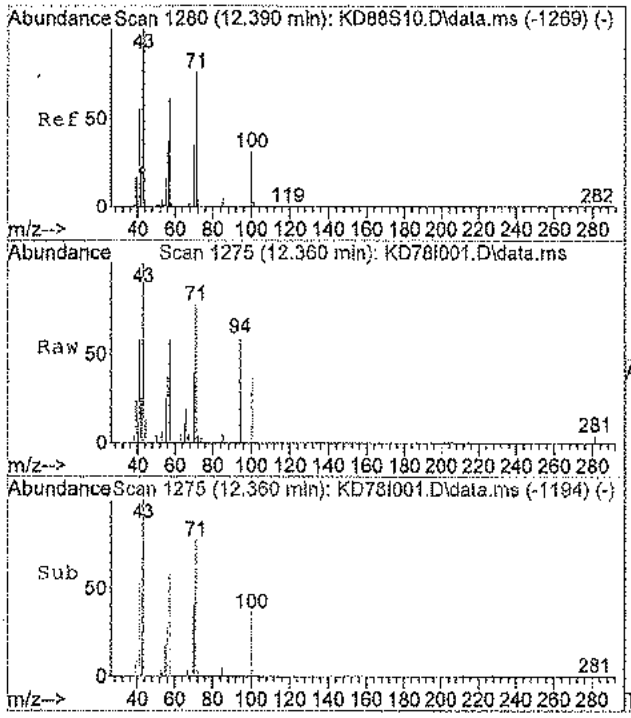


#34
Cyclohexane
Concen: 0.58 ppb
RT: 11.38 min Scan# 1115
Delta R.T. -0.00 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:84.1 Resp: 87916

Ion	Ratio	Lower	Upper
84	100		
56	214.1	67.3	100.9#
41	46.6	30.2	45.4#
0	0.0	0.0	0.0

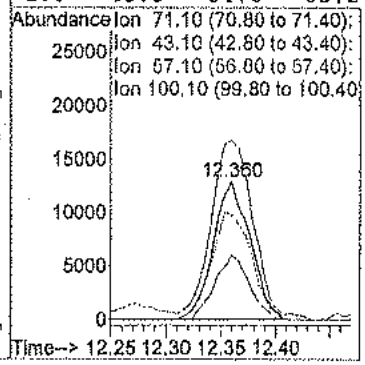


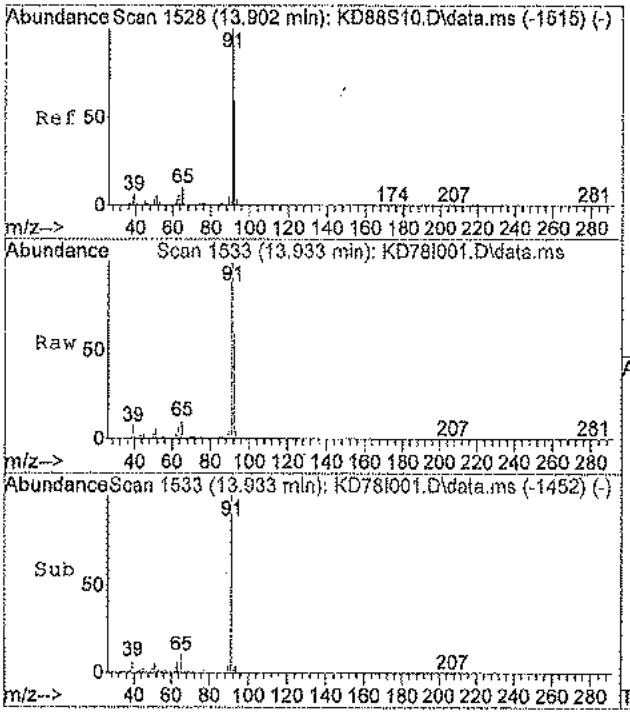


#40
Heptane
Concen: 0.31 ppb
RT: 12.36 min Scan# 1275
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:71.1 Resp: 29953

Ion	Ratio	Lower	Upper
71	100		
43	148.5	87.3	130.9#
57	82.7	57.8	86.6
100	43.5	34.8	52.2

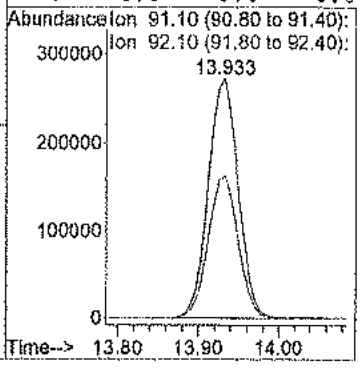


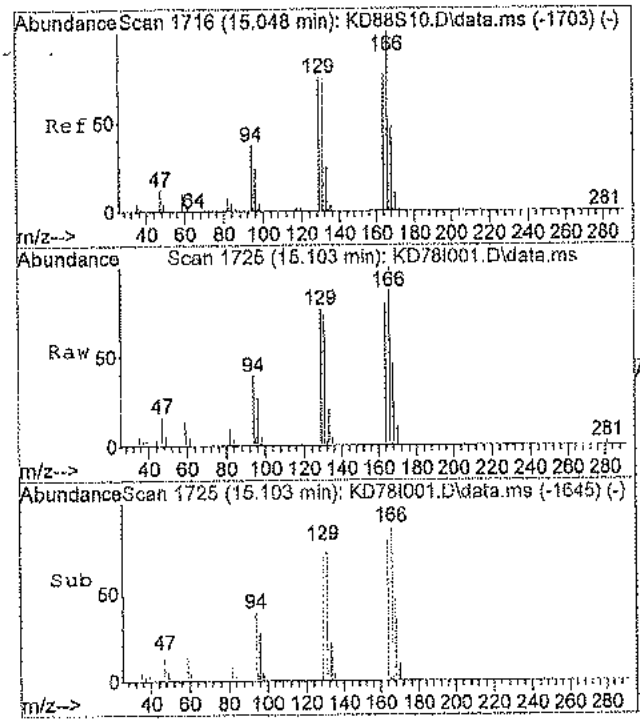


#45
Toluene
Concen: 1.91 ppb
RT: 13.93 min Scan# 1533
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:91.1 Resp: 702878

Ion	Ratio	Lower	Upper
91	100		
92	59.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

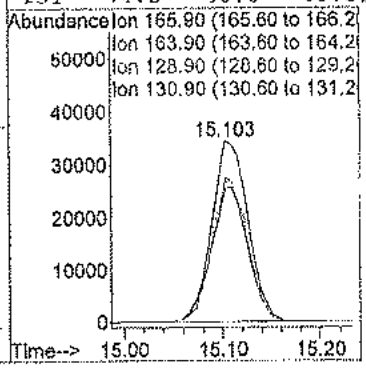


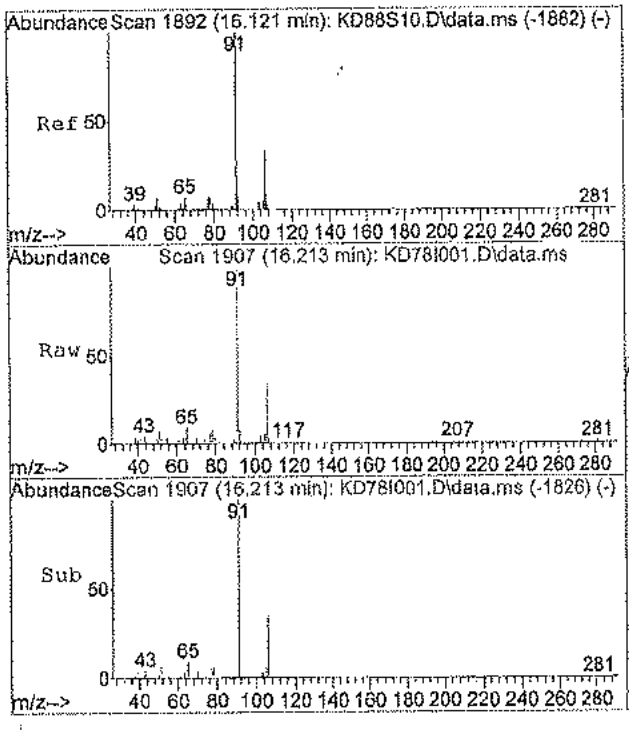


#49
Tetrachloroethene
Concen: 0.45 ppb
RT: 15.10 min Scan# 1725
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:165.9 Resp: 88663

Ion	Ratio	Lower	Upper
166	100		
164	77.7	61.0	91.4
129	78.2	45.9	68.9#
131	74.2	45.5	68.3#

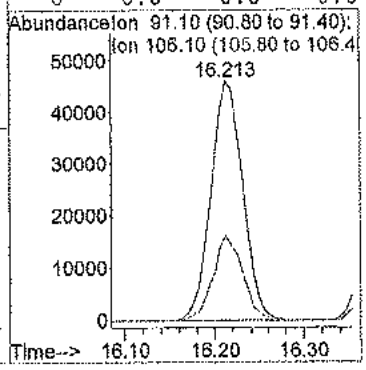


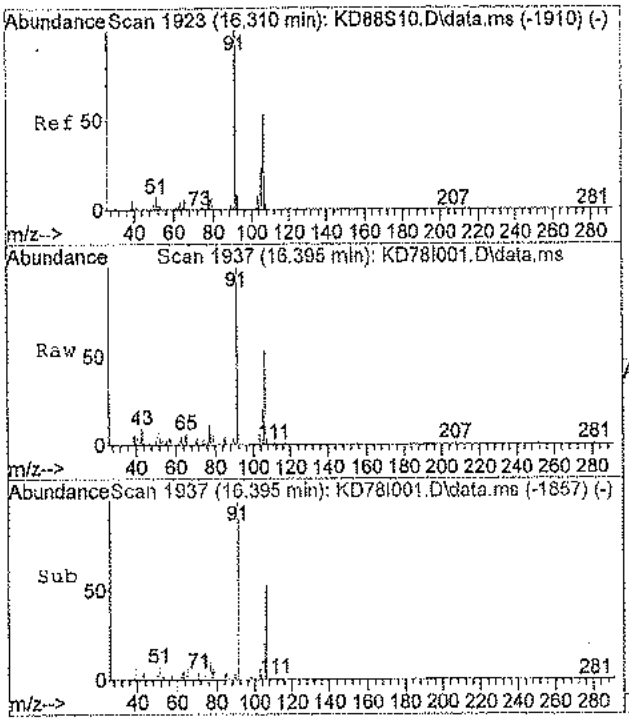


#52
Ethylbenzene
Concen: 0.21 ppb
RT: 16.21 min Scan# 1907
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:91.1 Resp: 112116

Ion	Ratio	Lower	Upper
91	100		
106	32.7	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

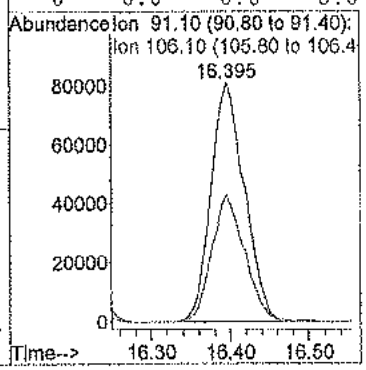


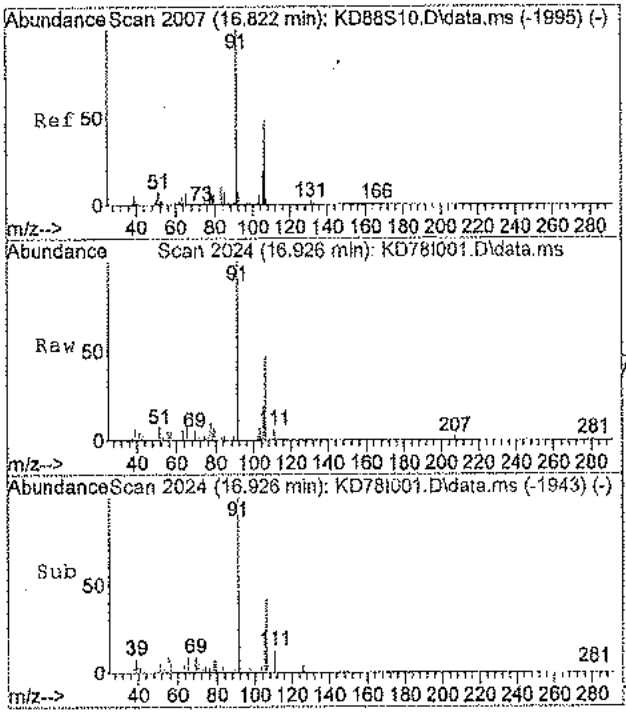


#53
m,p-Xylene
Concen: 0.51 ppb
RT: 16.40 min Scan# 1937
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:91.1 Resp: 240228

Ion	Ratio	Lower	Upper
91	100		
106	51.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

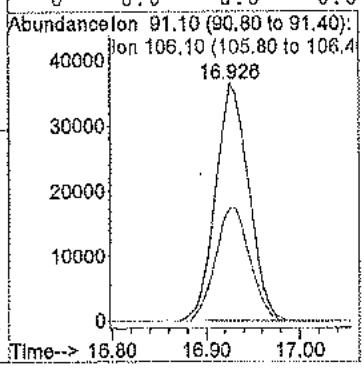


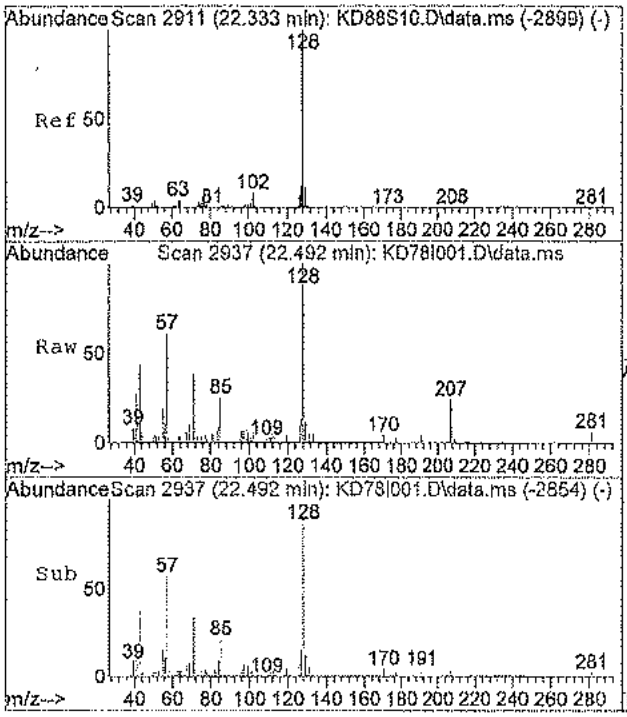


#57
o-Xylene
Concen: 0.18 ppb
RT: 16.93 min Scan# 2024
Delta R.T. -0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:91.1 Resp: 89496

Ion	Ratio	Lower	Upper
91	100		
106	49.3	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

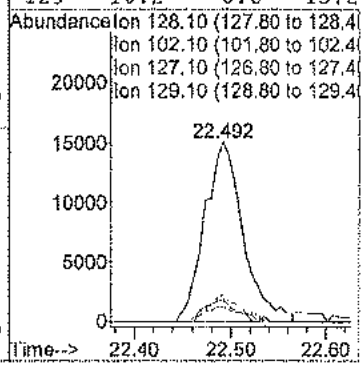




#67
Naphthalene
Concen: 0.17 ppb
RT: 22.49 min Scan# 2937
Delta R.T. 0.01 min
Lab File: KD78I001.D
Acq: 04/08/2015 16:51

Tgt Ion:128.1 Resp: 41970

Ion	Ratio	Lower	Upper
128	100		
102	6.8	6.7	10.1
127	12.4	10.0	15.0
129	10.2	8.8	13.2

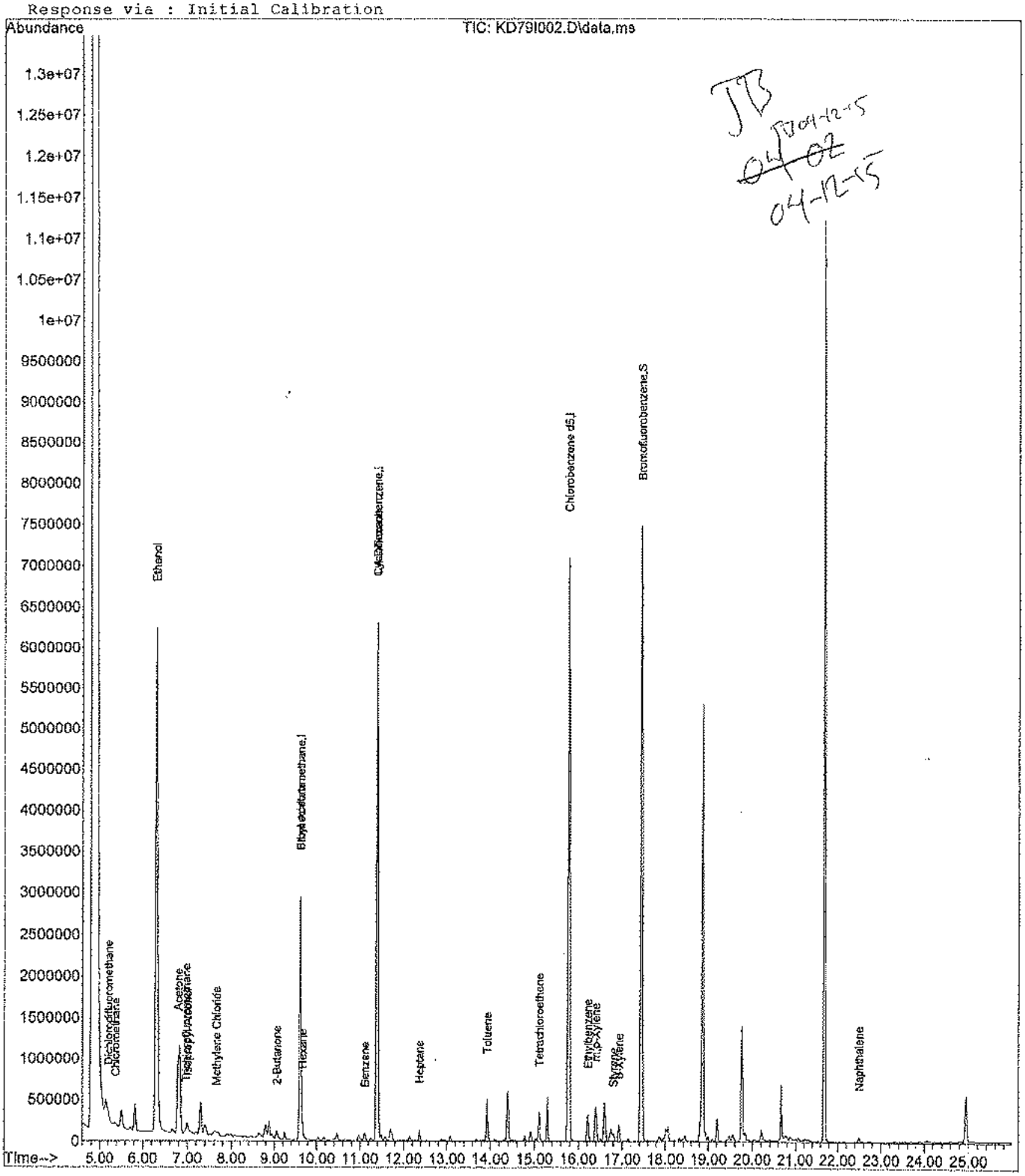


Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD79I002.D Vial: 9
Acq Time : 04/08/2015 17:35 Operator:
Sample : 1509795002 Inst : 5975-K
Misc : TO-002 BR5 0133 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:28:36 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD79I002.D Vial: 9
Acq Time : 04/08/2015 17:35 Operator:
Sample : 1509795002 Inst : 5975-K
Misc : TO-002 BR5 0133 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:28:36 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.62	130	668608	20.0000 ppb	78.38
25) 1,4-Difluorobenzene	11.39	114	8114241	20.0000 ppb	72.74
50) Chlorobenzene d5	15.77	117	7120257	20.0000 ppb	73.84
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	4288474	17.1220 ppb	85.61%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	5.21	85	127239	0.3091 ppb #	84
4) Chloromethane	5.38	50	36029	0.4936 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	6.79	43	2130717	11.9706 ppb #	83
12) Trichlorofluoromethane	6.96	101	69841	0.1617 ppb	97
13) Ethanol	6.30	45	12619344	469.8655 ppb # TIC	79
14) Isopropyl Alcohol	7.00	45	304440	2.2700 ppb # TIC	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.66	84	31819	0.3248 ppb	89
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	9.05	43	144367	0.8590 ppb	91
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	9.62	61	35828	1.3992 ppb #	1
27) Hexane	9.67	57	105081	0.9468 ppb #	51
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.12	78	110381	0.4923 ppb #	95
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	11.39	84	42885	0.3321 ppb #	1
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	12.36	71	48787	0.5934 ppb #	84
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.93	91	551459	1.7571 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	15.11	166	158486	0.9419 ppb #	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

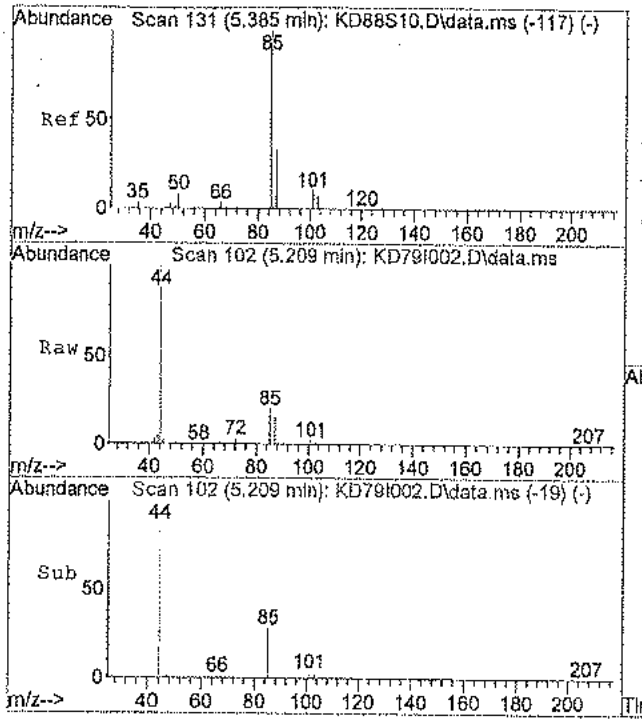
Data File : J:\K\2015\APR15K\08APR15K\KD79I002.D Vial: 9
Acq Time : 04/08/2015 17:35 Operator:
Sample : 1509795002 Inst : 5975-K
Misc : TO-002 BR5 0133 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:28:36 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	16.21	91	343282	0.7650 ppb	97
53) m,p-Xylene	16.40	91	438090	1.0749 ppb	93
54) Bromoform	0.00	173		Not Detected	
55) Styrene	16.80	104	79306	0.3295 ppb	96
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	16.93	91	183918	0.4409 ppb	95
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	22.50	128	34145	0.1566 ppb	TIC 71 10% 99
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

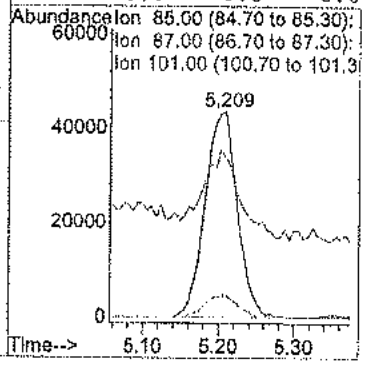
(#) = qualifier out of range (m) = manual integration

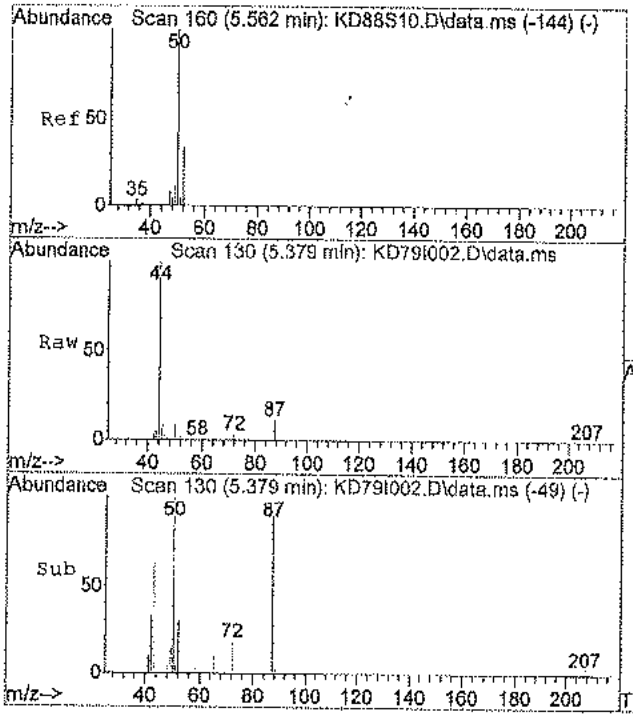


#3
Dichlorodifluoromethane
Concen: 0.31 ppb
RT: 5.21 min Scan# 102
Delta R.T. 0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:85 Resp: 127239

Ion	Ratio	Lower	Upper
85	100		
87	44.2	26.1	39.1#
101	10.6	8.0	12.0
0	0.0	0.0	0.0

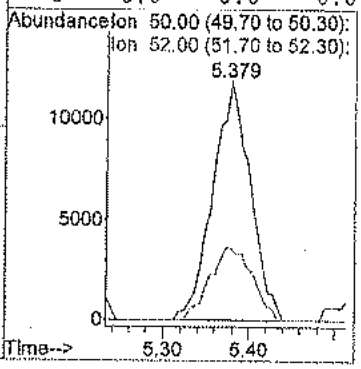


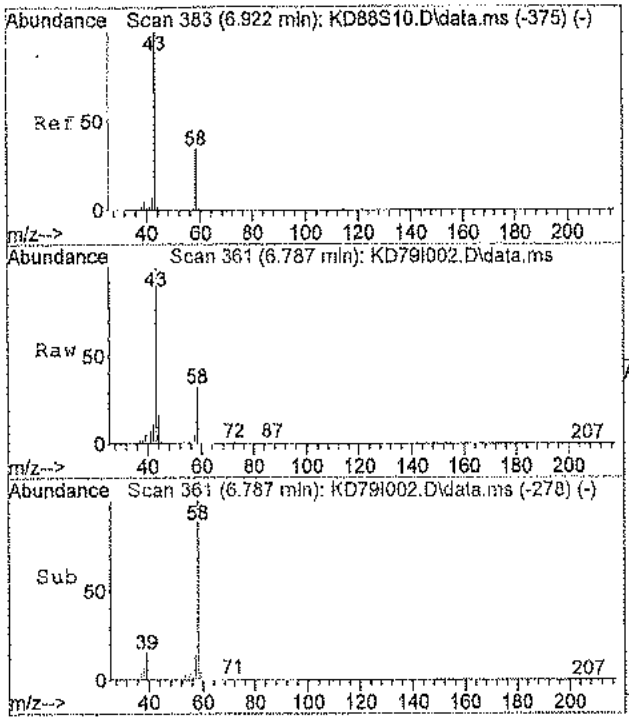


#4
Chloromethane
Concen: 0.49 ppb
RT: 5.38 min Scan# 130
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:50 Resp: 36029

Ion	Ratio	Lower	Upper
50	100		
52	34.6	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

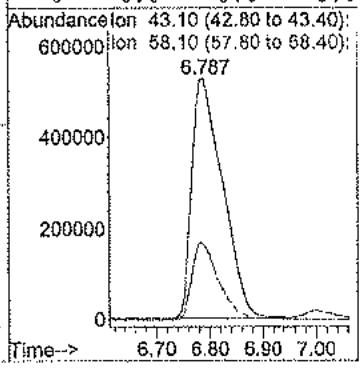


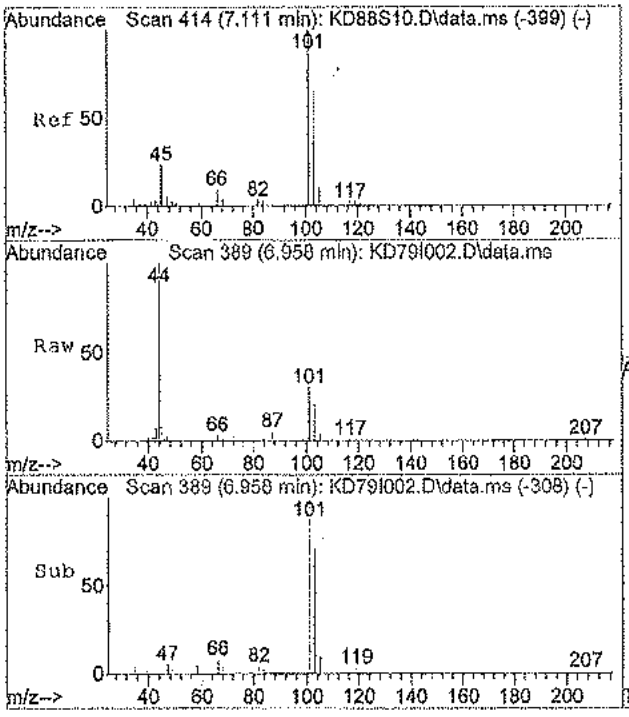


#11
Acetone
Concen: 11.97 ppb
RT: 6.79 min Scan# 361
Delta R.T. 0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:43.1 Resp: 2130717

Ion	Ratio	Lower	Upper
43	100		
58	28.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

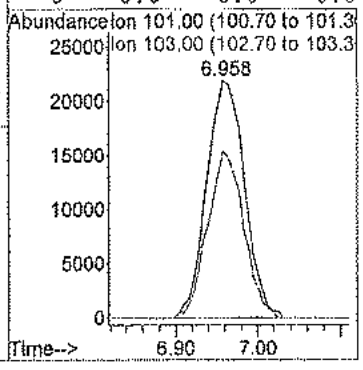


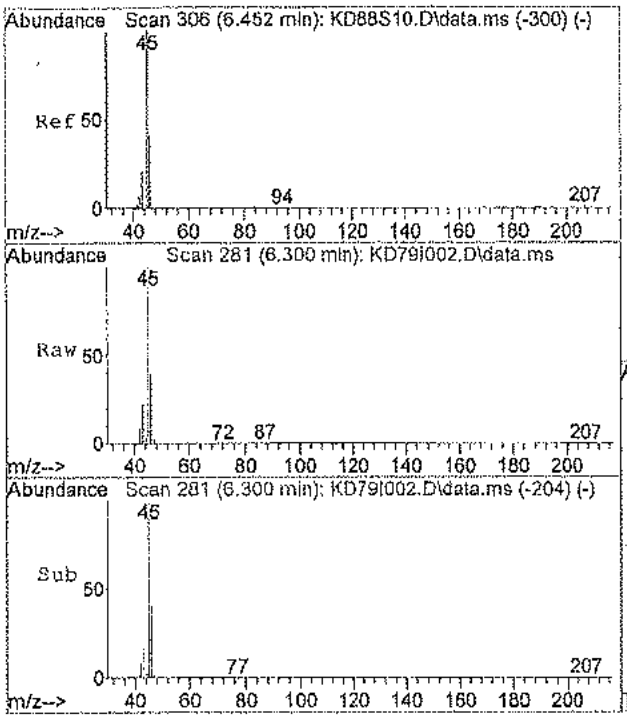


#12
Trichlorofluoromethane
Concen: 0.16 ppb
RT: 6.96 min Scan# 389
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:101 Resp: 69841

Ion	Ratio	Lower	Upper
101	100		
103	66.8	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

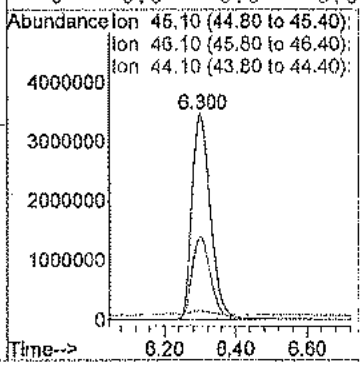


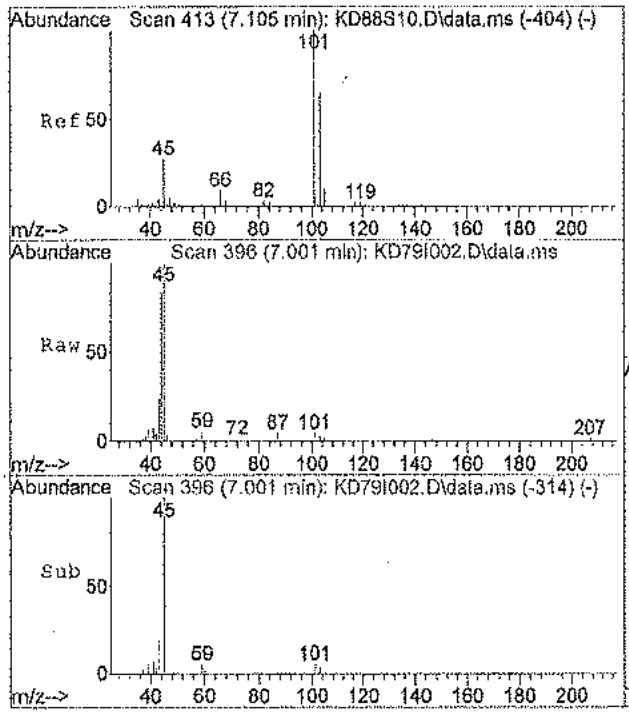


#13
Ethanol
Concen: 469.87 ppb
RT: 6.30 min Scan# 281
Delta R.T. -0.03 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:45.1 Resp:12619344

Ion	Ratio	Lower	Upper
45	100		
46	40.3	32.4	48.6
44	2.3	23.4	35.2#
0	0.0	0.0	0.0

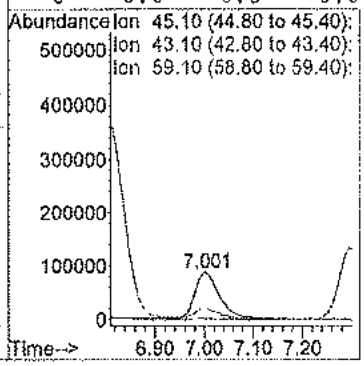


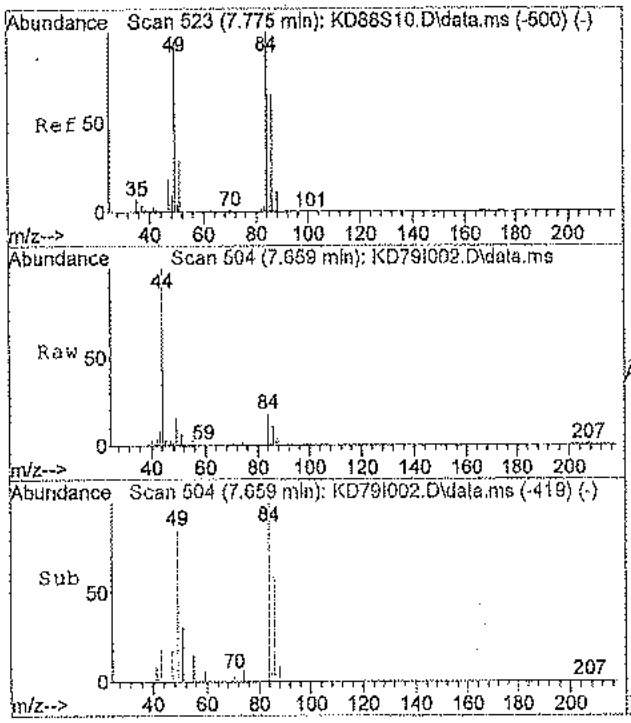


#14
Isopropyl Alcohol
Concen: 2.27 ppb
RT: 7.00 min Scan# 396
Delta R.T. -0.00 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:45.1 Resp: 304410

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	4.2	3.2	4.8
0	0.0	0.0	0.0

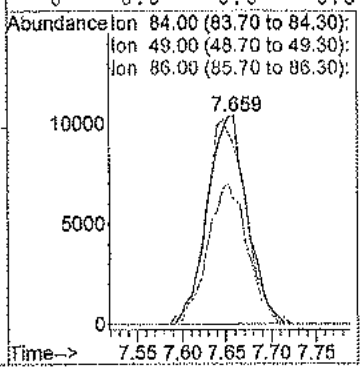


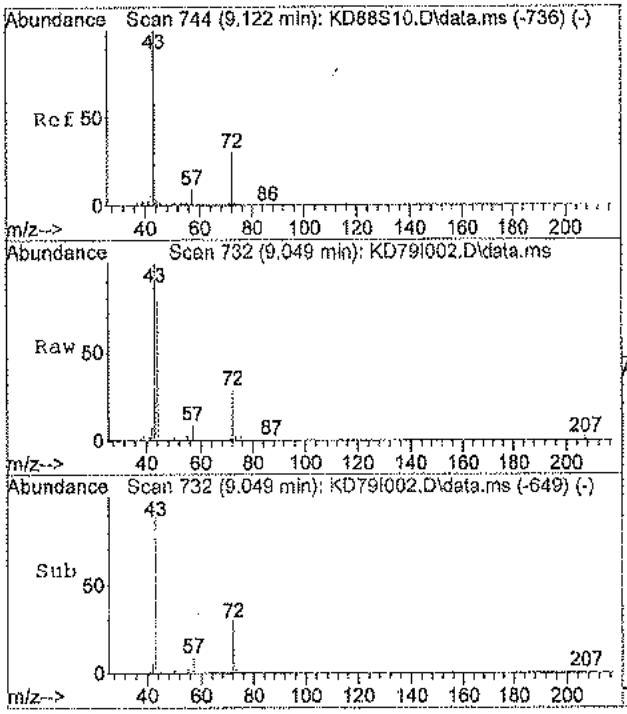


#16
Methylene Chloride
Concen: 0.32 ppb
RT: 7.66 min Scan# 504
Delta R.T. 0.02 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:84 Resp: 31819

Ion	Ratio	Lower	Upper
84	100		
49	99.0	66.6	100.0
86	66.7	51.6	77.4
0	0.0	0.0	0.0

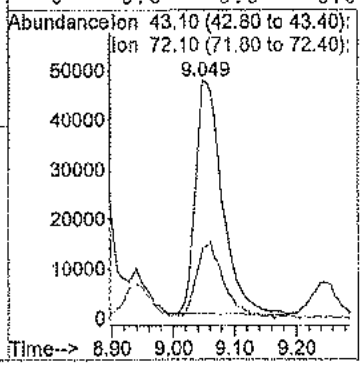


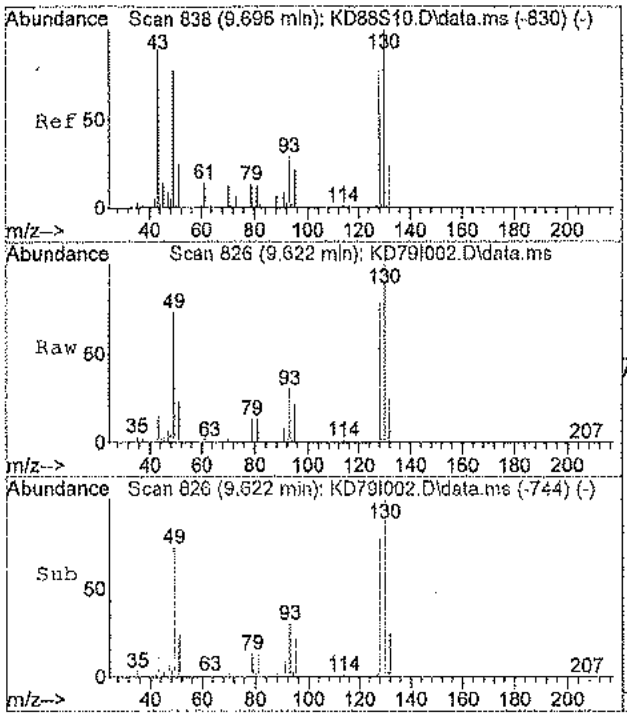


#23
2-Butanone
Concen: 0.86 ppb
RT: 9.05 min Scan# 732
Delta R.T. 0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:43.1 Resp: 144367

Ion	Ratio	Lower	Upper
43	100		
72	33.2	31.1	46.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

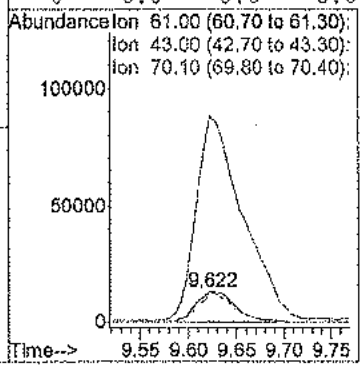


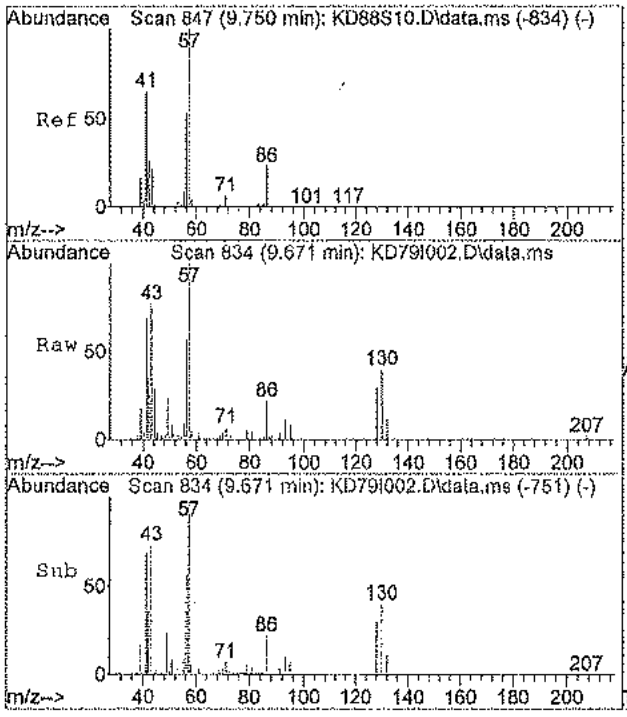


#26
Ethyl Acetate
Concen: 1.40 ppb
RT: 9.62 min Scan# 826
Delta R.T. -0.00 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:61 Resp: 35828

Ion	Ratio	Lower	Upper
61	100		
43	831.0	144.0	216.0#
70	88.9	13.6	20.4#
0	0.0	0.0	0.0

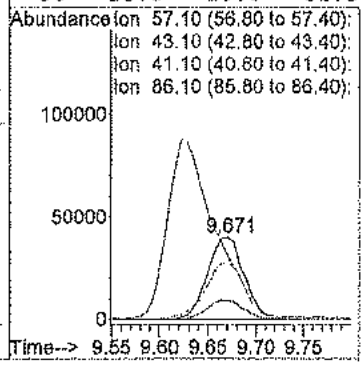


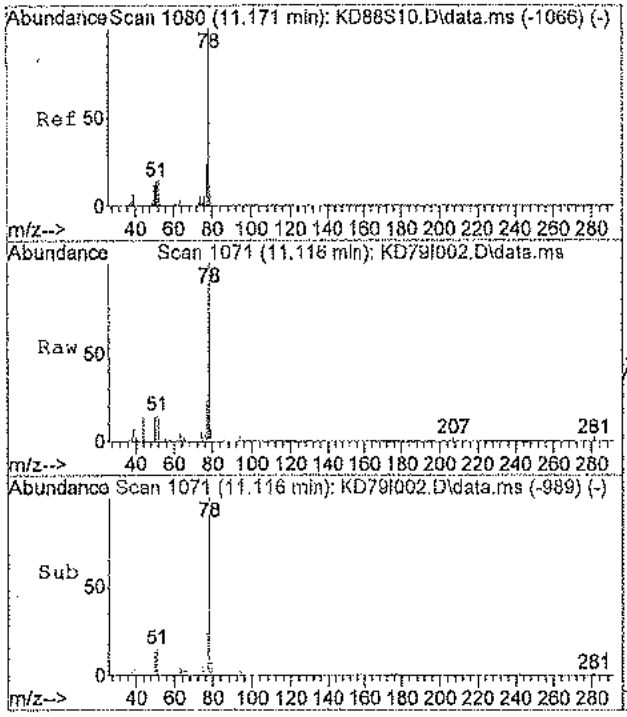


#27
Hexane
Concen: 0.95 ppb
RT: 9.67 min Scan# 834
Delta R.T. 0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:57.1 Resp: 105081

Ion	Ratio	Lower	Upper
57	100		
43	0.0	57.3	85.9#
41	75.8	47.0	70.4#
86	23.5	20.9	31.3

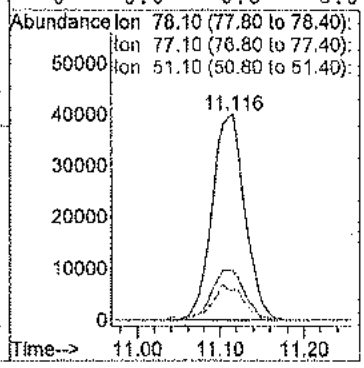


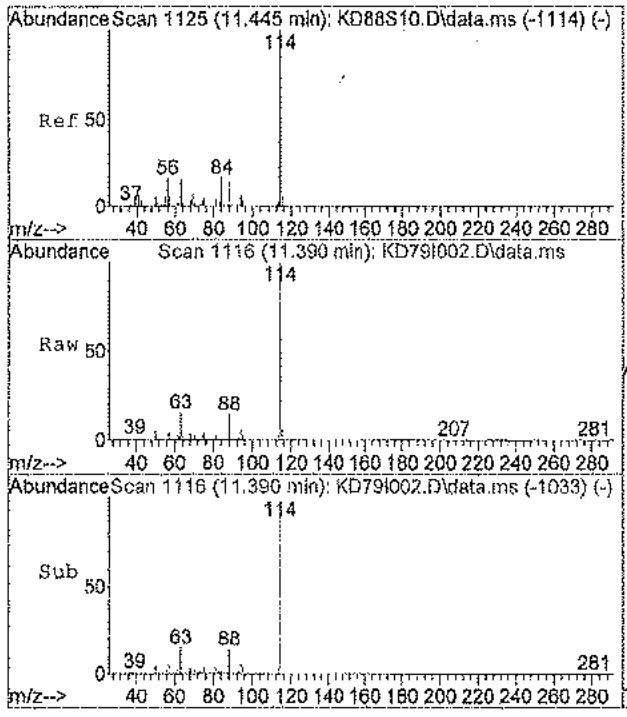


#32
Benzene
Concen: 0.49 ppb
RT: 11.12 min Scan# 1071
Delta R.T. -0.00 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:78.1 Resp: 110381

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.4
51	15.6	9.5	14.3#
0	0.0	0.0	0.0

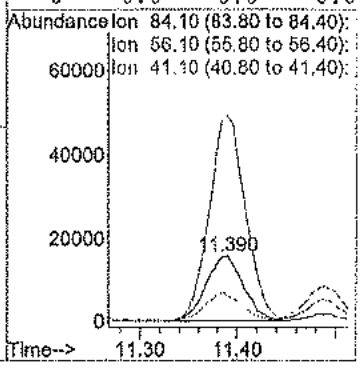


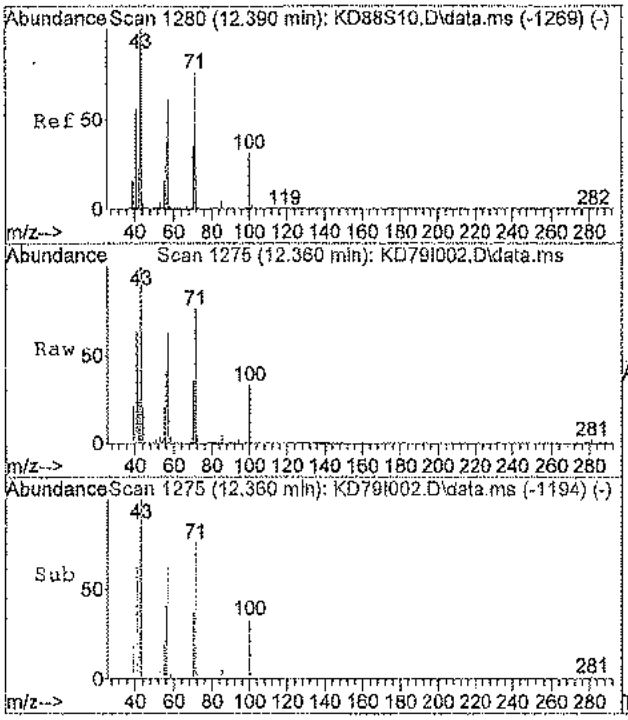


#34
Cyclohexane
Concen: 0.33 ppb
RT: 11.39 min Scan# 1116
Delta R.T. 0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:84.1 Resp: 42885

Ion	Ratio	Lower	Upper
84	100		
56	302.0	67.3	100.9#
41	43.3	30.2	45.4
0	0.0	0.0	0.0

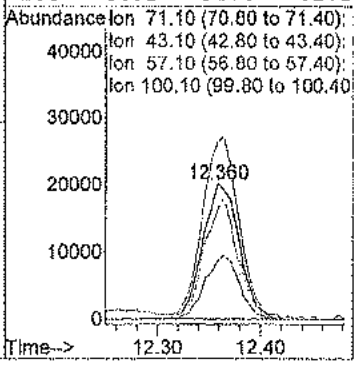


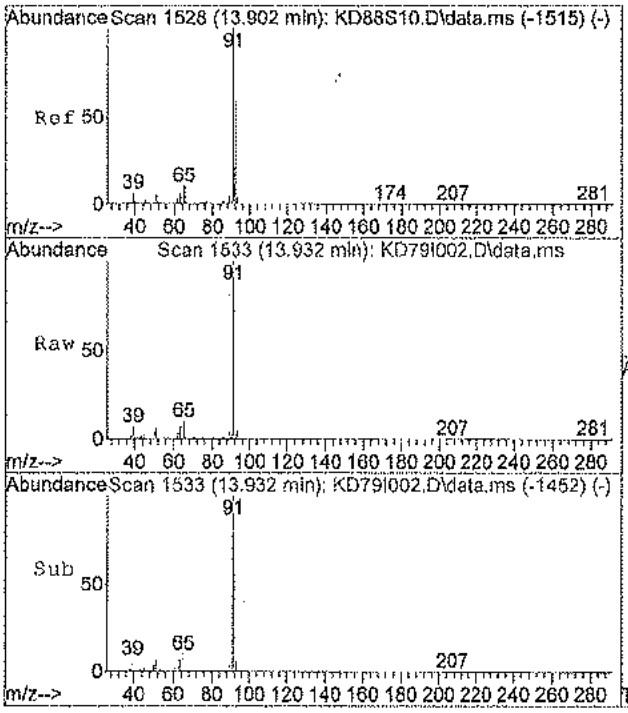


#40
Heptane
Concen: 0.59 ppb
RT: 12.36 min Scan# 1275
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:71.1 Resp: 48787

Ion	Ratio	Lower	Upper
71	100		
43	136.1	87.3	130.9#
57	82.0	57.8	86.6
100	44.1	34.8	52.2

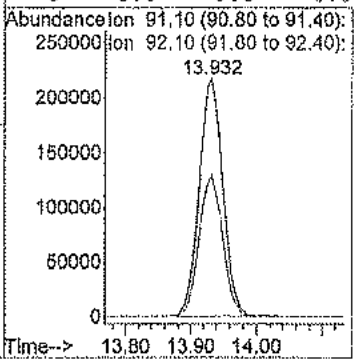


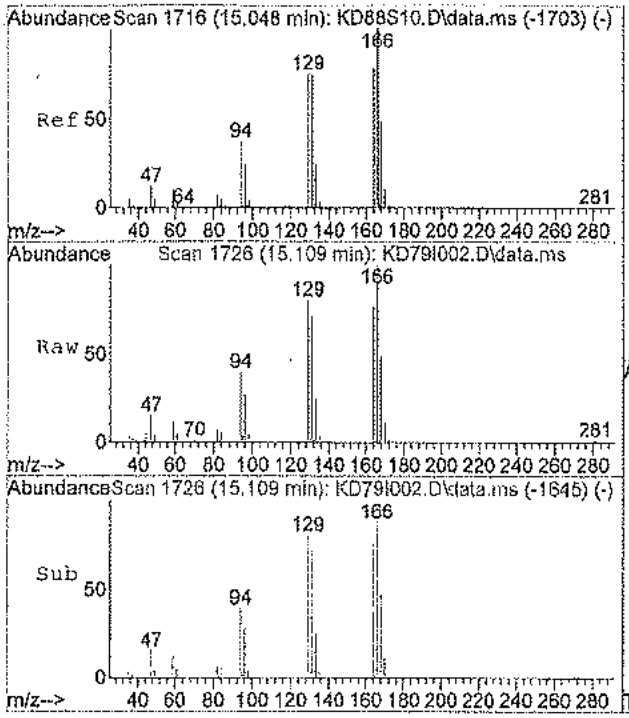


#45
Toluene
Concen: 1.76 ppb
RT: 13.93 min Scan# 1533
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:91.1 Resp: 551459

Ion	Ratio	Lower	Upper
91	100		
92	59.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

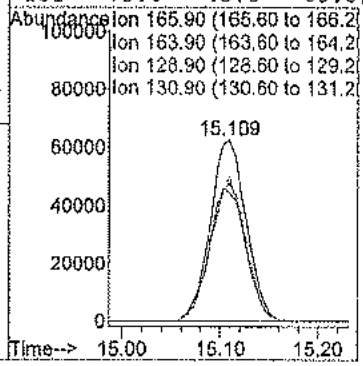


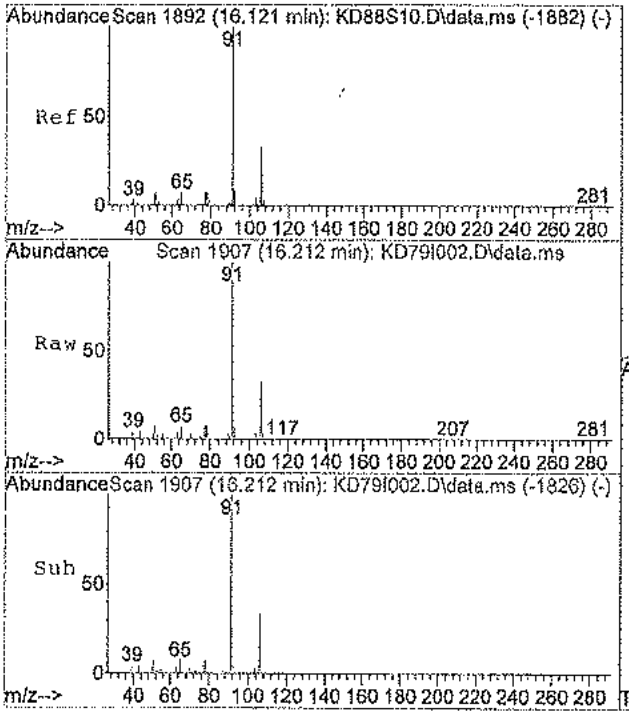


#49
Tetrachloroethene
Concen: 0.94 ppb
RT: 15.11 min Scan# 1726
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:165.9 Resp: 158486

Ion	Ratio	Lower	Upper
166	100		
164	78.4	61.0	91.4
129	78.0	45.9	68.9#
131	73.8	45.5	68.3#

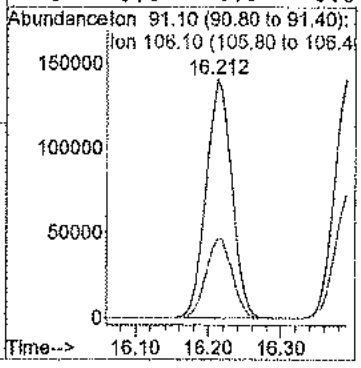


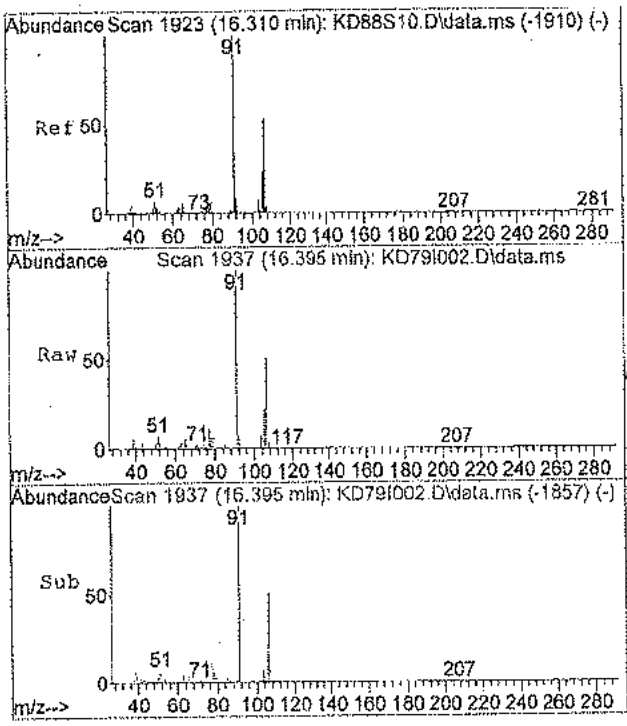


#52
Ethylbenzene
Concen: 0.76 ppb
RT: 16.21 min Scan# 1907
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:91.1 Resp: 343282

Ion	Ratio	Lower	Upper
91	100		
106	33.8	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

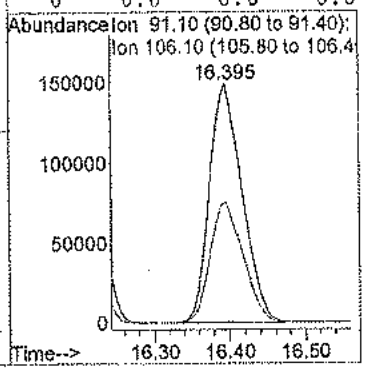


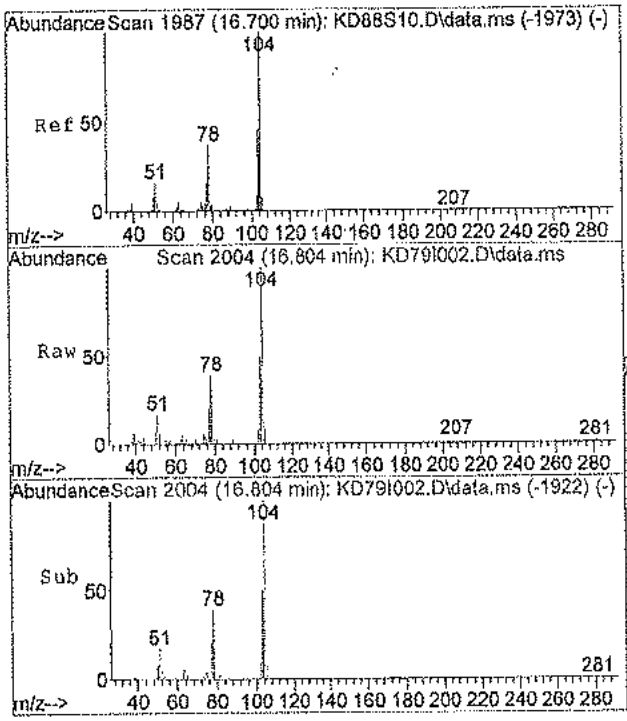


#53
m,p-Xylene
Concen: 1.07 ppb
RT: 16.40 min Scan# 1937
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:91.1 Resp: 438090

Ion	Ratio	Lower	Upper
91	100		
106	50.8	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

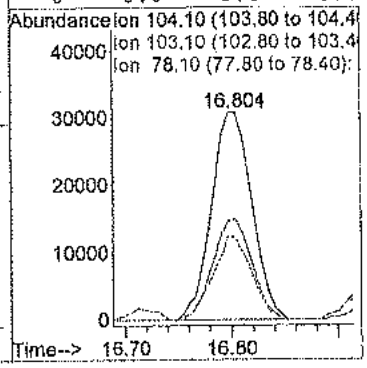


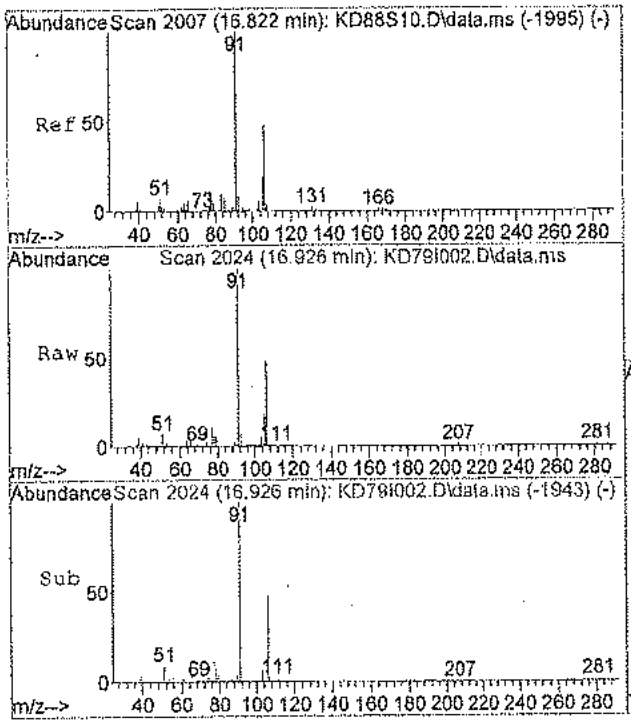


#55
Styrene
Concen: 0.33 ppb
RT: 16.80 min Scan# 2004
Delta R.T. -0.00 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:104.1 Resp: 79306

Ion	Ratio	Lower	Upper
104	100		
103	47.1	36.6	54.8
78	38.1	27.7	41.5
0	0.0	0.0	0.0

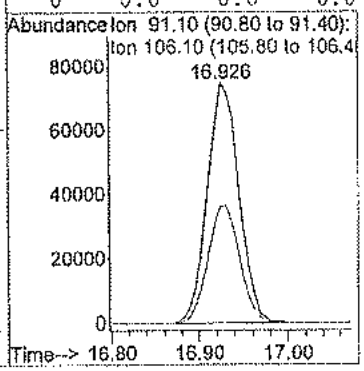


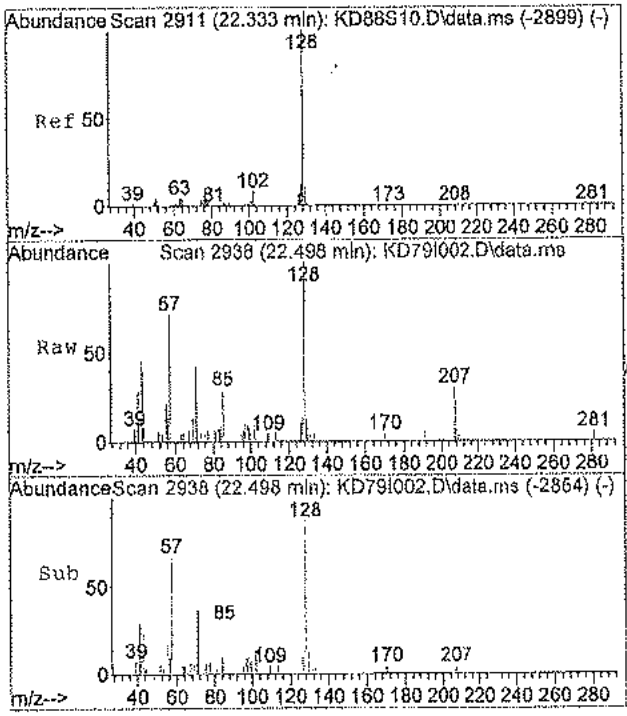


#57
o-Xylene
Concen: 0.44 ppb
RT: 16.93 min Scan# 2024
Delta R.T. -0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:91.1 Resp: 183918

Ion	Ratio	Lower	Upper
91	100		
106	48.8	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

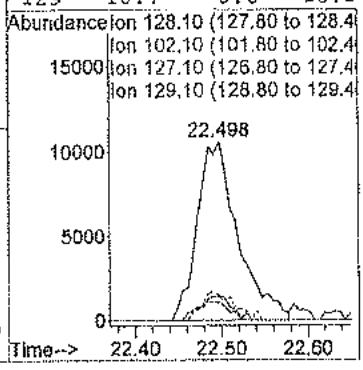




#67
Naphthalene
Concen: 0.16 ppb
RT: 22.50 min Scan# 2938
Delta R.T. 0.01 min
Lab File: KD79I002.D
Acq: 04/08/2015 17:35

Tgt Ion:128.1 Resp: 34145

Ion	Ratio	Lower	Upper
128	100		
102	8.0	6.7	10.1
127	13.1	10.0	15.0
129	10.7	8.8	13.2



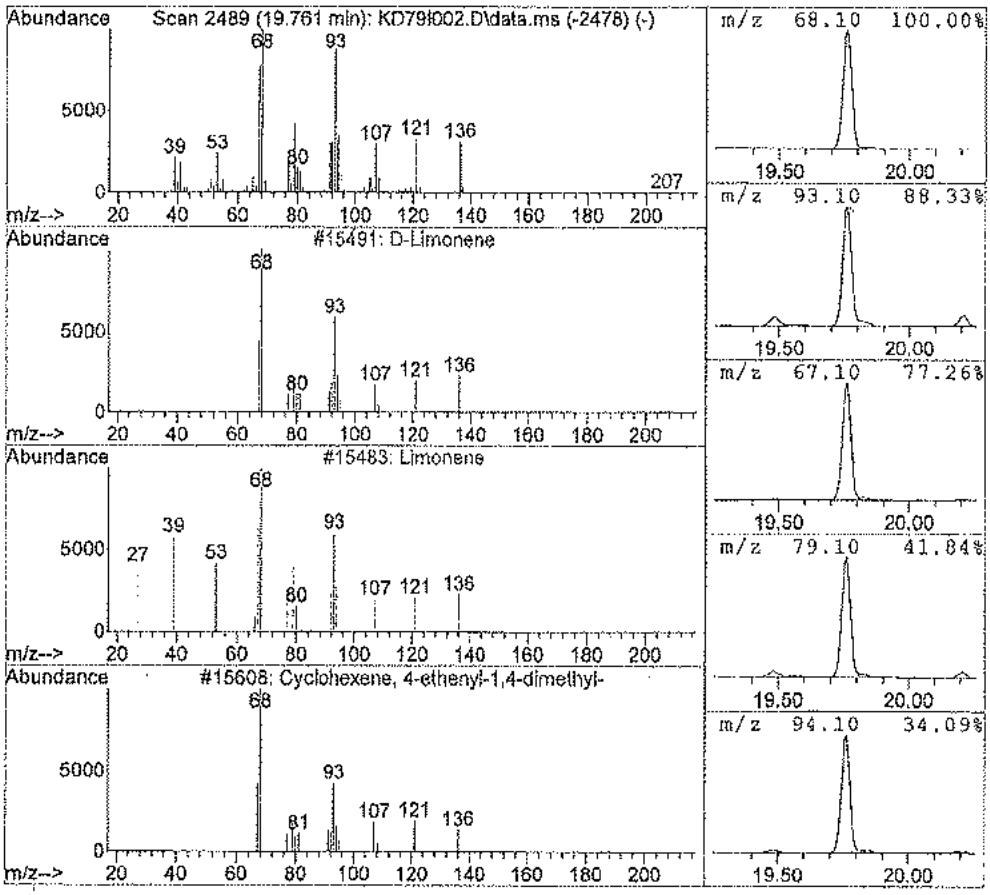
Library Search Compound Report

Data File : J:\K\2015\APR15K\08APR15K\KD79I002.D Vial: 9
Acq Time : 04/08/2015 17:35 Operator:
Sample : 1509795002 Inst : 5975-K
Misc : TO-002 BR5 0133 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.76	3.64 ppb	3295529	Chlorobenzene d5	18120962

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	D-Limonene	15491	005989-27-5	94.00
2	Limonene	15483	000138-86-3	91.00
3	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	89.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15690	005989-54-8	76.00
5	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	76.00

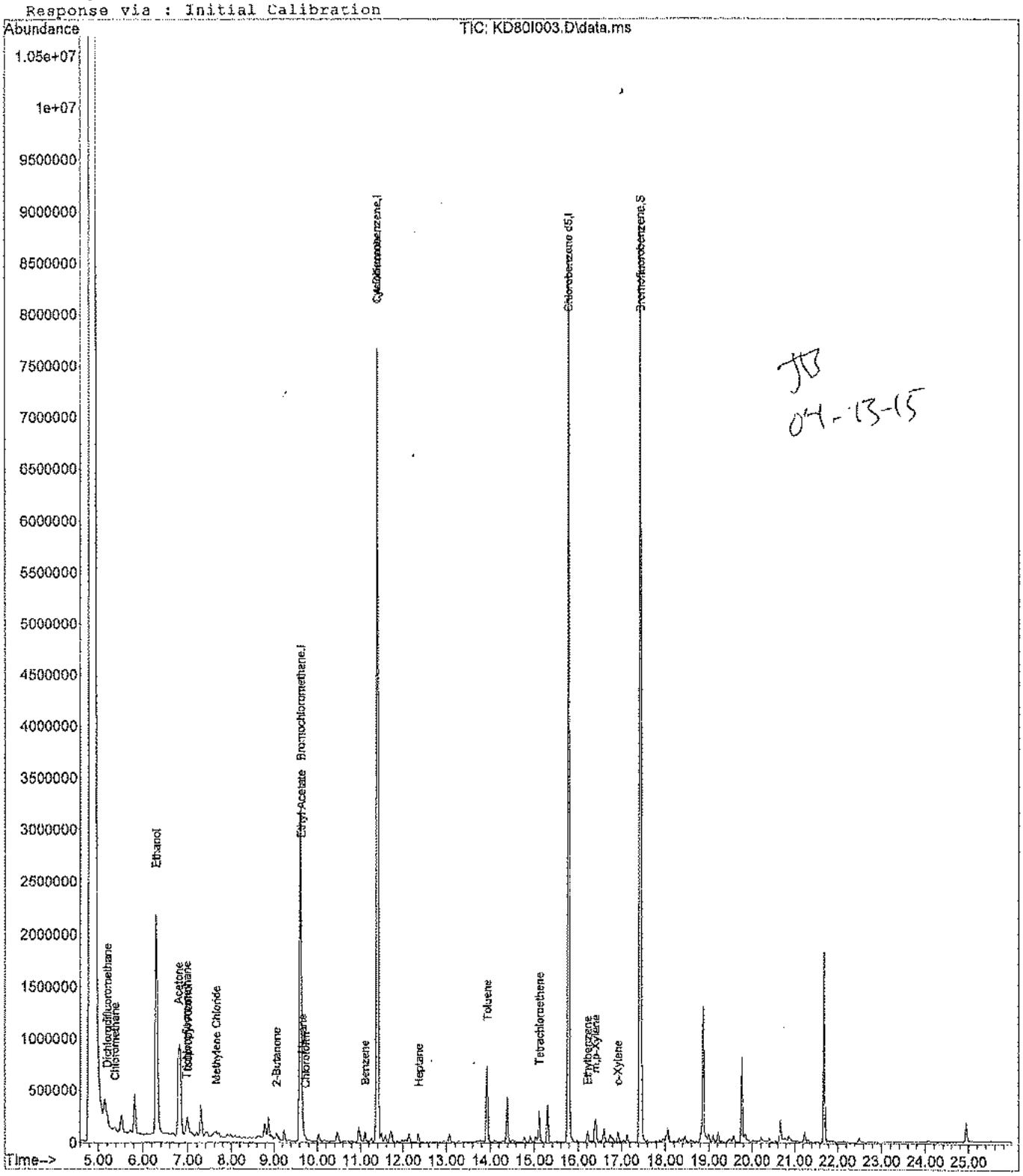


Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD80I003.D Vial: 11
Acq Time : 04/08/2015 18:21 Operator:
Sample : 1509795003 Inst : 5975-K
Misc : TO-003 BA5 0089 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:30:24 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JB
04-13-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD80I003.D Vial: 11
Acq Time : 04/08/2015 18:21 Operator:
Sample : 1509795003 Inst : 5975-K
Misc : TO-003 BA5 0089 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:30:24 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.62	130	751168	20.0000 ppb	88.06
25) 1,4-Difluorobenzene	11.39	114	9825228	20.0000 ppb	88.08
50) Chlorobenzene d5	15.77	117	8751973	20.0000 ppb	90.76
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.44	95	5199218	16.8880 ppb	84.44%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	5.20	85	136488	0.2952 ppb	99
4) Chloromethane	5.38	50	36499	0.4451 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	6.78	43	1918168	9.5920 ppb #	83
12) Trichlorofluoromethane	6.96	101	74807	0.1541 ppb	98
13) Ethanol	6.29	45	4160573	137.8874 ppb TIC	79
14) Isopropyl Alcohol	6.99	45	338060	2.2437 ppb TIC	95
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.65	84	36946	0.3357 ppb	89
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	9.06	43	94496	0.5004 ppb	92
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	9.63	61	17943	0.5787 ppb #	1
27) Hexane	9.67	57	105292	0.7835 ppb #	53
28) Chloroform	9.72	83	56130	0.1897 ppb	99
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.10	78	126307	0.4652 ppb #	97
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	11.39	84	70549	0.4511 ppb #	1
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	12.37	71	31323	0.3146 ppb #	84
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.93	91	807905	2.1259 ppb	100
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	15.11	166	131037	0.6432 ppb #	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report

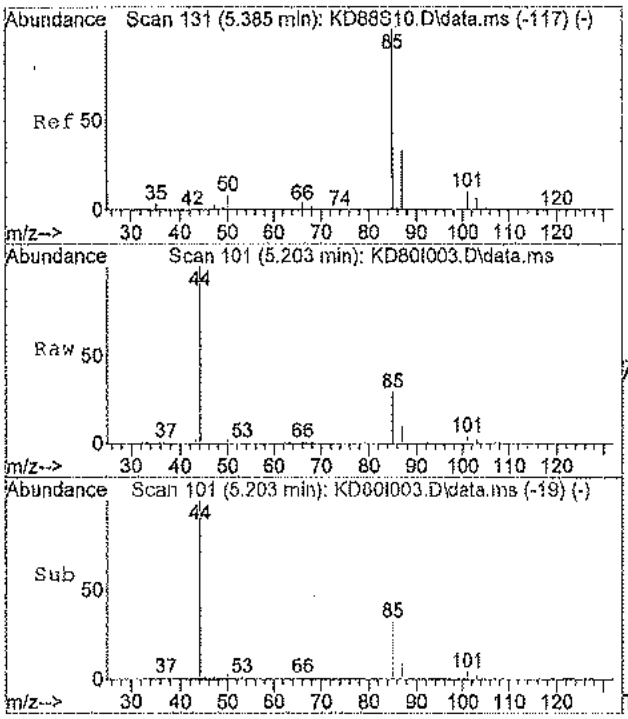
Data File : J:\K\2015\APR15K\08APR15K\KD80I003.D Vial: 11
Acq. Time : 04/08/2015 18:21 Operator:
Sample : 1509795003 Inst : 5975-K
Misc : TO-003 BA5 0089 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:30:24 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	16.21	91	106524	0.1931 ppb	96
53) m,p-Xylene	16.40	91	222066	0.4433 ppb	97
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	16.93	91	82863	0.1616 ppb	96
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

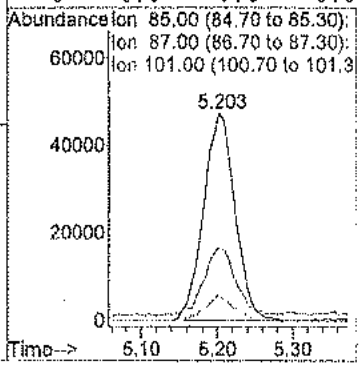
(#) = qualifier out of range (m) = manual integration

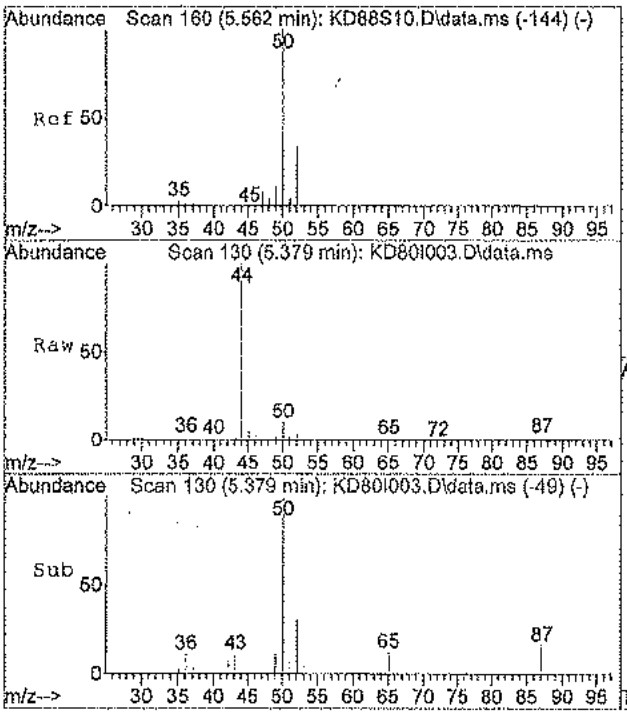


#3
Dichlorodifluoromethane
Concen: 0.30 ppb
RT: 5.20 min Scan# 101
Delta R.T. 0.00 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:85 Resp: 136488

Ion	Ratio	Lower	Upper
85	100		
87	32.8	26.1	39.1
101	10.8	8.0	12.0
0	0.0	0.0	0.0

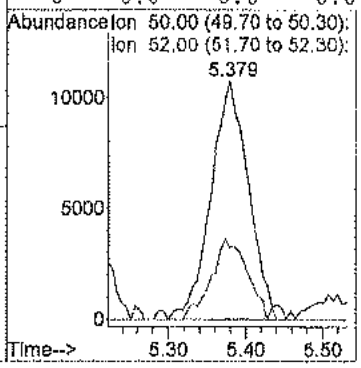


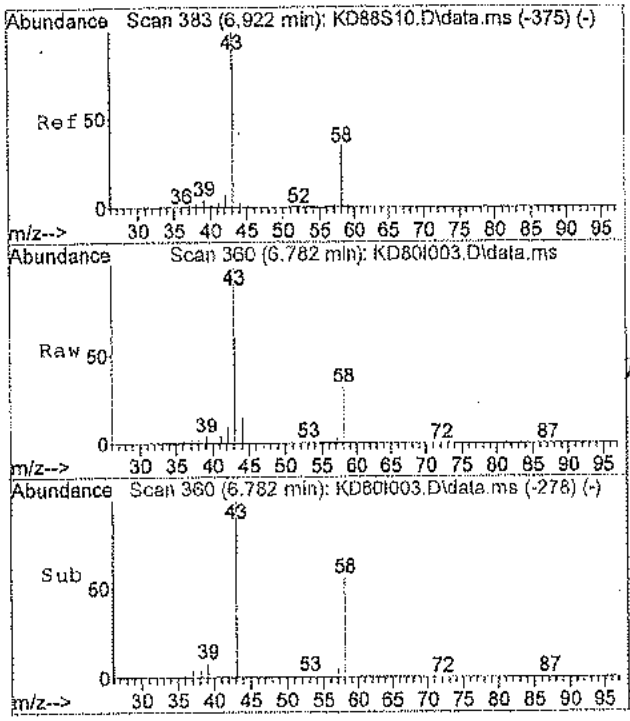


#4
Chloromethane
Concen: 0.45 ppb
RT: 5.38 min Scan# 130
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:50 Resp: 36499

Ion	Ratio	Lower	Upper
50	100		
52	32.7	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

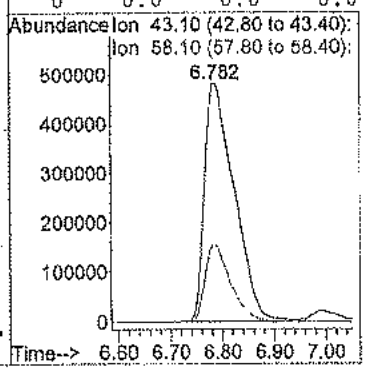


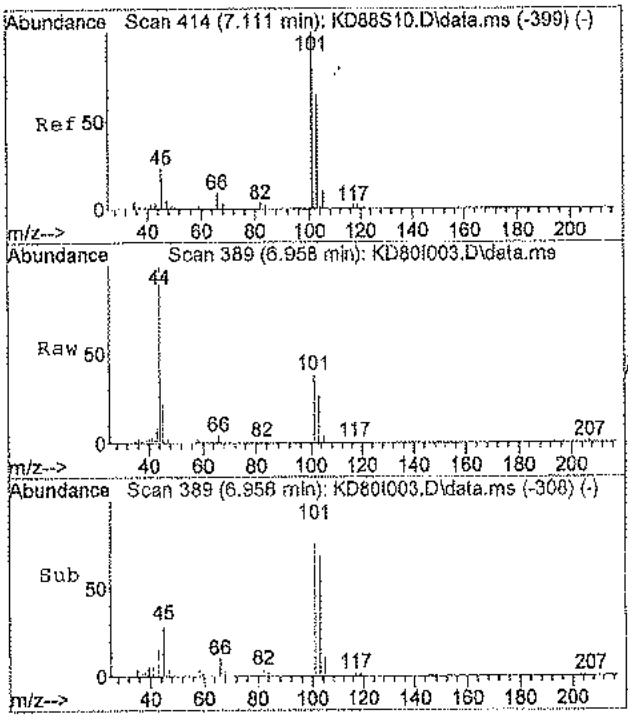


#11
Acetone
Concen: 9.59 ppb
RT: 6.78 min Scan# 360
Delta R.T. 0.00 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:43,1 Resp: 1918168

Ion	Ratio	Lower	Upper
43	100		
58	28.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

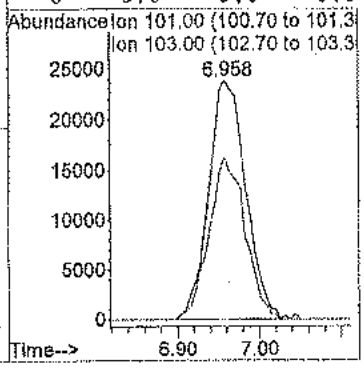


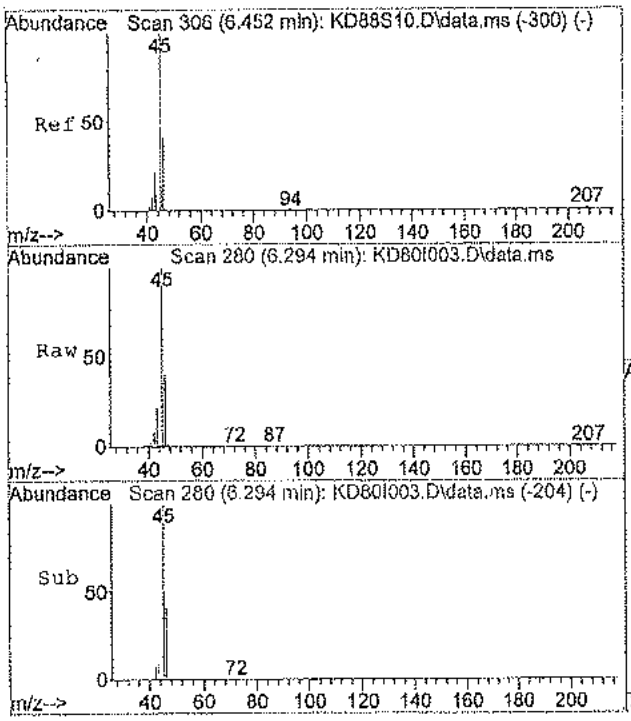


#12
Trichlorofluoromethane
Concen: 0.15 ppb
RT: 6.96 min Scan# 389
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:101 Resp: 74807

Ion	Ratio	Lower	Upper
101	100		
103	65.9	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

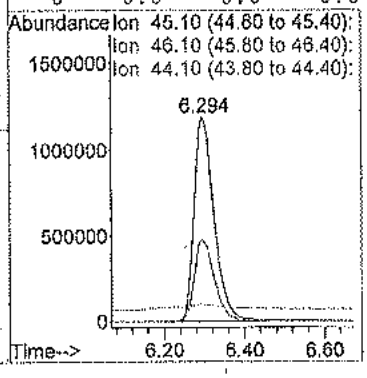


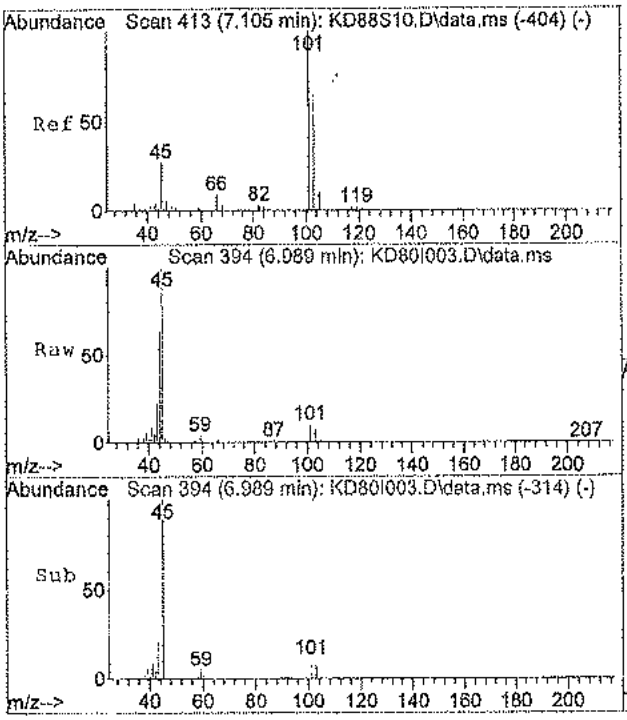


#13
Ethanol
Concen: 137.89 ppb
RT: 6.29 min Scan# 280
Delta R.T. -0.04 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:45.1 Resp: 4160573

Ion	Ratio	Lower	Upper
45	100		
46	40.6	32.4	48.6
44	2.4	23.4	35.2#
0	0.0	0.0	0.0

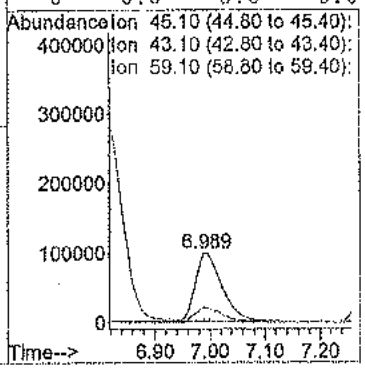


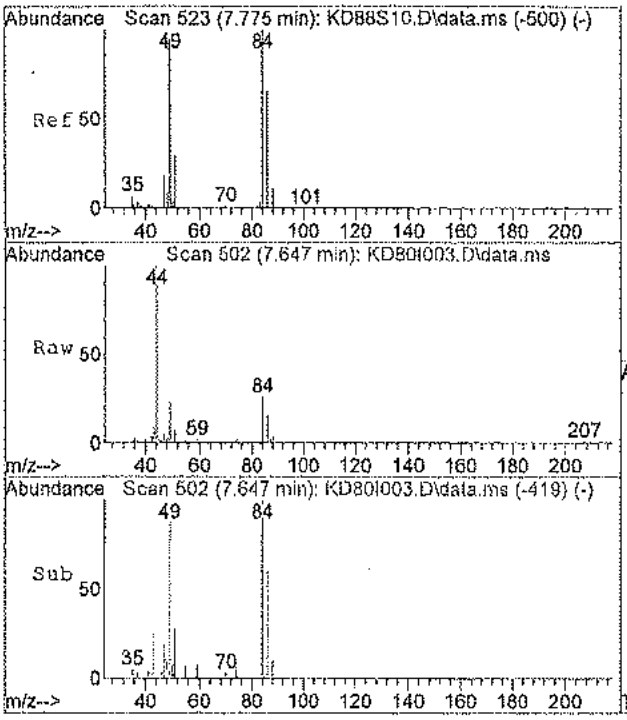


#14
Isopropyl Alcohol
Concen: 2.24 ppb
RT: 6.99 min Scan# 394
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:45.1 Resp: 338060

Ion	Ratio	Lower	Upper
45	100		
43	22.6	15.8	23.6
59	4.3	3.2	4.8
0	0.0	0.0	0.0

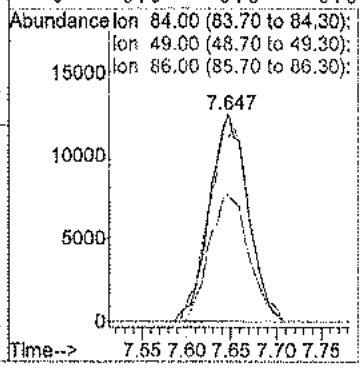


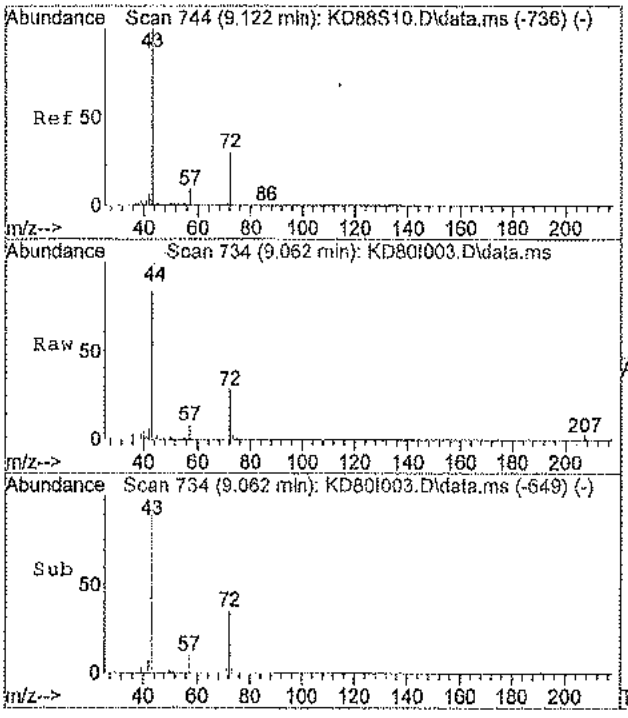


#16
Methylene Chloride
Concen: 0.34 ppb
RT: 7.65 min Scan# 502
Delta R.T. 0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:84 Resp: 36946

Ion	Ratio	Lower	Upper
84	100		
49	99.3	66.6	100.0
86	63.3	51.6	77.4
0	0.0	0.0	0.0

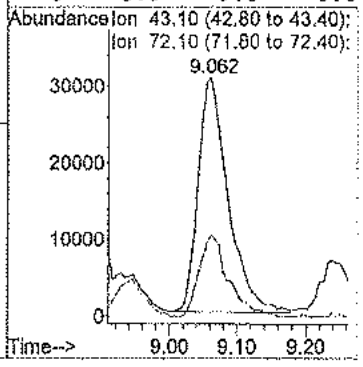


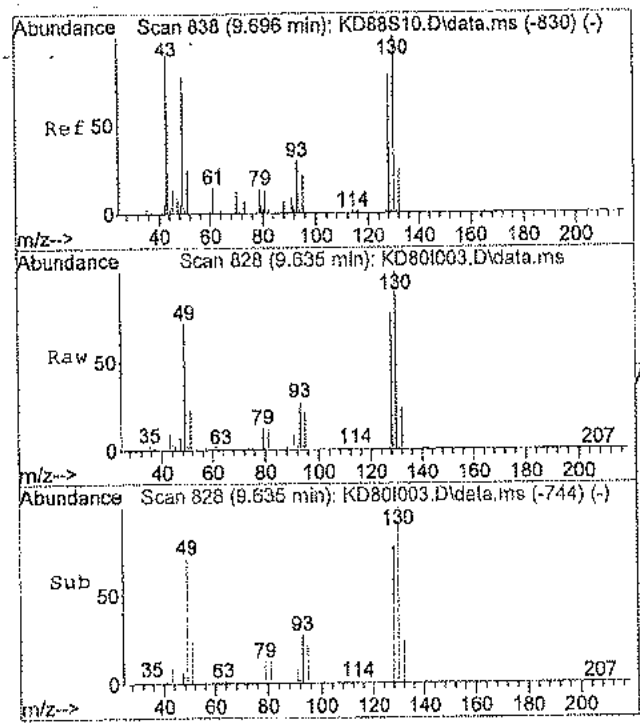


#23
2-Butanone
Concen: 0.50 ppb
RT: 9.06 min Scan# 734
Delta R.T. 0.02 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:43.1 Resp: 94496

Ion	Ratio	Lower	Upper
43	100		
72	34.0	31.1	46.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

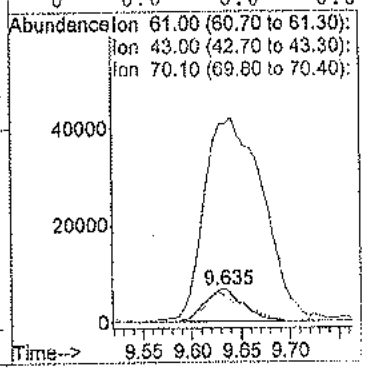


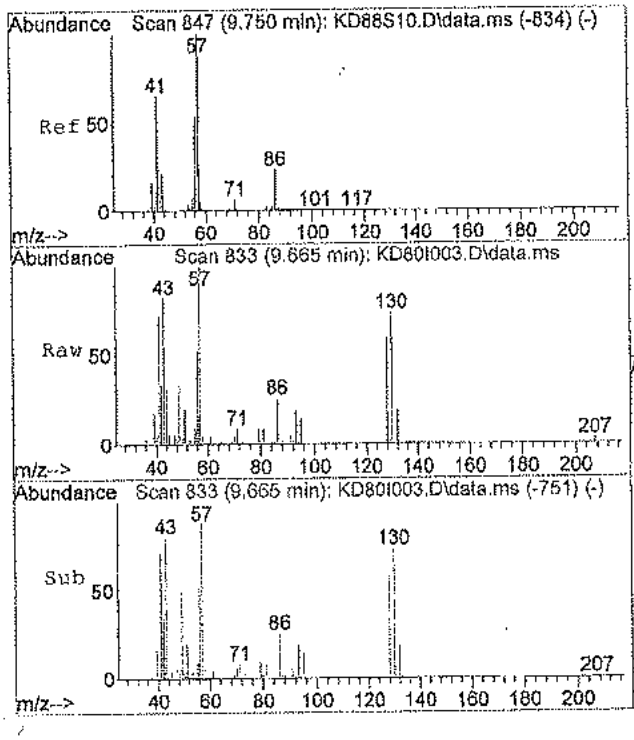


#26
Ethyl Acetate
Concen: 0.58 ppb
RT: 9.63 min Scan# 828
Delta R.T. 0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:61 Resp: 17943

Ion	Ratio	Lower	Upper
61	100		
43	984.7	144.0	216.0#
70	90.5	13.6	20.4#
0	0.0	0.0	0.0

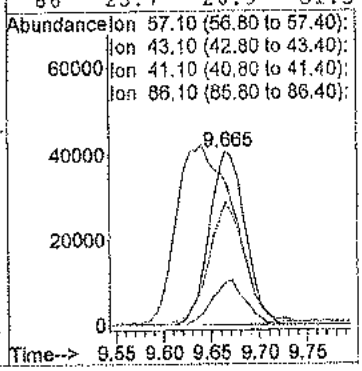


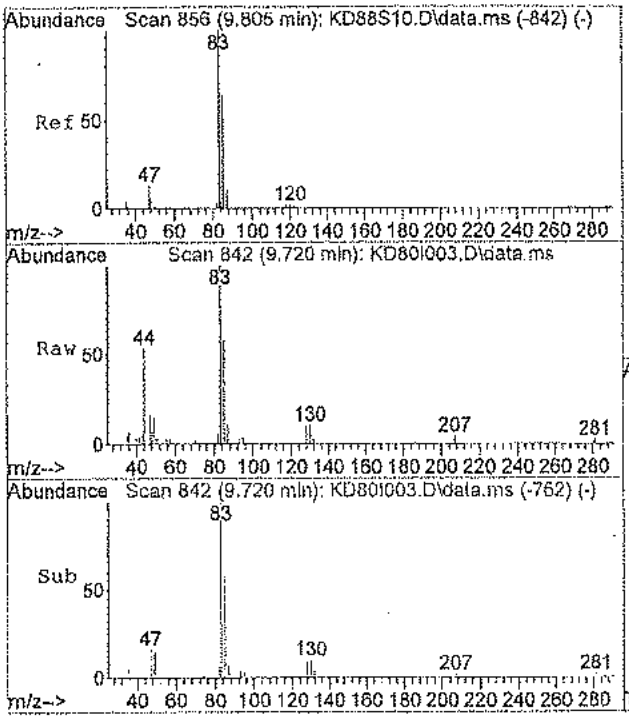


#27
Hexane
Concen: 0.78 ppb
RT: 9.67 min Scan# 833
Delta R.T. 0.00 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:57.1 Resp: 105292

Ion	Ratio	Lower	Upper
57	100		
43	0.0	57.3	85.9#
41	71.5	47.0	70.4#
86	23.7	20.9	31.3

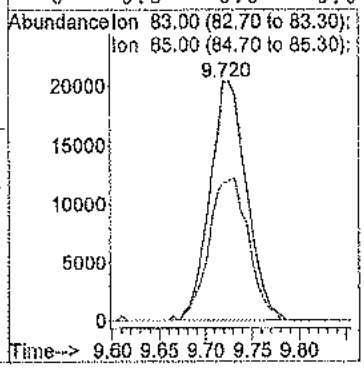


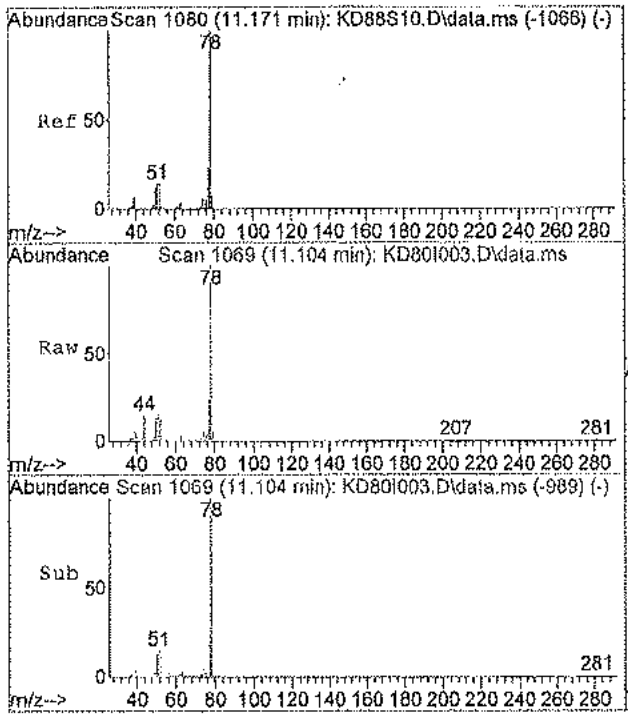


#28
Chloroform
Concen: 0.19 ppb
RT: 9.72 min Scan# 842
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:83 Resp: 56130

Ion	Ratio	Lower	Upper
83	100		
85	64.4	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

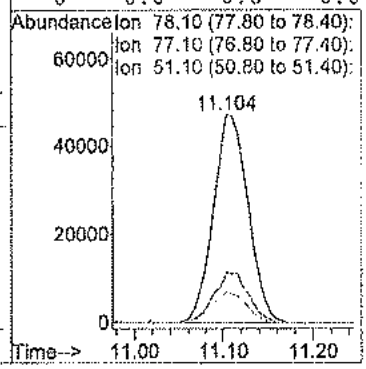


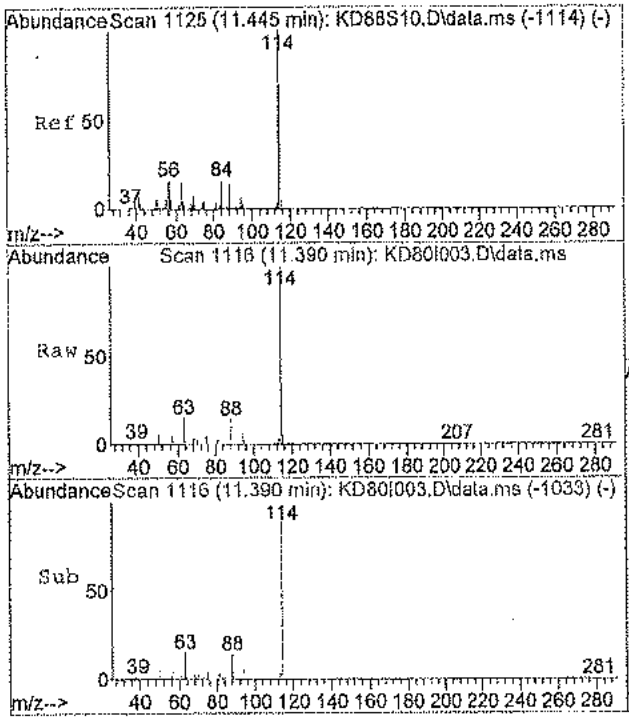


#32
Benzene
Concen: 0.47 ppb
RT: 11.10 min Scan# 1069
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:78.1 Resp: 126307

Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.2	27.4
51	14.5	9.5	14.3#
0	0.0	0.0	0.0

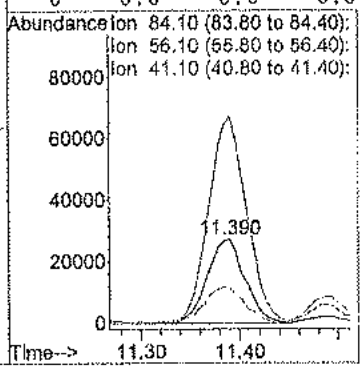


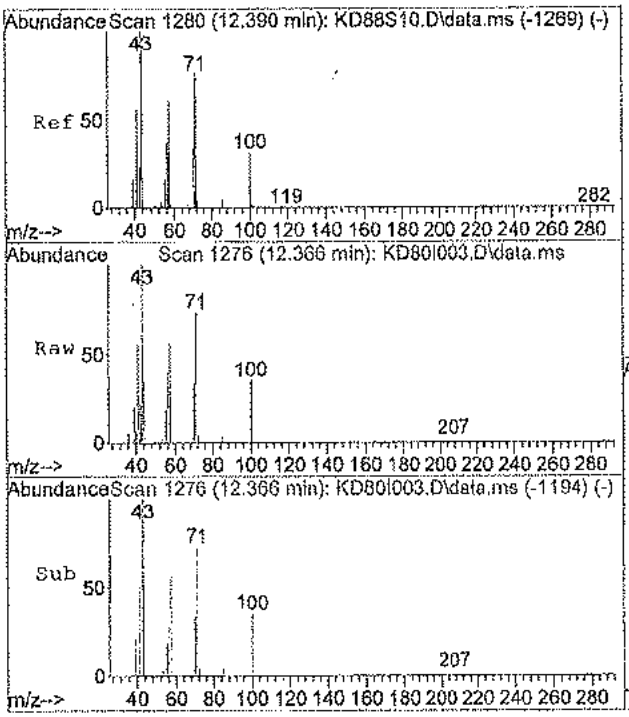


#34
Cyclohexane
Concen: 0.45 ppb
RT: 11.39 min Scan# 1116
Delta R.T. 0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:84.1 Resp: 70549

Ion	Ratio	Lower	Upper
84	100		
56	250.7	67.3	100.9#
41	46.2	30.2	45.4#
0	0.0	0.0	0.0

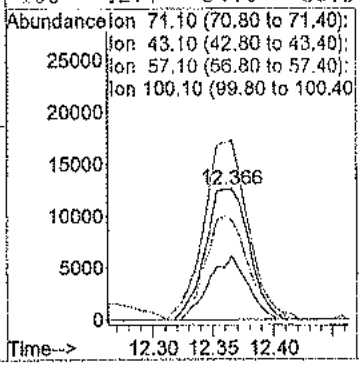


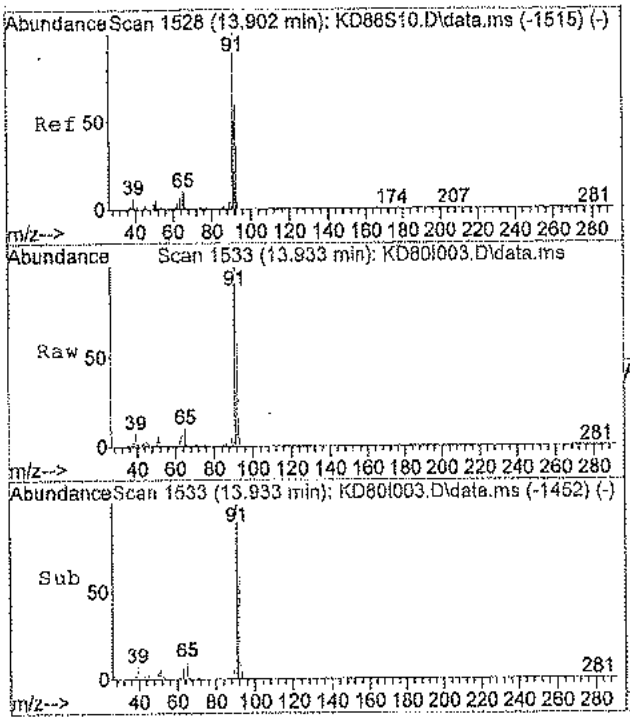


#40
Heptane
Concen: 0.31 ppb
RT: 12.37 min Scan# 1276
Delta R.T. 0.00 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:71.1 Resp: 31323

Ion	Ratio	Lower	Upper
71	100		
43	139.0	87.3	130.9#
57	77.7	57.8	86.6
100	42.7	34.8	52.2

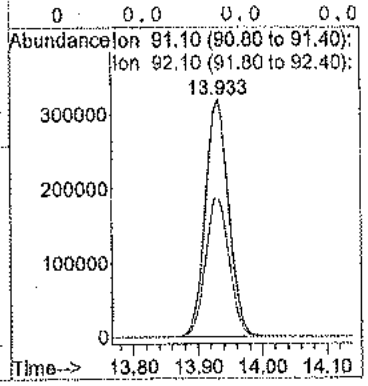


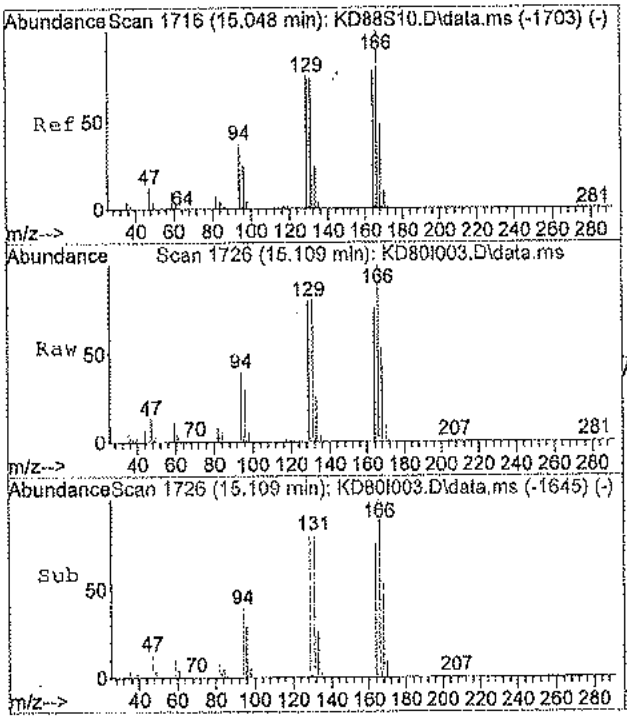


#45
Toluene
Concen: 2.13 ppb
RT: 13.93 min Scan# 1533
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:91.1 Resp: 807905

Ion	Ratio	Lower	Upper
91	100		
92	59.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

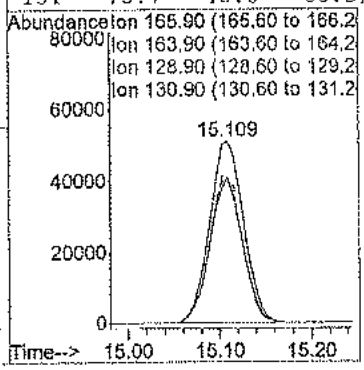


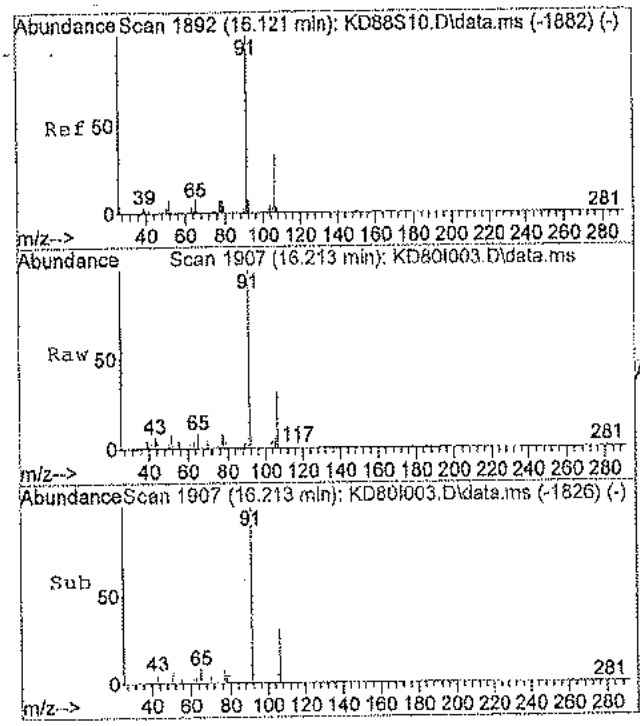


#49
Tetrachloroethene
Concen: 0.64 ppb
RT: 15.11 min Scan# 1726
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:165.9 Resp: 131037

Ion	Ratio	Lower	Upper
166	100		
164	79.0	61.0	91.4
129	77.5	45.9	68.9#
131	75.7	45.5	68.3#

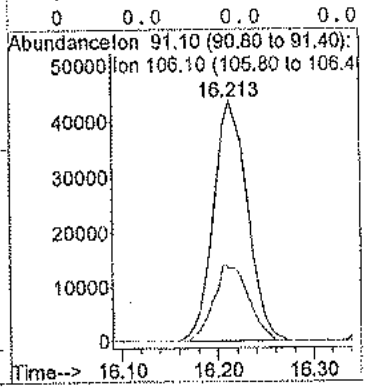


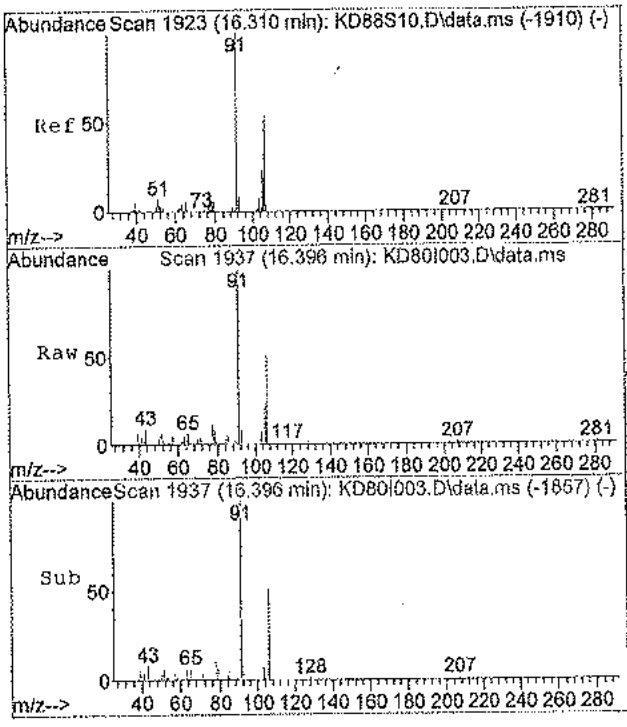


#52
Ethylbenzene
Concen: 0.19 ppb
RT: 16.21 min Scan# 1907
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:91.1 Resp: 106524

Ion	Ratio	Lower	Upper
91	100		
106	33.0	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

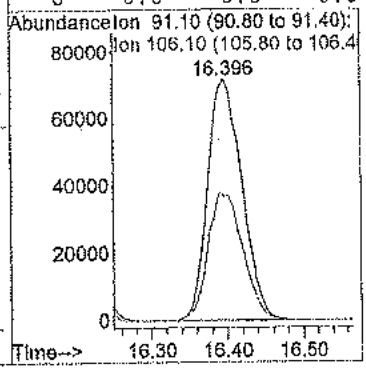


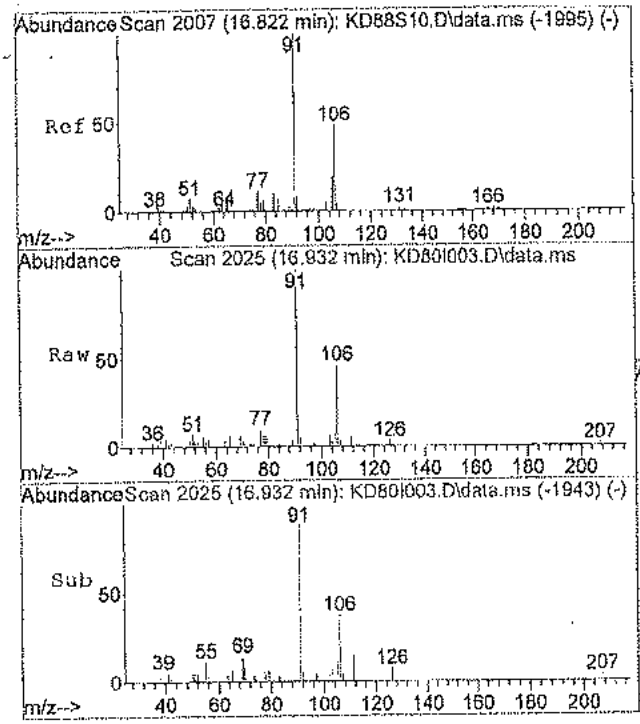


#53
m,p-Xylene
Concen: 0.44 ppb
RT: 16.40 min Scan# 1937
Delta R.T. -0.01 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:91.1 Resp: 222066

Ion	Ratio	Lower	Upper
91	100		
106	53.3	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

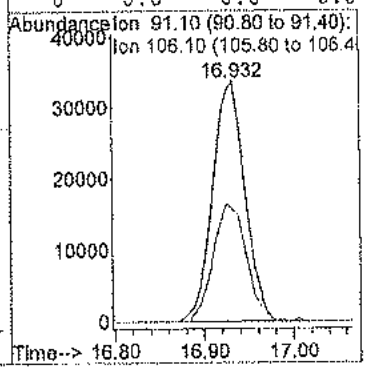




#57
o-Xylene
Concen: 0.16 ppb
RT: 16.93 min Scan# 2025
Delta R.T. 0.00 min
Lab File: KD80I003.D
Acq: 04/08/2015 18:21

Tgt Ion:91.1 Resp: 82863

Ion	Ratio	Lower	Upper
91	100		
106	49.7	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

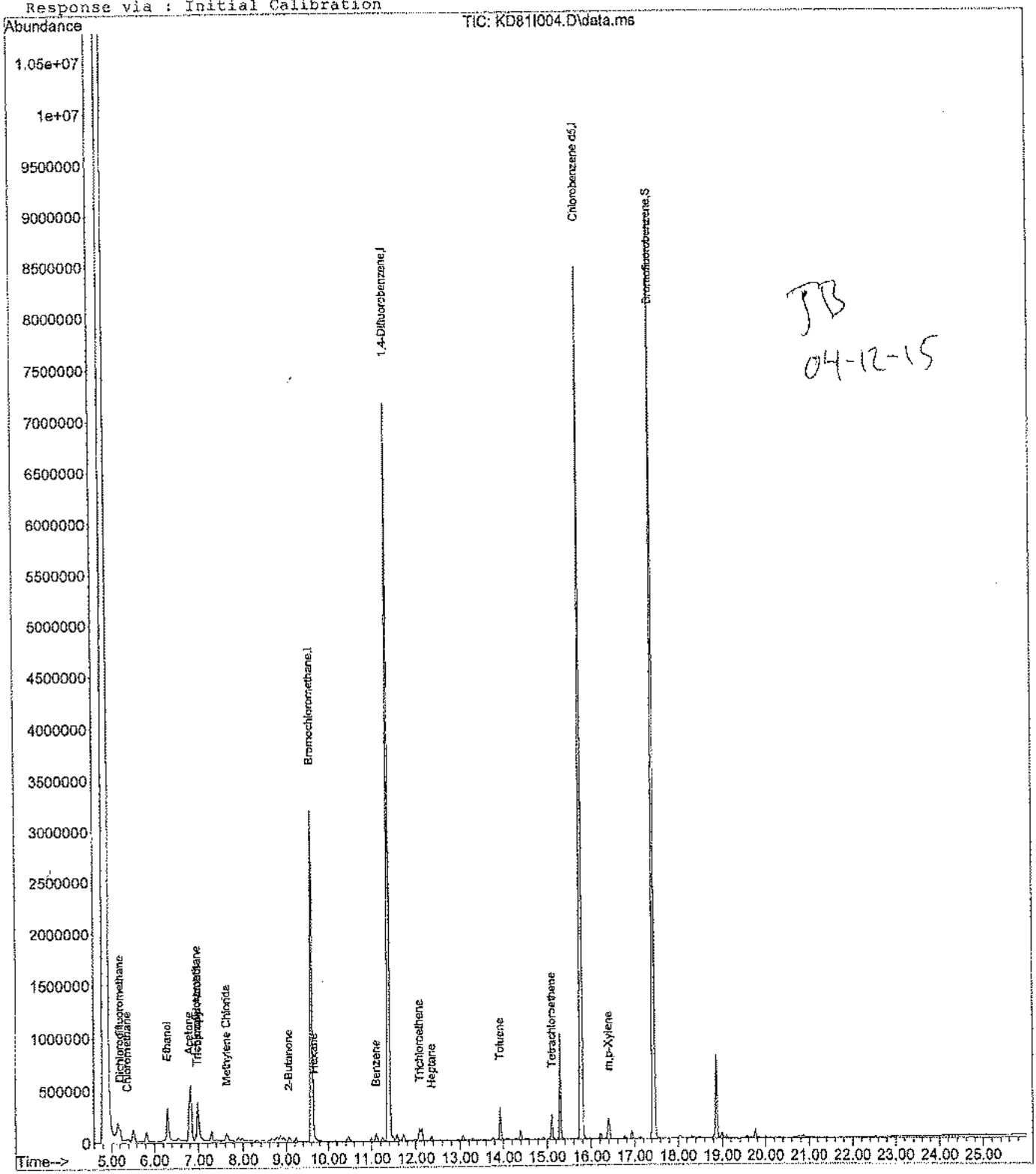


Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD81I004.D Vial: 12
Acq Time : 04/08/2015 19:07 Operator:
Sample : 1509795004 Inst : 5975-K
Misc : TO-001 CAFE 0199 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:31:55 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JB
04-12-15

Quantitation Report

Data File : J:\K\2015\APR15K\08APR15K\KD81I004.D Vial: 12
Acq Time : 04/08/2015 19:07 Operator:
Sample : 1509795004 Inst : 5975-K
Misc : TO-001 CAFE 0199 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:31:55 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.61	130	758784	20.0000 ppb	88.95
25) 1,4-Difluorobenzene	11.39	114	9575719	20.0000 ppb	85.84
50) Chlorobenzene d5	15.77	117	8716652	20.0000 ppb	90.40
System Monitoring Compounds					**%Recovery**
58) Bromofluorobenzene	17.44	95	5241441	17.0942 ppb	85.47%
Target Compounds					**Qvalue**
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	5.21	85	159513	0.3415 ppb	99
4) Chloromethane	5.38	50	38530	0.4651 ppb	96
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	6.79	43	863133	4.2729 ppb #	81
12) Trichlorofluoromethane	6.96	101	101034	0.2061 ppb	99
13) Ethanol	6.29	45	643120	21.1000 ppb T1C	80
14) Isopropyl Alcohol	6.98	45	740486	4.8652 ppb T1C	98
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.64	84	61743	0.5554 ppb	92
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	9.06	43	72155	0.3783 ppb	92
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	9.67	57	30607	0.2337 ppb #	60
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.10	78	90576	0.3423 ppb	97
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	12.09	130	65692	0.3737 ppb	96
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	12.36	71	19504	0.2010 ppb #	83
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.93	91	358779	0.9147 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	15.11	166	113088	0.5695 ppb #	86

(#) = qualifier out of range (m) = manual integration

Quantitation Report

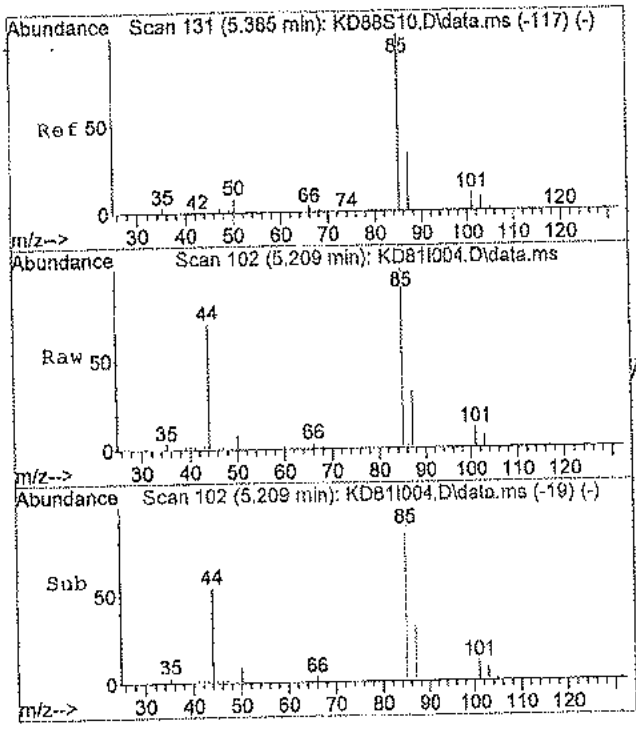
Data File : J:\K\2015\APR15K\08APR15K\KD81I004.D Vial: 12
Acq Time : 04/08/2015 19:07 Operator:
Sample   : 1509795004 Inst   : 5975-K
Misc   : TO-001 CAFE 0199 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 10:31:55 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title   : TO-15
Last Update : Wed Apr 08 13:39:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	16.40	91	215233	0.4314 ppb	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

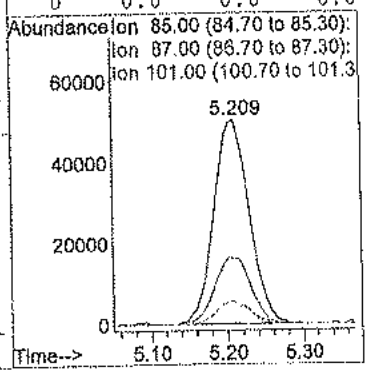
(#) = qualifier out of range (m) = manual integration

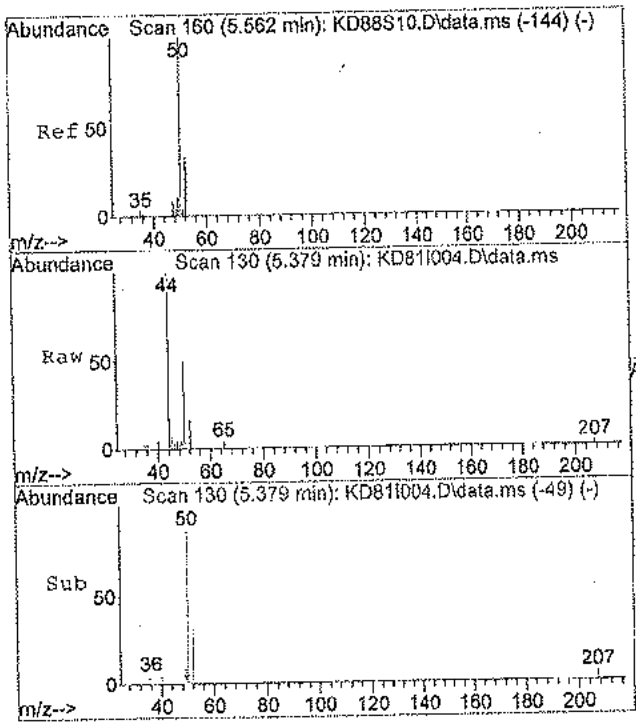


#3
Dichlorodifluoromethane
Concen: 0.34 ppb
RT: 5.21 min Scan# 102
Delta R.T. 0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:85 Resp: 159513

Ion	Ratio	Lower	Upper
85	100		
87	33.4	26.1	39.1
101	10.6	8.0	12.0
0	0.0	0.0	0.0

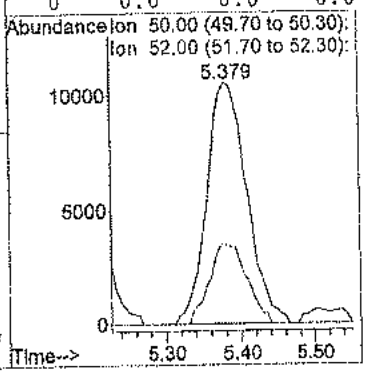


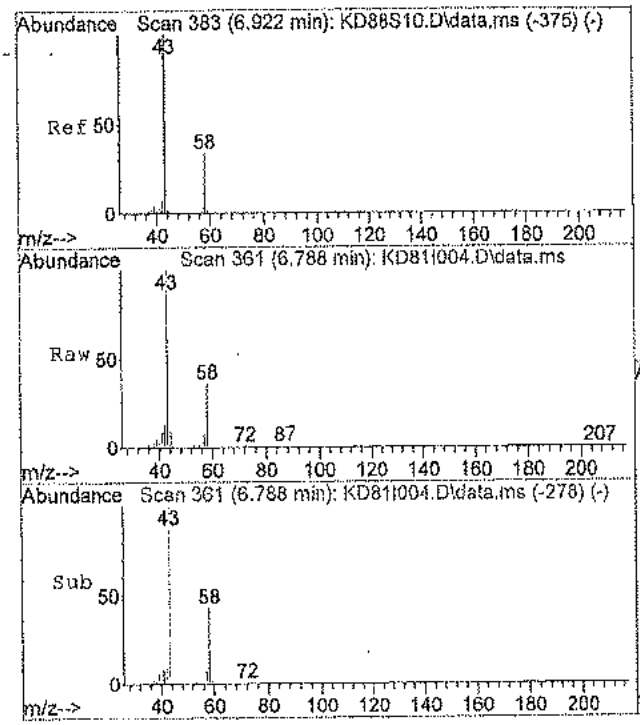


#4
Chloromethane
Concen: 0.47 ppb
RT: 5.38 min Scan# 130
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:50 Resp: 38530

Ion	Ratio	Lower	Upper
50	100		
52	31.1	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

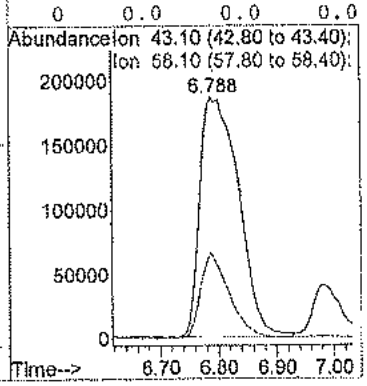


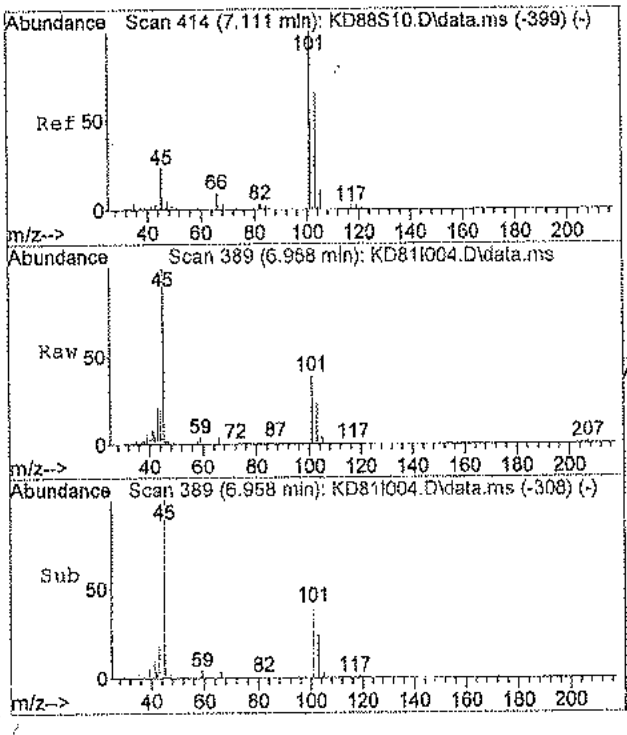


#11
Acetone
Concen: 4.27 ppb
RT: 6.79 min Scan# 361
Delta R.T. 0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:43.1 Resp: 863133

Ion	Ratio	Lower	Upper
43	100		
58	26.9	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

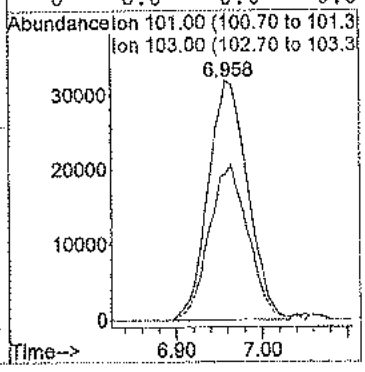


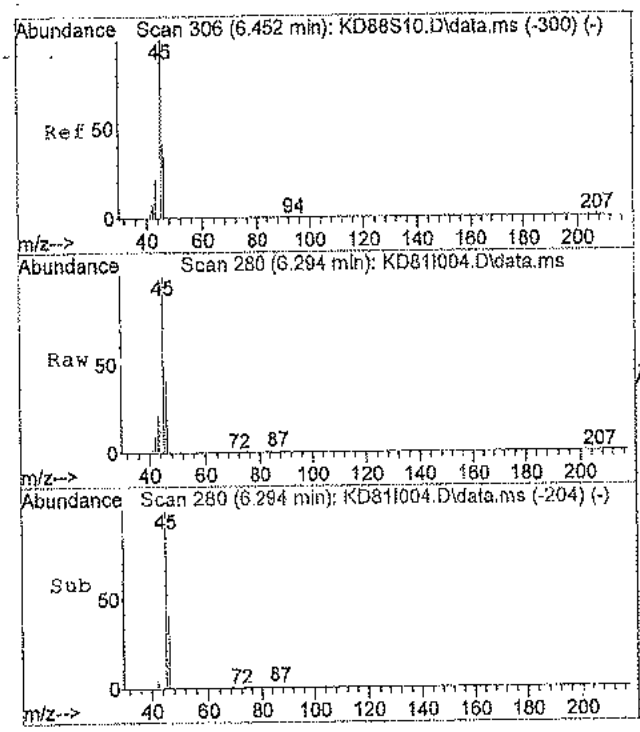


#12
Trichlorofluoromethane
Concen: 0.21 ppb
RT: 6.96 min Scan# 389
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:101 Resp: 101034

Ion	Ratio	Lower	Upper
101	100		
103	63.9	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

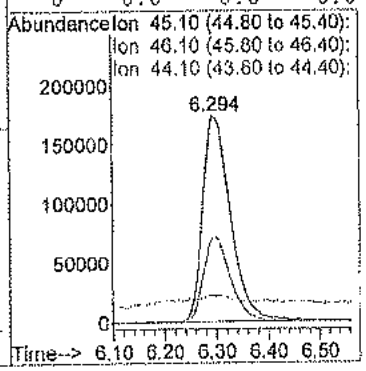


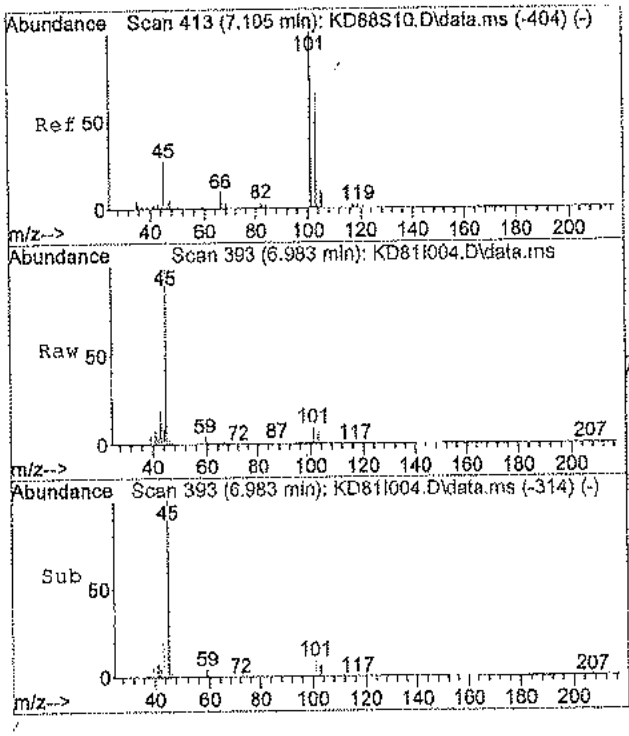


#13
Ethanol
Concen: 21.10 ppb
RT: 6.29 min Scan# 280
Delta R.T. -0.04 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:45.1 Resp: 643120

Ion	Ratio	Lower	Upper
45	100		
46	41.0	32.4	48.6
44	4.8	23.4	35.2#
0	0.0	0.0	0.0

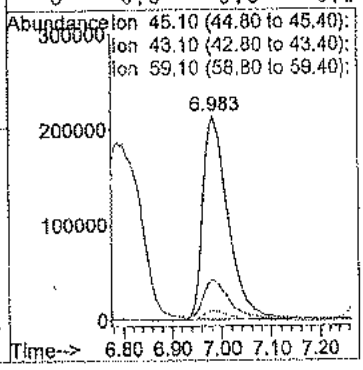


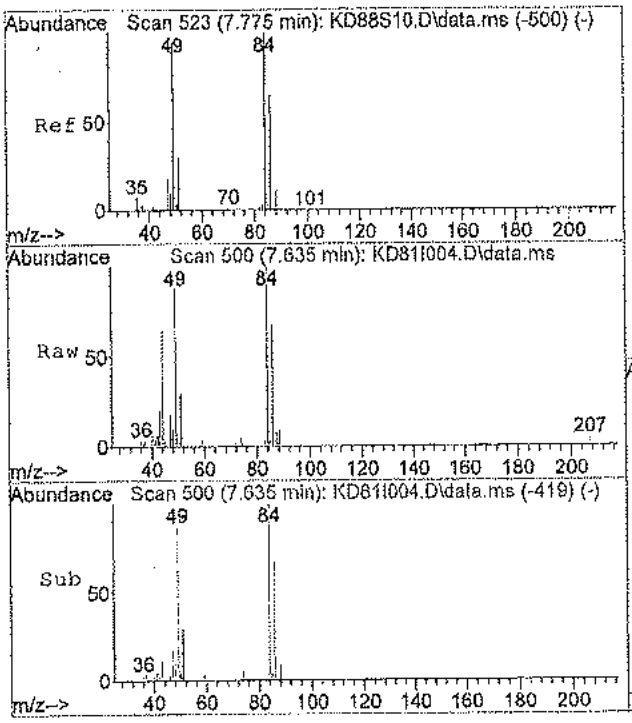


#14
Isopropyl Alcohol
Concen: 4.87 ppb
RT: 6.98 min Scan# 393
Delta R.T. -0.02 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:45.1 Resp: 740486

Ion	Ratio	Lower	Upper
45	100		
43	18.5	15.8	23.6
59	4.4	3.2	4.8
0	0.0	0.0	0.0

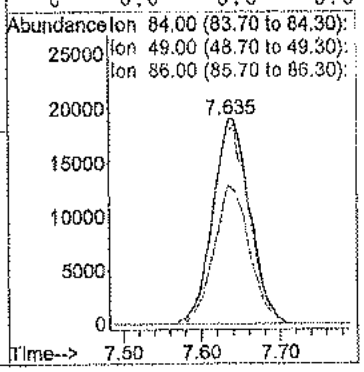


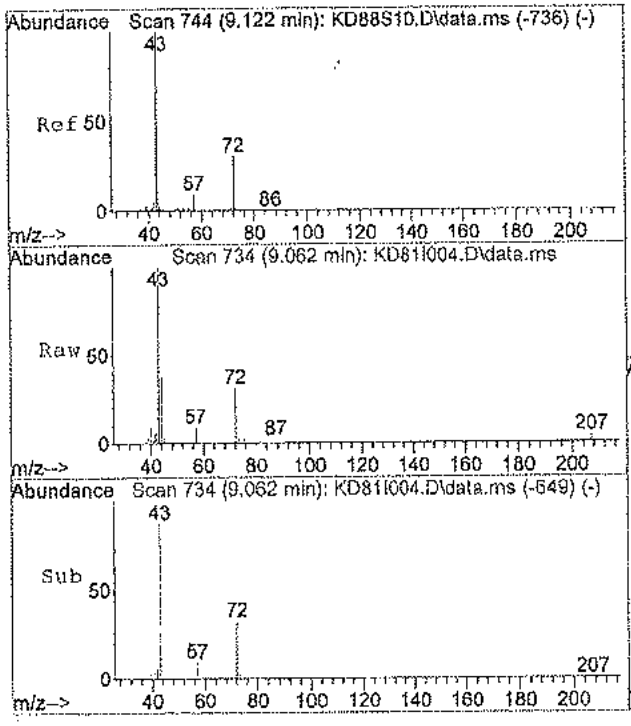


#16
Methylene Chloride
Concen: 0.56 ppb
RT: 7.64 min Scan# 500
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:84 Resp: 61743

Ion	Ratio	Lower	Upper
84	100		
49	95.5	66.6	100.0
86	64.4	51.6	77.4
0	0.0	0.0	0.0

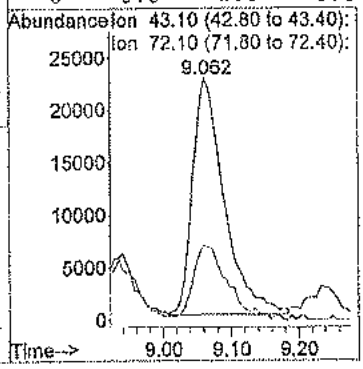


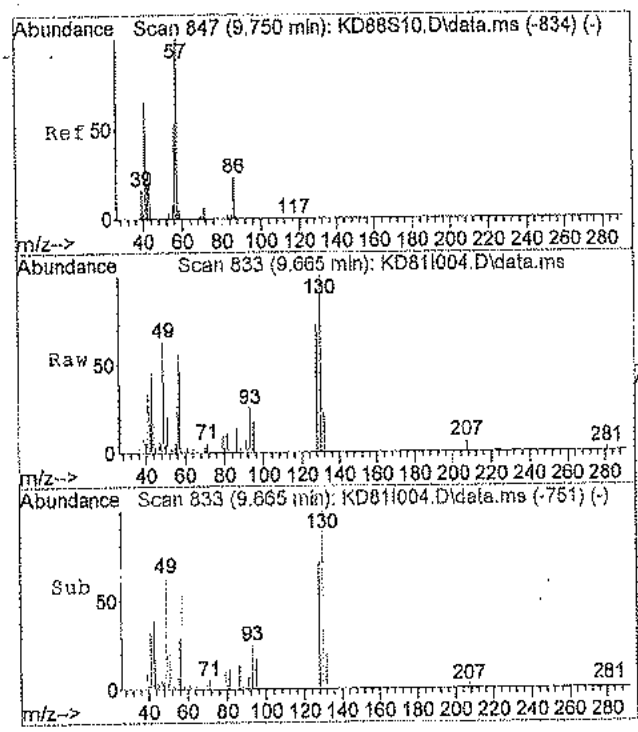


#23
2-Butanone
Concen: 0.38 ppb
RT: 9.06 min Scan# 734
Delta R.T. 0.02 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:43.1 Resp: 72155

Ion	Ratio	Lower	Upper
43	100		
72	33.9	31.1	46.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

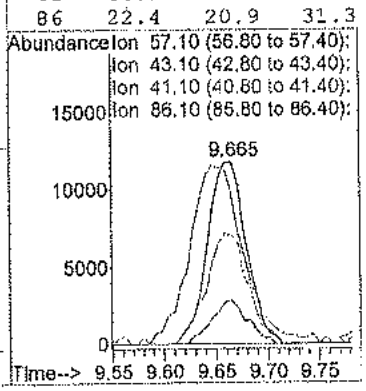


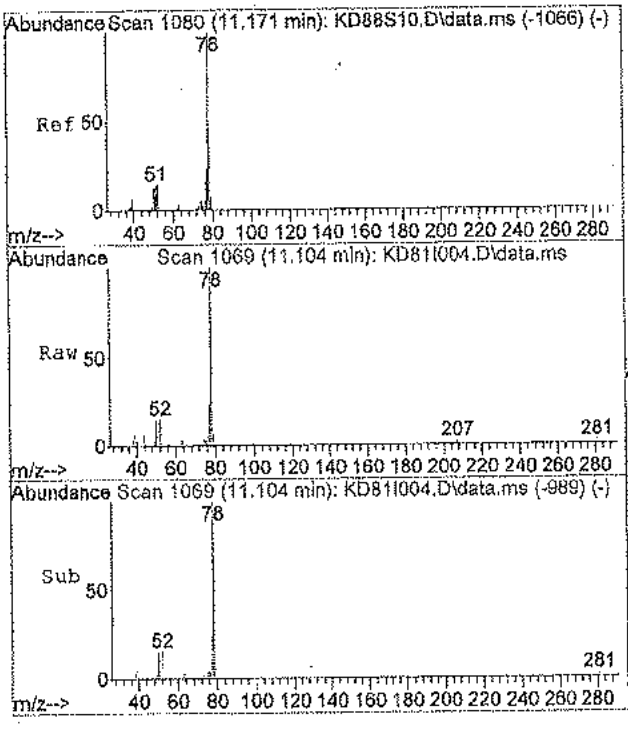


#27
Hexane
Concen: 0.23 ppb
RT: 9.67 min Scan# 833
Delta R.T. 0.00 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:57.1 Resp: 30607

Ion	Ratio	Lower	Upper
57	100		
43	136.5	57.3	85.9#
41	64.9	47.0	70.4
86	22.4	20.9	31.3

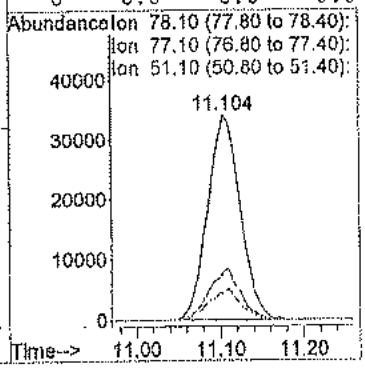


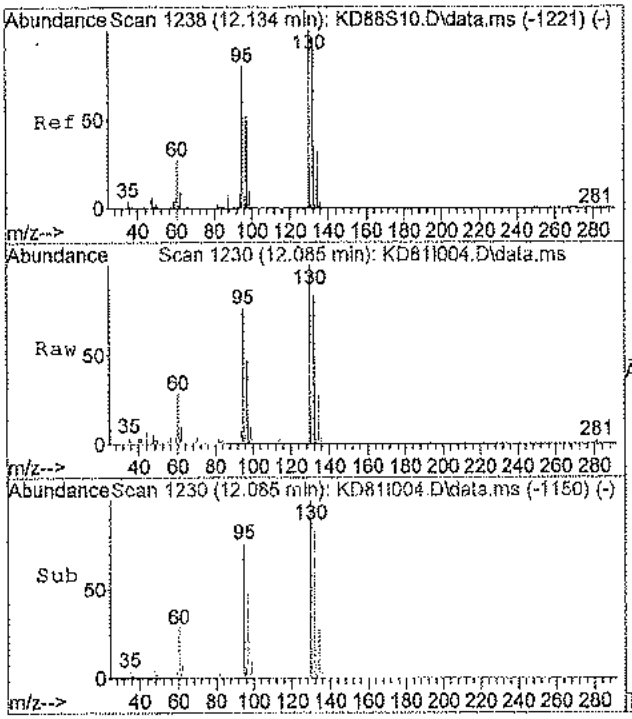


#32
Benzene
Concen: 0.34 ppb
RT: 11.10 min Scan# 1069
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:78.1 Resp: 90576

Ion	Ratio	Lower	Upper
78	100		
77	23.5	18.2	27.4
51	14.0	9.5	14.3
0	0.0	0.0	0.0

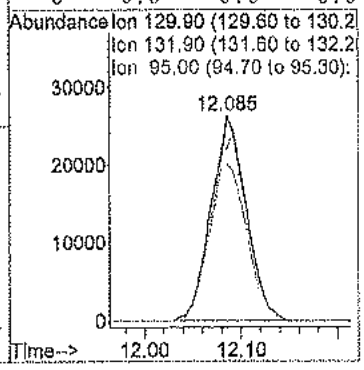


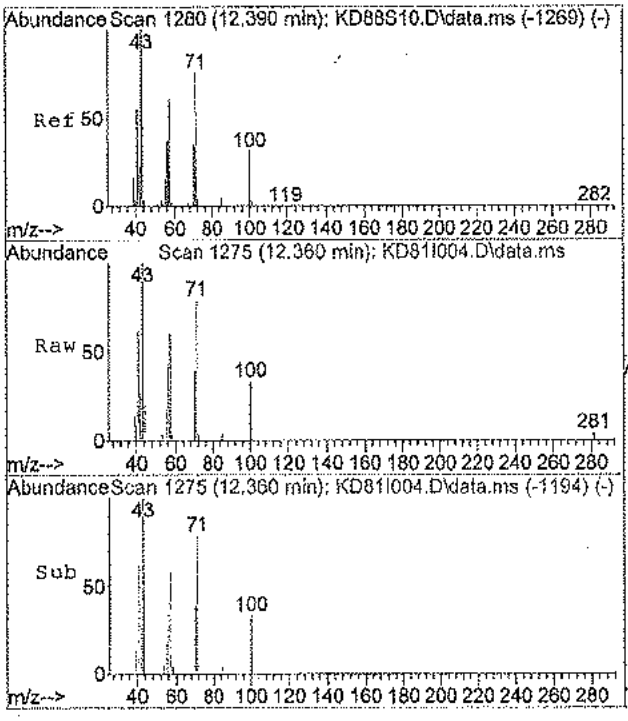


#38
Trichloroethene
Concen: 0.37 ppb
RT: 12.09 min Scan# 1230
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:129.9 Resp: 65692

Ion	Ratio	Lower	Upper
130	100		
132	94.9	77.1	115.7
95	82.3	61.7	92.5
0	0.0	0.0	0.0

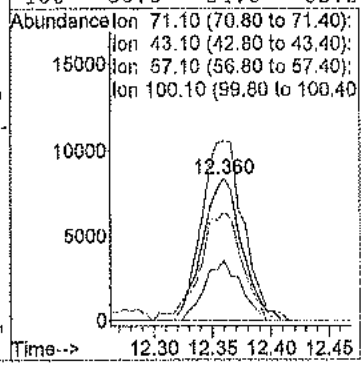


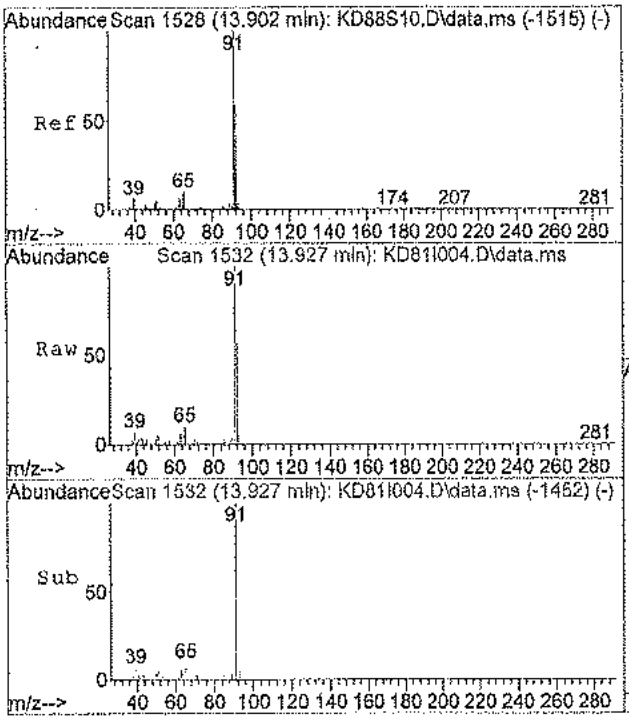


#40
Heptane
Concen: 0.20 ppb
RT: 12.36 min Scan# 1275
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:71.1 Resp: 19504

Ion	Ratio	Lower	Upper
71	100		
43	138.0	87.3	130.9#
57	78.8	57.8	86.6
100	38.5	34.8	52.2

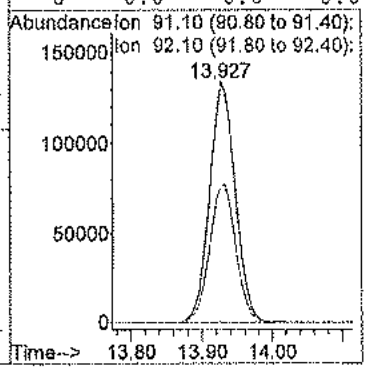


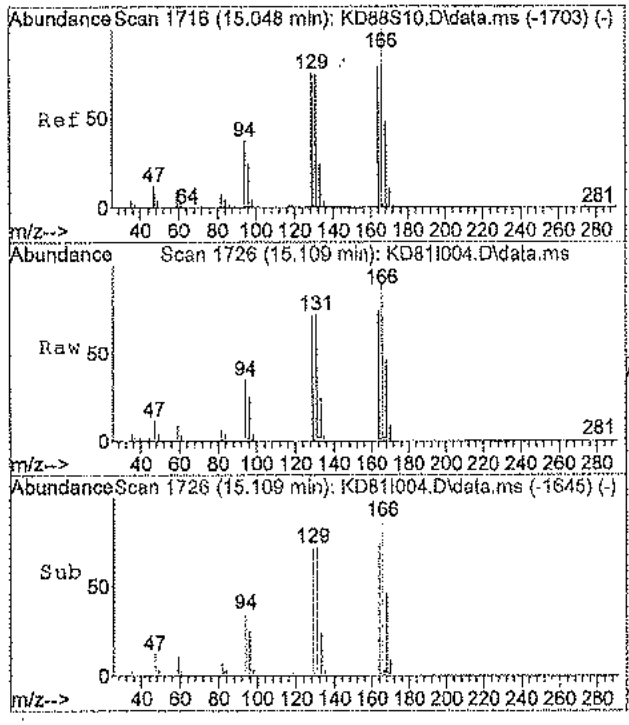


#45
Toluene
Concen: 0.91 ppb
RT: 13.93 min Scan# 1532
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:91.1 Resp: 338779

Ion	Ratio	Lower	Upper
91	100		
92	58.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

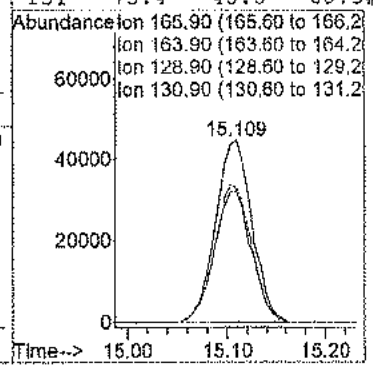


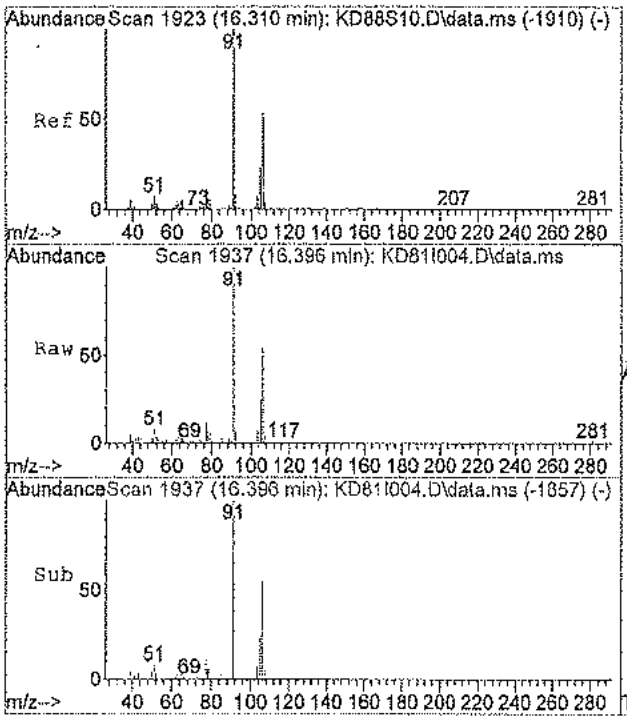


#49
Tetrachloroethene
Concen: 0.57 ppb
RT: 15.11 min Scan# 1726
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:165.9 Resp: 113088

Ion	Ratio	Lower	Upper
166	100		
164	76.6	61.0	91.4
129	74.3	45.9	68.9#
131	73.4	45.5	68.3#

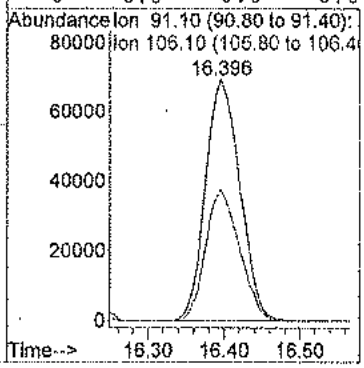




#53
m,p-Xylene
Concen: 0.43 ppb
RT: 16.40 min Scan# 1937
Delta R.T. -0.01 min
Lab File: KD81I004.D
Acq: 04/08/2015 19:07

Tgt Ion:91.1 Resp: 215233

Ion	Ratio	Lower	Upper
91	100		
106	53.2	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Batch Worklist

Batch: IVOA/ 2874
Rule: EPA TO-15, Air
Created: 4/13/2015 11:45
Analyst: J. Baum
Instrument: 5975-K
Status: WP
HBN: 146913

Workorder: 1509795

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442047	LCS for HBN 146913 (IVOA/2874)				LCS	1		ETO15...1Q			6/12/2015	4/10/2015
2	442048	LCSD for HBN 146913 (IVOA/2874				LCSD	1		ETO15...1Q			6/12/2015	4/10/2015
3	442042	RLVS for HBN 146913 (IVOA/2874				RLVS	1		ETO15...1Q	6186		4/14/2015	4/10/2015
4	442049	MB for HBN 146913 (IVOA/2874)				MB	1		ETO15...1Q			6/12/2015	4/10/2015
5	1509795005	A00225-040715-TO-002-CR330				SAMPLE	1	1509795005-A	ETO15....1	5480		4/14/2015	4/10/2015

Analyst Notebook

146913

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is TO15ICC15.M (HBN 146582)

The following compounds in the CCS were outside of +-30%: Acetone,
Dichlorodifluoromethane
1,2-Dichloroethane
Styrene

For 15 09795 001-004 see HBN 146887

Analyst Signature: J C B
Jorden Baum
04-13-15

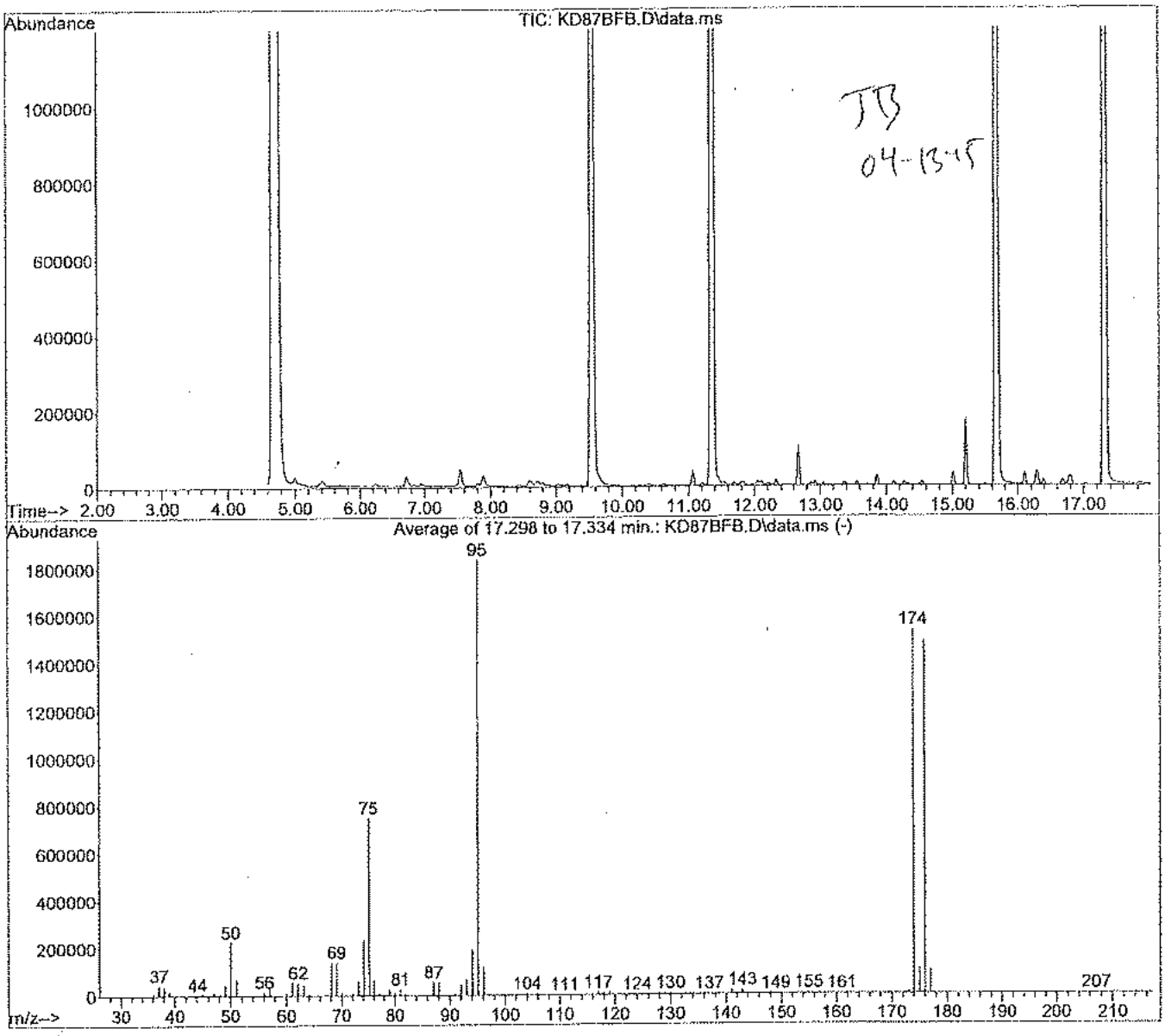
ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company

146913

BFB

Data File : J:\K\2015\APR15K\10APR15K\KD87BFB.D Vial: 1
Acq Time : 04/10/2015 09:02 Operator:
Sample : BFB Inst : 5975-K
Misc : 107IS31253 0083/0632/0290/218/0387/0401/ Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15



JB
04-13-15

Peak Apex is scan: Average of 17.298 to 17.334 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	12.32	225813	PASS
75	95	30	66	40.84	748794	PASS
95	95	100	100	100.00	1833341	PASS
96	95	5	9	6.45	118161	PASS
173	174	0.00	2	0.62	9434	PASS
174	95	50	120	83.59	1532457	PASS
175	174	5	9	7.03	107749	PASS
176	174	93	101	96.92	1485281	PASS
177	176	5	9	6.45	95863	PASS

Average of 17.298 to 17.334 min.: KD87BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.10	7402.0
37.10	42879.0
38.10	38638.0
39.10	15617.0
40.05	494.0
43.00	268.0
44.10	4581.0
45.10	8946.0
46.15	447.0
47.10	13372.0
48.10	5892.0
49.10	44120.0
50.05	225813.0
51.10	69036.0
52.10	3098.0
55.10	2480.0
56.10	15711.0
57.10	30327.0
58.10	1227.0
60.10	10292.0
61.10	53552.0
62.05	54601.0
63.10	41090.0
64.10	3496.0
65.10	111.0
67.05	3146.0
68.10	136996.0
69.05	139338.0
70.10	9864.0
71.10	273.0
72.10	6688.0
73.10	57605.0
74.10	232606.0
75.10	748794.0
76.10	63457.0
77.10	7108.0
78.05	4774.0
79.00	25328.0
80.00	8805.0
81.00	26865.0
82.00	6378.0
83.05	567.0
86.00	1171.0
87.10	55963.0
88.05	53974.0
91.00	4304.0
92.05	43266.0
93.10	66470.0
94.10	190815.0
95.10	1833341.0
96.10	118161.0
97.10	3437.0
102.95	427.0
103.20	62.0
104.00	5605.0
105.00	2103.0
106.00	5441.0
107.00	1450.0
109.95	612.0
110.95	768.0
112.00	578.0
112.95	912.0
115.00	1531.0
116.00	4889.0
117.00	9515.0
118.00	5243.0
119.00	7883.0
120.00	179.0
121.95	251.0
122.95	303.0
123.95	948.0
124.95	462.0
126.00	556.0
127.00	455.0
128.00	6459.0
129.05	3182.0
130.00	6601.0
131.00	2711.0
131.95	341.0
134.00	363.0
135.00	2723.0
135.95	332.0
137.00	2695.0
138.95	535.0
139.95	968.0
141.00	15636.0
142.00	1805.0
143.00	16528.0
144.00	882.0

145.05	1232.0
146.00	2690.0
147.05	1166.0
148.00	4347.0
148.95	1406.0
150.00	1881.0
151.95	937.0
153.00	1373.0
154.05	1184.0
155.05	4850.0
156.00	664.0
157.00	3242.0
158.10	174.0
159.00	2414.0
161.00	2083.0
172.10	608.0
173.10	9434.0
174.00	1532457.0
175.00	107749.0
176.00	1485281.0
176.95	95863.0
178.05	2541.0
207.10	82.0

Continuing Calibration Report 5975-K

Method Path : J:\K\METHODS\
Method File : TO15KC15.m
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response Via : Initial Calibration

CC Data File: KD88S10.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
1	I	Bromochloromethane	1.000	1.000	0.0	97	
2		Propene	1.747	1.482	15.2	76	TK
3		Dichlorodifluoromethane	12.312	8.122	34.0#	62	
4		Chloromethane	2.183	2.029	7.1	89	
5		Freon 114	9.467	7.494	20.8	74	
6		Vinyl Chloride	2.814	2.608	7.3	89	
7		1,3-Butadiene	2.024	1.815	10.3	85	
8		Bromomethane	3.354	2.900	13.5	83	
9		Chloroethane	1.391	1.396	-0.4	97	
10		Acrolein	0.773	0.825	-6.8	87	TK
11		Acetone	5.324	3.062	42.5#	58	
12		Trichlorofluoromethane	12.922	9.394	27.3	68	
13		Ethanol	0.803	0.367	54.3#	43#	TK
14		Isopropyl Alcohol	4.012	2.304	42.6#	50#	TK
15		1,1-Dichloroethene	4.452	4.270	4.1	83	
16		Methylene Chloride	2.930	2.811	4.1	102	
17		Freon 113	5.921	6.411	-8.3	102	
18		Carbon Disulfide	7.097	7.924	-11.7	103	
19		trans-1,2-Dichloroethene	2.741	3.395	-23.9	110	
20		1,1-Dichloroethane	4.888	4.929	-0.8	93	
21		methyl t-butyl ether	7.580	8.529	-12.5	94	
22		Vinyl Acetate	0.666	0.848	-27.4	111	
23		2-Butanone	5.028	4.279	14.9	75	
24		cis-1,2-Dichloroethene	2.751	3.544	-28.8	111	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	
26		Ethyl Acetate	0.063	0.059	6.8	89	
27		Hexane	0.274	0.288	-5.3	98	
28		Chloroform	0.602	0.489	18.9	81	
29		Tetrahydrofuran	0.185	0.170	8.0	81	
30		1,2-Dichloroethane	0.419	0.292	30.3#	69	
31		1,1,1-Trichloroethane	0.715	0.583	18.5	80	
32		Benzene	0.553	0.701	-26.8	118	
33		Carbon Tetrachloride	0.845	0.667	21.0	77	
34		Cyclohexane	0.318	0.327	-2.7	110	
35		1,2-Dichloropropane	0.191	0.228	-18.9	113	
36		Bromodichloromethane	0.630	0.550	12.7	85	
37		1,4-Dioxane	0.133	0.118	11.3	75	TK
38		Trichloroethene	0.367	0.447	-21.6	114	
39		Methyl Methacrylate	0.211	0.240	-13.7	99	TK
40		Heptane	0.203	0.241	-19.0	107	
41		cis-1,3-Dichloropropene	0.347	0.418	-20.5	104	
42		4-Methyl-2-Pentanone	0.480	0.405	15.5	74	
43		trans-1,3-Dichloropropene	0.347	0.398	-14.9	97	
44		1,1,2-Trichloroethane	0.301	0.323	-7.3	107	
45		Toluene	0.774	0.985	-27.4	110	
46		2-Hexanone	0.433	0.347	19.8	67	
47		Dibromochloromethane	0.695	0.631	9.2	86	
48		1,2-Dibromoethane	0.489	0.514	-5.1	97	
49		Tetrachloroethene	0.415	0.536	-29.2	120	
50	I	Chlorobenzene d5	1.000	1.000	0.0	101	
51		Chlorobenzene	0.955	1.011	-5.9	106	
52		Ethylbenzene	1.260	1.492	-18.4	100	
53		m,p-Xylene	1.145	1.147	-0.2	90	
54		Bromoform	0.636	0.654	-2.8	96	
55		Styrene	0.676	0.880	-30.2#	102	
56		1,1,2,2-Tetrachloroethane	0.711	0.560	21.2	80	
57		o-Xylene	1.172	1.099	6.3	84	

Method Path : J:\K\METHODS\
Method File : TO15KC15.m
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response Via : Initial Calibration

CC Data File: KD88S10.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	
58 S	Bromofluorobenzene	0.704	0.565	19.8	81	
59	4-Ethyl Toluene	1.391	1.407	-1.2	87	
60	1,3,5-Trimethylbenzene	1.332	1.199	10.0	79	
61	1,2,4-Trimethylbenzene	1.120	1.089	2.7	78	
62	Benzyl Chloride	0.847	0.713	15.8	71	
63	m-Dichlorobenzene	0.889	0.750	15.7	82	
64	p-Dichlorobenzene	0.817	0.714	12.6	83	
65	o-Dichlorobenzene	0.719	0.632	12.1	82	
66	1,2,4-Trichlorobenzene	0.228	0.186	18.4	71	TK
67	Naphthalene	0.612	0.500	18.4	62	TK
68	Hexachloro-1,3-butadiene	0.301	0.180	40.1#	69	TK

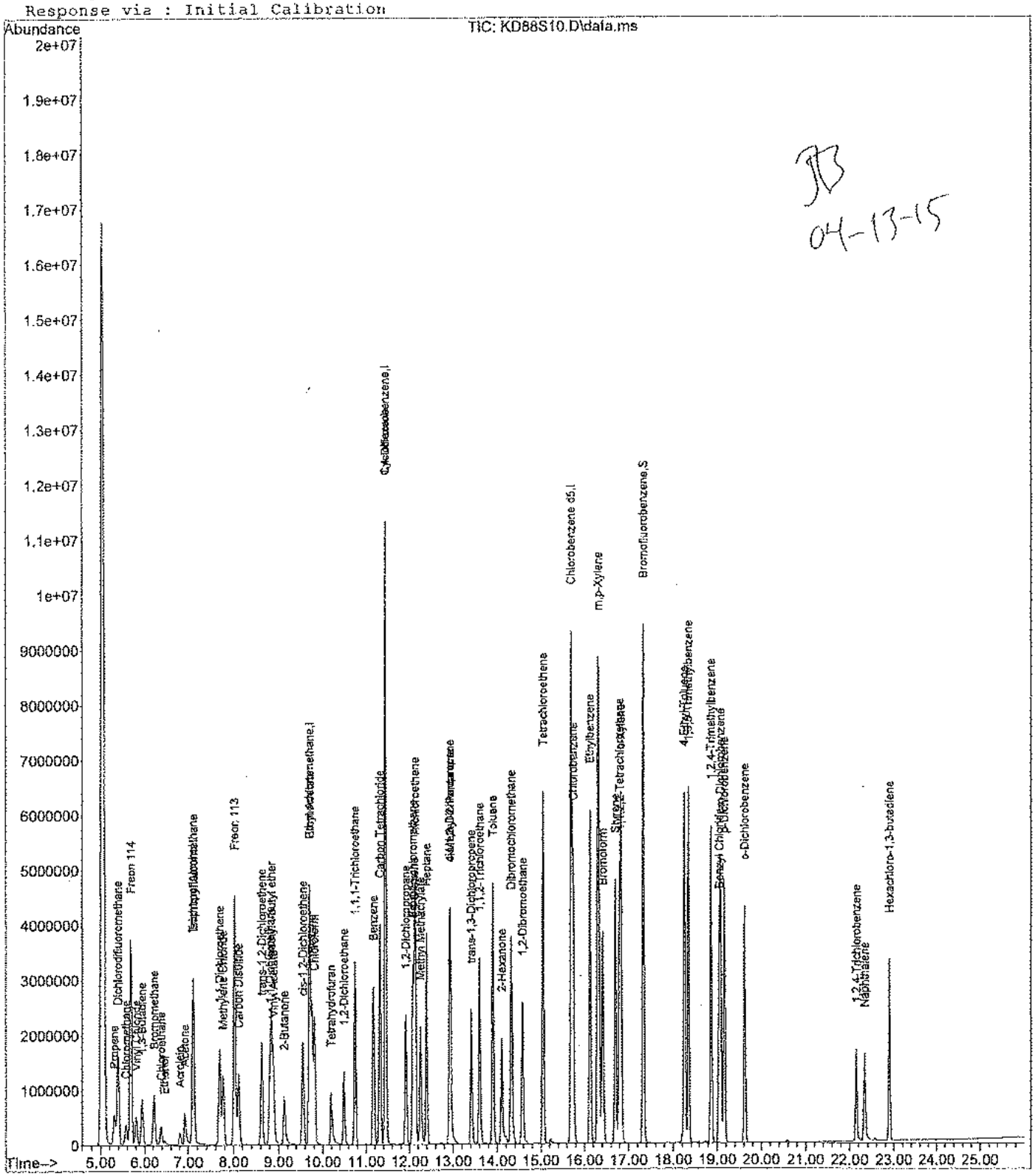
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD88S10.D Vial: 2
Acq Time : 04/10/2015 10:08 Operator:
Sample : QC~ Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 11:34:28 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JB
04-13-15

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD88S10.D Vial: 2
Acq Time : 04/10/2015 10:08 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 11:34:28 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.70	130	826432	20.0000	ppb		96.88
25) 1,4-Difluorobenzene	11.45	114	11376827	20.0000	ppb		101.99
50) Chlorobenzene d5	15.69	117	9702676	20.0000	ppb		100.62
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.33	95	5477168	16.0477	ppb		80.24%
Target Compounds							Qvalue
2) Propene	5.30	41	612300	8.4808	ppb	m	0
3) Dichlorodifluoromethane	5.39	85	3356209	6.5967	ppb	m	0
4) Chloromethane	5.56	50	838620	9.2950	ppb	m	41
5) Freon 114	5.68	135	3096502	7.9158	ppb	m	0
6) Vinyl Chloride	5.80	62	1077854	9.2697	ppb	m	0
7) 1,3-Butadiene	5.94	54	750161	8.9706	ppb	m	0
8) Bromomethane	6.22	94	1198353	8.6473	ppb	m	0
9) Chloroethane	6.39	64	577039	10.0405	ppb	m	0
10) Acrolein	6.81	56	341093	10.6775	ppb	#	98
11) Acetone	6.92	43	1265127	5.7503	ppb		99
12) Trichlorofluoromethane	7.11	101	3881941	7.2702	ppb		99
13) Ethanol	6.45	45	151623	4.5674	ppb	#	78
14) Isopropyl Alcohol	7.10	45	952002	5.7430	ppb		93
15) 1,1-Dichloroethene	7.69	61	1764243	9.5910	ppb		90
16) Methylene Chloride	7.78	84	1161641	9.5940	ppb		90
17) Freon 113	8.03	151	2649020	10.8276	ppb	#	81
18) Carbon Disulfide	8.11	76	3274423	11.1652	ppb	#	61
19) trans-1,2-Dichloroethene	8.63	96	1403030	12.3870	ppb		92
20) 1,1-Dichloroethane	8.81	63	2036618	10.0829	ppb	m	49
21) methyl t-butyl ether	8.84	73	3524376	11.2517	ppb		96
22) Vinyl Acetate	8.89	86	350372	12.7362	ppb	#	1
23) 2-Butanone	9.12	43	1767947	8.5101	ppb	#	87
24) cis-1,2-Dichloroethene	9.55	96	1464333	12.8825	ppb		92
26) Ethyl Acetate	9.70	61	334591	9.3194	ppb	#	1
27) Hexane	9.75	57	1638928	10.5323	ppb	#	57
28) Chloroform	9.81	83	2779474	8.1108	ppb		100
29) Tetrahydrofuran	10.19	42	968374	9.2030	ppb		88
30) 1,2-Dichloroethane	10.49	62	1660190	6.9722	ppb		100
31) 1,1,1-Trichloroethane	10.74	97	3314396	8.1462	ppb		99
32) Benzene	11.17	78	3986518	12.6802	ppb	#	98
33) Carbon Tetrachloride	11.32	117	3794703	7.8978	ppb		100
34) Cyclohexane	11.45	84	1858890	10.2657	ppb		84
35) 1,2-Dichloropropane	11.91	63	1294849	11.8867	ppb		98
36) Bromodichloromethane	12.08	83	3129915	8.7281	ppb		100
37) 1,4-Dioxane	12.10	88	673050	8.8715	ppb	#	88
38) Trichloroethene	12.13	130	2540039	12.1634	ppb		98
39) Methyl Methacrylate	12.25	69	1363297	11.3680	ppb	#	83
40) Heptane	12.39	71	1371389	11.8965	ppb	#	87
41) cis-1,3-Dichloropropene	12.92	75	2376746	12.0451	ppb		98
42) 4-Methyl-2-Pentanone	12.94	43	2304513	8.4469	ppb	#	91
43) trans-1,3-Dichloropropene	13.41	75	2265292	11.4855	ppb		97
44) 1,1,2-Trichloroethane	13.60	97	1839032	10.7338	ppb		97
45) Toluene	13.90	91	5604505	12.7361	ppb		99
46) 2-Hexanone	14.10	43	1973966	8.0233	ppb	#	92
47) Dibromochloromethane	14.32	129	3591083	9.0806	ppb		99
48) 1,2-Dibromoethane	14.58	107	2921988	10.5082	ppb		99
49) Tetrachloroethene	15.05	166	3048654	12.9232	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD88S10.D Vial: 2
Acq Time : 04/10/2015 10:08 Operator:
Sample : QC- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 11:34:28 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

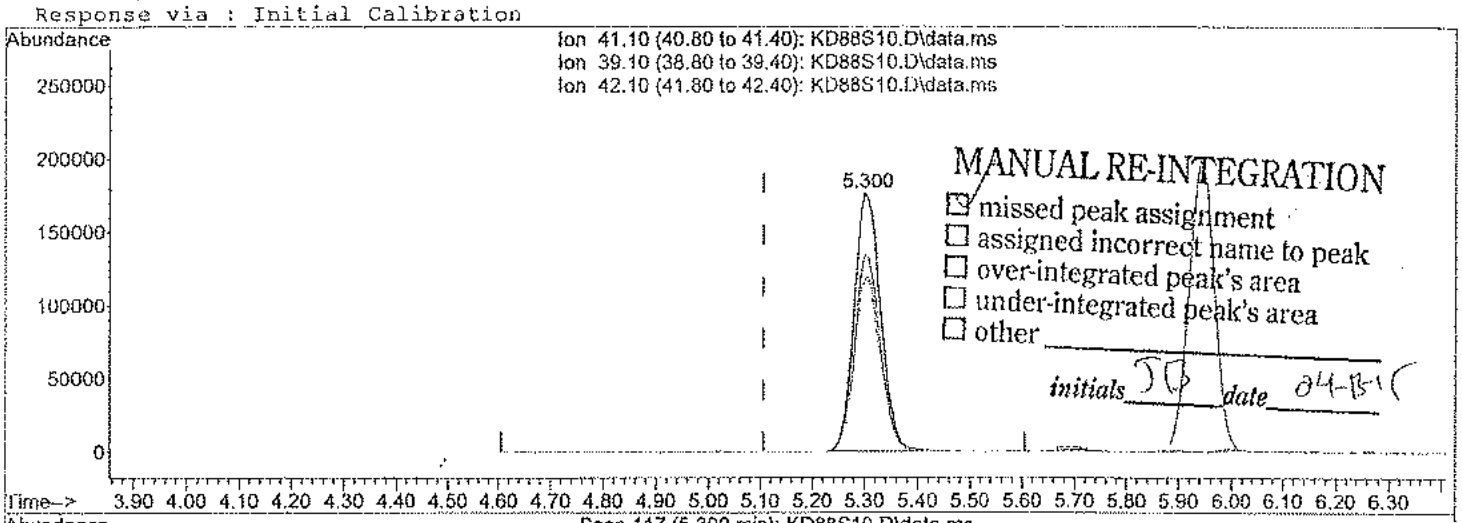
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	15.74	112	4905550	10.5852	ppb		97
52) Ethylbenzene	16.12	91	7238031	11.8363	ppb	m	71
53) m,p-Xylene	16.31	91	11127459	20.0364	ppb	m	23
54) Bromoform	16.41	173	3174094	10.2817	ppb		99
55) Styrene	16.70	104	4271078	13.0214	ppb	m	1
56) 1,1,2,2-Tetrachloroethane	16.79	83	2718650	7.8844	ppb		99
57) o-Xylene	16.82	91	5329353	9.3748	ppb		96
59) 4-Ethyl Toluene	18.25	105	6826496	10.1157	ppb	m	66
60) 1,3,5-Trimethylbenzene	18.34	105	5816201	8.9996	ppb		96
61) 1,2,4-Trimethylbenzene	18.86	105	5283295	9.7254	ppb		96
62) Benzyl Chloride	19.04	91	3460715	8.4196	ppb		97
63) m-Dichlorobenzene	19.08	146	3639039	8.4347	ppb	m	96
64) p-Dichlorobenzene	19.16	146	3464731	8.7450	ppb	#	95
65) o-Dichlorobenzene	19.62	146	3065007	8.7916	ppb		96
66) 1,2,4-Trichlorobenzene	22.16	180	902949	8.1585	ppb	#	97
67) Naphthalene	22.33	128	2423423	8.1568	ppb		99
68) Hexachloro-1,3-butadiene	22.89	225	873222	5.9893	ppb		98

(#) = qualifier out of range (m) = manual integration

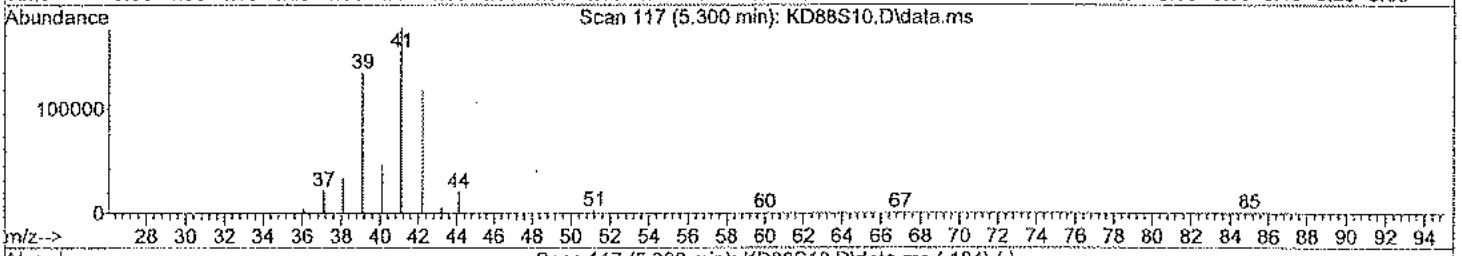
Quantitation Report (Qedit)

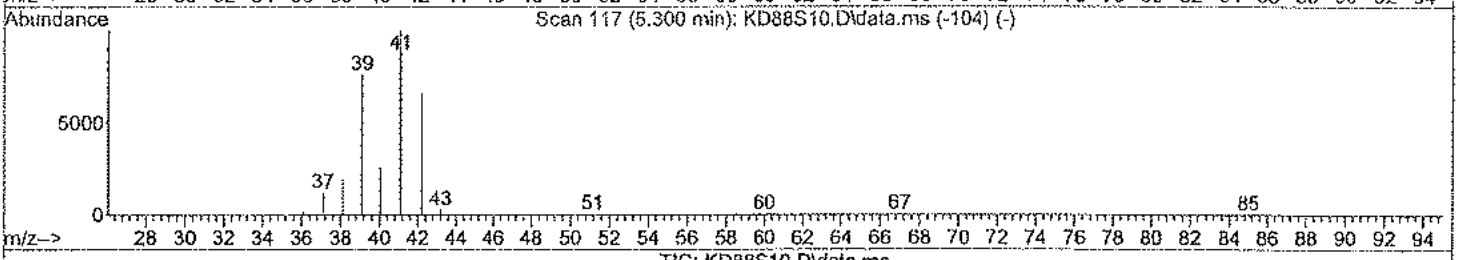
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☒ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials JB date 04-15-15





TIC: KD88S10.D\data.ms

(2) Propene

5.300min (+ 0.195) 8.48 ppb m

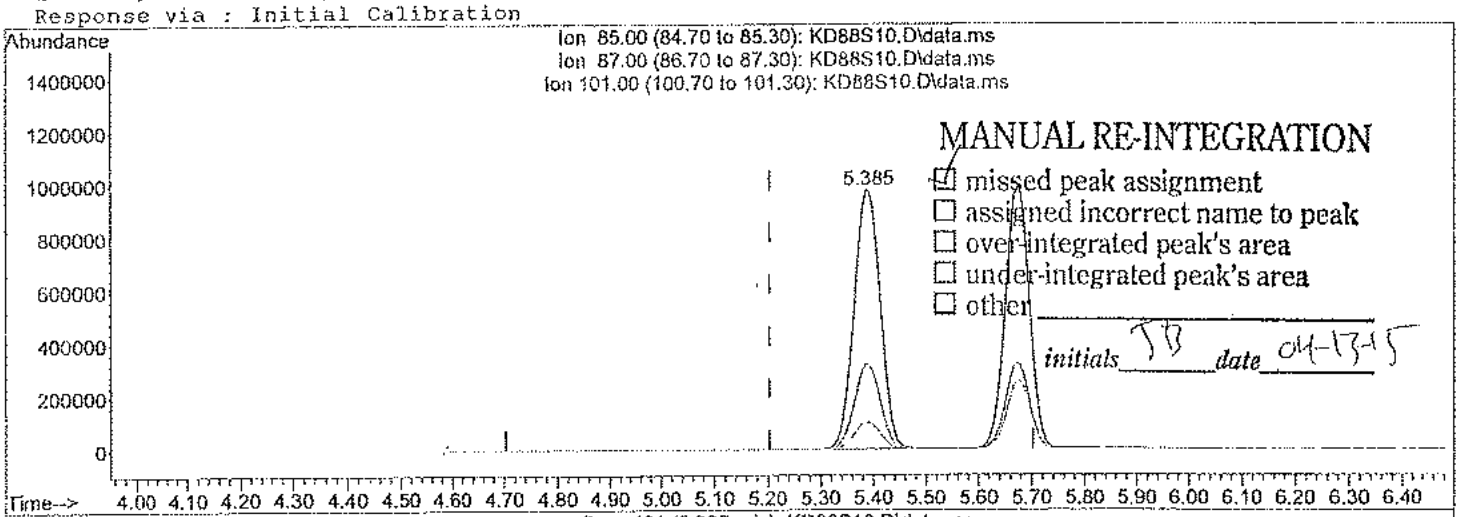
response 612300

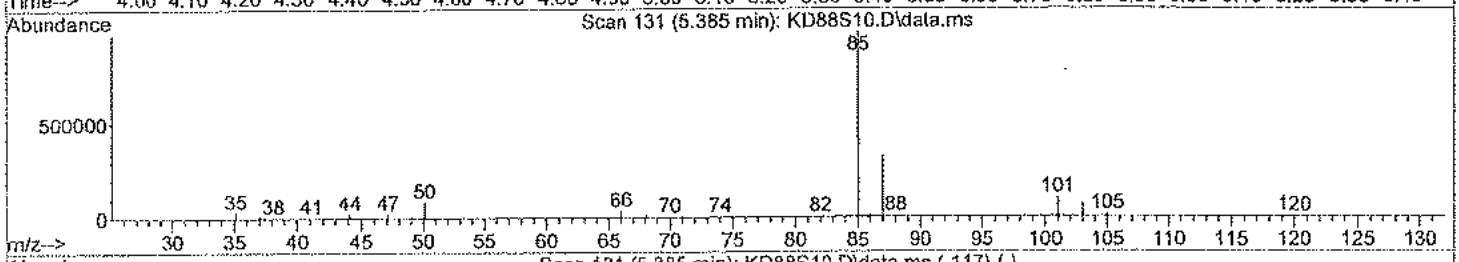
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

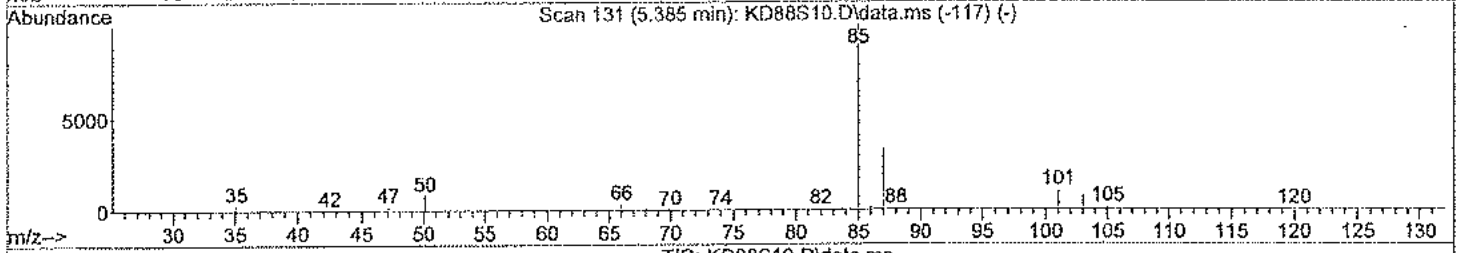
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration







TIC: KD88S10.D\data.ms

(3) Dichlorodifluoromethane

5.385min (+ 0.183) 6.60 ppb m

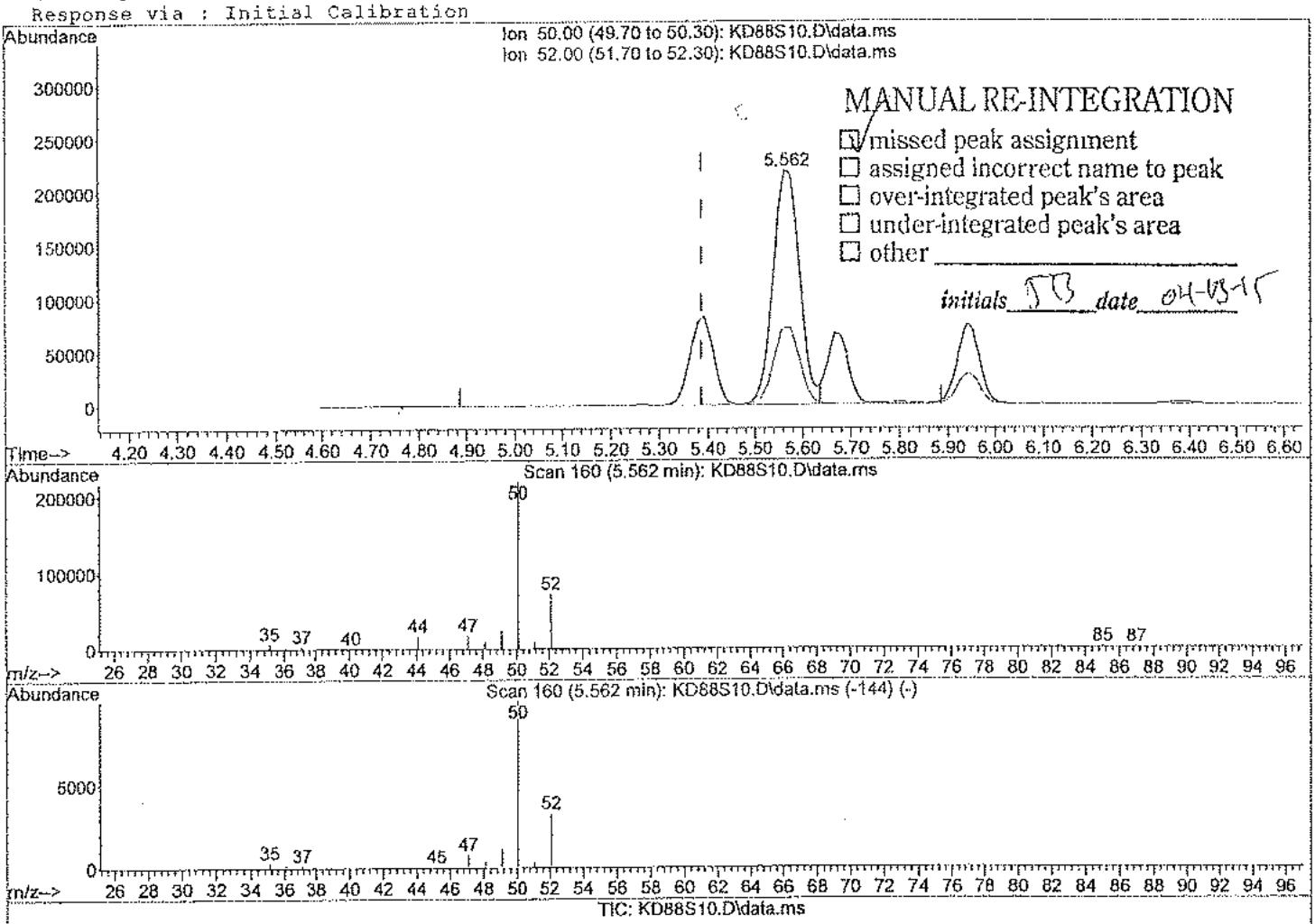
response 3356209

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



(4) Chloromethane

5.562min (+ 0.177) 9.29 ppb m

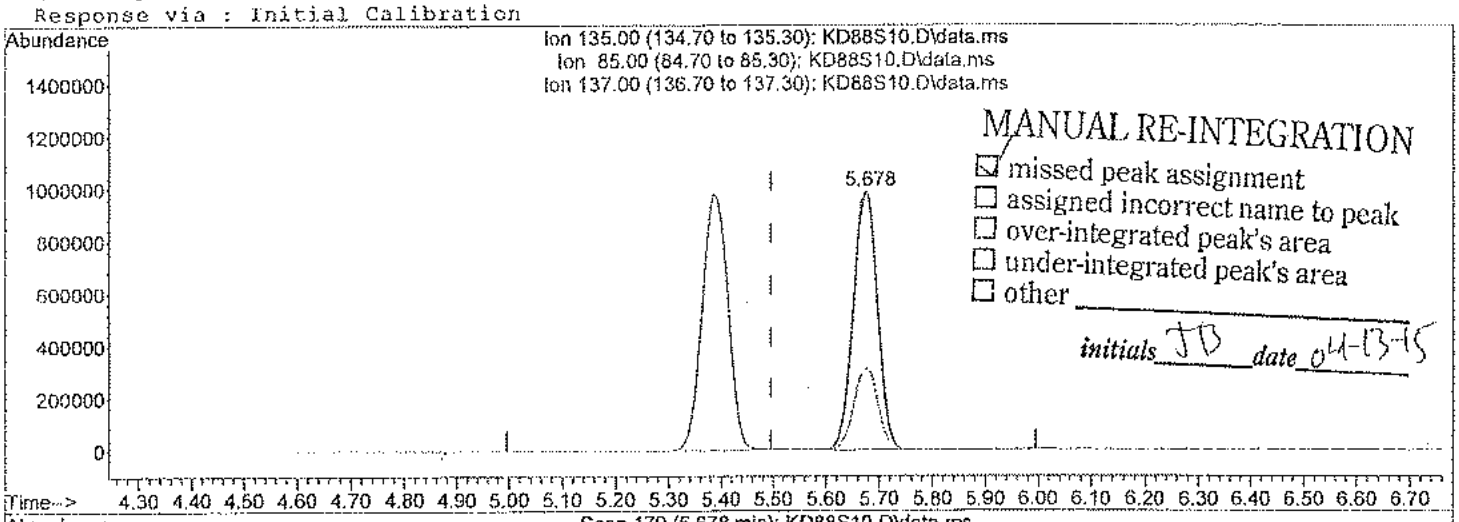
response 838620

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

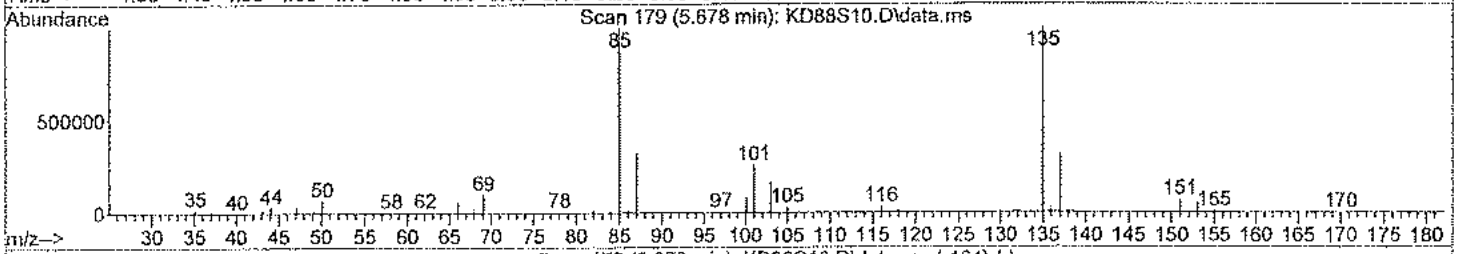
Quantitation Report (Qedit)

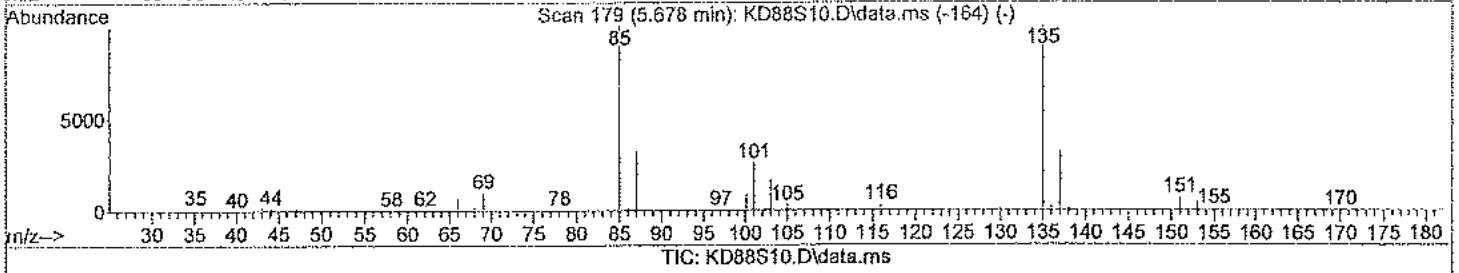
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials JD *date* 04-13-15





TIC: KD88S10.D\data.ms

(5) Freon 114

5.678min (+ 0.183) 7.92 ppb m

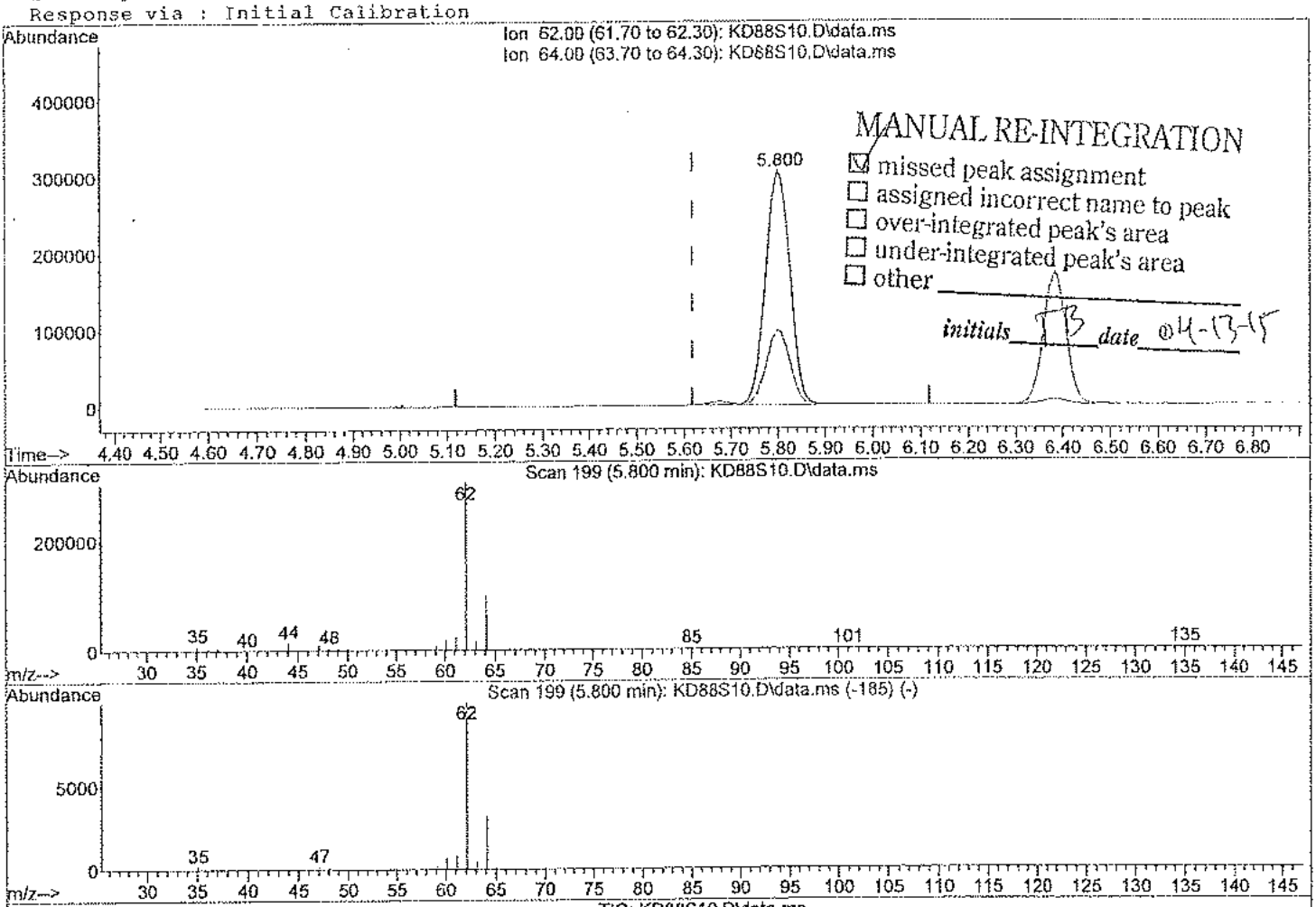
response 3096502

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	0.00#
137.00	32.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



TIC: KD88S10.D\data.ms

(6) Vinyl Chloride

5.800min (+ 0.183) 9.27 ppb m

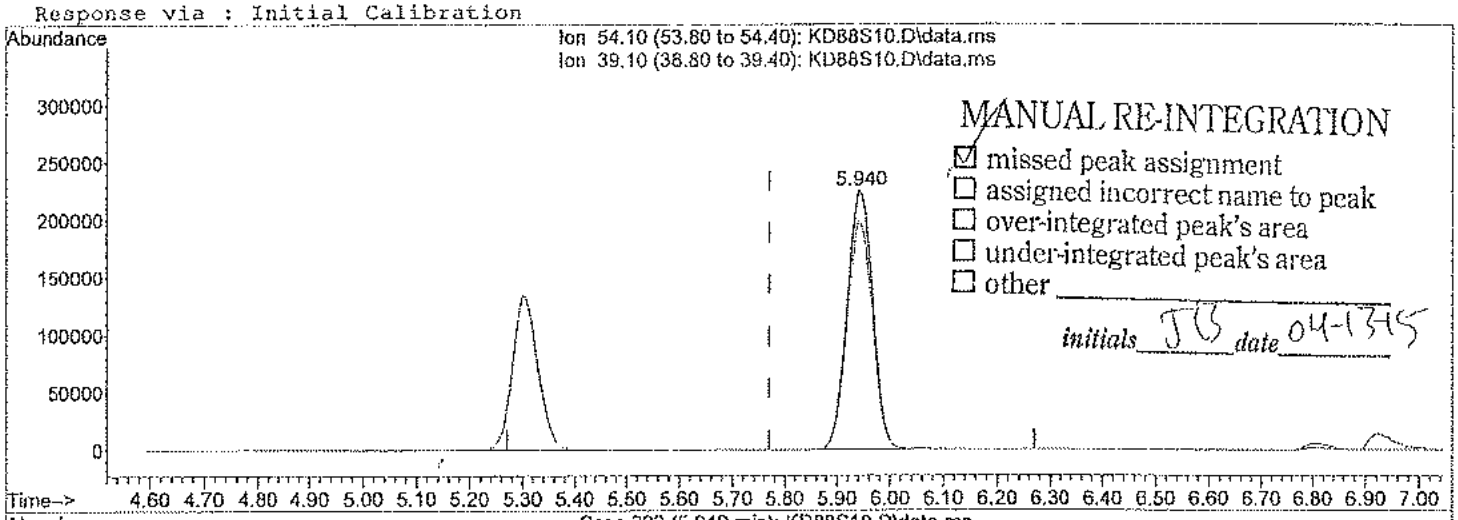
response 1077854

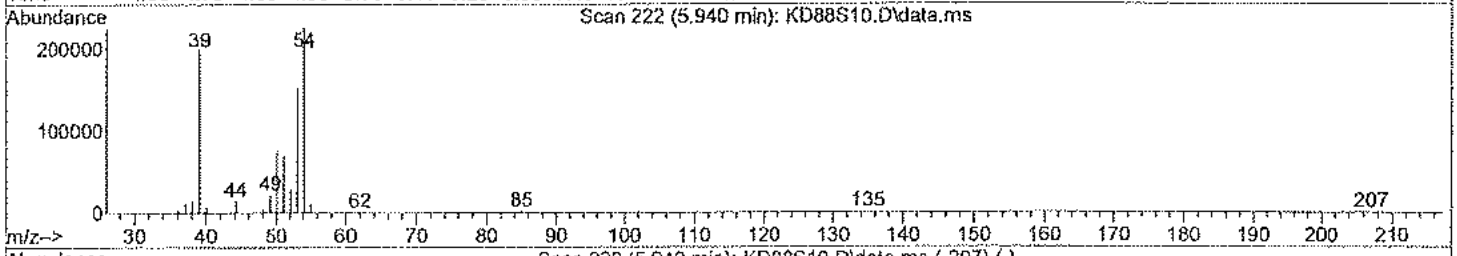
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

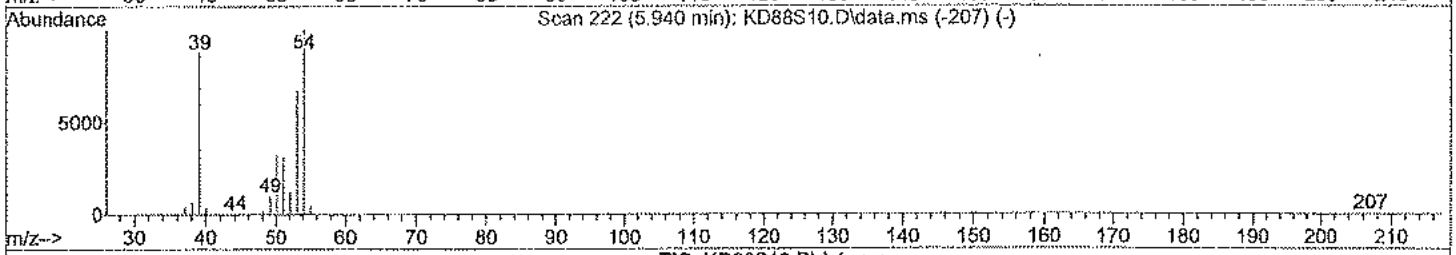
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration







TIC: KD88S10.D\data.ms

(7) 1,3-Butadiene

5.940min (+ 0.171) 8.97 ppb m

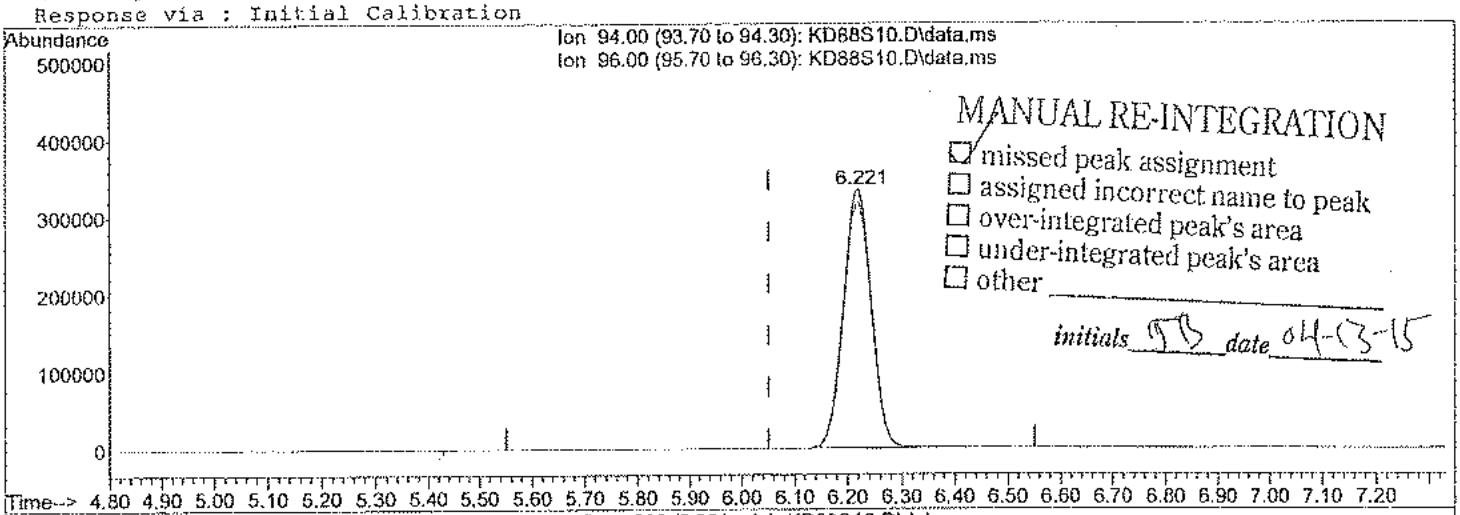
response 750161

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

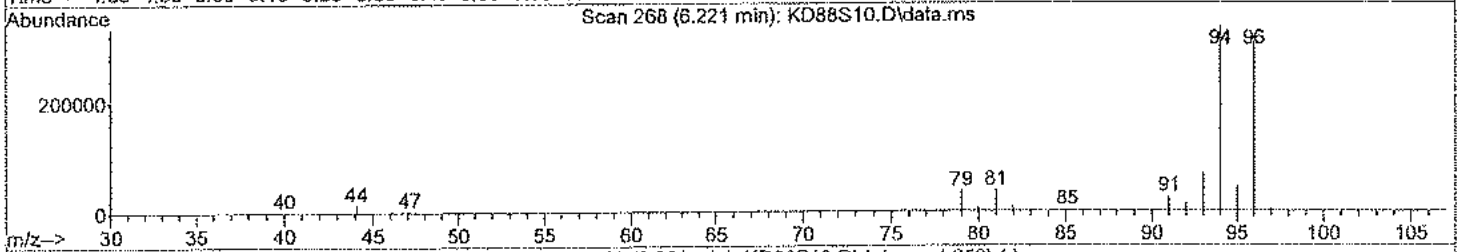
Quantitation Report (Qedit)

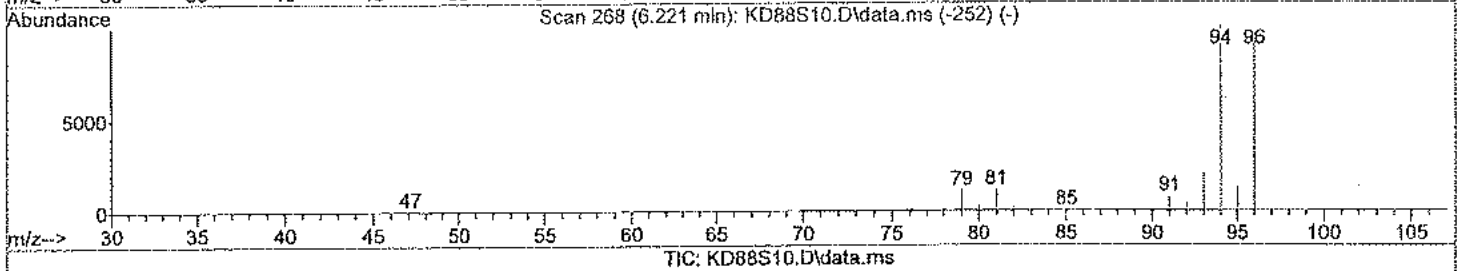
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials RB *date* 04-13-15





TIC: KD88S10.D\data.ms

(8) Bromomethane

6.221min (+ 0.171) 8.65 ppb m

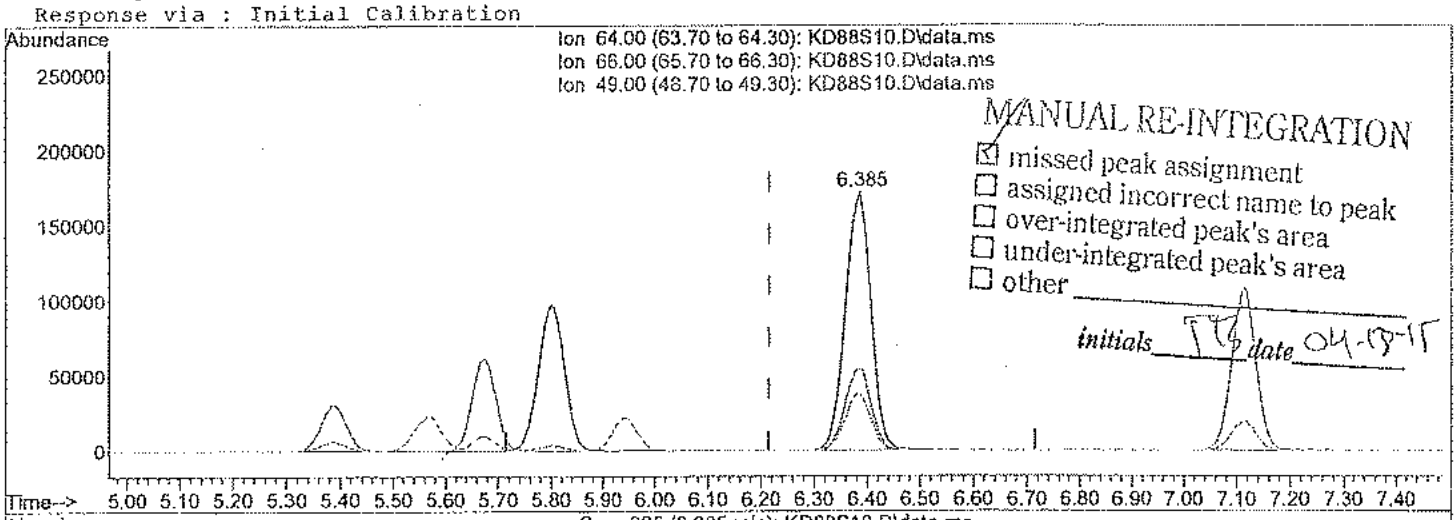
response 1198353

Ion	Exp%	Act%
94.00	100.00	100.00
96.00	95.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

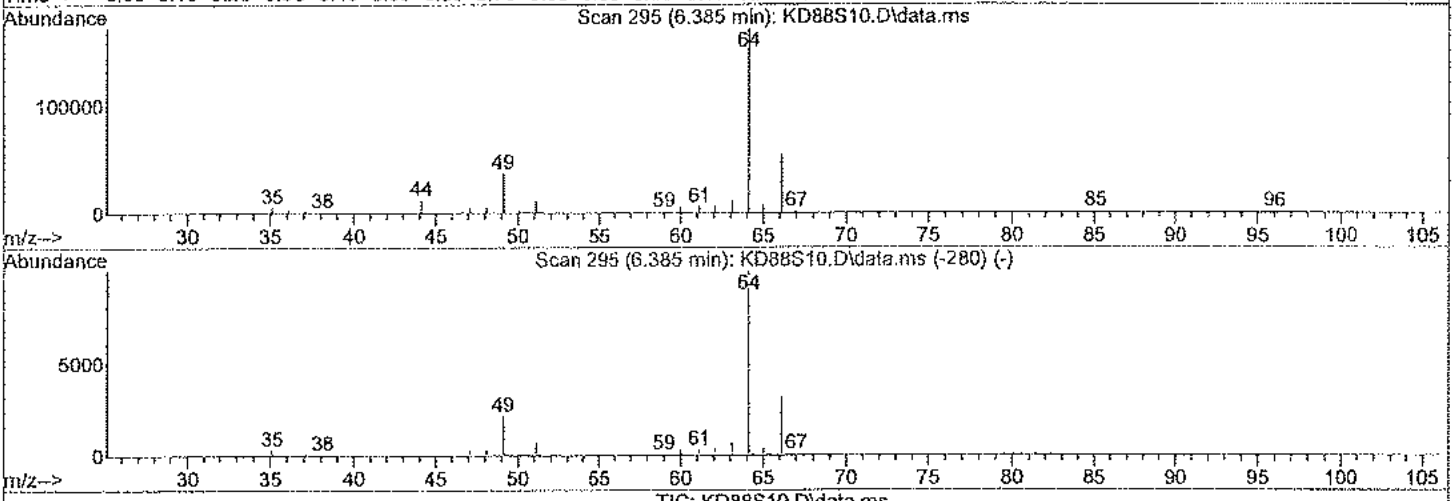
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data-File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TG date 04-9-15



TIC: KD88S10.D\data.ms

(9) Chloroethane

6.385min (+ 0.171) 10.04 ppb m

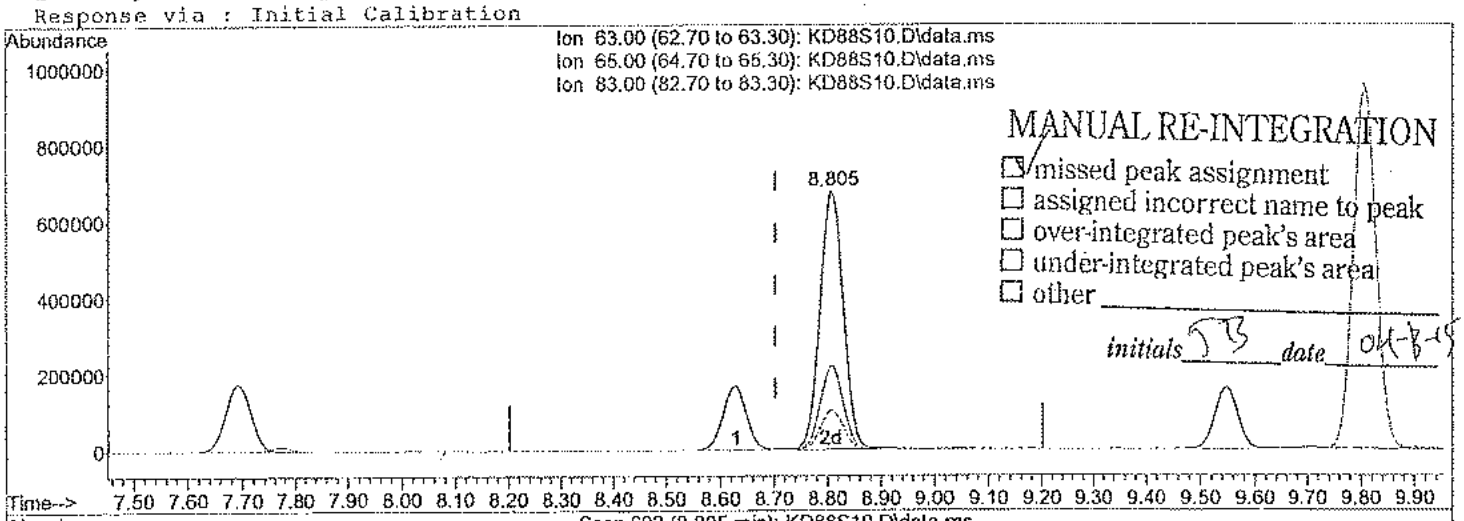
response 577039

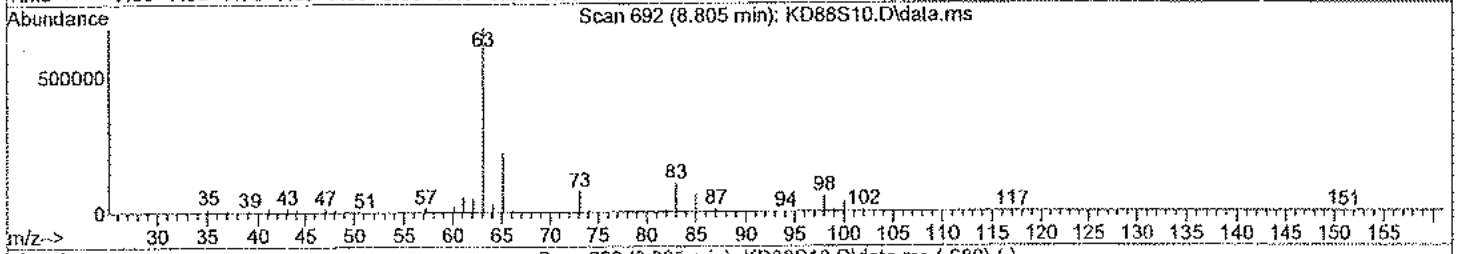
Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

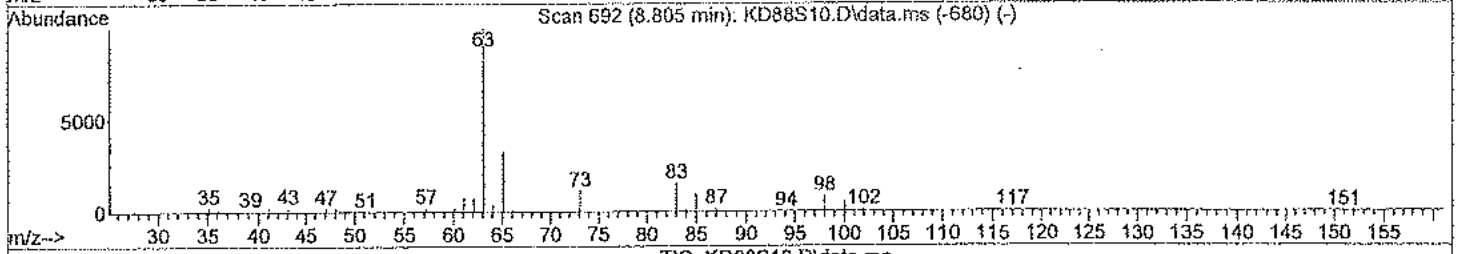
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration







TIC: KD88S10.D\data.ms

(20) 1,1-Dichloroethane

8.805min (+ 0.104) 10.08 ppb m

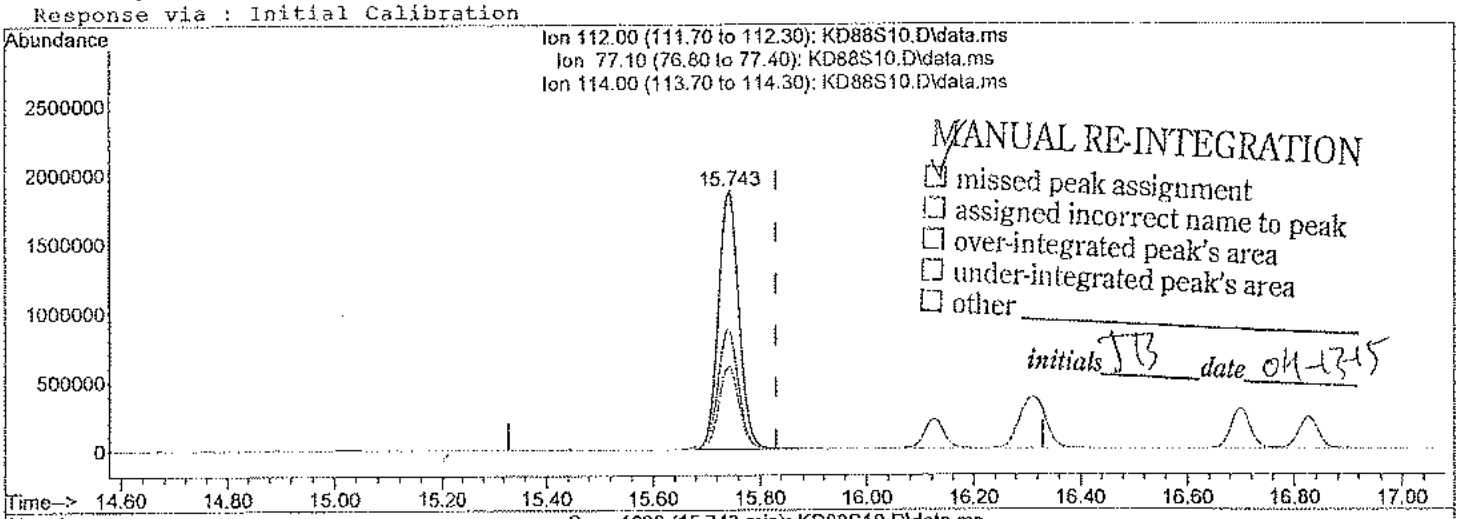
response 2036618

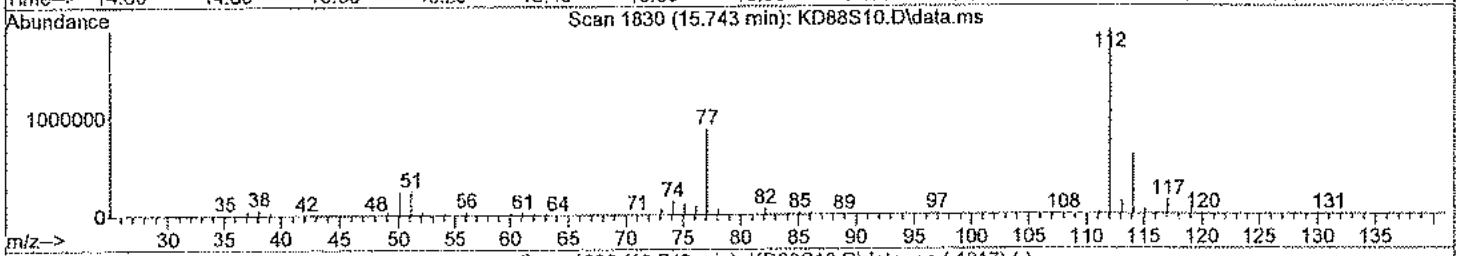
Ion	Exp%	Act%
63.00	100.00	100.00
65.00	32.30	0.00#
83.00	15.90	0.00#
0.00	0.00	0.00

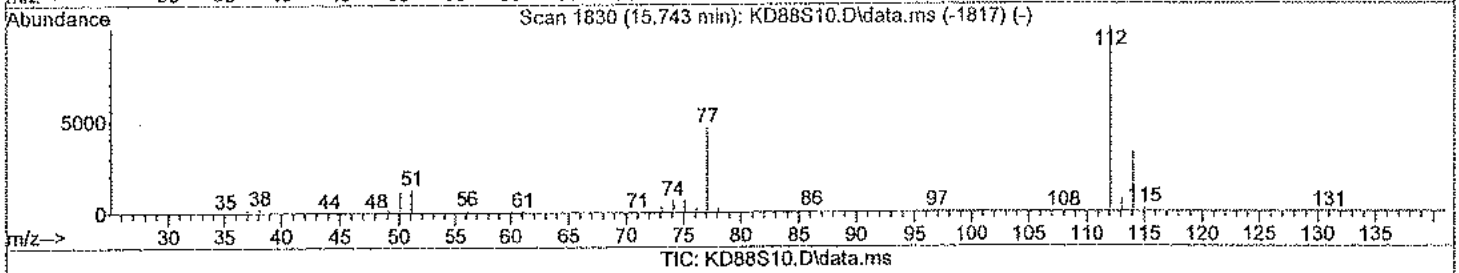
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration







TIC: KD88S10.D\data.ms

(51) Chlorobenzene

15.743min (-0.086) 10.59 ppb

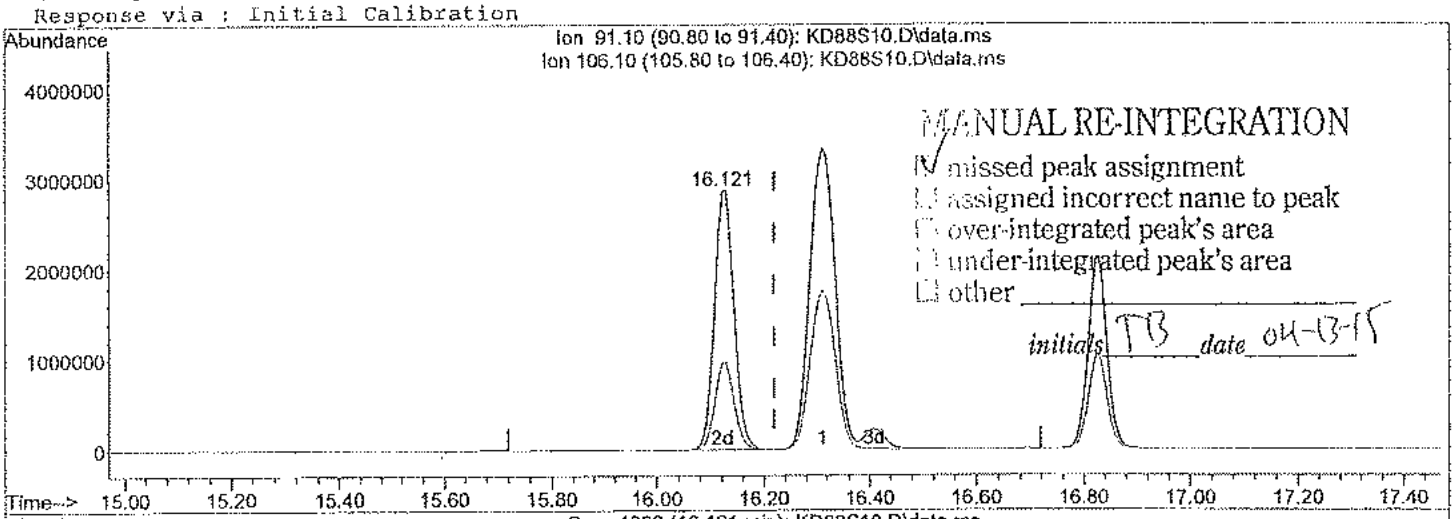
response 4905550

Ion	Exp%	Act%
112.00	100.00	100.00
77.10	44.40	47.77
114.00	32.30	32.08
0.00	0.00	0.00

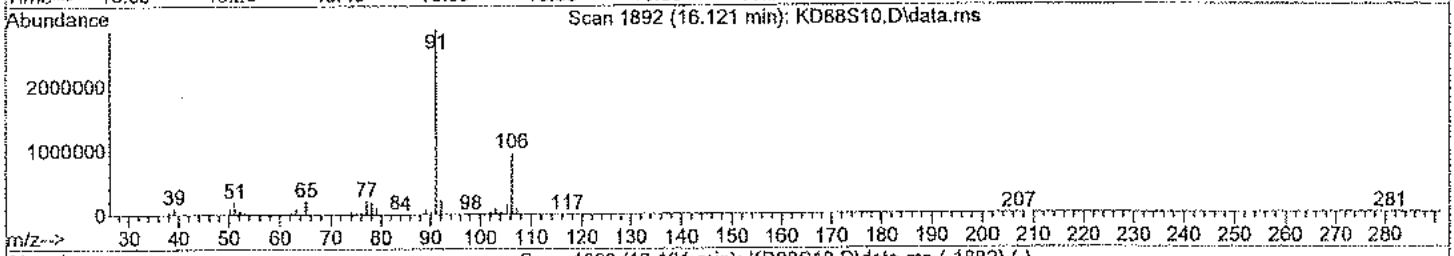
Quantitation Report (Qedit)

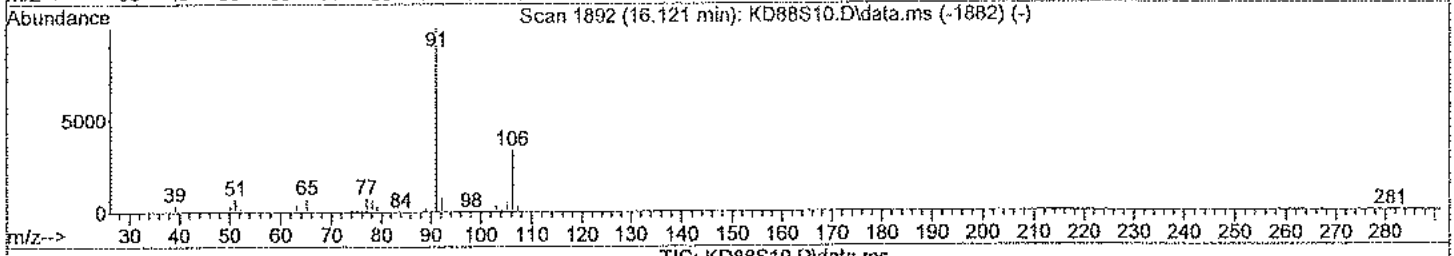
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 04-13-15





TIC: KD88S10.D\data.ms

(52) Ethylbenzene

16.121min (-0.098) 11.84 ppb m

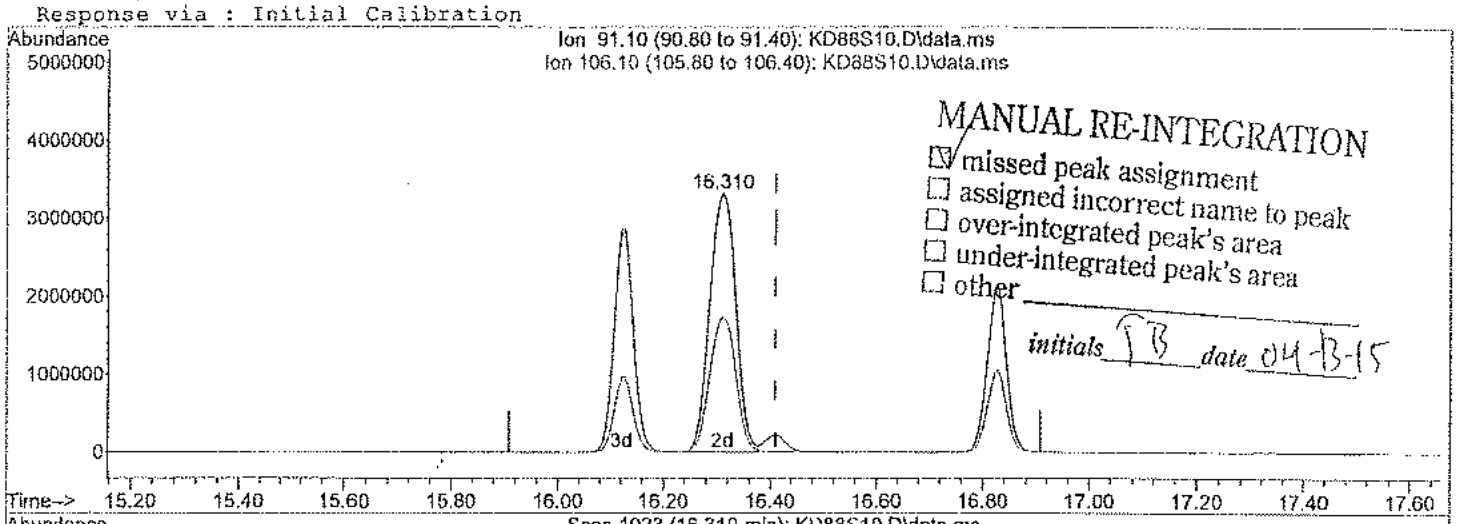
response 7238031

Ion	Exp%	Act%
91.10	100.00	100.00
106.10	35.50	80.32#
0.00	0.00	0.00
0.00	0.00	0.00

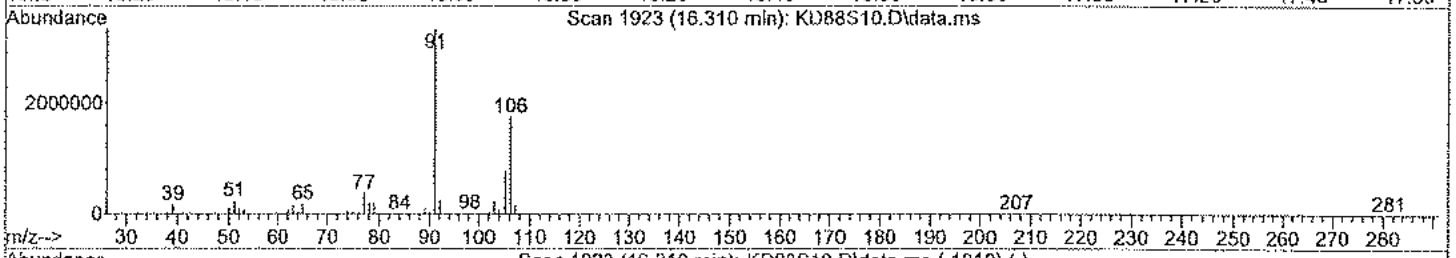
Quantitation Report (Qedit)

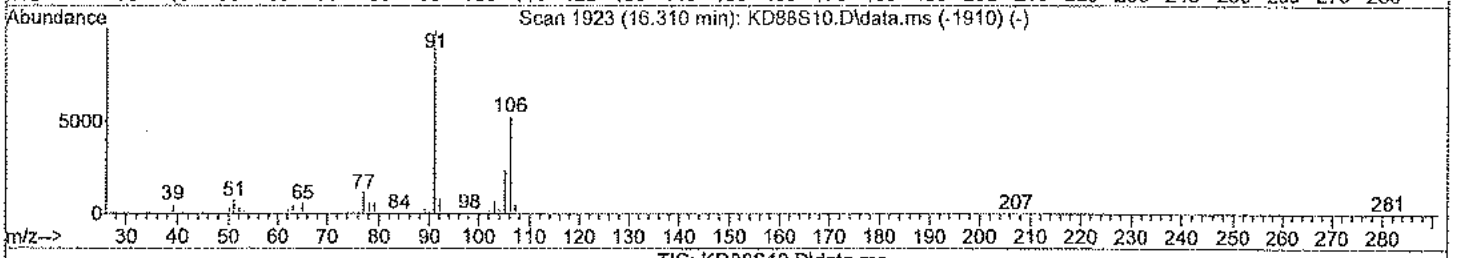
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 04-13-15





TIC: KD88S10.D\data.ms

(53) m,p-Xylene

16.310min (-0.098) 20.04 ppb m

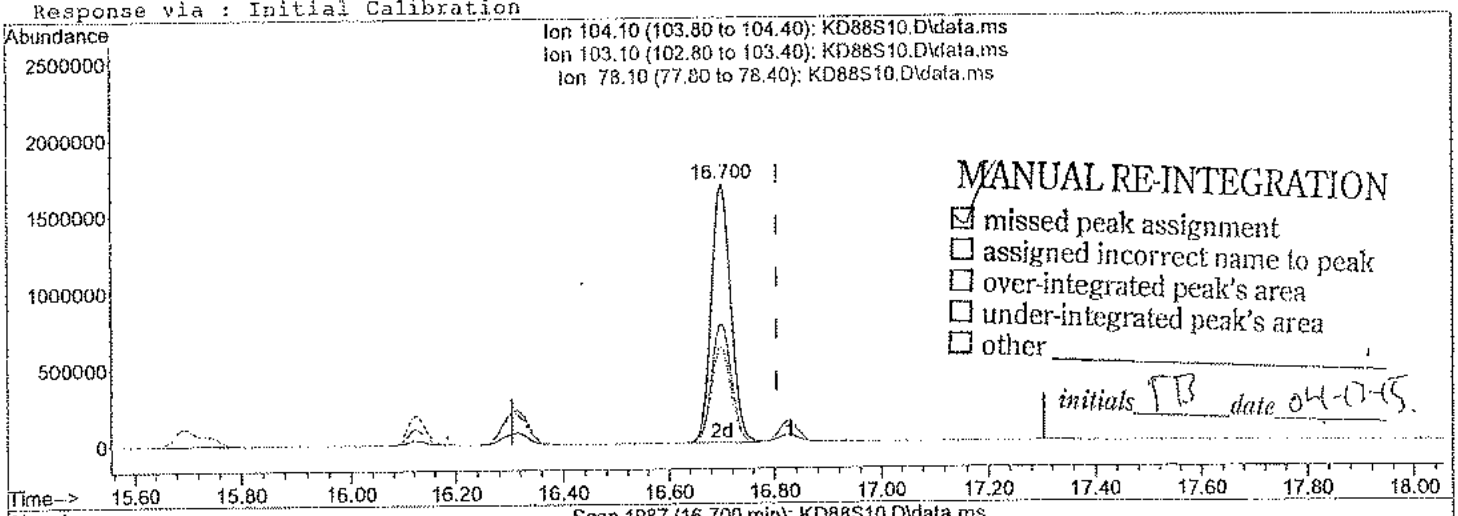
response 11127459

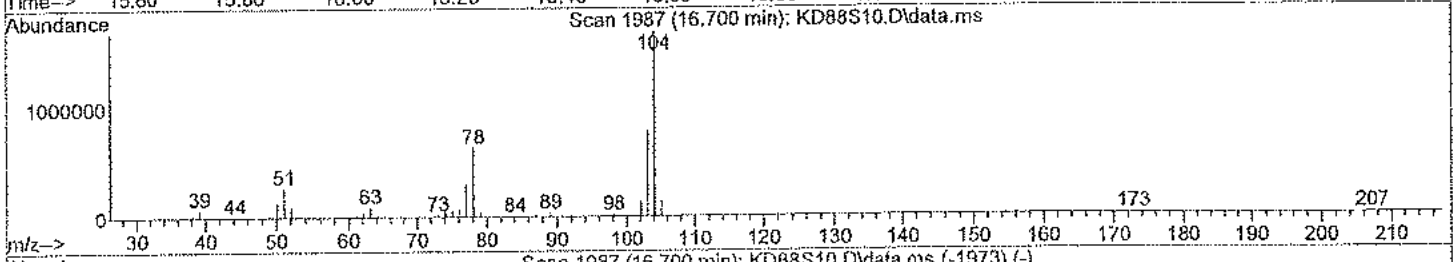
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	55.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

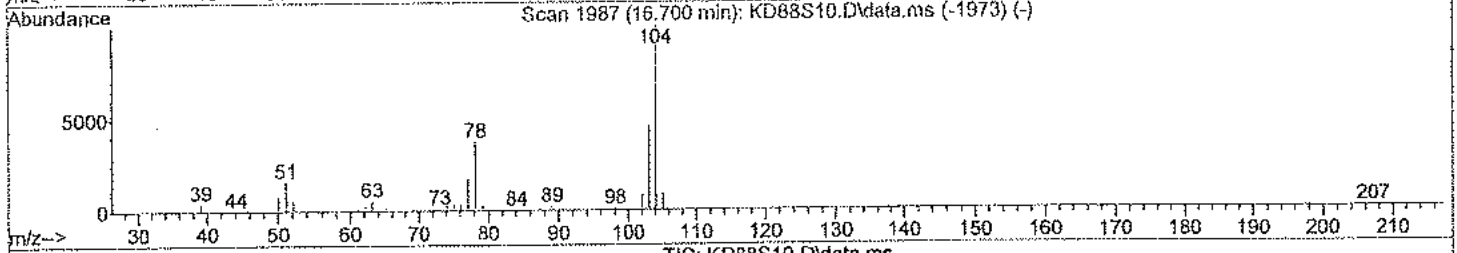
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration







TIC: KD88S10.D\data.ms

(55) Styrene

16.700min (-0.104) 13.02 ppb m

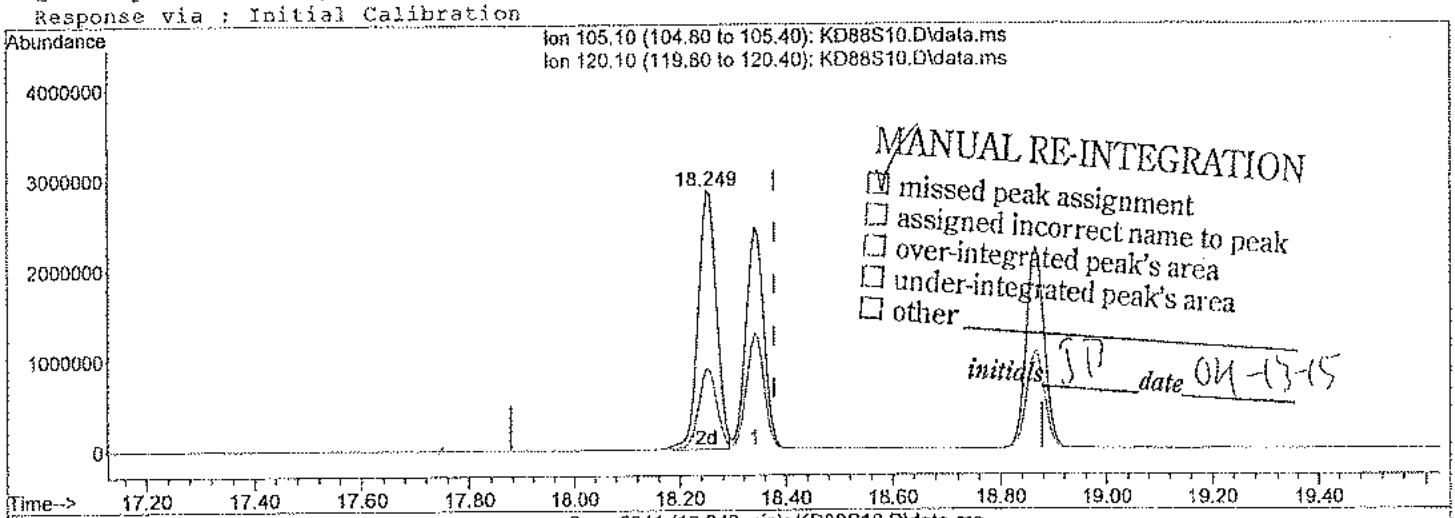
response 4271078

Ion	Exp%	Act%
104.10	100.00	100.00
103.10	45.70	8.28#
78.10	34.60	7.52#
0.00	0.00	0.00

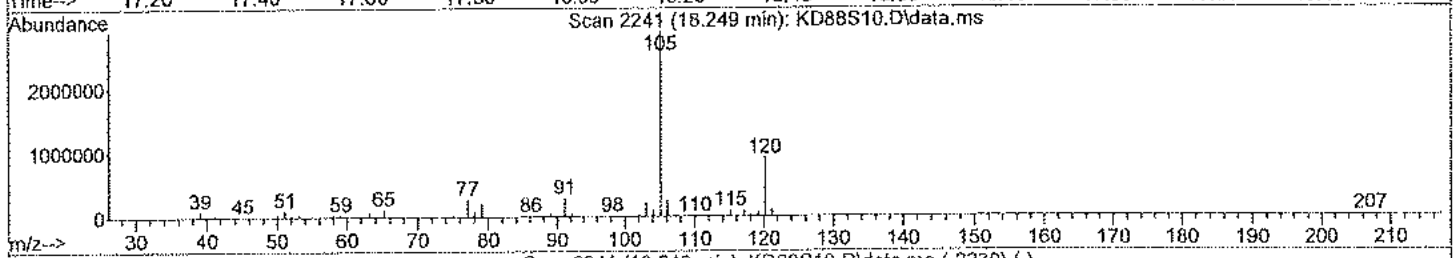
Quantitation Report (Qedit)

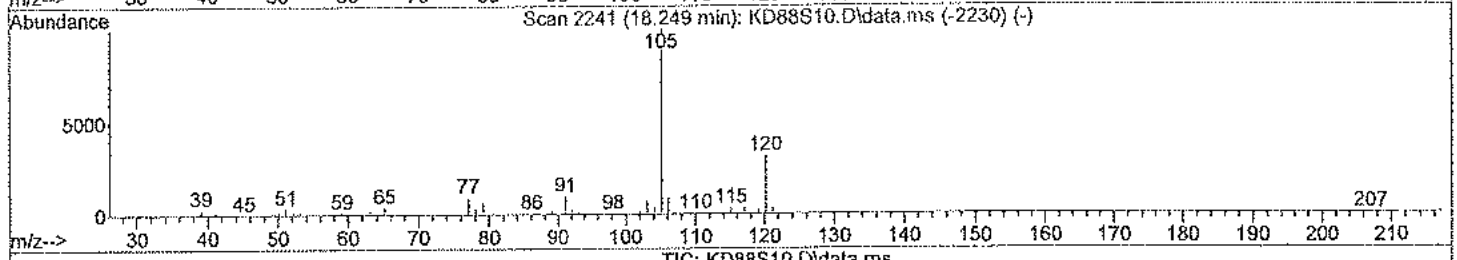
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☒ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other
initials JP date 04-13-15





TIC: KD88S10.D\data.ms

(59) 4-Ethyl Toluene

18.249min (-0.128) 10.12 ppb m

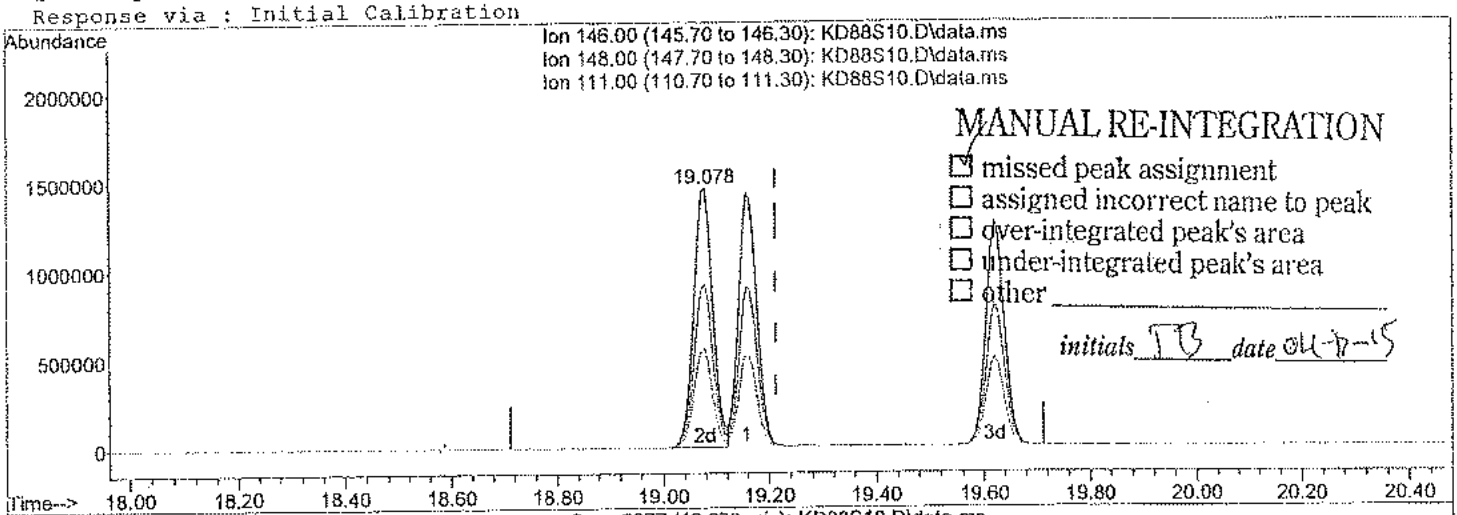
response 6826496

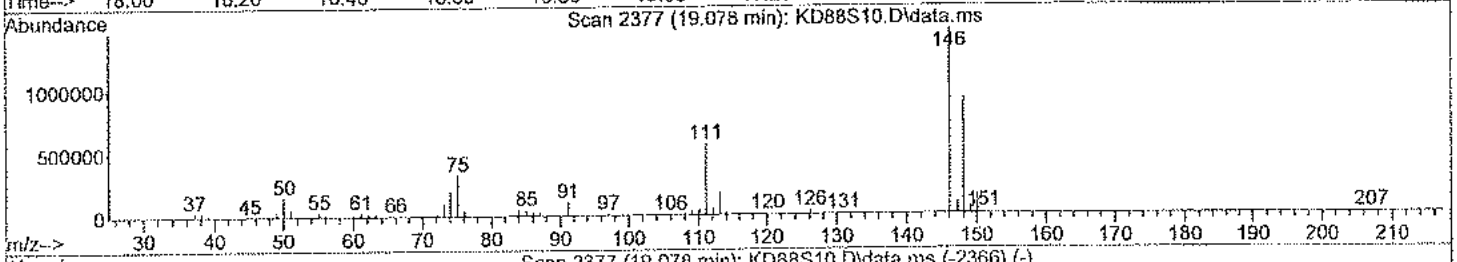
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	32.60	44.11#
0.00	0.00	0.00
0.00	0.00	0.00

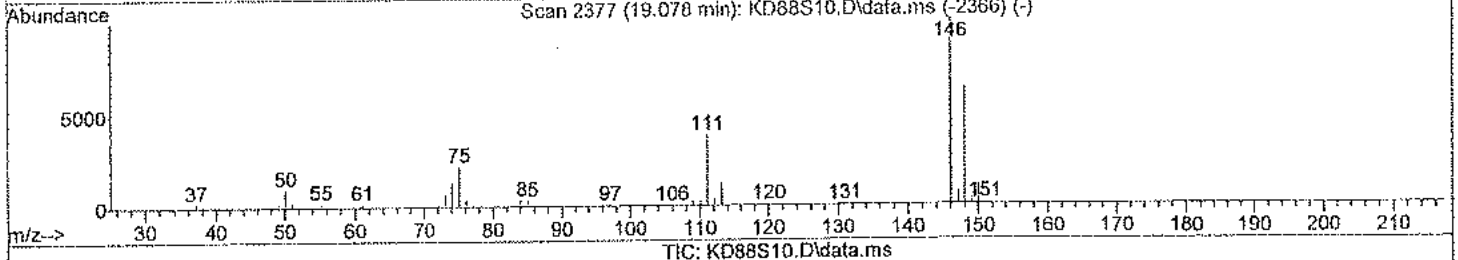
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD88S10.D
Acq On : 04/10/2015 10:08
Operator :
Sample : QC-
Inst : 5975-K
Misc : 27426
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 11:34:28 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 08:41:10 2015
Response via : Initial Calibration







TIC: KD88S10.D\data.ms

(63) m-Dichlorobenzene

19.078min (-0.134) 8.43 ppb m

response 3639039

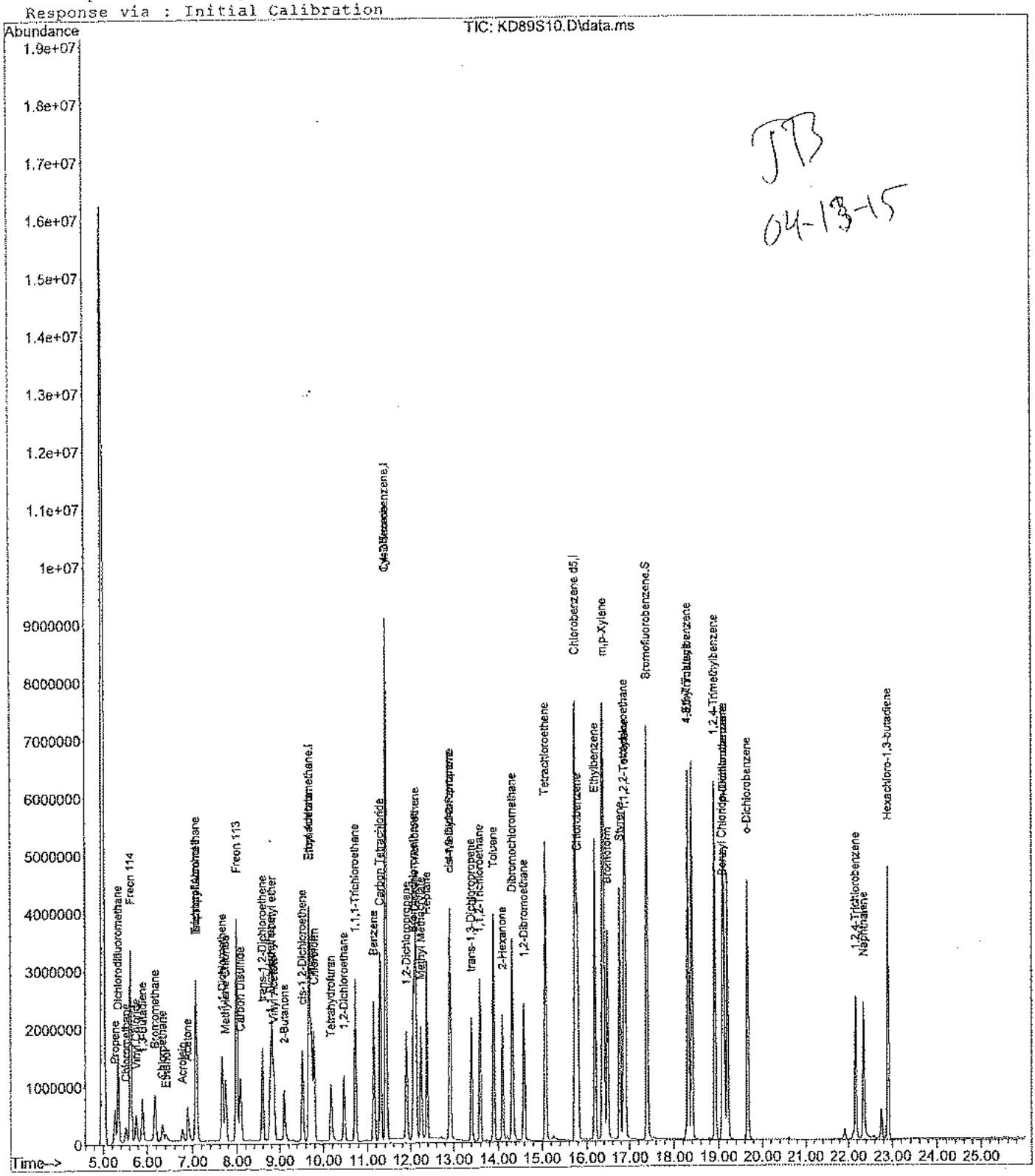
Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.70	60.57
111.00	32.20	35.31
0.00	0.00	0.00

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD89S10.D Vial: 2
Acq Time : 04/10/2015 11:13 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 11:55:40 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JTB
04-13-15

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD89S10.D Vial: 2
Acq Time : 04/10/2015 11:13 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 11:55:40 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.68	130	686656	20.0000	ppb		80.49
25) 1,4-Difluorobenzene	11.43	114	8899557	20.0000	ppb		79.78
50) Chlorobenzene d5	15.75	117	7722723	20.0000	ppb		80.09
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.40	95	3873367	14.2582	ppb		71.29%
Target Compounds							Qvalue
2) Propene	5.26	41	475155	7.9209	ppb		97
3) Dichlorodifluoromethane	5.34	85	2227620	5.2697	ppb		99
4) Chloromethane	5.51	50	464161	6.1918	ppb		100
5) Freon 114	5.62	135	2339972	7.1995	ppb		91
6) Vinyl Chloride	5.75	62	822742	8.5160	ppb		98
7) 1,3-Butadiene	5.90	54	566863	8.1586	ppb		84
8) Bromomethane	6.17	94	925565	8.0384	ppb		100
9) Chloroethane	6.34	64	422230	8.8423	ppb		97
10) Acrolein	6.77	56	287193	10.8202	ppb	#	98
11) Acetone	6.89	43	1164466	6.3701	ppb		95
12) Trichlorofluoromethane	7.07	101	2968120	6.6903	ppb		99
13) Ethanol	6.42	45	227544	8.2496	ppb	#	75
14) Isopropyl Alcohol	7.07	45	1258308	9.1359	ppb		98
15) 1,1-Dichloroethene	7.66	61	1343820	8.7925	ppb		90
16) Methylene Chloride	7.74	84	893555	8.8821	ppb		92
17) Freon 113	7.99	151	2080585	10.2353	ppb	#	81
18) Carbon Disulfide	8.08	76	2573911	10.5632	ppb	#	61
19) trans-1,2-Dichloroethene	8.60	96	1119936	11.9004	ppb		92
20) 1,1-Dichloroethane	8.78	63	1563235	9.3147	ppb		99
21) methyl t-butyl ether	8.82	73	2866130	11.0129	ppb		96
22) Vinyl Acetate	8.86	86	288570	12.6249	ppb	#	1
23) 2-Butanone	9.10	43	1541132	8.9284	ppb		88
24) cis-1,2-Dichloroethene	9.52	96	1171413	12.4033	ppb		92
26) Ethyl Acetate	9.68	61	300527	10.7006	ppb	#	1
27) Hexane	9.73	57	1292110	10.6149	ppb	#	57
28) Chloroform	9.79	83	2206992	8.2329	ppb		100
29) Tetrahydrofuran	10.17	42	870081	10.5706	ppb		89
30) 1,2-Dichloroethane	10.47	62	1347810	7.2359	ppb		100
31) 1,1,1-Trichloroethane	10.73	97	2642531	8.3027	ppb		99
32) Benzene	11.15	78	3154422	12.8264	ppb	#	98
33) Carbon Tetrachloride	11.30	117	2952898	7.8565	ppb		100
34) Cyclohexane	11.43	84	1491993	10.5331	ppb		84
35) 1,2-Dichloropropane	11.90	63	996254	11.6914	ppb		97
36) Bromodichloromethane	12.07	83	2415856	8.6122	ppb		99
37) 1,4-Dioxane	12.09	88	803958	13.5468	ppb		95
38) Trichloroethene	12.12	130	1982926	12.1387	ppb		97
39) Methyl Methacrylate	12.24	69	1134379	12.0922	ppb	#	84
40) Heptane	12.38	71	1107368	12.2802	ppb	#	87
41) cis-1,3-Dichloropropene	12.91	75	1910518	12.3774	ppb		98
42) 4-Methyl-2-Pentanone	12.93	43	2028998	9.5072	ppb	#	92
43) trans-1,3-Dichloropropene	13.40	75	1847460	11.9744	ppb		97
44) 1,1,2-Trichloroethane	13.59	97	1439070	10.7374	ppb		97
45) Toluene	13.90	91	4463163	12.9657	ppb		99
46) 2-Hexanone	14.10	43	1937908	10.0693	ppb	#	91
47) Dibromochloromethane	14.33	129	3189028	10.3086	ppb		100
48) 1,2-Dibromoethane	14.60	107	2525566	11.6108	ppb		99
49) Tetrachloroethene	15.08	166	2414255	13.0828	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD89S10.D Vial: 2
Acq Time : 04/10/2015 11:13 Operator:
Sample : QD- Inst : 5975-K
Misc : 27426 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 11:55:40 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	15.80	112	3999211	10.8419	ppb		96
52) Ethylbenzene	16.19	91	6049328	12.4287	ppb		97
53) m,p-Xylene	16.38	91	9518179	21.5327	ppb		96
54) Bromoform	16.48	173	2855603	11.6215	ppb		99
55) Styrene	16.77	104	3716231	14.2346	ppb		97
56) 1,1,2,2-Tetrachloroethane	16.87	83	2677873	9.7573	ppb		99
57) o-Xylene	16.90	91	4744715	10.4862	ppb		95
59) 4-Ethyl Toluene	18.31	105	6608170	12.3027	ppb		98
60) 1,3,5-Trimethylbenzene	18.31	105	6608170	12.8466	ppb	#	68
61) 1,2,4-Trimethylbenzene	18.91	105	5604799	12.9624	ppb		96
62) Benzyl Chloride	19.09	91	3478778	10.6334	ppb		96
63) m-Dichlorobenzene	19.13	146	3375140	9.8287	ppb	#	95
64) p-Dichlorobenzene	19.13	146	3375140	10.7029	ppb	#	95
65) o-Dichlorobenzene	19.66	146	3279893	11.8200	ppb		96
66) 1,2,4-Trichlorobenzene	22.17	180	1287629	14.6170	ppb	#	97
67) Naphthalene	22.35	128	3547037	14.9996	ppb		99
68) Hexachloro-1,3-butadiene	22.91	225	1235624	10.6478	ppb		97

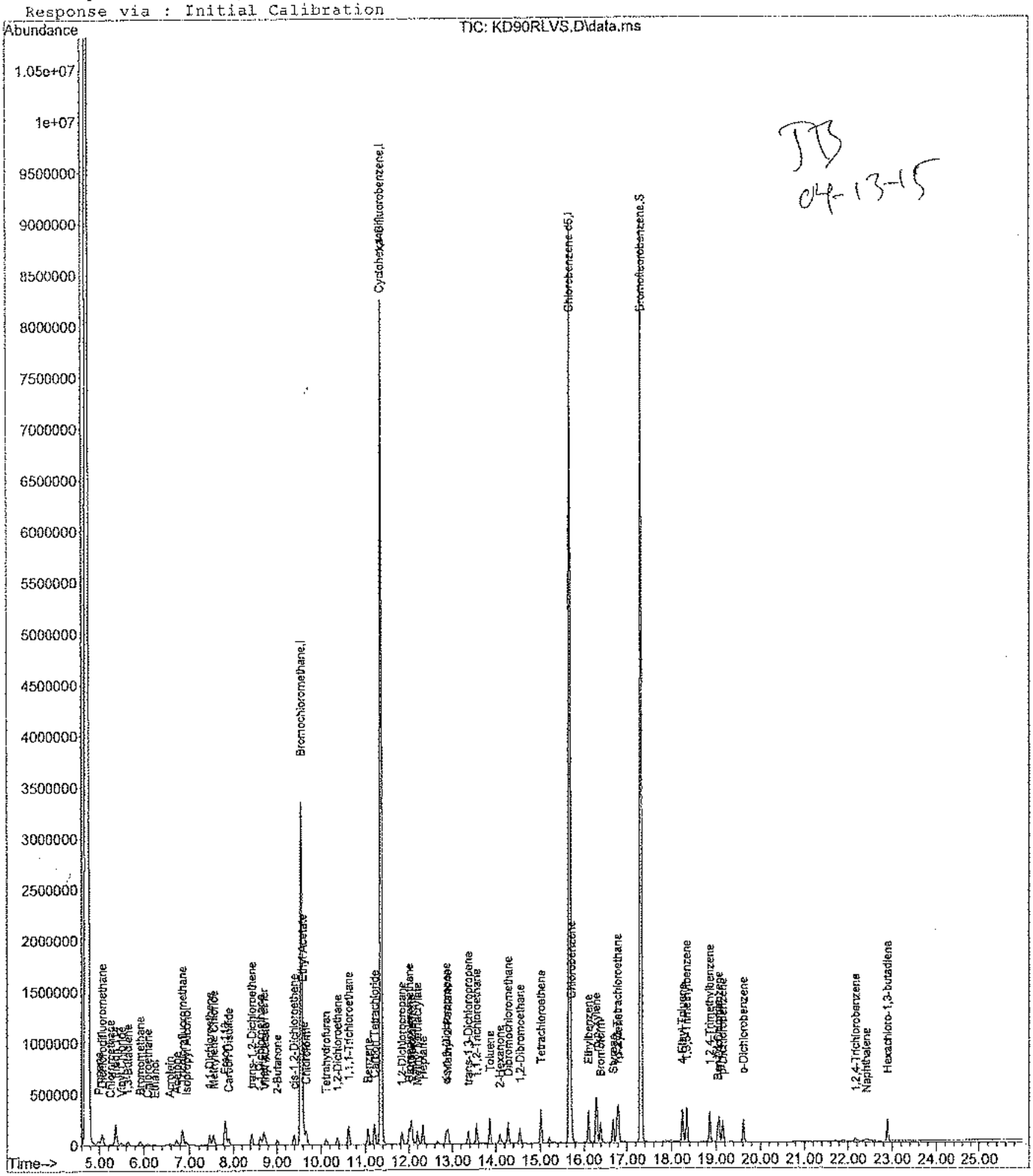
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD90RLVS.D Vial: 3
Acq Time : 04/10/2015 11:58 Operator:
Sample : RLVS Inst : 5975-K
Misc : 27426 (10 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 12:29:21 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JB
04-13-15

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD90RLVS.D Vial: 3
Acq Time : 04/10/2015 11:58 Operator:
Sample : RLVS Inst : 5975-K
Misc : 27426 (10 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 12:29:21 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.55	130	787648	20.0000	ppb		92.33
25) 1,4-Difluorobenzene	11.35	114	10770322	20.0000	ppb		96.55
50) Chlorobenzene d5	15.67	117	8891430	20.0000	ppb		92.21
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.32	95	5131465	16.4065	ppb		82.03%
Target Compounds							Qvalue
2) Propene	5.00	41	35947	0.5224	ppb	m	1
3) Dichlorodifluoromethane	5.07	85	179822	0.3709	ppb	m	89
4) Chloromethane	5.25	50	32777	0.3812	ppb	m	80
5) Freon 114	5.36	135	155734	0.4177	ppb	m	0
6) Vinyl Chloride	5.49	62	44686	0.4032	ppb	m	0
7) 1,3-Butadiene	5.64	54	31431	0.3944	ppb	m	0
8) Bromomethane	5.92	94	46108	0.3491	ppb	m	0
9) Chloroethane	6.09	64	23811	0.4347	ppb	m	0
10) Acrolein	6.57	56	17164	0.5638	ppb	m	0
11) Acetone	6.71	43	105468	0.5030	ppb	m	37
12) Trichlorofluoromethane	6.85	101	208533	0.4098	ppb	m	0
13) Ethanol	6.24	45	15873	0.5017	ppb	m	0
14) Isopropyl Alcohol	6.93	45	80875	0.5119	ppb		96
15) 1,1-Dichloroethene	7.45	61	92649	0.5285	ppb	m	0
16) Methylene Chloride	7.55	84	82197	0.7123	ppb	m	62
17) Freon 113	7.81	151	137974	0.5917	ppb	m	0
18) Carbon Disulfide	7.88	76	165104	0.5907	ppb	m	0
19) trans-1,2-Dichloroethene	8.43	96	74981	0.6946	ppb		91
20) 1,1-Dichloroethane	8.62	63	104838	0.5446	ppb		99
21) methyl t-butyl ether	8.70	73	182941	0.6128	ppb		96
22) Vinyl Acetate	8.73	86	19177	0.7314	ppb	#	1
23) 2-Butanone	9.01	43	98730	0.4986	ppb		89
24) cis-1,2-Dichloroethene	9.39	96	77033	0.7111	ppb	m	10
26) Ethyl Acetate	9.59	61	19202	0.5650	ppb	#	1
27) Hexane	9.60	57	79005	0.5363	ppb	#	20
28) Chloroform	9.66	83	144831	0.4464	ppb		100
29) Tetrahydrofuran	10.11	42	52283	0.5249	ppb		88
30) 1,2-Dichloroethane	10.37	62	89363	0.3964	ppb		100
31) 1,1,1-Trichloroethane	10.63	97	169869	0.4410	ppb		98
32) Benzene	11.06	78	202861	0.6816	ppb		98
33) Carbon Tetrachloride	11.21	117	184803	0.4063	ppb		99
34) Cyclohexane	11.34	84	98333	0.5736	ppb	#	1
35) 1,2-Dichloropropane	11.83	63	62615	0.6072	ppb		97
36) Bromodichloromethane	12.00	83	147644	0.4349	ppb		98
37) 1,4-Dioxane	12.08	88	47125	0.6561	ppb		95
38) Trichloroethene	12.05	130	127195	0.6434	ppb		97
39) Methyl Methacrylate	12.20	69	66335	0.5843	ppb	#	86
40) Heptane	12.32	71	66545	0.6098	ppb	#	86
41) cis-1,3-Dichloropropene	12.86	75	111003	0.5942	ppb		95
42) 4-Methyl-2-Pentanone	12.90	43	119962	0.4645	ppb	#	88
43) trans-1,3-Dichloropropene	13.37	75	105417	0.5646	ppb		96
44) 1,1,2-Trichloroethane	13.56	97	92507	0.5703	ppb		96
45) Toluene	13.86	91	273324	0.6561	ppb		100
46) 2-Hexanone	14.09	43	97741	0.4196	ppb	#	90
47) Dibromochloromethane	14.28	129	178664	0.4772	ppb		99
48) 1,2-Dibromoethane	14.54	107	146189	0.5553	ppb		98
49) Tetrachloroethene	15.02	166	150054	0.6719	ppb	#	84

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD90RLVS.D Vial: 3
Acq Time : 04/10/2015 11:58 Operator:
Sample : RLVS Inst : 5975-K
Misc : 27426 (10 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 10 12:29:21 2015 Results File: TO15KC15.RES

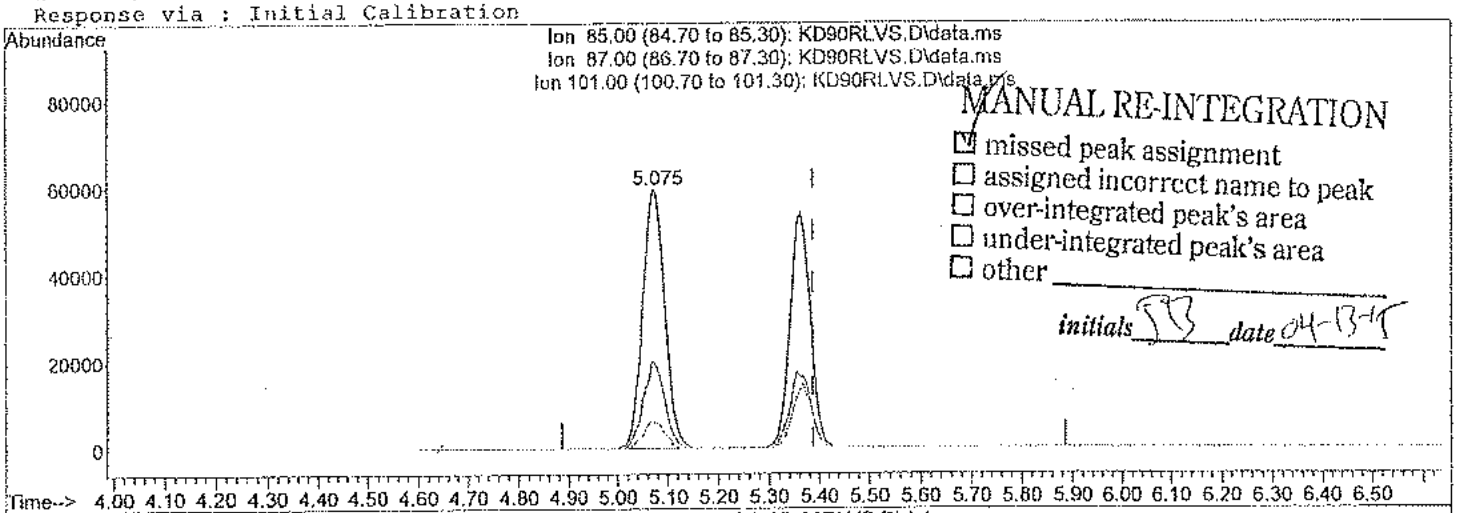
Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	15.71	112	237367	0.5589	ppb	#	74
52) Ethylbenzene	16.10	91	349738	0.6241	ppb		98
53) m,p-Xylene	16.29	91	543979	1.0689	ppb		95
54) Bromoform	16.39	173	142169	0.5025	ppb		99
55) Styrene	16.68	104	185601	0.6175	ppb		96
56) 1,1,2,2-Tetrachloroethane	16.78	83	150265	0.4755	ppb		98
57) o-Xylene	16.81	91	281191	0.5398	ppb		95
59) 4-Ethyl Toluene	18.24	105	315609	0.5103	ppb		98
60) 1,3,5-Trimethylbenzene	18.33	105	295606	0.4991	ppb		96
61) 1,2,4-Trimethylbenzene	18.86	105	271718	0.5458	ppb		96
62) Benzyl Chloride	19.04	91	126227	0.3351	ppb		95
63) m-Dichlorobenzene	19.07	146	167812	0.4244	ppb		95
64) p-Dichlorobenzene	19.16	146	149760	0.4125	ppb	#	94
65) o-Dichlorobenzene	19.62	146	163169	0.5107	ppb		95
66) 1,2,4-Trichlorobenzene	22.16	180	33854	0.3338	ppb	#	95
67) Naphthalene	22.41	128	77866	0.2860	ppb	#	84
68) Hexachloro-1,3-butadiene	22.89	225	56068	0.4197	ppb		98

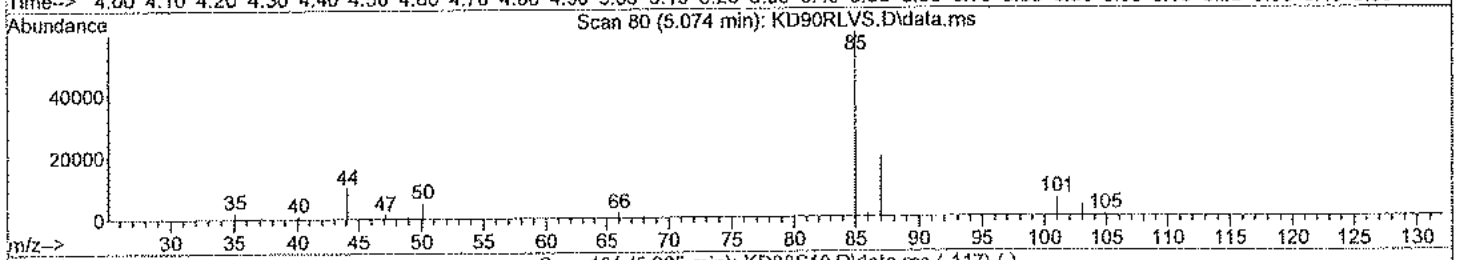
Quantitation Report (Qedit)

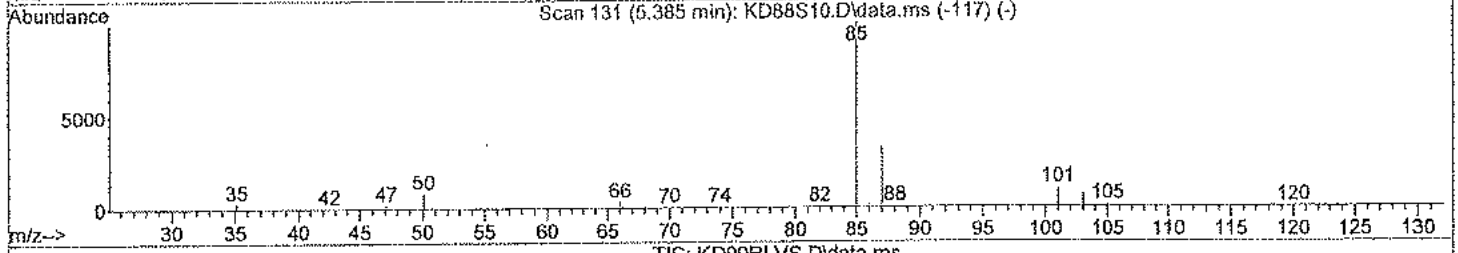
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials RB date 04-13-15





TIC: KD90RLVS.D\data.ms

(3) Dichlorodifluoromethane

5.074min (-0.311) 0.37 ppb m

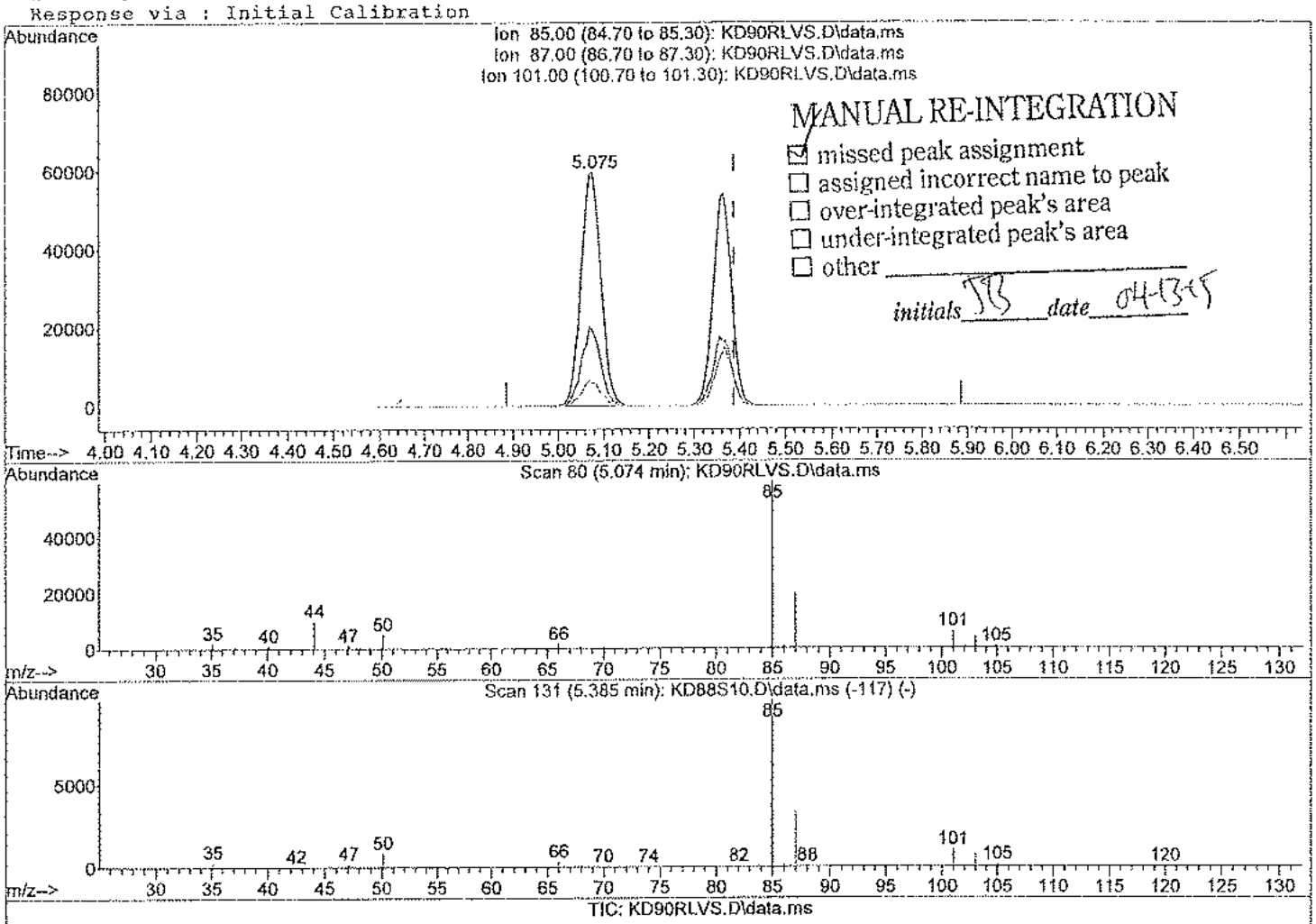
response 179822

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	27.50
101.00	10.00	21.75#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



TIC: KD90RLVS.D\data.ms

(3) Dichlorodifluoromethane

5.074min (-0.311) 0.37 ppb m

response 179822

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	27.50
101.00	10.00	21.75#
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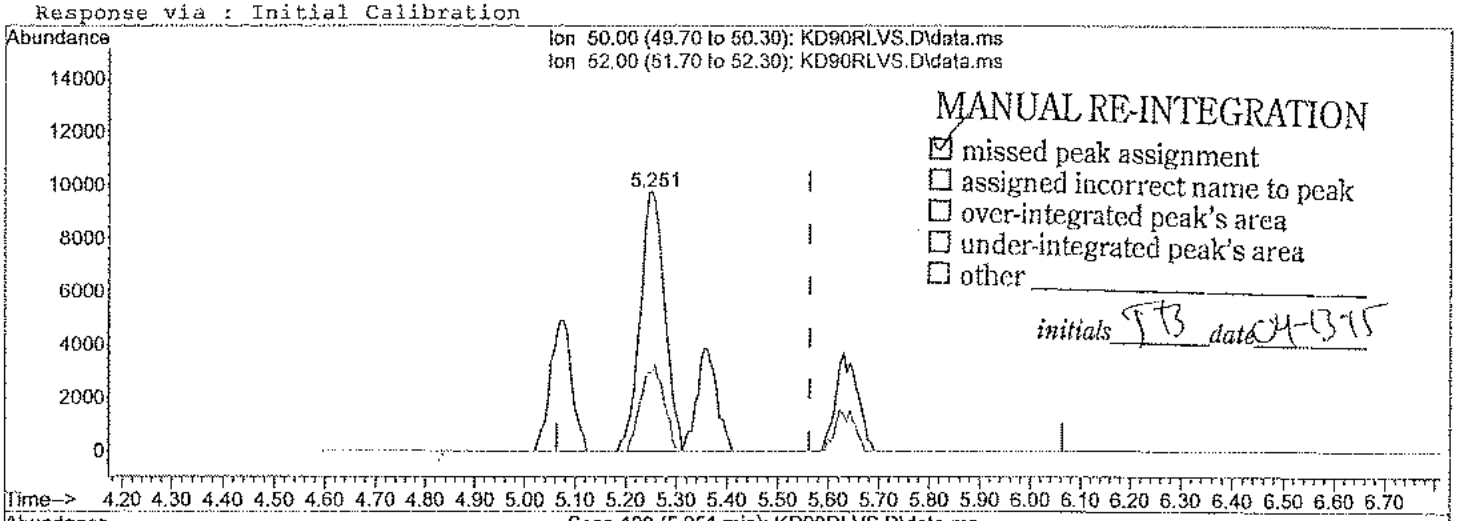
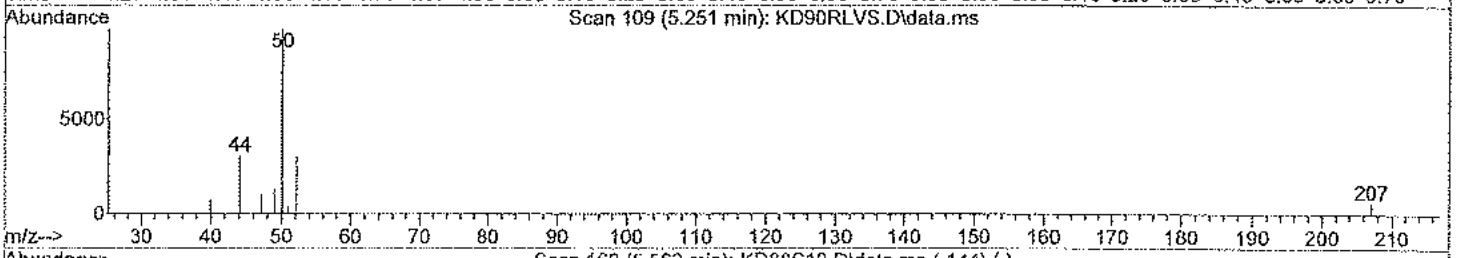
Quantitation Report (Qedit)

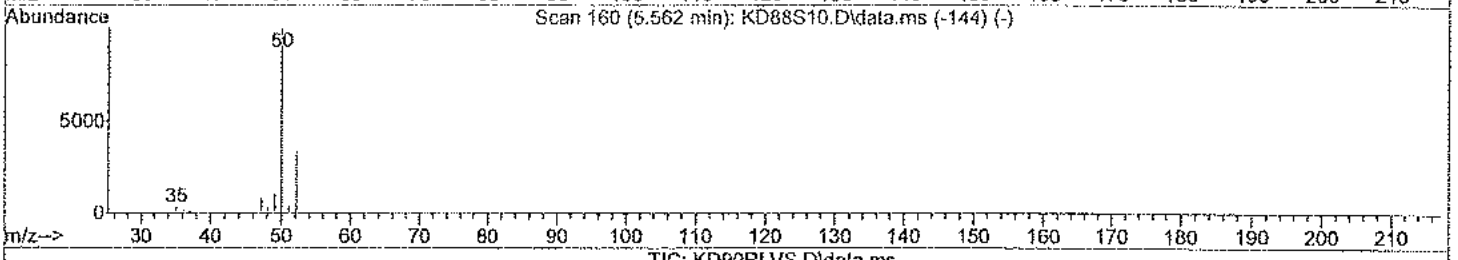
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 04-13-15





TIC: KD90RLVS.D\data.ms

(4) Chloromethane

5.251min (-0.311) 0.38 ppb m

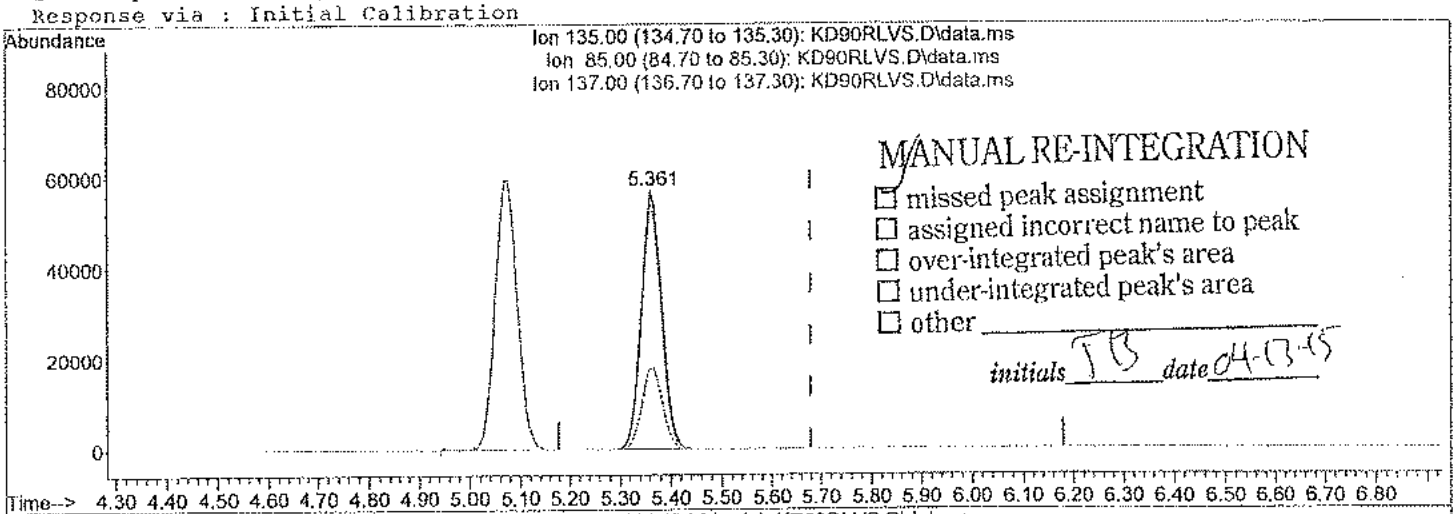
response 32777

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	7.37#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

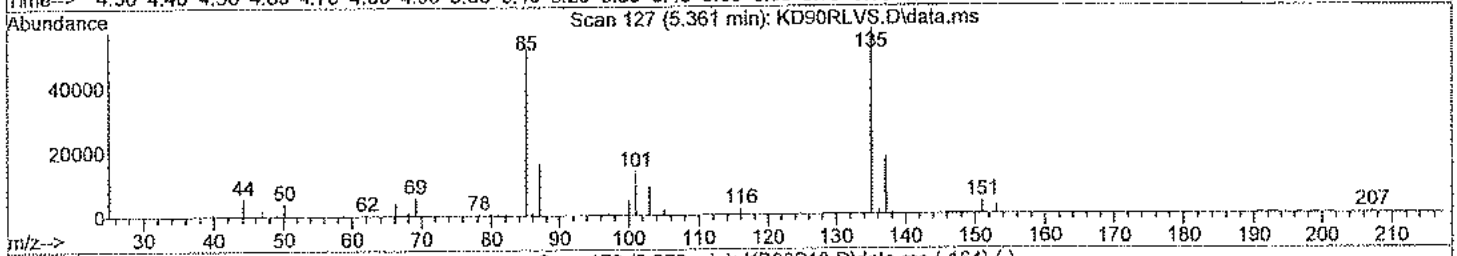
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

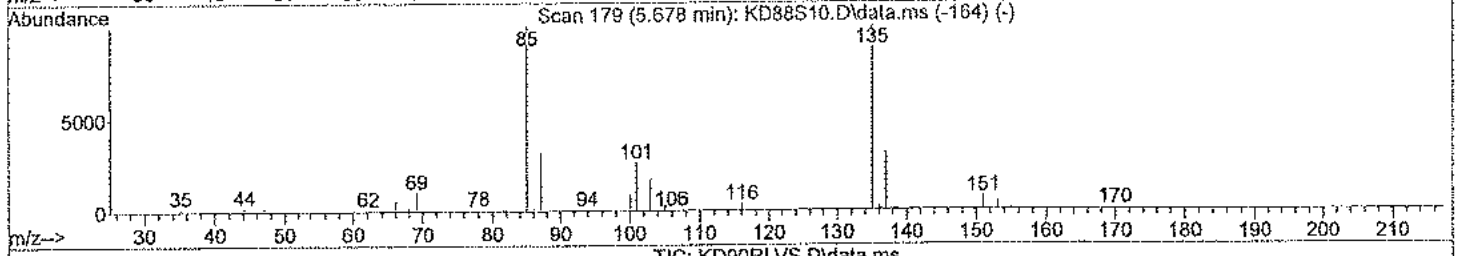
Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials TB *date* 04-13-15





TIC: KD90RLVS.D\data.ms

(5) Freon 114

5.361min (-0.317) 0.42 ppb m

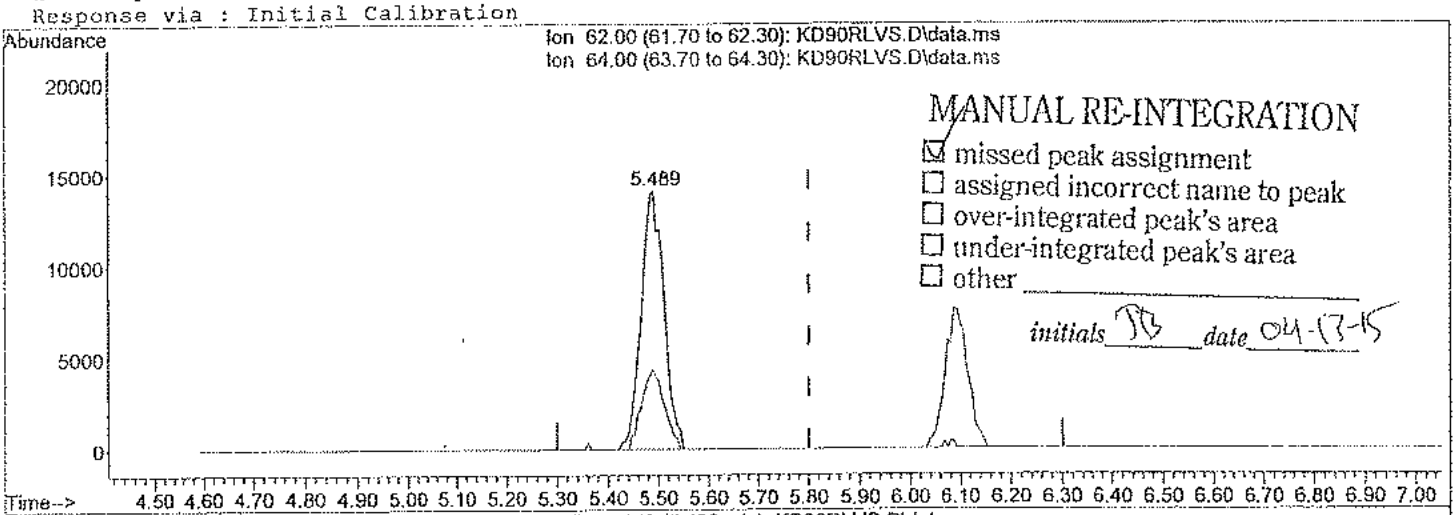
response 155734

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	0.00#
137.00	32.70	0.00#
0.00	0.00	0.00

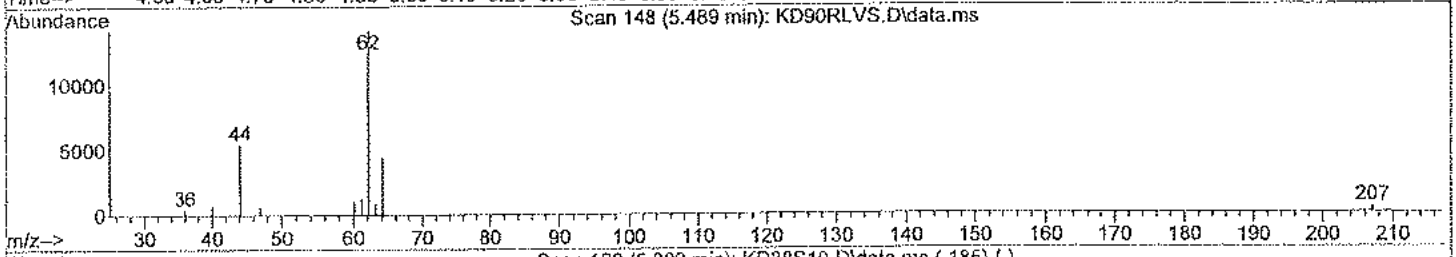
Quantitation Report (Qedit)

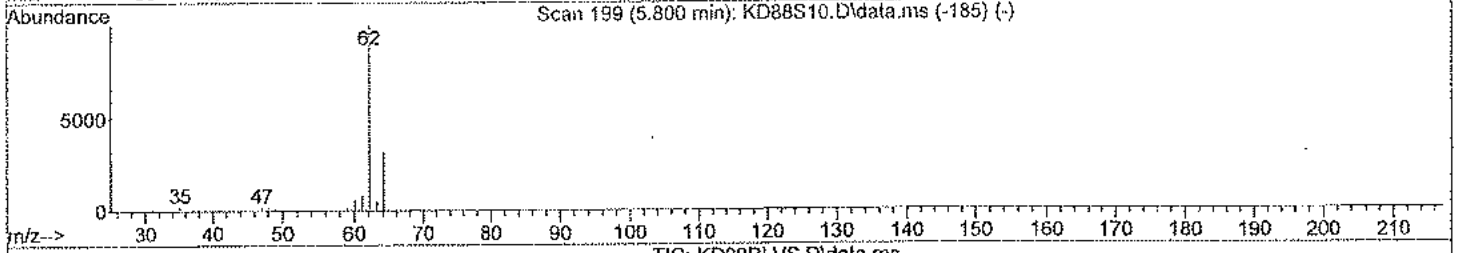
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB *date* 04-17-15





TIC: KD90RLVS.D\data.ms

(6) Vinyl Chloride

5.489min (-0.311) 0.40 ppb m

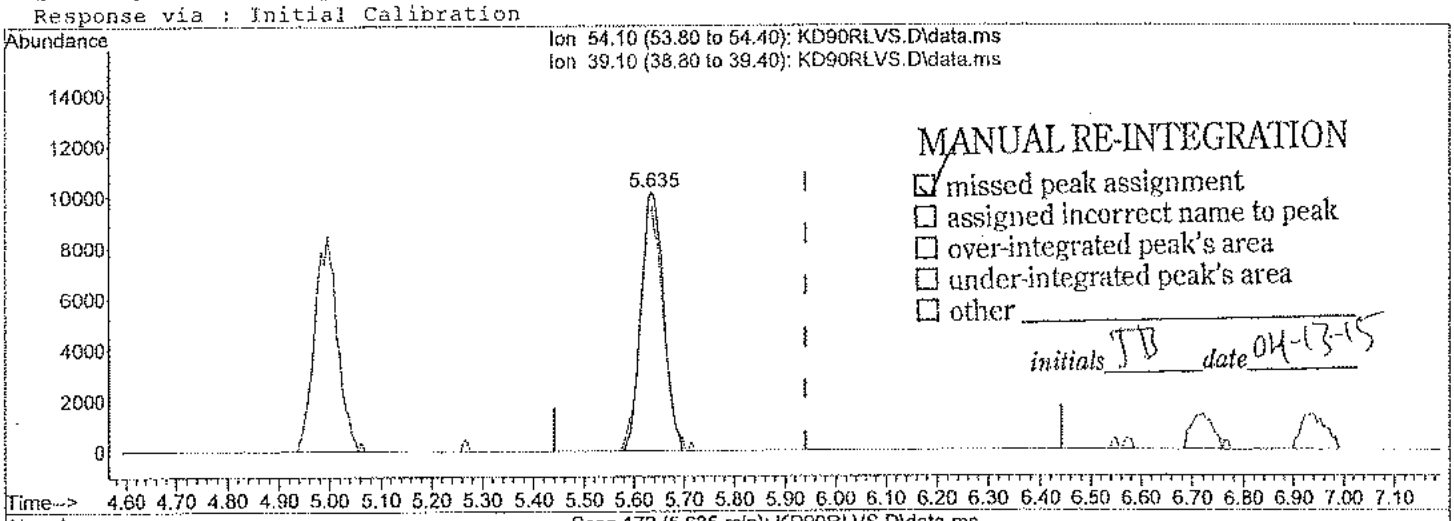
response 44686

Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

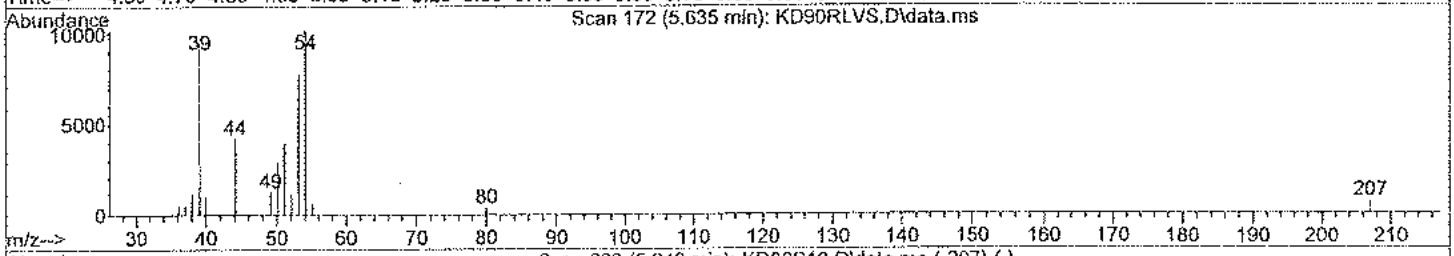
Quantitation Report (Qedit)

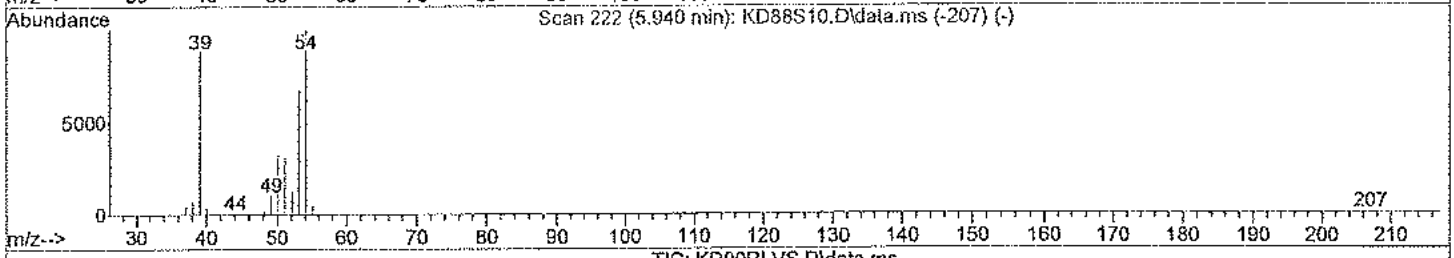
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB *date* 04-13-15





TIC: KD90RLVS.D\data.ms

(7) 1,3-Butadiene

5.635min (-0.305) 0.39 ppb m

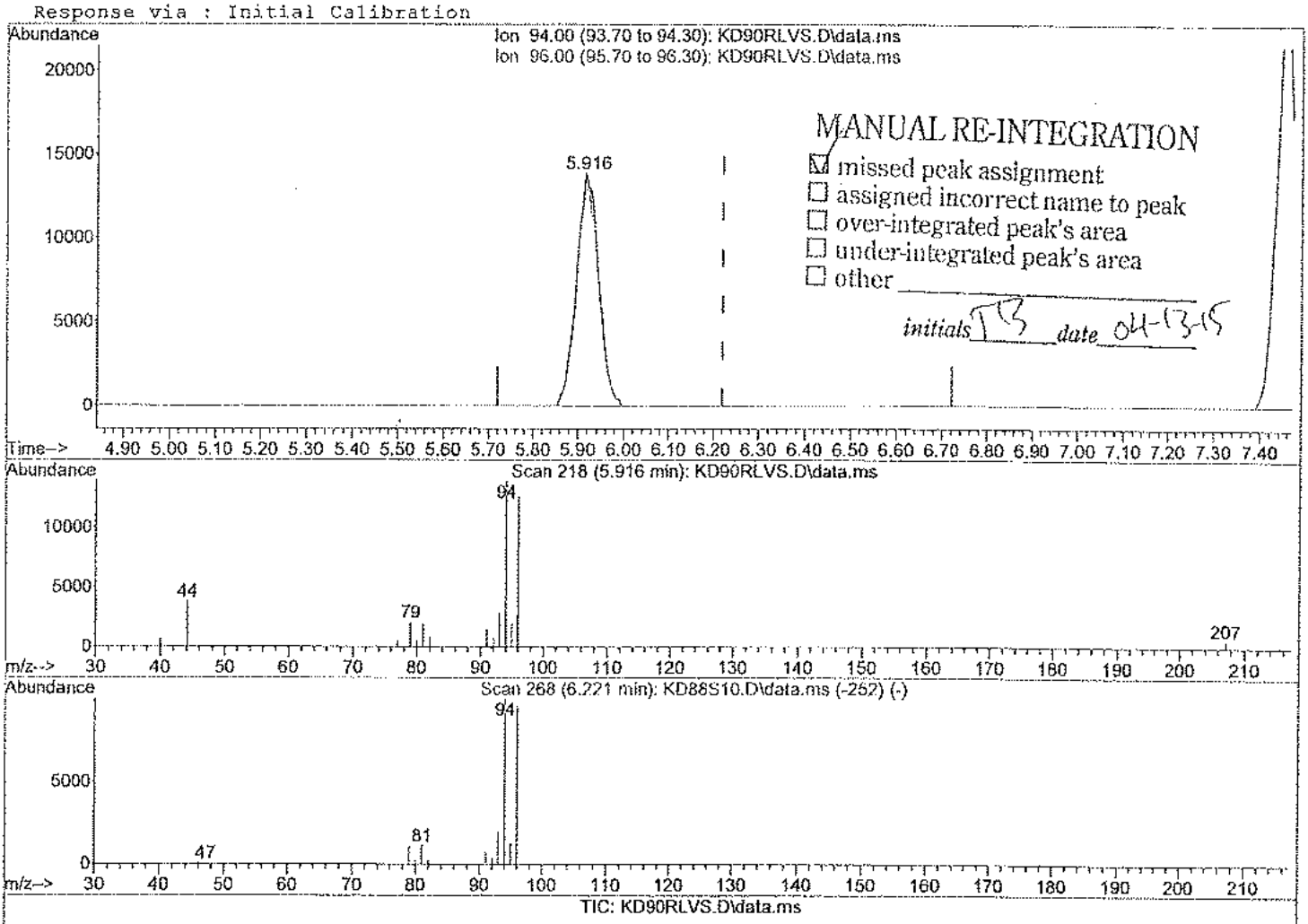
response 31431

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



TIC: KD90RLVS.D\data.ms

(8) Bromomethane

5.916min (-0.305) 0.35 ppb m

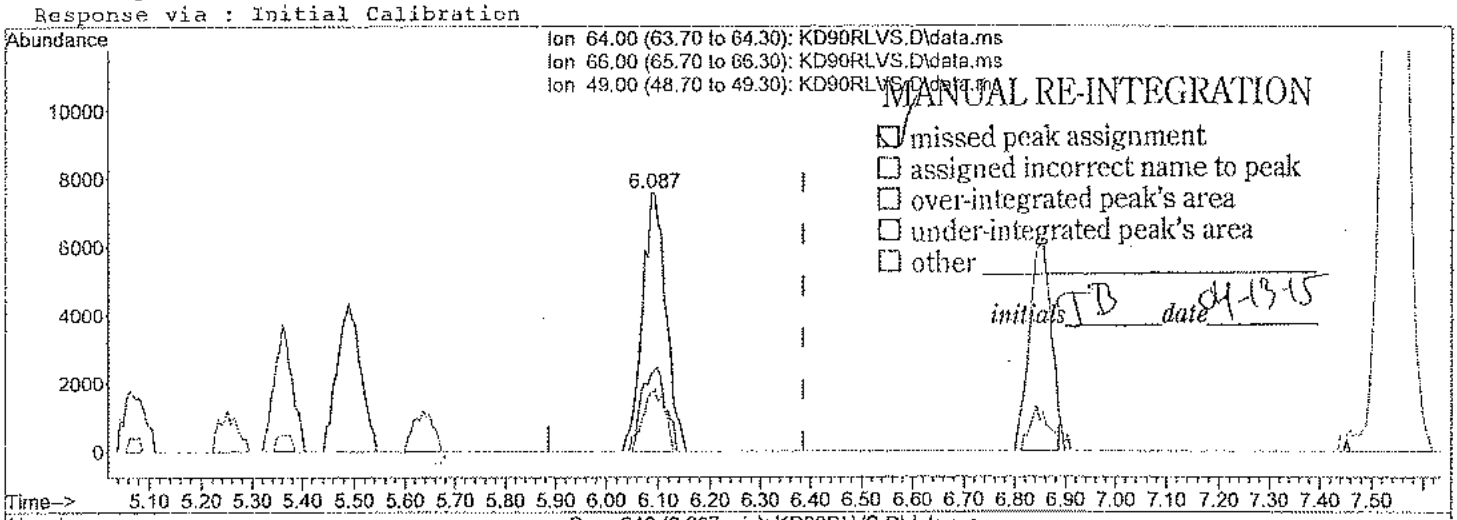
response 46108

Ion	Exp%	Act%
94.00	100.00	100.00
96.00	95.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

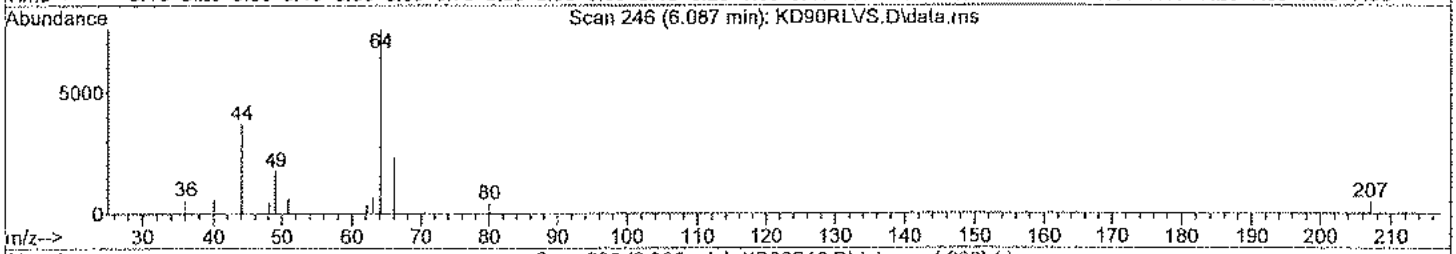
Quantitation Report (Qedit)

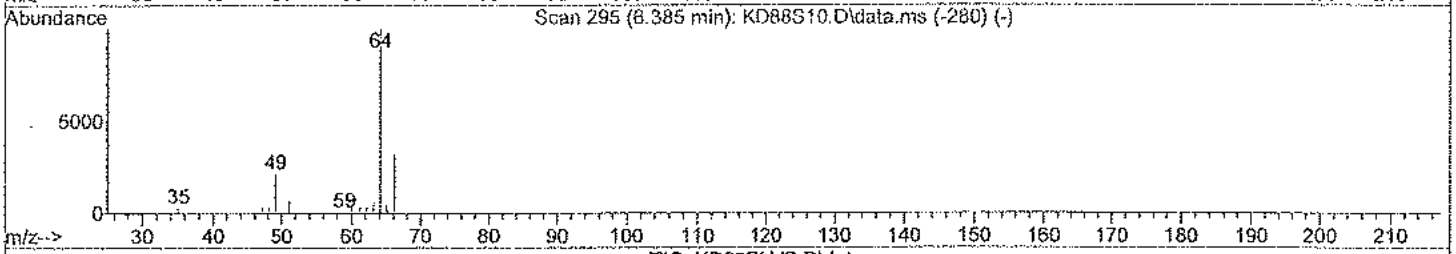
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 4-13-15





TIC: KD90RLVS.D\data.ms

(9) Chloroethane

6.087min (-0.299) 0.43 ppb m

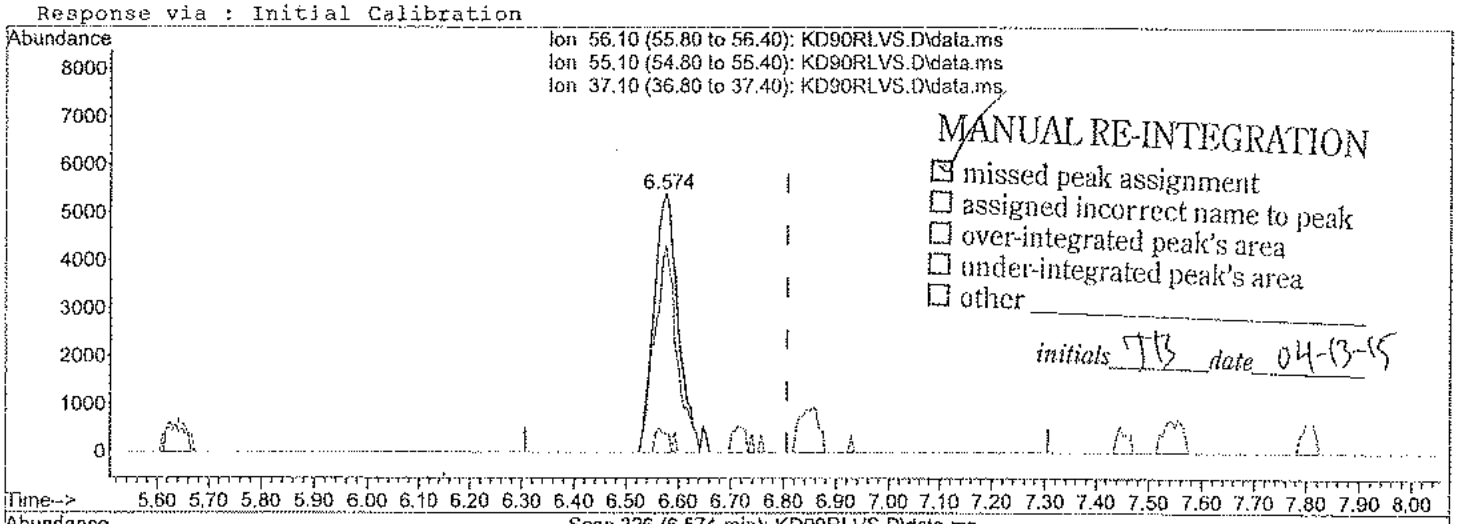
response 23811

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☒ missed peak assignment
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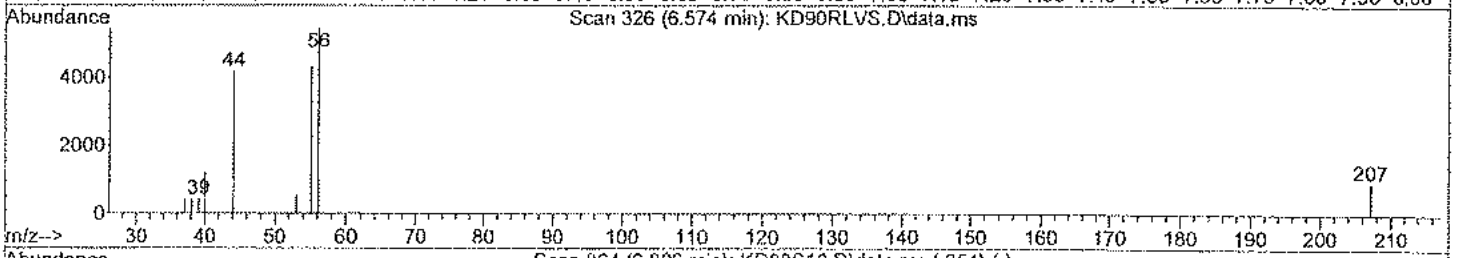
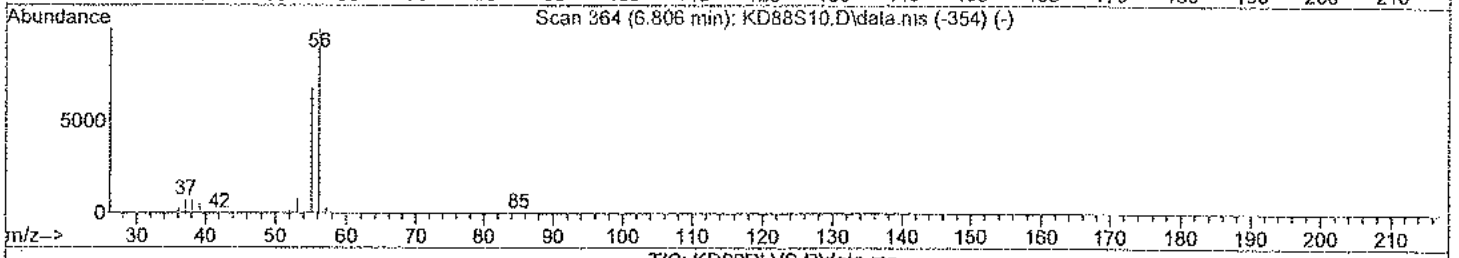
☐ other _____
initials TB *date* 04-13-15





TIC: KD90RLVS.D\data.ms

(10) Acrolein

6.574min (-0.232) 0.56 ppb m

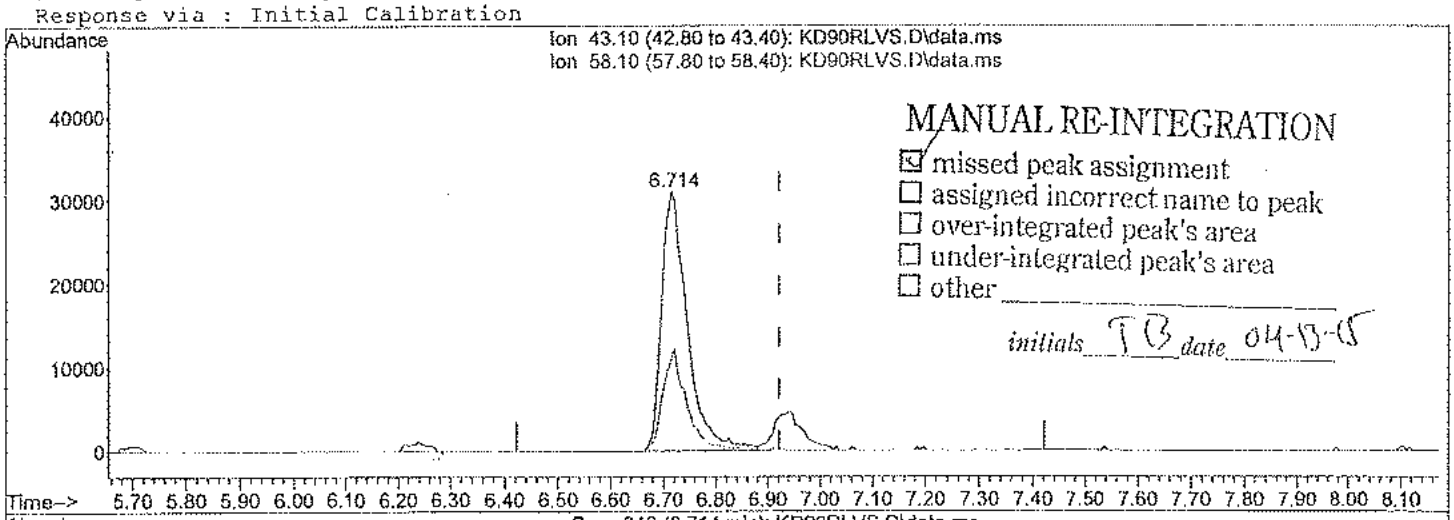
response 17164

Ion	Exp%	Act%
56.10	100.00	100.00
55.10	68.90	0.00#
37.10	9.90	0.00#
0.00	0.00	0.00

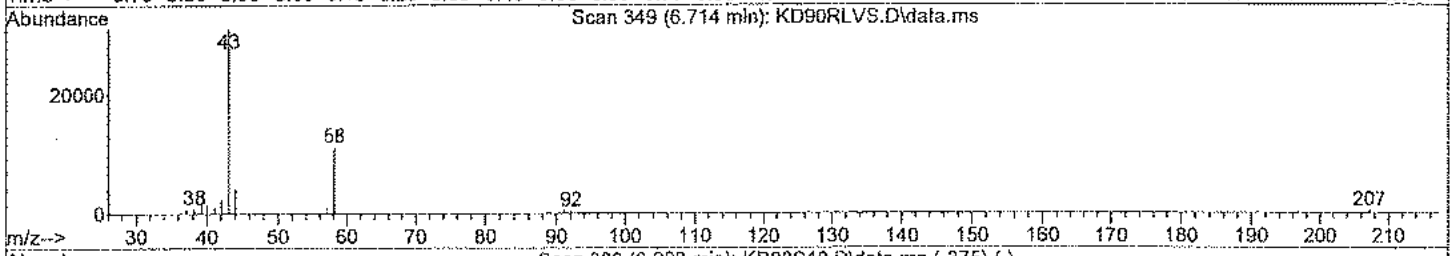
Quantitation Report (Qedit)

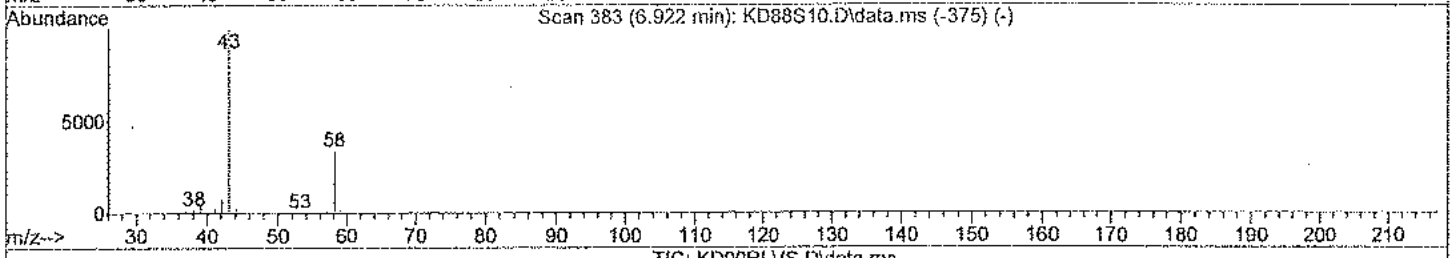
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 04-13-15





TIC: KD90RLVS.D\data.ms

(11) Acetone

6.714min (-0.207) 0.50 ppb m

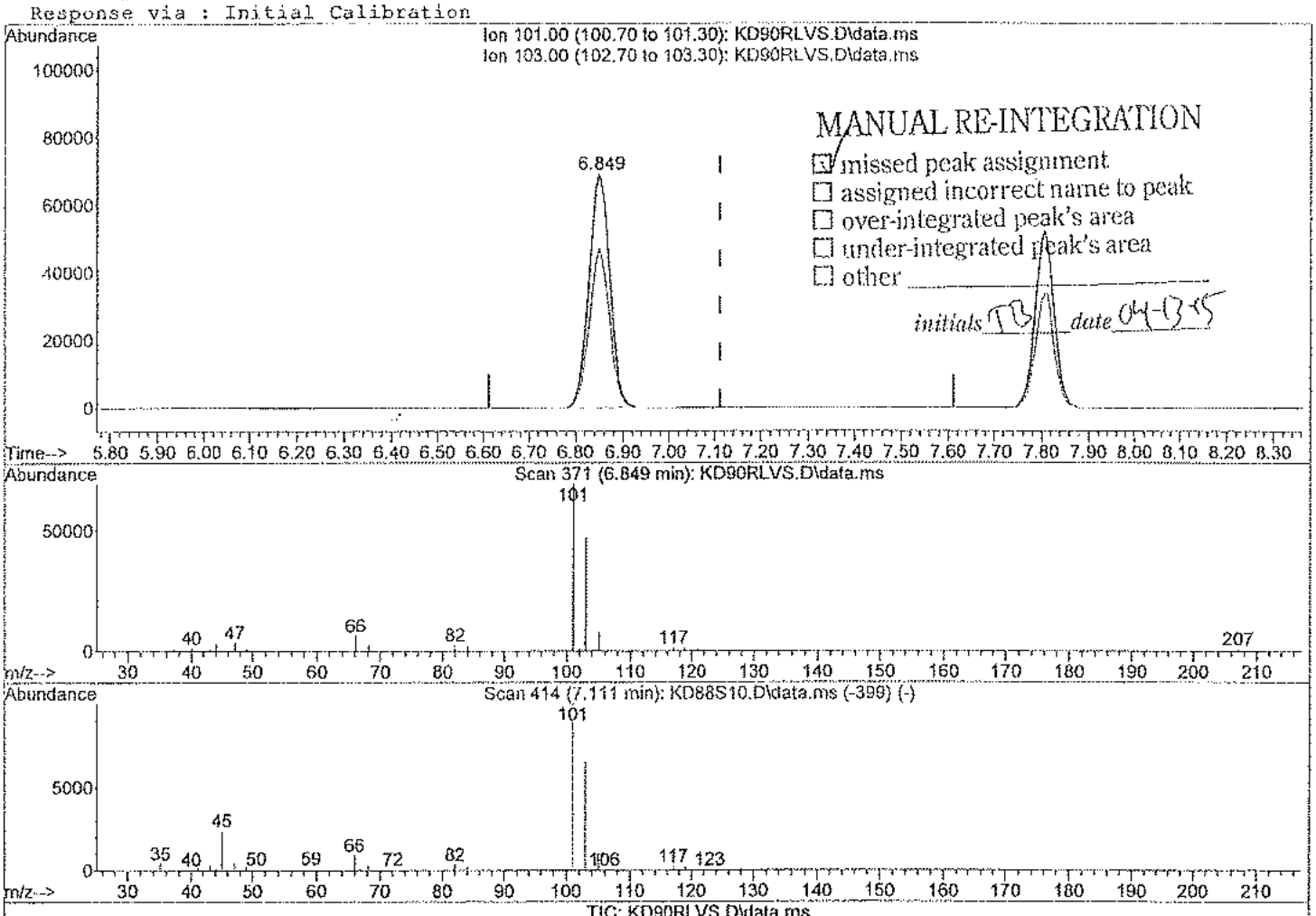
response 105468

Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



TIC: KD90RLVS.D\data.ms

(12) Trichlorofluoromethane

6.849min (-0.262) 0.41 ppb m

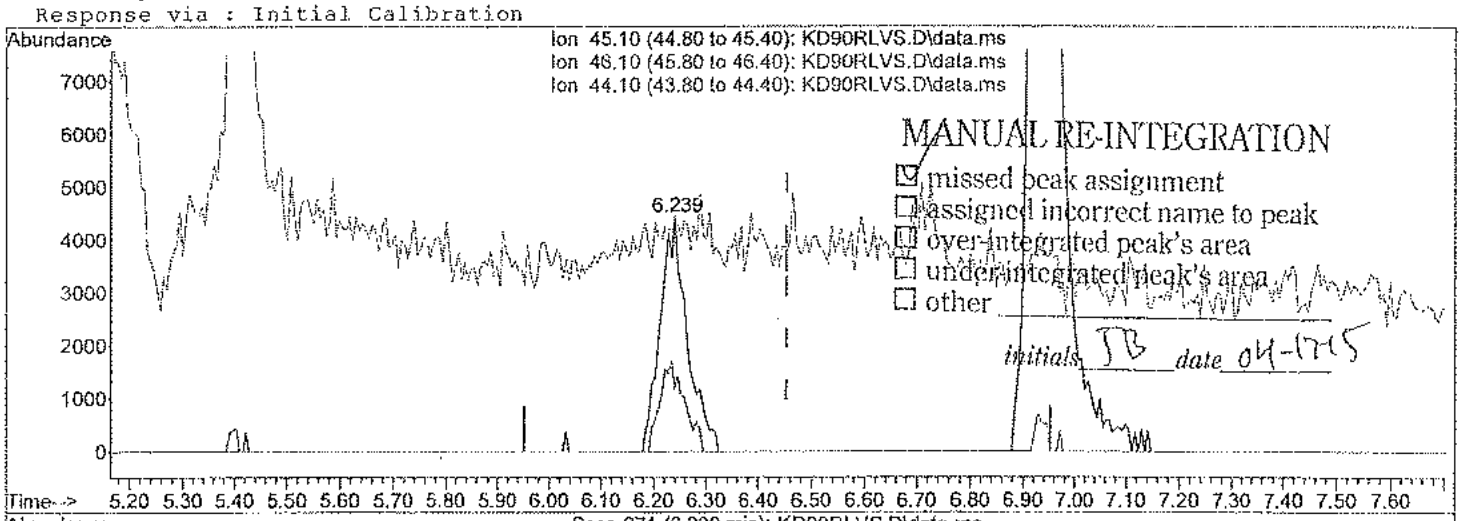
response 208533

Ion	Exp%	Act%
101.00	100.00	100.00
103.00	64.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

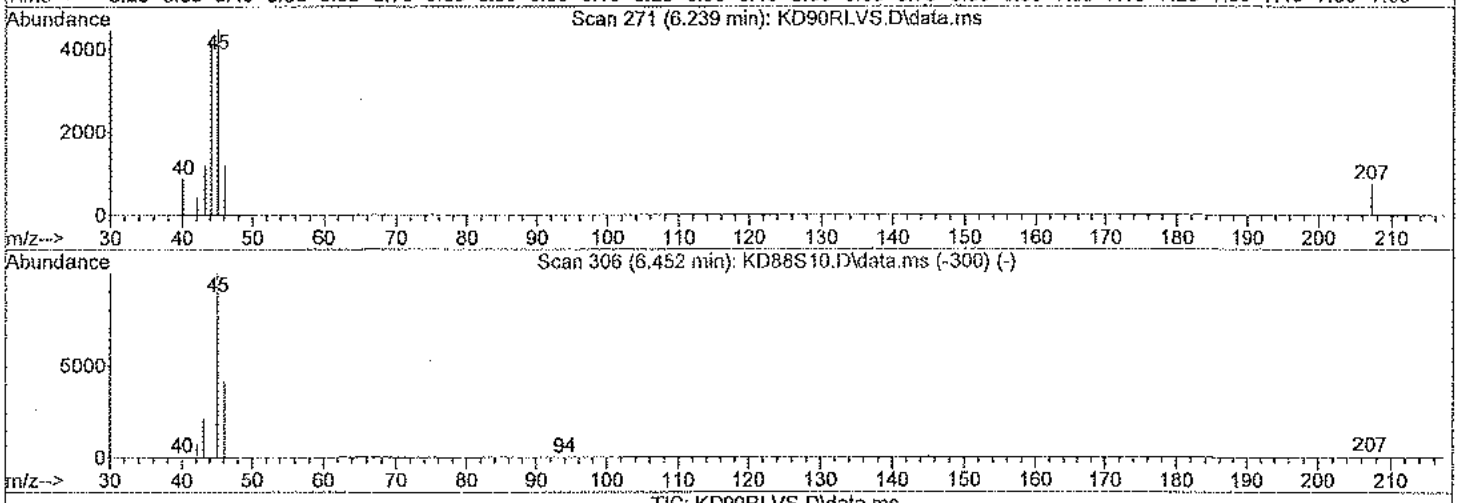
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials JB *date* 04-17-15



TIC: KD90RLVS.D\data.ms

(13) Ethanol

6.239min (-0.213) 0.50 ppb m

response 15873

Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	0.00#
44.10	29.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
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Misc : 27426 (10 mL)
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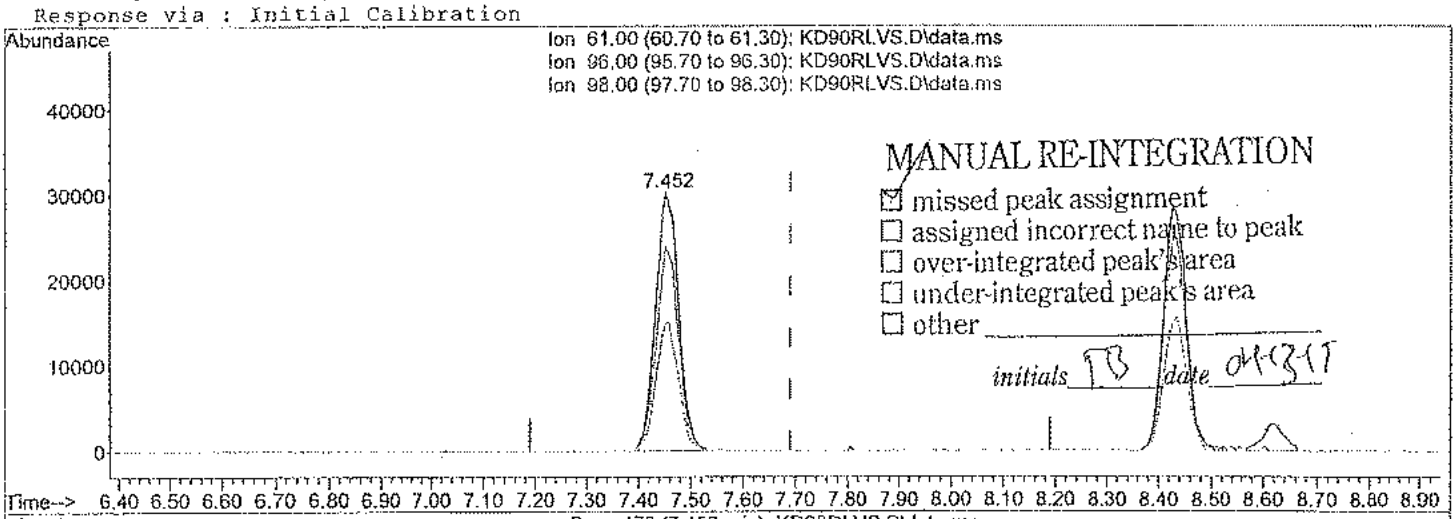
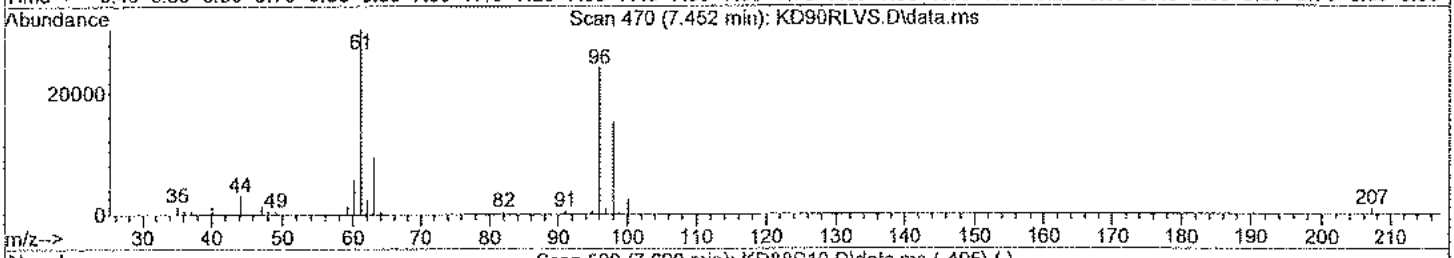
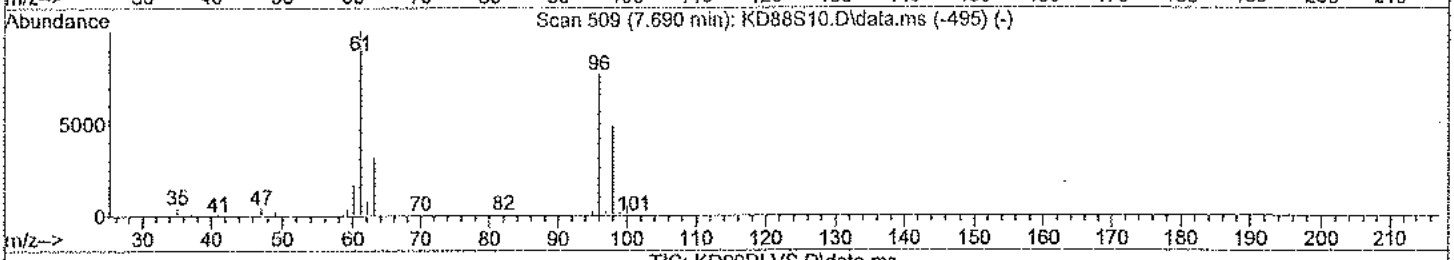
Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration







TIC: KD90RLVS.D\data.ms

(15) 1,1-Dichloroethene

7.452min (-0.238) 0.53 ppb m

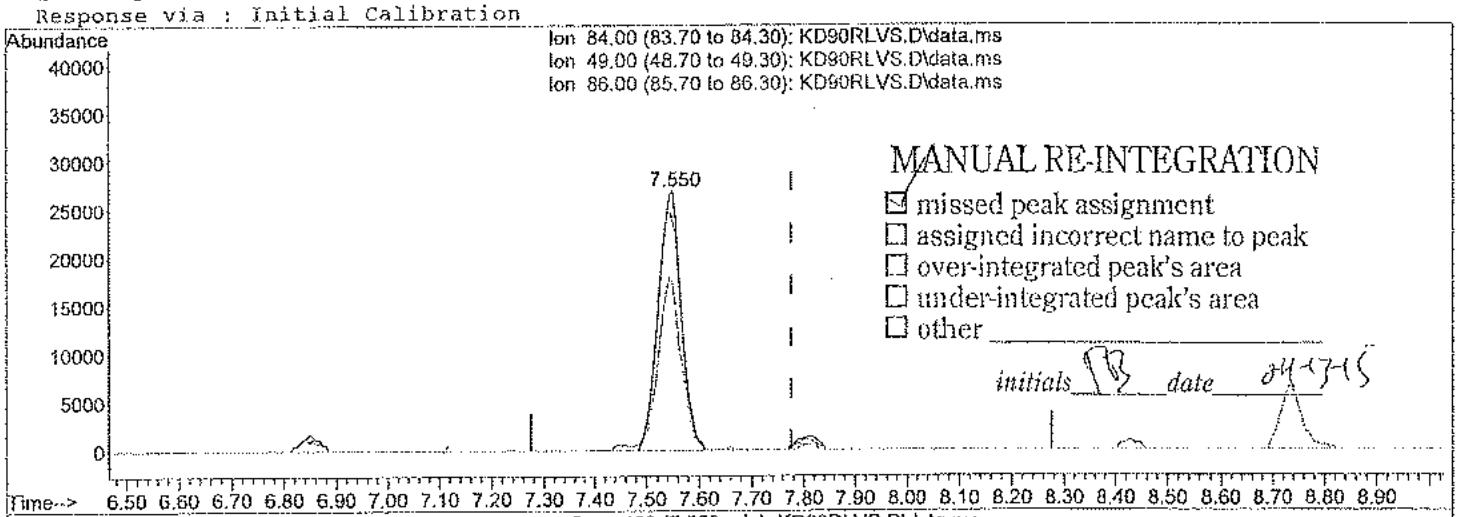
response 92649

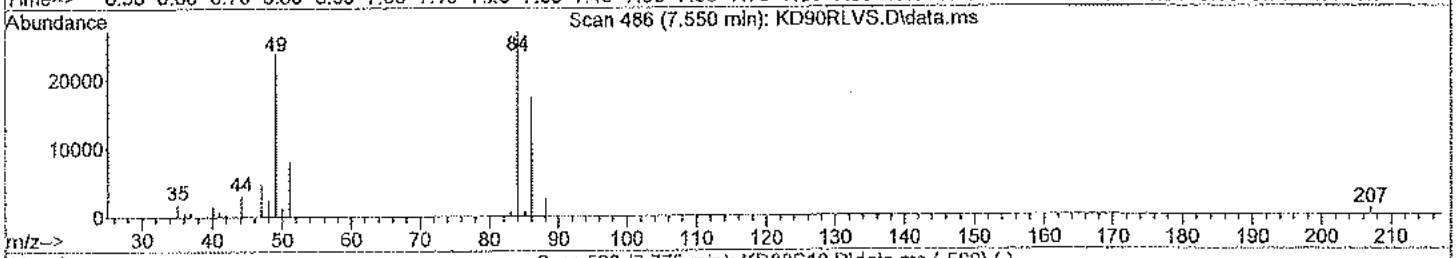
Ion	Exp%	Act%
61.00	100.00	100.00
96.00	86.40	0.00#
98.00	55.10	0.00#
0.00	0.00	0.00

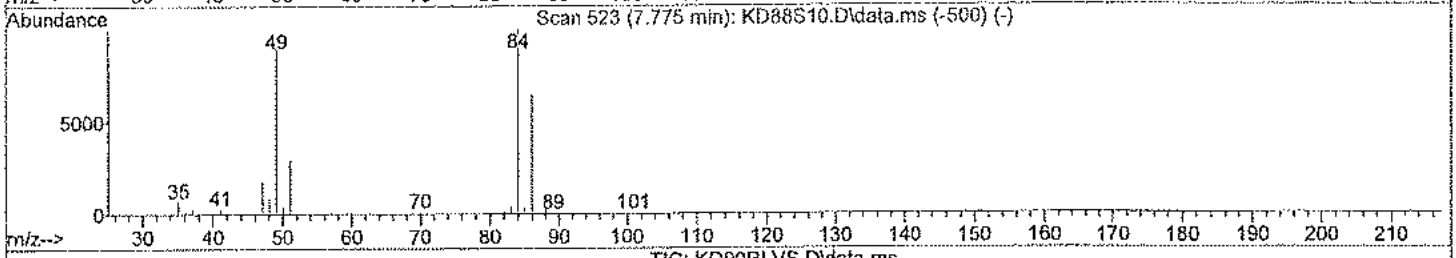
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration







TIC: KD90RLVS.D\data.ms

(16) Methylene Chloride

7.550min (-0.226) 0.71 ppb m

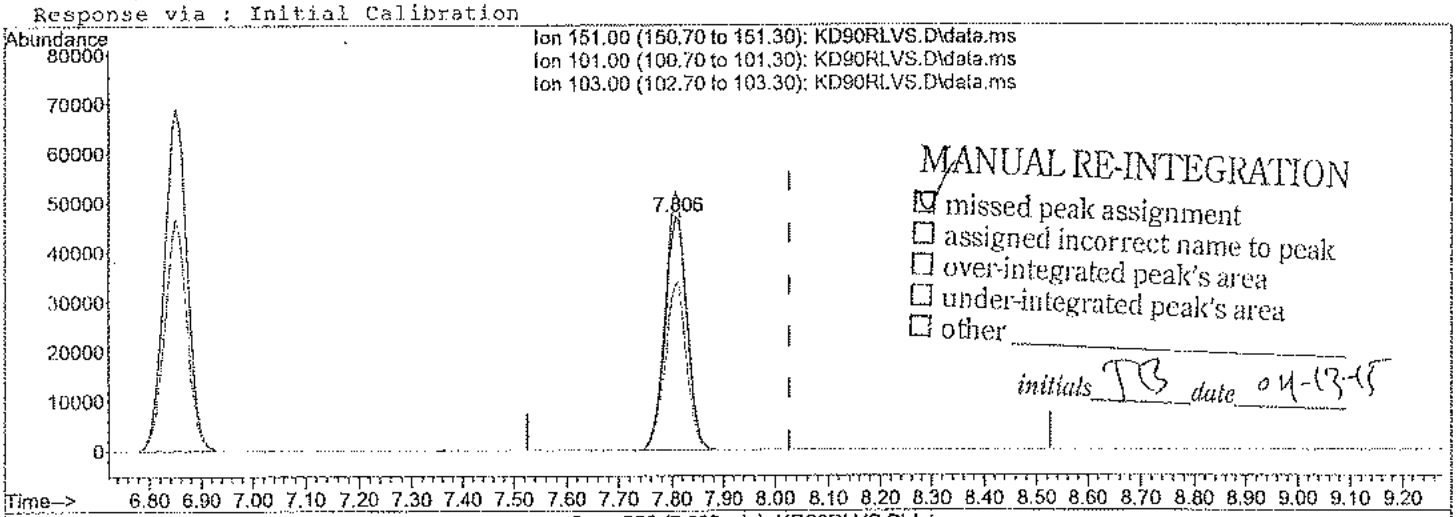
response 82197

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	3.69#
86.00	64.50	0.00#
0.00	0.00	0.00

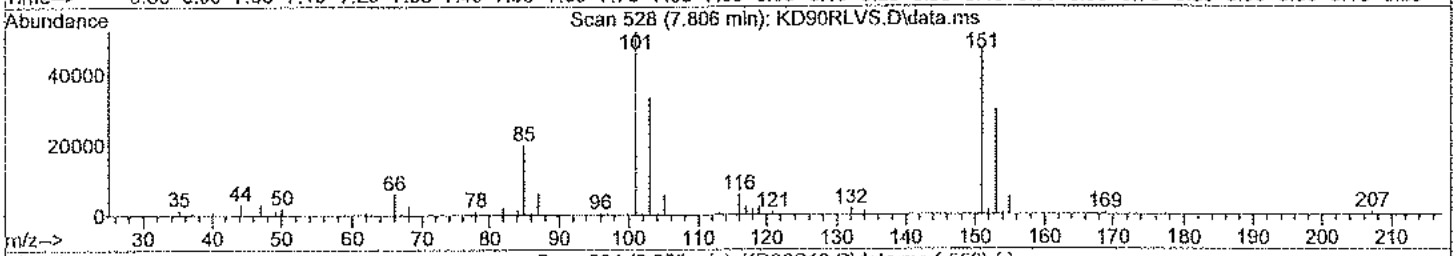
Quantitation Report (Qedit)

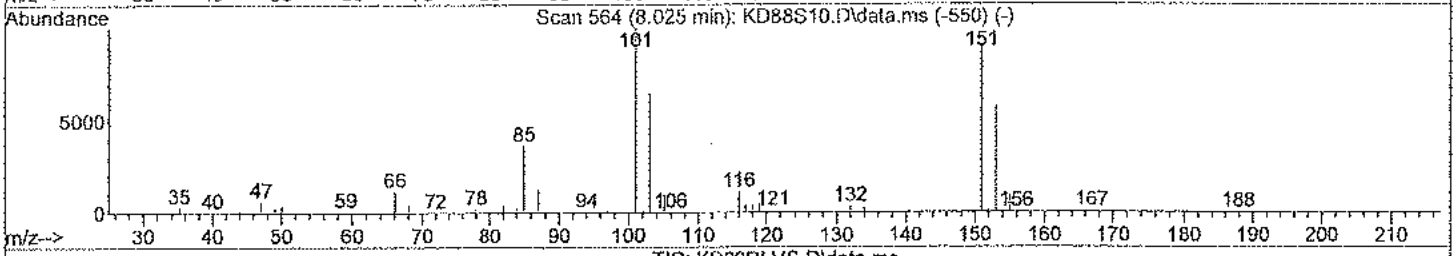
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 04-13-15





TIC: KD90RLVS.D\data.ms

(17) Freon 113

7.806min (-0.219) 0.59 ppb m

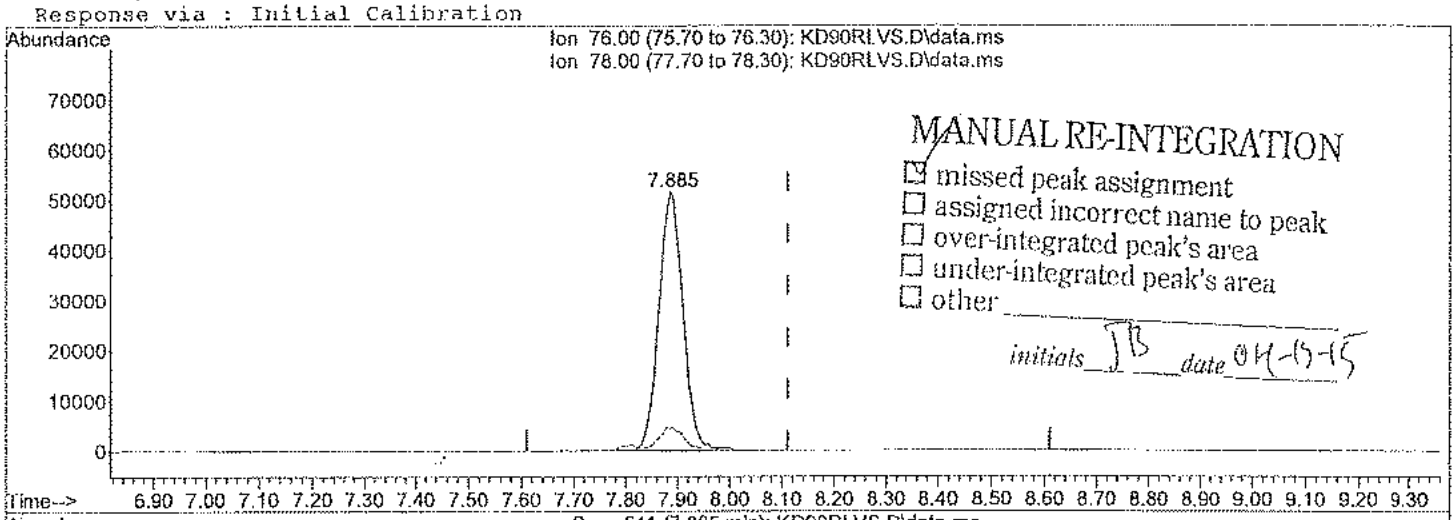
response 137974

Ion	Exp%	Act%
151.00	100.00	100.00
101.00	90.90	0.00#
103.00	58.80	0.00#
0.00	0.00	0.00

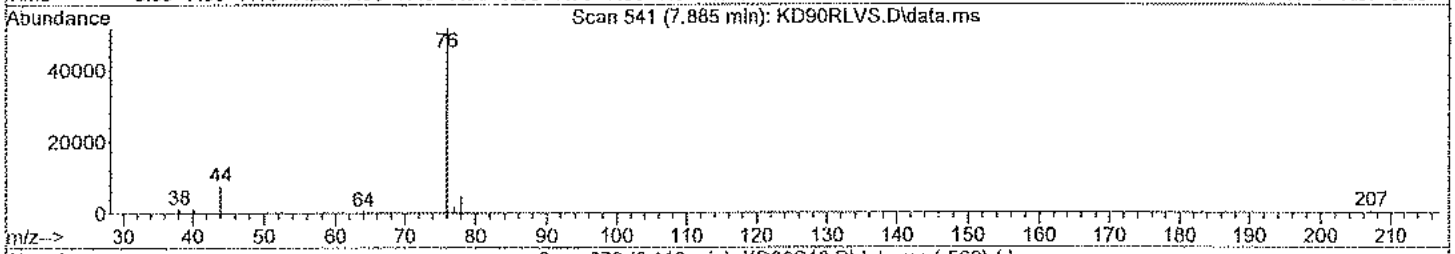
Quantitation Report (Qedit)

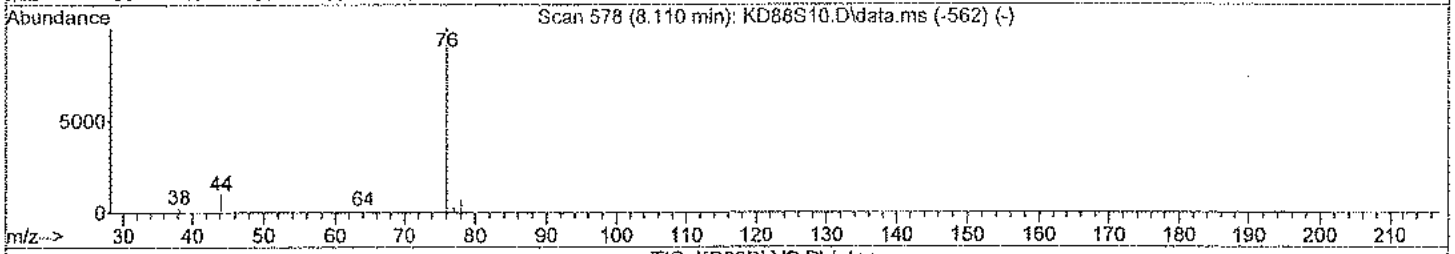
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials JB date 04-15-15





TIC: KD90RLVS.D\data.ms

(18) Carbon Disulfide

7.885min (-0.226) 0.59 ppb m

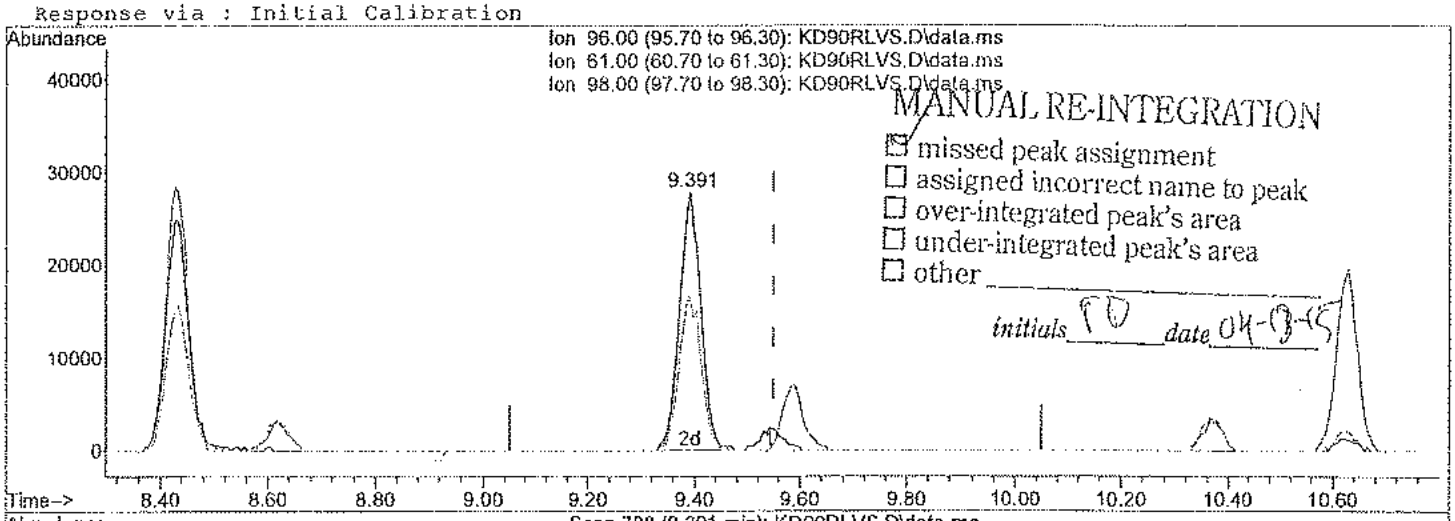
response 165104

Ion	Exp%	Act%
76.00	100.00	100.00
78.00	30.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

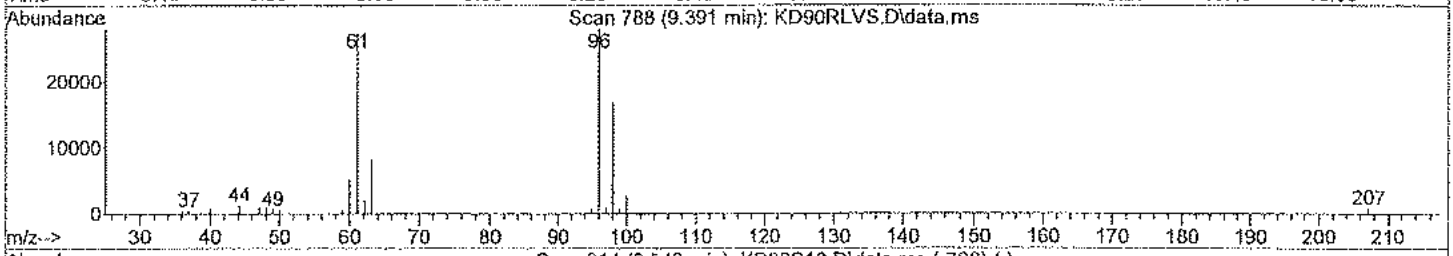
Quantitation Report (Qedit)

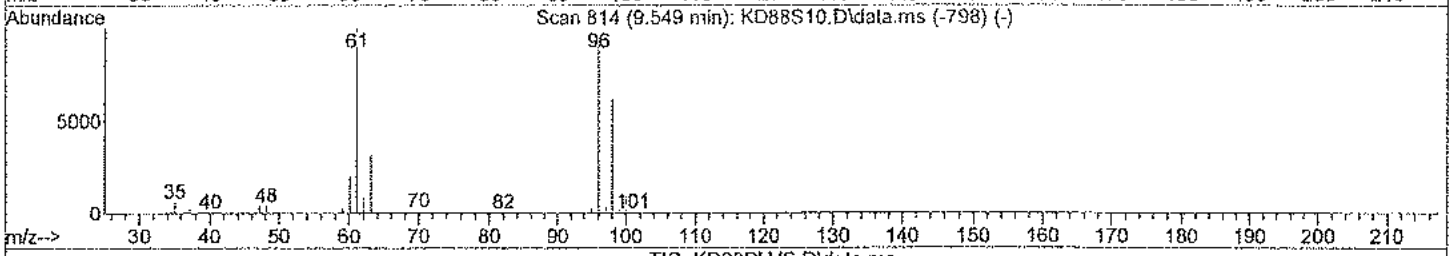
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD90RLVS.D
Acq On : 04/10/2015 11:58
Operator :
Sample : RLVS
Inst : 5975-K
Misc : 27426 (10 mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 10 12:29:21 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☒ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TD date 04-13-15





TIC: KD90RLVS.D\data.ms

(24) cis-1,2-Dichloroethene

9.391min (-0.159) 0.71 ppb m

response 77033

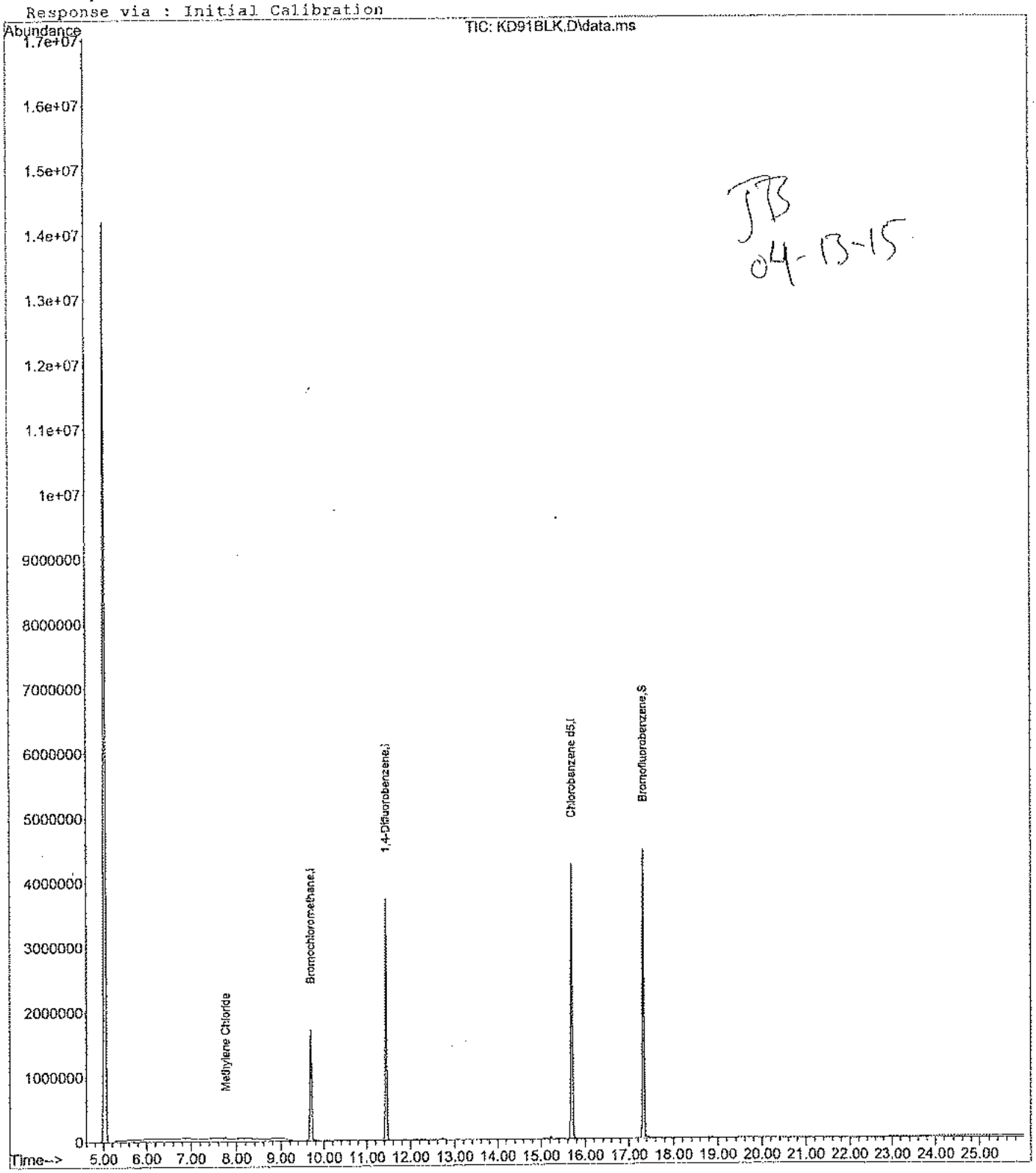
Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	0.00#
98.00	64.90	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD91BLK.D Vial: 1
Acq Time : 04/10/2015 13:03 Operator:
Sample : BL- Inst : 5975-K
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 11:03:32 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JTB
04-13-15

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD91BLK.D Vial: 1
Acq Time : 04/10/2015 13:03 Operator:
Sample : BL- Inst : 5975-K
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 11:03:32 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	9.70	130	397312	20.0000	ppb	46.58#
25) 1,4-Difluorobenzene	11.44	114	4637689	20.0000	ppb	41.58#
50) Chlorobenzene d5	15.69	117	4126607	20.0000	ppb	42.80#
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	17.32	95	2506409	17.2666	ppb	86.33%
Target Compounds						Qvalue
2) Propene	0.00	41		Not Detected		
3) Dichlorodifluoromethane	0.00	85		Not Detected		
4) Chloromethane	0.00	50		Not Detected		
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	0.00	43		Not Detected		
12) Trichlorofluoromethane	0.00	101		Not Detected		
13) Ethanol	0.00	45		Not Detected		
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	7.76	84	13895	0.2387	ppb	91
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	0.00	76		Not Detected		
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	0.00	57		Not Detected		
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	0.00	78		Not Detected		
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	0.00	130		Not Detected		
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	0.00	71		Not Detected		
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected		
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	0.00	91		Not Detected		
46) 2-Hexanone	0.00	43		Not Detected		
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	0.00	166		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD91BLK.D Vial: 1
Acq Time : 04/10/2015 13:03 Operator:
Sample : BL- Inst : 5975-K
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 11:03:32 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

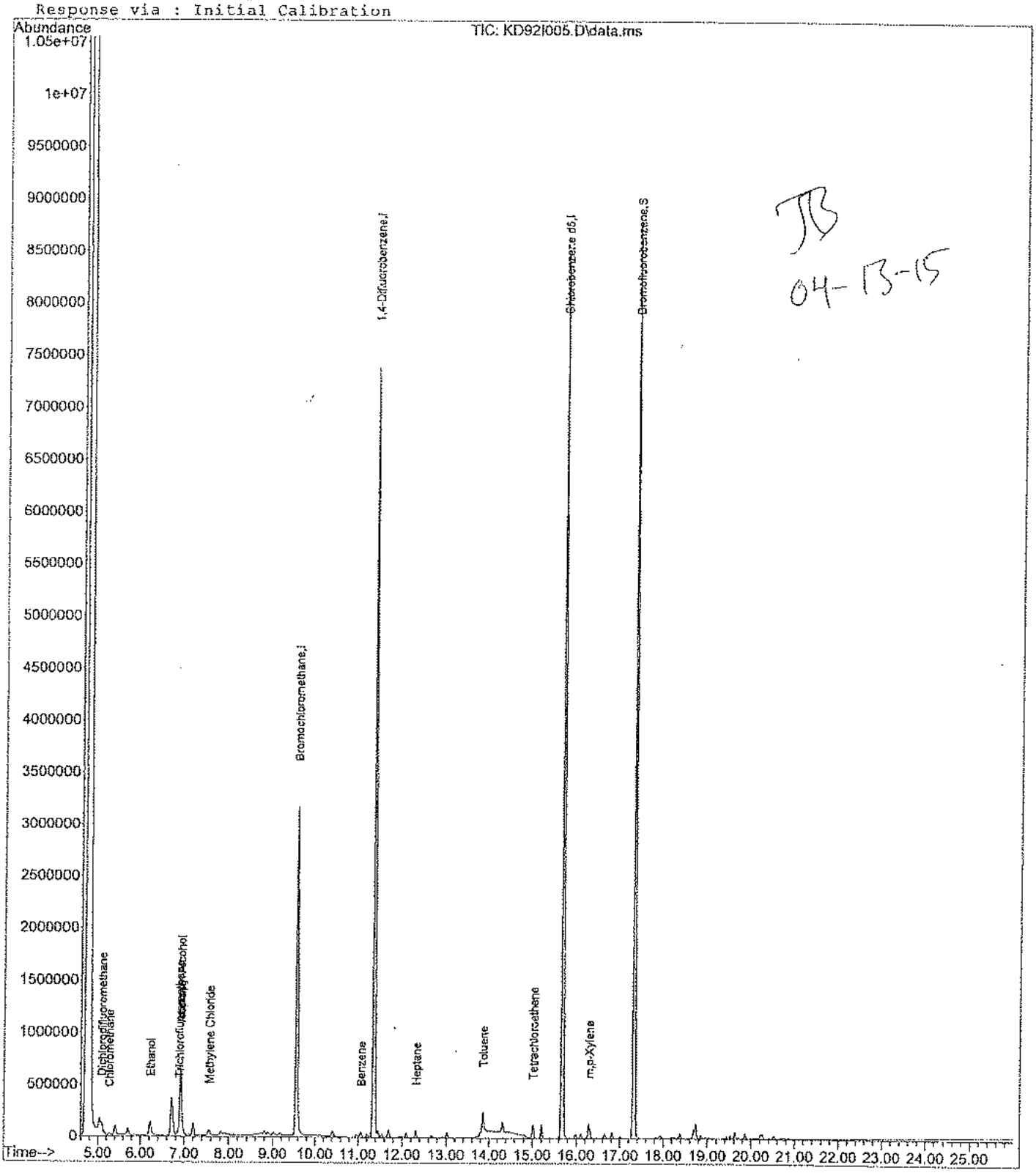
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD92I005.D Vial: 2
Acq Time : 04/10/2015 14:08 Operator:
Sample : 1509795005 Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 11:24:35 2015 Results File: TO15KC15.RES

Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



JB
04-13-15

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD92I005.D Vial: 2
Acq Time : 04/10/2015 14:08 Operator:
Sample : 1509795005 Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 11:24:35 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	9.56	130	742912	20.0000 ppb	87.09
25) 1,4-Difluorobenzene	11.35	114	9619474	20.0000 ppb	86.24
50) Chlorobenzene d5	15.67	117	8241616	20.0000 ppb	85.47
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	17.32	95	4932600	17.0142 ppb	85.07%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	5.09	85	164667	0.3600 ppb m	0
4) Chloromethane	5.26	50	36701	0.4525 ppb m	0
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	6.91	43	276171	1.3964 ppb #	42
12) Trichlorofluoromethane	6.87	101	93722	0.1953 ppb m	0
13) Ethanol	6.23	45	250639	8.3988 ppb m	
14) Isopropyl Alcohol	6.91	45	1415361	9.4981 ppb m	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	7.56	84	42628	0.3916 ppb m	0
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	11.07	78	62273	0.2343 ppb #	95
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	12.32	71	22092	0.2267 ppb #	83
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	13.86	91	169145	0.4546 ppb	97
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	15.02	166	56846	0.2850 ppb #	82

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\K\2015\APR15K\10APR15K\KD92I005.D Vial: 2
Acq Time : 04/10/2015 14:08 Operator:
Sample : 1509795005 Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002~CR330 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 13 11:24:35 2015 Results File: TO15KC15.RES

Quant Method : J:\K\METHODS\TO15KC15.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration
DataAcq Meth : TO-15.M

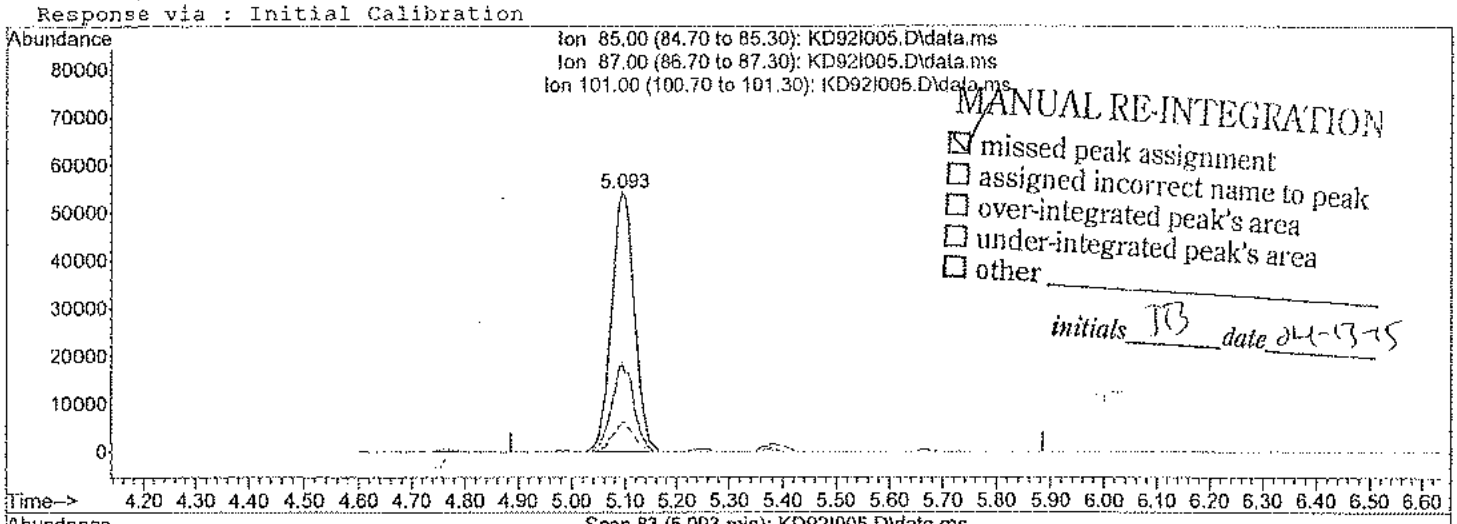
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	16.29	91	149054	0.3160 ppb	96
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

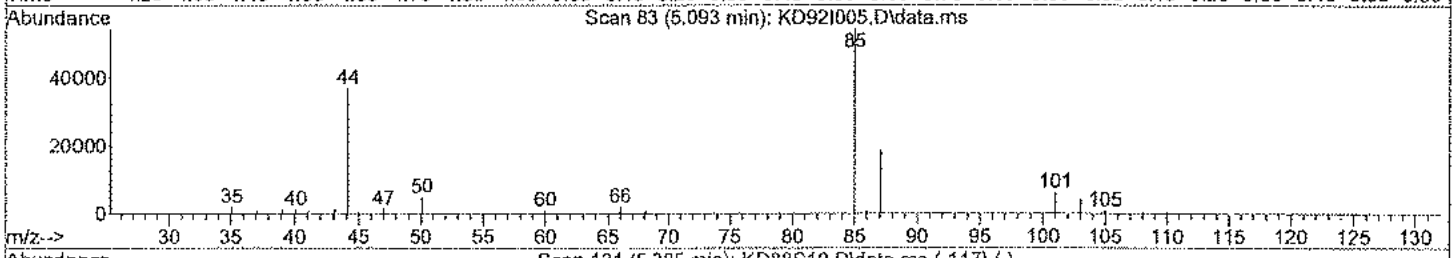
Quantitation Report (Qedit)

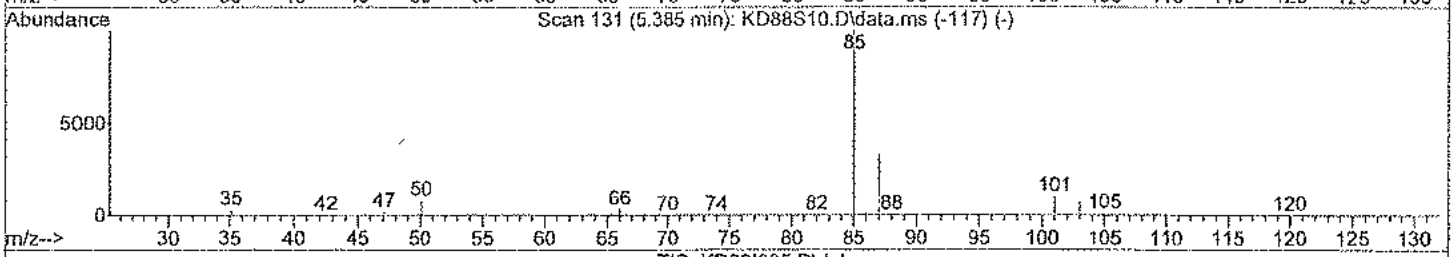
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD92I005.D
Acq On : 04/10/2015 14:08
Operator :
Sample : 1509795005
Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 15:06:43 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB date 04-13-15





TIC: KD92I005.D\data.ms

(3) Dichlorodifluoromethane

5.093min (-0.293) 0.36 ppb m

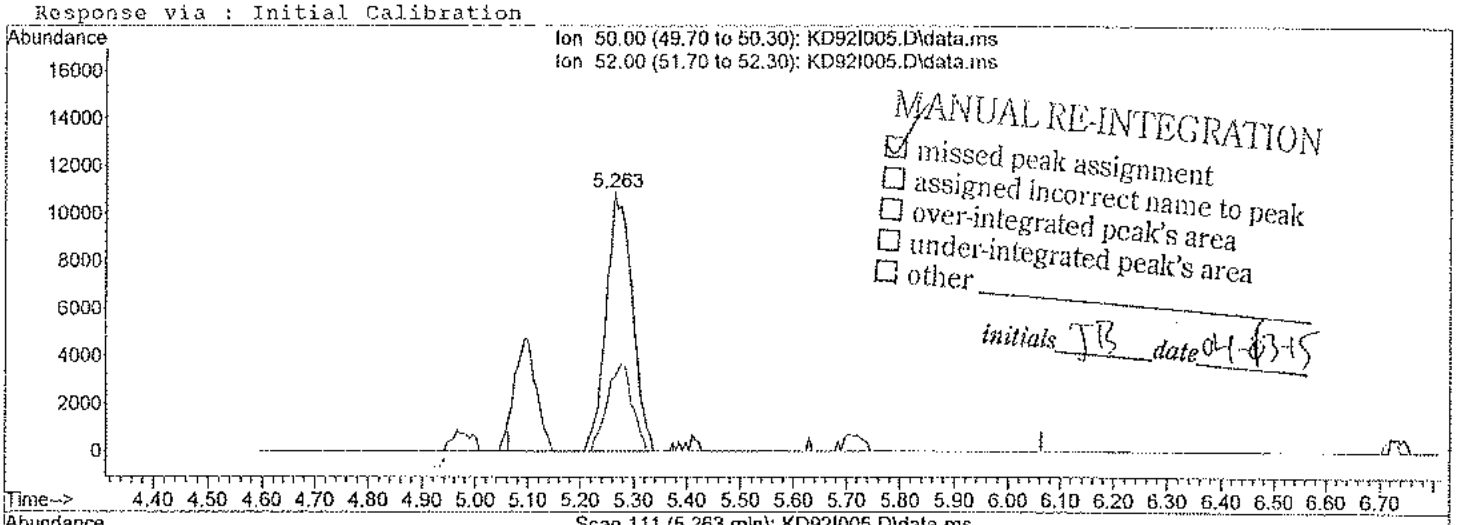
response 164667

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

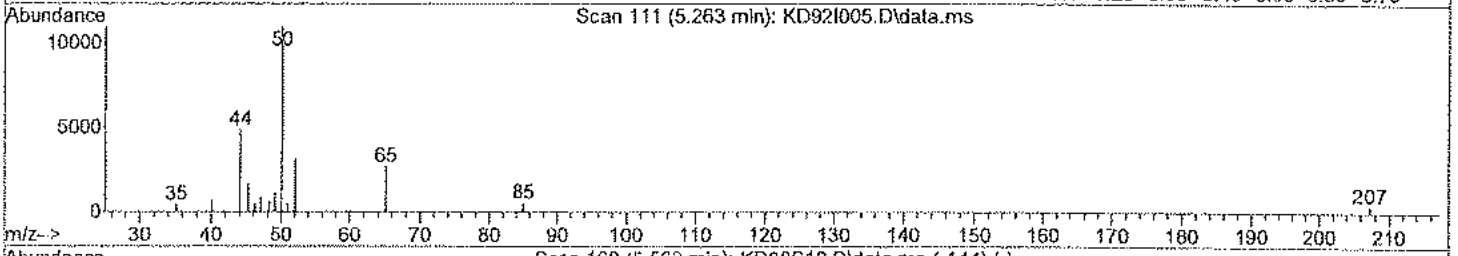
Quantitation Report (Qedit)

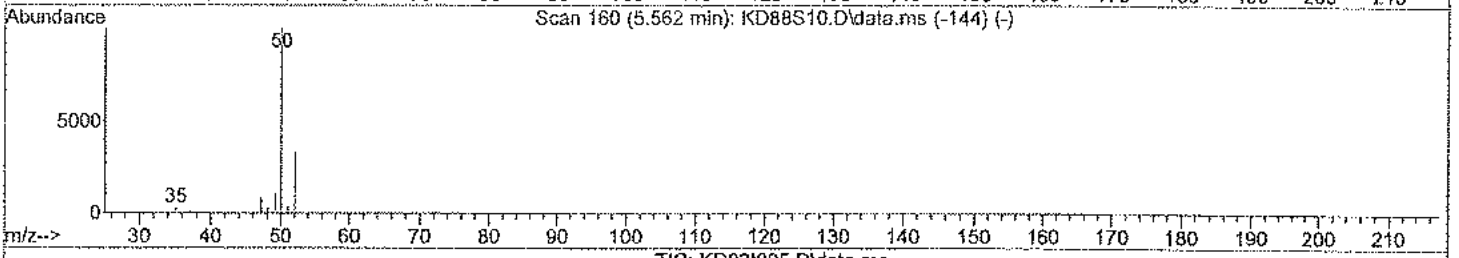
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD92I005.D
Acq On : 04/10/2015 14:08
Operator :
Sample : 1509795005
Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 15:06:43 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials JB date 04-03-15





TIC: KD92I005.D\data.ms

(4) Chloromethane

5.263min (-0.299) 0.45 ppb m

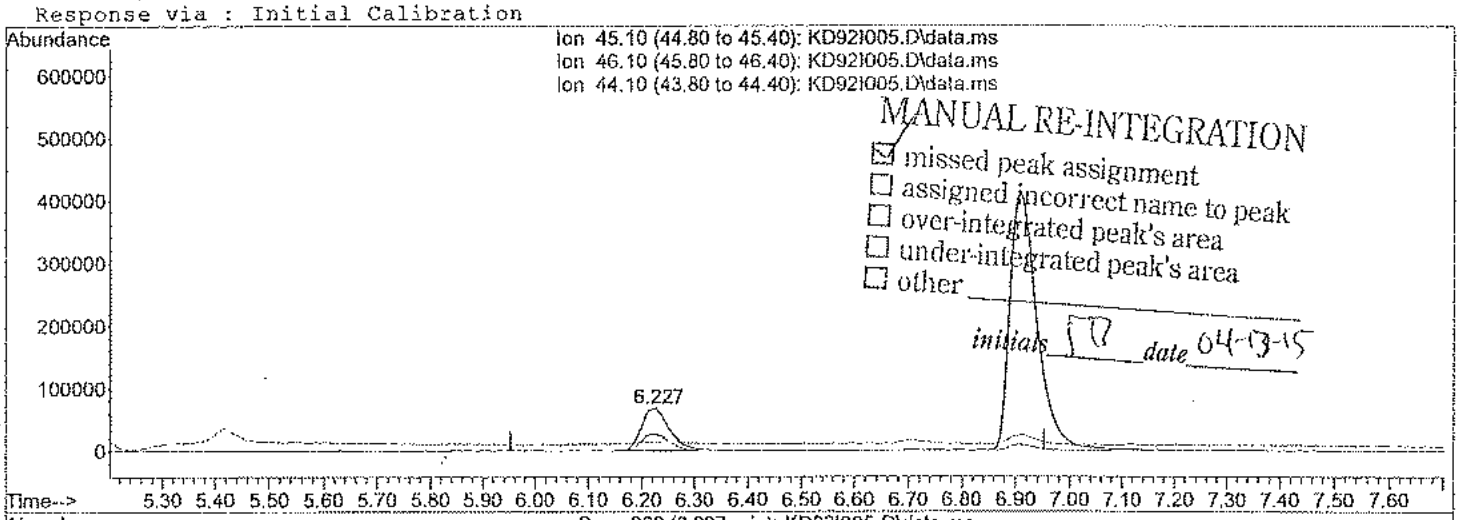
response 36701

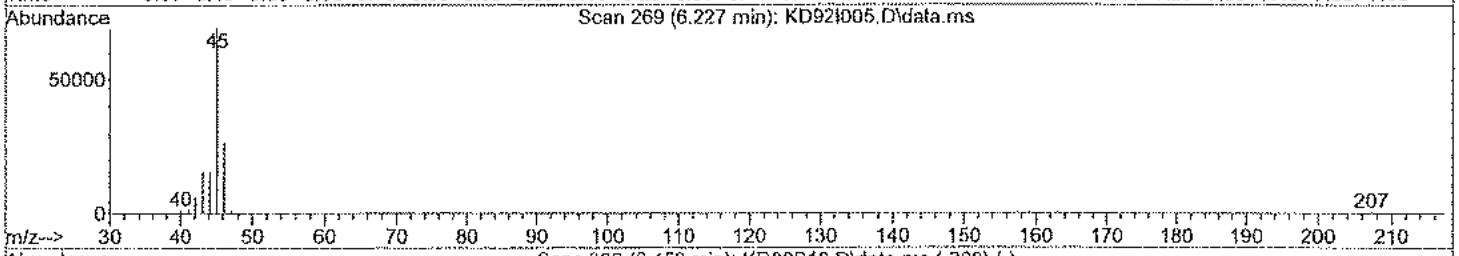
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

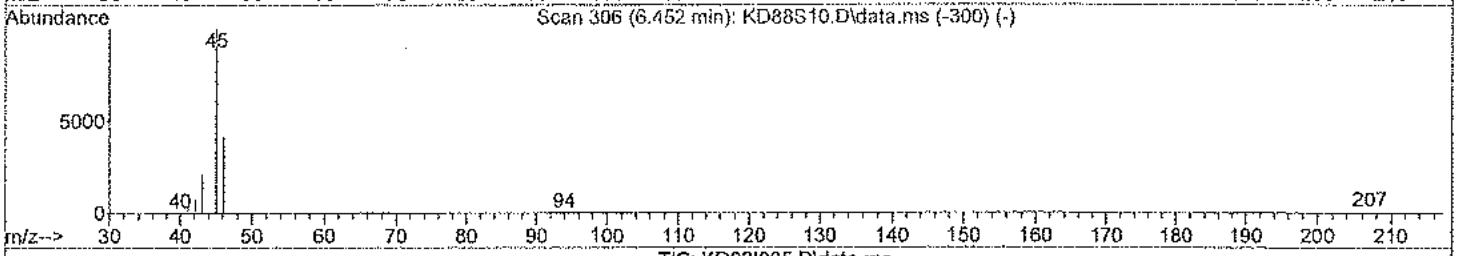
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD92I005.D
Acq On : 04/10/2015 14:08
Operator :
Sample : 1509795005
Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 15:06:43 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration







TIC: KD92I005.D\data.ms

(13) Ethanol

6.227min (-0.226) 8.40 ppb m

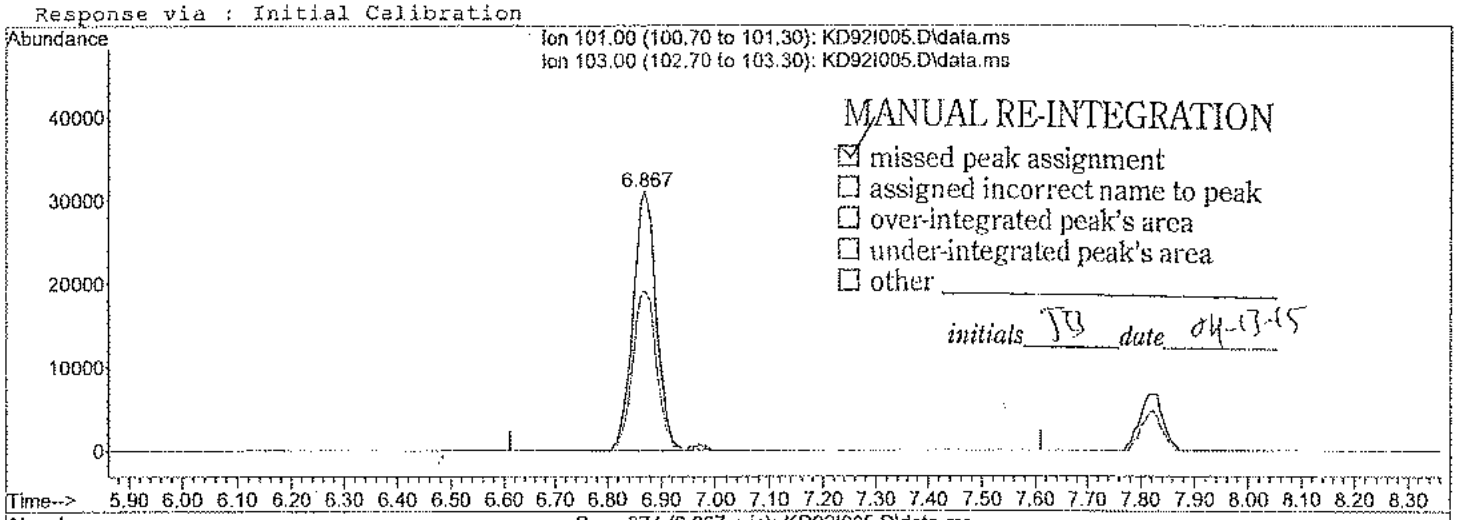
response 250639

Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	0.00#
44.10	29.30	0.00#
0.00	0.00	0.00

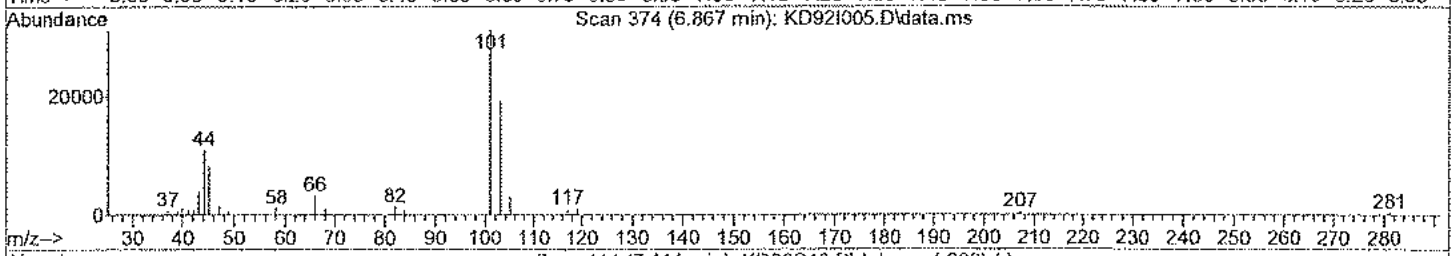
Quantitation Report (Qedit)

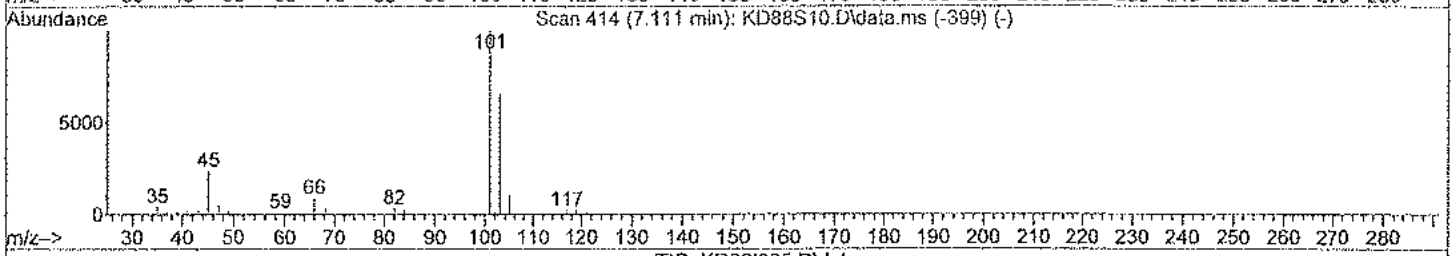
Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD92I005.D
Acq On : 04/10/2015 14:08
Operator :
Sample : 1509795005
Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 15:06:43 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TB *date* 04-13-15





TIC: KD92I005.D\data.ms

(12) Trichlorofluoromethane

6.867min (-0.244) 0.20 ppb m

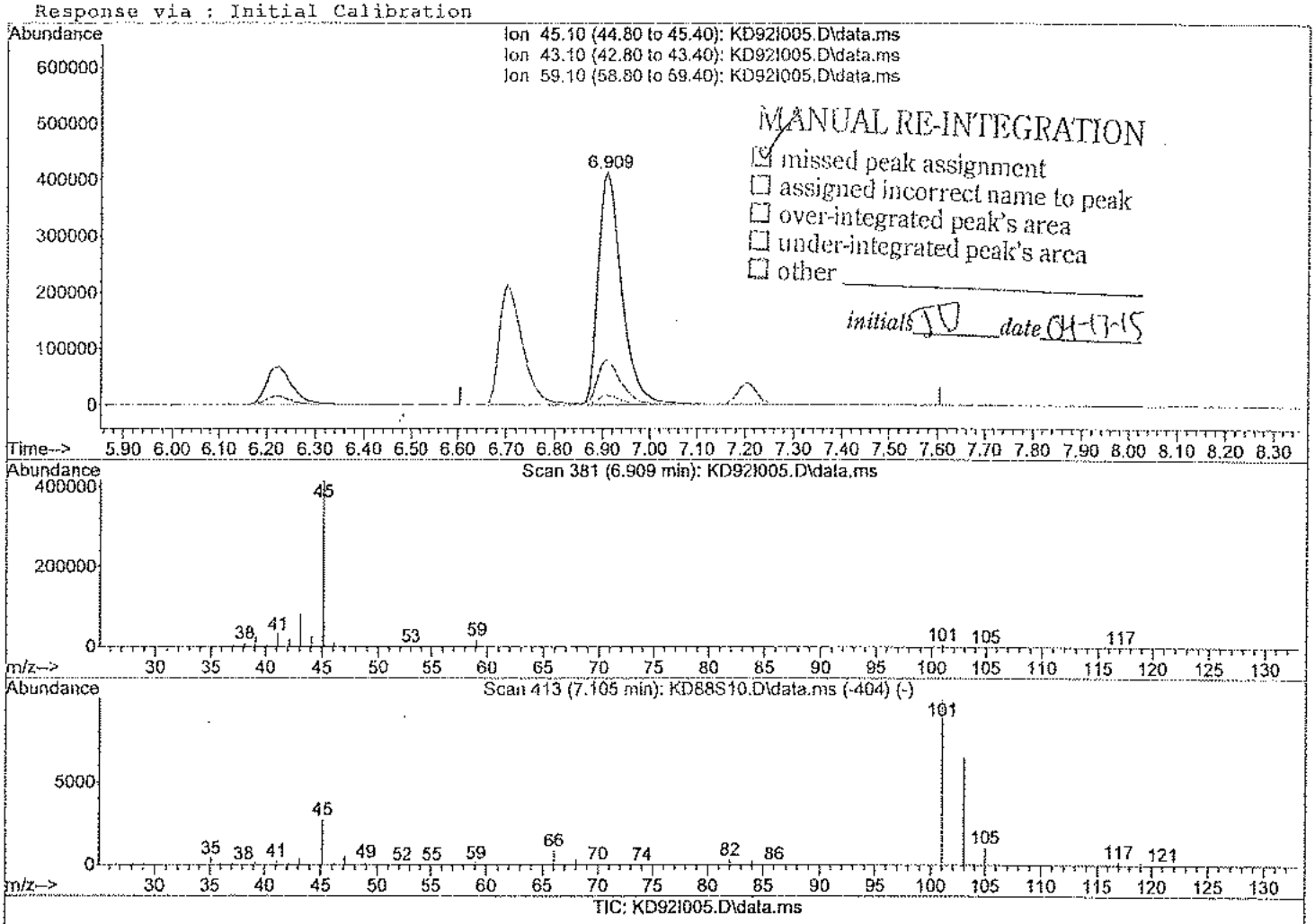
response 93722

Ion	Exp%	Act%
101.00	100.00	100.00
103.00	64.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD92I005.D
Acq On : 04/10/2015 14:08
Operator :
Sample : 1509795005
Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 15:06:43 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration



TIC: KD92I005.D\data.ms

(14) Isopropyl Alcohol

6.909min (-0.195) 9.50 ppb m

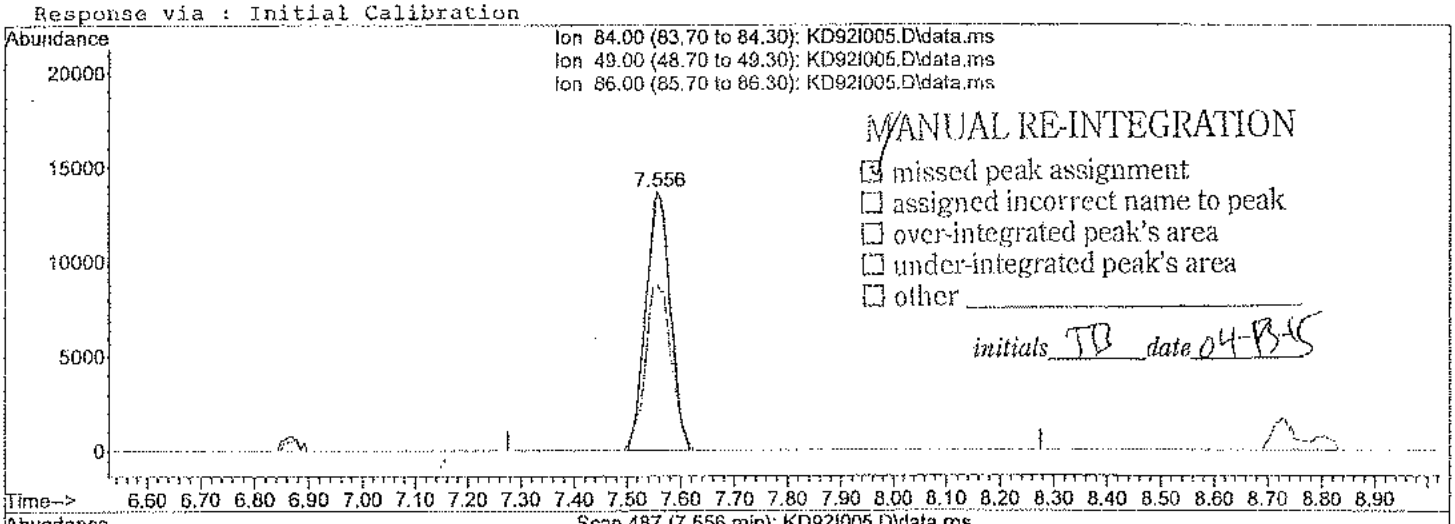
response 1415361

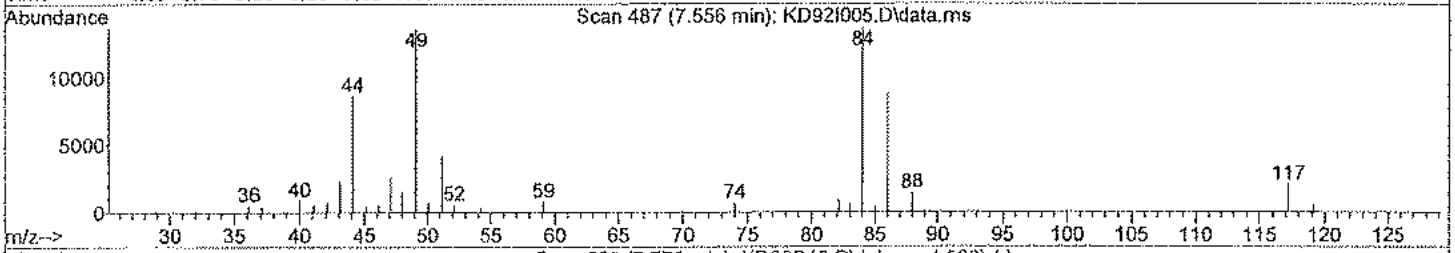
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	0.00#
59.10	4.00	0.00#
0.00	0.00	0.00

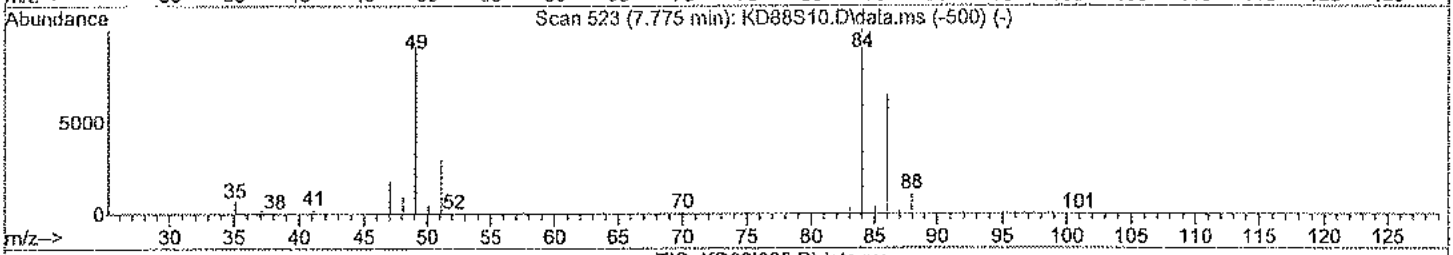
Quantitation Report (Qedit)

Data Path : J:\K\2015\APR15K\10APR15K\
Data File : KD92I005.D
Acq On : 04/10/2015 14:08
Operator :
Sample : 1509795005
Inst : 5975-K
Misc : 0260 A-00225-040715-TO-002-CR330
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 15:06:43 2015
Quant Method : J:\K\METHODS\TO15KC15.m
Quant Title : TO-15
QLast Update : Fri Apr 10 11:36:04 2015
Response via : Initial Calibration







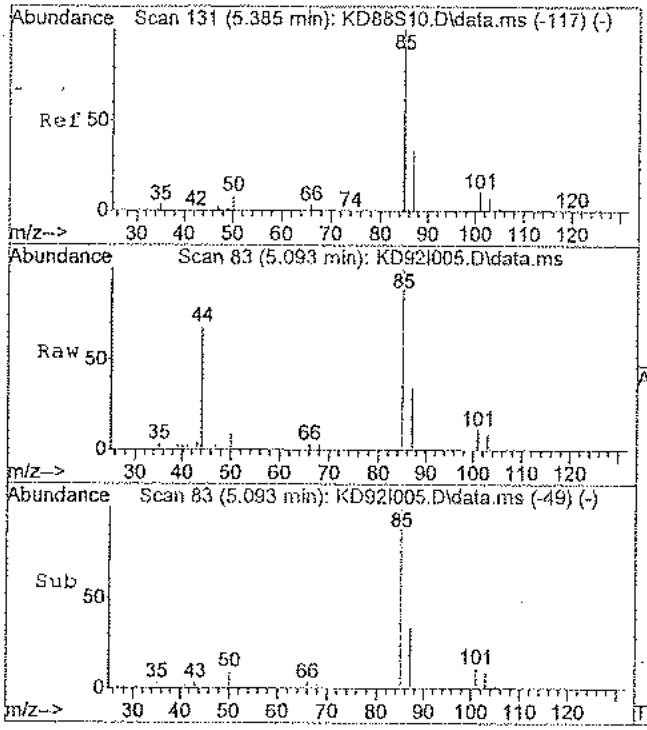
TIC: KD92I005.D\data.ms

(16) Methylene Chloride

7.556min (-0.220) 0.39 ppb m

response 42628

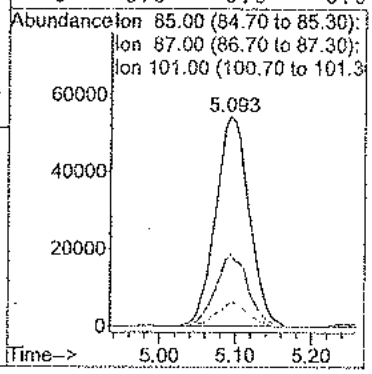
Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	0.00#
86.00	64.50	0.00#
0.00	0.00	0.00

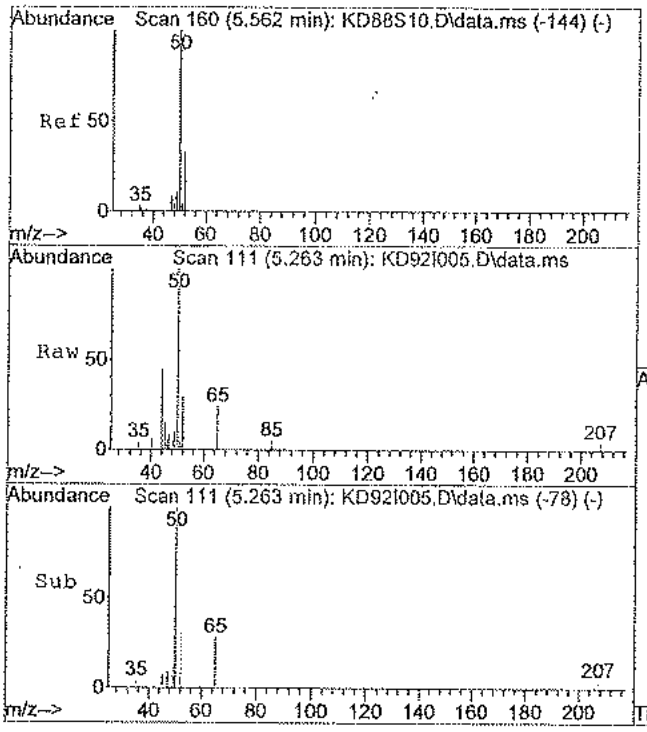


#3
Dichlorodifluoromethane
Concen: 0.36 ppb m
RT: 5.09 min Scan# 83
Delta R.T. -0.29 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:85 Resp: 164667

Ion	Ratio	Lower	Upper
85	100		
87	0.0	26.1	39.1#
101	0.0	8.0	12.0#
0	0.0	0.0	0.0

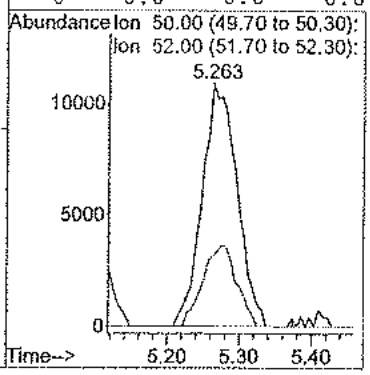


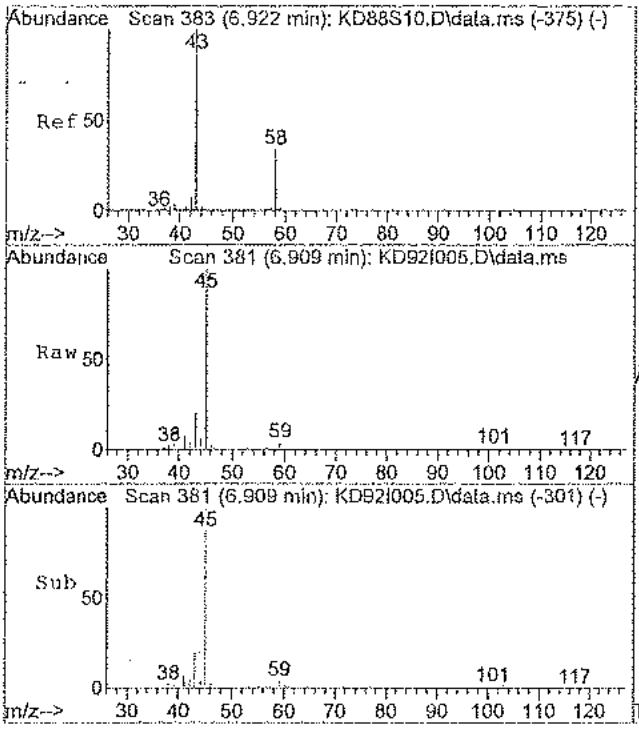


#4
Chloromethane
Concen: 0.45 ppb m
RT: 5.26 min Scan# 111
Delta R.T. -0.30 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:50 Resp: 36701

Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.6	40.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

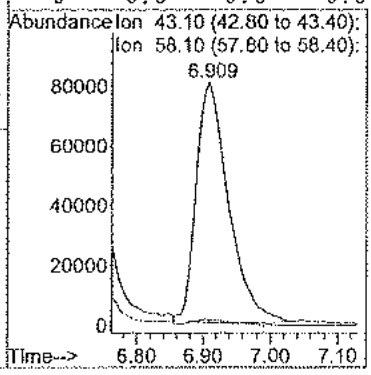


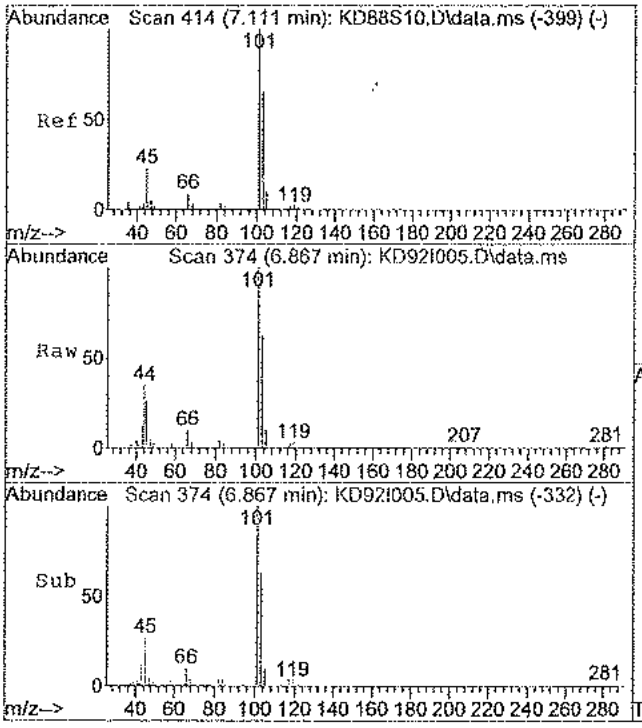


#11
Acetone
Concen: 1.40 ppb
RT: 6.91 min Scan# 381
Delta R.T. -0.01 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:43.1 Resp: 276171

Ion	Ratio	Lower	Upper
43	100		
58	3.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

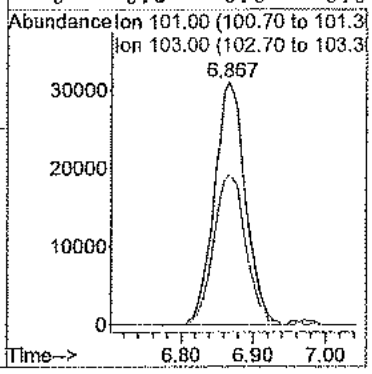


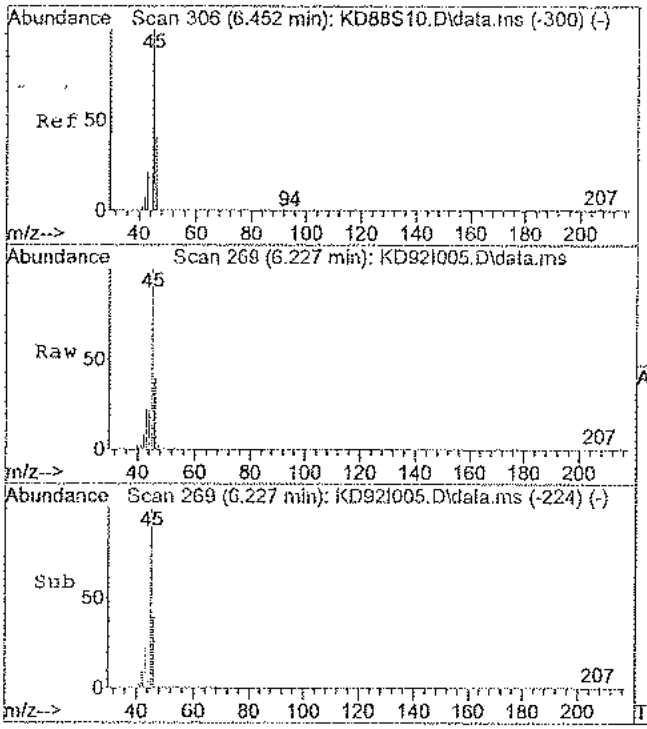


#12
Trichlorofluoromethane
Concen: 0.20 ppb m
RT: 6.87 min Scan# 374
Delta R.T. -0.24 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:101 Resp: 93722

Ion	Ratio	Lower	Upper
101	100		
103	0.0	51.4	77.2#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

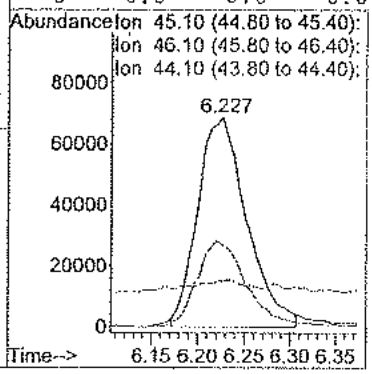


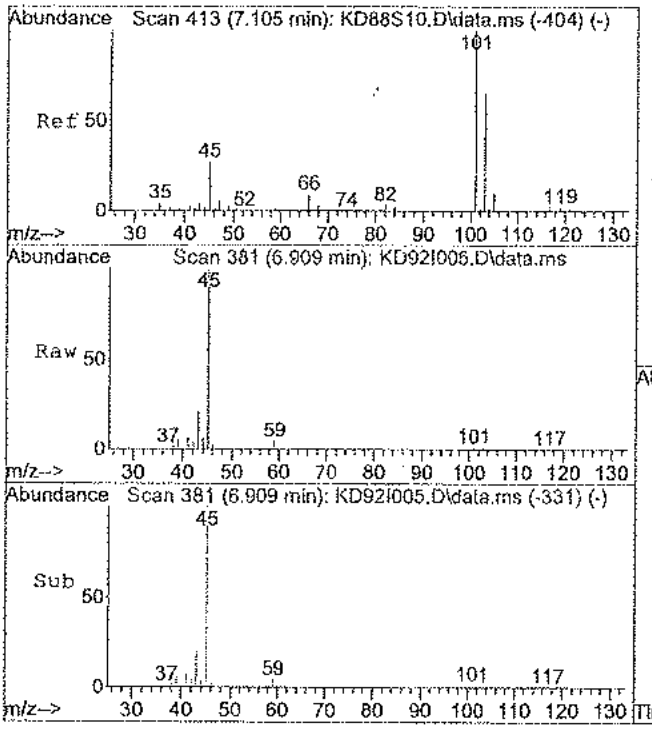


#13
Ethanol
Concen: 8.40 ppb m
RT: 6.23 min Scan# 269
Delta R.T. -0.23 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:45.1 Resp: 250639

Ion	Ratio	Lower	Upper
45	100		
46	0.0	32.4	48.6#
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

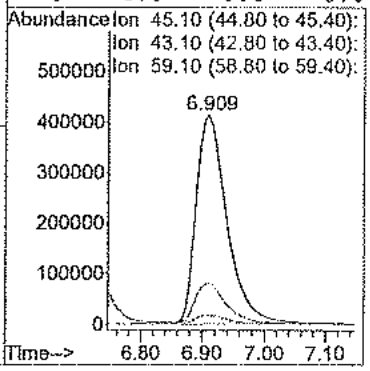


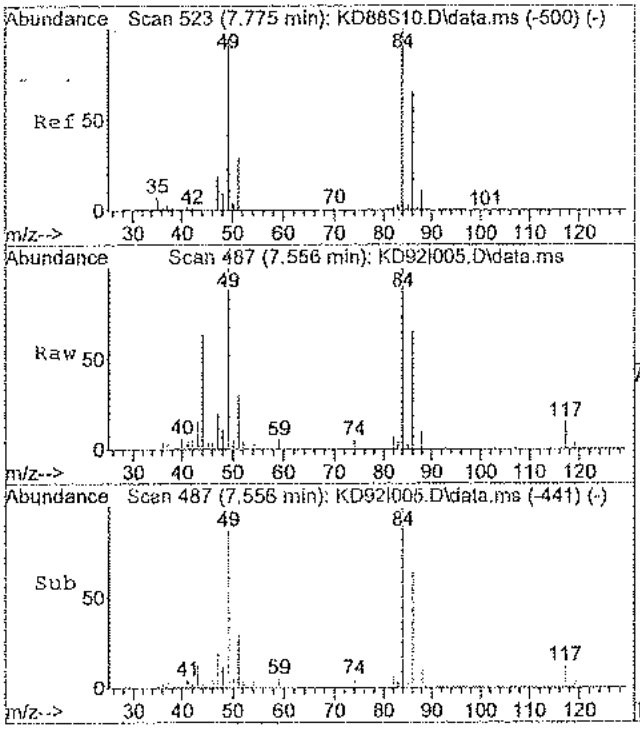


#14
Isopropyl Alcohol
Concen: 9.50 ppb m
RT: 6.91 min Scan# 381
Delta R.T. -0.20 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:45.1 Resp: 1415361

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	0.0	3.2	4.8#
0	0.0	0.0	0.0

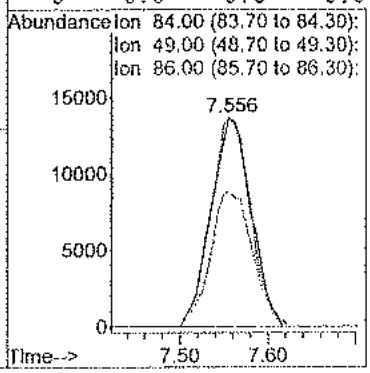


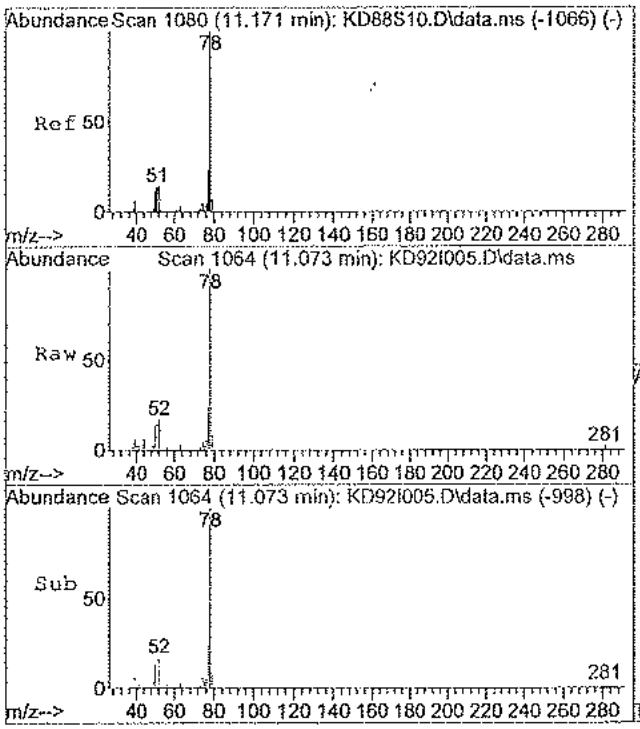


#16
Methylene Chloride
Concen: 0.39 ppb m
RT: 7.56 min Scan# 487
Delta R.T. -0.22 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:84 Resp: 42628

Ion	Ratio	Lower	Upper
84	100		
49	0.0	66.6	100.0#
86	0.0	51.6	77.4#
0	0.0	0.0	0.0

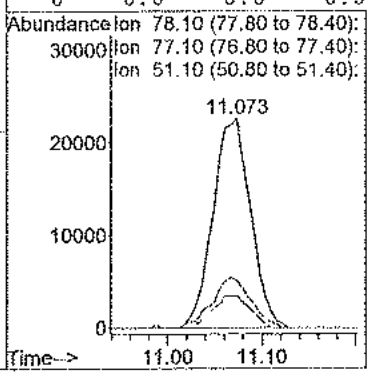


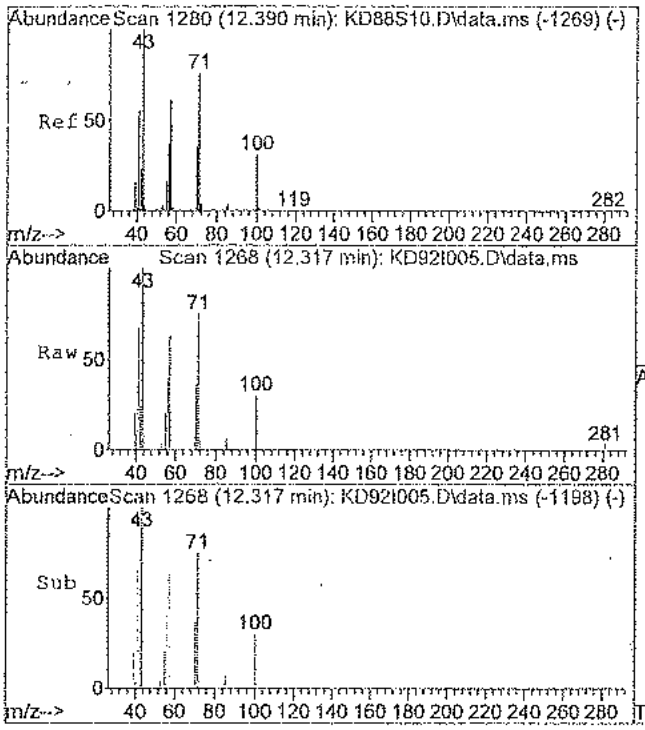


#32
Benzene
Concen: 0.23 ppb
RT: 11.07 min Scan# 1064
Delta R.T. -0.10 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:78.1 Resp: 62273

Ion	Ratio	Lower	Upper
78	100		
77	24.5	18.2	27.4
51	15.0	9.5	14.3#
0	0.0	0.0	0.0

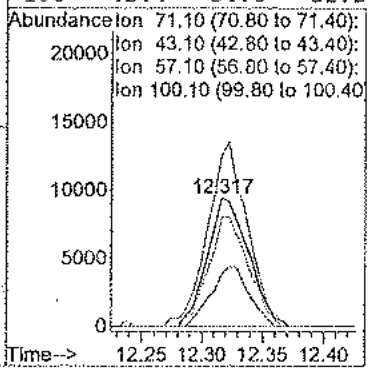


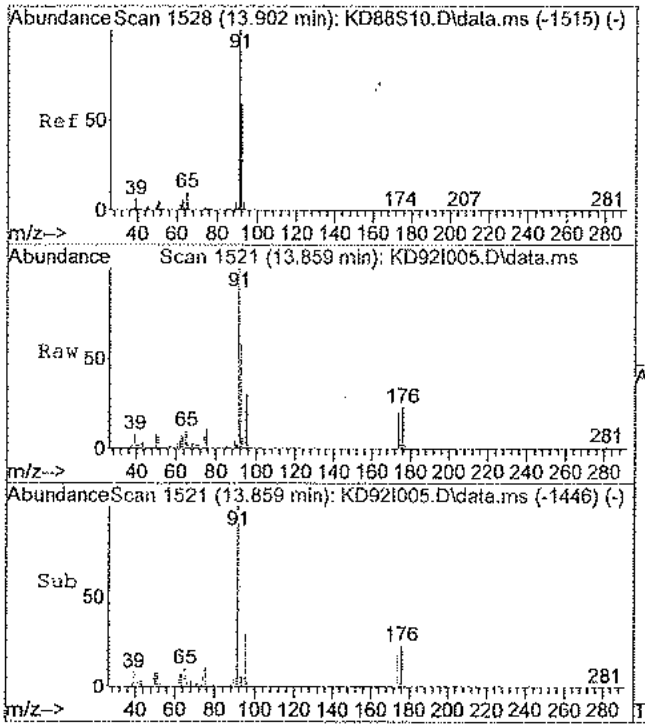


#40
Heptane
Concen: 0.23 ppb
RT: 12.32 min Scan# 1268
Delta R.T. -0.07 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:71.1 Resp: 22092

Ion	Ratio	Lower	Upper
71	100		
43	138.3	87.3	130.9#
57	81.8	57.8	86.6
100	42.4	34.8	52.2

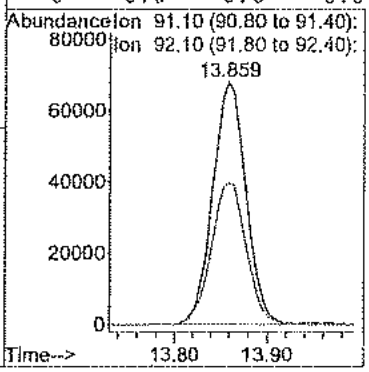


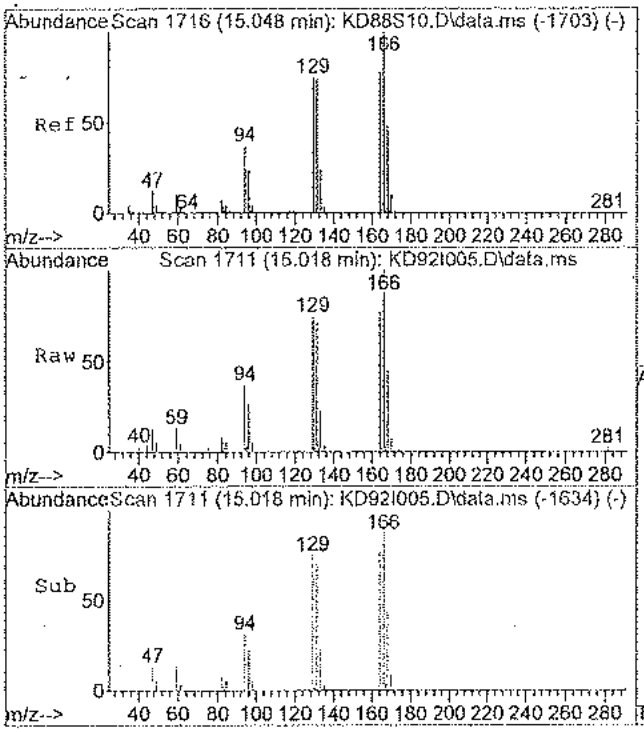


#45
Toluene
Concen: 0.45 ppb
RT: 13.86 min Scan# 1521
Delta R.T. -0.04 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:91.1 Resp: 169145

Ion	Ratio	Lower	Upper
91	100		
92	61.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

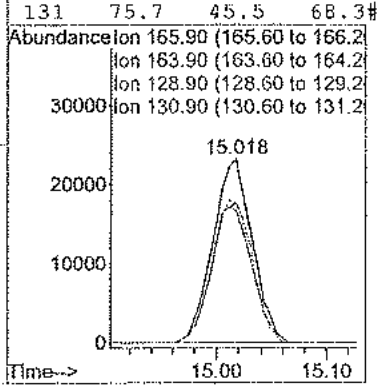


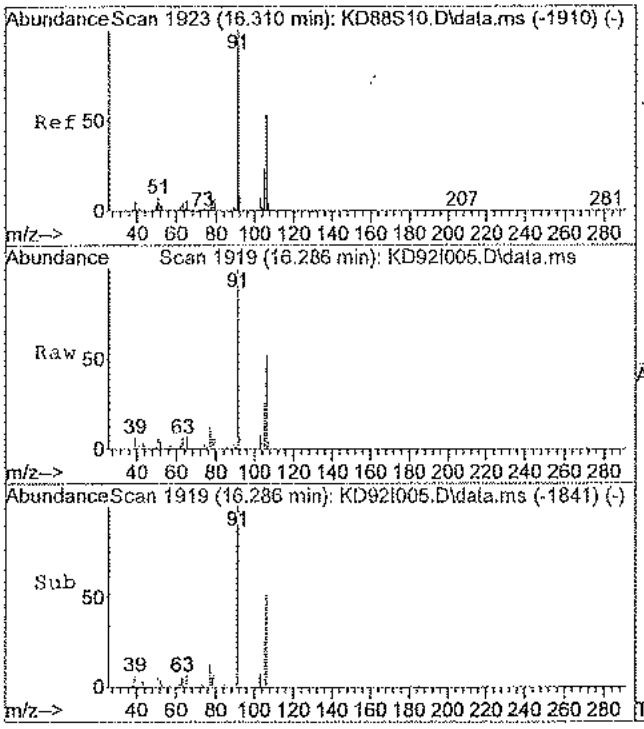


#49
Tetrachloroethene
Concen: 0.28 ppb
RT: 15.02 min Scan# 1711
Delta R.T. -0.03 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:165.9 Resp: 56846

Ion	Ratio	Lower	Upper
166	100		
164	79.7	61.0	91.4
129	78.7	45.9	68.9#
131	75.7	45.5	68.3#

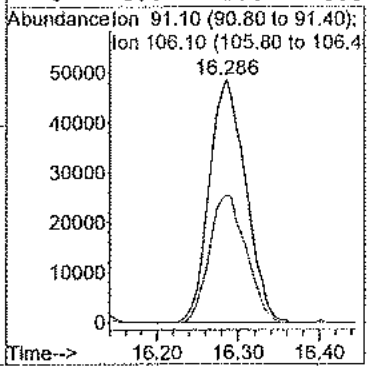




#53
m,p-Xylene
Concen: 0.32 ppb
RT: 16.29 min Scan# 1919
Delta R.T. -0.02 min
Lab File: KD92I005.D
Acq: 04/10/2015 14:08

Tgt Ion:91.1 Resp: 149054

Ion	Ratio	Lower	Upper
91	100		
106	52.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Case Narrative

Method: 8270D
Analysis: Semi volatiles by GC/MS
SOP ref: OE-SW-3540, OS-SW-8270D

Set ID: 1510351
Client: First Environment
Matrix: Air

General Set Information: There are five field samples in this reporting group.

Method Summary: This is a GC/MS method for determination of semivolatile organic compounds in air according to the SW-846 Guidelines. The sample was extracted using method 3540. The resulting extract is analyzed using an Agilent model 5975 GC/MS system with an electron impact ionization source and a quadrapole mass-filter detector.

Sample Preparation: All samples were prepared in accordance with method 3540.

Holding Times: All samples were extracted and analyzed within hold times.

Dilutions: No dilutions were performed.

Method and Sample QC data: All compounds were within recovery limits for the laboratory control sample, except for benzo(a)anthracene which failed slightly low at 58.7%. The method blank met the acceptance criteria with no target compounds detected above the reporting limit. All samples met surrogate recovery criteria, except for 2-fluorobiphenyl failing low in all samples and in the QCs. No re-extraction can be performed on air samples.

MS/MSD Analysis: Matrix spike was not performed in this set.

Instrument QC: The instrument was tuned with 50 ng DFTPP. A seven-point initial calibration curve was analyzed prior to sample analysis. The concentrations of the standards were: 1, 5, 20, 35, 50, 65 and 80 µg/mL. A calibration verification standard at a concentration of 50 ug/mL was analyzed to verify instrument response against the initial calibration. The initial calibration and continuing calibration verification passed all method criteria.

Manual Integrations: The explanation for each of the manual integrations is that the data system did not correctly integrate the peak in its automated data evaluation procedure.

Miscellaneous comments: None.

Steven Yourstone September 30, 2015

ANALYTICAL REPORT

Report Date: April 16, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1510351**
Project ID: VA SLC CERCLA-AOU-1 041015
Purchase Order: VA SLC CERCLA-AOU-1

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0026H-040715-SG-001A	1510351001	04/07/15	04/10/15	VA SLC CERCCA-AOU-1
A-0026H-040715-SG-001D	1510351002	04/07/15	04/10/15	VA SLC CERCCA-AOU-1
A-0026H-040715-TO-001-PAN	1510351003	04/07/15	04/10/15	VA SLC CERCCA-AOU-1
A-0026H-040715-TO-003-OUT	1510351004	04/07/15	04/10/15	VA SLC CERCCA-AOU-1
A-0026H-040715-TO-004	1510351005	04/07/15	04/10/15	VA SLC CERCCA-AOU-1

ANALYTICAL REPORT

Workorder: 34-1510351
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040715-SG-001A | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/07/2015
Lab ID: 1510351001 | Media: PUF Tube | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 240 L

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21414 (HBN: 147031)	**Initial:** 1 wipe	**Batch:**	ESVO/4920 (HBN: 147180)	**Percent Solid:** NA
Prepared:	04/14/2015	**Final:** 1 mL	**Analyzed:**	04/16/2015 10:55	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Sample ID: A-0026H-040715-SG-001D | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/07/2015
Lab ID: 1510351002 | Media: PUF Tube | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 240 L

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21414 (HBN: 147031)	**Initial:** 1 wipe	**Batch:**	ESVO/4920 (HBN: 147180)	**Percent Solid:** NA
Prepared:	04/14/2015	**Final:** 1 mL	**Analyzed:**	04/16/2015 11:29	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510351
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040715-SG-001D
Lab ID: 1510351002
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: PUF Tube
Sampling Parameter: Air Volume 240 L
Collected: 04/07/2015
Received: 04/10/2015

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21414 (HBN: 147031)	**Initial:** 1 wipe	**Batch:**	ESVO/4920 (HBN: 147180)	**Percent Solid:** NA
Prepared:	04/14/2015	**Final:** 1 mL	**Analyzed:**	04/16/2015 11:29	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Sample ID: A-0026H-040715-TO-001-PAN
Lab ID: 1510351003
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: PUF Tube
Sampling Parameter: Air Volume 240 L
Collected: 04/07/2015
Received: 04/10/2015

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21414 (HBN: 147031)	**Initial:** 1 wipe	**Batch:**	ESVO/4920 (HBN: 147180)	**Percent Solid:** NA
Prepared:	04/14/2015	**Final:** 1 mL	**Analyzed:**	04/16/2015 12:03	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510351
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040715-TO-001-PAN | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/07/2015
Lab ID: 1510351003 | Media: PUF Tube | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 240 L

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21414 (HBN: 147031)	**Initial:** 1 wipe	**Batch:**	ESVO/4920 (HBN: 147180)	**Percent Solid:** NA
Prepared:	04/14/2015	**Final:** 1 mL	**Analyzed:**	04/16/2015 12:03	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Sample ID: A-0026H-040715-TO-003-OUT | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/07/2015
Lab ID: 1510351004 | Media: PUF Tube | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 240 L

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21414 (HBN: 147031)	**Initial:** 1 wipe	**Batch:**	ESVO/4920 (HBN: 147180)	**Percent Solid:** NA
Prepared:	04/14/2015	**Final:** 1 mL	**Analyzed:**	04/16/2015 12:36	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

ANALYTICAL REPORT

Workorder: 34-1510351
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040715-TO-004
Lab ID: 1510351005
Matrix: Air

Sampling Site: VA SLC CERCLA-AOU-1
Media: PUF Tube
Sampling Parameter: Air Volume 240 L

Collected: 04/07/2015
Received: 04/10/2015

Analysis Method - EPA TO-13

Preparation: EPA 3540 Soxhlet Ext.
Batch: ENVX/21414 (HBN: 147031)
Prepared: 04/14/2015

Weight/Volume
Initial: 1 wipe
Final: 1 mL

Analysis: EPA TO-13, Air
Batch: ESVO/4920 (HBN: 147180)
Analyzed: 04/16/2015 13:10

Instrument ID: 5975-H
Percent Solid: NA
Report Basis: Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Comments

Quality Control: EPA TO-13 - (HBN: 147180)

Surrogate 2-Fluorobiphenyl fails low for all QC and samples at about 30% recovery. No re-extraction can be done on air samples. Benzo(a)anthracene fails slightly low at 58.7% in the LCS, but all other compounds pass in both the LCS and LCSD. NC/CAR 991 has been initiated.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-13	/S/ Steven Yourstone 04/16/2015 15:04	/S/ Jessica Helland 04/16/2015 15:04

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: 34-1510351
Client: First Environment
Project Manager: Kevin W. Griffiths

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510351

Limits:	Historical/Performance	**Preparation:**	EPA 3540 Soxhlet Ext.	**Analysis:**	EPA TO-13
Basis:	ALS Laboratory Group	**Batch:**	ENVX/21414 (HBN: 147031)	**Batch:**	ESVO/4920 (HBN: 147180)
		Prepared By:	Khoa Dang Tran	**Analyzed By:**	Steven Yourstone

Blank

MB: 442346
Analyzed: 04/16/2015 09:13
Units: ug/sample

Analyte	Result	MDL	RL
Naphthalene	ND	1	1.00
2-Methylnaphthalene	ND	1	1.00
Acenaphthylene	ND	1	1.00
Acenaphthene	ND	1	1.00
Fluorene	ND	1	1.00
Phenanthrene	ND	1	1.00
Anthracene	ND	1	1.00
Fluoranthene	ND	1	1.00
Pyrene	ND	1	1.00
Benzo(a)anthracene	ND	1	1.00
Chrysene	ND	1	1.00
Benzo(b)fluoranthene	ND	1	1.00
Benzo(k)fluoranthene	ND	1	1.00
Benzo(a)pyrene	ND	1	1.00
Indeno(1,2,3-cd)pyrene	ND	1	1.00
Dibenz(a,h)anthracene	ND	1	1.00
Benzo(g,h,i)perylene	ND	1	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442347
Analyzed: 04/16/2015 09:47
Dilution: 1
Units: ug/sample

LCSD: 442348
Analyzed: 04/16/2015 10:21
Dilution: 1
Units: ug/sample

Analyte	LCS Result	Target	LCS % Rec	QC Limits		LCSD Result	LCSD % Rec	RPD	QC Limits	
Naphthalene	26.8	40.0	66.9	40.7	100.0	29.1	72.6	8.25	0.0	36.0
2-Methylnaphthalene	27.3	40.0	68.2	44.0	102.4	29.2	73.1	7.01	0.0	22.0
Acenaphthylene	18.4	40.0	46.1	19.5	100.0	22.4	56.0	19.3	0.0	36.0
Acenaphthene	26.0	40.0	65.0	58.1	100.0	28.1	70.3	7.75	0.0	25.4
Fluorene	25.3	40.0	63.4	60.9	100.0	27.8	69.4	9.09	0.0	37.9
Phenanthrene	26.4	40.0	66.1	51.5	112.1	28.6	71.5	7.91	0.0	33.6
Anthracene	26.2	40.0	65.6	36.8	100.0	28.4	71.0	7.91	0.0	33.9
Fluoranthene	27.0	40.0	67.5	49.4	116.6	29.4	73.4	8.46	0.0	48.7
Pyrene	26.4	40.0	65.9	47.2	119.7	29.4	73.5	10.9	0.0	23.4
Benzo(a)anthracene	23.5	40.0	* 58.7	64.1	100.0	26.9	67.2	13.5	0.0	30.0
Chrysene	27.3	40.0	68.3	49.2	115.9	30.2	75.5	10.0	0.0	37.6
Benzo(b)fluoranthene	26.0	40.0	64.9	22.0	195.8	28.5	71.3	9.34	0.0	35.2
Benzo(k)fluoranthene	28.8	40.0	71.9	32.6	170.9	31.2	78.1	8.27	0.0	20.0
Benzo(a)pyrene	23.4	40.0	58.6	49.7	115.8	27.4	68.6	15.7	0.0	32.5

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510351

Limits:	Historical/Performance	**Preparation:**	EPA 3540 Soxhlet Ext.	**Analysis:**	EPA TO-13
Basis:	ALS Laboratory Group	**Batch:**	ENVX/21414 (HBN: 147031)	**Batch:**	ESVO/4920 (HBN: 147180)
		Prepared By:	Khoa Dang Tran	**Analyzed By:**	Steven Yourstone

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 442347	LCSD: 442348
	Analyzed: 04/16/2015 09:47	Analyzed: 04/16/2015 10:21
	Dilution: 1	Dilution: 1
	Units: ug/sample	Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Indeno(1,2,3-cd)pyrene	25.6	40.0	64.0	34.0	108.4	29.5	73.9	14.3	0.0	45.9
Dibenz(a,h)anthracene	29.5	40.0	73.8	37.5	126.8	33.1	82.7	11.4	0.0	35.0
Benzo(g,h,i)perylene	29.6	40.0	73.9	35.3	128.6	32.8	82.0	10.3	0.0	46.7

Surrogate Recoveries

Surrogate	2-Fluorobiphenyl			Terphenyl-d14		
QC Limits	35.1	113.6		16.2	143.5	
Units	ug/sample			ug/sample		
Lab ID	Result	Target	% Recovery	Result	Target	% Recovery
442346-MB	16.7	50.0	* 33.4	39.2	50.0	78.3
442347-LCS	12.6	50.0	* 25.1	32.3	50.0	64.6
442348-LCSD	13.8	50.0	* 27.6	34.6	50.0	69.3
1510351001	16.1	50.0	* 32.2	42.4	50.0	84.9
1510351002	14.6	50.0	* 29.2	35.8	50.0	71.6
1510351003	14.4	50.0	* 28.9	34.5	50.0	68.9
1510351004	12.3	50.0	* 24.6	38.8	50.0	77.6
1510351005	11.6	50.0	* 23.1	26.0	50.0	51.9

Comments

Surrogate 2-Fluorobiphenyl fails low for all QC and samples at about 30% recovery. No re-extraction can be done on air samples. Benzo(a)anthracene fails slightly low at 58.7% in the LCS, but all other compounds pass in both the LCS and LCSD. NC/CAR 991 has been initiated.

QC Data Approved and Reviewed by

Steven Yourstone	Jessica Helland	4/16/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
● - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1510351

ANALYTICAL REQUEST FORM

1570357

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/10/15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reed
Telephone (973) 787-2255
Fax Telephone (973) 334-0003
E-mail Address esr@firstenvironment.com

Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. **Sample Collection**
Sampling Site VA SLC GERDA - AOV-1
Industrial Process NA
Date of Collection 4/9 to 4/10-2015
Time Collected multiple
Date of Shipment 4/10/15
Chain of Custody No. _____

6. How did you first learn about ALS?
NA

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-002611-040715-SG-001A	PUF	240 Liter	SVOC in air - TO-13A	5	
A-002611-040715-SG-001D	PUF	240 Liter	" " - "	5	
A-002611-040715-TO-001-PAN	PUF	240 Liter	" " - "	5	
A-002611-040715-TO-003-OUT	PUF	240 Q	" " - "	5	
A-002611-040715-TO-004	PUF	240 Q	" " - "	5	27
A-002611-040815-SG-001-4'	Air	6L Summa	TO-15 A-UOG - in air	5	~~0533~~ 0137
A-002611-040815-SG-002-4'	Air	6L Summa	" " - "	5	0097
A-002611-040815-SG-003-4'	Air	6L Summa	" " - "	5	~~0154~~ 0265 — 026
A-002611-040815-TO-001-PAN	Air	6L Summa	" " - "	5	0262
A-002611-040815-TO-003-OUT	Air	6L Summa	" " - "	5	0143
A-000311-040915-TO-001-LIV	Air	6L Summa	" " - "	5	0162
A-000311-040915-TO-002-BAS	Air	6L Summa	" " - "	5	0221
A-000311-040915-TO-003-BED	Air	6L Summa	" " - "	5	0122
A-000311-040915-SG-001-4'	Air	6L Summa	" " - "	5	0144

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PUF TOP: 1/2-DUP, Vinyl Chl

7. **Chain of Custody (Optional)**

Relinquished by	[signature]	Date/Time	4/10/15 -
Received by	[signature]	Date/Time	04/10/15 15:30
Relinquished by		Date/Time	
Received by		Date/Time	

[For lab use only]

ANALYTICAL REQUEST FORM

1. ☒ **REGULAR Status**

☐ **RUSH Status Requested - ADDITIONAL CHARGE**
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/10/15 Purchase Order No. _____

3. Company Name First Environment

Address 91 Fulton St.
Boonton, NJ 07005

Person to Contact Ed Reed

Telephone (973) 727-2245

Fax Telephone (973) 334-0778

E-mail Address eyr@firstenvironment.com

Billing Address (if different from above)
Same

4. Quote No. _____

ALS Project Manager Kelly Gorham

5. **Sample Collection**

Sampling Site VA SLC GERMAN - AOU-1

Industrial Process NA

Date of Collection 4/8 to 4/10 - 2015

Time Collected Multiple

Date of Shipment 4/10/15

Chain of Custody No. _____

6. How did you first learn about ALS?
NA

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-0008H-041015-TO-001-BAS	Air	6L Summa	TO-15A - VOCs in air	5	0384
A-0008H-041015-SG-001B-4'	Air	6L Summa	"	5	~~0385~~ 0271
A-0008H-041015-SG-001B-4'	Air	6L Summa	"	5	~~0537~~ 0533

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCE TCE 1,2 DCE Vinyl Chloride

7. **Chain of Custody (Optional)**

Relinquished by	[signature]	Date/Time	4/10/15 -
Received by	[signature]	Date/Time	04/10/15 1530
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Environmental

CHAIN-OF-CUSTODY

Project / Job / Task: VA SLC	Split:	Workorder ID: 1510351	Level: ENV_LVL2
Client: First Environment		Account: 8001	Type: E1
Comments:			Preservatives

Item	Collect Date/Time	Sample ID	Lab ID	QC	Matrix	Containers ID(s)	Containers Count	Requested Analysis EPATO-15
1	04/07/2015 00:00	A-0026H-040715-SG-001A	1510351001		Air	A	1	A
2	04/07/2015 00:00	A-0026H-040715-SG-001D	1510351002		Air	A	1	A
3	04/07/2015 00:00	A-0026H-040715-TO-001-PAN	1510351003		Air	A	1	A
4	04/07/2015 00:00	A-0026H-040715-TO-003-OUT	1510351004		Air	A	1	A
5	04/07/2015 00:00	A-0026H-040715-TO-004	1510351005		Air	A	1	A
6								
7								
8								
9								
10								

ORIGINAL FIELD SAMPLE CHAIN-OF-CUSTODY

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location
Van Tassell, Tami	04/10/2015 15:30	ALS Sample Receiving	Sample Login
Tami Van Tassell R-33-3	04-10-15 15:33	R-33-4	STORAGE
	4/14/15 1600		EXT
	SAMPLE	CONSUMED	

SAMPLE PREPARATION / ANALYSIS CHAIN-OF-CUSTODY

Sample Prep / Analysis for: _____ Lab Notebook No.: _____

Prepared / Analyzed by: _____ Date / Time: _____

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location
	4/15/15 1130		Lab
	4/15/15 1300	R-60-6	STOR
R-60-6	4/16/15 1300	Tom Kvelta	Analysis
Tom Kvelta	4/16/15 1225	R-60-6	Storage

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Analytical Documentation

Batch Worklist

Batch: ESVO/ 4920 Created: 4/16/2015 14:42 Instrument: 5975-H HBN: 147180

Rule: EPA TO-13, Air Analyst: S. Yourstone Status: RE

Workorder: 1510351

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442346	MB for HBN 147031 [ENVX/21414]	1 wipe	1 mL		MB	1		ETO13...1Q	6183		4/17/2015	4/16/2015
2	442347	LCS for HBN 147031 [ENVX/21414	1 wipe	1 mL		LCS	1		ETO13...1Q	6183		4/17/2015	4/16/2015
3	442348	LCSD for HBN 147031 [ENVX/2141	1 wipe	1 mL		LCSD	1		ETO13...1Q	6183		4/17/2015	4/16/2015
4	1510351001	A-0026H-040715-SG-001A	1 wipe	1 mL		SAMPLE	1	1510351001-A	ETO13....1	5480	5/24/2015	4/17/2015	4/16/2015
5	1510351002	A-0026H-040715-SG-001D	1 wipe	1 mL		SAMPLE	1	1510351002-A	ETO13....1	5480	5/24/2015	4/17/2015	4/16/2015
6	1510351003	A-0026H-040715-TO-001-PAN	1 wipe	1 mL		SAMPLE	1	1510351003-A	ETO13....1	5480	5/24/2015	4/17/2015	4/16/2015
7	1510351004	A-0026H-040715-TO-003-OUT	1 wipe	1 mL		SAMPLE	1	1510351004-A	ETO13....1	5480	5/24/2015	4/17/2015	4/16/2015
8	1510351005	A-0026H-040715-TO-004	1 wipe	1 mL		SAMPLE	1	1510351005-A	ETO13....1	5480	5/24/2015	4/17/2015	4/16/2015

Batch Worklist

Batch: ENVX/ 21414 Created: 4/14/2015 16:05 Instrument: HBN: 147031

Rule: EPA 3540 Soxhlet Analyst: K. Tran Status: NA

Workorder: 1510351

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442346	MB for HBN 147031 [ENVX/21414]	1 pulf	1 mL		MB	1		E3540...3P	6183		4/14/2015	
2	442347	LCS for HBN 147031 [ENVX/21414				LCS	1		E3540...3P	6183		4/14/2015	
3	442348	LCSD for HBN 147031 [ENVX/2141				LCSD	1		E3540...3P	6183		4/14/2015	
4	1510351001	A-0026H-040715-SG-001A				SAMPLE	1	1510351001-A	E3540...3P	5480		4/14/2015	
5	1510351002	A-0026H-040715-SG-001D				SAMPLE	1	1510351002-A	E3540...3P	5480		4/14/2015	
6	1510351003	A-0026H-040715-TO-001-PAN				SAMPLE	1	1510351003-A	E3540...3P	5480		4/14/2015	
7	1510351004	A-0026H-040715-TO-003-OUT				SAMPLE	1	1510351004-A	E3540...3P	5480		4/14/2015	
8	1510351005	A-0026H-040715-TO-004	1 pulf	1 mL		SAMPLE	1	1510351005-A	E3540...3P	5480		4/14/2015	

ORGANIC EXTRACTION LOGBOOK ALS GROUP USA, Corp

Client First Enviromt Case/SDG # N/A Horizon Extraction HBN 147031

Work Order# 1510351 Sample #'s 1-8 Extraction Method 3540

SOP: OE-SW-3540 Analytical Fraction SV Matrix Puff

~~Date samples weighed out~~ ~~by~~ ICT ~~balance #~~

See extraction batch sheet for sample weights/volumes, initial pH's (waters), and final concentration volumes.

Extraction: Date/Time 4/14/15 1630 Stop Date/Time (CLLE's/Soxlet) 4/15/15 10:30 Extracted by ICT

	Drying Agent	Salt	Solvents		Exchange Solvent
Solvent/Reagent used	☐ Na_2SO_4 ☐ N/A	☐ NaCl ☐ N/A	☐ CH_2Cl_2 ☐ Hexane ☐ Acetonitrile ☑ Hexane/Ether (9010) ☐ CH_2Cl_2/Acetone (1:1)		☒ Hexane ☐ Toluene ☐ N/A ☐ CH_2Cl_2
Vendor			B:S	Mallon	BDH
Lot Number			DL445	65810	0L907
Amount			Pel 500	Pel 500	per sop

	Surrogate/DMC STD	LCS Standard	MS/MSD Standard	RLVS Standard
Standard ID	26840	26764		
Spiked Amount	1mL	1mL		
Spiked By	ICT	ICT		

	Acid Solution	Base Solution		
Standard ID				
Spiked Amount *	ICT	ICT		
pH Adjustment *				
Spiked By				

* exceptions are noted in comments below

Comments LCS/LCSD MATRIX WAS JUST A PUFF WITH NO XAD DUE TO BEING OUT OF STOCK.

Pre-GPC Concentration: Date/Time — by — Comments —

Final Concentration: Date/Time 4/15/15 1100 by MR Comments The Temp was 7°C

Florisil (pesticides only) Date/Time — by — Florisil Column Lot # —

Comments

Checker Signature [signature] **Date** 9/15/15

ALS Environmental Semivolatile GC/MS Analyst Notebook

Workorder: 1510351	**HBN: 147180**

Analyst: SY
Client: First Environment
Method: 8270D
Analytes: PAH
Matrix: Soil
Media Lot #
Instrument: 5975-H
Date of Extraction: 4/14/2015
Date of Analysis: 4/16/2015

Instrument program: Initial Temperature is 50 C . Run time: 25.24 min

Ramps:

#	Rate	Final temp	Final time
1	25.00	130	0.00
2	13.00	240	0.00
3	22.00	300	9.85

Mass Spec: 35-550 amu

Initial Calibration Curve: H8270D15A1_LOWLEVEL. Run on 2-24-15. Curve file name is HAA.

QC : All Samples received 1 mL of surrogate spike 26840. LCS received 1 mL of 26704.

Sample Preparation: Method 3540 was followed for extraction and method 8270 was followed for analysis. 200 µL of sample was added to a GC vial with 4 µL of INSTD 26146.

Comments: Surrogate 2-Fluorobiphenyl fails low for all QC and samples at about 30% recovery. No re-extraction can be done on air samples. Benzo(a)anthracene fails slightly low at 58.7% in the LCS, but all other compounds pass in both the LCS and LCSD. NC/CAR 991 has been initiated.

DATACHEM LABORATORIES - GC\MS SEMIVOLATILE ANALYSIS
INJECTION LOGBOOK
INSTRUMENT 5975-H

File Name	Date and Time Injected	OP	Method	ALS BOT	Run Length	Dil Fac	Sample name	Misc info
HBG01TUN	04/16/2015 08:20	SY	8270DTUN	1	11.03	1	8270 TUN 27023	
HBG02CCV	04/16/2015 08:39	SY	H8270D	2	25.23	1	8270 S50 27409	
HBG03LMB	04/16/2015 09:13	SY	H8270D	3	25.23	1	442346 MB	
HBG04LCS	04/16/2015 09:47	SY	H8270D	4	25.23	1	442347 LCS	
HBG05LCD	04/16/2015 10:21	SY	H8270D	5	25.23	1	442348 LCSD	
HBG06SMP	04/16/2015 10:55	SY	H8270D	6	25.23	1	1510351001	
HBG07SMP	04/16/2015 11:29	SY	H8270D	7	25.23	1	1510351002	
HBG08SMP	04/16/2015 12:03	SY	H8270D	8	25.23	1	1510351003	
HBG09SMP	04/16/2015 12:36	SY	H8270D	9	25.23	1	1510351004	
HBG10SMP	04/16/2015 13:10	SY	H8270D	10	25.23	1	1510351005	
HBG11BLK	04/16/2015 13:44	SY	H8270D	11	25.23	1	MECL BLANK SY 4/16/15	
~~HBG03LMB~~	~~04/16/2015 09:13~~	~~SY~~	~~H8270D15A1_LOWLEVEL~~	~~3~~	~~25.23~~	~~1~~	~~442346 MB~~	

STANDARD REPORT

Working Standard - 8270 INT STD

8270 INT STD — **Description - 8270 INTERMEDIATE STD 89IS**

Standard: 28161	**Created By:** D. Calder	**Amount:** 10 mL
MFG:	**Create Date:** 05/26/2015	**Expires:** 04/14/2016
MFG Lot:	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
1	111-91-1	Bis(2-Chloroethoxy)methane	200 ug/mL
2	111-44-4	Bis(2-chloroethyl)ether	200 ug/mL
3	117-81-7	Bis(2-ethylhexyl)phthalate	200 ug/mL
4	108-60-1	bis(2-Chloroisopropyl)ether	200 ug/mL
5	101-55-3	4-Bromophenyl phenyl ether	200 ug/mL
6	85-68-7	Butylbenzylphthalate	200 ug/mL
7	7005-72-3	4-Chlorophenyl phenyl ether	200 ug/mL
8	84-66-2	Diethylphthalate	200 ug/mL
9	131-11-3	Dimethylphthalate	200 ug/mL
10	84-74-2	Di-n-butylphthalate	200 ug/mL
11	117-84-0	Di-n-octylphthalate	200 ug/mL
12	62-75-9	N-Nitrosodimethylamine	200 ug/mL
13	621-64-7	N-Nitrosodi-n-propyl amine	200 ug/mL
14	86-30-6	N-Nitrosodiphenylamine	200 ug/mL
15	62-53-3	Aniline	200 ug/mL
16	100-51-6	Benzyl alcohol	200 ug/mL
17	86-74-8	Carbazole	200 ug/mL
18	106-47-8	4-Chloroaniline	200 ug/mL
19	132-64-9	Dibenzofuran	200 ug/mL
20	91-57-6	2-Methylnaphthalene	200 ug/mL
21	88-74-4	2-Nitroaniline	200 ug/mL
22	99-09-2	3-Nitroaniline	200 ug/mL
23	100-01-6	4-Nitroaniline	200 ug/mL
24	110-86-1	Pyridine	200 ug/mL
25	59-50-7	4-Chloro-3-methylphenol	200.13 ug/mL
26	95-57-8	2-Chlorophenol	200.04 ug/mL
27	120-83-2	2,4-Dichlorophenol	200.14 ug/mL
28	87-65-0	2,6-Dichlorophenol	200.14 ug/mL
29	105-67-9	2,4-Dimethylphenol	200.06 ug/mL
30	51-28-5	2,4-Dinitrophenol	200.09 ug/mL
31	534-52-1	4,6-Dinitro-2-methylphenol	200.06 ug/mL
32	88-75-5	2-Nitrophenol	200.08 ug/mL
33	100-02-7	4-Nitrophenol	200.08 ug/mL
34	87-86-5	Pentachlorophenol	200.07 ug/mL
35	108-95-2	Phenol	200.08 ug/mL
36	88-06-2	2,4,6-Trichlorophenol	200.08 ug/mL
37	58-90-2	2,3,4,6-Tetrachlorophenol	200.08 ug/mL
38	83-32-9	Acenaphthene	200 ug/mL
39	208-96-8	Acenaphthylene	200 ug/mL

Working Standard - 8270 INT STD

8270 INT STD — **Description - 8270 INTERMEDIATE STD 89IS**

Standard: 28161	**Created By:** D. Calder	**Amount:** 10 mL
MFG:	**Create Date:** 05/26/2015	**Expires:** 04/14/2016
MFG Lot:	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
40	120-12-7	Anthracene	200 ug/mL
41	56-55-3	Benzo(a)anthracene	200 ug/mL
42	50-32-8	Benzo(a)pyrene	200 ug/mL
43	205-99-2	Benzo(b)fluoranthene	200 ug/mL
44	191-24-2	Benzo(g,h,i)perylene	200 ug/mL
45	207-08-9	Benzo(k)fluoranthene	200 ug/mL
46	218-01-9	Chrysene	200 ug/mL
47	53-70-3	Dibenzo(a,h)anthracene	200 ug/mL
48	206-44-0	Fluoranthene	200 ug/mL
49	86-73-7	Fluorene	200 ug/mL
50	193-39-5	Indeno(1,2,3-cd)pyrene	200 ug/mL
51	91-20-3	Naphthalene	200 ug/mL
52	85-01-8	Phenanthrene	200 ug/mL
53	129-00-0	Pyrene	200 ug/mL
54	103-33-3	Azobenzene	200 ug/mL
55	91-58-7	2-Chloronaphthalene	200 ug/mL
56	95-50-1	1,2-Dichlorobenzene	200 ug/mL
57	541-73-1	1,3-Dichlorobenzene	200 ug/mL
58	106-46-7	1,4-Dichlorobenzene	200 ug/mL
59	121-14-2	2,4-Dinitrotoluene	200 ug/mL
60	606-20-2	2,6-Dinitrotoluene	200 ug/mL
61	118-74-1	Hexachlorobenzene	200 ug/mL
62	87-68-3	Hexachloro-1,3-butadiene	200 ug/mL
63	77-47-4	Hexachlorocyclopentadiene	200 ug/mL
64	67-72-1	Hexachloroethane	200 ug/mL
65	78-59-1	Isophorone	200 ug/mL
66	98-95-3	Nitrobenzene	200 ug/mL
67	120-82-1	1,2,4-Trichlorobenzene	200 ug/mL
68	65-85-0	Benzoic acid	200 ug/mL
69	95-48-7	2-Methylphenol	200 ug/mL
70	106-44-5	4-Methylphenol	200 ug/mL
71	95-95-4	2,4,5-Trichlorophenol	200 ug/mL
72	92-87-5	Benzidine	200 ug/mL
73	91-94-1	3,3'-Dichlorobenzidine	200 ug/mL
74	367-12-4	2-Fluorophenol	200 ug/mL
75	4165-62-2	Phenol-d5	200 ug/mL
76	118-79-6	2,4,6-Tribromophenol	200 ug/mL
77	321-60-8	2-Fluorobiphenyl	200 ug/mL
78	1718-51-0	Terphenyl-d14	200 ug/mL

STANDARD REPORT

Working Standard - 8270 INT STD

8270 INT STD — **Description - 8270 INTERMEDIATE STD 89IS**

Standard: 28161	**Created By:** D. Calder	**Amount:** 10 mL
MFG:	**Create Date:** 05/26/2015	**Expires:** 04/14/2016
MFG Lot:	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
79	4165-60-0	Nitrobenzene-d5	200 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
24887	8270MIX10017	ABS STD MIX 10017-PAH Std.	OEMSSV20140526	1 mL	03/07/2018
27756	MECL2	MeCl2	SVOA04152015	2.4 mL	04/14/2016
27909	SVOA Partial	CLP Semi-Volatiles Base/Neutrals Mix	SVOA Partial Mix	1 mL	04/29/2016
28089	ABS 10002	ABS mix 10002	SVOA05202015	1 mL	11/11/2017
28090	ABS 10004	Absolute Std 10004	SVOA05202015	1 mL	01/08/2020
28092	ABS 10006	ABS MIX 10006	SVOA05202015	1 mL	04/29/2018
28094	ABS 10018	Absolute Standards 100018	SVOA05202015	1 mL	02/03/2020
28095	ABS 91760	ABS CLP standard in methylene	SVOA05202015	1 mL	05/08/2020
28138	SVsurrogB/N	Semivol Base/Neutral Surrogate Std	SVOA05262015	0.4 mL	06/09/2019
28139	SVsurrogAcid	Semivol Acid Surrogate Standard	SVOA05262015	0.2 mL	08/15/2018

STANDARD REPORT

Constituent

Stock Standard - SVsurrogAcid

SVsurrogAcid		Description - Semivol Acid Surrogate Standard
Standard: 28139	**Created By:** S. Yourstone	**Amount:** 2 mL
MFG: Absolute Standards, Inc.	**Create Date:** 5/26/2015	**Expires:** 8/15/2018
MFG Lot: 081513	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID: 21015		

Pos.	Analyte	Name	Concentration
1	367-12-4	2-Fluorophenol	10000 ug/mL
2	4165-62-2	Phenol-d5	10000 ug/mL
3	118-79-6	2,4,6-Tribromophenol	10000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - SVsurrogB/N

SVsurrogB/N		**Description - Semivol Base/Neutral Surrogate**
Standard: 28138	**Created By:** S. Yourstone	**Amount:** 4 mL
MFG: Absolute Standards, Inc.	**Create Date:** 5/26/2015	**Expires:** 6/9/2019
MFG Lot: 060914	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID: 21016		

Pos.	Analyte	Name	Concentration
1	321-60-8	2-Fluorobiphenyl	5000 ug/mL
2	1718-51-0	Terphenyl-d14	5000 ug/mL
3	4165-60-0	Nitrobenzene-d5	5000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - 8270MIX10017

8270MIX10017 — **Description - ABS STD MIX 10017-PAH Std.**

Standard:	24887	**Created By:**	B. Murphy	**Amount:**	3 mL
MFG:	ABSOLUTE STANDARDS	**Create Date:**	8/15/2014	**Expires:**	3/7/2018
MFG Lot:	030713	**Lab Lot:**	OEMSSV20140526	**Usable:**	Yes
Part ID:	10017				

Pos.	Analyte	Name	Concentration
1	83-32-9	Acenaphthene	2000 ug/mL
2	208-96-8	Acenaphthylene	2000 ug/mL
3	120-12-7	Anthracene	2000 ug/mL
4	56-55-3	Benzo(a)anthracene	2000 ug/mL
5	50-32-8	Benzo(a)pyrene	2000 ug/mL
6	205-99-2	Benzo(b)fluoranthene	2000 ug/mL
7	191-24-2	Benzo(g,h,i)perylene	2000 ug/mL
8	207-08-9	Benzo(k)fluoranthene	2000 ug/mL
9	218-01-9	Chrysene	2000 ug/mL
10	53-70-3	Dibenzo(a,h)anthracene	2000 ug/mL
11	206-44-0	Fluoranthene	2000 ug/mL
12	86-73-7	Fluorene	2000 ug/mL
13	193-39-5	Indeno(1,2,3-cd)pyrene	2000 ug/mL
14	91-20-3	Naphthalene	2000 ug/mL
15	85-01-8	Phenanthrene	2000 ug/mL
16	129-00-0	Pyrene	2000 ug/mL

STANDARD REPORT

Constituent

Solvent Standard - MECL2

MECL2			Description - MeCl2
Standard: 27756	**Created By:** D. Calder		**Amount:** 8 L
MFG: J.T. Baker	**Create Date:** 4/15/2015		**Expires:** 4/14/2016
MFG Lot: 92673	**Lab Lot:** SVOA04152015		**Usable:** Yes
Part ID:			

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - ABS 10004

ABS 10004		Description - Absolute Std 10004
Standard: 28090	**Created By:** S. Yourstone	**Amount:** 2 mL
MFG: Absolute Standards Inc.	**Create Date:** 5/20/2015	**Expires:** 1/8/2020
MFG Lot: 010815	**Lab Lot:** SVOA05202015	**Usable:** Yes
Part ID: 10004		

Pos.	Analyte	Name	Concentration
1	65-85-0	Benzoic acid	2000 ug/mL
2	95-48-7	2-Methylphenol	2000 ug/mL
3	106-44-5	4-Methylphenol	2000 ug/mL
4	95-95-4	2,4,5-Trichlorophenol	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 10006

ABS 10006 — **Description - ABS MIX 10006**

Standard:	28092	**Created By:**	S. Yourstone	**Amount:**	1 mL
MFG:	ABSOLUTE STANDARDS	**Create Date:**	5/20/2015	**Expires:**	4/29/2018
MFG Lot:	042915	**Lab Lot:**	SVOA05202015	**Usable:**	Yes
Part ID:					

Pos.	Analyte	Name	Concentration
1	92-87-5	Benzidine	2000 ug/mL
2	91-94-1	3,3'-Dichlorobenzidine	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 91760

ABS 91760	Description - ABS CLP standard in methylene

Standard: 28095 **Created By:** S. Yourstone **Amount:** 2 mL

MFG: Absolute Standards **Create Date:** 5/20/2015 **Expires:** 5/8/2020

MFG Lot: 050815 **Lab Lot:** SVOA05202015 **Usable:** Yes

Part ID: 91760

Pos.	Analyte	Name	Concentration
1	62-53-3	Aniline	2000 ug/mL
2	100-51-6	Benzyl alcohol	2000 ug/mL
3	86-74-8	Carbazole	2000 ug/mL
4	106-47-8	4-Chloroaniline	2000 ug/mL
5	132-64-9	Dibenzofuran	2000 ug/mL
6	91-57-6	2-Methylnaphthalene	2000 ug/mL
7	88-74-4	2-Nitroaniline	2000 ug/mL
8	99-09-2	3-Nitroaniline	2000 ug/mL
9	100-01-6	4-Nitroaniline	2000 ug/mL
10	110-86-1	Pyridine	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 10002

ABS 10002 — **Description - ABS mix 10002**

Standard: 28089 **Created By:** S. Yourstone **Amount:** 2 mL
MFG: Absolute Standards Inc. **Create Date:** 5/20/2015 **Expires:** 11/11/2017
MFG Lot: 111114 **Lab Lot:** SVOA05202015 **Usable:** Yes
Part ID: 10002

Pos.	Analyte	Name	Concentration
1	103-33-3	Azobenzene	2000 ug/mL
2	91-58-7	2-Chloronaphthalene	2000 ug/mL
3	95-50-1	1,2-Dichlorobenzene	2000 ug/mL
4	541-73-1	1,3-Dichlorobenzene	2000 ug/mL
5	106-46-7	1,4-Dichlorobenzene	2000 ug/mL
6	121-14-2	2,4-Dinitrotoluene	2000 ug/mL
7	606-20-2	2,6-Dinitrotoluene	2000 ug/mL
8	118-74-1	Hexachlorobenzene	2000 ug/mL
9	87-68-3	Hexachloro-1,3-butadiene	2000 ug/mL
10	77-47-4	Hexachlorocyclopentadiene	2000 ug/mL
11	67-72-1	Hexachloroethane	2000 ug/mL
12	78-59-1	Isophorone	2000 ug/mL
13	98-95-3	Nitrobenzene	2000 ug/mL
14	120-82-1	1,2,4-Trichlorobenzene	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 10018

ABS 10018 — **Description - Absolute Standards 100018**

Standard: 28094 | Created By: S. Yourstone | Amount: 2 mL
MFG: Absolute Standards Inc. | Create Date: 5/20/2015 | Expires: 2/3/2020
MFG Lot: 020315 | Lab Lot: SVOA05202015 | Usable: Yes
Part ID: 10018

Pos.	Analyte	Name	Concentration
1	59-50-7	4-Chloro-3-methylphenol	2001.3 ug/mL
2	95-57-8	2-Chlorophenol	2000.4 ug/mL
3	120-83-2	2,4-Dichlorophenol	2001.4 ug/mL
4	87-65-0	2,6-Dichlorophenol	2001.4 ug/mL
5	105-67-9	2,4-Dimethylphenol	2000.6 ug/mL
6	51-28-5	2,4-Dinitrophenol	2000.9 ug/mL
7	534-52-1	4,6-Dinitro-2-methylphenol	2000.6 ug/mL
8	88-75-5	2-Nitrophenol	2000.8 ug/mL
9	100-02-7	4-Nitrophenol	2000.8 ug/mL
10	87-86-5	Pentachlorophenol	2000.7 ug/mL
11	108-95-2	Phenol	2000.8 ug/mL
12	88-06-2	2,4,6-Trichlorophenol	2000.8 ug/mL
13	58-90-2	2,3,4,6-Tetrachlorophenol	2000.8 ug/mL

STANDARD REPORT

Constituent

Stock Standard - SVOA Partial

SVOA Partial — **Description - CLP Semi-Volatiles**

Standard:	27909	**Created By:**	S. Yourstone	**Amount:**	5 mL
MFG:	Absolute Standards	**Create Date:**	4/30/2015	**Expires:**	4/29/2016
MFG Lot:	053014	**Lab Lot:**	SVOA Partial Mix	**Usable:**	Yes
Part ID:	10001R				

Pos.	Analyte	Name	Concentration
1	111-91-1	Bis(2-Chloroethoxy)methane	2000 ug/mL
2	111-44-4	Bis(2-chloroethyl)ether	2000 ug/mL
3	117-81-7	Bis(2-ethylhexyl)phthalate	2000 ug/mL
4	108-60-1	bis(2-Chloroisopropyl)ether	2000 ug/mL
5	101-55-3	4-Bromophenyl phenyl ether	2000 ug/mL
6	85-68-7	Butylbenzylphthalate	2000 ug/mL
7	7005-72-3	4-Chlorophenyl phenyl ether	2000 ug/mL
8	84-66-2	Diethylphthalate	2000 ug/mL
9	131-11-3	Dimethylphthalate	2000 ug/mL
10	84-74-2	Di-n-butylphthalate	2000 ug/mL
11	117-84-0	Di-n-octylphthalate	2000 ug/mL
12	62-75-9	N-Nitrosodimethylamine	2000 ug/mL
13	621-64-7	N-Nitrosodi-n-propyl amine	2000 ug/mL
14	86-30-6	N-Nitrosodiphenylamine	2000 ug/mL

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CERTIFIED WEIGHT REPORT

Part Number: 21015
Lot Number: 081513
Description: CLP Semi-Volatile Acid Surrogate Stand:
3 components
Expiration Date: 081518
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000

2mL S
28139

Solvent(s): **Lot#**
Methanol DH247

28139

Formulated By: Paul Barron 081513 DATE

Reviewed By: Pedro L. Rentas 081513 DATE

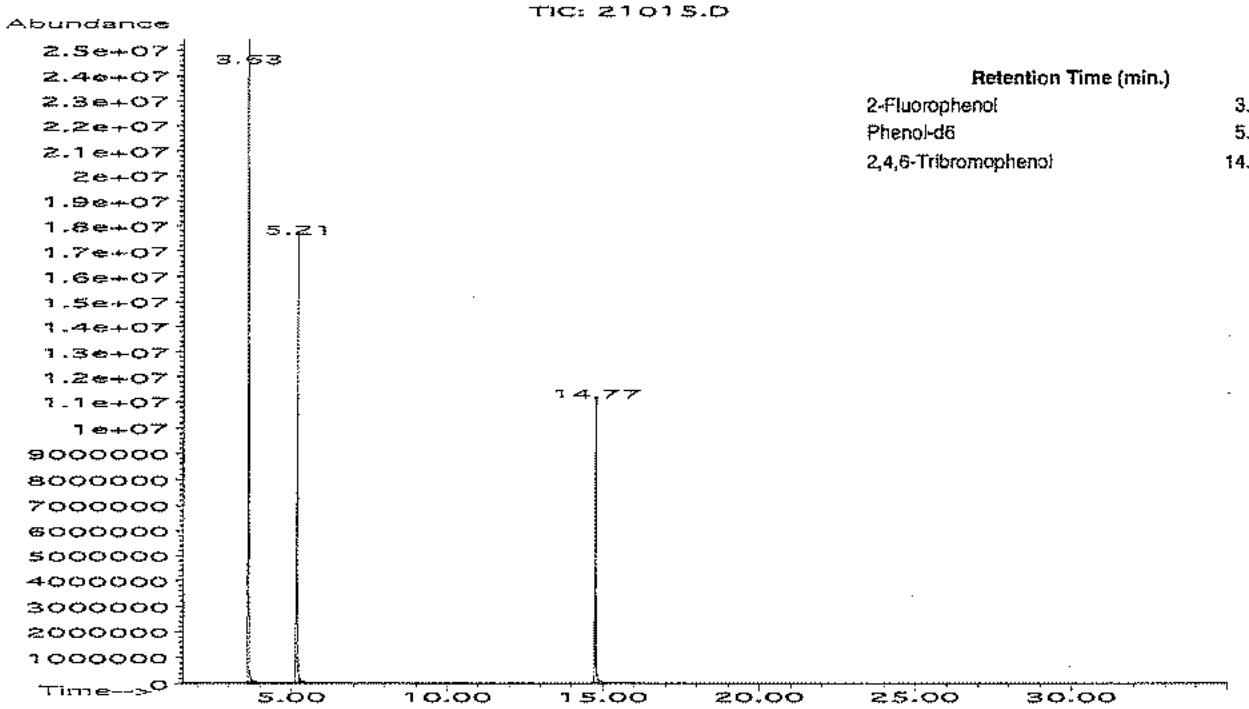
5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 499.9 0.058 Flask Uncertainty

Note: Phenol-d6 becomes Phenol-d5 in methanol solution.

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. 2-Fluorophenol	190	09006DO	10000	98	0.2	5.10064	5.10358	10005.8	0.0041	00367-12-4	N/A	ipr-mus 537mg/kg
2. Phenol-d6	252	E228AP3	10000	98.9	0.2	5.05422	5.05697	10005.4	0.0041	13127-88-3	5 ppm (19mg/m3/8H)(skin)	orl-mus 317mg/kg
3. 2,4,6-Tribromophenol	287	FGK01	10000	98	0.2	5.10064	5.10273	10004.1	0.0041	00118-79-6	N/A	orl-rat 2000mg/kg

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.



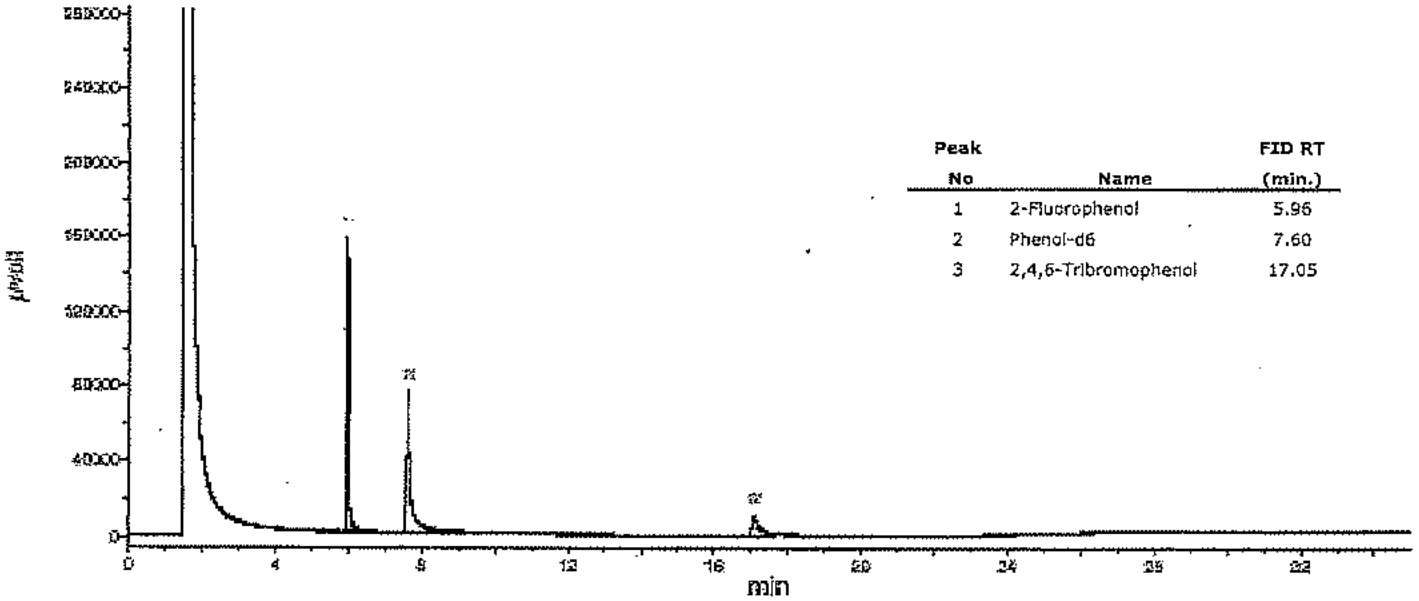
Retention Time (min.)

2-Fluorophenol	3.63
Phenol-d6	5.21
2,4,6-Tribromophenol	14.77

Run 39, "P21015 L081513 [10mg/mL in methanol, 1:10 DF]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Fri, Aug 16, 2013 at 7:13:48 PM.
Sampled: Sequence "081513-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No	Name	FID RT (min.)
1	2-Fluorophenol	5.96
2	Phenol-d6	7.60
3	2,4,6-Tribromophenol	17.05

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CERTIFIED WEIGHT REPORT

28138

Part Number:	21016 S	**Solvent(s):**	**Lot#**
Lot Number:	060914	Methylene chloride	74359
Description:	CLP Semi-Volatile Base/Neutral Surrogate Std		
	3 components		
Expiration Date:	060919		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	5000		

4mL #28138

Formulated By: Paul Barron 060914 DATE

Reviewed By: Pedro L. Rentas 060914 DATE

5E-05 Balance Uncertainty

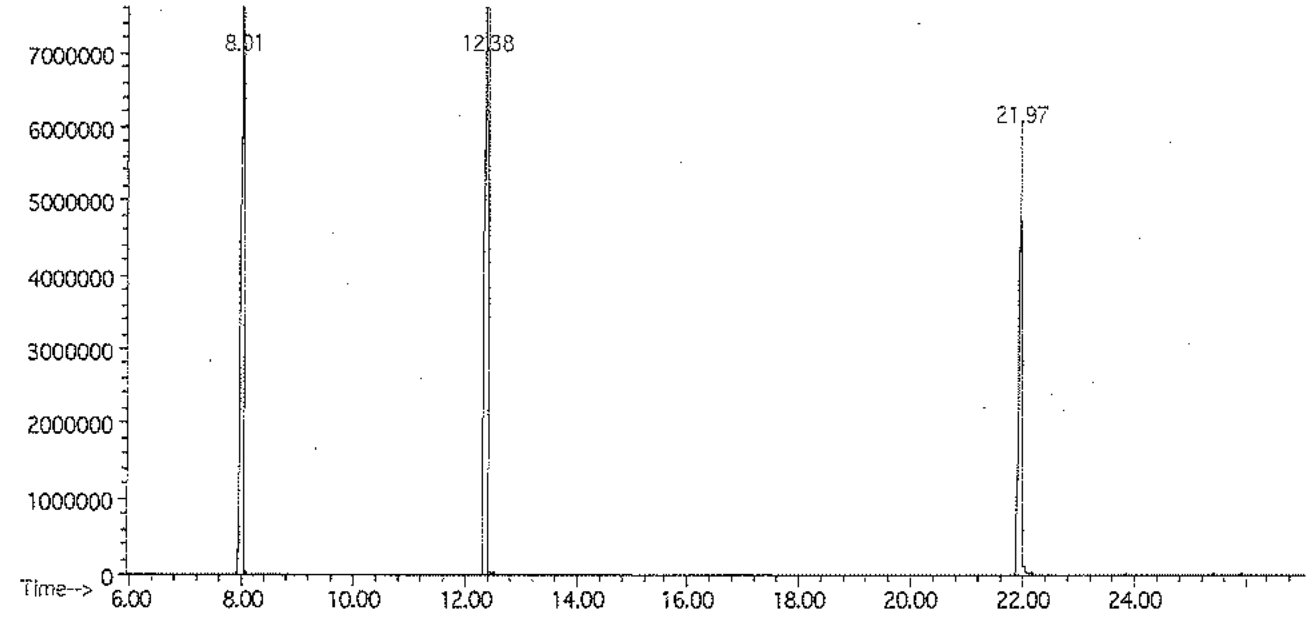
Weight(s) shown below were combined and diluted to (mL): 500.0 0.058 Flask Uncertainty

MSDS Information (Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. 2-Fluorobiphenyl	187	MKAA3698	5000	96	0.2	2.60432	2.60508	5001.5	0.0042	00321-60-8	N/A	N/A
2. p-Terphenyl-d14	272	P-6109	5000	98	0.2	2.55117	2.55219	5002.0	0.0041	01718-51-0	1 ppm (CL)	orl-rbt 2400mg/kg
3. Nitrobenzene-d5	229	PR-20474/06199NB1	5000	99	0.2	2.52540	2.52594	5001.1	0.0040	04165-60-0	1 ppm (5mg/m3/8H)(skin)	orl-rat 640mg/kg

Method GC8MSD-2.M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14 min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Melissa Stonier.

TIC: 21016.D

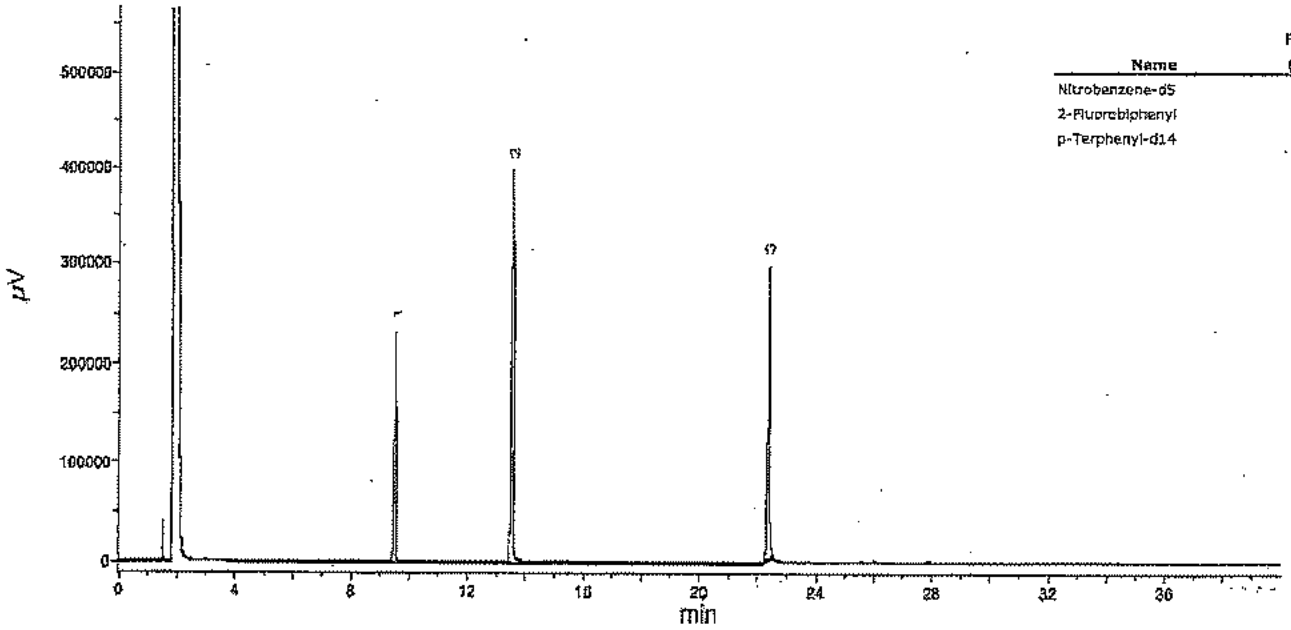


Peak No.	Name	MSD RT (min.)
1	Nitrobenzne-d5	8.01
2	2-Fluorobiphenyl	12.38
3	p-Terphenyl-d14	21.97

Run 25, "P21016 L060914 [5000µg/mL in MeCl2]6"

Run Length: 39.99 min, 23997 points at 10 points/second.
Created: Wed, Jun 11, 2014 at 4:03:54 PM.
Sampled: Sequence "060914-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9M2 Analysis by Candice Warren
SPB-5 30 meter x 0.53 µm x 1.5 df
Flow Rates; Total Flow = 300 mL/min, Helium (carrier)=6mL, Helium (makeup)=25mL, Hydrogen (detector)=30, Air (detector)=360
Oven Temp 1 = 50 C (1 min), Rate = 10 C/min, Oven Temp 2 = 300 (14 min), Total Run Time=40 min.
Injector Temp = 250 C, FID Temp = 300 C, FID Signal = Edaq Channel 1
Gas Chromatograph = HP5890, Inejector = HP7673A, Standard Injection = 0.5 uL, Range = 6



Name	FID RT (min.)
Nitrobenzene-d5	9.51
2-Fluorobiphenyl	13.53
p-Terphenyl-d14	22.37

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CERTIFIED WEIGHT REPORT

Part Number: 10017
Lot Number: 030713
Description: CLP Semi-Volatiles - PAH Standard
16 components
Expiration Date: 030718
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s): Lot # L09S03 Methylene chloride

Formulated By: Paul Barron 030713 DATE

Reviewed By: Pedro L. Rentas 030713 DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to: 500.0 0.058 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty ± Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Acenaphthene	1	01619AX	2000	99	0.2	1.01016	1.01068	2001.0	0.0040	00083-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	3	ER030707-01	2000	99	0.2	1.01016	1.01063	2000.9	0.0040	00208-96-8	N/A	N/A
3. Anthracene	13	A0210580	2000	99	0.2	1.01016	1.01059	2000.9	0.0040	00120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	28	012012	2000	99	0.2	1.01016	1.01079	2001.2	0.0040	00056-55-3	N/A	N/A
5. Benzo(a)pyrene	30	012010	2000	99.5	0.2	1.00508	1.00550	2000.8	0.0040	00050-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	31	ER022008-02	2000	99	0.2	1.01016	1.01104	2001.7	0.0040	00205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	33	022011	2000	99	0.2	1.01016	1.01040	2000.5	0.0040	00207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	32	022012	2000	99	0.2	1.01016	1.01099	2001.6	0.0040	00191-24-2	N/A	N/A
9. Chrysene	91	ER120810-02	2000	99	0.2	1.01016	1.01078	2001.2	0.0040	00218-01-9	0.2mg/m3	N/A
10. Dibenzo(a,h)anthracene	112	012012	2000	98	0.2	1.02047	1.02115	2001.3	0.0041	00053-70-3	0.2mg/m3	N/A
11. Fluoranthene	183	04221PV	2000	98	0.2	1.02047	1.02088	2000.8	0.0041	00206-44-0	N/A	orl-rat 2000mg/kg
12. Fluorene	184	07211MV	2000	98	0.2	1.02047	1.02080	2000.3	0.0041	00086-73-7	N/A	ipr-mus 2 g/kg
13. Indeno(1,2,3-cd)pyrene	202	012011	2000	98	0.2	1.02047	1.02124	2001.5	0.0041	00193-39-5	N/A	N/A
14. Naphthalene	222	09424LC	2000	99	0.2	1.01016	1.01040	2000.5	0.0040	00091-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
15. Phenanthrene	248	03410PV	2000	99	0.2	1.01016	1.01099	2001.6	0.0040	00085-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
16. Pyrene	259	010197	2000	98	0.2	1.02047	1.02105	2001.1	0.0041	00129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg

S 24887

24887

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Material Safety Data Sheet (MSDS)

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200., Section (g)(c)(1). Standard must be consulted for specific requirements. Contact name below for further information.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY	CAS #
Methylene Chloride	00075-09-2

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name **ABSOLUTE STANDARDS INC**	Emergency Telephone Number 1-203-281-2917
Address (Number, Street, City, State, and ZIP Code)	Telephone Number for Information 1-203-281-2917
44 Rossotto Dr., Hamden CT, 06514	Date Prepared/Revised 1/1/14
	Signature of Preparator (optional) Jack Criscio

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))		OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methylene Chloride	Dichloromethane	25 ppm	350 MG/M3	NA	> 97

See Attached Certified Weight Report For Other Analytes Present At Trace Quantities.

Section III - Physical/Chemical Characteristics

Boiling Point	40°C	Specific Gravity (H2O = 1)	1.32
Vapor Pressure (mm Hg)	350	Melting Point	-95°C
Vapor Density (AIR = 1)	2.9	Evaporation rate (Butyl Acetate = 1)	27.5

Solubility in Water
Moderate (1-10%)

Appearance and Odor
CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PENETRATING ETHER-LIKE ODOR.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
(CLOSED CUP) NA		12%	19%

Extinguishing Media
USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

Special Firefighting Procedures
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire and Explosion Hazards
Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire. Burns with a clear, almost invisible flame. Concentrated vapor can be ignited by a high intensity ignition source. Toxic gases produced may include: Hydrogen chloride, Phosgene, Chlorine, Carbon monoxide, Carbon dioxide.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Heat, Flame , Other ignition sources.

Incompatibility (Materials to Avoid)
Strong oxidizing agents, Strong acids, Zinc, Aluminum, Magnesium

Hazardous Decomposition or By-products
Carbon monoxide, Carbon dioxide, Formaldehyde

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Heat, Flame , Other ignition sources.

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28090

CERTIFIED WEIGHT REPORT

Part Number:	**10004**	**Solvent(s):**	**Lot#**
Lot Number:	010815	Methylene chloride	72062
Description:	Toxic Substances #1 - CLP SOW July'91		
	4 components		
Expiration Date:	010820	# 28090	
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	2000		

Paul Barron 010815
Formulated By: Paul Barron DATE

Pedro Rentas 010815
Reviewed By: Pedro L. Rentas DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to: 500.0 0.058 Flask Uncertainty

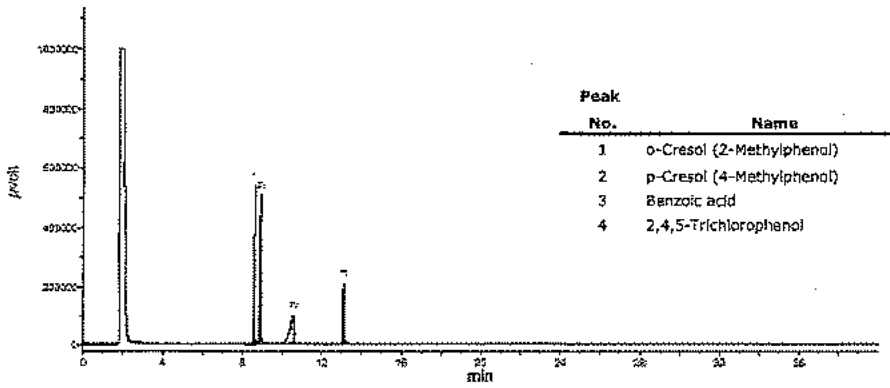
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzoic acid	34	11930AW	2000	99	0.2	1.01016	1.01065	2001.0	0.0040	00065-85-0	N/A	orl-rat 1700mg/kg
2. o-Cresol (2-Methylphenol)	93	SHBC5581V	2000	99	0.2	1.01016	1.01072	2001.1	0.0040	00095-48-7	5 ppm (22mg/m3/8H)(skin)	orl-rat 121mg/kg
3. p-Cresol (4-Methylphenol)	216	05412TV	2000	99	0.2	1.01016	1.01062	2000.9	0.0040	00106-44-5	5 ppm (22mg/m3/8H)(skin)	orl-rat 207mg/kg
4. 2,4,5-Trichlorophenol	295	05714MV	2000	99	0.2	1.01016	1.01102	2001.7	0.0040	00095-95-4	N/A	orl-rat 820mg/kg

Run 86, "P10004 L010815 [2000µg/mL in MeCl2]"

Run Length: 39.99 min, 23997 points at 10 points/second.
Created: Sun, Jan 18, 2015 at 3:10:54 AM.
Sampled: Sequence "011415-GC4M2", Method "GC4-M2".
Analyzed using Method "GC4-M2".

2 mL

Comments
GC4-M2 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673. Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	o-Cresol (2-Methylphenol)	8.59
2	p-Cresol (4-Methylphenol)	8.89
3	Benzoic acid	10.56
4	2,4,5-Trichlorophenol	13.08

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28092

CERTIFIED WEIGHT REPORT §

Part Number:	10006	**Solvent(s):**	**Lot#**
Lot Number:	042915	Methanol	DL535
Description:	CLP Semi-Volatiles - Benzidines SOW July'91		
Expiration Date:	042918		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	2000		

28092

Formulated By:	Paul Barron	042915	DATE
Reviewed By:	Pedro L. Rentas	042915	DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 200.0 0.014 Flask Uncertainty

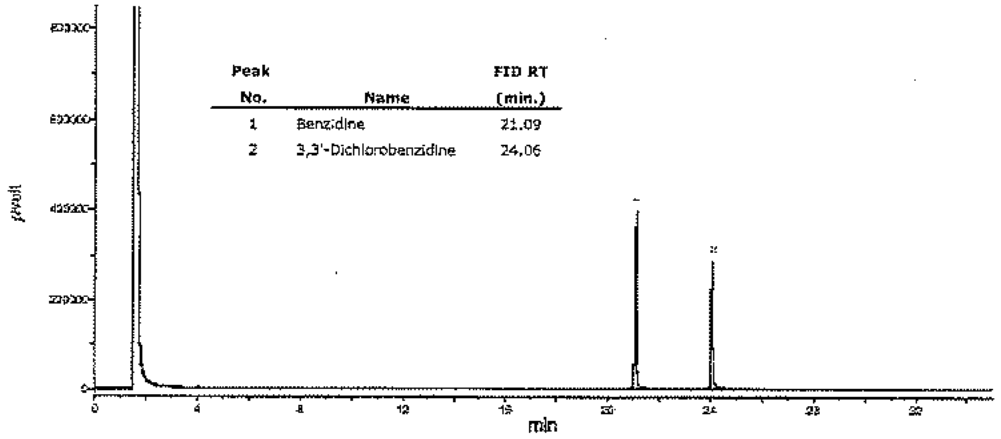
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Benzidine	27	SLBH5327V	2000	98	0.2	0.40809	0.40839	2001.4	0.0041	00092-87-5	N/A	orl-rat 309mg/kg
2. 3,3'-Dichlorobenzidine	130	3667100	2000	99.1	0.5	0.40356	0.40382	2001.3	0.0101	00091-94-1	Cancer Suspect Agent	orl-rat 3.82g/kg

Run 2, "P10006 L042915 [2000µg/mL in methanol]"

1 mL

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Thu, Apr 30, 2015 at 4:34:27 PM.
Sampled: Sequence "043015-GC4M2", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



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CERTIFIED WEIGHT REPORT

28095

Part Number: 91760 S
Lot Number: 050815
Description: CLP - Semi-Volatile Additional Compound Standard #28095
10 compounds
Expiration Date: 050820
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s):	Lot#
Methylene chloride	72062

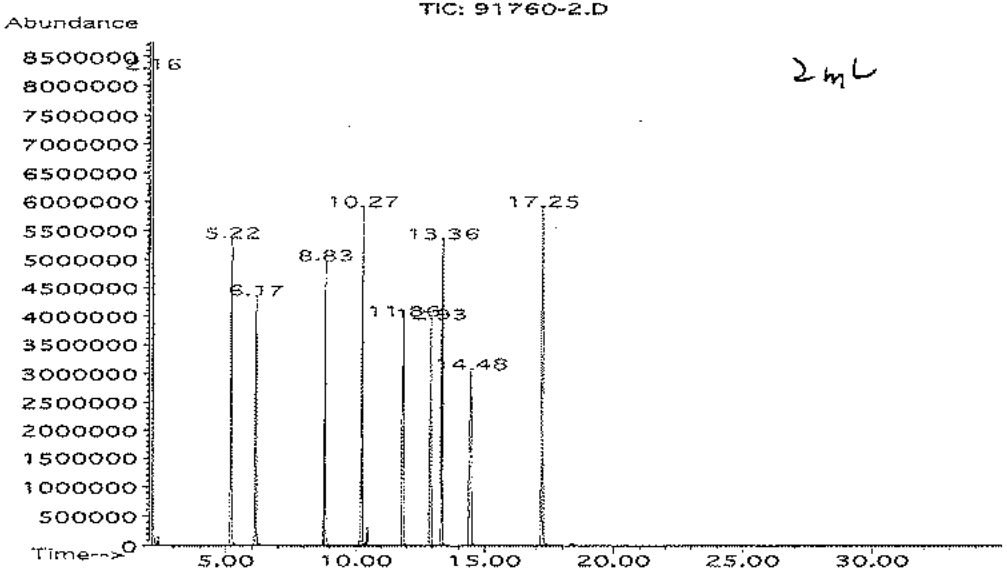
5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Bryan Njeba	050815 DATE
Formulated By:	
Pedro L. Rentas	050815 DATE
Reviewed By:	

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Aniline	11	03929TV	2000	99	0.2	0.40409	0.40410	2000.0	0.0041	00062-53-3	5 ppm (8H)	orl-rat 250mg/kg
2. Benzyl alcohol	35	04105CX	2000	99	0.2	0.40409	0.40423	2000.7	0.0041	00100-51-6	N/A	orl-rat 1230mg/kg
3. Carbazole	59	LB89365V	2000	98.2	0.2	0.40738	0.40780	2002.0	0.0041	00086-74-8	N/A	ipr-mus 200mg/kg
4. 4-Chloroaniline	67	052597	2000	98	0.2	0.40821	0.40822	2000.0	0.0041	00106-47-8	N/A	orl-rat 310mg/kg
5. Dibenzofuran	116	11125LW	2000	99	0.2	0.40409	0.40465	2002.8	0.0041	00132-64-9	N/A	N/A
6. 2-Methylnaphthalene	214	01928MV-1	2000	96	0.2	0.41672	0.41870	2009.5	0.0042	00091-57-6	N/A	orl-rat 1630mg/kg
7. 2-Nitroaniline	225	061797	2000	98	0.2	0.40821	0.40860	2001.9	0.0041	00088-74-4	N/A	orl-rat 1600mg/kg
8. 3-Nitroaniline	226	062297	2000	98	0.2	0.40821	0.40856	2001.7	0.0041	00099-09-2	N/A	orl-rat 535mg/kg
9. 4-Nitroaniline	227	03223BW	2000	99	0.2	0.40409	0.40510	2005.0	0.0041	00100-01-6	1 ppm (6mg/m3/8H)(skin)	orl-rat 750mg/kg
10. Pyridine	260	HS 00354ES	2000	99.8	0.2	0.40085	0.40195	2005.5	0.0041	00110-86-1	5 ppm (15mg/m3/8H)	orl-rat 891mg/kg

TIC: 91760-2.D



2mL

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

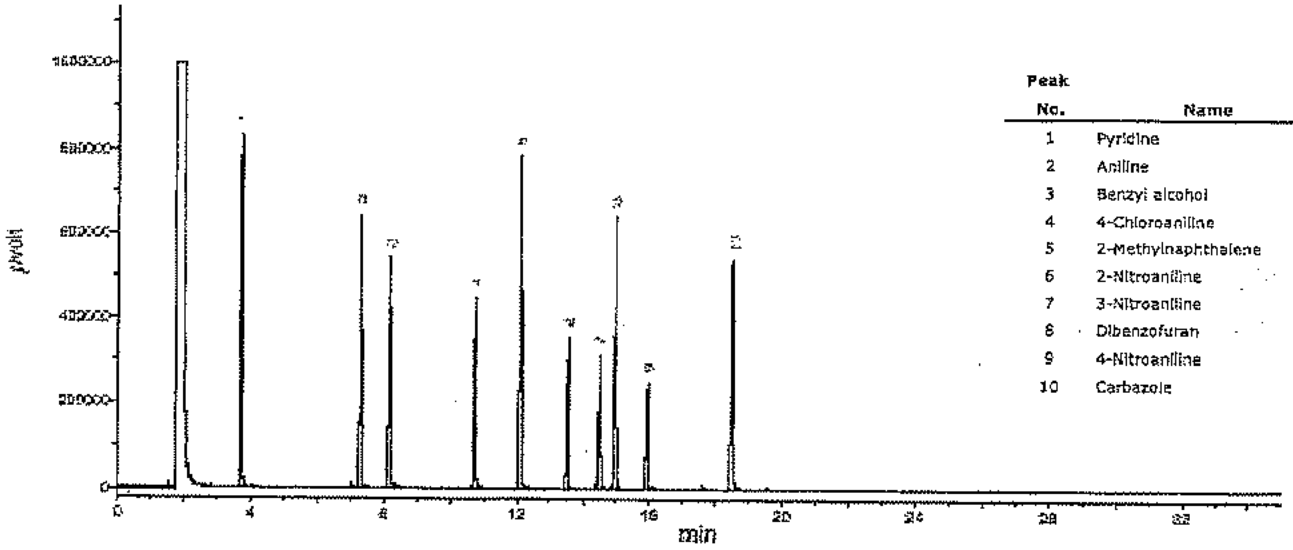
Retention Time (min.)

Pyridine	2.16
Aniline	5.22
Benzyl alcohol	6.17
4-Chloroaniline	8.83
2-Methylnaphthalene	10.27
2-Nitroaniline	11.86
3-Nitroaniline	12.93
Dibenzofuran	13.36
4-Nitroaniline	14.48
Carbazole	17.25

Run 46, "P91760 L050815 [2000µg/mL in MeCl2]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Fri, May 8, 2015 at 8:34:35 PM.
Sampled: Sequence "050715-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Pyridine	3.70
2	Aniline	7.29
3	Benzyl alcohol	8.16
4	4-Chloroaniline	10.72
5	2-Methylnaphthalene	12.10
6	2-Nitroaniline	13.53
7	3-Nitroaniline	14.50
8	Dibenzofuran	14.96
9	4-Nitroaniline	15.94
10	Carbazole	18.48

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28089

CERTIFIED WEIGHT REPORT

Part Number: 10002
Lot Number: 111114
Description: CLP Semi-Volatiles Base Neutrals Mix #2
14 components
Expiration Date: 111117
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s): **Lot#**
Methylene chloride E42B05

#28089

Paul Barron 111114
Formulated By: Paul Barron DATE

Pedro Rentas 111114
Reviewed By: Pedro L. Rentas DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to: 250.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

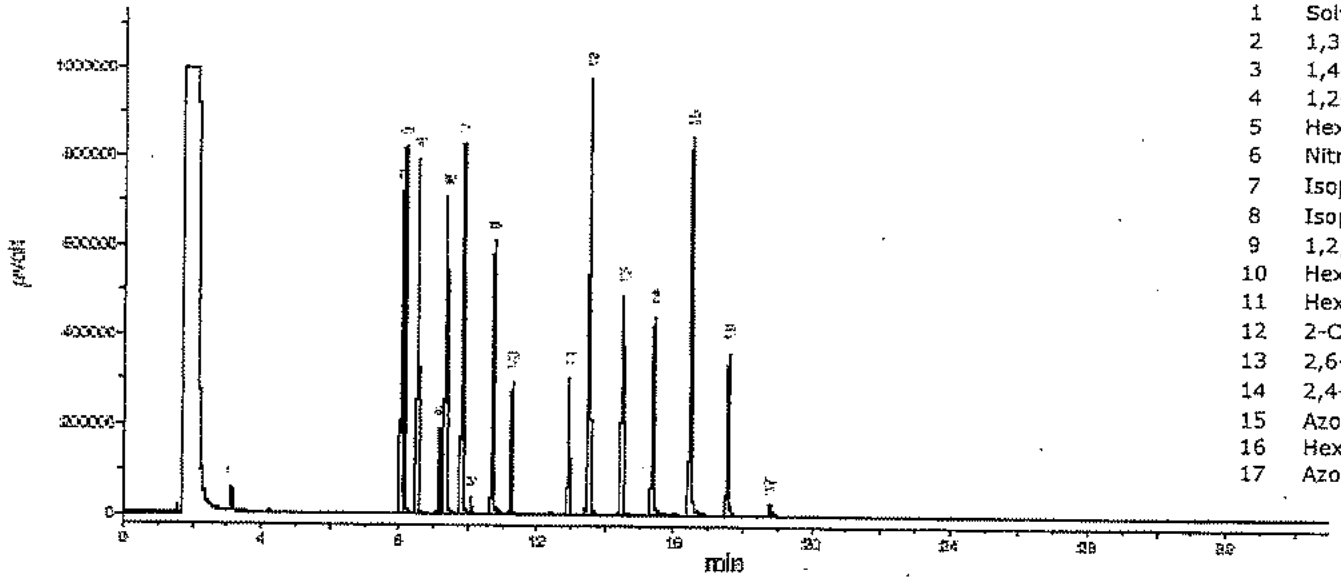
	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1.	Azobenzene	24	01301MT	2000	96	0.2	0.52090	0.52123	2001.3	0.0042	00103-33-3	N/A	orl-rat 1000mg/kg
2.	2-Chloronaphthalene	81	FIJ02	2000	98	0.2	0.51027	0.51040	2000.5	0.0041	00091-58-7	N/A	orl-rat 2078mg/kg
3.	1,2-Dichlorobenzene	125	00311TW	2000	99	0.2	0.50511	0.50545	2001.3	0.0041	00095-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
4.	1,3-Dichlorobenzene	126	03107TV	2000	98	0.2	0.51027	0.51064	2001.5	0.0041	00541-73-1	N/A	ipr-mus 1062mg/kg
5.	1,4-Dichlorobenzene	127	MKBF5042V	2000	99	0.2	0.50511	0.50540	2001.1	0.0041	00106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
6.	2,4-Dinitrotoluene	160	00913MP	2000	97	0.2	0.51553	0.51587	2001.3	0.0042	00121-14-2	1.5mg/m3/8H (skin)	orl-rat 268mg/kg
7.	2,6-Dinitrotoluene	161	010191	2000	99	0.2	0.50511	0.50532	2000.8	0.0041	00606-20-2	1.5mg/m3/8H (skin)	orl-rat 177mg/kg
8.	Hexachlorobenzene	195	051697	2000	99	0.2	0.50511	0.50552	2001.6	0.0041	00118-74-1	N/A	orl-rat 10g/kg
9.	Hexachloro-1,3-butadiene	197	LB94747V	2000	98.5	0.2	0.50768	0.50798	2001.2	0.0041	00087-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
10.	Hexachlorocyclopentadiene	198	1270657	2000	98	0.2	0.51027	0.51040	2000.5	0.0041	00077-47-4	0.01 ppm (0.1mg/m3/8H)	orl-rat 1300mg/kg
11.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.50511	0.50528	2000.7	0.0041	00067-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
12.	Isophorone	203	01314HM	2000	97	0.2	0.51553	0.51595	2001.6	0.0042	00078-59-1	25 ppm	orl-rat 2330mg/kg
13.	Nitrobenzene	228	01213TV	2000	99	0.2	0.50511	0.50540	2001.1	0.0041	00098-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14.	1,2,4-Trichlorobenzene	289	SHBF2370V	2000	99	0.2	0.50511	0.50545	2001.3	0.0041	00120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg

2mL

Run 39, "P10002 L111114 [2000µg/mL in MeCl2]"

Run Length: 36.00 min, 20998 points at 10 points/second.
Created: Tue, Nov 11, 2014 at 6:14:40 PM.
Sampled: Sequence "111014-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stenier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 36 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Solvent	3.12
2	1,3-Dichlorobenzene	8.05
3	1,4-Dichlorobenzene	8.15
4	1,2-Dichlorobenzene	8.53
5	Hexachloroethane	9.16
6	Nitrobenzene	9.35
7	Isophorone	9.84
8	Isophrone impurity	10.08
9	1,2,4-Trichlorobenzene	10.72
10	Hexachlorobutadiene	11.26
11	Hexachlorocyclopentadiene	12.92
12	2-Chloronaphthalene	13.52
13	2,6-Dinitrotoluene	14.48
14	2,4-Dinitrotoluene	15.39
15	Azobenzene	16.46
16	Hexachlorobenzene	17.56
17	Azobenzene Impurity	18.76

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28094

CERTIFIED WEIGHT REPORT

Part Number: 10018
Lot Number: 020315
Description: CLP Semi-Volatiles Mix #8 - Phenols
EPA Method 8270 GC/MS 13 components
Expiration Date: 020320
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s): Methylene chloride **Lot#** 72062

#28094

Formulated By: Paul Barron 020315 DATE

Reviewed By: Pedro L. Rentas 020315 DATE

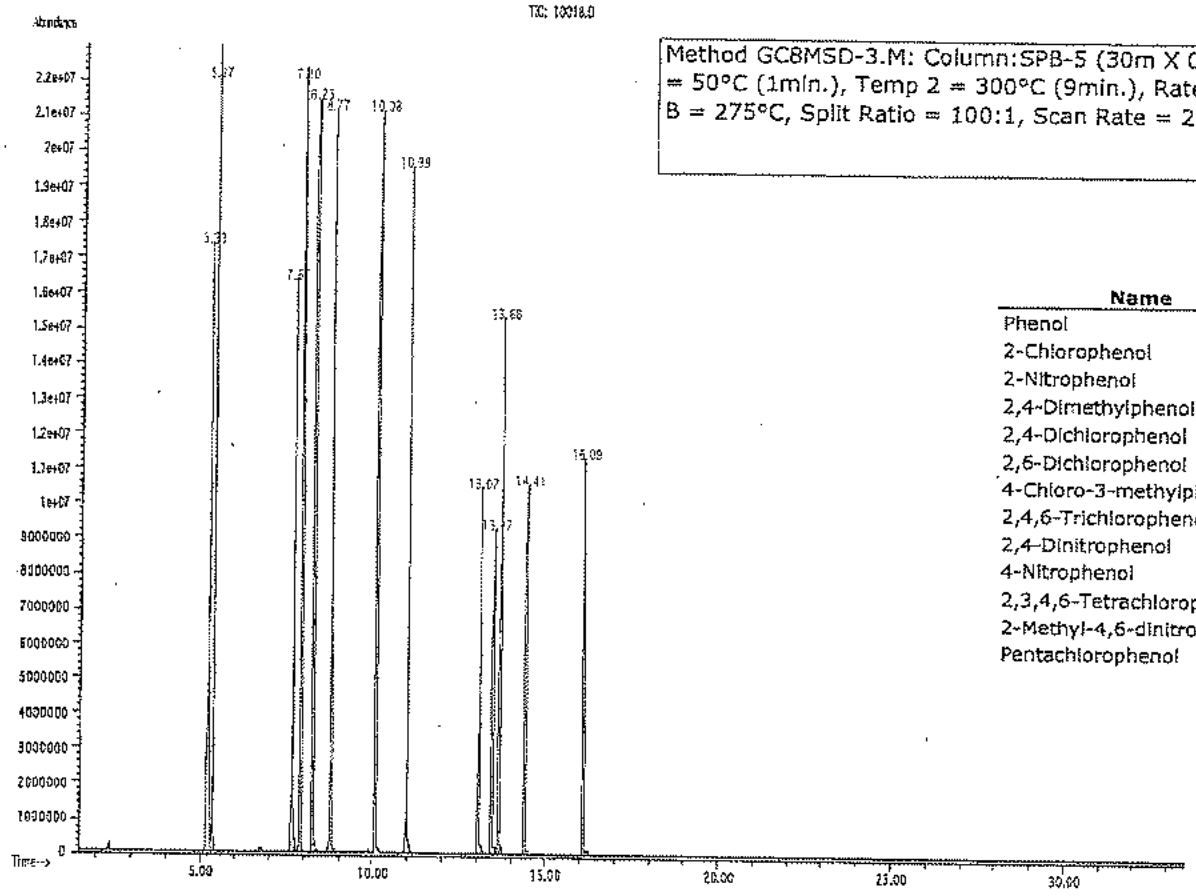
5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to: 500.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. 4-Chloro-3-methylphenol	66	06209PV	2000	99	0.2	1.01016	1.01062	2000.9	0.0040	00059-50-7	N/A	orl-rat 1830mg/kg
2. 2-Chlorophenol	83	MKBF1910V	2000	99	0.2	1.01016	1.01048	2000.6	0.0040	00095-57-8	N/A	orl-rat 670mg/kg
3. 2,4-Dichlorophenol	142	060697	2000	99	0.2	1.01016	1.01042	2000.5	0.0040	00120-83-2	N/A	orl-rat 580mg/kg
4. 2,6-Dichlorophenol	143	00501HW	2000	99	0.2	1.01016	1.01049	2000.7	0.0040	00087-65-0	N/A	orl-rat 5940mg/kg
5. 2,4-Dimethylphenol	463	04319MT	2000	97	0.2	1.03099	1.03131	2000.6	0.0041	00105-67-9	N/A	orl-rat 3200mg/kg
6. 2,4-Dinitrophenol	159	051897	2000	98	0.2	1.02047	1.02083	2000.7	0.0041	00051-28-5	N/A	orl-rat 30mg/kg
7. 4,6-Dinitro-2-methylphenol	158	052097	2000	98	0.2	1.02047	1.02084	2000.7	0.0041	00534-52-1	0.2mg/m3/8H (skin)	orl-rat 10mg/kg
8. 2-Nitrophenol	230	051897	2000	98	0.2	1.02047	1.02078	2000.6	0.0041	00088-75-5	N/A	orl-rat 334mg/kg
9. 4-Nitrophenol	231	FGM01	2000	99	0.2	1.01016	1.01059	2000.9	0.0040	00100-02-7	N/A	orl-rat 250mg/kg
10. Pentachlorophenol	243	06324ED	2000	98	0.2	1.02047	1.02068	2000.4	0.0041	00087-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
11. Phenol	250	13224KS	2000	99	0.2	1.01016	1.01081	2001.3	0.0040	00108-95-2	5 ppm (19mg/m3/8H)(skin)	orl-rat 317mg/kg
12. 2,4,6-Trichlorophenol	296	051597	2000	98	0.2	1.02047	1.02085	2000.8	0.0041	00088-06-2	N/A	orl-rat 820mg/kg
13. 2,3,4,6-Tetrachlorophenol	477	FN10221307	2000	99.9	0.2	1.00106	1.00149	2000.9	0.0040	00058-90-2	N/A	orl-rat 140mg/kg

2mL



Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.

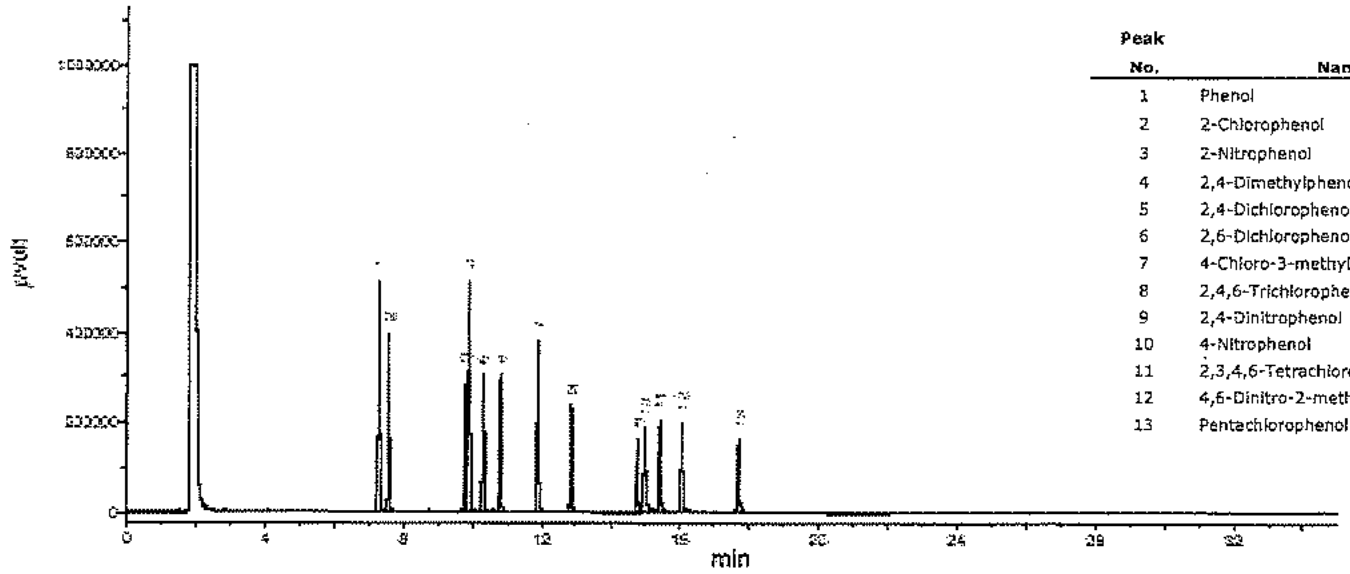
Name	MSD RT (min.)
Phenol	5.21
2-Chlorophenol	5.37
2-Nitrophenol	7.67
2,4-Dimethylphenol	7.88
2,4-Dichlorophenol	8.24
2,6-Dichlorophenol	8.76
4-Chloro-3-methylphenol	10.09
2,4,6-Trichlorophenol	10.99
2,4-Dinitrophenol	13.07
4-Nitrophenol	13.44
2,3,4,6-Tetrachlorophenol	13.68
2-Methyl-4,6-dinitrophenol	14.39
Pentachlorophenol	16.09

Run 16, "P10018 L020315 [2000µg/mL in MeCl2]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Thu, Apr 2, 2015 at 10:38:40 PM.
Sampled: Sequence "040215-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments

GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL,
Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min)
1	Phenol	7.28
2	2-Chlorophenol	7.55
3	2-Nitrophenol	9.79
4	2,4-Dimethylphenol	9.88
5	2,4-Dichlorophenol	10.28
6	2,6-Dichlorophenol	10.79
7	4-Chloro-3-methylphenol	11.88
8	2,4,6-Trichlorophenol	12.66
9	2,4-Dinitrophenol	14.75
10	4-Nitrophenol	14.97
11	2,3,4,6-Tetrachlorophenol	15.40
12	4,6-Dinitro-2-methylphenol	16.04
13	Pentachlorophenol	17.68

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

S 27909

CERTIFIED WEIGHT REPORT

Part Number: 10001R
Lot Number: 053014
Description: CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
Expiration Date: 053017
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s): Lot # 62418 Methylene chloride

Formulated By: Paul Barron 053014 DATE

Reviewed By: Pedro L. Rentas 053014 DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 500.0 0.058 Flask Uncertainty

MSDS Information (Solvent Safety Info. On Attached pg.)

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1.	bis(2-Chloroethoxy) methane	73	1846000	2000	98.5	0.5	1.01529	1.01560	2000.6	0.0102	00111-91-1	N/A	N/A
2.	bis(2-Chloroethyl) ether	75	98224AW	2000	99	0.2	1.01016	1.01073	2001.1	0.0040	00111-44-4	15 ppm (90mg/m3/8H)(skin)	ori-rat 75mg/kg
3.	bis(2-Ethylhexyl) phthalate	179	05312JE	2000	99	0.2	1.01016	1.01060	2000.9	0.0040	00117-81-7	5mg/m3/8H	ori-rat 30000mg/kg
4.	bis(2-Chloroisopropyl) ether	78	2097900	2000	99.4	0.5	1.00609	1.00660	2001.0	0.0101	00108-60-1	N/A	ori-rat 240mg/kg
5.	4-Bromophenyl phenyl ether	51	STBB9729V	2000	99	0.2	1.01016	1.01035	2000.4	0.0040	00101-55-3	N/A	N/A
6.	Benzyl butyl phthalate	36	03027HV	2000	99	0.2	1.01016	1.01085	2001.4	0.0040	00085-68-7	N/A	ori-rat 2330mg/kg
7.	4-Chlorophenyl phenyl ether	85	P31G	2000	99	0.2	1.01016	1.01086	2001.4	0.0040	07005-72-3	N/A	N/A
8.	Diethyl phthalate	154	10517MW	2000	99	0.2	1.01016	1.01093	2001.5	0.0040	00084-66-2	5mg/m3/8H	ori-rat 8600mg/kg
9.	Dimethyl phthalate	157	07416AT	2000	99	0.2	1.01016	1.01059	2000.9	0.0040	00131-11-3	5mg/m3/8H	ori-rat 6800mg/kg
10.	Di-n-butyl phthalate	58	09119LX	2000	99	0.2	1.01016	1.01065	2001.0	0.0040	00084-74-2	5mg/m3/8H	ori-rat 8000mg/kg
11.	Di-n-octyl phthalate	107	FIE01	2000	99	0.2	1.01016	1.01067	2001.0	0.0040	00117-84-0	N/A	ori-rat 47000mg/kg
12.	N-Nitrosodimethylamine	233	084K1066	2000	98	0.2	1.02047	1.02070	2000.5	0.0041	00062-75-9	N/A	ori-rat 58mg/kg
13.	N-Nitrosodi-n-propylamine	232	OPAGF	2000	98	0.2	1.02047	1.02109	2001.2	0.0041	00621-64-7	N/A	ori-rat 480mg/kg
14.	N-Nitrosodiphenylamine	234	FGE01	2000	98	0.2	1.02047	1.02085	2000.8	0.0041	00086-30-6	N/A	ori-rat 2140mg/kg

#27909

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Material Safety Data Sheet (MSDS)

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200., Section (g)(c)(1). Standard must be consulted for specific requirements. Contact name below for further information.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY	CAS #
Methylene Chloride	00075-09-2

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name	Emergency Telephone Number
ABSOLUTE STANDARDS INC	1-203-281-2917
Address (Number, Street, City, State, and ZIP Code)	Telephone Number for Information
	1-203-281-2917
44 Rossotto Dr., Hamden CT, 06514	Date Prepared/Revised 1/1/15
	Signature of Preparator (optional) Jack Criscio

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))		OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methylene Chloride	Dichloromethane	25 ppm	350 MG/M3	NA	> 97

See Attached Certified Weight Report For Other Analytes Present At Trace Quantities.

Section III - Physical/Chemical Characteristics

Boiling Point	40°C	Specific Gravity (H2O = 1)	1.32
Vapor Pressure (mm Hg)	350	Melting Point	-95°C
Vapor Density (AIR = 1)	2.9	Evaporation rate (Butyl Acetate = 1)	27.5

Solubility in Water
Moderate (1-10%)

Appearance and Odor
CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PENETRATING ETHER-LIKE ODOR.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
(CLOSED CUP) NA		12%	19%

Extinguishing Media
USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

Special Firefighting Procedures
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire and Explosion Hazards
Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire. Burns with a clear, almost invisible flame. Concentrated vapor can be ignited by a high intensity ignition source. Toxic gases produced may include: Hydrogen chloride, Phosgene, Chlorine, Carbon monoxide, Carbon dioxide.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Heat, Flame , Other ignition sources.

Incompatibility (Materials to Avoid)
Strong oxidizing agents, Strong acids, Zinc, Aluminum, Magnesium

Hazardous Decomposition or By-products
Carbon monoxide, Carbon dioxide, Formaldehyde

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Heat, Flame , Other ignition sources.

ABSOLUTE STANDARDS, INC.

ISO 9001-17025 - Guide 34 and 35

Certificate of Analysis

ACCREDITED REFERENCE MATERIAL PRODUCER

ACCREDITED TESTING

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" and the "Certified Weight Report" fulfill the requirements in the current versions of: ISO Standards 9001, 17025 and Guides 31, 34, 35.

Health & Safety: See the attached MSDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO Guides 34 and 35.

Homogeneity: Uncertanties that are due to the analytical procedure(s) are typically +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertanities that are due to the analytical procedure(s) are typically +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertanties for short-term stability are determined in accordance with ISO Guide 34 and 35. Long-term stability is determined in accordance with ISO Guide 34 and 35. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty U_{CRM}: is +/- 10% of the certified value. Values exceeding these limits are rare but will be noted on the specific Certified Weight Report with an * when the U_{CRM} = +/-20%, or with a ** when the analyte is designated as a nonCRM (RM). U_{CRM} is the expanded uncertainty in accordance with ISO Guide 34 & 35 (ISO Guide 35:2006(E)9.5.2.2) as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director

Stephen J. Arpie

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 10, Date Issued: 04/27/2011

STANDARD REPORT

Constituent

Working Standard - SVOA_ISTD

SVOA_ISTD — Description : semivol internal standard

Standard: 26146	**Created By:** B. Murphy	**Amount:** 50 mL
MFG:	**Create Date:** 11/29/2014	**Expires:** 11/17/2015
MFG Lot:	**Lab Lot:** OEMSSV20141129	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
1	3855-82-1	1,4-Dichlorobenzene-d4	2000 ug/mL
2	1146-65-2	Naphthalene-d8	2000 ug/mL
3	15067-26-2	Acenaphthene-d10	2000 ug/mL
4	1517-22-2	Phenanthrene-d10	2000 ug/mL
5	1719-03-5	Chrysene-d12	2000 ug/mL
6	1520-96-3	Perylene-d12	2000 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
219	Anapd10	(Acenaphthene-d10)	OEMSSV06010603	0.102 grams	04/09/2028
220	PHANTD10	(Phenanthrene-d10)	OEMSSV06010604	0.104 grams	04/09/2028
221	CHRYD12	(Chrysene-d12)	OEMSSV06010605	0.101 grams	04/09/2028
26034	MECL2	MeCl2	OEMSSV20141028	50 mL	11/17/2015
26143	perylene-d12	Perylene-d12	OEMSSV06010606	0.104 grams	10/10/2022
26144	14DCBD4	1,4-Dichlorobenzene-d4	OEMSSV06010601	0.103 grams	07/27/2017
26145	NAPD8	Naphthalene-d8	OEMSSV06010602	0.103 grams	06/30/2024

STANDARD REPORT

Constituent

Stock Standard - 14DCBD4

14DCBD4		Description - 1,4-Dichlorobenzene-d4
Standard: 26144	**Created By:** B. Murphy	**Amount:** 1 grams
MFG: Cambridge Isotope	**Create Date:** 11/29/2014	**Expires:** 7/27/2017
MFG Lot: PR-18488	**Lab Lot:** OEMSSV06010601	**Usable:** Yes
Part ID: DLM-268-0		

Pos	Analyte	Name	Concentration
1	3855-82-1	1,4-Dichlorobenzene-d4	980 mg/g

STANDARD REPORT

Constituent

Stock Standard - perylene-d12

perylene-d12		Description - Perylene-d12
Standard: 26143	Created By: B. Murphy	Amount: 1 grams
MFG: Cambridge Isotope	Create Date: 11/29/2014	Expires: 10/10/2022
MFG Lot: PR-24113	Lab Lot: OEMSSV06010606	Usable: Yes
Part ID: DLM-366-0		

Pos.	Analyte	Name	Concentration
1	1520-96-3	Perylene-d12	960 mg/g

STANDARD REPORT

Constituent

Stock Standard - CHRYD12

CHRYD12			Description - (Chrysene-d12)
Standard: 221	Created By: R. Hendricks	Amount:	
MFG: Cambridge Isotope	Create Date: 12/4/2006	Expires: 4/9/2028	
MFG Lot: P-6241	Lab Lot: OEMSSV06010605	Usable: Yes	
Part ID:			

Pos.	Analyte	Name	Concentration
1	1719-03-5	Chrysene-d12	980 mg/g

STANDARD REPORT

Constituent

Solvent Standard - MECL2

MECL2			Description - MeCl2
Standard: 26034	Created By: B. Murphy	Amount: 4 L	
MFG: J.T. Baker	Create Date: 11/17/2014	Expires: 11/17/2015	
MFG Lot: L04378	Lab Lot: OEMSSV20141028	Usable: Yes	
Part ID:			

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - Anapd10

Anapd10			Description - (Acenaphthene-d10)
Standard: 219	Created By: R. Hendricks	Amount:	
MFG: MSD Isotopes	Create Date: 12/4/2006	Expires: 4/9/2028	
MFG Lot: 5693-M	Lab Lot: OEMSSV06010603	Usable: Yes	
Part ID:			

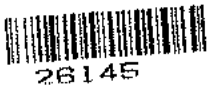
Pos.	Analyte	Name	Concentration
1	15067-26-2	Acenaphthene-d10	989 mg/g

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: NAPHTHALENE
(Isotopic Label & Enrichment Specification) (D8, 99%)



Lot Number: PR-25998

Catalog Number: DLM-365-0

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	1146-65-2
Unlabeled CAS Number:	91-20-3
MW*:	136.22
Chemical Formula:	C10D8
Storage:	Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

* *For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: Jeffrey O Neill

Jeffrey O'Neill, Quality Assurance

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.0%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	100.0%
GC/MS for Chemical Purity	100.0%
GC/MS for Identification	Conforms
Melting Point Range Determination	81-82°C

Retest/Review Date: 06/30/24

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www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: 1,4-DICHLOROBENZENE
(Isotopic Label & Enrichment Specification) (D4, 98%)

Lot Number: PR-18488/07267CB1 S 26144

Catalog Number: DLM-268-0

Product Information

Chemical Purity Specification:	≥98%
Labeled CAS Number:	3855-82-1
Unlabeled CAS Number:	106-46-7
MW*:	151.03
Chemical Formula:	C6D4Cl2
Storage:	Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

* *For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Assurance

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
GC/MS for Chemical Purity	99.4%
GC/MS for Isotopic Enrichment	99.2%
Melting Point Range Determination	54-57°C

Retest/Review Date: 07/27/17

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: PERYLENE (D12, 98%)
(Isotopic Label & Enrichment Specification)

Lot Number: PR-24113

S 26143

Catalog Number: DLM-366-0

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	1520-96-3
Unlabeled CAS Number:	198-55-0
MW*:	264.4
Chemical Formula:	C20D12
Storage:	Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

* *For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Assurance

Quality Control Tests and Results

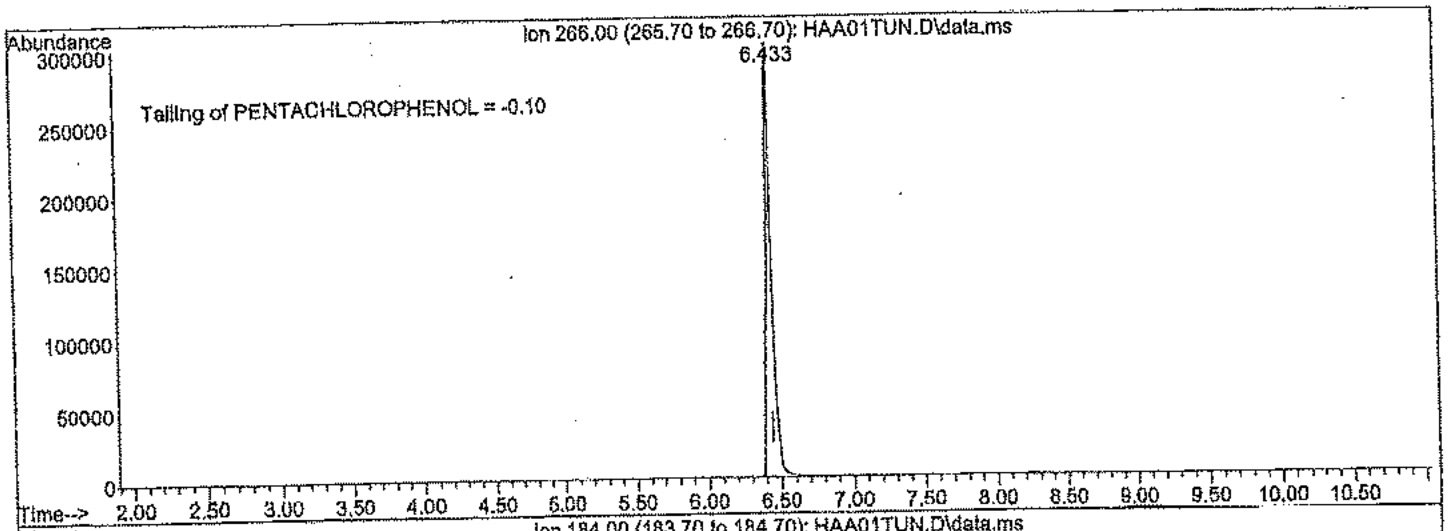
1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.9%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	100.0%
GC/MS for Identification	Conforms
Melting Point Range Determination	265-275°C

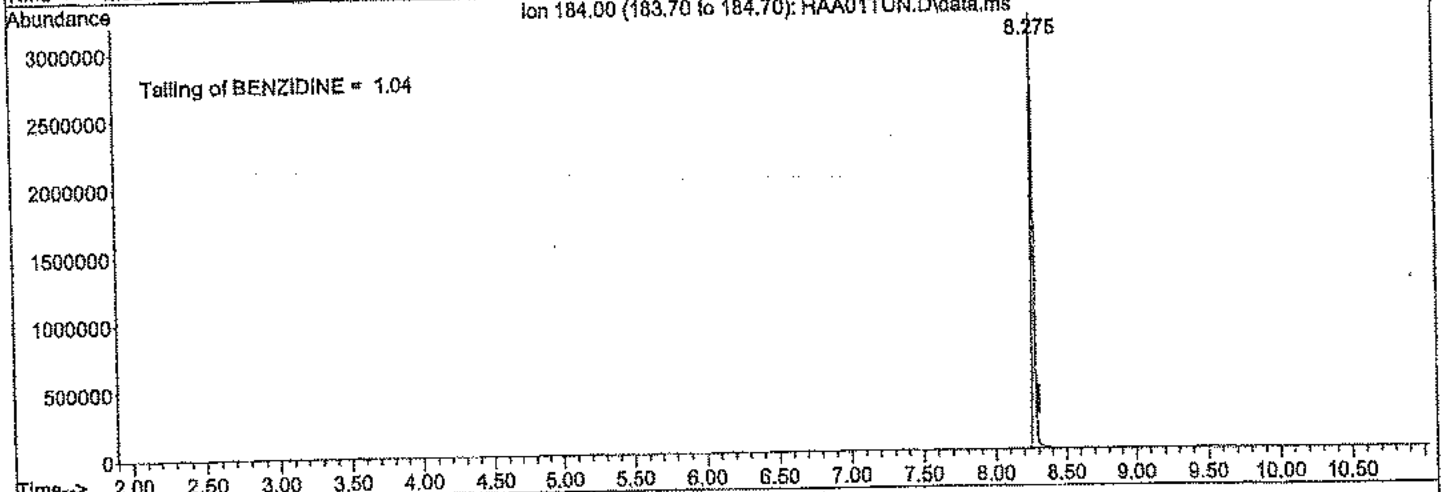
Retest/Review Date: 10/10/22

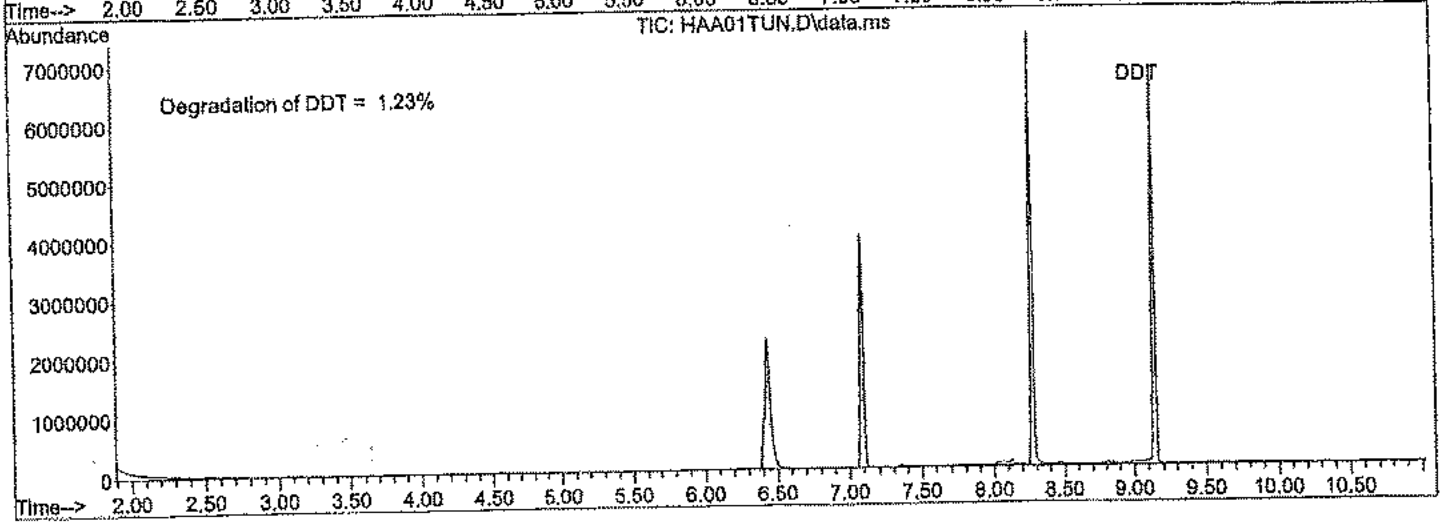
Data File: HAA01TUN.D
Date Acquired: 02/16/2015 11:17
Operator ID: JH
Name: 8270 TUN 27023
Misc: NEW COLUMN

Instrument: 5975-H
Acq Method: 8270DTUN.M
DA Method: 8270DTUN.M

Cal Title:
Last Cal Update:
NEW COLUMN



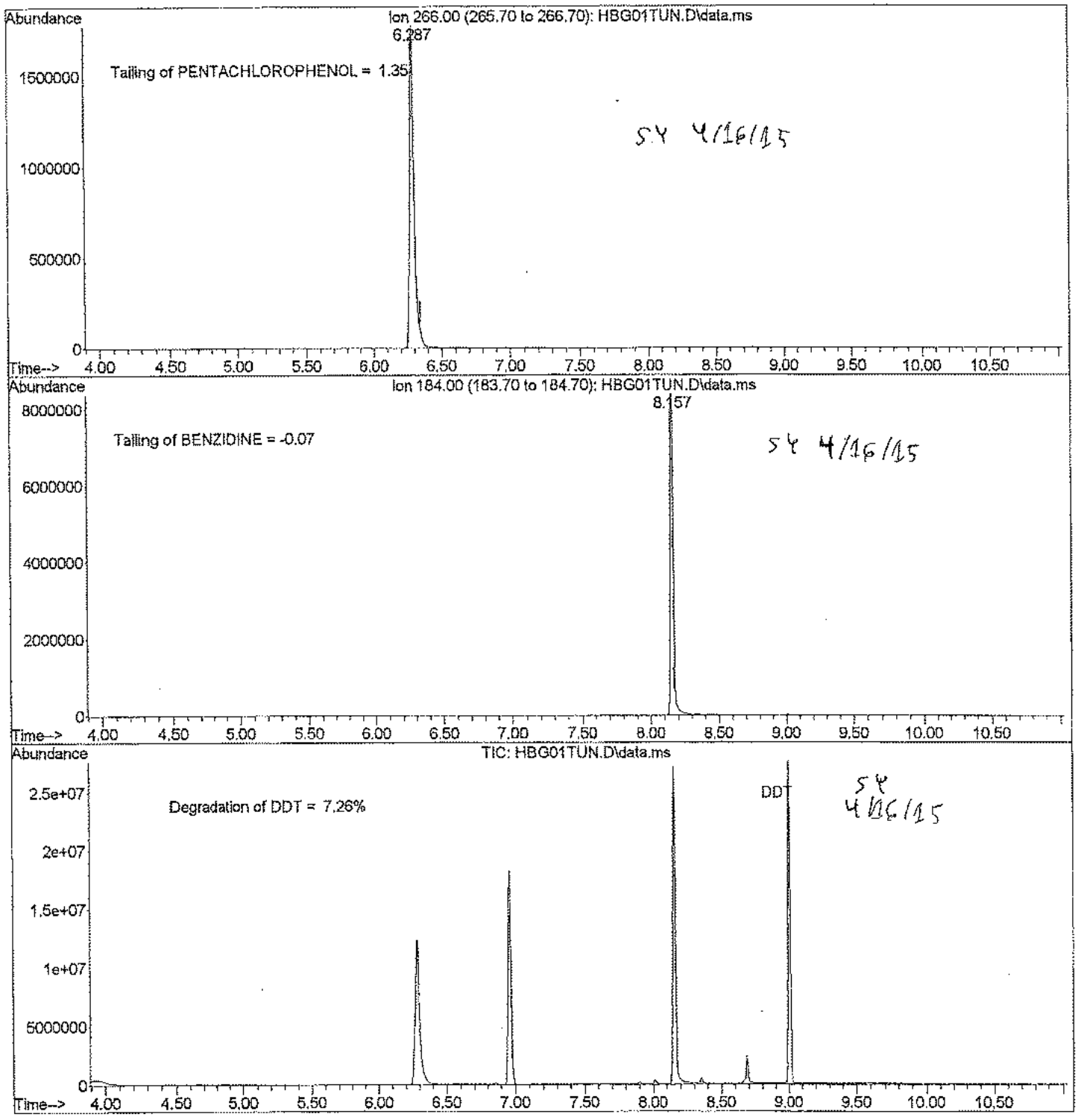




Data File: HBG01TUN.D
Date Acquired: 04/16/2015 08:20
Operator ID: SY
Name: 8270 TUN 27023
Misc:

Instrument: 5975-H
Acq Method: 8270DTUN.M
DA Method: 8270DTUN.M

Cal Title:
Last Cal Update:

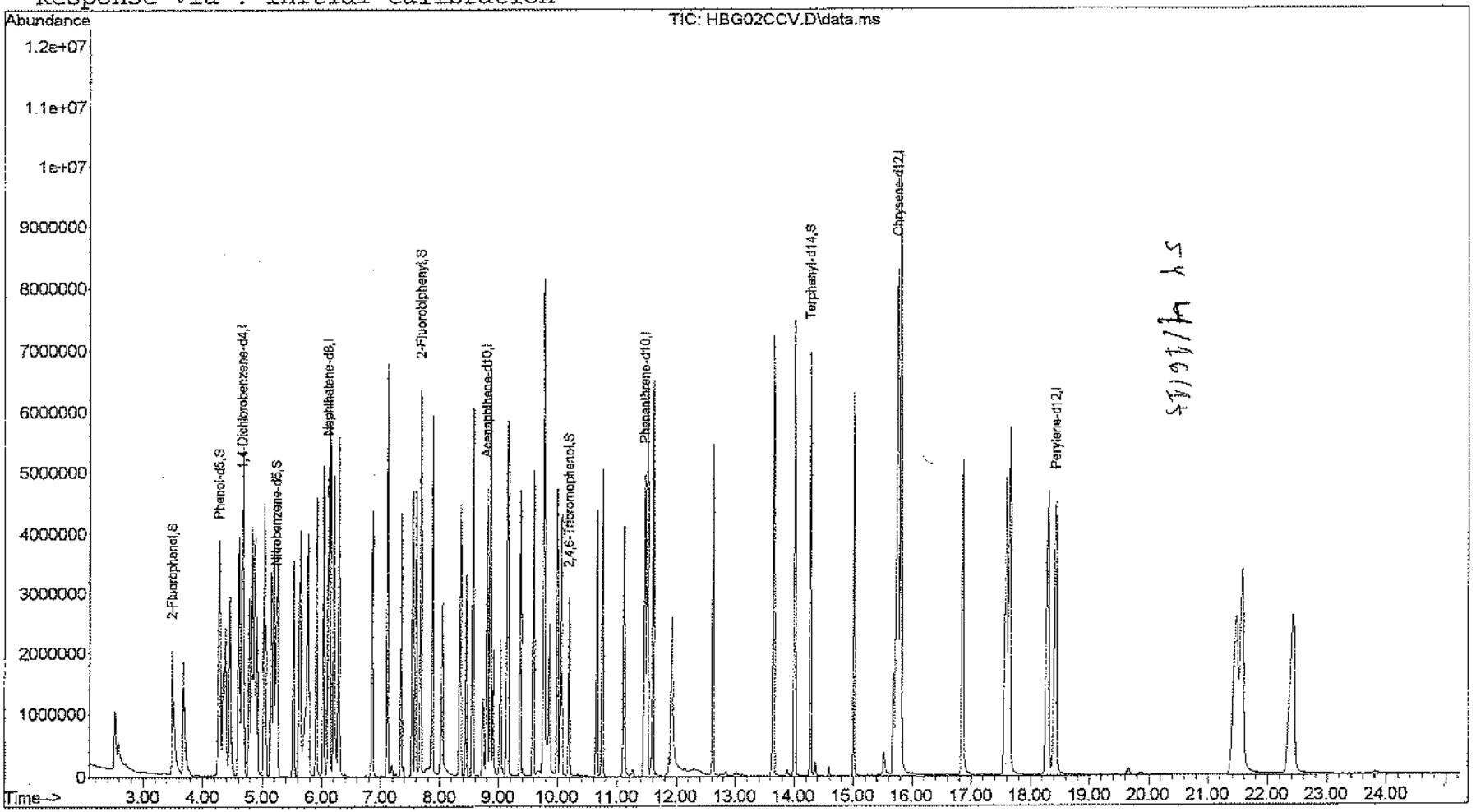


Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG02CCV.D Vial: 2
Acq On : 04/16/2015 08:39 Operator: SY
Sample : 8270 S50 27409 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 09:25:34 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG02CCV.D Vial: 2
Acq On : 04/16/2015 08:39 Operator: SY
Sample : 8270 S50 27409 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 09:25:34 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.65	152	1080865	40.00 ug/mL	
17) Naphthalene-d8	6.11	136	3664951	40.00 ug/mL	
32) Acenaphthene-d10	8.80	164	1899296	40.00 ug/mL	
52) Phenanthrene-d10	11.46	188	3518046	40.00 ug/mL	m 54 4/16/15
64) Chrysene-d12	15.76	240	3401763	40.00 ug/mL	
72) Perylene-d12	18.42	264	4592697	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.49	112	1716207	46.614ug/mL	m 54 4/16/15
4) Phenol-d5	4.26	99	1774516	45.396ug/mL	
18) Nitrobenzene-d5	5.23	82	1450554	43.062ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3344844	43.531ug/mL	
53) 2,4,6-Tribromophenol	10.19	330	619086	51.785ug/mL	
66) Terphenyl-d14	14.28	244	3742068	46.455ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.53	79	1045560	29.679ug/mL	m 54 40
5) Phenol	4.27	94	2066068	49.571ug/mL	4/16/15 94
6) Bis(2-chloroethyl)ether	4.38	93	1805881	47.899ug/mL	87
7) 2-Chlorophenol	4.45	128	1912967	45.978ug/mL	97
8) 1,3-Dichlorobenzene	4.60	146	2166386	45.153ug/mL	100
9) 1,4-dichlorobenzene	4.67	146	2083970	44.087ug/mL	100
10) Benzyl alcohol	4.77	108	1082779	45.885ug/mL	100
11) 1,2-dichlorobenzene	4.82	146	2015759	45.379ug/mL	100
12) 2-Methylphenol	4.86	107	1201830	43.445ug/mL	99
13) Bis(2-chloroisopropyl)ethe	4.90	45	1366232	41.336ug/mL	88
14) 4-methylphenol	5.03	107	1769068	43.894ug/mL	99
15) N-Nitrosodi-n-propyl amine	5.06	70	877666	46.936ug/mL	94
16) Hexachloroethane	5.19	117	801880	47.931ug/mL	98
19) Nitrobenzene	5.25	77	1457574	45.974ug/mL	97
20) Isophorone	5.52	82	2549097	44.681ug/mL	98
21) 2-Nitrophenol	5.62	139	1043104	50.025ug/mL	96
22) 2,4-Dimethylphenol	5.64	122	1221711	43.281ug/mL	98
23) Benzoic Acid	5.79	122	1044631	55.476ug/mL	85
24) Bis(2-chloroethoxy)methane	5.76	93	1523553	44.215ug/mL	97
25) 2,4-Dichlorophenol	5.91	162	1534900	47.143ug/mL	100
26) 1,2,4-Trichlorobenzene	6.03	180	1710142	46.244ug/mL	100
27) Naphthalene	6.14	128	4468448	44.268ug/mL	99
28) 4-Chloroaniline	6.20	127	1077779	30.627ug/mL	99
29) Hexachlorobutadiene	6.29	225	1003731	46.364ug/mL	100
30) 4-Chloro-3-Methylphenol	6.85	107	1346261	46.824ug/mL	100
31) 2-Methylnaphthalene	7.11	142	3219332	44.133ug/mL	100
33) Hexachlorocyclopentadiene	7.35	237	1151045	47.252ug/mL	99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

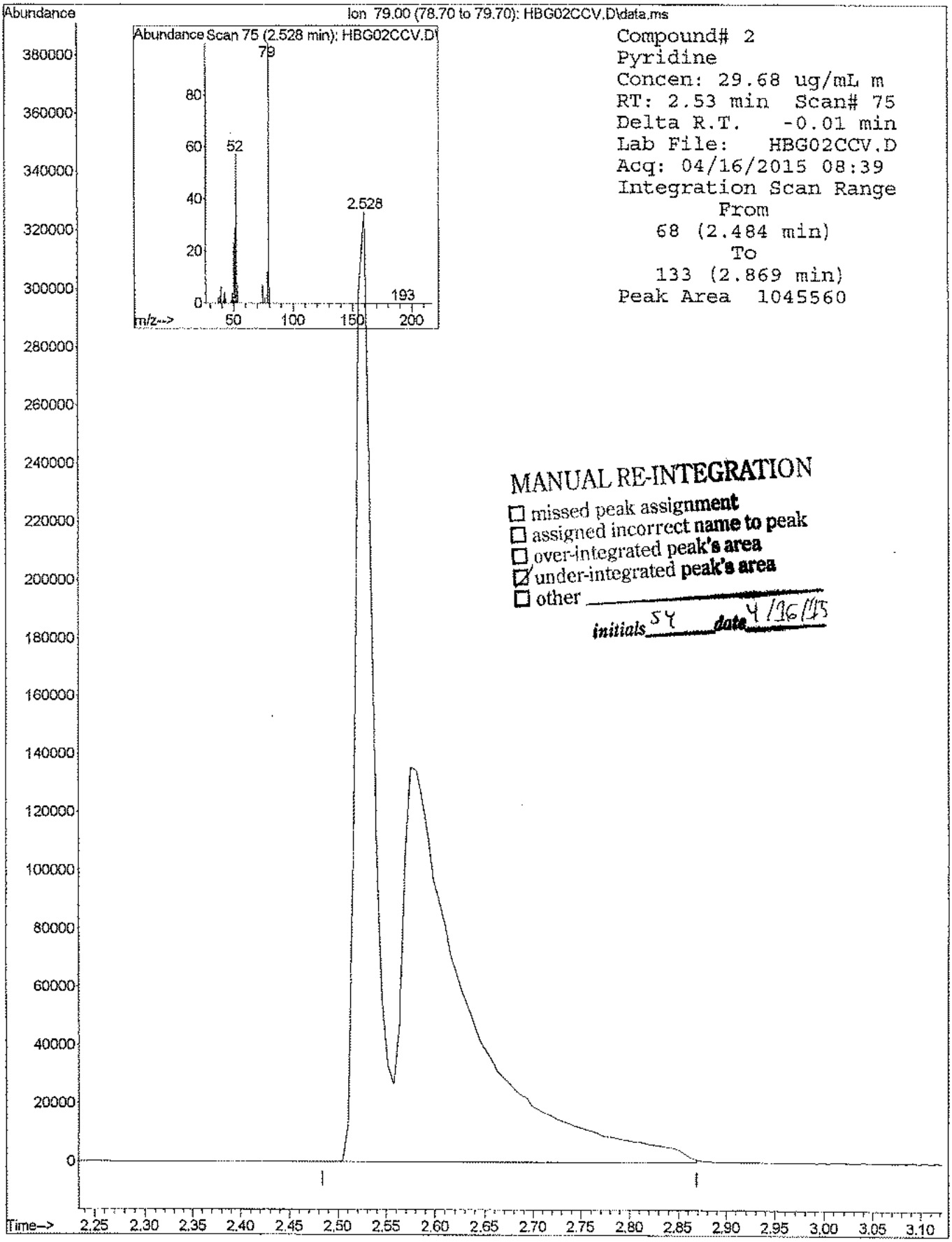
Data File : C:\msdchem\1\data\20...15\16APR15\HBG02CCV.D Vial: 2
Acq On : 04/16/2015 08:39 Operator: SY
Sample : 8270 S50 27409 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 09:25:34 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	7.53	196	1189218	46.930ug/mL	99
35) 2,4,5-Trichlorophenol	7.59	196	1272103	46.949ug/mL	100
37) 2-Chloronaphthalene	7.87	162	3049634	43.568ug/mL	99
38) 2-Nitroaniline	8.04	65	803997	47.604ug/mL	94
39) Dimethylphthalate	8.35	163	3608897	44.758ug/mL	100
40) 2,6-Dinitrotoluene	8.45	165	899276	48.250ug/mL	97
41) Acenaphthylene	8.56	152	4939823	44.266ug/mL	100
42) 3-Nitroaniline	8.74	65	450063	30.844ug/mL	95
43) Acenaphthene	8.86	153	2898009	43.657ug/mL	100
44) 2,4-Dinitrophenol	8.91	184	622491	55.077ug/mL	97
45) 4-Nitrophenol	9.03	109	439490	49.610ug/mL	95
46) Dibenzofuran	9.16	168	4133963	43.061ug/mL	100
47) 2,4-Dinitrotoluene	9.14	165	1101477	45.899ug/mL	92
48) Diethylphthalate	9.59	149	3386180	43.506ug/mL	99
49) 4-chlorophenyl phenyl ethe	9.77	204	1589489	43.416ug/mL	100
50) Fluorene	9.76	166	3056655	42.945ug/mL	100
51) 4-Nitroaniline	9.80	65	327470	37.540ug/mL	79
54) 4,6-Dinitro-2-methylphenol	9.86	198	808703	53.409ug/mL	95
55) N-Nitrosodiphenylamine	9.99	169	2308171	46.591ug/mL	99
56) 4-bromophenyl phenyl ether	10.66	248	1169901	46.250ug/mL	100
57) Hexachlorobenzene	10.75	284	1298715	46.352ug/mL	98
58) Pentachlorophenol	11.11	266	933006	48.888ug/mL	99
59) Phenanthrene	11.51	178	4768168	43.884ug/mL m SY 4/16/15	99
60) Anthracene	11.60	178	4842092	44.216ug/mL	100
61) Carbazole	11.92	167	3821996	60.140ug/mL	98
62) Di-n-butylphthalate	12.62	149	5506648	44.511ug/mL	100
63) Fluoranthene	14.01	202	5418654	45.522ug/mL	97
65) Pyrene	14.01	202	5418654	46.370ug/mL	97
67) Butylbenzylphthalate	15.01	149	2384354	46.169ug/mL	96
68) 3,3'-Dichlorobenzidine	15.72	252	696584	35.406ug/mL	98
69) Benzo(a)anthracene	15.74	228	4906109	44.437ug/mL	100
70) Chrysene	15.80	228	3988824	44.512ug/mL	99
71) Bis(2-ethylhexyl)phthalate	15.81	149	2670972	43.489ug/mL	98
73) Di-n-octylphthalate	16.85	149	5919121	42.308ug/mL	100
74) Benzo(b)fluoranthene	17.59	252	5777907	43.266ug/mL m SY 4/16/15	98
75) Benzo(k)fluoranthene	17.64	252	5202183	43.092ug/mL	99
76) Benzo(a)pyrene	18.29	252	5528507	44.974ug/mL	99
77) Indeno(1,2,3-c,d)pyrene	21.47	276	5484087	47.438ug/mL	99
78) Dibenz(a,h)anthracene	21.57	278	5485165	47.593ug/mL	98
79) Benzo(g,h,i)perylene	22.43	276	5658371	48.013ug/mL	97

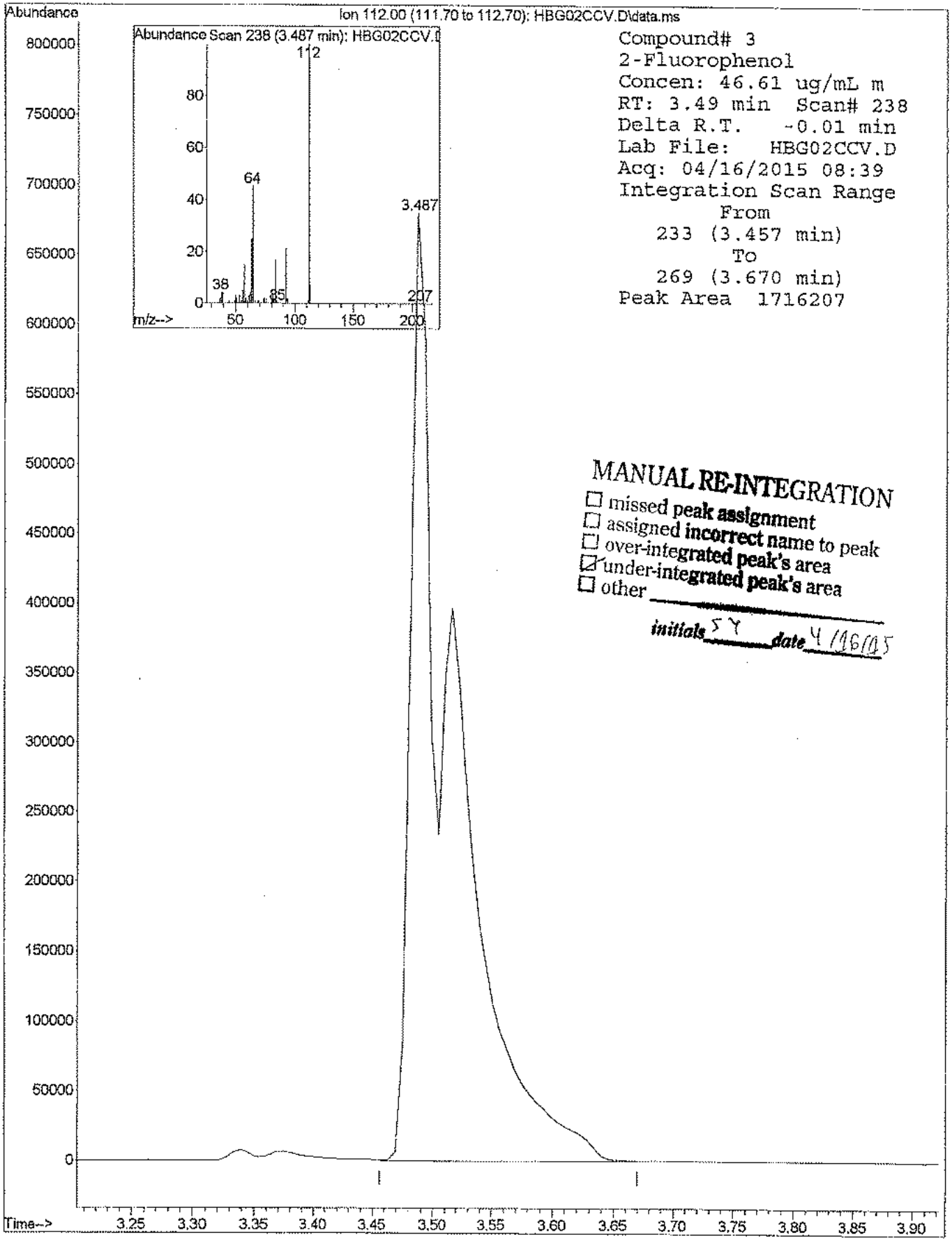
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



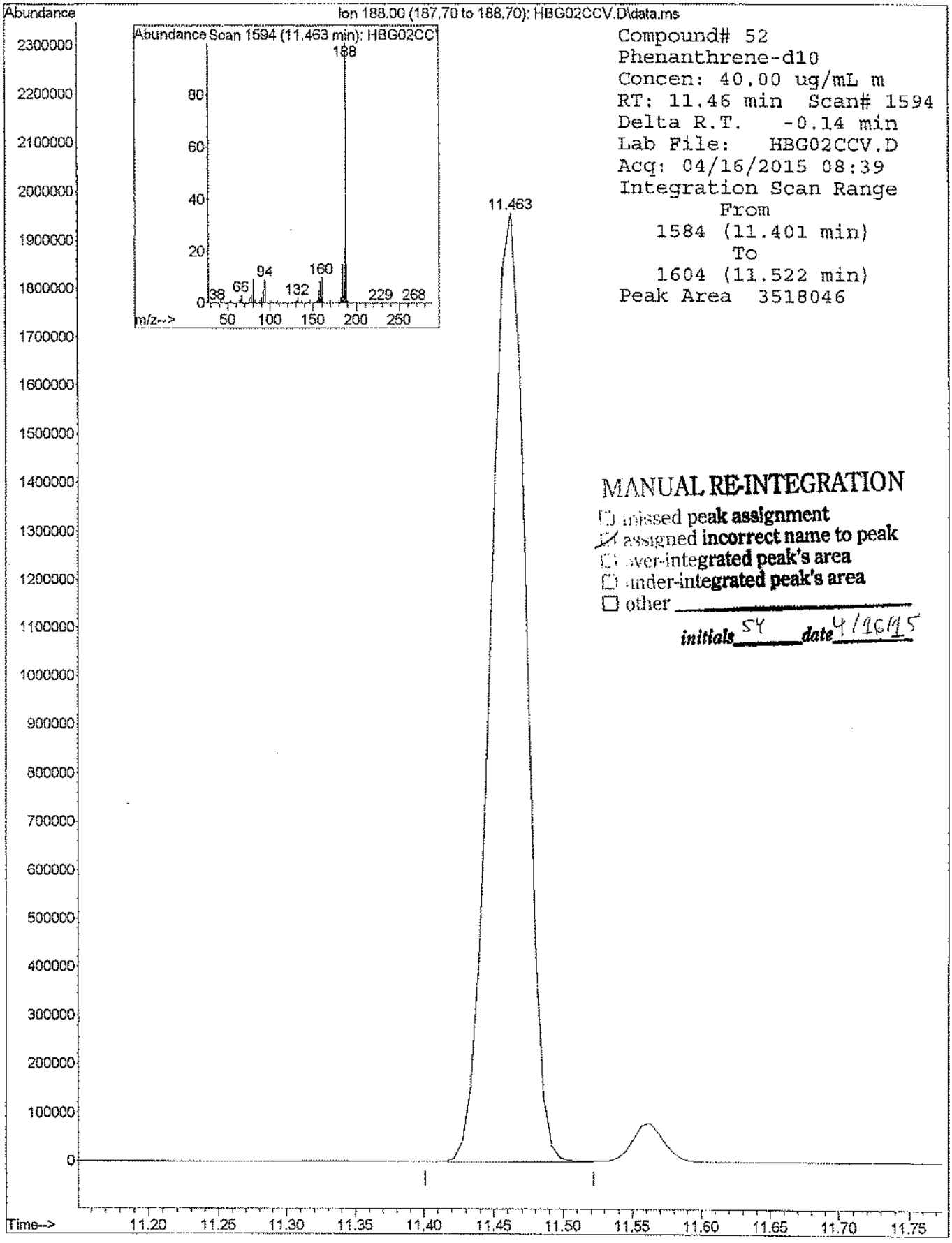
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S50 27409

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



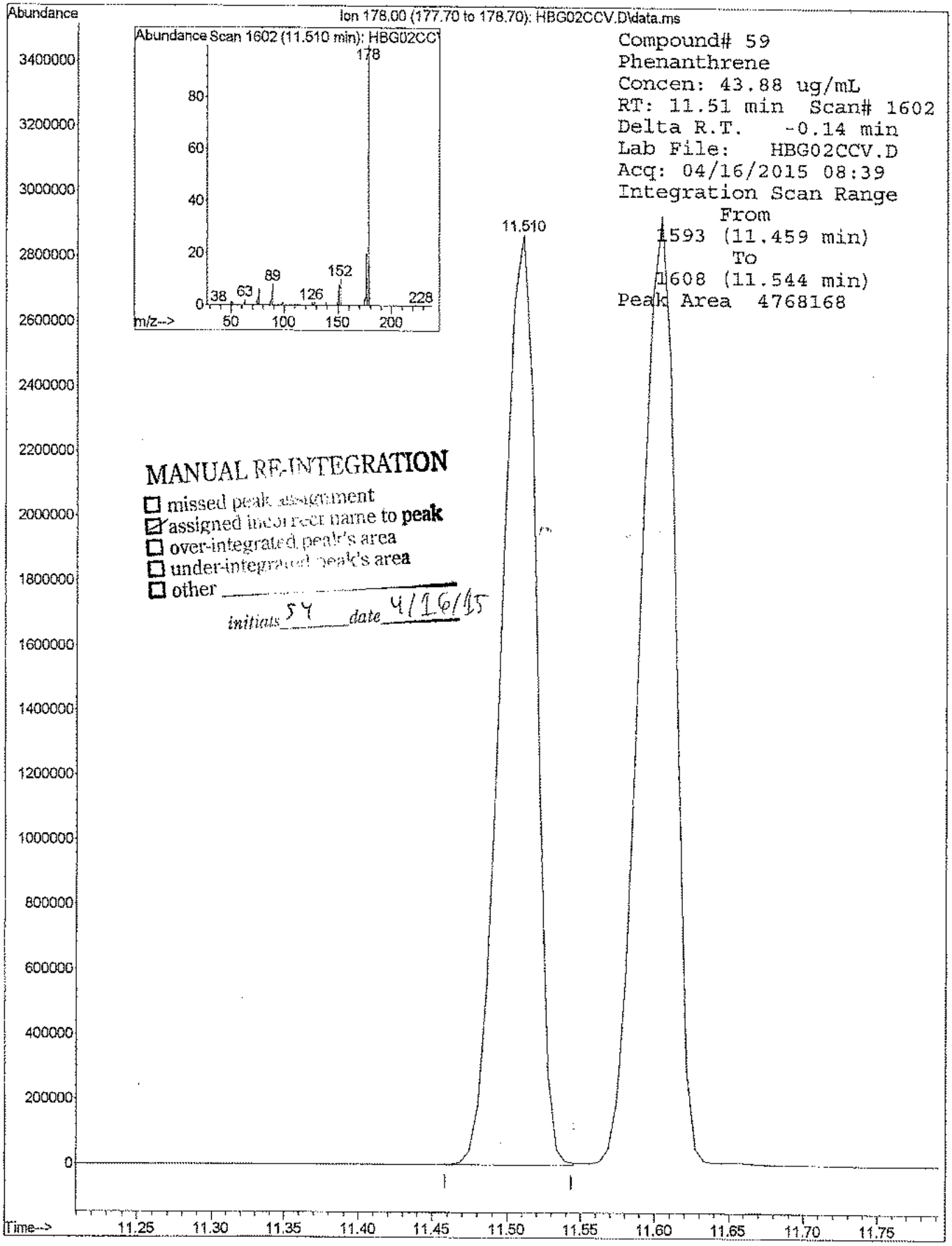
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S50 27409

M A N U A L I N T E G R A T I O N FOR Phenanthrene-d10



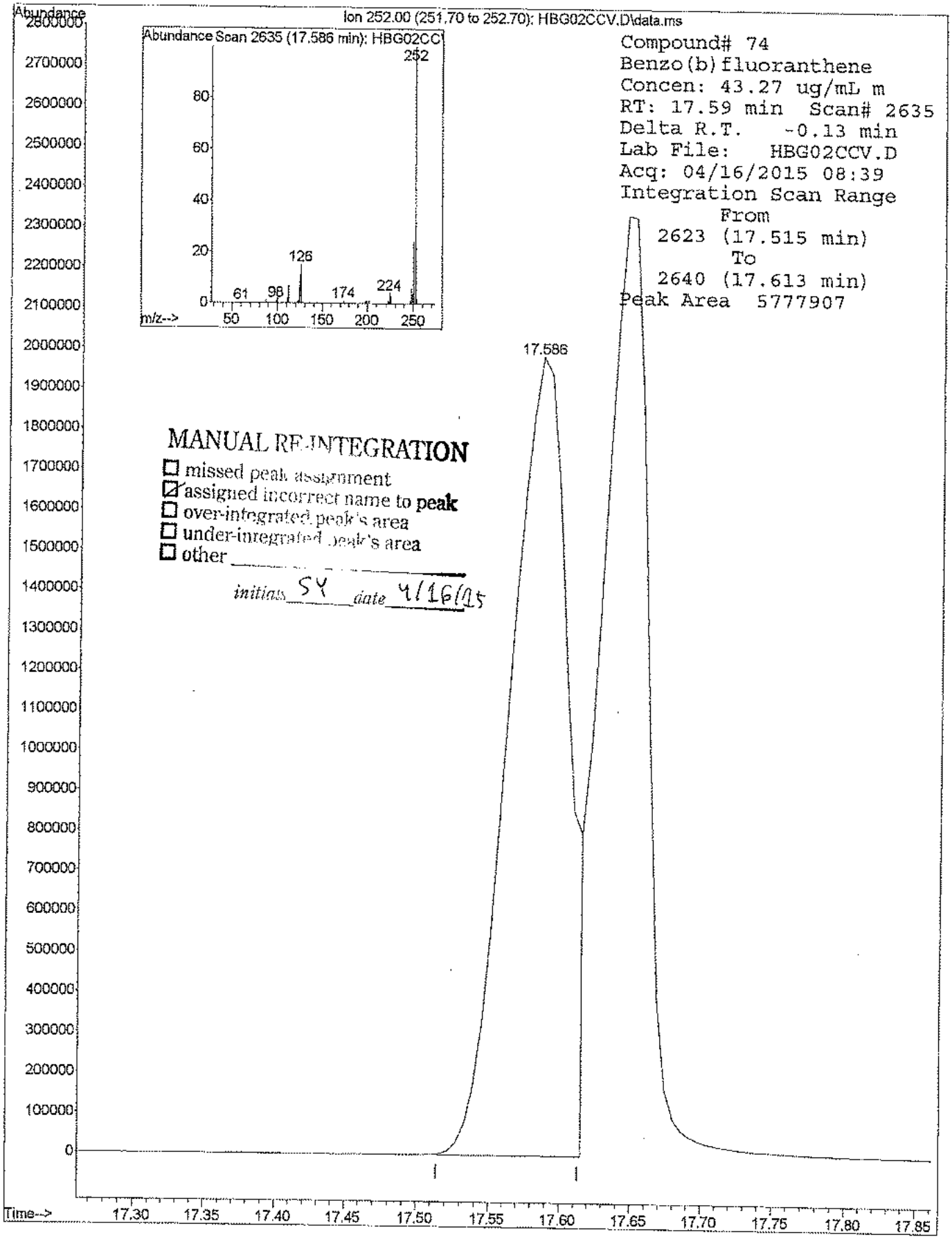
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S50 27409

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S50 27409

M A N U A L I N T E G R A T I O N FOR Benzo(b)fluoranthene



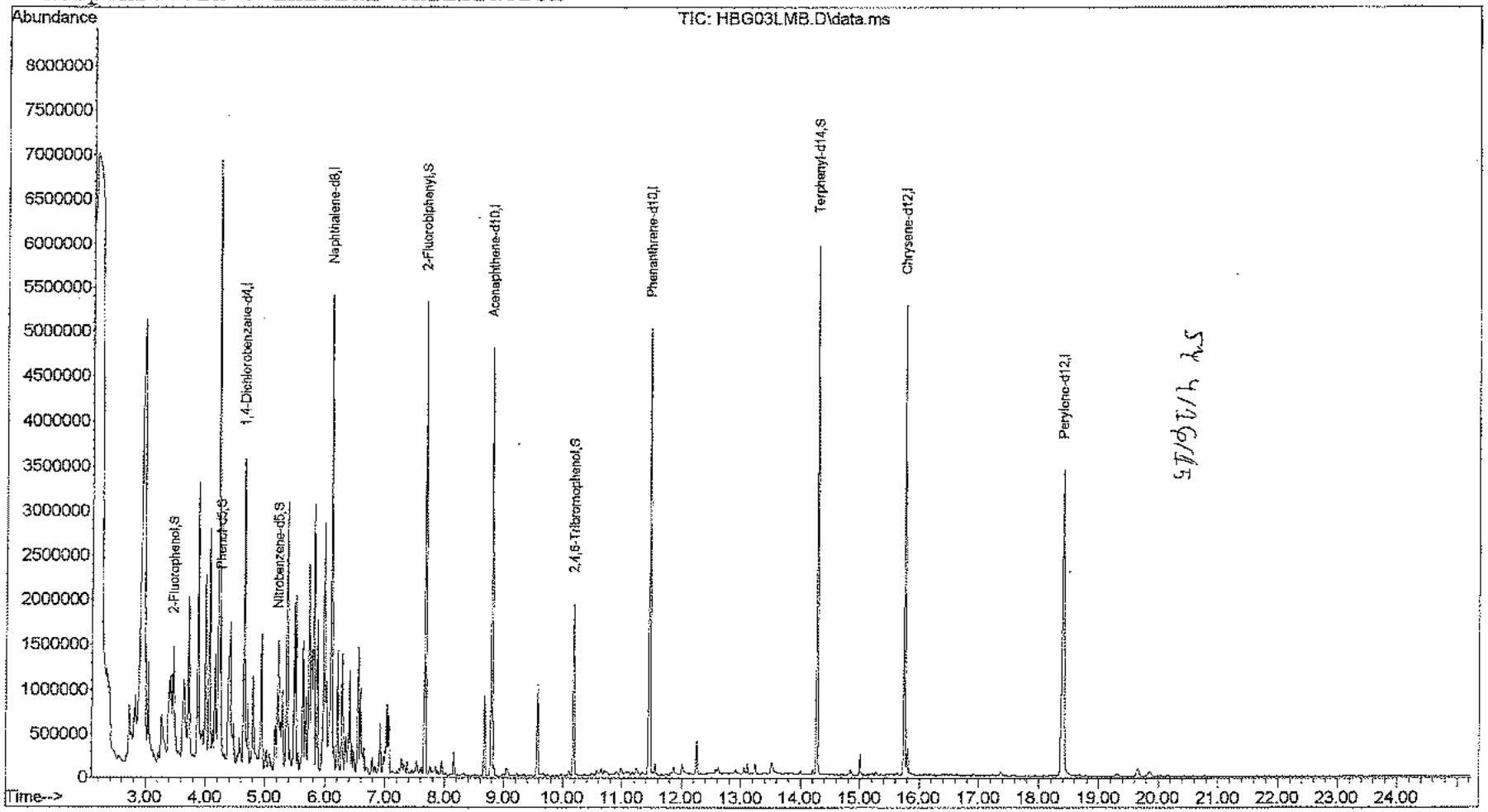
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S50 27409

Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG03LMB.D Vial: 3
Acq On : 04/16/2015 09:13 Operator: SY
Sample : 442346 MB Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:29:25 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG03LMB.D Vial: 3
Acq On : 04/16/2015 09:13 Operator: SY
Sample : 442346 MB Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:29:25 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.65	152	936558	40.00 ug/mL
17) Naphthalene-d8	6.10	136	3264557	40.00 ug/mL
32) Acenaphthene-d10	8.79	164	1792240	40.00 ug/mL
52) Phenanthrene-d10	11.46	188	3196463	40.00 ug/mL
64) Chrysene-d12	15.75	240	3124119	40.00 ug/mL
72) Perylene-d12	18.40	264	3372353	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.46	112	532870	16.703ug/mL
4) Phenol-d5	4.25	99	924408	27.292ug/mL
18) Nitrobenzene-d5	5.21	82	148851	4.961ug/mL
36) 2-Fluorobiphenyl	7.67	172	2792228	38.509ug/mL
53) 2,4,6-Tribromophenol	10.18	330	401894	36.999ug/mL
66) Terphenyl-d14	14.27	244	2896912	39.159ug/mL
Target Compounds				Qvalue
2) Pyridine	0.00	79		Not Detected
5) Phenol	0.00	94		Not Detected
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected
7) 2-Chlorophenol	0.00	128		Not Detected
8) 1,3-Dichlorobenzene	0.00	146		Not Detected
9) 1,4-dichlorobenzene	0.00	146		Not Detected
10) Benzyl alcohol	0.00	108		Not Detected
11) 1,2-dichlorobenzene	0.00	146		Not Detected
12) 2-Methylphenol	0.00	107		Not Detected
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected
14) 4-methylphenol	0.00	107		Not Detected
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected
16) Hexachloroethane	0.00	117		Not Detected
19) Nitrobenzene	0.00	77		Not Detected
20) Isophorone	0.00	82		Not Detected
21) 2-Nitrophenol	0.00	139		Not Detected
22) 2,4-Dimethylphenol	0.00	122		Not Detected
23) Benzoic Acid	0.00	122		Not Detected
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected
25) 2,4-Dichlorophenol	0.00	162		Not Detected
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected
27) Naphthalene	0.00	128		Not Detected
28) 4-Chloroaniline	0.00	127		Not Detected
29) Hexachlorobutadiene	0.00	225		Not Detected
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected
31) 2-Methylnaphthalene	0.00	142		Not Detected
33) Hexachlorocyclopentadiene	0.00	237		Not Detected

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG03LMB.D Vial: 3
Acq On : 04/16/2015 09:13 Operator: SY
Sample : 442346 MB Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:29:25 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	0.00	149		Not Detected	
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	0.00	149		Not Detected	
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	0.00	149		Not Detected	
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

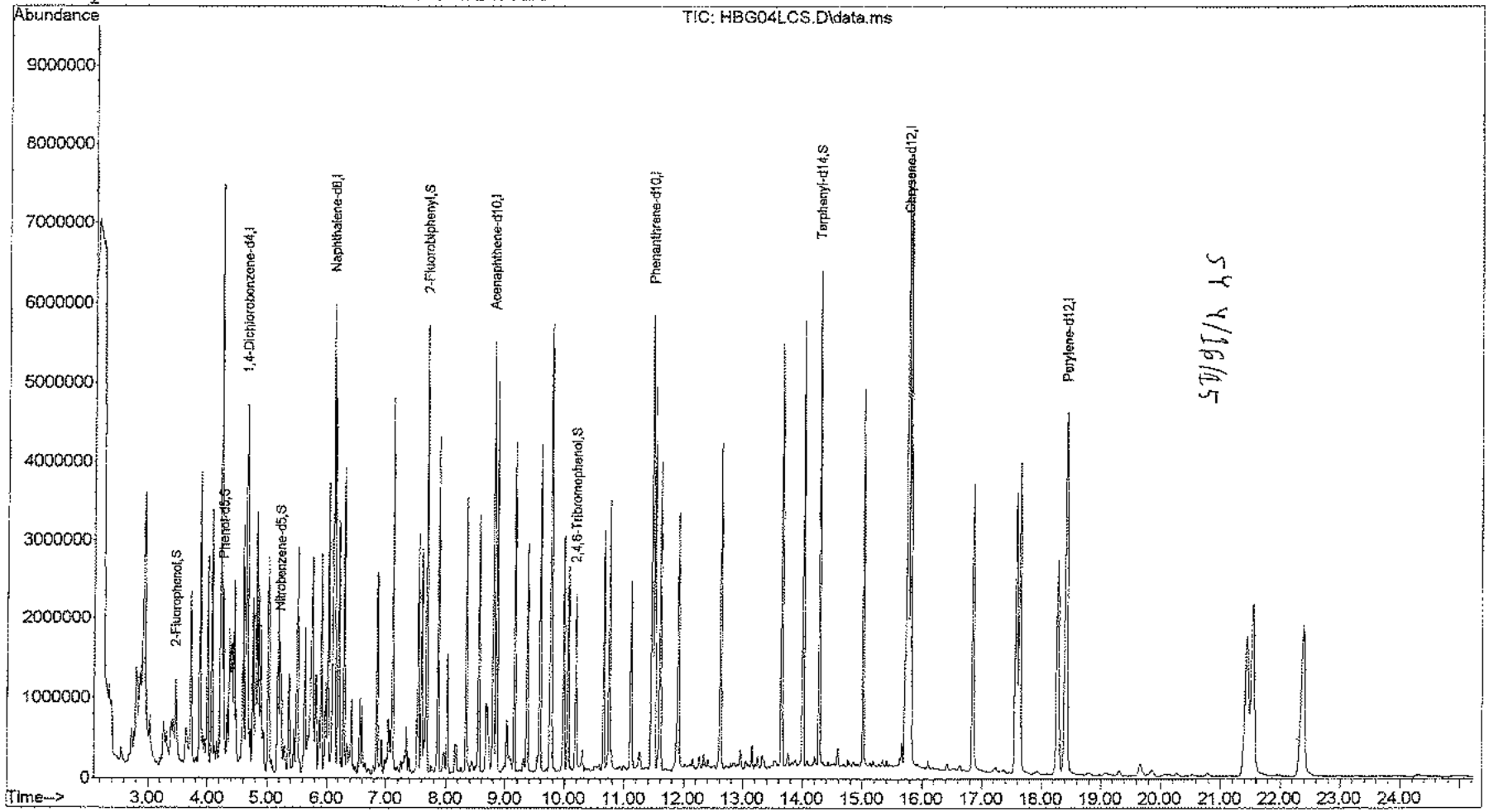
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG04LCS.D Vial: 4
Acq On : 04/16/2015 09:47 Operator: SY
Sample : 442347 LCS Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:12:57 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG04LCS.D Vial: 4
Acq On : 04/16/2015 09:47 Operator: SY
Sample : 442347 LCS Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:12:57 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.65	152	1154694	40.00 ug/mL
17) Naphthalene-d8	6.10	136	4069450	40.00 ug/mL
32) Acenaphthene-d10	8.80	164	2187052	40.00 ug/mL
52) Phenanthrene-d10	11.46	188	4020780	40.00 ug/mL
64) Chrysene-d12	15.76	240	4053980	40.00 ug/mL
72) Perylene-d12	18.42	264	4666663	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.46	112	493702	12.552ug/mL
4) Phenol-d5	4.25	99	889669	21.304ug/mL
18) Nitrobenzene-d5	5.21	82	523268	13.990ug/mL
36) 2-Fluorobiphenyl	7.67	172	2928830	33.101ug/mL
53) 2,4,6-Tribromophenol	10.19	330	485238	35.514ug/mL
66) Terphenyl-d14	14.27	244	3101802	32.312ug/mL
Target Compounds				Qvalue
2) Pyridine	2.46	79	19523	0.519ug/mL 50
5) Phenol	4.26	94	748752	16.816ug/mL 99
6) Bis(2-chloroethyl)ether	4.36	93	851612	21.144ug/mL 92
7) 2-Chlorophenol	4.44	128	1005194	22.615ug/mL 98
8) 1,3-Dichlorobenzene	4.59	146	1224215	23.884ug/mL 100
9) 1,4-dichlorobenzene	4.66	146	1180299	23.373ug/mL 99
10) Benzyl alcohol	4.76	108	609093	24.161ug/mL 100
11) 1,2-dichlorobenzene	4.82	146	1183456	24.938ug/mL 100
12) 2-Methylphenol	4.85	107	601452	20.352ug/mL 98
13) Bis(2-chloroisopropyl)ethe	4.89	45	882975	25.006ug/mL 89
14) 4-methylphenol	5.01	107	934225	21.698ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.03	70	546848	27.375ug/mL 95
16) Hexachloroethane	5.18	117	364302	20.383ug/mL 99
19) Nitrobenzene	5.23	77	409798	11.641ug/mL 100
20) Isophorone	5.50	82	1473581	23.262ug/mL 98
21) 2-Nitrophenol	5.63	139	67893	2.932ug/mL 79
22) 2,4-Dimethylphenol	5.63	122	396675	12.656ug/mL 99
23) Benzoic Acid	5.74	122	528619	27.264ug/mL 85
24) Bis(2-chloroethoxy)methane	5.75	93	1044668	27.304ug/mL 98
25) 2,4-Dichlorophenol	5.90	162	932541	25.795ug/mL 99
26) 1,2,4-Trichlorobenzene	6.02	180	1081072	26.328ug/mL 100
27) Naphthalene	6.13	128	2998663	26.755ug/mL 100
28) 4-Chloroaniline	6.19	127	284405	7.279ug/mL 97
29) Hexachlorobutadiene	6.28	225	634088	26.378ug/mL 100
30) 4-Chloro-3-Methylphenol	6.85	107	790584	24.764ug/mL 99
31) 2-Methylnaphthalene	7.10	142	2208483	27.266ug/mL 100
33) Hexachlorocyclopentadiene	7.34	237	138382	4.933ug/mL 99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG04LCS.D Vial: 4
Acq On : 04/16/2015 09:47 Operator: SY
Sample : 442347 LCS Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:12:57 2015 Results File: H8270D1...EVEL.RES

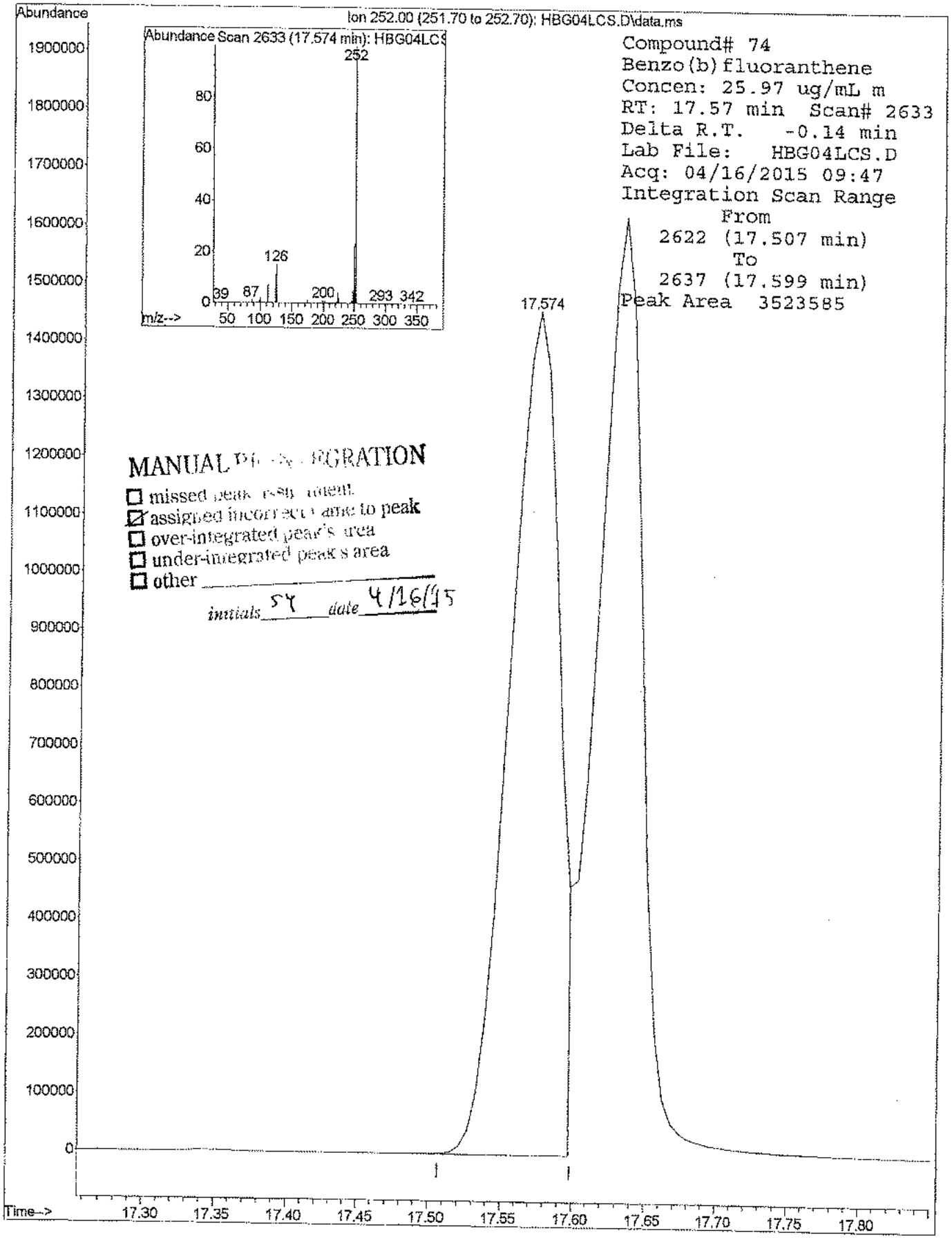
Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.53	196	705577	24.181ug/mL	99
35)	2,4,5-Trichlorophenol	7.59	196	754000	24.166ug/mL	100
37)	2-Chloronaphthalene	7.87	162	2056235	25.511ug/mL	100
38)	2-Nitroaniline	8.03	65	339866	17.476ug/mL	94
39)	Dimethylphthalate	8.34	163	2353373	25.347ug/mL	100
40)	2,6-Dinitrotoluene	8.43	165	31577	1.471ug/mL	87
41)	Acenaphthylene	8.55	152	2369412	18.439ug/mL	99
42)	3-Nitroaniline	8.72	65	121058	7.205ug/mL	92
43)	Acenaphthene	8.85	153	1988700	26.017ug/mL	100
44)	2,4-Dinitrophenol	8.92	184	385	4.512ug/mL	32
45)	4-Nitrophenol	9.02	109	112235	11.850ug/mL	93
46)	Dibenzofuran	9.15	168	2982267	26.977ug/mL	98
47)	2,4-Dinitrotoluene	0.00	165		Not Detected	
48)	Diethylphthalate	9.58	149	2651562	29.585ug/mL	100
49)	4-chlorophenyl phenyl ethe	9.77	204	1118713	26.537ug/mL	100
50)	Fluorene	9.76	166	2077256	25.345ug/mL	100
51)	4-Nitroaniline	9.78	65	194432	16.815ug/mL	88
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	9.98	169	1341254	23.688ug/mL	99
56)	4-bromophenyl phenyl ether	10.65	248	762165	26.364ug/mL	100
57)	Hexachlorobenzene	10.75	284	827304	25.835ug/mL	99
58)	Pentachlorophenol	11.11	266	510196	24.056ug/mL	100
59)	Phenanthrene	11.50	178	3282047	26.430ug/mL	99
60)	Anthracene	11.50	178	3282047	26.223ug/mL	99
61)	Carbazole	11.90	167	2594278	34.392ug/mL	99
62)	Di-n-butylphthalate	12.62	149	3785822	26.775ug/mL	100
63)	Fluoranthene	14.00	202	3670436	26.980ug/mL	97
65)	Pyrene	14.00	202	3671154	26.362ug/mL	98
67)	Butylbenzylphthalate	15.00	149	1752478	28.475ug/mL	97
68)	3,3'-Dichlorobenzidine	15.71	252	498841	21.276ug/mL	98
69)	Benzo(a)anthracene	15.74	228	3088558	23.474ug/mL	99
70)	Chrysene	15.79	228	2917508	27.319ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.80	149	2072782	28.320ug/mL	99
73)	Di-n-octylphthalate	16.85	149	4096256	28.815ug/mL	100
74)	Benzo(b)fluoranthene	17.57	252	3523585	25.967ug/mL m	98
75)	Benzo(k)fluoranthene	17.63	252	3527443	28.757ug/mL	99
76)	Benzo(a)pyrene	18.27	252	2927466	23.437ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.44	276	3008328	25.610ug/mL	100
78)	Dibenz(a,h)anthracene	21.54	278	3459219	29.539ug/mL	98
79)	Benzo(g,h,i)perylene	22.39	276	3541578	29.575ug/mL	97

SY 4/16/15

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

MANUAL INTEGRATION FOR Benzo(b)fluoranthene



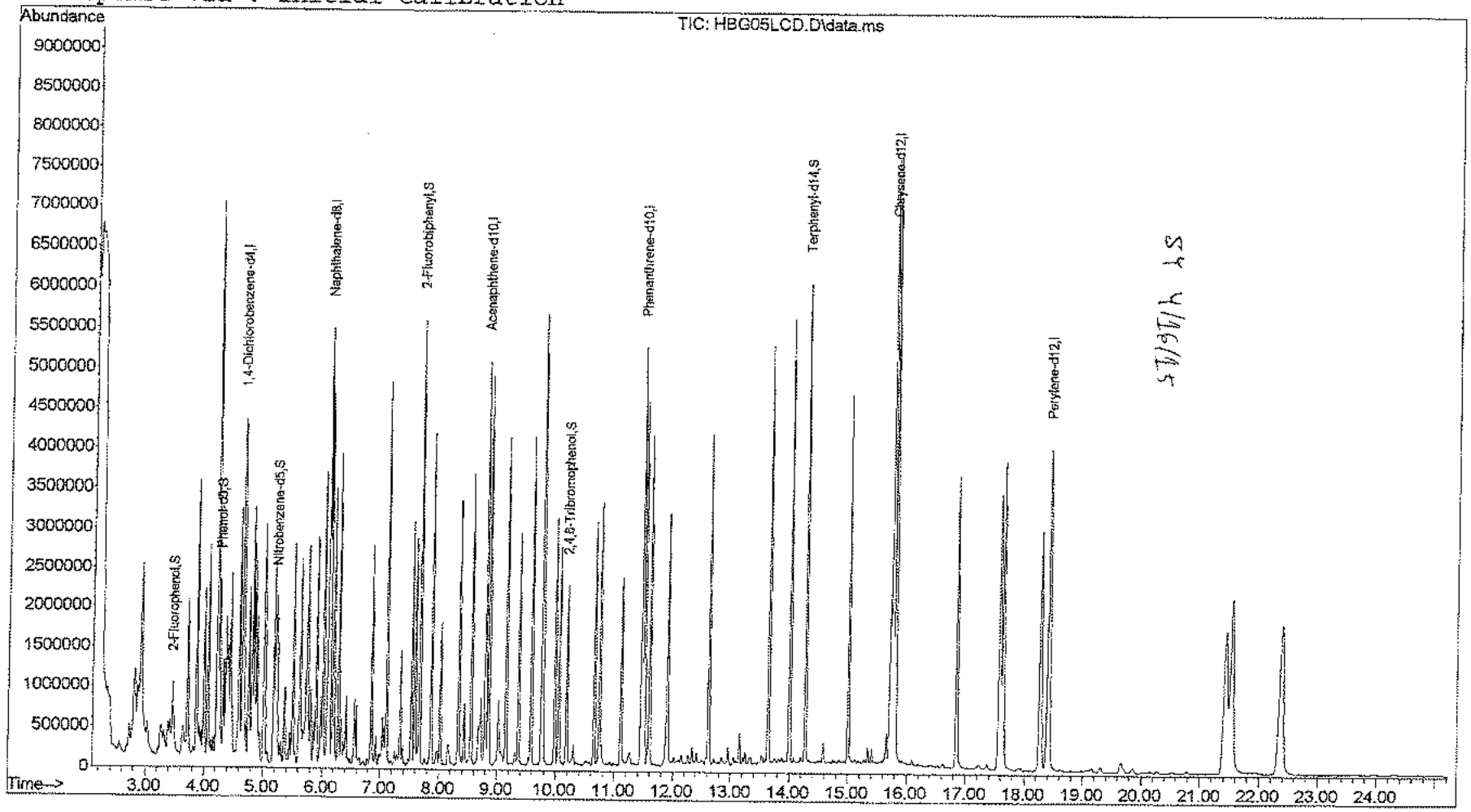
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 442347 LCS

Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG05LCD.D Vial: 5
Acq On : 04/16/2015 10:21 Operator: SY
Sample : 442348 LCSD Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:13:34 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG05LCD.D Vial: 5
Acq On : 04/16/2015 10:21 Operator: SY
Sample : 442348 LCSD Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:13:34 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.65	152	1052044	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	3767615	40.00 ug/mL	
32) Acenaphthene-d10	8.80	164	1997737	40.00 ug/mL	
52) Phenanthrene-d10	11.46	188	3617360	40.00 ug/mL	
64) Chrysene-d12	15.76	240	3560238	40.00 ug/mL	
72) Perylene-d12	18.41	264	4184387	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	494382	13.796ug/mL	
4) Phenol-d5	4.25	99	898530	23.616ug/mL	
18) Nitrobenzene-d5	5.21	82	917218	26.487ug/mL	
36) 2-Fluorobiphenyl	7.67	172	2862070	35.412ug/mL	
53) 2,4,6-Tribromophenol	10.19	330	481032	39.132ug/mL	
66) Terphenyl-d14	14.27	244	2920486	34.642ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	4.26	94	762603	18.798ug/mL	99
6) Bis(2-chloroethyl)ether	4.36	93	870536	23.723ug/mL	93
7) 2-Chlorophenol	4.44	128	1036831	25.603ug/mL	97
8) 1,3-Dichlorobenzene	4.59	146	1266718	27.125ug/mL	100
9) 1,4-dichlorobenzene	4.66	146	1208521	26.267ug/mL	99
10) Benzyl alcohol	4.76	108	633415	27.577ug/mL	100
11) 1,2-dichlorobenzene	4.82	146	1214355	28.086ug/mL	100
12) 2-Methylphenol	4.85	107	671544	24.941ug/mL	99
13) Bis(2-chloroisopropyl)ethe	4.89	45	912017	28.349ug/mL	93
14) 4-methylphenol	5.01	107	1036955	26.434ug/mL	97
15) N-Nitrosodi-n-propyl amine	5.03	70	557739	30.644ug/mL	95
16) Hexachloroethane	5.18	117	425449	26.127ug/mL	99
19) Nitrobenzene	5.23	77	650401	19.956ug/mL	98
20) Isophorone	5.50	82	1500139	25.578ug/mL	98
21) 2-Nitrophenol	5.60	139	172668	8.055ug/mL	79
22) 2,4-Dimethylphenol	5.63	122	647168	22.302ug/mL	99
23) Benzoic Acid	5.74	122	535059	29.468ug/mL	87
24) Bis(2-chloroethoxy)methane	5.75	93	1058999	29.895ug/mL	99
25) 2,4-Dichlorophenol	5.90	162	957849	28.618ug/mL	100
26) 1,2,4-Trichlorobenzene	6.02	180	1098557	28.897ug/mL	99
27) Naphthalene	6.13	128	3015253	29.058ug/mL	100
28) 4-Chloroaniline	6.18	127	608429	16.818ug/mL	98
29) Hexachlorobutadiene	6.28	225	632360	28.414ug/mL	99
30) 4-Chloro-3-Methylphenol	6.85	107	826694	27.970ug/mL	99
31) 2-Methylnaphthalene	7.10	142	2193283	29.248ug/mL	99
33) Hexachlorocyclopentadiene	7.35	237	352765	13.768ug/mL	99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

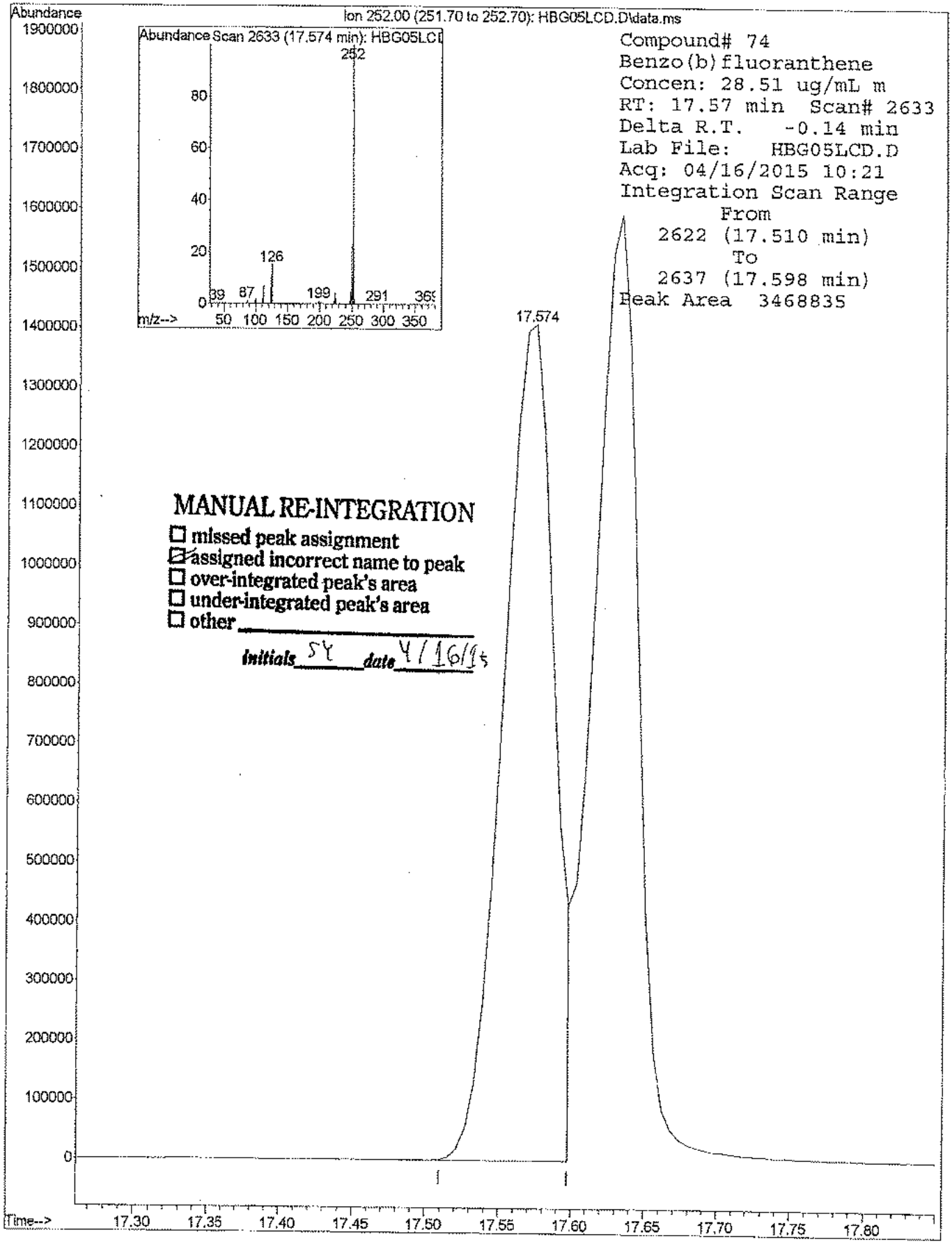
Data File : C:\msdchem\1\data\20...15\16APR15\HBG05LCD.D Vial: 5
Acq On : 04/16/2015 10:21 Operator: SY
Sample : 442348 LCSD Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:13:34 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.53	196	724273	27.174ug/mL	100
35)	2,4,5-Trichlorophenol	7.59	196	772488	27.105ug/mL	100
37)	2-Chloronaphthalene	7.87	162	2053418	27.890ug/mL	100
38)	2-Nitroaniline	8.03	65	410160	23.089ug/mL	94
39)	Dimethylphthalate	8.34	163	2316829	27.318ug/mL	100
40)	2,6-Dinitrotoluene	8.43	165	172116	8.780ug/mL	95
41)	Acenaphthylene	8.55	152	2627868	22.388ug/mL	100
42)	3-Nitroaniline	8.72	65	242052	15.771ug/mL	97
43)	Acenaphthene	8.85	153	1962975	28.114ug/mL	99
44)	2,4-Dinitrophenol	8.92	184	175	4.498ug/mL	32
45)	4-Nitrophenol	9.02	109	134704	15.228ug/mL	94
46)	Dibenzofuran	9.15	168	2929257	29.009ug/mL	98
47)	2,4-Dinitrotoluene	9.12	165	27866	1.104ug/mL	1
48)	Diethylphthalate	9.58	149	2678814	32.722ug/mL	100
49)	4-chlorophenyl phenyl ethe	9.77	204	1103720	28.662ug/mL	100
50)	Fluorene	9.76	166	2078168	27.759ug/mL	100
51)	4-Nitroaniline	9.79	65	244912	25.176ug/mL	98
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	9.98	169	1392422	27.335ug/mL	99
56)	4-bromophenyl phenyl ether	10.65	248	743875	28.601ug/mL	99
57)	Hexachlorobenzene	10.75	284	804566	27.927ug/mL	99
58)	Pentachlorophenol	11.11	266	502699	26.225ug/mL	100
59)	Phenanthrene	11.50	178	3195918	28.606ug/mL	99
60)	Anthracene	11.50	178	3195918	28.383ug/mL	100
61)	Carbazole	11.90	167	2513807	37.293ug/mL	98
62)	Di-n-butylphthalate	12.62	149	3665110	28.812ug/mL	100
63)	Fluoranthene	14.00	202	3594000	29.364ug/mL	96
65)	Pyrene	14.00	202	3594000	29.387ug/mL	98
67)	Butylbenzylphthalate	15.00	149	1625136	30.067ug/mL	97
68)	3,3'-Dichlorobenzidine	15.71	252	750259	36.437ug/mL	99
69)	Benzo(a)anthracene	15.74	228	3106331	26.883ug/mL	99
70)	Chrysene	15.79	228	2832229	30.199ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.80	149	2039709	31.733ug/mL	99
73)	Di-n-octylphthalate	16.84	149	3977600	31.205ug/mL	54 100
74)	Benzo(b)fluoranthene	17.57	252	3468835	28.510ug/mL	m 4/16/15 98
75)	Benzo(k)fluoranthene	17.63	252	3435665	31.237ug/mL	99
76)	Benzo(a)pyrene	18.27	252	3072905	27.437ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.44	276	3111711	29.543ug/mL	100
78)	Dibenz(a,h)anthracene	21.54	278	3475386	33.097ug/mL	98
79)	Benzo(g,h,i)perylene	22.39	276	3519989	32.783ug/mL	97

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Benzo(b)fluoranthene



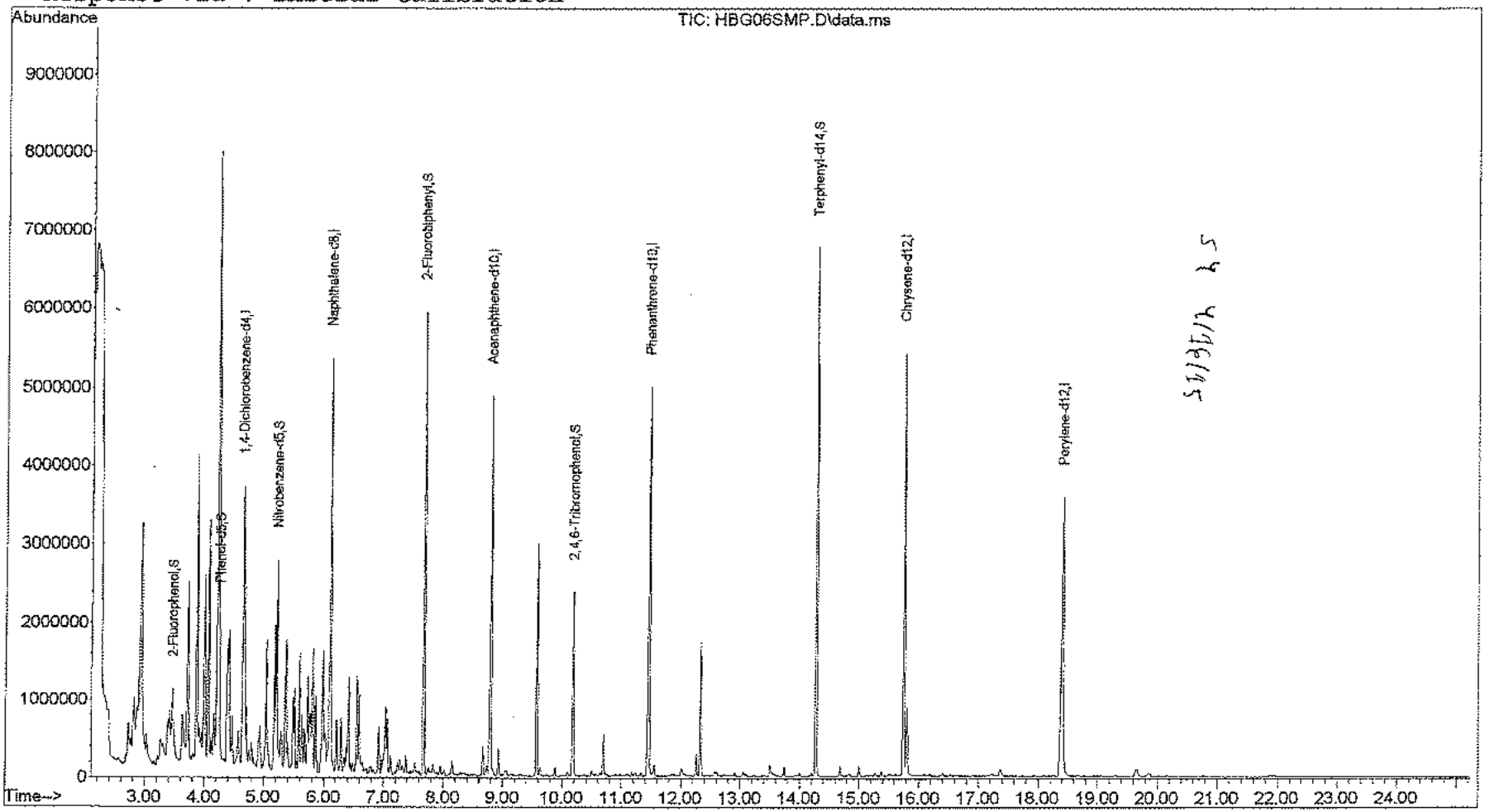
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 442348 LCSD

Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG06SMP.D Vial: 6
Acq On : 04/16/2015 10:55 Operator: SY
Sample : 1510351001 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:15:00 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG06SMP.D Vial: 6
Acq On : 04/16/2015 10:55 Operator: SY
Sample : 1510351001 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:15:00 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.64	152	927109	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	3388041	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	1840611	40.00 ug/mL	
52) Phenanthrene-d10	11.46	188	3266796	40.00 ug/mL	
64) Chrysene-d12	15.75	240	3304121	40.00 ug/mL	
72) Perylene-d12	18.40	264	3555620	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	508045	16.087ug/mL	
4) Phenol-d5	4.25	99	936702	27.937ug/mL	
18) Nitrobenzene-d5	5.21	82	1002588	32.196ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3107604	41.733ug/mL	
53) 2,4,6-Tribromophenol	10.18	330	515459	46.433ug/mL	
66) Terphenyl-d14	14.27	244	3319921	42.432ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.68	122	74548	7.643ug/mL	91
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

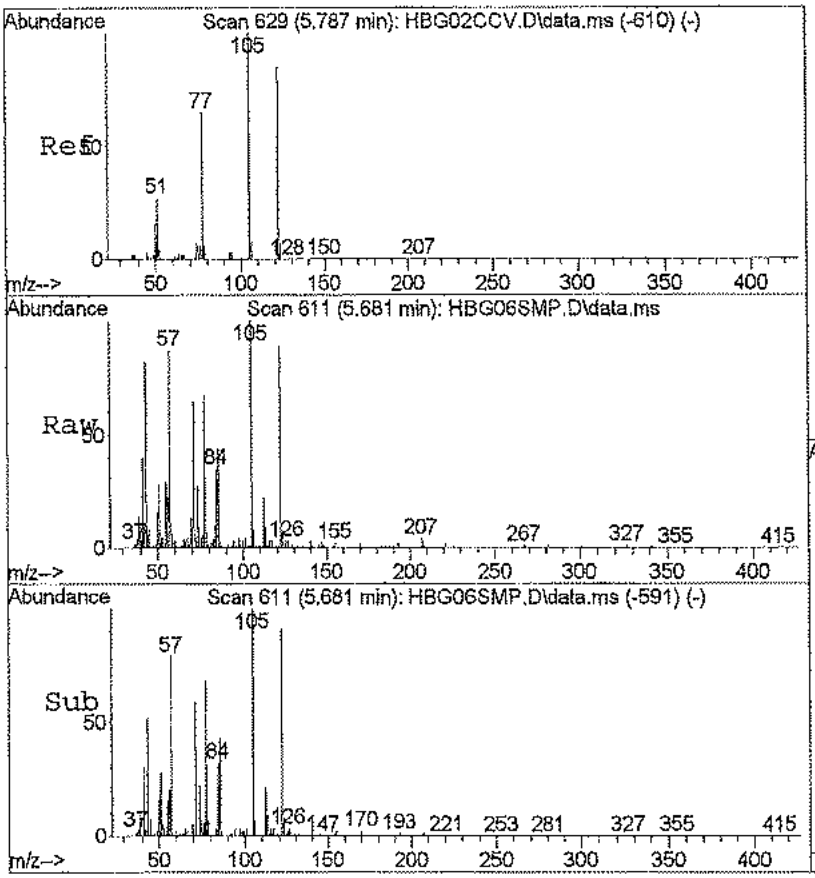
Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG06SMP.D Vial: 6
Acq On : 04/16/2015 10:55 Operator: SY
Sample : 1510351001 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:15:00 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	0.00	196		Not Detected	
35)	2,4,5-Trichlorophenol	0.00	196		Not Detected	
37)	2-Chloronaphthalene	0.00	162		Not Detected	
38)	2-Nitroaniline	0.00	65		Not Detected	
39)	Dimethylphthalate	0.00	163		Not Detected	
40)	2,6-Dinitrotoluene	0.00	165		Not Detected	
41)	Acenaphthylene	0.00	152		Not Detected	
42)	3-Nitroaniline	0.00	65		Not Detected	
43)	Acenaphthene	0.00	153		Not Detected	
44)	2,4-Dinitrophenol	0.00	184		Not Detected	
45)	4-Nitrophenol	0.00	109		Not Detected	
46)	Dibenzofuran	0.00	168		Not Detected	
47)	2,4-Dinitrotoluene	0.00	165		Not Detected	
48)	Diethylphthalate	9.57	149	1825408	24.201ug/mL	100
49)	4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50)	Fluorene	0.00	166		Not Detected	
51)	4-Nitroaniline	0.00	65		Not Detected	
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	0.00	169		Not Detected	
56)	4-bromophenyl phenyl ether	0.00	248		Not Detected	
57)	Hexachlorobenzene	0.00	284		Not Detected	
58)	Pentachlorophenol	0.00	266		Not Detected	
59)	Phenanthrene	0.00	178		Not Detected	
60)	Anthracene	0.00	178		Not Detected	
61)	Carbazole	0.00	167		Not Detected	
62)	Di-n-butylphthalate	0.00	149		Not Detected	
63)	Fluoranthene	0.00	202		Not Detected	
65)	Pyrene	0.00	202		Not Detected	
67)	Butylbenzylphthalate	15.00	149	38473	0.767ug/mL	98
68)	3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69)	Benzo(a)anthracene	0.00	228		Not Detected	
70)	Chrysene	0.00	228		Not Detected	
71)	Bis(2-ethylhexyl)phthalate	0.00	149		Not Detected	
73)	Di-n-octylphthalate	0.00	149		Not Detected	
74)	Benzo(b)fluoranthene	0.00	252		Not Detected	
75)	Benzo(k)fluoranthene	0.00	252		Not Detected	
76)	Benzo(a)pyrene	0.00	252		Not Detected	
77)	Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78)	Dibenz(a,h)anthracene	0.00	278		Not Detected	
79)	Benzo(g,h,i)perylene	0.00	276		Not Detected	

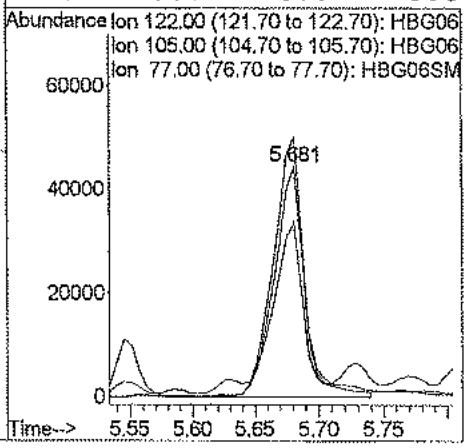
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

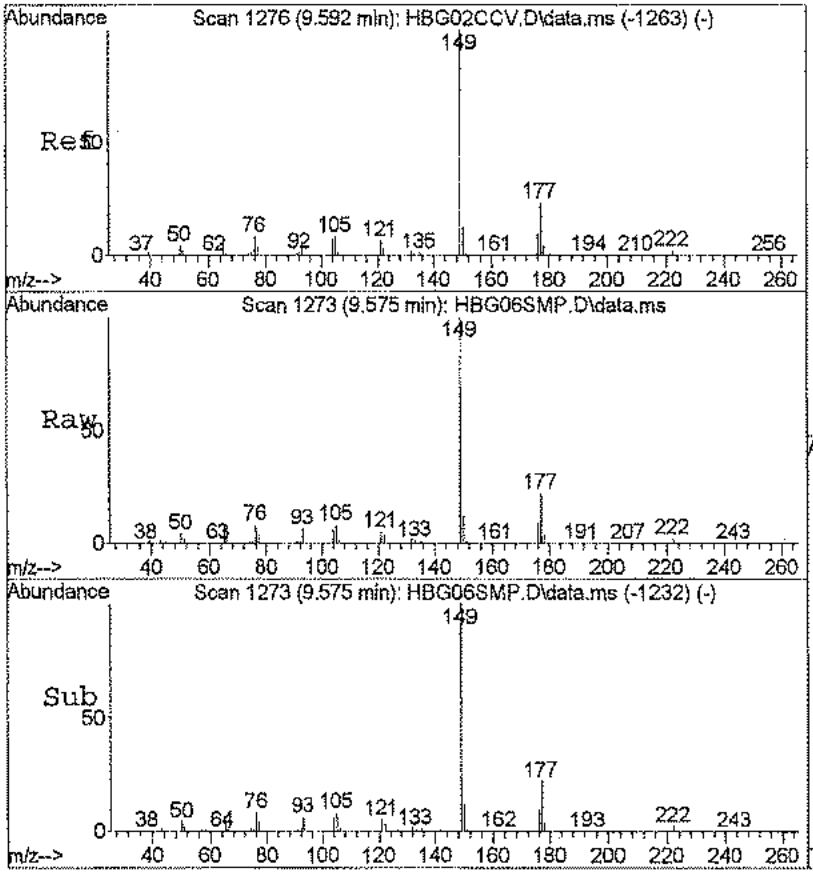


#23
Benzoic Acid
Concen: 7.64 ug/mL
RT: 5.68 min Scan# 611
Delta R.T. -0.14 min
Lab File: HBG06SMP.D
Acq: 04/16/2015 10:55

Tgt Ion:122 Resp: 74548

Ion	Ratio	Lower	Upper
122	100		
105	115.6	82.7	124.1
77	66.3	55.3	82.9
0	0.0	0.0	0.0

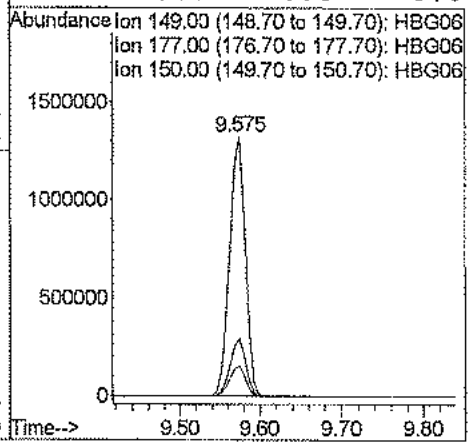


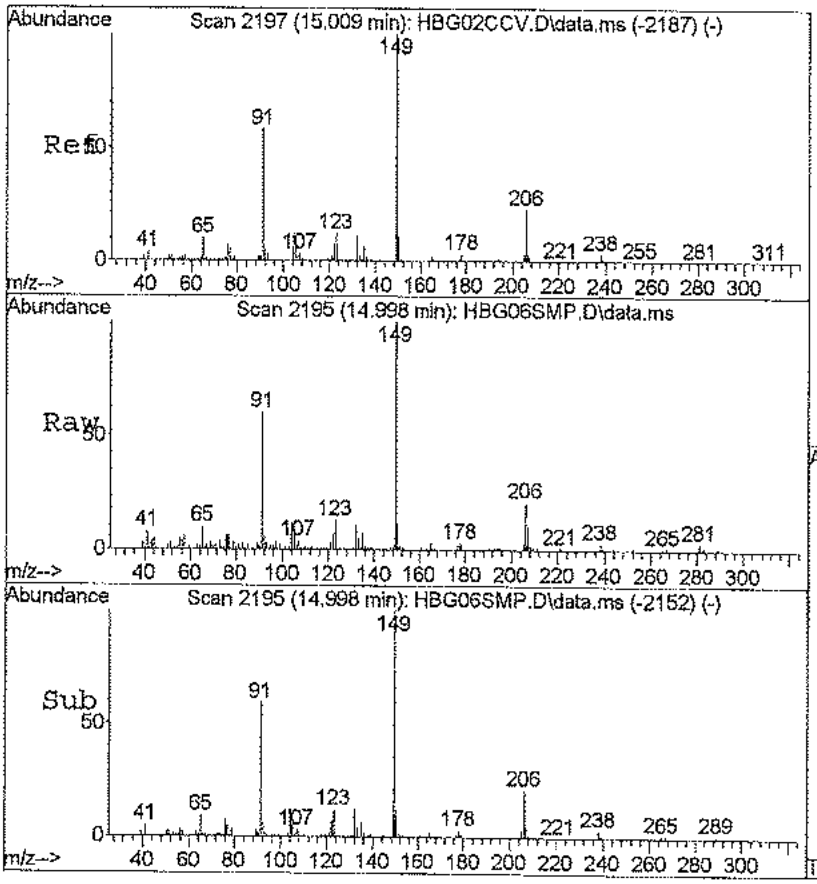


#48
Diethylphthalate
Concen: 24.20 ug/mL
RT: 9.57 min Scan# 1273
Delta R.T. -0.06 min
Lab File: HBG06SMP.D
Acq: 04/16/2015 10:55

Tgt Ion:149 Resp: 1825408

Ion	Ratio	Lower	Upper
149	100		
177	22.1	17.8	26.6
150	11.8	9.5	14.3
0	0.0	0.0	0.0

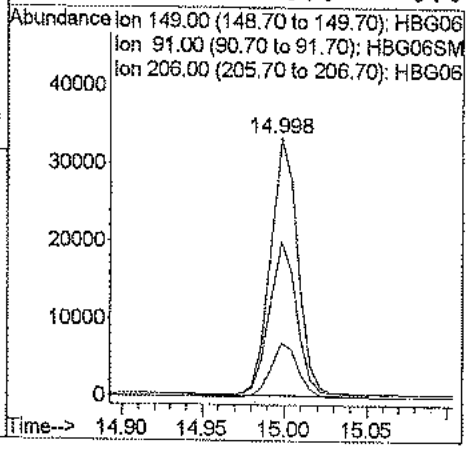




#67
Butylbenzylphthalate
Concen: 0.77 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.05 min
Lab File: HBG06SMP.D
Acq: 04/16/2015 10:55

Tgt Ion:149 Resp: 38473

Ion	Ratio	Lower	Upper
149	100		
91	59.1	49.1	73.7
206	20.8	16.6	24.8
0	0.0	0.0	0.0

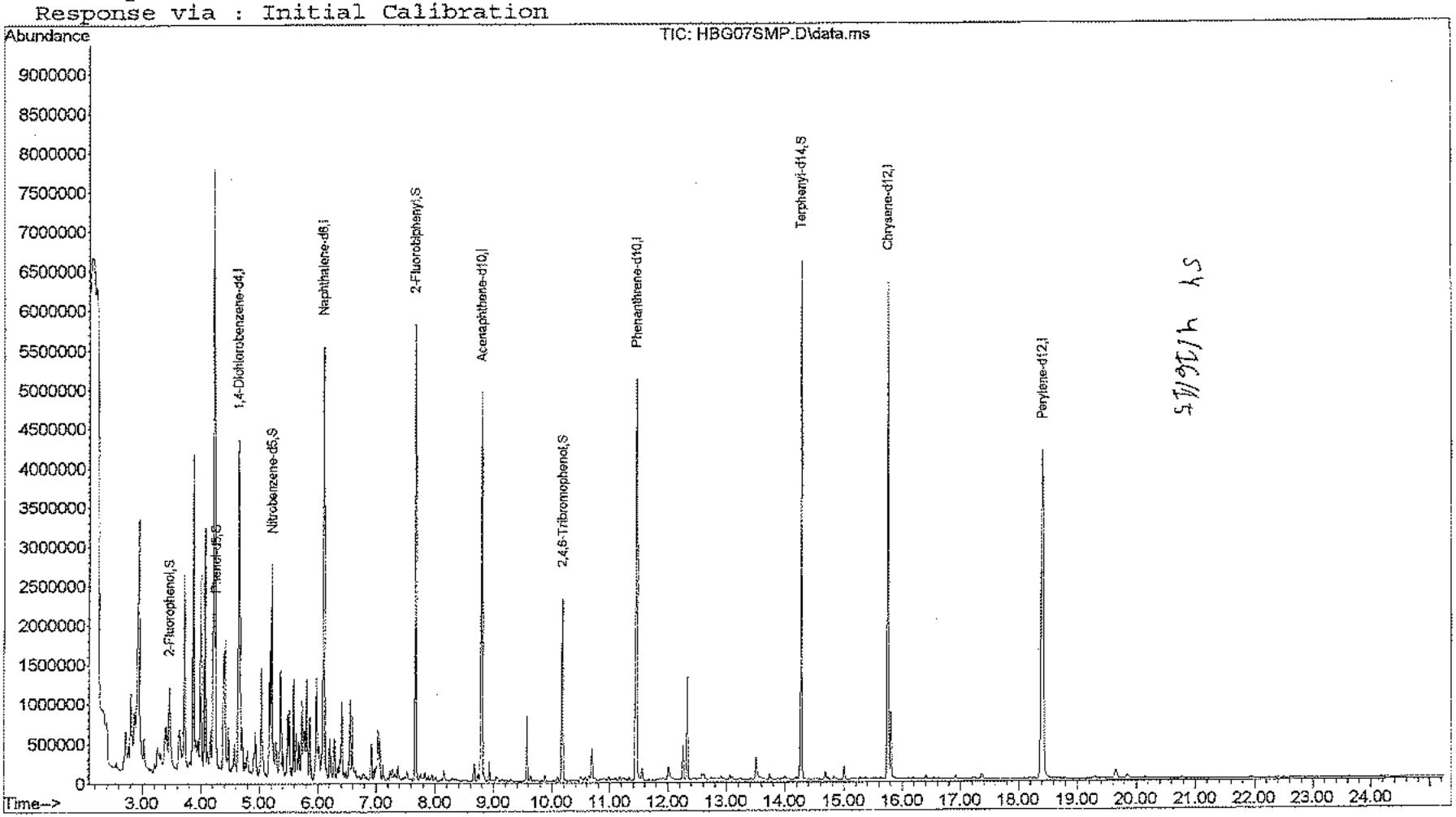


Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG07SMP.D Vial: 7
Acq On : 04/16/2015 11:29 Operator: SY
Sample : 1510351002 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:16:00 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG07SMP.D Vial: 7
Acq On : 04/16/2015 11:29 Operator: SY
Sample : 1510351002 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:16:00 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.64	152	1024712	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	3598345	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	1889081	40.00 ug/mL	
52) Phenanthrene-d10	11.45	188	3353923	40.00 ug/mL	
64) Chrysene-d12	15.75	240	3694081	40.00 ug/mL	
72) Perylene-d12	18.40	264	4181301	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	508960	14.581ug/mL	
4) Phenol-d5	4.25	99	905246	24.427ug/mL	
18) Nitrobenzene-d5	5.21	82	1024024	30.962ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3017529	39.483ug/mL	
53) 2,4,6-Tribromophenol	10.18	330	494799	43.414ug/mL	
66) Terphenyl-d14	14.27	244	3129725	35.779ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.68	122	70848	7.222ug/mL	91
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

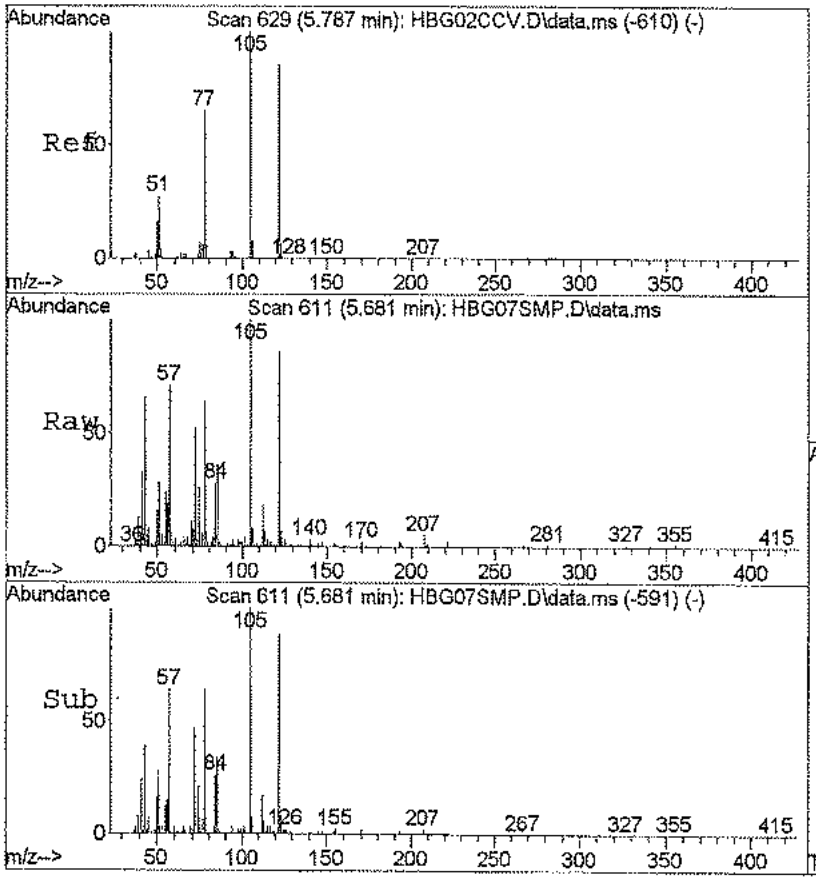
Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG07SMP.D Vial: 7
Acq On : 04/16/2015 11:29 Operator: SY
Sample : 1510351002 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:16:00 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Mar 24 07:28:11 2015
Response via : Initial Calibration

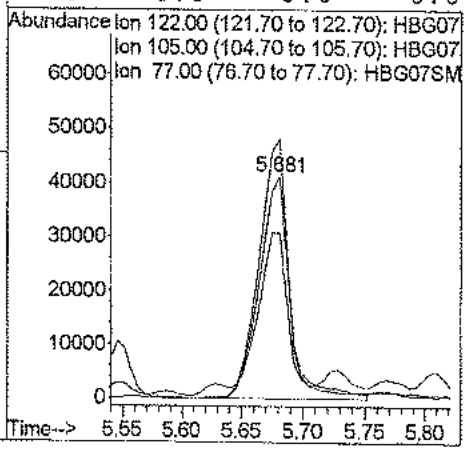
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	9.57	149	462061	5.969ug/mL	99
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	15.00	149	51650	0.921ug/mL	96
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	0.00	149		Not Detected	
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

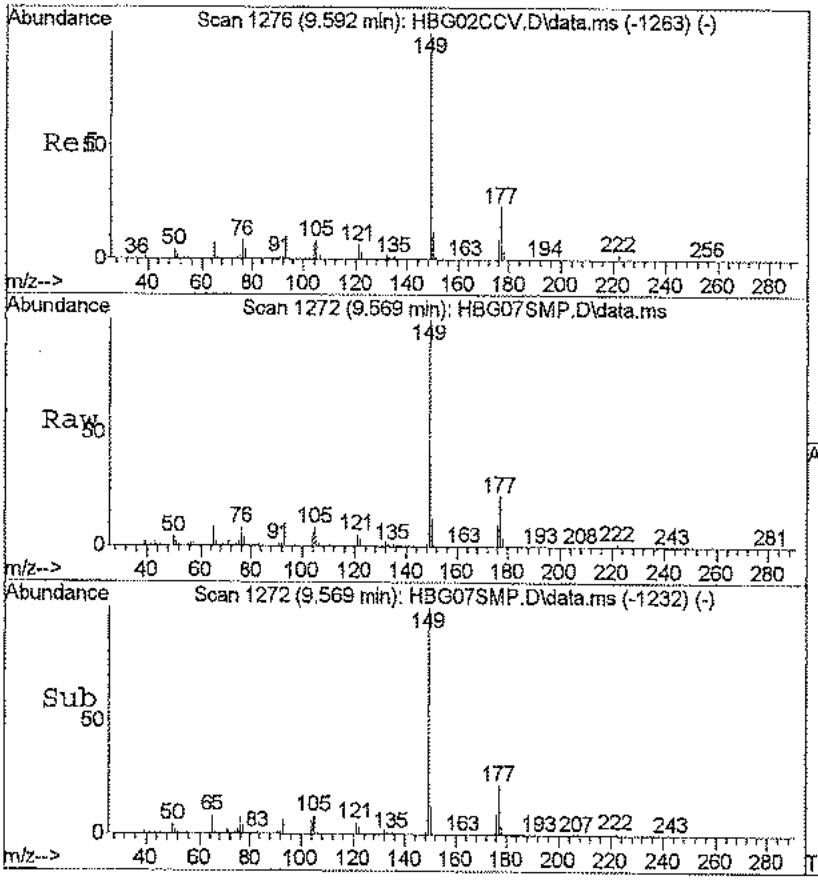
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)



#23
Benzoic Acid
Concen: 7.22 ug/mL
RT: 5.68 min Scan# 611
Delta R.T. -0.14 min
Lab File: HBG07SMP.D
Acq: 04/16/2015 11:29

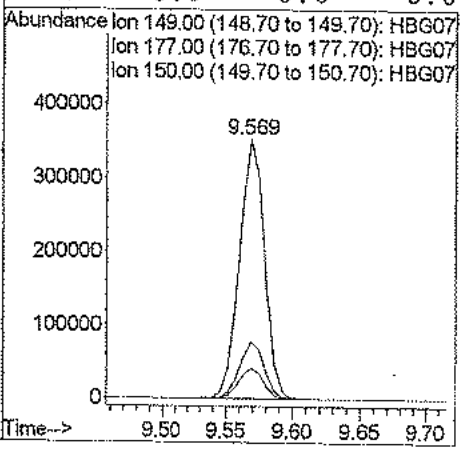
Tgt Ion:122	Resp:	70848	
Ion	Ratio	Lower	Upper
122	100		
105	117.1	82.7	124.1
77	68.0	55.3	82.9
0	0.0	0.0	0.0

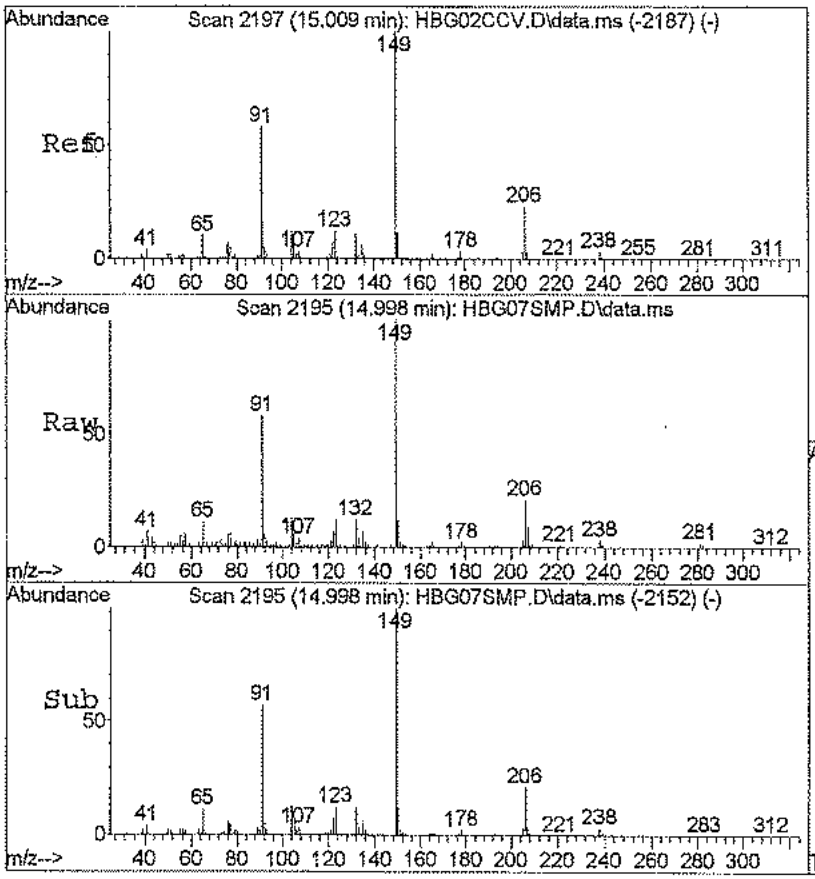




#48
Diethylphthalate
Concen: 5.97 ug/mL
RT: 9.57 min Scan# 1272
Delta R.T. -0.06 min
Lab File: HBG07SMP.D
Acq: 04/16/2015 11:29

Tgt Ion:149	Resp:	462061	
Ion	Ratio	Lower	Upper
149	100		
177	21.9	17.8	26.6
150	11.8	9.5	14.3
0	0.0	0.0	0.0

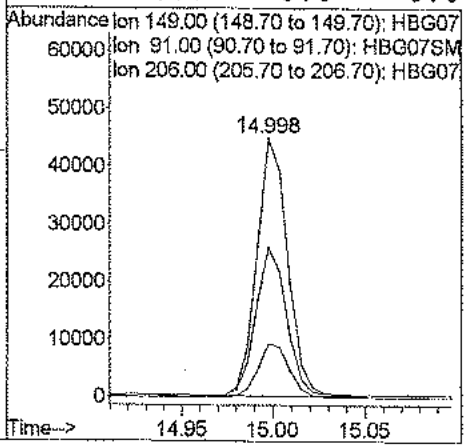




#67
Butylbenzylphthalate
Concen: 0.92 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.05 min
Lab File: HBG07SMP.D
Acq: 04/16/2015 11:29

Tgt Ion:149 Resp: 51650

Ion	Ratio	Lower	Upper
149	100		
91	57.9	49.1	73.7
206	21.3	16.6	24.8
0	0.0	0.0	0.0

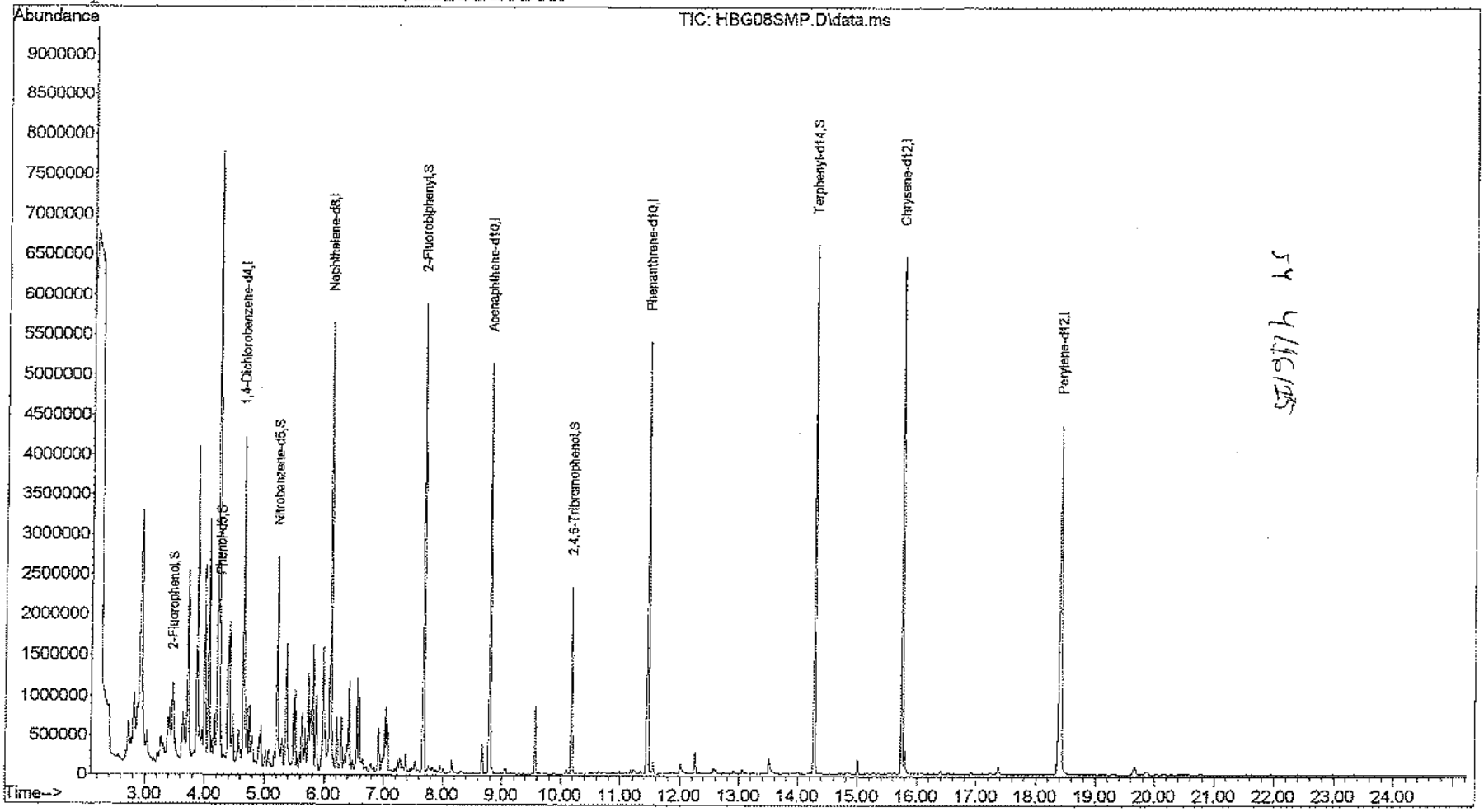


Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG08SMP.D Vial: 8
Acq On : 04/16/2015 12:03 Operator: SY
Sample : 1510351003 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:32:56 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG08SMP.D Vial: 8
Acq On : 04/16/2015 12:03 Operator: SY
Sample : 1510351003 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:32:56 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.64	152	1077916	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	3676396	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	1947742	40.00 ug/mL	
52) Phenanthrene-d10	11.46	188	3457487	40.00 ug/mL	
64) Chrysene-d12	15.75	240	3871634	40.00 ug/mL	
72) Perylene-d12	18.41	264	4379468	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	530216	14.441ug/mL	
4) Phenol-d5	4.25	99	930050	23.858ug/mL	
18) Nitrobenzene-d5	5.21	82	1006155	29.776ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3033014	38.491ug/mL	
53) 2,4,6-Tribromophenol	10.18	330	489257	41.642ug/mL	
66) Terphenyl-d14	14.27	244	3159827	34.466ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.67	122	60226	6.620ug/mL	90
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

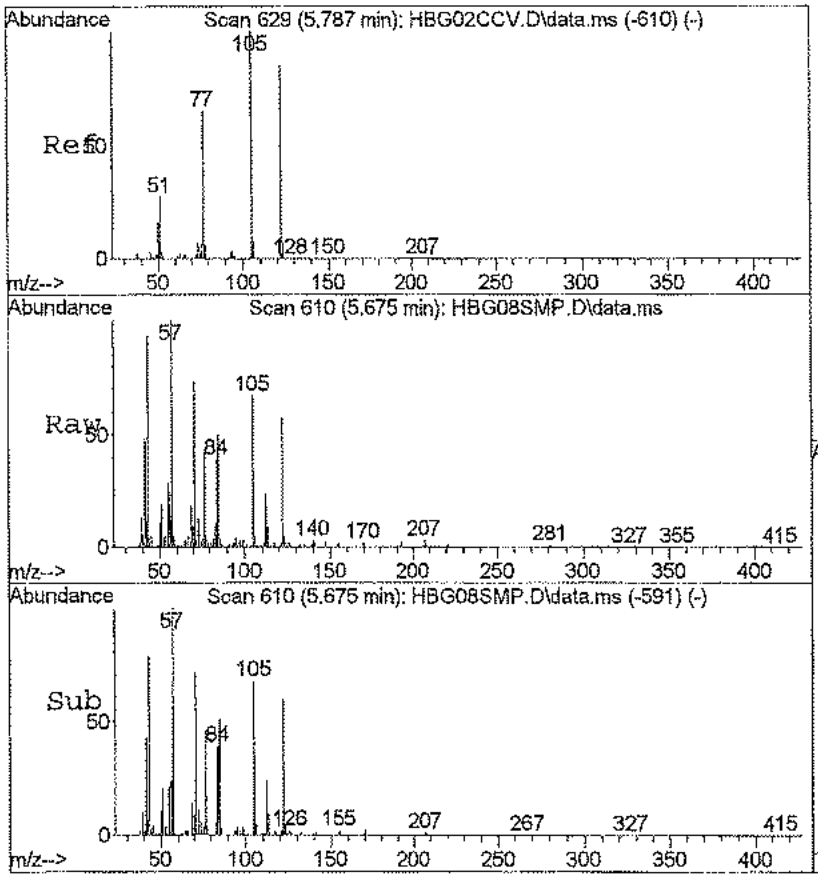
Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG08SMP.D Vial: 8
Acq On : 04/16/2015 12:03 Operator: SY
Sample : 1510351003 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:32:56 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	0.00	196		Not Detected	
35)	2,4,5-Trichlorophenol	0.00	196		Not Detected	
37)	2-Chloronaphthalene	0.00	162		Not Detected	
38)	2-Nitroaniline	0.00	65		Not Detected	
39)	Dimethylphthalate	0.00	163		Not Detected	
40)	2,6-Dinitrotoluene	0.00	165		Not Detected	
41)	Acenaphthylene	0.00	152		Not Detected	
42)	3-Nitroaniline	0.00	65		Not Detected	
43)	Acenaphthene	0.00	153		Not Detected	
44)	2,4-Dinitrophenol	0.00	184		Not Detected	
45)	4-Nitrophenol	0.00	109		Not Detected	
46)	Dibenzofuran	0.00	168		Not Detected	
47)	2,4-Dinitrotoluene	0.00	165		Not Detected	
48)	Diethylphthalate	9.57	149	474503	5.945ug/mL	99
49)	4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50)	Fluorene	0.00	166		Not Detected	
51)	4-Nitroaniline	0.00	65		Not Detected	
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	0.00	169		Not Detected	
56)	4-bromophenyl phenyl ether	0.00	248		Not Detected	
57)	Hexachlorobenzene	0.00	284		Not Detected	
58)	Pentachlorophenol	0.00	266		Not Detected	
59)	Phenanthrene	0.00	178		Not Detected	
60)	Anthracene	0.00	178		Not Detected	
61)	Carbazole	0.00	167		Not Detected	
62)	Di-n-butylphthalate	0.00	149		Not Detected	
63)	Fluoranthene	0.00	202		Not Detected	
65)	Pyrene	0.00	202		Not Detected	
67)	Butylbenzylphthalate	15.00	149	58513	0.996ug/mL	99
68)	3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69)	Benzo(a)anthracene	0.00	228		Not Detected	
70)	Chrysene	0.00	228		Not Detected	
71)	Bis(2-ethylhexyl)phthalate	15.80	149	118342	1.693ug/mL	100
73)	Di-n-octylphthalate	0.00	149		Not Detected	
74)	Benzo(b)fluoranthene	0.00	252		Not Detected	
75)	Benzo(k)fluoranthene	0.00	252		Not Detected	
76)	Benzo(a)pyrene	0.00	252		Not Detected	
77)	Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78)	Dibenz(a,h)anthracene	0.00	278		Not Detected	
79)	Benzo(g,h,i)perylene	0.00	276		Not Detected	

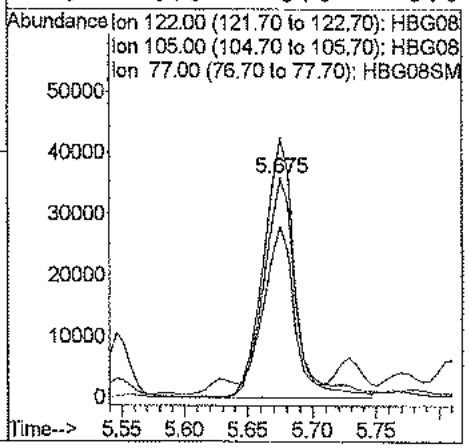
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

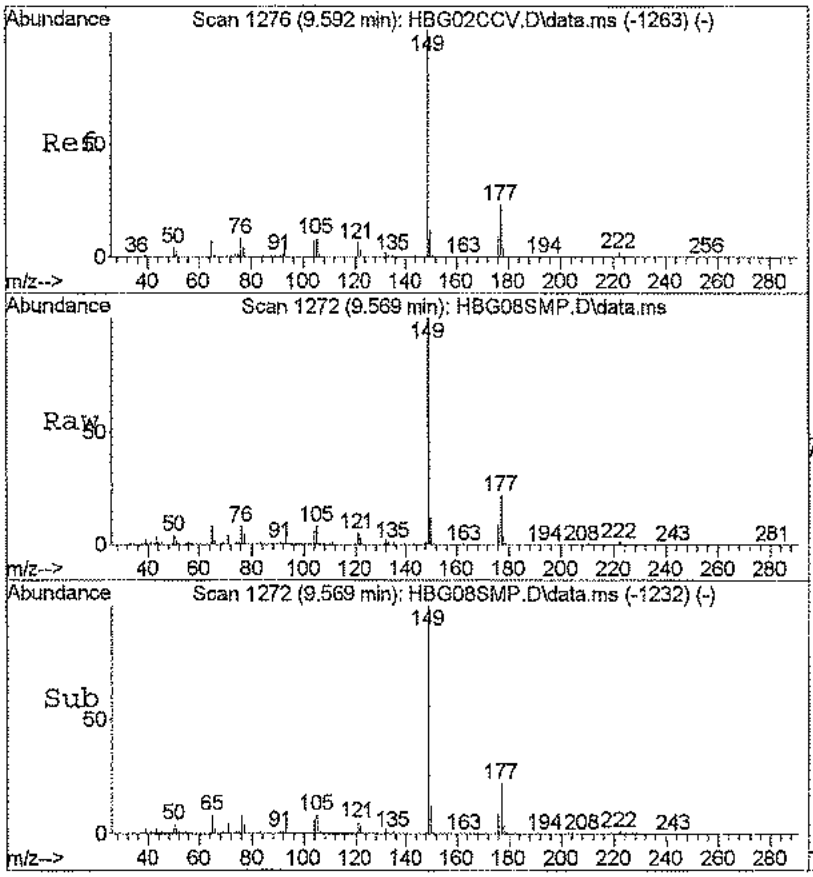


#23
Benzoic Acid
Concen: 6.62 ug/mL
RT: 5.67 min Scan# 610
Delta R.T. -0.14 min
Lab File: HBG08SMP.D
Acq: 04/16/2015 12:03

Tgt Ion:122 Resp: 60226

Ion	Ratio	Lower	Upper
122	100		
105	118.6	82.7	124.1
77	67.9	55.3	82.9
0	0.0	0.0	0.0

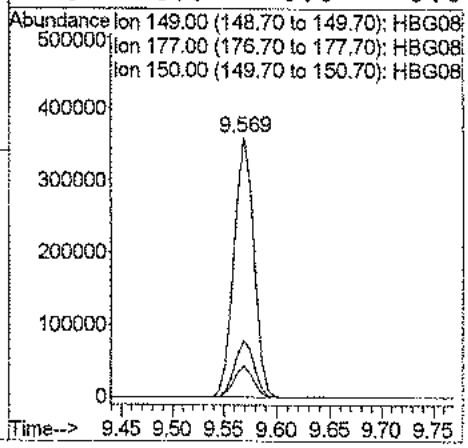


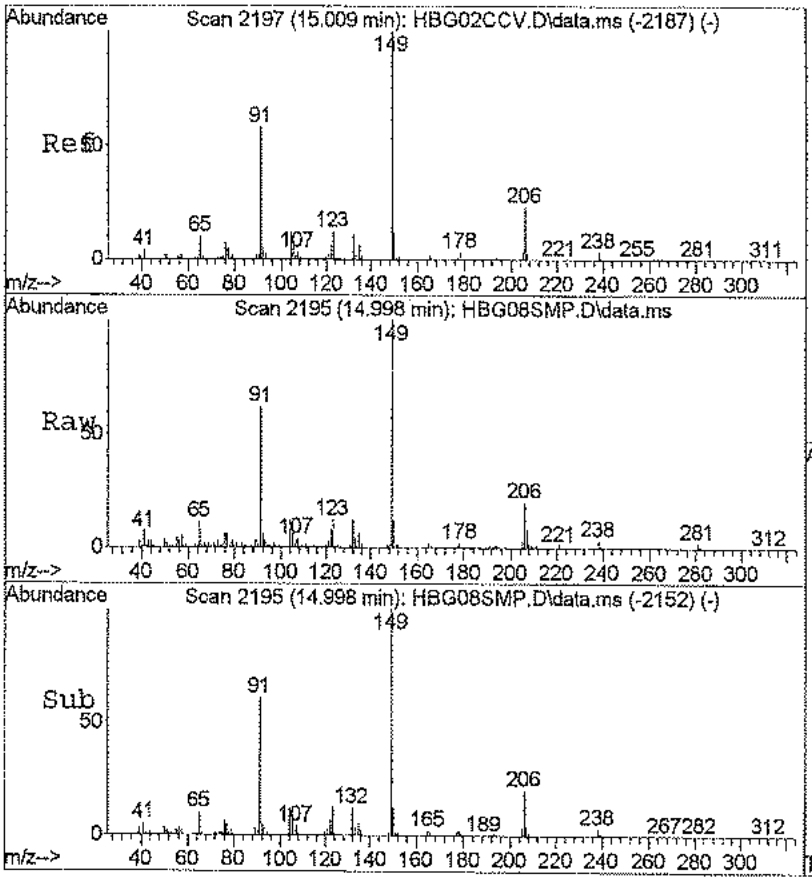


#48
Diethylphthalate
Concen: 5.94 ug/mL
RT: 9.57 min Scan# 1272
Delta R.T. -0.06 min
Lab File: HBG08SMP.D
Acq: 04/16/2015 12:03

Tgt Ion:149 Resp: 474503

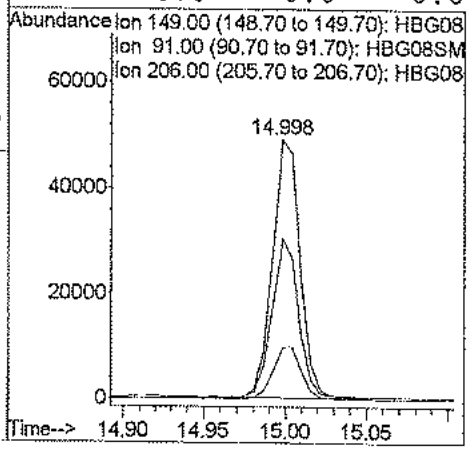
Ion	Ratio	Lower	Upper
149	100		
177	21.8	17.8	26.6
150	11.8	9.5	14.3
0	0.0	0.0	0.0

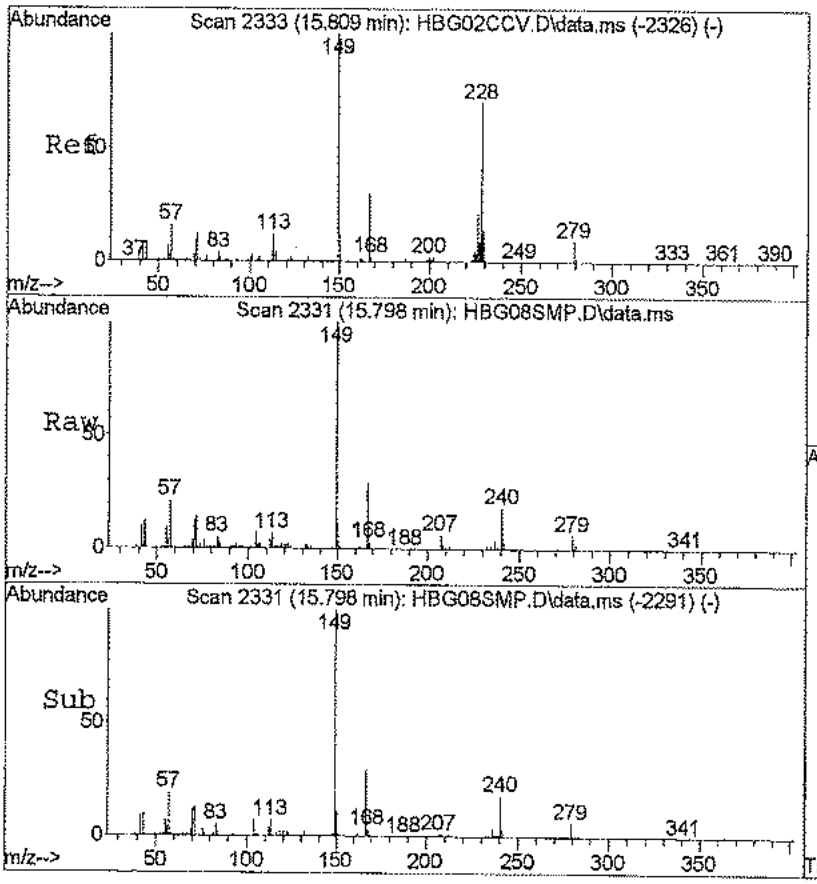




#67
Butylbenzylphthalate
Concen: 1.00 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.05 min
Lab File: HBG08SMP.D
Acq: 04/16/2015 12:03

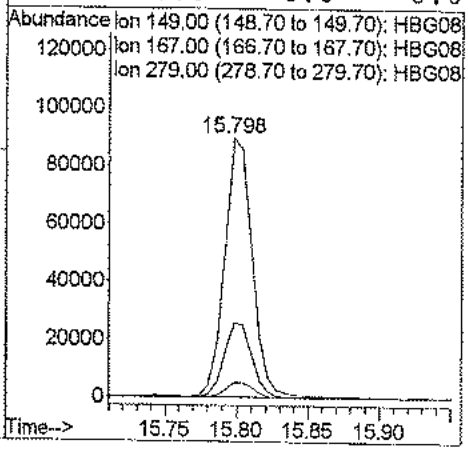
Tgt Ion:149	Resp:	58513	
Ion	Ratio	Lower	Upper
149	100		
91	60.0	49.1	73.7
206	20.8	16.6	24.8
0	0.0	0.0	0.0





#71
Bis(2-ethylhexyl)phthalate
Concen: 1.69 ug/mL
RT: 15.80 min Scan# 2331
Delta R.T. -0.05 min
Lab File: HBG08SMP.D
Acq: 04/16/2015 12:03

Tgt Ion:149	Resp:	118342	
Ion	Ratio	Lower	Upper
149	100		
167	29.8	23.6	35.4
279	6.1	5.0	7.4
0	0.0	0.0	0.0

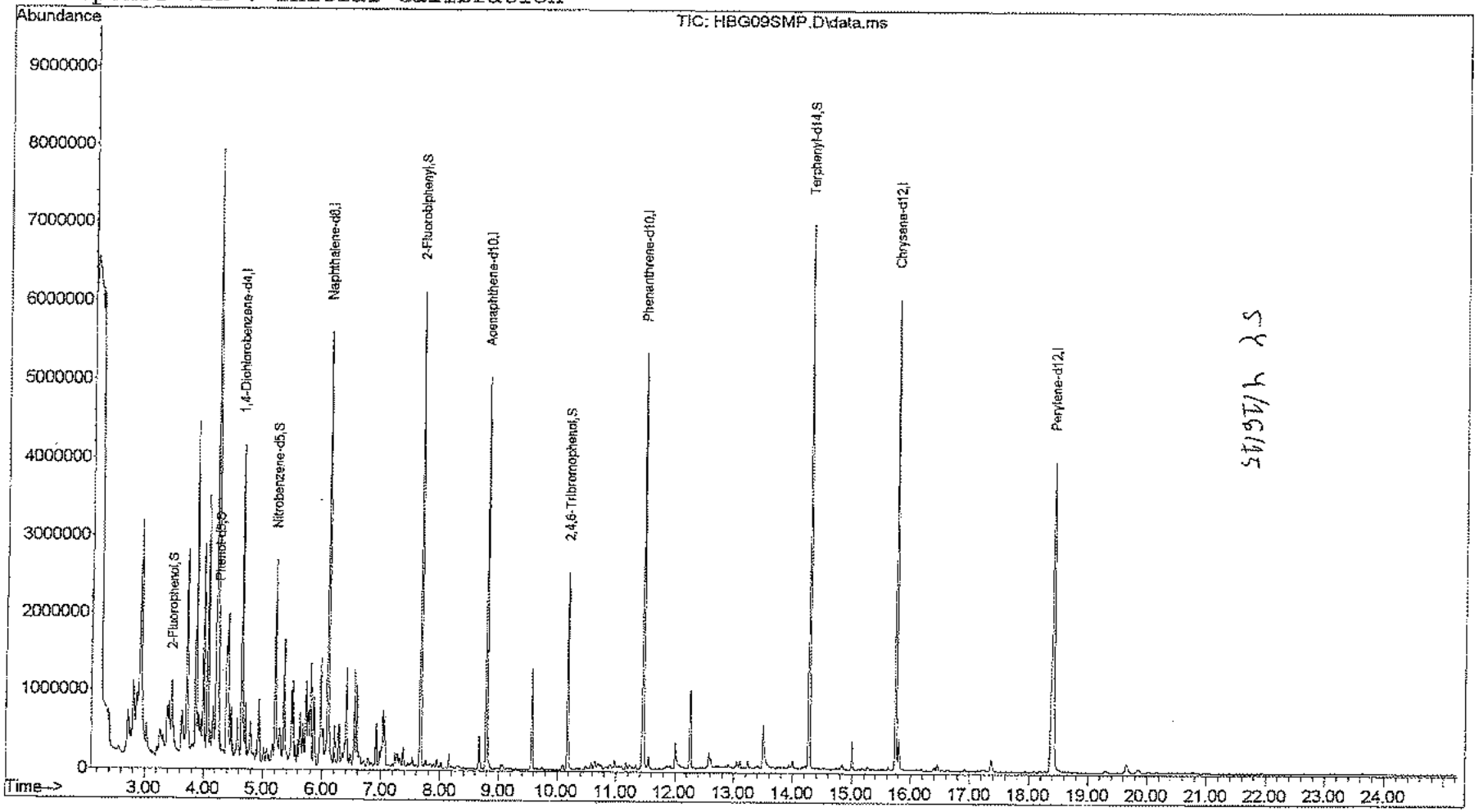


Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG09SMP.D Vial: 9
Acq On : 04/16/2015 12:36 Operator: SY
Sample : 1510351004 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:34:25 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG09SMP.D Vial: 9
Acq On : 04/16/2015 12:36 Operator: SY
Sample : 1510351004 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:34:25 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.64	152	1027906	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	3612335	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	1910653	40.00 ug/mL	
52) Phenanthrene-d10	11.45	188	3412197	40.00 ug/mL	
64) Chrysene-d12	15.75	240	3711187	40.00 ug/mL	
72) Perylene-d12	18.40	264	3978044	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	430477	12.295ug/mL	
4) Phenol-d5	4.25	99	825762	22.213ug/mL	
18) Nitrobenzene-d5	5.21	82	953821	28.728ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3164506	40.939ug/mL	
53) 2,4,6-Tribromophenol	10.17	330	513983	44.327ug/mL	
66) Terphenyl-d14	14.27	244	3409834	38.801ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.68	122	83391	7.839ug/mL	91
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

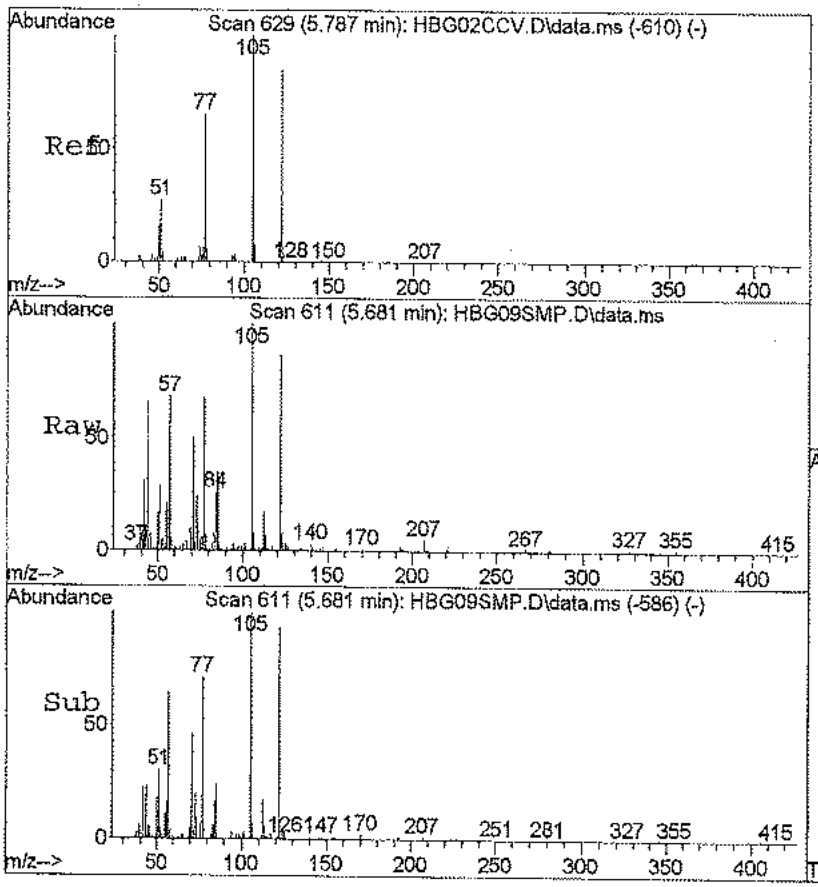
Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG09SMP.D Vial: 9
Acq On : 04/16/2015 12:36 Operator: SY
Sample : 1510351004 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:34:25 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

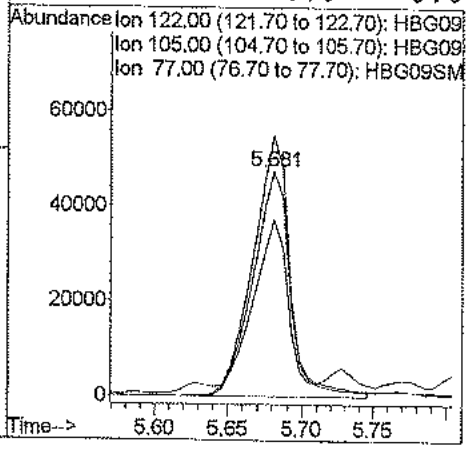
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	0.00	196		Not Detected	
35)	2,4,5-Trichlorophenol	0.00	196		Not Detected	
37)	2-Chloronaphthalene	0.00	162		Not Detected	
38)	2-Nitroaniline	0.00	65		Not Detected	
39)	Dimethylphthalate	0.00	163		Not Detected	
40)	2,6-Dinitrotoluene	0.00	165		Not Detected	
41)	Acenaphthylene	0.00	152		Not Detected	
42)	3-Nitroaniline	0.00	65		Not Detected	
43)	Acenaphthene	0.00	153		Not Detected	
44)	2,4-Dinitrophenol	0.00	184		Not Detected	
45)	4-Nitrophenol	0.00	109		Not Detected	
46)	Dibenzofuran	0.00	168		Not Detected	
47)	2,4-Dinitrotoluene	0.00	165		Not Detected	
48)	Diethylphthalate	9.57	149	740158	9.453ug/mL	99
49)	4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50)	Fluorene	0.00	166		Not Detected	
51)	4-Nitroaniline	0.00	65		Not Detected	
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	0.00	169		Not Detected	
56)	4-bromophenyl phenyl ether	0.00	248		Not Detected	
57)	Hexachlorobenzene	0.00	284		Not Detected	
58)	Pentachlorophenol	0.00	266		Not Detected	
59)	Phenanthrene	0.00	178		Not Detected	
60)	Anthracene	0.00	178		Not Detected	
61)	Carbazole	0.00	167		Not Detected	
62)	Di-n-butylphthalate	12.61	149	88794	0.740ug/mL	98
63)	Fluoranthene	0.00	202		Not Detected	
65)	Pyrene	0.00	202		Not Detected	
67)	Butylbenzylphthalate	15.00	149	111311	1.976ug/mL	98
68)	3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69)	Benzo(a)anthracene	0.00	228		Not Detected	
70)	Chrysene	0.00	228		Not Detected	
71)	Bis(2-ethylhexyl)phthalate	15.80	149	159040	2.374ug/mL	99
73)	Di-n-octylphthalate	0.00	149		Not Detected	
74)	Benzo(b)fluoranthene	0.00	252		Not Detected	
75)	Benzo(k)fluoranthene	0.00	252		Not Detected	
76)	Benzo(a)pyrene	0.00	252		Not Detected	
77)	Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78)	Dibenz(a,h)anthracene	0.00	278		Not Detected	
79)	Benzo(g,h,i)perylene	0.00	276		Not Detected	

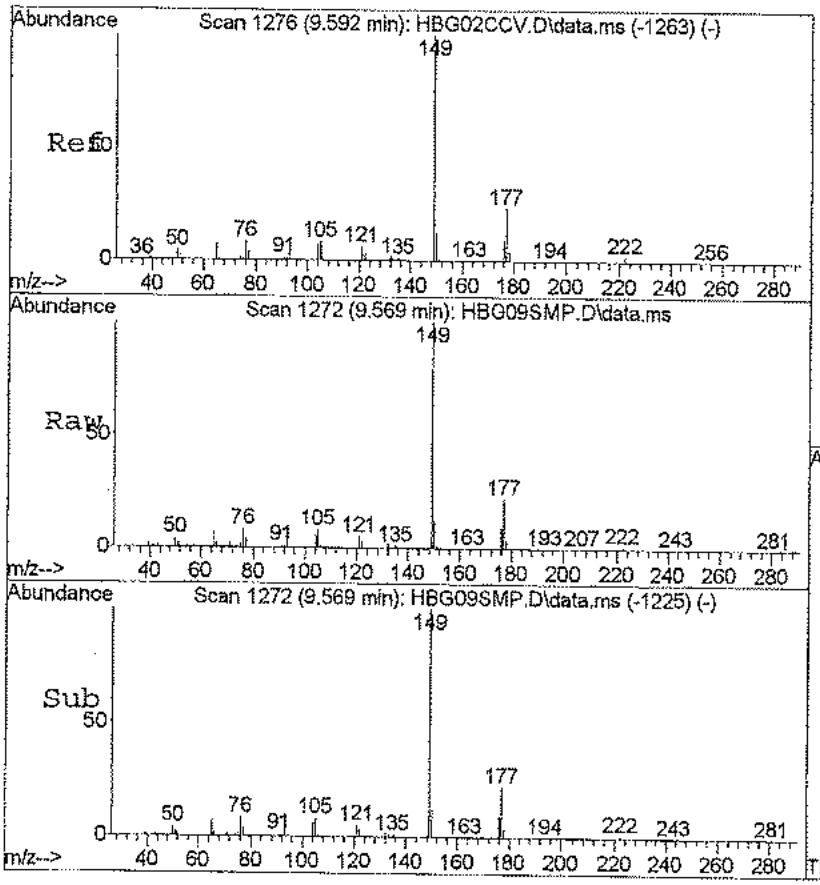
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)



#23
Benzoic Acid
Concen: 7.84 ug/mL
RT: 5.68 min Scan# 611
Delta R.T. -0.11 min
Lab File: HBG09SMP.D
Acq: 04/16/2015 12:36

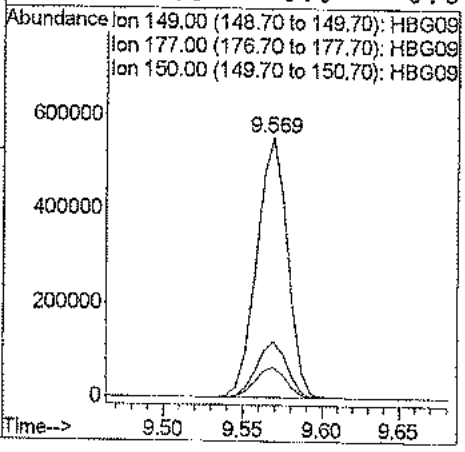
Tgt Ion:122	Resp:	83391	
Ion	Ratio	Lower	Upper
122	100		
105	117.5	82.7	124.1
77	70.2	55.3	82.9
0	0.0	0.0	0.0

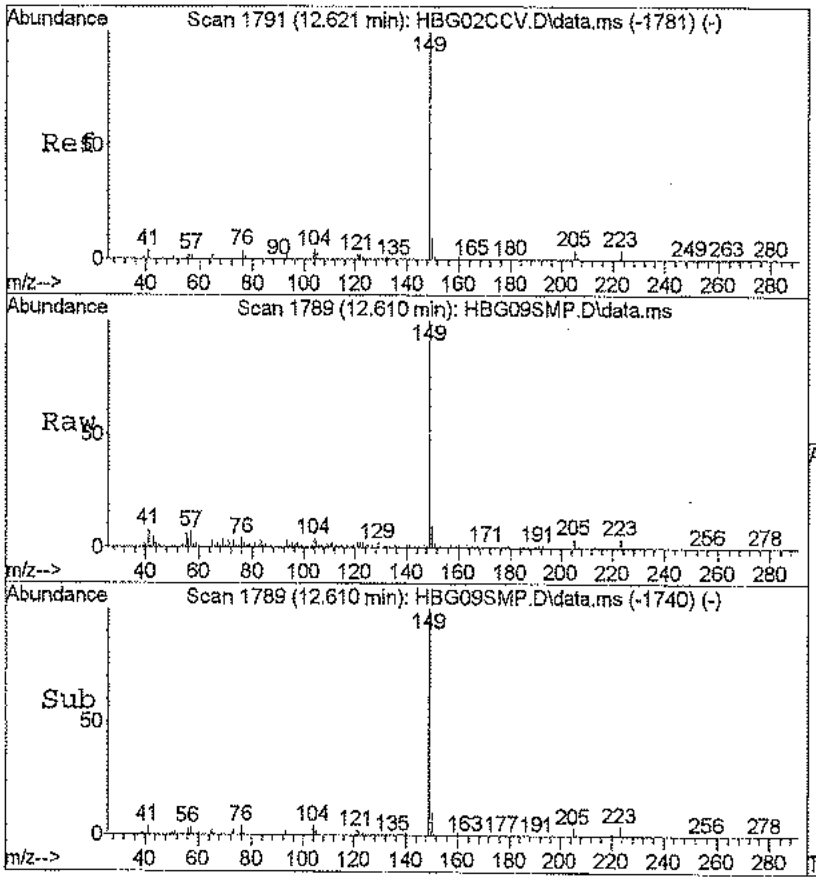




#48
Diethylphthalate
Concen: 9.45 ug/mL
RT: 9.57 min Scan# 1272
Delta R.T. -0.02 min
Lab File: HBG09SMP.D
Acq: 04/16/2015 12:36

Tgt Ion:149	Resp:	740158	
Ion	Ratio	Lower	Upper
149	100		
177	21.5	17.8	26.6
150	11.8	9.5	14.3
0	0.0	0.0	0.0

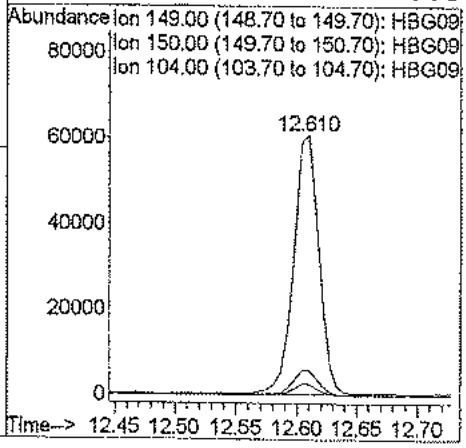


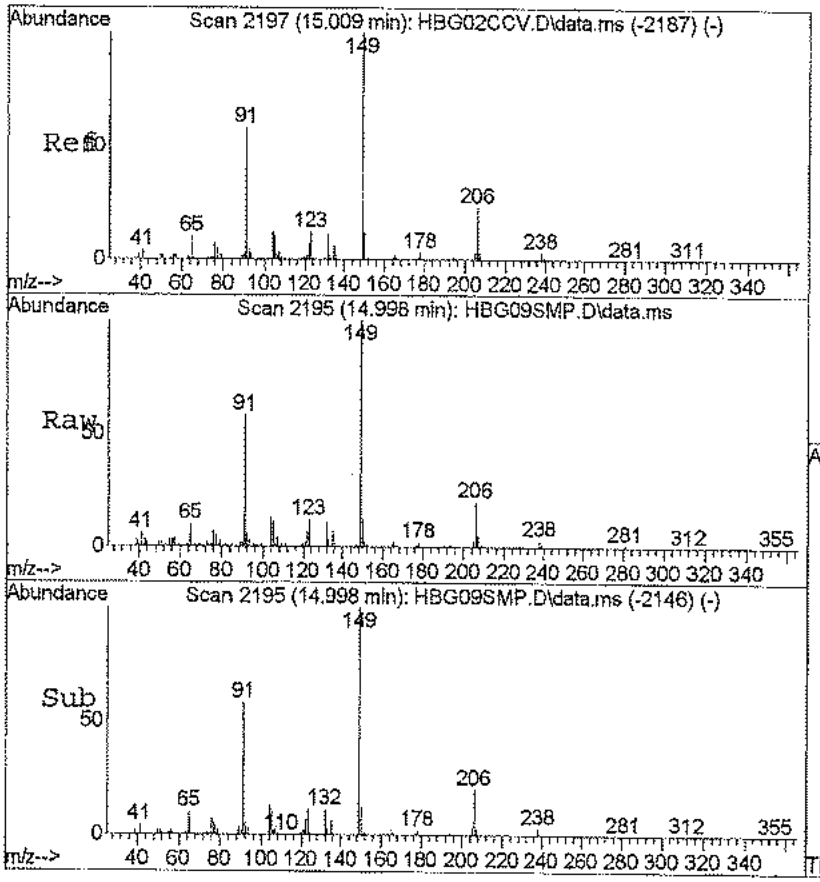


#62
Di-n-butylphthalate
Concen: 0.74 ug/mL
RT: 12.61 min Scan# 1789
Delta R.T. -0.01 min
Lab File: HBG09SMP.D
Acq: 04/16/2015 12:36

Tgt Ion:149 Resp: 88794

Ion	Ratio	Lower	Upper
149	100		
150	10.0	7.4	11.0
104	5.0	3.4	5.2
0	0.0	0.0	0.0

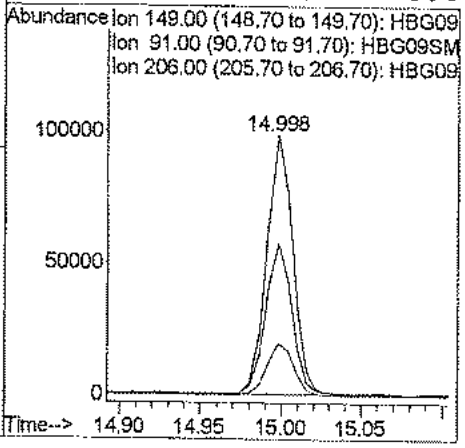


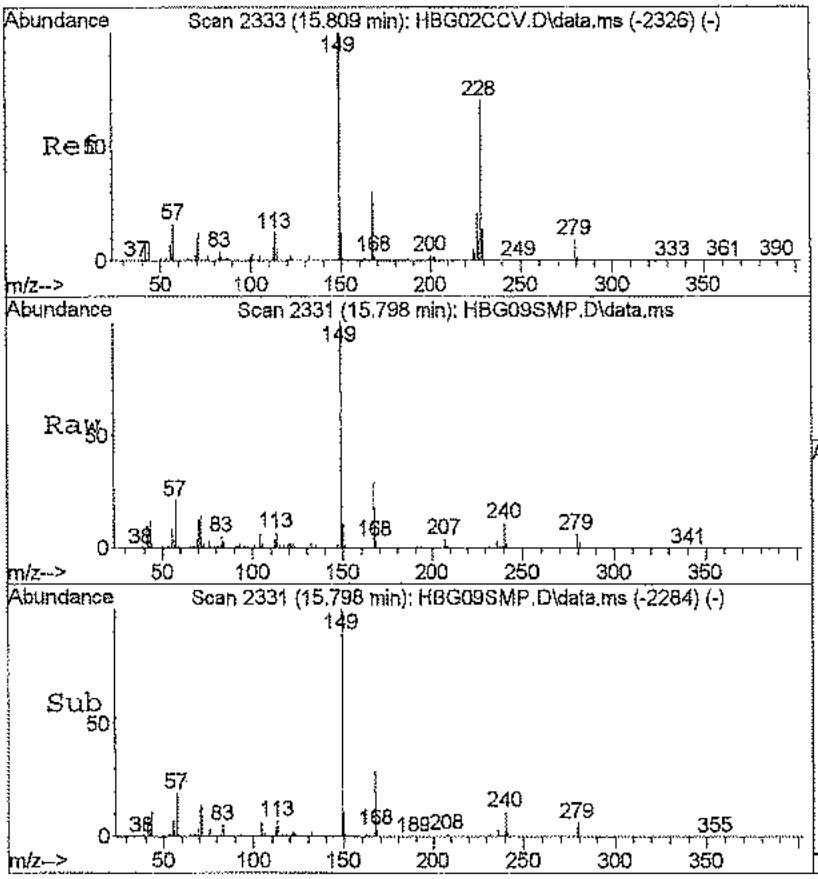


#67
Butylbenzylphthalate
Concen: 1.98 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.01 min
Lab File: HBG09SMP.D
Acq: 04/16/2015 12:36

Tgt Ion:149 Resp: 111311

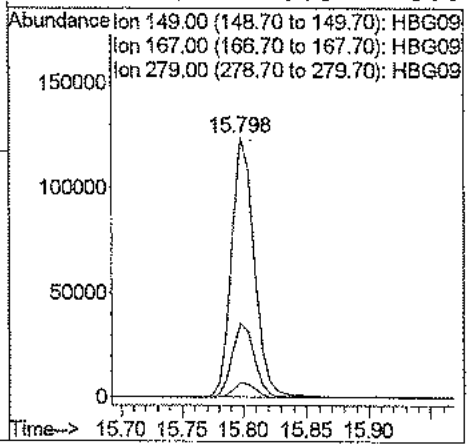
Ion	Ratio	Lower	Upper
149	100		
91	59.0	49.1	73.7
206	20.6	16.6	24.8
0	0.0	0.0	0.0





#71
Bis(2-ethylhexyl)phthalate
Concen: 2.37 ug/mL
RT: 15.80 min Scan# 2331
Delta R.T. -0.01 min
Lab File: HBG09SMP.D
Acq: 04/16/2015 12:36

Tgt Ion:149	Resp:	159040	
Ion	Ratio	Lower	Upper
149	100		
167	29.0	23.6	35.4
279	5.8	5.0	7.4
0	0.0	0.0	0.0

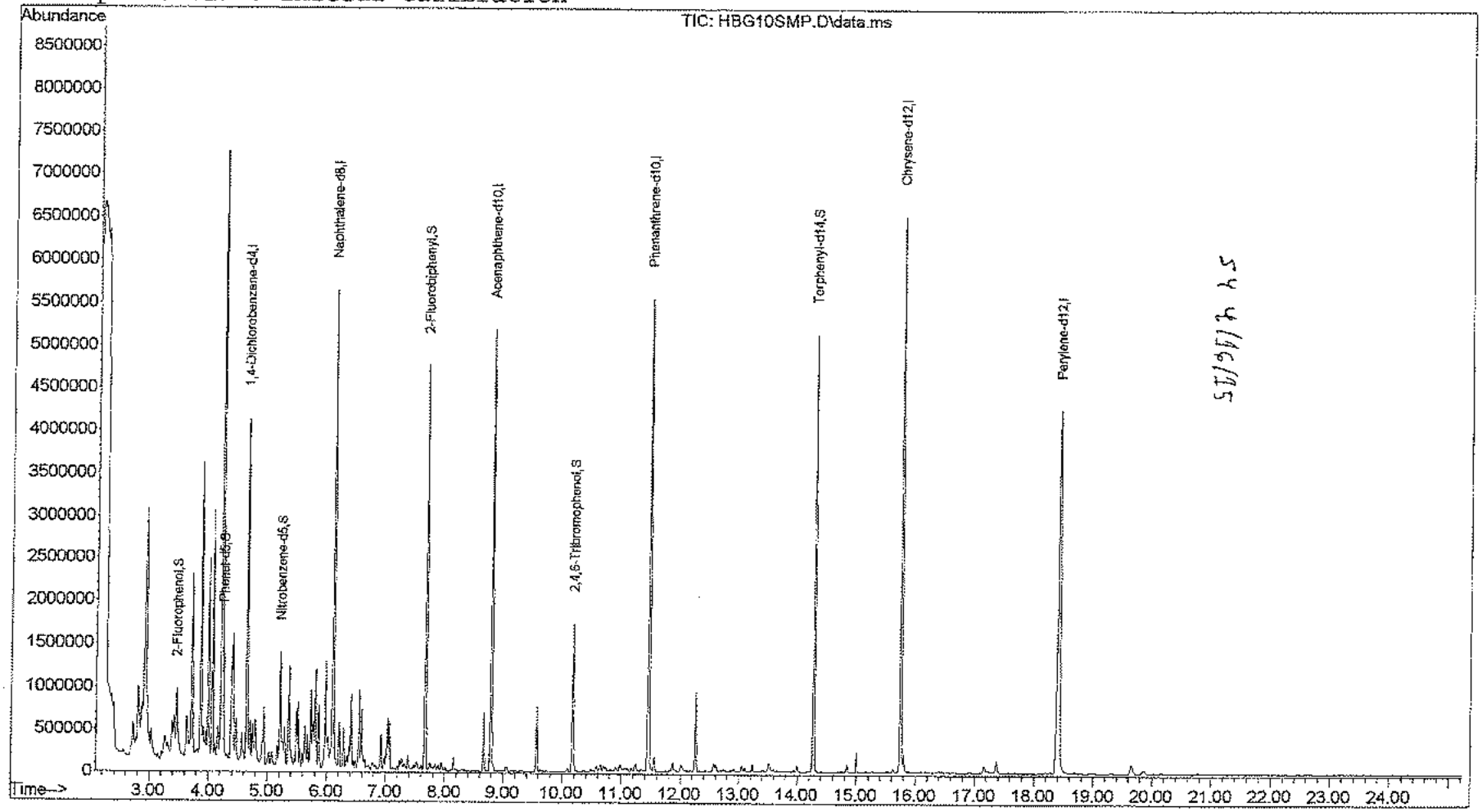


Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG10SMP.D Vial: 10
Acq On : 04/16/2015 13:10 Operator: SY
Sample : 1510351005 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 16 14:35:06 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG10SMP.D Vial: 10
Acq On : 04/16/2015 13:10 Operator: SY
Sample : 1510351005 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:35:06 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.65	152	1043125	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	3669384	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	1943763	40.00 ug/mL	
52) Phenanthrene-d10	11.45	188	3590196	40.00 ug/mL	
64) Chrysene-d12	15.75	240	3941911	40.00 ug/mL	
72) Perylene-d12	18.41	264	4436296	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	410580	11.555ug/mL	
4) Phenol-d5	4.25	99	709505	18.807ug/mL	
18) Nitrobenzene-d5	5.21	82	436993	12.957ug/mL	
36) 2-Fluorobiphenyl	7.67	172	2327791	29.601ug/mL	
53) 2,4,6-Tribromophenol	10.17	330	338700	27.762ug/mL	
66) Terphenyl-d14	14.27	244	2422496	25.953ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.67	122	47968	6.019ug/mL	87
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

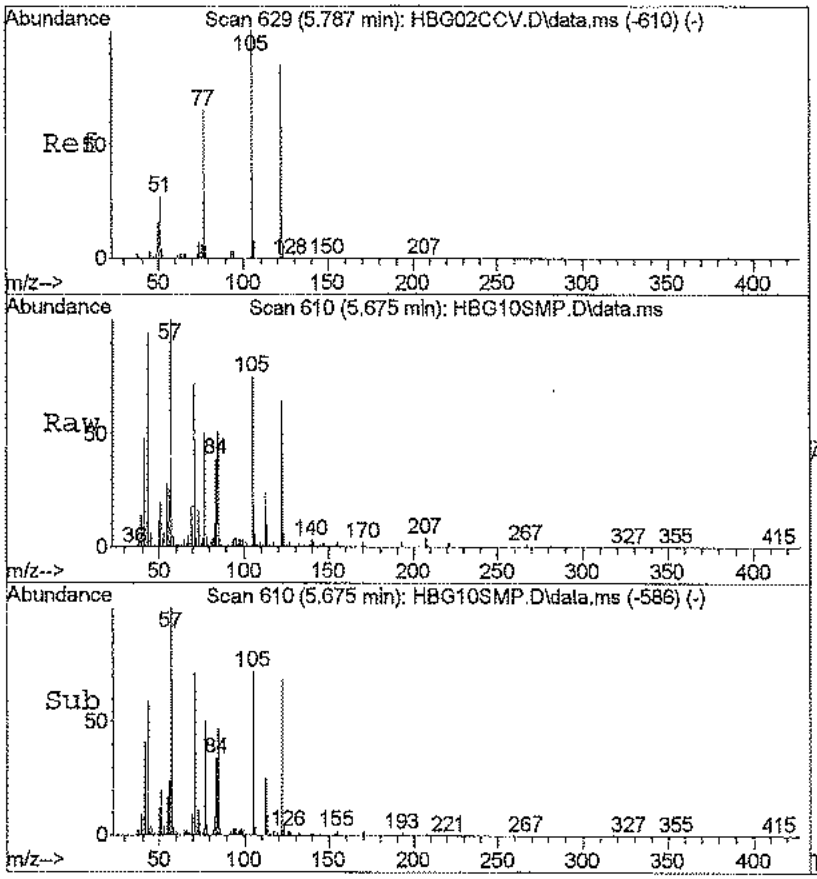
Quantitation Report

Data File : C:\msdchem\1\data\20...15\16APR15\HBG10SMP.D Vial: 10
Acq On : 04/16/2015 13:10 Operator: SY
Sample : 1510351005 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 16 14:35:06 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	9.57	149	437553	5.493ug/mL	99
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	15.00	149	75891	1.268ug/mL	98
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	15.80	149	71909	1.010ug/mL	99
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

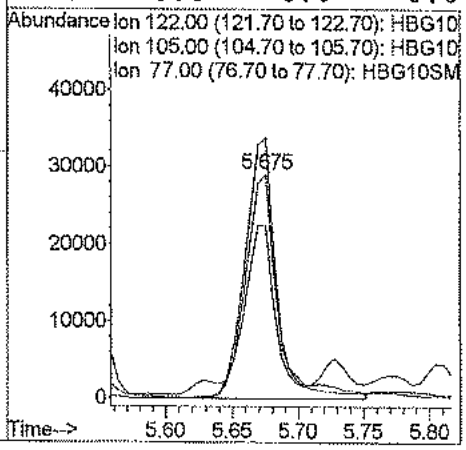
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

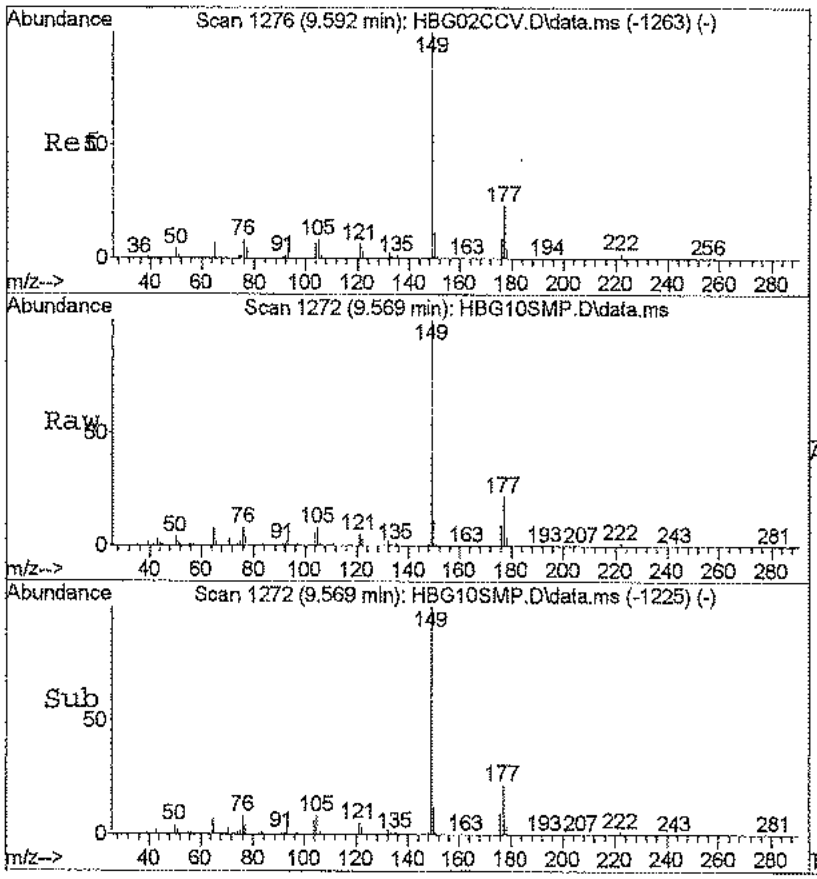


#23
Benzoic Acid
Concen: 6.02 ug/mL
RT: 5.67 min Scan# 610
Delta R.T. -0.11 min
Lab File: HBG10SMP.D
Acq: 04/16/2015 13:10

Tgt Ion:122 Resp: 47968

Ion	Ratio	Lower	Upper
122	100		
105	119.5	82.7	124.1
77	77.3	55.3	82.9
0	0.0	0.0	0.0

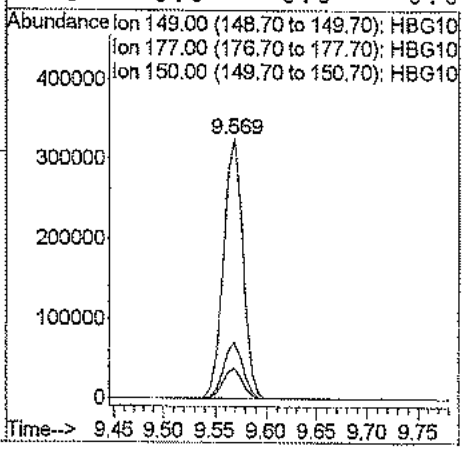


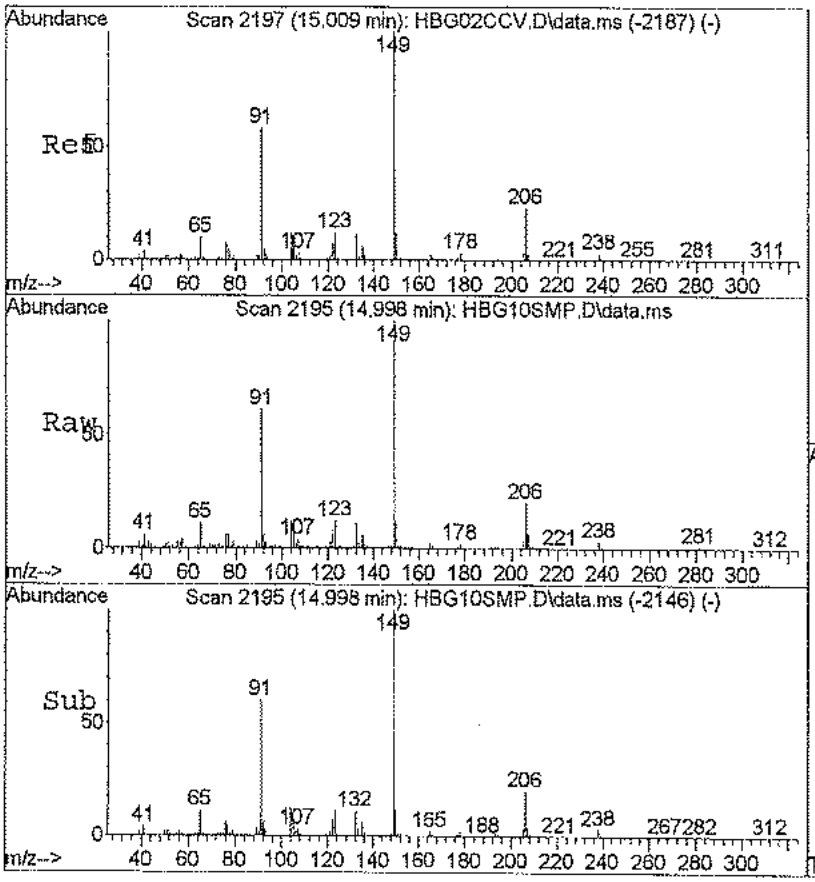


#48
Diethylphthalate
Concen: 5.49 ug/mL
RT: 9.57 min Scan# 1272
Delta R.T. -0.02 min
Lab File: HBG10SMP.D
Acq: 04/16/2015 13:10

Tgt Ion:149 Resp: 437553

Ion	Ratio	Lower	Upper
149	100		
177	21.4	17.8	26.6
150	11.8	9.5	14.3
0	0.0	0.0	0.0

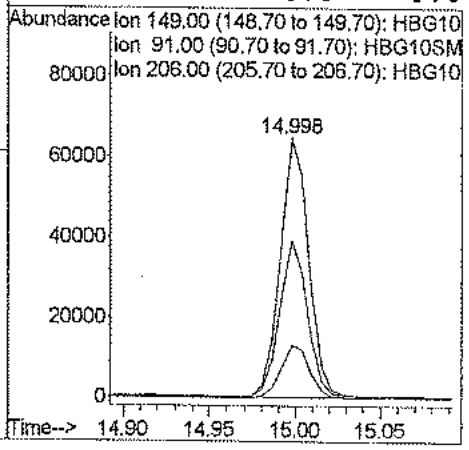


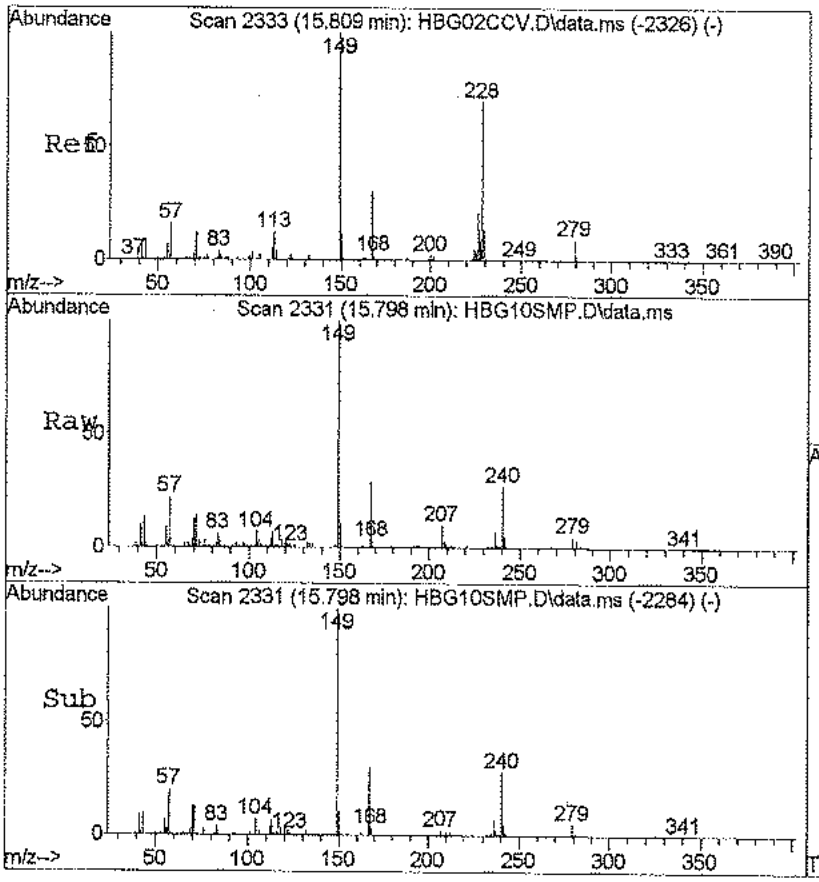


#67
Butylbenzylphthalate
Concen: 1.27 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.01 min
Lab File: HBG10SMP.D
Acq: 04/16/2015 13:10

Tgt Ion:149 Resp: 75891

Ion	Ratio	Lower	Upper
149	100		
91	59.4	49.1	73.7
206	20.8	16.6	24.8
0	0.0	0.0	0.0

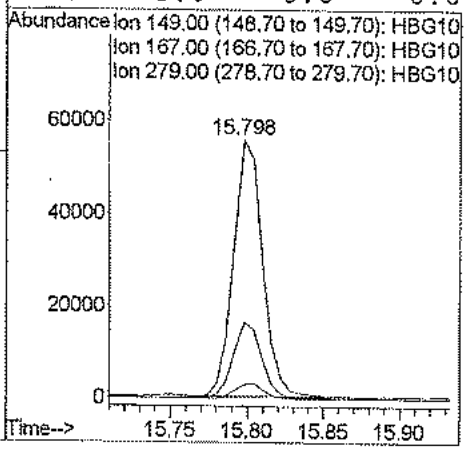




#71
Bis(2-ethylhexyl)phthalate
Concen: 1.01 ug/mL
RT: 15.80 min Scan# 2331
Delta R.T. -0.01 min
Lab File: HBG10SMP.D
Acq: 04/16/2015 13:10

Tgt Ion:149 Resp: 71909

Ion	Ratio	Lower	Upper
149	100		
167	29.9	23.6	35.4
279	5.8	5.0	7.4
0	0.0	0.0	0.0



Response Factor Report 5975-H

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response Via : Initial Calibration

H8270D15A1_LOW LEVEL.M
Form 6 Equivalent

Calibration Files
5 =HAA07S5.D 20 =HAA06S20.D 35 =HAA05S35.D 50 =HAA04S50.D 65 =HAA03S65.D 80 =HAA02S80.D
1 =HAA08S1.D

		Compound	5	20	35	50	65	80	1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)		Pyridine	1.187	1.371	1.236	1.307	1.282	1.439	1.235	1.294	6.74
3)	S	2-Fluorophenol	1.210	1.428	1.320	1.366	1.343	1.508	1.166	1.334	8.86
4)	S	Phenol-d5	1.351	1.536	1.392	1.448	1.407	1.546	1.329	1.430	5.95
5)	MC	Phenol	1.446	1.644	1.478	1.542	1.498	1.647	1.408	1.523	6.14
6)		Bis(2-chloroet...	1.208	1.460	1.277	1.530	1.441	1.455	1.349	1.389	8.28
7)	M	2-Chlorophenol	1.409	1.627	1.499	1.536	1.511	1.656	1.355	1.513	7.14
8)		1,3-Dichlorobe...	1.649	1.884	1.740	1.771	1.731	1.879	1.643	1.757	5.54
9)	MC	1,4-dichlorobe...	1.669	1.897	1.688	1.716	1.683	1.843	1.691	1.741	5.19
10)		Benzyl alcohol	0.798	0.928	0.846	0.877	0.855	0.936	0.762	0.857	7.43
11)		1,2-dichlorobe...	1.578	1.762	1.597	1.636	1.578	1.712	1.607	1.639	4.37
12)		2-Methylphenol	0.974	1.108	0.999	1.015	0.983	1.063	0.966	1.015	5.14
13)		Bis(2-chlorois...	1.255	1.365	1.196	1.175	1.125	1.223	1.300	1.234	6.52
14)		4-methylphenol	1.378	1.602	1.446	1.492	1.440	1.591	1.375	1.475	6.25
15)	MP	N-Nitrosodi-n-...	0.652	0.766	0.670	0.681	0.656	0.727	0.676	0.690	6.05
16)		Hexachloroethane	0.568	0.663	0.601	0.619	0.604	0.660	0.559	0.611	6.64
17)	I	Naphthalene-d8	----------ISTD----------								
18)	S	Nitrobenzene-d5	0.363	0.394	0.364	0.366	0.349	0.369	0.331	0.362	5.31
19)		Nitrobenzene	0.355	0.376	0.343	0.341	0.323	0.339	0.335	0.344	4.91
20)		Isophorone	0.630	0.671	0.610	0.607	0.589	0.629	0.641	0.625	4.26
21)	C	2-Nitrophenol	0.232	0.274	0.219	0.218	0.206	0.216	0.162	0.218	15.22
22)		2,4-Dimethylph...	0.334	0.339	0.303	0.297	0.283	0.293	0.354	0.315	8.68
23)		Benzoic Acid	0.088	0.185	0.191	0.204	0.201	0.215		0.181	25.67
24)		Bis(2-chloroet...	0.397	0.410	0.372	0.367	0.348	0.362	0.399	0.379	5.97
25)	C	2,4-Dichloroph...	0.341	0.380	0.355	0.358	0.343	0.356	0.309	0.349	6.20
26)	M	1,2,4-Trichlor...	0.413	0.433	0.401	0.399	0.379	0.397	0.405	0.404	4.05
27)		Naphthalene	1.170	1.240	1.105	1.068	1.001	1.027	1.164	1.111	7.70
28)		4-Chloroaniline	0.419	0.414	0.377	0.358	0.359	0.378	0.412	0.388	6.75
29)	C	Hexachlorobuta...	0.238	0.256	0.235	0.234	0.224	0.232	0.231	0.235	4.32

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

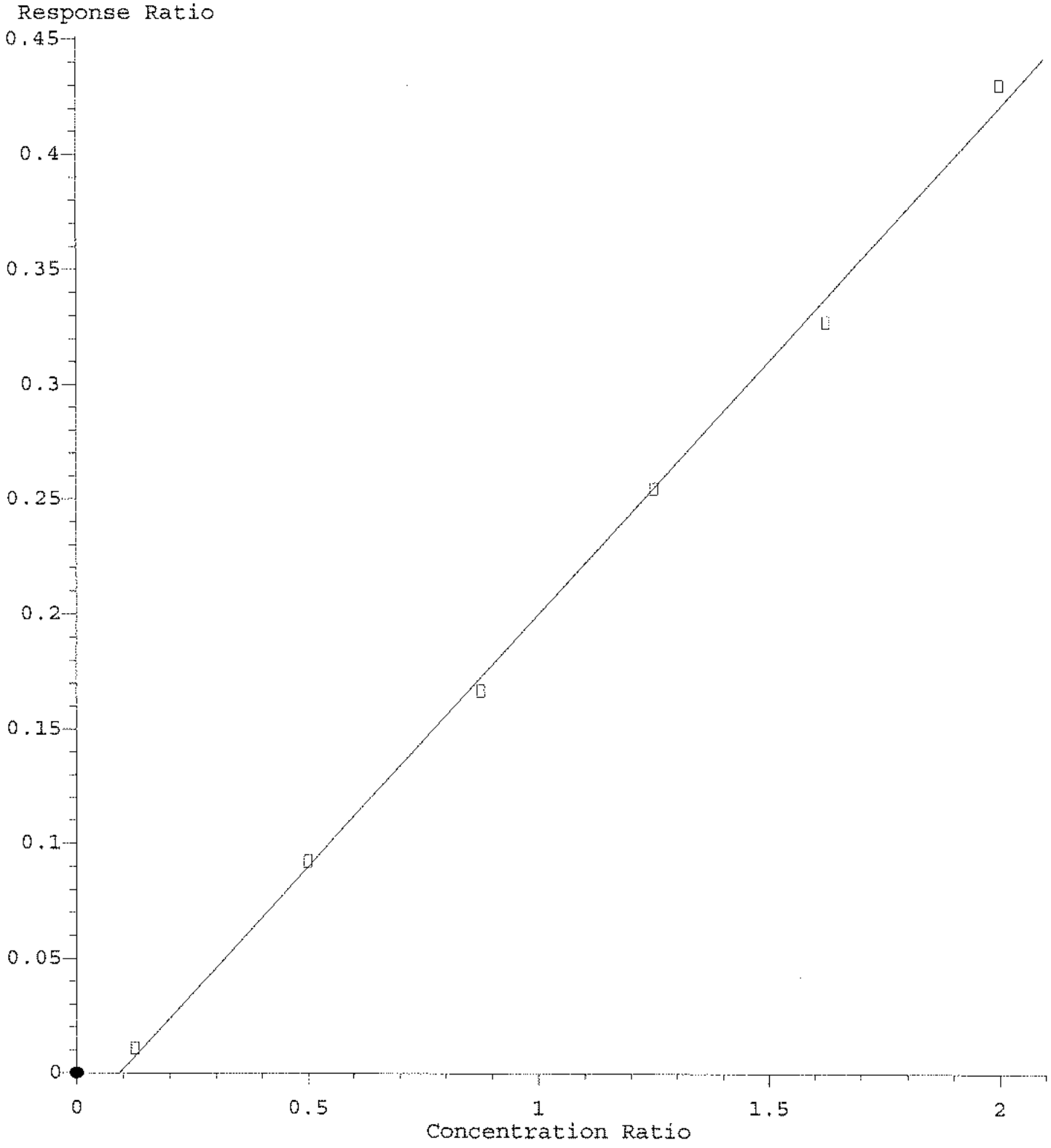
30)	MC	4-Chloro-3-Met...	0.300	0.338	0.310	0.314	0.303	0.319	0.280	0.309	5.85
31)		2-Methylnaphth...	0.847	0.895	0.800	0.772	0.723	0.740	0.833	0.801	7.67
32)	I	Acenaphthene-d10	----------ISTD----------								
33)	P	Hexachlorocycl...	0.423	0.531	0.529	0.536	0.511	0.549	0.296	0.482	19.12
34)	C	2,4,6-Trichlor...	0.496	0.561	0.540	0.538	0.520	0.546	0.440	0.520	7.88
35)		2,4,5-Trichlor...	0.543	0.612	0.579	0.575	0.539	0.577	0.480	0.558	7.52
36)	S	2-Fluorobiphenyl	1.742	1.786	1.648	1.573	1.449	1.510	1.788	1.643	8.30
37)		2-Chloronaphth...	1.529	1.603	1.492	1.448	1.356	1.417	1.553	1.485	5.71
38)		2-Nitroaniline	0.335	0.377	0.362	0.357	0.337	0.366	0.258	0.342	11.70
39)		Dimethylphthalate	1.711	1.802	1.719	1.666	1.598	1.692	1.747	1.705	3.75
40)		2,6-Dinitrotol...	0.363	0.418	0.400	0.391	0.380	0.404	0.275	0.376	12.71
41)		Acenaphthylene	2.503	2.591	2.379	2.281	2.131	2.215	2.494	2.371	7.12
42)		3-Nitroaniline	0.360	0.294	0.283	0.285	0.297	0.324	0.298	0.306	8.94
43)	MC	Acenaphthene	1.514	1.536	1.418	1.357	1.257	1.306	1.583	1.424	8.72
44)	P	2,4-Dinitrophenol	0.103	0.198	0.217	0.234	0.232	0.253	0.034	0.182	44.94
45)	MP	4-Nitrophenol	0.154	0.187	0.185	0.185	0.180	0.194	0.101	0.169	19.34
46)		Dibenzofuran	2.166	2.237	2.056	1.973	1.826	1.872	2.264	2.056	8.46
47)	M	2,4-Dinitrotol...	0.470	0.543	0.521	0.509	0.486	0.504	0.346	0.483	13.42
48)		Diethylphthalate	1.687	1.771	1.658	1.612	1.516	1.591	1.682	1.645	4.96
49)		4-chlorophenyl...	0.857	0.873	0.793	0.737	0.678	0.688	0.903	0.790	11.54
50)		Fluorene	1.683	1.712	1.538	1.423	1.303	1.335	1.726	1.531	11.81
51)		4-Nitroaniline	0.289	0.220	0.193	0.171	0.170	0.175	0.269	0.212	23.14
52)	I	Phenanthrene-d10	----------ISTD----------								
53)	S	2,4,6-Tribromo...	0.123	0.141	0.138	0.137	0.133	0.143	0.104	0.131	10.30
54)		4,6-Dinitro-2-...		0.164	0.170	0.174	0.170	0.182	0.046	0.151	34.30
55)	C	N-Nitrosodiphe...	0.612	0.619	0.571	0.538	0.505	0.535	0.634	0.573	8.61
56)		4-bromophenyl ...	0.291	0.307	0.290	0.280	0.273	0.284	0.298	0.289	3.94
57)		Hexachlorobenzene	0.317	0.341	0.318	0.313	0.302	0.321	0.341	0.322	4.49
58)	MC	Pentachlorophenol	0.165	0.217	0.215	0.215	0.211	0.225	0.107	0.193	22.26
59)		Phenanthrene	1.344	1.392	1.257	1.171	1.109	1.138	1.463	1.268	10.71
60)		Anthracene	1.342	1.393	1.258	1.202	1.117	1.159	1.431	1.272	9.46
61)		Carbazole	1.148	0.868	0.705	0.702	0.743		1.204	0.895	25.33
62)		Di-n-butylphth...	1.517	1.576	1.420	1.350	1.268	1.309	1.465	1.415	7.95
63)	C	Fluoranthene	1.481	1.518	1.368	1.294	1.206	1.254	1.493	1.373	9.17
64)	I	Chrysene-d12	----------ISTD----------								
65)	M	Pyrene	1.406	1.524	1.397	1.320	1.245	1.353	1.427	1.382	6.36
66)	S	Terphenyl-d14	0.948	1.006	0.966	0.921	0.882	0.959	0.959	0.949	4.09

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

67)		Butylbenzylpht...	0.575	0.658	0.625	0.595	0.568	0.623	0.485	0.590	9.43
68)		3,3'-Dichlorob...	0.238	0.223	0.236	0.238	0.240	0.212	0.367	0.251	20.90
69)		Benzo(a)anthra...	1.276	1.379	1.308	1.270	1.215	1.341	1.410	1.314	5.14
70)		Chrysene	1.164	1.213	1.082	0.987	0.917	0.961	1.263	1.084	12.36
71)		Bis(2-ethylhex...	0.771	0.855	0.754	0.678	0.625	0.650	0.676	0.716	11.35
72)	I	Perylene-d12	----------ISTD----------								
73)	C	Di-n-octylphth...	1.093	1.323	1.284	1.216	1.159	1.235	0.844	1.165	13.80
74)		Benzo(b)fluora...	1.070	1.198	1.171	1.152	1.116	1.271	1.025	1.143	7.18
75)		Benzo(k)fluora...	1.045	1.150	1.094	1.016	0.982	1.021	1.086	1.056	5.40
76)	C	Benzo(a)pyrene	1.000	1.122	1.095	1.056	1.026	1.125	0.953	1.054	6.14
77)		Indeno(1,2,3-c...	0.863	1.016	1.020	1.014	1.001	1.127	0.762	0.972	12.38
78)		Dibenz(a,h)ant...	0.861	1.042	1.033	1.012	0.989	1.086	0.772	0.971	11.57
79)		Benzo(g,h,i)pe...	0.925	1.074	1.049	1.016	1.004	1.090	0.876	1.005	7.82

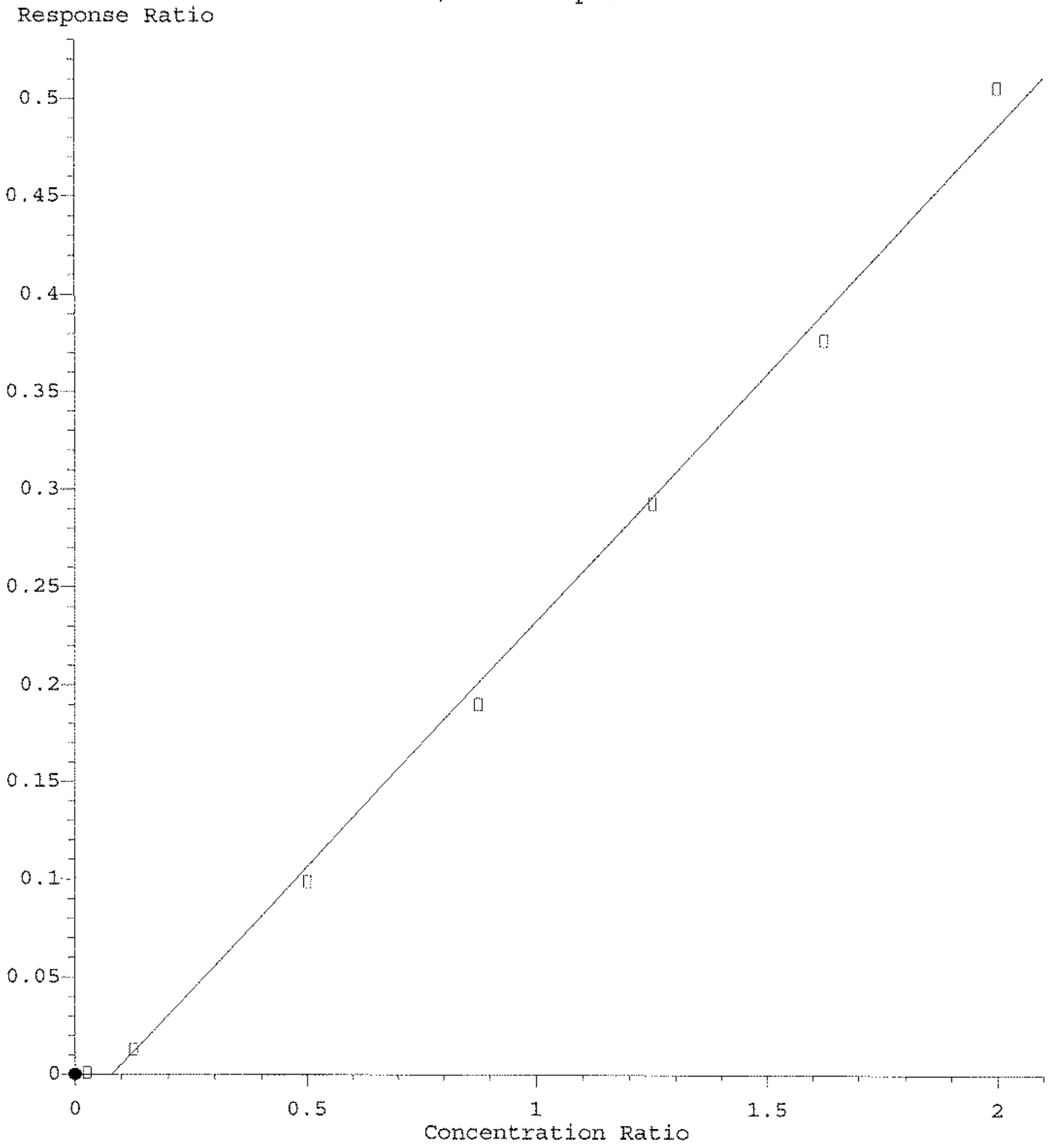
(#) = Out of Range

Benzoic Acid



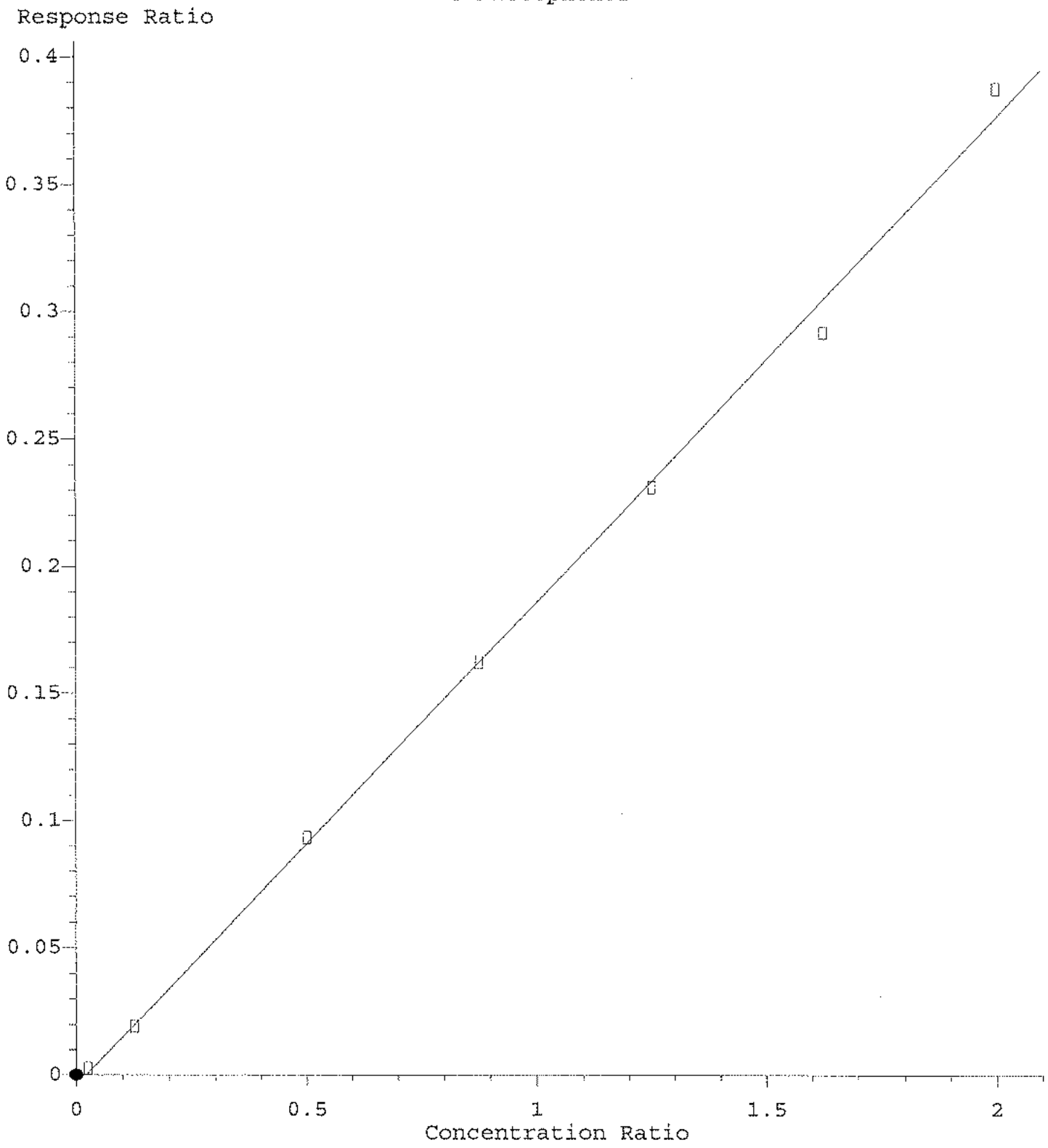
Response = 2.20e-001 * Amt - 2.00e-002
Coef of Det (r^2) = 0.998 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

2,4-Dinitrophenol

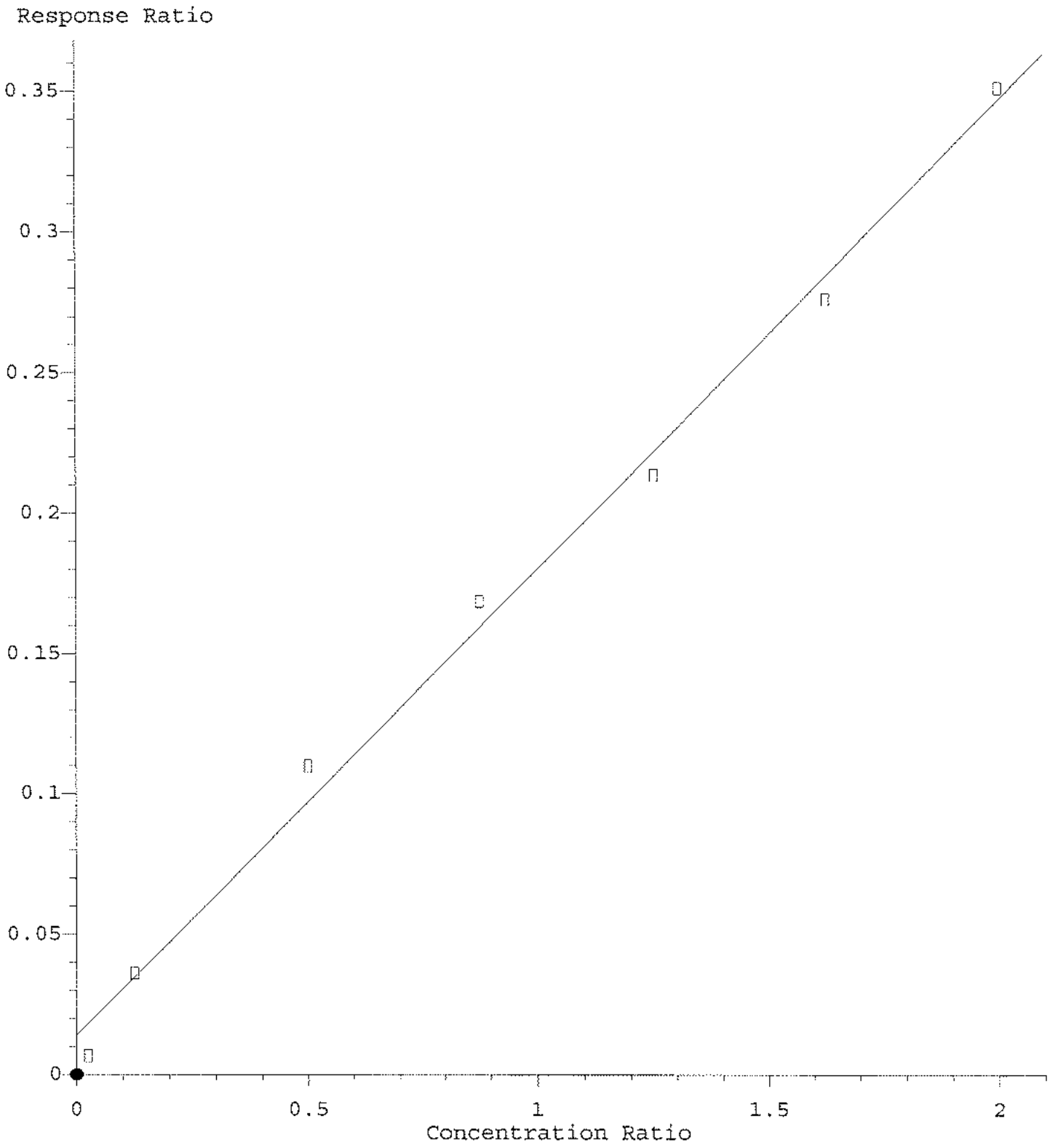


Response = 2.53e-001 * Amt - 2.01e-002
Coef of Det (r^2) = 0.995 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

4-Nitrophenol

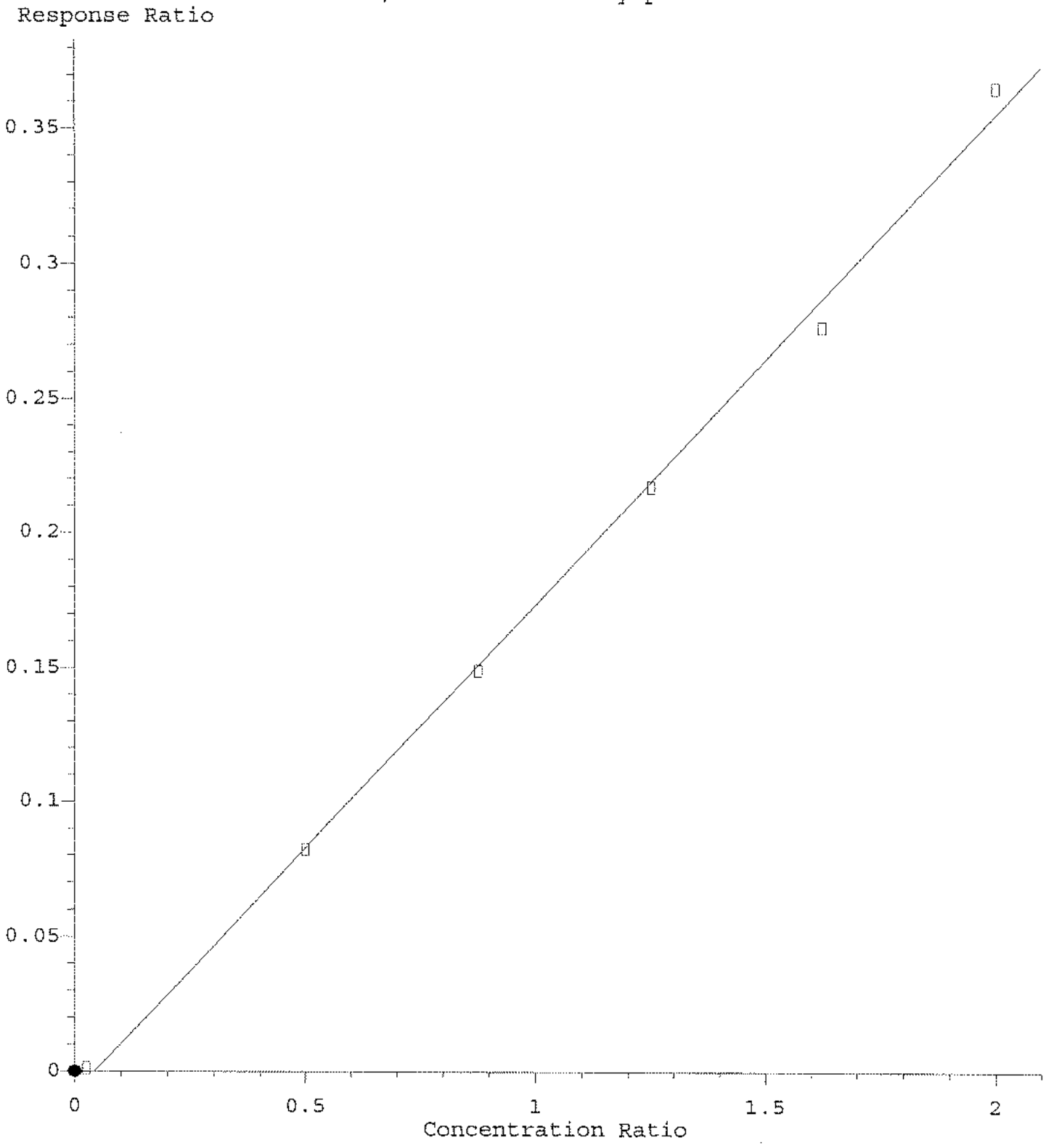


Response = 1.90e-001 * Amt - 4.07e-003
Coef of Det (r^2) = 0.997 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

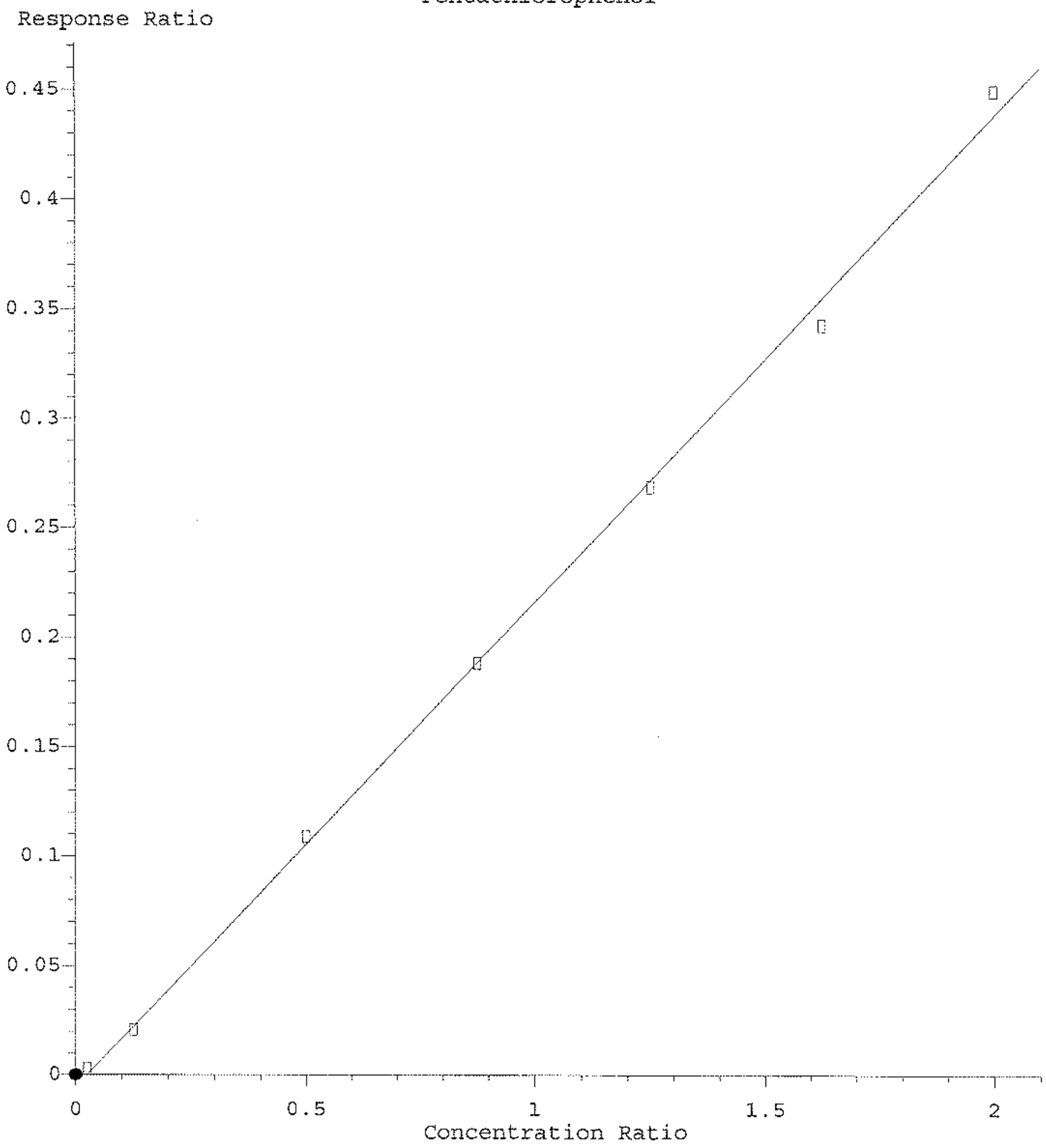


Response = 1.66e-001 * Amt + 1.41e-002
Coef of Det (r^2) = 0.994 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

4,6-Dinitro-2-methylphenol

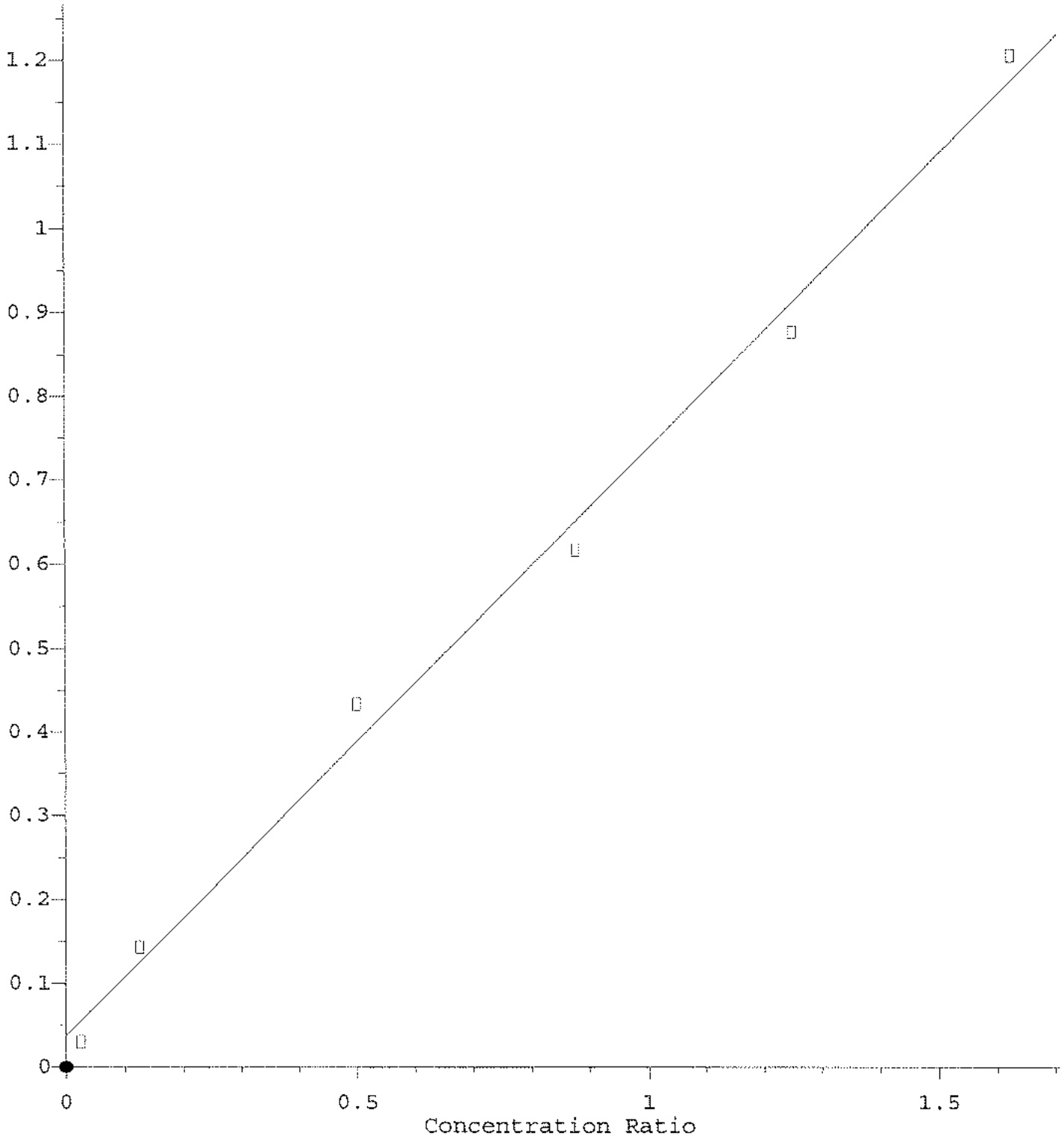


Response = 1.81e-001 * Amt - 7.56e-003
Coef of Det (r^2) = 0.997 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015



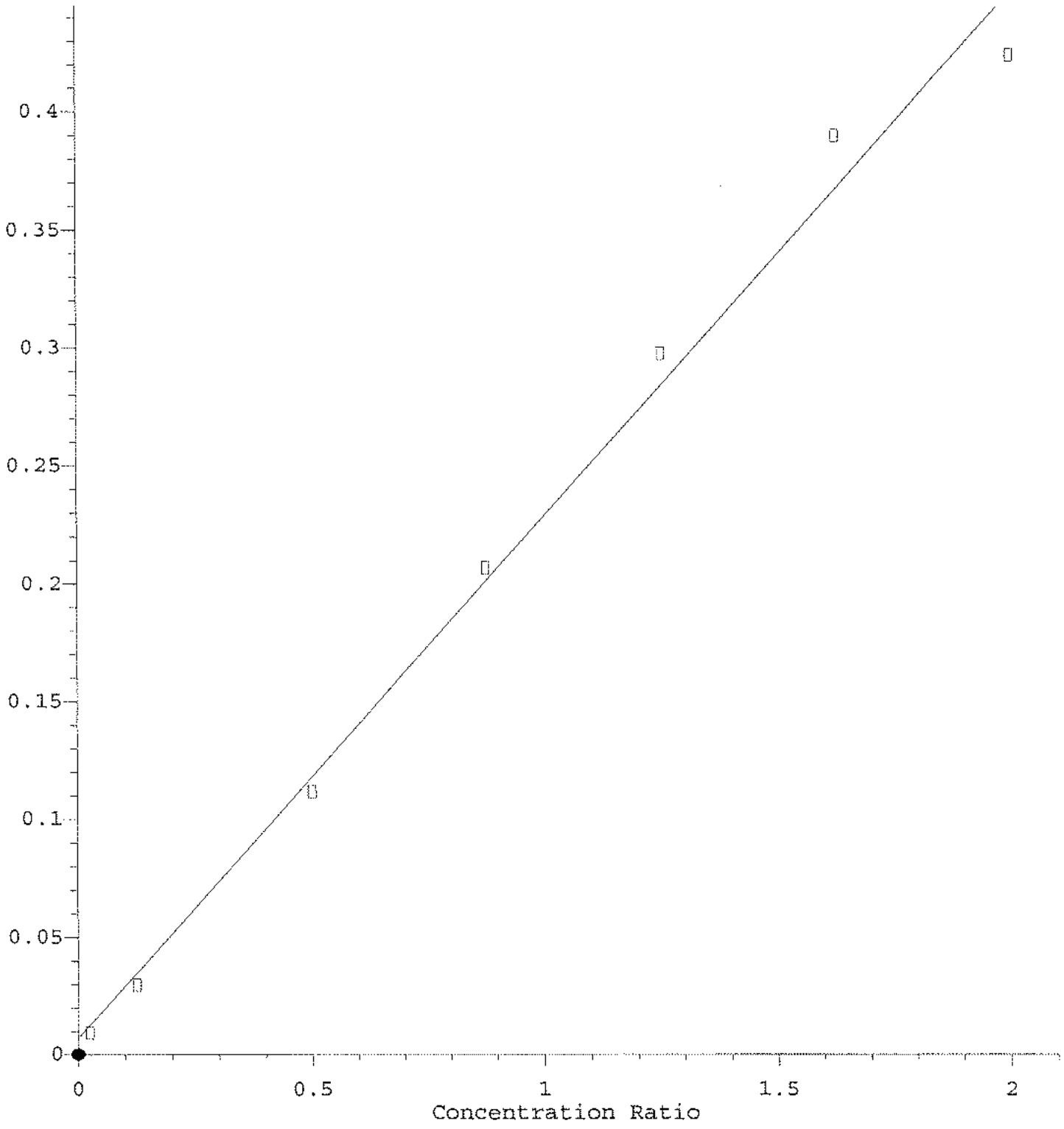
Response = 2.22e-001 * Amt - 5.50e-003
Coef of Det (r^2) = 0.998 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

Carbazole



Response = 7.01e-001 * Amt + 3.77e-002
Coef of Det (r^2) = 0.994 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

3,3'-Dichlorobenzidine



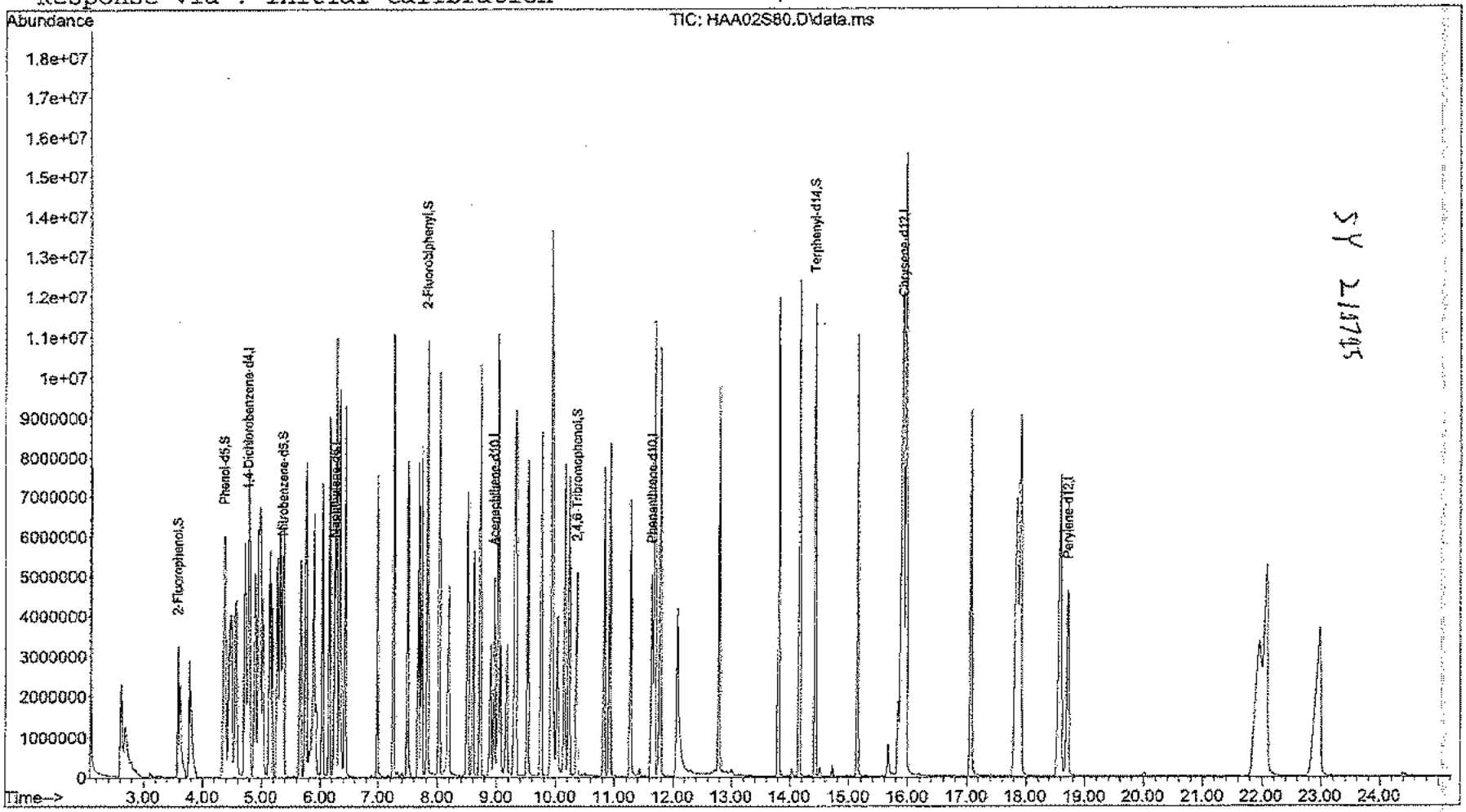
Response = 2.22e-001 * Amt + 6.73e-003
Coef of Det (r^2) = 0.991 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA02S80.D Vial: 2
Acq On : 02/16/2015 11:36 Operator: JH
Sample : 8270 S80 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 11:04:48 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA02S80.D Vial: 2
Acq On : 02/16/2015 11:36 Operator: JH
Sample : 8270 S80 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:04:48 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1067204	40.00 ug/mL
17) Naphthalene-d8	6.25	136	3880868	40.00 ug/mL
32) Acenaphthene-d10	8.96	164	1999487	40.00 ug/mL
52) Phenanthrene-d10	11.63	188	3799947	40.00 ug/mL
64) Chrysene-d12	15.93	240	3573207	40.00 ug/mL
72) Perylene-d12	18.71	264	4423999	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.58	112	3218390	95.767ug/mL m
4) Phenol-d5	4.37	99	3300362	94.826ug/mL
18) Nitrobenzene-d5	5.35	82	2865198	97.122ug/mL
36) 2-Fluorobiphenyl	7.83	172	6039351	83.788ug/mL
53) 2,4,6-Tribromophenol	10.36	330	1089809	94.449ug/mL
66) Terphenyl-d14	14.43	244	6853832	87.611ug/mL
Target Compounds				Qvalue
2) Pyridine	2.62	79	3071603	89.628ug/mL m 38
5) Phenol	4.38	94	3515796	96.808ug/mL 99
6) Bis(2-chloroethyl)ether	4.47	93	3106461	99.088ug/mL m 56
7) 2-Chlorophenol	4.56	128	3534007	94.409ug/mL 98
8) 1,3-Dichlorobenzene	4.71	146	4010311	93.778ug/mL 100
9) 1,4-dichlorobenzene	4.78	146	3932933	94.668ug/mL 99
10) Benzyl alcohol	4.89	108	1997353	101.044ug/mL 97
11) 1,2-dichlorobenzene	4.94	146	3653956	91.121ug/mL 100
12) 2-Methylphenol	4.97	107	2269762	95.031ug/mL 98
13) Bis(2-chloroisopropyl)ethe	5.02	45	2609651	76.960ug/mL 91
14) 4-methylphenol	5.14	107	3395492	101.129ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.18	70	1552636	85.324ug/mL 95
16) Hexachloroethane	5.31	117	1407973	89.080ug/mL 98
19) Nitrobenzene	5.37	77	2630078	84.499ug/mL 98
20) Isophorone	5.66	82	4878354	90.683ug/mL 98
21) 2-Nitrophenol	5.75	139	1674794	86.456ug/mL 99
22) 2,4-Dimethylphenol	5.76	122	2271624	85.359ug/mL 99
23) Benzoic Acid	5.93	122	1668496	92.941ug/mL 81
24) Bis(2-chloroethoxy)methane	5.89	93	2812969	82.252ug/mL 99
25) 2,4-Dichlorophenol	6.03	162	2762233	88.233ug/mL 100
26) 1,2,4-Trichlorobenzene	6.16	180	3079707	85.670ug/mL 100
27) Naphthalene	6.27	128	7968216	81.069ug/mL 99
28) 4-Chloroaniline	6.33	127	2937489	80.010ug/mL 98
29) Hexachlorobutadiene	6.42	225	1799615	85.107ug/mL 100
30) 4-Chloro-3-Methylphenol	6.98	107	2473673	92.979ug/mL 99
31) 2-Methylnaphthalene	7.26	142	5742359	84.821ug/mL 99
33) Hexachlorocyclopentadiene	7.49	237	2195385	96.037ug/mL 99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

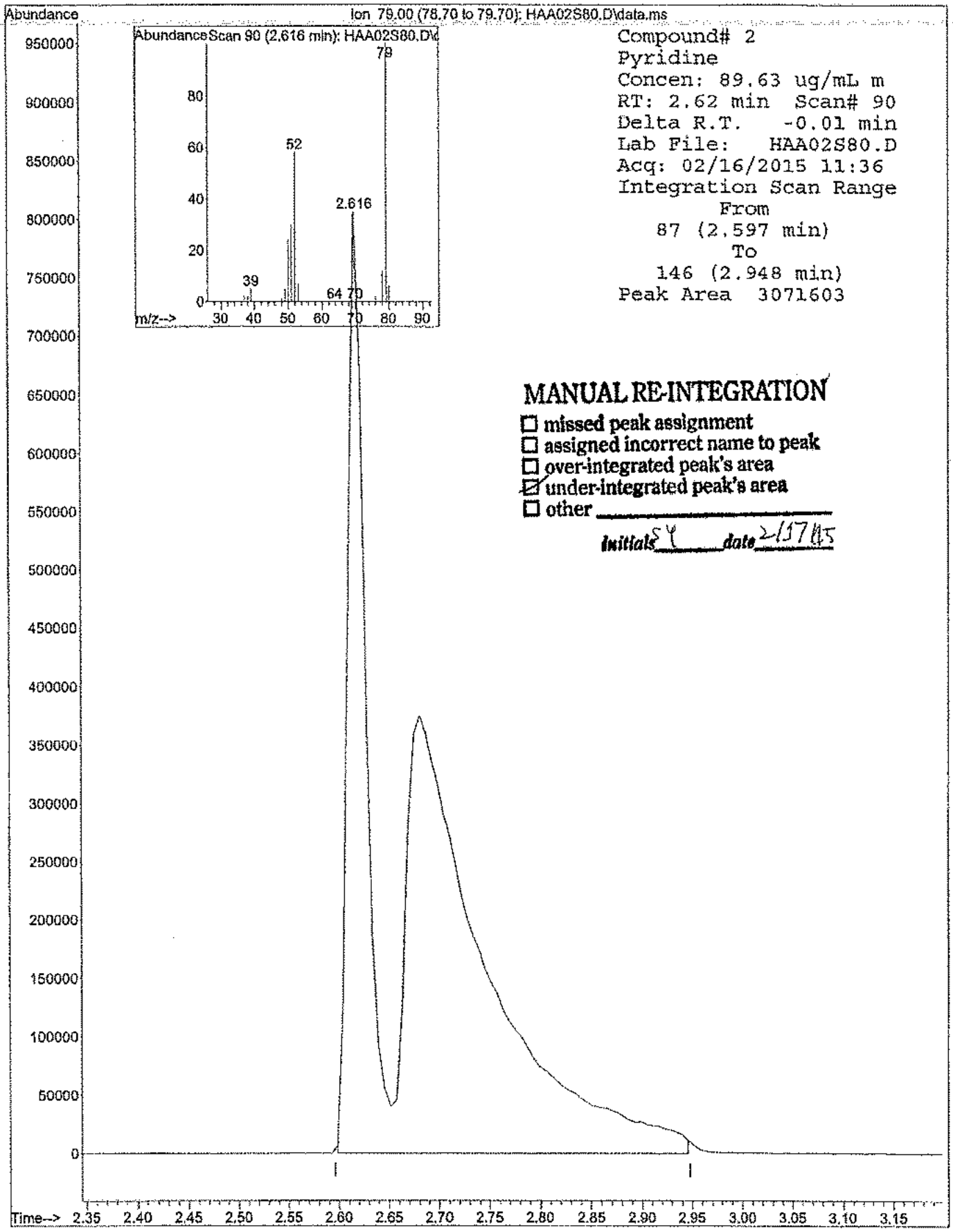
Data File : R:\H\2015\FEB15\16FEB15H\HAA02S80.D Vial: 2
Acq On : 02/16/2015 11:36 Operator: JH
Sample : 8270 S80 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:04:48 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.68	196	2185282	97.737ug/mL	99
35)	2,4,5-Trichlorophenol	7.73	196	2307487	94.958ug/mL	99
37)	2-Chloronaphthalene	8.03	162	5666882	85.348ug/mL	99
38)	2-Nitroaniline	8.19	65	1464780	94.509ug/mL	96
39)	Dimethylphthalate	8.51	163	6765557	93.119ug/mL	100
40)	2,6-Dinitrotoluene	8.61	165	1617407	100.467ug/mL	98
41)	Acenaphthylene	8.72	152	8859389	85.086ug/mL	100
42)	3-Nitroaniline	8.90	65	1295809	76.556ug/mL	97
43)	Acenaphthene	9.02	153	5222590	82.643ug/mL	99
44)	2,4-Dinitrophenol	9.07	184	1011145	104.509ug/mL	97
45)	4-Nitrophenol	9.17	109	774273	101.194ug/mL	96
46)	Dibenzofuran	9.33	168	7486685	83.494ug/mL	99
47)	2,4-Dinitrotoluene	9.31	165	2015827	104.887ug/mL	93
48)	Diethylphthalate	9.76	149	6360970	89.804ug/mL	99
49)	4-chlorophenyl phenyl ethe	9.95	204	2751320	79.427ug/mL	99
50)	Fluorene	9.93	166	5337194	79.748ug/mL	100
51)	4-Nitroaniline	9.97	65	701185	52.772ug/mL	94
54)	4,6-Dinitro-2-methylphenol	10.03	198	1386587	106.480ug/mL	96
55)	N-Nitrosodiphenylamine	10.16	169	4063572	78.594ug/mL	99
56)	4-bromophenyl phenyl ether	10.83	248	2158944	87.917ug/mL	99
57)	Hexachlorobenzene	10.93	284	2441090	88.470ug/mL	98
58)	Pentachlorophenol	11.27	266	1706436	100.700ug/mL	99
59)	Phenanthrene	11.69	178	8650182	79.505ug/mL	m 99
60)	Anthracene	11.78	178	8804545	80.200ug/mL	100
61)	Carbazole	12.07	167	6416326	66.813ug/mL	m 97
62)	Di-n-butylphthalate	12.79	149	9950945	80.337ug/mL	100
63)	Fluoranthene	13.82	202	9531147	81.006ug/mL	m 99
65)	Pyrene	14.17	202	9670611	86.095ug/mL	99
67)	Butylbenzylphthalate	15.15	149	4448954	89.707ug/mL	96
68)	3,3'-Dichlorobenzidine	15.87	252	1516239	47.304ug/mL	99
69)	Benzo(a)anthracene	15.91	228	9585938	94.283ug/mL	100
70)	Chrysene	15.97	228	6867773	71.261ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	4642876	69.118ug/mL	97
73)	Di-n-octylphthalate	17.07	149	10931079	94.653ug/mL	100
74)	Benzo(b)fluoranthene	17.84	252	11249205	104.198ug/mL	98
75)	Benzo(k)fluoranthene	17.91	252	9037983	83.075ug/mL	99
76)	Benzo(a)pyrene	18.59	252	9949930	95.039ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.96	276	9968403	99.340ug/mL	100
78)	Dibenz(a,h)anthracene	22.08	278	9606368	94.029ug/mL	97
79)	Benzo(g,h,i)perylene	22.98	276	9645833	91.672ug/mL	96

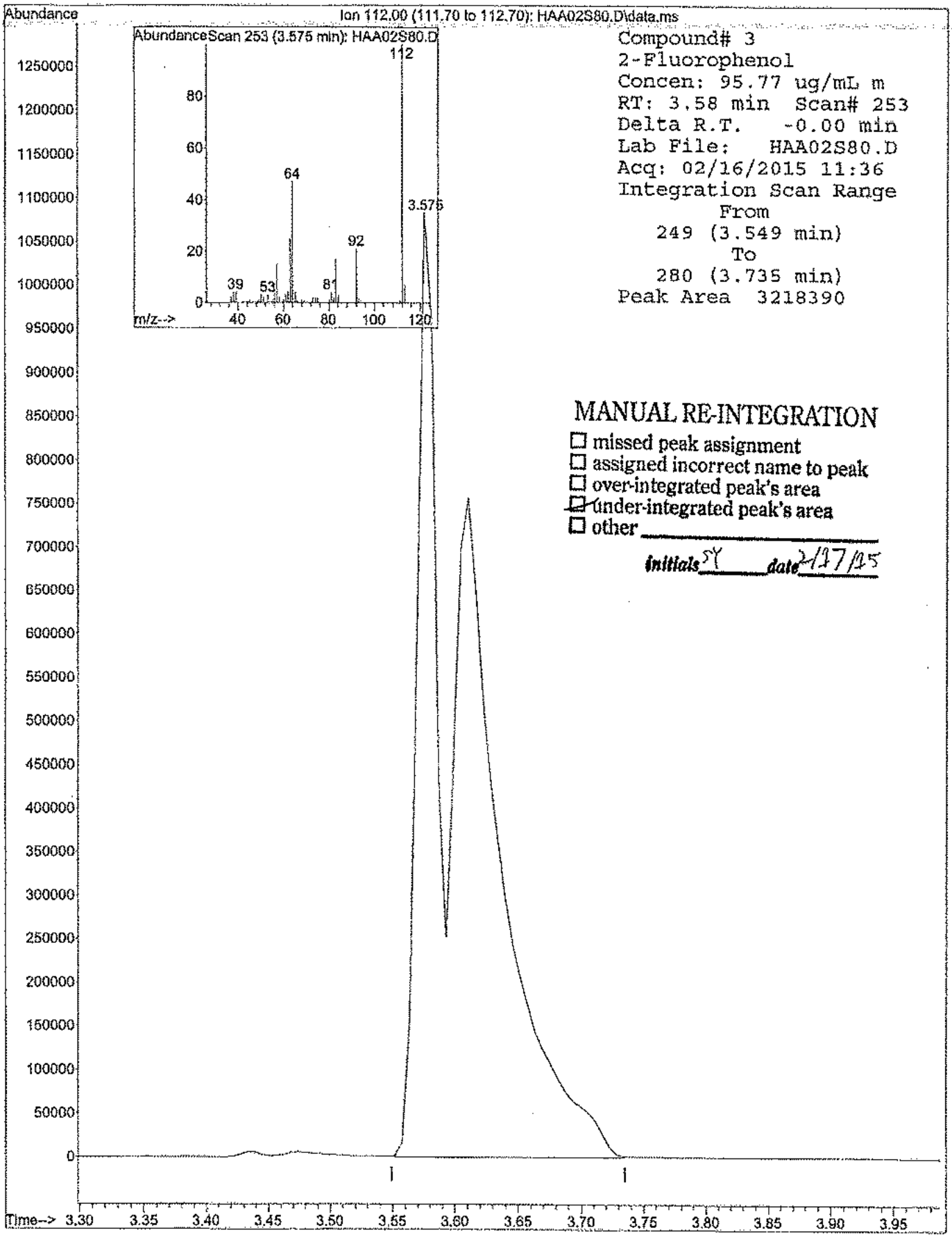
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



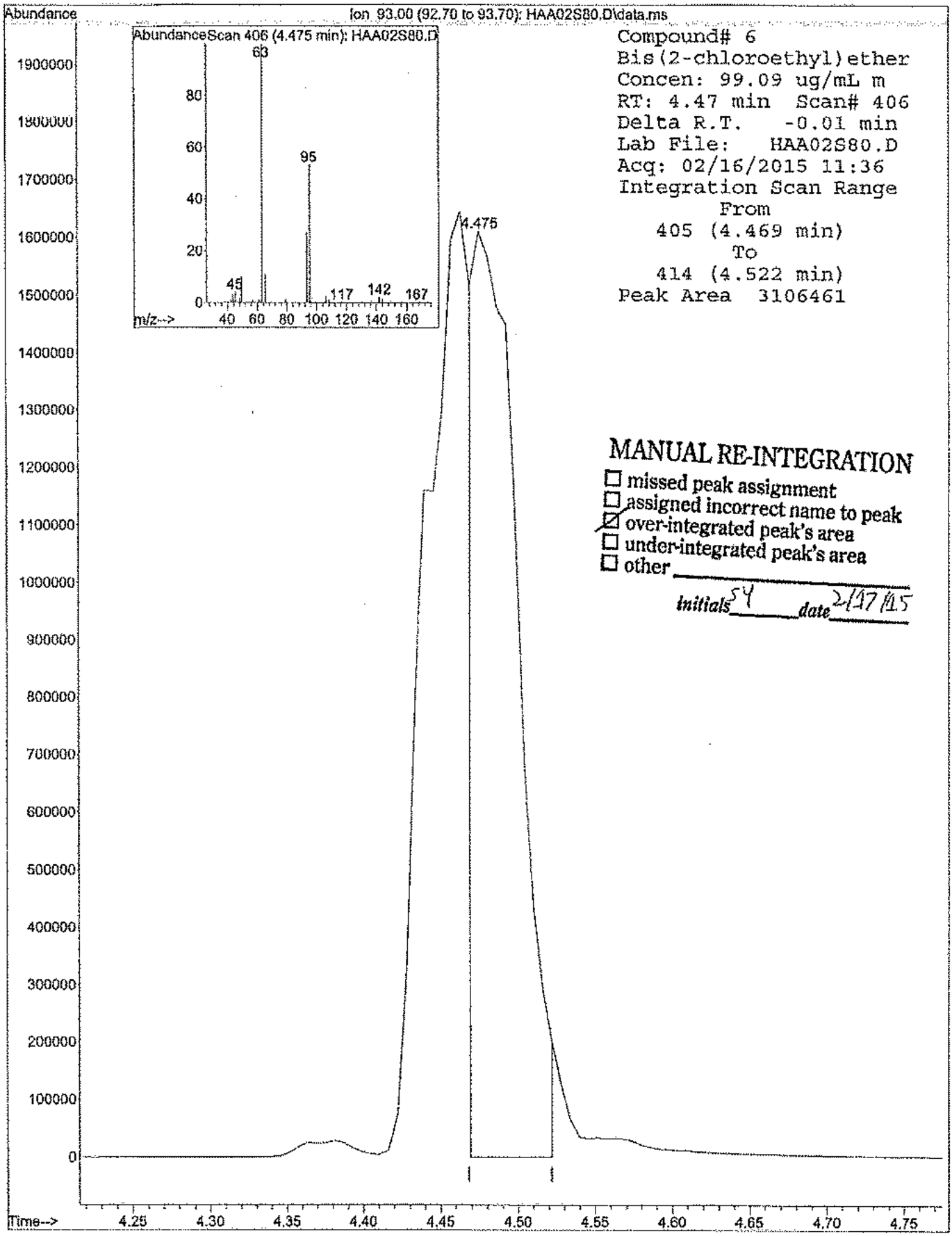
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



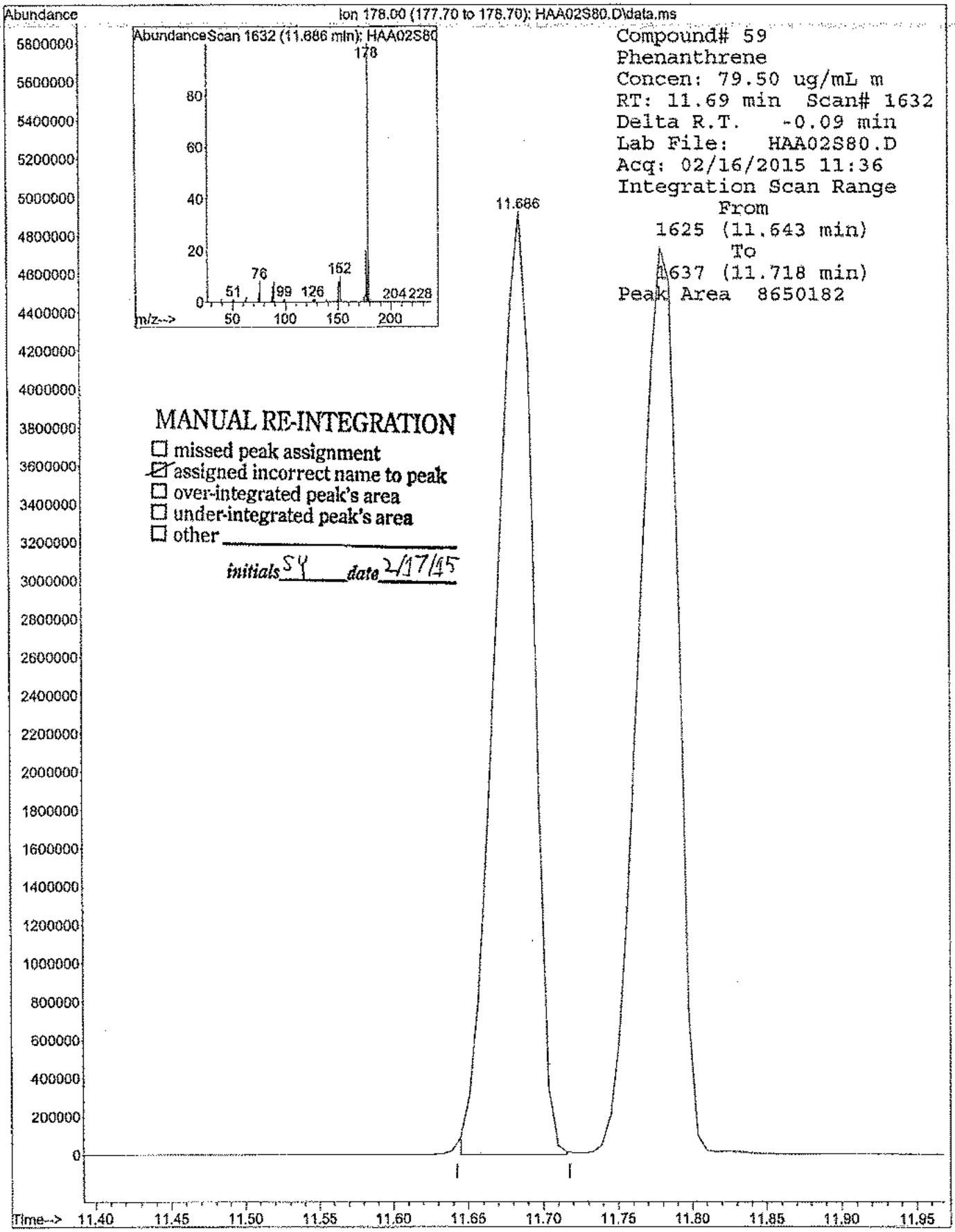
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Bis(2-chloroethyl)ether



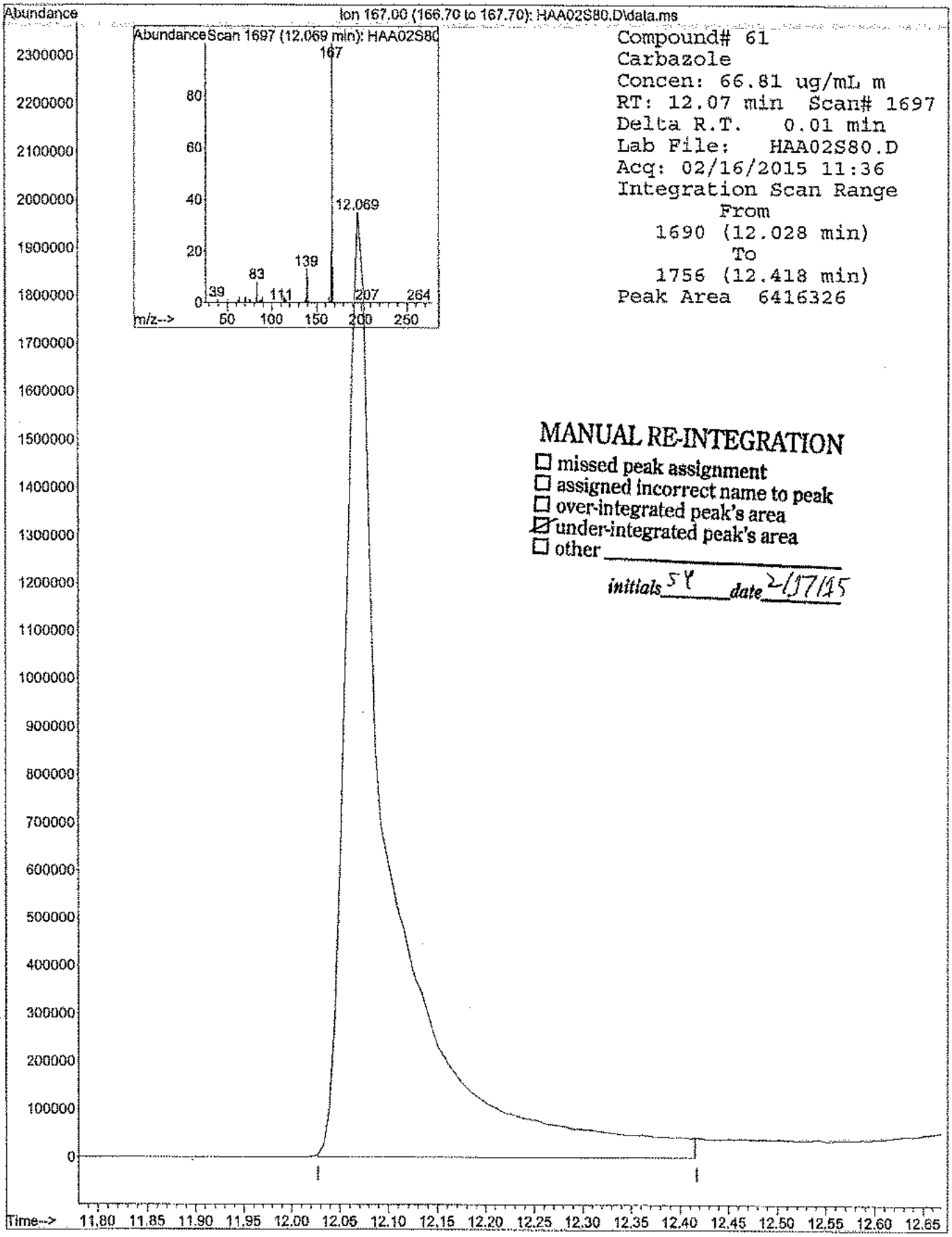
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



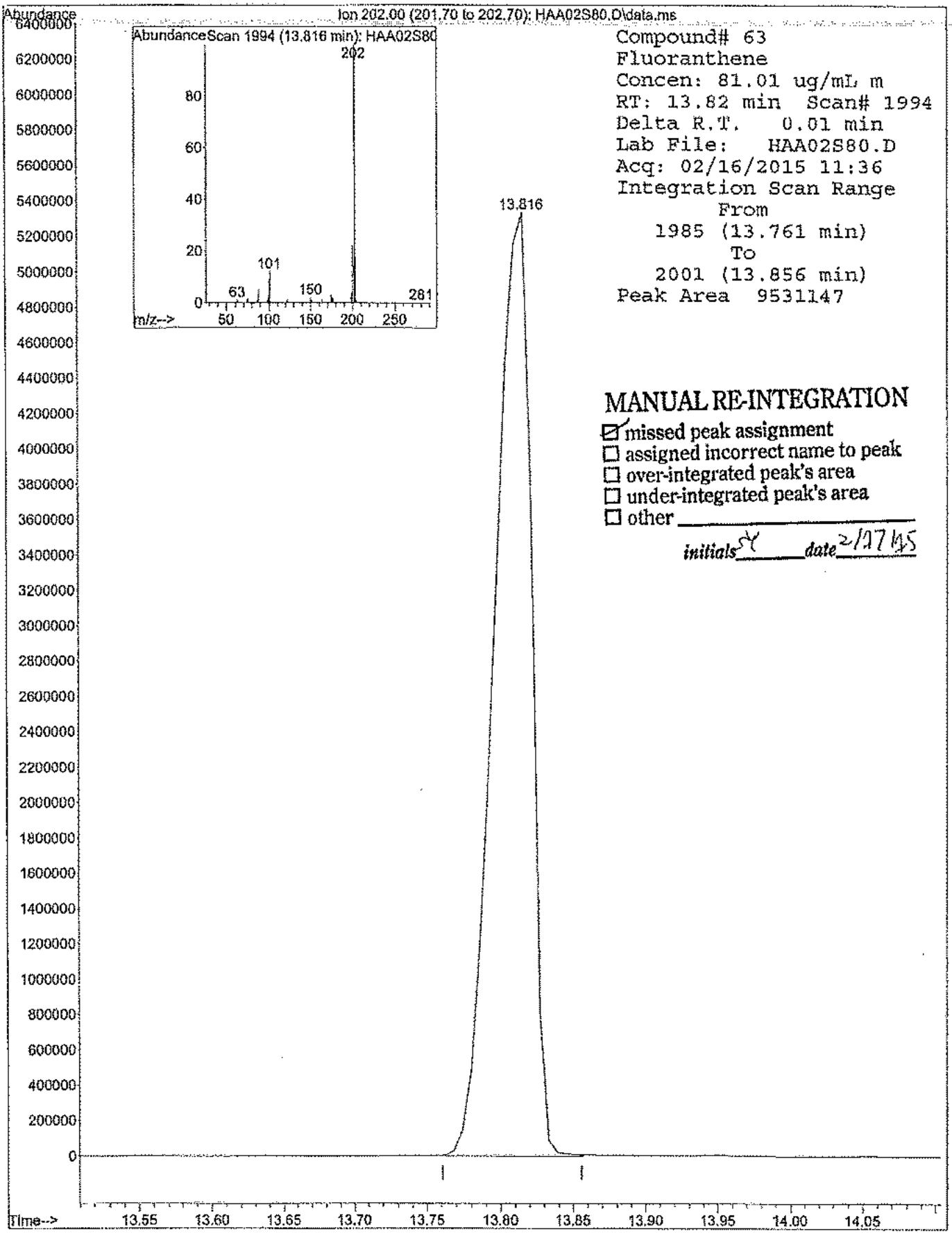
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Fluoranthene



Compound# 63
Fluoranthene
Concen: 81.01 ug/mL m
RT: 13.82 min Scan# 1994
Delta R.T. 0.01 min
Lab File: HAA02S80.D
Acq: 02/16/2015 11:36
Integration Scan Range
From
1985 (13.761 min)
To
2001 (13.856 min)
Peak Area 9531147

MANUAL RE-INTEGRATION

- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

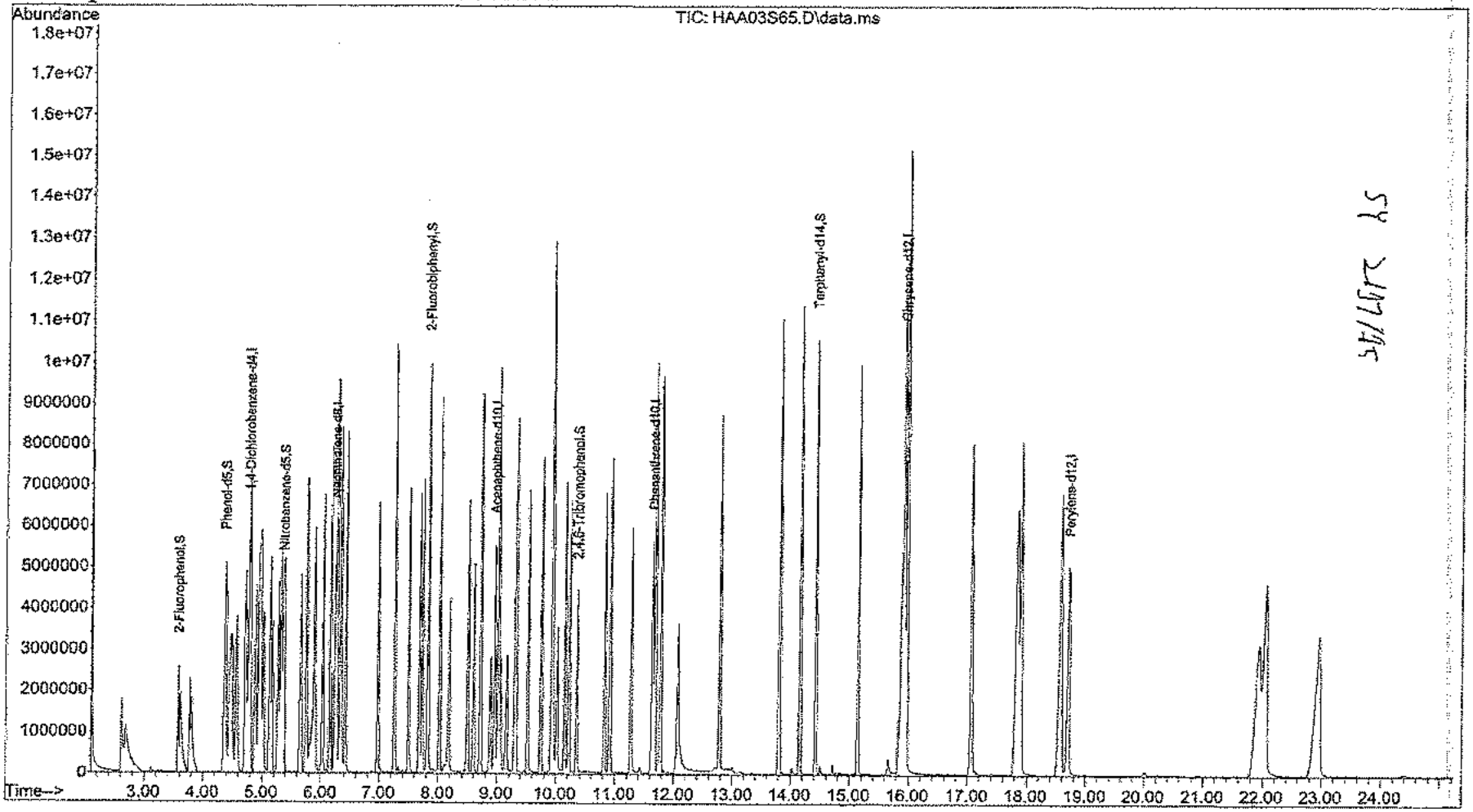
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA03S65.D Vial: 3
Acq On : 02/16/2015 12:09 Operator: JH
Sample : 8270 S65 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 11:03:07 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA03S65.D Vial: 3
Acq On : 02/16/2015 12:09 Operator: JH
Sample : 8270 S65 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:03:07 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.76	152	1225921	40.00 ug/mL	
17) Naphthalene-d8	6.24	136	4301880	40.00 ug/mL	
32) Acenaphthene-d10	8.96	164	2227411	40.00 ug/mL	
52) Phenanthrene-d10	11.63	188	4209490	40.00 ug/mL	
64) Chrysene-d12	15.93	240	4165748	40.00 ug/mL	
72) Perylene-d12	18.71	264	5063417	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.58	112	2674624	69.283ug/mL	m SY 2/17/15
4) Phenol-d5	4.36	99	2802618	70.099ug/mL	
18) Nitrobenzene-d5	5.35	82	2442040	74.677ug/mL	
36) 2-Fluorobiphenyl	7.83	172	5244934	65.321ug/mL	
53) 2,4,6-Tribromophenol	10.35	330	910255	71.213ug/mL	
66) Terphenyl-d14	14.42	244	5973373	65.495ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.62	79	2554440	64.887ug/mL	m 37
5) Phenol	4.38	94	2983633	71.518ug/mL	SY 2/17/15 99
6) Bis(2-chloroethyl)ether	4.46	93	2870751	79.714ug/mL	25
7) 2-Chlorophenol	4.56	128	3010984	70.023ug/mL	98
8) 1,3-Dichlorobenzene	4.72	146	3448962	70.210ug/mL	100
9) 1,4-dichlorobenzene	4.79	146	3353146	70.262ug/mL	99
10) Benzyl alcohol	4.89	108	1704161	75.050ug/mL	98
11) 1,2-dichlorobenzene	4.94	146	3142685	68.225ug/mL	100
12) 2-Methylphenol	4.97	107	1958022	71.365ug/mL	98
13) Bis(2-chloroisopropyl)ethe	5.02	45	2241450	57.543ug/mL	92
14) 4-methylphenol	5.13	107	2869613	74.401ug/mL	98
15) N-Nitrosodi-n-propyl amine	5.17	70	1307143	62.533ug/mL	95
16) Hexachloroethane	5.31	117	1203195	66.268ug/mL	98
19) Nitrobenzene	5.37	77	2255962	65.386ug/mL	98
20) Isophorone	5.65	82	4119537	69.083ug/mL	98
21) 2-Nitrophenol	5.74	139	1442619	67.182ug/mL	98
22) 2,4-Dimethylphenol	5.76	122	1975006	66.950ug/mL	98
23) Benzoic Acid	5.92	122	1407720	72.964ug/mL	82
24) Bis(2-chloroethoxy)methane	5.89	93	2436056	64.260ug/mL	98
25) 2,4-Dichlorophenol	6.03	162	2397362	69.084ug/mL	100
26) 1,2,4-Trichlorobenzene	6.16	180	2652615	66.568ug/mL	100
27) Naphthalene	6.27	128	6999642	64.245ug/mL	99
28) 4-Chloroaniline	6.33	127	2508195	61.631ug/mL	98
29) Hexachlorobutadiene	6.42	225	1562906	66.679ug/mL	100
30) 4-Chloro-3-Methylphenol	6.97	107	2115923	71.749ug/mL	99
31) 2-Methylnaphthalene	7.26	142	5054534	67.354ug/mL	99
33) Hexachlorocyclopentadiene	7.49	237	1849092	72.611ug/mL	99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

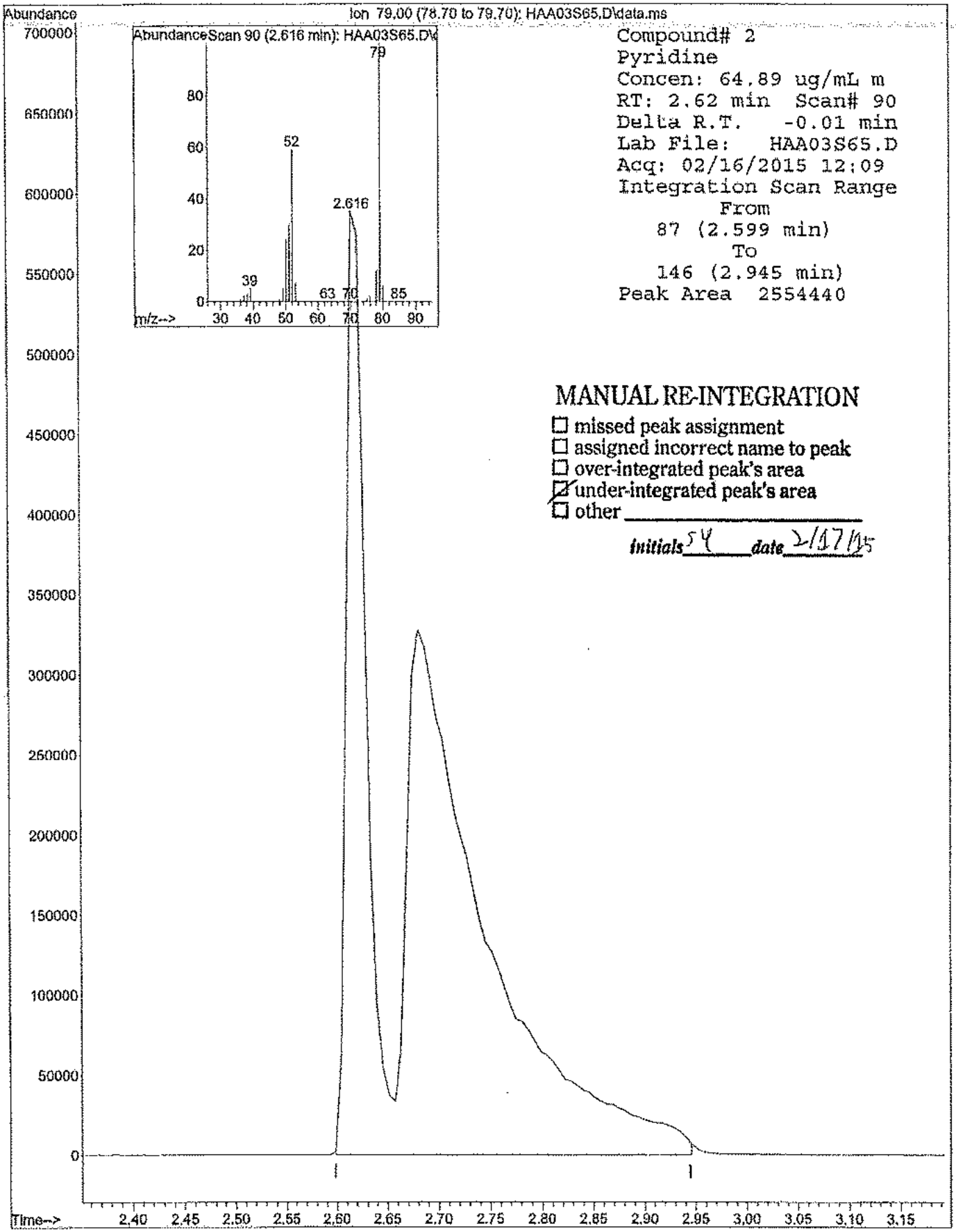
Data File : R:\H\2015\FEB15\16FEB15H\HAA03S65.D Vial: 3
Acq On : 02/16/2015 12:09 Operator: JH
Sample : 8270 S65 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:03:07 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
34)	2,4,6-Trichlorophenol	7.68	196	1881728	75.549ug/mL		99
35)	2,4,5-Trichlorophenol	7.73	196	1949329	72.010ug/mL		100
37)	2-Chloronaphthalene	8.03	162	4906937	66.341ug/mL		99
38)	2-Nitroaniline	8.19	65	1219613	70.639ug/mL		94
39)	Dimethylphthalate	8.50	163	5785790	71.485ug/mL		100
40)	2,6-Dinitrotoluene	8.60	165	1375561	76.701ug/mL		98
41)	Acenaphthylene	8.72	152	7714419	66.508ug/mL		100
42)	3-Nitroaniline	8.89	65	1074431	56.981ug/mL		97
43)	Acenaphthene	9.02	153	4549183	64.621ug/mL		99
44)	2,4-Dinitrophenol	9.06	184	839425	80.091ug/mL		99
45)	4-Nitrophenol	9.16	109	649786	77.200ug/mL		96
46)	Dibenzofuran	9.32	168	6609383	66.167ug/mL		99
47)	2,4-Dinitrotoluene	9.30	165	1758945	82.156ug/mL		93
48)	Diethylphthalate	9.75	149	5486373	69.531ug/mL		99
49)	4-chlorophenyl phenyl ethe	9.94	204	2454317	63.603ug/mL		99
50)	Fluorene	9.93	166	4716128	63.257ug/mL		100
51)	4-Nitroaniline	9.96	65	614342	41.505ug/mL		94
54)	4,6-Dinitro-2-methylphenol	10.02	198	1162676	80.598ug/mL		96
55)	N-Nitrosodiphenylamine	10.15	169	3456961	60.356ug/mL		99
56)	4-bromophenyl phenyl ether	10.83	248	1865591	68.580ug/mL		99
57)	Hexachlorobenzene	10.92	284	2065737	67.583ug/mL		98
58)	Pentachlorophenol	11.27	266	1442295	77.887ug/mL		99
59)	Phenanthrene	11.68	178	7588154	62.958ug/mL	m	99
60)	Anthracene	11.78	178	7642699	62.844ug/mL		100
61)	Carbazole	12.07	167	5079641	47.748ug/mL	m	98
62)	Di-n-butylphthalate	12.79	149	8671708	63.198ug/mL		100
63)	Fluoranthene	13.81	202	8248830	63.287ug/mL		99
65)	Pyrene	14.16	202	8428790	64.366ug/mL		99
67)	Butylbenzylphthalate	15.14	149	3847380	66.542ug/mL		97
68)	3,3'-Dichlorobenzidine	15.87	252	1625056	43.487ug/mL		99
69)	Benzo(a)anthracene	15.90	228	8224942	69.390ug/mL		99
70)	Chrysene	15.97	228	6205163	55.227ug/mL		99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	4231936	54.039ug/mL		98
73)	Di-n-octylphthalate	17.06	149	9537206	72.155ug/mL		100
74)	Benzo(b)fluoranthene	17.83	252	9180551	74.298ug/mL		99
75)	Benzo(k)fluoranthene	17.90	252	8080028	64.891ug/mL		99
76)	Benzo(a)pyrene	18.58	252	8441291	70.447ug/mL		99
77)	Indeno(1,2,3-c,d)pyrene	21.94	276	8238723	71.735ug/mL		99
78)	Dibenz(a,h)anthracene	22.06	278	8139428	69.610ug/mL		98
79)	Benzo(g,h,i)perylene	22.95	276	8261298	68.599ug/mL		96

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



Compound# 2
Pyridine
Concen: 64.89 ug/mL m
RT: 2.62 min Scan# 90
Delta R.T. -0.01 min
Lab File: HAA03S65.D
Acq: 02/16/2015 12:09
Integration Scan Range
From
87 (2.599 min)
To
146 (2.945 min)
Peak Area 2554440

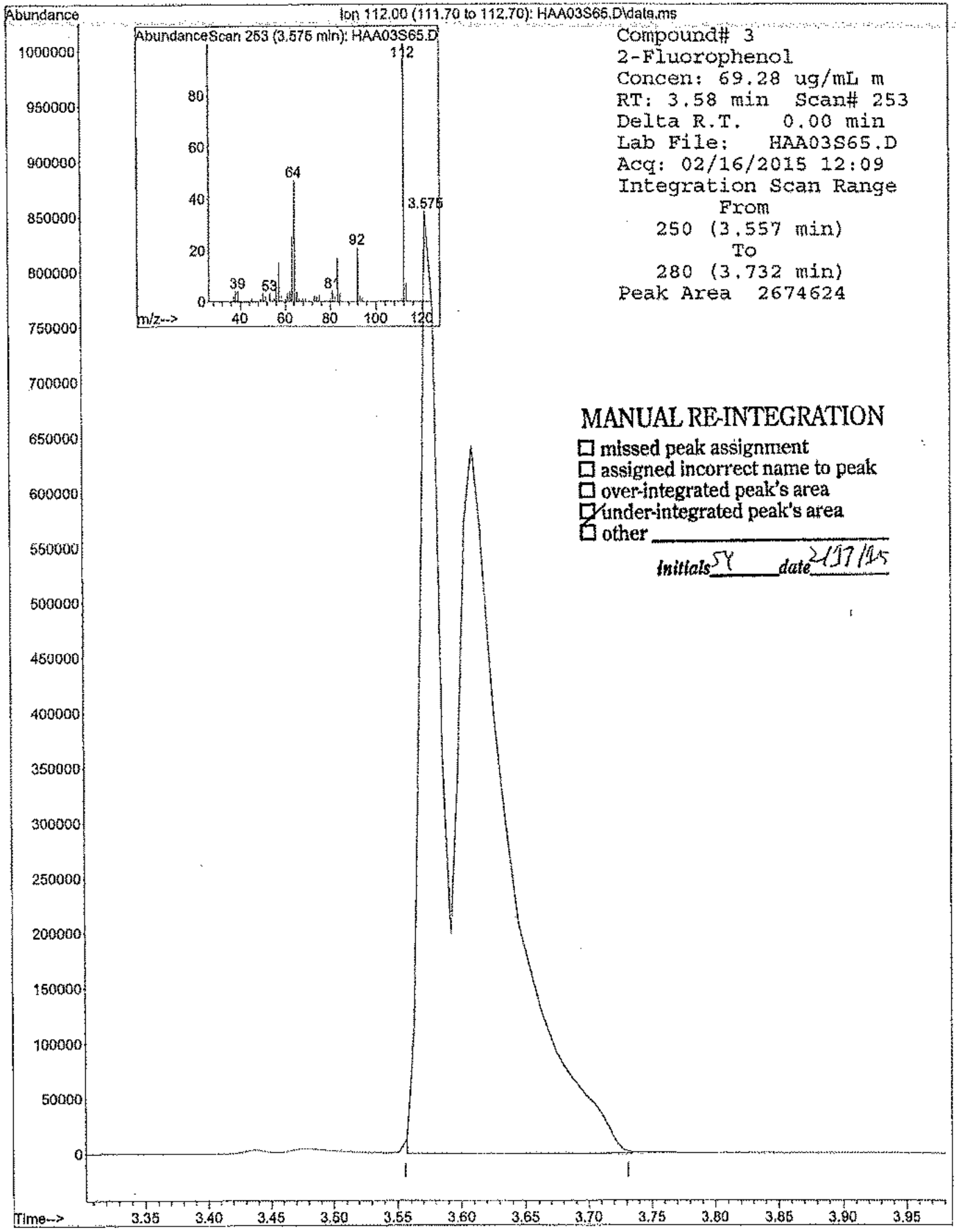
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☒ under-integrated peak's area
- ☐ other _____

Initials SY *date* 2/17/15

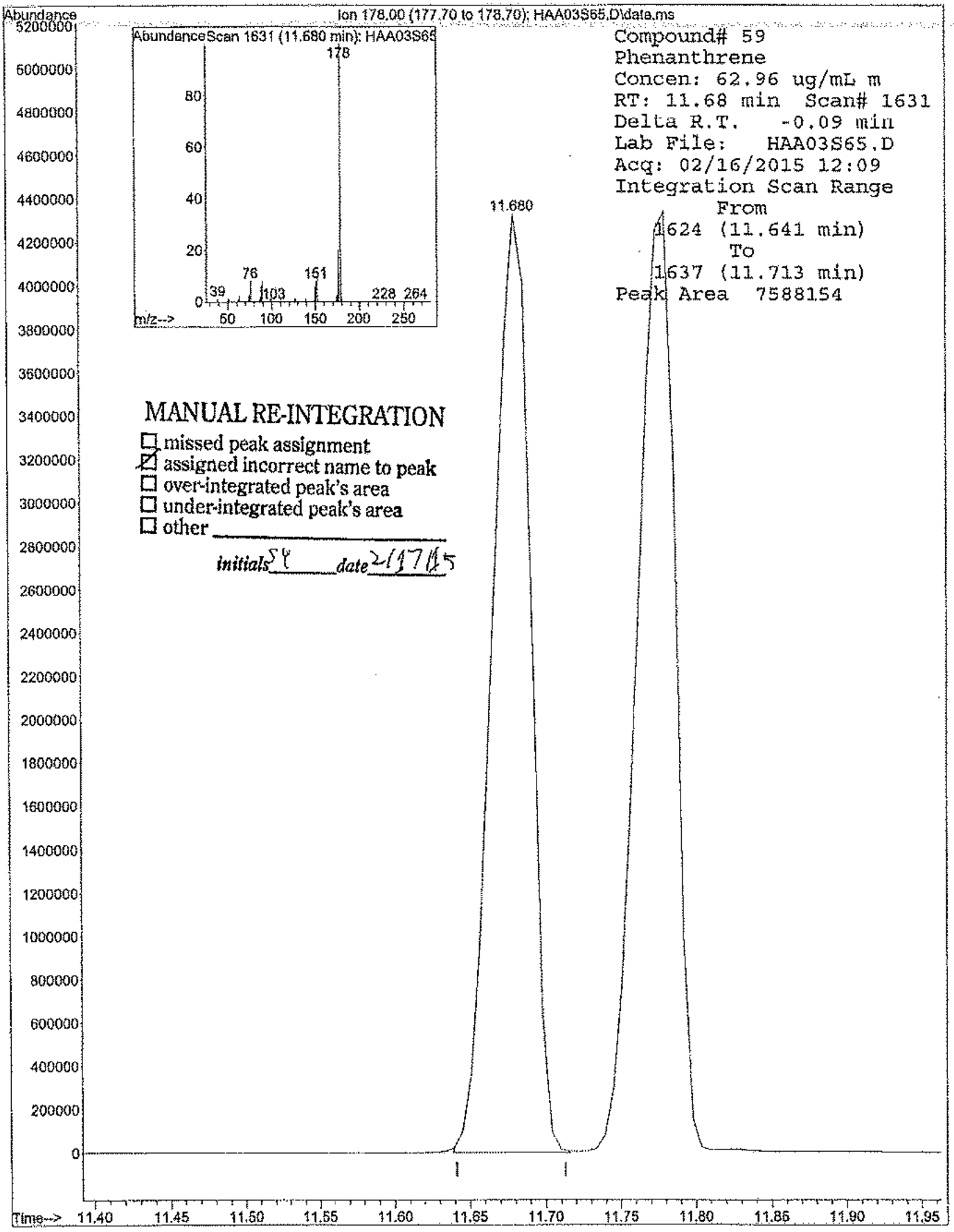
H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



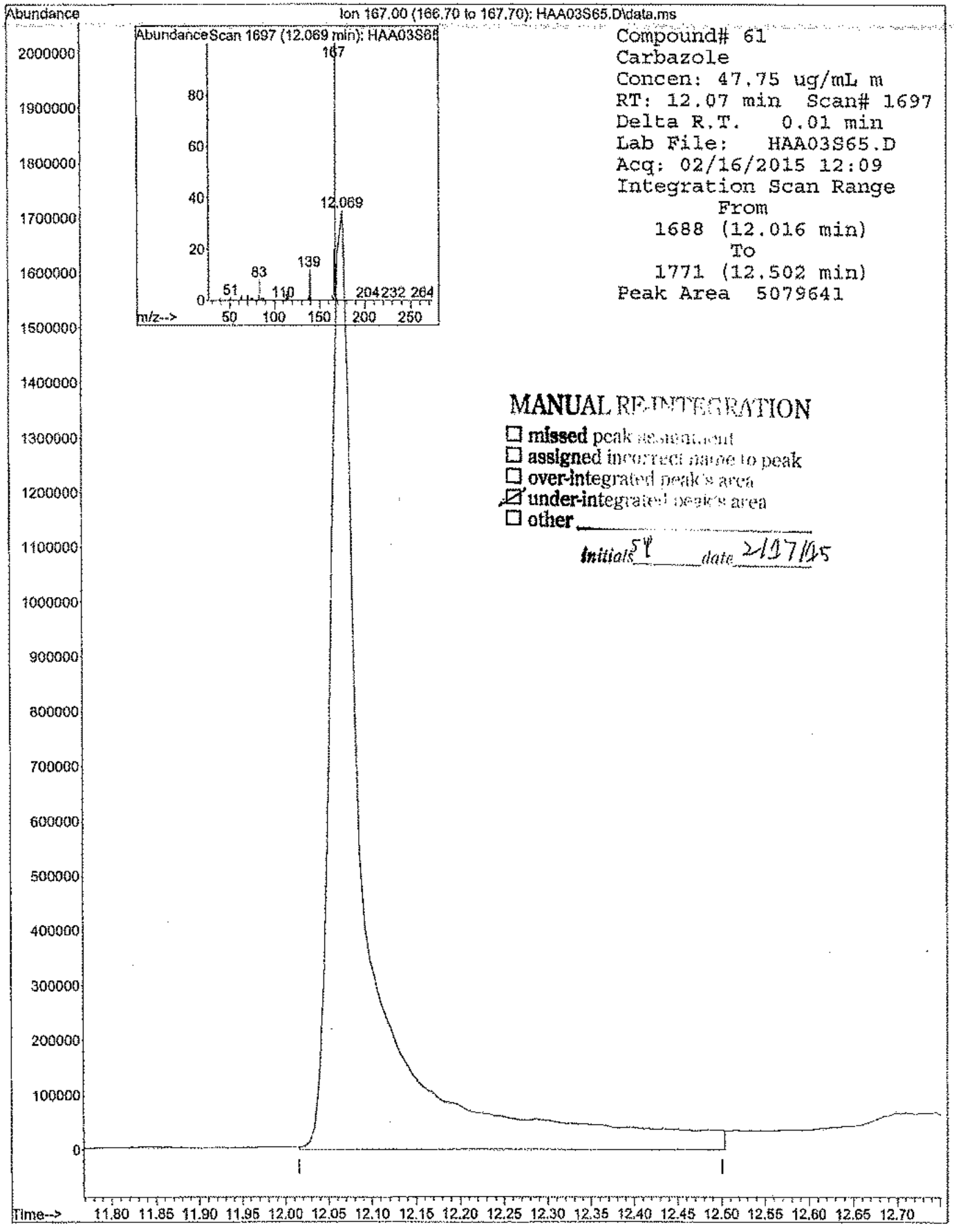
H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



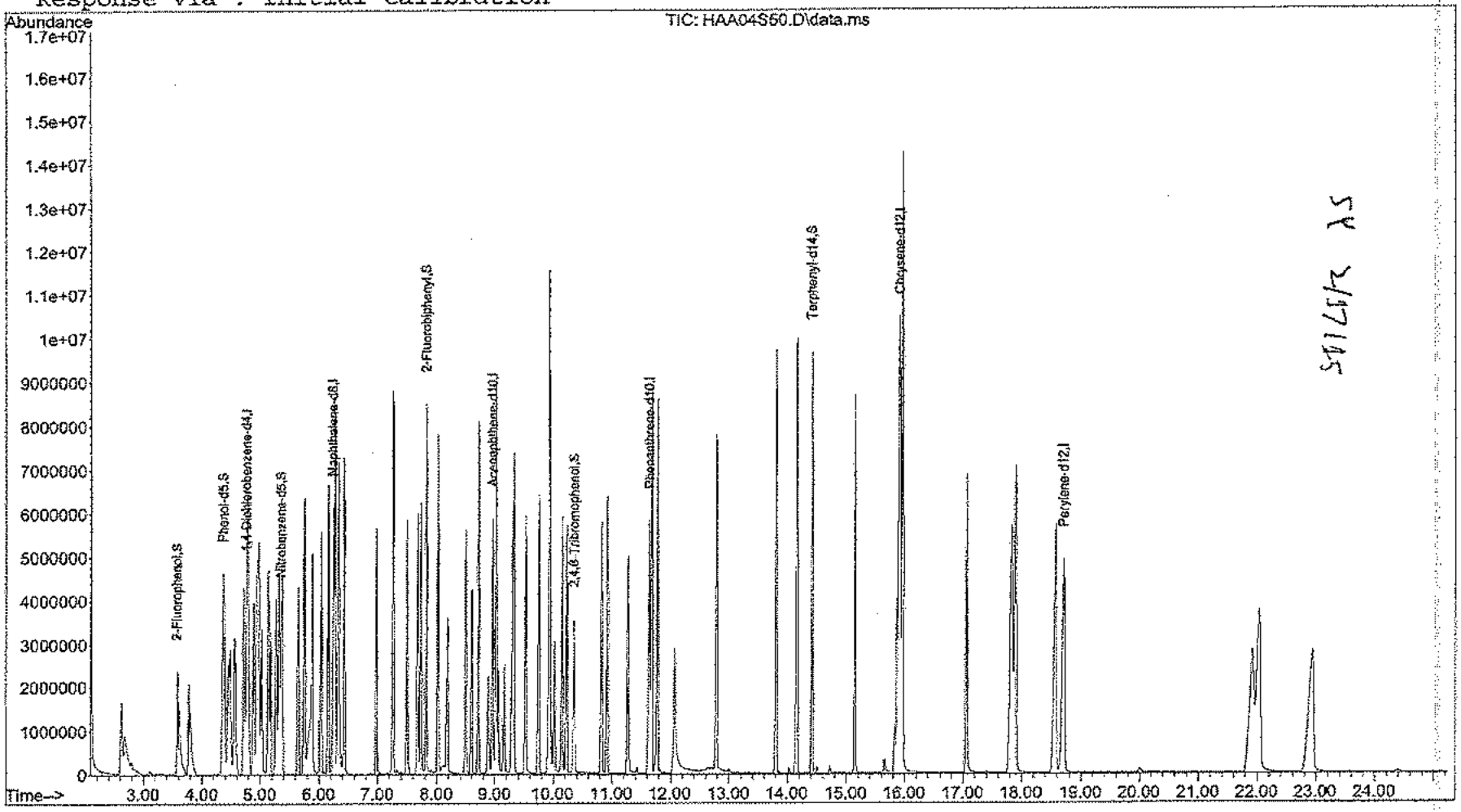
H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA04S50.D Vial: 4
Acq On : 02/16/2015 12:43 Operator: JH
Sample : 8270 S50 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 11:05:38 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA04S50.D Vial: 4
Acq On : 02/16/2015 12:43 Operator: JH
Sample : 8270 S50 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:05:38 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1278154	40.00 ug/mL
17) Naphthalene-d8	6.24	136	4439386	40.00 ug/mL
32) Acenaphthene-d10	8.96	164	2267026	40.00 ug/mL
52) Phenanthrene-d10	11.63	188	4277931	40.00 ug/mL
64) Chrysene-d12	15.92	240	4291220	40.00 ug/mL
72) Perylene-d12	18.70	264	5108290	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.58	112	2182821	54.233ug/mL m SY 2/17/15
4) Phenol-d5	4.36	99	2312995	55.488ug/mL
18) Nitrobenzene-d5	5.35	82	2031940	60.212ug/mL
36) 2-Fluorobiphenyl	7.82	172	4458510	54.556ug/mL
53) 2,4,6-Tribromophenol	10.35	330	734177	56.519ug/mL
66) Terphenyl-d14	14.42	244	4938768	52.568ug/mL
Target Compounds				Qvalue
2) Pyridine	2.62	79	2088304	50.879ug/mL m 37
5) Phenol	4.37	94	2463358	56.634ug/mL SY 2/17/15 99
6) Bis(2-chloroethyl)ether	4.46	93	2444605	65.107ug/mL 85
7) 2-Chlorophenol	4.55	128	2454268	54.743ug/mL 98
8) 1,3-Dichlorobenzene	4.70	146	2828858	55.233ug/mL 100
9) 1,4-dichlorobenzene	4.78	146	2741128	55.091ug/mL 99
10) Benzyl alcohol	4.88	108	1400567	59.159ug/mL 98
11) 1,2-dichlorobenzene	4.94	146	2614114	54.431ug/mL 100
12) 2-Methylphenol	4.97	107	1621818	56.696ug/mL 98
13) Bis(2-chloroisopropyl)ethe	5.02	45	1876709	46.211ug/mL 93
14) 4-methylphenol	5.13	107	2383337	59.268ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.17	70	1087268	49.889ug/mL 96
16) Hexachloroethane	5.31	117	989694	52.282ug/mL 99
19) Nitrobenzene	5.37	77	1889787	53.076ug/mL 99
20) Isophorone	5.65	82	3367644	54.725ug/mL 99
21) 2-Nitrophenol	5.74	139	1208616	54.541ug/mL 99
22) 2,4-Dimethylphenol	5.75	122	1649898	54.197ug/mL 98
23) Benzoic Acid	5.90	122	1130844	58.861ug/mL 81
24) Bis(2-chloroethoxy)methane	5.89	93	2036224	52.049ug/mL 98
25) 2,4-Dichlorophenol	6.03	162	1984014	55.402ug/mL 99
26) 1,2,4-Trichlorobenzene	6.16	180	2213460	53.827ug/mL 100
27) Naphthalene	6.27	128	5927531	52.720ug/mL 99
28) 4-Chloroaniline	6.32	127	1988469	47.347ug/mL 97
29) Hexachlorobutadiene	6.42	225	1296326	53.593ug/mL 100
30) 4-Chloro-3-Methylphenol	6.97	107	1743812	57.299ug/mL 99
31) 2-Methylnaphthalene	7.26	142	4282019	55.293ug/mL 99
33) Hexachlorocyclopentadiene	7.49	237	1519323	58.619ug/mL 100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

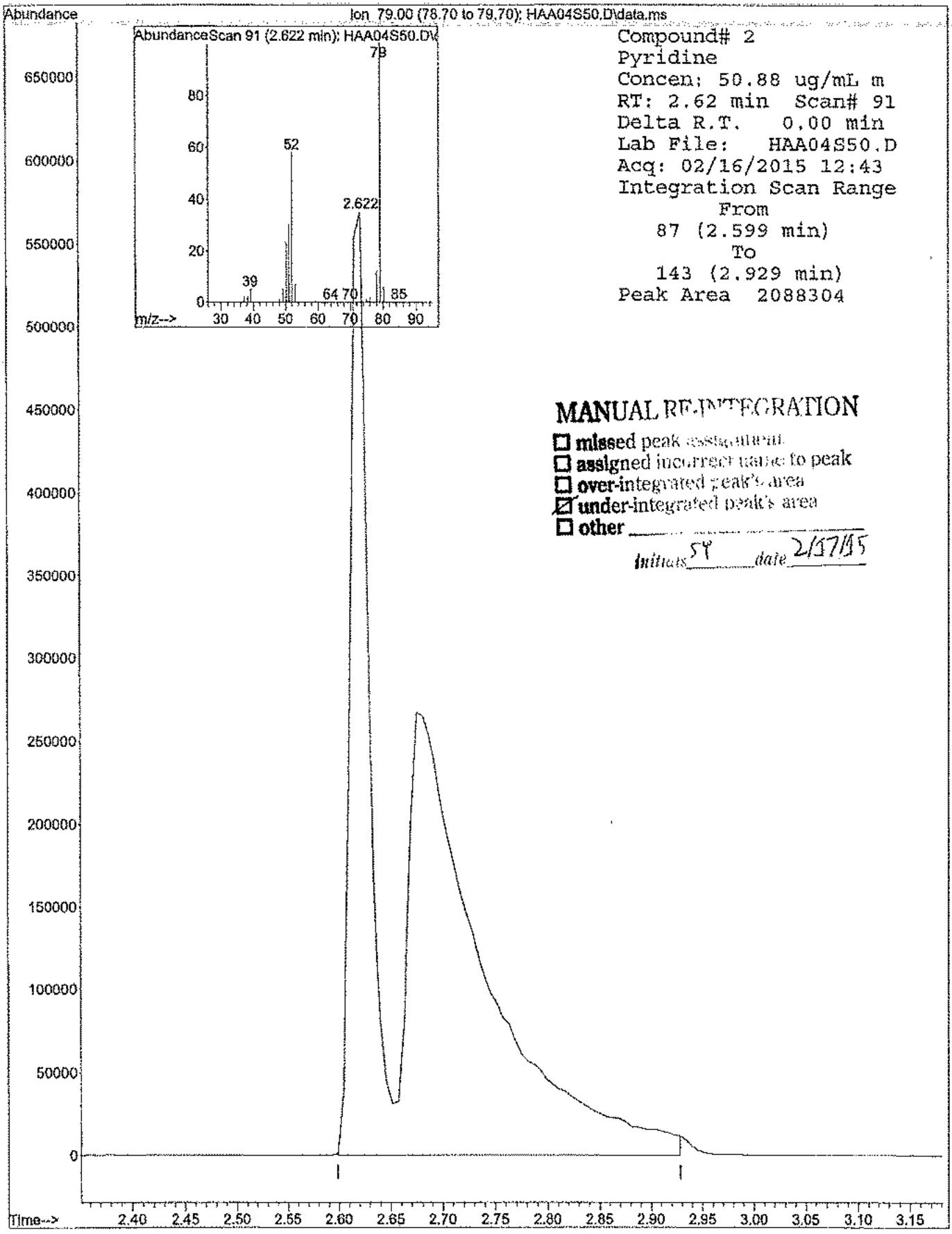
Data File : R:\H\2015\FEB15\16FEB15H\HAA04S50.D Vial: 4
Acq On : 02/16/2015 12:43 Operator: JH
Sample : 8270 S50 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:05:38 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.67	196	1524938	60.154ug/mL	99
35)	2,4,5-Trichlorophenol	7.73	196	1628809	59.118ug/mL	100
37)	2-Chloronaphthalene	8.02	162	4103229	54.505ug/mL	99
38)	2-Nitroaniline	8.18	65	1012111	57.596ug/mL	95
39)	Dimethylphthalate	8.50	163	4722481	57.328ug/mL	100
40)	2,6-Dinitrotoluene	8.60	165	1107060	60.651ug/mL	98
41)	Acenaphthylene	8.72	152	6464196	54.756ug/mL	100
42)	3-Nitroaniline	8.89	65	807436	42.073ug/mL	98
43)	Acenaphthene	9.02	153	3845244	53.667ug/mL	99
44)	2,4-Dinitrophenol	9.06	184	664476	64.218ug/mL	98
45)	4-Nitrophenol	9.16	109	523931	61.974ug/mL	97
46)	Dibenzofuran	9.32	168	5590834	54.992ug/mL	99
47)	2,4-Dinitrotoluene	9.30	165	1443406	66.240ug/mL	94
48)	Diethylphthalate	9.75	149	4569465	56.899ug/mL	100
49)	4-chlorophenyl phenyl ethe	9.93	204	2087409	53.149ug/mL	99
50)	Fluorene	9.92	166	4033069	53.150ug/mL	100
51)	4-Nitroaniline	9.95	65	483839	32.117ug/mL	90
54)	4,6-Dinitro-2-methylphenol	10.02	198	928170	63.313ug/mL	96
55)	N-Nitrosodiphenylamine	10.15	169	2874917	49.391ug/mL	99
56)	4-bromophenyl phenyl ether	10.82	248	1499776	54.250ug/mL	99
57)	Hexachlorobenzene	10.92	284	1671955	53.825ug/mL	98
58)	Pentachlorophenol	11.27	266	1148592	61.997ug/mL	99
59)	Phenanthrene	11.68	178	6263888	51.139ug/mL	99
60)	Anthracene	11.77	178	6426636	51.999ug/mL	100
61)	Carbazole	12.06	167	3753433	34.718ug/mL	96
62)	Di-n-butylphthalate	12.79	149	7221072	51.784ug/mL	100
63)	Fluoranthene	13.80	202	6918181	52.229ug/mL	99
65)	Pyrene	14.16	202	7080836	52.491ug/mL	99
67)	Butylbenzylphthalate	15.14	149	3190124	53.561ug/mL	97
68)	3,3'-Dichlorobenzidine	15.86	252	1277809	33.195ug/mL	99
69)	Benzo(a)anthracene	15.90	228	6811365	55.784ug/mL	99
70)	Chrysene	15.96	228	5291674	45.720ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	3635920	45.071ug/mL	98
73)	Di-n-octylphthalate	17.06	149	7762722	58.214ug/mL	100
74)	Benzo(b)fluoranthene	17.83	252	7358101	59.026ug/mL	98
75)	Benzo(k)fluoranthene	17.89	252	6486376	51.634ug/mL	99
76)	Benzo(a)pyrene	18.57	252	6744208	55.789ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.92	276	6477256	55.902ug/mL	100
78)	Dibenz(a,h)anthracene	22.03	278	6463519	54.791ug/mL	98
79)	Benzo(g,h,i)perylene	22.93	276	6485107	53.377ug/mL	96

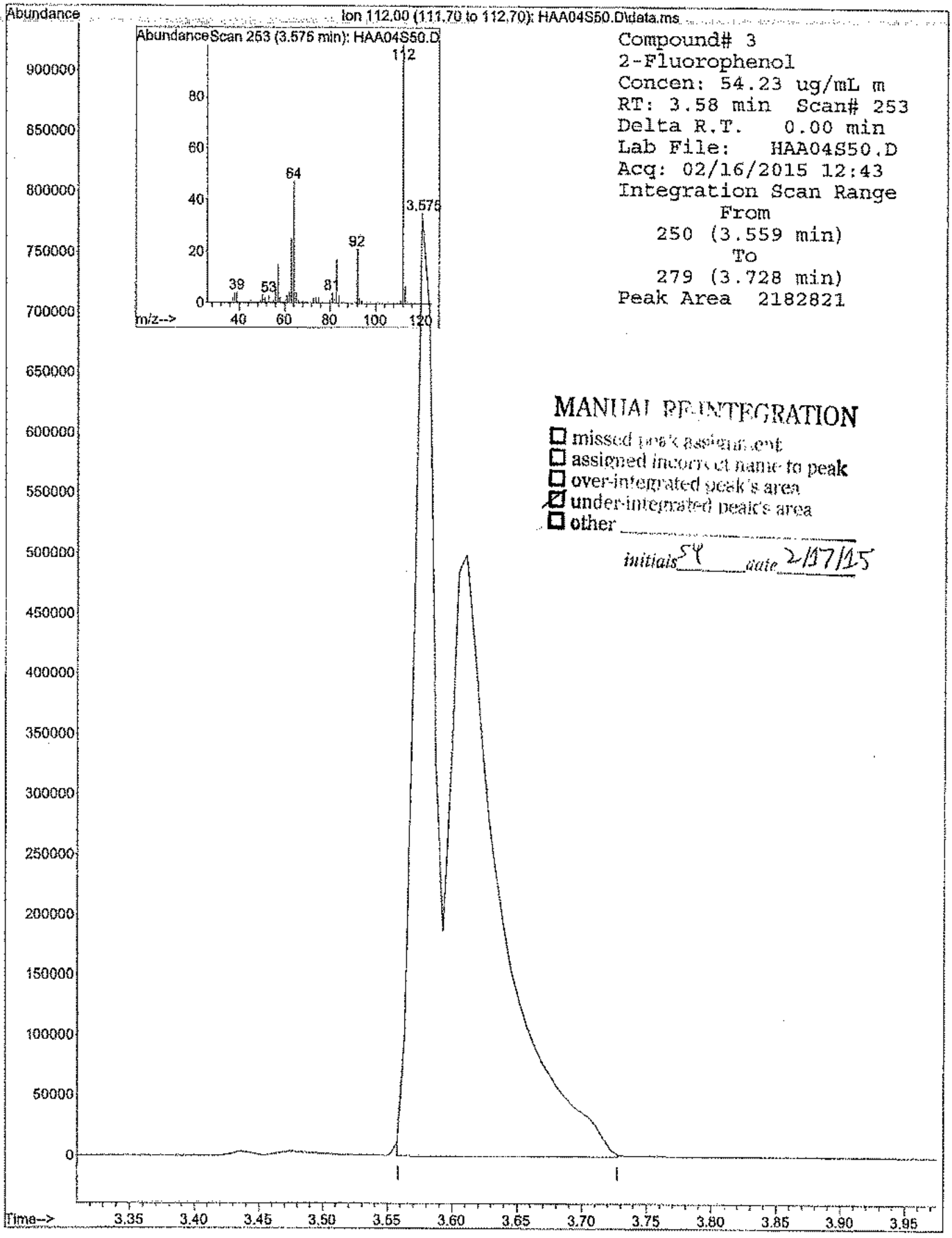
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



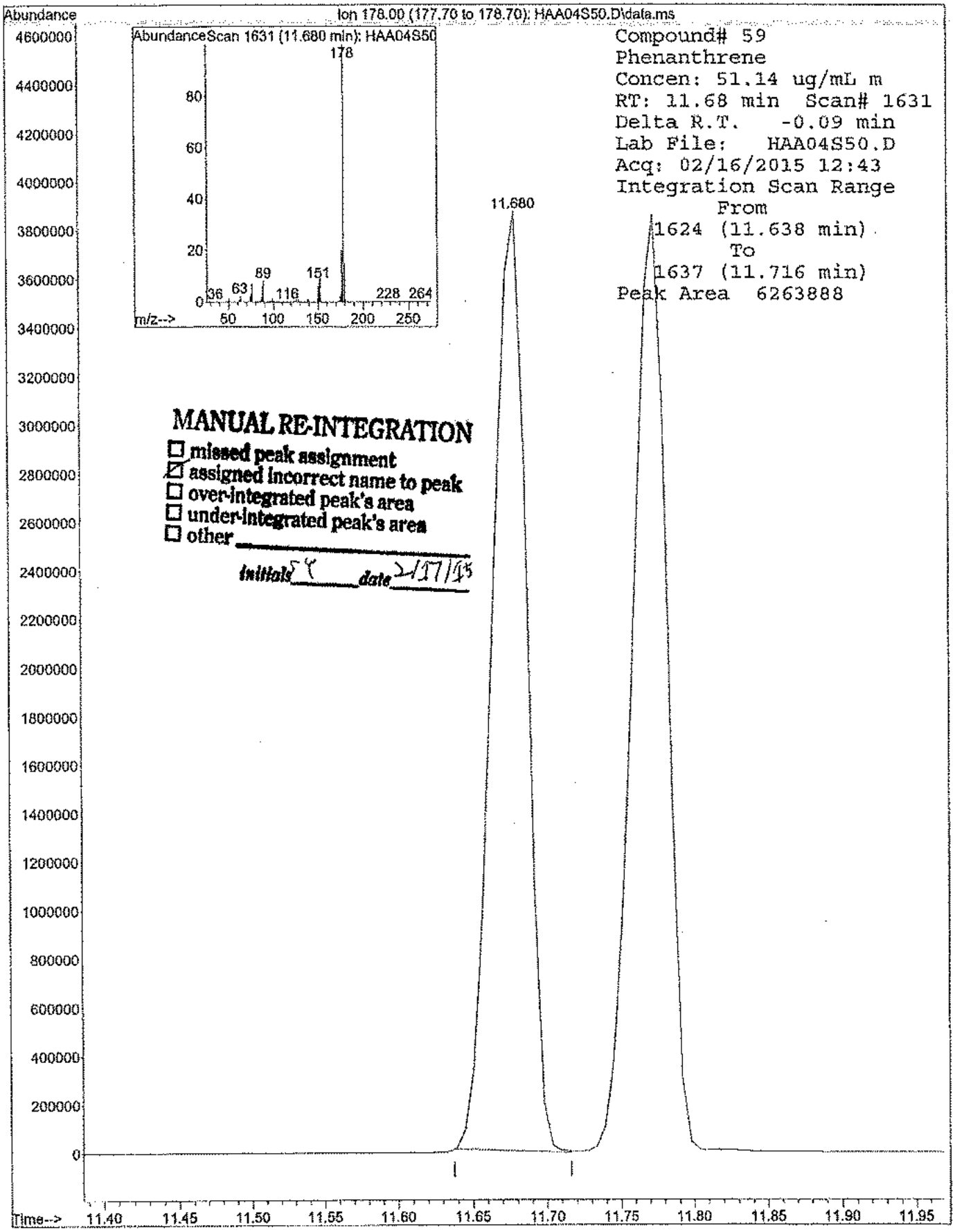
H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



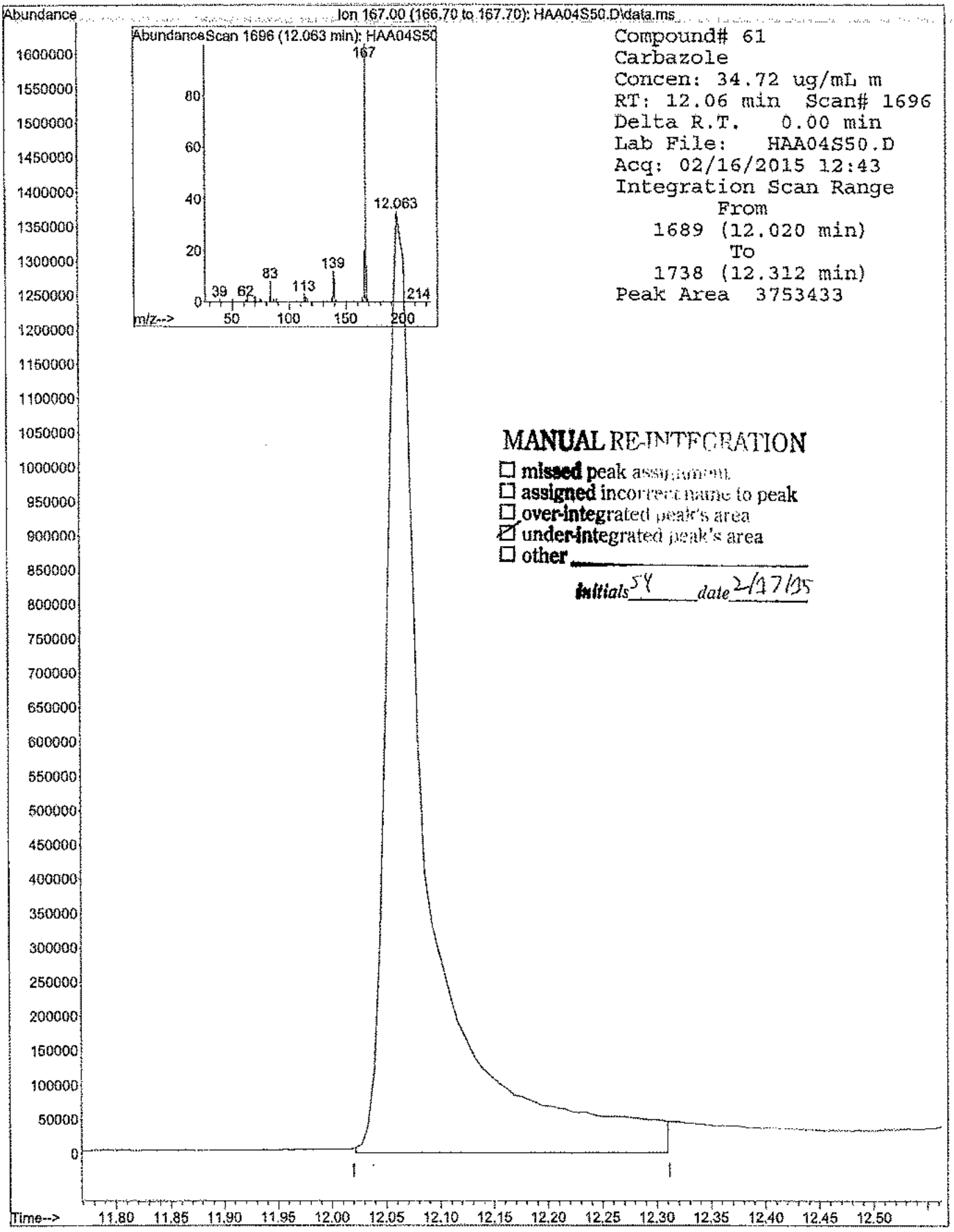
H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



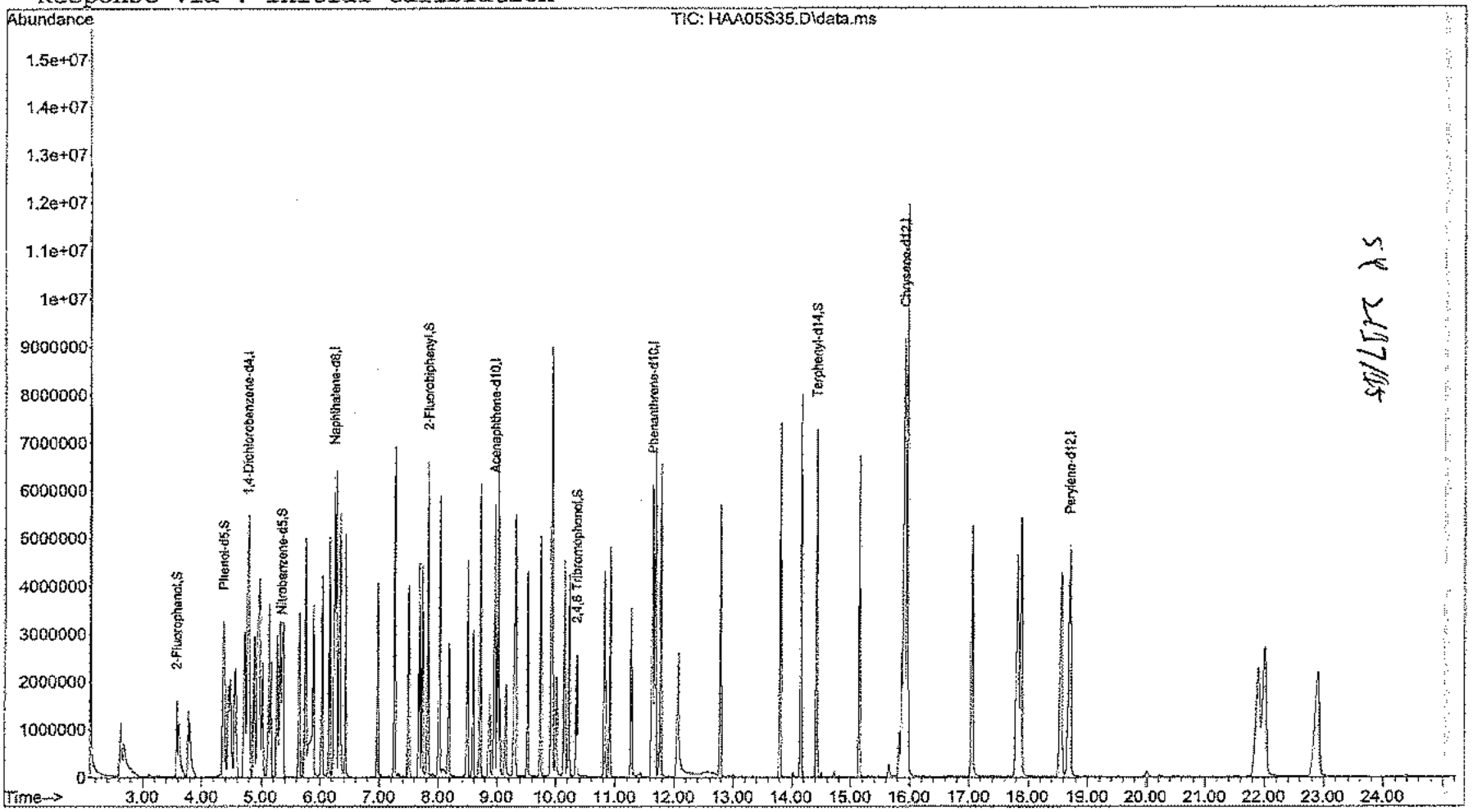
H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA05S35.D Vial: 5
Acq On : 02/16/2015 13:16 Operator: JH
Sample : 8270 S35 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 10:46:05 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA05S35.D Vial: 5
Acq On : 02/16/2015 13:16 Operator: JH
Sample : 8270 S35 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:46:05 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.76	152	1320920	40.00 ug/mL	
17) Naphthalene-d8	6.24	136	4506292	40.00 ug/mL	
32) Acenaphthene-d10	8.96	164	2261450	40.00 ug/mL	
52) Phenanthrene-d10	11.63	188	4219865	40.00 ug/mL	
64) Chrysene-d12	15.92	240	4257649	40.00 ug/mL	
72) Perylene-d12	18.70	264	5017428	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.57	112	1526198	36.691ug/mL	m SY
4) Phenol-d5	4.36	99	1608542	37.339ug/mL	2/17/15
18) Nitrobenzene-d5	5.35	82	1433993	41.862ug/mL	
36) 2-Fluorobiphenyl	7.82	172	3261563	40.008ug/mL	
53) 2,4,6-Tribromophenol	10.35	330	508142	39.656ug/mL	
66) Terphenyl-d14	14.42	244	3599674	38.617ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.62	79	1428984	33.688ug/mL	m 36
5) Phenol	4.37	94	1707873	37.994ug/mL	SY 99
6) Bis(2-chloroethyl)ether	4.48	93	1475869	38.034ug/mL	2/17/15 95
7) 2-Chlorophenol	4.56	128	1732173	37.386ug/mL	99
8) 1,3-Dichlorobenzene	4.71	146	2010976	37.993ug/mL	98
9) 1,4-dichlorobenzene	4.78	146	1951436	37.950ug/mL	99
10) Benzyl alcohol	4.88	108	977364	39.947ug/mL	98
11) 1,2-dichlorobenzene	4.94	146	1845811	37.189ug/mL	100
12) 2-Methylphenol	4.96	107	1154211	39.043ug/mL	98
13) Bis(2-chloroisopropyl)ethe	5.02	45	1382912	32.949ug/mL	94
14) 4-methylphenol	5.13	107	1671470	40.220ug/mL	98
15) N-Nitrosodi-n-propyl amine	5.16	70	774377	34.381ug/mL	96
16) Hexachloroethane	5.31	117	694424	35.496ug/mL	99
19) Nitrobenzene	5.37	77	1352429	37.420ug/mL	99
20) Isophorone	5.64	82	2406703	38.529ug/mL	99
21) 2-Nitrophenol	5.74	139	862913	38.363ug/mL	99
22) 2,4-Dimethylphenol	5.75	122	1193911	38.636ug/mL	97
23) Benzoic Acid	5.87	122	751364	41.744ug/mL	82
24) Bis(2-chloroethoxy)methane	5.88	93	1466361	36.926ug/mL	98
25) 2,4-Dichlorophenol	6.03	162	1398633	38.476ug/mL	100
26) 1,2,4-Trichlorobenzene	6.15	180	1580703	37.869ug/mL	100
27) Naphthalene	6.27	128	4356390	38.171ug/mL	100
28) 4-Chloroaniline	6.32	127	1484764	34.828ug/mL	98
29) Hexachlorobutadiene	6.42	225	925549	37.696ug/mL	99
30) 4-Chloro-3-Methylphenol	6.97	107	1220401	39.505ug/mL	100
31) 2-Methylnaphthalene	7.25	142	3153910	40.121ug/mL	100
33) Hexachlorocyclopentadiene	7.49	237	1046458	40.475ug/mL	100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

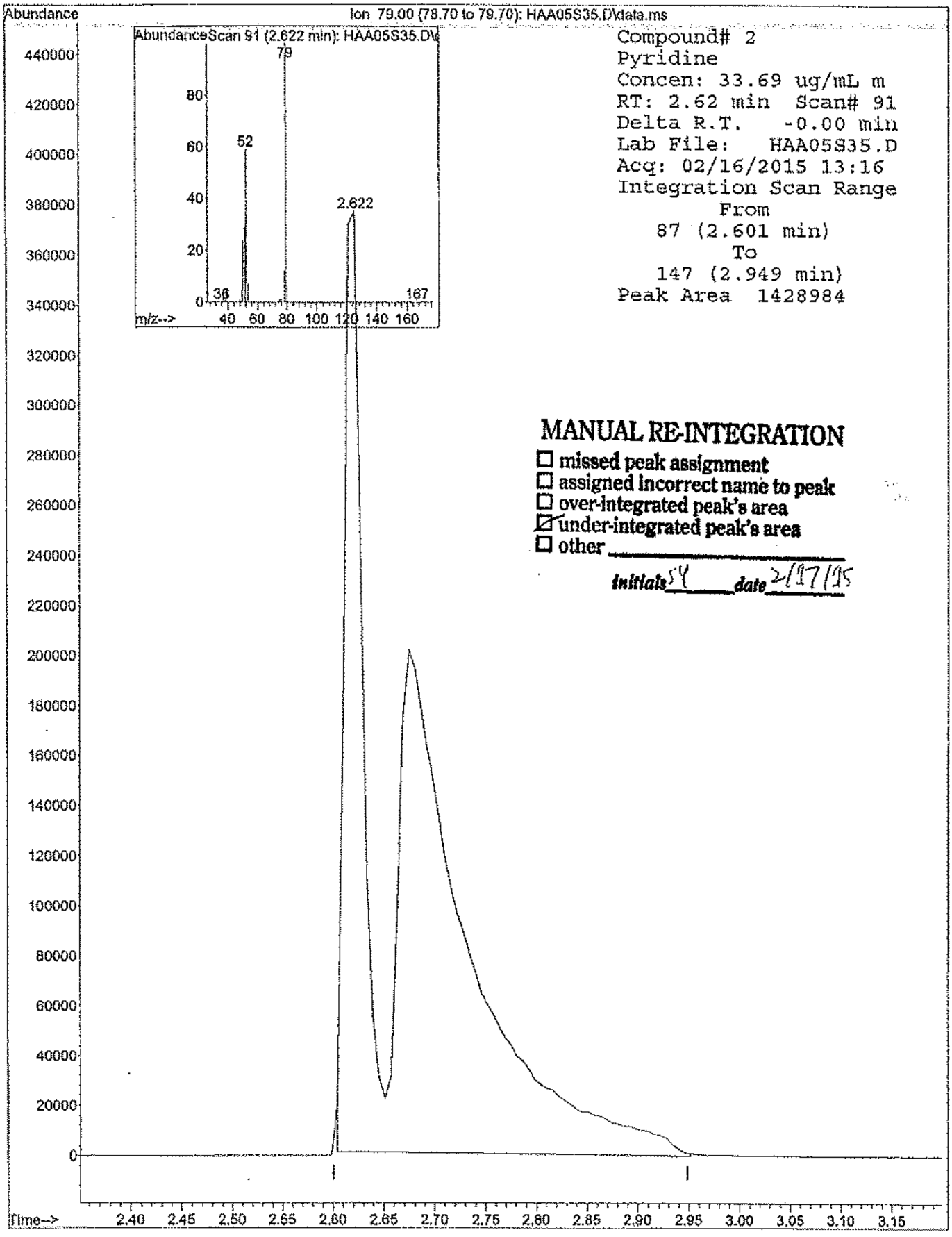
Data File : R:\H\2015\FEB15\16FEB15H\HAA05S35.D Vial: 5
Acq On : 02/16/2015 13:16 Operator: JH
Sample : 8270 S35 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:46:05 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
34)	2,4,6-Trichlorophenol	7.67	196	1068434	42.250ug/mL		100
35)	2,4,5-Trichlorophenol	7.72	196	1144894	41.657ug/mL		100
37)	2-Chloronaphthalene	8.02	162	2953224	39.326ug/mL		100
38)	2-Nitroaniline	8.17	65	716388	40.868ug/mL		95
39)	Dimethylphthalate	8.49	163	3401285	41.391ug/mL		100
40)	2,6-Dinitrotoluene	8.59	165	790740	43.428ug/mL		99
41)	Acenaphthylene	8.71	152	4707811	39.976ug/mL		100
42)	3-Nitroaniline	8.87	65	560925	29.300ug/mL		97
43)	Acenaphthene	9.01	153	2806399	39.265ug/mL		99
44)	2,4-Dinitrophenol	9.05	184	430269	44.727ug/mL		99
45)	4-Nitrophenol	9.15	109	366867	44.670ug/mL		97
46)	Dibenzofuran	9.32	168	4069303	40.125ug/mL		98
47)	2,4-Dinitrotoluene	9.29	165	1030011	47.385ug/mL		95
48)	Diethylphthalate	9.74	149	3281709	40.964ug/mL		100
49)	4-chlorophenyl phenyl ethe	9.93	204	1569866	40.070ug/mL		100
50)	Fluorene	9.92	166	3043645	40.210ug/mL		100
51)	4-Nitroaniline	9.95	65	381200	25.366ug/mL		92
54)	4,6-Dinitro-2-methylphenol	10.01	198	629101	43.503ug/mL		97
55)	N-Nitrosodiphenylamine	10.14	169	2109355	36.737ug/mL		99
56)	4-bromophenyl phenyl ether	10.82	248	1072550	39.330ug/mL		100
57)	Hexachlorobenzene	10.91	284	1172669	38.271ug/mL		99
58)	Pentachlorophenol	11.27	266	794196	44.789ug/mL		99
59)	Phenanthrene	11.67	178	4642979	38.428ug/mL	m SY 2/17/15	99
60)	Anthracene	11.77	178	4645132	38.102ug/mL		100
61)	Carbazole	12.06	167	2603022	24.408ug/mL	m	97
62)	Di-n-butylphthalate	12.78	149	5241404	38.105ug/mL	SY	100
63)	Fluoranthene	13.80	202	5052583	38.669ug/mL	2/17/15	98
65)	Pyrene	14.16	202	5202670	38.872ug/mL		98
67)	Butylbenzylphthalate	15.14	149	2328302	39.400ug/mL		97
68)	3,3'-Dichlorobenzidine	15.86	252	880916	23.065ug/mL		99
69)	Benzo(a)anthracene	15.90	228	4872068	40.216ug/mL		99
70)	Chrysene	15.96	228	4029157	35.086ug/mL		99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	2808737	35.091ug/mL		99
73)	Di-n-octylphthalate	17.05	149	5637568	43.042ug/mL		100
74)	Benzo(b)fluoranthene	17.82	252	5140907	41.987ug/mL		99
75)	Benzo(k)fluoranthene	17.88	252	4804781	38.941ug/mL		99
76)	Benzo(a)pyrene	18.56	252	4805968	40.476ug/mL		99
77)	Indeno(1,2,3-c,d)pyrene	21.90	276	4478156	39.349ug/mL		100
78)	Dibenz(a,h)anthracene	22.00	278	4534963	39.139ug/mL		97
79)	Benzo(g,h,i)perylene	22.90	276	4607240	38.607ug/mL		96

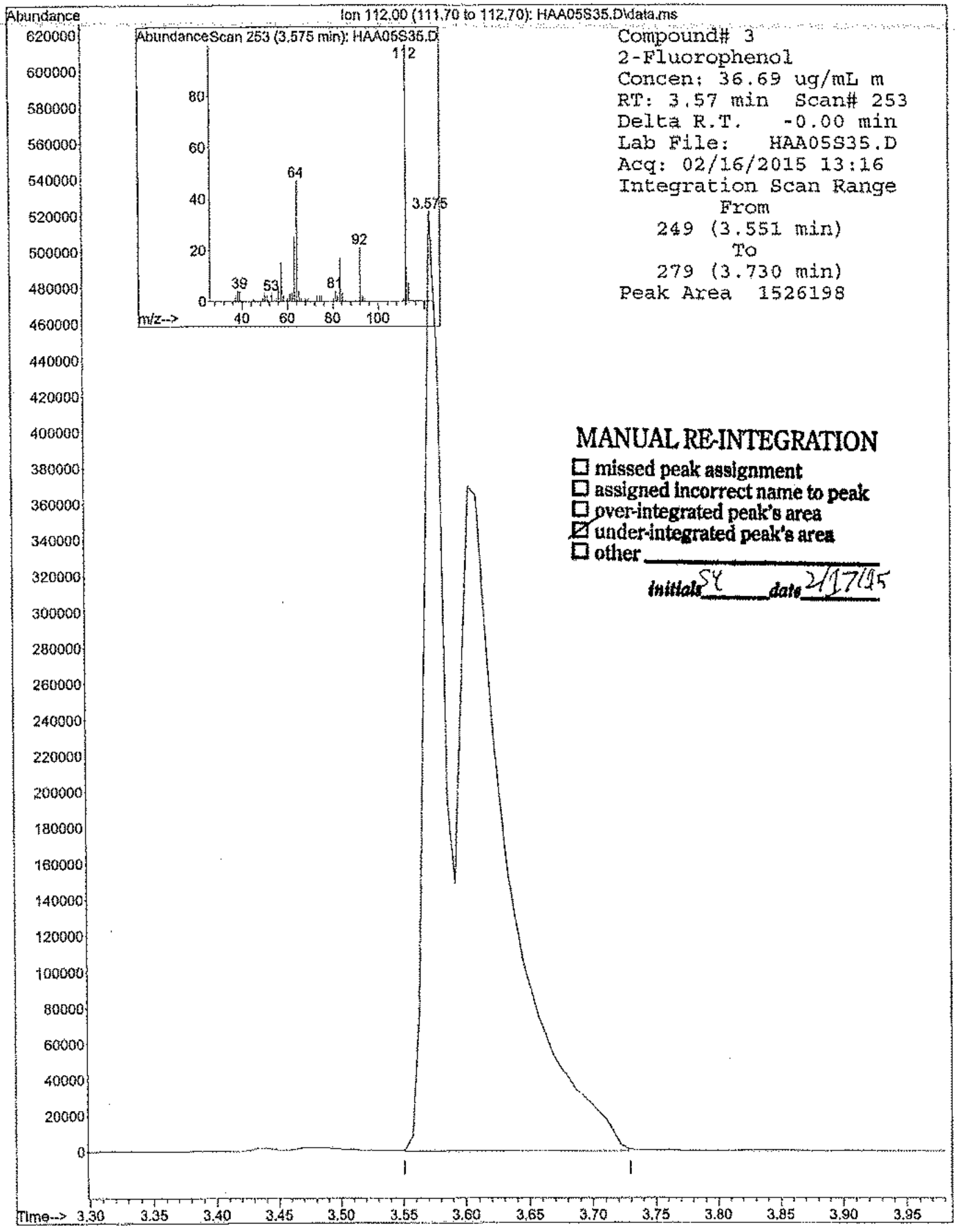
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



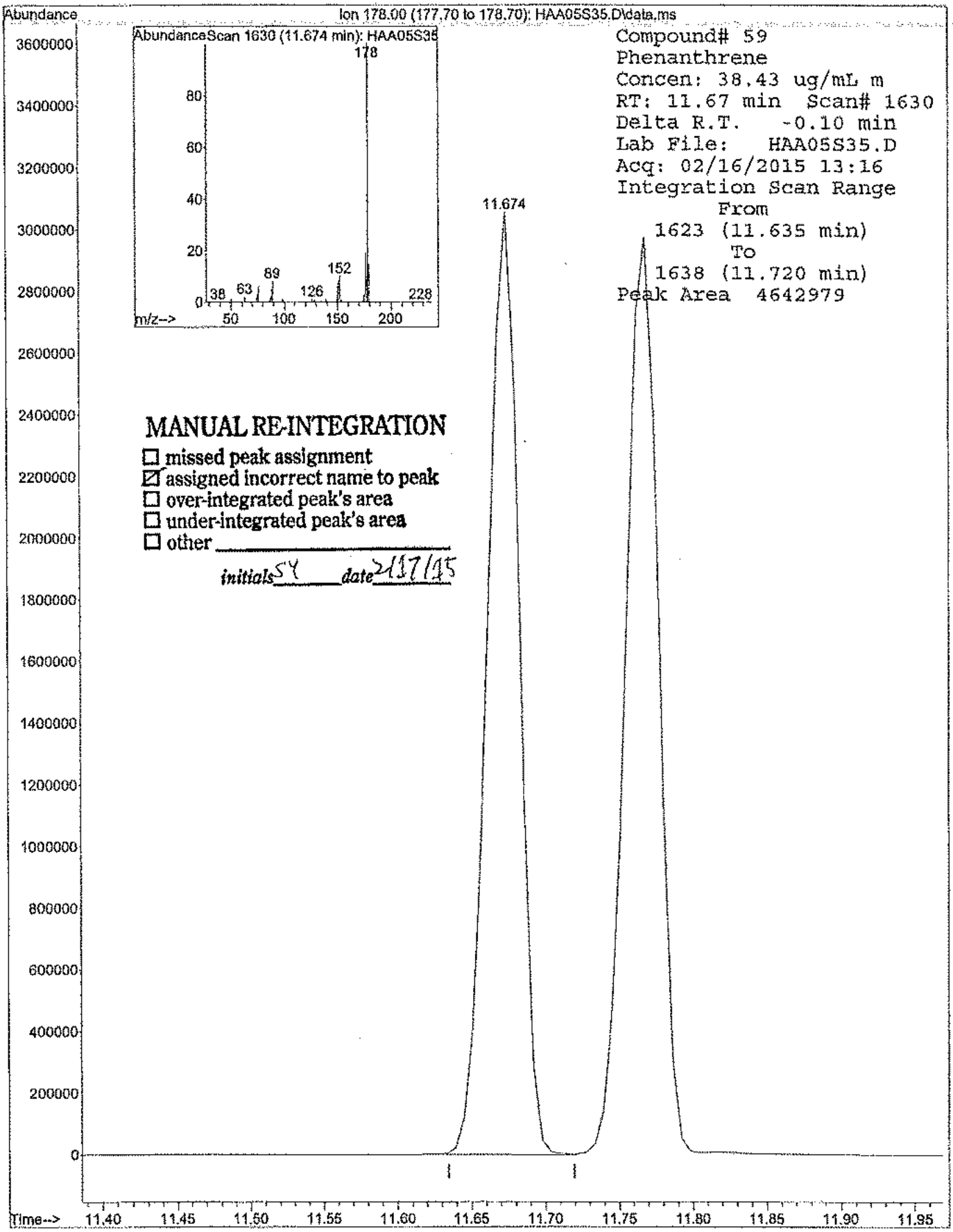
H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



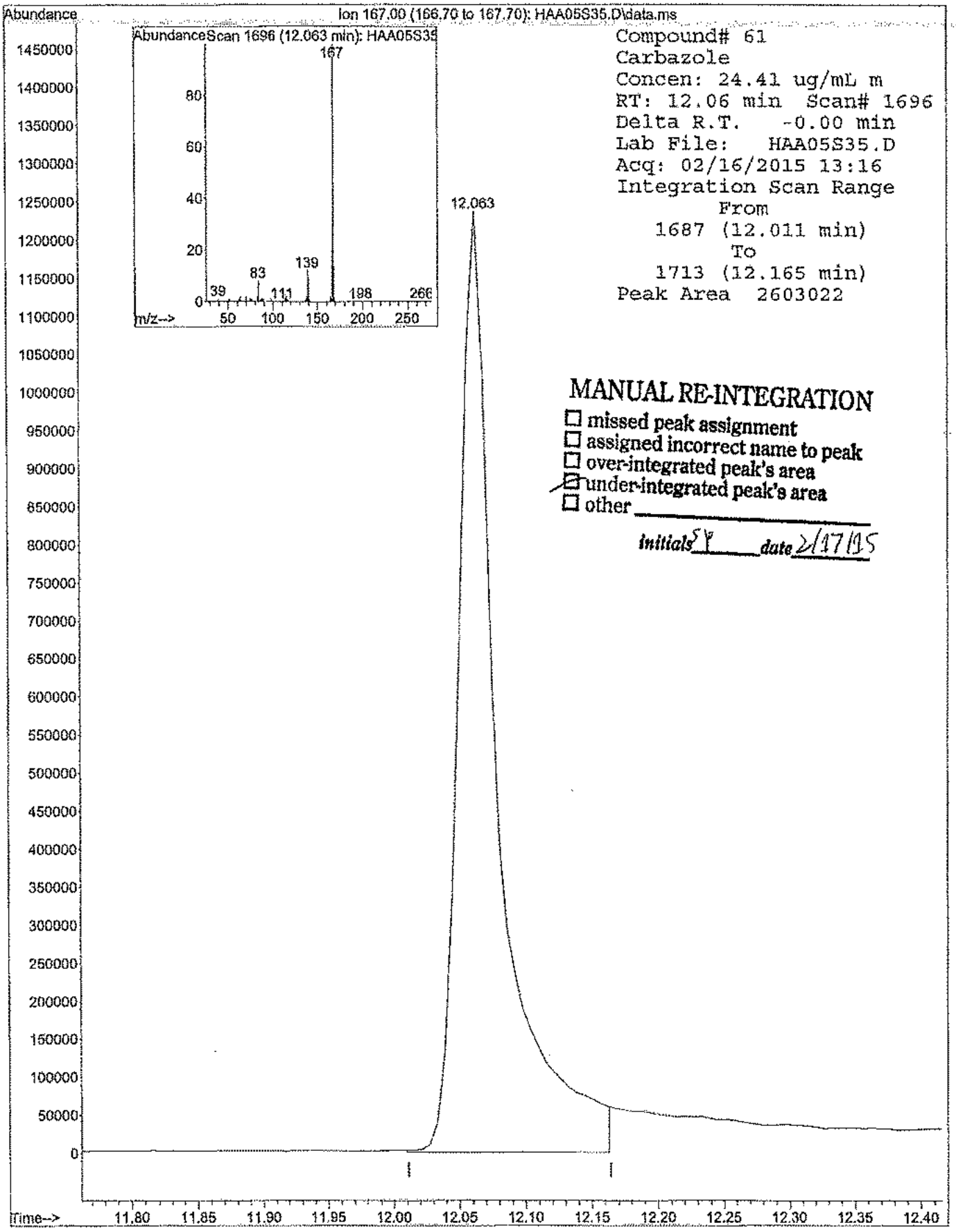
H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



Compound# 61
Carbazole
Concen: 24.41 ug/mL m
RT: 12.06 min Scan# 1696
Delta R.T. -0.00 min
Lab File: HAA05S35.D
Acq: 02/16/2015 13:16
Integration Scan Range
From
1687 (12.011 min)
To
1713 (12.165 min)
Peak Area 2603022

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

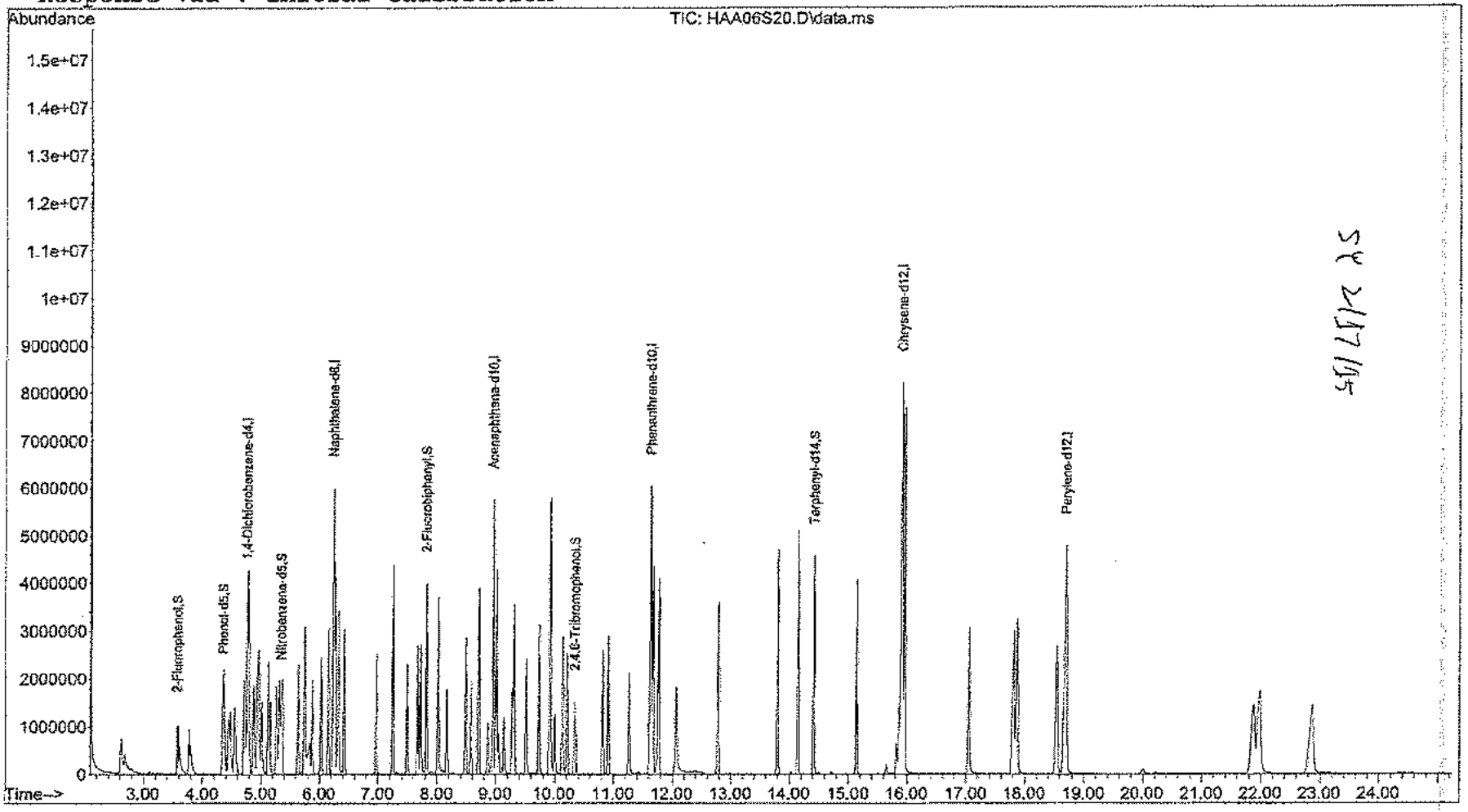
H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA06S20.D Vial: 6
Acq On : 02/16/2015 13:50 Operator: JH
Sample : 8270 S20 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 10:48:12 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA06S20.D Vial: 6
Acq On : 02/16/2015 13:50 Operator: JH
Sample : 8270 S20 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:48:12 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1235450	40.00 ug/mL
17) Naphthalene-d8	6.23	136	4321064	40.00 ug/mL
32) Acenaphthene-d10	8.95	164	2214933	40.00 ug/mL
52) Phenanthrene-d10	11.63	188	4073308	40.00 ug/mL
64) Chrysene-d12	15.91	240	4237609	40.00 ug/mL
72) Perylene-d12	18.69	264	4954588	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.57	112	881824	22.666ug/mL m SY
4) Phenol-d5	4.35	99	948936	23.552ug/mL 2/17/15
18) Nitrobenzene-d5	5.34	82	852137	25.942ug/mL
36) 2-Fluorobiphenyl	7.82	172	1978291	24.777ug/mL
53) 2,4,6-Tribromophenol	10.34	330	286926	23.198ug/mL
66) Terphenyl-d14	14.42	244	2132433	22.985ug/mL
Target Compounds				Qvalue
2) Pyridine	2.62	79	846826	21.345ug/mL m SY 35
5) Phenol	4.36	94	1015832	24.162ug/mL 2/17/15 99
6) Bis(2-chloroethyl)ether	4.47	93	902159	24.858ug/mL 90
7) 2-Chlorophenol	4.55	128	1005327	23.199ug/mL 99
8) 1,3-Dichlorobenzene	4.70	146	1163890	23.510ug/mL 100
9) 1,4-dichlorobenzene	4.77	146	1171547	24.359ug/mL 99
10) Benzyl alcohol	4.87	108	573312	25.053ug/mL 98
11) 1,2-dichlorobenzene	4.93	146	1088585	23.450ug/mL 100
12) 2-Methylphenol	4.96	107	684475	24.755ug/mL 98
13) Bis(2-chloroisopropyl)ethe	5.01	45	843279	21.482ug/mL 95
14) 4-methylphenol	5.12	107	989332	25.453ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.16	70	473231	22.464ug/mL 98
16) Hexachloroethane	5.30	117	409487	22.379ug/mL 100
19) Nitrobenzene	5.36	77	811851	23.426ug/mL 99
20) Isophorone	5.63	82	1450454	24.216ug/mL 99
21) 2-Nitrophenol	5.73	139	592673	27.478ug/mL 92
22) 2,4-Dimethylphenol	5.75	122	731730	24.695ug/mL 97
23) Benzoic Acid	5.84	122	399195	27.281ug/mL 80
24) Bis(2-chloroethoxy)methane	5.87	93	885405	23.252ug/mL 98
25) 2,4-Dichlorophenol	6.02	162	821127	23.557ug/mL 100
26) 1,2,4-Trichlorobenzene	6.15	180	935312	23.368ug/mL 99
27) Naphthalene	6.26	128	2678000	24.471ug/mL 100
28) 4-Chloroaniline	6.32	127	893494	21.857ug/mL 97
29) Hexachlorobutadiene	6.42	225	553883	23.526ug/mL 99
30) 4-Chloro-3-Methylphenol	6.97	107	730281	24.653ug/mL 100
31) 2-Methylnaphthalene	7.25	142	1934196	25.660ug/mL 100
33) Hexachlorocyclopentadiene	7.49	237	587800	23.212ug/mL 100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

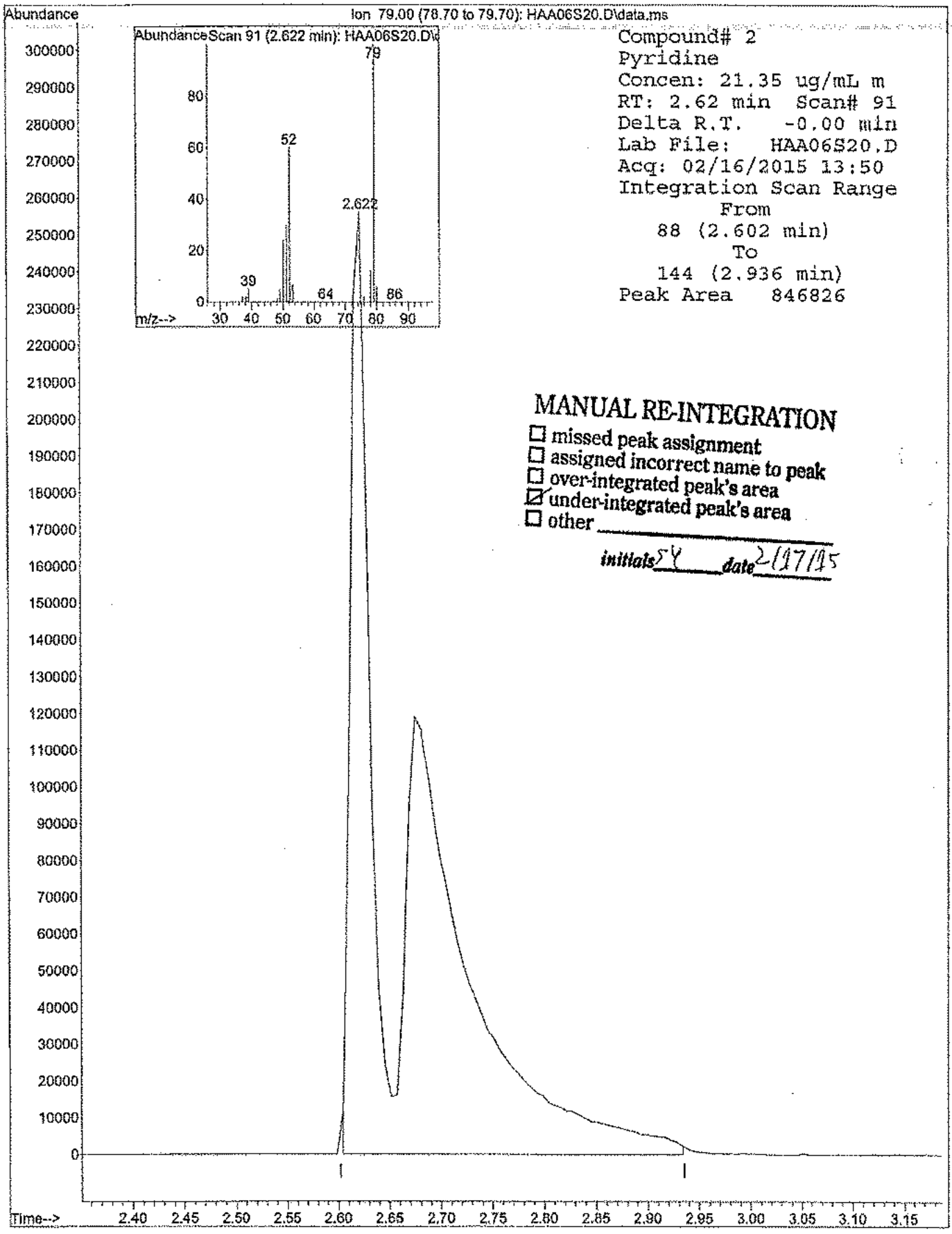
Data File : R:\H\2015\FEB15\16FEB15H\HAA06S20.D Vial: 6
Acq On : 02/16/2015 13:50 Operator: JH
Sample : 8270 S20 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:48:12 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.67	196	621456	25.091ug/mL	99
35)	2,4,5-Trichlorophenol	7.72	196	677385	25.164ug/mL	99
37)	2-Chloronaphthalene	8.02	162	1774719	24.129ug/mL	100
38)	2-Nitroaniline	8.17	65	417710	24.330ug/mL	96
39)	Dimethylphthalate	8.49	163	1996077	24.801ug/mL	100
40)	2,6-Dinitrotoluene	8.58	165	462716	25.946ug/mL	99
41)	Acenaphthylene	8.71	152	2869614	24.879ug/mL	100
42)	3-Nitroaniline	8.86	65	326079	17.391ug/mL	98
43)	Acenaphthene	9.01	153	1701023	24.299ug/mL	96
44)	2,4-Dinitrophenol	9.05	184	218766	27.387ug/mL	99
45)	4-Nitrophenol	9.13	109	206723	27.364ug/mL	96
46)	Dibenzofuran	9.31	168	2477747	24.945ug/mL	98
47)	2,4-Dinitrotoluene	9.28	165	601315	28.244ug/mL	82
48)	Diethylphthalate	9.73	149	1961431	24.998ug/mL	100
49)	4-chlorophenyl phenyl ethe	9.93	204	966650	25.192ug/mL	99
50)	Fluorene	9.92	166	1895526	25.568ug/mL	100
51)	4-Nitroaniline	9.93	65	243231	16.525ug/mL	93
54)	4,6-Dinitro-2-methylphenol	10.00	198	334873	23.990ug/mL	98
55)	N-Nitrosodiphenylamine	10.13	169	1260915	22.751ug/mL	100
56)	4-bromophenyl phenyl ether	10.82	248	625759	23.772ug/mL	99
57)	Hexachlorobenzene	10.91	284	693926	23.462ug/mL	100
58)	Pentachlorophenol	11.26	266	442914	27.757ug/mL	99
59)	Phenanthrene	11.67	178	2835031	24.308ug/mL	m 98
60)	Anthracene	11.76	178	2836805	24.106ug/mL	99
61)	Carbazole	12.06	167	1766947	17.164ug/mL	m 98
62)	Di-n-butylphthalate	12.78	149	3210106	24.177ug/mL	100
63)	Fluoranthene	13.80	202	3090997	24.508ug/mL	98
65)	Pyrene	14.15	202	3228513	24.236ug/mL	98
67)	Butylbenzylphthalate	15.14	149	1393614	23.694ug/mL	98
68)	3,3'-Dichlorobenzidine	15.85	252	471944	12.415ug/mL	98
69)	Benzo(a)anthracene	15.89	228	2921916	24.233ug/mL	99
70)	Chrysene	15.94	228	2569081	22.478ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	1812472	22.752ug/mL	100
73)	Di-n-octylphthalate	17.05	149	3278222	25.346ug/mL	100
74)	Benzo(b)fluoranthene	17.80	252	2967395	24.543ug/mL	99
75)	Benzo(k)fluoranthene	17.87	252	2847777	23.373ug/mL	99
76)	Benzo(a)pyrene	18.54	252	2779389	23.705ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.87	276	2517732	22.404ug/mL	99
78)	Dibenz(a,h)anthracene	21.97	278	2581089	22.559ug/mL	98
79)	Benzo(g,h,i)perylene	22.86	276	2660818	22.580ug/mL	96

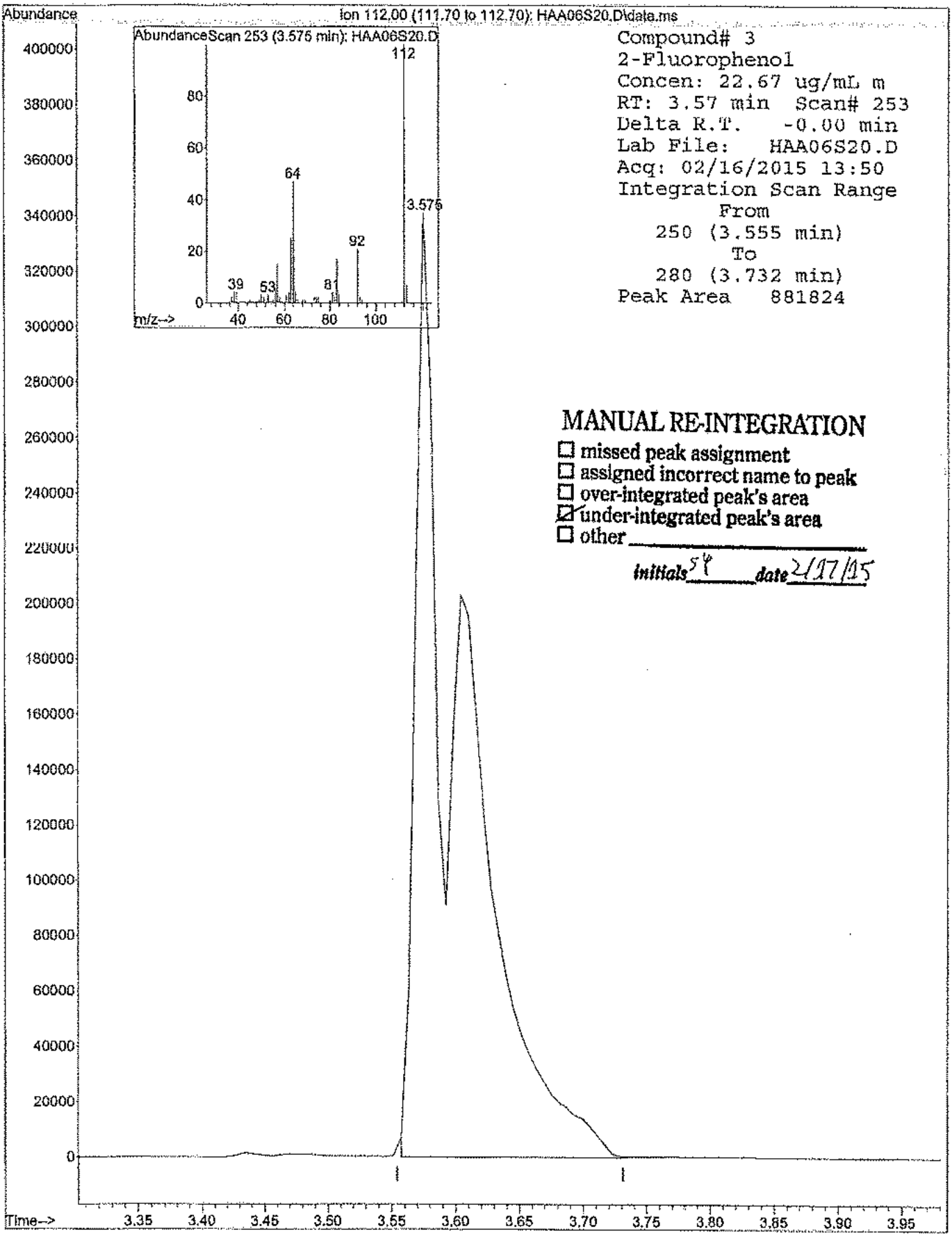
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



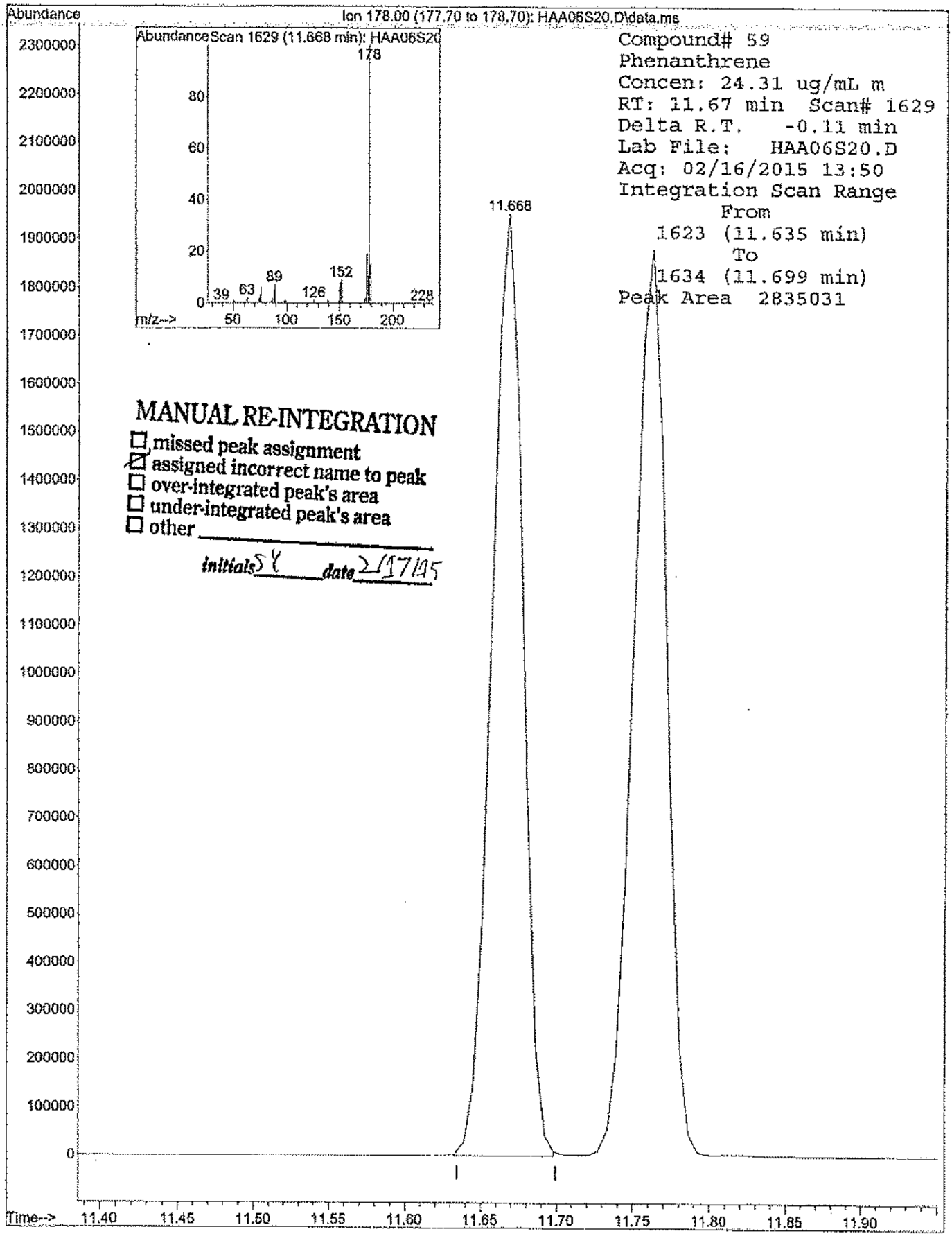
H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



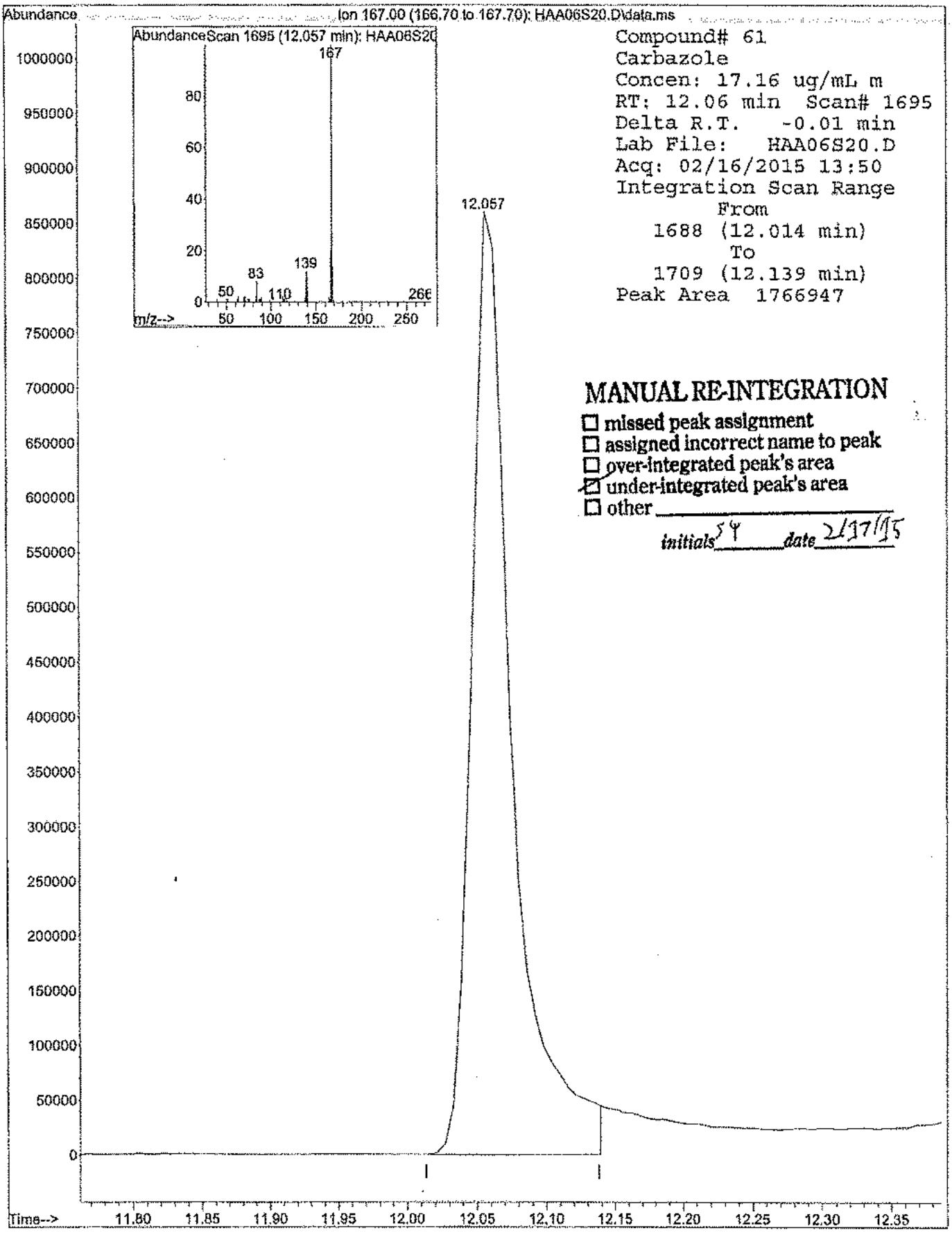
H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



Compound# 61
Carbazole
Concen: 17.16 ug/mL m
RT: 12.06 min Scan# 1695
Delta R.T. -0.01 min
Lab File: HAA06S20.D
Acq: 02/16/2015 13:50
Integration Scan Range
From
1688 (12.014 min)
To
1709 (12.139 min)
Peak Area 1766947

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

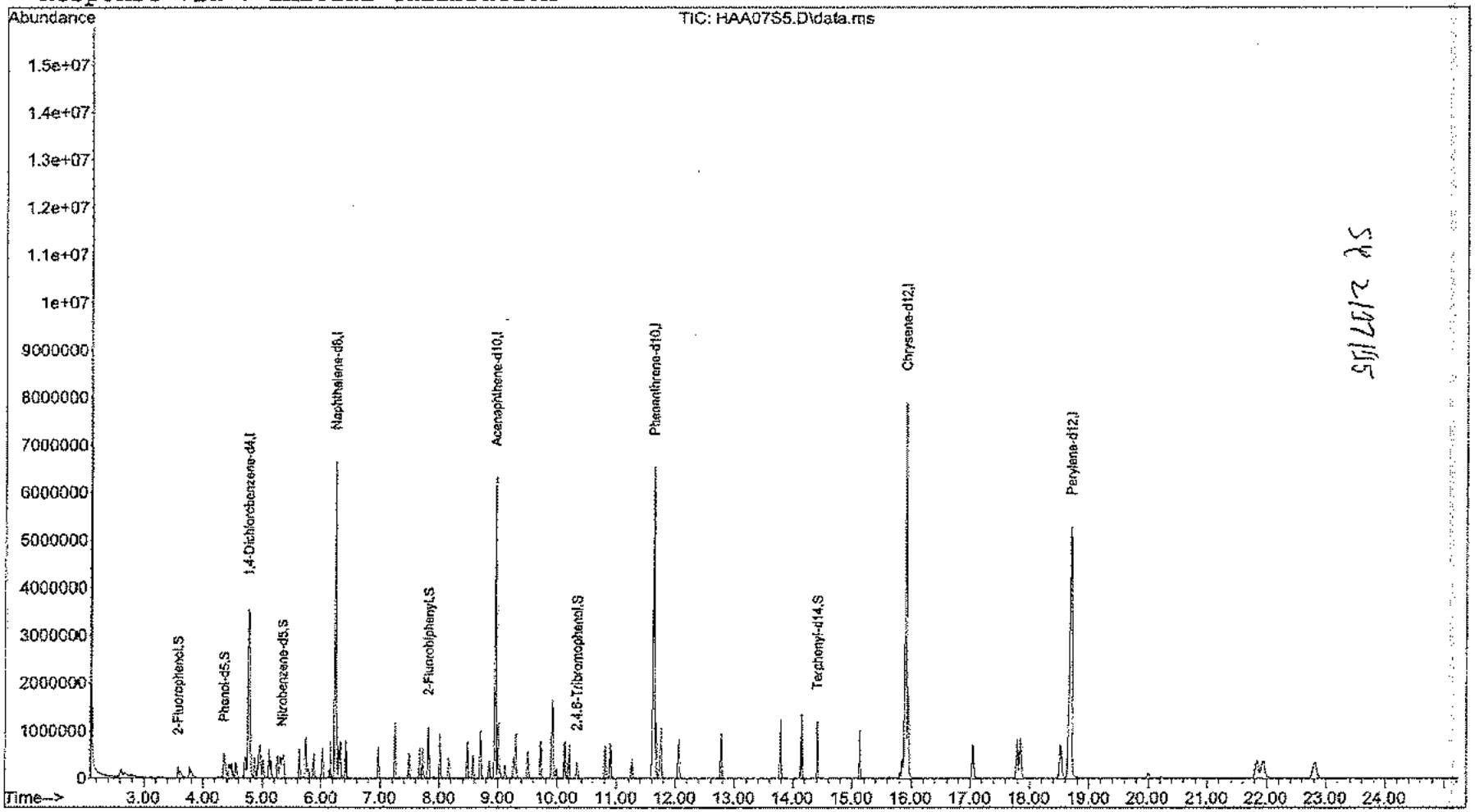
H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA07S5.D Vial: 7
Acq On : 02/16/2015 14:23 Operator: JH
Sample : 8270 S5 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 10:50:55 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA07S5.D Vial: 7
Acq On : 02/16/2015 14:23 Operator: JH
Sample : 8270 S5 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:50:55 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.76	152	1406124	40.00 ug/mL	
17) Naphthalene-d8	6.23	136	4668201	40.00 ug/mL	
32) Acenaphthene-d10	8.95	164	2349879	40.00 ug/mL	
52) Phenanthrene-d10	11.62	188	4303319	40.00 ug/mL	
64) Chrysene-d12	15.91	240	4699473	40.00 ug/mL	
72) Perylene-d12	18.69	264	5451240	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.57	112	212756	4.805ug/mL	m SY 2/17/15
4) Phenol-d5	4.35	99	237448	5.178ug/mL	
18) Nitrobenzene-d5	5.34	82	211921	5.972ug/mL	
36) 2-Fluorobiphenyl	7.82	172	511784	6.042ug/mL	
53) 2,4,6-Tribromophenol	10.33	330	66325	5.076ug/mL	
66) Terphenyl-d14	14.41	244	557021	5.414ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.62	79	208566	4.619ug/mL	m 36
5) Phenol	4.37	94	254097	5.310ug/mL	SY 99
6) Bis(2-chloroethyl)ether	4.47	93	212248	5.138ug/mL	2/17/15 98
7) 2-Chlorophenol	4.56	128	247652	5.021ug/mL	99
8) 1,3-Dichlorobenzene	4.70	146	289756	5.143ug/mL	99
9) 1,4-dichlorobenzene	4.78	146	293416	5.360ug/mL	94
10) Benzyl alcohol	4.87	108	140294	5.387ug/mL	98
11) 1,2-dichlorobenzene	4.93	146	277443	5.251ug/mL	100
12) 2-Methylphenol	4.96	107	171266	5.442ug/mL	97
13) Bis(2-chloroisopropyl)ethe	5.01	45	220583	4.937ug/mL	97
14) 4-methylphenol	5.12	107	242257	5.476ug/mL	99
15) N-Nitrosodi-n-propyl amine	5.15	70	114574	4.779ug/mL	99
16) Hexachloroethane	5.30	117	99835	4.794ug/mL	99
19) Nitrobenzene	5.36	77	207310	5.537ug/mL	99
20) Isophorone	5.63	82	367377	5.677ug/mL	100
21) 2-Nitrophenol	5.73	139	135593	5.819ug/mL	96
22) 2,4-Dimethylphenol	5.75	122	195189	6.097ug/mL	94
23) Benzoic Acid	5.79	122	51622	11.462ug/mL	42
24) Bis(2-chloroethoxy)methane	5.87	93	231642	5.631ug/mL	97
25) 2,4-Dichlorophenol	6.02	162	198973	5.284ug/mL	99
26) 1,2,4-Trichlorobenzene	6.15	180	240869	5.570ug/mL	99
27) Naphthalene	6.26	128	682513	5.773ug/mL	100
28) 4-Chloroaniline	6.30	127	244357	5.533ug/mL	97
29) Hexachlorobutadiene	6.42	225	138621	5.450ug/mL	99
30) 4-Chloro-3-Methylphenol	6.96	107	174847	5.464ug/mL	100
31) 2-Methylnaphthalene	7.25	142	494376	6.071ug/mL	99
33) Hexachlorocyclopentadiene	7.49	237	124127	4.620ug/mL	99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

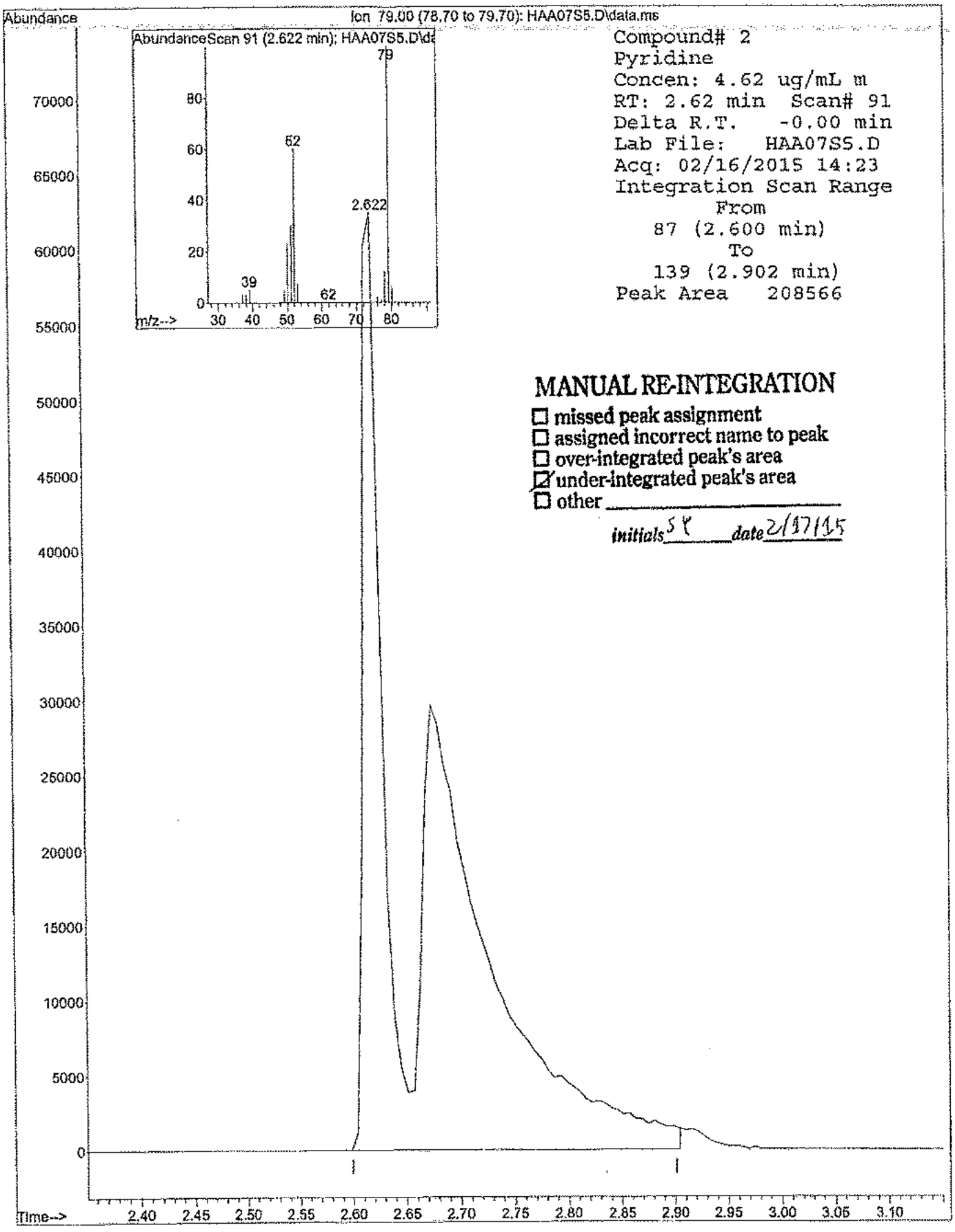
Data File : R:\H\2015\FEB15\16FEB15H\HAA07S5.D Vial: 7
Acq On : 02/16/2015 14:23 Operator: JH
Sample : 8270 S5 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:50:55 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.67	196	145830	5.550ug/mL	100
35)	2,4,5-Trichlorophenol	7.72	196	159564	5.587ug/mL	100
37)	2-Chloronaphthalene	8.01	162	449191	5.756ug/mL	99
38)	2-Nitroaniline	8.16	65	98270	5.395ug/mL	97
39)	Dimethylphthalate	8.48	163	502492	5.885ug/mL	100
40)	2,6-Dinitrotoluene	8.57	165	106491	5.628ug/mL	99
41)	Acenaphthylene	8.70	152	735244	6.008ug/mL	99
42)	3-Nitroaniline	8.85	65	105786	5.318ug/mL	99
43)	Acenaphthene	9.00	153	444739	5.988ug/mL	98
44)	2,4-Dinitrophenol	9.03	184	30354	11.116ug/mL	96
45)	4-Nitrophenol	9.12	109	45356	8.767ug/mL	96
46)	Dibenzofuran	9.30	168	636269	6.038ug/mL	98
47)	2,4-Dinitrotoluene	9.27	165	137921	6.106ug/mL	79
48)	Diethylphthalate	9.72	149	495436	5.952ug/mL	99
49)	4-chlorophenyl phenyl ethe	9.92	204	251820	6.186ug/mL	99
50)	Fluorene	9.91	166	494470	6.287ug/mL	100
51)	4-Nitroaniline	9.92	65	84902	5.437ug/mL	95
54)	4,6-Dinitro-2-methylphenol	9.99	198	56143	3.807ug/mL	95
55)	N-Nitrosodiphenylamine	10.13	169	329002	5.619ug/mL	100
56)	4-bromophenyl phenyl ether	10.81	248	156324	5.621ug/mL	99
57)	Hexachlorobenzene	10.90	284	170662	5.462ug/mL	99
58)	Pentachlorophenol	11.26	266	88664	8.867ug/mL SV	99
59)	Phenanthrene	11.66	178	722939	5.867ug/mL m 2/17/15	98
60)	Anthracene	11.76	178	721958	5.807ug/mL SV	99
61)	Carbazole	12.06	167	617370	5.677ug/mL m 2/17/15	98
62)	Di-n-butylphthalate	12.77	149	815814	5.816ug/mL	100
63)	Fluoranthene	13.79	202	796416	5.977ug/mL	97
65)	Pyrene	14.14	202	825801	5.590ug/mL	97
67)	Butylbenzylphthalate	15.13	149	337903	5.180ug/mL	97
68)	3,3'-Dichlorobenzidine	15.85	252	140032	3.322ug/mL	99
69)	Benzo(a)anthracene	15.89	228	749735	5.607ug/mL	98
70)	Chrysene	15.94	228	683792	5.395ug/mL	98
71)	Bis(2-ethylhexyl)phthalate	15.95	149	452915	5.127ug/mL	99
73)	Di-n-octylphthalate	17.04	149	744970	5.235ug/mL	100
74)	Benzo(b)fluoranthene	17.79	252	729260	5.482ug/mL	99
75)	Benzo(k)fluoranthene	17.85	252	712236	5.313ug/mL	99
76)	Benzo(a)pyrene	18.53	252	681739	5.285ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.84	276	587719	4.753ug/mL	99
78)	Dibenz(a,h)anthracene	21.94	278	586472	4.659ug/mL	98
79)	Benzo(g,h,i)perylene	22.81	276	630424	4.862ug/mL	96

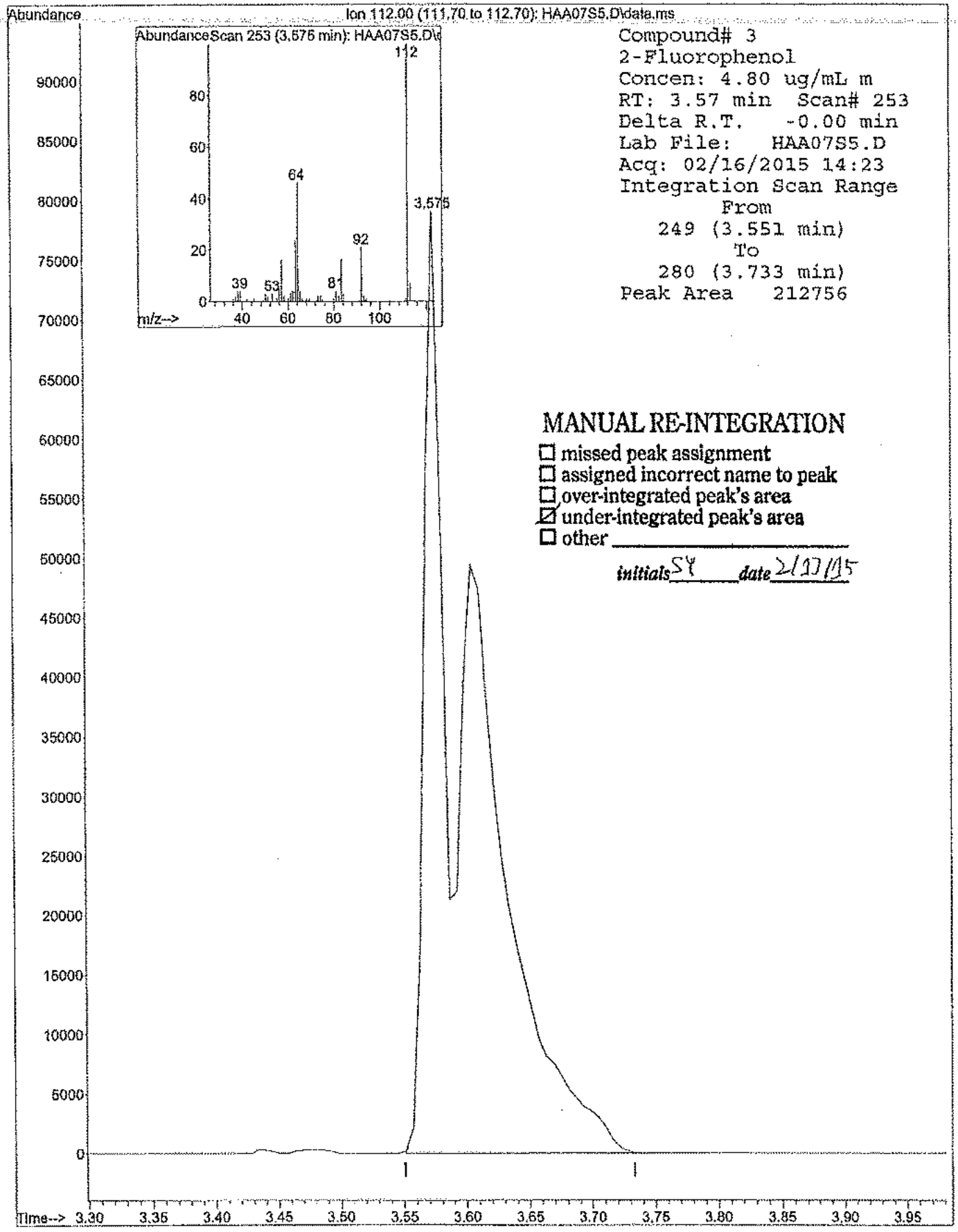
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



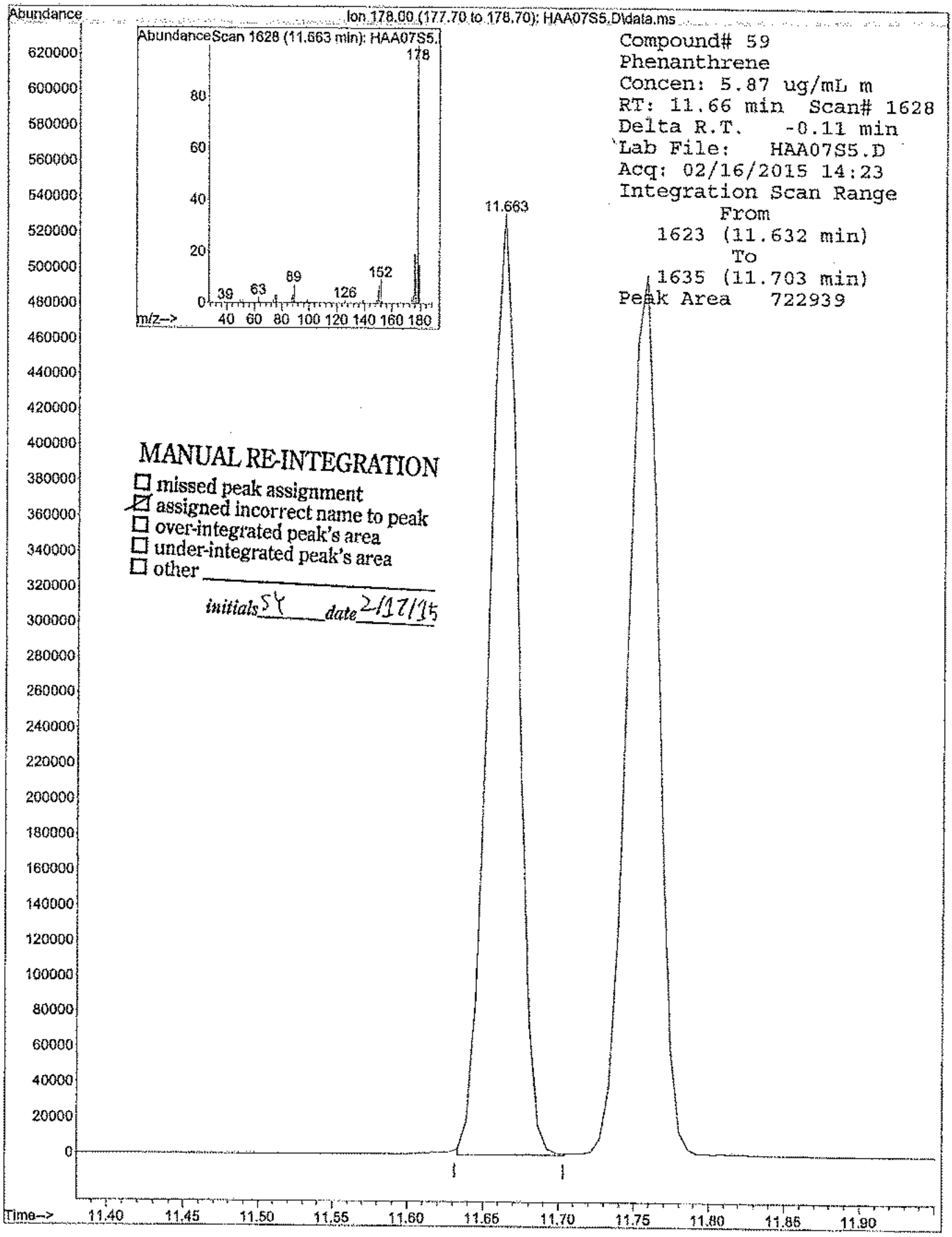
H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



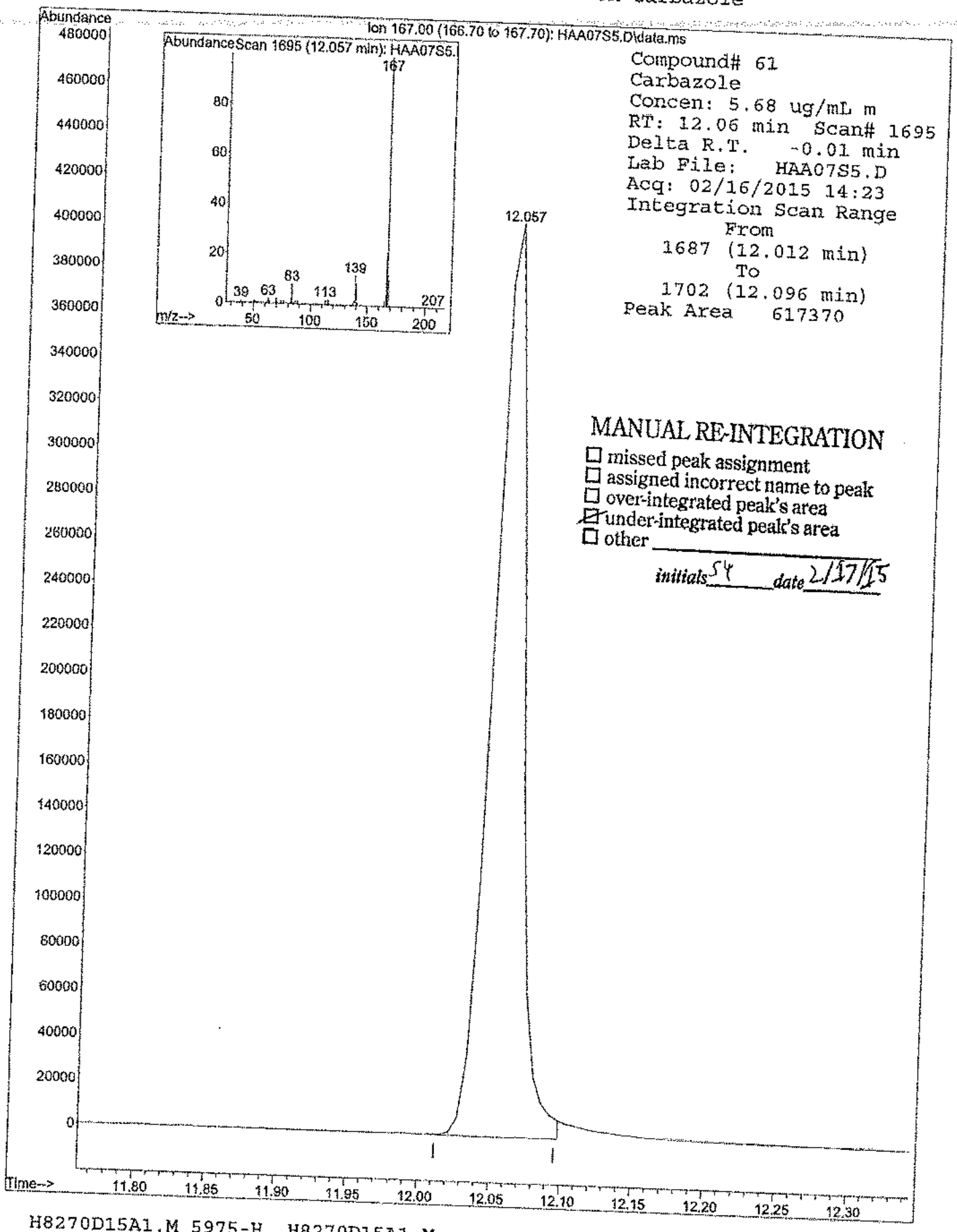
H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

MANUAL INTEGRATION FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

MANUAL INTEGRATION FOR Carbazole



Compound# 61
Carbazole
Concen: 5.68 ug/mL m
RT: 12.06 min Scan# 1695
Delta R.T. -0.01 min
Lab File: HAA07S5.D
Acq: 02/16/2015 14:23
Integration Scan Range
From
1687 (12.012 min)
To
1702 (12.096 min)
Peak Area 617370

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☒ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA08S1.D Vial: 8
Acq On : 02/16/2015 14:56 Operator: JH
Sample : 8270 S1 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 24 10:29:47 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1248932	40.00 ug/mL
17) Naphthalene-d8	6.23	136	4273784	40.00 ug/mL
32) Acenaphthene-d10	8.95	164	2145958	40.00 ug/mL
52) Phenanthrene-d10	11.62	188	3834119	40.00 ug/mL
64) Chrysene-d12	15.90	240	4259138	40.00 ug/mL
72) Perylene-d12	18.69	264	4882639	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.58	112	36393	0.855ug/mL m 2/24/15
4) Phenol-d5	4.35	99	41508	0.919ug/mL
18) Nitrobenzene-d5	5.33	82	35401	0.901ug/mL
36) 2-Fluorobiphenyl	7.82	172	95927	1.105ug/mL
53) 2,4,6-Tribromophenol	10.33	330	10015	0.769ug/mL
66) Terphenyl-d14	14.41	244	102158	1.013ug/mL
Target Compounds				Qvalue
2) Pyridine	0.00	79		Not Detected
5) Phenol	0.00	94		Not Detected
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected
7) 2-Chlorophenol	0.00	128		Not Detected
8) 1,3-Dichlorobenzene	0.00	146		Not Detected
9) 1,4-dichlorobenzene	0.00	146		Not Detected
10) Benzyl alcohol	0.00	108		Not Detected
11) 1,2-dichlorobenzene	0.00	146		Not Detected
12) 2-Methylphenol	0.00	107		Not Detected
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected
14) 4-methylphenol	0.00	107		Not Detected
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected
16) Hexachloroethane	0.00	117		Not Detected
19) Nitrobenzene	0.00	77		Not Detected
20) Isophorone	0.00	82		Not Detected
21) 2-Nitrophenol	0.00	139		Not Detected
22) 2,4-Dimethylphenol	0.00	122		Not Detected
23) Benzoic Acid	0.00	122		Not Detected
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected
25) 2,4-Dichlorophenol	0.00	162		Not Detected
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected
27) Naphthalene	0.00	128		Not Detected
28) 4-Chloroaniline	0.00	127		Not Detected
29) Hexachlorobutadiene	0.00	225		Not Detected
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected
31) 2-Methylnaphthalene	0.00	142		Not Detected
33) Hexachlorocyclopentadiene	0.00	237		Not Detected

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA08S1.D Vial: 8
Acq On : 02/16/2015 14:56 Operator: JH
Sample : 8270 S1 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 24 10:29:47 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	0.00	196		Not Detected	
35)	2,4,5-Trichlorophenol	0.00	196		Not Detected	
37)	2-Chloronaphthalene	0.00	162		Not Detected	
38)	2-Nitroaniline	0.00	65		Not Detected	
39)	Dimethylphthalate	0.00	163		Not Detected	
40)	2,6-Dinitrotoluene	0.00	165		Not Detected	
41)	Acenaphthylene	0.00	152		Not Detected	
42)	3-Nitroaniline	0.00	65		Not Detected	
43)	Acenaphthene	0.00	153		Not Detected	
44)	2,4-Dinitrophenol	9.04	184	1804	4.615ug/mL	91
45)	4-Nitrophenol	0.00	109		Not Detected	
46)	Dibenzofuran	0.00	168		Not Detected	
47)	2,4-Dinitrotoluene	0.00	165		Not Detected	
48)	Diethylphthalate	0.00	149		Not Detected	
49)	4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50)	Fluorene	0.00	166		Not Detected	
51)	4-Nitroaniline	0.00	65		Not Detected	
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	0.00	169		Not Detected	
56)	4-bromophenyl phenyl ether	0.00	248		Not Detected	
57)	Hexachlorobenzene	0.00	284		Not Detected	
58)	Pentachlorophenol	0.00	266		Not Detected	
59)	Phenanthrene	0.00	178		Not Detected	
60)	Anthracene	0.00	178		Not Detected	
61)	Carbazole	0.00	167		Not Detected	
62)	Di-n-butylphthalate	0.00	149		Not Detected	
63)	Fluoranthene	0.00	202		Not Detected	
65)	Pyrene	0.00	202		Not Detected	
67)	Butylbenzylphthalate	0.00	149		Not Detected	
68)	3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69)	Benzo(a)anthracene	0.00	228		Not Detected	
70)	Chrysene	0.00	228		Not Detected	
71)	Bis(2-ethylhexyl)phthalate	0.00	149		Not Detected	
73)	Di-n-octylphthalate	0.00	149		Not Detected	
74)	Benzo(b)fluoranthene	0.00	252		Not Detected	
75)	Benzo(k)fluoranthene	0.00	252		Not Detected	
76)	Benzo(a)pyrene	0.00	252		Not Detected	
77)	Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78)	Dibenz(a,h)anthracene	0.00	278		Not Detected	
79)	Benzo(g,h,i)perylene	0.00	276		Not Detected	

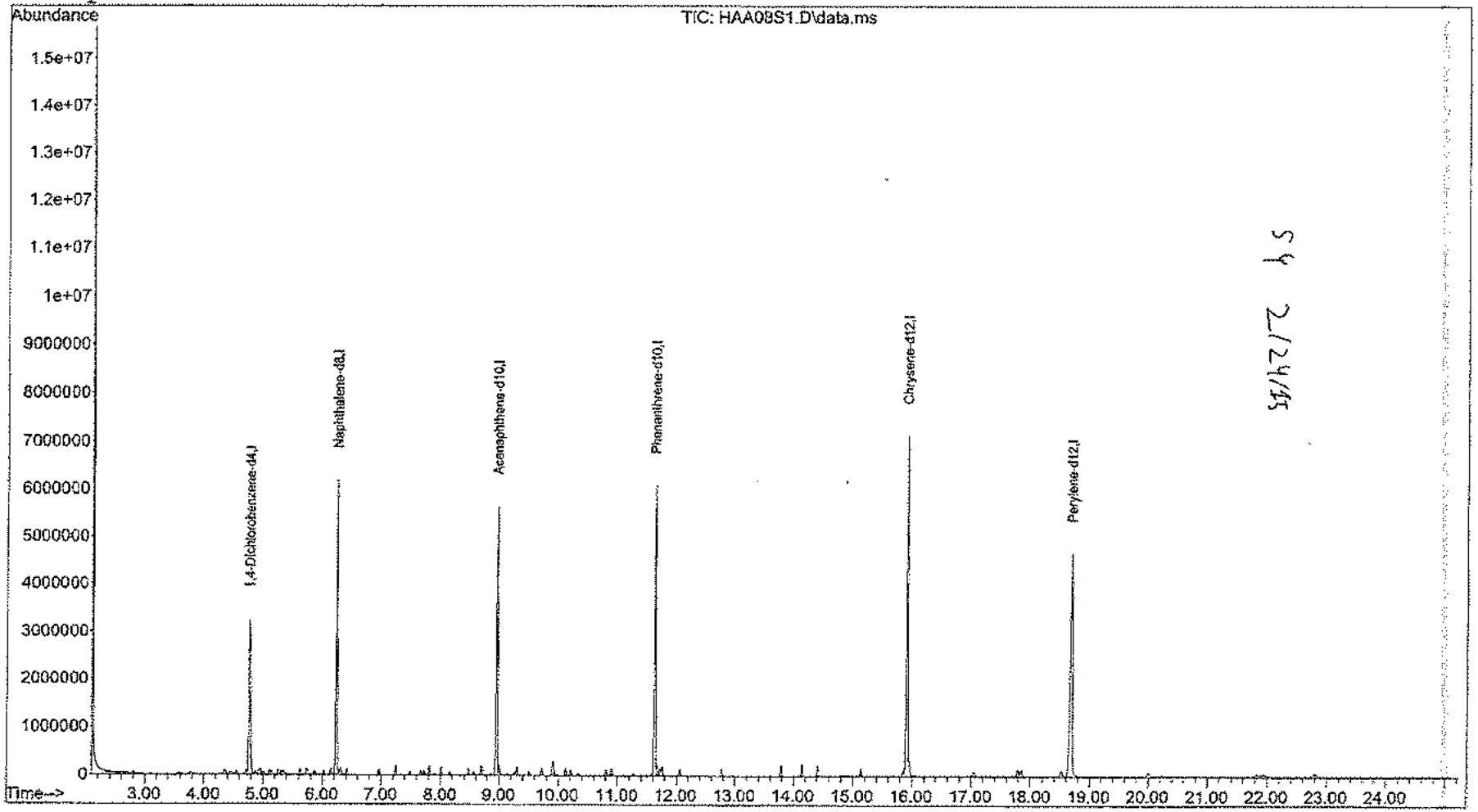
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA08S1.D Vial: 8
Acq On : 02/16/2015 14:56 Operator: JH
Sample : 8270 S1 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

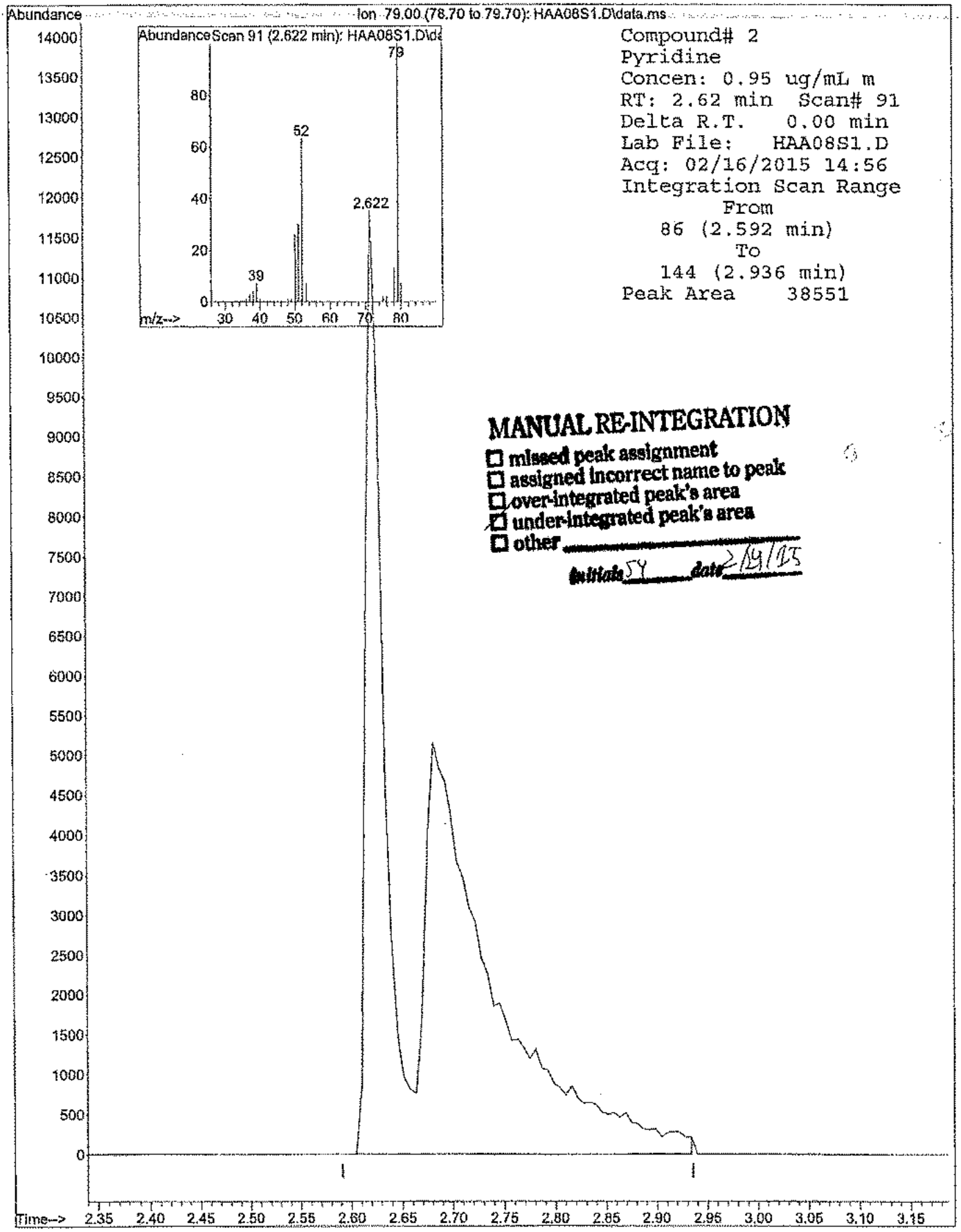
Quant Time: Feb 24 10:29:47 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration



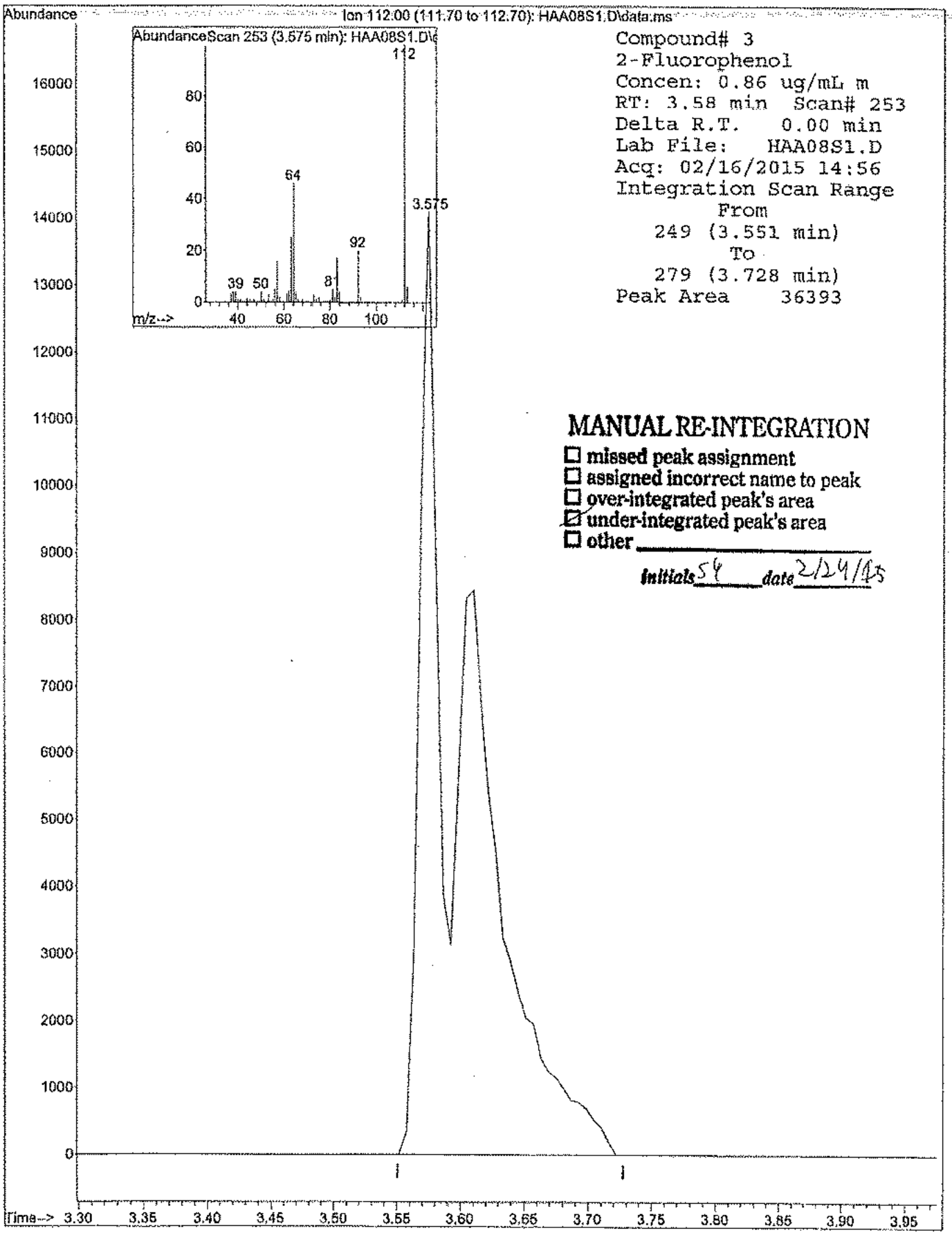
S1 2/24/15

M A N U A L I N T E G R A T I O N FOR Pyridine



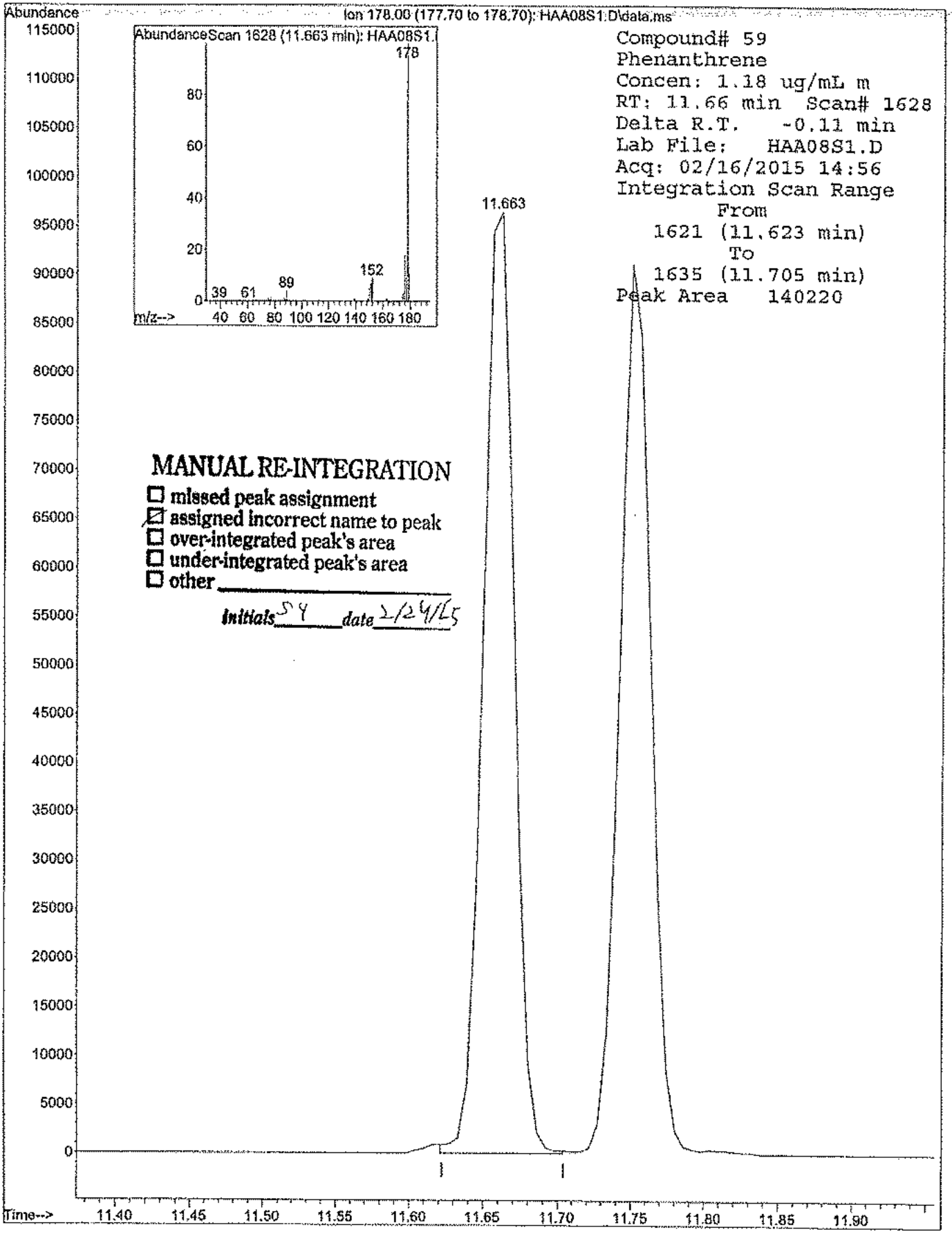
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S1 NEW

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S1 NEW

M A N U A L I N T E G R A T I O N FOR Phenanthrene

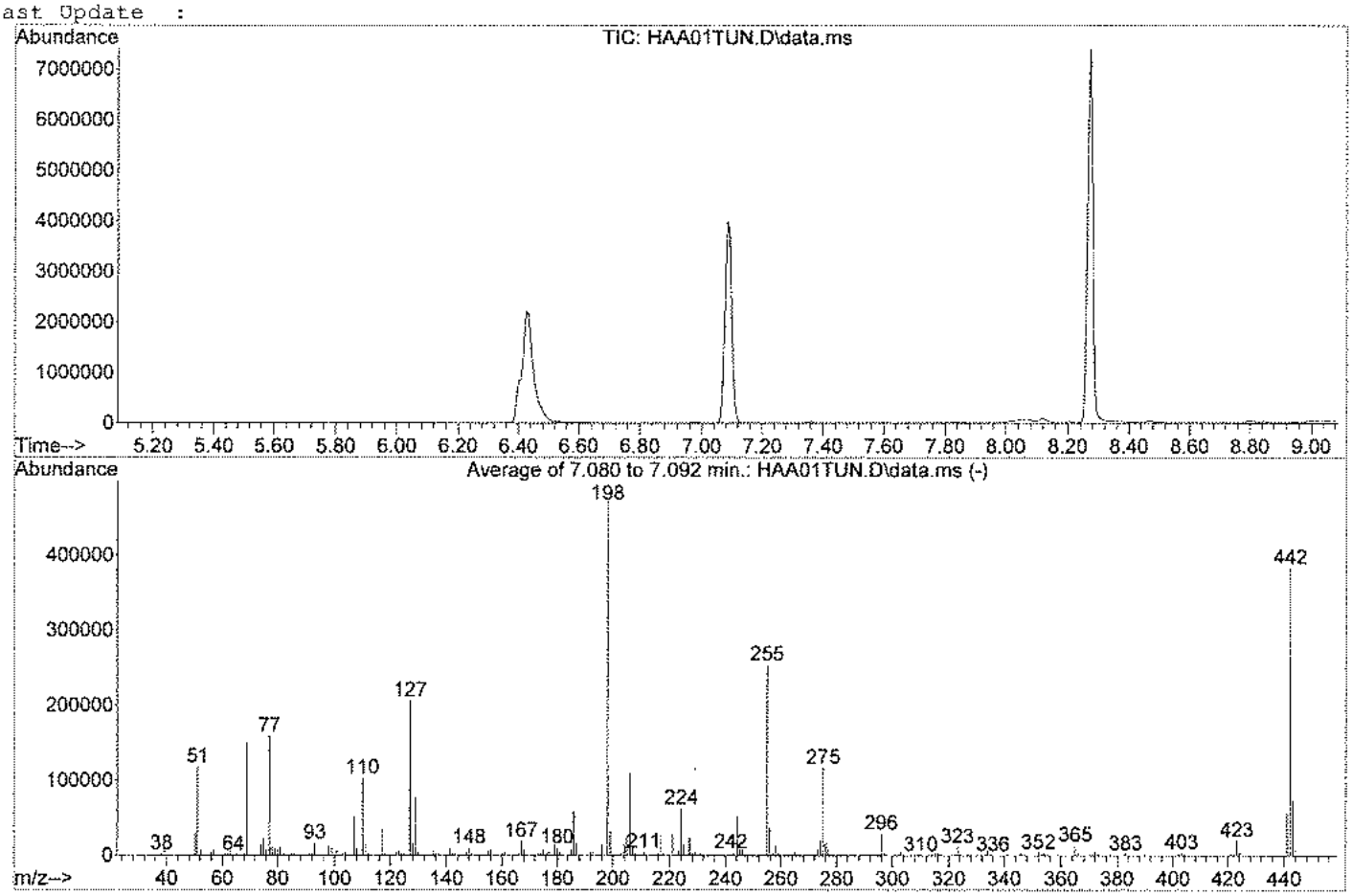


H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S1 NEW

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA01TUN.D
Acq On : 02/16/2015 11:17
Operator : JH
Sample : 8270 TUN 27023
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : R:\H\methods\8270DTUN.M
Title :
Last Update :



AutoFind: Scans 883, 884, 885; Background Corrected with Scan 875

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	24.7	117080	PASS
68	69	0.00	2	1.5	2313	PASS
69	198	0.00	100	31.7	150400	PASS
70	69	0.00	2	0.5	733	PASS
127	198	10	80	43.3	205696	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	474816	PASS
199	198	5	9	6.8	32077	PASS
275	198	10	60	24.6	116736	PASS
365	198	1	100	2.7	12686	PASS
441	442	1	24	14.8	56565	PASS
442	198	50	100	80.6	382677	PASS
443	442	15	24	19.3	74003	PASS

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	95	52.10	6118	66.05	170	77.10	158421
37.05	439	53.00	274	67.00	59	78.10	10764
38.10	1243	55.05	576	67.20	67	79.00	9481
39.10	8178	56.00	3638	68.10	2313	80.00	7569
40.00	368	57.05	8513	69.00	150400	81.00	11030
41.05	258	58.00	421	70.00	733	82.00	2733
45.05	214	61.00	1564	70.95	128	83.00	2672
47.00	59	62.05	1685	73.00	793	85.00	2377
49.00	518	63.10	4991	74.05	12879	85.95	2752
50.10	29408	64.05	746	75.00	21843	87.00	1427
51.05	117080	65.10	2609	76.10	7416	88.00	621

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.00	312	101.00	6545	112.00	1830	122.00	3400
91.00	2512	102.00	340	113.05	558	123.00	5106
92.00	2684	103.00	2121	114.05	114	124.00	2443
93.00	16221	104.00	4011	114.90	168	125.00	2224
94.00	1206	105.05	3523	116.00	2633	127.00	205696
95.00	348	106.10	1304	117.00	33560	128.00	15458
96.05	928	107.00	51296	118.00	2569	129.00	77472
97.05	375	108.00	8558	118.90	386	130.00	6263
98.00	12264	109.05	1460	120.00	713	131.00	1195
99.00	10127	110.00	102693	120.90	131	132.00	721
100.00	966	111.00	14717	121.10	85	132.75	208

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.00	112	144.05	531	156.05	8080	167.00	18682
134.00	1940	145.00	540	157.05	1746	168.00	8127
135.05	5729	146.00	1538	158.00	1710	169.05	1570
136.00	2306	147.00	4327	159.00	1272	170.05	598
137.00	2795	148.00	9599	160.00	2850	170.95	766
137.95	646	149.00	2150	161.00	4495	172.00	1572
139.00	347	150.00	569	162.00	1377	173.00	2212
140.00	802	151.10	1287	162.95	407	174.00	4011
141.00	8960	153.00	2906	164.00	596	175.05	7932
142.00	3077	154.00	2250	165.00	3369	176.05	2674
143.00	2067	155.05	5125	166.00	2819	177.00	3514

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
178.00	1092	189.00	3038	201.50	2616	215.00	1023
179.00	14685	190.00	475	203.00	2614	216.05	2160
180.00	10180	191.05	1581	204.00	14793	217.00	27843
181.00	4892	192.00	4825	205.00	25480	218.00	3535
182.05	776	193.00	5080	206.10	110043	219.05	347
182.95	440	194.05	1045	207.05	14264	221.05	27277
184.00	1029	194.95	734	208.00	3331	223.00	6513
185.05	7034	196.00	14817	209.00	1092	224.10	62301
186.05	58309	198.00	474816	210.30	516	225.10	15450
187.00	15822	199.00	32077	211.05	4159	226.05	1587
188.05	1562	200.00	2488	213.00	273	227.00	23171

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.00	3208	238.00	296	249.00	1804	260.95	478
229.00	5074	239.00	810	249.95	368	263.90	345
230.00	756	240.00	714	250.95	395	265.00	5053
231.00	2253	241.00	1343	252.00	455	265.90	777
231.90	127	242.05	3322	253.00	967	267.80	117
232.05	331	243.10	3518	255.00	253845	270.00	283
233.00	502	244.10	51733	256.00	37045	271.00	486
234.00	1454	245.10	6871	257.00	2732	272.05	616
235.00	1835	246.00	8585	258.00	12879	273.05	7973
236.00	1093	247.00	1762	259.00	2135	274.00	19840

237.00	1837	247.95	372	260.00	415	275.10	116736

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.10	15615	289.95	321	302.10	426	317.05	338
277.00	8372	290.95	224	303.05	3593	320.10	60
278.00	1457	292.05	419	304.05	944	321.05	1023
278.95	325	293.05	2107	305.00	59	322.05	529
281.00	45	294.00	490	308.00	420	323.10	10849
282.00	265	295.05	652	309.00	284	324.10	1962
283.00	1037	296.00	28832	310.05	410	325.05	193
284.00	722	297.05	3939	312.95	299	326.05	216
285.05	1612	298.00	257	314.05	1471	327.00	1821
286.05	321	301.00	384	315.00	3160	328.05	965
289.00	380	301.90	154	316.05	1957	329.00	153

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
332.05	809	351.00	64	372.10	5408	402.05	2023
333.05	999	352.10	3176	373.10	1364	403.05	2960
334.10	6315	353.05	2077	374.05	120	404.10	908
335.05	1613	354.10	3081	376.90	74	405.05	186
336.05	227	355.05	603	383.00	1526	415.10	63
339.00	122	359.05	240	384.00	401	421.05	2560
340.00	115	365.00	12686	385.00	55	422.10	2362
341.05	1227	366.00	1738	390.05	643	423.10	19257
342.05	365	366.90	50	391.05	430	424.05	3644
346.00	2199	370.05	291	392.05	326	425.05	334
347.00	420	371.05	792	401.00	322	437.80	60

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

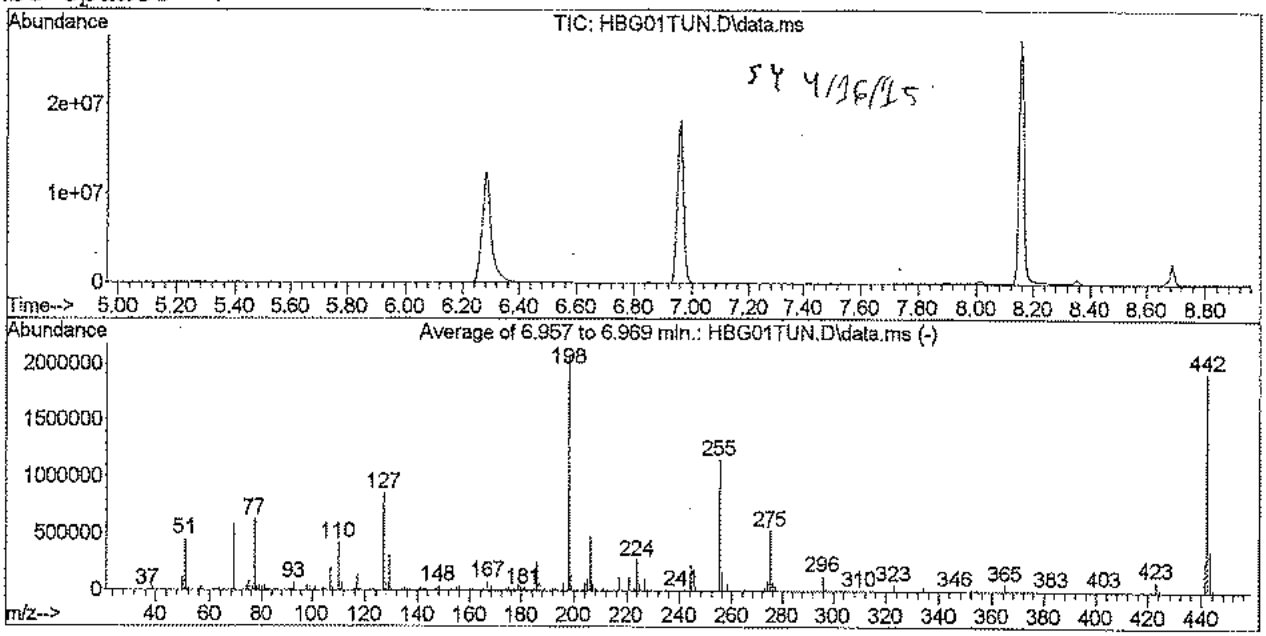
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
438.30	52						
439.00	281						
441.10	56565						
442.10	382677						
443.10	74003						
444.10	6656						
445.10	410						

Form 5 Equivalent (DFTPP)

Data Path : R:\H\2015\APR15\16APR15\
Data File : HBG01TUN.D
Acq On : 04/16/2015 08:20
Operator : SY
Sample : 8270 TUN 27023
Inst : 5975-H
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\8270DTUN.M
Title :
Last Update :



AutoFind: Scans 522, 523, 524; Background Corrected with Scan 514

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	21.6	448519	PASS
68	69	0.00	2	1.5	8714	PASS
69	198	0.00	100	27.9	579029	PASS
70	69	0.00	2	0.5	2703	PASS
127	198	10	80	41.1	852160	PASS
197	198	0.00	2	0.1	2543	PASS
198	198	100	100	100.0	2073600	PASS
199	198	5	9	6.6	137499	PASS
275	198	10	60	25.7	533163	PASS
365	198	1	100	2.9	59101	PASS
441	442	1	24	14.4	278741	PASS
442	198	50	100	93.1	1929899	PASS
443	442	15	24	19.2	370624	PASS

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	210	49.00	2013	61.10	6092	72.00	210
36.00	18	50.10	111192	62.05	6556	73.05	3307
37.00	1652	51.05	448519	63.10	19512	74.10	50317
38.10	4933	52.10	22774	64.10	2501	75.00	84544
39.05	30340	53.05	975	65.10	10427	76.10	28053
40.00	653	55.00	1694	66.00	722	77.05	624123
41.05	540	56.05	13822	67.05	637	78.05	41667
43.05	430	57.05	33763	68.10	8714	79.00	37101
45.05	917	58.05	1588	69.00	579029	80.00	30501
47.00	105	59.05	468	70.10	2703	81.00	42376
48.00	115	60.05	458	71.05	433	82.00	10621

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	10614	94.00	4838	105.00	14456	116.00	10780
84.00	724	95.05	1387	106.05	4736	117.00	134824
85.00	9288	96.10	3571	107.00	205227	118.00	10390
86.00	10960	97.05	1147	108.00	33821	119.00	1492
87.05	5918	98.00	48701	109.10	5659	120.05	2637
88.00	2459	99.00	42248	110.00	414251	120.90	341
89.00	1192	100.00	3740	111.00	59253	121.05	519
90.10	129	101.00	25992	112.00	6950	122.00	13031
90.95	9935	102.00	1534	113.00	2355	123.00	20153
92.00	10568	103.00	8697	114.00	562	124.00	9136
93.00	65437	104.00	15404	115.05	804	125.00	8872

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.00	852160	137.95	2710	148.95	8756	160.00	11580
128.00	61149	138.95	1537	150.05	2630	161.00	18292
129.00	312533	140.00	3483	151.15	5279	162.00	5406
130.00	25976	141.00	36707	151.80	1340	163.00	1695
131.05	5075	142.00	12918	153.00	11896	164.00	2385
132.05	2832	143.00	8288	154.00	9158	164.95	13534
132.85	921	144.05	2374	155.05	21383	166.00	11815
134.00	7610	145.05	2130	156.05	34048	167.00	77888
135.00	24192	146.05	6309	157.10	7383	168.00	38568
136.05	9187	147.00	18332	158.00	6536	169.00	6713
137.00	12486	148.00	39240	159.00	5415	170.05	2420

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.00	3394	182.00	3272	193.00	21212	205.05	108672
172.00	6583	182.95	2050	194.05	4389	206.10	475712
173.00	9152	184.00	4610	195.00	3161	207.05	62056
174.00	17165	185.05	29600	196.00	61691	207.95	13503
175.05	32432	186.00	248043	197.10	2543	209.05	4483
176.00	11361	187.00	68371	198.00	2.0736e+006	210.30	3780
177.00	14635	188.05	7076	199.00	137499	211.05	18443
178.00	4636	189.00	13211	200.00	10298	212.95	1324
179.00	60976	190.00	2288	201.50	11464	214.05	543
180.00	42141	191.05	6526	203.00	11609	215.00	4437
181.00	21597	192.00	19362	204.00	63293	216.00	9448

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
217.00	118739	230.05	3129	241.05	5856	251.95	1972
218.00	15394	231.05	10235	242.05	14134	253.00	4240
219.05	1506	232.00	1680	243.10	15351	255.00	1.14997e+006
221.00	123816	233.00	1865	244.10	232576	256.00	165371
223.00	28659	234.00	6601	245.10	30776	257.00	12603
224.05	272000	235.00	7900	246.00	37472	258.00	58525
225.05	68093	236.00	5053	247.00	7582	259.00	9348
226.05	6861	237.00	8750	248.00	1964	260.00	1587
227.00	100128	238.05	1499	249.00	8492	261.05	1987
228.00	14119	239.00	3803	250.00	1757	262.00	392
229.00	22531	240.00	3009	251.00	1758	262.90	232

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
263.05	429	274.00	91288	285.10	7743	297.05	18408
263.95	1682	275.05	533163	286.05	1471	298.05	1183
265.00	22504	276.10	71736	288.05	473	299.10	242
265.95	3413	277.00	38445	288.95	1682	301.05	1845
266.95	471	278.00	6362	290.00	1323	302.00	2471
267.85	136	279.05	1604	291.00	1071	303.10	16467
269.00	140	280.00	212	292.10	2034	304.05	4718
269.95	1360	281.00	292	293.00	9371	305.05	603
271.00	2355	282.05	1168	294.05	2207	306.10	107
272.00	3130	283.05	4609	295.05	3047	308.00	2095
273.00	35227	284.05	3100	296.00	131240	309.00	1376

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
310.00	2087	321.05	4613	332.05	3460	348.00	114
311.05	486	322.10	2363	333.05	4252	350.05	419
311.95	602	323.10	50413	334.10	30779	351.05	837
312.90	381	324.10	9137	335.10	7774	352.05	14875
313.05	953	325.00	896	336.00	920	353.10	10578
314.05	6640	326.05	1062	338.95	753	354.10	15632
315.00	14423	327.00	8894	340.05	723	355.05	3149
316.10	8886	328.05	4781	341.05	5420	357.90	127
317.00	1678	329.05	835	342.05	1694	358.95	1168
319.00	122	330.20	140	346.00	9806	361.15	267
320.05	631	331.00	108	347.00	2110	365.00	59101

Average of 6.957 to 6.969 min.: HBG01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
366.00	8911	385.05	659	405.05	626	437.80	249
366.90	144	390.10	3403	410.05	374	438.00	174
367.10	367	391.10	2487	415.00	721	438.40	342
370.05	1325	392.10	1792	421.05	13471	438.90	372
371.00	3593	393.10	109	422.05	11482	439.20	897
372.10	26283	395.05	208	423.10	92808	439.50	394
373.10	6118	396.80	109	424.10	19152	441.10	278741
374.05	703	401.05	1591	425.05	2045	442.10	1.9299e+006
376.95	612	402.05	9590	436.40	154	443.10	370624
383.05	6737	403.10	13848	436.70	147	444.10	34317
384.05	1952	404.10	5240	437.10	190	445.05	1916

Response Factor Report 5975-H

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response Via : Initial Calibration

H8270D15A1_LOWLEVEL.M
Form 6 Equivalent

Calibration Files
5 =HAA07S5.D 20 =HAA06S20.D 35 =HAA05S35.D 50 =HAA04S50.D 65 =HAA03S65.D 80 =HAA02S80.D
1 =HAA08S1.D

		Compound	5	20	35	50	65	80	1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)		Pyridine	1.187	1.371	1.236	1.307	1.282	1.439	1.235	1.294	6.74
3)	S	2-Fluorophenol	1.210	1.428	1.320	1.366	1.343	1.508	1.166	1.334	8.86
4)	S	Phenol-d5	1.351	1.536	1.392	1.448	1.407	1.546	1.329	1.430	5.95
5)	MC	Phenol	1.446	1.644	1.478	1.542	1.498	1.647	1.408	1.523	6.14
6)		Bis(2-chloroet...	1.208	1.460	1.277	1.530	1.441	1.455	1.349	1.389	8.28
7)	M	2-Chlorophenol	1.409	1.627	1.499	1.536	1.511	1.656	1.355	1.513	7.14
8)		1,3-Dichlorobe...	1.649	1.884	1.740	1.771	1.731	1.879	1.643	1.757	5.54
9)	MC	1,4-dichlorobe...	1.669	1.897	1.688	1.716	1.683	1.843	1.691	1.741	5.19
10)		Benzyl alcohol	0.798	0.928	0.846	0.877	0.855	0.936	0.762	0.857	7.43
11)		1,2-dichlorobe...	1.578	1.762	1.597	1.636	1.578	1.712	1.607	1.639	4.37
12)		2-Methylphenol	0.974	1.108	0.999	1.015	0.983	1.063	0.966	1.015	5.14
13)		Bis(2-chlorois...	1.255	1.365	1.196	1.175	1.125	1.223	1.300	1.234	6.52
14)		4-methylphenol	1.378	1.602	1.446	1.492	1.440	1.591	1.375	1.475	6.25
15)	MP	N-Nitrosodi-n-...	0.652	0.766	0.670	0.681	0.656	0.727	0.676	0.690	6.05
16)		Hexachloroethane	0.568	0.663	0.601	0.619	0.604	0.660	0.559	0.611	6.64
17)	I	Naphthalene-d8	----------ISTD----------								
18)	S	Nitrobenzene-d5	0.363	0.394	0.364	0.366	0.349	0.369	0.331	0.362	5.31
19)		Nitrobenzene	0.355	0.376	0.343	0.341	0.323	0.339	0.335	0.344	4.91
20)		Isophorone	0.630	0.671	0.610	0.607	0.589	0.629	0.641	0.625	4.26
21)	C	2-Nitrophenol	0.232	0.274	0.219	0.218	0.206	0.216	0.162	0.218	15.22
22)		2,4-Dimethylph...	0.334	0.339	0.303	0.297	0.283	0.293	0.354	0.315	8.68
23)		Benzoic Acid	0.088	0.185	0.191	0.204	0.201	0.215		0.181	25.67
24)		Bis(2-chloroet...	0.397	0.410	0.372	0.367	0.348	0.362	0.399	0.379	5.97
25)	C	2,4-Dichloroph...	0.341	0.380	0.355	0.358	0.343	0.356	0.309	0.349	6.20
26)	M	1,2,4-Trichlor...	0.413	0.433	0.401	0.399	0.379	0.397	0.405	0.404	4.05
27)		Naphthalene	1.170	1.240	1.105	1.068	1.001	1.027	1.164	1.111	7.70
28)		4-Chloroaniline	0.419	0.414	0.377	0.358	0.359	0.378	0.412	0.388	6.75
29)	C	Hexachlorobuta...	0.238	0.256	0.235	0.234	0.224	0.232	0.231	0.235	4.32

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

30)	MC	4-Chloro-3-Met...	0.300	0.338	0.310	0.314	0.303	0.319	0.280	0.309	5.85
31)		2-Methylnaphth...	0.847	0.895	0.800	0.772	0.723	0.740	0.833	0.801	7.67
32)	I	Acenaphthene-d10	----------ISTD----------								
33)	P	Hexachlorocycl...	0.423	0.531	0.529	0.536	0.511	0.549	0.296	0.482	19.12
34)	C	2,4,6-Trichlor...	0.496	0.561	0.540	0.538	0.520	0.546	0.440	0.520	7.88
35)		2,4,5-Trichlor...	0.543	0.612	0.579	0.575	0.539	0.577	0.480	0.558	7.52
36)	S	2-Fluorobiphenyl	1.742	1.786	1.648	1.573	1.449	1.510	1.788	1.643	8.30
37)		2-Chloronaphth...	1.529	1.603	1.492	1.448	1.356	1.417	1.553	1.485	5.71
38)		2-Nitroaniline	0.335	0.377	0.362	0.357	0.337	0.366	0.258	0.342	11.70
39)		Dimethylphthalate	1.711	1.802	1.719	1.666	1.598	1.692	1.747	1.705	3.75
40)		2,6-Dinitrotol...	0.363	0.418	0.400	0.391	0.380	0.404	0.275	0.376	12.71
41)		Acenaphthylene	2.503	2.591	2.379	2.281	2.131	2.215	2.494	2.371	7.12
42)		3-Nitroaniline	0.360	0.294	0.283	0.285	0.297	0.324	0.298	0.306	8.94
43)	MC	Acenaphthene	1.514	1.536	1.418	1.357	1.257	1.306	1.583	1.424	8.72
44)	P	2,4-Dinitrophenol	0.103	0.198	0.217	0.234	0.232	0.253	0.034	0.182	44.94
45)	MP	4-Nitrophenol	0.154	0.187	0.185	0.185	0.180	0.194	0.101	0.169	19.34
46)		Dibenzofuran	2.166	2.237	2.056	1.973	1.826	1.872	2.264	2.056	8.46
47)	M	2,4-Dinitrotol...	0.470	0.543	0.521	0.509	0.486	0.504	0.346	0.483	13.42
48)		Diethylphthalate	1.687	1.771	1.658	1.612	1.516	1.591	1.682	1.645	4.96
49)		4-chlorophenyl...	0.857	0.873	0.793	0.737	0.678	0.688	0.903	0.790	11.54
50)		Fluorene	1.683	1.712	1.538	1.423	1.303	1.335	1.726	1.531	11.81
51)		4-Nitroaniline	0.289	0.220	0.193	0.171	0.170	0.175	0.269	0.212	23.14
52)	I	Phenanthrene-d10	----------ISTD----------								
53)	S	2,4,6-Tribromo...	0.123	0.141	0.138	0.137	0.133	0.143	0.104	0.131	10.30
54)		4,6-Dinitro-2-...		0.164	0.170	0.174	0.170	0.182	0.046	0.151	34.30
55)	C	N-Nitrosodiphe...	0.612	0.619	0.571	0.538	0.505	0.535	0.634	0.573	8.61
56)		4-bromophenyl ...	0.291	0.307	0.290	0.280	0.273	0.284	0.298	0.289	3.94
57)		Hexachlorobenzene	0.317	0.341	0.318	0.313	0.302	0.321	0.341	0.322	4.49
58)	MC	Pentachlorophenol	0.165	0.217	0.215	0.215	0.211	0.225	0.107	0.193	22.26
59)		Phenanthrene	1.344	1.392	1.257	1.171	1.109	1.138	1.463	1.268	10.71
60)		Anthracene	1.342	1.393	1.258	1.202	1.117	1.159	1.431	1.272	9.46
61)		Carbazole	1.148	0.868	0.705	0.702	0.743		1.204	0.895	25.33
62)		Di-n-butylphth...	1.517	1.576	1.420	1.350	1.268	1.309	1.465	1.415	7.95
63)	C	Fluoranthene	1.481	1.518	1.368	1.294	1.206	1.254	1.493	1.373	9.17
64)	I	Chrysene-d12	----------ISTD----------								
65)	M	Pyrene	1.406	1.524	1.397	1.320	1.245	1.353	1.427	1.382	6.36
66)	S	Terphenyl-d14	0.948	1.006	0.966	0.921	0.882	0.959	0.959	0.949	4.09

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

67)		Butylbenzylpht...	0.575	0.658	0.625	0.595	0.568	0.623	0.485	0.590	9.43
68)		3,3'-Dichlorob...	0.238	0.223	0.236	0.238	0.240	0.212	0.367	0.251	20.90
69)		Benzo(a)anthra...	1.276	1.379	1.308	1.270	1.215	1.341	1.410	1.314	5.14
70)		Chrysene	1.164	1.213	1.082	0.987	0.917	0.961	1.263	1.084	12.36
71)		Bis(2-ethylhex...	0.771	0.855	0.754	0.678	0.625	0.650	0.676	0.716	11.35
72)	I	Perylene-d12	----------ISTD----------								
73)	C	Di-n-octylphth...	1.093	1.323	1.284	1.216	1.159	1.235	0.844	1.165	13.80
74)		Benzo(b)fluora...	1.070	1.198	1.171	1.152	1.116	1.271	1.025	1.143	7.18
75)		Benzo(k)fluora...	1.045	1.150	1.094	1.016	0.982	1.021	1.086	1.056	5.40
76)	C	Benzo(a)pyrene	1.000	1.122	1.095	1.056	1.026	1.125	0.953	1.054	6.14
77)		Indeno(1,2,3-c...	0.863	1.016	1.020	1.014	1.001	1.127	0.762	0.972	12.38
78)		Dibenz(a,h)ant...	0.861	1.042	1.033	1.012	0.989	1.086	0.772	0.971	11.57
79)		Benzo(g,h,i)pe...	0.925	1.074	1.049	1.016	1.004	1.090	0.876	1.005	7.82

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Minimum Response Factors (in red)

analytes out:
0/72=0%
PASS

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

%Difference

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	
2		Pyridine	1.294	1.235	4.6	85	0.00	
3	S	2-Fluorophenol	1.334	1.279	4.1	84	0.00	
4	S	Phenol-d5	1.430	1.362	4.8	85	-0.01	
5	MC	Phenol	1.523 0.8	1.446	5.1	85	-0.01	
6		Bis(2-chloroethyl)ether	1.389 0.7	1.268	8.7	75	0.00	
7	M	2-Chlorophenol	1.513 0.8	1.460	3.5	86	0.00	
8		1,3-Dichlorobenzene	1.757	1.668	5.1	85	0.00	
9	MC	1,4-dichlorobenzene	1.741	1.687	3.1	89	0.00	
10		Benzyl alcohol	0.857	0.837	2.3	86	0.00	
11		1,2-dichlorobenzene	1.639	1.558	4.9	86	0.00	
12		2-Methylphenol	1.015 0.7	0.947	6.7	84	0.00	
13		Bis(2-chloroisopropyl)ether	1.234	1.136	7.9	87	0.00	
14		4-methylphenol	1.475 0.6	1.412	4.3	85	0.00	
15	MP	N-Nitrosodi-n-propyl amine	0.690 0.5	0.670	2.9	89	0.00	
16		Hexachloroethane	0.611 0.3	0.590	3.4	86	0.00	
17	I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	
18	S	Nitrobenzene-d5	0.362	0.344	5.0	86	0.00	
19		Nitrobenzene	0.344 0.2	0.320	7.0	86	0.00	
20		Isophorone	0.625 0.4	0.577	7.7	87	0.00	
21	C	2-Nitrophenol	0.218 0.1	0.203	6.9	85	0.00	
22		2,4-Dimethylphenol	0.315 0.2	0.257	18.4	79	0.00	
23		Benzoic Acid	0.181	0.179	1.1	80	-0.01	%Drift
24		Bis(2-chloroethoxy)methane	0.379 0.3	0.346	8.7	86	0.00	
25	C	2,4-Dichlorophenol	0.349 0.2	0.337	3.4	86	0.00	
26	M	1,2,4-Trichlorobenzene	0.404	0.380	5.9	87	0.00	
27		Naphthalene	1.111 0.7	1.034	6.9	88	0.00	
28		4-Chloroaniline	0.388 0.01	0.324	16.5	83	0.00	
29	C	Hexachlorobutadiene	0.235 0.01	0.222	5.5	87	0.00	
30	MC	4-Chloro-3-Methylphenol	0.309 0.2	0.299	3.2	87	0.00	
31		2-Methylnaphthalene	0.801 0.4	0.737	8.0	87	0.00	
32	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00	
33	P	Hexachlorocyclopentadiene	0.482 0.05	0.483	-0.2	82	0.00	
34	C	2,4,6-Trichlorophenol	0.520 0.2	0.507	2.5	86	0.00	
35		2,4,5-Trichlorophenol	0.558 0.2	0.538	3.6	85	0.00	
36	S	2-Fluorobiphenyl	1.643	1.509	8.2	87	0.00	
37		2-Chloronaphthalene	1.485 0.8	1.386	6.7	87	0.00	
38		2-Nitroaniline	0.342 0.01	0.340	0.6	87	0.00	
39		Dimethylphthalate	1.705 0.01	1.595	6.5	87	0.00	
40		2,6-Dinitrotoluene	0.376 0.2	0.379	-0.8	88	0.00	
41		Acenaphthylene	2.371 0.9	2.181	8.0	87	0.00	
42		3-Nitroaniline	0.306 0.01	0.247	19.3	79	0.00	
43	MC	Acenaphthene	1.424 0.9	1.300	8.7	87	0.00	
44	P	2,4-Dinitrophenol	0.182 0.01	0.203	-11.5	79	0.00	%Drift
45	MP	4-Nitrophenol	0.169 0.01	0.172	-1.8	85	0.00	
46		Dibenzofuran	2.056 0.8	1.903	7.4	88	0.00	%Drift
47	M	2,4-Dinitrotoluene	0.483 0.2	0.489	-1.2	88	0.00	
48		Diethylphthalate	1.645 0.01	1.541	6.3	87	0.00	
49		4-chlorophenyl phenyl ether	0.790 0.4	0.721	8.7	89	0.00	
50		Fluorene	1.531 0.9	1.385	9.5	89	0.00	
51		4-Nitroaniline	0.212 0.01	0.162	23.6#	86	0.00	%Drift

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Difference %Dev	Area%	Dev(min)	
52	I	Phenanthrene-d10	1.000	1.000	0.0	90	0.00	
53	S	2,4,6-Tribromophenol	0.131	0.131	0.0	86	0.00	
54		4,6-Dinitro-2-methylphenol	0.151	0.01 0.160	-6.0	83	0.00	%Drift
55	C	N-Nitrosodiphenylamine	0.573	0.01 0.524	8.6	88	0.00	
56		4-bromophenyl phenyl ether	0.289	0.1 0.269	6.9	86	0.00	
57		Hexachlorobenzene	0.322	0.1 0.300	6.8	86	0.00	
58	MC	Pentachlorophenol	0.193	0.05 0.202	-4.7	85	0.00	%Drift
59		Phenanthrene	1.268	0.7 1.149	9.4	88	0.00	
60		Anthracene	1.272	0.7 1.149	9.7	86	0.00	
61		Carbazole	0.895	0.01 0.624	30.3#	80	0.00	%Drift
62		Di-n-butylphthalate	1.415	0.01 1.299	8.2	87	0.00	
63	C	Fluoranthene	1.373	0.6 1.254	8.7	87	0.00	
64	I	Chrysene-d12	1.000	1.000	0.0	90	0.00	
65	M	Pyrene	1.382	0.6 1.287	6.9	88	0.00	
66	S	Terphenyl-d14	0.949	0.888	6.4	87	0.00	
67		Butylbenzylphthalate	0.590	0.01 0.572	3.1	87	0.00	
68		3,3'-Dichlorobenzidine	0.251	0.01 0.249	0.8	94	0.00	%Drift
69		Benzo(a)anthracene	1.314	0.8 1.215	7.5	86	0.00	
70		Chrysene	1.084	0.7 0.985	9.1	90	0.00	
71		Bis(2-ethylhexyl)phthalate	0.716	0.01 0.674	5.9	90	0.00	
72	I	Perylene-d12	1.000	1.000	0.0	90	0.00	
73	C	Di-n-octylphthalate	1.165	0.01 1.185	-1.7	88	0.00	
74		Benzo(b)fluoranthene	1.143	0.7 1.100	3.8	86	0.00	
75		Benzo(k)fluoranthene	1.056	0.7 0.997	5.6	88	0.00	
76	C	Benzo(a)pyrene	1.054	0.7 1.012	4.0	86	0.00	
77		Indeno(1,2,3-c,d)pyrene	0.972	0.5 0.947	2.6	84	-0.01	
78		Dibenz(a,h)anthracene	0.971	0.4 0.970	0.1	86	-0.01	
79		Benzo(g,h,i)perylene	1.005	0.5 0.980	2.5	87	-0.02	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	90	0.00
2		Pyridine	50.000	47.714	4.6	85	0.00
3	S	2-Fluorophenol	50.000	47.915	4.2	84	0.00
4	S	Phenol-d5	50.000	47.618	4.8	85	-0.01
5	MC	Phenol	50.000	47.476	5.0	85	-0.01
6		Bis(2-chloroethyl)ether	50.000	45.675	8.7	75	0.00
7	M	2-Chlorophenol	50.000	48.237	3.5	86	0.00
8		1,3-Dichlorobenzene	50.000	47.466	5.1	85	0.00
9	MC	1,4-dichlorobenzene	50.000	48.454	3.1	89	0.00
10		Benzyl alcohol	50.000	48.800	2.4	86	0.00
11		1,2-dichlorobenzene	50.000	47.548	4.9	86	0.00
12		2-Methylphenol	50.000	46.632	6.7	84	0.00
13		Bis(2-chloroisopropyl)ether	50.000	46.020	8.0	87	0.00
14		4-methylphenol	50.000	47.882	4.2	85	0.00
15	MP	N-Nitrosodi-n-propyl amine	50.000	48.539	2.9	89	0.00
16		Hexachloroethane	50.000	48.284	3.4	86	0.00
17	I	Naphthalene-d8	40.000	40.000	0.0	91	0.00
18	S	Nitrobenzene-d5	50.000	47.464	5.1	86	0.00
19		Nitrobenzene	50.000	46.486	7.0	86	0.00
20		Isophorone	50.000	46.164	7.7	87	0.00
21	C	2-Nitrophenol	50.000	46.559	6.9	85	0.00
22		2,4-Dimethylphenol	50.000	40.863	18.3	79	0.00
23		Benzoic Acid	50.000	44.357	11.3	80	-0.01
24		Bis(2-chloroethoxy)methane	50.000	45.651	8.7	86	0.00
25	C	2,4-Dichlorophenol	50.000	48.259	3.5	86	0.00
26	M	1,2,4-Trichlorobenzene	50.000	47.028	5.9	87	0.00
27		Naphthalene	50.000	46.563	6.9	88	0.00
28		4-Chloroaniline	50.000	41.776	16.4	83	0.00
29	C	Hexachlorobutadiene	50.000	47.234	5.5	87	0.00
30	MC	4-Chloro-3-Methylphenol	50.000	48.451	3.1	87	0.00
31		2-Methylnaphthalene	50.000	45.981	8.0	87	0.00
32	I	Acenaphthene-d10	40.000	40.000	0.0	91	0.00
33	P	Hexachlorocyclopentadiene	50.000	50.115	-0.2	82	0.00
34	C	2,4,6-Trichlorophenol	50.000	48.701	2.6	86	0.00
35		2,4,5-Trichlorophenol	50.000	48.273	3.5	85	0.00
36	S	2-Fluorobiphenyl	50.000	45.942	8.1	87	0.00
37		2-Chloronaphthalene	50.000	46.637	6.7	87	0.00
38		2-Nitroaniline	50.000	49.791	0.4	87	0.00
39		Dimethylphthalate	50.000	46.759	6.5	87	0.00
40		2,6-Dinitrotoluene	50.000	50.438	-0.9	88	0.00
41		Acenaphthylene	50.000	46.001	8.0	87	0.00
42		3-Nitroaniline	50.000	40.322	19.4	79	0.00
43	MC	Acenaphthene	50.000	45.628	8.7	87	0.00
44	P	2,4-Dinitrophenol	50.000	43.248	13.5	79	0.00
45	MP	4-Nitrophenol	50.000	45.997	8.0	85	0.00
46		Dibenzofuran	50.000	46.263	7.5	88	0.00
47	M	2,4-Dinitrotoluene	50.000	50.709	-1.4	88	0.00
48		Diethylphthalate	50.000	46.817	6.4	87	0.00
49		4-chlorophenyl phenyl ether	50.000	45.662	8.7	89	0.00
50		Fluorene	50.000	45.228	9.5	89	0.00
51		4-Nitroaniline	50.000	45.345	9.3	86	0.00

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
52	I	Phenanthrene-d10	40.000	40.000	0.0	90	0.00
53	S	2,4,6-Tribromophenol	50.000	49.907	0.2	86	0.00
54		4,6-Dinitro-2-methylphenol	50.000	45.745	8.5	83	0.00
55	C	N-Nitrosodiphenylamine	50.000	45.699	8.6	88	0.00
56		4-bromophenyl phenyl ether	50.000	46.568	6.9	86	0.00
57		Hexachlorobenzene	50.000	46.636	6.7	86	0.00
58	MC	Pentachlorophenol	50.000	46.591	6.8	85	0.00
59		Phenanthrene	50.000	45.326	9.3	88	0.00
60		Anthracene	50.000	45.190	9.6	86	0.00
61		Carbazole	50.000	42.397	15.2	80	0.00
62		Di-n-butylphthalate	50.000	45.900	8.2	87	0.00
63	C	Fluoranthene	50.000	45.659	8.7	87	0.00
64	I	Chrysene-d12	40.000	40.000	0.0	90	0.00
65	M	Pyrene	50.000	46.564	6.9	88	0.00
66	S	Terphenyl-d14	50.000	46.782	6.4	87	0.00
67		Butylbenzylphthalate	50.000	48.513	3.0	87	0.00
68		3,3'-Dichlorobenzidine	50.000	54.797	-9.6	94	0.00
69		Benzo(a)anthracene	50.000	46.235	7.5	86	0.00
70		Chrysene	50.000	45.456	9.1	90	0.00
71		Bis(2-ethylhexyl)phthalate	50.000	47.088	5.8	90	0.00
72	I	Perylene-d12	40.000	40.000	0.0	90	0.00
73	C	Di-n-octylphthalate	50.000	50.841	-1.7	88	0.00
74		Benzo(b)fluoranthene	50.000	48.114	3.8	86	0.00
75		Benzo(k)fluoranthene	50.000	47.211	5.6	88	0.00
76	C	Benzo(a)pyrene	50.000	48.019	4.0	86	0.00
77		Indeno(1,2,3-c,d)pyrene	50.000	48.733	2.5	84	-0.01
78		Dibenz(a,h)anthracene	50.000	49.977	0.0	86	-0.01
79		Benzo(g,h,i)perylene	50.000	48.777	2.4	87	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\16APR15\
Data File : HBG02CCV.D
Acq On : 04/16/2015 08:39
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Minimum Response Factors (in red)

analytes out:
~~0/72=0%~~ 6/72 = 8%
PASS SY 4/16/15

Quant Time: Apr 16 09:25:34 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL
Quant Title : SW-846 8270C
QLast Update : Tue Mar 31 08:05:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Difference %Dev	Area%	Dev(min)	
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	-0.02	
2		Pyridine	1.304	0.774	40.6#	50	-0.01	
3	S	2-Fluorophenol	1.363	1.270	6.8	79	-0.01	
4	S	Phenol-d5	1.447	1.313	9.3	77	-0.02	
5	MC	Phenol	1.542	0.8 1.529	0.8	84	-0.02	
6		Bis(2-chloroethyl)ether	1.395	0.7 1.337	4.2	74	0.02	
7	M	2-Chlorophenol	1.540	0.8 1.416	8.1	78	-0.02	
8		1,3-Dichlorobenzene	1.776	1.603	9.7	77	-0.02	
9	MC	1,4-dichlorobenzene	1.749	1.542	11.8	76	-0.02	
10		Benzyl alcohol	0.873	0.801	8.2	77	-0.02	
11		1,2-dichlorobenzene	1.644	1.492	9.2	77	-0.02	
12		2-Methylphenol	1.024	0.7 0.890	13.1	74	-0.02	
13		Bis(2-chloroisopropyl)ether	1.223	1.011	17.3	73	-0.02	
14		4-methylphenol	1.492	0.6 1.309	12.3	74	-0.02	
15	MP	N-Nitrosodi-n-propyl amine	0.692	0.5 0.650	6.1	81	-0.02	
16		Hexachloroethane	0.619	0.3 0.594	4.0	81	-0.02	
17	I	Naphthalene-d8	1.000	1.000	0.0	83	-0.02	
18	S	Nitrobenzene-d5	0.368	0.317	13.9	71	-0.02	
19		Nitrobenzene	0.346	0.2 0.318	8.1	77	-0.02	
20		Isophorone	0.623	0.4 0.556	10.8	76	-0.02	
21	C	2-Nitrophenol	0.228	0.1 0.228	0.0	86	-0.02	
22		2,4-Dimethylphenol	0.308	0.2 0.267	13.3	74	-0.02	
23		Benzoic Acid	0.181	0.228	-26.0#	92	-0.03	%Drift
24		Bis(2-chloroethoxy)methane	0.376	0.3 0.333	11.4	75	-0.02	
25	C	2,4-Dichlorophenol	0.355	0.2 0.335	5.6	77	-0.02	
26	M	1,2,4-Trichlorobenzene	0.404	0.373	7.7	77	-0.02	
27		Naphthalene	1.102	0.7 0.975	11.5	75	-0.02	
28		4-Chloroaniline	0.384	0.01 0.235	38.8#	54	-0.02	
29	C	Hexachlorobutadiene	0.236	0.01 0.219	7.2	77	-0.02	
30	MC	4-Chloro-3-Methylphenol	0.314	0.2 0.294	6.4	77	-0.02	
31		2-Methylnaphthalene	0.796	0.4 0.703	11.7	75	-0.03	
32	I	Acenaphthene-d10	1.000	1.000	0.0	84	-0.04	
33	P	Hexachlorocyclopentadiene	0.513	0.05 0.485	5.5	76	-0.03	
34	C	2,4,6-Trichlorophenol	0.534	0.2 0.501	6.2	78	-0.03	
35		2,4,5-Trichlorophenol	0.571	0.2 0.536	6.1	78	-0.03	
36	S	2-Fluorobiphenyl	1.618	1.409	12.9	75	-0.03	
37		2-Chloronaphthalene	1.474	0.8 1.285	12.8	74	-0.03	
38		2-Nitroaniline	0.356	0.01 0.339	4.8	79	-0.03	
39		DimethylphthaTate	1.698	0.01 1.520	10.5	76	-0.04	
40		2,6-Dinitrotoluene	0.393	0.2 0.379	3.6	81	-0.04	
41		Acenaphthylene	2.350	0.9 2.081	11.4	76	-0.03	
42		3-Nitroaniline	0.307	0.01 0.190	38.1#	56	-0.03	
43	MC	Acenaphthene	1.398	0.9 1.221	12.7	75	-0.04	
44	P	2,4-Dinitrophenol	0.206	0.01 0.262	-27.2#	94	-0.04	%Drift
45	MP	4-Nitrophenol	0.181	0.01 0.185	-2.2	84	-0.04	%Drift
46		Dibenzofuran	2.022	0.8 1.741	13.9	74	-0.04	
47	M	2,4-Dinitrotoluene	0.505	0.2 0.464	8.1	76	-0.04	
48		Diethylphthalate	1.639	0.01 1.426	13.0	74	-0.04	
49		4-chlorophenyl-phenyl ether	0.771	0.4 0.670	13.1	76	-0.04	
50		Fluorene	1.499	0.9 1.287	14.1	76	-0.04	
51		4-Nitroaniline	0.203	0.01 0.138	32.0#	68	-0.05	%Drift

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\16APR15\
Data File : HBG02CCV.D
Acq On : 04/16/2015 08:39
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 16 09:25:34 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Mar 31 08:05:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Difference %Dev	Area%	Dev(min)	
52	I	Phenanthrene-d10	1.000	1.000	0.0	82	-0.14	
53	S	2,4,6-Tribromophenol	0.136	0.141	-3.7	84	-0.04	
54		4,6-Dinitro-2-methylphenol	0.172	0.01 0.184	-7.0	87	-0.04	%Drift
55	C	N-Nitrosodiphenylamine	0.563	0.01 0.525	6.7	80	-0.04	
56		4-bromophenyl phenyl ether	0.288	0.1 0.266	7.6	78	-0.04	
57		Hexachlorobenzene	0.319	0.1 0.295	7.5	78	-0.04	
58	MC	Pentachlorophenol	0.208	0.05 0.212	-1.9	81	-0.04	%Drift
59		Phenanthrene	1.235	0.7 1.084	12.2	76	-0.14	
60		Anthracene	1.245	0.7 1.101	11.6	75	-0.04	
61		Carbazole	0.833	0.01 0.869	-4.3	102	-0.02	%Drift
62		Di-n-butylphthalate	1.407	0.01 1.252	11.0	76	-0.04	
63	C	Fluoranthene	1.353	0.6 1.232	8.9	78	-0.04	
64	I	Chrysene-d12	1.000	1.000	0.0	79	-0.04	
65	M	Pyrene	1.374	0.6 1.274	7.3	77	-0.04	
66	S	Terphenyl-d14	0.947	0.880	7.1	76	-0.04	
67		Butylbenzylphthalate	0.607	0.01 0.561	7.6	75	-0.04	
68		3,3'-Dichlorobenzidine	0.231	0.01 0.164	29.0#	55	-0.04	%Drift
69		Benzo(a)anthracene	1.298	0.8 1.154	11.1	72	-0.04	
70		Chrysene	1.054	0.7 0.938	11.0	75	-0.05	
71		Bis(2-ethylhexyl)phthalate	0.722	0.01 0.628	13.0	73	-0.04	
72	I	Perylene-d12	1.000	1.000	0.0	90	-0.08	
73	C	Di-n-octylphthalate	1.218	0.01 1.031	15.4	76	-0.06	
74		Benzo(b)fluoranthene	1.163	0.7 1.006	13.5	79	-0.13	
75		Benzo(k)fluoranthene	1.051	0.7 0.906	13.8	80	-0.07	
76	C	Benzo(a)pyrene	1.071	0.7 0.963	10.1	82	-0.08	
77		Indeno(1,2,3-c,d)pyrene	1.007	0.5 0.955	5.2	85	-0.12	
78		Dibenz(a,h)anthracene	1.004	0.4 0.955	4.9	85	-0.14	
79		Benzo(g,h,i)perylene	1.026	0.5 0.986	3.9	87	-0.15	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\16APR15\
Data File : HBG02CCV.D
Acq On : 04/16/2015 08:39
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 16 09:25:34 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Mar 31 08:05:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	85	-0.02
2		Pyridine	50.000	29.679	40.6#	50	-0.01
3	S	2-Fluorophenol	50.000	46.614	6.8	79	-0.01
4	S	Phenol-d5	50.000	45.396	9.2	77	-0.02
5	MC	Phenol	50.000	49.571	0.9	84	-0.02
6		Bis(2-chloroethyl)ether	50.000	47.899	4.2	74	0.02
7	M	2-Chlorophenol	50.000	45.978	8.0	78	-0.02
8		1,3-Dichlorobenzene	50.000	45.153	9.7	77	-0.02
9	MC	1,4-dichlorobenzene	50.000	44.087	11.8	76	-0.02
10		Benzyl alcohol	50.000	45.885	8.2	77	-0.02
11		1,2-dichlorobenzene	50.000	45.379	9.2	77	-0.02
12		2-Methylphenol	50.000	43.445	13.1	74	-0.02
13		Bis(2-chloroisopropyl)ether	50.000	41.336	17.3	73	-0.02
14		4-methylphenol	50.000	43.894	12.2	74	-0.02
15	MP	N-Nitrosodi-n-propyl amine	50.000	46.936	6.1	81	-0.02
16		Hexachloroethane	50.000	47.931	4.1	81	-0.02
17	I	Naphthalene-d8	40.000	40.000	0.0	83	-0.02
18	S	Nitrobenzene-d5	50.000	43.062	13.9	71	-0.02
19		Nitrobenzene	50.000	45.974	8.1	77	-0.02
20		Isophorone	50.000	44.681	10.6	76	-0.02
21	C	2-Nitrophenol	50.000	50.025	-0.0	86	-0.02
22		2,4-Dimethylphenol	50.000	43.281	13.4	74	-0.02
23		Benzoic Acid	50.000	55.476	-11.0	92	-0.03
24		Bis(2-chloroethoxy)methane	50.000	44.215	11.6	75	-0.02
25	C	2,4-Dichlorophenol	50.000	47.143	5.7	77	-0.02
26	M	1,2,4-Trichlorobenzene	50.000	46.244	7.5	77	-0.02
27		Naphthalene	50.000	44.268	11.5	75	-0.02
28		4-Chloroaniline	50.000	30.627	38.7#	54	-0.02
29	C	Hexachlorobutadiene	50.000	46.364	7.3	77	-0.02
30	MC	4-Chloro-3-Methylphenol	50.000	46.824	6.4	77	-0.02
31		2-Methylnaphthalene	50.000	44.133	11.7	75	-0.03
32	I	Acenaphthene-d10	40.000	40.000	0.0	84	-0.04
33	P	Hexachlorocyclopentadiene	50.000	47.252	5.5	76	-0.03
34	C	2,4,6-Trichlorophenol	50.000	46.930	6.1	78	-0.03
35		2,4,5-Trichlorophenol	50.000	46.949	6.1	78	-0.03
36	S	2-Fluorobiphenyl	50.000	43.531	12.9	75	-0.03
37		2-Chloronaphthalene	50.000	43.568	12.9	74	-0.03
38		2-Nitroaniline	50.000	47.604	4.8	79	-0.03
39		Dimethylphthalate	50.000	44.758	10.5	76	-0.04
40		2,6-Dinitrotoluene	50.000	48.250	3.5	81	-0.04
41		Acenaphthylene	50.000	44.266	11.5	76	-0.03
42		3-Nitroaniline	50.000	30.844	38.3#	56	-0.03
43	MC	Acenaphthene	50.000	43.657	12.7	75	-0.04
44	P	2,4-Dinitrophenol	50.000	55.077	-10.2	94	-0.04
45	MP	4-Nitrophenol	50.000	49.610	0.8	84	-0.04
46		Dibenzofuran	50.000	43.061	13.9	74	-0.04
47	M	2,4-Dinitrotoluene	50.000	45.899	8.2	76	-0.04
48		Diethylphthalate	50.000	43.506	13.0	74	-0.04
49		4-chlorophenyl phenyl ether	50.000	43.416	13.2	76	-0.04
50		Fluorene	50.000	42.945	14.1	76	-0.04
51		4-Nitroaniline	50.000	37.540	24.9#	68	-0.05

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\16APR15\
Data File : HBG02CCV.D
Acq On : 04/16/2015 08:39
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 16 09:25:34 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Mar 31 08:05:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
52	I	Phenanthrene-d10	40.000	40.000	0.0	82	-0.14
53	S	2,4,6-Tribromophenol	50.000	51.785	-3.6	84	-0.04
54		4,6-Dinitro-2-methylphenol	50.000	53.409	-6.8	87	-0.04
55	C	N-Nitrosodiphenylamine	50.000	46.591	6.8	80	-0.04
56		4-bromophenyl phenyl ether	50.000	46.250	7.5	78	-0.04
57		Hexachlorobenzene	50.000	46.352	7.3	78	-0.04
58	MC	Pentachlorophenol	50.000	48.888	2.2	81	-0.04
59		Phenanthrene	50.000	43.884	12.2	76	-0.14
60		Anthracene	50.000	44.216	11.6	75	-0.04
61		Carbazole	50.000	60.140	-20.3#	102	-0.02
62		Di-n-butylphthalate	50.000	44.511	11.0	76	-0.04
63	C	Fluoranthene	50.000	45.522	9.0	78	-0.04
64	I	Chrysene-d12	40.000	40.000	0.0	79	-0.04
65	M	Pyrene	50.000	46.370	7.3	77	-0.04
66	S	Terphenyl-d14	50.000	46.455	7.1	76	-0.04
67		Butylbenzylphthalate	50.000	46.169	7.7	75	-0.04
68		3,3-Dichlorobenzidine	50.000	35.406	29.2#	55	-0.04
69		Benzo(a)anthracene	50.000	44.437	11.1	72	-0.04
70		Chrysene	50.000	44.512	11.0	75	-0.05
71		Bis(2-ethylhexyl)phthalate	50.000	43.489	13.0	73	-0.04
72	I	Perylene-d12	40.000	40.000	0.0	90	-0.08
73	C	Di-n-octylphthalate	50.000	42.308	15.4	76	-0.06
74		Benzo(b)fluoranthene	50.000	43.266	13.5	79	-0.13
75		Benzo(k)fluoranthene	50.000	43.092	13.8	80	-0.07
76	C	Benzo(a)pyrene	50.000	44.974	10.1	82	-0.08
77		Indeno(1,2,3-c,d)pyrene	50.000	47.438	5.1	85	-0.12
78		Dibenz(a,h)anthracene	50.000	47.593	4.8	85	-0.14
79		Benzo(g,h,i)perylene	50.000	48.013	4.0	87	-0.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\data\2015\APR15\16APR15\HBG01TUN.D
Tune Time : 16 Apr 2015 8:20 am

Daily Calibration File : C:\msdchem\1\data\2015\APR15\16APR15\HBG02CCV.D

						1080870	3664950	1899300
						3518050	3401760	4592700

Form 8 equivalent

File	Sample	Surrogate Recovery %				Internal Standard Responses		
HBG03LMB.D								
	442346 MB	33	55	10*	77	936558	3264557	1792240
		74	78			3196463	3124119	3372353
HBG04LCS.D								
	442347 LCS	25	43	28*	66	1154694	4069450	2187052
		71	65			4020780	4053980	4666663
HBG05LCD.D								
	442348 LCS	28	47	53	71	1052044	3767615	1997737
		78	69			3617360	3560238	4184387
HBG06SMP.D								
	1510351001	32	56	64	83	927109	3388041	1840611
		93	85			3266796	3304121	3555620
HBG07SMP.D								
	1510351002	29	49	62	79	1024712	3598345	1889081
		87	72			3353923	3694081	4181301
HBG08SMP.D								
	1510351003	29	48	60	77	1077916	3676396	1947742
		83	69			3457487	3871634	4379468
HBG09SMP.D								
	1510351004	25	44	57	82	1027906	3612335	1910653
		89	78			3412197	3711187	3978044
HBG10SMP.D								
	1510351005	23	38	26*	59	1043125	3669384	1943763
		56	52			3590196	3941911	4436296
HBG11BLK.D								
	MECL BLANK	0*	0*	0*	0*	1396474	4566080	2360266
		0*	0*			4370806	4849866	6152053

(fails) - fails 12hr time check * - fails criteria

Created: Thu Apr 16 14:20:47 2015 5975-H

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1510353**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received twelve summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: The following samples were also analyzed at 1:10 dilution: 1510353001, 1510353003, 1510353011 and 1510353012.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5975-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid

September 16, 2015

Date

ANALYTICAL REPORT

Report Date: April 17, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1510353**
Project ID: VA SLC CERCLA-AOU-1 041015
Purchase Order: VA SLC CERCLA-AOU-1

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0026H-040815-SG-001-4	1510353001	04/08/15	04/10/15	VA SLC CERCLA-AOU-1
A-0026H-040815-SG-002-4	1510353002	04/08/15	04/10/15	VA SLC CERCLA-AOU-1
A-0026H-040815-SG-003-4	1510353003	04/08/15	04/10/15	VA SLC CERCLA-AOU-1
A-0026H-040815-TO-001-PAN	1510353004	04/08/15	04/10/15	VA SLC CERCLA-AOU-1
A-0026H-040815-TO-003-OUT	1510353005	04/08/15	04/10/15	VA SLC CERCLA-AOU-1
A-0003H-040915-TO-001-LIV	1510353006	04/09/15	04/10/15	VA SLC CERCLA-AOU-1
A-0003H-040915-TO-002-BAS	1510353007	04/09/15	04/10/15	VA SLC CERCLA-AOU-1
A-0003H-040915-TO-003-BBB	1510353008	04/09/15	04/10/15	VA SLC CERCLA-AOU-1
A-0003H-040915-SG-001-4	1510353009	04/09/15	04/10/15	VA SLC CERCLA-AOU-1
A-0008H-041015-TO-001-BAS	1510353010	04/10/15	04/10/15	VA SLC CERCLA-AOU-1
A-0008H-041015-SG-001A-4	1510353011	04/10/15	04/10/15	VA SLC CERCLA-AOU-1
A-0008H-041015-SG-001B-4	1510353012	04/10/15	04/10/15	VA SLC CERCLA-AOU-1

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-001-4
Lab ID: 1510353001
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 14:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.49	2.4	0.15	0.50	1	J
Chloromethane	0.39	0.81	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.21	1.2	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Carbon disulfide	**0.87**	**2.7**	0.15	0.50	1	
Methylene chloride	0.22	0.76	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**13**	**38**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.25	0.91	0.15	1.0	1	J
Hexane	**2.7**	**9.7**	0.15	0.50	1	
Chloroform	0.17	0.82	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.38	1.2	0.15	0.50	1	J
Cyclohexane	0.22	0.75	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**1.6**	**6.4**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.19	0.77	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.2**	**4.6**	0.15	0.50	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-001-4
Lab ID: 1510353001
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 14:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.52**	**2.3**	0.15	0.50	1	
m,p-Xylene	**1.2**	**5.4**	0.15	0.50	1	
o-Xylene	0.47	2.0	0.15	0.50	1	J
Styrene	0.31	1.3	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.24	1.2	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/16/2015 09:13
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**86**	**200**	3.0	10	10	

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 14:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Acetaldehyde	25	4.49	1	J
1-Propene, 2-methyl-	17	4.59	1	J
Propene	41	4.00	1	J
Ethanol	13	5.33	1	J
Isopropyl Alcohol	8.2	5.95	1	J
Acrolein	2.1	5.60	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-001-4 | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/08/2015
Lab ID: 1510353001 | Media: Summa 6 Liter Canister | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 14:49 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Butanal	7.3	7.85	1	J
Pentanal	5.2	10.68	1	J
Hexanal	9.7	13.35	1	J
2-Octene	6.1	13.58	1	J
4-Nonene	10	14.99	1	J
1-Hexanol, 2-ethyl-	10	18.27	1	J
C10 Hydrocarbon	7.1	18.53	1	J
C10 Hydocarbon	12	18.86	1	J
Acetophenone	5.2	18.94	1	J
C10 Hydrocarbon	8.3	19.20	1	J
C11 Hydrocarbon	7.5	19.26	1	J
C11 Hydrocarbon	5.8	19.54	1	J
Acetic acid, 2-ethylhexyl ester	8.3	20.30	1	J

Sample ID: A-0026H-040815-SG-002-4 | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/08/2015
Lab ID: 1510353002 | Media: Summa 6 Liter Canister | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 15:39 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.50**	**2.5**	0.15	0.50	1	
Chloromethane	**0.66**	**1.4**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.22	1.2	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**28**	**67**	0.30	1.0	1	E
Carbon disulfide	0.22	0.68	0.15	0.50	1	J
Methylene chloride	0.19	0.67	0.15	0.50	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-002-4
Lab ID: 1510353002
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 15:39
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**3.1**	**9.3**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.16	0.56	0.15	1.0	1	J
Hexane	0.38	1.3	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.27	0.87	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.26	1.1	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.35	1.4	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.48	1.8	0.15	0.50	1	J
2-Hexanone	0.54	2.2	0.30	1.0	1	J
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.19	0.82	0.15	0.50	1	J
m,p-Xylene	**0.62**	**2.7**	0.15	0.50	1	
o-Xylene	0.24	1.0	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-002-4
Lab ID: 1510353002
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 15:39
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.27	1.3	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 15:39
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Acetaldehyde	18	4.51	1	J
1-Propene, 2-methyl-	6.7	4.62	1	J
Propene	8.6	4.05	1	J
Ethanol	5.0	5.35	1	J
Isopropyl Alcohol	3.5	5.97	1	J
Butanal	4.2	7.87	1	J
Pentanal	3.5	10.69	1	J
Hexanal	3.5	13.36	1	J
1-Hexanol, 2-ethyl-	5.7	18.27	1	J
C10 Hydrocarbon	2.1	18.86	1	J
Acetophenone	7.0	18.94	1	J
C10 Hydrocarbon	2.4	19.20	1	J
Nonanal	3.7	19.55	1	J
Hexanoic acid, methyl ester	2.9	19.84	1	J
Acetic acid, 2-ethylhexyl ester	8.3	20.30	1	J

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-003-4
Lab ID: 1510353003
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 16:28
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.50**	**2.5**	0.15	0.50	1	
Chloromethane	0.38	0.78	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.22	1.2	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Carbon disulfide	**0.80**	**2.5**	0.15	0.50	1	
Methylene chloride	0.29	1.0	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**13**	**37**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.32	1.1	0.15	1.0	1	J
Hexane	**3.7**	**13**	0.15	0.50	1	
Chloroform	0.19	0.95	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.53**	**1.7**	0.15	0.50	1	
Cyclohexane	0.17	0.58	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**2.4**	**9.8**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.38	1.6	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.3**	**4.9**	0.15	0.50	1	

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-003-4
Lab ID: 1510353003
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 16:28
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.55**	**2.4**	0.15	0.50	1	
m,p-Xylene	**1.3**	**5.5**	0.15	0.50	1	
o-Xylene	0.47	2.0	0.15	0.50	1	J
Styrene	0.3	1.3	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.16	0.77	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/16/2015 10:01
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**99**	**240**	3.0	10	10	

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 16:28
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Acetaldehyde	29	4.51	1	J
1-Propene, 2-methyl-	19	4.60	1	J
Butane	6.0	4.69	1	J
Propene	52	4.01	1	J
Ethanol	20	5.34	1	J
Isopropyl Alcohol	20	5.96	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-SG-003-4
Lab ID: 1510353003
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 16:28
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Acrolein	2.2	5.62	1	J
Pentane	5.4	6.13	1	J
Butanal	12	7.86	1	J
1-Hexene	5.5	8.26	1	J
Pentanal	11	10.69	1	J
1-Heptene	4.4	11.02	1	J
Hexanal	10	13.36	1	J
2-Octene	5.2	13.58	1	J
2,4-Dimethyl-1-heptene	4.6	14.81	1	J
C9 Cyclichydrocarbon	8.5	14.99	1	J
1-Butoxy-2-ethylhexane	5.0	18.27	1	J
C10 Hydrocarbon	6.9	18.86	1	J

Sample ID: A-0026H-040815-TO-001-PAN
Lab ID: 1510353004
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 17:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.54**	**2.7**	0.15	0.50	1	
Chloromethane	**0.57**	**1.2**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.22	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**9.1**	**22**	0.30	1.0	1	
Carbon disulfide	0.36	1.1	0.15	0.50	1	J
Methylene chloride	**0.64**	**2.2**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-TO-001-PAN
Lab ID: 1510353004
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 17:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.78**	**2.3**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.58	2.1	0.15	1.0	1	J
Hexane	0.21	0.75	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	0.17	0.69	0.15	0.50	1	J
1,1,1-Trichloroethane	**1.4**	**7.9**	0.15	0.50	1	
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.23	0.74	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.31	1.2	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.32	2.1	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	ND	<0.65	0.15	0.50	1	U
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-TO-001-PAN
Lab ID: 1510353004
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 17:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 17:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Isobutane	2.4	4.43	1	J
Butane	2.1	4.71	1	J
Propene	3.2	4.07	1	J
Ethanol	120	5.32	1	J
Isopropyl Alcohol	2.1	5.99	1	J

Sample ID: A-0026H-040815-TO-003-OUT
Lab ID: 1510353005
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.52**	**2.6**	0.15	0.50	1	
Chloromethane	**0.63**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.23	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-TO-003-OUT
Lab ID: 1510353005
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**2.8**	**6.5**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.21	0.74	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.3	0.89	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.28	1.0	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.16	0.70	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0026H-040815-TO-003-OUT
Lab ID: 1510353005
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/08/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	2.8	5.36	1	J

Sample ID: A-0003H-040915-TO-001-LIV
Lab ID: 1510353006
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.51**	**2.5**	0.15	0.50	1	
Chloromethane	**0.67**	**1.4**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.41	2.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-001-LIV
Lab ID: 1510353006
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**5.3**	**13**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.25	0.87	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.85**	**2.5**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**2.3**	**8.4**	0.15	1.0	1	
Hexane	**10**	**36**	0.15	0.50	1	
Chloroform	**9.7**	**47**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**6.9**	**22**	0.15	0.50	1	
Cyclohexane	**2.0**	**6.8**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**4.3**	**18**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**22**	**83**	0.15	0.50	1	E
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**2.5**	**17**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**3.0**	**13**	0.15	0.50	1	
m,p-Xylene	**16**	**67**	0.15	0.50	1	
o-Xylene	**5.0**	**22**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-001-LIV
Lab ID: 1510353006
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	0.48	3.3	0.15	0.50	1	J
4-Ethyl toluene	**1.7**	**8.1**	0.15	1.0	1	
1,3,5-Trimethylbenzene	**1.6**	**7.9**	0.15	0.50	1	
1,2,4-Trimethylbenzene	**5.3**	**26**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 18:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Butane	7.2	4.72	1	J
Ethanol	500	5.35	1	J
Isopropyl Alcohol	13	6.01	1	J
Pentane	11	6.16	1	J
2-Pentene	5.1	6.30	1	J
Pentane, 2-methyl-	7.9	7.76	1	J
Pentane, 3-methyl-	4.4	8.13	1	J
Cyclopentane, methyl-	4.9	9.37	1	J
Hexane, 2-methyl-	4.1	10.44	1	J
Hexane, 3-methyl-	4.5	10.69	1	J
Cyclohexane, methyl-	3.8	12.00	1	J
Nonane	11	16.04	1	J
Decane	8.8	17.99	1	J
Benzene, 1,4-diethyl-	4.3	18.44	1	J
Limonene	5.5	18.63	1	J

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-002-BAS
Lab ID: 1510353007
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 19:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.51**	**2.5**	0.15	0.50	1	
Chloromethane	**0.67**	**1.4**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.34	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**22**	**52**	0.30	1.0	1	E
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**23**	**81**	0.15	0.50	1	E
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.66**	**2.0**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**3.5**	**12**	0.15	1.0	1	
Hexane	**6.8**	**24**	0.15	0.50	1	
Chloroform	**0.51**	**2.5**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**4.1**	**13**	0.15	0.50	1	
Cyclohexane	**1.2**	**4.3**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**2.6**	**11**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-002-BAS
Lab ID: 1510353007
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 19:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**14**	**52**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.22	1.5	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**1.8**	**7.7**	0.15	0.50	1	
m,p-Xylene	**9.3**	**40**	0.15	0.50	1	
o-Xylene	**2.9**	**13**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.95	4.7	0.15	1.0	1	J
1,3,5-Trimethylbenzene	**0.92**	**4.5**	0.15	0.50	1	
1,2,4-Trimethylbenzene	**3.1**	**15**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 19:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Isobutane	3.5	4.45	1	J
Butane	6.1	4.73	1	J
Ethanol	480	5.36	1	J
Isopropyl Alcohol	8.4	6.02	1	J
Pentane	8.1	6.16	1	J
2-Pentene	4.1	6.30	1	J
Pentane, 2-methyl-	5.4	7.76	1	J
Pentane, 3-methyl-	3.1	8.13	1	J
Cyclopentane, methyl-	3.4	9.38	1	J
Hexane, 3-methyl-	2.9	10.69	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-002-BAS | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/09/2015
Lab ID: 1510353007 | Media: Summa 6 Liter Canister | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 19:49 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Nonane	6.4	16.04	1	J
Decane	5.1	17.99	1	J
Limonene	14	18.63	1	J

Sample ID: A-0003H-040915-TO-003-BBB | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/09/2015
Lab ID: 1510353008 | Media: Summa 6 Liter Canister | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 20:39 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.50**	**2.5**	0.15	0.50	1	
Chloromethane	**0.64**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.34	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**5.2**	**12**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.2	0.71	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.70**	**2.1**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**4.0**	**14**	0.15	1.0	1	
Hexane	**7.0**	**25**	0.15	0.50	1	
Chloroform	**0.57**	**2.8**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-003-BBB
Lab ID: 1510353008
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 20:39
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**4.9**	**16**	0.15	0.50	1	
Cyclohexane	**1.4**	**4.9**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**3.1**	**13**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.2	0.83	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**16**	**60**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.25	1.7	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**2.1**	**9.1**	0.15	0.50	1	
m,p-Xylene	**11**	**48**	0.15	0.50	1	
o-Xylene	**3.5**	**15**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	**1.1**	**5.6**	0.15	1.0	1	
1,3,5-Trimethylbenzene	**1.1**	**5.4**	0.15	0.50	1	
1,2,4-Trimethylbenzene	**3.7**	**18**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-TO-003-BBB
Lab ID: 1510353008
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 20:39
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Butane	6.9	4.72	1	J
Ethanol	550	5.36	1	J
Isopropyl Alcohol	9.7	6.02	1	J
Pentane	9.0	6.16	1	J
2-Pentene	4.6	6.30	1	J
Pentane, 2-methyl-	6.1	7.75	1	J
Pentane, 3-methyl-	3.3	8.13	1	J
Cyclopentane, methyl-	3.7	9.37	1	J
Hexane, 2-methyl-	3.0	10.44	1	J
Hexane, 3-methyl-	3.4	10.69	1	J
Nonane	7.6	16.04	1	J
Decane	6.1	17.99	1	J
Limonene	18	18.63	1	J

Sample ID: A-0003H-040915-SG-001-4
Lab ID: 1510353009
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 21:29
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.52**	**2.6**	0.15	0.50	1	
Chloromethane	**0.58**	**1.2**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	0.18	0.40	0.15	0.50	1	J
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.23	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**4.0**	**9.6**	0.30	1.0	1	
Carbon disulfide	**1.6**	**4.9**	0.15	0.50	1	
Methylene chloride	0.25	0.85	0.15	0.50	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-SG-001-4
Lab ID: 1510353009
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/09/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 21:29
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.63**	**1.9**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.24	0.86	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.21	0.66	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.45	1.7	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.24	1.1	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U

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ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0003H-040915-SG-001-4 | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/09/2015
Lab ID: 1510353009 | Media: Summa 6 Liter Canister | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 21:29 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 21:29 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	3.5	5.35	1	J

Sample ID: A-0008H-041015-TO-001-BAS | Sampling Site: VA SLC CERCLA-AOU-1 | Collected: 04/10/2015
Lab ID: 1510353010 | Media: Summa 6 Liter Canister | Received: 04/10/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2882 (HBN: 147241) | **Percent Solid:** NA
Analyzed: 04/15/2015 22:18 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.53**	**2.6**	0.15	0.50	1	
Chloromethane	**0.69**	**1.4**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.32	1.8	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**5.1**	**12**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.23	0.80	0.15	0.50	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-TO-001-BAS
Lab ID: 1510353010
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 22:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**1.3**	**4.0**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.58	2.1	0.15	1.0	1	J
Hexane	**22**	**78**	0.15	0.50	1	E
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**11**	**34**	0.15	0.50	1	
Cyclohexane	**6.9**	**24**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**8.7**	**36**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**39**	**150**	0.15	0.50	1	E
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.43	2.9	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**6.3**	**27**	0.15	0.50	1	
m,p-Xylene	**28**	**120**	0.15	0.50	1	
o-Xylene	**9.3**	**40**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	**1.8**	**8.9**	0.15	1.0	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-TO-001-BAS
Lab ID: 1510353010
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 22:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,3,5-Trimethylbenzene	**1.8**	**8.8**	0.15	0.50	1	
1,2,4-Trimethylbenzene	**5.5**	**27**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 22:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	3.8	4.04	1	J
Isobutane	7.6	4.41	1	J
Butane	21	4.71	1	J
Ethanol	450	5.35	1	J
Isopropyl Alcohol	11	6.01	1	J
Pentane	18	6.16	1	J
2-Pentene	4.2	6.30	1	J
Butane, 2,3-dimethyl-	5.8	7.67	1	J
Pentane, 2-methyl-	14	7.76	1	J
Pentane, 3-methyl-	8.0	8.14	1	J
Cyclopentane, methyl-	8.7	9.38	1	J
Hexane, 2-methyl-	8.9	10.45	1	J
Pentane, 2,3-dimethyl-	6.9	10.54	1	J
Hexane, 3-methyl-	10	10.69	1	J
Hexane, 2,2-dimethyl-	9.8	11.10	1	J
Cyclohexane, methyl-	5.5	12.02	1	J

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-SG-001A-4
Lab ID: 1510353011
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.44	2.2	0.15	0.50	1	J
Chloromethane	0.44	0.91	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.2	1.1	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Carbon disulfide	**0.54**	**1.7**	0.15	0.50	1	
Methylene chloride	0.36	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.37	1.3	0.15	1.0	1	J
Hexane	**6.5**	**23**	0.15	0.50	1	
Chloroform	**1.1**	**5.4**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.97**	**3.1**	0.15	0.50	1	
Cyclohexane	0.4	1.4	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**3.8**	**16**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	**0.58**	**2.4**	0.15	0.50	1	
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**3.0**	**11**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-SG-001A-4
Lab ID: 1510353011
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.49	2.1	0.15	0.50	1	J
m,p-Xylene	**1.5**	**6.7**	0.15	0.50	1	
o-Xylene	**0.59**	**2.6**	0.15	0.50	1	
Styrene	0.38	1.6	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.16	0.79	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.17	0.86	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**0.59**	**2.9**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/16/2015 07:38
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**330**	**780**	3.0	10	10	E
2-Butanone	**31**	**93**	1.5	5.0	10	

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	63	4.05	1	J
Acetaldehyde	120	4.56	1	J
2-Propanol, 2-methyl-	12	6.54	1	J
Acrolein	10	5.66	1	J
Ethanol	82	5.35	1	J
Isopropyl Alcohol	37	5.99	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-SG-001A-4
Lab ID: 1510353011
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propanal, 2-methyl-	11	7.13	1	J
Butanal	49	7.89	1	J
1-Hexene	9.3	8.28	1	J
Pentanal	15	10.70	1	J
1-Heptene	11	11.03	1	J
Hexanal	9.1	13.36	1	J
Heptane, 2,4-dimethyl-	25	14.43	1	J
2,4-Dimethyl-1-heptene	10	14.82	1	J
2,3-Dimethyl-1-hexene	10	14.89	1	J
4-Nonene	34	15.00	1	J
.alpha.-Pinene	14	16.94	1	J

Sample ID: A-0008H-041015-SG-001B-4
Lab ID: 1510353012
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.48	2.4	0.15	0.50	1	J
Chloromethane	**0.78**	**1.6**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.2	1.1	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Carbon disulfide	0.34	1.1	0.15	0.50	1	J
Methylene chloride	**0.79**	**2.7**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	**4.0**	**14**	0.15	0.50	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-SG-001B-4
Lab ID: 1510353012
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.97	3.5	0.15	1.0	1	J
Hexane	**15**	**51**	0.15	0.50	1	
Chloroform	**0.51**	**2.5**	0.15	0.50	1	
Tetrahydrofuran	0.44	1.3	0.15	0.50	1	J
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**1.1**	**3.5**	0.15	0.50	1	
Cyclohexane	**0.59**	**2.0**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**11**	**45**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	**1.4**	**5.6**	0.15	0.50	1	
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**0.95**	**3.6**	0.15	0.50	1	
2-Hexanone	**5.8**	**24**	0.30	1.0	1	
Tetrachloroethene	0.44	3.0	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.2	0.87	0.15	0.50	1	J
m,p-Xylene	**0.58**	**2.5**	0.15	0.50	1	
o-Xylene	0.21	0.92	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.17	0.85	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0008H-041015-SG-001B-4
Lab ID: 1510353012
Matrix: Air
Sampling Site: VA SLC CERCLA-AOU-1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/10/2015
Received: 04/10/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/16/2015 08:26
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Acetone	**160**	**390**	3.0	10	10	
2-Butanone	**30**	**89**	1.5	5.0	10	

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2882 (HBN: 147241)
Analyzed: 04/15/2015 23:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	83	4.02	1	J
Acetaldehyde	84	4.55	1	J
Butane	7.7	4.70	1	J
Acrolein	18	5.65	1	J
Ethanol	34	5.35	1	J
Isopropyl Alcohol	7.4	5.98	1	J
1-Pentene	5.5	5.93	1	J
Pentane	9.6	6.14	1	J
Butanal	61	7.88	1	J
Oxirane, ethyl-	6.0	8.19	1	J
1-Hexene	8.7	8.27	1	J
2-Pentanone	8.9	10.46	1	J
Pentanal	69	10.70	1	J
1-Heptene	8.5	11.03	1	J
Hexanal	49	13.36	1	J
2-Octene	7.6	13.58	1	J
Octane	7.0	13.85	1	J
Heptanal	24	15.68	1	J

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 04/17/2015 10:04	/S/ Jorden Baum 04/17/2015 11:04

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1510353
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1510353**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2882 (HBN: 147241)
Analyzed By: Lisa M. Reid

Blank

MB: 442866
Analyzed: 04/15/2015 14:00

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510353

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2882 (HBN: 147241)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 442866
Analyzed: 04/15/2015 14:00
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442864
Analyzed: 04/15/2015 11:35
Dilution: 1
Units: ppb

LCSD: 442865
Analyzed: 04/15/2015 12:24
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	10.3	10.0	103	59.3	135.1	10.3	103	0.165	0.0	25.0
Chloromethane	8.96	10.0	89.6	55.2	137.4	9.00	90.0	0.460	0.0	25.0
Freon 114	10.1	10.0	101	64.6	128.0	10.3	103	1.39	0.0	25.0
Vinyl chloride	10.2	10.0	102	61.8	132.3	10.3	103	1.51	0.0	25.0
1,3-Butadiene	10.2	10.0	102	58.0	138.3	10.2	102	0.255	0.0	25.0
Bromomethane	9.98	10.0	99.8	63.3	129.9	9.98	99.8	0.0842	0.0	25.0
Chloroethane	10.0	10.0	100	57.6	137.1	10.1	101	1.39	0.0	25.0
Freon 11	10.1	10.0	101	58.9	132.8	10.2	102	0.622	0.0	25.0
Freon 113	10.1	10.0	101	68.5	120.0	10.1	101	0.0889	0.0	25.0
1,1-Dichloroethene	10.1	10.0	101	67.2	125.1	10.1	101	0.355	0.0	25.0
Acetone	9.51	10.0	95.1	42.5	146.0	9.47	94.7	0.433	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510353

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2882 (HBN: 147241)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442864
Analyzed: 04/15/2015 11:35
Dilution: 1
Units: ppb

LCSD: 442865
Analyzed: 04/15/2015 12:24
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	10.1	10.0	101	63.9	128.8	10.1	101	0.129	0.0	25.0
Methylene chloride	9.77	10.0	97.7	63.7	127.9	9.76	97.6	0.0297	0.0	25.0
trans-1,2-Dichloroethene	10.0	10.0	100	68.1	124.6	10.1	101	0.916	0.0	25.0
Methyl t-butyl ether	10.3	10.0	103	60.8	138.0	10.4	104	0.972	0.0	25.0
Vinyl acetate	9.94	10.0	99.4	59.3	141.1	9.69	96.9	2.52	0.0	25.0
2-Butanone	10.1	10.0	101	51.7	144.2	10.2	102	0.866	0.0	25.0
cis-1,2-Dichloroethene	10.1	10.0	101	69.8	124.3	10.2	102	0.443	0.0	25.0
1,1-Dichloroethane	10.1	10.0	101	67.7	123.6	10.1	101	0.624	0.0	25.0
Ethyl acetate	9.94	10.0	99.4	53.4	156.9	9.73	97.3	2.11	0.0	25.0
Hexane	10.0	10.0	100	62.4	129.5	9.96	99.6	0.717	0.0	25.0
Chloroform	10.2	10.0	102	67.3	121.8	10.2	102	0.00	0.0	25.0
Tetrahydrofuran	10.5	10.0	105	50.6	155.3	10.4	104	0.945	0.0	25.0
1,2-Dichloroethane	10.2	10.0	102	62.4	130.5	10.0	100	1.40	0.0	25.0
1,1,1-Trichloroethane	10.1	10.0	101	60.4	127.7	10.1	101	0.197	0.0	25.0
Carbon tetrachloride	10.2	10.0	102	58.2	130.6	10.1	101	1.14	0.0	25.0
Benzene	9.77	10.0	97.7	64.1	127.3	9.76	97.6	0.181	0.0	25.0
Cyclohexane	9.74	10.0	97.4	61.9	123.6	9.79	97.9	0.545	0.0	25.0
Trichloroethene	9.89	10.0	98.9	62.4	126.8	9.95	99.5	0.525	0.0	25.0
1,2-Dichloropropane	10.1	10.0	101	60.7	130.6	10.1	101	0.357	0.0	25.0
Bromodichloromethane	10.2	10.0	102	62.9	128.3	10.1	101	0.811	0.0	25.0
Heptane	9.92	10.0	99.2	59.5	133.4	9.92	99.2	0.0313	0.0	25.0
cis-1,3-Dichloropropene	10.2	10.0	102	64.1	133.6	10.1	101	1.01	0.0	25.0
4-Methyl-2-pentanone	10.1	10.0	101	73.5	150.0	10.1	101	0.464	0.0	25.0
trans-1,3-Dichloropropene	10.2	10.0	102	78.5	148.7	10.1	101	1.59	0.0	25.0
1,1,2-Trichloroethane	9.99	10.0	99.9	65.0	126.6	10.0	100	0.371	0.0	25.0
Toluene	9.77	10.0	97.7	75.6	139.4	9.76	97.6	0.101	0.0	25.0
2-Hexanone	10.4	10.0	104	80.8	158.8	10.3	103	0.792	0.0	25.0
Tetrachloroethene	9.95	10.0	99.5	60.7	126.6	9.92	99.2	0.282	0.0	25.0
Dibromochloromethane	10.1	10.0	101	62.4	130.9	10.0	100	0.984	0.0	25.0
1,2-Dibromoethane	9.98	10.0	99.8	64.4	129.0	9.95	99.5	0.315	0.0	25.0
Chlorobenzene	10.0	10.0	100	62.8	126.9	9.92	99.2	0.976	0.0	25.0
Ethyl benzene	10.0	10.0	100	75.9	148.5	9.92	99.2	1.22	0.0	25.0
m,p-Xylene	19.7	20.0	98.5	73.7	144.9	19.5	97.7	0.817	0.0	25.0
o-Xylene	9.86	10.0	98.6	74.7	147.4	9.76	97.6	1.07	0.0	25.0
Styrene	10.1	10.0	101	75.9	158.1	10.0	100	0.605	0.0	25.0
Bromoform	10.2	10.0	102	59.7	136.0	10.1	101	1.14	0.0	25.0
1,1,2,2-Tetrachloroethane	9.87	10.0	98.7	59.3	134.8	9.81	98.1	0.627	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510353

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2882 (HBN: 147241)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS:	442864	**LCSD:**	442865
Analyzed:	04/15/2015 11:35	**Analyzed:**	04/15/2015 12:24
Dilution:	1	**Dilution:**	1
Units:	ppb	**Units:**	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	10.1	10.0	101	69.0	163.3	9.98	99.8	0.771	0.0	25.0
1,3,5-Trimethylbenzene	9.90	10.0	99.0	64.2	155.1	9.87	98.7	0.249	0.0	25.0
1,2,4-Trimethylbenzene	9.84	10.0	98.4	59.7	169.4	9.79	97.9	0.490	0.0	25.0
1,3-Dichlorobenzene	9.77	10.0	97.7	58.6	157.6	9.73	97.3	0.387	0.0	25.0
1,4-Dichlorobenzene	9.86	10.0	98.6	57.7	137.2	9.80	98.0	0.580	0.0	25.0
Benzyl chloride	10.1	10.0	101	60.1	182.5	9.99	99.9	0.707	0.0	25.0
1,2-Dichlorobenzene	10.0	10.0	100	56.5	140.0	9.96	99.6	0.576	0.0	25.0
1,2,4-Trichlorobenzene	11.3	10.0	113	0.0	235.7	11.1	111	1.86	0.0	25.0
Hexachlorobutadiene	10.7	10.0	107	25.3	155.9	10.4	104	2.75	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
442864-LCS	20.1	20.0	100
442865-LCSD	20.1	20.0	101
442866-MB	20.0	20.0	99.8
1510353001	20.1	20.0	101
1510353002	20.0	20.0	99.9
1510353003	20.1	20.0	101
1510353004	20.2	20.0	101
1510353005	20.3	20.0	101
1510353006	20.0	20.0	99.9
1510353007	20.1	20.0	100
1510353008	20.1	20.0	100
1510353009	20.0	20.0	99.8
1510353010	19.9	20.0	99.6
1510353011	20.6	20.0	103
1510353012	19.8	20.0	99.1

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510353

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2882 (HBN: 147241)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	4/17/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

* - Analyte above reporting limit or outside of control limits
▲ - Sample result is greater than 4 times the spike added
◓ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

 13720 TO15= #1 TO13A = #3

1510353

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status 157035

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/10/15 Purchase Order No. _____

3. Company Name First Environment, Inc
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (678) 787-2295
Fax Telephone 973 334-0003
E-mail Address esr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site VA SLC CERCLA - AOU-1
Industrial Process NA
Date of Collection 4/9 to 4/10 - 2015
Time Collected multiple
Date of Shipment 4/10/15
Chain of Custody No. _____

6. How did you first learn about ALS?
NA

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-002611-040715-SG-001A	PUF	240 Liters	SVOC in air - TO-13A	5	
A-002611-040715-SG-001B	PUF	240 Liters	" " - "	5	
A-002611-040715-TO-001-PAN	PUF	240 Liters	" " - "	5	
A-002611-040715-TO-003-OUT	PUF	240 L	" " - "	5	
A-002611-040715-TO-004	PUF	240 L	" " - "	5	027
A-002611-040815-SG-001-4'	Air	6L Summa	TO-15 A-VOCs in air	5	0033 0137
A-002611-040815-SG-002-4'	Air	6L Summa	" " - "	5	0097
A-002611-040815-SG-003-4'	Air	6L Summa	" " - "	5	~~0197~~ 0265 025
A-002611-040815-TO-001-PAN	Air	6L Summa	" " - "	5	0262
A-002611-040815-TO-003-OUT	Air	6L Summa	" " - "	5	0143
A-000311-040915-TO-001-LIV	Air	6L Summa	" " - "	5	0162
A-000311-040915-TO-002-BAS	Air	6L Summa	" " - "	5	0229
A-000311-040915-TO-003-BED	Air	6L Summa	" " - "	5	0122
A-000311-040915-SG-001-4'	Air	6L Summa	" " - "	5	0144

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCBs, TCE, 1,2-DCE, Vinyl Chl

7. Chain of Custody (Optional)

Relinquished by	Edward Reid	Date/Time	4/10/15 -
Received by		Date/Time	04/10/15 15:30
Relinquished by		Date/Time	
Received by		Date/Time	

[For lab use only]

ANALYTICAL REQUEST FORM

1. ☒ **REGULAR Status**

☐ **RUSH Status Requested - ADDITIONAL CHARGE**
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/10/15 Purchase Order No. _____

3. Company Name First Environment
Address 91 Fulton St.
Boonton, NJ 07005
Person to Contact Ed Reed
Telephone (678) 727-2245
Fax Telephone (973) 334-0078
E-mail Address egr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. **Sample Collection**
Sampling Site VA SLC GERDAU AMCO
Industrial Process NA
Date of Collection 4/8 to 4/10 - 2015
Time Collected My Hyde
Date of Shipment 4/10/15
Chain of Custody No. _____

6. How did you first learn about ALS?
NA

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-0008H-041015-TO-001-BAG	Air	6L Summa	TO-15A + VOCs in air	5	0304
A-0008H-041015-SG-001B-4'	Air	6L Summa	"	5	0271
A-0008H-041015-SG-001B-4'	Air	6L Summa	"	5	0533

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PUST TCE, 1,2 DCE, Vinyl chloride

7. **Chain of Custody (Optional)**

Relinquished by		Date/Time	4/10/15 -
Received by		Date/Time	04/10/15 1530
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Canister Chain of Custody

Environmental Division

Client: First Environment

Account No:

Project/Job/Task: VA SLC GEROLA site DEPVA030-B-0006.2

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0144	03-31-15	>25		JB	26	1	A-0003H-040415-SG-001-4-	Reg 5519	
0122	"	"	"	"	24	0.5	A-0003H-040415-TO-003-BBG	Reg 5519	
0384	"	"	"	"	28	2"	A-0009H-040915-TO-001-BAS	Reg 0392	
0137	"	"	"	"	26	0	A-0026H-040815-SG-001-4-	Reg 5511	
0255	"	"	"	"	25	5	A-0026H-040815-SG-003-4-	Reg 0520	
VFR Serial No.:									
0519	03-30-15		23.8	JB					
0520	"		"	"					
0497	"		"	"					
0018	"		"	"					
0451	"		"	"					

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
JB	04-03-15		Fieldwork
	04/10 15		Return to Lab
		04/10/15 1432	Sample receipt

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment

Account No:

Project/Job/Task: VASLC CERCLA Site - DEPUA030B-0062

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0162	03-31-15	725		JB	26	2"	A-0003H-040915 Rep TO-001-LEV		433
0221	"	"	"	"	28	10"	A-0003H-040915-Rep TO-002-BAS	467	
0262	"	"	"	"	22"	1"	A-0026H-040815 Rep TO-00[illegible]	PUMP# 451	TO-001
0097	"	"	"	"	29"	0.5"	A-0026H-040815 Rep SG-00[illegible]	Rep w/ 0433	SG-002
0533	"	"	"	"	27"	1"	A-0008H-041015- SG-0018-4	Rep w/ 0014	
VFR Serial No.:									
0433	03-30-15		~3.8	JB					
0467	"		"	"					
0432	"		"	"					
0570	"		"	"					
0014	"		"	"					

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
JB	04-03-15	[signature]	Pickup at Lab
[signature]	4/8/15		Return to lab
		[signature] 04/10/15 1530	Sample receipt

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Canister Chain of Custody

Environmental Division

Client: First Environment

Account No:

Project/Job/Task: VA SCC CERCLA- DEPUA030 B-0006.2

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0271	03-31-15	-25		JB	27	1	SA-0008H-040415-SG-001A-4	Reg 0129	
0143	"	"		"	27	4	A-0026H-040415-TO-003-OUT	Reg #432	
VFR Serial No.:									
0392	03-30-15		~3.8	JB					
0149	"		"	"					

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
	04-03-15		Pickup at cab
	4/10/15		Return to lab
		04/10/15 1530	Sample receipt

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2882 Created: 4/17/2015 09:50 Instrument: 5975-L HBN: 147241

Rule: EPA TO-15, Air Analyst: L. Reid Status: WP

Workorder: 1510353

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442864	LCS for HBN 147241 (IVOA/2882)				LCS	1		ETO15...1Q			6/16/2015	4/15/2015
2	442865	LCSD for HBN 147241 (IVOA/2882				LCSD	1		ETO15...1Q			6/16/2015	4/15/2015
3	442845	RLVS for HBN 147241 (IVOA/2882				RLVS	1		ETO15...1Q	5320		4/17/2015	4/15/2015
4	442866	MB for HBN 147241 (IVOA/2882)				MB	1		ETO15...1Q			6/16/2015	4/15/2015
5	1510353001	A-0026-040815-SG-001-4				SAMPLE	1	1510353001-A	ETO15....1	5480		4/17/2015	4/15/2015
6	1510353003	A-0026H-040815-SG-003-4				SAMPLE	1	1510353003-A	ETO15....1	5480		4/17/2015	4/15/2015
7	1510353011	A-0008H-041015-SG-001A-4				SAMPLE	1	1510353011-A	ETO15....1	5480		4/17/2015	4/15/2015
8	1510353012	A-0008H-041015-SG-001B-4				SAMPLE	1	1510353012-A	ETO15....1	5480		4/17/2015	4/15/2015
9	1510353001	A-0026-040815-SG-001-4				SAMPLE	1	1510353001-A	ETO15....1	5480		4/17/2015	4/16/2015
	*RERUN[5320,OR]												
10	1510353002	A-0026H-040815-SG-002-4				SAMPLE	1	1510353002-A	ETO15....1	5480		4/17/2015	4/15/2015
	* E\Result exceeds calibration range												
11	1510353003	A-0026H-040815-SG-003-4				SAMPLE	1	1510353003-A	ETO15....1	5480		4/17/2015	4/16/2015
	*RERUN[5320,OR]												
12	1510353004	A-0026H-040815-TO-001-PAN				SAMPLE	1	1510353004-A	ETO15....1	5480		4/17/2015	4/15/2015
13	1510353005	A-0026H-040815-TO-003-OUT				SAMPLE	1	1510353005-A	ETO15....1	5480		4/17/2015	4/15/2015
14	1510353006	A-0003H-040915-TO-001-LIV				SAMPLE	1	1510353006-A	ETO15....1	5480		4/17/2015	4/15/2015
	* E\Result exceeds calibration range												
15	1510353007	A-0003H-040915-TO-002-BAS				SAMPLE	1	1510353007-A	ETO15....1	5480		4/17/2015	4/15/2015
	* E\Result exceeds calibration range												
16	1510353008	A-0003H-040915-TO-003-BBB				SAMPLE	1	1510353008-A	ETO15....1	5480		4/17/2015	4/15/2015
17	1510353009	A-0003H-040915-SG-001-4				SAMPLE	1	1510353009-A	ETO15....1	5480		4/17/2015	4/15/2015
18	1510353010	A-0008H-041015-TO-001-BAS				SAMPLE	1	1510353010-A	ETO15....1	5480		4/17/2015	4/15/2015
	* E\Result exceeds calibration range												
19	1510353011	A-0008H-041015-SG-001A-4				SAMPLE	1	1510353011-A	ETO15....1	5480		4/17/2015	4/16/2015
	*RERUN[5320,CF]												
	* E\Result exceeds calibration range												
20	1510353012	A-0008H-041015-SG-001B-4				SAMPLE	1	1510353012-A	ETO15....1	5480		4/17/2015	4/16/2015
	*RERUN[5320,OR]												

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	LA30LCS	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		506304	6185808	5226972
	Upper Limit	708826	8660131	7317761
	Lower limit	303782	3711485	3136183

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	LA33BLK	526848	6225458	5279201
QC-	LA30LCS	506304	6185808	5226972
QD-	LA31LCSD	500352	6170688	5254894
A-0026-040815-SG-001-4	FEI1510353001	516288	5972491	4957854
A-0026-040815-SG-001-4 1:10DIL	FEI1510353001	535232	6169882	5244589
A-0026H-040815-SG-002-4	FEI1510353002	525760	6090379	5134353
A-0026H-040815-SG-003-4	FEI1510353003	505536	5924783	4919403
A-0026H-040815-SG-003-4 1:10DIL	FEI1510353003	528064	6148588	5187291
A0026H-040815-TO-001-PAN	FEI1510353004	517184	6036530	5144737
A-0026H-040815-TO-003-OUT	FEI1510353005	503808	5925815	5021399
A-0003H-040915-TO-001-LIV	FEI1510353006	509504	5939825	5021859
A-0003H-040915-TO-002-BAS	FEI1510353007	509184	5889250	4965738
A-0003H-040915-TO-003-BBB	FEI1510353008	524480	6061715	5075603
A-0003H-040915-SG-001-4	FEI1510353009	511296	6085057	5127858
A-0008H-041015-TO-001-BAS	FEI1510353010	500160	6018854	5081656
A-0008H-041015-SG-001A-4	FEI1510353011	534080	6179191	4867804
A-0008H-041015-SG-001A-4 1:10DIL	FEI1510353011	567424	6490523	5405255
A-0008H-041015-SG-001B-4	FEI1510353012	527616	6297503	5250611
A-0008H-041015-SG-001B-4 1:10DIL	FEI1510353012	542272	6342857	5380990

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD73S10	**RT BCM**	**RT 1,4DFB**	**RT CB-d5**
10 ppb v/v Continuing Cal Std		8.55	10.38	14.70
	Upper Limit	9.05	10.88	15.20
	Lower limit	8.05	9.88	14.20
CLIENT Sample No.	**DCL Sample No.**	**RT BCM**	**RT 1,4DFB**	**RT CB-d5**
BL-	LA33BLK	8.54	10.36	14.69
QC-	LA30LCS	8.55	10.38	14.70
QD-	LA31LCSD	8.55	10.38	14.70
A-0026-040815-SG-001-4	FEI1510353001	8.54	10.36	14.69
A-0026-040815-SG-001-4 1:10DIL	FEI1510353001	8.54	10.36	14.70
A-0026H-040815-SG-002-4	FEI1510353002	8.55	10.37	14.69
A-0026H-040815-SG-003-4	FEI1510353003	8.55	10.37	14.69
A-0026H-040815-SG-003-4 1:10DIL	FEI1510353003	8.54	10.36	14.69
A0026H-040815-TO-001-PAN	FEI1510353004	8.54	10.36	14.69
A-0026H-040815-TO-003-OUT	FEI1510353005	8.54	10.37	14.70
A-0003H-040915-TO-001-LIV	FEI1510353006	8.54	10.37	14.70
A-0003H-040915-TO-002-BAS	FEI1510353007	8.55	10.38	14.70
A-0003H-040915-TO-003-BBB	FEI1510353008	8.54	10.37	14.70
A-0003H-040915-SG-001-4	FEI1510353009	8.54	10.36	14.69
A-0008H-041015-TO-001-BAS	FEI1510353010	8.54	10.38	14.70
A-0008H-041015-SG-001A-4	FEI1510353011	8.58	10.39	14.70
A-0008H-041015-SG-001A-4 1:10DIL	FEI1510353011	8.55	10.37	14.70
A-0008H-041015-SG-001B-4	FEI1510353012	8.58	10.39	14.70
A-0008H-041015-SG-001B-4 1:10DIL	FEI1510353012	8.57	10.38	14.71

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Analyst Notebook

147241

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
~~Purge/Trap~~ CTD
Initial Calibration Curve is T015LB15 (HBN 147241 Here)

5972L

The following compounds in the CCS were outside of +-30%: NA

1510353001, 003, 011, 012 were also analyzed at 1:10 DIC

Analyst Signature: [signature] 04-17-15

Response Factor Report

Method Path : J:\L\METHODS\methods\
Method File : TO15LB15.m
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response Via : Initial Calibration

Calibration Files
.5 =LA23S05.D 1 =LA22S1.D 2 =LA24S2.D 5 =LA25S5.D 10 =LA26S10.D 20 =LA27S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	2.871	2.722	2.905	2.760	2.868	2.878	2.834		2.61	TC
3)		Dichlorodifluo...	0.967	0.896	0.992	0.967	1.006	0.973	0.967	E1	3.92	
4)		Chloromethane	5.242	4.475	3.926	3.622	3.742	3.766	4.129		15.08	
5)		Freon 114	6.096	5.604	6.308	6.109	6.386	6.296	6.133		4.63	
6)		Vinyl Chloride	3.689	3.493	3.914	3.739	3.978	3.959	3.795		5.00	
7)		1,3-Butadiene	3.030	2.924	3.232	3.133	3.267	3.230	3.136		4.31	
8)		Bromomethane	3.244	2.965	3.206	3.075	3.232	3.239	3.160		3.64	
9)		Chloroethane	2.018	1.851	2.021	1.944	2.047	2.050	1.988		3.91	
10)		Acrolein	1.700	1.511	1.606	1.545	1.608	1.629	1.600		4.13	TC
11)		Acetone	7.826	6.848	6.516	6.045	6.242	6.198	6.612		9.96	
12)		Trichlorofluor...	1.049	0.982	1.073	1.029	1.065	1.060	1.043	E1	3.24	
13)		Ethanol	1.413	1.285	1.339	1.269	1.316	1.310	1.322		3.84	TC
14)		Isopropyl Alcohol	1.836	1.378	1.048	0.860	0.812	0.797	1.122	E1	36.76	TC
15)		1,1-Dichloroet...	6.876	6.448	7.102	6.733	6.986	6.975	6.853		3.41	
16)		Methylene Chlo...	3.725	3.246	3.437	3.211	3.342	3.340	3.383		5.48	
17)		Freon 113	6.059	5.791	6.330	6.106	6.290	6.270	6.141		3.30	
18)		Carbon Disulfide	1.059	0.976	1.058	1.020	1.055	1.048	1.036	E1	3.14	
19)		trans-1,2-Dich...	4.007	3.693	4.013	3.899	4.032	4.068	3.952		3.52	
20)		1,1-Dichloroet...	7.740	7.293	7.944	7.551	7.833	7.769	7.688		3.02	
21)		methyl t-butyl...	1.085	1.034	1.149	1.112	1.158	1.160	1.116	E1	4.48	
22)		Vinyl Acetate	1.014	0.884	0.967	0.872	0.926	0.927	0.932		5.67	
23)		2-Butanone	8.626	8.080	8.402	8.080	8.533	8.655	8.396		3.10	
24)		cis-1,2-Dichlo...	4.117	3.782	4.227	4.009	4.186	4.208	4.088		4.15	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.131	0.118	0.119	0.113	0.111	0.111	0.117		6.70	
27)		Hexane	0.588	0.542	0.587	0.557	0.554	0.530	0.560		4.20	
28)		Chloroform	0.713	0.659	0.717	0.693	0.695	0.677	0.692		3.18	
29)		Tetrahydrofuran	0.390	0.385	0.396	0.388	0.397	0.392	0.391		1.25	
30)		1,2-Dichloroet...	0.535	0.512	0.537	0.519	0.518	0.509	0.522		2.24	
31)		1,1,1-Trichlor...	0.795	0.762	0.818	0.786	0.781	0.761	0.784		2.71	
32)		Benzene	1.087	0.979	1.018	0.960	0.955	0.921	0.986		5.94	
33)		Carbon Tetrach...	0.825	0.768	0.820	0.797	0.794	0.773	0.796		2.94	
34)		Cyclohexane	0.491	0.437	0.455	0.431	0.431	0.418	0.444		5.83	
35)		1,2-Dichloropr...	0.425	0.374	0.416	0.397	0.394	0.386	0.398		4.71	
36)		Bromodichlorom...	0.797	0.753	0.806	0.780	0.772	0.748	0.776		2.96	
37)		1,4-Dioxane	0.264	0.246	0.239	0.227	0.215	0.212	0.234		8.38	TC
38)		Trichloroethene	0.447	0.425	0.451	0.430	0.424	0.402	0.430		4.12	
39)		Methyl Methacr...	0.337	0.308	0.337	0.318	0.325	0.322	0.324		3.44	TC
40)		Heptane	0.366	0.329	0.357	0.341	0.340	0.325	0.343		4.63	
41)		cis-1,3-Dichlo...	0.608	0.573	0.621	0.592	0.589	0.573	0.593		3.19	

Method Path : J:\L\METHODS\methods\
Method File : TO15LB15.m

42)		4-Methyl-2-Pen...	0.843	0.822	0.858	0.808	0.799	0.768	0.816	3.92
43)		trans-1,3-Dich...	0.584	0.553	0.594	0.574	0.570	0.562	0.573	2.55
44)		1,1,2-Trichlor...	0.435	0.396	0.426	0.408	0.407	0.396	0.411	3.88
45)		Toluene	1.289	1.198	1.243	1.185	1.162	1.108	1.197	5.25
46)		2-Hexanone	0.774	0.734	0.784	0.766	0.758	0.726	0.757	2.99
47)		Dibromochlorom...	0.763	0.726	0.785	0.758	0.750	0.728	0.752	2.98
48)		1,2-Dibromoethane	0.636	0.601	0.651	0.626	0.618	0.599	0.622	3.28
49)		Tetrachloroethene	0.613	0.570	0.621	0.595	0.584	0.560	0.591	4.02
50)	I	Chlorobenzene d5	----------ISTD----------							
51)		Chlorobenzene	1.098	1.022	1.119	1.069	1.054	1.002	1.061	4.20
52)		Ethylbenzene	1.929	1.789	1.945	1.865	1.827	1.700	1.842	4.96
53)		m,p-Xylene	1.500	1.392	1.518	1.439	1.393	1.279	1.420	6.11
54)		Bromoform	0.918	0.849	0.953	0.921	0.920	0.875	0.906	4.15
55)		Styrene	1.058	1.001	1.087	1.052	1.034	0.983	1.036	3.71
56)		1,1,2,2-Tetrac...	1.035	0.951	1.043	0.985	0.955	0.868	0.973	6.62
57)		o-Xylene	1.535	1.419	1.540	1.466	1.416	1.299	1.446	6.20
58)	S	Bromofluoroben...	0.801	0.788	0.801	0.796	0.804	0.789	0.796	0.82
59)		4-Ethyl Toluene	2.016	1.866	2.061	1.969	1.946	1.767	1.937	5.51
60)		1,3,5-Trimethy...	1.778	1.621	1.773	1.673	1.640	1.490	1.662	6.47
61)		1,2,4-Trimethy...	1.880	1.573	1.750	1.658	1.639	1.504	1.667	7.98
62)		Benzyl Chloride	1.710	1.525	1.665	1.599	1.532	1.379	1.568	7.49 TIC
63)		m-Dichlorobenzene	1.192	1.029	1.109	1.055	1.035	0.952	1.062	7.66
64)		p-Dichlorobenzene	1.174	1.021	1.111	1.063	1.052	0.977	1.066	6.47
65)		o-Dichlorobenzene	1.129	0.969	1.058	1.026	1.020	0.957	1.026	6.10
66)		1,2,4-Trichlor...	0.540	0.583	0.736	0.769	0.774	0.733	0.689	14.68 TIC
67)		Naphthalene	1.048	1.271	1.554	1.604	1.624	1.477	1.429	15.86 TIC
68)		Hexachloro-1,3...	0.644	0.591	0.709	0.709	0.713	0.660	0.671	7.29 TIC

(#) = Out of Range

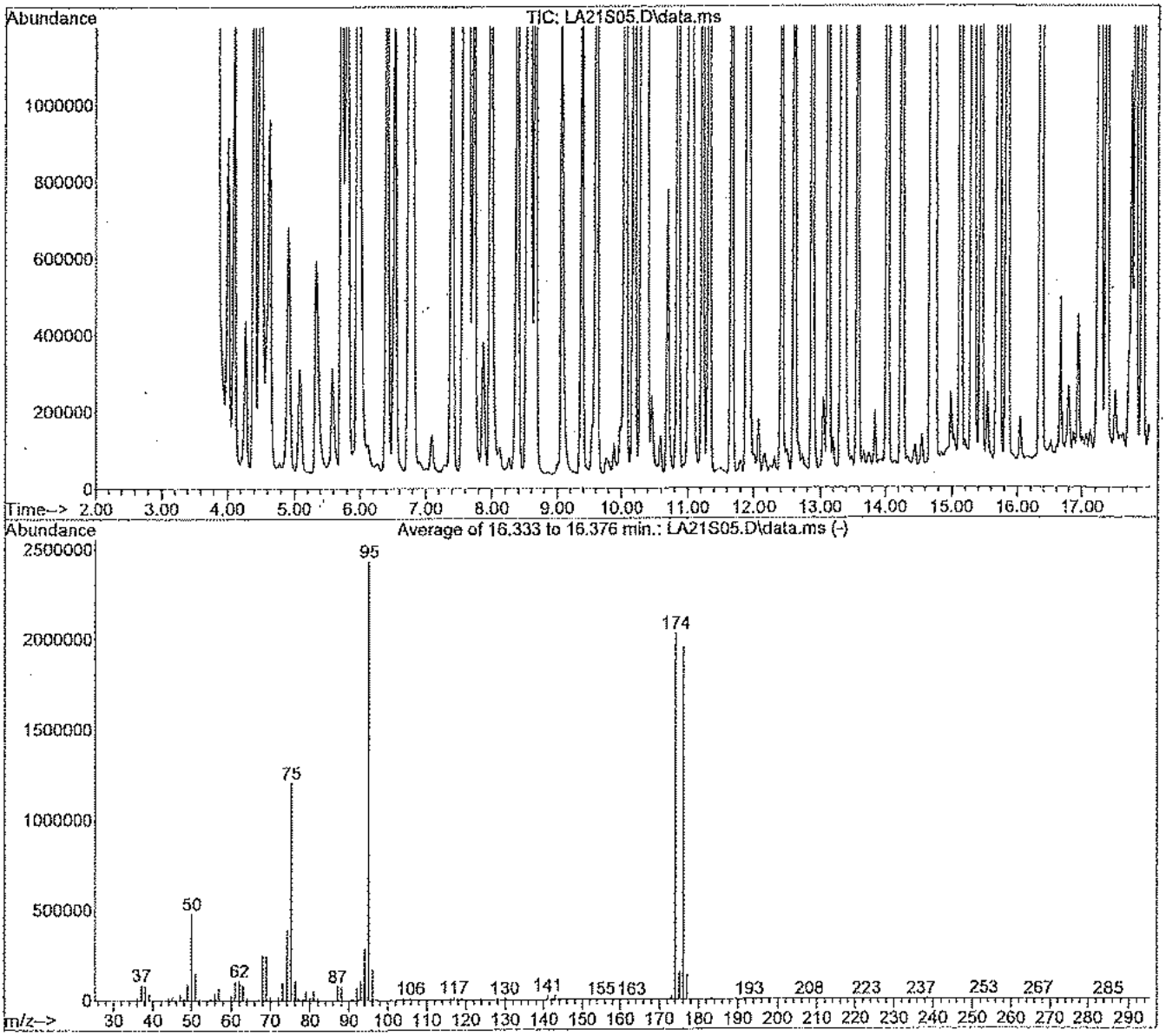
BFB

Data File : J:\L\2015\APR15L\13APR15L\LA21S05.D
Acq Time : 04/13/2015 09:41
Sample : 0.5 PPB STD
Misc : 27464 (10mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15

4-16-15



Peak Apex is scan: Average of 16.333 to 16.376 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	19.69	478355	PASS
75	95	30	66	49.52	1203192	PASS
95	95	100	100	100.00	2429874	PASS
96	95	5	9	6.96	169117	PASS
173	174	0.00	2	0.75	15202	PASS
174	95	50	120	83.47	2028312	PASS
175	174	5	9	7.49	151832	PASS
176	174	93	101	96.32	1953688	PASS
177	176	5	9	6.75	131826	PASS

LA21S05.D TO15LB15.m Thu Apr 16 13:54:32 2015

Average of 16.333 to 16.376 min.: LA21S05.D\data.ms
1.5 PPB STD
Modified:subtracted

m/z	Abundance
35.10	61.0
36.05	13946.0
37.10	83534.0
38.05	77320.0
39.10	33250.0
41.05	584.0
42.05	318.0
43.10	2659.0
44.00	8379.0
45.00	18840.0
46.00	905.0
47.05	28054.0
48.00	11516.0
49.00	90400.0
50.00	478355.0
51.00	148023.0
52.00	6007.0
53.00	282.0
54.05	149.0
55.00	6006.0
56.00	32590.0
57.00	64782.0
58.05	1746.0
59.00	315.0
60.00	19977.0
61.00	105981.0
62.00	108186.0
62.95	80568.0
64.05	7085.0
65.00	286.0
66.00	149.0
67.00	5652.0
68.00	251042.0
69.00	245576.0
70.00	16721.0
71.10	1235.0
72.00	10779.0
73.00	95619.0
74.00	387795.0
75.00	1203192.0
76.10	105906.0
77.00	11494.0
78.00	6530.0
78.90	47158.0
80.00	15188.0
80.95	49389.0
81.95	10838.0
83.05	1126.0
84.05	14.0
85.05	197.0
86.00	1925.0
87.00	76791.0
88.00	73600.0
89.20	35.0
89.95	62.0
91.00	7152.0
92.00	68998.0
93.00	106052.0
94.00	286747.0
95.00	2429874.0
96.05	169117.0
97.10	5254.0
98.05	58.0
100.00	25.0
102.90	795.0
103.90	8162.0
104.90	3016.0
105.90	8460.0
106.95	1770.0
109.95	1217.0
110.95	1121.0
111.95	1241.0
112.90	1172.0
113.90	21.0
114.95	2057.0
115.95	7116.0
116.95	12499.0
117.90	7335.0
118.95	10598.0
119.95	470.0
120.90	46.0
121.00	18.0
121.95	546.0
123.00	485.0
123.95	1273.0
124.95	501.0
125.90	785.0
127.00	411.0
127.95	8201.0

128.90	3690.0
129.90	8344.0
130.95	3345.0
131.90	258.0
132.05	195.0
132.95	419.0
133.90	447.0
134.95	3461.0
135.95	613.0
136.90	3428.0
138.00	169.0
138.95	742.0
139.95	1236.0
140.95	22408.0
141.95	2404.0
142.95	22296.0
143.95	1332.0
144.95	1803.0
145.95	3128.0
146.90	1517.0
147.90	5562.0
148.90	1493.0
149.95	2419.0
150.95	96.0
151.90	1281.0
152.95	1875.0
153.95	1369.0
154.95	5844.0
155.95	796.0
157.00	4410.0
157.95	341.0
158.95	2881.0
159.80	23.0
160.05	129.0
160.95	3120.0
161.95	190.0
162.95	511.0
163.95	61.0
164.90	47.0
165.90	66.0
166.95	69.0
167.20	22.0
168.05	68.0
168.55	46.0
168.90	37.0
169.15	69.0
169.85	189.0
170.05	95.0
170.85	273.0
171.15	82.0
172.00	80.0
173.00	15202.0
174.00	2028312.0
175.00	151832.0
176.00	1953688.0
177.00	131826.0
177.95	3697.0
178.95	323.0
180.00	78.0
187.00	79.0
187.15	84.0
189.05	45.0
190.05	236.0
190.95	141.0
191.95	141.0
192.95	346.0
194.00	152.0
194.95	88.0
196.00	48.0
197.00	20.0
206.00	20.0
207.00	77.0
207.90	33.0
208.05	167.0
220.90	20.0
223.00	302.0
223.90	29.0
235.00	106.0
237.00	232.0
238.00	64.0
238.90	68.0
239.90	56.0
250.95	296.0
251.95	113.0
253.00	3541.0
254.00	1082.0
255.00	785.0
256.00	150.0
257.05	53.0
265.00	19.0
267.05	488.0
268.00	73.0
271.05	177.0

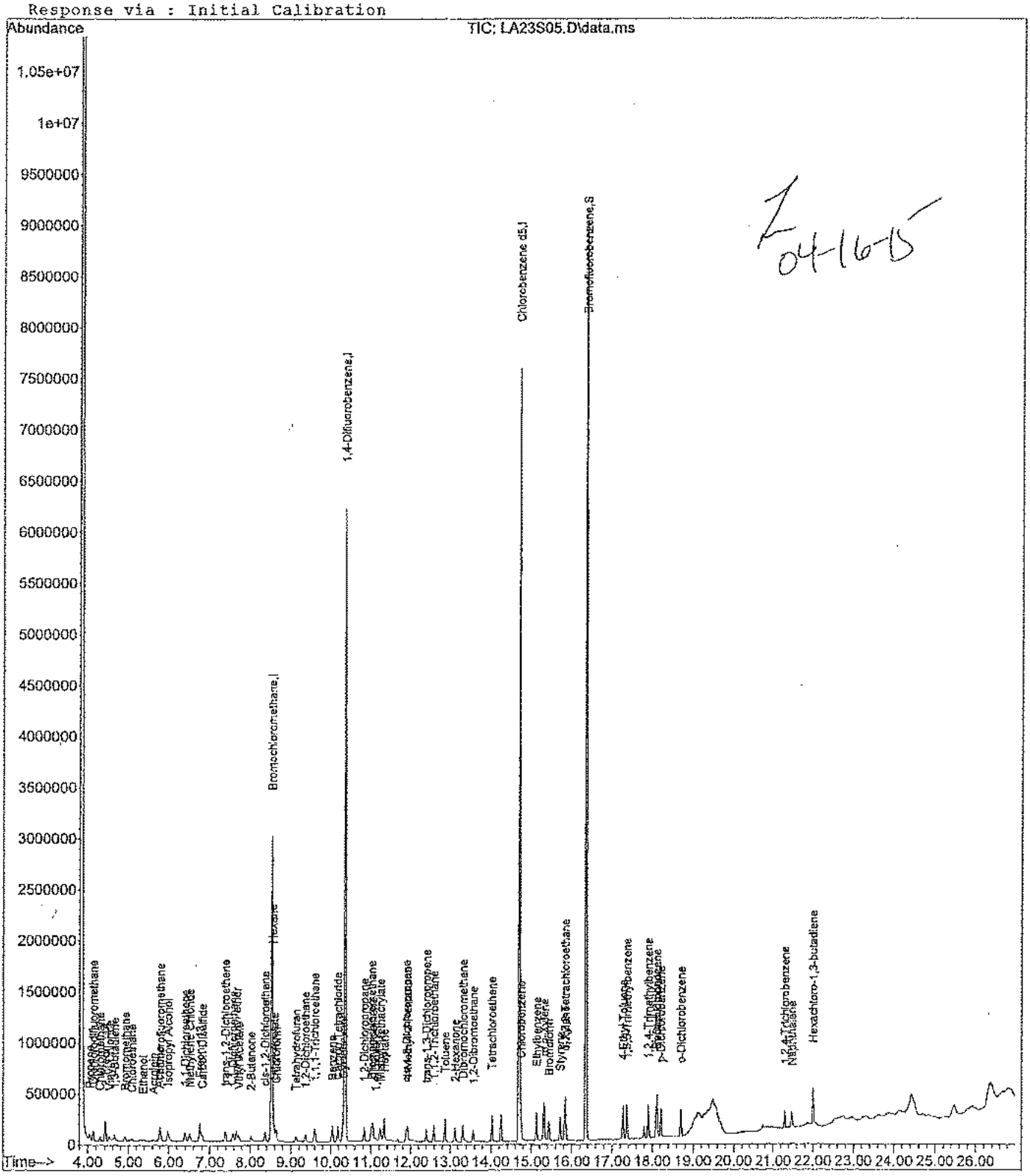
272.05	151.0
282.05	25.0
284.90	34.0
285.05	45.0

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



4-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.53	130	511808	20.0000	ppb		108.42
25) 1,4-Difluorobenzene	10.36	114	6058328	20.0000	ppb		79.19
50) Chlorobenzene d5	14.69	117	5207139	20.0000	ppb		79.15
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4172397	21.7139	ppb		108.57%
Target Compounds							Qvalue
2) Propene	4.04	41	36729	0.3676	ppb		94
3) Dichlorodifluoromethane	4.13	85	123701	0.4407	ppb		98
4) Chloromethane	4.29	50	67077	0.5451	ppb		98
5) Freon 114	4.41	135	77996	0.3915	ppb	#	58
6) Vinyl Chloride	4.51	62	47200	0.3941	ppb		99
7) 1,3-Butadiene	4.65	54	38775	0.3566	ppb	#	69
8) Bromomethane	4.91	94	41502	0.4487	ppb		99
9) Chloroethane	5.09	64	25818	0.3986	ppb	#	91
10) Acrolein	5.62	56	21758	0.4135	ppb		89
11) Acetone	5.76	43	100134	0.4239	ppb		100
12) Trichlorofluoromethane	5.79	101	134274	0.4444	ppb		100
13) Ethanol	5.37	45	18076	0.2801	ppb	#	78
14) Isopropyl Alcohol	5.98	45	234901	0.4961	ppb	#	92
15) 1,1-Dichloroethene	6.40	61	87977	0.4055	ppb	#	65
16) Methylene Chloride	6.51	84	47661	0.4268	ppb	#	58
17) Freon 113	6.75	151	77531	0.4132	ppb	#	69
18) Carbon Disulfide	6.81	76	135479	0.3981	ppb	#	62
19) trans-1,2-Dichloroethene	7.38	96	51265	0.3964	ppb	#	67
20) 1,1-Dichloroethane	7.58	63	99037	0.3984	ppb	#	95
21) methyl t-butyl ether	7.66	73	138777	0.4065	ppb	#	84
22) Vinyl Acetate	7.72	86	12980	0.3973	ppb	#	1
23) 2-Butanone	8.01	43	110371	0.3709	ppb	#	73
24) cis-1,2-Dichloroethene	8.37	96	52673	0.3950	ppb	#	64
26) Ethyl Acetate	8.59	61	19883	0.4924	ppb	#	1
27) Hexane	8.55	57	89057	0.5146	ppb	#	52
28) Chloroform	8.64	83	107953	0.5507	ppb		100
29) Tetrahydrofuran	9.11	42	59072	0.4422	ppb	#	67
30) 1,2-Dichloroethane	9.36	62	81061	0.5537	ppb	#	95
31) 1,1,1-Trichloroethane	9.60	97	120356	0.5718	ppb	#	92
32) Benzene	10.04	78	164611	0.5394	ppb	#	93
33) Carbon Tetrachloride	10.18	117	125019	0.5896	ppb		98
34) Cyclohexane	10.30	84	74299	0.5569	ppb	#	54
35) 1,2-Dichloropropane	10.83	63	64297	0.5335	ppb		95
36) Bromodichloromethane	11.01	83	120686	0.5724	ppb	#	98
37) 1,4-Dioxane	11.11	88	39925	0.5559	ppb	#	65
38) Trichloroethene	11.05	130	67725	0.5308	ppb	#	85
39) Methyl Methacrylate	11.22	69	51074	0.5056	ppb	#	86
40) Heptane	11.32	71	55438	0.5338	ppb	#	49
41) cis-1,3-Dichloropropene	11.89	75	92036	0.5415	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	127680	0.4718	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	88392	0.5543	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	65904	0.5658	ppb	#	88
45) Toluene	12.87	91	195209	0.5573	ppb		99
46) 2-Hexanone	13.13	43	117204	0.4741	ppb	#	82
47) Dibromochloromethane	13.31	129	115532	0.5704	ppb		99
48) 1,2-Dibromoethane	13.58	107	96347	0.5481	ppb		98
49) Tetrachloroethene	14.02	166	92841	0.5634	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.74	112	142992	0.5540	ppb	#	87
52) Ethylbenzene	15.13	91	251096	0.5913	ppb		92
53) m,p-Xylene	15.31	91	390480	1.2371	ppb		90
54) Bromoform	15.44	173	119472	0.6505	ppb		99
55) Styrene	15.72	104	137728	0.5662	ppb	#	90
56) 1,1,2,2-Tetrachloroethane	15.85	83	134732	0.6419	ppb	#	90
57) o-Xylene	15.83	91	199809	0.6320	ppb		91
59) 4-Ethyl Toluene	17.27	105	262467	0.6398	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	231450	0.6790	ppb		92
61) 1,2,4-Trimethylbenzene	17.90	105	244733	0.7403	ppb		92
62) Benzyl Chloride	18.11	91	222576	0.7521	ppb	#	87
63) m-Dichlorobenzene	18.13	146	155234	0.7244	ppb	#	94
64) p-Dichlorobenzene	18.22	146	152824	0.7297	ppb	#	93
65) o-Dichlorobenzene	18.70	146	146925	0.7746	ppb	#	93
66) 1,2,4-Trichlorobenzene	21.30	180	70348	0.8153	ppb		98
67) Naphthalene	21.47	128	136367	0.7351	ppb	#	97
68) Hexachloro-1,3-butadiene	22.00	225	83847	1.0868	ppb	m	86

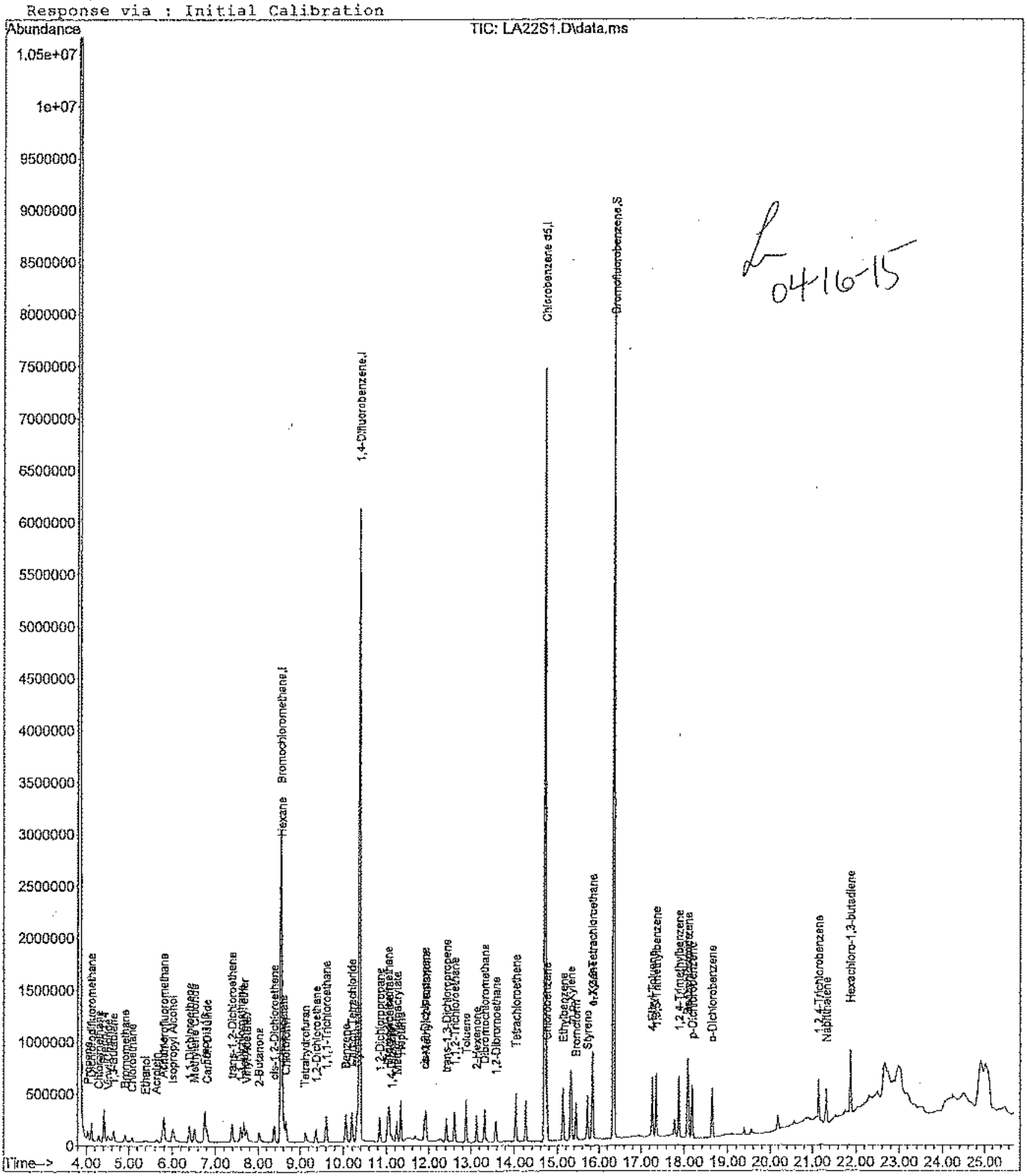
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq. Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	492928	20.0000	ppb		104.42
25) 1,4-Difluorobenzene	10.37	114	5942919	20.0000	ppb		77.68
50) Chlorobenzene d5	14.71	117	5089875	20.0000	ppb		77.37
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4010202	21.6407	ppb		108.20%
Target Compounds							Qvalue
2) Propene	4.03	41	67099	0.6624	ppb		97
3) Dichlorodifluoromethane	4.12	85	220927	0.7967	ppb		99
4) Chloromethane	4.29	50	110283	0.9219	ppb		99
5) Freon 114	4.41	135	138129	0.6838	ppb	#	55
6) Vinyl Chloride	4.51	62	86092	0.7209	ppb		98
7) 1,3-Butadiene	4.65	54	72061	0.6462	ppb	#	68
8) Bromomethane	4.91	94	73066	0.8038	ppb		100
9) Chloroethane	5.09	64	45612	0.7006	ppb	#	91
10) Acrolein	5.63	56	37253	0.6972	ppb		93
11) Acetone	5.77	43	168767	0.6885	ppb		96
12) Trichlorofluoromethane	5.80	101	241917	0.8060	ppb		99
13) Ethanol	5.39	45	31680	0.4294	ppb	#	76
14) Isopropyl Alcohol	6.01	45	339529	0.6483	ppb		99
15) 1,1-Dichloroethene	6.40	61	158909	0.7265	ppb	#	67
16) Methylene Chloride	6.52	84	80005	0.7048	ppb	#	57
17) Freon 113	6.76	151	142724	0.7634	ppb	#	70
18) Carbon Disulfide	6.81	76	240641	0.6998	ppb	#	62
19) trans-1,2-Dichloroethene	7.40	96	91010	0.6944	ppb	#	62
20) 1,1-Dichloroethane	7.59	63	179757	0.7177	ppb	#	96
21) methyl t-butyl ether	7.66	73	254793	0.7521	ppb	#	81
22) Vinyl Acetate	7.73	86	21791	0.6541	ppb	#	1
23) 2-Butanone	8.02	43	199148	0.6590	ppb	#	72
24) cis-1,2-Dichloroethene	8.38	96	93204	0.6914	ppb	#	63
26) Ethyl Acetate	8.60	61	35026	0.8520	ppb	#	1
27) Hexane	8.56	57	160978	0.9398	ppb	#	51
28) Chloroform	8.65	83	195783	1.0166	ppb		99
29) Tetrahydrofuran	9.12	42	114266	0.8499	ppb	#	64
30) 1,2-Dichloroethane	9.38	62	152147	1.0675	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	226506	1.1183	ppb	#	92
32) Benzene	10.06	78	290921	0.9666	ppb	#	92
33) Carbon Tetrachloride	10.19	117	228259	1.1193	ppb		100
34) Cyclohexane	10.32	84	129811	0.9910	ppb	#	42
35) 1,2-Dichloropropane	10.85	63	111109	0.9336	ppb		94
36) Bromodichloromethane	11.03	83	223811	1.0989	ppb	#	98
37) 1,4-Dioxane	11.11	88	73046	1.0255	ppb	#	76
38) Trichloroethene	11.07	130	126140	1.0094	ppb	#	85
39) Methyl Methacrylate	11.24	69	91478	0.9188	ppb	#	84
40) Heptane	11.33	71	97786	0.9598	ppb	#	39
41) cis-1,3-Dichloropropene	11.90	75	170408	1.0281	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	244173	0.9071	ppb	#	77
43) trans-1,3-Dichloropropene	12.42	75	164390	1.0653	ppb	#	90
44) 1,1,2-Trichloroethane	12.61	97	117785	1.0454	ppb	#	86
45) Toluene	12.88	91	355849	1.0422	ppb		100
46) 2-Hexanone	13.13	43	218251	0.8932	ppb	#	84
47) Dibromochloromethane	13.33	129	215875	1.1090	ppb		99
48) 1,2-Dibromoethane	13.58	107	178449	1.0439	ppb		97
49) Tetrachloroethene	14.03	166	169478	1.0619	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq.Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	260013	1.0424	ppb	#	84
52)	Ethylbenzene	15.14	91	455400	1.1278	ppb		92
53)	m,p-Xylene	15.32	91	708435	2.3776	ppb		90
54)	Bromoform	15.44	173	215998	1.2619	ppb		99
55)	Styrene	15.72	104	254710	1.1018	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.85	83	241922	1.2229	ppb	#	92
57)	o-Xylene	15.84	91	361118	1.2189	ppb		91
59)	4-Ethyl Toluene	17.27	105	474796	1.2553	ppb		93
60)	1,3,5-Trimethylbenzene	17.36	105	412411	1.3220	ppb		90
61)	1,2,4-Trimethylbenzene	17.88	105	400396	1.3271	ppb		94
62)	Benzyl Chloride	18.07	91	388184	1.4603	ppb	#	88
63)	m-Dichlorobenzene	18.09	146	261983	1.3348	ppb	#	93
64)	p-Dichlorobenzene	18.18	146	259922	1.3663	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	246499	1.4449	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	148281	2.1526	ppb		98
67)	Naphthalene	21.33	128	323347	2.1968	ppb		99
68)	Hexachloro-1,3-butadiene	21.87	225	150358	2.5376	ppb		99

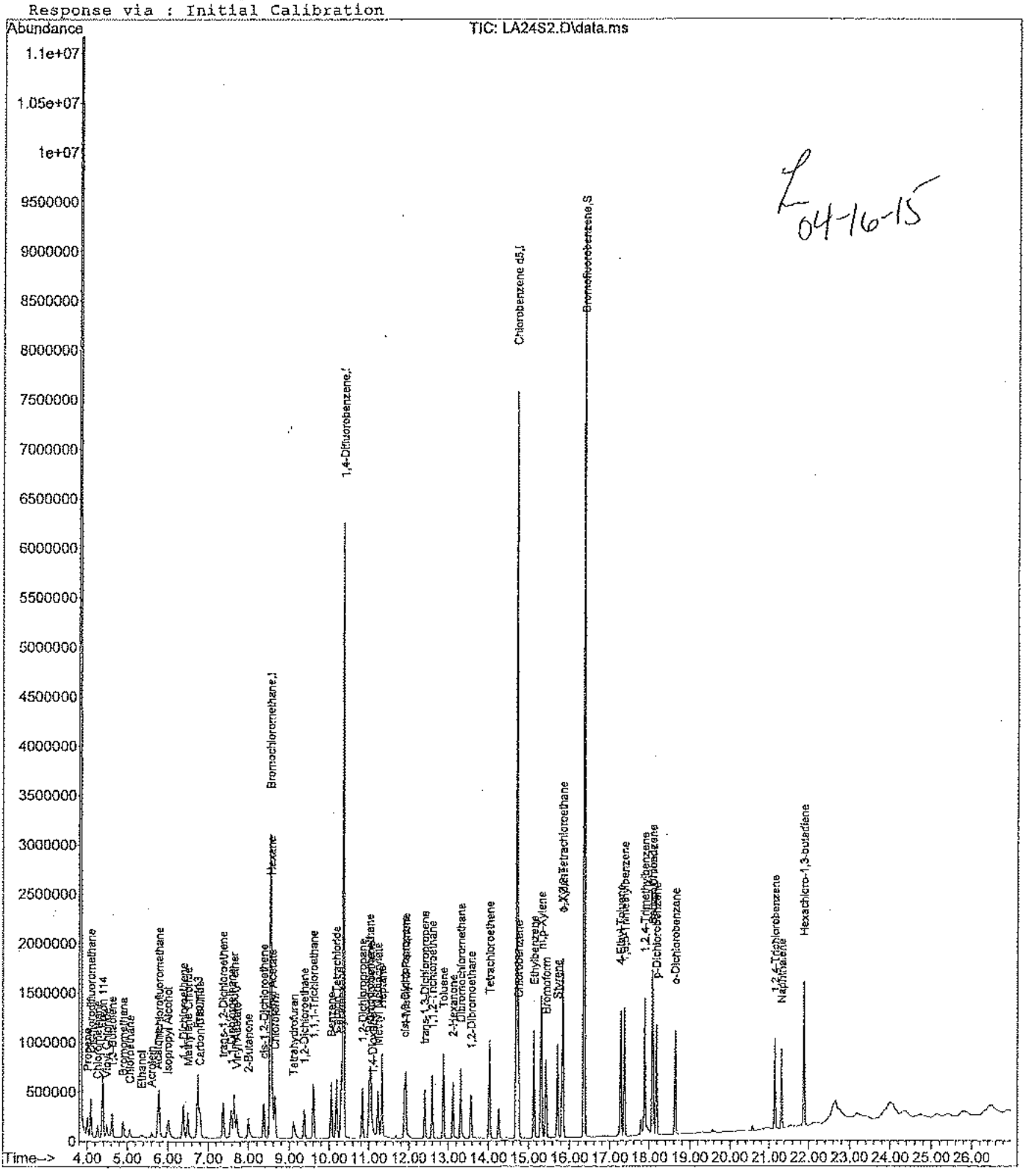
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.53	130	493696	20.0000	ppb		104.58
25) 1,4-Difluorobenzene	10.36	114	6029622	20.0000	ppb		78.82
50) Chlorobenzene d5	14.69	117	5180106	20.0000	ppb		78.74
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4147607	21.2958	ppb		106.48%
Target Compounds							Qvalue
2) Propene	4.01	41	143438	1.5701	ppb		98
3) Dichlorodifluoromethane	4.10	85	489850	1.8431	ppb		99
4) Chloromethane	4.26	50	193836	1.6066	ppb		99
5) Freon 114	4.39	135	311443	1.7293	ppb	#	58
6) Vinyl Chloride	4.48	62	193241	1.7390	ppb		96
7) 1,3-Butadiene	4.62	54	159551	1.6406	ppb	#	79
8) Bromomethane	4.89	94	158302	1.7984	ppb		98
9) Chloroethane	5.06	64	99799	1.6810	ppb	#	90
10) Acrolein	5.59	56	79265	1.6629	ppb		99
11) Acetone	5.74	43	321679	1.5586	ppb		93
12) Trichlorofluoromethane	5.78	101	529982	1.8882	ppb		98
13) Ethanol	5.36	45	66122	1.3822	ppb	#	76
14) Isopropyl Alcohol	5.99	45	517427	1.4414	ppb		98
15) 1,1-Dichloroethene	6.38	61	350623	1.7735	ppb	#	66
16) Methylene Chloride	6.50	84	169670	1.6942	ppb	#	56
17) Freon 113	6.74	151	312500	1.8063	ppb	#	69
18) Carbon Disulfide	6.79	76	522287	1.7003	ppb	#	65
19) trans-1,2-Dichloroethene	7.37	96	198120	1.6940	ppb	#	62
20) 1,1-Dichloroethane	7.58	63	392206	1.7409	ppb	#	95
21) methyl t-butyl ether	7.65	73	567346	1.7765	ppb	#	81
22) Vinyl Acetate	7.72	86	47727	1.5945	ppb	#	1
23) 2-Butanone	7.99	43	414814	1.5347	ppb	#	72
24) cis-1,2-Dichloroethene	8.37	96	208696	1.7259	ppb	#	65
26) Ethyl Acetate	8.58	61	71943	1.9098	ppb	#	1
27) Hexane	8.55	57	353743	2.0576	ppb	#	20
28) Chloroform	8.65	83	432539	2.2244	ppb		100
29) Tetrahydrofuran	9.10	42	238848	1.8648	ppb	#	67
30) 1,2-Dichloroethane	9.37	62	323841	2.2189	ppb	#	95
31) 1,1,1-Trichloroethane	9.60	97	493142	2.3213	ppb	#	93
32) Benzene	10.05	78	613579	2.0483	ppb	#	92
33) Carbon Tetrachloride	10.18	117	494676	2.2880	ppb		100
34) Cyclohexane	10.30	84	274466	2.0573	ppb	#	39
35) 1,2-Dichloropropane	10.84	63	250698	2.0771	ppb		95
36) Bromodichloromethane	11.02	83	485879	2.2807	ppb	#	98
37) 1,4-Dioxane	11.10	88	144378	2.0506	ppb	#	76
38) Trichloroethene	11.05	130	271794	2.1341	ppb	#	86
39) Methyl Methacrylate	11.22	69	202898	2.0172	ppb	#	88
40) Heptane	11.32	71	215349	2.0773	ppb	#	43
41) cis-1,3-Dichloropropene	11.89	75	374230	2.1897	ppb	#	92
42) 4-Methyl-2-Pentanone	11.93	43	517137	1.9452	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	358164	2.2103	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	256965	2.1667	ppb	#	86
45) Toluene	12.88	91	749229	2.1224	ppb		99
46) 2-Hexanone	13.12	43	472774	1.9323	ppb	#	83
47) Dibromochloromethane	13.32	129	473504	2.2780	ppb		99
48) 1,2-Dibromoethane	13.58	107	392617	2.2045	ppb		98
49) Tetrachloroethene	14.03	166	374574	2.2376	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.74	112	579886	2.1972	ppb	#	78
52) Ethylbenzene	15.13	91	1007324	2.2660	ppb		92
53) m,p-Xylene	15.32	91	1573144	4.6980	ppb		89
54) Bromoform	15.44	173	493816	2.5538	ppb		99
55) Styrene	15.72	104	563039	2.2077	ppb	#	91
56) 1,1,2,2-Tetrachloroethane	15.84	83	540035	2.4708	ppb		100
57) o-Xylene	15.83	91	797599	2.3669	ppb		90
59) 4-Ethyl Toluene	17.27	105	1067677	2.4134	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	918201	2.4751	ppb		91
61) 1,2,4-Trimethylbenzene	17.88	105	906581	2.4659	ppb		93
62) Benzyl Chloride	18.08	91	862297	2.6189	ppb	#	87
63) m-Dichlorobenzene	18.09	146	574595	2.4404	ppb	#	94
64) p-Dichlorobenzene	18.18	146	575406	2.4927	ppb	#	94
65) o-Dichlorobenzene	18.64	146	547857	2.5812	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.15	180	381509	3.8078	ppb		98
67) Naphthalene	21.33	128	805244	3.8311	ppb		99
68) Hexachloro-1,3-butadiene	21.88	225	367401	5.2312	ppb		98

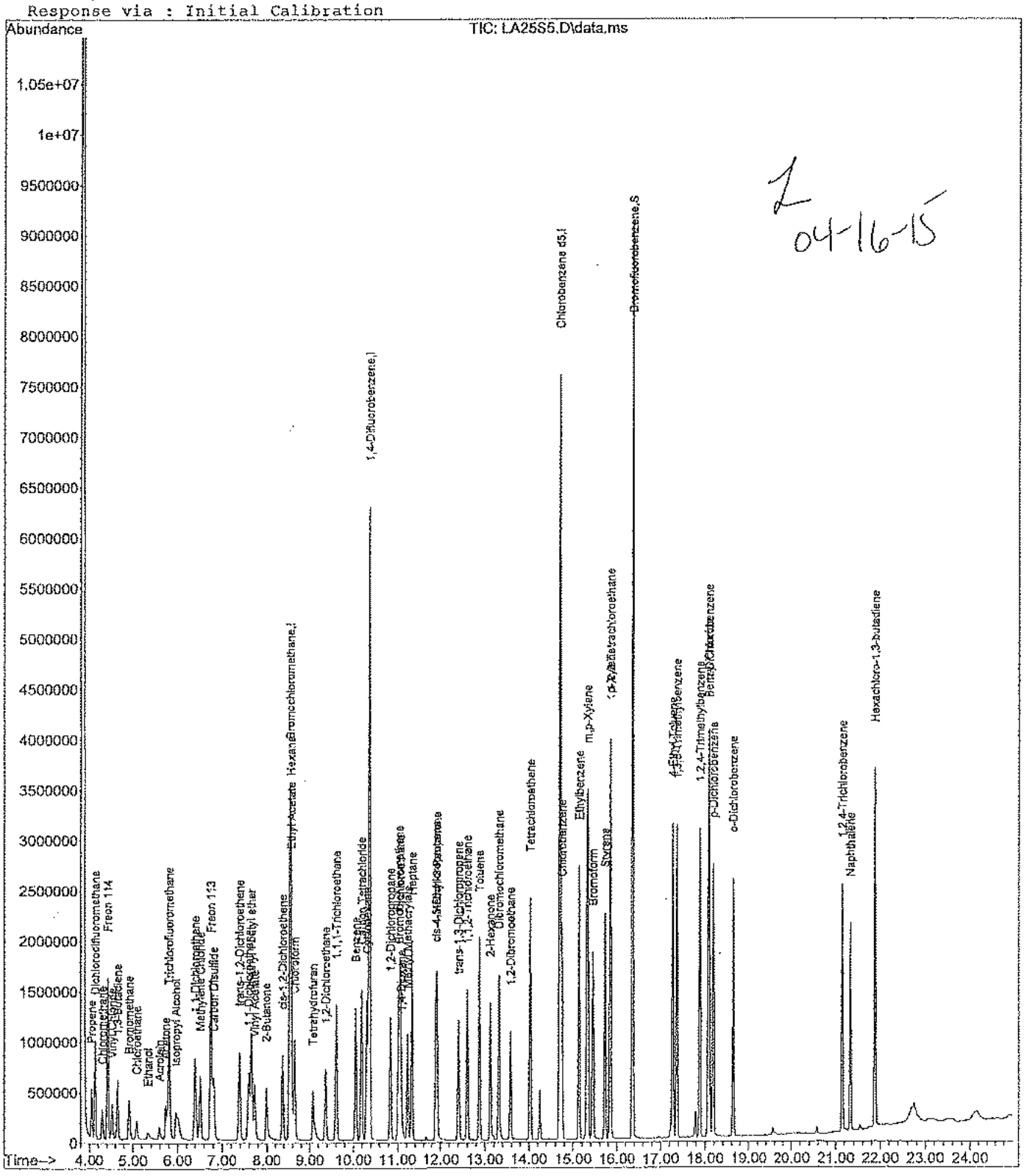
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



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04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	504320	20.0000	ppb		106.83
25) 1,4-Difluorobenzene	10.36	114	6082157	20.0000	ppb		79.50
50) Chlorobenzene d5	14.70	117	5244053	20.0000	ppb		79.72
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4174770	20.8256	ppb		104.13%
Target Compounds							Qvalue
2) Propene	4.04	41	348005	3.9410	ppb		98
3) Dichlorodifluoromethane	4.13	85	1219107	4.5940	ppb		99
4) Chloromethane	4.30	50	456668	3.8244	ppb		99
5) Freon 114	4.41	135	770217	4.3714	ppb	#	59
6) Vinyl Chloride	4.51	62	471418	4.3069	ppb		97
7) 1,3-Butadiene	4.65	54	394978	4.1850	ppb	#	81
8) Bromomethane	4.91	94	387685	4.4115	ppb		99
9) Chloroethane	5.09	64	245056	4.2149	ppb	#	91
10) Acrolein	5.59	56	194833	4.1840	ppb	#	98
11) Acetone	5.73	43	762121	3.8589	ppb		94
12) Trichlorofluoromethane	5.80	101	1297438	4.6306	ppb		99
13) Ethanol	5.34	45	159946	3.7489	ppb	#	80
14) Isopropyl Alcohol	5.95	45	1084517	3.3059	ppb	m	89
15) 1,1-Dichloroethene	6.40	61	848943	4.3620	ppb	#	67
16) Methylene Chloride	6.51	84	404784	4.1302	ppb	#	57
17) Freon 113	6.75	151	769786	4.4970	ppb	#	71
18) Carbon Disulfide	6.81	76	1285892	4.2822	ppb	#	61
19) trans-1,2-Dichloroethene	7.38	96	491597	4.3023	ppb	#	63
20) 1,1-Dichloroethane	7.58	63	952082	4.3080	ppb	#	96
21) methyl t-butyl ether	7.65	73	1401935	4.4508	ppb	#	82
22) Vinyl Acetate	7.71	86	109918	3.8032	ppb	#	1
23) 2-Butanone	7.98	43	1018702	3.9254	ppb	#	72
24) cis-1,2-Dichloroethene	8.37	96	505487	4.2738	ppb	#	64
26) Ethyl Acetate	8.57	61	171081	4.6393	ppb	#	1
27) Hexane	8.56	57	846513	4.8878	ppb	#	20
28) Chloroform	8.65	83	1053745	5.2944	ppb		99
29) Tetrahydrofuran	9.07	42	589859	4.6826	ppb	#	68
30) 1,2-Dichloroethane	9.36	62	788766	5.2639	ppb		96
31) 1,1,1-Trichloroethane	9.60	97	1195421	5.4203	ppb	#	93
32) Benzene	10.05	78	1459072	4.8314	ppb	#	92
33) Carbon Tetrachloride	10.19	117	1211175	5.4020	ppb		99
34) Cyclohexane	10.31	84	655790	4.8692	ppb	#	38
35) 1,2-Dichloropropane	10.84	63	603295	4.9481	ppb		93
36) Bromodichloromethane	11.02	83	1185332	5.3877	ppb	#	98
37) 1,4-Dioxane	11.08	88	345579	4.8817	ppb	#	80
38) Trichloroethene	11.05	130	654346	5.0638	ppb	#	85
39) Methyl Methacrylate	11.22	69	484249	4.7974	ppb	#	86
40) Heptane	11.32	71	518476	4.9495	ppb	#	45
41) cis-1,3-Dichloropropene	11.89	75	900246	5.1568	ppb	#	93
42) 4-Methyl-2-Pentanone	11.92	43	1229259	4.6731	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	872103	5.2456	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	619912	5.1176	ppb	#	86
45) Toluene	12.88	91	1801476	5.0259	ppb		99
46) 2-Hexanone	13.12	43	1164412	4.7931	ppb	#	83
47) Dibromochloromethane	13.32	129	1152581	5.3752	ppb		99
48) 1,2-Dibromoethane	13.58	107	952271	5.2258	ppb		98
49) Tetrachloroethene	14.03	166	904568	5.2632	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.74	112	1401157	5.1745	ppb	#	82
52) Ethylbenzene	15.13	91	2445179	5.3183	ppb		92
53) m,p-Xylene	15.32	91	3774212	10.8214	ppb		89
54) Bromoform	15.44	173	1207246	5.8452	ppb		99
55) Styrene	15.72	104	1378738	5.2537	ppb	#	91
56) 1,1,2,2-Tetrachloroethane	15.85	83	1291677	5.6071	ppb		99
57) o-Xylene	15.84	91	1921501	5.4568	ppb		89
59) 4-Ethyl Toluene	17.27	105	2580983	5.5256	ppb		95
60) 1,3,5-Trimethylbenzene	17.37	105	2192911	5.5606	ppb		91
61) 1,2,4-Trimethylbenzene	17.89	105	2174094	5.5423	ppb		93
62) Benzyl Chloride	18.08	91	2095810	5.8894	ppb	#	87
63) m-Dichlorobenzene	18.09	146	1382865	5.5312	ppb	#	93
64) p-Dichlorobenzene	18.19	146	1393083	5.6377	ppb	#	93
65) o-Dichlorobenzene	18.64	146	1345619	5.8587	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.16	180	1008039	8.3070	ppb		98
67) Naphthalene	21.33	128	2102244	8.2345	ppb		99
68) Hexachloro-1,3-butadiene	21.88	225	929990	10.1857	ppb		99

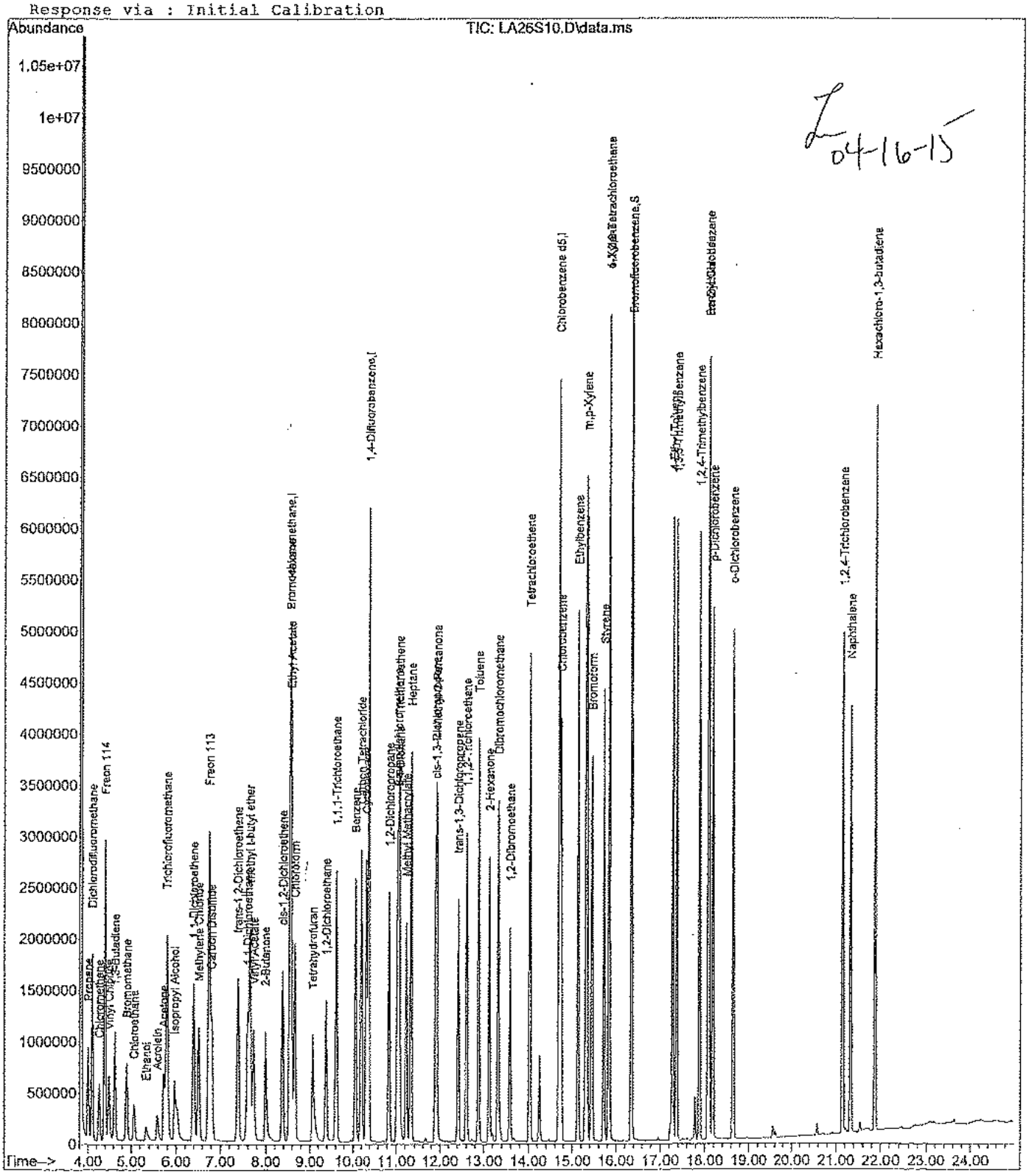
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	485696	20.0000	ppb		102.89
25) 1,4-Difluorobenzene	10.37	114	6067016	20.0000	ppb		79.31
50) Chlorobenzene d5	14.70	117	5165174	20.0000	ppb		78.52
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4150505	20.7090	ppb		103.54%
Target Compounds							Qvalue
2) Propene	4.00	41	696461	8.7632	ppb		97
3) Dichlorodifluoromethane	4.09	85	2442684	9.8481	ppb		99
4) Chloromethane	4.26	50	908677	8.2570	ppb		99
5) Freon 114	4.39	135	1550743	9.5975	ppb	#	59
6) Vinyl Chloride	4.49	62	965932	9.6103	ppb		97
7) 1,3-Butadiene	4.63	54	793409	9.2574	ppb	#	82
8) Bromomethane	4.90	94	784804	9.5937	ppb		99
9) Chloroethane	5.07	64	497204	9.3298	ppb	#	91
10) Acrolein	5.58	56	390458	9.1250	ppb	#	99
11) Acetone	5.71	43	1515803	8.4588	ppb		92
12) Trichlorofluoromethane	5.79	101	2586111	9.8266	ppb		99
13) Ethanol	5.34	45	319698	8.5656	ppb	#	77
14) Isopropyl Alcohol	5.96	45	1972594	7.0932	ppb	m	98
15) 1,1-Dichloroethene	6.39	61	1696498	9.4451	ppb	#	67
16) Methylene Chloride	6.51	84	811594	9.0280	ppb	#	57
17) Freon 113	6.75	151	1527626	9.6157	ppb	#	71
18) Carbon Disulfide	6.80	76	2561531	9.2915	ppb	#	65
19) trans-1,2-Dichloroethene	7.39	96	979097	9.3235	ppb	#	62
20) 1,1-Dichloroethane	7.59	63	1902118	9.3650	ppb	#	96
21) methyl t-butyl ether	7.65	73	2811529	9.6583	ppb	#	82
22) Vinyl Acetate	7.73	86	224946	8.6439	ppb	#	1
23) 2-Butanone	7.98	43	2072241	8.8727	ppb	#	72
24) cis-1,2-Dichloroethene	8.38	96	1016636	9.3511	ppb	#	64
26) Ethyl Acetate	8.58	61	336563	9.2874	ppb	#	1
27) Hexane	8.56	57	1680498	9.8023	ppb	#	22
28) Chloroform	8.66	83	2109741	10.4461	ppb		99
29) Tetrahydrofuran	9.07	42	1205197	9.8027	ppb	#	67
30) 1,2-Dichloroethane	9.38	62	1572391	10.3245	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2370481	10.4999	ppb	#	93
32) Benzene	10.05	78	2896115	9.6481	ppb	#	93
33) Carbon Tetrachloride	10.19	117	2408875	10.5010	ppb		99
34) Cyclohexane	10.31	84	1308051	9.7565	ppb	#	34
35) 1,2-Dichloropropane	10.85	63	1195151	9.8422	ppb		93
36) Bromodichloromethane	11.02	83	2342268	10.4398	ppb	#	98
37) 1,4-Dioxane	11.08	88	652369	9.2624	ppb	#	76
38) Trichloroethene	11.06	130	1285108	9.9696	ppb	#	85
39) Methyl Methacrylate	11.22	69	984453	9.8987	ppb	#	87
40) Heptane	11.33	71	1032369	9.9083	ppb	#	45
41) cis-1,3-Dichloropropene	11.90	75	1787339	10.1905	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	2424565	9.4338	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	1729863	10.2709	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	1234710	10.1278	ppb	#	87
45) Toluene	12.88	91	3526361	9.8149	ppb		98
46) 2-Hexanone	13.12	43	2300579	9.6539	ppb	#	84
47) Dibromochloromethane	13.32	129	2275716	10.4195	ppb		99
48) 1,2-Dibromoethane	13.58	107	1874037	10.1933	ppb		98
49) Tetrachloroethene	14.03	166	1772150	10.2005	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	2721690	10.1207	ppb	#	84
52) Ethylbenzene	15.13	91	4717504	10.2393	ppb		93
53) m,p-Xylene	15.32	91	7196011	20.4790	ppb		90
54) Bromoform	15.44	173	2375804	11.1310	ppb		98
55) Styrene	15.72	104	2670277	10.2075	ppb	#	90
56) 1,1,2,2-Tetrachloroethane	15.85	83	2465550	10.4790	ppb		99
57) o-Xylene	15.84	91	3657781	10.2676	ppb		90
59) 4-Ethyl Toluene	17.27	105	5025273	10.5717	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	4234659	10.5121	ppb		91
61) 1,2,4-Trimethylbenzene	17.88	105	4234084	10.5242	ppb		92
62) Benzyl Chloride	18.08	91	3957251	10.6704	ppb	#	87
63) m-Dichlorobenzene	18.10	146	2672336	10.4448	ppb	#	94
64) p-Dichlorobenzene	18.19	146	2717385	10.6825	ppb	#	94
65) o-Dichlorobenzene	18.64	146	2634516	10.9804	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.16	180	1998425	14.2977	ppb		98
67) Naphthalene	21.33	128	4193398	14.3135	ppb		99
68) Hexachloro-1,3-butadiene	21.88	225	1840610	16.7824	ppb		98

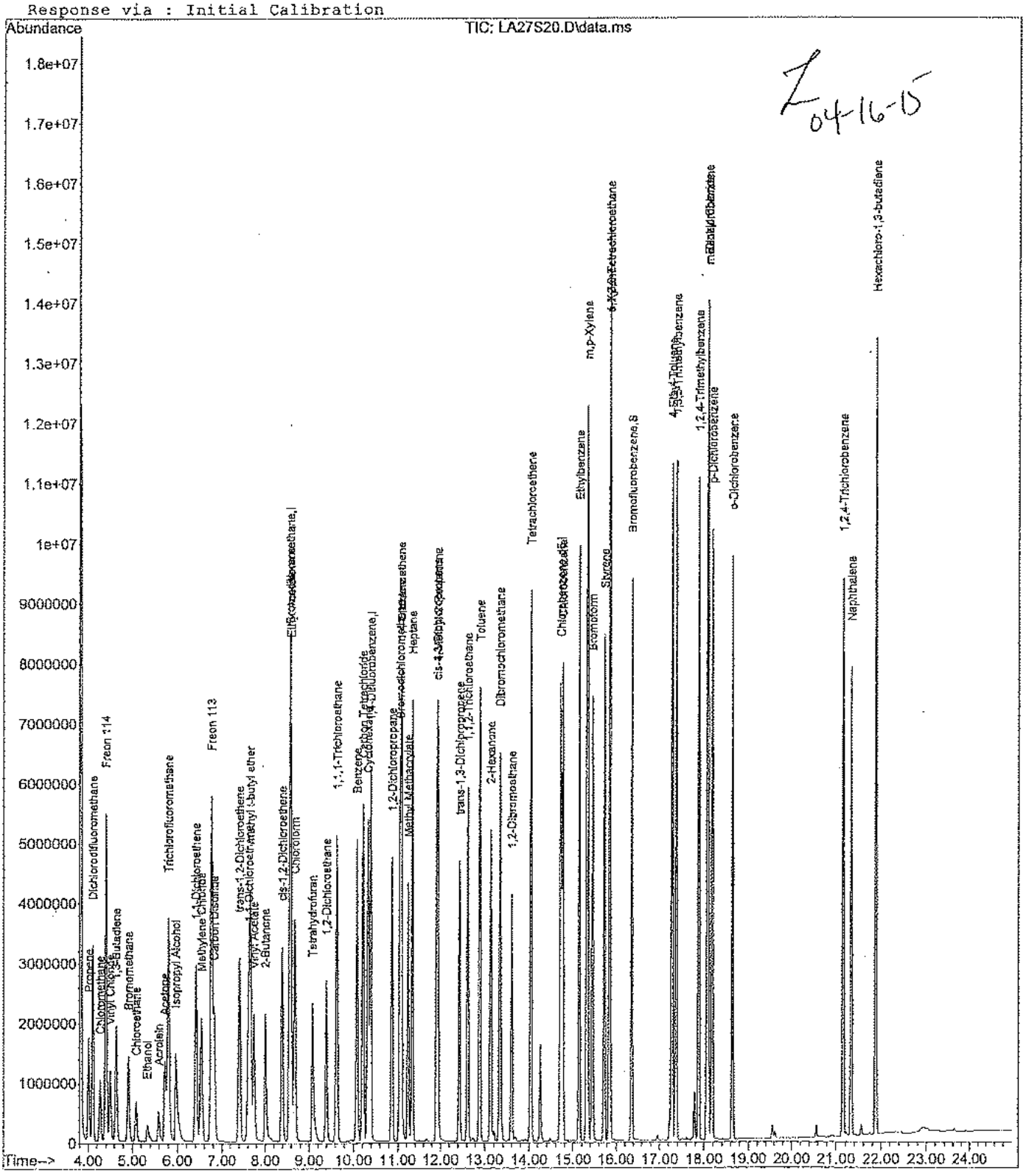
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



LA27S20.D TO15LB15.m Thu Apr 16 13:58:03 2015 Page 3

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.56	130	482240	20.0000	ppb		99.29
25) 1,4-Difluorobenzene	10.39	114	6204680	20.0000	ppb		102.27
50) Chlorobenzene d5	14.71	117	5324332	20.0000	ppb		103.08
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4203248	20.0356	ppb		100.18%
Target Compounds							Qvalue
2) Propene	4.01	41	1387707	18.7824	ppb		98
3) Dichlorodifluoromethane	4.10	85	4694165	19.4731	ppb		99
4) Chloromethane	4.27	50	1816054	17.3419	ppb		98
5) Freon 114	4.40	135	3036028	19.6416	ppb	#	59
6) Vinyl Chloride	4.50	62	1909178	19.8750	ppb		97
7) 1,3-Butadiene	4.64	54	1557674	19.2982	ppb	#	82
8) Bromomethane	4.91	94	1562135	19.7764	ppb		99
9) Chloroethane	5.09	64	988480	19.5106	ppb	#	90
10) Acrolein	5.59	56	785686	19.3319	ppb	#	99
11) Acetone	5.73	43	2988889	17.6755	ppb		93
12) Trichlorofluoromethane	5.80	101	5109836	19.8763	ppb		99
13) Ethanol	5.34	45	631765	18.3666	ppb	#	78
14) Isopropyl Alcohol	5.96	45	3845578	14.5938	ppb		97
15) 1,1-Dichloroethene	6.41	61	3363671	19.5183	ppb	#	67
16) Methylene Chloride	6.53	84	1610813	18.8060	ppb	#	57
17) Freon 113	6.76	151	3023429	19.7548	ppb	#	72
18) Carbon Disulfide	6.82	76	5052211	19.2456	ppb	#	65
19) trans-1,2-Dichloroethene	7.41	96	1961717	19.6230	ppb	#	63
20) 1,1-Dichloroethane	7.62	63	3746567	19.3176	ppb	#	96
21) methyl t-butyl ether	7.66	73	5593061	20.0176	ppb	#	82
22) Vinyl Acetate	7.74	86	447236	18.4455	ppb	#	1
23) 2-Butanone	7.99	43	4173620	19.1634	ppb	#	73
24) cis-1,2-Dichloroethene	8.40	96	2029107	19.6102	ppb	#	65
26) Ethyl Acetate	8.59	61	686363	18.7348	ppb	#	1
27) Hexane	8.57	57	3289988	18.8207	ppb	#	22
28) Chloroform	8.68	83	4198465	19.8985	ppb		99
29) Tetrahydrofuran	9.07	42	2434212	19.6764	ppb	#	67
30) 1,2-Dichloroethane	9.40	62	3161222	19.8849	ppb		96
31) 1,1,1-Trichloroethane	9.63	97	4724086	19.9073	ppb	#	93
32) Benzene	10.07	78	5713362	18.6080	ppb	#	92
33) Carbon Tetrachloride	10.21	117	4799042	19.8915	ppb		99
34) Cyclohexane	10.32	84	2593316	18.8729	ppb	#	36
35) 1,2-Dichloropropane	10.86	63	2394592	19.3020	ppb		93
36) Bromodichloromethane	11.04	83	4643447	19.7543	ppb	#	98
37) 1,4-Dioxane	11.08	88	1316993	18.3193	ppb	#	78
38) Trichloroethene	11.07	130	2495717	18.8487	ppb	#	85
39) Methyl Methacrylate	11.24	69	1999951	19.7826	ppb	#	87
40) Heptane	11.33	71	2015703	18.9237	ppb	#	46
41) cis-1,3-Dichloropropene	11.91	75	3552913	19.5806	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	4767049	18.4697	ppb	#	80
43) trans-1,3-Dichloropropene	12.43	75	3489910	19.9564	ppb	#	91
44) 1,1,2-Trichloroethane	12.62	97	2457041	19.4715	ppb	#	86
45) Toluene	12.89	91	6875369	18.6005	ppb		97
46) 2-Hexanone	13.13	43	4504930	18.8239	ppb	#	84
47) Dibromochloromethane	13.34	129	4515219	19.7879	ppb		99
48) 1,2-Dibromoethane	13.60	107	3716349	19.5275	ppb		99
49) Tetrachloroethene	14.04	166	3477211	19.2659	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	5337358	19.0790	ppb	#	84
52) Ethylbenzene	15.14	91	9051076	18.7214	ppb		93
53) m,p-Xylene	15.33	91	13624823	36.7872	ppb		90
54) Bromoform	15.45	173	4656158	20.1554	ppb		98
55) Styrene	15.73	104	5232289	19.1817	ppb	#	90
56) 1,1,2,2-Tetrachloroethane	15.85	83	4619969	18.3671	ppb		99
57) o-Xylene	15.85	91	6918180	18.3750	ppb		90
59) 4-Ethyl Toluene	17.27	105	9405531	18.6171	ppb		97
60) 1,3,5-Trimethylbenzene	17.37	105	7930720	18.3913	ppb		92
61) 1,2,4-Trimethylbenzene	17.88	105	8005947	18.5623	ppb		93
62) Benzyl Chloride	18.08	91	7344374	18.2710	ppb	#	87
63) m-Dichlorobenzene	18.10	146	5070492	18.5062	ppb	#	94
64) p-Dichlorobenzene	18.18	146	5201526	19.0082	ppb	#	94
65) o-Dichlorobenzene	18.64	146	5095548	19.5101	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.15	180	3904640	23.7308	ppb		98
67) Naphthalene	21.33	128	7862282	22.8334	ppb		98
68) Hexachloro-1,3-butadiene	21.87	225	3511611	26.2795	ppb		99

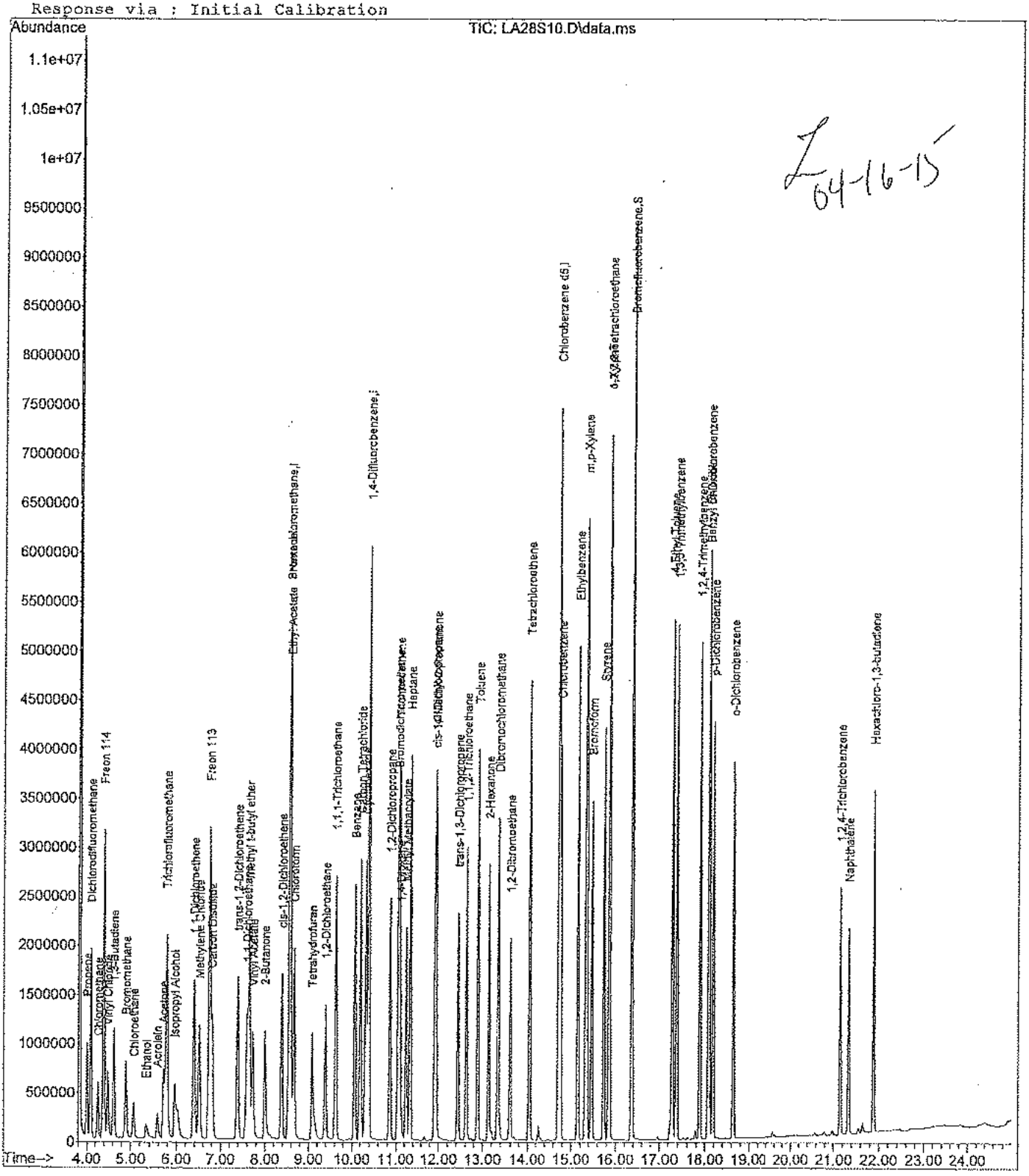
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



4-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.55	130	484480	20.0000	ppb		99.75
25) 1,4-Difluorobenzene	10.38	114	6193622	20.0000	ppb		102.09
50) Chlorobenzene d5	14.72	117	5292414	20.0000	ppb		102.46
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.37	95	4204978	19.9508	ppb		99.75%
Target Compounds							Qvalue
2) Propene	3.99	41	730100	10.6349	ppb		97
3) Dichlorodifluoromethane	4.09	85	2569937	10.9719	ppb		99
4) Chloromethane	4.26	50	954338	9.5418	ppb		99
5) Freon 114	4.38	135	1638227	11.0267	ppb	#	58
6) Vinyl Chloride	4.48	62	1018782	11.0813	ppb		97
7) 1,3-Butadiene	4.62	54	836352	11.0095	ppb		83
8) Bromomethane	4.89	94	826968	10.8030	ppb		99
9) Chloroethane	5.06	64	524403	10.8869	ppb	#	91
10) Acrolein	5.57	56	402864	10.3943	ppb	#	99
11) Acetone	5.71	43	1611859	10.0631	ppb		95
12) Trichlorofluoromethane	5.79	101	2713438	10.7396	ppb		99
13) Ethanol	5.33	45	342022	10.6794	ppb	#	77
14) Isopropyl Alcohol	5.95	45	1924587	7.0817	ppb		96
15) 1,1-Dichloroethene	6.39	61	1786015	10.7582	ppb	#	67
16) Methylene Chloride	6.51	84	853918	10.4187	ppb	#	58
17) Freon 113	6.74	151	1618095	10.8774	ppb	#	71
18) Carbon Disulfide	6.80	76	2690499	10.7217	ppb	#	65
19) trans-1,2-Dichloroethene	7.39	96	1037055	10.8332	ppb	#	63
20) 1,1-Dichloroethane	7.60	63	1999107	10.7337	ppb	#	96
21) methyl t-butyl ether	7.65	73	2979140	11.0182	ppb	#	81
22) Vinyl Acetate	7.73	86	226556	10.0370	ppb	#	1
23) 2-Butanone	7.99	43	2158275	10.6118	ppb	#	73
24) cis-1,2-Dichloroethene	8.38	96	1066061	10.7650	ppb	#	65
26) Ethyl Acetate	8.58	61	352150	9.7115	ppb	#	1
27) Hexane	8.56	57	1751785	10.1093	ppb	#	21
28) Chloroform	8.66	83	2206031	10.2889	ppb		99
29) Tetrahydrofuran	9.07	42	1256871	10.3702	ppb	#	67
30) 1,2-Dichloroethane	9.38	62	1629586	10.0843	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2492888	10.2682	ppb	#	93
32) Benzene	10.07	78	3012505	9.8616	ppb	#	92
33) Carbon Tetrachloride	10.20	117	2481318	10.0615	ppb		99
34) Cyclohexane	10.32	84	1358834	9.8860	ppb	#	39
35) 1,2-Dichloropropane	10.86	63	1244376	10.0839	ppb		93
36) Bromodichloromethane	11.04	83	2417239	10.0589	ppb	#	98
37) 1,4-Dioxane	11.10	88	684636	9.4514	ppb	#	77
38) Trichloroethene	11.07	130	1331964	10.0078	ppb	#	85
39) Methyl Methacrylate	11.24	69	1025248	10.2029	ppb	#	88
40) Heptane	11.33	71	1063450	10.0096	ppb	#	45
41) cis-1,3-Dichloropropene	11.91	75	1844310	10.0496	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	2632460	10.4123	ppb	#	79
43) trans-1,3-Dichloropropene	12.43	75	1744960	9.8362	ppb	#	91
44) 1,1,2-Trichloroethane	12.62	97	1255962	9.8582	ppb	#	87
45) Toluene	12.89	91	3598653	9.7049	ppb		98
46) 2-Hexanone	13.13	43	2429819	10.3634	ppb	#	84
47) Dibromochloromethane	13.34	129	2283461	9.8086	ppb		99
48) 1,2-Dibromoethane	13.60	107	1887139	9.8002	ppb		98
49) Tetrachloroethene	14.04	166	1801289	9.8473	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.76	112	2686890	9.5720	ppb	#	84
52)	Ethylbenzene	15.15	91	4640316	9.5177	ppb		92
53)	m,p-Xylene	15.33	91	7000751	18.6261	ppb		89
54)	Bromoform	15.46	173	2220237	9.2624	ppb		99
55)	Styrene	15.74	104	2555169	9.3233	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.86	83	2131263	8.2807	ppb		100
57)	o-Xylene	15.85	91	3512989	9.1820	ppb		90
59)	4-Ethyl Toluene	17.28	105	4377992	8.5398	ppb		95
60)	1,3,5-Trimethylbenzene	17.37	105	3659621	8.3203	ppb		91
61)	1,2,4-Trimethylbenzene	17.89	105	3539390	8.0213	ppb		93
62)	Benzyl Chloride	18.08	91	3142255	7.5714	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	2192058	7.7989	ppb	#	94
64)	p-Dichlorobenzene	18.19	146	2195842	7.7821	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	2016702	7.4251	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	1015158	5.5657	ppb		98
67)	Naphthalene	21.33	128	2052345	5.4259	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	893841	5.0343	ppb		98

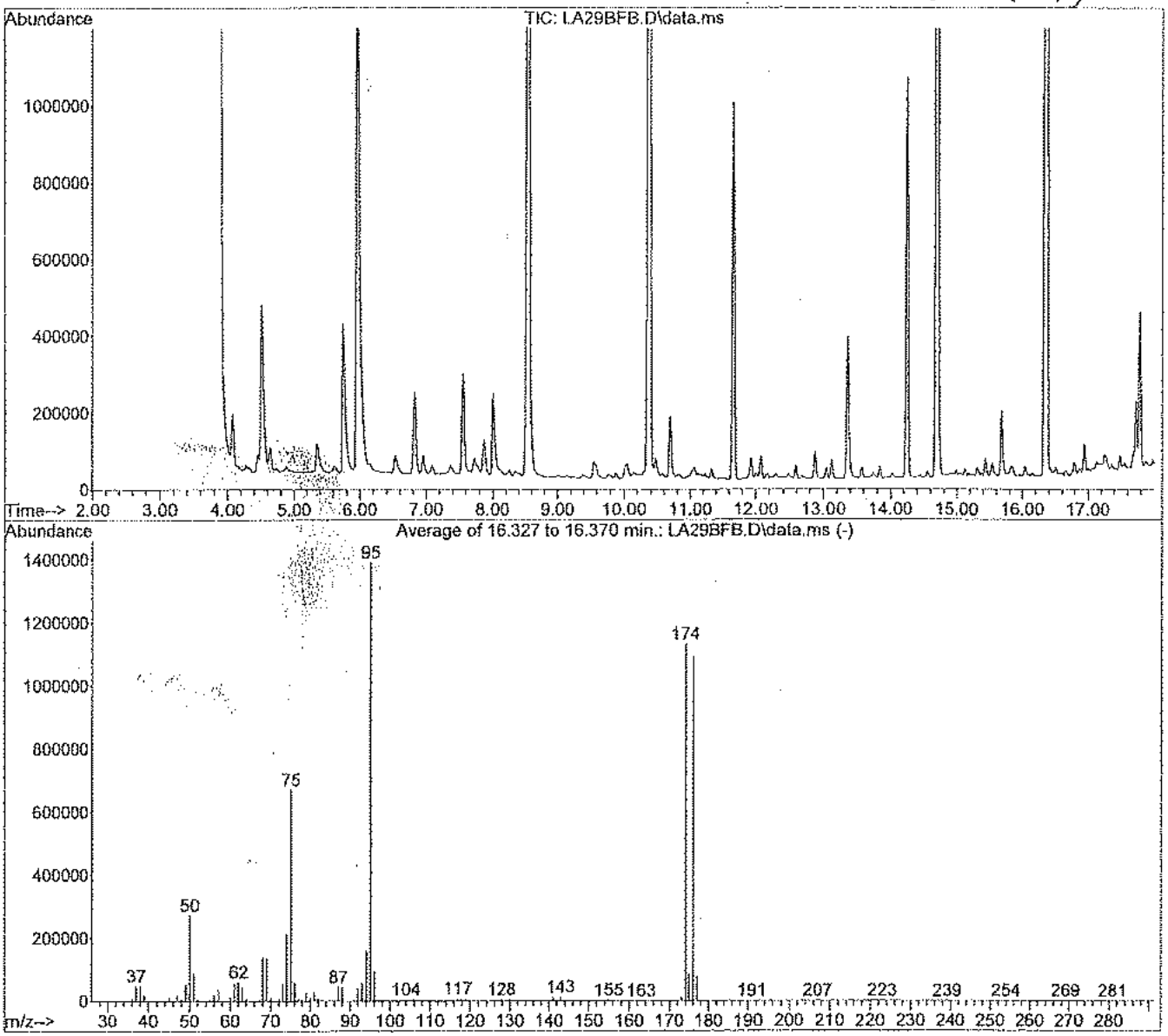
(#) = qualifier out of range (m) = manual integration

BFB

Data File : J:\L\2015\APR15L\TO1....M\15APR15L\LA29BFB.D Vial: 1
Acq Time : 04/15/2015 10:45 Operator: TGM
Sample : BFB Inst : 5975-L
Misc : 107IS31252 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15

L 04-16-15



Peak Apex is scan: Average of 16.327 to 16.370 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	19.60	272634	PASS
75	95	30	66	48.25	671128	PASS
95	95	100	100	100.00	1390832	PASS
96	95	5	9	6.78	94280	PASS
173	174	0.00	2	0.74	8374	PASS
174	95	50	120	81.42	1132432	PASS
175	174	5	9	7.41	83926	PASS
176	174	93	101	96.26	1090080	PASS
177	176	5	9	6.76	73691	PASS

LA29BFB.D TO15LB15.m Thu Apr 16 13:53:22 2015

Average of 16.327 to 16.370 min.: LA29BFB.D\data.ms
BFB
Modified;subtracted

m/z	Abundance
36.05	8001.0
37.05	48406.0
38.05	46000.0
39.05	19364.0
41.00	174.0
43.00	738.0
44.00	4045.0
45.05	10952.0
46.00	583.0
47.00	16898.0
48.00	6796.0
49.00	51168.0
50.00	272634.0
51.05	85815.0
52.05	3443.0
53.00	2.0
54.10	113.0
55.00	2962.0
56.00	18334.0
57.00	36390.0
58.00	1303.0
58.95	323.0
60.00	11193.0
61.00	58092.0
62.00	60127.0
63.00	45126.0
64.05	4006.0
64.90	96.0
65.00	184.0
66.00	103.0
67.00	2843.0
68.00	138052.0
69.00	134184.0
70.05	9174.0
70.90	46.0
71.00	328.0
72.00	6121.0
73.00	52717.0
74.00	213114.0
75.00	671128.0
76.05	58816.0
77.00	6405.0
78.00	3793.0
78.90	25512.0
80.00	8220.0
80.95	26965.0
81.95	5757.0
83.00	573.0
84.05	134.0
85.00	240.0
85.95	1053.0
87.00	44974.0
88.00	43390.0
91.00	3788.0
92.00	37510.0
93.00	57939.0
94.00	157885.0
95.00	1390832.0
96.00	94280.0
97.00	2647.0
102.85	601.0
103.95	4553.0
104.90	1791.0
105.90	4486.0
106.90	1302.0
108.90	22.0
109.90	542.0
110.90	884.0
111.90	551.0
112.90	798.0
114.95	1255.0
115.90	3825.0
116.95	7058.0
117.90	4073.0
118.95	5493.0
119.95	197.0
121.85	295.0
122.90	361.0
123.90	751.0
124.90	341.0
125.95	593.0
126.95	188.0
127.90	4353.0
128.90	2021.0
129.95	4347.0
130.95	1847.0
131.95	252.0
133.00	142.0
133.90	325.0

134.90	1854.0
135.90	348.0
136.95	2009.0
138.90	359.0
139.10	26.0
139.90	723.0
140.95	11866.0
141.95	1429.0
142.95	12398.0
143.95	657.0
144.95	1062.0
145.90	1836.0
146.95	770.0
147.90	3061.0
148.95	960.0
149.95	1391.0
150.95	191.0
151.95	610.0
152.90	922.0
153.95	890.0
154.95	3352.0
155.95	415.0
156.95	2328.0
157.95	217.0
158.90	1446.0
159.95	54.0
160.90	1631.0
161.95	64.0
163.00	115.0
165.20	22.0
169.00	21.0
169.50	26.0
169.95	102.0
170.25	57.0
170.65	64.0
171.00	88.0
171.25	137.0
171.90	107.0
172.20	56.0
173.00	8374.0
174.00	1132432.0
175.00	83926.0
176.00	1090080.0
177.00	73691.0
177.95	1948.0
178.95	74.0
180.90	19.0
190.95	181.0
191.80	19.0
193.00	40.0
207.00	143.0
211.00	22.0
222.95	89.0
239.10	46.0
250.95	103.0
253.00	187.0
253.95	211.0
254.95	73.0
266.90	111.0
267.90	26.0
268.05	67.0
269.10	276.0
270.00	173.0
271.10	239.0
281.00	52.0

Evaluate Continuing Calibration Report

Data Path : J:\L\2015\APR15L\15APR15L\
Data File : LA30LCS.D
Acq On : 04/15/2015 11:35
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 27464 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 16 09:52:25 2015
Quant Title :
QLast Update : Fri May 29 12:10:33 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	104	0.01
2		Propene	2.834	2.836	-0.1	103	0.02 TC
3		Dichlorodifluoromethane	9.669	9.952	-2.9	103	0.02
4		Chloromethane	4.129	3.698	10.4	103	0.02
5		Freon 114	6.133	6.205	-1.2	101	0.02
6		Vinyl Chloride	3.795	3.856	-1.6	101	0.02
7		1,3-Butadiene	3.136	3.189	-1.7	102	0.02
8		Bromomethane	3.160	3.153	0.2	102	0.02
9		Chloroethane	1.988	1.989	-0.1	101	0.02
10		Acrolein	1.600	1.587	0.8	103	0.02 TC
11		Acetone	6.612	6.290	4.9	105	0.02
12		Trichlorofluoromethane	10.430	10.527	-0.9	103	0.02
13		Ethanol	1.322	1.315	0.5	104	0.02 TC
14		Isopropyl Alcohol	11.219	8.890	20.8	114	0.02 TC
15		1,1-Dichloroethene	6.853	6.930	-1.1	103	0.02
16		Methylene Chloride	3.383	3.304	2.3	103	0.02
17		Freon 113	6.141	6.222	-1.3	103	0.02
18		Carbon Disulfide	10.359	10.432	-0.7	103	0.02
19		trans-1,2-Dichloroethene	3.952	3.953	-0.0	102	0.01
20		1,1-Dichloroethane	7.688	7.737	-0.6	103	0.02
21		methyl t-butyl ether	11.162	11.542	-3.4	104	0.01
22		Vinyl Acetate	0.932	0.926	0.6	104	0.01
23		2-Butanone	8.396	8.499	-1.2	104	0.01
24		cis-1,2-Dichloroethene	4.088	4.141	-1.3	103	0.01
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.01
26		Ethyl Acetate	0.117	0.116	0.9	107	0.01
27		Hexane	0.560	0.561	-0.2	103	0.02
28		Chloroform	0.692	0.704	-1.7	103	0.01
29		Tetrahydrofuran	0.391	0.412	-5.4	106	0.01
30		1,2-Dichloroethane	0.522	0.532	-1.9	105	0.01
31		1,1,1-Trichloroethane	0.784	0.794	-1.3	104	0.01
32		Benzene	0.986	0.964	2.2	103	0.00
33		Carbon Tetrachloride	0.796	0.812	-2.0	104	0.00
34		Cyclohexane	0.444	0.432	2.7	102	0.01
35		1,2-Dichloropropane	0.398	0.403	-1.3	104	0.00
36		Bromodichloromethane	0.776	0.788	-1.5	104	0.00
37		1,4-Dioxane	0.234	0.230	1.7	109	0.01 TC

Evaluate Continuing Calibration Report

Data Path : J:\L\2015\APR15L\15APR15L\
Data File : LA30LCS.D
Acq On : 04/15/2015 11:35
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 27464 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 16 09:52:25 2015
Quant Title :
QLast Update : Fri May 29 12:10:33 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
38		Trichloroethene	0.430	0.425	1.2	102	0.00	
39		Methyl Methacrylate	0.324	0.333	-2.8	105	0.00	TL
40		Heptane	0.343	0.340	0.9	102	0.00	
41		cis-1,3-Dichloropropene	0.593	0.602	-1.5	104	0.00	
42		4-Methyl-2-Pentanone	0.816	0.829	-1.6	106	0.00	
43		trans-1,3-Dichloropropene	0.573	0.586	-2.3	105	0.00	
44		1,1,2-Trichloroethane	0.411	0.411	0.0	103	0.00	
45		Toluene	1.197	1.169	2.3	103	0.00	
46		2-Hexanone	0.757	0.787	-4.0	106	0.00	
47		Dibromochloromethane	0.752	0.760	-1.1	103	0.00	
48		1,2-Dibromoethane	0.622	0.621	0.2	102	0.00	
49		Tetrachloroethene	0.591	0.587	0.7	103	0.00	
50	I	Chlorobenzene d5	1.000	1.000	0.0	101	0.00	
51		Chlorobenzene	1.061	1.062	-0.1	102	0.00	
52		Ethylbenzene	1.842	1.851	-0.5	103	0.00	
53		m,p-Xylene	1.420	1.400	1.4	102	0.00	
54		Bromoform	0.906	0.926	-2.2	102	-0.01	
55		Styrene	1.036	1.047	-1.1	102	0.00	
56		1,1,2,2-Tetrachloroethane	0.973	0.960	1.3	102	-0.02	
57		o-Xylene	1.446	1.426	1.4	102	0.00	
58	S	Bromofluorobenzene	0.796	0.799	-0.4	101	-0.01	
59		4-Ethyl Toluene	1.937	1.949	-0.6	101	-0.01	
60		1,3,5-Trimethylbenzene	1.662	1.645	1.0	102	0.00	
61		1,2,4-Trimethylbenzene	1.667	1.641	1.6	101	0.00	
62		Benzyl Chloride	1.568	1.578	-0.6	104	0.00	TL
63		m-Dichlorobenzene	1.062	1.038	2.3	101	0.00	
64		p-Dichlorobenzene	1.066	1.051	1.4	101	0.00	
65		o-Dichlorobenzene	1.026	1.028	-0.2	102	0.00	
66		1,2,4-Trichlorobenzene	0.689	0.781	-13.4	102	0.00	TL
67		Naphthalene	1.429	1.643	-15.0	102	0.00	TL
68		Hexachloro-1,3-butadiene	0.671	0.719	-7.2	102	0.00	TL

(#) = Out of Range SPCC's out = 0 CCC's out = 0

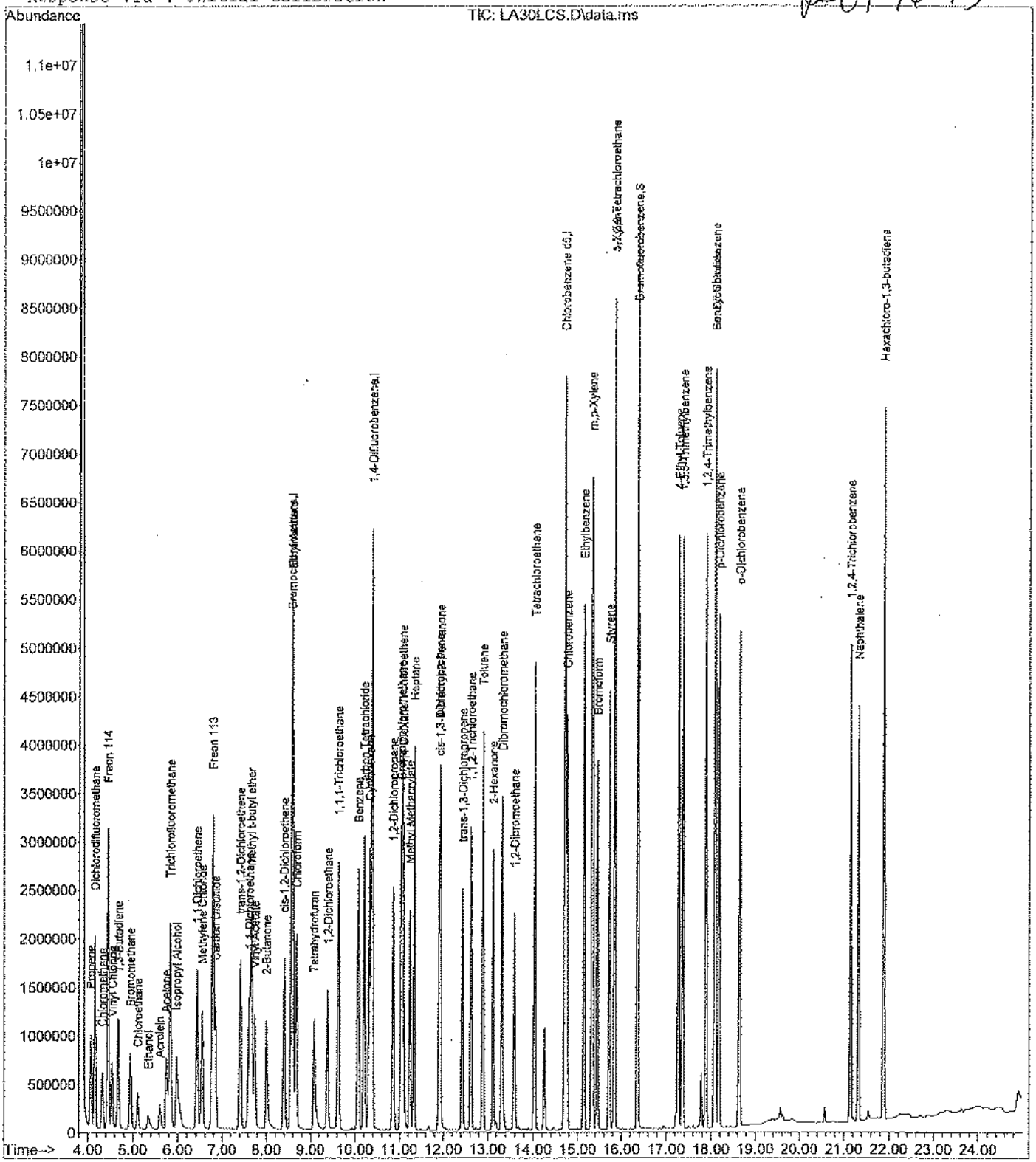
Quantitation Report

Data File : J:\L\2015\APR15L\TO1....M\15APR15L\LA30LCS.D Vial: 1
Acq Time : 04/15/2015 11:35 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 13:25:45 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration

4-16-15



Quantitation Report

Data File : J:\L\2015\APR15L\TO1....M\15APR15L\LA30LCS.D Vial: 1
Acq Time : 04/15/2015 11:35 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 13:25:45 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.55	130	506304	20.0000	ppb		104.24
25) 1,4-Difluorobenzene	10.38	114	6185808	20.0000	ppb		101.96
50) Chlorobenzene d5	14.70	117	5226972	20.0000	ppb		101.20
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4175967	20.0612	ppb		100.31%
Target Compounds							Qvalue
2) Propene	4.06	41	718061	10.0087	ppb		97 TIC
3) Dichlorodifluoromethane	4.15	85	2519443	10.2927	ppb		99
4) Chloromethane	4.32	50	936201	8.9570	ppb		99
5) Freon 114	4.45	135	1570901	10.1178	ppb	#	58
6) Vinyl Chloride	4.54	62	976111	10.1595	ppb		97
7) 1,3-Butadiene	4.68	54	807306	10.1691	ppb	#	82
8) Bromomethane	4.95	94	798073	9.9761	ppb		99
9) Chloroethane	5.11	64	503524	10.0028	ppb	#	90
10) Acrolein	5.60	56	401665	9.9167	ppb	#	99 TIC
11) Acetone	5.74	43	1592324	9.5126	ppb		92
12) Trichlorofluoromethane	5.83	101	2664805	10.0925	ppb		99
13) Ethanol	5.35	45	332788	9.9432	ppb	#	79 TIC
14) Isopropyl Alcohol	5.97	45	2250539	7.9241	ppb		97 TIC
15) 1,1-Dichloroethene	6.42	61	1754354	10.1120	ppb	#	67
16) Methylene Chloride	6.54	84	836435	9.7655	ppb	#	56
17) Freon 113	6.77	151	1575069	10.1317	ppb	#	71
18) Carbon Disulfide	6.84	76	2640874	10.0703	ppb	#	62
19) trans-1,2-Dichloroethene	7.41	96	1000704	10.0029	ppb	#	61
20) 1,1-Dichloroethane	7.62	63	1958604	10.0629	ppb	#	96
21) methyl t-butyl ether	7.66	73	2921933	10.3408	ppb	#	81
22) Vinyl Acetate	7.74	86	234464	9.9396	ppb	#	1
23) 2-Butanone	7.99	43	2151471	10.1224	ppb	#	73
24) cis-1,2-Dichloroethene	8.39	96	1048221	10.1286	ppb	#	64
26) Ethyl Acetate	8.58	61	359842	9.9362	ppb	#	1
27) Hexane	8.58	57	1736010	10.0309	ppb	#	19
28) Chloroform	8.67	83	2176736	10.1650	ppb		99
29) Tetrahydrofuran	9.07	42	1273692	10.5222	ppb	#	65
30) 1,2-Dichloroethane	9.39	62	1644580	10.1900	ppb		96
31) 1,1,1-Trichloroethane	9.62	97	2455736	10.1279	ppb	#	92
32) Benzene	10.07	78	2981830	9.7735	ppb	#	92
33) Carbon Tetrachloride	10.20	117	2510425	10.1924	ppb		99
34) Cyclohexane	10.32	84	1336634	9.7368	ppb	#	32
35) 1,2-Dichloropropane	10.85	63	1246322	10.1124	ppb		93
36) Bromodichloromethane	11.03	83	2436303	10.1511	ppb	#	98
37) 1,4-Dioxane	11.08	88	711890	9.8400	ppb	#	77 TIC
38) Trichloroethene	11.07	130	1315162	9.8941	ppb	#	85
39) Methyl Methacrylate	11.23	69	1030477	10.2678	ppb	#	86 TIC
40) Heptane	11.33	71	1052315	9.9173	ppb	#	42
41) cis-1,3-Dichloropropene	11.90	75	1862144	10.1596	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	2562555	10.1486	ppb	#	79
43) trans-1,3-Dichloropropene	12.42	75	1812000	10.2270	ppb	#	91
44) 1,1,2-Trichloroethane	12.61	97	1271396	9.9919	ppb	#	86
45) Toluene	12.88	91	3616564	9.7655	ppb		98
46) 2-Hexanone	13.12	43	2433643	10.3928	ppb	#	83
47) Dibromochloromethane	13.33	129	2350972	10.1113	ppb		99
48) 1,2-Dibromoethane	13.58	107	1919291	9.9798	ppb		99
49) Tetrachloroethene	14.03	166	1816985	9.9457	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1....M\15APR15L\LA30LCS.D Vial: 1
Acq Time : 04/15/2015 11:35 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 13:25:45 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	2775905	10.0130	ppb	#	83
52)	Ethylbenzene	15.13	91	4837950	10.0473	ppb		92
53)	m,p-Xylene	15.32	91	7316130	19.7089	ppb		89
54)	Bromoform	15.44	173	2421271	10.2275	ppb		99
55)	Styrene	15.72	104	2736593	10.1103	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.84	83	2509850	9.8738	ppb		99
57)	o-Xylene	15.84	91	3725753	9.8601	ppb		89
59)	4-Ethyl Toluene	17.27	105	5094258	10.0613	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	4298635	9.8955	ppb		91
61)	1,2,4-Trimethylbenzene	17.88	105	4289192	9.8423	ppb		92
62)	Benzyl Chloride	18.07	91	4125364	10.0647	ppb	#	87
63)	m-Dichlorobenzene	18.09	146	2712381	9.7710	ppb	#	93
64)	p-Dichlorobenzene	18.18	146	2747479	9.8590	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	2686694	10.0157	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	2041227	11.3314	ppb		99
67)	Naphthalene	21.33	128	4294311	11.4951	ppb		99
68)	Hexachloro-1,3-butadiene	21.87	225	1878231	10.7110	ppb		99

(#) = qualifier out of range (m) = manual integration

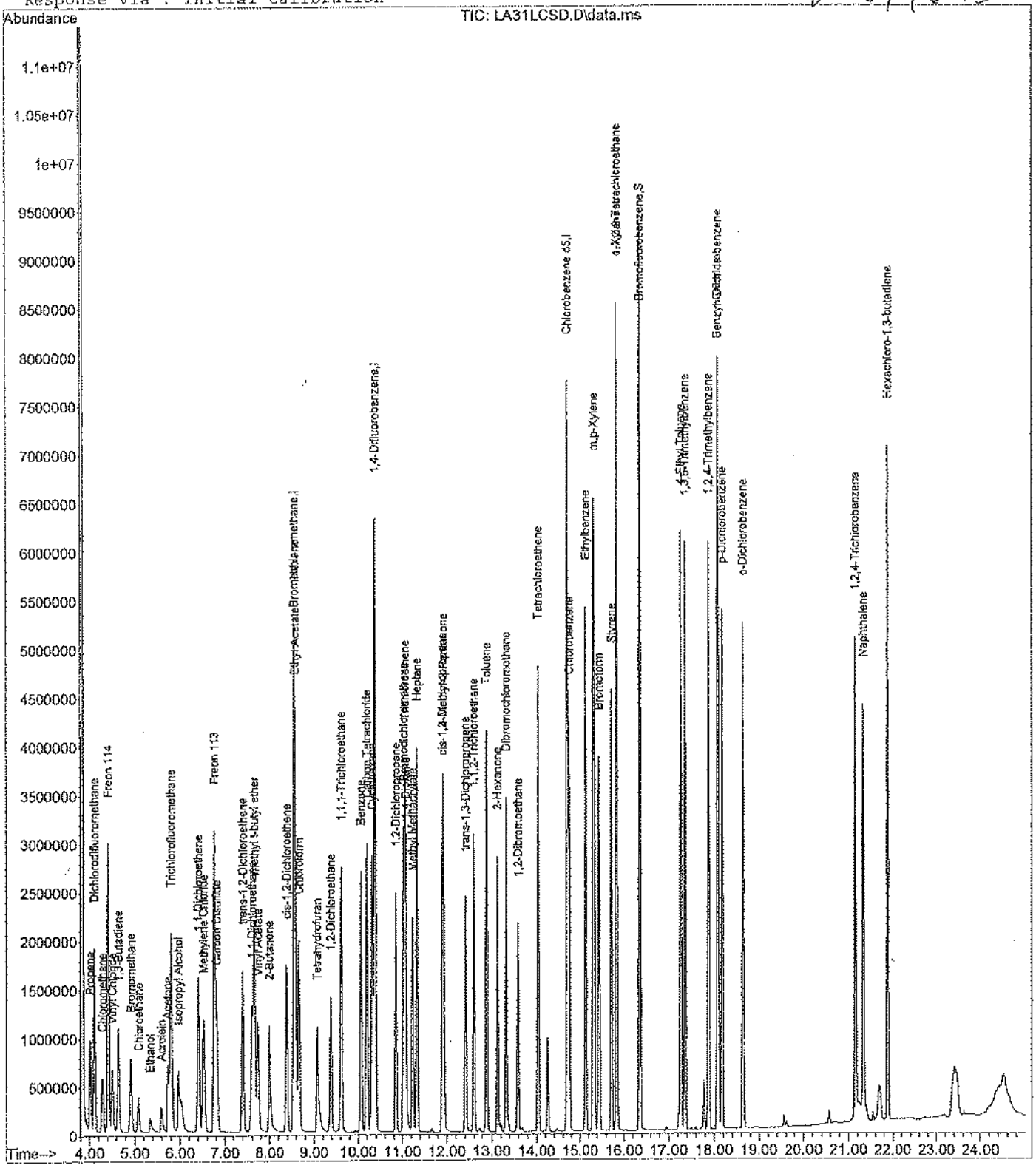
Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA31LCSD.D Vial: 1
Acq Time : 04/15/2015 12:24 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 15 13:39:04 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration

Z 04-16-15



Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA31LCSD.D Vial: 1
Acq Time : 04/15/2015 12:24 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 15 13:39:04 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.55	130	500352	20.0000	ppb		103.02
25) 1,4-Difluorobenzene	10.38	114	6170688	20.0000	ppb		101.71
50) Chlorobenzene d5	14.70	117	5254894	20.0000	ppb		101.74
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4214310	20.1378	ppb		100.69%
Target Compounds							Qvalue
2) Propene	4.01	41	719175	10.1435	ppb		99
3) Dichlorodifluoromethane	4.11	85	2485867	10.2763	ppb		99
4) Chloromethane	4.28	50	929463	8.9983	ppb		99
5) Freon 114	4.41	135	1574249	10.2599	ppb	#	59
6) Vinyl Chloride	4.50	62	979437	10.3154	ppb		97
7) 1,3-Butadiene	4.64	54	799828	10.1947	ppb	#	82
8) Bromomethane	4.91	94	789355	9.9845	ppb		99
9) Chloroethane	5.09	64	504562	10.1427	ppb	#	90
10) Acrolein	5.59	56	403076	10.0699	ppb	#	98
11) Acetone	5.73	43	1566821	9.4716	ppb		93
12) Trichlorofluoromethane	5.80	101	2649857	10.1552	ppb		99
13) Ethanol	5.34	45	330846	10.0027	ppb	#	77
14) Isopropyl Alcohol	5.96	45	2155862	7.6810	ppb		97
15) 1,1-Dichloroethene	6.40	61	1739844	10.1477	ppb	#	67
16) Methylene Chloride	6.52	84	826356	9.7626	ppb	#	56
17) Freon 113	6.76	151	1555156	10.1226	ppb	#	70
18) Carbon Disulfide	6.82	76	2612998	10.0826	ppb	#	65
19) trans-1,2-Dichloroethene	7.40	96	998020	10.0948	ppb	#	62
20) 1,1-Dichloroethane	7.60	63	1947794	10.1264	ppb	#	96
21) methyl t-butyl ether	7.65	73	2915800	10.4419	ppb	#	82
22) Vinyl Acetate	7.73	86	225952	9.6927	ppb	#	1
23) 2-Butanone	7.99	43	2144495	10.2096	ppb	#	73
24) cis-1,2-Dichloroethene	8.38	96	1040507	10.1736	ppb	#	64
26) Ethyl Acetate	8.58	61	351474	9.7289	ppb	#	1
27) Hexane	8.57	57	1719424	9.9594	ppb	#	19
28) Chloroform	8.66	83	2171480	10.1654	ppb		99
29) Tetrahydrofuran	9.07	42	1258561	10.4227	ppb	#	66
30) 1,2-Dichloroethane	9.38	62	1617732	10.0482	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2454523	10.1477	ppb	#	93
32) Benzene	10.06	78	2969147	9.7557	ppb	#	92
33) Carbon Tetrachloride	10.19	117	2475803	10.0765	ppb		99
34) Cyclohexane	10.32	84	1340652	9.7900	ppb	#	33
35) 1,2-Dichloropropane	10.85	63	1238834	10.0763	ppb		94
36) Bromodichloromethane	11.03	83	2410675	10.0689	ppb	#	98
37) 1,4-Dioxane	11.08	88	702344	9.7319	ppb	#	77
38) Trichloroethene	11.07	130	1318855	9.9462	ppb	#	85
39) Methyl Methacrylate	11.23	69	1028997	10.2782	ppb	#	86
40) Heptane	11.33	71	1050063	9.9203	ppb	#	43
41) cis-1,3-Dichloropropene	11.90	75	1839001	10.0579	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	2544483	10.1017	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	1779195	10.0665	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	1272958	10.0287	ppb	#	86
45) Toluene	12.88	91	3604094	9.7557	ppb		99
46) 2-Hexanone	13.12	43	2408547	10.3108	ppb	#	83
47) Dibromochloromethane	13.32	129	2322168	10.0119	ppb		99
48) 1,2-Dibromoethane	13.58	107	1908570	9.9483	ppb		99
49) Tetrachloroethene	14.03	166	1807434	9.9176	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA31LCSD.D Vial: 1
Acq Time : 04/15/2015 12:24 Operator: TGM
Sample : QD- Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 15 13:39:04 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	2763641	9.9157	ppb	#	83
52) Ethylbenzene	15.13	91	4804553	9.9249	ppb		92
53) m,p-Xylene	15.32	91	7295292	19.5483	ppb		90
54) Bromoform	15.44	173	2406409	10.1107	ppb		99
55) Styrene	15.72	104	2734555	10.0491	ppb	#	90
56) 1,1,2,2-Tetrachloroethane	15.84	83	2507495	9.8121	ppb		99
57) o-Xylene	15.83	91	3705758	9.7550	ppb		89
59) 4-Ethyl Toluene	17.27	105	5081963	9.9837	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	4310874	9.8710	ppb		91
61) 1,2,4-Trimethylbenzene	17.88	105	4291028	9.7942	ppb		93
62) Benzyl Chloride	18.07	91	4118301	9.9941	ppb	#	87
63) m-Dichlorobenzene	18.09	146	2716360	9.7333	ppb	#	93
64) p-Dichlorobenzene	18.18	146	2746200	9.8021	ppb	#	94
65) o-Dichlorobenzene	18.64	146	2685615	9.9585	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.15	180	2014247	11.1222	ppb		99
67) Naphthalene	21.33	128	4147285	11.0426	ppb		99
68) Hexachloro-1,3-butadiene	21.88	225	1836992	10.4202	ppb		99

(#) = qualifier out of range (m) = manual integration

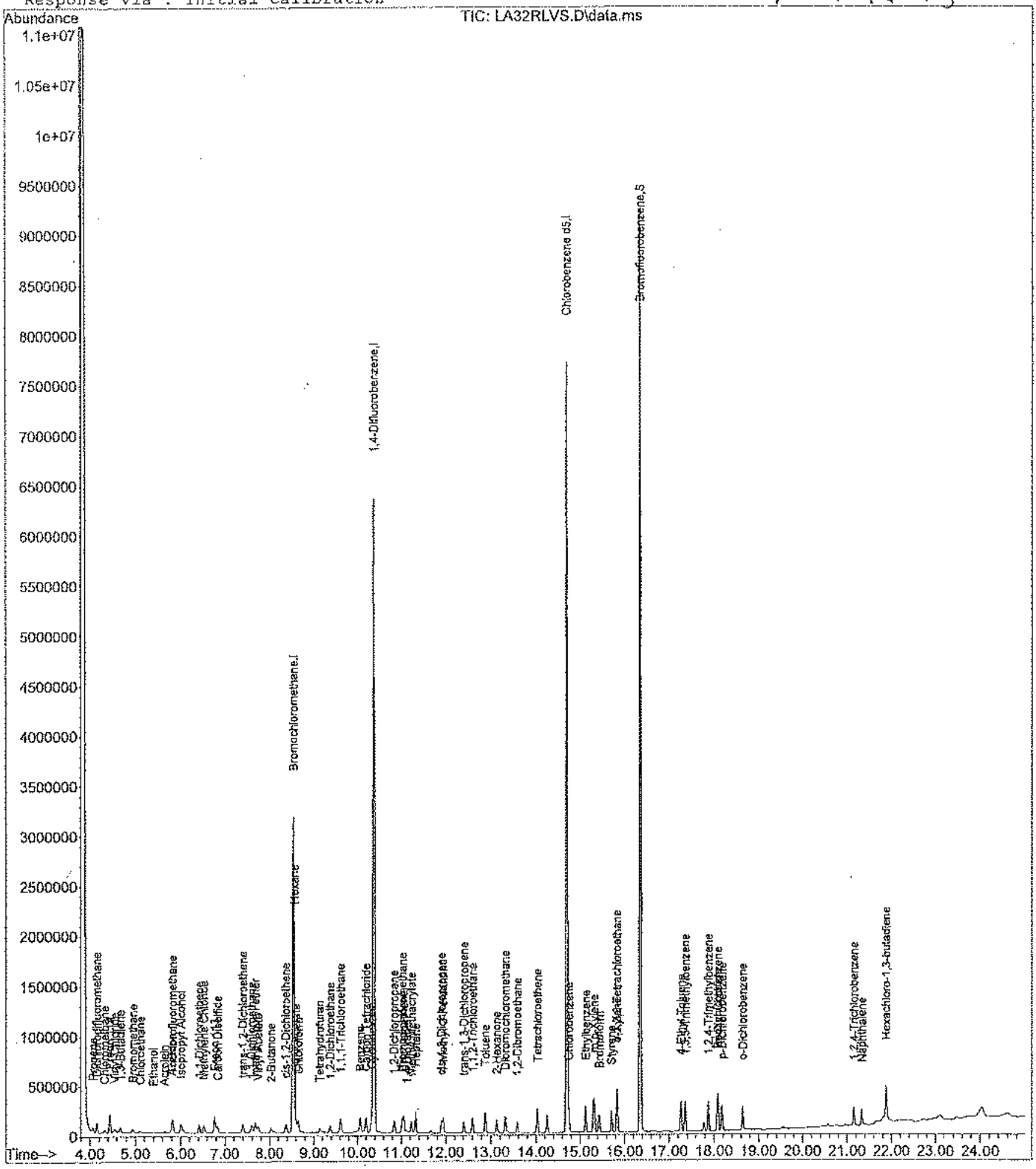
Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA32RLVS.D Vial: 1
Acq Time : 04/15/2015 13:10 Operator: TJM
Sample : 0.5 RLVS Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 15 13:39:18 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration

4-16-15



Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA32RLVS.D Vial: 1
Acq Time : 04/15/2015 13:10 Operator: TJM
Sample : 0.5 RLVS Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 15 13:39:18 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	537472	20.0000	ppb		110.66
25) 1,4-Difluorobenzene	10.37	114	6180495	20.0000	ppb		101.87
50) Chlorobenzene d5	14.69	117	5258617	20.0000	ppb		101.81
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4195093	20.0318	ppb		100.16%
Target Compounds							Qvalue
2) Propene	4.07	41	36742	0.4824	ppb		97
3) Dichlorodifluoromethane	4.15	85	118352	0.4555	ppb		99
4) Chloromethane	4.32	50	45822	0.4130	ppb		98
5) Freon 114	4.44	135	74577	0.4525	ppb	#	57
6) Vinyl Chloride	4.54	62	45670	0.4478	ppb		95
7) 1,3-Butadiene	4.67	54	38847	0.4610	ppb	#	74
8) Bromomethane	4.95	94	39458	0.4646	ppb		98
9) Chloroethane	5.11	64	23774	0.4449	ppb	#	91
10) Acrolein	5.64	56	20209	0.4700	ppb	#	97
11) Acetone	5.80	43	94354	0.5310	ppb		97
12) Trichlorofluoromethane	5.82	101	127448	0.4547	ppb		98
13) Ethanol	5.39	45	15611	0.4394	ppb	#	74
14) Isopropyl Alcohol	6.01	45	224345	0.7441	ppb		98
15) 1,1-Dichloroethene	6.41	61	83287	0.4522	ppb	#	66
16) Methylene Chloride	6.53	84	44781	0.4925	ppb	#	53
17) Freon 113	6.77	151	74271	0.4500	ppb	#	69
18) Carbon Disulfide	6.83	76	126845	0.4556	ppb	#	61
19) trans-1,2-Dichloroethene	7.40	96	49854	0.4694	ppb	#	67
20) 1,1-Dichloroethane	7.60	63	94412	0.4569	ppb	#	95
21) methyl t-butyl ether	7.68	73	134652	0.4489	ppb	#	79
22) Vinyl Acetate	7.74	86	12086	0.4826	ppb	#	1
23) 2-Butanone	8.04	43	103288	0.4578	ppb	#	68
24) cis-1,2-Dichloroethene	8.37	96	51782	0.4713	ppb	#	68
26) Ethyl Acetate	8.60	61	18809	0.5198	ppb	#	1
27) Hexane	8.57	57	86650	0.5011	ppb	#	53
28) Chloroform	8.65	83	102877	0.4808	ppb		99
29) Tetrahydrofuran	9.13	42	53260	0.4404	ppb	#	67
30) 1,2-Dichloroethane	9.37	62	76579	0.4749	ppb	#	94
31) 1,1,1-Trichloroethane	9.61	97	115197	0.4755	ppb	#	92
32) Benzene	10.05	78	151444	0.4968	ppb	#	92
33) Carbon Tetrachloride	10.19	117	116278	0.4725	ppb		99
34) Cyclohexane	10.32	84	68681	0.5007	ppb	#	43
35) 1,2-Dichloropropane	10.85	63	60108	0.4881	ppb		94
36) Bromodichloromethane	11.02	83	112434	0.4689	ppb	#	98
37) 1,4-Dioxane	11.13	88	37466	0.5183	ppb	#	84
38) Trichloroethene	11.06	130	63538	0.4784	ppb	#	86
39) Methyl Methacrylate	11.23	69	49239	0.4910	ppb		89
40) Heptane	11.32	71	51296	0.4838	ppb	#	40
41) cis-1,3-Dichloropropene	11.90	75	86336	0.4714	ppb	#	92
42) 4-Methyl-2-Pentanone	11.93	43	120708	0.4785	ppb	#	78
43) trans-1,3-Dichloropropene	12.41	75	81672	0.4614	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	61085	0.4805	ppb	#	88
45) Toluene	12.88	91	183028	0.4946	ppb		100
46) 2-Hexanone	13.13	43	106215	0.4540	ppb	#	82
47) Dibromochloromethane	13.32	129	107879	0.4644	ppb		99
48) 1,2-Dibromoethane	13.58	107	90496	0.4710	ppb		98
49) Tetrachloroethene	14.03	166	88312	0.4838	ppb	#	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA32RLVS.D Vial: 1
Acq Time : 04/15/2015 13:10 Operator: TJM
Sample : 0.5 RLVS Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 15 13:39:18 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	133146	0.4774	ppb	#	87
52) Ethylbenzene	15.13	91	233901	0.4828	ppb		91
53) m,p-Xylene	15.32	91	365363	0.9783	ppb		89
54) Bromoform	15.44	173	108726	0.4565	ppb		98
55) Styrene	15.71	104	131005	0.4811	ppb	#	91
56) 1,1,2,2-Tetrachloroethane	15.84	83	124164	0.4855	ppb	#	91
57) o-Xylene	15.83	91	186777	0.4913	ppb		88
59) 4-Ethyl Toluene	17.27	105	240674	0.4725	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	207972	0.4759	ppb		91
61) 1,2,4-Trimethylbenzene	17.88	105	204446	0.4663	ppb		92
62) Benzyl Chloride	18.07	91	182743	0.4432	ppb	#	87
63) m-Dichlorobenzene	18.09	146	131591	0.4712	ppb	#	93
64) p-Dichlorobenzene	18.17	146	132325	0.4720	ppb	#	93
65) o-Dichlorobenzene	18.64	146	122055	0.4523	ppb	#	93
66) 1,2,4-Trichlorobenzene	21.15	180	73442	0.4052	ppb		98
67) Naphthalene	21.33	128	155357	0.4134	ppb		98
68) Hexachloro-1,3-butadiene	21.87	225	77820	0.4411	ppb		98

(#) = qualifier out of range (m) = manual integration

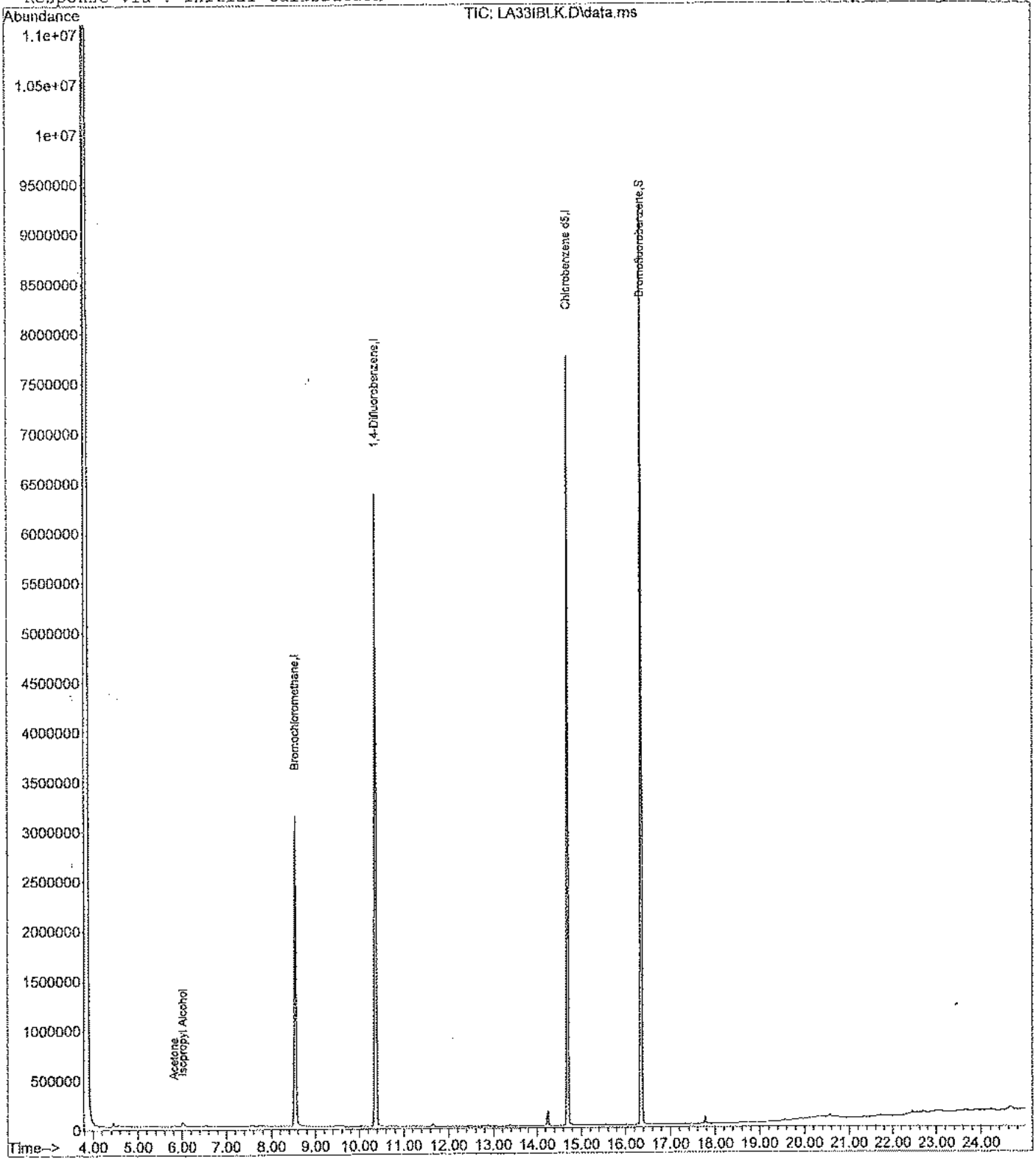
Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA33IBLK.D Vial: 1
Acq Time : 04/15/2015 14:00 Operator: TJM
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 14:10:11 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration

4-16-15



Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA33IBLK.D Vial: 1
Acq Time : 04/15/2015 14:00 Operator: TJM
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 14:10:11 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	526848	20.0000 ppb	108.47
25) 1,4-Difluorobenzene	10.36	114	6225458	20.0000 ppb	102.61
50) Chlorobenzene d5	14.69	117	5279201	20.0000 ppb	102.21
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4196204	19.9590 ppb	99.79%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.82	43	30743	0.1765 ppb	89
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	6.01	45	117395	0.3972 ppb	99
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA33IBLK.D Vial: 1
Acq Time : 04/15/2015 14:00 Operator: TJM
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 14:10:11 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected		
52) Ethylbenzene	0.00	91		Not Detected		
53) m,p-Xylene	0.00	91		Not Detected		
54) Bromoform	0.00	173		Not Detected		
55) Styrene	0.00	104		Not Detected		
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57) o-Xylene	0.00	91		Not Detected		
59) 4-Ethyl Toluene	0.00	105		Not Detected		
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected		
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected		
62) Benzyl Chloride	0.00	91		Not Detected		
63) m-Dichlorobenzene	0.00	146		Not Detected		
64) p-Dichlorobenzene	0.00	146		Not Detected		
65) o-Dichlorobenzene	0.00	146		Not Detected		
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67) Naphthalene	0.00	128		Not Detected		
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected		

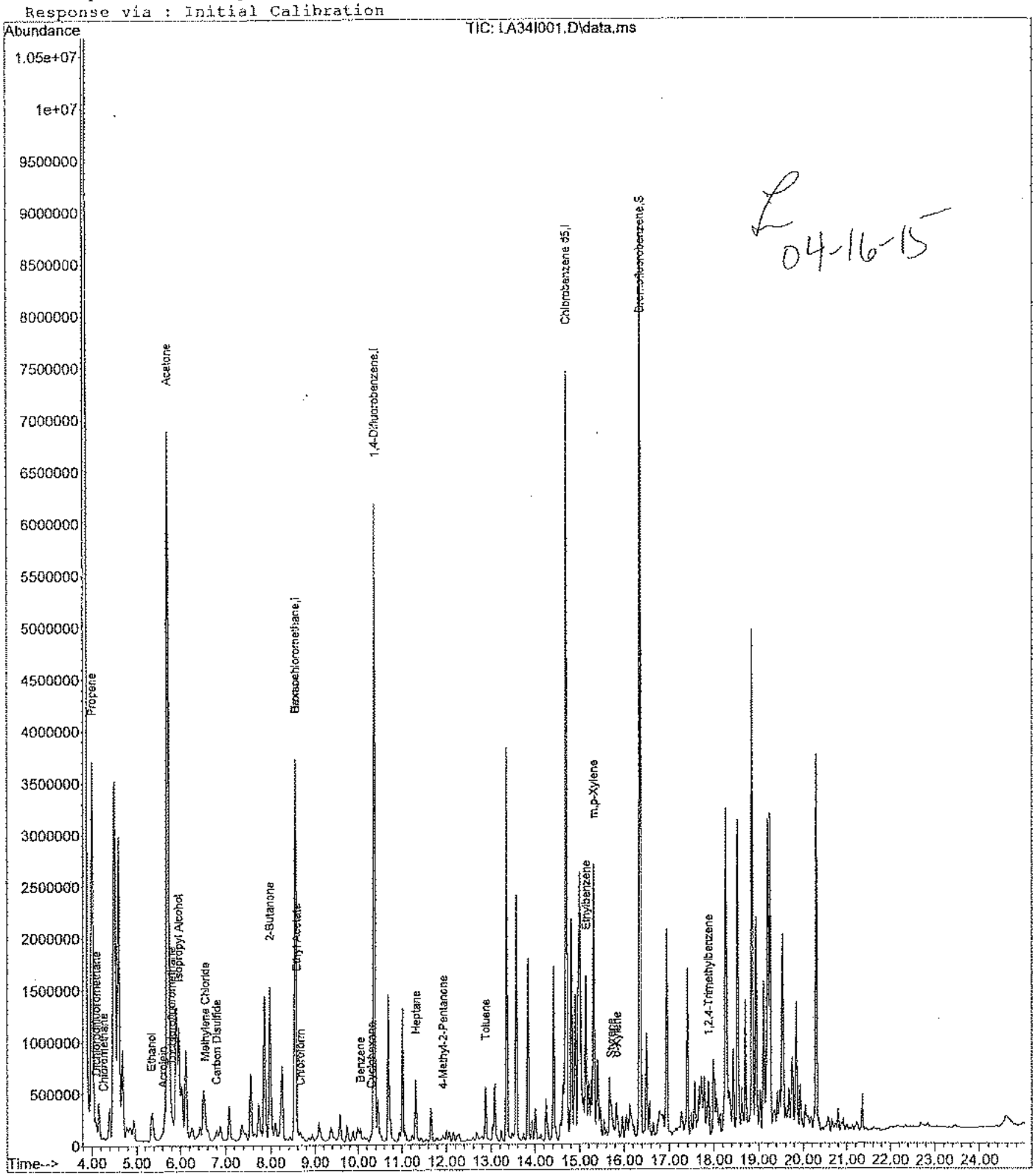
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:27:02 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:27:02 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	516288	20.0000 ppb	106.30
25) 1,4-Difluorobenzene	10.36	114	5972491	20.0000 ppb	98.44
50) Chlorobenzene d5	14.69	117	4957854	20.0000 ppb	95.99
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	3971773	20.1160 ppb	100.58%
Target Compounds					Qvalue
2) Propene	4.00	41	3011849	41.1689 ppb	94 TK
3) Dichlorodifluoromethane	4.10	85	121836	0.4881 ppb	99
4) Chloromethane	4.26	50	42060	0.3946 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.60	56	88099	2.1330 ppb	91 TK
11) Acetone	5.69	43	13871465	81.2662 ppb	88 DIL
12) Trichlorofluoromethane	5.80	101	57354	0.2130 ppb	100
13) Ethanol	5.33	45	428918	12.5676 ppb #	79 TK
14) Isopropyl Alcohol	5.95	45	2372517	8.1920 ppb #	64 TK
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.54	84	19200	0.2198 ppb #	45
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.80	76	232348	0.8689 ppb #	63
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.97	43	2760286	12.7356 ppb #	73
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.58	61	8866	0.2536 ppb #	1
27) Hexane	8.55	57	457729	2.7393 ppb #	86
28) Chloroform	8.66	83	34806	0.1683 ppb	99
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.05	78	112550	0.3821 ppb #	89
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.30	84	28764	0.2170 ppb #	29
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.32	71	160648	1.5681 ppb #	43
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	11.93	43	46049	0.1889 ppb #	81
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.87	91	432814	1.2104 ppb	100
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

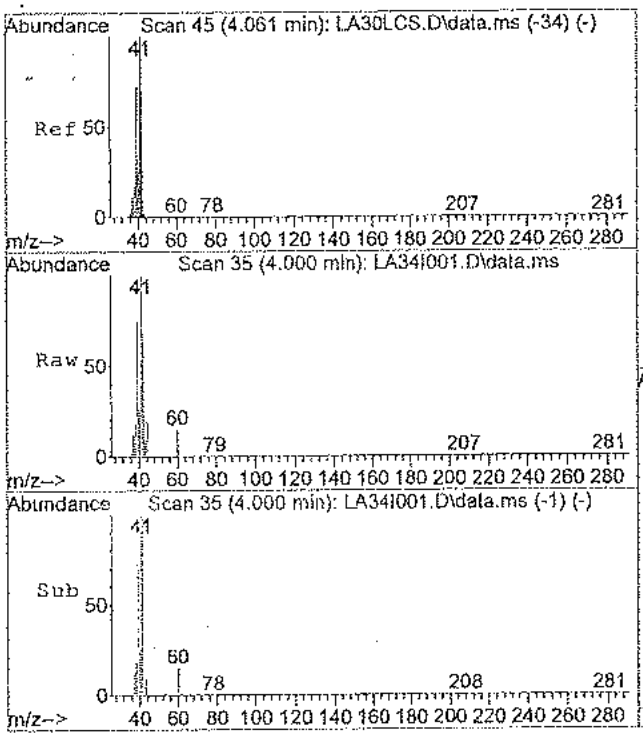
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:27:02 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	237000	0.5189 ppb	92
53) m,p-Xylene	15.30	91	439626	1.2486 ppb	89
54) Bromoform	0.00	173		Not Detected	
55) Styrene	15.71	104	80292	0.3127 ppb #	89
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.83	91	168525	0.4702 ppb	90
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.88	105	99269	0.2402 ppb	93
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

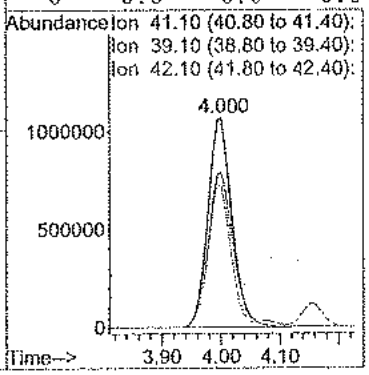
(#) = qualifier out of range (m) = manual integration

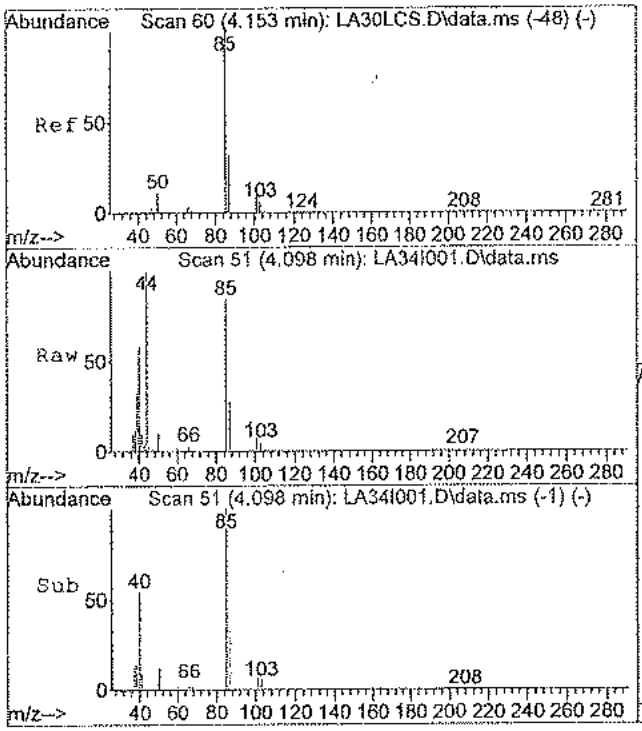


#2
Propene
Concen: 41.17 ppb
RT: 4.00 min Scan# 35
Delta R.T. -0.04 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:41.1 Resp: 3011849

Ion	Ratio	Lower	Upper
41	100		
39	78.8	56.2	84.4
42	65.6	53.8	80.6
0	0.0	0.0	0.0

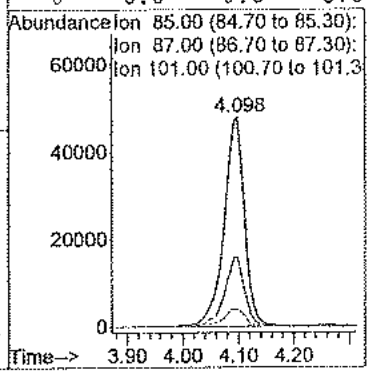


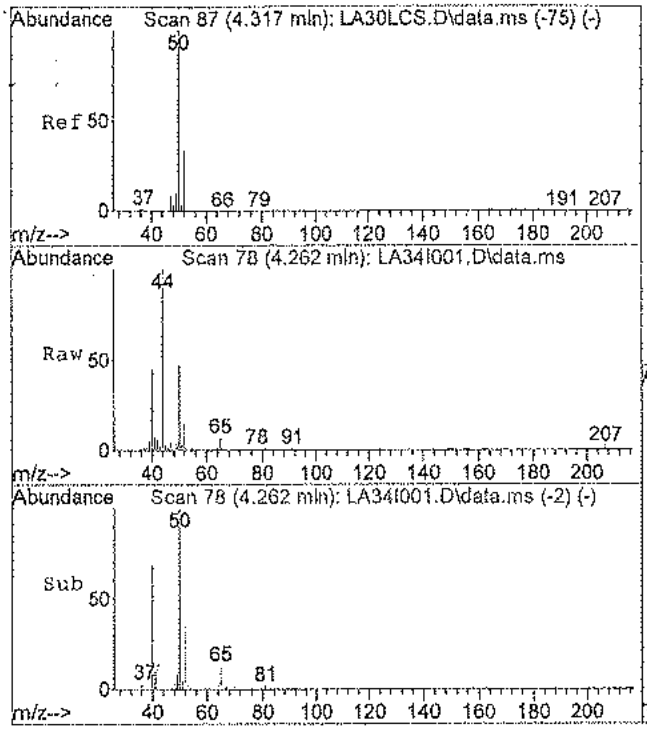


#3
Dichlorodifluoromethane
Concen: 0.49 ppb
RT: 4.10 min Scan# 51
Delta R.T. -0.03 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:85 Resp: 121836

Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.1	39.1
101	8.6	8.0	12.0
0	0.0	0.0	0.0

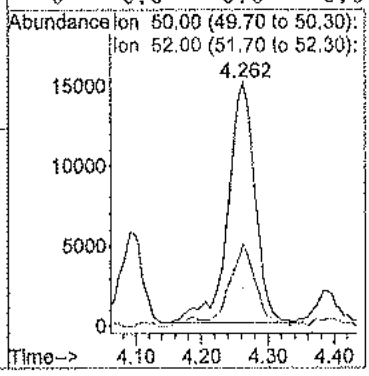


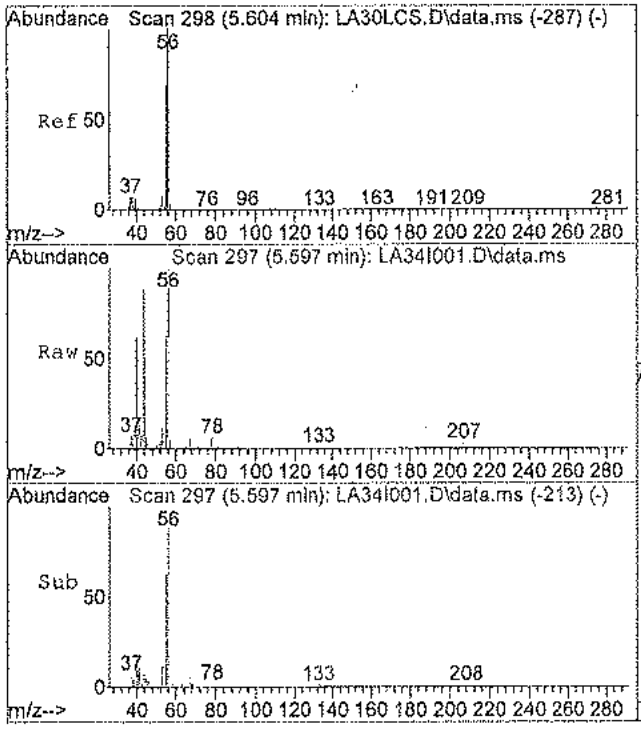


#4
Chloromethane
Concen: 0.39 ppb
RT: 4.26 min Scan# 78
Delta R.T. -0.04 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:50 Resp: 42060

Ion	Ratio	Lower	Upper
50	100		
52	32.3	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

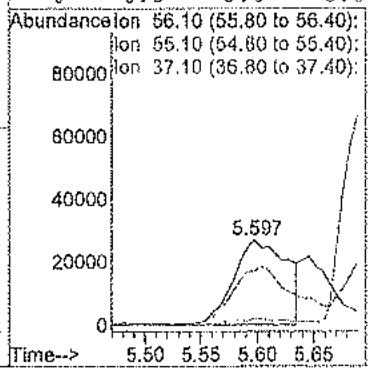


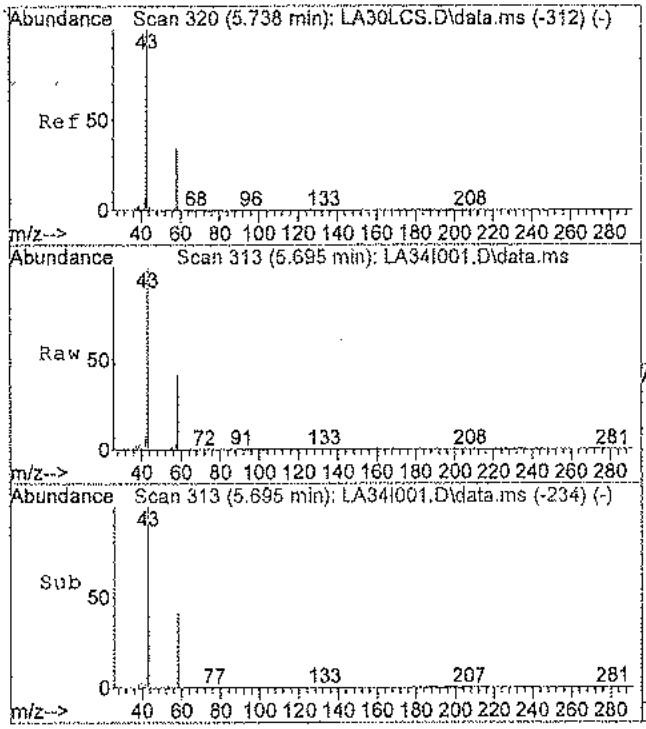


#10
Acrolein
Concen: 2.13 ppb
RT: 5.60 min Scan# 297
Delta R.T. 0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:56.1 Resp: 88099

Ion	Ratio	Lower	Upper
56	100		
55	76.8	55.1	82.7
37	9.2	7.9	11.9
0	0.0	0.0	0.0

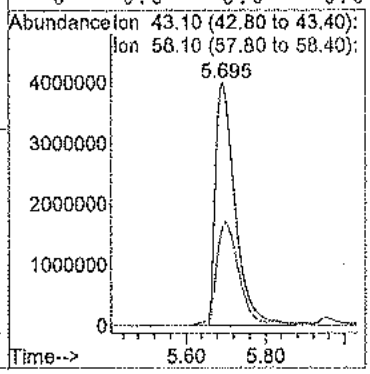


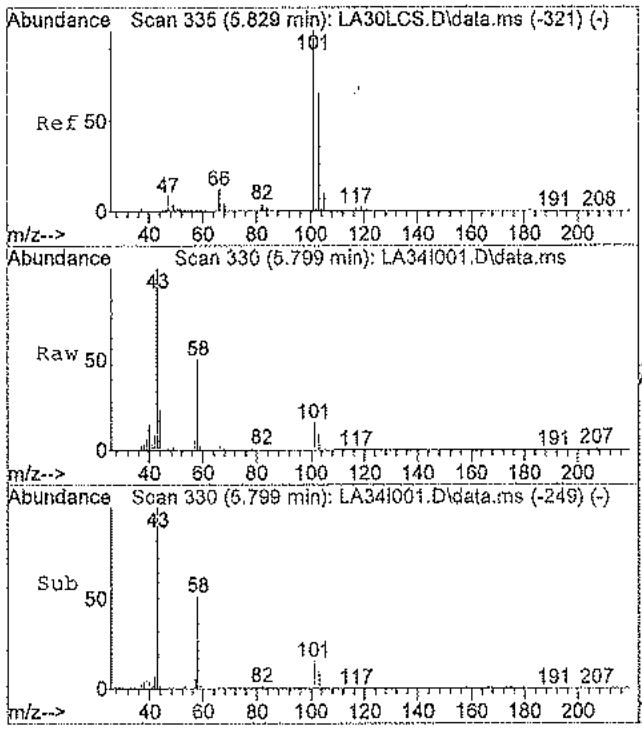


#11
Acetone
Concen: 81.27 ppb
RT: 5.69 min Scan# 313
Delta R.T. -0.02 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:43.1 Resp:13871465

Ion	Ratio	Lower	Upper
43	100		
58	45.6	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

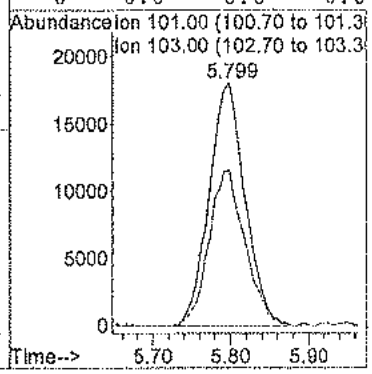


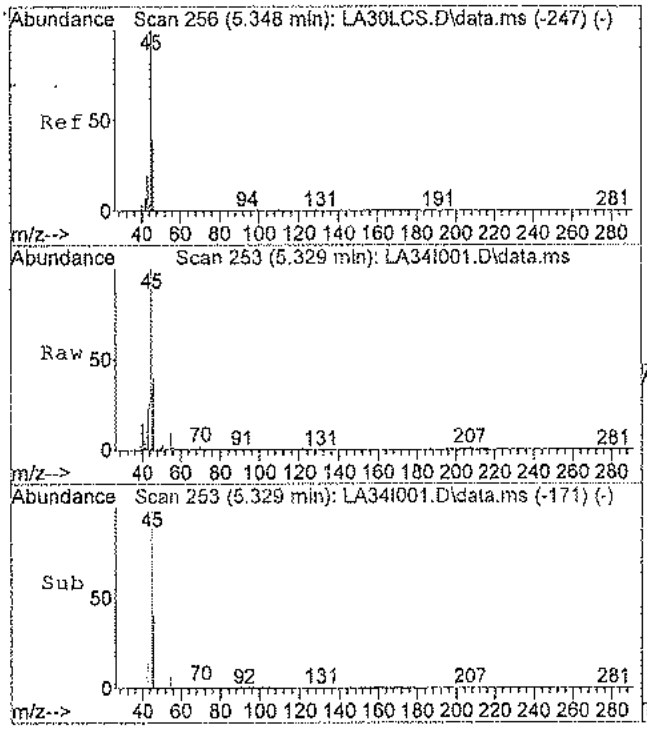


#12
Trichlorofluoromethane
Concen: 0.21 ppb
RT: 5.80 min Scan# 330
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:101 Resp: 57354

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

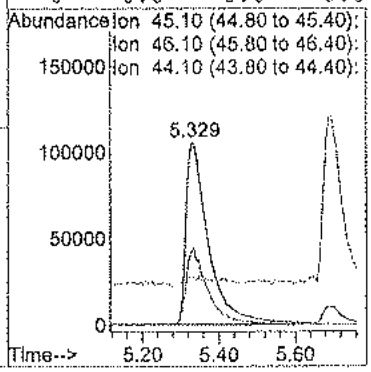


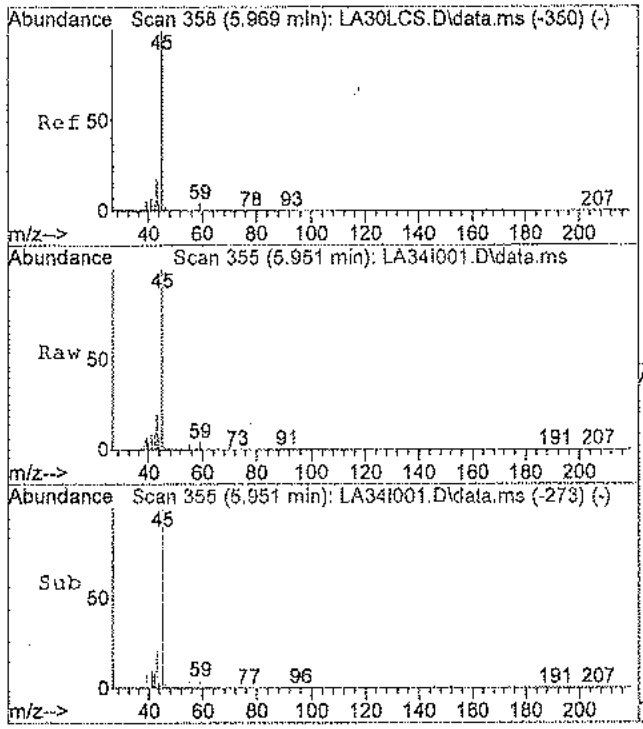


#13
Ethanol
Concen: 12.57 ppb
RT: 5.33 min Scan# 253
Delta R.T. -0.00 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:45.1 Resp: 428918

Ion	Ratio	Lower	Upper
45	100		
46	40.7	32.4	48.6
44	3.3	23.4	35.2#
0	0.0	0.0	0.0

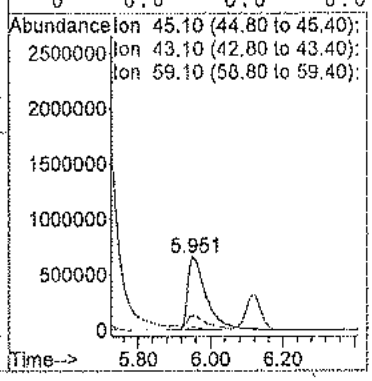


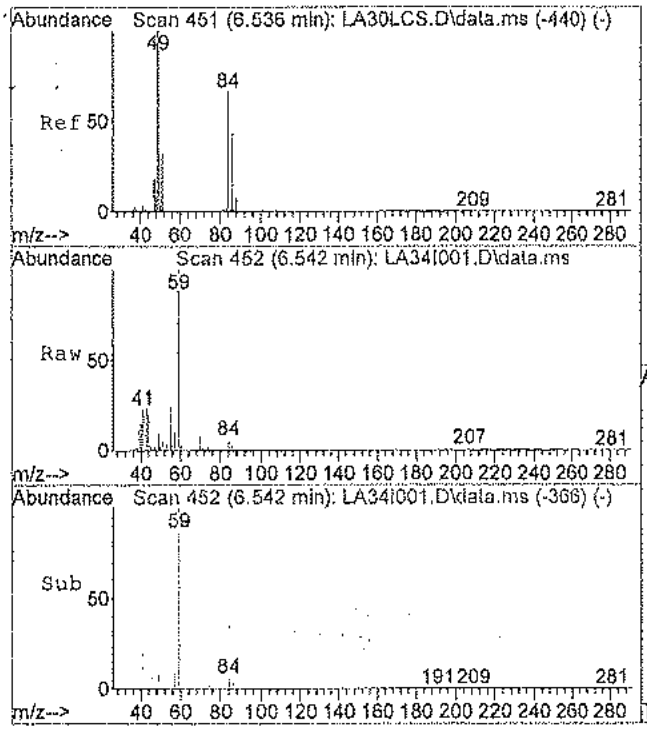


#14
Isopropyl Alcohol
Concen: 8.19 ppb
RT: 5.95 min Scan# 355
Delta R.T. -0.00 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:45.1 Resp: 2372517

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	3.9	3.2	4.8
0	0.0	0.0	0.0

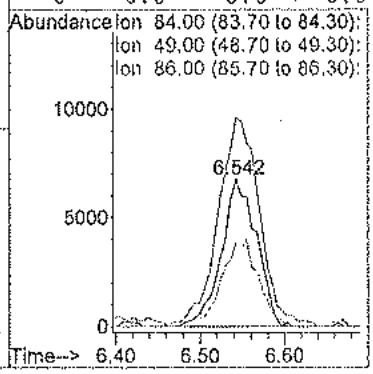


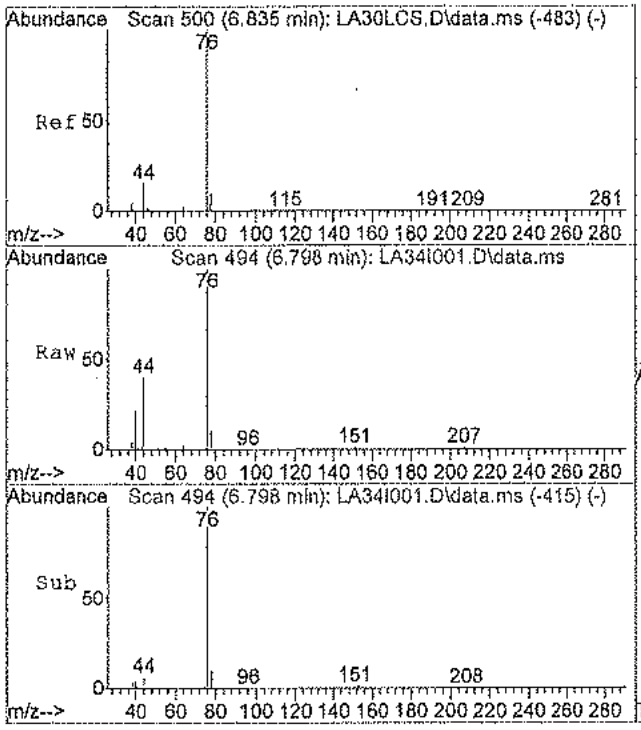


#16
Methylene Chloride
Concen: 0.22 ppb
RT: 6.54 min Scan# 452
Delta R.T. 0.02 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:84 Resp: 19200

Ion	Ratio	Lower	Upper
84	100		
49	167.3	66.6	100.0#
86	60.5	51.6	77.4
0	0.0	0.0	0.0

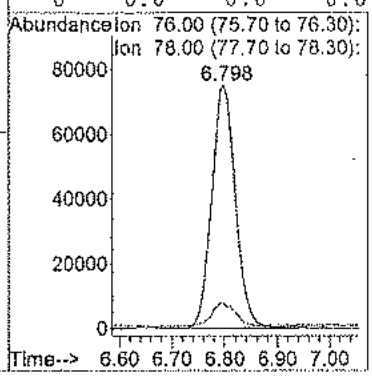


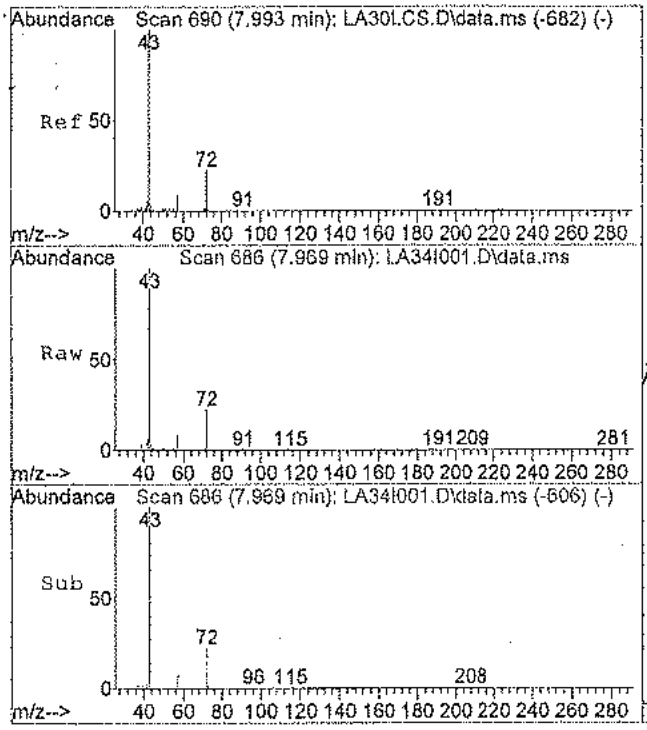


#18
Carbon Disulfide
Concen: 0.87 ppb
RT: 6.80 min Scan# 494
Delta R.T. -0.02 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:76 Resp: 232348

Ion	Ratio	Lower	Upper
76	100		
78	9.7	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

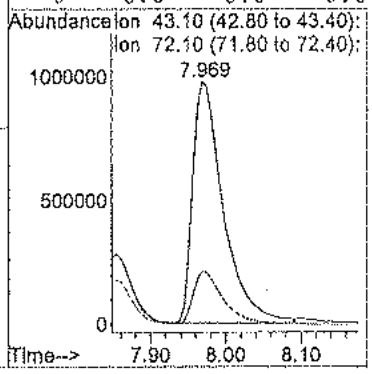


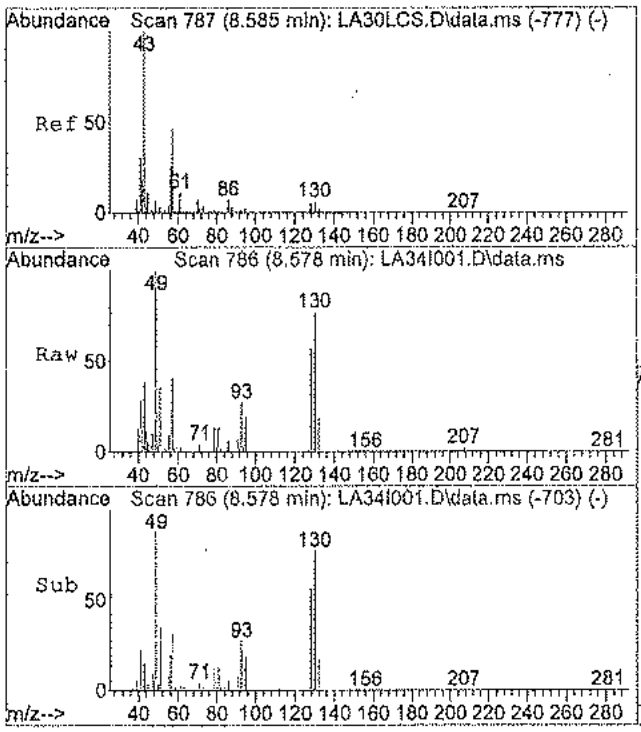


#23
2-Butanone
Concen: 12.74 ppb
RT: 7.97 min Scan# 686
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:43.1 Resp: 2760286

Ion	Ratio	Lower	Upper
43	100		
72	22.4	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

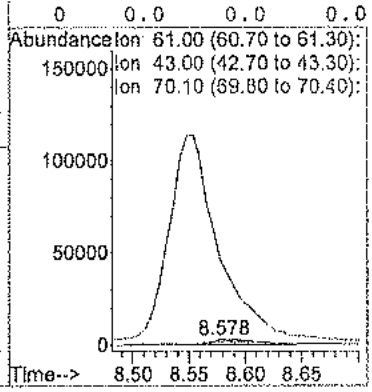


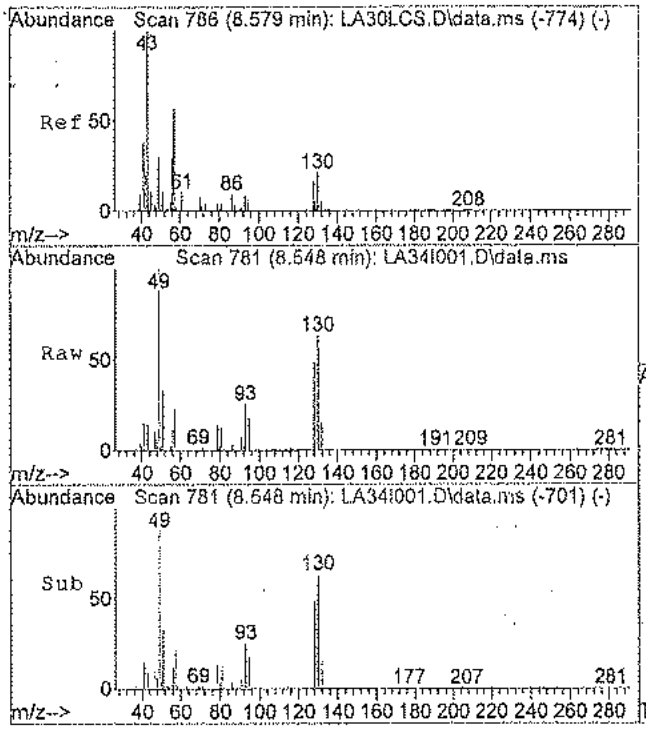


#26
Ethyl Acetate
Concen: 0.25 ppb
RT: 8.58 min Scan# 786
Delta R.T. 0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:61 Resp: 8866

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	53.9	13.6	20.4#
0	0.0	0.0	0.0

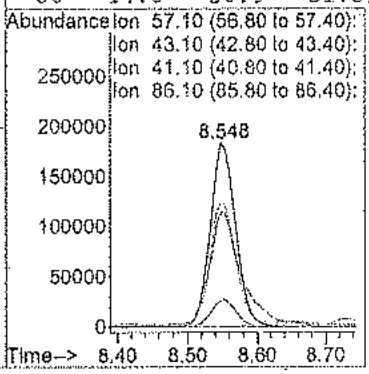


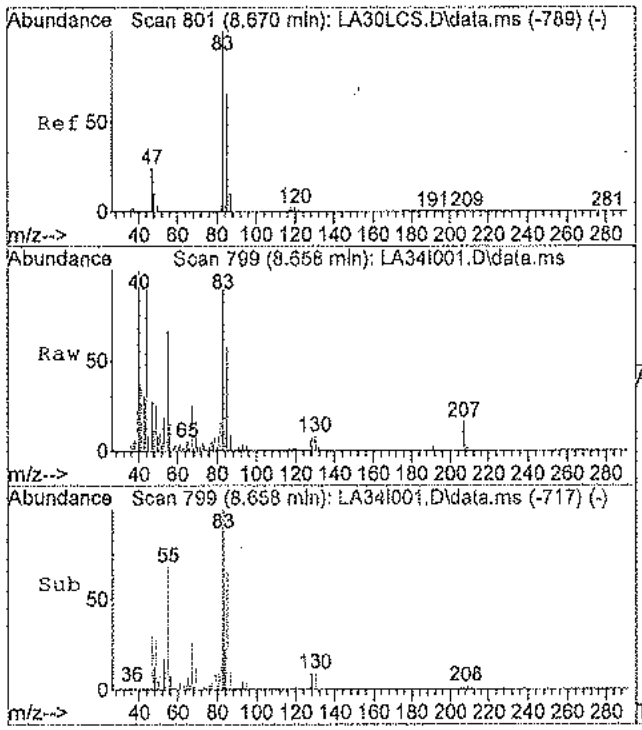


#27
Hexane
Concen: 2.74 ppb
RT: 8.55 min Scan# 781
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:57.1 Resp: 457729

Ion	Ratio	Lower	Upper
57	100		
43	77.6	57.3	85.9
41	72.7	47.0	70.4#
86	14.8	20.9	31.3#

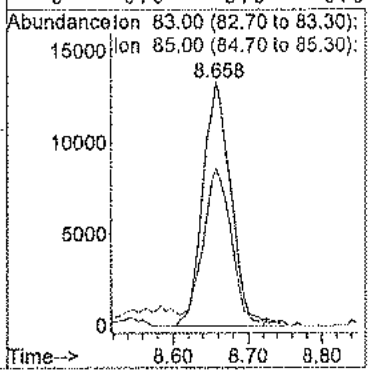


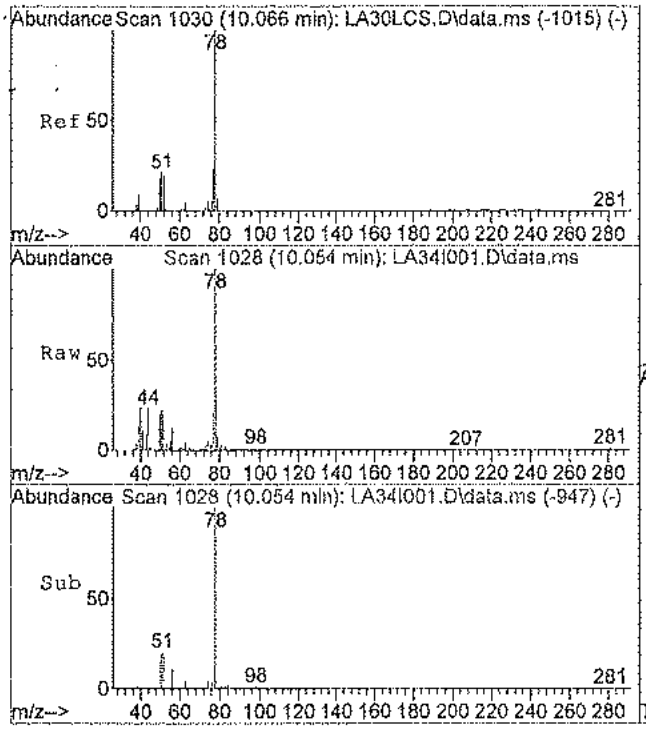


#28
Chloroform
Concen: 0.17 ppb
RT: 8.66 min Scan# 799
Delta R.T. -0.00 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:83 Resp: 34806

Ion	Ratio	Lower	Upper
83	100		
85	64.9	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

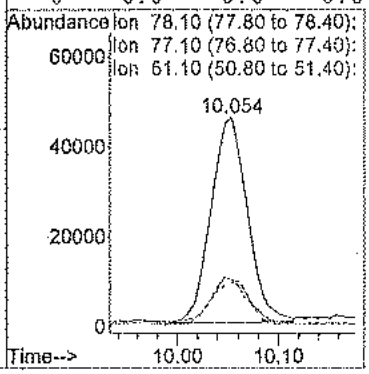


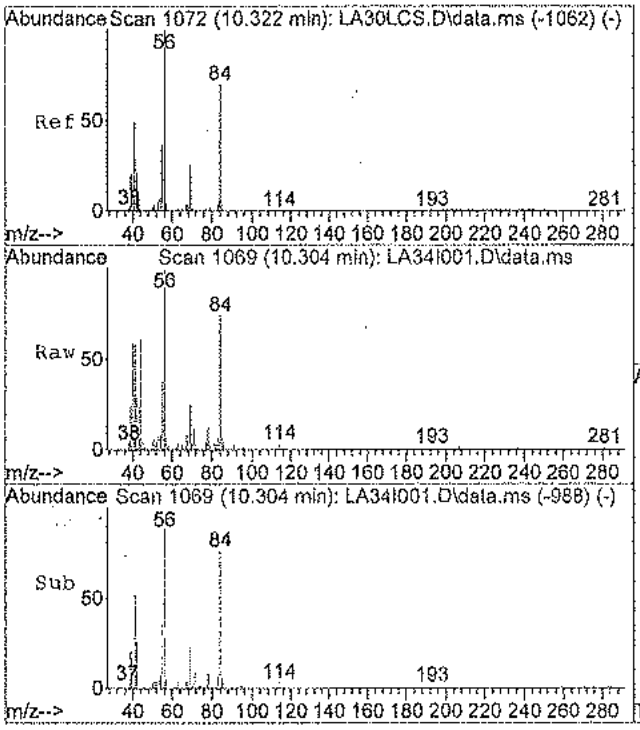


#32
Benzene
Concen: 0.38 ppb
RT: 10.05 min Scan# 1028
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:78.1 Resp: 112550

Ion	Ratio	Lower	Upper
78	100		
77	24.3	18.2	27.4
51	22.0	9.5	14.3#
0	0.0	0.0	0.0

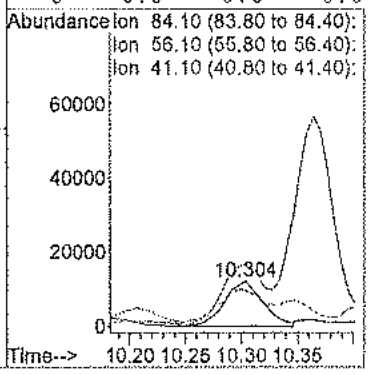


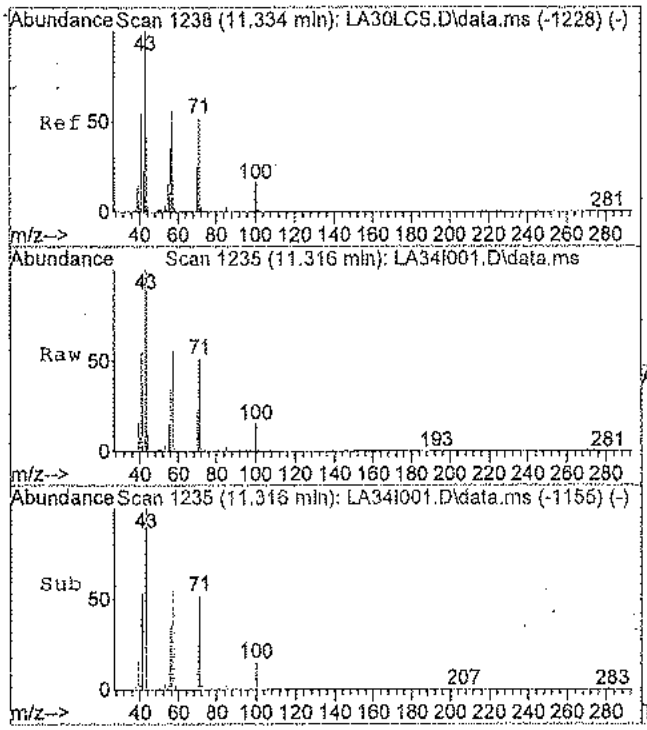


#34
Cyclohexane
Concen: 0.22 ppb
RT: 10.30 min Scan# 1069
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:84.1 Resp: 28764

Ion	Ratio	Lower	Upper
84	100		
56	144.5	67.3	100.9#
41	86.1	30.2	45.4#
0	0.0	0.0	0.0

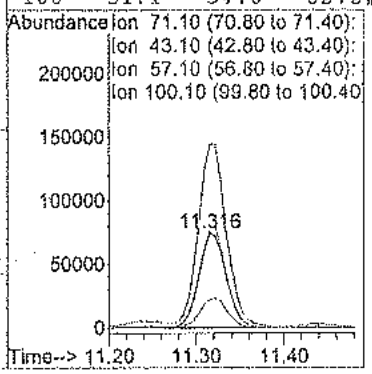


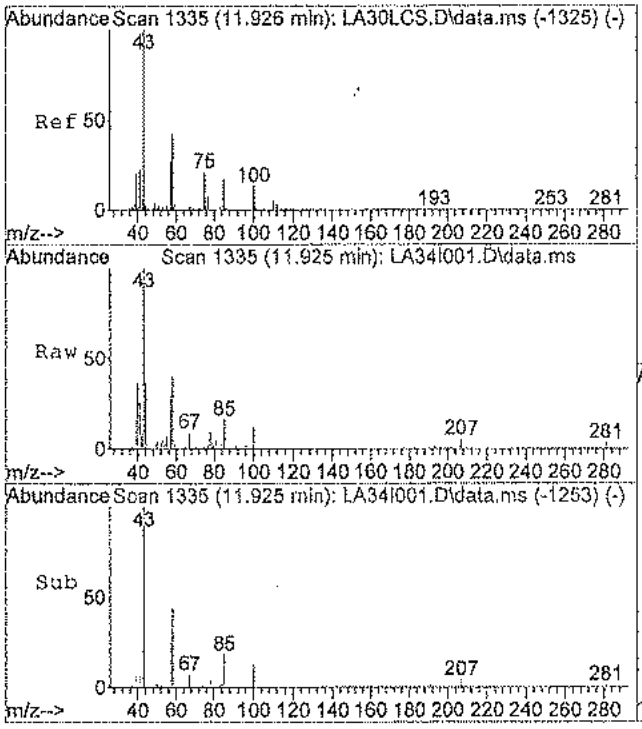


#40
Heptane
Concen: 1.57 ppb
RT: 11.32 min Scan# 1235
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:71.1 Resp: 160648

Ion	Ratio	Lower	Upper
71	100		
43	195.8	87.3	130.9#
57	105.3	57.8	86.6#
100	31.1	34.8	52.2#

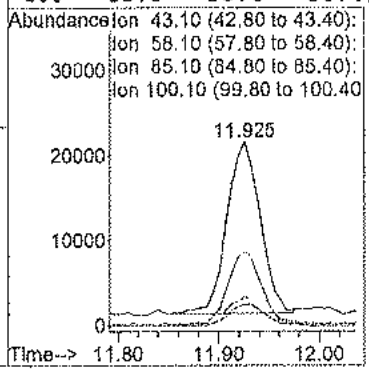


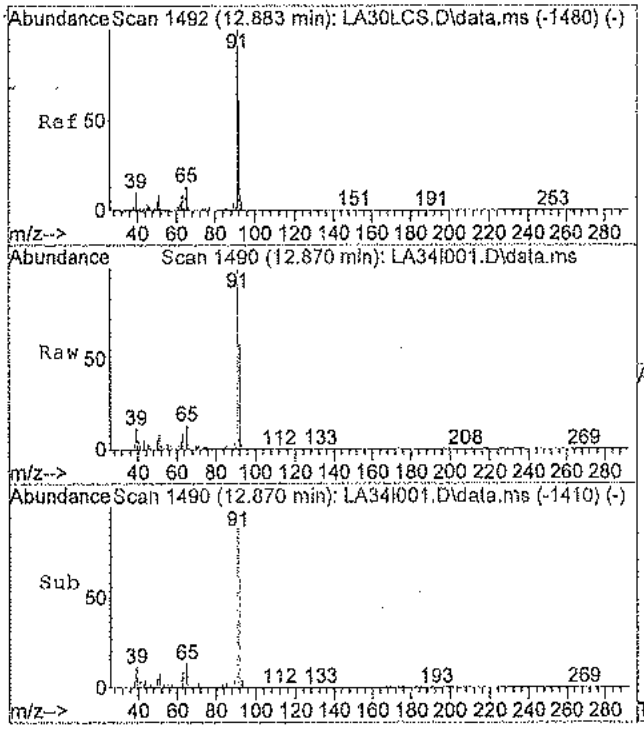


#42
4-Methyl-2-Pentanone
Concen: 0.19 ppb
RT: 11.93 min Scan# 1335
Delta R.T. -0.00 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:43.1 Resp: 46049

Ion	Ratio	Lower	Upper
43	100		
58	45.8	39.5	59.3
85	17.9	25.1	37.7#
100	13.5	25.6	38.4#

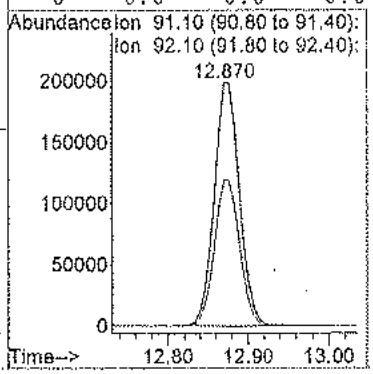


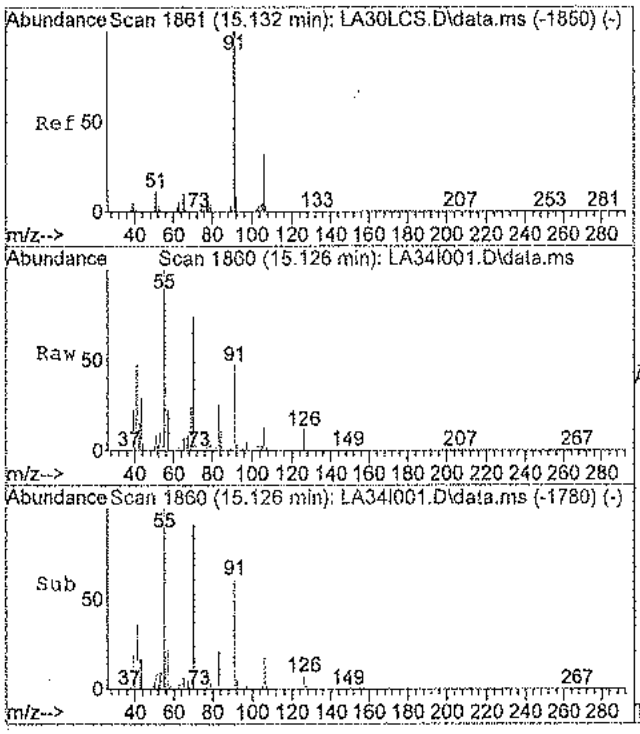


#45
Toluene
Concen: 1.21 ppb
RT: 12.87 min Scan# 1490
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:91.1 Resp: 432814

Ion	Ratio	Lower	Upper
91	100		
92	60.2	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

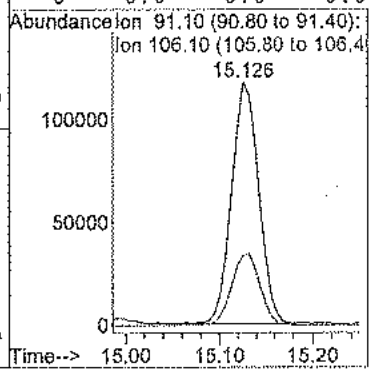


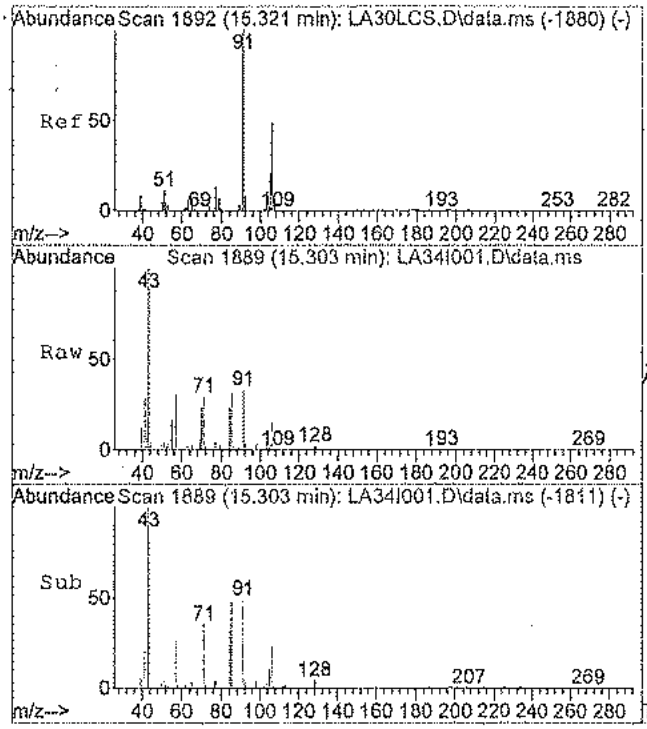


#52
Ethylbenzene
Concen: 0.52 ppb
RT: 15.13 min Scan# 1860
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:91.1 Resp: 237000

Ion	Ratio	Lower	Upper
91	100		
106	30.8	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

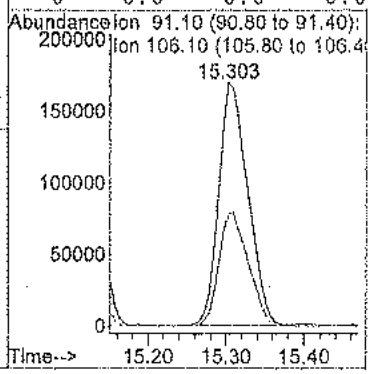


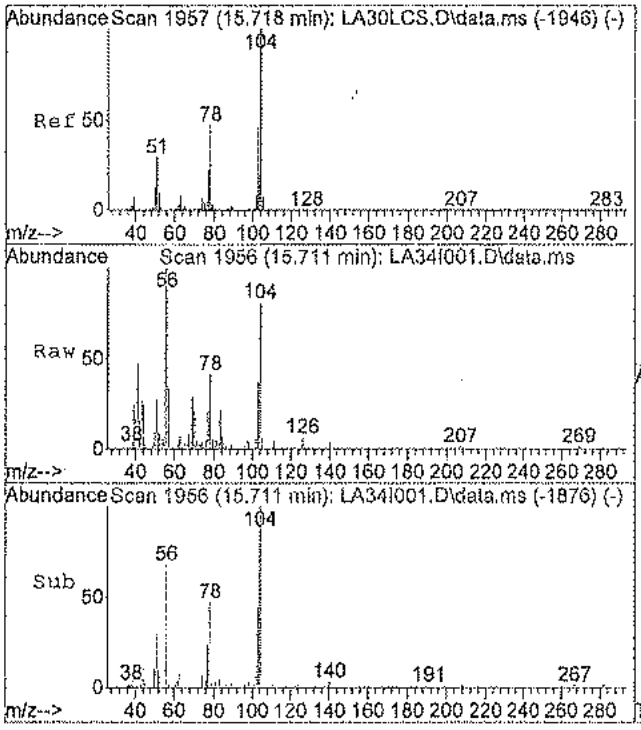


#53
m,p-Xylene
Concen: 1.25 ppb
RT: 15.30 min Scan# 1889
Delta R.T. -0.02 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:91.1 Resp: 439626

Ion	Ratio	Lower	Upper
91	100		
106	47.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

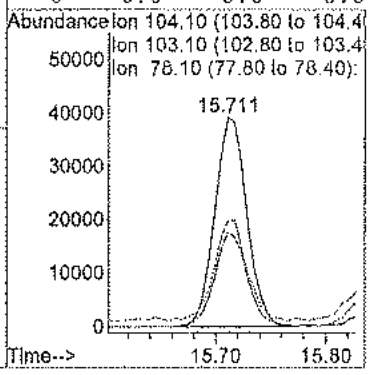


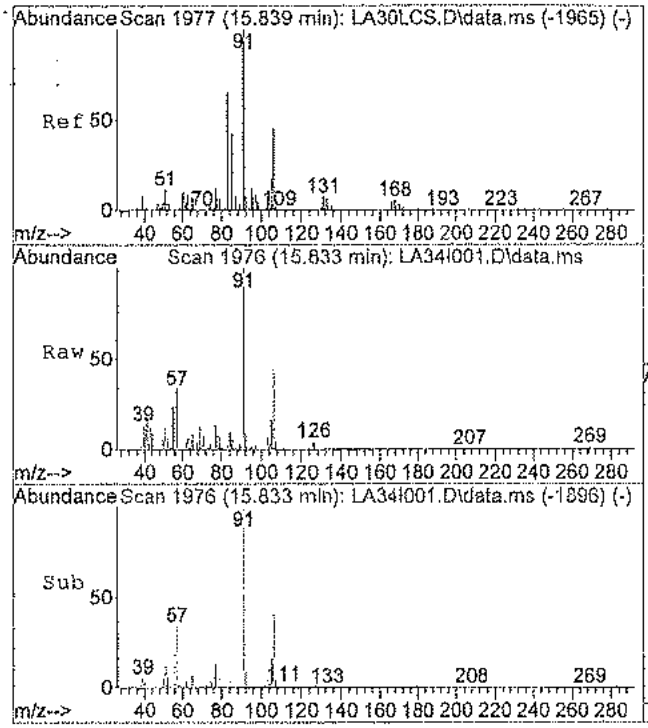


#55
Styrene
Concen: 0.31 ppb
RT: 15.71 min Scan# 1956
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:104.1 Resp: 80292

Ion	Ratio	Lower	Upper
104	100		
103	46.0	36.6	54.8
78	49.7	27.7	41.5#
0	0.0	0.0	0.0

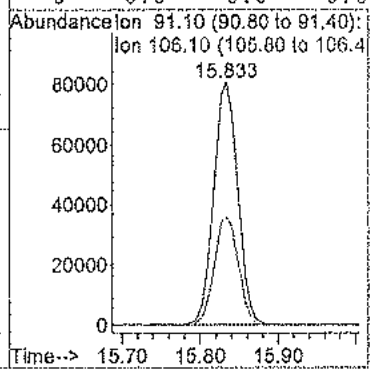


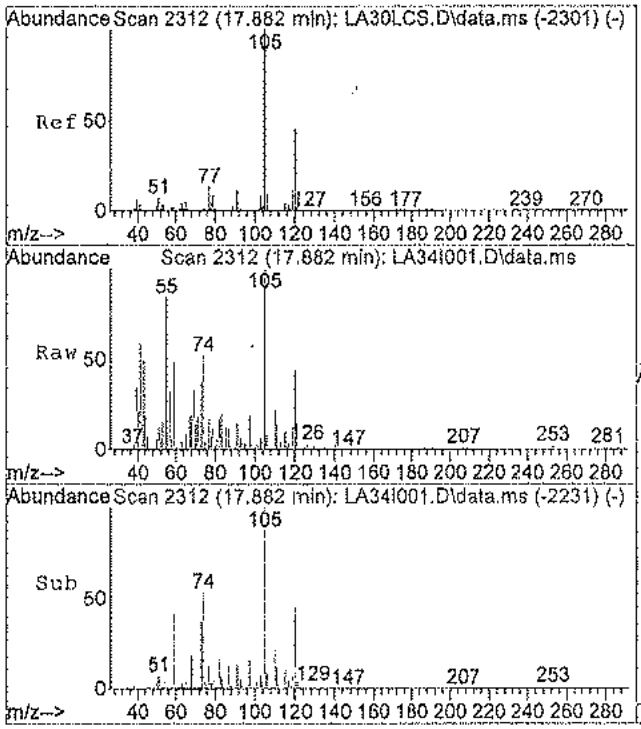


#57
o-Xylene
Concen: 0.47 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:91.1 Resp: 168525

Ion	Ratio	Lower	Upper
91	100		
106	45.1	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

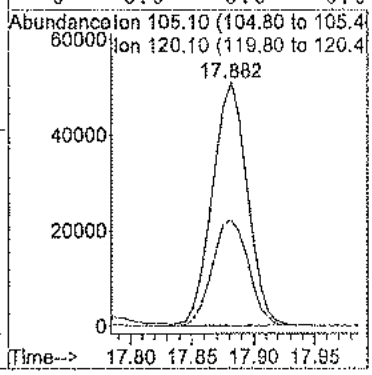




#61
1,2,4-Trimethylbenzene
Concen: 0.24 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA34I001.D
Acq: 04/15/2015 14:49

Tgt Ion:105.1 Resp: 99269

Ion	Ratio	Lower	Upper
105	100		
120	45.9	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



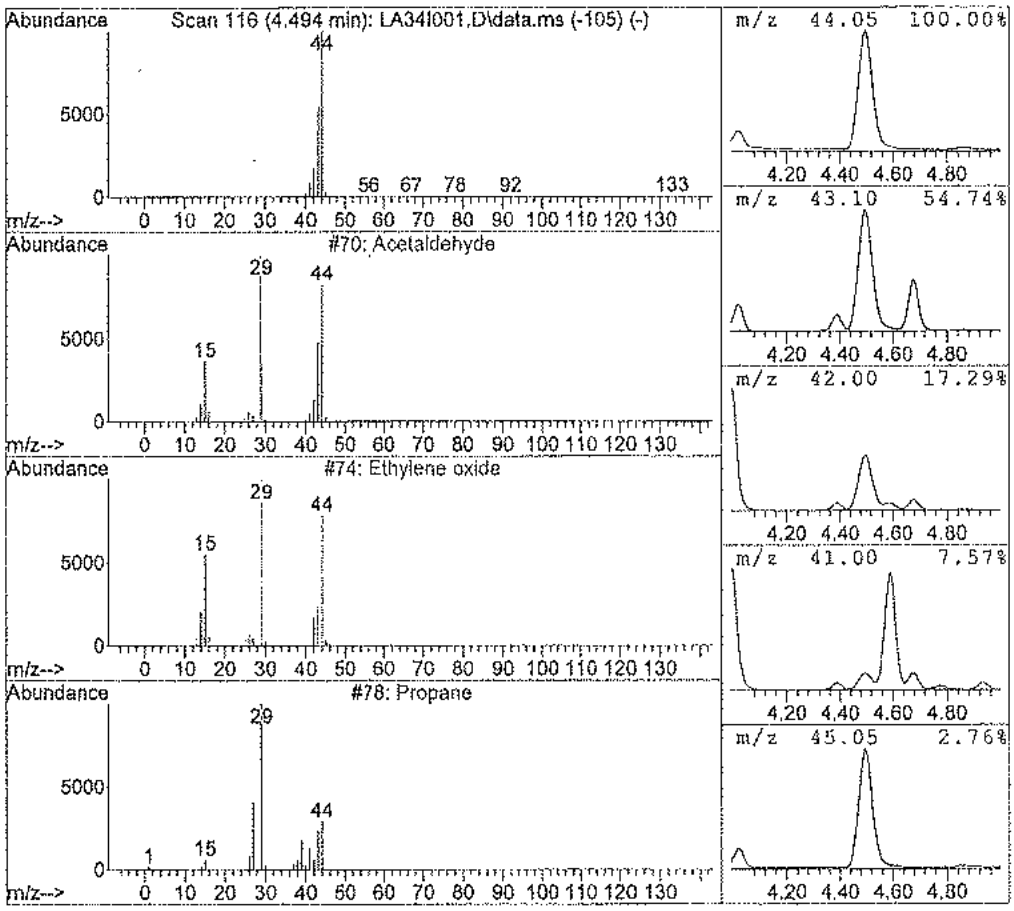
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.49	25.26 ppb	12739850	Bromochloromethane	10088640

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	70	000075-07-0	56.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	78	000074-98-6	4.00
4	1,2-Propanediamine	788	000078-90-0	4.00
5	Alanine	2136	000056-41-7	4.00



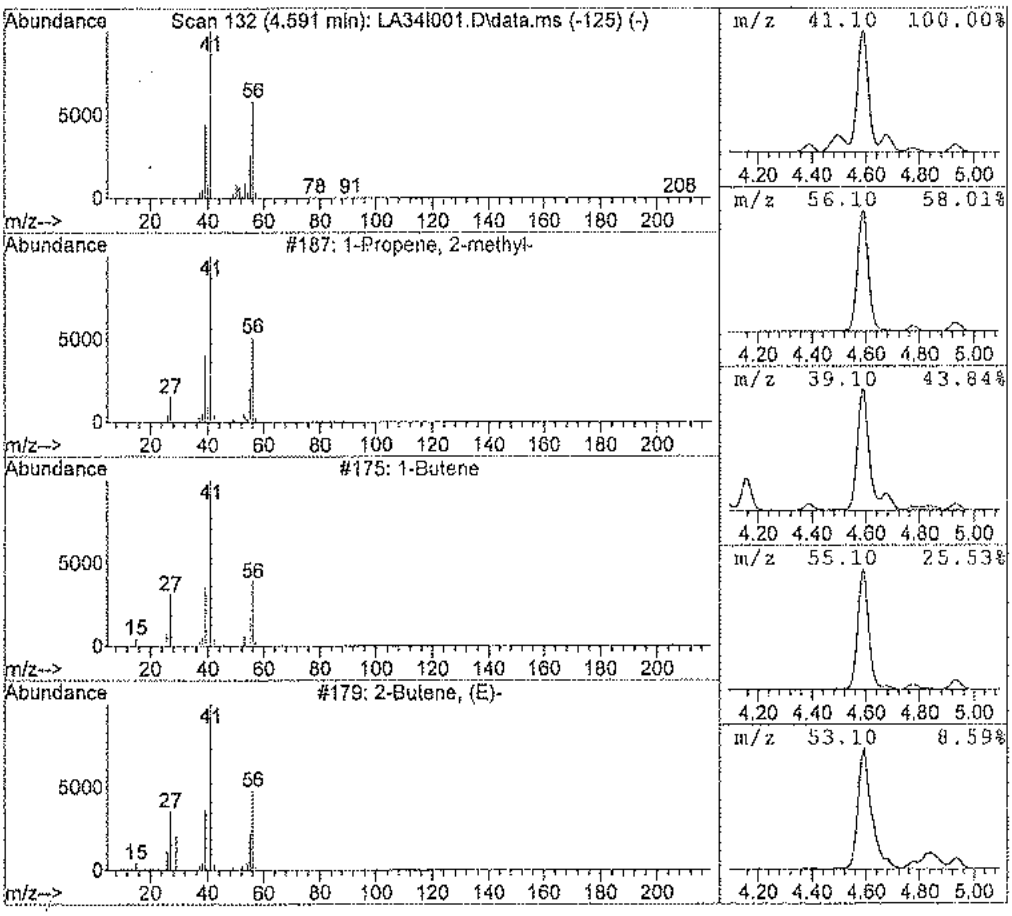
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.59	16.86 ppb	8506351	Bromochloromethane	10088640

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Propene, 2-methyl-	187	000115-11-7	90.00
2	1-Butene	175	000106-98-9	87.00
3	2-Butene, (E)-	179	000624-64-6	80.00
4	2-Butene	173	000107-01-7	80.00
5	2-Butene, (Z)-	183	000590-18-1	80.00



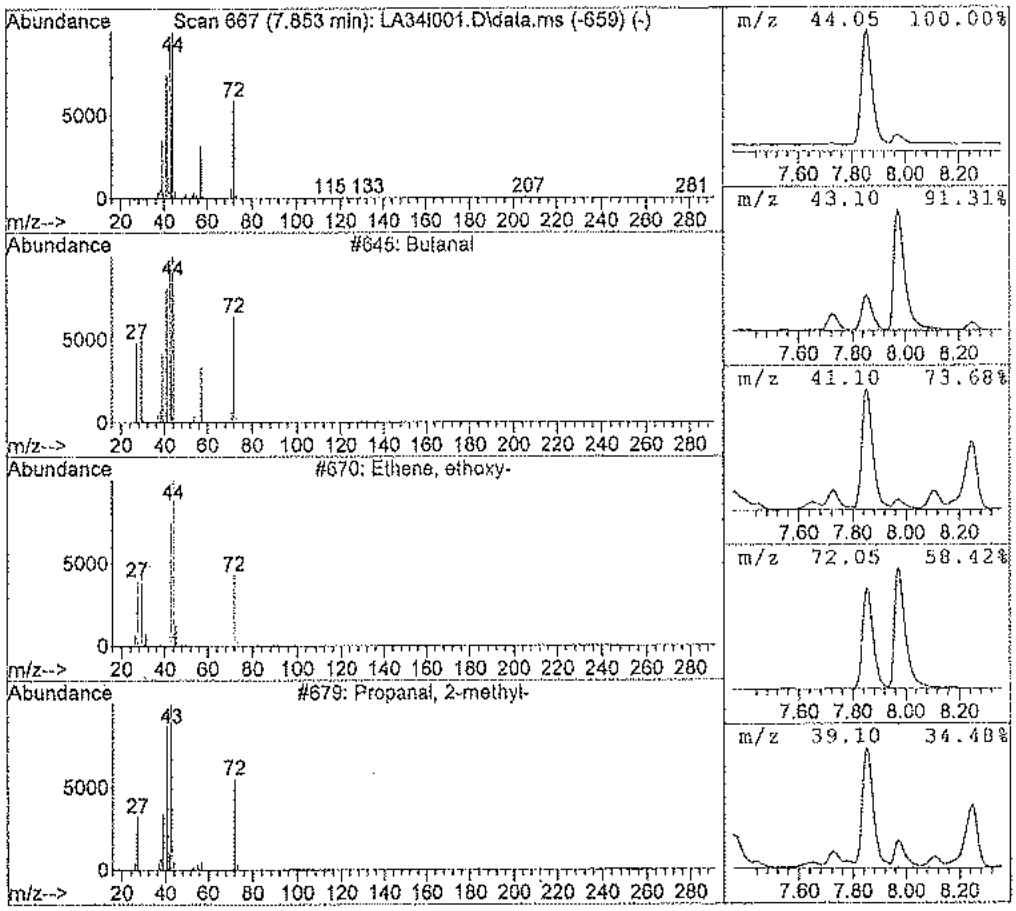
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.85	7.30 ppb	3682880	Bromochloromethane	10088640

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	~~Ethene~~, ethoxy-	670	000109-92-2	64.00
3	Propanal, 2-methyl-	679	000078-84-2	46.00
4	Pentanal	1695	000110-62-3	28.00
5	1-Propene, 3-methoxy-	688	000627-40-7	27.00



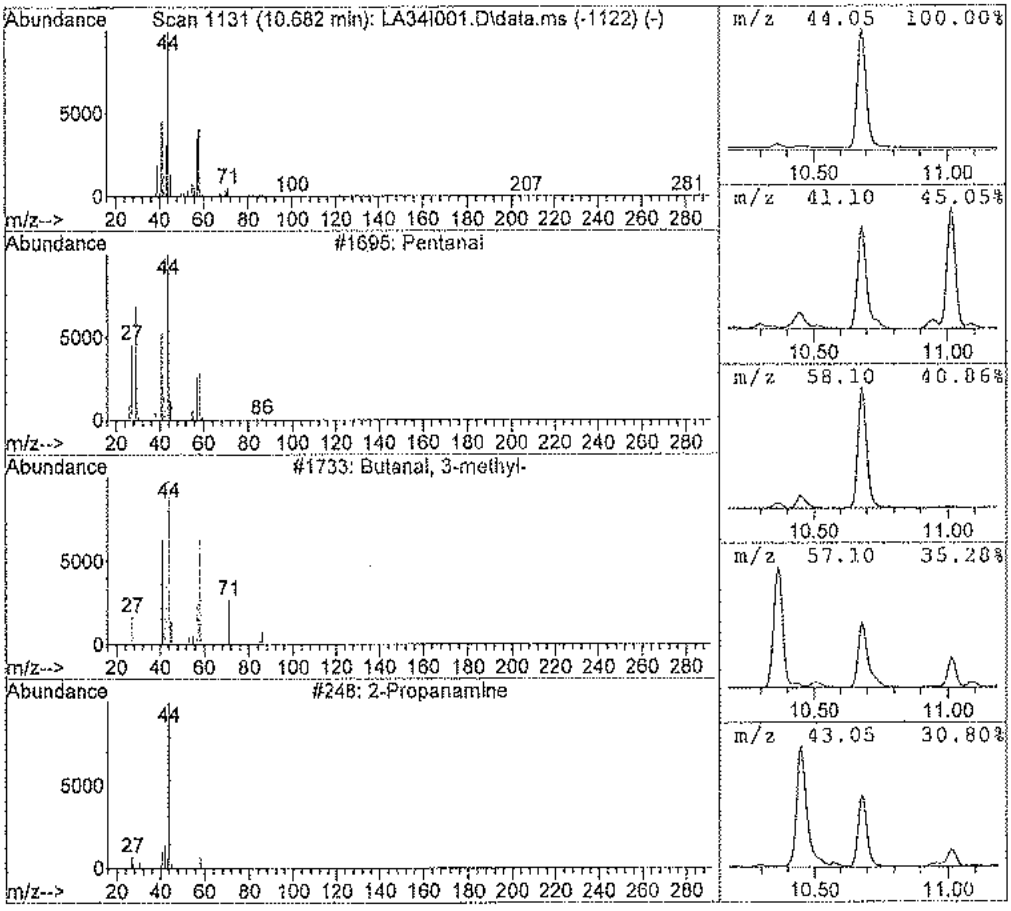
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.68	5.20 ppb	3732831	1,4-Difluorobenzene	14362313

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1695	000110-62-3	86.00
2	Butanal, 3-methyl-	1733	000590-86-3	53.00
3	2-Propanamine	248	000075-31-0	38.00
4	Cyclopropyl carbinol	686	002516-33-8	28.00
5	Hexanal	3742	000066-25-1	17.00

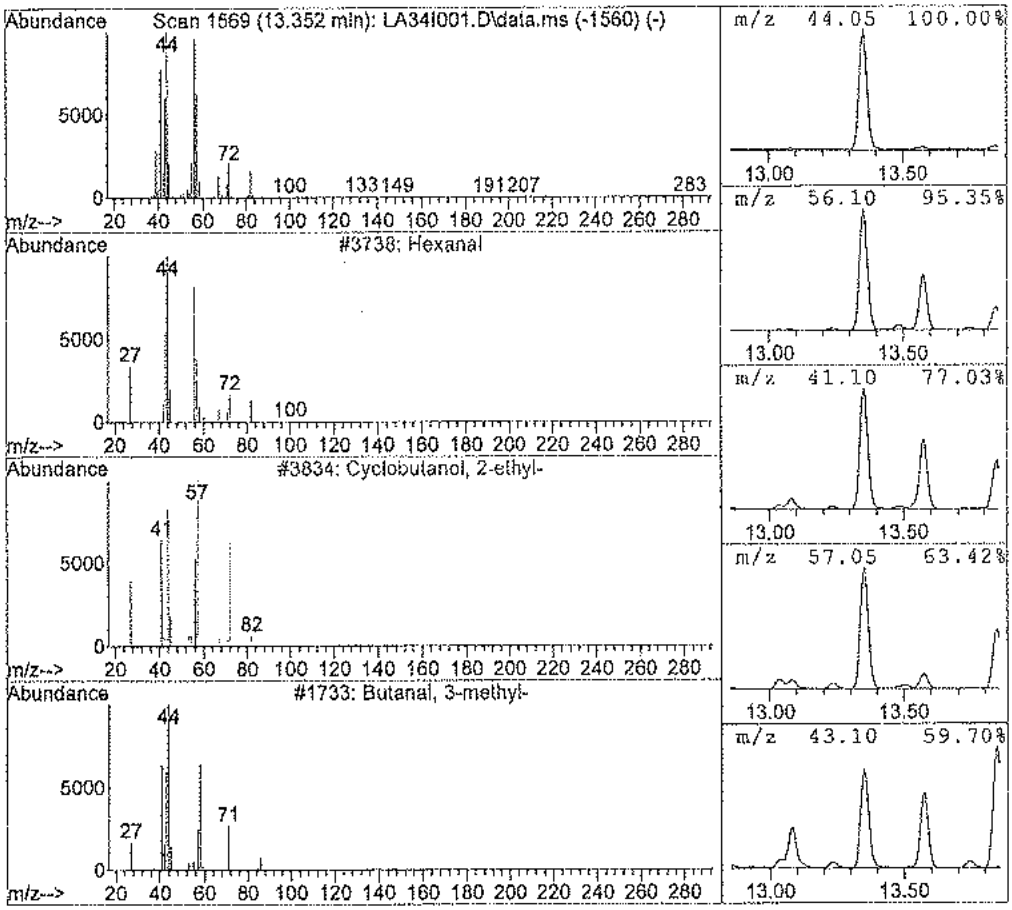


Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.35	9.68 ppb	8078553	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3738	000066-25-1	90.00
2	Cyclobutanol, 2-ethyl-	3834	035301-43-0	42.00
3	Butanal, 3-methyl-	1733	000590-86-3	32.00
4	Cyclobutane, ethyl-	1464	004806-61-5	27.00
5	Aziridine, 2-methyl-	204	000075-55-8	27.00



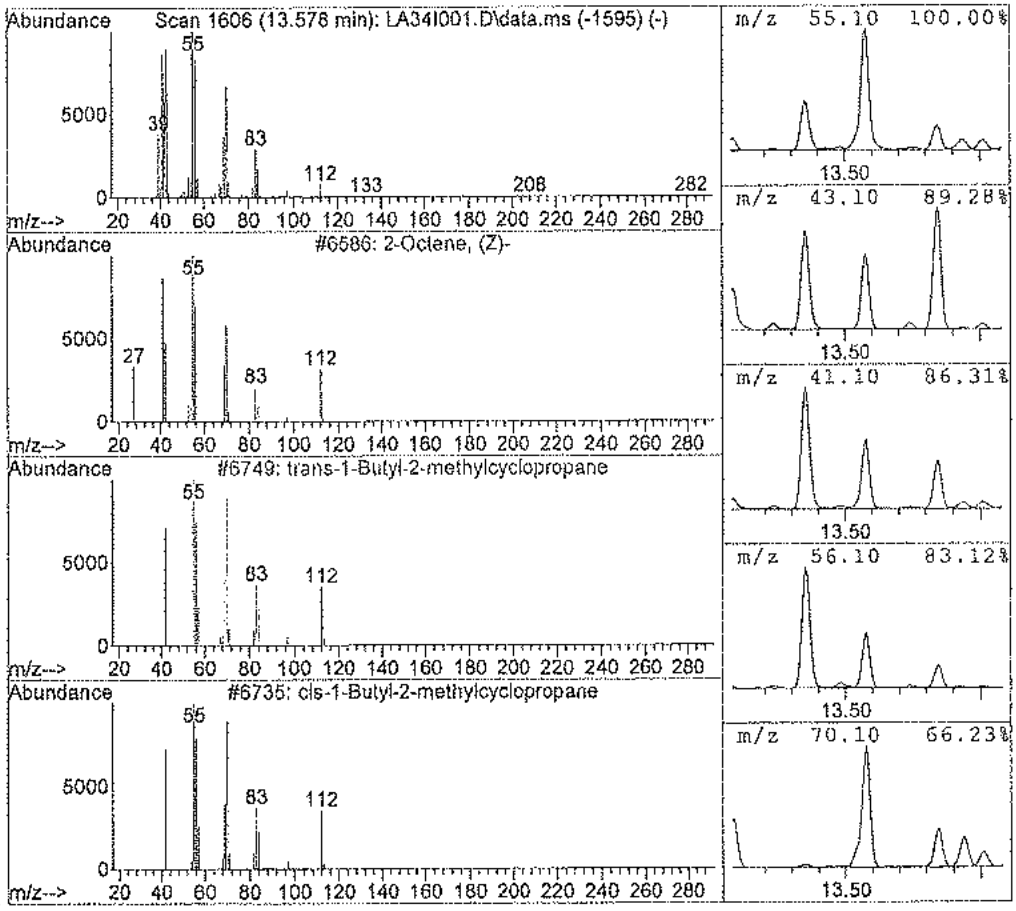
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.58	6.07 ppb	5066837	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Octene, (Z)-	6586	007642-04-8	91.00
2	trans-1-Butyl-2-methylcyclopropane	6749	038851-70-6	90.00
3	cis-1-Butyl-2-methylcyclopropane	6735	038851-69-3	90.00
4	1-Octene	6558	000111-66-0	86.00
5	2-Octene	6561	000111-67-1	78.00



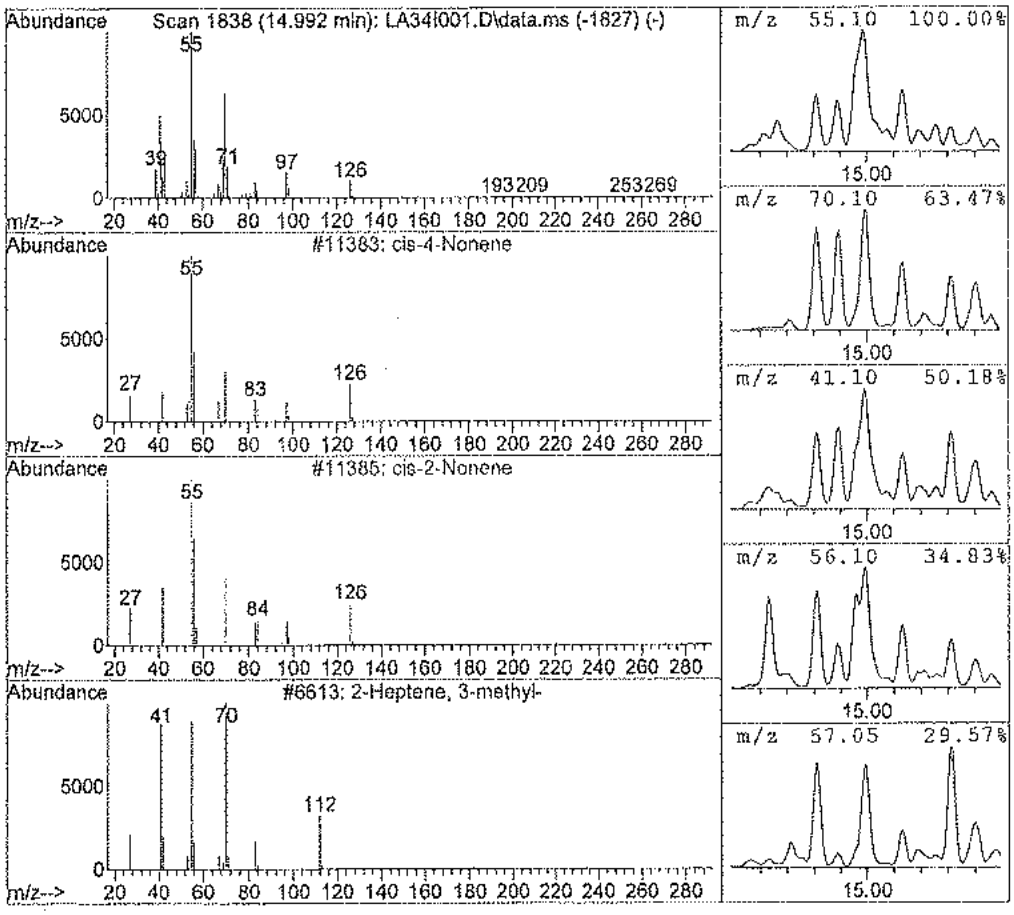
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.99	10.48 ppb	8748923	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	cis-4-Nonene	11383	010405-84-2	50.00
2	cis-2-Nonene	11385	006434-77-1	47.00
3	2-Heptene, 3-methyl-	6613	003404-75-9	47.00
4	Cyclopentane, 1,2-dimethyl-, cis-	3378	001192-18-3	47.00
5	Cyclopentane, 1,3-dimethyl-, cis-	3377	002532-58-3	47.00



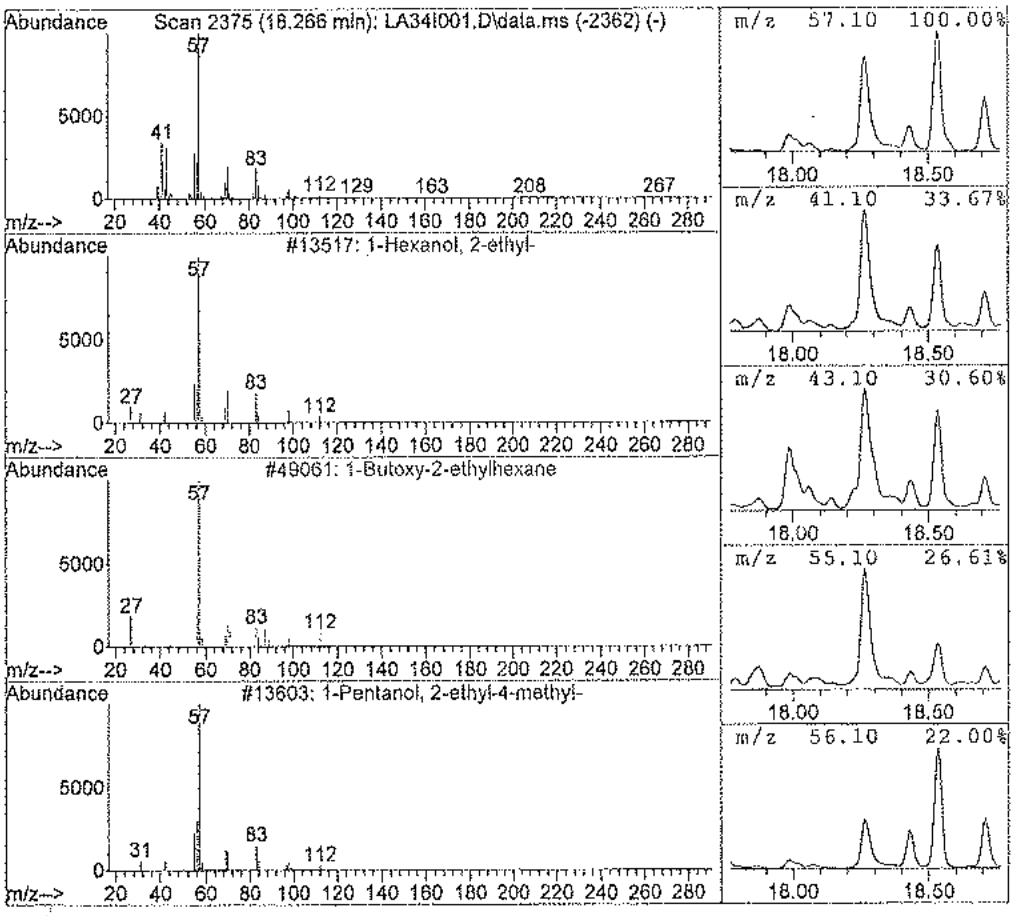
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.27	10.15 ppb	8468899	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13517	000104-76-7	78.00
2	1-Butoxy-2-ethylhexane	49061	062625-25-6	74.00
3	1-Pentanol, 2-ethyl-4-methyl-	13603	000106-67-2	74.00
4	Propanoic acid, 2,2-dimethyl-, 2-et	70225	016387-18-1	50.00
5	Carbonic acid, heptyl isobutyl este	71506	1000314-60-5	45.00



Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

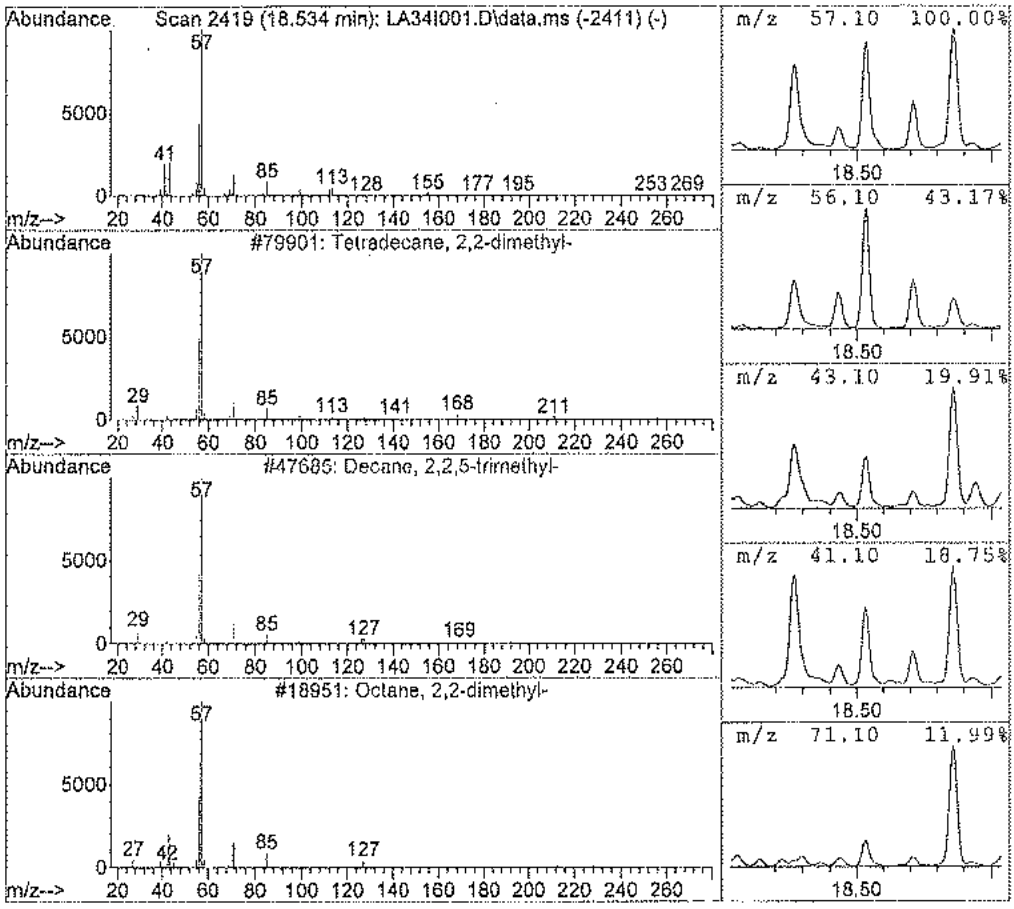
Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.53	7.15 ppb	5966492	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	~~Tetradecane, 2,2-dimethyl-~~	79901	059222-86-5	78.00
2	Decane, 2,2,5-trimethyl-	47685	062237-96-1	78.00
3	Octane, 2,2-dimethyl-	18951	015869-87-1	72.00
4	Decane, 2,2,4-trimethyl-	47682	062237-98-3	72.00
5	Octane, 2,2,6-trimethyl-	27938	062016-28-8	72.00

L-04-1675

C10H22



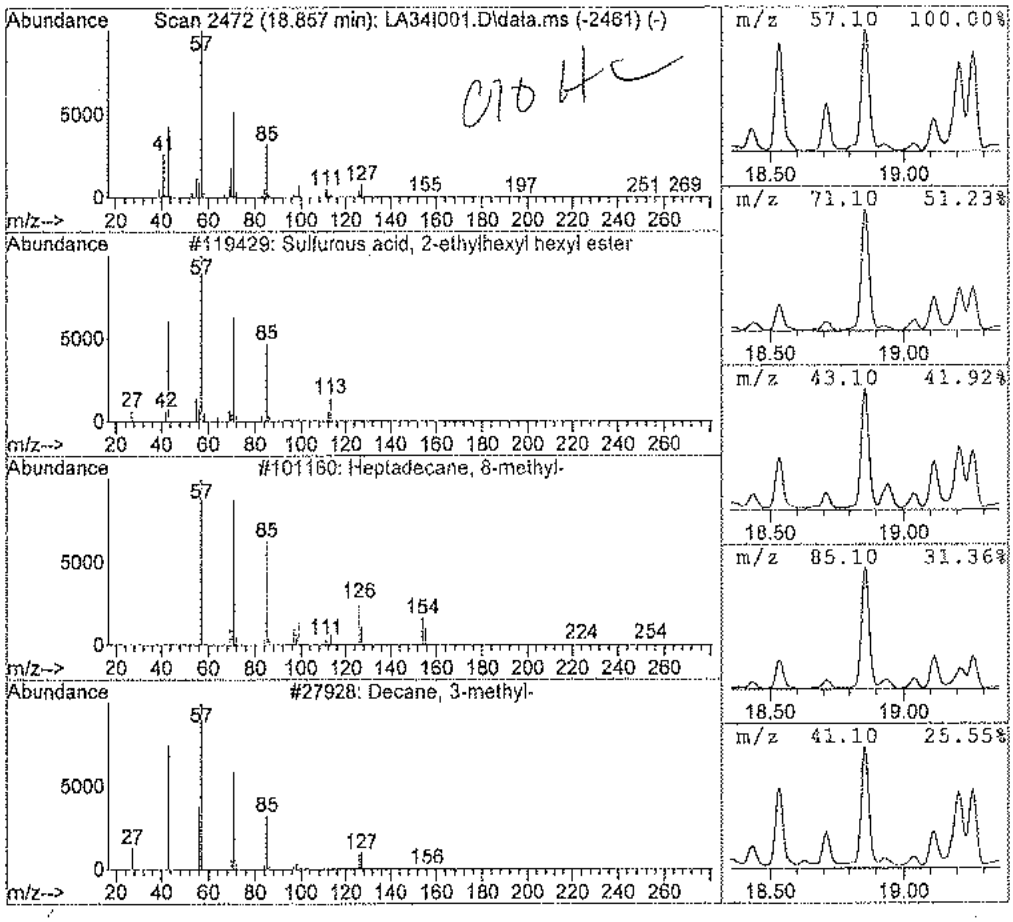
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.86	11.73 ppb	9793025	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Sulfurous acid, 2-ethylhexyl hexyl	119429	1000309-20-2	64.00
2	Heptadecane, 8-methyl-	101160	013287-23-5	64.00
3	Decane, 3-methyl-	27928	013151-34-3	59.00
4	Undecane, 4,6-dimethyl-	47655	017312-82-2	59.00
5	Undecane, 3,8-dimethyl-	47656	017301-30-3	59.00



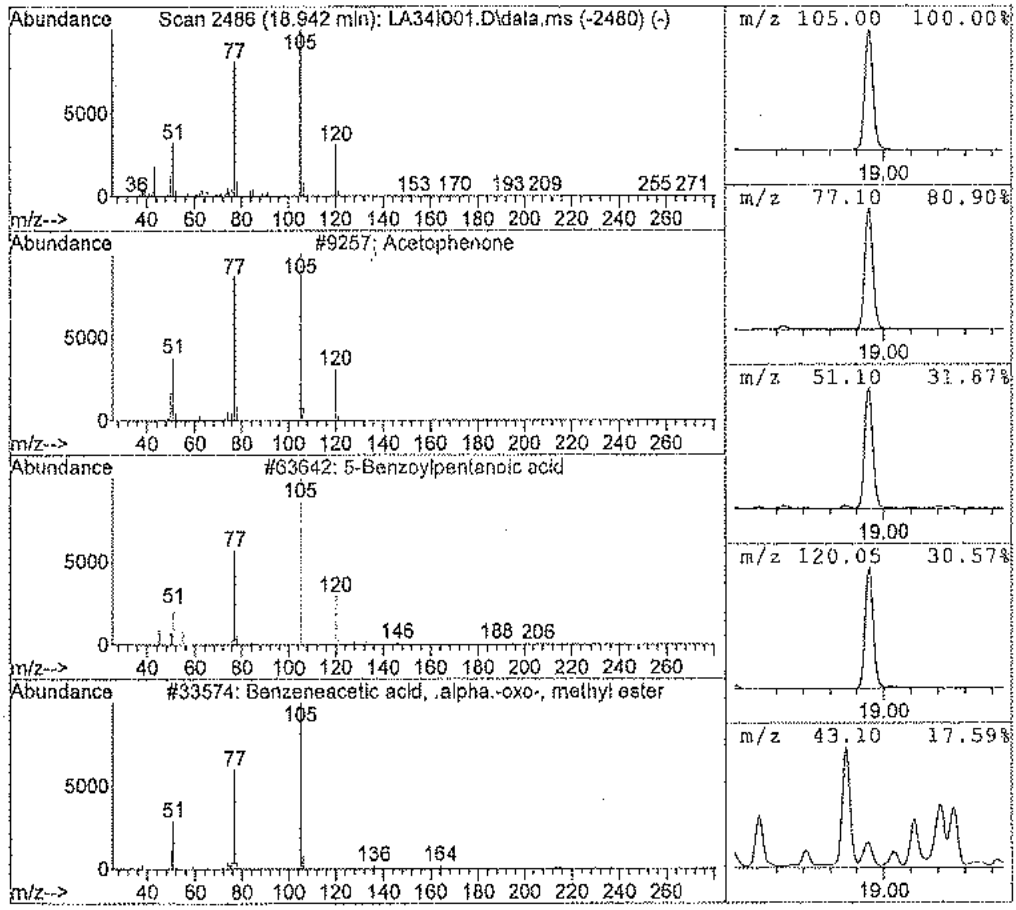
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.94	5.15 ppb	4301235	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetophenone	9257	000098-86-2	97.00
2	5-Benzoylpentanoic acid	63642	004144-62-1	83.00
3	Benzeneacetic acid, .alpha.-oxo-, m	33574	015206-55-0	72.00
4	Vinyl benzoate	22880	000769-78-8	72.00
5	Benzoylformic acid	23970	000611-73-4	72.00



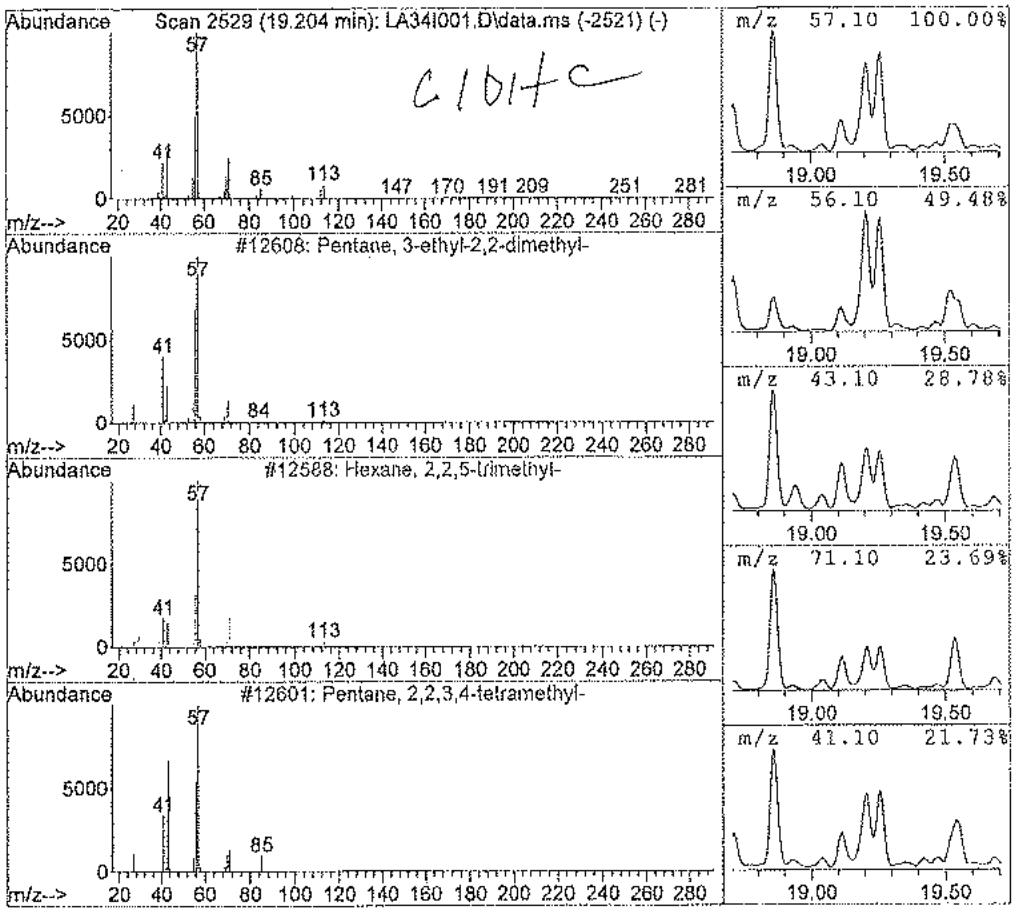
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.20	8.33 ppb	6952376	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-ethyl-2,2-dimethyl-	12608	016747-32-3	72.00
2	Hexane, 2,2,5-trimethyl-	12588	003522-94-9	64.00
3	Pentane, 2,2,3,4-tetramethyl-	12601	001186-53-4	59.00
4	Heptane, 2,5-dimethyl-	12550	002216-30-0	52.00
5	2,2,6,6-Tetramethylheptane	27943	040117-45-1	47.00

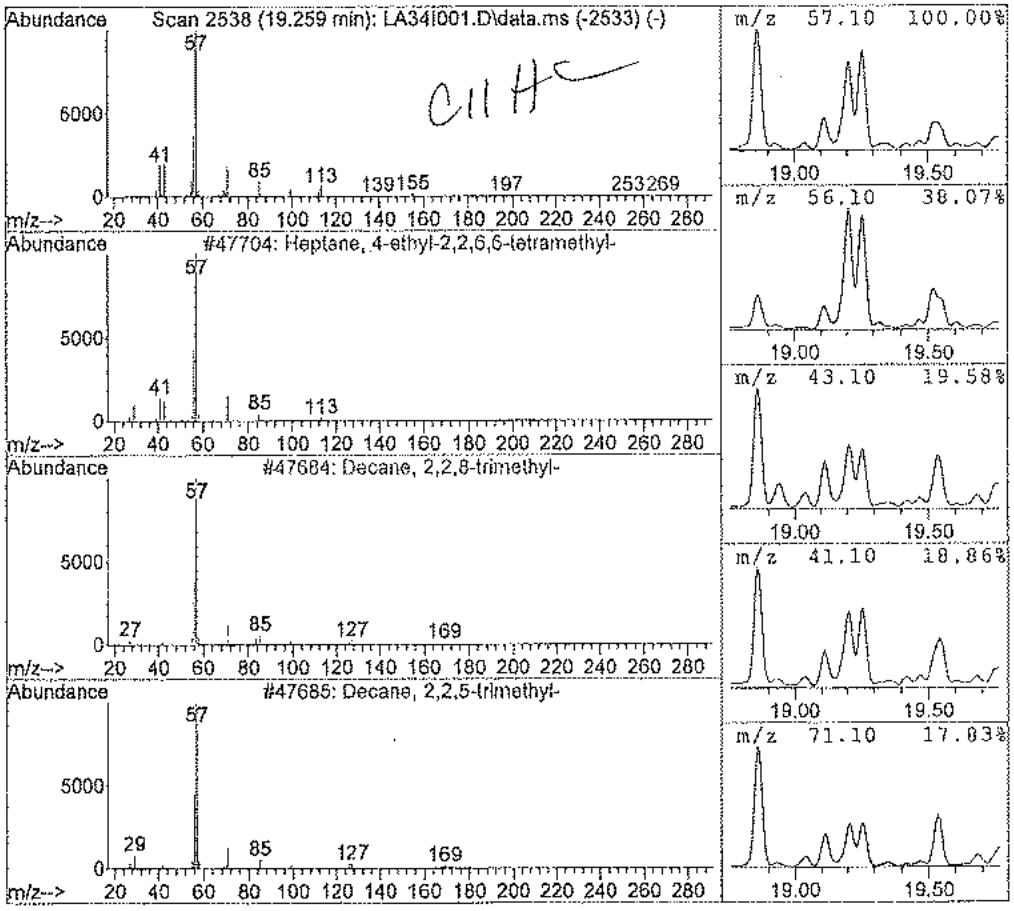


Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.26	7.52 ppb	6273844	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 4-ethyl-2,2,6,6-tetramethy	47704	062108-31-0	78.00
2	Decane, 2,2,8-trimethyl-	47684	062238-01-1	78.00
3	Decane, 2,2,5-trimethyl-	47685	062237-96-1	78.00
4	Tetradecane, 2,2-dimethyl-	79901	059222-86-5	64.00
5	Hexane, 2,2,4-trimethyl-	12574	016747-26-5	64.00



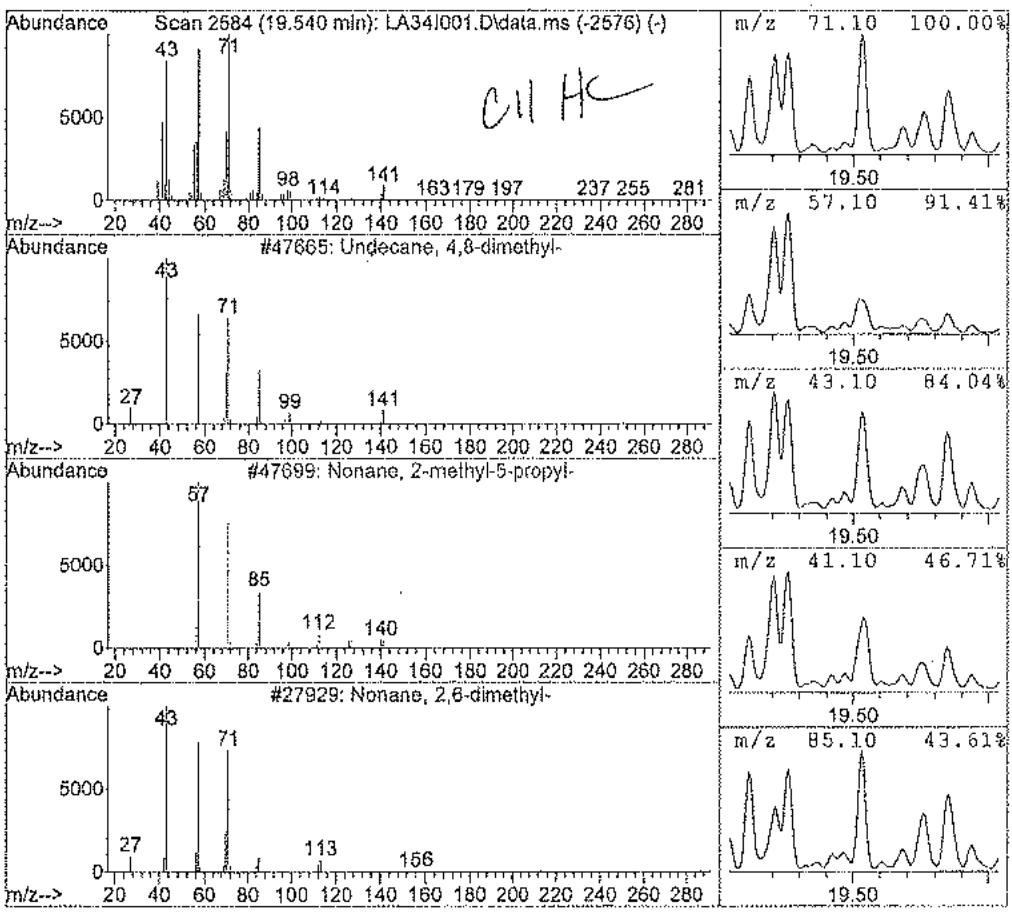
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.54	5.76 ppb	4806830	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane, 4,8-dimethyl-	47665	017301-33-6	64.00
2	Nonane, 2-methyl-5-propyl-	47699	031081-17-1	59.00
3	Nonane, 2,6-dimethyl-	27929	017302-28-2	53.00
4	Nonane, 1-iodo-	101292	004282-42-2	50.00
5	2-Bromononane	64382	002216-35-5	50.00



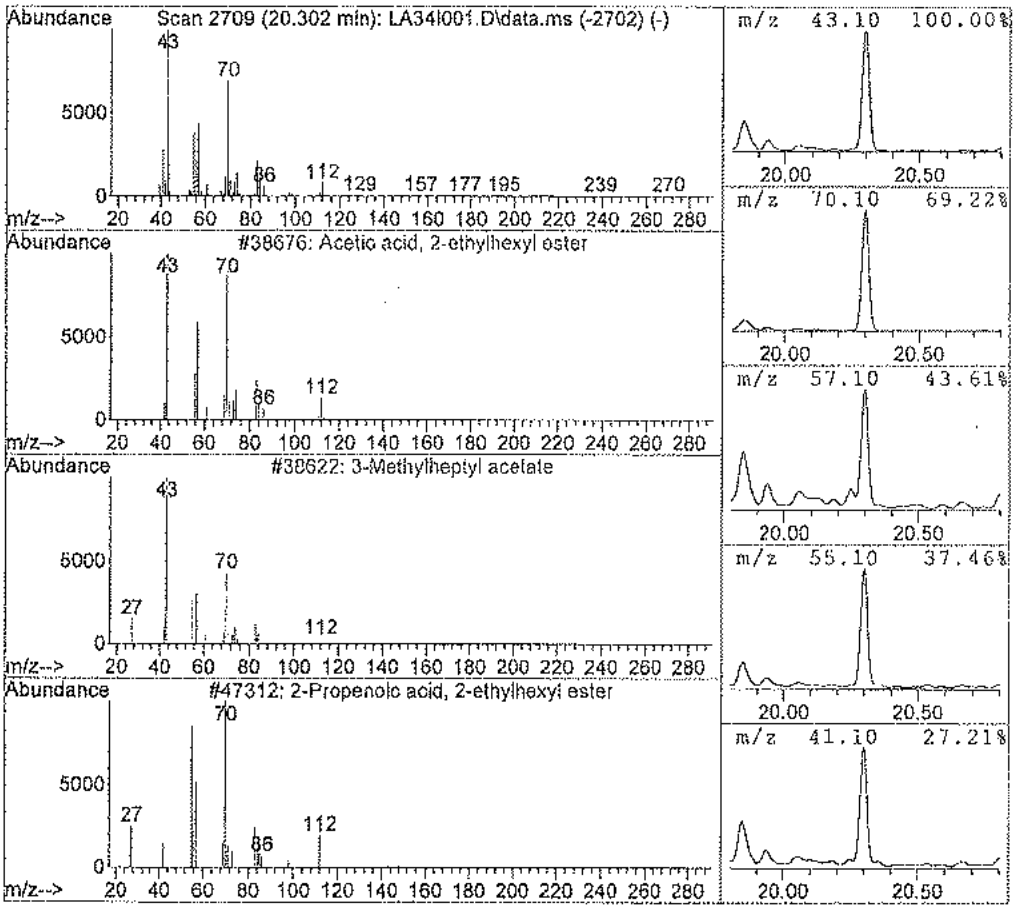
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA34I001.D Vial: 2
Acq Time : 04/15/2015 14:49 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.30	8.27 ppb	6905269	Chlorobenzene d5	16694960

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, 2-ethylhexyl ester	38676	000103-09-3	91.00
2	3-Methylheptyl acetate	38622	072218-58-7	90.00
3	2-Propenoic acid, 2-ethylhexyl este	47312	000103-11-7	72.00
4	Cyclopentane, 1,2,3-trimethyl-, (1.	6770	002613-69-6	64.00
5	Octane, 2-chloro-	22788	000628-61-5	53.00

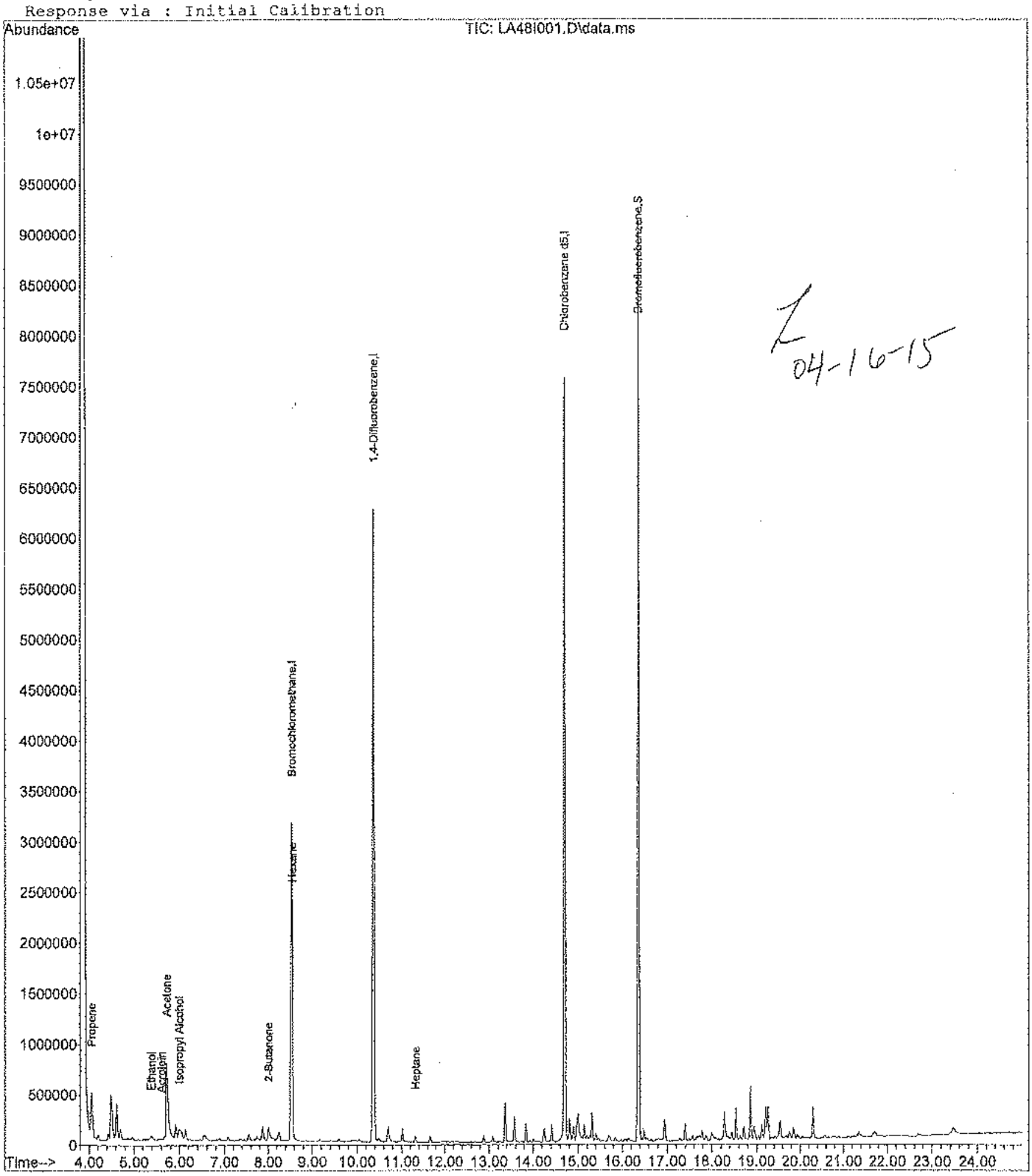


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA48I001.D Vial: 2
Acq Time : 04/16/2015 09:13 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 09:51:24 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA48I001.D Vial: 2
Acq Time : 04/16/2015 09:13 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 09:51:24 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	535232	20.0000 ppb	110.20
25) 1,4-Difluorobenzene	10.36	114	6169882	20.0000 ppb	101.70
50) Chlorobenzene d5	14.70	117	5244589	20.0000 ppb	101.54
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.36	95	4152550	19.8817 ppb	99.41%
Target Compounds					Qvalue
2) Propene	4.05	41	318211	4.1957 ppb	95
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.60	56	9813	0.2292 ppb #	94
11) Acetone	5.71	43	1515355	8.5635 ppb #	86
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.37	45	44288	1.2517 ppb #	88
14) Isopropyl Alcohol	5.99	45	297315	0.9903 ppb	97
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.01	43	282526	1.2574 ppb #	73
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.55	57	50356	0.2917 ppb #	86
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.32	71	17095	0.1615 ppb #	47
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA48I001.D Vial: 2
Acq Time : 04/16/2015 09:13 Operator: TJM
Sample : 1510353001 Inst : 5975-L
Misc : SG-001-4 0137 1:10DIL (20mL) Multipir: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 09:51:24 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

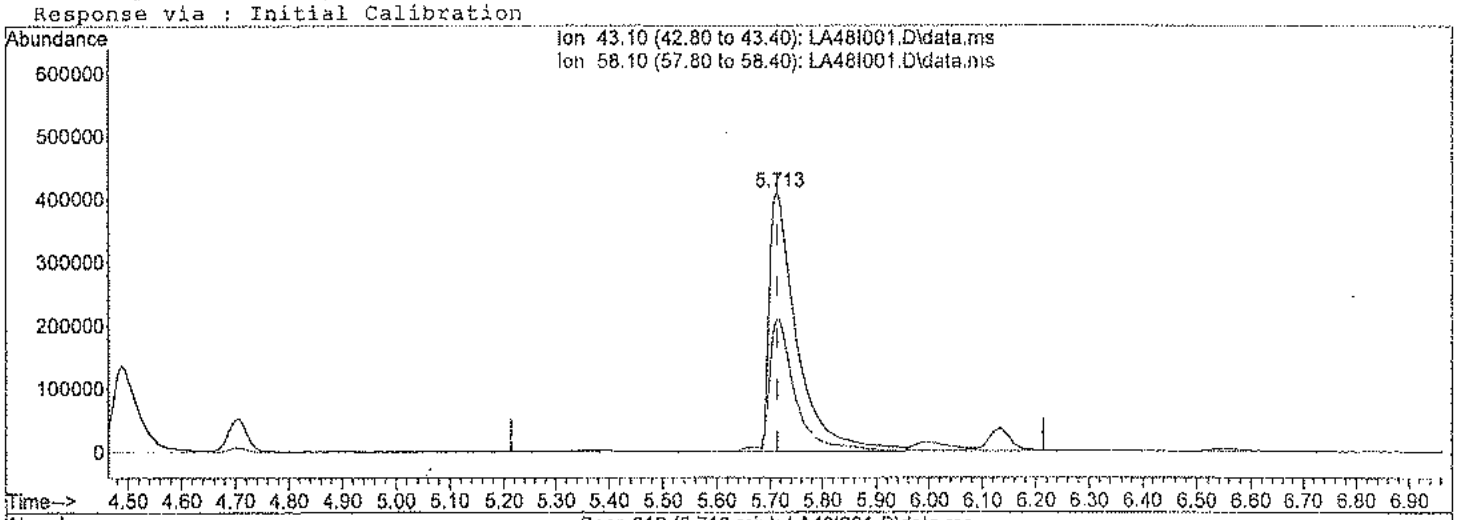
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

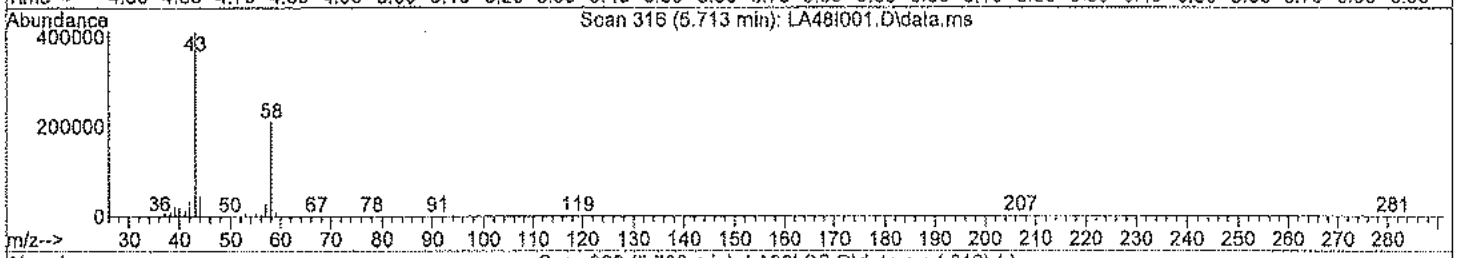
(#) = qualifier out of range (m) = manual integration

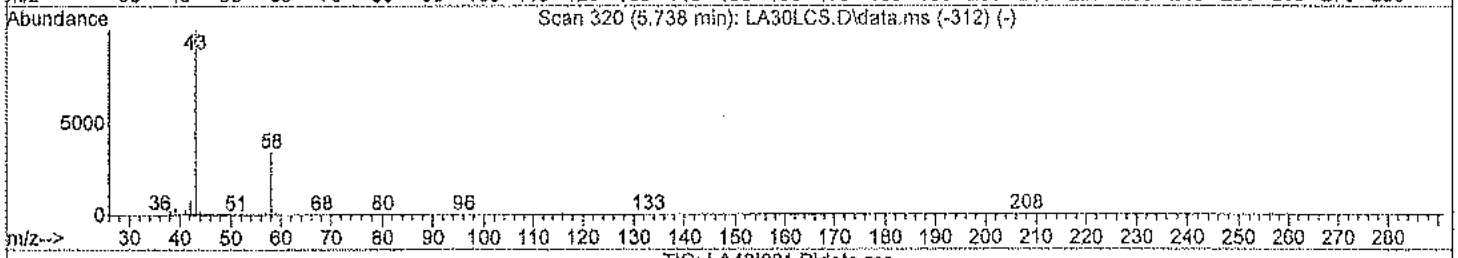
Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA48I001.D
Acq On : 04/16/2015 09:13
Operator : TJM
Sample : 1510353001
Inst : 5975-L
Misc : SG-001-4 0137 1:10DIL (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 16 09:51:24 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration







TIC: LA48I001.D\data.ms

(11) Acetone

5.713min (-0.000) 8.56 ppb

response 1515355

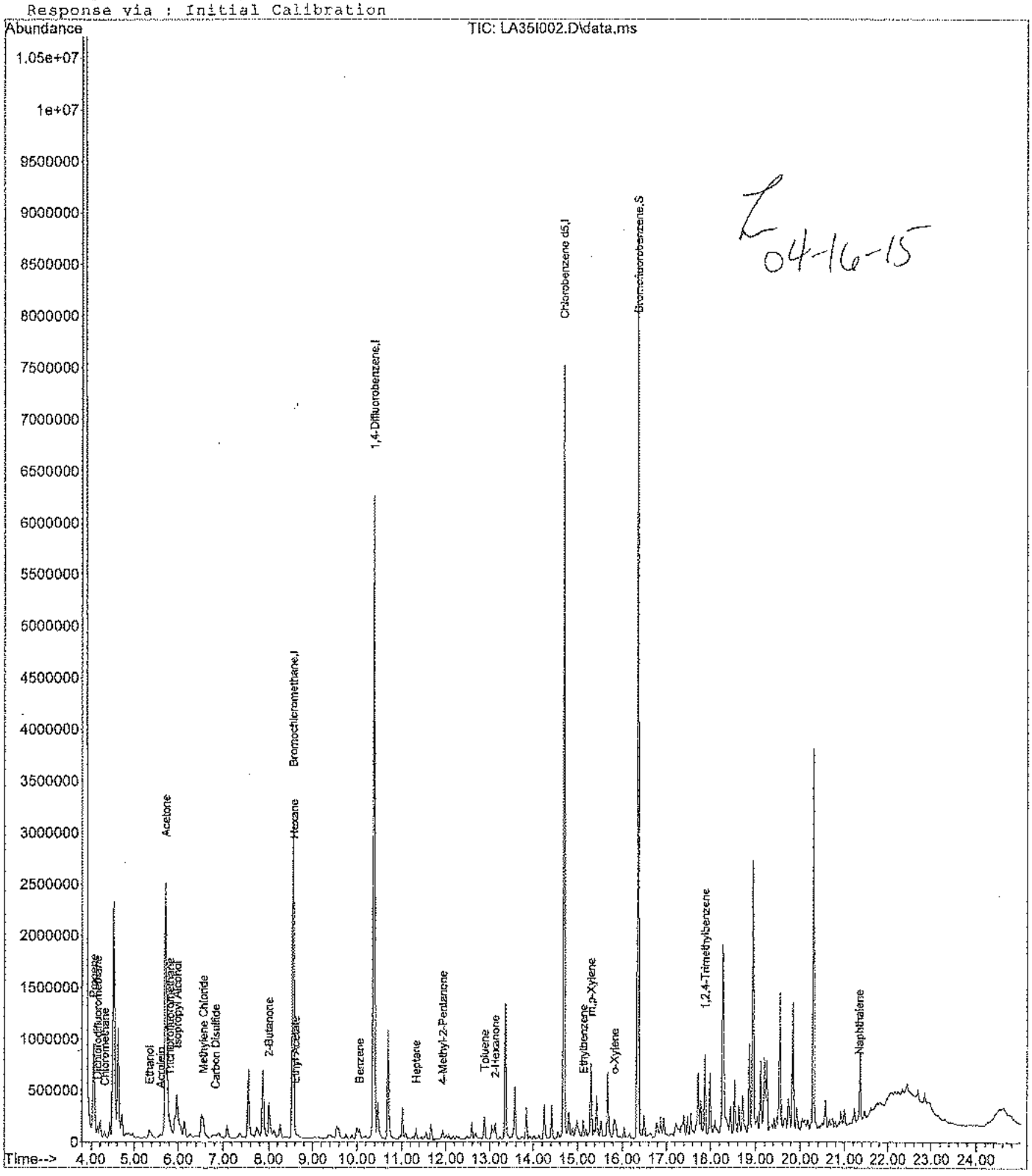
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	47.06#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:28:51 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:28:51 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.55	130	525760	20.0000 ppb		108.25
25) 1,4-Difluorobenzene	10.37	114	6090379	20.0000 ppb		100.39
50) Chlorobenzene d5	14.69	117	5134353	20.0000 ppb		99.40
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.35	95	4084922	19.9778 ppb		99.89%
Target Compounds						Qvalue
2) Propene	4.05	41	637923	8.5627 ppb		94 TIC
3) Dichlorodifluoromethane	4.14	85	126164	0.4963 ppb		99
4) Chloromethane	4.30	50	71206	0.6560 ppb		100
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	5.61	56	47096	1.1197 ppb		95 TIC 4/10 Ca
11) Acetone	5.71	43	4906087	28.2246 ppb	#	87
12) Trichlorofluoromethane	5.82	101	60357	0.2201 ppb		98
13) Ethanol	5.35	45	172800	4.9719 ppb	#	77 TIC
14) Isopropyl Alcohol	5.97	45	1027854	3.4851 ppb		98 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	6.55	84	17062	0.1918 ppb	#	50
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	6.82	76	59855	0.2198 ppb	#	64
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	7.99	43	694694	3.1475 ppb	#	73
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	8.61	61	5563	0.1560 ppb	#	1
27) Hexane	8.57	57	65006	0.3815 ppb	#	81
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	10.06	78	81477	0.2712 ppb	#	92
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	0.00	130		Not Detected		
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	11.32	71	26808	0.2566 ppb	#	39
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	11.93	43	87395	0.3515 ppb	#	74
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	12.88	91	174813	0.4794 ppb		98
46) 2-Hexanone	13.12	43	123381	0.5352 ppb	#	81
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	0.00	166		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

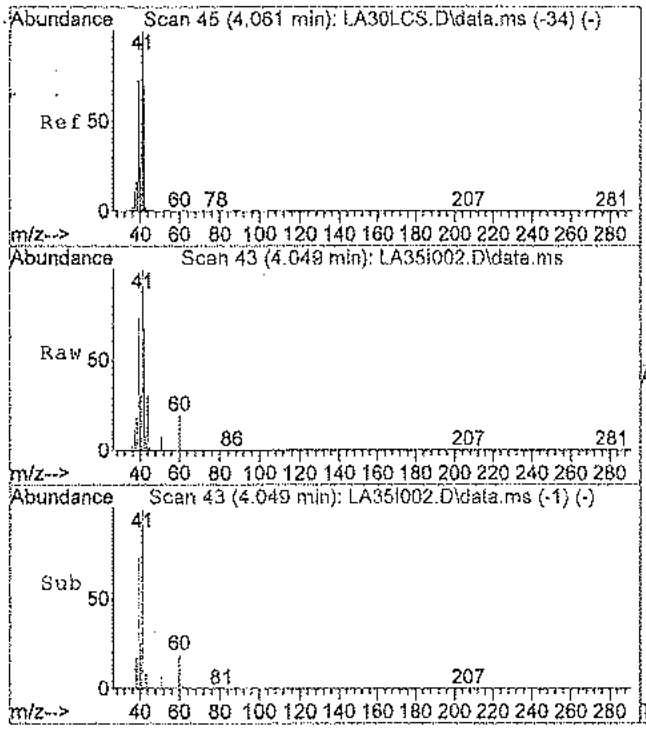
Quant Time: Apr 16 15:28:51 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	89053	0.1883 ppb	92
53) m,p-Xylene	15.31	91	226408	0.6209 ppb	89
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.83	91	88016	0.2371 ppb	90
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.88	105	115966	0.2709 ppb	90
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	21.33	128	57230	0.1560 ppb #	88
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

TK 40%

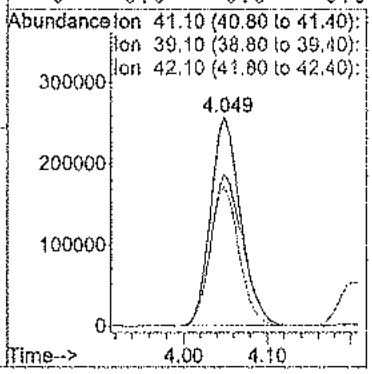
(#) = qualifier out of range (m) = manual integration

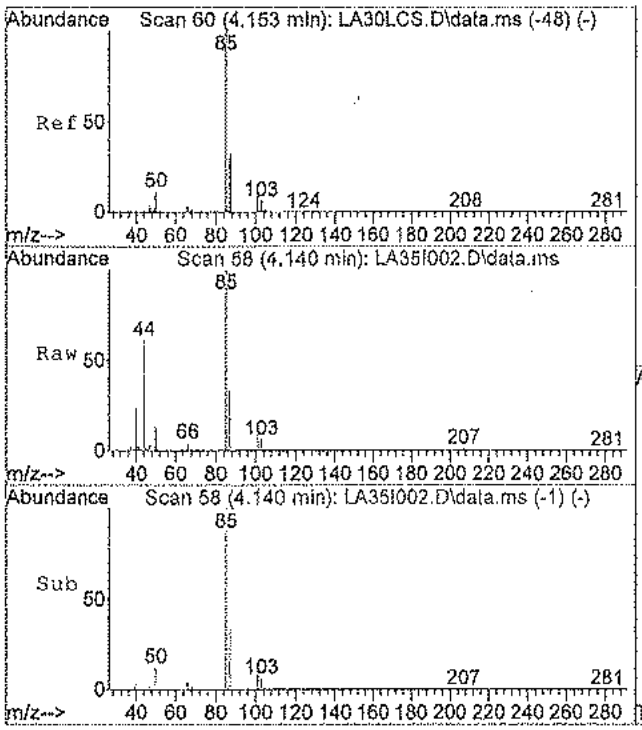


#2
Propene
Concen: 8.56 ppb
RT: 4.05 min Scan# 43
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:41.1 Resp: 637923

Ion	Ratio	Lower	Upper
41	100		
39	77.6	56.2	84.4
42	64.9	53.8	80.6
0	0.0	0.0	0.0

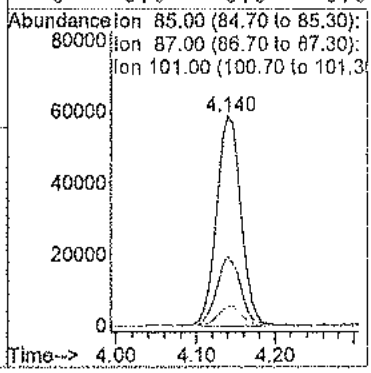


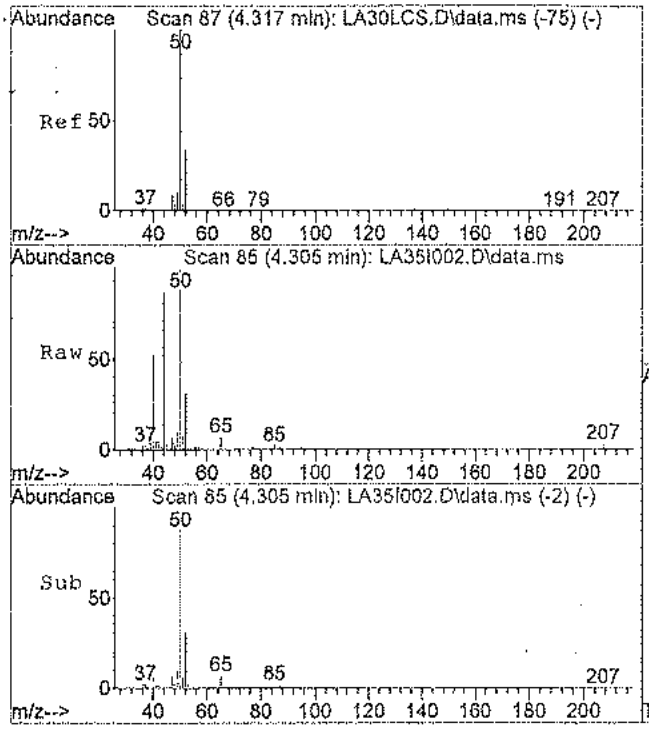


#3
Dichlorodifluoromethane
Concen: 0.50 ppb
RT: 4.14 min Scan# 58
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:85 Resp: 126164

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.1	39.1
101	8.8	8.0	12.0
0	0.0	0.0	0.0

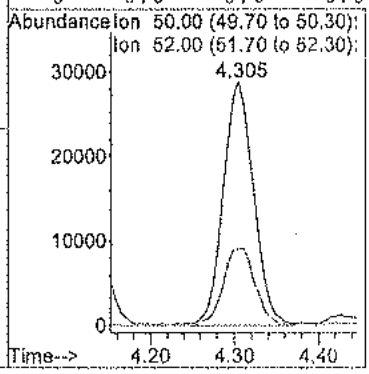


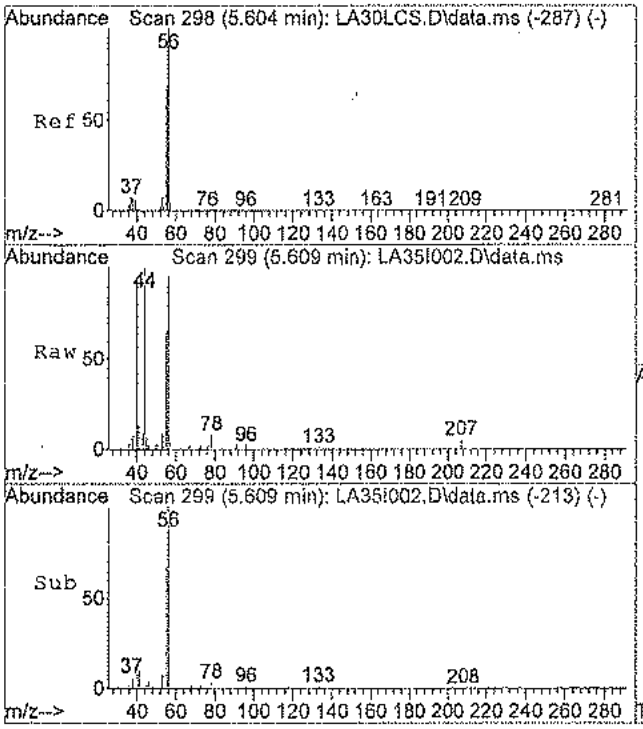


#4
Chloromethane
Concen: 0.66 ppb
RT: 4.30 min Scan# 85
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:50 Resp: 71206

Ion	Ratio	Lower	Upper
50	100		
52	33.1	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

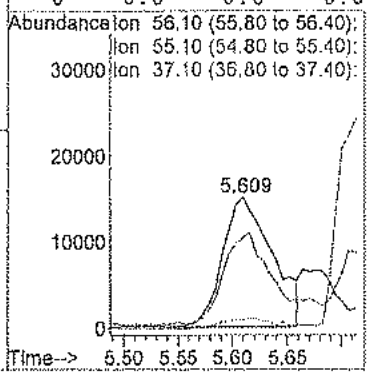


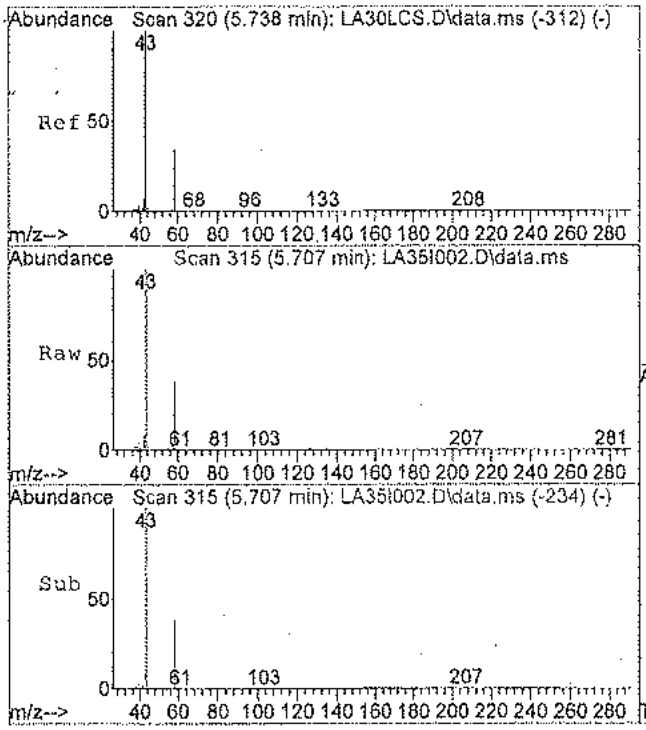


#10
Acrolein
Concen: 1.12 ppb
RT: 5.61 min Scan# 299
Delta R.T. 0.02 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:56.1 Resp: 47096

Ion	Ratio	Lower	Upper
56	100		
55	72.8	55.1	82.7
37	8.2	7.9	11.9
0	0.0	0.0	0.0

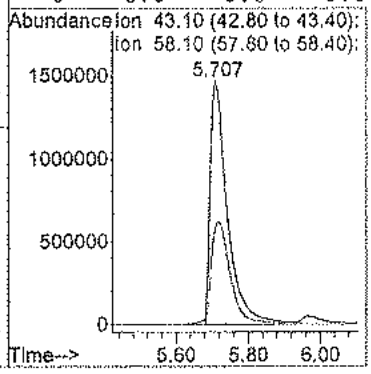


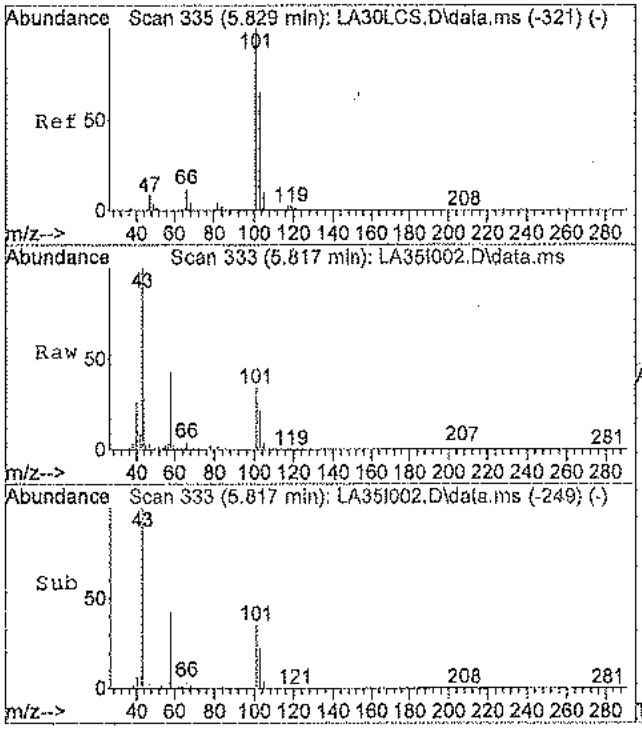


#11
Acetone
Concen: 28.22 ppb
RT: 5.71 min Scan# 315
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:43.1 Resp: 4906087

Ion	Ratio	Lower	Upper
43	100		
58	46.2	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

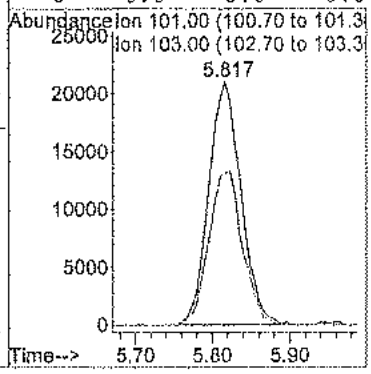


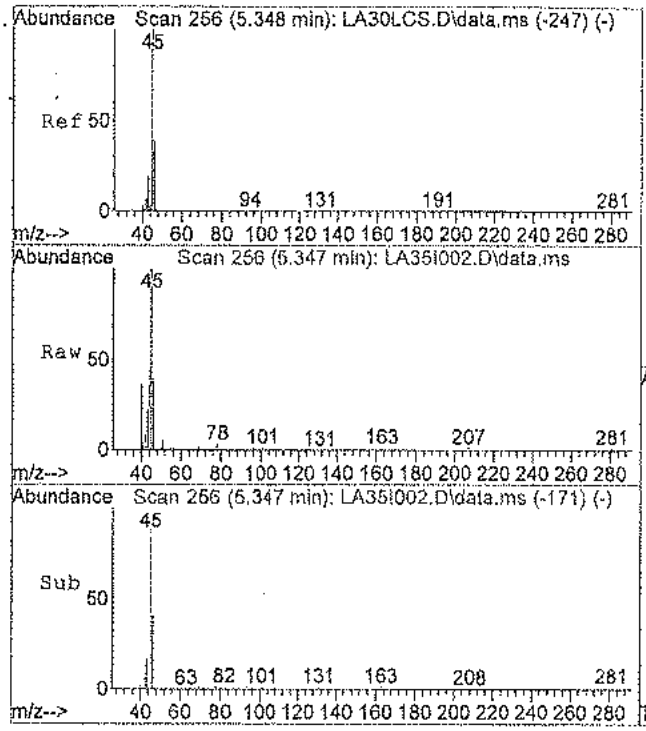


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.82 min Scan# 333
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:101 Resp: 60357

Ion	Ratio	Lower	Upper
101	100		
103	65.9	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

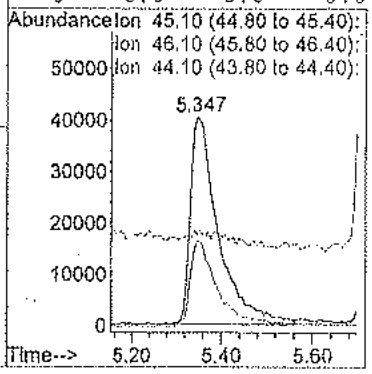


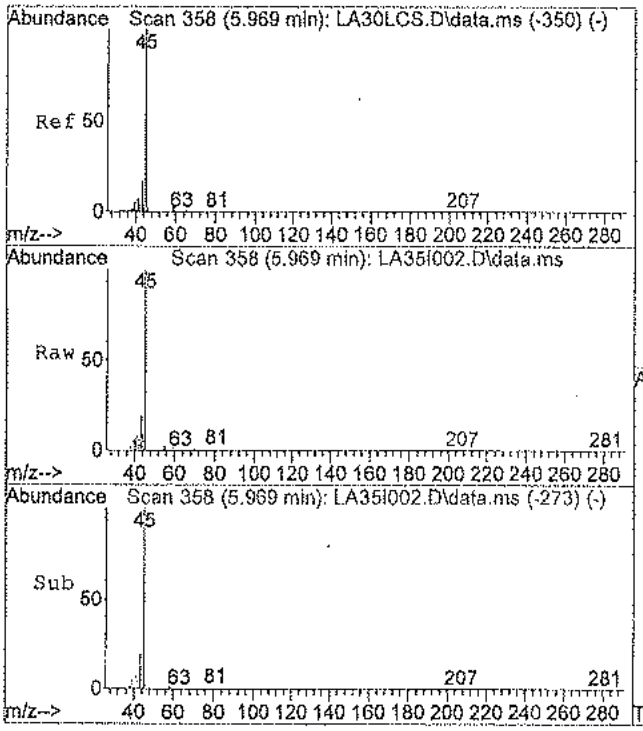


#13
Ethanol
Concen: 4.97 ppb
RT: 5.35 min Scan# 256
Delta R.T. 0.02 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:45.1 Resp: 172800

Ion	Ratio	Lower	Upper
45	100		
46	40.7	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

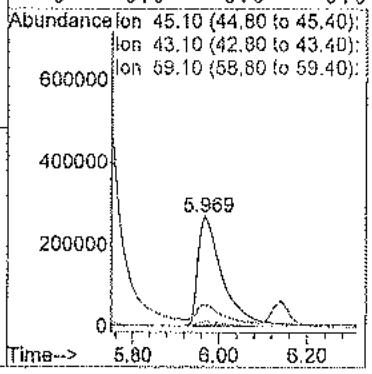


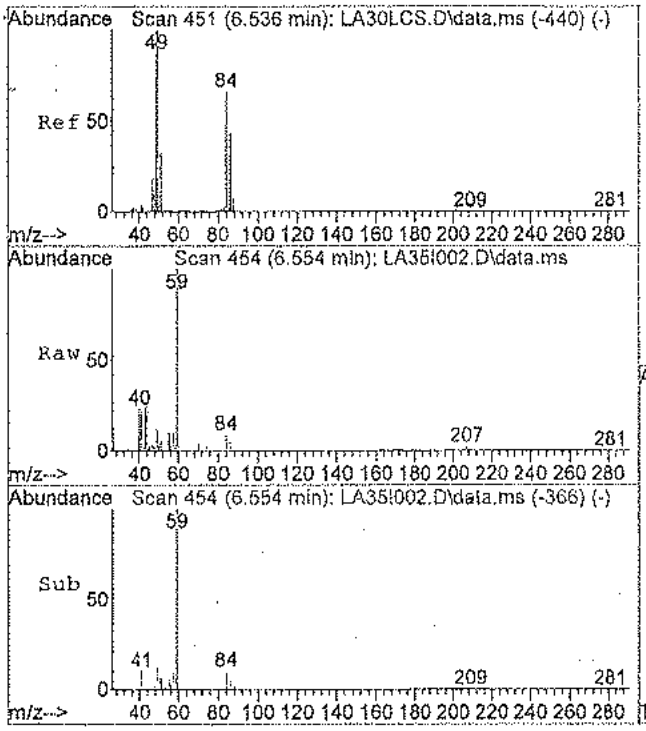


#14
Isopropyl Alcohol
Concen: 3.49 ppb
RT: 5.97 min Scan# 358
Delta R.T. 0.02 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:45.1 Resp: 1027854

Ion	Ratio	Lower	Upper
45	100		
43	20.6	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

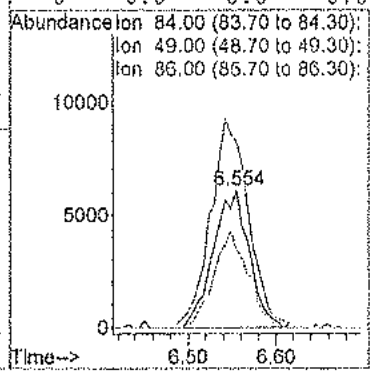


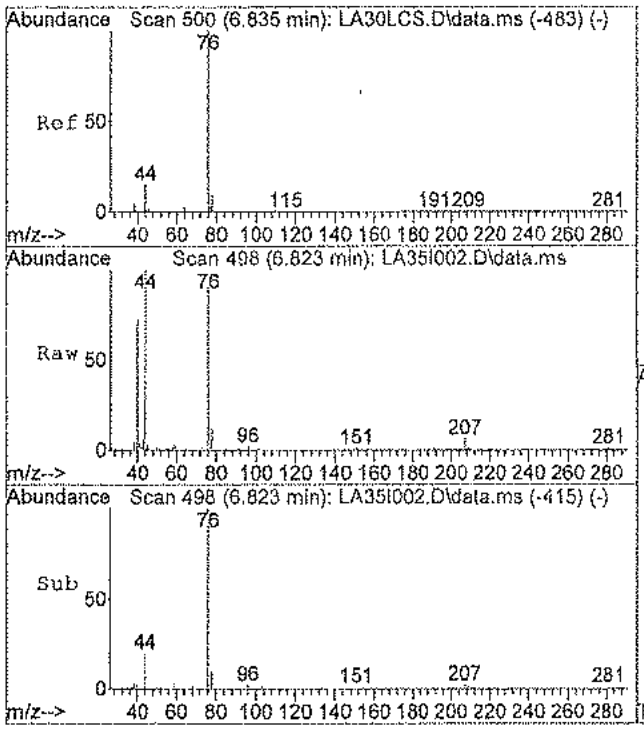


#16
Methylene Chloride
Concen: 0.19 ppb
RT: 6.55 min Scan# 454
Delta R.T. 0.04 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:84 Resp: 17062

Ion	Ratio	Lower	Upper
84	100		
49	160.2	66.6	100.0#
86	67.3	51.6	77.4
0	0.0	0.0	0.0

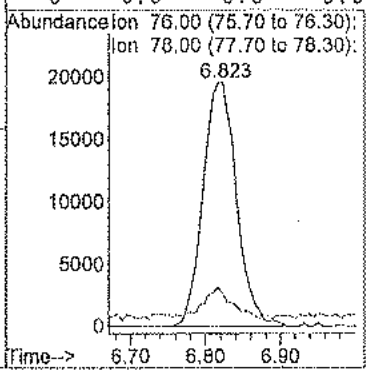


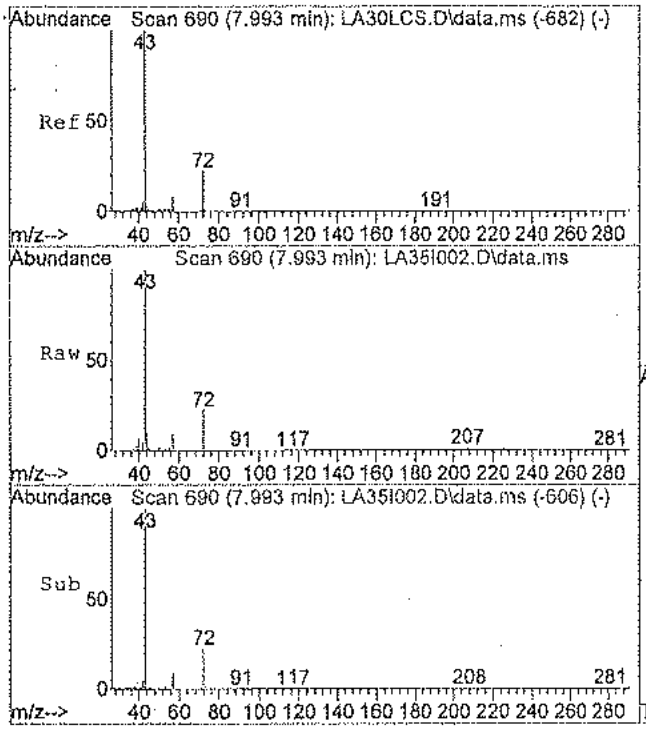


#18
Carbon Disulfide
Concen: 0.22 ppb
RT: 6.82 min Scan# 498
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:76 Resp: 59855

Ion	Ratio	Lower	Upper
76	100		
78	10.3	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

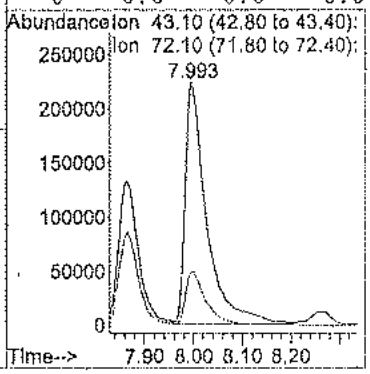


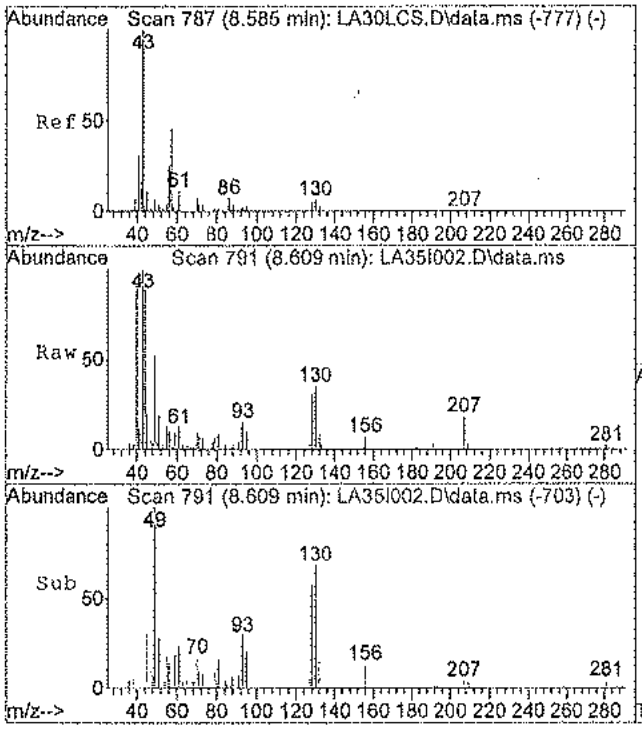


#23
2-Butanone
Concen: 3.15 ppb
RT: 7.99 min Scan# 690
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:43.1 Resp: 694694

Ion	Ratio	Lower	Upper
43	100		
72	22.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

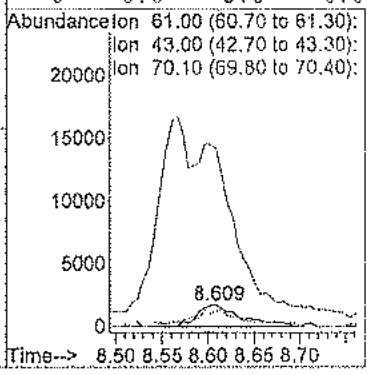


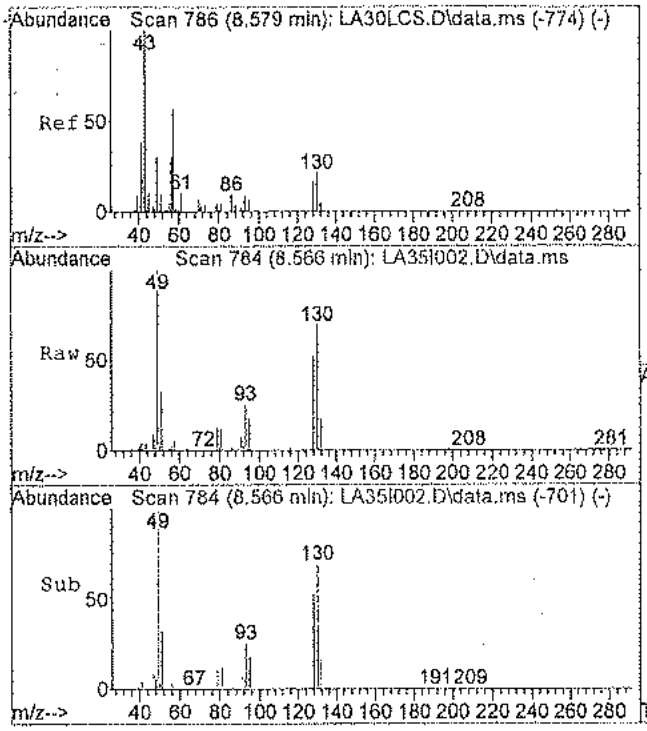


#26
Ethyl Acetate
Concen: 0.16 ppb
RT: 8.61 min Scan# 791
Delta R.T. 0.04 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:61 Resp: 5563

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	58.5	13.6	20.4#
0	0.0	0.0	0.0

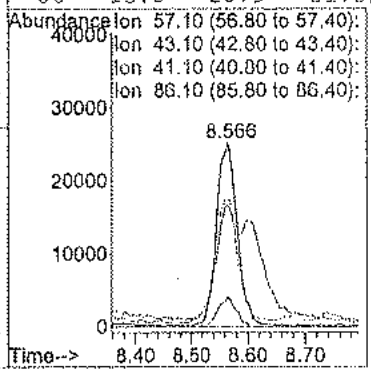


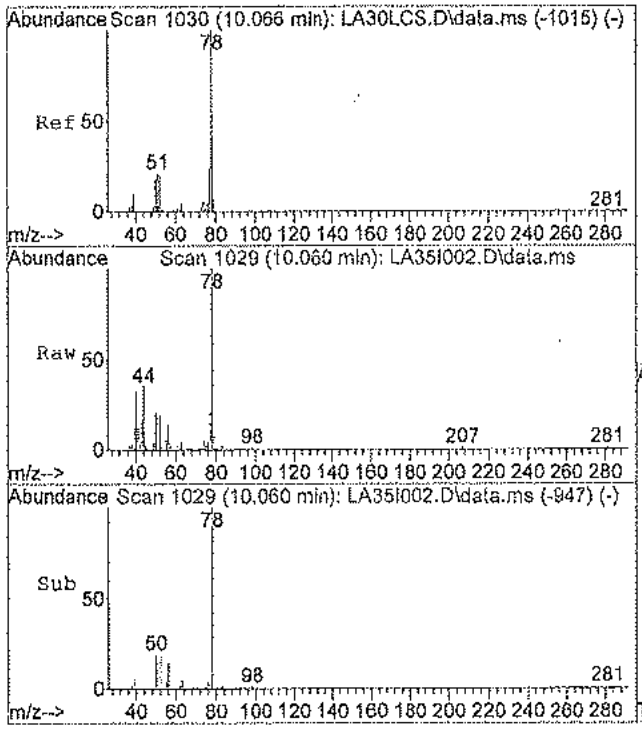


#27
Hexane
Concen: 0.38 ppb
RT: 8.57 min Scan# 784
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:57.1 Resp: 65006

Ion	Ratio	Lower	Upper
57	100		
43	60.8	57.3	85.9
41	76.4	47.0	70.4#
86	13.8	20.9	31.3#

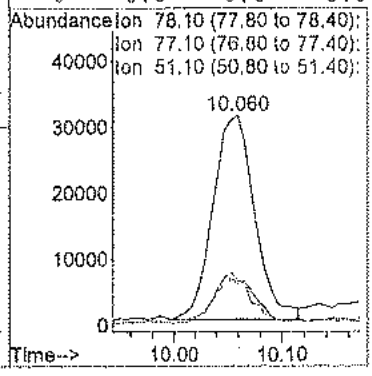


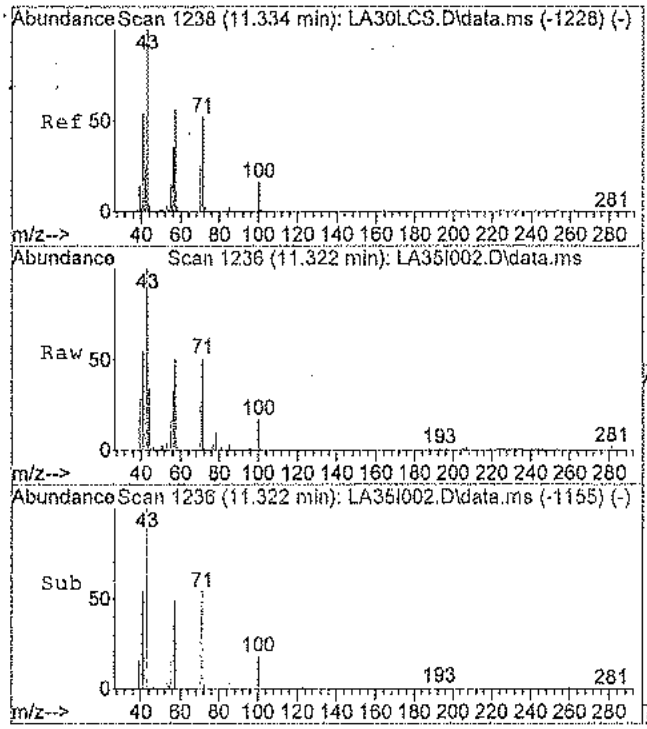


#32
Benzene
Concen: 0.27 ppb
RT: 10.06 min Scan# 1029
Delta R.T. -0.00 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:78.1 Resp: 81477

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.2	27.4
51	19.5	9.5	14.3#
0	0.0	0.0	0.0

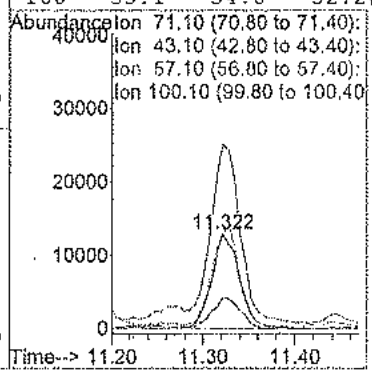


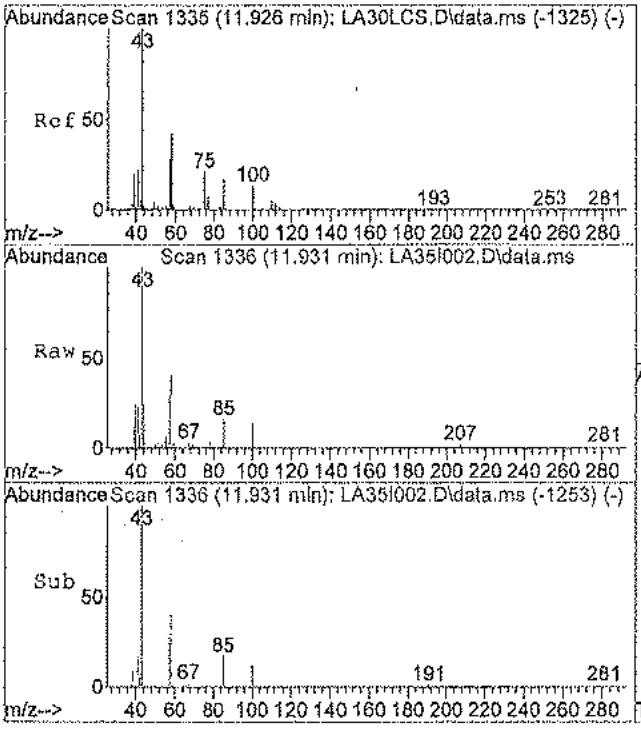


#40
Heptane
Concen: 0.26 ppb
RT: 11.32 min Scan# 1236
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:71.1 Resp: 26808

Ion	Ratio	Lower	Upper
71	100		
43	204.9	87.3	130.9#
57	108.0	57.8	86.6#
100	33.1	34.8	52.2#

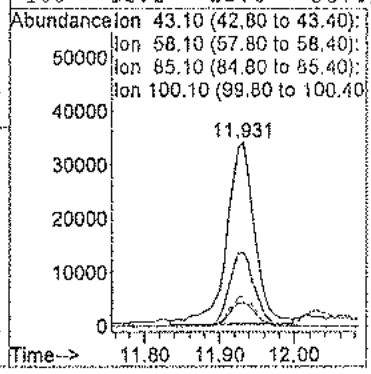


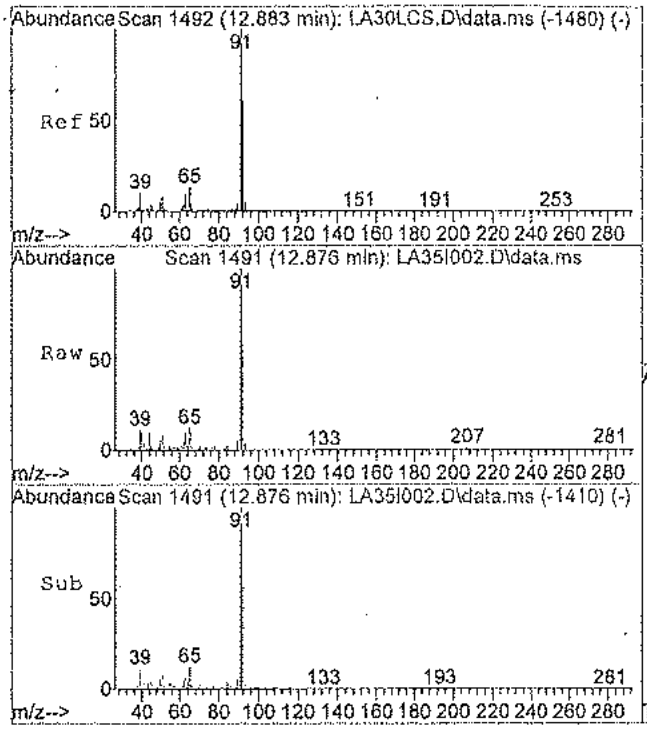


#42
4-Methyl-2-Pentanone
Concen: 0.35 ppb
RT: 11.93 min Scan# 1336
Delta R.T. 0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:43.1 Resp: 87395

Ion	Ratio	Lower	Upper
43	100		
58	37.5	39.5	59.3#
85	15.5	25.1	37.7#
100	12.2	25.6	38.4#

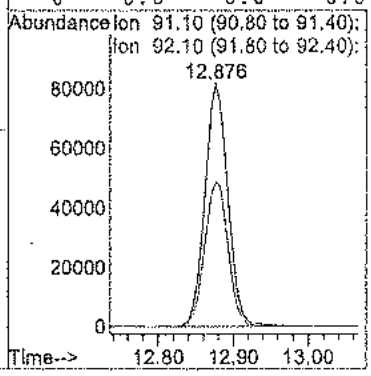


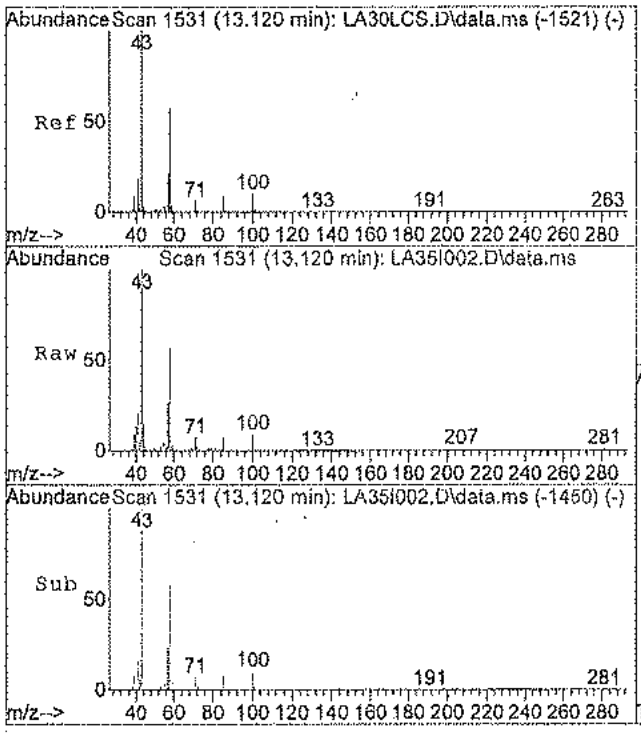


#45
Toluene
Concen: 0.48 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:91.1 Resp: 174813

Ion	Ratio	Lower	Upper
91	100		
92	61.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

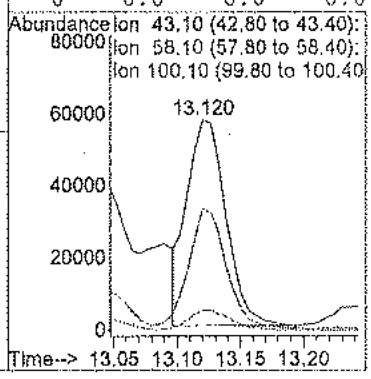


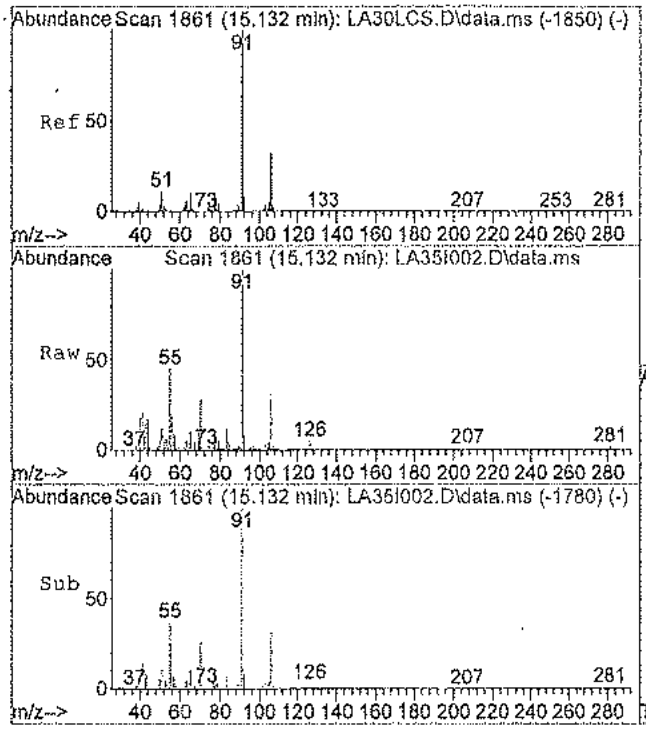


#46
2-Hexanone
Concen: 0.54 ppb
RT: 13.12 min Scan# 1531
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:43.1 Resp: 123381

Ion	Ratio	Lower	Upper
43	100		
58	56.3	54.7	82.1
100	10.0	19.6	29.4#
0	0.0	0.0	0.0

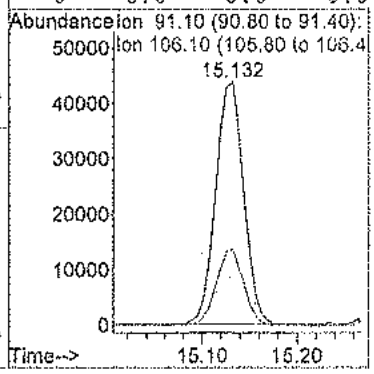


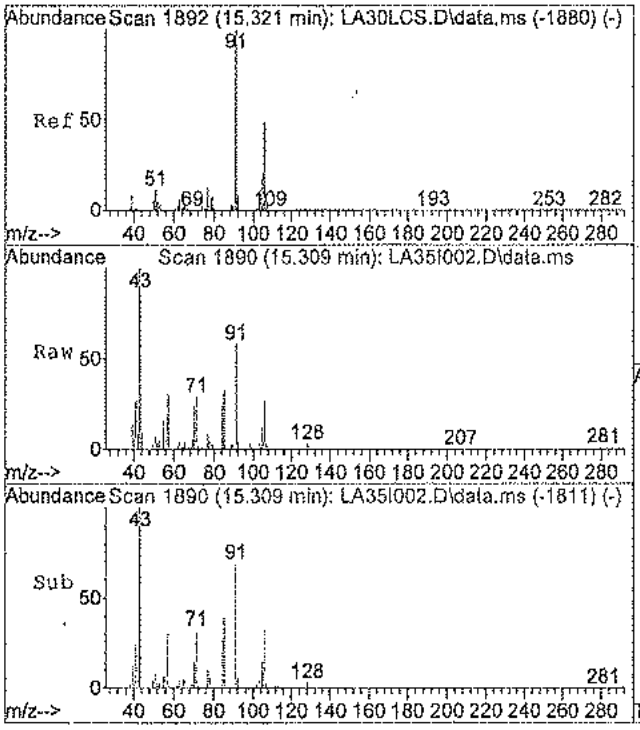


#52
Ethylbenzene
Concen: 0.19 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:91.1 Resp: 89053

Ion	Ratio	Lower	Upper
91	100		
106	30.7	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

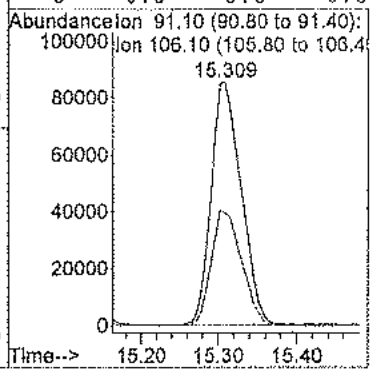


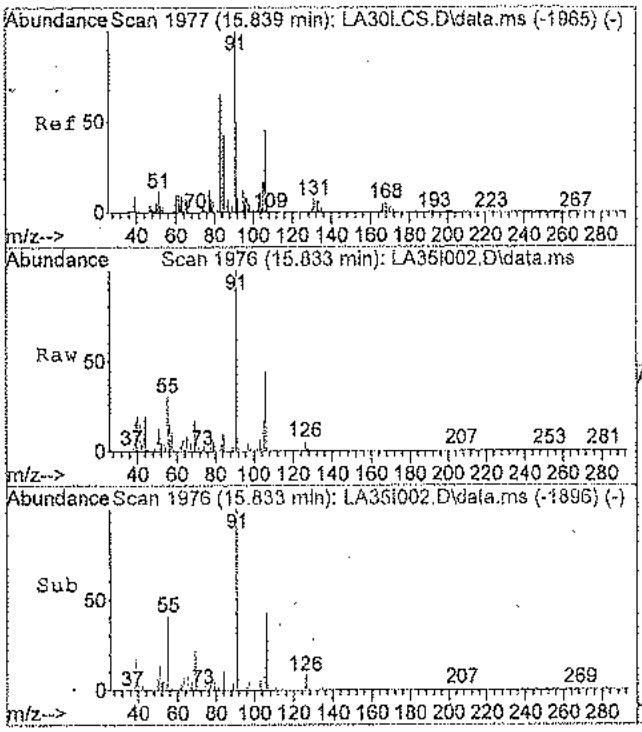


#53
m,p-Xylene
Concen: 0.62 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:91.1 Resp: 226408

Ion	Ratio	Lower	Upper
91	100		
106	48.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

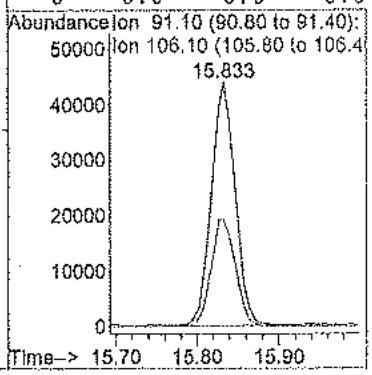


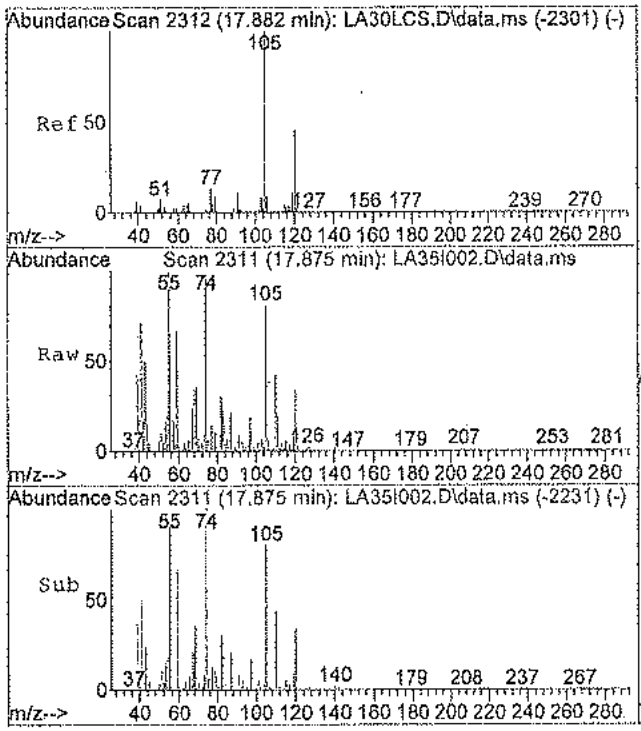


#57
o-Xylene
Concen: 0.24 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:91.1 Resp: 88016

Ion	Ratio	Lower	Upper
91	100		
106	45.4	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

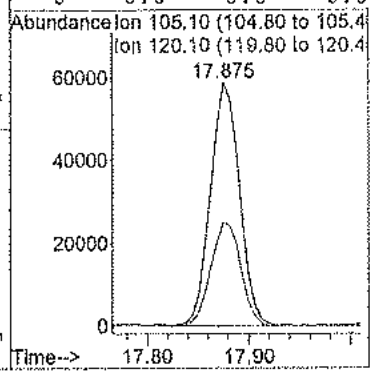


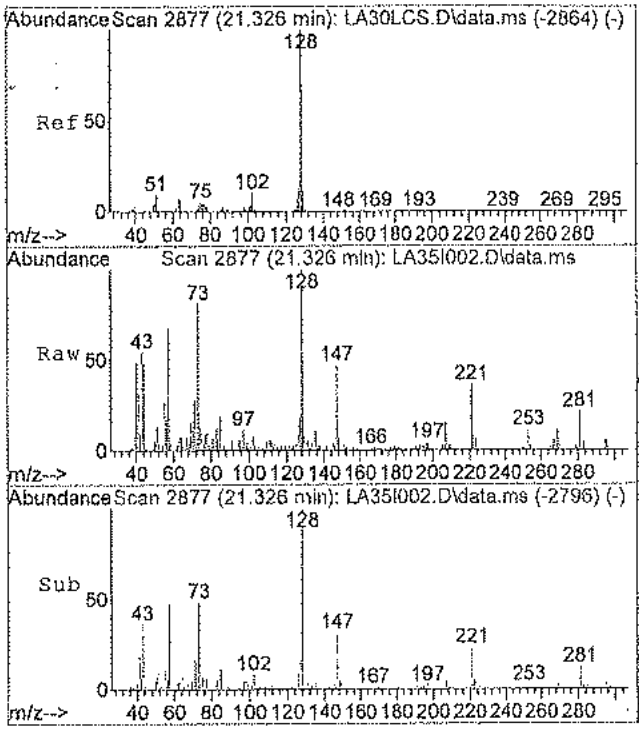


#61
1,2,4-Trimethylbenzene
Concen: 0.27 ppb
RT: 17.88 min Scan# 2311
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:105.1 Resp: 115966

Ion	Ratio	Lower	Upper
105	100		
120	44.0	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

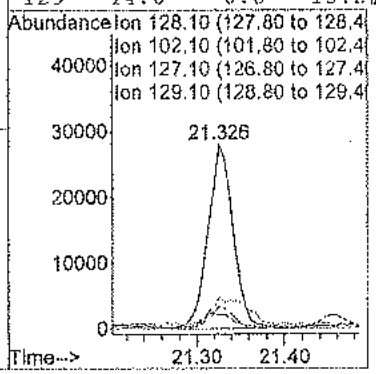




#67
Naphthalene
Concen: 0.16 ppb
RT: 21.33 min Scan# 2877
Delta R.T. -0.01 min
Lab File: LA35I002.D
Acq: 04/15/2015 15:39

Tgt Ion:128.1 Resp: 57230

Ion	Ratio	Lower	Upper
128	100		
102	9.2	6.7	10.1
127	21.4	10.0	15.0#
129	14.0	8.8	13.2#



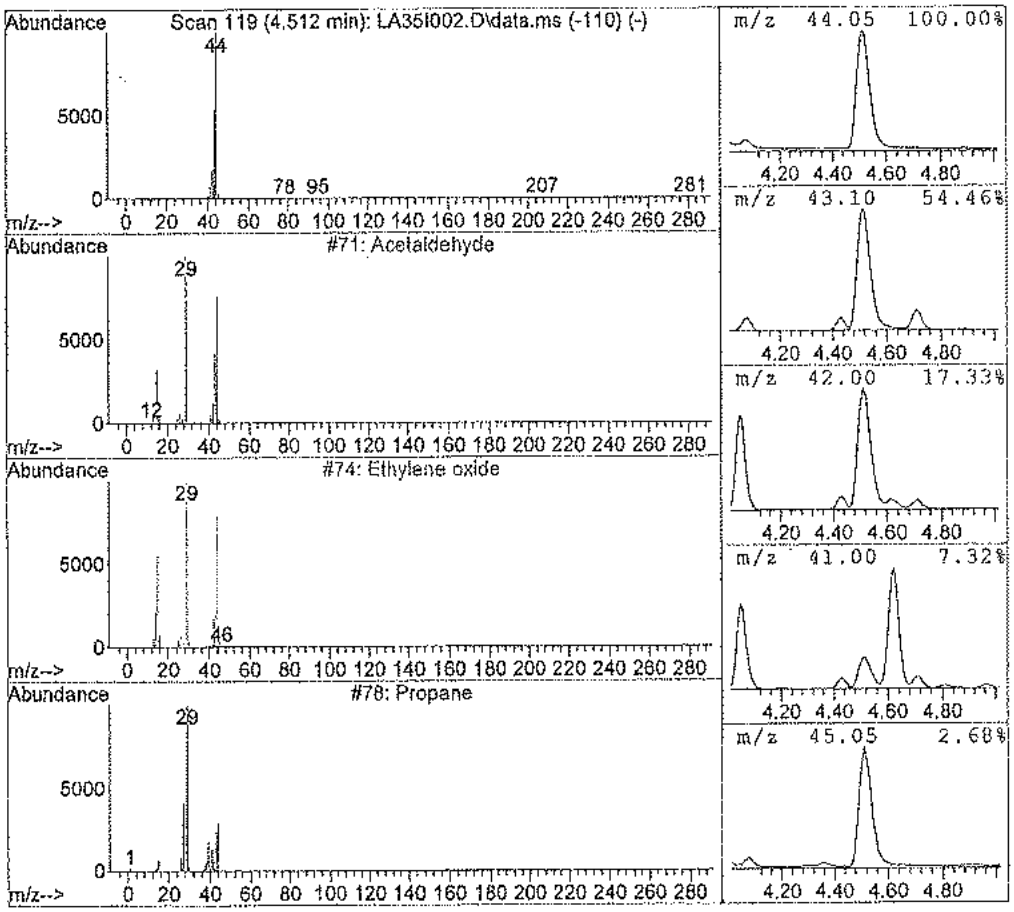
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SC-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.51	17.65 ppb	7578189	Bromochloromethane	8587925

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	71	000075-07-0	56.00
2	~~Ethylene~~ oxide	74	000075-21-8	5.00
3	Propane	78	000074-98-6	4.00
4	Alanine	2136	000056-41-7	4.00
5	1,2-Propanediamine	788	000078-90-0	4.00



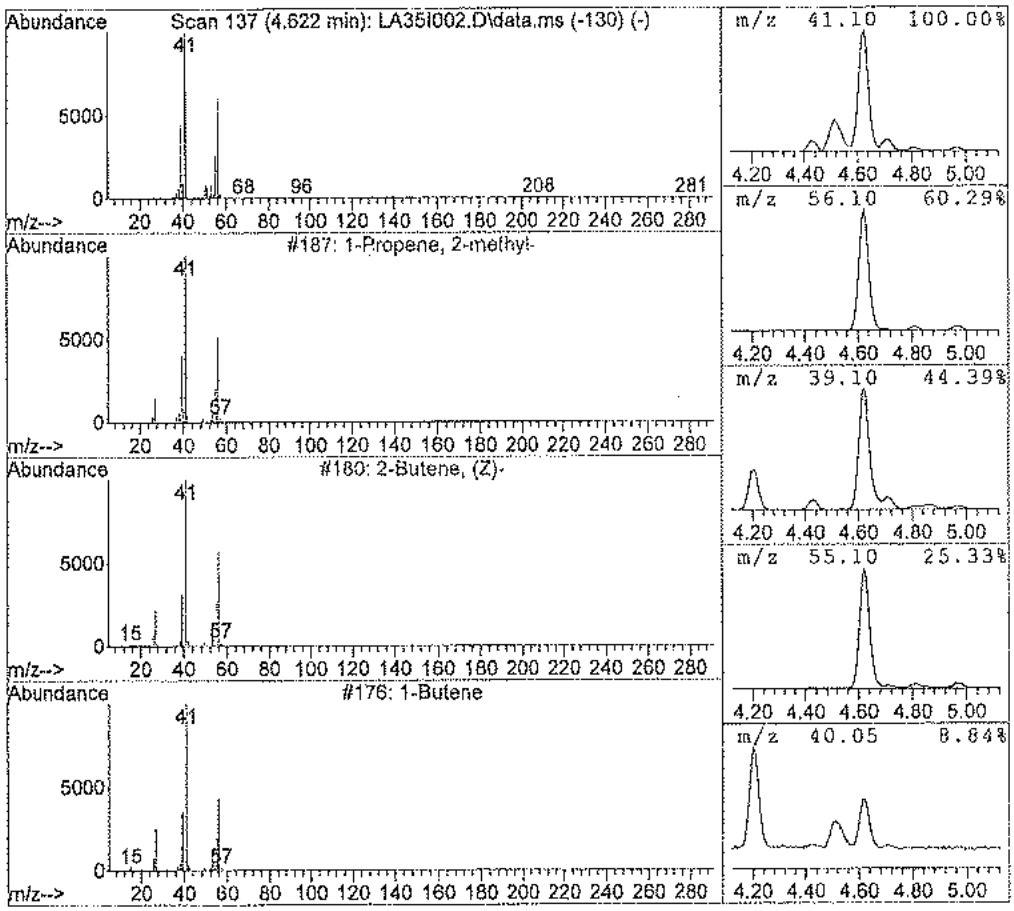
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.62	6.68 ppb	2868285	Bromochloromethane	8587925

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Propene, 2-methyl-	187	000115-11-7	90.00
2	2-Butene, (Z)-	180	000590-18-1	86.00
3	1-Butene	176	000106-98-9	86.00
4	2-Butene, (E)-	181	000624-64-6	72.00
5	Cyclobutane	177	000287-23-0	49.00



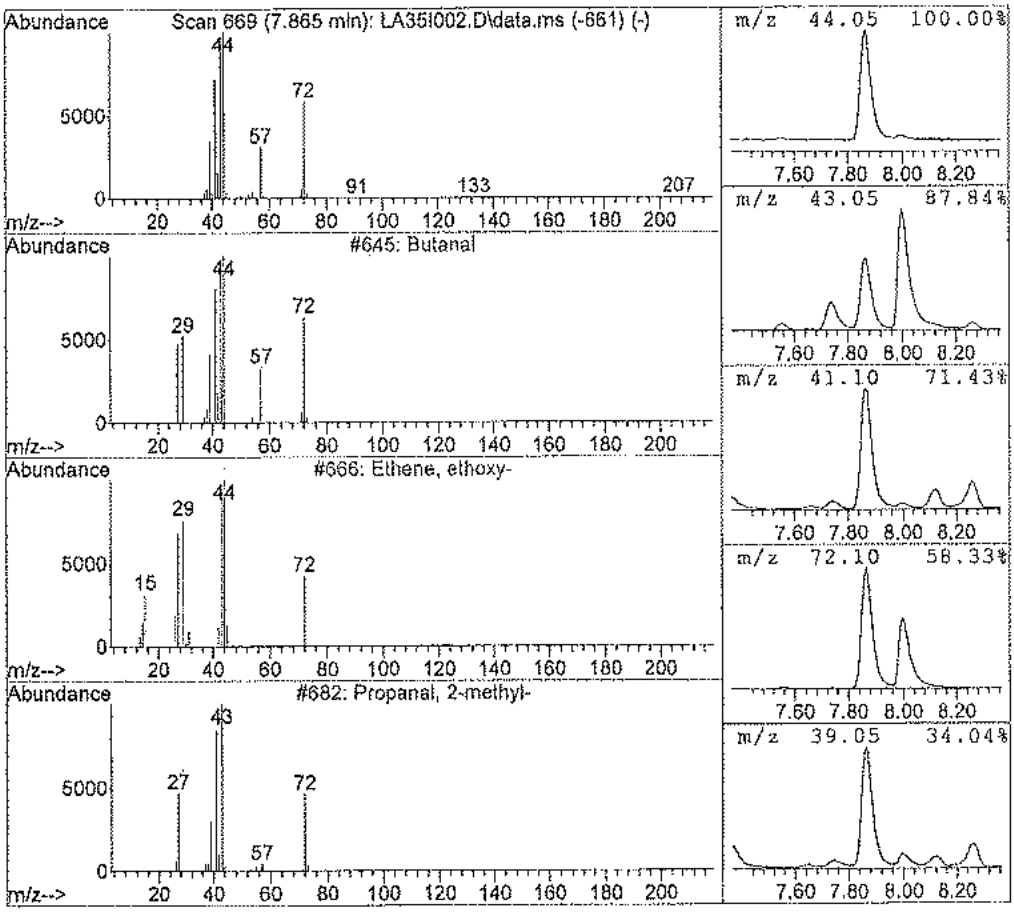
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.87	4.21 ppb	1806803	Bromochloromethane	8587925

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	Ethene, ethoxy-	666	000109-92-2	78.00
3	Propanal, 2-methyl-	682	000078-84-2	43.00
4	Cyclopropyl carbinol	687	002516-33-8	28.00
5	Adenine-9-propanoic acid, .alpha.-t	152596	055387-36-5	25.00



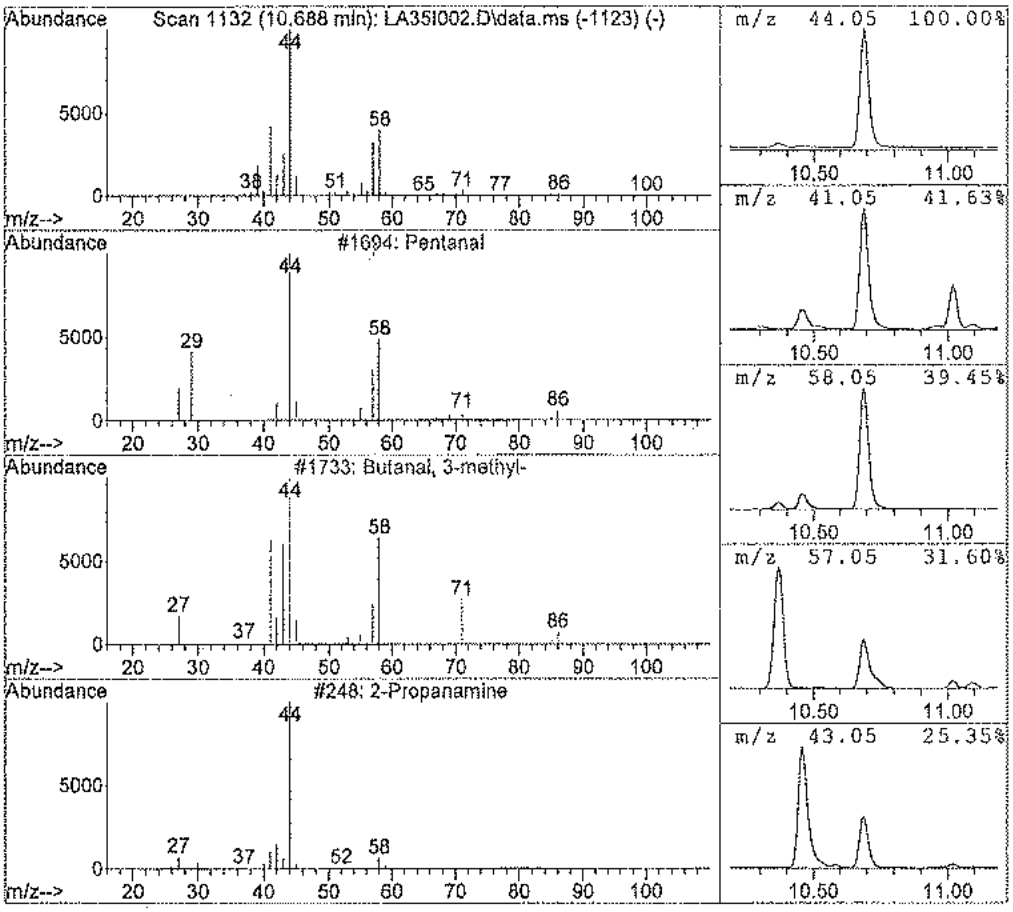
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.69	3.50 ppb	2508392	1,4-Difluorobenzene	14774811

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1694	000110-62-3	64.00
2	~~Butanal, 3-methyl-~~	1733	000590-86-3	45.00
3	2-Propanamine	248	000075-31-0	38.00
4	Glycidol	802	000556-52-5	33.00
5	Cyclopropyl carbinol	686	002516-33-8	28.00



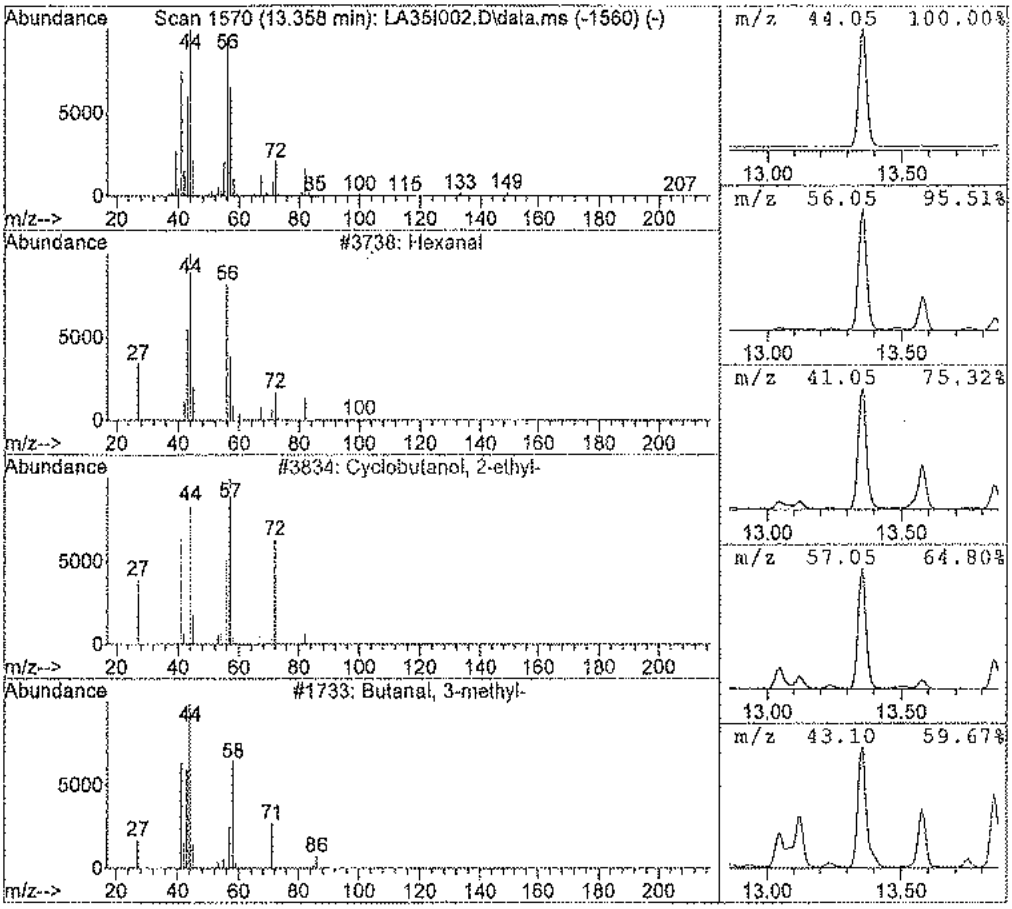
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.36	3.47 ppb	2826936	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3738	000066-25-1	90.00
2	Cyclobutanol, 2-ethyl-	3834	035301-43-0	38.00
3	Butanal, 3-methyl-	1733	000590-86-3	32.00
4	1,5-Pentanediol	4701	000111-29-5	28.00
5	Aziridine, 2-methyl-	204	000075-55-8	27.00



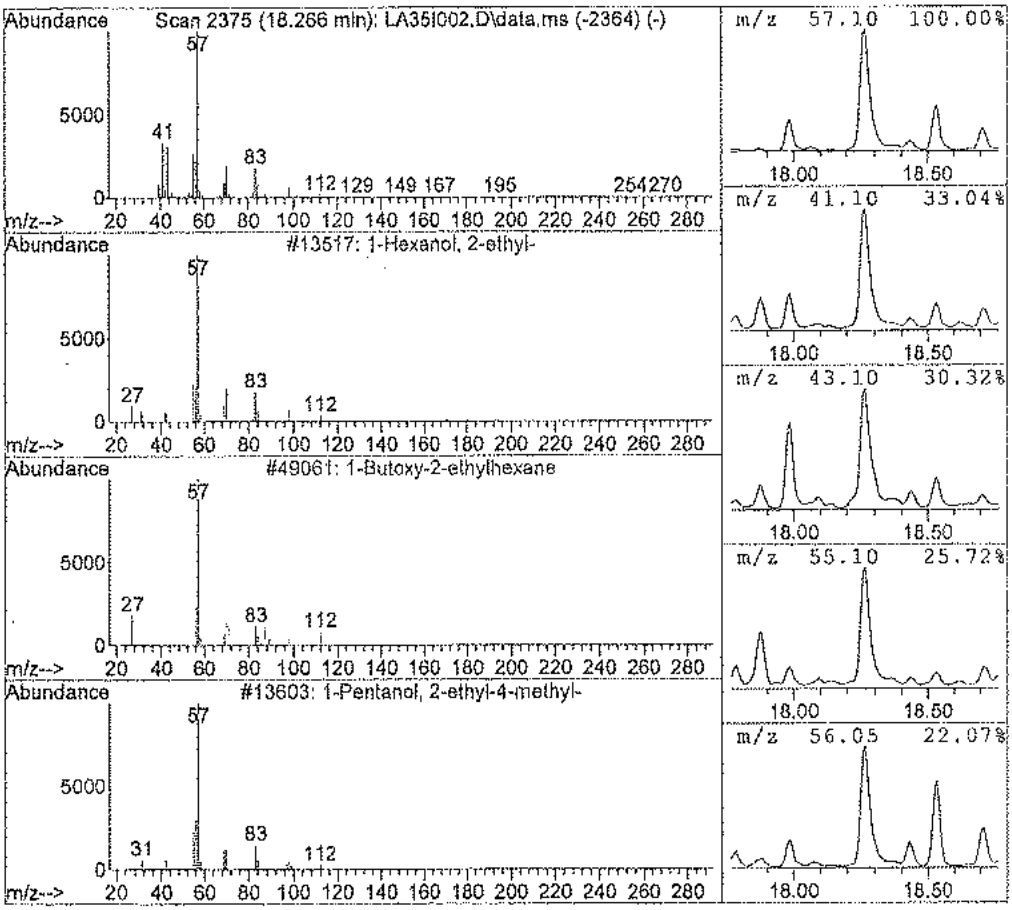
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.27	5.72 ppb	4654134	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13517	000104-76-7	78.00
2	1-Butoxy-2-ethylhexane	49061	062625-25-6	78.00
3	1-Pentanol, 2-ethyl-4-methyl-	13603	000106-67-2	64.00
4	Heptane, 3,5-dimethyl-	12549	000926-82-9	42.00
5	3-Undecene, 6-methyl-, (E)-	36021	074630-52-7	40.00



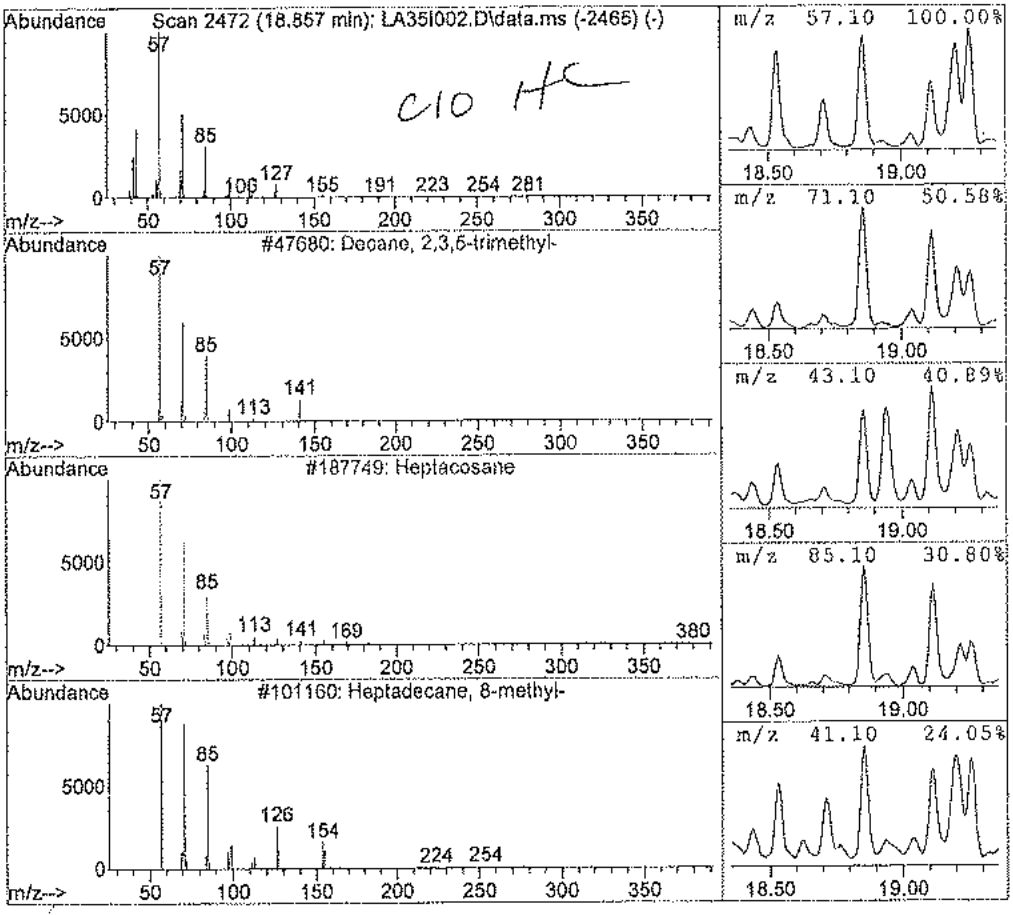
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA351002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.86	2.12 ppb	1723523	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,3,5-trimethyl-	47680	062238-11-3	72.00
2	Heptacosane	187749	000593-49-7	64.00
3	Heptadecane, 8-methyl-	101160	013287-23-5	64.00
4	Hexadecane	79879	000544-76-3	64.00
5	Sulfurous acid, 2-ethylhexyl undecy	170442	1000309-19-4	59.00



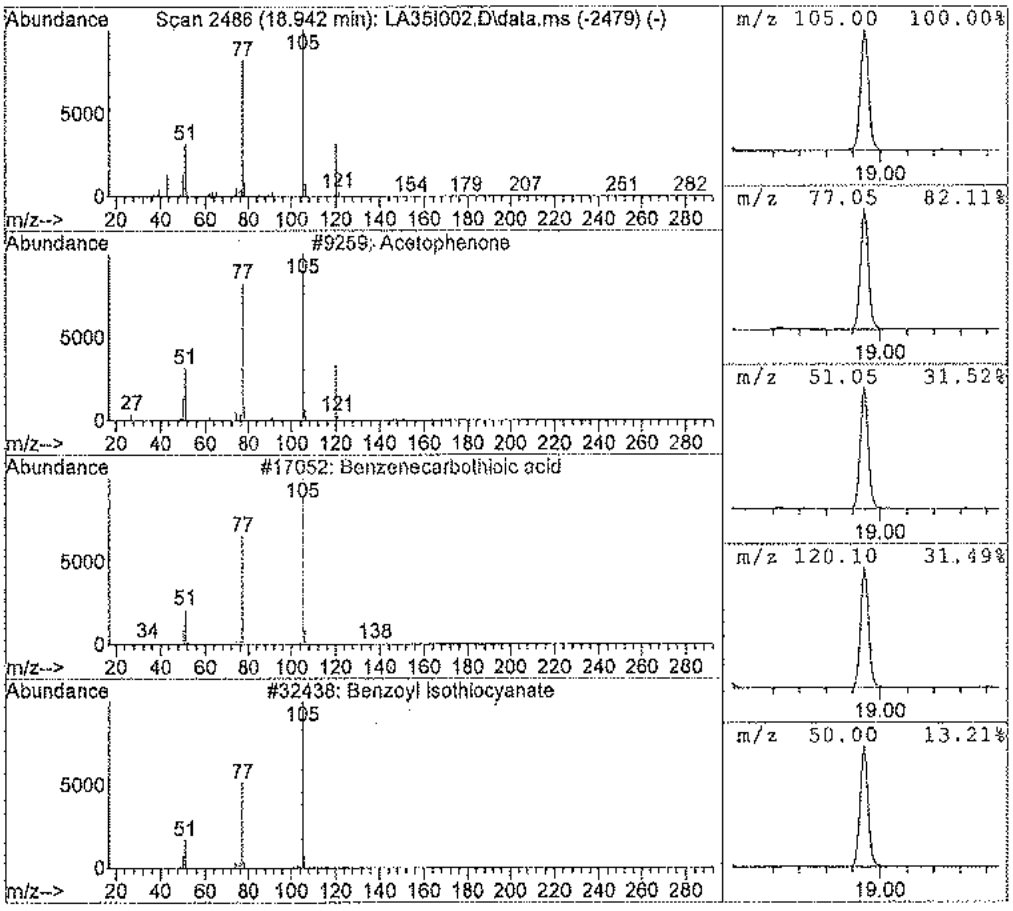
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.94	6.98 ppb	5679691	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetophenone	9259	000098-86-2	95.00
2	Benzenecarbothioic acid	17052	000098-91-9	80.00
3	Benzoyl isothiocyanate	32438	000532-55-8	72.00
4	Vinyl benzoate	22880	000769-78-8	72.00
5	Benzoylformic acid	23970	000611-73-4	72.00



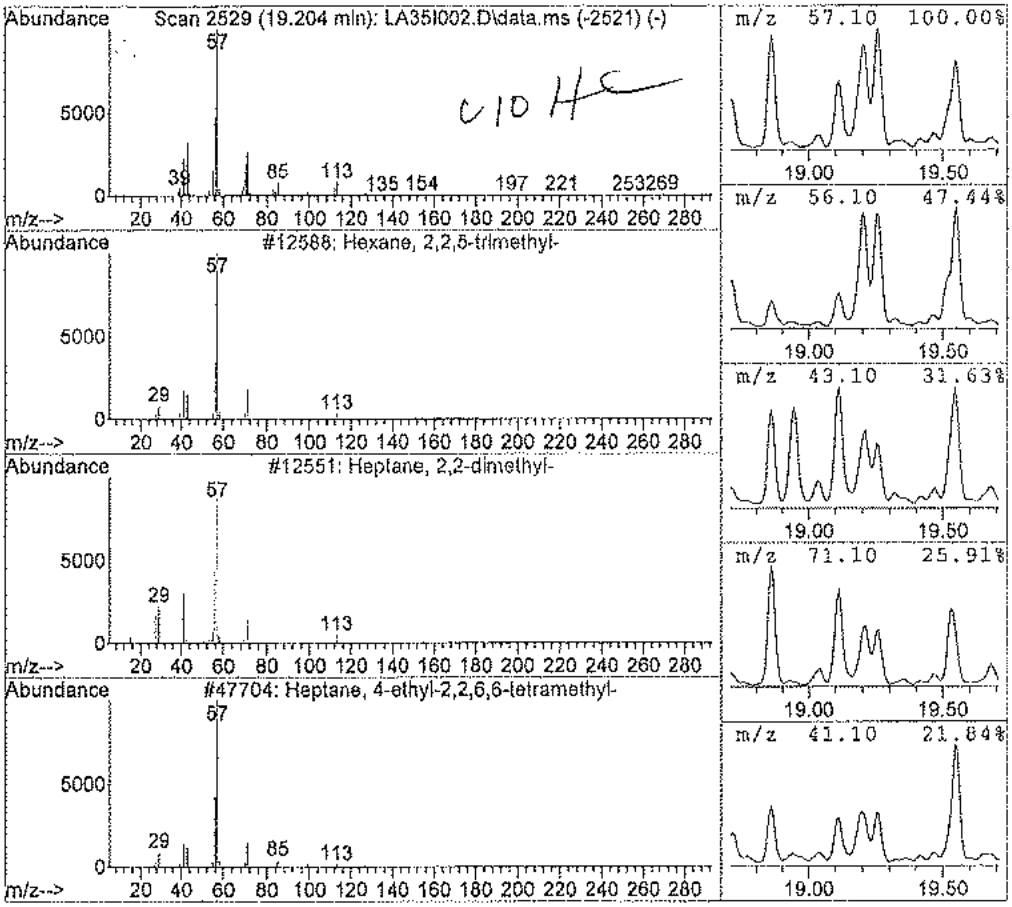
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.20	2.38 ppb	1935323	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2,2,5-trimethyl-	12588	003522-94-9	64.00
2	Heptane, 2,2-dimethyl-	12551	001071-26-7	59.00
3	Heptane, 4-ethyl-2,2,6,6-tetramethy	47704	062108-31-0	56.00
4	Decane, 2,2,6-trimethyl-	47686	062237-97-2	53.00
5	Heptane, 2,2,4-trimethyl-	18964	014720-74-2	50.00



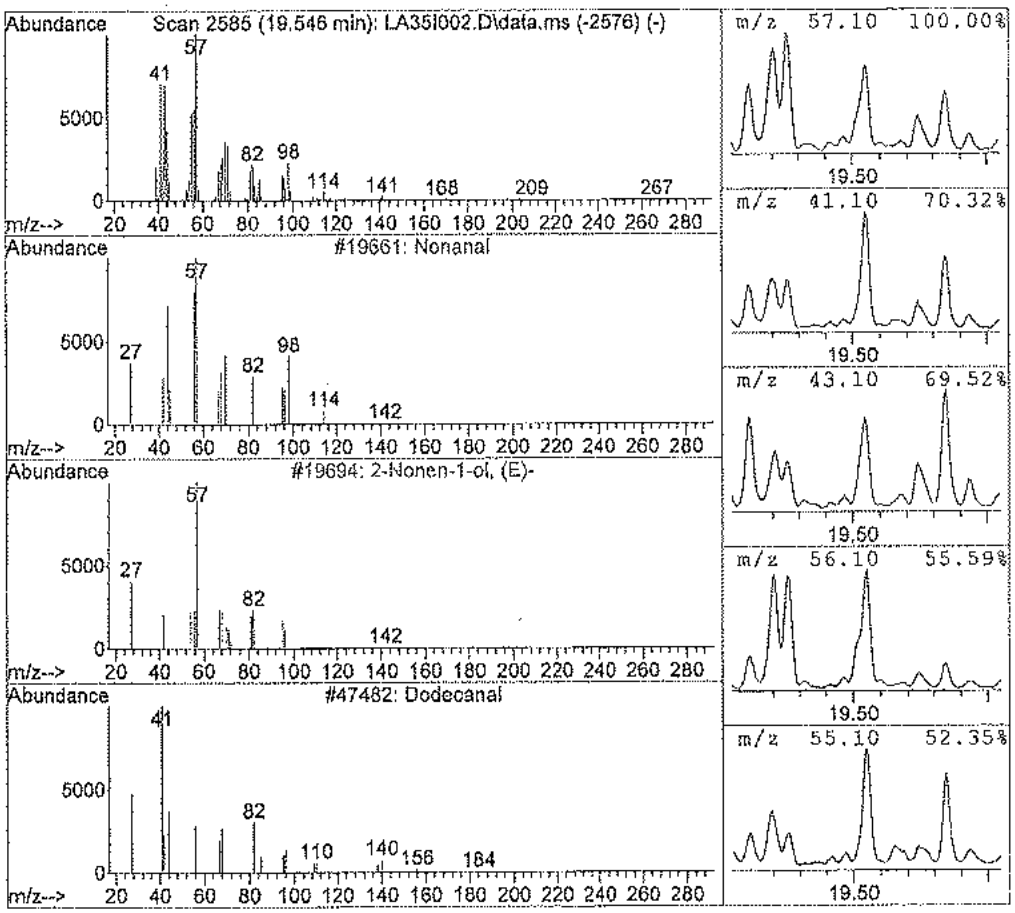
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.55	3.66 ppb	2981049	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonanal	19661	000124-19-6	97.00
2	2-Nonen-1-ol, (E)-	19694	031502-14-4	38.00
3	Dodecanal	47482	000112-54-9	35.00
4	2-Hexene, 5-methyl-, (E)-	3351	007385-82-2	27.00
5	Octanal	12291	000124-13-0	27.00



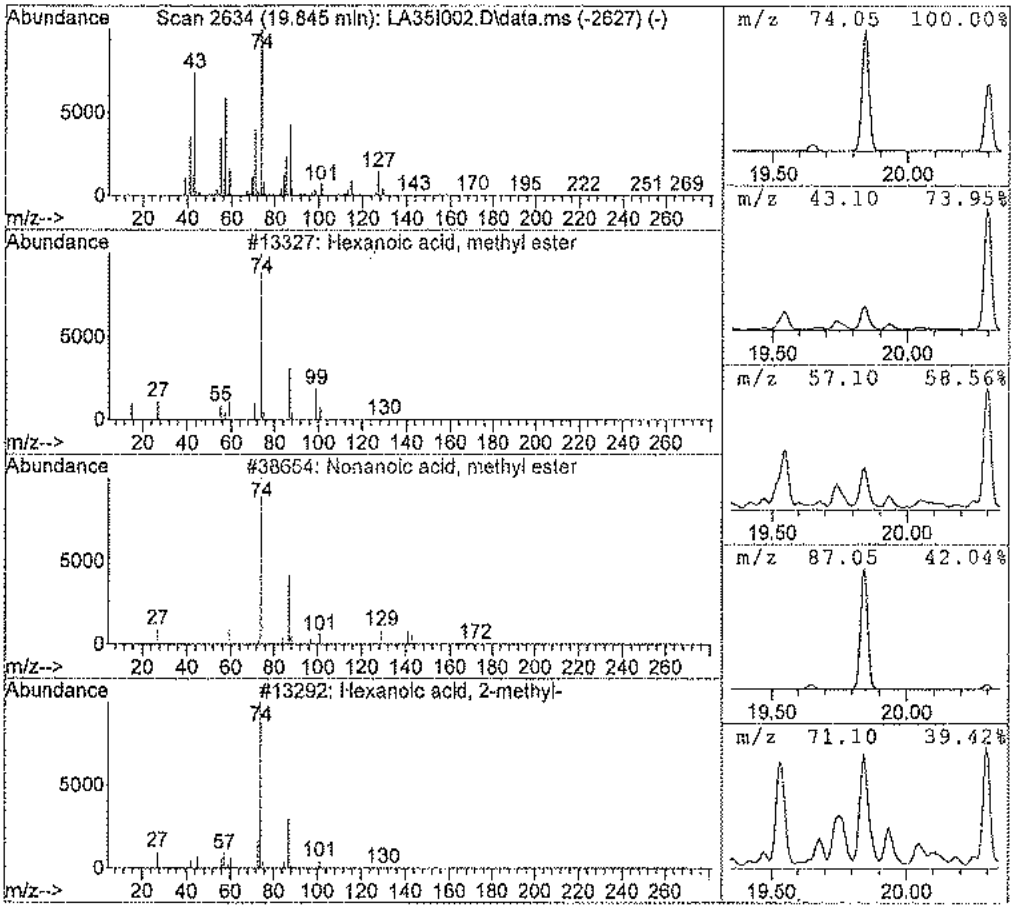
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.84	2.94 ppb	2389849	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanoic acid, methyl ester	13327	000106-70-7	49.00
2	Nonanoic acid, methyl ester	38654	001731-84-6	47.00
3	Hexanoic acid, 2-methyl-	13292	004536-23-6	43.00
4	Octanoic acid, methyl ester	29661	000111-11-5	38.00
5	Undecane, 5-methyl-	37487	001632-70-8	35.00



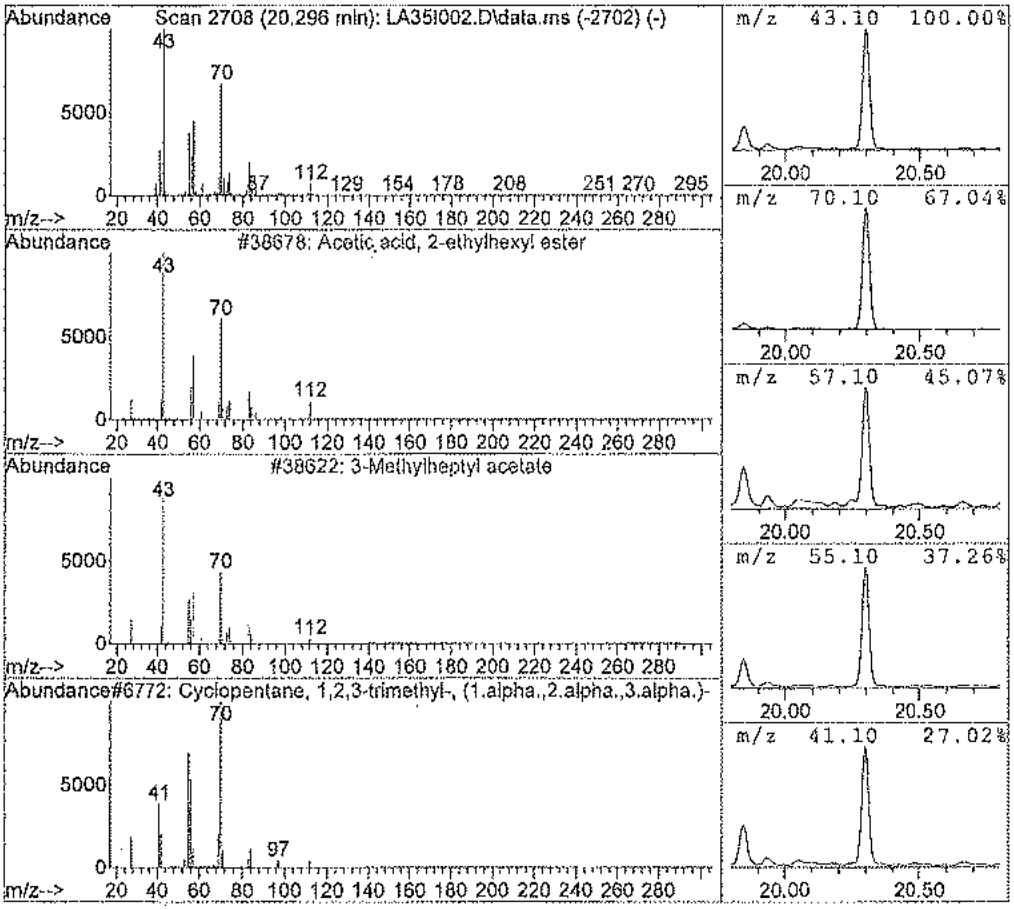
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA35I002.D Vial: 3
Acq Time : 04/15/2015 15:39 Operator: TJM
Sample : 1510353002 Inst : 5975-L
Misc : SG-0024 0097 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.30	8.26 ppb	6723676	Chlorobenzene d5	16277576

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, 2-ethylhexyl ester	38678	000103-09-3	90.00
2	3-Methylheptyl acetate	38622	072218-58-7	83.00
3	Cyclopentane, 1,2,3-trimethyl-, (1.	6772	002613-69-6	64.00
4	Bromoacetic acid, 2-ethylhexyl este	97278	068144-73-0	50.00
5	2-Propenoic acid, 2-ethylhexyl este	47312	000103-11-7	45.00

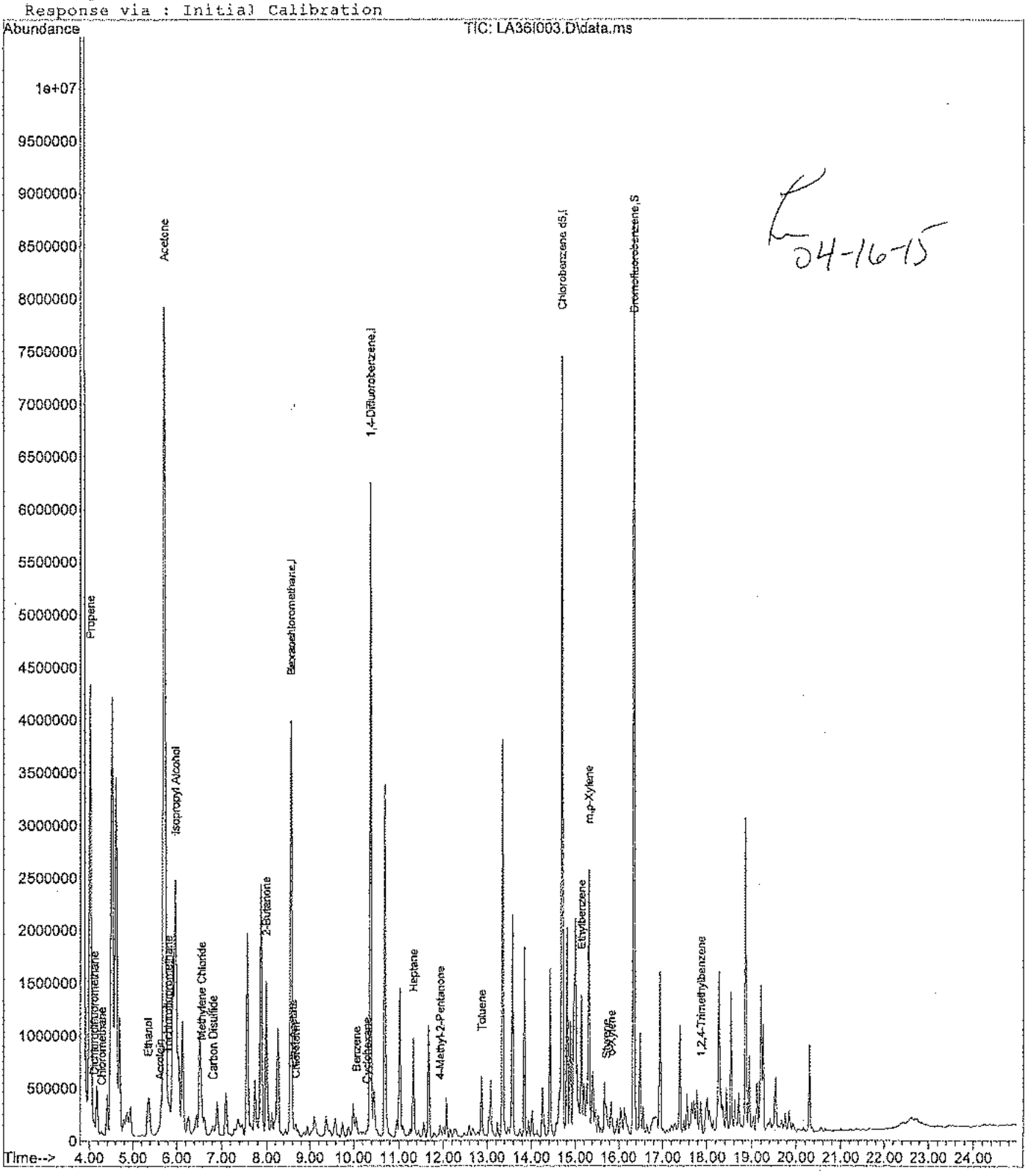


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:33:43 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:33:43 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%	
1) Bromochloromethane	8.55	130	505536	20.0000 ppb	104.08	
25) 1,4-Difluorobenzene	10.37	114	5924783	20.0000 ppb	97.66	
50) Chlorobenzene d5	14.69	117	4919403	20.0000 ppb	95.24	
System Monitoring Compounds					%Recovery	
58) Bromofluorobenzene	16.35	95	3940671	20.1144 ppb	100.57%	
Target Compounds					Qvalue	
2) Propene	4.01	41	3705623	51.7293 ppb	94	TC
3) Dichlorodifluoromethane	4.11	85	121403	0.4967 ppb	98	
4) Chloromethane	4.27	50	39262	0.3762 ppb	98	
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	5.62	56	89553	2.2143 ppb #	75	TC
11) Acetone	5.71	43	15959951	95.4902 ppb #	84	DLC
12) Trichlorofluoromethane	5.81	101	56873	0.2157 ppb	95	
13) Ethanol	5.34	45	652358	19.5210 ppb #	77	TC
14) Isopropyl Alcohol	5.96	45	5619053	19.8146 ppb	98	TC
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	6.56	84	24724	0.2891 ppb #	50	
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	6.81	76	209188	0.7989 ppb #	62	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	7.98	43	2697952	12.7128 ppb #	73	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	8.61	61	11008	0.3174 ppb #	1	
27) Hexane	8.56	57	615865	3.7153 ppb #	85	
28) Chloroform	8.67	83	39811	0.1941 ppb	100	
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	10.06	78	156053	0.5340 ppb #	91	
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	10.30	84	22254	0.1693 ppb #	24	
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	0.00	130		Not Detected		
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	11.32	71	243300	2.3939 ppb #	39	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	11.93	43	91871	0.3799 ppb #	73	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	12.88	91	458932	1.2938 ppb	99	
46) 2-Hexanone	0.00	43		Not Detected		
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	0.00	166		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

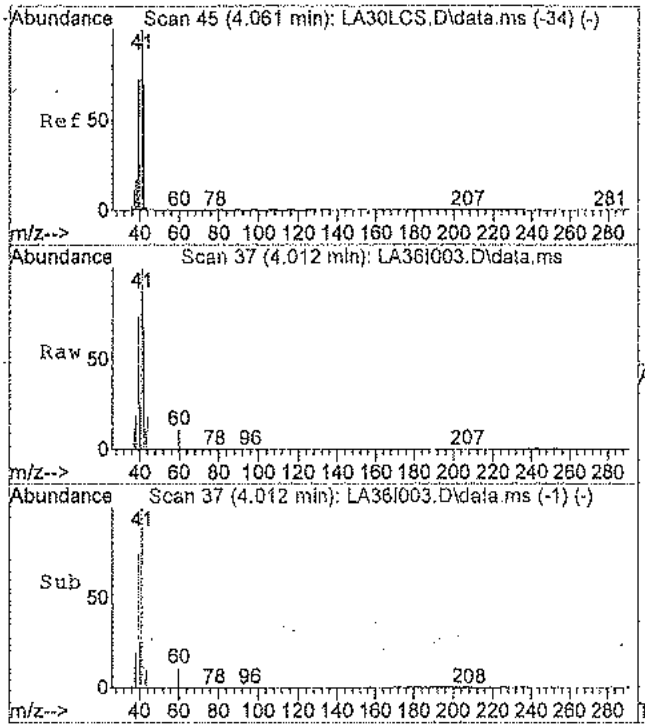
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:33:43 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.13	91	248961	0.5494 ppb	91
53)	m,p-Xylene	15.30	91	442869	1.2676 ppb	89
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.71	104	77634	0.3047 ppb #	91
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.83	91	167185	0.4701 ppb	90
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.88	105	64497	0.1573 ppb	92
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

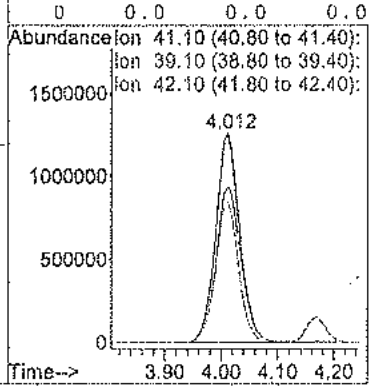
(#) = qualifier out of range (m) = manual integration

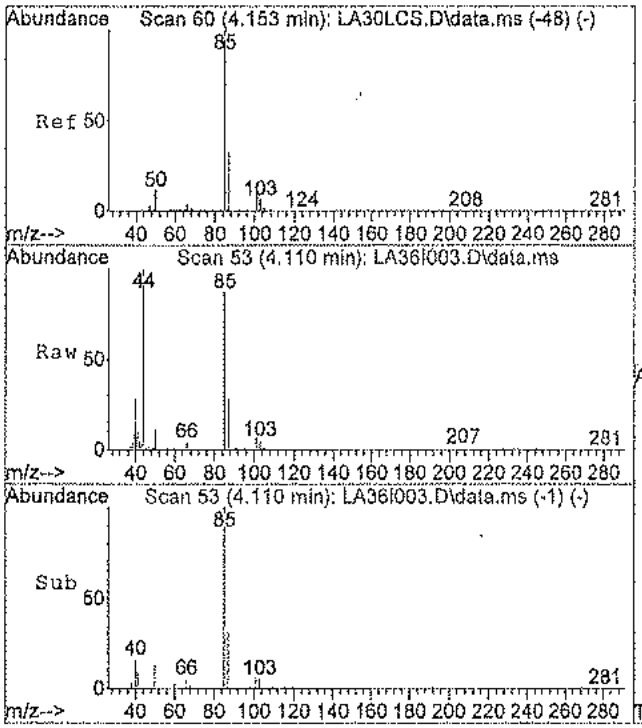


#2
Propene
Concen: 51.73 ppb
RT: 4.01 min Scan# 37
Delta R.T. -0.02 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:41.1 Resp: 3705623

Ion	Ratio	Lower	Upper
41	100		
39	78.5	56.2	84.4
42	65.6	53.8	80.6
0	0.0	0.0	0.0

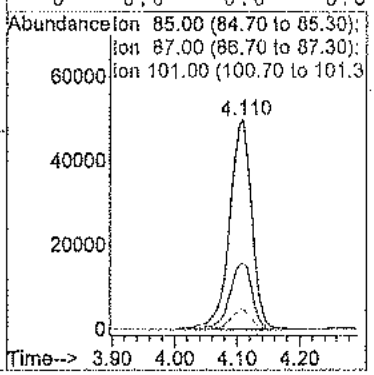


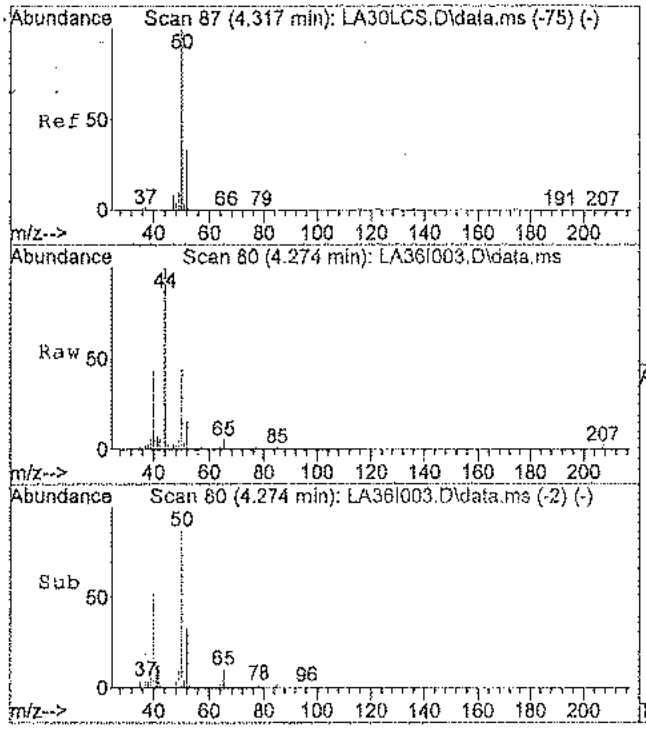


#3
Dichlorodifluoromethane
Concen: 0.50 ppb
RT: 4.11 min Scan# 53
Delta R.T. -0.02 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:85 Resp: 121403

Ion	Ratio	Lower	Upper
85	100		
87	31.8	26.1	39.1
101	8.8	8.0	12.0
0	0.0	0.0	0.0

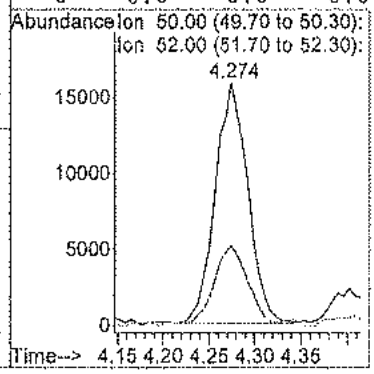


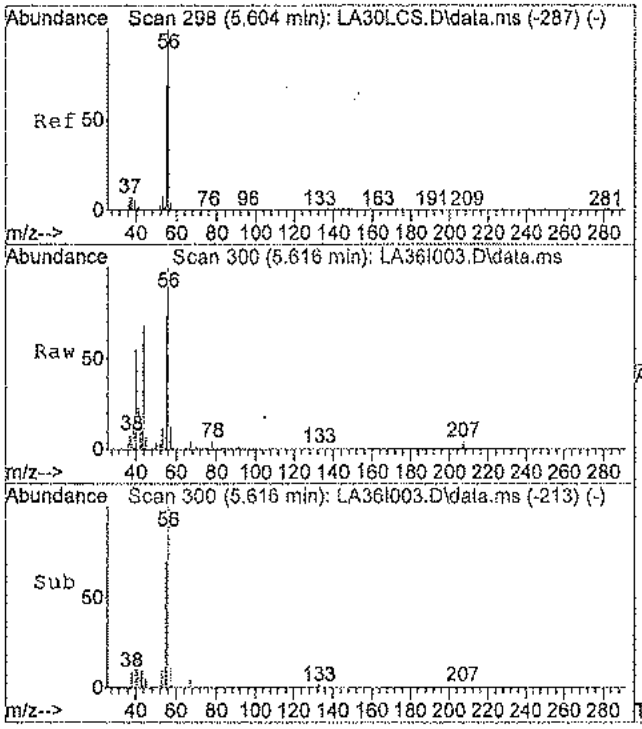


#4
Chloromethane
Concen: 0.38 ppb
RT: 4.27 min Scan# 80
Delta R.T. -0.02 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:50 Resp: 39262

Ion	Ratio	Lower	Upper
50	100		
52	32.2	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

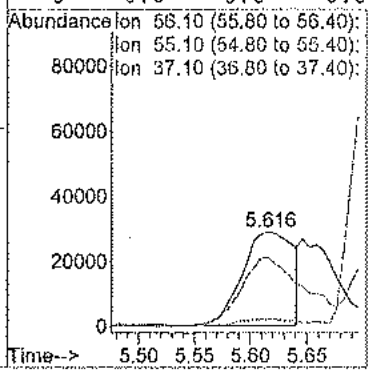


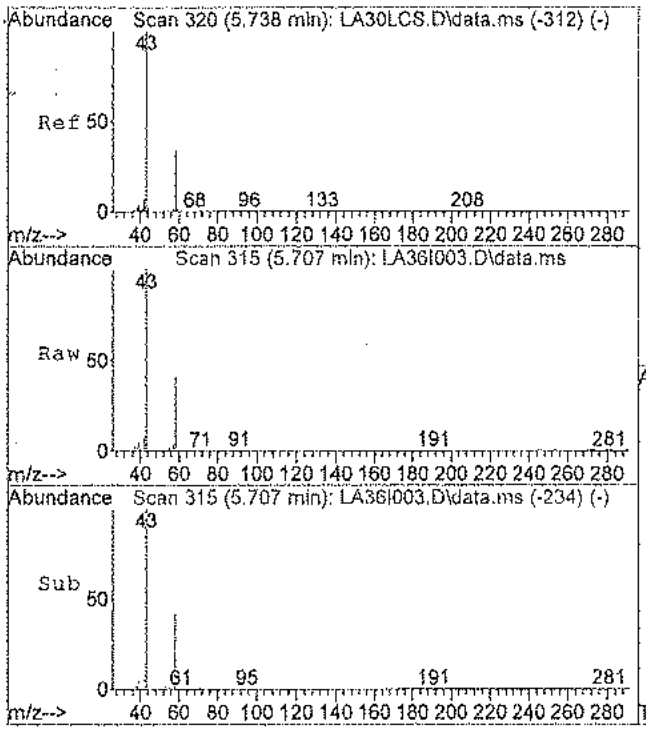


#10
Acrolein
Concen: 2.21 ppb
RT: 5.62 min Scan# 300
Delta R.T. 0.03 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:56.1 Resp: 89553

Ion	Ratio	Lower	Upper
56	100		
55	88.8	55.1	82.7#
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

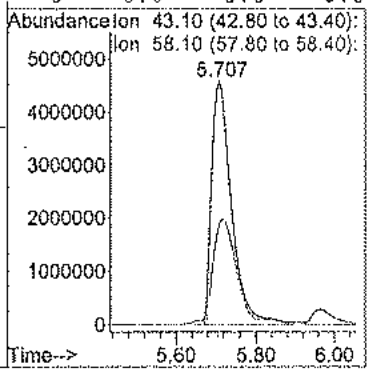


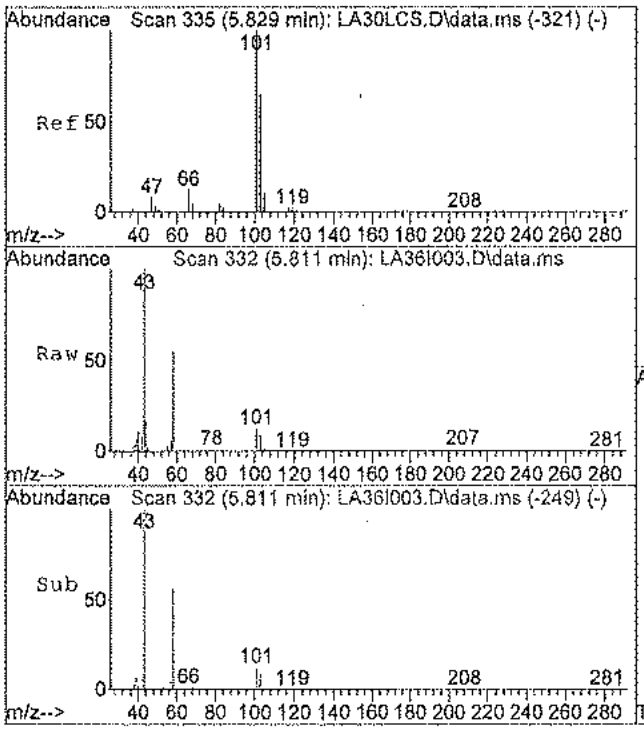


#11
Acetone
Concen: 95.49 ppb
RT: 5.71 min Scan# 315
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:43.1 Resp:15959951

Ion	Ratio	Lower	Upper
43	100		
58	48.2	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

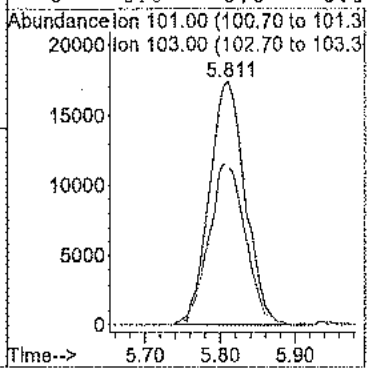


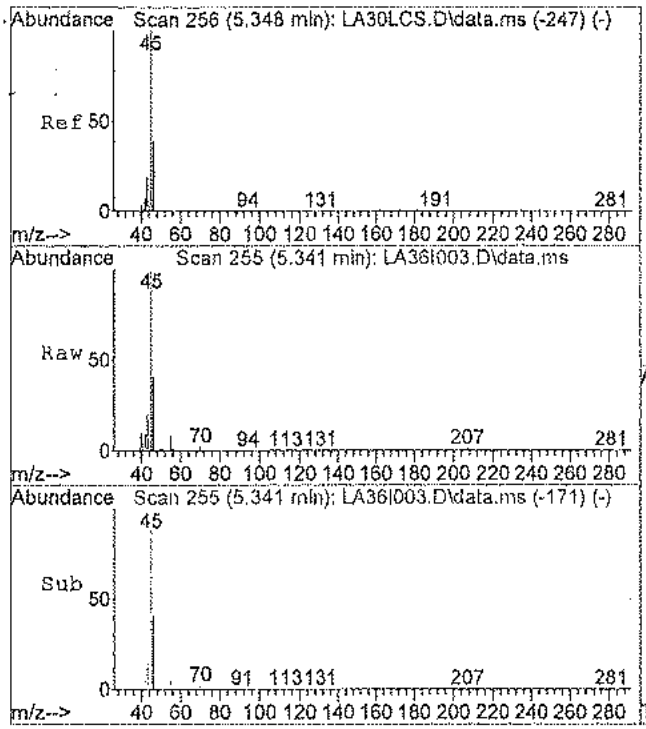


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.81 min Scan# 332
Delta R.T. 0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:101 Resp: 56873

Ion	Ratio	Lower	Upper
101	100		
103	67.9	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

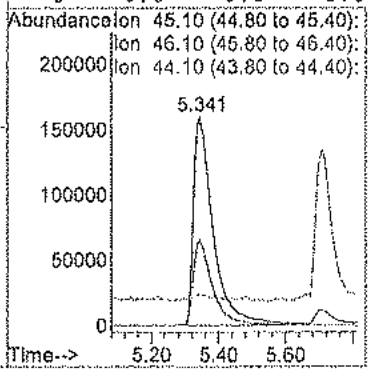


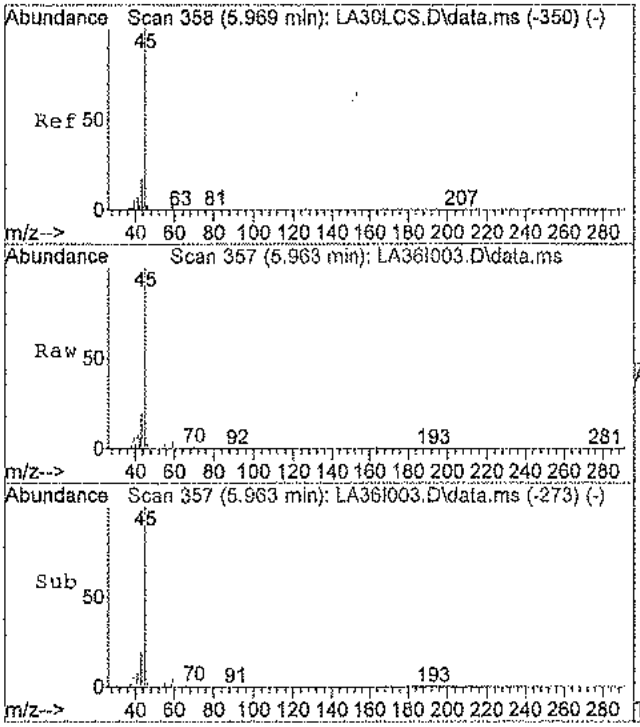


#13
Ethanol
Concen: 19.52 ppb
RT: 5.34 min Scan# 255
Delta R.T. 0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:45.1 Resp: 652358

Ion	Ratio	Lower	Upper
45	100		
46	40.5	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

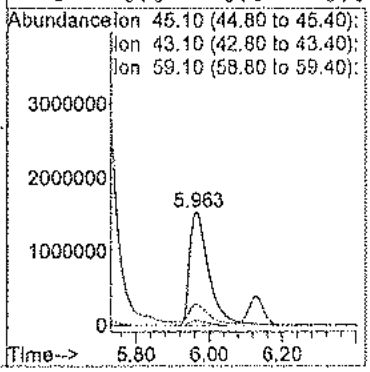


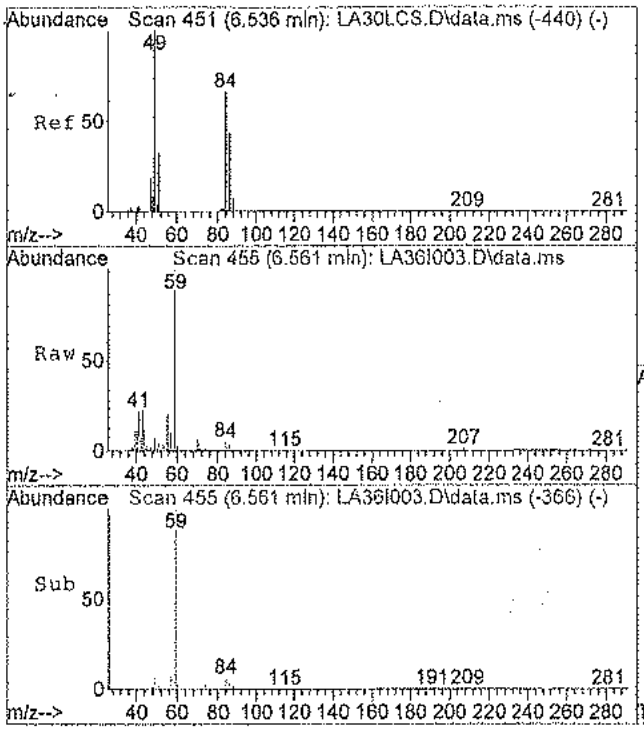


#14
Isopropyl Alcohol
Concen: 19.81 ppb
RT: 5.96 min Scan# 357
Delta R.T. 0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:45.1 Resp: 5619053

Ion	Ratio	Lower	Upper
45	100		
43	18.8	15.8	23.6
59	3.8	3.2	4.8
0	0.0	0.0	0.0

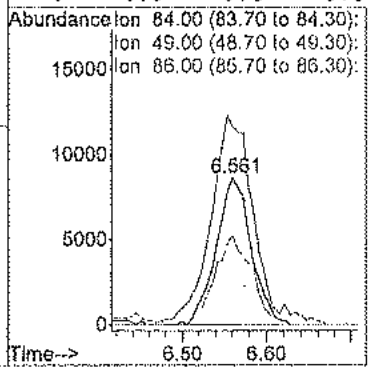


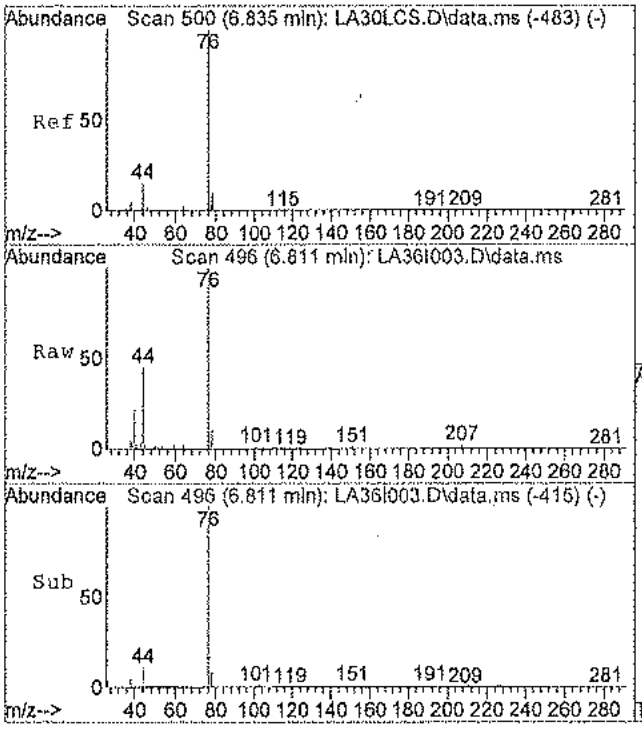


#16
Methylene Chloride
Concen: 0.29 ppb
RT: 6.56 min Scan# 455
Delta R.T. 0.04 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:84 Resp: 24724

Ion	Ratio	Lower	Upper
84	100		
49	162.9	66.6	100.0#
86	63.2	51.6	77.4
0	0.0	0.0	0.0

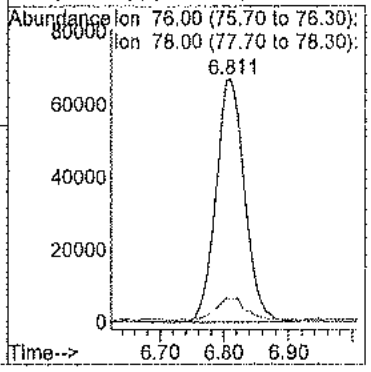


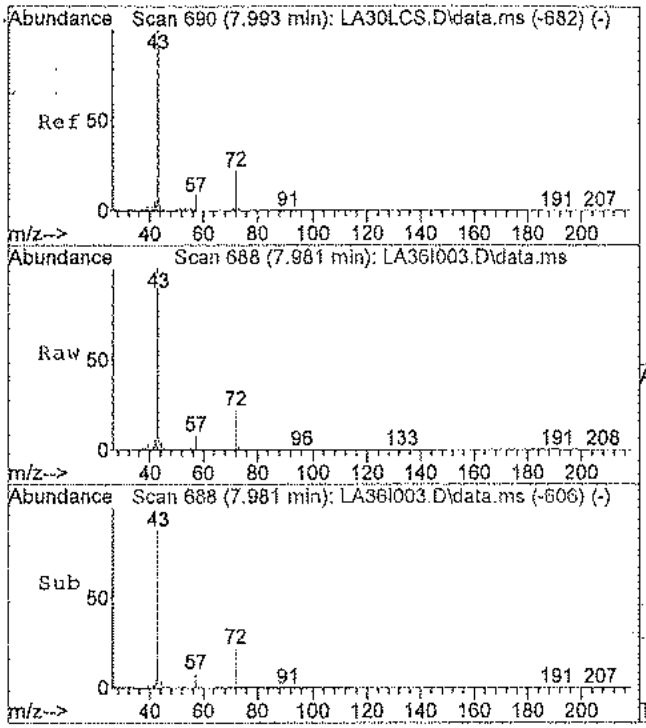


#18
Carbon Disulfide
Concen: 0.80 ppb
RT: 6.81 min Scan# 496
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:76 Resp: 209188

Ion	Ratio	Lower	Upper
76	100		
78	9.6	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

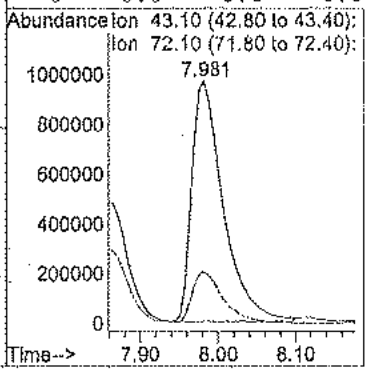


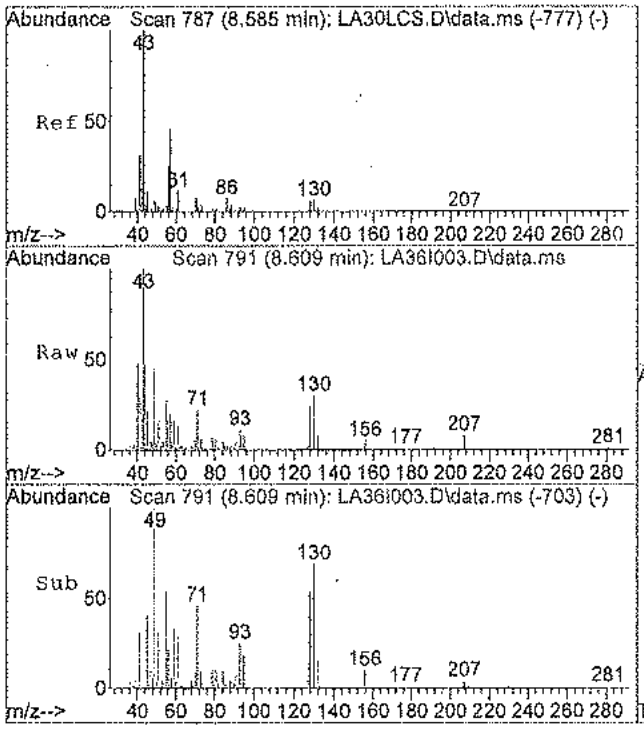


#23
2-Butanone
Concen: 12.71 ppb
RT: 7.98 min Scan# 688
Delta R.T. -0.00 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:43.1 Resp: 2697952

Ion	Ratio	Lower	Upper
43	100		
72	22.4	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

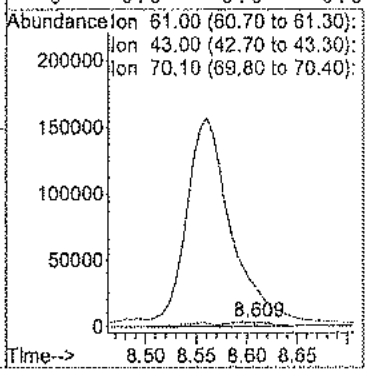


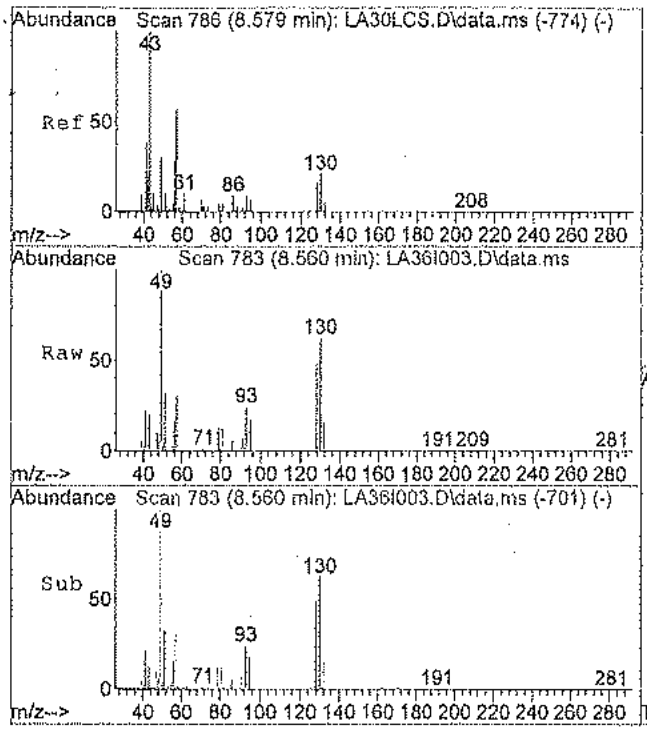


#26
Ethyl Acetate
Concen: 0.32 ppb
RT: 8.61 min Scan# 791
Delta R.T. 0.04 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:61 Resp: 11008

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	78.6	13.6	20.4#
0	0.0	0.0	0.0

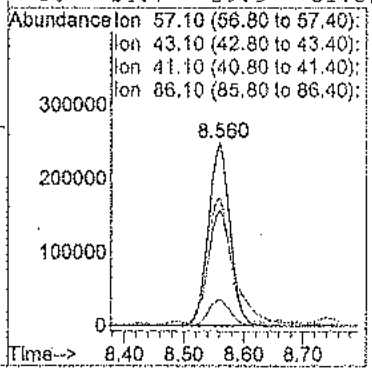


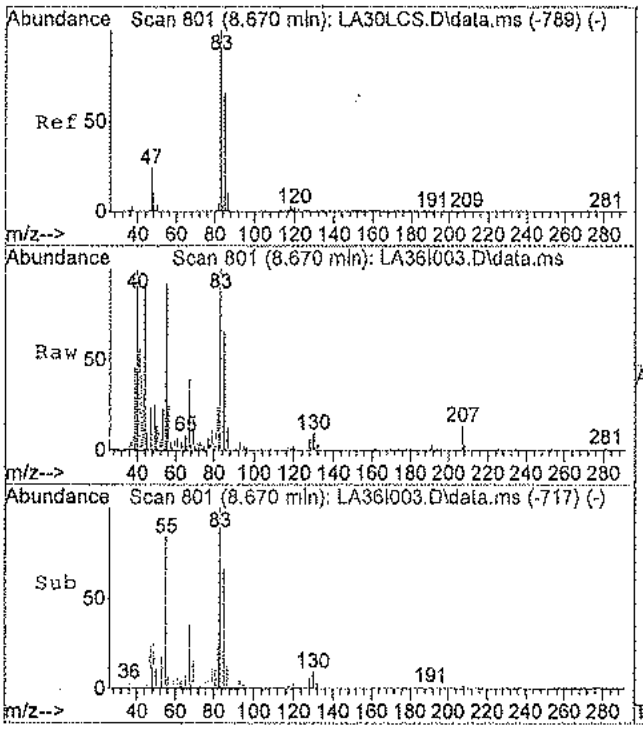


#27
Hexane
Concen: 3.72 ppb
RT: 8.56 min Scan# 783
Delta R.T. -0.00 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:57.1 Resp: 615865

Ion	Ratio	Lower	Upper
57	100		
43	77.3	57.3	85.9
41	74.4	47.0	70.4#
86	14.7	20.9	31.3#

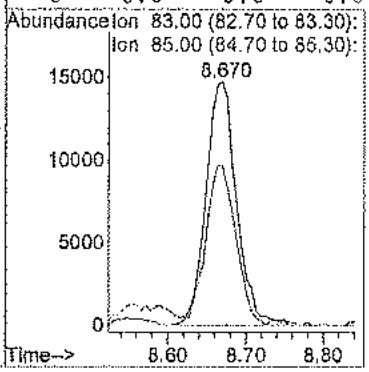


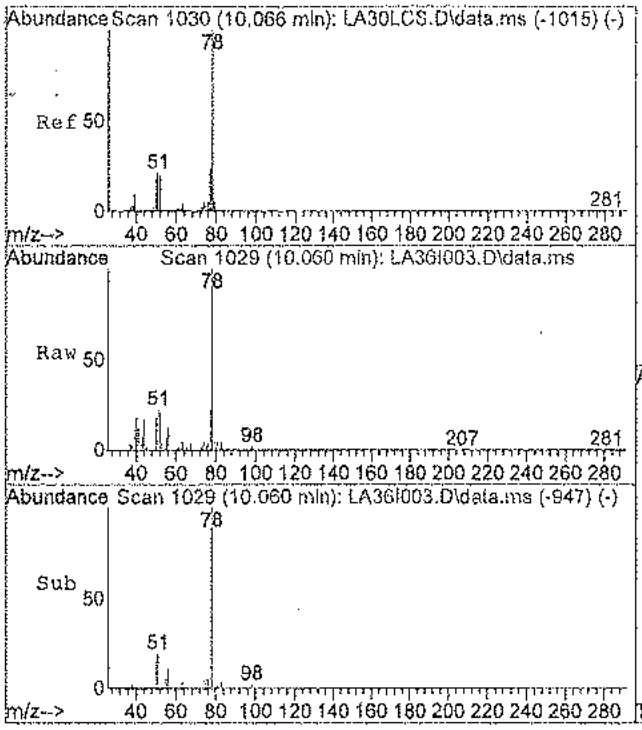


#28
Chloroform
Concen: 0.19 ppb
RT: 8.67 min Scan# 801
Delta R.T. 0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:83 Resp: 39811

Ion	Ratio	Lower	Upper
83	100		
85	65.0	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

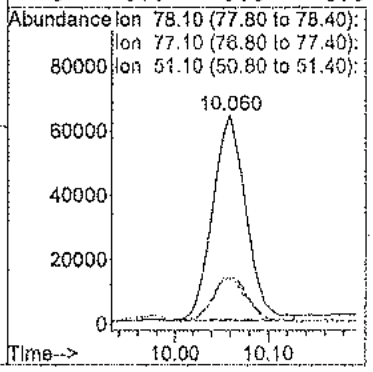


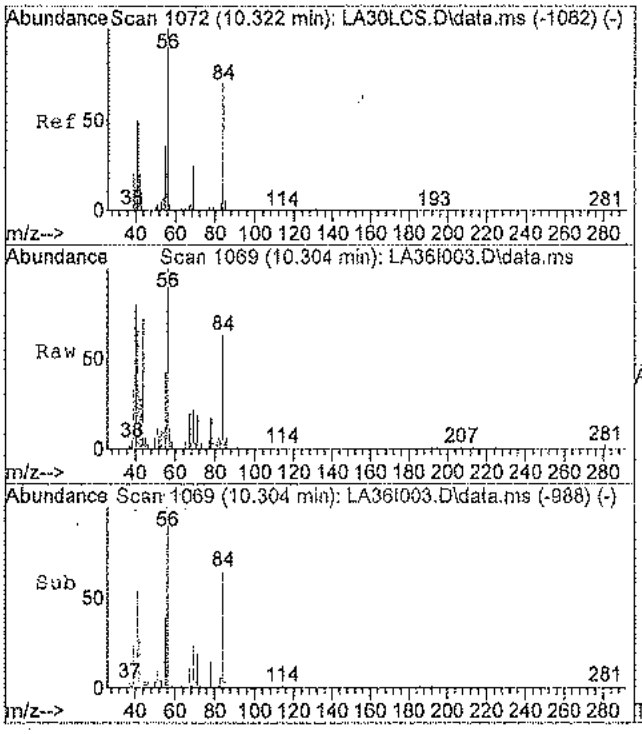


#32
Benzene
Concen: 0.53 ppb
RT: 10.06 min Scan# 1029
Delta R.T. -0.00 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:78.1 Resp: 156053

Ion	Ratio	Lower	Upper
78	100		
77	23.3	18.2	27.4
51	21.4	9.5	14.3#
0	0.0	0.0	0.0

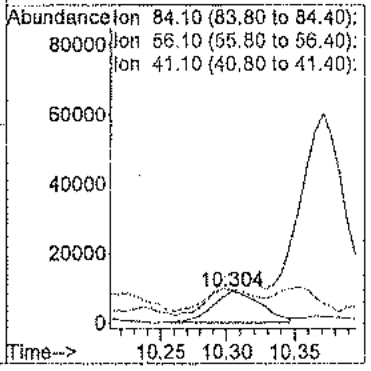


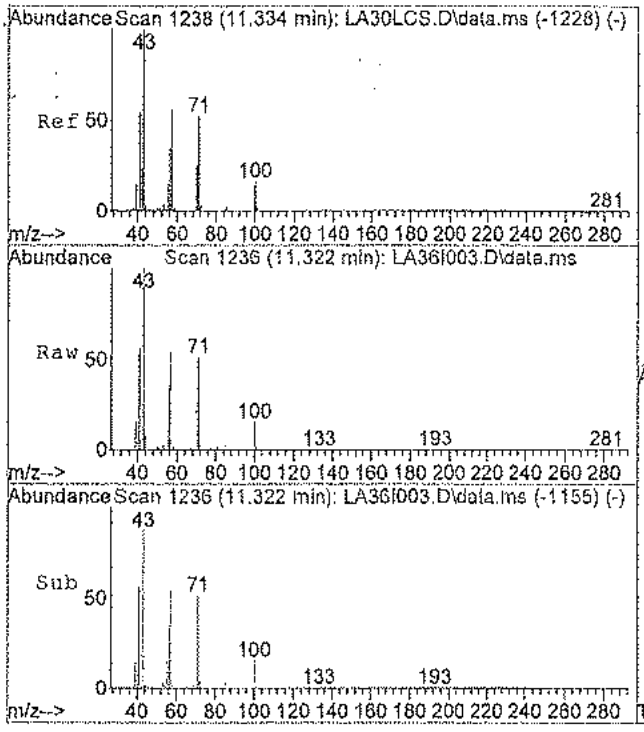


#34
Cyclohexane
Concen: 0.17 ppb
RT: 10.30 min Scan# 1069
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:84.1 Resp: 22254

Ion	Ratio	Lower	Upper
84	100		
56	158.7	67.3	100.9#
41	0.0	30.2	45.4#
0	0.0	0.0	0.0

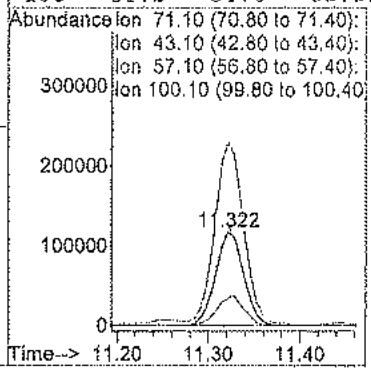


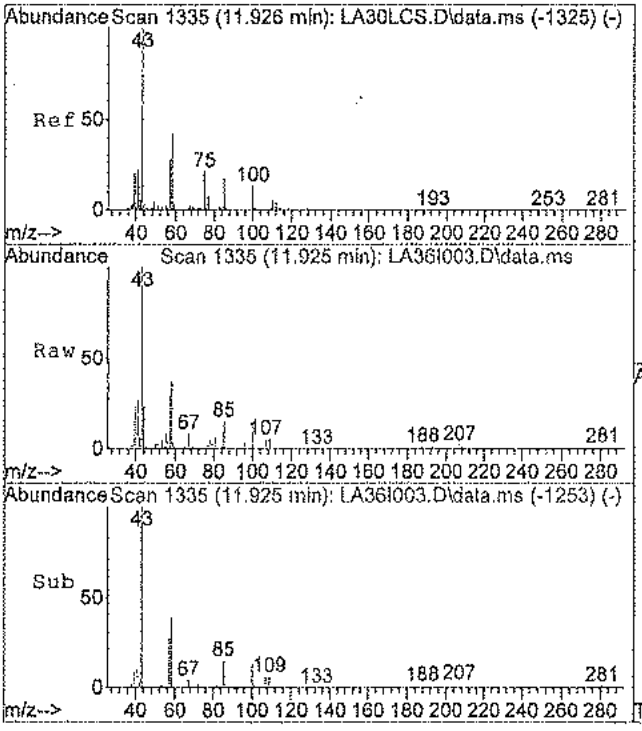


#40
Heptane
Concen: 2.39 ppb
RT: 11.32 min Scan# 1236
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:71.1 Resp: 243300

Ion	Ratio	Lower	Upper
71	100		
43	203.3	87.3	130.9#
57	107.1	57.8	86.6#
100	31.2	34.8	52.2#

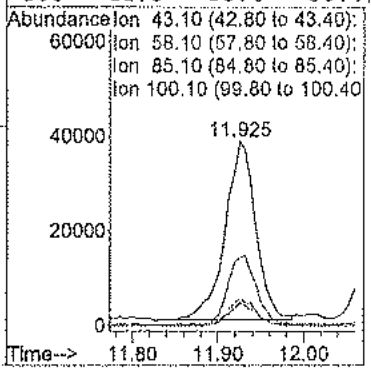


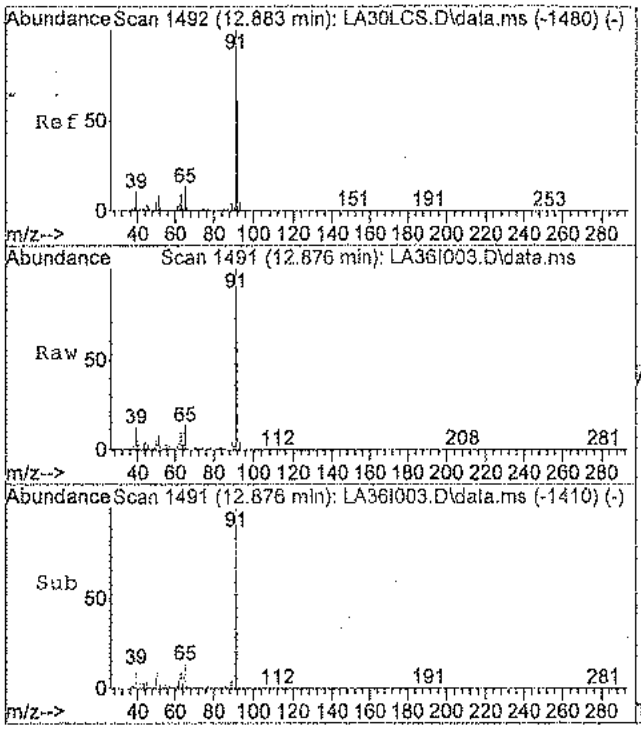


#42
4-Methyl-2-Pentanone
Concen: 0.38 ppb
RT: 11.93 min Scan# 1335
Delta R.T. -0.00 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:43.1 Resp: 91871

Ion	Ratio	Lower	Upper
43	100		
58	36.3	39.5	59.3#
85	14.8	25.1	37.7#
100	11.5	25.6	38.4#

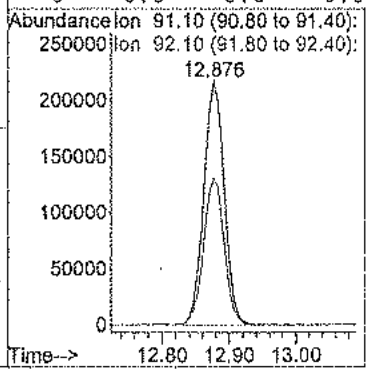


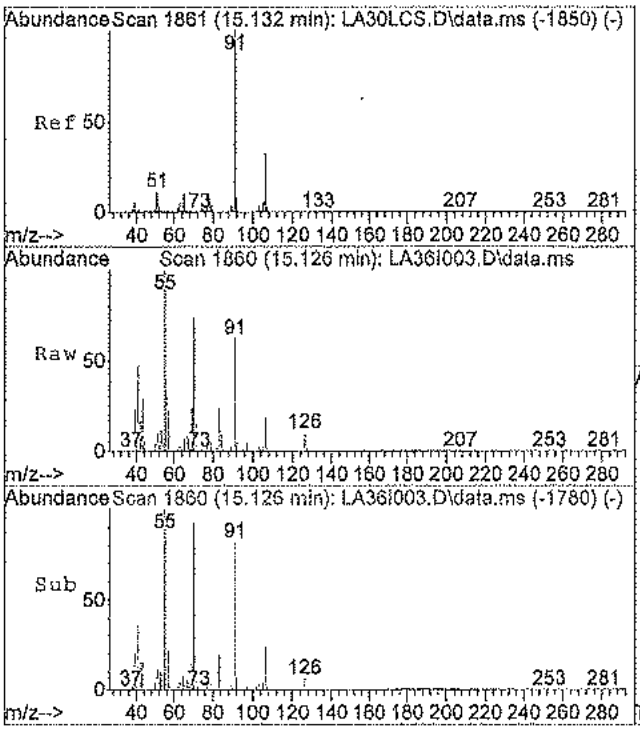


#45
Toluene
Concen: 1.29 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:91.1 Resp: 458932

Ion	Ratio	Lower	Upper
91	100		
92	60.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

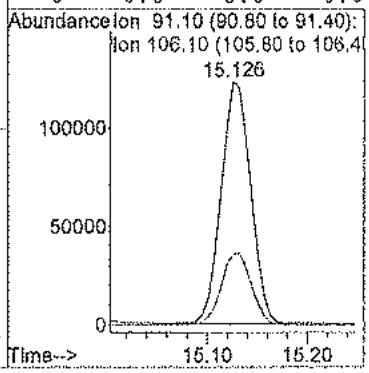


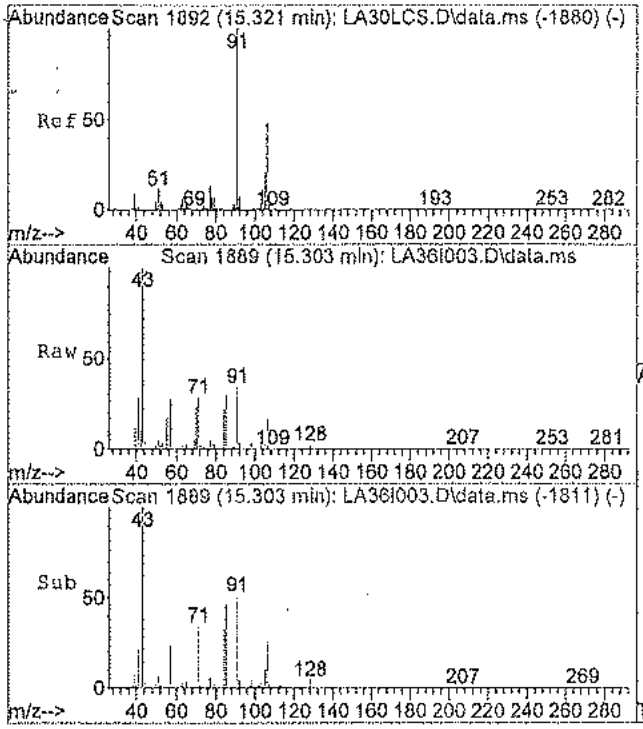


#52
Ethylbenzene
Concen: 0.55 ppb
RT: 15.13 min Scan# 1860
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:91.1 Resp: 248961

Ion	Ratio	Lower	Upper
91	100		
106	30.5	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

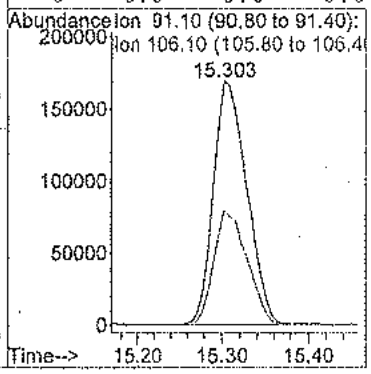


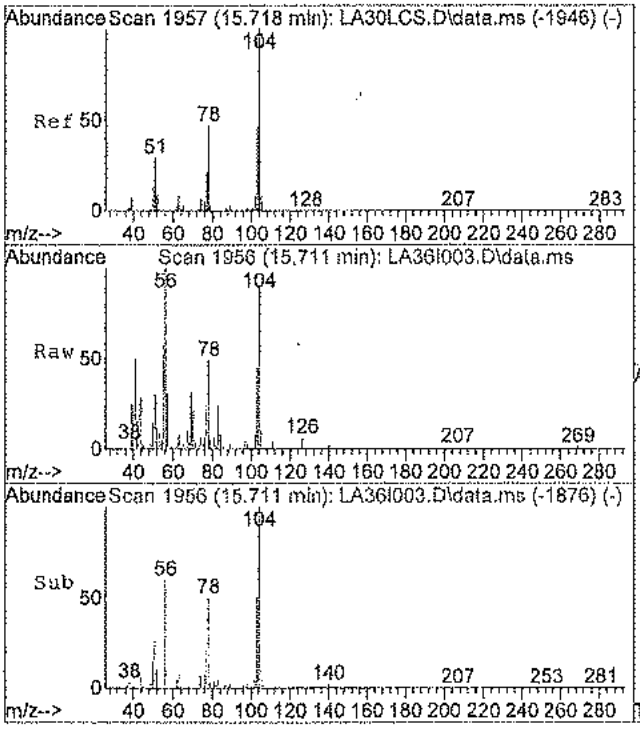


#53
m,p-Xylene
Concen: 1.27 ppb
RT: 15.30 min Scan# 1889
Delta R.T. -0.02 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:91.1 Resp: 442869

Ion	Ratio	Lower	Upper
91	100		
106	47.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

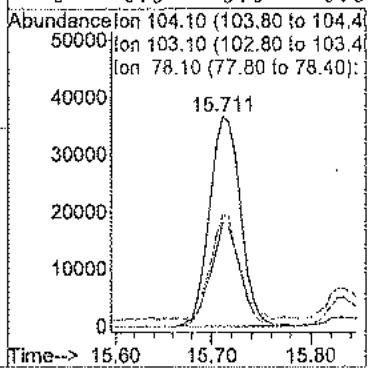


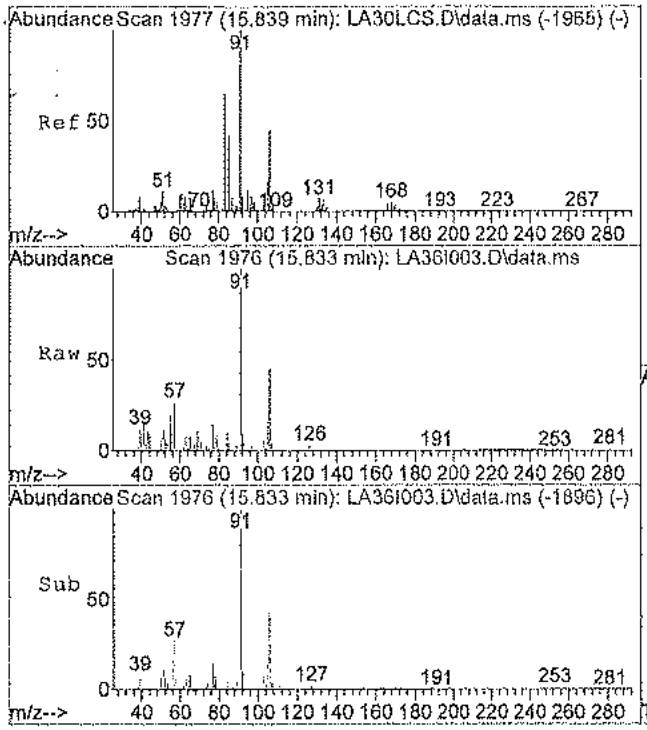


#55
Styrene
Concen: 0.30 ppb
RT: 15.71 min Scan# 1956
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:104.1 Resp: 77634

Ion	Ratio	Lower	Upper
104	100		
103	46.7	36.6	54.8
78	45.9	27.7	41.5#
0	0.0	0.0	0.0

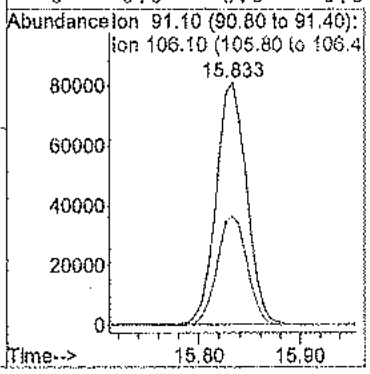


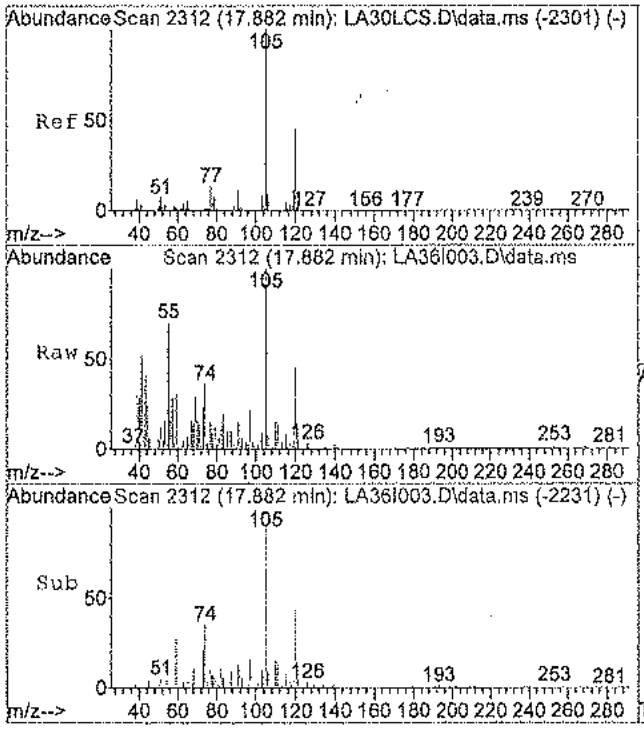


#57
o-Xylene
Concen: 0.47 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:91.1 Resp: 167185

Ion	Ratio	Lower	Upper
91	100		
106	45.2	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

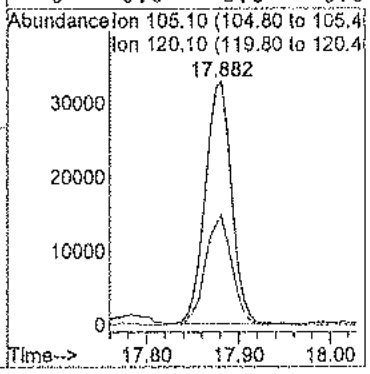




#61
1,2,4-Trimethylbenzene
Concen: 0.16 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA36I003.D
Acq: 04/15/2015 16:28

Tgt Ion:105.1 Resp: 64497

Ion	Ratio	Lower	Upper
105	100		
120	45.5	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



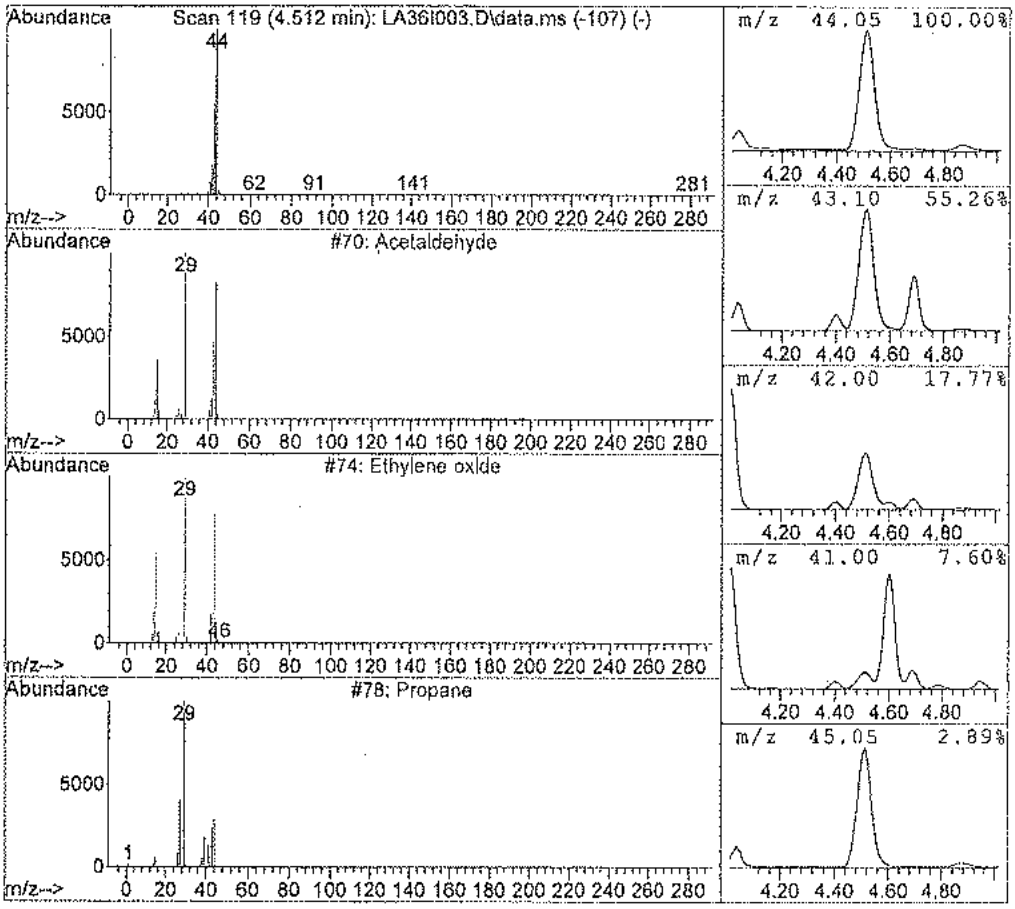
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.51	29.28 ppb	15777380	Bromochloromethane	10776228

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	70	000075-07-0	64.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	78	000074-98-6	4.00
4	1,2-Propanediamine	788	000078-90-0	4.00
5	Alanine	2136	000056-41-7	4.00



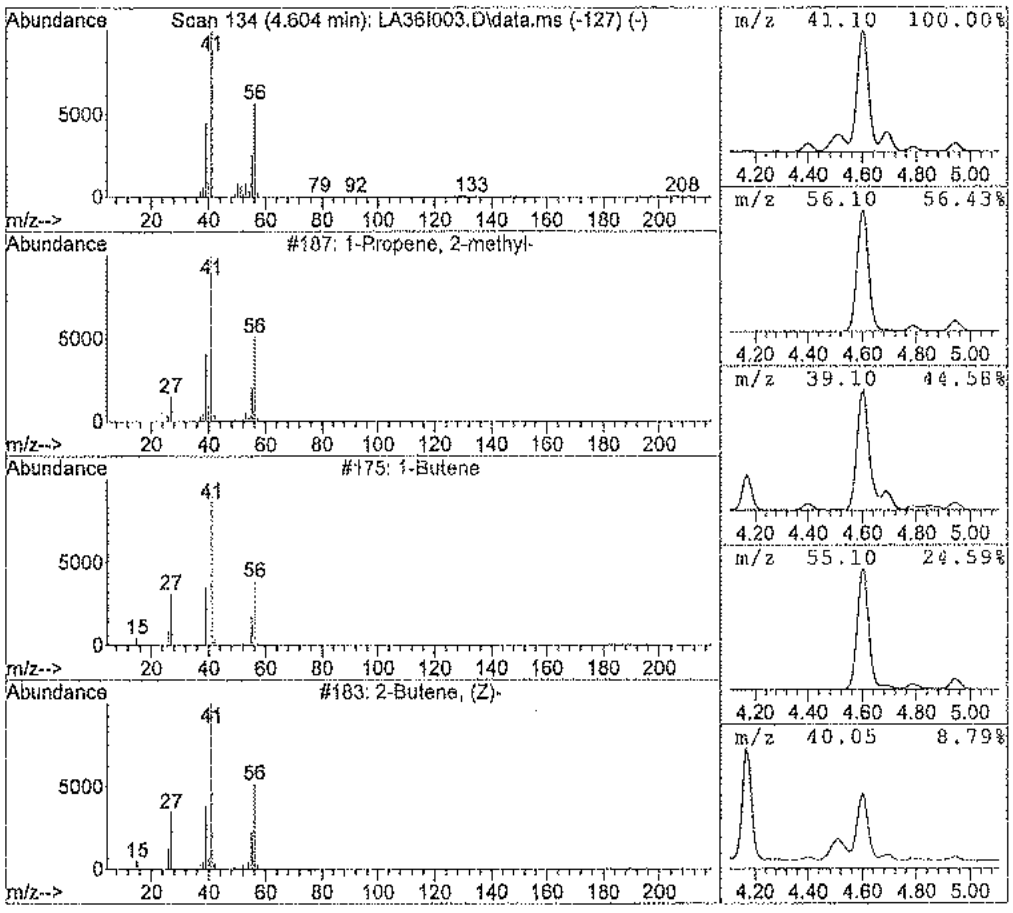
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.60	19.40 ppb	10455267	Bromochloromethane	10776228

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Propene, 2-methyl-	187	000115-11-7	90.00
2	1-Butene	175	000106-98-9	87.00
3	2-Butene, (Z)-	183	000590-18-1	80.00
4	2-Butene	173	000107-01-7	80.00
5	2-Butene, (E)-	181	000624-64-6	80.00



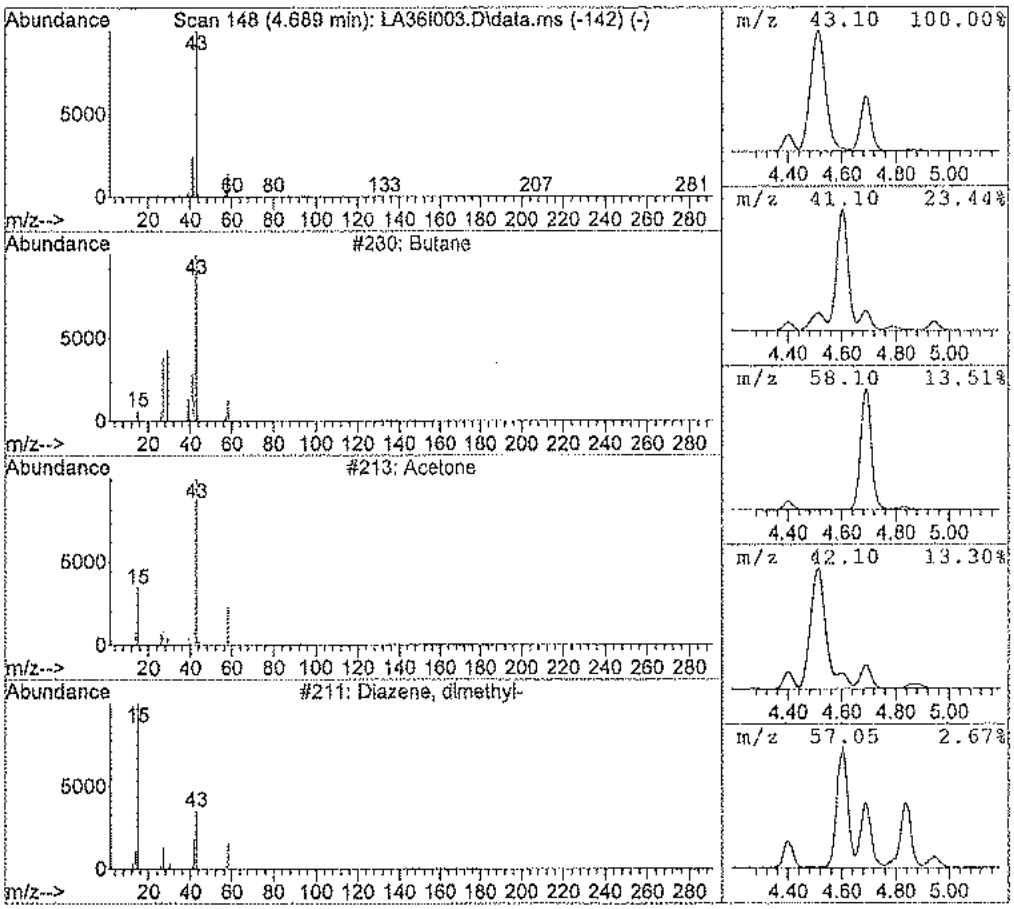
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.69	5.98 ppb	3224701	Bromochloromethane	10776228

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	230	000106-97-8	56.00
2	Acetone	213	000067-64-1	7.00
3	Diazene, dimethyl-	211	000503-28-6	5.00
4	Propylene oxide	223	000075-56-9	3.00
5	Hydrogen azide	69	007782-79-8	3.00



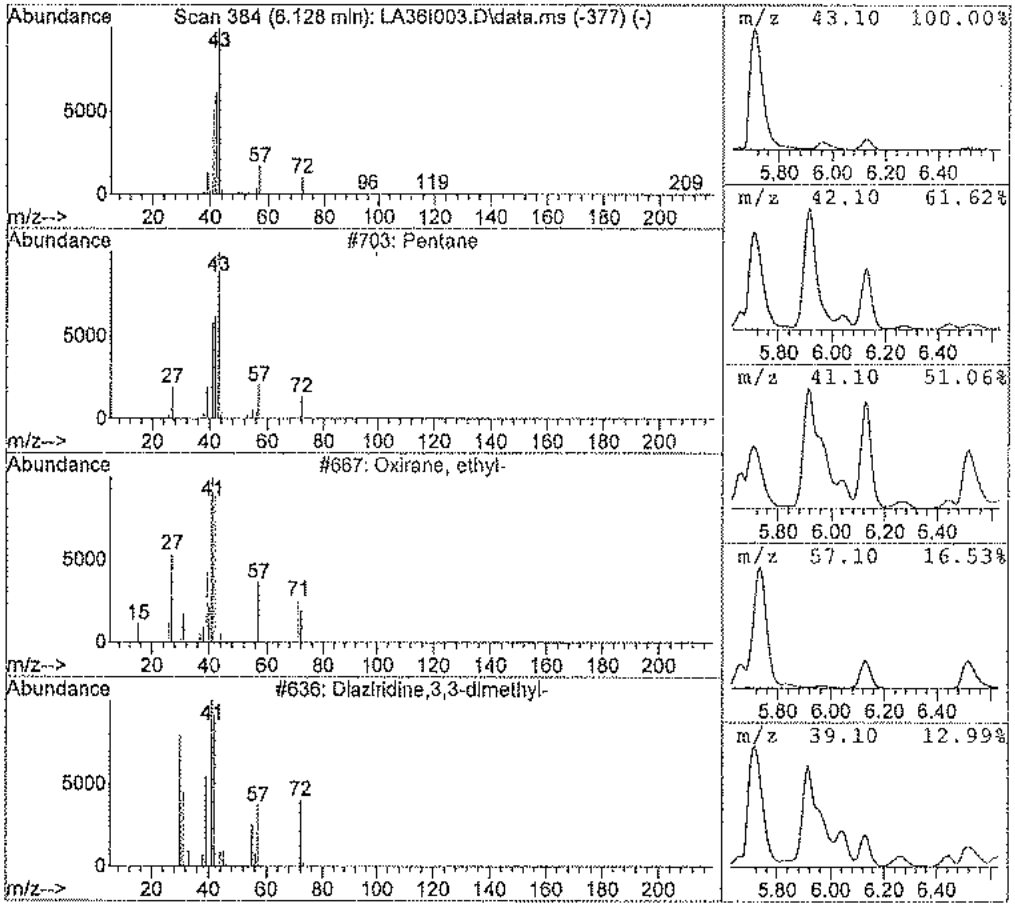
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.13	5.37 ppb	2894232	Bromochloromethane	10776228

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	703	000109-66-0	90.00
2	Oxirane, ethyl-	667	000106-88-7	9.00
3	Diaziridine,3,3-dimethyl-	636	004901-76-2	9.00
4	Butane, 2-methyl-	710	000078-78-4	7.00
5	Hydrazine, 2-propenyl-	632	007422-78-8	5.00



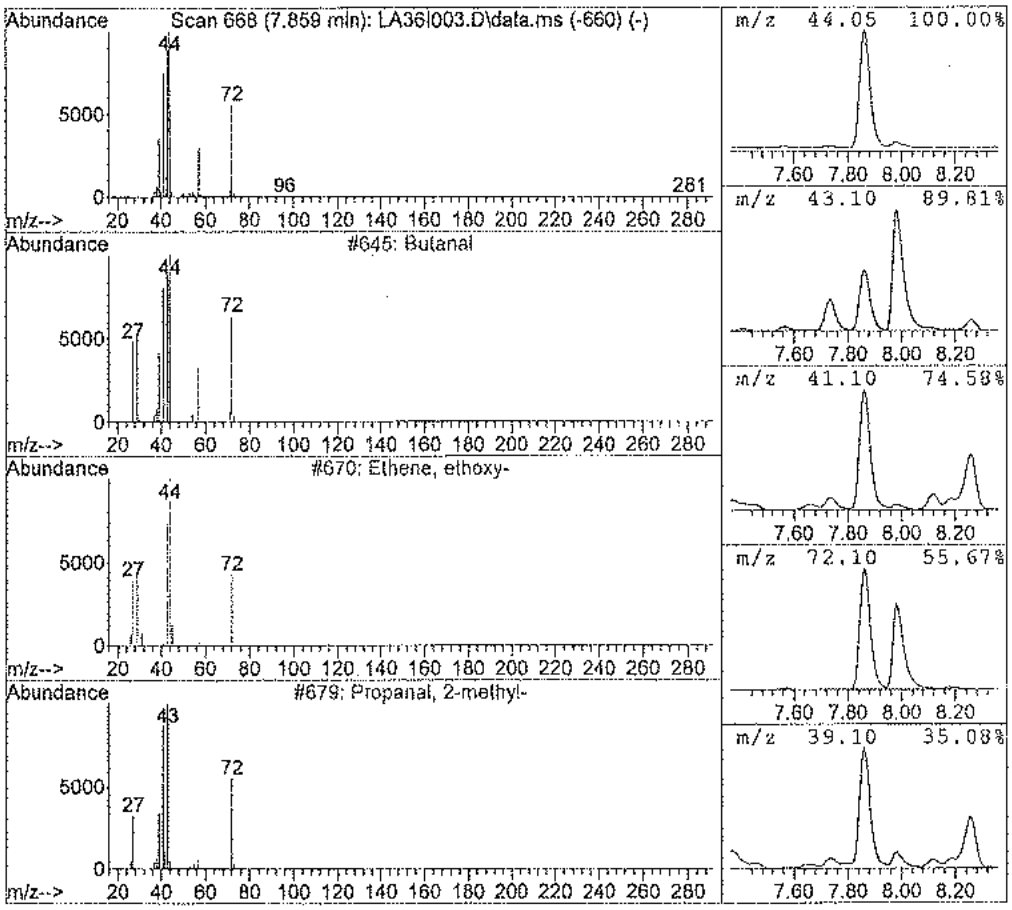
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst . : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.86	11.93 ppb	6426392	Bromochloromethane	10776228

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	Ethene, ethoxy-	670	000109-92-2	64.00
3	Propanal, 2-methyl-	679	000078-84-2	46.00
4	Pentanal	1695	000110-62-3	28.00
5	Cyclopropyl carbinol	687	002516-33-8	25.00



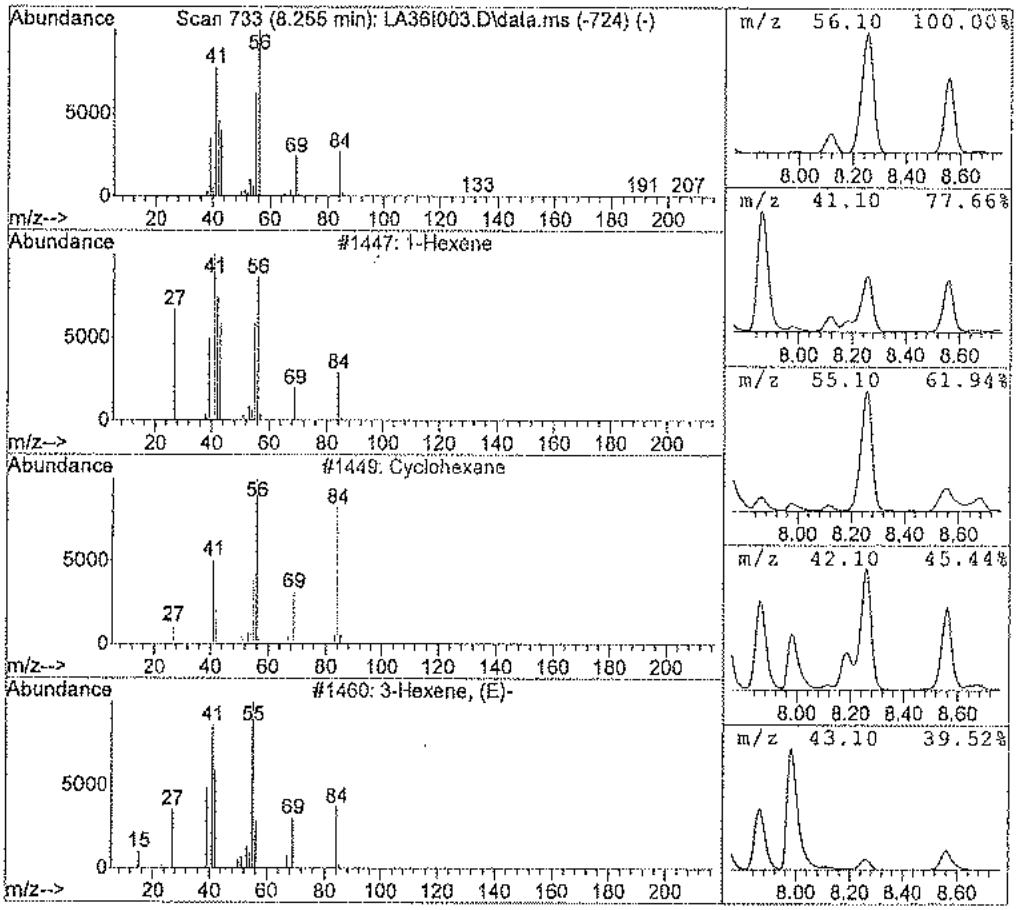
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.26	5.53 ppb	2977647	Bromochloromethane	10776228

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexene	1447	000592-41-6	91.00
2	Cyclohexane	1449	000110-82-7	72.00
3	3-Hexene, (E)-	1460	013269-52-8	64.00
4	3-Hexene, (Z)-	1461	007642-09-3	60.00
5	2-Hexene, (Z)-	1455	007688-21-3	49.00



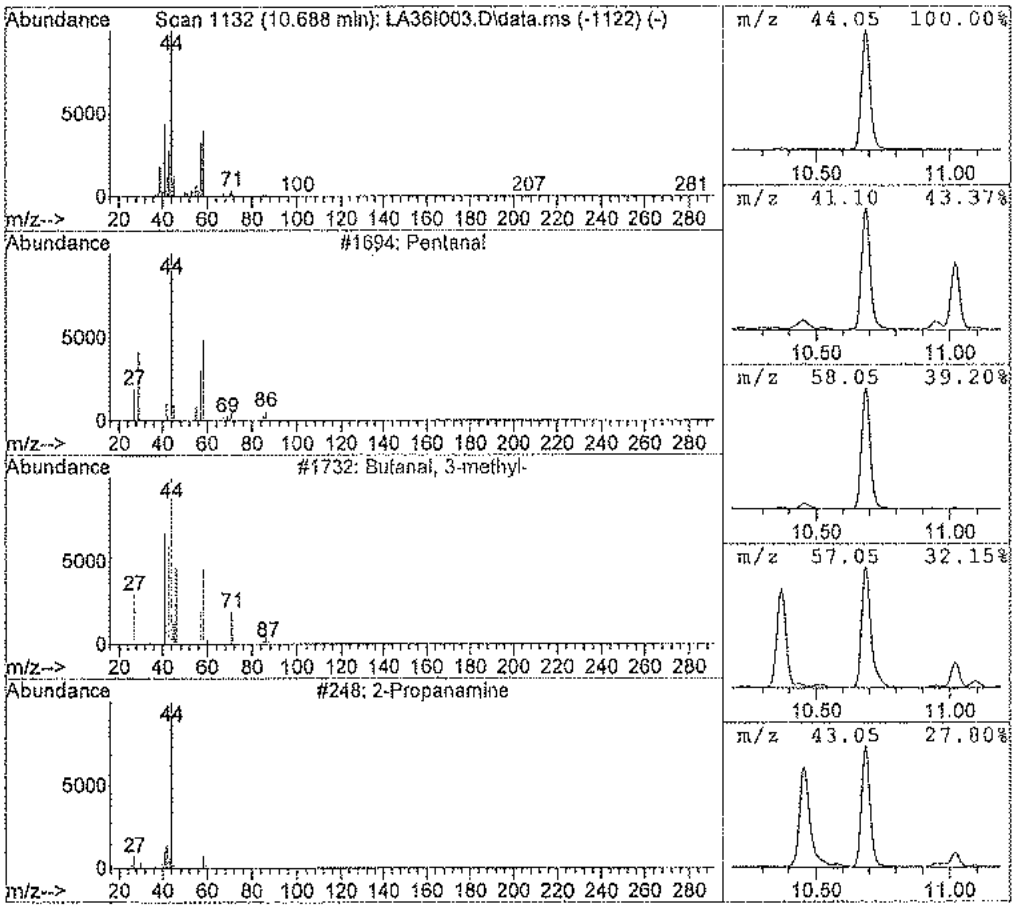
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.69	11.40 ppb	8246307	1,4-Difluorobenzene	14471550

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1694	000110-62-3	64.00
2	Butanal, 3-methyl-	1732	000590-86-3	43.00
3	2-Propanamine	248	000075-31-0	38.00
4	Cyclopropyl carbinol	686	002516-33-8	33.00
5	Glycidol	802	000556-52-5	9.00



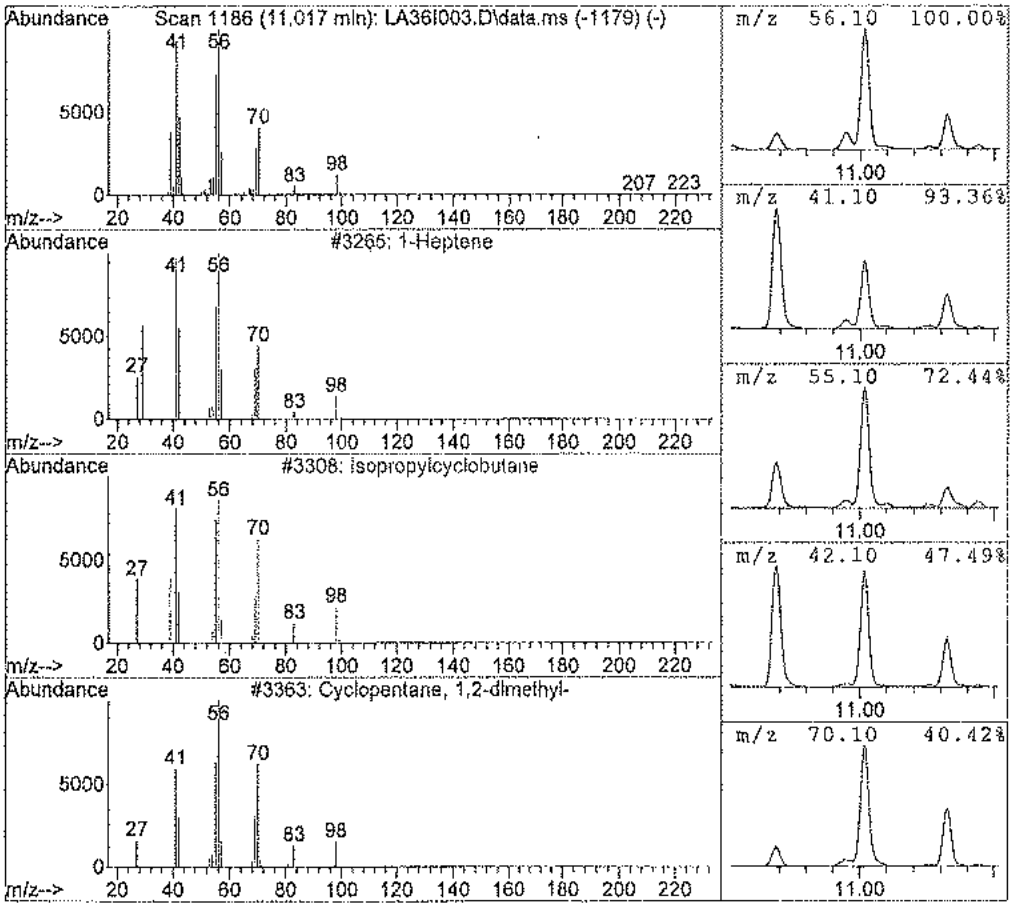
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
11.02	4.36 ppb	3155792	1,4-Difluorobenzene	14471550

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Heptene	3265	000592-76-7	93.00
2	Isopropylcyclobutane	3308	000872-56-0	64.00
3	Cyclopentane, 1,2-dimethyl-	3363	002452-99-5	64.00
4	Cyclopropane, propyl-	1483	002415-72-7	59.00
5	Cyclopentane, 1,2-dimethyl-, cis-	3381	001192-18-3	53.00



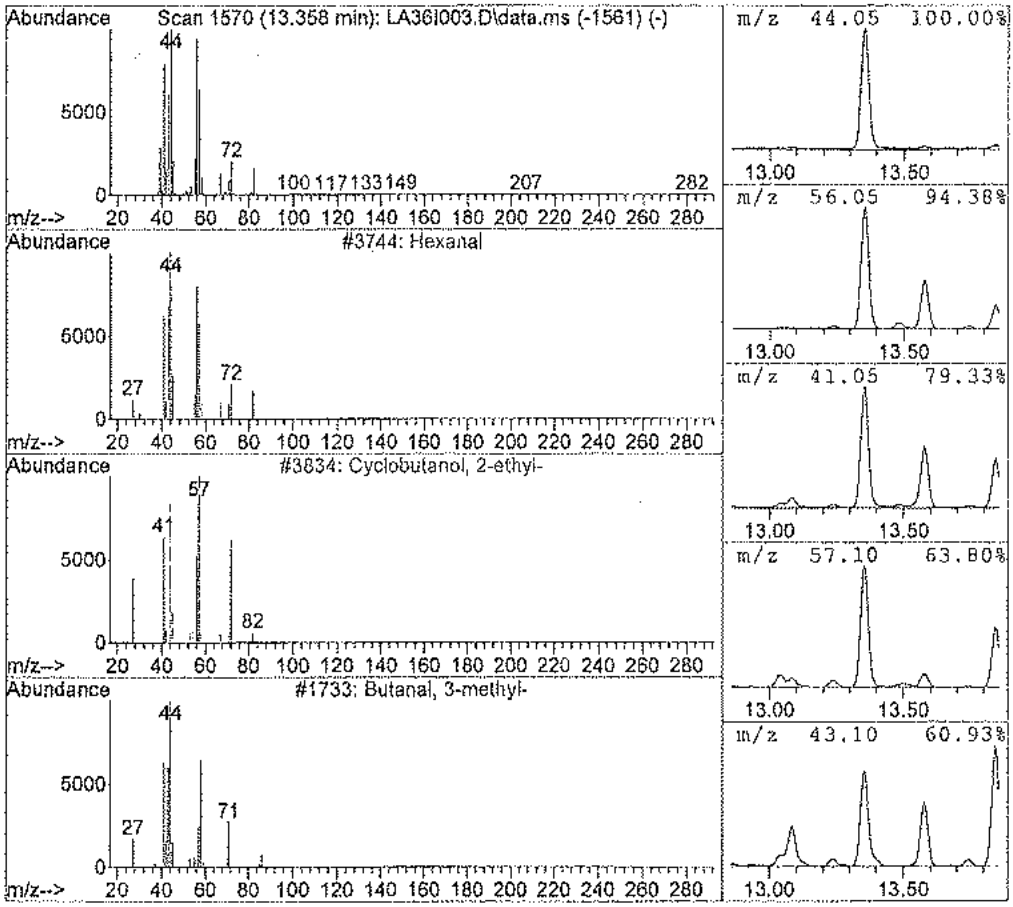
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.36	9.95 ppb	8186906	Chlorobenzene d5	16448367

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3744	000066-25-1	90.00
2	Cyclobutanol, 2-ethyl-	3834	035301-43-0	36.00
3	Butanal, 3-methyl-	1733	000590-86-3	32.00
4	Aziridine, 2-methyl-	204	000075-55-8	27.00
5	Hex-5-enylamine	3501	034825-70-2	23.00



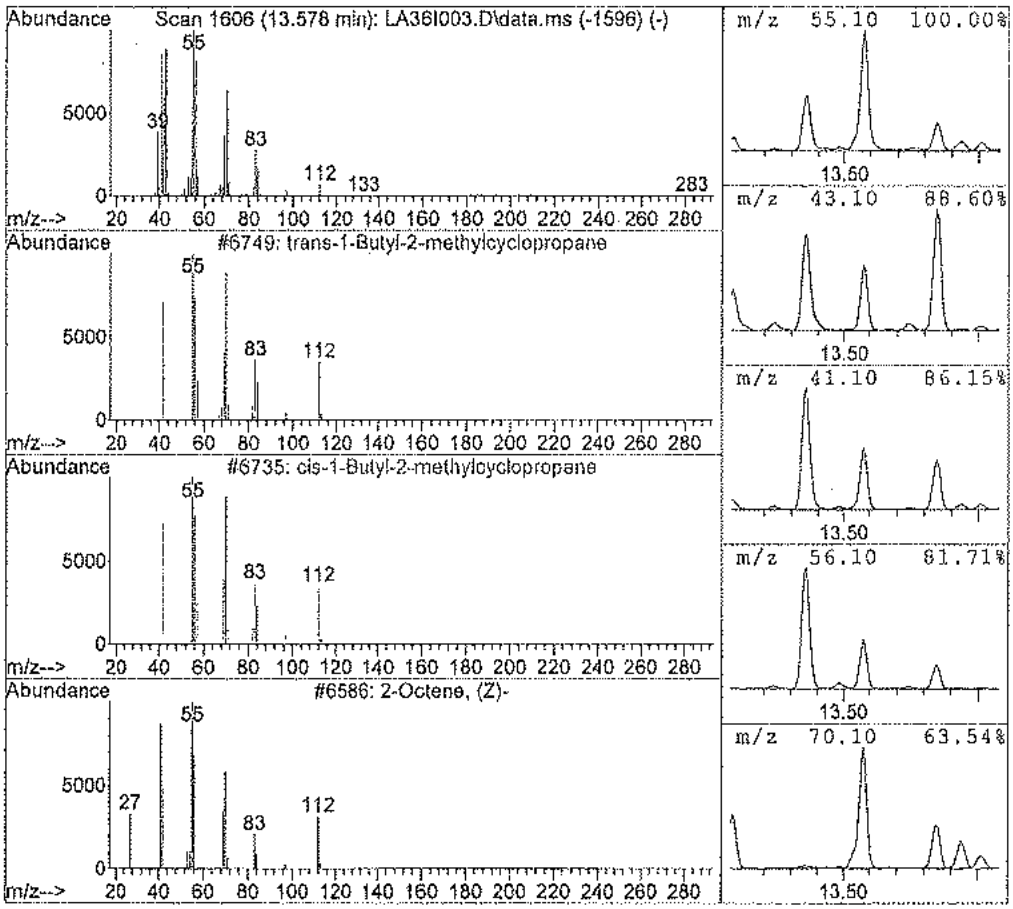
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.58	5.18 ppb	4261218	Chlorobenzene d5	16448367

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	trans-1-Butyl-2-methylcyclopropane	6749	038851-70-6	90.00
2	cis-1-Butyl-2-methylcyclopropane	6735	038851-69-3	90.00
3	2-Octene, (Z)-	6586	007642-04-8	81.00
4	Cycloheptane	3274	000291-64-5	78.00
5	1-Heptene	3269	000592-76-7	64.00



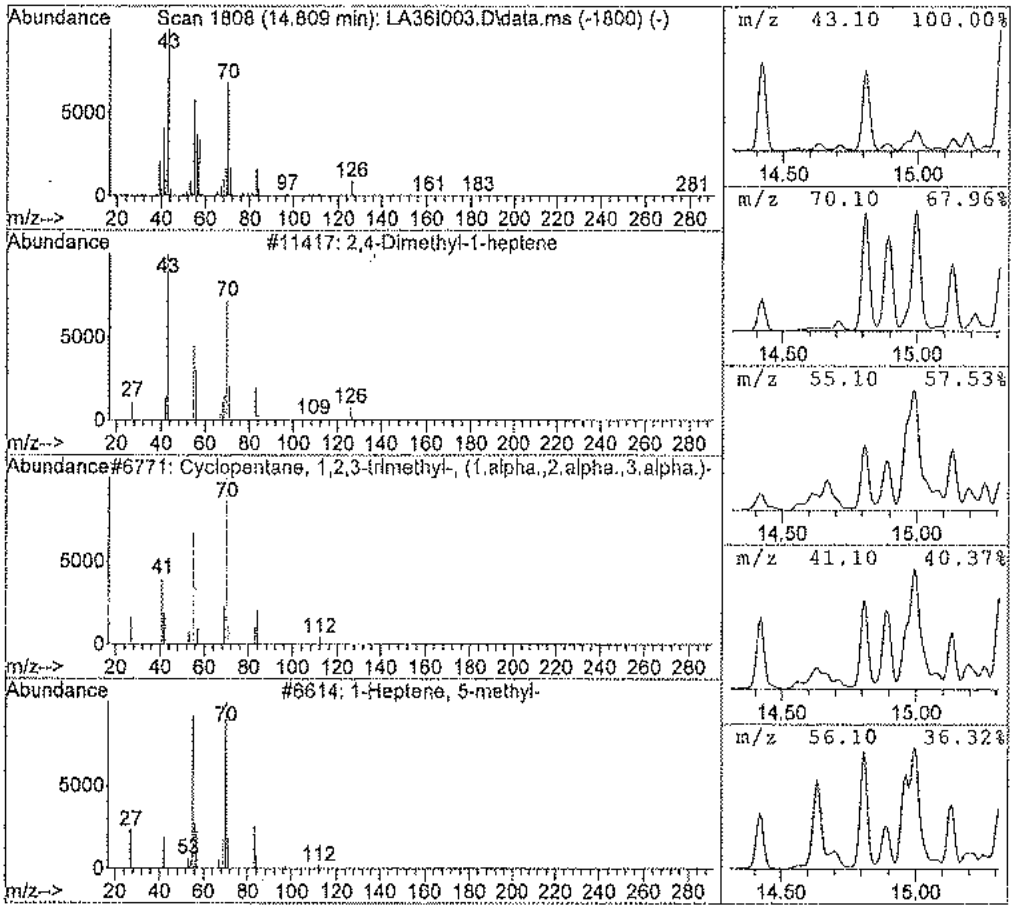
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.81	4.59 ppb	3778143	Chlorobenzene d5	16448367

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,4-Dimethyl-1-heptene	11417	019549-87-2	94.00
2	Cyclopentane, 1,2,3-trimethyl-, (1.	6771	002613-69-6	50.00
3	1-Heptene, 5-methyl-	6614	013151-04-7	50.00
4	Cyclopentane, 1,1,3,3-tetramethyl-	11492	050876-33-0	47.00
5	Undecane, 3-methylene-	36000	071138-64-2	40.00



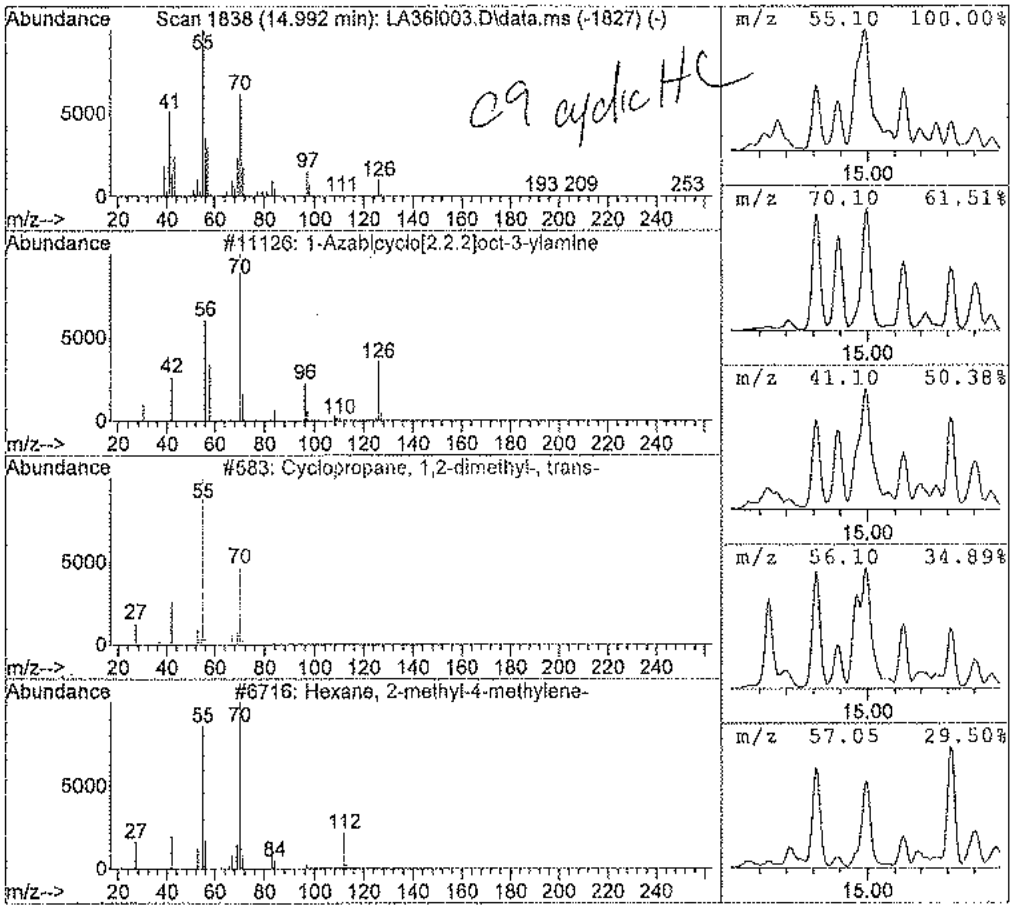
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.99	8.48 ppb	6971832	Chlorobenzene d5	16448367

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Azabicyclo[2.2.2]oct-3-ylamine	11126	006238-14-8	53.00
2	Cyclopropane, 1,2-dimethyl-, trans-	583	002402-06-4	52.00
3	Hexane, 2-methyl-4-methylene-	6716	003404-80-6	47.00
4	Cyclopentane, 1,2-dimethyl-, cis-	3378	001192-18-3	47.00
5	Cyclohexane, 1-ethyl-4-methyl-, cis	11498	004926-78-7	43.00



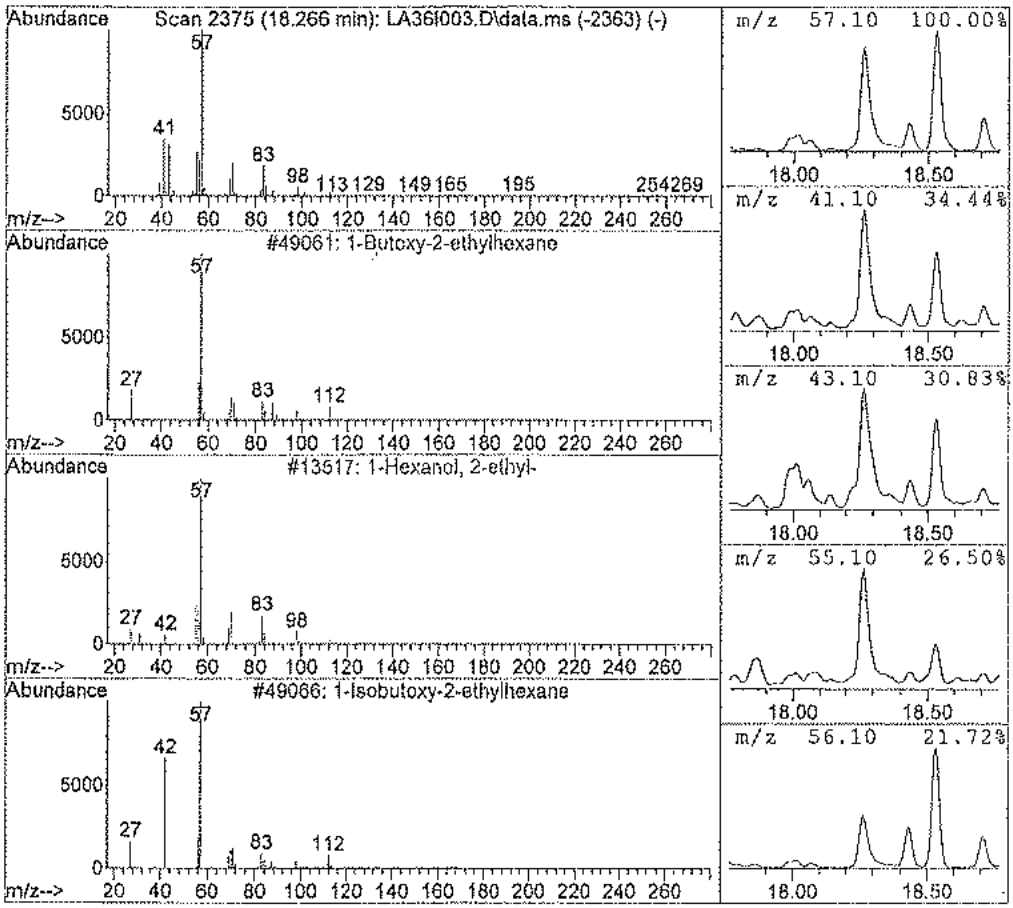
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.27	5.03 ppb	4137899	Chlorobenzene d5	16448367

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Butoxy-2-ethylhexane	49061	062625-25-6	83.00
2	1-Hexanol, 2-ethyl-	13517	000104-76-7	72.00
3	1-Isobutoxy-2-ethylhexane	49066	1000139-90-3	64.00
4	Heptane, 1,1'-oxybis-	70368	000629-64-1	64.00
5	1-Pentanol, 2-ethyl-4-methyl-	13603	000106-67-2	56.00

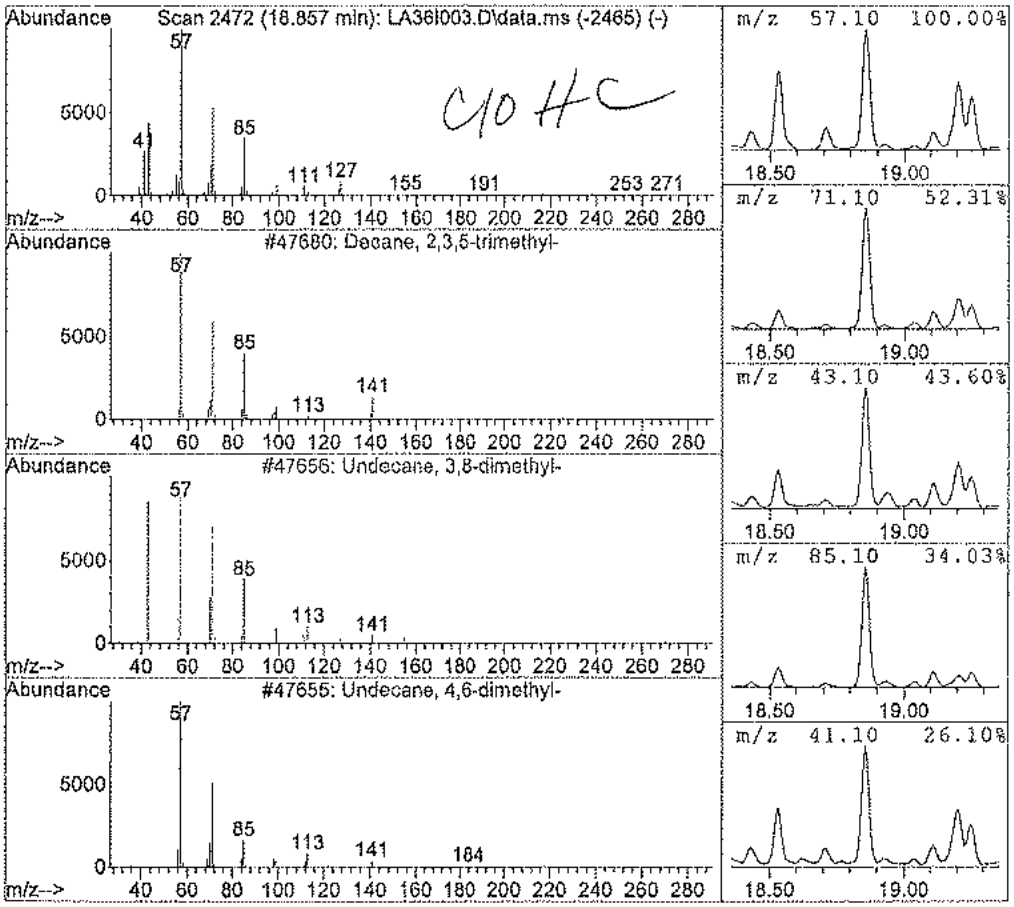


Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA36I003.D Vial: 4
Acq Time : 04/15/2015 16:28 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.86	6.95 ppb	5715171	Chlorobenzene d5	16448367

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,3,5-trimethyl-	47680	062238-11-3	72.00
2	Undecane, 3,8-dimethyl-	47656	017301-30-3	64.00
3	Undecane, 4,6-dimethyl-	47655	017312-82-2	64.00
4	Sulfurous acid, 2-ethylhexyl hexyl	119429	1000309-20-2	64.00
5	Decane, 3-methyl-	27928	013151-34-3	59.00

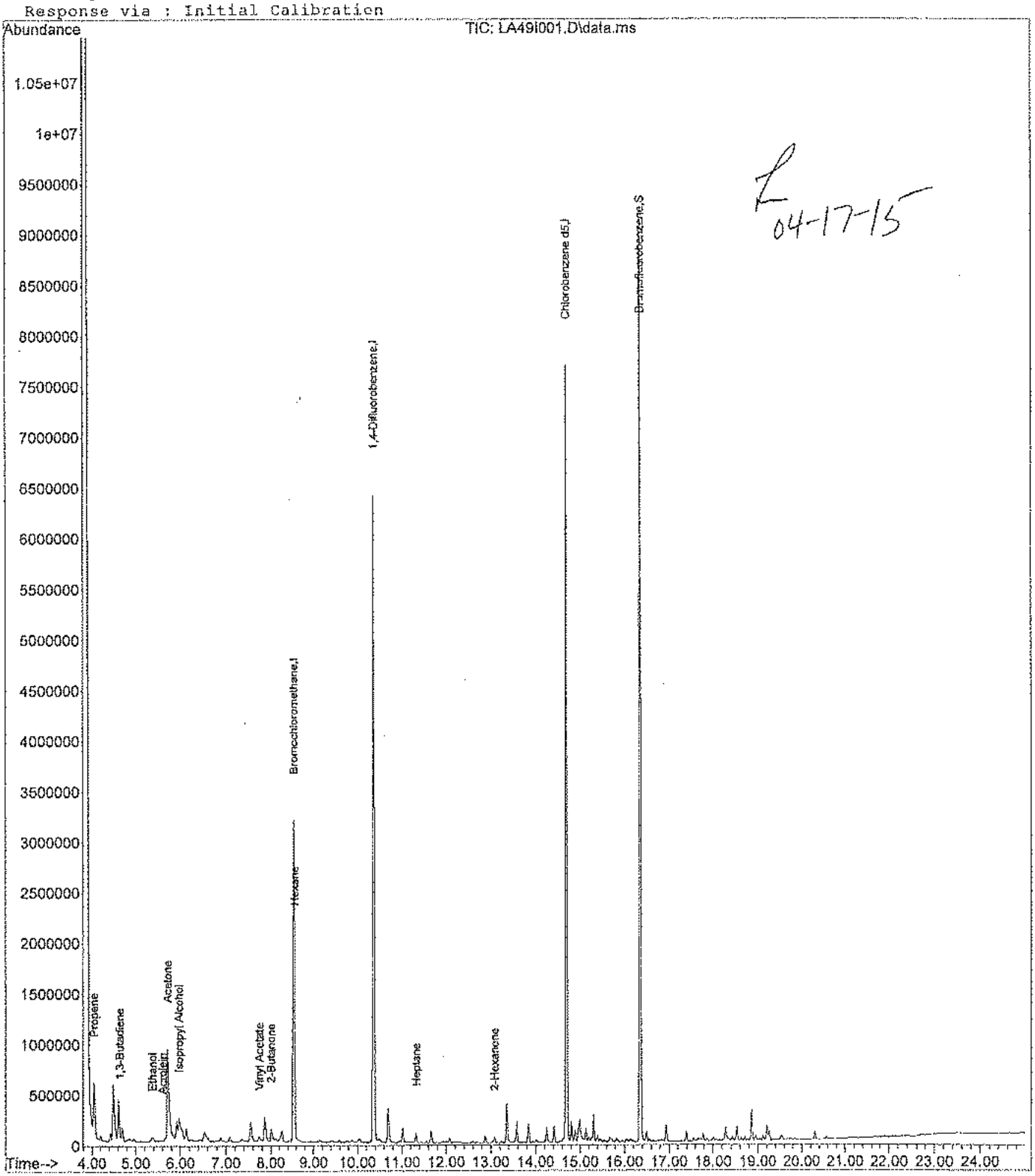


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA49I001.D Vial: 4
Acq Time : 04/16/2015 10:01 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 17 08:38:55 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



L 04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA49I001.D Vial: 4
Acq Time : 04/16/2015 10:01 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 17 08:38:55 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	528064	20.0000 ppb	108.72
25) 1,4-Difluorobenzene	10.36	114	6148588	20.0000 ppb	101.34
50) Chlorobenzene d5	14.69	117	5187291	20.0000 ppb	100.43
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4139969	20.0404 ppb	100.20%
Target Compounds					Qvalue
2) Propene	4.04	41	395945	5.2915 ppb	95
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.65	54	26895	0.3248 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.60	56	11325	0.2681 ppb #	87
11) Acetone	5.71	43	1730931	9.9145 ppb #	78
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.37	45	68799	1.9709 ppb #	77
14) Isopropyl Alcohol	5.98	45	633569	2.1389 ppb #	91
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.73	86	8325	0.3384 ppb #	1
23) 2-Butanone	8.01	43	266972	1.2043 ppb #	71
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.56	57	64873	0.3771 ppb #	87
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.32	71	24896	0.2360 ppb #	37
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	13.08	43	44431	0.1909 ppb #	25
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA49I001.D Vial: 4
Acq Time : 04/16/2015 10:01 Operator: TJM
Sample : 1510353003 Inst : 5975-L
Misc : SG-003-4 0265 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 17 08:38:55 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

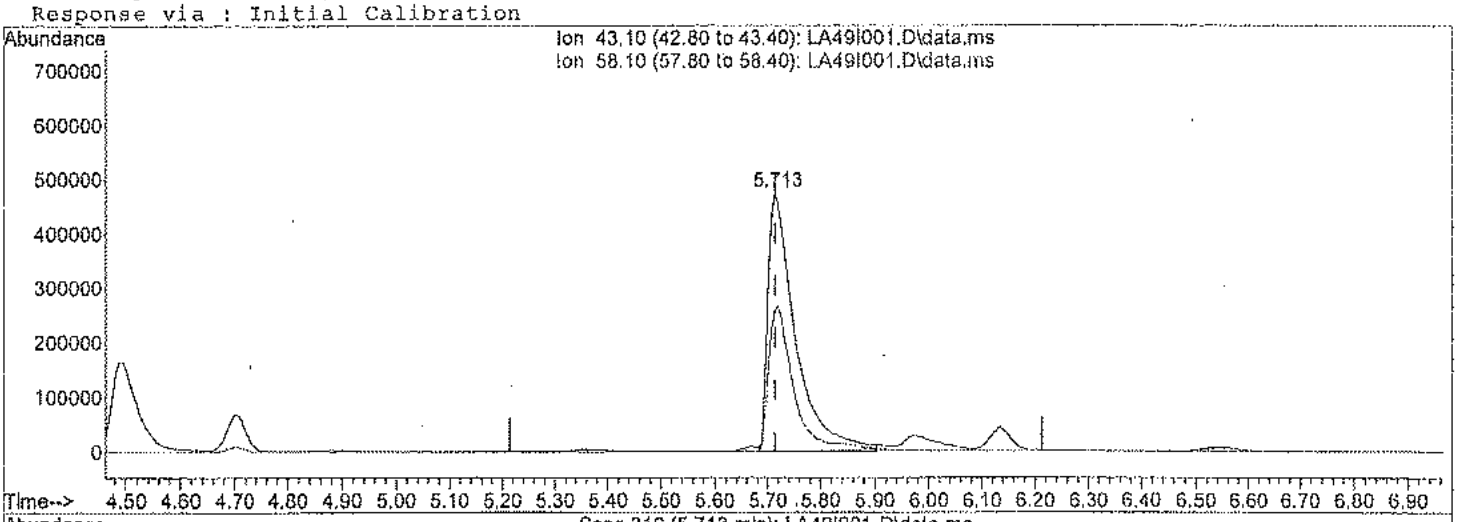
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

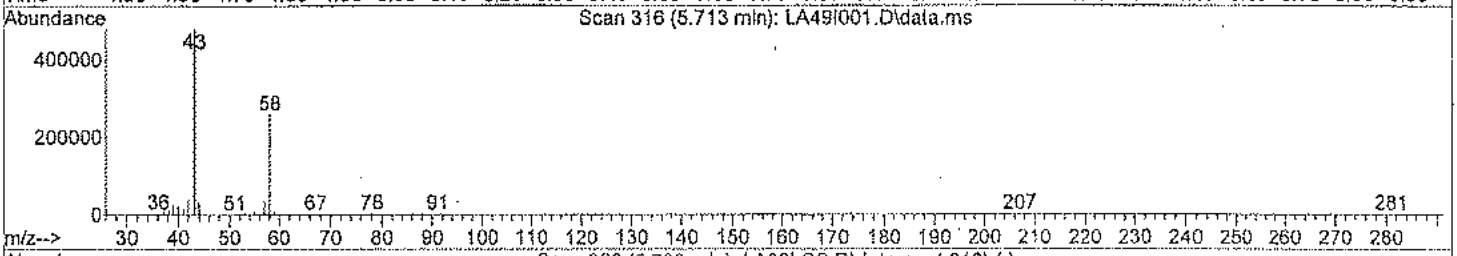
(#) = qualifier out of range (m) = manual integration

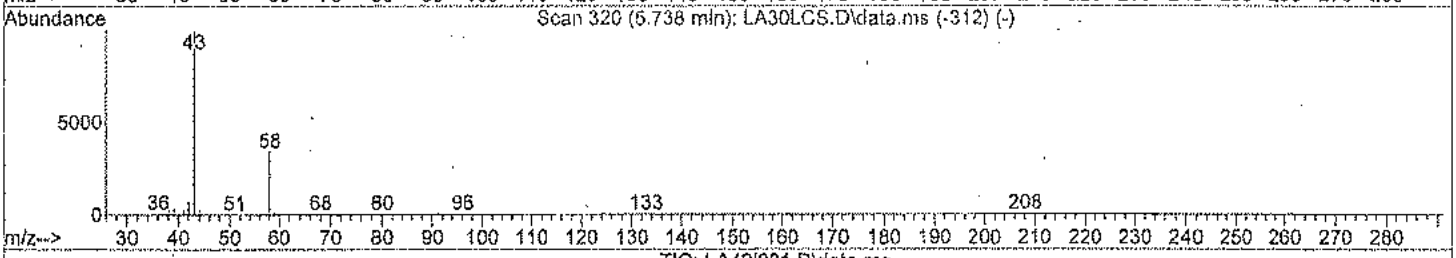
Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA49I001.D
Acq-On : 04/16/2015 10:01
Operator : TJM
Sample : 1510353003
Inst : 5975-L
Misc : SG-003-4 0265 1:10DIL (20mL)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 17 08:38:55 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration







TIC: LA49I001.D\data.ms

(11) Acetone

5.713min (+ 0.000) 9.91 ppb

response 1730931

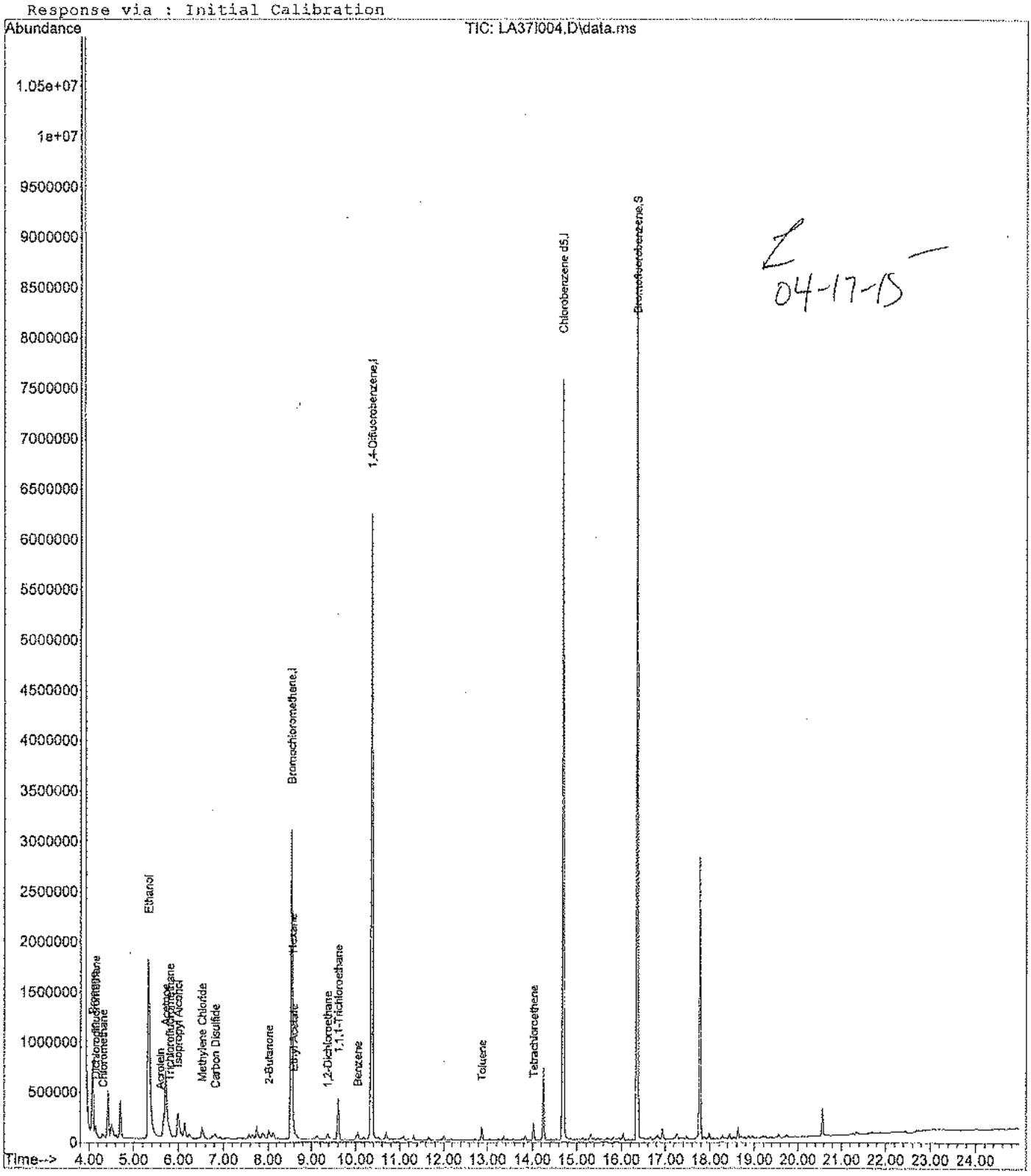
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	51.77#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA37I004.D Vial: 5
Acq Time : 04/15/2015 17:18 Operator: TJM
Sample : 1510353004 Inst : 5975-L
Misc : TO-001-PAN 0262 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:34:50 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA37I004.D Vial: 5
Acq Time : 04/15/2015 17:18 Operator: TJM
Sample : 1510353004 Inst : 5975-L
Misc : TO-001-PAN 0262 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:34:50 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	517184	20.0000 ppb	106.48
25) 1,4-Difluorobenzene	10.36	114	6036530	20.0000 ppb	99.50
50) Chlorobenzene d5	14.69	117	5144737	20.0000 ppb	99.60
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4136107	20.1873 ppb	100.94%
Target Compounds					Qvalue
2) Propene	4.07	41	232718	3.1755 ppb #	50 TIC
3) Dichlorodifluoromethane	4.14	85	135568	0.5422 ppb	99
4) Chloromethane	4.31	50	61173	0.5730 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.60	56	16169	0.3908 ppb	94 TIC ~10%
11) Acetone	5.71	43	1557651	9.1097 ppb	92
12) Trichlorofluoromethane	5.81	101	60600	0.2247 ppb	98
13) Ethanol	5.32	45	4097752	119.8586 ppb #	78 TIC
14) Isopropyl Alcohol	5.99	45	640981	2.2094 ppb	98 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.52	84	56264	0.6431 ppb #	57
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.82	76	95384	0.3561 ppb #	62
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.01	43	169489	0.7806 ppb #	77
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.59	61	20498	0.5800 ppb #	1
27) Hexane	8.57	57	35792	0.2119 ppb #	50
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	9.37	62	26997	0.1714 ppb #	92
31) 1,1,1-Trichloroethane	9.60	97	341428	1.4429 ppb #	91
32) Benzene	10.05	78	68743	0.2309 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	112701	0.3118 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	14.03	166	56348	0.3161 ppb #	88

(#) = qualifier out of range (m) = manual integration

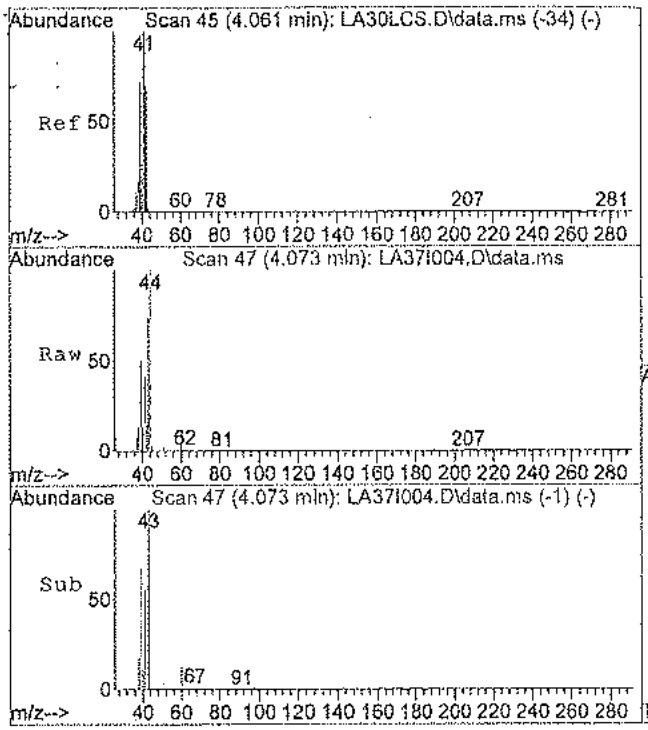
Quantitation Report
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA37I004.D Vial: 5
Acq Time : 04/15/2015 17:18 Operator: TJM
Sample : 1510353004 Inst : 5975-L
Misc : TO-001-PAN 0262 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:34:50 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	Qlon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

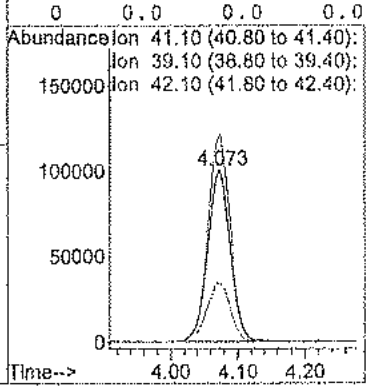
(#) = qualifier out of range (m) = manual integration

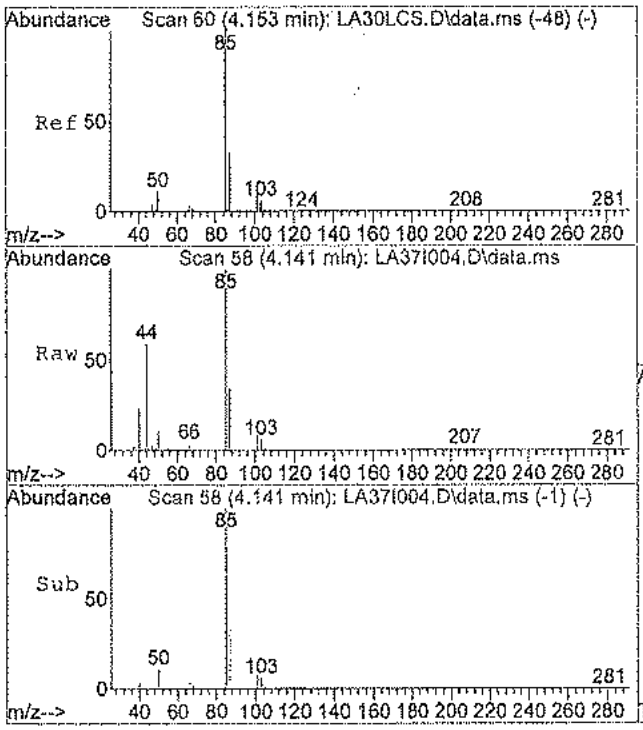


#2
Propene
Concen: 3.10 ppb
RT: 4.07 min Scan# 47
Delta R.T. 0.04 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:41.1 Resp: 232718

Ion	Ratio	Lower	Upper
41	100		
39	120.9	56.2	84.4#
42	36.9	53.8	80.6#
0	0.0	0.0	0.0

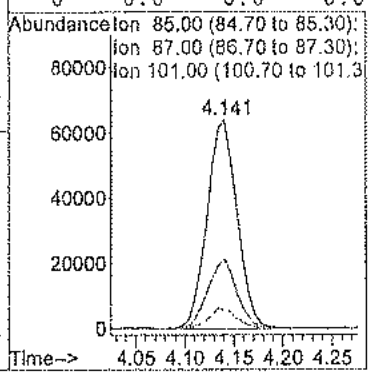


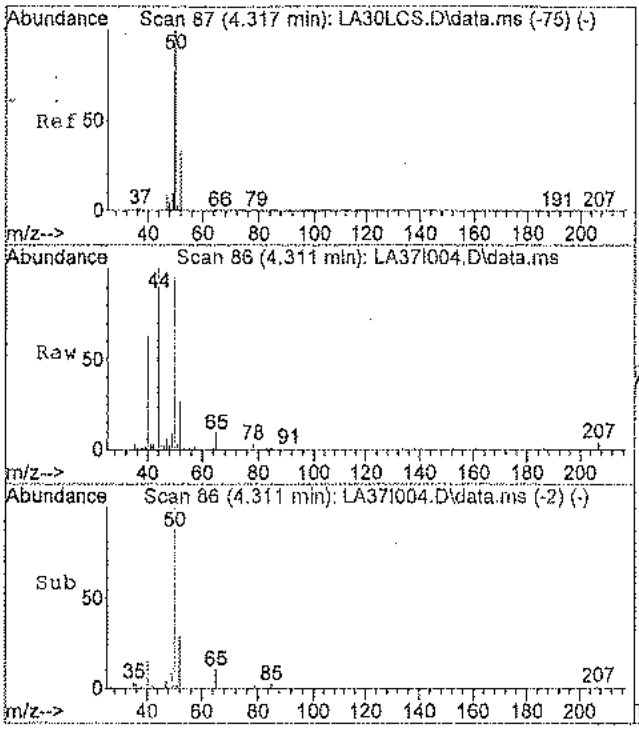


#3
Dichlorodifluoromethane
Concen: 0.54 ppb
RT: 4.14 min Scan# 58
Delta R.T. 0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:85 Resp: 135568

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.1	39.1
101	9.0	8.0	12.0
0	0.0	0.0	0.0

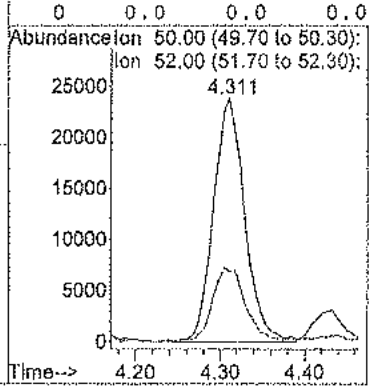


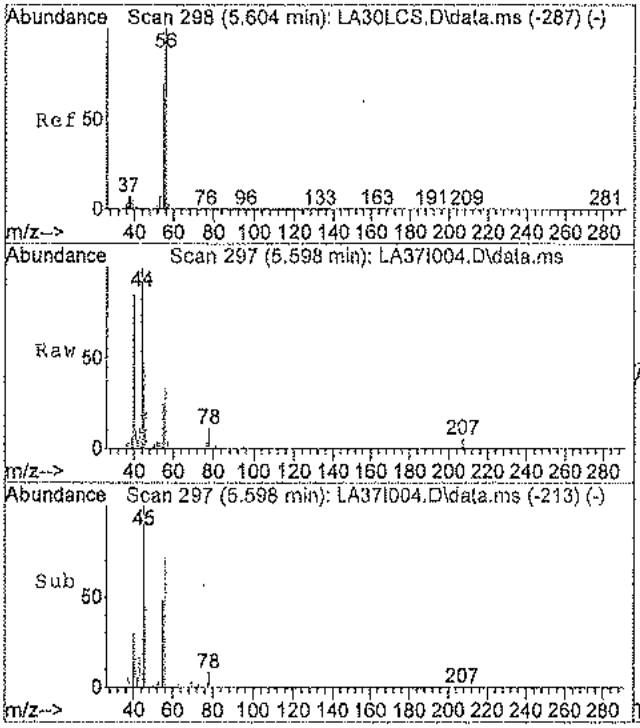


#4
Chloromethane
Concen: 0.57 ppb
RT: 4.31 min Scan# 86
Delta R.T. 0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:50 Resp: 61173

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

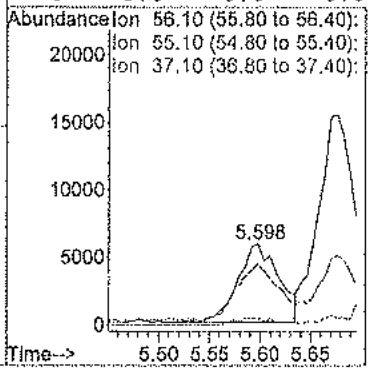


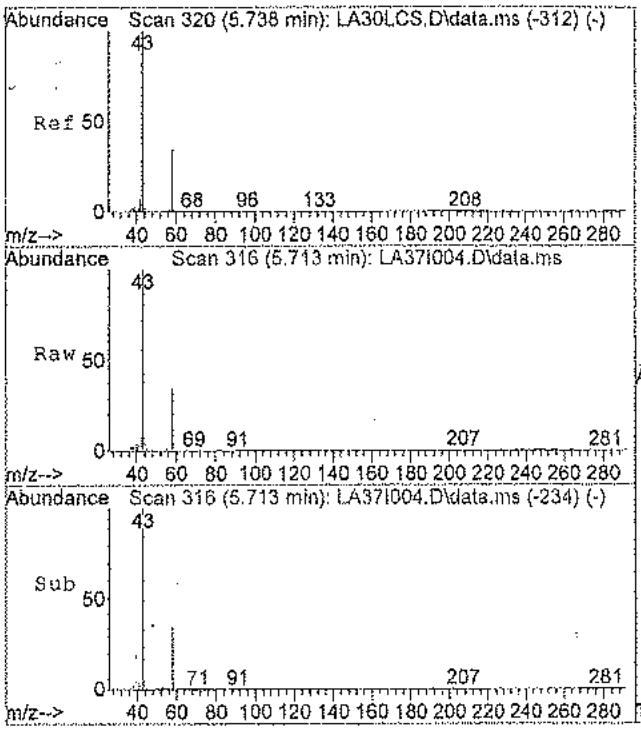


#10
Acrolein
Concen: 0.39 ppb
RT: 5.60 min Scan# 297
Delta R.T. 0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:56.1 Resp: 16169

Ion	Ratio	Lower	Upper
56	100		
55	73.8	55.1	82.7
37	8.0	7.9	11.9
0	0.0	0.0	0.0

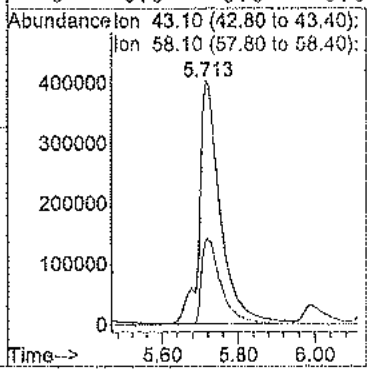


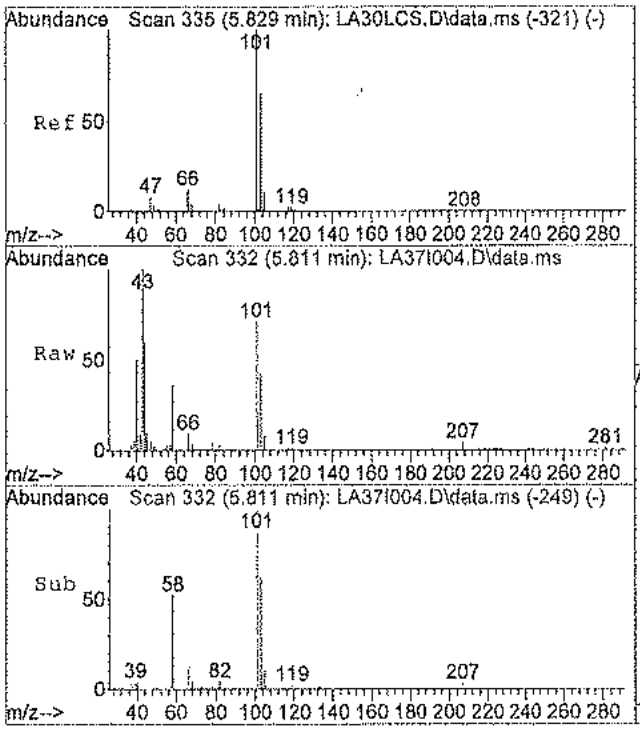


#11
Acetone
Concen: 9.11 ppb
RT: 5.71 min Scan# 316
Delta R.T. 0.00 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:43.1 Resp: 1557651

Ion	Ratio	Lower	Upper
43	100		
58	33.7	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

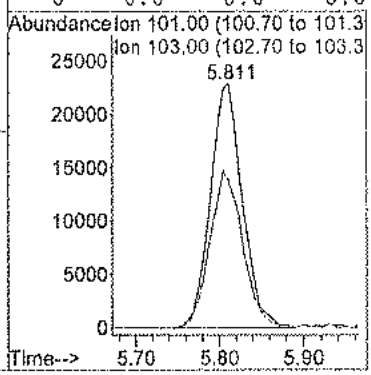


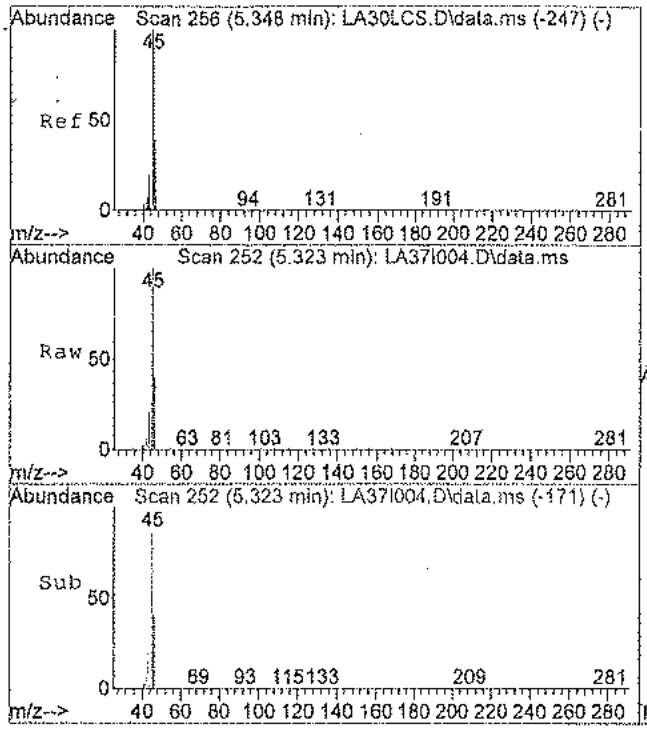


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.81 min Scan# 332
Delta R.T. 0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:101 Resp: 60600

Ion	Ratio	Lower	Upper
101	100		
103	66.2	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

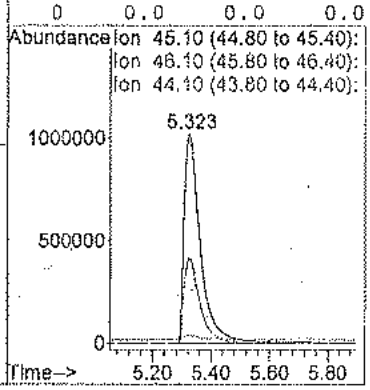


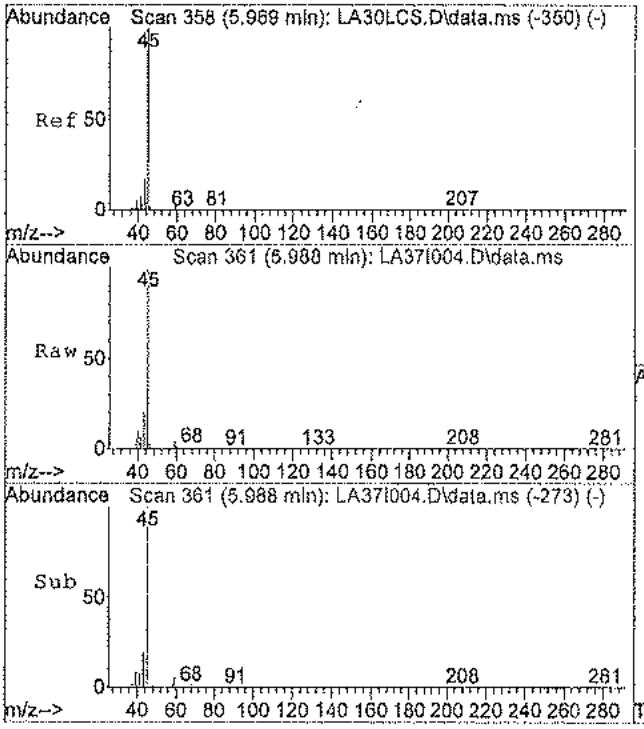


#13
Ethanol
Concen: 119.86 ppb
RT: 5.32 min Scan# 252
Delta R.T. -0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:45.1 Resp: 4097752

Ion	Ratio	Lower	Upper
45	100		
46	40.3	32.4	48.6
44	2.0	23.4	35.2#
0	0.0	0.0	0.0

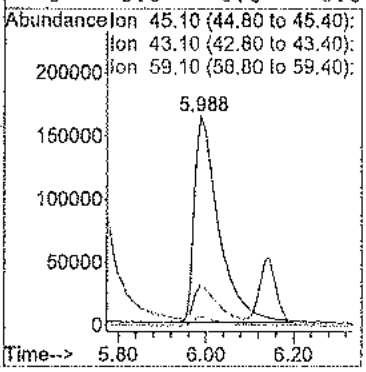


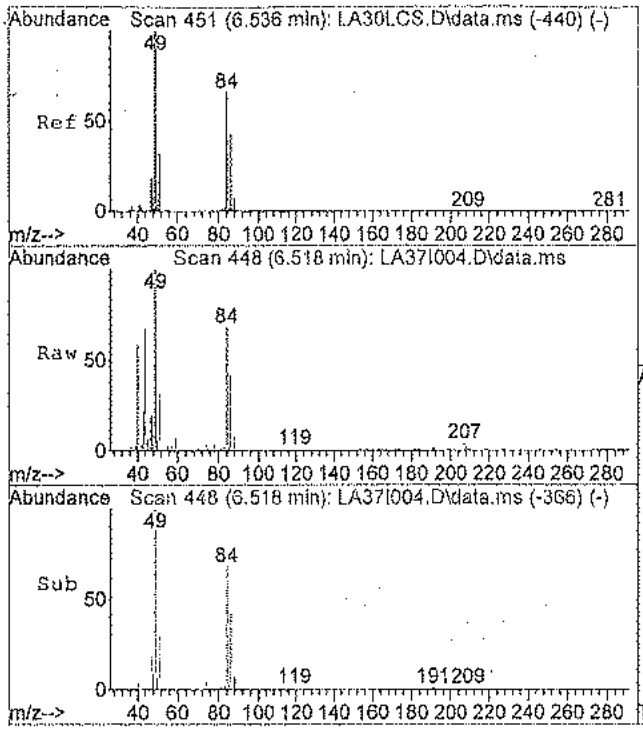


#14
Isopropyl Alcohol
Concen: 2.21 ppb
RT: 5.99 min Scan# 361
Delta R.T. 0.04 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:45.1 Resp: 640981

Ion	Ratio	Lower	Upper
45	100		
43	18.8	15.8	23.6
59	4.2	3.2	4.8
0	0.0	0.0	0.0

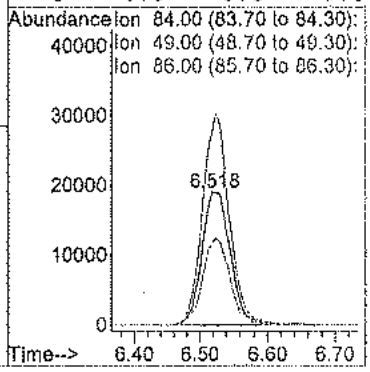


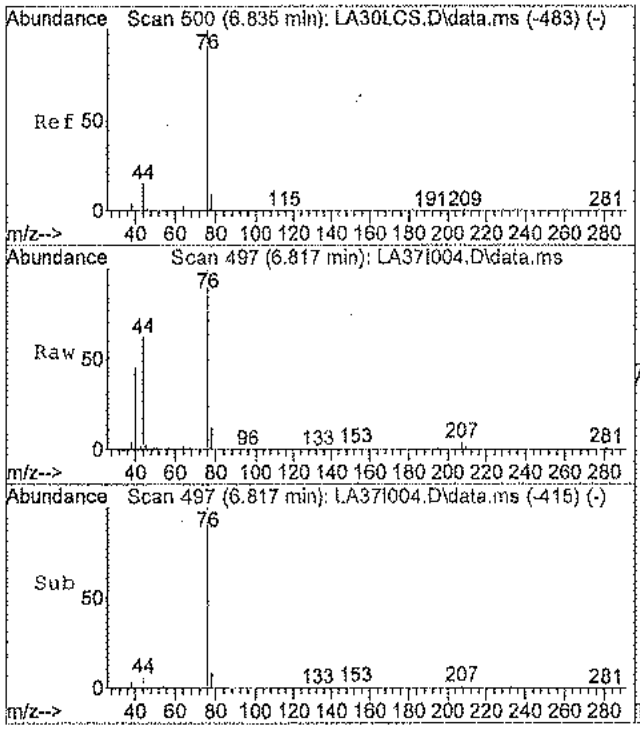


#16
Methylene Chloride
Concen: 0.64 ppb
RT: 6.52 min Scan# 448
Delta R.T. 0.00 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:84 Resp: 56264

Ion	Ratio	Lower	Upper
84	100		
49	149.1	66.6	100.0#
86	62.0	51.6	77.4
0	0.0	0.0	0.0

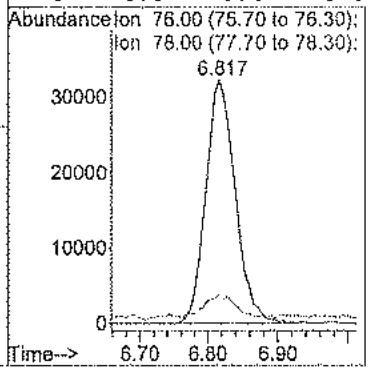


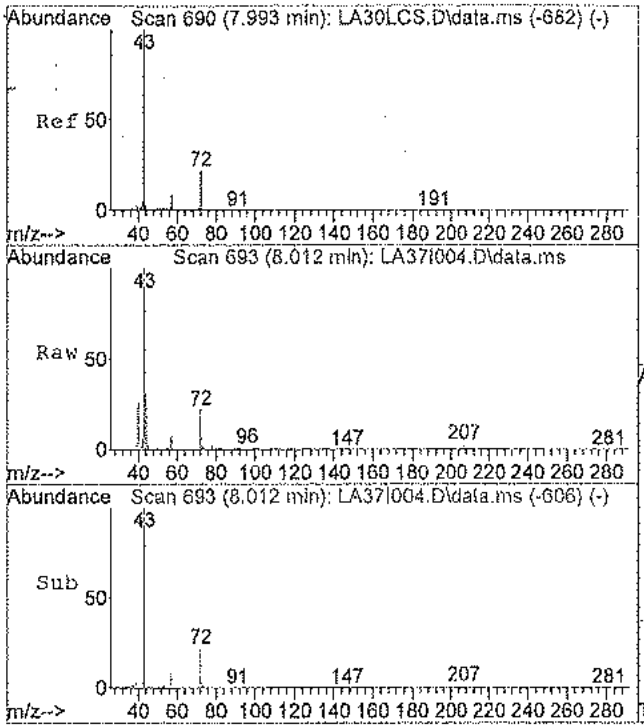


#18
Carbon Disulfide
Concen: 0.36 ppb
RT: 6.82 min Scan# 497
Delta R.T. 0.00 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:76 Resp: 95384

Ion	Ratio	Lower	Upper
76	100		
78	9.6	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

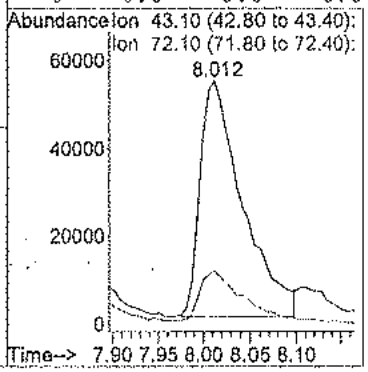


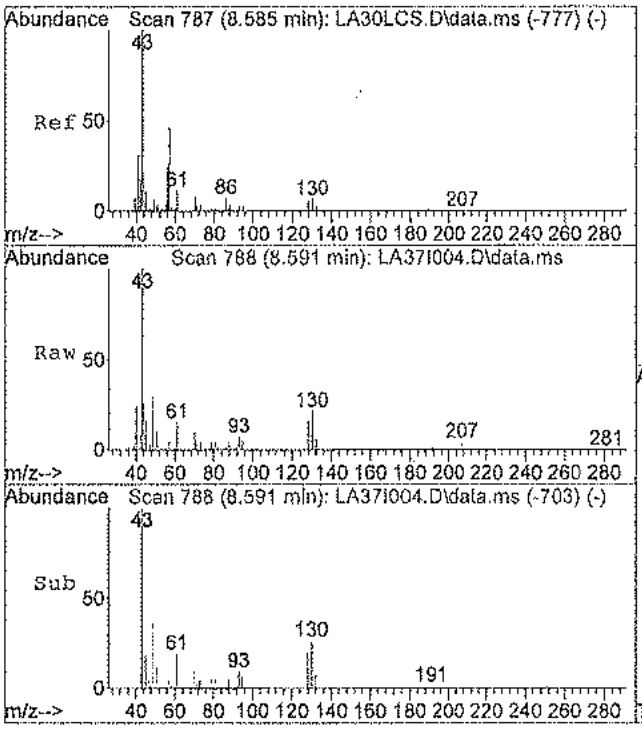


#23
2-Butanone
Concen: 0.78 ppb
RT: 8.01 min Scan# 693
Delta R.T. 0.03 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:43.1 Resp: 169489

Ion	Ratio	Lower	Upper
43	100		
72	24.8	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

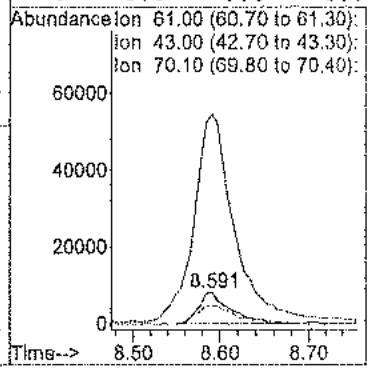


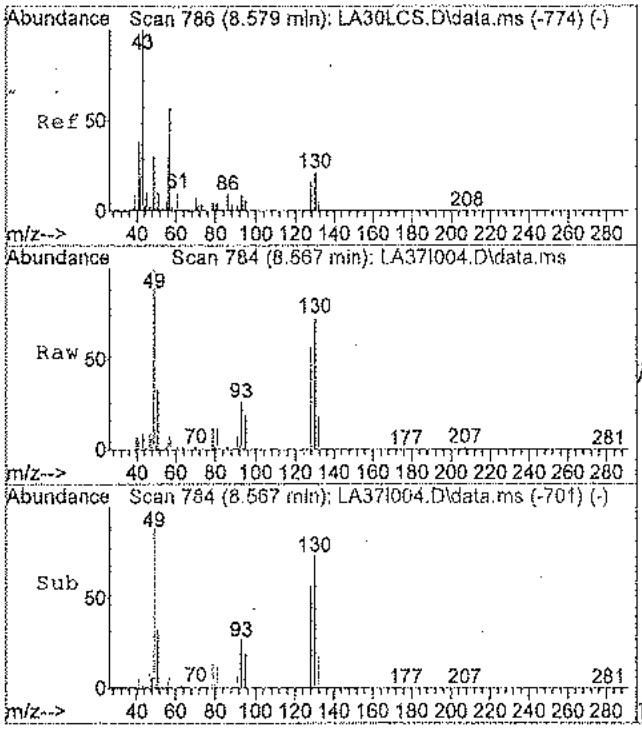


#26
Ethyl Acetate
Concen: 0.58 ppb
RT: 8.59 min Scan# 788
Delta R.T. 0.02 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:61 Resp: 20498

Ion	Ratio	Lower	Upper
61	100		
43	851.1	144.0	216.0#
70	72.0	13.6	20.4#
0	0.0	0.0	0.0

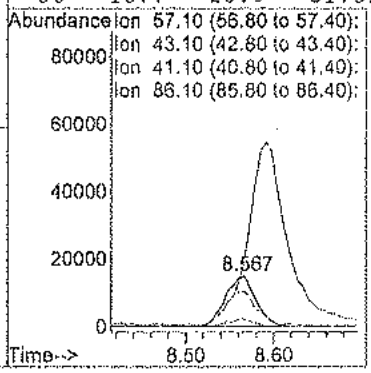


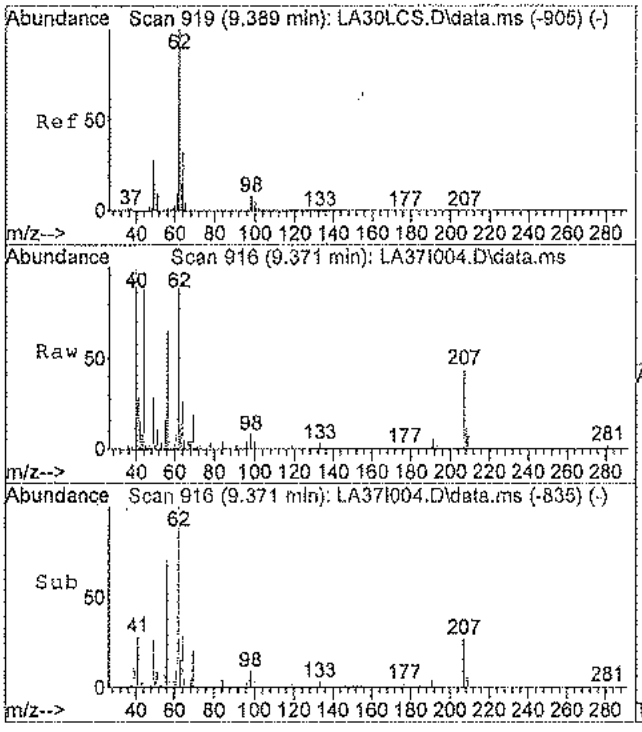


#27
Hexane
Concen: 0.21 ppb
RT: 8.57 min Scan# 784
Delta R.T. 0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:57.1 Resp: 35792

Ion	Ratio	Lower	Upper
57	100		
43	0.0	57.3	85.9#
41	70.6	47.0	70.4#
86	13.7	20.9	31.3#

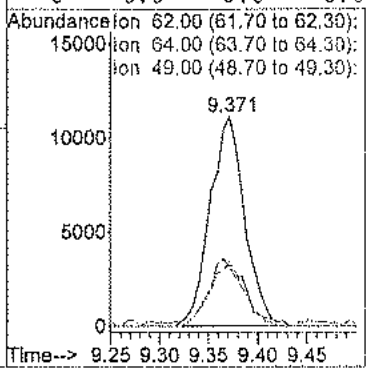


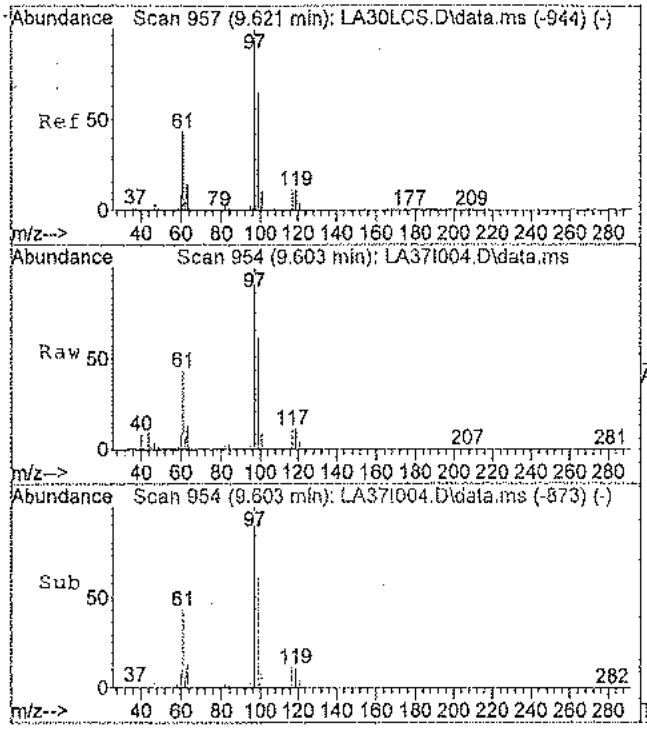


#30
1,2-Dichloroethane
Concen: 0.17 ppb
RT: 9.37 min Scan# 916
Delta R.T. -0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:62 Resp: 26997

Ion	Ratio	Lower	Upper
62	100		
64	32.5	26.0	39.0
49	31.8	18.5	27.7#
0	0.0	0.0	0.0

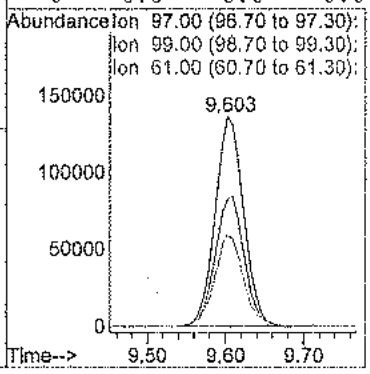


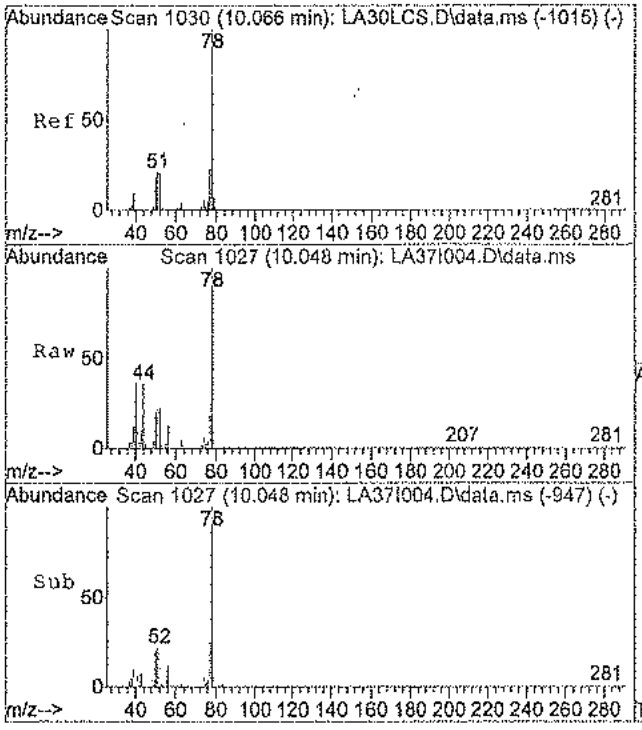


#31
1,1,1-Trichloroethane
Concen: 1.44 ppb
RT: 9.60 min Scan# 954
Delta R.T. -0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:97 Resp: 341428

Ion	Ratio	Lower	Upper
97	100		
99	63.2	51.6	77.4
61	43.4	24.2	36.2#
0	0.0	0.0	0.0

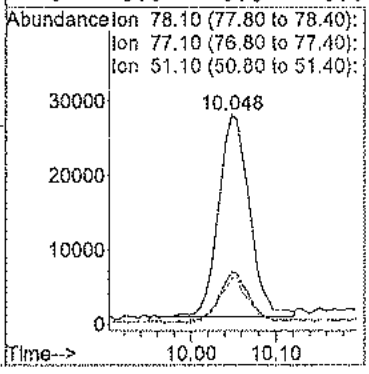


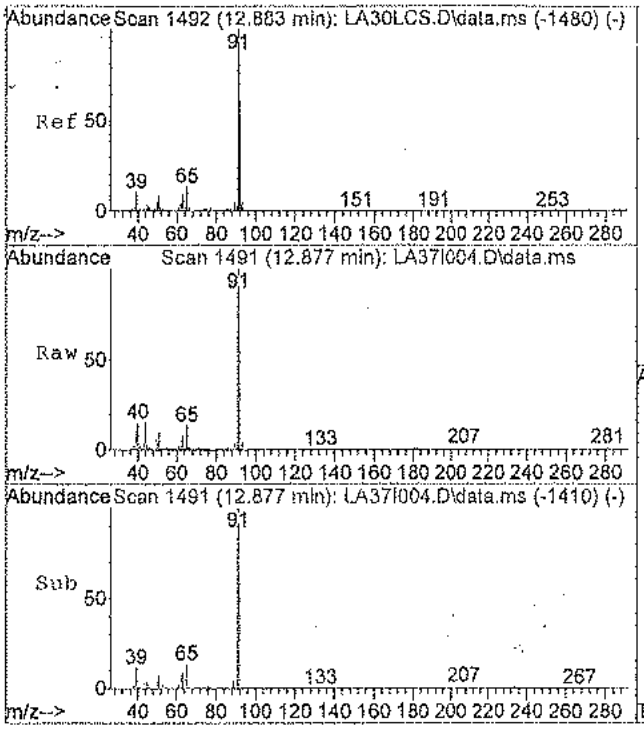


#32
Benzene
Concen: 0.23 ppb
RT: 10.05 min Scan# 1027
Delta R.T. -0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:78.1 Resp: 68743

Ion	Ratio	Lower	Upper
78	100		
77	24.0	18.2	27.4
51	20.5	9.5	14.3#
0	0.0	0.0	0.0

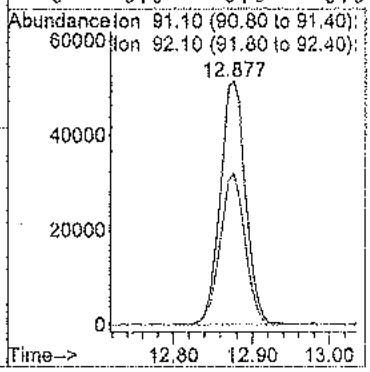


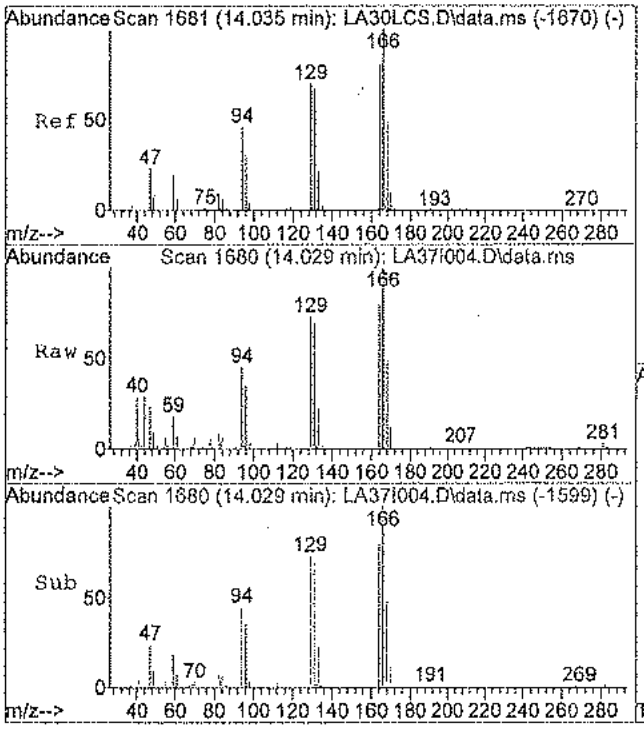


#45
Toluene
Concen: 0.31 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:91.1 Resp: 112701

Ion	Ratio	Lower	Upper
91	100		
92	61.1	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

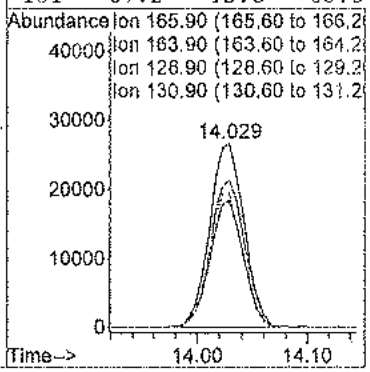




#49
Tetrachloroethene
Concen: 0.32 ppb
RT: 14.03 min Scan# 1680
Delta R.T. -0.01 min
Lab File: LA37I004.D
Acq: 04/15/2015 17:18

Tgt Ion:165.9 Resp: 56348

Ion	Ratio	Lower	Upper
166	100		
164	80.7	61.0	91.4
129	72.1	45.9	68.9#
131	67.2	45.5	68.3



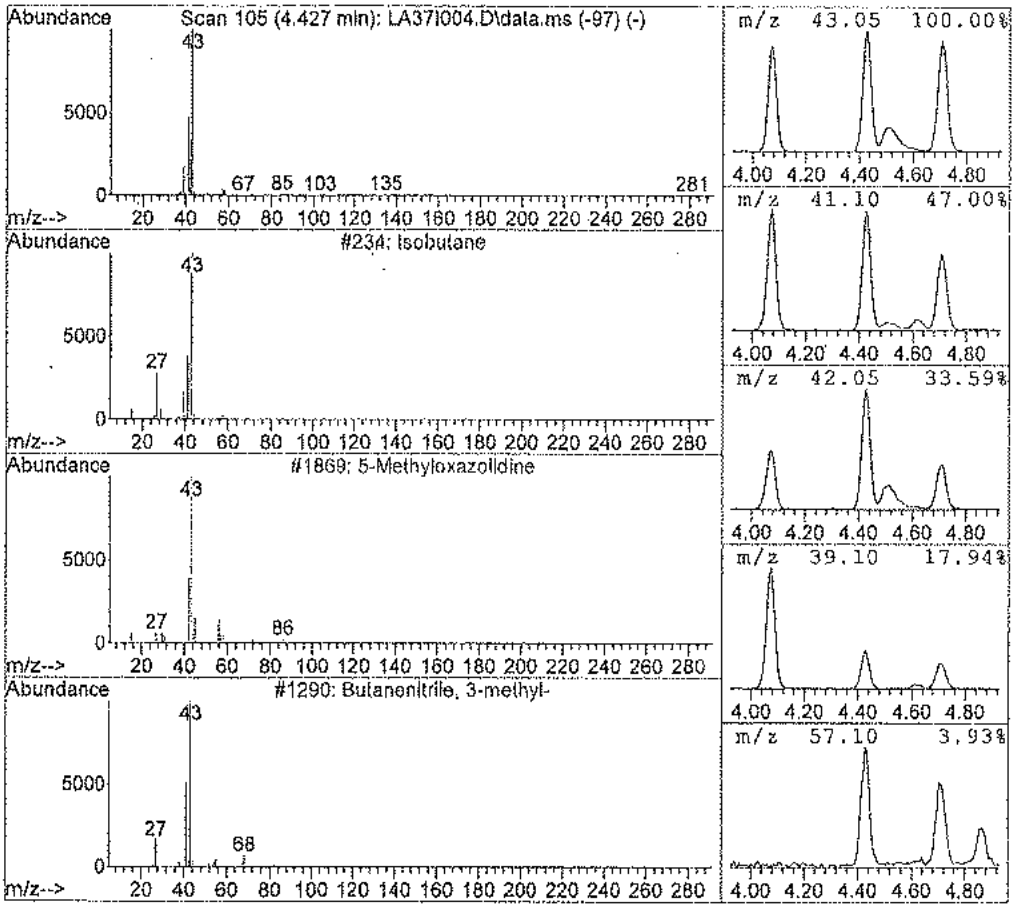
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA37I004.D Vial: 5
Acq Time : 04/15/2015 17:18 Operator: TJM
Sample : 1510353004 Inst : 5975-L
Misc : TO-001-PAN 0262 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.43	2.37 ppb	1018839	Bromochloromethane	8596670

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	72.00
2	5-Methyloxazolidine	1869	058328-22-6	7.00
3	Butanenitrile, 3-methyl-	1290	000625-28-5	4.00
4	Butane, 2-methyl-	710	000078-78-4	4.00
5	Propane, 1-chloro-2-methyl-	2419	000513-36-0	4.00



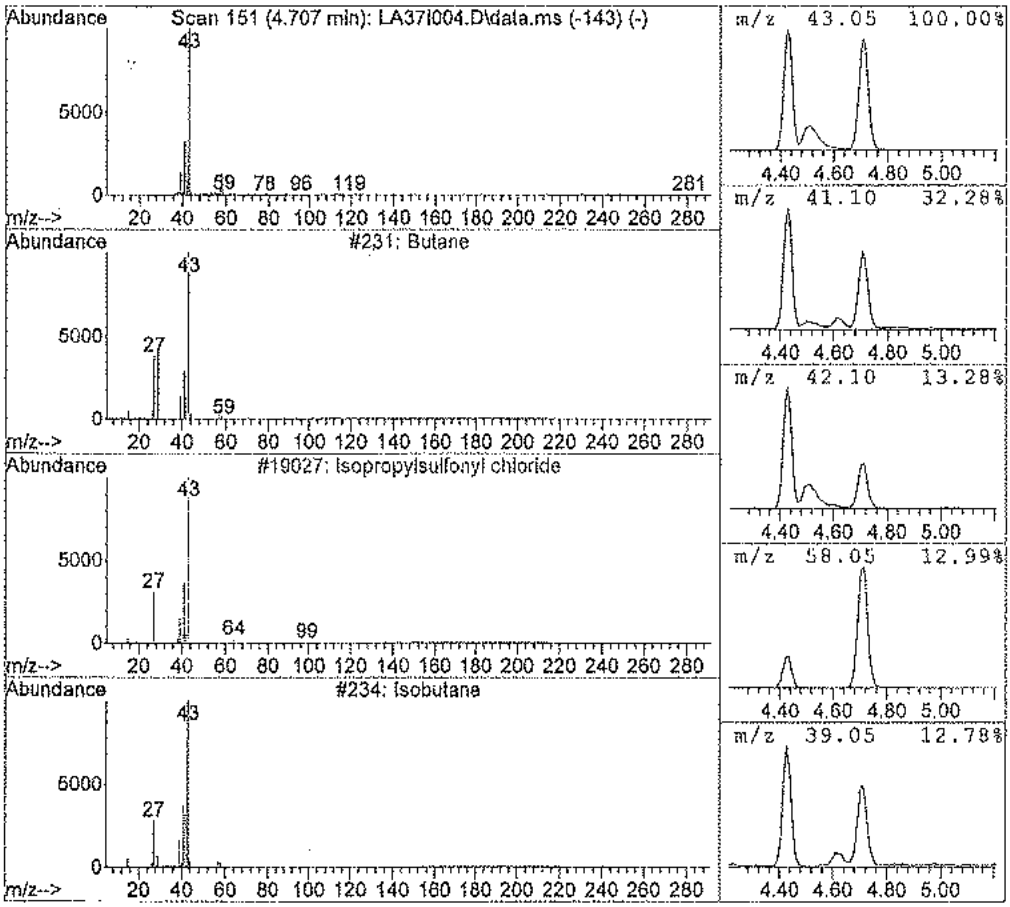
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA37I004.D Vial: 5
Acq Time : 04/15/2015 17:18 Operator: TJM
Sample : 1510353004 Inst : 5975-L
Misc : TO-001-PAN 0262 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.71	2.13 ppb	917571	Bromochloromethane	8596670

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	59.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Isobutane	234	000075-28-5	9.00
4	Diazene, dimethyl-	211	000503-28-6	4.00
5	Acetone	213	000067-64-1	4.00

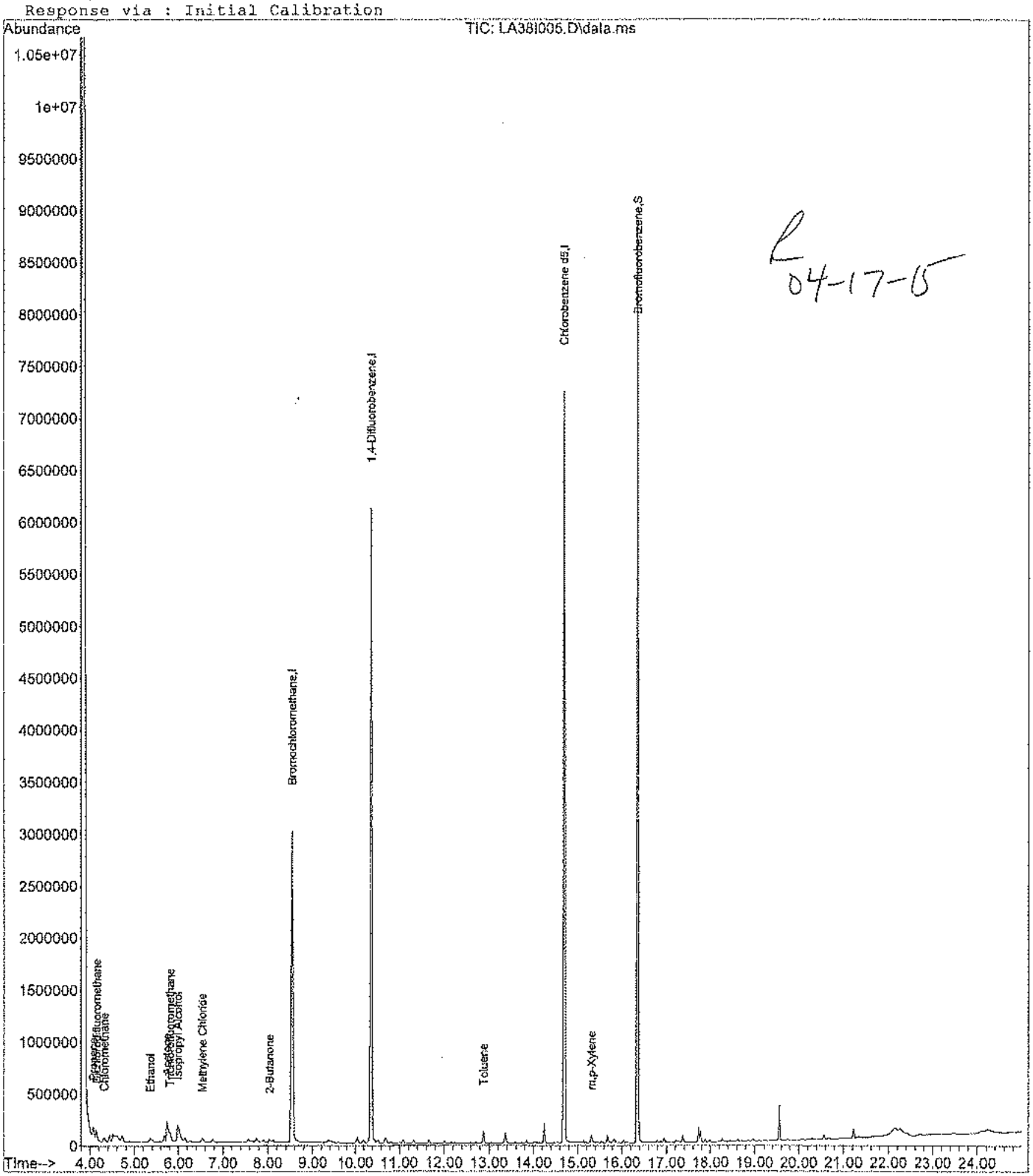


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA38I005.D Vial: 6
Acq Time : 04/15/2015 18:08 Operator: TJM
Sample : 1510353005 Inst : 5975-L
Misc : TO-003-OUT 0143 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:35:56 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



L 04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA38I005.D Vial: 6
Acq Time : 04/15/2015 18:08 Operator: TJM
Sample : 1510353005 Inst : 5975-L
Misc : TO-003-OUT 0143 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:35:56 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	503808	20.0000 ppb	103.73
25) 1,4-Difluorobenzene	10.37	114	5925815	20.0000 ppb	97.67
50) Chlorobenzene d5	14.70	117	5021399	20.0000 ppb	97.22
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4050050	20.2528 ppb	101.26%
Target Compounds					Qvalue
2) Propene	4.07	41	25597	0.3586 ppb #	79 TCL/DC
3) Dichlorodifluoromethane	4.15	85	127068	0.5217 ppb	99
4) Chloromethane	4.32	50	65039	0.6253 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.74	43	458794	2.7544 ppb m	87
12) Trichlorofluoromethane	5.82	101	61012	0.2322 ppb	98
13) Ethanol	5.36	45	93246	2.7998 ppb #	79 TIC
14) Isopropyl Alcohol	5.99	45	490547	1.7358 ppb	98 TCL/DC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.54	84	18162	0.2131 ppb #	56
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.04	43	63823	0.3018 ppb #	67
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	98139	0.2766 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA38I005.D Vial: 6
Acq Time : 04/15/2015 18:08 Operator: TJM
Sample : 1510353005 Inst : 5975-L
Misc : TO-003-OUT 0143 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:35:56 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

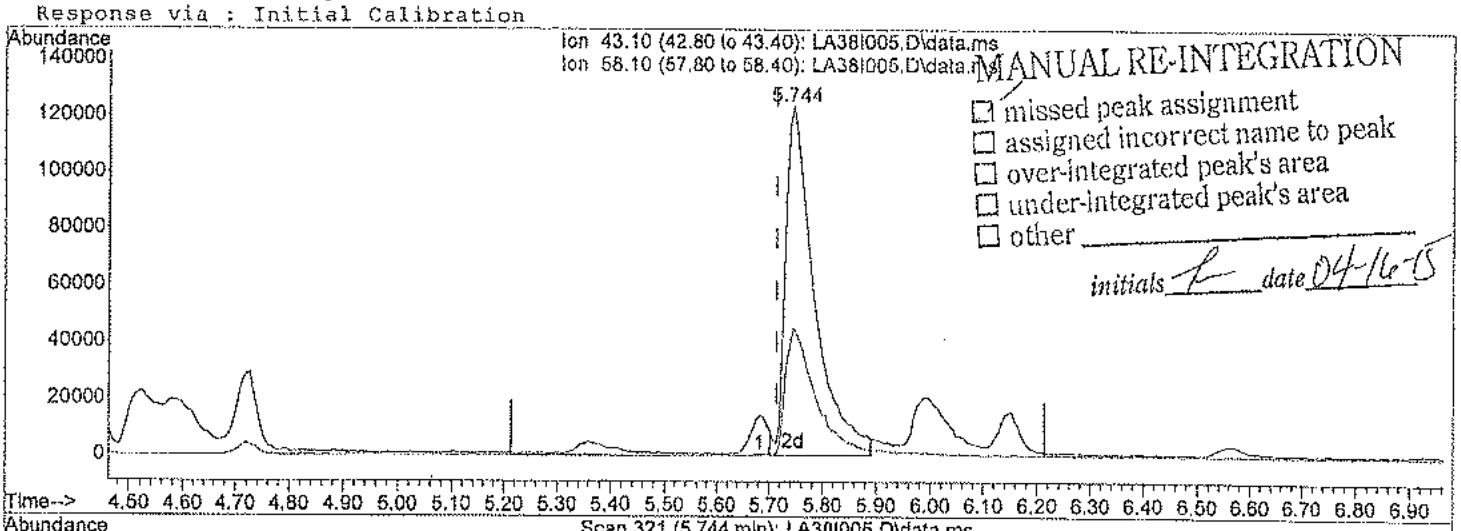
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.31	91	57764	0.1620 ppb	88
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

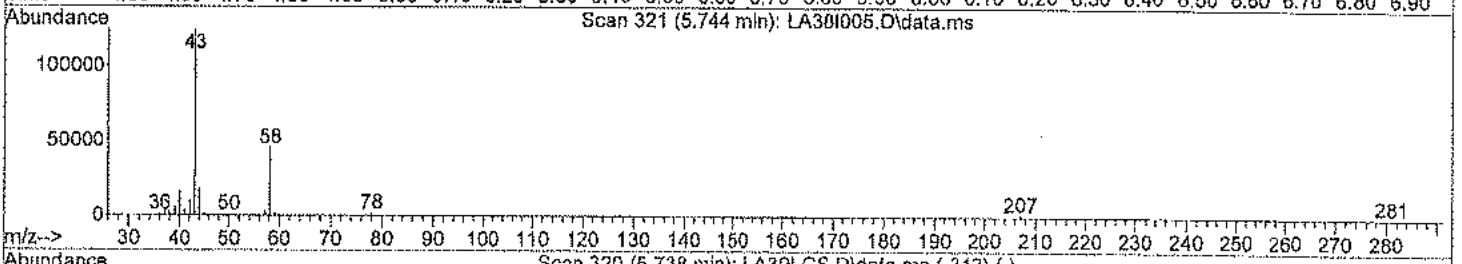
(#) = qualifier out of range (m) = manual integration

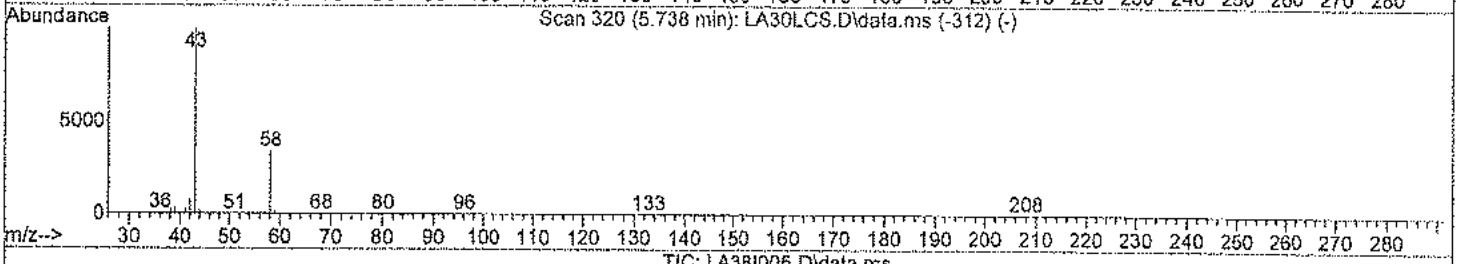
Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA38I005.D
Acq On : 04/15/2015 18:08
Operator : TJM
Sample : 1510353005
Inst : 5975-L
Misc : TO-003-OUT 0143
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 16 06:58:28 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration







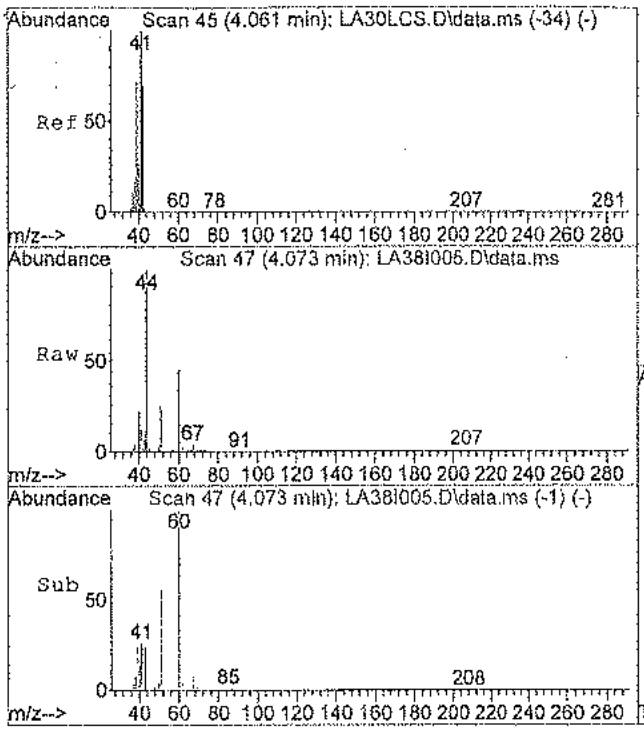
TIC: LA38I006.D\data.ms

(11) Acetone

5.744min (+ 0.031) 2.75 ppb m

response 458794

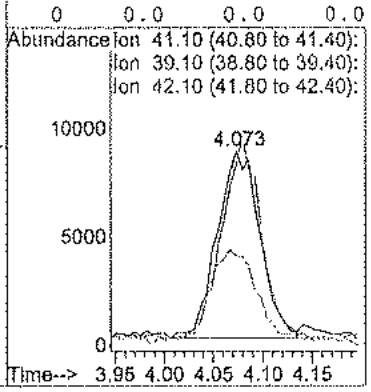
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

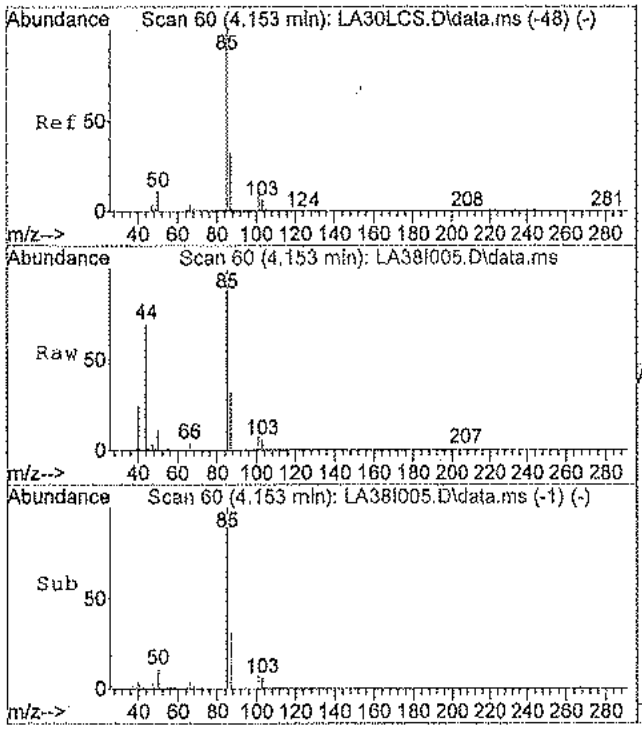


#2
Propene
Concen: 0.36 ppb
RT: 4.07 min Scan# 47
Delta R.T. 0.04 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:41.1 Resp: 25597

Ion	Ratio	Lower	Upper
41	100		
39	96.9	56.2	84.4#
42	59.6	53.8	80.6
0	0.0	0.0	0.0

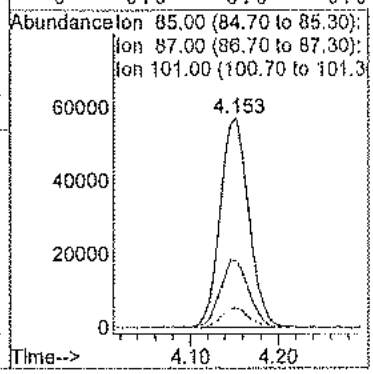


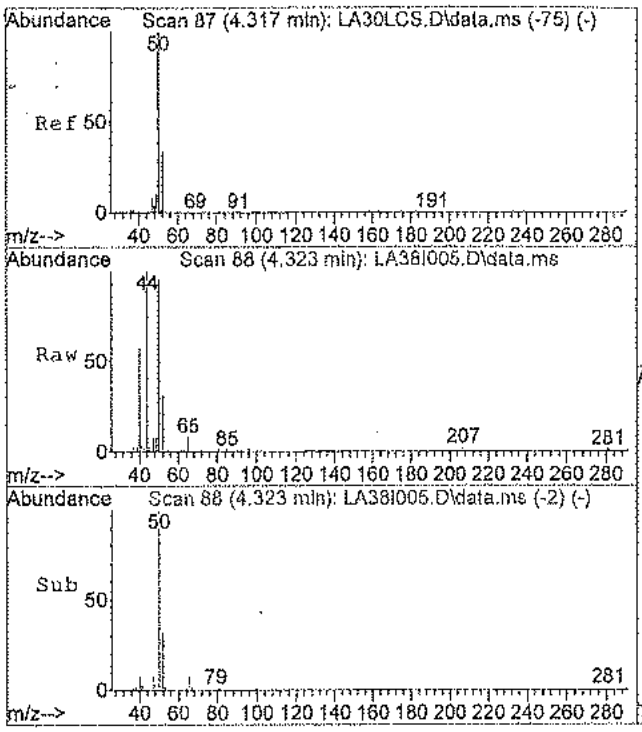


#3
Dichlorodifluoromethane
Concen: 0.52 ppb
RT: 4.15 min Scan# 60
Delta R.T. 0.02 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:85 Resp: 127068

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.1	39.1
101	8.9	8.0	12.0
0	0.0	0.0	0.0

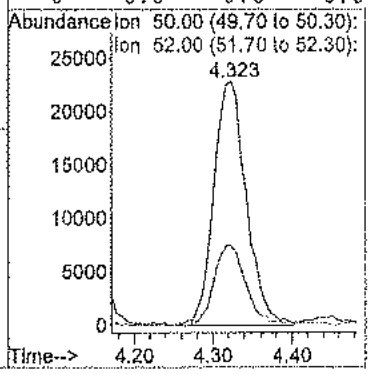


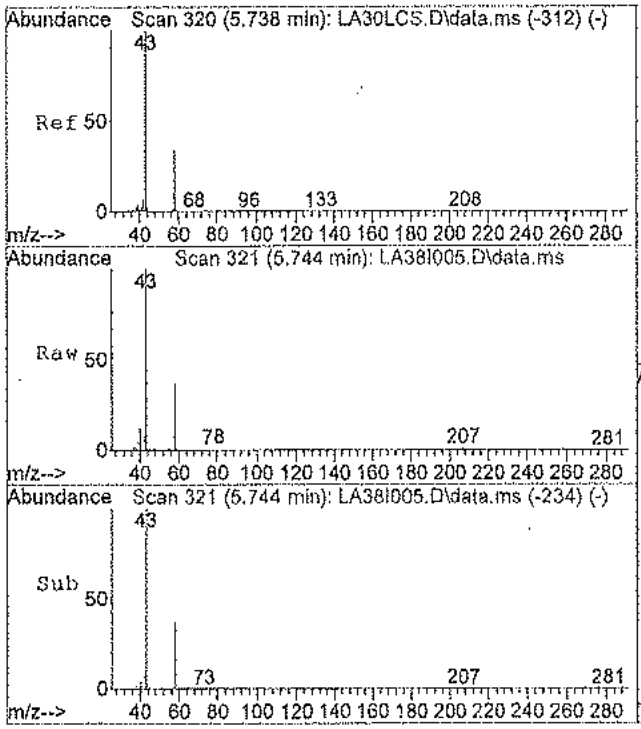


#4
Chloromethane
Concen: 0.63 ppb
RT: 4.32 min Scan# 88
Delta R.T. 0.02 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:50 Resp: 65039

Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

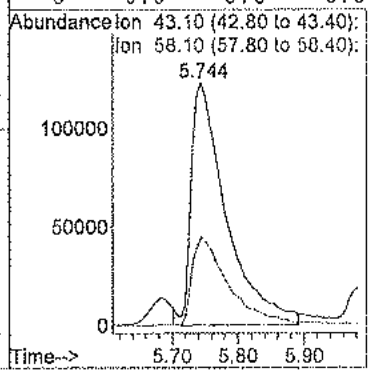


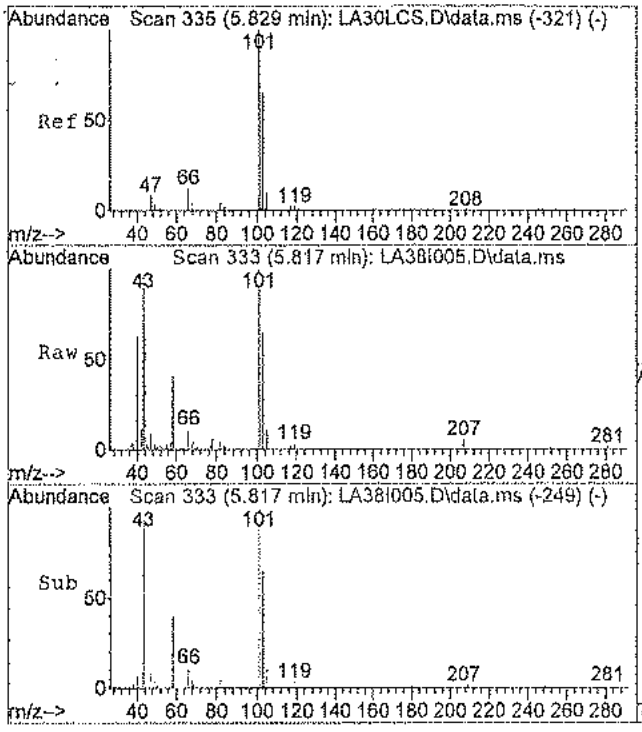


#11
Acetone
Concen: 2.75 ppb m
RT: 5.74 min Scan# 321
Delta R.T. 0.03 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:43.1 Resp: 458794

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

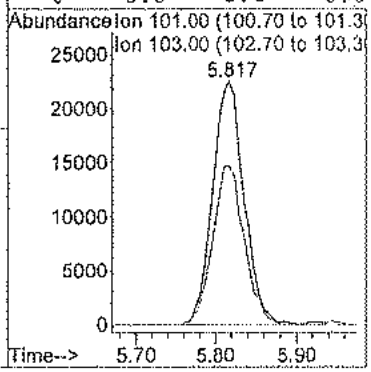


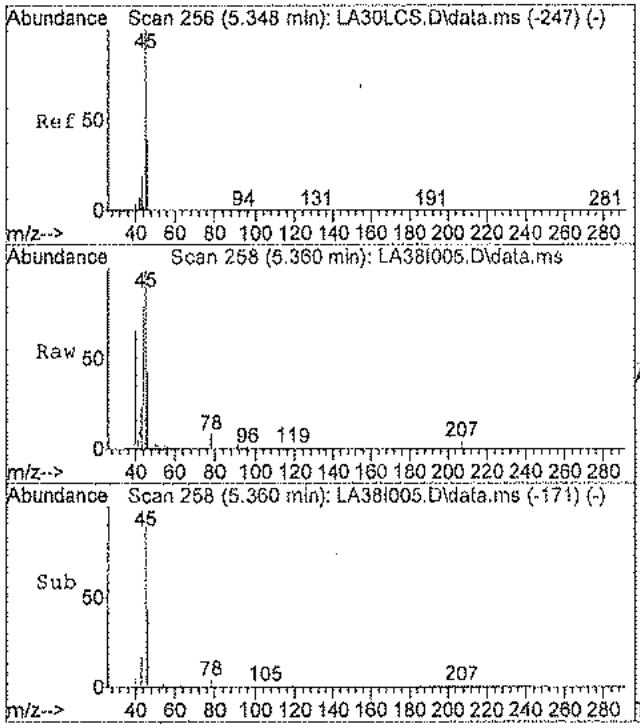


#12
Trichlorofluoromethane
Concen: 0.23 ppb
RT: 5.82 min Scan# 333
Delta R.T. 0.01 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:101 Resp: 61012

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

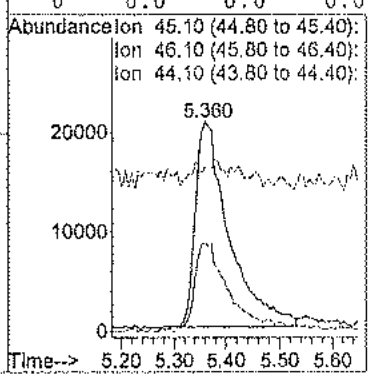


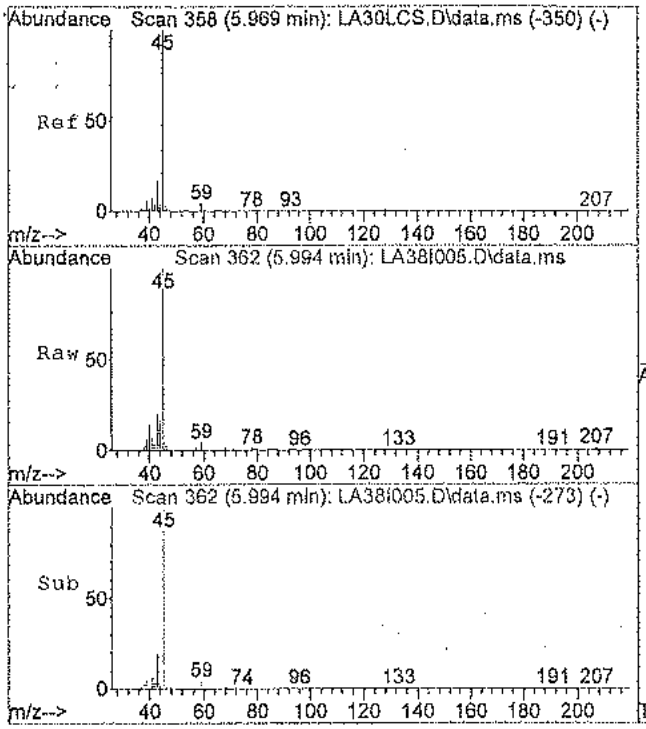


#13
Ethanol
Concen: 2.80 ppb
RT: 5.36 min Scan# 258
Delta R.T. 0.03 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:45.1 Resp: 93246

Ion	Ratio	Lower	Upper
45	100		
46	41.2	32.4	48.6
44	3.8	23.4	35.2#
0	0.0	0.0	0.0

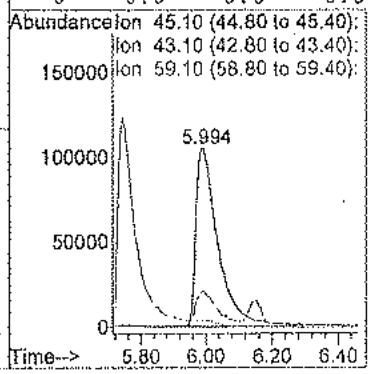


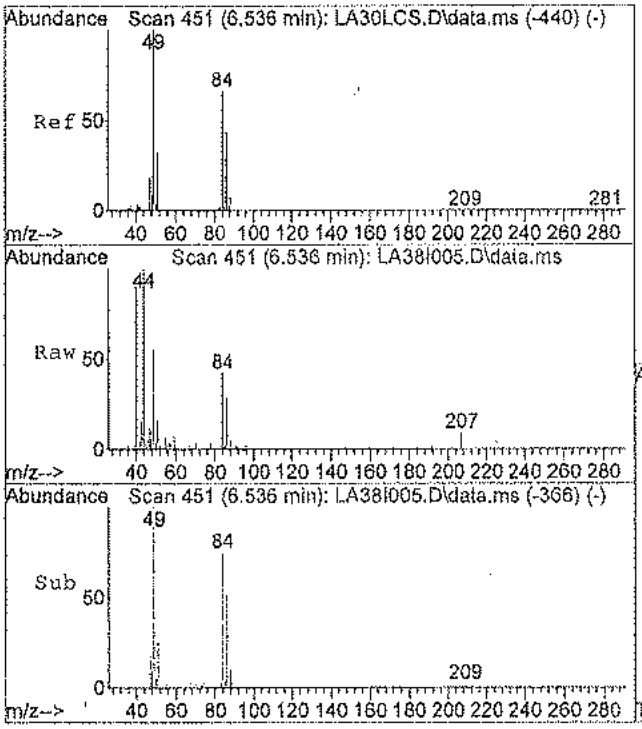


#14
Isopropyl Alcohol
Concen: 1.74 ppb
RT: 5.99 min Scan# 362
Delta R.T. 0.04 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:45.1 Resp: 490547

Ion	Ratio	Lower	Upper
45	100		
43	18.6	15.8	23.6
59	3.9	3.2	4.8
0	0.0	0.0	0.0

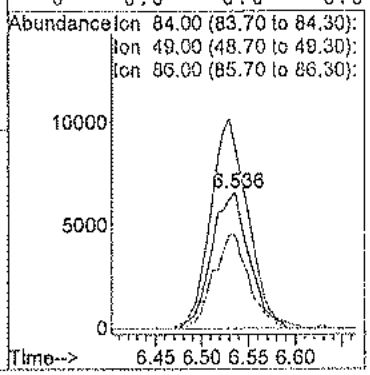


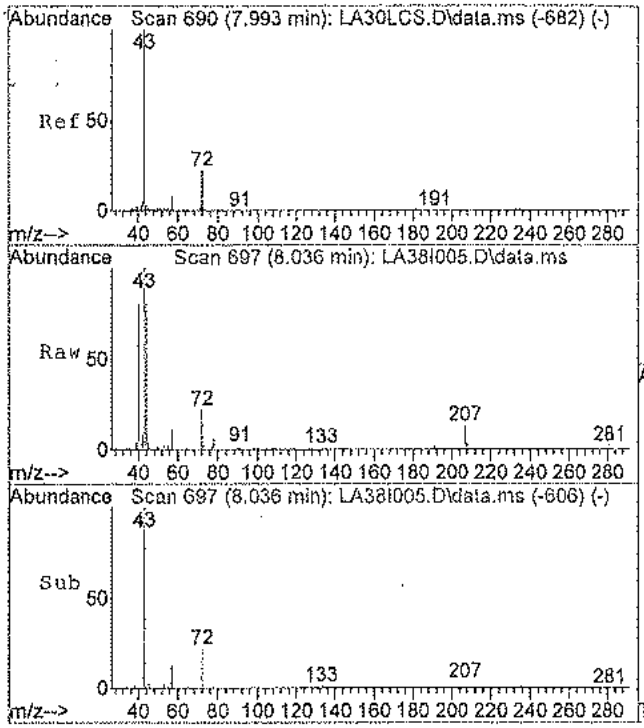


#16
Methylene Chloride
Concen: 0.21 ppb
RT: 6.54 min Scan# 451
Delta R.T. 0.02 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:84 Resp: 18162

Ion	Ratio	Lower	Upper
84	100		
49	153.9	66.6	100.0#
86	64.8	51.6	77.4
0	0.0	0.0	0.0

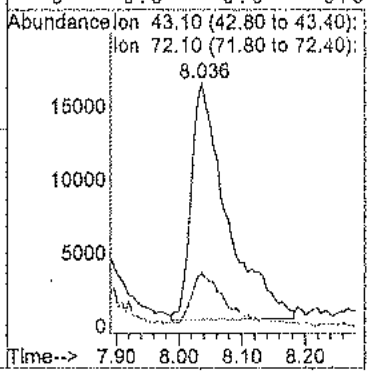


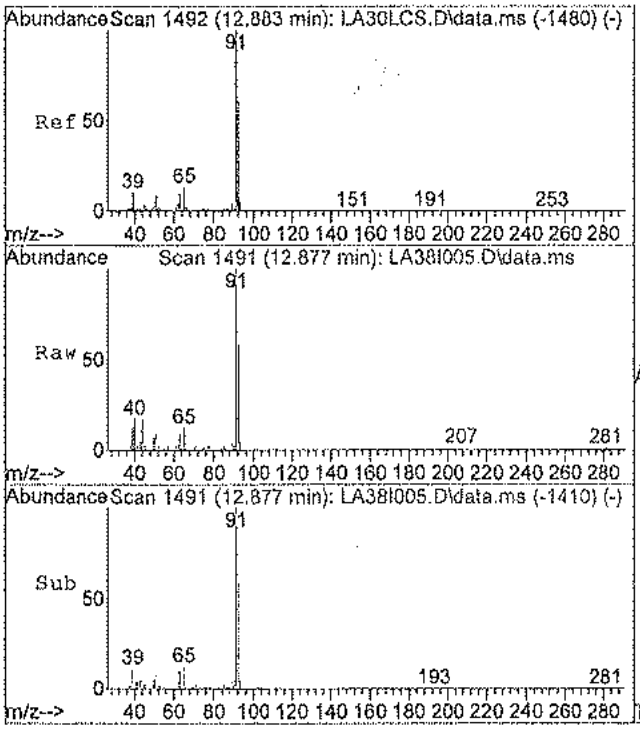


#23
2-Butanone
Concen: 0.30 ppb
RT: 8.04 min Scan# 697
Delta R.T. 0.06 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:43.1 Resp: 63823

Ion	Ratio	Lower	Upper
43	100		
72	18.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

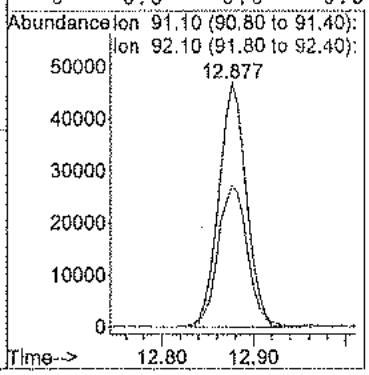


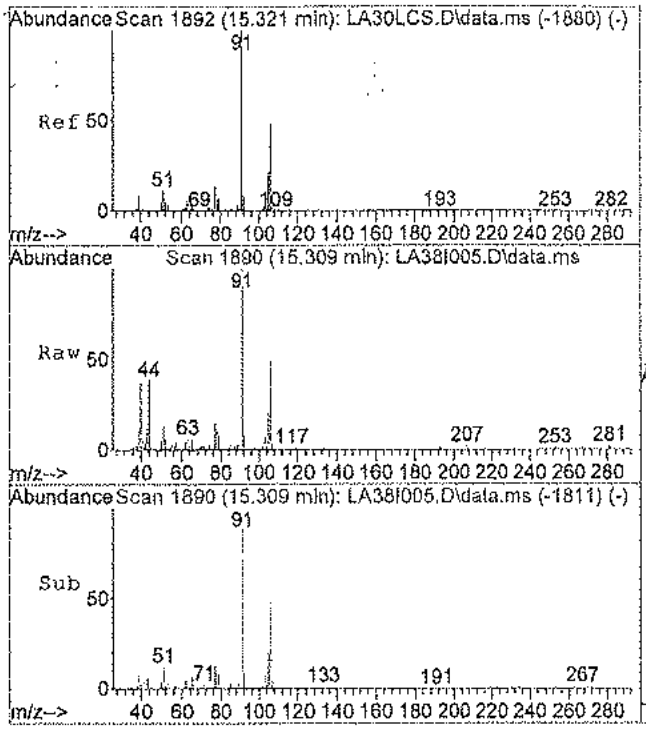


#45
Toluene
Concen: 0.28 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:91.1 Resp: 98139

Ion	Ratio	Lower	Upper
91	100		
92	60.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

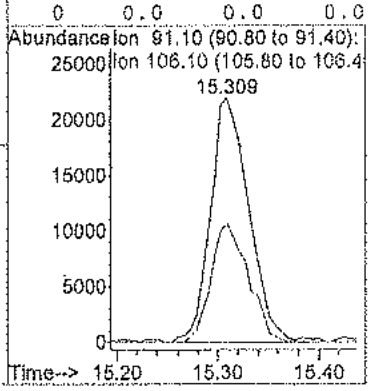




#53
m,p-Xylene
Concen: 0.16 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA38I005.D
Acq: 04/15/2015 18:08

Tgt Ion:91.1 Resp: 57764

Ion	Ratio	Lower	Upper
91	100		
106	47.3	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

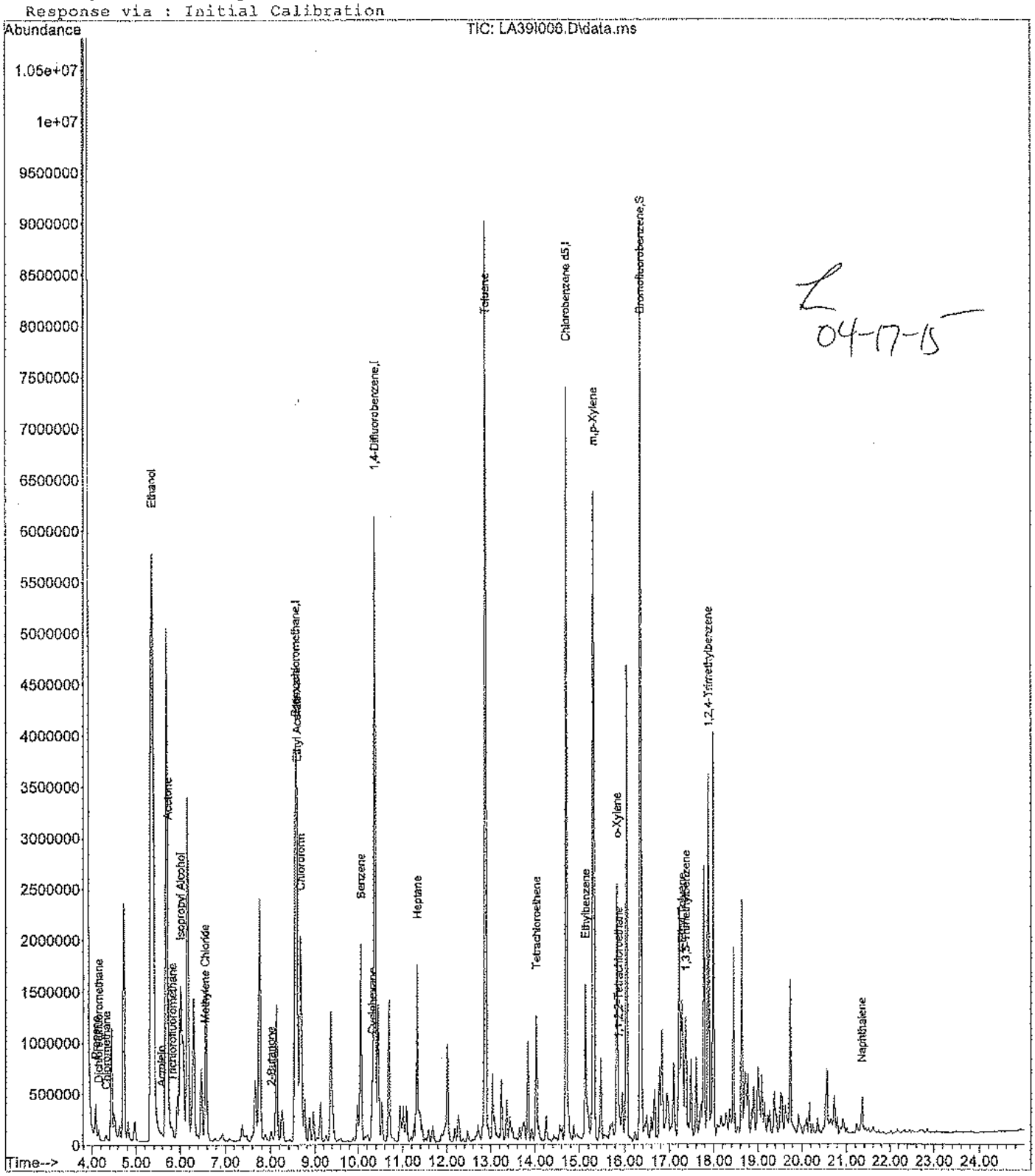


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:38:31 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



L
04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:38:31 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	509504	20.0000 ppb	104.90
25) 1,4-Difluorobenzene	10.37	114	5939825	20.0000 ppb	97.90
50) Chlorobenzene d5	14.70	117	5021859	20.0000 ppb	97.23
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	3995455	19.9780 ppb	99.89%
Target Compounds					Qvalue
2) Propene	4.08	41	119597	1.6565 ppb #	63 TCL10C6
3) Dichlorodifluoromethane	4.15	85	125489	0.5094 ppb	99
4) Chloromethane	4.32	50	70582	0.6710 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.59	56	32429	0.7956 ppb #	96 TCL10C3
11) Acetone	5.73	43	887530	5.2688 ppb m	68
12) Trichlorofluoromethane	5.82	101	108114	0.4069 ppb	99
13) Ethanol	5.35	45	16956580	503.4533 ppb #	78 TIC
14) Isopropyl Alcohol	6.01	45	3820961	13.3690 ppb	94 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.54	84	21665	0.2514 ppb #	31
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.01	43	182349	0.8525 ppb #	73
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.58	61	81072	2.3313 ppb #	1
27) Hexane	8.57	57	1703387	10.2500 ppb #	75
28) Chloroform	8.66	83	1984432	9.6508 ppb	98
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.05	78	2028340	6.9236 ppb #	92
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.32	84	260973	1.9798 ppb #	33
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	441419	4.3323 ppb #	42
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	7879303	22.1569 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	14.03	166	430214	2.4524 ppb #	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:38:31 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

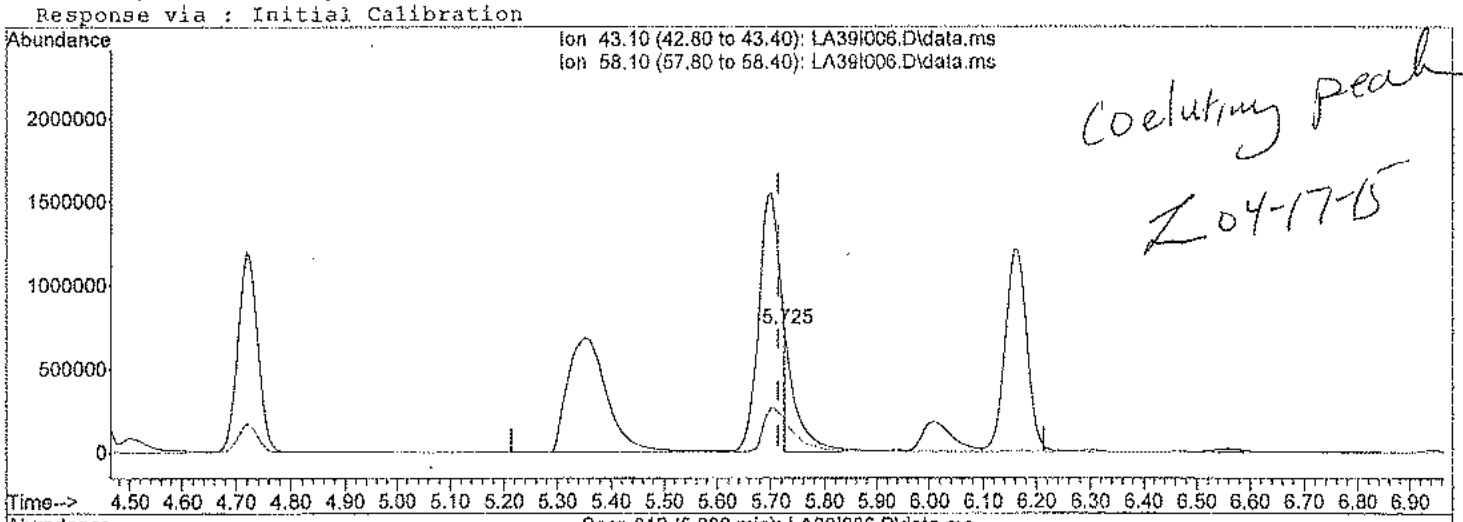
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue	
51)	Chlorobenzene	0.00	112		Not Detected			
52)	Ethylbenzene	15.13	91	1374847	2.9719	ppb	92	
53)	m,p-Xylene	15.31	91	5534212	15.5175	ppb	89	
54)	Bromoform	0.00	173		Not Detected			
55)	Styrene	0.00	104		Not Detected			
56)	1,1,2,2-Tetrachloroethane	15.87	83	118230	0.4841	ppb #	27	
57)	o-Xylene	15.83	91	1817376	5.0061	ppb	90	
59)	4-Ethyl Toluene	17.27	105	803668	1.6521	ppb	96	
60)	1,3,5-Trimethylbenzene	17.36	105	668614	1.6020	ppb	91	
61)	1,2,4-Trimethylbenzene	17.88	105	2228593	5.3228	ppb	92	
62)	Benzyl Chloride	0.00	91		Not Detected			
63)	m-Dichlorobenzene	0.00	146		Not Detected			
64)	p-Dichlorobenzene	0.00	146		Not Detected			
65)	o-Dichlorobenzene	0.00	146		Not Detected			
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected			
67)	Naphthalene	21.33	128	98896	0.2755	ppb #	89	TIC LIMIT
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected			

(#) = qualifier out of range (m) = manual integration

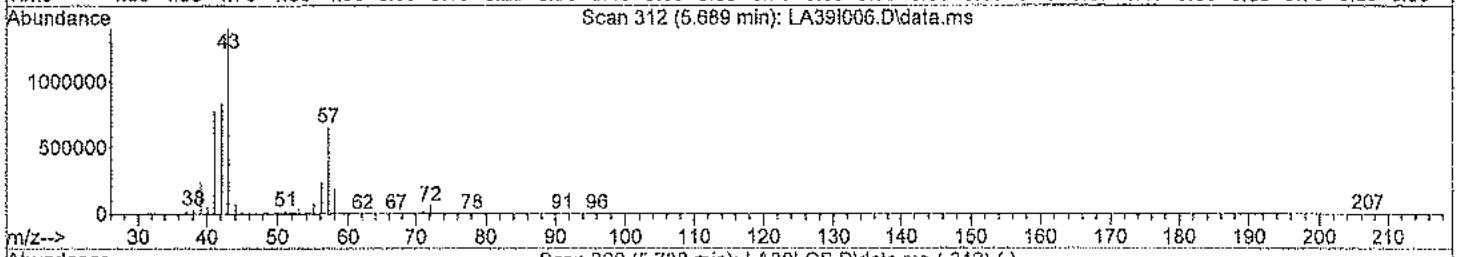
Quantitation Report (Qedit)

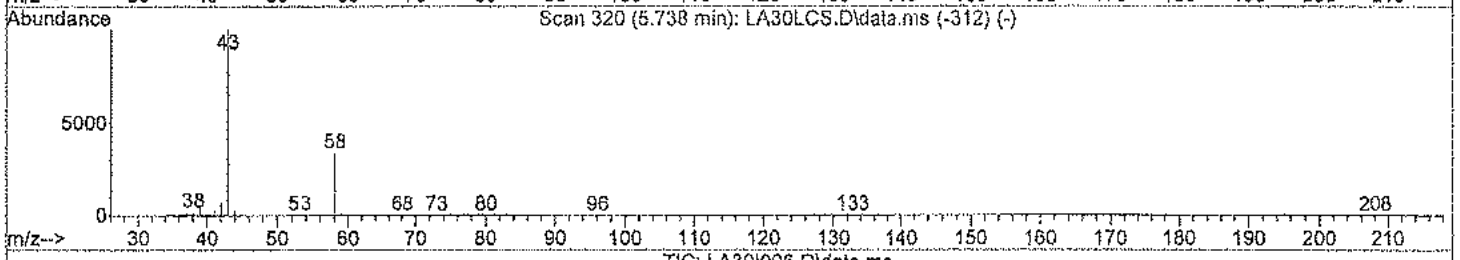
Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA39I006.D
Acq On : 04/15/2015 18:58
Operator : TJM
Sample : 1510353006
Inst : 5975-L
Misc : TO-001-LIV 0162
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 16 15:38:31 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



Coeluting peak
4-17-15





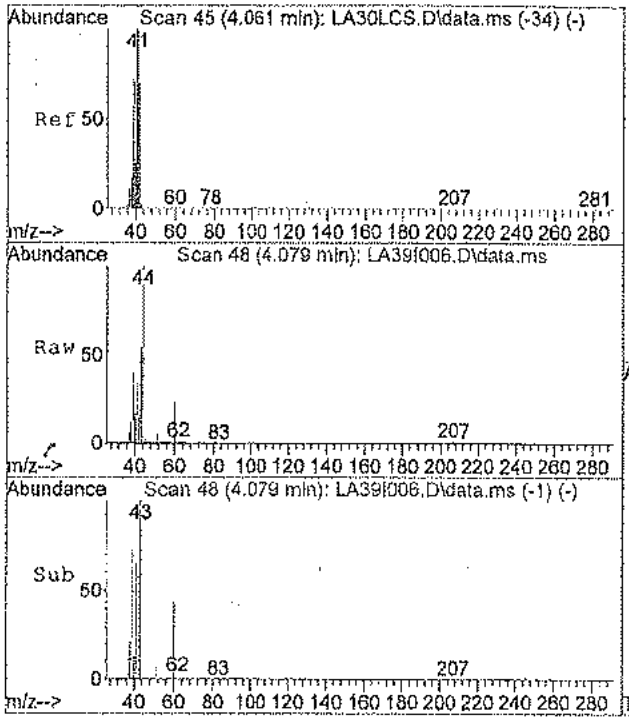
TIC: LA39I006.D\data.ms

(11) Acetone

5.725min (+ 0.012) 5.27 ppb m

response 887530

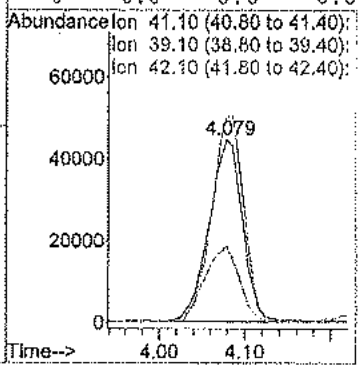
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	111.57#
0.00	0.00	0.00
0.00	0.00	0.00

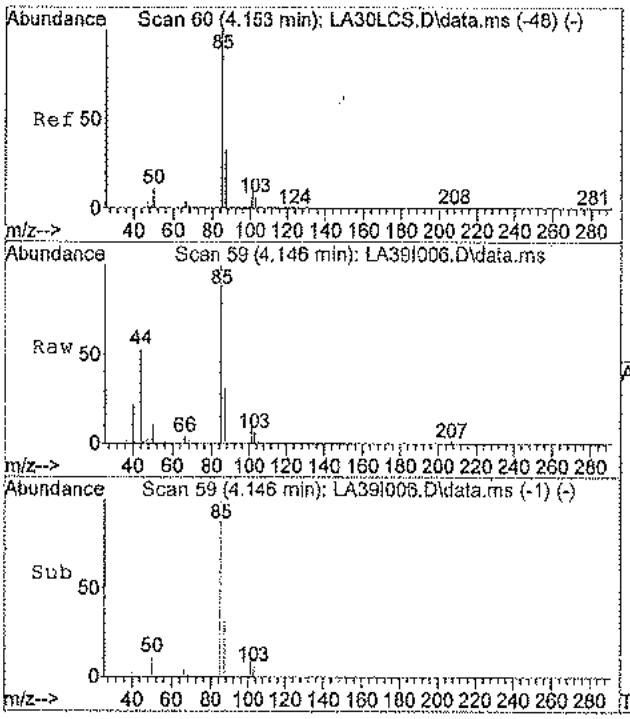


#2
Propene
Concen: 1.66 ppb
RT: 4.08 min Scan# 48
Delta R.T. 0.04 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:41.1 Resp: 119597

Ion	Ratio	Lower	Upper
41	100		
39	109.3	56.2	84.4#
42	45.9	53.8	80.6#
0	0.0	0.0	0.0

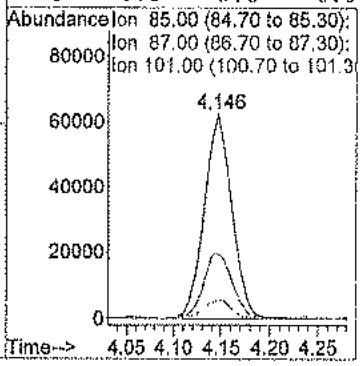


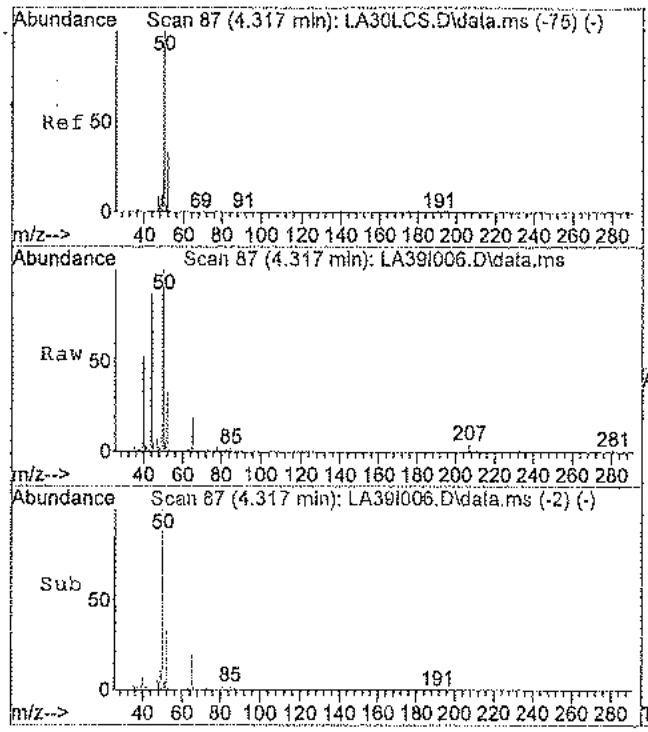


#3
Dichlorodifluoromethane
Concen: 0.51 ppb
RT: 4.15 min Scan# 59
Delta R.T. 0.02 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:85 Resp: 125489

Ion	Ratio	Lower	Upper
85	100		
87	33.1	26.1	39.1
101	9.1	8.0	12.0
0	0.0	0.0	0.0

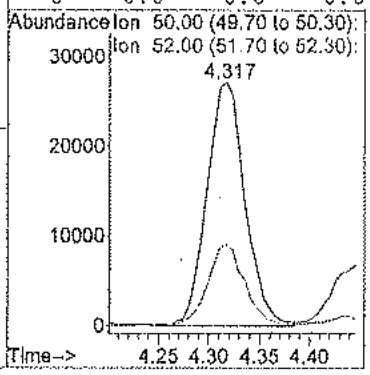


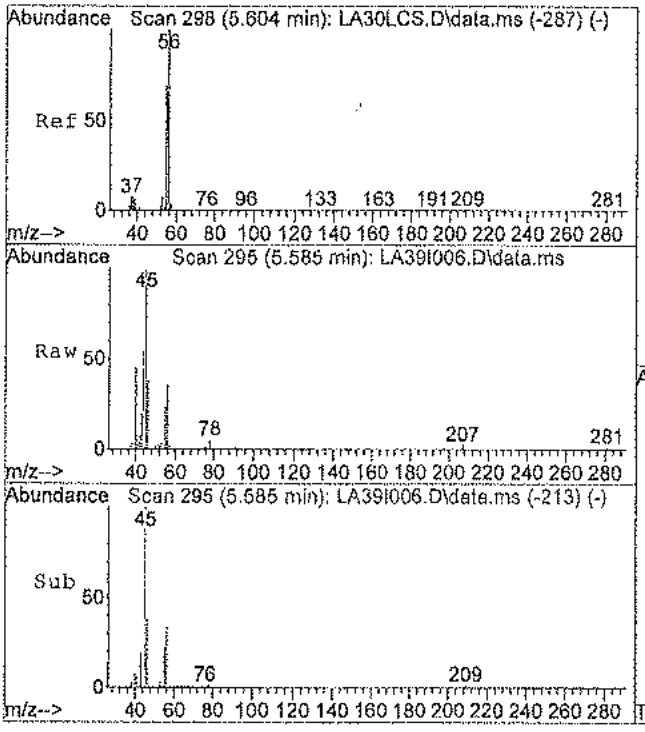


#4
Chloromethane
Concen: 0.67 ppb
RT: 4.32 min Scan# 87
Delta R.T. 0.02 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:50 Resp: 70582

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

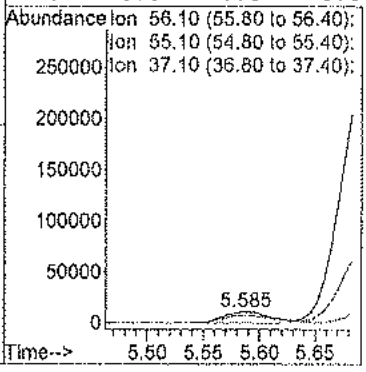


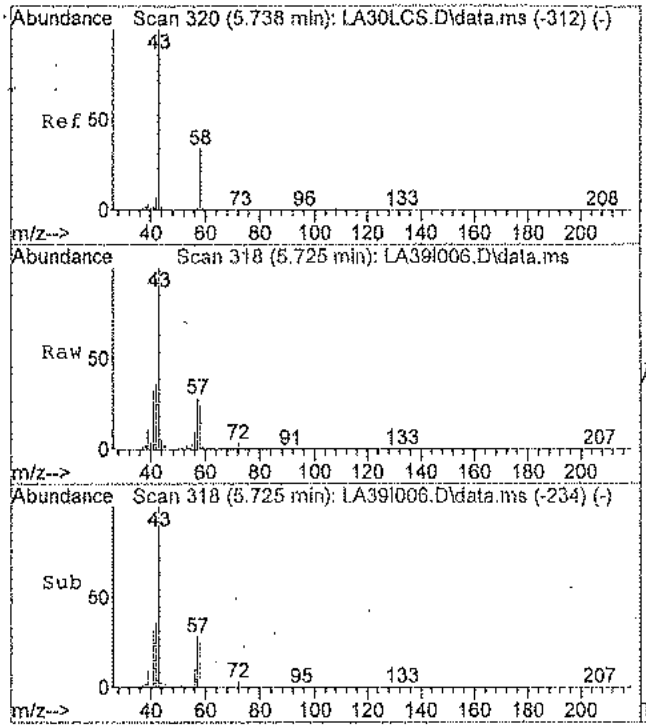


#10
Acrolein
Concen: 0.80 ppb
RT: 5.59 min Scan# 295
Delta R.T. -0.00 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:56.1 Resp: 32429

Ion	Ratio	Lower	Upper
56	100		
55	72.1	55.1	82.7
37	7.4	7.9	11.9#
0	0.0	0.0	0.0

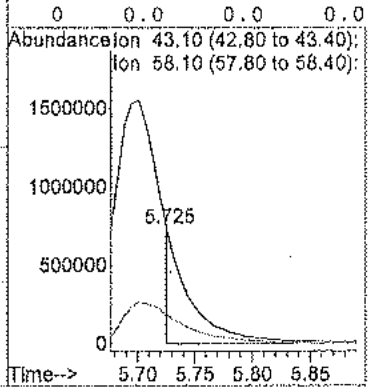


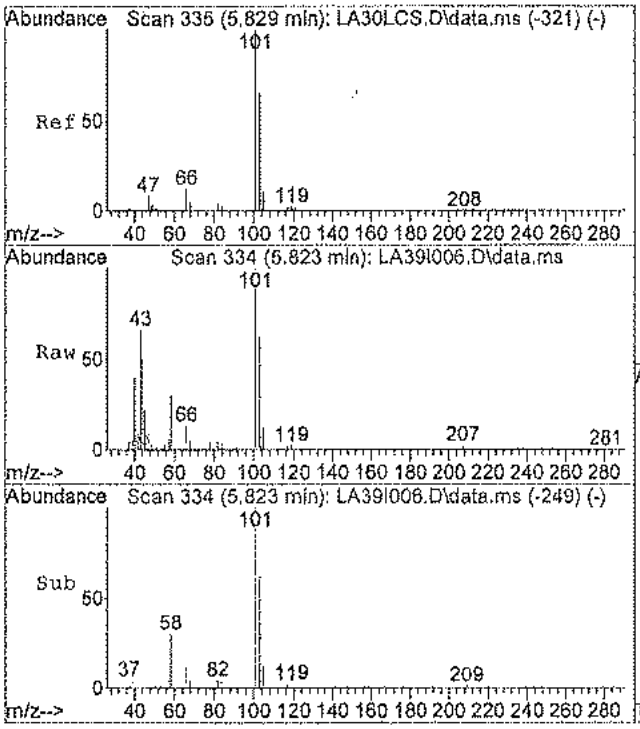


#11
Acetone
Concen: 5.27 ppb m
RT: 5.73 min Scan# 318
Delta R.T. 0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:43.1 Resp: 887530

Ion	Ratio	Lower	Upper
43	100		
58	111.6	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

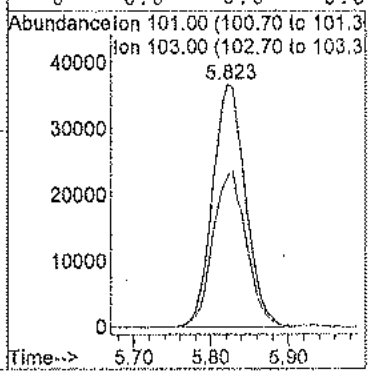


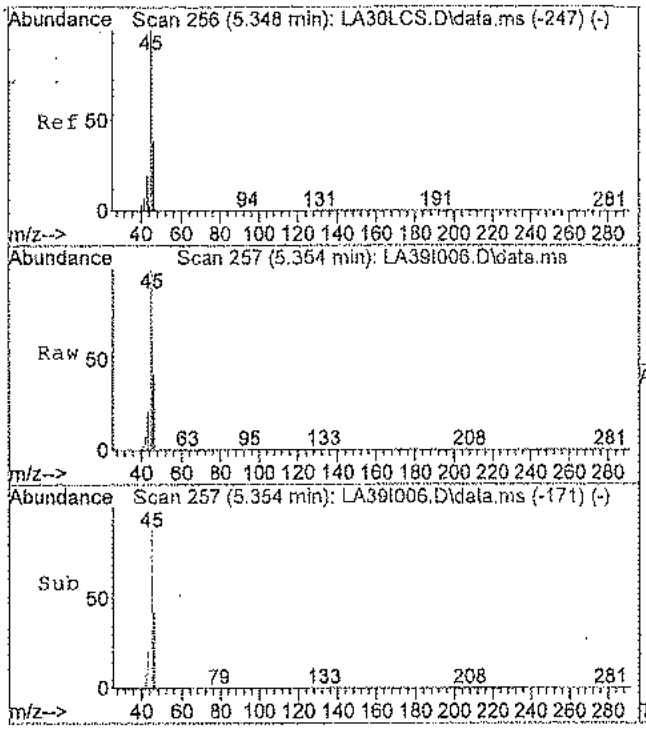


#12
Trichlorofluoromethane
Concen: 0.41 ppb
RT: 5.82 min Scan# 334
Delta R.T. 0.02 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:101 Resp: 108114

Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

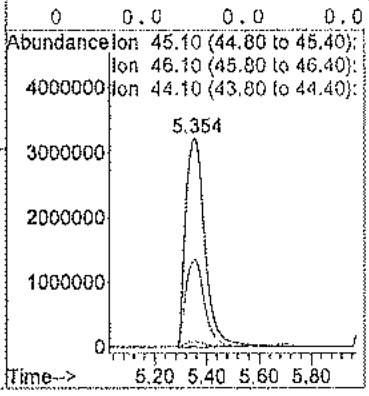


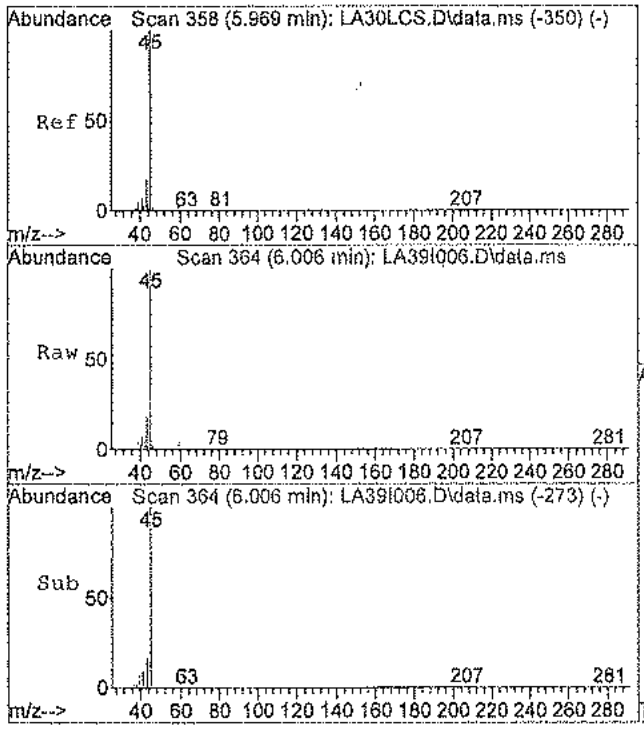


#13
Ethanol
Concen: 503.45 ppb
RT: 5.35 min Scan# 257
Delta R.T. 0.02 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:45.1 Resp:16956580

Ion	Ratio	Lower	Upper
45	100		
46	41.3	32.4	48.6
44	1.9	23.4	35.2#
0	0.0	0.0	0.0

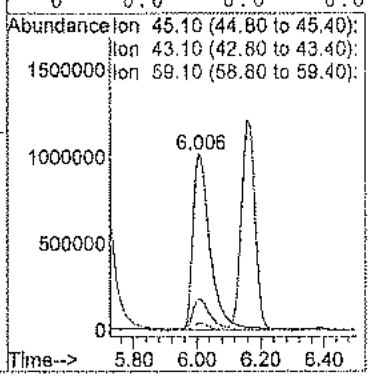


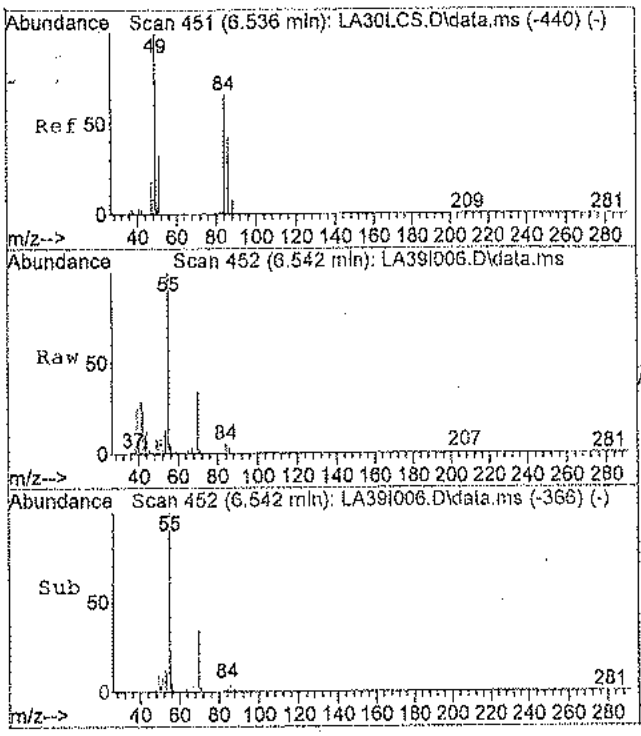


#14
Isopropyl Alcohol
Concen: 13.37 ppb
RT: 6.01 min Scan# 364
Delta R.T. 0.05 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:45.1 Resp: 3820961

Ion	Ratio	Lower	Upper
45	100		
43	16.2	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

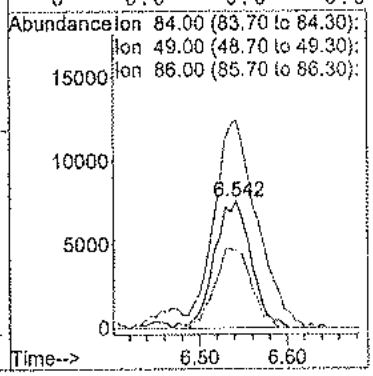


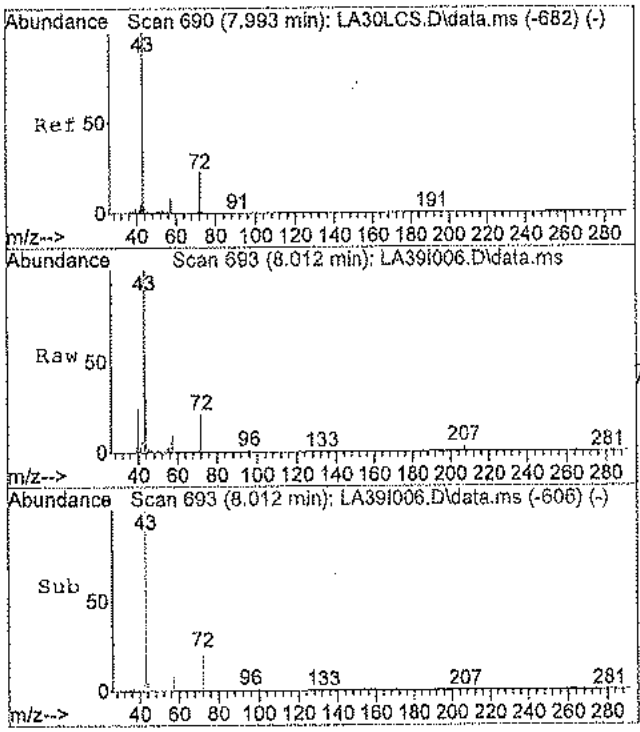


#16
Methylene Chloride
Concen: 0.25 ppb
RT: 6.54 min Scan# 452
Delta R.T. 0.02 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:84 Resp: 21665

Ion	Ratio	Lower	Upper
84	100		
49	192.2	66.6	100.0#
86	62.5	51.6	77.4
0	0.0	0.0	0.0

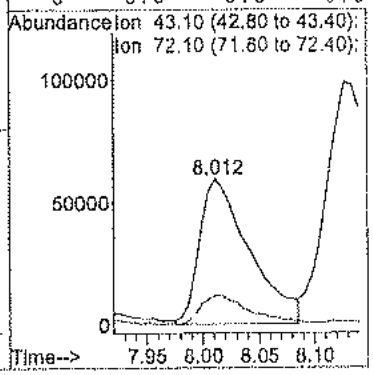


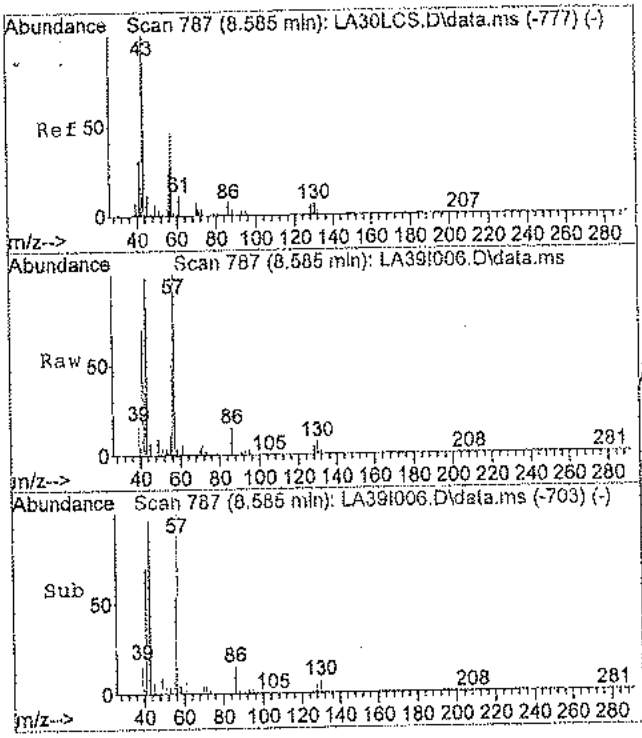


#23
2-Butanone
Concen: 0.85 ppb
RT: 8.01 min Scan# 693
Delta R.T. 0.03 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:43.1 Resp: 182349

Ion	Ratio	Lower	Upper
43	100		
72	22.6	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

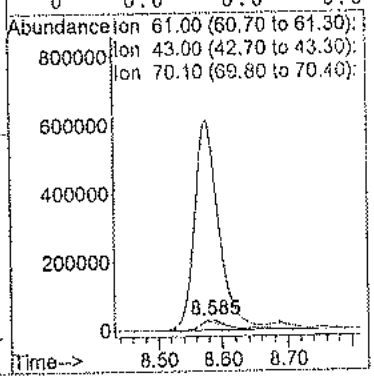


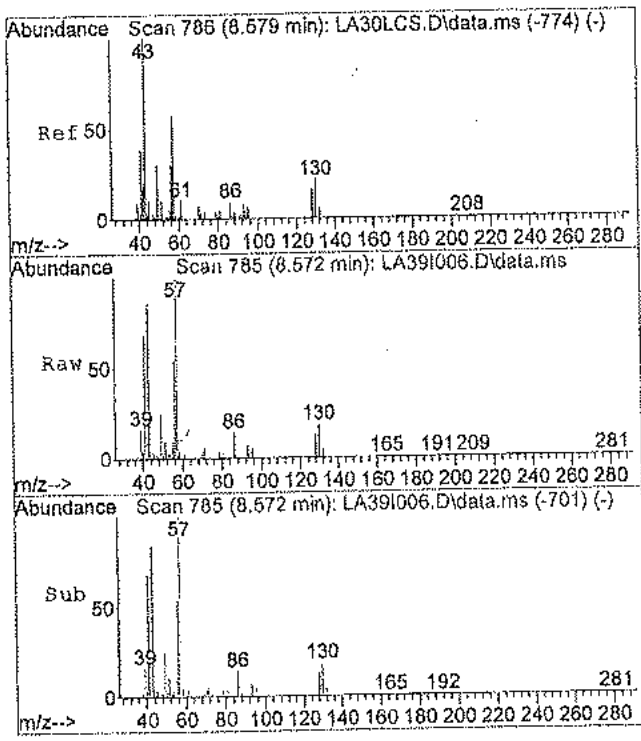


#26
Ethyl Acetate
Concen: 2.33 ppb
RT: 8.58 min Scan# 787
Delta R.T. 0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:61 Resp: 81072

Ion	Ratio	Lower	Upper
61	100		
43	1988.3	144.0	216.0#
70	82.8	13.6	20.4#
0	0.0	0.0	0.0

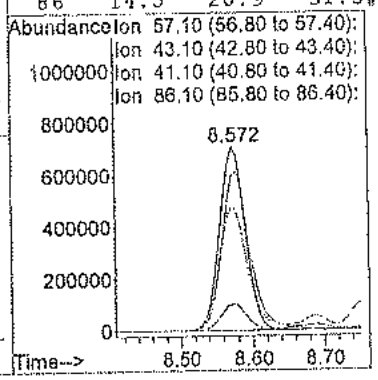


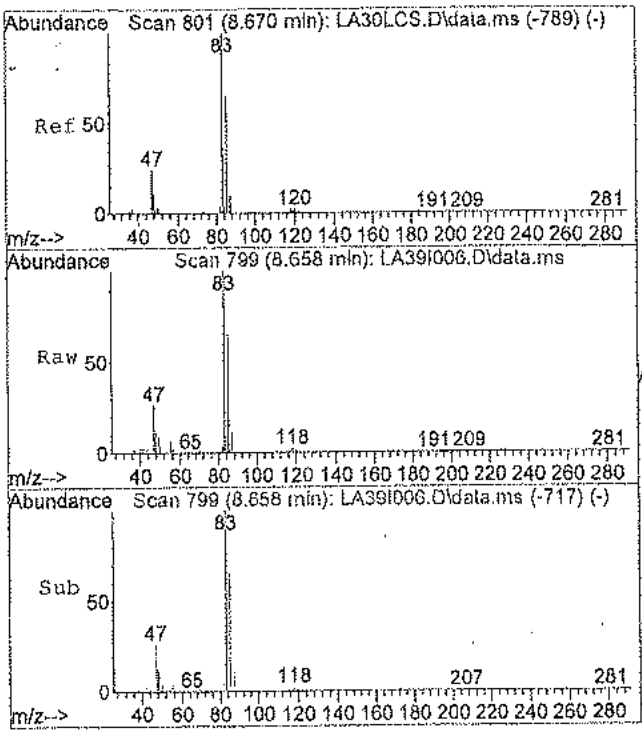


#27
Hexane
Concen: 10.25 ppb
RT: 8.57 min Scan# 785
Delta R.T. 0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:57.1 Resp: 1703387

Ion	Ratio	Lower	Upper
57	100		
43	94.6	57.3	85.9#
41	75.2	47.0	70.4#
86	14.5	20.9	31.3#

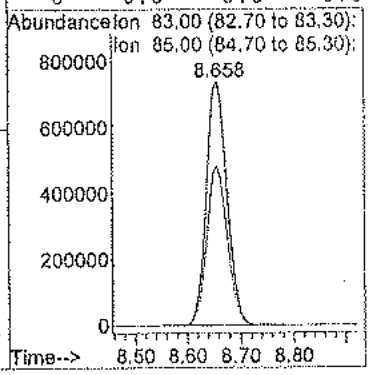


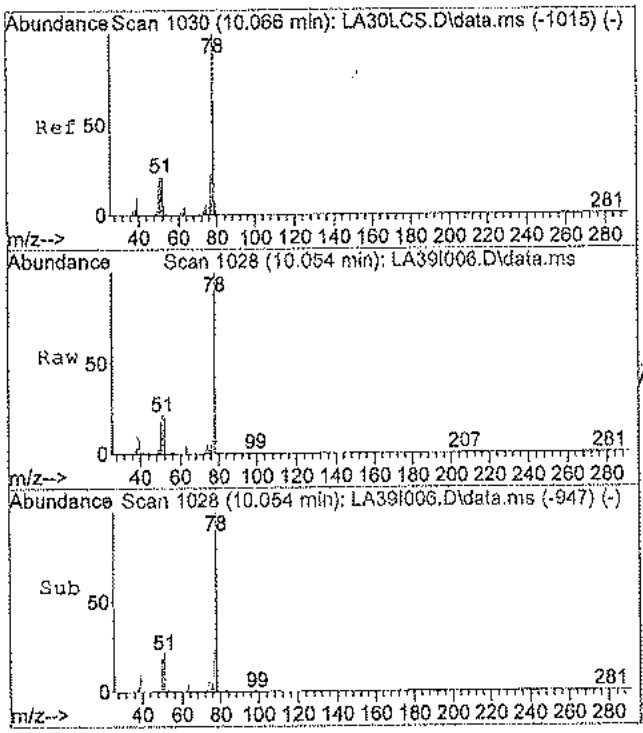


#28
Chloroform
Concen: 9.65 ppb
RT: 8.66 min Scan# 799
Delta R.T. -0.00 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:83 Resp: 1984432

Ion	Ratio	Lower	Upper
83	100		
85	64.1	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

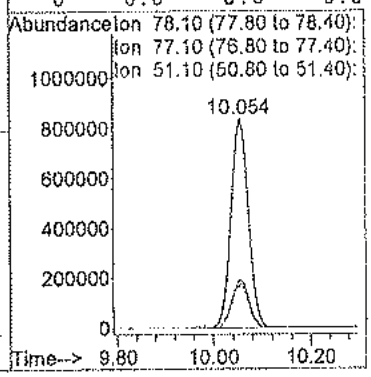


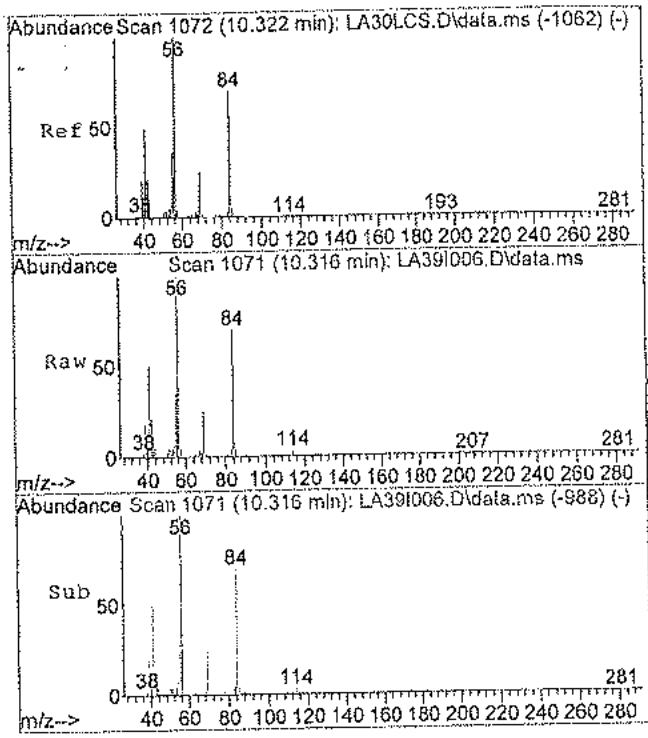


#32
Benzene
Concen: 6.92 ppb
RT: 10.05 min Scan# 1028
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:78.1 Resp: 2028340

Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.2	27.4
51	20.4	9.5	14.3#
0	0.0	0.0	0.0

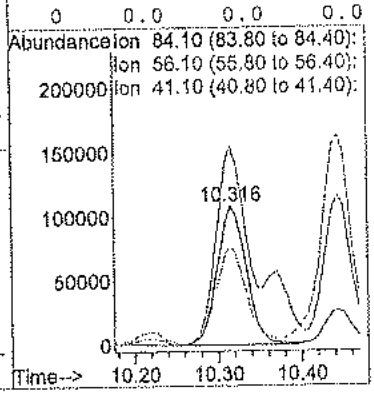


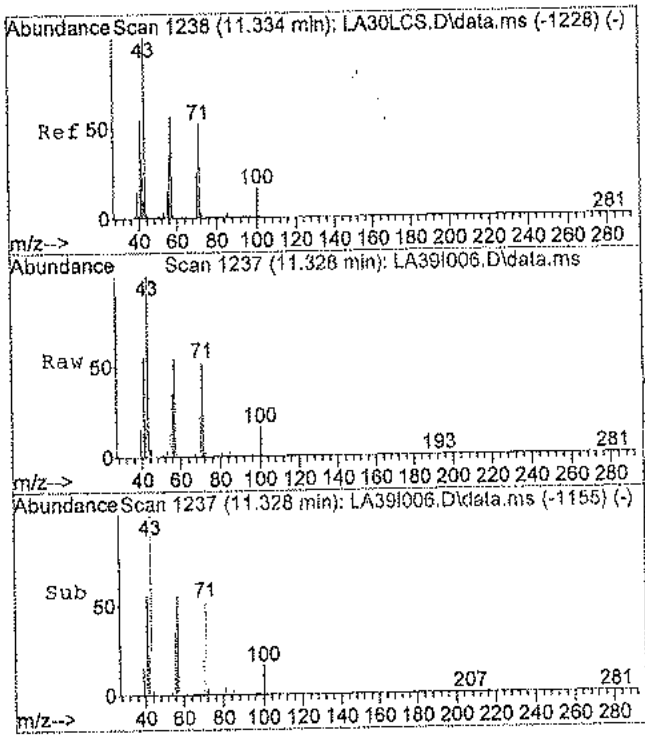


#34
Cyclohexane
Concen: 1.98 ppb
RT: 10.32 min Scan# 1071
Delta R.T. 0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:84.1 Resp: 260973

Ion	Ratio	Lower	Upper
84	100		
56	149.4	67.3	100.9#
41	71.0	30.2	45.4#
0	0.0	0.0	0.0

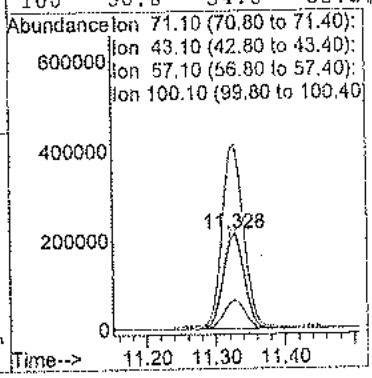


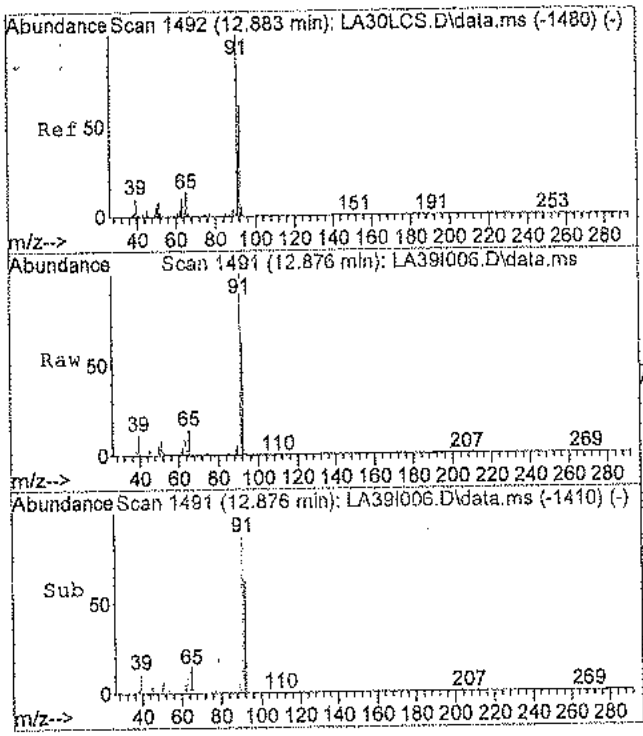


#40
Heptane
Concen: 4.33 ppb
RT: 11.33 min Scan# 1237
Delta R.T. -0.00 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:71.1 Resp: 441419

Ion	Ratio	Lower	Upper
71	100		
43	196.6	87.3	130.9#
57	107.1	57.8	86.6#
100	30.8	34.8	52.2#

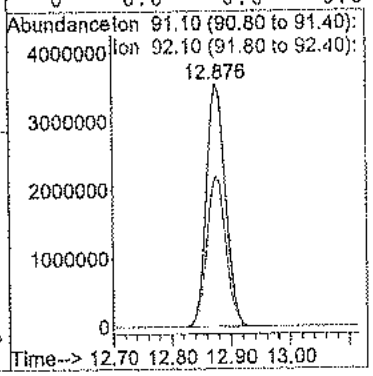


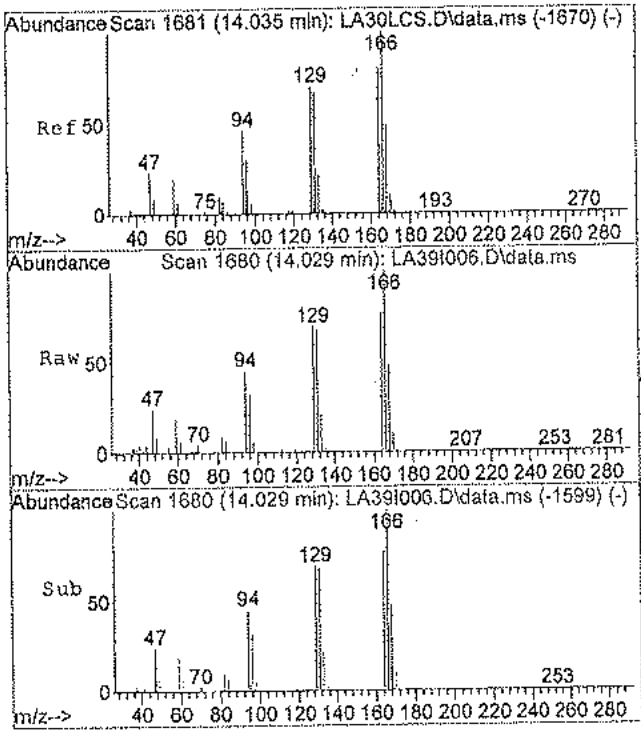


#45
Toluene
Concen: 22.16 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:91.1 Resp: 7879303

Ion	Ratio	Lower	Upper
91	100		
92	61.8	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

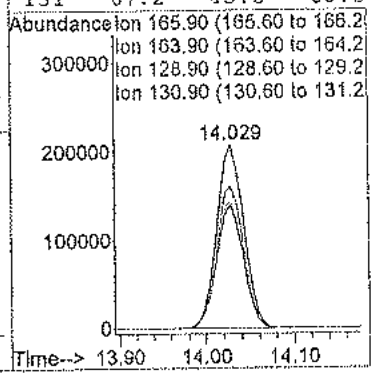


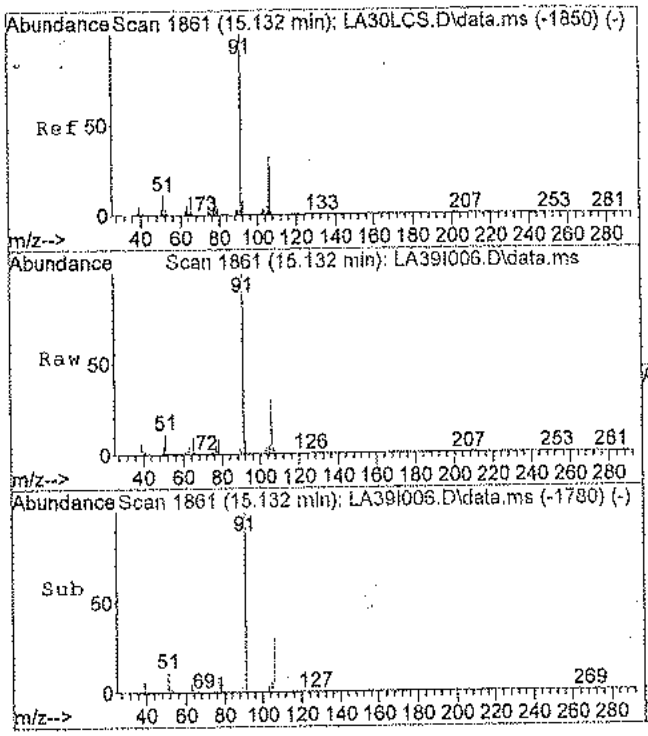


#49
Tetrachloroethene
Concen: 2.45 ppb
RT: 14.03 min Scan# 1680
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:165.9 Resp: 430214

Ion	Ratio	Lower	Upper
166	100		
164	78.3	61.0	91.4
129	70.6	45.9	68.9#
131	67.2	45.5	68.3

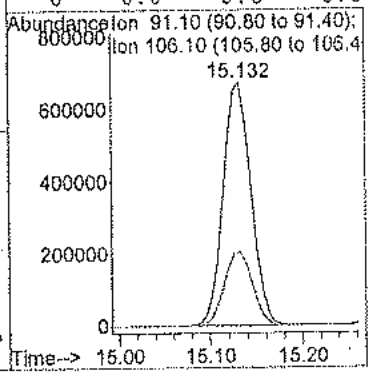


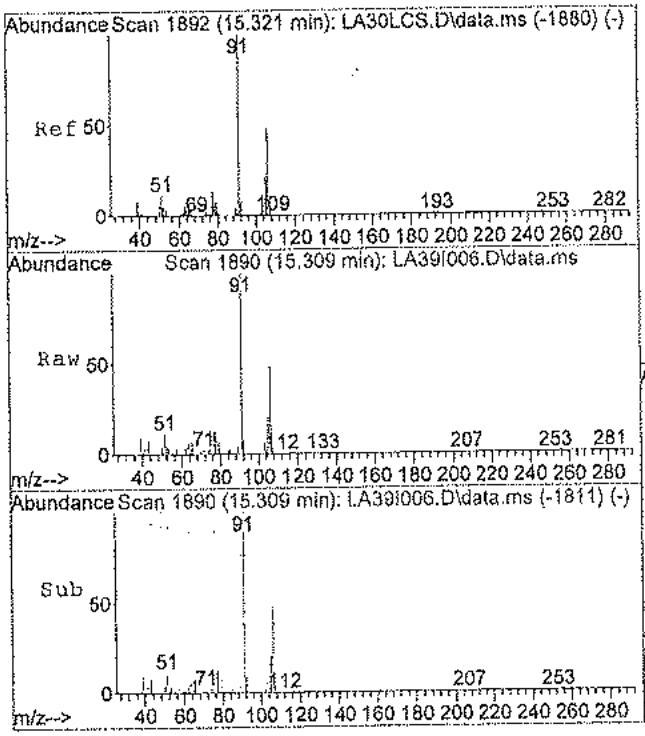


#52
Ethylbenzene
Concen: 2.97 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:91.1 Resp: 1374847

Ion	Ratio	Lower	Upper
91	100		
106	30.6	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

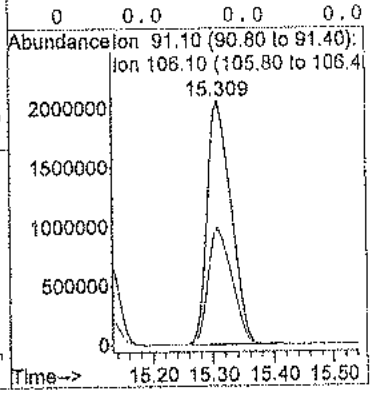


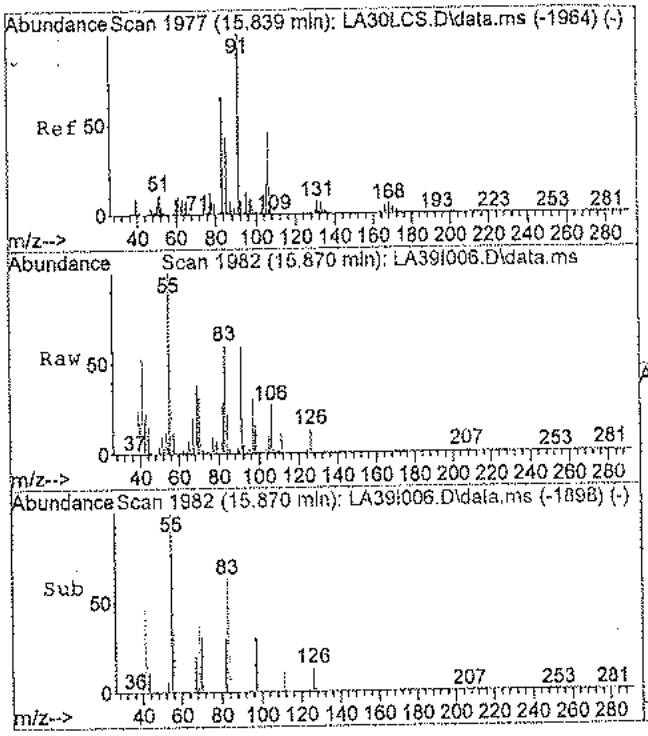


#53
m,p-Xylene
Concen: 15.52 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:91.1 Resp: 5534212

Ion	Ratio	Lower	Upper
91	100		
106	47.9	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

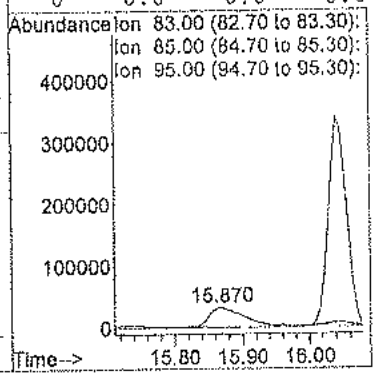


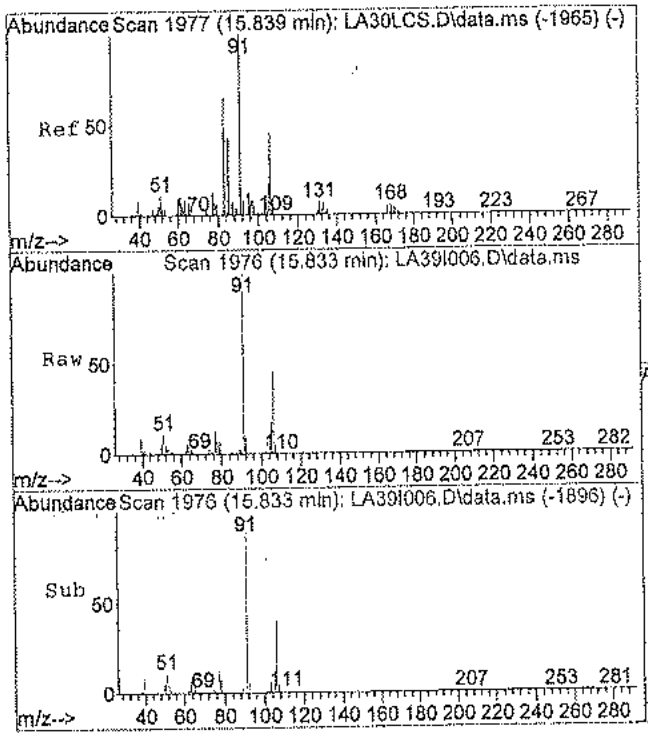


#56
1,1,2,2-Tetrachloroethane
Concen: 0.48 ppb
RT: 15.87 min Scan# 1982
Delta R.T. 0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:83 Resp: 118230

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.9	77.9#
95	0.0	13.5	20.3#
0	0.0	0.0	0.0

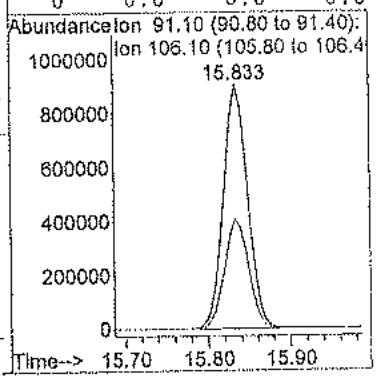


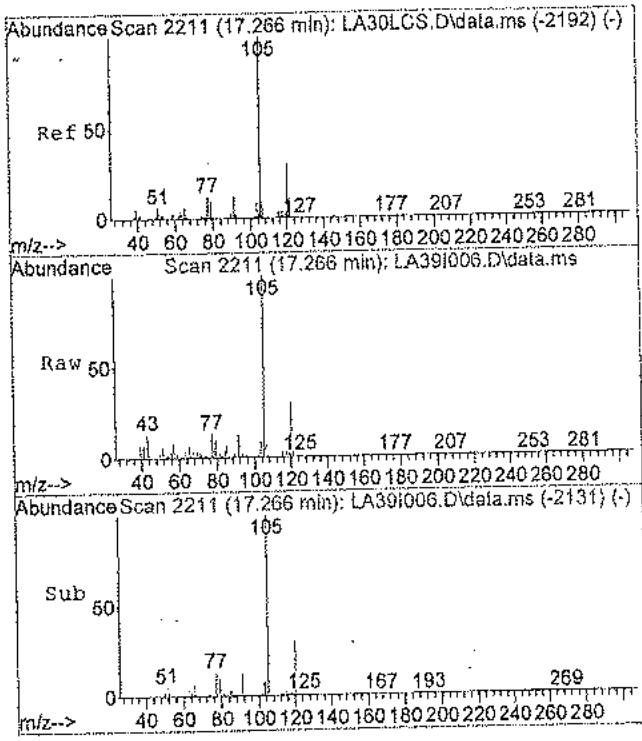


#57
o-Xylene
Concen: 5.01 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:91.1 Resp: 1817376

Ion	Ratio	Lower	Upper
91	100		
106	45.2	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

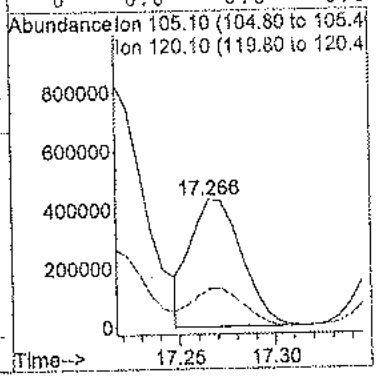


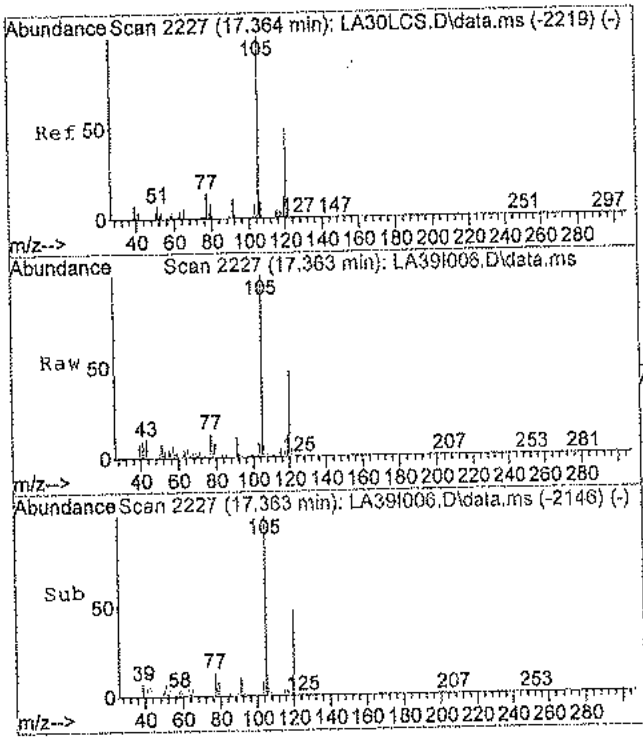


#59
4-Ethyl Toluene
Concen: 1.65 ppb
RT: 17.27 min Scan# 2211
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:105.1 Resp: 803668

Ion	Ratio	Lower	Upper
105	100		
120	30.4	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

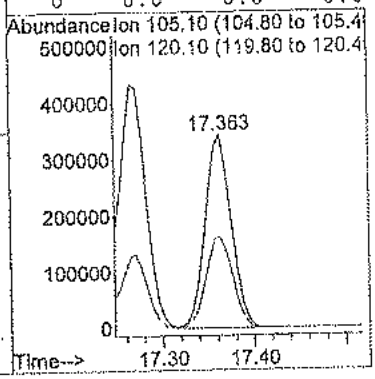


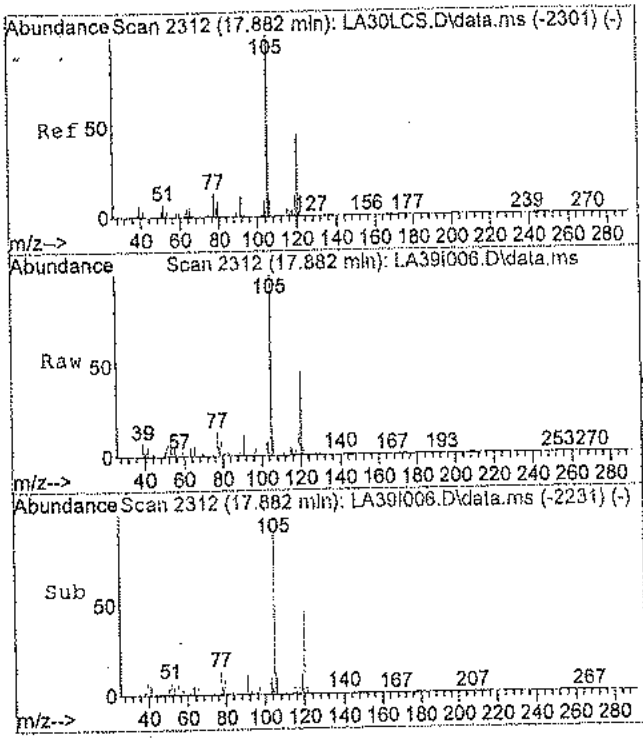


#60
1,3,5-Trimethylbenzene
Concen: 1.60 ppb
RT: 17.36 min Scan# 2227
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:105.1 Resp: 668614

Ion	Ratio	Lower	Upper
105	100		
120	48.6	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

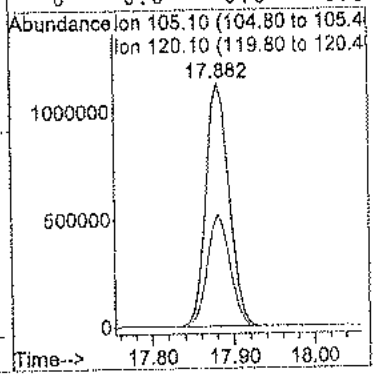


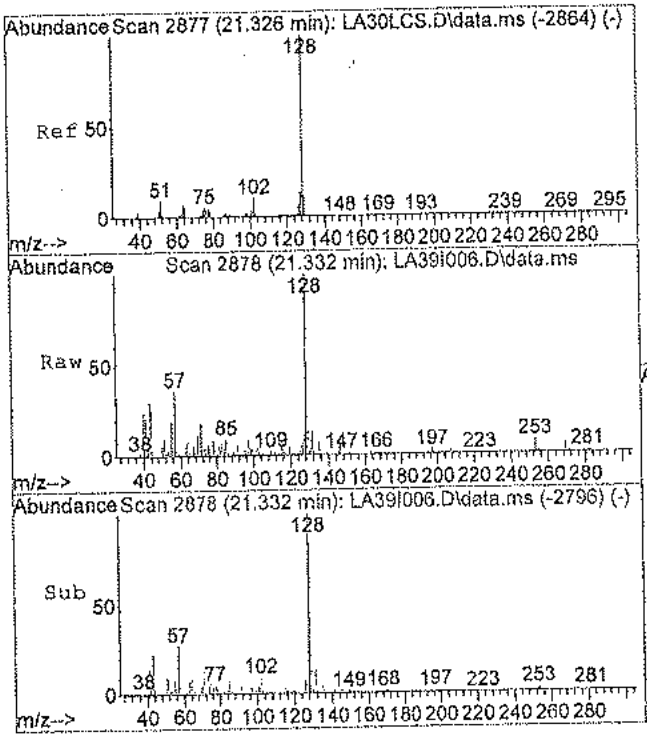


#61
1,2,4-Trimethylbenzene
Concen: 5.32 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:105.1 Resp: 2228593

Ion	Ratio	Lower	Upper
105	100		
120	45.3	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

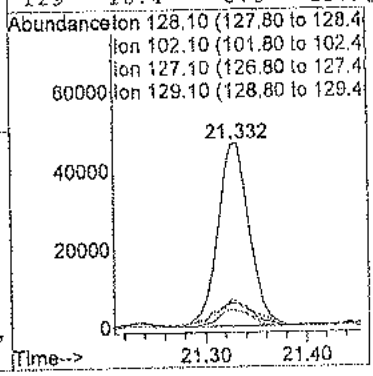




#67
Naphthalene
Concen: 0.28 ppb
RT: 21.33 min Scan# 2878
Delta R.T. -0.00 min
Lab File: LA39I006.D
Acq: 04/15/2015 18:58

Tgt Ion:128.1 Resp: 98896

Ion	Ratio	Lower	Upper
128	100		
102	10.4	6.7	10.1#
127	16.7	10.0	15.0#
129	16.4	8.8	13.2#



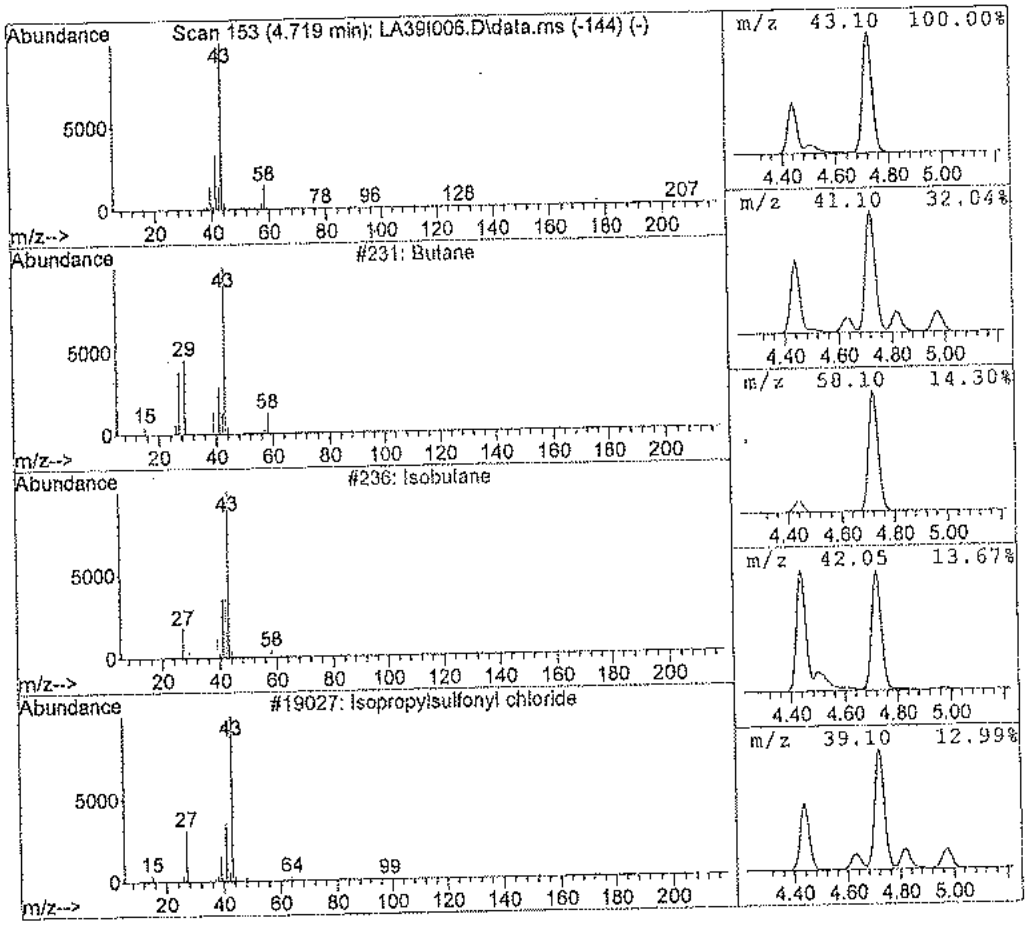
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.72	7.22 ppb	5831377	Bromochloromethane	16144963

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	72.00
2	Isobutane	236	000075-28-5	52.00
3	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
4	Propane, 1-nitro-	2152	000108-03-2	9.00
5	Diazene, dimethyl-	211	000503-28-6	4.00



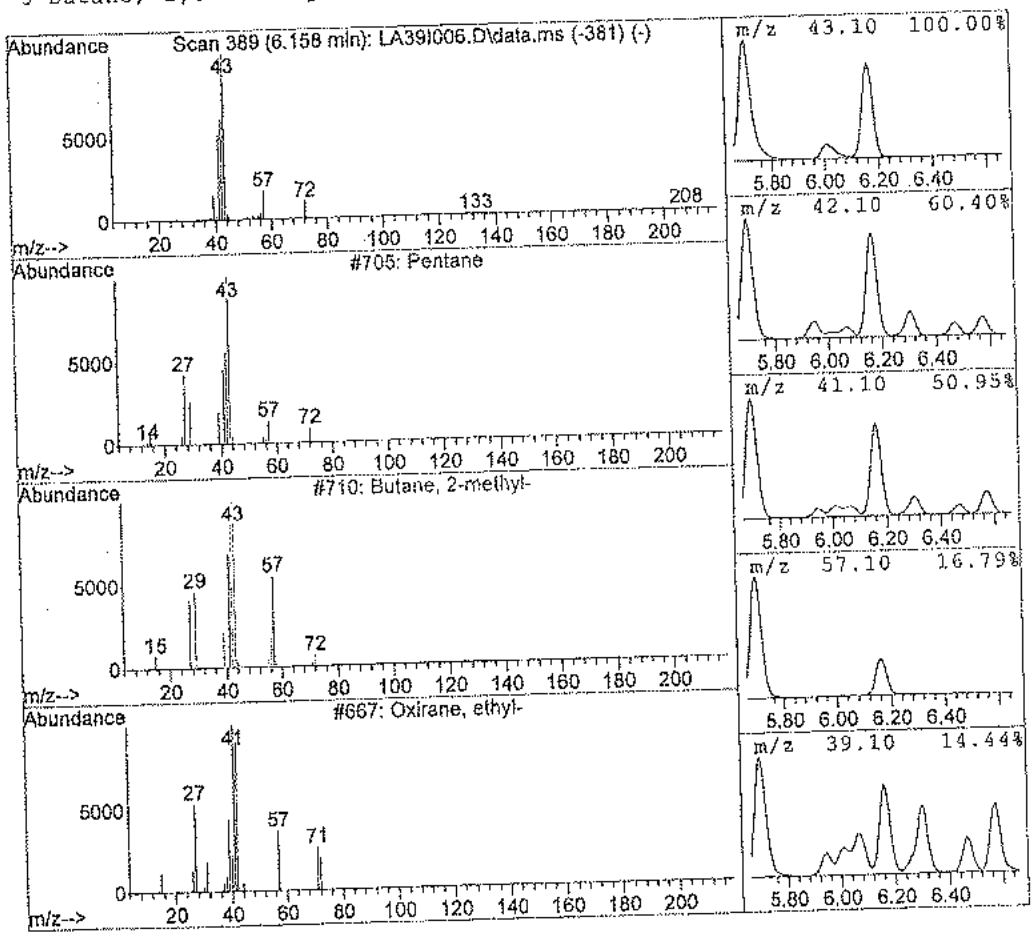
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.16	11.08 ppb	8941629	Bromochloromethane	16144963

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	705	000109-66-0	90.00
2	Butane, 2-methyl-	710	000078-78-4	38.00
3	Oxirane, ethyl-	667	000106-88-7	9.00
4	Ethanamine, N-methylene-	208	043729-97-1	9.00
5	Butane, 2,3-dimethyl-	1822	000079-29-8	9.00



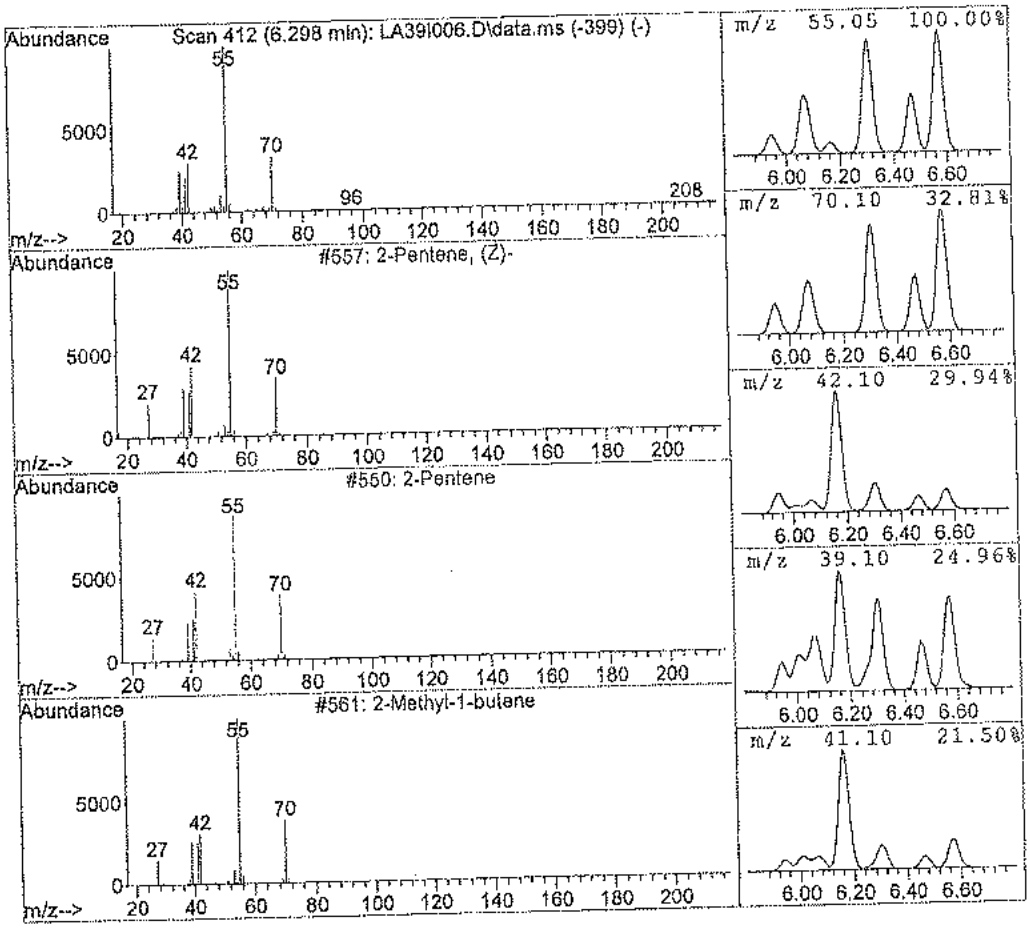
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.30	5.05 ppb	4077279	Bromochloromethane	16144963

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Pentene, (Z)-	557	000627-20-3	91.00
2	2-Pentene	550	000109-68-2	91.00
3	2-Methyl-1-butene	561	000563-46-2	91.00
4	2-Pentene, (E)-	556	000646-04-8	91.00
5	2-Butone, 2-methyl-	569	000513-35-9	91.00



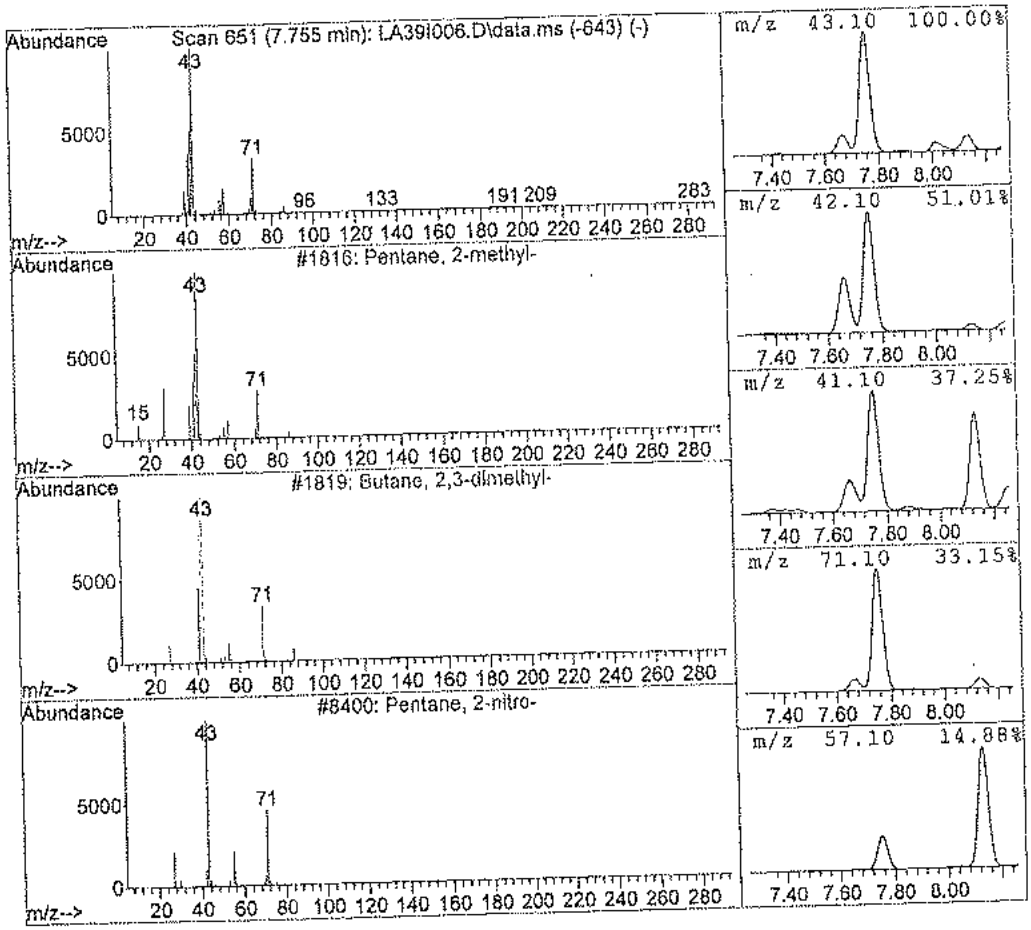
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.76	7.94 ppb	6410579	Bromochloromethane	16144963

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1816	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	47.00
3	Pentane, 2-nitro-	8400	004609-89-6	32.00
4	Pentane	704	000109-66-0	28.00
5	Hexane, 2,3-dimethyl-	7571	000584-94-1	25.00



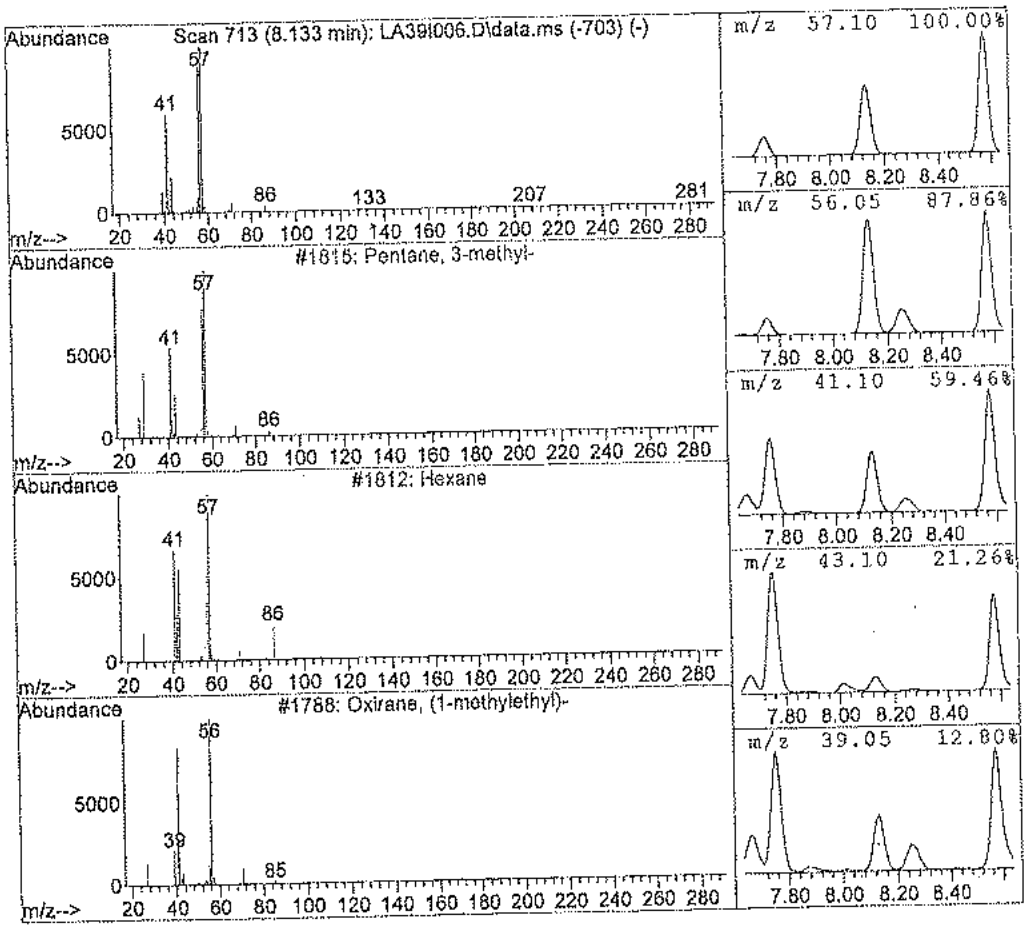
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.13	4.41 ppb	3557896	Bromochloromethane	16144963

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1815	000096-14-0	91.00
2	Hexane	1812	000110-54-3	47.00
3	Oxirane, (1-methylethyl)-	1788	001438-14-8	45.00
4	Pentane, 2,2,4,4-tetramethyl-	12604	001070-87-7	45.00
5	Hexane, 2,2,3-trimethyl-	12575	016747-25-4	40.00



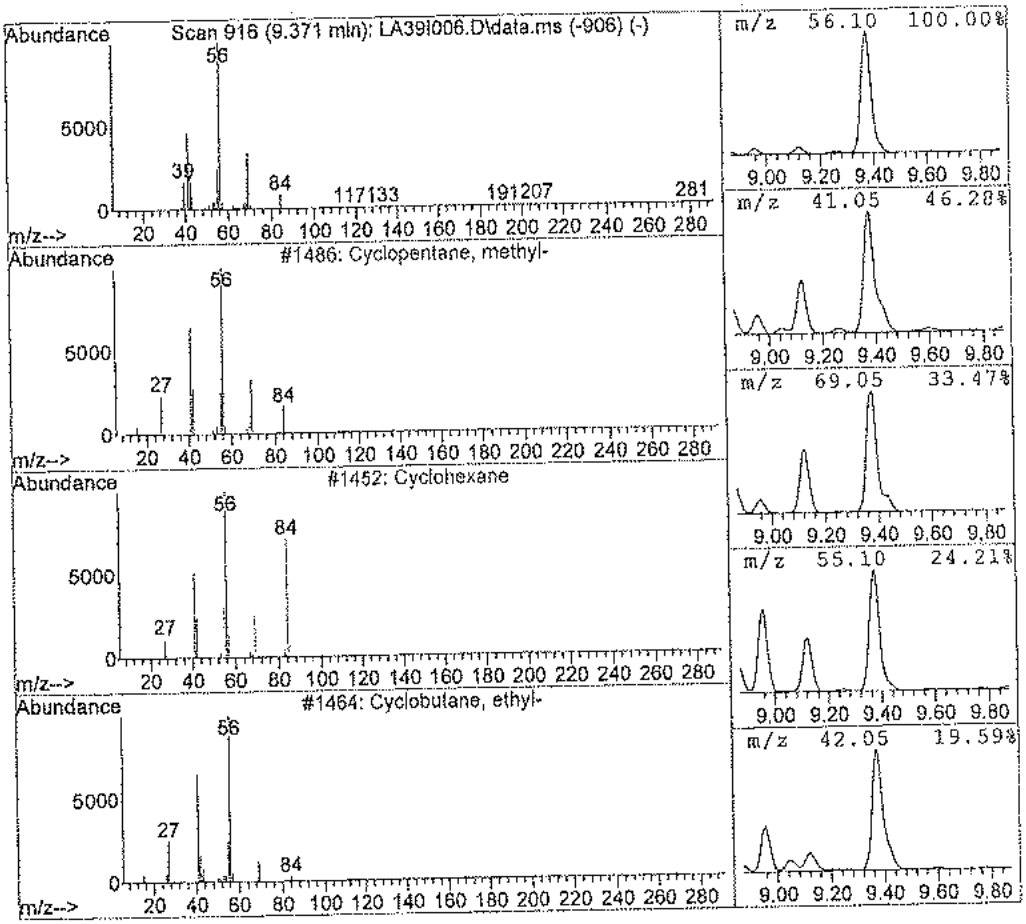
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.37	4.92 ppb	3969632	Bromochloromethane	16144963

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1486	000096-37-7	91.00
2	Cyclohexane	1452	000110-82-7	83.00
3	Cyclobutane, ethyl-	1464	004806-61-5	78.00
4	1-Hexene, 2-methyl-	3304	006094-02-6	50.00
5	Aziridine, 1-(2-buten-2-yl)-	2970	1000158-95-2	43.00



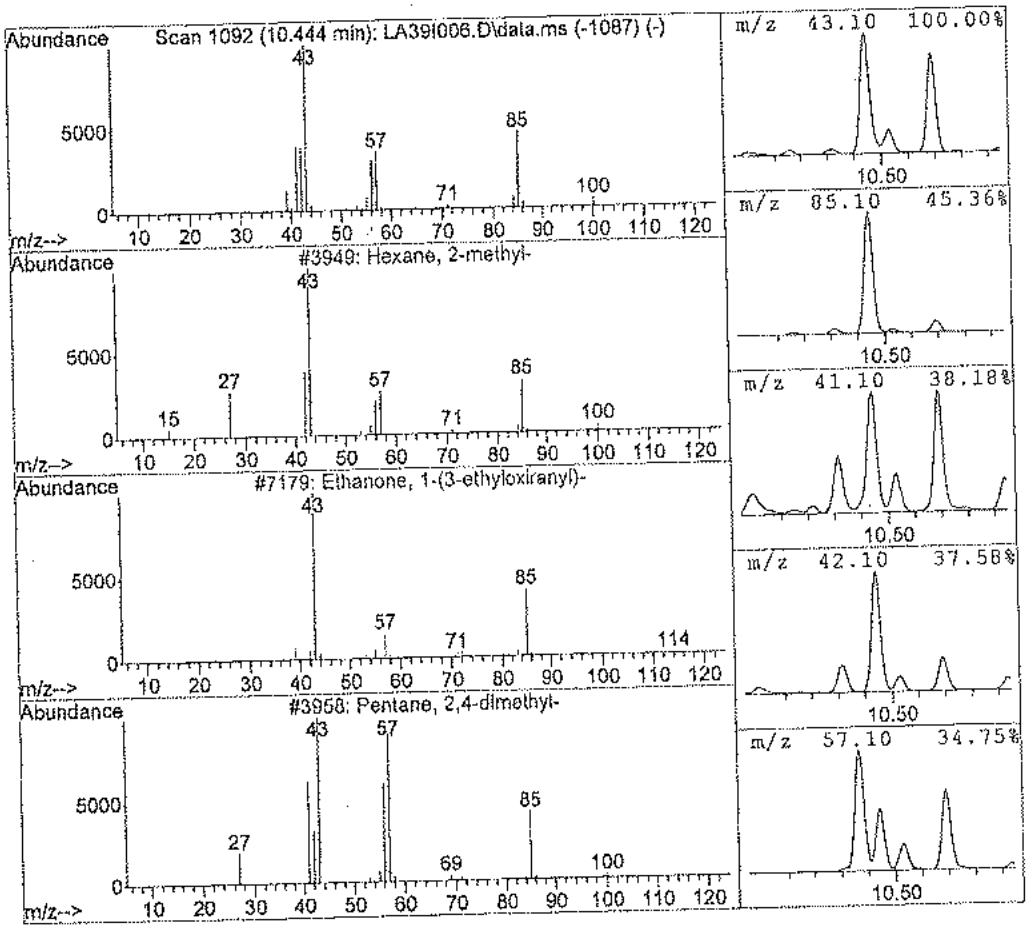
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.44	4.12 ppb	3040269	1,4-Difluorobenzene	14747176

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2-methyl-	3949	000591-76-4	90.00
2	Ethanone, 1-(3-ethyloxiranyl)-	7179	017257-81-7	50.00
3	Pentane, 2,4-dimethyl-	3958	000108-08-7	50.00
4	Pentane, 2-bromo-4-methyl-	33251	030310-22-6	38.00
5	Pentane, 3-ethyl-2,4-dimethyl-	12606	001068-87-7	38.00



Library Search Compound Report

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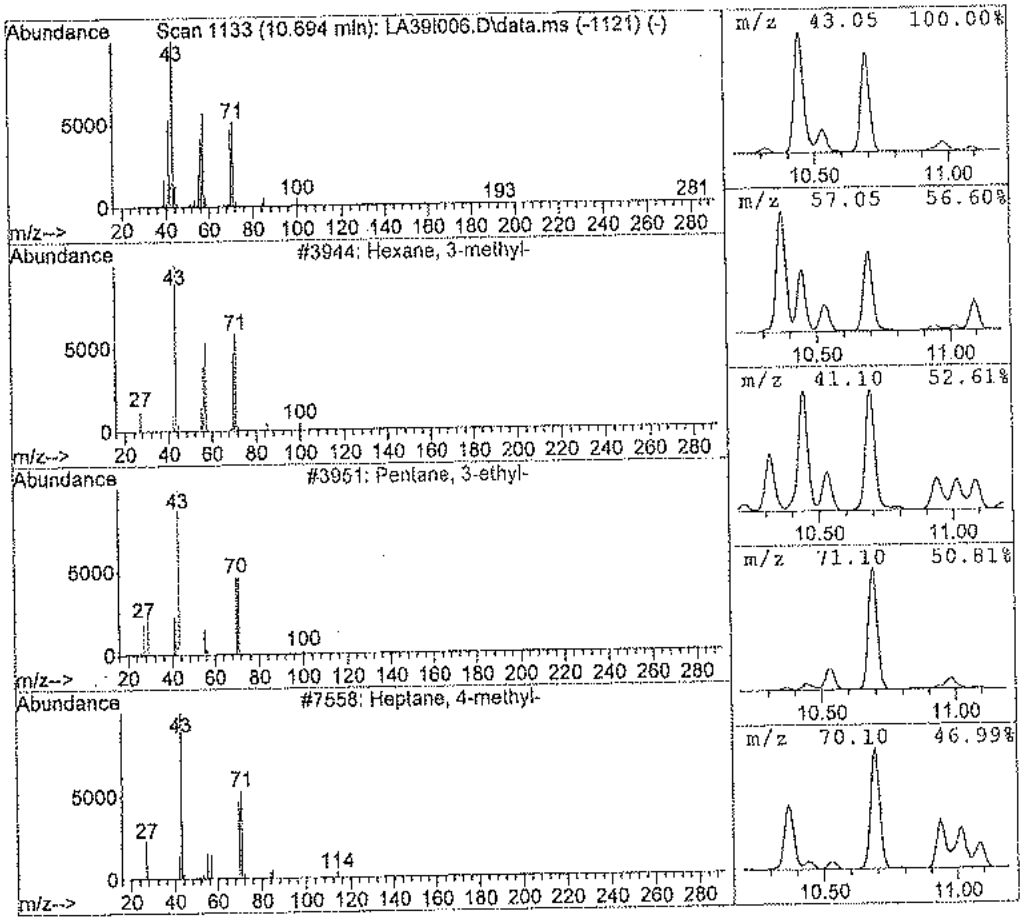
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.69	4.54 ppb	3347430	1,4-Difluorobenzene	14747176

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 3-methyl-	3944	000589-34-4	91.00
2	Pentane, 3-ethyl-	3951	000617-78-7	58.00
3	Heptane, 4-methyl-	7558	000589-53-7	53.00
4	Pentane, 2,3,4-trimethyl-	7586	000565-75-3	50.00
5	Heptane, 3,4-dimethyl-	12546	000922-28-1	45.00



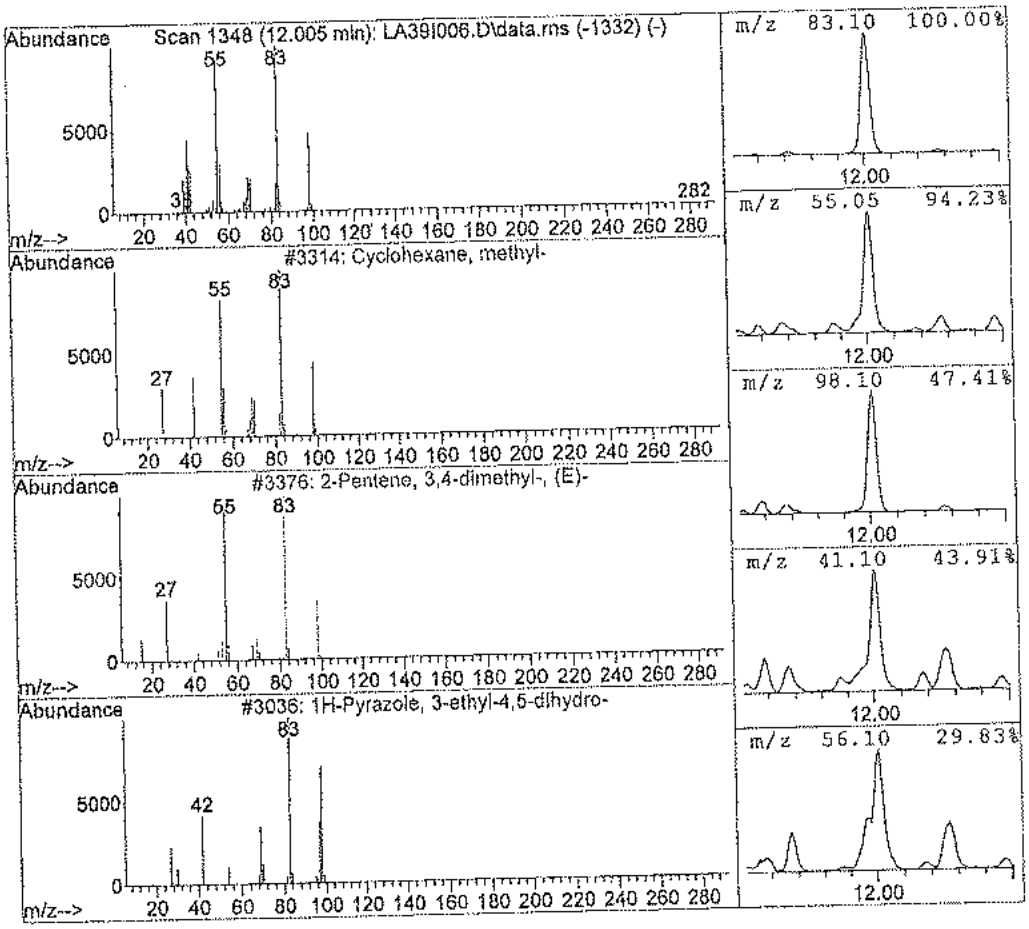
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
12.00	3.81 ppb	2808351	1,4-Difluorobenzene	14747176

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane, methyl-	3314	000108-87-2	93.00
2	2-Pentene, 3,4-dimethyl-, (E)-	3376	004914-92-5	59.00
3	1H-Pyrazole, 3-ethyl-4,5-dihydro-	3036	005920-29-6	59.00
4	1H-Pyrazole, 4,5-dihydro-4,5-dimeth	3045	028019-94-5	59.00
5	1H-Pyrazole, 4,5-dihydro-1,5-dimeth	3043	005775-96-2	59.00



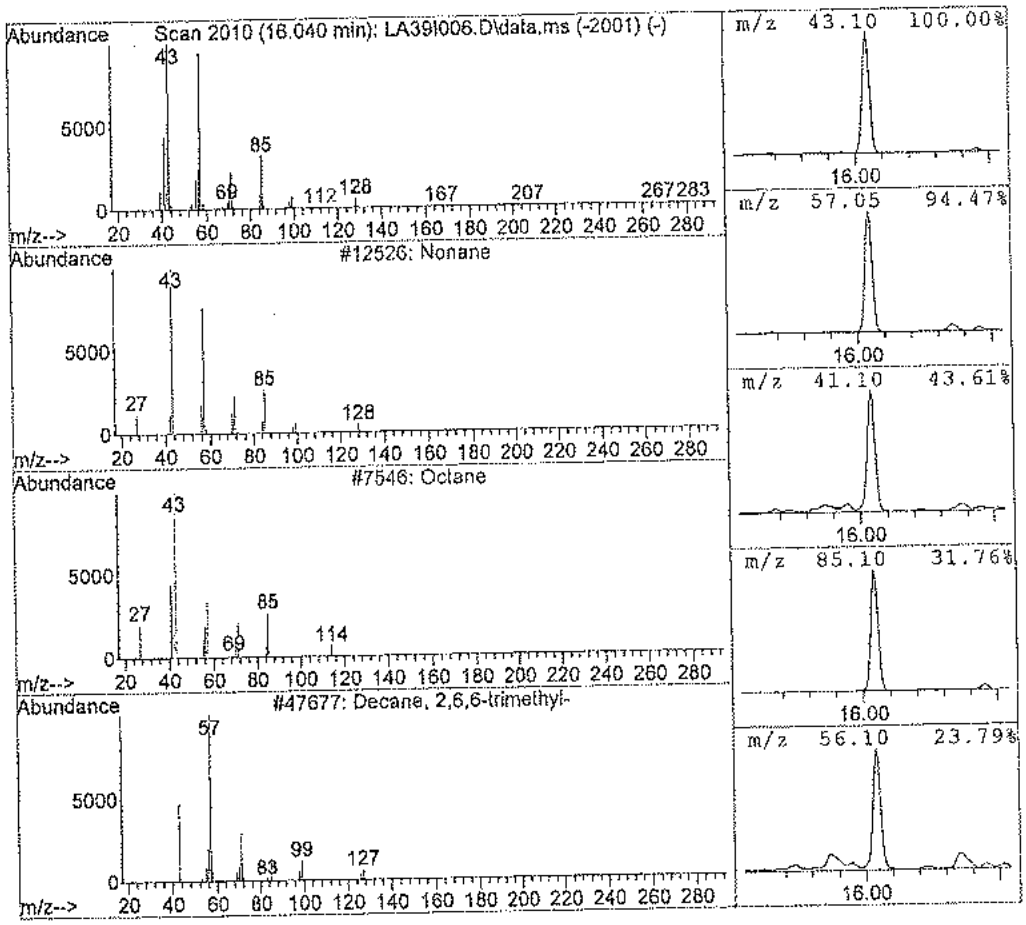
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.04	10.93 ppb	9277981	Chlorobenzene d5	16983360

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12526	000111-84-2	97.00
2	Octane	7546	000111-65-9	59.00
3	Decane, 2,6,6-trimethyl-	47677	062108-24-1	53.00
4	Octane, 3,5-dimethyl-	18937	015869-93-9	53.00
5	Octane, 2,3,3-trimethyl-	27934	062016-30-2	53.00



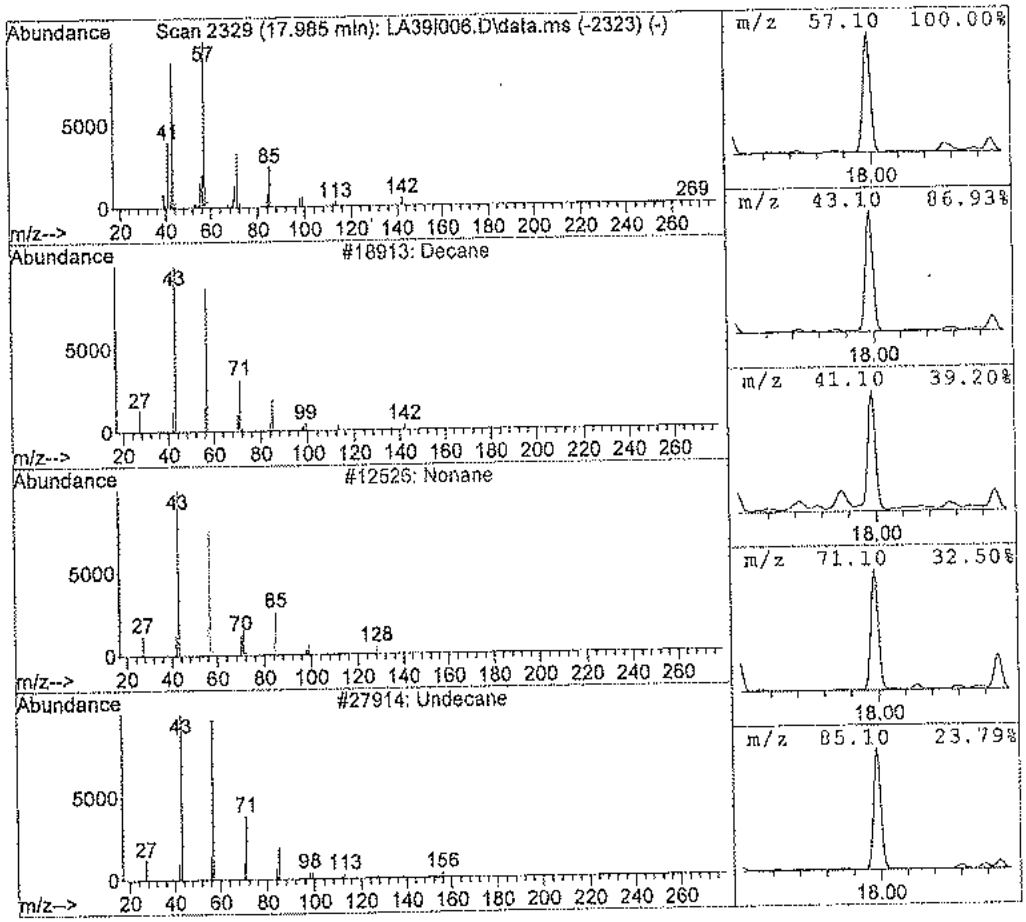
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.99	8.82 ppb	7487040	Chlorobenzene d5	16983360

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18913	000124-18-5	95.00
2	Nonane	12526	000111-84-2	83.00
3	Undecane	27914	001120-21-4	72.00
4	Octane	7547	000111-65-9	64.00
5	Decane, 2,3,6-trimethyl-	47672	062238-12-4	59.00



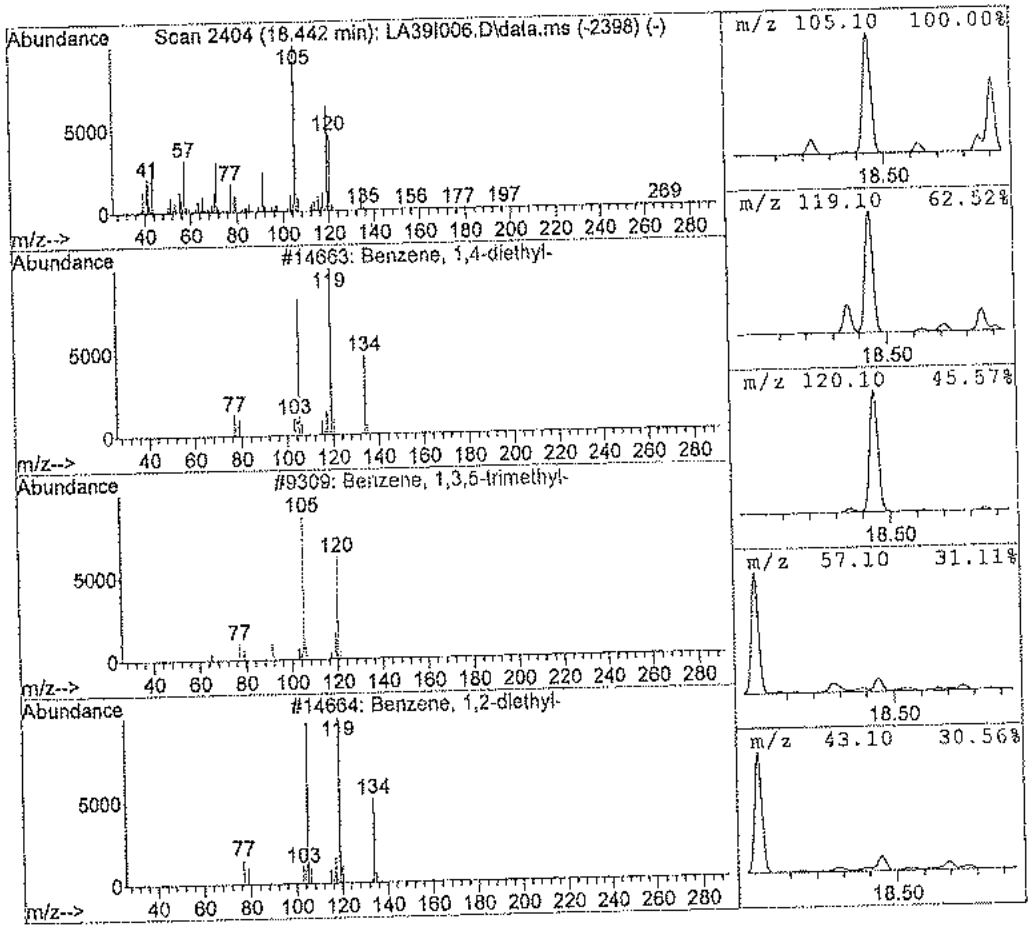
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : S975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.44	4.32 ppb	3668551	Chlorobenzene d5	16983360

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,4-diethyl-	14663	000105-05-5	60.00
2	Benzene, 1,3,5-trimethyl-	9309	000108-67-8	50.00
3	Benzene, 1,2-diethyl-	14664	000135-01-3	49.00
4	Benzene, 1,3-diethyl-	14661	000141-93-5	49.00
5	Benzene, (1-methylethyl)-	9299	000098-82-6	46.00



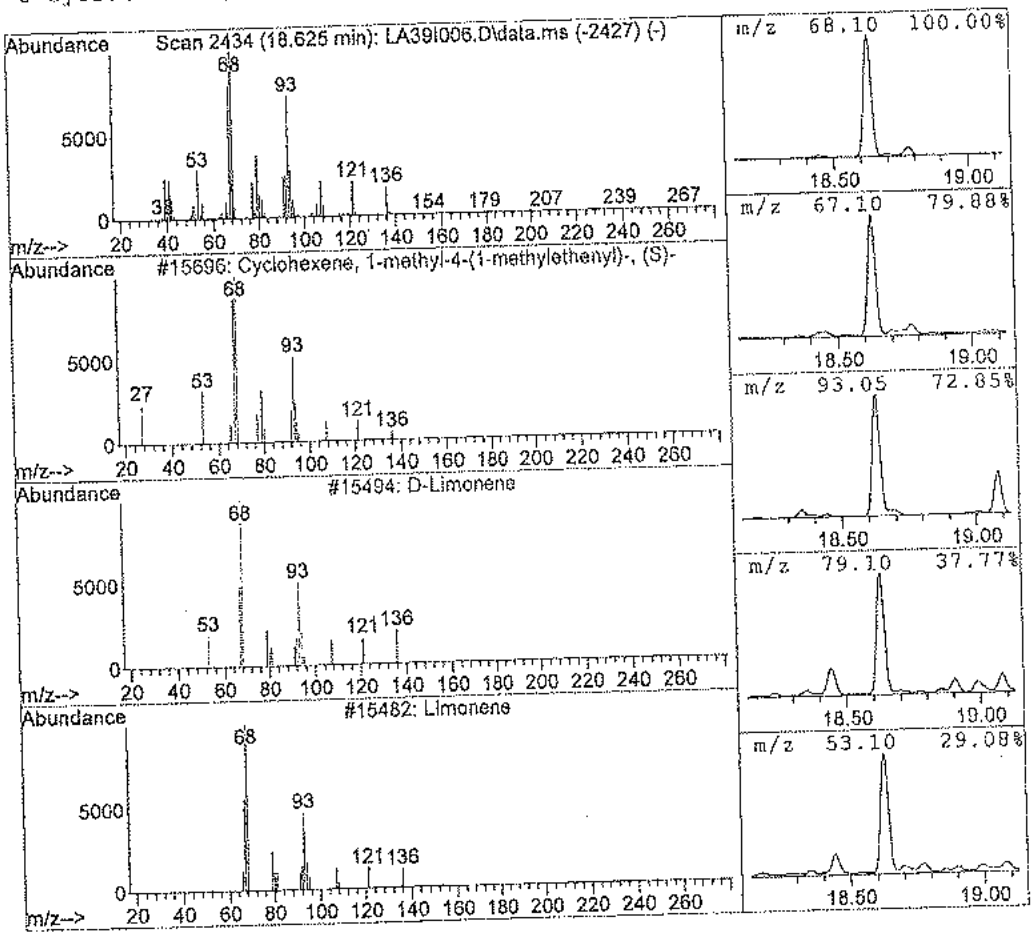
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA39I006.D Vial: 7
Acq Time : 04/15/2015 18:58 Operator: TJM
Sample : 1510353006 Inst : 5975-L
Misc : TO-001-LIV 0162 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.63	5.47 ppb	4644997	Chlorobenzene d5	16983360

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	95.00
2	D-Limonene	15494	005989-27-5	93.00
3	Limonene	15482	000138-86-3	91.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	81.00
5	Cyclohexanol, 1-methyl-4-(1-methyle	56354	010198-23-9	72.00

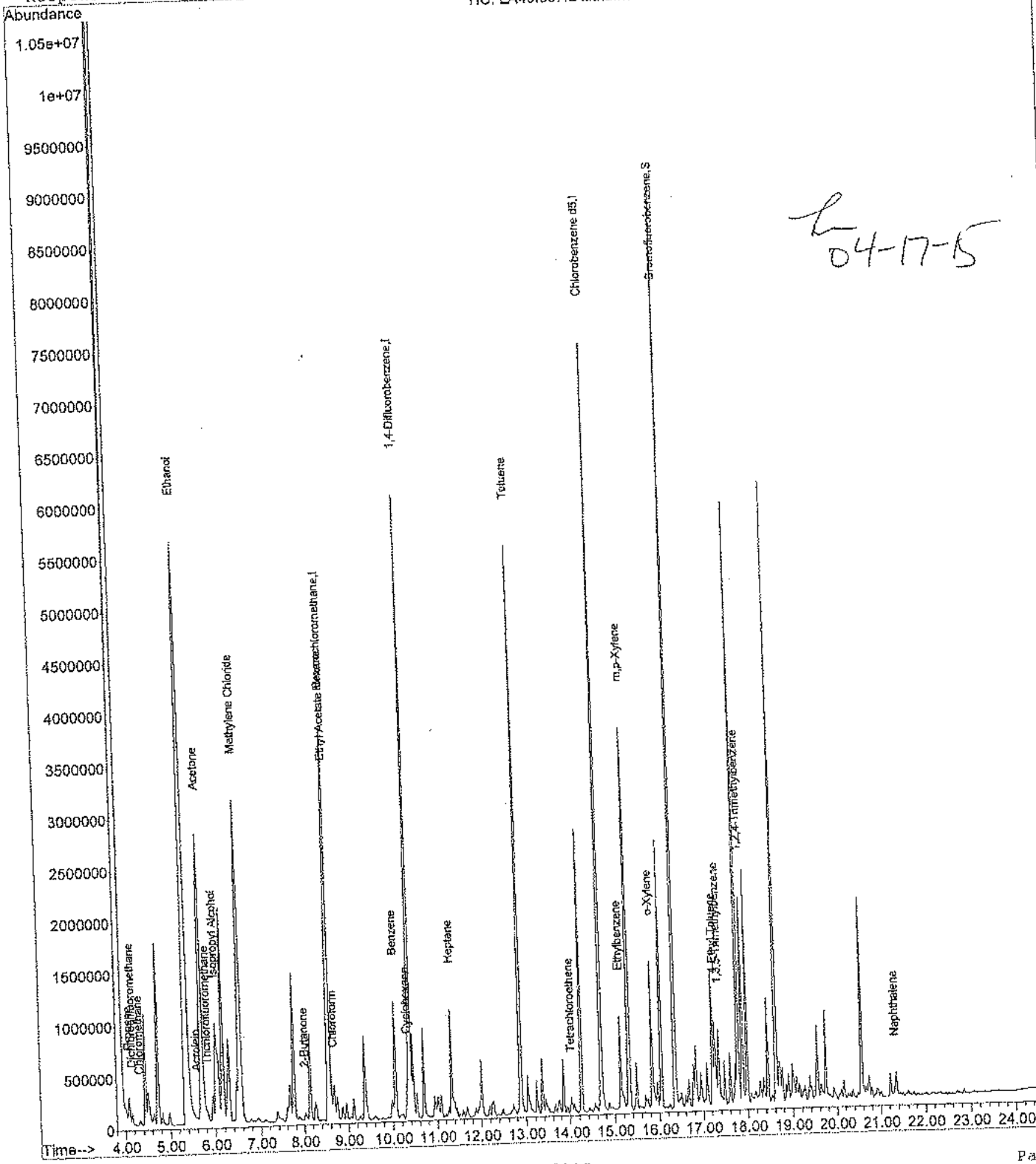


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:41:25 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:41:25 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.55	130	509184	20.0000 ppb	104.84
25) 1,4-Difluorobenzene	10.38	114	5889250	20.0000 ppb	97.07
50) Chlorobenzene d5	14.70	117	4965738	20.0000 ppb	96.14
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	3972206	20.0862 ppb	100.43%
Target Compounds					Qvalue
2) Propene	4.09	41	95922	1.3294 ppb #	.65 TCL/TO-2
3) Dichlorodifluoromethane	4.15	85	125053	0.5080 ppb	99
4) Chloromethane	4.32	50	70151	0.6674 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.60	56	30095	0.7388 ppb #	91 TCL/TO-15
11) Acetone	5.71	43	3649722	21.6803 ppb #	73
12) Trichlorofluoromethane	5.83	101	90944	0.3425 ppb	99
13) Ethanol	5.36	45	16147532	479.7334 ppb #	78 TCL
14) Isopropyl Alcohol	6.02	45	2401377	8.4074 ppb	94 TCL
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.54	84	2019386	23.4433 ppb #	56
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.02	43	141529	0.6621 ppb #	74
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.58	61	119437	3.4640 ppb #	1
27) Hexane	8.57	57	1126703	6.8381 ppb #	56
28) Chloroform	8.66	83	104202	0.5111 ppb	96
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.06	78	1202922	4.1413 ppb #	92
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.32	84	163018	1.2473 ppb #	38
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	267278	2.6457 ppb #	43
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	4819342	13.6686 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	14.03	166	38756	0.2228 ppb #	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report

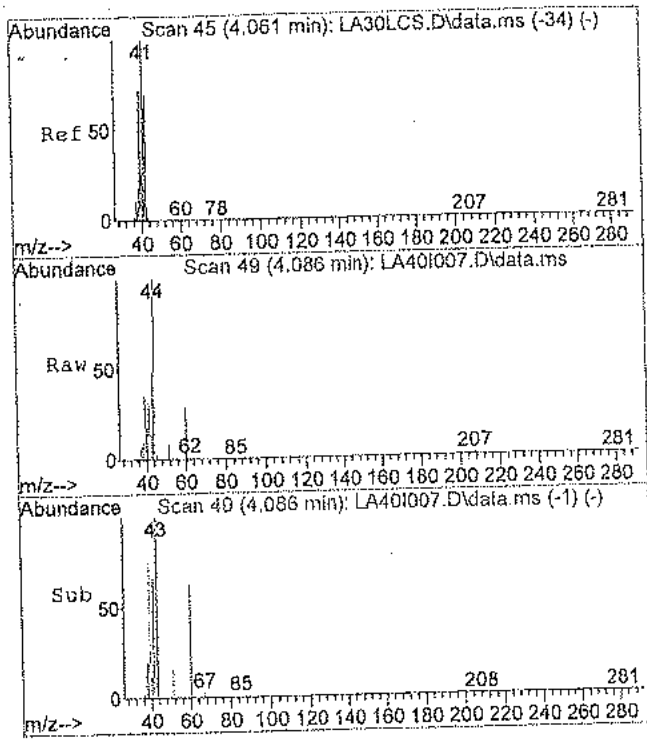
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:41:25 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	807209	1.7646 ppb	92
53) m,p-Xylene	15.31	91	3271086	9.2755 ppb	89
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.84	91	1058063	2.9474 ppb	90
59) 4-Ethyl Toluene	17.27	105	456739	0.9495 ppb	95
60) 1,3,5-Trimethylbenzene	17.36	105	377816	0.9155 ppb	92
61) 1,2,4-Trimethylbenzene	17.88	105	1276352	3.0829 ppb	92
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	21.33	128	75058	0.2115 ppb #	91 TIC L 105
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

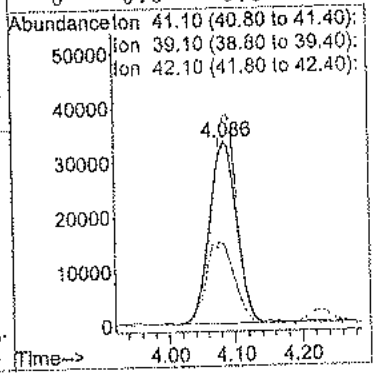
(#) = qualifier out of range (m) = manual integration
LA40I007.D TO15LB15.m Thu Apr 16 16:02:33 2015

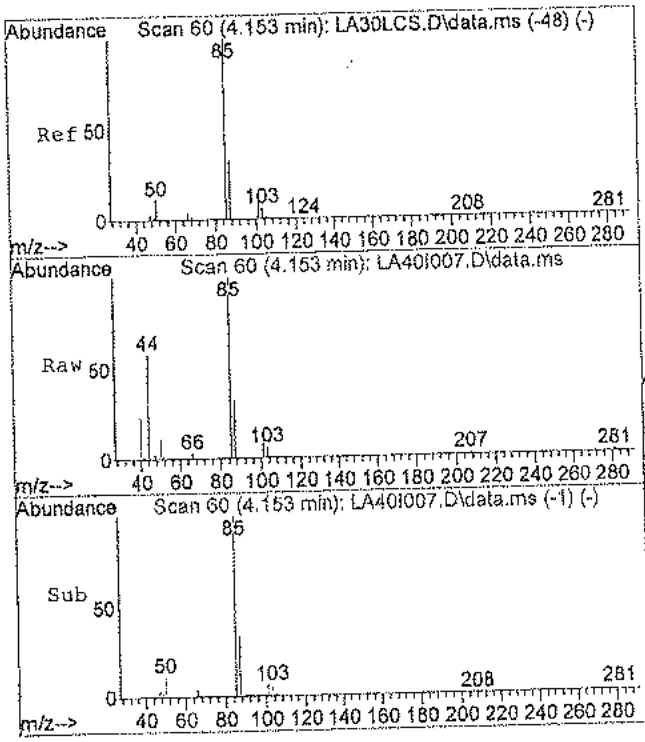


#2
Propene
Concen: 1.33 ppb
RT: 4.09 min Scan# 49
Delta R.T. 0.05 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:41.1 Resp: 95922

Ion	Ratio	Lower	Upper
41	100		
39	106.9	56.2	84.4#
42	47.4	53.8	80.6#
0	0.0	0.0	0.0

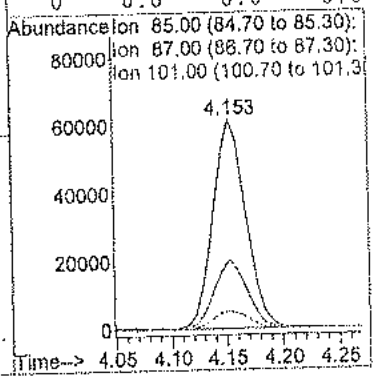


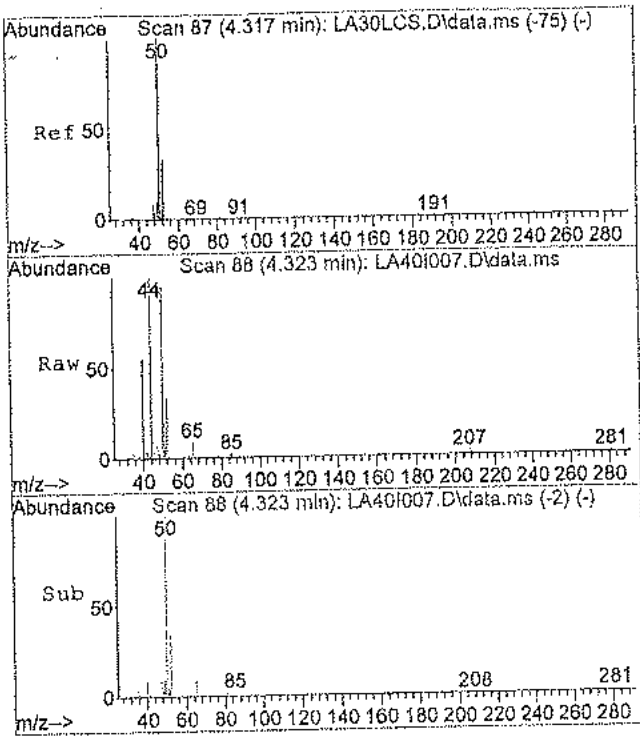


#3
Dichlorodifluoromethane
Concen: 0.51 ppb
RT: 4.15 min Scan# 60
Delta R.T. 0.02 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:85 Resp: 125053

Ion	Ratio	Lower	Upper
85	100		
87	32.8	26.1	39.1
101	9.0	8.0	12.0
0	0.0	0.0	0.0

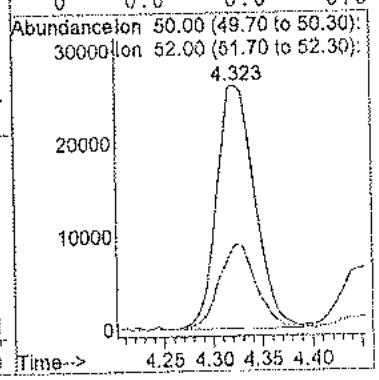


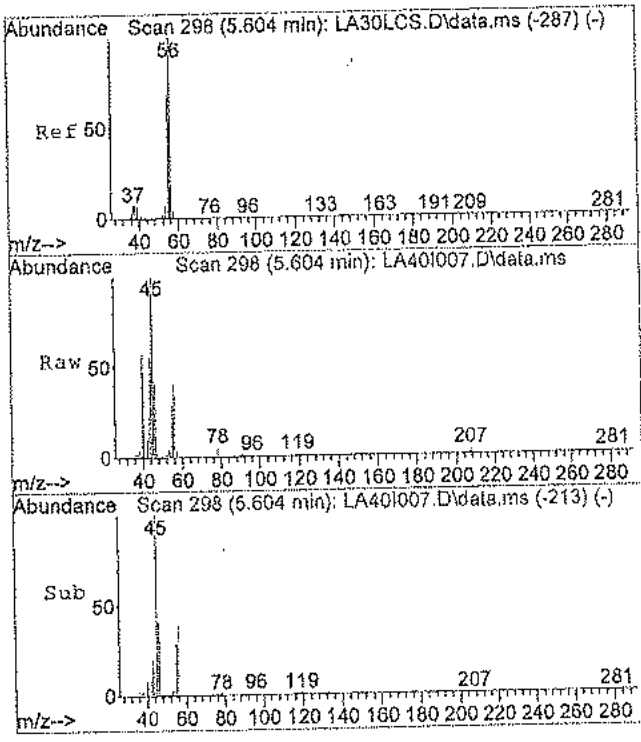


#4
Chloromethane
Concen: 0.67 ppb
RT: 4.32 min Scan# 88
Delta R.T. 0.02 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:50 Resp: 70151

Ion	Ratio	Lower	Upper
50	100		
52	33.8	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

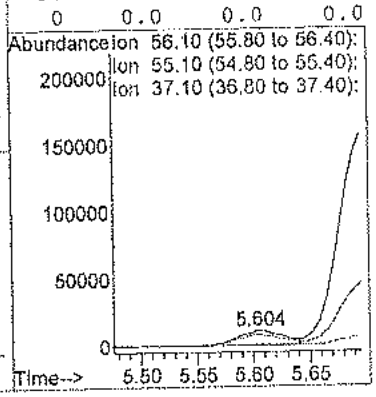


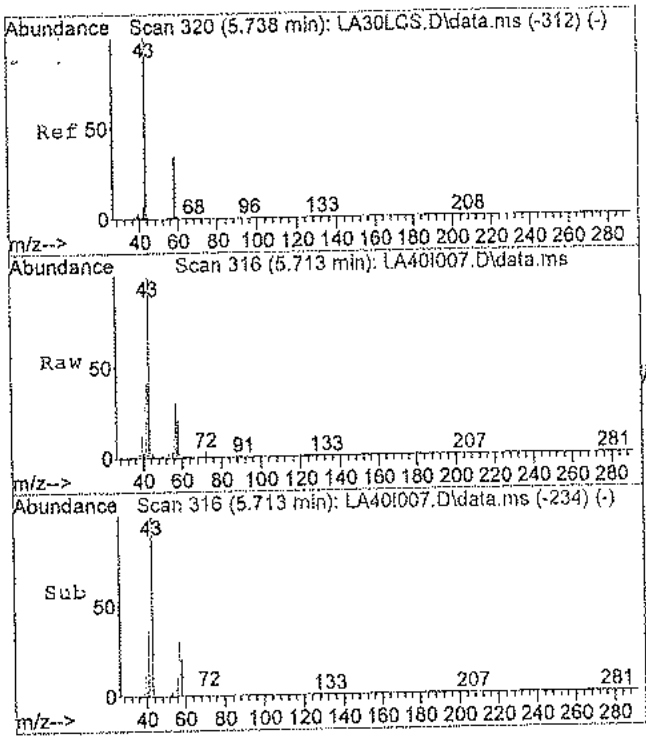


#10
Acrolein
Concen: 0.74 ppb
RT: 5.60 min Scan# 298
Delta R.T. 0.02 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:56.1 Resp: 30095

Ion	Ratio	Lower	Upper
56	100		
55	76.6	55.1	82.7
37	7.8	7.9	11.9#
0	0.0	0.0	0.0

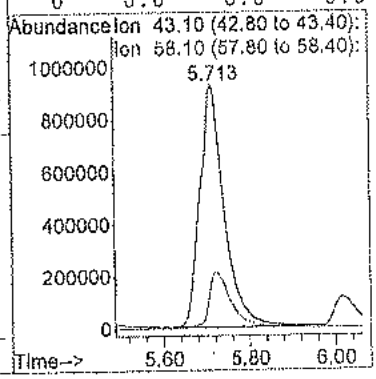


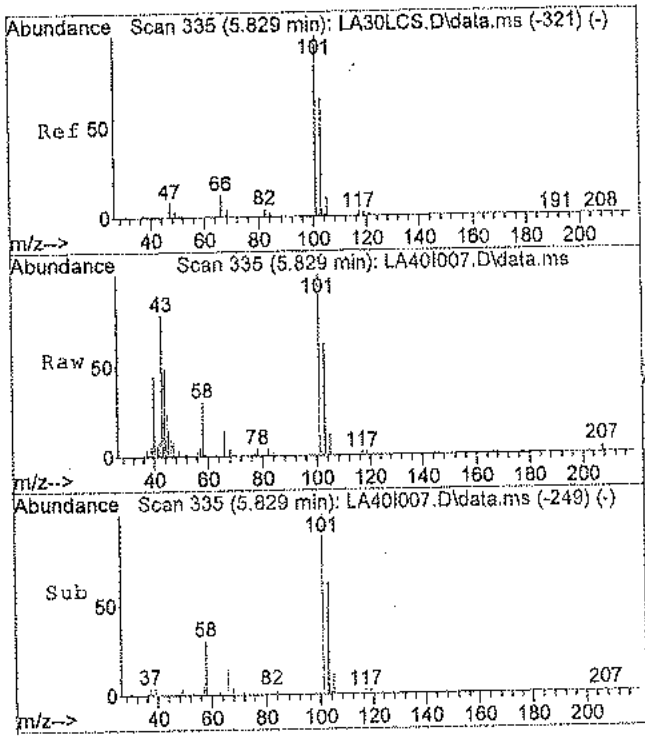


#11
Acetone
Concen: 21.68 ppb
RT: 5.71 min Scan# 316
Delta R.T. 0.00 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:43.1 Resp: 3649722

Ion	Ratio	Lower	Upper
43	100		
58	21.9	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

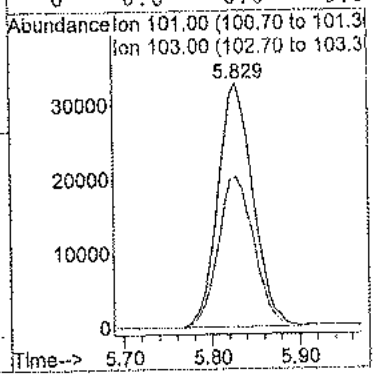


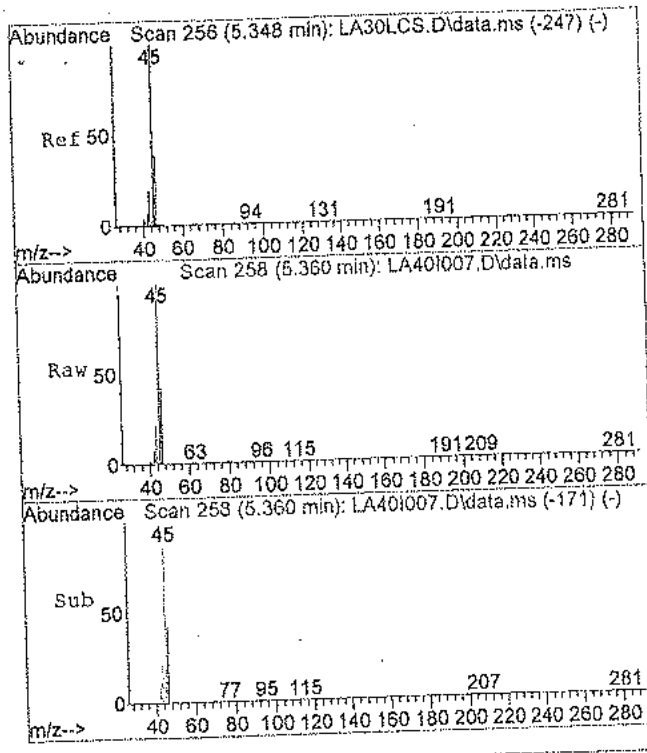


#12
Trichlorofluoromethane
Concen: 0.34 ppb
RT: 5.83 min Scan# 335
Delta R.T. 0.02 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:101 Resp: 90944

Ion	Ratio	Lower	Upper
101	100		
103	63.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

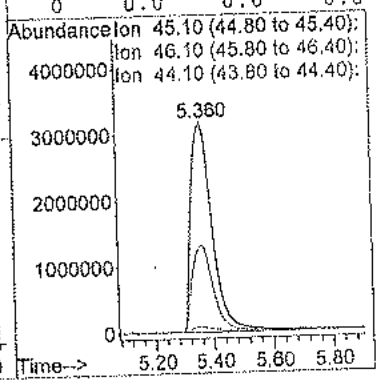


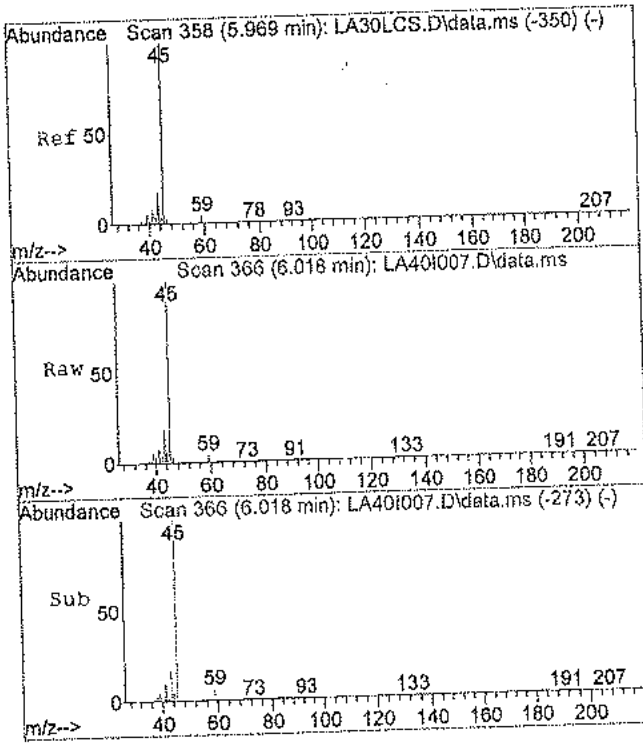


#13
Ethanol
Concen: 479.73 ppb
RT: 5.36 min Scan# 258
Delta R.T. 0.03 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:45.1 Resp:16147532

Ion	Ratio	Lower	Upper
45	100		
46	41.1	32.4	48.6
44	1.8	23.4	35.2#
0	0.0	0.0	0.0

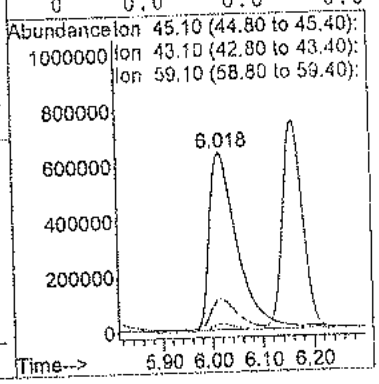


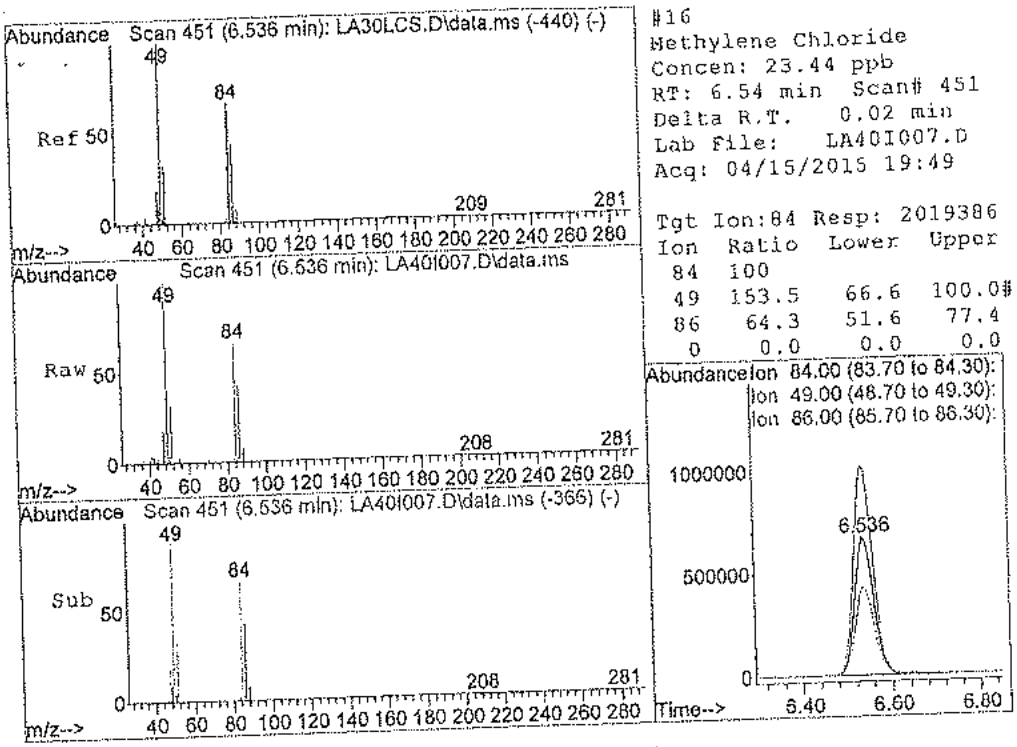


#14
Isopropyl Alcohol
Concen: 8.41 ppb
RT: 6.02 min Scan# 366
Delta R.T. 0.07 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:45.1 Resp: 2401377

Ion	Ratio	Lower	Upper
45	100		
43	16.2	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

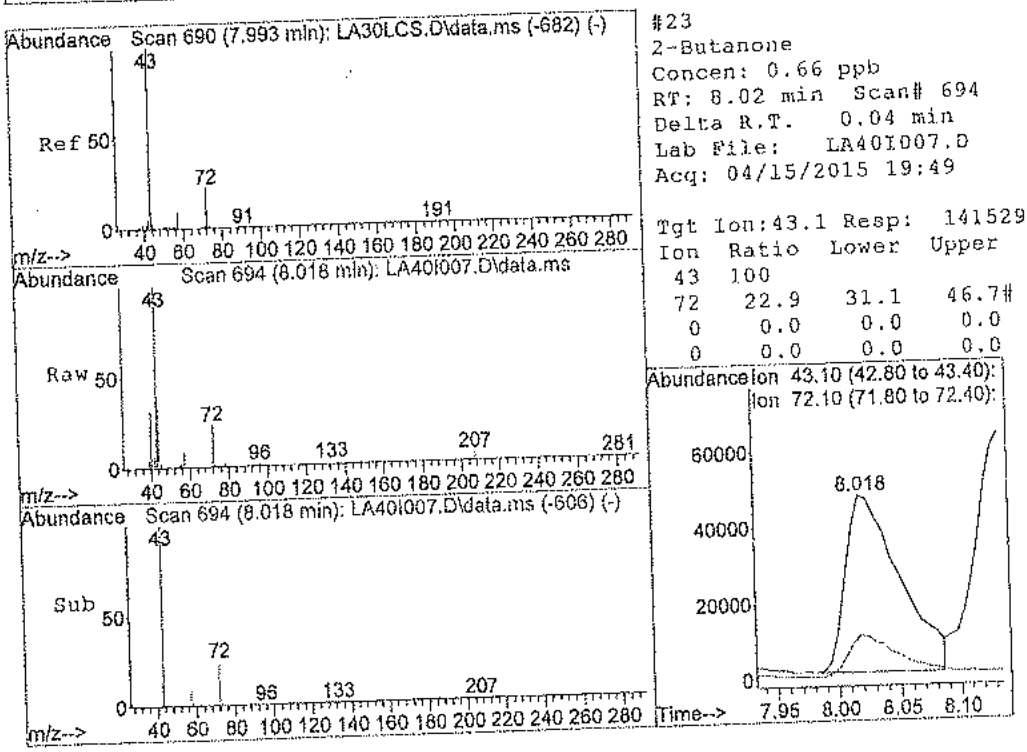




#16
Methylene Chloride
Concen: 23.44 ppb
RT: 6.54 min Scan# 451
Delta R.T. 0.02 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:84 Resp: 2019386

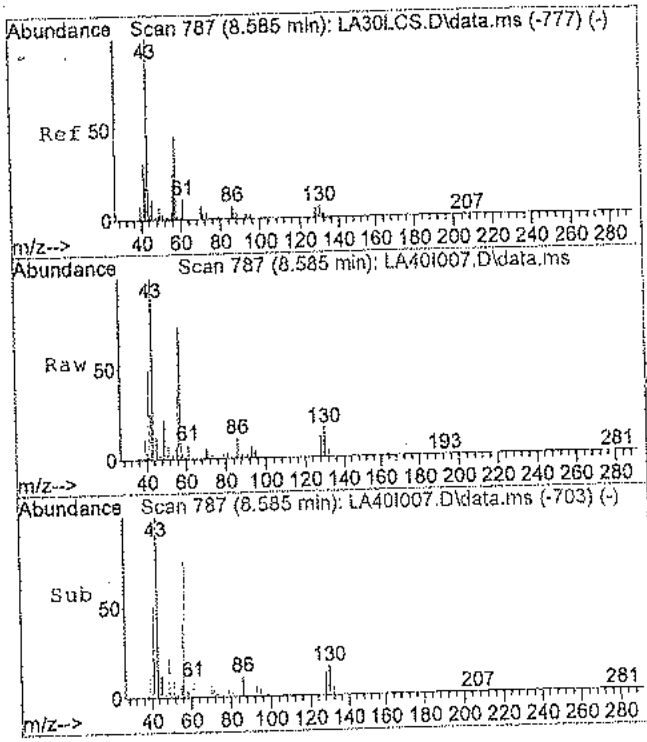
Ion	Ratio	Lower	Upper
84	100		
49	153.5	66.6	100.0#
86	64.3	51.6	77.4
0	0.0	0.0	0.0



#23
2-Butanone
Concen: 0.66 ppb
RT: 8.02 min Scan# 694
Delta R.T. 0.04 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:43.1 Resp: 141529

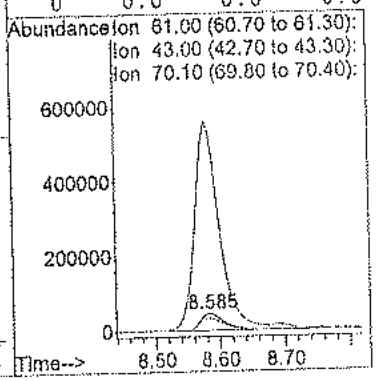
Ion	Ratio	Lower	Upper
43	100		
72	22.9	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

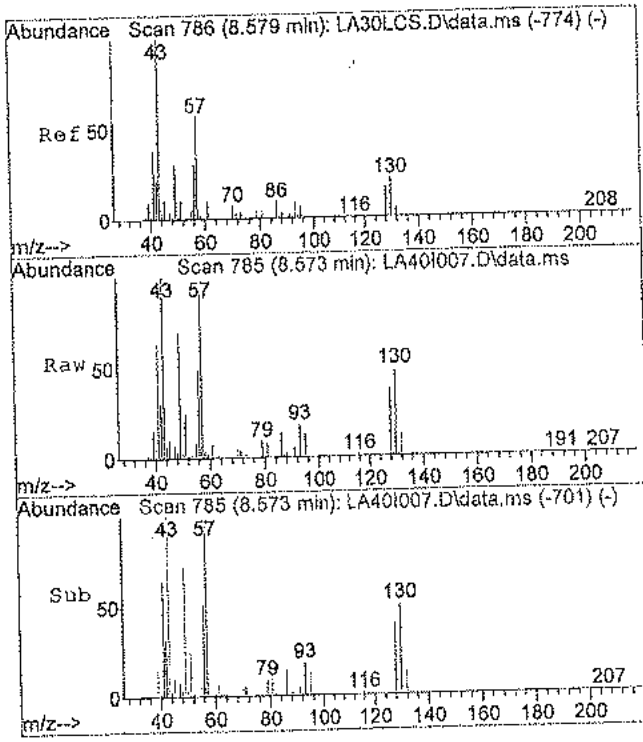


#26
Ethyl Acetate
Concen: 3.46 ppb
RT: 8.58 min Scan# 787
Delta R.T. 0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:61 Resp: 119437

Ion	Ratio	Lower	Upper
61	100		
43	1241.2	144.0	216.0#
70	74.1	13.6	20.4#
0	0.0	0.0	0.0

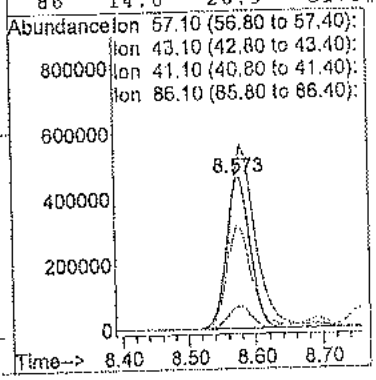


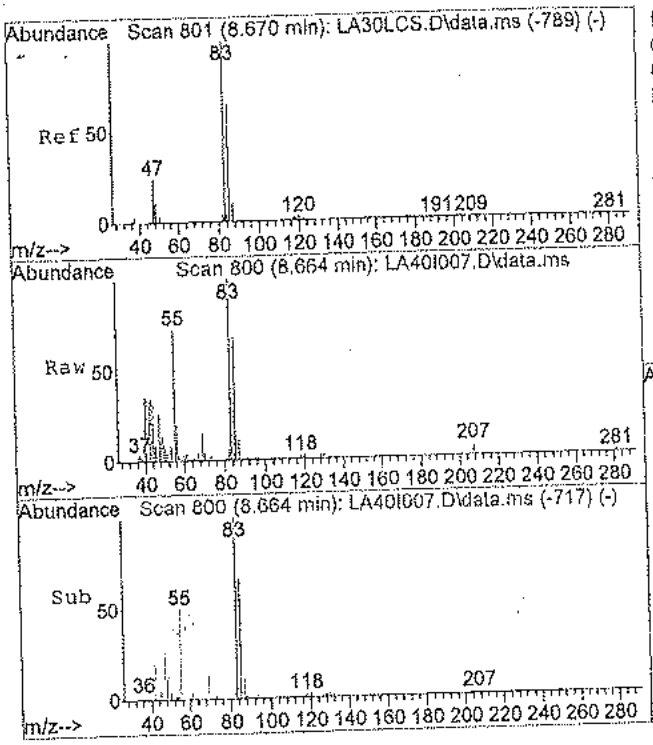


#27
Hexane
Concen: 6.84 ppb
RT: 8.57 min Scan# 785
Delta R.T. 0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:57.1 Resp: 1126703

Ion	Ratio	Lower	Upper
57	100		
43	131.6	57.3	85.9#
41	73.0	47.0	70.4#
86	14.6	20.9	31.3#

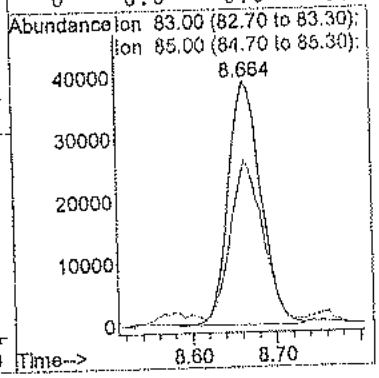


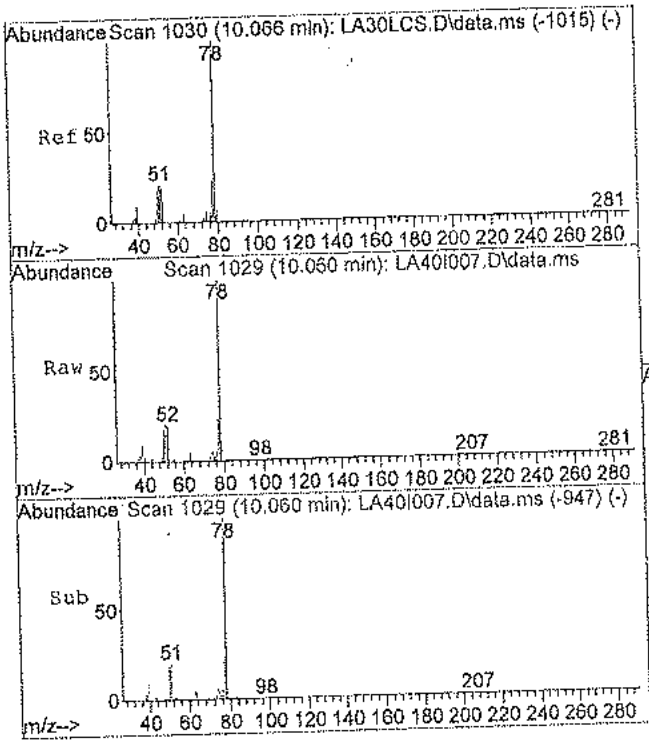


#28
Chloroform
Concen: 0.51 ppb
RT: 8.66 min Scan# 800
Delta R.T. 0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:83 Resp: 104202

Ion	Ratio	Lower	Upper
83	100		
85	68.7	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

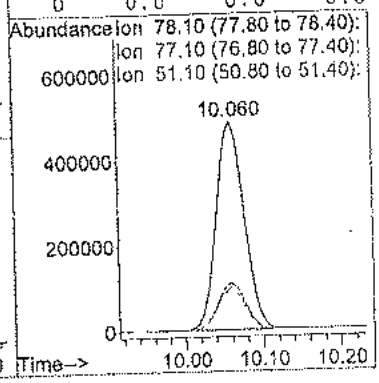


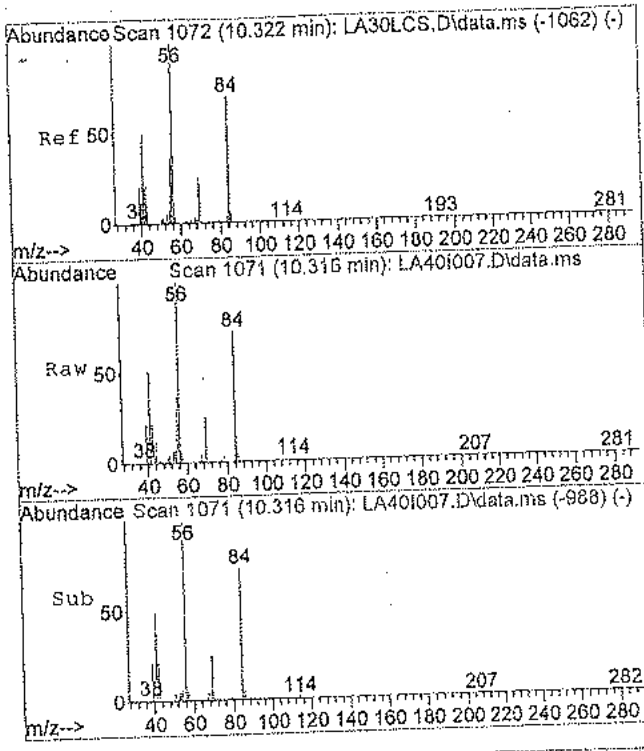


#32
Benzene
Concen: 4.14 ppb
RT: 10.06 min Scan# 1029
Delta R.T. 0.00 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:78.1 Resp: 1202922

Ion	Ratio	Lower	Upper
78	100		
77	22.5	18.2	27.4
51	20.1	9.5	14.3#
0	0.0	0.0	0.0

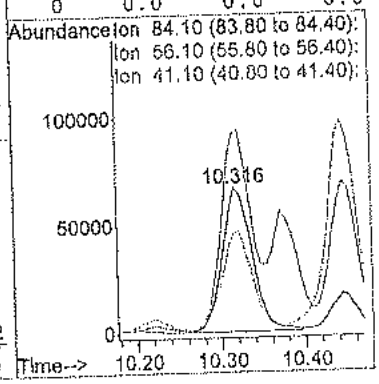


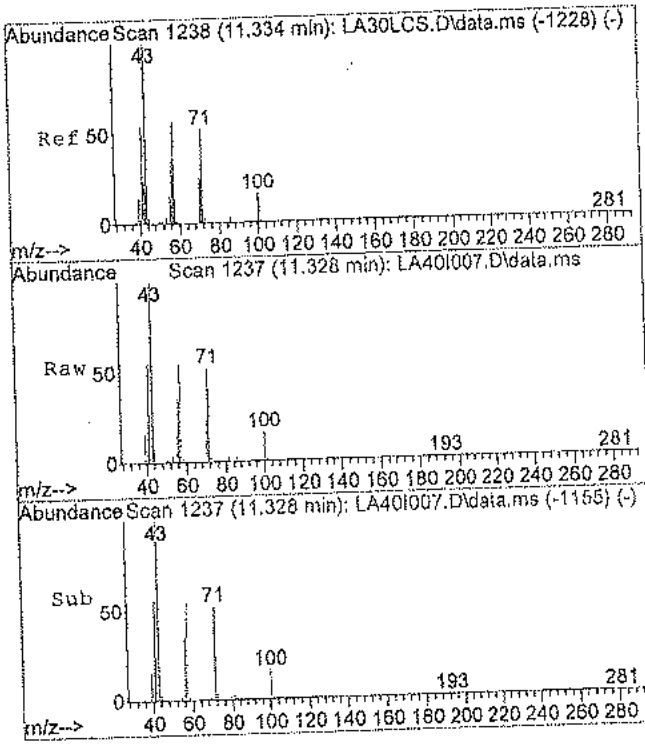


#34
Cyclohexane
Concen: 1.25 ppb
RT: 10.32 min Scan# 1071
Delta R.T. 0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:84.1 Resp: 163018

Ion	Ratio	Lower	Upper
84	100		
56	144.6	67.3	100.9#
41	68.5	30.2	45.4#
0	0.0	0.0	0.0

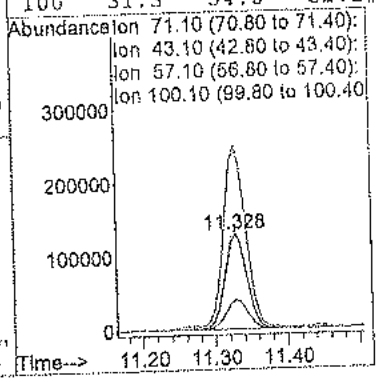


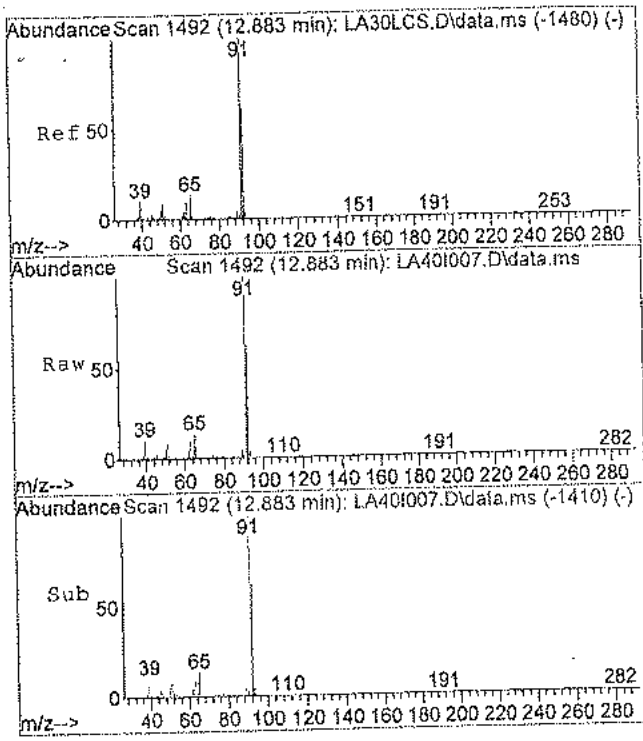


#40
Heptane
Concen: 2.65 ppb
RT: 11.33 min Scan# 1237
Delta R.T. 0.00 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:71.1 Resp: 267278

Ion	Ratio	Lower	Upper
71	100		
43	195.5	87.3	130.9#
57	106.1	57.8	86.6#
100	31.3	34.8	52.2#

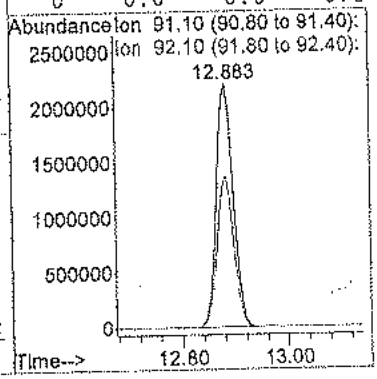


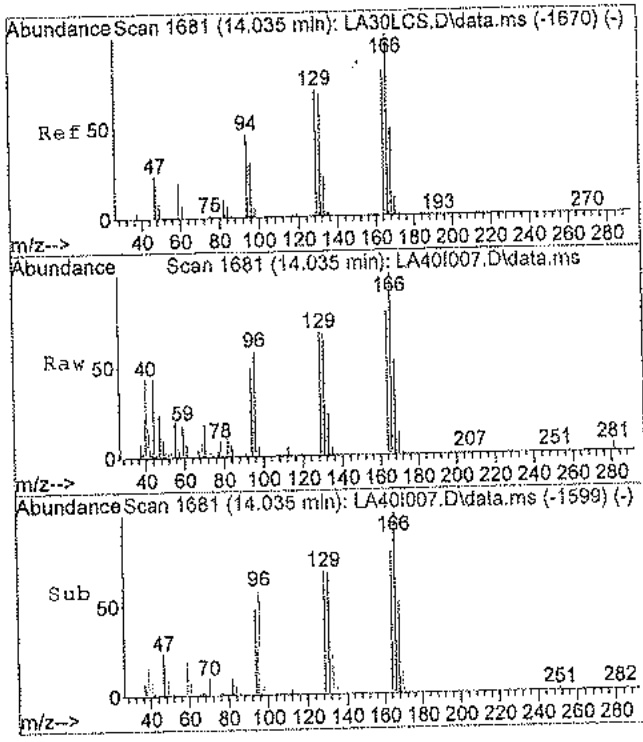


#45
Toluene
Concen: 13.67 ppb
RT: 12.88 min Scan# 1492
Delta R.T. 0.00 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:91.1 Resp: 4819342

Ion	Ratio	Lower	Upper
91	100		
92	61.2	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

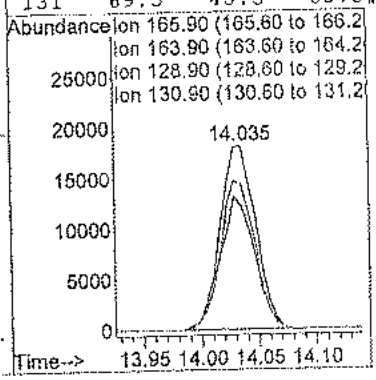


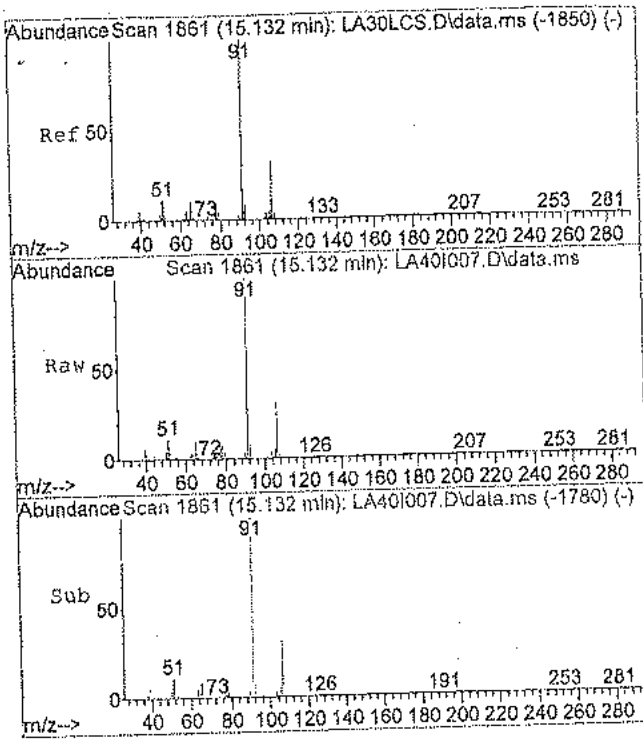


#49
Tetrachloroethene
Concen: 0.22 ppb
RT: 14.03 min Scan# 1681
Delta R.T. 0.00 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:165.9 Resp: 38756

Ion	Ratio	Lower	Upper
166	100		
164	79.8	61.0	91.4
129	71.7	45.9	68.9#
131	69.3	45.5	68.3#

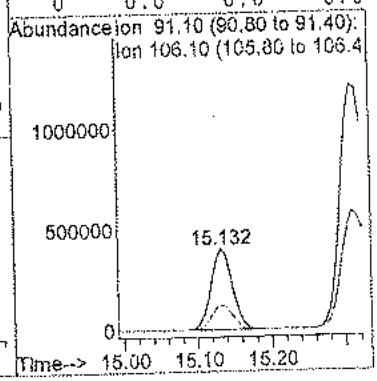


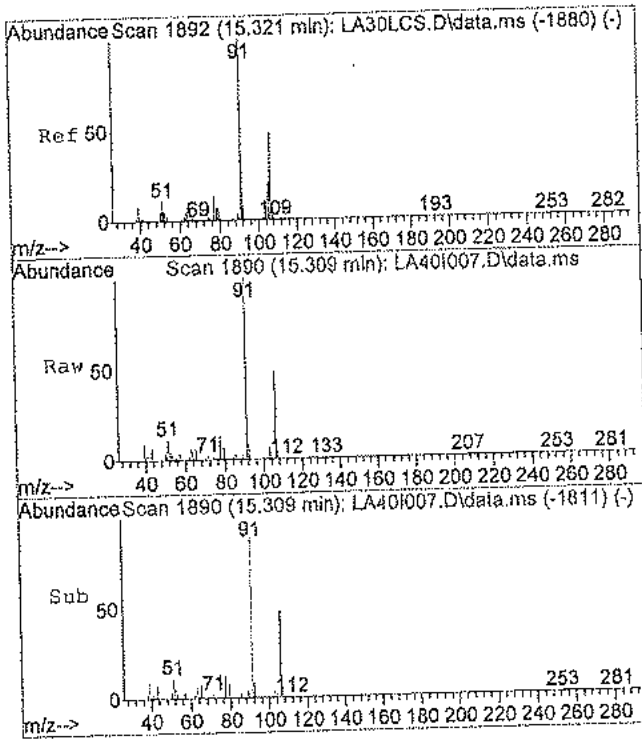


#52
Ethylbenzene
Concen: 1.76 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:91.1 Resp: 807209

Ion	Ratio	Lower	Upper
91	100		
106	30.7	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

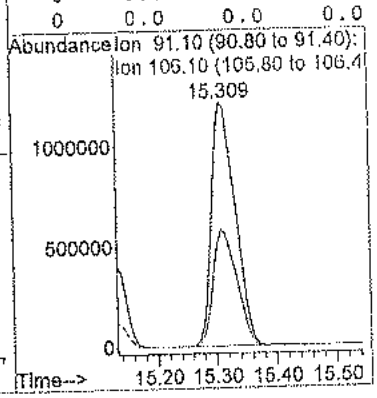


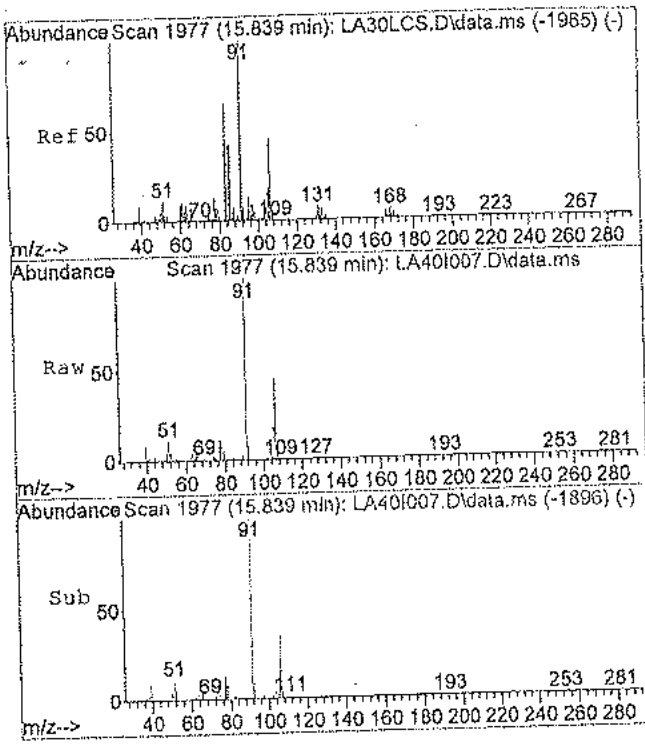


#53
m,p-Xylene
Concen: 9.28 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:91.1 Resp: 3271086

Ion	Ratio	Lower	Upper
91	100		
106	48.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

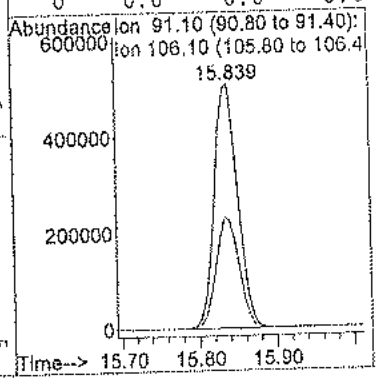


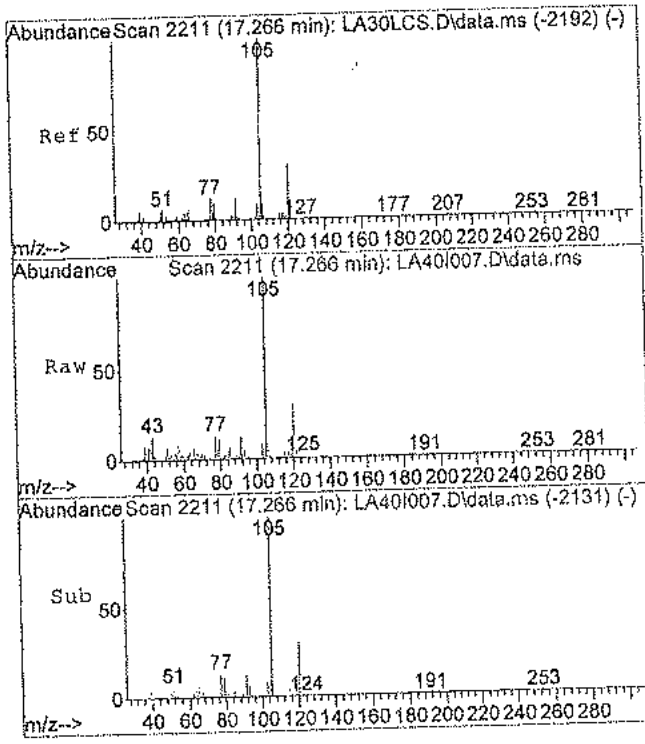


#57
o-Xylene
Concen: 2.95 ppb
RT: 15.84 min Scan# 1977
Delta R.T. -0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:91.1 Resp: 1058063

Ion	Ratio	Lower	Upper
91	100		
106	45.1	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

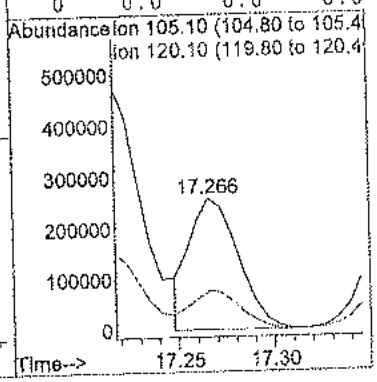


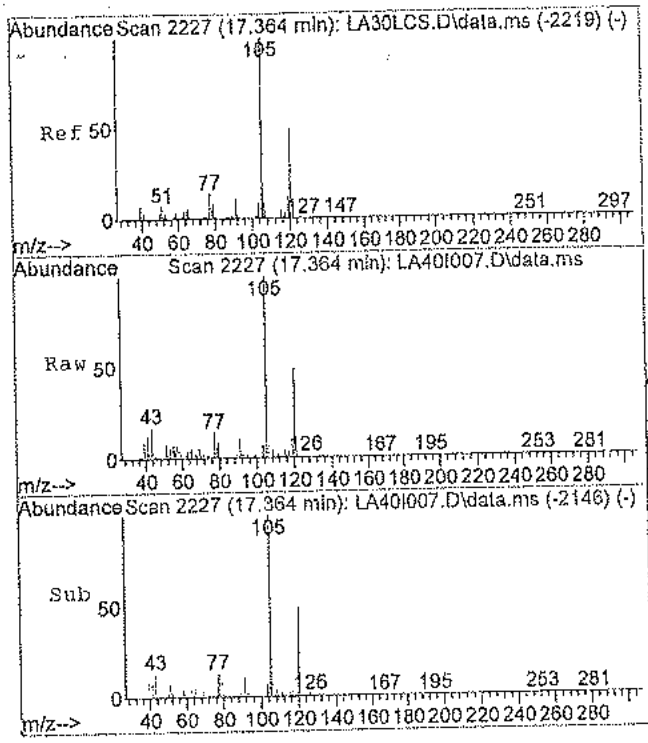


#59
4-Ethyl Toluene
Concen: 0.95 ppb
RT: 17.27 min Scan# 2211
Delta R.T. -0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:105.1 Resp: 456739

Ion	Ratio	Lower	Upper
105	100		
120	30.1	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

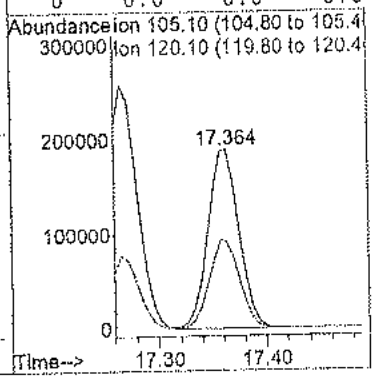


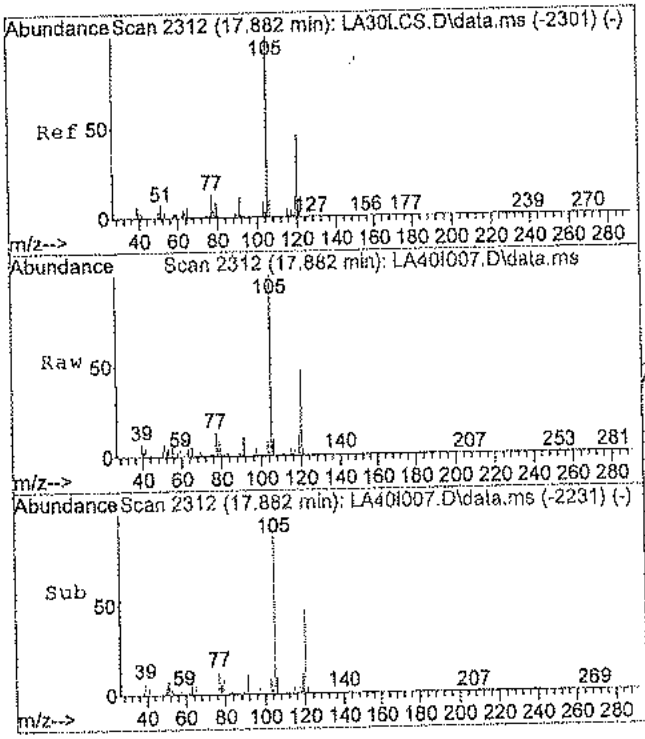


#60
1,3,5-Trimethylbenzene
Concen: 0.92 ppb
RT: 17.36 min Scan# 2227
Delta R.T. -0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:105.1 Resp: 377816

Ion	Ratio	Lower	Upper
105	100		
120	48.8	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

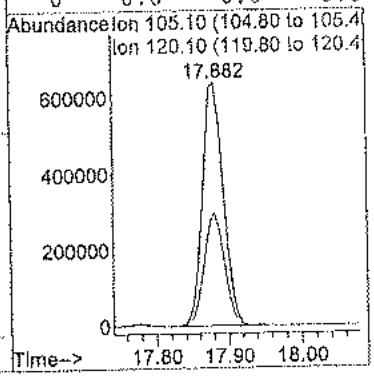


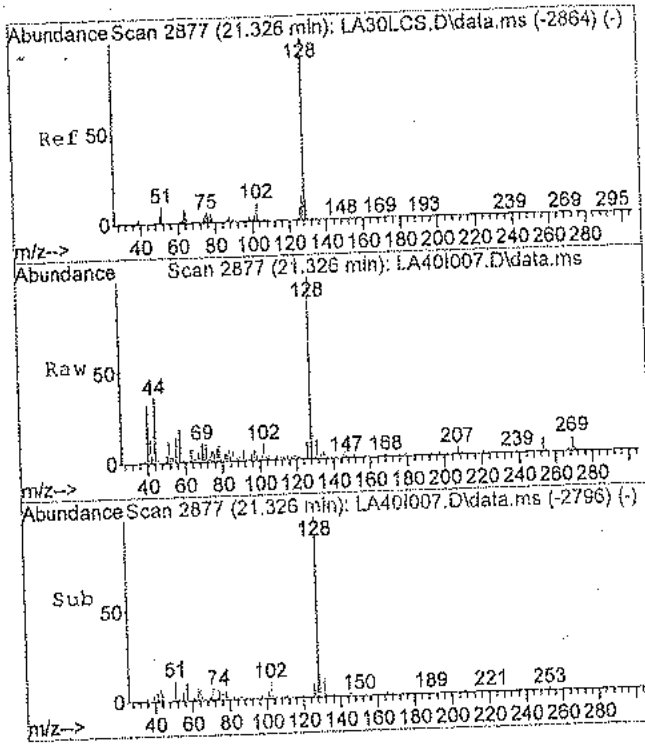


#61
1,2,4-Trimethylbenzene
Concen: 3.08 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:105.1 Resp: 1276352

Ion	Ratio	Lower	Upper
105	100		
120	45.4	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

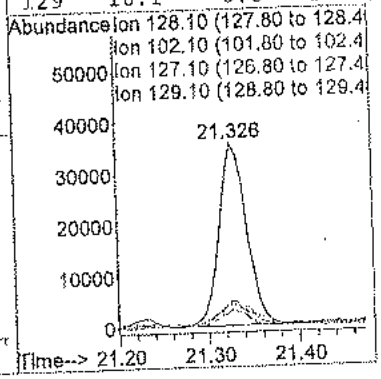




#67
Naphthalene
Concen: 0.21 ppb
RT: 21.33 min Scan# 2877
Delta R.T. -0.01 min
Lab File: LA40I007.D
Acq: 04/15/2015 19:49

Tgt Ion:128.1 Resp: 75058

Ion	Ratio	Lower	Upper
128	100		
102	9.9	6.7	10.1
127	15.5	10.0	15.0#
129	16.1	8.8	13.2#



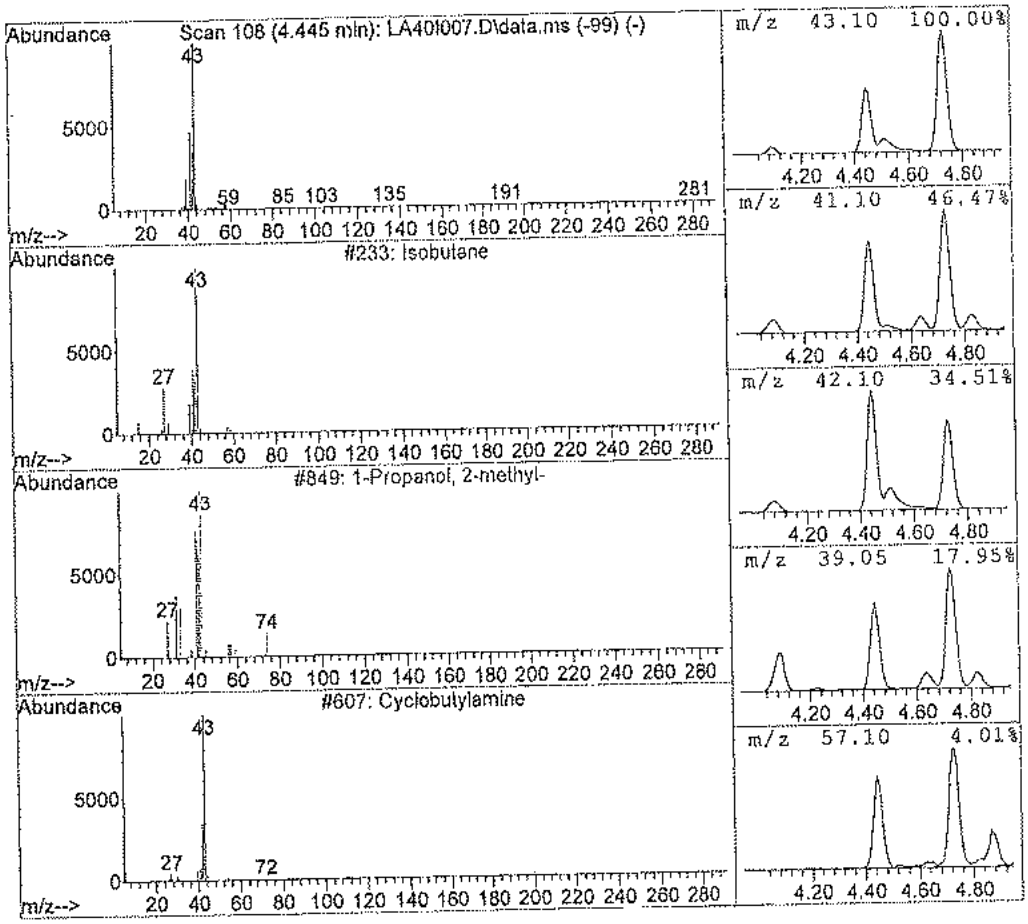
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.45	3.55 ppb	2483777	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	233	000075-28-5	72.00
2	1-Propanol, 2-methyl-	849	000078-83-1	9.00
3	Cyclobutylamine	607	002516-34-9	4.00
4	Isobutyl nitrite	4504	000542-56-3	4.00
5	Butane, 2-methyl-	711	000078-78-4	4.00



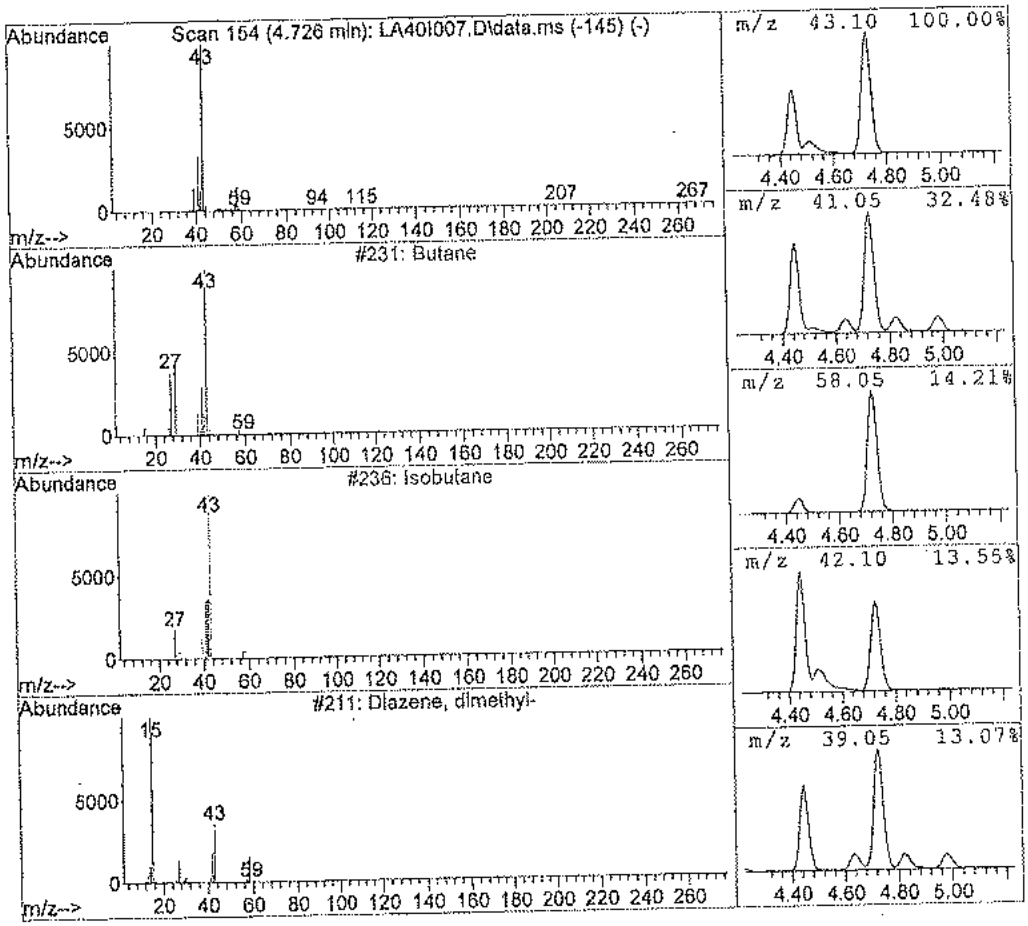
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.73	6.07 ppb	4251042	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	72.00
2	Isobutane	236	000075-28-5	9.00
3	Diazene, dimethyl-	211	000503-28-6	4.00
4	Hydrogen azide	69	007782-79-8	4.00
5	Cyclobutylamine	607	002516-34-9	4.00



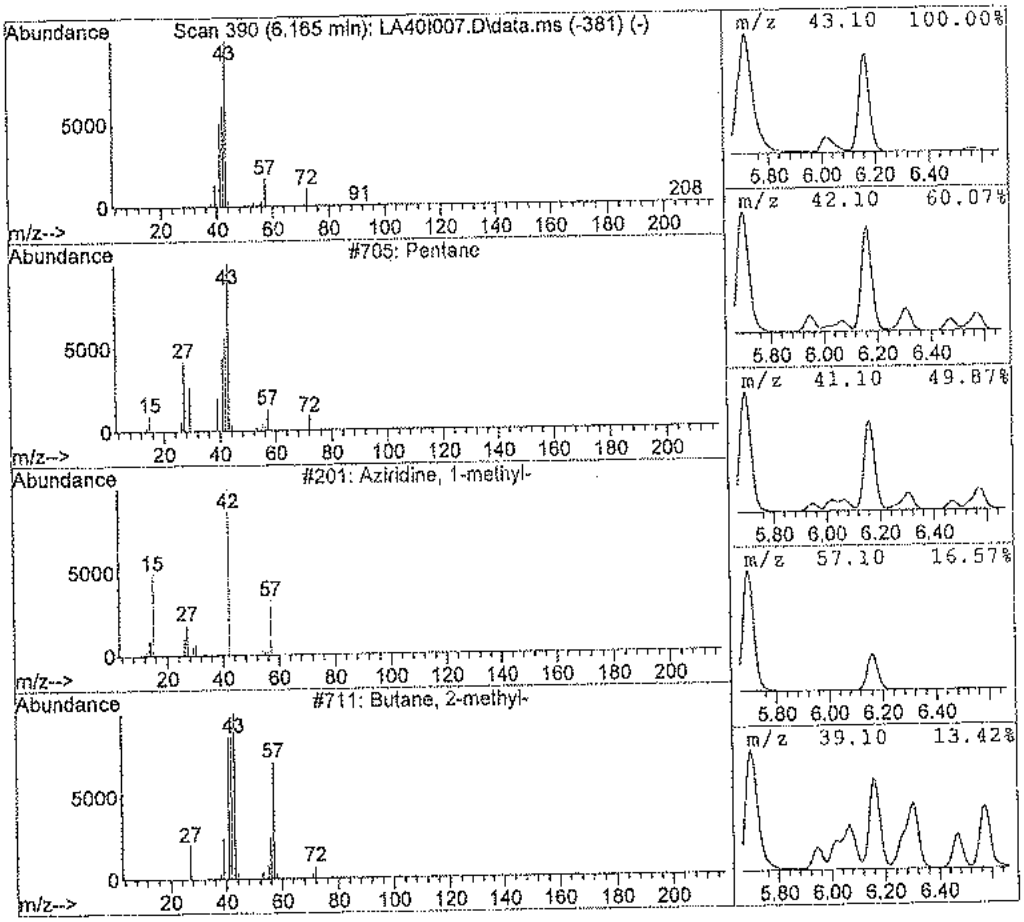
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.16	8.09 ppb	5666694	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	705	000109-66-0	86.00
2	Aziridine, 1-methyl-	201	001072-44-2	9.00
3	Butane, 2-methyl-	711	000078-78-4	9.00
4	Butane, 2,3-dimethyl-	1822	000079-29-8	9.00
5	Ethanamine, N-methylene-	208	043729-97-1	5.00



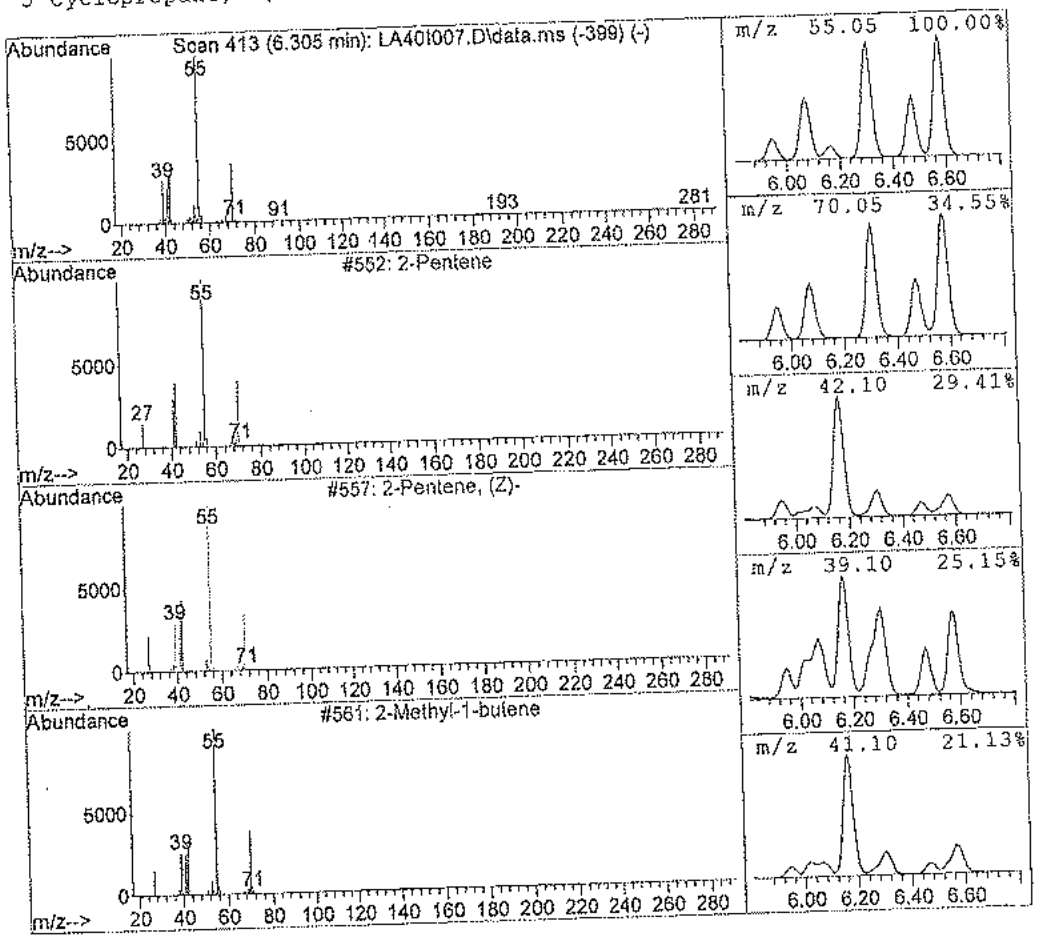
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.30	4.14 ppb	2899126	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Pentene	552	000109-68-2	91.00
2	2-Pentene, (Z)-	557	000627-20-3	91.00
3	2-Methyl-1-butene	561	000563-46-2	91.00
4	2-Butene, 2-methyl-	569	000513-35-9	91.00
5	Cyclopropane, 1,2-dimethyl-, trans-	582	002402-06-4	91.00



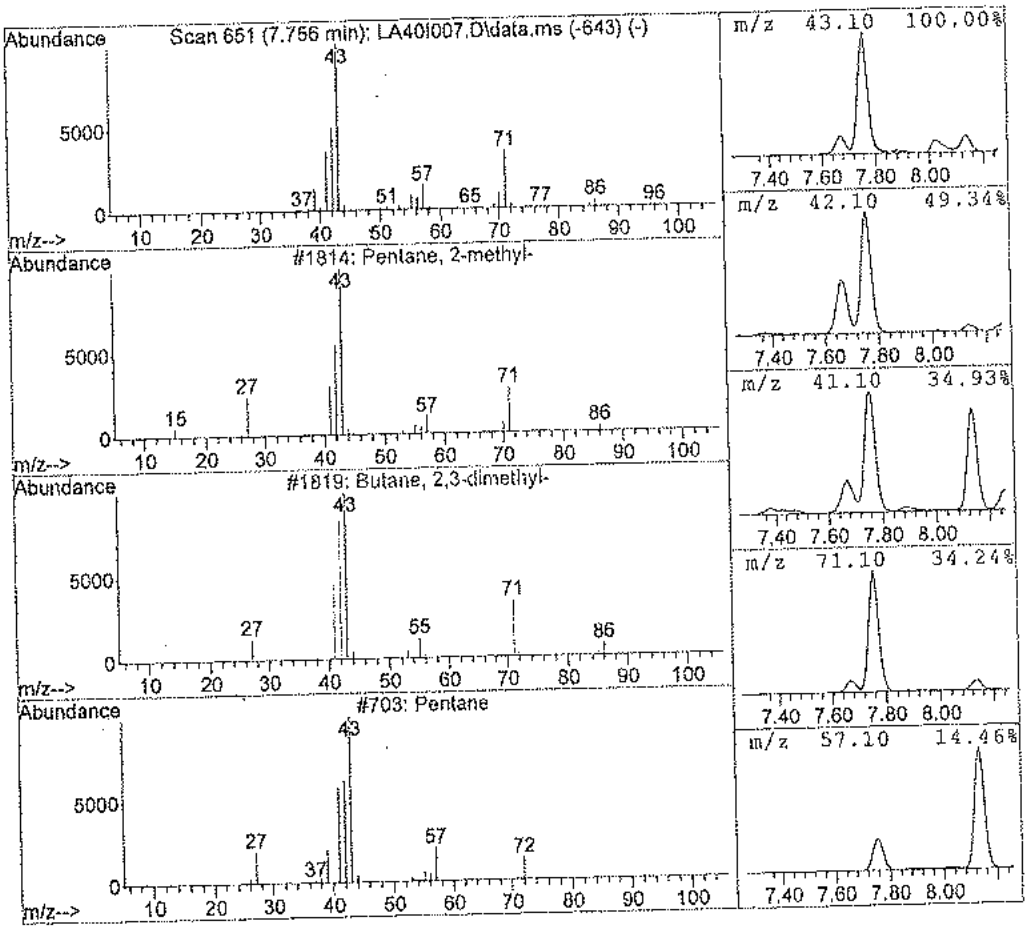
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.76	5.35 ppb	3750743	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1814	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	47.00
3	Pentane	703	000109-66-0	43.00
4	Pentane, 2-nitro-	8400	004609-89-6	32.00
5	Furan, tetrahydro-2-methyl-	1797	000096-47-9	27.00



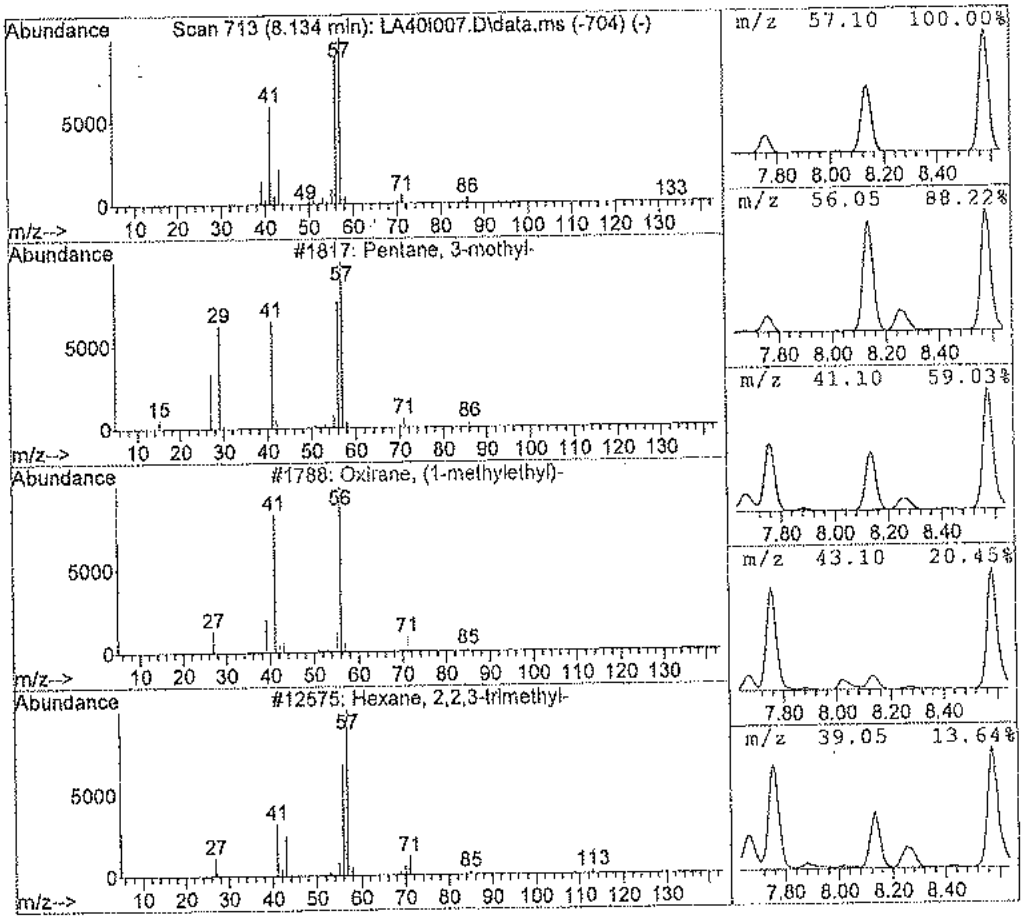
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.13	3.09 ppb	2167016	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1817	000096-14-0	91.00
2	Oxirane, (1-methylethyl)-	1788	001438-14-8	50.00
3	Hexane, 2,2,3-trimethyl-	12575	016747-25-4	43.00
4	Pentane, 3-ethyl-2,2-dimethyl-	12608	016747-32-3	40.00
5	Pentane, 2,2,4,4-tetramethyl-	12599	001070-87-7	38.00



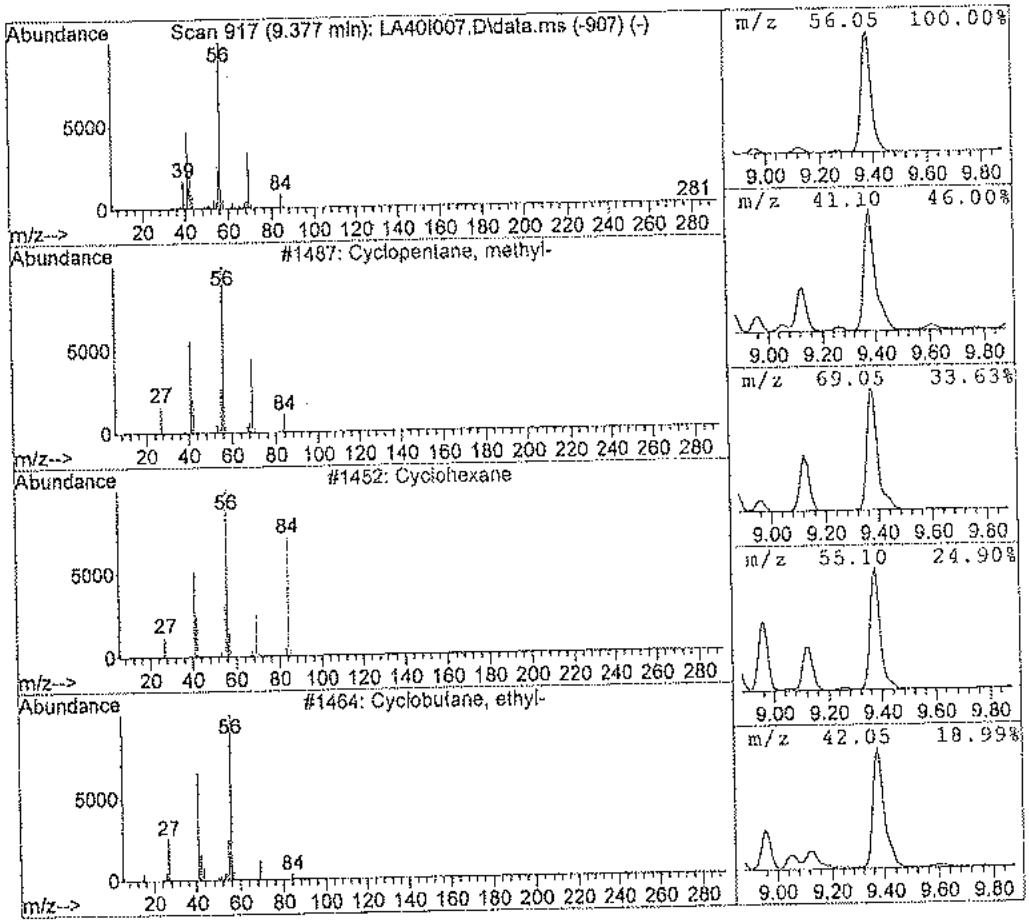
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.38	3.41 ppb	2388535	Bromochloromethane	14009384

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	94.00
2	Cyclohexane	1452	000110-82-7	83.00
3	Cyclobutane, ethyl-	1464	004806-61-5	83.00
4	1H-Tetrazole, 5-methyl-	1323	004076-36-2	72.00
5	1-Hexene, 2-methyl-	3304	006094-02-6	56.00



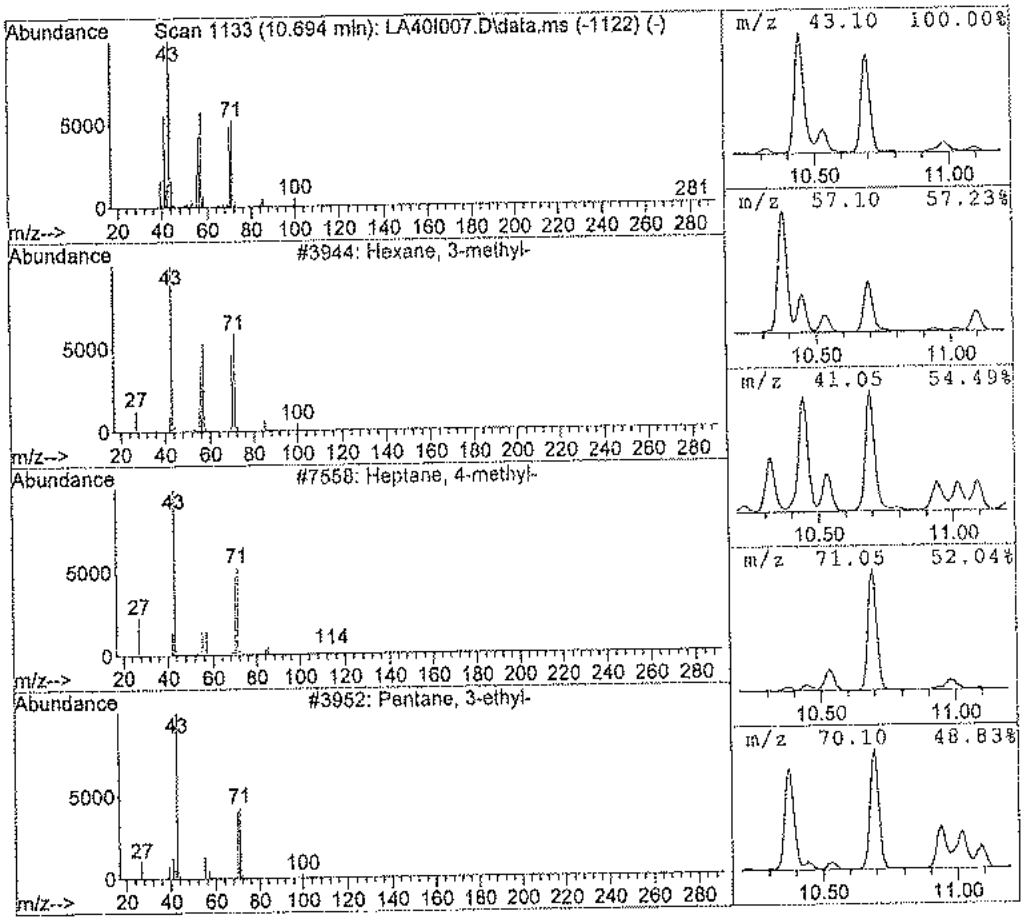
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.69	2.92 ppb	2123631	1,4-Difluorobenzene	14538611

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 3-methyl-	3944	000589-34-4	91.00
2	Heptane, 4-methyl-	7558	000589-53-7	53.00
3	Pentane, 3-ethyl-	3952	000617-78-7	50.00
4	Heptane, 3,4-dimethyl-	12546	000922-28-1	45.00
5	Decane, 3,3,4-trimethyl-	47693	049622-18-6	42.00



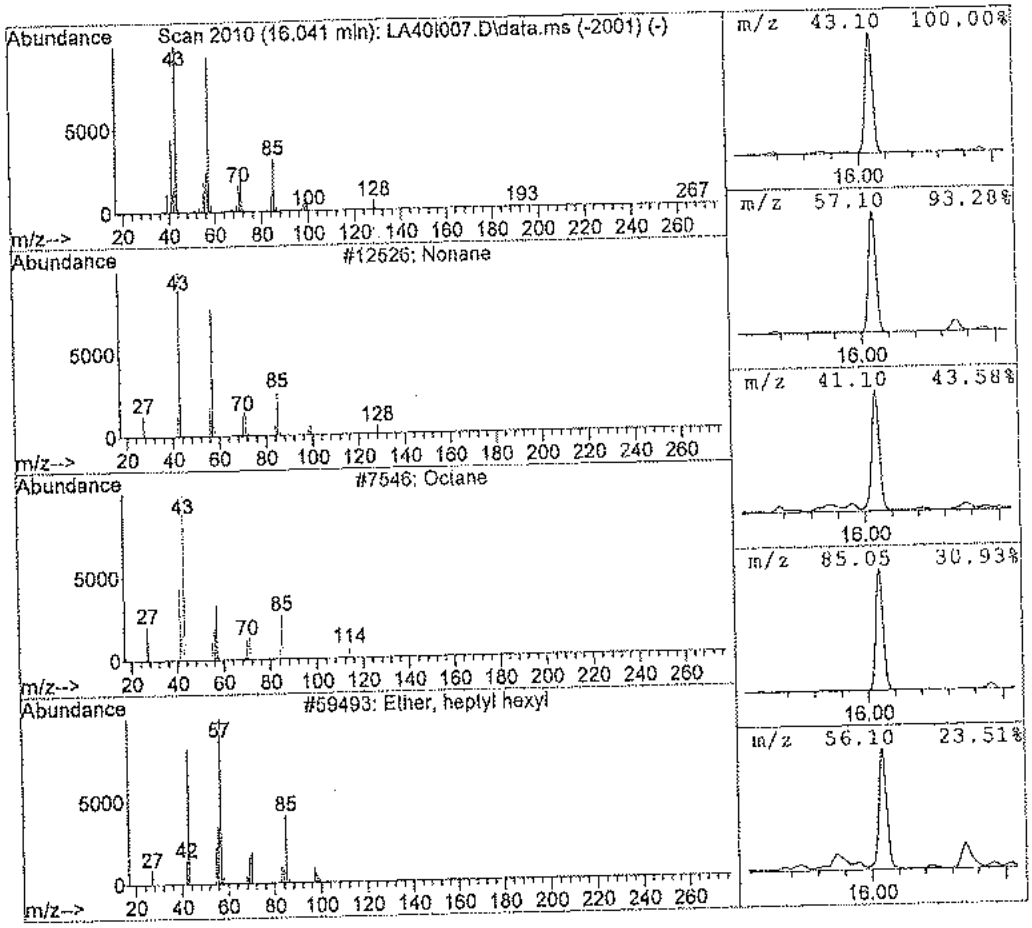
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.04	6.40 ppb	5229564	Chlorobenzene d5	16334978

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12526	000111-84-2	97.00
2	Octane	7546	000111-65-9	59.00
3	Ether, heptyl hexyl	59493	007289-40-9	59.00
4	Oxalic acid, isobutyl pentyl ester	71323	1000309-37-0	53.00
5	Pentane, 2,2,3,4-tetramethyl-	12597	001186-53-4	53.00



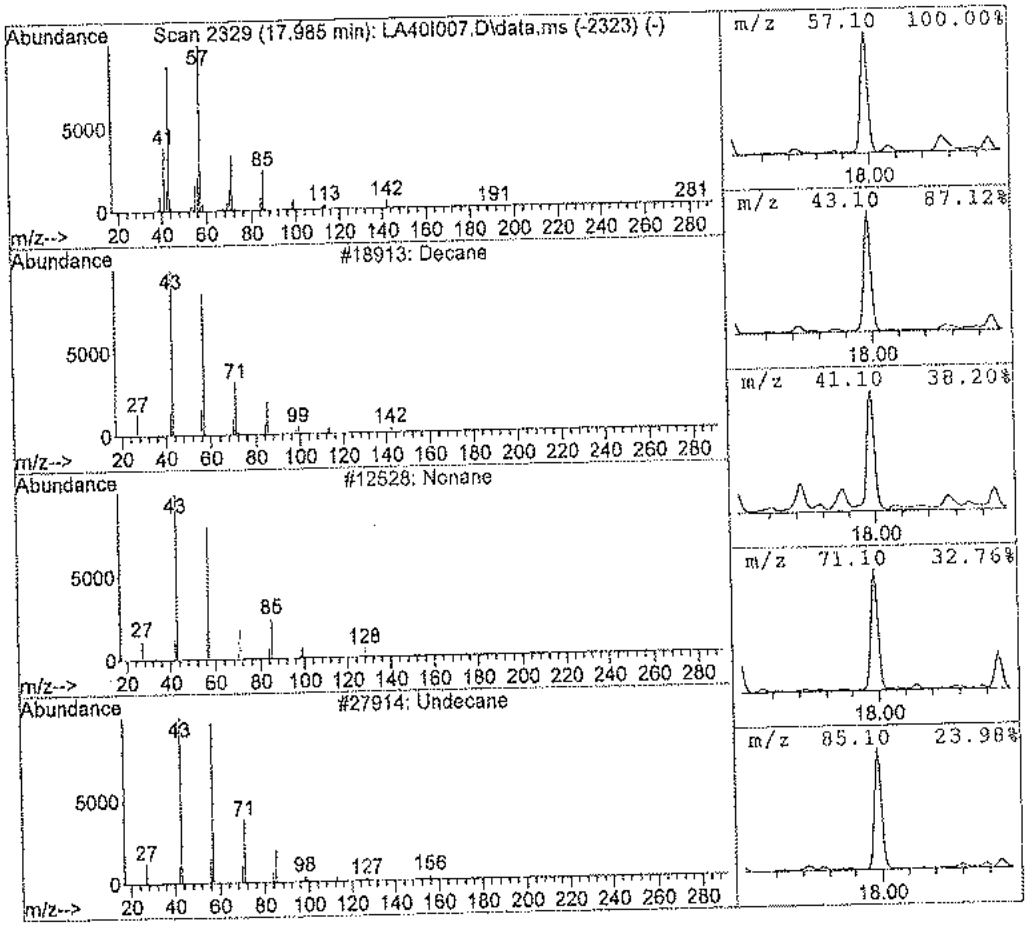
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.99	5.10 ppb	4168743	Chlorobenzene d5	16334978

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18913	000124-18-5	95.00
2	~~Nonane~~	12528	000111-84-2	72.00
3	Undecane	27914	001120-21-4	72.00
4	1-Octanol, 2-butyl-	49049	003913-02-8	72.00
5	Oxalic acid, isobutyl pentyl ester	71323	1000309-37-0	58.00



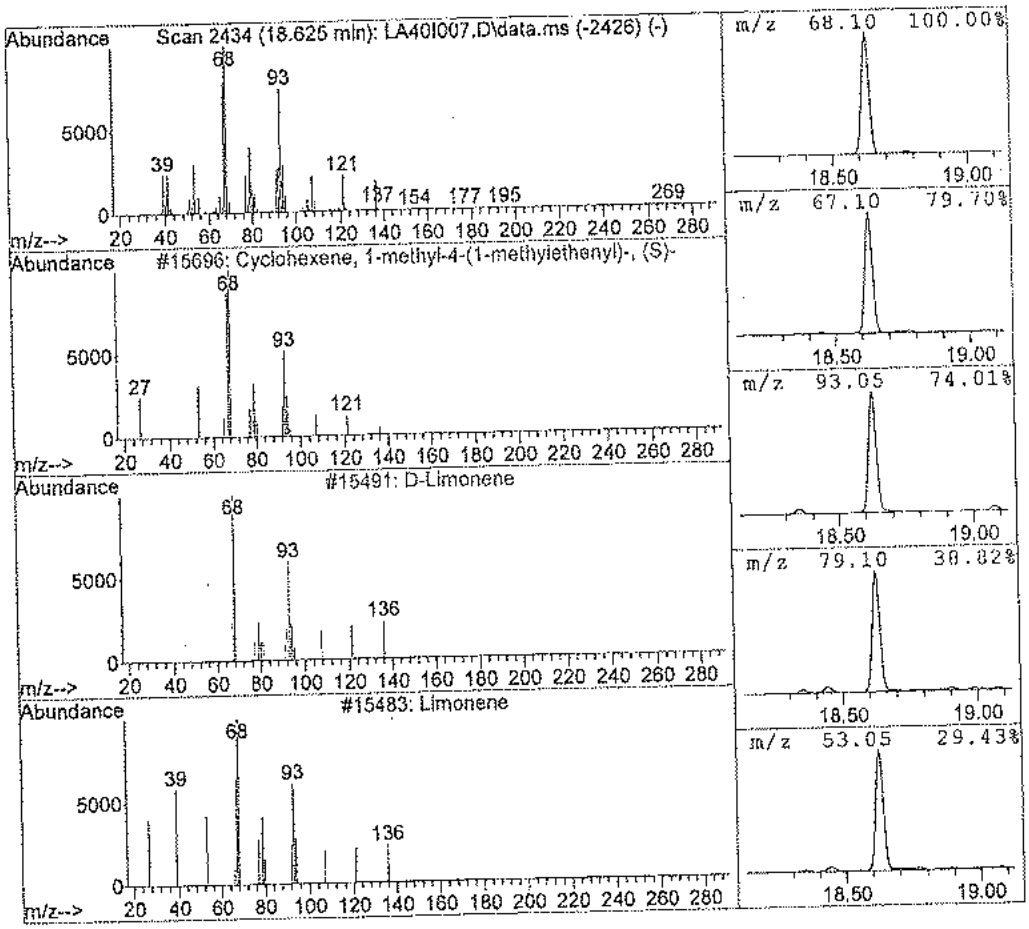
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA40I007.D Vial: 8
Acq Time : 04/15/2015 19:49 Operator: TJM
Sample : 1510353007 Inst : 5975-L
Misc : TO-002-BAS 0221 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.63	14.35 ppb	11721148	Chlorobenzene d5	16334978

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	95.00
2	D-Limonene	15491	005989-27-5	93.00
3	Limonene	15483	000138-86-3	91.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	74.00
5	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	52.00

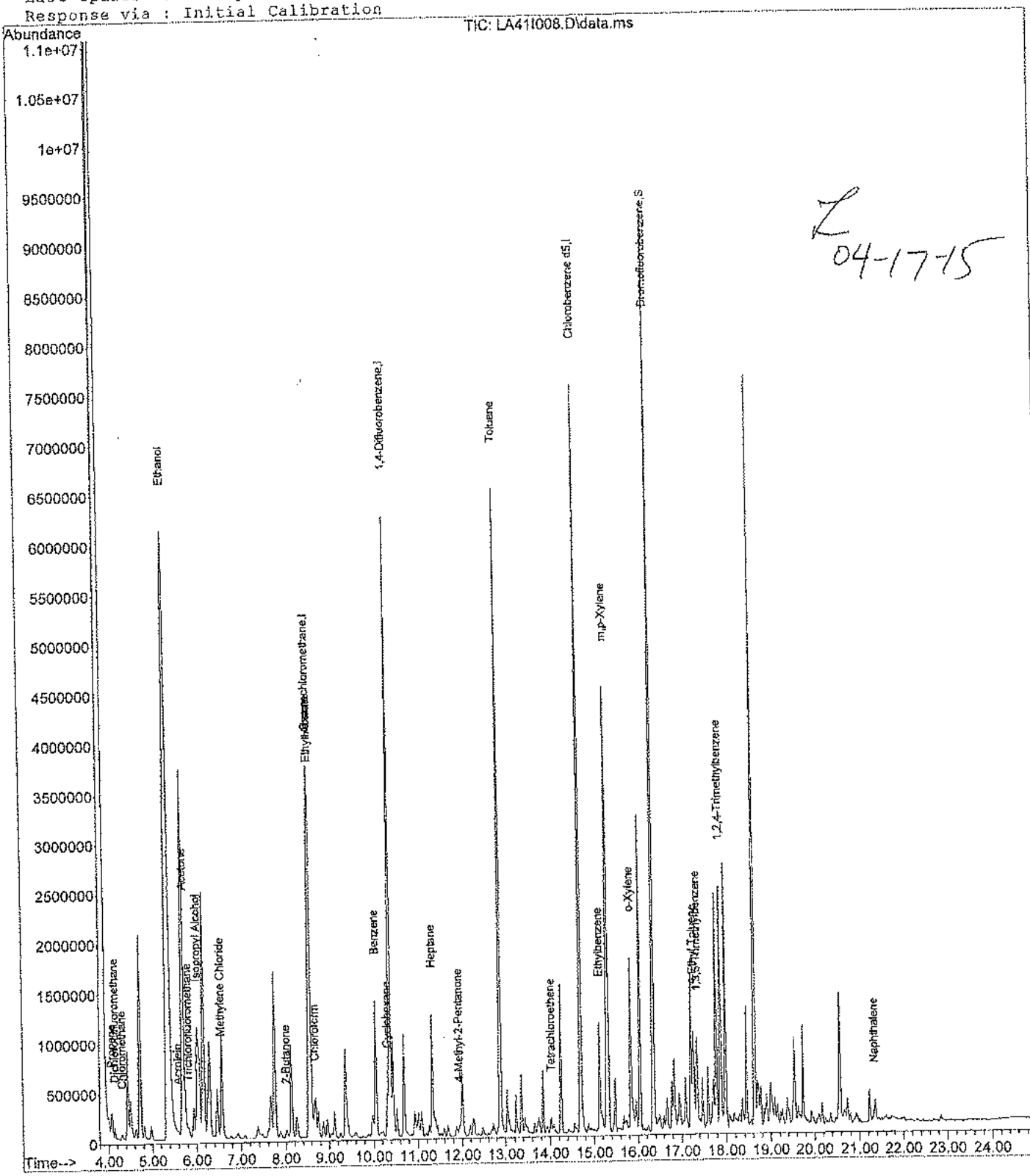


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:43:44 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



L 04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:43:44 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	524480	20.0000 ppb	107.99
25) 1,4-Difluorobenzene	10.37	114	6061715	20.0000 ppb	99.91
50) Chlorobenzene d5	14.70	117	5075603	20.0000 ppb	98.27
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4062489	20.0981 ppb	100.49%
Target Compounds					Qvalue
2) Propene	4.08	41	89771	1.2079 ppb #	65 TC L106
3) Dichlorodifluoromethane	4.15	85	126524	0.4990 ppb	99
4) Chloromethane	4.31	50	69460	0.6415 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.59	56	33349	0.7948 ppb #	90 TC L105
11) Acetone	5.73	43	897506	5.1759 ppb m-a	72
12) Trichlorofluoromethane	5.82	101	91890	0.3360 ppb	100
13) Ethanol	5.36	45	18920267	545.7162 ppb #	78 TC
14) Isopropyl Alcohol	6.02	45	2854951	9.7039 ppb	93 TC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.54	84	18132	0.2044 ppb #	37
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.01	43	153798	0.6985 ppb #	76
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.58	61	140594	3.9616 ppb #	1
27) Hexane	8.57	57	1195066	7.0466 ppb #	50
28) Chloroform	8.66	83	120318	0.5734 ppb	97
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.05	78	1460294	4.8844 ppb #	92
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.32	84	190928	1.4193 ppb #	40
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	320541	3.0827 ppb #	43
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	11.93	43	50350	0.2035 ppb #	72
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	5754863	15.8575 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	14.03	166	44576	0.2490 ppb #	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:43:44 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	978885	2.0935 ppb	93
53) m,p-Xylene	15.31	91	3970525	11.0152 ppb	89
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.83	91	1285829	3.5044 ppb	90
59) 4-Ethyl Toluene	17.27	105	556700	1.1323 ppb	95
60) 1,3,5-Trimethylbenzene	17.36	105	461796	1.0948 ppb	91
61) 1,2,4-Trimethylbenzene	17.88	105	1561061	3.6889 ppb	92
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	21.33	128	79551	0.2193 ppb #	90 TIC 2/10
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

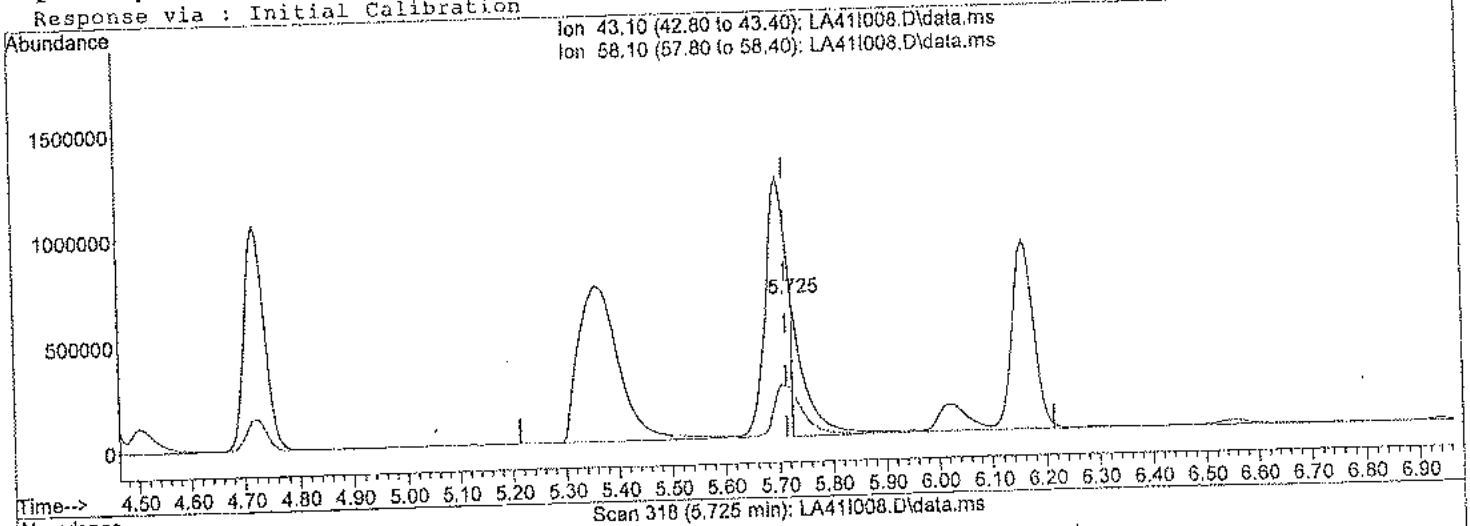
(#) = qualifier out of range (m) = manual integration

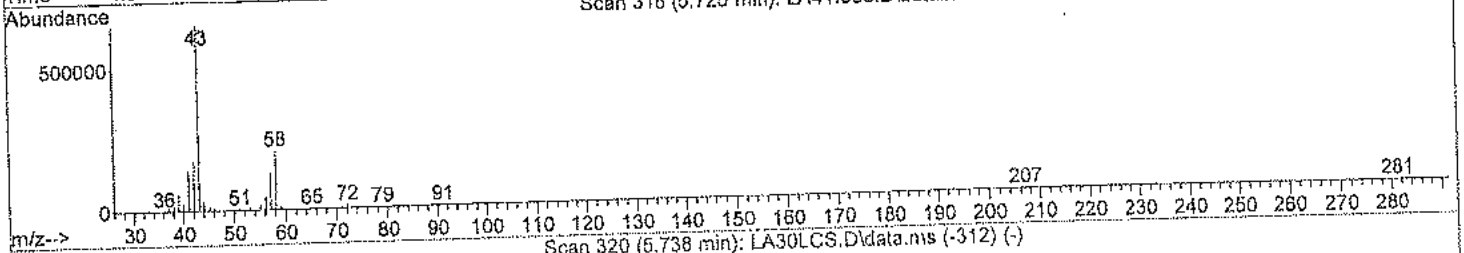
Quantitation Report (Qedit)

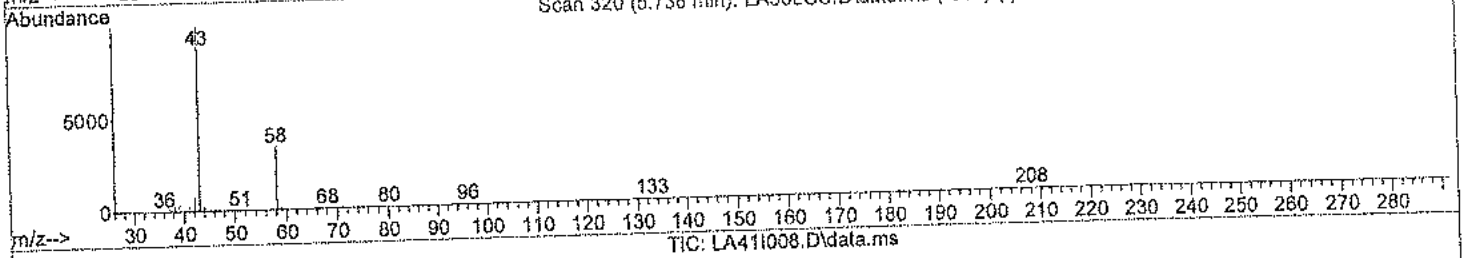
Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA41I008.D
Acq On : 04/15/2015 20:39
Operator : TJM
Sample : 1510353008
Inst : 5975-L
Misc : TO-003-BBB 0122
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 16 06:59:06 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 04-16-15





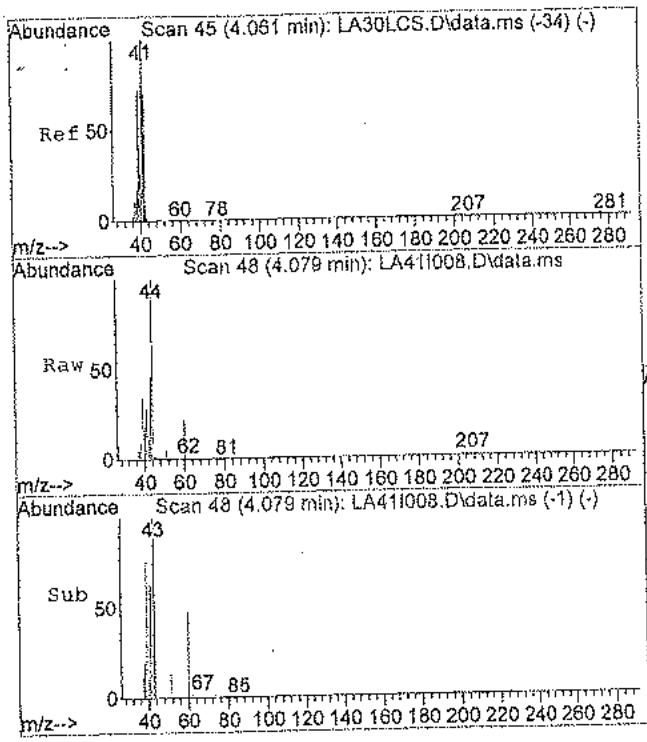


(11) Acetone

5.725min (+ 0.012) 5.18 ppb m

response 897506

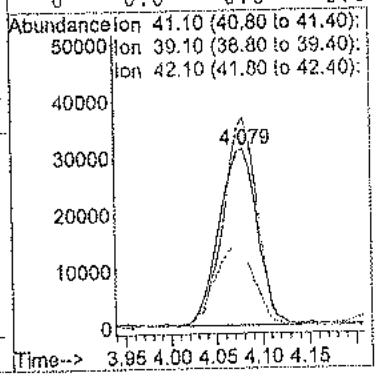
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	100.76#
0.00	0.00	0.00
0.00	0.00	0.00

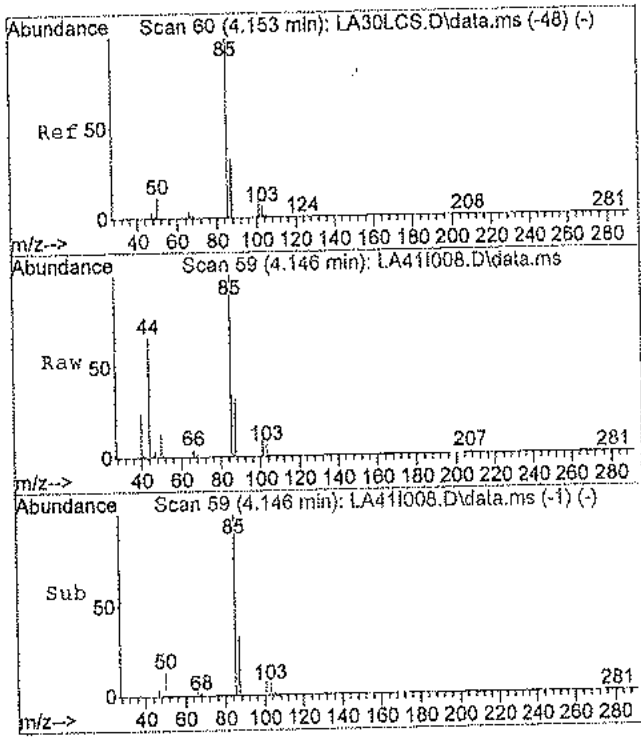


#2
Propene
Concen: 1.21 ppb
RT: 4.08 min Scan# 48
Delta R.T. 0.04 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:41.1 Resp: 89771

Ion	Ratio	Lower	Upper
41	100		
39	105.9	56.2	84.4#
42	45.7	53.8	80.6#
0	0.0	0.0	0.0

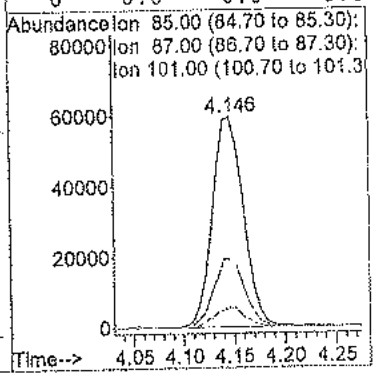


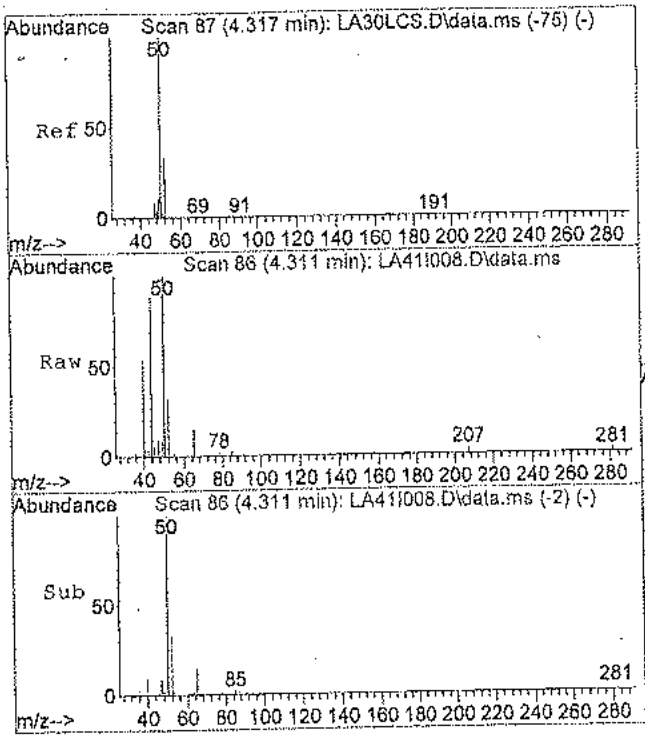


#3
Dichlorodifluoromethane
Concen: 0.50 ppb
RT: 4.15 min Scan# 59
Delta R.T. 0.02 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:85 Resp: 126524

Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.1	39.1
101	9.2	8.0	12.0
0	0.0	0.0	0.0

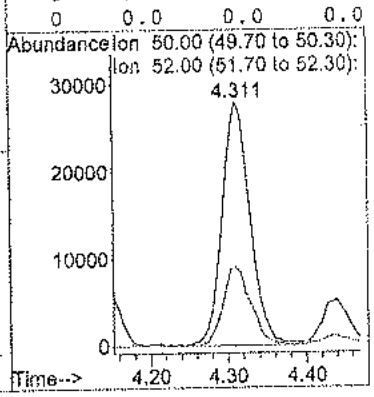


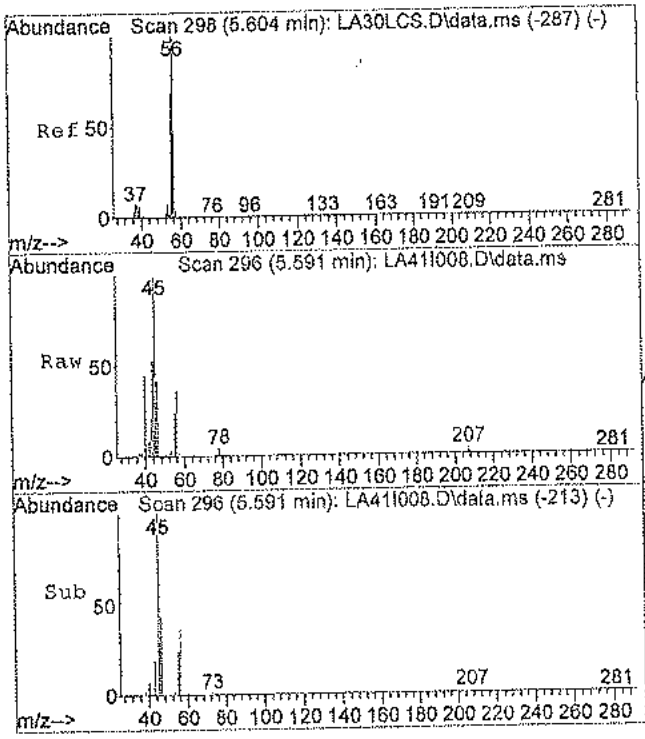


#4
Chloromethane
Concen: 0.64 ppb
RT: 4.31 min Scan# 86
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:50 Resp: 69460

Ion	Ratio	Lower	Upper
50	100		
52	32.2	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

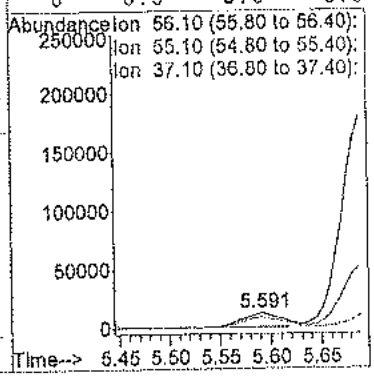


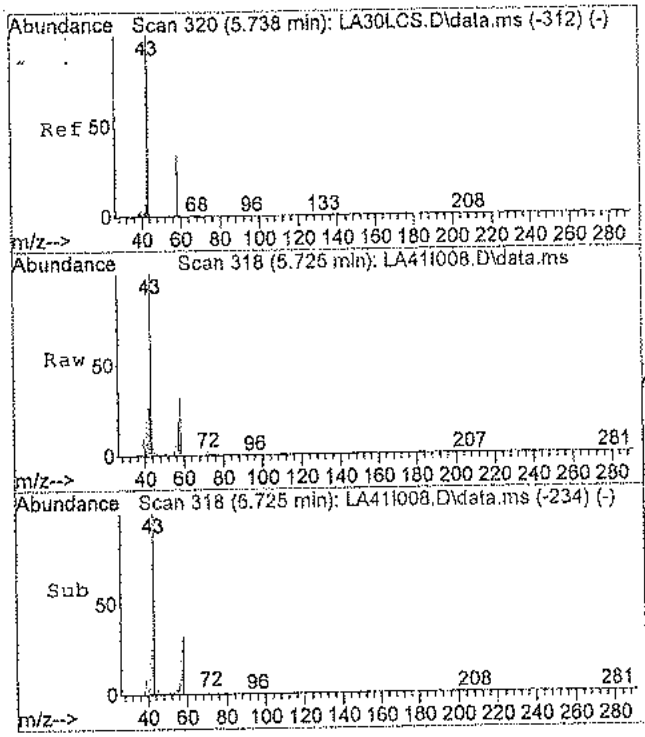


#10
Acrolein
Concen: 0.79 ppb
RT: 5.59 min Scan# 296
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:56.1 Resp: 33349

Ion	Ratio	Lower	Upper
56	100		
55	75.0	55.1	82.7
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

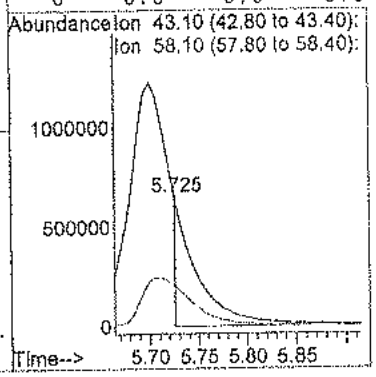


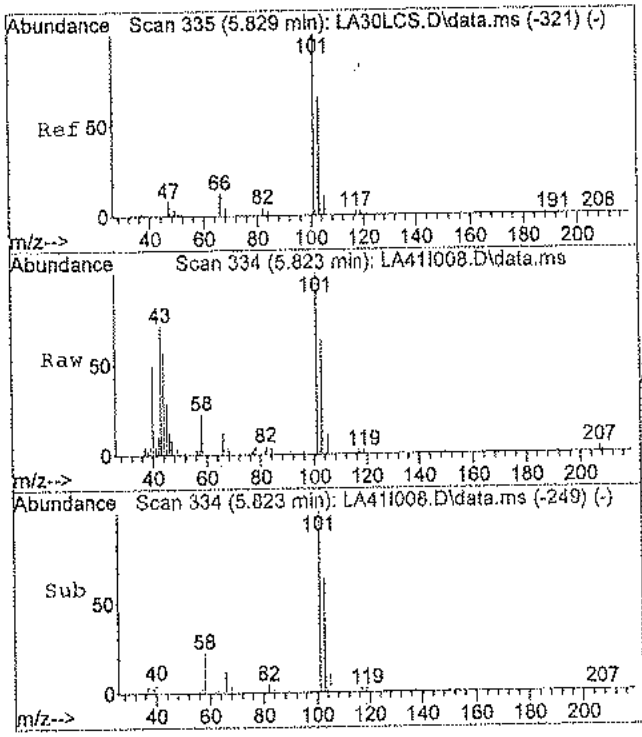


#11
Acetone
Concen: 5.18 ppb m
RT: 5.73 min Scan# 318
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:43.1 Resp: 897506

Ion	Ratio	Lower	Upper
43	100		
58	100.8	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

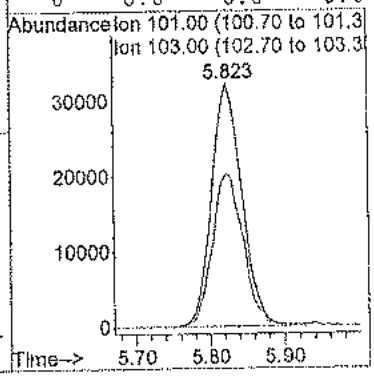


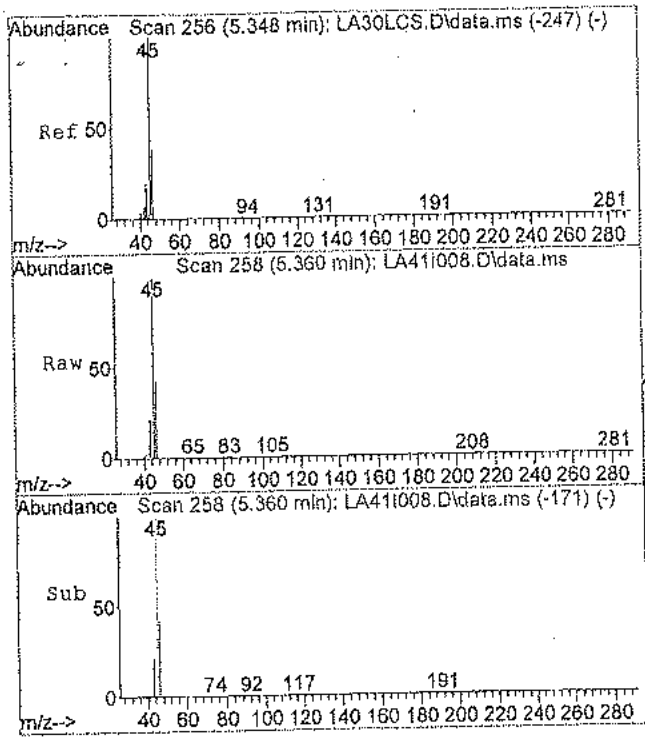


#12
Trichlorofluoromethane
Concen: 0.34 ppb
RT: 5.82 min Scan# 334
Delta R.T. 0.02 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:101 Resp: 91890

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

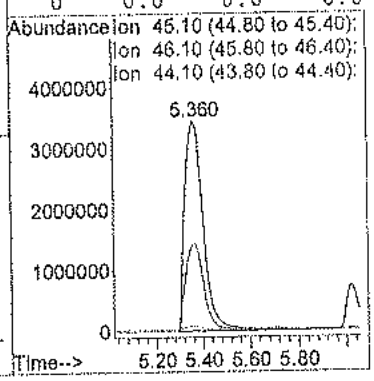


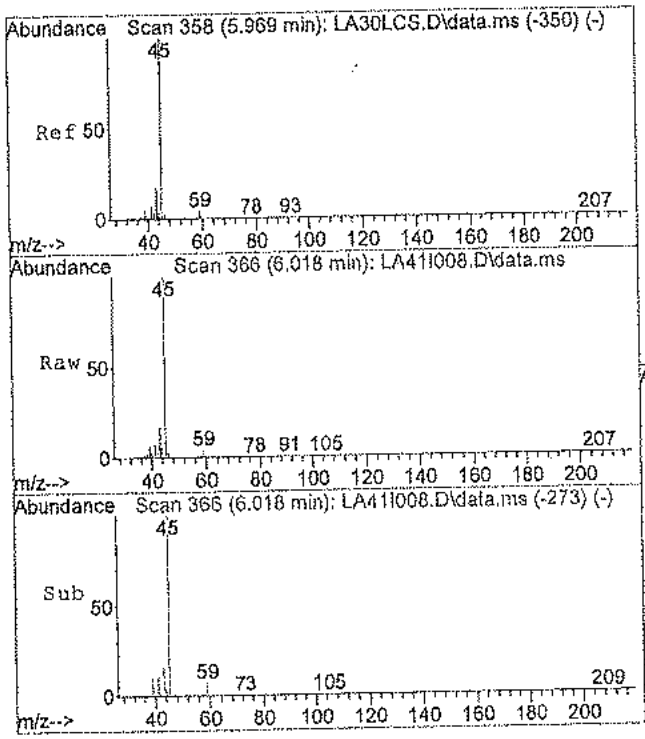


#13
Ethanol
Concen: 545.72 ppb
RT: 5.36 min Scan# 258
Delta R.T. 0.03 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:45.1 Resp:18920267

Ion	Ratio	Lower	Upper
45	100		
46	41.3	32.4	48.6
44	1.9	23.4	35.2#
0	0.0	0.0	0.0

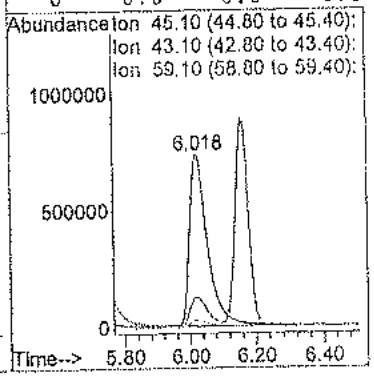


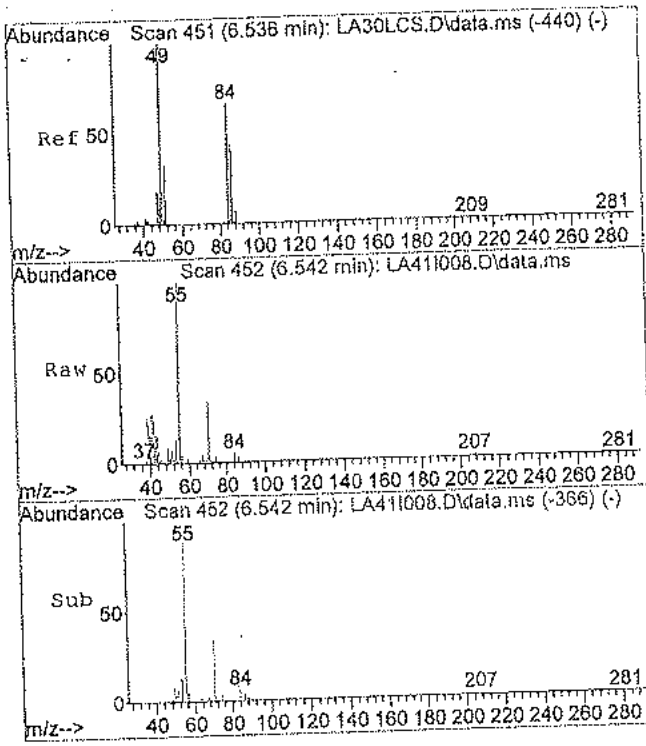


#14
Isopropyl Alcohol
Concen: 9.70 ppb
RT: 6.02 min Scan# 366
Delta R.T. 0.07 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:45.1 Resp: 2854951

Ion	Ratio	Lower	Upper
45	100		
43	16.0	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

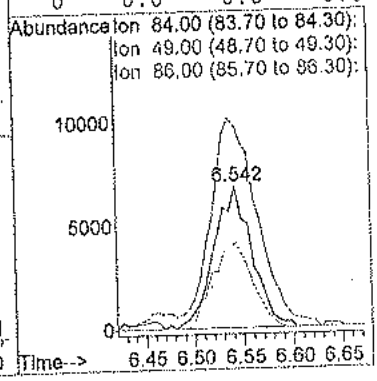


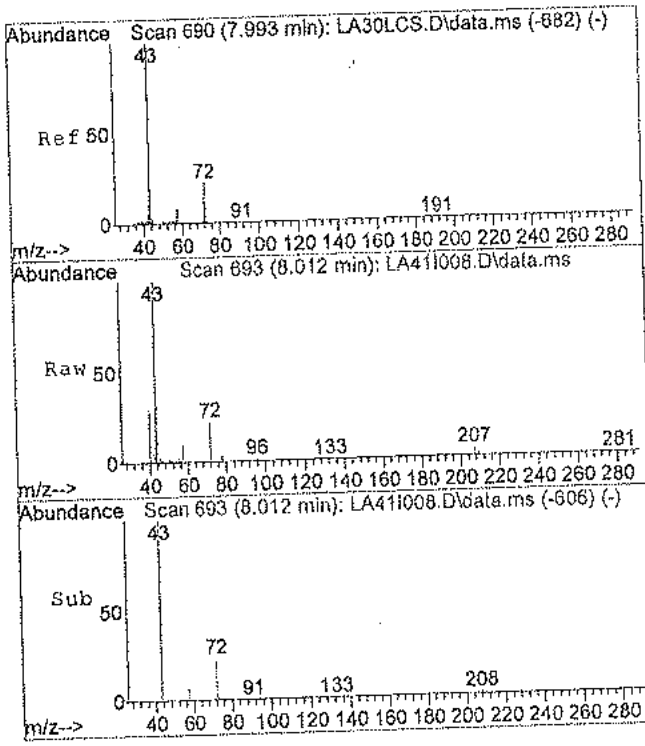


#16
Methylene Chloride
Concen: 0.20 ppb
RT: 6.54 min Scan# 452
Delta R.T. 0.02 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:84 Resp: 18132

Ion	Ratio	Lower	Upper
84	100		
49	183.4	66.6	100.0#
86	62.9	51.6	77.4
0	0.0	0.0	0.0

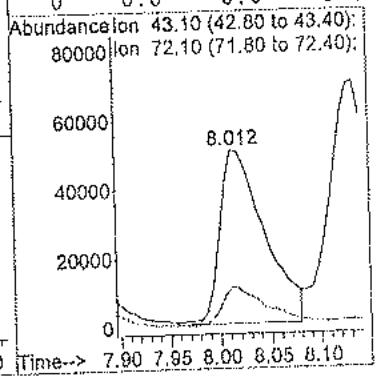


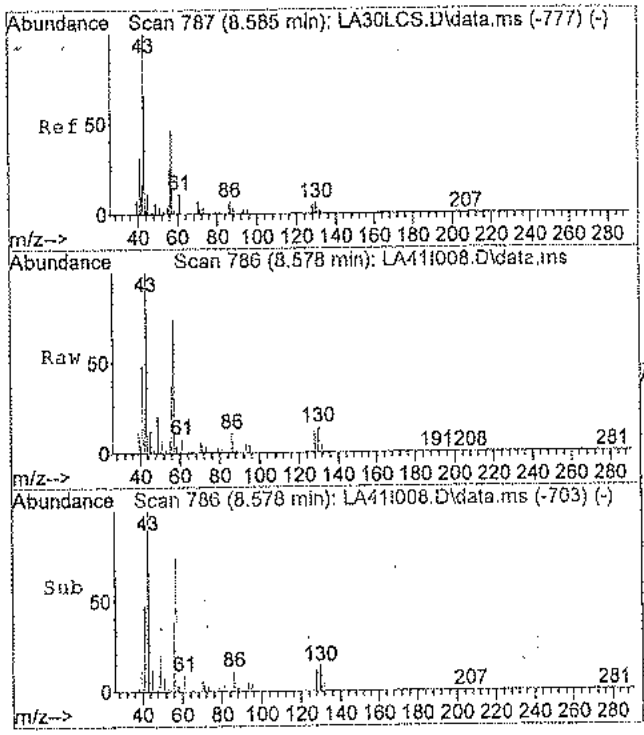


#23
2-Butanone
Concen: 0.70 ppb
RT: 8.01 min Scan# 693
Delta R.T. 0.03 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:43.1 Resp: 153798

Ion	Ratio	Lower	Upper
43	100		
72	24.2	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

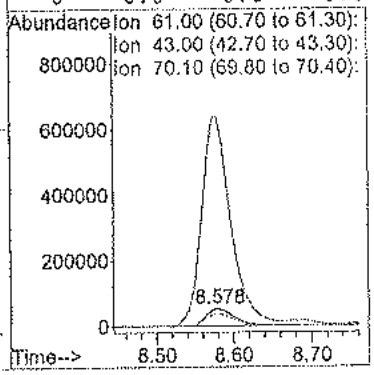


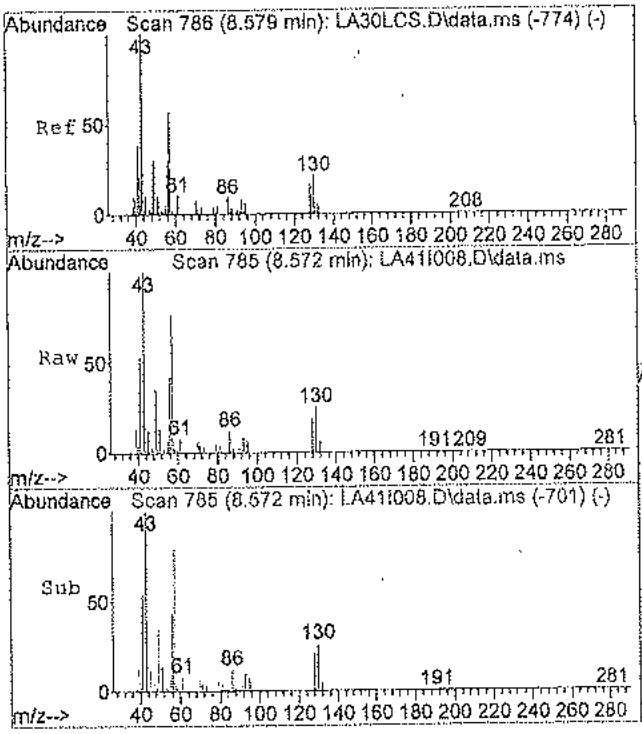


#26
Ethyl Acetate
Concen: 3.96 ppb
RT: 8.58 min Scan# 786
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:61 Resp: 140594

Ion	Ratio	Lower	Upper
61	100		
43	1202.6	144.0	216.0#
70	78.9	13.6	20.4#
0	0.0	0.0	0.0

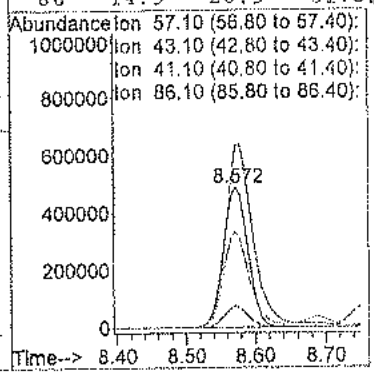


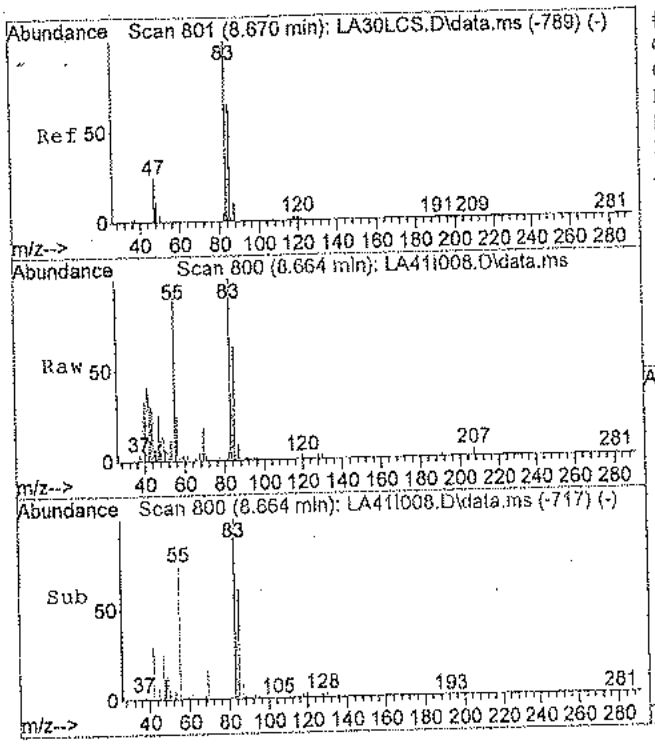


#27
Hexane
Concen: 7.05 ppb
RT: 8.57 min Scan# 785
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:57.1 Resp: 1195066

Ion	Ratio	Lower	Upper
57	100		
43	141.5	57.3	85.9#
41	73.7	47.0	70.4#
86	14.9	20.9	31.3#

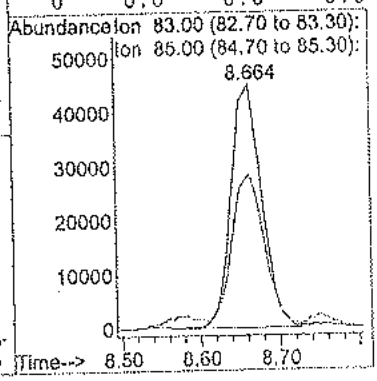


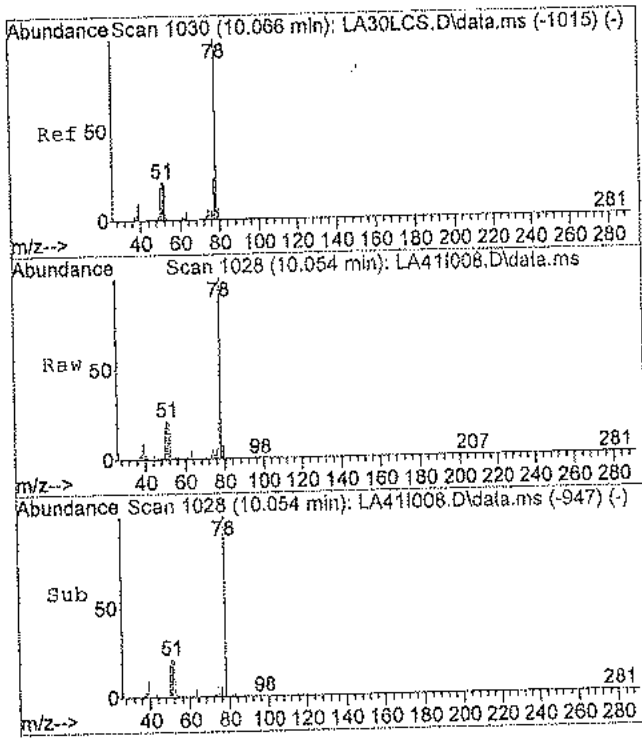


#28
Chloroform
Concen: 0.57 ppb
RT: 8.66 min Scan# 800
Delta R.T. 0.01 min
Lab File: LA411008.D
Acq: 04/15/2015 20:39

Tgt Ion:83 Resp: 120318

Ion	Ratio	Lower	Upper
83	100		
85	67.5	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

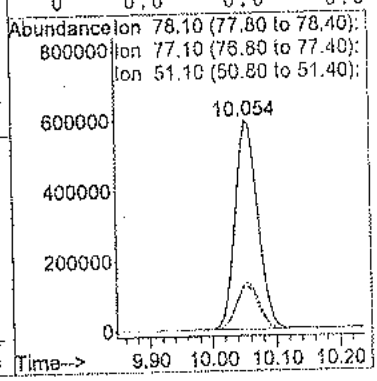


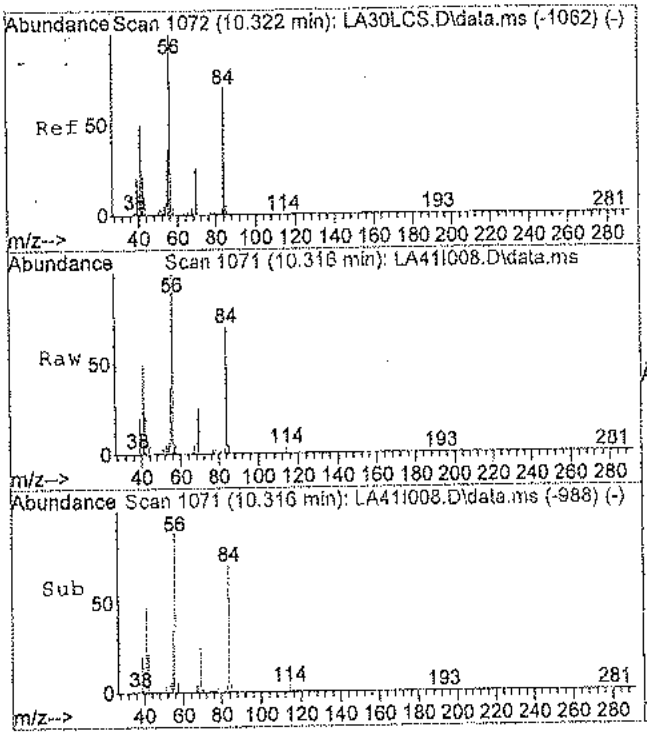


#32
Benzene
Concen: 4.88 ppb
RT: 10.05 min Scan# 1028
Delta R.T. -0.01 min
Lab File: LA411008.D
Acq: 04/15/2015 20:39

Tgt Ion:78.1 Resp: 1460294

Ion	Ratio	Lower	Upper
78	100		
77	22.6	18.2	27.4
51	20.2	9.5	14.3#
0	0.0	0.0	0.0

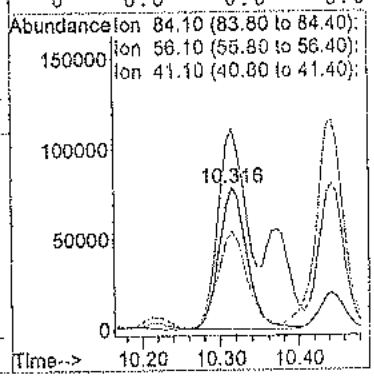


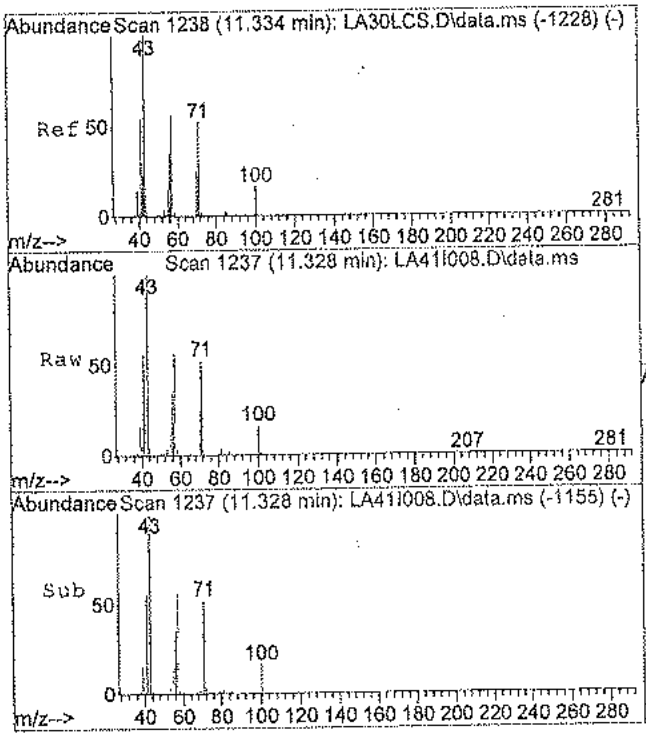


#34
Cyclohexane
Concen: 1.42 ppb
RT: 10.32 min Scan# 1071
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:84.1 Resp: 190928

Ion	Ratio	Lower	Upper
84	100		
56	141.9	67.3	100.9#
41	69.5	30.2	45.4#
0	0.0	0.0	0.0

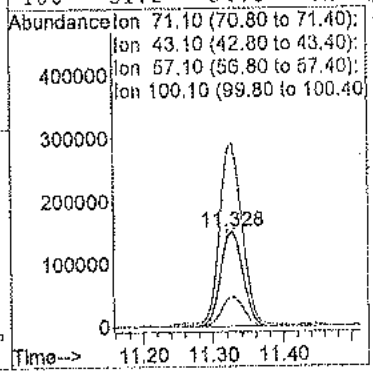


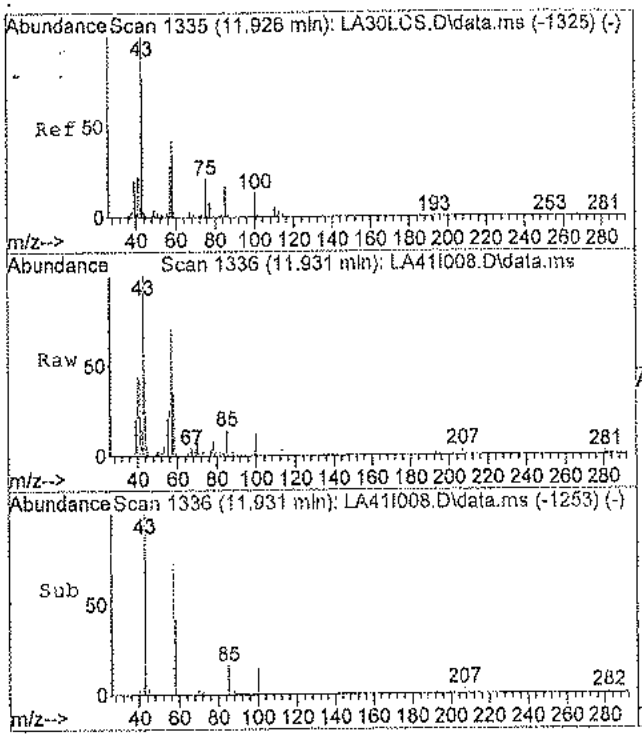


#40
Heptane
Concen: 3.08 ppb
RT: 11.33 min Scan# 1237
Delta R.T. -0.00 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:71.1 Resp: 320541

Ion	Ratio	Lower	Upper
71	100		
43	194.8	87.3	130.9#
57	107.0	57.8	86.6#
100	31.2	34.8	52.2#

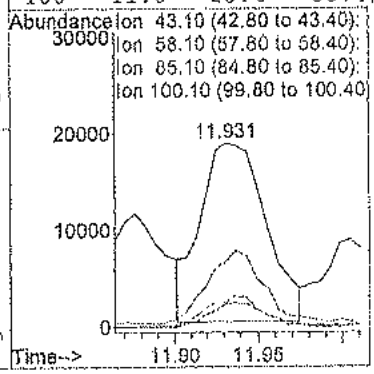


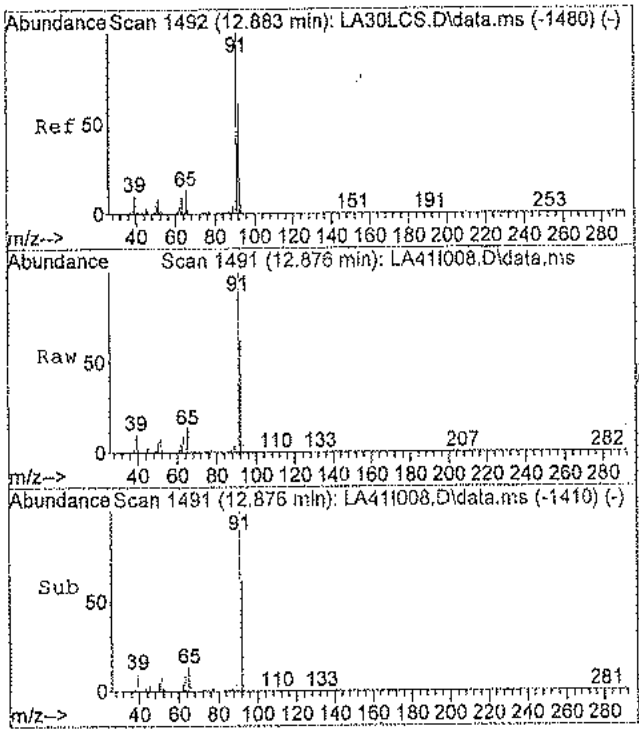


#42
4-Methyl-2-Pentanone
Concen: 0.20 ppb
RT: 11.93 min Scan# 1336
Delta R.T. 0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:43.1 Resp: 50350

Ion	Ratio	Lower	Upper
43	100		
58	35.8	39.5	59.3#
85	14.7	25.1	37.7#
100	11.0	25.6	38.4#

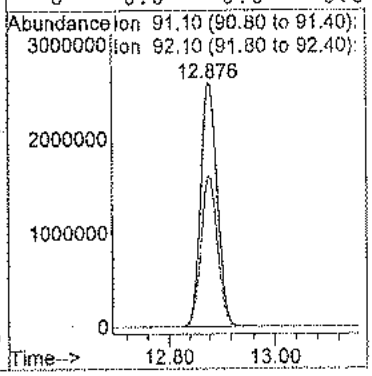


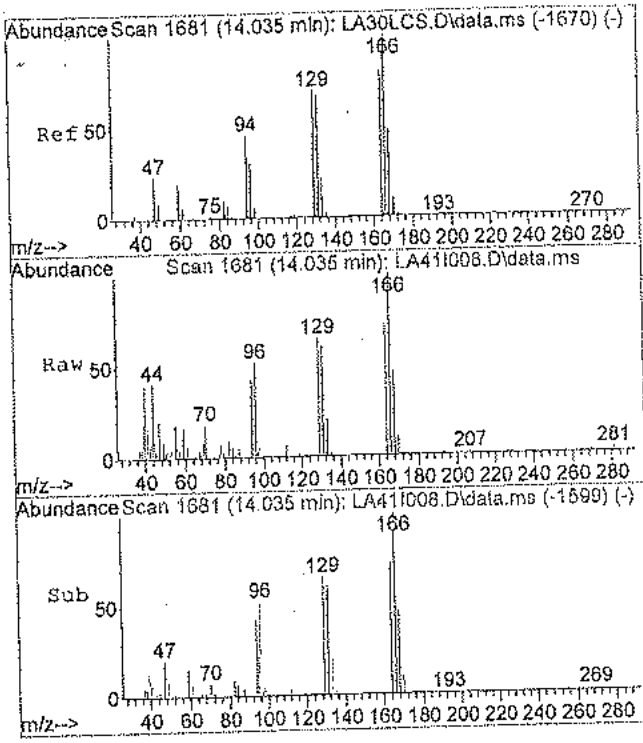


#45
Toluene
Concen: 15.86 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:91.1 Resp: 5754863

Ion	Ratio	Lower	Upper
91	100		
92	61.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

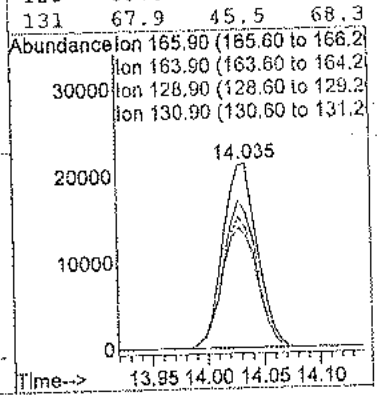


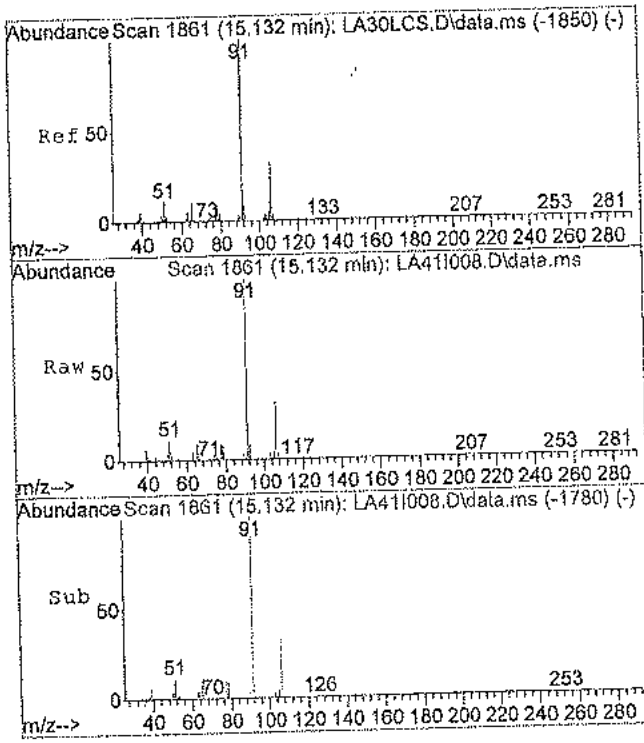


#49
Tetrachloroethene
Concen: 0.25 ppb
RT: 14.03 min Scan# 1681
Delta R.T. -0.00 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:165.9 Resp: 44576

Ion	Ratio	Lower	Upper
166	100		
164	79.0	61.0	91.4
129	69.5	45.9	68.9#
131	67.9	45.5	68.3

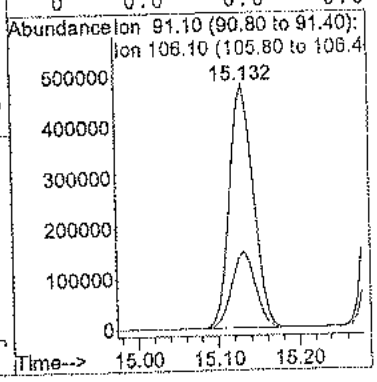


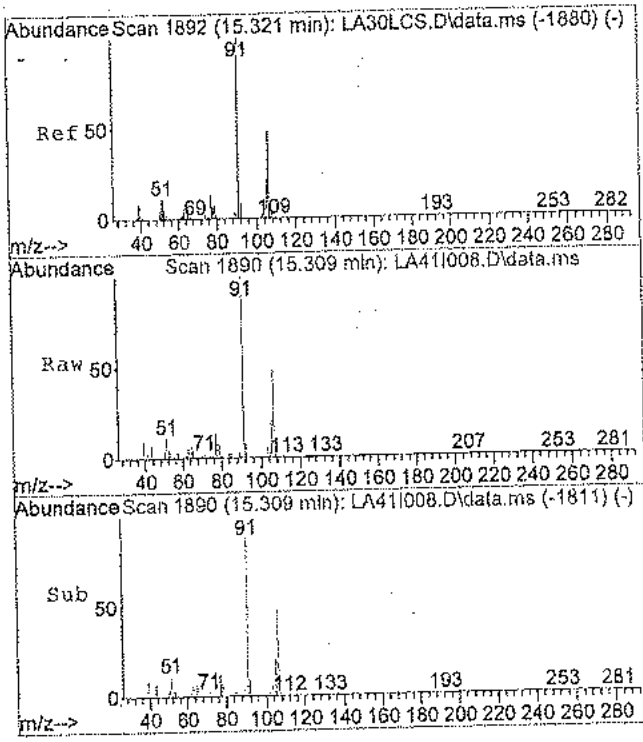


#52
Ethylbenzene
Concen: 2.09 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:91.1 Resp: 978885

Ion	Ratio	Lower	Upper
91	100		
106	31.3	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

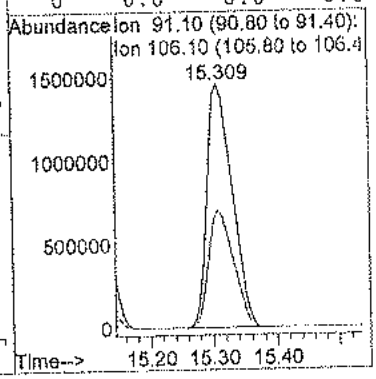


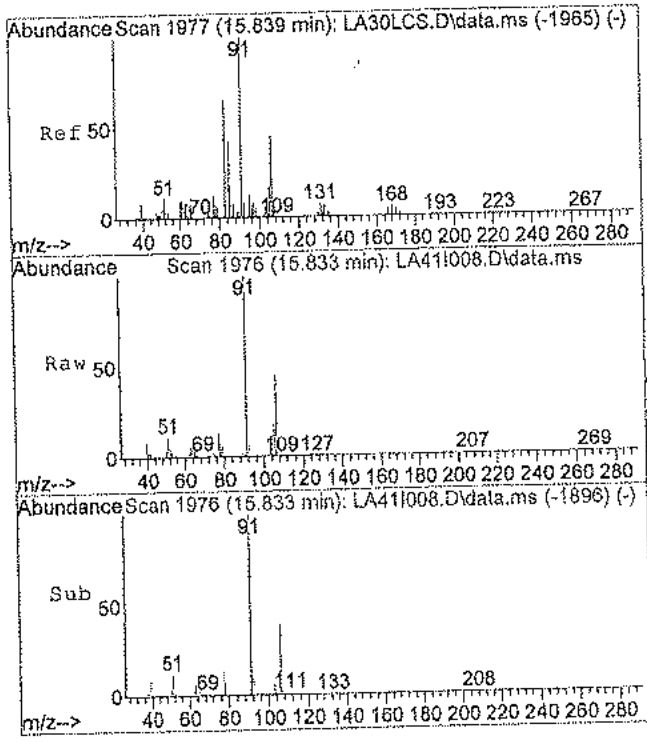


#53
m,p-Xylene
Concen: 11.02 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:91.1 Resp: 3970525

Ion	Ratio	Lower	Upper
91	100		
106	47.8	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

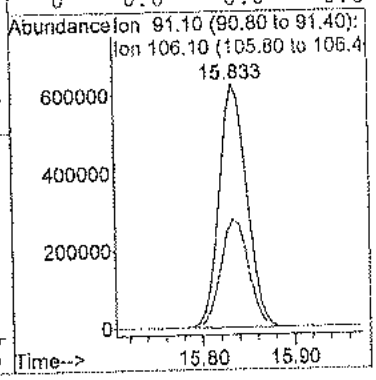


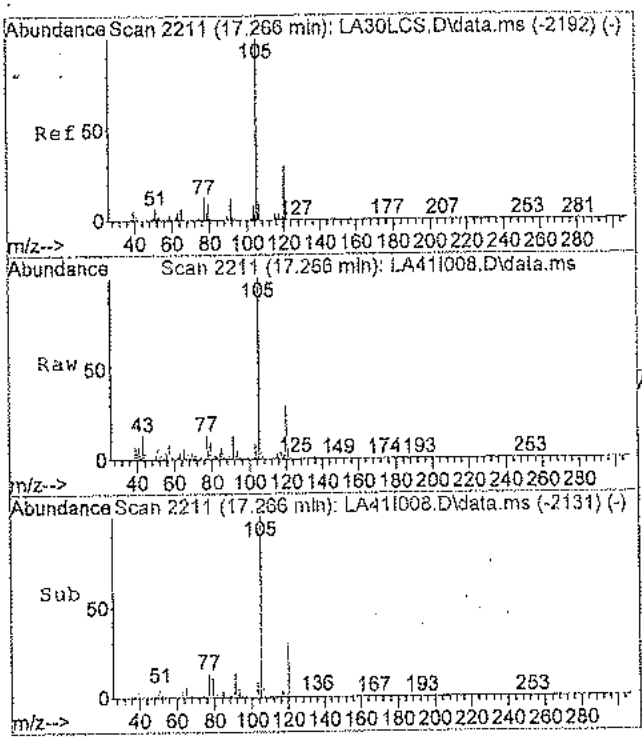


#57
o-Xylene
Concen: 3.50 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:91.1 Resp: 1285829

Ion	Ratio	Lower	Upper
91	100		
106	45.2	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

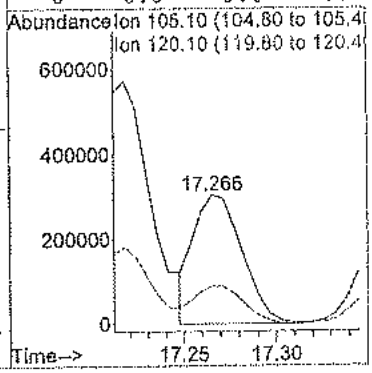


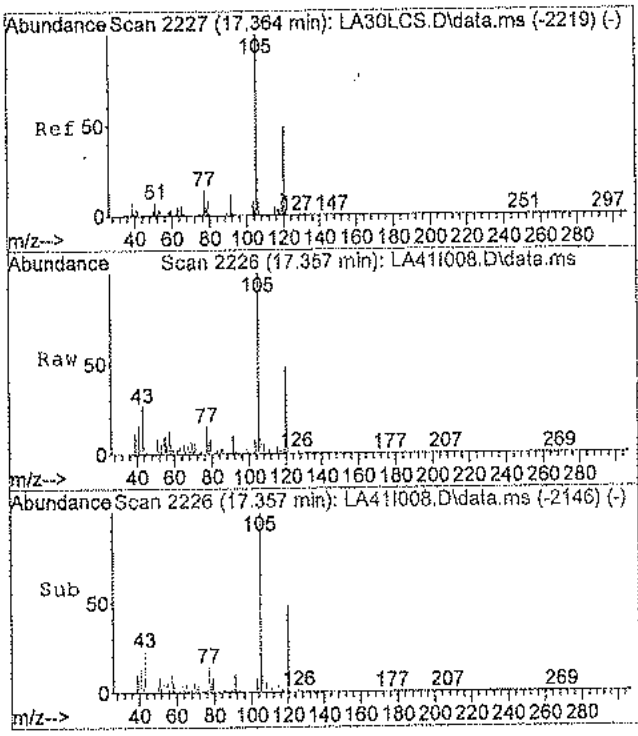


#59
4-Ethyl Toluene
Concen: 1.13 ppb
RT: 17.27 min Scan# 2211
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:105.1 Resp: 556700

Ion	Ratio	Lower	Upper
105	100		
120	29.9	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

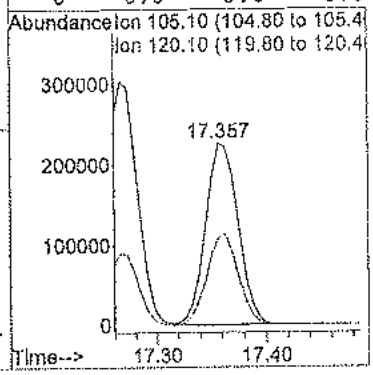


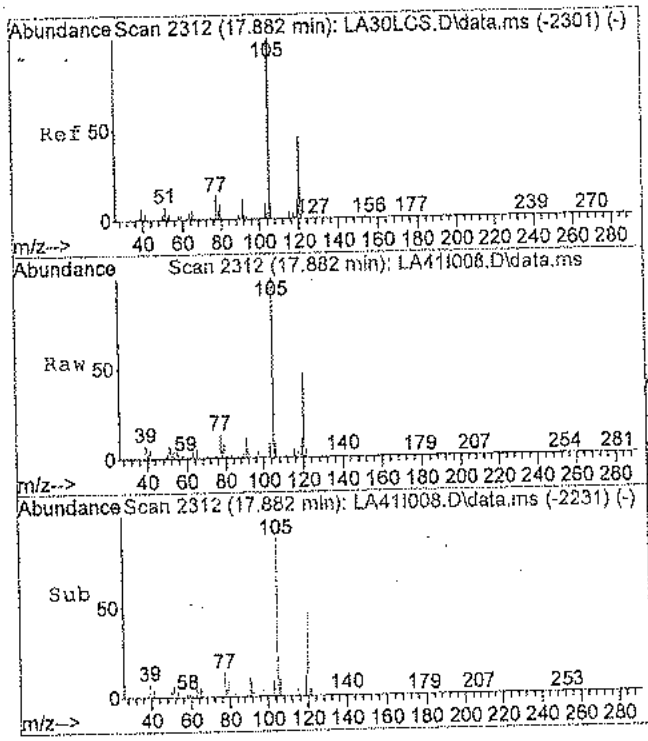


#60
1,3,5-Trimethylbenzene
Concen: 1.09 ppb
RT: 17.36 min Scan# 2226
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:105.1 Resp: 461796

Ion	Ratio	Lower	Upper
105	100		
120	48.7	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

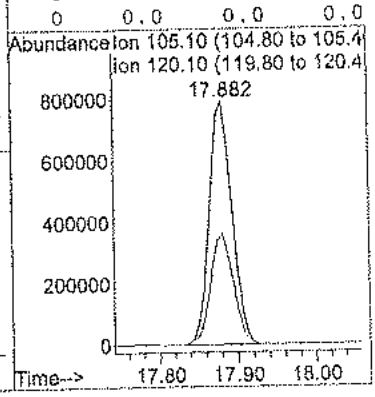


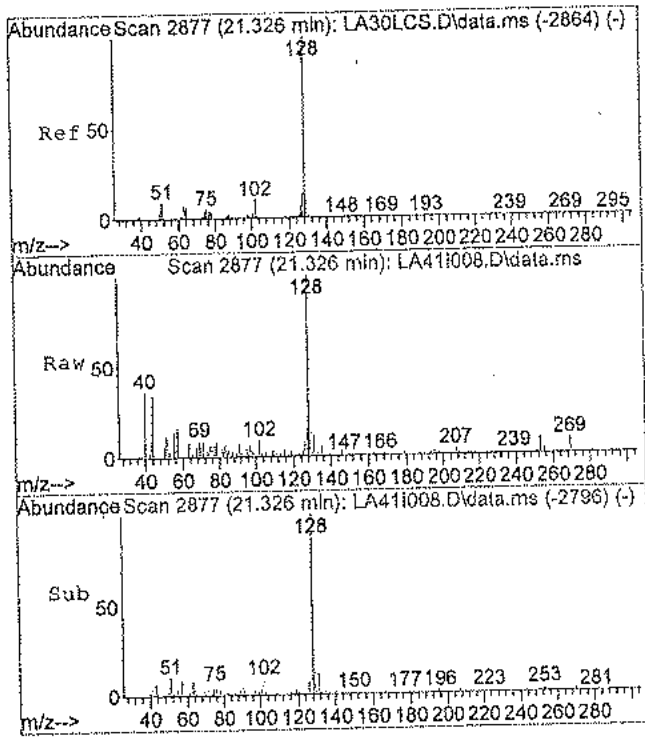


#61
1,2,4-Trimethylbenzene
Concen: 3.69 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:105.1 Resp: 1561061

Ion	Ratio	Lower	Upper
105	100		
120	45.7	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

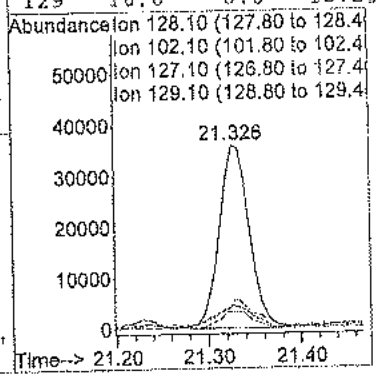




#67
Naphthalene
Concen: 0.22 ppb
RT: 21.33 min Scan# 2877
Delta R.T. -0.01 min
Lab File: LA41I008.D
Acq: 04/15/2015 20:39

Tgt Ion:128.1 Resp: 79551

Ion	Ratio	Lower	Upper
128	100		
102	10.1	6.7	10.1#
127	16.3	10.0	15.0#
129	16.6	8.8	13.2#



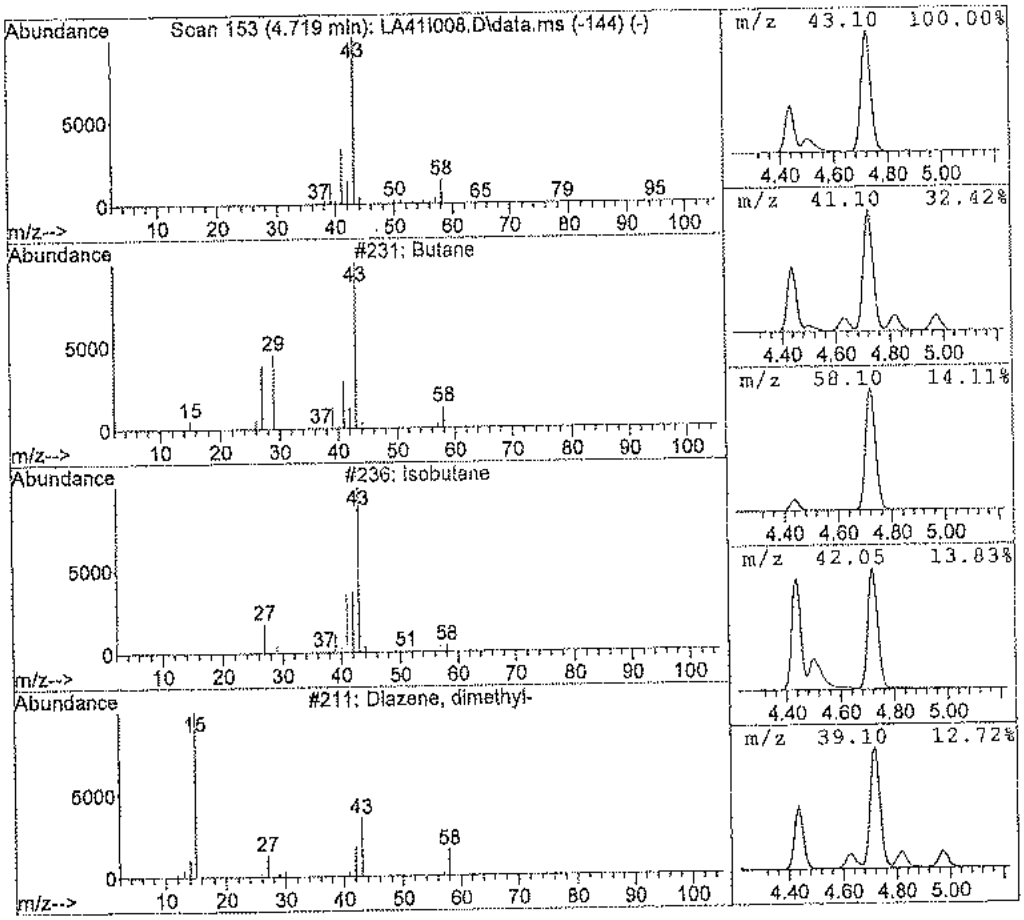
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TOM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.72	6.89 ppb	5128672	Bromochloromethane	14878126

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	64.00
2	Isobutane	236	000075-28-5	9.00
3	Diazene, dimethyl-	211	000503-28-6	5.00
4	Cyclobutylamine	607	002516-34-9	4.00
5	Hydrogen azide	69	007782-79-8	4.00



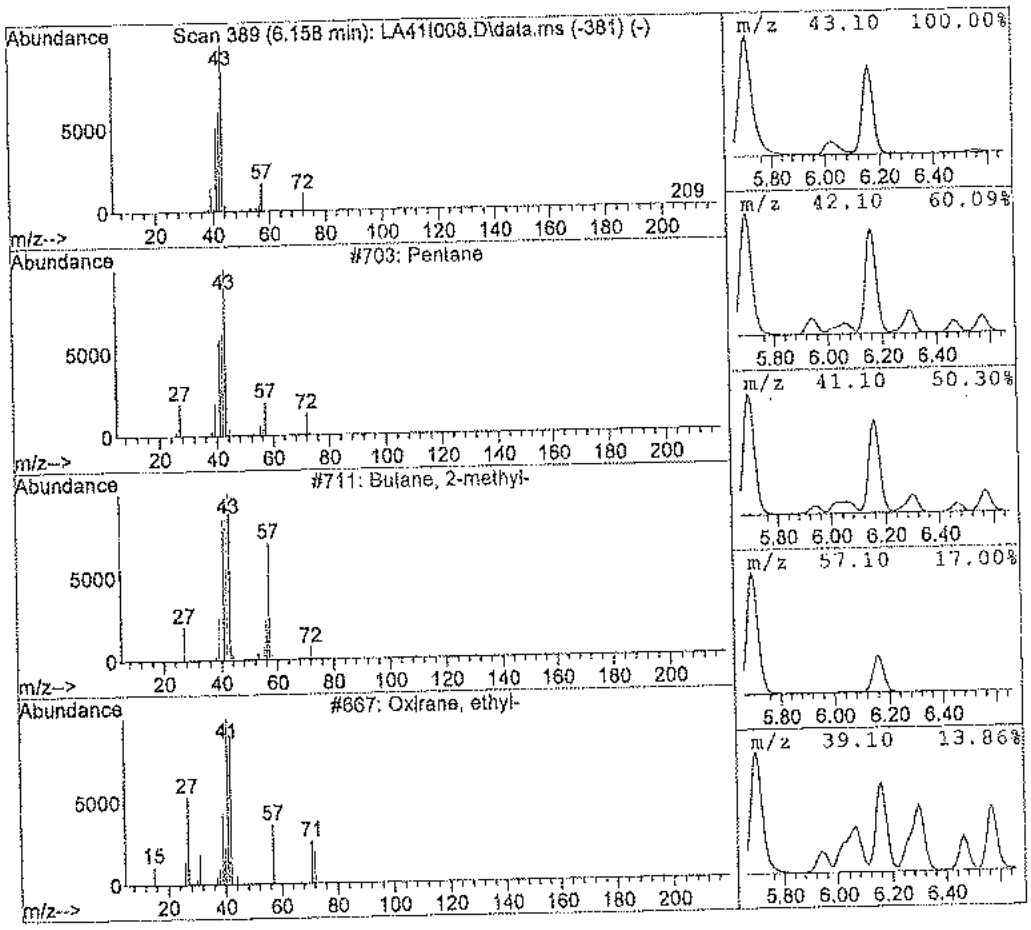
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.16	9.03 ppb	6720450	Bromochloromethane	14878126

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	703	000109-66-0	90.00
2	Butane, 2-methyl-	711	000078-78-4	9.00
3	Oxirane, ethyl-	667	000106-88-7	9.00
4	Butane, 2,3-dimethyl-	1822	000079-29-8	9.00
5	Aziridine, 1-methyl-	201	001072-44-2	7.00



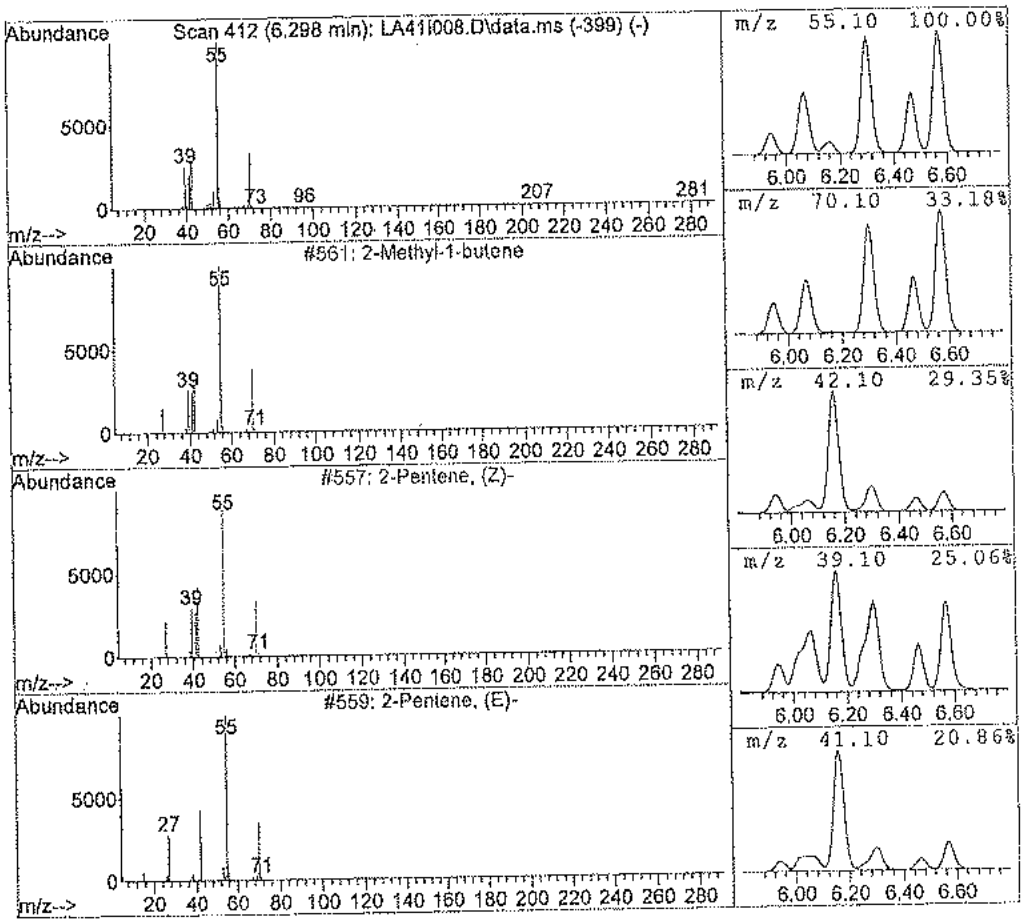
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.30	4.59 ppb	3411593	Bromochloromethane	14878126

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	~~2-Methyl-1-butene~~ L04-17-15	561	000563-46-2	91.00
2	~~2-Pentene~~, (Z)-	557	000627-20-3	91.00
3	~~2-Pentene~~, (E)-	559	000646-04-8	91.00
4	2-Pentene	550	000109-68-2	90.00
5	Cyclopropane, 1,2-dimethyl-, trans-	581	002402-06-4	90.00



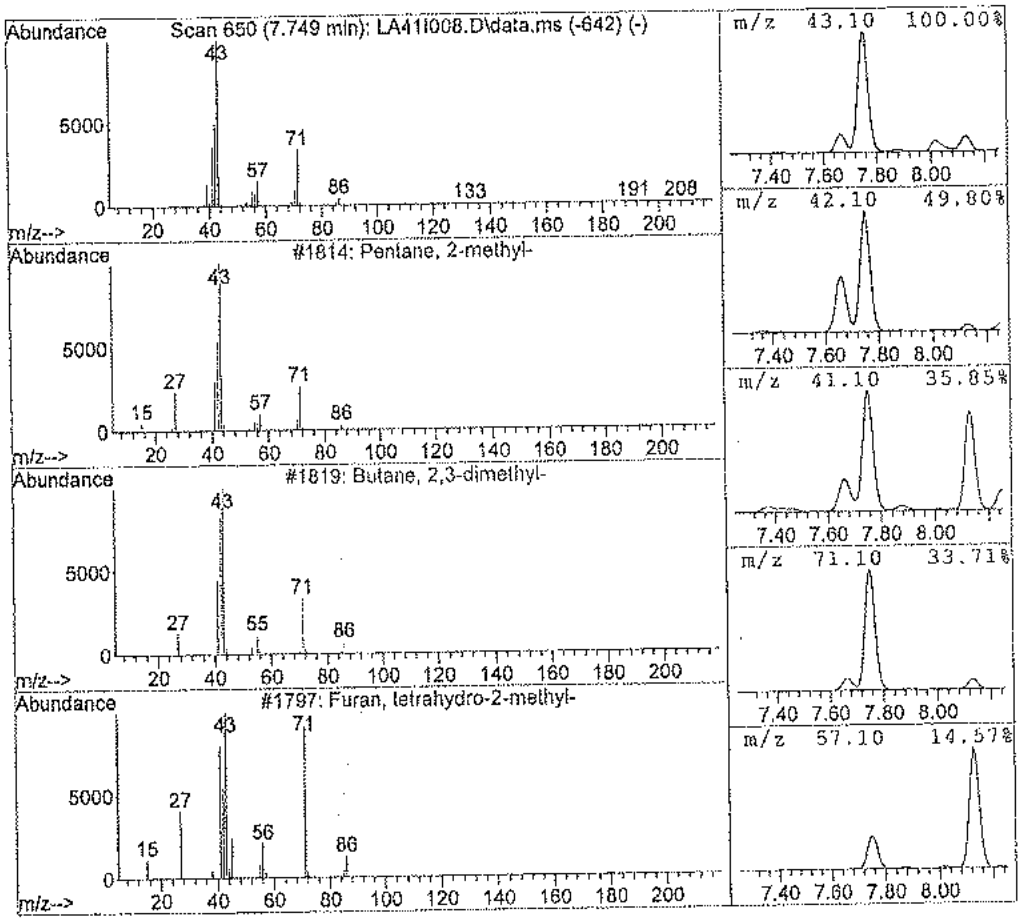
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.75	6.09 ppb	4533235	Bromochloromethane	14878126

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1814	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	50.00
3	Furan, tetrahydro-2-methyl-	1797	000096-47-9	35.00
4	Pentane	704	000109-66-0	33.00
5	Hexane, 2,3-dimethyl-	7563	000584-94-1	25.00



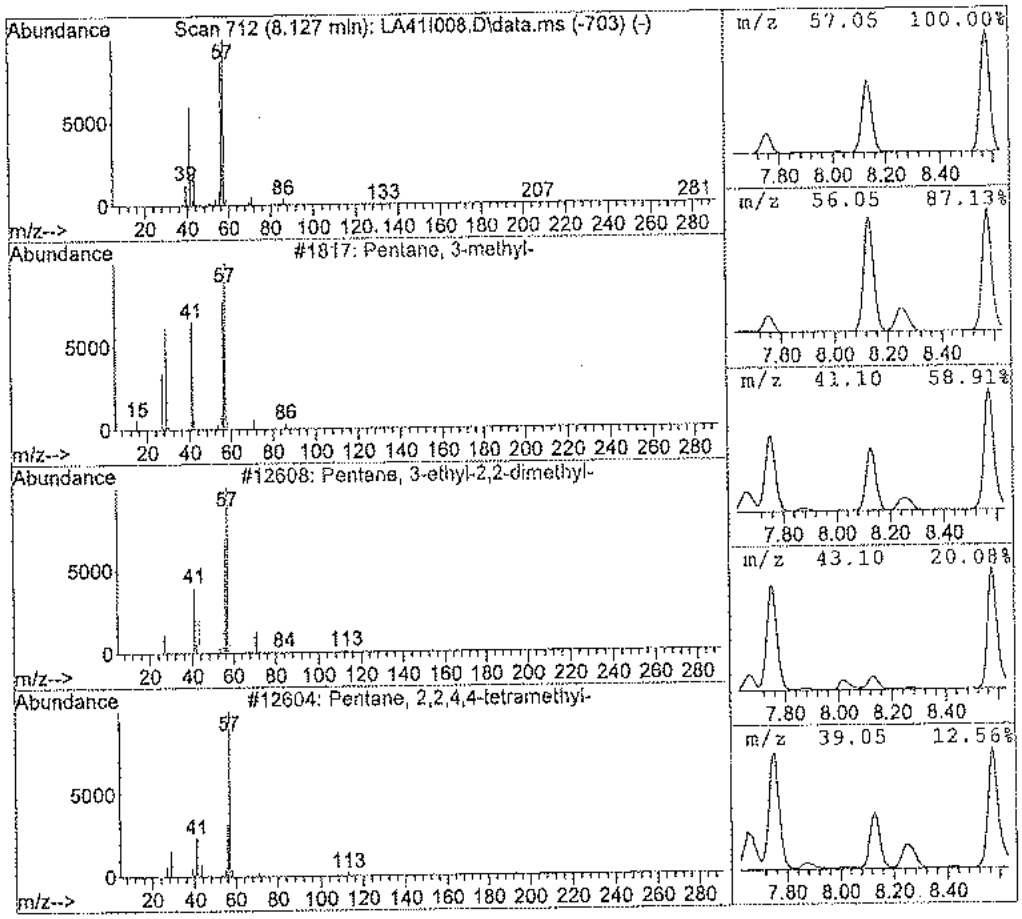
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.13	3.35 ppb	2490752	Bromochloromethane	14878126

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1817	000096-14-0	91.00
2	Pentane, 3-ethyl-2,2-dimethyl-	12608	016747-32-3	39.00
3	Pentane, 2,2,4,4-tetramethyl-	12604	001070-87-7	38.00
4	Oxirane, (1-methylethyl)-	1788	001438-14-8	38.00
5	Borinic acid, diethyl-	1630	004426-31-7	17.00



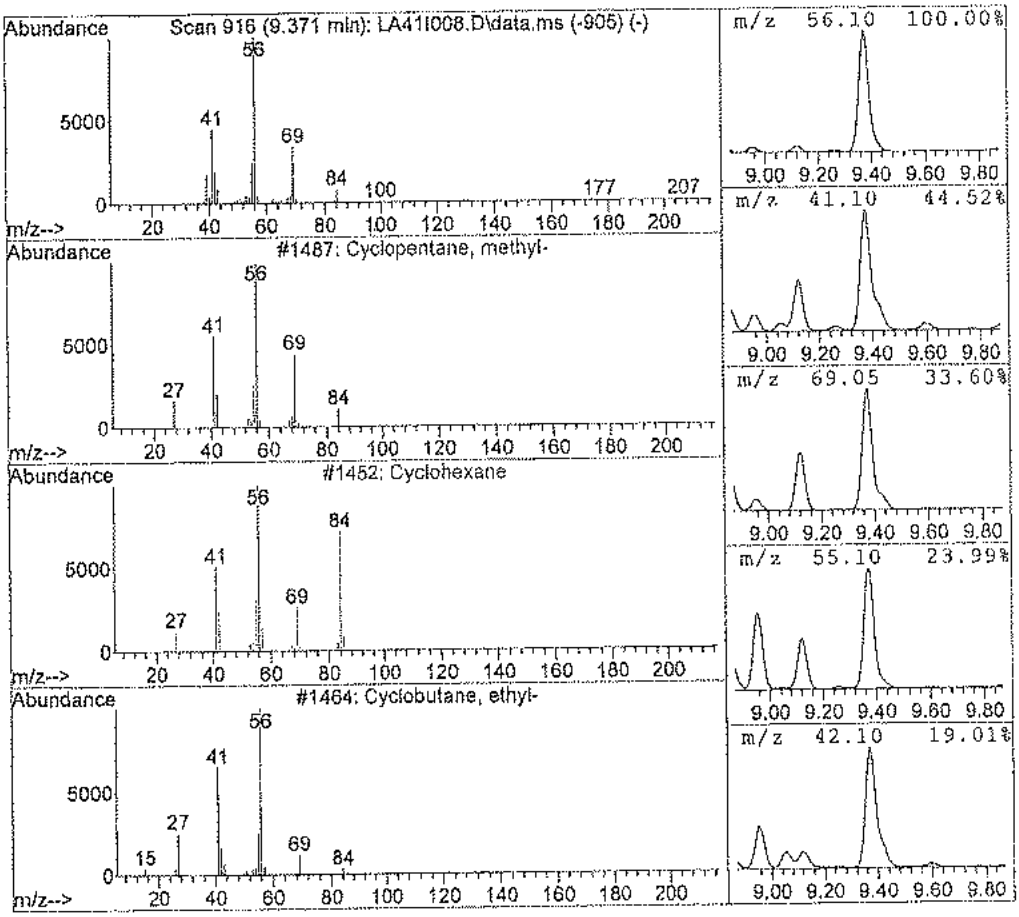
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.37	3.68 ppb	2735374	Bromochloromethane	14878126

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	94.00
2	Cyclohexane	1452	000110-82-7	90.00
3	Cyclobutane, ethyl-	1464	004806-61-5	83.00
4	Propane, 2-cyclopropyl-	1491	00363B-35-5	78.00
5	2H-Pyran-2,6(3H)-dione, dihydro-4,4	19262	004160-82-1	64.00



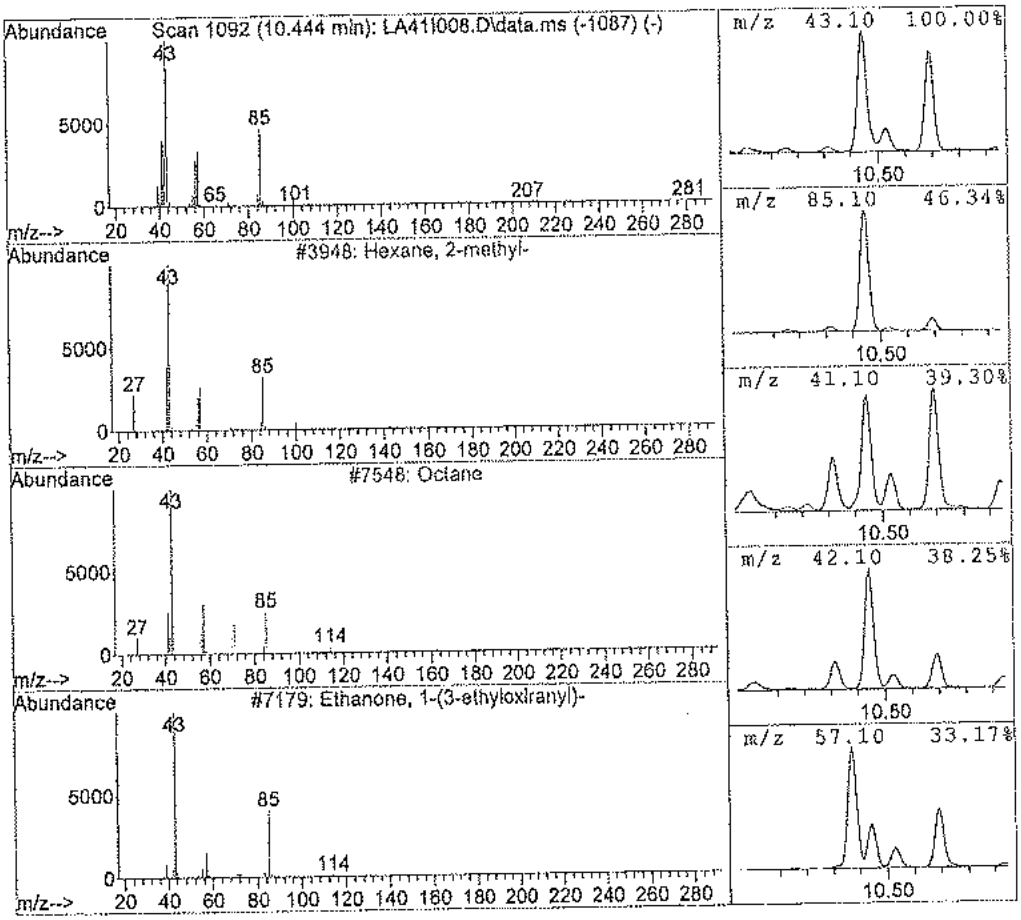
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TOM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.44	2.99 ppb	2221233	1,4-Difluorobenzene	14864794

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2-methyl-	3948	000591-76-4	90.00
2	Octane	7548	000111-65-9	50.00
3	Ethanone, 1-(3-ethyloxiranyl)-	7179	017257-81-7	43.00
4	Pentane, 2,4-dimethyl-	3958	000108-08-7	43.00
5	Heptane, 3,4,5-trimethyl-	18966	020278-89-1	37.00



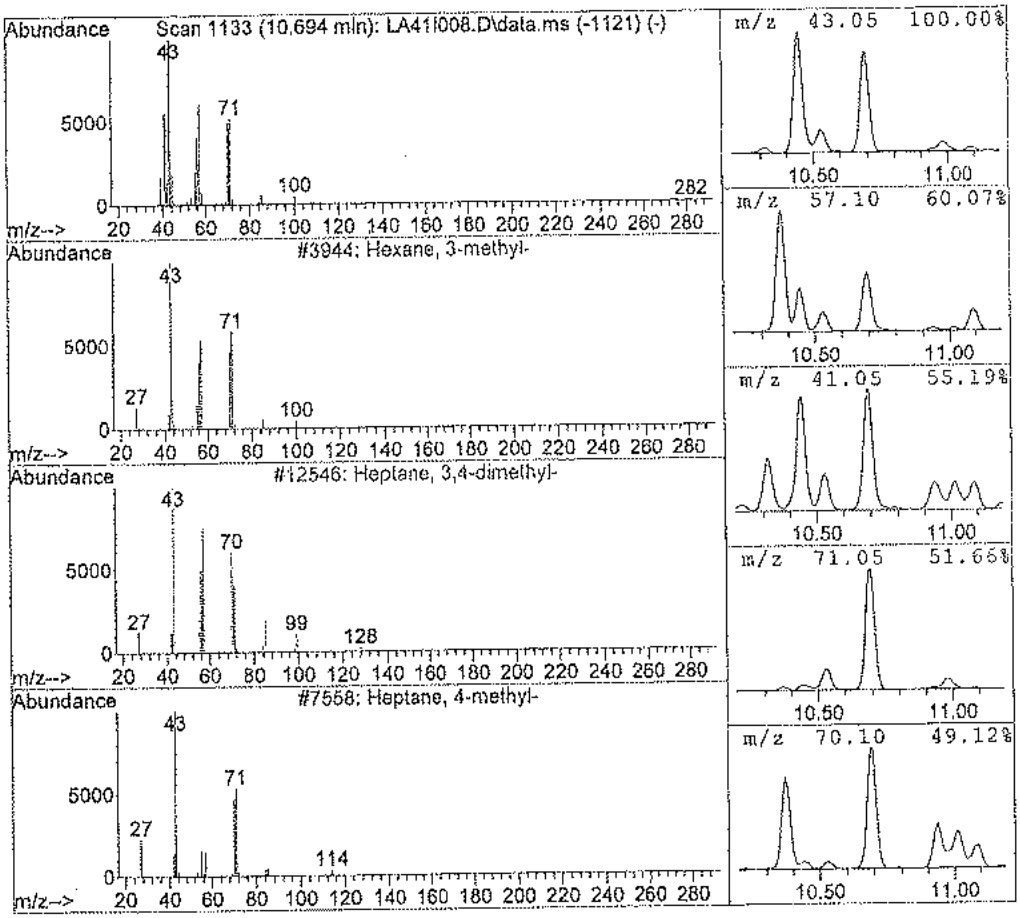
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.69	3.39 ppb	2516261	1,4-Difluorobenzene	14864794

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 3-methyl-	3944	000589-34-4	91.00
2	Heptane, 3,4-dimethyl-	12546	000922-28-1	59.00
3	Heptane, 4-methyl-	7558	000589-53-7	53.00
4	Oxalic acid, isobutyl pentyl ester	71323	1000309-37-0	43.00
5	Pentane, 2,3,4-trimethyl-	7586	000565-75-3	40.00



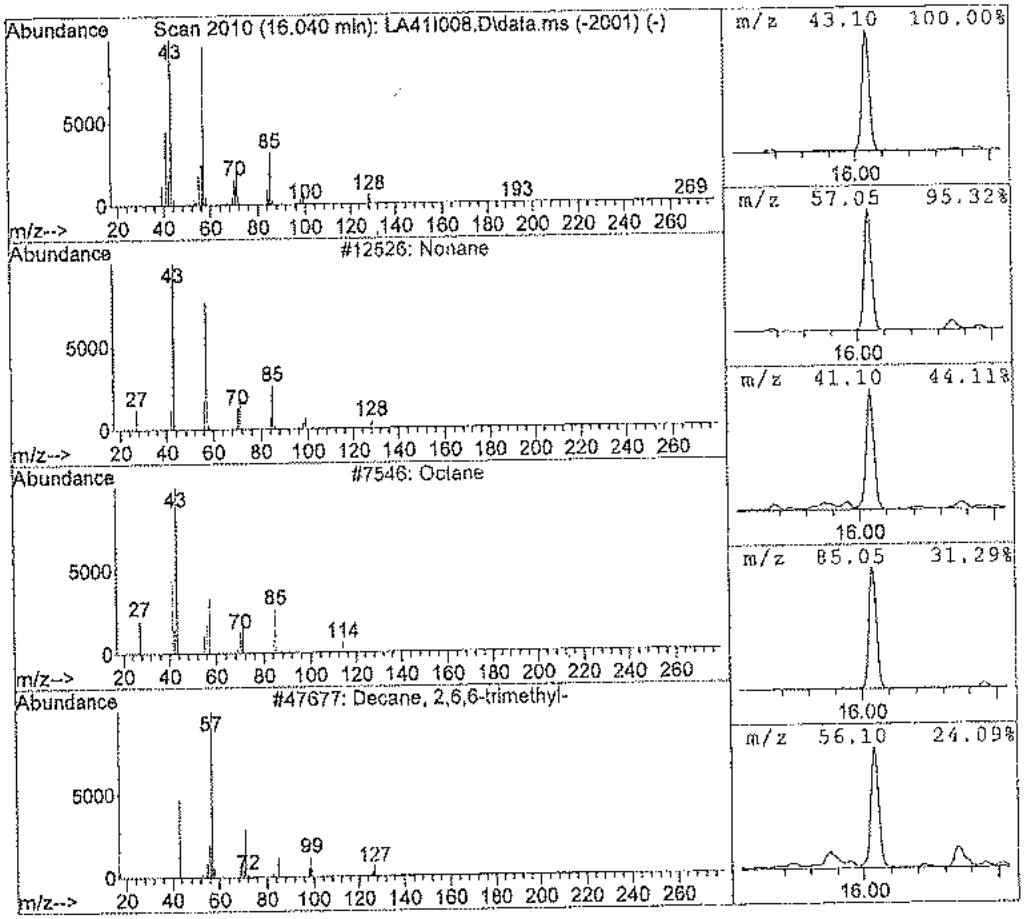
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.04	7.55 ppb	6348378	Chlorobenzene d5	16810171

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12526	000111-84-2	97.00
2	Octane	7546	000111-65-9	59.00
3	Decane, 2,6,6-trimethyl-	47677	062108-24-1	53.00
4	Hexane, 2,4-dimethyl-	7568	000589-43-5	53.00
5	Octane, 3,5-dimethyl-	18937	015869-93-9	53.00



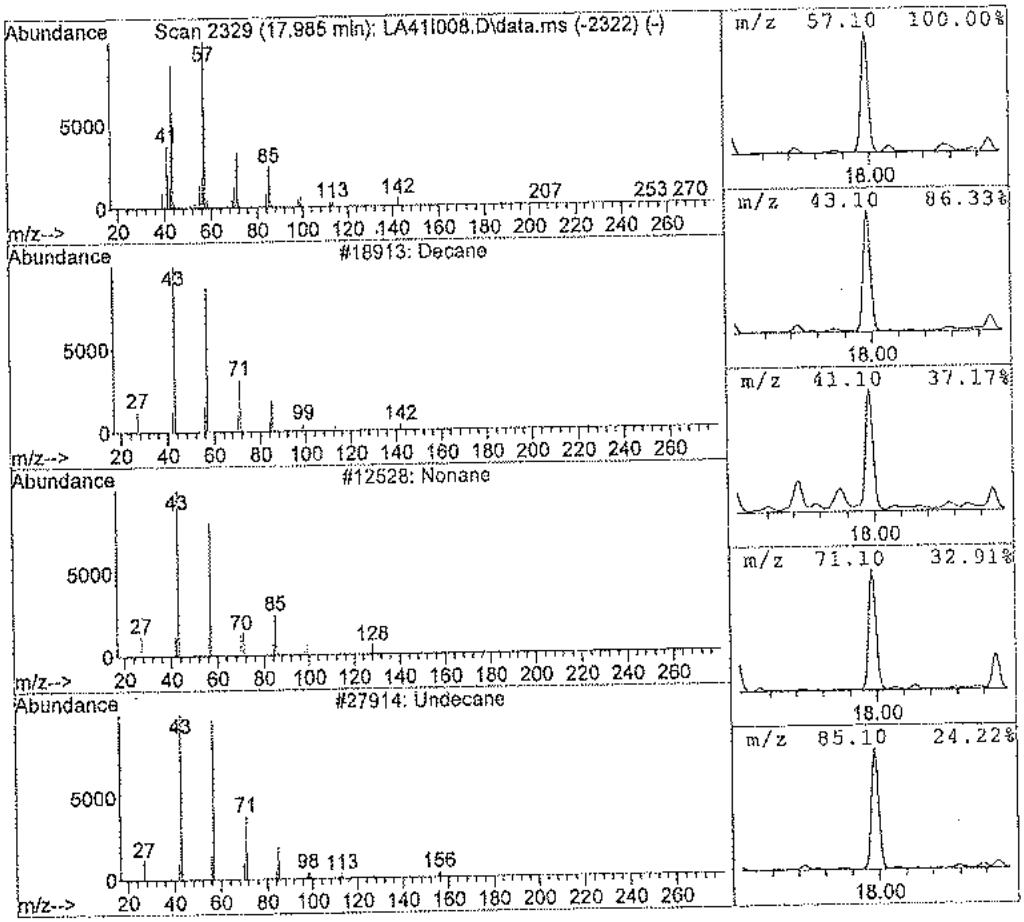
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.99	6.05 ppb	5086284	Chlorobenzene d5	16810171

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18913	000124-18-5	95.00
2	Nonane	12528	000111-84-2	72.00
3	Undecane	27914	001120-21-4	72.00
4	1-Octanol, 2-butyl-	49049	003913-02-8	64.00
5	Decane, 2,3,6-trimethyl-	47672	062238-12-4	59.00



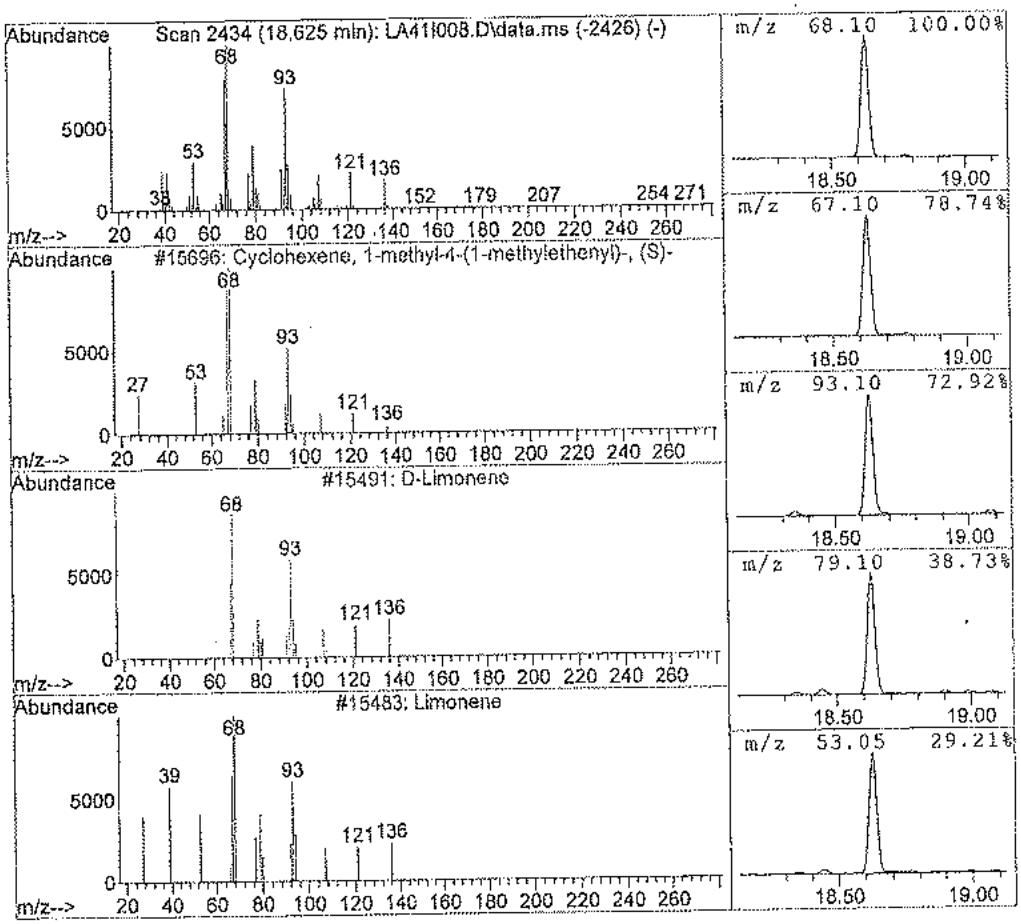
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA41I008.D Vial: 9
Acq Time : 04/15/2015 20:39 Operator: TJM
Sample : 1510353008 Inst : 5975-L
Misc : TO-003-BBB 0122 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.63	17.55 ppb	14750487	Chlorobenzene d5	16810171

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	96.00
2	D-Limonene	15491	005989-27-5	93.00
3	Limonene	15483	000138-86-3	91.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	76.00
5	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	58.00

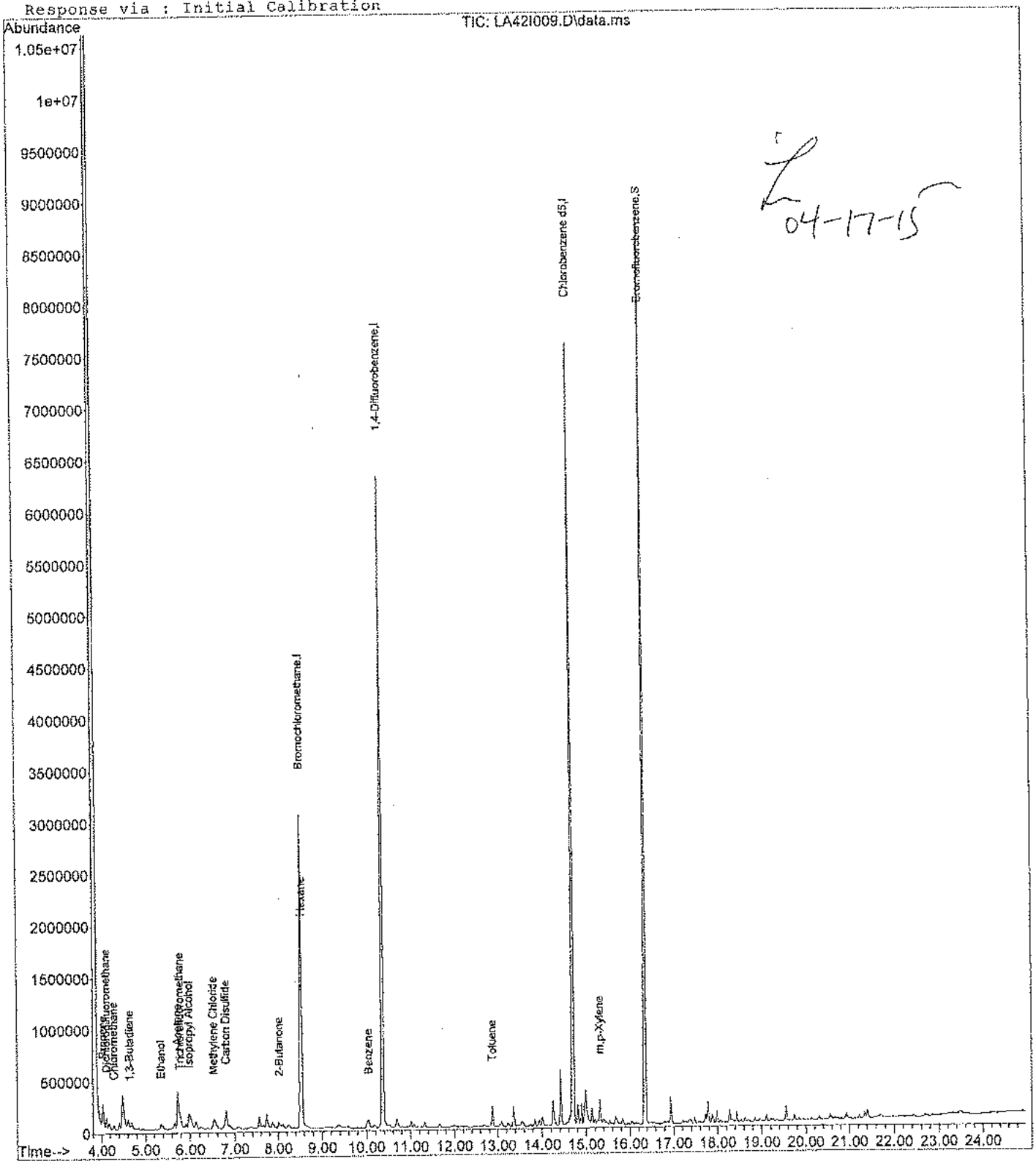


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA42I009.D Vial: 10
Acq Time : 04/15/2015 21:29 Operator: TJM
Sample : 1510353009 Inst : 5975-L
Misc : SG-001-4 0144 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:44:37 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA42I009.D Vial: 10
Acq Time : 04/15/2015 21:29 Operator: TJM
Sample : 1510353009 Inst : 5975-L
Misc : SG-001-4 0144 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:44:37 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	511296	20.0000 ppb	105.27
25) 1,4-Difluorobenzene	10.36	114	6085057	20.0000 ppb	100.30
50) Chlorobenzene d5	14.69	117	5127858	20.0000 ppb	99.28
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4076795	19.9633 ppb	99.82%
Target Compounds					Qvalue
2) Propene	4.02	41	98730	1.3627 ppb	90 TCL/Oc
3) Dichlorodifluoromethane	4.12	85	128955	0.5217 ppb	98
4) Chloromethane	4.29	50	60723	0.5753 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.65	54	14377	0.1793 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.73	43	682712	4.0387 ppb #	77
12) Trichlorofluoromethane	5.79	101	62529	0.2345 ppb	99
13) Ethanol	5.35	45	118109	3.4945 ppb #	77 TIC
14) Isopropyl Alcohol	5.98	45	453025	1.5795 ppb	99 TCL/Oc
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.51	84	21262	0.2458 ppb #	54
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.80	76	415597	1.5693 ppb #	62
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.02	43	135275	0.6302 ppb #	71
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.56	57	41359	0.2429 ppb #	86
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.05	78	62401	0.2079 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	164846	0.4525 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration
LA42I009.D TO15LB15.m Thu Apr 16 16:03:17 2015

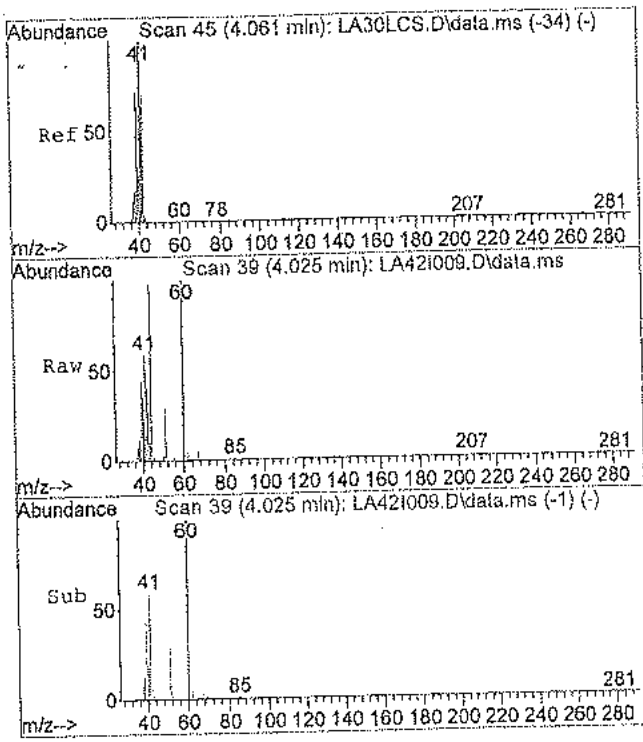
Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA42I009.D Vial: 10
Acq Time : 04/15/2015 21:29 Operator: TJM
Sample : 1510353009 Inst : 5975-L
Misc : SG-001-4 0144 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:44:37 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

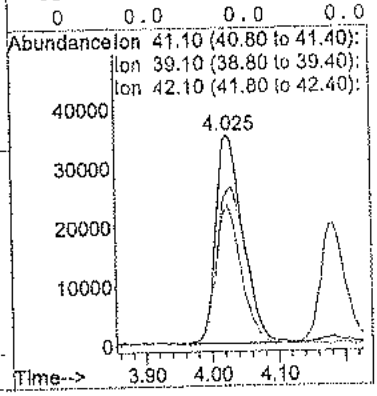
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.31	91	88675	0.2435 ppb	90
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

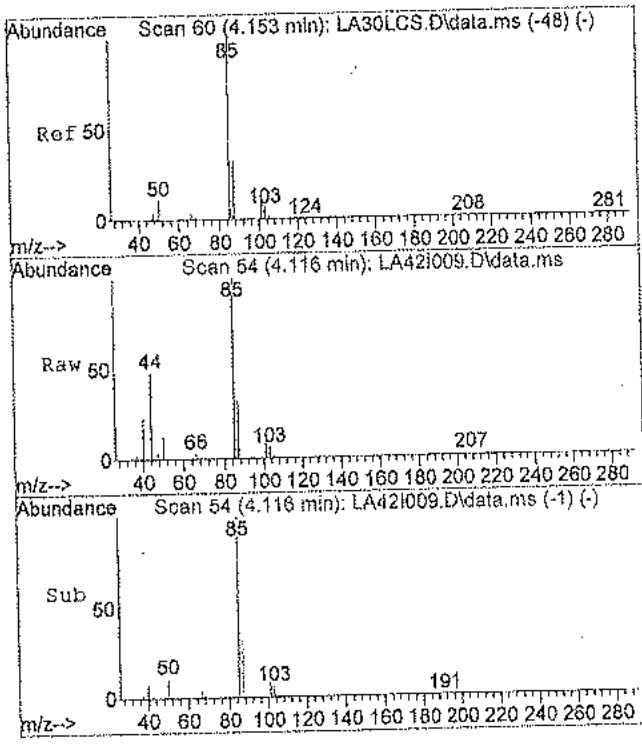


#2
Propene
Concen: 1.36 ppb
RT: 4.02 min Scan# 39
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:41.1 Resp: 98730

Ion	Ratio	Lower	Upper
41	100		
39	82.1	56.2	84.4
42	63.4	53.8	80.6
0	0.0	0.0	0.0

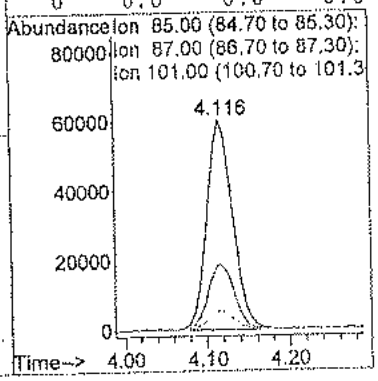


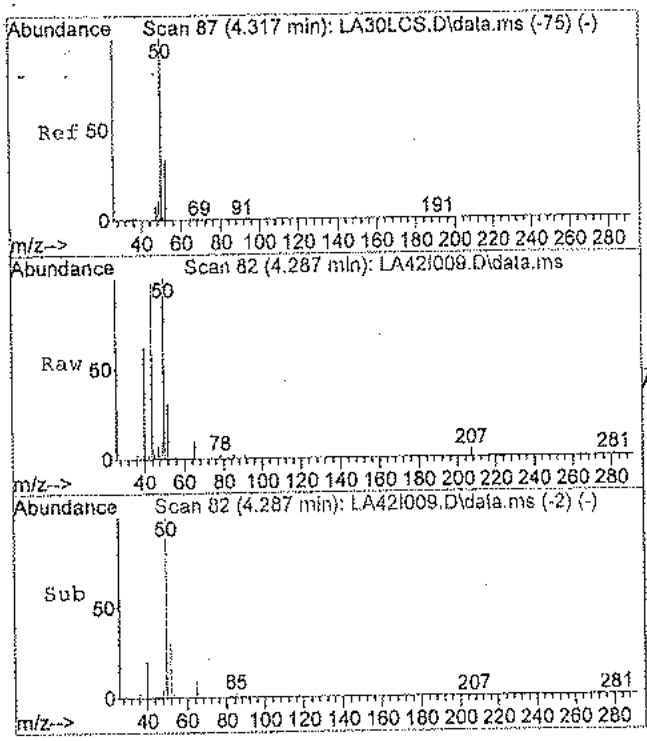


#3
Dichlorodifluoromethane
Concen: 0.52 ppb
RT: 4.12 min Scan# 54
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:85 Resp: 128955

Ion	Ratio	Lower	Upper
85	100		
87	31.9	26.1	39.1
101	8.9	8.0	12.0
0	0.0	0.0	0.0

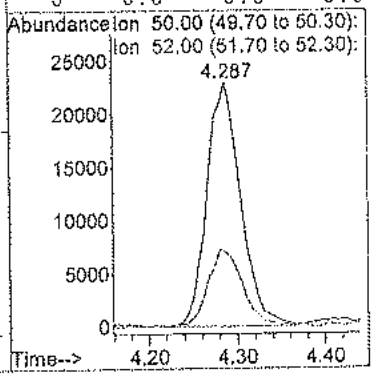


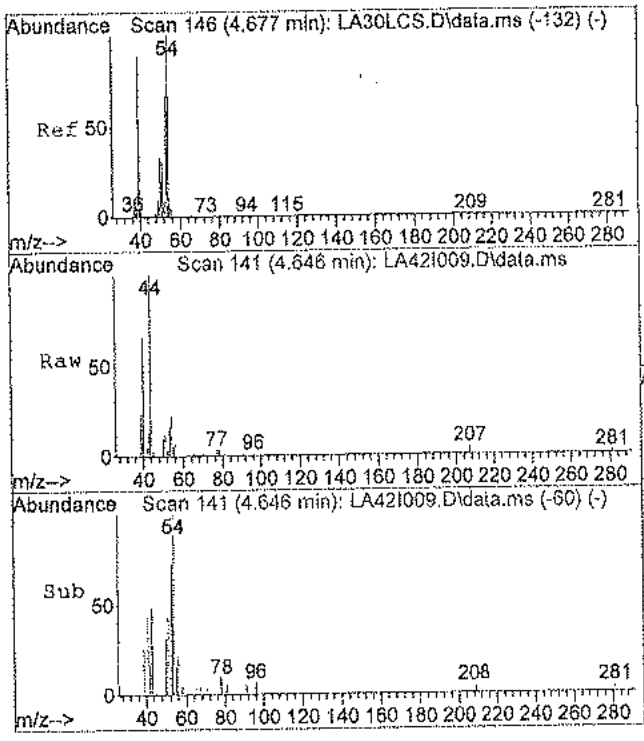


#4
Chloromethane
Concen: 0.58 ppb
RT: 4.29 min Scan# 82
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:50 Resp: 60723

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

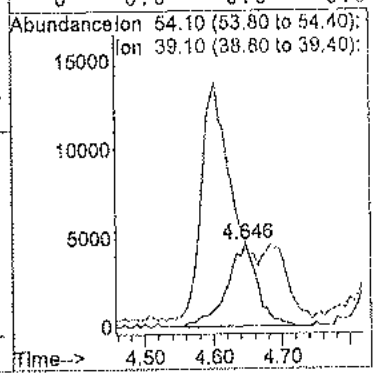


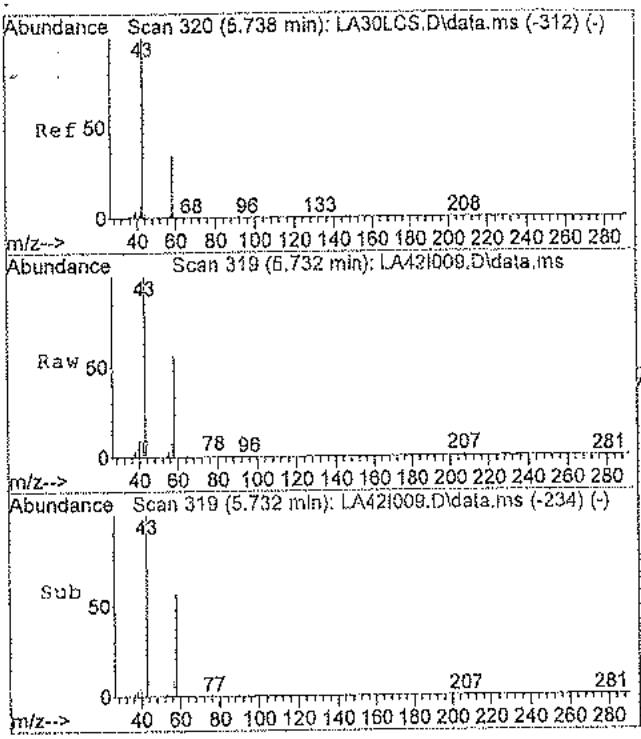


#7
1,3-Butadiene
Concen: 0.18 ppb
RT: 4.65 min Scan# 141
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:54.1 Resp: 14377

Ion	Ratio	Lower	Upper
54	100		
39	0.0	59.8	89.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

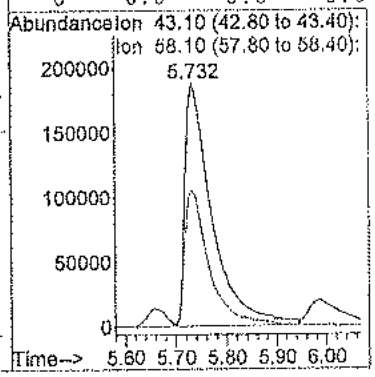


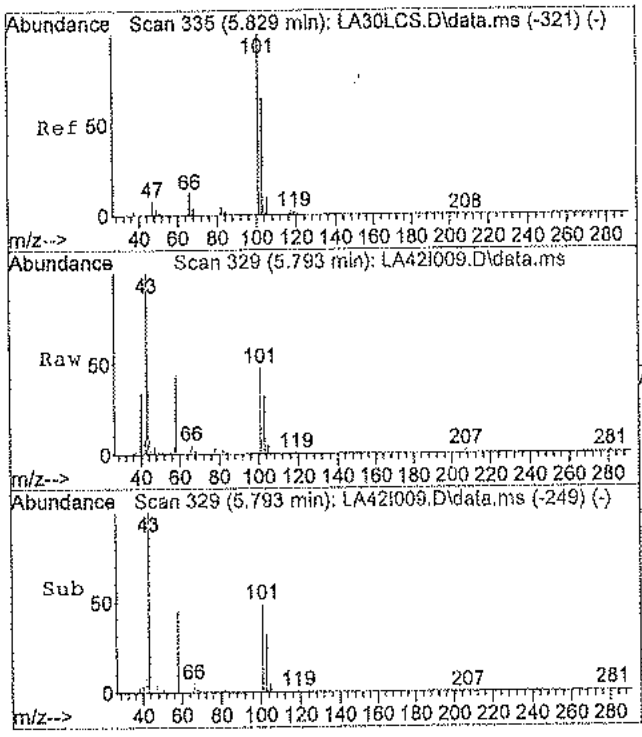


#11
Acetone
Concen: 4.04 ppb
RT: 5.73 min Scan# 319
Delta R.T. 0.02 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:43.1 Resp: 682712

Ion	Ratio	Lower	Upper
43	100		
58	52.3	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

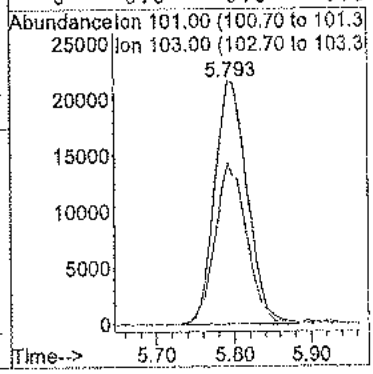


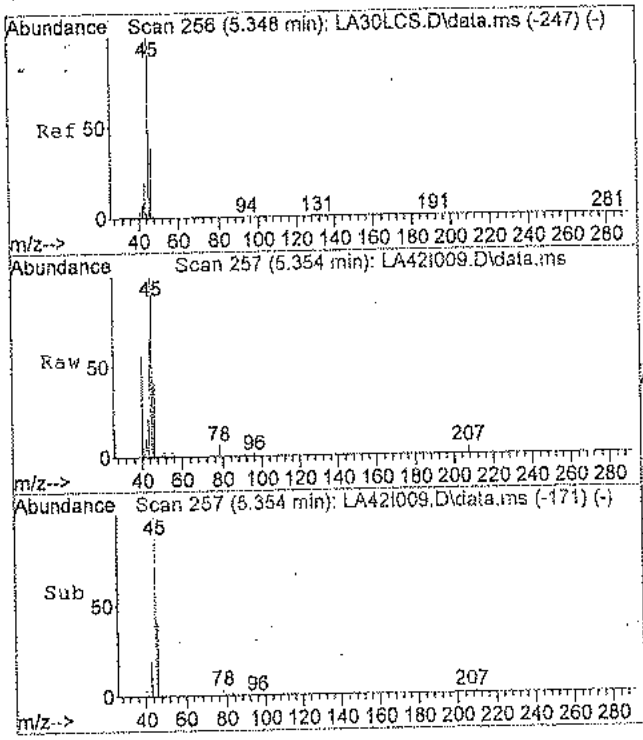


#12
Trichlorofluoromethane
Concen: 0.23 ppb
RT: 5.79 min Scan# 329
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:101 Resp: 62529

Ion	Ratio	Lower	Upper
101	100		
103	64.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

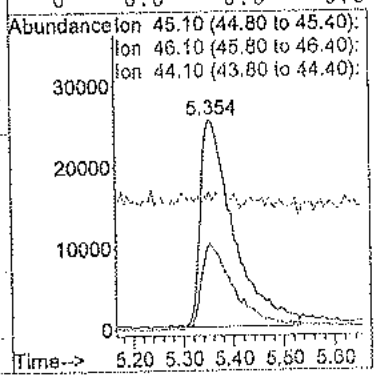


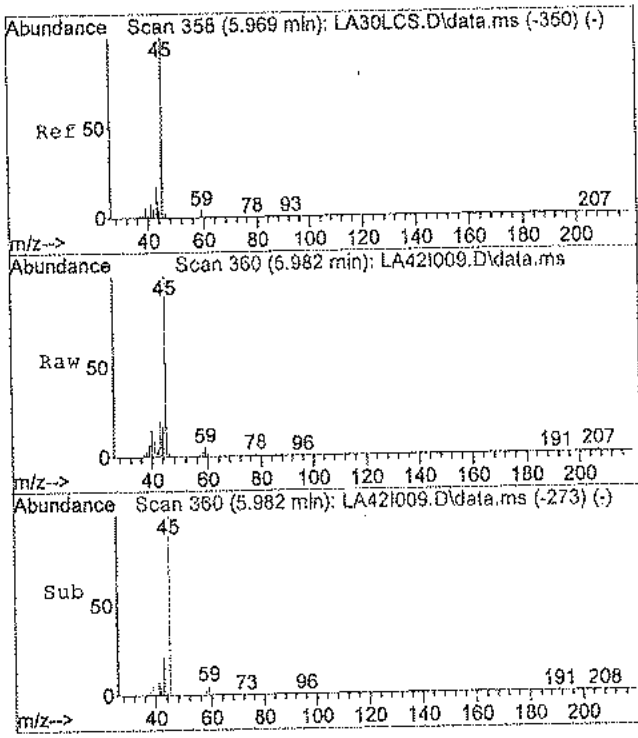


#13
Ethanol
Concen: 3.49 ppb
RT: 5.35 min Scan# 257
Delta R.T. 0.02 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:45.1 Resp: 118109

Ion	Ratio	Lower	Upper
45	100		
46	40.5	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

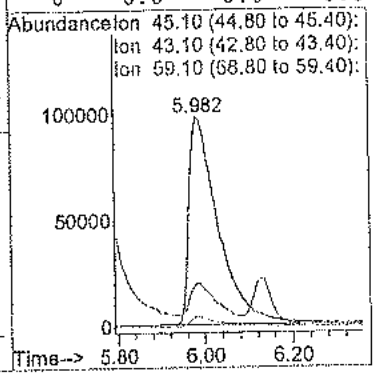


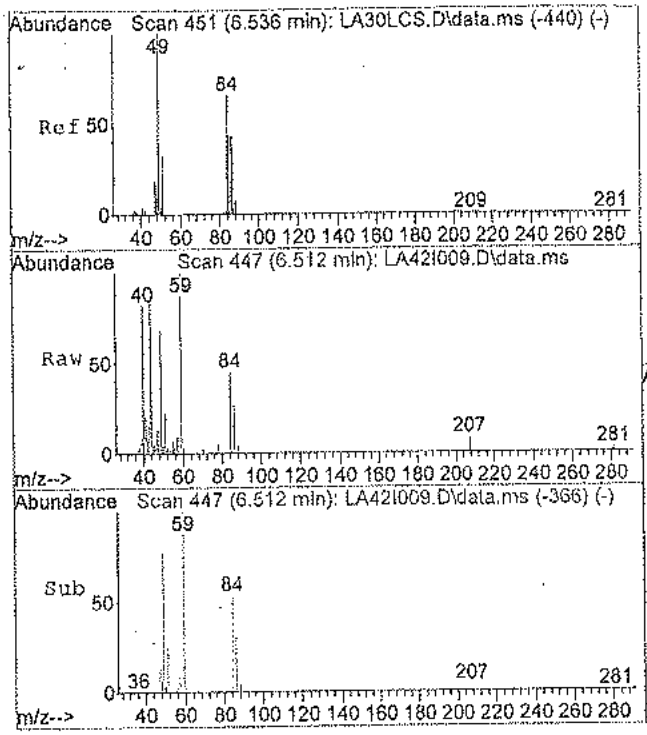


#14
Isopropyl Alcohol
Concen: 1.58 ppb
RT: 5.98 min Scan# 360
Delta R.T. 0.03 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:45.1 Resp: 453025

Ion	Ratio	Lower	Upper
45	100		
43	19.5	15.8	23.6
59	4.2	3.2	4.8
0	0.0	0.0	0.0

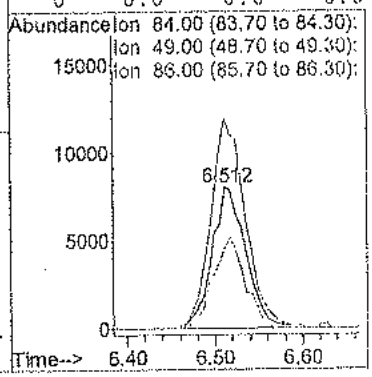


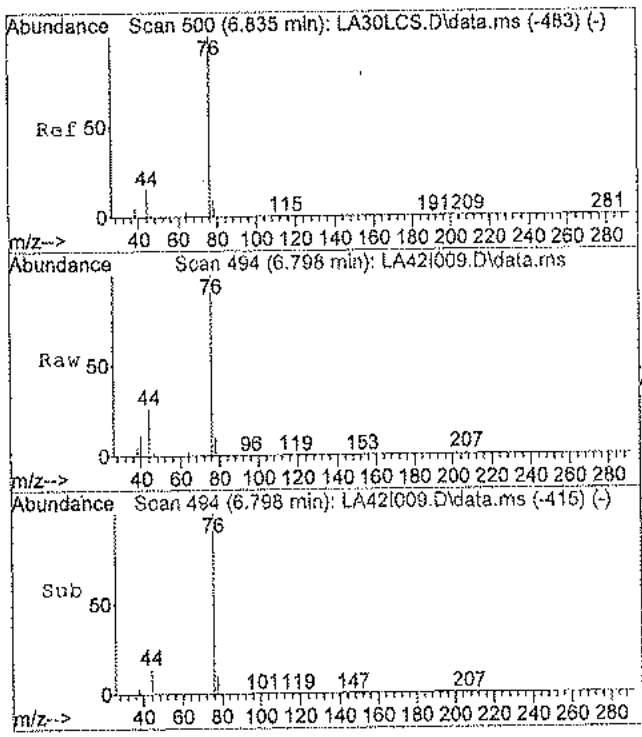


#16
Methylene Chloride
Concen: 0.25 ppb
RT: 6.51 min Scan# 447
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:84 Resp: 21262

Ion	Ratio	Lower	Upper
84	100		
49	152.9	66.6	100.0#
86	60.8	51.6	77.4
0	0.0	0.0	0.0

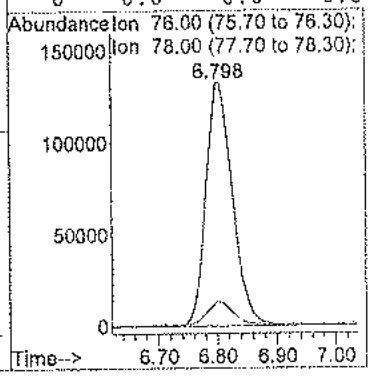


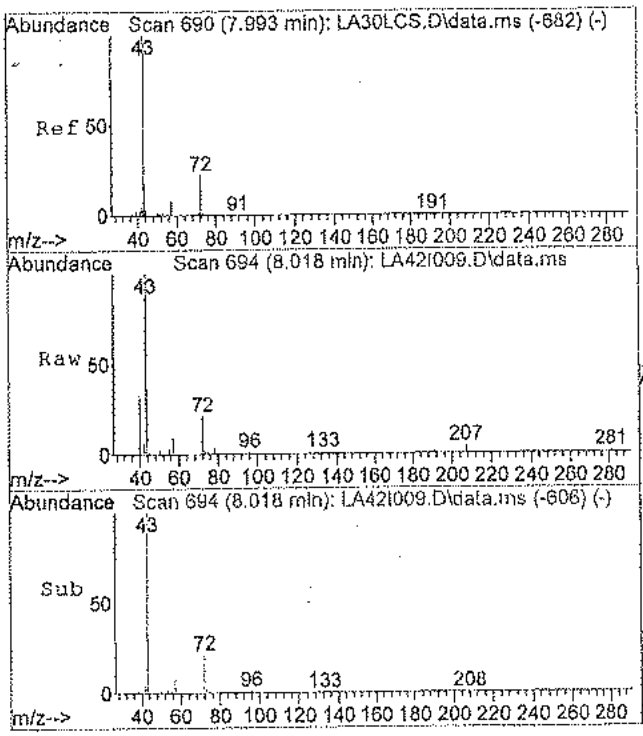


#18
Carbon Disulfide
Concen: 1.57 ppb
RT: 6.80 min Scan# 494
Delta R.T. -0.02 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:76 Resp: 415597

Ion	Ratio	Lower	Upper
76	100		
78	9.6	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

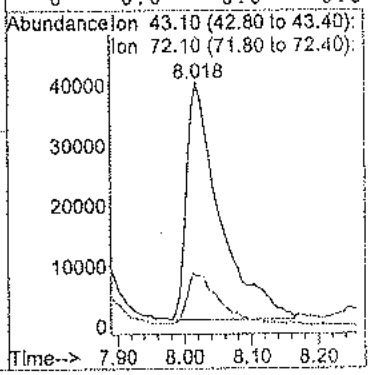


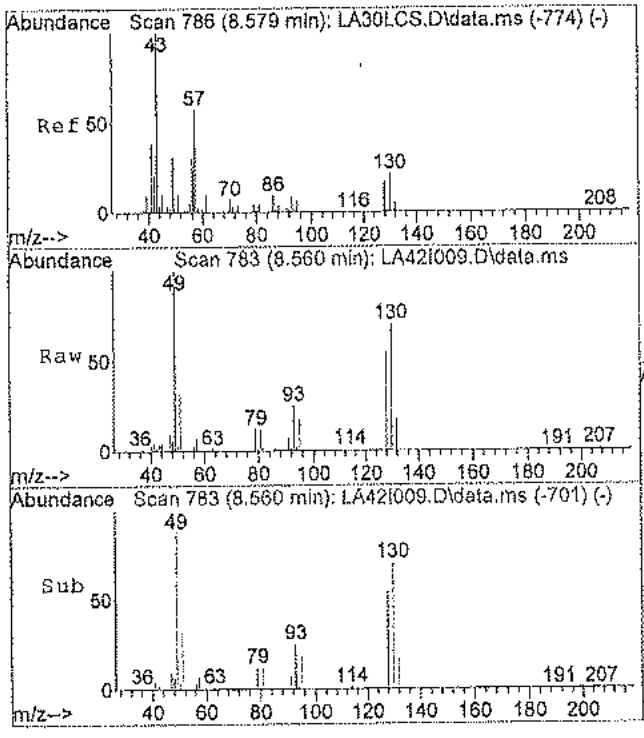


#23
2-Butanone
Concen: 0.63 ppb
RT: 8.02 min Scan# 694
Delta R.T. 0.04 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:43.1 Resp: 135275

Ion	Ratio	Lower	Upper
43	100		
72	21.0	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

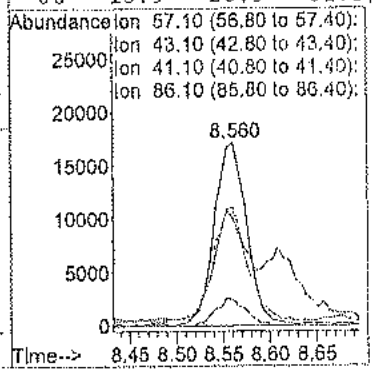


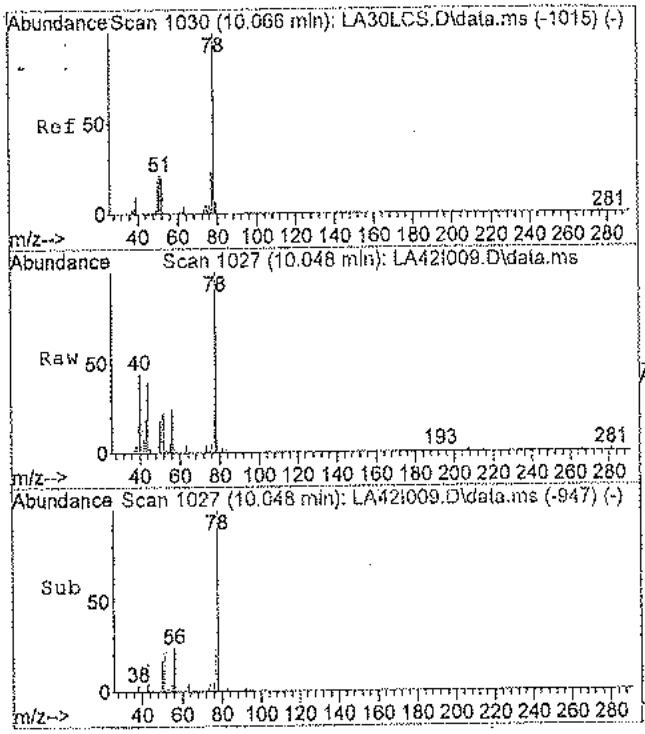


#27
Hexane
Concen: 0.24 ppb
RT: 8.56 min Scan# 783
Delta R.T. 0.00 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:57.1 Resp: 41359

Ion	Ratio	Lower	Upper
57	100		
43	60.1	57.3	85.9
41	66.3	47.0	70.4
86	13.9	20.9	31.3#

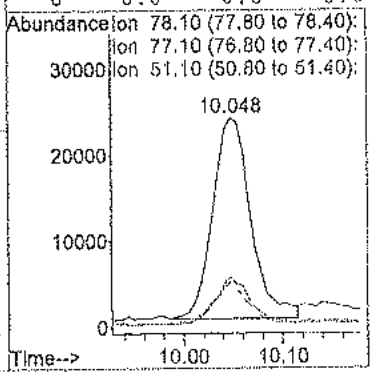


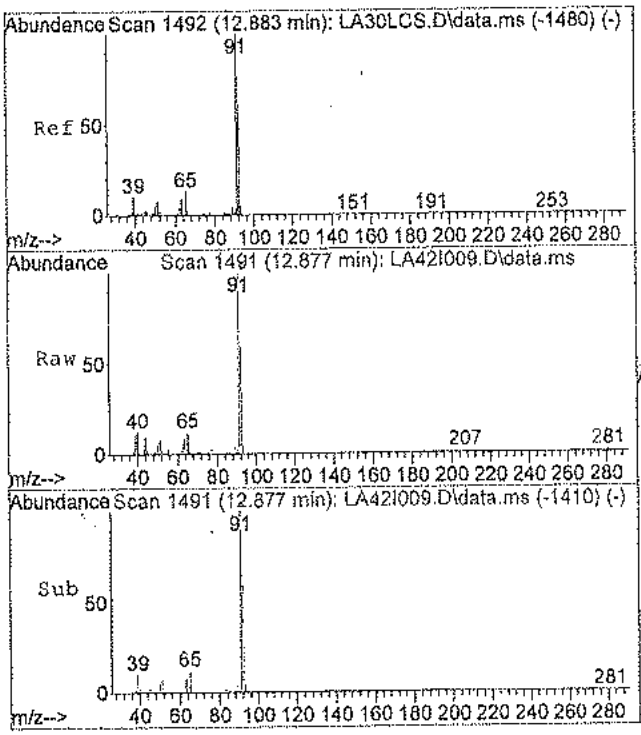


#32
Benzene
Concen: 0.21 ppb
RT: 10.05 min Scan# 1027
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:78.1 Resp: 62401

Ion	Ratio	Lower	Upper
78	100		
77	21.4	18.2	27.4
51	19.5	9.5	14.3#
0	0.0	0.0	0.0

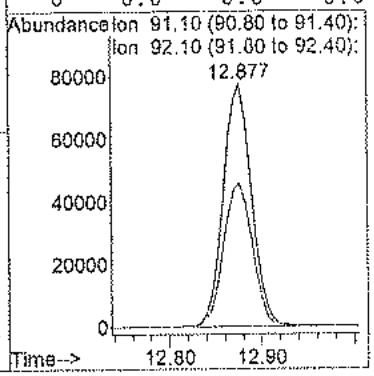


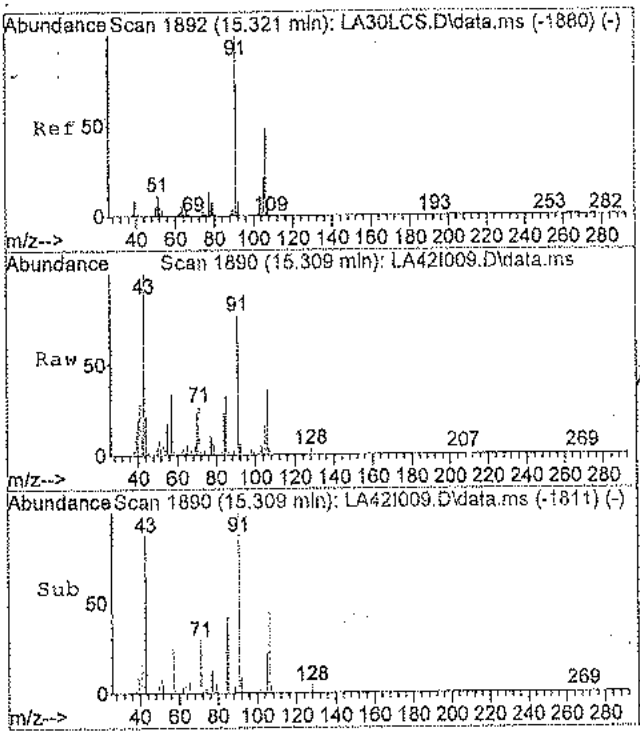


#45
Toluene
Concen: 0.45 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:91.1 Resp: 164846

Ion	Ratio	Lower	Upper
91	100		
92	60.4	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

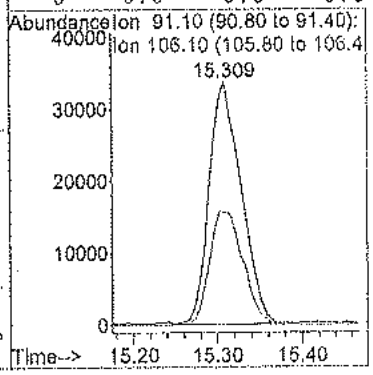




#53
m,p-Xylene
Concen: 0.24 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA42I009.D
Acq: 04/15/2015 21:29

Tgt Ion:91.1 Resp: 88675

Ion	Ratio	Lower	Upper
91	100		
106	48.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

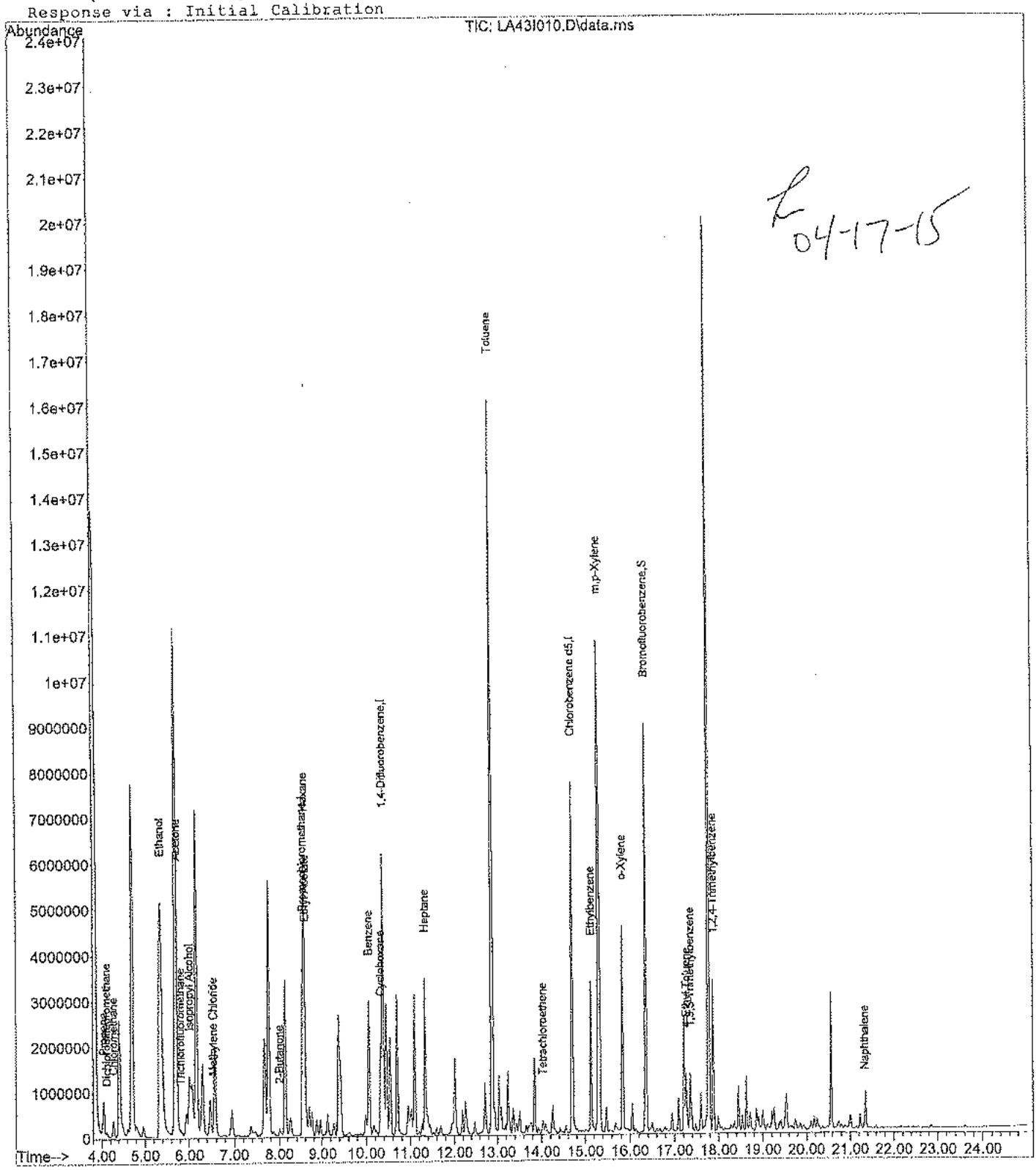


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:46:22 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:46:22 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.54	130	500160	20.0000 ppb		102.98
25) 1,4-Difluorobenzene	10.38	114	6018854	20.0000 ppb		99.21
50) Chlorobenzene d5	14.70	117	5081656	20.0000 ppb		98.38
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.35	95	4029631	19.9118 ppb		99.56%
Target Compounds						Qvalue
2) Propene	4.04	41	271596	3.8321 ppb	#	55
3) Dichlorodifluoromethane	4.11	85	128553	0.5316 ppb		98
4) Chloromethane	4.27	50	71560	0.6931 ppb		95
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.73	43	844526	5.1072 ppb	m	56
12) Trichlorofluoromethane	5.82	101	83190	0.3189 ppb		99
13) Ethanol	5.35	45	14936260	451.7534 ppb	#	78
14) Isopropyl Alcohol	6.01	45	3301900	11.7687 ppb		93
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	6.53	84	19427	0.2296 ppb	#	7
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	0.00	76		Not Detected		
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	8.01	43	283180	1.3487 ppb	#	72
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	8.60	61	20505	0.5819 ppb	#	1
27) Hexane	8.58	57	3730333	22.1522 ppb	#	87
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	10.06	78	3188021	10.7391 ppb	#	92
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	10.32	84	918827	6.8789 ppb	#	29
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	0.00	130		Not Detected		
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	11.33	71	900797	8.7248 ppb	#	44
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected		
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	12.88	91	14046640	38.9811 ppb		95
46) 2-Hexanone	0.00	43		Not Detected		
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	14.03	166	76839	0.4323 ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:46:22 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	2959422	6.3218 ppb	92
53) m,p-Xylene	15.31	91	10049852	27.8474 ppb	89
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.83	91	3404502	9.2675 ppb	90
59) 4-Ethyl Toluene	17.27	105	890548	1.8092 ppb	96
60) 1,3,5-Trimethylbenzene	17.36	105	753154	1.7834 ppb	92
61) 1,2,4-Trimethylbenzene	17.88	105	2323889	5.4850 ppb	92
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	21.33	128	98341	0.2708 ppb #	90 77 L/10
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

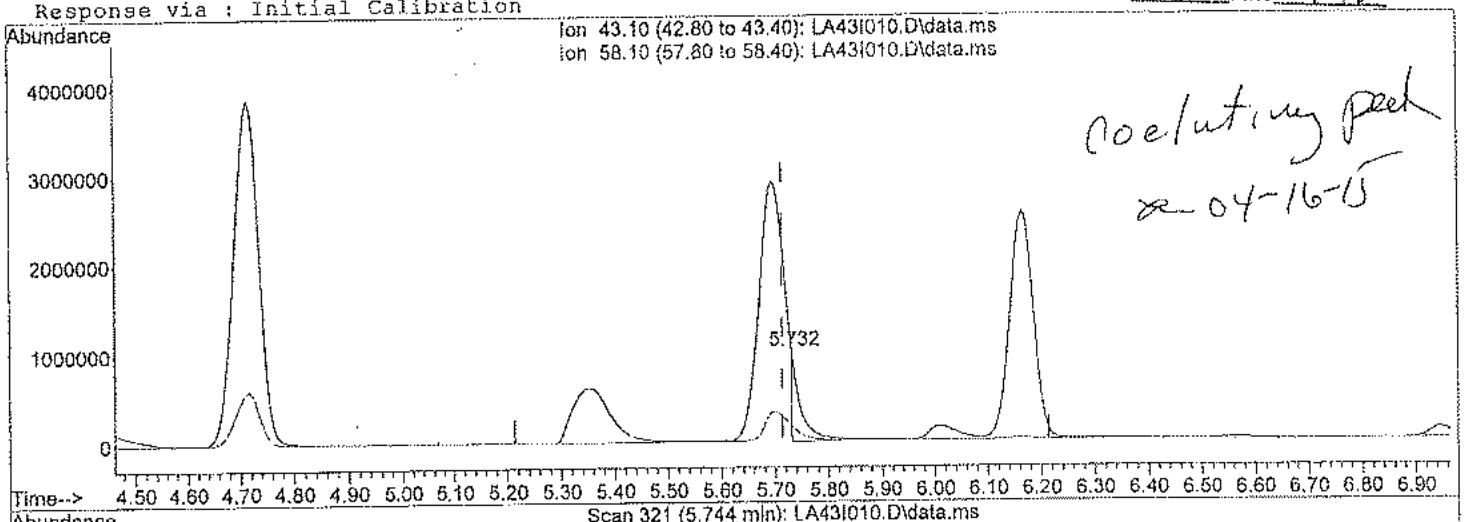
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

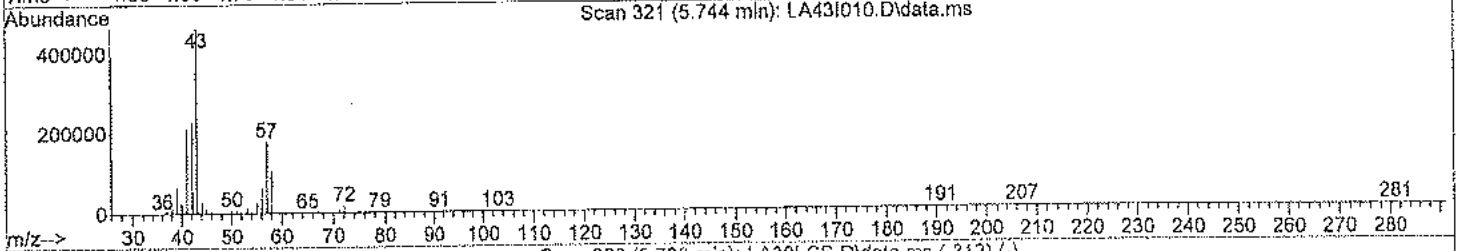
Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA43I010.D
Acq On : 04/15/2015 22:18
Operator : TJM
Sample : 1510353010
Inst : 5975-L
Misc : TO-001-BAS 0384
ALS Vial : 11 Sample Multiplier: 1

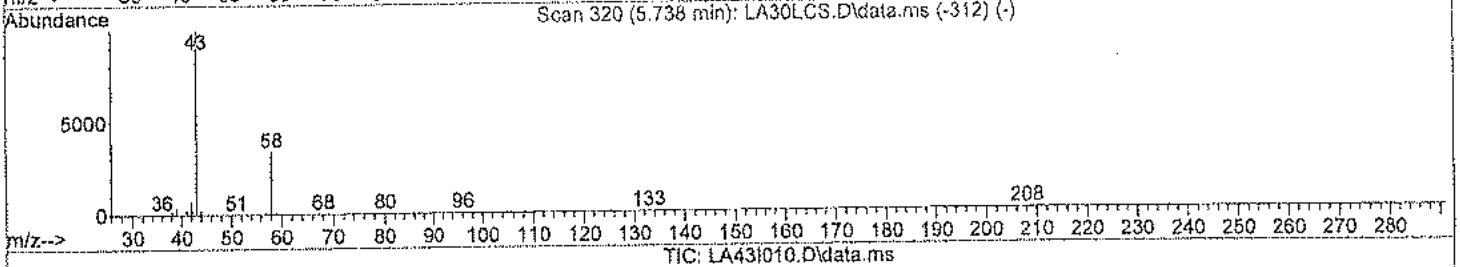
Quant Time: Apr 16 08:26:12 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
04-16-15
☑ missed peak assignment
☐ assigned incorrect name to peak
☒ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 04-16-15



coeluting peak
04-16-15





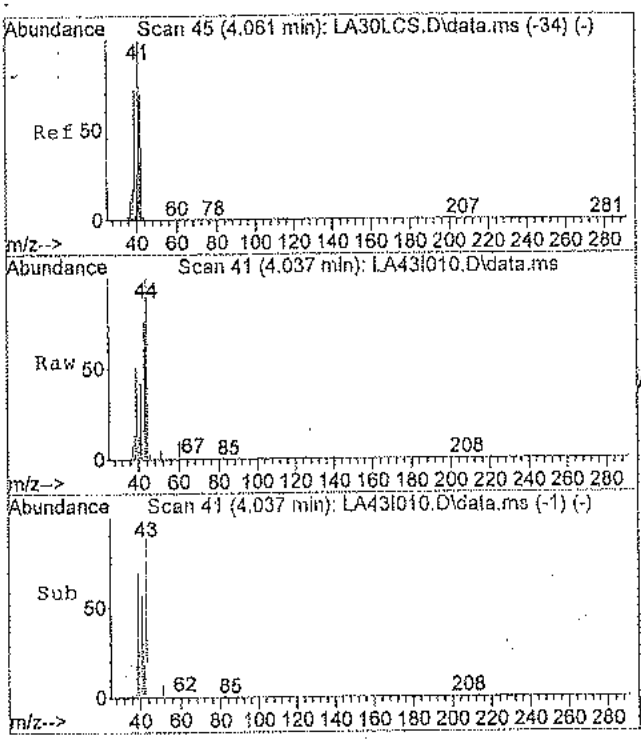
TIC: LA43I010.D\data.ms

(11) Acetone

5.732min (+ 0.018) 5.11 ppb m

response 844526

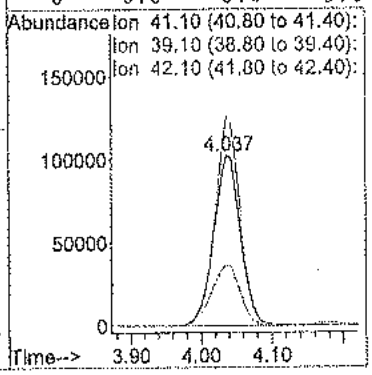
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	144.39#
0.00	0.00	0.00
0.00	0.00	0.00

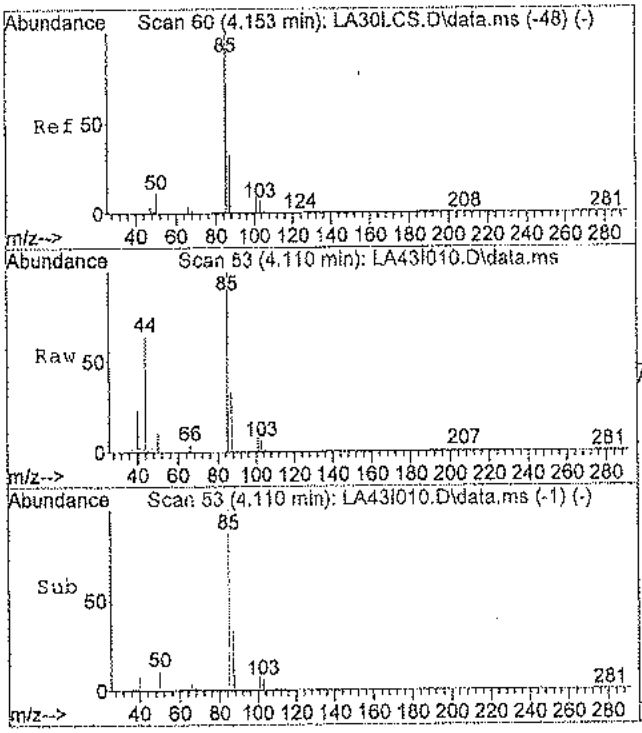


#2
Propene
Concen: 3.83 ppb
RT: 4.04 min Scan# 41
Delta R.T. 0.00 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:41.1 Resp: 271596

Ion	Ratio	Lower	Upper
41	100		
39	115.6	56.2	84.4#
42	39.5	53.8	80.6#
0	0.0	0.0	0.0

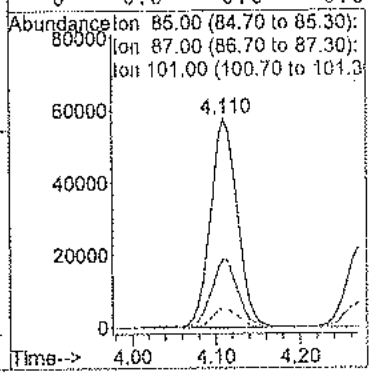


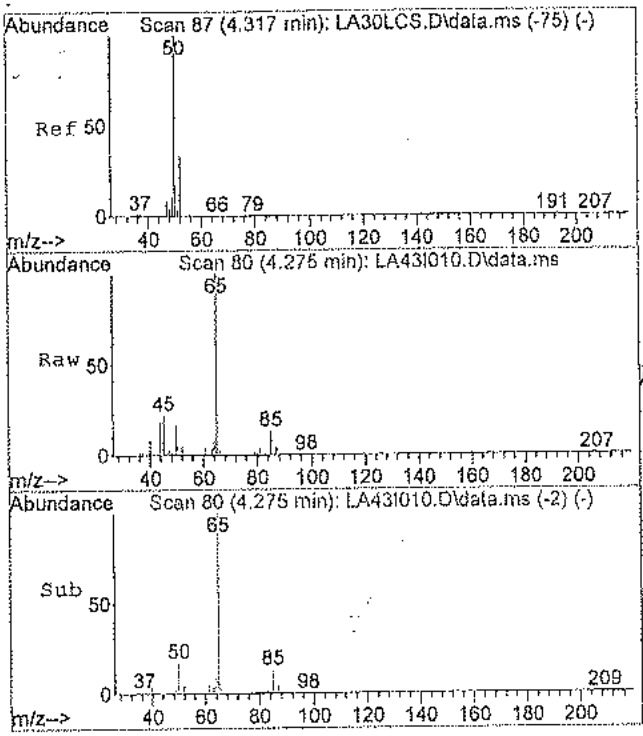


#3
Dichlorodifluoromethane
Concen: 0.53 ppb
RT: 4.11 min Scan# 53
Delta R.T. -0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:85 Resp: 128553

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.1	39.1
101	8.7	8.0	12.0
0	0.0	0.0	0.0

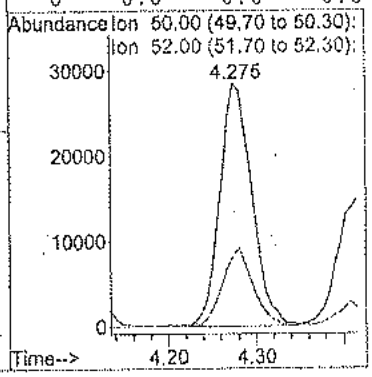


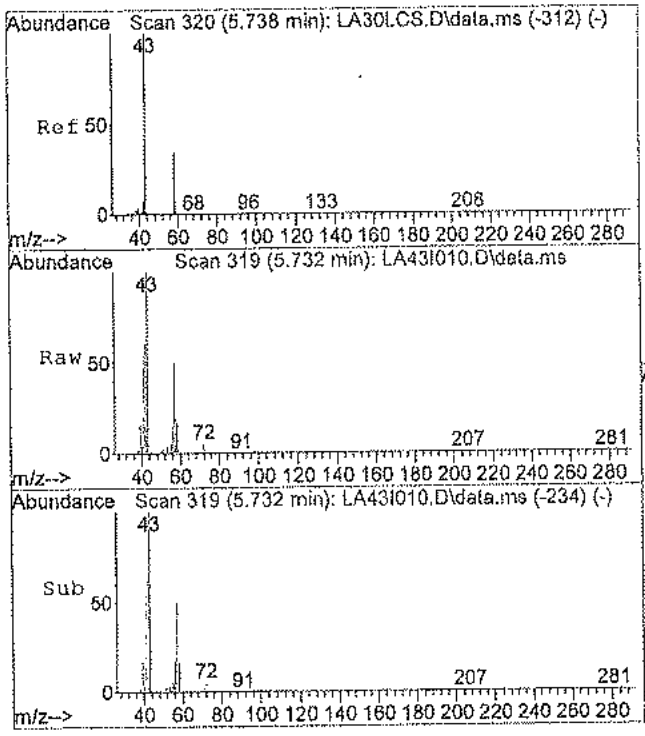


#4
Chloromethane
Concen: 0.69 ppb
RT: 4.27 min Scan# 80
Delta R.T. -0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:50 Resp: 71560

Ion	Ratio	Lower	Upper
50	100		
52	30.7	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

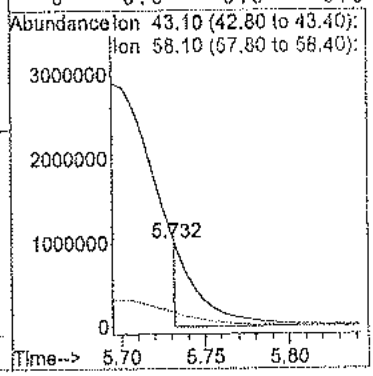


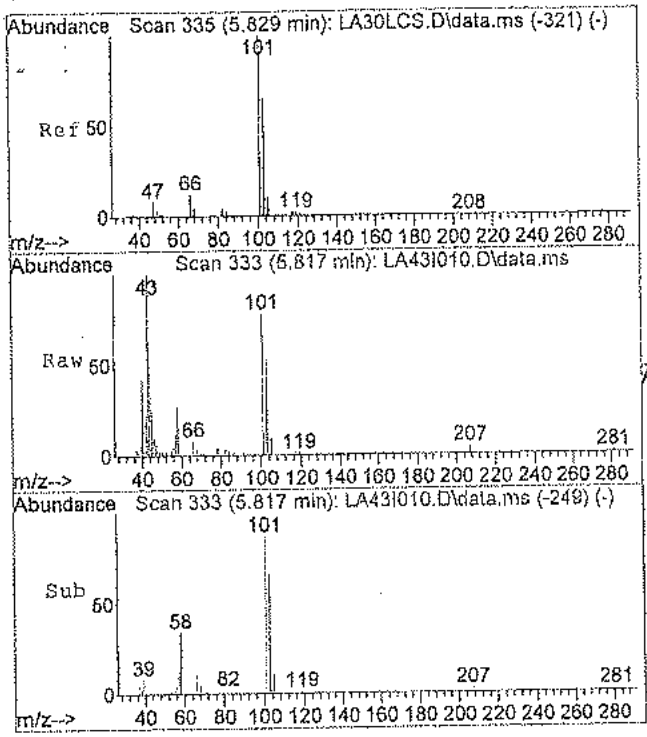


#11
Acetone
Concen: 5.11 ppb m
RT: 5.73 min Scan# 319
Delta R.T. 0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:43.1 Resp: 844526

Ion	Ratio	Lower	Upper
43	100		
58	144.4	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

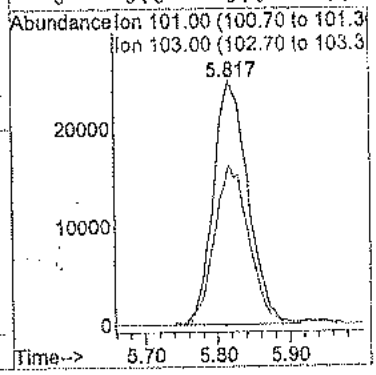


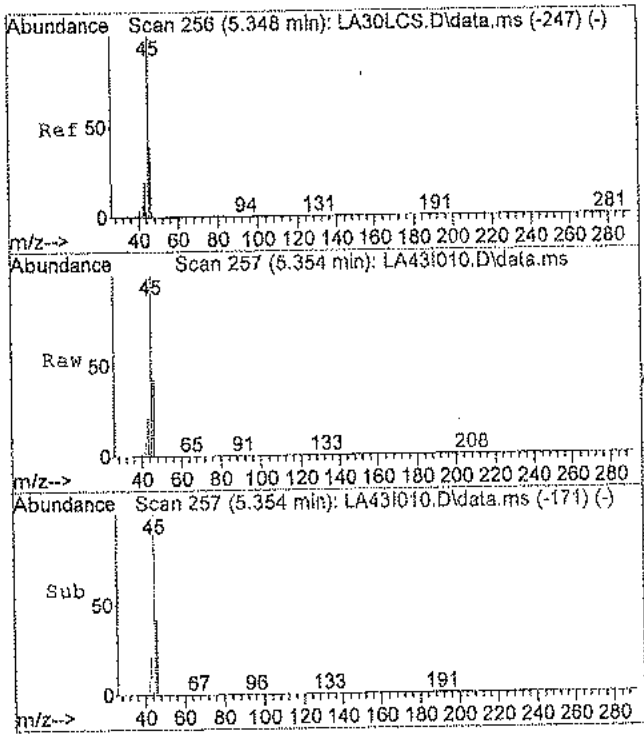


#12
Trichlorofluoromethane
Concen: 0.32 ppb
RT: 5.82 min Scan# 333
Delta R.T. 0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:101 Resp: 83190

Ion	Ratio	Lower	Upper
101	100		
103	65.0	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

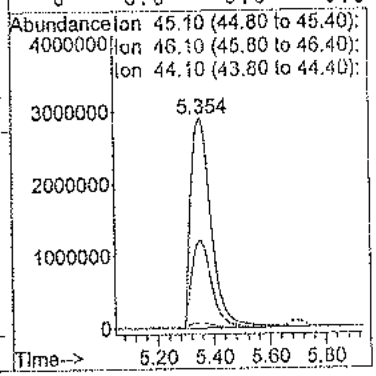


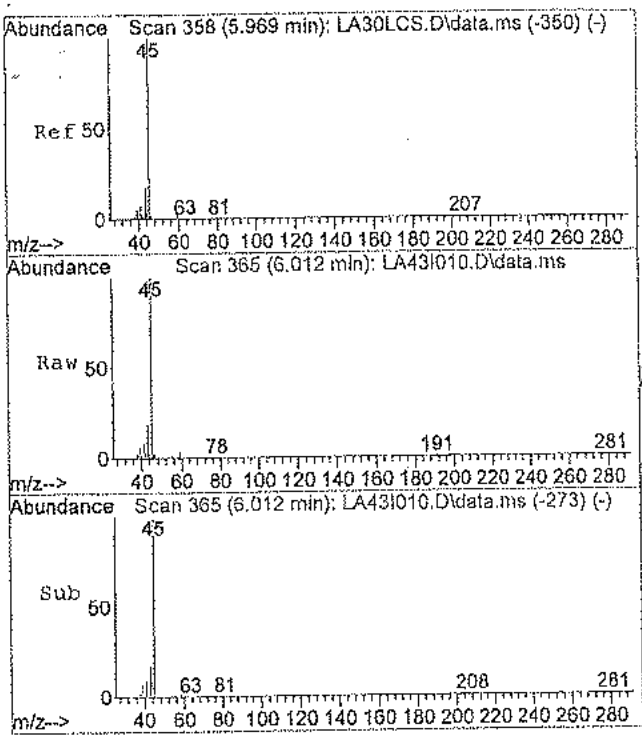


#13
Ethanol
Concen: 451.75 ppb
RT: 5.35 min Scan# 257
Delta R.T. 0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:45.1 Resp:14936260

Ion	Ratio	Lower	Upper
45	100		
46	41.3	32.4	48.6
44	1.9	23.4	35.2#
0	0.0	0.0	0.0

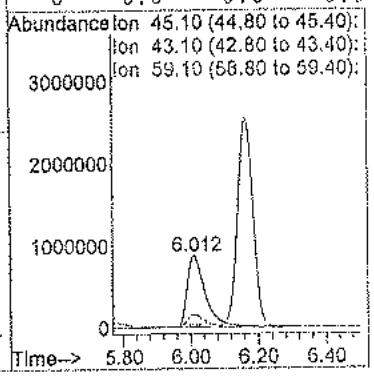


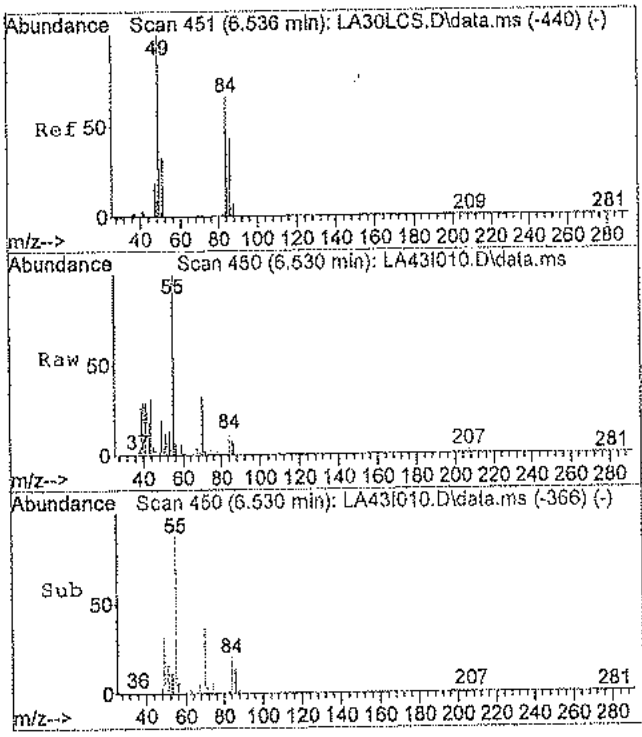


#14
Isopropyl Alcohol
Concen: 11.77 ppb
RT: 6.01 min Scan# 365
Delta R.T. 0.06 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:45.1 Resp: 3301900

Ion	Ratio	Lower	Upper
45	100		
43	15.8	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

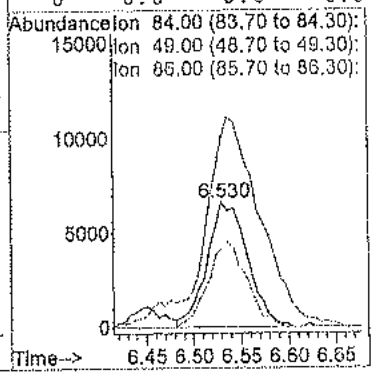


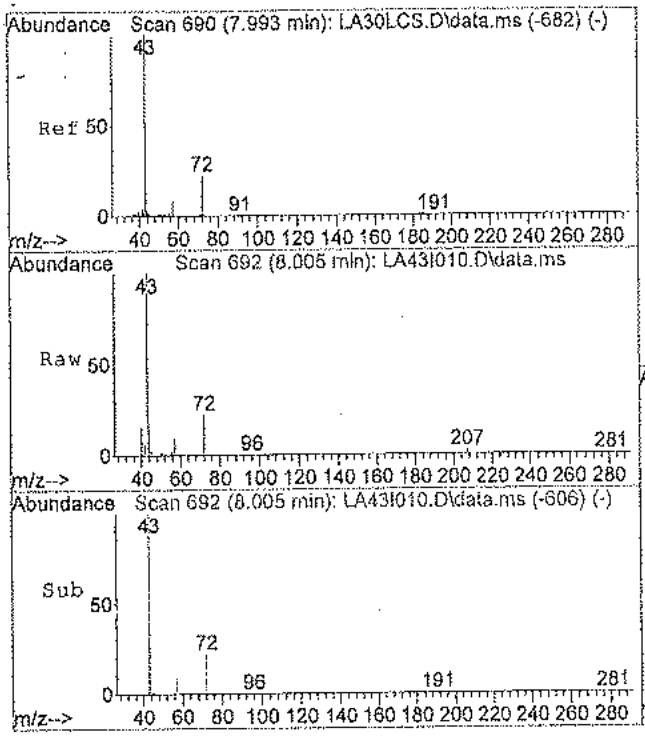


#16
Methylene Chloride
Concen: 0.23 ppb
RT: 6.53 min Scan# 450
Delta R.T. 0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:84 Resp: 19427

Ion	Ratio	Lower	Upper
84	100		
49	232.2	66.6	100.0#
86	65.0	51.6	77.4
0	0.0	0.0	0.0

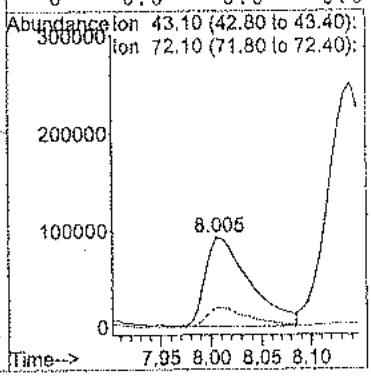


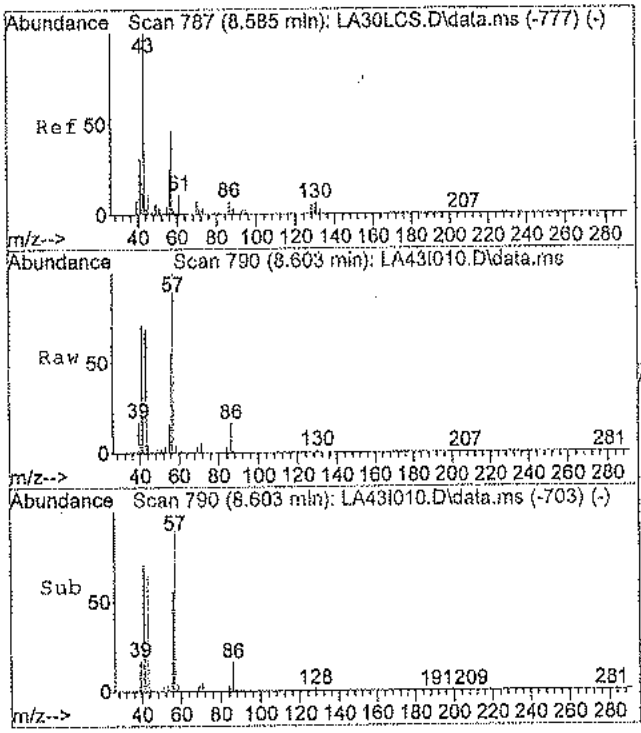


#23
2-Butanone
Concen: 1.35 ppb
RT: 8.01 min Scan# 692
Delta R.T. 0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:43.1 Resp: 283180

Ion	Ratio	Lower	Upper
43	100		
72	22.0	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

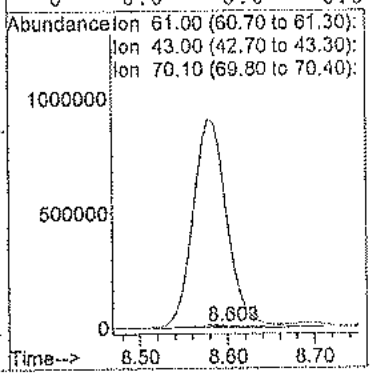


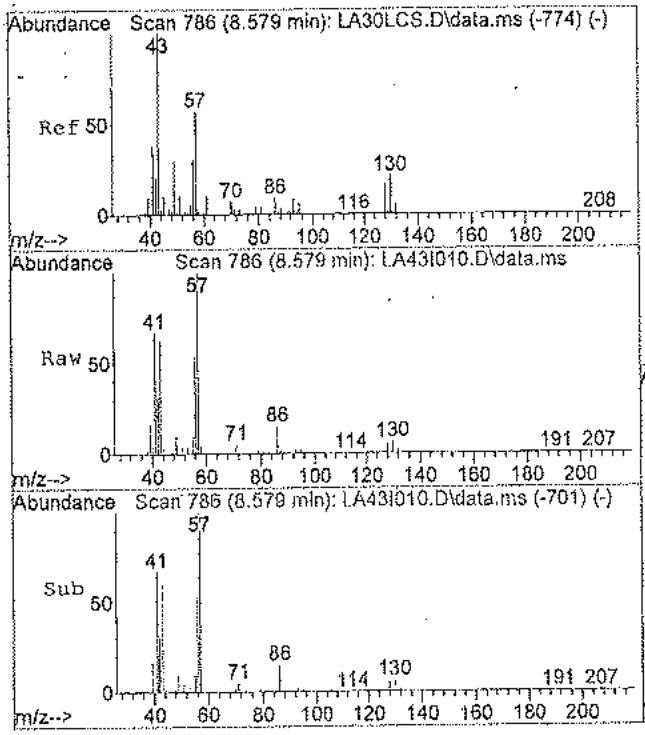


#26
Ethyl Acetate
Concen: 0.58 ppb
RT: 8.60 min Scan# 790
Delta R.T. 0.03 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:61 Resp: 20505

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	0.0	13.6	20.4#
0	0.0	0.0	0.0

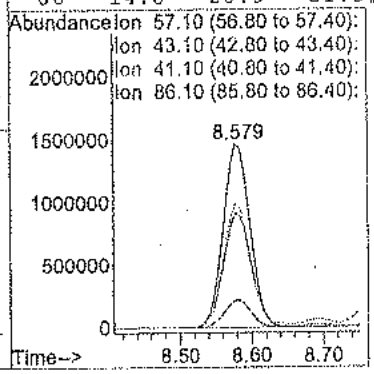


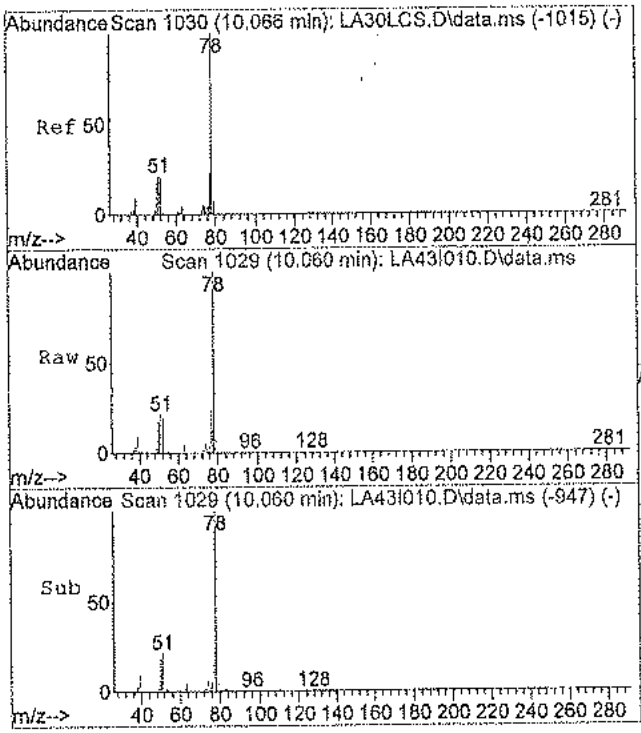


#27
Hexane
Concen: 22.15 ppb
RT: 8.58 min Scan# 786
Delta R.T. 0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:57.1 Resp: 3730333

Ion	Ratio	Lower	Upper
57	100		
43	65.2	57.3	85.9
41	71.2	47.0	70.4#
86	14.8	20.9	31.3#

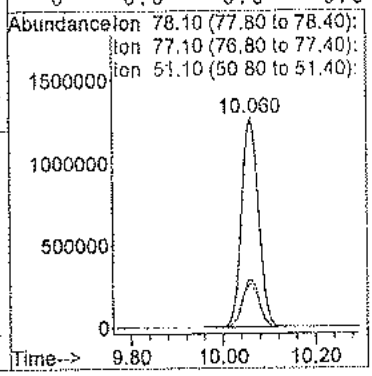


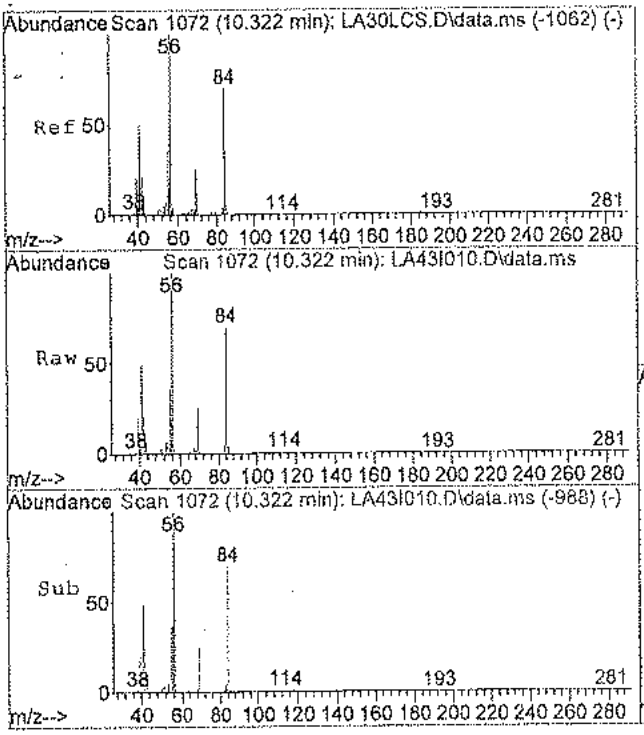


#32
Benzene
Concen: 10.74 ppb
RT: 10.06 min Scan# 1029
Delta R.T. 0.00 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:78.1 Resp: 3188021

Ion	Ratio	Lower	Upper
78	100		
77	22.6	18.2	27.4
51	20.3	9.5	14.3#
0	0.0	0.0	0.0

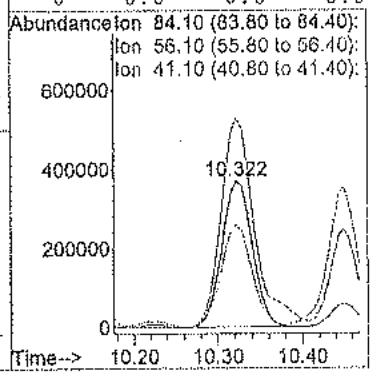


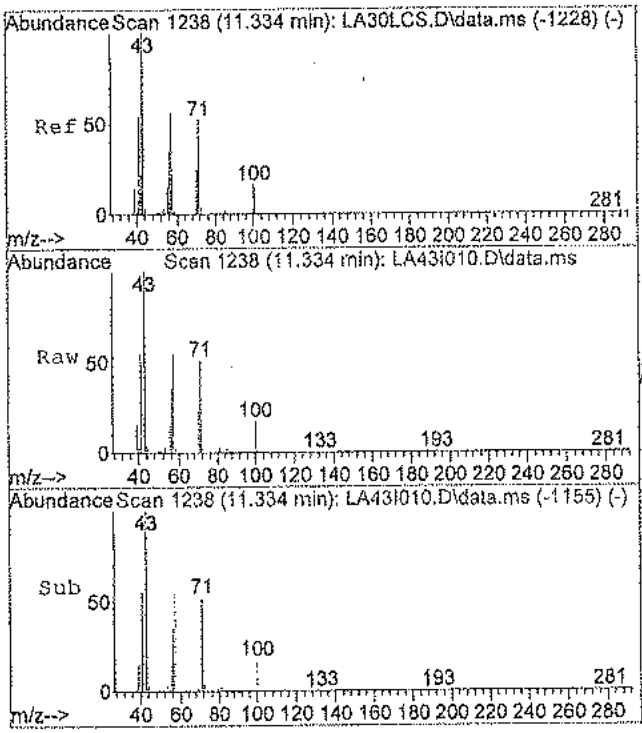


#34
Cyclohexane
Concen: 6.88 ppb
RT: 10.32 min Scan# 1072
Delta R.T. 0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:84.1 Resp: 918827

Ion	Ratio	Lower	Upper
84	100		
56	156.6	67.3	100.9#
41	69.4	30.2	45.4#
0	0.0	0.0	0.0

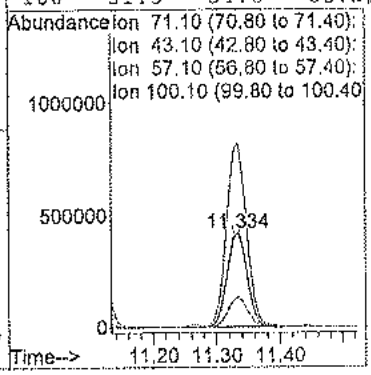


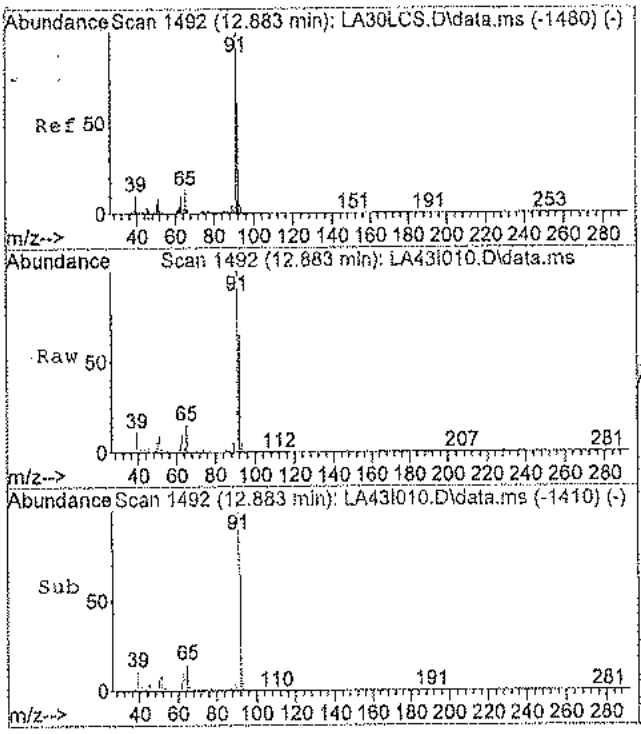


#40
Heptane
Concen: 8.72 ppb
RT: 11.33 min Scan# 1238
Delta R.T. 0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:71.1 Resp: 900797

Ion	Ratio	Lower	Upper
71	100		
43	194.1	87.3	130.9#
57	106.5	57.8	86.6#
100	31.3	34.8	52.2#

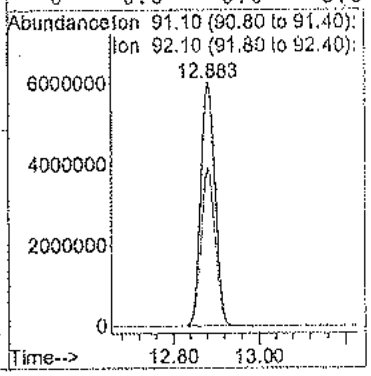


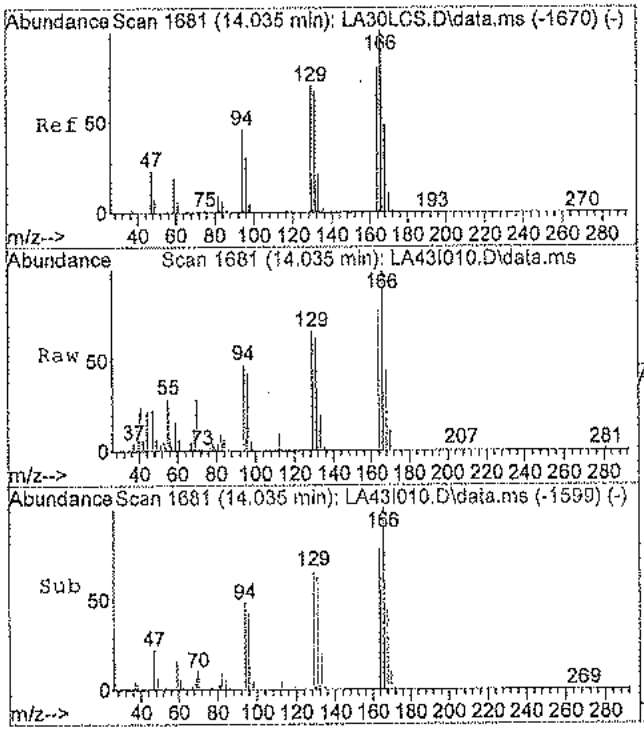


#45
Toluene
Concen: 38.98 ppb
RT: 12.88 min Scan# 1492
Delta R.T. 0.00 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:91.1 Resp:14046640

Ion	Ratio	Lower	Upper
91	100		
92	63.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

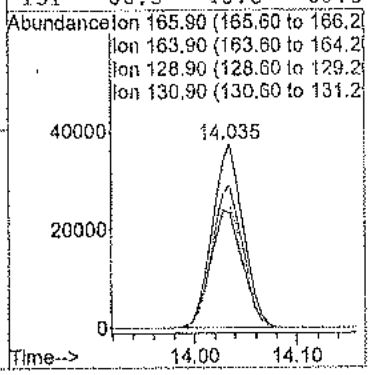


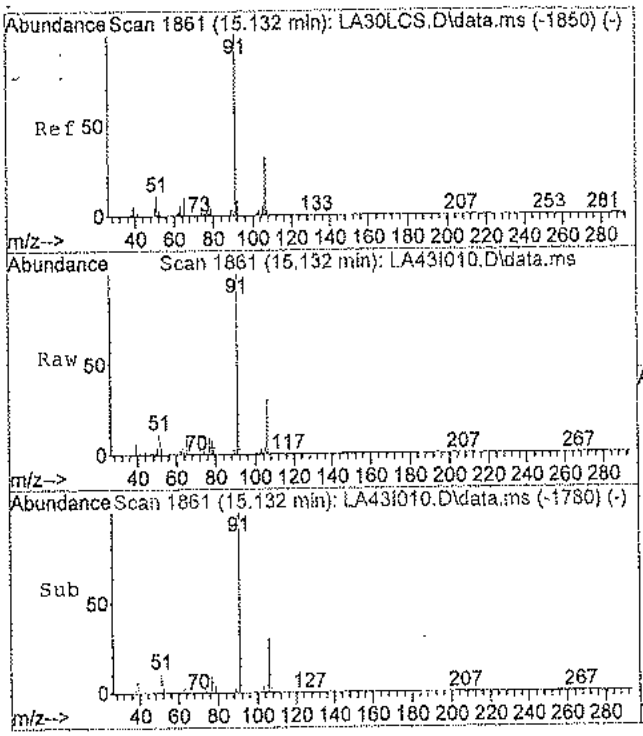


#49
Tetrachloroethene
Concen: 0.43 ppb
RT: 14.03 min Scan# 1681
Delta R.T. 0.00 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:165.9 Resp: 76839

Ion	Ratio	Lower	Upper
166	100		
164	78.2	61.0	91.4
129	69.6	45.9	68.9#
131	66.5	45.5	68.3

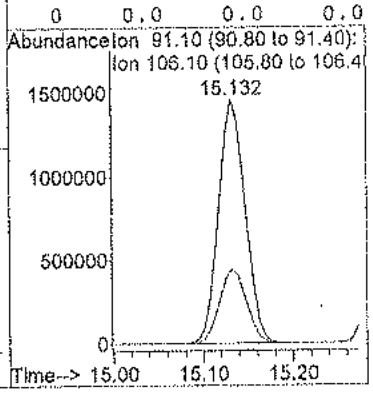


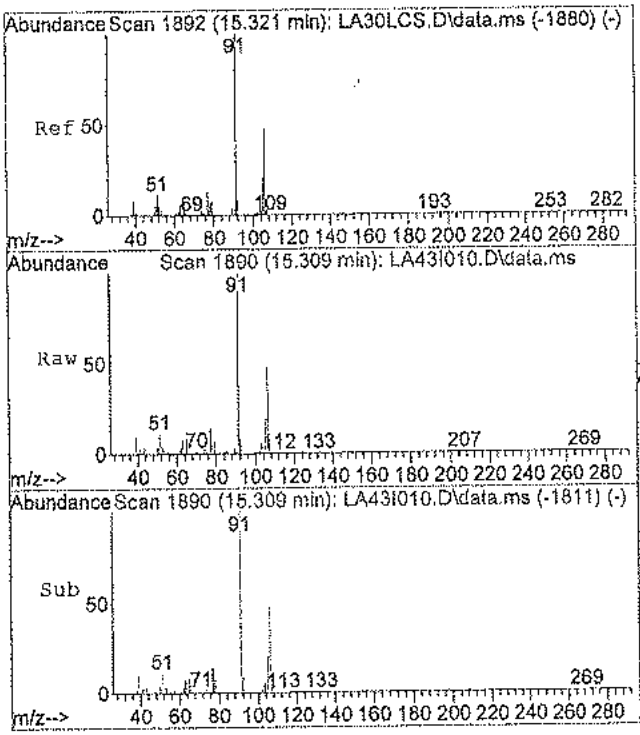


#52
Ethylbenzene
Concen: 6.32 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:91.1 Resp: 2959422

Ion	Ratio	Lower	Upper
91	100		
106	31.0	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

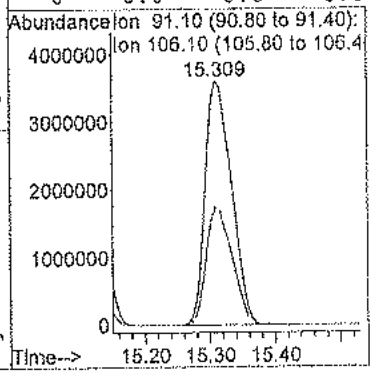


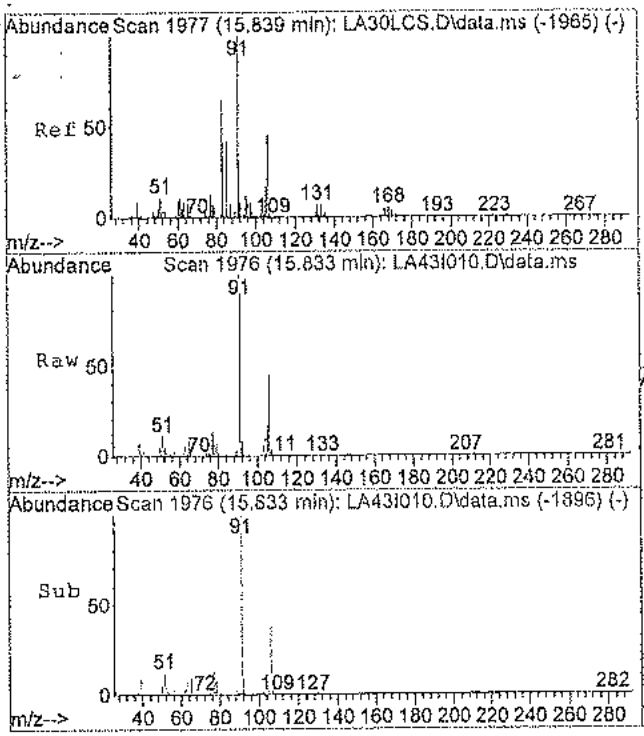


#53
m,p-Xylene
Concen: 27.85 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:91.1 Resp:10049852

Ion	Ratio	Lower	Upper
91	100		
106	48.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

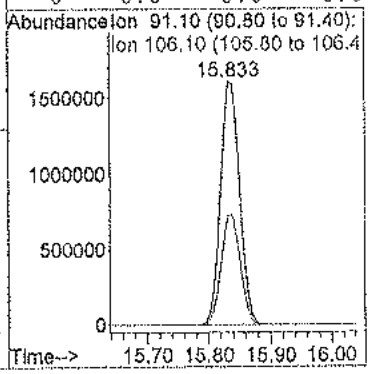


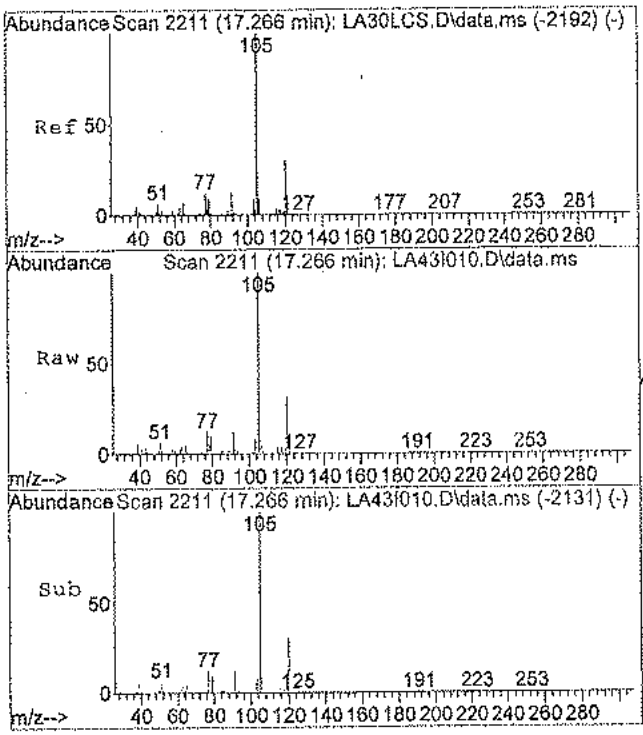


#57
o-Xylene
Concen: 9.27 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:91.1 Resp: 3404502

Ion	Ratio	Lower	Upper
91	100		
106	45.4	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

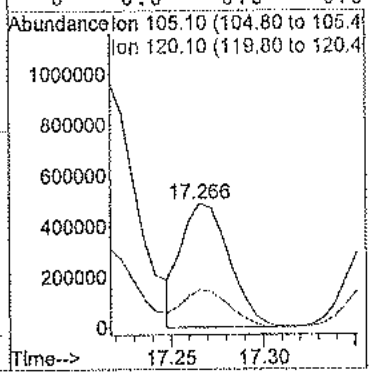


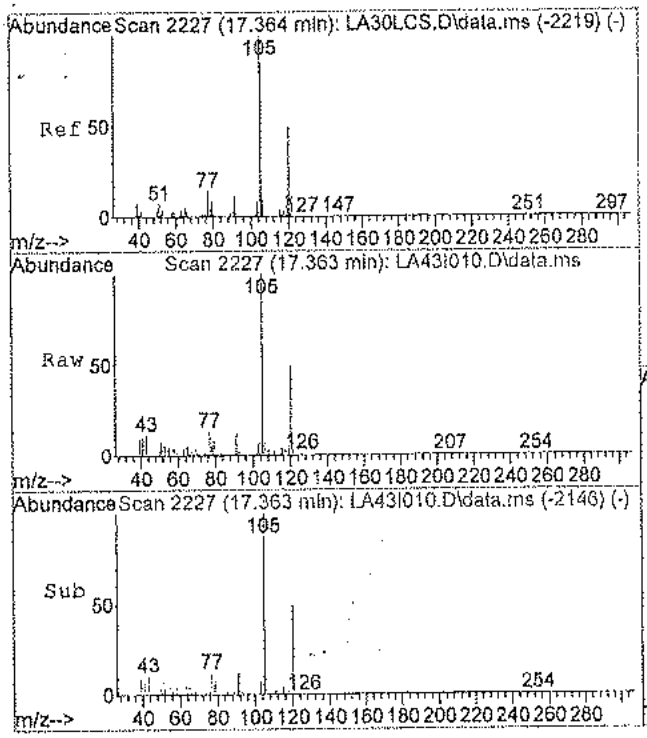


#59
4-Ethyl Toluene
Concen: 1.81 ppb
RT: 17.27 min Scan# 2211
Delta R.T. -0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:105.1 Resp: 890548

Ion	Ratio	Lower	Upper
105	100		
120	30.2	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

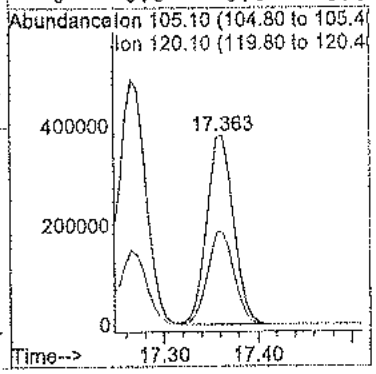


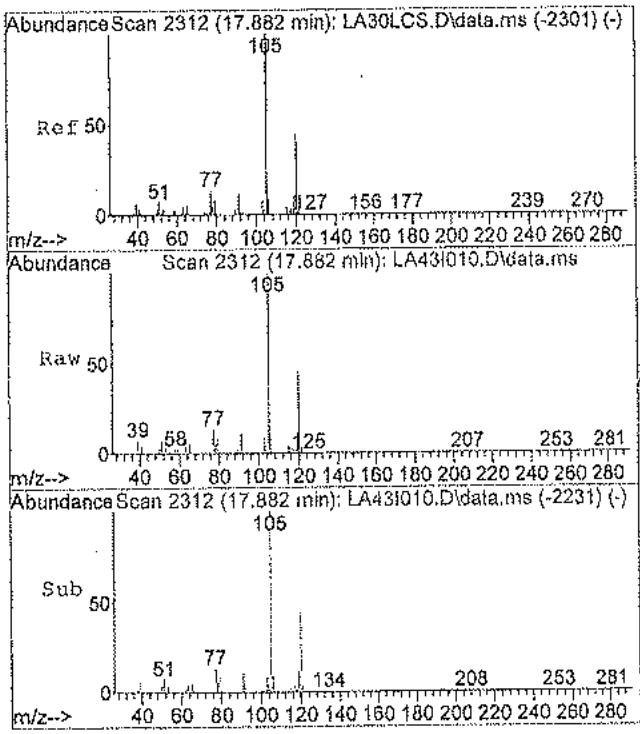


#60
1,3,5-Trimethylbenzene
Concen: 1.78 ppb
RT: 17.36 min Scan# 2227
Delta R.T. -0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:105.1 Resp: 753154

Ion	Ratio	Lower	Upper
105	100		
120	48.8	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

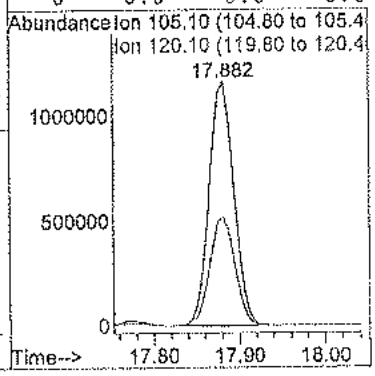


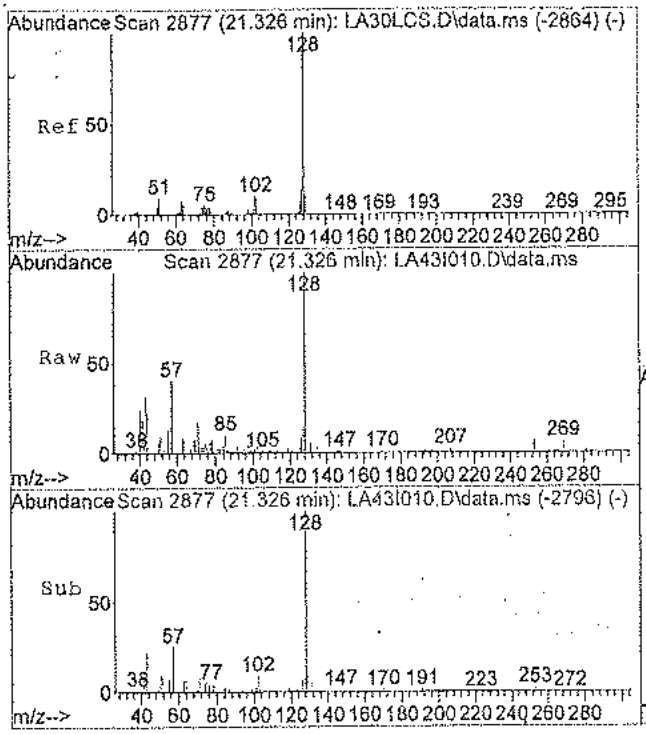


#61
1,2,4-Trimethylbenzene
Concen: 5.49 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:105.1 Resp: 2323889

Ion	Ratio	Lower	Upper
105	100		
120	45.3	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

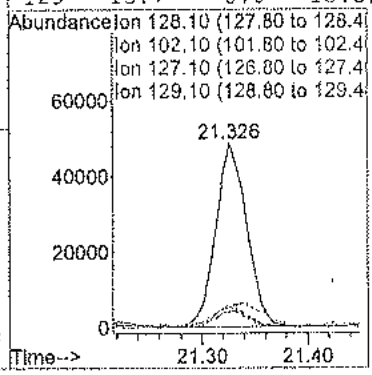




#67
Naphthalene
Concen: 0.27 ppb
RT: 21.33 min Scan# 2877
Delta R.T. -0.01 min
Lab File: LA43I010.D
Acq: 04/15/2015 22:18

Tgt Ion:128.1 Resp: 98341

Ion	Ratio	Lower	Upper
128	100		
102	9.7	6.7	10.1
127	19.2	10.0	15.0#
129	13.7	8.8	13.2#



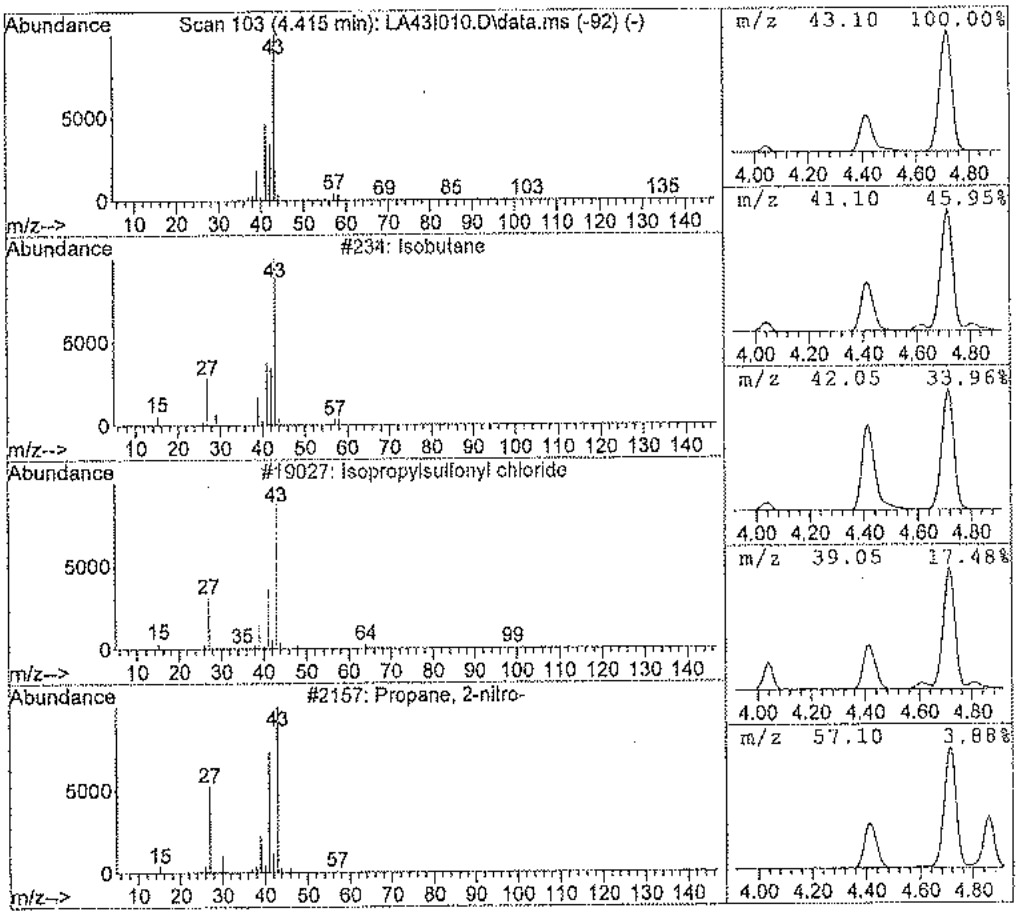
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.41	7.63 ppb	8961949	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Propane, 2-nitro-	2157	000079-46-9	4.00
4	Butane	231	000106-97-8	4.00
5	5-Methyloxazolidine	1869	058328-22-6	4.00



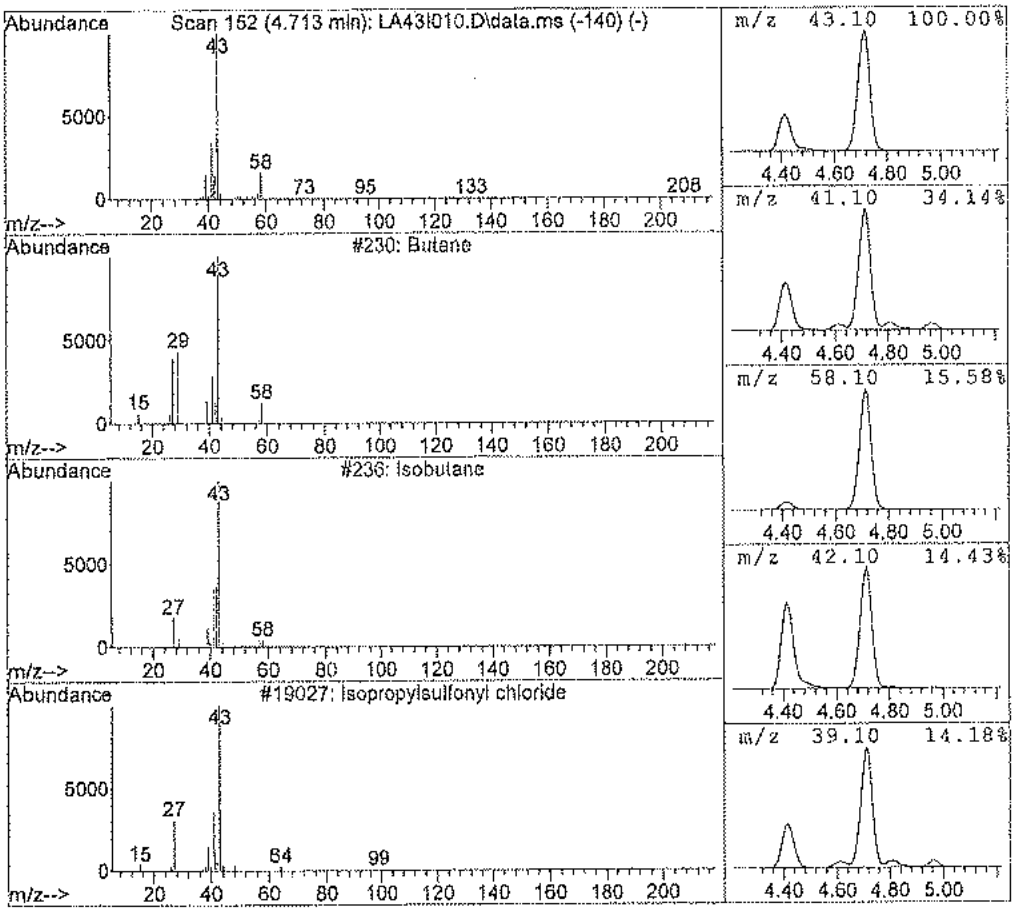
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.71	21.29 ppb	25017744	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	230	000106-97-8	72.00
2	Isobutane	236	000075-28-5	9.00
3	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
4	Propane, 1-nitro-	2152	000108-03-2	9.00
5	Acetone	213	000067-64-1	4.00



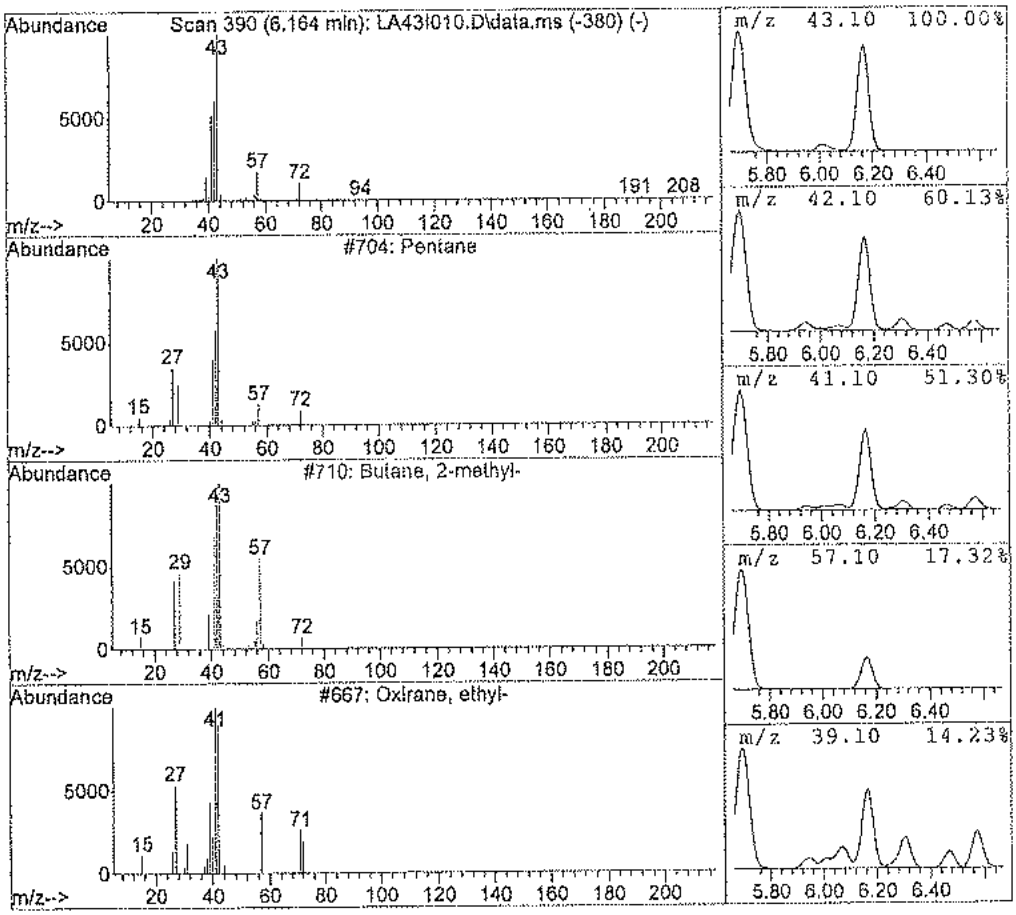
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multipir: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.16	17.81 ppb	20923062	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	704	000109-66-0	90.00
2	Butane, 2-methyl-	710	000078-78-4	38.00
3	Oxirane, ethyl-	667	000106-88-7	9.00
4	Aziridine, 1-methyl-	201	001072-44-2	9.00
5	Butane, 2,3-dimethyl-	1822	000079-29-8	9.00



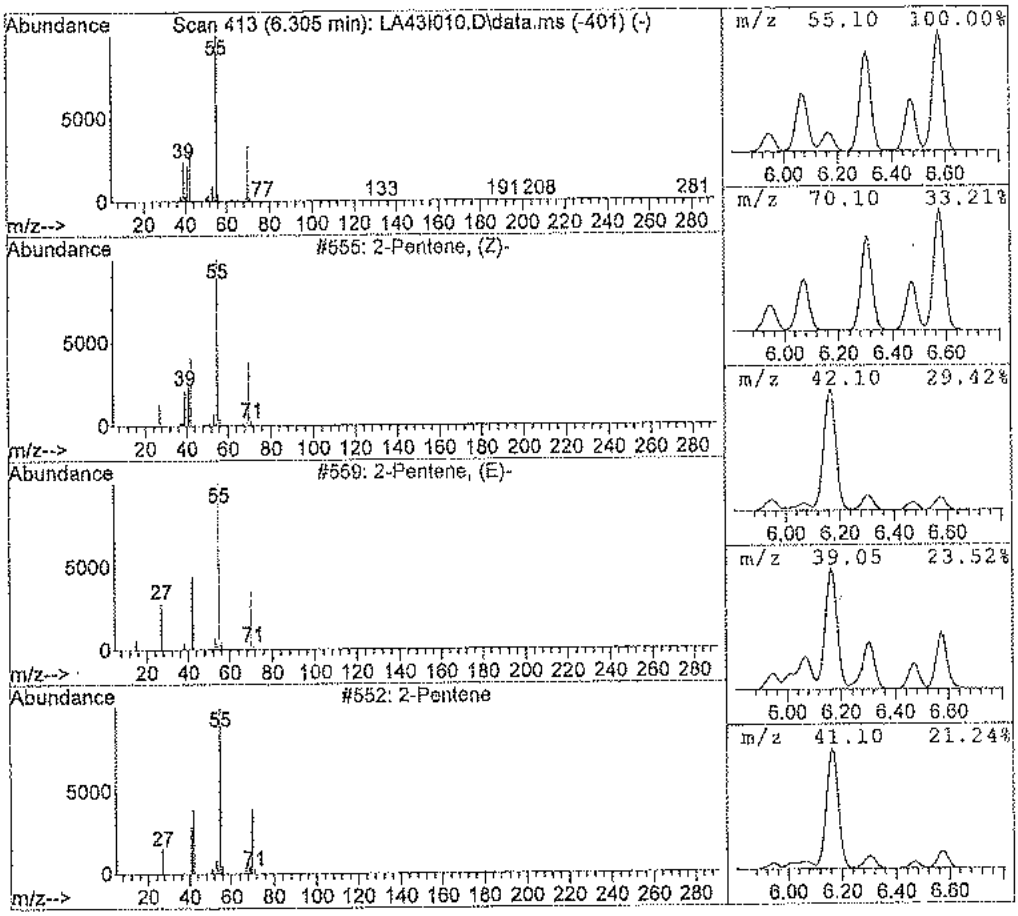
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.30	4.17 ppb	4897683	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Pentene, (Z)-	555	000627-20-3	90.00
2	2-Pentene, (E)-	559	000646-04-8	87.00
3	2-Pentene	552	000109-68-2	87.00
4	2-Methyl-1-butene	561	000563-46-2	87.00
5	2-Butene, 2-methyl-	565	000513-35-9	86.00



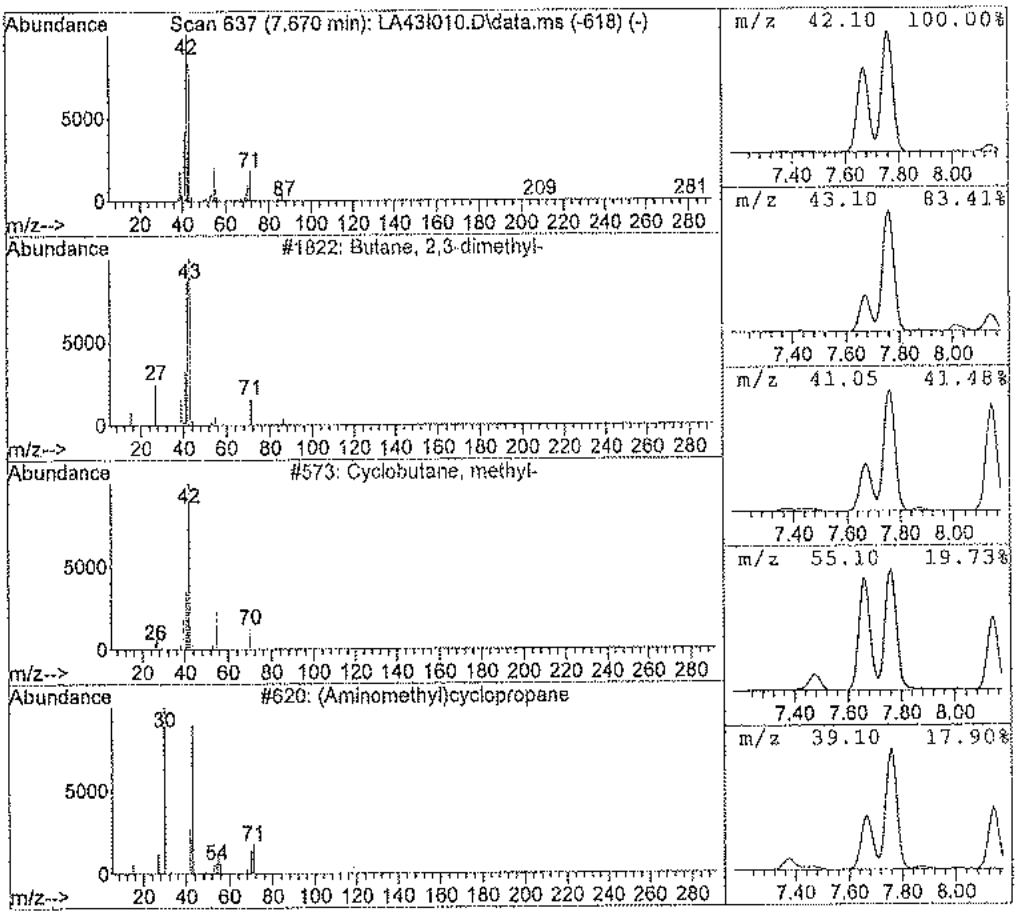
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.67	5.79 ppb	6804738	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2,3-dimethyl-	1822	000079-29-8	59.00
2	Cyclobutane, methyl-	573	000598-61-8	50.00
3	(Aminomethyl)cyclopropane	620	002516-47-4	9.00
4	Pentane, 2-methyl-	1816	000107-83-5	9.00
5	Cyclopropane, ethyl-	575	001191-96-4	9.00



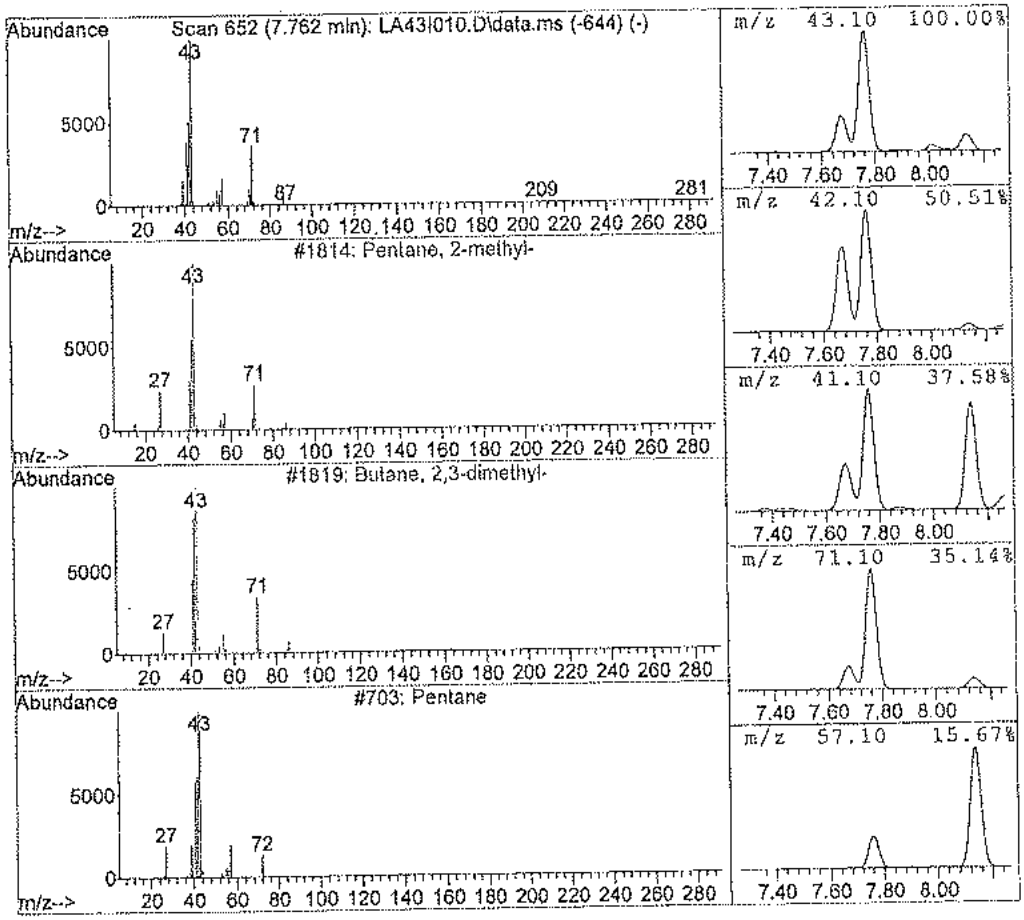
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.76	13.54 ppb	15913738	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1814	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	50.00
3	Pentane	703	000109-66-0	43.00
4	Hexane, 2,3-dimethyl-	7571	000584-94-1	37.00
5	Hexane, 3-ethyl-	7549	000619-99-8	37.00



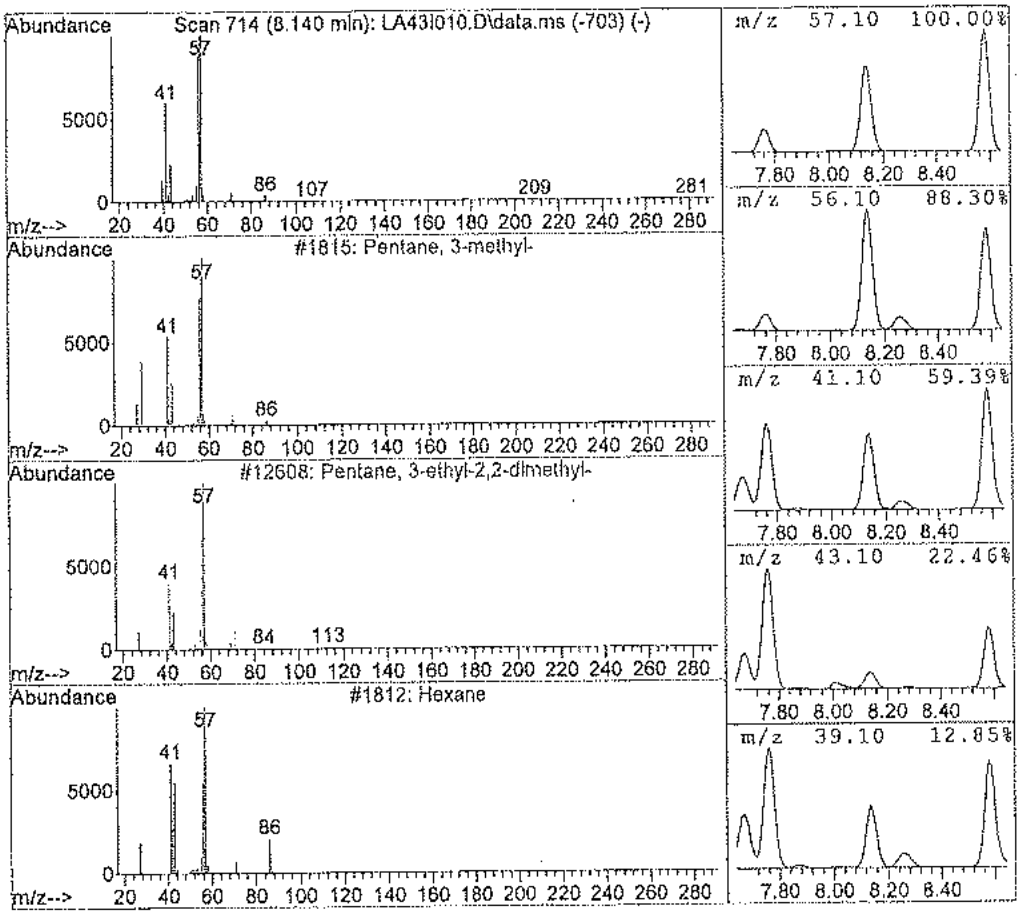
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.14	8.03 ppb	9429396	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1815	000096-14-0	91.00
2	Pentane, 3-ethyl-2,2-dimethyl-	12608	016747-32-3	56.00
3	Hexane	1812	000110-54-3	47.00
4	Oxirane, (1-methylethyl)-	1788	001438-14-8	45.00
5	Hexane, 2,2,3-trimethyl-	12587	016747-25-4	40.00



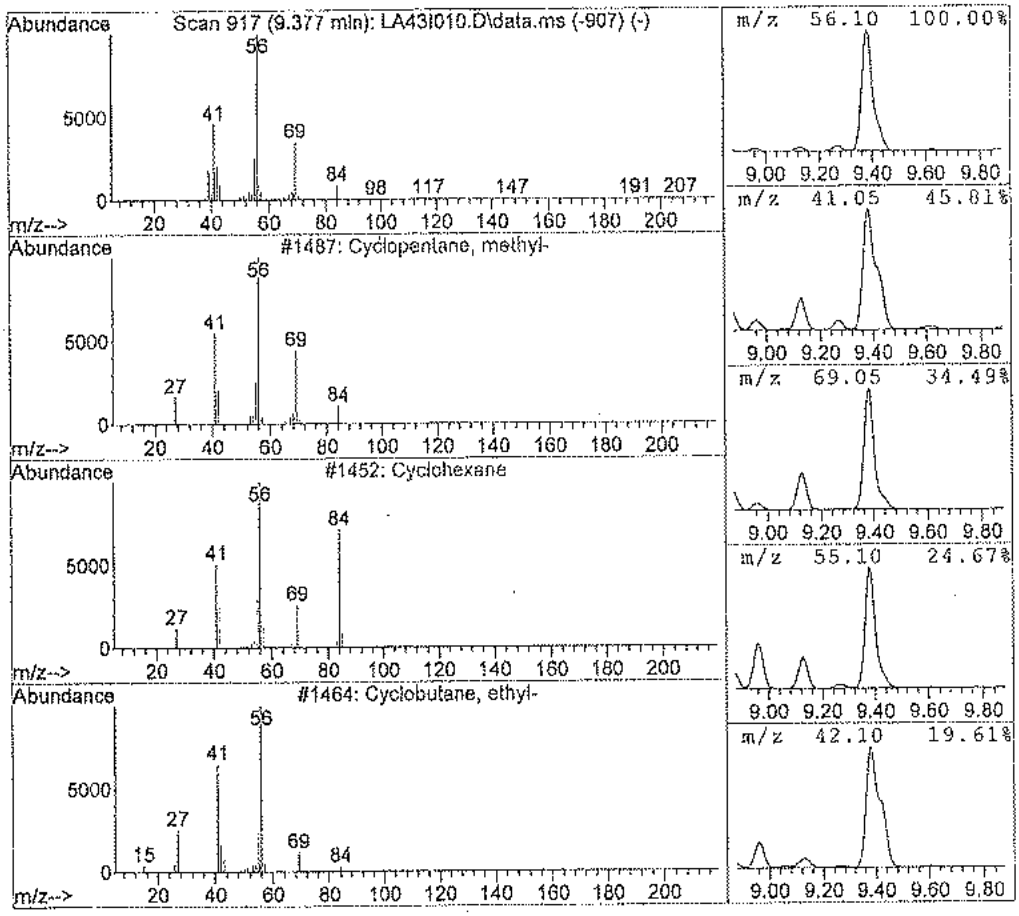
Library Search Compound Report

Data File : J:\L\2015\APR15L\TOI...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.38	8.68 ppb	10193106	Bromochloromethane	23497598

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	94.00
2	Cyclohexane	1452	000110-82-7	90.00
3	Cyclobutane, ethyl-	1464	004806-61-5	78.00
4	Cyclopropane, propyl-	1483	002415-72-7	78.00
5	1H-Tetrazole, 5-methyl-	1323	004076-36-2	72.00



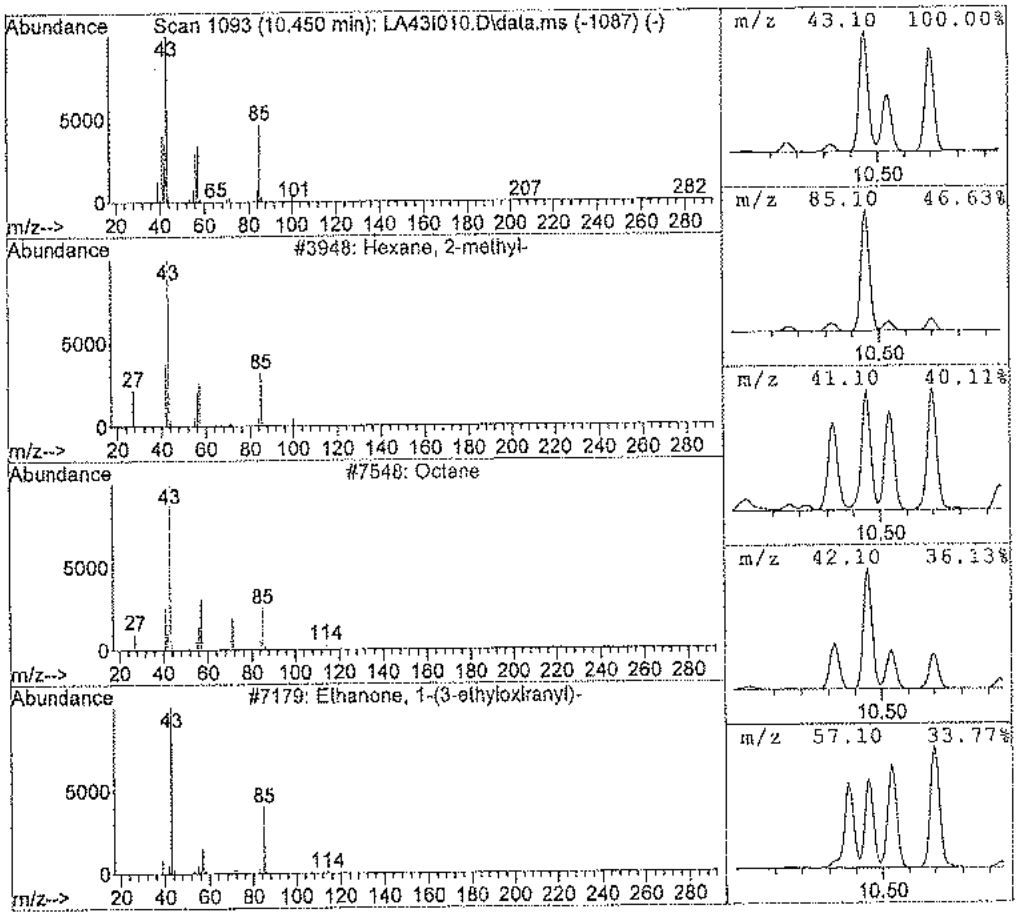
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:10 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.45	8.93 ppb	6667778	1,4-Difluorobenzene	14931971

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2-methyl-	3948	000591-76-4	90.00
2	Octane	7548	000111-65-9	59.00
3	Ethanone, 1-(3-ethyloxiranyl)-	7179	017257-81-7	50.00
4	Pentane, 2,4-dimethyl-	3958	000108-08-7	50.00
5	Pentane, 3-ethyl-2,4-dimethyl-	12606	001068-87-7	47.00



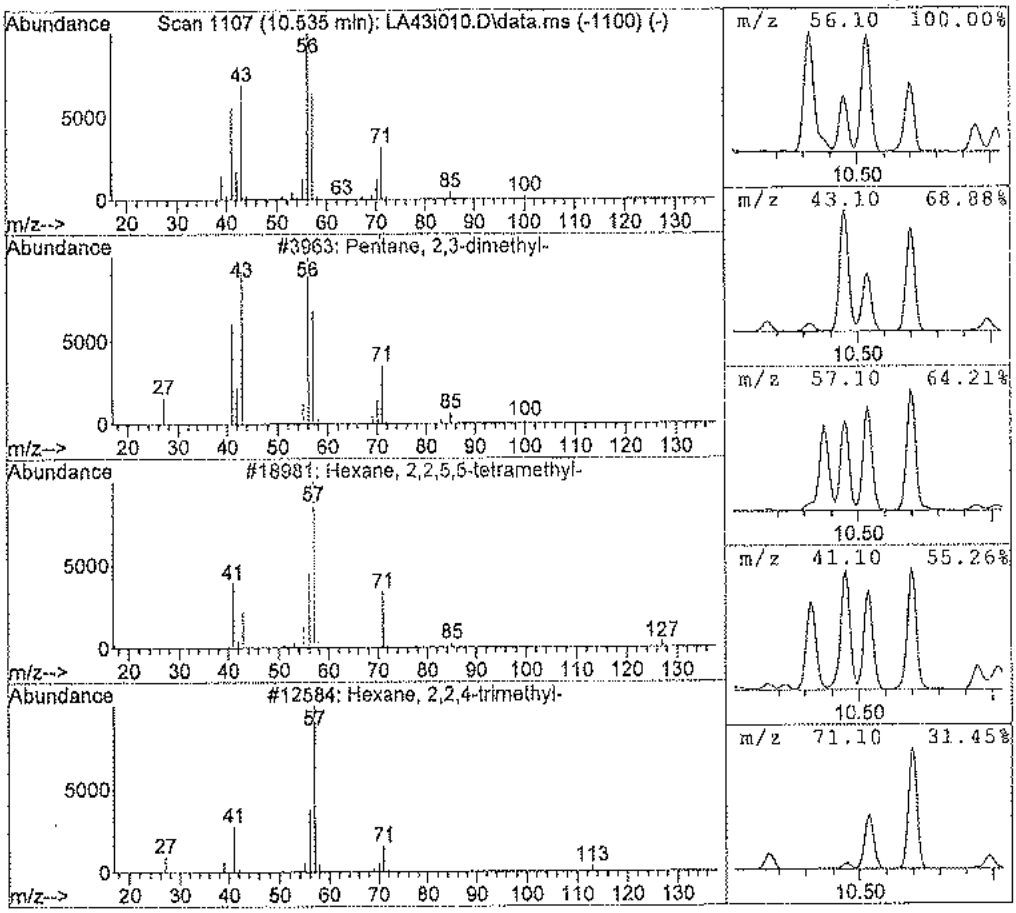
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.54	6.85 ppb	5117214	1,4-Difluorobenzene	14931971

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2,3-dimethyl-	3963	000565-59-3	91.00
2	Hexane, 2,2,5,5-tetramethyl-	18981	001071-81-4	50.00
3	Hexane, 2,2,4-trimethyl-	12584	016747-26-5	50.00
4	Hexane, 2,2,3-trimethyl-	12575	016747-25-4	39.00
5	Heptane, 2,2,4-trimethyl-	18964	014720-74-2	38.00



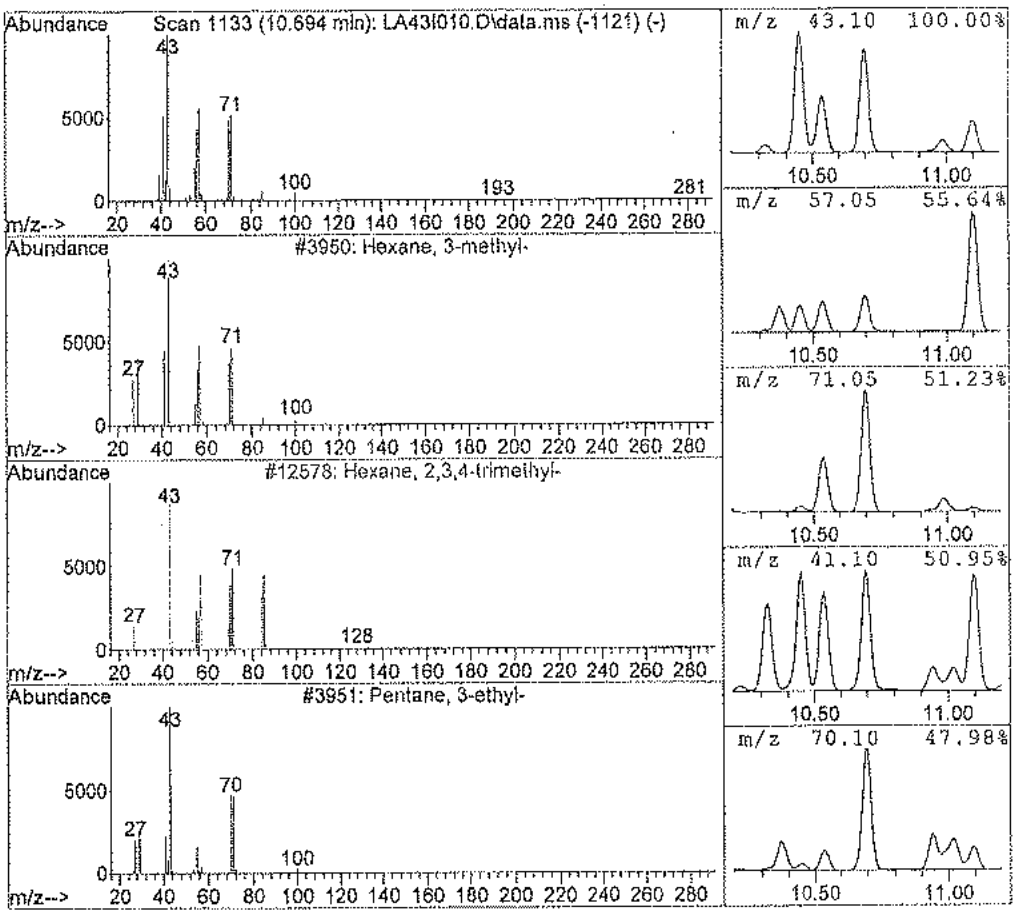
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.69	10.17 ppb	7591182	1,4-Difluorobenzene	14931971

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 3-methyl-	3950	000589-34-4	94.00
2	Hexane, 2,3,4-trimethyl-	12578	000921-47-1	53.00
3	Pentane, 3-ethyl-	3951	000617-78-7	53.00
4	Heptane, 4-methyl-	7558	000589-53-7	53.00
5	Pentane, 2,3,4-trimethyl-	7586	000565-75-3	53.00



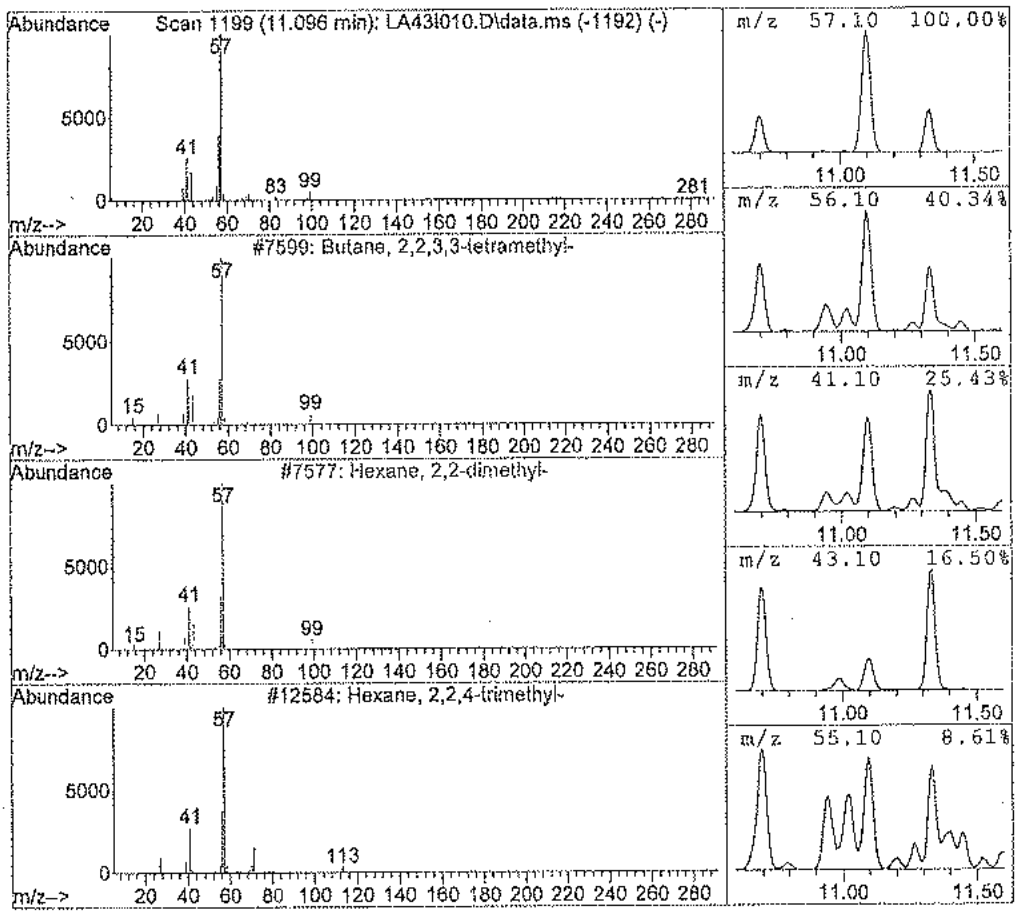
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
11.10	9.85 ppb	7351643	1,4-Difluorobenzene	14931971

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2,2,3,3-tetramethyl-	7599	000594-82-1	72.00
2	Hexane, 2,2-dimethyl-	7577	000590-73-8	72.00
3	Hexane, 2,2,4-trimethyl-	12584	016747-26-5	72.00
4	Heptane, 2,2,4,6,6-pentamethyl-	37513	013475-82-6	64.00
5	Pentane, 2,2,3-trimethyl-	7590	000564-02-3	64.00



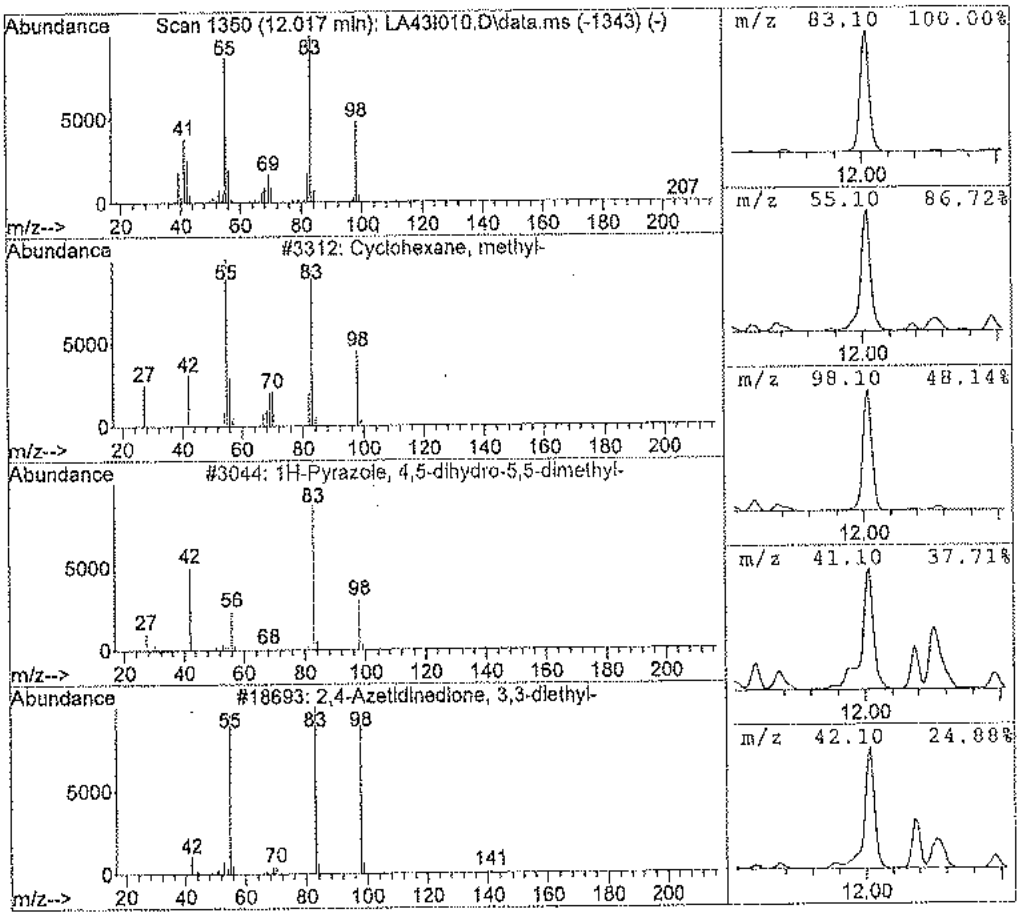
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA43I010.D Vial: 11
Acq Time : 04/15/2015 22:18 Operator: TJM
Sample : 1510353010 Inst : 5975-L
Misc : TO-001-BAS 0384 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
12.02	5.54 ppb	4133909	1,4-Difluorobenzene	14931971

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane, methyl-	3312	000108-87-2	91.00
2	1H-Pyrazole, 4,5-dihydro-5,5-dimeth	3044	004320-85-8	59.00
3	2,4-Azetidinedione, 3,3-diethyl-	18693	042282-85-9	59.00
4	2-Pentene, 3,4-dimethyl-, (Z)-	3372	004914-91-4	59.00
5	Cyclopropane, 1,1,2,3-tetramethyl-	3383	074752-93-5	59.00

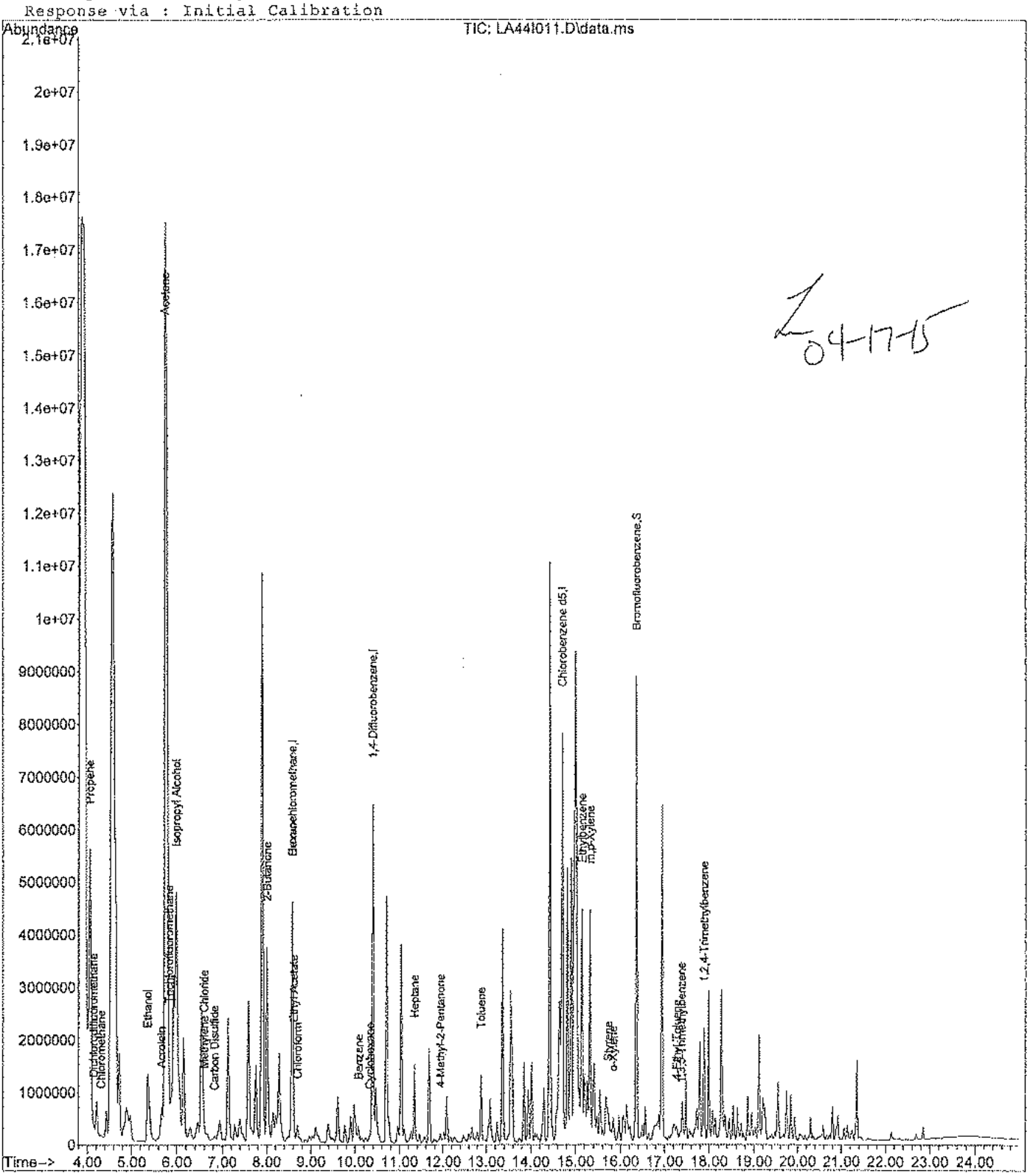


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:49:21 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



4-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:49:21 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.58	130	534080	20.0000 ppb	109.96
25) 1,4-Difluorobenzene	10.39	114	6179191	20.0000 ppb	101.85
50) Chlorobenzene d5	14.70	117	4867804	20.0000 ppb	94.24
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	3996787	20.6171 ppb	103.09%
Target Compounds					Qvalue
2) Propene	4.05	41	4746297	62.7157 ppb	94 TLC
3) Dichlorodifluoromethane	4.14	85	114575	0.4437 ppb	99
4) Chloromethane	4.31	50	48825	0.4428 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.66	56	448508	10.4973 ppb #	88 TLC
11) Acetone	5.74	43	32296713	182.9075 ppb #	37 DLC
12) Trichlorofluoromethane	5.84	101	56294	0.2021 ppb	97
13) Ethanol	5.35	45	2879276	81.5541 ppb #	77 TLC
14) Isopropyl Alcohol	5.99	45	11031754	36.8225 ppb	94 TLC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.60	84	32223	0.3566 ppb #	36
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.83	76	149079	0.5389 ppb #	64
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.00	43	6630803	29.5745 ppb #	75 DLC
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.62	61	13477	0.3725 ppb #	1
27) Hexane	8.57	57	1131858	6.5470 ppb #	90
28) Chloroform	8.69	83	237182	1.1088 ppb	99
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.08	78	296181	0.9718 ppb #	93
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.32	84	54445	0.3970 ppb #	21
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	404812	3.8191 ppb #	42
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	11.93	43	145319	0.5761 ppb #	76
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	1097527	2.9667 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration
LA44I011.D TO15LB15.m Thu Apr 16 16:03:45 2015

Quantitation Report

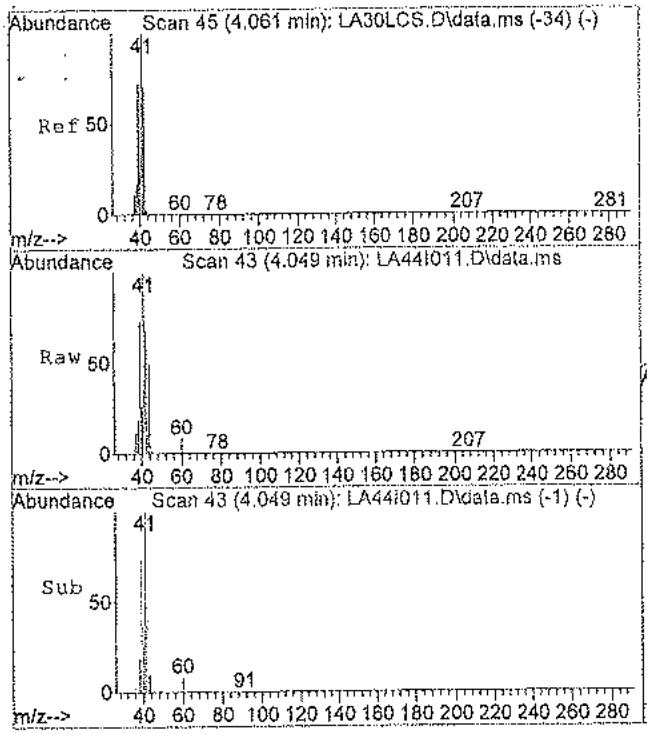
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:49:21 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	221704	0.4944 ppb	90
53) m,p-Xylene	15.31	91	530263	1.5339 ppb	89
54) Bromoform	0.00	173		Not Detected	
55) Styrene	15.72	104	95100	0.3773 ppb #	87
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.84	91	209290	0.5947 ppb	89
59) 4-Ethyl Toluene	17.27	105	75766	0.1607 ppb	94
60) 1,3,5-Trimethylbenzene	17.36	105	70767	0.1749 ppb	93
61) 1,2,4-Trimethylbenzene	17.88	105	240458	0.5925 ppb	91
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

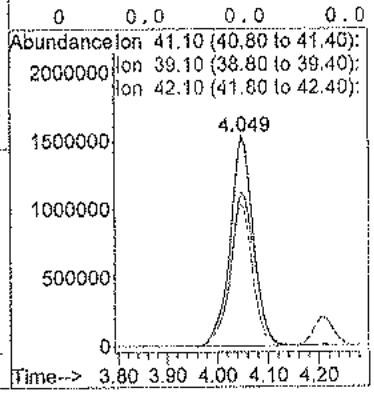
(#) = qualifier out of range (m) = manual integration

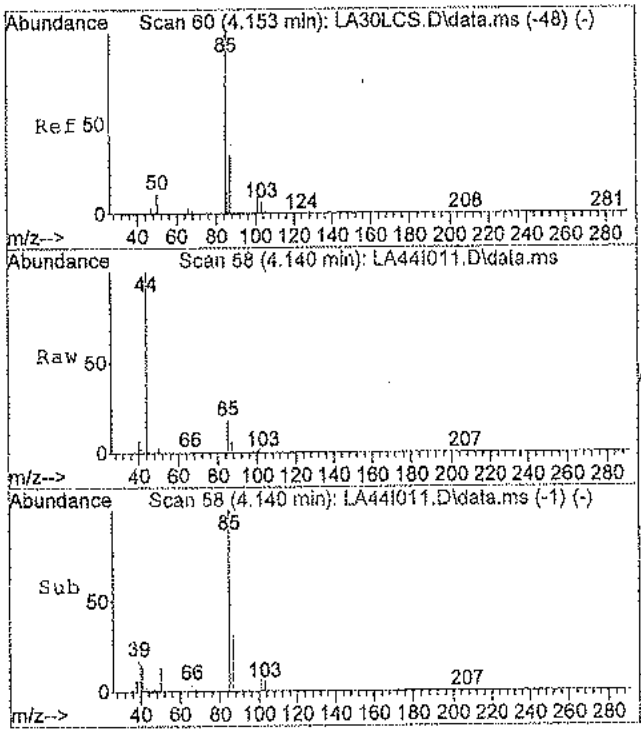


#2
Propene
Concen: 62.72 ppb
RT: 4.05 min Scan# 43
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:41.1 Resp: 4746297

Ion	Ratio	Lower	Upper
41	100		
39	77.8	56.2	84.4
42	65.7	53.8	80.6
0	0.0	0.0	0.0

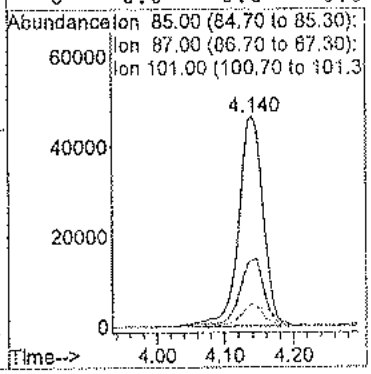


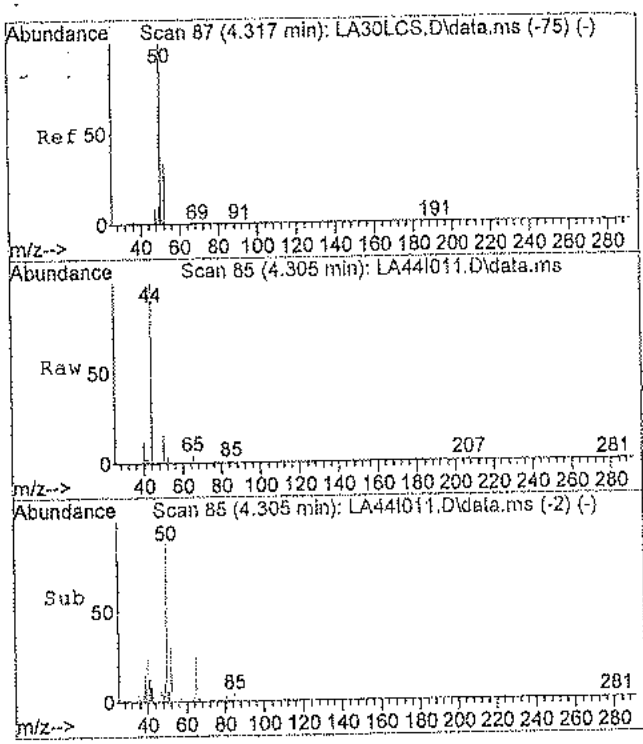


#3
Dichlorodifluoromethane
Concen: 0.44 ppb
RT: 4.14 min Scan# 58
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:85 Resp: 114575

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.1	39.1
101	9.6	8.0	12.0
0	0.0	0.0	0.0

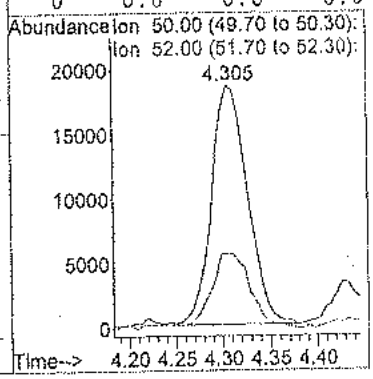


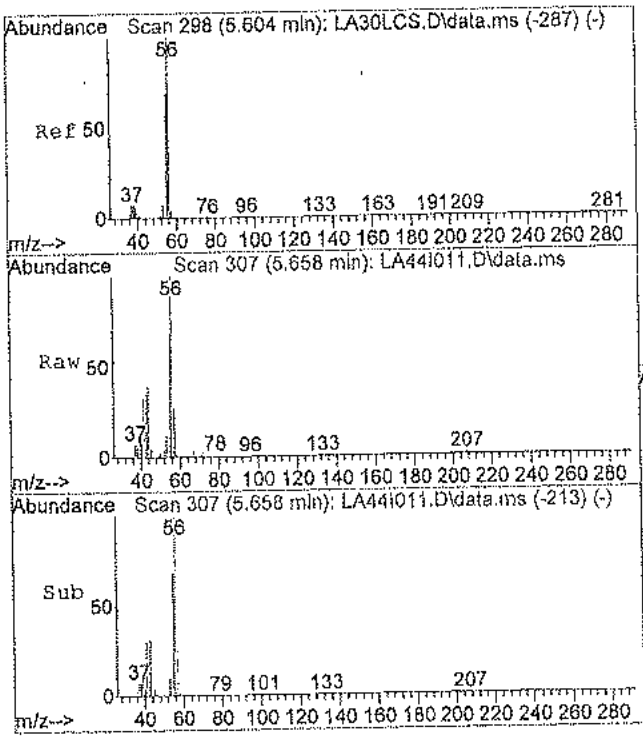


#4
Chloromethane
Concen: 0.44 ppb
RT: 4.31 min Scan# 85
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:50 Resp: 48825

Ion	Ratio	Lower	Upper
50	100		
52	34.5	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

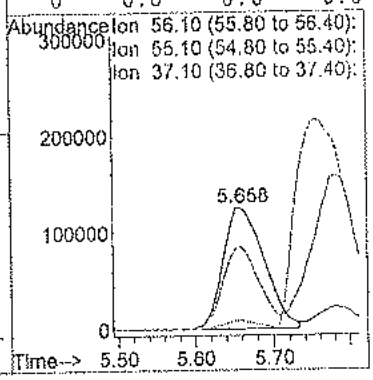


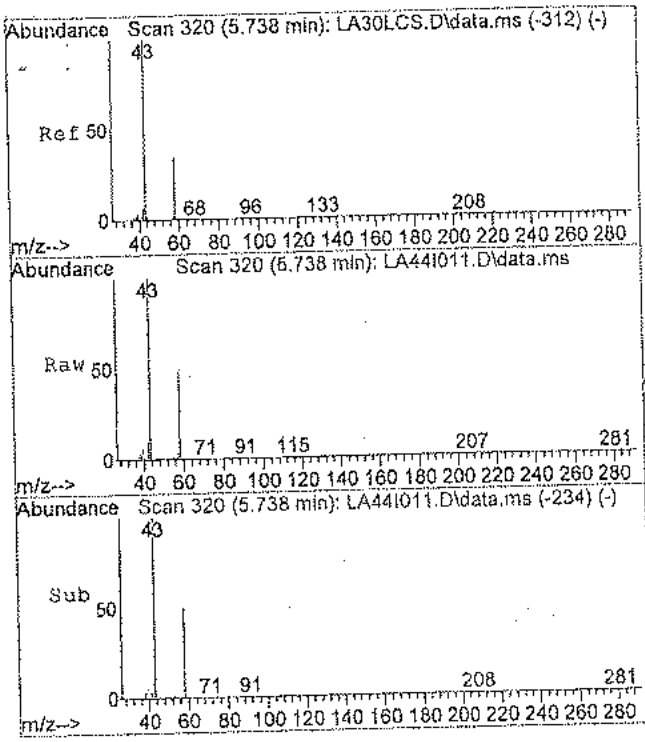


#10
Acrolein
Concen: 10.50 ppb
RT: 5.66 min Scan# 307
Delta R.T. 0.07 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:56.1 Resp: 448508

Ion	Ratio	Lower	Upper
56	100		
55	60.6	55.1	82.7
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

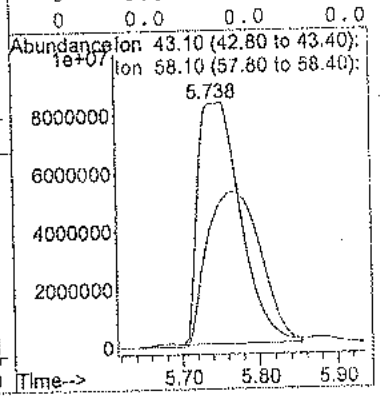


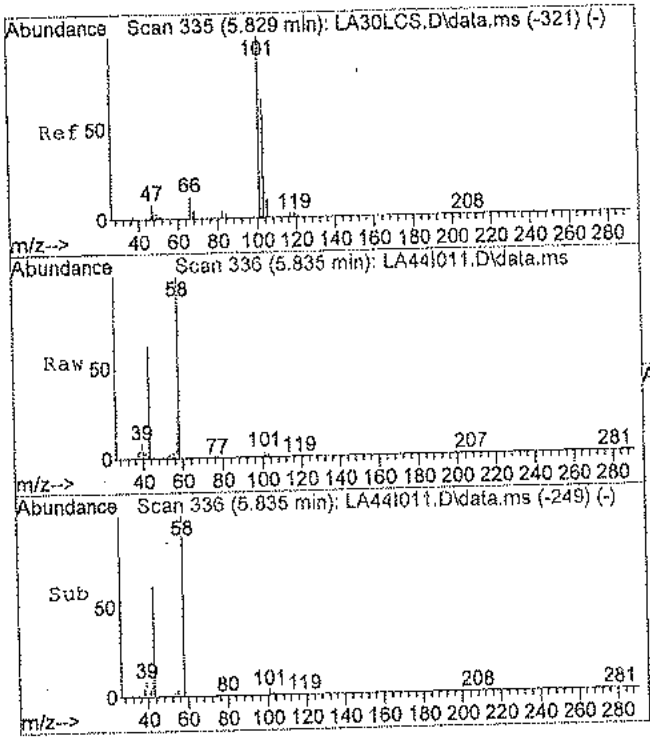


#11
Acetone
Concen: 182.91 ppb
RT: 5.74 min Scan# 320
Delta R.T. 0.02 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:43.1 Resp:32296713

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

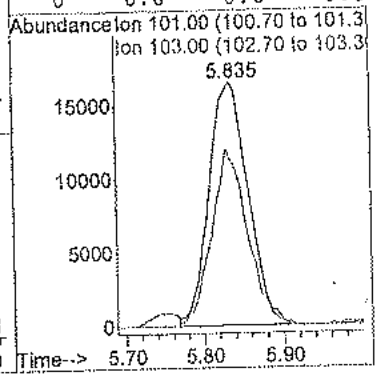


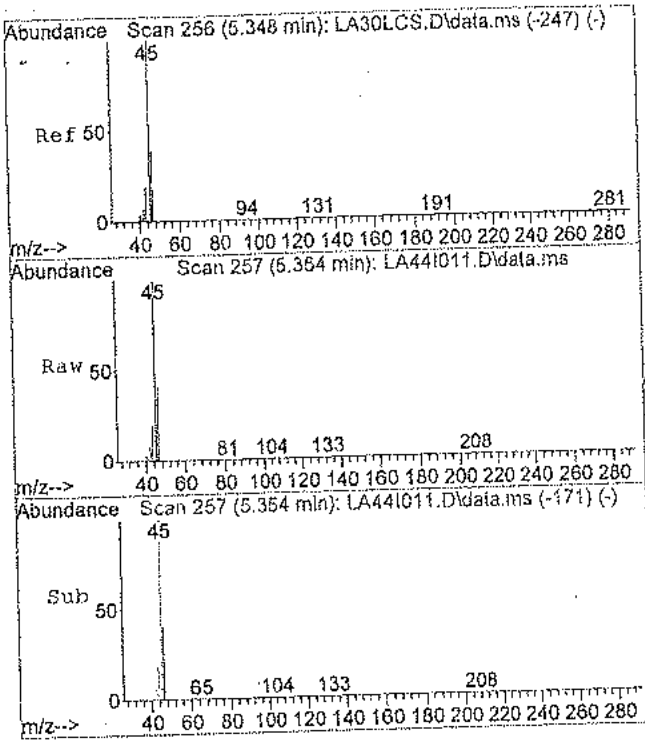


#12
Trichlorofluoromethane
Concen: 0.20 ppb
RT: 5.84 min Scan# 336
Delta R.T. 0.03 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:101 Resp: 56294

Ion	Ratio	Lower	Upper
101	100		
103	66.4	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

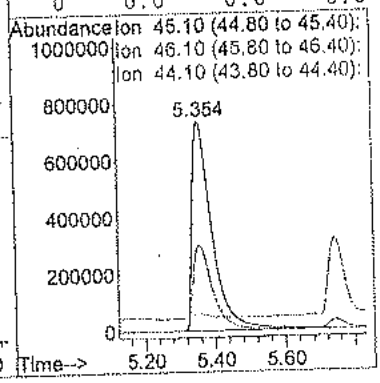


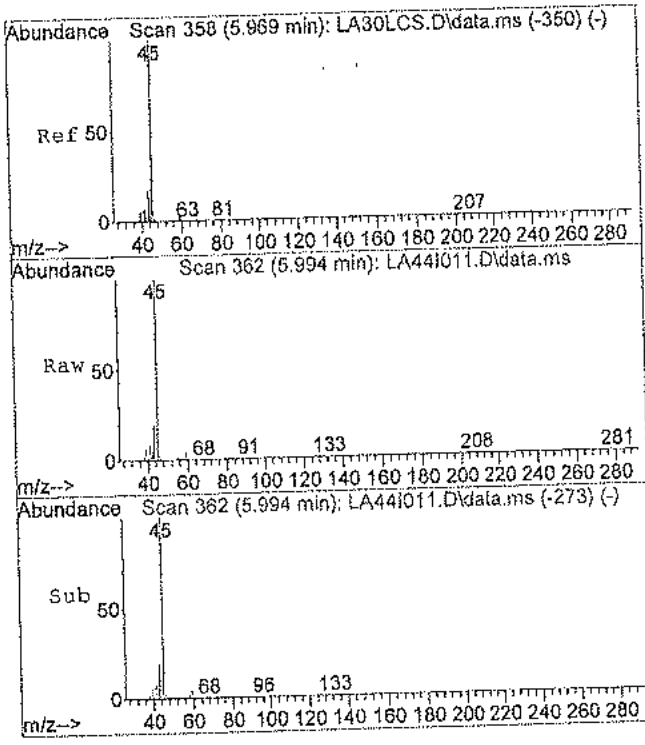


#13
Ethanol
Concen: 81.55 ppb
RT: 5.35 min Scan# 257
Delta R.T. 0.02 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:45.1 Resp: 2879276

Ion	Ratio	Lower	Upper
45	100		
46	40.5	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

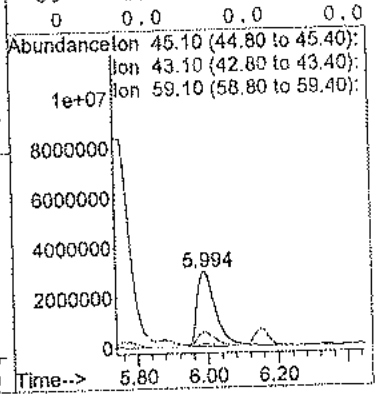


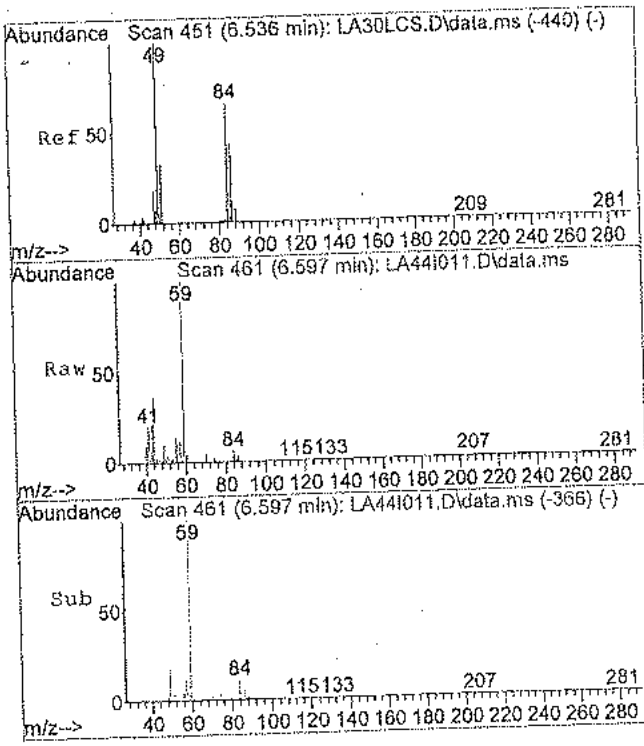


#14
Isopropyl Alcohol
Concen: 36.82 ppb
RT: 5.99 min Scan# 362
Delta R.T. 0.04 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:45.1 Resp:11031754

Ion	Ratio	Lower	Upper
45	100		
43	16.4	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

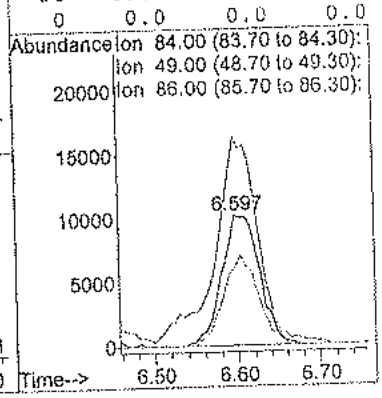


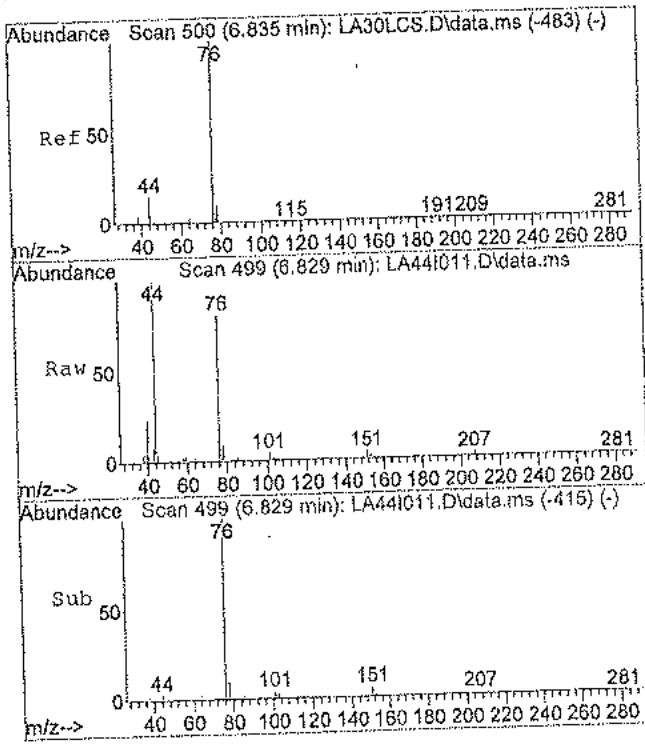


#16
Methylene Chloride
Concen: 0.36 ppb
RT: 6.60 min Scan# 461
Delta R.T. 0.08 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:84 Resp: 32223

Ion	Ratio	Lower	Upper
84	100		
49	184.8	66.6	100.0#
86	63.3	51.6	77.4
0	0.0	0.0	0.0

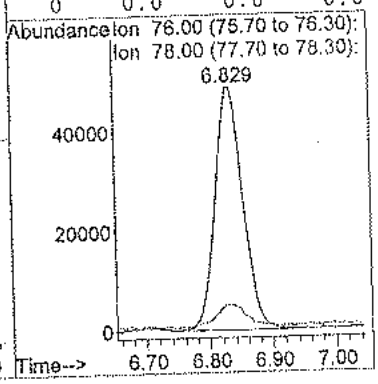


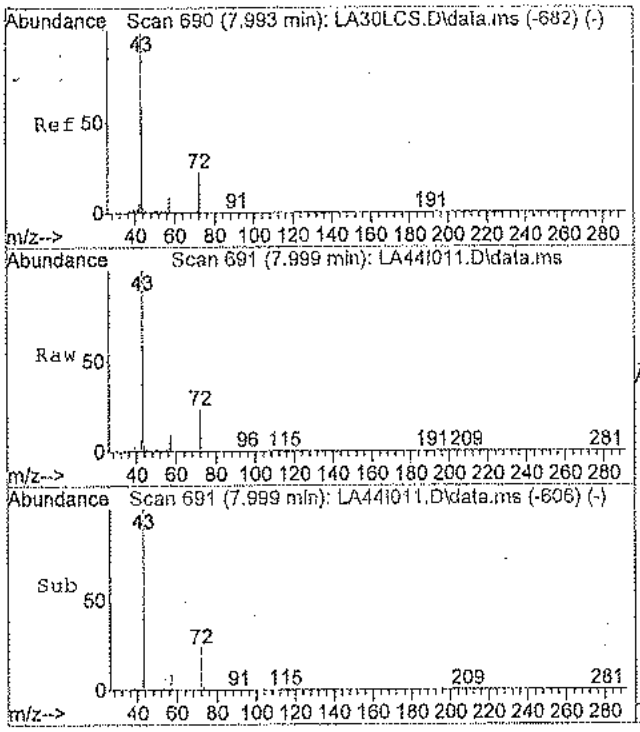


#18
Carbon Disulfide
Concen: 0.54 ppb
RT: 6.83 min Scan# 499
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:76 Resp: 149079

Ion	Ratio	Lower	Upper
76	100		
78	10.5	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

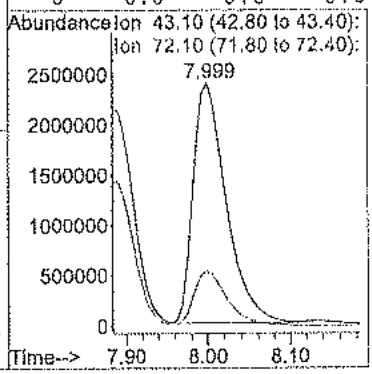


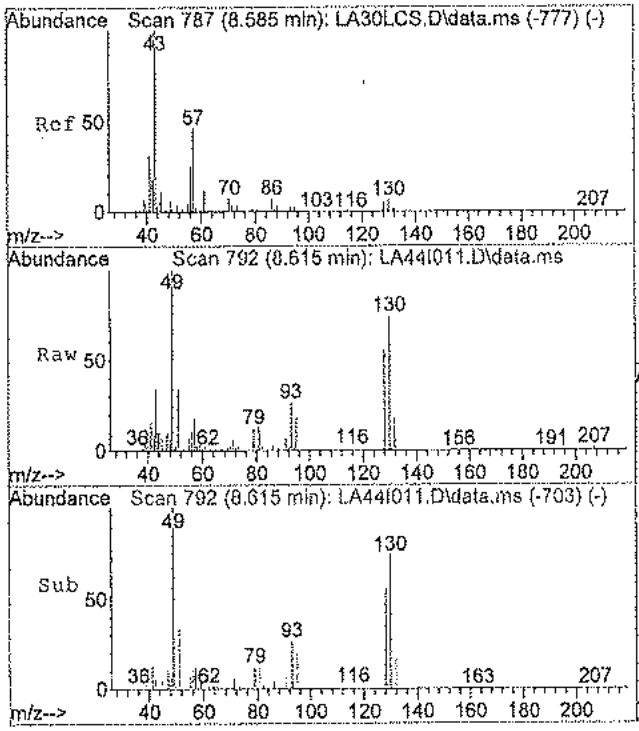


#23
2-Butanone
Concen: 29.57 ppb
RT: 8.00 min Scan# 691
Delta R.T. 0.02 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:43.1 Resp: 6630803

Ion	Ratio	Lower	Upper
43	100		
72	23.6	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

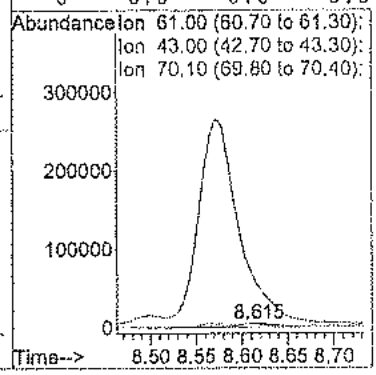


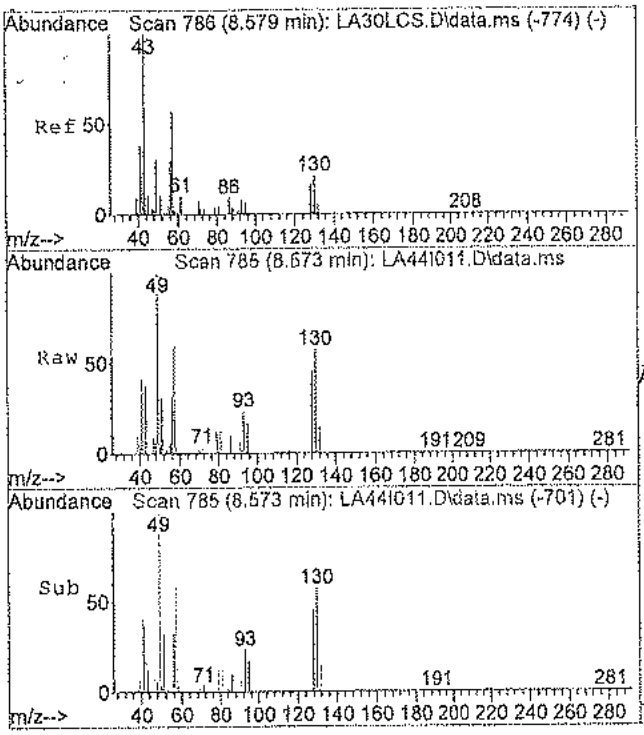


#26
Ethyl Acetate
Concen: 0.37 ppb
RT: 8.62 min Scan# 792
Delta R.T. 0.04 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:61 Resp: 13477

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	61.4	13.6	20.4#
0	0.0	0.0	0.0

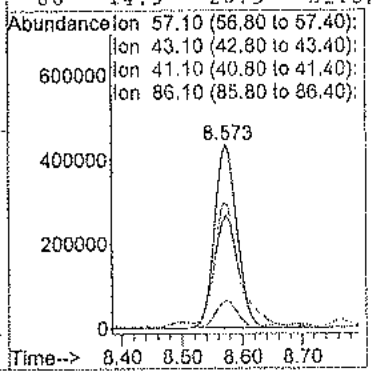


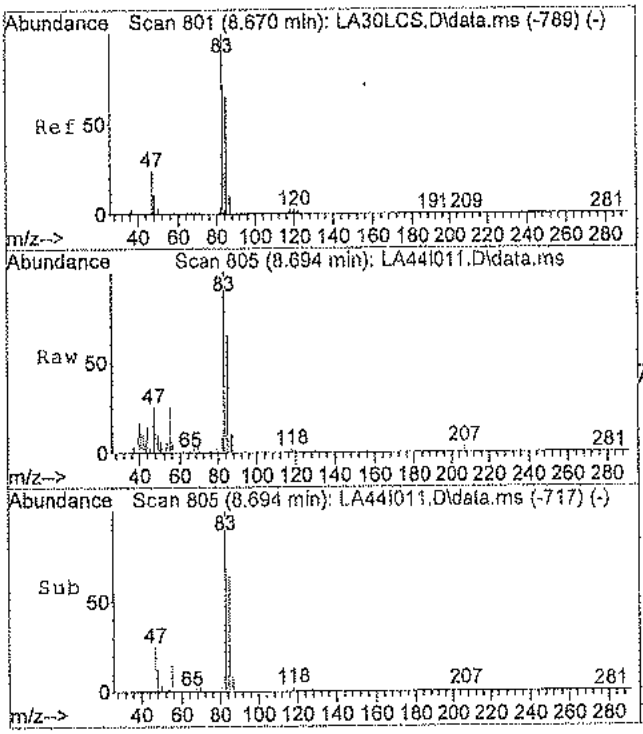


#27
Hexane
Concen: 6.55 ppb
RT: 8.57 min Scan# 785
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:57,1 Resp: 1131858

Ion	Ratio	Lower	Upper
57	100		
43	71.2	57.3	85.9
41	70.5	47.0	70.4#
86	14.9	20.9	31.3#

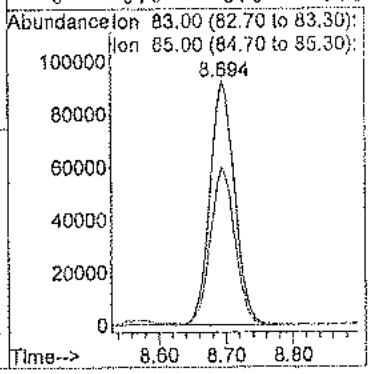


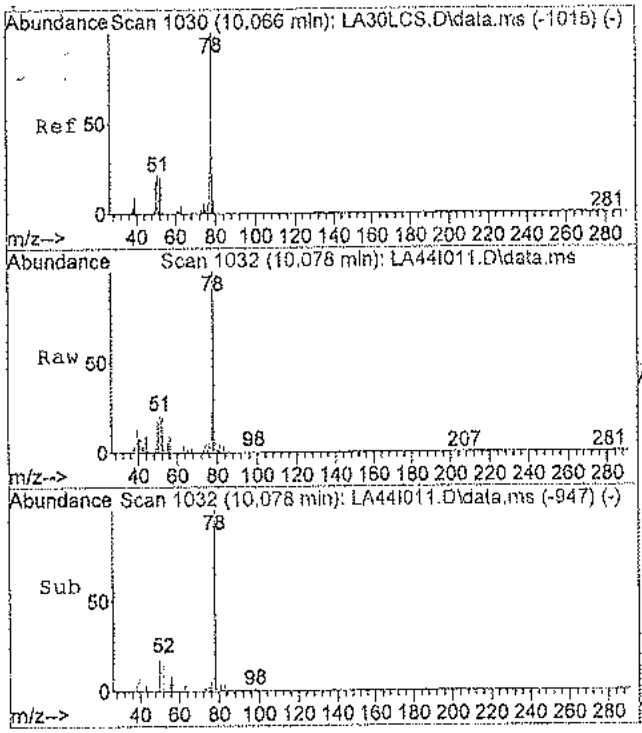


#28
Chloroform
Concen: 1.11 ppb
RT: 8.69 min Scan# 805
Delta R.T. 0.04 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:83 Resp: 237182

Ion	Ratio	Lower	Upper
83	100		
85	65.0	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

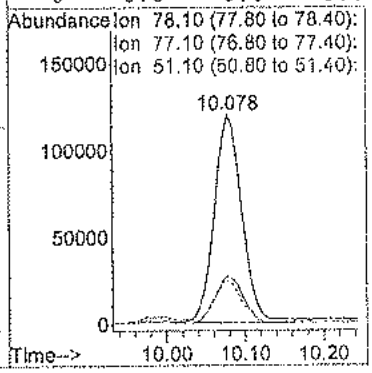


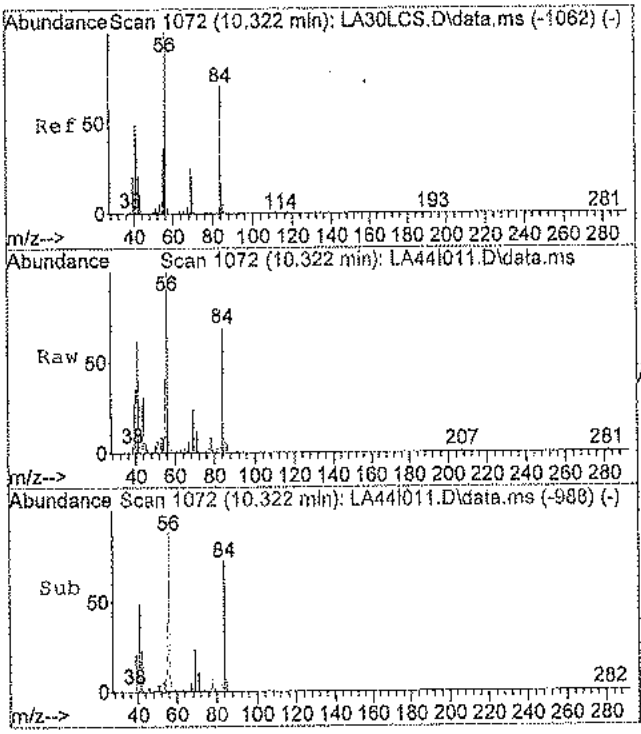


#32
Benzene
Concen: 0.97 ppb
RT: 10.08 min Scan# 1032
Delta R.T. 0.02 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:78.1 Resp: 296181

Ion	Ratio	Lower	Upper
78	100		
77	22.6	18.2	27.4
51	20.1	9.5	14.3#
0	0.0	0.0	0.0

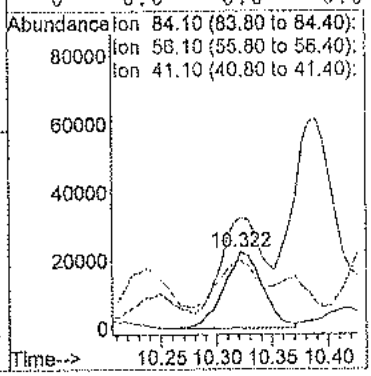


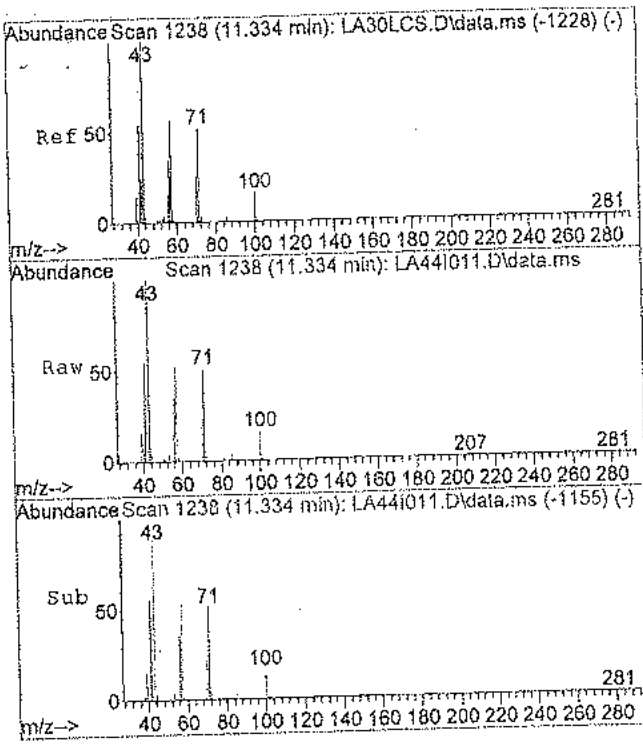


#34
Cyclohexane
Concen: 0.40 ppb
RT: 10.32 min Scan# 1072
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:84.1 Resp: 54445

Ion	Ratio	Lower	Upper
84	100		
56	161.8	67.3	100.9#
41	0.0	30.2	45.4#
0	0.0	0.0	0.0

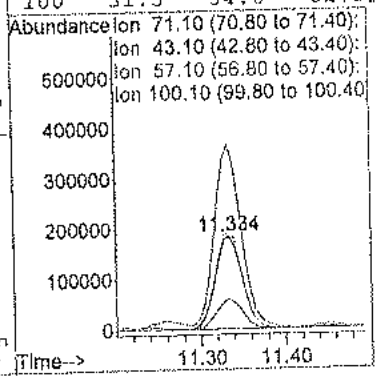


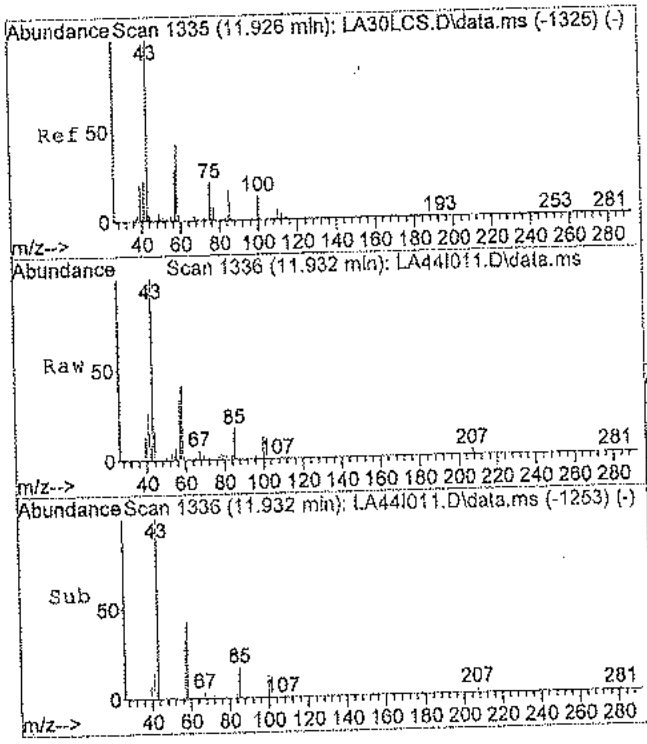


#40
Heptane
Concen: 3.82 ppb
RT: 11.33 min Scan# 1238
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:71.1 Resp: 404812

Ion	Ratio	Lower	Upper
71	100		
43	197.3	87.3	130.9#
57	106.3	57.8	86.6#
100	31.3	34.8	52.2#

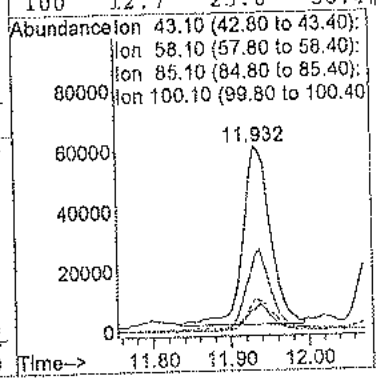


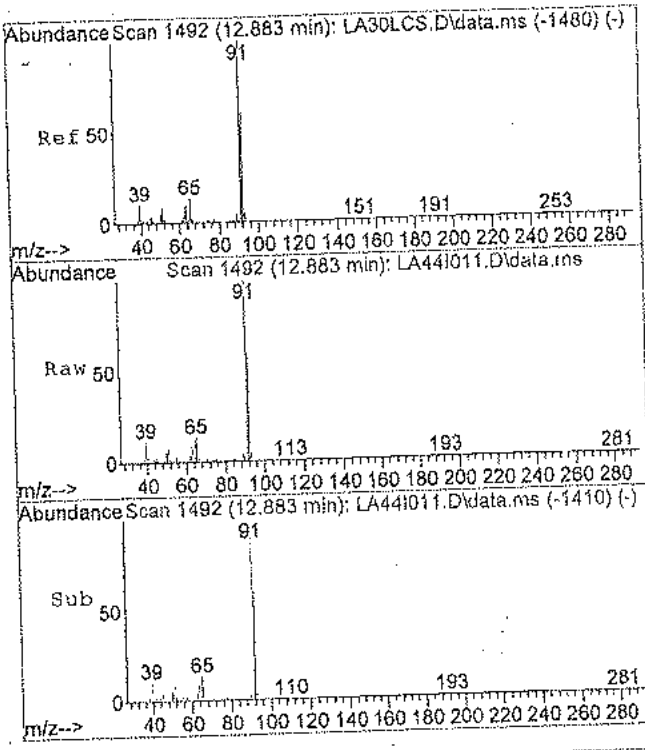


#42
4-Methyl-2-Pentanone
Concen: 0.58 ppb
RT: 11.93 min Scan# 1336
Delta R.T. 0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:43.1 Resp: 145319

Ion	Ratio	Lower	Upper
43	100		
58	38.0	39.5	59.3#
85	17.9	25.1	37.7#
100	12.7	25.6	38.4#

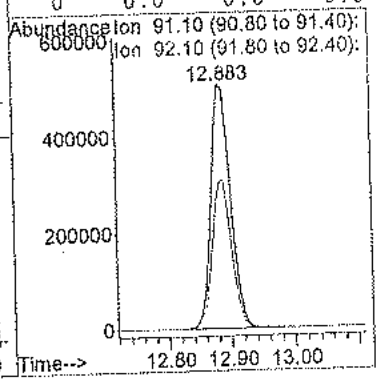


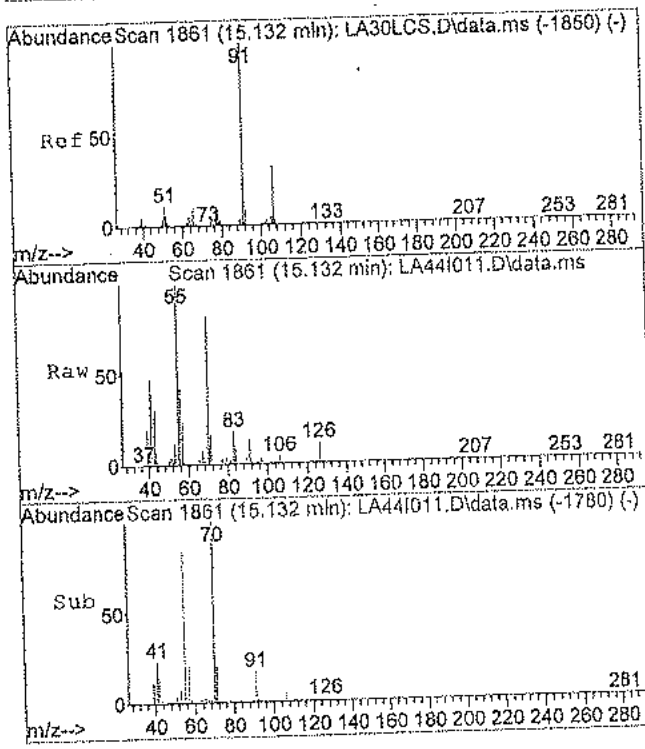


#45
Toluene
Concen: 2.97 ppb
RT: 12.88 min Scan# 1492
Delta R.T. 0.00 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:91.1 Resp: 1097527

Ion	Ratio	Lower	Upper
91	100		
92	61.0	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

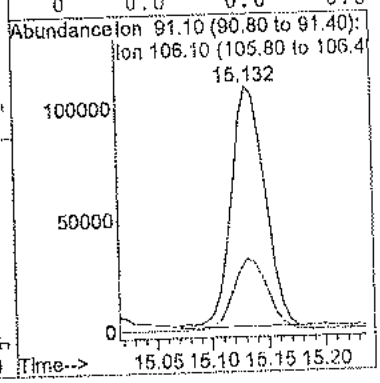


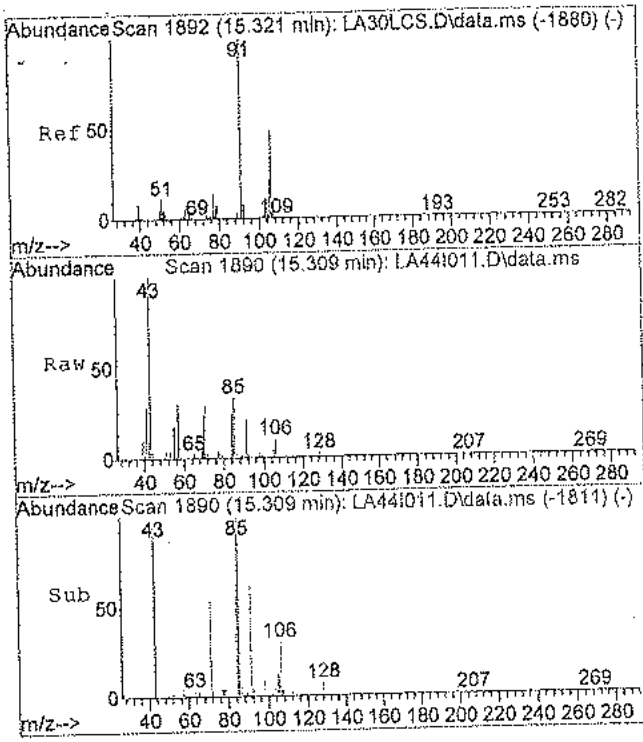


#52
Ethylbenzene
Concen: 0.49 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:91.1 Resp: 221704

Ion	Ratio	Lower	Upper
91	100		
106	29.8	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

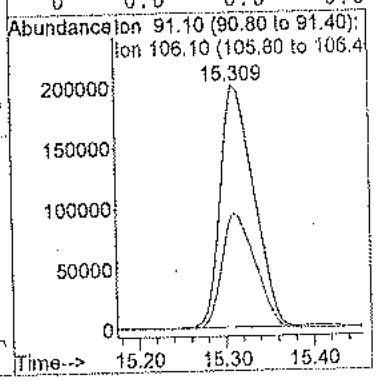


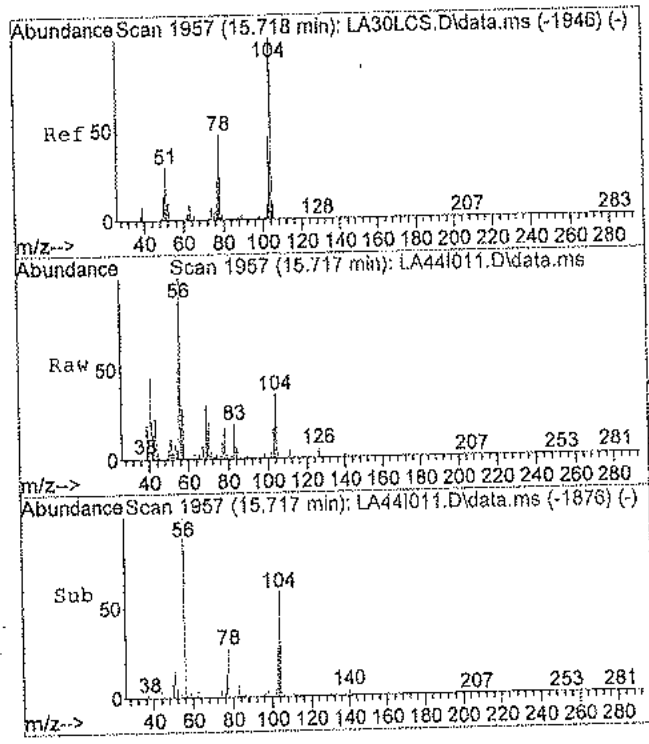


#53
m,p-Xylene
Concen: 1.53 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:91.1 Resp: 530263

Ion	Ratio	Lower	Upper
91	100		
106	47.9	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

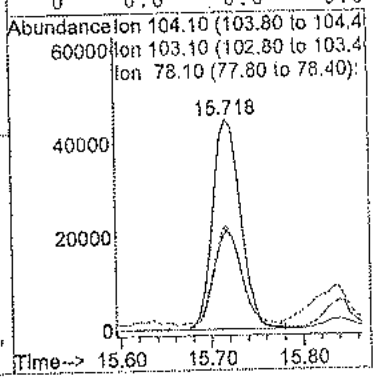


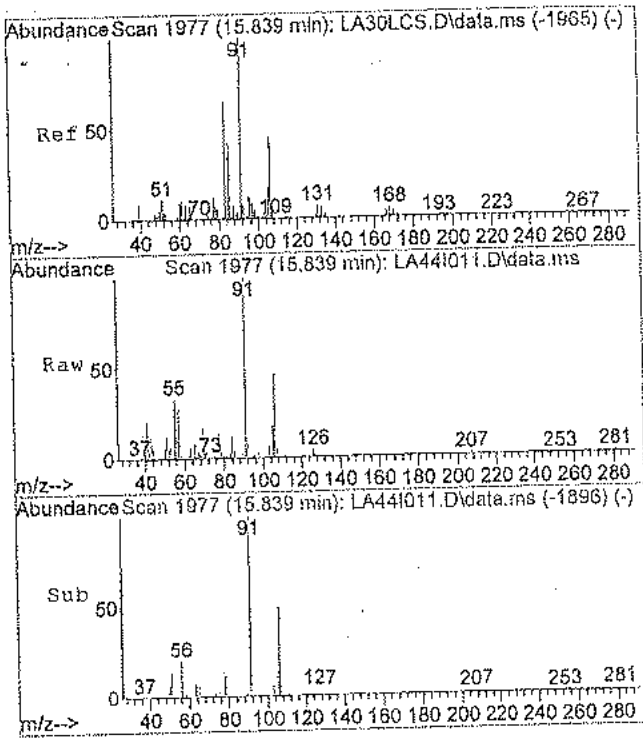


#55
Styrene
Concen: 0.38 ppb
RT: 15.72 min Scan# 1957
Delta R.T. -0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:104.1 Resp: 95100

Ion	Ratio	Lower	Upper
104	100		
103	49.9	36.6	54.8
78	46.5	27.7	41.5#
0	0.0	0.0	0.0

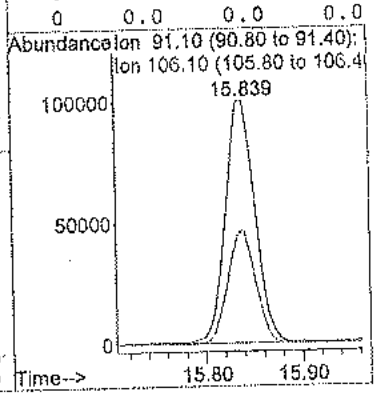


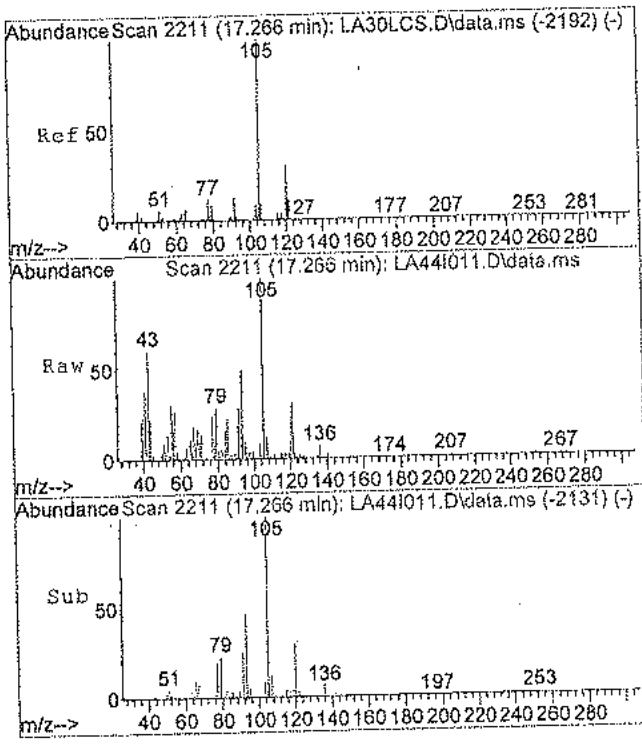


#57
o-Xylene
Concen: 0.59 ppb
RT: 15.84 min Scan# 1977
Delta R.T. -0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:91.1 Resp: 209290

Ion	Ratio	Lower	Upper
91	100		
106	44.6	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

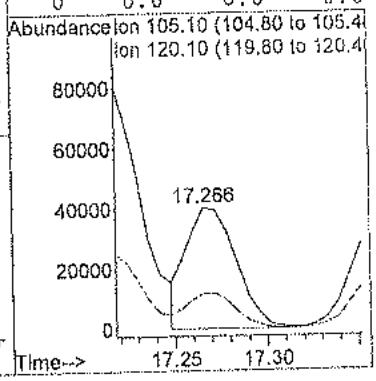


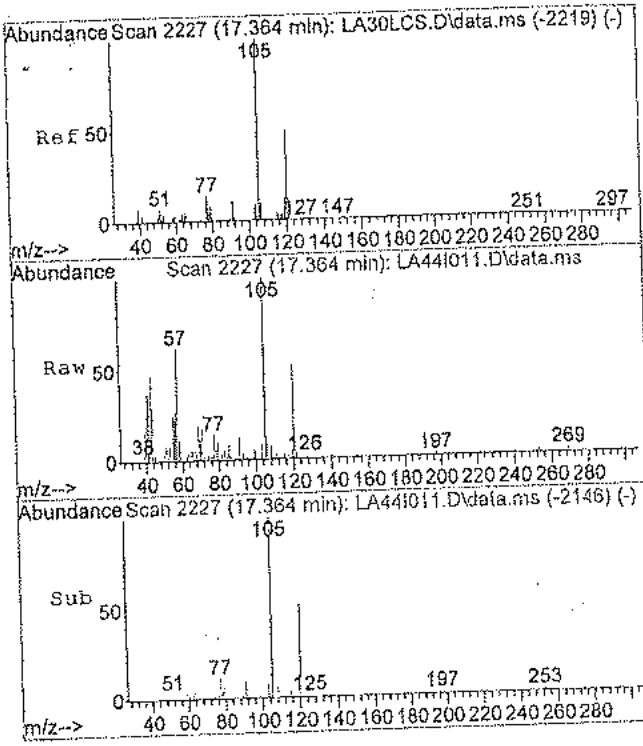


#59
4-Ethyl Toluene
Concen: 0.16 ppb
RT: 17.27 min Scan# 2211
Delta R.T. -0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:105.1 Resp: 75766

Ion	Ratio	Lower	Upper
105	100		
120	29.1	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

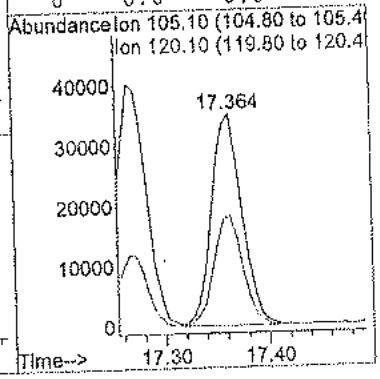


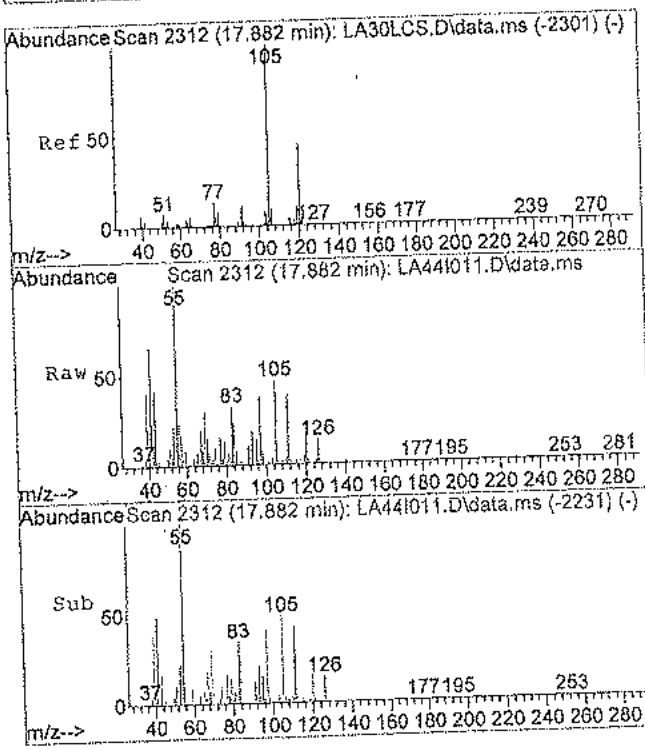


#60
1,3,5-Trimethylbenzene
Concen: 0.17 ppb
RT: 17.36 min Scan# 2227
Delta R.T. -0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:105.1 Resp: 70767

Ion	Ratio	Lower	Upper
105	100		
120	49.8	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

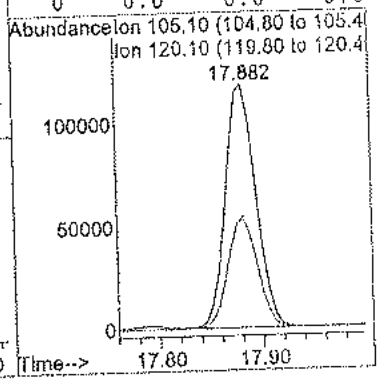




#61
1,2,4-Trimethylbenzene
Concen: 0.59 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA44I011.D
Acq: 04/15/2015 23:08

Tgt Ion:105.1 Resp: 240458

Ion	Ratio	Lower	Upper
105	100		
120	44.7	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



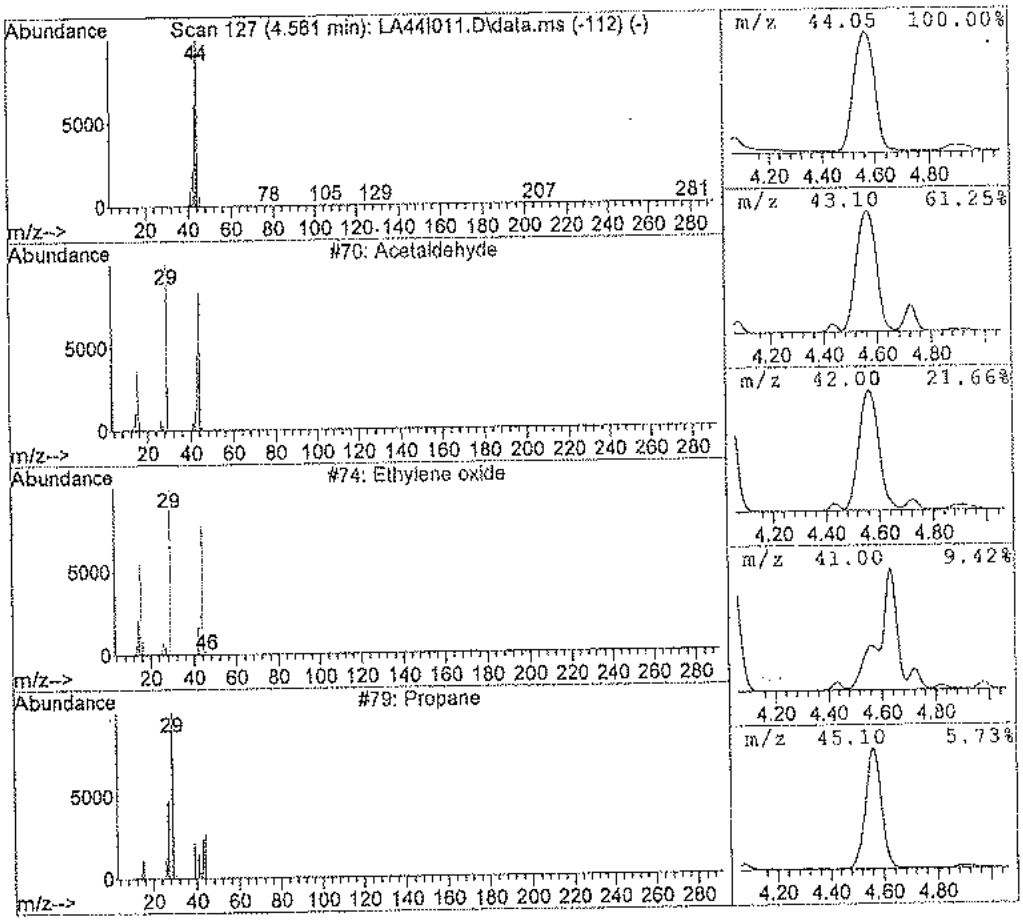
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.56	119.54 ppb	75187528	Bromochloromethane	12579834

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	70	000075-07-0	64.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	79	000074-98-6	4.00
4	Glycidol	802	000556-52-5	4.00
5	d-Alanine	2141	000338-69-2	4.00



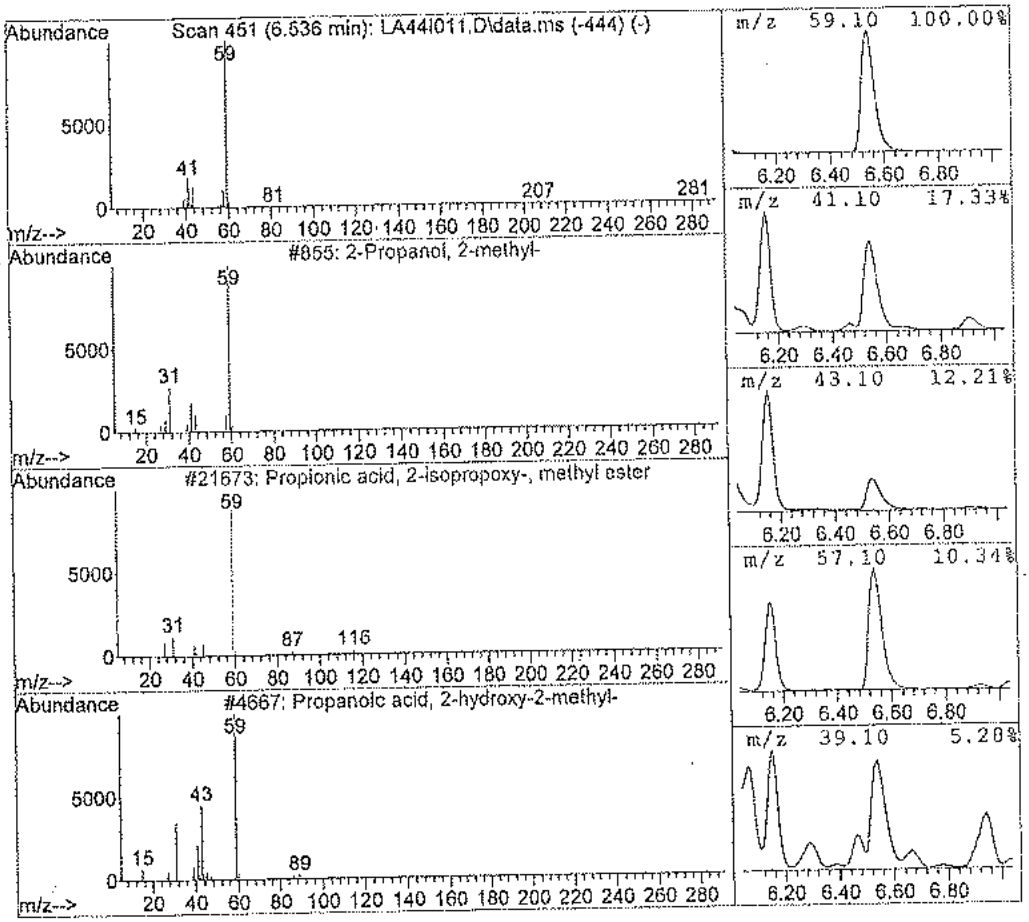
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.54	12.46 ppb	7839272	Bromochloromethane	12579834

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Propanol, 2-methyl-	855	000075-65-0	78.00
2	Propionic acid, 2-isopropoxy-, meth	21673	1000151-15-1	9.00
3	Propanoic acid, 2-hydroxy-2-methyl-	4667	000594-61-6	9.00
4	3-Pentanol	2085	000584-02-1	9.00
5	Propanoic acid, 2-methoxy-, methyl	8633	017639-76-8	9.00



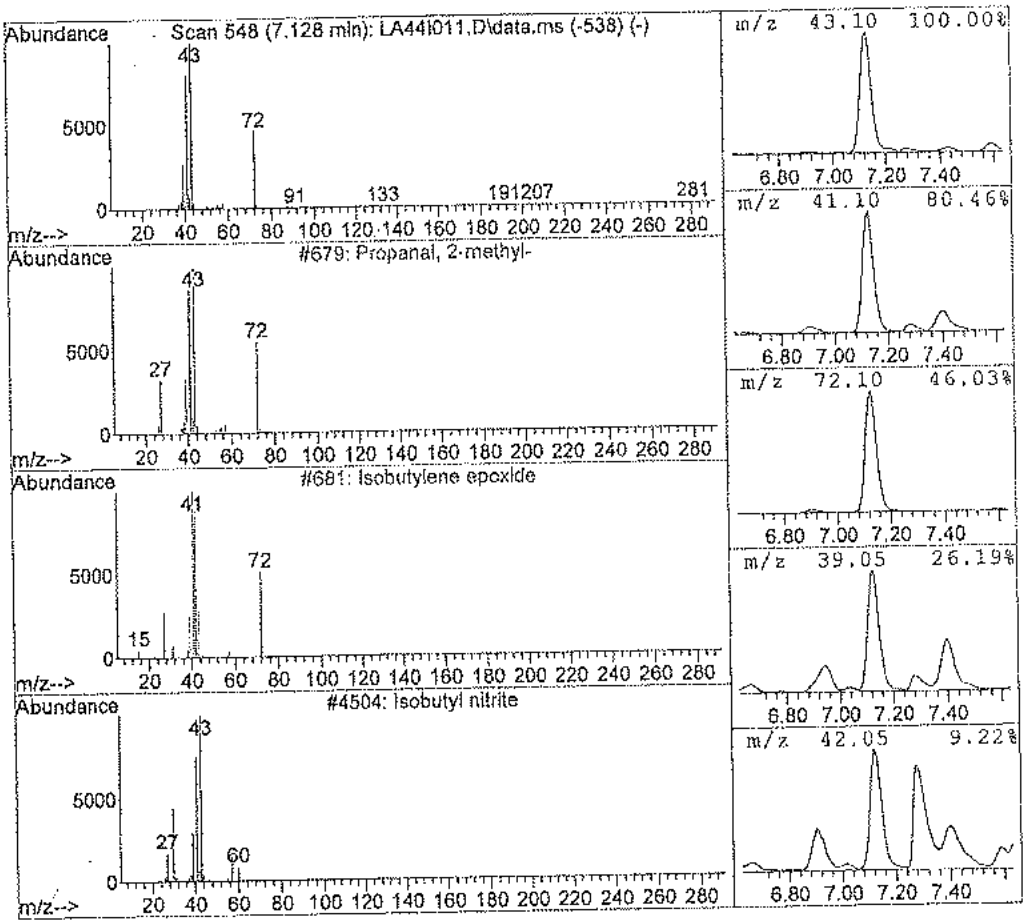
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.13	11.09 ppb	6978124	Bromochloromethane	12579834

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Propanal, 2-methyl-	679	000078-84-2	91.00
2	Isobutylene epoxide	681	000558-30-5	59.00
3	Isobutyl nitrite	4504	000542-56-3	25.00
4	Propane, 2-nitro-	2156	000079-46-9	25.00
5	1-Propene, 3-methoxy-	688	000627-40-7	9.00



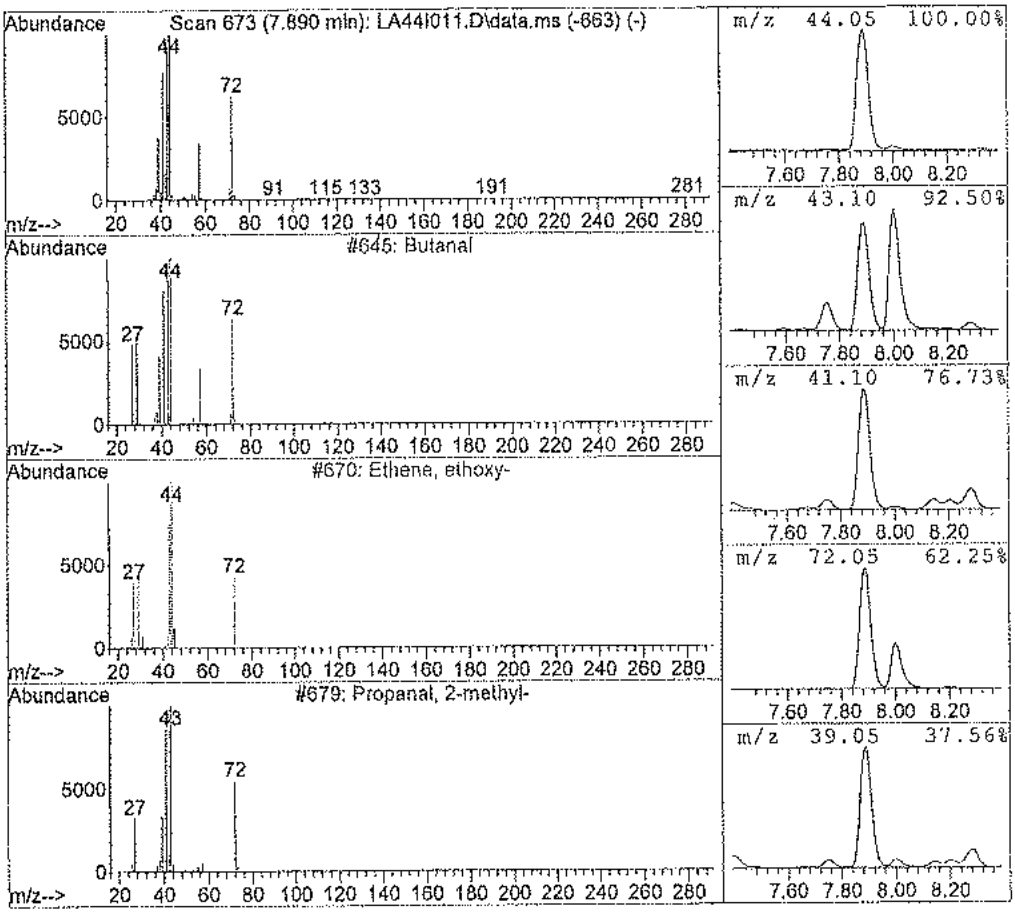
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.89	49.30 ppb	31009691	Bromochloromethane	12579834

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	Ethene, ethoxy-	670	000109-92-2	64.00
3	Propanal, 2-methyl-	679	000078-84-2	46.00
4	Pentanal	1695	000110-62-3	28.00
5	Isobutylene epoxide	678	000558-30-5	17.00



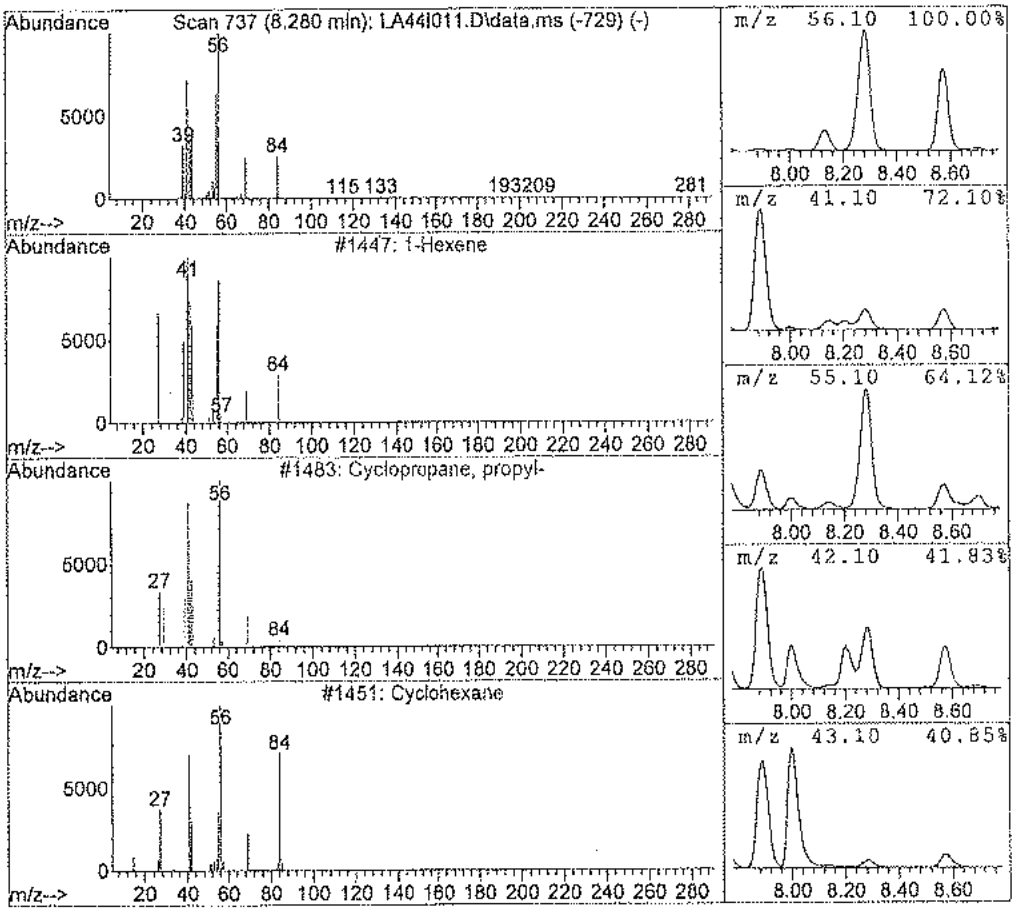
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.28	9.29 ppb	5842202	Bromochloromethane	12579834

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexene	1447	000592-41-6	91.00
2	Cyclopropane, propyl-	1483	002415-72-7	72.00
3	Cyclohexane	1451	000110-82-7	64.00
4	1-Pentene, 2-methyl-	1481	000763-29-1	59.00
5	3-Hexene, (E)-	1453	013269-52-8	55.00



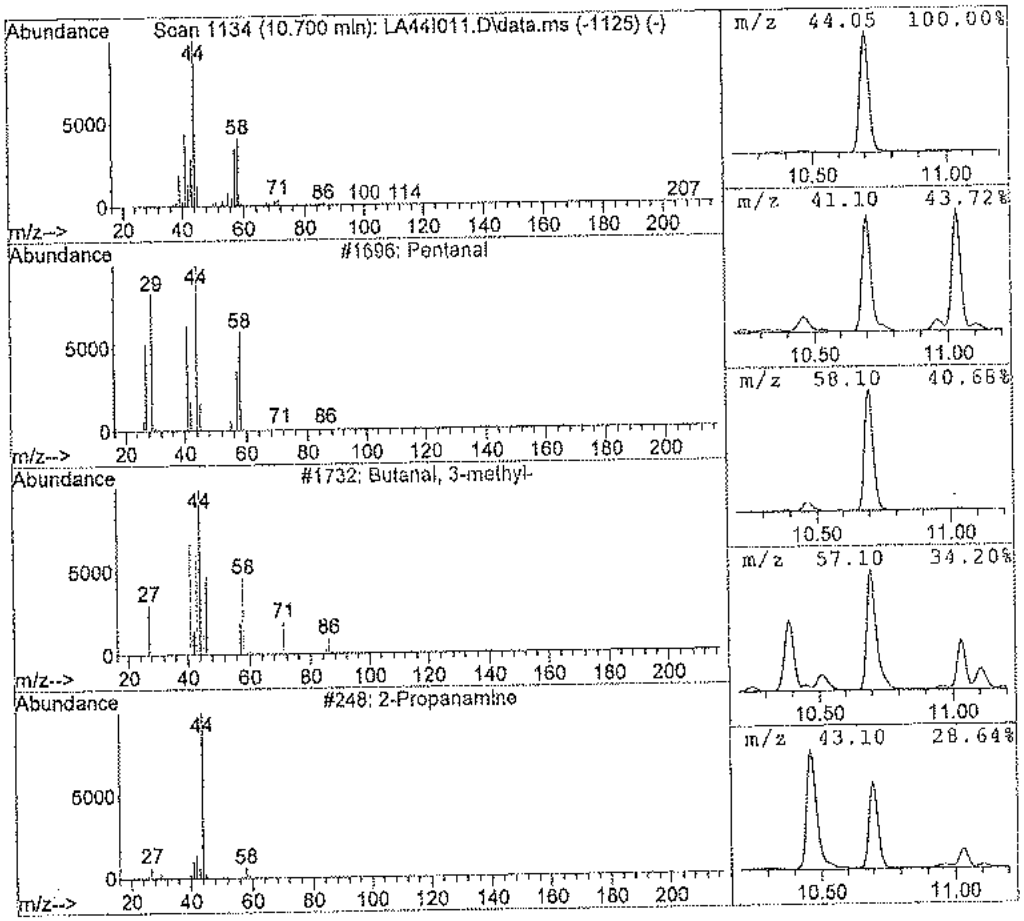
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.70	14.51 ppb	11124623	1,4-Difluorobenzene	15332052

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1696	000110-62-3	87.00
2	Butanal, 3-methyl-	1732	000590-86-3	43.00
3	2-Propanamine	248	000075-31-0	38.00
4	Cyclopropyl carbinol	686	002516-33-8	28.00
5	Piperazine	1606	000110-85-0	9.00



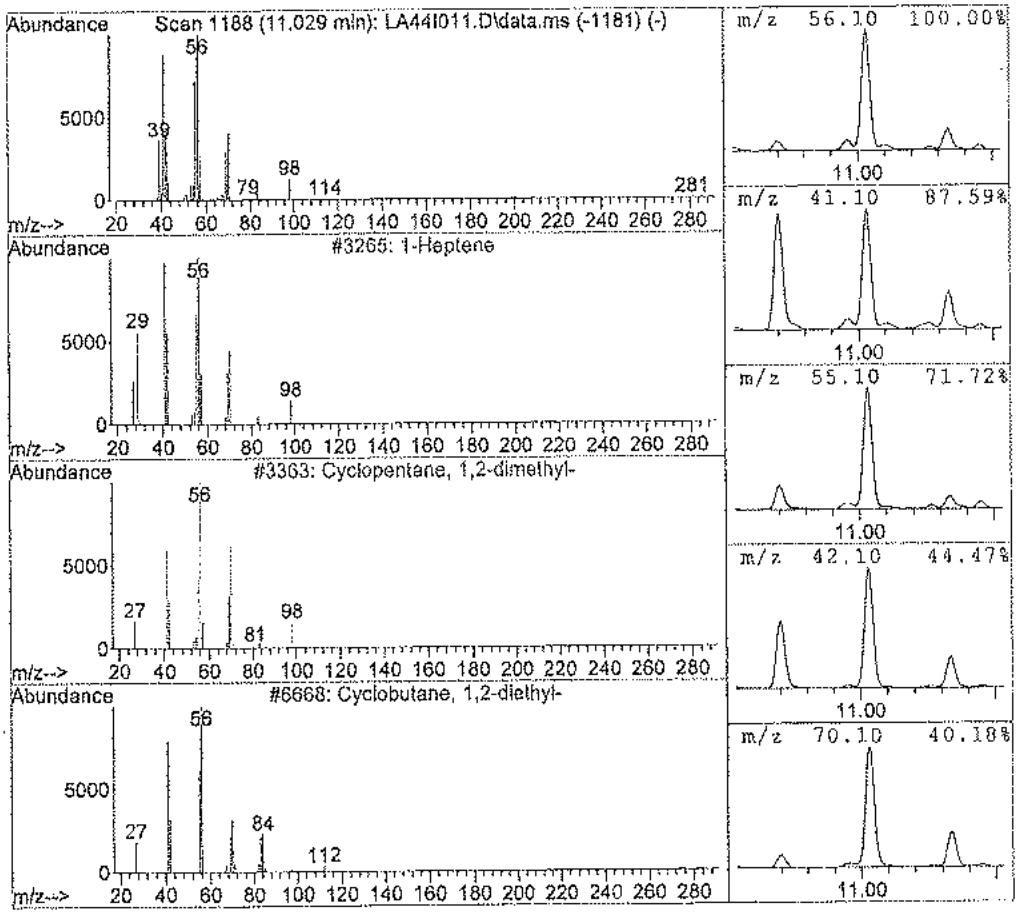
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
11.03	11.01 ppb	8438032	1,4-Difluorobenzene	15332052

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Heptene	3265	000592-76-7	94.00
2	Cyclopentane, 1,2-dimethyl-	3363	002452-99-5	83.00
3	Cyclobutane, 1,2-diethyl-	6668	061141-83-1	72.00
4	Isopropylcyclobutane	3308	000872-56-0	72.00
5	1-Heptanol	8239	000111-70-6	72.00



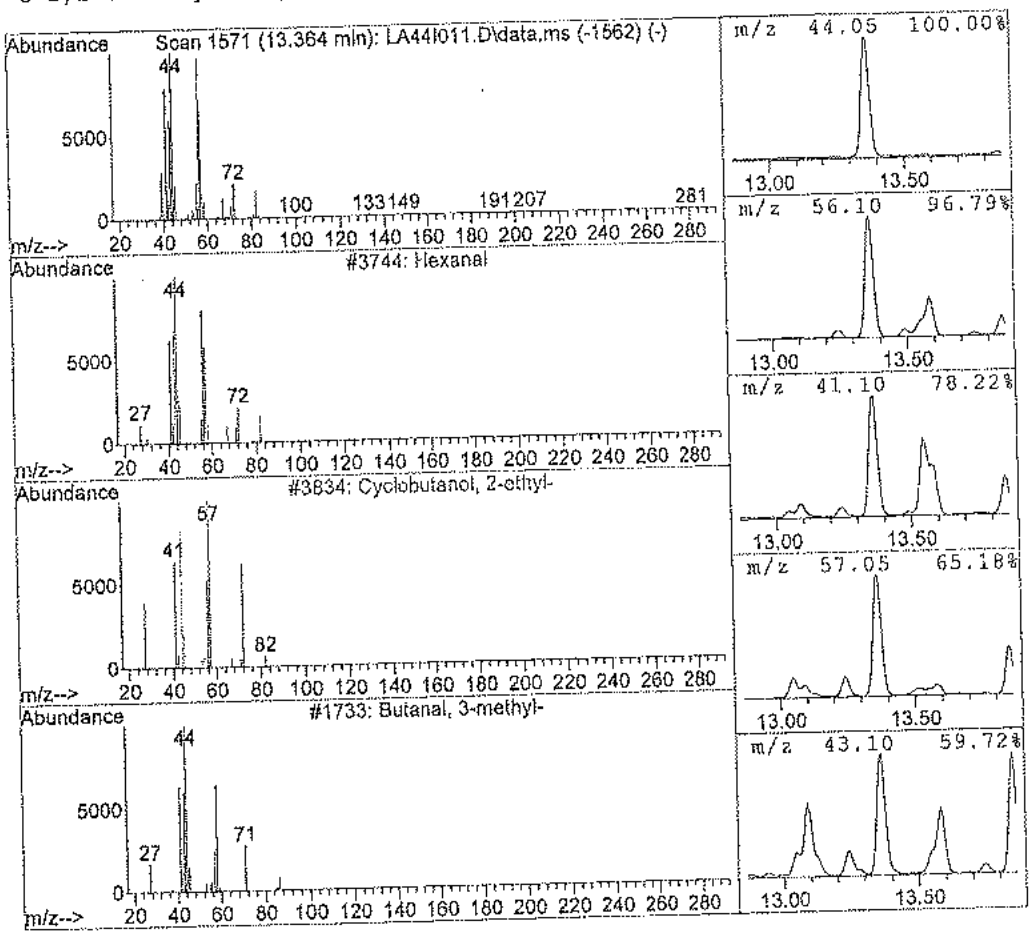
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.36	9.05 ppb	8591063	Chlorobenzene d5	18976087

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3744	000066-25-1	90.00
2	Cyclobutanol, 2-ethyl-	3834	035301-43-0	42.00
3	Butanal, 3-methyl-	1733	000590-86-3	32.00
4	Aziridine, 2-methyl-	204	000075-55-8	27.00
5	2,2-Dimethyl-3-hydroxypropionaldehy	4305	000597-31-9	25.00



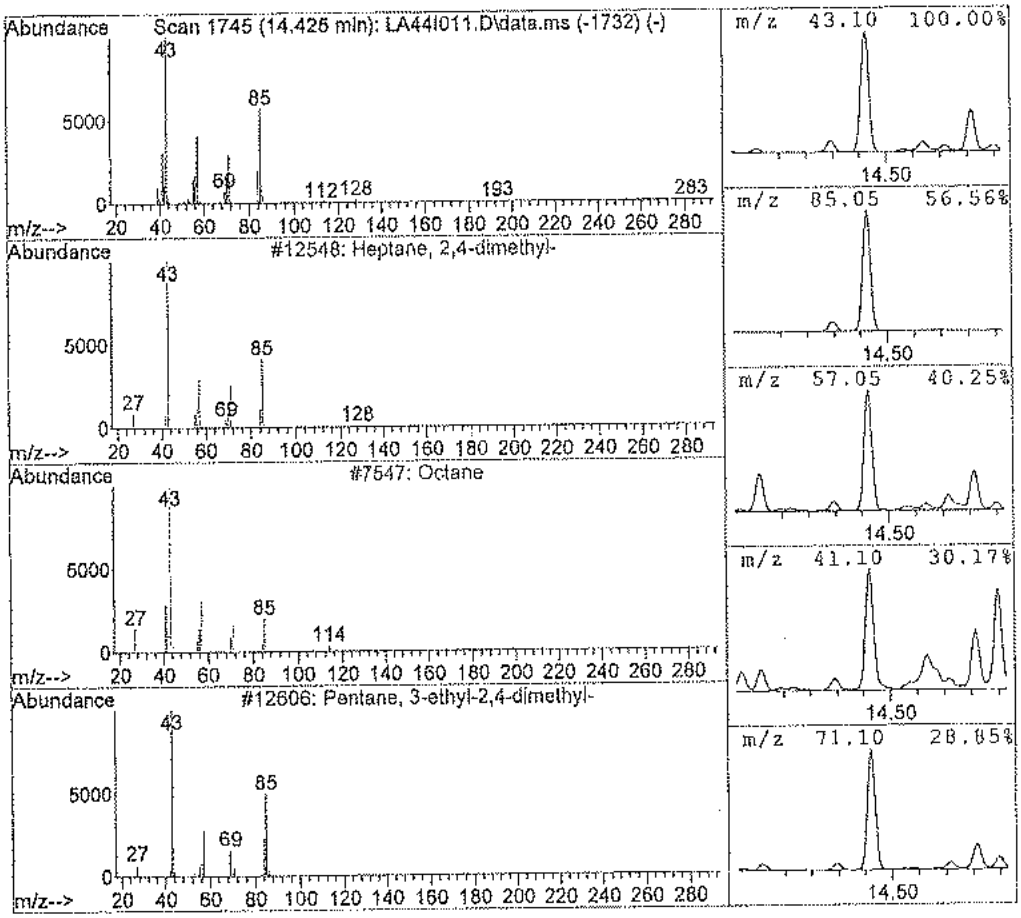
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.43	25.01 ppb	23732616	Chlorobenzene d5	18976087

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 2,4-dimethyl-	12548	002213-23-2	90.00
2	Octane	7547	000111-65-9	72.00
3	Pentane, 3-ethyl-2,4-dimethyl-	12606	001068-87-7	59.00
4	Hexane, 2,3,5-trimethyl-	12572	001069-53-0	58.00
5	Hexane, 1-propoxy-	20809	053685-78-2	53.00



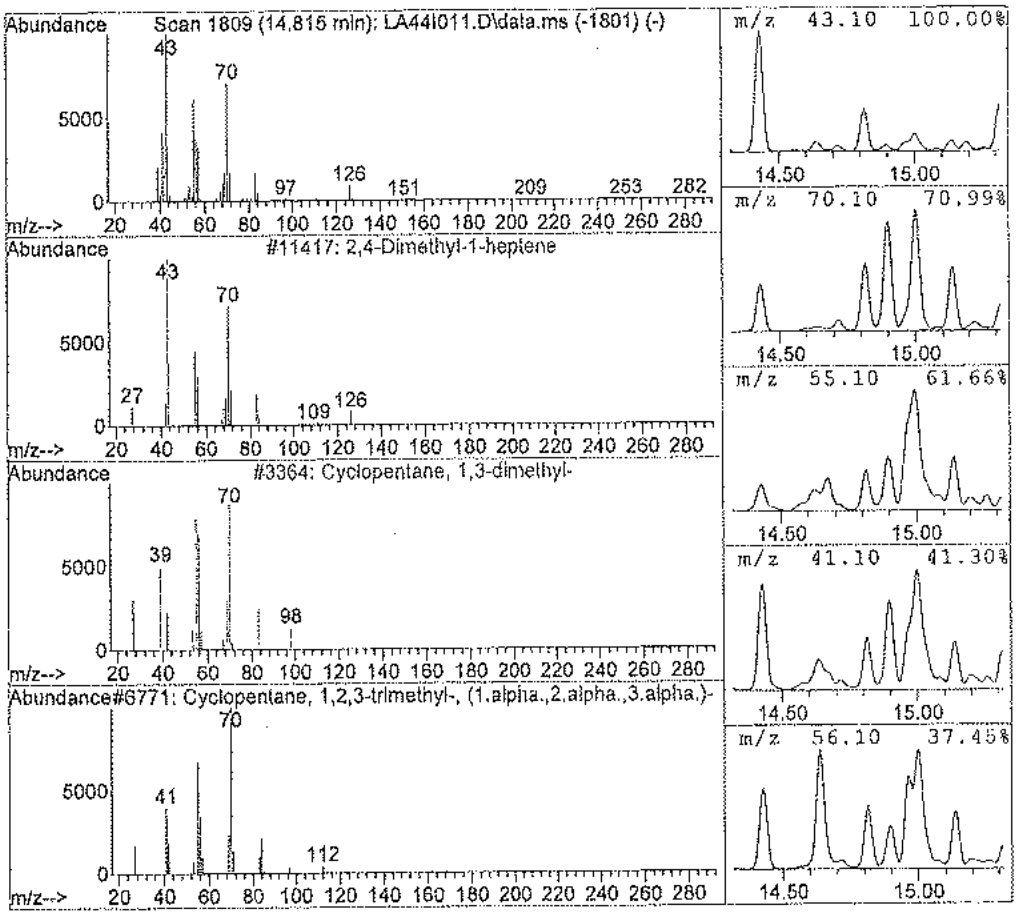
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.82	10.44 ppb	9907775	Chlorobenzene d5	18976087

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,4-Dimethyl-1-heptene	11417	019549-87-2	91.00
2	Cyclopentane, 1,3-dimethyl-	3364	002453-00-1	50.00
3	Cyclopentane, 1,2,3-trimethyl-, (1.	6771	002613-69-6	50.00
4	Hexane, 2-methyl-4-methylene-	6722	003404-80-6	47.00
5	1-Heptene, 3-methyl-	6605	004810-09-7	38.00



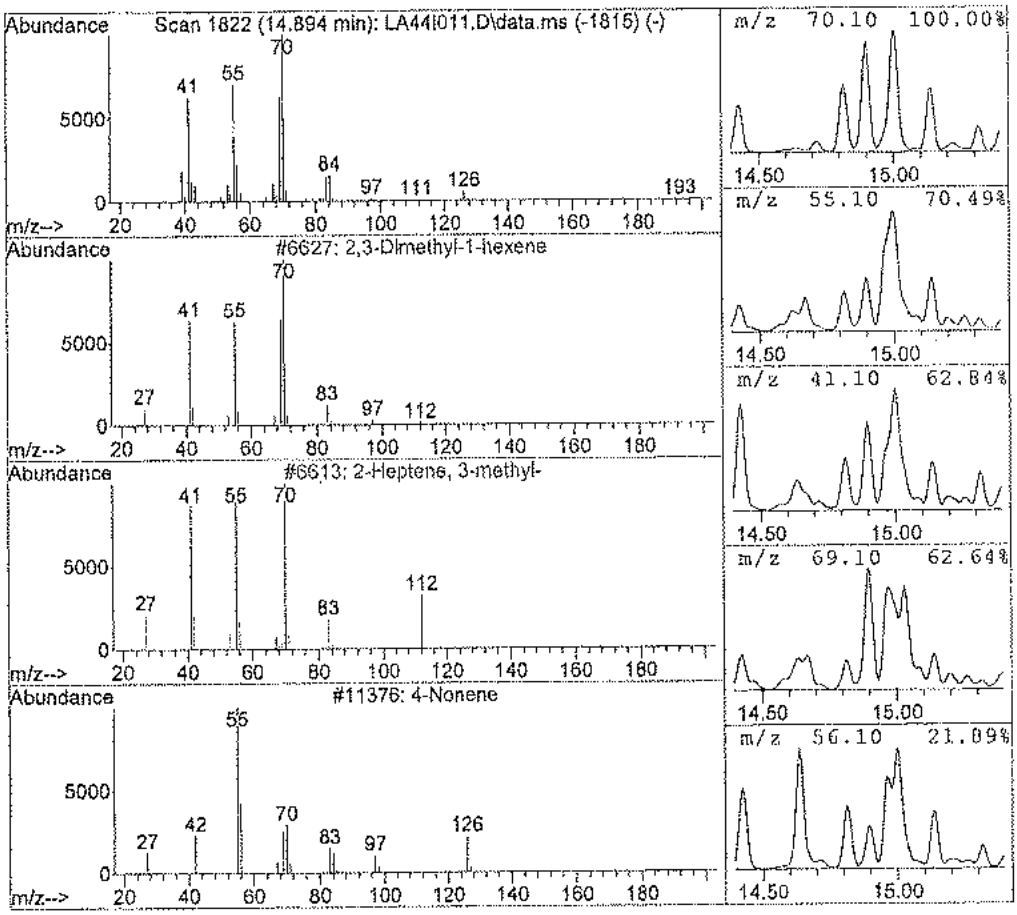
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA441011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.89	10.26 ppb	9734305	Chlorobenzene d5	18976087

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,3-Dimethyl-1-hexene	6627	016746-86-4	72.00
2	2-Heptene, 3-methyl-	6613	003404-75-9	72.00
3	4-Nonene	11376	002198-23-4	38.00
4	2-Pentene, 3-methyl-, (Z)-	1508	000922-62-3	38.00
5	2-Pentene, 3-methyl-, (E)-	1504	000616-12-6	35.00



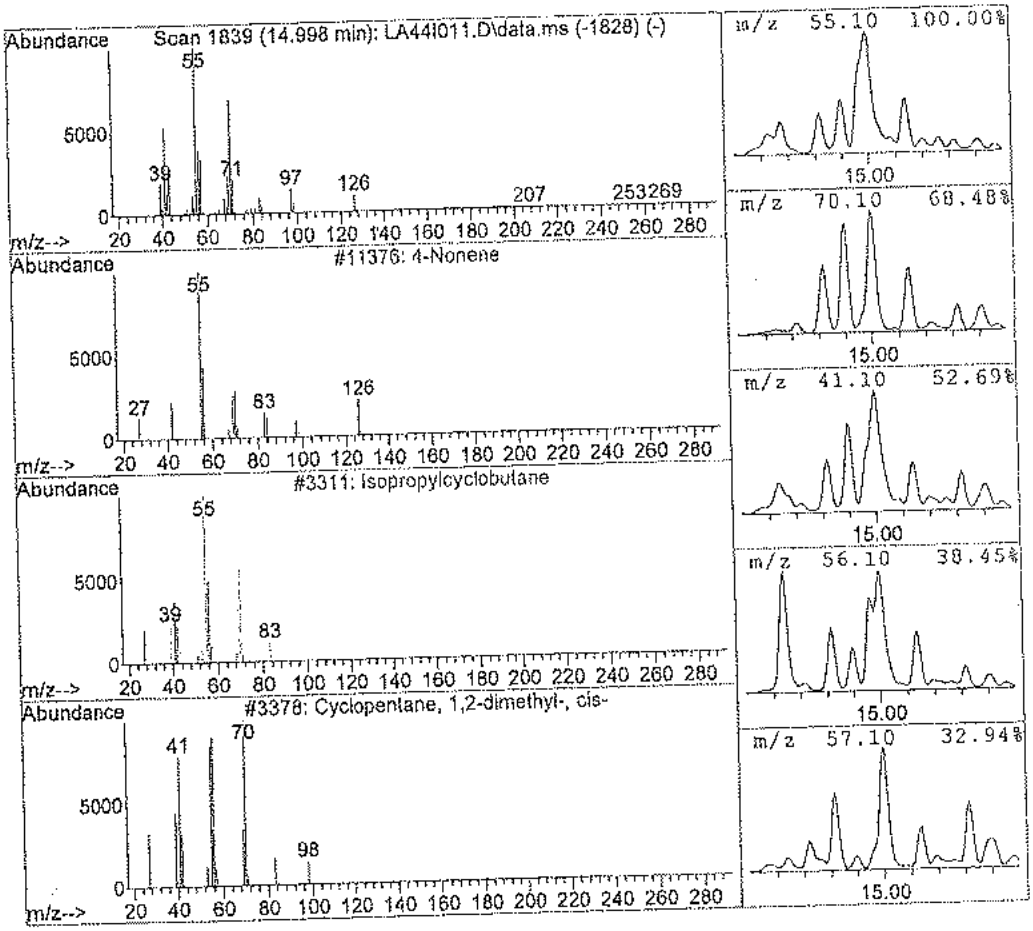
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
15.00	33.54 ppb	31818175	Chlorobenzene d5	18976087

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	4-Nonene	11376	002198-23-4	53.00
2	Isopropylcyclobutane	3311	000872-56-0	50.00
3	Cyclopentane, 1,2-dimethyl-, cis-	3378	001192-18-3	47.00
4	1-Heptene, 5-methyl-	6614	013151-04-7	43.00
5	trans-7-Methyl-3-octene	11424	1000113-52-8	38.00



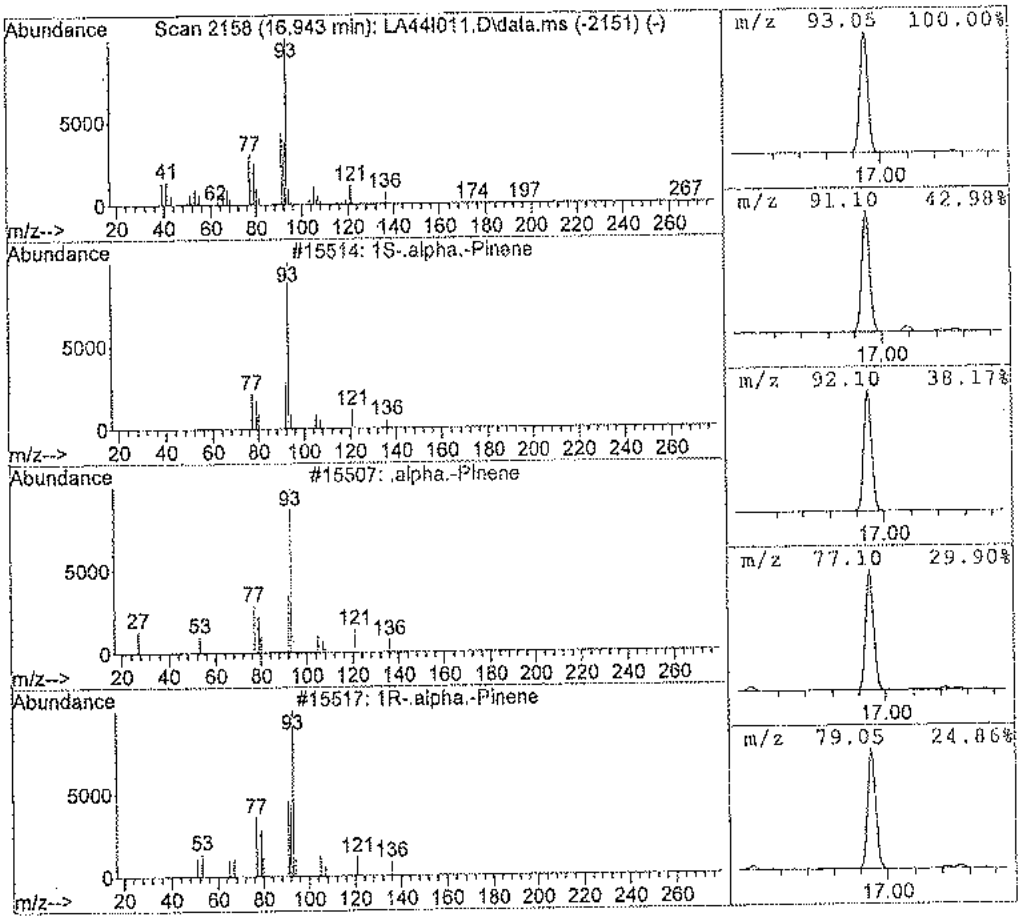
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA44I011.D Vial: 12
Acq Time : 04/15/2015 23:08 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.94	13.89 ppb	13181934	Chlorobenzene d5	18976087

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1S-.alpha.-Pinene	15514	007785-26-4	97.00
2	.alpha.-Pinene	15507	000080-56-8	96.00
3	1R-.alpha.-Pinene	15517	007785-70-8	95.00
4	Bicyclo[3.1.1]hept-2-ene, 2,6,6-tri	15707	002437-95-8	95.00
5	Bicyclo[3.1.1]hept-2-ene, 3,6,6-tri	15645	004889-83-2	91.00

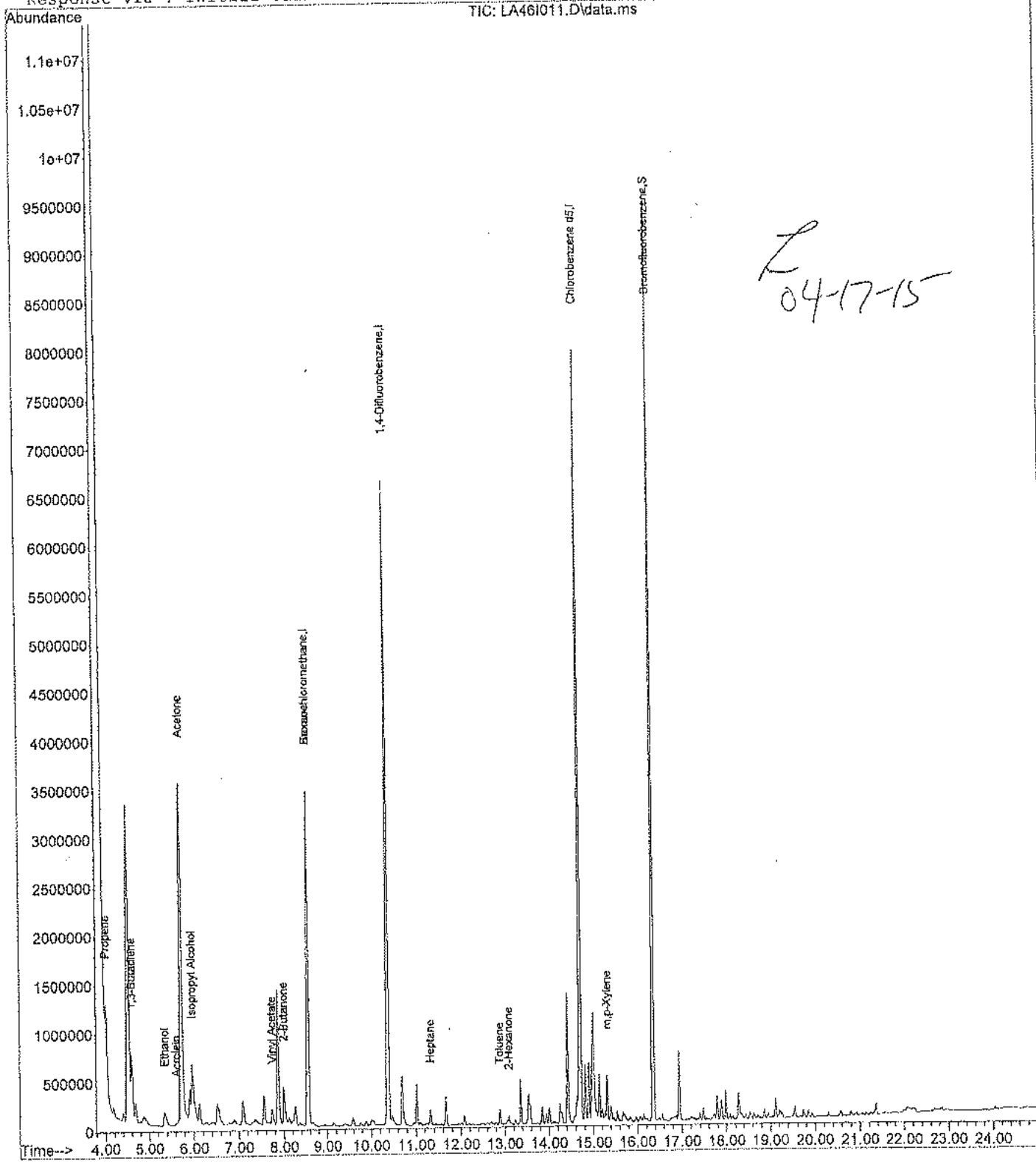


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA46I011.D Vial: 12
Acq Time : 04/16/2015 07:38 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 08:16:36 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA46I011.D Vial: 12
Acq Time : 04/16/2015 07:38 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 08:16:36 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.55	130	567424	20.0000 ppb	116.83
25) 1,4-Difluorobenzene	10.37	114	6490523	20.0000 ppb	106.98
50) Chlorobenzene d5	14.70	117	5405255	20.0000 ppb	104.65
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4256273	19.7726 ppb	98.86%
Target Compounds					Qvalue
2) Propene	4.01	41	527321	6.5584 ppb	94
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.60	54	19001	0.2136 ppb #	1
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.61	56	50156	1.1049 ppb #	91
11) Acetone	5.71	43	6144490	32.7535 ppb #	55
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.34	45	306526	8.1720 ppb #	78
14) Isopropyl Alcohol	5.96	45	1524791	4.7905 ppb	99
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.74	86	13230	0.5004 ppb #	1
23) 2-Butanone	7.99	43	749212	3.1453 ppb #	75
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.55	57	123357	0.6793 ppb #	87
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.32	71	44150	0.3965 ppb #	45
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	125315	0.3225 ppb	99
46) 2-Hexanone	13.08	43	68881	0.2803 ppb #	25
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA46I011.D Vial: 12
Acq Time : 04/16/2015 07:38 Operator: TJM
Sample : 1510353011 Inst : 5975-L
Misc : SG-001B-4 0271 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 08:16:36 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

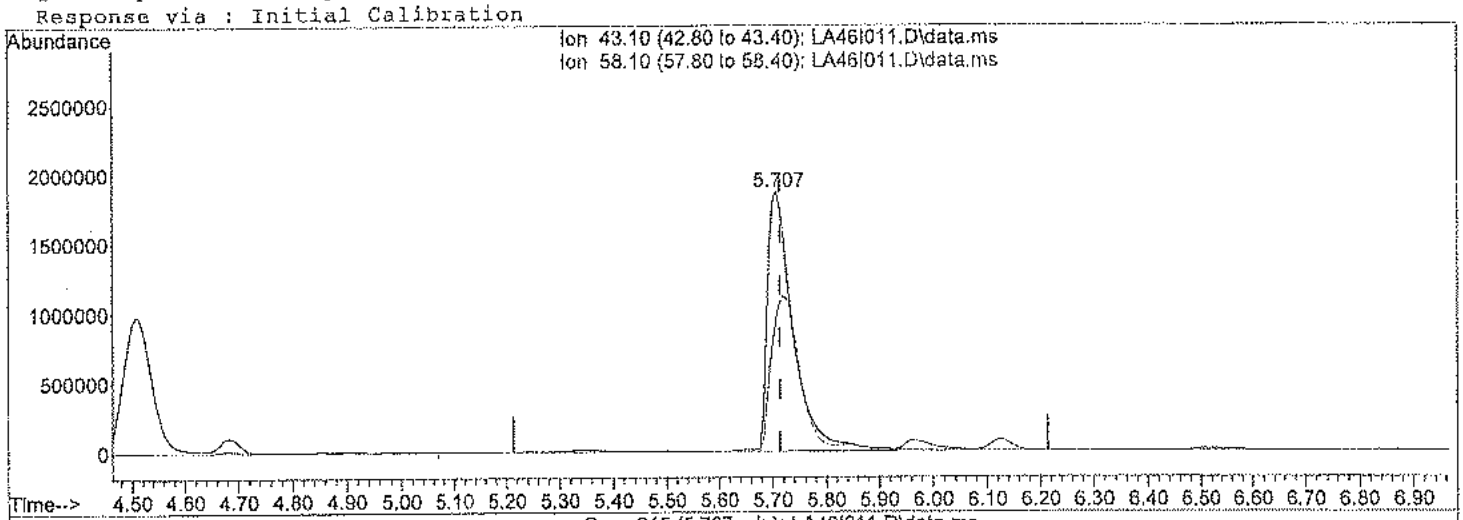
Compound	R.T.	Qlon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.31	91	62611	0.1631 ppb	90
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
58) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

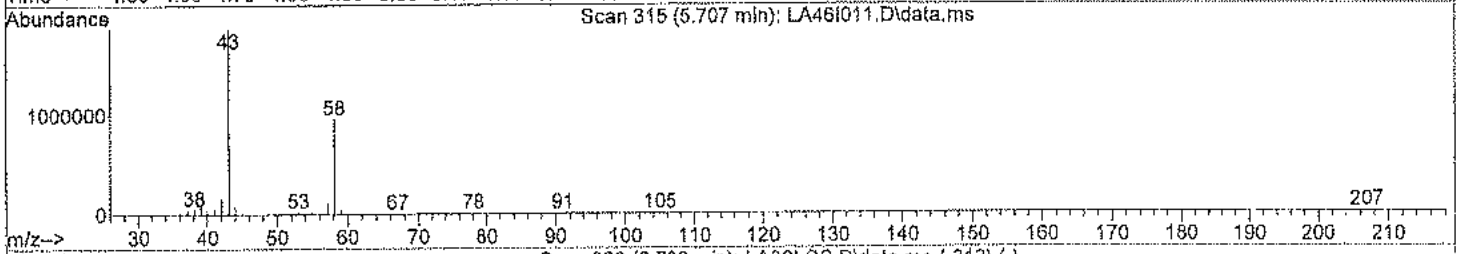
(#) = qualifier out of range (m) = manual integration

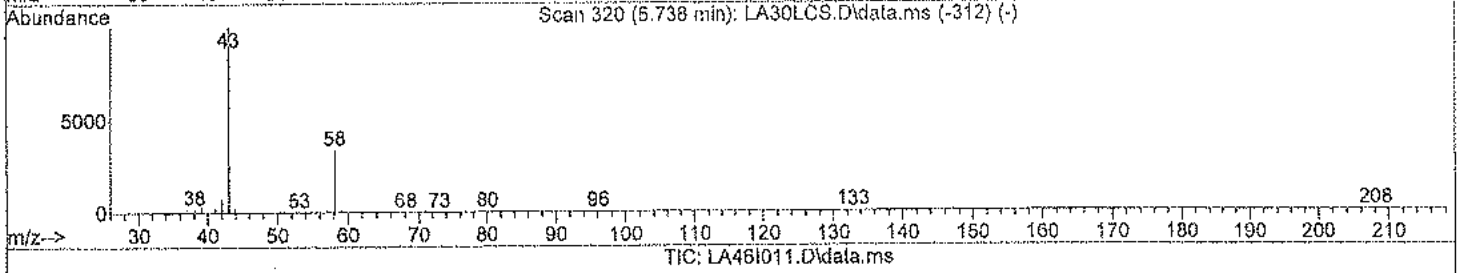
Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA46I011.D
Acq On : 04/16/2015 07:38
Operator : TJM
Sample : 1510353011
Inst : 5975-L
Misc : SG-001B-4 0271 1:10DIL (20mL)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 16 08:16:36 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration







TIC: LA46I011.D\data.ms

(11) Acetone

5.707min (-0.006) 32.75 ppb

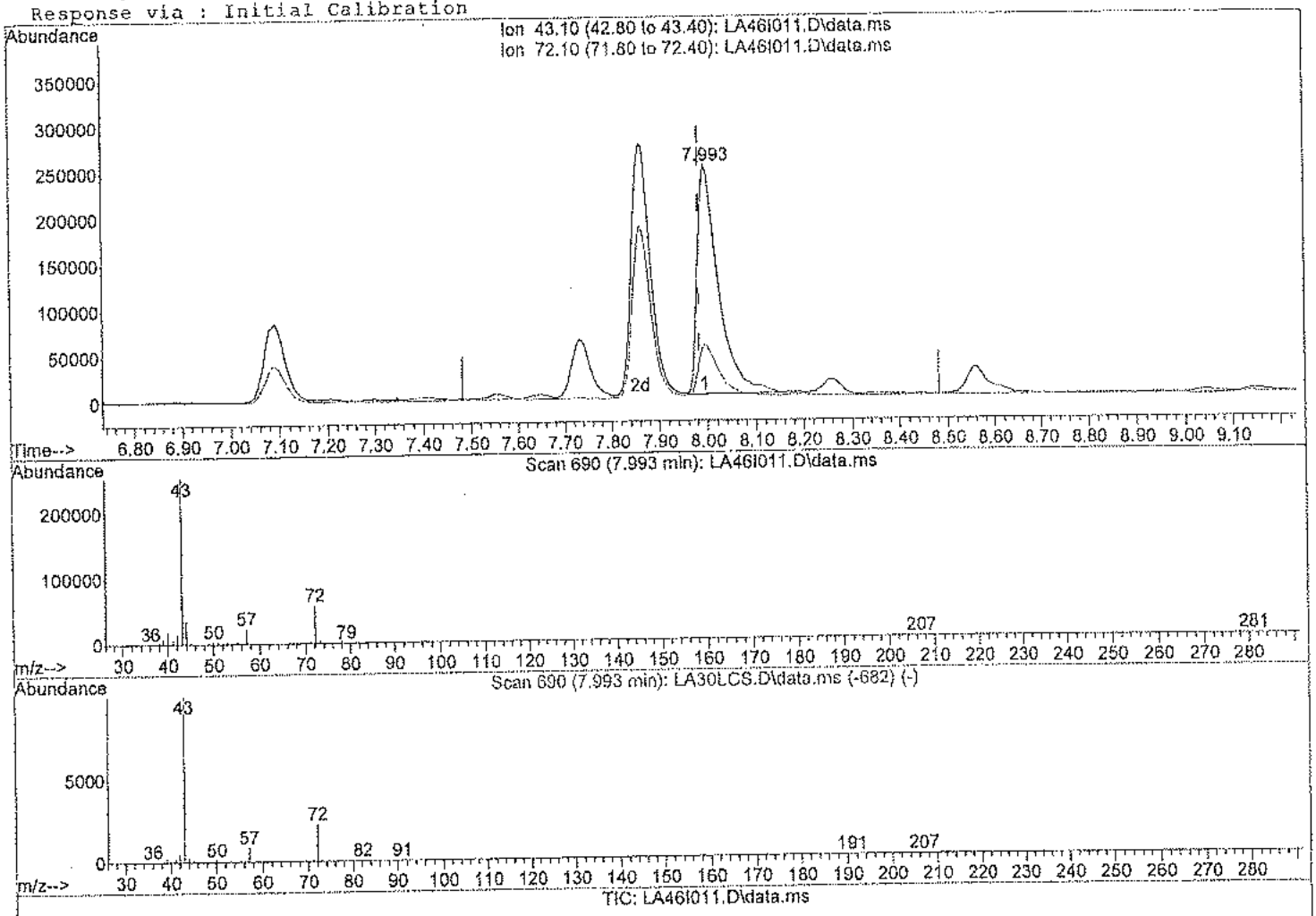
response 6144490

Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	65.66#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA46I011.D
Acq On : 04/16/2015 07:38
Operator : TJM
Sample : 1510353011
Inst : 5975-L
Misc : SG-001B-4 0271 1:10DIL (20mL)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 16 08:16:36 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



TIC: LA46I011.D\data.ms

(23) 2-Butanone

7.993min (+ 0.012) 3.15 ppb

response 749212

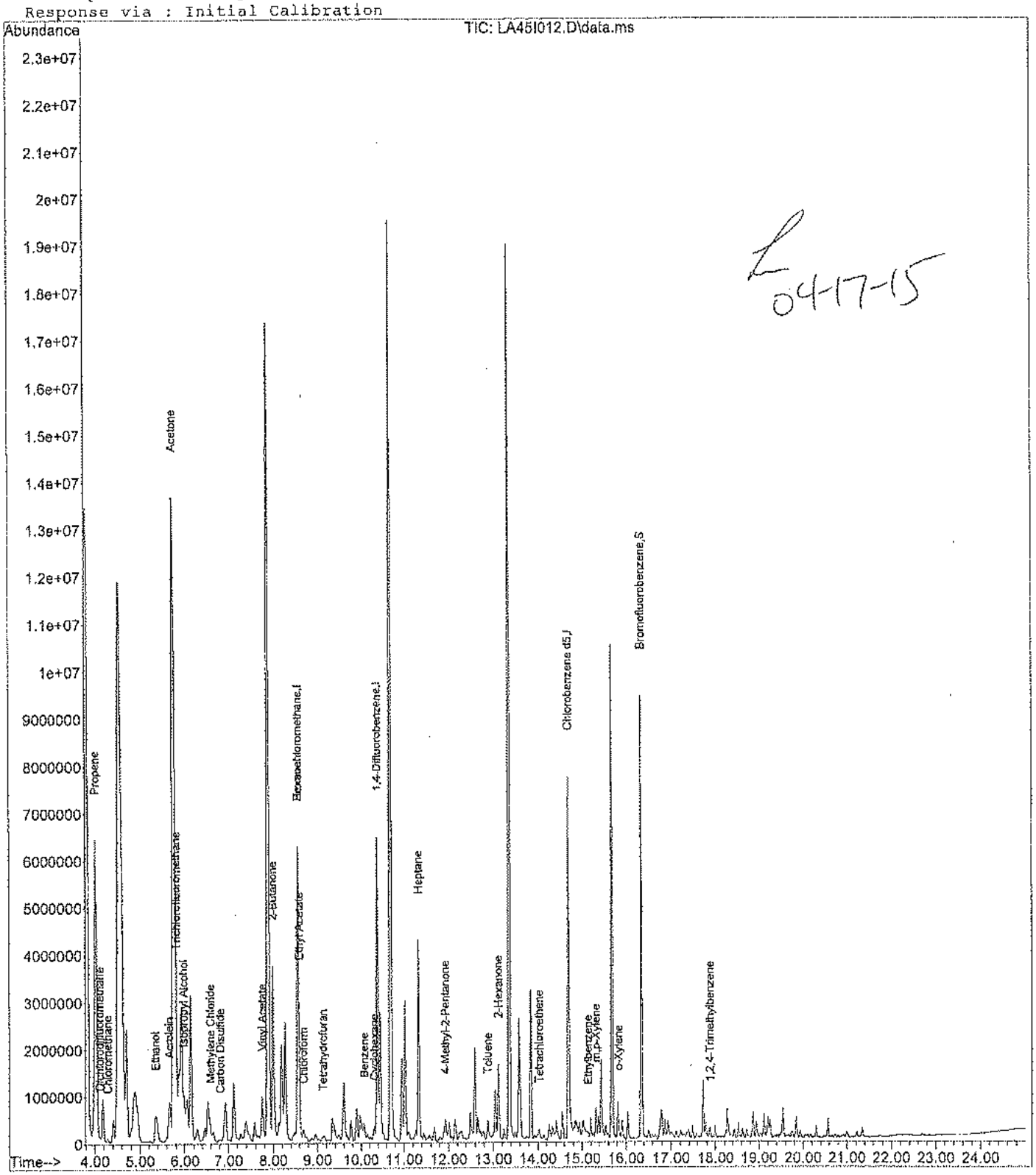
Ion	Exp%	Act%
43.10	100.00	100.00
72.10	38.90	23.57#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:52:38 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



L 04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:52:38 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.58	130	527616	20.0000 ppb	108.63
25) 1,4-Difluorobenzene	10.39	114	6297503	20.0000 ppb	103.80
50) Chlorobenzene d5	14.70	117	5250611	20.0000 ppb	101.65
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4143080	19.8136 ppb	99.07%
Target Compounds					Qvalue
2) Propene	4.02	41	6168585	82.5079 ppb	95
3) Dichlorodifluoromethane	4.12	85	122625	0.4807 ppb	99
4) Chloromethane	4.28	50	84666	0.7773 ppb	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.65	56	749360	17.7536 ppb #	93
11) Acetone	5.74	43	20743543	118.9171 ppb #	37
12) Trichlorofluoromethane	5.82	101	56132	0.2040 ppb	96
13) Ethanol	5.35	45	1179612	33.8213 ppb #	77
14) Isopropyl Alcohol	5.98	45	2185033	7.3827 ppb #	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.60	84	70089	0.7852 ppb #	52
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.82	76	93860	0.3435 ppb #	62
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.75	86	98447	4.0049 ppb #	1
23) 2-Butanone	7.99	43	6715387	30.3187 ppb #	76
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.60	61	35733	0.9692 ppb #	1
27) Hexane	8.57	57	2555373	14.5034 ppb #	91
28) Chloroform	8.69	83	111982	0.5137 ppb	99
29) Tetrahydrofuran	9.12	42	54430	0.4417 ppb #	76
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.07	78	335622	1.0805 ppb #	89
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.32	84	81777	0.5851 ppb #	8
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	1182869	10.9500 ppb #	45
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	11.93	43	349945	1.3613 ppb #	74
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	357263	0.9476 ppb	99
46) 2-Hexanone	13.12	43	1380368	5.7903 ppb #	81
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	14.03	166	82258	0.4423 ppb #	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

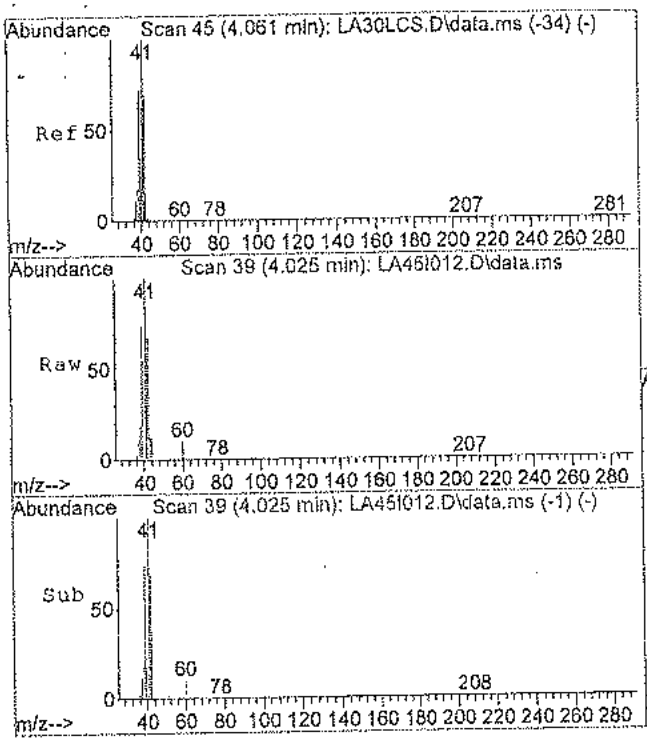
Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 15:52:38 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	97490	0.2016 ppb	93
53) m,p-Xylene	15.31	91	217503	0.5833 ppb	90
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.83	91	80745	0.2127 ppb	91
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.88	105	75963	0.1735 ppb	94
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

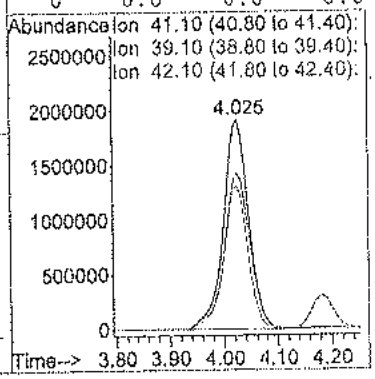
(#) = qualifier out of range (m) = manual integration

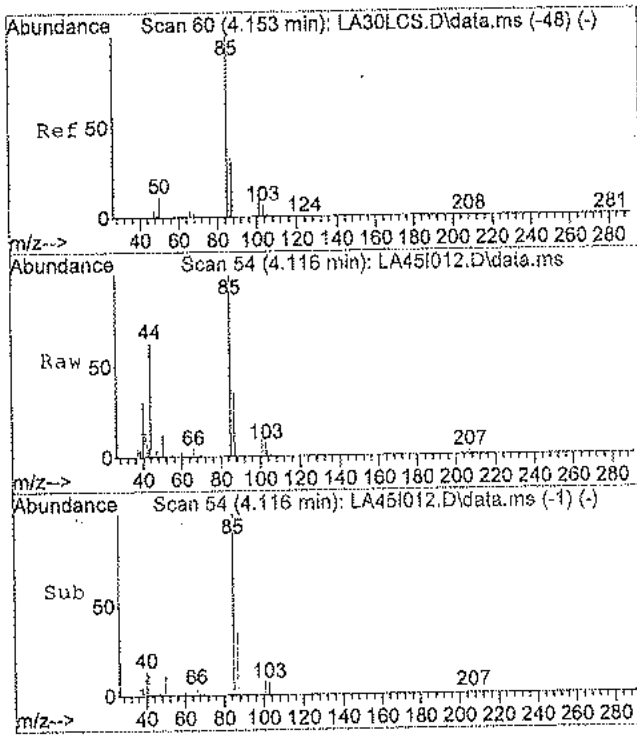


#2
Propene
Concen: 82.51 ppb
RT: 4.02 min Scan# 39
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:41.1 Resp: 6168585

Ion	Ratio	Lower	Upper
41	100		
39	77.3	56.2	84.4
42	66.2	53.8	80.6
0	0.0	0.0	0.0

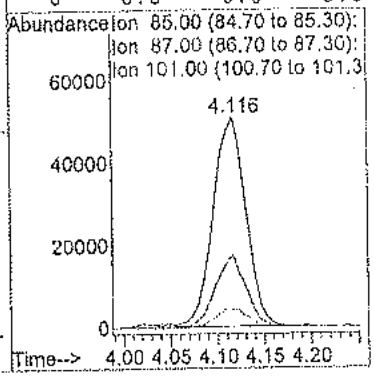


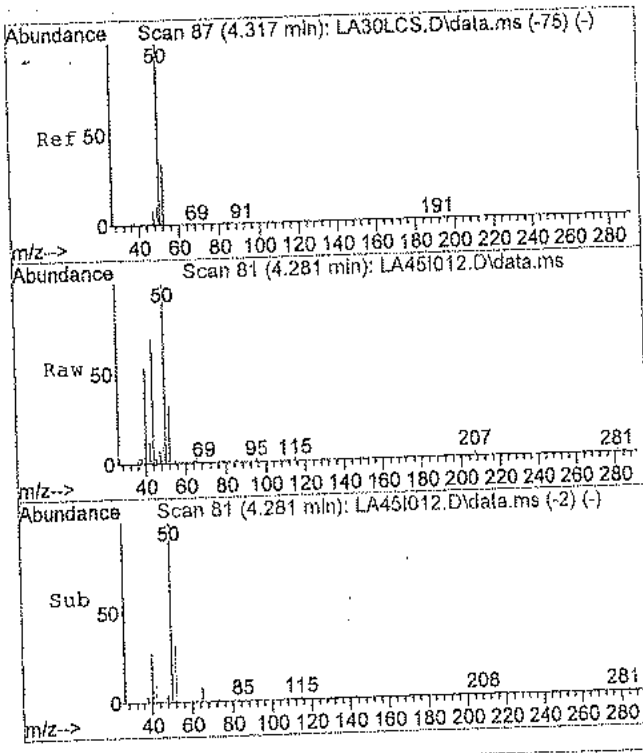


#3
Dichlorodifluoromethane
Concen: 0.48 ppb
RT: 4.12 min Scan# 54
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:85 Resp: 122625

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.1	39.1
101	8.9	8.0	12.0
0	0.0	0.0	0.0

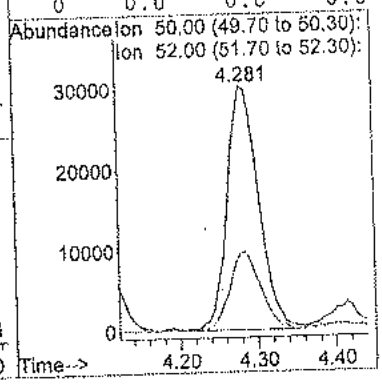


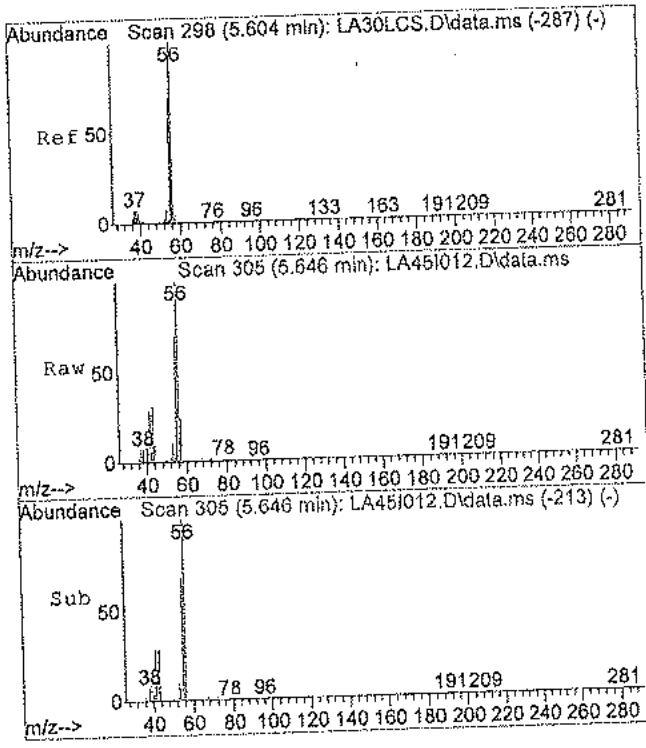


#4
Chloromethane
Concen: 0.78 ppb
RT: 4.28 min Scan# 81
Delta R.T. -0.02 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:50 Resp: 84666

Ion	Ratio	Lower	Upper
50	100		
52	31.8	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

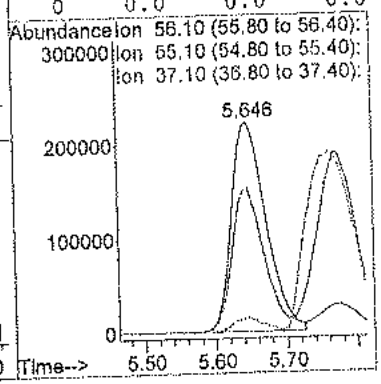


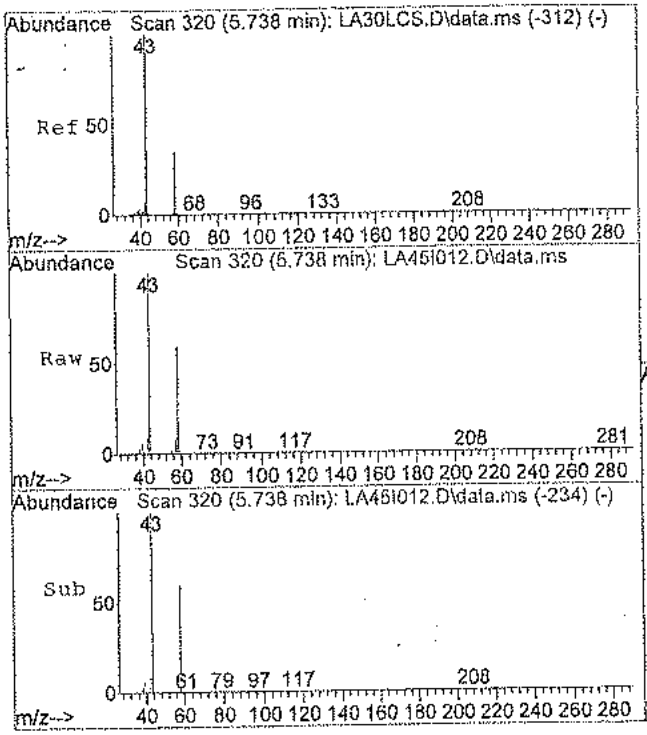


#10
Acrolein
Concen: 17.75 ppb
RT: 5.65 min Scan# 305
Delta R.T. 0.06 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:56.1 Resp: 749360

Ion	Ratio	Lower	Upper
56	100		
55	63.8	55.1	82.7
37	6.1	7.9	11.9#
0	0.0	0.0	0.0

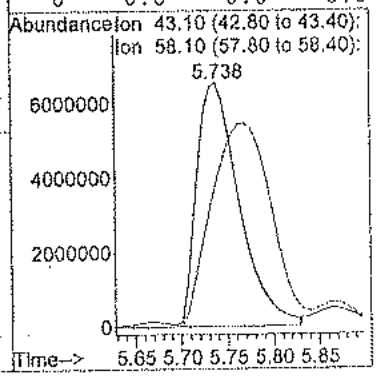


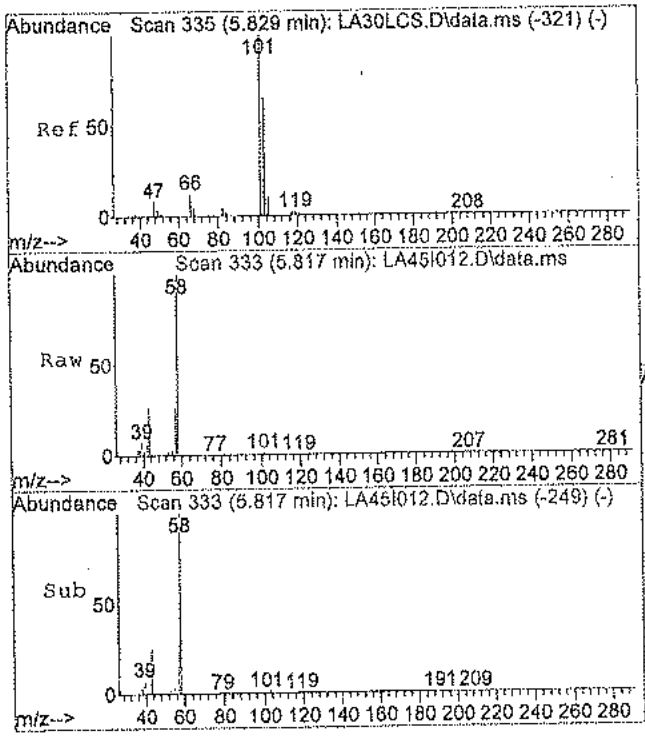


#11
Acetone
Concen: 118.92 ppb
RT: 5.74 min Scan# 320
Delta R.T. 0.02 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:43.1 Resp:20743543

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

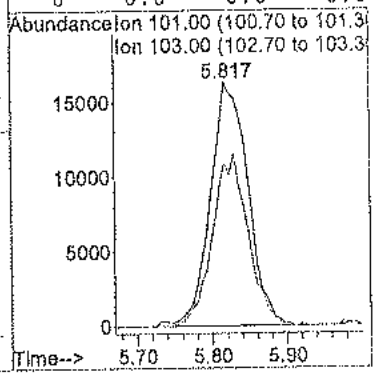


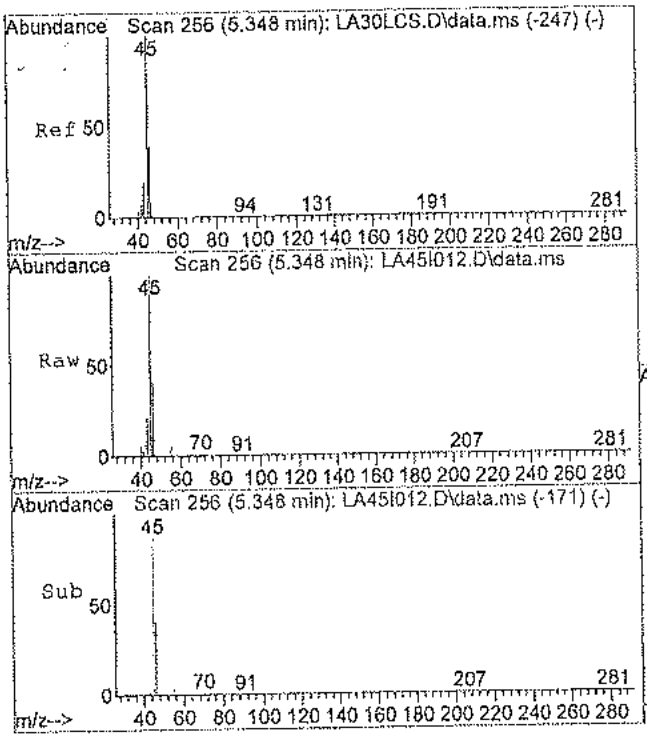


#12
Trichlorofluoromethane
Concen: 0.20 ppb
RT: 5.82 min Scan# 333
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:101 Resp: 56132

Ion	Ratio	Lower	Upper
101	100		
103	67.3	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

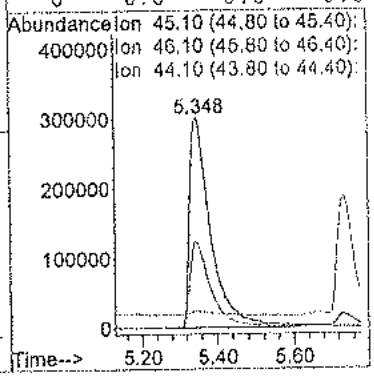


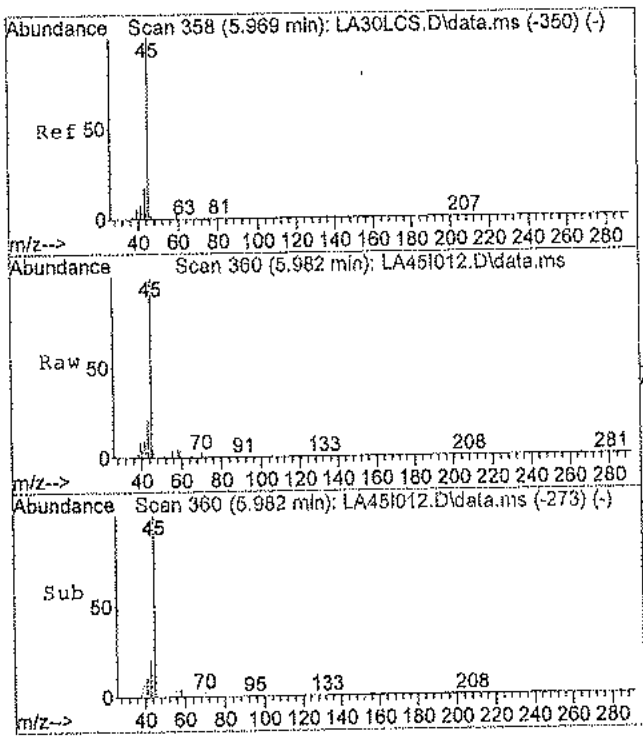


#13
Ethanol
Concen: 33.82 ppb
RT: 5.35 min Scan# 256
Delta R.T. 0.02 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:45.1 Resp: 1179612

Ion	Ratio	Lower	Upper
45	100		
46	40.8	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

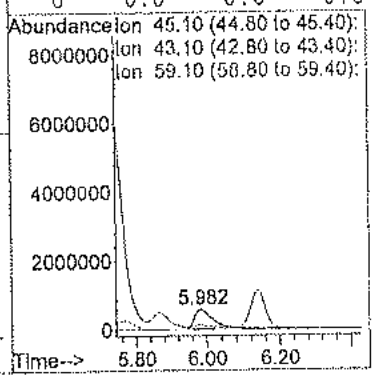


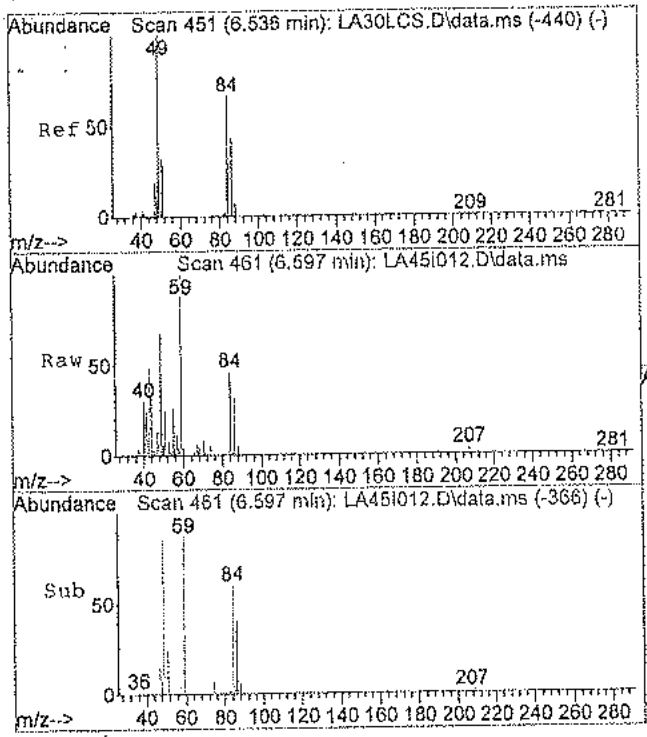


#14
Isopropyl Alcohol
Concen: 7.38 ppb
RT: 5.98 min Scan# 360
Delta R.T. 0.03 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:45.1 Resp: 2185033

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	3.8	3.2	4.8
0	0.0	0.0	0.0

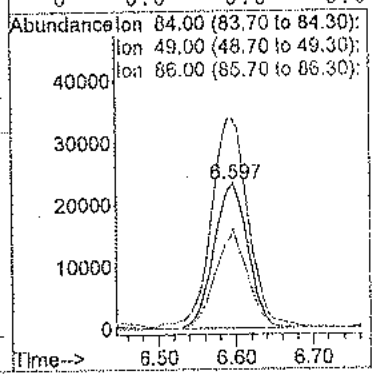


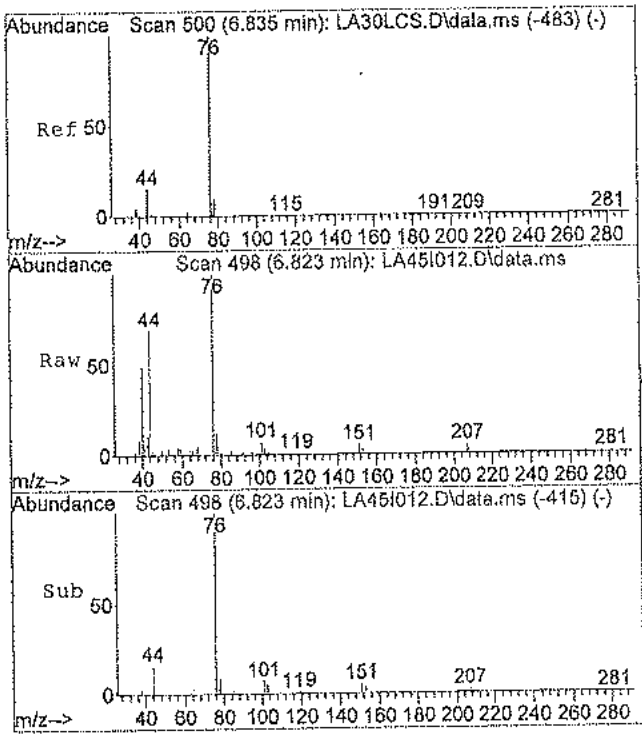


#16
Methylene Chloride
Concen: 0.79 ppb
RT: 6.60 min Scan# 461
Delta R.T. 0.08 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:84 Resp: 70089

Ion	Ratio	Lower	Upper
84	100		
49	159.3	66.6	100.0#
86	64.6	51.6	77.4
0	0.0	0.0	0.0

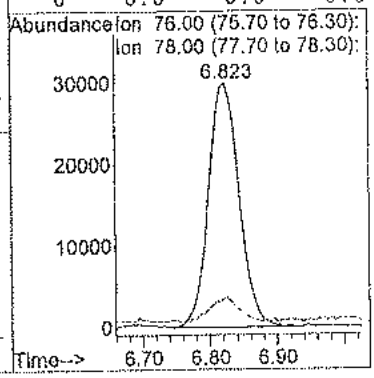


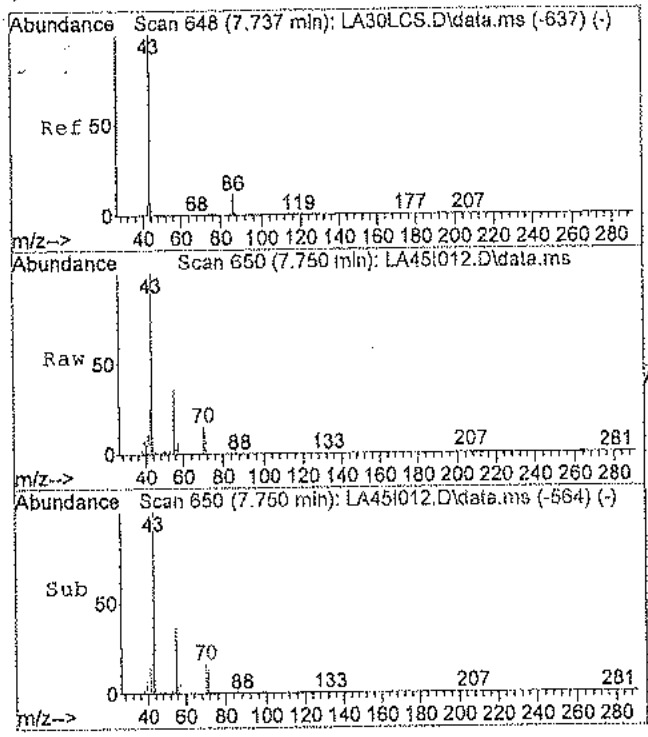


#18
Carbon Disulfide
Concen: 0.34 ppb
RT: 6.82 min Scan# 498
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:76 Resp: 93860

Ion	Ratio	Lower	Upper
76	100		
78	9.3	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

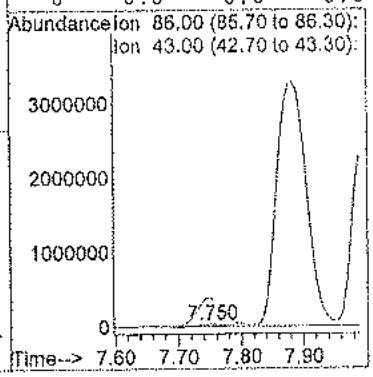


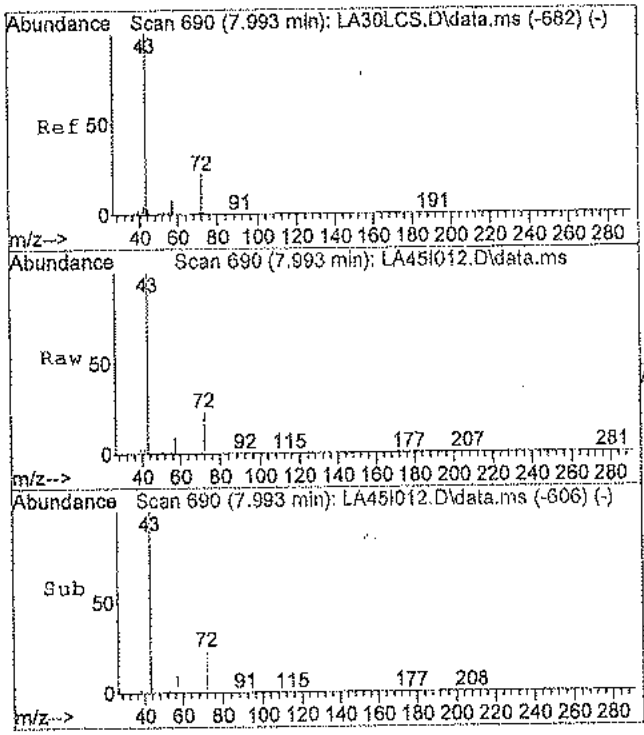


#22
Vinyl Acetate
Concen: 4.00 ppb
RT: 7.75 min Scan# 650
Delta R.T. 0.02 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:86 Resp: 98447

Ion	Ratio	Lower	Upper
86	100		
43	1117.0	144.0	216.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

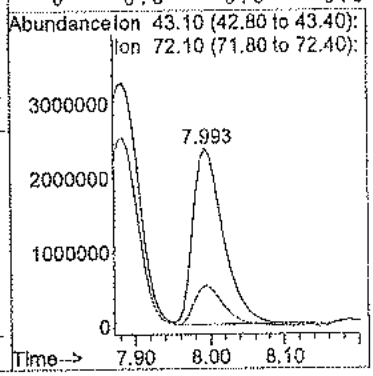


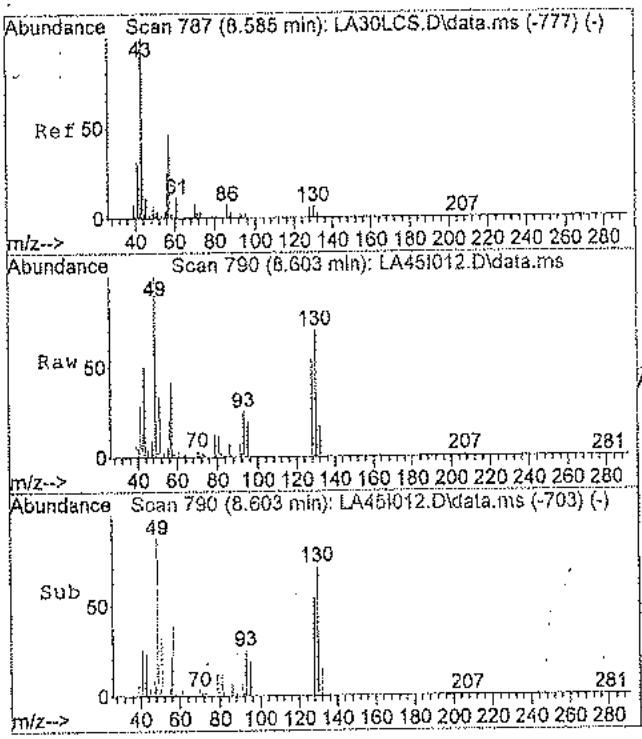


#23
2-Butanone
Concen: 30.32 ppb
RT: 7.99 min Scan# 690
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:43.1 Resp: 6715387

Ion	Ratio	Lower	Upper
43	100		
72	24.1	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

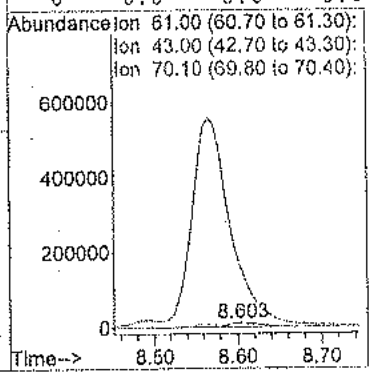


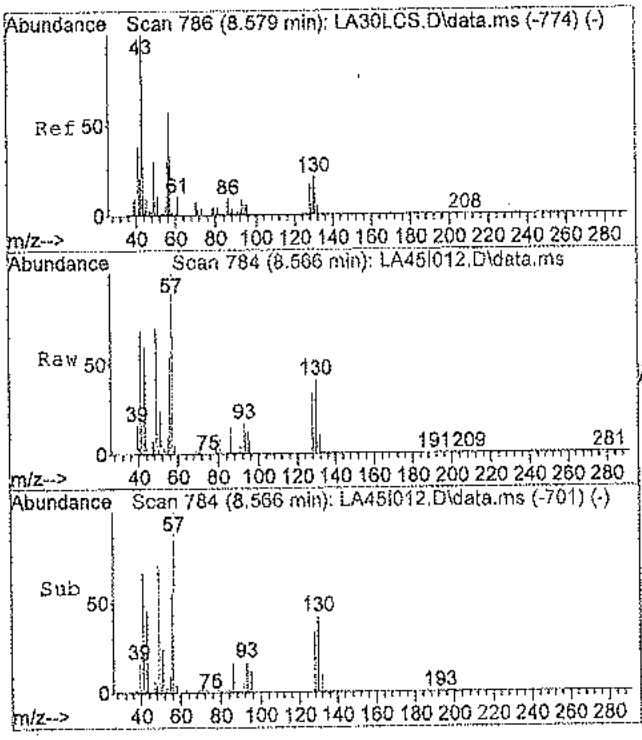


#26
Ethyl Acetate
Concen: 0.97 ppb
RT: 8.60 min Scan# 790
Delta R.T. 0.03 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:61 Resp: 35733

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	55.3	13.6	20.4#
0	0.0	0.0	0.0

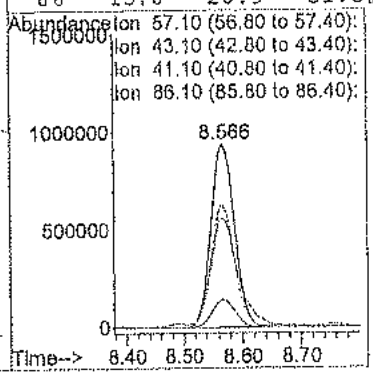


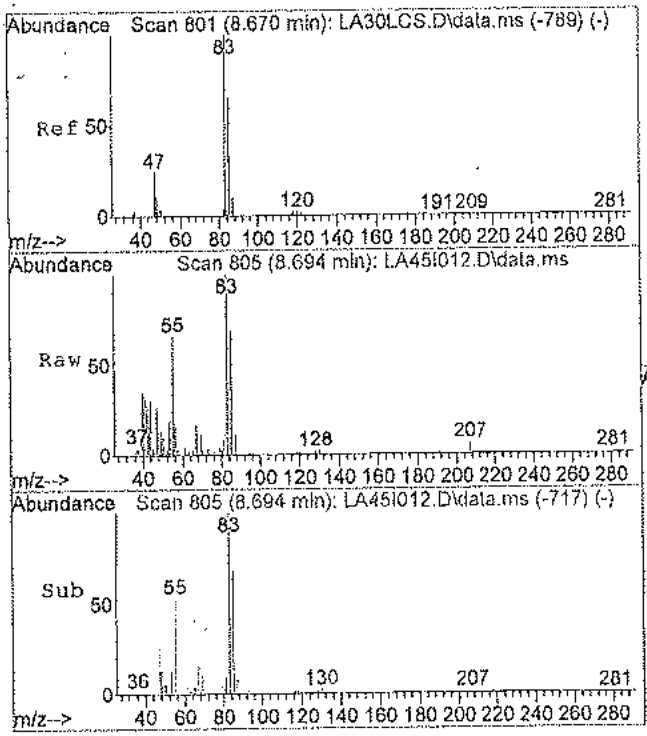


#27
Hexane
Concen: 14.50 ppb
RT: 8.57 min Scan# 784
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:57.1 Resp: 2555373

Ion	Ratio	Lower	Upper
57	100		
43	68.8	57.3	85.9
41	67.0	47.0	70.4
86	15.0	20.9	31.3#

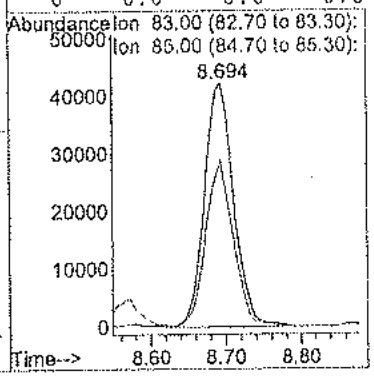


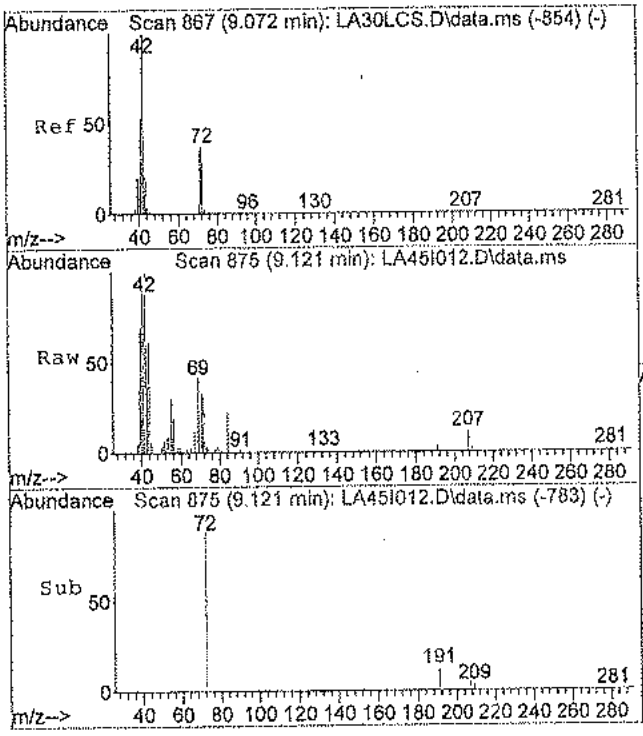


#28
Chloroform
Concen: 0.51 ppb
RT: 8.69 min Scan# 805
Delta R.T. 0.04 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:83 Resp: 111982

Ion	Ratio	Lower	Upper
83	100		
85	64.9	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

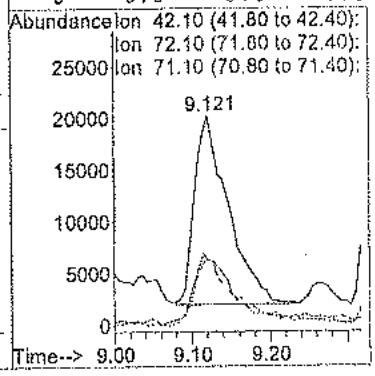


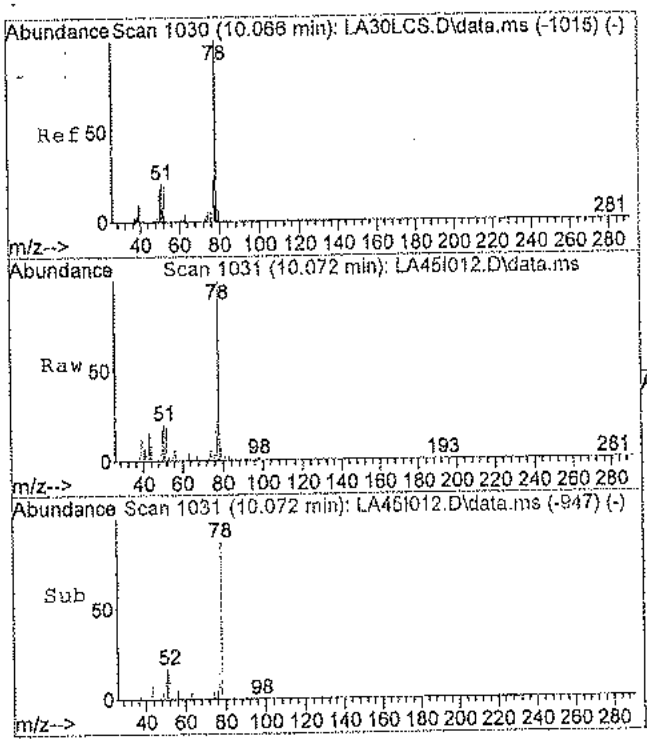


#29
Tetrahydrofuran
Concen: 0.44 ppb
RT: 9.12 min Scan# 875
Delta R.T. 0.06 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:42.1 Resp: 54430

Ion	Ratio	Lower	Upper
42	100		
72	46.8	51.5	77.3#
71	40.4	47.5	71.3#
0	0.0	0.0	0.0

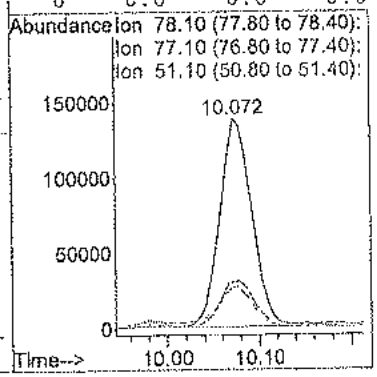


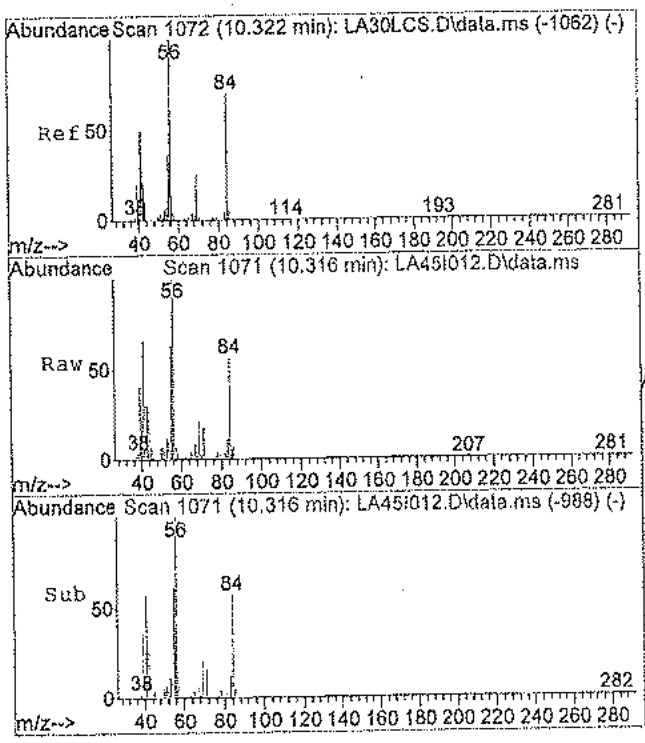


#32
Benzene
Concen: 1.08 ppb
RT: 10.07 min Scan# 1031
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:78.1 Resp: 335622

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.4
51	22.7	9.5	14.3#
0	0.0	0.0	0.0

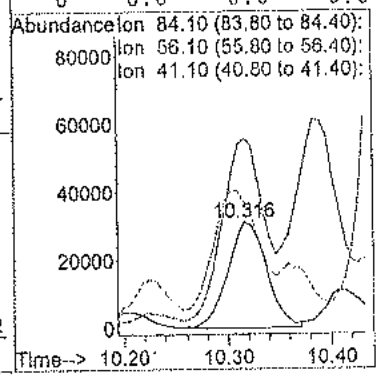


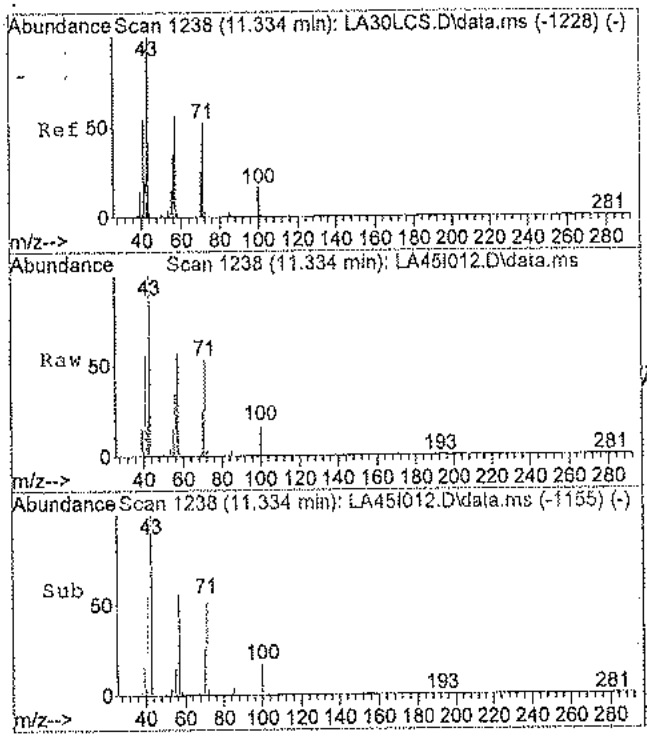


#34
Cyclohexane
Concen: 0.59 ppb
RT: 10.32 min Scan# 1071
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:84.1 Resp: 81777

Ion	Ratio	Lower	Upper
84	100		
56	180.0	67.3	100.9#
41	0.0	30.2	45.4#
0	0.0	0.0	0.0

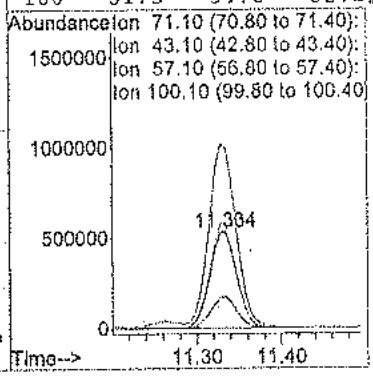


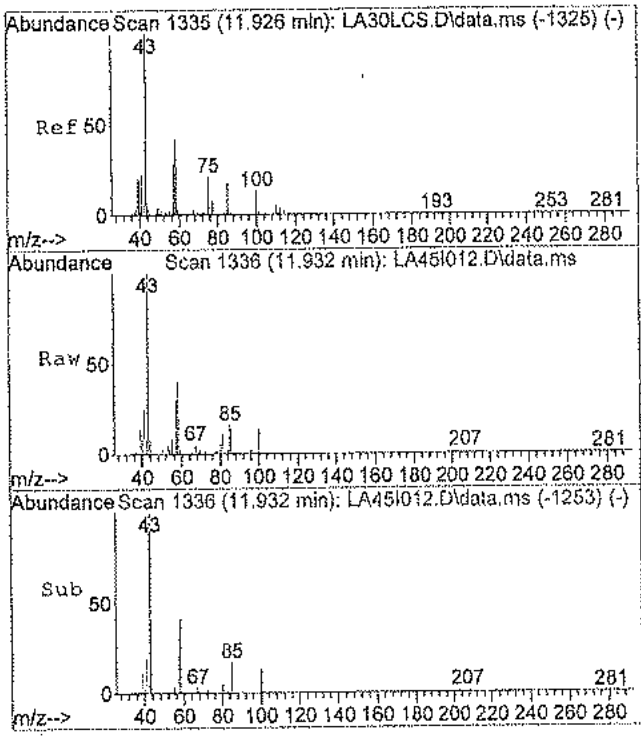


#40
Heptane
Concen: 10.95 ppb
RT: 11.33 min Scan# 1238
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:71.1 Resp: 1182869

Ion	Ratio	Lower	Upper
71	100		
43	192.1	87.3	130.9#
57	106.5	57.8	86.6#
100	31.5	34.8	52.2#

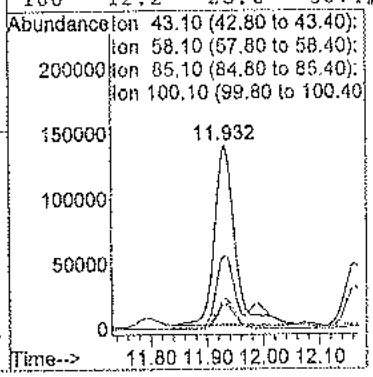


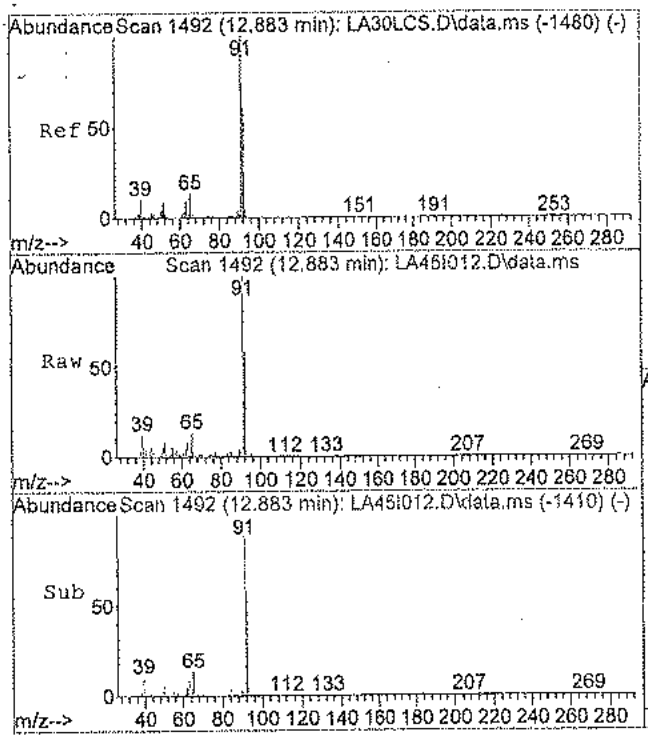


#42
4-Methyl-2-Pentanone
Concen: 1.36 ppb
RT: 11.93 min Scan# 1336
Delta R.T. 0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:43.1 Resp: 349945

Ion	Ratio	Lower	Upper
43	100		
58	36.6	39.5	59.3#
85	16.4	25.1	37.7#
100	12.2	25.6	38.4#

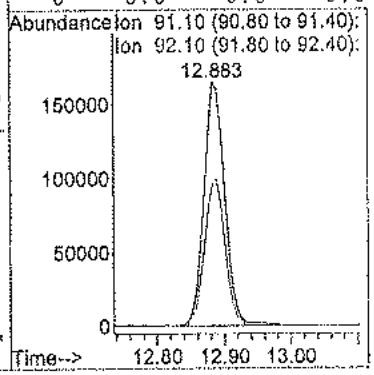


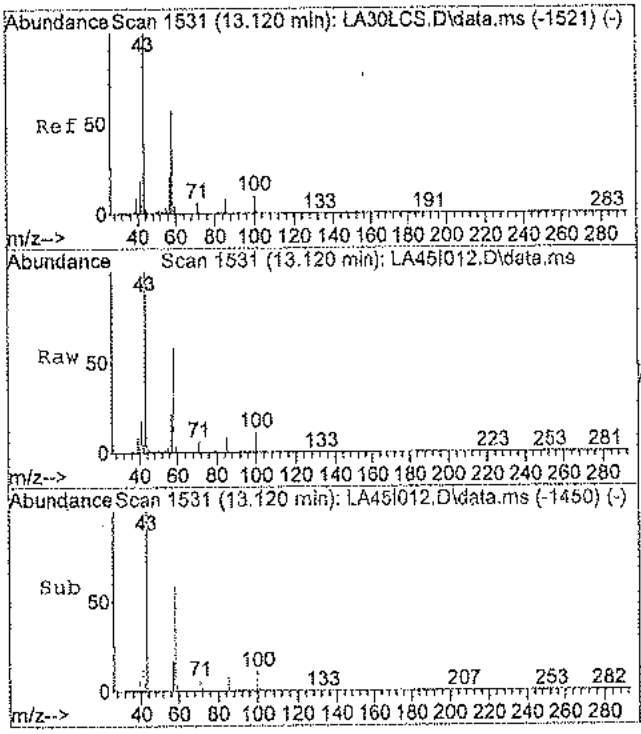


#45
Toluene
Concen: 0.95 ppb
RT: 12.88 min Scan# 1492
Delta R.T. 0.00 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:91.1 Resp: 357263

Ion	Ratio	Lower	Upper
91	100		
92	60.4	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

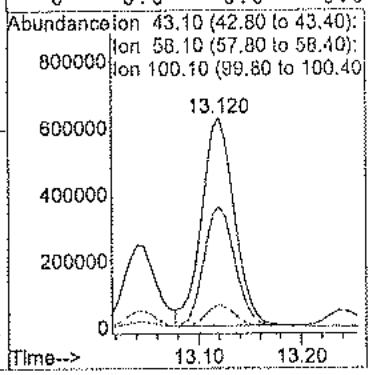


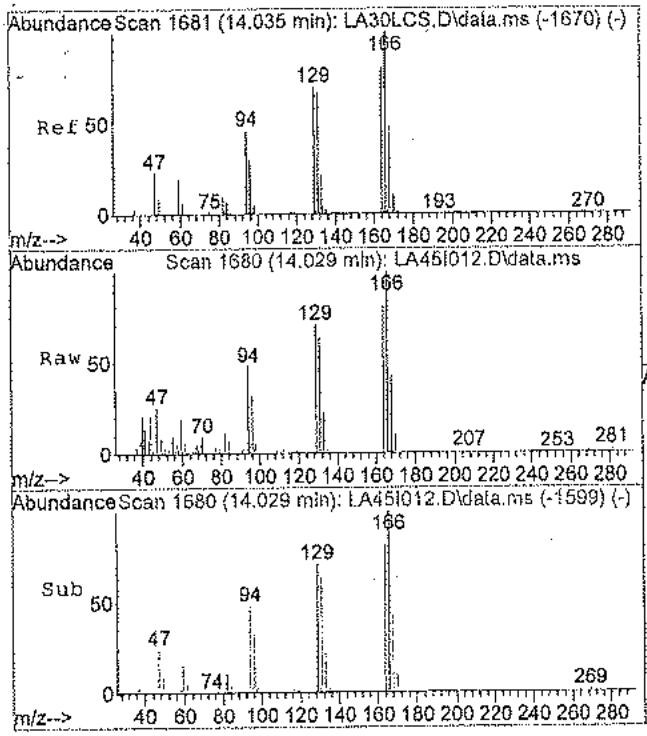


#46
2-Hexanone
Concen: 5.79 ppb
RT: 13.12 min Scan# 1531
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:43.1 Resp: 1380368

Ion	Ratio	Lower	Upper
43	100		
58	55.8	54.7	82.1
100	10.2	19.6	29.4#
0	0.0	0.0	0.0

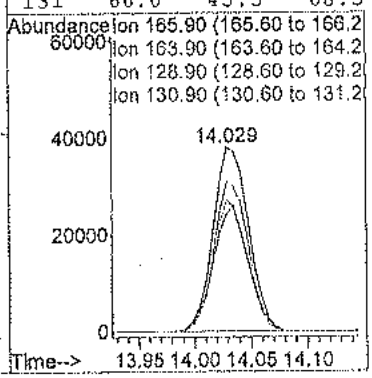


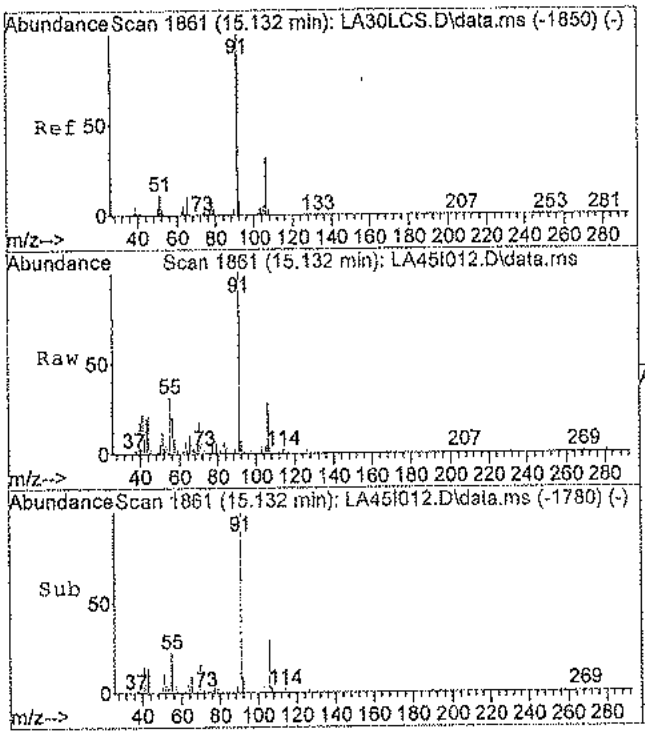


#49
Tetrachloroethene
Concen: 0.44 ppb
RT: 14.03 min Scan# 1680
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:165.9 Resp: 82258

Ion	Ratio	Lower	Upper
166	100		
164	80.0	61.0	91.4
129	70.1	45.9	68.9#
131	66.0	45.5	68.3

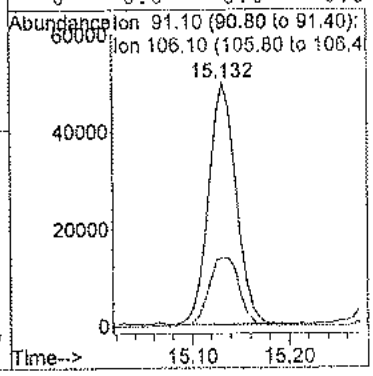


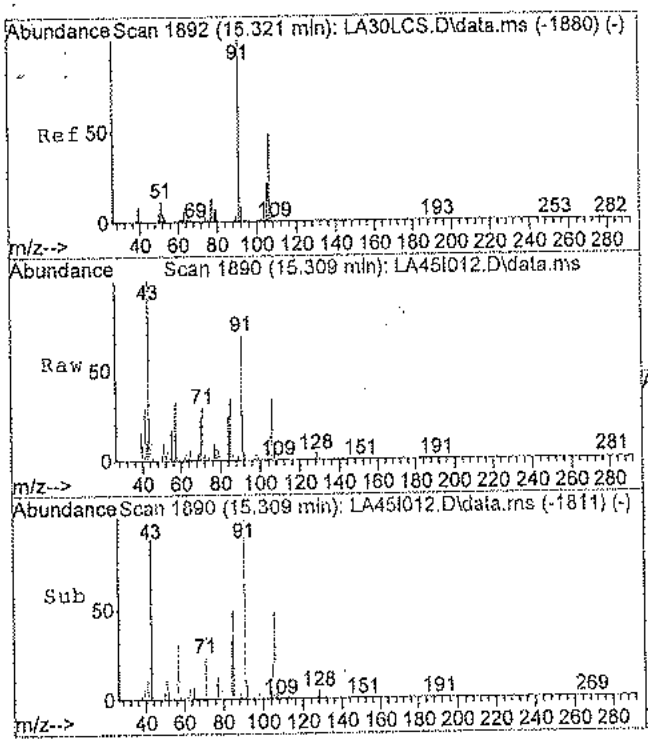


#52
Ethylbenzene
Concen: 0.20 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:91.1 Resp: 97490

Ion	Ratio	Lower	Upper
91	100		
106	31.5	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

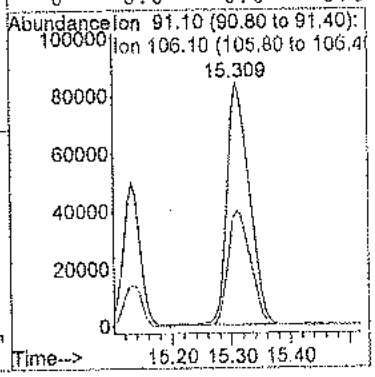


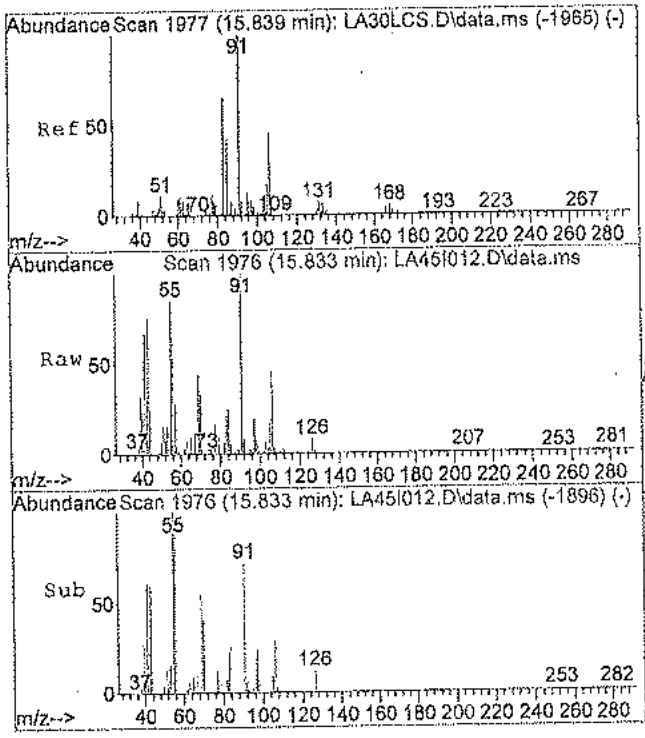


#53
m,p-Xylene
Concen: 0.58 ppb
RT: 15.31 min Scan# 1890
Delta R.T. -0.02 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:91.1 Resp: 217503

Ion	Ratio	Lower	Upper
91	100		
106	48.5	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

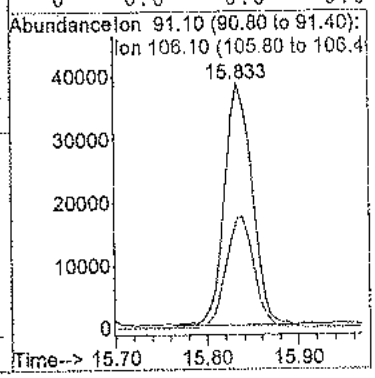


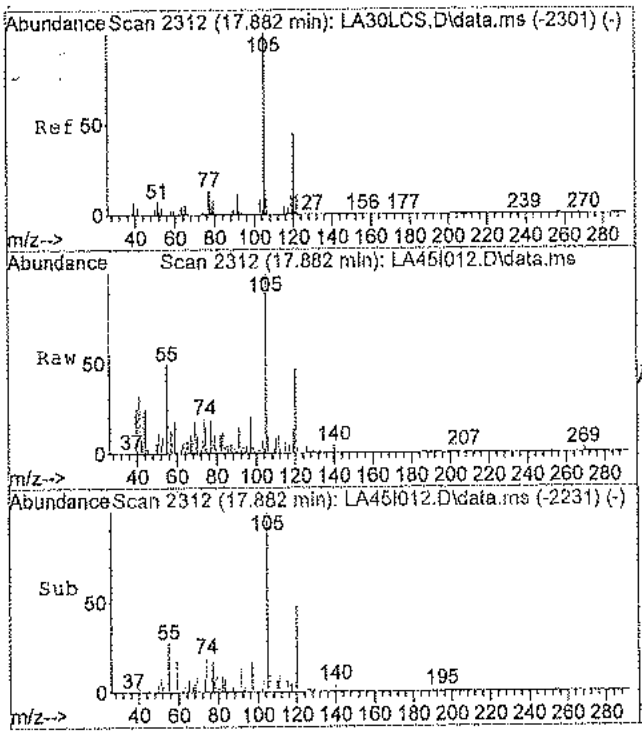


#57
o-Xylene
Concen: 0.21 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:91.1 Resp: 80745

Ion	Ratio	Lower	Upper
91	100		
106	45.9	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

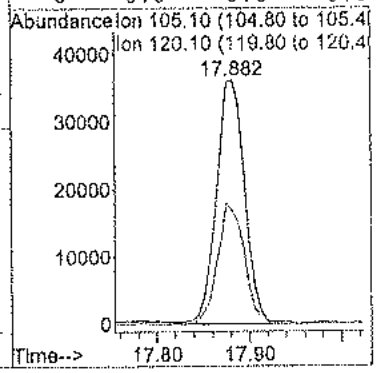




#61
1,2,4-Trimethylbenzene
Concen: 0.17 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA45I012.D
Acq: 04/15/2015 23:58

Tgt Ion:105.1 Resp: 75963

Ion	Ratio	Lower	Upper
105	100		
120	46.6	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



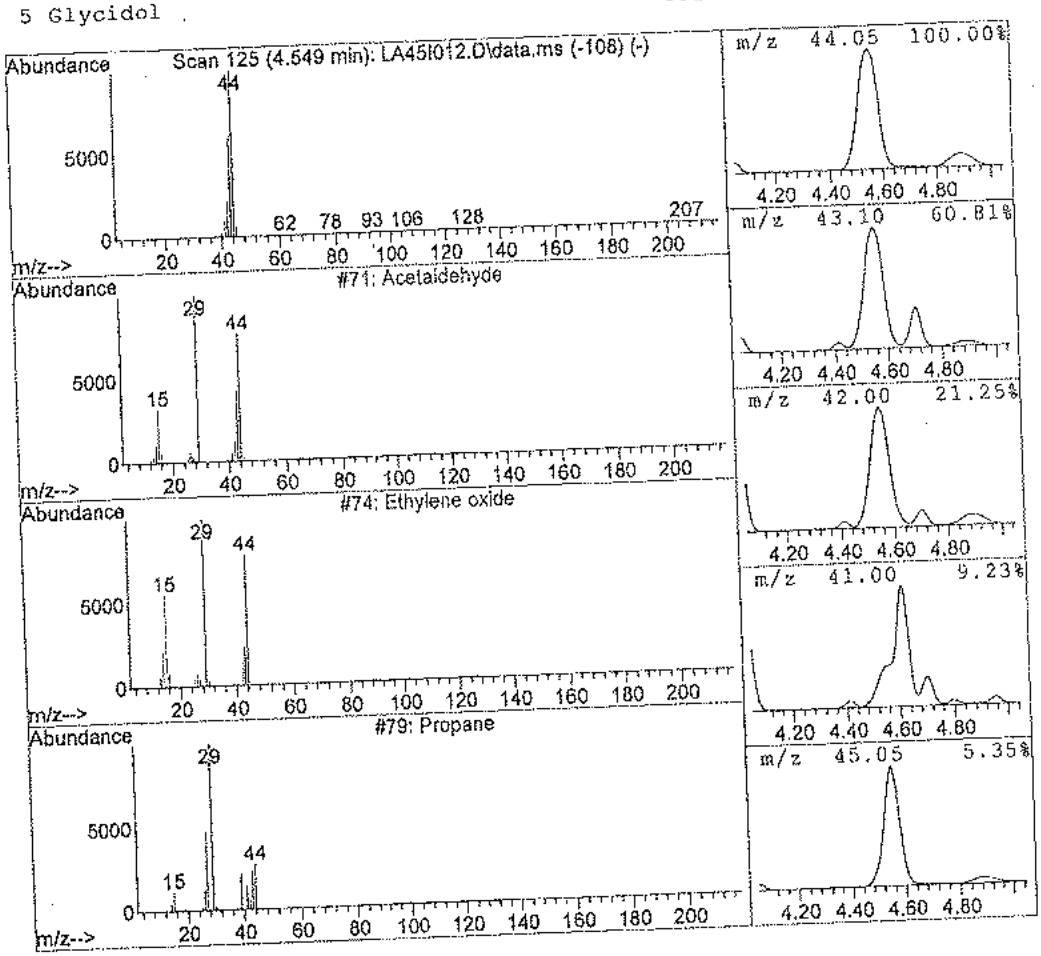
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.55	84.10 ppb	75228745	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	71	000075-07-0	64.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	79	000074-98-6	4.00
4	Alanine	2136	000056-41-7	4.00
5	Glycidol	802	000556-52-5	4.00



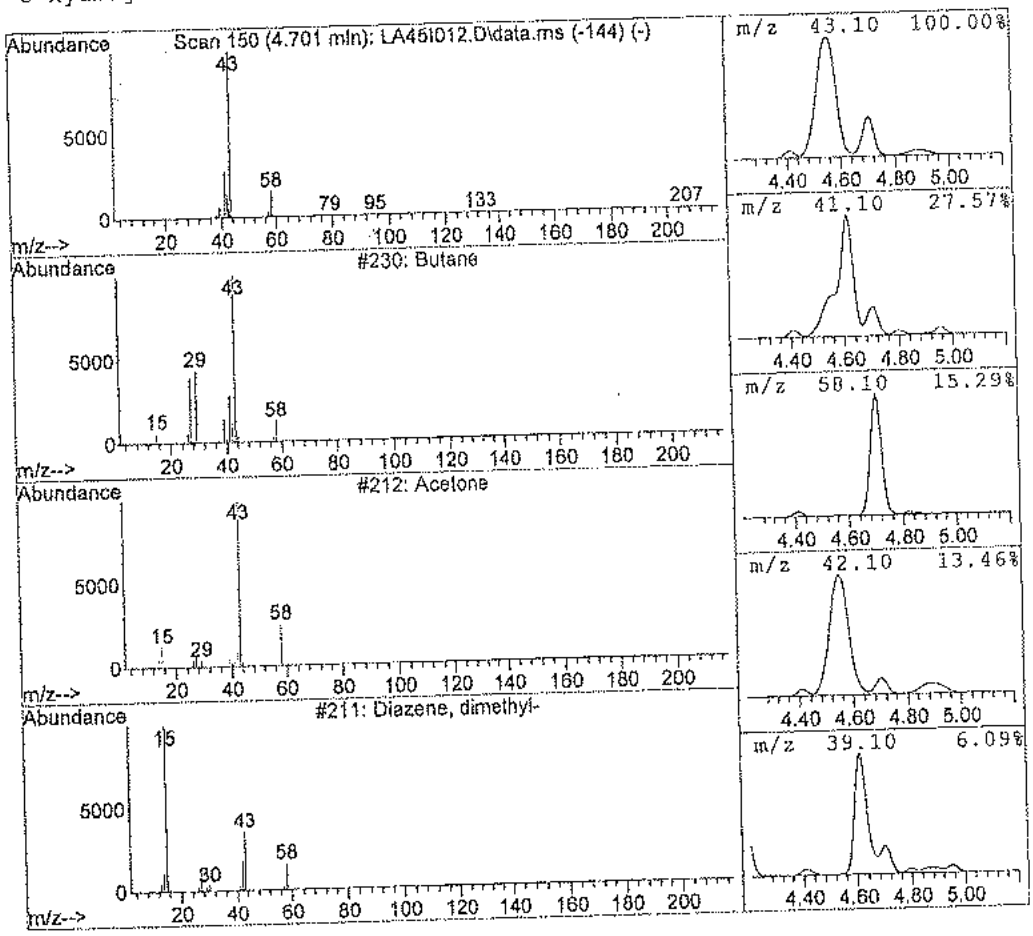
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.70	7.72 ppb	6907576	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	230	000106-97-8	50.00
2	Acetone	212	000067-64-1	4.00
3	Diazene, dimethyl-	211	000503-28-6	4.00
4	Propylene oxide	223	000075-56-9	3.00
5	Hydrogen azide	69	007782-79-8	3.00



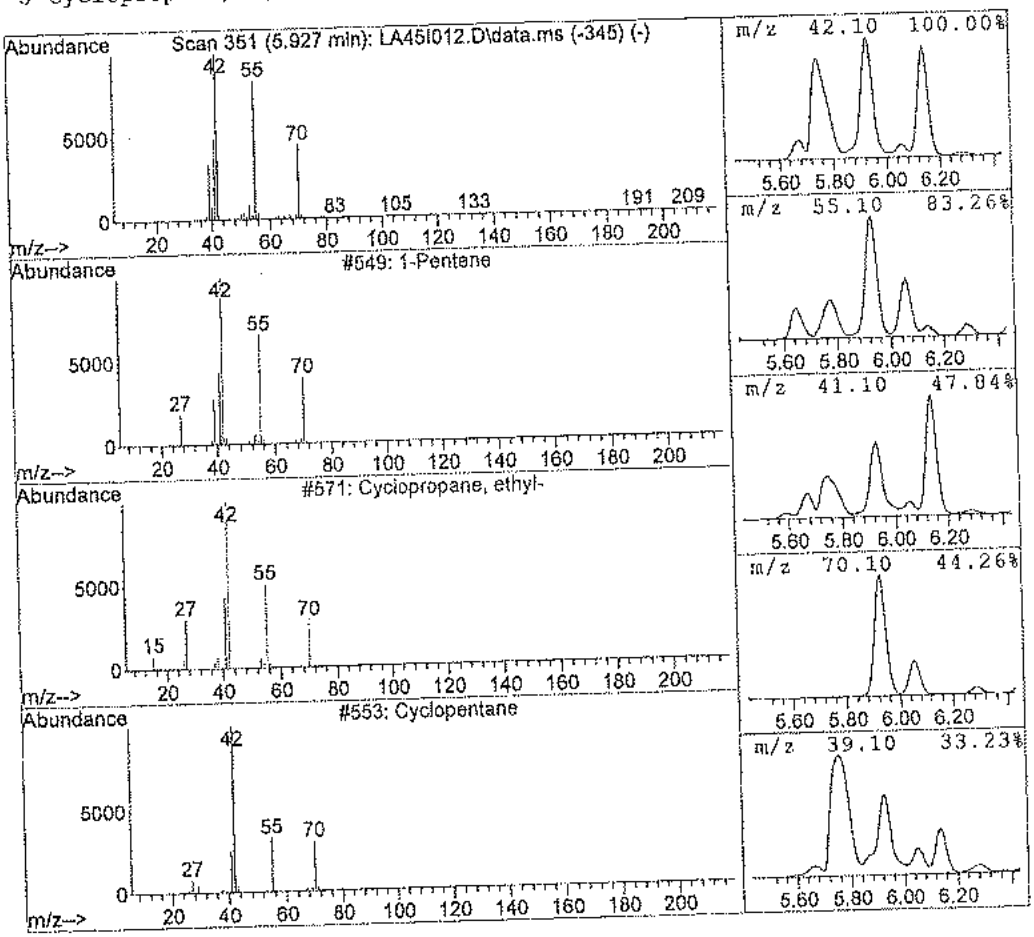
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
5.93	5.49 ppb	4915588	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Pentene	549	000109-67-1	91.00
2	Cyclopropane, ethyl-	571	001191-96-4	90.00
3	Cyclopentane	553	000287-92-3	72.00
4	2-Pentene, (Z)-	558	000627-20-3	52.00
5	Cyclopropane, 1,2-dimethyl-, trans-	581	002402-06-4	47.00



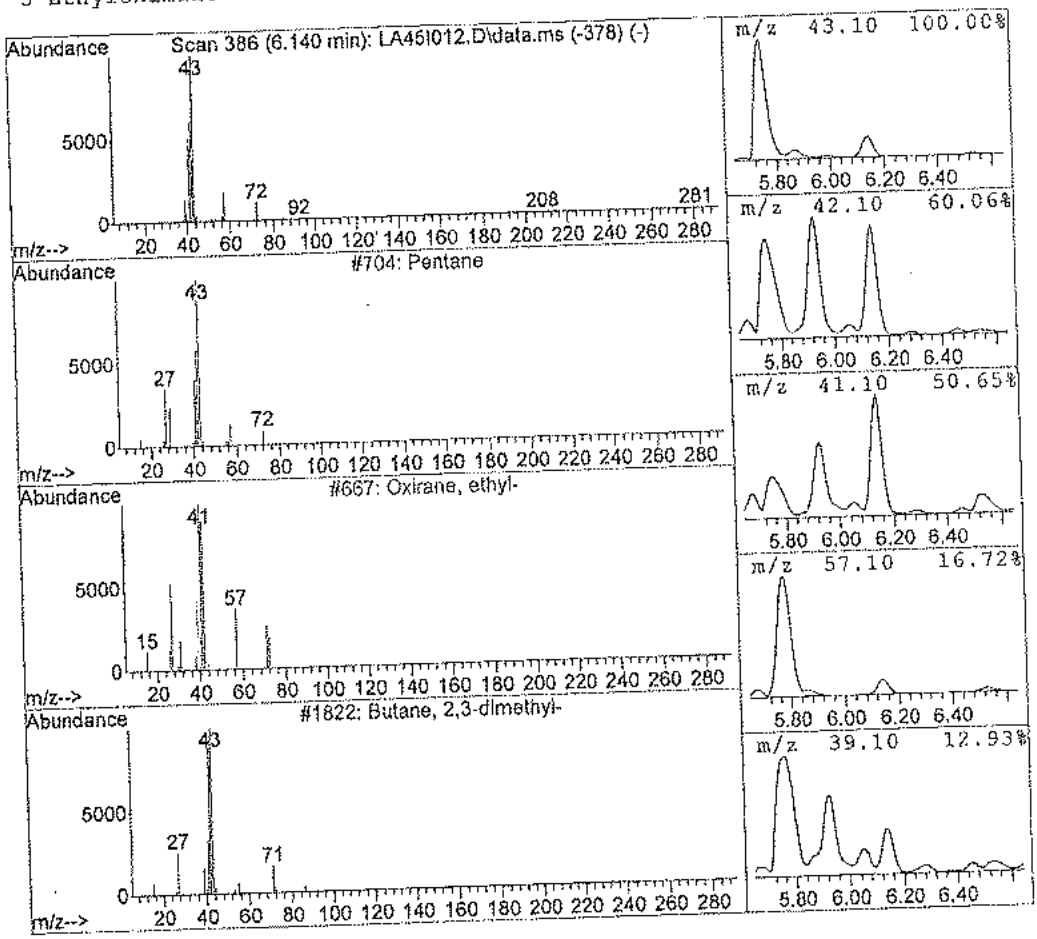
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.14	9.63 ppb	8615994	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	704	000109-66-0	90.00
2	Oxirane, ethyl-	667	000106-88-7	9.00
3	Butane, 2,3-dimethyl-	1822	000079-29-8	9.00
4	2-Propenoic acid	629	000079-10-7	5.00
5	Ethylenimine	65	000151-56-4	5.00



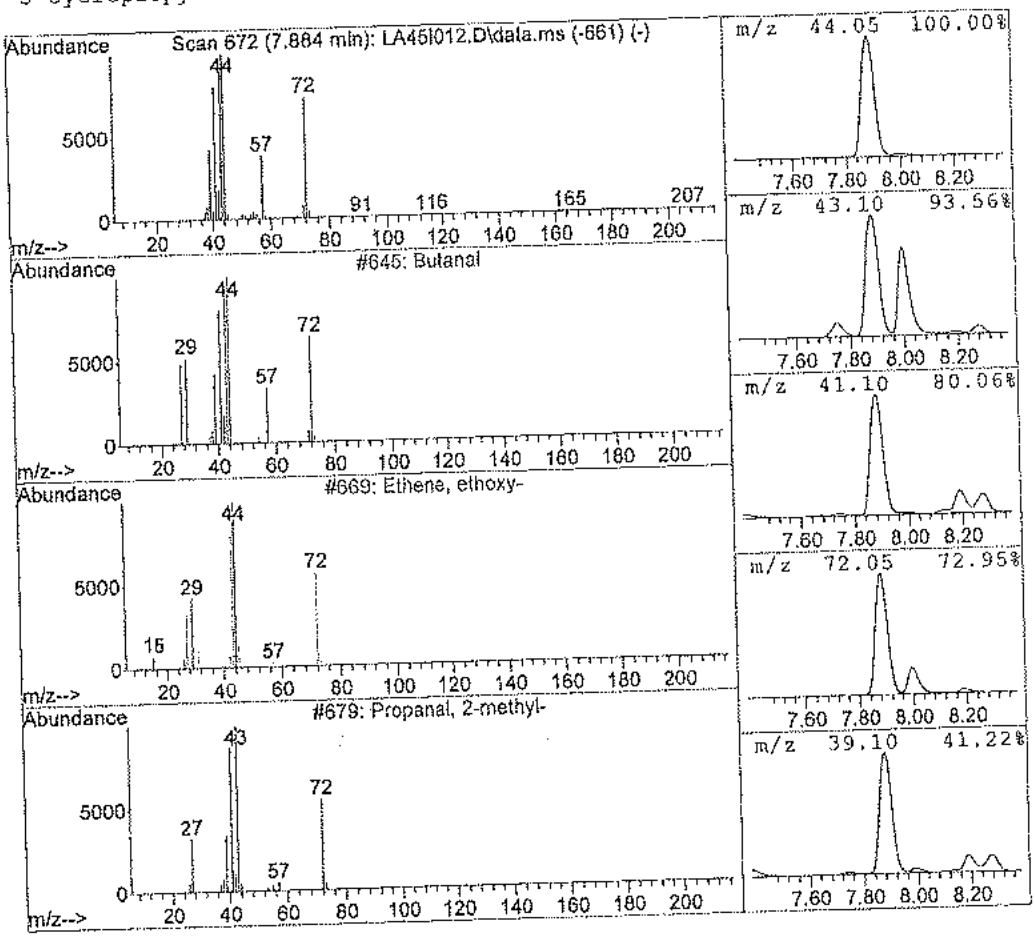
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.88	61.43 ppb	54950584	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	Ethene, ethoxy-	669	000109-92-2	52.00
3	Propanal, 2-methyl-	679	000078-84-2	52.00
4	1-Propene, 3-methoxy-	688	000627-40-7	32.00
5	Cyclopropyl carbinol	687	002516-33-8	25.00



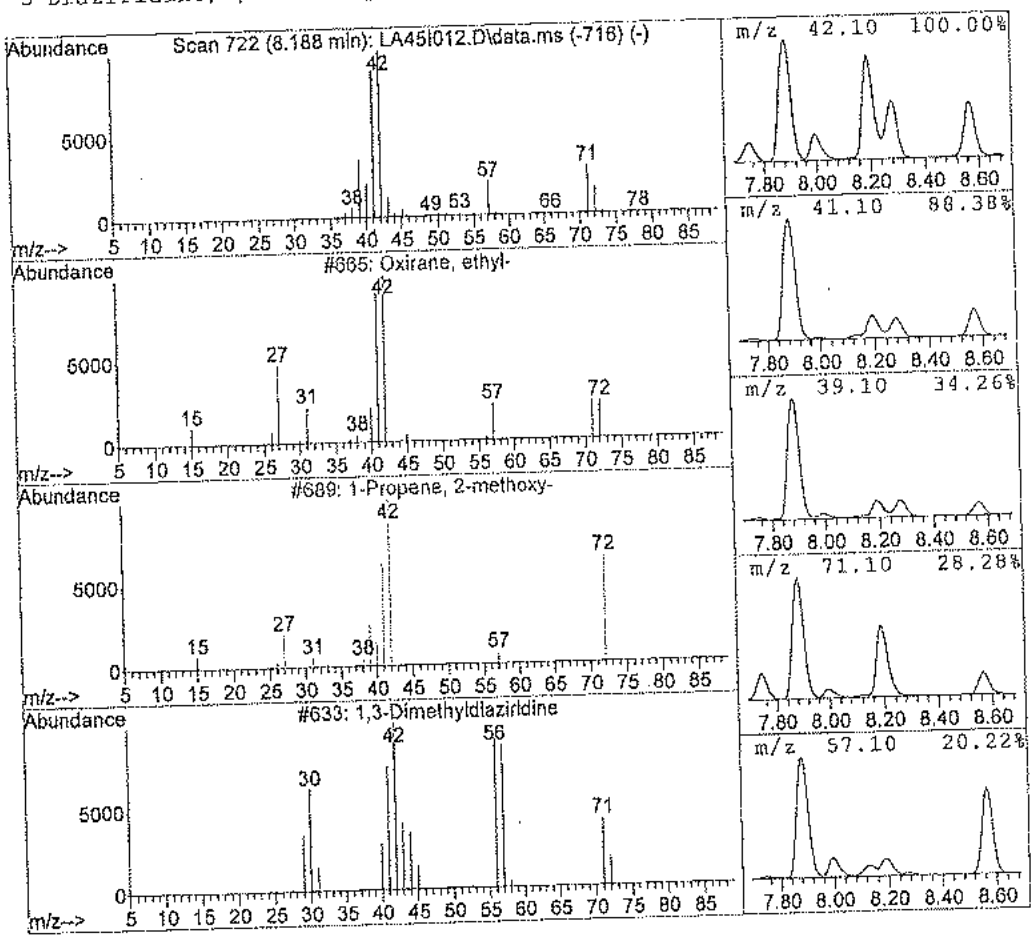
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.19	6.04 ppb	5402833	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Oxirane, ethyl-	665	000106-88-7	86.00
2	1-Propene, 2-methoxy-	689	000116-11-0	64.00
3	1,3-Dimethyldiaziridine	633	026177-36-6	50.00
4	3-Buten-1-ol	651	000627-27-0	9.00
5	Diaziridine,3,3-dimethyl-	636	004901-76-2	9.00



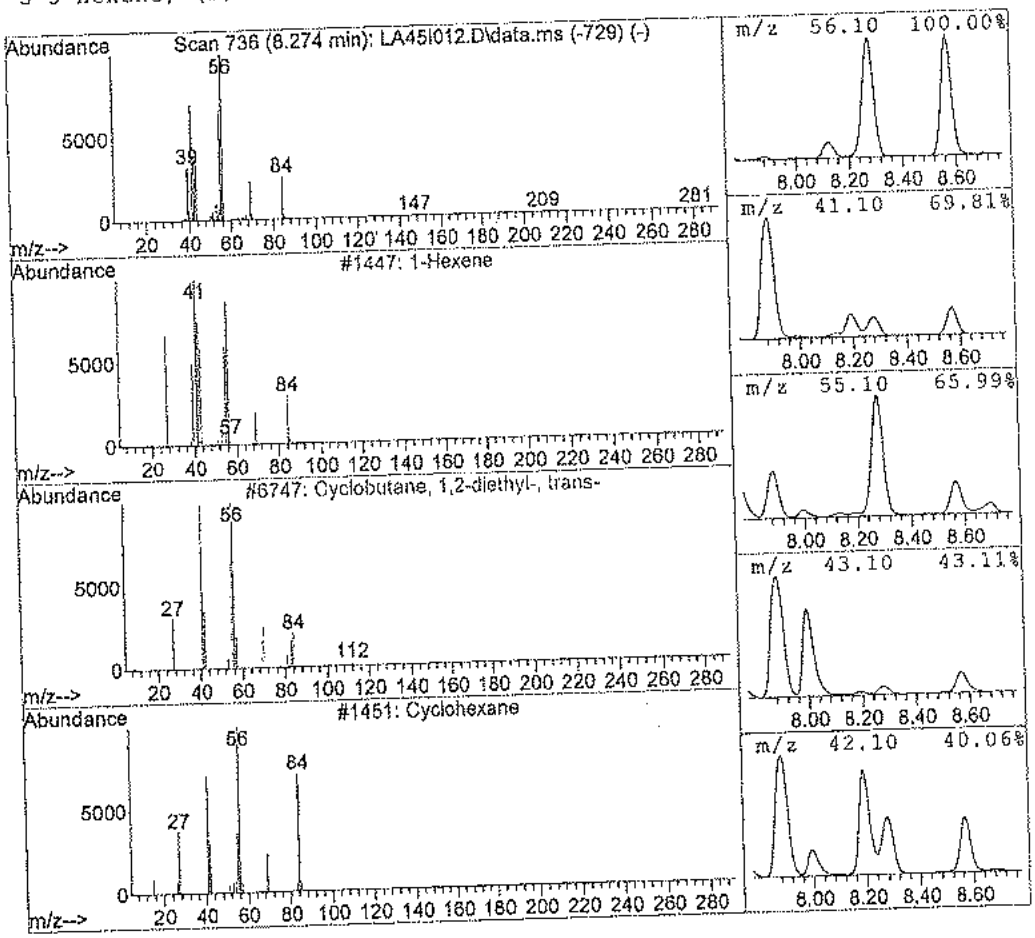
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.27	8.68 ppb	7768891	Bromochloromethane	17891132

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexene	1447	000592-41-6	91.00
2	Cyclobutane, 1,2-diethyl-, trans-	6747	019341-98-1	74.00
3	Cyclohexane	1451	000110-82-7	72.00
4	2-Hexene, (Z)-	1458	007688-21-3	60.00
5	3-Hexene, (E)-	1460	013269-52-8	60.00



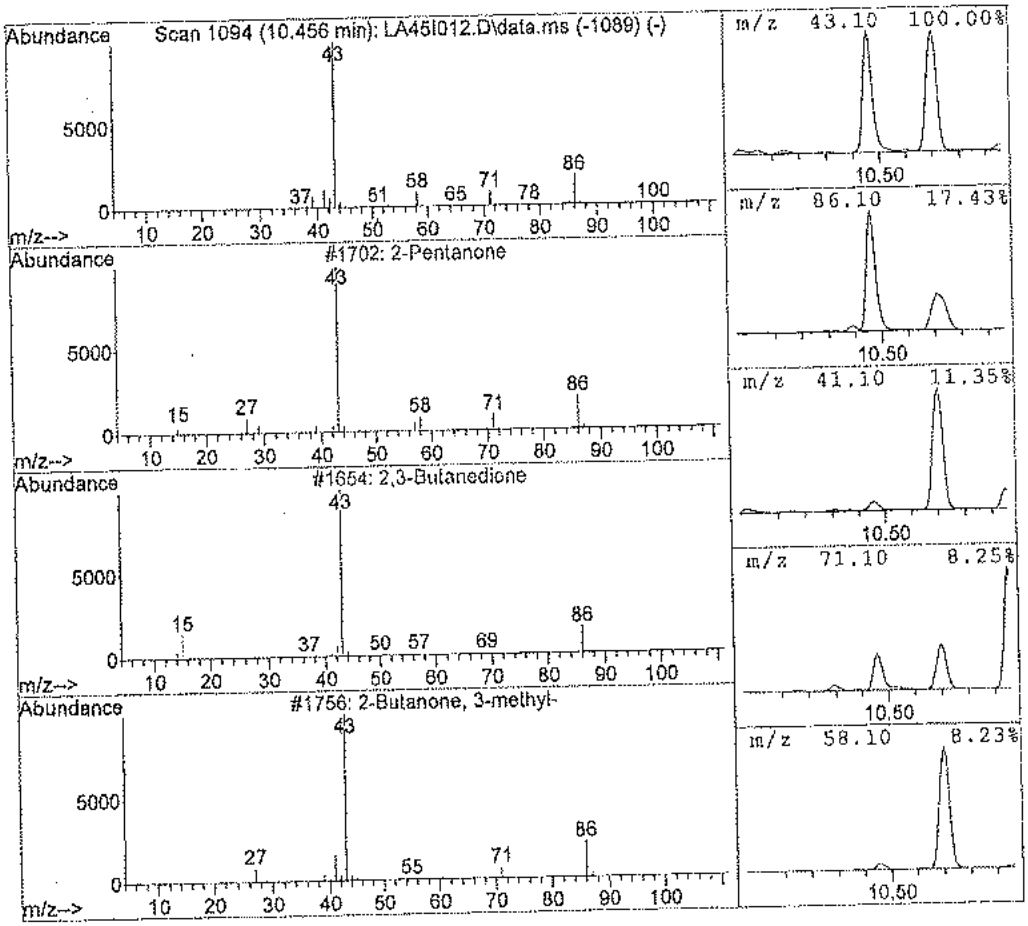
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.46	8.92 ppb	6966947	1,4-Difluorobenzene	15615617

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Pentanone	1702	000107-87-9	86.00
2	2,3-Butanedione	1654	000431-03-8	42.00
3	2-Butanone, 3-methyl-	1756	000563-80-4	36.00
4	Propane, 2-(ethenyloxy)-	1787	000926-65-8	9.00
5	2-Pentanone, 3-ethyl-	7446	006137-03-7	9.00



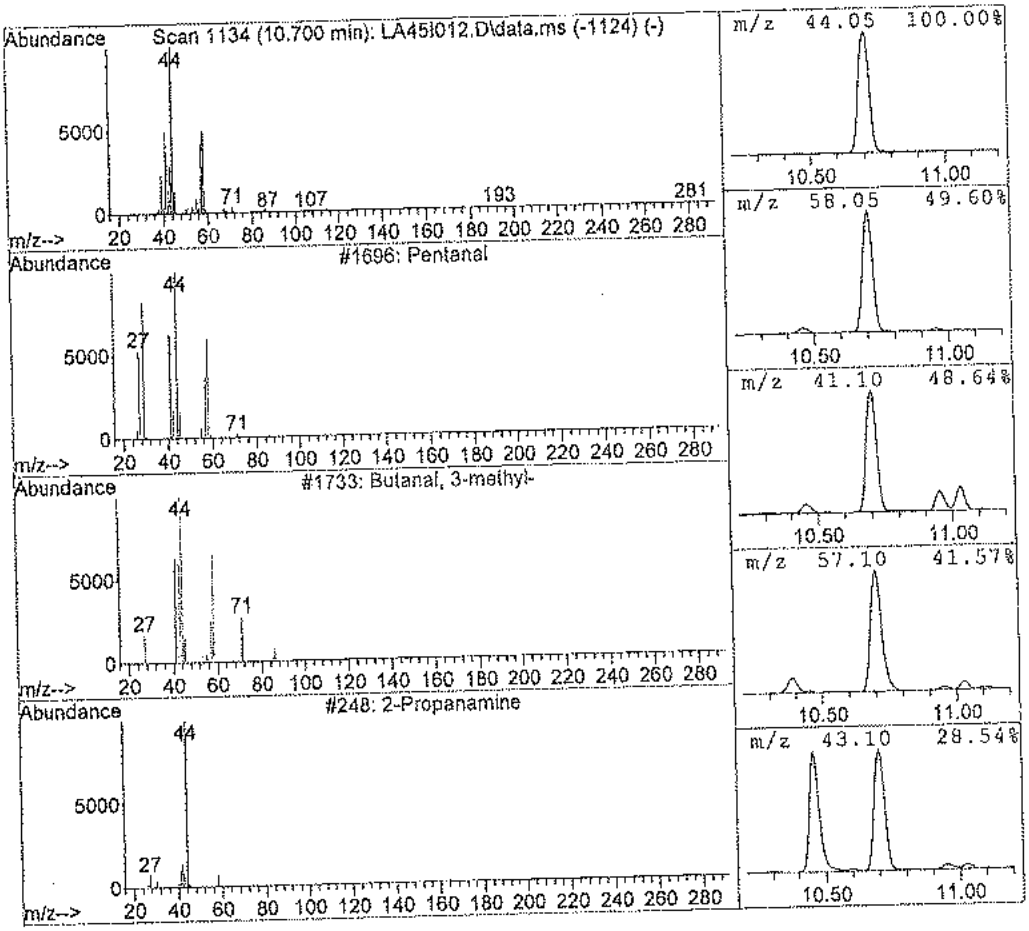
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.70	69.23 ppb	54052767	1,4-Difluorobenzene	15615617

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1696	000110-62-3	91.00
2	Butanal, 3-methyl-	1733	000590-86-3	74.00
3	2-Propanamine	248	000075-31-0	38.00
4	Cyclopropyl carbinol	686	002516-33-8	33.00
5	Butane, 2-nitro-	4503	000600-24-8	9.00



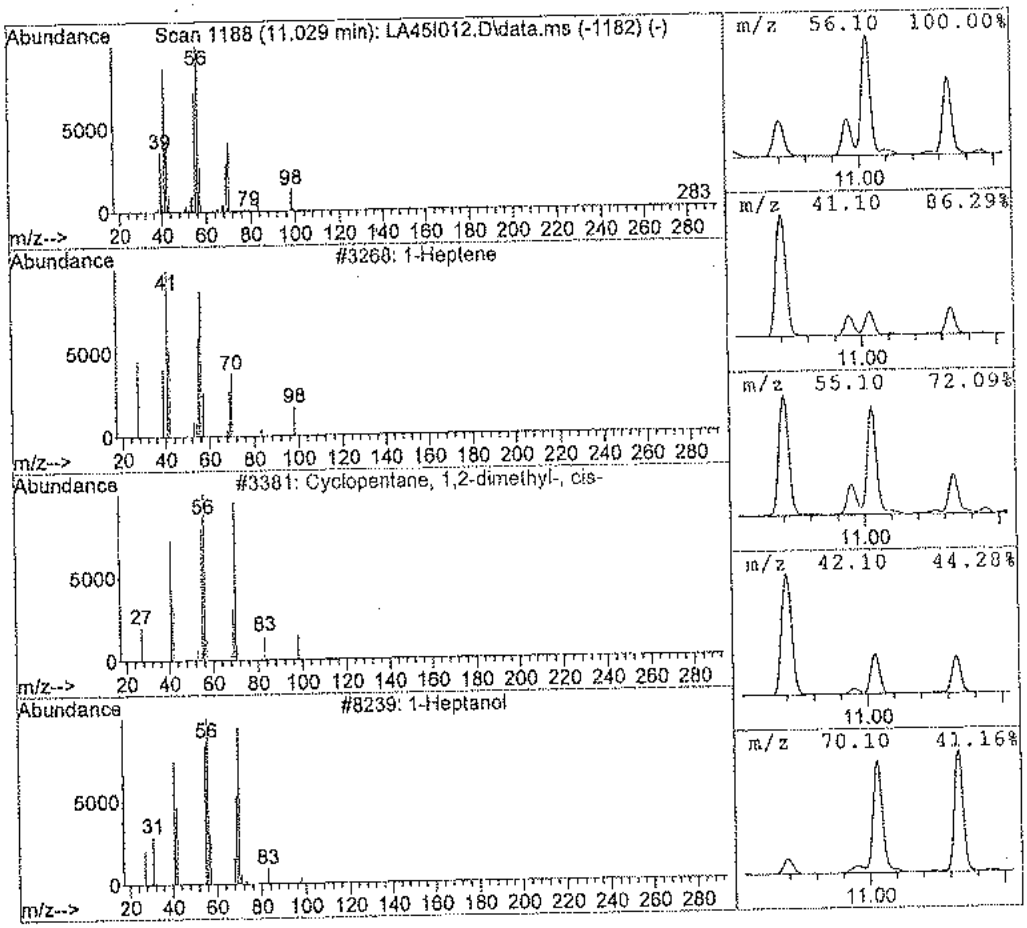
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
11.03	8.49 ppb	6630874	1,4-Difluorobenzene	15615617

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Heptene	3268	000592-76-7	95.00
2	Cyclopentane, 1,2-dimethyl-, cis-	3381	001192-18-3	72.00
3	1-Heptanol	8239	000111-70-6	72.00
4	Isopropylcyclobutane	3308	000872-56-0	64.00
5	Cyclopentane, 1,3-dimethyl-, cis-	3379	002532-58-3	58.00



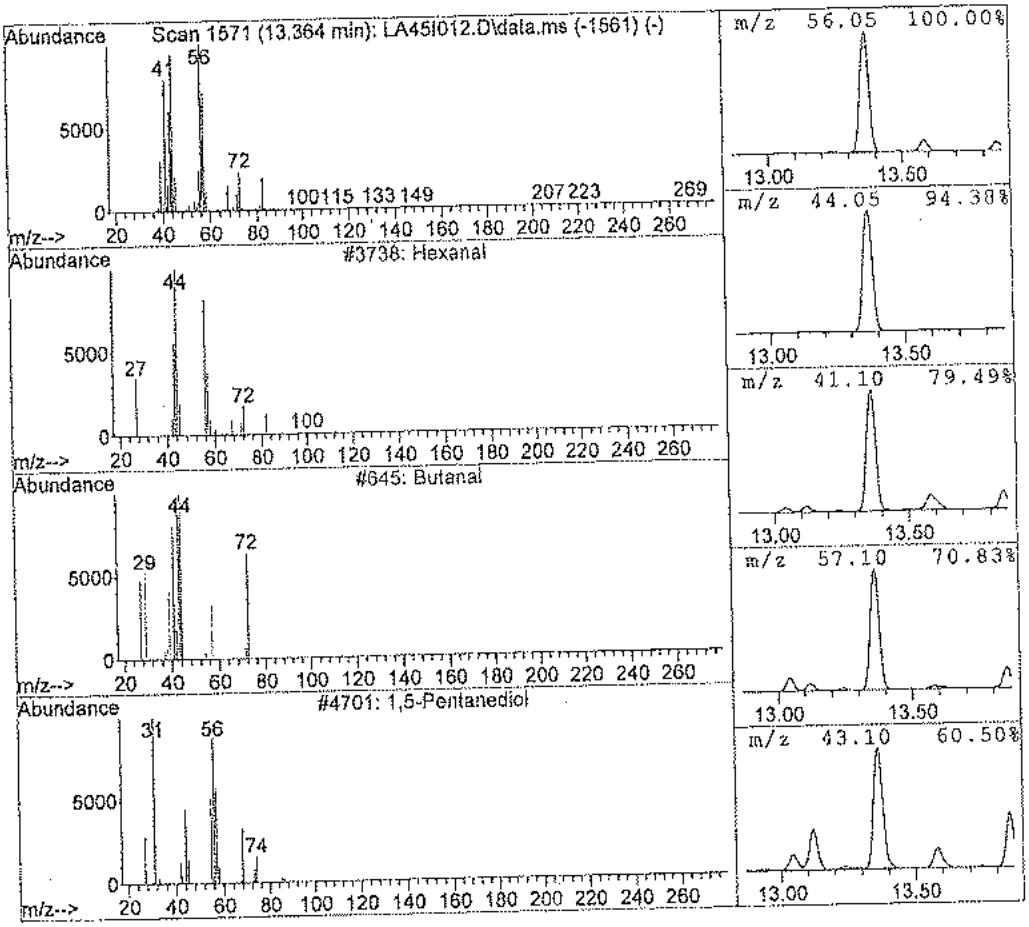
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.36	48.84 ppb	44024895	Chlorobenzene d5	18030051

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3738	000066-25-1	91.00
2	Butanal	645	000123-72-8	30.00
3	1,5-Pentanediol	4701	000111-29-5	28.00
4	Cyclopentanol, 2-methyl-, trans-	3920	025144-04-1	23.00
5	2,2-Dimethyl-3-hydroxypropionaldehy	4305	000597-31-9	23.00



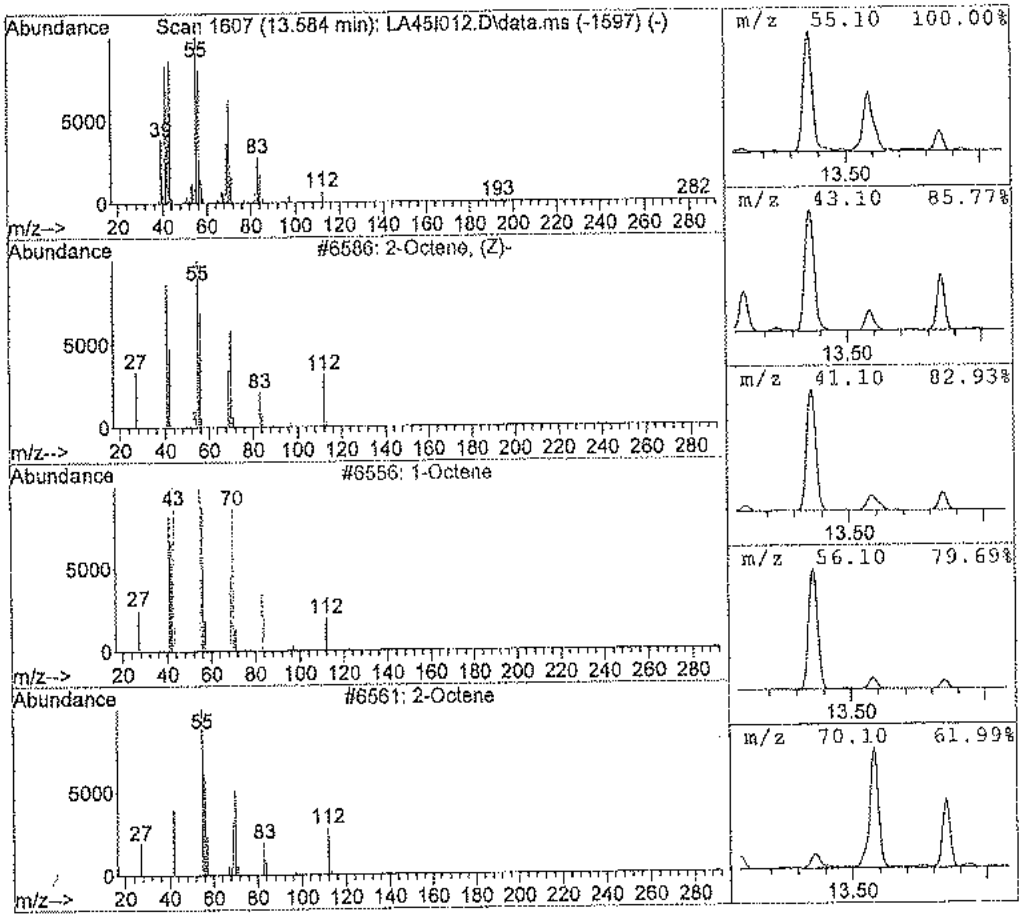
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.58	7.57 ppb	6826811	Chlorobenzene d5	18030051

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Octene, (Z)-	6586	007642-04-8	90.00
2	1-Octene	6556	000111-66-0	86.00
3	2-Octene	6561	000111-67-1	72.00
4	1-Heptene, 3-methyl-	6605	004810-09-7	72.00
5	Cycloheptane	3274	000291-64-5	72.00



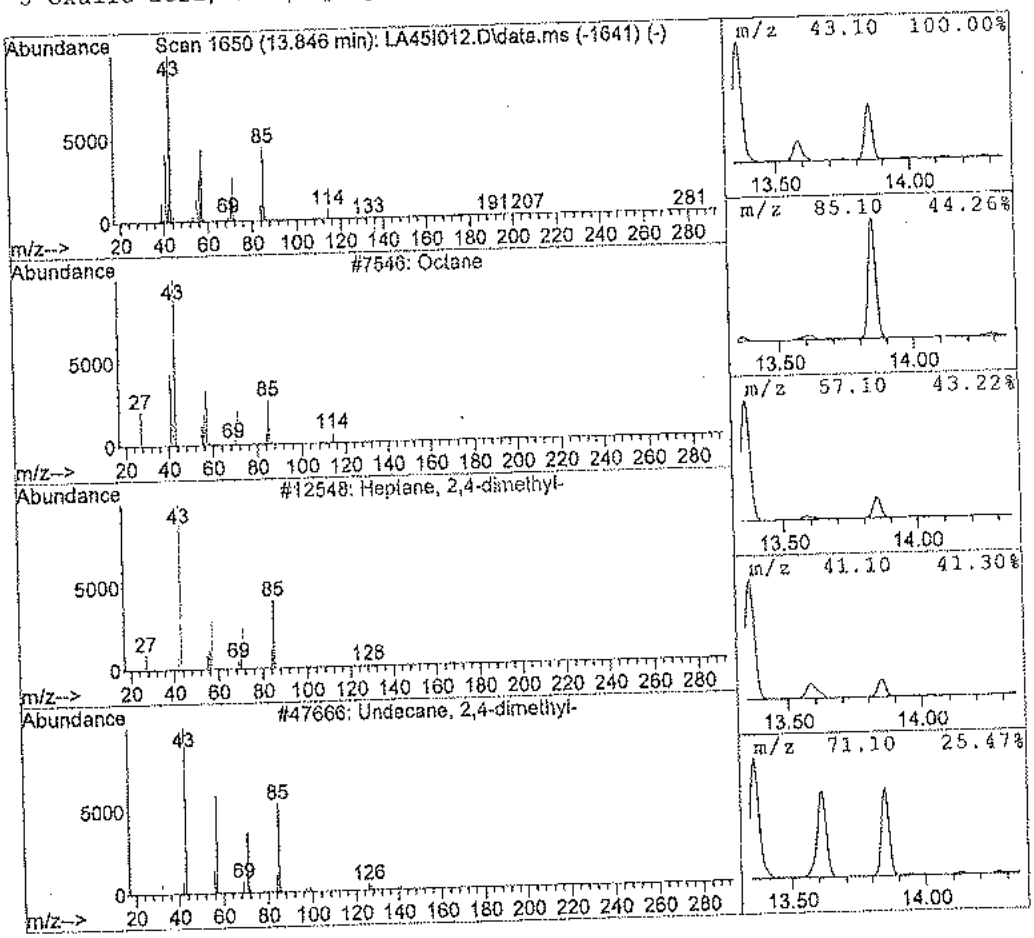
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.85	6.99 ppb	6301316	Chlorobenzene d5	18030051

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane	7546	000111-65-9	94.00
2	Heptane, 2,4-dimethyl-	12548	002213-23-2	72.00
3	Undecane, 2,4-dimethyl-	47666	017312-80-0	64.00
4	Hexane, 2,4-dimethyl-	7570	000589-43-5	64.00
5	Oxalic acid, isohexyl pentyl ester	92962	1000309-32-8	64.00



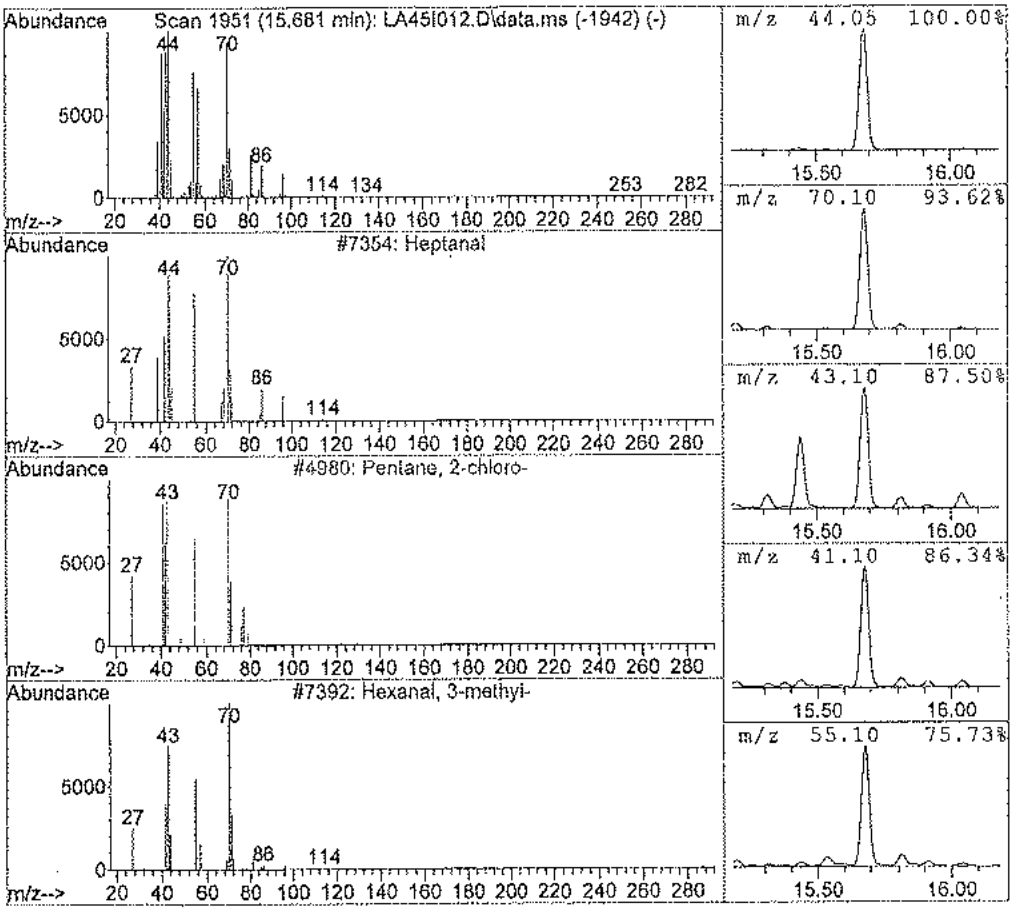
Library Search Compound Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA45I012.D Vial: 13
Acq Time : 04/15/2015 23:58 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 0533 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
15.68	24.16 ppb	21781311	Chlorobenzene d5	18030051

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptanal	7354	000111-71-7	98.00
2	Pentane, 2-chloro-	4980	000625-29-6	38.00
3	Hexanal, 3-methyl-	7392	019269-28-4	38.00
4	Ethoxyacetylene	530	000927-80-0	35.00
5	Oxirane, 2-(1,1-dimethylethyl)-3-me	7545	053897-30-6	32.00

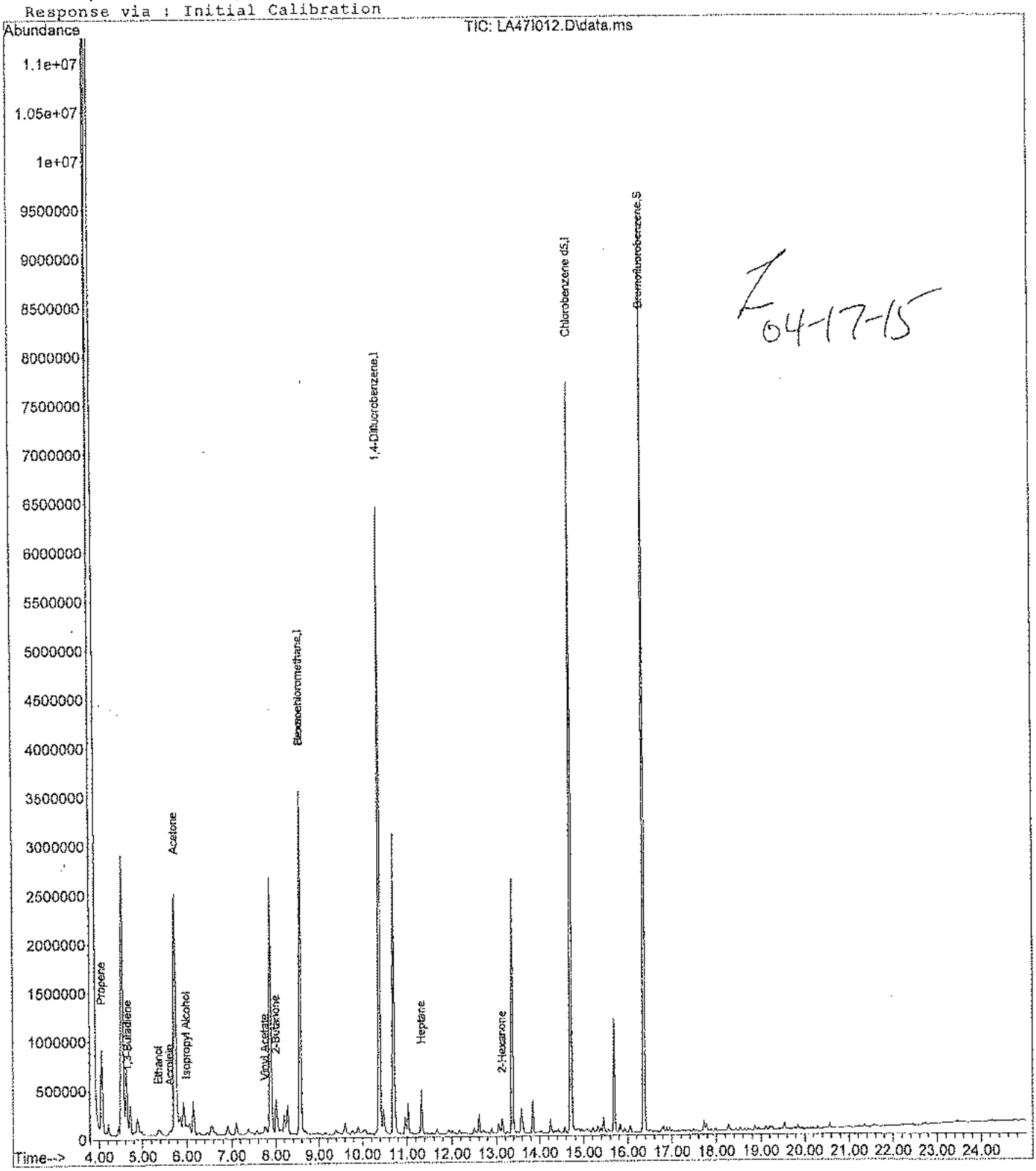


Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA47I012.D Vial: 13
Acq Time : 04/16/2015 08:26 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 533 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 09:51:08 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



Z 04-17-15

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA47I012.D Vial: 13
Acq Time : 04/16/2015 08:26 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 533 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 09:51:08 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.57	130	542272	20.0000 ppb	111.65
25) 1,4-Difluorobenzene	10.38	114	6342857	20.0000 ppb	104.55
50) Chlorobenzene d5	14.71	117	5380990	20.0000 ppb	104.18
					%Recovery
System Monitoring Compounds					
58) Bromofluorobenzene	16.36	95	4228327	19.7313 ppb	98.66%
					Qvalue
Target Compounds					
2) Propene	4.06	41	668982	8.7061 ppb	95
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.66	54	39762	0.4676 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.62	56	73869	1.7028 ppb #	91
11) Acetone	5.73	43	2909093	16.2263 ppb #	1
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.36	45	122664	3.4219 ppb #	77
14) Isopropyl Alcohol	5.99	45	289767	0.9526 ppb #	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.75	86	10425	0.4126 ppb #	1
23) 2-Butanone	8.01	43	685612	3.0118 ppb #	76
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.57	57	260107	1.4657 ppb #	91
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	121831	1.1197 ppb #	43
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	13.13	43	124853	0.5200 ppb #	81
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\TO1...M\15APR15L\LA47I012.D Vial: 13
Acq Time : 04/16/2015 08:26 Operator: TJM
Sample : 1510353012 Inst : 5975-L
Misc : SG-001B-4 533 1:10DIL (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 16 09:51:08 2015 Results File: TO15LB15.RES

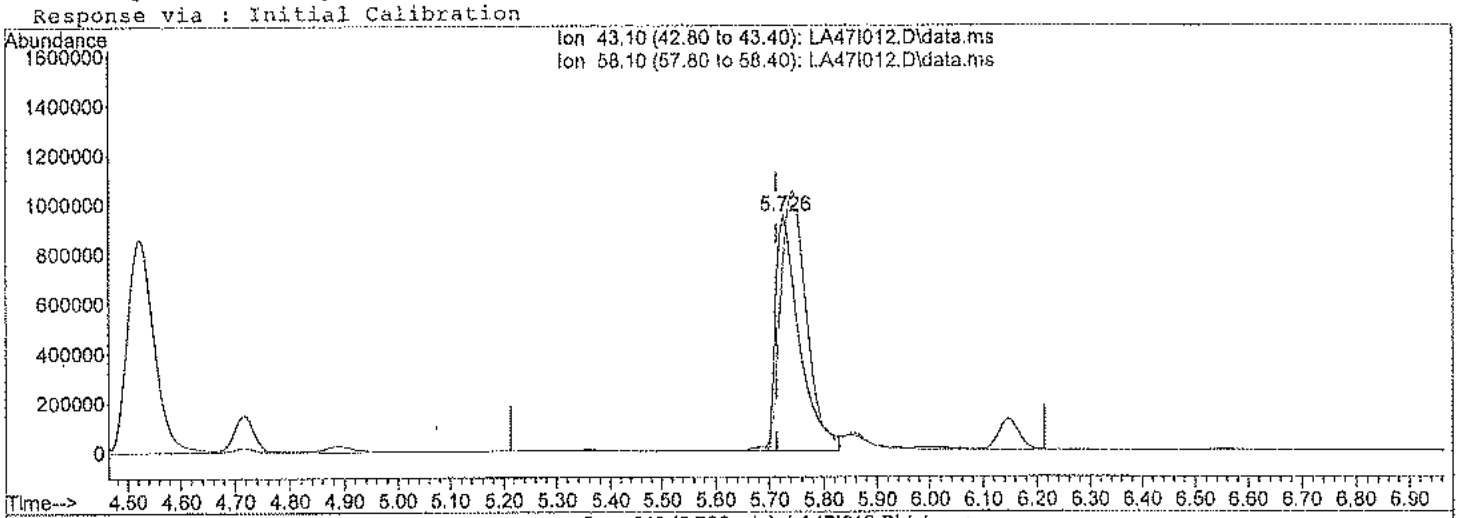
Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

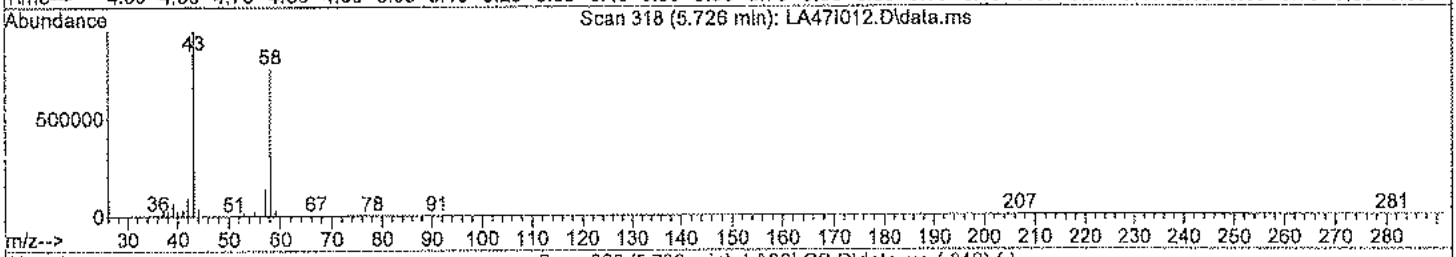
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

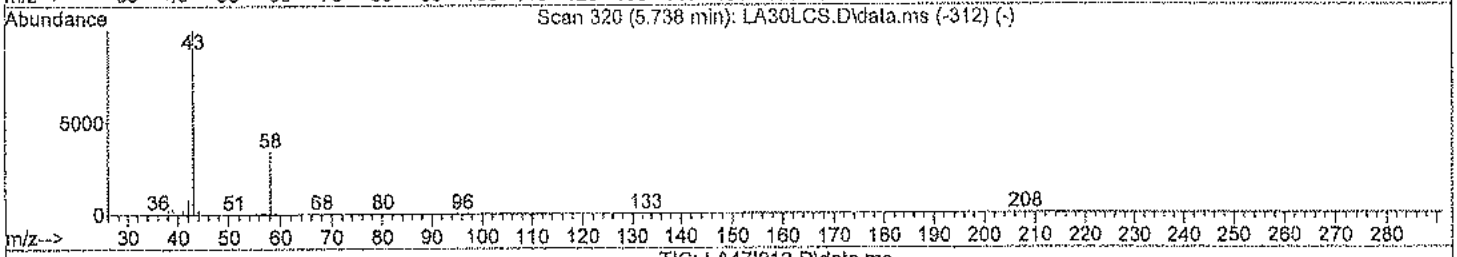
Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA47I012.D
Acq On : 04/16/2015 08:26
Operator : TJM
Sample : 1510353012
Inst : 5975-L
Misc : SG-001B-4 533 1:10DIL (20mL)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 16 09:51:08 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration







TIC: LA47I012.D\data.ms

(11) Acetone

5.726min (+ 0.012) 16.23 ppb

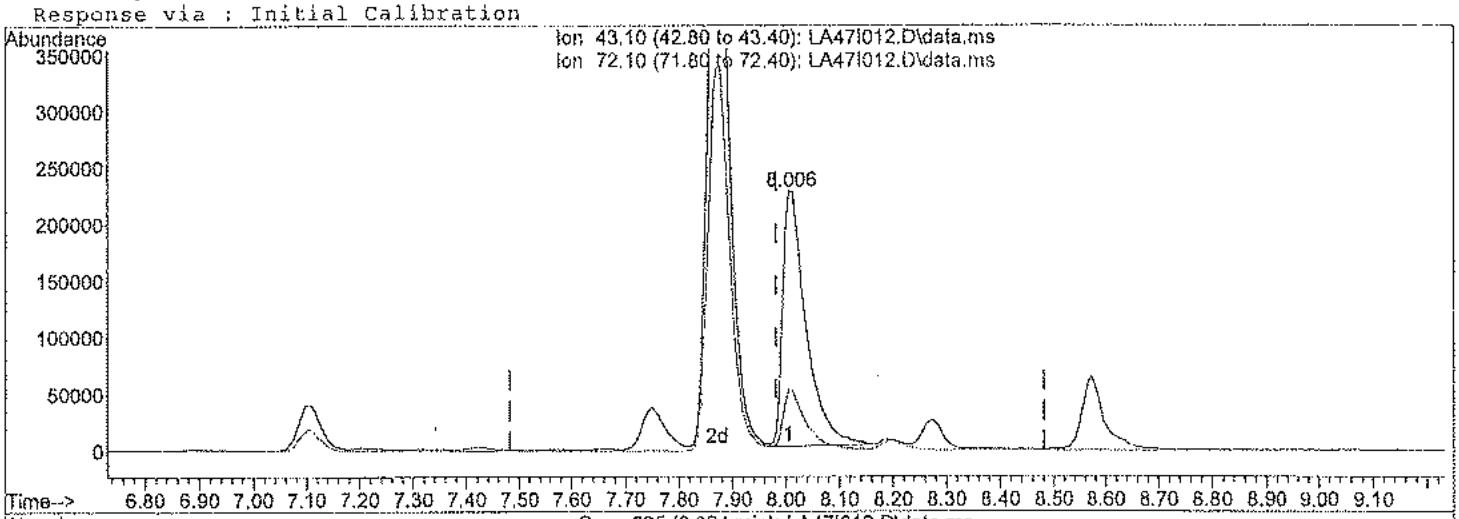
response 2909093

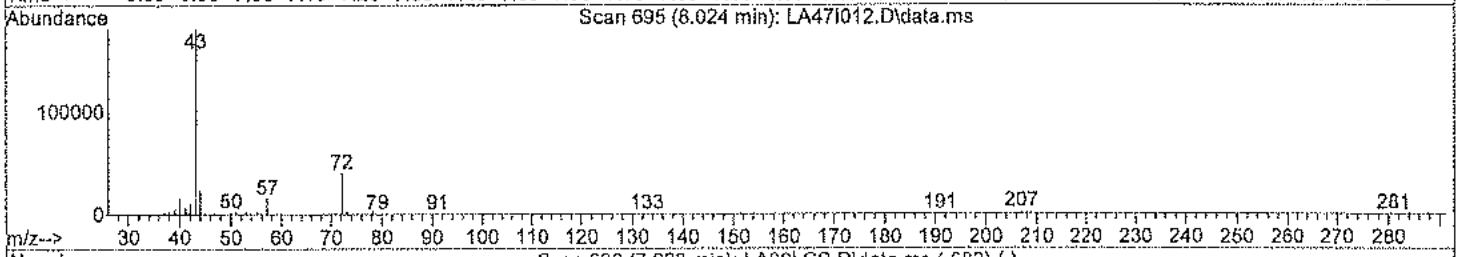
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	118.86#
0.00	0.00	0.00
0.00	0.00	0.00

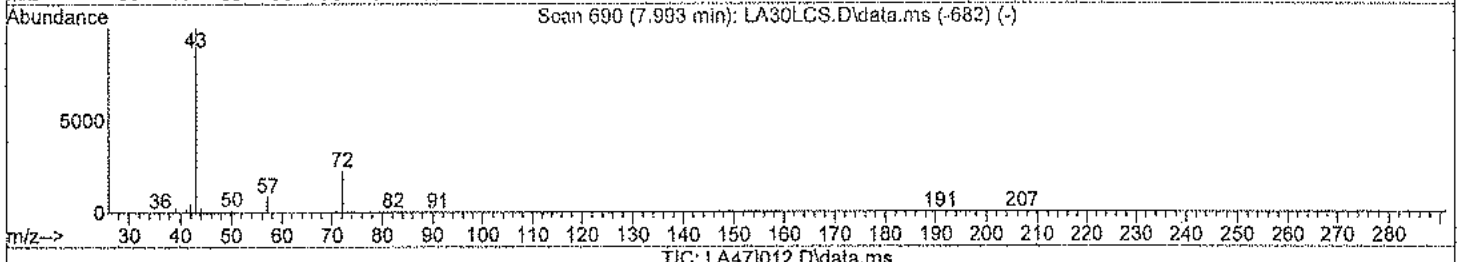
Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\TO15LA15.M\15APR15L\
Data File : LA47I012.D
Acq On : 04/16/2015 08:26
Operator : TJM
Sample : 1510353012
Inst : 5975-L
Misc : SG-001B-4 533 1:10DIL (20mL)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 16 09:51:08 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration







TIC: LA47I012.D\data.ms

(23) 2-Butanone

8.006min (+ 0.024) 3.01 ppb

response 685612

Ion	Exp%	Act%
43.10	100.00	100.00
72.10	38.90	24.14#
0.00	0.00	0.00
0.00	0.00	0.00

Case Narrative

Method: 8270D
Analysis: Semi volatiles by GC/MS
SOP ref: OE-SW-3540, OS-SW-8270D

Set ID: 1510555
Client: First Environment
Matrix: Air

General Set Information: There are three field samples in this reporting group.

Method Summary: This is a GC/MS method for determination of semivolatile organic compounds in air according to the SW-846 Guidelines. The sample was extracted using method 3540. The resulting extract is analyzed using an Agilent model 5975 GC/MS system with an electron impact ionization source and a quadrapole mass-filter detector.

Sample Preparation: All samples were prepared in accordance with method 3540.

Holding Times: All samples were extracted and analyzed within hold times.

Dilutions: No dilutions were performed.

Method and Sample QC data: All compounds were within recovery limits for the laboratory control sample, except for benzo(a)anthracene which failed slightly low at 62.1%. The method blank met the acceptance criteria with no target compounds detected above the reporting limit. All samples met surrogate recovery criteria.

MS/MSD Analysis: Matrix spike was not performed in this set.

Instrument QC: The instrument was tuned with 50 ng DFTPP. A seven-point initial calibration curve was analyzed prior to sample analysis. The concentrations of the standards were: 1, 5, 20, 35, 50, 65 and 80 µg/mL. A calibration verification standard at a concentration of 50 ug/mL was analyzed to verify instrument response against the initial calibration. The initial calibration and continuing calibration verification passed all method criteria.

Manual Integrations: The explanation for each of the manual integrations is that the data system did not correctly integrate the peak in its automated data evaluation procedure.

Miscellaneous comments: None.

Steven Yourstone September 30, 2015

ANALYTICAL REPORT

Report Date: April 20, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
Fax: (973) 334-0928
E-mail: EJR@firstenvironment.com

Workorder: **34-1510555**
Project ID: VA SLC CERCLA
Purchase Order: VA SLC CERCLA

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0011-H-041315-SG-001	1510555001	04/13/15	04/15/15	VA SLC CERCLA
A-0011-H-041315-TO-001-BAS	1510555002	04/13/15	04/15/15	VA SLC CERCLA
A-0031-S-041415-SG-002A4	1510555003	04/14/15	04/15/15	VA SLC CERCLA

ANALYTICAL REPORT

Workorder: 34-1510555
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-041315-SG-001 | Sampling Site: VA SLC CERCLA | Collected: 04/13/2015
Lab ID: 1510555001 | Media: PUF Tube | Received: 04/15/2015
Matrix: Air | Sampling Parameter: Air Volume 240 L

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21465 (HBN: 147284)	**Initial:** 1 wipe	**Batch:**	ESVO/4922 (HBN: 147379)	**Percent Solid:** NA
Prepared:	04/17/2015	**Final:** 1 mL	**Analyzed:**	04/20/2015 09:14	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Sample ID: A-0011-H-041315-TO-001-BAS | Sampling Site: VA SLC CERCLA | Collected: 04/13/2015
Lab ID: 1510555002 | Media: PUF Tube | Received: 04/15/2015
Matrix: Air | Sampling Parameter: Air Volume 240 L

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21465 (HBN: 147284)	**Initial:** 1 wipe	**Batch:**	ESVO/4922 (HBN: 147379)	**Percent Solid:** NA
Prepared:	04/17/2015	**Final:** 1 mL	**Analyzed:**	04/20/2015 09:47	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510555
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011-H-041315-TO-001-BAS
Lab ID: 1510555002
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: PUF Tube
Sampling Parameter: Air Volume 240 L
Collected: 04/13/2015
Received: 04/15/2015

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21465 (HBN: 147284)	**Initial:** 1 wipe	**Batch:**	ESVO/4922 (HBN: 147379)	**Percent Solid:** NA
Prepared:	04/17/2015	**Final:** 1 mL	**Analyzed:**	04/20/2015 09:47	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Sample ID: A-0031-S-041415-SG-002A4
Lab ID: 1510555003
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: PUF Tube
Sampling Parameter: Air Volume 240 L
Collected: 04/14/2015
Received: 04/15/2015

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21465 (HBN: 147284)	**Initial:** 1 wipe	**Batch:**	ESVO/4922 (HBN: 147379)	**Percent Solid:** NA
Prepared:	04/17/2015	**Final:** 1 mL	**Analyzed:**	04/20/2015 10:20	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Naphthalene	ND	<4.2	1.0	1.0	1	U
2-Methylnaphthalene	ND	<4.2	1.0	1.0	1	U
Acenaphthylene	ND	<4.2	1.0	1.0	1	U
Acenaphthene	ND	<4.2	1.0	1.0	1	U
Fluorene	ND	<4.2	1.0	1.0	1	U
Phenanthrene	ND	<4.2	1.0	1.0	1	U
Anthracene	ND	<4.2	1.0	1.0	1	U
Fluoranthene	ND	<4.2	1.0	1.0	1	U
Pyrene	ND	<4.2	1.0	1.0	1	U
Benzo(a)anthracene	ND	<4.2	1.0	1.0	1	U
Chrysene	ND	<4.2	1.0	1.0	1	U
Benzo(b)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(k)fluoranthene	ND	<4.2	1.0	1.0	1	U
Benzo(a)pyrene	ND	<4.2	1.0	1.0	1	U
Indeno(1,2,3-cd)pyrene	ND	<4.2	1.0	1.0	1	U
Dibenz(a,h)anthracene	ND	<4.2	1.0	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510555
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID:	A-0031-S-041415-SG-002A4	Sampling Site:	VA SLC CERCLA	Collected:	04/14/2015
Lab ID:	1510555003	Media:	PUF Tube	Received:	04/15/2015
Matrix:	Air	Sampling Parameter:	Air Volume 240 L		

Analysis Method - EPA TO-13

Preparation:	EPA 3540 Soxhlet Ext.	**Weight/Volume**	**Analysis:**	EPA TO-13, Air	**Instrument ID:** 5975-H
Batch:	ENVX/21465 (HBN: 147284)	**Initial:** 1 wipe	**Batch:**	ESVO/4922 (HBN: 147379)	**Percent Solid:** NA
Prepared:	04/17/2015	**Final:** 1 mL	**Analyzed:**	04/20/2015 10:20	**Report Basis:** Wet

Analyte	ug/sample	ug/m³	MDL (ug/sample)	RL (ug/sample)	Dilution	Qual.
Benzo(g,h,i)perylene	ND	<4.2	1.0	1.0	1	U

Comments

Quality Control: EPA TO-13 - (HBN: 147379)

Benzo(a)anthracene fails slightly low at 62.1% in the LCS, but all other compounds pass in both the LCS and LCSD.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-13	/S/ Steven Yourstone 04/20/2015 13:04	/S/ Jessica Helland 04/20/2015 14:04

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: 34-1510555
Client: First Environment
Project Manager: Kevin W. Griffiths

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510555

Limits:	Historical/Performance	**Preparation:**	EPA 3540 Soxhlet Ext.	**Analysis:**	EPA TO-13
Basis:	ALS Laboratory Group	**Batch:**	ENVX/21465 (HBN: 147284)	**Batch:**	ESVO/4922 (HBN: 147379)
		Prepared By:	Khoa Dang Tran	**Analyzed By:**	Steven Yourstone

Blank

MB: 442952
Analyzed: 04/20/2015 07:35
Units: ug/sample

Analyte	Result	MDL	RL
Naphthalene	ND	1	1.00
2-Methylnaphthalene	ND	1	1.00
Acenaphthylene	ND	1	1.00
Acenaphthene	ND	1	1.00
Fluorene	ND	1	1.00
Phenanthrene	ND	1	1.00
Anthracene	ND	1	1.00
Fluoranthene	ND	1	1.00
Pyrene	ND	1	1.00
Benzo(a)anthracene	ND	1	1.00
Chrysene	ND	1	1.00
Benzo(b)fluoranthene	ND	1	1.00
Benzo(k)fluoranthene	ND	1	1.00
Benzo(a)pyrene	ND	1	1.00
Indeno(1,2,3-cd)pyrene	ND	1	1.00
Dibenz(a,h)anthracene	ND	1	1.00
Benzo(g,h,i)perylene	ND	1	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 442953
Analyzed: 04/20/2015 08:09
Dilution: 1
Units: ug/sample

LCSD: 442954
Analyzed: 04/20/2015 08:41
Dilution: 1
Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Naphthalene	26.6	40.0	66.4	40.7	100.0	28.3	70.8	6.38	0.0	36.0
2-Methylnaphthalene	26.9	40.0	67.3	44.0	102.4	28.8	72.0	6.71	0.0	22.0
Acenaphthylene	20.8	40.0	52.0	19.5	100.0	22.8	57.0	9.18	0.0	36.0
Acenaphthene	25.3	40.0	63.3	58.1	100.0	27.8	69.4	9.14	0.0	25.4
Fluorene	25.0	40.0	62.4	60.9	100.0	26.7	66.7	6.64	0.0	37.9
Phenanthrene	25.8	40.0	64.5	51.5	112.1	28.1	70.3	8.59	0.0	33.6
Anthracene	25.6	40.0	64.0	36.8	100.0	27.9	69.8	8.59	0.0	33.9
Fluoranthene	27.3	40.0	68.2	49.4	116.6	29.3	73.3	7.20	0.0	48.7
Pyrene	27.0	40.0	67.6	47.2	119.7	28.4	71.1	4.98	0.0	23.4
Benzo(a)anthracene	24.8	40.0	* 62.1	64.1	100.0	26.5	66.4	6.61	0.0	30.0
Chrysene	27.4	40.0	68.4	49.2	115.9	29.2	72.9	6.42	0.0	37.6
Benzo(b)fluoranthene	24.3	40.0	60.8	22.0	195.8	25.8	64.5	5.94	0.0	35.2
Benzo(k)fluoranthene	26.9	40.0	67.3	32.6	170.9	28.6	71.4	5.94	0.0	20.0
Benzo(a)pyrene	24.7	40.0	61.8	49.7	115.8	26.2	65.6	5.91	0.0	32.5

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510555

Limits:	Historical/Performance	**Preparation:**	EPA 3540 Soxhlet Ext.	**Analysis:**	EPA TO-13
Basis:	ALS Laboratory Group	**Batch:**	ENVX/21465 (HBN: 147284)	**Batch:**	ESVO/4922 (HBN: 147379)
		Prepared By:	Khoa Dang Tran	**Analyzed By:**	Steven Yourstone

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 442953	LCSD: 442954
	Analyzed: 04/20/2015 08:09	Analyzed: 04/20/2015 08:41
	Dilution: 1	Dilution: 1
	Units: ug/sample	Units: ug/sample

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Indeno(1,2,3-cd)pyrene	26.2	40.0	65.5	34.0	108.4	28.2	70.5	7.38	0.0	45.9
Dibenz(a,h)anthracene	28.2	40.0	70.5	37.5	126.8	30.3	75.8	7.19	0.0	35.0
Benzo(g,h,i)perylene	27.6	40.0	69.1	35.3	128.6	29.8	74.5	7.54	0.0	46.7

Surrogate Recoveries

Surrogate	2-Fluorobiphenyl			Terphenyl-d14		
QC Limits	35.1	113.6		16.2	143.5	
Units	ug/sample			ug/sample		
Lab ID	Result	Target	% Recovery	Result	Target	% Recovery
442952-MB	34.2	50.0	68.3	31.8	50.0	63.6
442953-LCS	31.1	50.0	62.1	31.3	50.0	62.6
442954-LCSD	34.9	50.0	69.8	33.9	50.0	67.7
1510555001	37.7	50.0	75.4	37.4	50.0	74.8
1510555002	35.8	50.0	71.5	33.9	50.0	67.7
1510555003	35.5	50.0	71.0	32.8	50.0	65.6

Comments

Benzo(a)anthracene fails slightly low at 62.1% in the LCS, but all other compounds pass in both the LCS and LCSD.

QC Data Approved and Reviewed by

Steven Yourstone	Jessica Helland	4/20/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◆ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

13920/#1 TO15
#3 TO13

1510555

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status 1510555

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/15/15 Purchase Order No. _____

3. Company Name First Environment INC
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (973) 787-2295
Fax Telephone (973) 334-0628
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Karen Griffing

5. **Sample Collection**
Sampling Site VA SLC CERCLA
Industrial Process NA
Date of Collection 4/11 - 4/ 1-2015
Time Collected multiple
Date of Shipment 4/15/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-003011-041115-TO-001-LAB	air	6L Sum	TO-15 -VOCs in Air	5	
A-003011-041115-TO-002-OUT	air	6L Sum			
A-003011-041115-TO-003-AMA	air	6L Sum			
A-003011-041115-SG-001A-6'	air	6L Sum			
A-003011-041115-TO-004BULK	air	6L Summa			
A-001114-041415-SG-001A8'	air	6L Summa			
A-001114-041315-SG-001AVG		1L Tedlar	TO-15A -VOCs in Air		
A-0011-4-041315-SG-001-PUF		24OL	TO-13 SVOCs in Air		
A-001114-041315-TO-001BAKPF		24OL	TO-13 SVOCs in Air		
A-0031-S-041415-SG-002A4'		24OL	TO-13 SVOC in Air		
A-0031-S-041515-SG-002A4'		6L Summa	TO-15 -VOCs in Air	5	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCE, TCE, 1,2 DCE, Vinyl Chl.

7. **Chain of Custody (Optional)**

Relinquished by		Date/Time	4/15/15 - 1205
Received by		Date/Time	04/15/15 12:08
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Environmental

CHAIN-OF-CUSTODY

Project / Job / Task: VA SLC CERCLA	Split:	Workorder ID: 1510555	Level: ENV_LVL2
Client: First Environment		Account: 8001	Type: E1
Comments:			Preservatives: COOL

Item	Collect Date/Time	Sample ID	Lab ID	QC	Matrix	Containers ID(s)	Containers Count	Requested Analysis: EPA TO-13
1	04/13/2015 00:00	A-0011-H-041315-SG-001	1510555001		Air	A	1	A
2	04/13/2015 00:00	A-0011-H-041315-TO-001-BA5	1510555002		Air	A	1	A
3	04/14/2015 00:00	A-0031-S-041415-SG-002A4	1510555003		Air	A	1	A
4								
5								
6								
7								
8								
9								
10								

ORIGINAL FIELD SAMPLE CHAIN-OF-CUSTODY

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location
Wrath, Julie	04/15/2015 12:05	ALS Sample Receiving	Sample Login
Julie Wrath 4/15/15 1450		13C	Storage
13C	4/17/15 1530		EXT
SAMPLE CONSUMED			

SAMPLE PREPARATION / ANALYSIS CHAIN-OF-CUSTODY

Sample Prep / Analysis for: SV — Lab Notebook No.:

Prepared / Analyzed by: — Date / Time:

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Reason for Transfer / Storage Location
	4/18/15 1210		Core
	4/18/15 1500	R-60-6	Storage
R-60-6	4/20/15 0700		Analysis
	4/20/15 0700	R-60-6	Storage

ALS - SALT LAKE CITY-RELATED INFORMATION REPORT (CRIR)

COOLER OR CONTAINER INFORMATION CHECKLIST (Fill In or Circle)

1510555

Client Name: FIRST ENV

Project/Task/Site:

Date/Time of Receipt: 04 15 15 10:05

Number of Coolers Received: 1 Cooler ~~120~~

Condition of Coolers:	Acceptable/Unacceptable	Temperature Control:	Present/Not Included
Cooler Custody Seals:	Present/Absent/NA Intact/Broken/NA	Location Temp Taken:	Control/Between Samples
Container Custody Seals:	Present/Absent/NA Intact/Broken/NA	Are all temperatures within project specific guidelines?	Yes/No/NA
Ice Present:	Yes/No/NA Frozen/Melted/NA	VOA Headspace Present?	Yes/No/NA

pH Check Performed:	Metals	Yes/No/NA	Total Phenolics	Yes/No/NA	NO3/NO2	Yes/No/NA
	Cyanide	Yes/No/NA	TPH – 418.1	Yes/No/NA	Oil & Grease	Yes/No/NA
	Sulfide	Yes/No/NA	COD	Yes/No/NA	Total Phosphorous	Yes/No/NA
	Ammonia	Yes/No/NA	TKN	Yes/No/NA	TOC Preserved	Yes/No/NA
					Gross A B, Gamma Spec	Yes/No/NA
Residual Chlorine Check Performed:	8270	Yes/No/NA	8310	Yes/No/NA	8330	Yes/No/NA
	8081	Yes/No/NA	8151	Yes/No/NA		

Cooler Received	ALS Cooler No.	Temp.	Cooler Received	ALS Cooler No.	Temp.	Cooler Received	ALSL Cooler No.	Temp.
1	C15 0005	12 °C	4	C15	°C	7	C15	°C
2	C15	°C	5	C15	°C	8	C15	°C
3	C15	°C	6	C15	°C	9	C15	°C

Taken By: Jennifer Russell (Signature) T. Jennifer Russell (Printed Name) 04-15-15 (Date)

CLIENT-RELATED INFORMATION

☐ Missing Cooler	☐ Missing Samples/Bottles	☐ Incorrect Preservation	☐ Insufficient Sample Volume
☐ Cooler Conditions	☐ Broken/Leaking Samples	☐ pH Criteria Not Met	☐ Chain of Custody Problems
☐ Missing Paperwork	☐ Incorrect Bottle Type	☐ Residual Chlorine Present	☐ Other:
☐ Missing/Incorrect Bottle Labels	☐ Cooler Temperatures Out of Range	☐ Head Space in Bottles	

BRIEFLY DESCRIBE THE PROBLEM AND THE ACTION TAKEN:

Client Hand delivered!

E-mailed to Client? YES ☐ NO ☐

Response Required Within 24 Hours

PROJECT MANAGEMENT

PROJECT MANAGER COMMENTS:

ALS Project Manager: _____ (Printed Name) Returned to Sample Receipt by: _____ (Signature) Date: _____

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Analytical Documentation

Batch Worklist

Batch: ESVO/ 4922 Created: 4/20/2015 13:05 Instrument: 5975-H HBN: 147379

Rule: EPA TO-13, Air Analyst: S. Yourstone Status: RE

Workorder: 1510555

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442952	MB for HBN 147284 [ENVX/21465]	1 wipe	1 mL		MB	1		ETO13...IQ	6183		4/22/2015	4/20/2015
2	442953	LCS for HBN 147284 [ENVX/21465	1 wipe	1 mL		LCS	1		ETO13...IQ	6183		4/22/2015	4/20/2015
3	442954	LCSD for HBN 147284 [ENVX/2146	1 wipe	1 mL		LCSD	1		ETO13...IQ	6183		4/22/2015	4/20/2015
4	1510555001	A-0011-H-041315-SG-001	1 wipe	1 mL		SAMPLE	1	1510555001-A	ETO13....1	5480	5/27/2015	4/22/2015	4/20/2015
5	1510555002	A-0011-H-041315-TO-001-BA5	1 wipe	1 mL		SAMPLE	1	1510555002-A	ETO13....1	5480	5/27/2015	4/22/2015	4/20/2015
6	1510555003	A-0031-S-041415-SG-002A4	1 wipe	1 mL		SAMPLE	1	1510555003-A	ETO13....1	5480	5/27/2015	4/22/2015	4/20/2015

Batch Worklist

Batch: ENVX/ 21465 **Created:** 4/17/2015 15:58 **Instrument:**
Rule: EPA 3540 Soxhlet **Analyst:** K. Tran **Status:** NA

HBN: 147284

Workorder: 1510555

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	442952	MB for HBN 147284 [ENVX/21465]				MB	1		E3540...3P	6183		4/17/2015	
2	442953	LCS for HBN 147284 [ENVX/21465				LCS	1		E3540...3P	6183		4/17/2015	
3	442954	LCSD for HBN 147284 [ENVX/2146				LCSD	1		E3540...3P	6183		4/17/2015	
4	1510555001	A-0011-H-041315-SG-001				SAMPLE	1	1510555001-A	E3540...3P	5480		4/17/2015	
5	1510555002	A-0011-H-041315-TO-001-BA5				SAMPLE	1	1510555002-A	E3540...3P	5480		4/17/2015	
6	1510555003	A-0031-S-041415-SG-002A4				SAMPLE	1	1510555003-A	E3540...3P	5480		4/17/2015	

ORGANIC EXTRACTION LOGBOOK ALS GROUP USA, Corp

Client First Env Case/SDG # N/A Horizon Extraction HBN 147284

Work Order# 1510555 Sample #'s 1-4 Extraction Method 3540

SOP: BE-SW-3540 Analytical Fraction SV Matrix Soil

~~Date samples weighed out~~ ~~by~~ ~~balance #~~

See extraction batch sheet for sample weights/volumes, initial pH's (waters), and final concentration volumes.

Extraction: Date/Time 4/17/15 1700 Stop Date/Time (CLLE's/Soxlet) 4/18/15 12:00 Extracted by ICT

	Drying Agent	Salt	Solvents		Exchange Solvent
Solvent/Reagent used	☐ Na_2SO_4 ☒ N/A	☐ NaCl ☒ N/A	☐ CH_2Cl_2 ☐ Hexane ☐ Acetonitrile ☑ Hexane/Ether (90:10) ☐ CH_2Cl_2/Acetone (1:1)		☑ Hexane ☐ Toluene ☐ N/A ☐ CH_2Cl_2
Vendor			B&J	Mallon	Burdick
Lot Number			DL495	G5810	01907
Amount			Pci SOP	Pci SOP	pursuit

	Surrogate/DMC STD	LCS Standard	MS/MSD Standard	RLVS Standard
Standard ID	26840	26704		
Spiked Amount	1mL	1mL		
Spiked By	ICT	ICT		

	Acid Solution	Base Solution		
Standard ID				
Spiked Amount *				
pH Adjustment *				
Spiked By				

* exceptions are noted in comments below

Comments

Pre-GPC Concentration: Date/Time — by — Comments —

Final Concentration: Date/Time 4/18/15 1200 by TMP Comments The Temp was 76°C

Florisil (pesticides only) Date/Time — by — Florisil Column Lot # —

Comments

Checker Signature [signature] **Date** 4/18/15

ALS Environmental Semivolatile GC/MS Analyst Notebook

Workorder: 1510555	HBN: 147379

Analyst: SY
Client: First Environment
Method: 8270D
Analytes: PAH
Matrix: Soil
Media Lot #
Instrument: 5975-H
Date of Extraction: 4/17/2015
Date of Analysis: 4/20/2015

Instrument program: Initial Temperature is 50 C . Run time: 25.24 min

Ramps:

#	Rate	Final temp	Final time
1	25.00	130	0.00
2	13.00	240	0.00
3	22.00	300	9.85

Mass Spec: 35-550 amu

Initial Calibration Curve: H8270D15A1_LOWLEVEL. Run on 2-24-15. Curve file name is HAA.

QC : All Samples received 1 mL of surrogate spike 26840. LCS and LCSD received 1 mL of 26704.

Sample Preparation: Method 3540 was followed for extraction and method 8270 was followed for analysis. 200 µL of sample was added to a GC vial with 4 µL of INSTD 26146.

Comments: Benzo(a)anthracene fails slightly low at 62.1% in the LCS, but all other compounds pass in both the LCS and LCSD.

DATACHEM LABORATORIES - GC\MS SEMIVOLATILE ANALYSIS
INJECTION LOGBOOK
INSTRUMENT 5975-H

File Name	Date and Time Injected	OP	Method	ALS BOT	Run Length	Dil Fac	Sample name	Misc info
HBH01TUN	04/20/2015 06:44	SY	8270DTUN	1	11.03	1	8270 TUN 27023	
HBH02CCV	04/20/2015 07:02	SY	H8270D	2	25.23	1	8270 S50 27409	
HBH03LMB	04/20/2015 07:35	SY	H8270D	3	25.23	1	442952 MB	
HBH04LCS	04/20/2015 08:09	SY	H8270D	4	25.23	1	442953 LCS	
HBH05LCD	04/20/2015 08:41	SY	H8270D	5	25.23	1	442954 LCSD	
HBH06SMP	04/20/2015 09:14	SY	H8270D	6	25.23	1	1510555001	
HBH07SMP	04/20/2015 09:47	SY	H8270D	7	25.23	1	1510555002	
HBH08SMP	04/20/2015 10:20	SY	H8270D	8	25.23	1	1510555003	
HBH09BLK	04/20/2015 10:53	SY	H8270D	9	25.23	1	MECL BLANK	

STANDARD REPORT

Working Standard - 8270 INT STD

8270 INT STD — **Description - 8270 INTERMEDIATE STD 89IS**

Standard: 28161	**Created By:** D. Calder	**Amount:** 10 mL
MFG:	**Create Date:** 05/26/2015	**Expires:** 04/14/2016
MFG Lot:	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
1	111-91-1	Bis(2-Chloroethoxy)methane	200 ug/mL
2	111-44-4	Bis(2-chloroethyl)ether	200 ug/mL
3	117-81-7	Bis(2-ethylhexyl)phthalate	200 ug/mL
4	108-60-1	bis(2-Chloroisopropyl)ether	200 ug/mL
5	101-55-3	4-Bromophenyl phenyl ether	200 ug/mL
6	85-68-7	Butylbenzylphthalate	200 ug/mL
7	7005-72-3	4-Chlorophenyl phenyl ether	200 ug/mL
8	84-66-2	Diethylphthalate	200 ug/mL
9	131-11-3	Dimethylphthalate	200 ug/mL
10	84-74-2	Di-n-butylphthalate	200 ug/mL
11	117-84-0	Di-n-octylphthalate	200 ug/mL
12	62-75-9	N-Nitrosodimethylamine	200 ug/mL
13	621-64-7	N-Nitrosodi-n-propyl amine	200 ug/mL
14	86-30-6	N-Nitrosodiphenylamine	200 ug/mL
15	62-53-3	Aniline	200 ug/mL
16	100-51-6	Benzyl alcohol	200 ug/mL
17	86-74-8	Carbazole	200 ug/mL
18	106-47-8	4-Chloroaniline	200 ug/mL
19	132-64-9	Dibenzofuran	200 ug/mL
20	91-57-6	2-Methylnaphthalene	200 ug/mL
21	88-74-4	2-Nitroaniline	200 ug/mL
22	99-09-2	3-Nitroaniline	200 ug/mL
23	100-01-6	4-Nitroaniline	200 ug/mL
24	110-86-1	Pyridine	200 ug/mL
25	59-50-7	4-Chloro-3-methylphenol	200.13 ug/mL
26	95-57-8	2-Chlorophenol	200.04 ug/mL
27	120-83-2	2,4-Dichlorophenol	200.14 ug/mL
28	87-65-0	2,6-Dichlorophenol	200.14 ug/mL
29	105-67-9	2,4-Dimethylphenol	200.06 ug/mL
30	51-28-5	2,4-Dinitrophenol	200.09 ug/mL
31	534-52-1	4,6-Dinitro-2-methylphenol	200.06 ug/mL
32	88-75-5	2-Nitrophenol	200.08 ug/mL
33	100-02-7	4-Nitrophenol	200.08 ug/mL
34	87-86-5	Pentachlorophenol	200.07 ug/mL
35	108-95-2	Phenol	200.08 ug/mL
36	88-06-2	2,4,6-Trichlorophenol	200.08 ug/mL
37	58-90-2	2,3,4,6-Tetrachlorophenol	200.08 ug/mL
38	83-32-9	Acenaphthene	200 ug/mL
39	208-96-8	Acenaphthylene	200 ug/mL

STANDARD REPORT

Working Standard - 8270 INT STD

8270 INT STD — **Description - 8270 INTERMEDIATE STD 89IS**

Standard: 28161	**Created By:** D. Calder	**Amount:** 10 mL
MFG:	**Create Date:** 05/26/2015	**Expires:** 04/14/2016
MFG Lot:	**Lab Lot:** SVOA05262015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
40	120-12-7	Anthracene	200 ug/mL
41	56-55-3	Benzo(a)anthracene	200 ug/mL
42	50-32-8	Benzo(a)pyrene	200 ug/mL
43	205-99-2	Benzo(b)fluoranthene	200 ug/mL
44	191-24-2	Benzo(g,h,i)perylene	200 ug/mL
45	207-08-9	Benzo(k)fluoranthene	200 ug/mL
46	218-01-9	Chrysene	200 ug/mL
47	53-70-3	Dibenzo(a,h)anthracene	200 ug/mL
48	206-44-0	Fluoranthene	200 ug/mL
49	86-73-7	Fluorene	200 ug/mL
50	193-39-5	Indeno(1,2,3-cd)pyrene	200 ug/mL
51	91-20-3	Naphthalene	200 ug/mL
52	85-01-8	Phenanthrene	200 ug/mL
53	129-00-0	Pyrene	200 ug/mL
54	103-33-3	Azobenzene	200 ug/mL
55	91-58-7	2-Chloronaphthalene	200 ug/mL
56	95-50-1	1,2-Dichlorobenzene	200 ug/mL
57	541-73-1	1,3-Dichlorobenzene	200 ug/mL
58	106-46-7	1,4-Dichlorobenzene	200 ug/mL
59	121-14-2	2,4-Dinitrotoluene	200 ug/mL
60	606-20-2	2,6-Dinitrotoluene	200 ug/mL
61	118-74-1	Hexachlorobenzene	200 ug/mL
62	87-68-3	Hexachloro-1,3-butadiene	200 ug/mL
63	77-47-4	Hexachlorocyclopentadiene	200 ug/mL
64	67-72-1	Hexachloroethane	200 ug/mL
65	78-59-1	Isophorone	200 ug/mL
66	98-95-3	Nitrobenzene	200 ug/mL
67	120-82-1	1,2,4-Trichlorobenzene	200 ug/mL
68	65-85-0	Benzoic acid	200 ug/mL
69	95-48-7	2-Methylphenol	200 ug/mL
70	106-44-5	4-Methylphenol	200 ug/mL
71	95-95-4	2,4,5-Trichlorophenol	200 ug/mL
72	92-87-5	Benzidine	200 ug/mL
73	91-94-1	3,3'-Dichlorobenzidine	200 ug/mL
74	367-12-4	2-Fluorophenol	200 ug/mL
75	4165-62-2	Phenol-d5	200 ug/mL
76	118-79-6	2,4,6-Tribromophenol	200 ug/mL
77	321-60-8	2-Fluorobiphenyl	200 ug/mL
78	1718-51-0	Terphenyl-d14	200 ug/mL

STANDARD REPORT

Working Standard - 8270 INT STD

8270 INT STD — **Description - 8270 INTERMEDIATE STD 89IS**

Standard: 28161 | Created By: D. Calder | Amount: 10 mL
MFG: | Create Date: 05/26/2015 | Expires: 04/14/2016
MFG Lot: | Lab Lot: SVOA05262015 | Usable: Yes
Part ID:

Pos.	Analyte	Name	Concentration
79	4165-60-0	Nitrobenzene-d5	200 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
24887	8270MIX10017	ABS STD MIX 10017-PAH Std.	OEMSSV20140526	1 mL	03/07/2018
27756	MECL2	MeCl2	SVOA04152015	2.4 mL	04/14/2016
27909	SVOA Partial	CLP Semi-Volatiles Base/Neutrals Mix	SVOA Partial Mix	1 mL	04/29/2016
28089	ABS 10002	ABS mix 10002	SVOA05202015	1 mL	11/11/2017
28090	ABS 10004	Absolute Std 10004	SVOA05202015	1 mL	01/08/2020
28092	ABS 10006	ABS MIX 10006	SVOA05202015	1 mL	04/29/2018
28094	ABS 10018	Absolute Standards 100018	SVOA05202015	1 mL	02/03/2020
28095	ABS 91760	ABS CLP standard in methylene	SVOA05202015	1 mL	05/08/2020
28138	SVsurrogB/N	Semivol Base/Neutral Surrogate Std	SVOA05262015	0.4 mL	06/09/2019
28139	SVsurrogAcid	Semivol Acid Surrogate Standard	SVOA05262015	0.2 mL	08/15/2018

STANDARD REPORT

Constituent

Stock Standard - SVsurrogAcid

SVsurrogAcid	Description - Semivol Acid Surrogate Standard

Standard: 28139 | Created By: S. Yourstone | Amount: 2 mL

MFG: Absolute Standards, Inc. | Create Date: 5/26/2015 | Expires: 8/15/2018

MFG Lot: 081513 | Lab Lot: SVOA05262015 | Usable: Yes

Part ID: 21015

Pos.	Analyte	Name	Concentration
1	367-12-4	2-Fluorophenol	10000 ug/mL
2	4165-62-2	Phenol-d5	10000 ug/mL
3	118-79-6	2,4,6-Tribromophenol	10000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - SVsurrogB/N

SVsurrogB/N	Description - Semivol Base/Neutral Surrogate

Standard: 28138 | Created By: S. Yourstone | Amount: 4 mL

MFG: Absolute Standards, Inc. | Create Date: 5/26/2015 | Expires: 6/9/2019

MFG Lot: 060914 | Lab Lot: SVOA05262015 | Usable: Yes

Part ID: 21016

Pos.	Analyte	Name	Concentration
1	321-60-8	2-Fluorobiphenyl	5000 ug/mL
2	1718-51-0	Terphenyl-d14	5000 ug/mL
3	4165-60-0	Nitrobenzene-d5	5000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - 8270MIX10017

8270MIX10017 — **Description - ABS STD MIX 10017 PAH Std.**

Standard: 24887 **Created By:** B. Murphy **Amount:** 3 mL

MFG: ABSOLUTE STANDARDS **Create Date:** 8/15/2014 **Expires:** 3/7/2018

MFG Lot: 030713 **Lab Lot:** OEMSSV20140526 **Usable:** Yes

Part ID: 10017

Pos.	Analyte	Name	Concentration
1	83-32-9	Acenaphthene	2000 ug/mL
2	208-96-8	Acenaphthylene	2000 ug/mL
3	120-12-7	Anthracene	2000 ug/mL
4	56-55-3	Benzo(a)anthracene	2000 ug/mL
5	50-32-8	Benzo(a)pyrene	2000 ug/mL
6	205-99-2	Benzo(b)fluoranthene	2000 ug/mL
7	191-24-2	Benzo(g,h,i)perylene	2000 ug/mL
8	207-08-9	Benzo(k)fluoranthene	2000 ug/mL
9	218-01-9	Chrysene	2000 ug/mL
10	53-70-3	Dibenzo(a,h)anthracene	2000 ug/mL
11	206-44-0	Fluoranthene	2000 ug/mL
12	86-73-7	Fluorene	2000 ug/mL
13	193-39-5	Indeno(1,2,3-cd)pyrene	2000 ug/mL
14	91-20-3	Naphthalene	2000 ug/mL
15	85-01-8	Phenanthrene	2000 ug/mL
16	129-00-0	Pyrene	2000 ug/mL

STANDARD REPORT

Constituent

Solvent Standard - MECL2

MECL2		**Description - MeCl2**
Standard: 27756	**Created By:** D. Calder	**Amount:** 8 L
MFG: J.T. Baker	**Create Date:** 4/15/2015	**Expires:** 4/14/2016
MFG Lot: 92673	**Lab Lot:** SVOA04152015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - ABS 10004

ABS 10004 — **Description - Absolute Std 10004**

Standard: 28090
MFG: Absolute Standards Inc.
MFG Lot: 010815
Part ID: 10004

Created By: S. Yourstone
Create Date: 5/20/2015
Lab Lot: SVOA05202015

Amount: 2 mL
Expires: 1/8/2020
Usable: Yes

Pos.	Analyte	Name	Concentration
1	65-85-0	Benzoic acid	2000 ug/mL
2	95-48-7	2-Methylphenol	2000 ug/mL
3	106-44-5	4-Methylphenol	2000 ug/mL
4	95-95-4	2,4,5-Trichlorophenol	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 10006

ABS 10006 — **Description - ABS MIX 10006**

Standard: 28092	**Created By:** S. Yourstone	**Amount:** 1 mL
MFG: ABSOLUTE STANDARDS	**Create Date:** 5/20/2015	**Expires:** 4/29/2018
MFG Lot: 042915	**Lab Lot:** SVOA05202015	**Usable:** Yes
Part ID:		

Pos.	Analyte	Name	Concentration
1	92-87-5	Benzidine	2000 ug/mL
2	91-94-1	3,3'-Dichlorobenzidine	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 91760

ABS 91760 — **Description - ABS CLP standard in methylene**

Standard: 28095
MFG: Absolute Standards
MFG Lot: 050815
Part ID: 91760

Created By: S. Yourstone
Create Date: 5/20/2015
Lab Lot: SVOA05202015

Amount: 2 mL
Expires: 5/8/2020
Usable: Yes

Pos.	Analyte	Name	Concentration
1	62-53-3	Aniline	2000 ug/mL
2	100-51-6	Benzyl alcohol	2000 ug/mL
3	86-74-8	Carbazole	2000 ug/mL
4	106-47-8	4-Chloroaniline	2000 ug/mL
5	132-64-9	Dibenzofuran	2000 ug/mL
6	91-57-6	2-Methylnaphthalene	2000 ug/mL
7	88-74-4	2-Nitroaniline	2000 ug/mL
8	99-09-2	3-Nitroaniline	2000 ug/mL
9	100-01-6	4-Nitroaniline	2000 ug/mL
10	110-86-1	Pyridine	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 10002

ABS 10002 — **Description - ABS mix 10002**

Standard: 28089 **Created By:** S. Yourstone **Amount:** 2 mL
MFG: Absolute Standards Inc. **Create Date:** 5/20/2015 **Expires:** 11/11/2017
MFG Lot: 111114 **Lab Lot:** SVOA05202015 **Usable:** Yes
Part ID: 10002

Pos.	Analyte	Name	Concentration
1	103-33-3	Azobenzene	2000 ug/mL
2	91-58-7	2-Chloronaphthalene	2000 ug/mL
3	95-50-1	1,2-Dichlorobenzene	2000 ug/mL
4	541-73-1	1,3-Dichlorobenzene	2000 ug/mL
5	106-46-7	1,4-Dichlorobenzene	2000 ug/mL
6	121-14-2	2,4-Dinitrotoluene	2000 ug/mL
7	606-20-2	2,6-Dinitrotoluene	2000 ug/mL
8	118-74-1	Hexachlorobenzene	2000 ug/mL
9	87-68-3	Hexachloro-1,3-butadiene	2000 ug/mL
10	77-47-4	Hexachlorocyclopentadiene	2000 ug/mL
11	67-72-1	Hexachloroethane	2000 ug/mL
12	78-59-1	Isophorone	2000 ug/mL
13	98-95-3	Nitrobenzene	2000 ug/mL
14	120-82-1	1,2,4-Trichlorobenzene	2000 ug/mL

STANDARD REPORT

Constituent

Stock Standard - ABS 10018

ABS 10018 — **Description - Absolute Standards 100018**

Standard: 28094 | Created By: S. Yourstone | Amount: 2 mL

MFG: Absolute Standards Inc. | Create Date: 5/20/2015 | Expires: 2/3/2020

MFG Lot: 020315 | Lab Lot: SVOA05202015 | Usable: Yes

Part ID: 10018

Pos.	Analyte	Name	Concentration
1	59-50-7	4-Chloro-3-methylphenol	2001.3 ug/mL
2	95-57-8	2-Chlorophenol	2000.4 ug/mL
3	120-83-2	2,4-Dichlorophenol	2001.4 ug/mL
4	87-65-0	2,6-Dichlorophenol	2001.4 ug/mL
5	105-67-9	2,4-Dimethylphenol	2000.6 ug/mL
6	51-28-5	2,4-Dinitrophenol	2000.9 ug/mL
7	534-52-1	4,6-Dinitro-2-methylphenol	2000.6 ug/mL
8	88-75-5	2-Nitrophenol	2000.8 ug/mL
9	100-02-7	4-Nitrophenol	2000.8 ug/mL
10	87-86-5	Pentachlorophenol	2000.7 ug/mL
11	108-95-2	Phenol	2000.8 ug/mL
12	88-06-2	2,4,6-Trichlorophenol	2000.8 ug/mL
13	58-90-2	2,3,4,6-Tetrachlorophenol	2000.8 ug/mL

STANDARD REPORT

Constituent

Stock Standard - SVOA Partial

SVOA Partial — **Description - CLP Semi-Volatiles**

Standard: 27909 **Created By:** S. Yourstone **Amount:** 5 mL

MFG: Absolute Standards **Create Date:** 4/30/2015 **Expires:** 4/29/2016

MFG Lot: 053014 **Lab Lot:** SVOA Partial Mix **Usable:** Yes

Part ID: 10001R

Pos.	Analyte	Name	Concentration
1	111-91-1	Bis(2-Chloroethoxy)methane	2000 ug/mL
2	111-44-4	Bis(2-chloroethyl)ether	2000 ug/mL
3	117-81-7	Bis(2-ethylhexyl)phthalate	2000 ug/mL
4	108-60-1	bis(2-Chloroisopropyl)ether	2000 ug/mL
5	101-55-3	4-Bromophenyl phenyl ether	2000 ug/mL
6	85-68-7	Butylbenzylphthalate	2000 ug/mL
7	7005-72-3	4-Chlorophenyl phenyl ether	2000 ug/mL
8	84-66-2	Diethylphthalate	2000 ug/mL
9	131-11-3	Dimethylphthalate	2000 ug/mL
10	84-74-2	Di-n-butylphthalate	2000 ug/mL
11	117-84-0	Di-n-octylphthalate	2000 ug/mL
12	62-75-9	N-Nitrosodimethylamine	2000 ug/mL
13	621-64-7	N-Nitrosodi-n-propyl amine	2000 ug/mL
14	86-30-6	N-Nitrosodiphenylamine	2000 ug/mL

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CERTIFIED WEIGHT REPORT

Part Number: 21015
Lot Number: 081513
Description: CLP Semi-Volatile Acid Surrogate Stand
3 components
Expiration Date: 081518
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000

Solvent(s): **Lot#**
Methanol DH247

28139

2mL S
28139

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 499.9 0.058 Flask Uncertainty

Note: Phenol-d6 becomes Phenol-d5 in methanol solution.

Formulated By: Paul Barron 081513 DATE

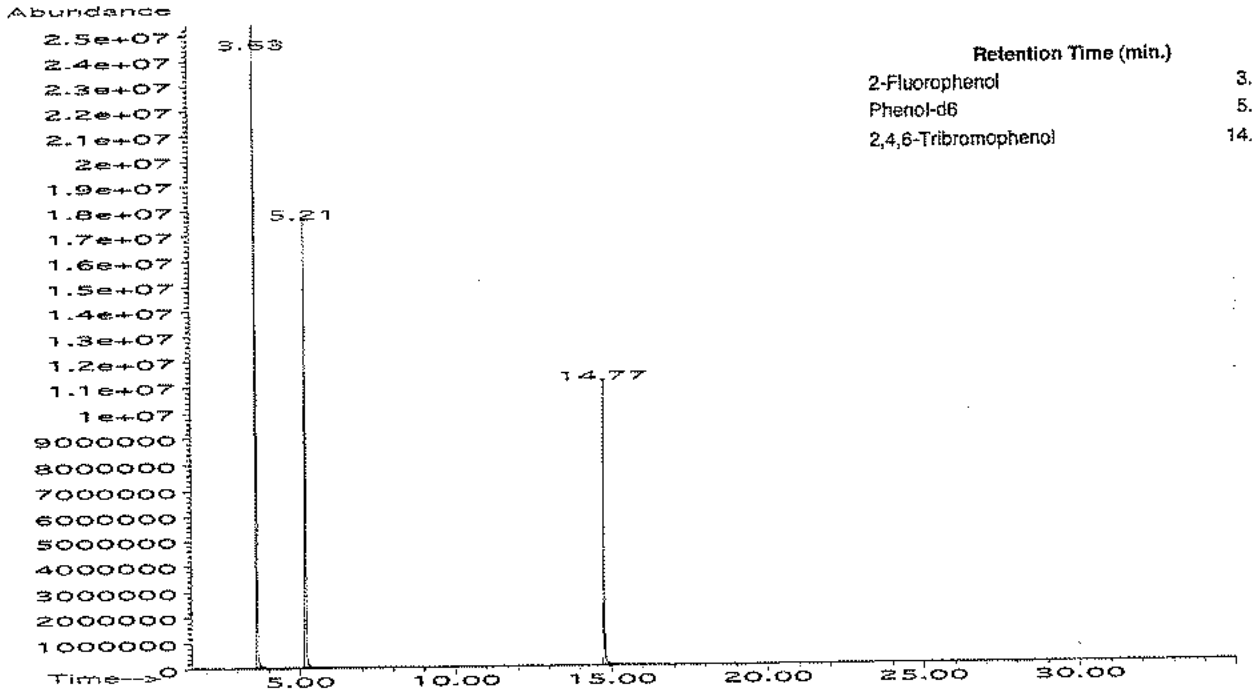
Reviewed By: Pedro L. Rentas 081513 DATE

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. 2-Fluorophenol	190	09006DO	10000	98	0.2	5.10064	5.10358	10005.8	0.0041	00367-12-4	N/A	ipr-mus 537mg/kg
2. Phenol-d6	252	E228AP3	10000	98.9	0.2	5.05422	5.05697	10005.4	0.0041	13127-88-3	5 ppm (19mg/m3/8H)(skin)	ori-mus 317mg/kg
3. 2,4,6-Tribromophenol	287	FGK01	10000	96	0.2	5.10064	5.10273	10004.1	0.0041	00118-79-6	N/A	ori-rat 2000mg/kg

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

TIC: 21015.D



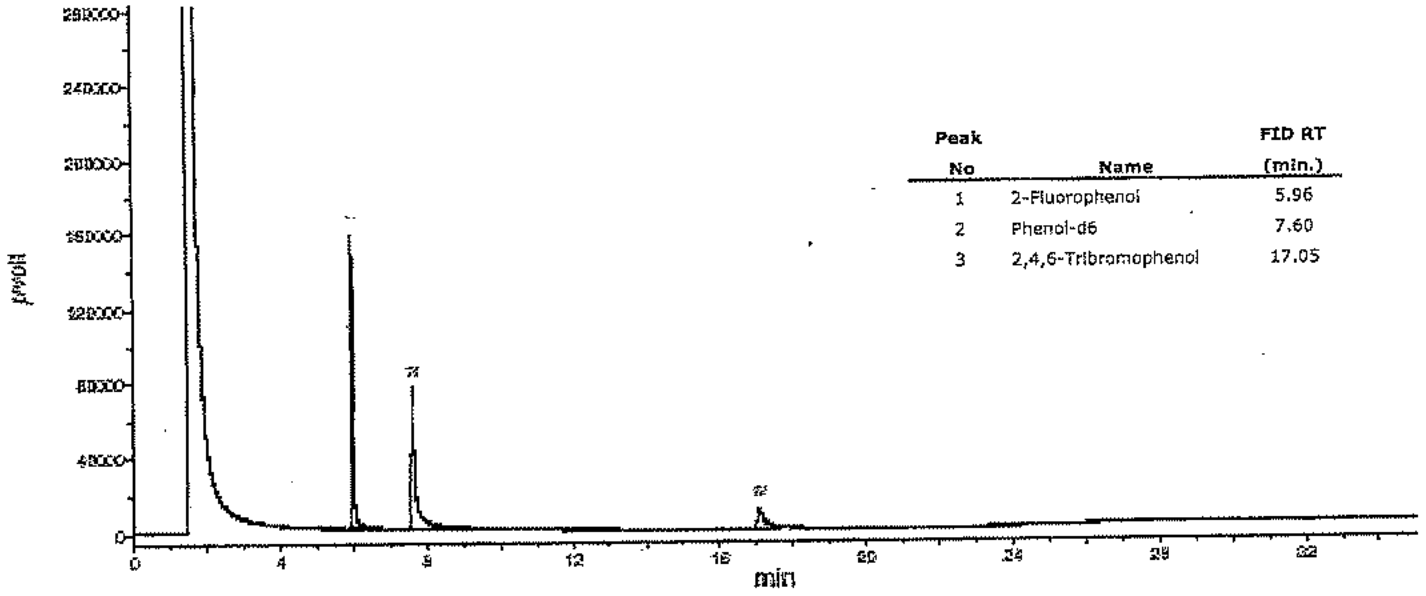
Retention Time (min.)

2-Fluorophenol	3.63
Phenol-d6	5.21
2,4,6-Tribromophenol	14.77

Run 39, "P21015 L081513 [10mg/mL in methanol, 1:10 DFT]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Fri, Aug 16, 2013 at 7:13:48 PM.
Sampled: Sequence "081513-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No	Name	FID RT (min.)
1	2-Fluorophenol	5.96
2	Phenol-d6	7.60
3	2,4,6-Tribromophenol	17.05

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CERTIFIED WEIGHT REPORT

28138

Part Number:	21016 S	**Solvent(s):**	**Lot#**
Lot Number:	060914	Methylene chloride	74359
Description:	CLP Semi-Volatile Base/Neutral Surrogate Std		
	3 components		
Expiration Date:	060919		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	5000		

4mL #28138

Formulated By: Paul Barron 060914 DATE

Reviewed By: Pedro L. Rentas 060914 DATE

5E-05 Balance Uncertainty

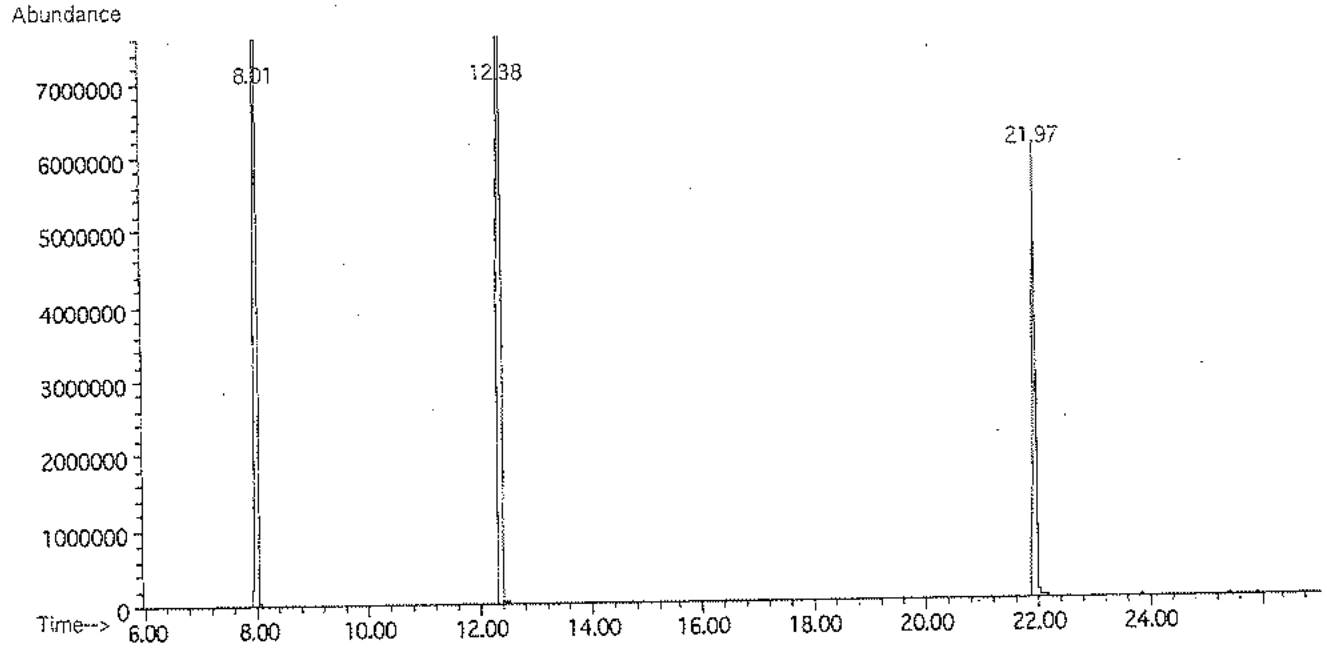
Weight(s) shown below were combined and diluted to (mL): 500.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. 2-Fluorobiphenyl	187	MKAA3698	5000	96	0.2	2.60432	2.60508	5001.5	0.0042	00321-60-8	N/A	N/A
2. p-Terphenyl-d14	272	P-6109	5000	98	0.2	2.55117	2.55219	5002.0	0.0041	01718-51-0	1 ppm (CL)	orl-rbt 2400mg/kg
3. Nitrobenzene-d5	229	PR-20474/06199NB1	5000	99	0.2	2.52540	2.52594	5001.1	0.0040	04165-60-0	1 ppm (5mg/m3/8H)(skin)	orl-rat 640mg/kg

Method GC8MSD-2.M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14 min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Melissa Stonier.

TIC: 21016.D

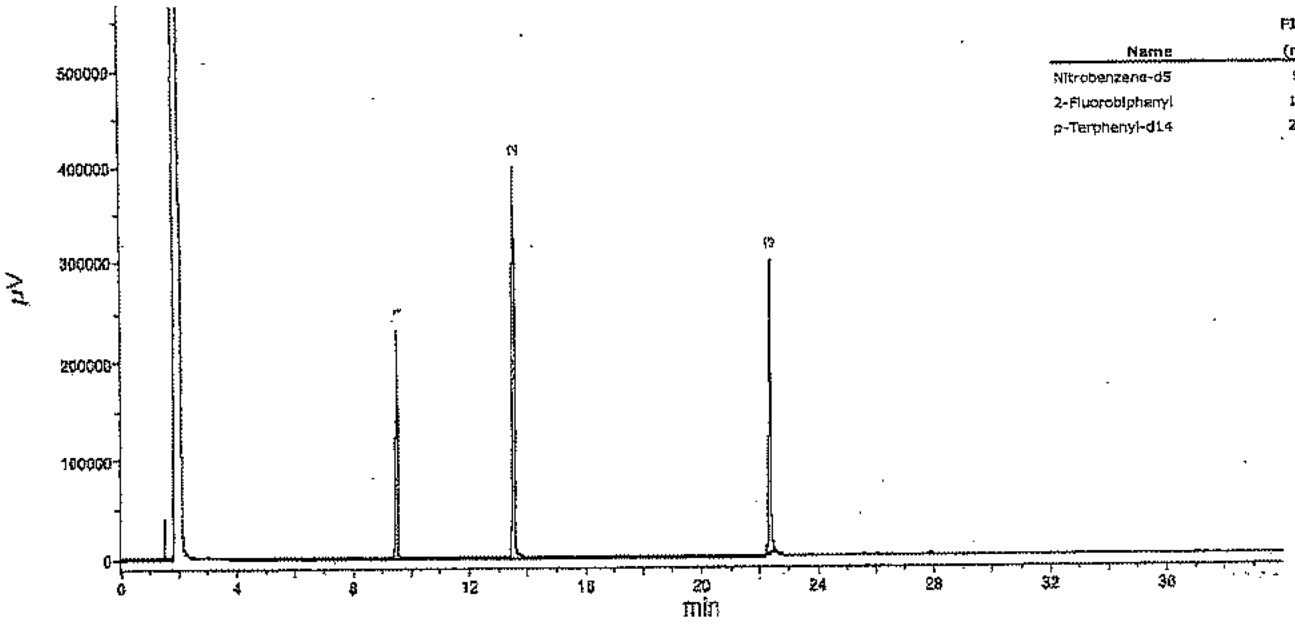


Peak No.	Name	MSD RT (min.)
1	Nitrobenzne-d5	8.01
2	2-Fluorobiphenyl	12.38
3	p-Terphenyl-d14	21.97

Run 25, "P21016 L060914 [5000µg/mL in MeCl2]6"

Run Length: 39.99 min, 23997 points at 10 points/second.
Created: Wed, Jun 11, 2014 at 4:03:54 PM.
Sampled: Sequence "060914-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9M2 Analysis by Candice Warren
SPB-5 30 meter x 0.53 µm x 1.5 df
Flow Rates; Total Flow = 300 mL/min, Helium (carrier)=6mL, Helium (makeup)=25mL, Hydrogen (detector)=30, Air (detector)=360
Oven Temp 1 = 50 C (1 min), Rate = 10 C/min, Oven Temp 2 = 300 (14 min), Total Run Time=40 min.
Injector Temp = 250 C, FID Temp = 300 C, FID Signal = Edaq Channel 1
Gas Chromatograph = HP5890, Inejector = HP7673A, Standard Injection = 0.5 uL, Range = 6



Name	FID RT (min.)
Nitrobenzene-d5	9.51
2-Fluorobiphenyl	13.53
p-Terphenyl-d14	22.37

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CERTIFIED WEIGHT REPORT

Part Number: 10017
Lot Number: 030713
Description: CLP Semi-Volatiles - PAH Standard
16 components
Expiration Date: 030718
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Lot #
Solvent(s): L09S03 Methylene chloride

Paul Barron 030713
Formulated By: Paul Barron DATE

Pedro Rentas 030713
Reviewed By: Pedro L. Rentas DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to: 500.0 0.058 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty ± Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Acenaphthene	1	01619AX	2000	99	0.2	1.01016	1.01068	2001.0	0.0040	00083-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	3	ER030707-01	2000	99	0.2	1.01016	1.01063	2000.9	0.0040	00208-96-8	N/A	N/A
3. Anthracene	13	A0210580	2000	99	0.2	1.01016	1.01059	2000.9	0.0040	00120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	28	012012	2000	99	0.2	1.01016	1.01079	2001.2	0.0040	00056-55-3	N/A	N/A
5. Benzo(a)pyrene	30	012010	2000	99.5	0.2	1.00508	1.00550	2000.8	0.0040	00050-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	31	ER022008-02	2000	99	0.2	1.01016	1.01104	2001.7	0.0040	00205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	33	022011	2000	99	0.2	1.01016	1.01040	2000.5	0.0040	00207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	32	022012	2000	99	0.2	1.01016	1.01099	2001.6	0.0040	00191-24-2	N/A	N/A
9. Chrysene	91	ER120810-02	2000	99	0.2	1.01016	1.01078	2001.2	0.0040	00218-01-9	0.2mg/m3	N/A
10. Dibenzo(a,h)anthracene	112	012012	2000	98	0.2	1.02047	1.02115	2001.3	0.0041	00053-70-3	0.2mg/m3	N/A
11. Fluoranthene	183	04221PV	2000	98	0.2	1.02047	1.02088	2000.8	0.0041	00206-44-0	N/A	orl-rat 2000mg/kg
12. Fluorene	184	07211MV	2000	98	0.2	1.02047	1.02060	2000.3	0.0041	00086-73-7	N/A	ipr-mus 2 g/kg
13. Indeno(1,2,3-cd)pyrene	202	012011	2000	98	0.2	1.02047	1.02124	2001.5	0.0041	00193-39-5	N/A	N/A
14. Naphthalene	222	09424LC	2000	99	0.2	1.01016	1.01040	2000.5	0.0040	00091-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
15. Phenanthrene	248	03410PV	2000	99	0.2	1.01016	1.01099	2001.6	0.0040	00085-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
16. Pyrene	259	010197	2000	98	0.2	1.02047	1.02105	2001.1	0.0041	00129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg

S 24887

24887

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Material Safety Data Sheet (MSDS)

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200., Section (g)(c)(1).
Standard must be consulted for specific requirements.
Contact name below for further information.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

IDENTITY	CAS #
Methylene Chloride	00075-09-2

Section I

Manufacturer's Name **ABSOLUTE STANDARDS INC**	Emergency Telephone Number 1-203-281-2917
Address (Number, Street, City, State, and ZIP Code) 44 Rossotto Dr., Hamden CT, 06514	Telephone Number for Information 1-203-281-2917
	Date Prepared/Revised 1/1/14
	Signature of Preparator (optional) Jack Criscio

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methylene Chloride Dichloromethane	25 ppm	350 MG/M3	NA	> 97

See Attached Certified Weight Report For Other Analytes Present At Trace Quantities.

Section III - Physical/Chemical Characteristics

Boiling Point	40°C	Specific Gravity (H2O = 1)	1.32
Vapor Pressure (mm Hg)	350	Melting Point	-95°C
Vapor Density (AIR = 1)	2.9	Evaporation rate (Butyl Acetate = 1)	27.5

Solubility in Water
Moderate (1-10%)

Appearance and Odor
CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PENETRATING ETHER-LIKE ODOR.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
(CLOSED CUP) NA		12%	19%

Extinguishing Media
USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

Special Firefighting Procedures
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire and Explosion Hazards
Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire. Burns with a clear, almost invisible flame. Concentrated vapor can be ignited by a high intensity ignition source. Toxic gases produced may include: Hydrogen chloride, Phosgene, Chlorine, Carbon monoxide, Carbon dioxide.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Heat, Flame , Other ignition sources.

Incompatibility (Materials to Avoid)
Strong oxidizing agents, Strong acids, Zinc, Aluminum, Magnesium

Hazardous Decomposition or By-products
Carbon monoxide, Carbon dioxide, Formaldehyde

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Heat, Flame , Other ignition sources.

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S

CERTIFIED WEIGHT REPORT

		Solvent(s):	Lot#
Part Number:	**10004**	Methylene chloride	72062
Lot Number:	010815		
Description:	Toxic Substances #1 - CLP SOW July'91		
	4 components		
Expiration Date:	010820		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	2000		

28090

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to: 500.0 0.058 Flask Uncertainty

Paul Barron	010815
Formulated By: Paul Barron	DATE
Pedro Rentas	010815
Reviewed By: Pedro L. Rentas	DATE

MSDS Information
(Solvent Safety Info. On Attached pg.)

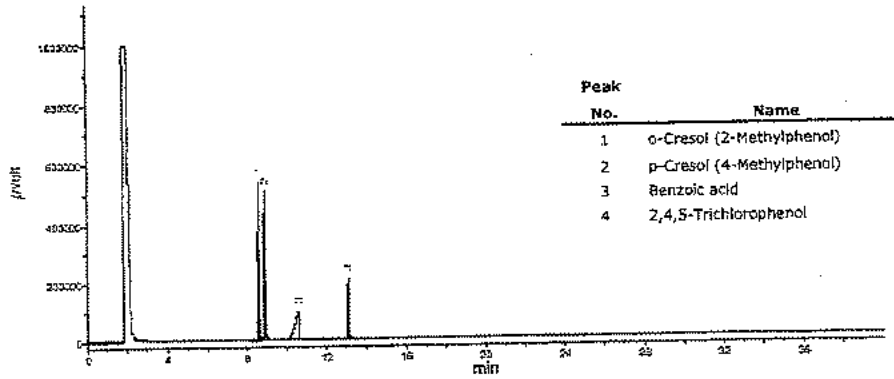
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. Benzoic acid	34	11930AW	2000	99	0.2	1.01015	1.01065	2001.0	0.0040	00065-85-0	N/A	orl-rat 1700mg/kg
2. o-Cresol (2-Methylphenol)	93	SHBC5581V	2000	99	0.2	1.01016	1.01072	2001.1	0.0040	00095-48-7	5 ppm (22mg/m3/8H)(skin)	orl-rat 121mg/kg
3. p-Cresol (4-Methylphenol)	216	05412TV	2000	99	0.2	1.01016	1.01062	2000.9	0.0040	00106-44-5	5 ppm (22mg/m3/8H)(skin)	orl-rat 207mg/kg
4. 2,4,5-Trichlorophenol	295	05714MV	2000	99	0.2	1.01016	1.01102	2001.7	0.0040	00095-95-4	N/A	orl-rat 820mg/kg

Run 86, "P10004 L010815 [2000µg/mL in MeCl2]"

2 mL

Run Length: 39.99 min, 23997 points at 10 points/second.
Created: Sun, Jan 18, 2015 at 3:10:54 AM.
Sampled: Sequence "011415-GC4M2", Method "GC4-M2".
Analyzed using Method "GC4-M2".

Comments:
GC4-M2 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mL Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673. Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	o-Cresol (2-Methylphenol)	8.59
2	p-Cresol (4-Methylphenol)	8.89
3	Benzoic acid	10.56
4	2,4,5-Trichlorophenol	13.08

Absolute Standards, Inc.
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www.absolutestandards.com

Analytical Reference Material ARM

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Scopes: http://AbsoluteStandards.com

28092

CERTIFIED WEIGHT REPORT

S

Part Number: 10006
Lot Number: 042915
Description: CLP Semi-Volatiles - Benzidines SOW July'91
Expiration Date: 042918
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s): Methanol Lot# DL535

28092

Formulated By: Paul Barron 042915 DATE

Reviewed By: Pedro L. Rentas 042915 DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 200.0 0.014 Flask Uncertainty

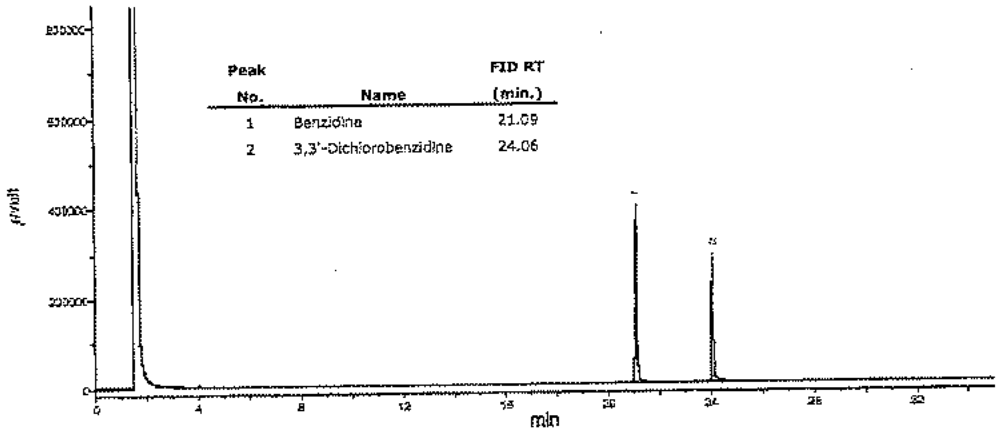
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Benzidine	27	SLBH5327V	2000	98	0.2	0.40809	0.40839	2001.4	0.0041	00092-87-5	N/A	orl-rat 309mg/kg
2. 3,3'-Dichlorobenzidine	130	3667100	2000	99.1	0.5	0.40356	0.40382	2001.3	0.0101	00091-94-1	Cancer Suspect Agent	orl-rat 3.82g/kg

Run 2, "P10006 L042915 [2000µg/mL in methanol]"

1 mL

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Thu, Apr 30, 2015 at 4:34:27 PM.
Sampled: Sequence "043015-GC4M2", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments:
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Benzidine	21.09
2	3,3'-Dichlorobenzidine	24.06

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28095

CERTIFIED WEIGHT REPORT

Part Number: 91760 S
Lot Number: 050815
Description: CLP - Semi-Volatile Additional Compound Standard
10 compounds
Expiration Date: 050820
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

#28095

Solvent(s): **Lot#**
Methylene chloride 72062

Formulated By: Bryan Njeba 050815 DATE

Reviewed By: Pedro L. Rentas 050815 DATE

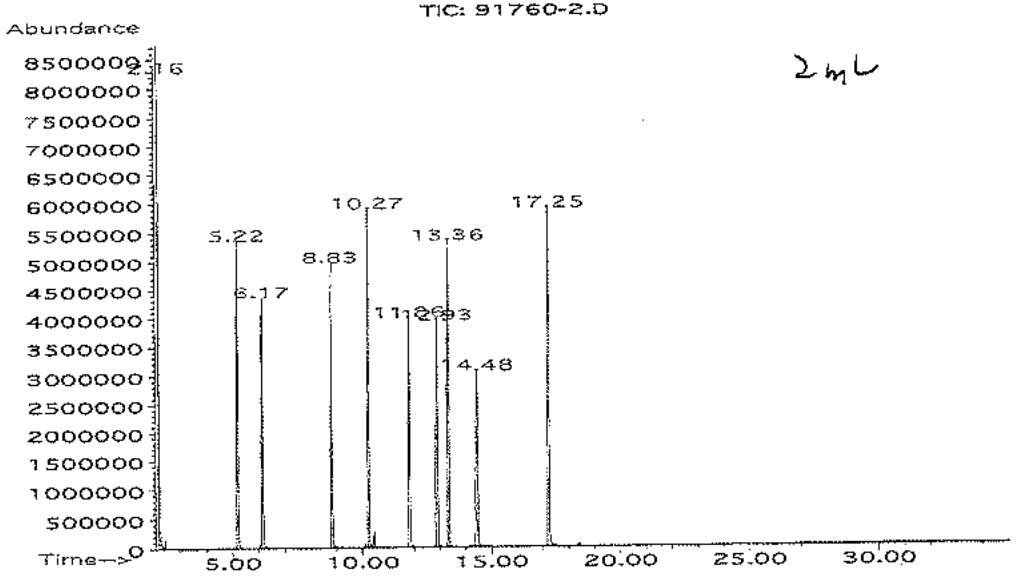
5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. Aniline	11	03929TV	2000	99	0.2	0.40409	0.40410	2000.0	0.0041	00062-53-3	5 ppm (8H)	orl-rat 250mg/kg
2. Benzyl alcohol	35	04105CX	2000	99	0.2	0.40409	0.40423	2000.7	0.0041	00100-51-6	N/A	orl-rat 1230mg/kg
3. Carbazole	59	LB89365V	2000	98.2	0.2	0.40738	0.40780	2002.0	0.0041	00086-74-8	N/A	ipr-mus 200mg/kg
4. 4-Chloroaniline	67	052597	2000	98	0.2	0.40821	0.40822	2000.0	0.0041	00106-47-8	N/A	orl-rat 310mg/kg
5. Dibenzofuran	116	11125LW	2000	99	0.2	0.40409	0.40465	2002.8	0.0041	00132-64-9	N/A	N/A
6. 2-Methylnaphthalene	214	01928MV-1	2000	96	0.2	0.41672	0.41870	2009.5	0.0042	00091-57-6	N/A	orl-rat 1630mg/kg
7. 2-Nitroaniline	225	061797	2000	98	0.2	0.40821	0.40860	2001.9	0.0041	00088-74-4	N/A	orl-rat 1600mg/kg
8. 3-Nitroaniline	226	062297	2000	98	0.2	0.40821	0.40856	2001.7	0.0041	00099-09-2	N/A	orl-rat 535mg/kg
9. 4-Nitroaniline	227	03223BW	2000	99	0.2	0.40409	0.40510	2005.0	0.0041	00100-01-6	1 ppm (6mg/m3/8H)(skin)	orl-rat 750mg/kg
10. Pyridine	260	HS 00354ES	2000	99.8	0.2	0.40085	0.40195	2005.5	0.0041	00110-86-1	5 ppm (15mg/m3/8H)	orl-rat 891mg/kg

TIC: 91760-2.D



2mL

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

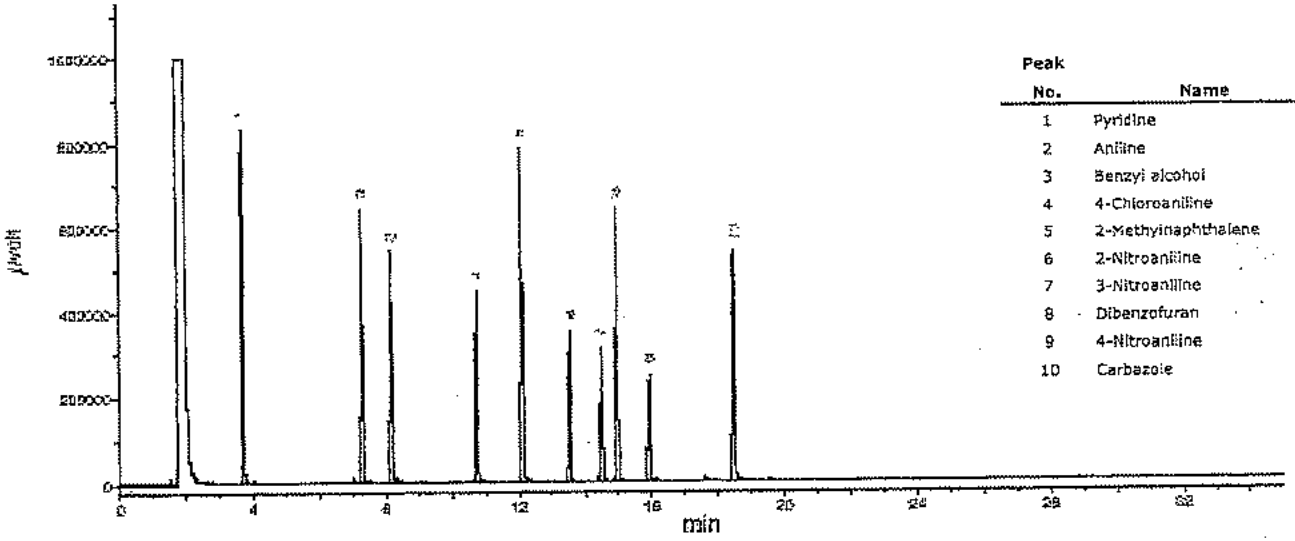
Retention Time (min.)

Pyridine	2.16
Aniline	5.22
Benzyl alcohol	6.17
4-Chloroaniline	8.83
2-Methylnaphthalene	10.27
2-Nitroaniline	11.86
3-Nitroaniline	12.93
Dibenzofuran	13.36
4-Nitroaniline	14.48
Carbazole	17.25

Run 46, "P91760 L050815 [2000µg/mL in MeCl2]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Fri, May 8, 2015 at 8:34:35 PM.
Sampled: Sequence "050715-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Pyridine	3.70
2	Aniline	7.29
3	Benzyl alcohol	8.16
4	4-Chloroaniline	10.72
5	2-Methylnaphthalene	12.10
6	2-Nitroaniline	13.53
7	3-Nitroaniline	14.50
8	Dibenzofuran	14.96
9	4-Nitroaniline	15.94
10	Carbazole	18.48

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28089

CERTIFIED WEIGHT REPORT S

Part Number: 10002
Lot Number: 111114
Description: CLP Semi-Volatiles Base Neutrals Mix #2
14 components
Expiration Date: 111117
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s):	Lot#
Methylene chloride	E42B05

#28089

Formulated By: Paul Barron 111114 DATE

Reviewed By: Pedro L. Rentas 111114 DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to: 250.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

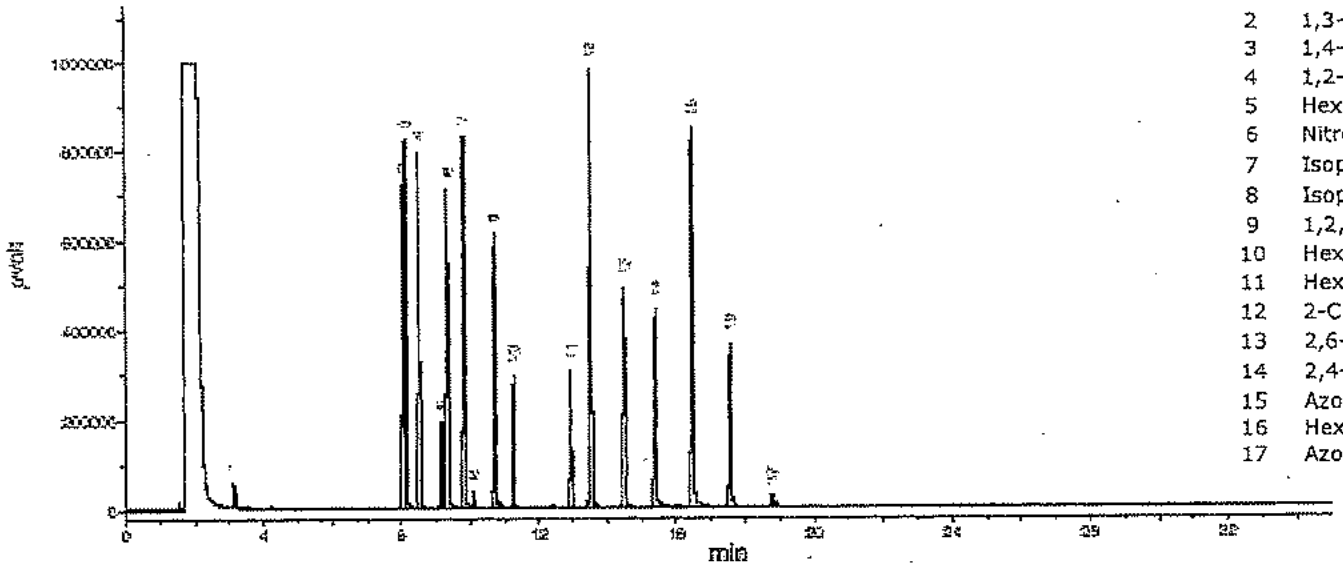
	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1.	Azobenzene	24	01301MT	2000	96	0.2	0.52090	0.52123	2001.3	0.0042	00103-33-3	N/A	orl-rat 1000mg/kg
2.	2-Chloronaphthalene	81	FIJ02	2000	98	0.2	0.51027	0.51040	2000.5	0.0041	00091-58-7	N/A	orl-rat 2078mg/kg
3.	1,2-Dichlorobenzene	125	00311TW	2000	99	0.2	0.50511	0.50545	2001.3	0.0041	00095-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
4.	1,3-Dichlorobenzene	126	03107TV	2000	98	0.2	0.51027	0.51064	2001.5	0.0041	00541-73-1	N/A	ipr-mus 1062mg/kg
5.	1,4-Dichlorobenzene	127	MKBF5042V	2000	99	0.2	0.50511	0.50540	2001.1	0.0041	00106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
6.	2,4-Dinitrotoluene	160	00913MP	2000	97	0.2	0.51553	0.51587	2001.3	0.0042	00121-14-2	1.5mg/m3/8H (skin)	orl-rat 268mg/kg
7.	2,6-Dinitrotoluene	161	010191	2000	99	0.2	0.50511	0.50532	2000.8	0.0041	00606-20-2	1.5mg/m3/8H (skin)	orl-rat 177mg/kg
8.	Hexachlorobenzene	195	051697	2000	99	0.2	0.50511	0.50552	2001.6	0.0041	00118-74-1	N/A	orl-rat 10g/kg
9.	Hexachloro-1,3-butadiene	197	LB94747V	2000	98.5	0.2	0.50768	0.50798	2001.2	0.0041	00087-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
10.	Hexachlorocyclopentadiene	198	1270657	2000	98	0.2	0.51027	0.51040	2000.5	0.0041	00077-47-4	0.01 ppm (0.1mg/m3/6H)	orl-rat 1300mg/kg
11.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.50511	0.50528	2000.7	0.0041	00067-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
12.	Isophorone	203	01314HM	2000	97	0.2	0.51553	0.51595	2001.6	0.0042	00078-59-1	25 ppm	orl-rat 2330mg/kg
13.	Nitrobenzene	228	01213TV	2000	99	0.2	0.50511	0.50540	2001.1	0.0041	00098-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14.	1,2,4-Trichlorobenzene	289	SHBF2370V	2000	99	0.2	0.50511	0.50545	2001.3	0.0041	00120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg

2mL

Run 39, "P10002 L111114 [2000µg/mL in MeCl2]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Tue, Nov 11, 2014 at 6:14:40 PM.
Sampled: Sequence "111014-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Solvent	3.12
2	1,3-Dichlorobenzene	8.05
3	1,4-Dichlorobenzene	8.15
4	1,2-Dichlorobenzene	8.53
5	Hexachloroethane	9.16
6	Nitrobenzene	9.35
7	Isophorone	9.84
8	Isophrone impurity	10.08
9	1,2,4-Trichlorobenzene	10.72
10	Hexachlorobutadiene	11.26
11	Hexachlorocyclopentadiene	12.92
12	2-Chloronaphthalene	13.52
13	2,6-Dinitrotoluene	14.48
14	2,4-Dinitrotoluene	15.39
15	Azobenzene	16.46
16	Hexachlorobenzene	17.56
17	Azobenzene Impurity	18.76

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28094

CERTIFIED WEIGHT REPORT S

Part Number: 10018
Lot Number: 020315
Description: CLP Semi-Volatiles Mix #8 - Phenols
EPA Method 8270 GC/MS 13 components

Expiration Date: 020320
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000

Solvent(s): **Lot#**
Methylene chloride 72062

#28094

Paul Barron 020315
Formulated By: Paul Barron DATE

Pedro Rentas 020315
Reviewed By: Pedro L. Rentas DATE

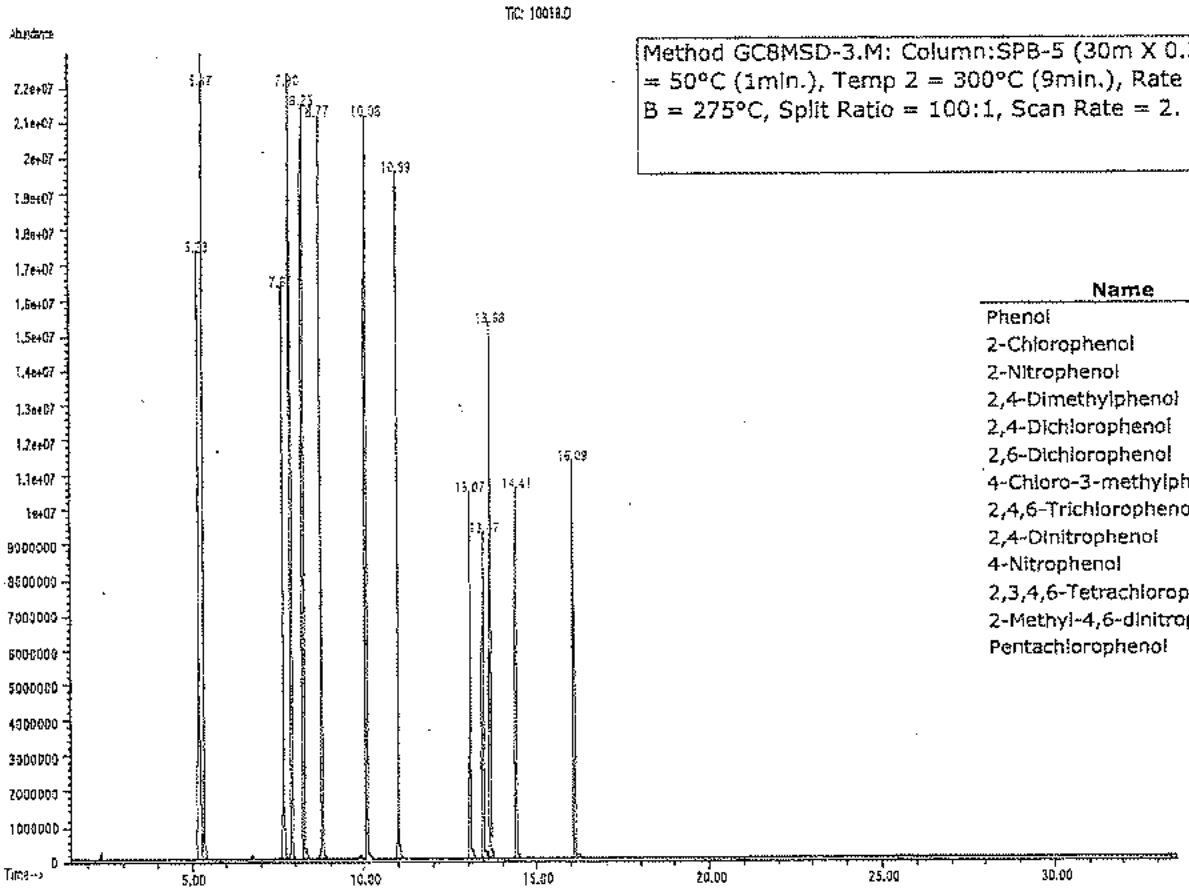
5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to: 500.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. 4-Chloro-3-methylphenol	66	06209PV	2000	99	0.2	1.01016	1.01062	2000.9	0.0040	00059-50-7	N/A	orl-rat 1830mg/kg
2. 2-Chlorophenol	83	MKBF1910V	2000	99	0.2	1.01016	1.01048	2000.6	0.0040	00095-57-8	N/A	orl-rat 670mg/kg
3. 2,4-Dichlorophenol	142	060697	2000	99	0.2	1.01016	1.01042	2000.5	0.0040	00120-83-2	N/A	orl-rat 580mg/kg
4. 2,6-Dichlorophenol	143	00501HW	2000	99	0.2	1.01016	1.01049	2000.7	0.0040	00087-65-0	N/A	orl-rat 5940mg/kg
5. 2,4-Dimethylphenol	463	04319MT	2000	97	0.2	1.03099	1.03131	2000.6	0.0041	00105-67-9	N/A	orl-rat 3200mg/kg
6. 2,4-Dinitrophenol	159	051897	2000	98	0.2	1.02047	1.02083	2000.7	0.0041	00051-28-5	N/A	orl-rat 30mg/kg
7. 4,6-Dinitro-2-methylphenol	158	052097	2000	98	0.2	1.02047	1.02084	2000.7	0.0041	00534-52-1	0.2mg/m3/8H (skin)	orl-rat 10mg/kg
8. 2-Nitrophenol	230	051897	2000	98	0.2	1.02047	1.02078	2000.6	0.0041	00088-75-5	N/A	orl-rat 334mg/kg
9. 4-Nitrophenol	231	FGM01	2000	99	0.2	1.01016	1.01059	2000.9	0.0040	00100-02-7	N/A	orl-rat 250mg/kg
10. Pentachlorophenol	243	06324ED	2000	98	0.2	1.02047	1.02068	2000.4	0.0041	00087-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
11. Phenol	250	13224KS	2000	99	0.2	1.01016	1.01081	2001.3	0.0040	00108-95-2	5 ppm (19mg/m3/8H)(skin)	orl-rat 317mg/kg
12. 2,4,6-Trichlorophenol	296	051597	2000	98	0.2	1.02047	1.02085	2000.8	0.0041	00088-06-2	N/A	orl-rat 820mg/kg
13. 2,3,4,6-Tetrachlorophenol	477	FN10221307	2000	99.9	0.2	1.00106	1.00149	2000.9	0.0040	00058-90-2	N/A	orl-rat 140mg/kg

2mL



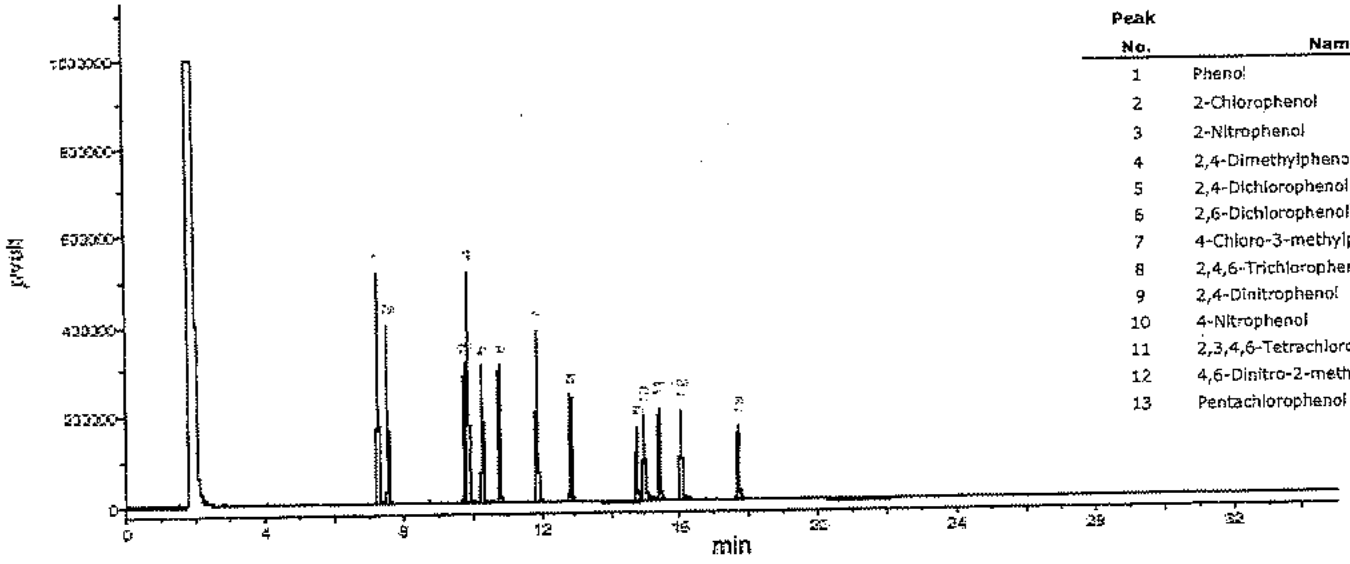
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Phenol	5.21
2-Chlorophenol	5.37
2-Nitrophenol	7.67
2,4-Dimethylphenol	7.88
2,4-Dichlorophenol	8.24
2,6-Dichlorophenol	8.76
4-Chloro-3-methylphenol	10.09
2,4,6-Trichlorophenol	10.99
2,4-Dinitrophenol	13.07
4-Nitrophenol	13.44
2,3,4,6-Tetrachlorophenol	13.68
2-Methyl-4,6-dinitrophenol	14.39
Pentachlorophenol	16.09

Run 16, "P10018 L020315 [2000µg/mL in MeCl2]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Thu, Apr 2, 2015 at 10:38:40 PM.
Sampled: Sequence "040215-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL,
Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min)
1	Phenol	7.28
2	2-Chlorophenol	7.55
3	2-Nitrophenol	9.79
4	2,4-Dimethylphenol	9.88
5	2,4-Dichlorophenol	10.28
6	2,6-Dichlorophenol	10.79
7	4-Chloro-3-methylphenol	11.88
8	2,4,6-Trichlorophenol	12.86
9	2,4-Dinitrophenol	14.75
10	4-Nitrophenol	14.97
11	2,3,4,6-Tetrachlorophenol	15.40
12	4,6-Dinitro-2-methylphenol	16.04
13	Pentachlorophenol	17.68

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S 27909

CERTIFIED WEIGHT REPORT

Part Number: 10001R
Lot Number: 053014
Description: CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
Expiration Date: 053017
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000

Lot #
Solvent(s): 62418 Methylene chloride

Paul Barron		053014
Formulated By:	Paul Barron	DATE
Pedro Rentas		053014
Reviewed By:	Pedro L. Rentas	DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 500.0 0.058 Flask Uncertainty

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. bis(2-Chloroethoxy) methane	73	1846000	2000	98.5	0.5	1.01529	1.01560	2000.6	0.0102	00111-91-1	N/A	N/A
2. bis(2-Chloroethyl) ether	75	98224AW	2000	99	0.2	1.01016	1.01073	2001.1	0.0040	00111-44-4	15 ppm (90mg/m3/8H)(skin)	orl-rat 75mg/kg
3. bis(2-Ethylhexyl) phthalate	179	05312JE	2000	99	0.2	1.01016	1.01060	2000.9	0.0040	00117-81-7	5mg/m3/8H	orl-rat 30000mg/kg
4. bis(2-Chloroisopropyl) ether	78	2097900	2000	99.4	0.5	1.00609	1.00660	2001.0	0.0101	00108-60-1	N/A	orl-rat 240mg/kg
5. 4-Bromophenyl phenyl ether	51	STBB9729V	2000	99	0.2	1.01016	1.01035	2000.4	0.0040	00101-55-3	N/A	N/A
6. Benzyl butyl phthalate	36	03027HV	2000	99	0.2	1.01016	1.01085	2001.4	0.0040	00085-68-7	N/A	orl-rat 2330mg/kg
7. 4-Chlorophenyl phenyl ether	85	P31G	2000	99	0.2	1.01016	1.01086	2001.4	0.0040	07005-72-3	N/A	N/A
8. Diethyl phthalate	154	10517MW	2000	99	0.2	1.01016	1.01093	2001.5	0.0040	00084-66-2	5mg/m3/8H	orl-rat 8600mg/kg
9. Dimethyl phthalate	157	07416AT	2000	99	0.2	1.01016	1.01059	2000.9	0.0040	00131-11-3	5mg/m3/8H	orl-rat 6800mg/kg
10. Di-n-butyl phthalate	58	09119LX	2000	99	0.2	1.01016	1.01065	2001.0	0.0040	00084-74-2	5mg/m3/8H	orl-rat 8000mg/kg
11. Di-n-octyl phthalate	107	FIE01	2000	99	0.2	1.01016	1.01067	2001.0	0.0040	00117-84-0	N/A	orl-rat 47000mg/kg
12. N-Nitrosodimethylamine	233	084K1066	2000	98	0.2	1.02047	1.02070	2000.5	0.0041	00062-75-9	N/A	orl-rat 58mg/kg
13. N-Nitrosodi-n-propylamine	232	OPAGF	2000	98	0.2	1.02047	1.02109	2001.2	0.0041	00621-64-7	N/A	orl-rat 480mg/kg
14. N-Nitrosodiphenylamine	234	FGE01	2000	98	0.2	1.02047	1.02085	2000.8	0.0041	00086-30-6	N/A	orl-rat 2140mg/kg

#27909

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Material Safety Data Sheet (MSDS)

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200., Section (g)(c)(1). Standard must be consulted for specific requirements. Contact name below for further information.

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Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY	CAS #
Methylene Chloride	00075-09-2

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name **ABSOLUTE STANDARDS INC**	Emergency Telephone Number 1-203-281-2917
Address (Number, Street, City, State, and ZIP Code)	Telephone Number for Information 1-203-281-2917
44 Rossotto Dr., Hamden CT, 06514	Date Prepared/Revised 1/1/15
	Signature of Preparator (optional) Jack Criscio

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))		OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Methylene Chloride	Dichloromethane	25 ppm	350 MG/M3	NA	> 97

See Attached Certified Weight Report For Other Analytes Present At Trace Quantities.

Section III - Physical/Chemical Characteristics

Boiling Point	40°C	Specific Gravity (H2O = 1)	1.32
Vapor Pressure (mm Hg)	350	Melting Point	-95°C
Vapor Density (AIR = 1)	2.9	Evaporation rate (Butyl Acetate = 1)	27.5

Solubility in Water
Moderate (1-10%)

Appearance and Odor
CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PENETRATING ETHER-LIKE ODOR.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
(CLOSED CUP) NA		12%	19%

Extinguishing Media
USE ALCOHOL FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

Special Firefighting Procedures
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire and Explosion Hazards
Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire. Burns with a clear, almost invisible flame. Concentrated vapor can be ignited by a high intensity ignition source. Toxic gases produced may include: Hydrogen chloride, Phosgene, Chlorine, Carbon monoxide, Carbon dioxide.

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Heat, Flame , Other ignition sources.

Incompatibility (Materials to Avoid)
Strong oxidizing agents, Strong acids, Zinc, Aluminum, Magnesium

Hazardous Decomposition or By-products
Carbon monoxide, Carbon dioxide, Formaldehyde

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	Heat, Flame , Other ignition sources.

ABSOLUTE STANDARDS, INC.

ISO 9001-17025 - Guide 34 and 35

REFERENCE MATERIAL PRODUCER

Certificate of Analysis

ACCREDITED TESTING

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" and the "Certified Weight Report" fulfill the requirements in the current versions of: ISO Standards 9001, 17025 and Guides 31, 34, 35.

Health & Safety: See the attached MSDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO Guides 34 and 35.

Homogeneity: Uncertanties that are due to the analytical procedure(s) are typically +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertanities that are due to the analytical procedure(s) are typically +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertanties for short-term stability are determined in accordance with ISO Guide 34 and 35. Long-term stability is determined in accordance with ISO Guide 34 and 35. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty U_{CRM}: is +/- 10% of the certified value. Values exceeding these limits are rare but will be noted on the specific Certified Weight Report with an * when the U_{CRM} = +/-20%, or with a ** when the analyte is designated as a nonCRM (RM). U_{CRM} is the expanded uncertainty in accordance with ISO Guide 34 & 35 (ISO Guide 35:2006(E)9.5.2.2) as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-scalable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-scalable container be available before opening an ampule to decant the standard for short-term storage and use.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director

Stephen J. Arpie

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 10, Date Issued: 04/27/2011

STANDARD REPORT

Constituent

Working Standard - SVOA_ISTD

SVOA_ISTD — Description - semivol internal standard

Standard: 26146 | Created By: B. Murphy | Amount: 50 mL
MFG: | Create Date: 11/29/2014 | Expires: 11/17/2015
MFG Lot: | Lab Lot: OEMSSV20141129 | Usable: Yes
Part ID:

Pos.	Analyte	Name	Concentration
1	3855-82-1	1,4-Dichlorobenzene-d4	2000 ug/mL
2	1146-65-2	Naphthalene-d8	2000 ug/mL
3	15067-26-2	Acenaphthene-d10	2000 ug/mL
4	1517-22-2	Phenanthrene-d10	2000 ug/mL
5	1719-03-5	Chrysene-d12	2000 ug/mL
6	1520-96-3	Perylene-d12	2000 ug/mL

Composition

Standard	Standard ID	Description	Lab Lot ID	Volume	Expires
219	Anapd10	(Acenaphthene-d10)	OEMSSV06010603	0.102 grams	04/09/2028
220	PHANTD10	(Phenanthrene-d10)	OEMSSV06010604	0.104 grams	04/09/2028
221	CHRYD12	(Chrysene-d12)	OEMSSV06010605	0.101 grams	04/09/2028
26034	MECL2	MeCl2	OEMSSV20141028	50 mL	11/17/2015
26143	perylene-d12	Perylene-d12	OEMSSV06010606	0.104 grams	10/10/2022
26144	14DCBD4	1,4-Dichlorobenzene-d4	OEMSSV06010601	0.103 grams	07/27/2017
26145	NAPD8	Naphthalene-d8	OEMSSV06010602	0.103 grams	06/30/2024

STANDARD REPORT

Constituent

Stock Standard - 14DCBD4

14DCBD4 — Description - 1,4-Dichlorobenzene-d4

Standard:	26144	Created By:	B. Murphy	Amount:	1 grams
MFG:	Cambridge isotope	Create Date:	11/29/2014	Expires:	7/27/2017
MFG Lot:	PR-18488	Lab Lot:	OEMSSV06010601	Usable:	Yes
Part ID:	DLM-268-0				

Pos.	Analyte	Name	Concentration
1	3855-82-1	1,4-Dichlorobenzene-d4	980 mg/g

STANDARD REPORT

Constituent

Stock Standard - perylene-d12

perylene-d12			Description - Perylene-d12
Standard: 26143	Created By: B. Murphy		Amount: 1 grams
MFG: Cambridge Isotope	Create Date: 11/29/2014		Expires: 10/10/2022
MFG Lot: PR-24113	Lab Lot: OEMSSV06010606		Usable: Yes
Part ID: DLM-366-0			

Pos	Analyte	Name	Concentration
1	1520-96-3	Perylene-d12	980 mg/g

STANDARD REPORT

Constituent

Stock Standard - CHRYD12

CHRYD12			Description - (Chrysene-d12)
Standard: 221	Created By: R. Hendricks	Amount:	
MFG: Cambridge Isotope	Create Date: 12/4/2006	Expires: 4/9/2028	
MFG Lot: P-6241	Lab Lot: OEMSSV06010605	Usable: Yes	
Part ID:			

Pos.	Analyte	Name	Concentration
1	1719-03-5	Chrysene-d12	980 mg/g

STANDARD REPORT

Constituent

Solvent Standard - MECL2

MECL2		Description - MeCl2
Standard: 26034	Created By: B. Murphy	Amount: 4 L
MFG: J.T. Baker	Create Date: 11/17/2014	Expires: 11/17/2015
MFG Lot: L04378	Lab Lot: OEMSSV20141028	Usable: Yes
Part ID:		

Pos.	Analyte	Name	Concentration
Solvent - Analyte(s) not applicable			

STANDARD REPORT

Constituent

Stock Standard - Anapd10

Anapd10		Description - (Acenaphthene-d10)
Standard: 219	Created By: R. Hendricks	Amount:
MFG: MSD Isotopes	Create Date: 12/4/2006	Expires: 4/9/2028
MFG Lot: 5693-M	Lab Lot: OEMSSV06010603	Usable: Yes
Part ID:		

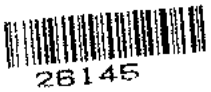
Pos.	Analyte	Name	Concentration
1	15067-26-2	Acenaphthene-d10	989 mg/g

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: NAPHTHALENE
(Isotopic Label & Enrichment Specification) (D8, 99%)



Lot Number: PR-25998

Catalog Number: DLM-365-0

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	1146-65-2
Unlabeled CAS Number:	91-20-3
MW*:	136.22
Chemical Formula:	C10D8
Storage:	Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

** For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Assurance

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.0%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	100.0%
GC/MS for Chemical Purity	100.0%
GC/MS for Identification	Conforms
Melting Point Range Determination	81-82°C

Retest/Review Date: 06/30/24

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www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: 1,4-DICHLOROBENZENE
(Isotopic Label & Enrichment Specification) (D4, 98%)

Lot Number: PR-18488/07267CB1 S 26144

Catalog Number: DLM-268-0

Product Information

Chemical Purity Specification:	≥98%
Labeled CAS Number:	3855-82-1
Unlabeled CAS Number:	106-46-7
MW*:	151.03
Chemical Formula:	C6D4Cl2
Storage:	Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

** For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Assurance

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
GC/MS for Chemical Purity	99.4%
GC/MS for Isotopic Enrichment	99.2%
Melting Point Range Determination	54-57°C

Retest/Review Date: 07/27/17

Cambridge Isotope Laboratories, Inc.

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800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: PERYLENE (D12, 98%)
(Isotopic Label & Enrichment Specification)

Lot Number: PR-24113

Catalog Number: DLM-366-0

S 26143

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	1520-96-3
Unlabeled CAS Number:	198-55-0
MW*:	264.4
Chemical Formula:	C20D12
Storage:	Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

* *For isotopically labeled compounds, MW listed is for the fully enriched product.*

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Assurance

Quality Control Tests and Results

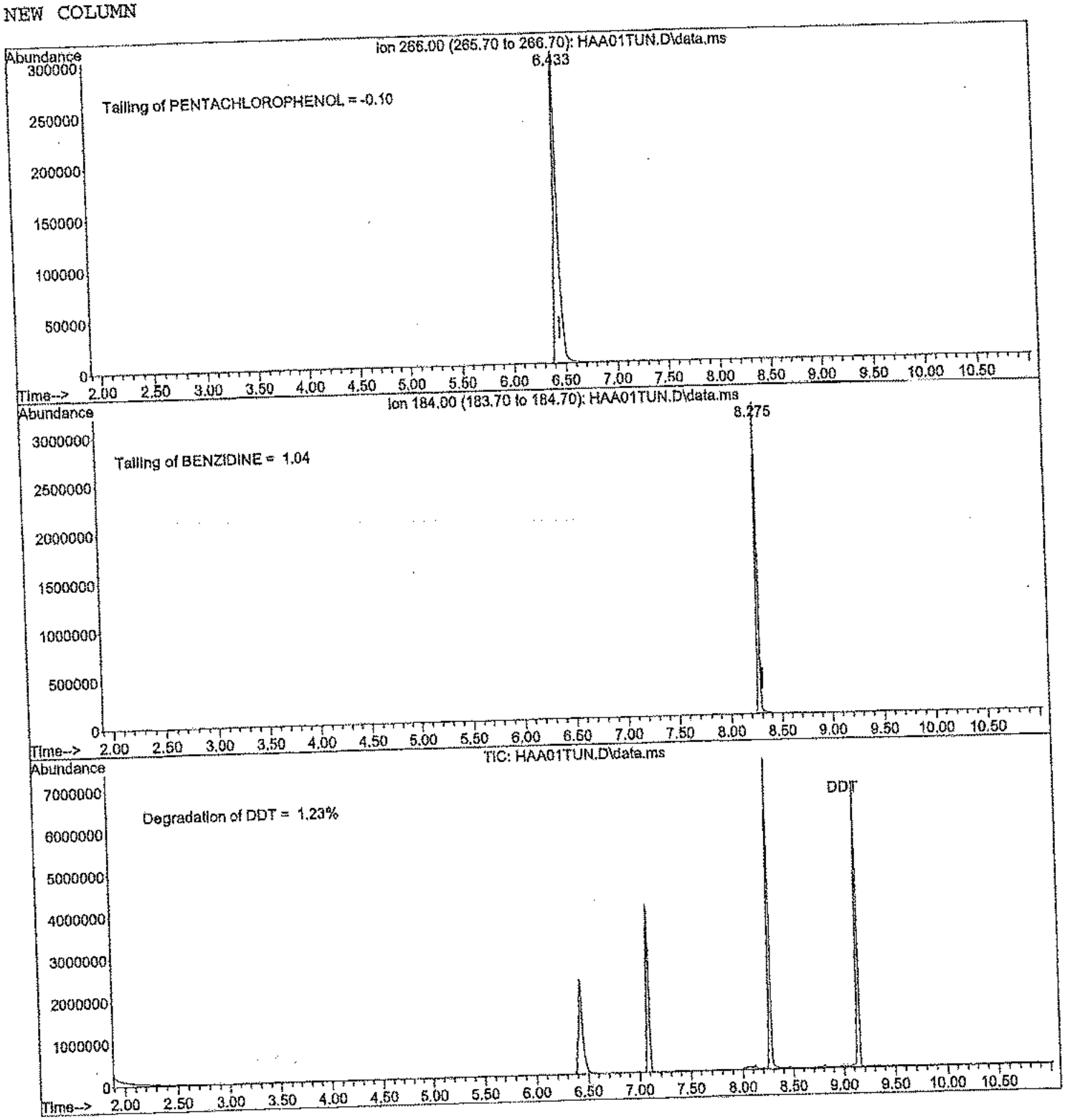
1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.9%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	100.0%
GC/MS for Identification	Conforms
Melting Point Range Determination	265-275°C

Retest/Review Date: 10/10/22

Data File: HAA01TUN.D
Date Acquired: 02/16/2015 11:17
Operator ID: JH
Name: 8270 TUN 27023
Misc: NEW COLUMN

Instrument: 5975-H
Acq Method: 8270DTUN.M
DA Method: 8270DTUN.M

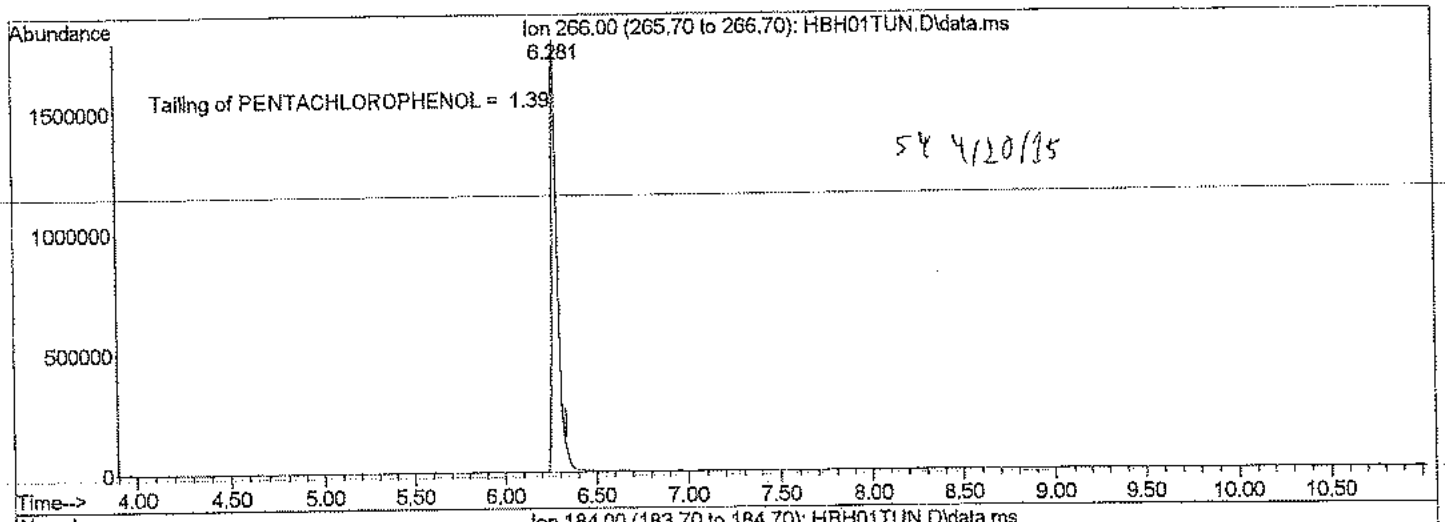
Cal Title:
Last Cal Update:
NEW COLUMN



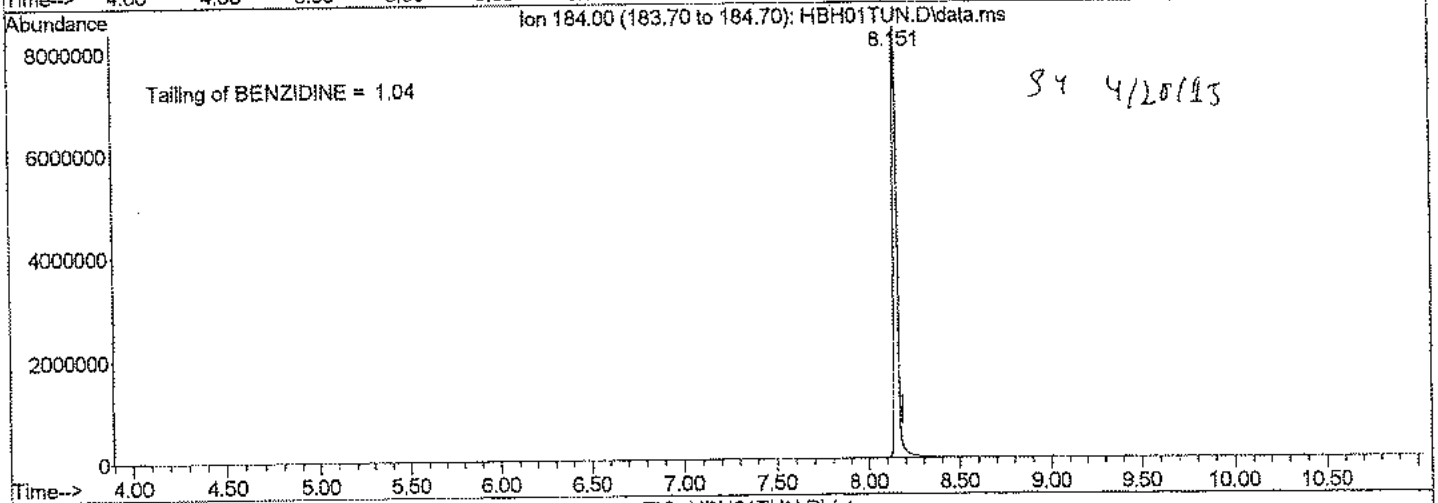
Data File: HBH01TUN.D
Date Acquired: 04/20/2015 06:44
Operator ID: SY
Name: 8270 TUN 27023
Misc:

Instrument: 5975-H
Acq Method: 8270DTUN.M
DA Method: 8270DTUN.M

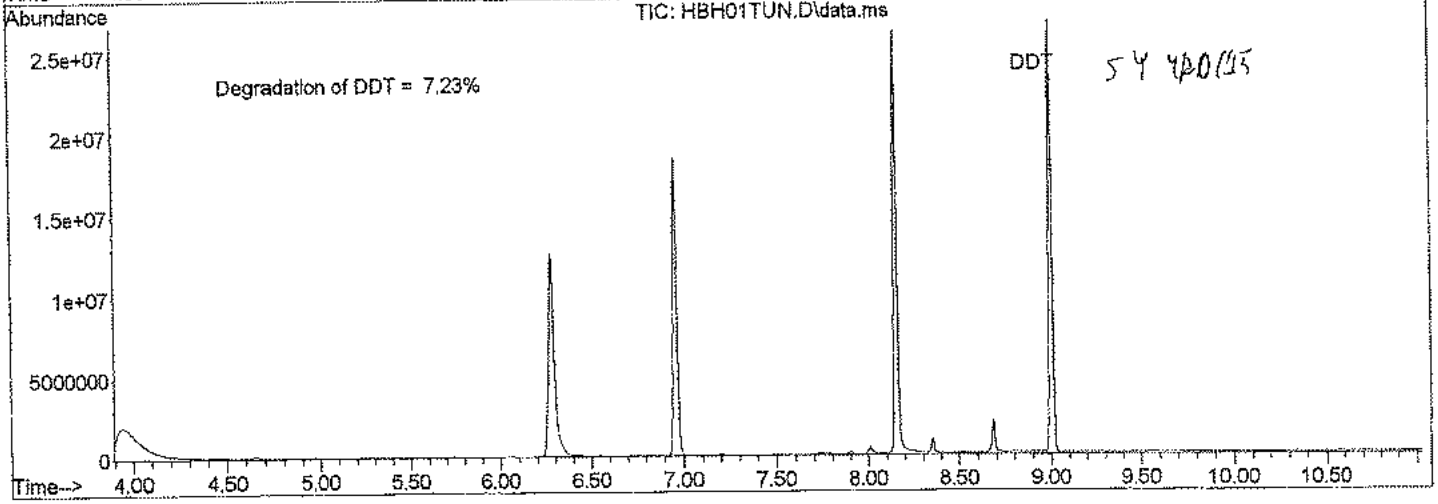
Cal Title:
Last Cal Update:



SY 4/20/15



SY 4/20/15



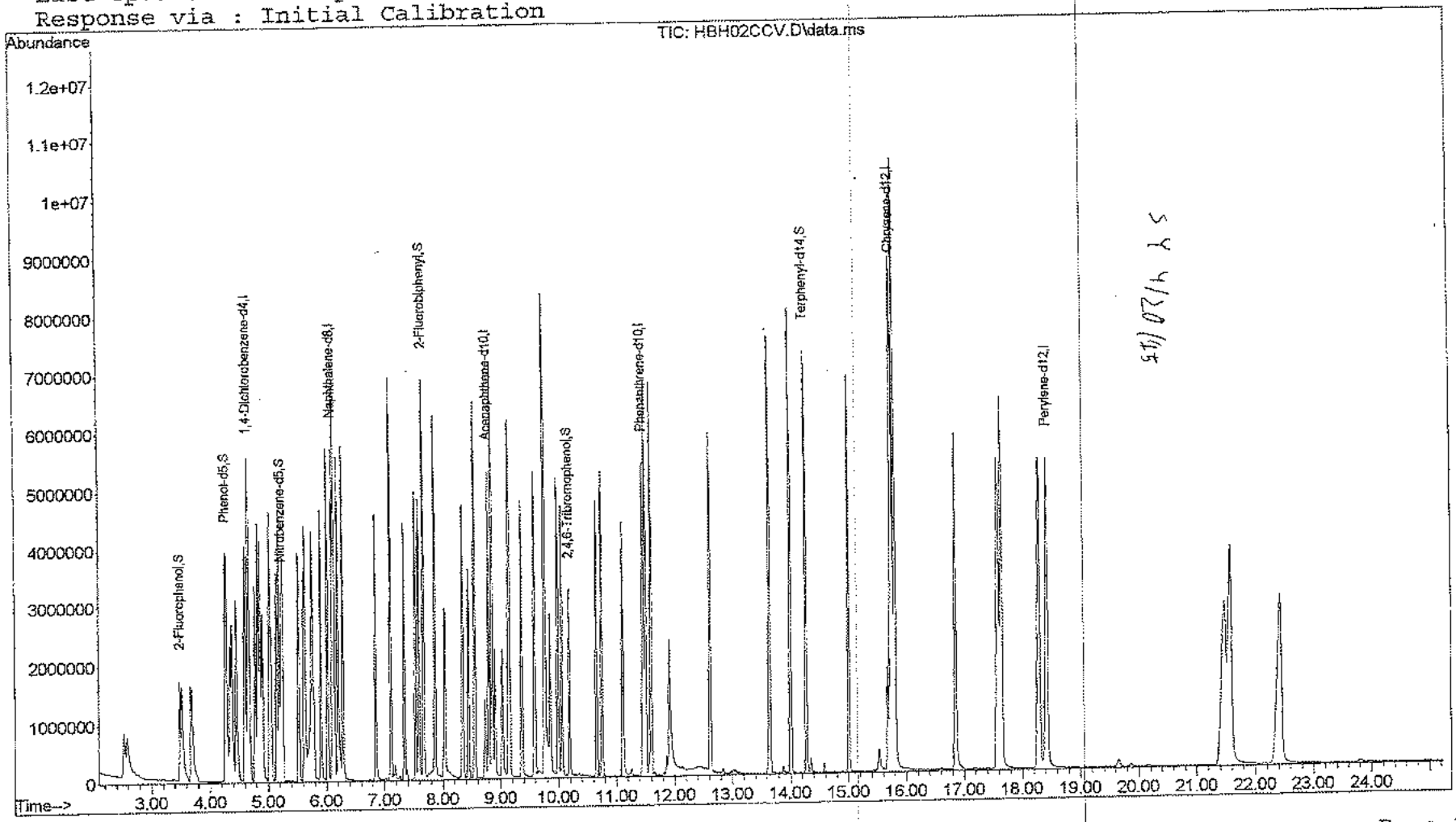
SY 4/20/15

Quantitation Report

Data File : C:\msdchem\1\data\20...15\20APR15\HBH02CCV.D Vial: 2
Acq On : 04/20/2015 07:02 Operator: SY
Sample : 8270 S50 27409 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 20 08:42:42 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 02 08:11:21 2015
Response via : Initial Calibration



Quantitation Report

Data File : C:\msdchem\1\data\20...15\20APR15\HBH02CCV.D Vial: 2
Acq On : 04/20/2015 07:02 Operator: SY
Sample : 8270 S50 27409 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 08:42:42 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 02 08:11:21 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.65	152	1194747	40.00 ug/mL
17) Naphthalene-d8	6.10	136	4138737	40.00 ug/mL
32) Acenaphthene-d10	8.80	164	2209045	40.00 ug/mL
52) Phenanthrene-d10	11.46	188	4087705	40.00 ug/mL
64) Chrysene-d12	15.77	240	3977791	40.00 ug/mL
72) Perylene-d12	18.43	264	5628915	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.49	112	1925677	46.820ug/mL
4) Phenol-d5	4.27	99	1938700	45.038ug/mL
18) Nitrobenzene-d5	5.23	82	1587990	42.689ug/mL
36) 2-Fluorobiphenyl	7.67	172	3601425	41.446ug/mL
53) 2,4,6-Tribromophenol	10.19	330	678338	49.011ug/mL
66) Terphenyl-d14	14.27	244	4114741	44.384ug/mL
Target Compounds				Qvalue
2) Pyridine	2.53	79	1230185	32.326ug/mL 40
5) Phenol	4.29	94	2082014	44.574ug/mL 99
6) Bis(2-chloroethyl)ether	4.38	93	1627132	39.162ug/mL 98
7) 2-Chlorophenol	4.46	128	2090376	45.410ug/mL 99
8) 1,3-Dichlorobenzene	4.60	146	2361670	44.843ug/mL 100
9) 1,4-dichlorobenzene	4.67	146	2257844	43.817ug/mL 100
10) Benzyl alcohol	4.78	108	1169270	45.019ug/mL 99
11) 1,2-dichlorobenzene	4.82	146	2209467	45.321ug/mL 100
12) 2-Methylphenol	4.86	107	1310993	43.347ug/mL 100
13) Bis(2-chloroisopropyl)ethe	4.90	45	1582487	43.694ug/mL 91
14) 4-methylphenol	5.03	107	1914337	43.658ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.05	70	968849	46.951ug/mL 95
16) Hexachloroethane	5.19	117	875326	47.462ug/mL 98
19) Nitrobenzene	5.25	77	1598614	45.200ug/mL 98
20) Isophorone	5.52	82	2933311	45.919ug/mL 98
21) 2-Nitrophenol	5.62	139	1087918	45.953ug/mL 98
22) 2,4-Dimethylphenol	5.63	122	1309821	41.406ug/mL 99
23) Benzoic Acid	5.79	122	1134987	57.393ug/mL 84
24) Bis(2-chloroethoxy)methane	5.76	93	1660687	43.361ug/mL 97
25) 2,4-Dichlorophenol	5.91	162	1669279	45.898ug/mL 100
26) 1,2,4-Trichlorobenzene	6.02	180	1850415	44.884ug/mL 100
27) Naphthalene	6.13	128	4750328	42.641ug/mL 99
28) 4-Chloroaniline	6.19	127	1204261	31.013ug/mL 95
29) Hexachlorobutadiene	6.29	225	1090431	45.262ug/mL 100
30) 4-Chloro-3-Methylphenol	6.85	107	1488900	46.418ug/mL 99
31) 2-Methylnaphthalene	7.11	142	3382698	41.983ug/mL 100
33) Hexachlorocyclopentadiene	7.34	237	1191619	42.980ug/mL 100

MSY 4/20/15

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

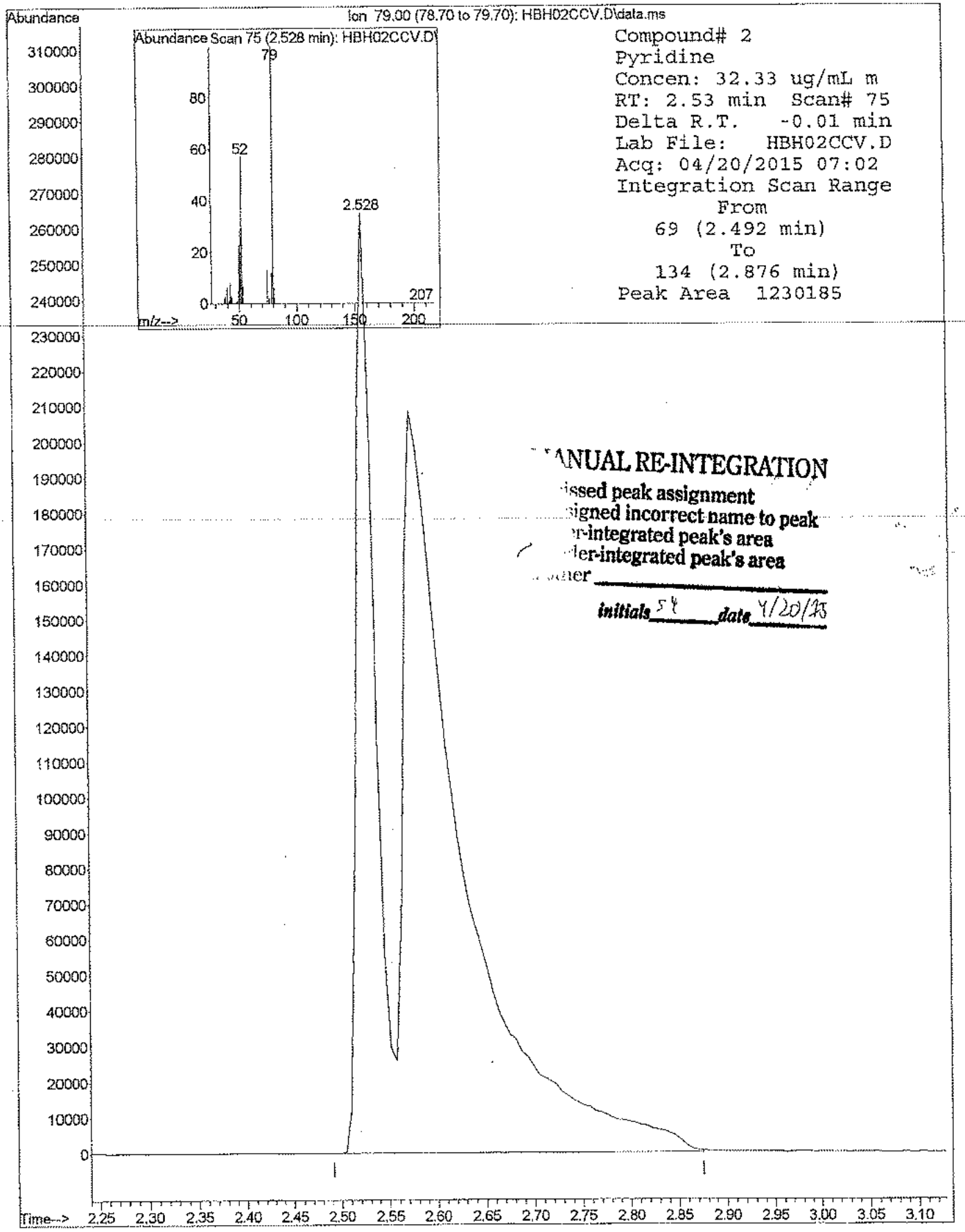
Data File : C:\msdchem\1\data\20...15\20APR15\HBH02CCV.D Vial: 2
Acq On : 04/20/2015 07:02 Operator: SY
Sample : 8270 S50 27409 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 08:42:42 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 02 08:11:21 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	7.53	196	1272826	44.042ug/mL	99
35) 2,4,5-Trichlorophenol	7.59	196	1369873	44.531ug/mL	100
37) 2-Chloronaphthalene	7.87	162	3281366	41.472ug/mL	99
38) 2-Nitroaniline	8.03	65	879656	45.485ug/mL	94
39) Dimethylphthalate	8.35	163	3959641	43.118ug/mL	100
40) 2,6-Dinitrotoluene	8.45	165	981881	45.724ug/mL	99
41) Acenaphthylene	8.56	152	5272759	41.718ug/mL	100
42) 3-Nitroaniline	8.73	65	495119	30.169ug/mL	97
43) Acenaphthene	8.86	153	3146781	41.826ug/mL	100
44) 2,4-Dinitrophenol	8.90	184	675785	50.495ug/mL	100
45) 4-Nitrophenol	9.03	109	469354	46.222ug/mL	96
46) Dibenzofuran	9.16	168	4468684	41.328ug/mL	100
47) 2,4-Dinitrotoluene	9.14	165	1198761	44.023ug/mL	93
48) Diethylphthalate	9.59	149	3790785	42.976ug/mL	99
49) 4-chlorophenyl phenyl ethe	9.77	204	1686762	40.909ug/mL	100
50) Fluorene	9.76	166	3232906	40.364ug/mL	100
51) 4-Nitroaniline	9.80	65	368766	37.923ug/mL	91
54) 4,6-Dinitro-2-methylphenol	9.86	198	884145	49.595ug/mL	96
55) N-Nitrosodiphenylamine	9.99	169	2440923	42.989ug/mL	99
56) 4-bromophenyl phenyl ether	10.66	248	1262325	43.644ug/mL	99
57) Hexachlorobenzene	10.75	284	1429893	44.631ug/mL	98
58) Pentachlorophenol	11.11	266	1047373	47.711ug/mL	99
59) Phenanthrene	11.51	178	5112138	41.407ug/mL	100
60) Anthracene	11.60	178	5188511	41.864ug/mL	99
61) Carbazole	11.92	167	3564395	52.380ug/mL	98
62) Di-n-butylphthalate	12.62	149	6104154	43.380ug/mL	100
63) Fluoranthene	13.65	202	5741016	42.558ug/mL	98
65) Pyrene	14.01	202	5915027	43.812ug/mL	98
67) Butylbenzylphthalate	15.01	149	2687907	44.928ug/mL	97
68) 3,3'-Dichlorobenzidine	15.72	252	812570	33.714ug/mL	99
69) Benzo(a)anthracene	15.74	228	5474983	43.382ug/mL	99
70) Chrysene	15.80	228	4242213	41.358ug/mL	99
71) Bis(2-ethylhexyl)phthalate	15.81	149	2865316	40.836ug/mL	97
73) Di-n-octylphthalate	16.86	149	6782982	40.630ug/mL	100
74) Benzo(b)fluoranthene	17.59	252	6629523	41.702ug/mL	99
75) Benzo(k)fluoranthene	17.65	252	6024911	41.608ug/mL	99
76) Benzo(a)pyrene	18.29	252	6327904	42.845ug/mL	99
77) Indeno(1,2,3-c,d)pyrene	21.48	276	6230230	44.662ug/mL	99
78) Dibenz(a,h)anthracene	21.59	278	6260373	45.074ug/mL	98
79) Benzo(g,h,i)perylene	22.44	276	6367590	44.501ug/mL	97

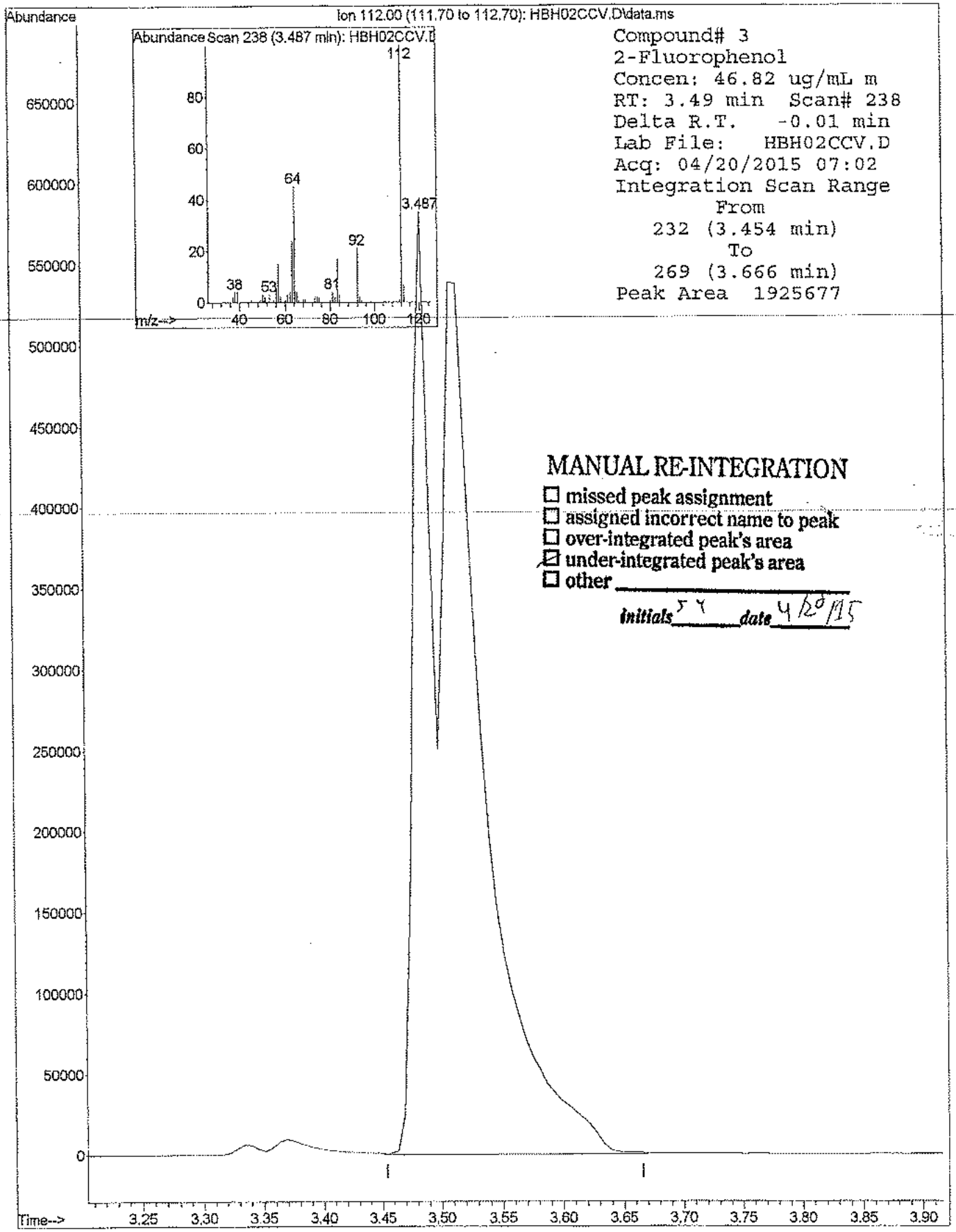
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 27409

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 27409

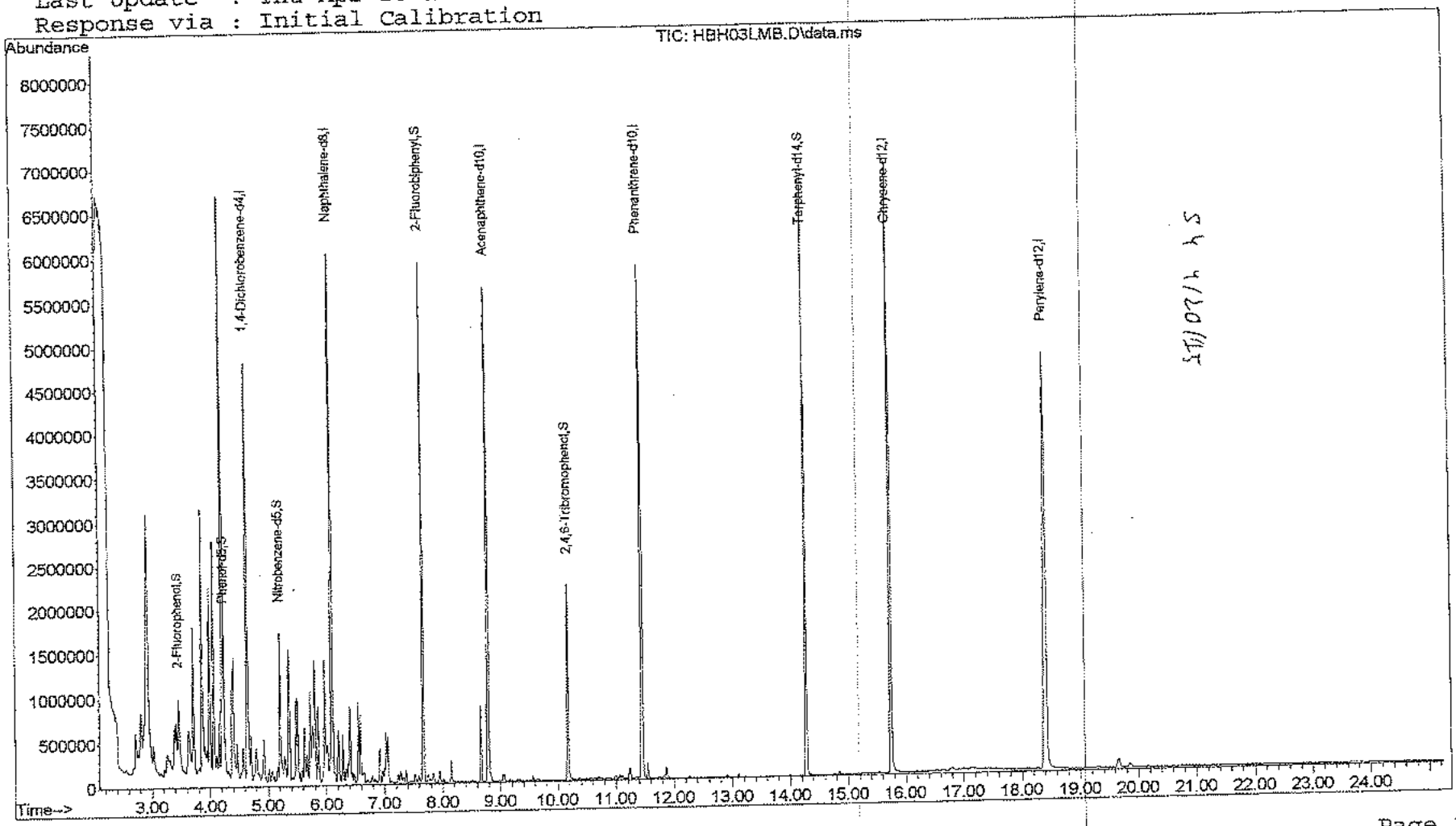
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH03LMB.D
Acq On : 04/20/2015 07:35
Sample : 442952 MB
Misc :
MS Integration Params: rteint.p

Vial: 3
Operator: SY
Inst : 5975-H
Injection volume : 1uL

Quant Time: Apr 20 13:02:10 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH03LMB.D
Acq On : 04/20/2015 07:35
Sample : 442952 MB
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 13:02:10 2015

Vial: 3
Operator: SY
Inst : 5975-H
Injection volume : 1

Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.64	152	1232441	40.00 ug/mL
17) Naphthalene-d8	6.10	136	4148702	40.00 ug/mL
32) Acenaphthene-d10	8.79	164	2193358	40.00 ug/mL
52) Phenanthrene-d10	11.45	188	3889266	40.00 ug/mL
64) Chrysene-d12	15.75	240	4321208	40.00 ug/mL
72) Perylene-d12	18.41	264	5085801	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.46	112	411806	9.809ug/mL
4) Phenol-d5	4.25	99	798417	17.913ug/mL
18) Nitrobenzene-d5	5.20	82	567881	14.893ug/mL
36) 2-Fluorobiphenyl	7.67	172	3030451	34.151ug/mL
53) 2,4,6-Tribromophenol	10.17	330	449407	34.004ug/mL
66) Terphenyl-d14	14.27	244	3254363	31.804ug/mL
Target Compounds				Qvalue
2) Pyridine	0.00	79		Not Detected
5) Phenol	0.00	94		Not Detected
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected
7) 2-Chlorophenol	0.00	128		Not Detected
8) 1,3-Dichlorobenzene	0.00	146		Not Detected
9) 1,4-dichlorobenzene	0.00	146		Not Detected
10) Benzyl alcohol	0.00	108		Not Detected
11) 1,2-dichlorobenzene	0.00	146		Not Detected
12) 2-Methylphenol	0.00	107		Not Detected
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected
14) 4-methylphenol	0.00	107		Not Detected
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected
16) Hexachloroethane	0.00	117		Not Detected
19) Nitrobenzene	0.00	77		Not Detected
20) Isophorone	0.00	82		Not Detected
21) 2-Nitrophenol	0.00	139		Not Detected
22) 2,4-Dimethylphenol	0.00	122		Not Detected
23) Benzoic Acid	0.00	122		Not Detected
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected
25) 2,4-Dichlorophenol	0.00	162		Not Detected
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected
27) Naphthalene	0.00	128		Not Detected
28) 4-Chloroaniline	0.00	127		Not Detected
29) Hexachlorobutadiene	0.00	225		Not Detected
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected
31) 2-Methylnaphthalene	0.00	142		Not Detected
33) Hexachlorocyclopentadiene	0.00	237		Not Detected

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH03LMB.D
Acq On : 04/20/2015 07:35
Sample : 442952 MB
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 13:02:10 2015

Vial: 3
Operator: SY
Inst : 5975-H
Injection volume : 1

Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	0.00	149		Not Detected	
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	0.00	149		Not Detected	
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	0.00	149		Not Detected	
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

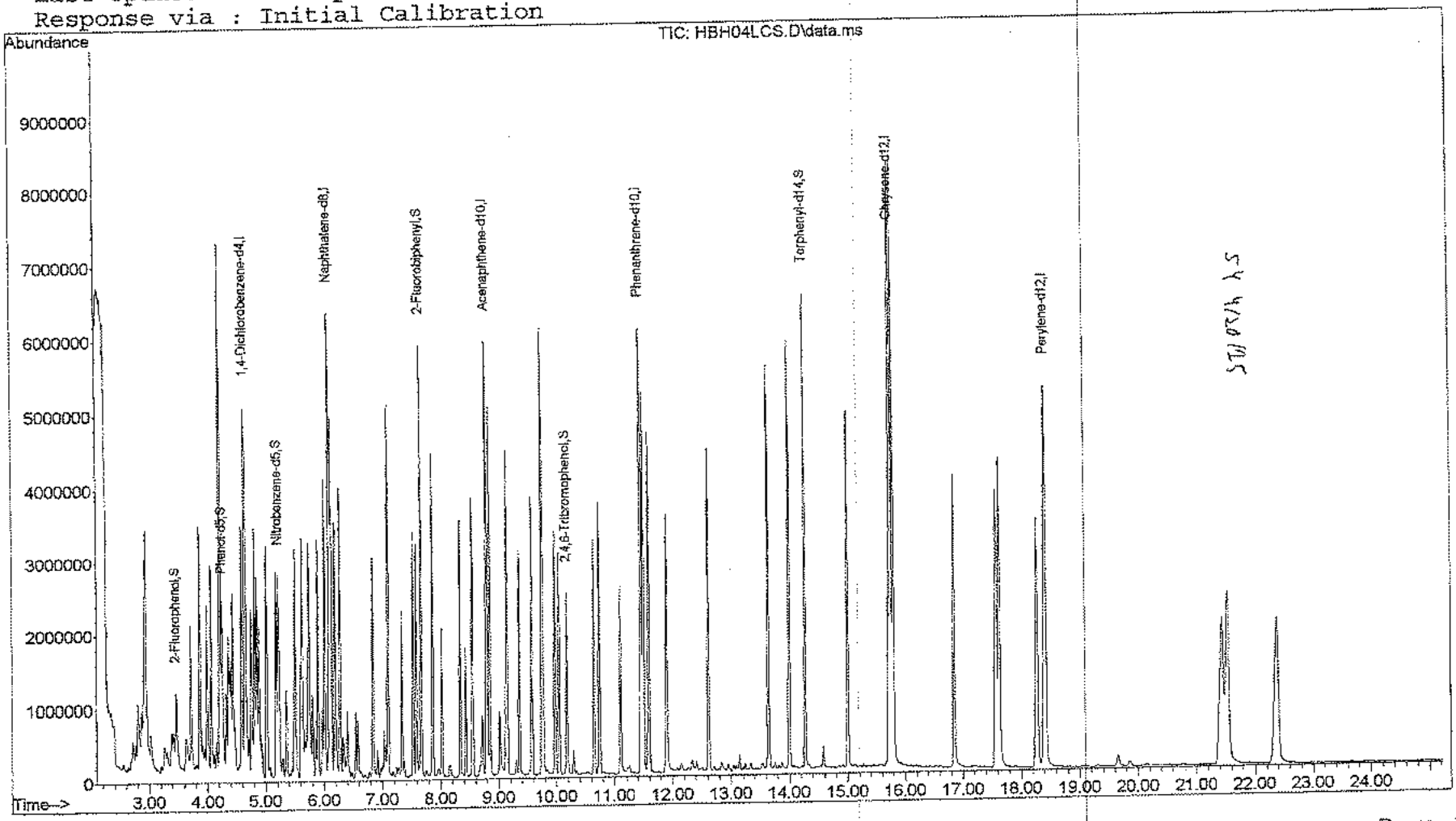
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH04LCS.D
Acq On : 04/20/2015 08:09
Sample : 442953 LCS
Misc :
MS Integration Params: rteint.p

Vial: 4
Operator: SY
Inst : 5975-H
Injection volume : 1uL

Quant Time: Apr 20 12:56:47 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH04LCS.D
Acq On : 04/20/2015 08:09
Sample : 442953 LCS
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 12:56:47 2015

Vial: 4
Operator: SY
Inst : 5975-H
Injection volume : 1
Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.64	152	1240104	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	4367836	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	2380474	40.00 ug/mL	
52) Phenanthrene-d10	11.46	188	4272353	40.00 ug/mL	
64) Chrysene-d12	15.76	240	4247298	40.00 ug/mL	
72) Perylene-d12	18.42	264	5339415	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	502659	11.900ug/mL	
4) Phenol-d5	4.25	99	918636	20.483ug/mL	
18) Nitrobenzene-d5	5.21	82	1075082	26.779ug/mL	
36) 2-Fluorobiphenyl	7.67	172	2992391	31.072ug/mL	
53) 2,4,6-Tribromophenol	10.18	330	519763	35.801ug/mL	
66) Terphenyl-d14	14.27	244	3145464	31.275ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	4.26	94	794949	16.624ug/mL	99
6) Bis(2-chloroethyl)ether	4.36	93	951174	21.989ug/mL	91
7) 2-Chlorophenol	4.43	128	1085649	22.743ug/mL	98
8) 1,3-Dichlorobenzene	4.59	146	1327277	24.112ug/mL	100
9) 1,4-dichlorobenzene	4.66	146	1269778	23.413ug/mL	99
10) Benzyl alcohol	4.75	108	658316	24.315ug/mL	100
11) 1,2-dichlorobenzene	4.81	146	1280469	25.124ug/mL	100
12) 2-Methylphenol	4.85	107	736571	23.207ug/mL	99
13) Bis(2-chloroisopropyl)ethe	4.89	45	1010542	26.648ug/mL	94
14) 4-methylphenol	5.01	107	1089995	23.572ug/mL	98
15) N-Nitrosodi-n-propyl amine	5.03	70	606186	28.255ug/mL	96
16) Hexachloroethane	5.17	117	467905	24.377ug/mL	100
19) Nitrobenzene	5.23	77	858204	22.713ug/mL	99
20) Isophorone	5.50	82	1632474	24.010ug/mL	99
21) 2-Nitrophenol	5.60	139	464721	18.701ug/mL	97
22) 2,4-Dimethylphenol	5.63	122	890643	26.475ug/mL	99
23) Benzoic Acid	5.74	122	576707	27.653ug/mL	83
24) Bis(2-chloroethoxy)methane	5.75	93	1114710	27.144ug/mL	98
25) 2,4-Dichlorophenol	5.90	162	1013909	26.130ug/mL	100
26) 1,2,4-Trichlorobenzene	6.02	180	1144589	25.970ug/mL	100
27) Naphthalene	6.13	128	3194187	26.552ug/mL	100
28) 4-Chloroaniline	6.18	127	478638	11.413ug/mL	98
29) Hexachlorobutadiene	6.28	225	668072	25.893ug/mL	100
30) 4-Chloro-3-Methylphenol	6.85	107	910427	26.570ug/mL	100
31) 2-Methylnaphthalene	7.10	142	2341656	26.936ug/mL	100
33) Hexachlorocyclopentadiene	7.34	237	561255	18.383ug/mL	100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH04LCS.D
Acq On : 04/20/2015 08:09
Sample : 442953 LCS
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 12:56:47 2015

Vial: 4
Operator: SY
Inst : 5975-H
Injection volume : 1
Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	7.53	196	775891	24.430ug/mL	99
35) 2,4,5-Trichlorophenol	7.59	196	827492	24.367ug/mL	100
37) 2-Chloronaphthalene	7.86	162	2182108	24.873ug/mL	100
38) 2-Nitroaniline	8.02	65	483314	22.832ug/mL	95
39) Dimethylphthalate	8.34	163	2565214	25.383ug/mL	100
40) 2,6-Dinitrotoluene	8.43	165	417046	17.853ug/mL	98
41) Acenaphthylene	8.55	152	2906791	20.783ug/mL	100
42) 3-Nitroaniline	8.72	65	261761	14.313ug/mL	99
43) Acenaphthene	8.85	153	2108088	25.338ug/mL	100
44) 2,4-Dinitrophenol	8.89	184	4437	4.773ug/mL	32
45) 4-Nitrophenol	9.02	109	162815	15.431ug/mL	98
46) Dibenzofuran	9.15	168	3144538	26.134ug/mL	99
47) 2,4-Dinitrotoluene	9.12	165	326047	10.840ug/mL	84
48) Diethylphthalate	9.57	149	2490510	25.530ug/mL	100
49) 4-chlorophenyl phenyl ethe	9.77	204	1180974	25.737ug/mL	99
50) Fluorene	9.75	166	2227790	24.973ug/mL	100
51) 4-Nitroaniline	9.78	65	231299	18.866ug/mL	95
54) 4,6-Dinitro-2-methylphenol	9.84	198	15758	0.857ug/mL	40
55) N-Nitrosodiphenylamine	9.97	169	1532643	25.475ug/mL	100
56) 4-bromophenyl phenyl ether	10.65	248	805117	26.210ug/mL	100
57) Hexachlorobenzene	10.74	284	893883	26.270ug/mL	99
58) Pentachlorophenol	11.10	266	565326	25.032ug/mL	99
59) Phenanthrene	11.50	178	3405227	25.807ug/mL	100
60) Anthracene	11.50	178	3405227	25.605ug/mL	99
61) Carbazole	11.90	167	2739214	34.154ug/mL	99
62) Di-n-butylphthalate	12.62	149	4026702	26.802ug/mL	100
63) Fluoranthene	14.00	202	3944721	27.289ug/mL	96
65) Pyrene	14.00	202	3945328	27.041ug/mL	99
67) Butylbenzylphthalate	15.00	149	1751177	27.158ug/mL	98
68) 3,3'-Dichlorobenzidine	15.70	252	773143	31.475ug/mL	99
69) Benzo(a)anthracene	15.74	228	3425184	24.847ug/mL	99
70) Chrysene	15.79	228	3060225	27.351ug/mL	99
71) Bis(2-ethylhexyl)phthalate	15.80	149	2167278	28.263ug/mL	99
73) Di-n-octylphthalate	16.84	149	4348451	26.735ug/mL	100
74) Benzo(b)fluoranthene	17.63	252	3776203	24.323ug/mL	99
75) Benzo(k)fluoranthene	17.63	252	3776203	26.906ug/mL	100
76) Benzo(a)pyrene	18.27	252	3534668	24.733ug/mL	99
77) Indeno(1,2,3-c,d)pyrene	21.44	276	3521906	26.204ug/mL	99
78) Dibenz(a,h)anthracene	21.54	278	3779499	28.207ug/mL	98
79) Benzo(g,h,i)perylene	22.38	276	3785511	27.629ug/mL	98

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

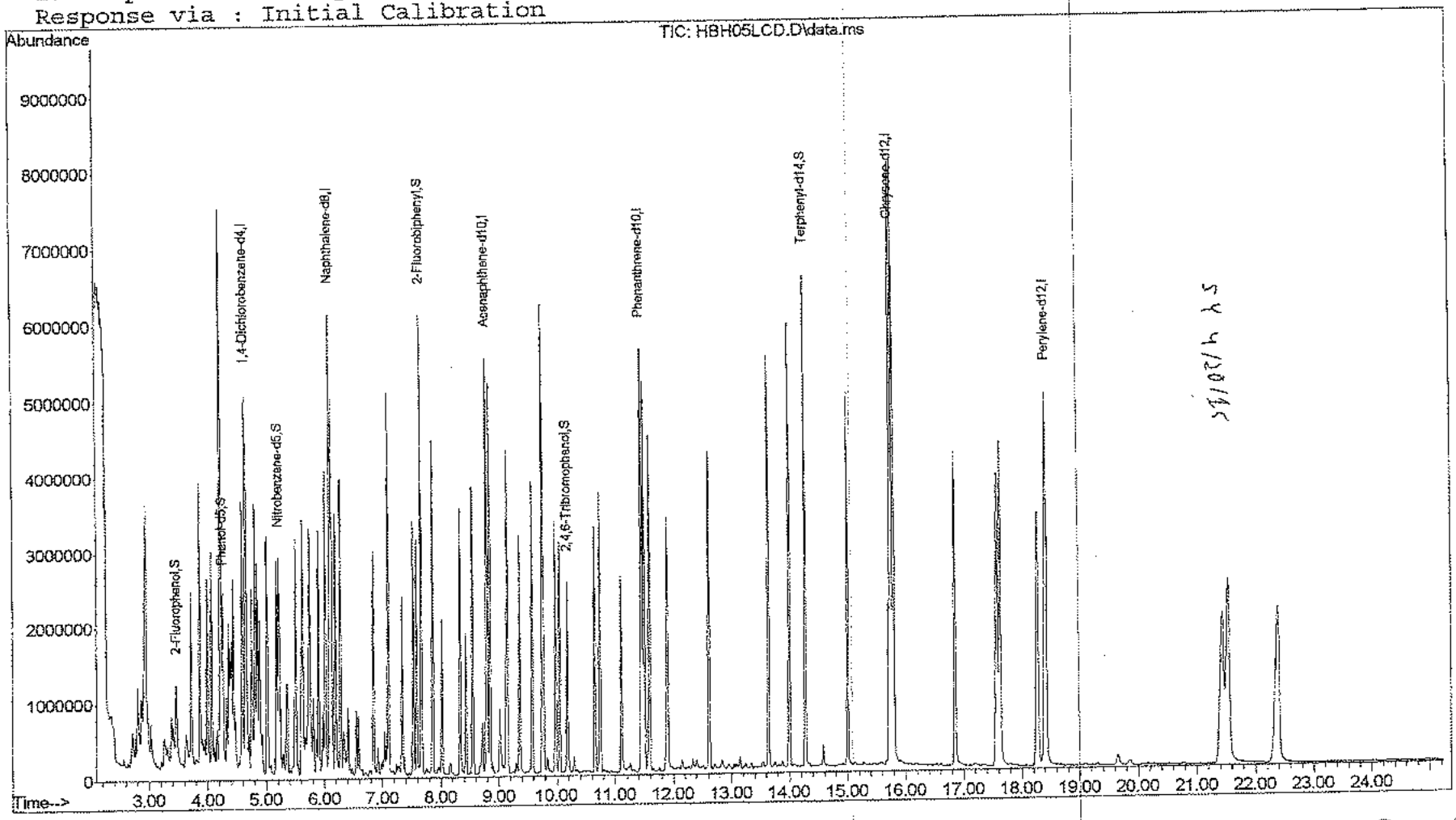
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH05LCD.D
Acq On : 04/20/2015 08:41
Sample : 442954 LCSD
Misc :
MS Integration Params: rteint.p

Vial: 5
Operator: SY
Inst : 5975-H
Injection volume : 1uL

Quant Time: Apr 20 12:57:08 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH05LCD.D
Acq On : 04/20/2015 08:41
Sample : 442954 LCSD
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 12:57:08 2015

Vial: 5
Operator: SY
Inst : 5975-H
Injection volume : 1
Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Qvalue
1) 1,4-Dichlorobenzene-d4	4.64	152	1173273	40.00 ug/mL	
17) Naphthalene-d8	6.10	136	4103783	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	2191476	40.00 ug/mL	
52) Phenanthrene-d10	11.46	188	3961338	40.00 ug/mL	
64) Chrysene-d12	15.76	240	4026892	40.00 ug/mL	
72) Perylene-d12	18.42	264	5111982	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	477971	11.960ug/mL	
4) Phenol-d5	4.25	99	900072	21.212ug/mL	
18) Nitrobenzene-d5	5.21	82	1115449	29.573ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3095535	34.915ug/mL	
53) 2,4,6-Tribromophenol	10.18	330	529097	39.305ug/mL	
66) Terphenyl-d14	14.27	244	3229105	33.864ug/mL	
Target Compounds					
2) Pyridine	0.00	79		Not Detected	
5) Phenol	4.26	94	762246	16.848ug/mL	99
6) Bis(2-chloroethyl)ether	4.36	93	911675	22.277ug/mL	92
7) 2-Chlorophenol	4.43	128	1065563	23.594ug/mL	98
8) 1,3-Dichlorobenzene	4.59	146	1301199	24.984ug/mL	100
9) 1,4-dichlorobenzene	4.66	146	1257828	24.514ug/mL	99
10) Benzyl alcohol	4.75	108	660452	25.784ug/mL	99
11) 1,2-dichlorobenzene	4.81	146	1258243	26.095ug/mL	100
12) 2-Methylphenol	4.85	107	733312	24.421ug/mL	99
13) Bis(2-chloroisopropyl)ethe	4.89	45	1003913	27.981ug/mL	95
14) 4-methylphenol	5.00	107	1097477	25.086ug/mL	97
15) N-Nitrosodi-n-propyl amine	5.03	70	609585	30.032ug/mL	95
16) Hexachloroethane	5.17	117	470542	25.910ug/mL	100
19) Nitrobenzene	5.23	77	866654	24.413ug/mL	99
20) Isophorone	5.50	82	1627826	25.482ug/mL	99
21) 2-Nitrophenol	5.60	139	509417	21.818ug/mL	97
22) 2,4-Dimethylphenol	5.63	122	907418	28.709ug/mL	99
23) Benzoic Acid	5.74	122	582969	29.475ug/mL	84
24) Bis(2-chloroethoxy)methane	5.75	93	1122990	29.105ug/mL	98
25) 2,4-Dichlorophenol	5.90	162	1016576	27.884ug/mL	100
26) 1,2,4-Trichlorobenzene	6.02	180	1147395	27.709ug/mL	100
27) Naphthalene	6.13	128	3198742	28.301ug/mL	100
28) 4-Chloroaniline	6.19	127	417215	10.588ug/mL	96
29) Hexachlorobutadiene	6.28	225	668484	27.576ug/mL	100
30) 4-Chloro-3-Methylphenol	6.85	107	914995	28.421ug/mL	100
31) 2-Methylnaphthalene	7.10	142	2352864	28.806ug/mL	99
33) Hexachlorocyclopentadiene	7.34	237	586011	20.849ug/mL	100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH05LCD.D
Acq On : 04/20/2015 08:41
Sample : 442954 LCSD
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 12:57:08 2015

Vial: 5
Operator: SY
Inst : 5975-H
Injection volume : 1
Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.53	196	778735	26.634ug/mL	99
35)	2,4,5-Trichlorophenol	7.59	196	826761	26.445ug/mL	99
37)	2-Chloronaphthalene	7.86	162	2188285	27.095ug/mL	100
38)	2-Nitroaniline	8.02	65	488341	25.059ug/mL	94
39)	Dimethylphthalate	8.34	163	2543031	27.334ug/mL	100
40)	2,6-Dinitrotoluene	8.43	165	449807	20.916ug/mL	98
41)	Acenaphthylene	8.55	152	2933360	22.781ug/mL	100
42)	3-Nitroaniline	8.72	65	219175	13.018ug/mL	99
43)	Acenaphthene	8.85	153	2126484	27.764ug/mL	100
44)	2,4-Dinitrophenol	8.89	184	23483	6.139ug/mL	98
45)	4-Nitrophenol	9.02	109	161752	16.566ug/mL	97
46)	Dibenzofuran	9.15	168	3143446	28.378ug/mL	98
47)	2,4-Dinitrotoluene	9.12	165	402217	14.526ug/mL	86
48)	Diethylphthalate	9.57	149	2457012	27.359ug/mL	100
49)	4-chlorophenyl phenyl ethe	9.76	204	1160120	27.463ug/mL	99
50)	Fluorene	9.75	166	2191761	26.688ug/mL	100
51)	4-Nitroaniline	9.77	65	181954	15.358ug/mL	94
54)	4,6-Dinitro-2-methylphenol	9.84	198	50356	2.954ug/mL	99
55)	N-Nitrosodiphenylamine	9.97	169	1505425	26.987ug/mL	99
56)	4-bromophenyl phenyl ether	10.65	248	800743	28.114ug/mL	100
57)	Hexachlorobenzene	10.74	284	878499	27.845ug/mL	99
58)	Pentachlorophenol	11.10	266	560130	26.661ug/mL	100
59)	Phenanthrene	11.50	178	3440658	28.123ug/mL	100
60)	Anthracene	11.50	178	3440658	27.903ug/mL	99
61)	Carbazole	11.90	167	2687130	36.325ug/mL	99
62)	Di-n-butylphthalate	12.62	149	4011440	28.796ug/mL	100
63)	Fluoranthene	14.00	202	3930651	29.326ug/mL	95
65)	Pyrene	14.00	202	3931655	28.422ug/mL	99
67)	Butylbenzylphthalate	15.00	149	1772005	28.986ug/mL	98
68)	3,3'-Dichlorobenzidine	15.70	252	719698	30.903ug/mL	99
69)	Benzo(a)anthracene	15.74	228	3469571	26.547ug/mL	99
70)	Chrysene	15.79	228	3093776	29.165ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.80	149	2171359	29.866ug/mL	99
73)	Di-n-octylphthalate	16.84	149	4433171	28.468ug/mL	100
74)	Benzo(b)fluoranthene	17.63	252	3836772	25.812ug/mL	99
75)	Benzo(k)fluoranthene	17.63	252	3836772	28.554ug/mL	100
76)	Benzo(a)pyrene	18.27	252	3590108	26.238ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.44	276	3630211	28.212ug/mL	100
78)	Dibenz(a,h)anthracene	21.54	278	3888367	30.311ug/mL	99
79)	Benzo(g,h,i)perylene	22.39	276	3908239	29.794ug/mL	98

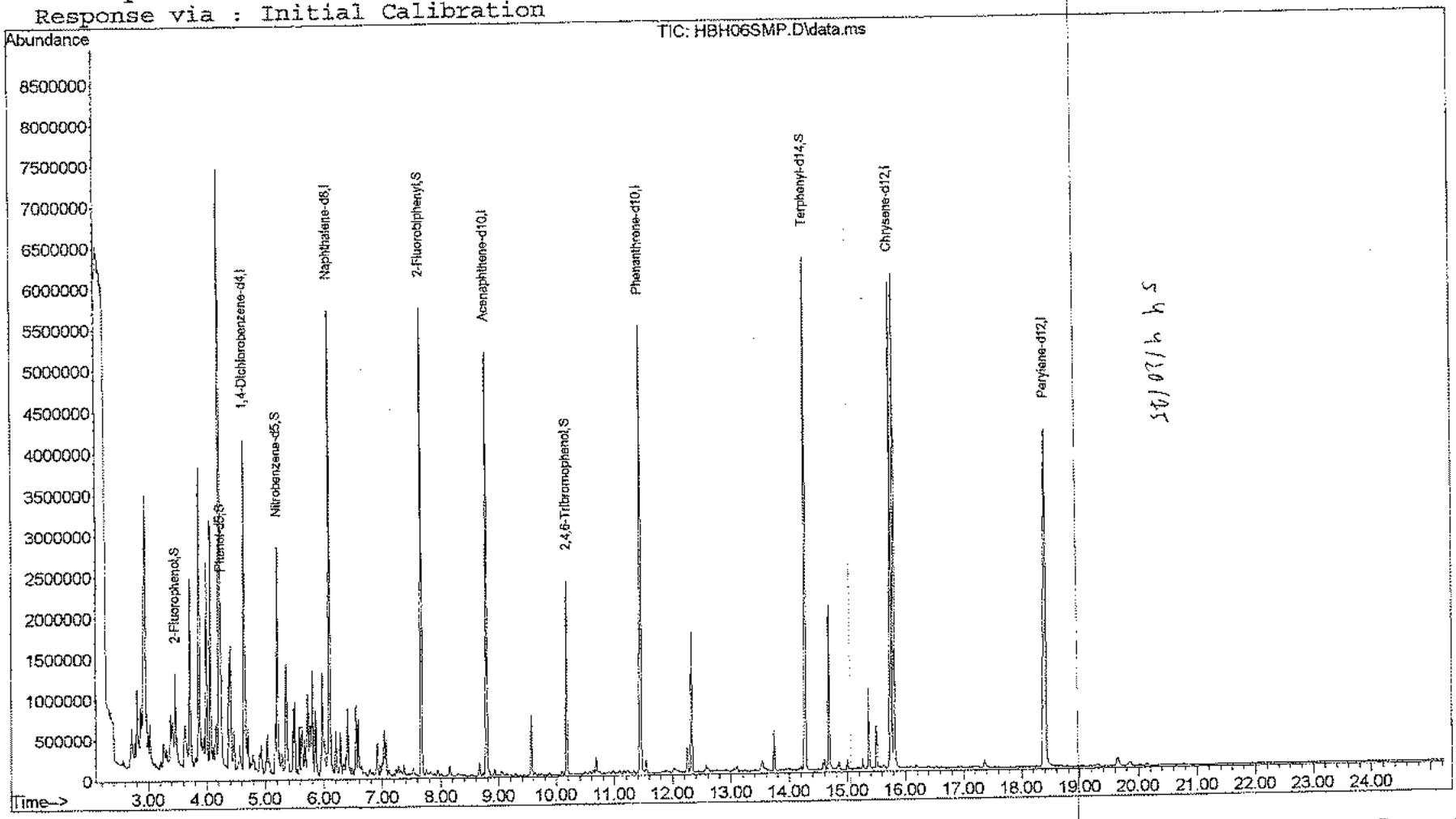
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH06SMP.D Vial: 6
Acq On : 04/20/2015 09:14 Operator: SY
Sample : 1510555001 Inst : 5975-H
Misc : Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Apr 20 12:58:20 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



HBH06SMP.D H8270D15A1_LOWLEVEL.M Mon Apr 20 12:58:36 2015 Page 3

Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH06SMP.D Vial: 6
Acq On : 04/20/2015 09:14 Operator: SY
Sample : 1510555001 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 12:58:20 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.64	152	1023523	40.00 ug/mL	
17) Naphthalene-d8	6.09	136	3694085	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	2015304	40.00 ug/mL	
52) Phenanthrene-d10	11.45	188	3497381	40.00 ug/mL	
64) Chrysene-d12	15.74	240	3559386	40.00 ug/mL	
72) Perylene-d12	18.40	264	4104920	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	502443	14.411ug/mL	
4) Phenol-d5	4.25	99	914625	24.709ug/mL	
18) Nitrobenzene-d5	5.20	82	1078672	31.769ug/mL	
36) 2-Fluorobiphenyl	7.67	172	3074370	37.707ug/mL	
53) 2,4,6-Tribromophenol	10.17	330	498215	41.921ug/mL	
66) Terphenyl-d14	14.27	244	3154050	37.421ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.67	122	75637	7.365ug/mL	92
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

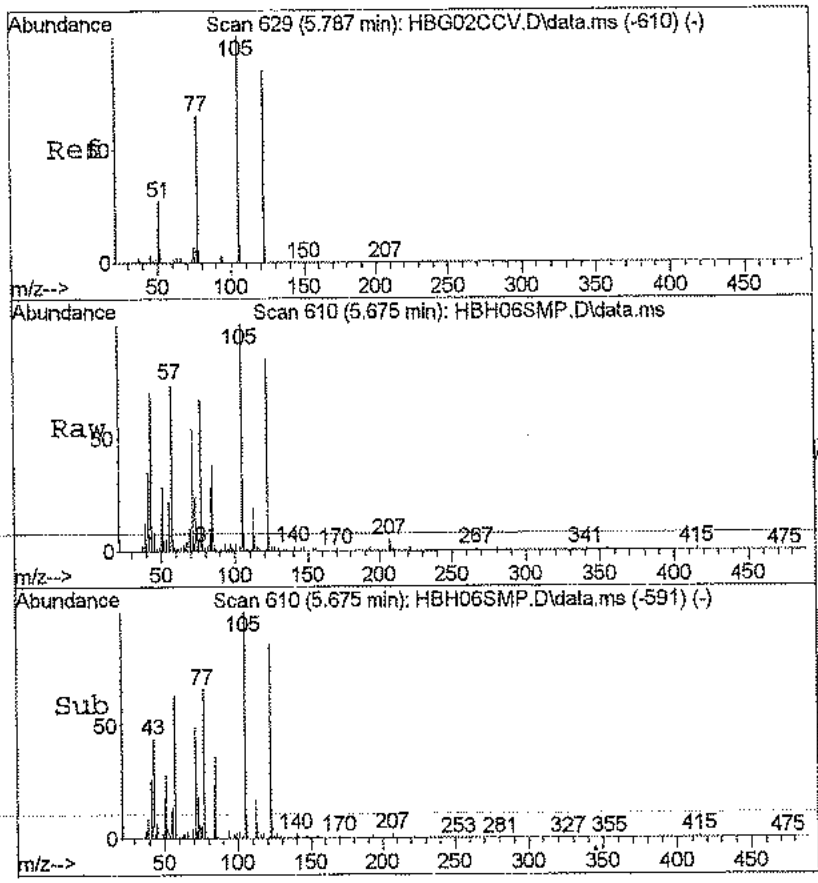
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH06SMP.D Vial: 6
Acq On : 04/20/2015 09:14 Operator: SY
Sample : 1510555001 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 12:58:20 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	9.56	149	421487	5.104ug/mL	99
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	15.00	149	39845	0.737ug/mL	99
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	15.80	149	3011909	46.869ug/mL	99
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

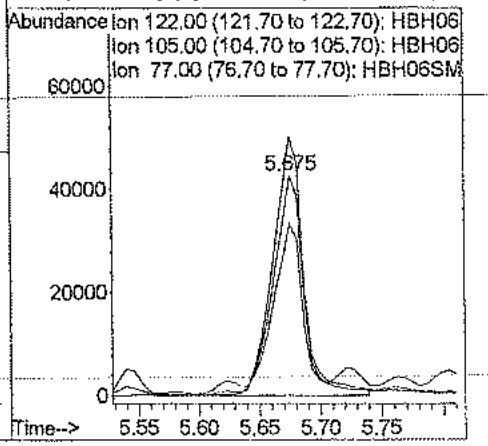
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

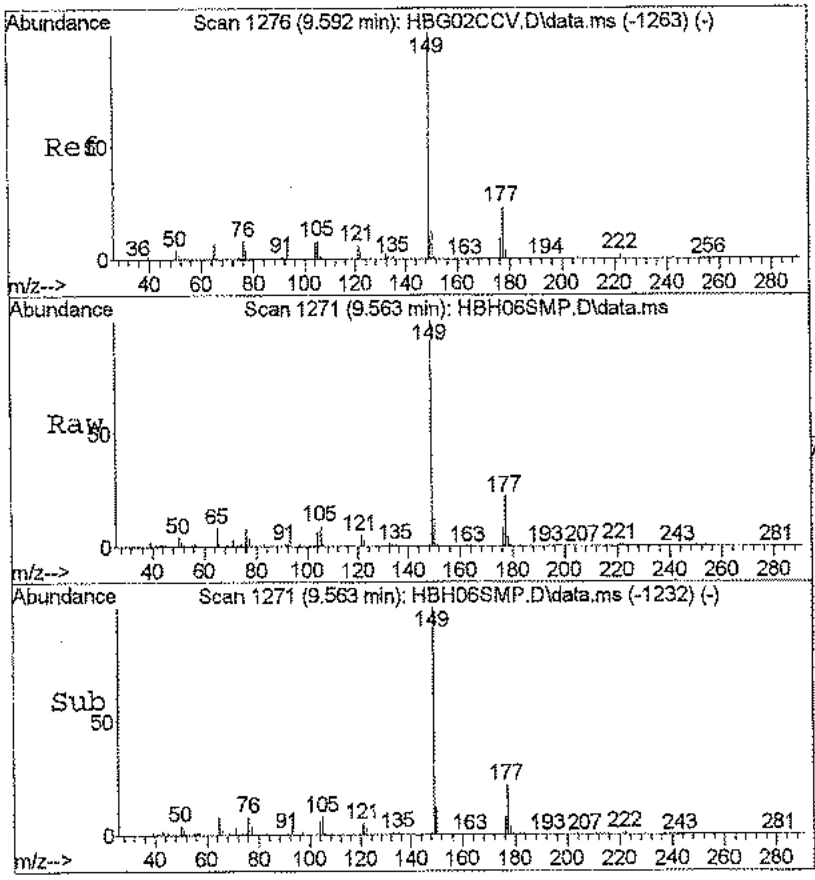


#23
Benzoic Acid
Concen: 7.36 ug/mL
RT: 5.67 min Scan# 610
Delta R.T. -0.14 min
Lab File: HBH06SMP.D
Acq: 04/20/2015 09:14

Tgt Ion:122 Resp: 75637

Ion	Ratio	Lower	Upper
122	100		
105	116.8	82.7	124.1
77	70.1	55.3	82.9
0	0.0	0.0	0.0

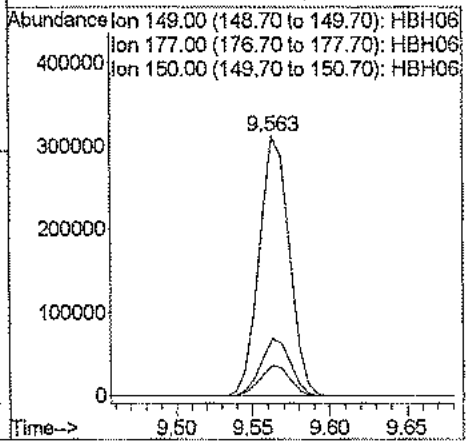


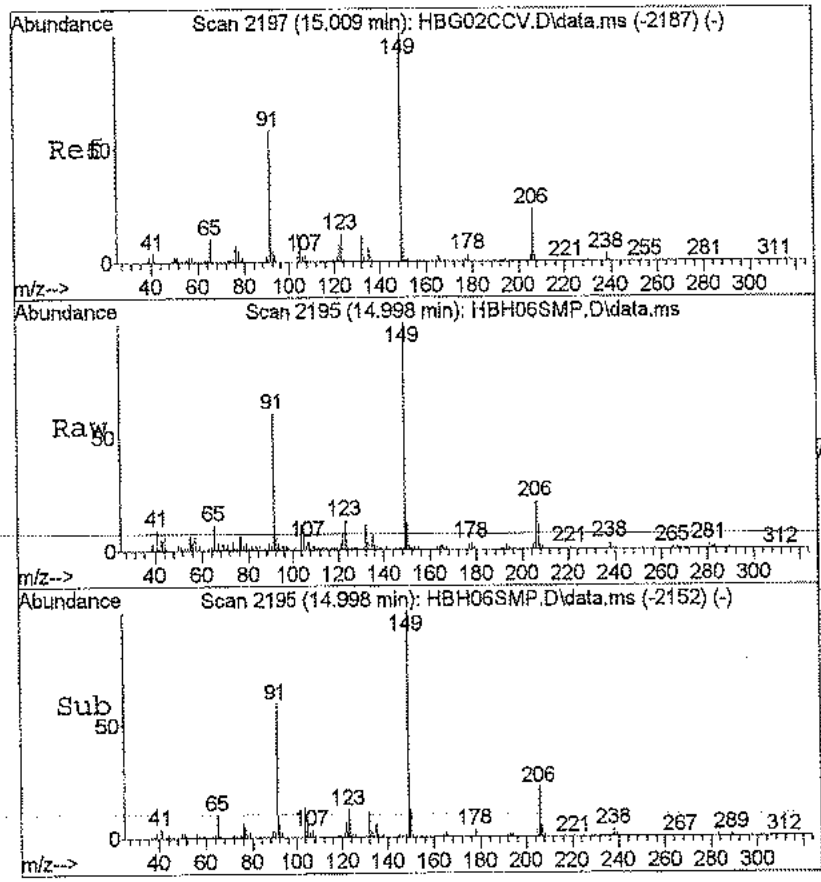


#48
Diethylphthalate
Concen: 5.10 ug/mL
RT: 9.56 min Scan# 1271
Delta R.T. -0.07 min
Lab File: HBH06SMP.D
Acq: 04/20/2015 09:14

Tgt Ion:149 Resp: 421487

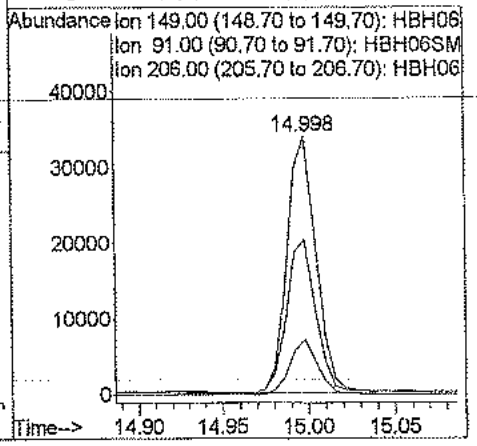
Ion	Ratio	Lower	Upper
149	100		
177	22.0	17.8	26.6
150	11.7	9.5	14.3
0	0.0	0.0	0.0

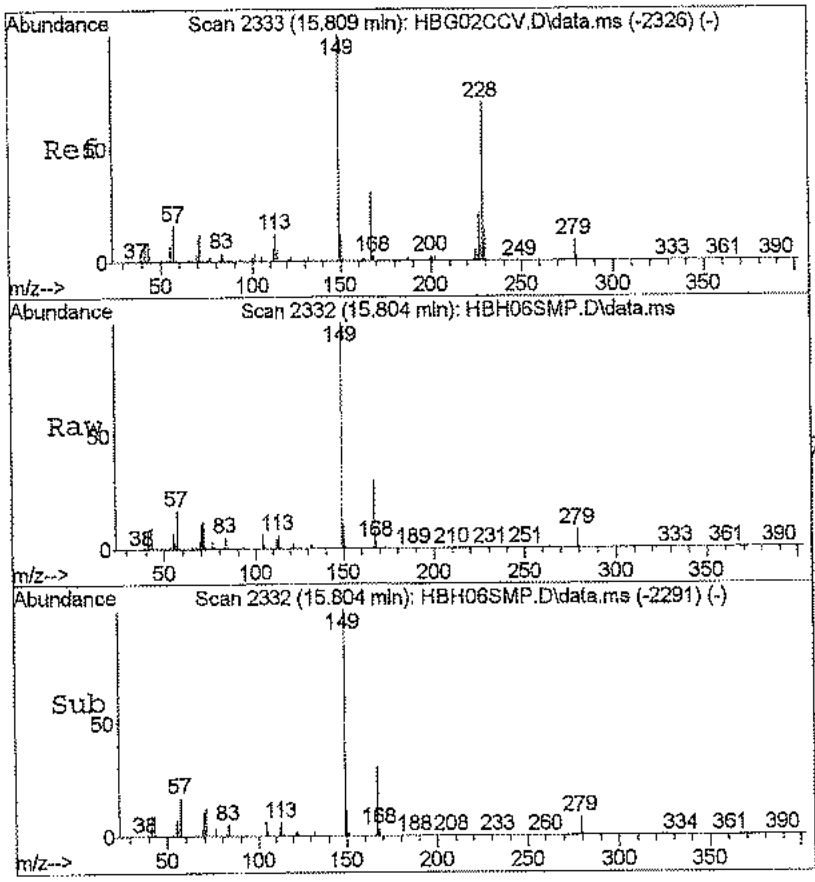




#67
Butylbenzylphthalate
Concen: 0.74 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.05 min
Lab File: HBH06SMP.D
Acq: 04/20/2015 09:14

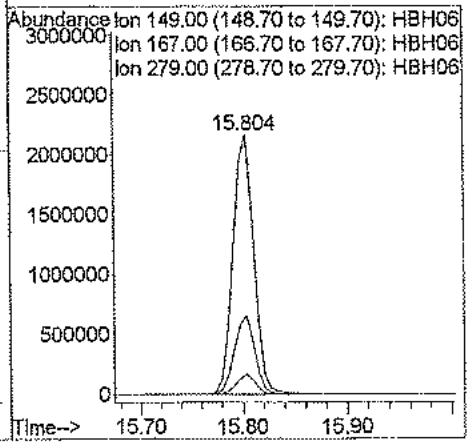
Tgt Ion:149	Resp:	39845	
Ion	Ratio	Lower	Upper
149	100		
91	60.1	49.1	73.7
206	20.6	16.6	24.8
0	0.0	0.0	0.0





#71
Bis(2-ethylhexyl)phthalate
Concen: 46.87 ug/mL
RT: 15.80 min Scan# 2332
Delta R.T. -0.05 min
Lab File: HBH06SMP.D
Acq: 04/20/2015 09:14

Tgt Ion:149	Resp:	3011909	
Ion	Ratio	Lower	Upper
149	100		
167	29.7	23.6	35.4
279	7.0	5.0	7.4
0	0.0	0.0	0.0



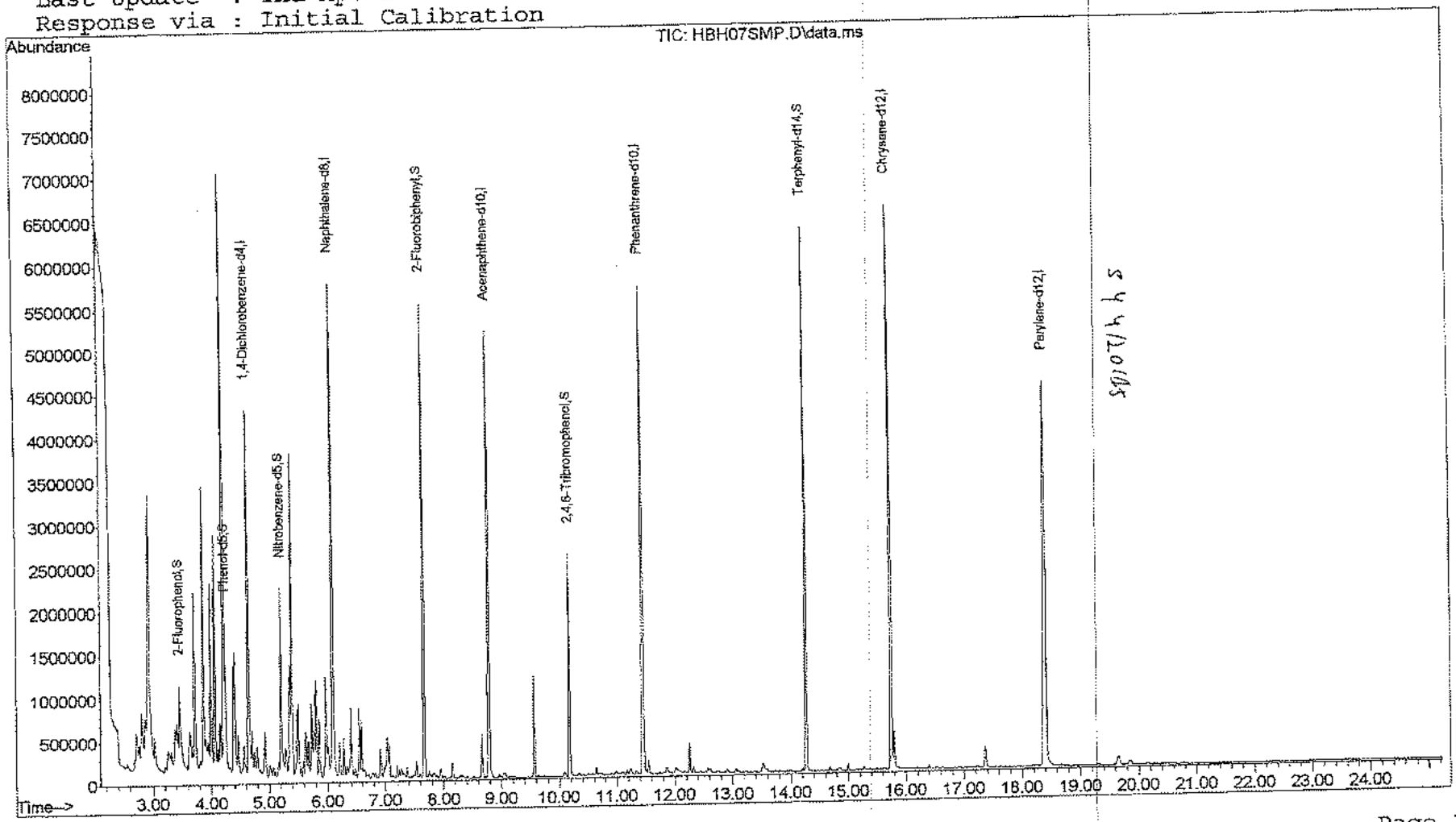
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH07SMP.D
Acq On : 04/20/2015 09:47
Sample : 1510555002
Misc :
MS Integration Params: rteint.p

Vial: 7
Operator: SY
Inst : 5975-H
Injection volume : 1uL

Quant Time: Apr 20 12:59:26 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH07SMP.D Vial: 7
Acq On : 04/20/2015 09:47 Operator: SY
Sample : 1510555002 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 12:59:26 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.64	152	1151012	40.00 ug/mL
17) Naphthalene-d8	6.09	136	3884579	40.00 ug/mL
32) Acenaphthene-d10	8.79	164	2020985	40.00 ug/mL
52) Phenanthrene-d10	11.45	188	3629599	40.00 ug/mL m SY 4/20/15
64) Chrysene-d12	15.74	240	3948437	40.00 ug/mL
72) Perylene-d12	18.40	264	4583384	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.46	112	459271	11.714ug/mL
4) Phenol-d5	4.25	99	873608	20.987ug/mL
18) Nitrobenzene-d5	5.20	82	829978	23.246ug/mL
36) 2-Fluorobiphenyl	7.67	172	2923313	35.754ug/mL
53) 2,4,6-Tribromophenol	10.17	330	467620	37.913ug/mL
66) Terphenyl-d14	14.27	244	3164973	33.851ug/mL
Target Compounds				Qvalue
2) Pyridine	0.00	79		Not Detected
5) Phenol	0.00	94		Not Detected
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected
7) 2-Chlorophenol	0.00	128		Not Detected
8) 1,3-Dichlorobenzene	0.00	146		Not Detected
9) 1,4-dichlorobenzene	0.00	146		Not Detected
10) Benzyl alcohol	0.00	108		Not Detected
11) 1,2-dichlorobenzene	0.00	146		Not Detected
12) 2-Methylphenol	0.00	107		Not Detected
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected
14) 4-methylphenol	0.00	107		Not Detected
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected
16) Hexachloroethane	0.00	117		Not Detected
19) Nitrobenzene	0.00	77		Not Detected
20) Isophorone	0.00	82		Not Detected
21) 2-Nitrophenol	0.00	139		Not Detected
22) 2,4-Dimethylphenol	0.00	122		Not Detected
23) Benzoic Acid	5.67	122	56172	6.271ug/mL 88
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected
25) 2,4-Dichlorophenol	0.00	162		Not Detected
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected
27) Naphthalene	0.00	128		Not Detected
28) 4-Chloroaniline	0.00	127		Not Detected
29) Hexachlorobutadiene	0.00	225		Not Detected
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected
31) 2-Methylnaphthalene	0.00	142		Not Detected
33) Hexachlorocyclopentadiene	0.00	237		Not Detected

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

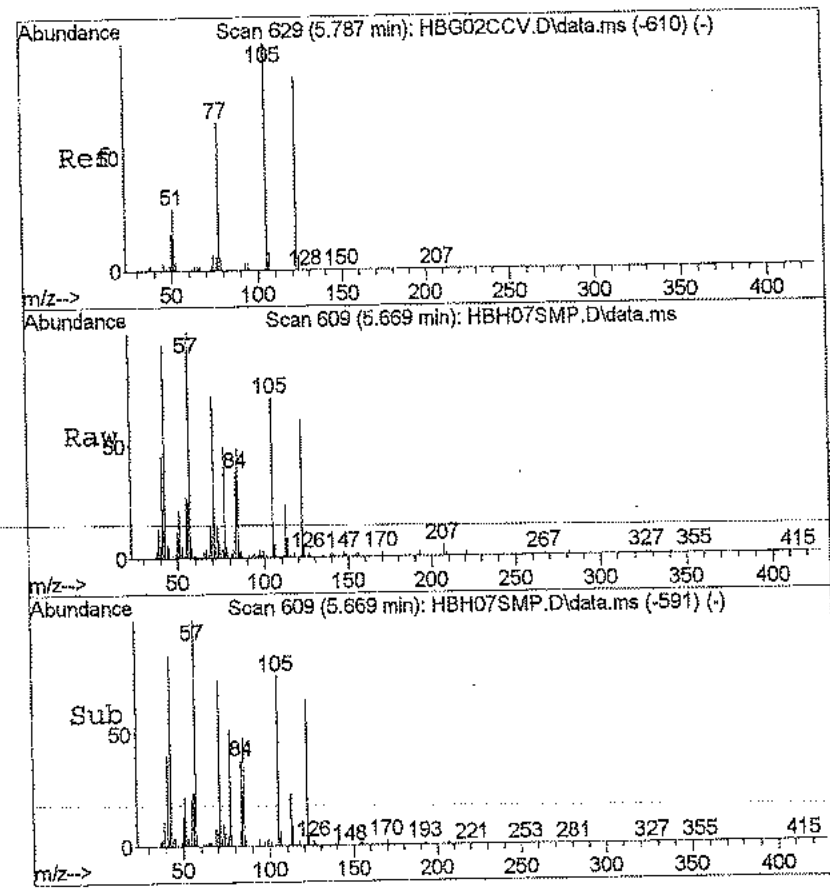
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH07SMP.D Vial: 7
Acq On : 04/20/2015 09:47 Operator: SY
Sample : 1510555002 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 12:59:26 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	9.56	149	666390	8.046ug/mL	100
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	0.00	149		Not Detected	
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	15.80	149	181609	2.548ug/mL	99
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

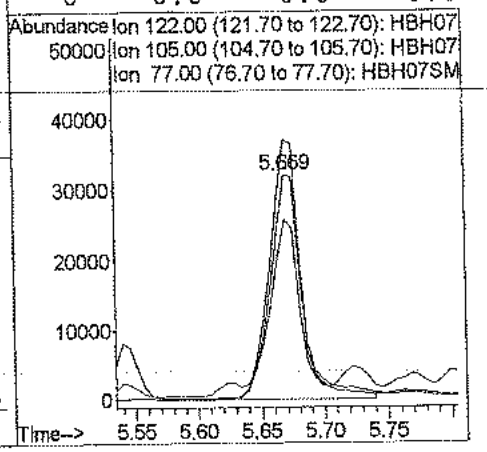
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

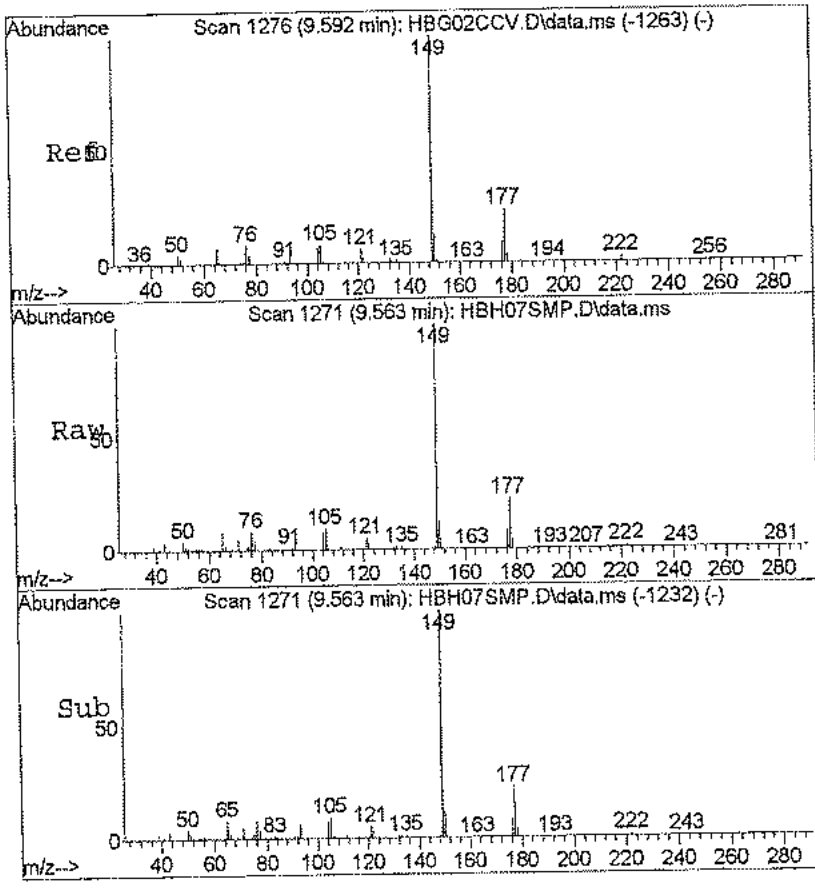


#23
Benzoic Acid
Concen: 6.27 ug/mL
RT: 5.67 min Scan# 609
Delta R.T. -0.15 min
Lab File: HBH07SMP.D
Acq: 04/20/2015 09:47

Tgt Ion:122 Resp: 56172

Ion	Ratio	Lower	Upper
122	100		
105	116.3	82.7	124.1
77	78.6	55.3	82.9
0	0.0	0.0	0.0

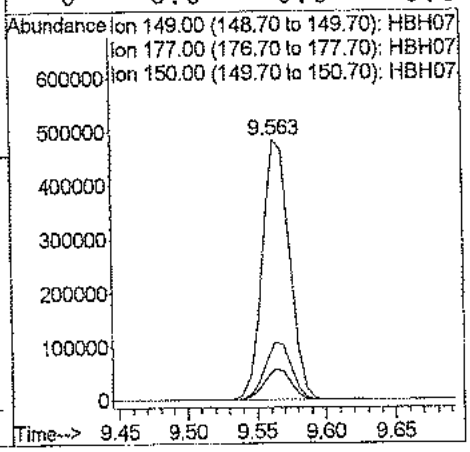


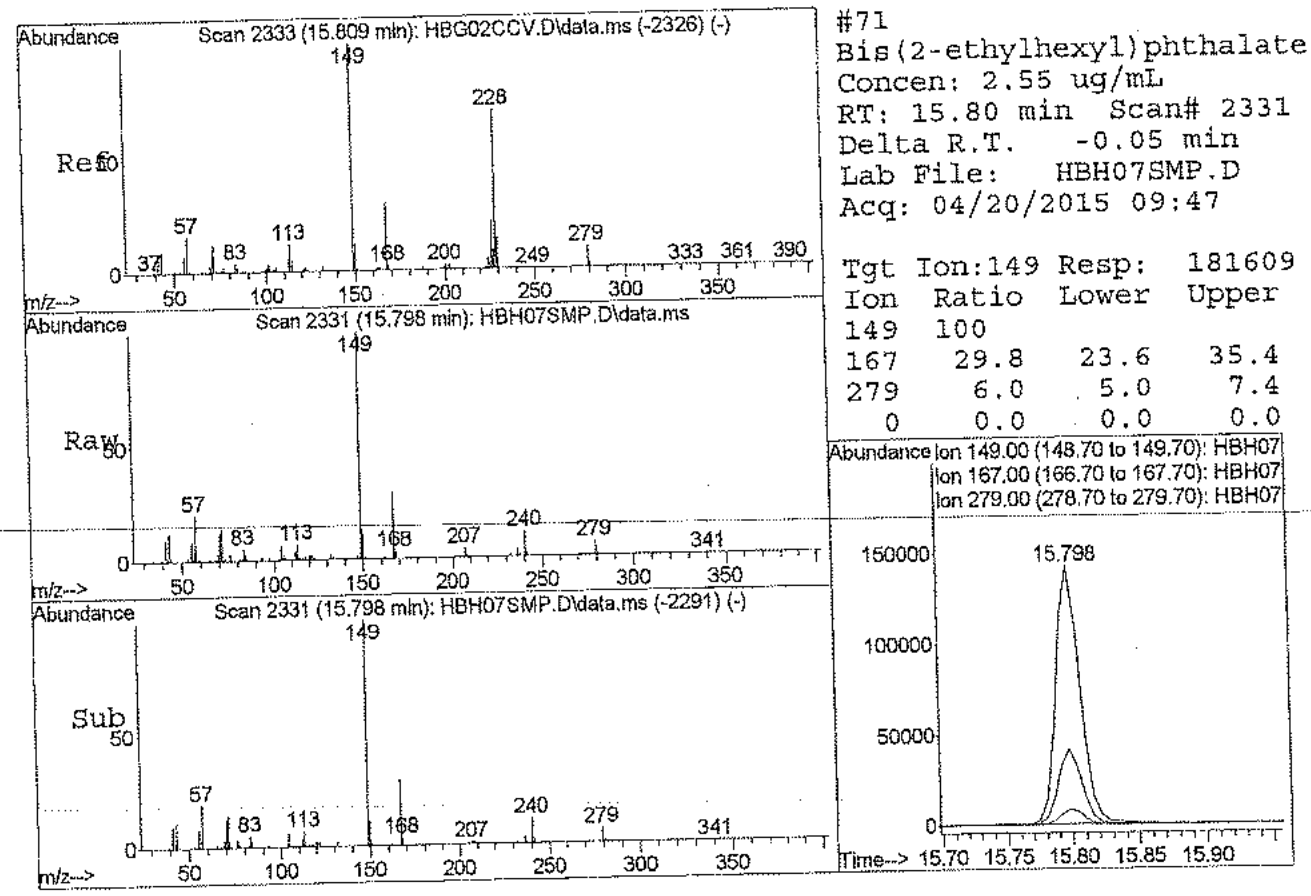


#48
Diethylphthalate
Concen: 8.05 ug/mL
RT: 9.56 min Scan# 1271
Delta R.T. -0.07 min
Lab File: HBH07SMP.D
Acq: 04/20/2015 09:47

Tgt Ion:149 Resp: 666390

Ion	Ratio	Lower	Upper
149	100		
177	22.0	17.8	26.6
150	11.9	9.5	14.3
0	0.0	0.0	0.0



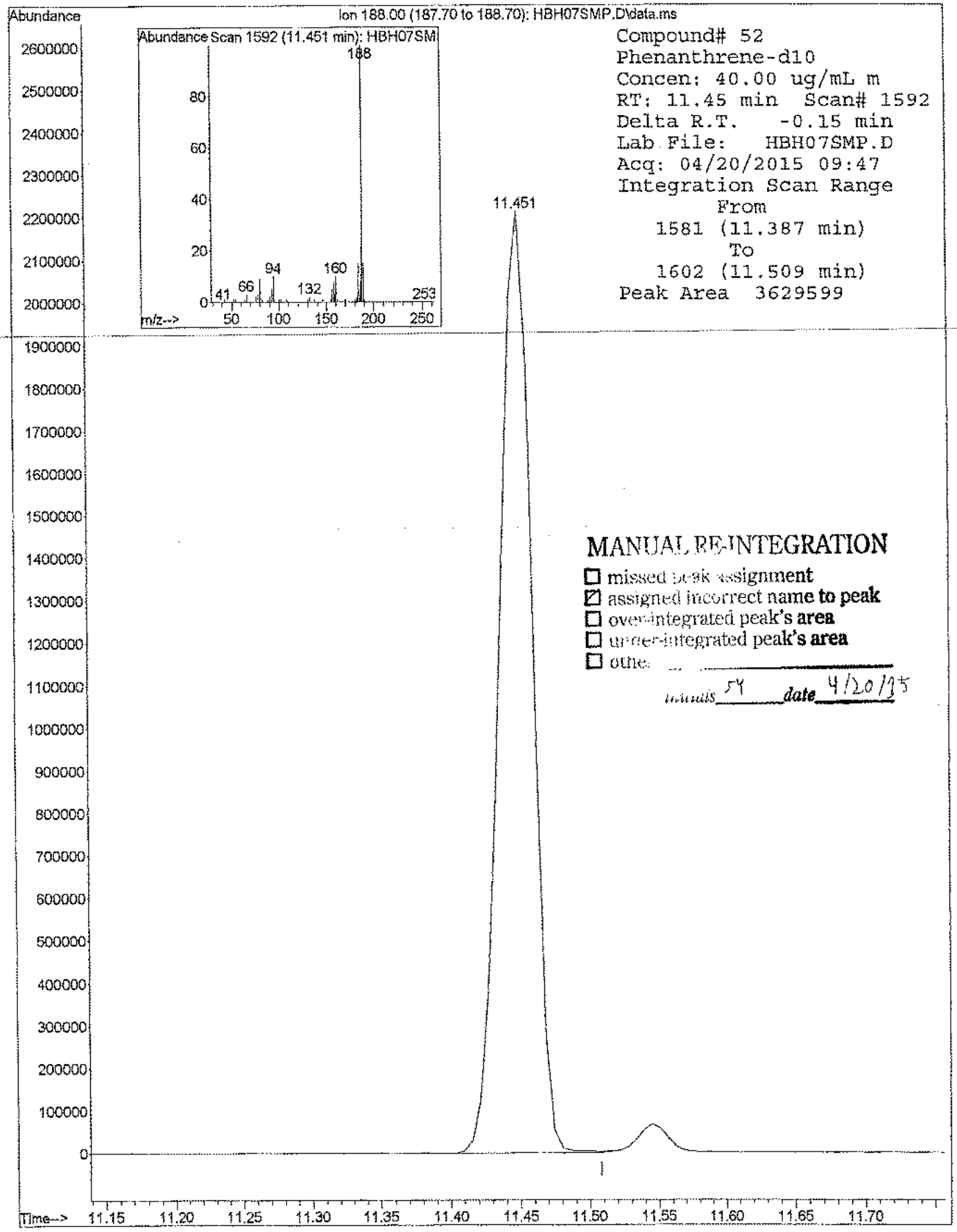


#71
Bis(2-ethylhexyl)phthalate
Concen: 2.55 ug/mL
RT: 15.80 min Scan# 2331
Delta R.T. -0.05 min
Lab File: HBH07SMP.D
Acq: 04/20/2015 09:47

Tgt Ion:149 Resp: 181609

Ion	Ratio	Lower	Upper
149	100		
167	29.8	23.6	35.4
279	6.0	5.0	7.4
0	0.0	0.0	0.0

M A N U A L I N T E G R A T I O N FOR Phenanthrene-d10



H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 1510555002

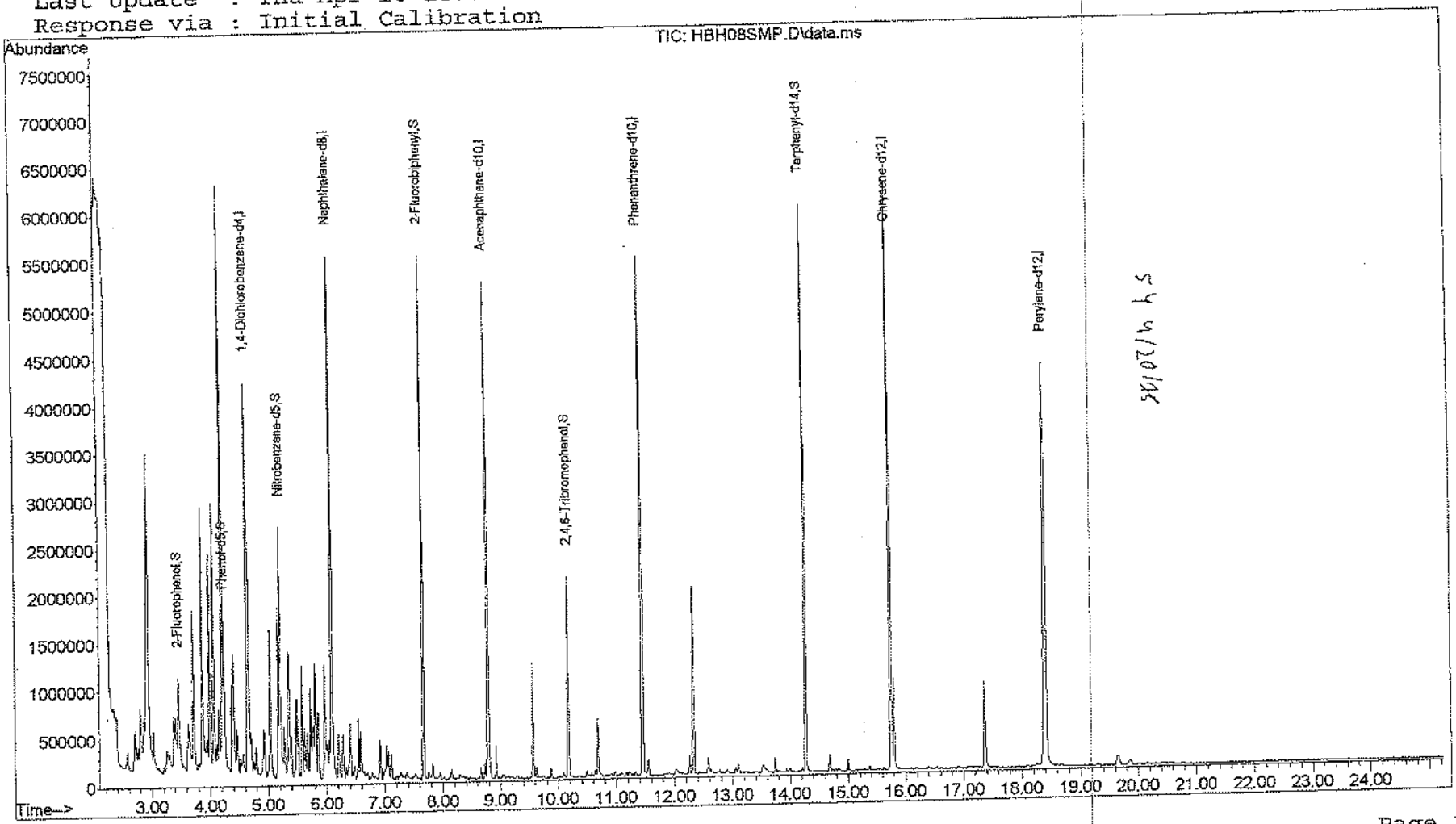
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH08SMP.D
Acq On : 04/20/2015 10:20
Sample : 1510555003
Misc :
MS Integration Params: rteint.p

Vial: 8
Operator: SY
Inst : 5975-H
Injection volume : 1uL

Quant Time: Apr 20 13:00:54 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH08SMP.D
Acq On : 04/20/2015 10:20
Sample : 1510555003
Misc :
MS Integration Params: rteint.p
Quant Time: Apr 20 13:00:54 2015

Vial: 8
Operator: SY
Inst : 5975-H
Injection volume : 1

Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Qvalue
1) 1,4-Dichlorobenzene-d4	4.64	152	1045977	40.00 ug/mL	
17) Naphthalene-d8	6.09	136	3707365	40.00 ug/mL	
32) Acenaphthene-d10	8.79	164	1991324	40.00 ug/mL	
52) Phenanthrene-d10	11.45	188	3500276	40.00 ug/mL	
64) Chrysene-d12	15.75	240	3818225	40.00 ug/mL	
72) Perylene-d12	18.40	264	4295713	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.46	112	455395	12.781ug/mL	
4) Phenol-d5	4.25	99	843542	22.299ug/mL	
18) Nitrobenzene-d5	5.20	82	1038188	30.467ug/mL	
36) 2-Fluorobiphenyl	7.67	172	2859886	35.499ug/mL	
53) 2,4,6-Tribromophenol	10.17	330	436993	36.739ug/mL	
66) Terphenyl-d14	14.27	244	2964650	32.790ug/mL	
Target Compounds					Qvalue
2) Pyridine	0.00	79		Not Detected	
5) Phenol	0.00	94		Not Detected	
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected	
7) 2-Chlorophenol	0.00	128		Not Detected	
8) 1,3-Dichlorobenzene	0.00	146		Not Detected	
9) 1,4-dichlorobenzene	0.00	146		Not Detected	
10) Benzyl alcohol	0.00	108		Not Detected	
11) 1,2-dichlorobenzene	0.00	146		Not Detected	
12) 2-Methylphenol	0.00	107		Not Detected	
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected	
14) 4-methylphenol	0.00	107		Not Detected	
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected	
16) Hexachloroethane	0.00	117		Not Detected	
19) Nitrobenzene	0.00	77		Not Detected	
20) Isophorone	0.00	82		Not Detected	
21) 2-Nitrophenol	0.00	139		Not Detected	
22) 2,4-Dimethylphenol	0.00	122		Not Detected	
23) Benzoic Acid	5.67	122	51255	6.155ug/mL	87
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected	
25) 2,4-Dichlorophenol	0.00	162		Not Detected	
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
27) Naphthalene	0.00	128		Not Detected	
28) 4-Chloroaniline	0.00	127		Not Detected	
29) Hexachlorobutadiene	0.00	225		Not Detected	
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected	
31) 2-Methylnaphthalene	0.00	142		Not Detected	
33) Hexachlorocyclopentadiene	0.00	237		Not Detected	

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

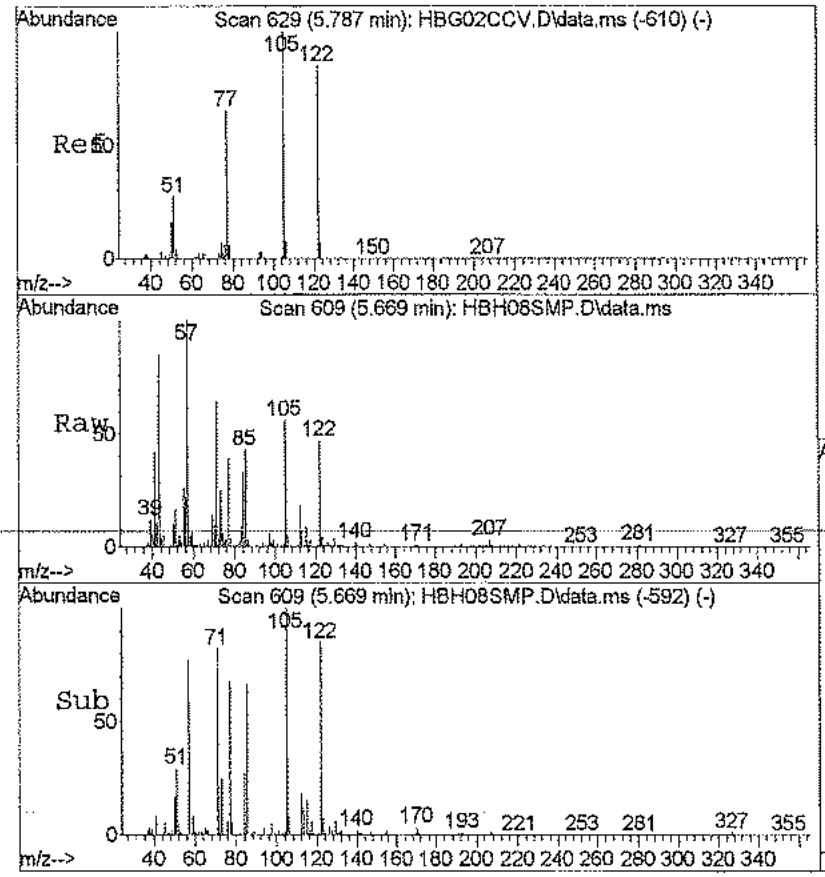
Quantitation Report

Data File : R:\H\2015\APR15\20APR15\HBH08SMP.D Vial: 8
Acq On : 04/20/2015 10:20 Operator: SY
Sample : 1510555003 Inst : 5975-H
Misc : Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Apr 20 13:00:54 2015 Results File: H8270D1...EVEL.RES

Method : R:\H\methods\H8270D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Thu Apr 16 14:17:57 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	0.00	196		Not Detected	
35) 2,4,5-Trichlorophenol	0.00	196		Not Detected	
37) 2-Chloronaphthalene	0.00	162		Not Detected	
38) 2-Nitroaniline	0.00	65		Not Detected	
39) Dimethylphthalate	0.00	163		Not Detected	
40) 2,6-Dinitrotoluene	0.00	165		Not Detected	
41) Acenaphthylene	0.00	152		Not Detected	
42) 3-Nitroaniline	0.00	65		Not Detected	
43) Acenaphthene	0.00	153		Not Detected	
44) 2,4-Dinitrophenol	0.00	184		Not Detected	
45) 4-Nitrophenol	0.00	109		Not Detected	
46) Dibenzofuran	0.00	168		Not Detected	
47) 2,4-Dinitrotoluene	0.00	165		Not Detected	
48) Diethylphthalate	9.56	149	709168	8.690ug/mL	100
49) 4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50) Fluorene	0.00	166		Not Detected	
51) 4-Nitroaniline	0.00	65		Not Detected	
54) 4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55) N-Nitrosodiphenylamine	0.00	169		Not Detected	
56) 4-bromophenyl phenyl ether	0.00	248		Not Detected	
57) Hexachlorobenzene	0.00	284		Not Detected	
58) Pentachlorophenol	0.00	266		Not Detected	
59) Phenanthrene	0.00	178		Not Detected	
60) Anthracene	0.00	178		Not Detected	
61) Carbazole	0.00	167		Not Detected	
62) Di-n-butylphthalate	0.00	149		Not Detected	
63) Fluoranthene	0.00	202		Not Detected	
65) Pyrene	0.00	202		Not Detected	
67) Butylbenzylphthalate	15.00	149	34588	0.597ug/mL	97
68) 3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69) Benzo(a)anthracene	0.00	228		Not Detected	
70) Chrysene	0.00	228		Not Detected	
71) Bis(2-ethylhexyl)phthalate	15.80	149	405962	5.889ug/mL	100
73) Di-n-octylphthalate	0.00	149		Not Detected	
74) Benzo(b)fluoranthene	0.00	252		Not Detected	
75) Benzo(k)fluoranthene	0.00	252		Not Detected	
76) Benzo(a)pyrene	0.00	252		Not Detected	
77) Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78) Dibenz(a,h)anthracene	0.00	278		Not Detected	
79) Benzo(g,h,i)perylene	0.00	276		Not Detected	

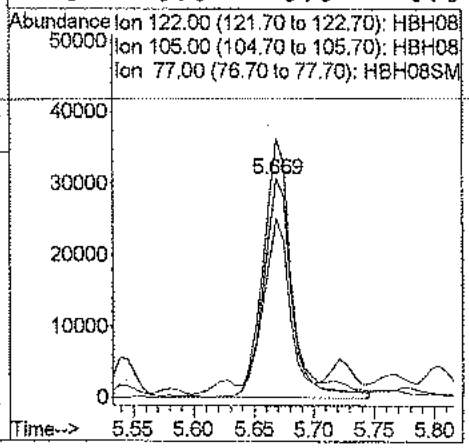
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

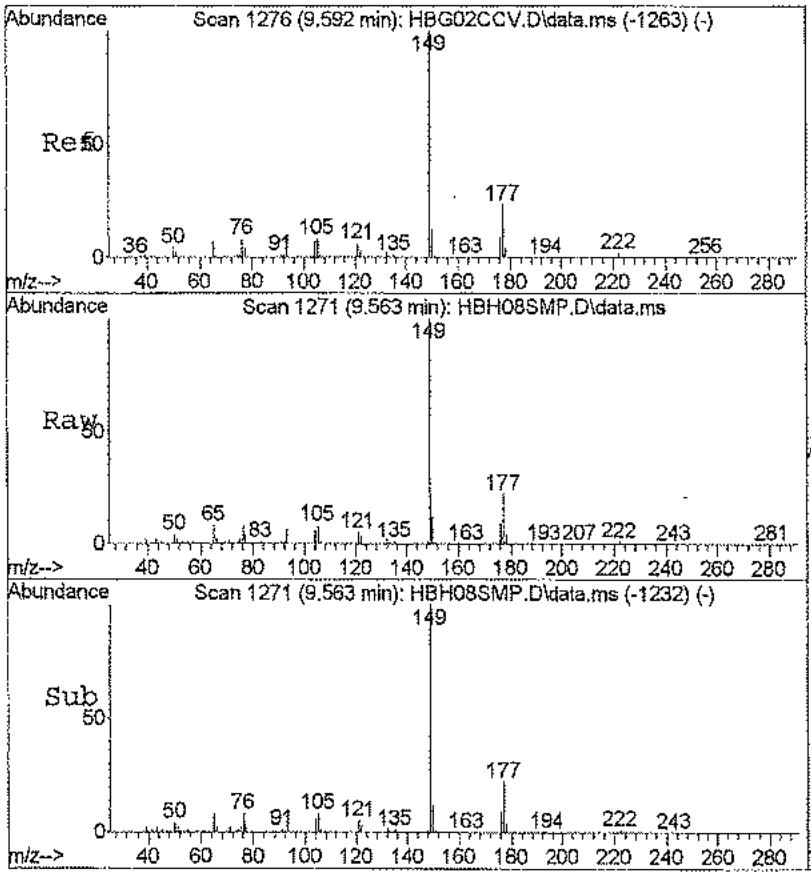


#23
Benzoic Acid
Concen: 6.16 ug/mL
RT: 5.67 min Scan# 609
Delta R.T. -0.15 min
Lab File: HBH08SMP.D
Acq: 04/20/2015 10:20

Tgt Ion:122 Resp: 51255

Ion	Ratio	Lower	Upper
122	100		
105	123.3	82.7	124.1
77	66.9	55.3	82.9
0	0.0	0.0	0.0

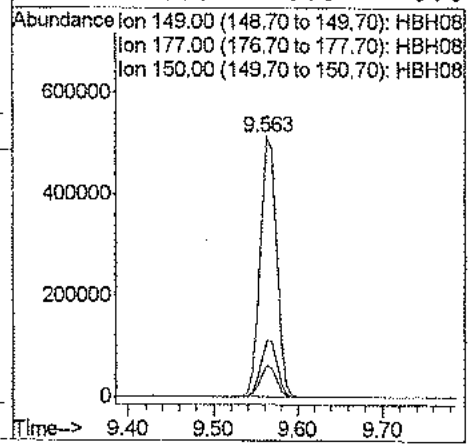


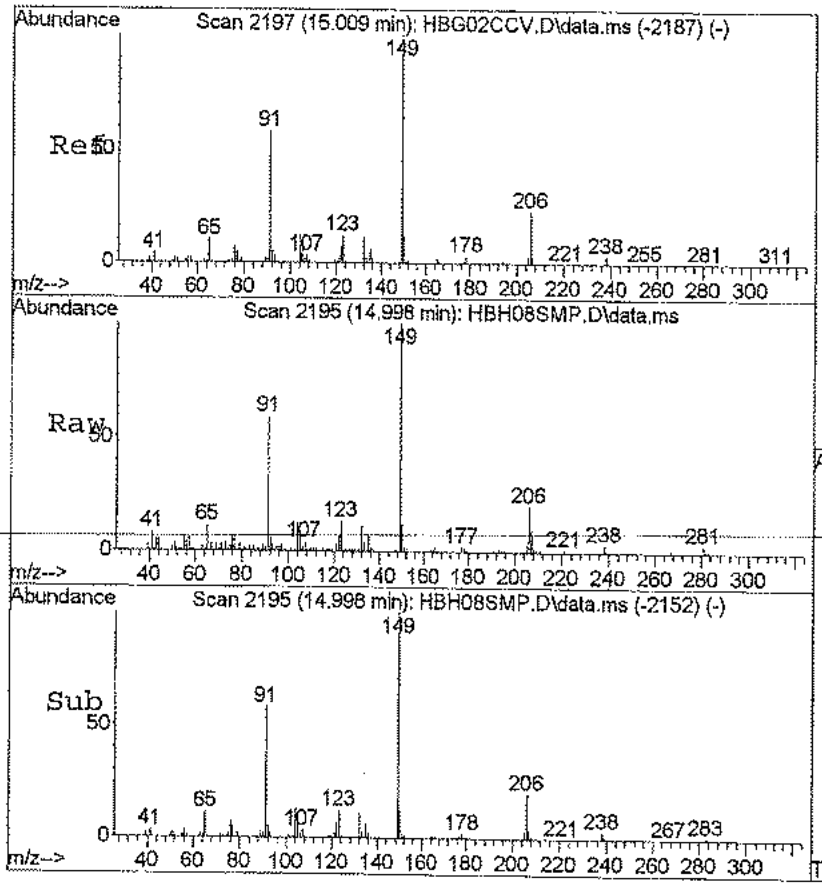


#48
Diethylphthalate
Concen: 8.69 ug/mL
RT: 9.56 min Scan# 1271
Delta R.T. -0.07 min
Lab File: HBH08SMP.D
Acq: 04/20/2015 10:20

Tgt Ion:149 Resp: 709168

Ion	Ratio	Lower	Upper
149	100		
177	22.1	17.8	26.6
150	11.8	9.5	14.3
0	0.0	0.0	0.0

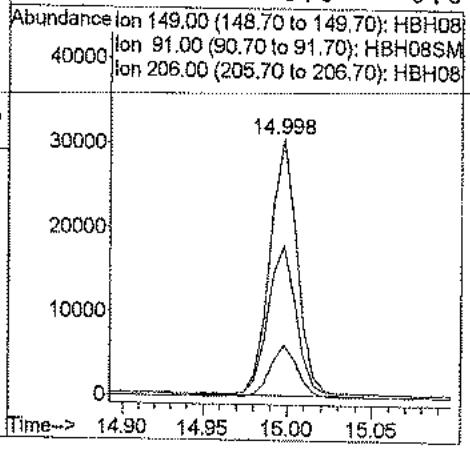


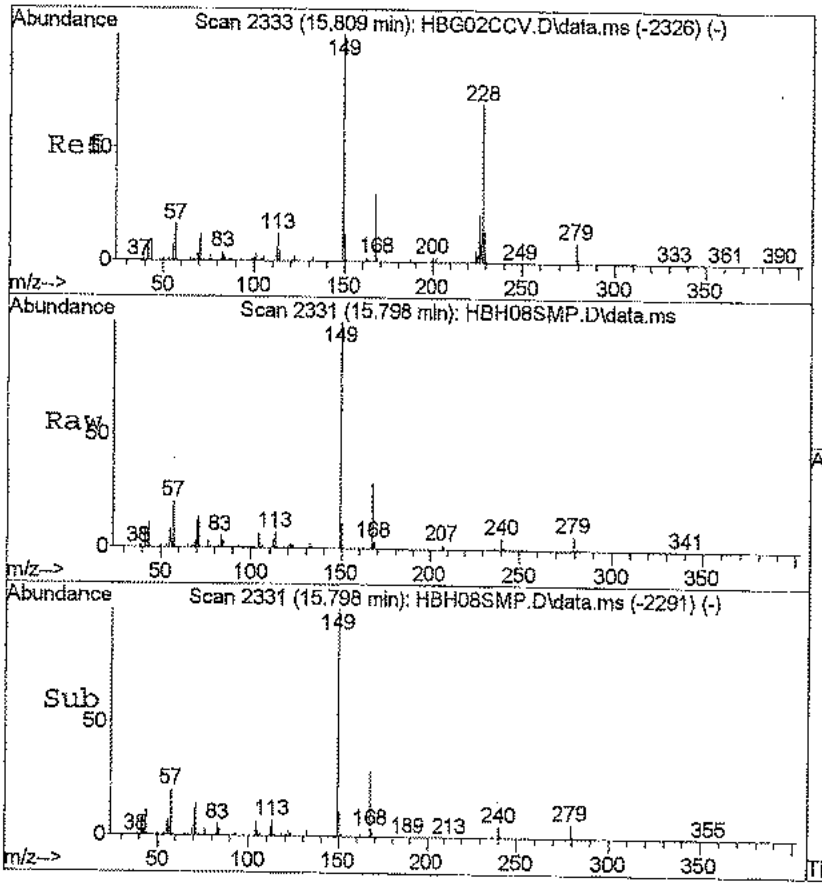


#67
Butylbenzylphthalate
Concen: 0.60 ug/mL
RT: 15.00 min Scan# 2195
Delta R.T. -0.05 min
Lab File: HBH08SMP.D
Acq: 04/20/2015 10:20

Tgt Ion:149 Resp: 34588

Ion	Ratio	Lower	Upper
149	100		
91	59.2	49.1	73.7
206	19.8	16.6	24.8
0	0.0	0.0	0.0

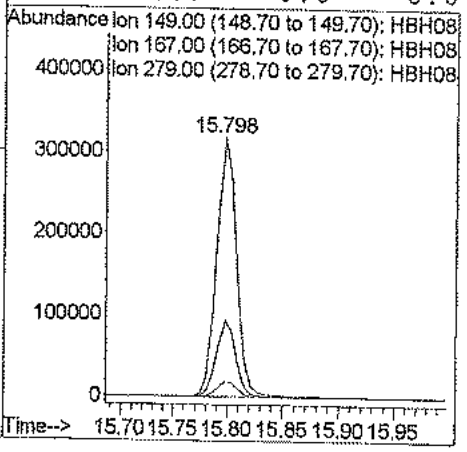




#71
Bis(2-ethylhexyl)phthalate
Concen: 5.89 ug/mL
RT: 15.80 min Scan# 2331
Delta R.T. -0.05 min
Lab File: HBH08SMP.D
Acq: 04/20/2015 10:20

Tgt Ion:149 Resp: 405962

Ion	Ratio	Lower	Upper
149	100		
167	29.4	23.6	35.4
279	6.0	5.0	7.4
0	0.0	0.0	0.0



Response Factor Report 5975-H

H8270D15A1_LOWLEVEL.M
Form 6 Equivalent

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response Via : Initial Calibration

Calibration Files
5 =HAA07S5.D 20 =HAA06S20.D 35 =HAA05S35.D 50 =HAA04S50.D 65 =HAA03S65.D 80 =HAA02S80.D
1 =HAA08S1.D

		Compound	5	20	35	50	65	80	1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD								
2)		Pyridine	1.187	1.371	1.236	1.307	1.282	1.439	1.235	1.294	6.74
3)	S	2-Fluorophenol	1.210	1.428	1.320	1.366	1.343	1.508	1.166	1.334	8.86
4)	S	Phenol-d5	1.351	1.536	1.392	1.448	1.407	1.546	1.329	1.430	5.95
5)	MC	Phenol	1.446	1.644	1.478	1.542	1.498	1.647	1.408	1.523	6.14
6)		Bis(2-chloroet...	1.208	1.460	1.277	1.530	1.441	1.455	1.349	1.389	8.28
7)	M	2-Chlorophenol	1.409	1.627	1.499	1.536	1.511	1.656	1.355	1.513	7.14
8)		1,3-Dichlorobe...	1.649	1.884	1.740	1.771	1.731	1.879	1.643	1.757	5.54
9)	MC	1,4-dichlorobe...	1.669	1.897	1.688	1.716	1.683	1.843	1.691	1.741	5.19
10)		Benzyl alcohol	0.798	0.928	0.846	0.877	0.855	0.936	0.762	0.857	7.43
11)		1,2-dichlorobe...	1.578	1.762	1.597	1.636	1.578	1.712	1.607	1.639	4.37
12)		2-Methylphenol	0.974	1.108	0.999	1.015	0.983	1.063	0.966	1.015	5.14
13)		Bis(2-chlorois...	1.255	1.365	1.196	1.175	1.125	1.223	1.300	1.234	6.52
14)		4-methylphenol	1.378	1.602	1.446	1.492	1.440	1.591	1.375	1.475	6.25
15)	MP	N-Nitrosodi-n-...	0.652	0.766	0.670	0.681	0.656	0.727	0.676	0.690	6.05
16)		Hexachloroethane	0.568	0.663	0.601	0.619	0.604	0.660	0.559	0.611	6.64
17)	I	Naphthalene-d8	ISTD								
18)	S	Nitrobenzene-d5	0.363	0.394	0.364	0.366	0.349	0.369	0.331	0.362	5.31
19)		Nitrobenzene	0.355	0.376	0.343	0.341	0.323	0.339	0.335	0.344	4.91
20)		Isophorone	0.630	0.671	0.610	0.607	0.589	0.629	0.641	0.625	4.26
21)	C	2-Nitrophenol	0.232	0.274	0.219	0.218	0.206	0.216	0.162	0.218	15.22
22)		2,4-Dimethylph...	0.334	0.339	0.303	0.297	0.283	0.293	0.354	0.315	8.68
23)		Benzoic Acid	0.088	0.185	0.191	0.204	0.201	0.215		0.181	25.67
24)		Bis(2-chloroet...	0.397	0.410	0.372	0.367	0.348	0.362	0.399	0.379	5.97
25)	C	2,4-Dichloroph...	0.341	0.380	0.355	0.358	0.343	0.356	0.309	0.349	6.20
26)	M	1,2,4-Trichlor...	0.413	0.433	0.401	0.399	0.379	0.397	0.405	0.404	4.05
27)		Naphthalene	1.170	1.240	1.105	1.068	1.001	1.027	1.164	1.111	7.70
28)		4-Chloroaniline	0.419	0.414	0.377	0.358	0.359	0.378	0.412	0.388	6.75
29)	C	Hexachlorobuta...	0.238	0.256	0.235	0.234	0.224	0.232	0.231	0.235	4.32

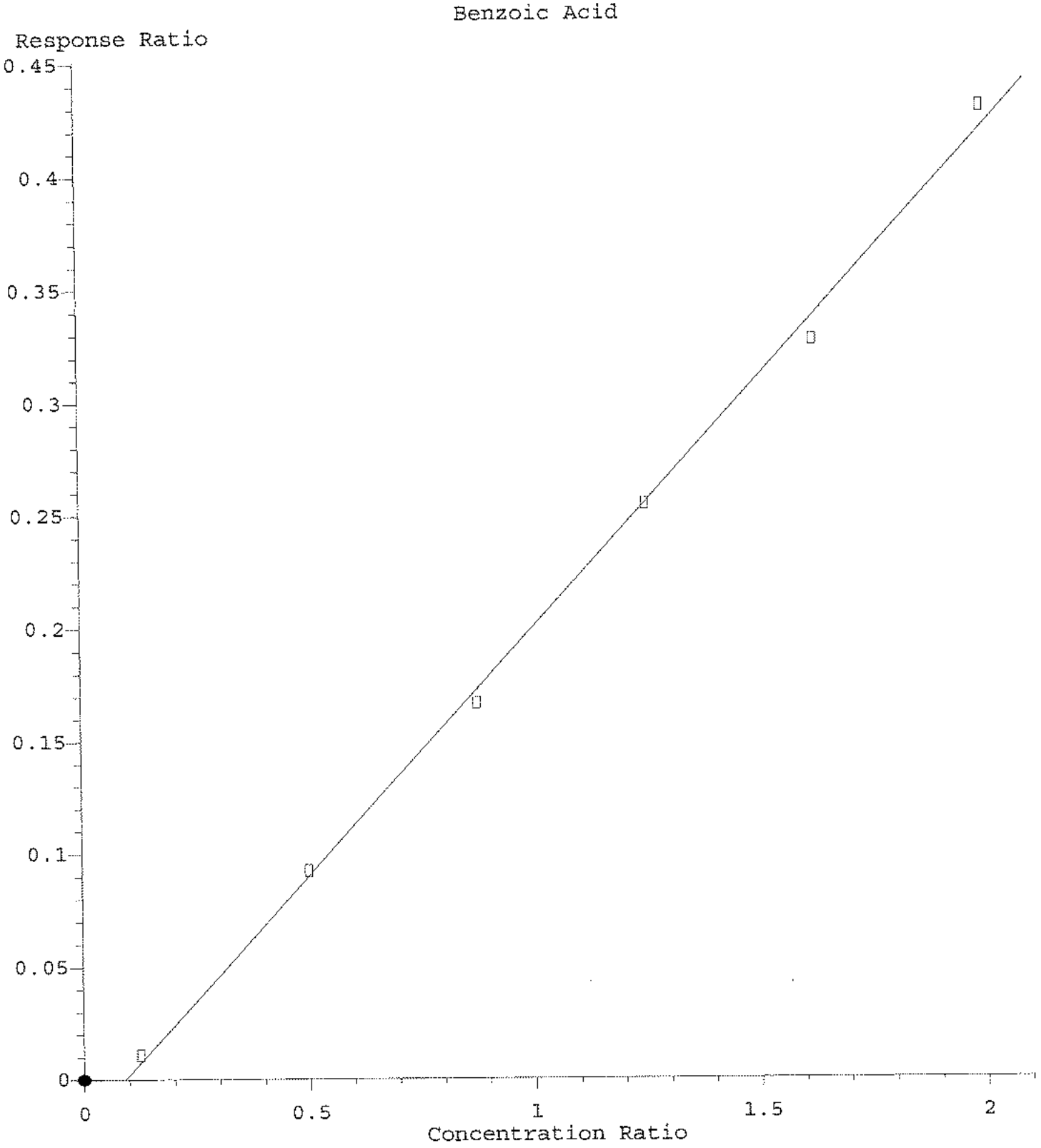
Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

30)	MC	4-Chloro-3-Met...	0.300	0.338	0.310	0.314	0.303	0.319	0.280	0.309	5.85
31)		2-Methylnaphth...	0.847	0.895	0.800	0.772	0.723	0.740	0.833	0.801	7.67
32)	I	Acenaphthene-d10	----------ISTD----------								
33)	P	Hexachlorocycl...	0.423	0.531	0.529	0.536	0.511	0.549	0.296	0.482	19.12
34)	C	2,4,6-Trichlor...	0.496	0.561	0.540	0.538	0.520	0.546	0.440	0.520	7.88
35)		2,4,5-Trichlor...	0.543	0.612	0.579	0.575	0.539	0.577	0.480	0.558	7.52
36)	S	2-Fluorobiphenyl	1.742	1.786	1.648	1.573	1.449	1.510	1.788	1.643	8.30
37)		2-Chloronaphth...	1.529	1.603	1.492	1.448	1.356	1.417	1.553	1.485	5.71
38)		2-Nitroaniline	0.335	0.377	0.362	0.357	0.337	0.366	0.258	0.342	11.70
39)		Dimethylphthalate	1.711	1.802	1.719	1.666	1.598	1.692	1.747	1.705	3.75
40)		2,6-Dinitrotol...	0.363	0.418	0.400	0.391	0.380	0.404	0.275	0.376	12.71
41)		Acenaphthylene	2.503	2.591	2.379	2.281	2.131	2.215	2.494	2.371	7.12
42)		3-Nitroaniline	0.360	0.294	0.283	0.285	0.297	0.324	0.298	0.306	8.94
43)	MC	Acenaphthene	1.514	1.536	1.418	1.357	1.257	1.306	1.583	1.424	8.72
44)	P	2,4-Dinitrophenol	0.103	0.198	0.217	0.234	0.232	0.253	0.034	0.182	44.94
45)	MP	4-Nitrophenol	0.154	0.187	0.185	0.185	0.180	0.194	0.101	0.169	19.34
46)		Dibenzofuran	2.166	2.237	2.056	1.973	1.826	1.872	2.264	2.056	8.46
47)	M	2,4-Dinitrotol...	0.470	0.543	0.521	0.509	0.486	0.504	0.346	0.483	13.42
48)		Diethylphthalate	1.687	1.771	1.658	1.612	1.516	1.591	1.682	1.645	4.96
49)		4-chlorophenyl...	0.857	0.873	0.793	0.737	0.678	0.688	0.903	0.790	11.54
50)		Fluorene	1.683	1.712	1.538	1.423	1.303	1.335	1.726	1.531	11.81
51)		4-Nitroaniline	0.289	0.220	0.193	0.171	0.170	0.175	0.269	0.212	23.14
52)	I	Phenanthrene-d10	----------ISTD----------								
53)	S	2,4,6-Tribromo...	0.123	0.141	0.138	0.137	0.133	0.143	0.104	0.131	10.30
54)		4,6-Dinitro-2-...		0.164	0.170	0.174	0.170	0.182	0.046	0.151	34.30
55)	C	N-Nitrosodiphe...	0.612	0.619	0.571	0.538	0.505	0.535	0.634	0.573	8.61
56)		4-bromophenyl ...	0.291	0.307	0.290	0.280	0.273	0.284	0.298	0.289	3.94
57)		Hexachlorobenzene	0.317	0.341	0.318	0.313	0.302	0.321	0.341	0.322	4.49
58)	MC	Pentachlorophenol	0.165	0.217	0.215	0.215	0.211	0.225	0.107	0.193	22.26
59)		Phenanthrene	1.344	1.392	1.257	1.171	1.109	1.138	1.463	1.268	10.71
60)		Anthracene	1.342	1.393	1.258	1.202	1.117	1.159	1.431	1.272	9.46
61)		Carbazole	1.148	0.868	0.705	0.702	0.743		1.204	0.895	25.33
62)		Di-n-butylphth...	1.517	1.576	1.420	1.350	1.268	1.309	1.465	1.415	7.95
63)	C	Fluoranthene	1.481	1.518	1.368	1.294	1.206	1.254	1.493	1.373	9.17
64)	I	Chrysene-d12	----------ISTD----------								
65)	M	Pyrene	1.406	1.524	1.397	1.320	1.245	1.353	1.427	1.382	6.36
66)	S	Terphenyl-d14	0.948	1.006	0.966	0.921	0.882	0.959	0.959	0.949	4.09

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

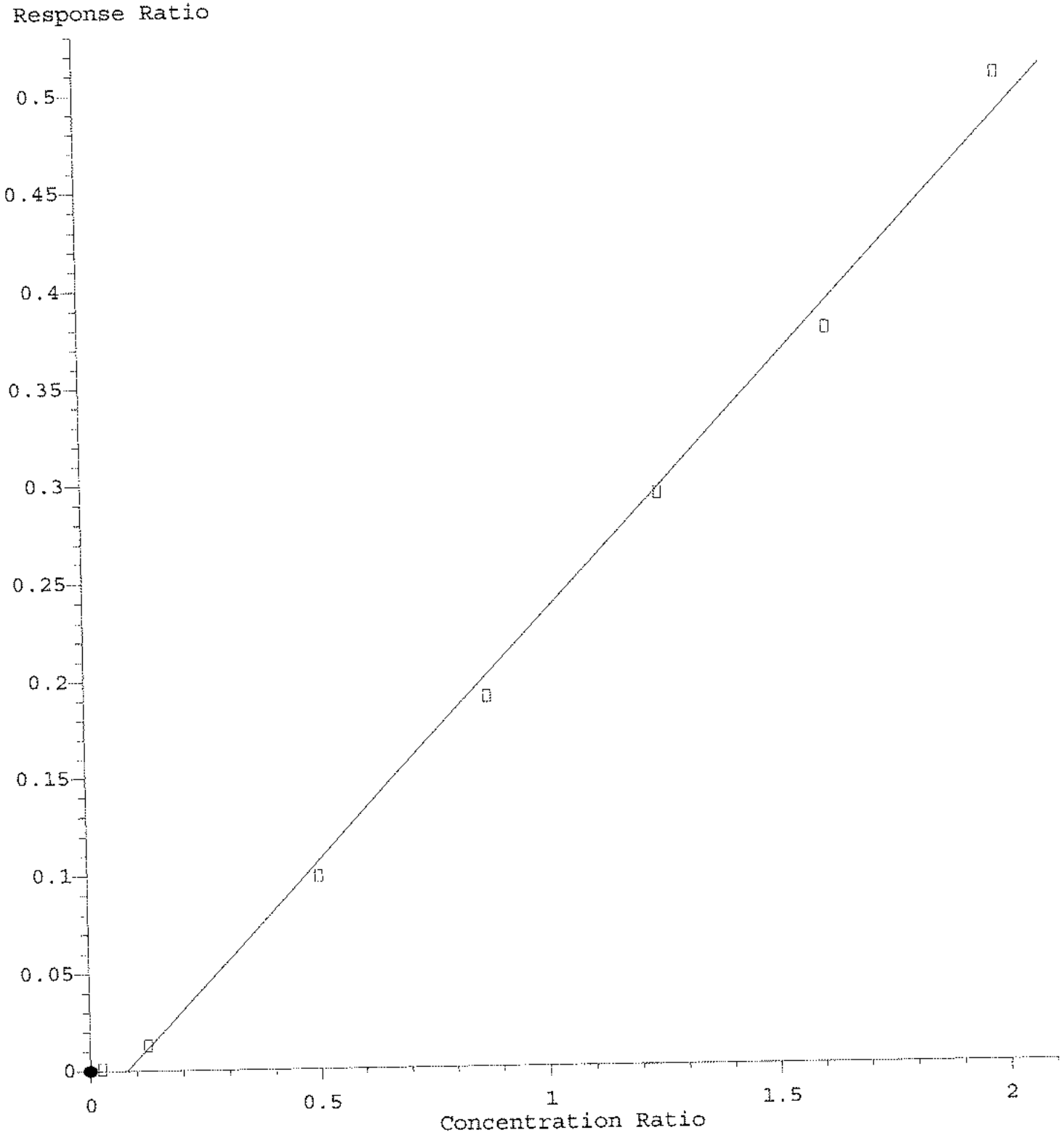
67)		Butylbenzylpht...	0.575	0.658	0.625	0.595	0.568	0.623	0.485	0.590	9.43
68)		3,3'-Dichlorob...	0.238	0.223	0.236	0.238	0.240	0.212	0.367	0.251	20.90
69)		Benzo(a)anthra...	1.276	1.379	1.308	1.270	1.215	1.341	1.410	1.314	5.14
70)		Chrysene	1.164	1.213	1.082	0.987	0.917	0.961	1.263	1.084	12.36
71)		Bis(2-ethylhex...	0.771	0.855	0.754	0.678	0.625	0.650	0.676	0.716	11.35
		----------ISTD----------									
72)	I	Perylene-d12									
73)	C	Di-n-octylphth...	1.093	1.323	1.284	1.216	1.159	1.235	0.844	1.165	13.80
74)		Benzo(b)fluora...	1.070	1.198	1.171	1.152	1.116	1.271	1.025	1.143	7.18
75)		Benzo(k)fluora...	1.045	1.150	1.094	1.016	0.982	1.021	1.086	1.056	5.40
76)	C	Benzo(a)pyrene	1.000	1.122	1.095	1.056	1.026	1.125	0.953	1.054	6.14
77)		Indeno(1,2,3-c...	0.863	1.016	1.020	1.014	1.001	1.127	0.762	0.972	12.38
78)		Dibenz(a,h)ant...	0.861	1.042	1.033	1.012	0.989	1.086	0.772	0.971	11.57
79)		Benzo(g,h,i)pe...	0.925	1.074	1.049	1.016	1.004	1.090	0.876	1.005	7.82

(#) = Out of Range



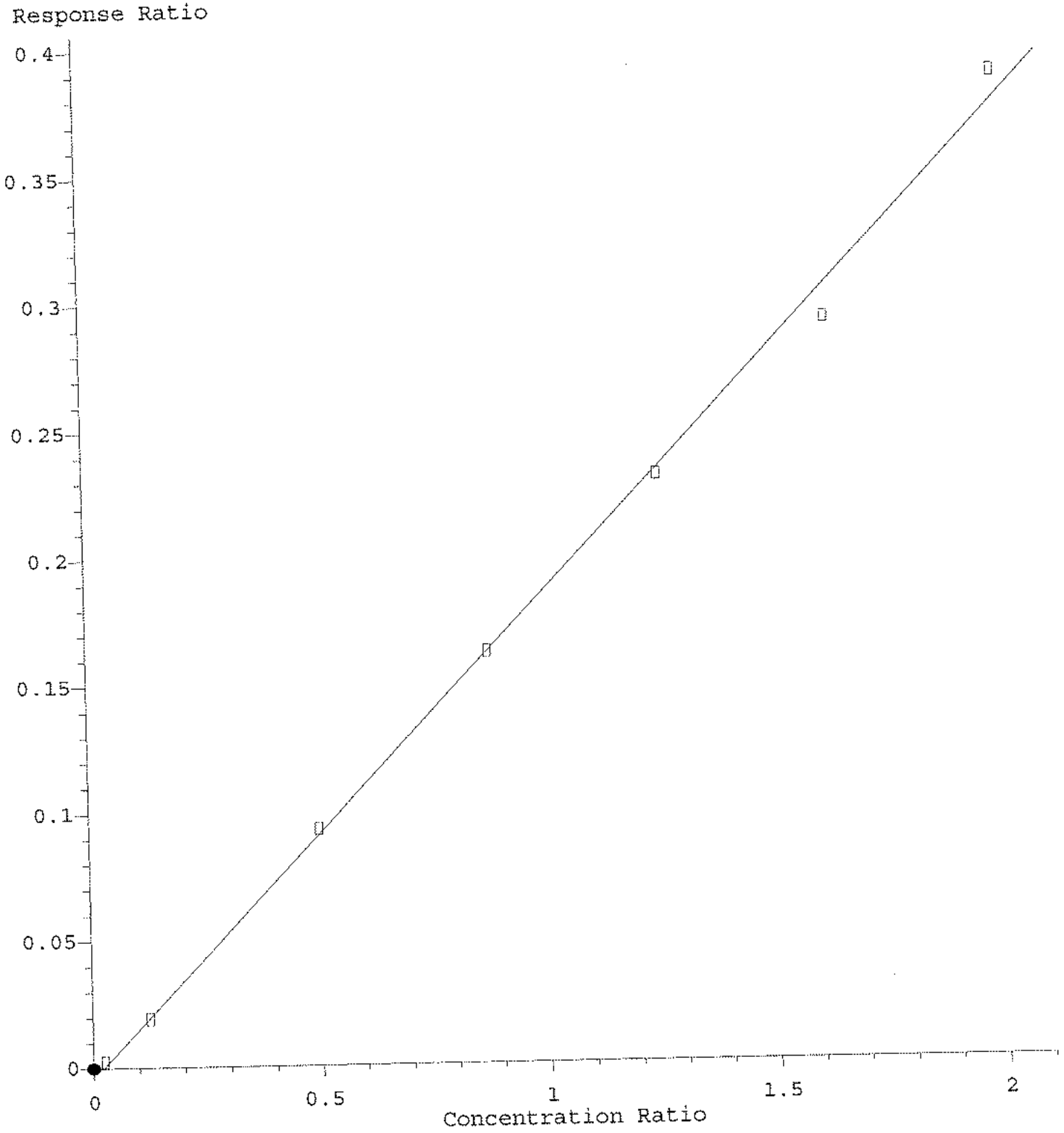
Response = 2.20e-001 * Amt - 2.00e-002
Coef of Det (r^2) = 0.998 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

2,4-Dinitrophenol

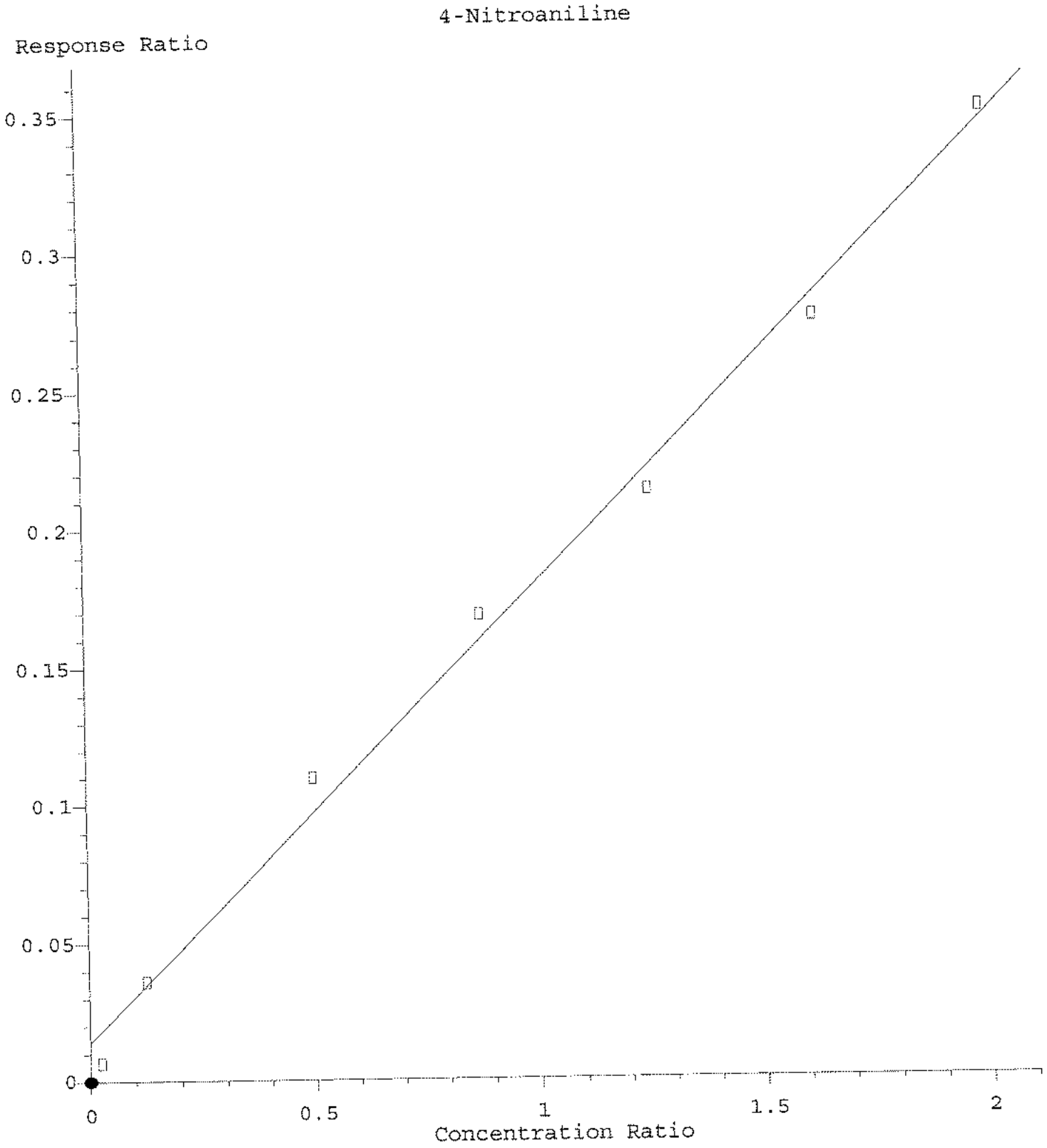


Response = 2.53e-001 * Amt - 2.01e-002
Coef of Det (r^2) = 0.995 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

4-Nitrophenol

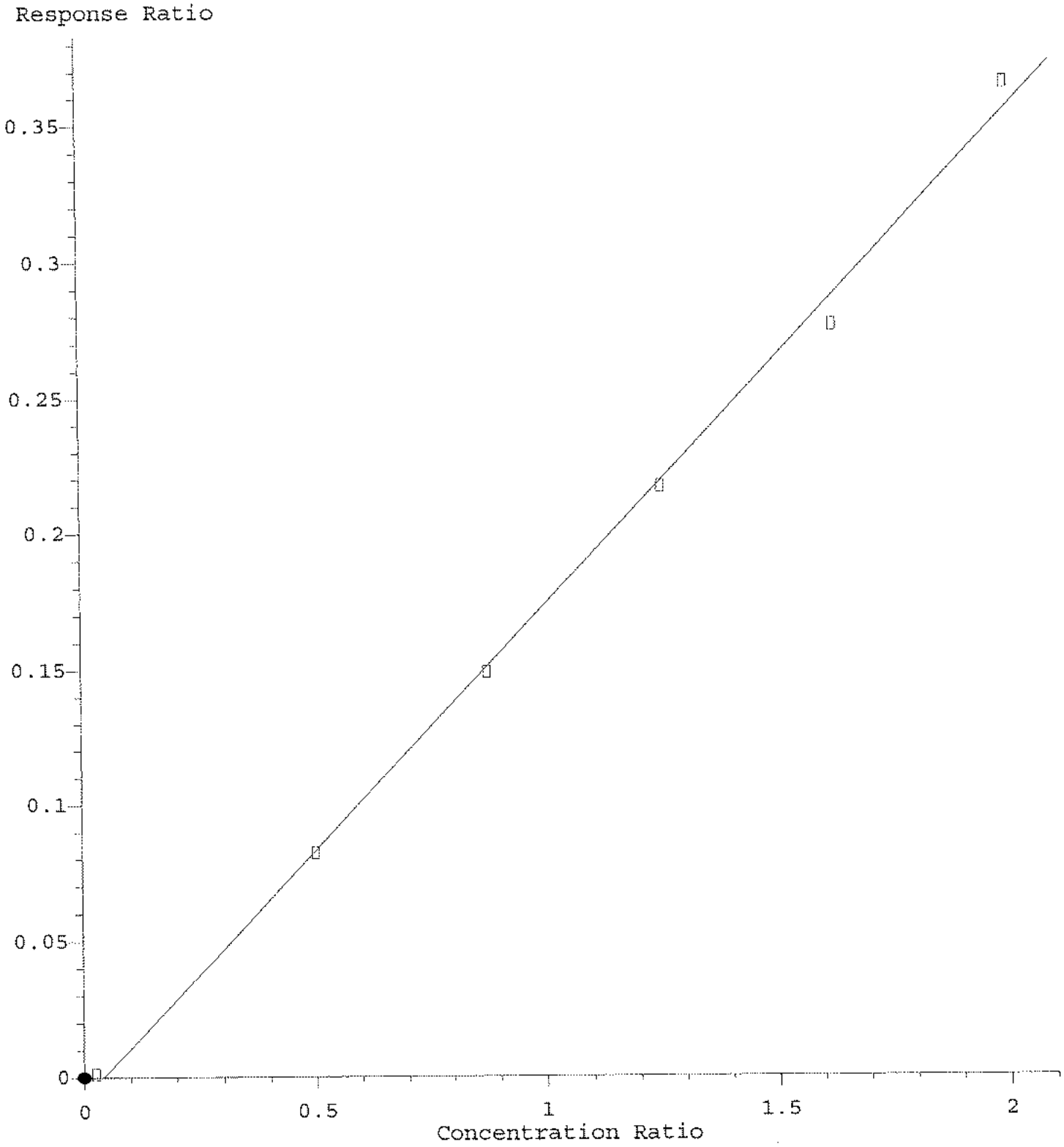


Response = 1.90e-001 * Amt - 4.07e-003
Coef of Det (r^2) = 0.997 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015



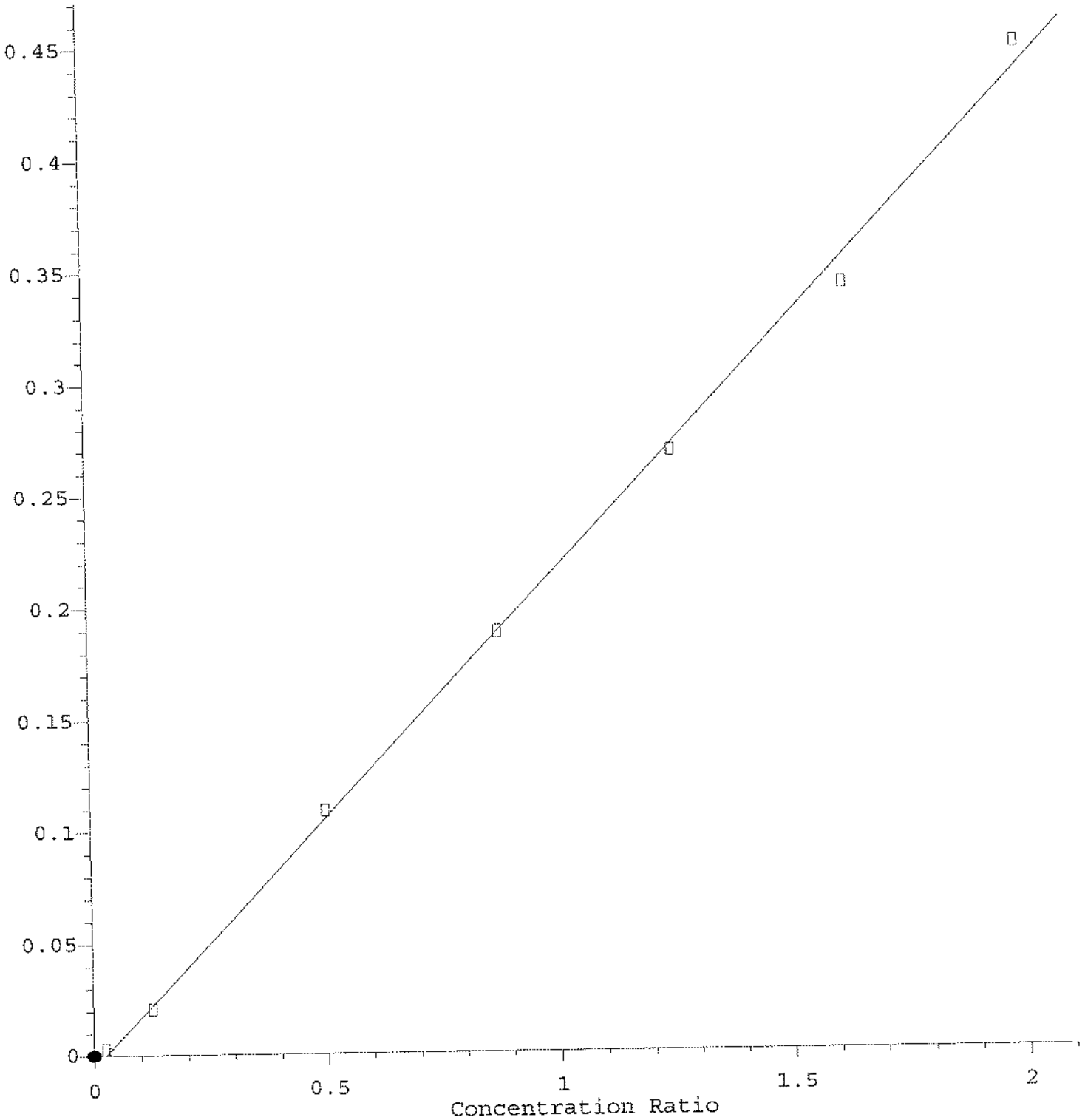
Response = 1.66e-001 * Amt + 1.41e-002
Coef of Det (r^2) = 0.994 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

4,6-Dinitro-2-methylphenol

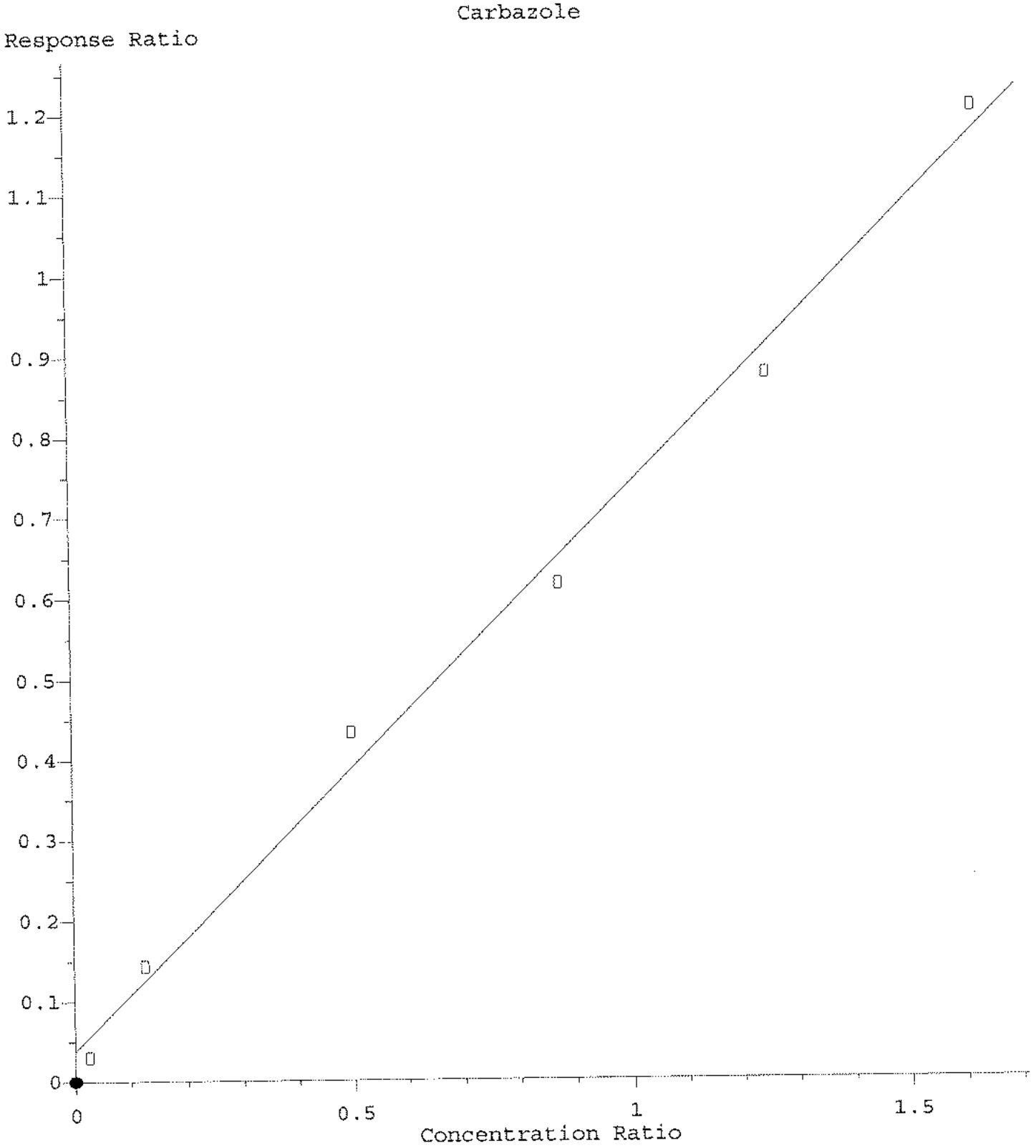


Response = 1.81e-001 * Amt - 7.56e-003
Coef of Det (r^2) = 0.997 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

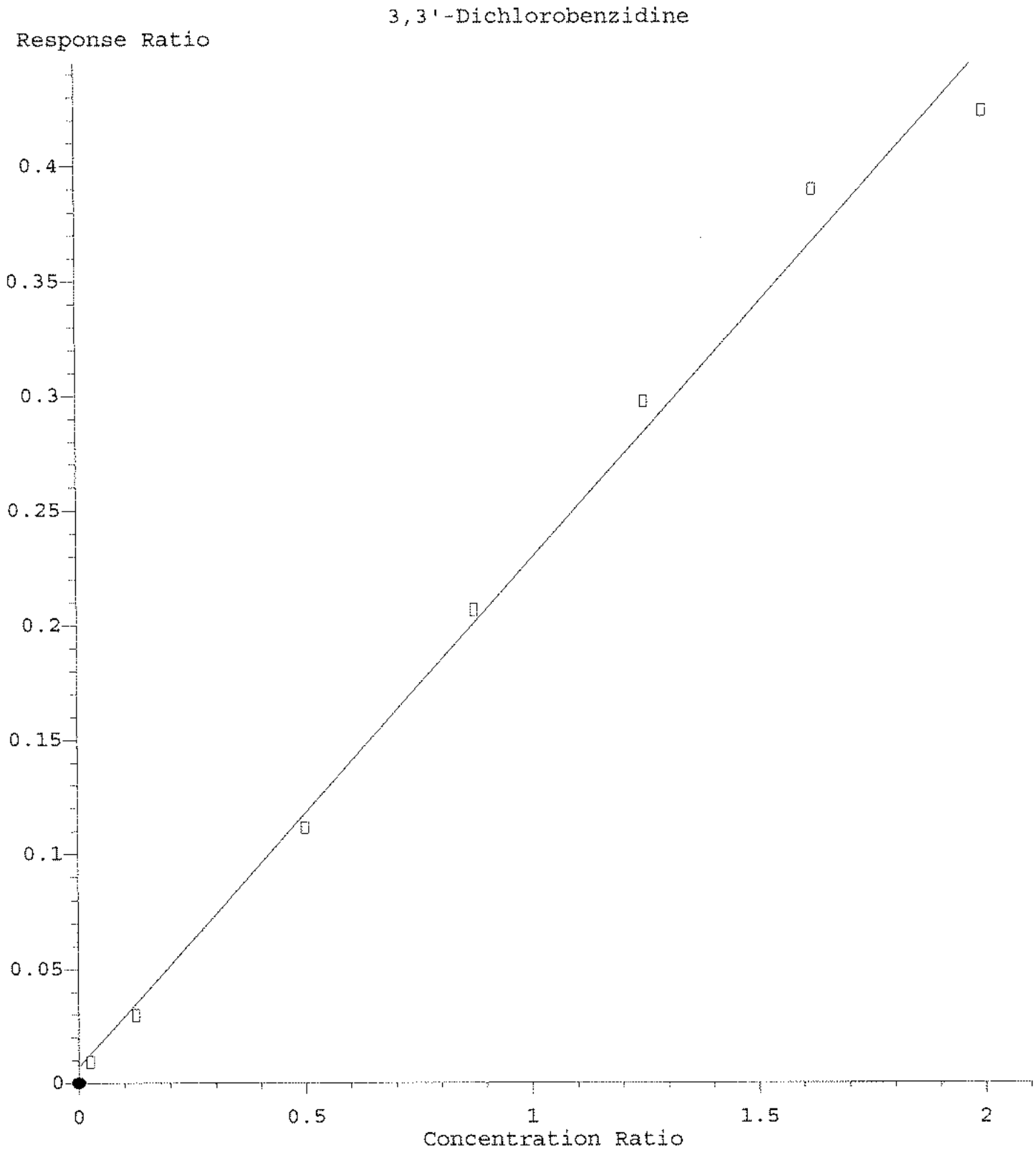
Pentachlorophenol



Response = 2.22e-001 * Amt - 5.50e-003
Coef of Det (r^2) = 0.998 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015



Response = 7.01e-001 * Amt + 3.77e-002
Coef of Det (r^2) = 0.994 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015



Response = 2.22e-001 * Amt + 6.73e-003
Coef of Det (r^2) = 0.991 Curve Fit: Linear
Method Name: C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Calibration Table Last Updated: Tue Feb 24 10:31:08 2015

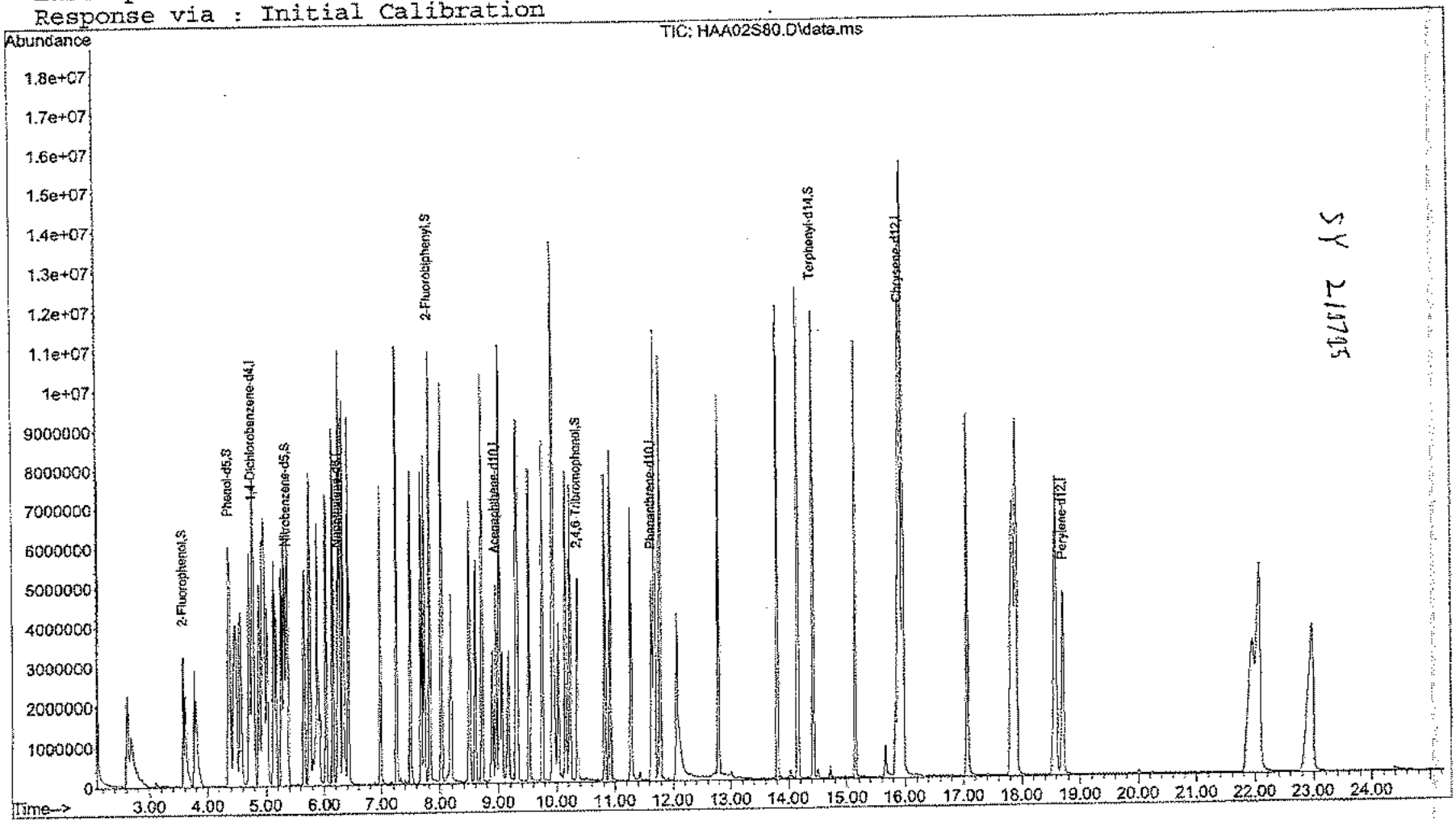
Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA02S80.D
Acq On : 02/16/2015 11:36
Sample : 8270 S80
Misc : NEW COLUMN
MS Integration Params: rteint.p

Vial: 2
Operator: JH
Inst : 5975-H
Injection volume : 1uL

Quant Time: Feb 17 11:04:48 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA02S80.D Vial: 2
Acq On : 02/16/2015 11:36 Operator: JH
Sample : 8270 S80 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:04:48 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1067204	40.00 ug/mL
17) Naphthalene-d8	6.25	136	3880868	40.00 ug/mL
32) Acenaphthene-d10	8.96	164	1999487	40.00 ug/mL
52) Phenanthrene-d10	11.63	188	3799947	40.00 ug/mL
64) Chrysene-d12	15.93	240	3573207	40.00 ug/mL
72) Perylene-d12	18.71	264	4423999	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.58	112	3218390	95.767ug/mL m SY 2/17/15
4) Phenol-d5	4.37	99	3300362	94.826ug/mL
18) Nitrobenzene-d5	5.35	82	2865198	97.122ug/mL
36) 2-Fluorobiphenyl	7.83	172	6039351	83.788ug/mL
53) 2,4,6-Tribromophenol	10.36	330	1089809	94.449ug/mL
66) Terphenyl-d14	14.43	244	6853832	87.611ug/mL
Target Compounds				Qvalue
2) Pyridine	2.62	79	3071603	89.628ug/mL m SY 2/17/15 38
5) Phenol	4.38	94	3515796	96.808ug/mL 99
6) Bis(2-chloroethyl)ether	4.47	93	3106461	99.088ug/mL m 56
7) 2-Chlorophenol	4.56	128	3534007	94.409ug/mL SY 2/17/15 98
8) 1,3-Dichlorobenzene	4.71	146	4010311	93.778ug/mL 100
9) 1,4-dichlorobenzene	4.78	146	3932933	94.668ug/mL 99
10) Benzyl alcohol	4.89	108	1997353	101.044ug/mL 97
11) 1,2-dichlorobenzene	4.94	146	3653956	91.121ug/mL 100
12) 2-Methylphenol	4.97	107	2269762	95.031ug/mL 98
13) Bis(2-chloroisopropyl)ethe	5.02	45	2609651	76.960ug/mL 91
14) 4-methylphenol	5.14	107	3395492	101.129ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.18	70	1552636	85.324ug/mL 95
16) Hexachloroethane	5.31	117	1407973	89.080ug/mL 98
19) Nitrobenzene	5.37	77	2630078	84.499ug/mL 98
20) Isophorone	5.66	82	4878354	90.683ug/mL 98
21) 2-Nitrophenol	5.75	139	1674794	86.456ug/mL 99
22) 2,4-Dimethylphenol	5.76	122	2271624	85.359ug/mL 99
23) Benzoic Acid	5.93	122	1668496	92.941ug/mL 81
24) Bis(2-chloroethoxy)methane	5.89	93	2812969	82.252ug/mL 99
25) 2,4-Dichlorophenol	6.03	162	2762233	88.233ug/mL 100
26) 1,2,4-Trichlorobenzene	6.16	180	3079707	85.670ug/mL 100
27) Naphthalene	6.27	128	7968216	81.069ug/mL 99
28) 4-Chloroaniline	6.33	127	2937489	80.010ug/mL 98
29) Hexachlorobutadiene	6.42	225	1799615	85.107ug/mL 100
30) 4-Chloro-3-Methylphenol	6.98	107	2473673	92.979ug/mL 99
31) 2-Methylnaphthalene	7.26	142	5742359	84.821ug/mL 99
33) Hexachlorocyclopentadiene	7.49	237	2195385	96.037ug/mL 99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

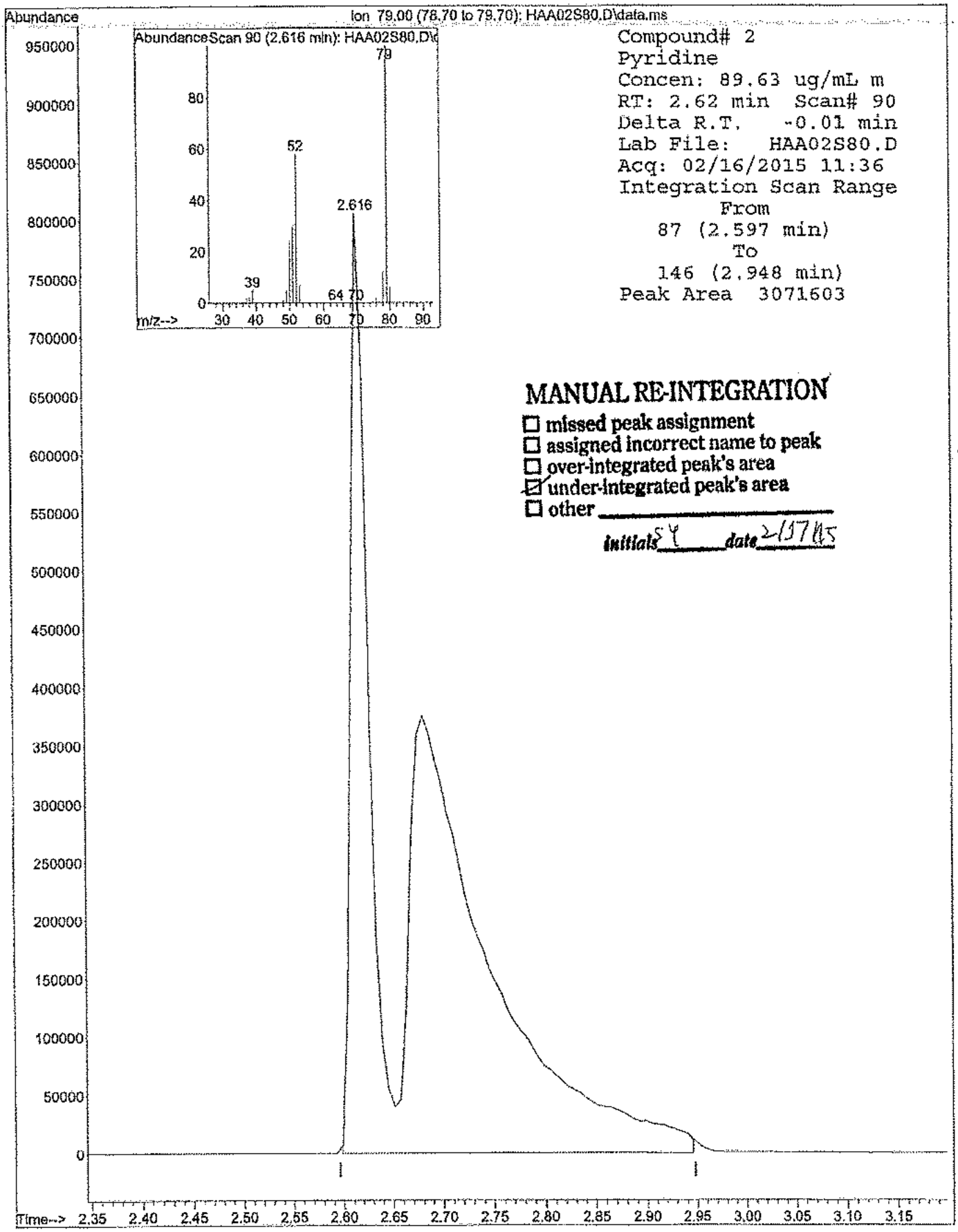
Data File : R:\H\2015\FEB15\16FEB15H\HAA02S80.D Vial: 2
Acq On : 02/16/2015 11:36 Operator: JH
Sample : 8270 S80 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:04:48 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.68	196	2185282	97.737ug/mL	99
35)	2,4,5-Trichlorophenol	7.73	196	2307487	94.958ug/mL	99
37)	2-Chloronaphthalene	8.03	162	5666882	85.348ug/mL	99
38)	2-Nitroaniline	8.19	65	1464780	94.509ug/mL	96
39)	Dimethylphthalate	8.51	163	6765557	93.119ug/mL	100
40)	2,6-Dinitrotoluene	8.61	165	1617407	100.467ug/mL	98
41)	Acenaphthylene	8.72	152	8859389	85.086ug/mL	100
42)	3-Nitroaniline	8.90	65	1295809	76.556ug/mL	97
43)	Acenaphthene	9.02	153	5222590	82.643ug/mL	99
44)	2,4-Dinitrophenol	9.07	184	1011145	104.509ug/mL	97
45)	4-Nitrophenol	9.17	109	774273	101.194ug/mL	96
46)	Dibenzofuran	9.33	168	7486685	83.494ug/mL	99
47)	2,4-Dinitrotoluene	9.31	165	2015827	104.887ug/mL	93
48)	Diethylphthalate	9.76	149	6360970	89.804ug/mL	99
49)	4-chlorophenyl phenyl ethe	9.95	204	2751320	79.427ug/mL	99
50)	Fluorene	9.93	166	5337194	79.748ug/mL	100
51)	4-Nitroaniline	9.97	65	701185	52.772ug/mL	94
54)	4,6-Dinitro-2-methylphenol	10.03	198	1386587	106.480ug/mL	96
55)	N-Nitrosodiphenylamine	10.16	169	4063572	78.594ug/mL	99
56)	4-bromophenyl phenyl ether	10.83	248	2158944	87.917ug/mL	99
57)	Hexachlorobenzene	10.93	284	2441090	88.470ug/mL	98
58)	Pentachlorophenol	11.27	266	1706436	100.700ug/mL	99
59)	Phenanthrene	11.69	178	8650182	79.505ug/mL	m 99
60)	Anthracene	11.78	178	8804545	80.200ug/mL	100
61)	Carbazole	12.07	167	6416326	66.813ug/mL	m 97
62)	Di-n-butylphthalate	12.79	149	9950945	80.337ug/mL	100
63)	Fluoranthene	13.82	202	9531147	81.006ug/mL	m 99
65)	Pyrene	14.17	202	9670611	86.095ug/mL	99
67)	Butylbenzylphthalate	15.15	149	4448954	89.707ug/mL	96
68)	3,3'-Dichlorobenzidine	15.87	252	1516239	47.304ug/mL	99
69)	Benzo(a)anthracene	15.91	228	9585938	94.283ug/mL	100
70)	Chrysene	15.97	228	6867773	71.261ug/mL	99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	4642876	69.118ug/mL	97
73)	Di-n-octylphthalate	17.07	149	10931079	94.653ug/mL	100
74)	Benzo(b)fluoranthene	17.84	252	11249205	104.198ug/mL	98
75)	Benzo(k)fluoranthene	17.91	252	9037983	83.075ug/mL	99
76)	Benzo(a)pyrene	18.59	252	9949930	95.039ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.96	276	9968403	99.340ug/mL	100
78)	Dibenz(a,h)anthracene	22.08	278	9606368	94.029ug/mL	97
79)	Benzo(g,h,i)perylene	22.98	276	9645833	91.672ug/mL	96

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



Compound# 2
Pyridine
Concen: 89.63 ug/mL m
RT: 2.62 min Scan# 90
Delta R.T. -0.01 min
Lab File: HAA02S80.D
Acq: 02/16/2015 11:36
Integration Scan Range
From
87 (2.597 min)
To
146 (2.948 min)
Peak Area 3071603

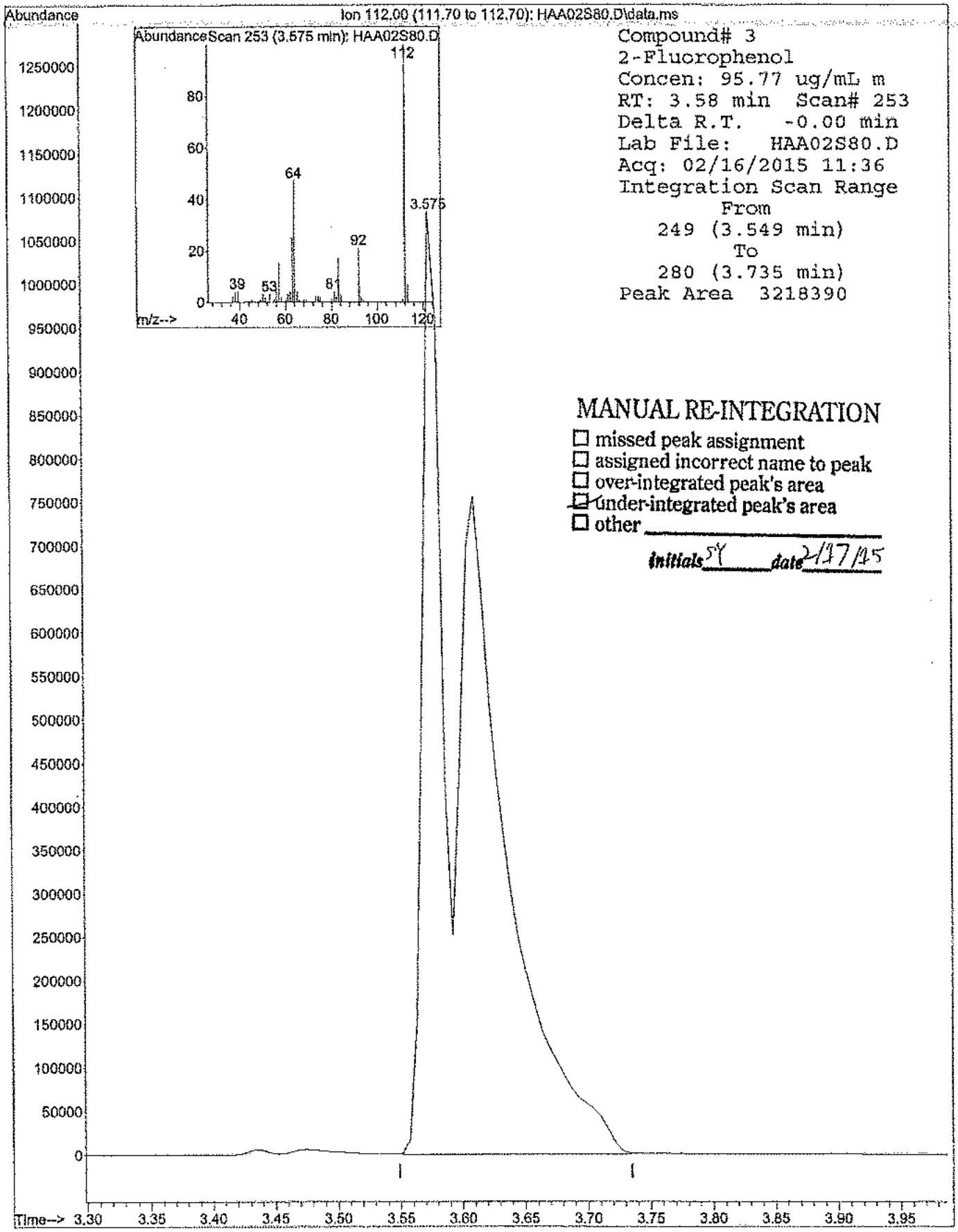
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

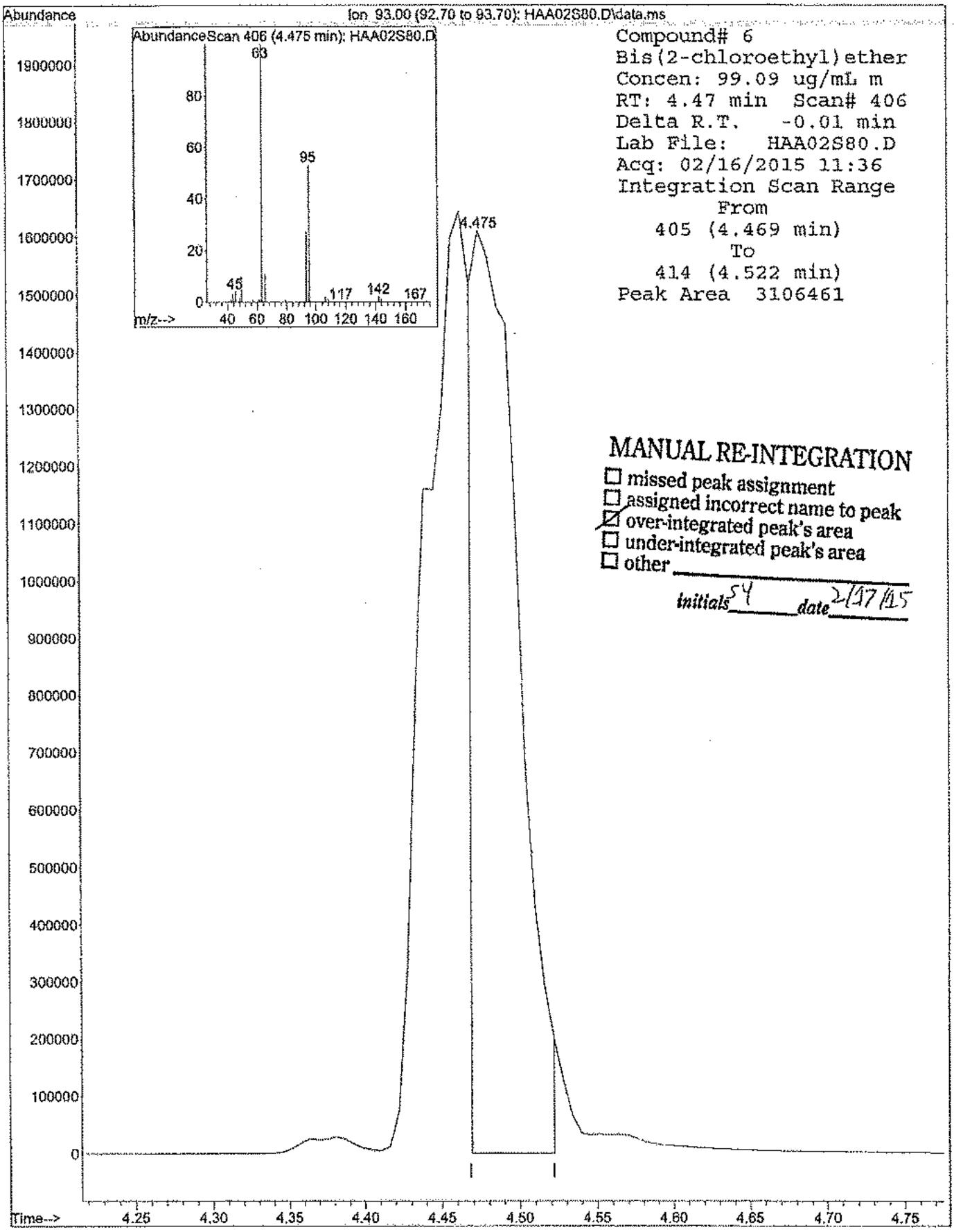
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



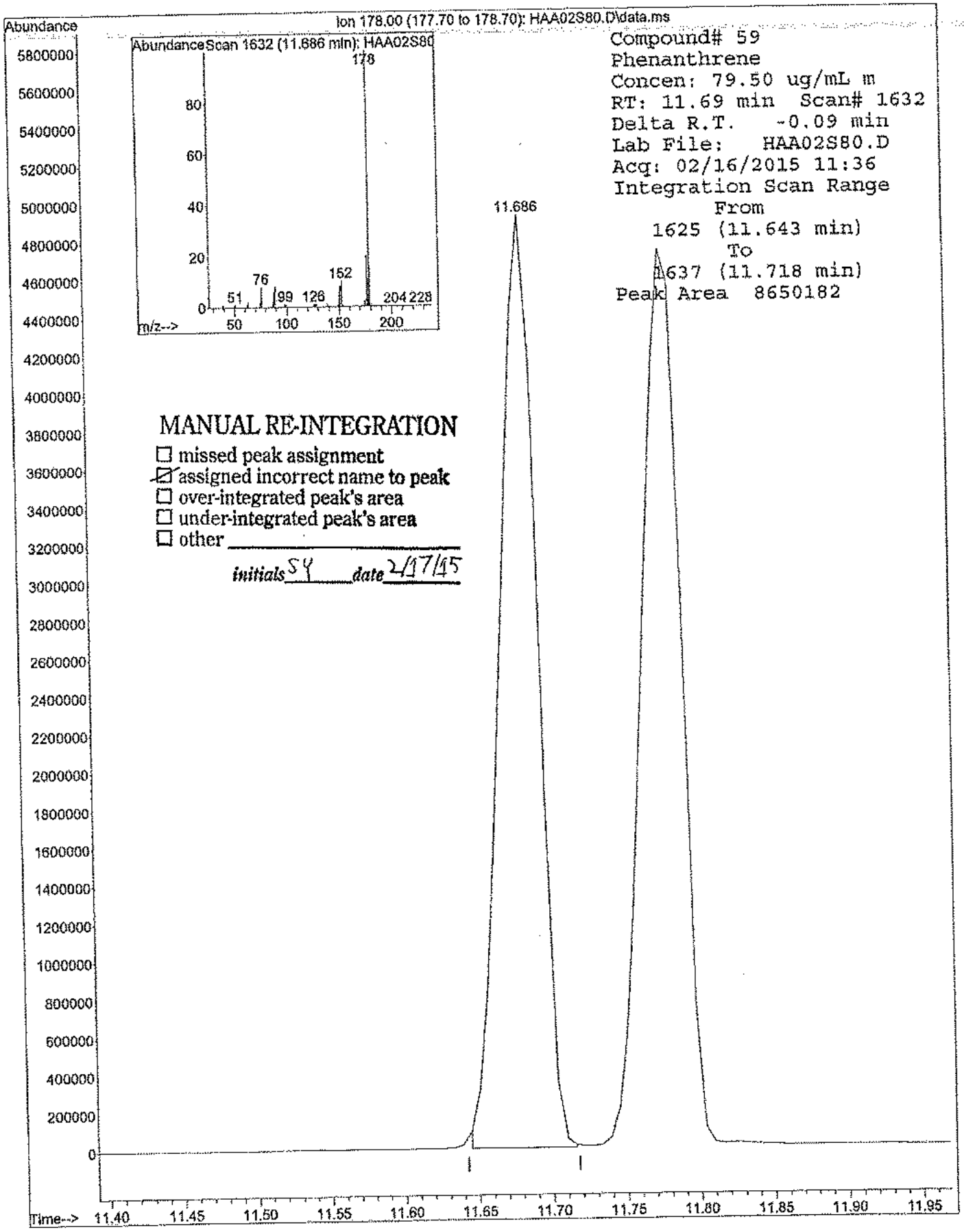
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Bis(2-chloroethyl)ether



H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



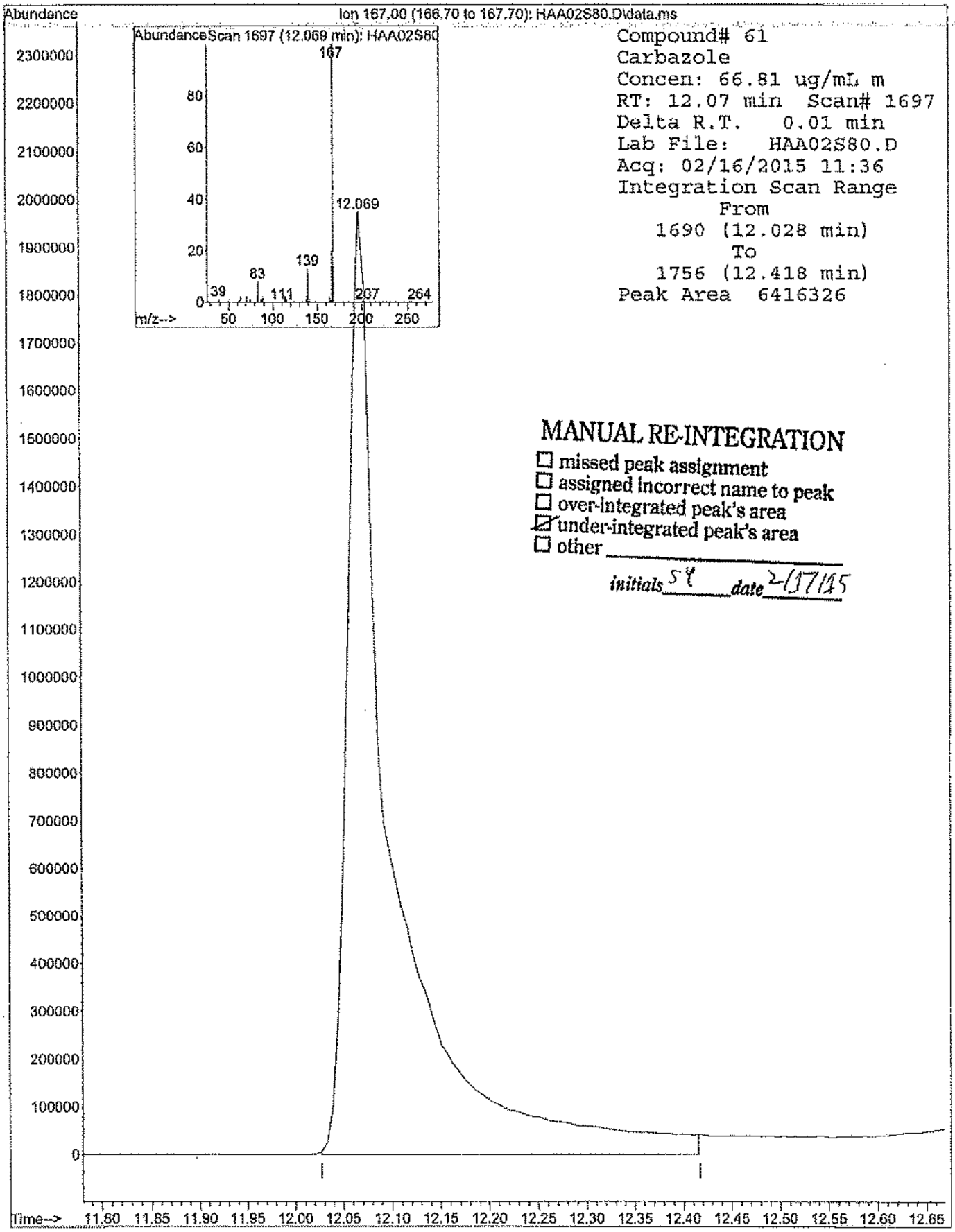
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☑ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



Compound# 61
Carbazole
Concen: 66.81 ug/mL m
RT: 12.07 min Scan# 1697
Delta R.T. 0.01 min
Lab File: HAA02S80.D
Acq: 02/16/2015 11:36
Integration Scan Range
From
1690 (12.028 min)
To
1756 (12.418 min)
Peak Area 6416326

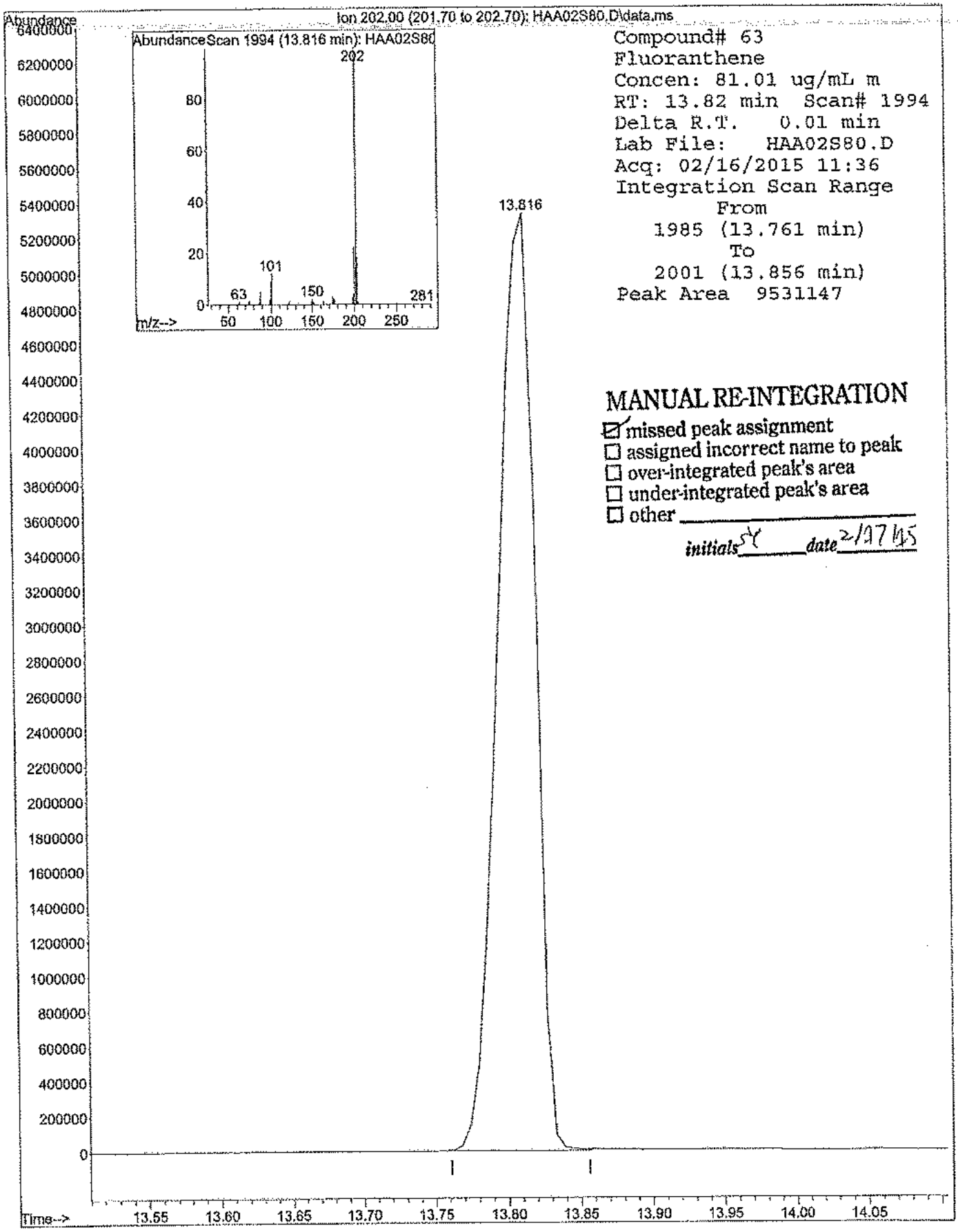
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Fluoranthene



Compound# 63
Fluoranthene
Concen: 81.01 ug/mL m
RT: 13.82 min Scan# 1994
Delta R.T. 0.01 min
Lab File: HAA02S80.D
Acq: 02/16/2015 11:36
Integration Scan Range
From
1985 (13.761 min)
To
2001 (13.856 min)
Peak Area 9531147

MANUAL RE-INTEGRATION

- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

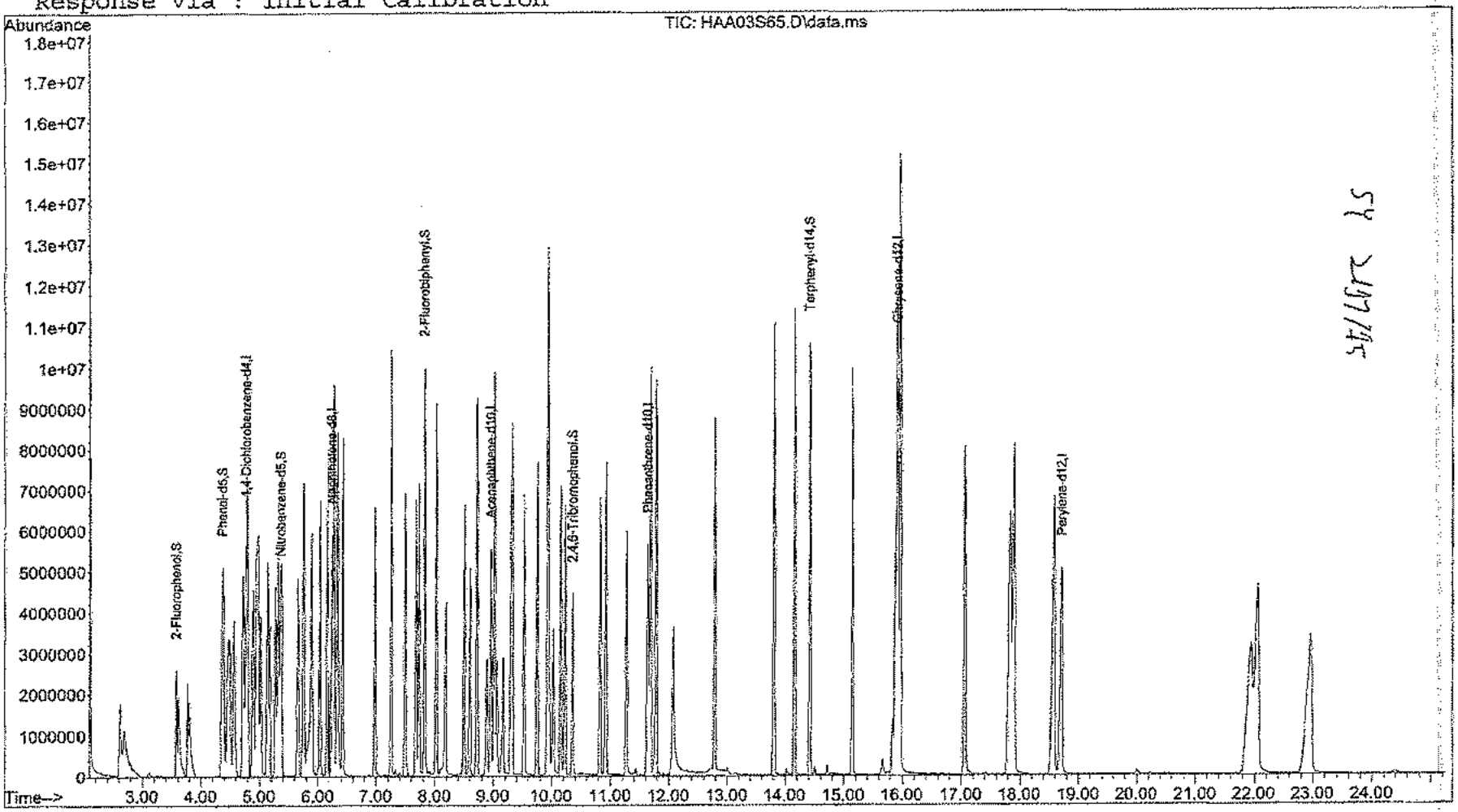
H8270D15A1.M 5975-H H8270D15A1.M 8270 S80 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA03S65.D Vial: 3
Acq On : 02/16/2015 12:09 Operator: JH
Sample : 8270 S65 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 11:03:07 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA03S65.D Vial: 3
Acq On : 02/16/2015 12:09 Operator: JH
Sample : 8270 S65 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:03:07 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.76	152	1225921	40.00 ug/mL	
17) Naphthalene-d8	6.24	136	4301880	40.00 ug/mL	
32) Acenaphthene-d10	8.96	164	2227411	40.00 ug/mL	
52) Phenanthrene-d10	11.63	188	4209490	40.00 ug/mL	
64) Chrysene-d12	15.93	240	4165748	40.00 ug/mL	
72) Perylene-d12	18.71	264	5063417	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.58	112	2674624	69.283ug/mL	m SY
4) Phenol-d5	4.36	99	2802618	70.099ug/mL	2/17/15
18) Nitrobenzene-d5	5.35	82	2442040	74.677ug/mL	
36) 2-Fluorobiphenyl	7.83	172	5244934	65.321ug/mL	
53) 2,4,6-Tribromophenol	10.35	330	910255	71.213ug/mL	
66) Terphenyl-d14	14.42	244	5973373	65.495ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.62	79	2554440	64.887ug/mL	m 37
5) Phenol	4.38	94	2983633	71.518ug/mL	SY 2/17/15 99
6) Bis(2-chloroethyl)ether	4.46	93	2870751	79.714ug/mL	25
7) 2-Chlorophenol	4.56	128	3010984	70.023ug/mL	98
8) 1,3-Dichlorobenzene	4.72	146	3448962	70.210ug/mL	100
9) 1,4-dichlorobenzene	4.79	146	3353146	70.262ug/mL	99
10) Benzyl alcohol	4.89	108	1704161	75.050ug/mL	98
11) 1,2-dichlorobenzene	4.94	146	3142685	68.225ug/mL	100
12) 2-Methylphenol	4.97	107	1958022	71.365ug/mL	98
13) Bis(2-chloroisopropyl)ethe	5.02	45	2241450	57.543ug/mL	92
14) 4-methylphenol	5.13	107	2869613	74.401ug/mL	98
15) N-Nitrosodi-n-propyl amine	5.17	70	1307143	62.533ug/mL	95
16) Hexachloroethane	5.31	117	1203195	66.268ug/mL	98
19) Nitrobenzene	5.37	77	2255962	65.386ug/mL	98
20) Isophorone	5.65	82	4119537	69.083ug/mL	98
21) 2-Nitrophenol	5.74	139	1442619	67.182ug/mL	98
22) 2,4-Dimethylphenol	5.76	122	1975006	66.950ug/mL	98
23) Benzoic Acid	5.92	122	1407720	72.964ug/mL	82
24) Bis(2-chloroethoxy)methane	5.89	93	2436056	64.260ug/mL	98
25) 2,4-Dichlorophenol	6.03	162	2397362	69.084ug/mL	100
26) 1,2,4-Trichlorobenzene	6.16	180	2652615	66.568ug/mL	100
27) Naphthalene	6.27	128	6999642	64.245ug/mL	99
28) 4-Chloroaniline	6.33	127	2508195	61.631ug/mL	98
29) Hexachlorobutadiene	6.42	225	1562906	66.679ug/mL	100
30) 4-Chloro-3-Methylphenol	6.97	107	2115923	71.749ug/mL	99
31) 2-Methylnaphthalene	7.26	142	5054534	67.354ug/mL	99
33) Hexachlorocyclopentadiene	7.49	237	1849092	72.611ug/mL	99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

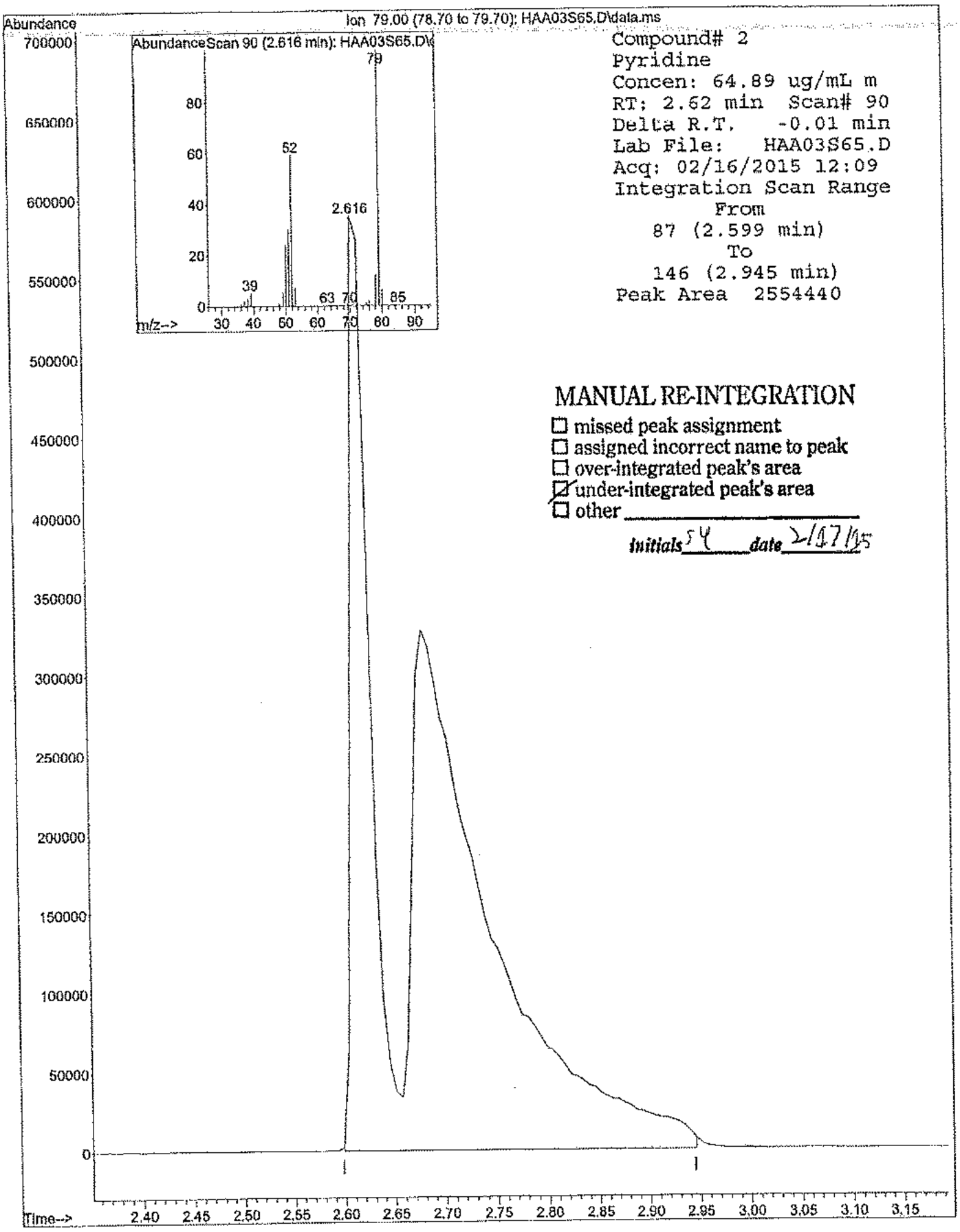
Data File : R:\H\2015\FEB15\16FEB15H\HAA03S65.D Vial: 3
Acq On : 02/16/2015 12:09 Operator: JH
Sample : 8270 S65 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:03:07 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
34)	2,4,6-Trichlorophenol	7.68	196	1881728	75.549ug/mL		99
35)	2,4,5-Trichlorophenol	7.73	196	1949329	72.010ug/mL		100
37)	2-Chloronaphthalene	8.03	162	4906937	66.341ug/mL		99
38)	2-Nitroaniline	8.19	65	1219613	70.639ug/mL		94
39)	Dimethylphthalate	8.50	163	5785790	71.485ug/mL		100
40)	2,6-Dinitrotoluene	8.60	165	1375561	76.701ug/mL		98
41)	Acenaphthylene	8.72	152	7714419	66.508ug/mL		100
42)	3-Nitroaniline	8.89	65	1074431	56.981ug/mL		97
43)	Acenaphthene	9.02	153	4549183	64.621ug/mL		99
44)	2,4-Dinitrophenol	9.06	184	839425	80.091ug/mL		99
45)	4-Nitrophenol	9.16	109	649786	77.200ug/mL		96
46)	Dibenzofuran	9.32	168	6609383	66.167ug/mL		99
47)	2,4-Dinitrotoluene	9.30	165	1758945	82.156ug/mL		93
48)	Diethylphthalate	9.75	149	5486373	69.531ug/mL		99
49)	4-chlorophenyl phenyl ethe	9.94	204	2454317	63.603ug/mL		99
50)	Fluorene	9.93	166	4716128	63.257ug/mL		100
51)	4-Nitroaniline	9.96	65	614342	41.505ug/mL		94
54)	4,6-Dinitro-2-methylphenol	10.02	198	1162676	80.598ug/mL		96
55)	N-Nitrosodiphenylamine	10.15	169	3456961	60.356ug/mL		99
56)	4-bromophenyl phenyl ether	10.83	248	1865591	68.580ug/mL		99
57)	Hexachlorobenzene	10.92	284	2065737	67.583ug/mL		98
58)	Pentachlorophenol	11.27	266	1442295	77.887ug/mL		99
59)	Phenanthrene	11.68	178	7588154	62.958ug/mL	m	99
60)	Anthracene	11.78	178	7642699	62.844ug/mL		100
61)	Carbazole	12.07	167	5079641	47.748ug/mL	m	98
62)	Di-n-butylphthalate	12.79	149	8671708	63.198ug/mL		100
63)	Fluoranthene	13.81	202	8248830	63.287ug/mL		99
65)	Pyrene	14.16	202	8428790	64.366ug/mL		99
67)	Butylbenzylphthalate	15.14	149	3847380	66.542ug/mL		97
68)	3,3'-Dichlorobenzidine	15.87	252	1625056	43.487ug/mL		99
69)	Benzo(a)anthracene	15.90	228	8224942	69.390ug/mL		99
70)	Chrysene	15.97	228	6205163	55.227ug/mL		99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	4231936	54.039ug/mL		98
73)	Di-n-octylphthalate	17.06	149	9537206	72.155ug/mL		100
74)	Benzo(b)fluoranthene	17.83	252	9180551	74.298ug/mL		99
75)	Benzo(k)fluoranthene	17.90	252	8080028	64.891ug/mL		99
76)	Benzo(a)pyrene	18.58	252	8441291	70.447ug/mL		99
77)	Indeno(1,2,3-c,d)pyrene	21.94	276	8238723	71.735ug/mL		99
78)	Dibenz(a,h)anthracene	22.06	278	8139428	69.610ug/mL		98
79)	Benzo(g,h,i)perylene	22.95	276	8261298	68.599ug/mL		96

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



Compound# 2
Pyridine
Concen: 64.89 ug/mL m
RT: 2.62 min Scan# 90
Delta R.T. -0.01 min
Lab File: HAA03S65.D
Acq: 02/16/2015 12:09
Integration Scan Range
From
87 (2.599 min)
To
146 (2.945 min)
Peak Area 2554440

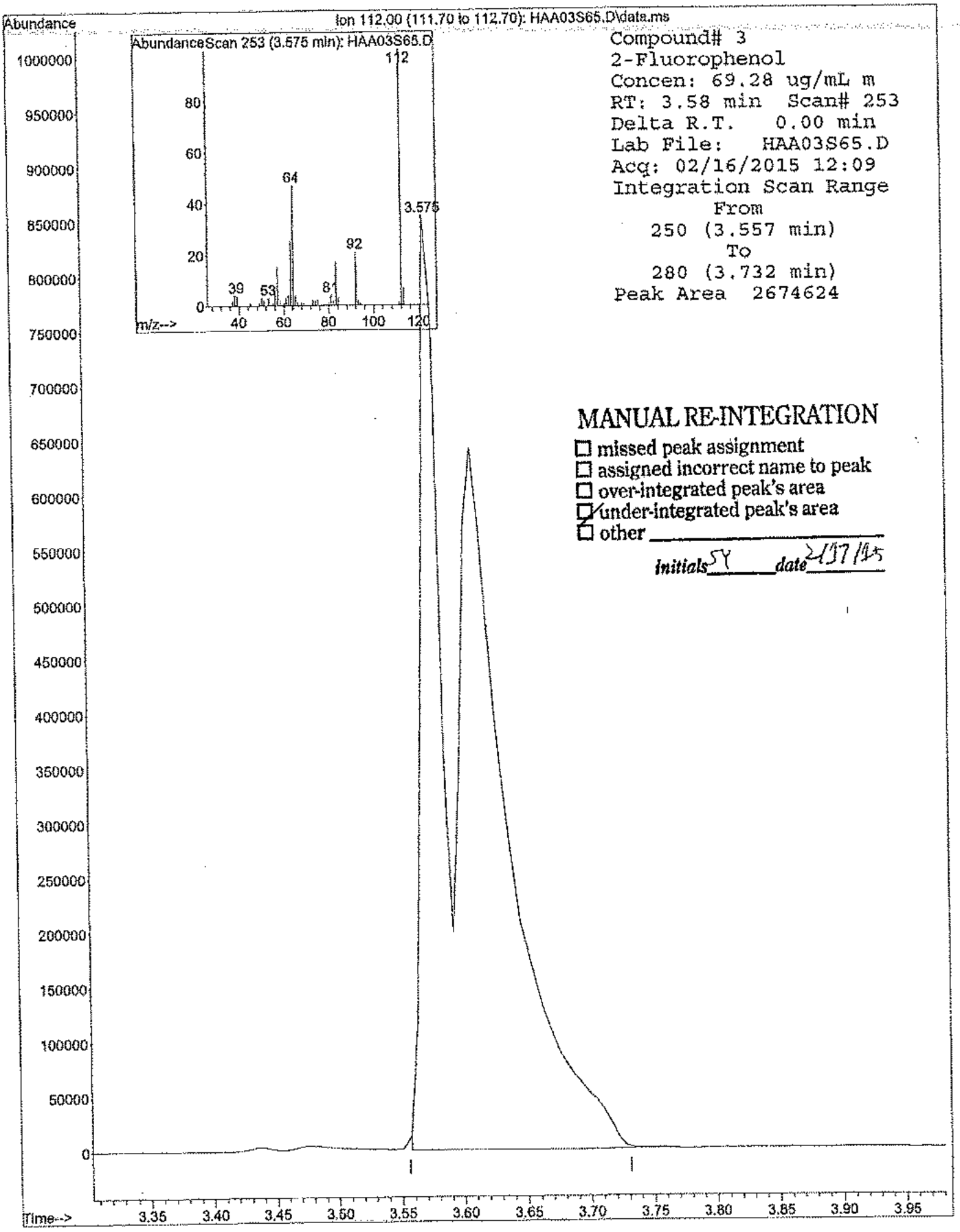
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☒ under-integrated peak's area
- ☐ other _____

Initials SY *date* 2/17/15

H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

MANUAL INTEGRATION FOR 2-Fluorophenol



Compound# 3
2-Fluorophenol
Concen: 69.28 ug/mL m
RT: 3.58 min Scan# 253
Delta R.T. 0.00 min
Lab File: HAA03S65.D
Acq: 02/16/2015 12:09
Integration Scan Range
From
250 (3.557 min)
To
280 (3.732 min)
Peak Area 2674624

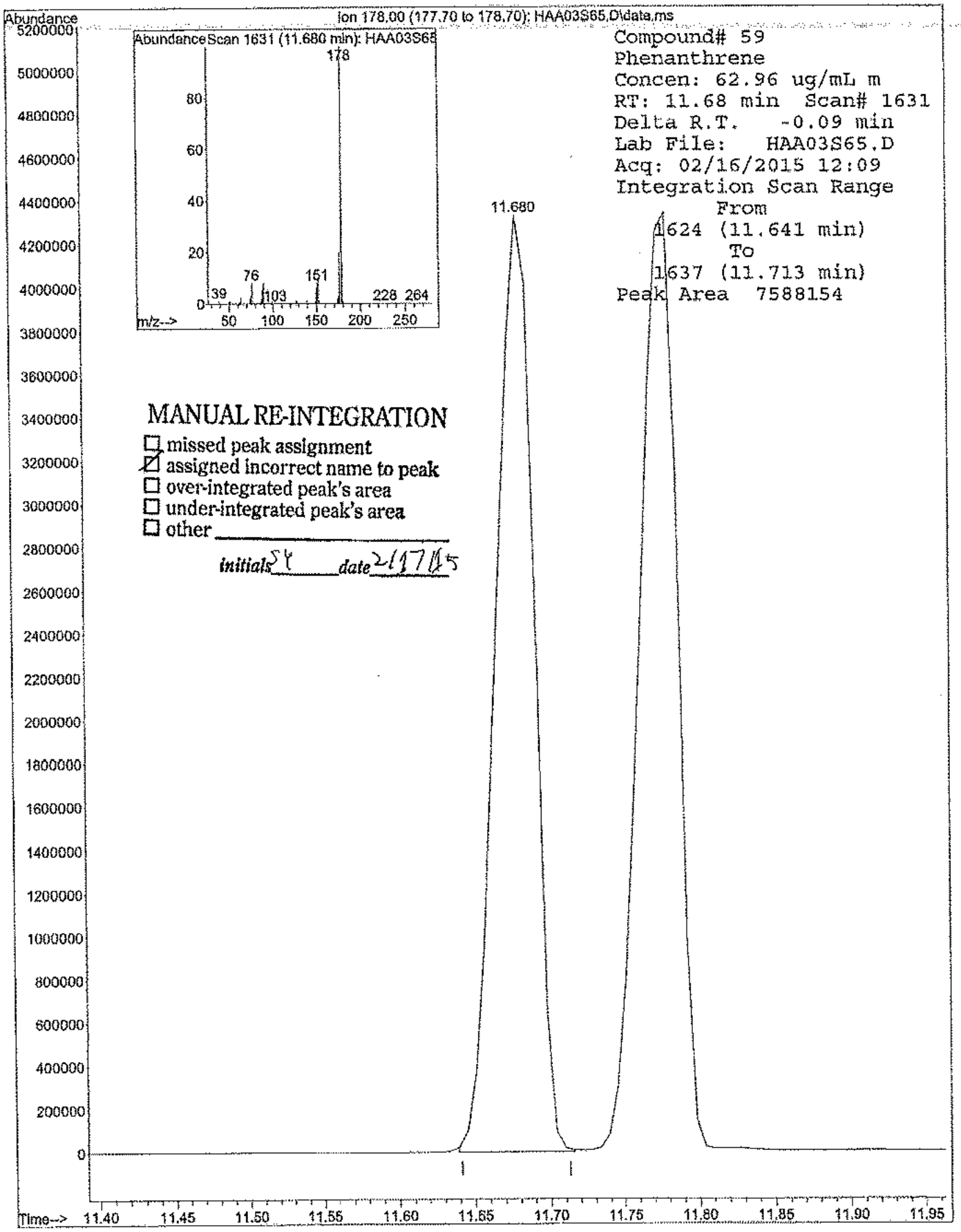
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

Initials SY *date* 2/17/15

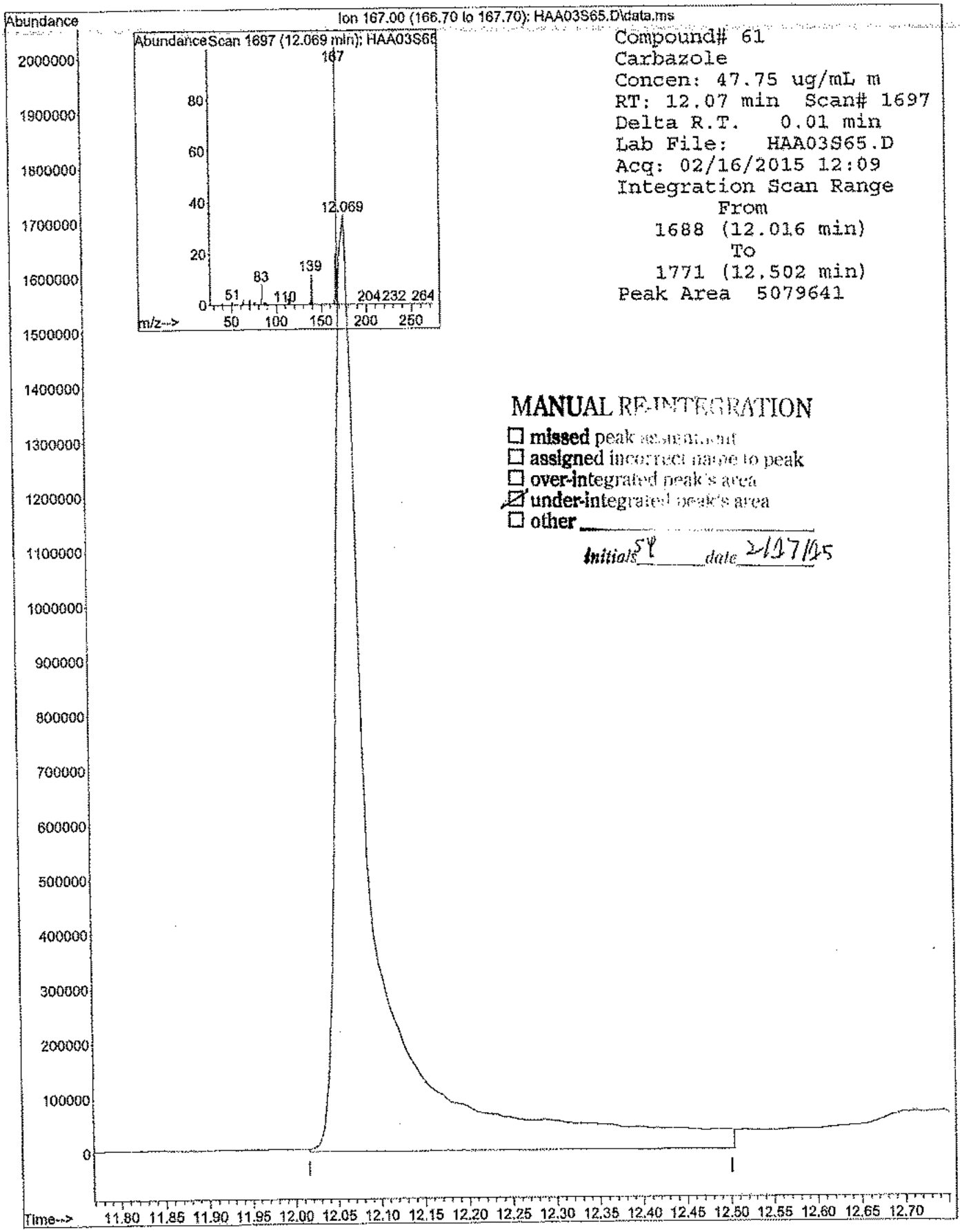
H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



Compound# 61
Carbazole
Concen: 47.75 ug/mL m
RT: 12.07 min Scan# 1697
Delta R.T. 0.01 min
Lab File: HAA03S65.D
Acq: 02/16/2015 12:09
Integration Scan Range
From
1688 (12.016 min)
To
1771 (12.502 min)
Peak Area 5079641

MANUAL RE-INTEGRATION

- ☐ **missed** peak
- ☐ **assigned** incorrect name to peak
- ☐ **over-integrated** peak's area
- ☑ **under-integrated** peak's area
- ☐ **other** _____

Initials SY *date* 2/17/15

H8270D15A1.M 5975-H H8270D15A1.M 8270 S65 NEW COLUMN

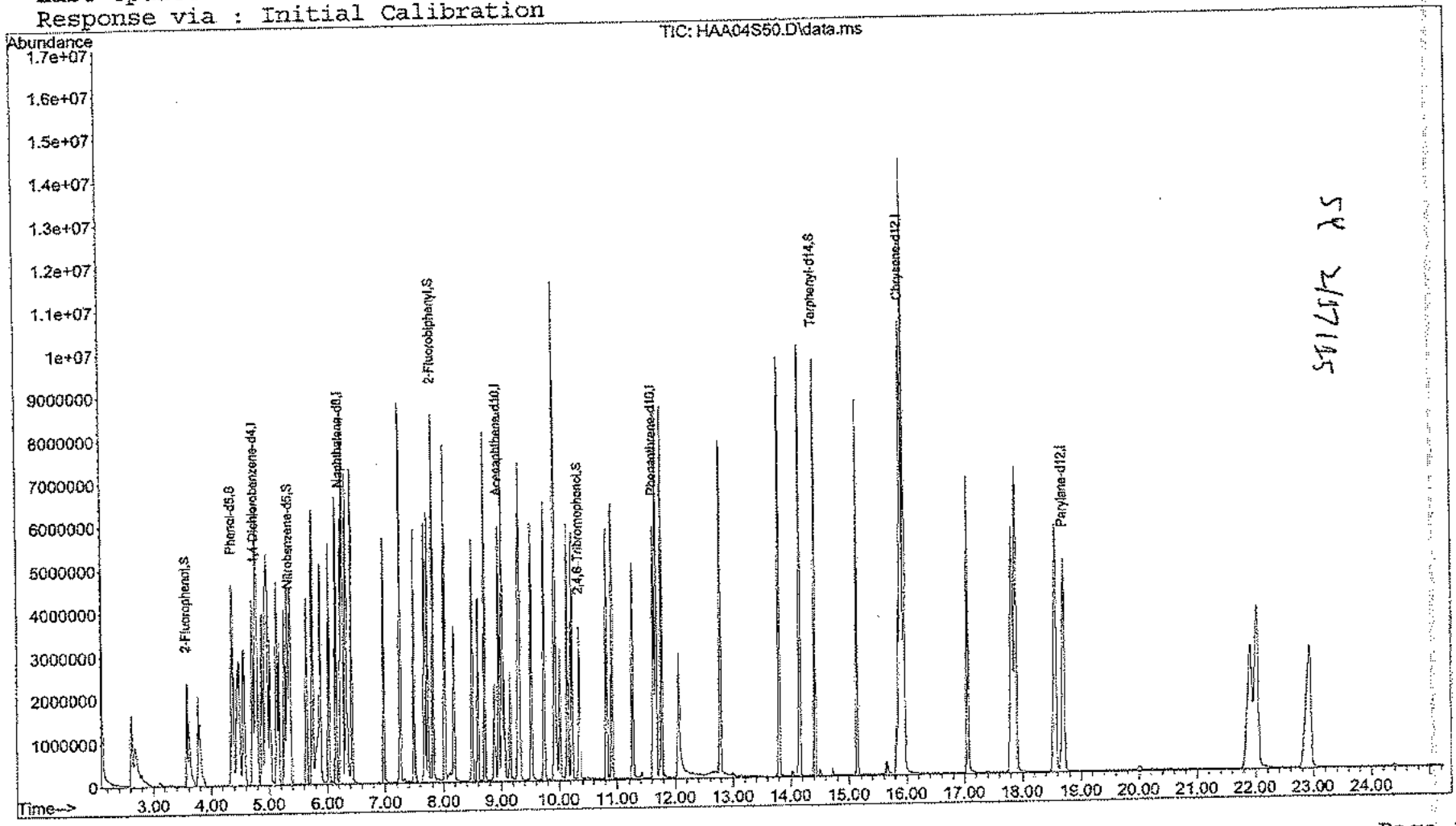
Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA04S50.D
Acq On : 02/16/2015 12:43
Sample : 8270 S50
Misc : NEW COLUMN
MS Integration Params: rteint.p

Vial: 4
Operator: JH
Inst : 5975-H
Injection volume : 1uL

Quant Time: Feb 17 11:05:38 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



2/17/15

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA04S50.D Vial: 4
Acq On : 02/16/2015 12:43 Operator: JH
Sample : 8270 S50 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 11:05:38 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1278154	40.00 ug/mL
17) Naphthalene-d8	6.24	136	4439386	40.00 ug/mL
32) Acenaphthene-d10	8.96	164	2267026	40.00 ug/mL
52) Phenanthrene-d10	11.63	188	4277931	40.00 ug/mL
64) Chrysene-d12	15.92	240	4291220	40.00 ug/mL
72) Perylene-d12	18.70	264	5108290	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.58	112	2182821	54.233ug/mL m SY 2/17/15
4) Phenol-d5	4.36	99	2312995	55.488ug/mL
18) Nitrobenzene-d5	5.35	82	2031940	60.212ug/mL
36) 2-Fluorobiphenyl	7.82	172	4458510	54.556ug/mL
53) 2,4,6-Tribromophenol	10.35	330	734177	56.519ug/mL
66) Terphenyl-d14	14.42	244	4938768	52.568ug/mL
Target Compounds				Qvalue
2) Pyridine	2.62	79	2088304	50.879ug/mL m SY 2/17/15 37
5) Phenol	4.37	94	2463358	56.634ug/mL 99
6) Bis(2-chloroethyl)ether	4.46	93	2444605	65.107ug/mL 85
7) 2-Chlorophenol	4.55	128	2454268	54.743ug/mL 98
8) 1,3-Dichlorobenzene	4.70	146	2828858	55.233ug/mL 100
9) 1,4-dichlorobenzene	4.78	146	2741128	55.091ug/mL 99
10) Benzyl alcohol	4.88	108	1400567	59.159ug/mL 98
11) 1,2-dichlorobenzene	4.94	146	2614114	54.431ug/mL 100
12) 2-Methylphenol	4.97	107	1621818	56.696ug/mL 98
13) Bis(2-chloroisopropyl)ethe	5.02	45	1876709	46.211ug/mL 93
14) 4-methylphenol	5.13	107	2383337	59.268ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.17	70	1087268	49.889ug/mL 96
16) Hexachloroethane	5.31	117	989694	52.282ug/mL 99
19) Nitrobenzene	5.37	77	1889787	53.076ug/mL 99
20) Isophorone	5.65	82	3367644	54.725ug/mL 99
21) 2-Nitrophenol	5.74	139	1208616	54.541ug/mL 99
22) 2,4-Dimethylphenol	5.75	122	1649898	54.197ug/mL 98
23) Benzoic Acid	5.90	122	1130844	58.861ug/mL 81
24) Bis(2-chloroethoxy)methane	5.89	93	2036224	52.049ug/mL 98
25) 2,4-Dichlorophenol	6.03	162	1984014	55.402ug/mL 99
26) 1,2,4-Trichlorobenzene	6.16	180	2213460	53.827ug/mL 100
27) Naphthalene	6.27	128	5927531	52.720ug/mL 99
28) 4-Chloroaniline	6.32	127	1988469	47.347ug/mL 97
29) Hexachlorobutadiene	6.42	225	1296326	53.593ug/mL 100
30) 4-Chloro-3-Methylphenol	6.97	107	1743812	57.299ug/mL 99
31) 2-Methylnaphthalene	7.26	142	4282019	55.293ug/mL 99
33) Hexachlorocyclopentadiene	7.49	237	1519323	58.619ug/mL 100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA04S50.D
Acq On : 02/16/2015 12:43
Sample : 8270 S50
Misc : NEW COLUMN
MS Integration Params: rteint.p
Quant Time: Feb 17 11:05:38 2015

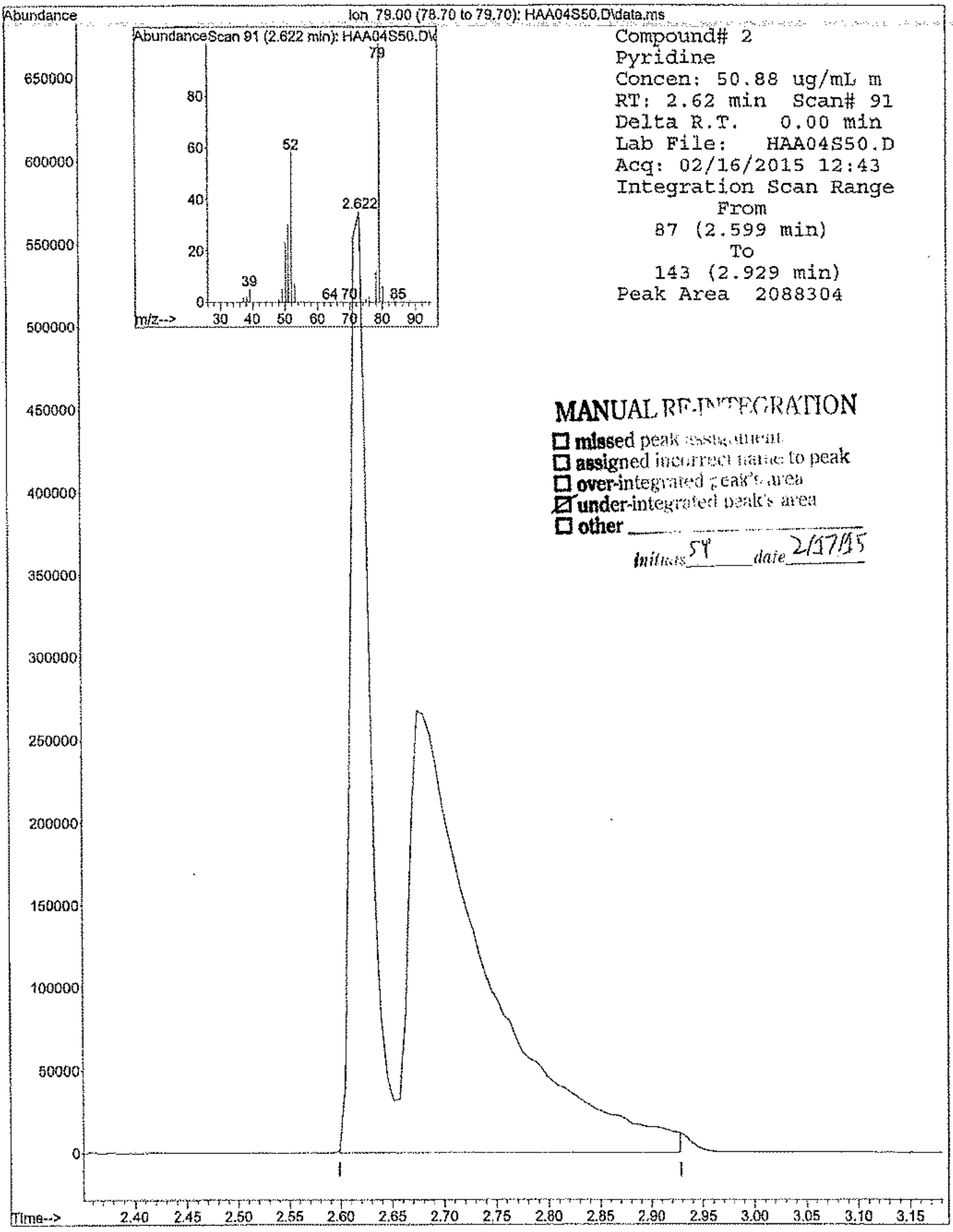
Vial: 4
Operator: JH
Inst : 5975-H
Injection volume : 1
Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	7.67	196	1524938	60.154ug/mL	99
35) 2,4,5-Trichlorophenol	7.73	196	1628809	59.118ug/mL	100
37) 2-Chloronaphthalene	8.02	162	4103229	54.505ug/mL	99
38) 2-Nitroaniline	8.18	65	1012111	57.596ug/mL	95
39) Dimethylphthalate	8.50	163	4722481	57.328ug/mL	100
40) 2,6-Dinitrotoluene	8.60	165	1107060	60.651ug/mL	98
41) Acenaphthylene	8.72	152	6464196	54.756ug/mL	100
42) 3-Nitroaniline	8.89	65	807436	42.073ug/mL	98
43) Acenaphthene	9.02	153	3845244	53.667ug/mL	99
44) 2,4-Dinitrophenol	9.06	184	664476	64.218ug/mL	98
45) 4-Nitrophenol	9.16	109	523931	61.974ug/mL	97
46) Dibenzofuran	9.32	168	5590834	54.992ug/mL	99
47) 2,4-Dinitrotoluene	9.30	165	1443406	66.240ug/mL	94
48) Diethylphthalate	9.75	149	4569465	56.899ug/mL	100
49) 4-chlorophenyl phenyl ethe	9.93	204	2087409	53.149ug/mL	99
50) Fluorene	9.92	166	4033069	53.150ug/mL	100
51) 4-Nitroaniline	9.95	65	483839	32.117ug/mL	90
54) 4,6-Dinitro-2-methylphenol	10.02	198	928170	63.313ug/mL	96
55) N-Nitrosodiphenylamine	10.15	169	2874917	49.391ug/mL	99
56) 4-bromophenyl phenyl ether	10.82	248	1499776	54.250ug/mL	99
57) Hexachlorobenzene	10.92	284	1671955	53.825ug/mL	98
58) Pentachlorophenol	11.27	266	1148592	61.997ug/mL	99
59) Phenanthrene	11.68	178	6263888	51.139ug/mL m	99
60) Anthracene	11.77	178	6426636	51.999ug/mL	100
61) Carbazole	12.06	167	3753433	34.718ug/mL m	96
62) Di-n-butylphthalate	12.79	149	7221072	51.784ug/mL	100
63) Fluoranthene	13.80	202	6918181	52.229ug/mL	99
65) Pyrene	14.16	202	7080836	52.491ug/mL	99
67) Butylbenzylphthalate	15.14	149	3190124	53.561ug/mL	97
68) 3,3'-Dichlorobenzidine	15.86	252	1277809	33.195ug/mL	99
69) Benzo(a)anthracene	15.90	228	6811365	55.784ug/mL	99
70) Chrysene	15.96	228	5291674	45.720ug/mL	99
71) Bis(2-ethylhexyl)phthalate	15.96	149	3635920	45.071ug/mL	98
73) Di-n-octylphthalate	17.06	149	7762722	58.214ug/mL	100
74) Benzo(b)fluoranthene	17.83	252	7358101	59.026ug/mL	98
75) Benzo(k)fluoranthene	17.89	252	6486376	51.634ug/mL	99
76) Benzo(a)pyrene	18.57	252	6744208	55.789ug/mL	99
77) Indeno(1,2,3-c,d)pyrene	21.92	276	6477256	55.902ug/mL	100
78) Dibenz(a,h)anthracene	22.03	278	6463519	54.791ug/mL	98
79) Benzo(g,h,i)perylene	22.93	276	6485107	53.377ug/mL	96

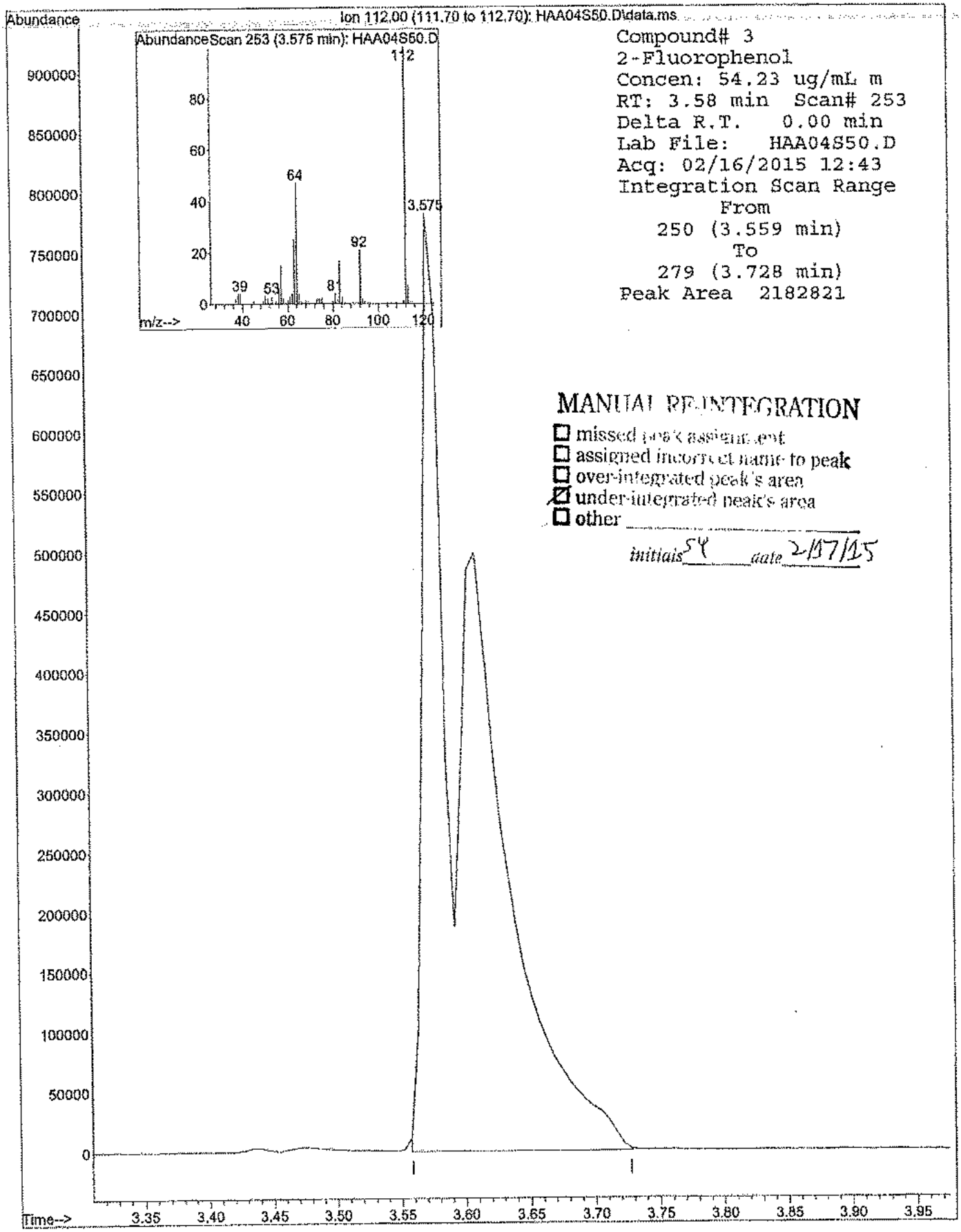
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



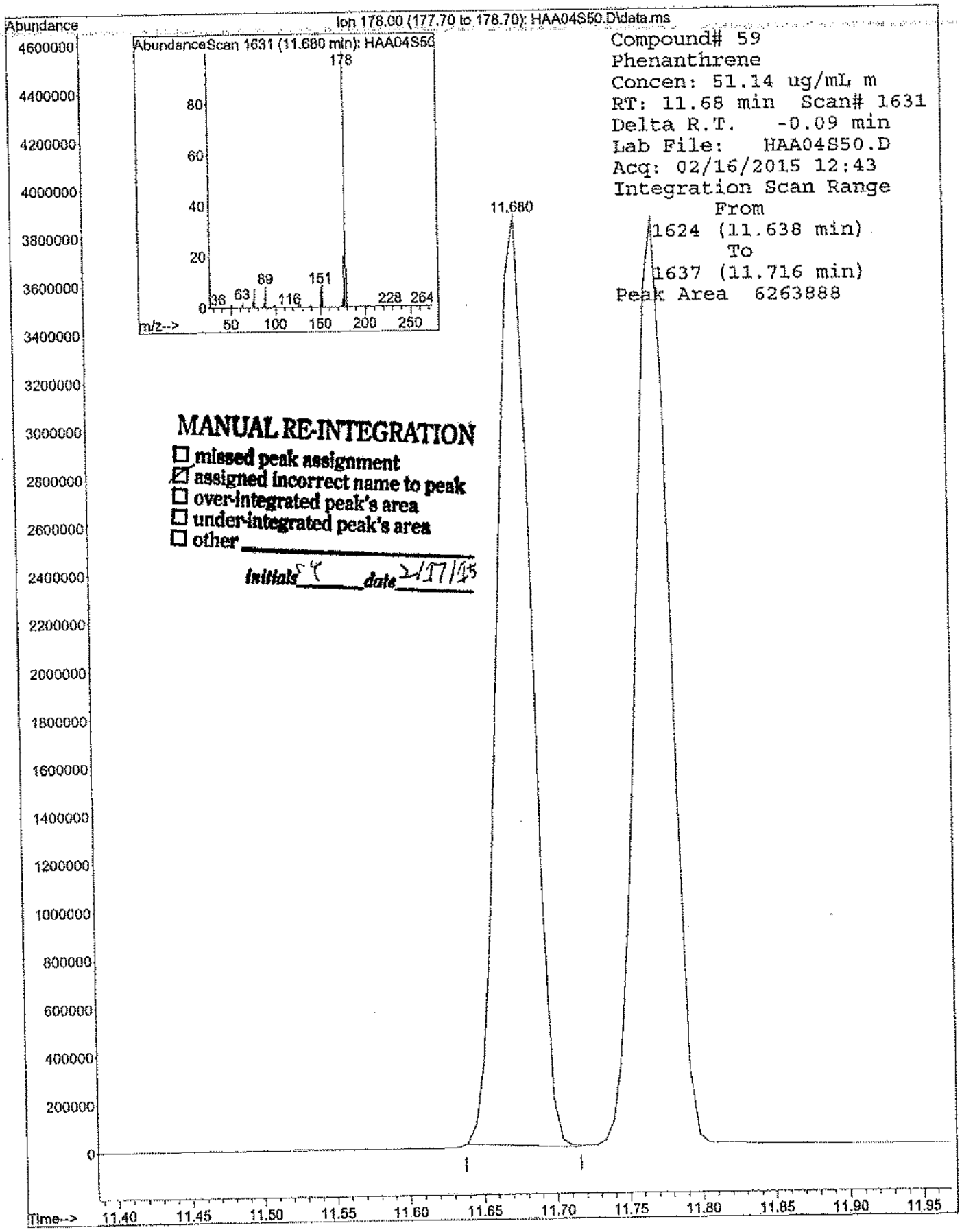
H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



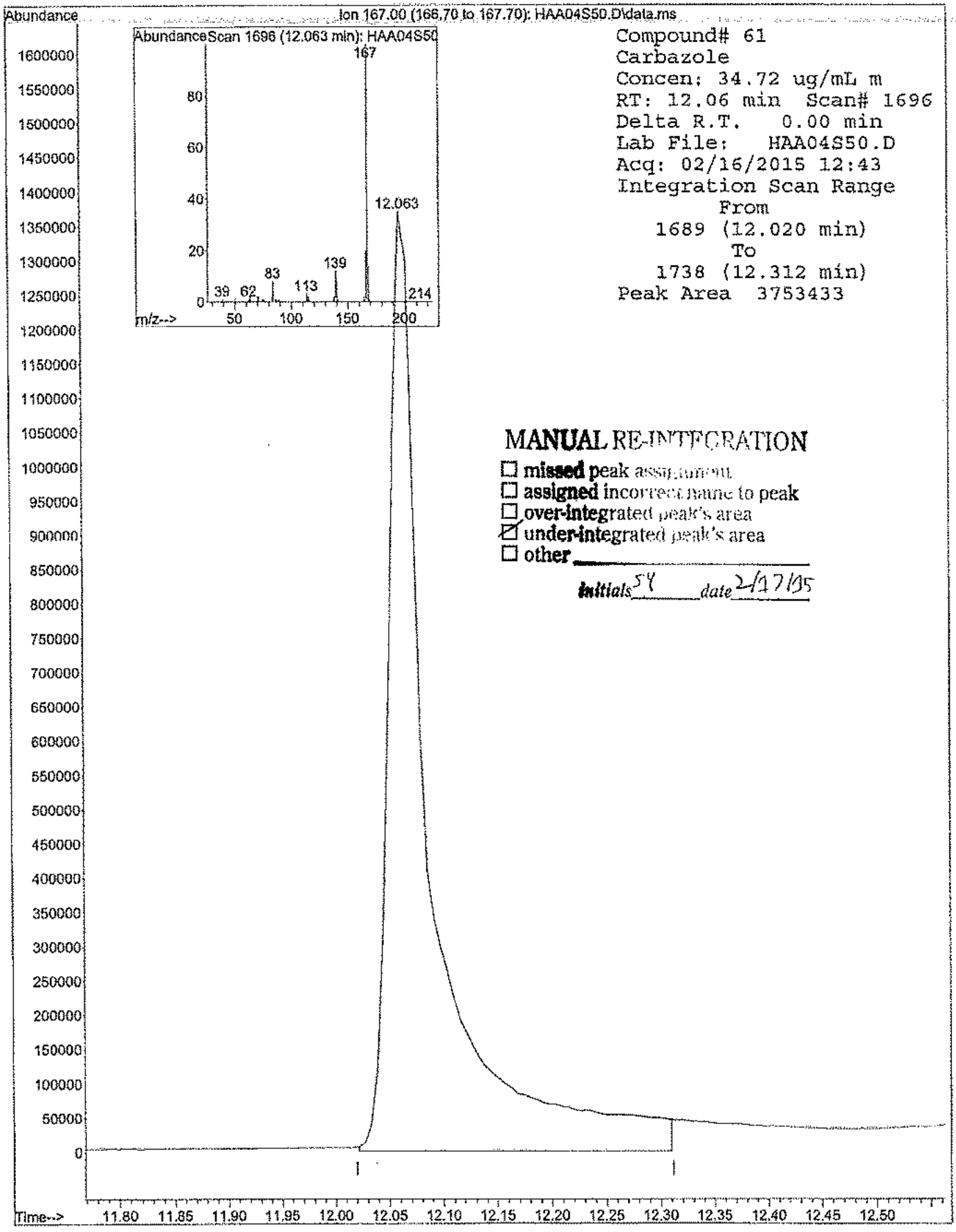
H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



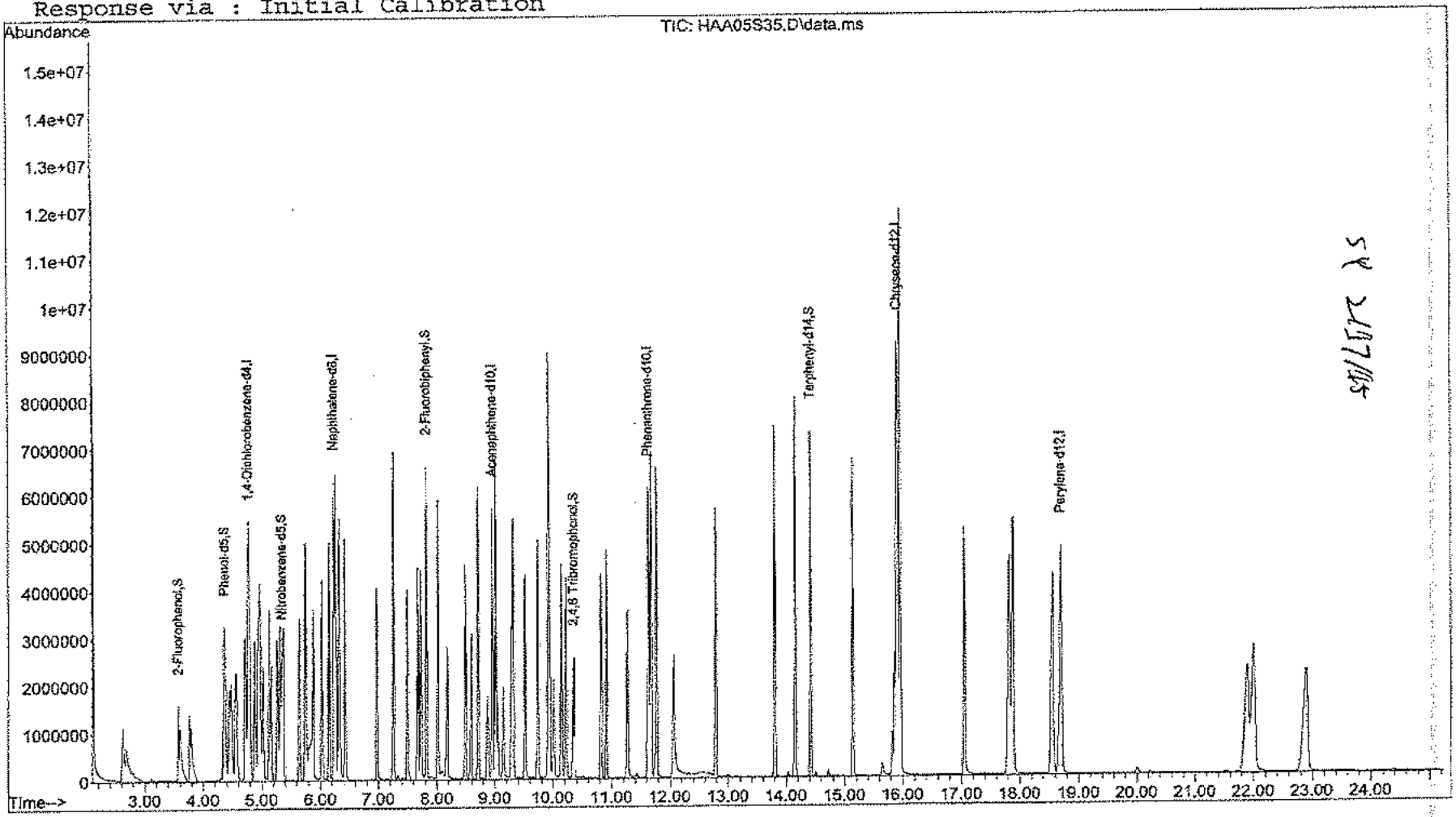
H8270D15A1.M 5975-H H8270D15A1.M 8270 S50 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA05S35.D Vial: 5
Acq On : 02/16/2015 13:16 Operator: JH
Sample : 8270 S35 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 10:46:05 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA05S35.D Vial: 5
Acq On : 02/16/2015 13:16 Operator: JH
Sample : 8270 S35 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:46:05 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.76	152	1320920	40.00 ug/mL	
17) Naphthalene-d8	6.24	136	4506292	40.00 ug/mL	
32) Acenaphthene-d10	8.96	164	2261450	40.00 ug/mL	
52) Phenanthrene-d10	11.63	188	4219865	40.00 ug/mL	
64) Chrysene-d12	15.92	240	4257649	40.00 ug/mL	
72) Perylene-d12	18.70	264	5017428	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.57	112	1526198	36.691ug/mL	m SY
4) Phenol-d5	4.36	99	1608542	37.339ug/mL	2/17/15
18) Nitrobenzene-d5	5.35	82	1433993	41.862ug/mL	
36) 2-Fluorobiphenyl	7.82	172	3261563	40.008ug/mL	
53) 2,4,6-Tribromophenol	10.35	330	508142	39.656ug/mL	
66) Terphenyl-d14	14.42	244	3599674	38.617ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.62	79	1428984	33.688ug/mL	m 36
5) Phenol	4.37	94	1707873	37.994ug/mL	SY 99
6) Bis(2-chloroethyl)ether	4.48	93	1475869	38.034ug/mL	2/17/15 95
7) 2-Chlorophenol	4.56	128	1732173	37.386ug/mL	99
8) 1,3-Dichlorobenzene	4.71	146	2010976	37.993ug/mL	98
9) 1,4-dichlorobenzene	4.78	146	1951436	37.950ug/mL	99
10) Benzyl alcohol	4.88	108	977364	39.947ug/mL	98
11) 1,2-dichlorobenzene	4.94	146	1845811	37.189ug/mL	100
12) 2-Methylphenol	4.96	107	1154211	39.043ug/mL	98
13) Bis(2-chloroisopropyl)ethe	5.02	45	1382912	32.949ug/mL	94
14) 4-methylphenol	5.13	107	1671470	40.220ug/mL	98
15) N-Nitrosodi-n-propyl amine	5.16	70	774377	34.381ug/mL	96
16) Hexachloroethane	5.31	117	694424	35.496ug/mL	99
19) Nitrobenzene	5.37	77	1352429	37.420ug/mL	99
20) Isophorone	5.64	82	2406703	38.529ug/mL	99
21) 2-Nitrophenol	5.74	139	862913	38.363ug/mL	99
22) 2,4-Dimethylphenol	5.75	122	1193911	38.636ug/mL	97
23) Benzoic Acid	5.87	122	751364	41.744ug/mL	82
24) Bis(2-chloroethoxy)methane	5.88	93	1466361	36.926ug/mL	98
25) 2,4-Dichlorophenol	6.03	162	1398633	38.476ug/mL	100
26) 1,2,4-Trichlorobenzene	6.15	180	1580703	37.869ug/mL	100
27) Naphthalene	6.27	128	4356390	38.171ug/mL	100
28) 4-Chloroaniline	6.32	127	1484764	34.828ug/mL	98
29) Hexachlorobutadiene	6.42	225	925549	37.696ug/mL	99
30) 4-Chloro-3-Methylphenol	6.97	107	1220401	39.505ug/mL	100
31) 2-Methylnaphthalene	7.25	142	3153910	40.121ug/mL	100
33) Hexachlorocyclopentadiene	7.49	237	1046458	40.475ug/mL	100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

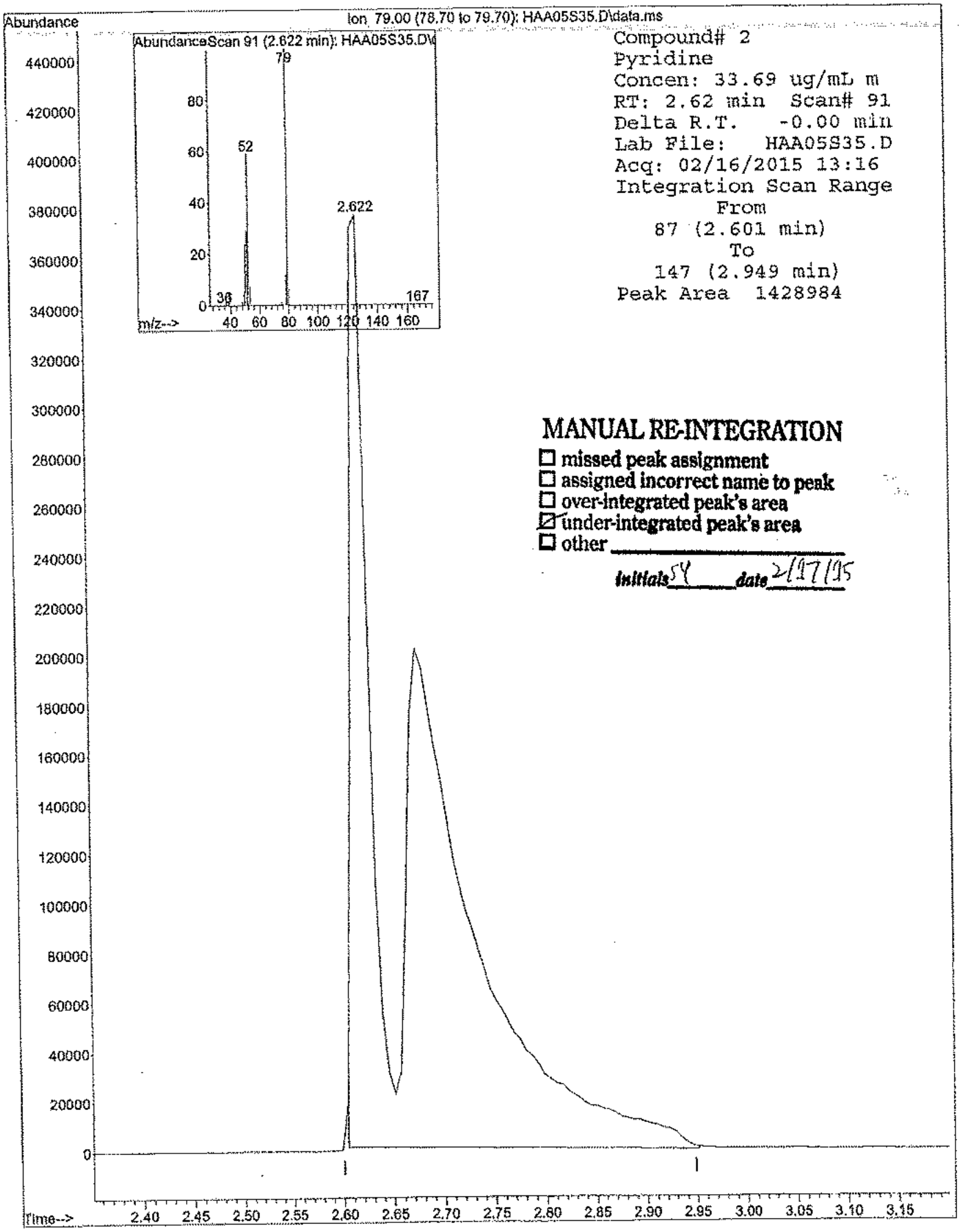
Data File : R:\H\2015\FEB15\16FEB15H\HAA05S35.D Vial: 5
Acq On : 02/16/2015 13:16 Operator: JH
Sample : 8270 S35 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:46:05 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
34)	2,4,6-Trichlorophenol	7.67	196	1068434	42.250ug/mL		100
35)	2,4,5-Trichlorophenol	7.72	196	1144894	41.657ug/mL		100
37)	2-Chloronaphthalene	8.02	162	2953224	39.326ug/mL		100
38)	2-Nitroaniline	8.17	65	716388	40.868ug/mL		95
39)	Dimethylphthalate	8.49	163	3401285	41.391ug/mL		100
40)	2,6-Dinitrotoluene	8.59	165	790740	43.428ug/mL		99
41)	Acenaphthylene	8.71	152	4707811	39.976ug/mL		100
42)	3-Nitroaniline	8.87	65	560925	29.300ug/mL		97
43)	Acenaphthene	9.01	153	2806399	39.265ug/mL		99
44)	2,4-Dinitrophenol	9.05	184	430269	44.727ug/mL		99
45)	4-Nitrophenol	9.15	109	366867	44.670ug/mL		97
46)	Dibenzofuran	9.32	168	4069303	40.125ug/mL		98
47)	2,4-Dinitrotoluene	9.29	165	1030011	47.385ug/mL		95
48)	Diethylphthalate	9.74	149	3281709	40.964ug/mL		100
49)	4-chlorophenyl phenyl ethe	9.93	204	1569866	40.070ug/mL		100
50)	Fluorene	9.92	166	3043645	40.210ug/mL		100
51)	4-Nitroaniline	9.95	65	381200	25.366ug/mL		92
54)	4,6-Dinitro-2-methylphenol	10.01	198	629101	43.503ug/mL		97
55)	N-Nitrosodiphenylamine	10.14	169	2109355	36.737ug/mL		99
56)	4-bromophenyl phenyl ether	10.82	248	1072550	39.330ug/mL		100
57)	Hexachlorobenzene	10.91	284	1172669	38.271ug/mL		99
58)	Pentachlorophenol	11.27	266	794196	44.789ug/mL		99
59)	Phenanthrene	11.67	178	4642979	38.428ug/mL	m	99
60)	Anthracene	11.77	178	4645132	38.102ug/mL		100
61)	Carbazole	12.06	167	2603022	24.408ug/mL	m	97
62)	Di-n-butylphthalate	12.78	149	5241404	38.105ug/mL		100
63)	Fluoranthene	13.80	202	5052583	38.669ug/mL		98
65)	Pyrene	14.16	202	5202670	38.872ug/mL		98
67)	Butylbenzylphthalate	15.14	149	2328302	39.400ug/mL		97
68)	3,3'-Dichlorobenzidine	15.86	252	880916	23.065ug/mL		99
69)	Benzo(a)anthracene	15.90	228	4872068	40.216ug/mL		99
70)	Chrysene	15.96	228	4029157	35.086ug/mL		99
71)	Bis(2-ethylhexyl)phthalate	15.96	149	2808737	35.091ug/mL		99
73)	Di-n-octylphthalate	17.05	149	5637568	43.042ug/mL		100
74)	Benzo(b)fluoranthene	17.82	252	5140907	41.987ug/mL		99
75)	Benzo(k)fluoranthene	17.88	252	4804781	38.941ug/mL		99
76)	Benzo(a)pyrene	18.56	252	4805968	40.476ug/mL		99
77)	Indeno(1,2,3-c,d)pyrene	21.90	276	4478156	39.349ug/mL		100
78)	Dibenz(a,h)anthracene	22.00	278	4534963	39.139ug/mL		97
79)	Benzo(g,h,i)perylene	22.90	276	4607240	38.607ug/mL		96

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



Compound# 2
Pyridine
Concen: 33.69 ug/mL m
RT: 2.62 min Scan# 91
Delta R.T. -0.00 min
Lab File: HAA05S35.D
Acq: 02/16/2015 13:16
Integration Scan Range
From
87 (2.601 min)
To
147 (2.949 min)
Peak Area 1428984

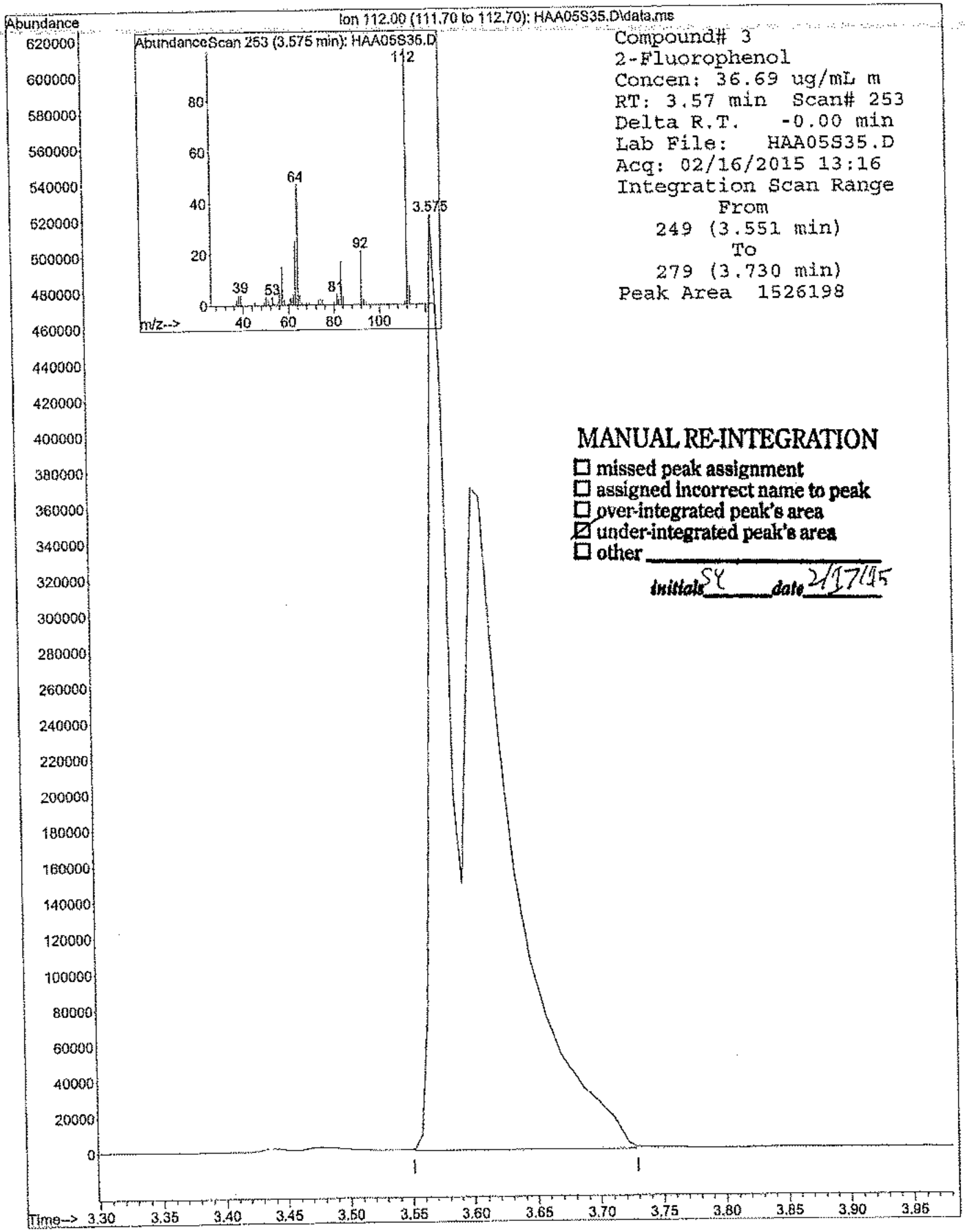
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☒ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

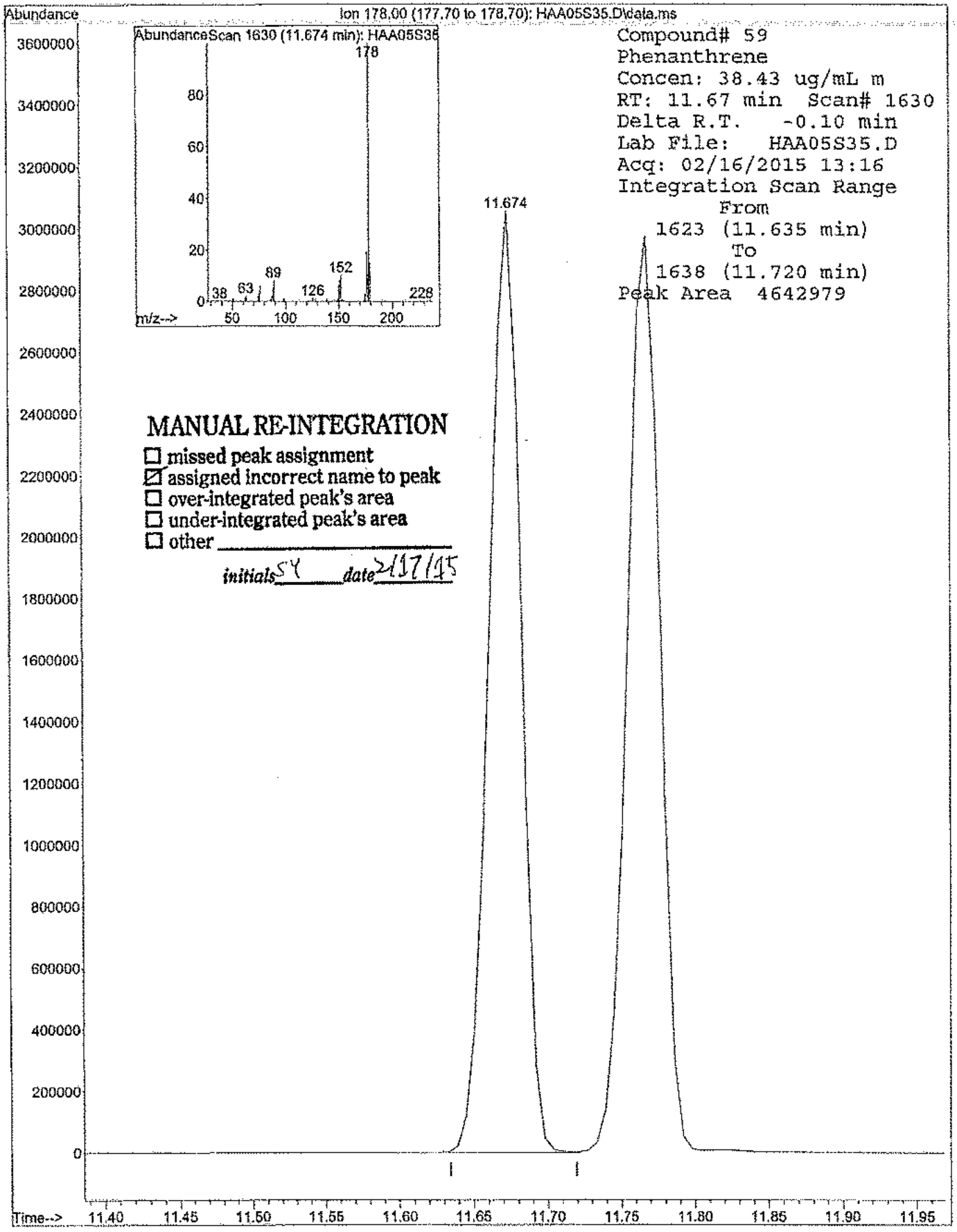
H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



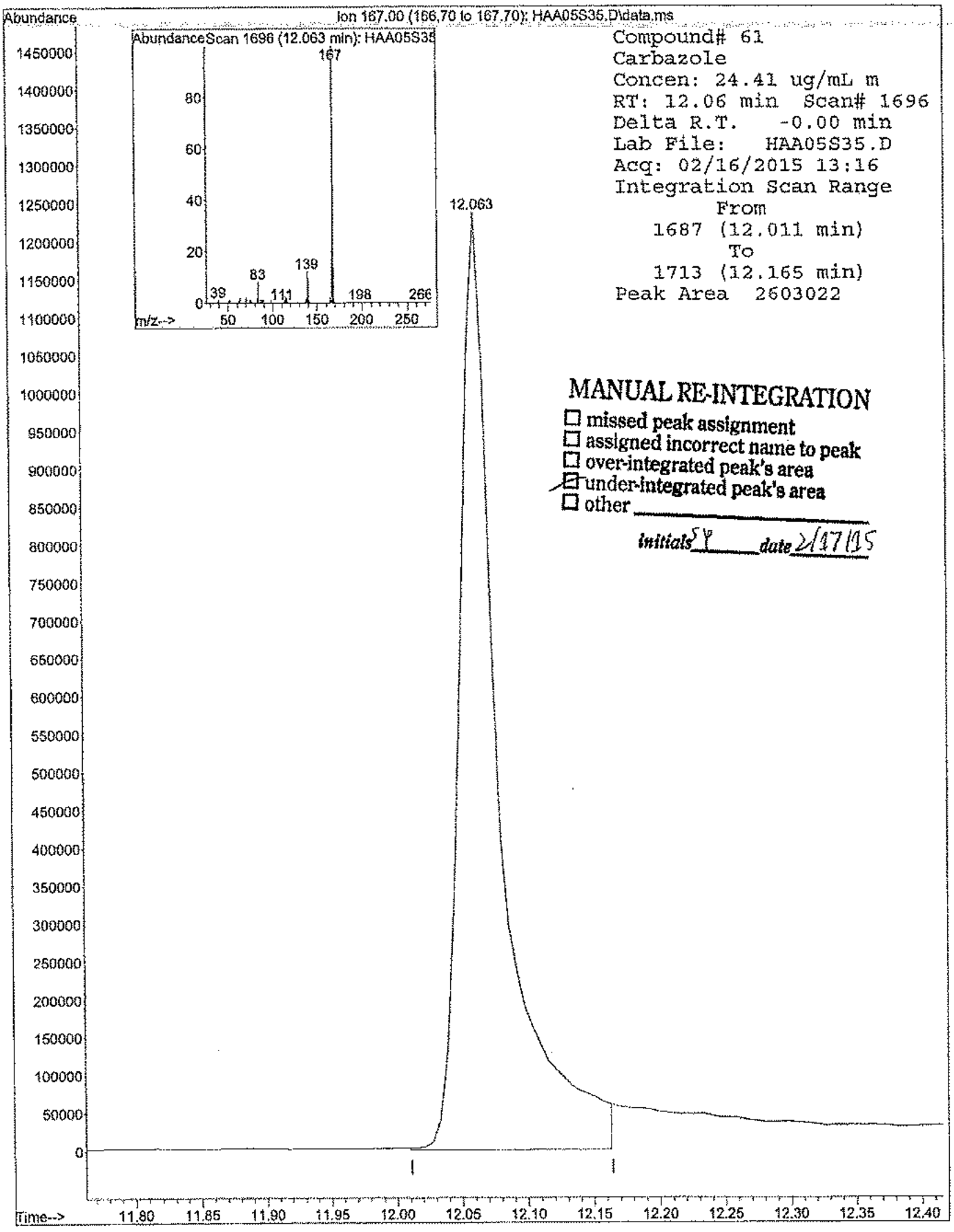
H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



Compound# 61
Carbazole
Concen: 24.41 ug/mL m
RT: 12.06 min Scan# 1696
Delta R.T. -0.00 min
Lab File: HAA05S35.D
Acq: 02/16/2015 13:16
Integration Scan Range
From
1687 (12.011 min)
To
1713 (12.165 min)
Peak Area 2603022

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

Initials SY *date* 2/17/15

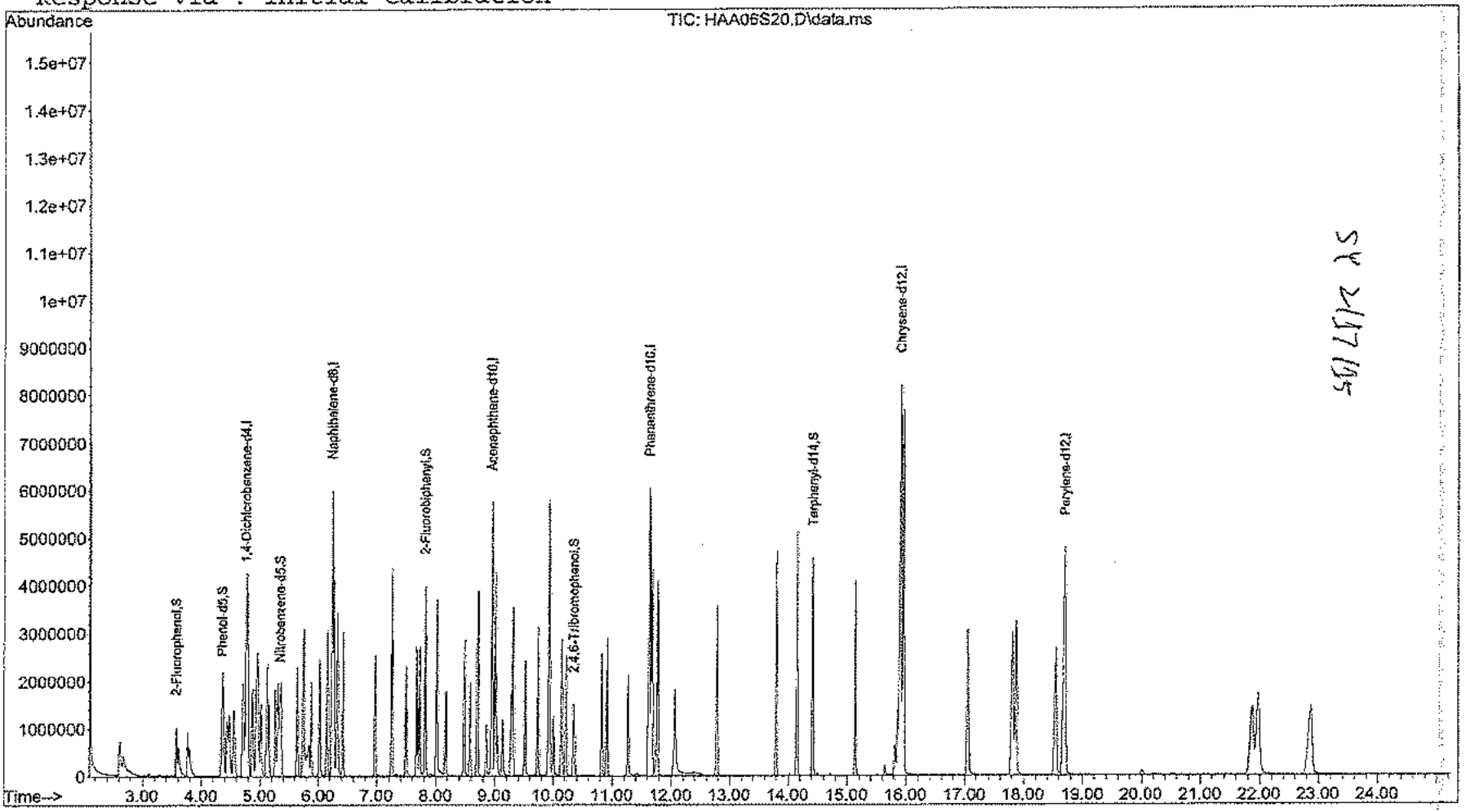
H8270D15A1.M 5975-H H8270D15A1.M 8270 S35 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA06S20.D Vial: 6
Acq On : 02/16/2015 13:50 Operator: JH
Sample : 8270 S20 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 10:48:12 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



2/17/15

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA06S20.D Vial: 6
Acq On : 02/16/2015 13:50 Operator: JH
Sample : 8270 S20 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:48:12 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1235450	40.00 ug/mL
17) Naphthalene-d8	6.23	136	4321064	40.00 ug/mL
32) Acenaphthene-d10	8.95	164	2214933	40.00 ug/mL
52) Phenanthrene-d10	11.63	188	4073308	40.00 ug/mL
64) Chrysene-d12	15.91	240	4237609	40.00 ug/mL
72) Perylene-d12	18.69	264	4954588	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.57	112	881824	22.666ug/mL m SY 2/17/15
4) Phenol-d5	4.35	99	948936	23.552ug/mL
18) Nitrobenzene-d5	5.34	82	852137	25.942ug/mL
36) 2-Fluorobiphenyl	7.82	172	1978291	24.777ug/mL
53) 2,4,6-Tribromophenol	10.34	330	286926	23.198ug/mL
66) Terphenyl-d14	14.42	244	2132433	22.985ug/mL
Target Compounds				Qvalue
2) Pyridine	2.62	79	846826	21.345ug/mL m SY 35
5) Phenol	4.36	94	1015832	24.162ug/mL 2/17/15 99
6) Bis(2-chloroethyl)ether	4.47	93	902159	24.858ug/mL 90
7) 2-Chlorophenol	4.55	128	1005327	23.199ug/mL 99
8) 1,3-Dichlorobenzene	4.70	146	1163890	23.510ug/mL 100
9) 1,4-dichlorobenzene	4.77	146	1171547	24.359ug/mL 99
10) Benzyl alcohol	4.87	108	573312	25.053ug/mL 98
11) 1,2-dichlorobenzene	4.93	146	1088585	23.450ug/mL 100
12) 2-Methylphenol	4.96	107	684475	24.755ug/mL 98
13) Bis(2-chloroisopropyl)ethe	5.01	45	843279	21.482ug/mL 95
14) 4-methylphenol	5.12	107	989332	25.453ug/mL 98
15) N-Nitrosodi-n-propyl amine	5.16	70	473231	22.464ug/mL 98
16) Hexachloroethane	5.30	117	409487	22.379ug/mL 100
19) Nitrobenzene	5.36	77	811851	23.426ug/mL 99
20) Isophorone	5.63	82	1450454	24.216ug/mL 99
21) 2-Nitrophenol	5.73	139	592673	27.478ug/mL 92
22) 2,4-Dimethylphenol	5.75	122	731730	24.695ug/mL 97
23) Benzoic Acid	5.84	122	399195	27.281ug/mL 80
24) Bis(2-chloroethoxy)methane	5.87	93	885405	23.252ug/mL 98
25) 2,4-Dichlorophenol	6.02	162	821127	23.557ug/mL 100
26) 1,2,4-Trichlorobenzene	6.15	180	935312	23.368ug/mL 99
27) Naphthalene	6.26	128	2678000	24.471ug/mL 100
28) 4-Chloroaniline	6.32	127	893494	21.857ug/mL 97
29) Hexachlorobutadiene	6.42	225	553883	23.526ug/mL 99
30) 4-Chloro-3-Methylphenol	6.97	107	730281	24.653ug/mL 100
31) 2-Methylnaphthalene	7.25	142	1934196	25.660ug/mL 100
33) Hexachlorocyclopentadiene	7.49	237	587800	23.212ug/mL 100

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

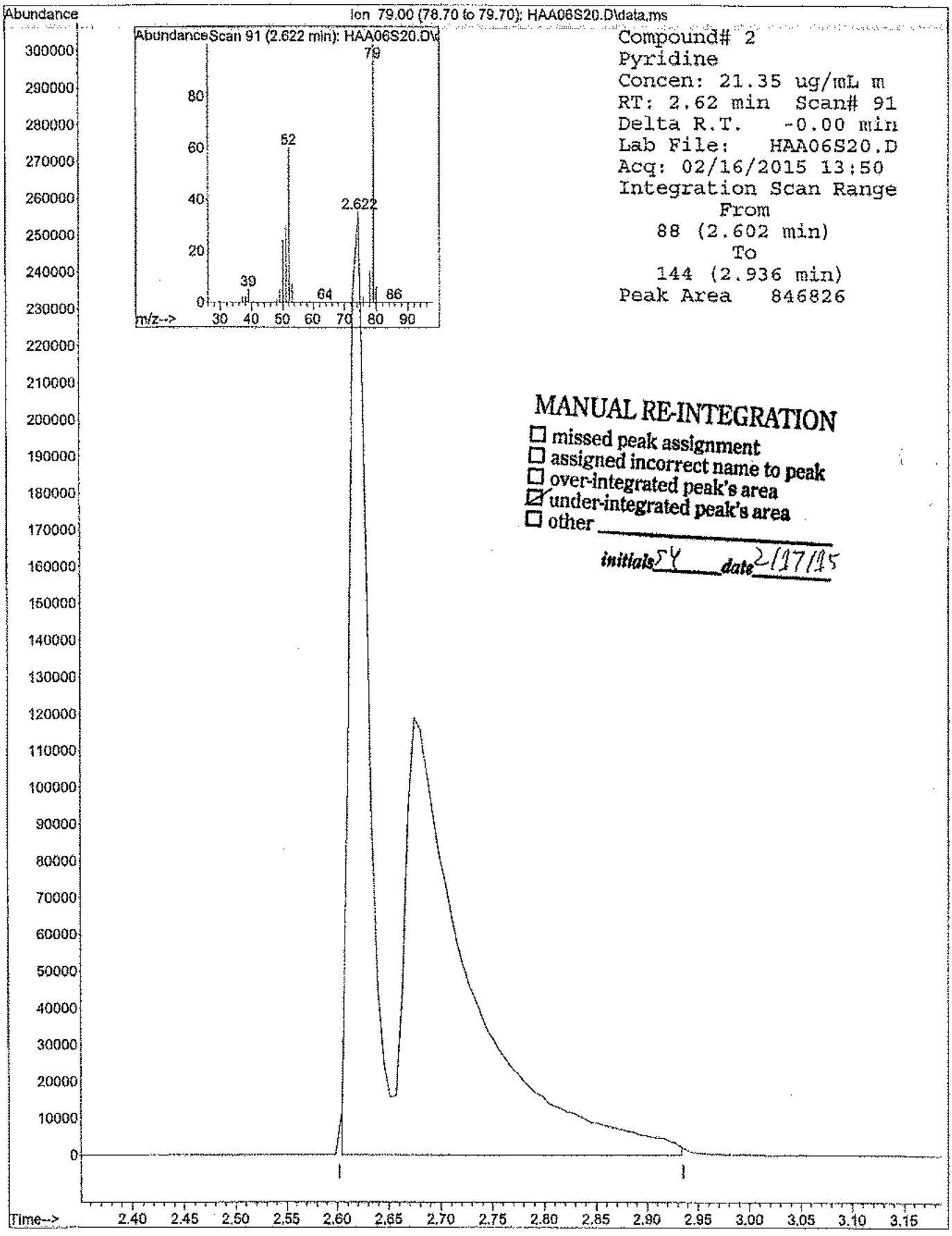
Data File : R:\H\2015\FEB15\16FEB15H\HAA06S20.D Vial: 6
Acq On : 02/16/2015 13:50 Operator: JH
Sample : 8270 S20 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:48:12 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34) 2,4,6-Trichlorophenol	7.67	196	621456	25.091ug/mL	99
35) 2,4,5-Trichlorophenol	7.72	196	677385	25.164ug/mL	99
37) 2-Chloronaphthalene	8.02	162	1774719	24.129ug/mL	100
38) 2-Nitroaniline	8.17	65	417710	24.330ug/mL	96
39) Dimethylphthalate	8.49	163	1996077	24.801ug/mL	100
40) 2,6-Dinitrotoluene	8.58	165	462716	25.946ug/mL	99
41) Acenaphthylene	8.71	152	2869614	24.879ug/mL	100
42) 3-Nitroaniline	8.86	65	326079	17.391ug/mL	98
43) Acenaphthene	9.01	153	1701023	24.299ug/mL	96
44) 2,4-Dinitrophenol	9.05	184	218766	27.387ug/mL	99
45) 4-Nitrophenol	9.13	109	206723	27.364ug/mL	96
46) Dibenzofuran	9.31	168	2477747	24.945ug/mL	98
47) 2,4-Dinitrotoluene	9.28	165	601315	28.244ug/mL	82
48) Diethylphthalate	9.73	149	1961431	24.998ug/mL	100
49) 4-chlorophenyl phenyl ethe	9.93	204	966650	25.192ug/mL	99
50) Fluorene	9.92	166	1895526	25.568ug/mL	100
51) 4-Nitroaniline	9.93	65	243231	16.525ug/mL	93
54) 4,6-Dinitro-2-methylphenol	10.00	198	334873	23.990ug/mL	98
55) N-Nitrosodiphenylamine	10.13	169	1260915	22.751ug/mL	100
56) 4-bromophenyl phenyl ether	10.82	248	625759	23.772ug/mL	99
57) Hexachlorobenzene	10.91	284	693926	23.462ug/mL	100
58) Pentachlorophenol	11.26	266	442914	27.757ug/mL	99
59) Phenanthrene	11.67	178	2835031	24.308ug/mL	98
60) Anthracene	11.76	178	2836805	24.106ug/mL	99
61) Carbazole	12.06	167	1766947	17.164ug/mL	98
62) Di-n-butylphthalate	12.78	149	3210106	24.177ug/mL	100
63) Fluoranthene	13.80	202	3090997	24.508ug/mL	98
65) Pyrene	14.15	202	3228513	24.236ug/mL	98
67) Butylbenzylphthalate	15.14	149	1393614	23.694ug/mL	98
68) 3,3'-Dichlorobenzidine	15.85	252	471944	12.415ug/mL	98
69) Benzo(a)anthracene	15.89	228	2921916	24.233ug/mL	99
70) Chrysene	15.94	228	2569081	22.478ug/mL	99
71) Bis(2-ethylhexyl)phthalate	15.96	149	1812472	22.752ug/mL	100
73) Di-n-octylphthalate	17.05	149	3278222	25.346ug/mL	100
74) Benzo(b)fluoranthene	17.80	252	2967395	24.543ug/mL	99
75) Benzo(k)fluoranthene	17.87	252	2847777	23.373ug/mL	99
76) Benzo(a)pyrene	18.54	252	2779389	23.705ug/mL	99
77) Indeno(1,2,3-c,d)pyrene	21.87	276	2517732	22.404ug/mL	99
78) Dibenz(a,h)anthracene	21.97	278	2581089	22.559ug/mL	98
79) Benzo(g,h,i)perylene	22.86	276	2660818	22.580ug/mL	96

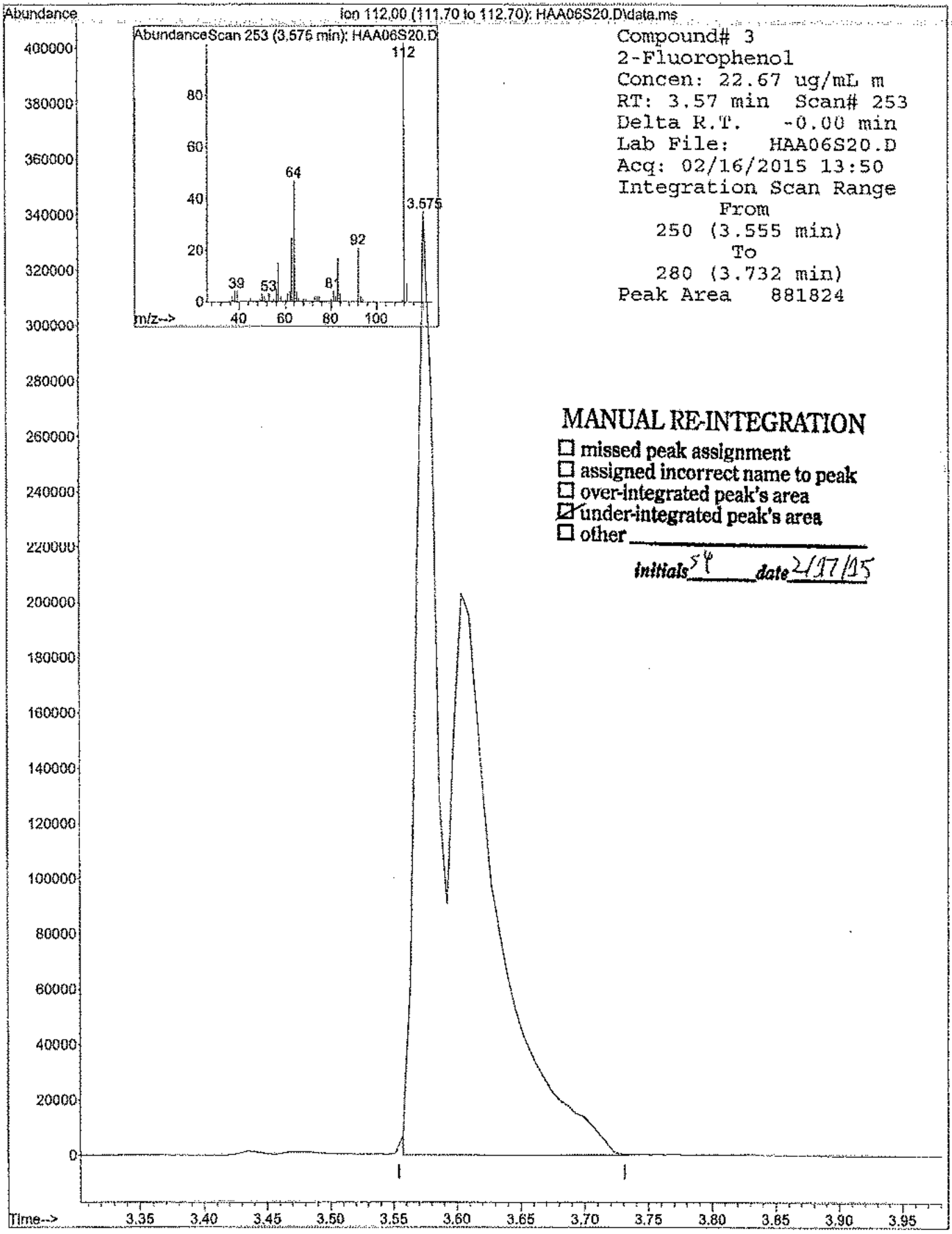
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



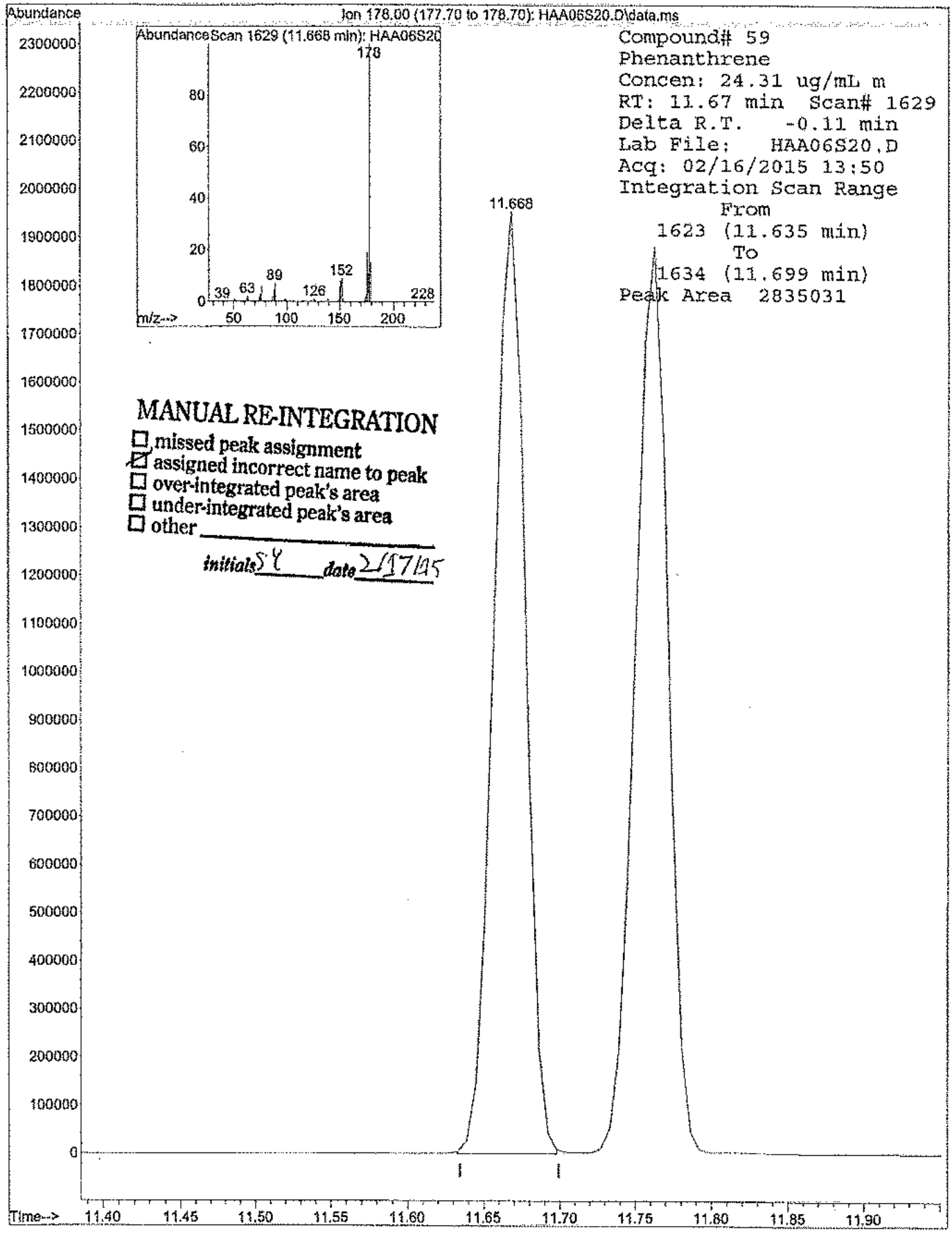
H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



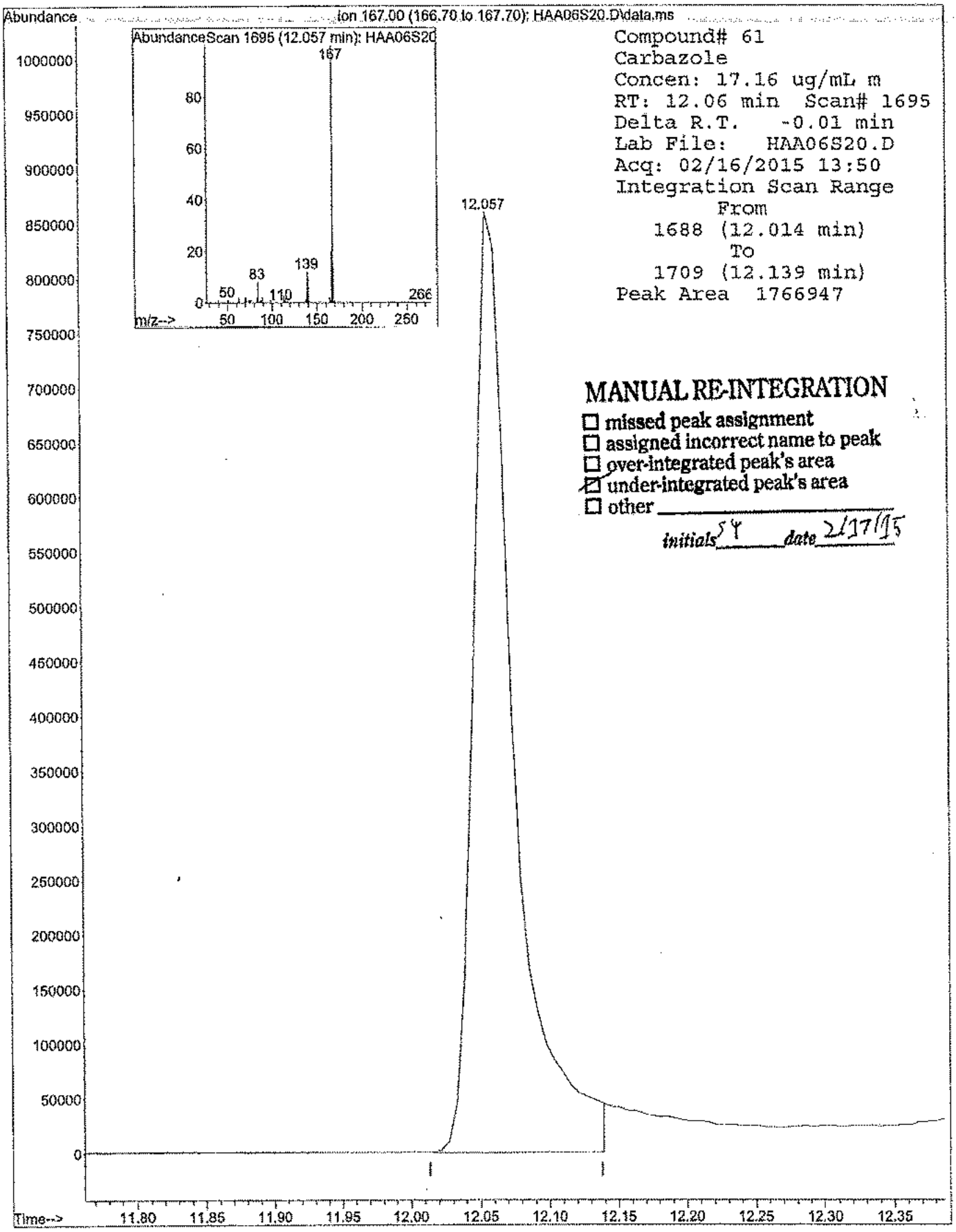
H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Carbazole



Compound# 61
Carbazole
Concen: 17.16 ug/mL m
RT: 12.06 min Scan# 1695
Delta R.T. -0.01 min
Lab File: HAA06S20.D
Acq: 02/16/2015 13:50
Integration Scan Range
From
1688 (12.014 min)
To
1709 (12.139 min)
Peak Area 1766947

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

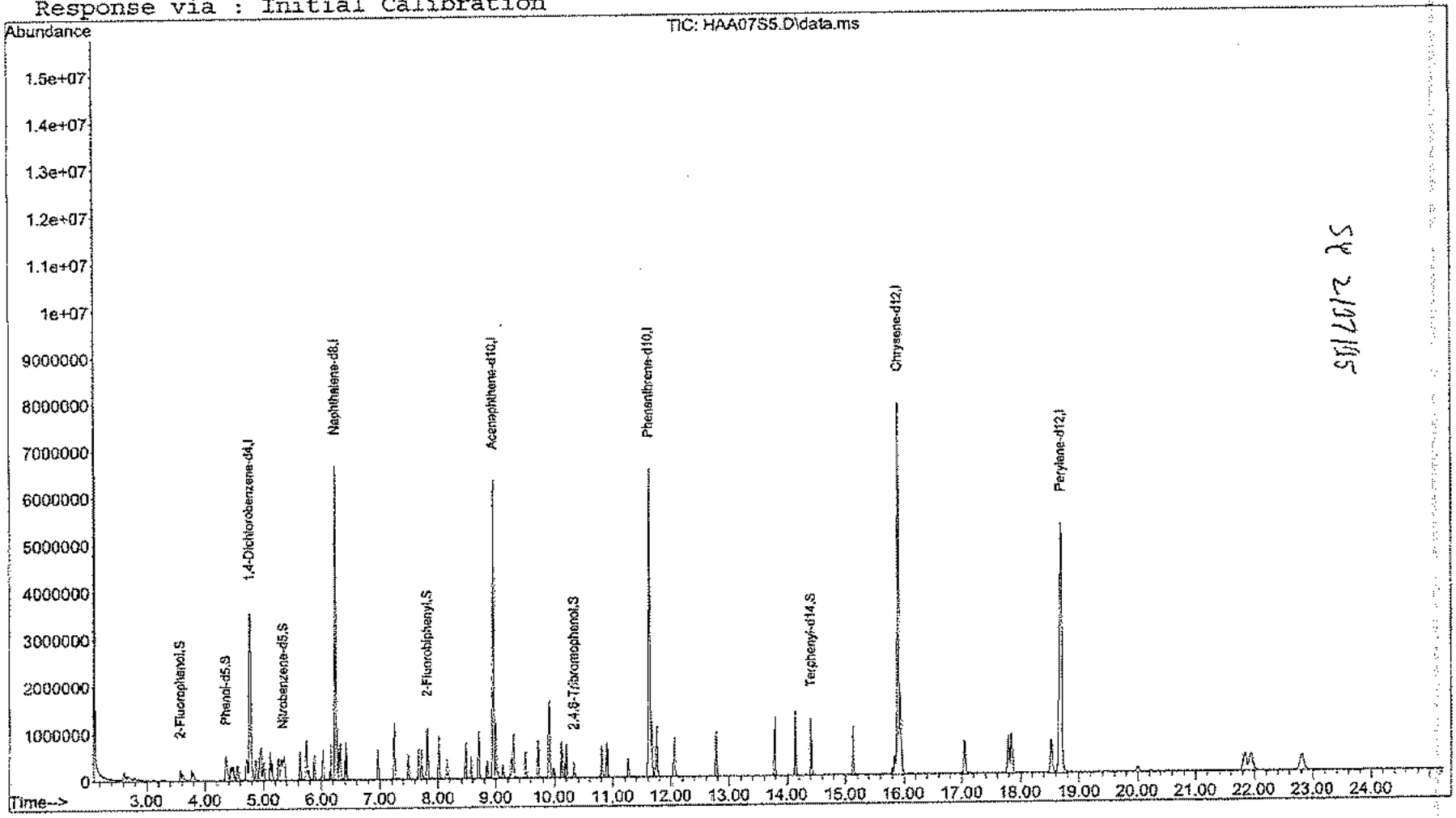
H8270D15A1.M 5975-H H8270D15A1.M 8270 S20 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA07S5.D Vial: 7
Acq On : 02/16/2015 14:23 Operator: JH
Sample : 8270 S5 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

Quant Time: Feb 17 10:50:55 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration



Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA07S5.D Vial: 7
Acq On : 02/16/2015 14:23 Operator: JH
Sample : 8270 S5 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:50:55 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	
1) 1,4-Dichlorobenzene-d4	4.76	152	1406124	40.00 ug/mL	
17) Naphthalene-d8	6.23	136	4668201	40.00 ug/mL	
32) Acenaphthene-d10	8.95	164	2349879	40.00 ug/mL	
52) Phenanthrene-d10	11.62	188	4303319	40.00 ug/mL	
64) Chrysene-d12	15.91	240	4699473	40.00 ug/mL	
72) Perylene-d12	18.69	264	5451240	40.00 ug/mL	
System Monitoring Compounds					
3) 2-Fluorophenol	3.57	112	212756	4.805ug/mL	m SY 2/17/15
4) Phenol-d5	4.35	99	237448	5.178ug/mL	
18) Nitrobenzene-d5	5.34	82	211921	5.972ug/mL	
36) 2-Fluorobiphenyl	7.82	172	511784	6.042ug/mL	
53) 2,4,6-Tribromophenol	10.33	330	66325	5.076ug/mL	
66) Terphenyl-d14	14.41	244	557021	5.414ug/mL	
Target Compounds					Qvalue
2) Pyridine	2.62	79	208566	4.619ug/mL	m 36
5) Phenol	4.37	94	254097	5.310ug/mL	SY 99
6) Bis(2-chloroethyl)ether	4.47	93	212248	5.138ug/mL	2/17/15 98
7) 2-Chlorophenol	4.56	128	247652	5.021ug/mL	99
8) 1,3-Dichlorobenzene	4.70	146	289756	5.143ug/mL	99
9) 1,4-dichlorobenzene	4.78	146	293416	5.360ug/mL	94
10) Benzyl alcohol	4.87	108	140294	5.387ug/mL	98
11) 1,2-dichlorobenzene	4.93	146	277443	5.251ug/mL	100
12) 2-Methylphenol	4.96	107	171266	5.442ug/mL	97
13) Bis(2-chloroisopropyl)ethe	5.01	45	220583	4.937ug/mL	97
14) 4-methylphenol	5.12	107	242257	5.476ug/mL	99
15) N-Nitrosodi-n-propyl amine	5.15	70	114574	4.779ug/mL	99
16) Hexachloroethane	5.30	117	99835	4.794ug/mL	99
19) Nitrobenzene	5.36	77	207310	5.537ug/mL	99
20) Isophorone	5.63	82	367377	5.677ug/mL	100
21) 2-Nitrophenol	5.73	139	135593	5.819ug/mL	96
22) 2,4-Dimethylphenol	5.75	122	195189	6.097ug/mL	94
23) Benzoic Acid	5.79	122	51622	11.462ug/mL	42
24) Bis(2-chloroethoxy)methane	5.87	93	231642	5.631ug/mL	97
25) 2,4-Dichlorophenol	6.02	162	198973	5.284ug/mL	99
26) 1,2,4-Trichlorobenzene	6.15	180	240869	5.570ug/mL	99
27) Naphthalene	6.26	128	682513	5.773ug/mL	100
28) 4-Chloroaniline	6.30	127	244357	5.533ug/mL	97
29) Hexachlorobutadiene	6.42	225	138621	5.450ug/mL	99
30) 4-Chloro-3-Methylphenol	6.96	107	174847	5.464ug/mL	100
31) 2-Methylnaphthalene	7.25	142	494376	6.071ug/mL	99
33) Hexachlorocyclopentadiene	7.49	237	124127	4.620ug/mL	99

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

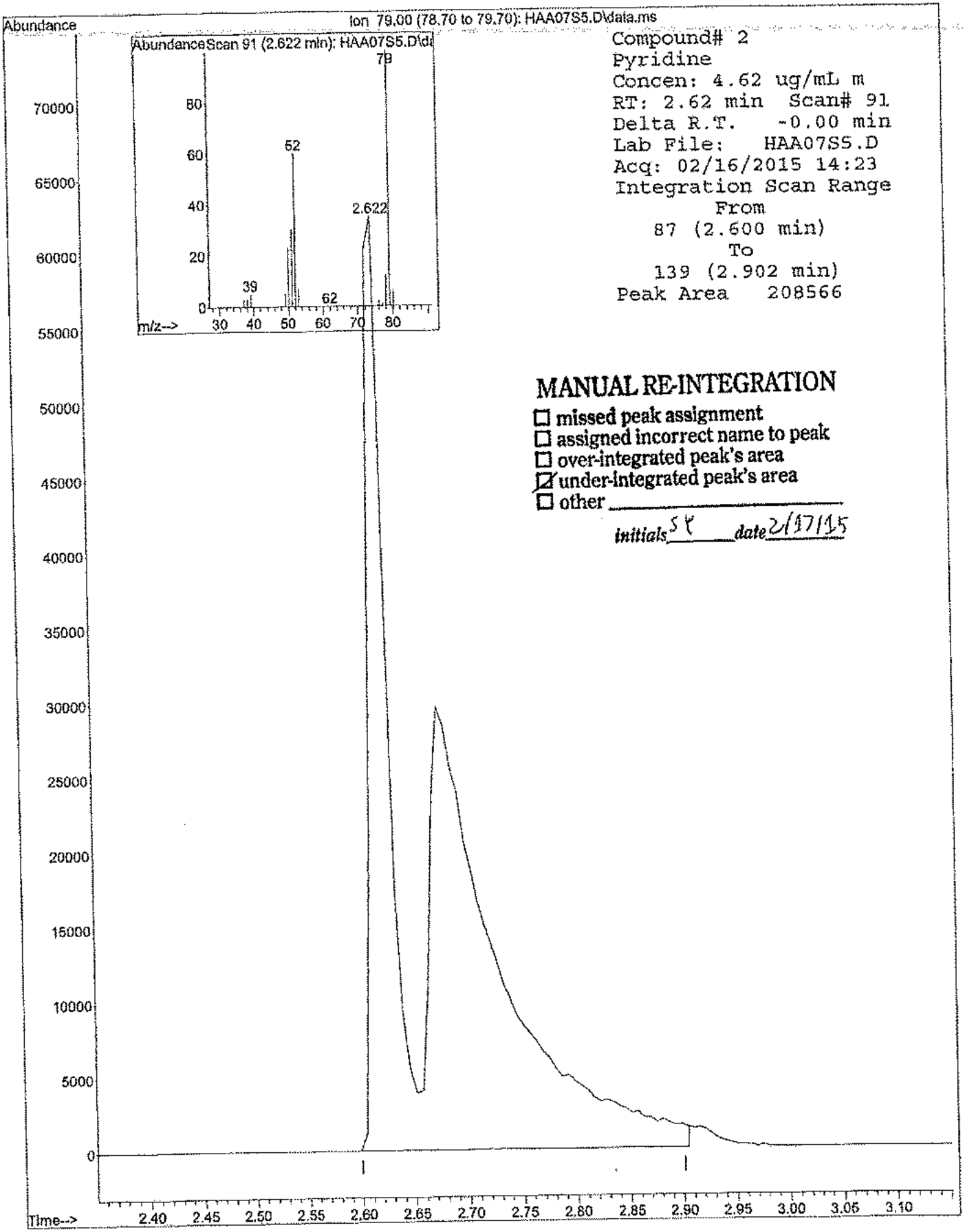
Data File : R:\H\2015\FEB15\16FEB15H\HAA07S5.D Vial: 7
Acq On : 02/16/2015 14:23 Operator: JH
Sample : 8270 S5 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 17 10:50:55 2015 Results File: H8270D15A1.RES

Method : C:\msdchem\1\methods\H8270D15A1.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 17 11:08:49 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	7.67	196	145830	5.550ug/mL	100
35)	2,4,5-Trichlorophenol	7.72	196	159564	5.587ug/mL	100
37)	2-Chloronaphthalene	8.01	162	449191	5.756ug/mL	99
38)	2-Nitroaniline	8.16	65	98270	5.395ug/mL	97
39)	Dimethylphthalate	8.48	163	502492	5.885ug/mL	100
40)	2,6-Dinitrotoluene	8.57	165	106491	5.628ug/mL	99
41)	Acenaphthylene	8.70	152	735244	6.008ug/mL	99
42)	3-Nitroaniline	8.85	65	105786	5.318ug/mL	99
43)	Acenaphthene	9.00	153	444739	5.988ug/mL	98
44)	2,4-Dinitrophenol	9.03	184	30354	11.116ug/mL	96
45)	4-Nitrophenol	9.12	109	45356	8.767ug/mL	96
46)	Dibenzofuran	9.30	168	636269	6.038ug/mL	98
47)	2,4-Dinitrotoluene	9.27	165	137921	6.106ug/mL	79
48)	Diethylphthalate	9.72	149	495436	5.952ug/mL	99
49)	4-chlorophenyl phenyl ethe	9.92	204	251820	6.186ug/mL	99
50)	Fluorene	9.91	166	494470	6.287ug/mL	100
51)	4-Nitroaniline	9.92	65	84902	5.437ug/mL	95
54)	4,6-Dinitro-2-methylphenol	9.99	198	56143	3.807ug/mL	95
55)	N-Nitrosodiphenylamine	10.13	169	329002	5.619ug/mL	100
56)	4-bromophenyl phenyl ether	10.81	248	156324	5.621ug/mL	99
57)	Hexachlorobenzene	10.90	284	170662	5.462ug/mL	99
58)	Pentachlorophenol	11.26	266	88664	8.867ug/mL sv	99
59)	Phenanthrene	11.66	178	722939	5.867ug/mL m 2/17/15	98
60)	Anthracene	11.76	178	721958	5.807ug/mL sv	99
61)	Carbazole	12.06	167	617370	5.677ug/mL m 2/17/15	98
62)	Di-n-butylphthalate	12.77	149	815814	5.816ug/mL	100
63)	Fluoranthene	13.79	202	796416	5.977ug/mL	97
65)	Pyrene	14.14	202	825801	5.590ug/mL	97
67)	Butylbenzylphthalate	15.13	149	337903	5.180ug/mL	97
68)	3,3'-Dichlorobenzidine	15.85	252	140032	3.322ug/mL	99
69)	Benzo(a)anthracene	15.89	228	749735	5.607ug/mL	98
70)	Chrysene	15.94	228	683792	5.395ug/mL	98
71)	Bis(2-ethylhexyl)phthalate	15.95	149	452915	5.127ug/mL	99
73)	Di-n-octylphthalate	17.04	149	744970	5.235ug/mL	100
74)	Benzo(b)fluoranthene	17.79	252	729260	5.482ug/mL	99
75)	Benzo(k)fluoranthene	17.85	252	712236	5.313ug/mL	99
76)	Benzo(a)pyrene	18.53	252	681739	5.285ug/mL	99
77)	Indeno(1,2,3-c,d)pyrene	21.84	276	587719	4.753ug/mL	99
78)	Dibenz(a,h)anthracene	21.94	278	586472	4.659ug/mL	98
79)	Benzo(g,h,i)perylene	22.81	276	630424	4.862ug/mL	96

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

M A N U A L I N T E G R A T I O N FOR Pyridine



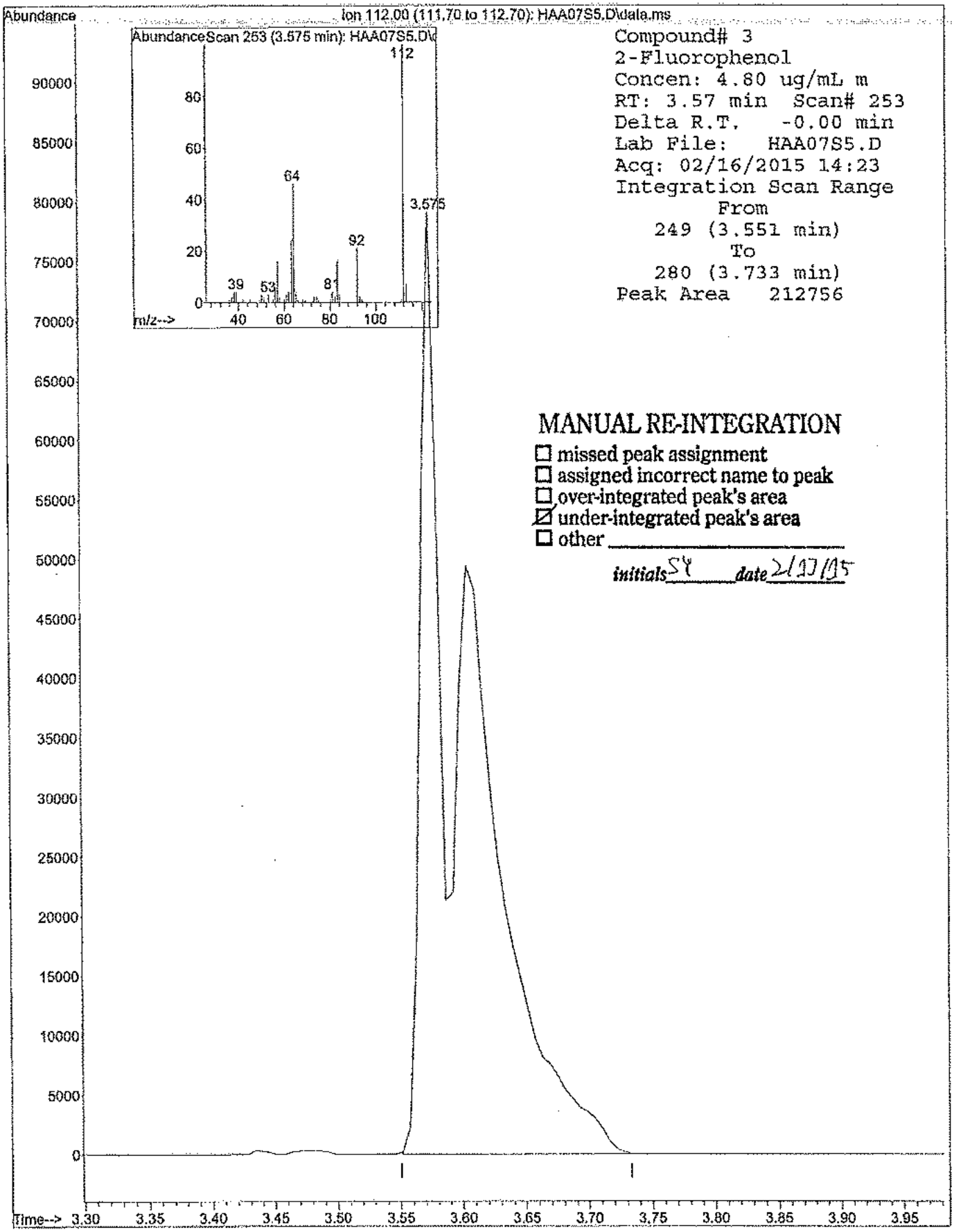
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

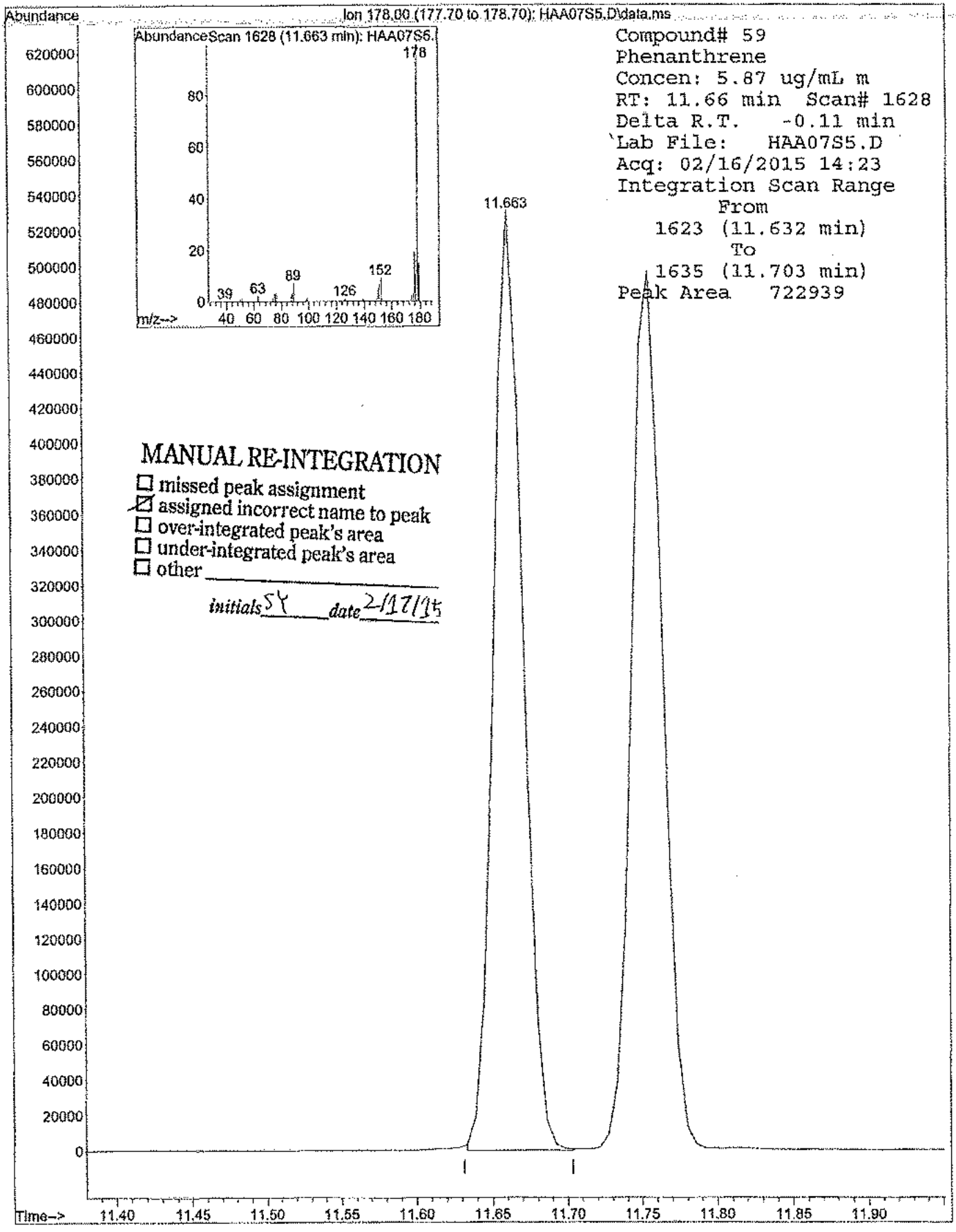
H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



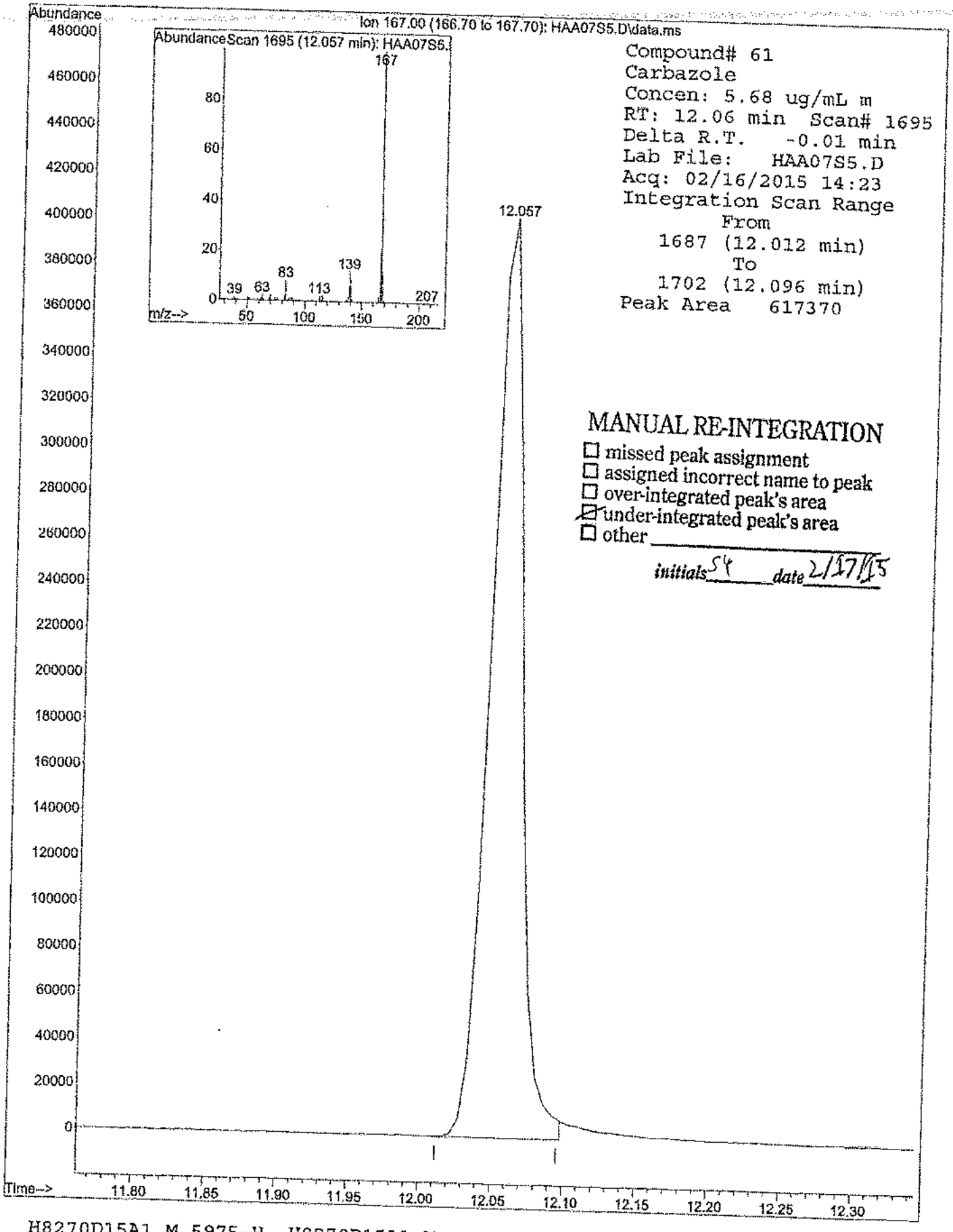
H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

M A N U A L I N T E G R A T I O N FOR Phenanthrene



H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

MANUAL INTEGRATION FOR Carbazole



Compound# 61
Carbazole
Concen: 5.68 ug/mL m
RT: 12.06 min Scan# 1695
Delta R.T. -0.01 min
Lab File: HAA07S5.D
Acq: 02/16/2015 14:23
Integration Scan Range
From
1687 (12.012 min)
To
1702 (12.096 min)
Peak Area 617370

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY *date* 2/17/15

H8270D15A1.M 5975-H H8270D15A1.M 8270 S5 NEW COLUMN

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA08S1.D Vial: 8
Acq On : 02/16/2015 14:56 Operator: JH
Sample : 8270 S1 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 24 10:29:47 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units
1) 1,4-Dichlorobenzene-d4	4.76	152	1248932	40.00 ug/mL
17) Naphthalene-d8	6.23	136	4273784	40.00 ug/mL
32) Acenaphthene-d10	8.95	164	2145958	40.00 ug/mL
52) Phenanthrene-d10	11.62	188	3834119	40.00 ug/mL
64) Chrysene-d12	15.90	240	4259138	40.00 ug/mL
72) Perylene-d12	18.69	264	4882639	40.00 ug/mL
System Monitoring Compounds				
3) 2-Fluorophenol	3.58	112	36393	0.855ug/mL m 2/24/15
4) Phenol-d5	4.35	99	41508	0.919ug/mL
18) Nitrobenzene-d5	5.33	82	35401	0.901ug/mL
36) 2-Fluorobiphenyl	7.82	172	95927	1.105ug/mL
53) 2,4,6-Tribromophenol	10.33	330	10015	0.769ug/mL
66) Terphenyl-d14	14.41	244	102158	1.013ug/mL
Target Compounds				Qvalue
2) Pyridine	0.00	79		Not Detected
5) Phenol	0.00	94		Not Detected
6) Bis(2-chloroethyl)ether	0.00	93		Not Detected
7) 2-Chlorophenol	0.00	128		Not Detected
8) 1,3-Dichlorobenzene	0.00	146		Not Detected
9) 1,4-dichlorobenzene	0.00	146		Not Detected
10) Benzyl alcohol	0.00	108		Not Detected
11) 1,2-dichlorobenzene	0.00	146		Not Detected
12) 2-Methylphenol	0.00	107		Not Detected
13) Bis(2-chloroisopropyl)ethe	0.00	45		Not Detected
14) 4-methylphenol	0.00	107		Not Detected
15) N-Nitrosodi-n-propyl amine	0.00	70		Not Detected
16) Hexachloroethane	0.00	117		Not Detected
19) Nitrobenzene	0.00	77		Not Detected
20) Isophorone	0.00	82		Not Detected
21) 2-Nitrophenol	0.00	139		Not Detected
22) 2,4-Dimethylphenol	0.00	122		Not Detected
23) Benzoic Acid	0.00	122		Not Detected
24) Bis(2-chloroethoxy)methane	0.00	93		Not Detected
25) 2,4-Dichlorophenol	0.00	162		Not Detected
26) 1,2,4-Trichlorobenzene	0.00	180		Not Detected
27) Naphthalene	0.00	128		Not Detected
28) 4-Chloroaniline	0.00	127		Not Detected
29) Hexachlorobutadiene	0.00	225		Not Detected
30) 4-Chloro-3-Methylphenol	0.00	107		Not Detected
31) 2-Methylnaphthalene	0.00	142		Not Detected
33) Hexachlorocyclopentadiene	0.00	237		Not Detected

(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA08S1.D Vial: 8
Acq On : 02/16/2015 14:56 Operator: JH
Sample : 8270 S1 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1
MS Integration Params: rteint.p
Quant Time: Feb 24 10:29:47 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
34)	2,4,6-Trichlorophenol	0.00	196		Not Detected	
35)	2,4,5-Trichlorophenol	0.00	196		Not Detected	
37)	2-Chloronaphthalene	0.00	162		Not Detected	
38)	2-Nitroaniline	0.00	65		Not Detected	
39)	Dimethylphthalate	0.00	163		Not Detected	
40)	2,6-Dinitrotoluene	0.00	165		Not Detected	
41)	Acenaphthylene	0.00	152		Not Detected	
42)	3-Nitroaniline	0.00	65		Not Detected	
43)	Acenaphthene	0.00	153		Not Detected	
44)	2,4-Dinitrophenol	9.04	184	1804	4.615ug/mL	91
45)	4-Nitrophenol	0.00	109		Not Detected	
46)	Dibenzofuran	0.00	168		Not Detected	
47)	2,4-Dinitrotoluene	0.00	165		Not Detected	
48)	Diethylphthalate	0.00	149		Not Detected	
49)	4-chlorophenyl phenyl ethe	0.00	204		Not Detected	
50)	Fluorene	0.00	166		Not Detected	
51)	4-Nitroaniline	0.00	65		Not Detected	
54)	4,6-Dinitro-2-methylphenol	0.00	198		Not Detected	
55)	N-Nitrosodiphenylamine	0.00	169		Not Detected	
56)	4-bromophenyl phenyl ether	0.00	248		Not Detected	
57)	Hexachlorobenzene	0.00	284		Not Detected	
58)	Pentachlorophenol	0.00	266		Not Detected	
59)	Phenanthrene	0.00	178		Not Detected	
60)	Anthracene	0.00	178		Not Detected	
61)	Carbazole	0.00	167		Not Detected	
62)	Di-n-butylphthalate	0.00	149		Not Detected	
63)	Fluoranthene	0.00	202		Not Detected	
65)	Pyrene	0.00	202		Not Detected	
67)	Butylbenzylphthalate	0.00	149		Not Detected	
68)	3,3'-Dichlorobenzidine	0.00	252		Not Detected	
69)	Benzo(a)anthracene	0.00	228		Not Detected	
70)	Chrysene	0.00	228		Not Detected	
71)	Bis(2-ethylhexyl)phthalate	0.00	149		Not Detected	
73)	Di-n-octylphthalate	0.00	149		Not Detected	
74)	Benzo(b)fluoranthene	0.00	252		Not Detected	
75)	Benzo(k)fluoranthene	0.00	252		Not Detected	
76)	Benzo(a)pyrene	0.00	252		Not Detected	
77)	Indeno(1,2,3-c,d)pyrene	0.00	276		Not Detected	
78)	Dibenz(a,h)anthracene	0.00	278		Not Detected	
79)	Benzo(g,h,i)perylene	0.00	276		Not Detected	

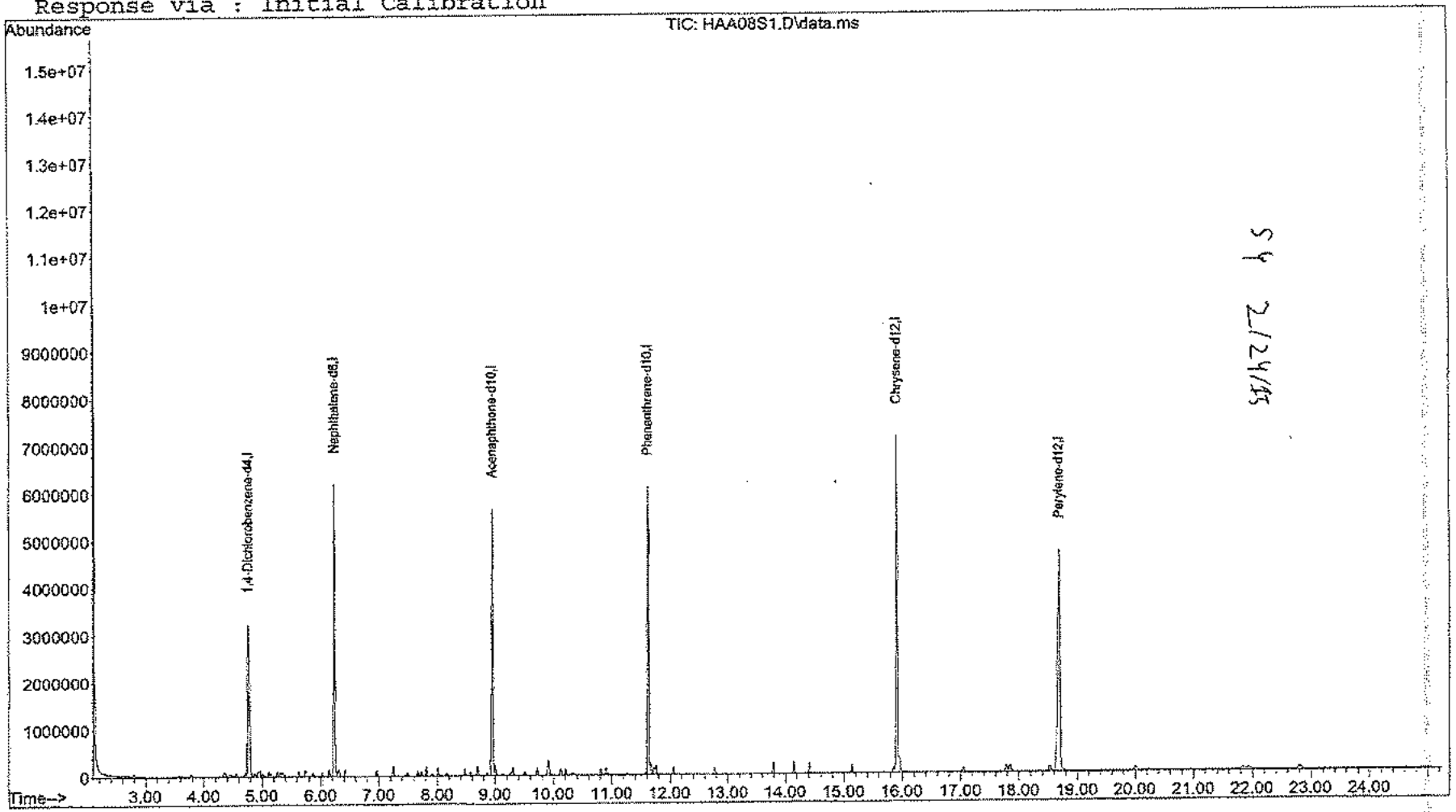
(m) = manual integration
(*) Does not meet EPA spectral criteria (False Hit)

Quantitation Report

Data File : R:\H\2015\FEB15\16FEB15H\HAA08S1.D Vial: 8
Acq On : 02/16/2015 14:56 Operator: JH
Sample : 8270 S1 Inst : 5975-H
Misc : NEW COLUMN Injection volume : 1uL
MS Integration Params: rteint.p

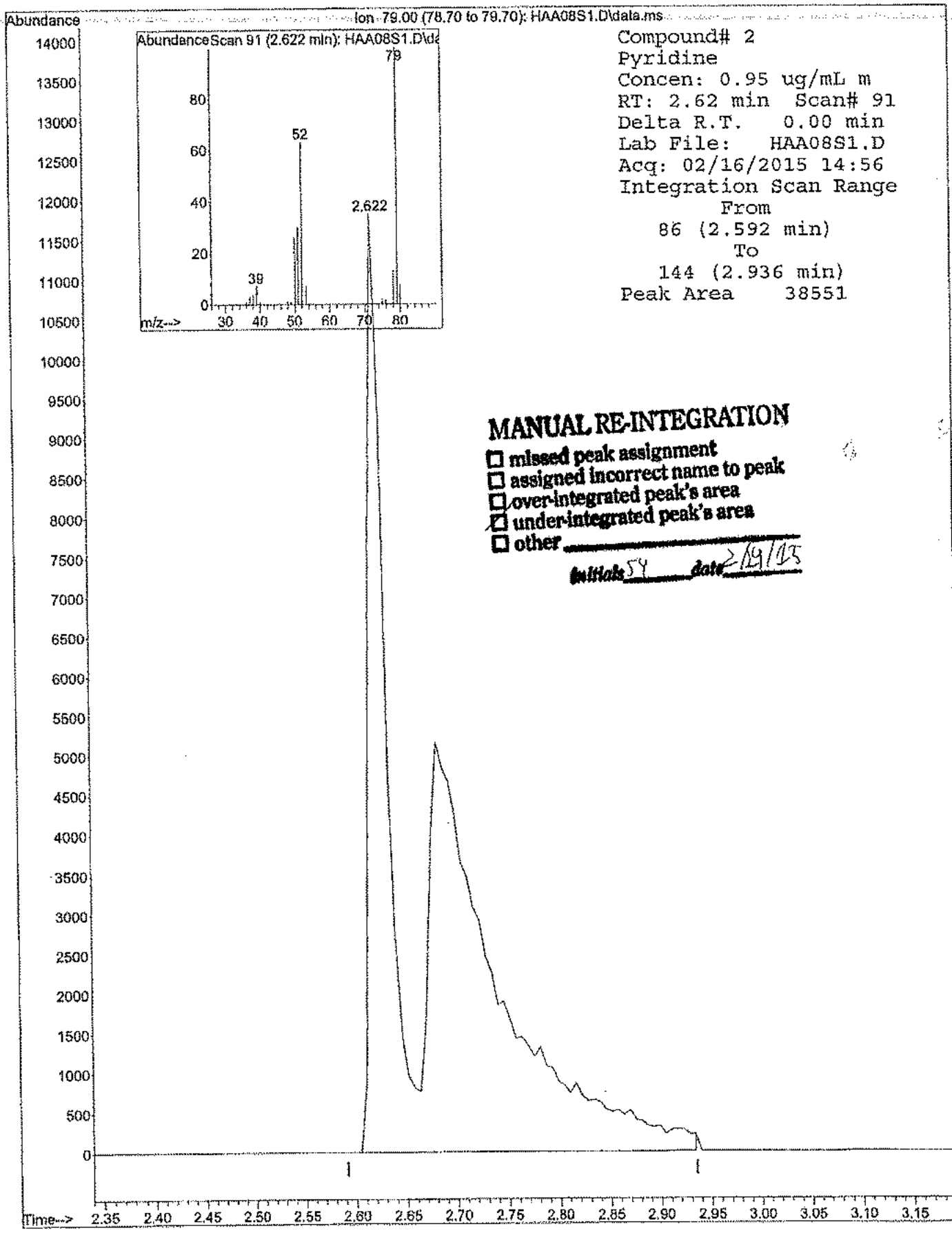
Quant Time: Feb 24 10:29:47 2015 Results File: H8270D1...EVEL.RES

Method : C:\msdchem\1\met...D15A1_LOWLEVEL.M (RTE Integrator)
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration



2/24/15 S1

M A N U A L I N T E G R A T I O N FOR Pyridine



Compound# 2
Pyridine
Concen: 0.95 ug/mL m
RT: 2.62 min Scan# 91
Delta R.T. 0.00 min
Lab File: HAA08S1.D
Acq: 02/16/2015 14:56
Integration Scan Range
From
86 (2.592 min)
To
144 (2.936 min)
Peak Area 38551

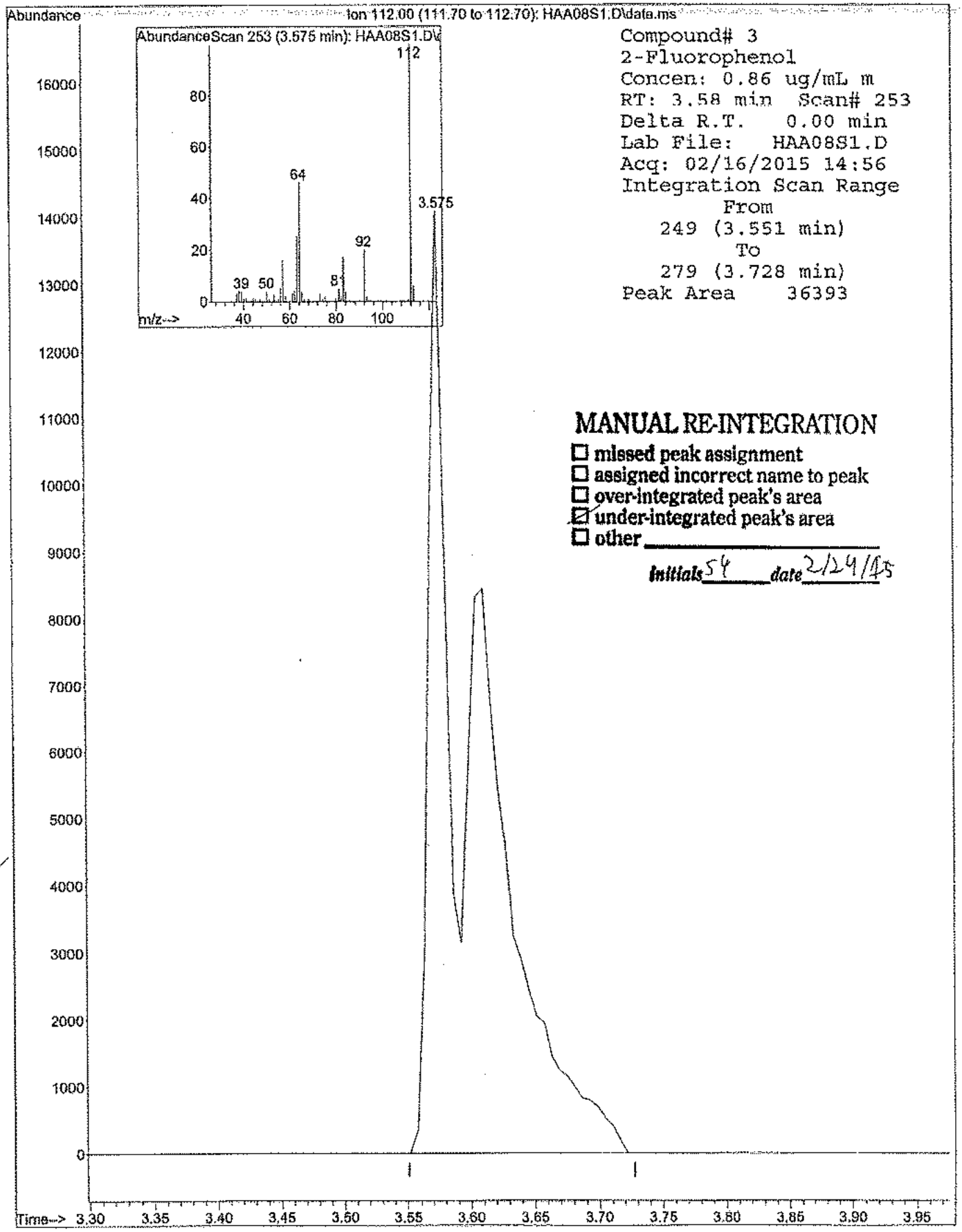
MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials SY date 2/19/15

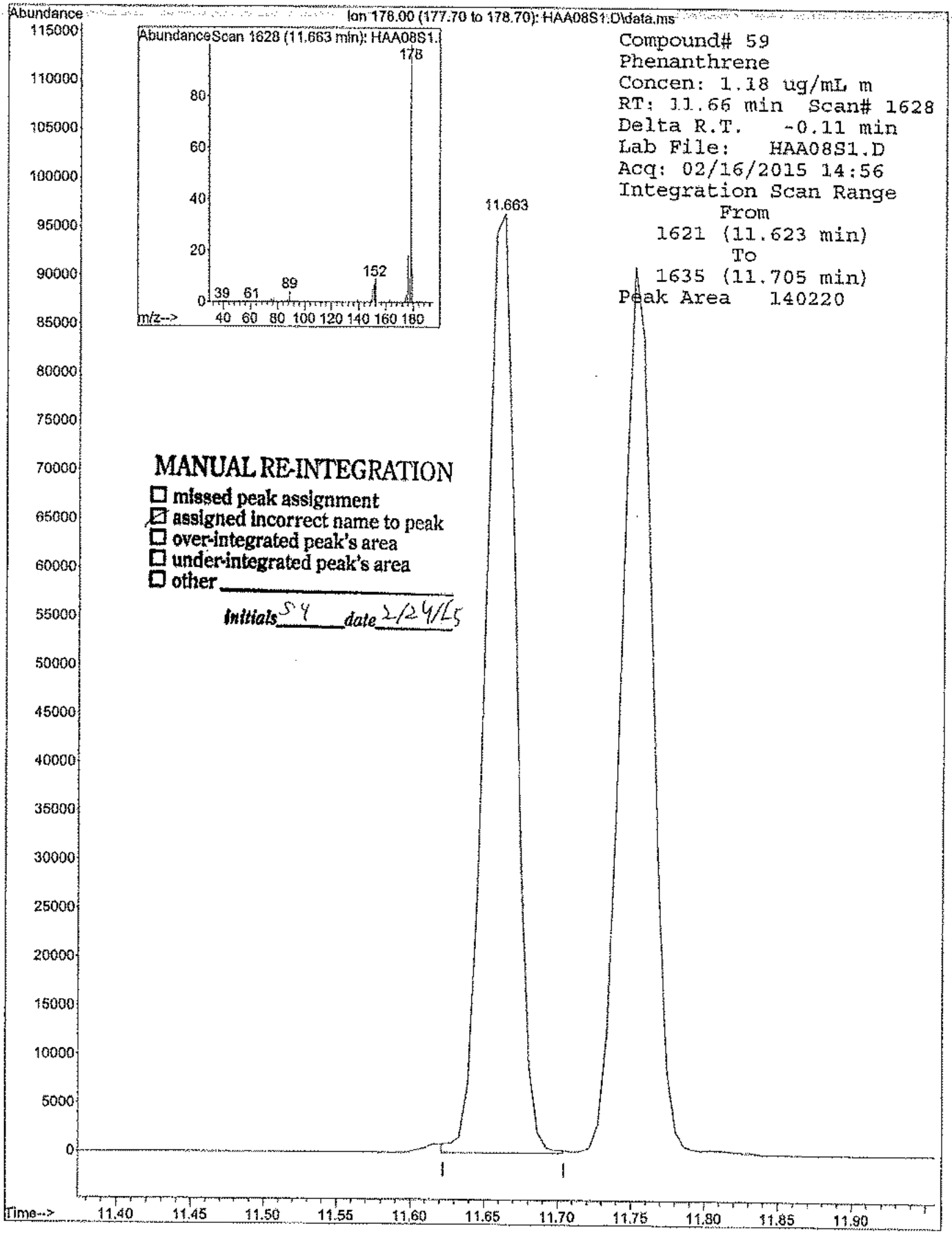
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S1 NEW

M A N U A L I N T E G R A T I O N FOR 2-Fluorophenol



H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S1 NEW

M A N U A L I N T E G R A T I O N FOR Phenanthrene



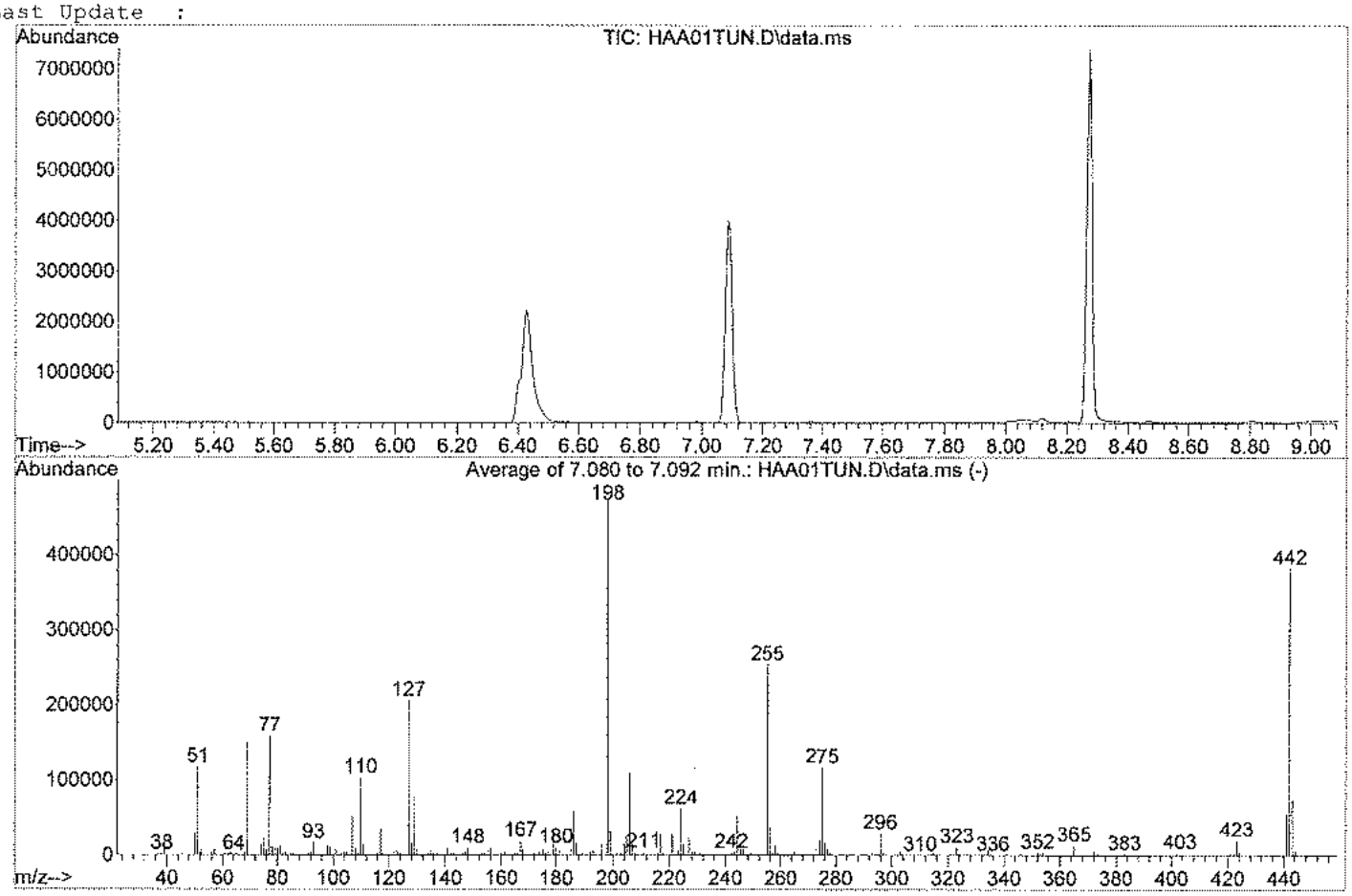
H8270D15A1_LOWLEVEL.M 5975-H H8270D15A1_LOWLEVEL.M 8270 S1 NEW

Form 5 Equivalent (DFTPP)

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA01TUN.D
Acq On : 02/16/2015 11:17
Operator : JH
Sample : 8270 TUN 27023
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : R:\H\methods\8270DTUN.M
Title :
Last Update :



AutoFind: Scans 883, 884, 885; Background Corrected with Scan 875

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	24.7	117080	PASS
68	69	0.00	2	1.5	2313	PASS
69	198	0.00	100	31.7	150400	PASS
70	69	0.00	2	0.5	733	PASS
127	198	10	80	43.3	205696	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	474816	PASS
199	198	5	9	6.8	32077	PASS
275	198	10	60	24.6	116736	PASS
365	198	1	100	2.7	12686	PASS
441	442	1	24	14.8	56565	PASS
442	198	50	100	80.6	382677	PASS
443	442	15	24	19.3	74003	PASS

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	95	52.10	6118	66.05	170	77.10	158421
37.05	439	53.00	274	67.00	59	78.10	10764
38.10	1243	55.05	576	67.20	67	79.00	9481
39.10	8178	56.00	3638	68.10	2313	80.00	7569
40.00	368	57.05	8513	69.00	150400	81.00	11030
41.05	258	58.00	421	70.00	733	82.00	2733
45.05	214	61.00	1564	70.95	128	83.00	2672
47.00	59	62.05	1685	73.00	793	85.00	2377
49.00	518	63.10	4991	74.05	12879	85.95	2752
50.10	29408	64.05	746	75.00	21843	87.00	1427
51.05	117080	65.10	2609	76.10	7416	88.00	621

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.00	312	101.00	6545	112.00	1830	122.00	3400
91.00	2512	102.00	340	113.05	558	123.00	5106
92.00	2684	103.00	2121	114.05	114	124.00	2443
93.00	16221	104.00	4011	114.90	168	125.00	2224
94.00	1206	105.05	3523	116.00	2633	127.00	205696
95.00	348	106.10	1304	117.00	33560	128.00	15458
96.05	928	107.00	51296	118.00	2569	129.00	77472
97.05	375	108.00	8558	118.90	386	130.00	6263
98.00	12264	109.05	1460	120.00	713	131.00	1195
99.00	10127	110.00	102693	120.90	131	132.00	721
100.00	966	111.00	14717	121.10	85	132.75	208

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.00	112	144.05	531	156.05	8080	167.00	18682
134.00	1940	145.00	540	157.05	1746	168.00	8127
135.05	5729	146.00	1538	158.00	1710	169.05	1570
136.00	2306	147.00	4327	159.00	1272	170.05	598
137.00	2795	148.00	9599	160.00	2850	170.95	766
137.95	646	149.00	2150	161.00	4495	172.00	1572
139.00	347	150.00	569	162.00	1377	173.00	2212
140.00	802	151.10	1287	162.95	407	174.00	4011
141.00	8960	153.00	2906	164.00	596	175.05	7932
142.00	3077	154.00	2250	165.00	3369	176.05	2674
143.00	2067	155.05	5125	166.00	2819	177.00	3514

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
178.00	1092	189.00	3038	201.50	2616	215.00	1023
179.00	14685	190.00	475	203.00	2614	216.05	2160
180.00	10180	191.05	1581	204.00	14793	217.00	27843
181.00	4892	192.00	4825	205.00	25480	218.00	3535
182.05	776	193.00	5080	206.10	110043	219.05	347
182.95	440	194.05	1045	207.05	14264	221.05	27277
184.00	1029	194.95	734	208.00	3331	223.00	6513
185.05	7034	196.00	14817	209.00	1092	224.10	62301
186.05	58309	198.00	474816	210.30	516	225.10	15450
187.00	15822	199.00	32077	211.05	4159	226.05	1587
188.05	1562	200.00	2488	213.00	273	227.00	23171

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.00	3208	238.00	296	249.00	1804	260.95	478
229.00	5074	239.00	810	249.95	368	263.90	345
230.00	756	240.00	714	250.95	395	265.00	5053
231.00	2253	241.00	1343	252.00	455	265.90	777
231.90	127	242.05	3322	253.00	967	267.80	117
232.05	331	243.10	3518	255.00	253845	270.00	283
233.00	502	244.10	51733	256.00	37045	271.00	486
234.00	1454	245.10	6871	257.00	2732	272.05	616
235.00	1835	246.00	8585	258.00	12879	273.05	7973
236.00	1093	247.00	1762	259.00	2135	274.00	19840

237.00	1837	247.95	372	260.00	415	275.10	116736

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.10	15615	289.95	321	302.10	426	317.05	338
277.00	8372	290.95	224	303.05	3593	320.10	60
278.00	1457	292.05	419	304.05	944	321.05	1023
278.95	325	293.05	2107	305.00	59	322.05	529
281.00	45	294.00	490	308.00	420	323.10	10849
282.00	265	295.05	652	309.00	284	324.10	1962
283.00	1037	296.00	28832	310.05	410	325.05	193
284.00	722	297.05	3939	312.95	299	326.05	216
285.05	1612	298.00	257	314.05	1471	327.00	1821
286.05	321	301.00	384	315.00	3160	328.05	965
289.00	380	301.90	154	316.05	1957	329.00	153

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
332.05	809	351.00	64	372.10	5408	402.05	2023
333.05	999	352.10	3176	373.10	1364	403.05	2960
334.10	6315	353.05	2077	374.05	120	404.10	908
335.05	1613	354.10	3081	376.90	74	405.05	186
336.05	227	355.05	603	383.00	1526	415.10	63
339.00	122	359.05	240	384.00	401	421.05	2560
340.00	115	365.00	12686	385.00	55	422.10	2362
341.05	1227	366.00	1738	390.05	643	423.10	19257
342.05	365	366.90	50	391.05	430	424.05	3644
346.00	2199	370.05	291	392.05	326	425.05	334
347.00	420	371.05	792	401.00	322	437.80	60

Average of 7.080 to 7.092 min.: HAA01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

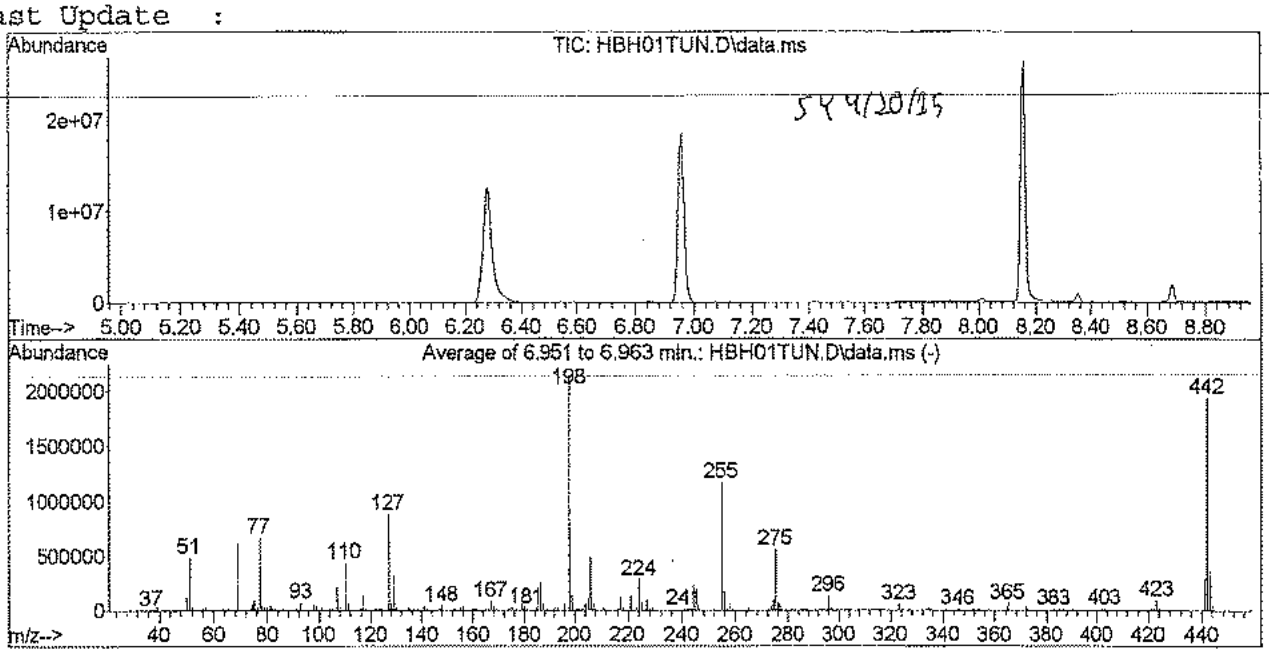
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
438.30	52						
439.00	281						
441.10	56565						
442.10	382677						
443.10	74003						
444.10	6656						
445.10	410						

Form 5 Equivalent (DFTPP)

Data Path : R:\H\2015\APR15\20APR15\
Data File : HBH01TUN.D
Acq On : 04/20/2015 06:44
Operator : SY
Sample : 8270 TUN 27023
Inst : 5975-H
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\8270DTUN.M
Title :
Last Update :



AutoFind: Scans 521, 522, 523; Background Corrected with Scan 513

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	22.5	481327	PASS
68	69	0.00	2	1.5	9270	PASS
69	198	0.00	100	28.8	614229	PASS
70	69	0.00	2	0.5	2805	PASS
127	198	10	80	41.2	879125	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	2134869	PASS
199	198	5	9	6.6	141653	PASS
275	198	10	60	25.7	549440	PASS
365	198	1	100	2.8	60029	PASS
441	442	1	24	14.2	275840	PASS
442	198	50	100	90.7	1936555	PASS
443	442	15	24	19.2	371669	PASS

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	103	51.05	481327	63.10	20245	75.05	89691
37.10	1803	52.10	24229	64.05	2893	76.10	30133
38.05	4863	53.05	1011	65.10	11140	77.05	664701
39.05	33454	55.00	2059	66.00	822	78.05	44540
39.95	1018	56.00	14801	67.15	717	79.05	39331
41.05	837	57.00	35429	68.10	9270	80.00	30893
45.00	902	58.05	1470	69.00	614229	81.05	44435
46.95	216	59.00	482	70.00	2805	82.00	10387
48.05	270	59.95	300	71.00	354	83.05	11274
49.05	2244	61.05	6056	73.00	3751	83.95	830
50.10	119312	62.05	6745	74.10	53288	85.05	8227

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	11783	97.00	951	108.00	33144	118.00	10770
87.10	5743	98.00	49896	109.10	5852	119.00	1532
88.00	2231	99.00	45123	110.00	435072	120.05	2558
89.05	1209	100.05	4027	111.00	61576	121.05	1010
90.10	141	101.00	27685	112.05	7227	122.00	13632
91.00	9877	102.05	1636	113.00	2371	123.00	20973
92.05	11467	103.00	9362	113.95	619	124.00	9921
93.00	68613	104.00	16003	114.90	278	125.05	9296
94.05	4656	105.05	14645	115.05	483	127.00	879125
95.00	982	106.10	5369	116.05	11255	128.05	64029
96.05	3694	107.00	212821	117.00	139024	129.00	318848

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.00	26315	140.00	3394	150.05	2548	161.00	19123
131.00	4932	141.00	37789	151.10	5038	162.05	5496
132.05	2786	142.00	13156	151.70	1078	163.00	1489
132.95	855	143.00	8474	153.00	11967	164.00	2535
134.00	8189	144.00	2548	154.00	9553	165.00	14256
135.00	24368	144.90	795	155.05	22384	166.05	12017
136.00	9719	145.05	1527	156.05	34691	167.00	80933
137.10	13155	146.00	6745	157.05	7557	168.00	39997
137.95	2854	147.00	19281	158.00	7542	169.05	7394
138.90	544	148.00	40725	159.00	5616	170.00	2644
139.05	1139	149.00	8396	160.00	12200	171.00	3403

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.00	7090	182.95	1883	194.05	4872	207.05	63272
173.05	9356	184.05	4743	195.10	3160	208.00	13621
174.00	17387	185.05	30237	196.00	66027	209.00	4652
175.10	32720	186.10	254549	198.00	2.13487e+006	211.10	18921
176.05	11482	187.05	70747	199.00	141653	213.05	1475
177.00	14575	188.05	7283	200.00	10475	214.05	534
178.05	4588	189.00	13354	201.50	12169	215.00	4559
179.00	62464	190.00	2243	203.00	12289	216.05	9933
180.00	45395	191.05	6415	204.00	64997	217.00	120608
181.00	22235	192.00	19832	205.10	111405	218.00	15718
182.05	3158	193.05	22517	206.10	492032	219.05	1421

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.00	127848	232.95	2075	244.10	237355	256.00	168405
223.05	28848	234.00	6384	245.10	32384	257.10	12808
224.10	280299	235.00	7404	246.00	37147	258.00	57933
225.10	69984	236.00	5188	247.00	7890	259.00	9230
226.05	7244	237.05	9235	248.05	1871	259.95	1721
227.00	102256	238.05	1442	249.00	8346	261.00	2201
228.00	14140	239.00	4061	250.05	1525	261.95	340
229.00	23611	240.00	3414	251.00	1630	263.05	602
230.05	3377	241.00	5822	252.05	1929	263.95	1356
231.10	10310	242.05	15026	253.00	4544	265.00	22707
231.95	1803	243.10	15764	255.00	1.16207e+006	265.95	3267

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.00	560	278.05	6524	291.05	1122	302.05	2523
267.90	345	279.05	1527	292.05	2024	303.10	17136
269.00	139	281.00	341	293.05	9269	304.05	4477
270.00	1429	282.05	1266	294.10	2413	305.05	570
271.05	2256	283.10	4802	295.05	2941	307.00	108
272.05	2887	284.05	3172	296.00	132528	308.10	2160
273.05	35835	285.10	7618	297.05	18656	309.00	1353
274.05	91528	286.10	1530	298.00	1346	310.05	2077
275.10	549440	288.05	518	298.90	236	311.00	474
276.10	72016	289.00	1756	299.10	180	311.95	555
277.00	39277	290.05	1486	301.00	1902	313.05	1310

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.05	6626	327.00	8549	341.10	5897	353.10	10198
315.00	14397	328.05	4708	342.05	1657	354.10	15626
316.10	8997	329.05	894	343.00	123	355.10	3101
317.05	1742	330.10	212	343.20	113	356.05	296
320.00	663	332.10	3358	345.10	103	358.10	220
321.10	4631	333.05	4426	346.00	10733	359.00	1149
322.05	2606	334.10	31544	347.00	2061	361.10	233
323.10	50725	335.10	8111	348.00	102	365.00	60029
324.10	9165	336.05	937	349.95	400	366.00	8467
325.05	771	339.05	668	351.10	823	366.95	674
326.05	946	339.95	720	352.10	14838	370.10	1424

Average of 6.951 to 6.963 min.: HBH01TUN.D\data.ms
8270 TUN 27023
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
371.10	3857	391.05	2433	421.10	12993	438.90	808
372.10	26595	392.05	1726	422.10	11977	439.40	355
373.10	6474	397.10	126	423.10	93616	441.10	275840
374.05	807	401.05	1633	424.10	19832	442.10	1.93656e+006
376.90	200	402.10	9853	425.05	1987	443.10	371669
377.05	563	403.10	14106	436.30	104	444.10	33221
383.05	6688	404.05	4976	436.70	115	445.10	2023
384.05	1857	405.10	939	437.20	272		
385.05	651	410.05	520	437.60	237		
389.00	210	414.95	628	437.90	151		
390.05	3321	420.20	106	438.10	279		

Response Factor Report 5975-H

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C
Last Update : Tue Feb 24 10:33:02 2015
Response Via : Initial Calibration

H8270D15A1_LOWLEVEL.M
Form 6 Equivalent

Calibration Files
5 =HAA07S5.D 20 =HAA06S20.D 35 =HAA05S35.D 50 =HAA04S50.D 65 =HAA03S65.D 80 =HAA02S80.D
1 =HAA08S1.D

		Compound	5	20	35	50	65	80	1	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)		Pyridine	1.187	1.371	1.236	1.307	1.282	1.439	1.235	1.294	6.74
3)	S	2-Fluorophenol	1.210	1.428	1.320	1.366	1.343	1.508	1.166	1.334	8.86
4)	S	Phenol-d5	1.351	1.536	1.392	1.448	1.407	1.546	1.329	1.430	5.95
5)	MC	Phenol	1.446	1.644	1.478	1.542	1.498	1.647	1.408	1.523	6.14
6)		Bis(2-chloroet...	1.208	1.460	1.277	1.530	1.441	1.455	1.349	1.389	8.28
7)	M	2-Chlorophenol	1.409	1.627	1.499	1.536	1.511	1.656	1.355	1.513	7.14
8)		1,3-Dichlorobe...	1.649	1.884	1.740	1.771	1.731	1.879	1.643	1.757	5.54
9)	MC	1,4-dichlorobe...	1.669	1.897	1.688	1.716	1.683	1.843	1.691	1.741	5.19
10)		Benzyl alcohol	0.798	0.928	0.846	0.877	0.855	0.936	0.762	0.857	7.43
11)		1,2-dichlorobe...	1.578	1.762	1.597	1.636	1.578	1.712	1.607	1.639	4.37
12)		2-Methylphenol	0.974	1.108	0.999	1.015	0.983	1.063	0.966	1.015	5.14
13)		Bis(2-chlorois...	1.255	1.365	1.196	1.175	1.125	1.223	1.300	1.234	6.52
14)		4-methylphenol	1.378	1.602	1.446	1.492	1.440	1.591	1.375	1.475	6.25
15)	MP	N-Nitrosodi-n-...	0.652	0.766	0.670	0.681	0.656	0.727	0.676	0.690	6.05
16)		Hexachloroethane	0.568	0.663	0.601	0.619	0.604	0.660	0.559	0.611	6.64
17)	I	Naphthalene-d8	----------ISTD----------								
18)	S	Nitrobenzene-d5	0.363	0.394	0.364	0.366	0.349	0.369	0.331	0.362	5.31
19)		Nitrobenzene	0.355	0.376	0.343	0.341	0.323	0.339	0.335	0.344	4.91
20)		Isophorone	0.630	0.671	0.610	0.607	0.589	0.629	0.641	0.625	4.26
21)	C	2-Nitrophenol	0.232	0.274	0.219	0.218	0.206	0.216	0.162	0.218	15.22
22)		2,4-Dimethylph...	0.334	0.339	0.303	0.297	0.283	0.293	0.354	0.315	8.68
23)		Benzoic Acid	0.088	0.185	0.191	0.204	0.201	0.215		0.181	25.67
24)		Bis(2-chloroet...	0.397	0.410	0.372	0.367	0.348	0.362	0.399	0.379	5.97
25)	C	2,4-Dichloroph...	0.341	0.380	0.355	0.358	0.343	0.356	0.309	0.349	6.20
26)	M	1,2,4-Trichlor...	0.413	0.433	0.401	0.399	0.379	0.397	0.405	0.404	4.05
27)		Naphthalene	1.170	1.240	1.105	1.068	1.001	1.027	1.164	1.111	7.70
28)		4-Chloroaniline	0.419	0.414	0.377	0.358	0.359	0.378	0.412	0.388	6.75
29)	C	Hexachlorobuta...	0.238	0.256	0.235	0.234	0.224	0.232	0.231	0.235	4.32

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

30)	MC	4-Chloro-3-Met...	0.300	0.338	0.310	0.314	0.303	0.319	0.280	0.309	5.85
31)		2-Methylnaphth...	0.847	0.895	0.800	0.772	0.723	0.740	0.833	0.801	7.67
32)	I	Acenaphthene-d10	----------ISTD----------								
33)	P	Hexachlorocycl...	0.423	0.531	0.529	0.536	0.511	0.549	0.296	0.482	19.12
34)	C	2,4,6-Trichlor...	0.496	0.561	0.540	0.538	0.520	0.546	0.440	0.520	7.88
35)		2,4,5-Trichlor...	0.543	0.612	0.579	0.575	0.539	0.577	0.480	0.558	7.52
36)	S	2-Fluorobiphenyl	1.742	1.786	1.648	1.573	1.449	1.510	1.788	1.643	8.30
37)		2-Chloronaphth...	1.529	1.603	1.492	1.448	1.356	1.417	1.553	1.485	5.71
38)		2-Nitroaniline	0.335	0.377	0.362	0.357	0.337	0.366	0.258	0.342	11.70
39)		Dimethylphthalate	1.711	1.802	1.719	1.666	1.598	1.692	1.747	1.705	3.75
40)		2,6-Dinitrotol...	0.363	0.418	0.400	0.391	0.380	0.404	0.275	0.376	12.71
41)		Acenaphthylene	2.503	2.591	2.379	2.281	2.131	2.215	2.494	2.371	7.12
42)		3-Nitroaniline	0.360	0.294	0.283	0.285	0.297	0.324	0.298	0.306	8.94
43)	MC	Acenaphthene	1.514	1.536	1.418	1.357	1.257	1.306	1.583	1.424	8.72
44)	P	2,4-Dinitrophenol	0.103	0.198	0.217	0.234	0.232	0.253	0.034	0.182	44.94
45)	MP	4-Nitrophenol	0.154	0.187	0.185	0.185	0.180	0.194	0.101	0.169	19.34
46)		Dibenzofuran	2.166	2.237	2.056	1.973	1.826	1.872	2.264	2.056	8.46
47)	M	2,4-Dinitrotol...	0.470	0.543	0.521	0.509	0.486	0.504	0.346	0.483	13.42
48)		Diethylphthalate	1.687	1.771	1.658	1.612	1.516	1.591	1.682	1.645	4.96
49)		4-chlorophenyl...	0.857	0.873	0.793	0.737	0.678	0.688	0.903	0.790	11.54
50)		Fluorene	1.683	1.712	1.538	1.423	1.303	1.335	1.726	1.531	11.81
51)		4-Nitroaniline	0.289	0.220	0.193	0.171	0.170	0.175	0.269	0.212	23.14
52)	I	Phenanthrene-d10	----------ISTD----------								
53)	S	2,4,6-Tribromo...	0.123	0.141	0.138	0.137	0.133	0.143	0.104	0.131	10.30
54)		4,6-Dinitro-2-...		0.164	0.170	0.174	0.170	0.182	0.046	0.151	34.30
55)	C	N-Nitrosodiphe...	0.612	0.619	0.571	0.538	0.505	0.535	0.634	0.573	8.61
56)		4-bromophenyl ...	0.291	0.307	0.290	0.280	0.273	0.284	0.298	0.289	3.94
57)		Hexachlorobenzene	0.317	0.341	0.318	0.313	0.302	0.321	0.341	0.322	4.49
58)	MC	Pentachlorophenol	0.165	0.217	0.215	0.215	0.211	0.225	0.107	0.193	22.26
59)		Phenanthrene	1.344	1.392	1.257	1.171	1.109	1.138	1.463	1.268	10.71
60)		Anthracene	1.342	1.393	1.258	1.202	1.117	1.159	1.431	1.272	9.46
61)		Carbazole	1.148	0.868	0.705	0.702	0.743		1.204	0.895	25.33
62)		Di-n-butylphth...	1.517	1.576	1.420	1.350	1.268	1.309	1.465	1.415	7.95
63)	C	Fluoranthene	1.481	1.518	1.368	1.294	1.206	1.254	1.493	1.373	9.17
64)	I	Chrysene-d12	----------ISTD----------								
65)	M	Pyrene	1.406	1.524	1.397	1.320	1.245	1.353	1.427	1.382	6.36
66)	S	Terphenyl-d14	0.948	1.006	0.966	0.921	0.882	0.959	0.959	0.949	4.09

Method Path : C:\msdchem\1\methods\
Method File : H8270D15A1_LOWLEVEL.M
Title : SW-846 8270C

67)		Butylbenzylpht...	0.575	0.658	0.625	0.595	0.568	0.623	0.485	0.590	9.43
68)		3,3'-Dichlorob...	0.238	0.223	0.236	0.238	0.240	0.212	0.367	0.251	20.90
69)		Benzo(a)anthra...	1.276	1.379	1.308	1.270	1.215	1.341	1.410	1.314	5.14
70)		Chrysene	1.164	1.213	1.082	0.987	0.917	0.961	1.263	1.084	12.36
71)		Bis(2-ethylhex...	0.771	0.855	0.754	0.678	0.625	0.650	0.676	0.716	11.35
72)	I	Perylene-d12	----------ISTD----------								
73)	C	Di-n-octylphth...	1.093	1.323	1.284	1.216	1.159	1.235	0.844	1.165	13.80
74)		Benzo(b)fluora...	1.070	1.198	1.171	1.152	1.116	1.271	1.025	1.143	7.18
75)		Benzo(k)fluora...	1.045	1.150	1.094	1.016	0.982	1.021	1.086	1.056	5.40
76)	C	Benzo(a)pyrene	1.000	1.122	1.095	1.056	1.026	1.125	0.953	1.054	6.14
77)		Indeno(1,2,3-c...	0.863	1.016	1.020	1.014	1.001	1.127	0.762	0.972	12.38
78)		Dibenz(a,h)ant...	0.861	1.042	1.033	1.012	0.989	1.086	0.772	0.971	11.57
79)		Benzo(g,h,i)pe...	0.925	1.074	1.049	1.016	1.004	1.090	0.876	1.005	7.82

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Minimum Response Factors (in red)

analytes out:
0/72=0%
PASS

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

%Difference

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	
2		Pyridine	1.294	1.235	4.6	85	0.00	
3	S	2-Fluorophenol	1.334	1.279	4.1	84	0.00	
4	S	Phenol-d5	1.430	1.362	4.8	85	-0.01	
5	MC	Phenol	1.523	0.8 1.446	5.1	85	-0.01	
6		Bis(2-chloroethyl)ether	1.389	0.7 1.268	8.7	75	0.00	
7	M	2-Chlorophenol	1.513	0.8 1.460	3.5	86	0.00	
8		1,3-Dichlorobenzene	1.757	1.668	5.1	85	0.00	
9	MC	1,4-dichlorobenzene	1.741	1.687	3.1	89	0.00	
10		Benzyl alcohol	0.857	0.837	2.3	86	0.00	
11		1,2-dichlorobenzene	1.639	1.558	4.9	86	0.00	
12		2-Methylphenol	1.015	0.7 0.947	6.7	84	0.00	
13		Bis(2-chloroisopropyl)ether	1.234	1.136	7.9	87	0.00	
14		4-methylphenol	1.475	0.6 1.412	4.3	85	0.00	
15	MP	N-Nitrosodi-n-propyl amine	0.690	0.5 0.670	2.9	89	0.00	
16		Hexachloroethane	0.611	0.3 0.590	3.4	86	0.00	
17	I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	
18	S	Nitrobenzene-d5	0.362	0.344	5.0	86	0.00	
19		Nitrobenzene	0.344	0.2 0.320	7.0	86	0.00	
20		Isophorone	0.625	0.4 0.577	7.7	87	0.00	
21	C	2-Nitrophenol	0.218	0.1 0.203	6.9	85	0.00	
22		2,4-Dimethylphenol	0.315	0.2 0.257	18.4	79	0.00	
23		Benzoic Acid	0.181	0.179	1.1	80	-0.01	%Drift
24		Bis(2-chloroethoxy)methane	0.379	0.3 0.346	8.7	86	0.00	
25	C	2,4-Dichlorophenol	0.349	0.2 0.337	3.4	86	0.00	
26	M	1,2,4-Trichlorobenzene	0.404	0.380	5.9	87	0.00	
27		Naphthalene	1.111	0.7 1.034	6.9	88	0.00	
28		4-Chloroaniline	0.388	0.01 0.324	16.5	83	0.00	
29	C	Hexachlorobutadiene	0.235	0.01 0.222	5.5	87	0.00	
30	MC	4-Chloro-3-Methylphenol	0.309	0.2 0.299	3.2	87	0.00	
31		2-Methylnaphthalene	0.801	0.4 0.737	8.0	87	0.00	
32	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00	
33	P	Hexachlorocyclopentadiene	0.482	0.05 0.483	-0.2	82	0.00	
34	C	2,4,6-Trichlorophenol	0.520	0.2 0.507	2.5	86	0.00	
35		2,4,5-Trichlorophenol	0.558	0.2 0.538	3.6	85	0.00	
36	S	2-Fluorobiphenyl	1.643	1.509	8.2	87	0.00	
37		2-Chloronaphthalene	1.485	0.8 1.386	6.7	87	0.00	
38		2-Nitroaniline	0.342	0.01 0.340	0.6	87	0.00	
39		Dimethylphthalate	1.705	0.01 1.595	6.5	87	0.00	
40		2,6-Dinitrotoluene	0.376	0.2 0.379	-0.8	88	0.00	
41		Acenaphthylene	2.371	0.9 2.181	8.0	87	0.00	
42		3-Nitroaniline	0.306	0.01 0.247	19.3	79	0.00	
43	MC	Acenaphthene	1.424	0.9 1.300	8.7	87	0.00	
44	P	2,4-Dinitrophenol	0.182	0.01 0.203	-11.5	79	0.00	%Drift
45	MP	4-Nitrophenol	0.169	0.01 0.172	-1.8	85	0.00	
46		Dibenzofuran	2.056	0.8 1.903	7.4	88	0.00	%Drift
47	M	2,4-Dinitrotoluene	0.483	0.2 0.489	-1.2	88	0.00	
48		Diethylphthalate	1.645	0.01 1.541	6.3	87	0.00	
49		4-chlorophenyl phenyl ether	0.790	0.4 0.721	8.7	89	0.00	
50		Fluorene	1.531	0.9 1.385	9.5	89	0.00	
51		4-Nitroaniline	0.212	0.01 0.162	23.6#	86	0.00	%Drift

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

%Difference

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
52	I	Phenanthrene-d10	1.000	1.000	0.0	90	0.00	
53	S	2,4,6-Tribromophenol	0.131	0.131	0.0	86	0.00	
54		4,6-Dinitro-2-methylphenol	0.151	0.01	0.160	-6.0	83	0.00 %Drift
55	C	N-Nitrosodiphenylamine	0.573	0.01	0.524	8.6	88	0.00
56		4-bromophenyl phenyl ether	0.289	0.1	0.269	6.9	86	0.00
57		Hexachlorobenzene	0.322	0.1	0.300	6.8	86	0.00
58	MC	Pentachlorophenol	0.193	0.05	0.202	-4.7	85	0.00 %Drift
59		Phenanthrene	1.268	0.7	1.149	9.4	88	0.00
60		Anthracene	1.272	0.7	1.149	9.7	86	0.00
61		Carbazole	0.895	0.01	0.624	30.3#	80	0.00 %Drift
62		Di-n-butylphthalate	1.415	0.01	1.299	8.2	87	0.00
63	C	Fluoranthene	1.373	0.6	1.254	8.7	87	0.00
64	I	Chrysene-d12	1.000	1.000	0.0	90	0.00	
65	M	Pyrene	1.382	0.6	1.287	6.9	88	0.00
66	S	Terphenyl-d14	0.949	0.888	6.4	87	0.00	
67		Butylbenzylphthalate	0.590	0.01	0.572	3.1	87	0.00
68		3,3'-Dichlorobenzidine	0.251	0.01	0.249	0.8	94	0.00 %Drift
69		Benzo(a)anthracene	1.314	0.8	1.215	7.5	86	0.00
70		Chrysene	1.084	0.7	0.985	9.1	90	0.00
71		Bis(2-ethylhexyl)phthalate	0.716	0.01	0.674	5.9	90	0.00
72	I	Perylene-d12	1.000	1.000	0.0	90	0.00	
73	C	Di-n-octylphthalate	1.165	0.01	1.185	-1.7	88	0.00
74		Benzo(b)fluoranthene	1.143	0.7	1.100	3.8	86	0.00
75		Benzo(k)fluoranthene	1.056	0.7	0.997	5.6	88	0.00
76	C	Benzo(a)pyrene	1.054	0.7	1.012	4.0	86	0.00
77		Indeno(1,2,3-c,d)pyrene	0.972	0.5	0.947	2.6	84	-0.01
78		Dibenz(a,h)anthracene	0.971	0.4	0.970	0.1	86	-0.01
79		Benzo(g,h,i)perylene	1.005	0.5	0.980	2.5	87	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	90	0.00
2		Pyridine	50.000	47.714	4.6	85	0.00
3	S	2-Fluorophenol	50.000	47.915	4.2	84	0.00
4	S	Phenol-d5	50.000	47.618	4.8	85	-0.01
5	MC	Phenol	50.000	47.476	5.0	85	-0.01
6		Bis(2-chloroethyl)ether	50.000	45.675	8.7	75	0.00
7	M	2-Chlorophenol	50.000	48.237	3.5	86	0.00
8		1,3-Dichlorobenzene	50.000	47.466	5.1	85	0.00
9	MC	1,4-dichlorobenzene	50.000	48.454	3.1	89	0.00
10		Benzyl alcohol	50.000	48.800	2.4	86	0.00
11		1,2-dichlorobenzene	50.000	47.548	4.9	86	0.00
12		2-Methylphenol	50.000	46.632	6.7	84	0.00
13		Bis(2-chloroisopropyl)ether	50.000	46.020	8.0	87	0.00
14		4-methylphenol	50.000	47.882	4.2	85	0.00
15	MP	N-Nitrosodi-n-propyl amine	50.000	48.539	2.9	89	0.00
16		Hexachloroethane	50.000	48.284	3.4	86	0.00
17	I	Naphthalene-d8	40.000	40.000	0.0	91	0.00
18	S	Nitrobenzene-d5	50.000	47.464	5.1	86	0.00
19		Nitrobenzene	50.000	46.486	7.0	86	0.00
20		Isophorone	50.000	46.164	7.7	87	0.00
21	C	2-Nitrophenol	50.000	46.559	6.9	85	0.00
22		2,4-Dimethylphenol	50.000	40.863	18.3	79	0.00
23		Benzoic Acid	50.000	44.357	11.3	80	-0.01
24		Bis(2-chloroethoxy)methane	50.000	45.651	8.7	86	0.00
25	C	2,4-Dichlorophenol	50.000	48.259	3.5	86	0.00
26	M	1,2,4-Trichlorobenzene	50.000	47.028	5.9	87	0.00
27		Naphthalene	50.000	46.563	6.9	88	0.00
28		4-Chloroaniline	50.000	41.776	16.4	83	0.00
29	C	Hexachlorobutadiene	50.000	47.234	5.5	87	0.00
30	MC	4-Chloro-3-Methylphenol	50.000	48.451	3.1	87	0.00
31		2-Methylnaphthalene	50.000	45.981	8.0	87	0.00
32	I	Acenaphthene-d10	40.000	40.000	0.0	91	0.00
33	P	Hexachlorocyclopentadiene	50.000	50.115	-0.2	82	0.00
34	C	2,4,6-Trichlorophenol	50.000	48.701	2.6	86	0.00
35		2,4,5-Trichlorophenol	50.000	48.273	3.5	85	0.00
36	S	2-Fluorobiphenyl	50.000	45.942	8.1	87	0.00
37		2-Chloronaphthalene	50.000	46.637	6.7	87	0.00
38		2-Nitroaniline	50.000	49.791	0.4	87	0.00
39		Dimethylphthalate	50.000	46.759	6.5	87	0.00
40		2,6-Dinitrotoluene	50.000	50.438	-0.9	88	0.00
41		Acenaphthylene	50.000	46.001	8.0	87	0.00
42		3-Nitroaniline	50.000	40.322	19.4	79	0.00
43	MC	Acenaphthene	50.000	45.628	8.7	87	0.00
44	P	2,4-Dinitrophenol	50.000	43.248	13.5	79	0.00
45	MP	4-Nitrophenol	50.000	45.997	8.0	85	0.00
46		Dibenzofuran	50.000	46.263	7.5	88	0.00
47	M	2,4-Dinitrotoluene	50.000	50.709	-1.4	88	0.00
48		Diethylphthalate	50.000	46.817	6.4	87	0.00
49		4-chlorophenyl phenyl ether	50.000	45.662	8.7	89	0.00
50		Fluorene	50.000	45.228	9.5	89	0.00
51		4-Nitroaniline	50.000	45.345	9.3	86	0.00

Evaluate Continuing Calibration Report

Data Path : R:\H\2015\FEB15\16FEB15H\
Data File : HAA09ICV.D
Acq On : 02/16/2015 15:30
Operator : JH
Sample : 8270 27053 ICV
Inst : 5975-H
Misc : NEW COLUMN
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 10:39:25 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1_LOWLEVEL.M
Quant Title : SW-846 8270C
QLast Update : Tue Feb 24 10:33:02 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
52	I	Phenanthrene-d10	40.000	40.000	0.0	90	0.00
53	S	2,4,6-Tribromophenol	50.000	49.907	0.2	86	0.00
54		4,6-Dinitro-2-methylphenol	50.000	45.745	8.5	83	0.00
55	C	N-Nitrosodiphenylamine	50.000	45.699	8.6	88	0.00
56		4-bromophenyl phenyl ether	50.000	46.568	6.9	86	0.00
57		Hexachlorobenzene	50.000	46.636	6.7	86	0.00
58	MC	Pentachlorophenol	50.000	46.591	6.8	85	0.00
59		Phenanthrene	50.000	45.326	9.3	88	0.00
60		Anthracene	50.000	45.190	9.6	86	0.00
61		Carbazole	50.000	42.397	15.2	80	0.00
62		Di-n-butylphthalate	50.000	45.900	8.2	87	0.00
63	C	Fluoranthene	50.000	45.659	8.7	87	0.00
64	I	Chrysene-d12	40.000	40.000	0.0	90	0.00
65	M	Pyrene	50.000	46.564	6.9	88	0.00
66	S	Terphenyl-d14	50.000	46.782	6.4	87	0.00
67		Butylbenzylphthalate	50.000	48.513	3.0	87	0.00
68		3,3'-Dichlorobenzidine	50.000	54.797	-9.6	94	0.00
69		Benzo(a)anthracene	50.000	46.235	7.5	86	0.00
70		Chrysene	50.000	45.456	9.1	90	0.00
71		Bis(2-ethylhexyl)phthalate	50.000	47.088	5.8	90	0.00
72	I	Perylene-d12	40.000	40.000	0.0	90	0.00
73	C	Di-n-octylphthalate	50.000	50.841	-1.7	88	0.00
74		Benzo(b)fluoranthene	50.000	48.114	3.8	86	0.00
75		Benzo(k)fluoranthene	50.000	47.211	5.6	88	0.00
76	C	Benzo(a)pyrene	50.000	48.019	4.0	86	0.00
77		Indeno(1,2,3-c,d)pyrene	50.000	48.733	2.5	84	-0.01
78		Dibenz(a,h)anthracene	50.000	49.977	0.0	86	-0.01
79		Benzo(g,h,i)perylene	50.000	48.777	2.4	87	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\20APR15\
Data File : HBH02CCV.D
Acq On : 04/20/2015 07:02
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 08:42:42 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1.M
Quant Title : SW-846 8270C
QLast Update : Thu Apr 16 09:24:21 2015
Response via : Initial Calibration

Minimum Response Factors (in red)

analytes out:
~~6/72=8%~~ 6/72 = 8%
PASS

Form 7 Equivalent

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

%Difference

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	-0.01	
2		Pyridine	1.274	0.824	35.3#	68	-0.01	
3	S	2-Fluorophenol	1.377	1.289	6.4	82	-0.01	
4	S	Phenol-d5	1.441	1.298	9.9	85	0.00	
5	MC	Phenol	1.564 0.8	1.394	10.9	77	-0.01	
6		Bis(2-chloroethyl)ether	1.391 0.7	1.090	21.6#	67	-0.01	
7	M	2-Chlorophenol	1.541 0.8	1.400	9.1	84	0.00	
8		1,3-Dichlorobenzene	1.763	1.581	10.3	86	-0.01	
9	MC	1,4-dichlorobenzene	1.725	1.512	12.3	89	-0.01	
10		Benzyl alcohol	0.870	0.783	10.0	85	-0.01	
11		1,2-dichlorobenzene	1.632	1.479	9.4	88	-0.02	
12		2-Methylphenol	1.013 0.7	0.878	13.3	86	-0.02	
13		Bis(2-chloroisopropyl)ether	1.213	1.060	12.6	88	-0.01	
14		4-methylphenol	1.468 0.6	1.282	12.7	88	-0.01	
15	MP	N-Nitrosodi-n-propyl amine	0.691 0.5	0.649	6.1	89	-0.02	
16		Hexachloroethane	0.617 0.3	0.586	5.0	89	-0.01	
17	I	Naphthalene-d8	1.000	1.000	0.0	92	-0.02	
18	S	Nitrobenzene-d5	0.360	0.307	14.7	89	-0.02	
19		Nitrobenzene	0.342 0.2	0.309	9.6	90	-0.02	
20		Isophorone	0.617 0.4	0.567	8.1	91	-0.02	
21	C	2-Nitrophenol	0.229 0.1	0.210	8.3	86	-0.02	
22		2,4-Dimethylphenol	0.306 0.2	0.253	17.3	82	-0.02	
23		Benzoic Acid	0.166	0.219	-31.9#	174#	-0.02	%Drift
24		Bis(2-chloroethoxy)methane	0.370 0.3	0.321	13.2	89	-0.02	
25	C	2,4-Dichlorophenol	0.352 0.2	0.323	8.2	89	-0.02	
26	M	1,2,4-Trichlorobenzene	0.398	0.358	10.1	90	-0.02	
27		Naphthalene	1.077 0.7	0.918	14.8	92	-0.02	
28		4-Chloroaniline	0.375 0.01	0.233	37.9#	70	-0.02	
29	C	Hexachlorobutadiene	0.233 0.01	0.211	9.4	91	-0.02	
30	MC	4-Chloro-3-Methylphenol	0.310 0.2	0.288	7.1	91	-0.02	
31		2-Methylnaphthalene	0.779 0.4	0.654	16.0	90	-0.02	
32	I	Acenaphthene-d10	1.000	1.000	0.0	92	-0.03	
33	P	Hexachlorocyclopentadiene	0.502 0.05	0.432	13.9	84	-0.03	
34	C	2,4,6-Trichlorophenol	0.523 0.2	0.461	11.9	89	-0.03	
35		2,4,5-Trichlorophenol	0.557 0.2	0.496	11.0	92	-0.03	
36	S	2-Fluorobiphenyl	1.573	1.304	17.1	92	-0.03	
37		2-Chloronaphthalene	1.433 0.8	1.188	17.1	91	-0.03	
38		2-Nitroaniline	0.350 0.01	0.319	8.9	90	-0.03	
39		Dimethylphthalate	1.663 0.01	1.434	13.8	90	-0.03	
40		2,6-Dinitrotoluene	0.389 0.2	0.356	8.5	88	-0.03	
41		Acenaphthylene	2.289 0.9	1.910	16.6	91	-0.03	
42		3-Nitroaniline	0.297 0.01	0.179	39.7#	73	-0.03	
43	MC	Acenaphthene	1.362 0.9	1.140	16.3	91	-0.03	
44	P	2,4-Dinitrophenol	0.212 0.01	0.245	-15.6	83	-0.04	%Drift
45	MP	4-Nitrophenol	0.179 0.01	0.170	5.0	90	-0.03	
46		Dibenzofuran	1.958 0.8	1.618	17.4	93	-0.04	
47	M	2,4-Dinitrotoluene	0.493 0.2	0.434	12.0	91	-0.03	
48		Diethylphthalate	1.597 0.01	1.373	14.0	92	-0.04	
49		4-chlorophenyl phenyl ether	0.747 0.4	0.611	18.2	95	-0.04	
50		Fluorene	1.450 0.9	1.171	19.2	95	-0.04	
51		4-Nitroaniline	0.197 0.01	0.134	32.0#	90	-0.04	%Drift

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\20APR15\
Data File : HBH02CCV.D
Acq On : 04/20/2015 07:02
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 08:42:42 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1.M
Quant Title : SW-846 8270C
QLast Update : Thu Apr 16 09:24:21 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Difference %Dev	Area%	Dev(min)	
52	I	Phenanthrene-d10	1.000	1.000	0.0	92	-0.04	
53	S	2,4,6-Tribromophenol	0.135	0.133	1.5	91	-0.04	
54		4,6-Dinitro-2-methylphenol	0.174	0.01 0.173	0.6	86	-0.04	
55	C	N-Nitrosodiphenylamine	0.556	0.01 0.478	14.0	90	-0.04	
56		4-bromophenyl-phenylether	0.283	0.1 0.247	12.7	90	-0.04	
57		Hexachlorobenzene	0.314	0.1 0.280	10.8	91	-0.04	
58	MC	Pentachlorophenol	0.206	0.05 0.205	0.5	93	-0.04	%Drift
59		Phenanthrene	1.208	0.7 1.000	17.2	91	-0.04	
60		Anthracene	1.213	0.7 1.015	16.3	93	-0.04	
61		Carbazole	0.792	0.01 0.698	11.9	130	-0.02	%Drift
62		Di-n-butylphthalate	1.377	0.01 1.195	13.2	94	-0.04	
63	C	Fluoranthene	1.320	0.6 1.124	14.8	95	-0.03	
64	I	Chrysene-d12	1.000	1.000	0.0	97	-0.03	
65	M	Pyrene	1.358	0.6 1.190	12.4	95	-0.03	
66	S	Terphenyl-d14	0.932	0.828	11.2	97	-0.04	
67		Butylbenzylphthalate	0.602	0.01 0.541	10.1	94	-0.03	
68		3,3'-Dichlorobenzidine	0.242	0.01 0.163	32.6#	52	-0.02	
69		Benzo(a)anthracene	1.269	0.8 1.101	13.2	98	-0.04	
70		Chrysene	1.031	0.7 0.853	17.3	97	-0.04	
71		Bis(2-ethylhexyl)phthalate	0.706	0.01 0.576	18.4	97	-0.04	
72	I	Perylene-d12	1.000	1.000	0.0	99	-0.06	
73	C	Di-n-octylphthalate	1.186	0.01 0.964	18.7	93	-0.04	
74		Benzo(b)fluoranthene	1.130	0.7 0.942	16.6	98	-0.06	
75		Benzo(k)fluoranthene	1.029	0.7 0.856	16.8	96	-0.05	
76	C	Benzo(a)pyrene	1.050	0.7 0.899	14.4	95	-0.06	
77		Indeno(1,2,3-c,d)pyrene	0.991	0.5 0.885	10.7	95	-0.11	
78		Dibenz(a,h)anthracene	0.987	0.4 0.890	9.8	96	-0.10	
79		Benzo(g,h,i)perylene	1.017	0.5 0.905	11.0	93	-0.11	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\20APR15\
Data File : HBH02CCV.D
Acq On : 04/20/2015 07:02
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 08:42:42 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1.M
Quant Title : SW-846 8270C
QLast Update : Thu Apr 16 09:24:21 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	93	-0.01
2		Pyridine	50.000	32.326	35.3#	68	-0.01
3	S	2-Fluorophenol	50.000	46.820	6.4	82	-0.01
4	S	Phenol-d5	50.000	45.038	9.9	85	0.00
5	MC	Phenol	50.000	44.574	10.9	77	-0.01
6		Bis(2-chloroethyl)ether	50.000	39.162	21.7#	67	-0.01
7	M	2-Chlorophenol	50.000	45.410	9.2	84	0.00
8		1,3-Dichlorobenzene	50.000	44.843	10.3	86	-0.01
9	MC	1,4-dichlorobenzene	50.000	43.817	12.4	89	-0.01
10		Benzyl alcohol	50.000	45.019	10.0	85	-0.01
11		1,2-dichlorobenzene	50.000	45.321	9.4	88	-0.02
12		2-Methylphenol	50.000	43.347	13.3	86	-0.02
13		Bis(2-chloroisopropyl)ether	50.000	43.694	12.6	88	-0.01
14		4-methylphenol	50.000	43.658	12.7	88	-0.01
15	MP	N-Nitrosodi-n-propyl amine	50.000	46.951	6.1	89	-0.02
16		Hexachloroethane	50.000	47.462	5.1	89	-0.01
17	I	Naphthalene-d8	40.000	40.000	0.0	92	-0.02
18	S	Nitrobenzene-d5	50.000	42.689	14.6	89	-0.02
19		Nitrobenzene	50.000	45.200	9.6	90	-0.02
20		Isophorone	50.000	45.919	8.2	91	-0.02
21	C	2-Nitrophenol	50.000	45.953	8.1	86	-0.02
22		2,4-Dimethylphenol	50.000	41.406	17.2	82	-0.02
23		Benzoic Acid	50.000	57.393	-14.8	174	-0.02
24		Bis(2-chloroethoxy)methane	50.000	43.361	13.3	89	-0.02
25	C	2,4-Dichlorophenol	50.000	45.898	8.2	89	-0.02
26	M	1,2,4-Trichlorobenzene	50.000	44.884	10.2	90	-0.02
27		Naphthalene	50.000	42.641	14.7	92	-0.02
28		4-Chloroaniline	50.000	31.013	38.0#	70	-0.02
29	C	Hexachlorobutadiene	50.000	45.262	9.5	91	-0.02
30	MC	4-Chloro-3-Methylphenol	50.000	46.418	7.2	91	-0.02
31		2-Methylnaphthalene	50.000	41.983	16.0	90	-0.02
32	I	Acenaphthene-d10	40.000	40.000	0.0	92	-0.03
33	P	Hexachlorocyclopentadiene	50.000	42.980	14.0	84	-0.03
34	C	2,4,6-Trichlorophenol	50.000	44.042	11.9	89	-0.03
35		2,4,5-Trichlorophenol	50.000	44.531	10.9	92	-0.03
36	S	2-Fluorobiphenyl	50.000	41.446	17.1	92	-0.03
37		2-Chloronaphthalene	50.000	41.472	17.1	91	-0.03
38		2-Nitroaniline	50.000	45.485	9.0	90	-0.03
39		Dimethylphthalate	50.000	43.118	13.8	90	-0.03
40		2,6-Dinitrotoluene	50.000	45.724	8.6	88	-0.03
41		Acenaphthylene	50.000	41.718	16.6	91	-0.03
42		3-Nitroaniline	50.000	30.169	39.7#	73	-0.03
43	MC	Acenaphthene	50.000	41.826	16.3	91	-0.03
44	P	2,4-Dinitrophenol	50.000	50.495	-1.0	83	-0.04
45	MP	4-Nitrophenol	50.000	46.222	7.6	90	-0.03
46		Dibenzofuran	50.000	41.328	17.3	93	-0.04
47	M	2,4-Dinitrotoluene	50.000	44.023	12.0	91	-0.03
48		Diethylphthalate	50.000	42.976	14.0	92	-0.04
49		4-chlorophenyl phenyl ether	50.000	40.909	18.2	95	-0.04
50		Fluorene	50.000	40.364	19.3	95	-0.04
51		4-Nitroaniline	50.000	37.923	24.2#	90	-0.04

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2015\APR15\20APR15\
Data File : HBH02CCV.D
Acq On : 04/20/2015 07:02
Operator : SY
Sample : 8270 S50 27409
Inst : 5975-H
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 08:42:42 2015
Quant Method : C:\msdchem\1\methods\H8270D15A1.M
Quant Title : SW-846 8270C
QLast Update : Thu Apr 16 09:24:21 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift %Dev	Area%	Dev(min)
52	I	Phenanthrene-d10	40.000	40.000	0.0	92	-0.04
53	S	2,4,6-Tribromophenol	50.000	49.011	2.0	91	-0.04
54		4,6-Dinitro-2-methylphenol	50.000	49.595	0.8	86	-0.04
55	C	N-Nitrosodiphenylamine	50.000	42.989	14.0	90	-0.04
56		4-bromophenyl phenyl ether	50.000	43.644	12.7	90	-0.04
57		Hexachlorobenzene	50.000	44.631	10.7	91	-0.04
58	MC	Pentachlorophenol	50.000	47.711	4.6	93	-0.04
59		Phenanthrene	50.000	41.407	17.2	91	-0.04
60		Anthracene	50.000	41.864	16.3	93	-0.04
61		Carbazole	50.000	52.380	4.8	130	-0.02
62		Di-n-butylphthalate	50.000	43.380	13.2	94	-0.04
63	C	Fluoranthene	50.000	42.558	14.9	95	-0.03
64	I	Chrysene-d12	40.000	40.000	0.0	97	-0.03
65	M	Pyrene	50.000	43.812	12.4	95	-0.03
66	S	Terphenyl-d14	50.000	44.384	11.2	97	-0.04
67		Butylbenzylphthalate	50.000	44.928	10.1	94	-0.03
68		3,3'-Dichlorobenzidine	50.000	33.714	32.6#	52	-0.02
69		Benzo(a)anthracene	50.000	43.382	13.2	98	-0.04
70		Chrysene	50.000	41.358	17.3	97	-0.04
71		Bis(2-ethylhexyl)phthalate	50.000	40.836	18.3	97	-0.04
72	I	Perylene-d12	40.000	40.000	0.0	99	-0.06
73	C	Di-n-octylphthalate	50.000	40.630	18.7	93	-0.04
74		Benzo(b)fluoranthene	50.000	41.702	16.6	98	-0.06
75		Benzo(k)fluoranthene	50.000	41.608	16.8	96	-0.05
76	C	Benzo(a)pyrene	50.000	42.845	14.3	95	-0.06
77		Indeno(1,2,3-c,d)pyrene	50.000	44.662	10.7	95	-0.11
78		Dibenz(a,h)anthracene	50.000	45.074	9.9	96	-0.10
79		Benzo(g,h,i)perylene	50.000	44.501	11.0	93	-0.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\data\2015\APR15\20APR15\HBH01TUN.D
Tune Time : 20 Apr 2015 6:44 am

Daily Calibration File : C:\msdchem\1\data\2015\APR15\20APR15\HBH02CCV.D

						1194750	4138740	2209050	Form 8 equivalent
						4087710	3977790	5628920	
File	Sample	Surrogate Recovery %				Internal Standard Responses			
HBH03LMB.D									
	442952 MB	19	36	30*	70	1232441	4148702	2193358	
		68	65			3889266	4321208	5085801	
HBH04LCS.D									
	442953 LCS	24	41	55	64	1240104	4367836	2380474	
		72	64			4272353	4249026	5339415	
HBH05LCD.D									
	442954 LCS	24	43	60	72	1173273	4103783	2191476	
		79	69			3961338	4026892	5111982	
HBH06SMP.D									
	1510555001	29	50	65	78	1023523	3694085	2015304	
		84	76			3497381	3559386	4104920	
HBH07SMP.D									
	1510555002	23	42	48	74	1151012	3884579	2020985	
		76	69			3629550	3948437	4583384	
HBH08SMP.D									
	1510555003	25	45	62	73	1045977	3707365	1991324	
		74	67			3500276	3818575	4295713	
HBH09BLK.D									
	MECL BLANK	0*	0*	0*	0*	1372433	4369714	2237191	
		0*	0*			3983471	4525673	5501012	

(fails) - fails 12hr time check * - fails criteria

Created: Mon Apr 20 11:19:49 2015 5975-H

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1510559**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received seven summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: 1510559007 was analyzed at 1:400 DIL

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5975-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

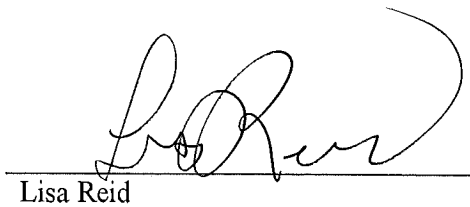
Relative Response Factor: $$RRF = \left[\frac{A_x}{A_{is}}\right]\left[\frac{C_{is}}{C_x}\right]$$

Where A_x is the area of the characteristic ion for the compound to be measured, A_{is} is the area of the characteristic ion for the internal standard , C_{is} is the concentration of the internal standard, and C_x is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)}\right]$$

Concentration in ug/m^3 : $$C = \textbf{ppb v/v (MW/24.45)}$$

Where I_s is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.



Lisa Reid

September 17, 2015

Date

ANALYTICAL REPORT
Amended-20150430

Report Date: April 30, 2015

Ed Reid
First Environment
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Boonton, NJ 07005

Phone: (678) 787-2295
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E-mail: EJR@firstenvironment.com

Workorder: **34-1510559**
Project ID: VA SLC CERCLA 041515
Purchase Order: VA SLC CERCLA

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0030H-041115-TO-001-LAU	1510559001	04/11/15	04/15/15	VA SLC CERCLA
A-0030H-041115-TO-002-OUT	1510559002	04/11/15	04/15/15	VA SLC CERCLA
A-0030H-041115-TO-003-AAA	1510559003	04/11/15	04/15/15	VA SLC CERCLA
A-0030H-041115-SG-001A	1510559004	04/11/15	04/15/15	VA SLC CERCLA
A-0030H-041115-TO-004BLK	1510559005	04/11/15	04/15/15	VA SLC CERCLA
A-0031-S-041515-SG-001A 4	1510559007	04/15/15	04/15/15	VA SLC CERCLA
A-0011-041415-SG-001A8	1510559006	04/14/15	04/15/15	VA SLC CERCLA

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-001-LAU
Lab ID: 1510559001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 13:56
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.56**	**2.8**	0.15	0.50	1	
Chloromethane	**0.62**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.26	1.4	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**10**	**24**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.32	1.1	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.92**	**2.7**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**1.0**	**3.7**	0.15	1.0	1	
Hexane	**1.1**	**3.9**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	0.23	0.91	0.15	0.50	1	J
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.35	1.1	0.15	0.50	1	J
Cyclohexane	**0.57**	**2.0**	0.15	0.50	1	
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**0.59**	**2.4**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-001-LAU
Lab ID: 1510559001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 13:56
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**2.6**	**9.9**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	**0.87**	**5.9**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.26	1.1	0.15	0.50	1	J
m,p-Xylene	**1.1**	**4.8**	0.15	0.50	1	
o-Xylene	0.36	1.6	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	0.18	0.90	0.15	0.50	1	J
1,2,4-Trimethylbenzene	0.45	2.2	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 13:56
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	18	5.38	1	J
Ethanol	180	19.55	1	J
Ispropyl Alcohol	3.1	NA	1	J
Isobutane	12	NA	1	J
Butane	9.9	NA	1	J
Pentane	4.3	NA	1	J
Nonane	6.8	NA	1	J
Nonane, 3-methyl-	2.0	NA	1	J
Decane	8.5	NA	1	J

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-002-OUT
Lab ID: 1510559002
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 14:46
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.50**	**2.5**	0.15	0.50	1	
Chloromethane	**0.56**	**1.1**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.22	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**4.3**	**10**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.27	0.94	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.29	0.86	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.27	0.97	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.21	0.67	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.25	1.0	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-002-OUT | Sampling Site: VA SLC CERCLA | Collected: 04/11/2015
Lab ID: 1510559002 | Media: Summa 6 Liter Canister | Received: 04/15/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 14:46 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	0.36	1.3	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.23	1.0	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 14:46 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	3.7	4.09	1	J
Nonanal	4.0	5.34	1	J

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-003-AAA
Lab ID: 1510559003
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 15:35
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	**0.50**	**2.5**	0.15	0.50	1	
Chloromethane	**0.56**	**1.1**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.22	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**4.8**	**11**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.34	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.31	0.92	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.28	0.97	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.19	0.60	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.24	0.97	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-003-AAA
Lab ID: 1510559003
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 15:35
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	0.34	1.3	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.23	0.98	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 15:35
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	3.8	5.36	1	J
Nonanal	3.1	19.55	1	J

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-SG-001A
Lab ID: 1510559004
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 16:25
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.48	2.4	0.15	0.50	1	J
Chloromethane	**0.70**	**1.4**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	**0.81**	**3.1**	0.15	0.50	1	
Chloroethane	0.27	0.70	0.15	0.50	1	J
Freon 11	0.36	2.0	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**220**	**520**	0.30	1.0	1	E
Carbon disulfide	**2.4**	**7.3**	0.15	0.50	1	
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**61**	**180**	0.15	0.50	1	E
cis-1,2-Dichloroethene	**0.70**	**2.8**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.65	2.3	0.15	1.0	1	J
Hexane	**8.5**	**30**	0.15	0.50	1	
Chloroform	0.21	1.0	0.15	0.50	1	J
Tetrahydrofuran	**1.9**	**5.6**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.84**	**2.7**	0.15	0.50	1	
Cyclohexane	**0.68**	**2.3**	0.15	0.50	1	
Trichloroethene	**3.2**	**17**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**5.9**	**24**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	**1.1**	**4.4**	0.15	0.50	1	
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-SG-001A
Lab ID: 1510559004
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 16:25
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**3.0**	**11**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	0.22	1.5	0.15	0.50	1	J
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.69**	**3.0**	0.15	0.50	1	
m,p-Xylene	**1.7**	**7.5**	0.15	0.50	1	
o-Xylene	**0.59**	**2.6**	0.15	0.50	1	
Styrene	**0.78**	**3.3**	0.15	0.50	1	
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.17	0.84	0.15	1.0	1	J
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.45	2.2	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 16:25
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	100	4.07	1	J
Acetaldehyde	88	4.56	1	J
1-Propene, 2-methyl-	36	4.65	1	J
Acrolein	12	5.66	1	J
Ethanol	49	5.35	1	J
Isopropyl Alcohol	19	5.99	1	J
Butanal	38	7.89	1	J
Pentanal	26	10.70	1	J
Hexanal	32	13.36	1	J
1-Octene	43	13.58	1	J

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-SG-001A
Lab ID: 1510559004
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 16:25
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Octane	25	13.85	1	J
4-Nonene	21	15.00	1	J
1-Hexanol, 2-ethyl-	22	18.27	1	J
C10 Hydocarbon	15	18.53	1	J
C10 Hydrocarbon	25	18.86	1	J
C11 Hydocarbon	18	19.20	1	J
C11 Hydrocarbon	15	19.26	1	J
Acetic acid, 2-ethylhexyl ester	17	20.30	1	J

Sample ID: A-0030H-041115-TO-004BLK
Lab ID: 1510559005
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 17:15
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.47	2.3	0.15	0.50	1	J
Chloromethane	**1.5**	**3.0**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	**1.8**	**7.1**	0.15	0.50	1	
Chloroethane	0.23	0.62	0.15	0.50	1	J
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**190**	**450**	0.30	1.0	1	E
Carbon disulfide	**0.82**	**2.6**	0.15	0.50	1	
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**60**	**180**	0.15	0.50	1	E
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-004BLK
Lab ID: 1510559005
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 17:15
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.89	3.2	0.15	1.0	1	J
Hexane	**10**	**36**	0.15	0.50	1	
Chloroform	**0.64**	**3.1**	0.15	0.50	1	
Tetrahydrofuran	**1.2**	**3.6**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	0.33	1.8	0.15	0.50	1	J
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**1.4**	**4.6**	0.15	0.50	1	
Cyclohexane	**0.52**	**1.8**	0.15	0.50	1	
Trichloroethene	**3.8**	**20**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**8.0**	**33**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	**3.0**	**12**	0.15	0.50	1	
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**3.8**	**14**	0.15	0.50	1	
2-Hexanone	**11**	**46**	0.30	1.0	1	
Tetrachloroethene	**9.8**	**66**	0.15	0.50	1	
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.34	1.5	0.15	0.50	1	J
m,p-Xylene	**0.97**	**4.2**	0.15	0.50	1	
o-Xylene	**0.52**	**2.3**	0.15	0.50	1	
Styrene	0.46	2.0	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.22	1.1	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.31	1.5	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**1.1**	**5.2**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0030H-041115-TO-004BLK | Sampling Site: VA SLC CERCLA | Collected: 04/11/2015
Lab ID: 1510559005 | Media: Summa 6 Liter Canister | Received: 04/15/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 17:15 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 17:15 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	91	4.07	1	J
Acetaldehyde	100	4.58	1	J
Acrolein	45	5.66	1	J
Ethanol	76	5.37	1	J
Isopropyl Alcohol	7.2	6.01	1	J
2-Propanol, 2-methyl-	28	6.54	1	J
Acetic acid ethenyl ester	12	7.76	1	J
Butanal	92	7.90	1	J
2-Pentanone	16	10.47	1	J
Pentanal	100	10.72	1	J
Hexanal	91	13.38	1	J
Octane	12	13.85	1	J
Octanal	18	17.72	1	J
Decane	20	17.99	1	J
C11 Hydrocarbon	17	18.86	1	J
C11 Hydrocarbon	13	19.20	1	J
C11 Hydrocarbon	13	19.26	1	J
C11 Hydrocarbon	12	19.54	1	J

Sample ID: A-0011H-041415-SG-001A8 | Sampling Site: VA SLC CERCLA | Collected: 04/14/2015
Lab ID: 1510559007 | Media: Summa 6 Liter Canister | Received: 04/15/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 18:04 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011H-041415-SG-001A8
Lab ID: 1510559007
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/14/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/20/2015 18:04
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**6.2**	**15**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	ND	<0.57	0.15	0.50	1	U

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ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011H-041415-SG-001A8 | Sampling Site: VA SLC CERCLA | Collected: 04/14/2015
Lab ID: 1510559007 | Media: Summa 6 Liter Canister | Received: 04/15/2015
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 18:04 | **Report Basis:** Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	ND	<0.65	0.15	0.50	1	U
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/2885 (HBN: 147513) | **Percent Solid:** NA
Analyzed: 04/20/2015 18:04 | **Report Basis:** Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Ethanol	19	5.34	1	J
Isopropyl Alcohol	5.9	5.97	1	J

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0031-S-041515-SG-001A 4
Lab ID: 1510559006
Matrix: Air

Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L

Collected: 04/15/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable

Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 09:20

Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**310**	**730**	0.30	1.0	1	E
Carbon disulfide	0.19	0.60	0.15	0.50	1	J
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.46	1.4	0.15	0.50	1	J
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0031-S-041515-SG-001A 4
Lab ID: 1510559006
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 04/15/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 09:20
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	ND	<0.57	0.15	0.50	1	U
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	ND	<0.65	0.15	0.50	1	U
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 09:20
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	19	3.99	1	J
Acetaldehyde	10	4.47	1	J
Isopropyl Alcohol	290	5.95	1	J

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 04/22/2015 10:04	/S/ Jorden Baum 04/22/2015 11:04

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT
Amended-20150430

Workorder: 34-1510559
Client: First Environment
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1510559**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2885 (HBN: 147513)
Analyzed By: Lisa M. Reid

Blank

MB: 443527
Analyzed: 04/20/2015 13:06

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510559

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2885 (HBN: 147513)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 443527
Analyzed: 04/20/2015 13:06
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 443528
Analyzed: 04/20/2015 10:42
Dilution: 1
Units: ppb

LCSD: 443529
Analyzed: 04/20/2015 11:31
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	10.3	10.0	103	59.3	135.1	10.1	101	2.18	0.0	25.0
Chloromethane	9.45	10.0	94.5	55.2	137.4	9.23	92.3	2.37	0.0	25.0
Freon 114	10.5	10.0	105	64.6	128.0	10.3	103	1.60	0.0	25.0
Vinyl chloride	10.4	10.0	104	61.8	132.3	10.3	103	1.18	0.0	25.0
1,3-Butadiene	10.6	10.0	106	58.0	138.3	10.5	105	1.18	0.0	25.0
Bromomethane	10.2	10.0	102	63.3	129.9	10.1	101	0.523	0.0	25.0
Chloroethane	9.95	10.0	99.5	57.6	137.1	9.89	98.9	0.567	0.0	25.0
Freon 11	10.2	10.0	102	58.9	132.8	10.1	101	1.20	0.0	25.0
Freon 113	9.68	10.0	96.8	68.5	120.0	9.68	96.8	0.0403	0.0	25.0
1,1-Dichloroethene	10.3	10.0	103	67.2	125.1	10.2	102	0.821	0.0	25.0
Acetone	10.4	10.0	104	42.5	146.0	10.2	102	1.56	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510559

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2885 (HBN: 147513)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 443528
Analyzed: 04/20/2015 10:42
Dilution: 1
Units: ppb

LCSD: 443529
Analyzed: 04/20/2015 11:31
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	10.3	10.0	103	63.9	128.8	10.2	102	1.01	0.0	25.0
Methylene chloride	10.1	10.0	101	63.7	127.9	9.99	99.9	0.711	0.0	25.0
trans-1,2-Dichloroethene	10.1	10.0	101	68.1	124.6	10.2	102	0.237	0.0	25.0
Methyl t-butyl ether	10.3	10.0	103	60.8	138.0	10.2	102	0.807	0.0	25.0
Vinyl acetate	10.5	10.0	105	59.3	141.1	10.3	103	1.81	0.0	25.0
2-Butanone	11.2	10.0	112	51.7	144.2	11.2	112	0.286	0.0	25.0
cis-1,2-Dichloroethene	10.3	10.0	103	69.8	124.3	10.3	103	0.116	0.0	25.0
1,1-Dichloroethane	10.3	10.0	103	67.7	123.6	10.2	102	1.26	0.0	25.0
Ethyl acetate	9.08	10.0	90.8	53.4	156.9	8.99	89.9	0.996	0.0	25.0
Hexane	9.89	10.0	98.9	62.4	129.5	9.93	99.3	0.377	0.0	25.0
Chloroform	10.2	10.0	102	67.3	121.8	10.3	103	0.185	0.0	25.0
Tetrahydrofuran	11.8	10.0	118	50.6	155.3	11.7	117	1.06	0.0	25.0
1,2-Dichloroethane	10.2	10.0	102	62.4	130.5	10.2	102	0.618	0.0	25.0
1,1,1-Trichloroethane	9.68	10.0	96.8	60.4	127.7	9.68	96.8	0.0041	0.0	25.0
Carbon tetrachloride	9.98	10.0	99.8	58.2	130.6	9.96	99.6	0.172	0.0	25.0
Benzene	10.0	10.0	100	64.1	127.3	10.0	100	0.0498	0.0	25.0
Cyclohexane	9.87	10.0	98.7	61.9	123.6	9.88	98.8	0.137	0.0	25.0
Trichloroethene	10.1	10.0	101	62.4	126.8	10.2	102	0.766	0.0	25.0
1,2-Dichloropropane	10.4	10.0	104	60.7	130.6	10.3	103	0.859	0.0	25.0
Bromodichloromethane	10.1	10.0	101	62.9	128.3	10.1	101	0.0296	0.0	25.0
Heptane	10.2	10.0	102	59.5	133.4	10.2	102	0.323	0.0	25.0
cis-1,3-Dichloropropene	10.3	10.0	103	64.1	133.6	10.3	103	0.116	0.0	25.0
4-Methyl-2-pentanone	11.5	10.0	115	73.5	150.0	11.5	115	0.722	0.0	25.0
trans-1,3-Dichloropropene	10.2	10.0	102	78.5	148.7	10.3	103	0.430	0.0	25.0
1,1,2-Trichloroethane	10.0	10.0	100	65.0	126.6	10.0	100	0.0399	0.0	25.0
Toluene	9.79	10.0	97.9	75.6	139.4	9.86	98.6	0.719	0.0	25.0
2-Hexanone	11.8	10.0	118	80.8	158.8	11.6	116	1.03	0.0	25.0
Tetrachloroethene	9.58	10.0	95.8	60.7	126.6	9.72	97.2	1.49	0.0	25.0
Dibromochloromethane	10.2	10.0	102	62.4	130.9	10.2	102	0.284	0.0	25.0
1,2-Dibromoethane	10.4	10.0	104	64.4	129.0	10.4	104	0.461	0.0	25.0
Chlorobenzene	10.2	10.0	102	62.8	126.9	10.2	102	0.0293	0.0	25.0
Ethyl benzene	9.92	10.0	99.2	75.9	148.5	9.92	99.2	0.0917	0.0	25.0
m,p-Xylene	19.3	20.0	96.3	73.7	144.9	19.3	96.6	0.281	0.0	25.0
o-Xylene	9.58	10.0	95.8	74.7	147.4	9.62	96.2	0.395	0.0	25.0
Styrene	10.3	10.0	103	75.9	158.1	10.5	105	1.17	0.0	25.0
Bromoform	9.47	10.0	94.7	59.7	136.0	9.57	95.7	1.11	0.0	25.0
1,1,2,2-Tetrachloroethane	9.82	10.0	98.2	59.3	134.8	9.99	99.9	1.67	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510559

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2885 (HBN: 147513)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 443528	LCSD: 443529
Analyzed:	04/20/2015 10:42	04/20/2015 11:31
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	10.1	10.0	101	69.0	163.3	10.2	102	0.796	0.0	25.0
1,3,5-Trimethylbenzene	9.81	10.0	98.1	64.2	155.1	9.96	99.6	1.48	0.0	25.0
1,2,4-Trimethylbenzene	9.91	10.0	99.1	59.7	169.4	9.99	99.9	0.800	0.0	25.0
1,3-Dichlorobenzene	9.59	10.0	95.9	58.6	157.6	9.68	96.8	0.855	0.0	25.0
1,4-Dichlorobenzene	9.76	10.0	97.6	57.7	137.2	9.87	98.7	1.14	0.0	25.0
Benzyl chloride	10.3	10.0	103	60.1	182.5	10.2	102	0.604	0.0	25.0
1,2-Dichlorobenzene	9.91	10.0	99.1	56.5	140.0	9.94	99.4	0.346	0.0	25.0
1,2,4-Trichlorobenzene	9.69	10.0	96.9	0.0	235.7	9.45	94.5	2.48	0.0	25.0
Hexachlorobutadiene	8.60	10.0	86.0	25.3	155.9	8.69	86.9	1.03	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
443528-LCS	18.9	20.0	94.6
443529-LCSD	19.0	20.0	95.2
443527-MB	18.9	20.0	94.4
1510559001	19.0	20.0	94.8
1510559002	18.9	20.0	94.4
1510559003	19.0	20.0	94.9
1510559004	19.0	20.0	95.0
1510559005	19.0	20.0	94.9
1510559006	18.8	20.0	93.8
1510783001	18.7	20.0	93.4
1510724001	18.7	20.0	93.3
1510559007	18.7	20.0	93.4
1510561001	19.0	20.0	94.8

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	4/22/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ● - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

W 1510559

ANALYTICAL REQUEST FORM

1510559

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/15/15 Purchase Order No. _____

3. Company Name First Environment INC
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (973) 787-2295
Fax Telephone 973 334-9478
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffin

5. Sample Collection
Sampling Site VA SLC GEROA
Industrial Process NA
Date of Collection 4/11 - 4/ 1-2015
Time Collected multiple
Date of Shipment 4/15/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
7-00301+-041115-TO-001-LAV	air	6L Sum	TO-15-VOCs in Air	5	~~0354~~ 0493
7-00301+-041115-TO-002-OUT	air	6L Sum			0284
A-00301+-041115-TO-003-AAA	air	6L Sum			0196
A-00301+-041115-SG-001A-6'	air	6L Sum			~~0287~~ 0369
A-00301+-041115-TO-004BULK	air	6L Summa			0297
A-00111+-041415-SG-001A8'	air	6L Summa			~~0445~~ 0287
A-00111+-041315-SG-001A8'	air	1L Tedlar	TO-15A-VOCs in Air		
A-0011-1+-041315-SG-001-PUF	air	240L PUF	TO-13 SVOCs in Air		
A-00111+-041315-TO-001BAEP	air	240 L PUF	TO-13 SVOCs in Air		
A-0031-S-041415-SG-002A4'	air	240 L PUF	TO-13 SVOC in Air		
A-003-S-041515-SG-002A4'	air	6L Summa	TO-15 -VOCs in Air	5	0445

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. ____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCE, TCE, 1,2 DCE, Vinyl Chl.

7. Chain of Custody (Optional)

Relinquished by	[signature]	Date/Time	4/15/15 - 1205
Received by	[signature]	Date/Time	04 15 15 12:05
Relinquished by		Date/Time	
Received by		Date/Time	

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment Inc

Account No:

Project/Job/Task: VA SLC CERCLA SITE - DEPT NO30 B-0006M5

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0284	04-07-15	>25		JB	26	1	A-0030H-04115-TO-002-0617		
0369	"	"	"	"	27	2	A-0030H-04115-SG-001A-LAB		
0493	"	"	"	"	25	0.5	A-0030H-04115-TO-001-LAB		
0196	"	"	"	"	27	2	A-0030H-04115 TO-003-AAA		
0287	"	"	"	"	27	2	A-0030H-04115-SG-001A-LAB = 0031S		
VFR Serial No.:									
0229	04-08-15		23.8	JB			Paired w/ 369		
0407	"	"	"	"	"	"	Paired w/ 0493		
0464	"	"	"	"	"	"	Paired w/ 0284		
0532	"	"	"	"	"	"	Paired w/ 0196		
0600	"	"	"	"	"	"			

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
J—C—B	04-08-15	Edward R	Pittsburgh lab
Edward R	04/15/15		Dolleats lab
		Steven Kessler	04-15-15 12:05

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: First Environment Inc

Account No:

Project/Job/Task: VA ELC CERCLA Site - DEPA0308-000614b

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (Inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
0445	04-07-15	-25		DB	26	0.5	A-0011H-CHALS Rep 001F		
0297	↓	↓		↓	25	1	A-0030H-0 TO-0004-R1 CHALS BLK	TO-004	
0106	↓	↓		↓					
VFR Serial No.:									
0331	04-08-15		~3.8	JB			Paired w/ 297 Paired w/ 445		
0017	↓		↓	↓			Paired w/ 0411		
0411	↓		↓	↓			Paired w/ 0297		
	↓								

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
J C B	04-08-15	Edward Ortiz	Pickup at Lab
Edward O R	04/15/15	Tanika Gillie 04-15-15 10:05	Return to lab

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Batch Worklist

Batch: IVOA/ 2885
Rule: EPA TO-15, Air

Created: 4/22/2015 10:10
Analyst: L. Reid

Instrument: 5975-L
Status: WP

HBN: 147513

Workorder: 1510559
Workorder: 1510561
Workorder: 1510724
Workorder: 1510783

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	443528	LCS for HBN 147513 (IVOA/2885)				LCS	1		ETO15...1Q			6/21/2015	4/20/2015
2	443529	LCSD for HBN 147513 (IVOA/2885				LCSD	1		ETO15...1Q			6/21/2015	4/20/2015
3	443527	MB for HBN 147513 (IVOA/2885)				MB	1		ETO15...1Q			6/21/2015	4/20/2015
4	1510559001	A-0030H-041115-TO-001-LAD				SAMPLE	1	1510559001-A	ETO15....1	5480		4/22/2015	4/20/2015
5	1510559002	A-0030H-041115-TO-002-OUT				SAMPLE	1	1510559002-A	ETO15....1	5480		4/22/2015	4/20/2015
6	1510559003	A-0030H-041115-TO-003-AAA				SAMPLE	1	1510559003-A	ETO15....1	5480		4/22/2015	4/20/2015
7	1510559004	A-0030H-041115-SG-001A				SAMPLE	1	1510559004-A	ETO15....1	5480		4/22/2015	4/20/2015
		* E\Result exceeds calibration range											
8	1510559005	A-0030H-041115-TO-004BLK				SAMPLE	1	1510559005-A	ETO15....1	5480		4/22/2015	4/20/2015
		* E\Result exceeds calibration range											
9	1510559006	A-0030H-041415-SG-001A8				SAMPLE	1	1510559006-A	ETO15....1	5480		4/22/2015	4/20/2015
10	1510783001	I-CM Desk				SAMPLE	1	1510783001-A	ETO15....1	5975		4/23/2015	4/20/2015
		* E\Result exceeds calibration range											
11	1510724001	33515-VI				SAMPLE	1	1510724001-A	ETO15....1	5975		4/24/2015	4/20/2015
12	1510559007	A-0031-S-041515-SG-001A4				SAMPLE	1	1510559007-A	ETO15....1	5480		4/22/2015	4/21/2015
		* E\Result exceeds calibration range											
13	1510561001	A-0011H-041315-SG-001				SAMPLE	1	1510561001-A	ETO15....1	5480		4/22/2015	4/21/2015
		* E\Result exceeds calibration range											
14	443521	RLVS for HBN 147513 IVOA/2885				RLVS	1		ETO15...1Q	5320		4/22/2015	4/20/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	LA67LCS	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		554816	6702079	5686356
	Upper Limit	776742	9382911	7960898
	Lower limit	332890	4021247	3411814

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	LA70BLK	587840	6685905	5664913
QC-	LA67LCS	554816	6702079	5686356
QD-	LA68LCSD	562944	6791103	5781259
A-0030H-041115-TO-001-LAD	FEI1510559001	562816	6577674	5547822
A-0030H-041115-TO-002-OUT	FEI1510559002	569152	6614567	5526956
A-0030H-041115-TO-003-AAA	FEI1510559003	561536	6540907	5598264
A-0030H-041115-SG-001-A	FEI1510559004	578752	6625282	5379707
A-0030H-041115-TO-004BLK	FEI1510559005	582848	6585845	5470587
A-0030H-041415-SG-001-A8	FEI1510559006	588352	6793629	5809021
A-0031-S-041515-SG-001-A4	FEI1510559007	594624	6586740	5617784
A-0011H-041315-SG-001	FEI1510561001	591040	6604284	5495975

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD73S10	**RT BCM**	**RT 1,4DFB**	**RT CB-d5**
10 ppb v/v Continuing Cal Std		8.55	10.38	14.70
	Upper Limit	9.05	10.88	15.20
	Lower limit	8.05	9.88	14.20
CLIENT Sample No.	**DCL Sample No.**	**RT BCM**	**RT 1,4DFB**	**RT CB-d5**
BL-	LA70BLK	8.54	10.36	14.69
QC-	LA30LCS	8.55	10.38	14.71
QD-	LA68LCSD	8.55	10.38	14.70
A-0030H-041115-TO-001-LAD	FEI1510559001	8.54	10.37	14.70
A-0030H-041115-TO-002-OUT	FEI1510559002	8.55	10.38	14.71
A-0030H-041115-TO-003-AAA	FEI1510559003	8.54	10.36	14.71
A-0030H-041115-SG-001-A	FEI1510559004	8.58	10.39	14.71
A-0030H-041115-TO-004BLK	FEI1510559005	8.60	10.40	14.71
A-0030H-041415-SG-001-A8	FEI1510559006	8.54	10.37	14.70
A-0031-S-041515-SG-001-A4	FEI1510559007	8.57	10.38	14.70
A-0011H-041315-SG-001	FEI1510561001	8.58	10.39	14.70

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Analyst Notebook

HBN 147513

TO15
Instrument: See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 25 min
Carrier Gas: Helium
Purge/Trap
Initial Calibration Curve is T015LB15 (HBN 147241)

The following compounds in the CCS were outside of +-30%: NA

Analyst Signature: [signature] 04-22-15

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

Method Path : J:\L\METHODS\methods\
Method File : TO15LB15.m
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response Via : Initial Calibration

Calibration Files
.5 =LA23S05.D 1 =LA22S1.D 2 =LA24S2.D 5 =LA25S5.D 10 =LA26S10.D 20 =LA27S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	2.871	2.722	2.905	2.760	2.868	2.878	2.834		2.61	TC
3)		Dichlorodifluo...	0.967	0.896	0.992	0.967	1.006	0.973	0.967	E1	3.92	
4)		Chloromethane	5.242	4.475	3.926	3.622	3.742	3.766	4.129		15.08	
5)		Freon 114	6.096	5.604	6.308	6.109	6.386	6.296	6.133		4.63	
6)		Vinyl Chloride	3.689	3.493	3.914	3.739	3.978	3.959	3.795		5.00	
7)		1,3-Butadiene	3.030	2.924	3.232	3.133	3.267	3.230	3.136		4.31	
8)		Bromomethane	3.244	2.965	3.206	3.075	3.232	3.239	3.160		3.64	
9)		Chloroethane	2.018	1.851	2.021	1.944	2.047	2.050	1.988		3.91	
10)		Acrolein	1.700	1.511	1.606	1.545	1.608	1.629	1.600		4.13	TC
11)		Acetone	7.826	6.848	6.516	6.045	6.242	6.198	6.612		9.96	
12)		Trichlorofluor...	1.049	0.982	1.073	1.029	1.065	1.060	1.043	E1	3.24	
13)		Ethanol	1.413	1.285	1.339	1.269	1.316	1.310	1.322		3.84	TC
14)		Isopropyl Alcohol	1.836	1.378	1.048	0.860	0.812	0.797	1.122	E1	36.76	TC
15)		1,1-Dichloroet...	6.876	6.448	7.102	6.733	6.986	6.975	6.853		3.41	
16)		Methylene Chlo...	3.725	3.246	3.437	3.211	3.342	3.340	3.383		5.48	
17)		Freon 113	6.059	5.791	6.330	6.106	6.290	6.270	6.141		3.30	
18)		Carbon Disulfide	1.059	0.976	1.058	1.020	1.055	1.048	1.036	E1	3.14	
19)		trans-1,2-Dich...	4.007	3.693	4.013	3.899	4.032	4.068	3.952		3.52	
20)		1,1-Dichloroet...	7.740	7.293	7.944	7.551	7.833	7.769	7.688		3.02	
21)		methyl t-butyl...	1.085	1.034	1.149	1.112	1.158	1.160	1.116	E1	4.48	
22)		Vinyl Acetate	1.014	0.884	0.967	0.872	0.926	0.927	0.932		5.67	
23)		2-Butanone	8.626	8.080	8.402	8.080	8.533	8.655	8.396		3.10	
24)		cis-1,2-Dichlo...	4.117	3.782	4.227	4.009	4.186	4.208	4.088		4.15	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.131	0.118	0.119	0.113	0.111	0.111	0.117		6.70	
27)		Hexane	0.588	0.542	0.587	0.557	0.554	0.530	0.560		4.20	
28)		Chloroform	0.713	0.659	0.717	0.693	0.695	0.677	0.692		3.18	
29)		Tetrahydrofuran	0.390	0.385	0.396	0.388	0.397	0.392	0.391		1.25	
30)		1,2-Dichloroet...	0.535	0.512	0.537	0.519	0.518	0.509	0.522		2.24	
31)		1,1,1-Trichlor...	0.795	0.762	0.818	0.786	0.781	0.761	0.784		2.71	
32)		Benzene	1.087	0.979	1.018	0.960	0.955	0.921	0.986		5.94	
33)		Carbon Tetrach...	0.825	0.768	0.820	0.797	0.794	0.773	0.796		2.94	
34)		Cyclohexane	0.491	0.437	0.455	0.431	0.431	0.418	0.444		5.83	
35)		1,2-Dichloropr...	0.425	0.374	0.416	0.397	0.394	0.386	0.398		4.71	
36)		Bromodichlorom...	0.797	0.753	0.806	0.780	0.772	0.748	0.776		2.96	
37)		1,4-Dioxane	0.264	0.246	0.239	0.227	0.215	0.212	0.234		8.38	TC
38)		Trichloroethene	0.447	0.425	0.451	0.430	0.424	0.402	0.430		4.12	
39)		Methyl Methacr...	0.337	0.308	0.337	0.318	0.325	0.322	0.324		3.44	TC
40)		Heptane	0.366	0.329	0.357	0.341	0.340	0.325	0.343		4.63	
41)		cis-1,3-Dichlo...	0.608	0.573	0.621	0.592	0.589	0.573	0.593		3.19	

Heptane

Method Path : J:\L\METHODS\methods\
Method File : TO15LB15.m

42)		4-Methyl-2-Pen...	0.843	0.822	0.858	0.808	0.799	0.768	0.816	3.92	
43)		trans-1,3-Dich...	0.584	0.553	0.594	0.574	0.570	0.562	0.573	2.55	
44)		1,1,2-Trichlor...	0.435	0.396	0.426	0.408	0.407	0.396	0.411	3.88	
45)		Toluene	1.289	1.198	1.243	1.185	1.162	1.108	1.197	5.25	
46)		2-Hexanone	0.774	0.734	0.784	0.766	0.758	0.726	0.757	2.99	
47)		Dibromochlorom...	0.763	0.726	0.785	0.758	0.750	0.728	0.752	2.98	
48)		1,2-Dibromoethane	0.636	0.601	0.651	0.626	0.618	0.599	0.622	3.28	
49)		Tetrachloroethene	0.613	0.570	0.621	0.595	0.584	0.560	0.591	4.02	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	1.098	1.022	1.119	1.069	1.054	1.002	1.061	4.20	
52)		Ethylbenzene	1.929	1.789	1.945	1.865	1.827	1.700	1.842	4.96	
53)		m,p-Xylene	1.500	1.392	1.518	1.439	1.393	1.279	1.420	6.11	
54)		Bromoform	0.918	0.849	0.953	0.921	0.920	0.875	0.906	4.15	
55)		Styrene	1.058	1.001	1.087	1.052	1.034	0.983	1.036	3.71	
56)		1,1,2,2-Tetrac...	1.035	0.951	1.043	0.985	0.955	0.868	0.973	6.62	
57)		o-Xylene	1.535	1.419	1.540	1.466	1.416	1.299	1.446	6.20	
58)	S	Bromofluoroben...	0.801	0.788	0.801	0.796	0.804	0.789	0.796	0.82	
59)		4-Ethyl Toluene	2.016	1.866	2.061	1.969	1.946	1.767	1.937	5.51	
60)		1,3,5-Trimethy...	1.778	1.621	1.773	1.673	1.640	1.490	1.662	6.47	
61)		1,2,4-Trimethy...	1.880	1.573	1.750	1.658	1.639	1.504	1.667	7.98	
62)		Benzyl Chloride	1.710	1.525	1.665	1.599	1.532	1.379	1.568	7.49	TIC
63)		m-Dichlorobenzene	1.192	1.029	1.109	1.055	1.035	0.952	1.062	7.66	
64)		p-Dichlorobenzene	1.174	1.021	1.111	1.063	1.052	0.977	1.066	6.47	
65)		o-Dichlorobenzene	1.129	0.969	1.058	1.026	1.020	0.957	1.026	6.10	
66)		1,2,4-Trichlor...	0.540	0.583	0.736	0.769	0.774	0.733	0.689	14.68	TIC
67)		Naphthalene	1.048	1.271	1.554	1.604	1.624	1.477	1.429	15.86	TIC
68)		Hexachloro-1,3...	0.644	0.591	0.709	0.709	0.713	0.660	0.671	7.29	TIC

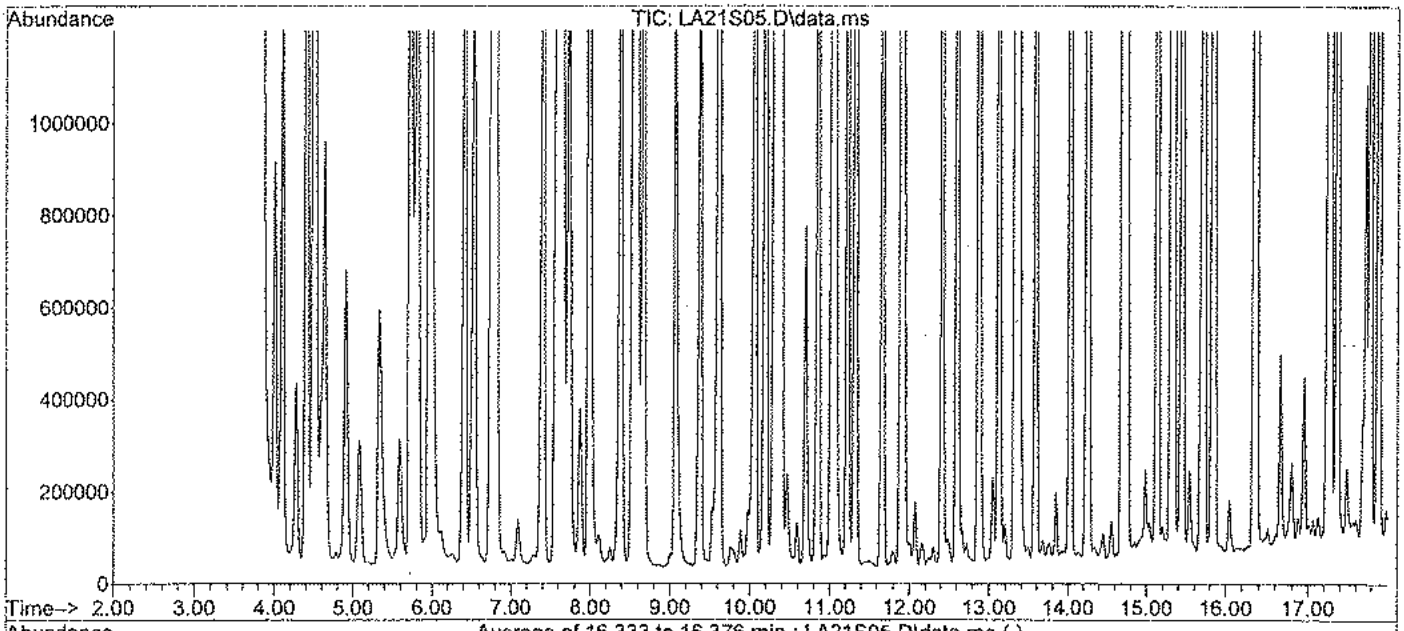
(#) = Out of Range

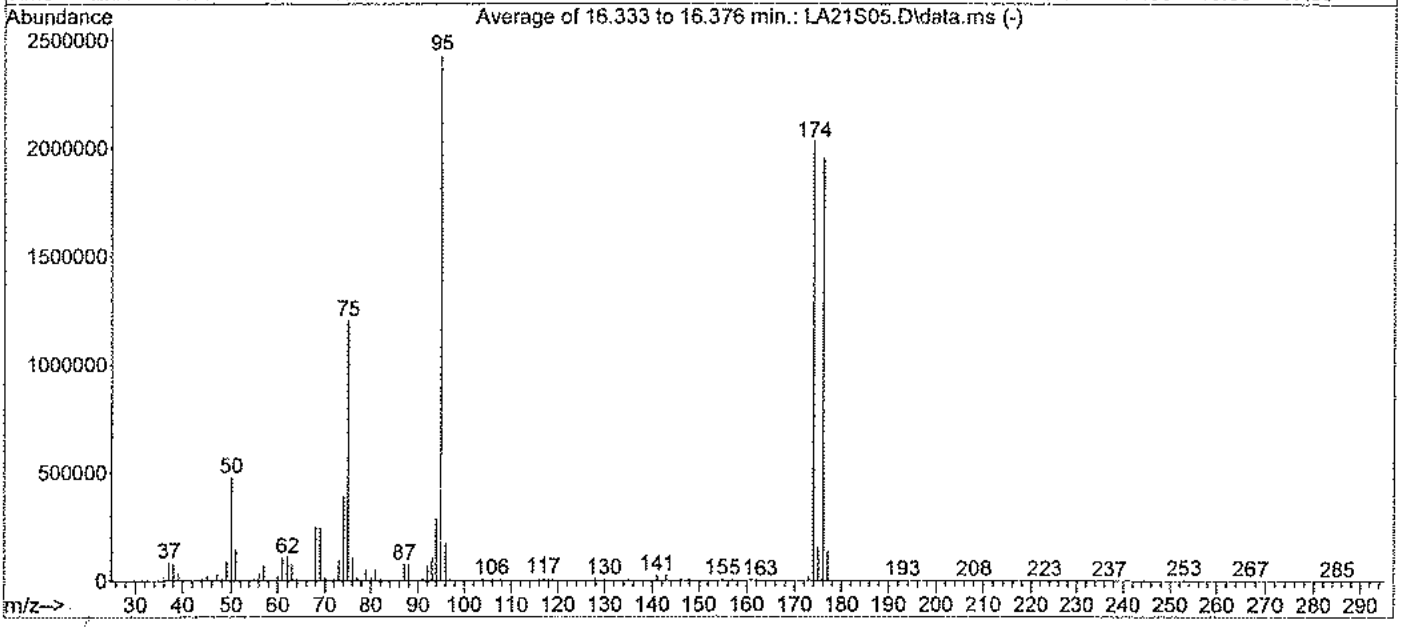
BFB

Data File : J:\L\2015\APR15L\13APR15L\LA21S05.D Vial: 1
Acq Time : 04/13/2015 09:41 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15

4-16-15





Peak Apex is scan: Average of 16.333 to 16.376 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	19.69	478355	PASS
75	95	30	66	49.52	1203192	PASS
95	95	100	100	100.00	2429874	PASS
96	95	5	9	6.96	169117	PASS
173	174	0.00	2	0.75	15202	PASS
174	95	50	120	83.47	2028312	PASS
175	174	5	9	7.49	151832	PASS
176	174	93	101	96.32	1953688	PASS
177	176	5	9	6.75	131826	PASS

Average of 16.333 to 16.376 min.: LA21S05.D\data.ms
0.5 PPB STD
Modified:subtracted

m/z	Abundance
35.10	61.0
36.05	13946.0
37.10	83534.0
38.05	77320.0
39.10	33250.0
41.05	584.0
42.05	318.0
43.10	2659.0
44.00	8379.0
45.00	18840.0
46.00	905.0
47.05	28054.0
48.00	11516.0
49.00	90400.0
50.00	478355.0
51.00	148023.0
52.00	6007.0
53.00	282.0
54.05	149.0
55.00	6006.0
56.00	32590.0
57.00	64782.0
58.05	1746.0
59.00	315.0
60.00	19977.0
61.00	105981.0
62.00	108186.0
62.95	80568.0
64.05	7085.0
65.00	286.0
66.00	149.0
67.00	5652.0
68.00	251042.0
69.00	245576.0
70.00	16721.0
71.10	1235.0
72.00	10779.0
73.00	95619.0
74.00	387795.0
75.00	1203192.0
76.10	105906.0
77.00	11494.0
78.00	6530.0
78.90	47158.0
80.00	15188.0
80.95	49389.0
81.95	10838.0
83.05	1126.0
84.05	14.0
85.05	197.0
86.00	1925.0
87.00	76791.0
88.00	73600.0
89.20	35.0
89.95	62.0
91.00	7152.0
92.00	68998.0
93.00	106052.0
94.00	286747.0
95.00	2429874.0
96.05	169117.0
97.10	5254.0
98.05	58.0
100.00	25.0
102.90	795.0
103.90	8162.0
104.90	3016.0
105.90	8460.0
106.95	1770.0
109.95	1217.0
110.95	1121.0
111.95	1241.0
112.90	1172.0
113.90	21.0
114.95	2057.0
115.95	7116.0
116.95	12499.0
117.90	7335.0
118.95	10598.0
119.95	470.0
120.90	46.0
121.00	18.0
121.95	546.0
123.00	485.0
123.95	1273.0
124.95	501.0
125.90	785.0
127.00	411.0
127.95	8201.0

128.90	3690.0
129.90	8344.0
130.95	3345.0
131.90	258.0
132.05	195.0
132.95	419.0
133.90	447.0
134.95	3461.0
135.95	613.0
136.90	3428.0
138.00	169.0
138.95	742.0
139.95	1236.0
140.95	22408.0
141.95	2404.0
142.95	22296.0
143.95	1332.0
144.95	1803.0
145.95	3128.0
146.90	1517.0
147.90	5562.0
148.90	1493.0
149.95	2419.0
150.95	96.0
151.90	1281.0
152.95	1875.0
153.95	1369.0
154.95	5844.0
155.95	796.0
157.00	4410.0
157.95	341.0
158.95	2881.0
159.80	23.0
160.05	129.0
160.95	3120.0
161.95	190.0
162.95	511.0
163.95	61.0
164.90	47.0
165.90	66.0
166.95	69.0
167.20	22.0
168.05	68.0
168.55	46.0
168.90	37.0
169.15	69.0
169.85	189.0
170.05	95.0
170.85	273.0
171.15	82.0
172.00	80.0
173.00	15202.0
174.00	2028312.0
175.00	151832.0
176.00	1953688.0
177.00	131826.0
177.95	3697.0
178.95	323.0
180.00	78.0
187.00	79.0
187.15	84.0
189.05	45.0
190.05	236.0
190.95	141.0
191.95	141.0
192.95	346.0
194.00	152.0
194.95	88.0
196.00	48.0
197.00	20.0
206.00	20.0
207.00	77.0
207.90	33.0
208.05	167.0
220.90	20.0
223.00	302.0
223.90	29.0
235.00	106.0
237.00	232.0
238.00	64.0
238.90	68.0
239.90	56.0
250.95	296.0
251.95	113.0
253.00	3541.0
254.00	1082.0
255.00	785.0
256.00	150.0
257.05	53.0
265.00	19.0
267.05	488.0
268.00	73.0
271.05	177.0

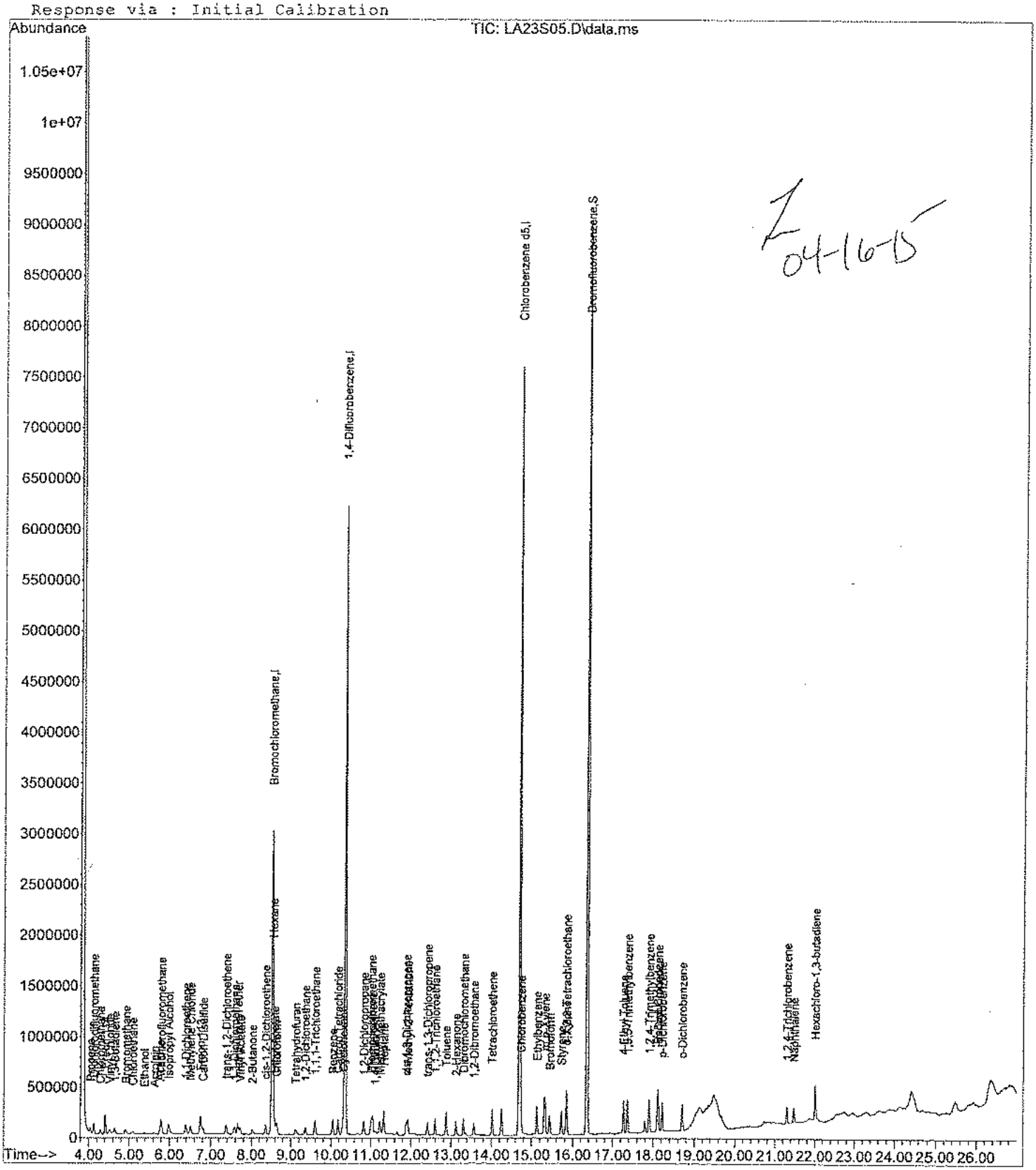
272.05	151.0
282.05	25.0
284.90	34.0
285.05	45.0

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq. Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



4-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.53	130	511808	20.0000	ppb		108.42
25) 1,4-Difluorobenzene	10.36	114	6058328	20.0000	ppb		79.19
50) Chlorobenzene d5	14.69	117	5207139	20.0000	ppb		79.15
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4172397	21.7139	ppb		108.57%
Target Compounds							Qvalue
2) Propene	4.04	41	36729	0.3676	ppb		94
3) Dichlorodifluoromethane	4.13	85	123701	0.4407	ppb		98
4) Chloromethane	4.29	50	67077	0.5451	ppb		98
5) Freon 114	4.41	135	77996	0.3915	ppb	#	58
6) Vinyl Chloride	4.51	62	47200	0.3941	ppb		99
7) 1,3-Butadiene	4.65	54	38775	0.3566	ppb	#	69
8) Bromomethane	4.91	94	41502	0.4487	ppb		99
9) Chloroethane	5.09	64	25818	0.3986	ppb	#	91
10) Acrolein	5.62	56	21758	0.4135	ppb		89
11) Acetone	5.76	43	100134	0.4239	ppb		100
12) Trichlorofluoromethane	5.79	101	134274	0.4444	ppb		100
13) Ethanol	5.37	45	18076	0.2801	ppb	#	78
14) Isopropyl Alcohol	5.98	45	234901	0.4961	ppb	#	92
15) 1,1-Dichloroethene	6.40	61	87977	0.4055	ppb	#	65
16) Methylene Chloride	6.51	84	47661	0.4268	ppb	#	58
17) Freon 113	6.75	151	77531	0.4132	ppb	#	69
18) Carbon Disulfide	6.81	76	135479	0.3981	ppb	#	62
19) trans-1,2-Dichloroethene	7.38	96	51265	0.3964	ppb	#	67
20) 1,1-Dichloroethane	7.58	63	99037	0.3984	ppb	#	95
21) methyl t-butyl ether	7.66	73	138777	0.4065	ppb	#	84
22) Vinyl Acetate	7.72	86	12980	0.3973	ppb	#	1
23) 2-Butanone	8.01	43	110371	0.3709	ppb	#	73
24) cis-1,2-Dichloroethene	8.37	96	52673	0.3950	ppb	#	64
26) Ethyl Acetate	8.59	61	19883	0.4924	ppb	#	1
27) Hexane	8.55	57	89057	0.5146	ppb	#	52
28) Chloroform	8.64	83	107953	0.5507	ppb		100
29) Tetrahydrofuran	9.11	42	59072	0.4422	ppb	#	67
30) 1,2-Dichloroethane	9.36	62	81061	0.5537	ppb	#	95
31) 1,1,1-Trichloroethane	9.60	97	120356	0.5718	ppb	#	92
32) Benzene	10.04	78	164611	0.5394	ppb	#	93
33) Carbon Tetrachloride	10.18	117	125019	0.5896	ppb		98
34) Cyclohexane	10.30	84	74299	0.5569	ppb	#	54
35) 1,2-Dichloropropane	10.83	63	64297	0.5335	ppb		95
36) Bromodichloromethane	11.01	83	120686	0.5724	ppb	#	98
37) 1,4-Dioxane	11.11	88	39925	0.5559	ppb	#	65
38) Trichloroethene	11.05	130	67725	0.5308	ppb	#	85
39) Methyl Methacrylate	11.22	69	51074	0.5056	ppb	#	86
40) Heptane	11.32	71	55438	0.5338	ppb	#	49
41) cis-1,3-Dichloropropene	11.89	75	92036	0.5415	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	127680	0.4718	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	88392	0.5543	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	65904	0.5658	ppb	#	88
45) Toluene	12.87	91	195209	0.5573	ppb		99
46) 2-Hexanone	13.13	43	117204	0.4741	ppb	#	82
47) Dibromochloromethane	13.31	129	115532	0.5704	ppb		99
48) 1,2-Dibromoethane	13.58	107	96347	0.5481	ppb		98
49) Tetrachloroethene	14.02	166	92841	0.5634	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.74	112	142992	0.5540	ppb	#	87
52) Ethylbenzene	15.13	91	251096	0.5913	ppb		92
53) m,p-Xylene	15.31	91	390480	1.2371	ppb		90
54) Bromoform	15.44	173	119472	0.6505	ppb		99
55) Styrene	15.72	104	137728	0.5662	ppb	#	90
56) 1,1,2,2-Tetrachloroethane	15.85	83	134732	0.6419	ppb	#	90
57) o-Xylene	15.83	91	199809	0.6320	ppb		91
59) 4-Ethyl Toluene	17.27	105	262467	0.6398	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	231450	0.6790	ppb		92
61) 1,2,4-Trimethylbenzene	17.90	105	244733	0.7403	ppb		92
62) Benzyl Chloride	18.11	91	222576	0.7521	ppb	#	87
63) m-Dichlorobenzene	18.13	146	155234	0.7244	ppb	#	94
64) p-Dichlorobenzene	18.22	146	152824	0.7297	ppb	#	93
65) o-Dichlorobenzene	18.70	146	146925	0.7746	ppb	#	93
66) 1,2,4-Trichlorobenzene	21.30	180	70348	0.8153	ppb		98
67) Naphthalene	21.47	128	136367	0.7351	ppb	#	97
68) Hexachloro-1,3-butadiene	22.00	225	83847	1.0868	ppb	m	86

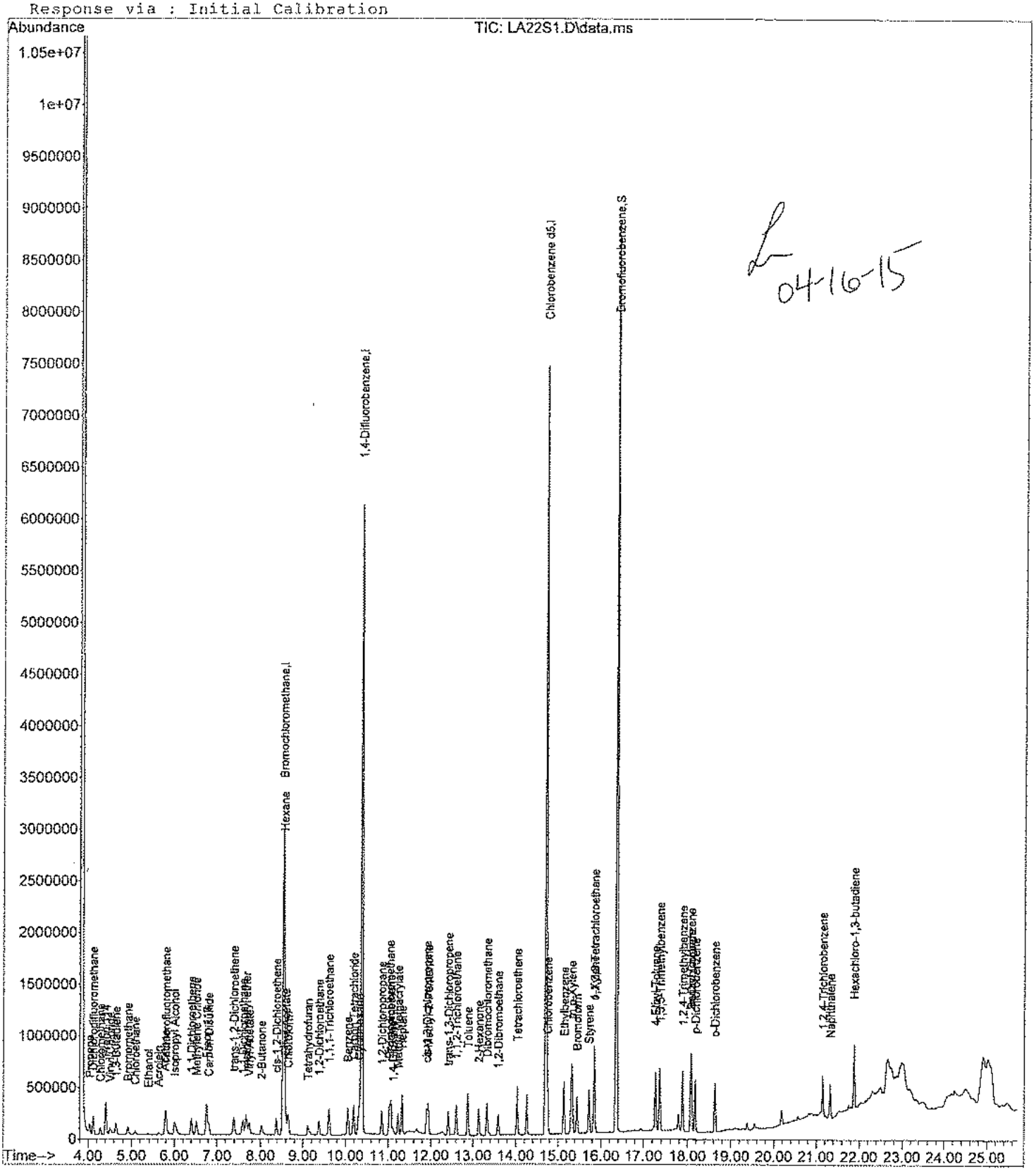
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	492928	20.0000	ppb		104.42
25) 1,4-Difluorobenzene	10.37	114	5942919	20.0000	ppb		77.68
50) Chlorobenzene d5	14.71	117	5089875	20.0000	ppb		77.37
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4010202	21.6407	ppb		108.20%
Target Compounds							Qvalue
2) Propene	4.03	41	67099	0.6624	ppb		97
3) Dichlorodifluoromethane	4.12	85	220927	0.7967	ppb		99
4) Chloromethane	4.29	50	110283	0.9219	ppb		99
5) Freon 114	4.41	135	138129	0.6838	ppb	#	55
6) Vinyl Chloride	4.51	62	86092	0.7209	ppb		98
7) 1,3-Butadiene	4.65	54	72061	0.6462	ppb	#	68
8) Bromomethane	4.91	94	73066	0.8038	ppb		100
9) Chloroethane	5.09	64	45612	0.7006	ppb	#	91
10) Acrolein	5.63	56	37253	0.6972	ppb		93
11) Acetone	5.77	43	168767	0.6885	ppb		96
12) Trichlorofluoromethane	5.80	101	241917	0.8060	ppb		99
13) Ethanol	5.39	45	31680	0.4294	ppb	#	76
14) Isopropyl Alcohol	6.01	45	339529	0.6483	ppb		99
15) 1,1-Dichloroethene	6.40	61	158909	0.7265	ppb	#	67
16) Methylene Chloride	6.52	84	80005	0.7048	ppb	#	57
17) Freon 113	6.76	151	142724	0.7634	ppb	#	70
18) Carbon Disulfide	6.81	76	240641	0.6998	ppb	#	62
19) trans-1,2-Dichloroethene	7.40	96	91010	0.6944	ppb	#	62
20) 1,1-Dichloroethane	7.59	63	179757	0.7177	ppb	#	96
21) methyl t-butyl ether	7.66	73	254793	0.7521	ppb	#	81
22) Vinyl Acetate	7.73	86	21791	0.6541	ppb	#	1
23) 2-Butanone	8.02	43	199148	0.6590	ppb	#	72
24) cis-1,2-Dichloroethene	8.38	96	93204	0.6914	ppb	#	63
26) Ethyl Acetate	8.60	61	35026	0.8520	ppb	#	1
27) Hexane	8.56	57	160978	0.9398	ppb	#	51
28) Chloroform	8.65	83	195783	1.0166	ppb		99
29) Tetrahydrofuran	9.12	42	114266	0.8499	ppb	#	64
30) 1,2-Dichloroethane	9.38	62	152147	1.0675	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	226506	1.1183	ppb	#	92
32) Benzene	10.06	78	290921	0.9666	ppb	#	92
33) Carbon Tetrachloride	10.19	117	228259	1.1193	ppb		100
34) Cyclohexane	10.32	84	129811	0.9910	ppb	#	42
35) 1,2-Dichloropropane	10.85	63	111109	0.9336	ppb		94
36) Bromodichloromethane	11.03	83	223811	1.0989	ppb	#	98
37) 1,4-Dioxane	11.11	88	73046	1.0255	ppb	#	76
38) Trichloroethene	11.07	130	126140	1.0094	ppb	#	85
39) Methyl Methacrylate	11.24	69	91478	0.9188	ppb	#	84
40) Heptane	11.33	71	97786	0.9598	ppb	#	39
41) cis-1,3-Dichloropropene	11.90	75	170408	1.0281	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	244173	0.9071	ppb	#	77
43) trans-1,3-Dichloropropene	12.42	75	164390	1.0653	ppb	#	90
44) 1,1,2-Trichloroethane	12.61	97	117785	1.0454	ppb	#	86
45) Toluene	12.88	91	355849	1.0422	ppb		100
46) 2-Hexanone	13.13	43	218251	0.8932	ppb	#	84
47) Dibromochloromethane	13.33	129	215875	1.1090	ppb		99
48) 1,2-Dibromoethane	13.58	107	178449	1.0439	ppb		97
49) Tetrachloroethene	14.03	166	169478	1.0619	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	260013	1.0424	ppb	#	84
52)	Ethylbenzene	15.14	91	455400	1.1278	ppb		92
53)	m,p-Xylene	15.32	91	708435	2.3776	ppb		90
54)	Bromoform	15.44	173	215998	1.2619	ppb		99
55)	Styrene	15.72	104	254710	1.1018	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.85	83	241922	1.2229	ppb	#	92
57)	o-Xylene	15.84	91	361118	1.2189	ppb		91
59)	4-Ethyl Toluene	17.27	105	474796	1.2553	ppb		93
60)	1,3,5-Trimethylbenzene	17.36	105	412411	1.3220	ppb		90
61)	1,2,4-Trimethylbenzene	17.88	105	400396	1.3271	ppb		94
62)	Benzyl Chloride	18.07	91	388184	1.4603	ppb	#	88
63)	m-Dichlorobenzene	18.09	146	261983	1.3348	ppb	#	93
64)	p-Dichlorobenzene	18.18	146	259922	1.3663	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	246499	1.4449	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	148281	2.1526	ppb		98
67)	Naphthalene	21.33	128	323347	2.1968	ppb		99
68)	Hexachloro-1,3-butadiene	21.87	225	150358	2.5376	ppb		99

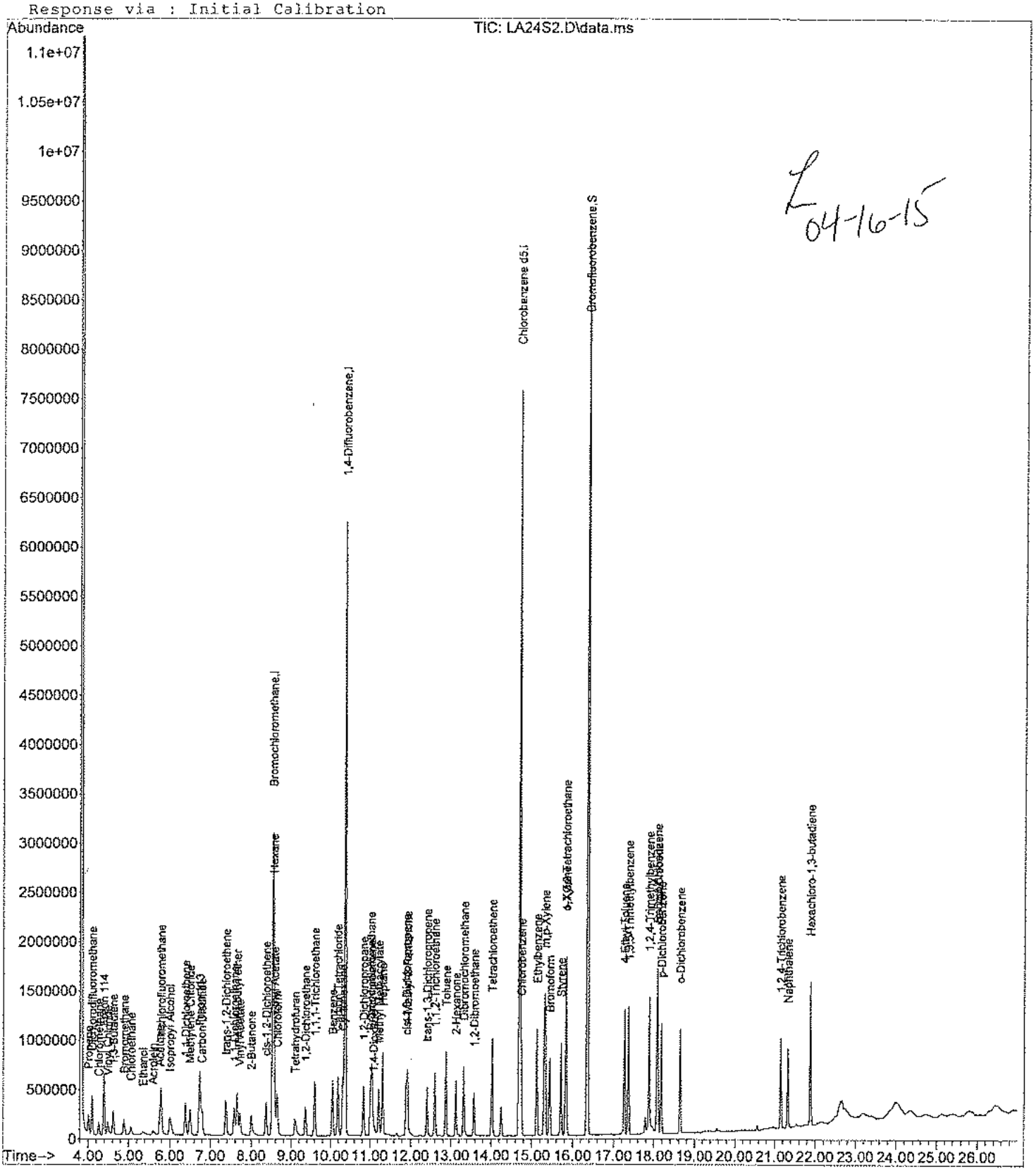
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



L 04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.53	130	493696	20.0000	ppb		104.58
25) 1,4-Difluorobenzene	10.36	114	6029622	20.0000	ppb		78.82
50) Chlorobenzene d5	14.69	117	5180106	20.0000	ppb		78.74
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4147607	21.2958	ppb		106.48%
Target Compounds							Qvalue
2) Propene	4.01	41	143438	1.5701	ppb		98
3) Dichlorodifluoromethane	4.10	85	489850	1.8431	ppb		99
4) Chloromethane	4.26	50	193836	1.6066	ppb		99
5) Freon 114	4.39	135	311443	1.7293	ppb	#	58
6) Vinyl Chloride	4.48	62	193241	1.7390	ppb		96
7) 1,3-Butadiene	4.62	54	159551	1.6406	ppb	#	79
8) Bromomethane	4.89	94	158302	1.7984	ppb		98
9) Chloroethane	5.06	64	99799	1.6810	ppb	#	90
10) Acrolein	5.59	56	79265	1.6629	ppb		99
11) Acetone	5.74	43	321679	1.5586	ppb		93
12) Trichlorofluoromethane	5.78	101	529982	1.8882	ppb		98
13) Ethanol	5.36	45	66122	1.3822	ppb	#	76
14) Isopropyl Alcohol	5.99	45	517427	1.4414	ppb		98
15) 1,1-Dichloroethene	6.38	61	350623	1.7735	ppb	#	66
16) Methylene Chloride	6.50	84	169670	1.6942	ppb	#	56
17) Freon 113	6.74	151	312500	1.8063	ppb	#	69
18) Carbon Disulfide	6.79	76	522287	1.7003	ppb	#	65
19) trans-1,2-Dichloroethene	7.37	96	198120	1.6940	ppb	#	62
20) 1,1-Dichloroethane	7.58	63	392206	1.7409	ppb	#	95
21) methyl t-butyl ether	7.65	73	567346	1.7765	ppb	#	81
22) Vinyl Acetate	7.72	86	47727	1.5945	ppb	#	1
23) 2-Butanone	7.99	43	414814	1.5347	ppb	#	72
24) cis-1,2-Dichloroethene	8.37	96	208696	1.7259	ppb	#	65
26) Ethyl Acetate	8.58	61	71943	1.9098	ppb	#	1
27) Hexane	8.55	57	353743	2.0576	ppb	#	20
28) Chloroform	8.65	83	432539	2.2244	ppb		100
29) Tetrahydrofuran	9.10	42	238848	1.8648	ppb	#	67
30) 1,2-Dichloroethane	9.37	62	323841	2.2189	ppb	#	95
31) 1,1,1-Trichloroethane	9.60	97	493142	2.3213	ppb	#	93
32) Benzene	10.05	78	613579	2.0483	ppb	#	92
33) Carbon Tetrachloride	10.18	117	494676	2.2880	ppb		100
34) Cyclohexane	10.30	84	274466	2.0573	ppb	#	39
35) 1,2-Dichloropropane	10.84	63	250698	2.0771	ppb		95
36) Bromodichloromethane	11.02	83	485879	2.2807	ppb	#	98
37) 1,4-Dioxane	11.10	88	144378	2.0506	ppb	#	76
38) Trichloroethene	11.05	130	271794	2.1341	ppb	#	86
39) Methyl Methacrylate	11.22	69	202898	2.0172	ppb	#	88
40) Heptane	11.32	71	215349	2.0773	ppb	#	43
41) cis-1,3-Dichloropropene	11.89	75	374230	2.1897	ppb	#	92
42) 4-Methyl-2-Pentanone	11.93	43	517137	1.9452	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	358164	2.2103	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	256965	2.1667	ppb	#	86
45) Toluene	12.88	91	749229	2.1224	ppb		99
46) 2-Hexanone	13.12	43	472774	1.9323	ppb	#	83
47) Dibromochloromethane	13.32	129	473504	2.2780	ppb		99
48) 1,2-Dibromoethane	13.58	107	392617	2.2045	ppb		98
49) Tetrachloroethene	14.03	166	374574	2.2376	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.74	112	579886	2.1972	ppb	#	78
52)	Ethylbenzene	15.13	91	1007324	2.2660	ppb		92
53)	m,p-Xylene	15.32	91	1573144	4.6980	ppb		89
54)	Bromoform	15.44	173	493816	2.5538	ppb		99
55)	Styrene	15.72	104	563039	2.2077	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.84	83	540035	2.4708	ppb		100
57)	o-Xylene	15.83	91	797599	2.3669	ppb		90
59)	4-Ethyl Toluene	17.27	105	1067677	2.4134	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	918201	2.4751	ppb		91
61)	1,2,4-Trimethylbenzene	17.88	105	906581	2.4659	ppb		93
62)	Benzyl Chloride	18.08	91	862297	2.6189	ppb	#	87
63)	m-Dichlorobenzene	18.09	146	574595	2.4404	ppb	#	94
64)	p-Dichlorobenzene	18.18	146	575406	2.4927	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	547857	2.5812	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	381509	3.8078	ppb		98
67)	Naphthalene	21.33	128	805244	3.8311	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	367401	5.2312	ppb		98

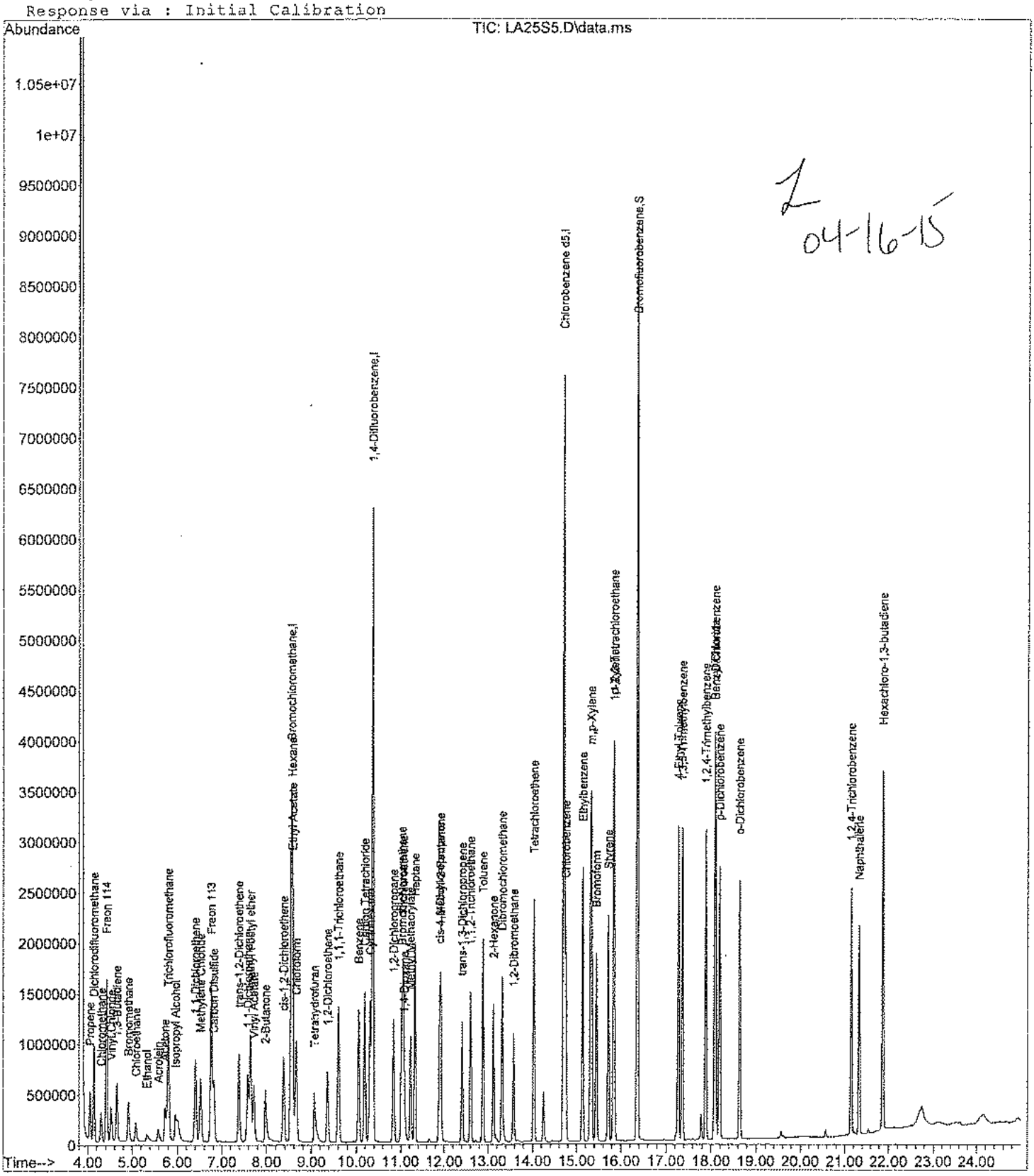
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq. Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



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04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	504320	20.0000	ppb		106.83
25) 1,4-Difluorobenzene	10.36	114	6082157	20.0000	ppb		79.50
50) Chlorobenzene d5	14.70	117	5244053	20.0000	ppb		79.72
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4174770	20.8256	ppb		104.13%
Target Compounds							Qvalue
2) Propene	4.04	41	348005	3.9410	ppb		98
3) Dichlorodifluoromethane	4.13	85	1219107	4.5940	ppb		99
4) Chloromethane	4.30	50	456668	3.8244	ppb		99
5) Freon 114	4.41	135	770217	4.3714	ppb	#	59
6) Vinyl Chloride	4.51	62	471418	4.3069	ppb		97
7) 1,3-Butadiene	4.65	54	394978	4.1850	ppb	#	81
8) Bromomethane	4.91	94	387685	4.4115	ppb		99
9) Chloroethane	5.09	64	245056	4.2149	ppb	#	91
10) Acrolein	5.59	56	194833	4.1840	ppb	#	98
11) Acetone	5.73	43	762121	3.8589	ppb		94
12) Trichlorofluoromethane	5.80	101	1297438	4.6306	ppb		99
13) Ethanol	5.34	45	159946	3.7489	ppb	#	80
14) Isopropyl Alcohol	5.95	45	1084517	3.3059	ppb	m	89
15) 1,1-Dichloroethene	6.40	61	848943	4.3620	ppb	#	67
16) Methylene Chloride	6.51	84	404784	4.1302	ppb	#	57
17) Freon 113	6.75	151	769786	4.4970	ppb	#	71
18) Carbon Disulfide	6.81	76	1285892	4.2822	ppb	#	61
19) trans-1,2-Dichloroethene	7.38	96	491597	4.3023	ppb	#	63
20) 1,1-Dichloroethane	7.58	63	952082	4.3080	ppb	#	96
21) methyl t-butyl ether	7.65	73	1401935	4.4508	ppb	#	82
22) Vinyl Acetate	7.71	86	109918	3.8032	ppb	#	1
23) 2-Butanone	7.98	43	1018702	3.9254	ppb	#	72
24) cis-1,2-Dichloroethene	8.37	96	505487	4.2738	ppb	#	64
26) Ethyl Acetate	8.57	61	171081	4.6393	ppb	#	1
27) Hexane	8.56	57	846513	4.8878	ppb	#	20
28) Chloroform	8.65	83	1053745	5.2944	ppb		99
29) Tetrahydrofuran	9.07	42	589859	4.6826	ppb	#	68
30) 1,2-Dichloroethane	9.36	62	788766	5.2639	ppb		96
31) 1,1,1-Trichloroethane	9.60	97	1195421	5.4203	ppb	#	93
32) Benzene	10.05	78	1459072	4.8314	ppb	#	92
33) Carbon Tetrachloride	10.19	117	1211175	5.4020	ppb		99
34) Cyclohexane	10.31	84	655790	4.8692	ppb	#	38
35) 1,2-Dichloropropane	10.84	63	603295	4.9481	ppb		93
36) Bromodichloromethane	11.02	83	1185332	5.3877	ppb	#	98
37) 1,4-Dioxane	11.08	88	345579	4.8817	ppb	#	80
38) Trichloroethene	11.05	130	654346	5.0638	ppb	#	85
39) Methyl Methacrylate	11.22	69	484249	4.7974	ppb	#	86
40) Heptane	11.32	71	518476	4.9495	ppb	#	45
41) cis-1,3-Dichloropropene	11.89	75	900246	5.1568	ppb	#	93
42) 4-Methyl-2-Pentanone	11.92	43	1229259	4.6731	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	872103	5.2456	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	619912	5.1176	ppb	#	86
45) Toluene	12.88	91	1801476	5.0259	ppb		99
46) 2-Hexanone	13.12	43	1164412	4.7931	ppb	#	83
47) Dibromochloromethane	13.32	129	1152581	5.3752	ppb		99
48) 1,2-Dibromoethane	13.58	107	952271	5.2258	ppb		98
49) Tetrachloroethene	14.03	166	904568	5.2632	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.74	112	1401157	5.1745	ppb	#	82
52) Ethylbenzene	15.13	91	2445179	5.3183	ppb		92
53) m,p-Xylene	15.32	91	3774212	10.8214	ppb		89
54) Bromoform	15.44	173	1207246	5.8452	ppb		99
55) Styrene	15.72	104	1378738	5.2537	ppb	#	91
56) 1,1,2,2-Tetrachloroethane	15.85	83	1291677	5.6071	ppb		99
57) o-Xylene	15.84	91	1921501	5.4568	ppb		89
59) 4-Ethyl Toluene	17.27	105	2580983	5.5256	ppb		95
60) 1,3,5-Trimethylbenzene	17.37	105	2192911	5.5606	ppb		91
61) 1,2,4-Trimethylbenzene	17.89	105	2174094	5.5423	ppb		93
62) Benzyl Chloride	18.08	91	2095810	5.8894	ppb	#	87
63) m-Dichlorobenzene	18.09	146	1382865	5.5312	ppb	#	93
64) p-Dichlorobenzene	18.19	146	1393083	5.6377	ppb	#	93
65) o-Dichlorobenzene	18.64	146	1345619	5.8587	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.16	180	1008039	8.3070	ppb		98
67) Naphthalene	21.33	128	2102244	8.2345	ppb		99
68) Hexachloro-1,3-butadiene	21.88	225	929990	10.1857	ppb		99

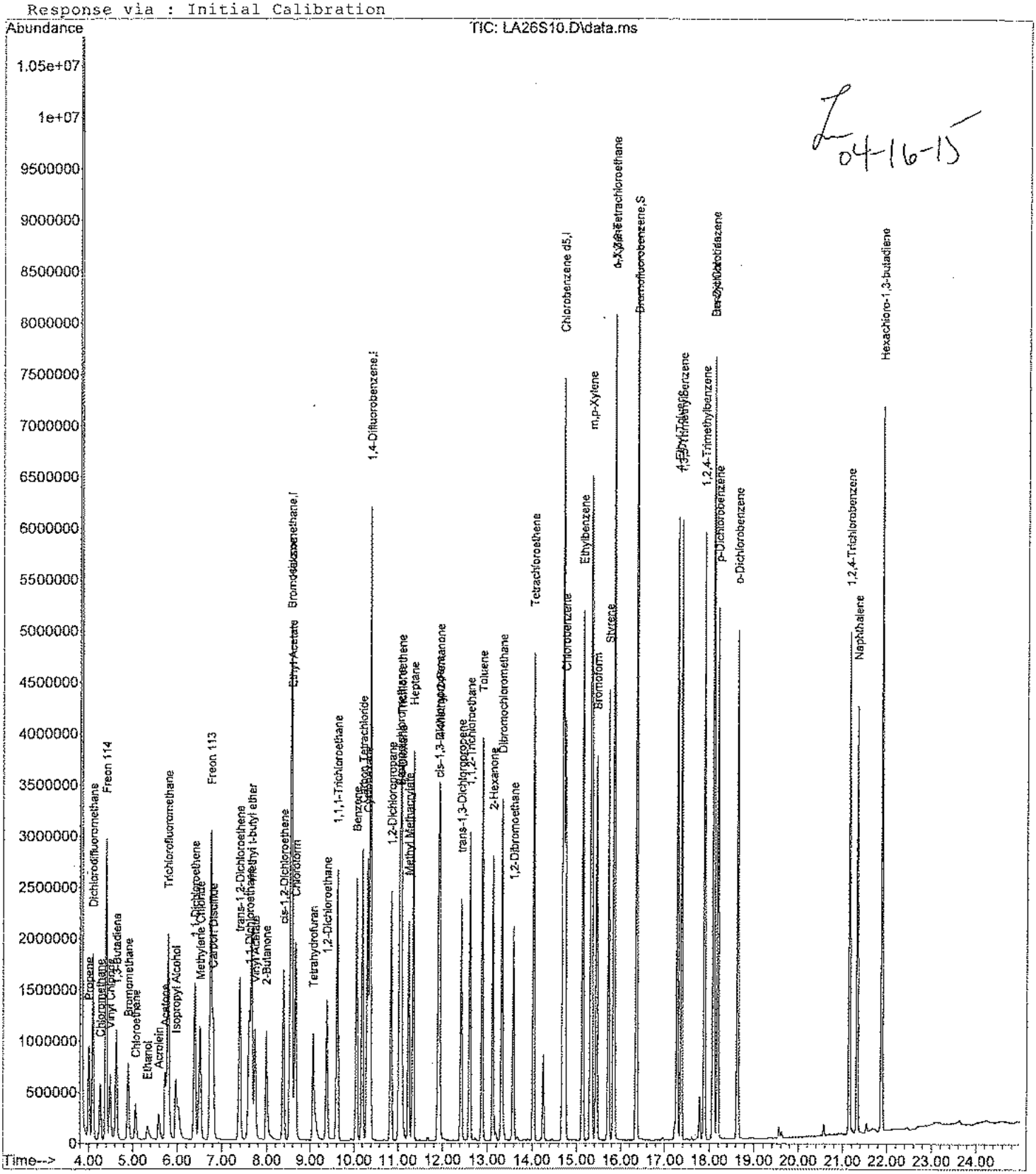
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	485696	20.0000	ppb		102.89
25) 1,4-Difluorobenzene	10.37	114	6067016	20.0000	ppb		79.31
50) Chlorobenzene d5	14.70	117	5165174	20.0000	ppb		78.52
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4150505	20.7090	ppb		103.54%
Target Compounds							Qvalue
2) Propene	4.00	41	696461	8.7632	ppb		97
3) Dichlorodifluoromethane	4.09	85	2442684	9.8481	ppb		99
4) Chloromethane	4.26	50	908677	8.2570	ppb		99
5) Freon 114	4.39	135	1550743	9.5975	ppb	#	59
6) Vinyl Chloride	4.49	62	965932	9.6103	ppb		97
7) 1,3-Butadiene	4.63	54	793409	9.2574	ppb	#	82
8) Bromomethane	4.90	94	784804	9.5937	ppb		99
9) Chloroethane	5.07	64	497204	9.3298	ppb	#	91
10) Acrolein	5.58	56	390458	9.1250	ppb	#	99
11) Acetone	5.71	43	1515803	8.4588	ppb		92
12) Trichlorofluoromethane	5.79	101	2586111	9.8266	ppb		99
13) Ethanol	5.34	45	319698	8.5656	ppb	#	77
14) Isopropyl Alcohol	5.96	45	1972594	7.0932	ppb	m	98
15) 1,1-Dichloroethene	6.39	61	1696498	9.4451	ppb	#	67
16) Methylene Chloride	6.51	84	811594	9.0280	ppb	#	57
17) Freon 113	6.75	151	1527626	9.6157	ppb	#	71
18) Carbon Disulfide	6.80	76	2561531	9.2915	ppb	#	65
19) trans-1,2-Dichloroethene	7.39	96	979097	9.3235	ppb	#	62
20) 1,1-Dichloroethane	7.59	63	1902118	9.3650	ppb	#	96
21) methyl t-butyl ether	7.65	73	2811529	9.6583	ppb	#	82
22) Vinyl Acetate	7.73	86	224946	8.6439	ppb	#	1
23) 2-Butanone	7.98	43	2072241	8.8727	ppb	#	72
24) cis-1,2-Dichloroethene	8.38	96	1016636	9.3511	ppb	#	64
26) Ethyl Acetate	8.58	61	336563	9.2874	ppb	#	1
27) Hexane	8.56	57	1680498	9.8023	ppb	#	22
28) Chloroform	8.66	83	2109741	10.4461	ppb		99
29) Tetrahydrofuran	9.07	42	1205197	9.8027	ppb	#	67
30) 1,2-Dichloroethane	9.38	62	1572391	10.3245	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2370481	10.4999	ppb	#	93
32) Benzene	10.05	78	2896115	9.6481	ppb	#	93
33) Carbon Tetrachloride	10.19	117	2408875	10.5010	ppb		99
34) Cyclohexane	10.31	84	1308051	9.7565	ppb	#	34
35) 1,2-Dichloropropane	10.85	63	1195151	9.8422	ppb		93
36) Bromodichloromethane	11.02	83	2342268	10.4398	ppb	#	98
37) 1,4-Dioxane	11.08	88	652369	9.2624	ppb	#	76
38) Trichloroethene	11.06	130	1285108	9.9696	ppb	#	85
39) Methyl Methacrylate	11.22	69	984453	9.8987	ppb	#	87
40) Heptane	11.33	71	1032369	9.9083	ppb	#	45
41) cis-1,3-Dichloropropene	11.90	75	1787339	10.1905	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	2424565	9.4338	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	1729863	10.2709	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	1234710	10.1278	ppb	#	87
45) Toluene	12.88	91	3526361	9.8149	ppb		98
46) 2-Hexanone	13.12	43	2300579	9.6539	ppb	#	84
47) Dibromochloromethane	13.32	129	2275716	10.4195	ppb		99
48) 1,2-Dibromoethane	13.58	107	1874037	10.1933	ppb		98
49) Tetrachloroethene	14.03	166	1772150	10.2005	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	2721690	10.1207	ppb	#	84
52)	Ethylbenzene	15.13	91	4717504	10.2393	ppb		93
53)	m,p-Xylene	15.32	91	7196011	20.4790	ppb		90
54)	Bromoform	15.44	173	2375804	11.1310	ppb		98
55)	Styrene	15.72	104	2670277	10.2075	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.85	83	2465550	10.4790	ppb		99
57)	o-Xylene	15.84	91	3657781	10.2676	ppb		90
59)	4-Ethyl Toluene	17.27	105	5025273	10.5717	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	4234659	10.5121	ppb		91
61)	1,2,4-Trimethylbenzene	17.88	105	4234084	10.5242	ppb		92
62)	Benzyl Chloride	18.08	91	3957251	10.6704	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	2672336	10.4448	ppb	#	94
64)	p-Dichlorobenzene	18.19	146	2717385	10.6825	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	2634516	10.9804	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.16	180	1998425	14.2977	ppb		98
67)	Naphthalene	21.33	128	4193398	14.3135	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	1840610	16.7824	ppb		98

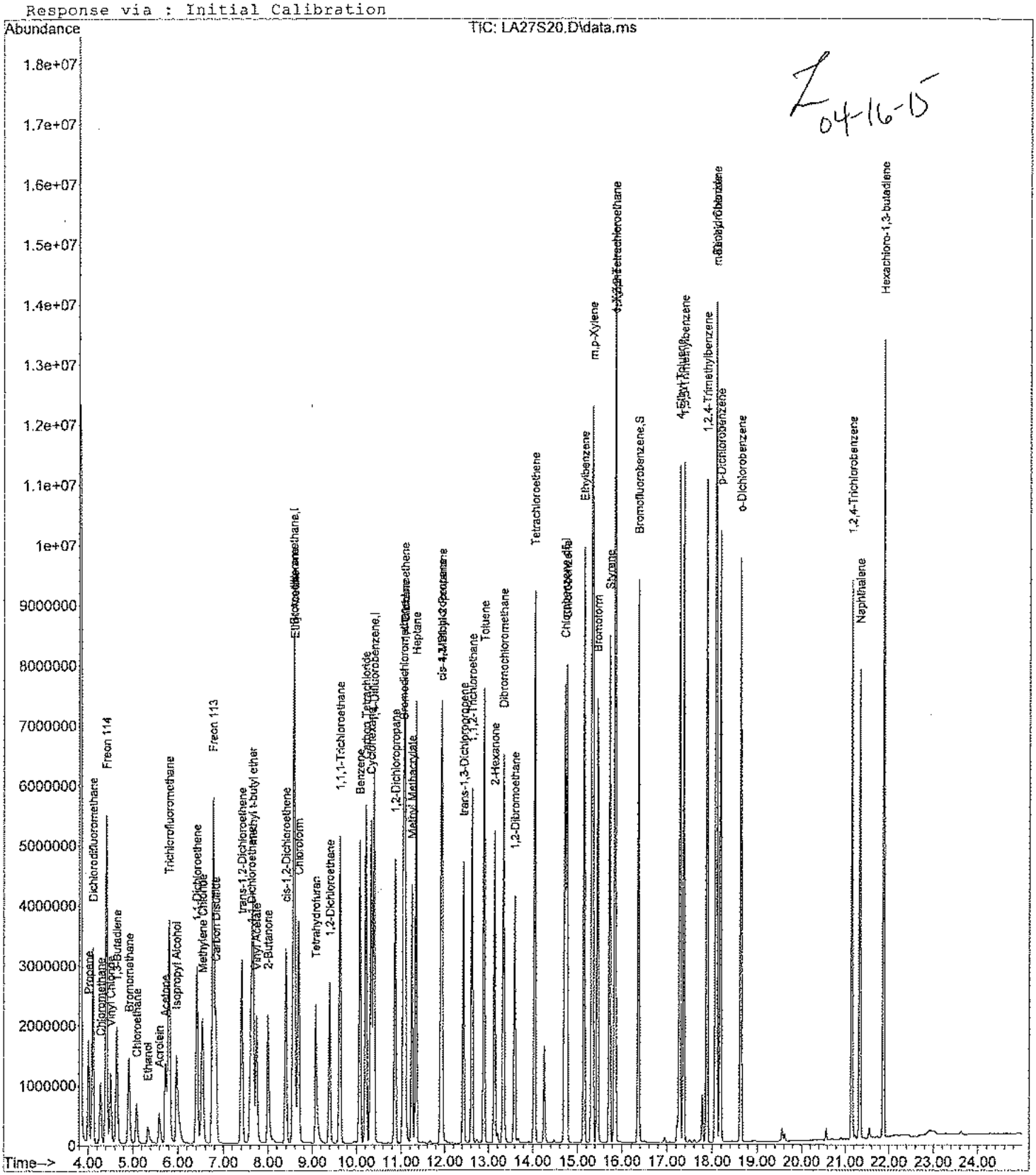
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq. Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



LA27S20.D TO15LB15.m Thu Apr 16 13:58:03 2015 Page 3

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.56	130	482240	20.0000	ppb		99.29
25) 1,4-Difluorobenzene	10.39	114	6204680	20.0000	ppb		102.27
50) Chlorobenzene d5	14.71	117	5324332	20.0000	ppb		103.08
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4203248	20.0356	ppb		100.18%
Target Compounds							Qvalue
2) Propene	4.01	41	1387707	18.7824	ppb		98
3) Dichlorodifluoromethane	4.10	85	4694165	19.4731	ppb		99
4) Chloromethane	4.27	50	1816054	17.3419	ppb		98
5) Freon 114	4.40	135	3036028	19.6416	ppb	#	59
6) Vinyl Chloride	4.50	62	1909178	19.8750	ppb		97
7) 1,3-Butadiene	4.64	54	1557674	19.2982	ppb	#	82
8) Bromomethane	4.91	94	1562135	19.7764	ppb		99
9) Chloroethane	5.09	64	988480	19.5106	ppb	#	90
10) Acrolein	5.59	56	785686	19.3319	ppb	#	99
11) Acetone	5.73	43	2988889	17.6755	ppb		93
12) Trichlorofluoromethane	5.80	101	5109836	19.8763	ppb		99
13) Ethanol	5.34	45	631765	18.3666	ppb	#	78
14) Isopropyl Alcohol	5.96	45	3845578	14.5938	ppb		97
15) 1,1-Dichloroethene	6.41	61	3363671	19.5183	ppb	#	67
16) Methylene Chloride	6.53	84	1610813	18.8060	ppb	#	57
17) Freon 113	6.76	151	3023429	19.7548	ppb	#	72
18) Carbon Disulfide	6.82	76	5052211	19.2456	ppb	#	65
19) trans-1,2-Dichloroethene	7.41	96	1961717	19.6230	ppb	#	63
20) 1,1-Dichloroethane	7.62	63	3746567	19.3176	ppb	#	96
21) methyl t-butyl ether	7.66	73	5593061	20.0176	ppb	#	82
22) Vinyl Acetate	7.74	86	447236	18.4455	ppb	#	1
23) 2-Butanone	7.99	43	4173620	19.1634	ppb	#	73
24) cis-1,2-Dichloroethene	8.40	96	2029107	19.6102	ppb	#	65
26) Ethyl Acetate	8.59	61	686363	18.7348	ppb	#	1
27) Hexane	8.57	57	3289988	18.8207	ppb	#	22
28) Chloroform	8.68	83	4198465	19.8985	ppb		99
29) Tetrahydrofuran	9.07	42	2434212	19.6764	ppb	#	67
30) 1,2-Dichloroethane	9.40	62	3161222	19.8849	ppb		96
31) 1,1,1-Trichloroethane	9.63	97	4724086	19.9073	ppb	#	93
32) Benzene	10.07	78	5713362	18.6080	ppb	#	92
33) Carbon Tetrachloride	10.21	117	4799042	19.8915	ppb		99
34) Cyclohexane	10.32	84	2593316	18.8729	ppb	#	36
35) 1,2-Dichloropropane	10.86	63	2394592	19.3020	ppb		93
36) Bromodichloromethane	11.04	83	4643447	19.7543	ppb	#	98
37) 1,4-Dioxane	11.08	88	1316993	18.3193	ppb	#	78
38) Trichloroethene	11.07	130	2495717	18.8487	ppb	#	85
39) Methyl Methacrylate	11.24	69	1999951	19.7826	ppb	#	87
40) Heptane	11.33	71	2015703	18.9237	ppb	#	46
41) cis-1,3-Dichloropropene	11.91	75	3552913	19.5806	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	4767049	18.4697	ppb	#	80
43) trans-1,3-Dichloropropene	12.43	75	3489910	19.9564	ppb	#	91
44) 1,1,2-Trichloroethane	12.62	97	2457041	19.4715	ppb	#	86
45) Toluene	12.89	91	6875369	18.6005	ppb		97
46) 2-Hexanone	13.13	43	4504930	18.8239	ppb	#	84
47) Dibromochloromethane	13.34	129	4515219	19.7879	ppb		99
48) 1,2-Dibromoethane	13.60	107	3716349	19.5275	ppb		99
49) Tetrachloroethene	14.04	166	3477211	19.2659	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	5337358	19.0790	ppb	#	84
52)	Ethylbenzene	15.14	91	9051076	18.7214	ppb		93
53)	m,p-Xylene	15.33	91	13624823	36.7872	ppb		90
54)	Bromoform	15.45	173	4656158	20.1554	ppb		98
55)	Styrene	15.73	104	5232289	19.1817	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.85	83	4619969	18.3671	ppb		99
57)	o-Xylene	15.85	91	6918180	18.3750	ppb		90
59)	4-Ethyl Toluene	17.27	105	9405531	18.6171	ppb		97
60)	1,3,5-Trimethylbenzene	17.37	105	7930720	18.3913	ppb		92
61)	1,2,4-Trimethylbenzene	17.88	105	8005947	18.5623	ppb		93
62)	Benzyl Chloride	18.08	91	7344374	18.2710	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	5070492	18.5062	ppb	#	94
64)	p-Dichlorobenzene	18.18	146	5201526	19.0082	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	5095548	19.5101	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	3904640	23.7308	ppb		98
67)	Naphthalene	21.33	128	7862282	22.8334	ppb		98
68)	Hexachloro-1,3-butadiene	21.87	225	3511611	26.2795	ppb		99

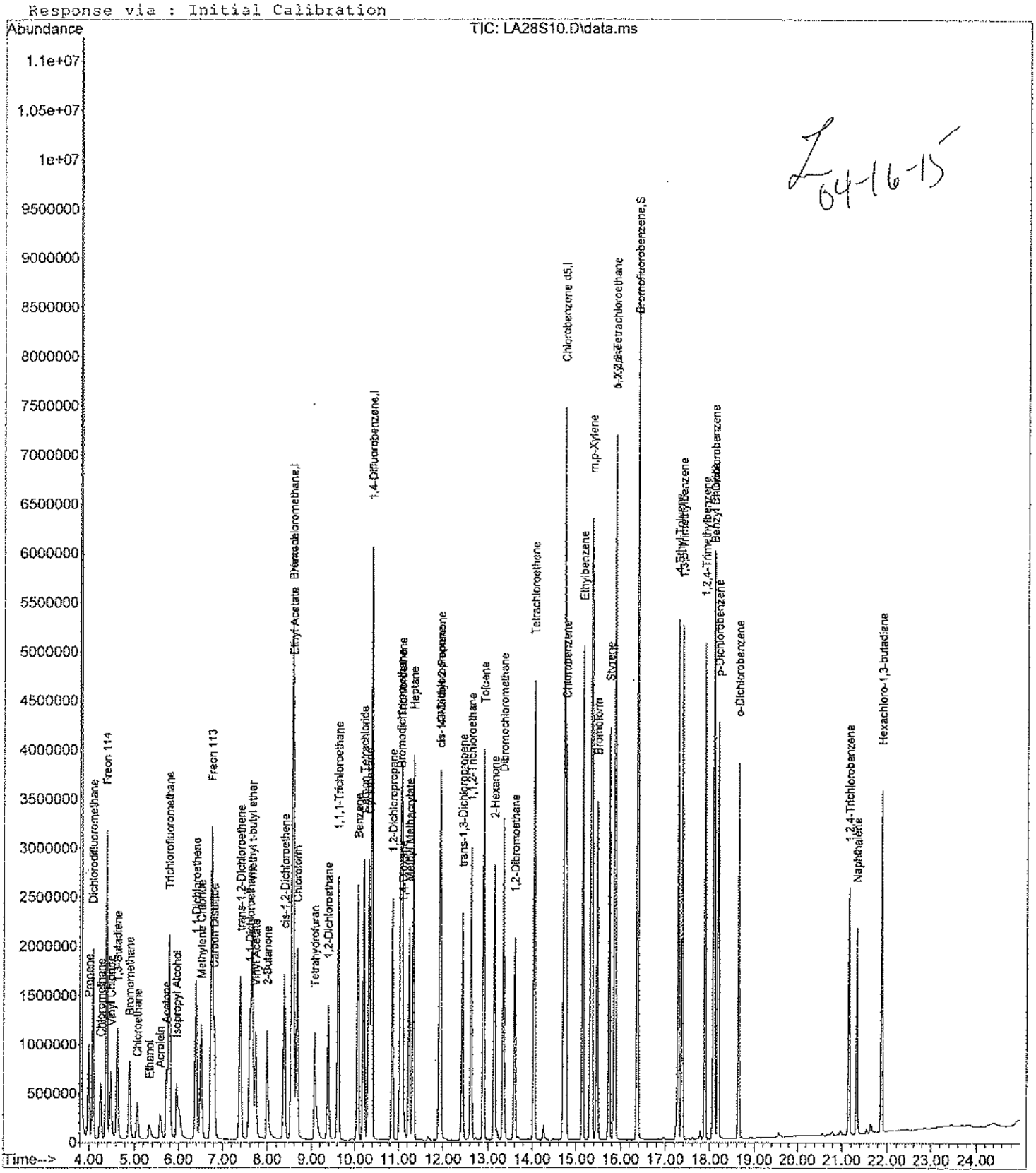
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq. Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



64-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.55	130	484480	20.0000	ppb		99.75
25) 1,4-Difluorobenzene	10.38	114	6193622	20.0000	ppb		102.09
50) Chlorobenzene d5	14.72	117	5292414	20.0000	ppb		102.46
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.37	95	4204978	19.9508	ppb		99.75%
Target Compounds							Qvalue
2) Propene	3.99	41	730100	10.6349	ppb		97
3) Dichlorodifluoromethane	4.09	85	2569937	10.9719	ppb		99
4) Chloromethane	4.26	50	954338	9.5418	ppb		99
5) Freon 114	4.38	135	1638227	11.0267	ppb	#	58
6) Vinyl Chloride	4.48	62	1018782	11.0813	ppb		97
7) 1,3-Butadiene	4.62	54	836352	11.0095	ppb		83
8) Bromomethane	4.89	94	826968	10.8030	ppb		99
9) Chloroethane	5.06	64	524403	10.8869	ppb	#	91
10) Acrolein	5.57	56	402864	10.3943	ppb	#	99
11) Acetone	5.71	43	1611859	10.0631	ppb		95
12) Trichlorofluoromethane	5.79	101	2713438	10.7396	ppb		99
13) Ethanol	5.33	45	342022	10.6794	ppb	#	77
14) Isopropyl Alcohol	5.95	45	1924587	7.0817	ppb		96
15) 1,1-Dichloroethene	6.39	61	1786015	10.7582	ppb	#	67
16) Methylene Chloride	6.51	84	853918	10.4187	ppb	#	58
17) Freon 113	6.74	151	1618095	10.8774	ppb	#	71
18) Carbon Disulfide	6.80	76	2690499	10.7217	ppb	#	65
19) trans-1,2-Dichloroethene	7.39	96	1037055	10.8332	ppb	#	63
20) 1,1-Dichloroethane	7.60	63	1999107	10.7337	ppb	#	96
21) methyl t-butyl ether	7.65	73	2979140	11.0182	ppb	#	81
22) Vinyl Acetate	7.73	86	226556	10.0370	ppb	#	1
23) 2-Butanone	7.99	43	2158275	10.6118	ppb	#	73
24) cis-1,2-Dichloroethene	8.38	96	1066061	10.7650	ppb	#	65
26) Ethyl Acetate	8.58	61	352150	9.7115	ppb	#	1
27) Hexane	8.56	57	1751785	10.1093	ppb	#	21
28) Chloroform	8.66	83	2206031	10.2889	ppb		99
29) Tetrahydrofuran	9.07	42	1256871	10.3702	ppb	#	67
30) 1,2-Dichloroethane	9.38	62	1629586	10.0843	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2492888	10.2682	ppb	#	93
32) Benzene	10.07	78	3012505	9.8616	ppb	#	92
33) Carbon Tetrachloride	10.20	117	2481318	10.0615	ppb		99
34) Cyclohexane	10.32	84	1358834	9.8860	ppb	#	39
35) 1,2-Dichloropropane	10.86	63	1244376	10.0839	ppb		93
36) Bromodichloromethane	11.04	83	2417239	10.0589	ppb	#	98
37) 1,4-Dioxane	11.10	88	684636	9.4514	ppb	#	77
38) Trichloroethene	11.07	130	1331964	10.0078	ppb	#	85
39) Methyl Methacrylate	11.24	69	1025248	10.2029	ppb	#	88
40) Heptane	11.33	71	1063450	10.0096	ppb	#	45
41) cis-1,3-Dichloropropene	11.91	75	1844310	10.0496	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	2632460	10.4123	ppb	#	79
43) trans-1,3-Dichloropropene	12.43	75	1744960	9.8362	ppb	#	91
44) 1,1,2-Trichloroethane	12.62	97	1255962	9.8582	ppb	#	87
45) Toluene	12.89	91	3598653	9.7049	ppb		98
46) 2-Hexanone	13.13	43	2429819	10.3634	ppb	#	84
47) Dibromochloromethane	13.34	129	2283461	9.8086	ppb		99
48) 1,2-Dibromoethane	13.60	107	1887139	9.8002	ppb		98
49) Tetrachloroethene	14.04	166	1801289	9.8473	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.76	112	2686890	9.5720	ppb	#	84
52)	Ethylbenzene	15.15	91	4640316	9.5177	ppb		92
53)	m,p-Xylene	15.33	91	7000751	18.6261	ppb		89
54)	Bromoform	15.46	173	2220237	9.2624	ppb		99
55)	Styrene	15.74	104	2555169	9.3233	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.86	83	2131263	8.2807	ppb		100
57)	o-Xylene	15.85	91	3512989	9.1820	ppb		90
59)	4-Ethyl Toluene	17.28	105	4377992	8.5398	ppb		95
60)	1,3,5-Trimethylbenzene	17.37	105	3659621	8.3203	ppb		91
61)	1,2,4-Trimethylbenzene	17.89	105	3539390	8.0213	ppb		93
62)	Benzyl Chloride	18.08	91	3142255	7.5714	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	2192058	7.7989	ppb	#	94
64)	p-Dichlorobenzene	18.19	146	2195842	7.7821	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	2016702	7.4251	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	1015158	5.5657	ppb		98
67)	Naphthalene	21.33	128	2052345	5.4259	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	893841	5.0343	ppb		98

(#) = qualifier out of range (m) = manual integration

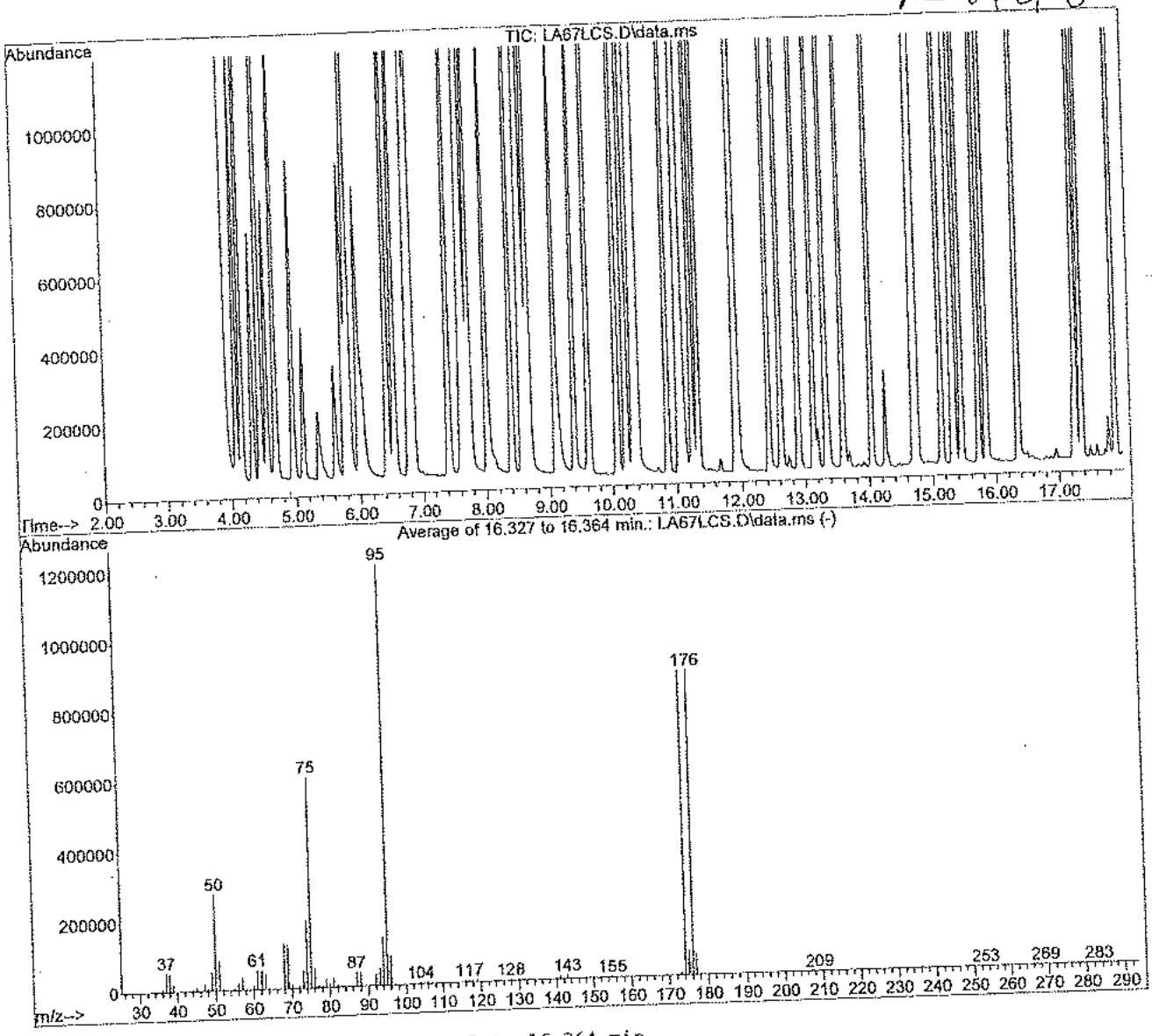
BFB

Data File : J:\L\2015\APR15L\20APR15L\LA67LCS.D
Acq Time : 04/20/2015 10:42
Sample : QC-
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15

L 04-21-15



Peak Apex is scan: Average of 16.327 to 16.364 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	22.91	276387	PASS
75	95	30	66	50.06	603879	PASS
95	95	100	100	100.00	1206400	PASS
96	95	5	9	6.84	82494	PASS
173	174	0.00	2	0.75	6528	PASS
174	95	50	120	72.39	873361	PASS
175	174	5	9	7.85	68556	PASS
176	174	93	101	100.01	873405	PASS
177	176	5	9	6.86	59905	PASS

LA67LCS.D TO15LB15.m Tue Apr 21 09:39:48 2015

Average of 16.327 to 16.364 min.: LA67LCS.D\data.ms
OC-
Modified:subtracted

m/z	Abundance
35.10	39.0
36.00	8860.0
37.10	54203.0
38.05	51007.0
39.05	21047.0
42.05	2.0
43.05	504.0
44.00	4747.0
45.05	11947.0
46.10	711.0
47.05	17492.0
48.00	6777.0
49.00	53232.0
50.05	276387.0
51.00	85322.0
52.05	3452.0
52.90	23.0
53.00	56.0
55.00	2879.0
56.00	17425.0
57.05	34187.0
58.05	1458.0
58.80	36.0
59.05	179.0
60.00	10259.0
61.00	55537.0
62.05	55123.0
63.05	42681.0
64.05	3758.0
65.00	215.0
65.30	23.0
66.00	122.0
67.00	2662.0
68.00	126525.0
69.00	123955.0
70.05	8981.0
71.00	291.0
72.00	5376.0
73.00	47722.0
74.00	191630.0
75.05	603879.0
76.05	54236.0
77.05	5646.0
78.05	3507.0
78.95	24433.0
79.95	7267.0
80.90	25150.0
81.95	4973.0
83.05	578.0
84.00	30.0
85.95	1043.0
87.00	40746.0
88.00	37781.0
89.00	24.0
90.95	3297.0
92.00	32824.0
93.00	49389.0
94.00	137171.0
95.05	1206400.0
96.05	82494.0
97.10	2544.0
98.10	25.0
102.95	574.0
103.95	4350.0
104.95	1449.0
105.90	4054.0
106.95	1160.0
109.90	453.0
110.95	720.0
111.90	396.0
112.95	710.0
114.95	1143.0
115.95	3377.0
116.95	6057.0
117.90	3452.0
118.95	5230.0
119.85	205.0
121.90	219.0
122.90	121.0
123.90	630.0
124.95	321.0
125.90	412.0
126.95	331.0
127.90	3951.0
128.95	1755.0
129.95	3926.0
130.95	1635.0
131.95	181.0
133.00	677.0

133.80	40.0
133.90	50.0
134.05	227.0
134.95	1816.0
135.80	35.0
135.95	267.0
136.95	1772.0
137.90	21.0
138.95	327.0
139.95	657.0
140.95	9707.0
141.95	1124.0
143.00	10823.0
143.80	69.0
143.95	514.0
144.95	850.0
145.95	1662.0
147.00	750.0
147.90	2576.0
148.95	808.0
149.95	1233.0
150.95	132.0
151.90	478.0
152.95	910.0
153.95	653.0
154.95	2660.0
156.00	394.0
156.95	1878.0
157.90	125.0
158.90	1240.0
159.95	53.0
160.95	1213.0
161.95	76.0
169.40	29.0
169.95	174.0
170.75	97.0
171.15	205.0
172.00	412.0
173.00	6528.0
174.00	873361.0
175.00	68556.0
176.00	873405.0
177.00	59905.0
178.00	1902.0
208.10	21.0
209.00	24.0
252.95	39.0
254.00	29.0
269.15	311.0
270.00	31.0
283.20	27.0

Evaluate Continuing Calibration Report

Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA67LCS.D
Acq On : 04/20/2015 10:42
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 27794 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 20 11:15:10 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	114	0.02
2	Propene	2.834	3.225	-13.8	128	0.03
3	Dichlorodifluoromethane	9.669	9.976	-3.2	113	0.03
4	Chloromethane	4.129	3.904	5.4	119	0.02
5	Freon 114	6.133	6.417	-4.6	115	0.02
6	Vinyl Chloride	3.795	3.950	-4.1	113	0.02
7	1,3-Butadiene	3.136	3.334	-6.3	117	0.03
8	Bromomethane	3.160	3.210	-1.6	113	0.03
9	Chloroethane	1.988	1.979	0.5	110	0.03
10	Acrolein	1.600	1.707	-6.7	121	0.02
11	Acetone	6.612	6.874	-4.0	126	0.03
12	Trichlorofluoromethane	10.430	10.633	-1.9	114	0.02
13	Ethanol	1.322	1.535	-16.1	133	0.02
14	Isopropyl Alcohol	11.219	8.391	25.2	118	0.02
15	1,1-Dichloroethene	6.853	7.043	-2.8	115	0.02
16	Methylene Chloride	3.383	3.406	-0.7	116	0.02
17	Freon 113	6.141	5.942	3.2	108	0.02
18	Carbon Disulfide	10.359	10.719	-3.5	116	0.02
19	trans-1,2-Dichloroethene	3.952	4.004	-1.3	113	0.02
20	1,1-Dichloroethane	7.688	7.933	-3.2	116	0.02
21	methyl t-butyl ether	11.162	11.528	-3.3	114	0.02
22	Vinyl Acetate	0.932	0.978	-4.9	121	0.02
23	2-Butanone	8.396	9.421	-12.2	126	0.02
24	cis-1,2-Dichloroethene	4.088	4.215	-3.1	115	0.02
25 I	1,4-Difluorobenzene	1.000	1.000	0.0	110	0.02
26	Ethyl Acetate	0.117	0.106	9.4	106	0.02
27	Hexane	0.560	0.554	1.1	110	0.02
28	Chloroform	0.692	0.709	-2.5	113	0.02
29	Tetrahydrofuran	0.391	0.463	-18.4	129	0.02
30	1,2-Dichloroethane	0.522	0.534	-2.3	114	0.02
31	1,1,1-Trichloroethane	0.784	0.759	3.2	107	0.02
32	Benzene	0.986	0.990	-0.4	115	0.01
33	Carbon Tetrachloride	0.796	0.795	0.1	111	0.01
34	Cyclohexane	0.444	0.438	1.4	112	0.02
35	1,2-Dichloropropane	0.398	0.415	-4.3	116	0.02
36	Bromodichloromethane	0.776	0.785	-1.2	112	0.01
37	1,4-Dioxane	0.234	0.228	2.6	117	0.02
38	Trichloroethene	0.430	0.436	-1.4	114	0.01
39	Methyl Methacrylate	0.324	0.345	-6.5	118	0.00
40	Heptane	0.343	0.351	-2.3	114	0.00
41	cis-1,3-Dichloropropene	0.593	0.611	-3.0	115	0.01
42	4-Methyl-2-Pentanone	0.816	0.942	-15.4	130	0.01
43	trans-1,3-Dichloropropene	0.573	0.586	-2.3	113	0.00
44	1,1,2-Trichloroethane	0.411	0.413	-0.5	112	0.01
45	Toluene	1.197	1.172	2.1	111	0.00
46	2-Hexanone	0.757	0.890	-17.6	130	0.00
47	Dibromochloromethane	0.752	0.769	-2.3	113	0.00
48	1,2-Dibromoethane	0.622	0.646	-3.9	115	0.00
49	Tetrachloroethene	0.591	0.566	4.2	107	0.00

Evaluate Continuing Calibration Report

Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA67LCS.D
Acq On : 04/20/2015 10:42
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 27794 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 20 11:15:10 2015
Quant Method : C:\msdchem\1\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
50 I	Chlorobenzene d5	1.000	1.000	0.0	110	0.00
51	Chlorobenzene	1.061	1.086	-2.4	113	0.00
52	Ethylbenzene	1.842	1.828	0.8	110	0.00
53	m,p-Xylene	1.420	1.368	3.7	108	0.00
54	Bromoform	0.906	0.857	5.4	103	0.00
55	Styrene	1.036	1.072	-3.5	114	0.00
56	1,1,2,2-Tetrachloroethane	0.973	0.956	1.7	110	0.00
57	o-Xylene	1.446	1.385	4.2	108	0.00
58 S	Bromofluorobenzene	0.796	0.754	5.3	103	0.00
59	4-Ethyl Toluene	1.937	1.963	-1.3	111	0.00
60	1,3,5-Trimethylbenzene	1.662	1.631	1.9	110	0.00
61	1,2,4-Trimethylbenzene	1.667	1.652	0.9	111	0.00
62	Benzyl Chloride	1.568	1.614	-2.9	116	0.00
63	m-Dichlorobenzene	1.062	1.019	4.0	108	0.00
64	p-Dichlorobenzene	1.066	1.041	2.3	109	0.00
65	o-Dichlorobenzene	1.026	1.017	0.9	110	0.00
66	1,2,4-Trichlorobenzene	0.689	0.668	3.0	95	0.00
67	Naphthalene	1.429	1.581	-10.6	107	0.00
68	Hexachloro-1,3-butadiene	0.671	0.577	14.0	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

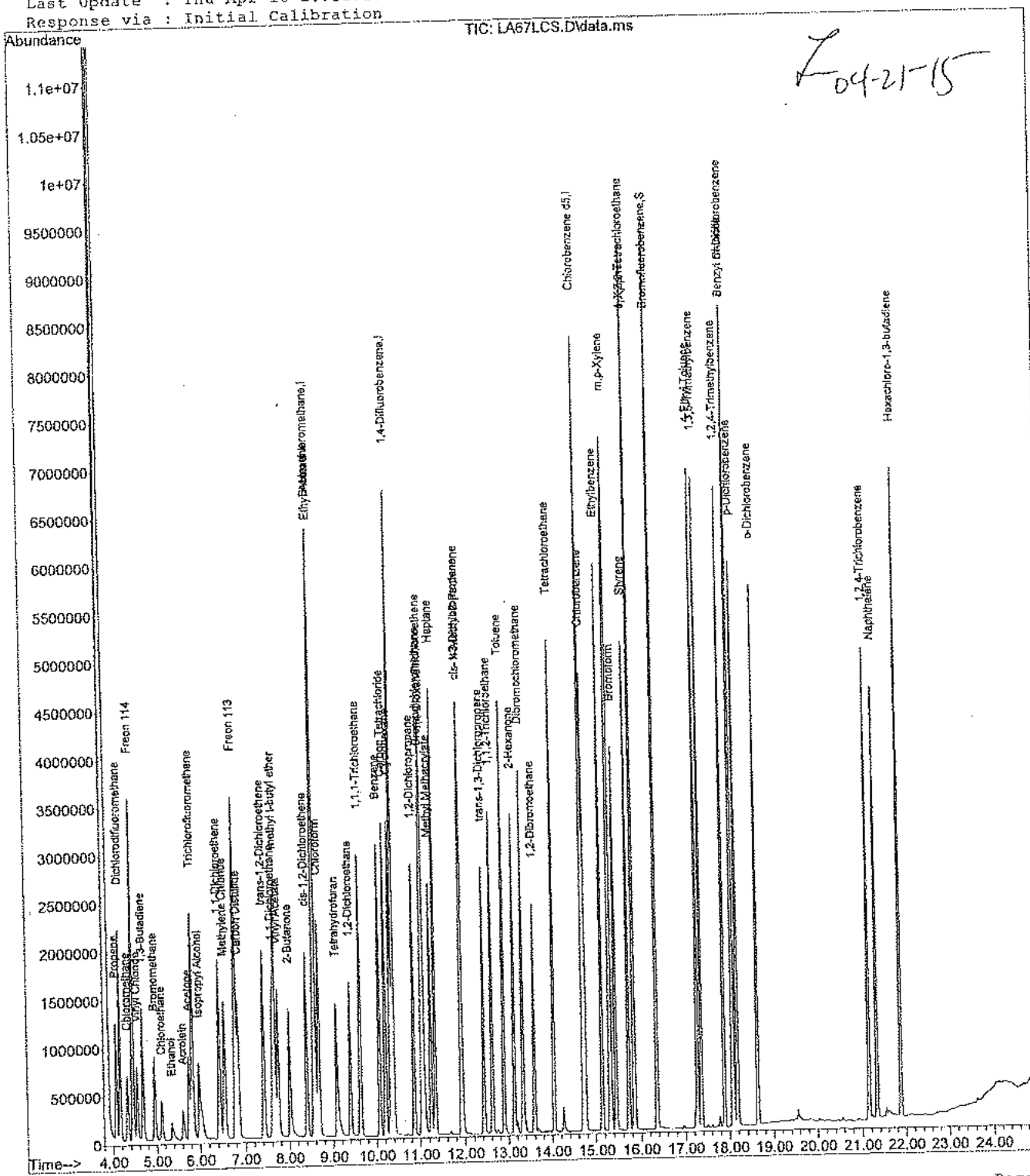
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA67LCS.D
Acq Time : 04/20/2015 10:42
Sample : QC-
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 11:15:10 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA67LCS.D
Acq Time : 04/20/2015 10:42
Sample : QC-
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 11:15:10 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.57	130	554816	20.0000	ppb		114.23
25) 1,4-Difluorobenzene	10.39	114	6702079	20.0000	ppb		110.47
50) Chlorobenzene d5	14.71	117	5686356	20.0000	ppb		110.09
							%Recovery
System Monitoring Compounds							
58) Bromofluorobenzene	16.36	95	4285696	18.9251	ppb		94.63%
							Qvalue
Target Compounds							
2) Propene	4.07	41	894671	11.3800	ppb		97
3) Dichlorodifluoromethane	4.16	85	2767423	10.3172	ppb		99
4) Chloromethane	4.32	50	1082916	9.4548	ppb		98
5) Freon 114	4.45	135	1780137	10.4629	ppb	#	60
6) Vinyl Chloride	4.54	62	1095695	10.4070	ppb		96
7) 1,3-Butadiene	4.68	54	924989	10.6327	ppb	#	68
8) Bromomethane	4.95	94	890415	10.1572	ppb		99
9) Chloroethane	5.12	64	548856	9.9500	ppb	#	89
10) Acrolein	5.61	56	473426	10.6664	ppb	#	98
11) Acetone	5.74	43	1906783	10.3952	ppb		89
12) Trichlorofluoromethane	5.83	101	2949781	10.1949	ppb		100
13) Ethanol	5.35	45	425748	11.6084	ppb	#	78
14) Isopropyl Alcohol	5.98	45	2327753	7.4793	ppb		99
15) 1,1-Dichloroethene	6.43	61	1953756	10.2767	ppb	#	68
16) Methylene Chloride	6.54	84	944733	10.0655	ppb	#	52
17) Freon 113	6.78	151	1648438	9.6765	ppb	#	61
18) Carbon Disulfide	6.84	76	2973409	10.3470	ppb	#	62
19) trans-1,2-Dichloroethene	7.41	96	1110741	10.1320	ppb	#	63
20) 1,1-Dichloroethane	7.62	63	2200806	10.3186	ppb	#	96
21) methyl t-butyl ether	7.66	73	3198086	10.3285	ppb	#	82
22) Vinyl Acetate	7.74	86	271258	10.4939	ppb	#	1
23) 2-Butanone	8.00	43	2613371	11.2204	ppb	#	70
24) cis-1,2-Dichloroethene	8.40	96	1169259	10.3102	ppb	#	65
26) Ethyl Acetate	8.59	61	356449	9.0843	ppb	#	1
27) Hexane	8.58	57	1855210	9.8939	ppb	#	6
28) Chloroform	8.68	83	2375704	10.2396	ppb		99
29) Tetrahydrofuran	9.08	42	1550725	11.8240	ppb	#	62
30) 1,2-Dichloroethane	9.40	62	1788450	10.2278	ppb	#	93
31) 1,1,1-Trichloroethane	9.63	97	2543577	9.6821	ppb	#	91
32) Benzene	10.07	78	3316998	10.0346	ppb	#	92
33) Carbon Tetrachloride	10.21	117	2663599	9.9813	ppb		99
34) Cyclohexane	10.33	84	1467445	9.8662	ppb	#	29
35) 1,2-Dichloropropane	10.86	63	1389635	10.4067	ppb		93
36) Bromodichloromethane	11.04	83	2631174	10.1185	ppb	#	98
37) 1,4-Dioxane	11.09	88	764729	9.7561	ppb	#	75
38) Trichloroethene	11.07	130	1461162	10.1457	ppb	#	87
39) Methyl Methacrylate	11.24	69	1157386	10.6440	ppb	#	76
40) Heptane	11.33	71	1177663	10.2437	ppb	#	37
41) cis-1,3-Dichloropropene	11.91	75	2047225	10.3090	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	3158088	11.5436	ppb	#	74
43) trans-1,3-Dichloropropene	12.43	75	1962048	10.2209	ppb	#	92
44) 1,1,2-Trichloroethane	12.62	97	1382671	10.0294	ppb	#	85
45) Toluene	12.89	91	3926457	9.7856	ppb		98
46) 2-Hexanone	13.13	43	2981555	11.7518	ppb	#	78
47) Dibromochloromethane	13.33	129	2576769	10.2287	ppb		99
48) 1,2-Dibromoethane	13.60	107	2163114	10.3812	ppb		98
49) Tetrachloroethene	14.04	166	1895991	9.5787	ppb	#	88

(m) = manual integration
(#) = qualifier out of range

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA67LCS.D
Acq Time : 04/20/2015 10:42
Sample : QC-
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 11:15:10 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	3089062	10.2424	ppb	#	84
52) Ethylbenzene	15.14	91	5198622	9.9241	ppb		95
53) m,p-Xylene	15.33	91	7778085	19.2606	ppb		92
54) Bromoform	15.45	173	2437811	9.4655	ppb		98
55) Styrene	15.72	104	3047371	10.3489	ppb	#	91
56) 1,1,2,2-Tetrachloroethane	15.85	83	2716931	9.8249	ppb		100
57) o-Xylene	15.85	91	3939222	9.5828	ppb		92
59) 4-Ethyl Toluene	17.27	105	5580957	10.1321	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	4638212	9.8147	ppb		91
61) 1,2,4-Trimethylbenzene	17.88	105	4696874	9.9071	ppb		93
62) Benzyl Chloride	18.07	91	4589739	10.2931	ppb	#	88
63) m-Dichlorobenzene	18.09	146	2897317	9.5940	ppb	#	93
64) p-Dichlorobenzene	18.18	146	2958417	9.7583	ppb	#	94
65) o-Dichlorobenzene	18.64	146	2891940	9.9099	ppb	#	93
66) 1,2,4-Trichlorobenzene	21.15	180	1899034	9.6904	ppb	#	97
67) Naphthalene	21.33	128	4494493	11.0591	ppb		99
68) Hexachloro-1,3-butadiene	21.87	225	1641061	8.6025	ppb		98

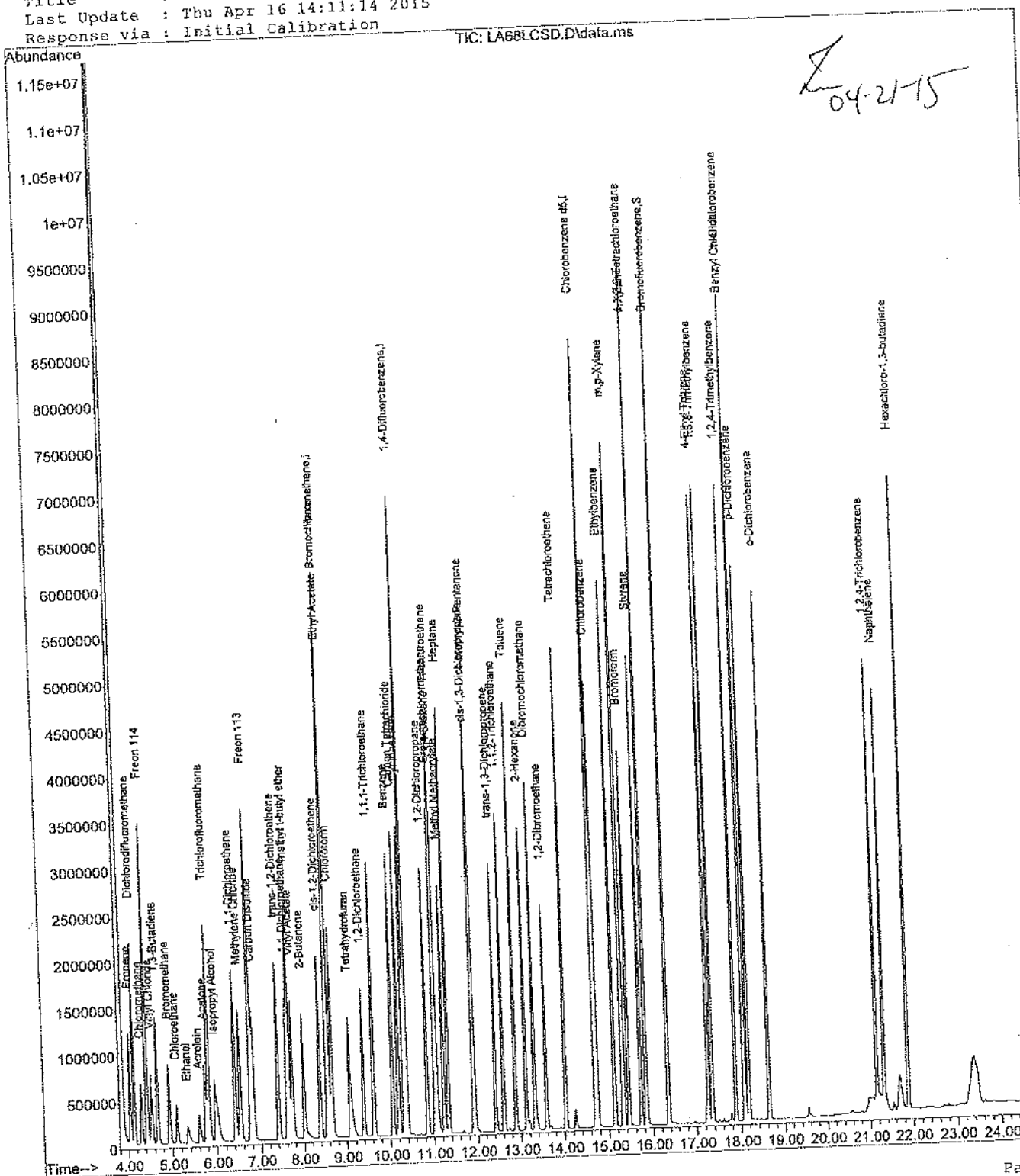
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA68LCSD.D
Acq Time : 04/20/2015 11:31
Sample : QD~
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 13:07:46 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-21-15

LA68LCSD.D TO15LB15.m Tue Apr 21 09:44:58 2015

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA68LCSD.D
Acq Time : 04/20/2015 11:31
Sample : QD-
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 13:07:46 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.55	130	562944	20.0000	ppb		115.90
25) 1,4-Difluorobenzene	10.38	114	6791103	20.0000	ppb		111.93
50) Chlorobenzene d5	14.70	117	5781259	20.0000	ppb		111.93
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4383778	19.0404	ppb		95.20%
Target Compounds							Qvalue
2) Propene	4.05	41	890210	11.1598	ppb		98
3) Dichlorodifluoromethane	4.14	85	2747420	10.0948	ppb		99
4) Chloromethane	4.30	50	1073004	9.2330	ppb		98
5) Freon 114	4.43	135	1777510	10.2966	ppb	#	60
6) Vinyl Chloride	4.53	62	1098703	10.2849	ppb		96
7) 1,3-Butadiene	4.66	54	927572	10.5084	ppb	#	69
8) Bromomethane	4.93	94	898694	10.1036	ppb		98
9) Chloroethane	5.10	64	553748	9.8938	ppb	#	89
10) Acrolein	5.60	56	469257	10.4198	ppb		98
11) Acetone	5.74	43	1904660	10.2337	ppb	#	87
12) Trichlorofluoromethane	5.82	101	2957120	10.0727	ppb		100
13) Ethanol	5.34	45	421829	11.3355	ppb	#	77
14) Isopropyl Alcohol	5.97	45	2340640	7.4121	ppb	#	96
15) 1,1-Dichloroethene	6.41	61	1966330	10.1935	ppb	#	68
16) Methylene Chloride	6.53	84	951747	9.9938	ppb	#	52
17) Freon 113	6.77	151	1673272	9.6805	ppb	#	61
18) Carbon Disulfide	6.83	76	2986704	10.2432	ppb	#	62
19) trans-1,2-Dichloroethene	7.41	96	1129643	10.1557	ppb	#	64
20) 1,1-Dichloroethane	7.61	63	2205220	10.1900	ppb	#	96
21) methyl t-butyl ether	7.66	73	3219019	10.2460	ppb	#	82
22) Vinyl Acetate	7.74	86	270293	10.3056	ppb	#	1
23) 2-Butanone	7.99	43	2644005	11.1881	ppb	#	70
24) cis-1,2-Dichloroethene	8.39	96	1184945	10.2977	ppb	#	66
26) Ethyl Acetate	8.59	61	357607	8.9944	ppb	#	1
27) Hexane	8.57	57	1886944	9.9312	ppb	#	7
28) Chloroform	8.67	83	2411833	10.2590	ppb		99
29) Tetrahydrofuran	9.08	42	1554736	11.6992	ppb	#	63
30) 1,2-Dichloroethane	9.38	62	1801076	10.1650	ppb	#	93
31) 1,1,1-Trichloroethane	9.62	97	2577487	9.6826	ppb	#	92
32) Benzene	10.07	78	3362810	10.0398	ppb	#	92
33) Carbon Tetrachloride	10.20	117	2694340	9.9641	ppb		99
34) Cyclohexane	10.32	84	1488966	9.8797	ppb	#	29
35) 1,2-Dichloropropane	10.85	63	1396038	10.3176	ppb		93
36) Bromodichloromethane	11.04	83	2666994	10.1218	ppb	#	98
37) 1,4-Dioxane	11.08	88	758685	9.5522	ppb	#	73
38) Trichloroethene	11.07	130	1492015	10.2241	ppb	#	87
39) Methyl Methacrylate	11.23	69	1166194	10.5844	ppb	#	78
40) Heptane	11.33	71	1189527	10.2112	ppb	#	38
41) cis-1,3-Dichloropropene	11.90	75	2076813	10.3209	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	3177154	11.4611	ppb	#	75
43) trans-1,3-Dichloropropene	12.42	75	1996731	10.2652	ppb	#	92
44) 1,1,2-Trichloroethane	12.61	97	1400473	10.0254	ppb	#	86
45) Toluene	12.88	91	4007286	9.8561	ppb		99
46) 2-Hexanone	13.13	43	2990257	11.6316	ppb	#	78
47) Dibromochloromethane	13.32	129	2603749	10.2004	ppb		99
48) 1,2-Dibromoethane	13.58	107	2202025	10.4294	ppb		98
49) Tetrachloroethene	14.03	166	1950097	9.7229	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA68LCSD.D
Acq Time : 04/20/2015 11:31
Sample : QD-
Misc : 27794 (200mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 13:07:46 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	3139628	10.2391	ppb	#	85
52) Ethylbenzene	15.13	91	5280559	9.9151	ppb		95
53) m,p-Xylene	15.32	91	7930141	19.3148	ppb		92
54) Bromoform	15.44	173	2506275	9.5715	ppb		98
55) Styrene	15.72	104	3134692	10.4707	ppb	#	92
56) 1,1,2,2-Tetrachloroethane	15.85	83	2808848	9.9906	ppb		100
57) o-Xylene	15.84	91	4020809	9.6207	ppb		92
59) 4-Ethyl Toluene	17.27	105	5719516	10.2132	ppb		96
60) 1,3,5-Trimethylbenzene	17.36	105	4785823	9.9608	ppb		92
61) 1,2,4-Trimethylbenzene	17.88	105	4813618	9.9866	ppb		93
62) Benzyl Chloride	18.07	91	4638426	10.2315	ppb	#	89
63) m-Dichlorobenzene	18.09	146	2970964	9.6763	ppb	#	94
64) p-Dichlorobenzene	18.18	146	3042427	9.8707	ppb	#	94
65) o-Dichlorobenzene	18.64	146	2950378	9.9442	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.15	180	1883473	9.4532	ppb		97
67) Naphthalene	21.33	128	4397413	10.6426	ppb		99
68) Hexachloro-1,3-butadiene	21.87	225	1685743	8.6916	ppb		99

(#) = qualifier out of range (m) = manual integration
LA68LCSD.D TO15LB15.m Tue Apr 21 09:44:58 2015

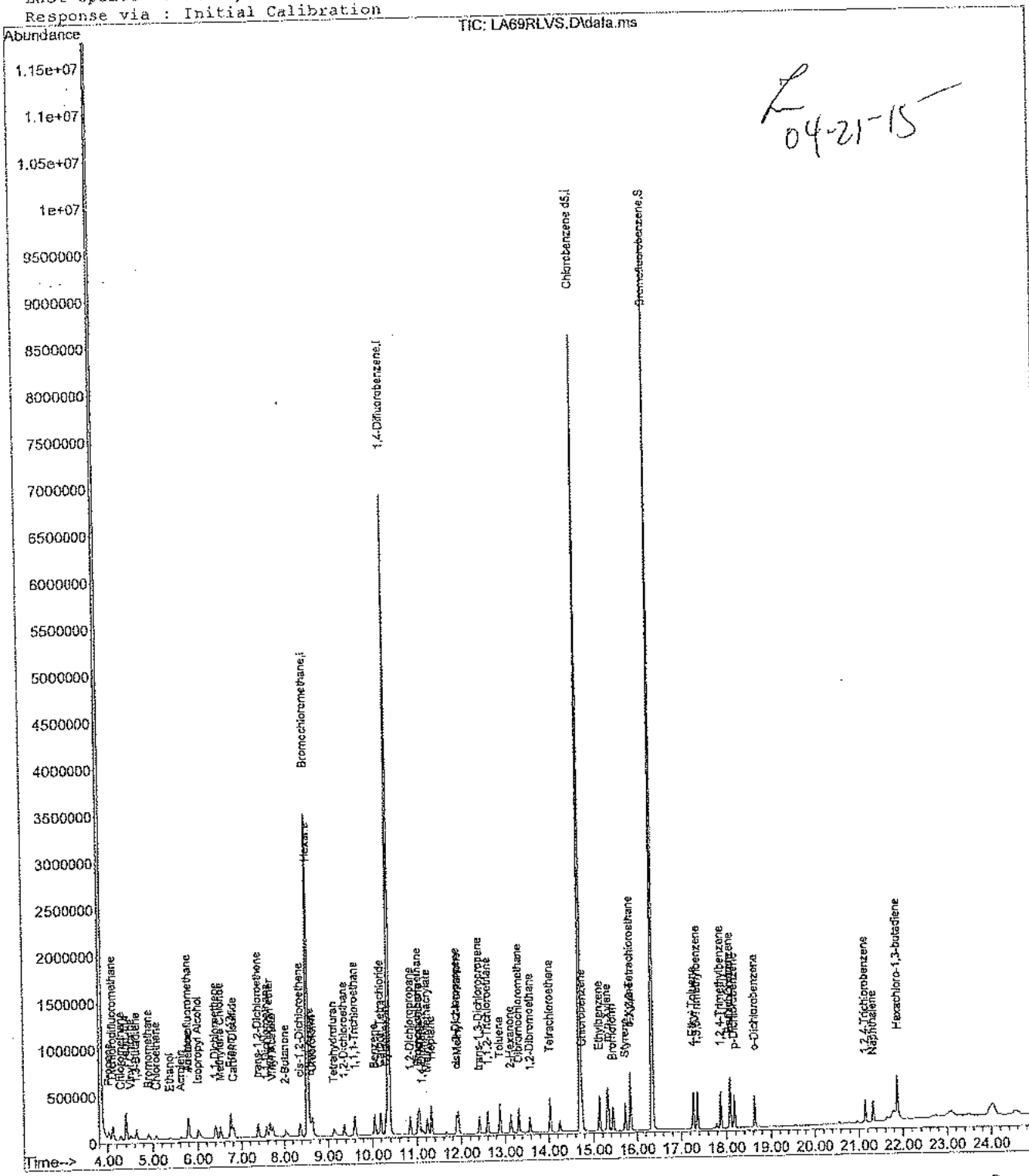
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA69RLVS.D
Acq Time : 04/20/2015 12:17
Sample : 0.5 RLVS
Misc : 27794 (10mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 13:08:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration



04-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA69RLVS.D
Acq Time : 04/20/2015 12:17
Sample : 0.5 RLVS
Misc : 27794 (10mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 13:08:00 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	574080	20.0000	ppb		118.20
25) 1,4-Difluorobenzene	10.37	114	6817491	20.0000	ppb		112.37
50) Chlorobenzene d5	14.70	117	5799535	20.0000	ppb		112.28
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4338836	18.7858	ppb		93.93%
Target Compounds							Qvalue
2) Propene	4.02	41	58970	0.7249	ppb		99
3) Dichlorodifluoromethane	4.12	85	179459	0.6466	ppb		99
4) Chloromethane	4.29	50	70381	0.5939	ppb		99
5) Freon 114	4.41	135	135350	0.7688	ppb	#	60
6) Vinyl Chloride	4.51	62	71676	0.6579	ppb		96
7) 1,3-Butadiene	4.64	54	69006	0.7666	ppb	#	67
8) Bromomethane	4.91	94	57174	0.6303	ppb		100
9) Chloroethane	5.09	64	37484	0.6567	ppb	#	90
10) Acrolein	5.63	56	35152	0.7654	ppb	#	97
11) Acetone	5.79	43	156641	0.8253	ppb		93
12) Trichlorofluoromethane	5.80	101	213287	0.7124	ppb		99
13) Ethanol	5.39	45	34231	0.9020	ppb	#	79
14) Isopropyl Alcohol	6.01	45	248124	0.7705	ppb		93
15) 1,1-Dichloroethene	6.40	61	142716	0.7255	ppb	#	68
16) Methylene Chloride	6.52	84	73069	0.7524	ppb	#	54
17) Freon 113	6.75	151	122806	0.6967	ppb	#	62
18) Carbon Disulfide	6.81	76	221391	0.7446	ppb	#	62
19) trans-1,2-Dichloroethene	7.38	96	81764	0.7208	ppb	#	64
20) 1,1-Dichloroethane	7.59	63	162272	0.7353	ppb	#	96
21) methyl t-butyl ether	7.67	73	214199	0.6686	ppb	#	82
22) Vinyl Acetate	7.73	86	20311	0.7594	ppb	#	1
23) 2-Butanone	8.03	43	167905	0.6967	ppb	#	70
24) cis-1,2-Dichloroethene	8.37	96	86970	0.7411	ppb	#	65
26) Ethyl Acetate	8.61	61	25862	0.6480	ppb	#	1
27) Hexane	8.56	57	128857	0.6756	ppb	#	78
28) Chloroform	8.65	83	173295	0.7343	ppb		99
29) Tetrahydrofuran	9.13	42	102787	0.7705	ppb	#	62
30) 1,2-Dichloroethane	9.37	62	129897	0.7303	ppb	#	92
31) 1,1,1-Trichloroethane	9.60	97	181091	0.6777	ppb	#	91
32) Benzene	10.05	78	235746	0.7011	ppb	#	91
33) Carbon Tetrachloride	10.19	117	188667	0.6950	ppb		98
34) Cyclohexane	10.31	84	108141	0.7148	ppb	#	42
35) 1,2-Dichloropropane	10.85	63	94885	0.6985	ppb		93
36) Bromodichloromethane	11.02	83	185413	0.7010	ppb	#	99
37) 1,4-Dioxane	11.12	88	54450	0.6829	ppb	#	70
38) Trichloroethene	11.06	130	102525	0.6998	ppb	#	87
39) Methyl Methacrylate	11.23	69	76487	0.6915	ppb	#	82
40) Heptane	11.33	71	76500	0.6542	ppb	#	35
41) cis-1,3-Dichloropropene	11.90	75	138783	0.6870	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	207032	0.7439	ppb	#	75
43) trans-1,3-Dichloropropene	12.42	75	130468	0.6681	ppb	#	92
44) 1,1,2-Trichloroethane	12.60	97	91918	0.6555	ppb	#	86
45) Toluene	12.88	91	272958	0.6688	ppb		100
46) 2-Hexanone	13.13	43	179288	0.6947	ppb	#	78
47) Dibromochloromethane	13.32	129	171318	0.6686	ppb		99
48) 1,2-Dibromoethane	13.58	107	148234	0.6994	ppb		97
49) Tetrachloroethene	14.03	166	131549	0.6533	ppb	#	89

(#) = qualifier out of range (m) = manual integration
LA69RLVS.D TO15LB15.m Tue Apr 21 09:45:01 2015

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA69RLVS.D
Acq Time : 04/20/2015 12:17
Sample : 0.5 RLVS
Misc : 27794 (10mL)
MS Integration Params: rteint.p

Vial: 1
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 20 13:08:00 2015 Results File: TO15LB15.RES

Quant Method : C:\msdchem\1\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51) Chlorobenzene	14.75	112	202962	0.6598	ppb	#	87
52) Ethylbenzene	15.13	91	326074	0.6103	ppb		94
53) m,p-Xylene	15.33	91	487206	1.1829	ppb		92
54) Bromoform	15.44	173	159964	0.6090	ppb		98
55) Styrene	15.72	104	179329	0.5971	ppb	#	92
56) 1,1,2,2-Tetrachloroethane	15.84	83	200075	0.7094	ppb	#	91
57) o-Xylene	15.83	91	243125	0.5799	ppb		94
59) 4-Ethyl Toluene	17.27	105	325175	0.5788	ppb		95
60) 1,3,5-Trimethylbenzene	17.36	105	280678	0.5823	ppb		92
61) 1,2,4-Trimethylbenzene	17.88	105	275335	0.5694	ppb		93
62) Benzyl Chloride	18.07	91	265901	0.5847	ppb	#	89
63) m-Dichlorobenzene	18.09	146	186117	0.6043	ppb	#	93
64) p-Dichlorobenzene	18.18	146	182217	0.5893	ppb	#	95
65) o-Dichlorobenzene	18.64	146	173958	0.5845	ppb	#	94
66) 1,2,4-Trichlorobenzene	21.15	180	89853	0.4496	ppb	#	97
67) Naphthalene	21.33	128	221161	0.5336	ppb		99
68) Hexachloro-1,3-butadiene	21.87	225	96523	0.4961	ppb		96

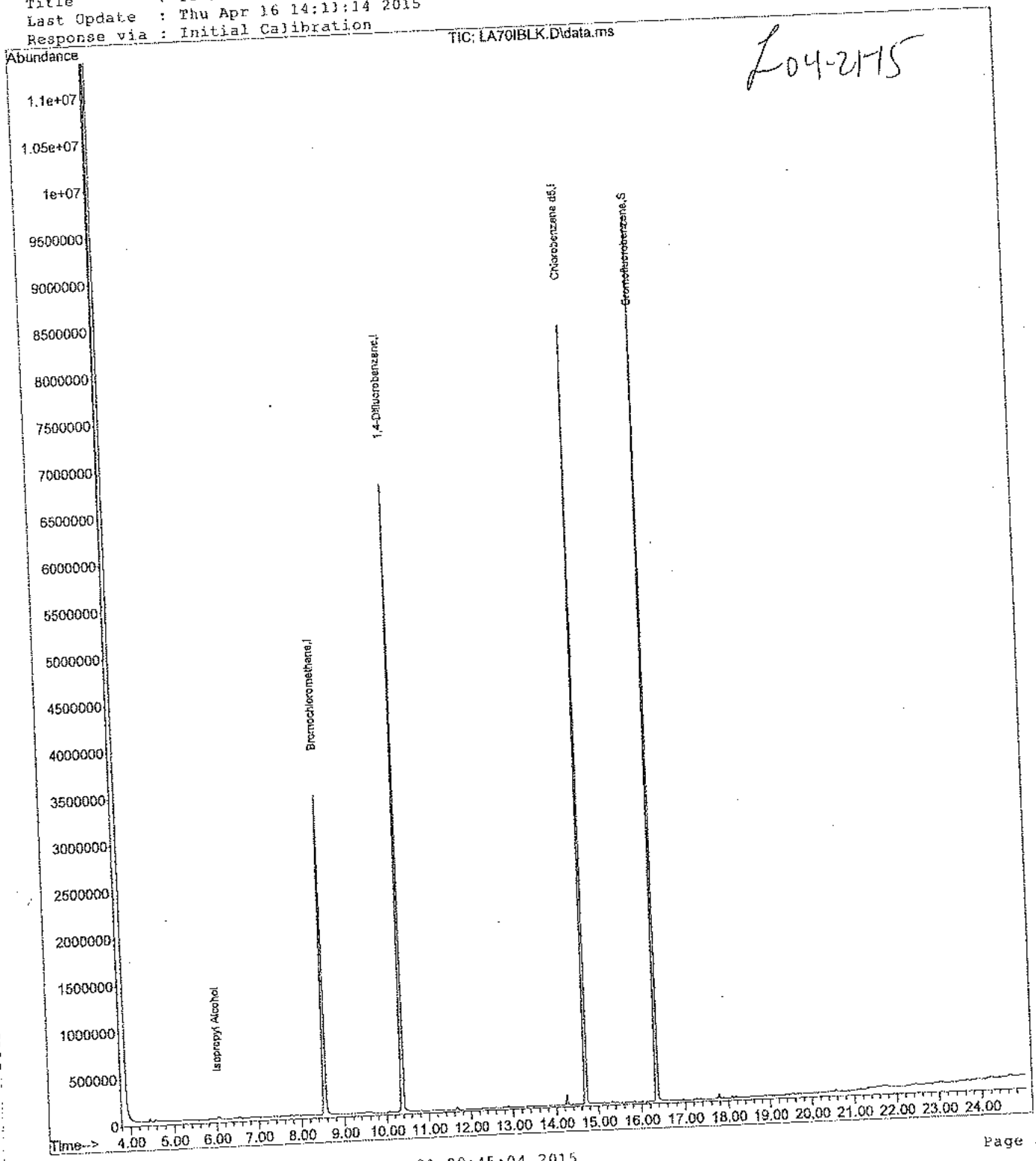
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA701BLK.D Vial: 1
Acq Time : 04/20/2015 13:06 Operator: TJM
Sample : BL- 0111 Inst : 5975-L
Misc : 0111/0061/0030/0134/0116/0379/0119/0537 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 09:40:38 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration

4-21-2015



Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA70IBLK.D Vial: 1
Acq Time : 04/20/2015 13:06 Operator: TJM
Sample : BL- 0111 Inst : 5975-L
Misc : 0111/0061/0030/0134/0116/0379/0119/0537 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 09:40:38 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.55	130	587840	20.0000 ppb	121.03
25) 1,4-Difluorobenzene	10.37	114	6685905	20.0000 ppb	110.20
50) Chlorobenzene d5	14.70	117	5664913	20.0000 ppb	109.68
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4259808	18.8820 ppb	94.41%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	6.03	45	95267	0.2889 ppb #	90
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA70IBLK.D Vial: 1
Acq Time : 04/20/2015 13:06 Operator: TJM
Sample : BL- 0111 Inst : 5975-L
Misc : 0111/0061/0030/0134/0116/0379/0119/0537 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 09:40:38 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Apr 16 14:11:14 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

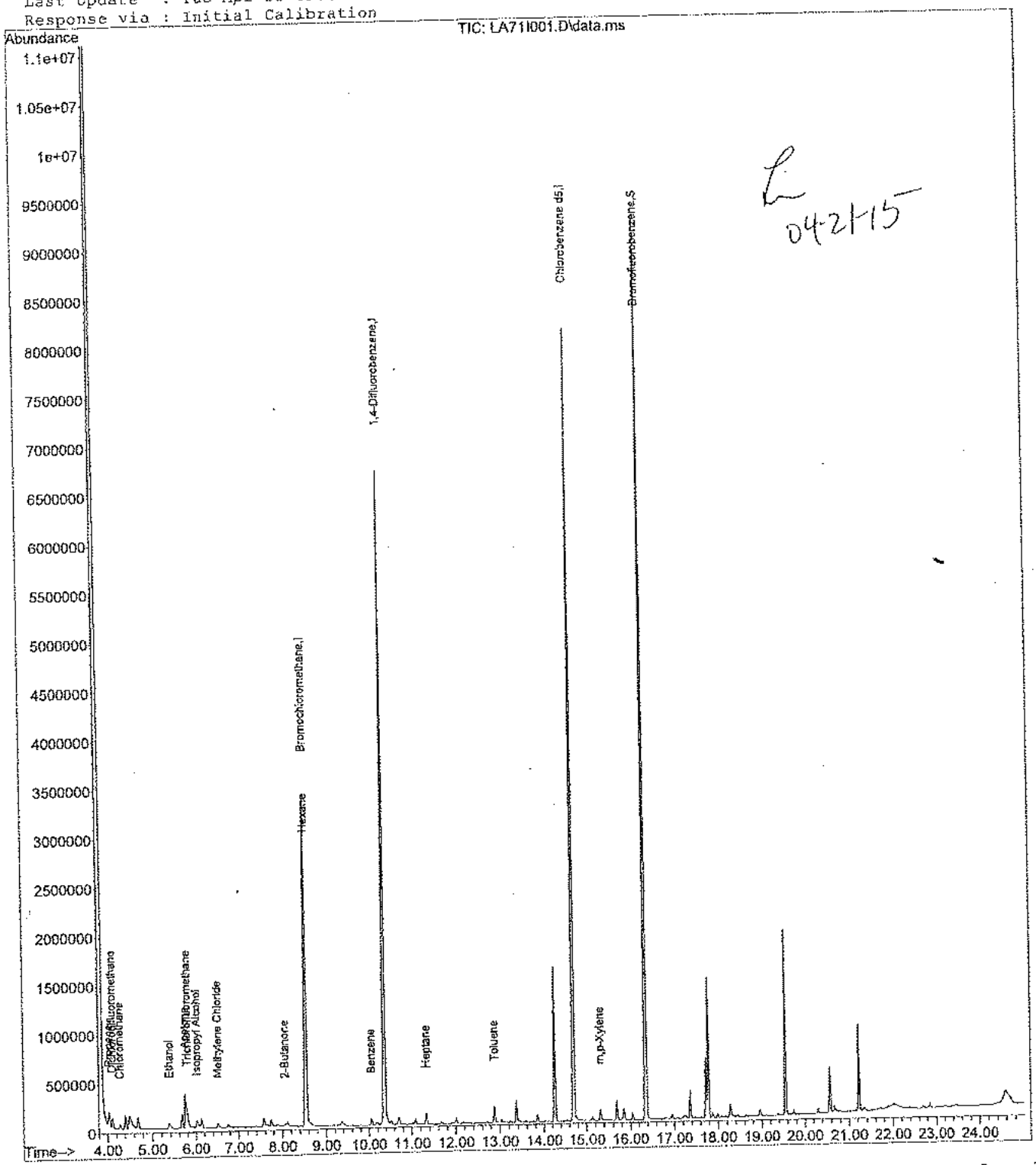
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA71I001.D
Acq Time : 04/20/2015 13:56
Sample : 1510559001
Misc : 0284 TO-001-LAV
MS Integration Params: rteint.p

Vial: 2
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:55:08 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



04-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA71I001.D
Acq Time : 04/20/2015 13:56
Sample : 1510559001
Misc : 0284 TO-001-LAV
MS Integration Params: rteint.p

Vial: 2
Operator: TJM
Inst : 5975-L
Multiply: 1.00

A-0030H-04115-TO-001-LAP or V ?

Quant Time: Apr 21 09:55:08 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	562816	20.0000 ppb	115.88
25) 1,4-Difluorobenzene	10.37	114	6577674	20.0000 ppb	108.42
50) Chlorobenzene d5	14.70	117	5547822	20.0000 ppb	107.41
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4171641	18.8814 ppb	94.41%
Target Compounds					Qvalue
2) Propene	4.04	41	50381	0.6317 ppb #	71 TIC 4/10 ?
3) Dichlorodifluoromethane	4.12	85	135496	0.4980 ppb	99
4) Chloromethane	4.28	50	64624	0.5562 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.75	43	801958	4.3099 ppb	94
12) Trichlorofluoromethane	5.80	101	65419	0.2229 ppb	99
13) Ethanol	5.38	45	136443	3.6674 ppb #	76 TIC
14) Isopropyl Alcohol	6.02	45	195890	0.6205 ppb #	64 TIC 4/10 ?
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.52	84	25659	0.2695 ppb #	54
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.06	43	69225	0.2930 ppb #	69
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.56	57	50504	0.2744 ppb #	86
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.05	78	67805	0.2090 ppb #	85
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	28059	0.2487 ppb #	35
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	141071	0.3582 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration
LA71I001.D TO15LB15.m Tue Apr 21 10:28:22 2015

Quantitation Report

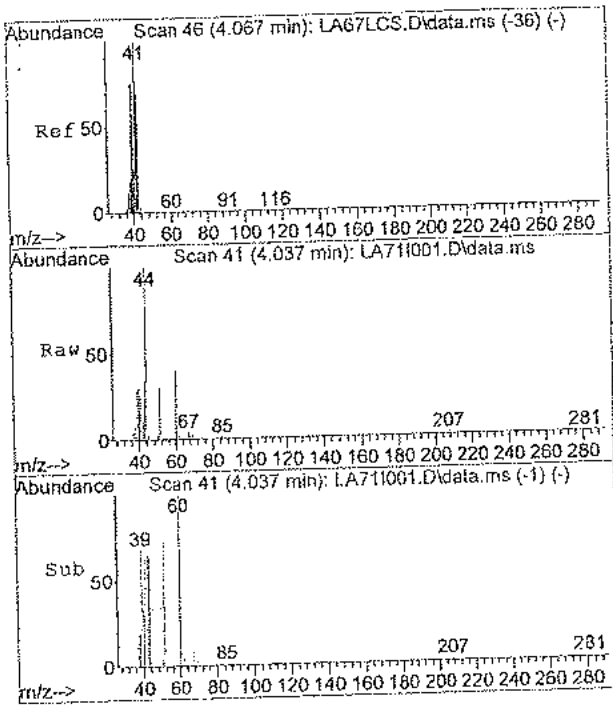
Data File : J:\L\2015\APR15L\20APR15L\LA711001.D
Acq Time : 04/20/2015 13:56
Sample : 1510559001
Misc : 0284 TO-001-LAW
MS Integration Params: rteint.p

Vial: 2
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:55:08 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

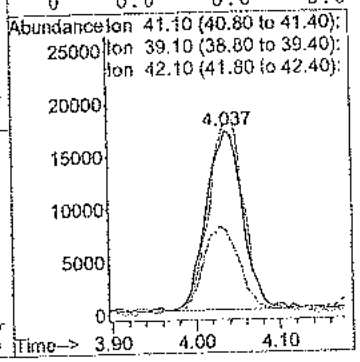
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.31	91	90895	0.2307 ppb	93
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

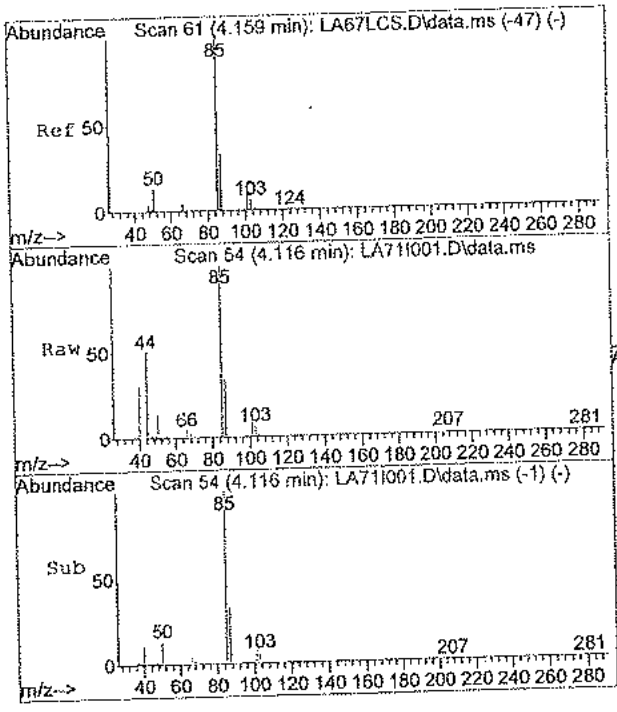


#2
Propene
Concen: 0.63 ppb
RT: 4.04 min Scan# 41
Delta R.T. -0.00 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:41.1 Resp: 50381

Ion	Ratio	Lower	Upper
41	100		
39	103.8	56.2	84.4#
42	53.1	53.8	80.6#
0	0.0	0.0	0.0

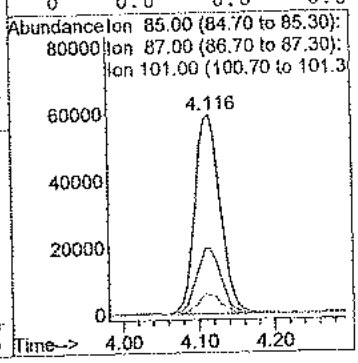


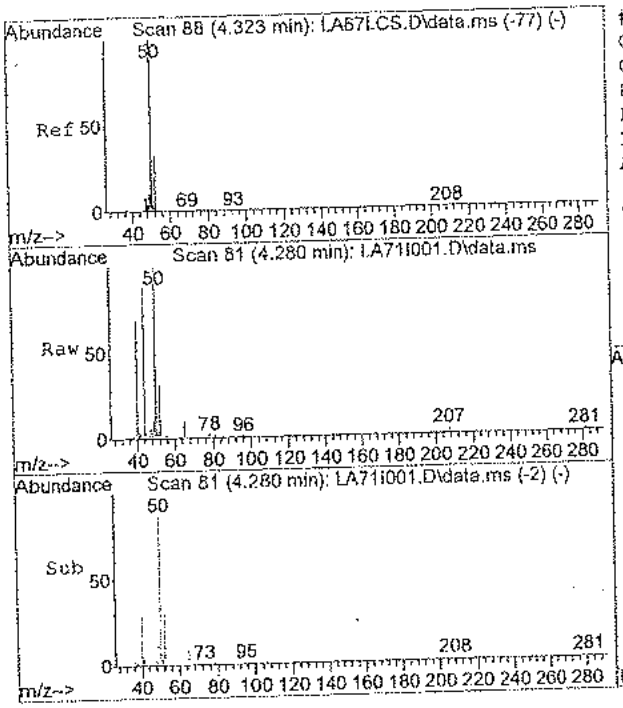


#3
Dichlorodifluoromethane
Concen: 0.50 ppb
RT: 4.12 min Scan# 54
Delta R.T. -0.01 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:85 Resp: 135496

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.1	39.1
101	9.1	8.0	12.0
0	0.0	0.0	0.0

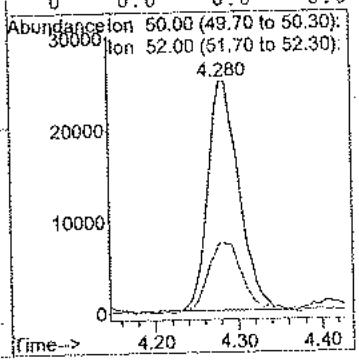


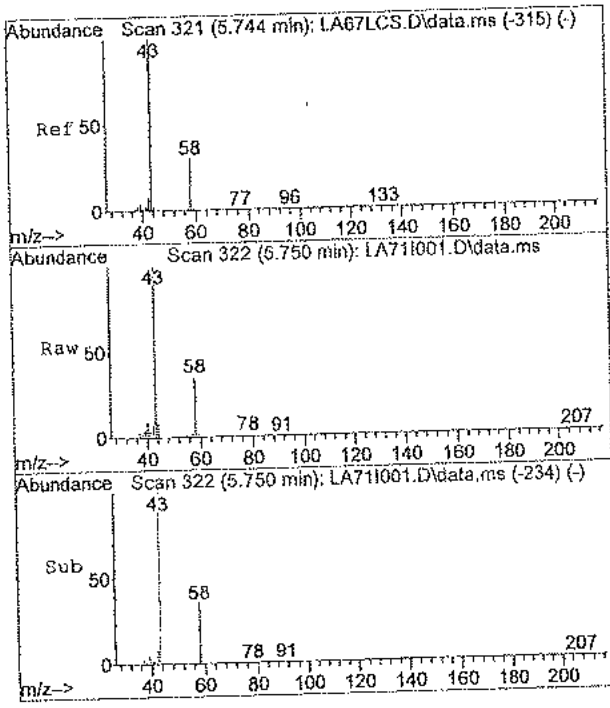


#4
Chloromethane
Concen: 0.56 ppb
RT: 4.28 min Scan# 81
Delta R.T. -0.02 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:50 Resp: 64624

Ion	Ratio	Lower	Upper
50	100		
52	34.1	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

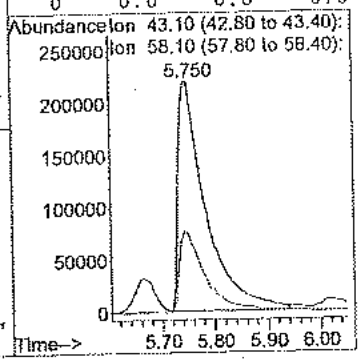


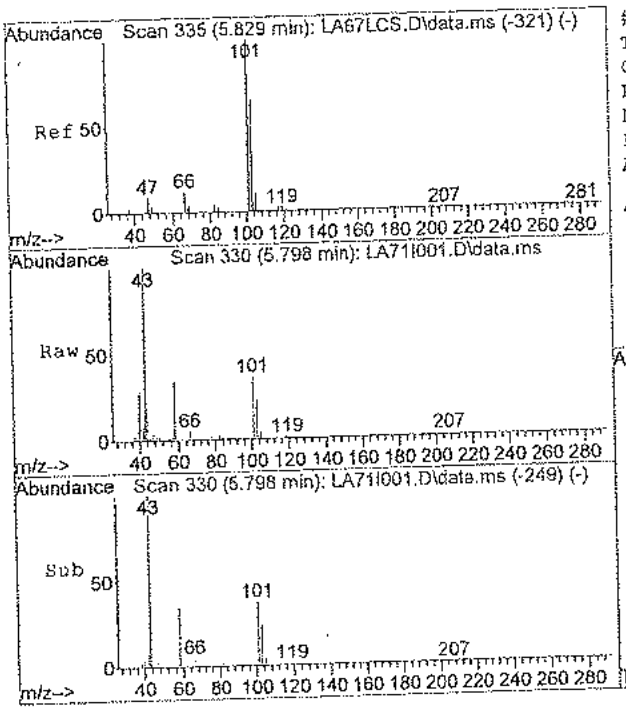


#11
Acetone
Concen: 4.31 ppb
RT: 5.75 min Scan# 322
Delta R.T. 0.04 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:43.1 Resp: 801958

Ion	Ratio	Lower	Upper
43	100		
58	34.5	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

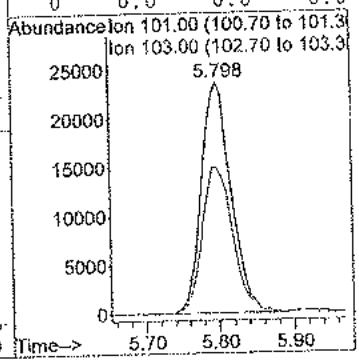


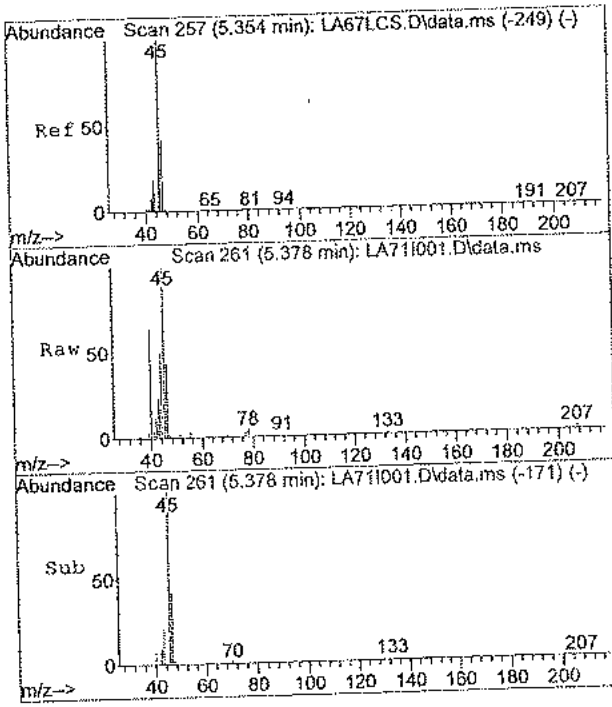


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.80 min Scan# 330
Delta R.T. -0.01 min
Lab File: LA711001.D
Acq: 04/20/2015 13:56

Tgt Ion:101 Resp: 65419

Ion	Ratio	Lower	Upper
101	100		
103	65.3	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

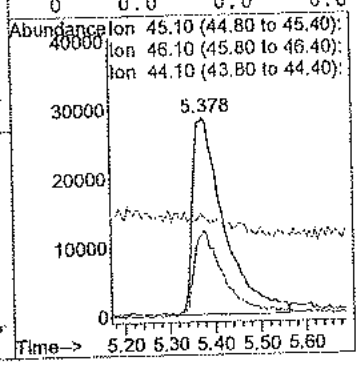


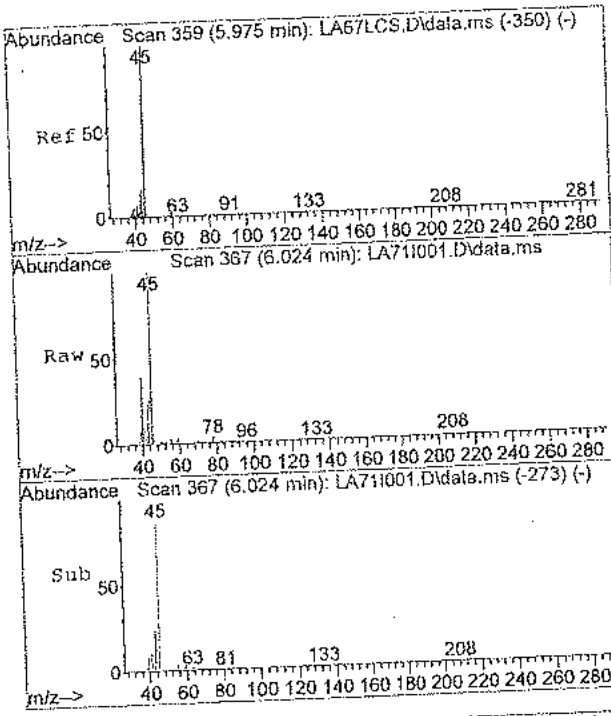


#13
Ethanol
Concen: 3.67 ppb
RT: 5.38 min Scan# 261
Delta R.T. 0.05 min
Lab File: LA711001.D
Acq: 04/20/2015 13:56

Tgt Ion:45.1 Resp: 136443

Ion	Ratio	Lower	Upper
45	100		
46	39.5	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

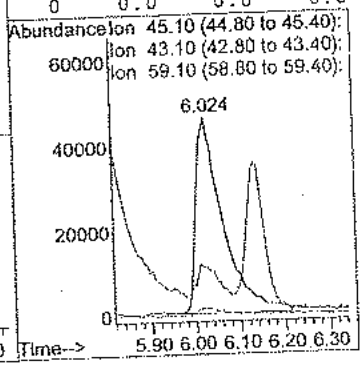


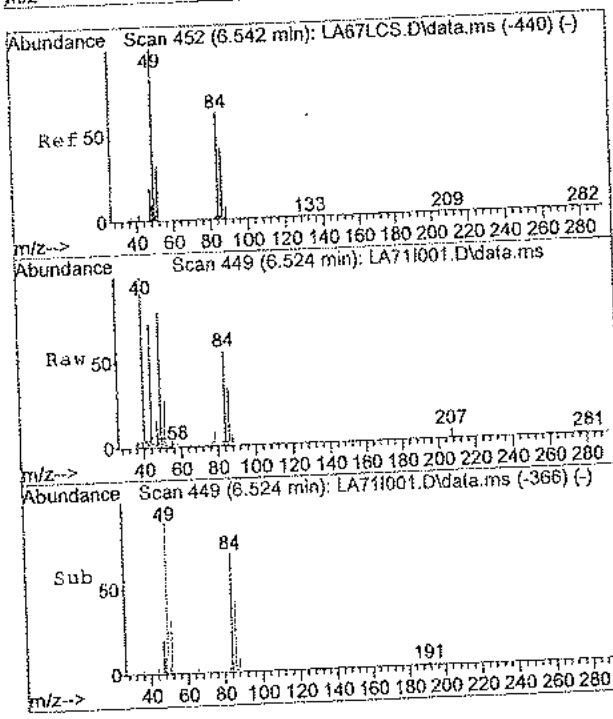


#14
Isopropyl Alcohol
Concen: 0.62 ppb
RT: 6.02 min Scan# 367
Delta R.T. 0.07 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:45.1 Resp: 195890

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	3.4	3.2	4.8
0	0.0	0.0	0.0

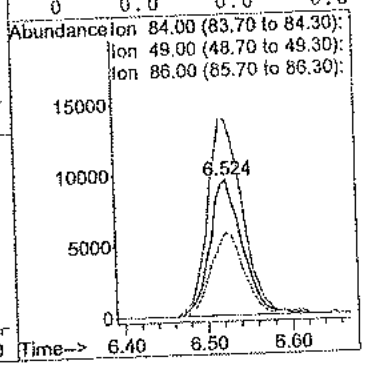


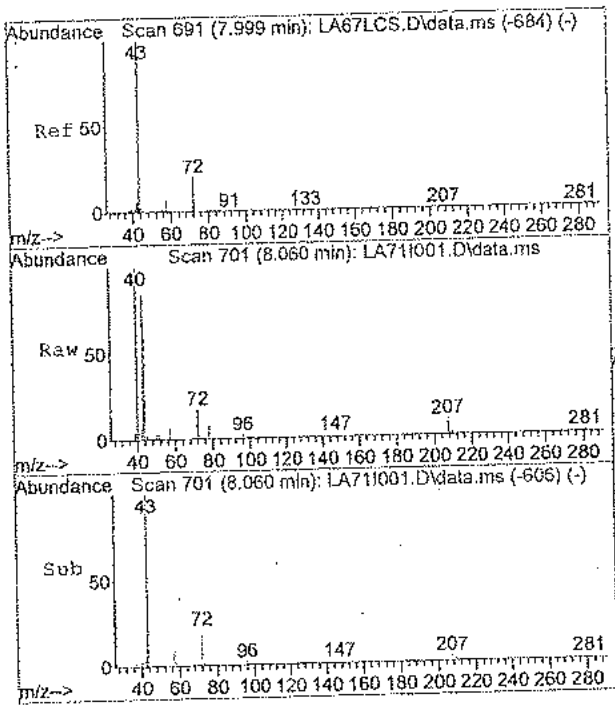


#16
Methylene Chloride
Concen: 0.27 ppb
RT: 6.52 min Scan# 449
Delta R.T. 0.01 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:84 Resp: 25659

Ion	Ratio	Lower	Upper
84	100		
49	155.2	66.6	100.0#
86	62.0	51.6	77.4
0	0.0	0.0	0.0

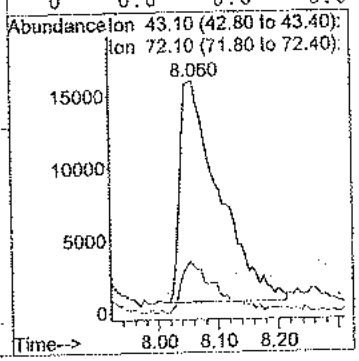


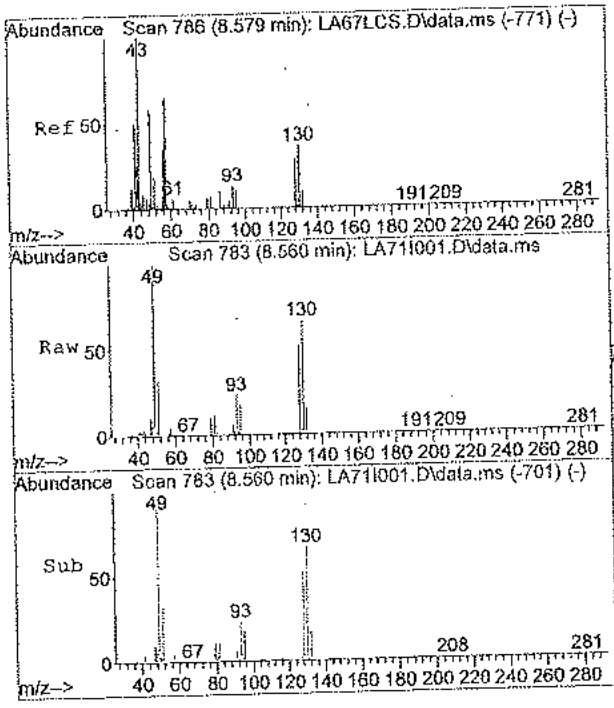


#23
2-Butanone
Concen: 0.29 ppb
RT: 8.06 min Scan# 701
Delta R.T. 0.08 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:43.1 Resp: 69225

Ion	Ratio	Lower	Upper
43	100		
72	20.0	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

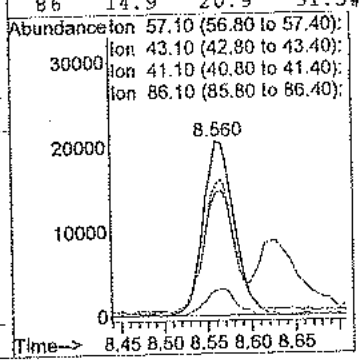


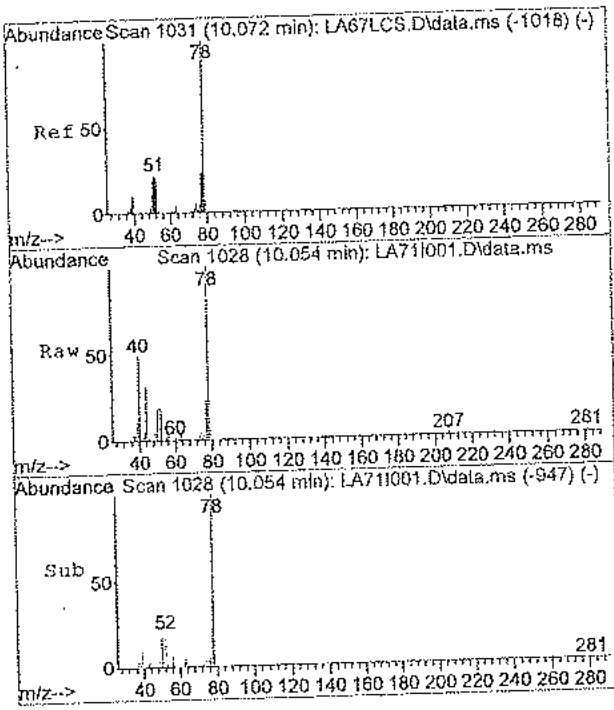


#27
Hexane
Concen: 0.27 ppb
RT: 8.56 min Scan# 783
Delta R.T. -0.00 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:57.1 Resp: 50504

Ion	Ratio	Lower	Upper
57	100		
43	70.3	57.3	85.9
41	77.1	47.0	70.4#
86	14.9	20.9	31.3#

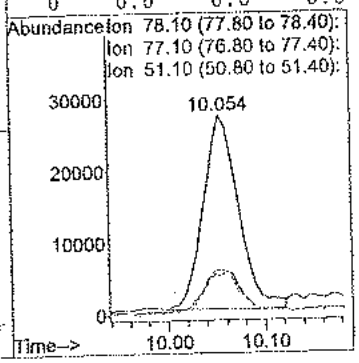


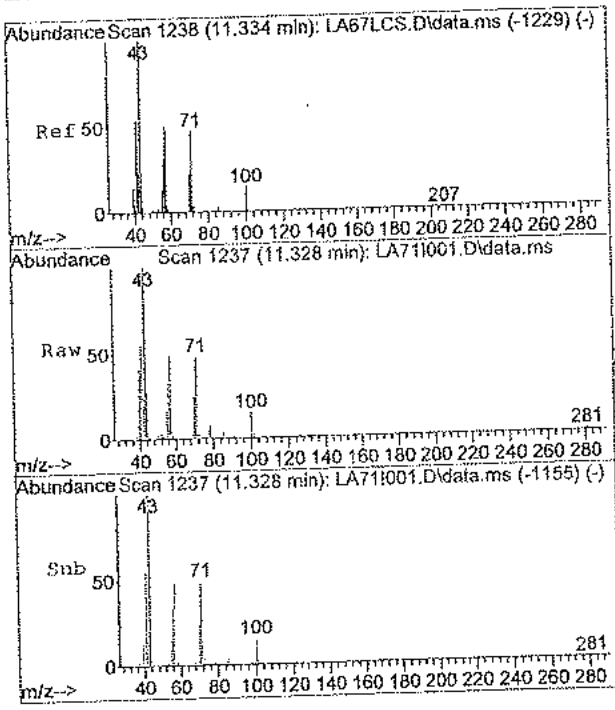


#32
Benzene
Concen: 0.21 ppb
RT: 10.05 min Scan# 1028
Delta R.T. -0.01 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:78.1 Resp: 67805

Ion	Ratio	Lower	Upper
78	100		
77	27.7	18.2	27.4#
51	20.8	9.5	14.3#
0	0.0	0.0	0.0

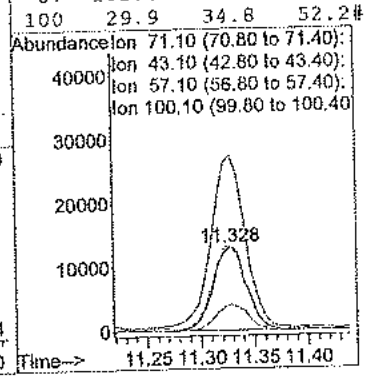


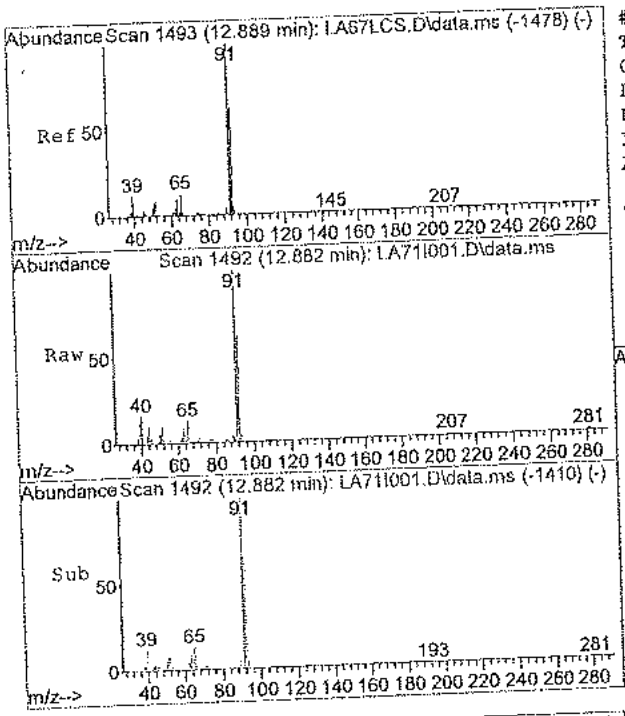


#40
Heptane
Concen: 0.25 ppb
RT: 11.33 min Scan# 1237
Delta R.T. -0.00 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:71.1 Resp: 28059

Ion	Ratio	Lower	Upper
71	100		
43	214.5	87.3	130.9#
57	103.4	57.8	86.6#
100	29.9	34.8	52.2#

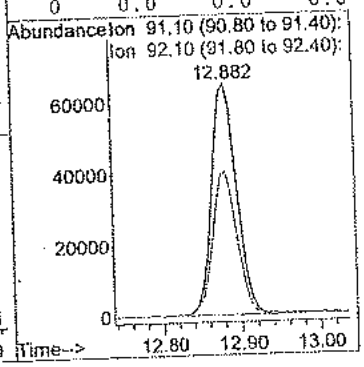


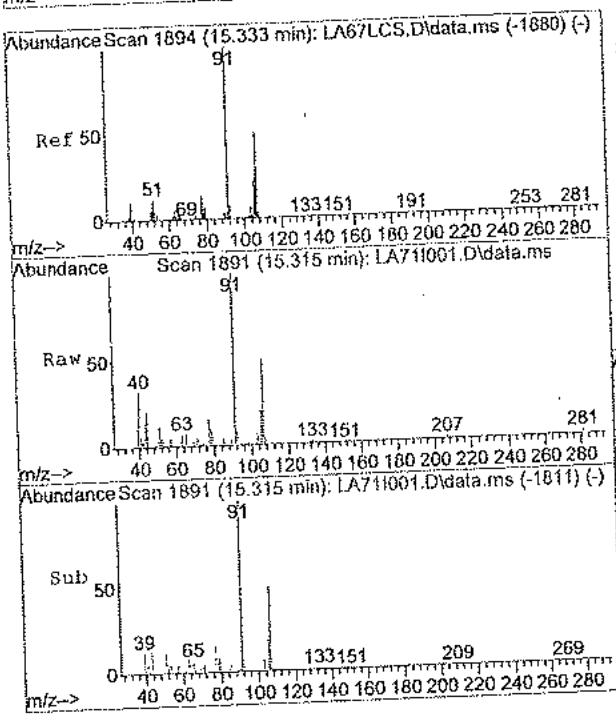


#45
Toluene
Concen: 0.36 ppb
RT: 12.88 min Scan# 1492
Delta R.T. -0.00 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:91.1 Resp: 141071

Ion	Ratio	Lower	Upper
91	100		
92	60.4	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

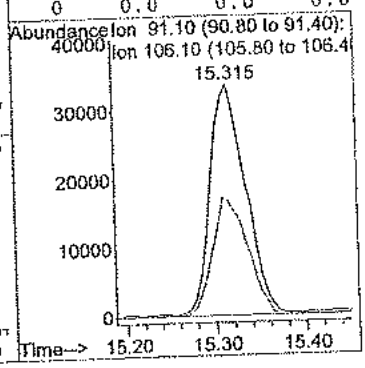




#53
m,p-Xylene
Concen: 0.23 ppb
RT: 15.31 min Scan# 1891
Delta R.T. -0.01 min
Lab File: LA71I001.D
Acq: 04/20/2015 13:56

Tgt Ion:91.1 Resp: 90895

Ion	Ratio	Lower	Upper
91	100		
106	50.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

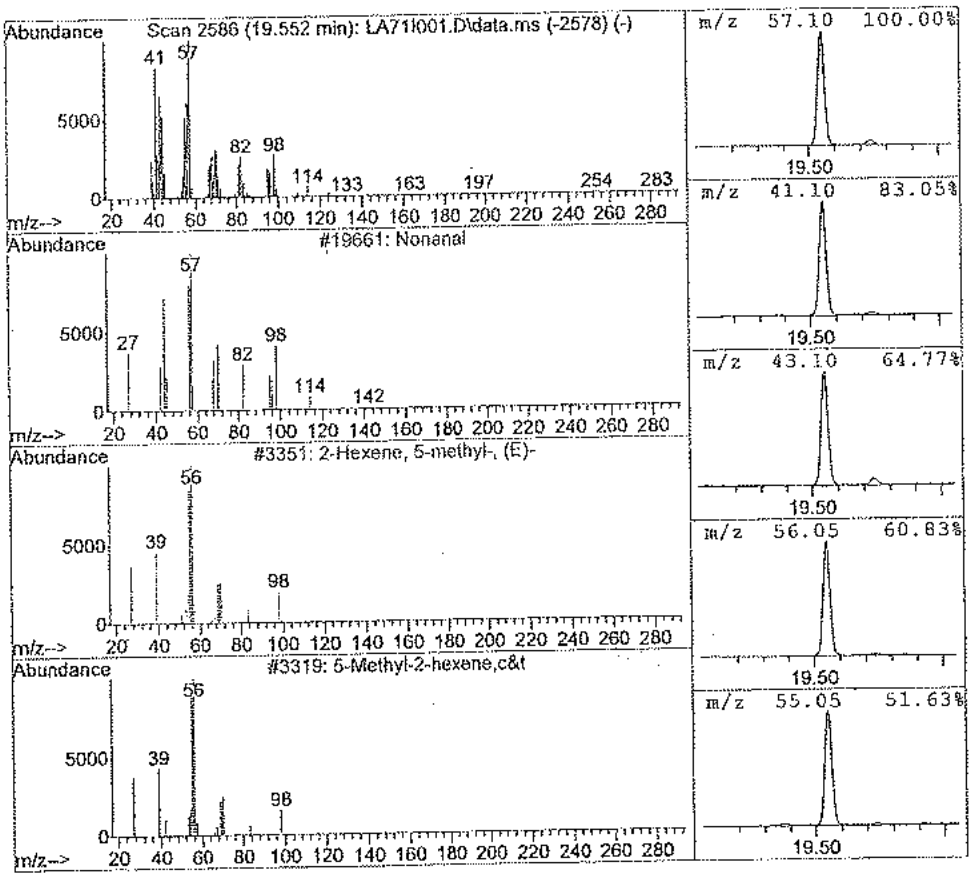
Data File : J:\L\2015\APR15L\20APR15L\LA71I001.D
Acq Time : 04/20/2015 13:56
Sample : 1510559001
Misc : 0284 TO-001-LAV
MS Integration Params: rteint.p

Vial: 2
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.55	3.95 ppb	3505490	Chlorobenzene d5	17743219

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonanal	19661	000124-19-6	91.00
2	2-Hexene, 5-methyl-, (E)-	3351	007385-82-2	27.00
3	5-Methyl-2-hexene,c&t	3319	003404-62-4	27.00
4	(Z)-Hex-2-ene, 5-methyl-	3328	013151-17-2	27.00
5	1,1-Dimethylethylamine, N-methoxyca	22069	1000284-26-1	27.00



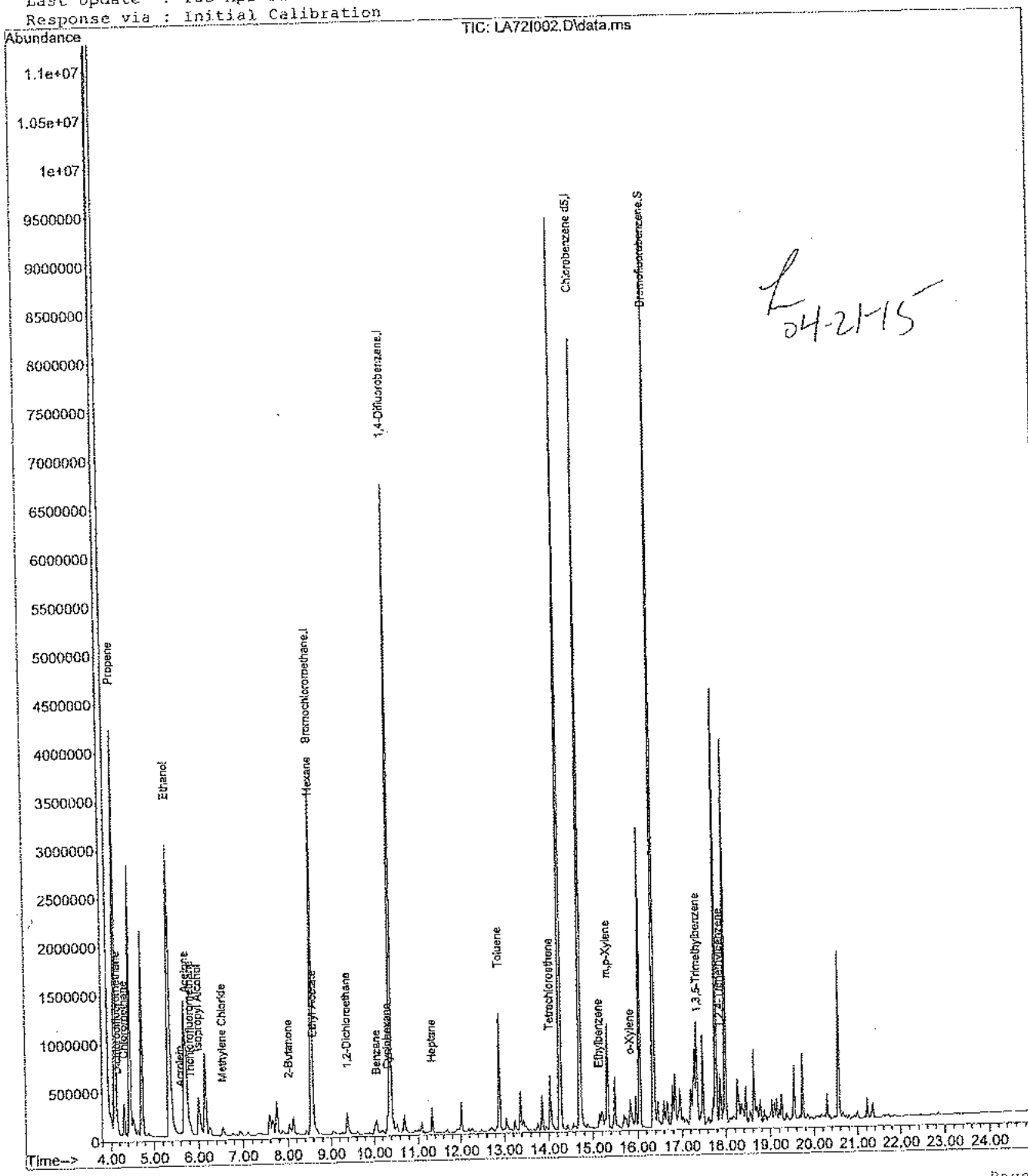
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:56:21 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



4-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:56:21 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.55	130	569152	20.0000 ppb	117.18
25) 1,4-Difluorobenzene	10.38	114	6614567	20.0000 ppb	109.03
50) Chlorobenzene d5	14.71	117	5526956	20.0000 ppb	107.00
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.36	95	4172058	18.9546 ppb	94.77%
Target Compounds					Qvalue
2) Propene	4.09	41	1424891	17.6677 ppb #	46 TIC
3) Dichlorodifluoromethane	4.15	85	153763	0.5588 ppb	99
4) Chloromethane	4.32	50	73155	0.6226 ppb	96
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.61	56	28233	0.6201 ppb #	95 TIC < 10%
11) Acetone	5.73	43	1895409	10.0729 ppb	91
12) Trichlorofluoromethane	5.83	101	76505	0.2578 ppb	100
13) Ethanol	5.34	45	6809654	180.9945 ppb #	78 TIC
14) Isopropyl Alcohol	6.01	45	975011	3.0539 ppb	97 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.54	84	30879	0.3207 ppb #	50
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.03	43	219523	0.9188 ppb #	75
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.60	61	39357	1.0163 ppb #	1
27) Hexane	8.57	57	204515	1.1051 ppb #	47
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	9.39	62	38899	0.2254 ppb #	89
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.07	78	115089	0.3528 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.32	84	83337	0.5677 ppb #	40
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	66655	0.5875 ppb #	37
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.89	91	1038768	2.6231 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	14.04	166	169521	0.8678 ppb #	88

(#) = qualifier out of range (m) = manual integration
LA72I002.D TO15LB15.m Tue Apr 21 10:28:31 2015

Quantitation Report

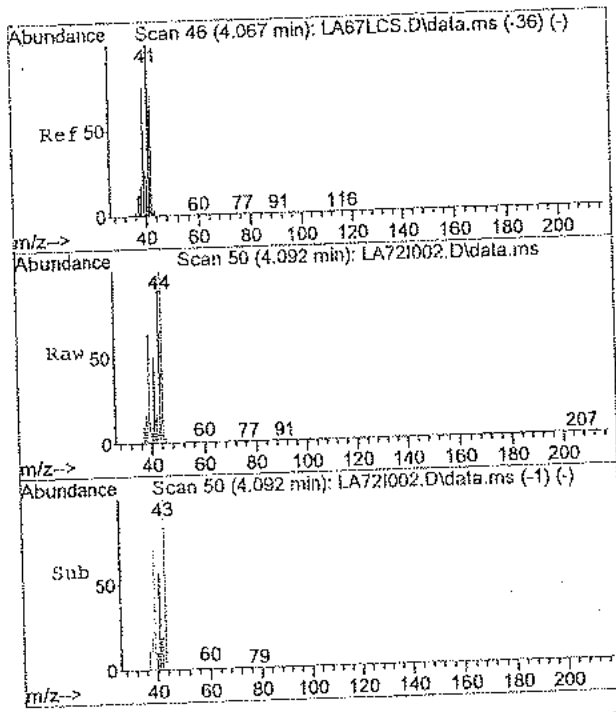
Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:56:21 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

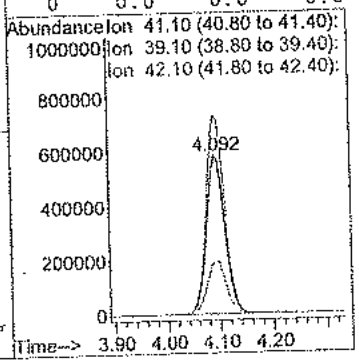
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.14	91	130060	0.2554 ppb	93
53) m,p-Xylene	15.32	91	435813	1.1103 ppb	92
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.85	91	143368	0.3588 ppb	93
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	17.36	105	84217	0.1833 ppb	93
61) 1,2,4-Trimethylbenzene	17.88	105	205820	0.4467 ppb	93
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

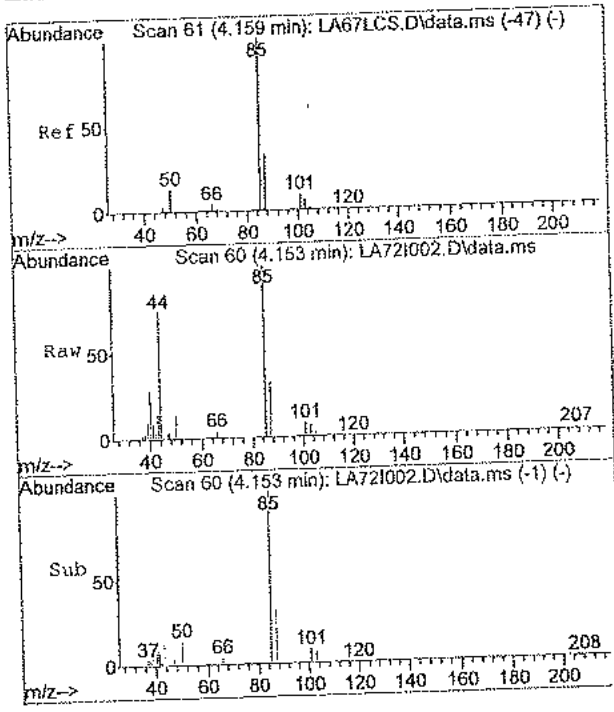


#2
Propene
Concen: 17.67 ppb
RT: 4.09 min Scan# 50
Delta R.T. 0.05 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:41.1 Resp: 1424891

Ion	Ratio	Lower	Upper
41	100		
39	125.7	56.2	84.4#
42	35.1	53.8	80.6#
0	0.0	0.0	0.0

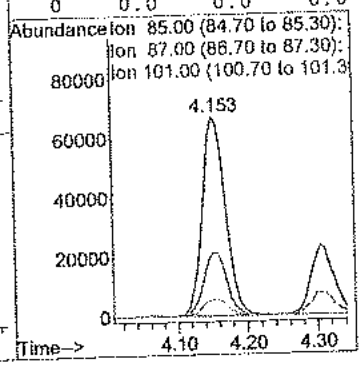


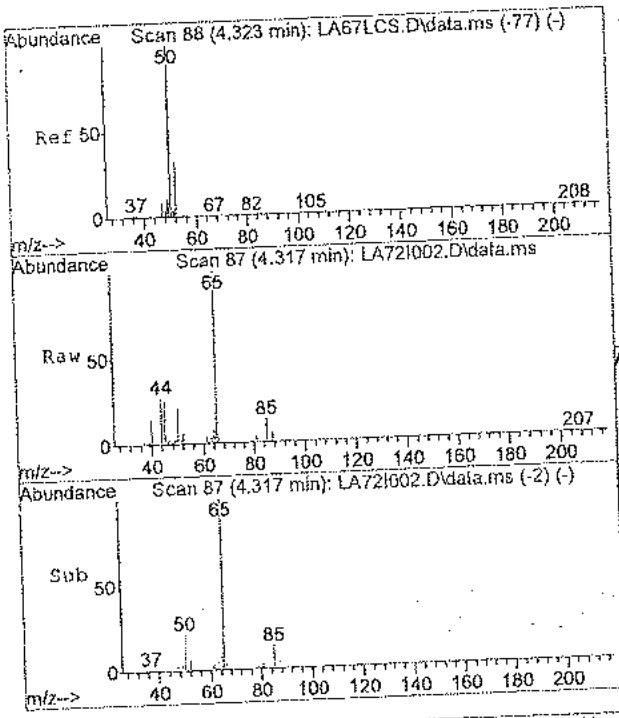


#3
Dichlorodifluoromethane
Concen: 0.56 ppb
RT: 4.15 min Scan# 60
Delta R.T. 0.02 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:85 Resp: 153763

Ion	Ratio	Lower	Upper
85	100		
87	32.2	26.1	39.1
101	8.9	8.0	12.0
0	0.0	0.0	0.0

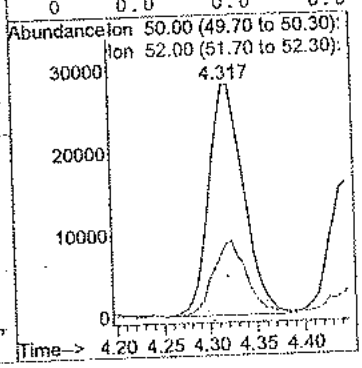


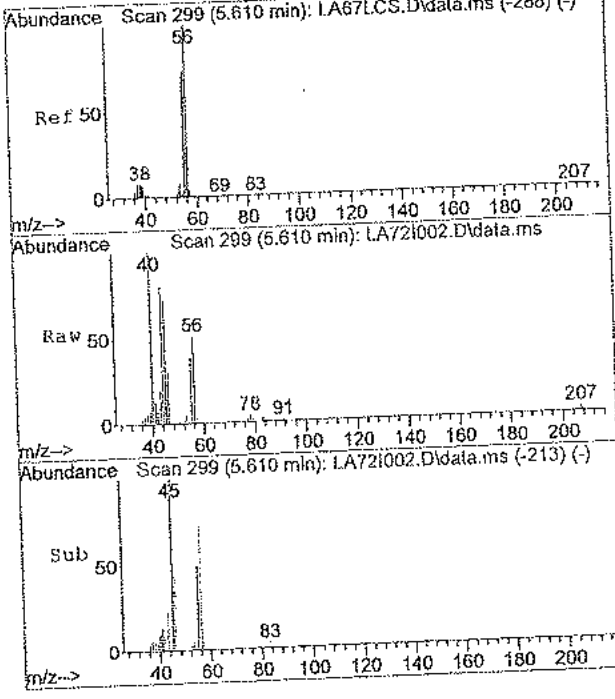


#4
Chloromethane
Concen: 0.62 ppb
RT: 4.32 min Scan# 87
Delta R.T. 0.02 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:50 Resp: 73155

Ion	Ratio	Lower	Upper
50	100		
52	30.9	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

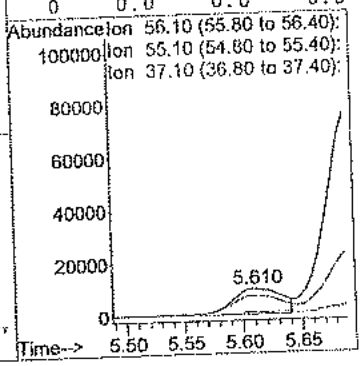


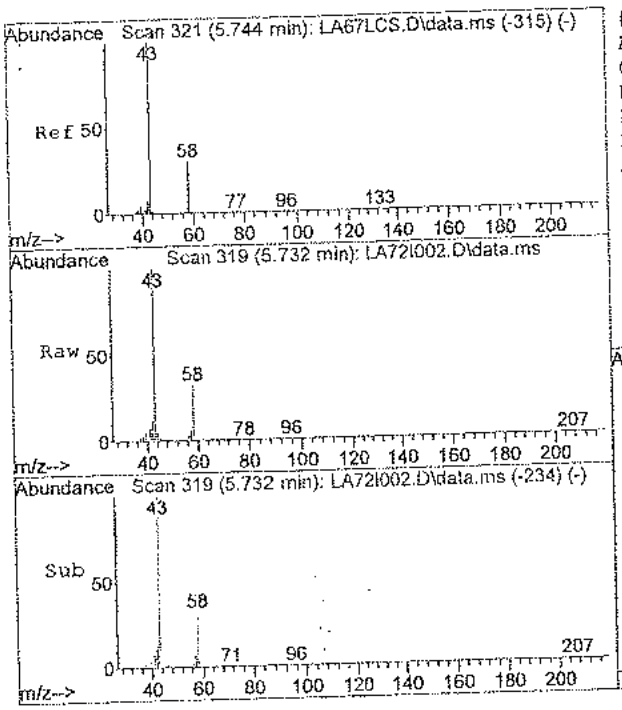


#10
Acrolein
Concen: 0.62 ppb
RT: 5.61 min Scan# 299
Delta R.T. 0.02 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:56.1 Resp: 28233

Ion	Ratio	Lower	Upper
56	100		
55	72.2	55.1	82.7
37	6.2	7.9	11.9#
0	0.0	0.0	0.0

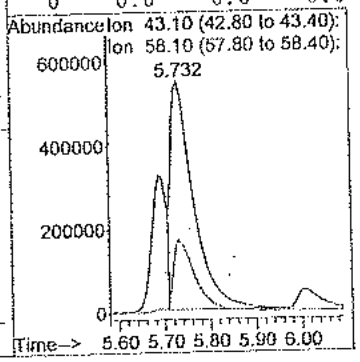


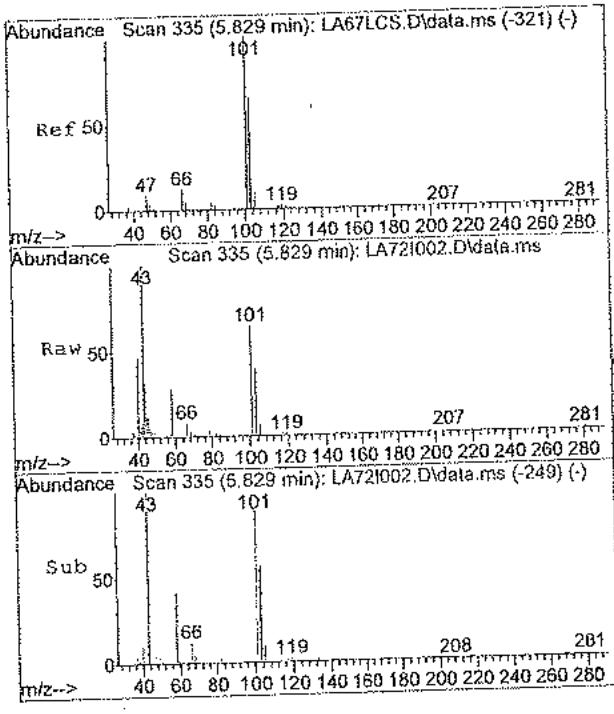


#11
Acetone
Concen: 10.07 ppb
RT: 5.73 min Scan# 319
Delta R.T. 0.02 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:43.1 Resp: 1895409

Ion	Ratio	Lower	Upper
43	100		
58	33.2	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

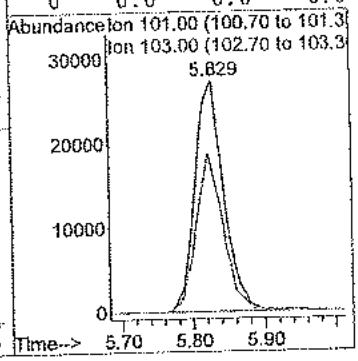


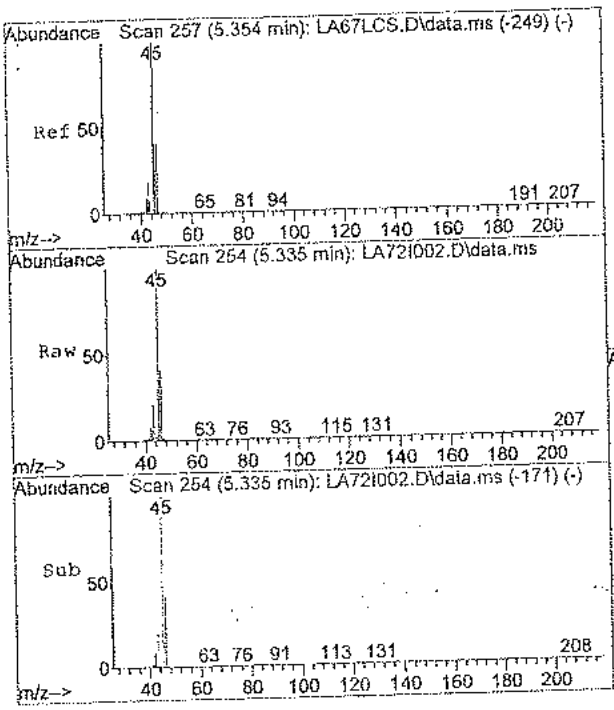


#12
Trichlorofluoromethane
Concen: 0.26 ppb
RT: 5.83 min Scan# 335
Delta R.T. 0.02 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:101 Resp: 76505

Ion	Ratio	Lower	Upper
101	100		
103	64.3	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

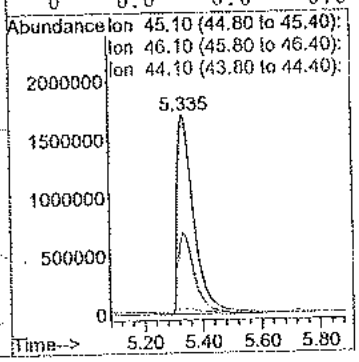


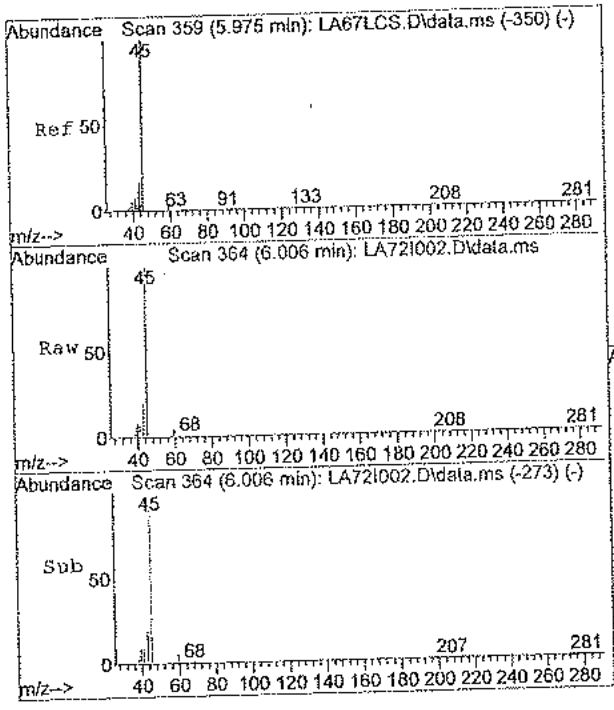


#13
Ethanol
Concen: 180.99 ppb
RT: 5.34 min Scan# 254
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:45.1 Resp: 6809654

Ion	Ratio	Lower	Upper
45	100		
46	40.1	32.4	48.6
44	1.8	23.4	35.2#
0	0.0	0.0	0.0

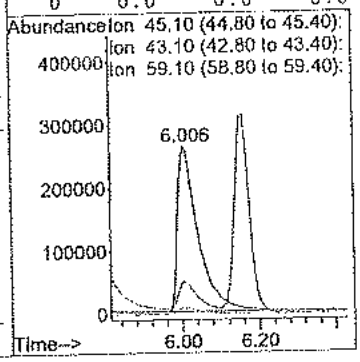


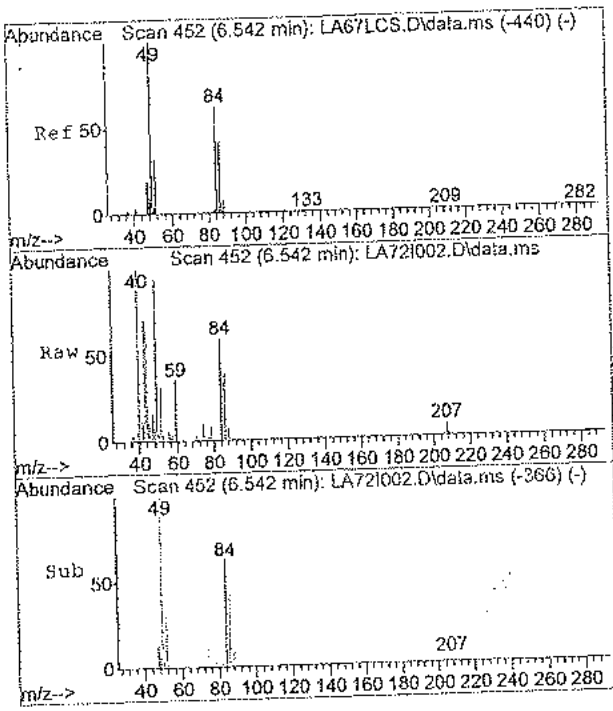


#14
Isopropyl Alcohol
Concen: 3.05 ppb
RT: 6.01 min Scan# 364
Delta R.T. 0.05 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:45.1 Resp: 975011

Ion	Ratio	Lower	Upper
45	100		
43	18.2	15.8	23.6
59	3.6	3.2	4.8
0	0.0	0.0	0.0

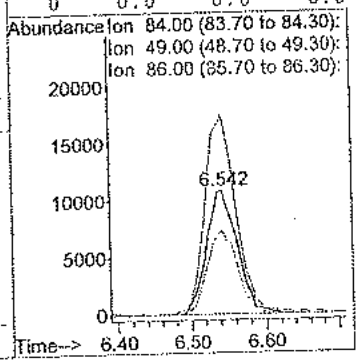


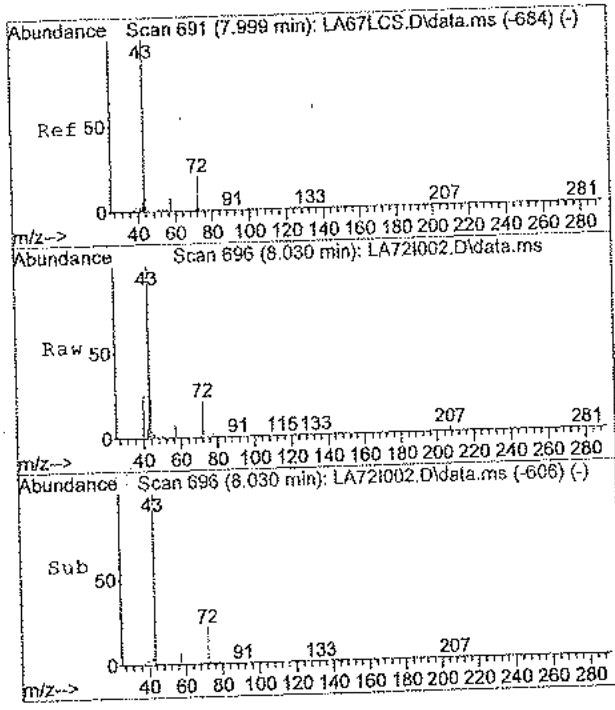


#16
Methylene Chloride
Concen: 0.32 ppb
RT: 6.54 min Scan# 452
Delta R.T. 0.02 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:84 Resp: 30879

Ion	Ratio	Lower	Upper
84	100		
49	162.1	66.6	100.0#
86	66.1	51.6	77.4
0	0.0	0.0	0.0

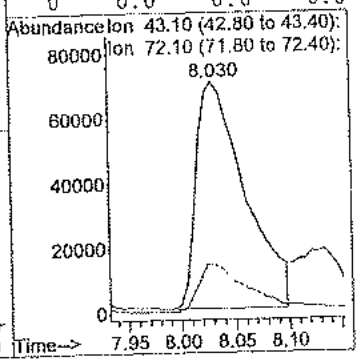


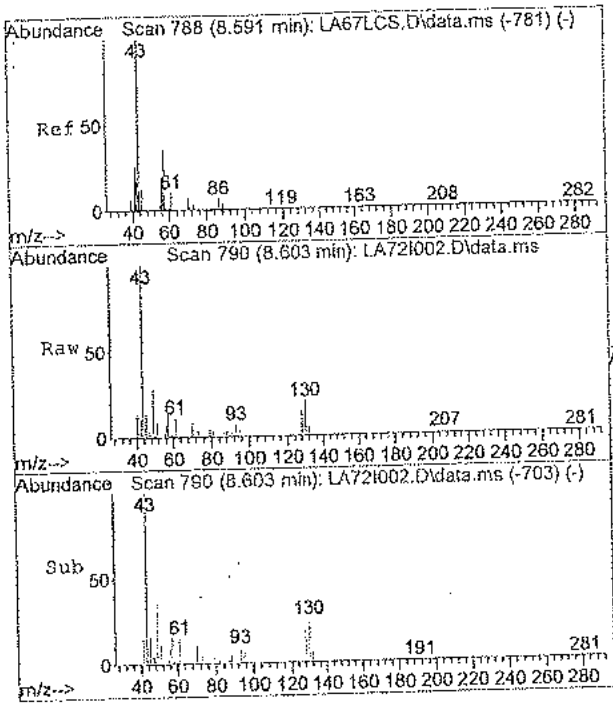


#23
2-Butanone
Concen: 0.92 ppb
RT: 8.03 min Scan# 696
Delta R.T. 0.05 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:43.1 Resp: 219523

Ion	Ratio	Lower	Upper
43	100		
72	23.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

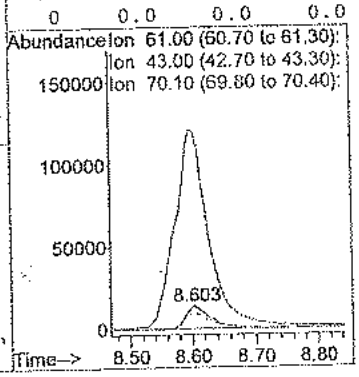


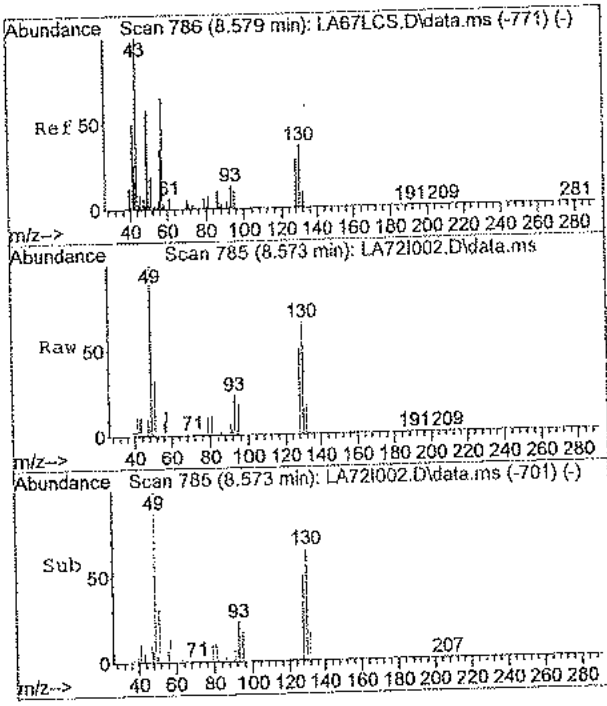


#26
Ethyl Acetate
Concen: 1.02 ppb
RT: 8.60 min Scan# 790
Delta R.T. 0.03 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:61 Resp: 39357

Ion	Ratio	Lower	Upper
61	100		
43	1149.6	144.0	216.0#
70	76.3	13.6	20.4#
0	0.0	0.0	0.0

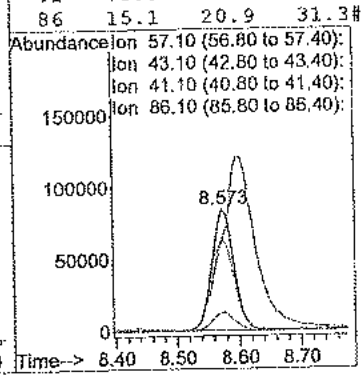


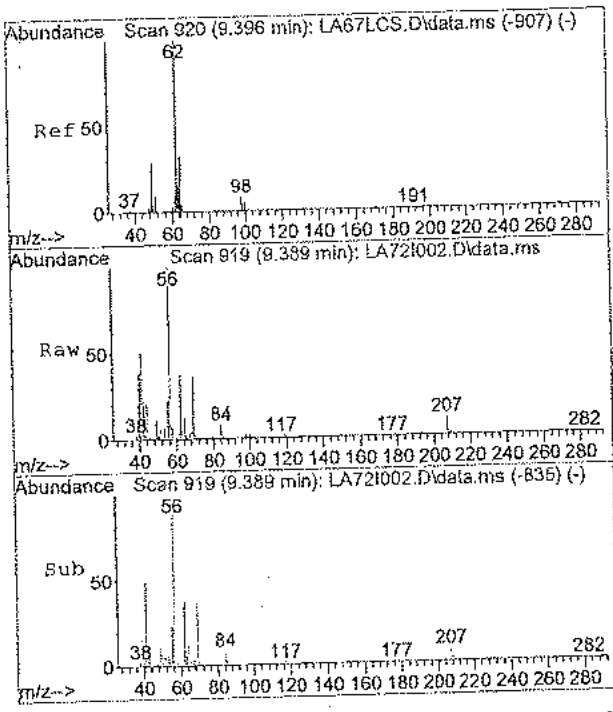


#27
Hexane
Concen: 1.11 ppb
RT: 8.57 min Scan# 785
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:57.1 Resp: 204515

Ion	Ratio	Lower	Upper
57	100		
43	0.0	57.3	85.9#
41	78.0	47.0	70.4#
86	15.1	20.9	31.3#

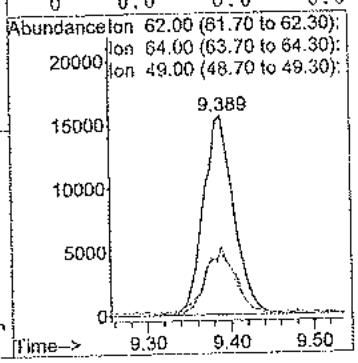


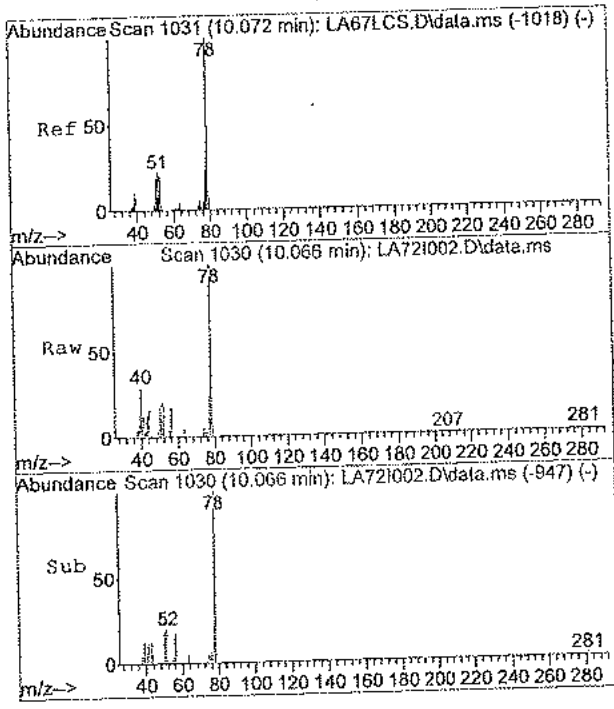


#30
1,2-Dichloroethane
Concen: 0.23 ppb
RT: 9.39 min Scan# 919
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:62 Resp: 38899

Ion	Ratio	Lower	Upper
62	100		
64	33.0	26.0	39.0
49	35.0	18.5	27.7#
0	0.0	0.0	0.0

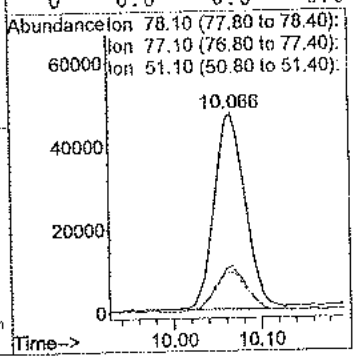


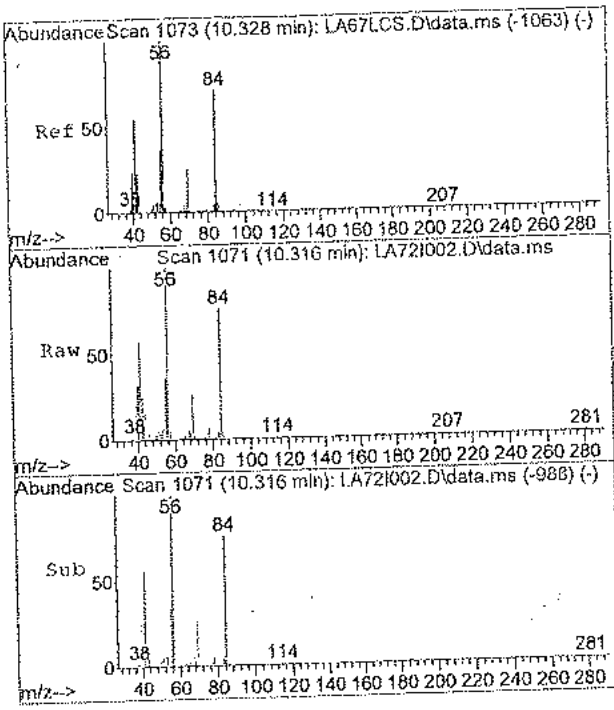


#32
Benzene
Concen: 0.35 ppb
RT: 10.07 min Scan# 1030
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:78.1 Resp: 115089

Ion	Ratio	Lower	Upper
78	100		
77	23.1	18.2	27.4
51	21.6	9.5	14.3#
0	0.0	0.0	0.0

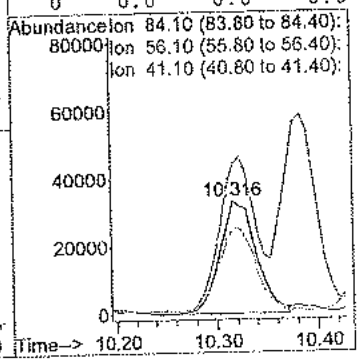


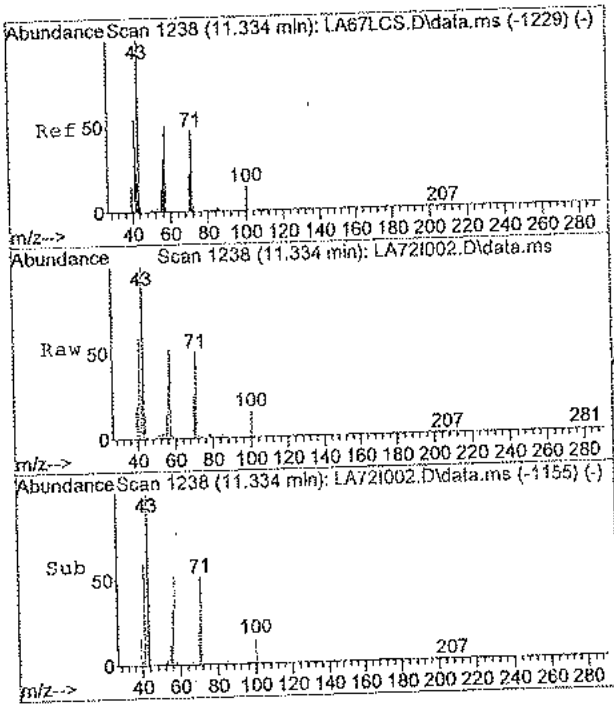


#34
Cyclohexane
Concen: 0.57 ppb
RT: 10.32 min Scan# 1071
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:84.1 Resp: 83337

Ion	Ratio	Lower	Upper
84	100		
56	137.7	67.3	100.9#
41	74.9	30.2	45.4#
0	0.0	0.0	0.0

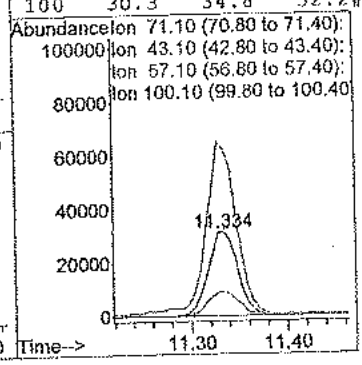


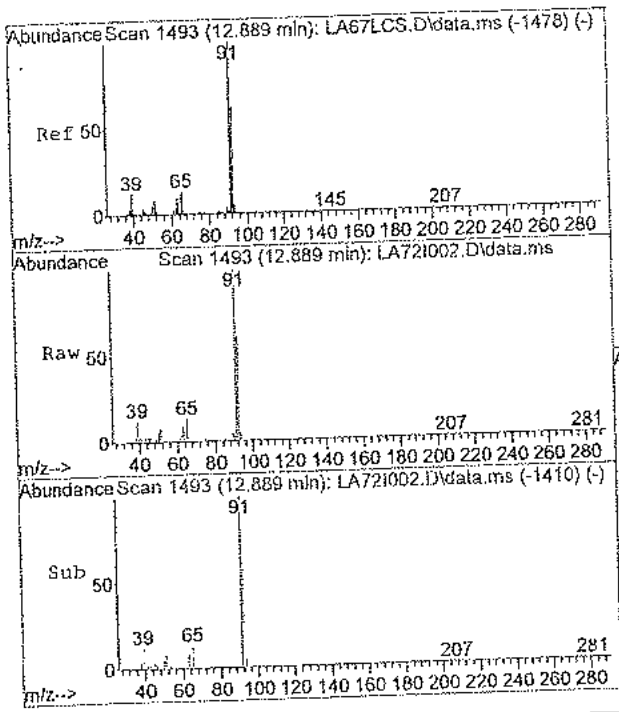


#40
Heptane
Concen: 0.59 ppb
RT: 11.33 min Scan# 1238
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:71.1 Resp: 66655

Ion	Ratio	Lower	Upper
71	100		
43	213.0	87.3	130.9#
57	101.9	57.8	86.6#
100	30.3	34.8	52.2#

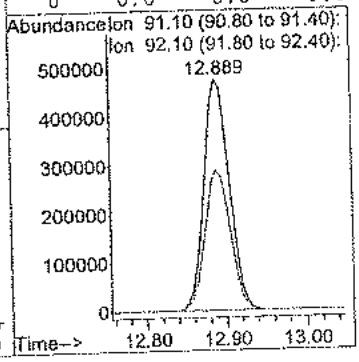


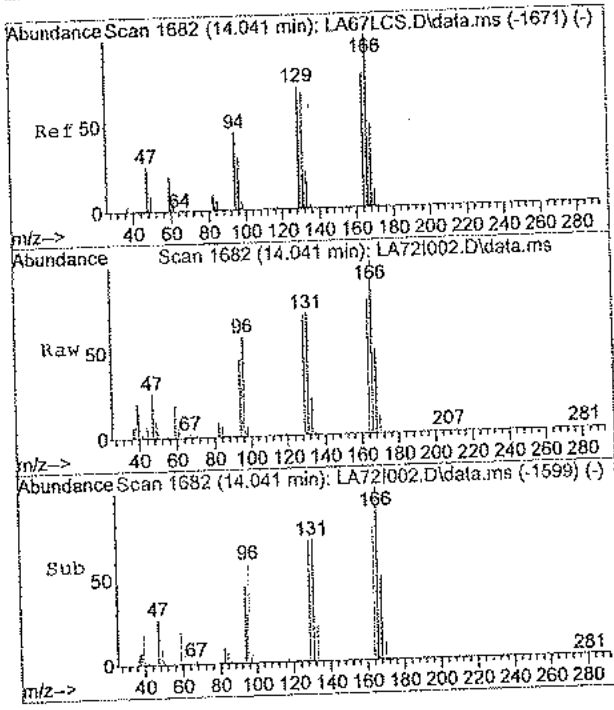


#45
Toluene
Concen: 2.62 ppb
RT: 12.89 min Scan# 1493
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:91.1 Resp: 1038768

Ion	Ratio	Lower	Upper
91	100		
92	60.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

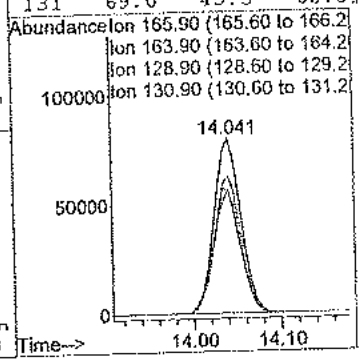


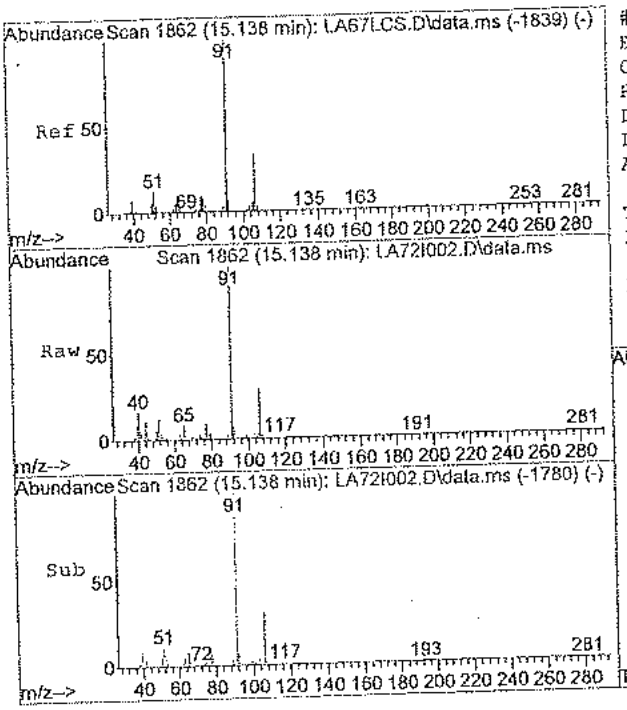


#49
Tetrachloroethene
Concen: 0.87 ppb
RT: 14.04 min Scan# 1682
Delta R.T. 0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:165.9 Resp: 169521

Ion	Ratio	Lower	Upper
166	100		
164	78.0	61.0	91.4
129	72.1	45.9	68.9#
131	69.0	45.5	68.3#

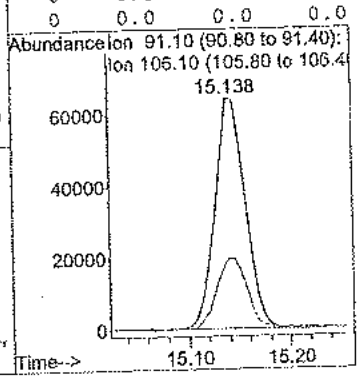


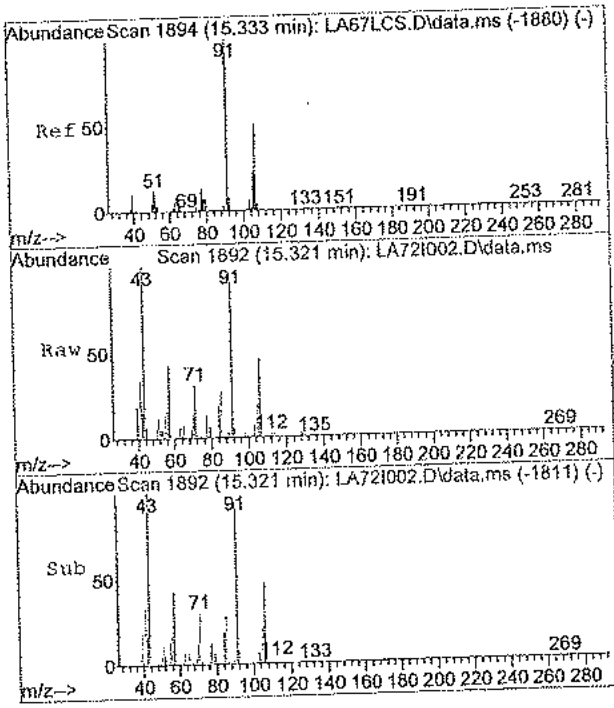


#52
Ethylbenzene
Concen: 0.26 ppb
RT: 15.14 min Scan# 1862
Delta R.T. 0.00 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:91.1 Resp: 130060

Ion	Ratio	Lower	Upper
91	100		
106	31.4	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

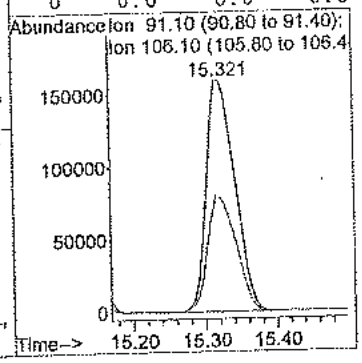


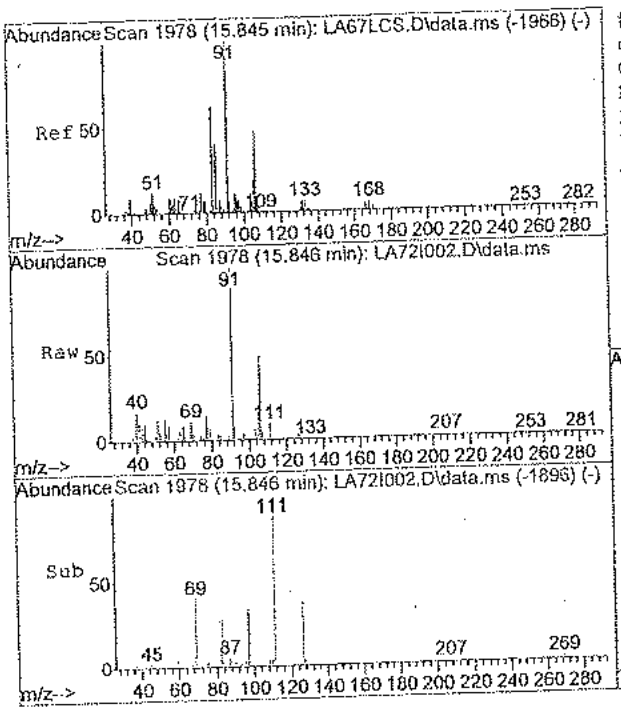


#53
m,p-Xylene
Concen: 1.11 ppb
RT: 15.32 min Scan# 1892
Delta R.T. -0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:91.1 Resp: 435813

Ion	Ratio	Lower	Upper
91	100		
106	50.2	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

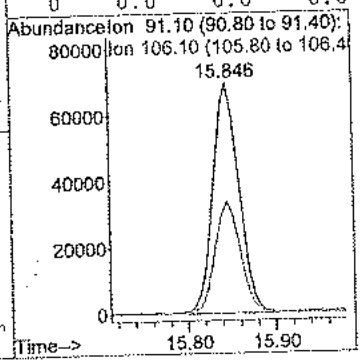


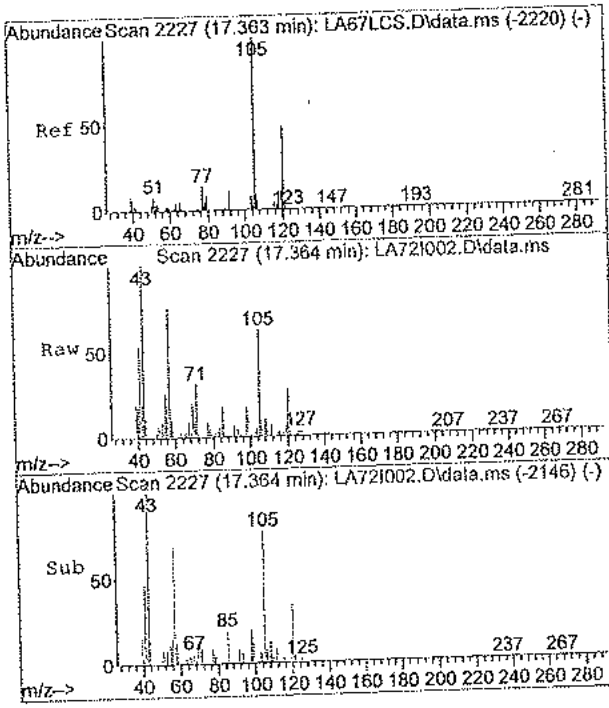


#57
o-Xylene
Concen: 0.36 ppb
RT: 15.85 min Scan# 1978
Delta R.T. 0.00 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:91.1 Resp: 143368

Ion	Ratio	Lower	Upper
91	100		
106	47.3	43.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

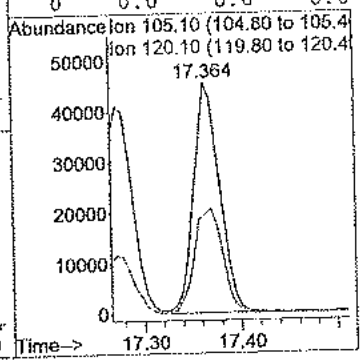


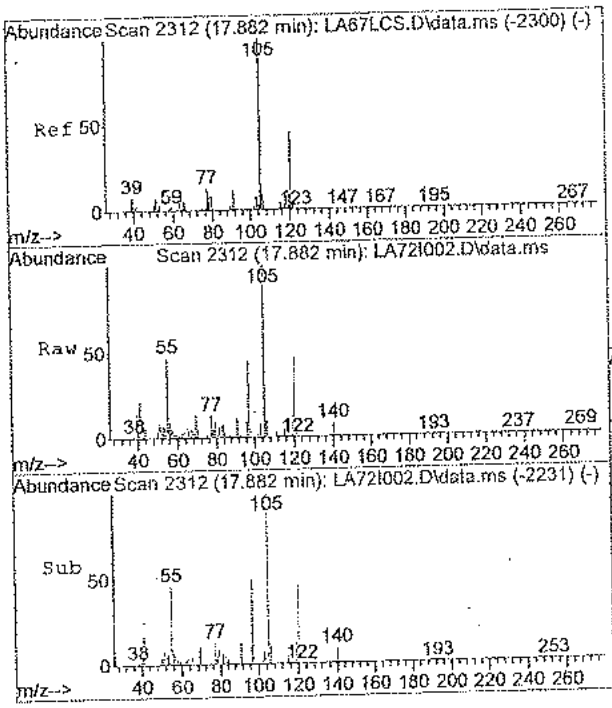


#60
1,3,5-Trimethylbenzene
Concen: 0.38 ppb
RT: 17.36 min Scan# 2227
Delta R.T. -0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:105.1 Resp: 84217

Ion	Ratio	Lower	Upper
105	100		
120	50.0	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

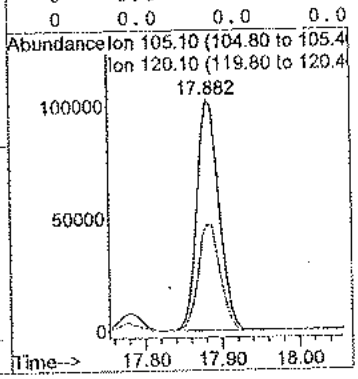




#61
1,2,4-Trimethylbenzene
Concen: 0.45 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA72I002.D
Acq: 04/20/2015 14:46

Tgt Ion:105.1 Resp: 205820

Ion	Ratio	Lower	Upper
105	100		
120	46.0	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

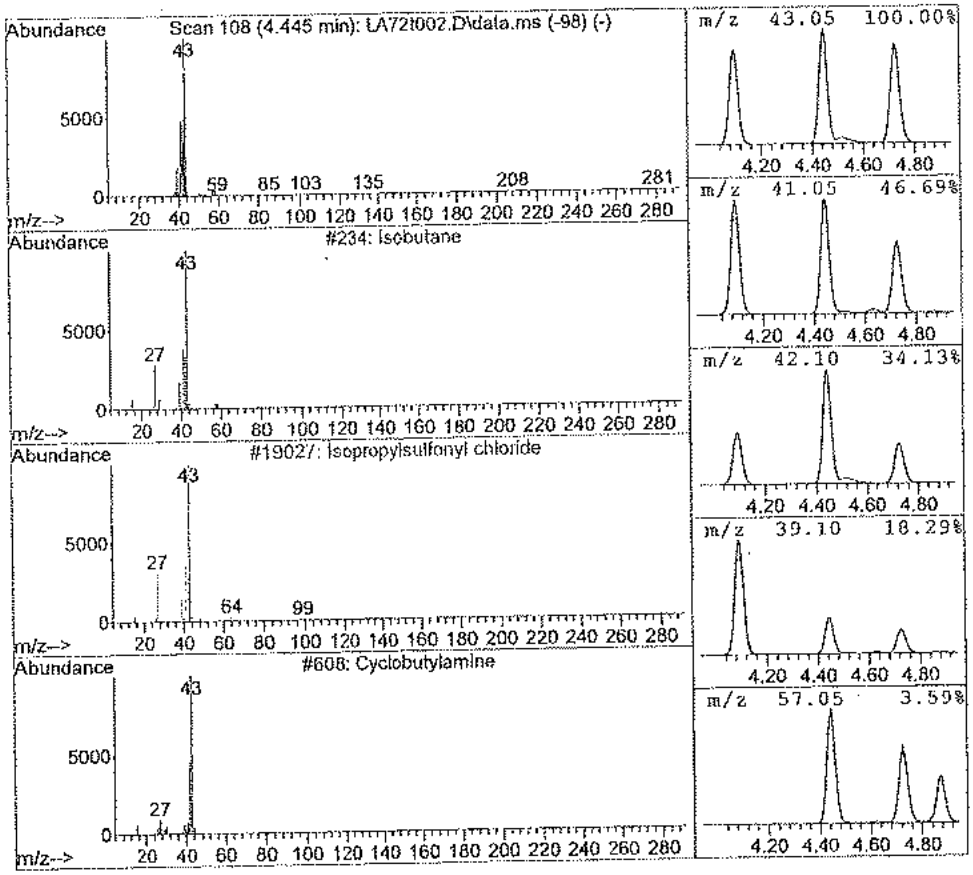
Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.45	12.34 ppb	6545983	Bromochloromethane	10608879

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Cyclobutylamine	608	002516-34-9	9.00
4	Butane	230	000106-97-8	4.00
5	Propane, 2-nitro-	2157	000079-46-9	4.00



Library Search Compound Report

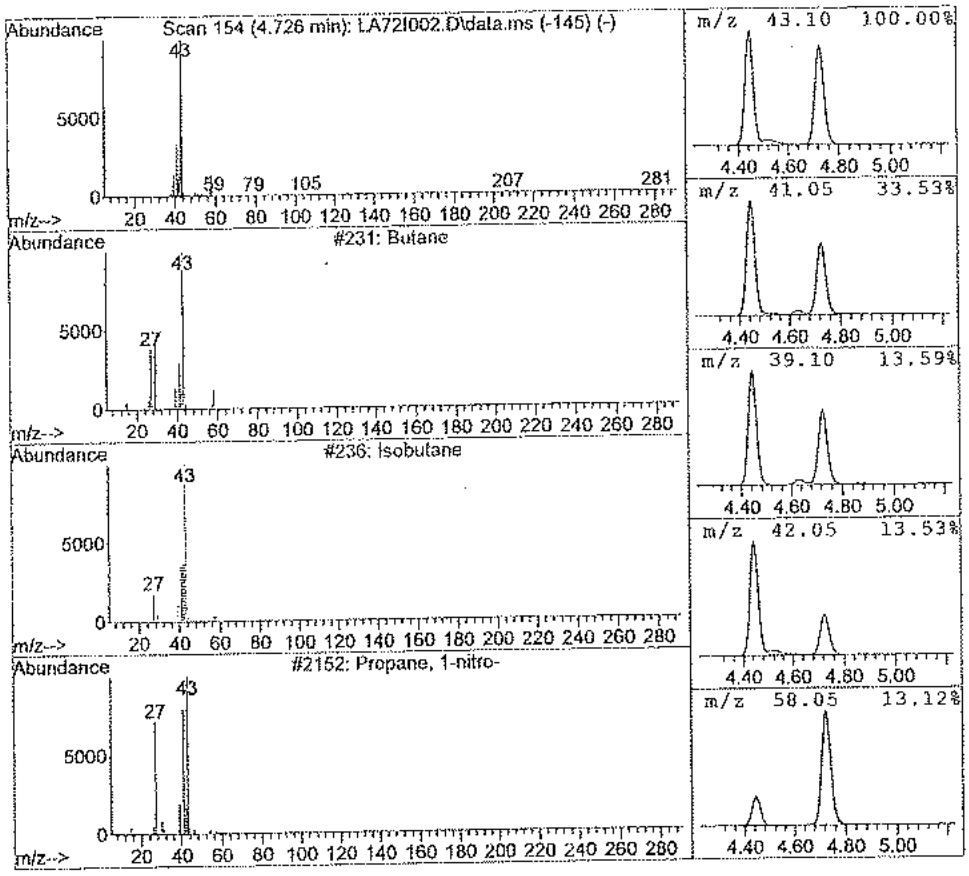
Data File : J:\L\2015\APR15L\20APR15L\LA721002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.73	9.92 ppb	5259910	Bromochloromethane	10608879

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	64.00
2	Isobutane	236	000075-28-5	9.00
3	Propane, 1-nitro-	2152	000108-03-2	9.00
4	Diazene, dimethyl-	211	000503-28-6	5.00
5	Cyclobutylamine	607	002516-34-9	4.00



Library Search Compound Report

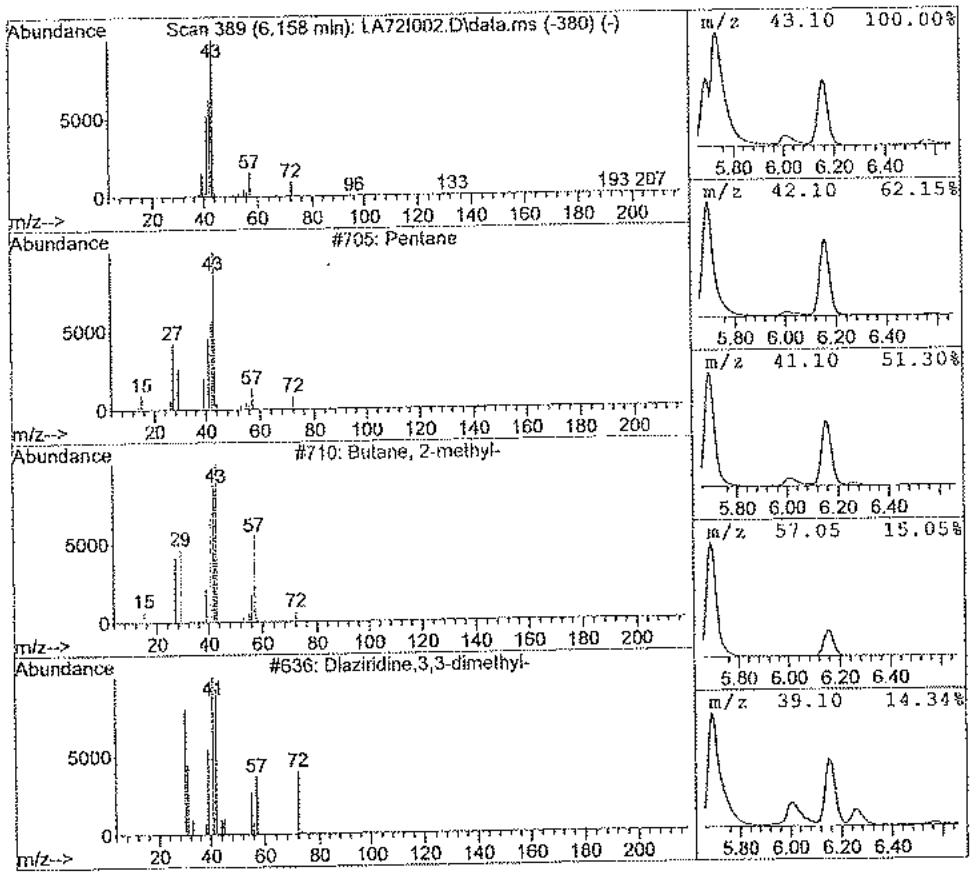
Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.16	4.33 ppb	2299173	Bromochloromethane	10608879

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	705	000109-66-0	90.00
2	Butane, 2-methyl-	710	000078-78-4	72.00
3	Diaziridine,3,3-dimethyl-	636	004901-76-2	9.00
4	Hydrazine, 2-propenyl-	632	007422-78-8	7.00
5	3-Buten-1-ol	656	000627-27-0	7.00



Library Search Compound Report

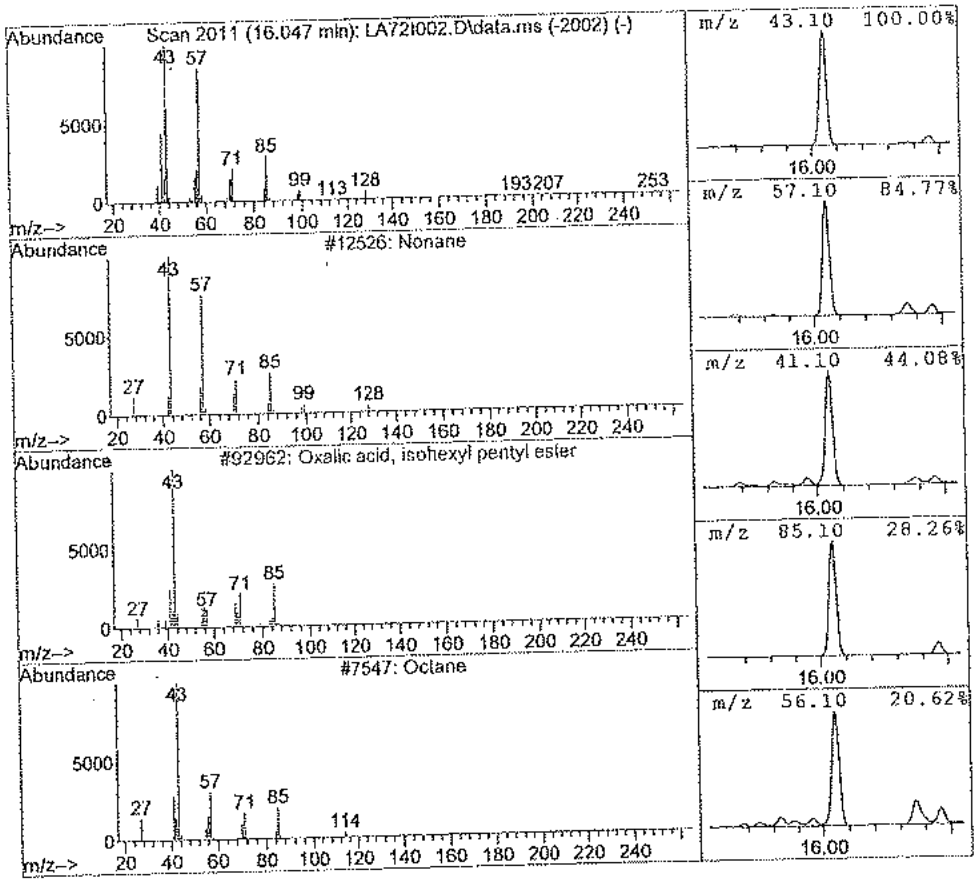
Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.05	6.76 ppb	6161449	Chlorobenzene d5	18239662

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12526	000111-84-2	97.00
2	Oxalic acid, isohexyl pentyl ester	92962	1000309-32-8	64.00
3	Octane	7547	000111-65-9	59.00
4	Oxalic acid, isobutyl nonyl ester	114998	1000309-37-4	50.00
5	Heptane, 2,4-dimethyl-	12559	002213-23-2	50.00



Library Search Compound Report

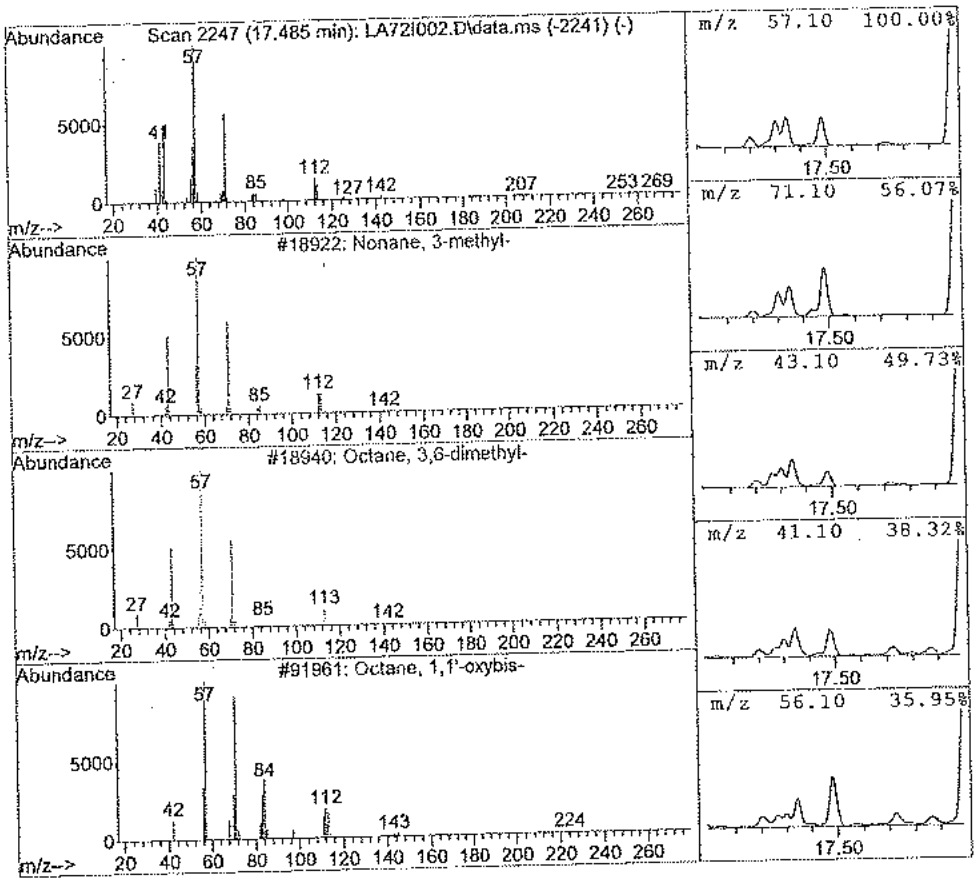
Data File : J:\L\2015\APR15L\20APR15L\LA721002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.49	2.03 ppb	1850652	Chlorobenzene d5	18239662

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 3-methyl-	18922	005911-04-6	95.00
2	Octane, 3,6-dimethyl-	18940	015869-94-0	87.00
3	Octane, 1,1'-oxybis-	91961	000629-82-3	78.00
4	Sulfurous acid, butyl octyl ester	97501	1000309-17-5	59.00
5	Sulfurous acid, 2-ethylhexyl hexyl	119429	1000309-20-2	53.00



Library Search Compound Report

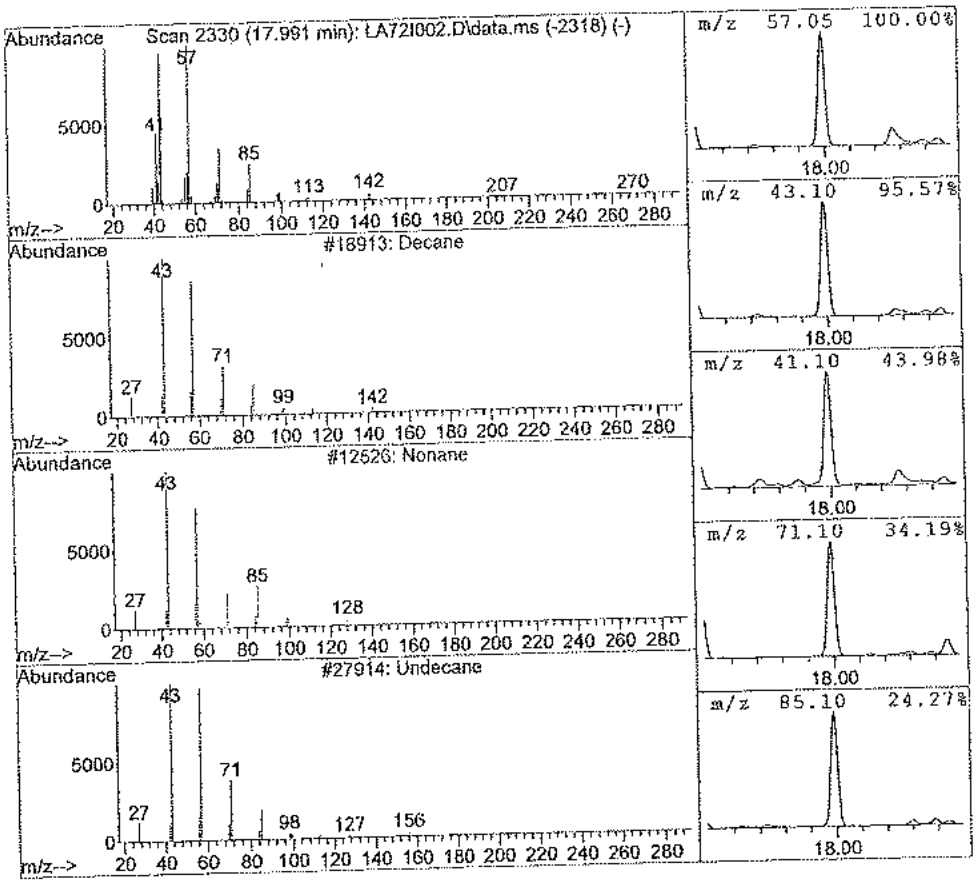
Data File : J:\L\2015\APR15L\20APR15L\LA72I002.D
Acq Time : 04/20/2015 14:46
Sample : 1510559002
Misc : 0284 TO-002-OUT
MS Integration Params: rteint.p

Vial: 3
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.99	8.48 ppb	7737238	Chlorobenzene d5	18239662

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18913	000124-18-5	95.00
2	Nonane	12526	000111-84-2	90.00
3	Undecane	27914	001120-21-4	64.00
4	Octane, 2,7-dimethyl-	18933	001072-16-8	59.00
5	Octane, 4-ethyl-	18917	015869-86-0	53.00

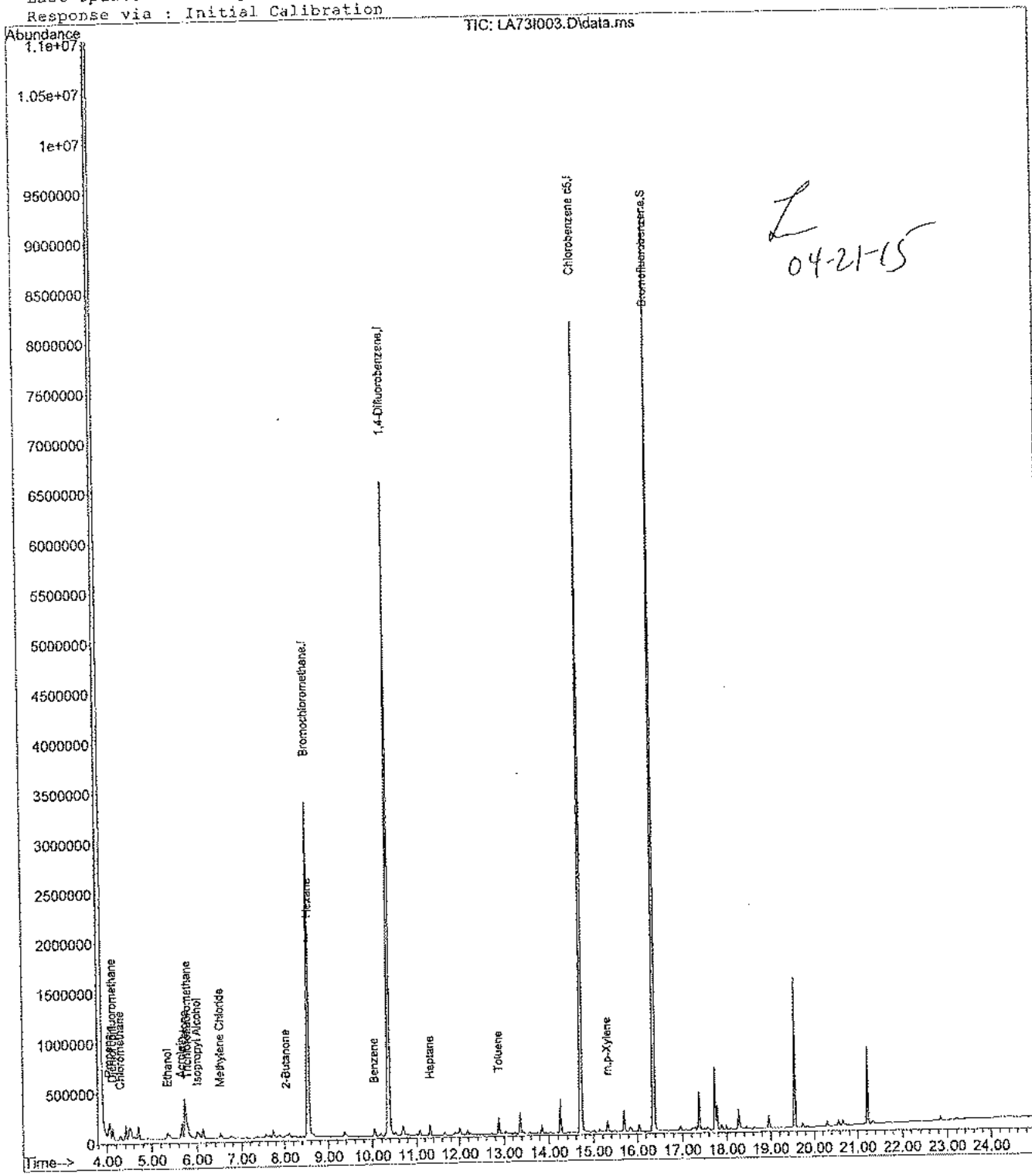


Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA73I003.D Vial: 4
Acq Time : 04/20/2015 15:35 Operator: TJM
Sample : 1510559003 Inst : 5975-L
Misc : 0284 TO-003-AAA Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:14:12 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



I 04-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA73I003.D Vial: 4
Acq Time : 04/20/2015 15:35 Operator: TJM
Sample : 1510559003 Inst : 5975-L
Misc : 0284 TO-003-AAA Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:14:12 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	561536	20.0000 ppb	115.61
25) 1,4-Difluorobenzene	10.36	114	6540907	20.0000 ppb	107.81
50) Chlorobenzene d5	14.71	117	5598264	20.0000 ppb	108.38
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.36	95	4232969	18.9864 ppb	94.93%
Target Compounds					Qvalue
2) Propene	4.06	41	52063	0.6543 ppb #	70 TICL/OC
3) Dichlorodifluoromethane	4.13	85	134783	0.4965 ppb	98
4) Chloromethane	4.29	50	64414	0.5557 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.66	56	32278	0.7185 ppb #	49 TICL/OC
11) Acetone	5.73	43	895452	4.8233 ppb	93
12) Trichlorofluoromethane	5.80	101	65221	0.2227 ppb	98
13) Ethanol	5.36	45	141208	3.8041 ppb #	76 TIC
14) Isopropyl Alcohol	6.01	45	194373	0.6171 ppb	96 TICL/OC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.51	84	32401	0.3411 ppb #	53
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.04	43	73258	0.3108 ppb #	65
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.56	57	50631	0.2767 ppb #	84
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.05	78	60981	0.1890 ppb #	85
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.32	71	26525	0.2364 ppb #	34
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.88	91	134961	0.3446 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

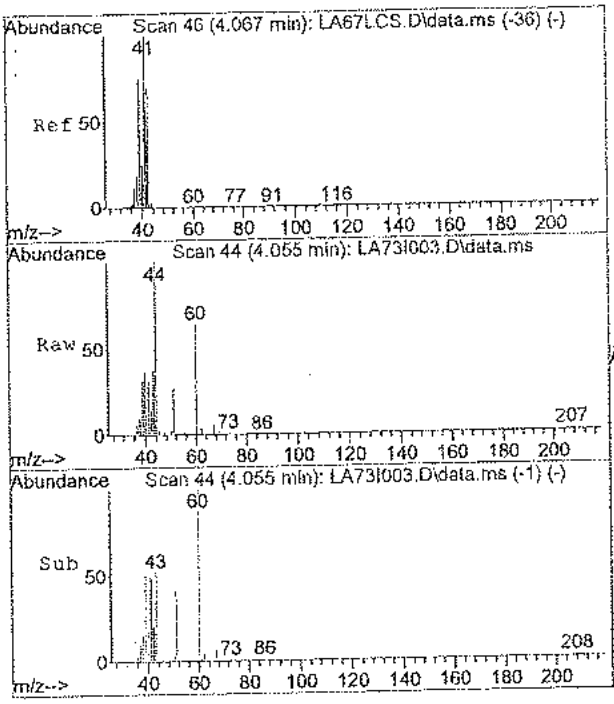
Data File : J:\L\2015\APR15L\20APR15L\LA73I003.D Vial: 4
Acq Time : 04/20/2015 15:35 Operator: TJM
Sample : 1510559003 Inst : 5975-L
Misc : 0284 TO-003-AAA Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:14:12 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.32	91	8997B	0.2263 ppb	93
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

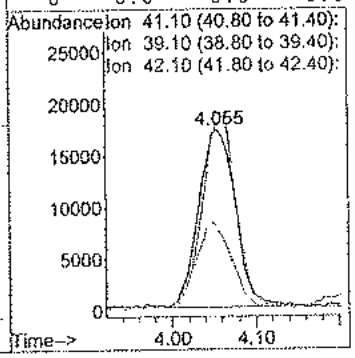
(#) = qualifier out of range (m) = manual integration

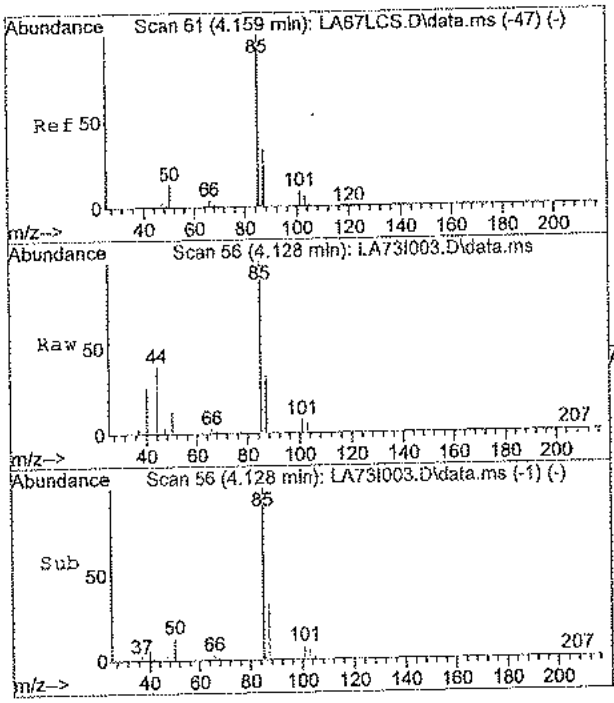


#2
Propene
Concen: 0.65 ppb
RT: 4.06 min Scan# 44
Delta R.T. 0.02 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:41.1 Resp: 52063

Ion	Ratio	Lower	Upper
41	100		
39	98.6	56.2	84.4#
42	46.0	53.8	80.6#
0	0.0	0.0	0.0

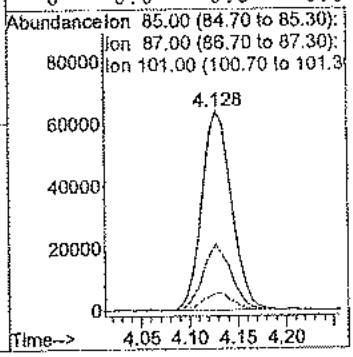


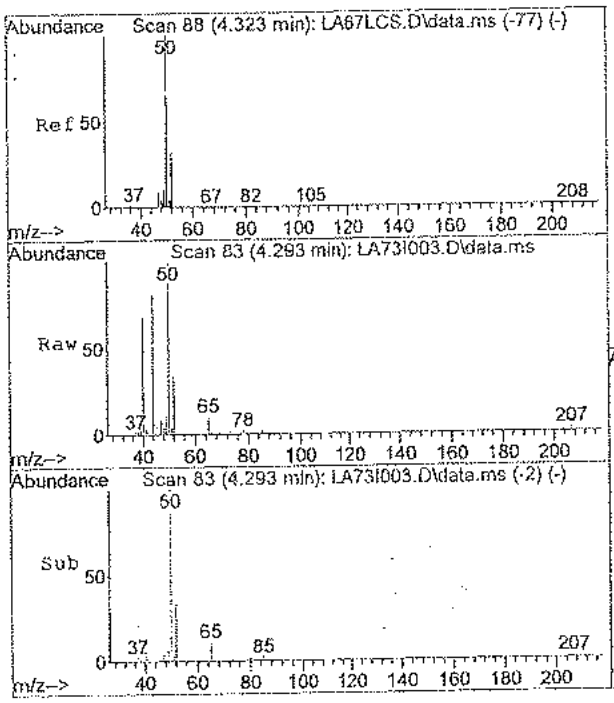


#3
Dichlorodifluoromethane
Concen: 0.50 ppb
RT: 4.13 min Scan# 56
Delta R.T. 0.00 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:85 Resp: 134783

Ion	Ratio	Lower	Upper
85	100		
87	31.5	26.1	39.1
101	8.5	8.0	12.0
0	0.0	0.0	0.0

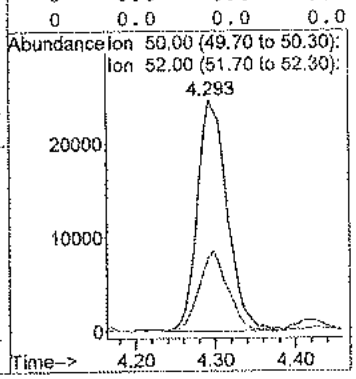


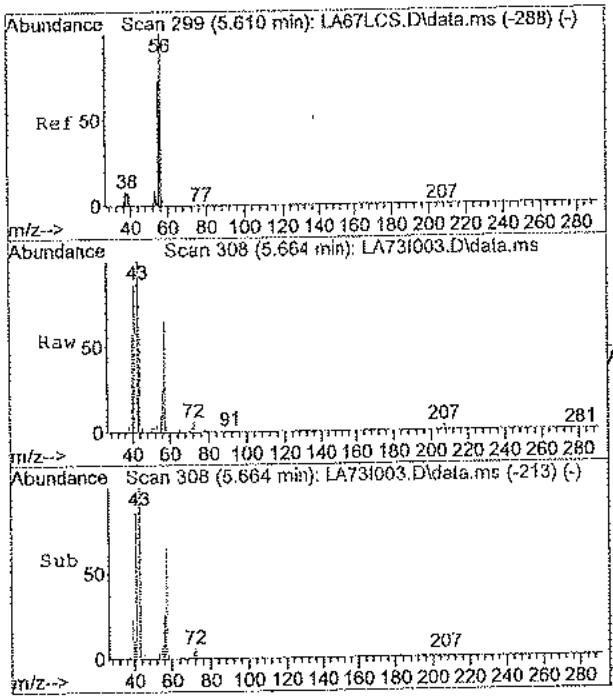


#4
Chloromethane
Concen: 0.56 ppb
RT: 4.29 min Scan# 83
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:50 Resp: 64414

Ion	Ratio	Lower	Upper
50	100		
52	33.9	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

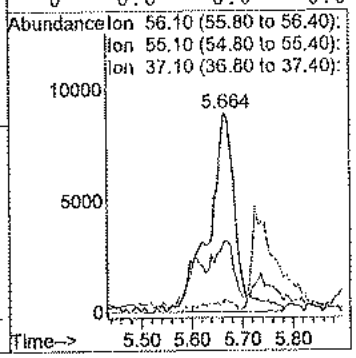


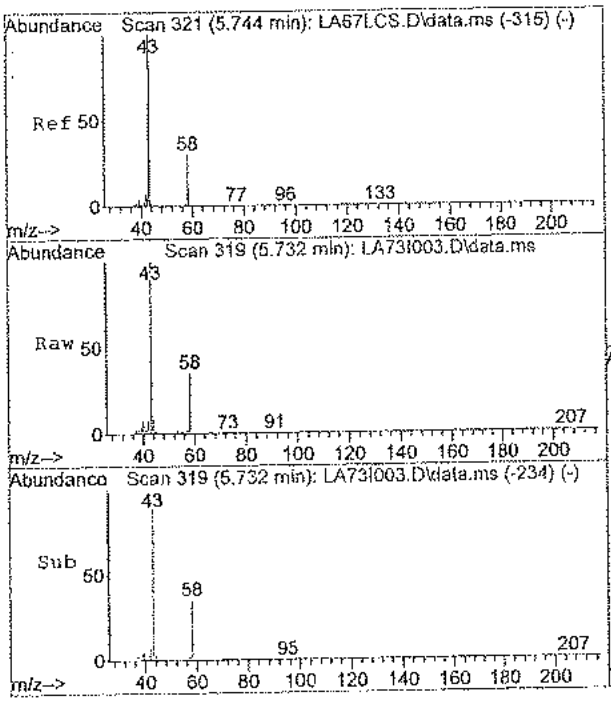


#10
Acrolein
Concen: 0.72 ppb
RT: 5.66 min Scan# 308
Delta R.T. 0.08 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:56.1 Resp: 32278

Ion	Ratio	Lower	Upper
56	100		
55	24.3	55.1	82.7#
37	2.2	7.9	11.9#
0	0.0	0.0	0.0

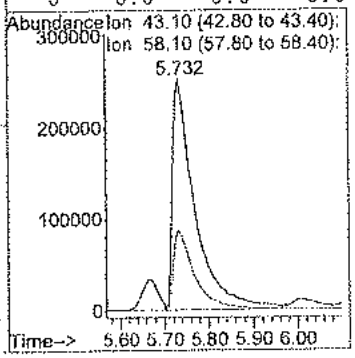


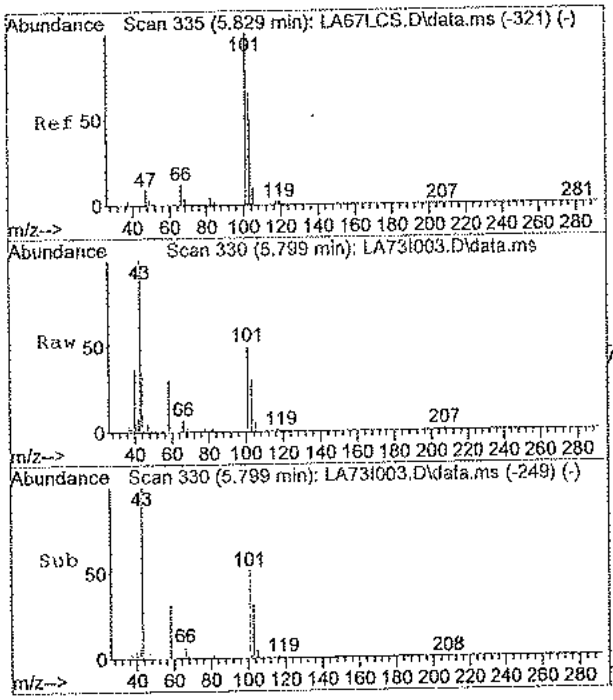


#11
Acetone
Concen: 4.82 ppb
RT: 5.73 min Scan# 319
Delta R.T. 0.02 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:43.1 Resp: 895452

Ion	Ratio	Lower	Upper
43	100		
58	34.0	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

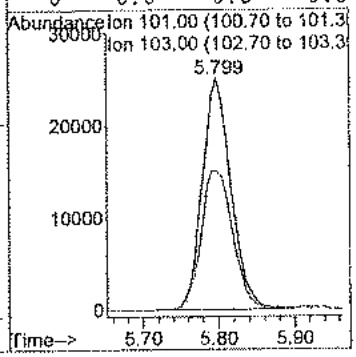


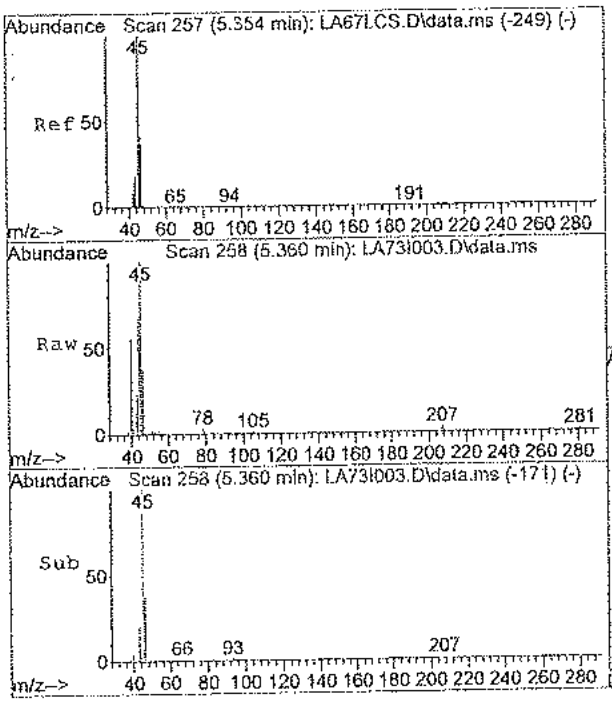


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.80 min Scan# 330
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:101 Resp: 65221

Ion	Ratio	Lower	Upper
101	100		
103	66.0	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

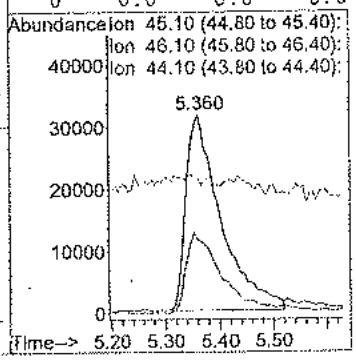


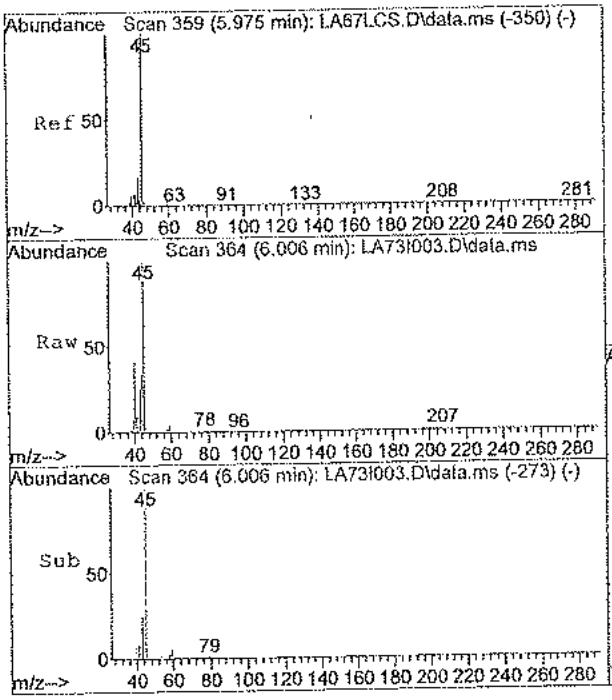


#13
Ethanol
Concen: 3.80 ppb
RT: 5.36 min Scan# 258
Delta R.T. 0.03 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:45.1 Resp: 141208

Ion	Ratio	Lower	Upper
45	100		
46	41.8	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

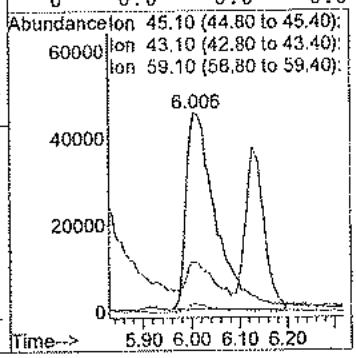


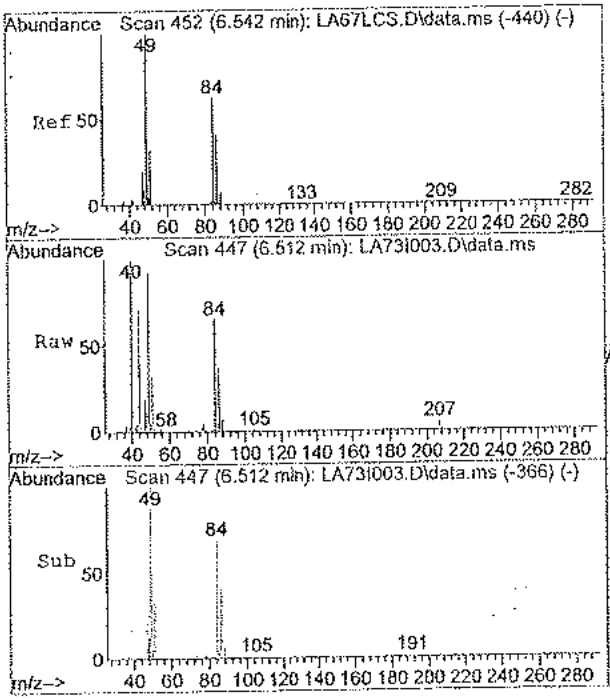


#14
Isopropyl Alcohol
Concen: 0.62 ppb
RT: 6.01 min Scan# 364
Delta R.T. 0.05 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:45.1 Resp: 194373

Ion	Ratio	Lower	Upper
45	100		
43	21.6	15.8	23.6
59	3.5	3.2	4.8
0	0.0	0.0	0.0

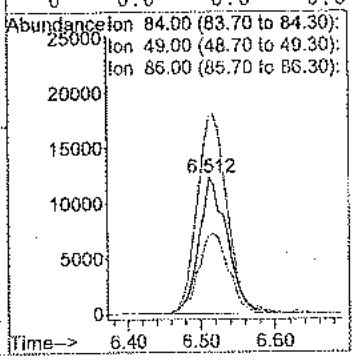


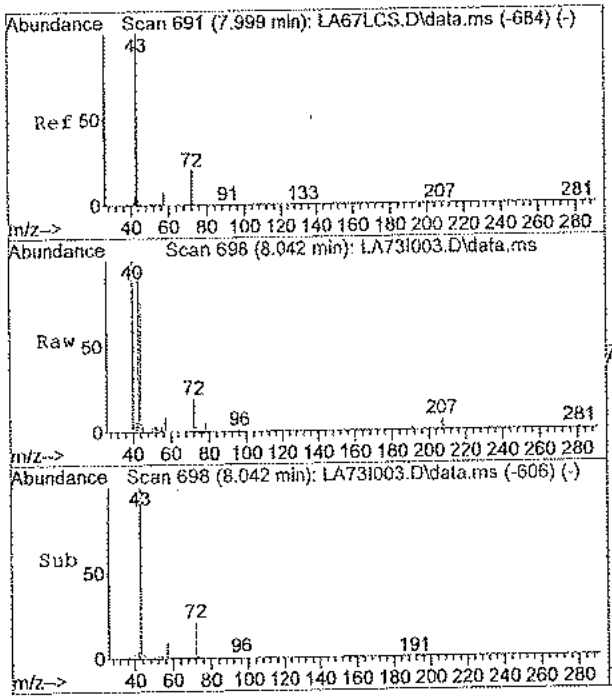


#16
Methylene Chloride
Concen: 0.34 ppb
RT: 6.51 min Scan# 447
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:84 Resp: 32401

Ion	Ratio	Lower	Upper
84	100		
49	156.2	66.6	100.0#
86	62.5	51.6	77.4
0	0.0	0.0	0.0

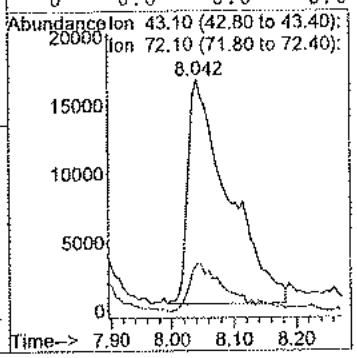


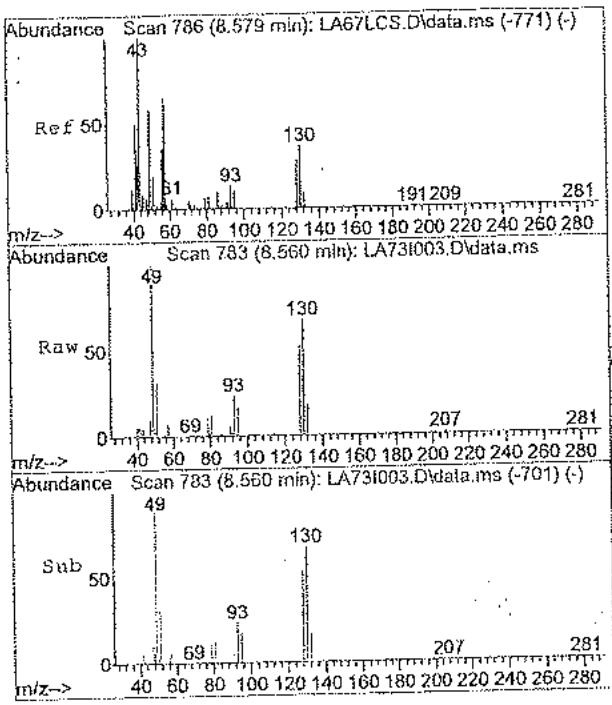


#23
2-Butanone
Concen: 0.31 ppb
RT: 8.04 min Scan# 698
Delta R.T. 0.06 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:43.1 Resp: 73258

Ion	Ratio	Lower	Upper
43	100		
72	17.8	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

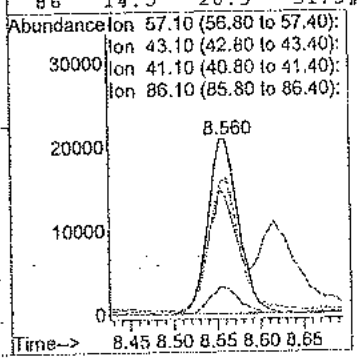


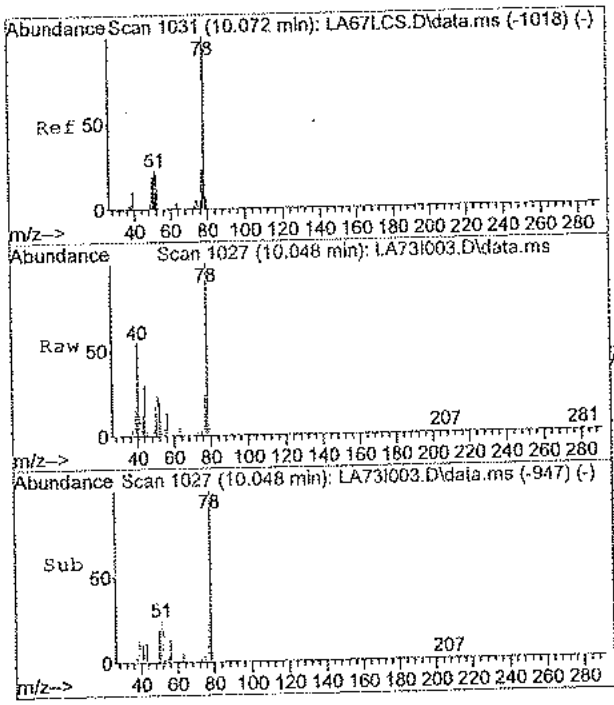


#27
Hexane
Concen: 0.28 ppb
RT: 8.56 min Scan# 783
Delta R.T. 0.00 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:57.1 Resp: 50631

Ion	Ratio	Lower	Upper
57	100		
43	65.7	57.3	85.9
41	76.2	47.0	70.4#
86	14.5	20.9	31.3#

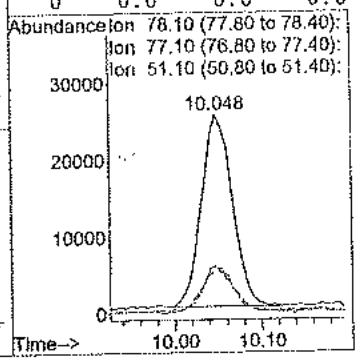


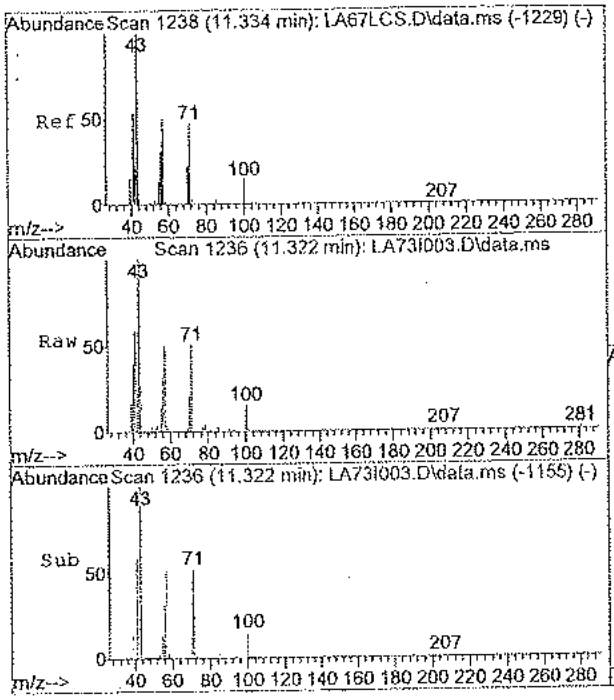


#32
Benzene
Concen: 0.19 ppb
RT: 10.05 min Scan# 1027
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:78.1 Resp: 60981

Ion	Ratio	Lower	Upper
78	100		
77	26.9	18.2	27.4
51	23.0	9.5	14.3#
0	0.0	0.0	0.0

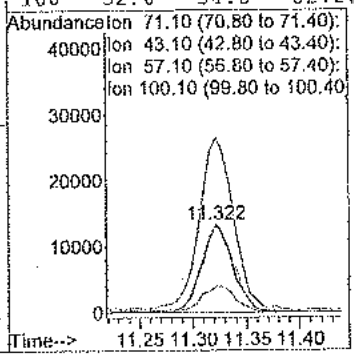


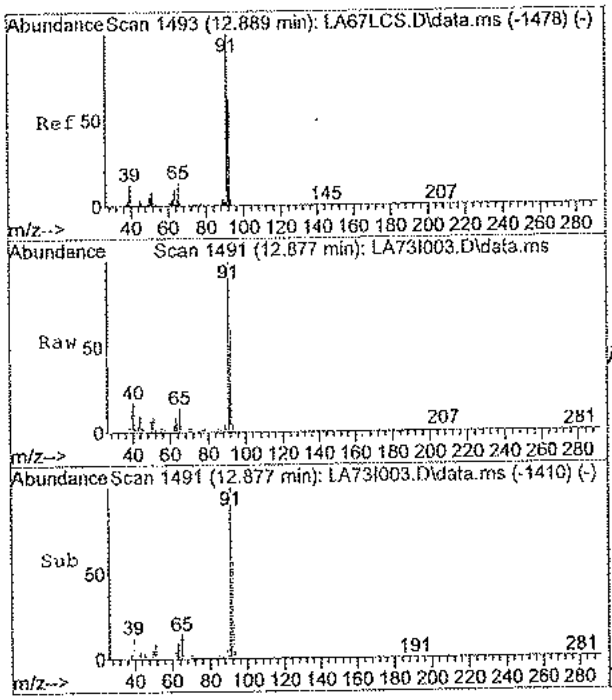


#40
Heptane
Concen: 0.24 ppb
RT: 11.32 min Scan# 1236
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:71.1 Resp: 26525

Ion	Ratio	Lower	Upper
71	100		
43	219.4	87.3	130.9#
57	103.1	57.8	86.6#
100	32.6	34.8	52.2#

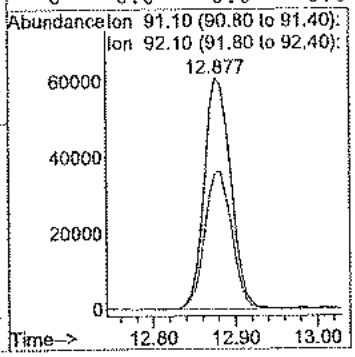


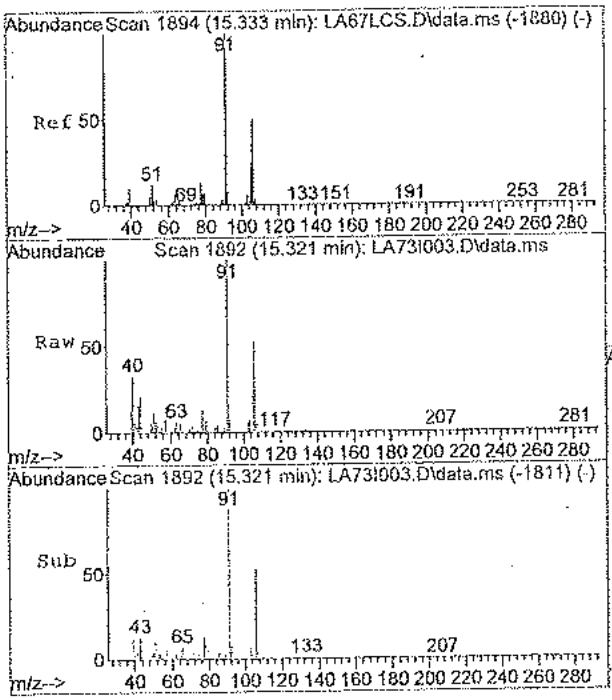


#45
Toluene
Concen: 0.34 ppb
RT: 12.88 min Scan# 1491
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:91.1 Resp: 134961

Ion	Ratio	Lower	Upper
91	100		
92	60.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

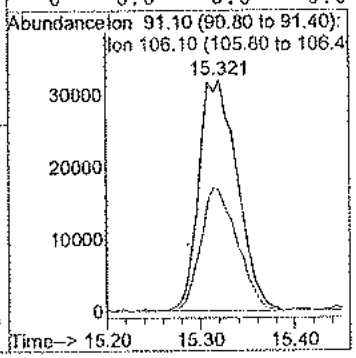




#53
m,p-Xylene
Concen: 0.23 ppb
RT: 15.32 min Scan# 1892
Delta R.T. -0.01 min
Lab File: LA73I003.D
Acq: 04/20/2015 15:35

Tgt Ion:91.1 Resp: 89978

Ion	Ratio	Lower	Upper
91	100		
106	50.9	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

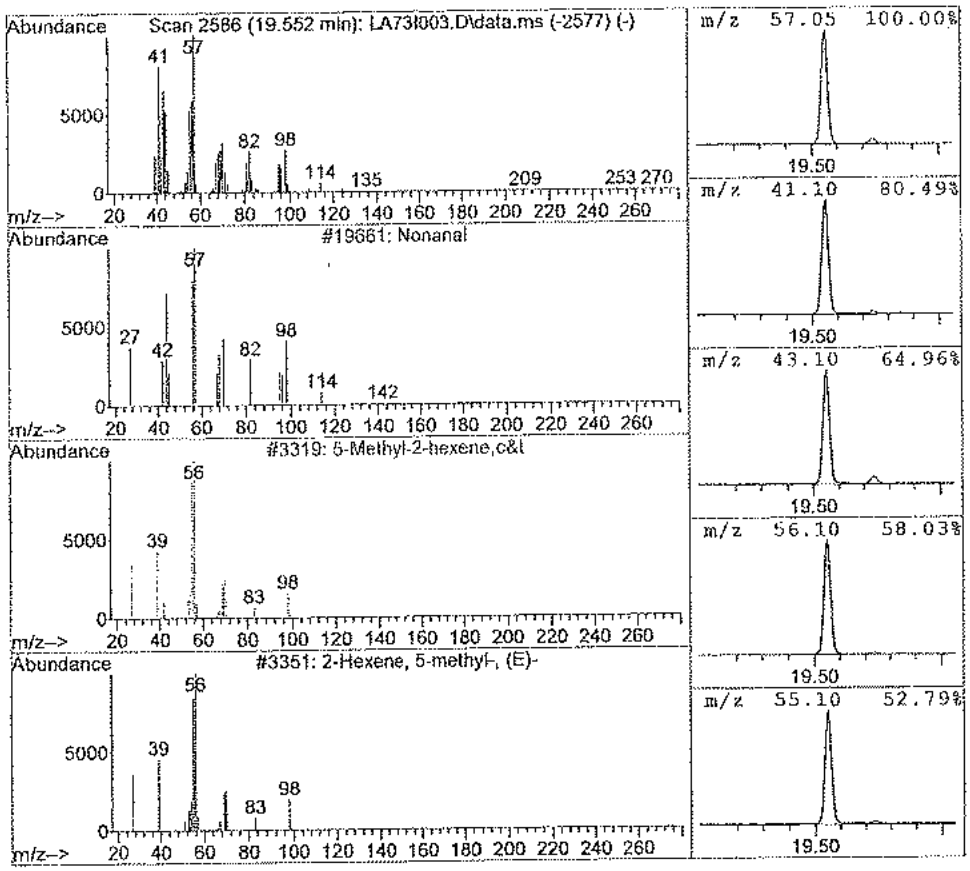
Data File : J:\L\2015\APR15L\20APR15L\LA73I003.D
Acq Time : 04/20/2015 15:35
Sample : 1510559003
Misc : 0284 TO-003-AAA
MS Integration Params: rteint.p

Vial: 4
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.55	3.10 ppb	2775420	Chlorobenzene d5	17897295

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonanal	19661	000124-19-6	91.00
2	5-Methyl-2-hexene,c&t	3319	003404-62-4	30.00
3	2-Hexene, 5-methyl-, (E)-	3351	007385-82-2	27.00
4	Cyclohexanol	3759	000108-93-0	27.00
5	(Z)-Hex-2-ene, 5-methyl-	3328	013151-17-2	27.00

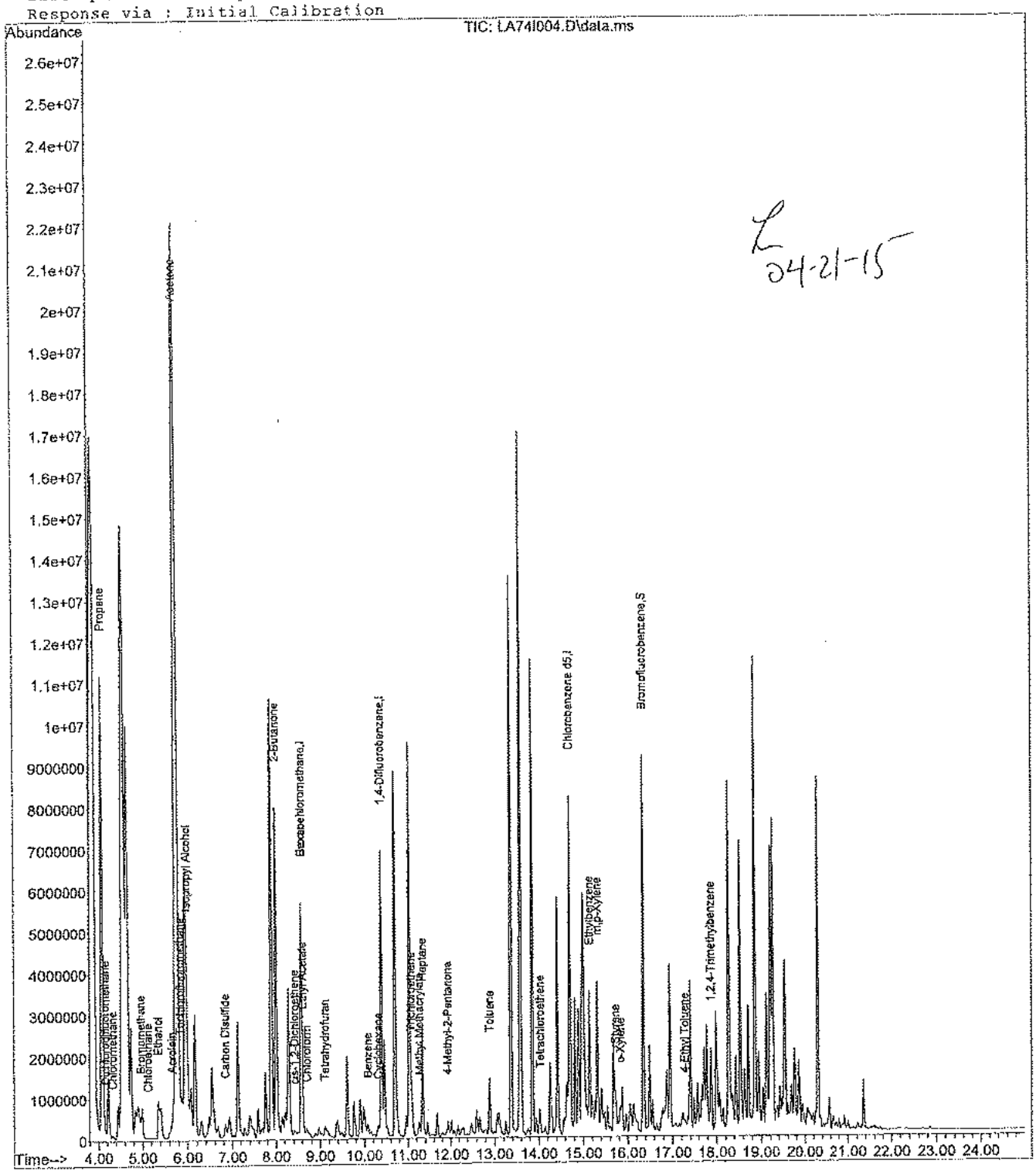


Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:16:41 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



4-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:16:41 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.58	130	578752	20.0000	ppb		119.16
25) 1,4-Difluorobenzene	10.39	114	6625282	20.0000	ppb		109.20
50) Chlorobenzene d5	14.71	117	5379707	20.0000	ppb		104.15
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4069025	18.9925	ppb		94.96%
Target Compounds							Qvalue
2) Propene	4.07	41	8296060	101.1596	ppb		94
3) Dichlorodifluoromethane	4.16	85	134719	0.4815	ppb		99
4) Chloromethane	4.32	50	83669	0.7003	ppb		98
5) Freon 114	0.00	135		Not Detected			
6) Vinyl Chloride	0.00	62		Not Detected			
7) 1,3-Butadiene	0.00	54		Not Detected			
8) Bromomethane	4.96	94	73653	0.8054	ppb		99
9) Chloroethane	5.13	64	15374	0.2672	ppb	#	81
10) Acrolein	5.66	56	541862	11.7034	ppb	#	85
11) Acetone	5.73	43	41544548	217.1206	ppb	m	0
12) Trichlorofluoromethane	5.84	101	107641	0.3566	ppb		98
13) Ethanol	5.35	45	1878659	49.1048	ppb	#	79
14) Isopropyl Alcohol	5.99	45	6044604	18.6187	ppb		97
15) 1,1-Dichloroethene	0.00	61		Not Detected			
16) Methylene Chloride	0.00	84		Not Detected			
17) Freon 113	0.00	151		Not Detected			
18) Carbon Disulfide	6.85	76	706333	2.3563	ppb	#	62
19) trans-1,2-Dichloroethene	0.00	96		Not Detected			
20) 1,1-Dichloroethane	0.00	63		Not Detected			
21) methyl t-butyl ether	0.00	73		Not Detected			
22) Vinyl Acetate	0.00	86		Not Detected			
23) 2-Butanone	7.99	43	14770182	60.7927	ppb	#	72
24) cis-1,2-Dichloroethene	8.43	96	82312	0.6958	ppb	#	65
26) Ethyl Acetate	8.62	61	25228	0.6504	ppb	#	1
27) Hexane	8.58	57	1579243	8.5198	ppb	#	82
28) Chloroform	8.69	83	49224	0.2146	ppb		99
29) Tetrahydrofuran	9.10	42	246124	1.8984	ppb	m	19
30) 1,2-Dichloroethane	0.00	62		Not Detected			
31) 1,1,1-Trichloroethane	0.00	97		Not Detected			
32) Benzene	10.08	78	273507	0.8370	ppb	#	90
33) Carbon Tetrachloride	0.00	117		Not Detected			
34) Cyclohexane	10.32	84	100371	0.6827	ppb	#	12
35) 1,2-Dichloropropane	0.00	63		Not Detected			
36) Bromodichloromethane	0.00	83		Not Detected			
37) 1,4-Dioxane	0.00	88		Not Detected			
38) Trichloroethene	11.08	130	454787	3.1944	ppb	#	87
39) Methyl Methacrylate	11.26	69	104916	0.9761	ppb	#	18
40) Heptane	11.33	71	669412	5.8902	ppb	#	37
41) cis-1,3-Dichloropropene	0.00	75		Not Detected			
42) 4-Methyl-2-Pentanone	11.93	43	293684	1.0859	ppb	#	73
43) trans-1,3-Dichloropropene	0.00	75		Not Detected			
44) 1,1,2-Trichloroethane	0.00	97		Not Detected			
45) Toluene	12.89	91	1184707	2.9868	ppb		98
46) 2-Hexanone	0.00	43		Not Detected			
47) Dibromochloromethane	0.00	129		Not Detected			
48) 1,2-Dibromoethane	0.00	107		Not Detected			
49) Tetrachloroethene	14.03	166	42195	0.2156	ppb	#	86

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0204 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:16:41 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	342850	0.6918 ppb	93
53) m,p-Xylene	15.31	91	664074	1.7382 ppb	92
54) Bromoform	0.00	173		Not Detected	
55) Styrene	15.72	104	218670	0.7849 ppb #	91
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.84	91	230910	0.5937 ppb	92
59) 4-Ethyl Toluene	17.27	105	89486	0.1717 ppb	95
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.88	105	202167	0.4507 ppb	92
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

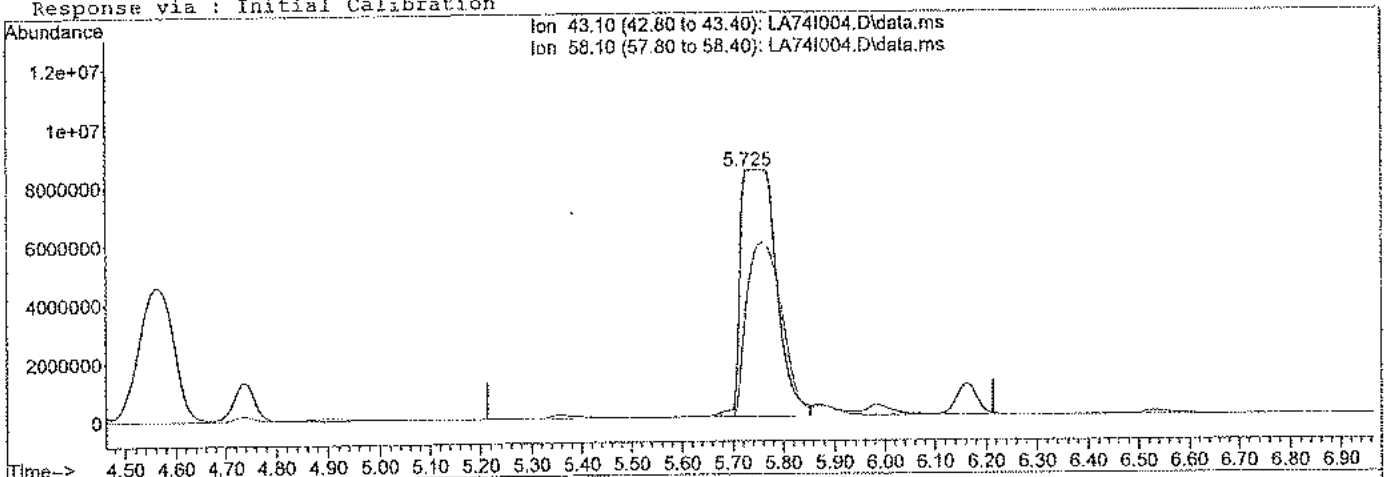
Quantitation Report (Qedit)

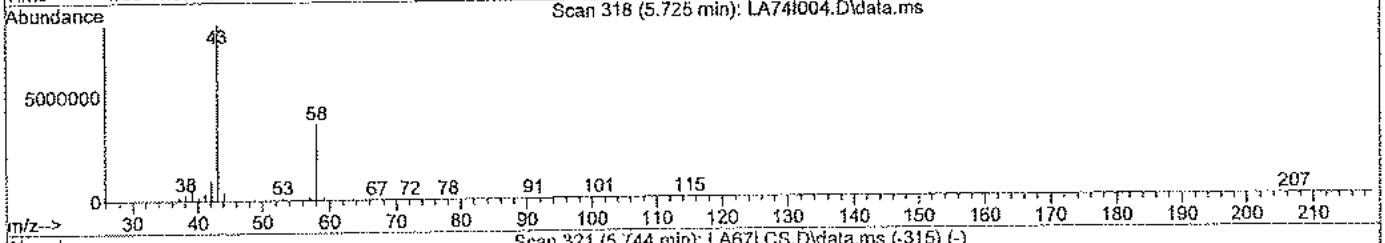
Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA74I004.D
Acq On : 04/20/2015 16:25
Operator : TJM
Sample : 1510559004
Inst : 5975-L
Misc : 0284 SG-001A-6'
ALS Vial : 5 Sample Multiplier: 1

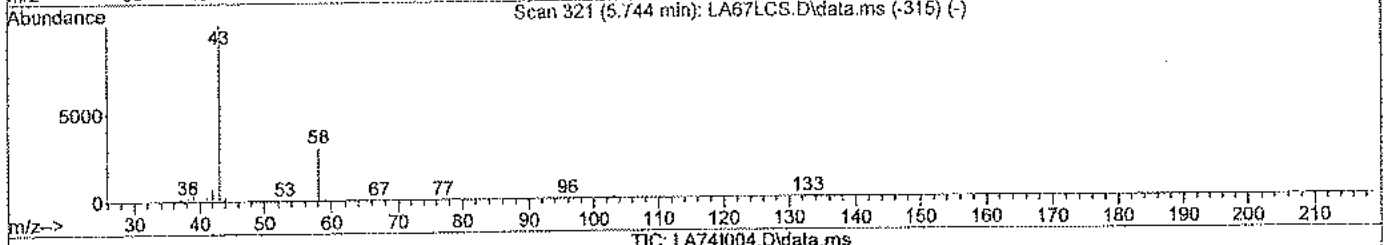
Quant Time: Apr 21 09:46:21 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials TJM *date* 04-21-15







TIC: LA74I004.D\data.ms

(11) Acetone

5.725min (+ 0.012) 217.12 ppb m

response 41544548

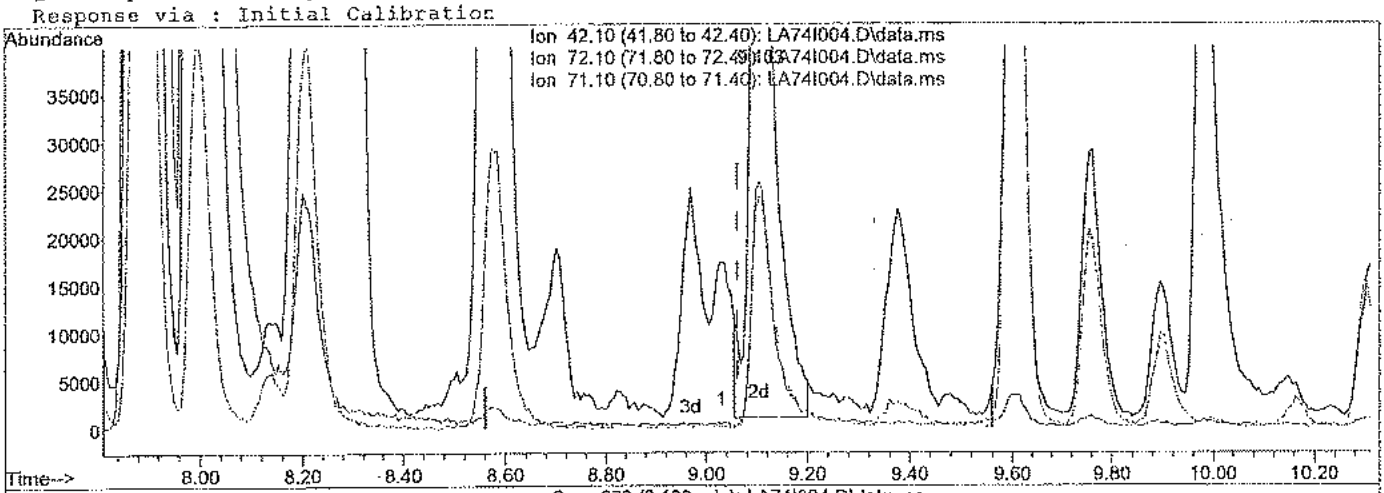
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

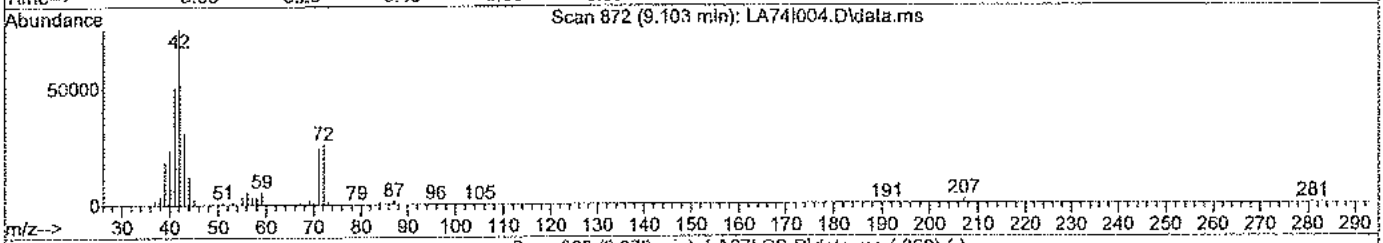
Quantitation Report (Qedit)

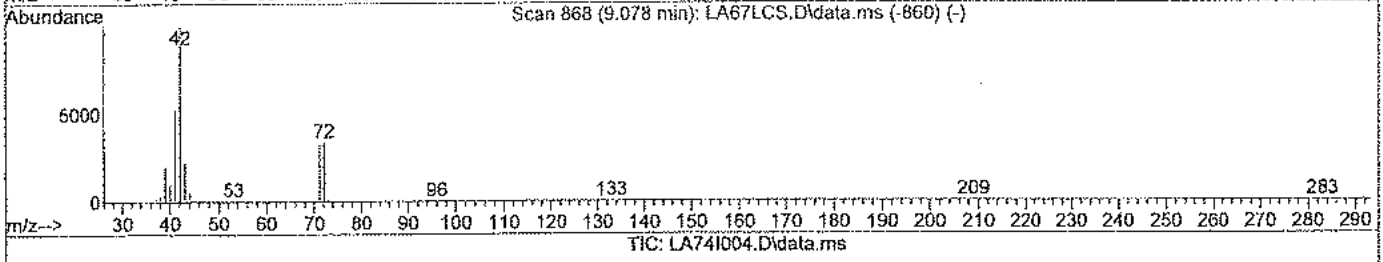
Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA74I004.D
Acq On : 04/20/2015 16:25
Operator : TJM
Sample : 1510559004
Inst : 5975-L
Misc : 0284 SG-001A-6`
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 21 09:46:21 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials TJ date 04-21-15







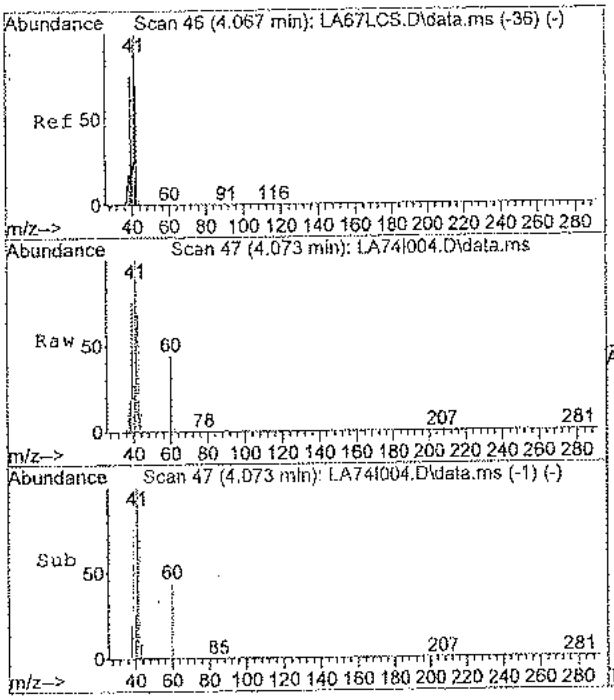
TIC: LA74I004.D\data.ms

(29) Tetrahydrofuran

9.103min (+ 0.043) 1.90 ppb m

response 246124

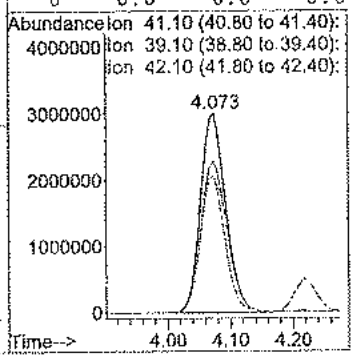
Ion	Exp%	Act%
42.10	100.00	100.00
72.10	64.40	0.00#
71.10	59.40	0.00#
0.00	0.00	0.00

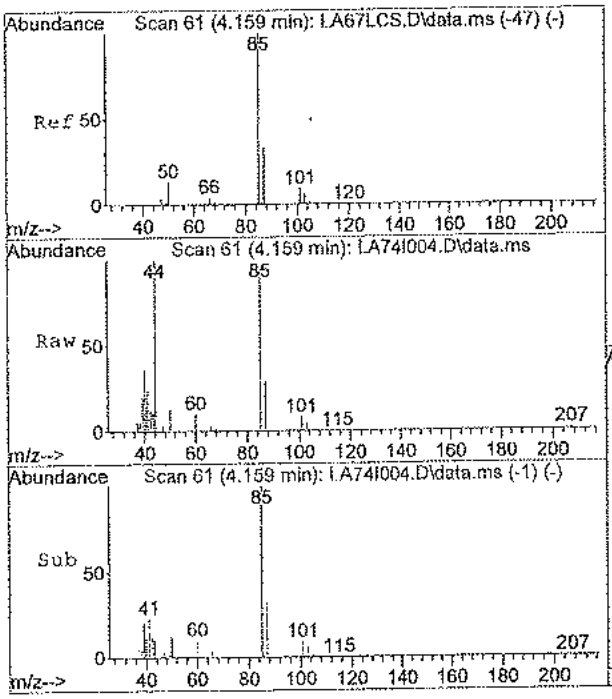


#2
Propene
Concen: 101.16 ppb
RT: 4.07 min Scan# 47
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:41.1 Resp: 8296060

Ion	Ratio	Lower	Upper
41	100		
39	79.0	56.2	84.4
42	66.2	53.8	80.6
0	0.0	0.0	0.0

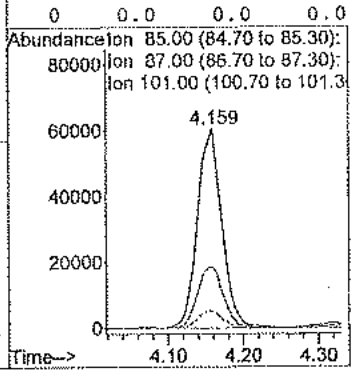


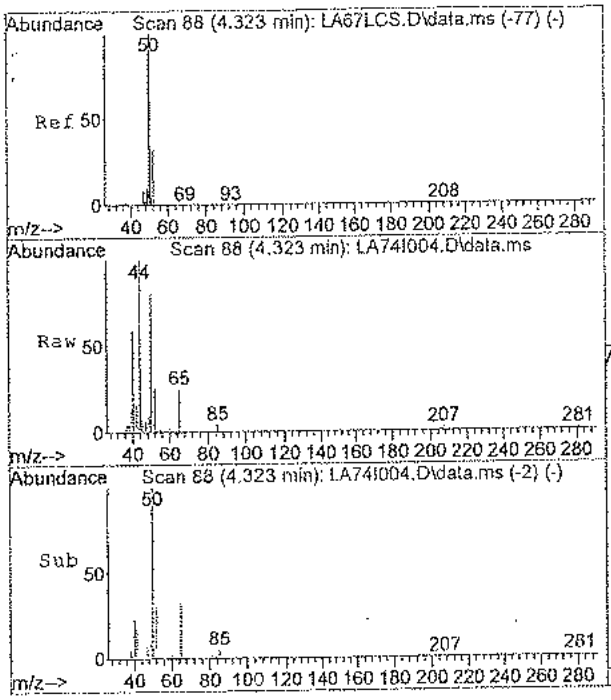


#3
Dichlorodifluoromethane
Concen: 0.48 ppb
RT: 4.16 min Scan# 61
Delta R.T. 0.03 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:85 Resp: 134719

Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.1	39.1
101	8.8	8.0	12.0
0	0.0	0.0	0.0

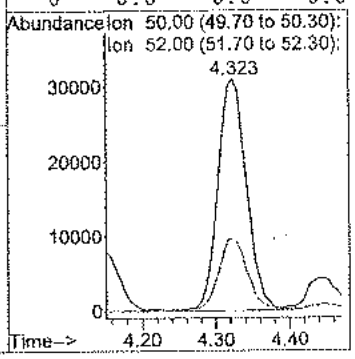


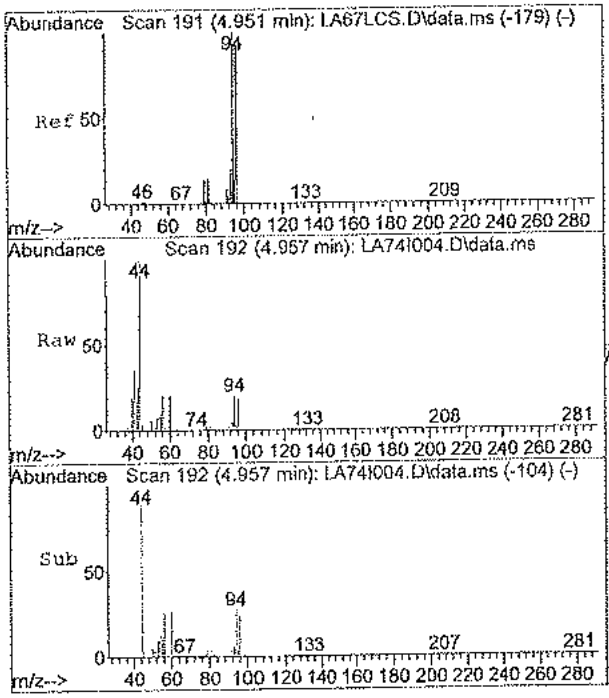


#4
Chloromethane
Concen: 0.70 ppb
RT: 4.32 min Scan# 88
Delta R.T. 0.02 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:50 Resp: 83669

Ion	Ratio	Lower	Upper
50	100		
52	31.9	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

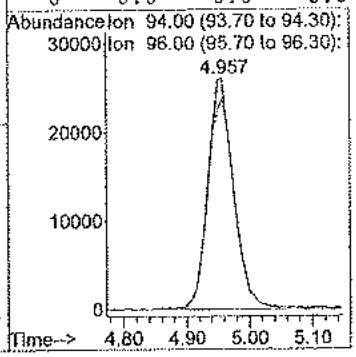


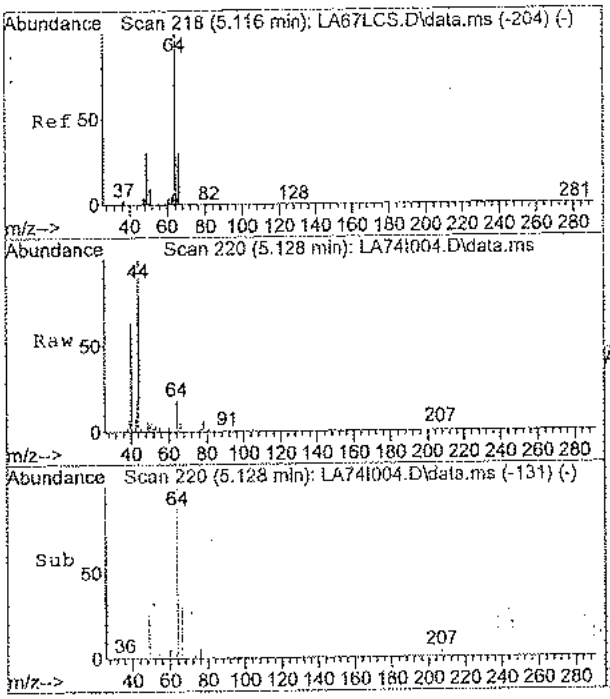


#8
Bromomethane
Concen: 0.81 ppb
RT: 4.96 min Scan# 192
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:94 Resp: 73653

Ion	Ratio	Lower	Upper
94	100		
96	94.2	76.1	114.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

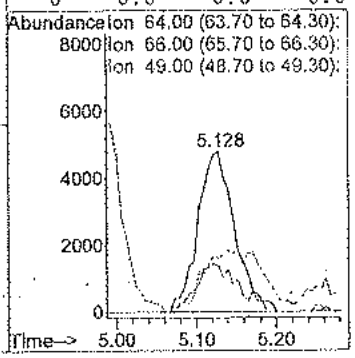


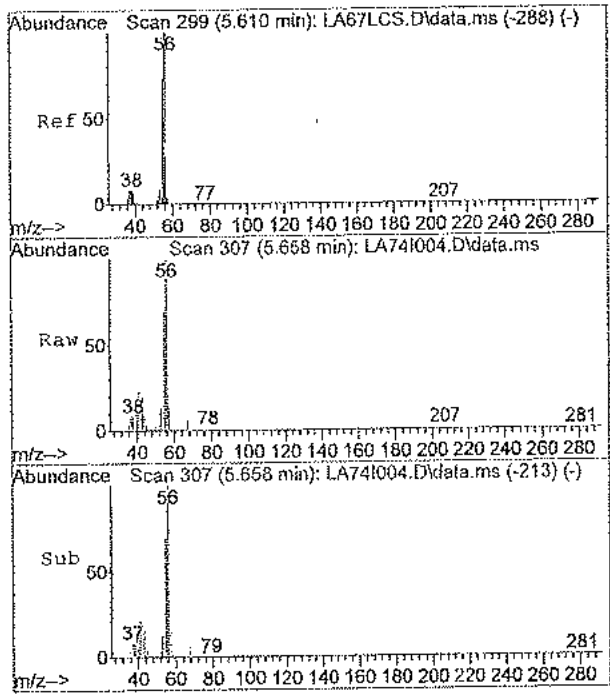


#9
Chloroethane
Concen: 0.27 ppb
RT: 5.13 min Scan# 220
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:64 Resp: 15374

Ion	Ratio	Lower	Upper
64	100		
66	30.5	26.3	39.5
49	0.0	15.8	23.8#
0	0.0	0.0	0.0

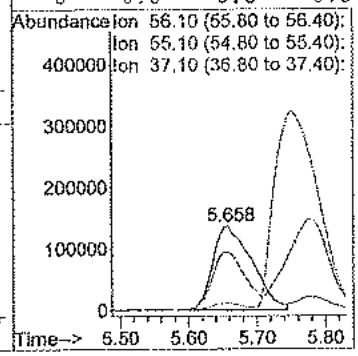


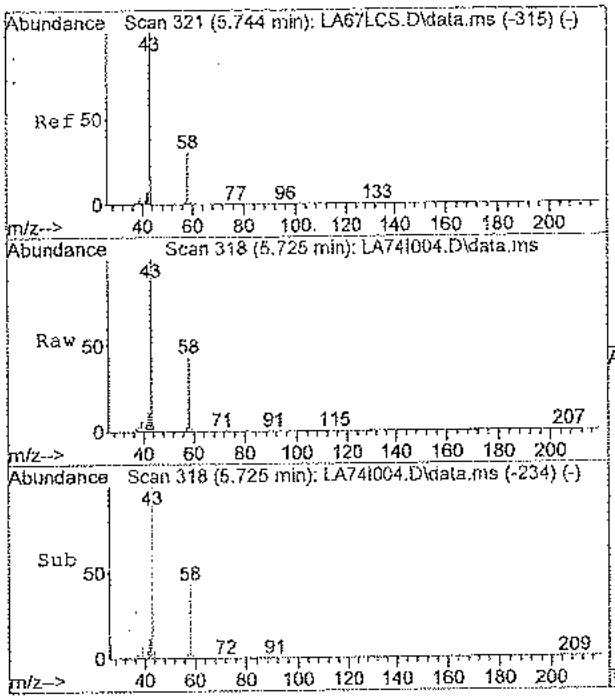


#10
Acrolein
Concen: 11.70 ppb
RT: 5.66 min Scan# 307
Delta R.T. 0.07 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:56.1 Resp: 541862

Ion	Ratio	Lower	Upper
56	100		
55	58.5	55.1	82.7
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

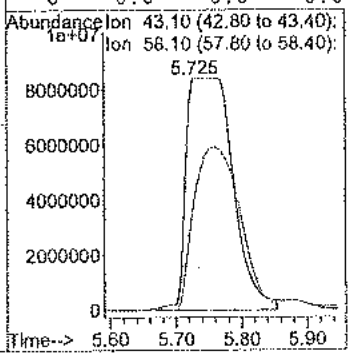


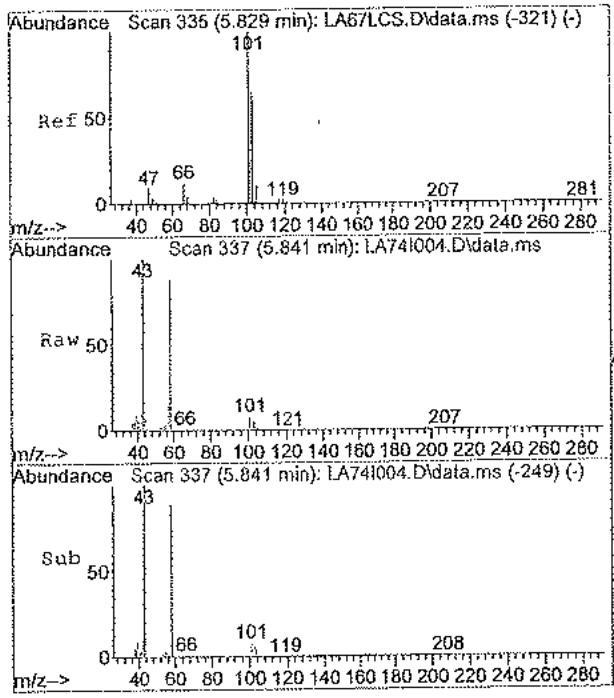


#11
Acetone
Concen: 217.12 ppb m
RT: 5.73 min Scan# 318
Delta R.T. 0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:43.1 Resp:41544548

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

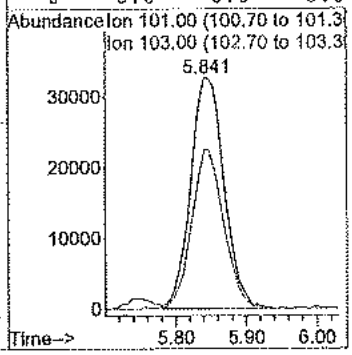


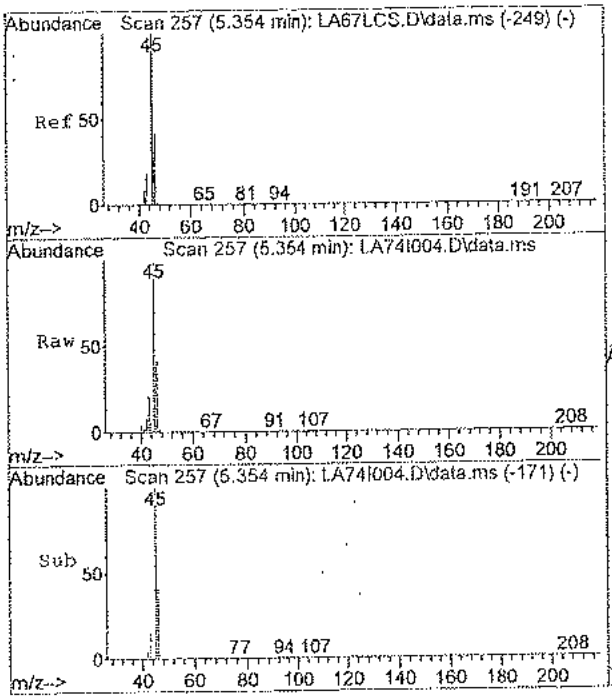


#12
Trichlorofluoromethane
Concen: 0.36 ppb
RT: 5.84 min Scan# 337
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:101 Resp: 107641

Ion	Ratio	Lower	Upper
101	100		
103	65.9	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

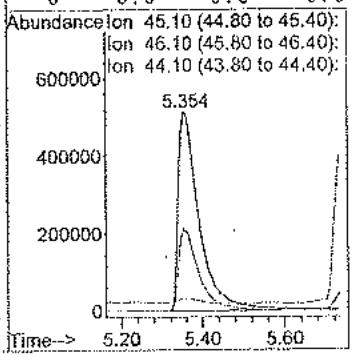


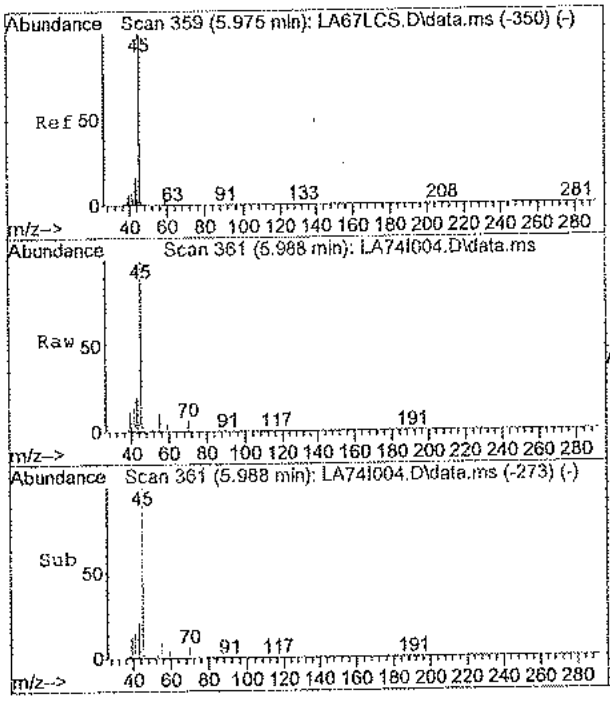


#13
Ethanol
Concen: 49.10 ppb
RT: 5.35 min Scan# 257
Delta R.T. 0.02 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:45.1 Resp: 1878659

Ion	Ratio	Lower	Upper
45	100		
46	40.0	32.4	48.6
44	2.6	23.4	35.2#
0	0.0	0.0	0.0

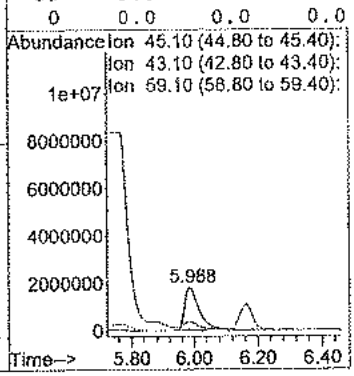


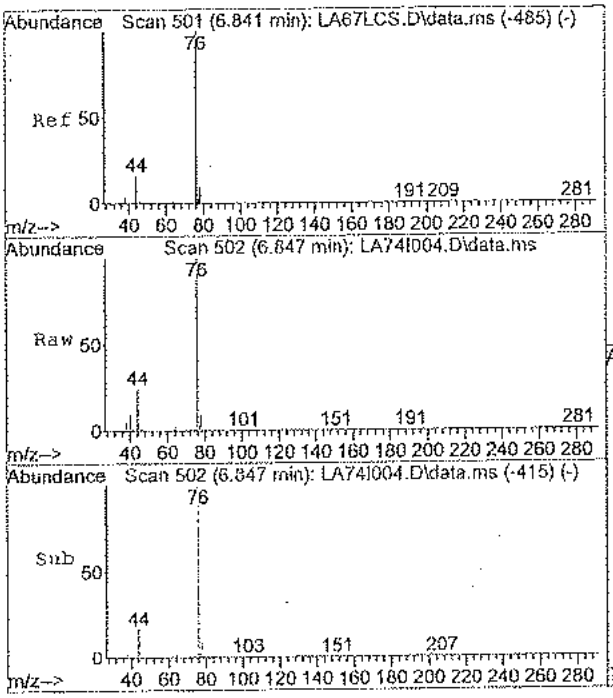


#14
Isopropyl Alcohol
Concen: 18.62 ppb
RT: 5.99 min Scan# 361
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:45.1 Resp: 6044604

Ion	Ratio	Lower	Upper
45	100		
43	18.2	15.8	23.6
59	3.5	3.2	4.8
0	0.0	0.0	0.0

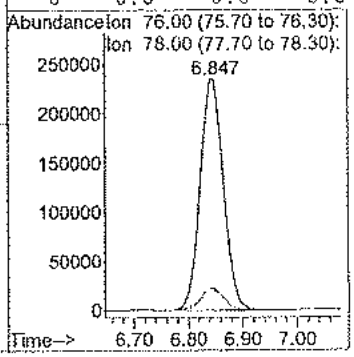


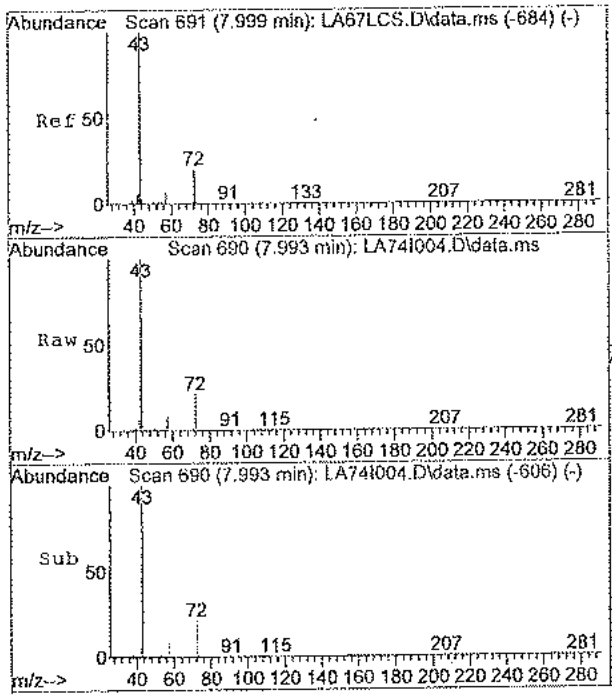


#18
Carbon Disulfide
Concen: 2.36 ppb
RT: 6.85 min Scan# 502
Delta R.T. 0.03 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:76 Resp: 706333

Ion	Ratio	Lower	Upper
76	100		
78	9.4	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

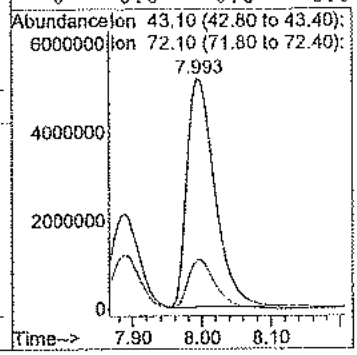


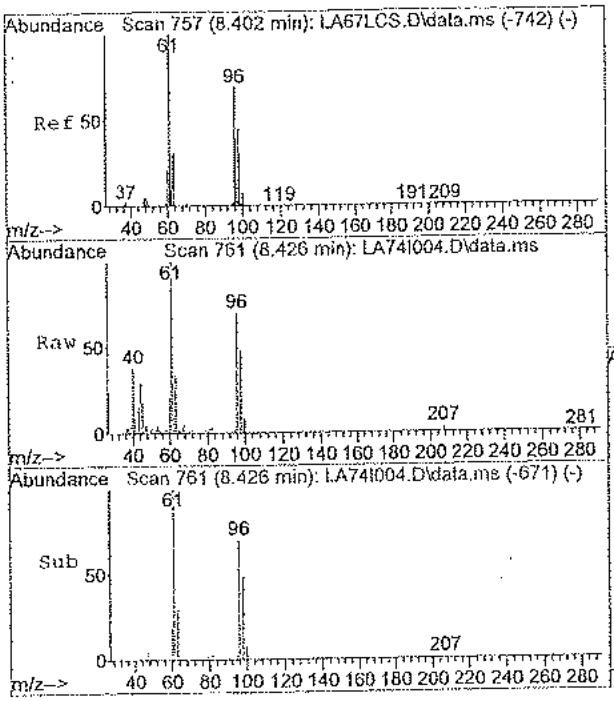


#23
2-Butanone
Concen: 60.79 ppb
RT: 7.99 min Scan# 690
Delta R.T. 0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:43.1 Resp:14770182

Ion	Ratio	Lower	Upper
43	100		
72	23.5	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

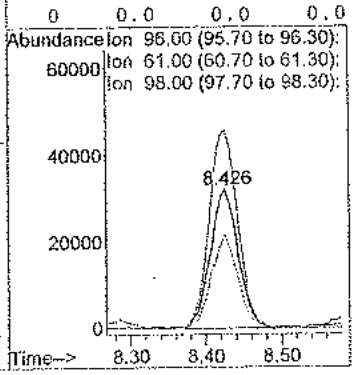


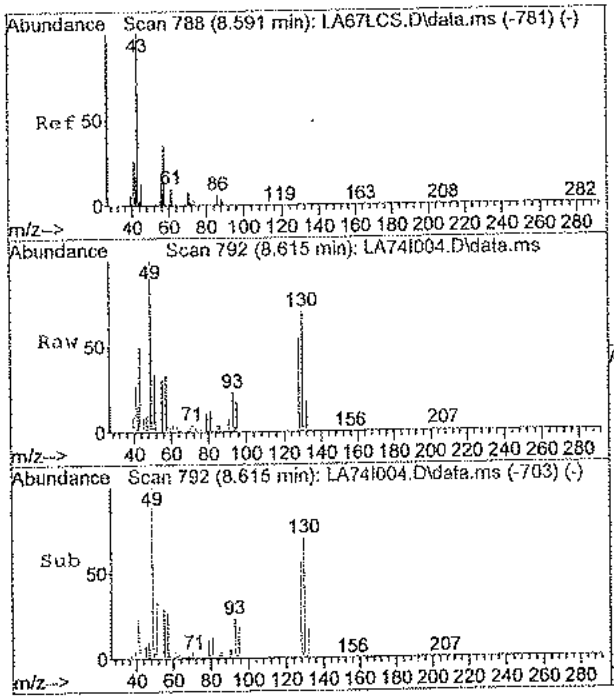


#24
cis-1,2-Dichloroethene
Concen: 0.70 ppb
RT: 8.43 min Scan# 761
Delta R.T. 0.05 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:96 Resp: 82312

Ion	Ratio	Lower	Upper
96	100		
61	145.2	72.6	108.8#
98	62.8	51.9	77.9
0	0.0	0.0	0.0

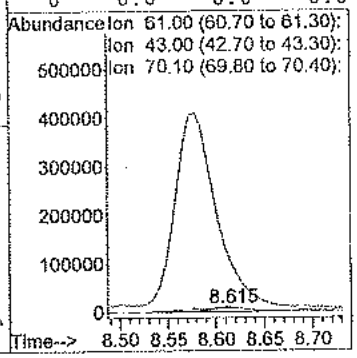


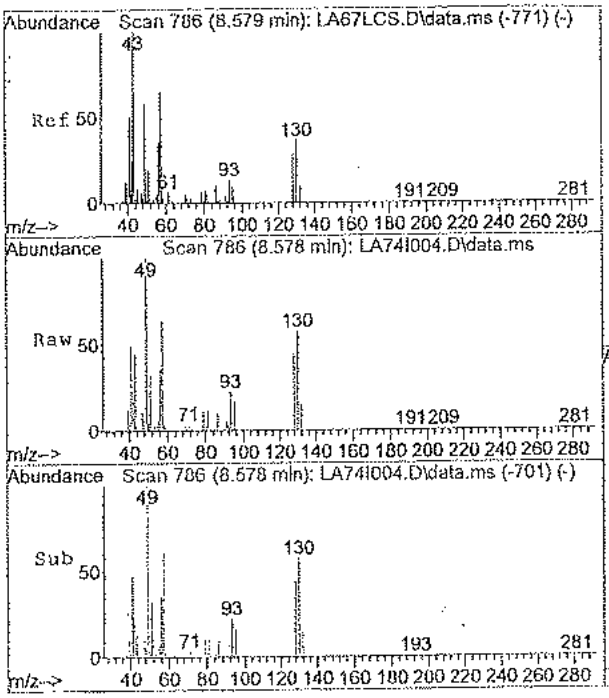


#26
Ethyl Acetate
Concen: 0.65 ppb
RT: 8.62 min Scan# 792
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:61 Resp: 25228

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	138.7	13.6	20.4#
0	0.0	0.0	0.0

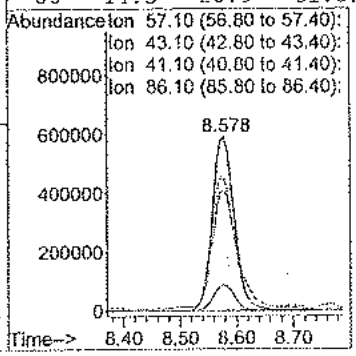


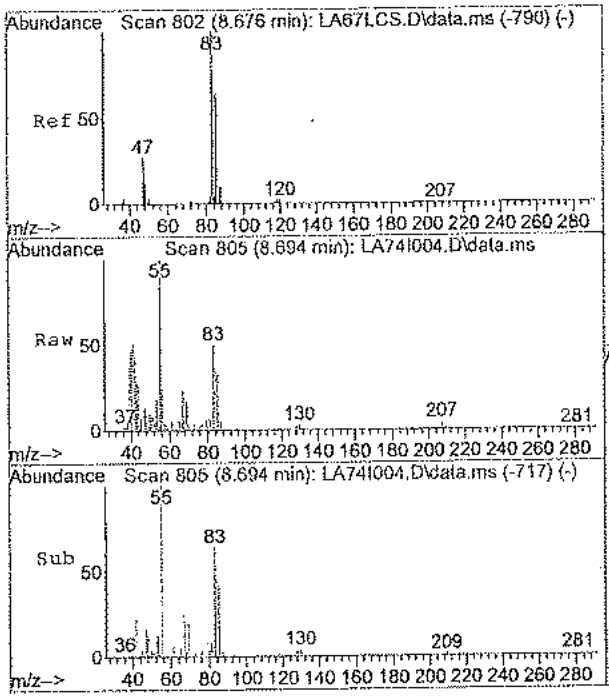


#27
Hexane
Concen: 8.52 ppb
RT: 8.58 min Scan# 786
Delta R.T. 0.02 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:57.1 Resp: 1579243

Ion	Ratio	Lower	Upper
57	100		
43	79.0	57.3	85.9
41	79.8	47.0	70.4#
86	14.5	20.9	31.3#

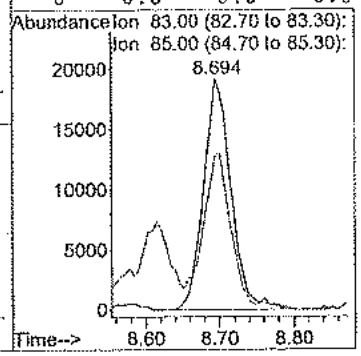


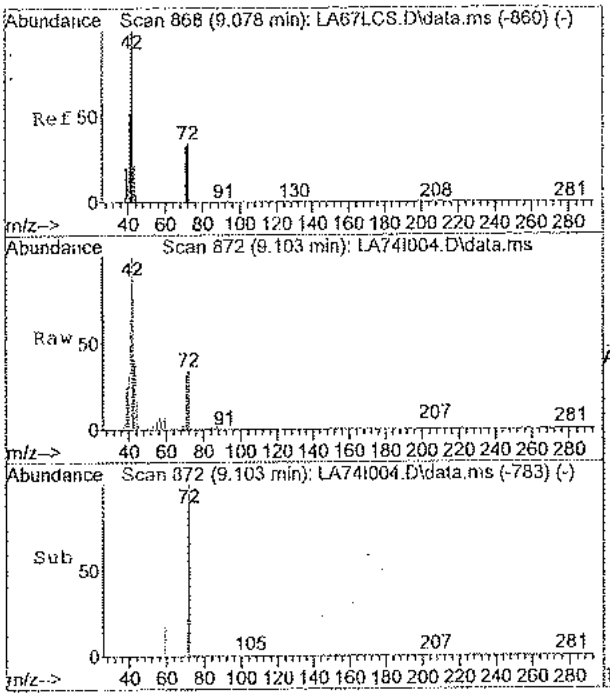


#28
Chloroform
Concen: 0.21 ppb
RT: 8.69 min Scan# 805
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:83 Resp: 49224

Ion	Ratio	Lower	Upper
83	100		
85	64.3	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

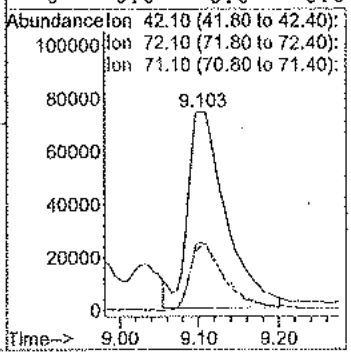


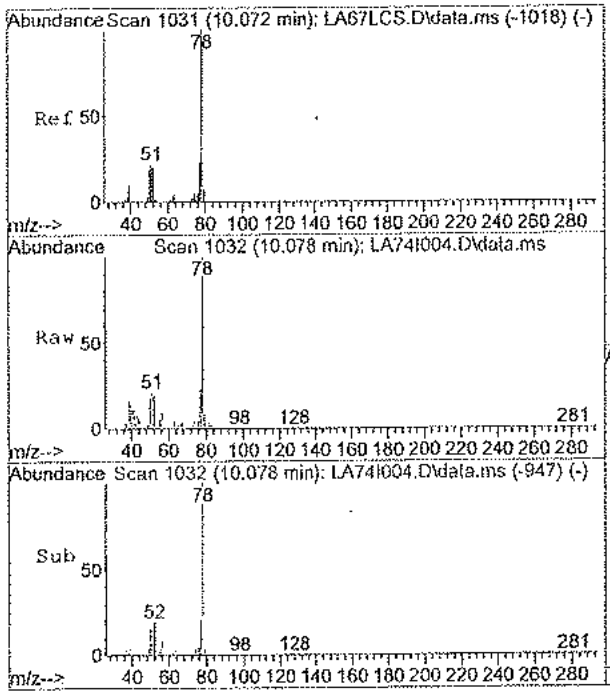


#29
Tetrahydrofuran
Concen: 1.90 ppb m
RT: 9.10 min Scan# 872
Delta R.T. 0.04 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:42.1 Resp: 246124

Ion	Ratio	Lower	Upper
42	100		
72	0.0	51.5	77.3#
71	0.0	47.5	71.3#
0	0.0	0.0	0.0

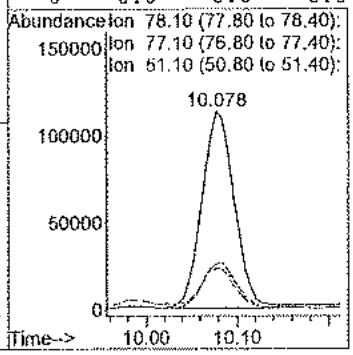


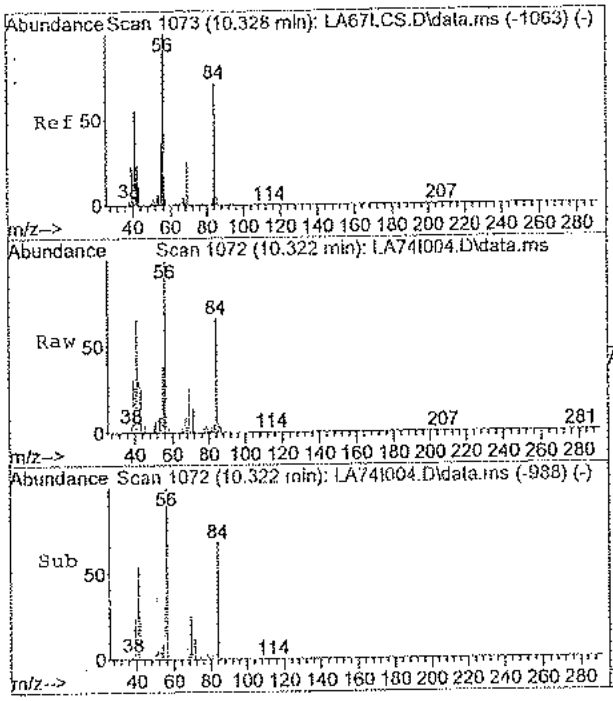


#32
Benzene
Concen: 0.84 ppb
RT: 10.08 min Scan# 1032
Delta R.T. 0.02 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:78.1 Resp: 273507

Ion	Ratio	Lower	Upper
78	100		
77	24.4	18.2	27.4
51	20.8	9.5	14.3#
0	0.0	0.0	0.0

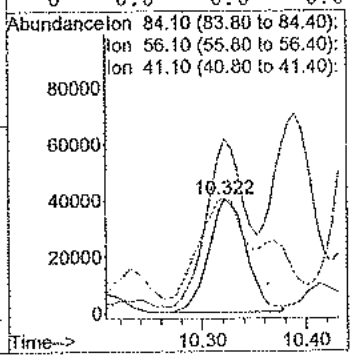


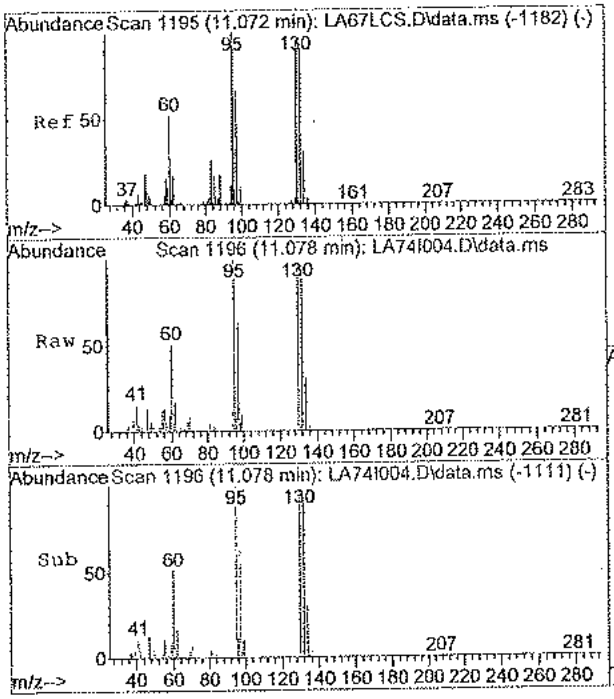


#34
Cyclohexane
Concen: 0.68 ppb
RT: 10.32 min Scan# 1072
Delta R.T. 0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:84.1 Resp: 100371

Ion	Ratio	Lower	Upper
84	100		
56	153.3	67.3	100.9#
41	106.3	30.2	45.4#
0	0.0	0.0	0.0

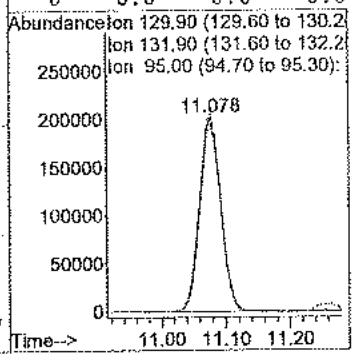


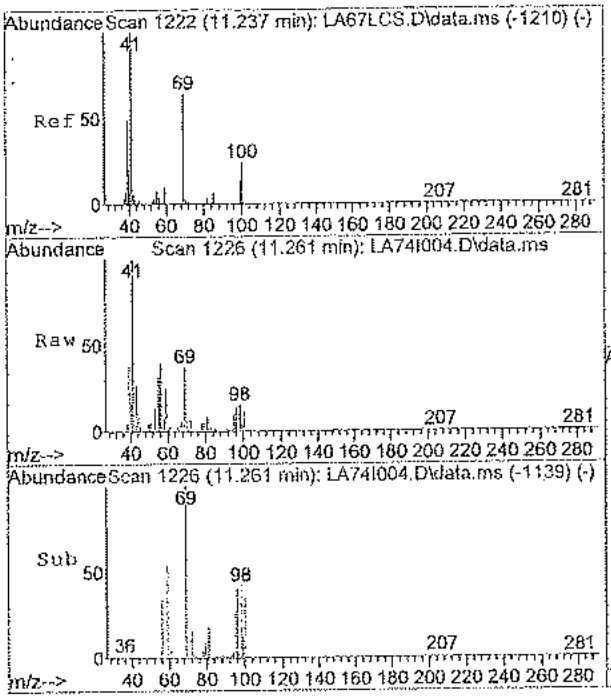


#38
Trichloroethene
Concen: 3.19 ppb
RT: 11.08 min Scan# 1196
Delta R.T. 0.02 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:129.9 Resp: 454787

Ion	Ratio	Lower	Upper
130	100		
132	96.1	77.1	115.7
95	103.0	61.7	92.5#
0	0.0	0.0	0.0

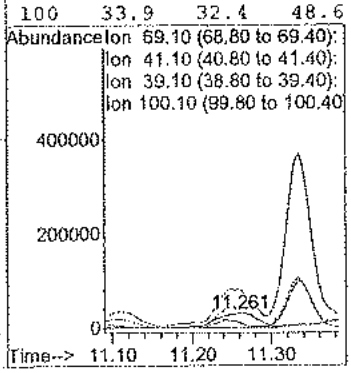


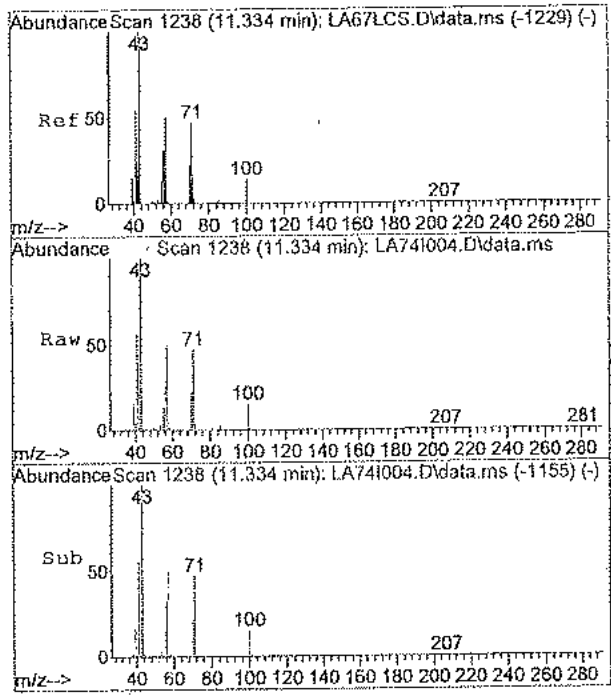


#39
Methyl Methacrylate
Concen: 0.98 ppb
RT: 11.26 min Scan# 1226
Delta R.T. 0.03 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:69.1 Resp: 104916

Ion	Ratio	Lower	Upper
69	100		
41	251.5	91.3	136.9#
39	106.5	54.3	81.5#
100	33.9	32.4	48.6

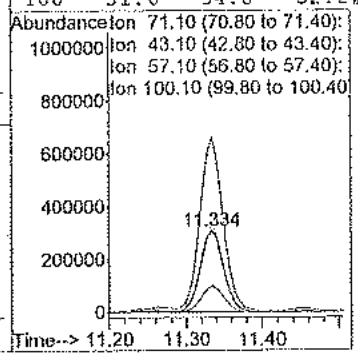


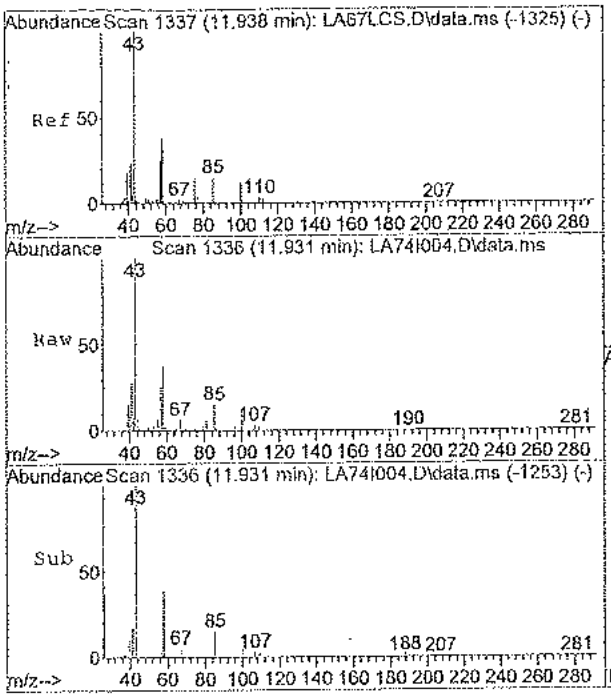


#40
Heptane
Concen: 5.89 ppb
RT: 11.33 min Scan# 1238
Delta R.T. 0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:71.1 Resp: 669412

Ion	Ratio	Lower	Upper
71	100		
43	211.8	87.3	130.9#
57	104.5	57.8	86.6#
100	31.6	34.8	52.2#

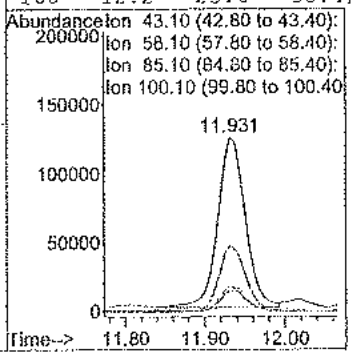


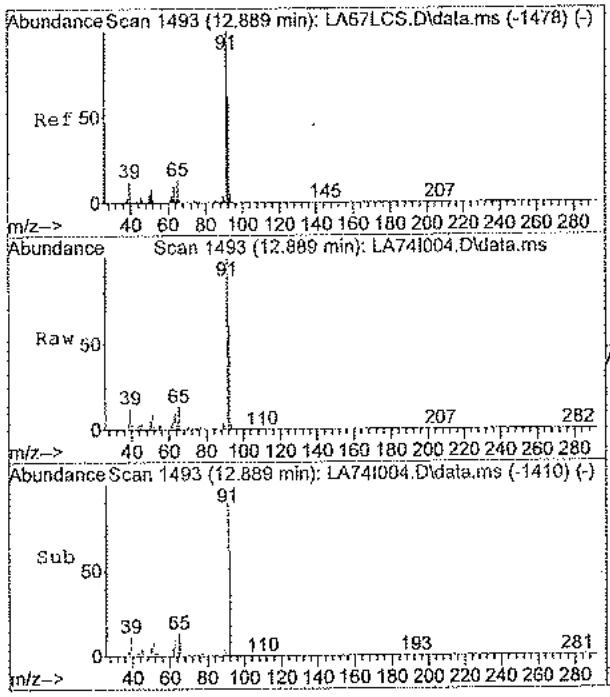


#42
4-Methyl-2-Pentanone
Concen: 1.09 ppb
RT: 11.93 min Scan# 1336
Delta R.T. 0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:43.1 Resp: 293684

Ion	Ratio	Lower	Upper
43	100		
58	36.1	39.5	59.3#
85	14.9	25.1	37.7#
100	12.2	25.6	38.4#

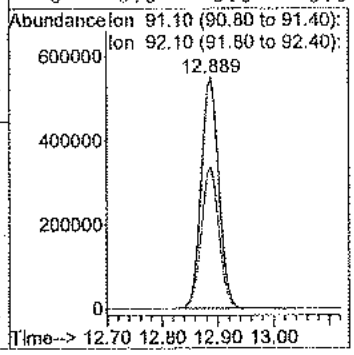


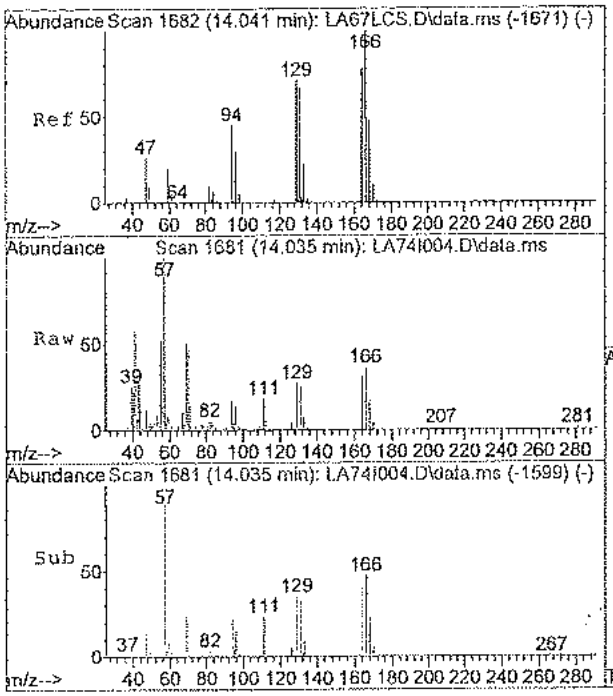


#45
Toluene
Concen: 2.99 ppb
RT: 12.89 min Scan# 1493
Delta R.T. 0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:91.1 Resp: 1184707

Ion	Ratio	Lower	Upper
91	100		
92	61.4	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

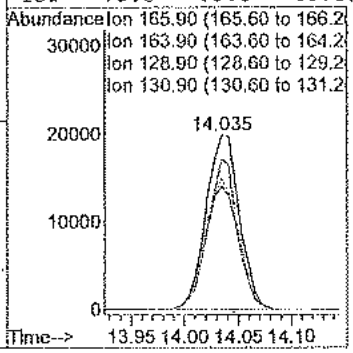


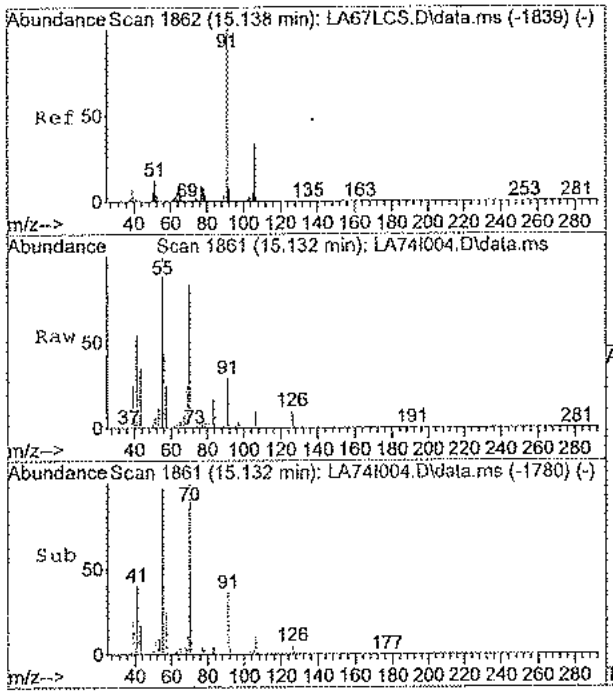


#49
Tetrachloroethene
Concen: 0.22 ppb
RT: 14.03 min Scan# 1681
Delta R.T. -0.00 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:165.9 Resp: 42195

Ion	Ratio	Lower	Upper
166	100		
164	80.3	61.0	91.4
129	74.1	45.9	68.9#
131	70.5	45.5	68.3#

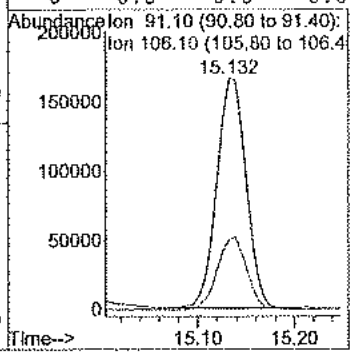


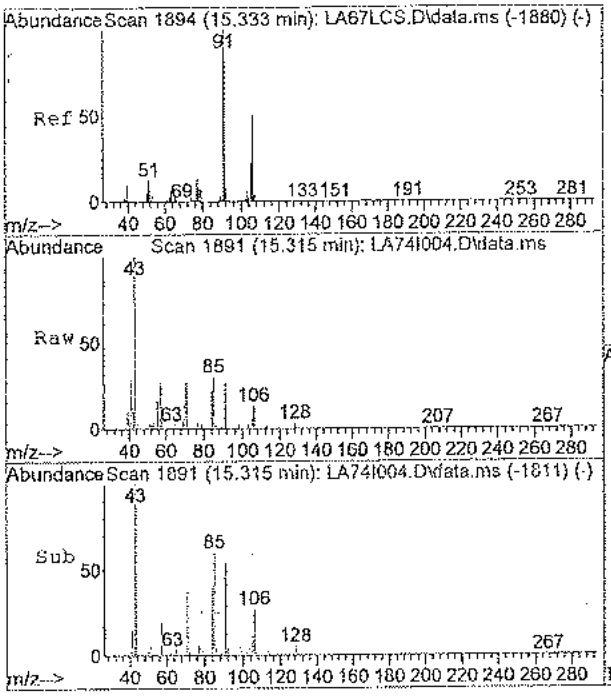


#52
Ethylbenzene
Concen: 0.69 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:91.1 Resp: 342850

Ion	Ratio	Lower	Upper
91	100		
106	31.3	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

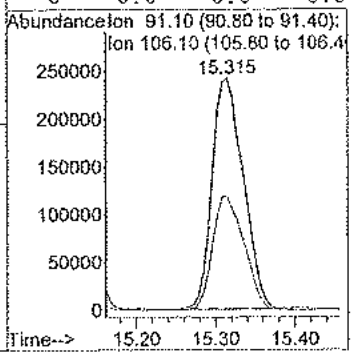


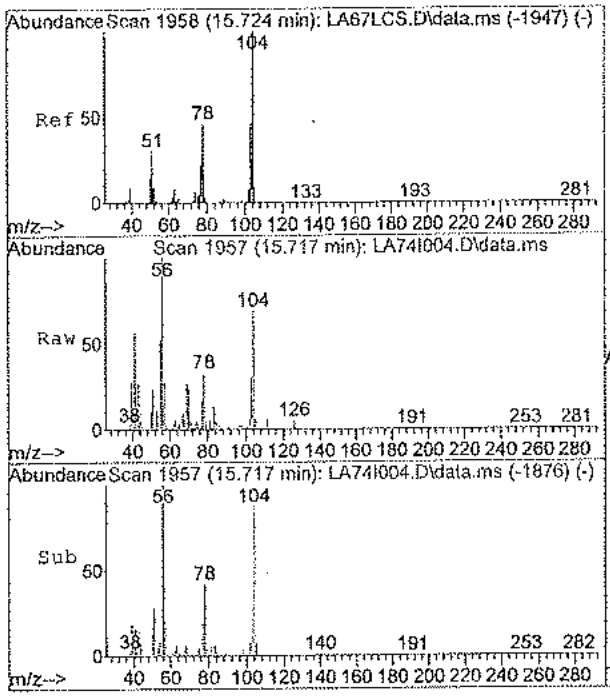


#53
m,p-Xylene
Concen: 1.74 ppb
RT: 15.31 min Scan# 1891
Delta R.T. -0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:91.1 Resp: 664074

Ion	Ratio	Lower	Upper
91	100		
106	49.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

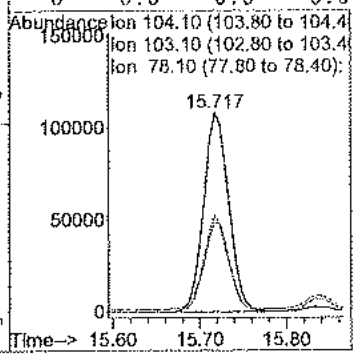


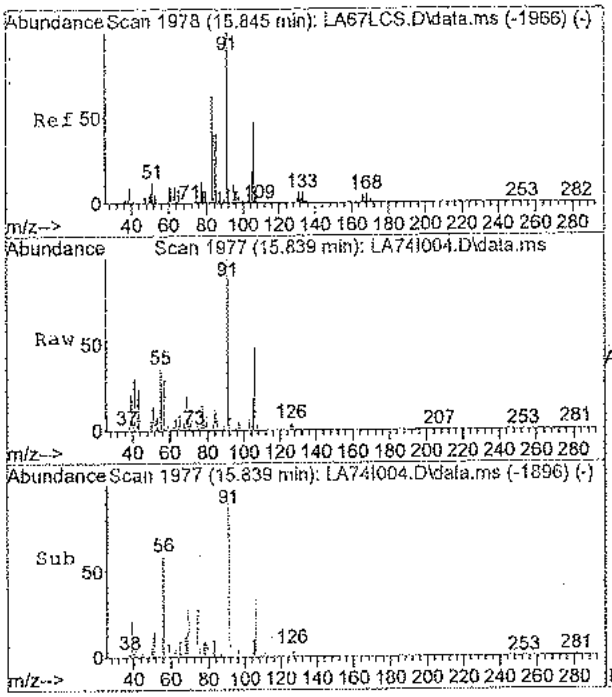


#55
Styrene
Concen: 0.78 ppb
RT: 15.72 min Scan# 1957
Delta R.T. -0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:104.1 Resp: 218670

Ion	Ratio	Lower	Upper
104	100		
103	45.6	36.6	54.8
78	47.1	27.7	41.5#
0	0.0	0.0	0.0

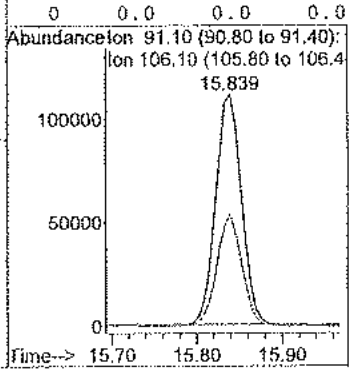


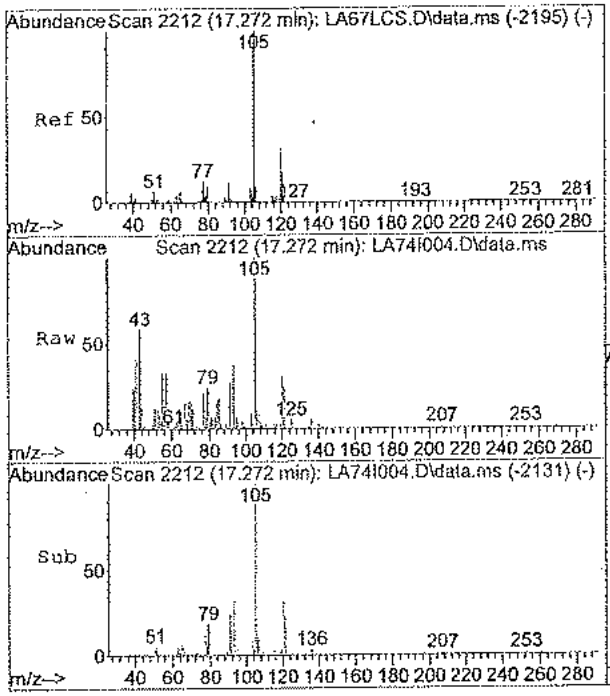


#57
o-Xylene
Concen: 0.59 ppb
RT: 15.84 min Scan# 1977
Delta R.T. -0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:91.1 Resp: 230910

Ion	Ratio	Lower	Upper
91	100		
106	46.7	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

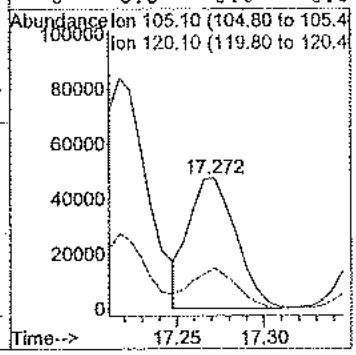


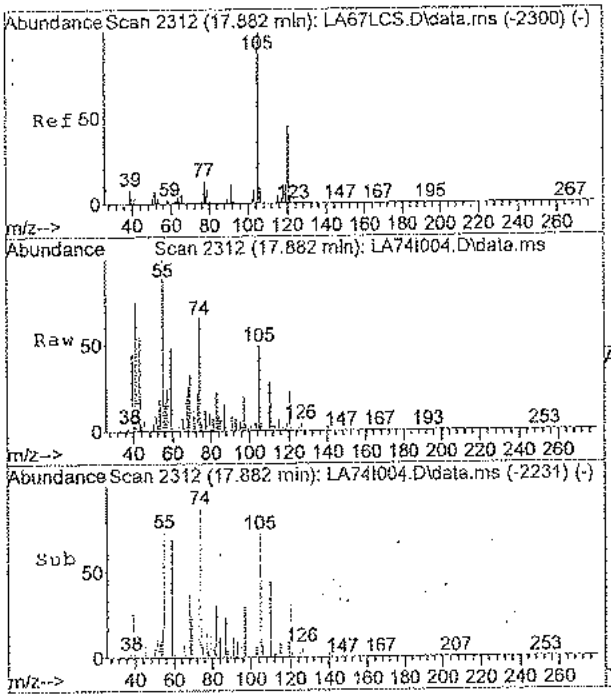


#59
4-Ethyl Toluene
Concen: 0.17 ppb
RT: 17.27 min Scan# 2212
Delta R.T. -0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:105.1 Resp: 89486

Ion	Ratio	Lower	Upper
105	100		
120	29.9	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

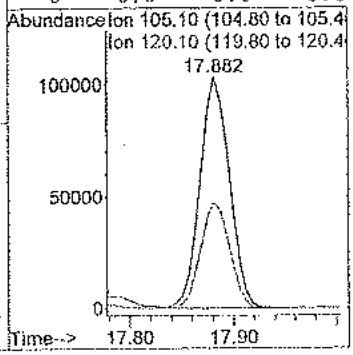




#61
1,2,4-Trimethylbenzene
Concen: 0.45 ppb
RT: 17.98 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA74I004.D
Acq: 04/20/2015 16:25

Tgt Ion:105.1 Resp: 202167

Ion	Ratio	Lower	Upper
105	100		
120	45.6	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



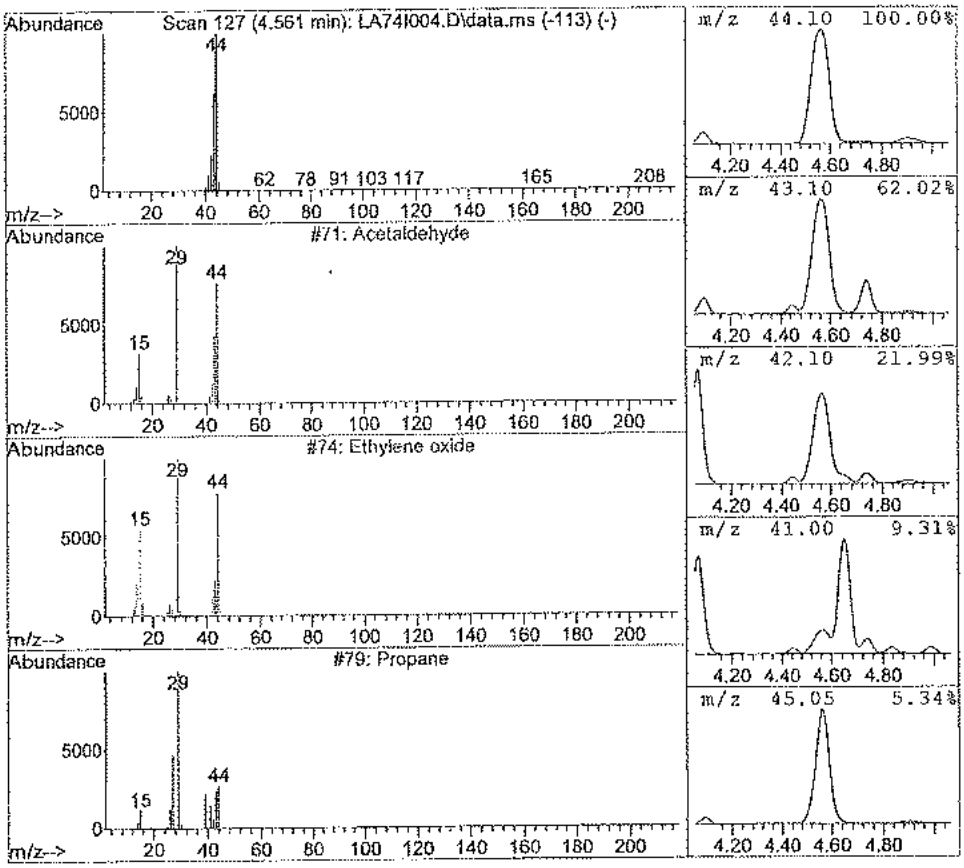
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6' Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.56	88.36 ppb	69138257	Bromochloromethane	15649172

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	71	000075-07-0	64.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	79	000074-98-6	4.00
4	Glycidol	802	000556-52-5	4.00
5	Alanine	2136	000056-41-7	4.00



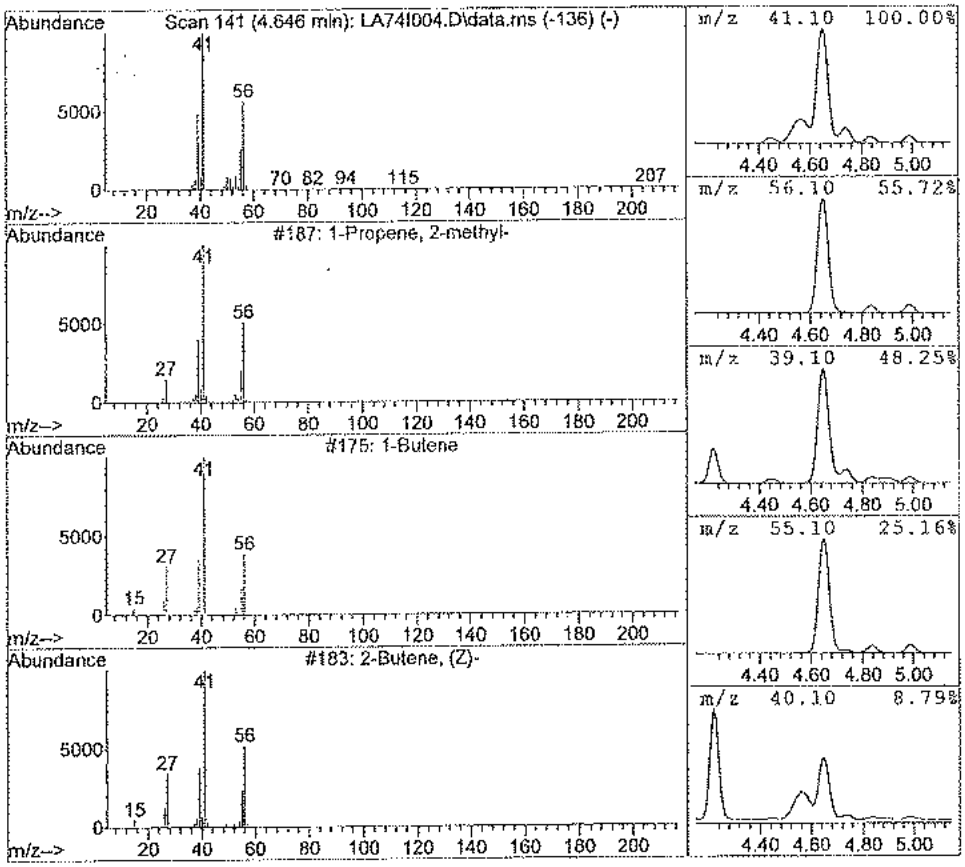
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.65	35.65 ppb	27896417	Bromochloromethane	15649172

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Propene, 2-methyl-	187	000115-11-7	90.00
2	1-Butene	175	000106-98-9	86.00
3	2-Butene, (Z)-	183	000590-18-1	80.00
4	2-Butene	174	000107-01-7	64.00
5	2-Butene, (E)-	181	000624-64-6	49.00



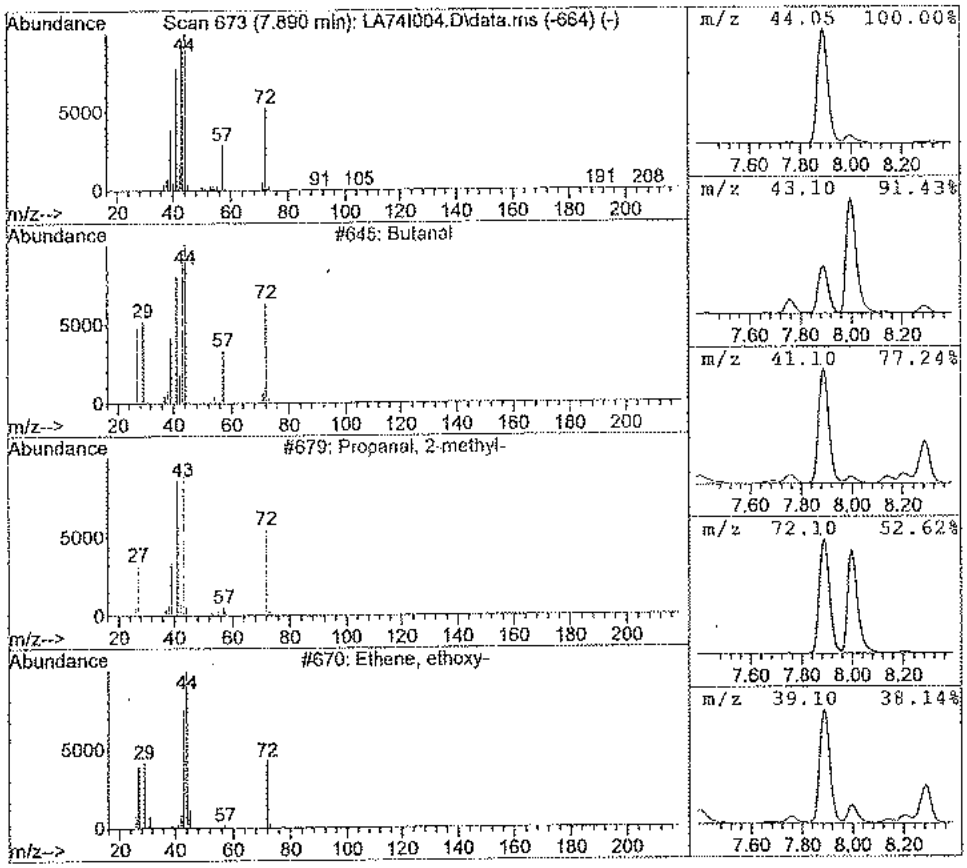
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6' Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.89	38.04 ppb	29765714	Bromochloromethane	15649172

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	Propanal, 2-methyl-	679	000078-84-2	58.00
3	Ethene, ethoxy-	670	000109-92-2	53.00
4	1-Propene, 3-methoxy-	691	000627-40-7	25.00
5	Pentanal	1695	000110-62-3	23.00

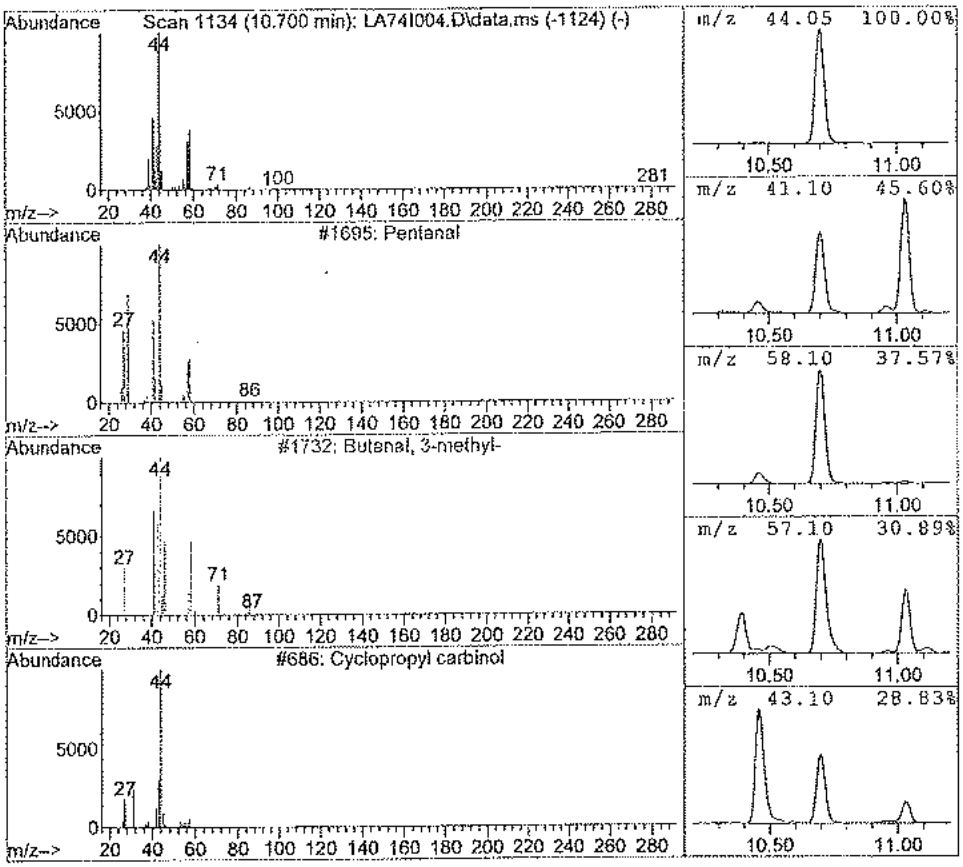


Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.70	26.39 ppb	22062814	1,4-Difluorobenzene	16721981

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1695	000110-62-3	78.00
2	Butanal, 3-methyl-	1732	000590-86-3	43.00
3	Cyclopropyl carbinol	686	002516-33-8	38.00
4	Butanedial	1638	000638-37-9	9.00
5	2-Propanamine	248	000075-31-0	9.00



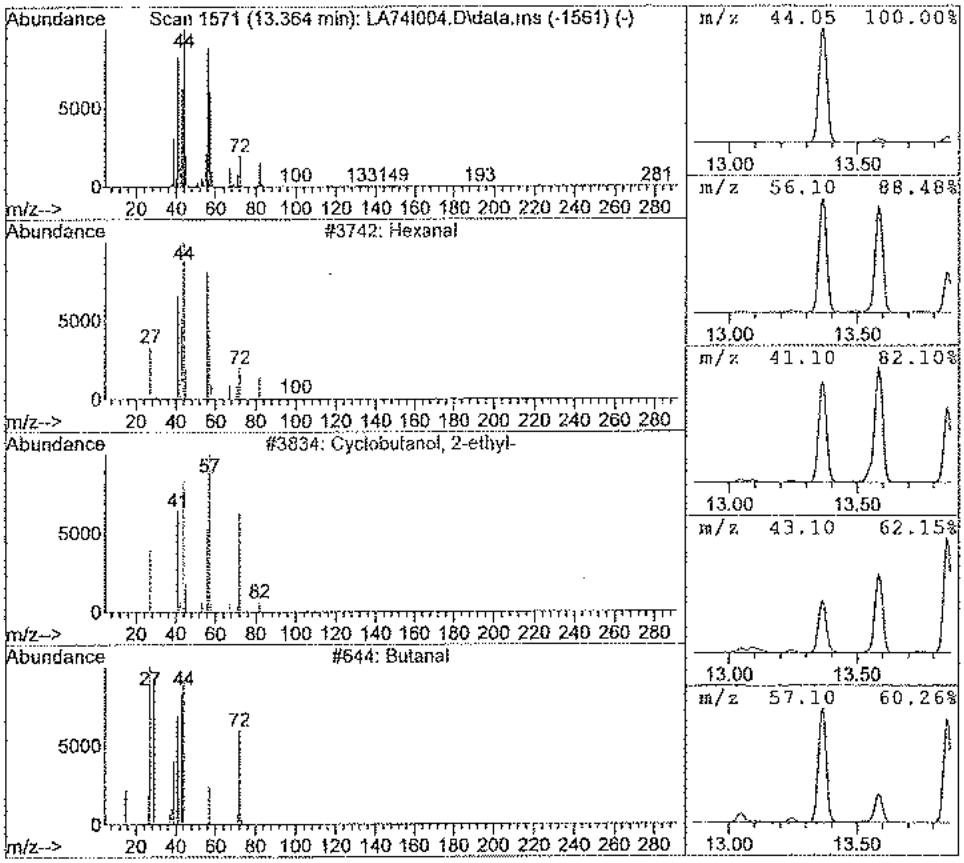
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.36	31.65 ppb	29546535	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3742	000066-25-1	90.00
2	Cyclobutanol, 2-ethyl-	3834	035301-43-0	72.00
3	Butanal	644	000123-72-8	35.00
4	Butanal, 3-methyl-	1733	000590-86-3	32.00
5	Oxirane, 2-methyl-3-(1-methylethyl)	3931	001192-31-0	32.00



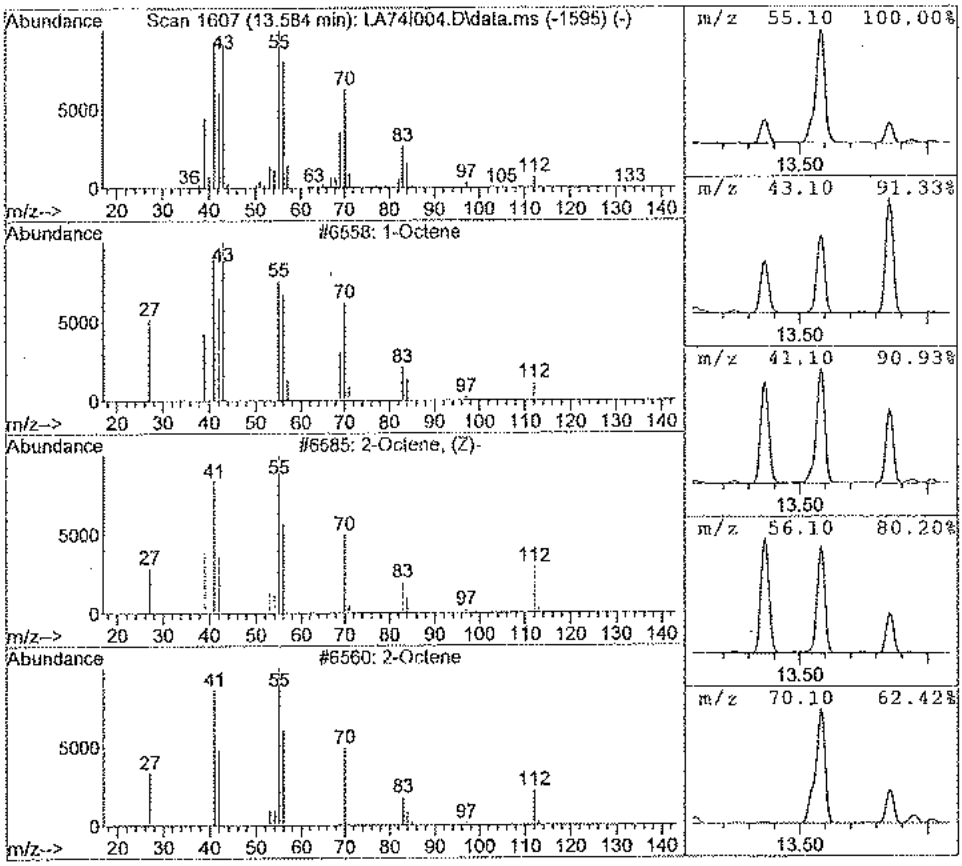
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.58	42.57 ppb	39738601	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Octene	6558	000111-66-0	91.00
2	2-Octene, (Z)-	6585	007642-04-8	90.00
3	2-Octene	6560	000111-67-1	64.00
4	Cyclobutanone, 2,3,3-trimethyl-	6527	028290-01-9	58.00
5	2-Heptene, 6-methyl-	6611	073548-72-8	53.00



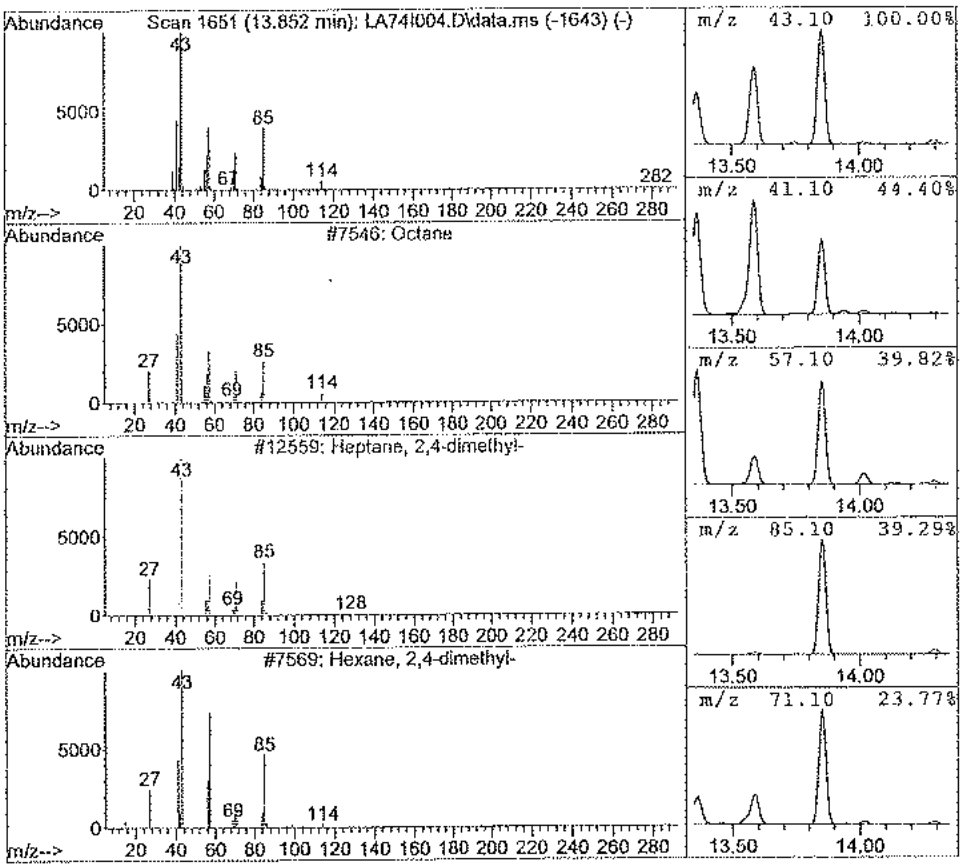
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.85	24.79 ppb	23140128	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane	7546	000111-65-9	95.00
2	Heptane, 2,4-dimethyl-	12559	002213-23-2	78.00
3	Hexane, 2,4-dimethyl-	7569	000589-43-5	72.00
4	Hexane, 2,3,5-trimethyl-	12572	001069-53-0	64.00
5	Undecane, 2,4-dimethyl-	47666	017312-80-0	59.00

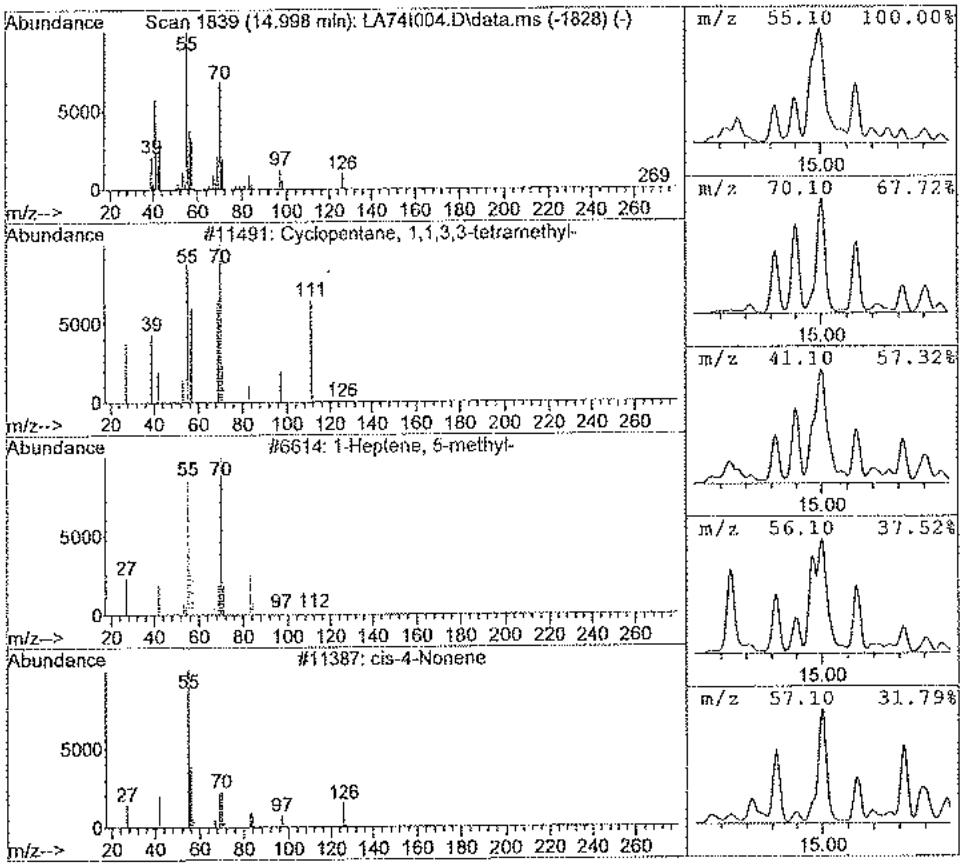


Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6' Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
15.00	20.86 ppb	19470731	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, 1,1,3,3-tetramethyl-	11491	050876-33-0	59.00
2	1-Heptene, 5-methyl-	6614	013151-04-7	53.00
3	cis-4-Nonene	11387	010405-84-2	50.00
4	Cyclopropane, 1,2-dimethyl-, trans-	583	002402-06-4	47.00
5	trans-4-Nonene	11395	010405-85-3	47.00



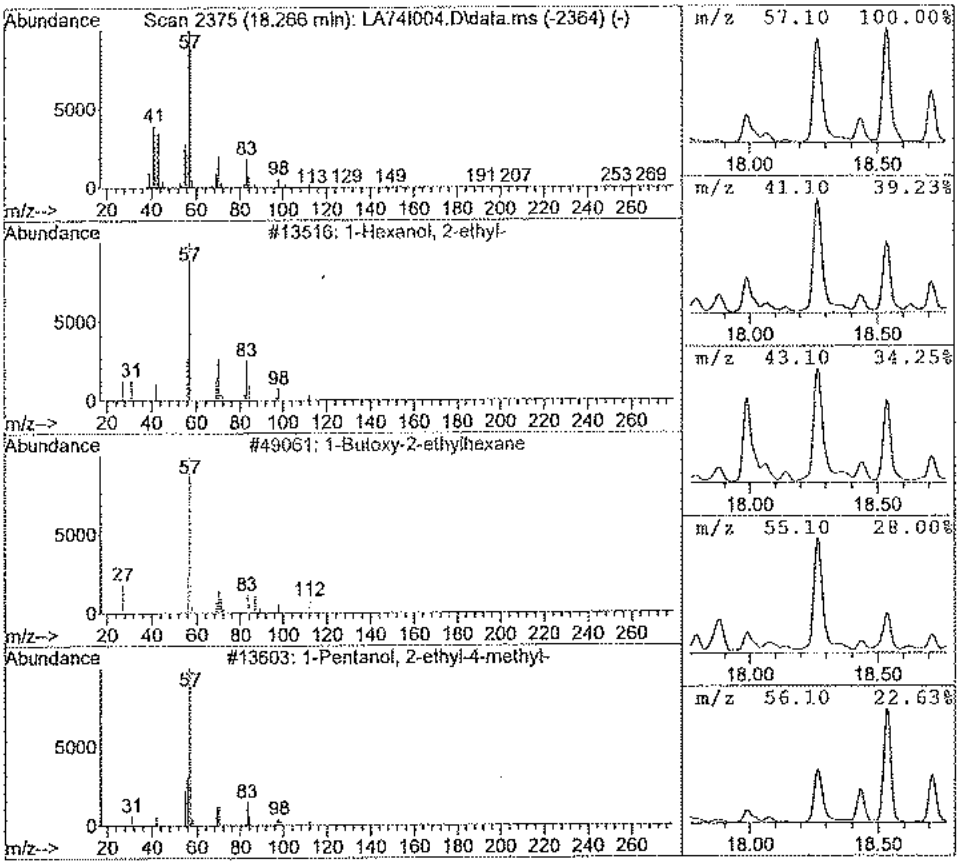
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.27	21.89 ppb	20432654	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13516	000104-76-7	78.00
2	1-Butoxy-2-ethylhexane	49061	062625-25-6	74.00
3	1-Pentanol, 2-ethyl-4-methyl-	13603	000106-67-2	72.00
4	Carbonic acid, heptyl isobutyl este	71506	1000314-60-5	64.00
5	2-Propyl-1-pentanol	13510	058175-57-8	50.00



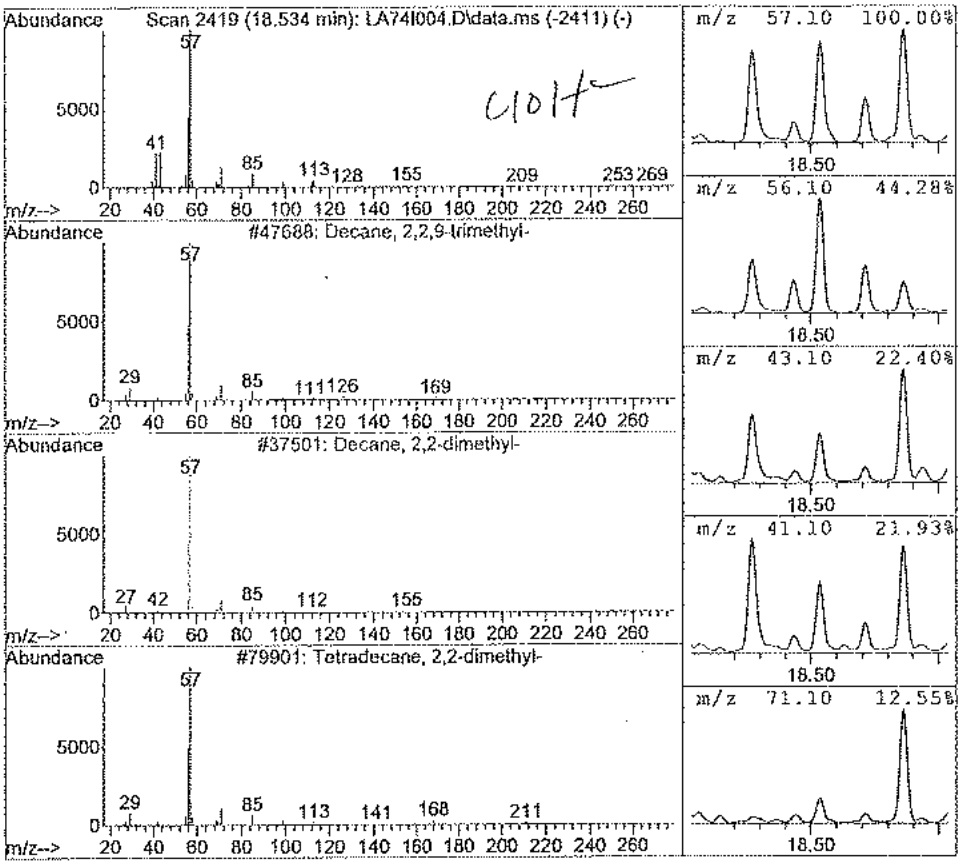
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-00IA-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.53	15.18 ppb	14166741	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,2,9-trimethyl-	47688	062238-00-0	78.00
2	Decane, 2,2-dimethyl-	37501	017302-37-3	78.00
3	Tetradecane, 2,2-dimethyl-	79901	059222-86-5	78.00
4	Pentane, 2,2,3,4-tetramethyl-	12602	001186-53-4	72.00
5	Decane, 2,2,4-trimethyl-	47682	062237-98-3	72.00



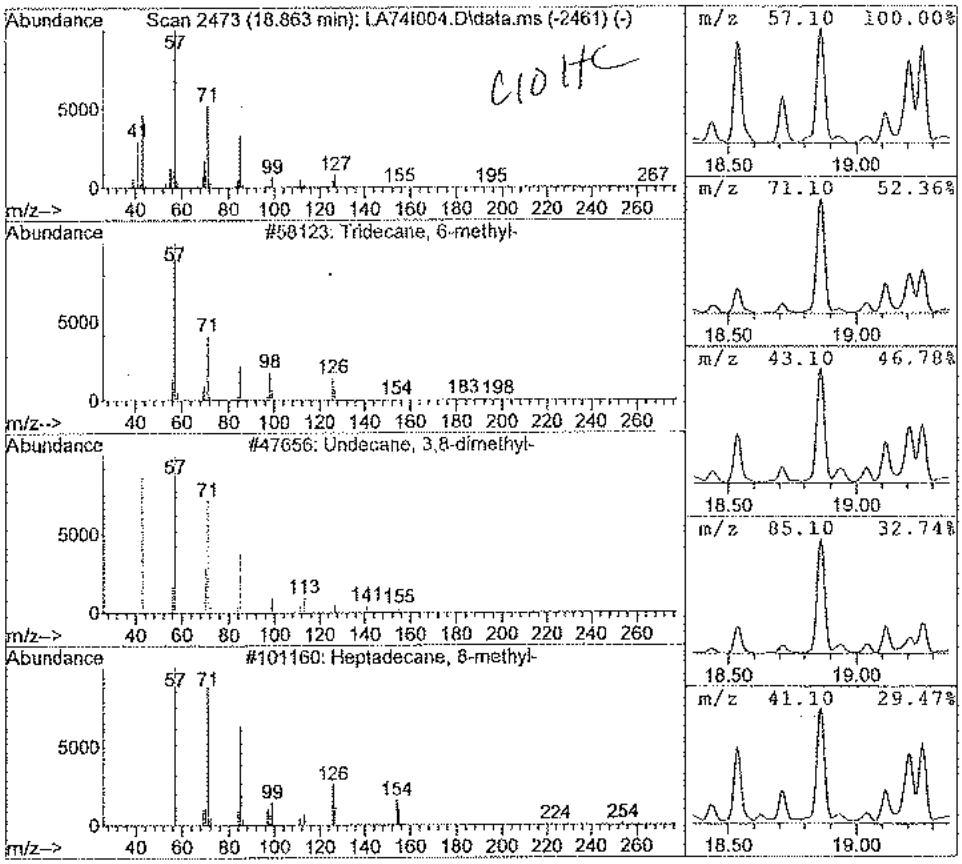
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.86	24.84 ppb	23189131	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane, 6-methyl-	58123	013287-21-3	72.00
2	Undecane, 3,8-dimethyl-	47656	017301-30-3	72.00
3	Heptadecane, 8-methyl-	101160	013287-23-5	64.00
4	Sulfurous acid, 2-ethylhexyl hexyl	119429	1000309-20-2	64.00
5	Nonane, 5-butyl-	47622	017312-63-9	59.00



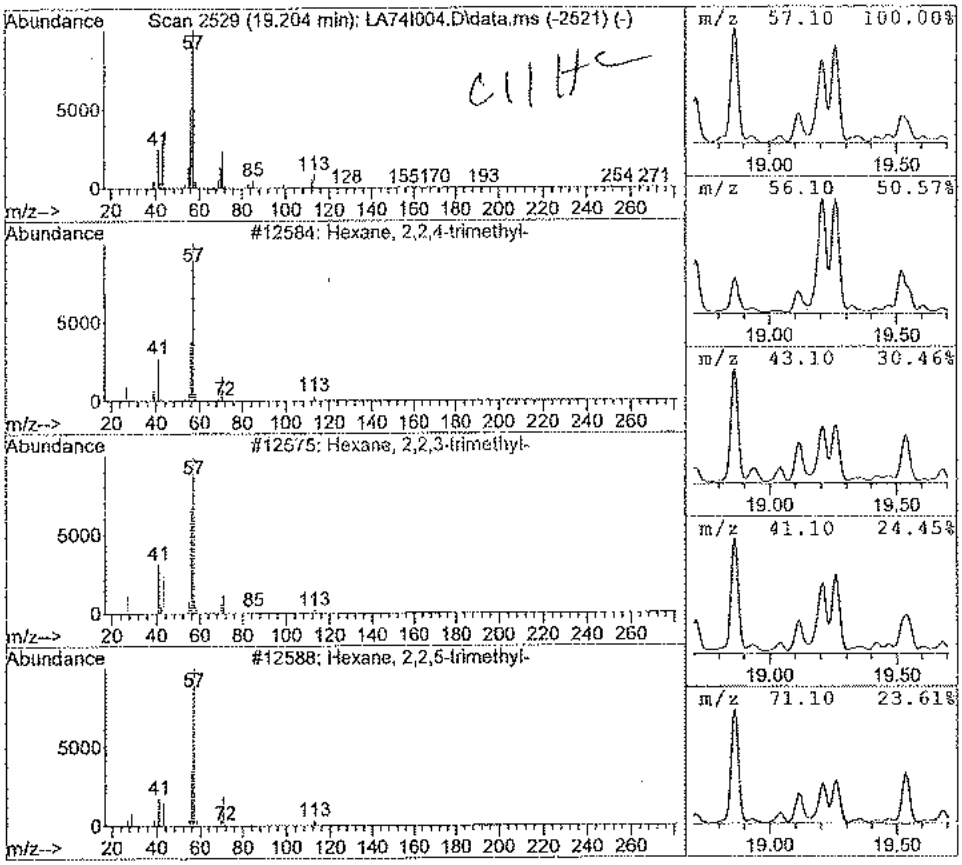
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.20	17.63 ppb	16462267	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2,2,4-trimethyl-	12584	016747-26-5	72.00
2	Hexane, 2,2,3-trimethyl-	12575	016747-25-4	64.00
3	Hexane, 2,2,5-trimethyl-	12588	003522-94-9	64.00
4	Heptane, 2,2-dimethyl-	12551	001071-26-7	64.00
5	Pentane, 2,2,3,4-tetramethyl-	12601	001186-53-4	53.00



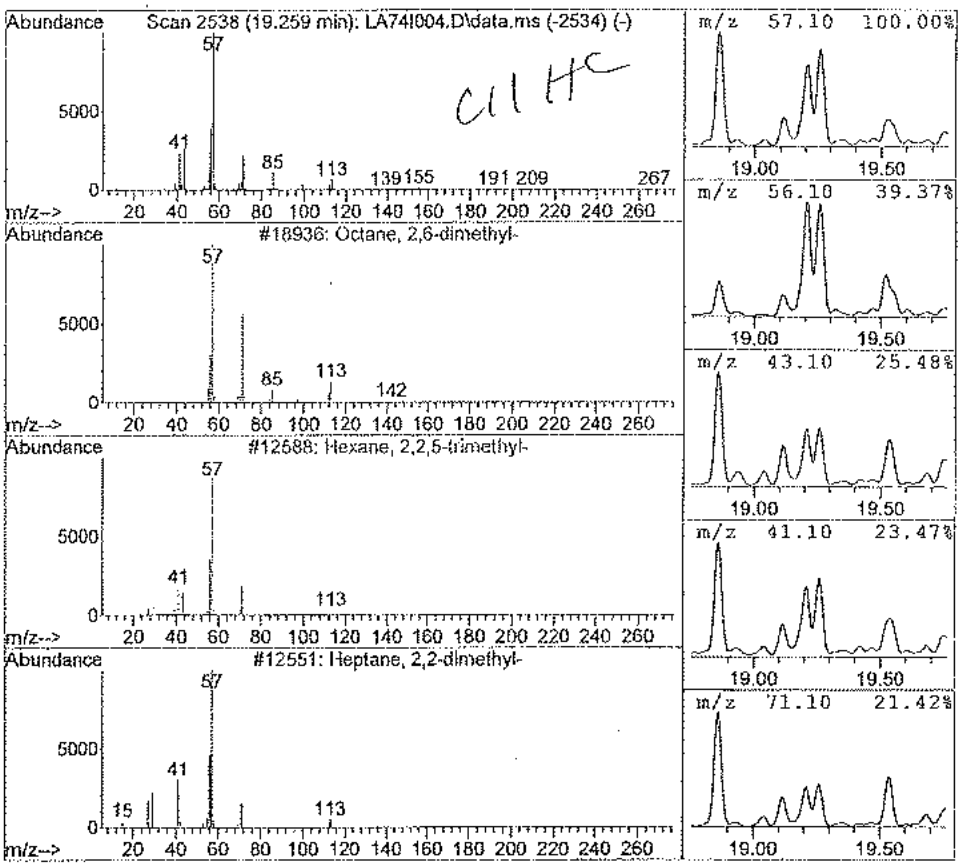
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.26	15.35 ppb	14333241	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 2,6-dimethyl-	18936	002051-30-1	72.00
2	Hexane, 2,2,5-trimethyl-	12588	003522-94-9	64.00
3	Heptane, 2,2-dimethyl-	12551	001071-26-7	64.00
4	Heptane, 2,2,4-trimethyl-	18964	014720-74-2	53.00
5	Hexane, 2,2,4-trimethyl-	12584	016747-26-5	53.00



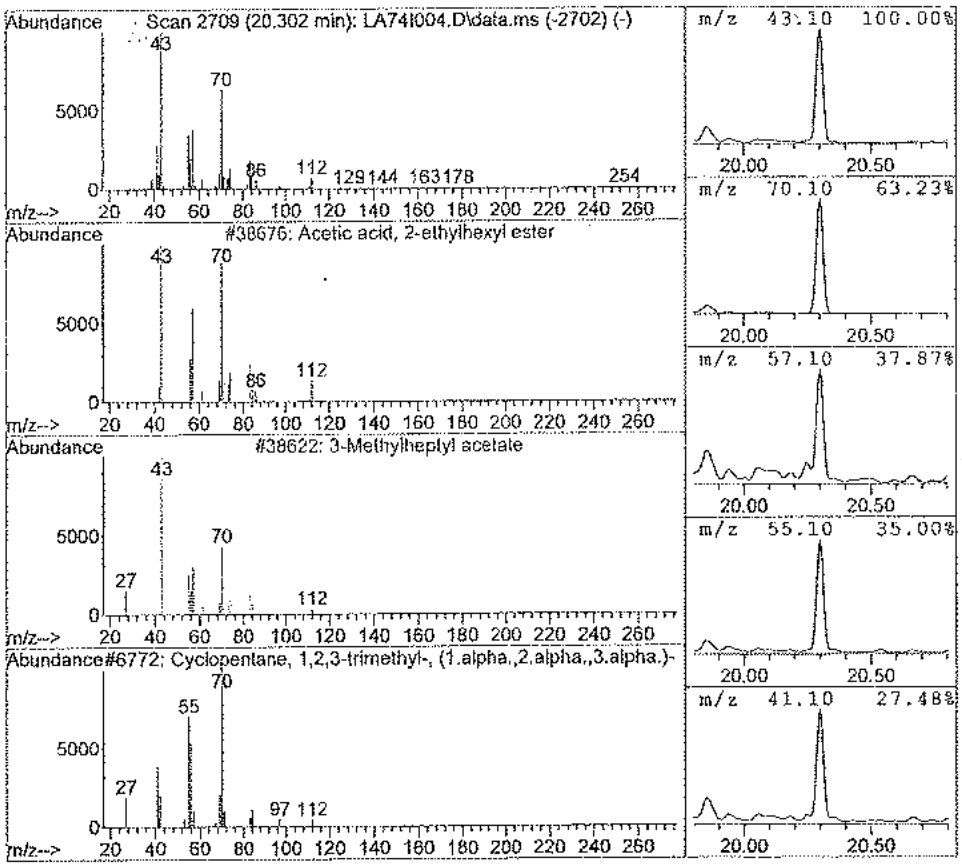
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA74I004.D Vial: 5
Acq Time : 04/20/2015 16:25 Operator: TJM
Sample : 1510559004 Inst : 5975-L
Misc : 0284 SG-001A-6` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.30	17.42 ppb	16258236	Chlorobenzene d5	18670117

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, 2-ethylhexyl ester	38676	000103-09-3	90.00
2	3-Methylheptyl acetate	38622	072218-58-7	86.00
3	Cyclopentane, 1,2,3-trimethyl-, (1.	6772	002613-69-6	59.00
4	2-Propenoic acid, 2-ethylhexyl este	47312	000103-11-7	50.00
5	Bromoacetic acid, 2-ethylhexyl este	97278	068144-73-0	50.00

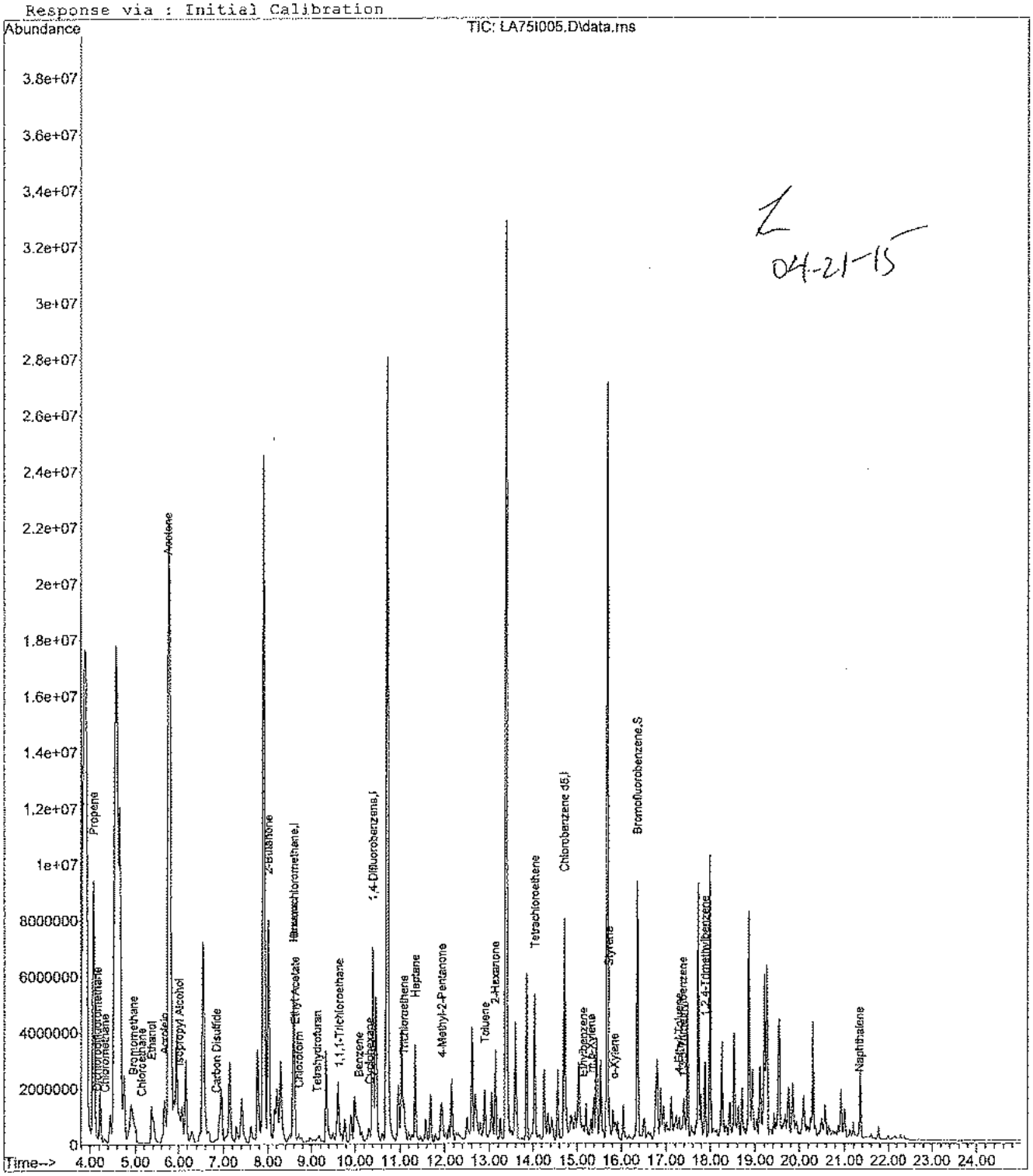


Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D Vial: 6
Acq Time : 04/20/2015 17:15 Operator: TJM
Sample : 1510559005 Inst : 5975-L
Misc : 0445 TO-004BLK Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:19:21 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



Z
04-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D Vial: 6
Acq Time : 04/20/2015 17:15 Operator: TJM
Sample : 1510559005 Inst : 5975-L
Misc : 0445 TO-004BLK Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:19:21 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.60	130	582848	20.0000 ppb		120.00
25) 1,4-Difluorobenzene	10.40	114	6585845	20.0000 ppb		108.55
50) Chlorobenzene d5	14.71	117	5470587	20.0000 ppb		105.91
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.36	95	4137199	18.9899 ppb		94.95%
Target Compounds						Qvalue
2) Propene	4.07	41	7531444	91.1907 ppb		94
3) Dichlorodifluoromethane	4.16	85	131995	0.4684 ppb		100
4) Chloromethane	4.33	50	174512	1.4504 ppb		98
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	4.96	94	169253	1.8379 ppb		98
9) Chloroethane	5.13	64	13586	0.2345 ppb	#	82
10) Acrolein	5.66	56	2112050	45.2963 ppb	#	98
11) Acetone	5.74	43	36744458	190.6848 ppb	m	0
12) Trichlorofluoromethane	0.00	101		Not Detected		
13) Ethanol	5.37	45	2931694	76.0908 ppb	#	77
14) Isopropyl Alcohol	6.01	45	2356763	7.2083 ppb	#	92
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	0.00	84		Not Detected		
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	6.85	76	248744	0.8240 ppb	#	61
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	8.01	43	14633608	59.8073 ppb	#	73
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	8.62	61	34454	0.8936 ppb	#	1
27) Hexane	8.58	57	1886631	10.2390 ppb	#	81
28) Chloroform	8.71	83	146701	0.6435 ppb		98
29) Tetrahydrofuran	9.12	42	158448	1.2295 ppb	m	19
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	9.65	97	84588	0.3277 ppb	#	85
32) Benzene	10.09	78	467646	1.4397 ppb	#	79
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	10.33	84	75307	0.5153 ppb	#	1
35) 1,2-Dichloropropane	0.00	63		Not Detected		
36) Bromodichloromethane	0.00	83		Not Detected		
37) 1,4-Dioxane	0.00	88		Not Detected		
38) Trichloroethene	11.08	130	531141	3.7531 ppb	#	87
39) Methyl Methacrylate	0.00	69		Not Detected		
40) Heptane	11.34	71	899553	7.9627 ppb	#	35
41) cis-1,3-Dichloropropene	0.00	75		Not Detected		
42) 4-Methyl-2-Pentanone	11.94	43	797367	2.9660 ppb	#	71
43) trans-1,3-Dichloropropene	0.00	75		Not Detected		
44) 1,1,2-Trichloroethane	0.00	97		Not Detected		
45) Toluene	12.89	91	1511550	3.8336 ppb		99
46) 2-Hexanone	13.13	43	2816125	11.2957 ppb	#	79
47) Dibromochloromethane	0.00	129		Not Detected		
48) 1,2-Dibromoethane	0.00	107		Not Detected		
49) Tetrachloroethene	14.04	166	1902275	9.7801 ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D Vial: 6
Acq Time : 04/20/2015 17:15 Operator: TJM
Sample : 1510559005 Inst : 5975-L
Misc : 0445 TO-004BLK Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:19:21 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.14	91	169488	0.3363 ppb	94
53) m,p-Xylene	15.32	91	375480	0.9665 ppb	91
54) Bromoform	0.00	173		Not Detected	
55) Styrene	15.72	104	130351	0.4601 ppb #	78
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.85	91	207389	0.5244 ppb	93
59) 4-Ethyl Toluene	17.27	105	118645	0.2239 ppb	92
60) 1,3,5-Trimethylbenzene	17.36	105	140796	0.3097 ppb	92
61) 1,2,4-Trimethylbenzene	17.88	105	482395	1.0576 ppb	92
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	21.33	128	136533	0.3492 ppb #	86
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

TCL/BTX

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

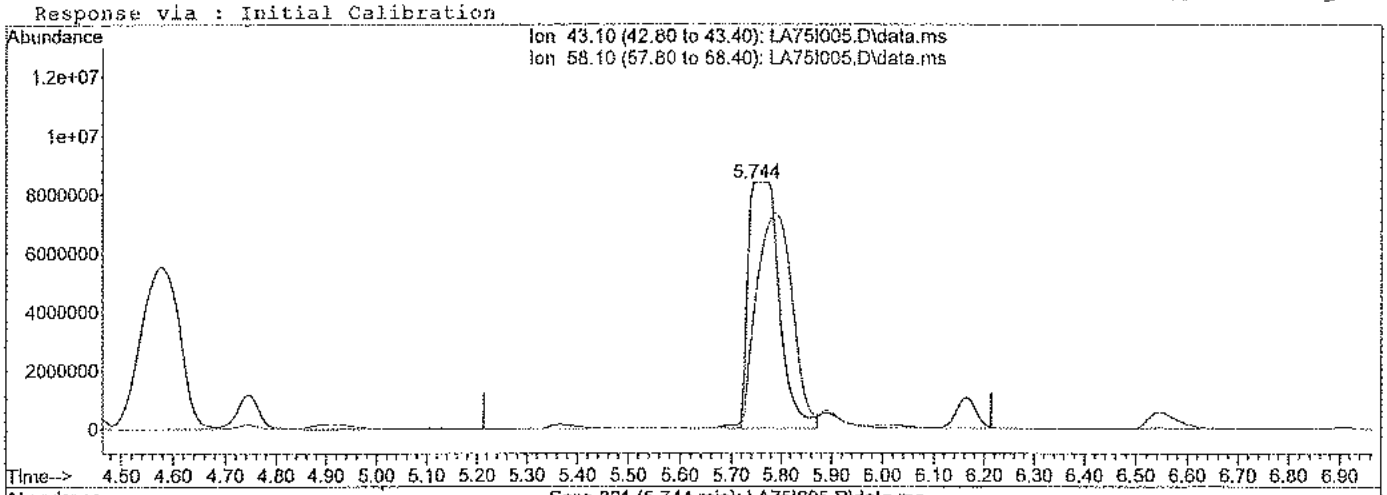
Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA75I005.D
Acq On : 04/20/2015 17:15
Operator : TJM
Sample : 1510559005
Inst : 5975-L
Misc : 0445 TO-004BLK
ALS Vial : 6 Sample Multiplier: 1

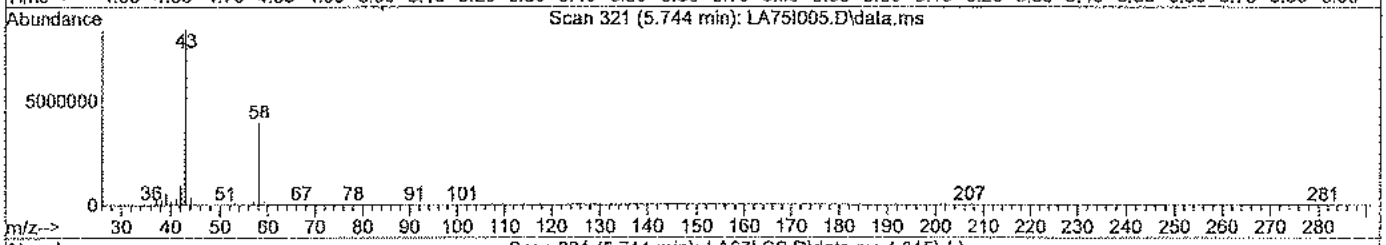
Quant Time: Apr 21 09:46:42 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

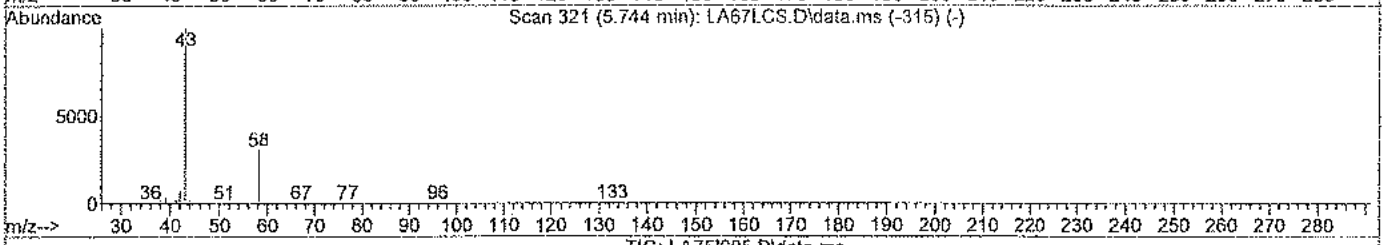
MANUAL RE-INTEGRATION

- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials K date 04-21-15







TIC: LA75I005.D\data.ms

(11) Acetone

5.744min (+ 0.031) 190.68 ppb m

response 36744458

Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

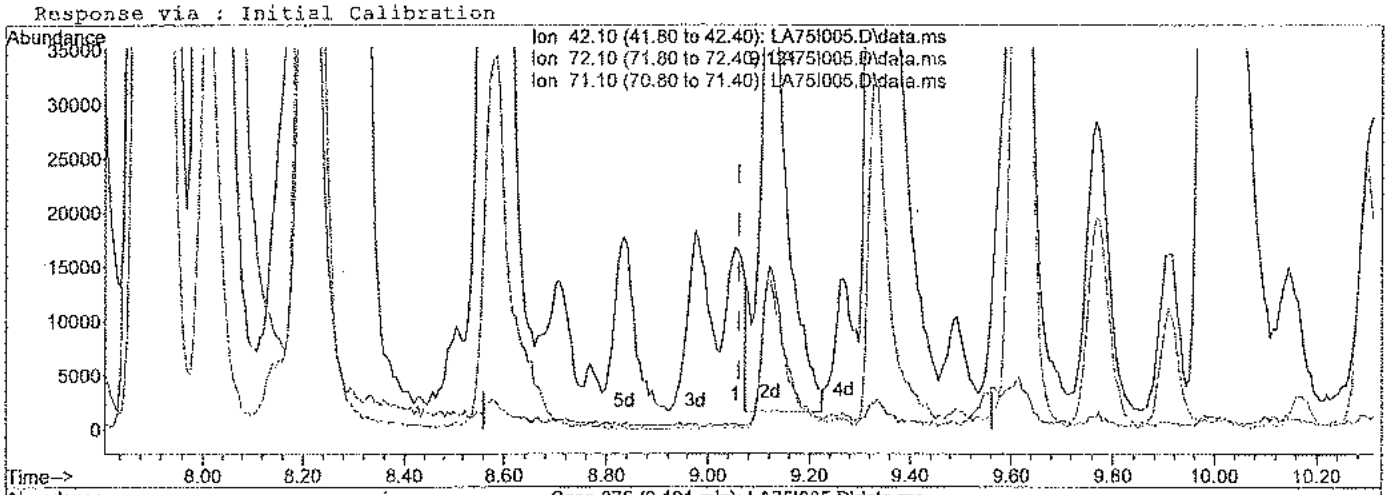
Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA75I005.D
Acq On : 04/20/2015 17:15
Operator : TJM
Sample : 1510559005
Inst : 5975-L
Misc : 0445 TO-004BLK
ALS Vial : 6 Sample Multiplier: 1

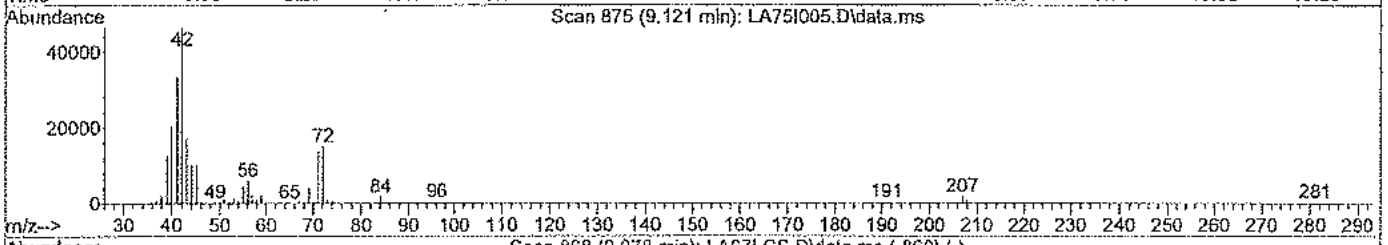
Quant Time: Apr 21 09:46:42 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

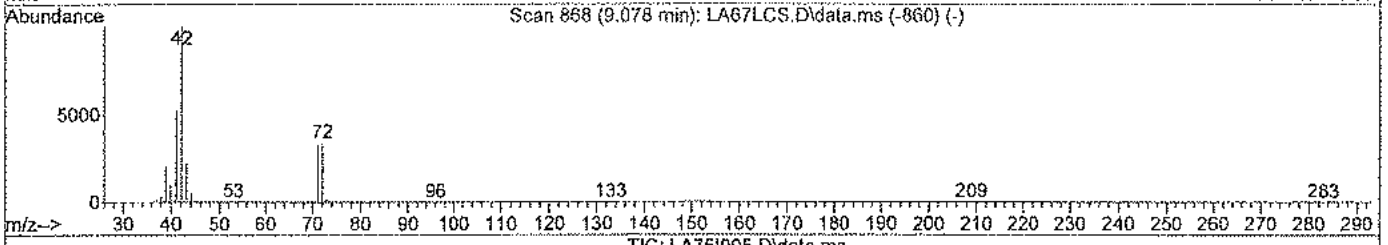
MANUAL RE-INTEGRATION

☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials TJM *date* 04/21/15







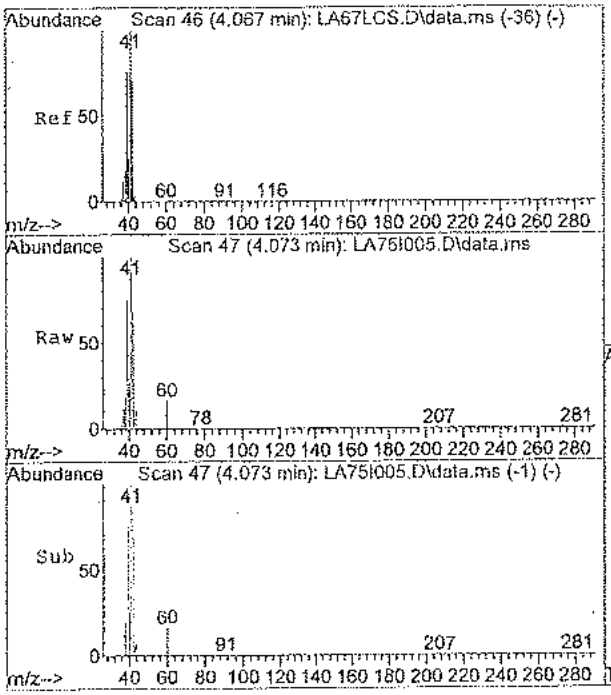
TIC: LA75I005.D\data.ms

(29) Tetrahydrofuran

9.121min (+ 0.061) 1.23 ppb m

response 158448

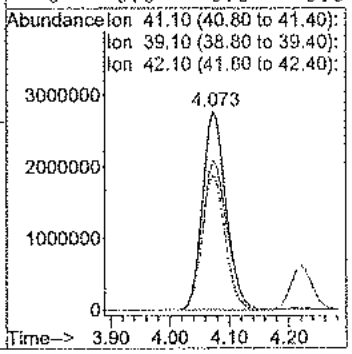
Ion	Exp%	Act%
42.10	100.00	100.00
72.10	64.40	0.00#
71.10	59.40	0.00#
0.00	0.00	0.00

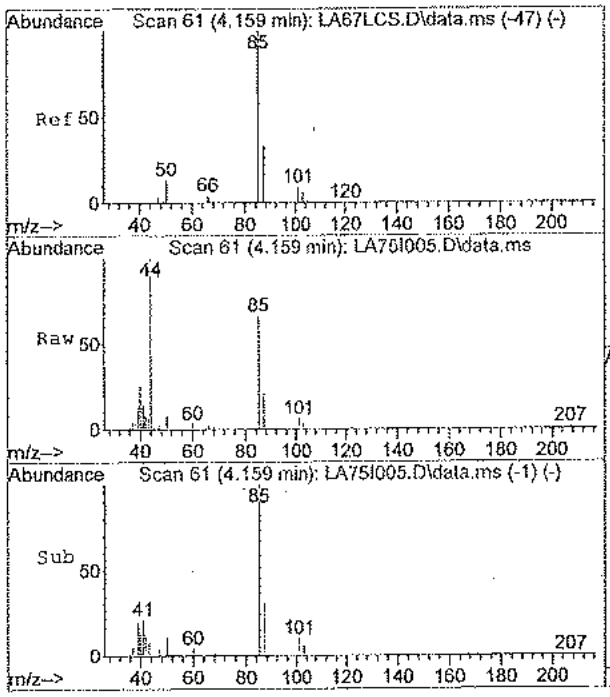


#2
Propene
Concen: 91.19 ppb
RT: 4.07 min Scan# 47
Delta R.T. 0.04 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:41.1 Resp: 7531444

Ion	Ratio	Lower	Upper
41	100		
39	78.2	56.2	84.4
42	66.2	53.8	80.6
0	0.0	0.0	0.0

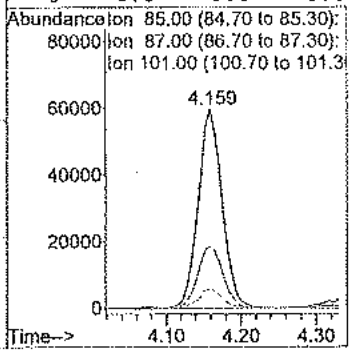


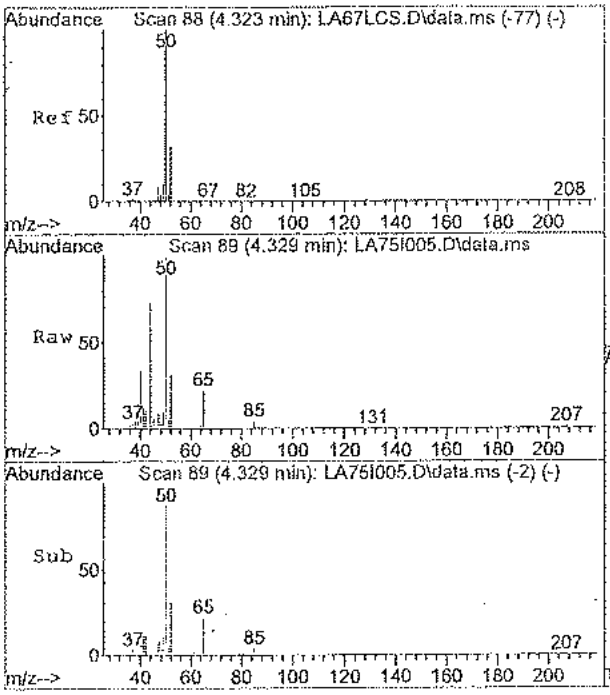


#3
Dichlorodifluoromethane
Concen: 0.47 ppb
RT: 4.16 min Scan# 61
Delta R.T. 0.03 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:85 Resp: 131995

Ion	Ratio	Lower	Upper
85	100		
87	32.6	26.1	39.1
101	9.3	8.0	12.0
0	0.0	0.0	0.0

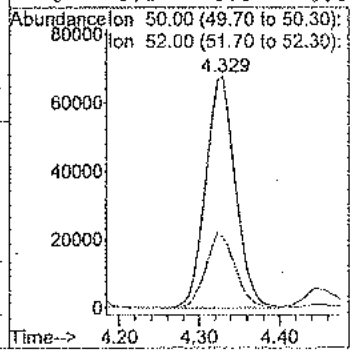


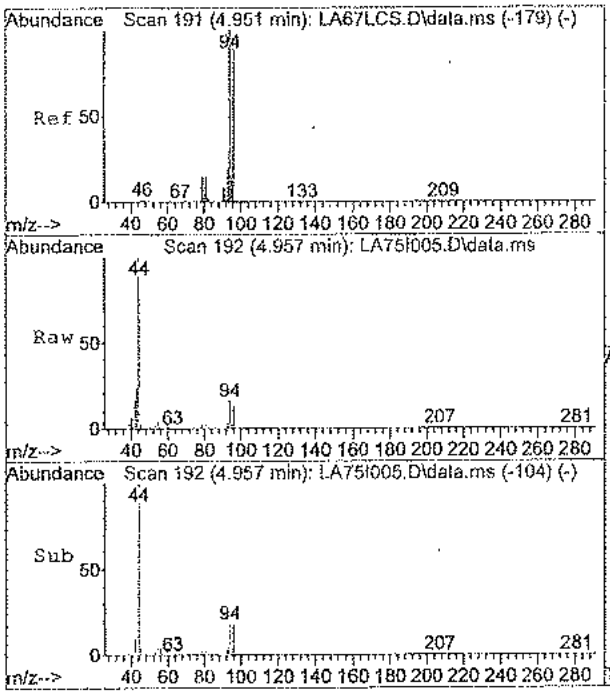


#4
Chloromethane
Concen: 1.45 ppb
RT: 4.33 min Scan# 89
Delta R.T. 0.03 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:50 Resp: 174512

Ion	Ratio	Lower	Upper
50	100		
52	32.3	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

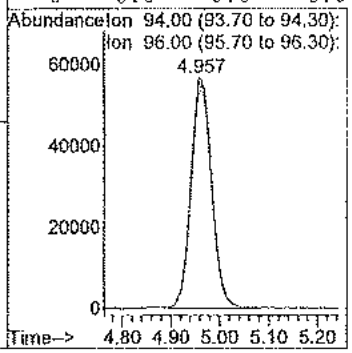


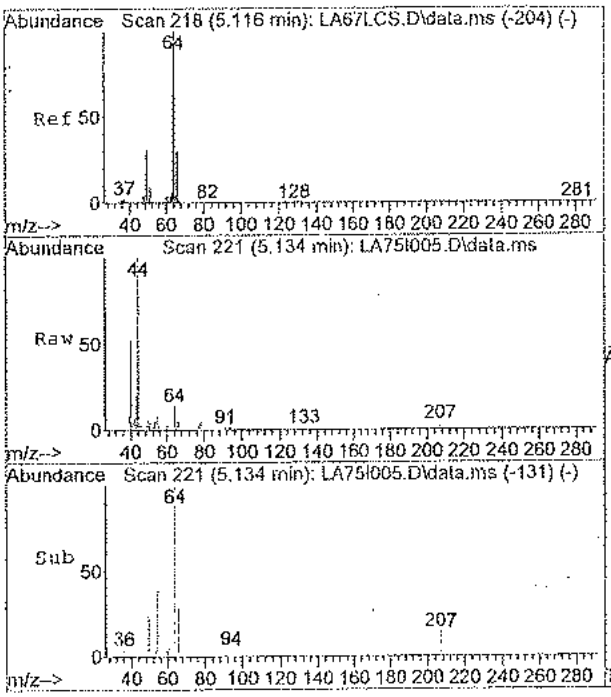


#8
Bromomethane
Concen: 1.84 ppb
RT: 4.96 min Scan# 192
Delta R.T. 0.04 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:94 Resp: 169253

Ion	Ratio	Lower	Upper
94	100		
96	93.1	76.1	114.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

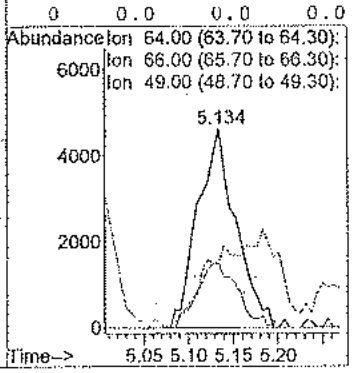


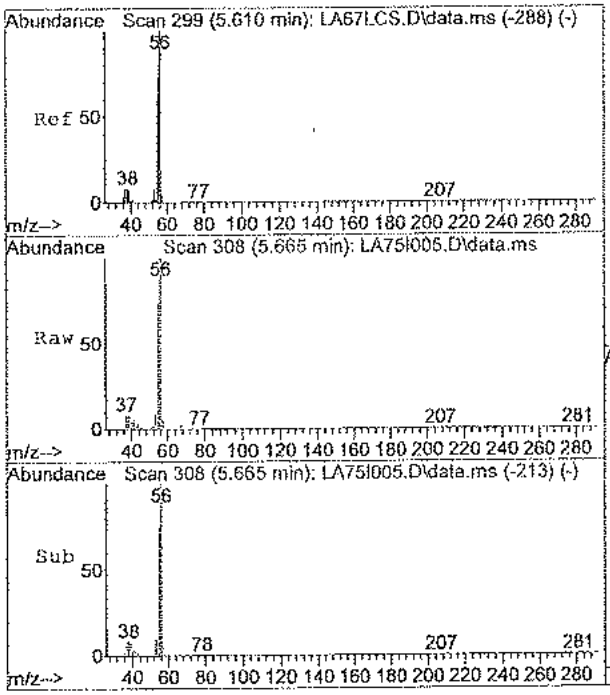


#9
Chloroethane
Concen: 0.23 ppb
RT: 5.13 min Scan# 221
Delta R.T. 0.05 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:64 Resp: 13586

Ion	Ratio	Lower	Upper
64	100		
66	34.6	26.3	39.5
49	0.0	15.8	23.8#
0	0.0	0.0	0.0

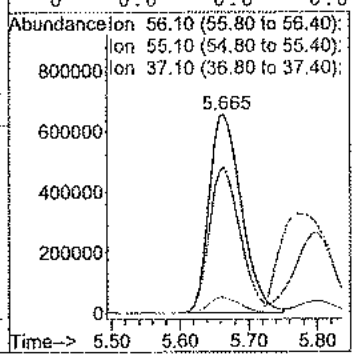


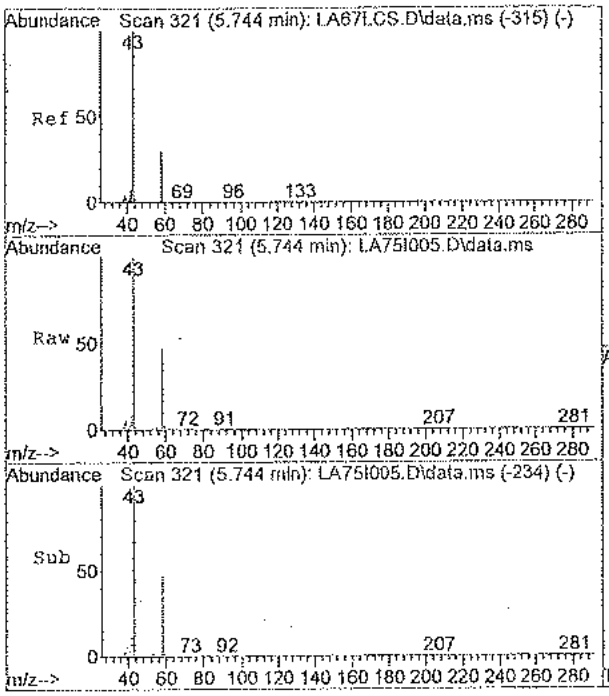


#10
Acrolein
Concen: 45.30 ppb
RT: 5.66 min Scan# 308
Delta R.T. 0.08 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:56.1 Resp: 2112050

Ion	Ratio	Lower	Upper
56	100		
55	69.9	55.1	82.7
37	7.6	7.9	11.9#
0	0.0	0.0	0.0

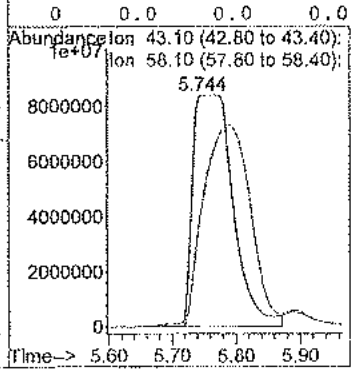


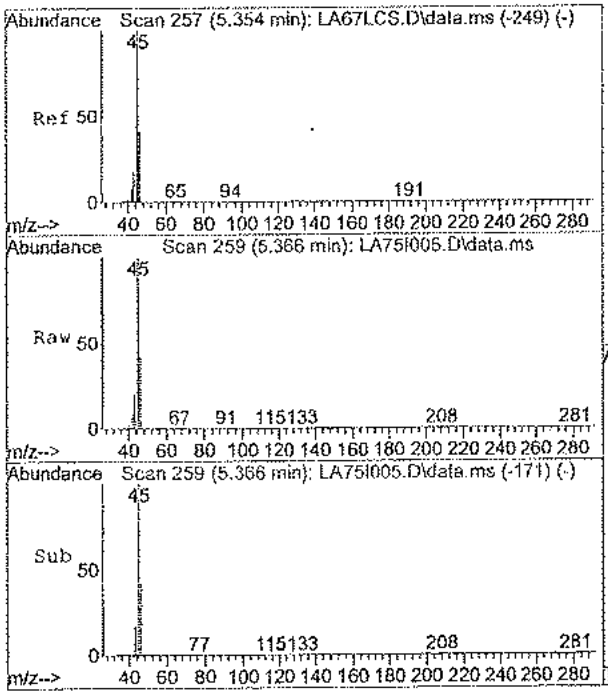


#11
Acetone
Concen: 190.68 ppb m
RT: 5.74 min Scan# 321
Delta R.T. 0.03 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:43.1 Resp:36744458

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

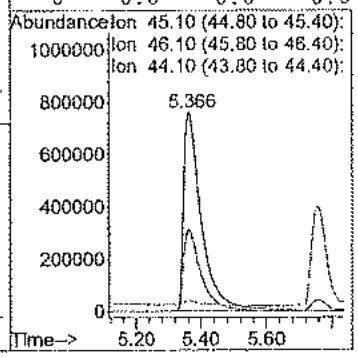


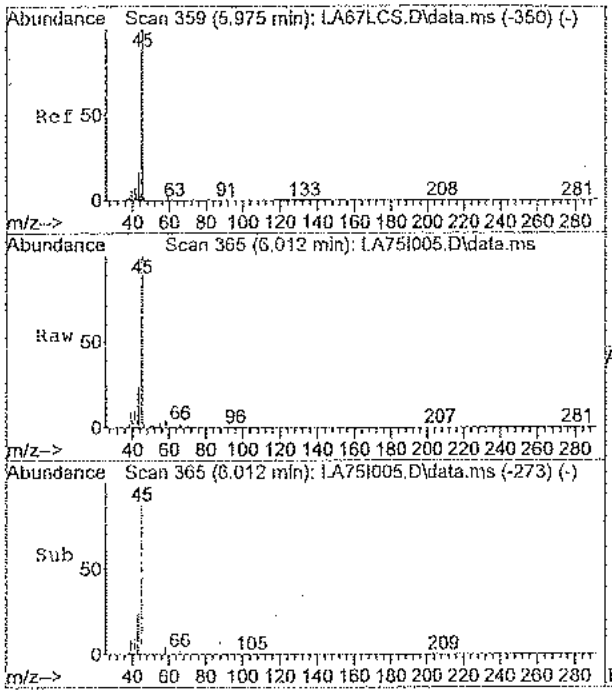


#13
Rthanol
Concen: 76.09 ppb
RT: 5.37 min Scan# 259
Delta R.T. 0.04 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:45.1 Resp: 2931694

Ion	Ratio	Lower	Upper
45	100		
46	40.9	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

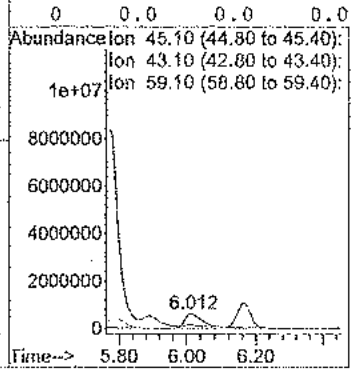


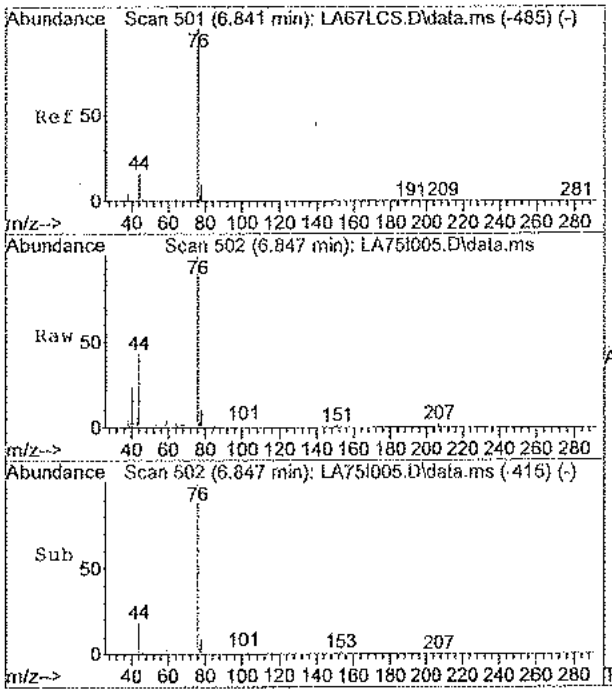


#14
Isopropyl Alcohol
Concen: 7.21 ppb
RT: 6.01 min Scan# 365
Delta R.T. 0.06 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:45.1 Resp: 2356763

Ion	Ratio	Lower	Upper
45	100		
43	15.4	15.8	23.6#
59	3.9	3.2	4.8
0	0.0	0.0	0.0

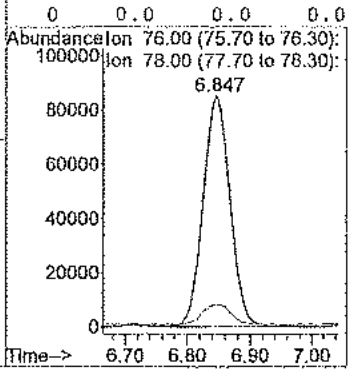


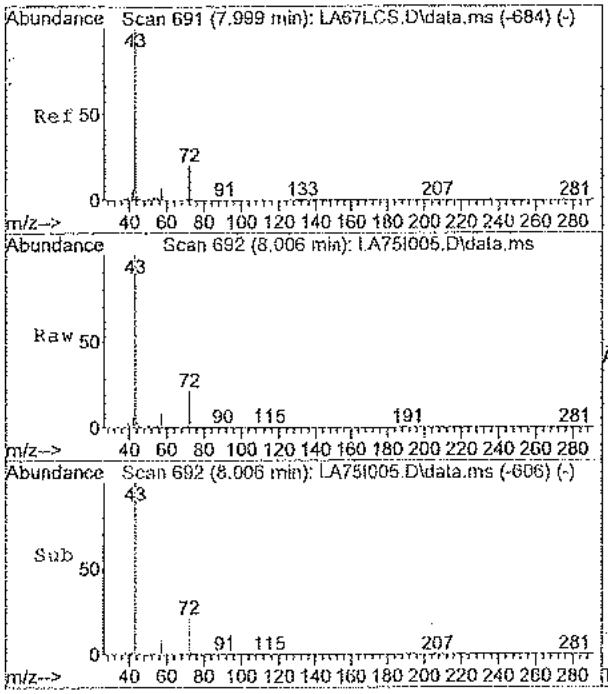


#18
Carbon Disulfide
Concen: 0.82 ppb
RT: 6.85 min Scan# 502
Delta R.T. 0.03 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:76 Resp: 248744

Ion	Ratio	Lower	Upper
76	100		
78	9.0	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

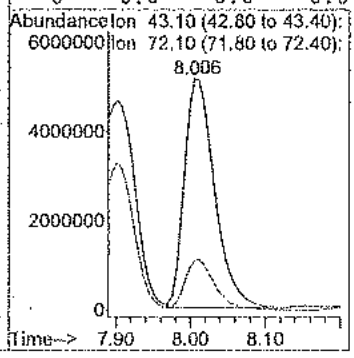


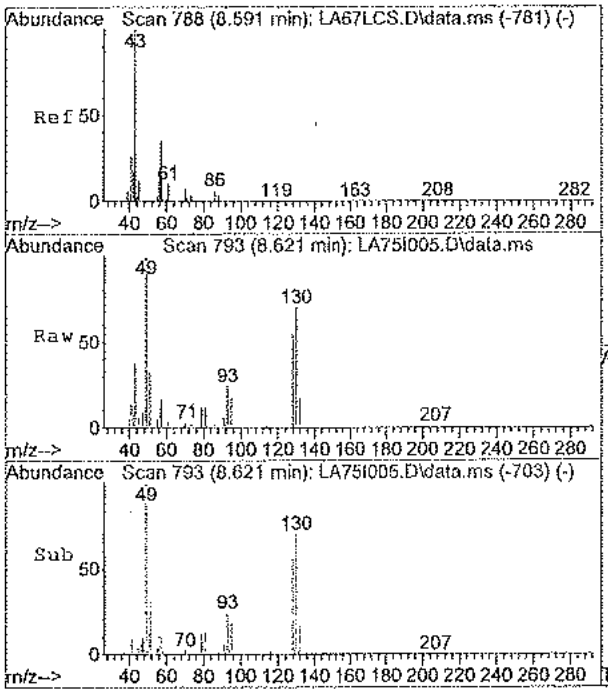


#23
2-Butanone
Concen: 59.81 ppb
RT: 8.01 min Scan# 692
Delta R.T. 0.02 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:43.1 Resp:14633608

Ion	Ratio	Lower	Upper
43	100		
72	22.2	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

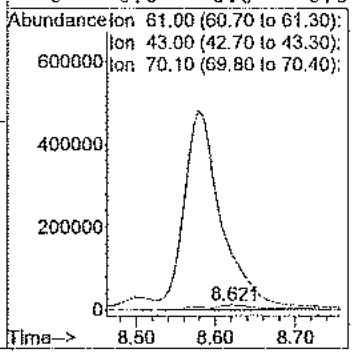


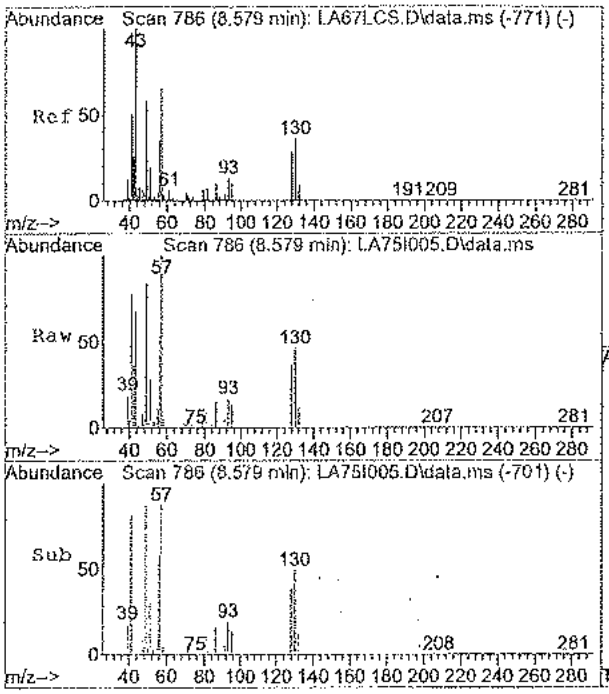


#26
Ethyl Acetate
Concen: 0.89 ppb
RT: 8.62 min Scan# 793
Delta R.T. 0.05 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:61 Resp: 34454

Ion	Ratio	Lower	Upper
61	100		
43	0.0	144.0	216.0#
70	59.2	13.6	20.4#
0	0.0	0.0	0.0

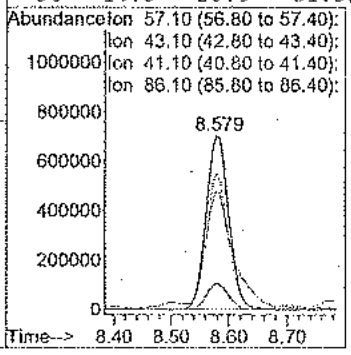


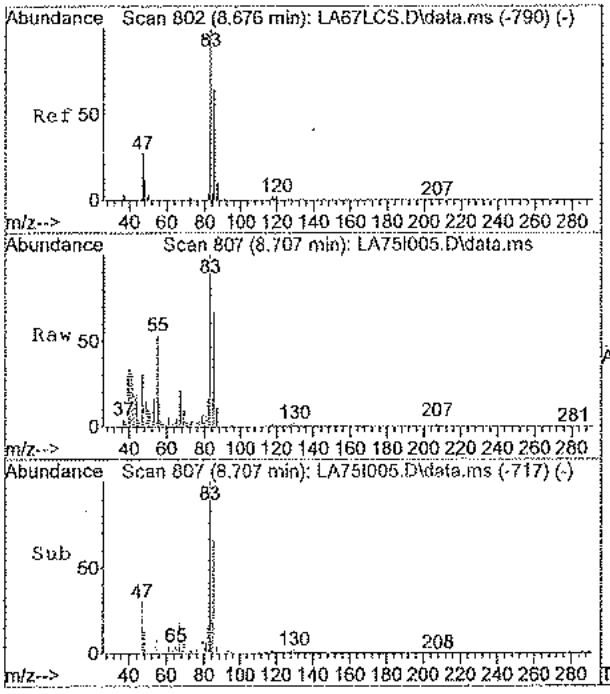


#27
Hexane
Concen: 10.24 ppb
RT: 8.58 min Scan# 786
Delta R.T. 0.02 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:57.1 Resp: 1886631

Ion	Ratio	Lower	Upper
57	100		
43	82.1	57.3	85.9
41	77.5	47.0	70.4#
86	14.8	20.9	31.3#

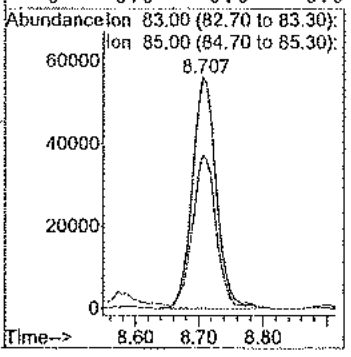


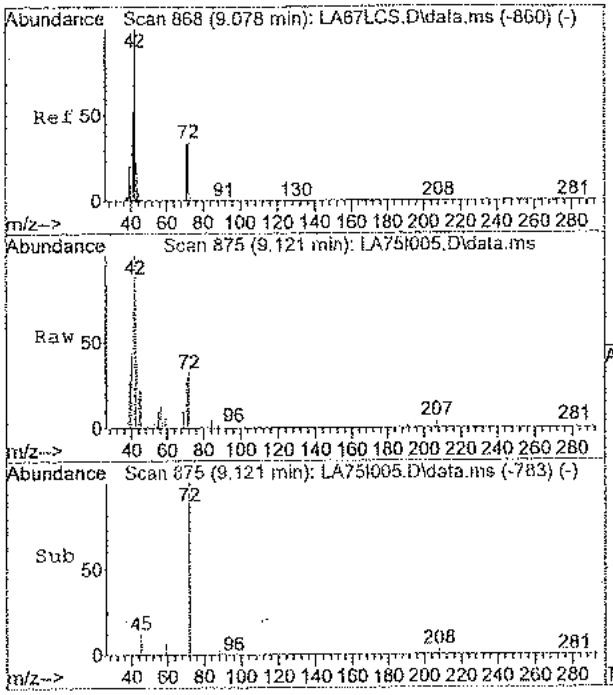


#28
Chloroform
Concen: 0.64 ppb
RT: 8.71 min Scan# 807
Delta R.T. 0.05 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:83 Resp: 146701

Ion	Ratio	Lower	Upper
83	100		
85	66.6	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

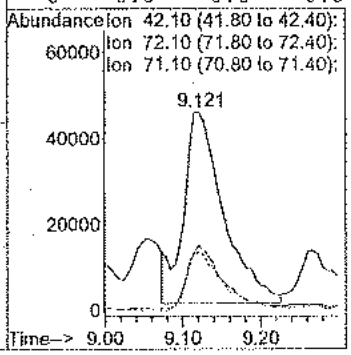


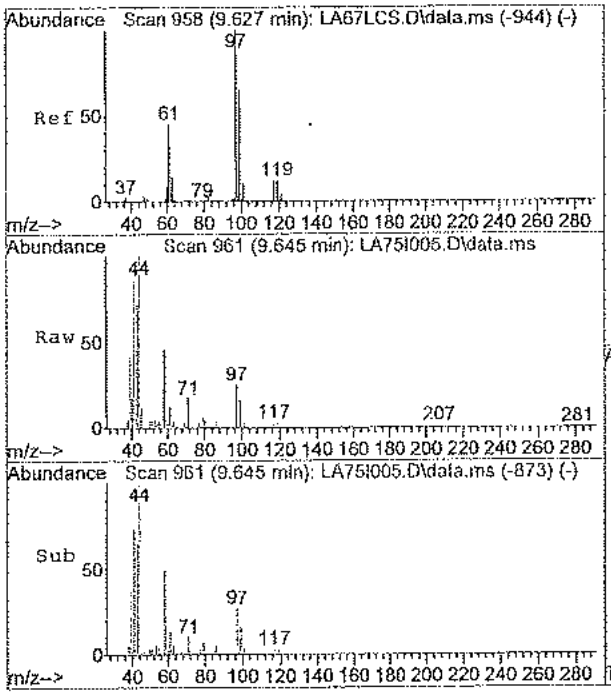


#29
Tetrahydrofuran
Concen: 1.23 ppb m
RT: 9.12 min Scan# 875
Delta R.T. 0.06 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:42.1 Resp: 158448

Ion	Ratio	Lower	Upper
42	100		
72	0.0	51.5	77.3#
71	0.0	47.5	71.3#
0	0.0	0.0	0.0

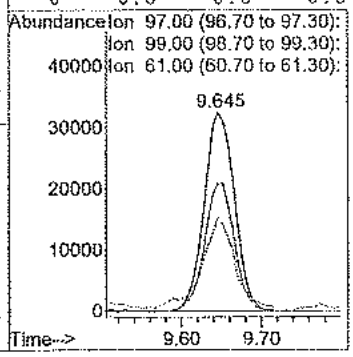


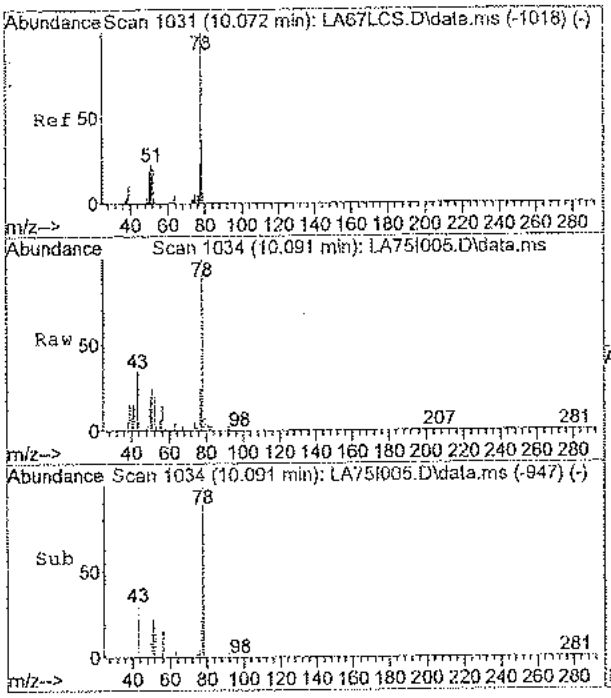


#31
1,1,1-Trichloroethane
Concen: 0.33 ppb
RT: 9.65 min Scan# 961
Delta R.T. 0.04 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:97 Resp: 84588

Ion	Ratio	Lower	Upper
97	100		
99	63.0	51.6	77.4
61	53.1	24.2	36.2#
0	0.0	0.0	0.0

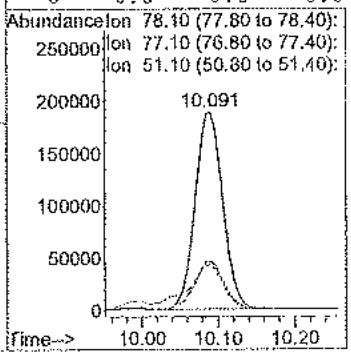


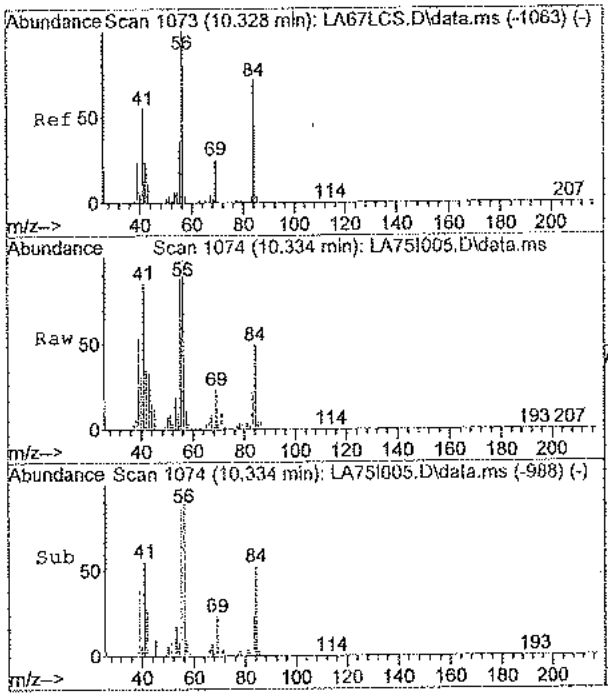


#32
Benzene
Concen: 1.44 ppb
RT: 10.09 min Scan# 1034
Delta R.T. 0.03 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:78.1 Resp: 467646

Ion	Ratio	Lower	Upper
78	100		
77	26.2	18.2	27.4
51	30.7	9.5	14.3#
0	0.0	0.0	0.0

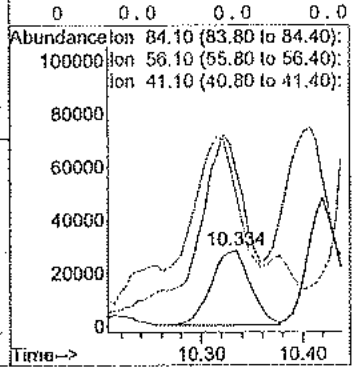


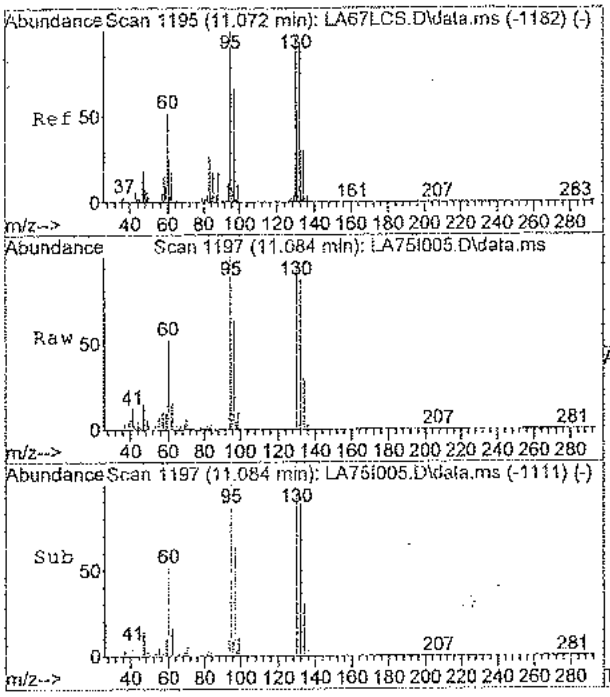


#34
Cyclohexane
Concen: 0.52 ppb
RT: 10.33 min Scan# 1074
Delta R.T. 0.02 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:84.1 Resp: 75307

Ion	Ratio	Lower	Upper
84	100		
56	326.2	67.3	100.9#
41	0.0	30.2	45.4#
0	0.0	0.0	0.0

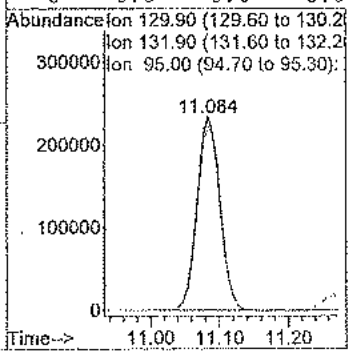


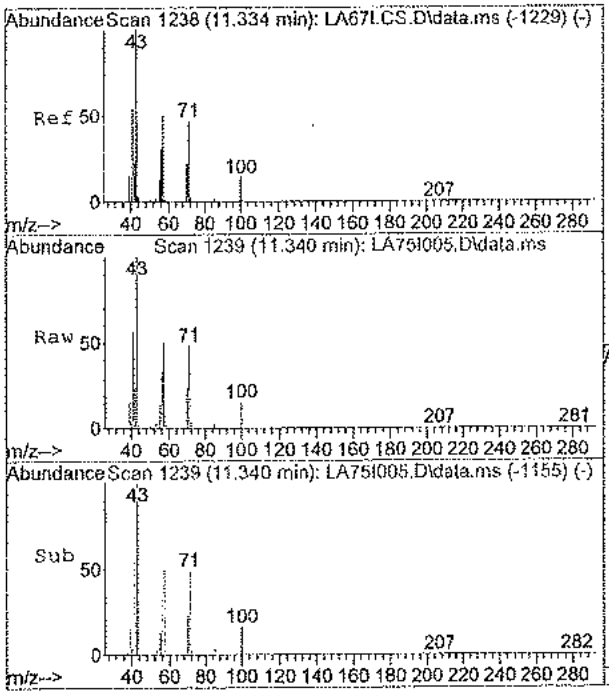


#38
Trichloroethene
Concen: 3.75 ppb
RT: 11.08 min Scan# 1197
Delta R.T. 0.02 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:129.9 Resp: 531141

Ion	Ratio	Lower	Upper
130	100		
132	96.1	77.1	115.7
95	102.3	61.7	92.5#
0	0.0	0.0	0.0

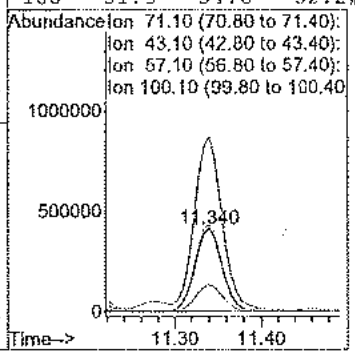


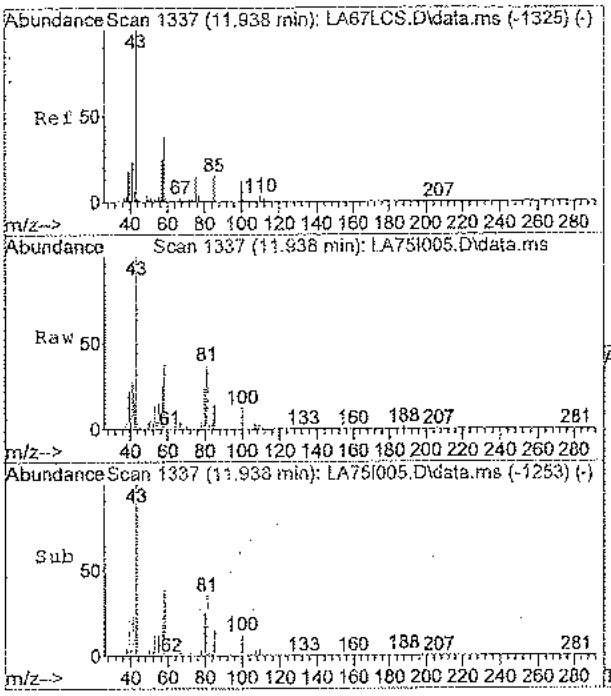


#40
Heptane
Concen: 7.96 ppb
RT: 11.34 min Scan# 1239
Delta R.T. 0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:71.1 Resp: 899553

Ion	Ratio	Lower	Upper
71	100		
43	213.8	87.3	130.9#
57	105.5	57.8	86.6#
100	31.3	34.8	52.2#

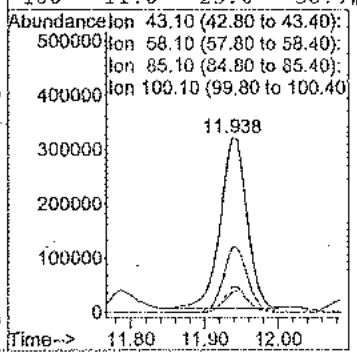


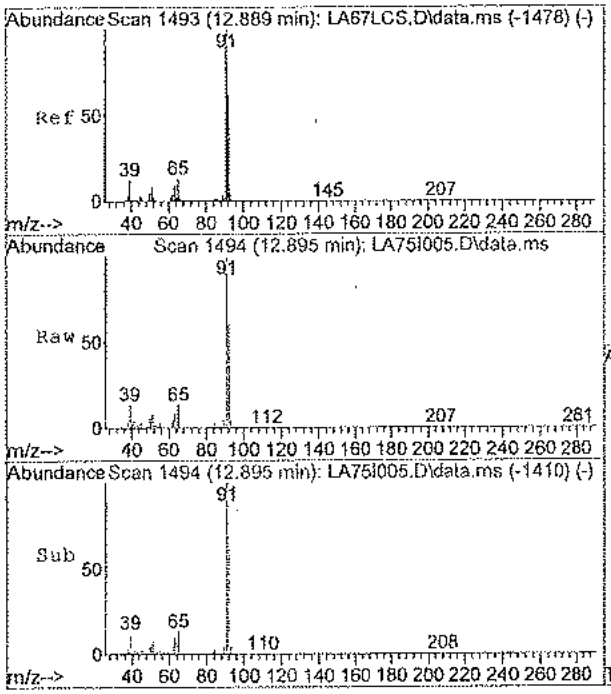


#42
4-Methyl-2-Pentanone
Concen: 2.97 ppb
RT: 11.94 min Scan# 1337
Delta R.T. 0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:43.1 Resp: 797367

Ion	Ratio	Lower	Upper
43	100		
58	34.1	39.5	59.3#
85	13.9	25.1	37.7#
100	11.0	25.6	38.4#

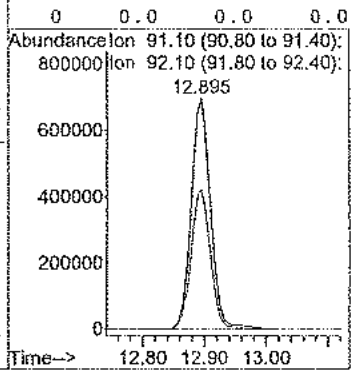


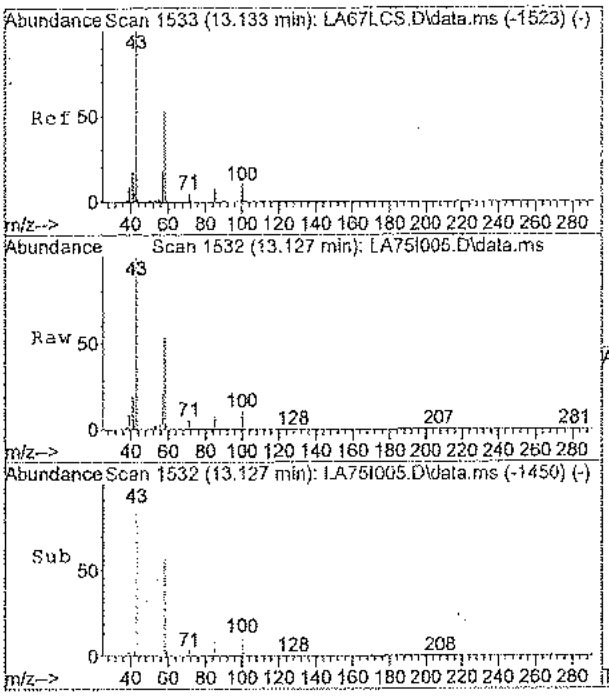


#45
Toluene
Concen: 3.83 ppb
RT: 12.89 min Scan# 1494
Delta R.T. 0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:91.1 Resp: 1511550

Ion	Ratio	Lower	Upper
91	100		
92	60.7	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

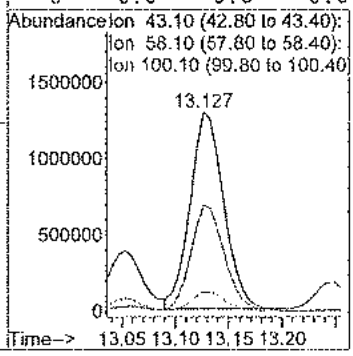


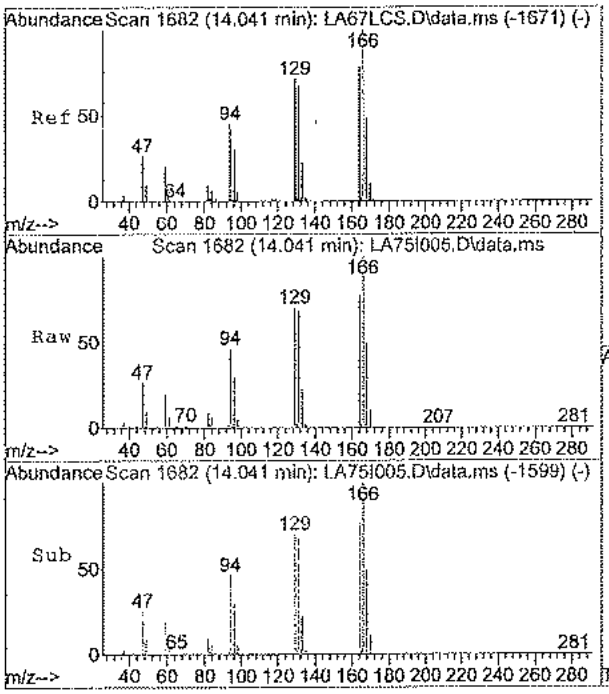


#46
2-Hexanone
Concen: 11.30 ppb
RT: 13.13 min Scan# 1532
Delta R.T. 0.00 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:43.1 Resp: 2816125

Ion	Ratio	Lower	Upper
43	100		
58	53.5	54.7	82.1#
100	9.6	19.6	29.4#
0	0.0	0.0	0.0

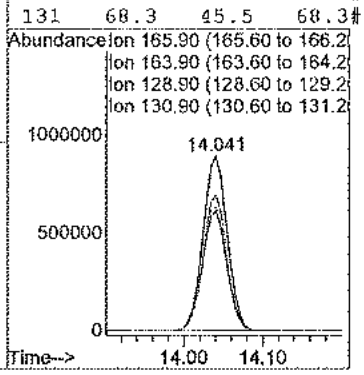


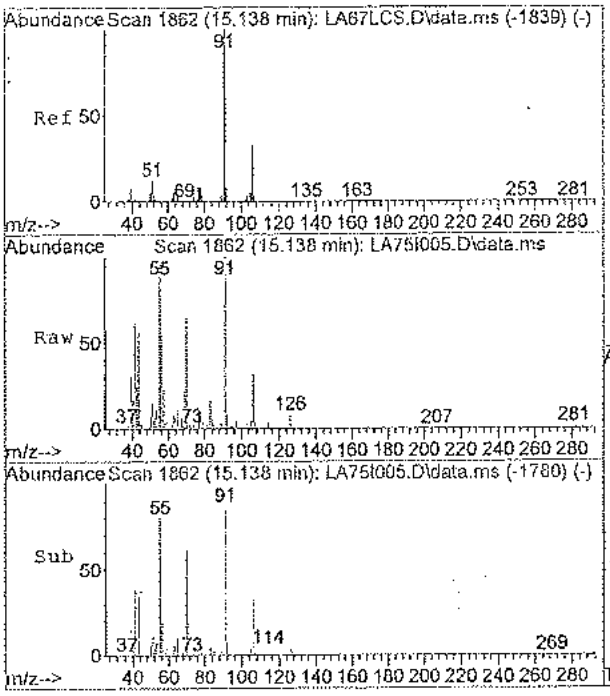


#49
Tetrachloroethene
Concen: 9.78 ppb
RT: 14.04 min Scan# 1682
Delta R.T. 0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:165.9 Resp: 1902275

Ion	Ratio	Lower	Upper
166	100		
164	77.5	61.0	91.4
129	71.2	45.9	68.9#
131	68.3	45.5	68.3#

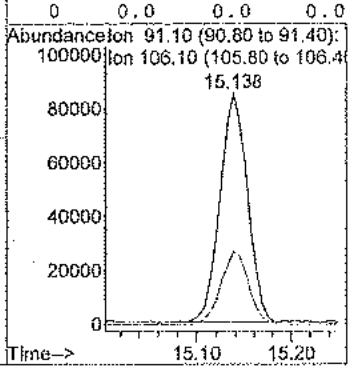


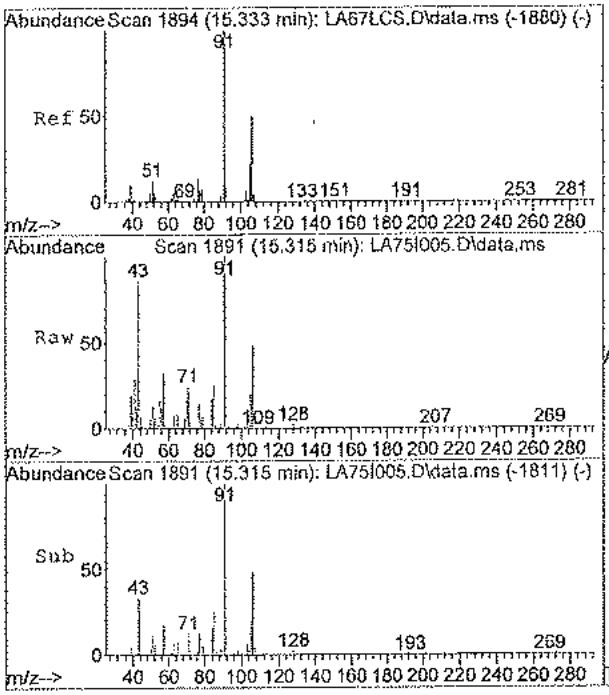


#52
Ethylbenzene
Concen: 0.34 ppb
RT: 15.14 min Scan# 1862
Delta R.T. 0.00 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:91.1 Resp: 169488

Ion	Ratio	Lower	Upper
91	100		
106	32.1	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

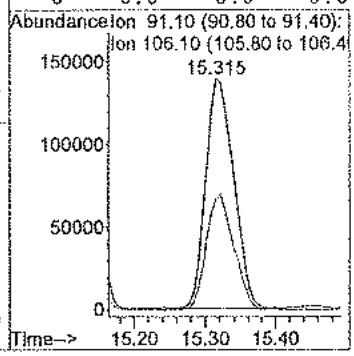


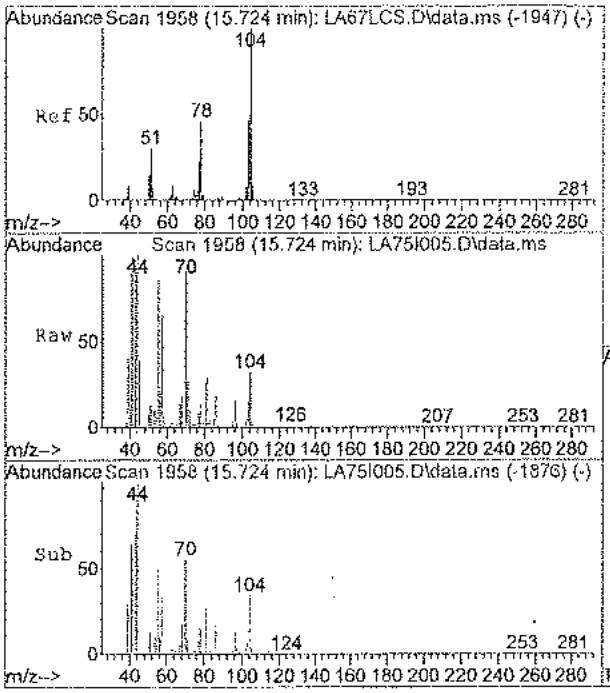


#53
m,p-Xylene
Concen: 0.97 ppb
RT: 15.32 min Scan# 1891
Delta R.T. -0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:91.1 Resp: 375480

Ion	Ratio	Lower	Upper
91	100		
106	49.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

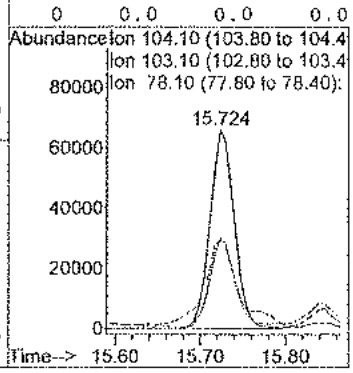


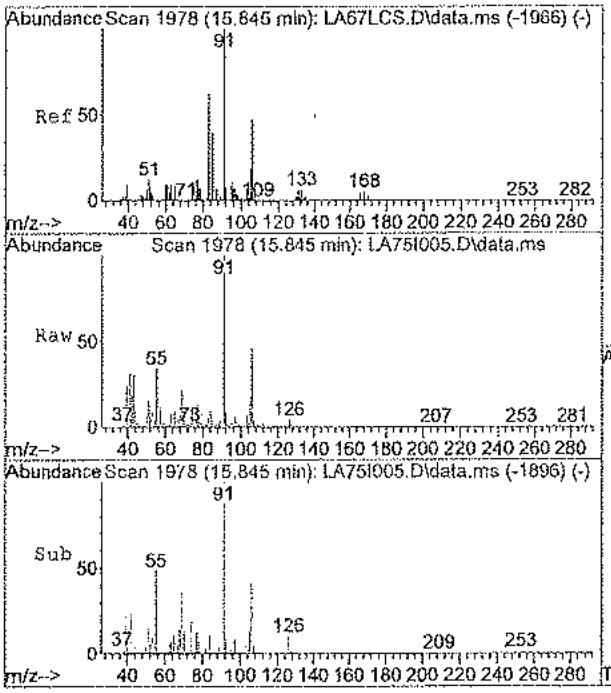


#55
Styrene
Concen: 0.46 ppb
RT: 15.72 min Scan# 1958
Delta R.T. 0.00 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:104.1 Resp: 130351

Ion	Ratio	Lower	Upper
104	100		
103	55.0	36.6	54.8#
78	53.4	27.7	41.5#
0	0.0	0.0	0.0

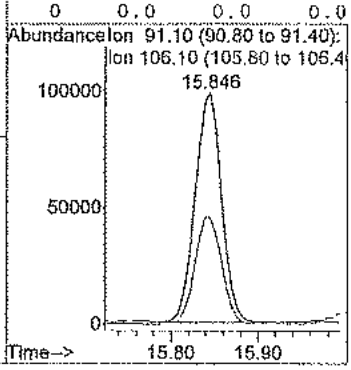


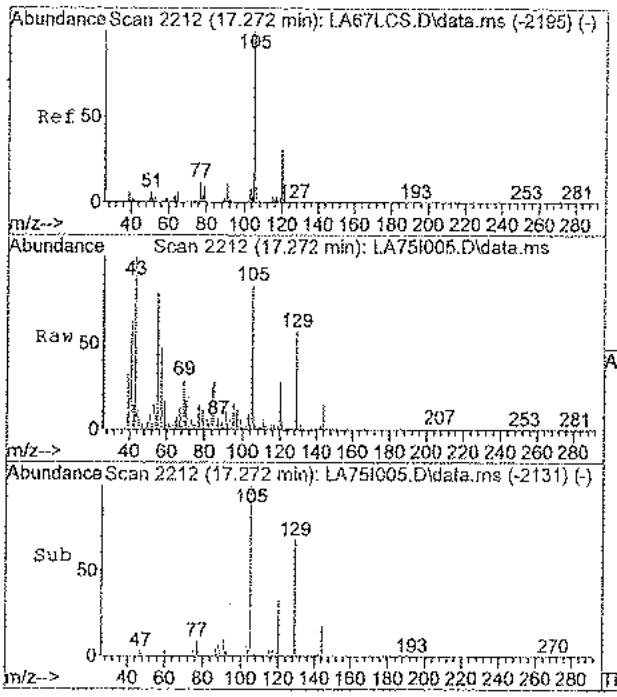


#57
o-Xylene
Concen: 0.52 ppb
RT: 15.85 min Scan# 1978
Delta R.T. 0.00 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:91.1 Resp: 207389

Ion	Ratio	Lower	Upper
91	100		
106	47.5	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

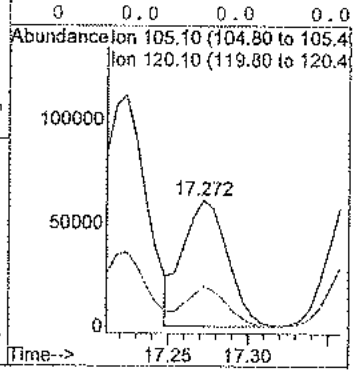


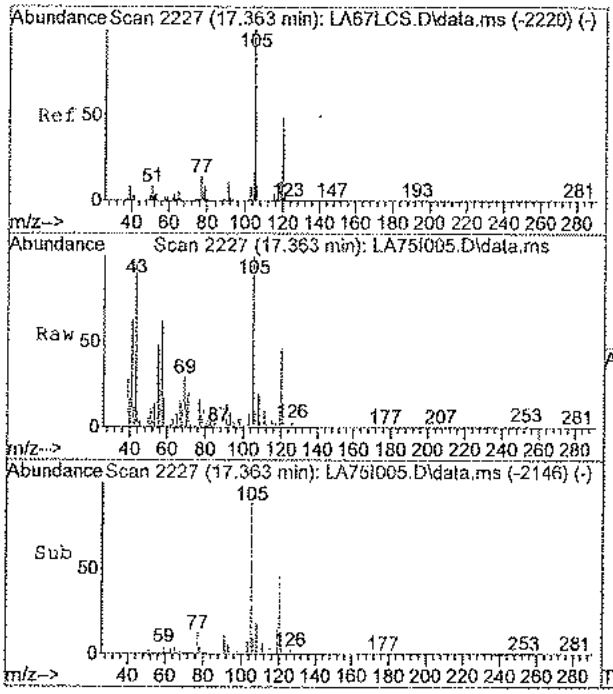


#59
4-Ethyl Toluene
Concen: 0.22 ppb
RT: 17.27 min Scan# 2212
Delta R.T. -0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:105.1 Resp: 118645

Ion	Ratio	Lower	Upper
105	100		
120	27.8	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

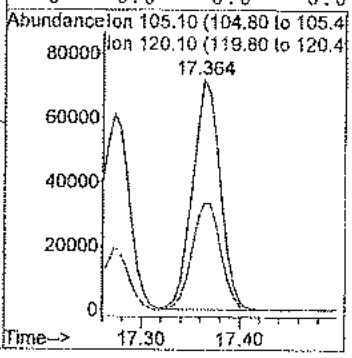


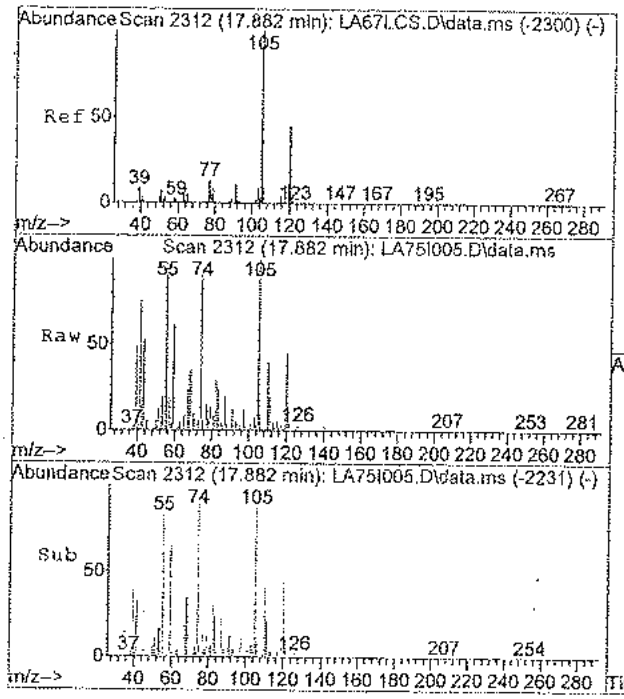


#60
1,3,5-Trimethylbenzene
Concen: 0.31 ppb
RT: 17.36 min Scan# 2227
Delta R.T. -0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:105.1 Resp: 140796

Ion	Ratio	Lower	Upper
105	100		
120	48.9	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

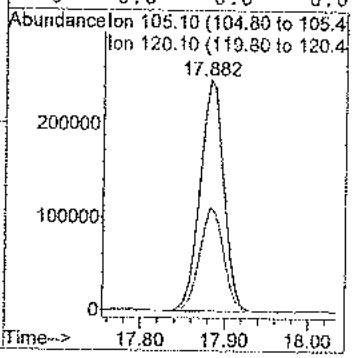


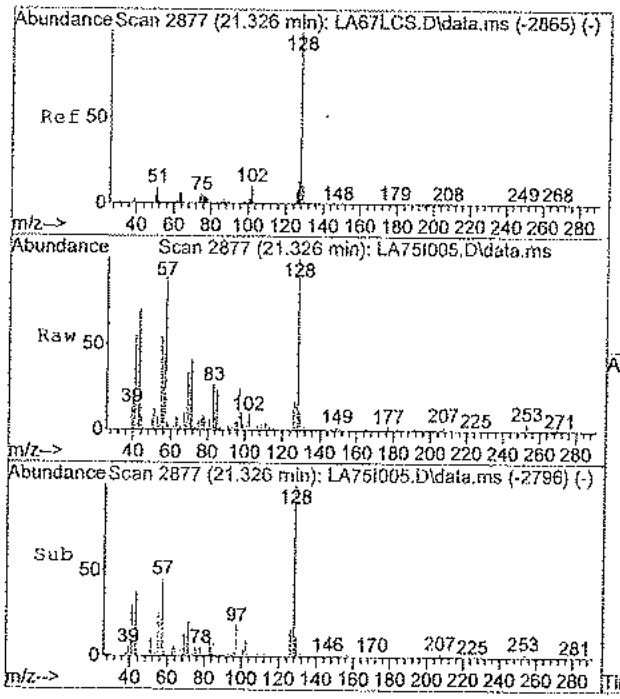


#61
1,2,4-Trimethylbenzene
Concen: 1.06 ppb
RT: 17.86 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:105.1 Resp: 482395

Ion	Ratio	Lower	Upper
105	100		
120	45.1	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

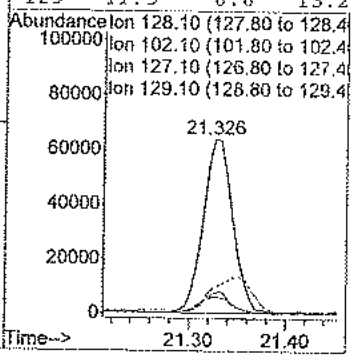




#67
Naphthalene
Concen: 0.35 ppb
RT: 21.33 min Scan# 2877
Delta R.T. -0.01 min
Lab File: LA75I005.D
Acq: 04/20/2015 17:15

Tgt Ion:128.1 Resp: 136533

Ion	Ratio	Lower	Upper
128	100		
102	9.7	6.7	10.1
127	0.0	10.0	15.0#
129	11.9	8.8	13.2



Library Search Compound Report

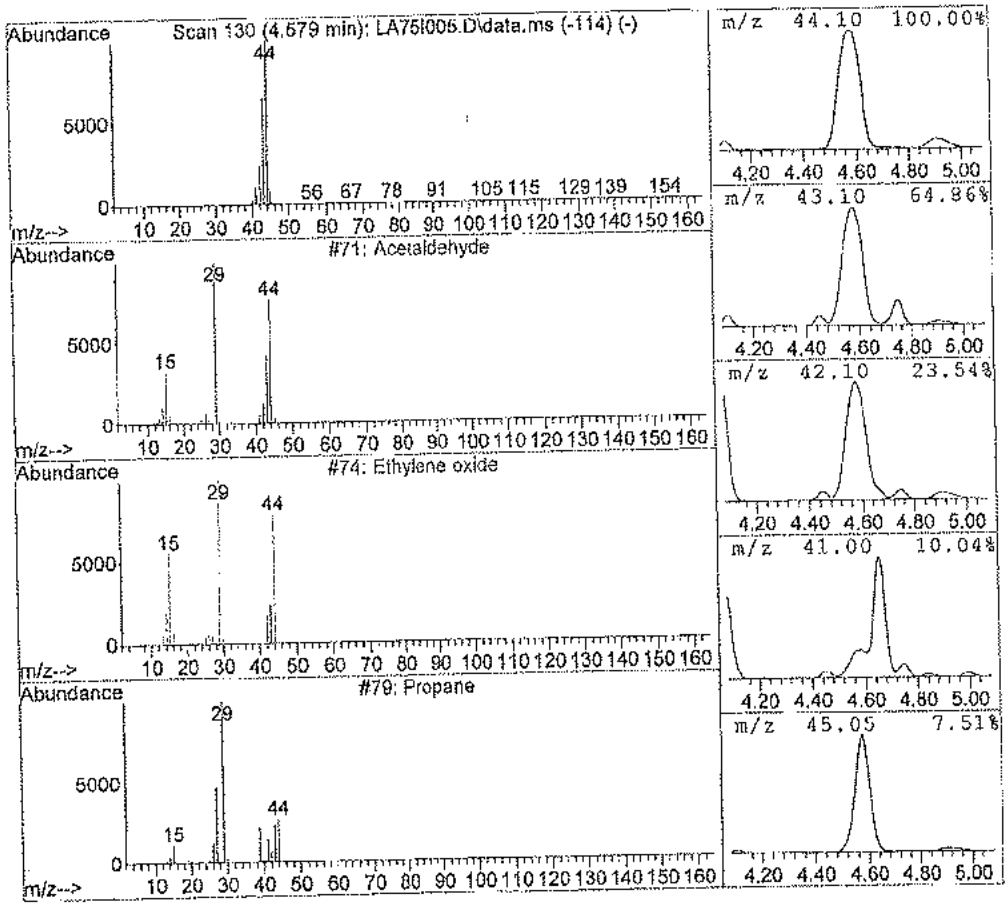
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.58	104.40 ppb	91070409	Bromochloromethane	17447091

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	71	000075-07-0	9.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	79	000074-98-6	4.00
4	d-Alanine	2141	000338-69-2	4.00
5	Glycidol	801	000556-52-5	4.00



Library Search Compound Report

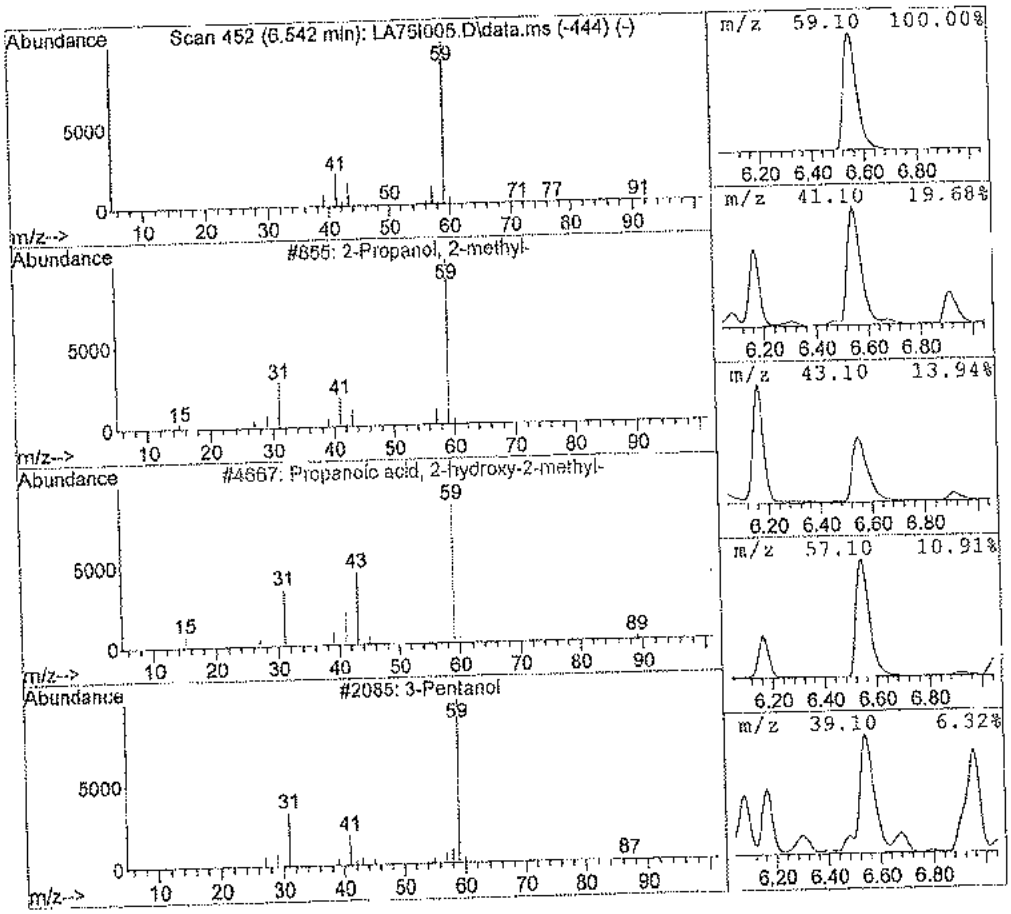
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.54	28.20 ppb	24600177	Bromochloromethane	17447091

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Propanol, 2-methyl-	855	000075-65-0	83.00
2	Propanoic acid, 2-hydroxy-2-methyl-	4667	000594-61-6	9.00
3	3-Pentanol	2085	000584-02-1	9.00
4	Guanidine	256	000113-00-8	4.00
5	Formamide, N-methyl-	243	000123-39-7	4.00



Library Search Compound Report

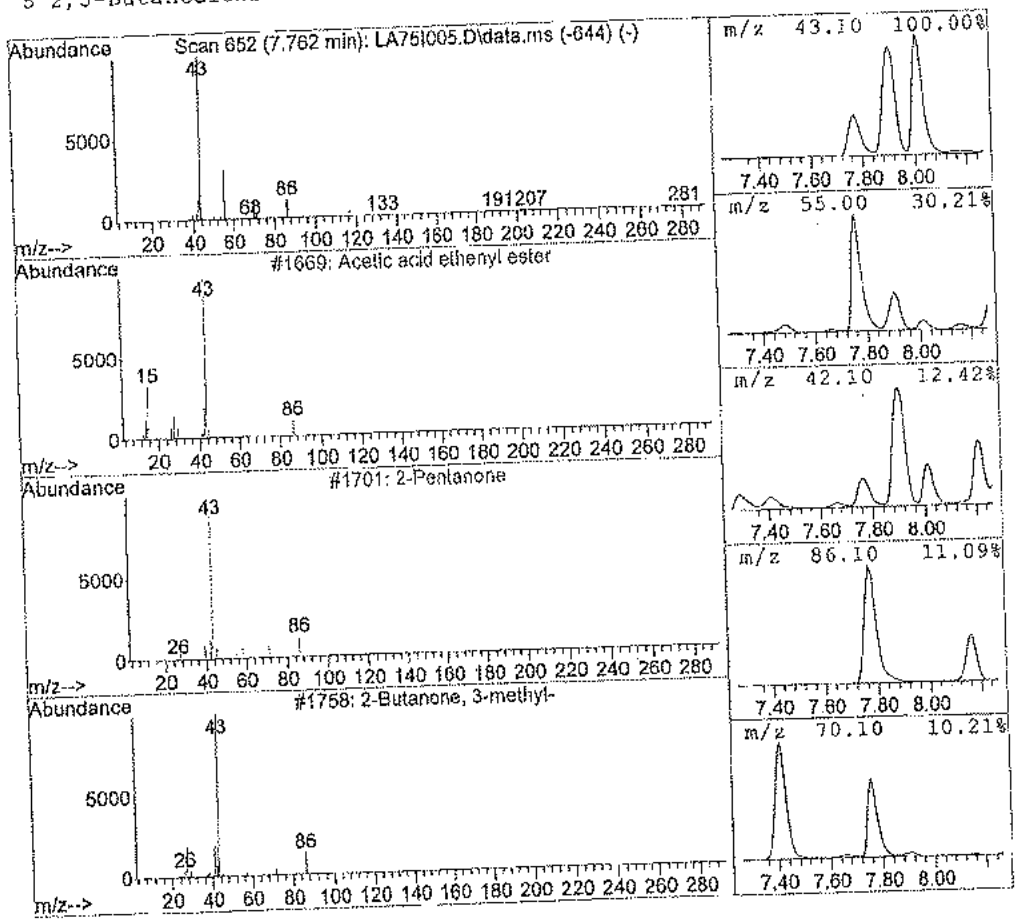
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.76	12.35 ppb	10772375	Bromochloromethane	17447091

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid ethenyl ester	1669	000108-05-4	38.00
2	2-Pentanone	1701	000107-87-9	9.00
3	2-Butanone, 3-methyl-	1758	000563-80-4	9.00
4	Azetidine, 1-nitroso-	1600	015216-10-1	9.00
5	2,3-Butanedione	1653	000431-03-8	9.00



Library Search Compound Report

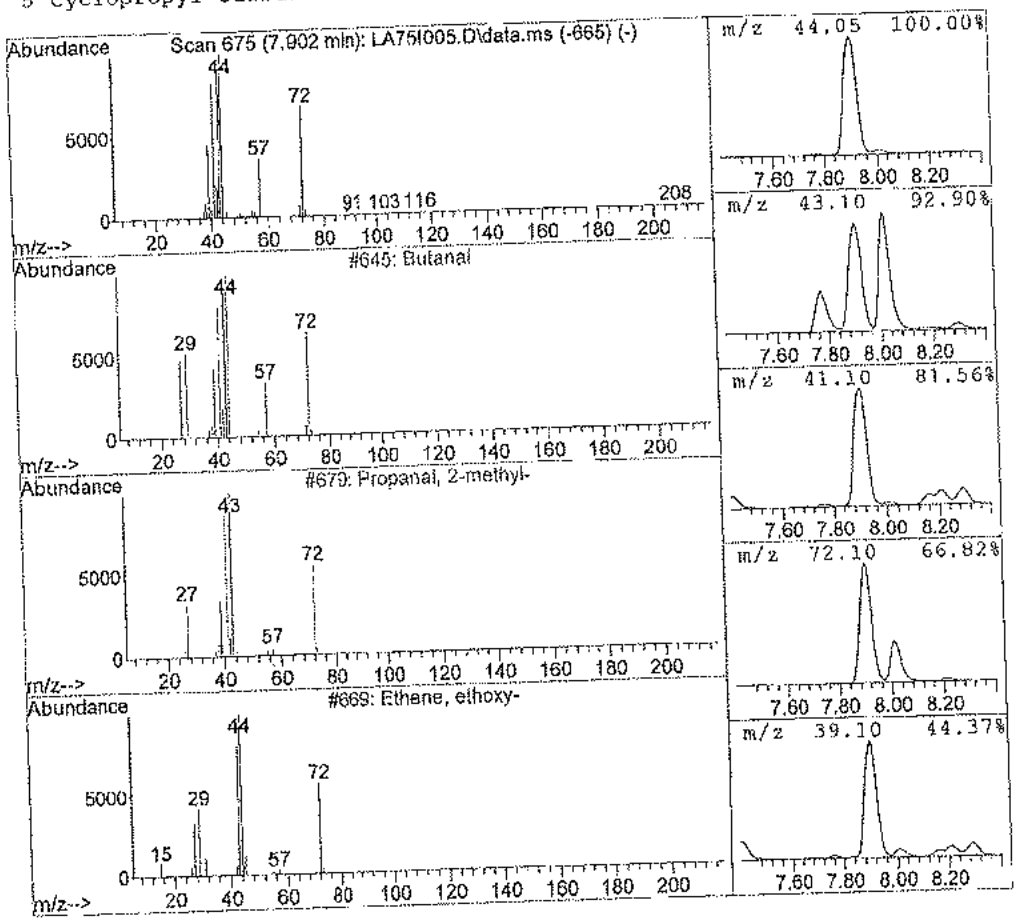
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.90	91.62 ppb	79921327	Bromochloromethane	17447091

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butanal	645	000123-72-8	94.00
2	Propanal, 2-methyl-	679	000078-84-2	52.00
3	Ethene, ethoxy-	669	000109-92-2	52.00
4	1-Propene, 3-methoxy-	688	000627-40-7	38.00
5	Cyclopropyl carbinol	687	002516-33-8	25.00



Library Search Compound Report

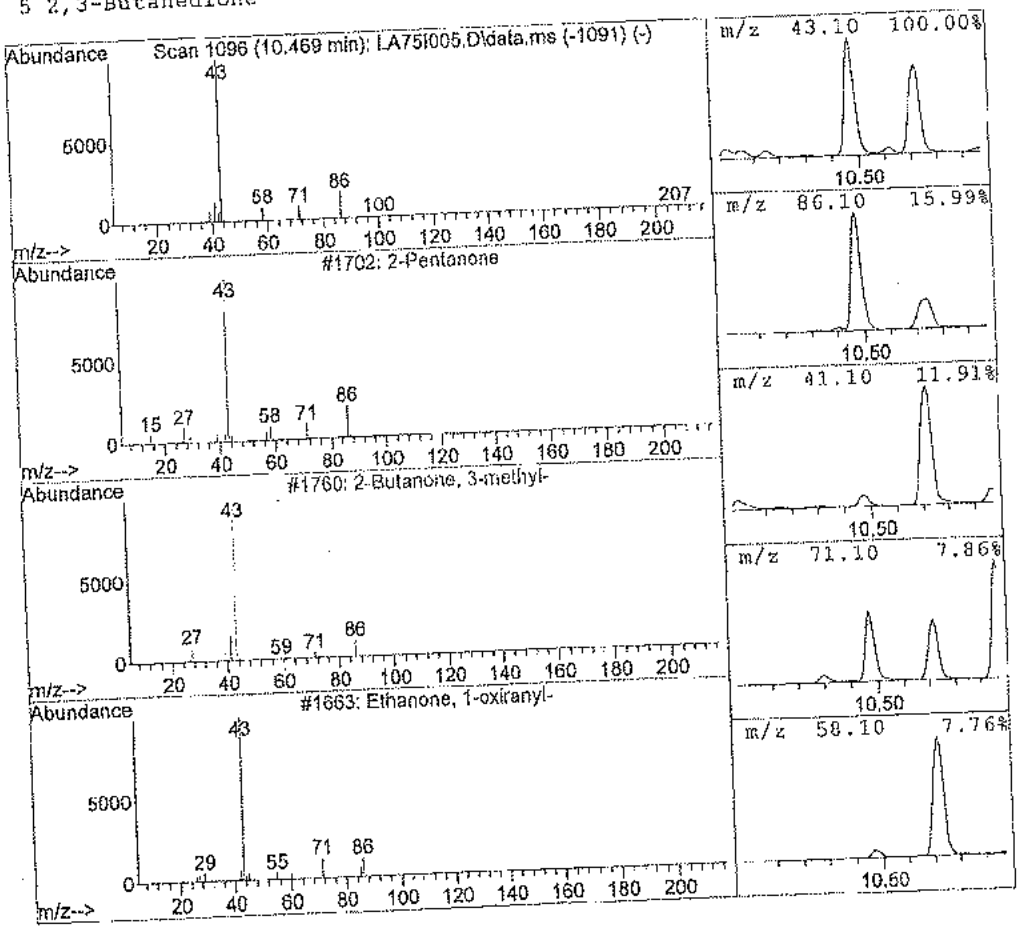
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.47	15.77 ppb	13159934	1,4-Difluorobenzene	16694881

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Pentanone	1702	000107-87-9	90.00
2	2-Butanone, 3-methyl-	1760	000563-80-4	64.00
3	Ethanone, 1-oxiranyl-	1663	004401-11-0	42.00
4	Acetic acid ethenyl ester	1670	000108-05-4	9.00
5	2,3-Butanedione	1651	000431-03-8	9.00



Library Search Compound Report

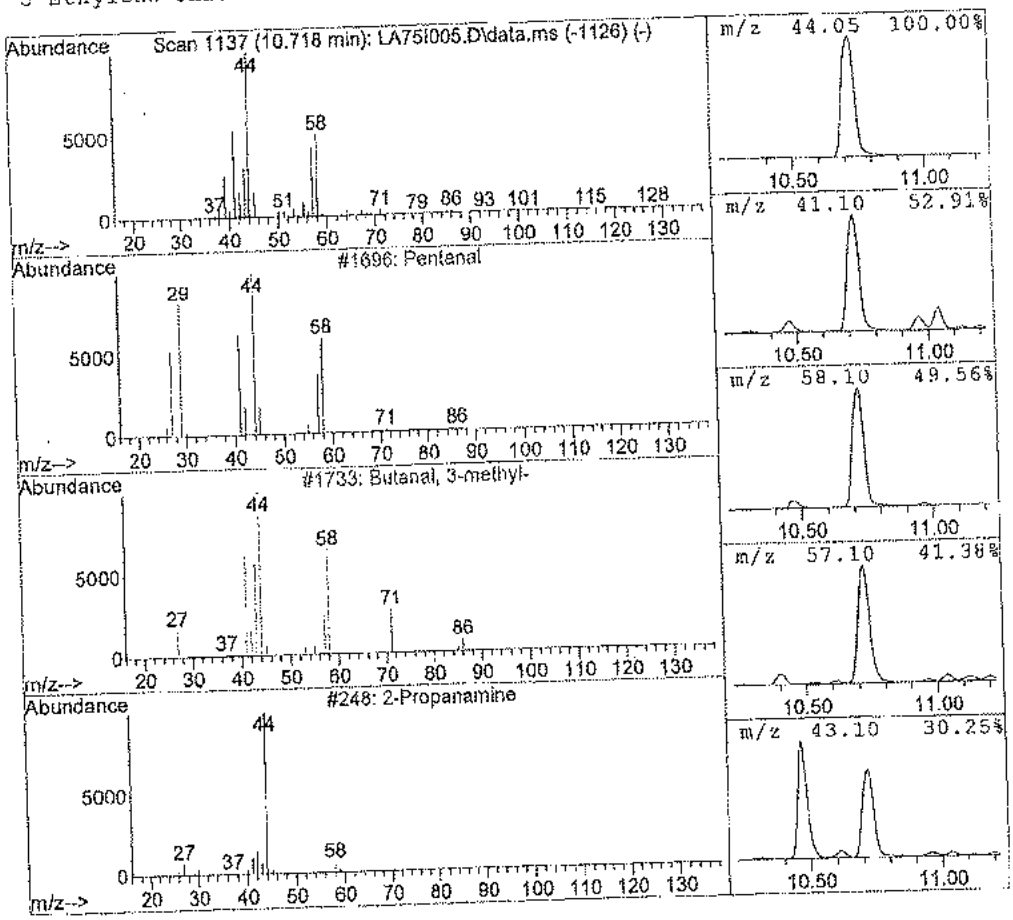
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.72	103.13 ppb	86085651	1,4-Difluorobenzene	16694881

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentanal	1696	000110-62-3	91.00
2	Butanal, 3-methyl-	1733	000590-86-3	74.00
3	2-Propanamine	248	000075-31-0	38.00
4	Cyclopropyl carbinol	685	002516-33-8	33.00
5	Ethylene oxide	74	000075-21-8	9.00



Library Search Compound Report

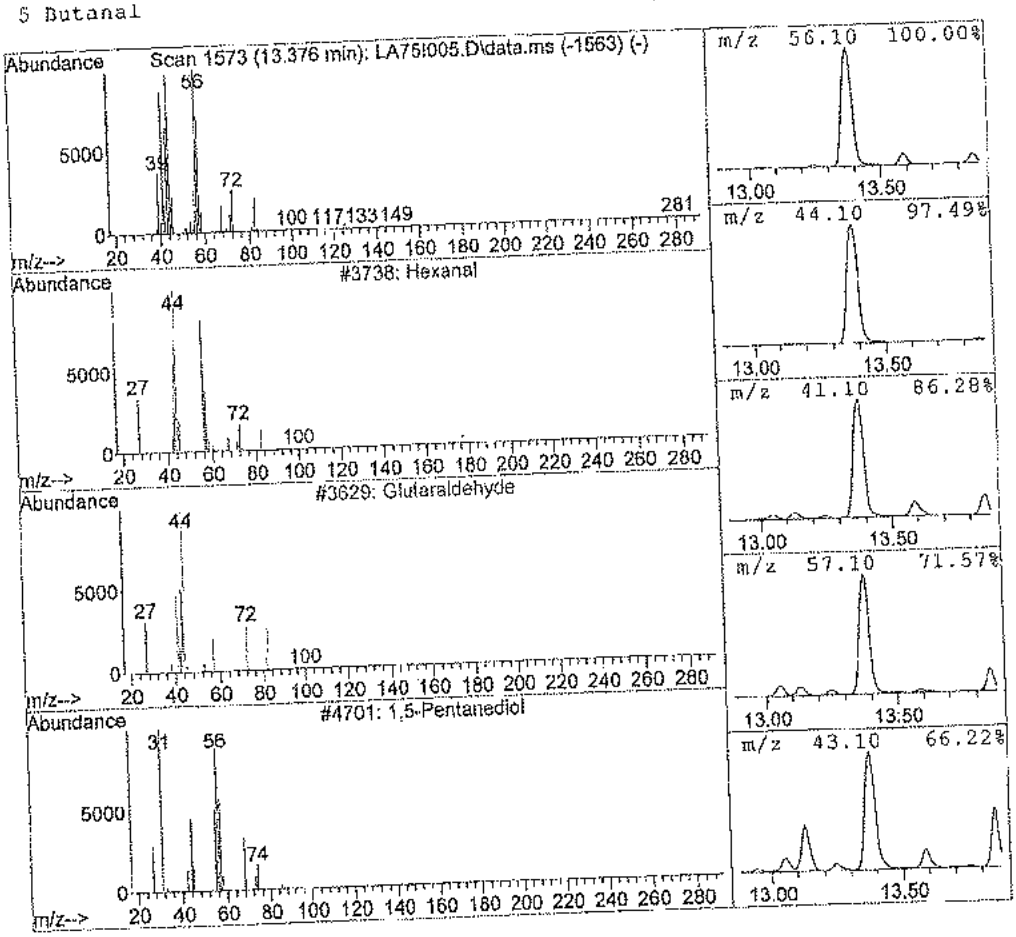
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.38	90.82 ppb	89147339	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanal	3738	000066-25-1	91.00
2	Glutaraldehyde	3629	000111-30-8	43.00
3	1,5-Pentanediol	4701	000111-29-5	28.00
4	2,2-Dimethyl-3-hydroxypropionaldehy	4305	000597-31-9	23.00
5	Butanal	645	000123-72-8	16.00



Library Search Compound Report

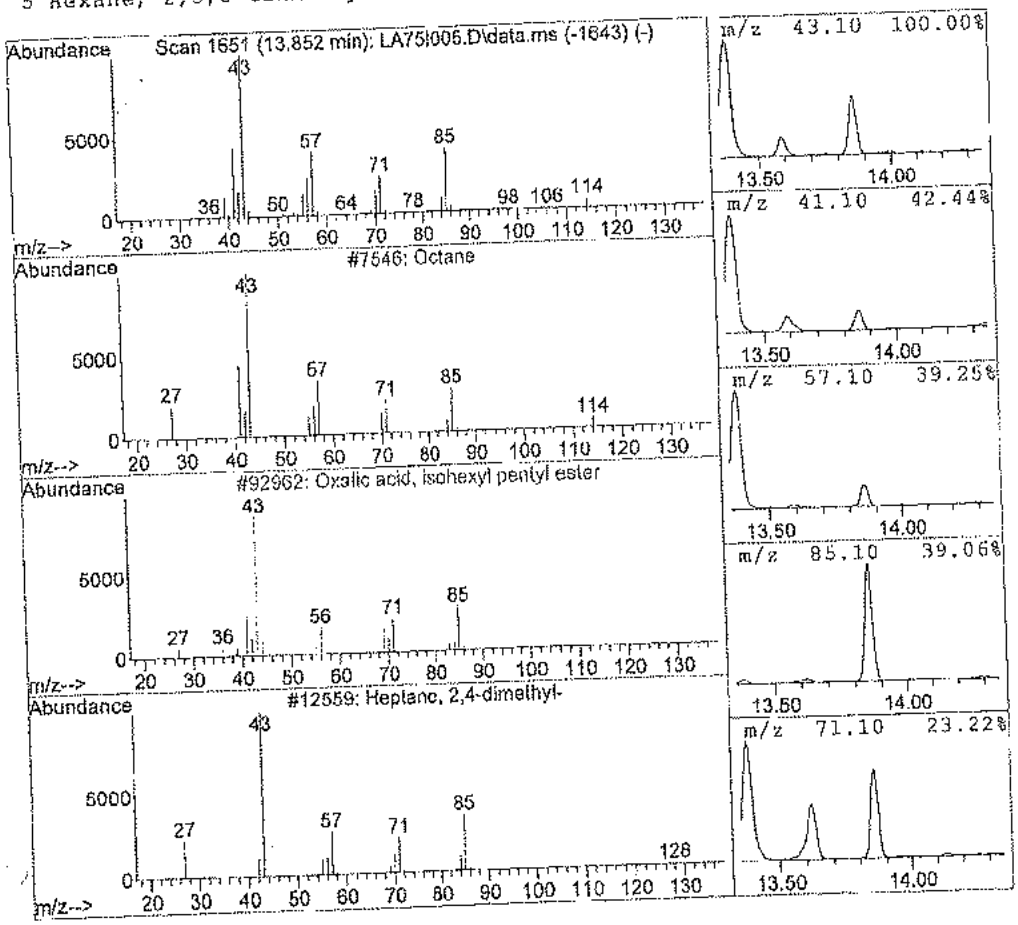
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.85	12.05 ppb	11830954	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane	7546	000111-65-9	95.00
2	Oxalic acid, isohexyl pentyl ester	92962	1000309-32-8	83.00
3	Heptane, 2,4-dimethyl-	12559	002213-23-2	78.00
4	Hexane, 2,4-dimethyl-	7568	000589-43-5	72.00
5	Hexane, 2,3,5-trimethyl-	12572	001069-53-0	64.00



Library Search Compound Report

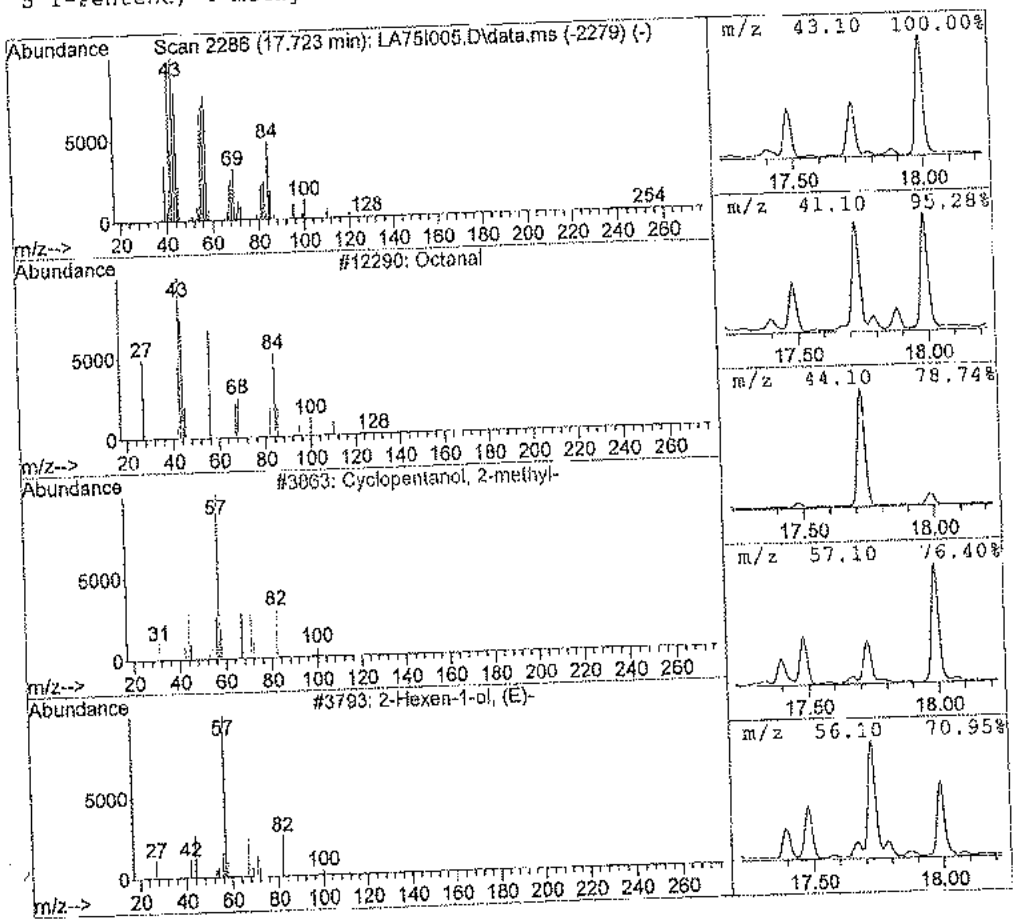
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.72	18.28 ppb	17943448	Chlorobenzene d5	19631128

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octanal	12290	000124-13-0	87.00
2	Cyclopentanol, 2-methyl-	3863	024070-77-7	47.00
3	2-Hexen-1-ol, (E)-	3793	000928-95-0	38.00
4	Cyclopentane, methyl-	1484	000096-37-7	38.00
5	1-Pentene, 4-methyl-	1469	000691-37-2	27.00



Library Search Compound Report

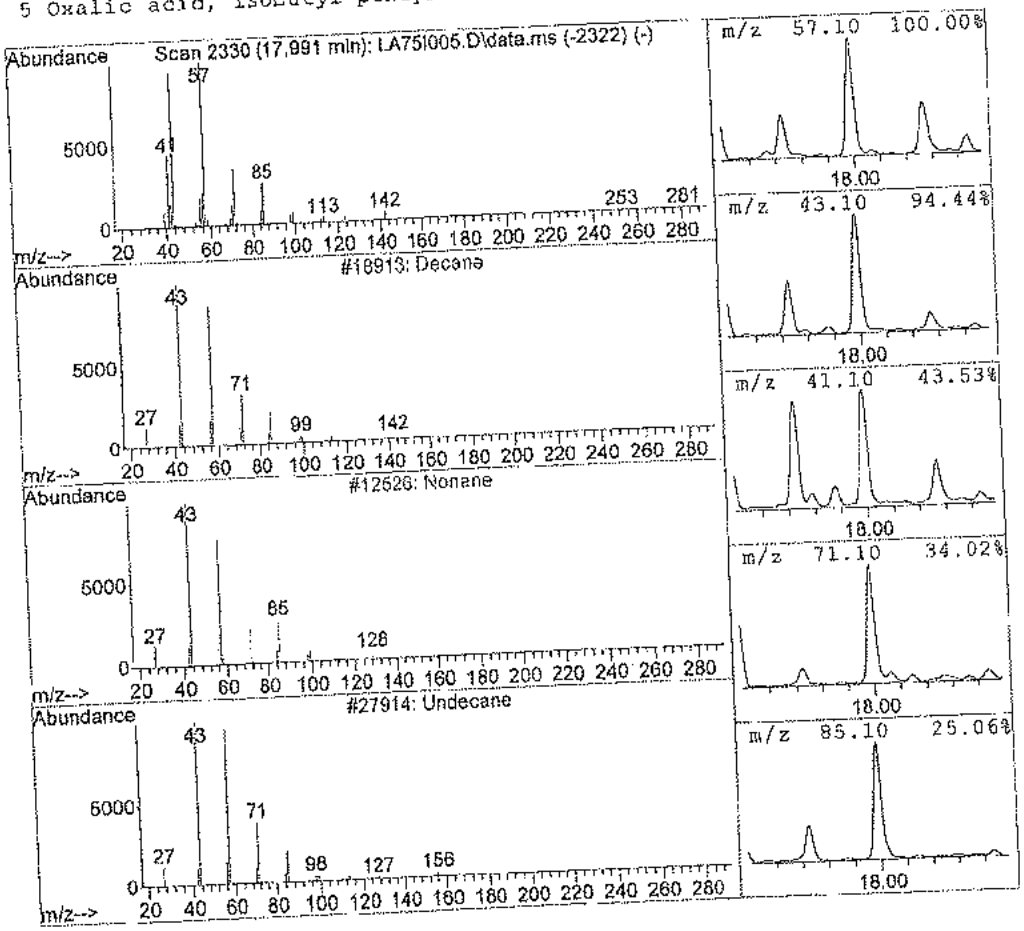
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.99	20.02 ppb	19647060	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane	18913	000124-18-5	95.00
2	Nonane	12526	000111-84-2	91.00
3	Undecane	27914	001120-21-4	72.00
4	Heptane, 2,4-dimethyl-	12548	002213-23-2	58.00
5	Oxalic acid, isobutyl pentyl ester	71323	1000309-37-0	53.00



Library Search Compound Report

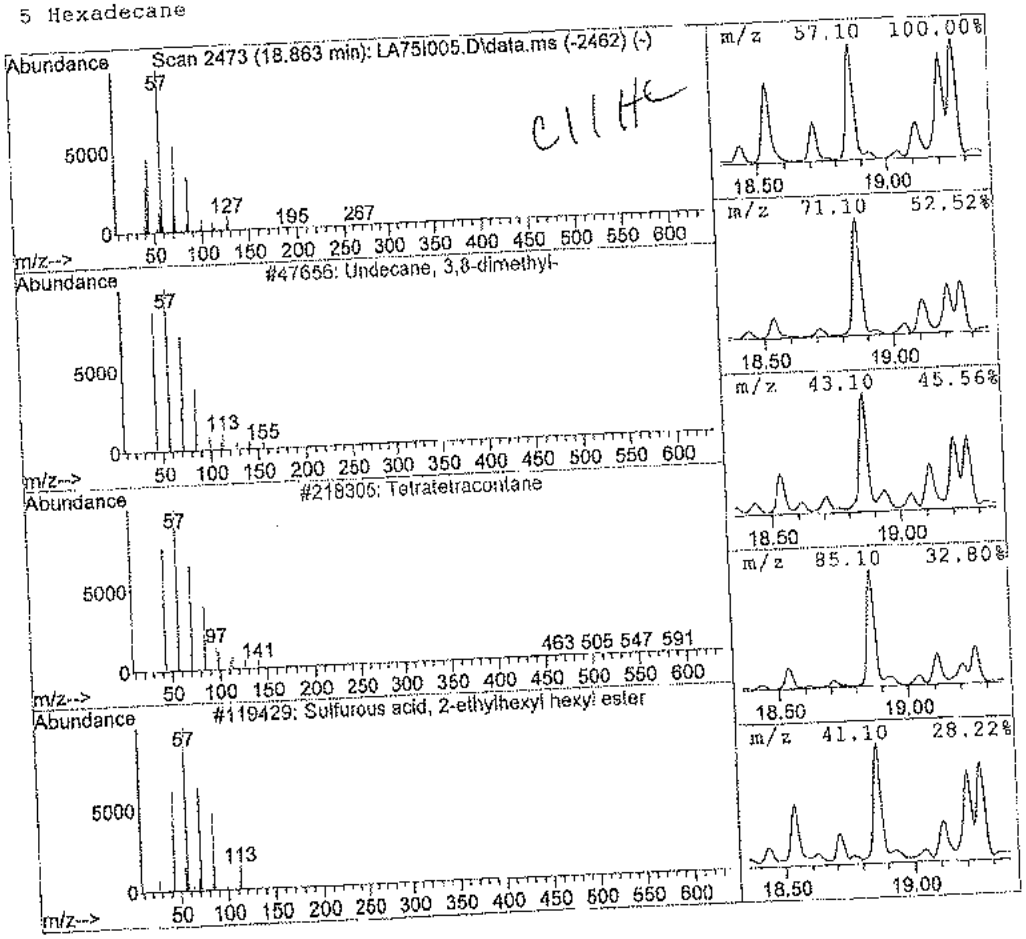
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.86	17.02 ppb	16702386	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane, 3,8-dimethyl-	47656	017301-30-3	72.00
2	Tetratetracontane	218305	007098-22-8	64.00
3	Sulfurous acid, 2-ethylhexyl hexyl	119429	1000309-20-2	64.00
4	Undecane, 4,6-dimethyl-	47655	017312-82-2	59.00
5	Hexadecane	79879	000544-76-3	59.00



Library Search Compound Report

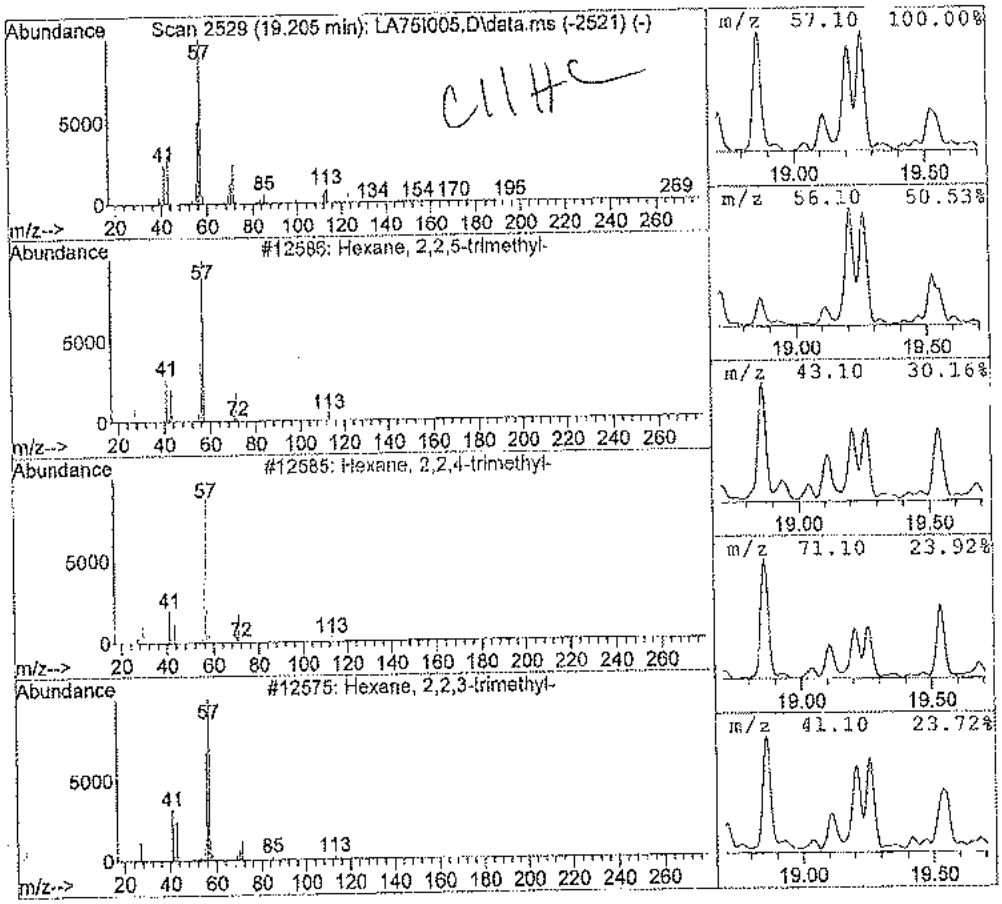
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.20	12.52 ppb	12285394	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2,2,5-trimethyl-	12586	003522-94-9	72.00
2	Hexane, 2,2,4-trimethyl-	12585	016747-26-5	64.00
3	Hexane, 2,2,3-trimethyl-	12575	016747-25-4	64.00
4	Pentane, 2,2,3,4-tetramethyl-	12602	001186-53-4	53.00
5	Heptane, 2,5-dimethyl-	12550	002216-30-0	52.00



Library Search Compound Report

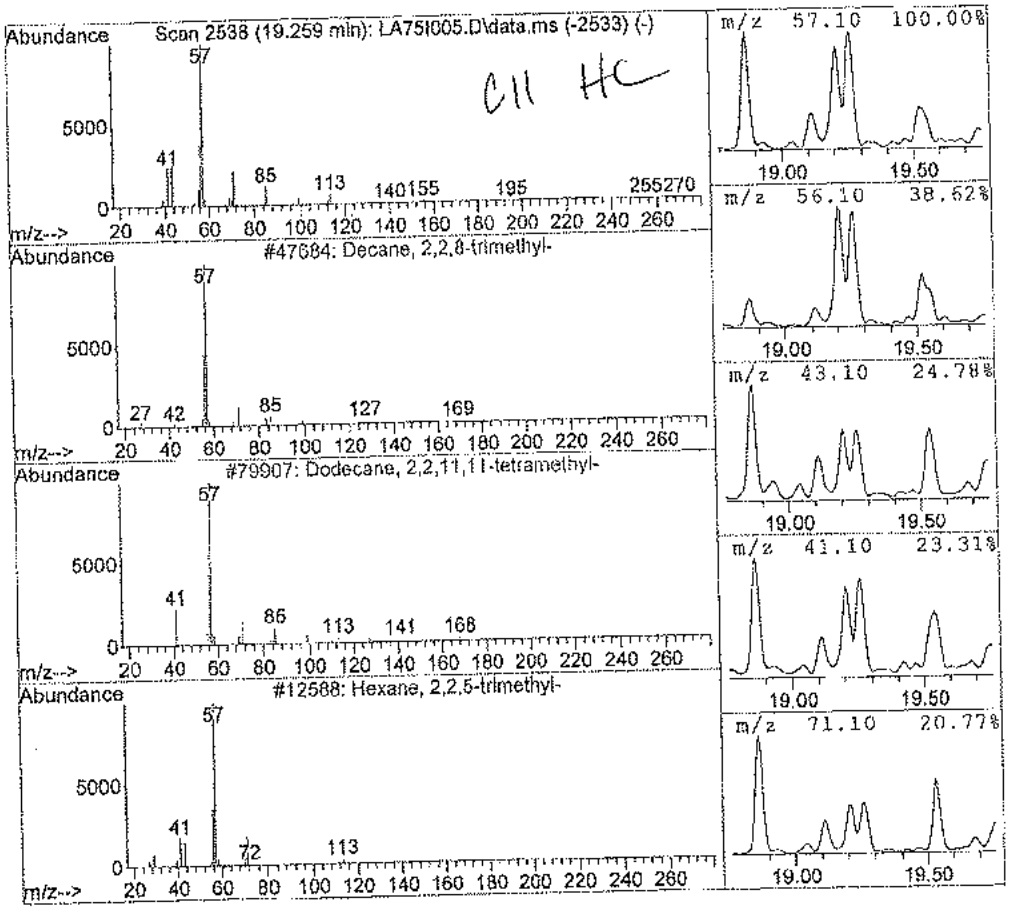
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:15
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.26	12.92 ppb	12678663	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2,2,8-trimethyl-	47684	062238-01-1	72.00
2	Dodecane, 2,2,11,11-tetramethyl-	79907	127204-12-0	64.00
3	Hexane, 2,2,5-trimethyl-	12588	003522-94-9	64.00
4	Heptane, 2,2-dimethyl-	12551	001071-26-7	64.00
5	Hexane, 2,2,4-trimethyl-	12584	016747-26-5	53.00



Library Search Compound Report

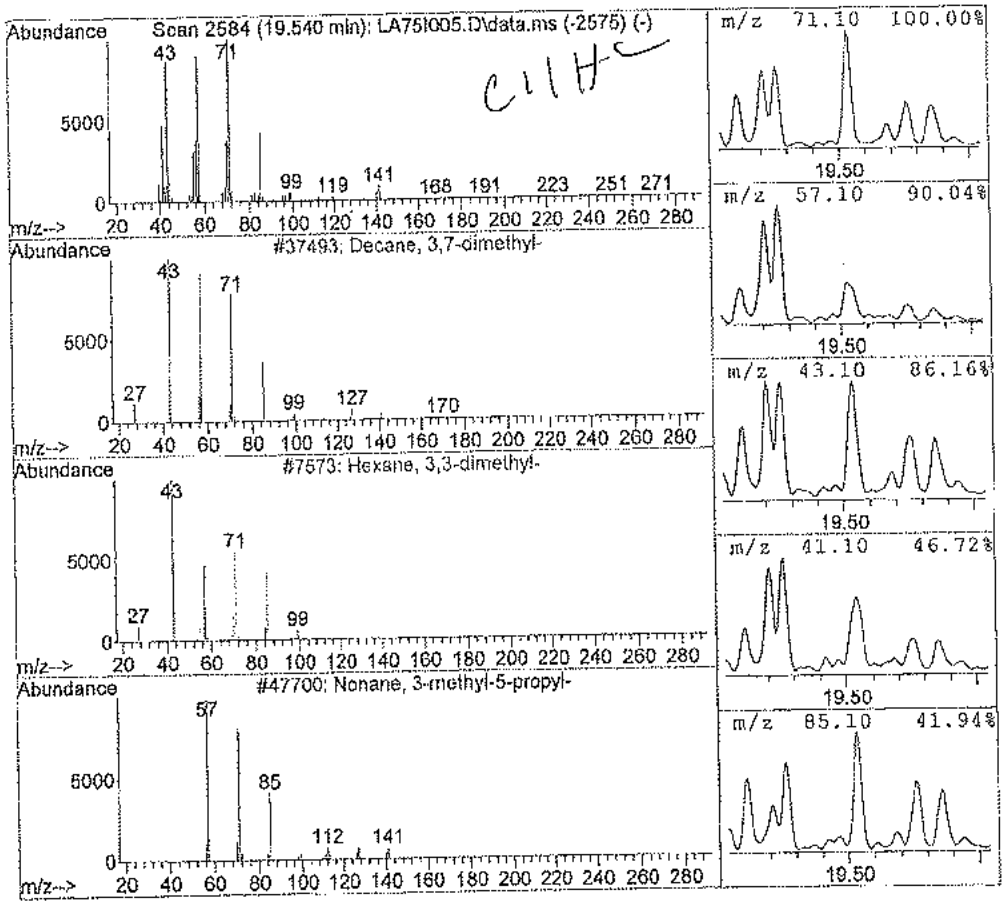
Data File : J:\L\2015\APR15L\20APR15L\LA75I005.D
Acq Time : 04/20/2015 17:35
Sample : 1510559005
Misc : 0445 TO-004BLK
MS Integration Params: rteint.p

Vial: 6
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.54	11.58 ppb	11363783	Chlorobenzene d5	19631125

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 3,7-dimethyl-	37493	017312-54-8	64.00
2	Hexane, 3,3-dimethyl-	7573	000563-16-6	59.00
3	Nonane, 3-methyl-5-propyl-	47700	031081-18-2	53.00
4	Octane, 6-ethyl-2-methyl-	27942	062016-19-7	53.00
5	Octane, 3,3-dimethyl-	18942	004110-44-5	47.00

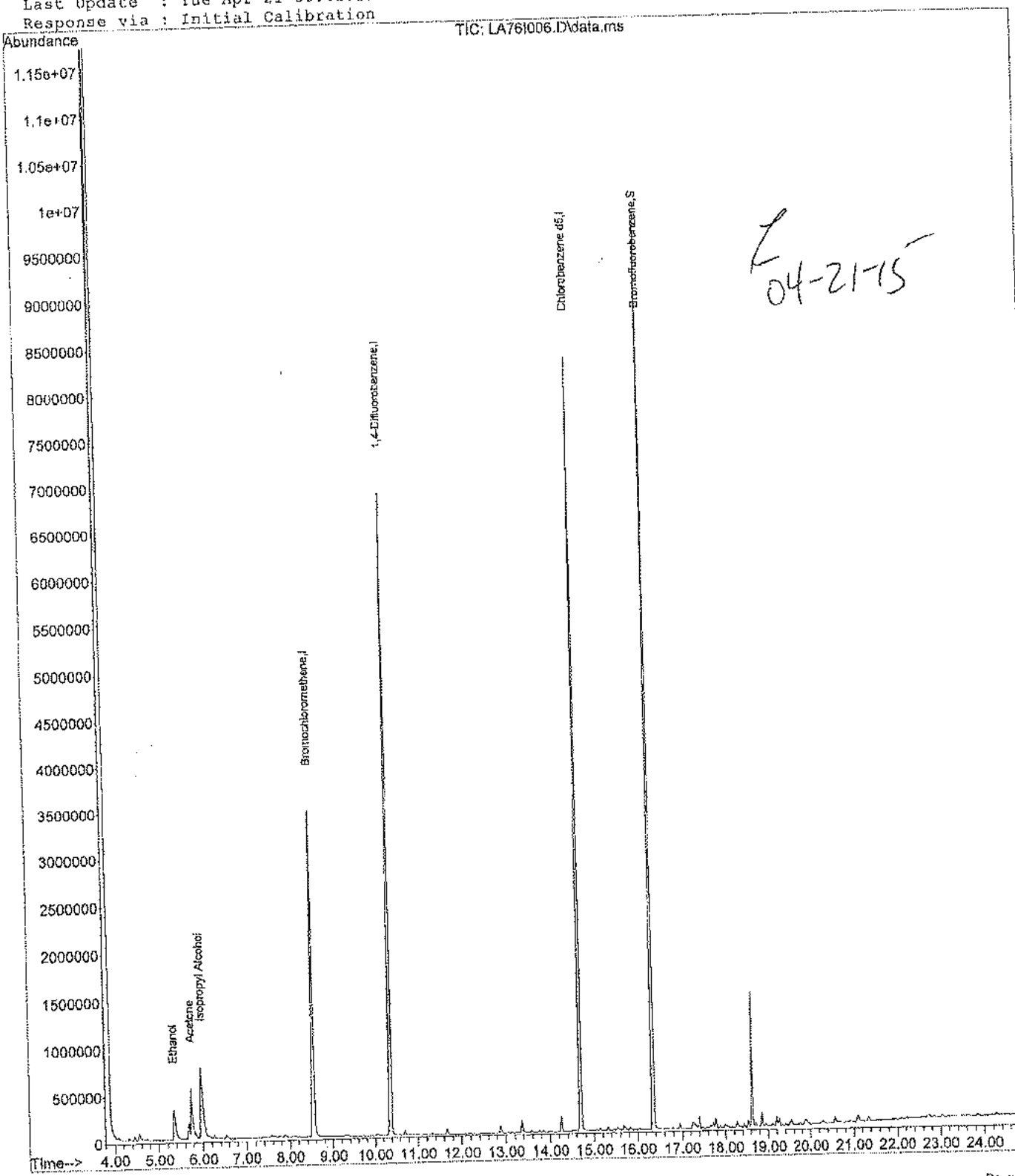


Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA76I006.D Vial: 7
Acq Time : 04/20/2015 18:04 Operator: TJM
Sample : 1510559006 Inst : 5975-L
Misc : 0297 SG-001-A8` Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 09:46:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



4-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA76I006.D
Acq Time : 04/20/2015 18:04
Sample : 1510559006
Misc : 0297 SG-001-A8`
MS Integration Params: rteint.p

Vial: 7
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:46:54 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.54	130	588352	20.0000 ppb	121.14
25) 1,4-Difluorobenzene	10.37	114	6793629	20.0000 ppb	111.98
50) Chlorobenzene d5	14.70	117	5809021	20.0000 ppb	112.47
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	4337917	18.7512 ppb	93.76%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.74	43	1204281	6.1911 ppb	90
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.34	45	733926	18.8705 ppb TK	78
14) Isopropyl Alcohol	5.97	45	1960191	5.9393 ppb TIC	97
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA76I006.D
Acq Time : 04/20/2015 18:04
Sample : 1510559006
Misc : 0297 SG-001-A8`
MS Integration Params: rteint.p

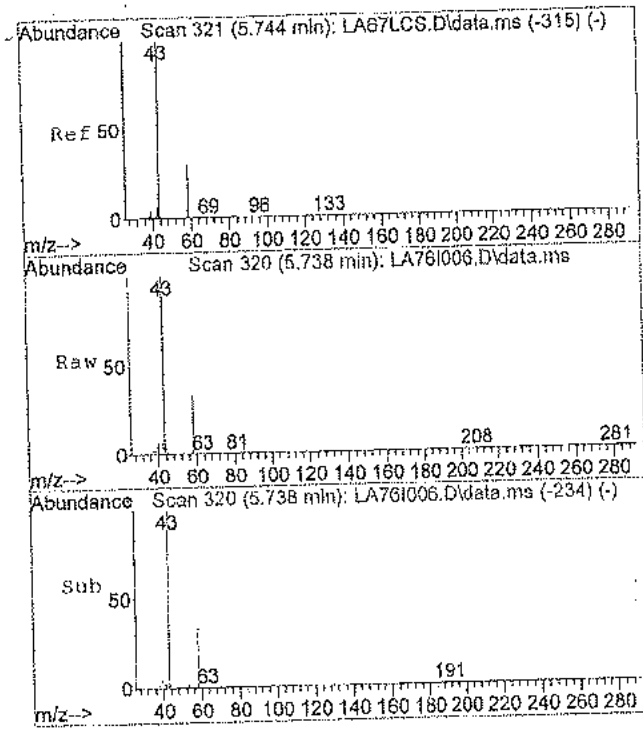
Vial: 7
Operator: TJN
Inst : 5975-L
Multiplr: 1.00

Quant Time: Apr 21 09:46:54 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	Qlon	Response	Conc	Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected		
52) Ethylbenzene	0.00	91		Not Detected		
53) m,p-Xylene	0.00	91		Not Detected		
54) Bromoform	0.00	173		Not Detected		
55) Styrene	0.00	104		Not Detected		
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57) o-Xylene	0.00	91		Not Detected		
59) 4-Ethyl Toluene	0.00	105		Not Detected		
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected		
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected		
62) Benzyl Chloride	0.00	91		Not Detected		
63) m-Dichlorobenzene	0.00	146		Not Detected		
64) p-Dichlorobenzene	0.00	146		Not Detected		
65) o-Dichlorobenzene	0.00	146		Not Detected		
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67) Naphthalene	0.00	128		Not Detected		
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected		

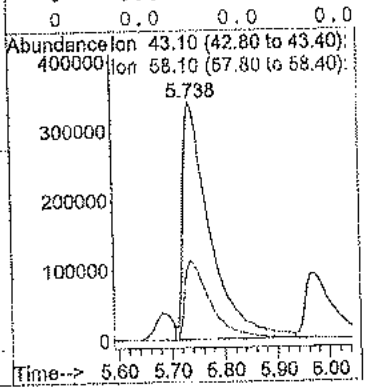
(#) = qualifier out of range (m) = manual integration

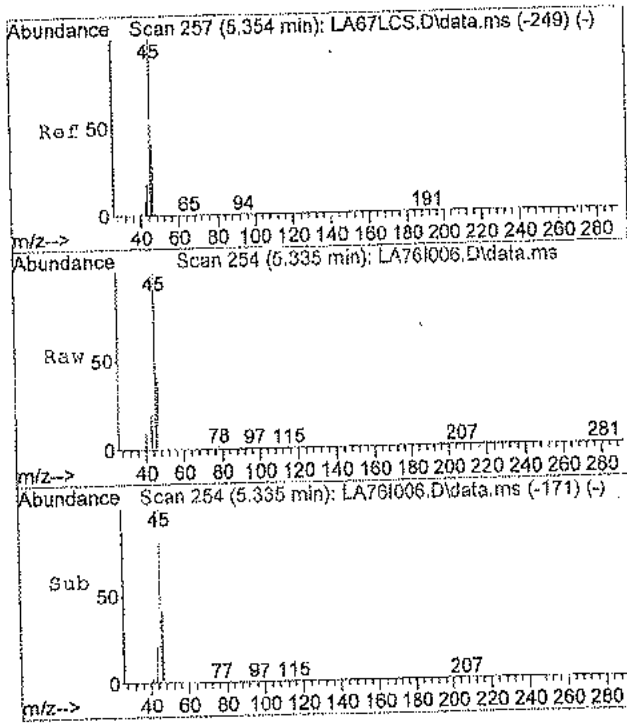


#11
Acetone
Concen: 6.19 ppb
RT: 5.74 min Scan# 320
Delta R.T. 0.02 min
Lab File: LA76I006.D
Acq: 04/20/2015 18:04

Tgt Ion:43.1 Resp: 1204281

Ion	Ratio	Lower	Upper
43	100		
58	32.5	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

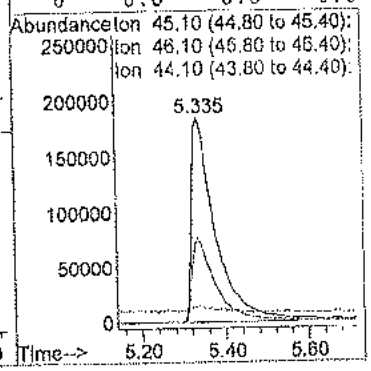


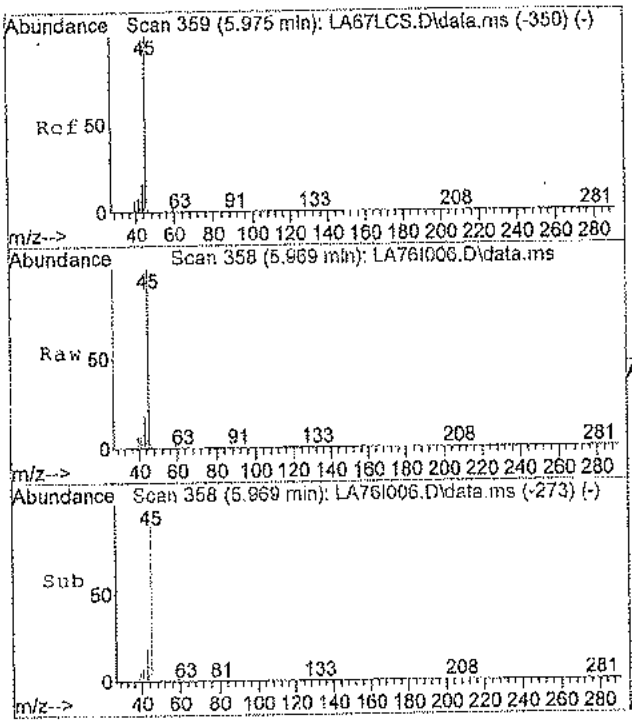


#13
Ethanol
Concen: 18.87 ppb
RT: 5.34 min Scan# 254
Delta R.T. 0.01 min
Lab File: LA76I006.D
Acq: 04/20/2015 18:04

Tgt Ion:45.1 Resp: 733926

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	1.8	23.4	35.2#
0	0.0	0.0	0.0

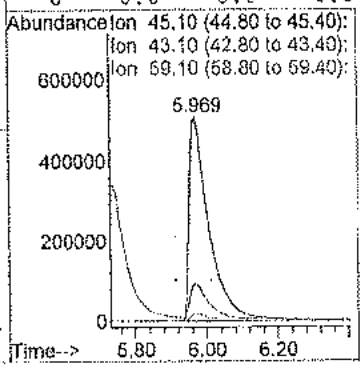




#14
Isopropyl Alcohol
Concen: 5.94 ppb
RT: 5.97 min Scan# 358
Delta R.T. 0.02 min
Lab File: LA76I006.D
Acq: 04/20/2015 18:04

Tgt Ion:45.1 Resp: 1960191

Ion	Ratio	Lower	Upper
45	100		
43	10.1	15.8	23.6
59	3.7	3.2	4.8
0	0.0	0.0	0.0



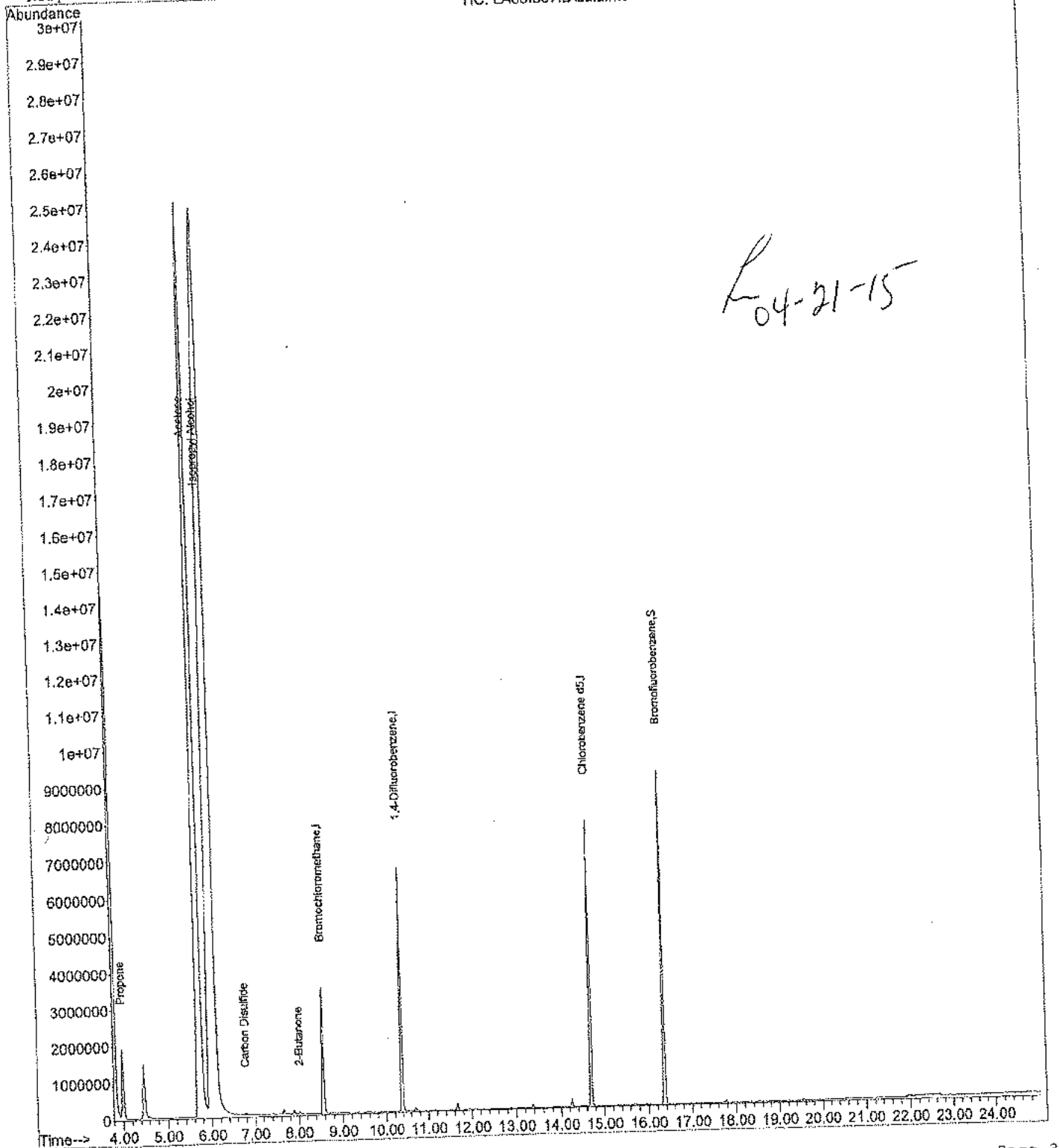
Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA85I007.D Vial: 8
Acq Time : 04/21/2015 09:20 Operator: TJM
Sample : 1510559007 Inst : 5975-L
Misc : 0287 SG-002A4` 1:400DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:27:23 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

TIC: LA85I007.D\data.ms



L 04-21-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA85I007.D Vial: 8
Acq Time : 04/21/2015 09:20 Operator: TJM
Sample : 1510559007 Inst : 5975-L
Misc : 0287 SG-002A4' 1:400DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:27:23 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	Qlon	Response	Conc Units	Area%
1) Bromochloromethane	8.57	130	594624	20.0000 ppb	122.43
25) 1,4-Difluorobenzene	10.38	114	6586740	20.0000 ppb	108.57
50) Chlorobenzene d5	14.70	117	5617784	20.0000 ppb	108.76
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.36	95	4177539	18.6726 ppb	93.36%
Target Compounds					Qvalue
2) Propene	3.99	41	1558842	18.5007 ppb	98
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.68	43	60723817	308.8845 ppb m	90
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	5.95	45	96190134	288.3784 ppb m	90
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.78	76	59617	0.1936 ppb #	62
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.02	43	115879	0.4642 ppb #	73
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA85I007.D Vial: 8
Acq Time : 04/21/2015 09:20 Operator: TJM
Sample : 1510559007 Inst : 5975-L
Misc : 0287 SG-002A4` 1:400DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:27:23 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

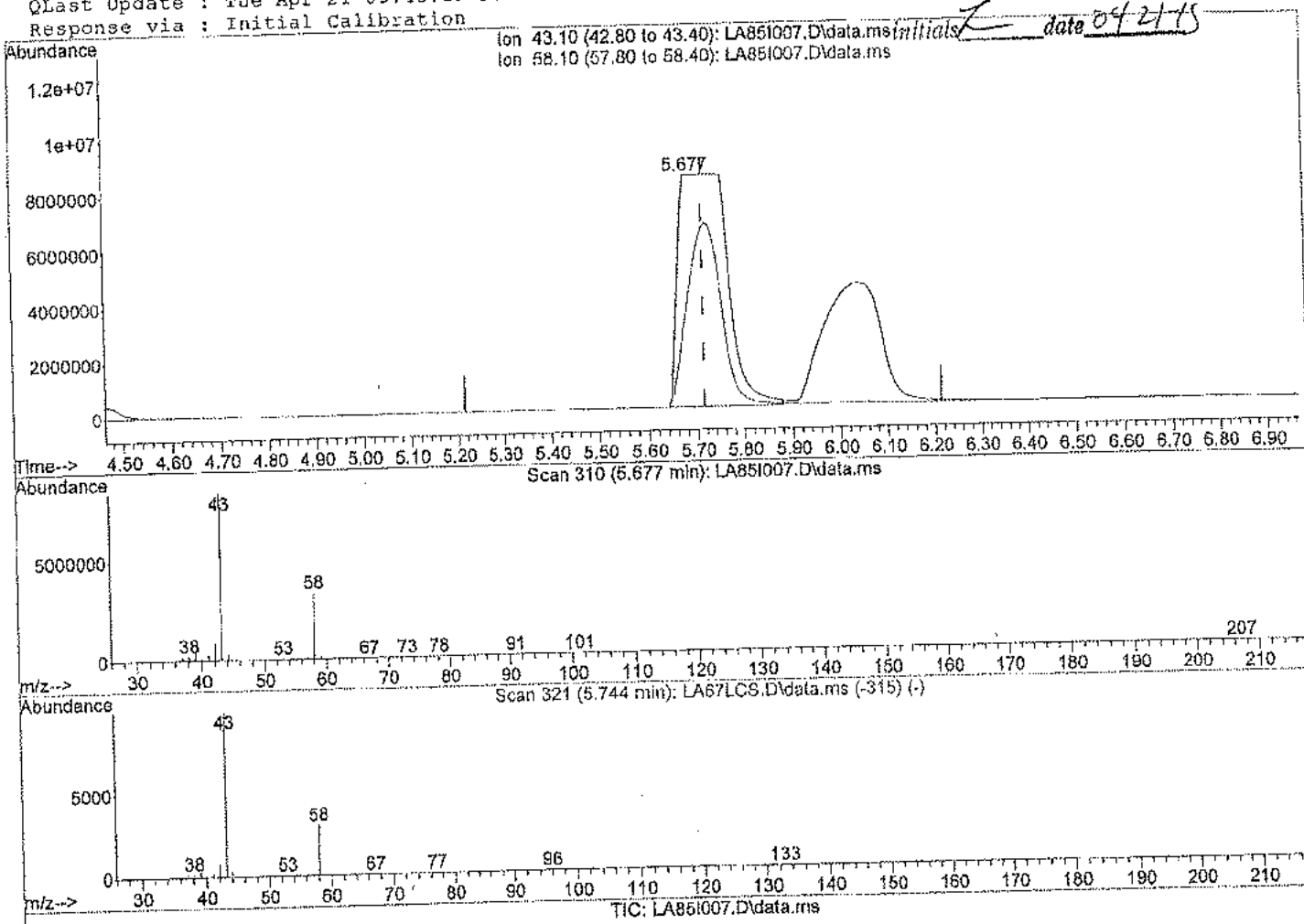
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA85I007.D
Acq On : 04/21/2015 09:20
Operator : TJM
Sample : 1510559007
Inst : 5975-L
Misc : 0287 SG-002A4' 1:400DIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:27:23 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials Z date 04/21/15



(11) Acetone

5.677min (-0.036) 308.88 ppb m

response 60723817

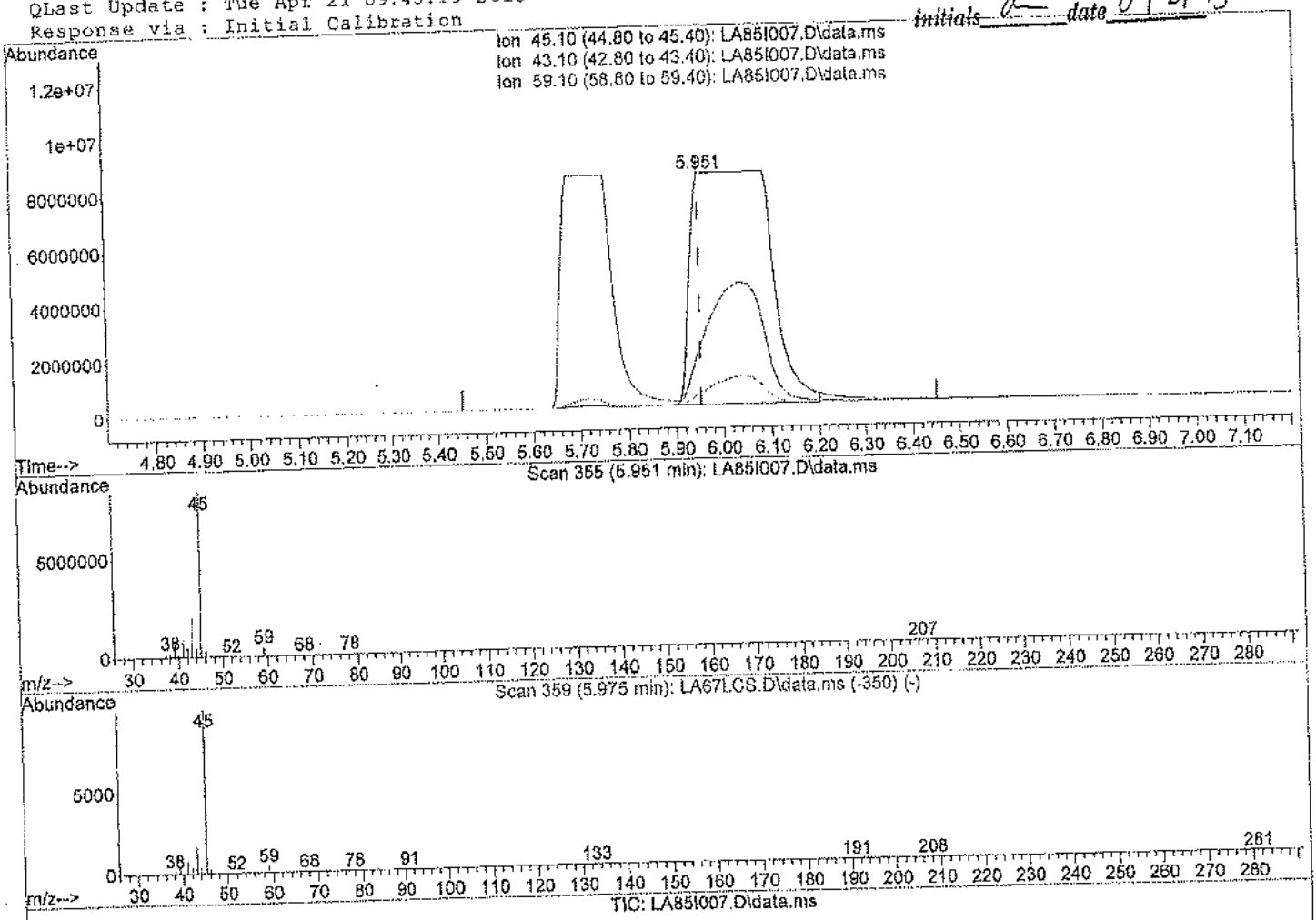
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA85I007.D
Acq On : 04/21/2015 09:20
Operator : TJM
Sample : 1510559007
Inst : 5975-L
Misc : 0287 SG-002A4` 1:400DIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:27:23 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials ____ *date* 04-21-15



Scan 355 (5.951 min): LA85I007.D\data.ms

Scan 359 (5.975 min): LA67LCS.D\data.ms (-350) (-)

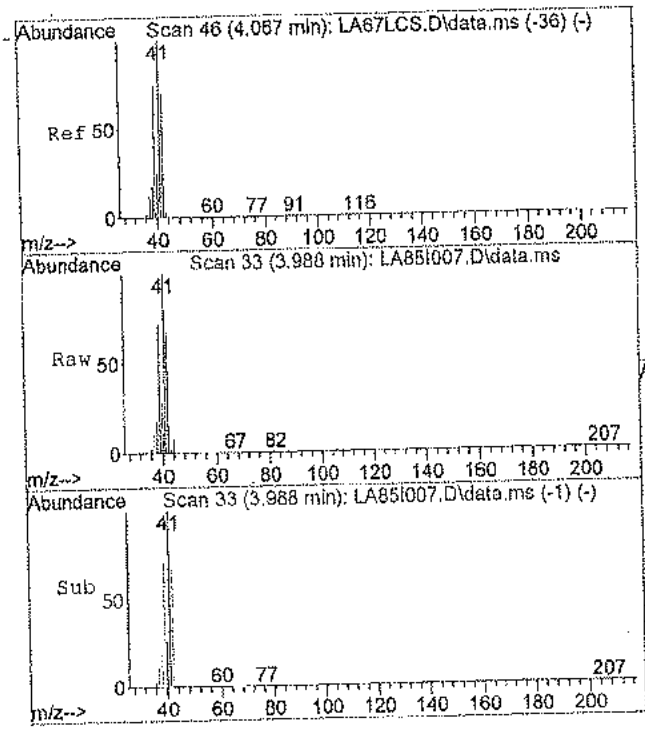
TIC: LA85I007.D\data.ms

(14) Isopropyl Alcohol

5.951min (+ 0.000) 288.38 ppb m

response 96190134

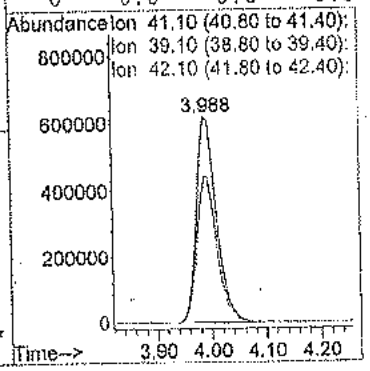
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	0.00#
59.10	4.00	0.00#
0.00	0.00	0.00

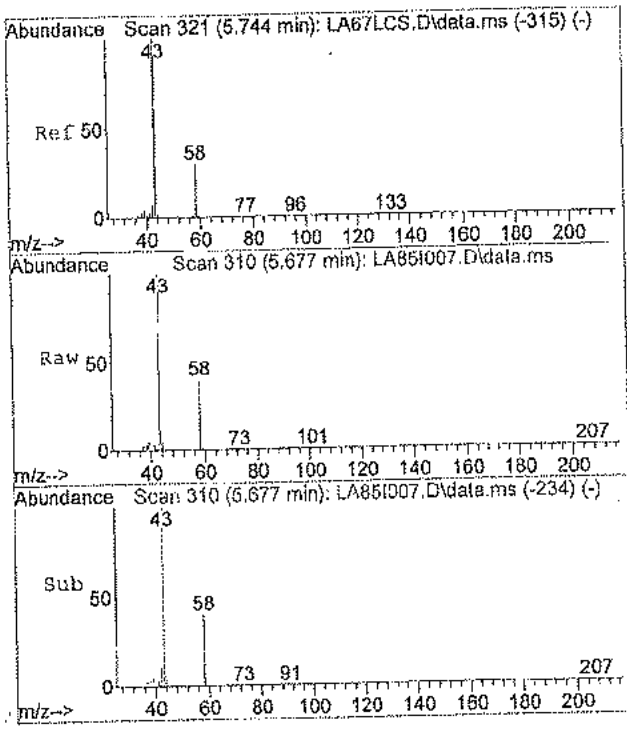


#2
Propene
Concen: 18.50 ppb
RT: 3.99 min Scan# 33
Delta R.T. -0.05 min
Lab File: LA85I007.D
Acq: 04/21/2015 09:20

Tgt Ion:41.1 Resp: 1558842

Ion	Ratio	Lower	Upper
41	100		
39	72.7	56.2	84.4
42	68.6	53.8	80.6
0	0.0	0.0	0.0

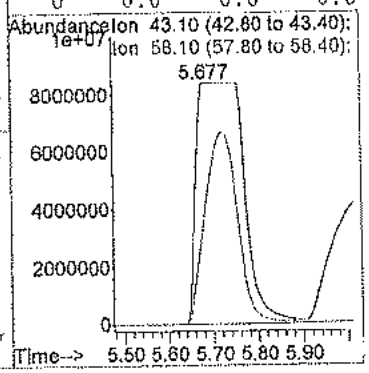


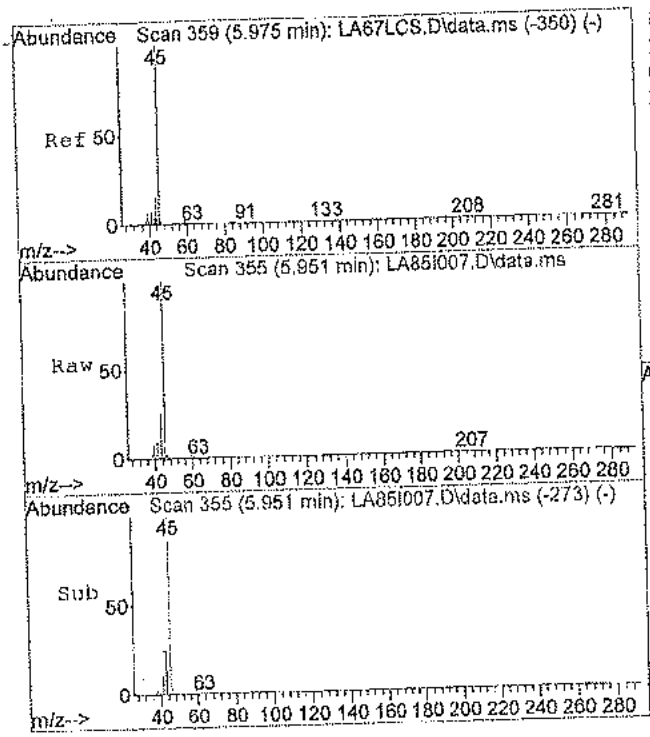


#11
Acetone
Concen: 308.88 ppb m
RT: 5.68 min Scan# 310
Delta R.T. -0.04 min
Lab File: LA85I007.D
Acq: 04/21/2015 09:20

Tgt Ion:43.1 Resp:60723817

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

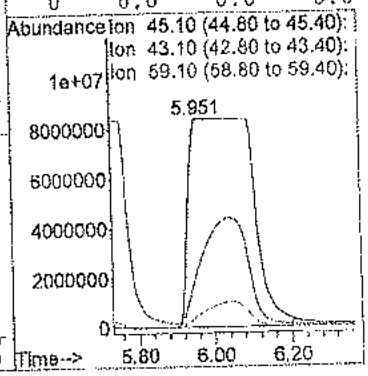


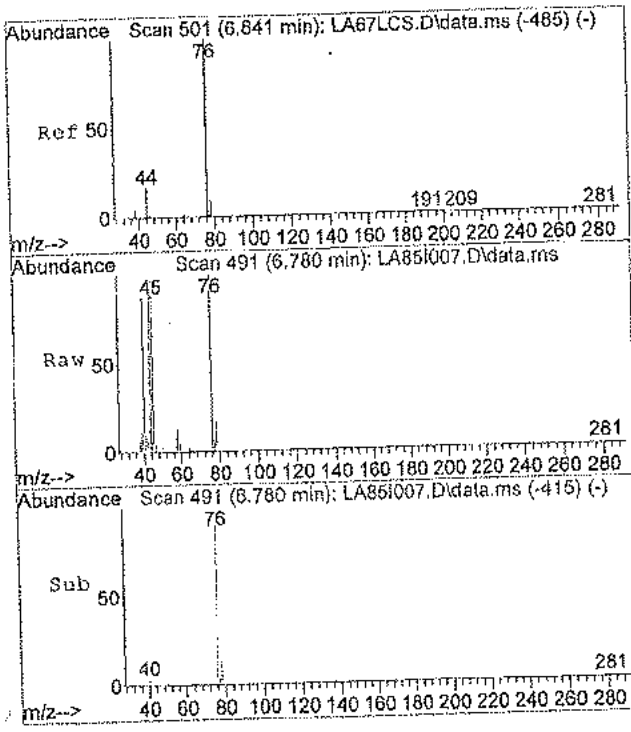


#14
Isopropyl Alcohol
Concen: 288.38 ppb m
RT: 5.95 min Scan# 355
Delta R.T. 0.00 min
Lab File: LA85I007.D
Acq: 04/21/2015 09:20

Tgt Ion:45.1 Resp:96190134

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	0.0	3.2	4.8#
0	0.0	0.0	0.0

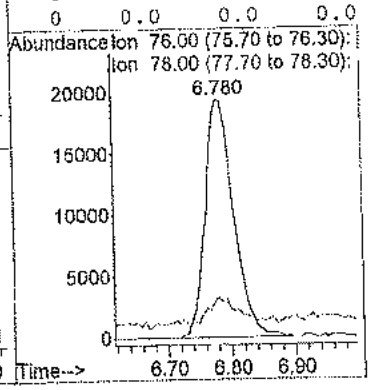


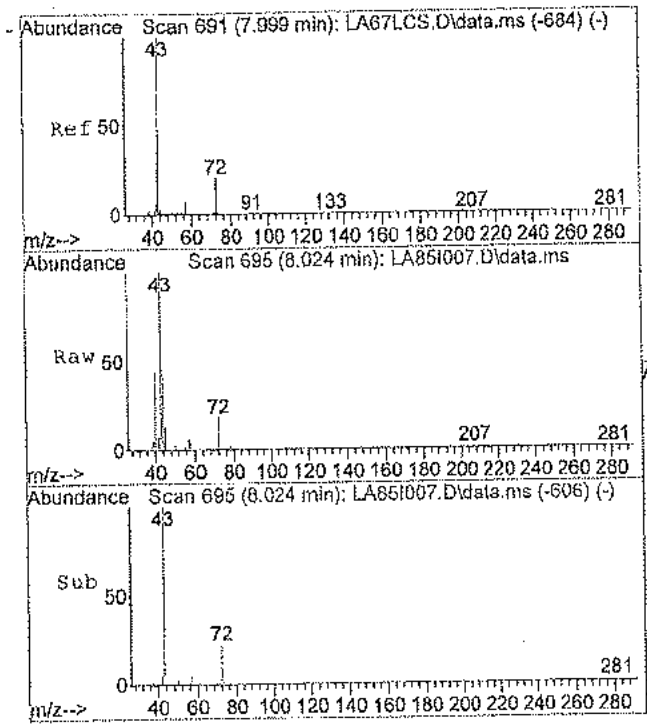


#18
Carbon Disulfide
Concen: 0.19 ppb
RT: 6.78 min Scan# 491
Delta R.T. -0.04 min
Lab File: LA85I007.D
Acq: 04/21/2015 09:20

Tgt Ion:76 Resp: 59617

Ion	Ratio	Lower	Upper
76	100		
78	9.4	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

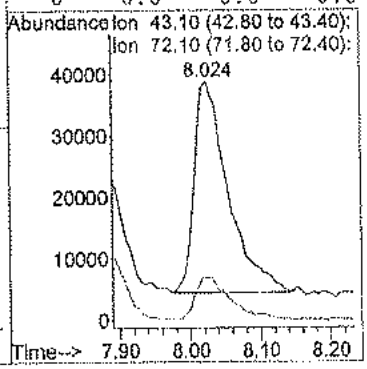




#23
2-Butanone
Concen: 0.46 ppb
RT: 8.02 min Scan# 695
Delta R.T. 0.04 min
Lab File: LA85I007.D
Acq: 04/21/2015 09:20

Tgt Ion:43.1 Resp: 115879

Ion	Ratio	Lower	Upper
43	100		
72	22.5	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



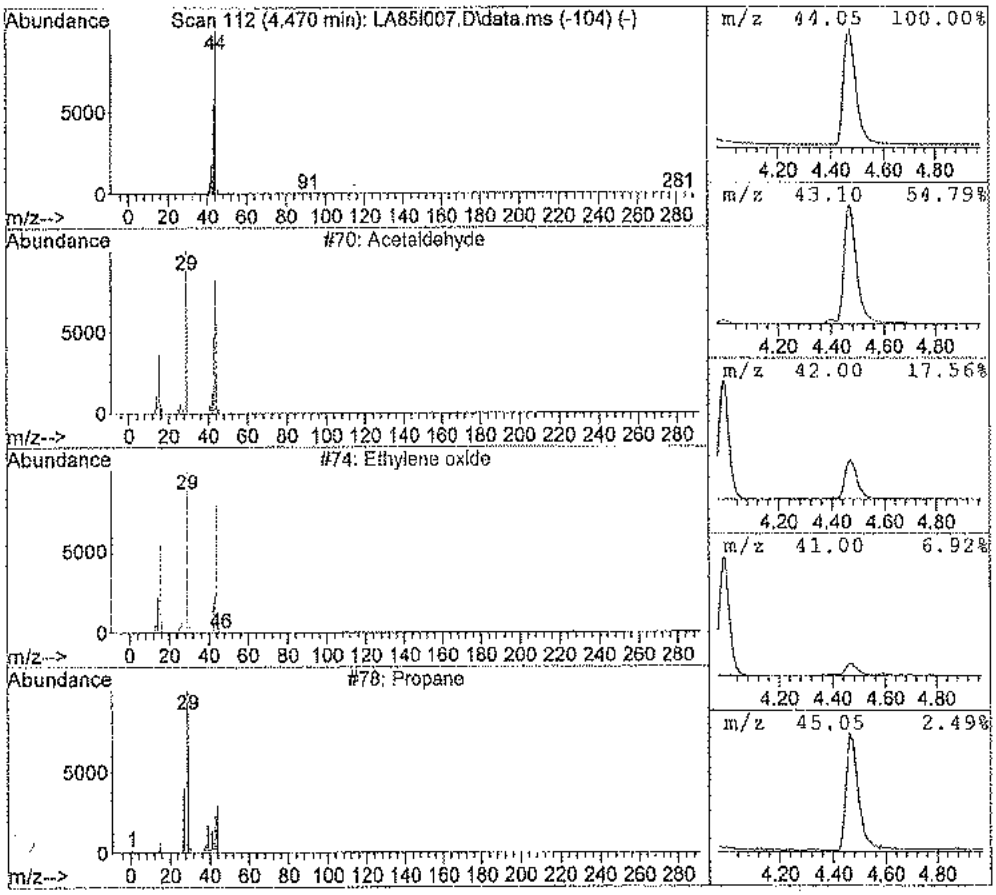
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA85I007.D Vial: 8
Acq Time : 04/21/2015 09:20 Operator: TJM
Sample : 1510559007 Inst : 5975-L
Misc : 0287 SG-002A4` 1:400DIL Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.47	10.48 ppb	4694527	Bromochloromethane	8959274

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	70	000075-07-0	74.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	78	000074-98-6	4.00
4	Alanine	2136	000056-41-7	4.00
5	Carbon dioxide	80	000124-38-9	3.00



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	First Environmental, Inc.
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1510561**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received one tedlar bag for VOA analysis. The sample was analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7200 cold trap dehydration concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5975-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $$C = \mathbf{ppb\ v/v\ (MW/24.45)}$$

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid — September 17, 2015

Date

ANALYTICAL REPORT

Report Date: April 22, 2015

Ed Reid
First Environment
91 Fulton Street
Suite S-304
Boonton, NJ 07005

Phone: (678) 787-2295
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E-mail: EJR@firstenvironment.com

Workorder: **34-1510561**
Project ID: VA SLC CERCLA 041515
Purchase Order: VA SLC CERCLA

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0011H-041315-SG-001	1510561001	04/11/15	04/15/15	VA SLC CERCLA

ANALYTICAL REPORT

Workorder: 34-1510561
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011H-041315-SG-001
Lab ID: 1510561001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: SKC 232-01, Tedlar Bag 1L
Sampling Parameter: Air Volume 1 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 10:09
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Dichlorodifluoromethane	0.49	2.4	0.15	0.50	1	J
Chloromethane	**0.60**	**1.2**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.22	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**310**	**730**	0.30	1.0	1	E
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**3.6**	**12**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**4.8**	**14**	0.15	0.50	1	
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.84	3.0	0.15	1.0	1	J
Hexane	**0.65**	**2.3**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	**0.74**	**2.2**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.60**	**1.9**	0.15	0.50	1	
Cyclohexane	0.16	0.54	0.15	0.50	1	J
Trichloroethene	ND	<0.81	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.23	0.94	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.19	0.78	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510561
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011H-041315-SG-001
Lab ID: 1510561001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: SKC 232-01, Tedlar Bag 1L
Sampling Parameter: Air Volume 1 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 10:09
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	ppb	ug/m³	MDL (ppb)	RL (ppb)	Dilution	Qual.
Toluene	**11**	**41**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Tetrachloroethene	ND	<1.0	0.15	0.50	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.22	0.95	0.15	0.50	1	J
m,p-Xylene	**0.69**	**3.0**	0.15	0.50	1	
o-Xylene	0.26	1.1	0.15	0.50	1	J
Styrene	0.25	1.1	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.18	0.88	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 10:09
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
Propene	22	4.05	1	J
Acetaldehyde	13	4.51	1	J
Ethanol	27	5.38	1	J
Acrolein	3.0	5.66	1	J
Isopropyl Alcohol	330	6.09	1	J
Heptane, 2,4-dimethyl-	3.7	14.42	1	J
1-Hexanol, 2-ethyl-	7.0	18.27	1	J
Acetic acid, phenyl ester	5.3	18.74	1	J
C12 Hydrocarbon	6.6	19.11	1	J
C12 Hydrocarbon	3.0	19.22	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1510561
Client: First Environment
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0011H-041315-SG-001
Lab ID: 1510561001
Matrix: Air
Sampling Site: VA SLC CERCLA
Media: SKC 232-01, Tedlar Bag 1L
Sampling Parameter: Air Volume 1 L
Collected: 04/11/2015
Received: 04/15/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/2885 (HBN: 147513)
Analyzed: 04/21/2015 10:09
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	ppb	Retention Time	Dilution	Qual.
C12 Hydrocarbon	9.8	19.84	1	J
C12 Hydrocarbon	4.1	19.94	1	J
Acetic acid, 2-ethylhexyl ester	12	20.30	1	J
Propanoic acid, 2,2-dimethyl-, 2-ethylhexyl este	3.2	21.73	1	J

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 04/22/2015 10:04	/S/ Jorden Baum 04/22/2015 11:04

Laboratory Contact Information

ALS Environmental
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Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
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ANALYTICAL REPORT

Workorder: 34-1510561
Client: First Environment
Project Manager: Kevin W. Griffiths

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1510561**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/2885 (HBN: 147513)
Analyzed By: Lisa M. Reid

Blank

MB: 443527
Analyzed: 04/20/2015 13:06

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
Vinyl chloride	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510561

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/2885 (HBN: 147513)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 443527
Analyzed: 04/20/2015 13:06
Units: ppb

Analyte	Result	MDL	RL
2-Hexanone	ND	0.3	1.00
Tetrachloroethene	ND	0.15	0.500
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 443528
Analyzed: 04/20/2015 10:42
Dilution: 1
Units: ppb

LCSD: 443529
Analyzed: 04/20/2015 11:31
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	10.3	10.0	103	59.3	135.1	10.1	101	2.18	0.0	25.0
Chloromethane	9.45	10.0	94.5	55.2	137.4	9.23	92.3	2.37	0.0	25.0
Freon 114	10.5	10.0	105	64.6	128.0	10.3	103	1.60	0.0	25.0
Vinyl chloride	10.4	10.0	104	61.8	132.3	10.3	103	1.18	0.0	25.0
1,3-Butadiene	10.6	10.0	106	58.0	138.3	10.5	105	1.18	0.0	25.0
Bromomethane	10.2	10.0	102	63.3	129.9	10.1	101	0.523	0.0	25.0
Chloroethane	9.95	10.0	99.5	57.6	137.1	9.89	98.9	0.567	0.0	25.0
Freon 11	10.2	10.0	102	58.9	132.8	10.1	101	1.20	0.0	25.0
Freon 113	9.68	10.0	96.8	68.5	120.0	9.68	96.8	0.0403	0.0	25.0
1,1-Dichloroethene	10.3	10.0	103	67.2	125.1	10.2	102	0.821	0.0	25.0
Acetone	10.4	10.0	104	42.5	146.0	10.2	102	1.56	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510561

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/2885 (HBN: 147513)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 443528
Analyzed: 04/20/2015 10:42
Dilution: 1
Units: ppb

LCSD: 443529
Analyzed: 04/20/2015 11:31
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Carbon disulfide	10.3	10.0	103	63.9	128.8	10.2	102	1.01	0.0	25.0
Methylene chloride	10.1	10.0	101	63.7	127.9	9.99	99.9	0.711	0.0	25.0
trans-1,2-Dichloroethene	10.1	10.0	101	68.1	124.6	10.2	102	0.237	0.0	25.0
Methyl t-butyl ether	10.3	10.0	103	60.8	138.0	10.2	102	0.807	0.0	25.0
Vinyl acetate	10.5	10.0	105	59.3	141.1	10.3	103	1.81	0.0	25.0
2-Butanone	11.2	10.0	112	51.7	144.2	11.2	112	0.286	0.0	25.0
cis-1,2-Dichloroethene	10.3	10.0	103	69.8	124.3	10.3	103	0.116	0.0	25.0
1,1-Dichloroethane	10.3	10.0	103	67.7	123.6	10.2	102	1.26	0.0	25.0
Ethyl acetate	9.08	10.0	90.8	53.4	156.9	8.99	89.9	0.996	0.0	25.0
Hexane	9.89	10.0	98.9	62.4	129.5	9.93	99.3	0.377	0.0	25.0
Chloroform	10.2	10.0	102	67.3	121.8	10.3	103	0.185	0.0	25.0
Tetrahydrofuran	11.8	10.0	118	50.6	155.3	11.7	117	1.06	0.0	25.0
1,2-Dichloroethane	10.2	10.0	102	62.4	130.5	10.2	102	0.618	0.0	25.0
1,1,1-Trichloroethane	9.68	10.0	96.8	60.4	127.7	9.68	96.8	0.0041	0.0	25.0
Carbon tetrachloride	9.98	10.0	99.8	58.2	130.6	9.96	99.6	0.172	0.0	25.0
Benzene	10.0	10.0	100	64.1	127.3	10.0	100	0.0498	0.0	25.0
Cyclohexane	9.87	10.0	98.7	61.9	123.6	9.88	98.8	0.137	0.0	25.0
Trichloroethene	10.1	10.0	101	62.4	126.8	10.2	102	0.766	0.0	25.0
1,2-Dichloropropane	10.4	10.0	104	60.7	130.6	10.3	103	0.859	0.0	25.0
Bromodichloromethane	10.1	10.0	101	62.9	128.3	10.1	101	0.0296	0.0	25.0
Heptane	10.2	10.0	102	59.5	133.4	10.2	102	0.323	0.0	25.0
cis-1,3-Dichloropropene	10.3	10.0	103	64.1	133.6	10.3	103	0.116	0.0	25.0
4-Methyl-2-pentanone	11.5	10.0	115	73.5	150.0	11.5	115	0.722	0.0	25.0
trans-1,3-Dichloropropene	10.2	10.0	102	78.5	148.7	10.3	103	0.430	0.0	25.0
1,1,2-Trichloroethane	10.0	10.0	100	65.0	126.6	10.0	100	0.0399	0.0	25.0
Toluene	9.79	10.0	97.9	75.6	139.4	9.86	98.6	0.719	0.0	25.0
2-Hexanone	11.8	10.0	118	80.8	158.8	11.6	116	1.03	0.0	25.0
Tetrachloroethene	9.58	10.0	95.8	60.7	126.6	9.72	97.2	1.49	0.0	25.0
Dibromochloromethane	10.2	10.0	102	62.4	130.9	10.2	102	0.284	0.0	25.0
1,2-Dibromoethane	10.4	10.0	104	64.4	129.0	10.4	104	0.461	0.0	25.0
Chlorobenzene	10.2	10.0	102	62.8	126.9	10.2	102	0.0293	0.0	25.0
Ethyl benzene	9.92	10.0	99.2	75.9	148.5	9.92	99.2	0.0917	0.0	25.0
m,p-Xylene	19.3	20.0	96.3	73.7	144.9	19.3	96.6	0.281	0.0	25.0
o-Xylene	9.58	10.0	95.8	74.7	147.4	9.62	96.2	0.395	0.0	25.0
Styrene	10.3	10.0	103	75.9	158.1	10.5	105	1.17	0.0	25.0
Bromoform	9.47	10.0	94.7	59.7	136.0	9.57	95.7	1.11	0.0	25.0
1,1,2,2-Tetrachloroethane	9.82	10.0	98.2	59.3	134.8	9.99	99.9	1.67	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1510561

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/2885 (HBN: 147513)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 443528	LCSD: 443529
Analyzed:	04/20/2015 10:42	04/20/2015 11:31
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
4-Ethyl toluene	10.1	10.0	101	69.0	163.3	10.2	102	0.796	0.0	25.0
1,3,5-Trimethylbenzene	9.81	10.0	98.1	64.2	155.1	9.96	99.6	1.48	0.0	25.0
1,2,4-Trimethylbenzene	9.91	10.0	99.1	59.7	169.4	9.99	99.9	0.800	0.0	25.0
1,3-Dichlorobenzene	9.59	10.0	95.9	58.6	157.6	9.68	96.8	0.855	0.0	25.0
1,4-Dichlorobenzene	9.76	10.0	97.6	57.7	137.2	9.87	98.7	1.14	0.0	25.0
Benzyl chloride	10.3	10.0	103	60.1	182.5	10.2	102	0.604	0.0	25.0
1,2-Dichlorobenzene	9.91	10.0	99.1	56.5	140.0	9.94	99.4	0.346	0.0	25.0
1,2,4-Trichlorobenzene	9.69	10.0	96.9	0.0	235.7	9.45	94.5	2.48	0.0	25.0
Hexachlorobutadiene	8.60	10.0	86.0	25.3	155.9	8.69	86.9	1.03	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	Result	Target	% Recovery
443528-LCS	18.9	20.0	94.6
443529-LCSD	19.0	20.0	95.2
443527-MB	18.9	20.0	94.4
1510559001	18.9	20.0	94.4
1510559002	19.0	20.0	94.8
1510559003	19.0	20.0	94.9
1510559004	19.0	20.0	95.0
1510559005	19.0	20.0	94.9
1510559006	18.8	20.0	93.8
1510783001	18.7	20.0	93.4
1510724001	18.7	20.0	93.3
1510559007	18.7	20.0	93.4
1510561001	19.0	20.0	94.8

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	4/22/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ● - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1510561

ANALYTICAL REQUEST FORM

1705761

1. ☒ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 4/15/15 Purchase Order No. _____

3. Company Name First Environment INC
Address 91 Fulton Street
Boonton, NJ 07005
Person to Contact Ed Reid
Telephone (973) 787-2205
Fax Telephone (973) 334-9628
E-mail Address ejr@firstenvironment.com
Billing Address (if different from above)
Same

4. Quote No. _____
ALS Project Manager Kevin Griffith

5. Sample Collection
Sampling Site VA SLC GEROA
Industrial Process NA
Date of Collection 4/11 - 4/ 1-2015
Time Collected multiple
Date of Shipment 4/15/15
Chain of Custody No. _____

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
A-003011-041115-TO-001-LAV	air	6L Summa	TO-15-VOCs in Air	5	
A-003011-041115-TO-002-OUT	air	6L Summa			
A-003011-041115-TO-003-AMA	air	6L Summa			
A-003011-041115-SG-001A-6'	air	6L Summa			
A-003011-041115-TO-004-BULK	air	6L Summa			
A-001114-041415-SG-001B-8'	air	6L Summa			
A-001114-041315-SG-001A-8'	air	1L Tedlar	TO-15A-VOCs in Air		
A-001114-041315-SG-001-PUF		240L PUF	TO-13 SVOCs in Air		
A-001114-041315-TO-001BLANK		240L PUF	TO-13 SVOCs in Air		
A-0031-S-041415-SG-002AM		240L PUF	TO-13 SVOC in Air		
A-0031-S-041515-SG-002A-4'		6L Summa	TO-15 -VOCs in Air	5	

* Specify: Solid sorbent tube, e.g. Charcoal; Filter.type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m^3 3. ppm 4. % 5. µg/m^3 6. ____ (other) Please indicate one or more units in the column entitled Units**

Comments _____

Possible Contamination and/or Chemical Hazards PCBs, PCBs, 1,2 PCBs, Vinyl Chl.

7. Chain of Custody (Optional)

Relinquished by		Date/Time	4/15/15 - 1205
Received by		Date/Time	04/15/15 12:05
Relinquished by		Date/Time	
Received by		Date/Time	

Batch Worklist

Batch: IVOA/ 2885
Rule: EPA TO-15, Air

Created: 4/22/2015 10:10
Analyst: L. Reid

Instrument: 5975-L
Status: WP

HBN: 147513

Workorder: 1510559
Workorder: 1510561
Workorder: 1510724
Workorder: 1510783

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	443528	LCS for HBN 147513 (IVOA/2885)				LCS	1		ETO15...1Q			6/21/2015	4/20/2015
2	443529	LCSD for HBN 147513 (IVOA/2885				LCSD	1		ETO15...1Q			6/21/2015	4/20/2015
3	443527	MB for HBN 147513 (IVOA/2885)				MB	1		ETO15...1Q			6/21/2015	4/20/2015
4	1510559001	A-0030H-041115-TO-001-LAD				SAMPLE	1	1510559001-A	ETO15...1	5480		4/22/2015	4/20/2015
5	1510559002	A-0030H-041115-TO-002-OUT				SAMPLE	1	1510559002-A	ETO15...1	5480		4/22/2015	4/20/2015
6	1510559003	A-0030H-041115-TO-003-AAA				SAMPLE	1	1510559003-A	ETO15...1	5480		4/22/2015	4/20/2015
7	1510559004	A-0030H-041115-SG-001A				SAMPLE	1	1510559004-A	ETO15...1	5480		4/22/2015	4/20/2015
	*E)Result exceeds calibration range												
8	1510559005	A-0030H-041115-TO-004BLK				SAMPLE	1	1510559005-A	ETO15...1	5480		4/22/2015	4/20/2015
	*E)Result exceeds calibration range												
9	1510559006	A-0030H-041415-SG-001A8				SAMPLE	1	1510559006-A	ETO15...1	5480		4/22/2015	4/20/2015
10	1510783001	1-CM Desk				SAMPLE	1	1510783001-A	ETO15...1	5975		4/23/2015	4/20/2015
	*E)Result exceeds calibration range												
11	1510724001	33515-V1				SAMPLE	1	1510724001-A	ETO15...1	5975		4/24/2015	4/20/2015
12	1510559007	A-0031-S-041515-SG-001A-4				SAMPLE	1	1510559007-A	ETO15...1	5480		4/22/2015	4/21/2015
	*E)Result exceeds calibration range												
13	1510561001	A-0011H-041315-SG-001				SAMPLE	1	1510561001-A	ETO15...1	5480		4/22/2015	4/21/2015
	*E)Result exceeds calibration range												
14	443521	RLVS for HBN 147513 [IVOA/2885				RLVS	1		ETO15...1Q	5320		4/22/2015	4/20/2015

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	LA67LCS	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		554816	6702079	5686356
	Upper Limit	776742	9382911	7960898
	Lower limit	332890	4021247	3411814

CLIENT Sample No.	ALS Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
BL-	LA70BLK	587840	6685905	5664913
QC-	LA67LCS	554816	6702079	5686356
QD-	LA68LCSD	562944	6791103	5781259
A-0030H-041115-TO-001-LAD	FEI1510559001	562816	6577674	5547822
A-0030H-041115-TO-002-OUT	FEI1510559002	569152	6614567	5526956
A-0030H-041115-TO-003-AAA	FEI1510559003	561536	6540907	5598264
A-0030H-041115-SG-001-A	FEI1510559004	578752	6625282	5379707
A-0030H-041115-TO-004BLK	FEI1510559005	582848	6585845	5470587
A-0030H-041415-SG-001-A8	FEI1510559006	588352	6793629	5809021
A-0031-S-041515-SG-001-A4	FEI1510559007	594624	6586740	5617784
A-0011H-041315-SG-001	FEI1510561001	591040	6604284	5495975

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	KD73S10	**RT BCM**	**RT 1,4DFB**	**RT CB-d5**
10 ppb v/v Continuing Cal Std		8.55	10.38	14.70
	Upper Limit	9.05	10.88	15.20
	Lower limit	8.05	9.88	14.20
CLIENT Sample No.	**DCL Sample No.**	**RT BCM**	**RT 1,4DFB**	**RT CB-d5**
BL-	LA70BLK	8.54	10.36	14.69
QC-	LA30LCS	8.55	10.38	14.71
QD-	LA68LCSD	8.55	10.38	14.70
A-0030H-041115-TO-001-LAD	FEI1510559001	8.54	10.37	14.70
A-0030H-041115-TO-002-OUT	FEI1510559002	8.55	10.38	14.71
A-0030H-041115-TO-003-AAA	FEI1510559003	8.54	10.36	14.71
A-0030H-041115-SG-001-A	FEI1510559004	8.58	10.39	14.71
A-0030H-041115-TO-004BLK	FEI1510559005	8.60	10.40	14.71
A-0030H-041415-SG-001-A8	FEI1510559006	8.54	10.37	14.70
A-0031-S-041515-SG-001-A4	FEI1510559007	8.57	10.38	14.70
A-0011H-041315-SG-001	FEI1510561001	8.58	10.39	14.70

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Method Path : J:\L\METHODS\methods\
Method File : TO15LB15.m
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response Via : Initial Calibration

Calibration Files
.5 =LA23S05.D 1 =LA22S1.D 2 =LA24S2.D 5 =LA25S5.D 10 =LA26S10.D 20 =LA27S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------								
2)		Propene	2.871	2.722	2.905	2.760	2.868	2.878	2.834		2.61 TC
3)		Dichlorodifluo...	0.967	0.896	0.992	0.967	1.006	0.973	0.967	E1	3.92
4)		Chloromethane	5.242	4.475	3.926	3.622	3.742	3.766	4.129		15.08
5)		Freon 114	6.096	5.604	6.308	6.109	6.386	6.296	6.133		4.63
6)		Vinyl Chloride	3.689	3.493	3.914	3.739	3.978	3.959	3.795		5.00
7)		1,3-Butadiene	3.030	2.924	3.232	3.133	3.267	3.230	3.136		4.31
8)		Bromomethane	3.244	2.965	3.206	3.075	3.232	3.239	3.160		3.64
9)		Chloroethane	2.018	1.851	2.021	1.944	2.047	2.050	1.988		3.91
10)		Acrolein	1.700	1.511	1.606	1.545	1.608	1.629	1.600		4.13 TC
11)		Acetone	7.826	6.848	6.516	6.045	6.242	6.198	6.612		9.96
12)		Trichlorofluor...	1.049	0.982	1.073	1.029	1.065	1.060	1.043	E1	3.24
13)		Ethanol	1.413	1.285	1.339	1.269	1.316	1.310	1.322		3.84 TC
14)		Isopropyl Alcohol	1.836	1.378	1.048	0.860	0.812	0.797	1.122	E1	36.76 TC
15)		1,1-Dichloroet...	6.876	6.448	7.102	6.733	6.986	6.975	6.853		3.41
16)		Methylene Chlo...	3.725	3.246	3.437	3.211	3.342	3.340	3.383		5.48
17)		Freon 113	6.059	5.791	6.330	6.106	6.290	6.270	6.141		3.30
18)		Carbon Disulfide	1.059	0.976	1.058	1.020	1.055	1.048	1.036	E1	3.14
19)		trans-1,2-Dich...	4.007	3.693	4.013	3.899	4.032	4.068	3.952		3.52
20)		1,1-Dichloroet...	7.740	7.293	7.944	7.551	7.833	7.769	7.688		3.02
21)		methyl t-butyl...	1.085	1.034	1.149	1.112	1.158	1.160	1.116	E1	4.48
22)		Vinyl Acetate	1.014	0.884	0.967	0.872	0.926	0.927	0.932		5.67
23)		2-Butanone	8.626	8.080	8.402	8.080	8.533	8.655	8.396		3.10
24)		cis-1,2-Dichlo...	4.117	3.782	4.227	4.009	4.186	4.208	4.088		4.15
25)	I	1,4-Difluorobenzene	----------ISTD----------								
26)		Ethyl Acetate	0.131	0.118	0.119	0.113	0.111	0.111	0.117		6.70
27)		Hexane	0.588	0.542	0.587	0.557	0.554	0.530	0.560		4.20
28)		Chloroform	0.713	0.659	0.717	0.693	0.695	0.677	0.692		3.18
29)		Tetrahydrofuran	0.390	0.385	0.396	0.388	0.397	0.392	0.391		1.25
30)		1,2-Dichloroet...	0.535	0.512	0.537	0.519	0.518	0.509	0.522		2.24
31)		1,1,1-Trichlor...	0.795	0.762	0.818	0.786	0.781	0.761	0.784		2.71
32)		Benzene	1.087	0.979	1.018	0.960	0.955	0.921	0.986		5.94
33)		Carbon Tetrach...	0.825	0.768	0.820	0.797	0.794	0.773	0.796		2.94
34)		Cyclohexane	0.491	0.437	0.455	0.431	0.431	0.418	0.444		5.83
35)		1,2-Dichloropr...	0.425	0.374	0.416	0.397	0.394	0.386	0.398		4.71
36)		Bromodichlorom...	0.797	0.753	0.806	0.780	0.772	0.748	0.776		2.96
37)		1,4-Dioxane	0.264	0.246	0.239	0.227	0.215	0.212	0.234		8.38 TC
38)		Trichloroethene	0.447	0.425	0.451	0.430	0.424	0.402	0.430		4.12
39)		Methyl Methacr...	0.337	0.308	0.337	0.318	0.325	0.322	0.324		3.44 TC
40)		Heptane	0.366	0.329	0.357	0.341	0.340	0.325	0.343		4.63
41)		cis-1,3-Dichlo...	0.608	0.573	0.621	0.592	0.589	0.573	0.593		3.19

Heavy H

Method Path : J:\L\METHODS\methods\
Method File : TO15LB15.m

42)		4-Methyl-2-Pen...	0.843	0.822	0.858	0.808	0.799	0.768	0.816	3.92
43)		trans-1,3-Dich...	0.584	0.553	0.594	0.574	0.570	0.562	0.573	2.55
44)		1,1,2-Trichlor...	0.435	0.396	0.426	0.408	0.407	0.396	0.411	3.88
45)		Toluene	1.289	1.198	1.243	1.185	1.162	1.108	1.197	5.25
46)		2-Hexanone	0.774	0.734	0.784	0.766	0.758	0.726	0.757	2.99
47)		Dibromochlorom...	0.763	0.726	0.785	0.758	0.750	0.728	0.752	2.98
48)		1,2-Dibromoethane	0.636	0.601	0.651	0.626	0.618	0.599	0.622	3.28
49)		Tetrachloroethene	0.613	0.570	0.621	0.595	0.584	0.560	0.591	4.02
50)	I	Chlorobenzene d5	----------ISTD----------							
51)		Chlorobenzene	1.098	1.022	1.119	1.069	1.054	1.002	1.061	4.20
52)		Ethylbenzene	1.929	1.789	1.945	1.865	1.827	1.700	1.842	4.96
53)		m,p-Xylene	1.500	1.392	1.518	1.439	1.393	1.279	1.420	6.11
54)		Bromoform	0.918	0.849	0.953	0.921	0.920	0.875	0.906	4.15
55)		Styrene	1.058	1.001	1.087	1.052	1.034	0.983	1.036	3.71
56)		1,1,2,2-Tetrac...	1.035	0.951	1.043	0.985	0.955	0.868	0.973	6.62
57)		o-Xylene	1.535	1.419	1.540	1.466	1.416	1.299	1.446	6.20
58)	S	Bromofluoroben...	0.801	0.788	0.801	0.796	0.804	0.789	0.796	0.82
59)		4-Ethyl Toluene	2.016	1.866	2.061	1.969	1.946	1.767	1.937	5.51
60)		1,3,5-Trimethy...	1.778	1.621	1.773	1.673	1.640	1.490	1.662	6.47
61)		1,2,4-Trimethy...	1.880	1.573	1.750	1.658	1.639	1.504	1.667	7.98
62)		Benzyl Chloride	1.710	1.525	1.665	1.599	1.532	1.379	1.568	7.49 TIC
63)		m-Dichlorobenzene	1.192	1.029	1.109	1.055	1.035	0.952	1.062	7.66
64)		p-Dichlorobenzene	1.174	1.021	1.111	1.063	1.052	0.977	1.066	6.47
65)		o-Dichlorobenzene	1.129	0.969	1.058	1.026	1.020	0.957	1.026	6.10
66)		1,2,4-Trichlor...	0.540	0.583	0.736	0.769	0.774	0.733	0.689	14.68 TIC
67)		Naphthalene	1.048	1.271	1.554	1.604	1.624	1.477	1.429	15.86 TIC
68)		Hexachloro-1,3...	0.644	0.591	0.709	0.709	0.713	0.660	0.671	7.29 TIC

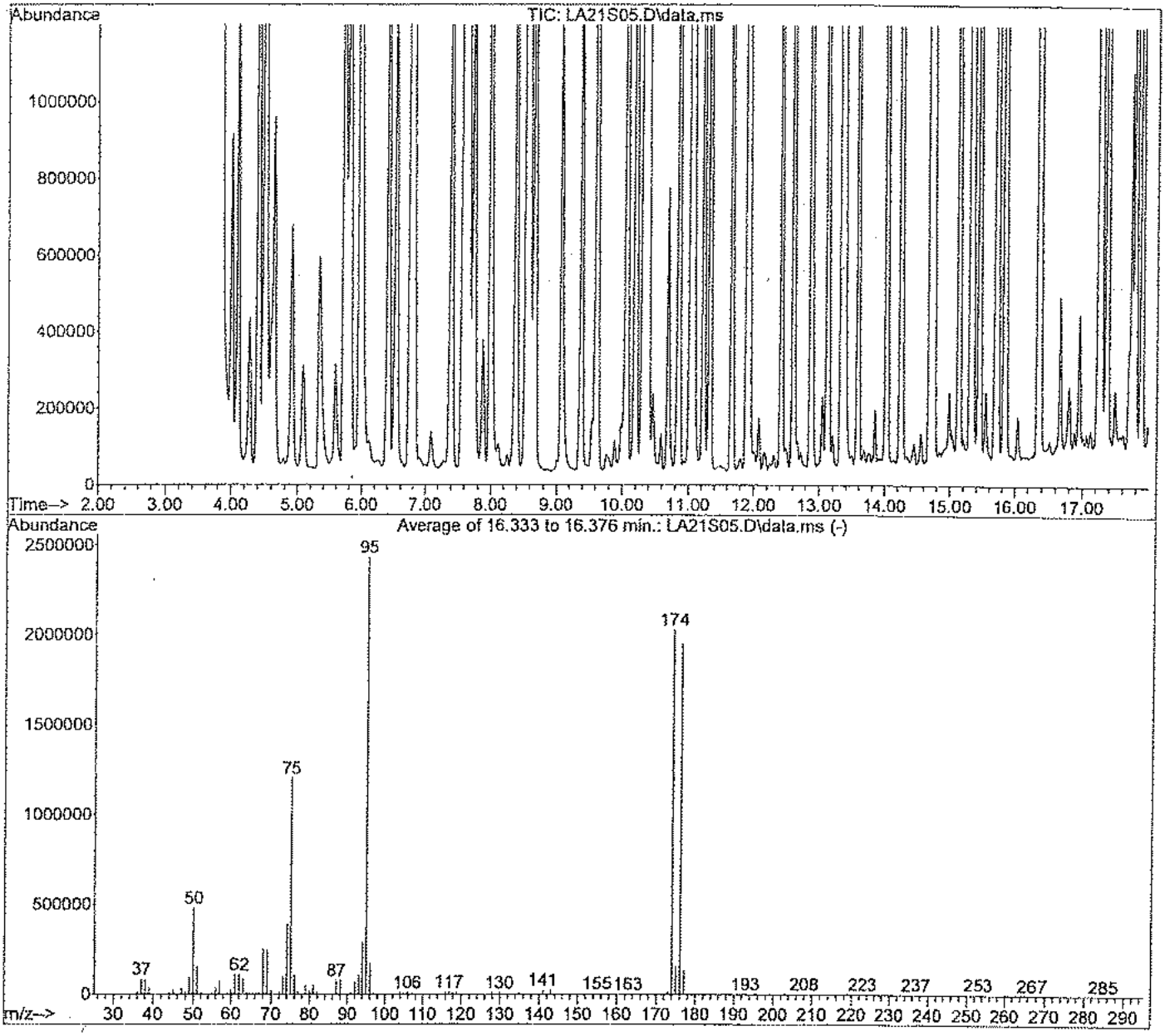
(#) = Out of Range

BFB

Data File : J:\L\2015\APR15L\13APR15L\LA21S05.D Vial: 1
Acq Time : 04/13/2015 09:41 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15

4-16-15



Peak Apex is scan: Average of 16.333 to 16.376 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	19.69	478355	PASS
75	95	30	66	49.52	1203192	PASS
95	95	100	100	100.00	2429874	PASS
96	95	5	9	6.96	169117	PASS
173	174	0.00	2	0.75	15202	PASS
174	95	50	120	83.47	2028312	PASS
175	174	5	9	7.49	151832	PASS
176	174	93	101	96.32	1953688	PASS
177	176	5	9	6.75	131826	PASS

verage of 16.333 to 16.376 min.: LA21S05.D\data.ms
.5 PPB STD
odified:Subtracted

m/z	Abundance
35.10	61.0
36.05	13946.0
37.10	83534.0
38.05	77320.0
39.10	33250.0
41.05	584.0
42.05	318.0
43.10	2659.0
44.00	8379.0
45.00	18840.0
46.00	905.0
47.05	28054.0
48.00	11516.0
49.00	90400.0
50.00	478355.0
51.00	148023.0
52.00	6007.0
53.00	282.0
54.05	149.0
55.00	6006.0
56.00	32590.0
57.00	64782.0
58.05	1746.0
59.00	315.0
60.00	19977.0
61.00	105981.0
62.00	108186.0
62.95	80568.0
64.05	7085.0
65.00	286.0
66.00	149.0
67.00	5652.0
68.00	251042.0
69.00	245576.0
70.00	16721.0
71.10	1235.0
72.00	10779.0
73.00	95619.0
74.00	387795.0
75.00	1203192.0
76.10	105906.0
77.00	11494.0
78.00	6530.0
78.90	47158.0
80.00	15188.0
80.95	49389.0
81.95	10838.0
83.05	1126.0
84.05	14.0
85.05	197.0
86.00	1925.0
87.00	76791.0
88.00	73600.0
89.20	35.0
89.95	62.0
91.00	7152.0
92.00	68998.0
93.00	106052.0
94.00	286747.0
95.00	2429874.0
96.05	169117.0
97.10	5254.0
98.05	58.0
100.00	25.0
102.90	795.0
103.90	8162.0
104.90	3016.0
105.90	8460.0
106.95	1770.0
109.95	1217.0
110.95	1121.0
111.95	1241.0
112.90	1172.0
113.90	21.0
114.95	2057.0
115.95	7116.0
116.95	12499.0
117.90	7335.0
118.95	10598.0
119.95	470.0
120.90	46.0
121.00	18.0
121.95	546.0
123.00	485.0
123.95	1273.0
124.95	501.0
125.90	785.0
127.00	411.0
127.95	8201.0

128.90	3690.0
129.90	8344.0
130.95	3345.0
131.90	258.0
132.05	195.0
132.95	419.0
133.90	447.0
134.95	3461.0
135.95	613.0
136.90	3428.0
138.00	169.0
138.95	742.0
139.95	1236.0
140.95	22408.0
141.95	2404.0
142.95	22296.0
143.95	1332.0
144.95	1803.0
145.95	3128.0
146.90	1517.0
147.90	5562.0
148.90	1493.0
149.95	2419.0
150.95	96.0
151.90	1281.0
152.95	1875.0
153.95	1369.0
154.95	5844.0
155.95	796.0
157.00	4410.0
157.95	341.0
158.95	2881.0
159.80	23.0
160.05	129.0
160.95	3120.0
161.95	190.0
162.95	511.0
163.95	61.0
164.90	47.0
165.90	66.0
166.95	69.0
167.20	22.0
168.05	68.0
168.55	46.0
168.90	37.0
169.15	69.0
169.85	189.0
170.05	95.0
170.85	273.0
171.15	82.0
172.00	80.0
173.00	15202.0
174.00	2028312.0
175.00	151832.0
176.00	1953688.0
177.00	131826.0
177.95	3697.0
178.95	323.0
180.00	78.0
187.00	79.0
187.15	84.0
189.05	45.0
190.05	236.0
190.95	141.0
191.95	141.0
192.95	346.0
194.00	152.0
194.95	88.0
196.00	48.0
197.00	20.0
206.00	20.0
207.00	77.0
207.90	33.0
208.05	167.0
220.90	20.0
223.00	302.0
223.90	29.0
235.00	106.0
237.00	232.0
238.00	64.0
238.90	68.0
239.90	56.0
250.95	296.0
251.95	113.0
253.00	3541.0
254.00	1082.0
255.00	785.0
256.00	150.0
257.05	53.0
265.00	19.0
267.05	488.0
268.00	73.0
271.05	177.0

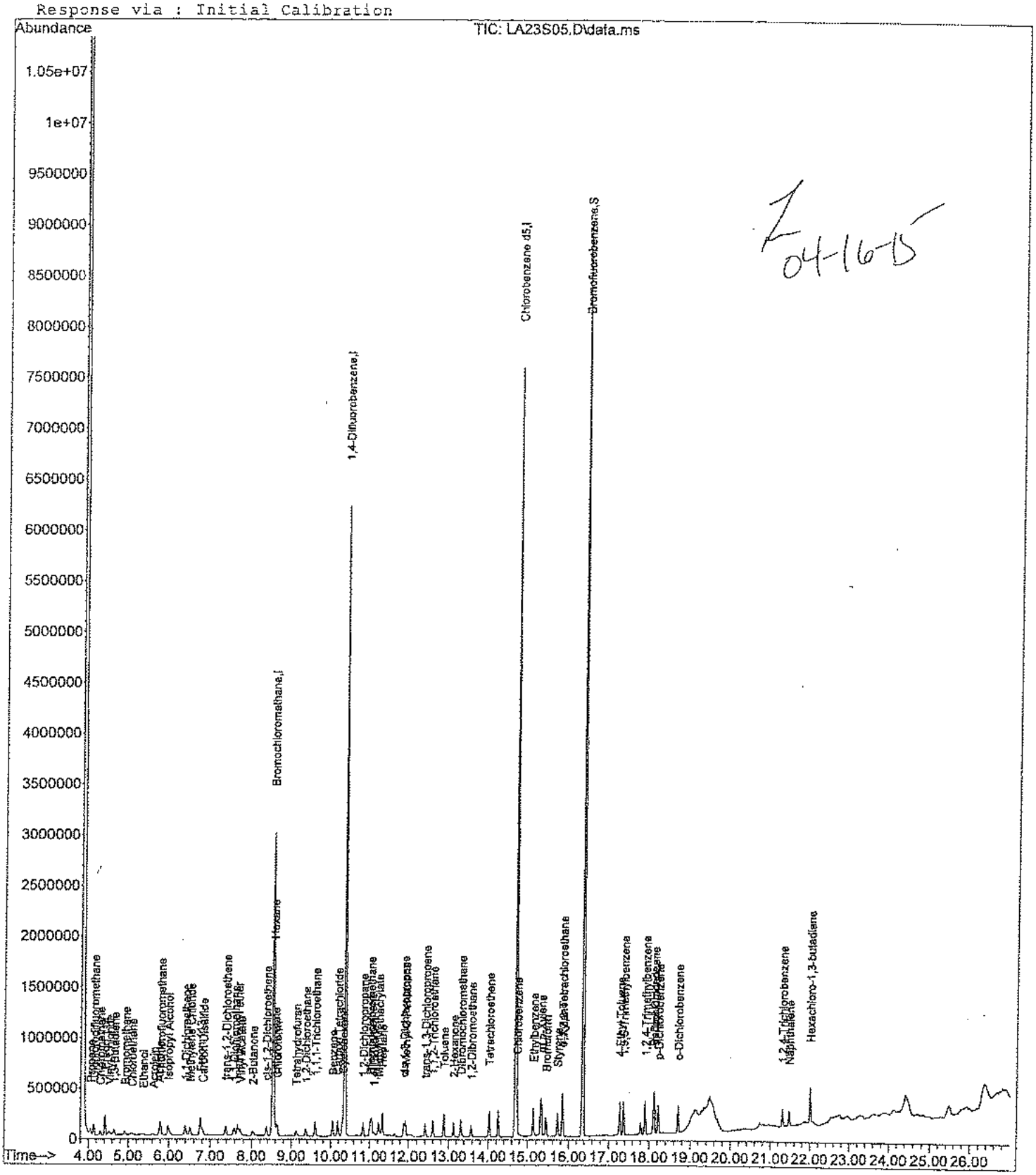
272.05	151.0
282.05	25.0
284.90	34.0
285.05	45.0

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq.Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



4-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.53	130	511808	20.0000	ppb		108.42
25) 1,4-Difluorobenzene	10.36	114	6058328	20.0000	ppb		79.19
50) Chlorobenzene d5	14.69	117	5207139	20.0000	ppb		79.15
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4172397	21.7139	ppb		108.57%
Target Compounds							Qvalue
2) Propene	4.04	41	36729	0.3676	ppb		94
3) Dichlorodifluoromethane	4.13	85	123701	0.4407	ppb		98
4) Chloromethane	4.29	50	67077	0.5451	ppb		98
5) Freon 114	4.41	135	77996	0.3915	ppb	#	58
6) Vinyl Chloride	4.51	62	47200	0.3941	ppb		99
7) 1,3-Butadiene	4.65	54	38775	0.3566	ppb	#	69
8) Bromomethane	4.91	94	41502	0.4487	ppb		99
9) Chloroethane	5.09	64	25818	0.3986	ppb	#	91
10) Acrolein	5.62	56	21758	0.4135	ppb		89
11) Acetone	5.76	43	100134	0.4239	ppb		100
12) Trichlorofluoromethane	5.79	101	134274	0.4444	ppb		100
13) Ethanol	5.37	45	18076	0.2801	ppb	#	78
14) Isopropyl Alcohol	5.98	45	234901	0.4961	ppb	#	92
15) 1,1-Dichloroethene	6.40	61	87977	0.4055	ppb	#	65
16) Methylene Chloride	6.51	84	47661	0.4268	ppb	#	58
17) Freon 113	6.75	151	77531	0.4132	ppb	#	69
18) Carbon Disulfide	6.81	76	135479	0.3981	ppb	#	62
19) trans-1,2-Dichloroethene	7.38	96	51265	0.3964	ppb	#	67
20) 1,1-Dichloroethane	7.58	63	99037	0.3984	ppb	#	95
21) methyl t-butyl ether	7.66	73	138777	0.4065	ppb	#	84
22) Vinyl Acetate	7.72	86	12980	0.3973	ppb	#	1
23) 2-Butanone	8.01	43	110371	0.3709	ppb	#	73
24) cis-1,2-Dichloroethene	8.37	96	52673	0.3950	ppb	#	64
26) Ethyl Acetate	8.59	61	19883	0.4924	ppb	#	1
27) Hexane	8.55	57	89057	0.5146	ppb	#	52
28) Chloroform	8.64	83	107953	0.5507	ppb		100
29) Tetrahydrofuran	9.11	42	59072	0.4422	ppb	#	67
30) 1,2-Dichloroethane	9.36	62	81061	0.5537	ppb	#	95
31) 1,1,1-Trichloroethane	9.60	97	120356	0.5718	ppb	#	92
32) Benzene	10.04	78	164611	0.5394	ppb	#	93
33) Carbon Tetrachloride	10.18	117	125019	0.5896	ppb		98
34) Cyclohexane	10.30	84	74299	0.5569	ppb	#	54
35) 1,2-Dichloropropane	10.83	63	64297	0.5335	ppb		95
36) Bromodichloromethane	11.01	83	120686	0.5724	ppb	#	98
37) 1,4-Dioxane	11.11	88	39925	0.5559	ppb	#	65
38) Trichloroethene	11.05	130	67725	0.5308	ppb	#	85
39) Methyl Methacrylate	11.22	69	51074	0.5056	ppb	#	86
40) Heptane	11.32	71	55438	0.5338	ppb	#	49
41) cis-1,3-Dichloropropene	11.89	75	92036	0.5415	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	127680	0.4718	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	88392	0.5543	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	65904	0.5658	ppb	#	88
45) Toluene	12.87	91	195209	0.5573	ppb		99
46) 2-Hexanone	13.13	43	117204	0.4741	ppb	#	82
47) Dibromochloromethane	13.31	129	115532	0.5704	ppb		99
48) 1,2-Dibromoethane	13.58	107	96347	0.5481	ppb		98
49) Tetrachloroethene	14.02	166	92841	0.5634	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA23S05.D Vial: 1
Acq Time : 04/13/2015 10:56 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 27464 (10mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:39:06 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.74	112	142992	0.5540	ppb	#	87
52)	Ethylbenzene	15.13	91	251096	0.5913	ppb		92
53)	m,p-Xylene	15.31	91	390480	1.2371	ppb		90
54)	Bromoform	15.44	173	119472	0.6505	ppb		99
55)	Styrene	15.72	104	137728	0.5662	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.85	83	134732	0.6419	ppb	#	90
57)	o-Xylene	15.83	91	199809	0.6320	ppb		91
59)	4-Ethyl Toluene	17.27	105	262467	0.6398	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	231450	0.6790	ppb		92
61)	1,2,4-Trimethylbenzene	17.90	105	244733	0.7403	ppb		92
62)	Benzyl Chloride	18.11	91	222576	0.7521	ppb	#	87
63)	m-Dichlorobenzene	18.13	146	155234	0.7244	ppb	#	94
64)	p-Dichlorobenzene	18.22	146	152824	0.7297	ppb	#	93
65)	o-Dichlorobenzene	18.70	146	146925	0.7746	ppb	#	93
66)	1,2,4-Trichlorobenzene	21.30	180	70348	0.8153	ppb		98
67)	Naphthalene	21.47	128	136367	0.7351	ppb	#	97
68)	Hexachloro-1,3-butadiene	22.00	225	83847	1.0868	ppb	m	86

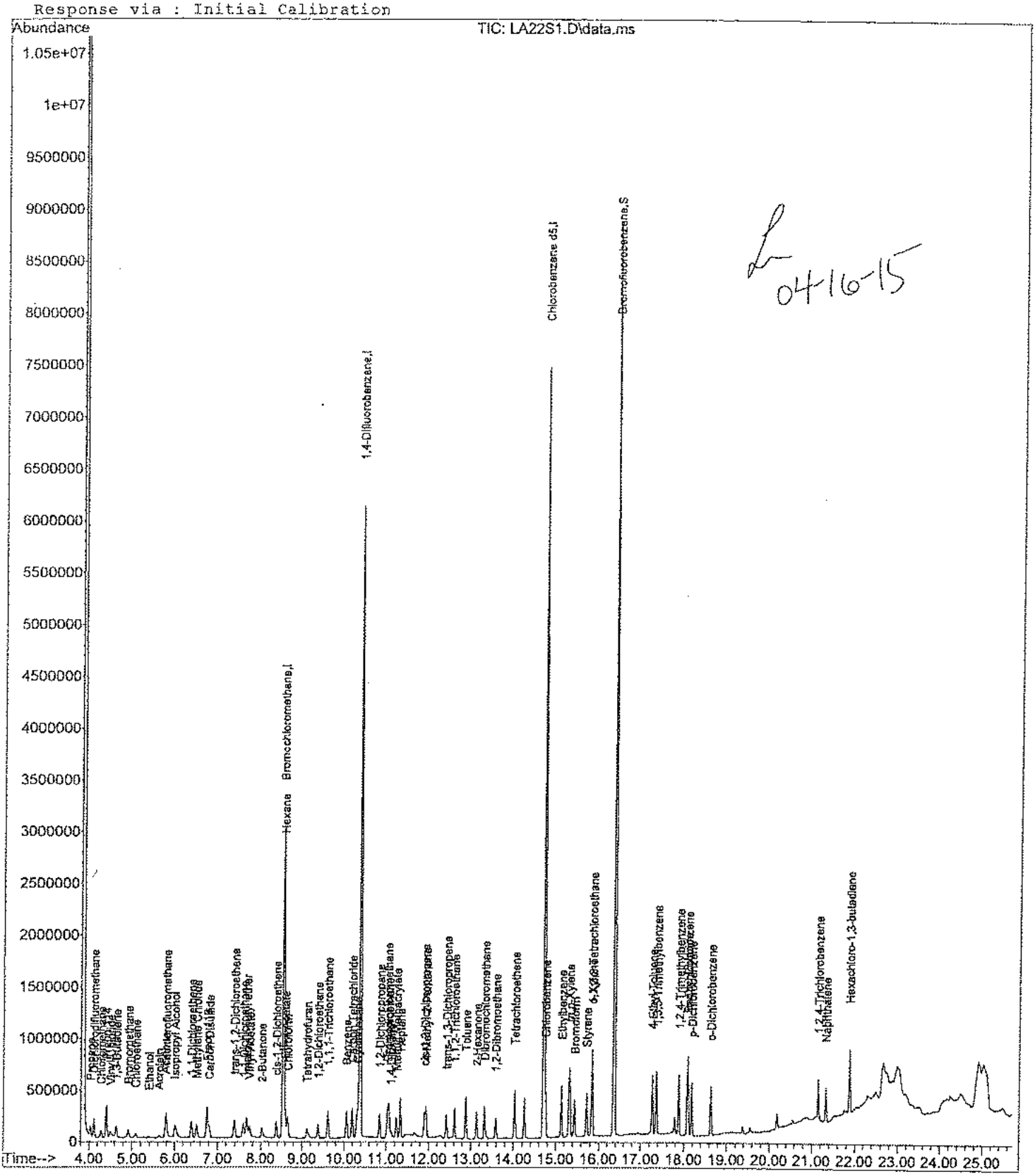
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	492928	20.0000	ppb		104.42
25) 1,4-Difluorobenzene	10.37	114	5942919	20.0000	ppb		77.68
50) Chlorobenzene d5	14.71	117	5089875	20.0000	ppb		77.37
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4010202	21.6407	ppb		108.20%
Target Compounds							Qvalue
2) Propene	4.03	41	67099	0.6624	ppb		97
3) Dichlorodifluoromethane	4.12	85	220927	0.7967	ppb		99
4) Chloromethane	4.29	50	110283	0.9219	ppb		99
5) Freon 114	4.41	135	138129	0.6838	ppb	#	55
6) Vinyl Chloride	4.51	62	86092	0.7209	ppb		98
7) 1,3-Butadiene	4.65	54	72061	0.6462	ppb	#	68
8) Bromomethane	4.91	94	73066	0.8038	ppb		100
9) Chloroethane	5.09	64	45612	0.7006	ppb	#	91
10) Acrolein	5.63	56	37253	0.6972	ppb		93
11) Acetone	5.77	43	168767	0.6885	ppb		96
12) Trichlorofluoromethane	5.80	101	241917	0.8060	ppb		99
13) Ethanol	5.39	45	31680	0.4294	ppb	#	76
14) Isopropyl Alcohol	6.01	45	339529	0.6483	ppb		99
15) 1,1-Dichloroethene	6.40	61	158909	0.7265	ppb	#	67
16) Methylene Chloride	6.52	84	80005	0.7048	ppb	#	57
17) Freon 113	6.76	151	142724	0.7634	ppb	#	70
18) Carbon Disulfide	6.81	76	240641	0.6998	ppb	#	62
19) trans-1,2-Dichloroethene	7.40	96	91010	0.6944	ppb	#	62
20) 1,1-Dichloroethane	7.59	63	179757	0.7177	ppb	#	96
21) methyl t-butyl ether	7.66	73	254793	0.7521	ppb	#	81
22) Vinyl Acetate	7.73	86	21791	0.6541	ppb	#	1
23) 2-Butanone	8.02	43	199148	0.6590	ppb	#	72
24) cis-1,2-Dichloroethene	8.38	96	93204	0.6914	ppb	#	63
26) Ethyl Acetate	8.60	61	35026	0.8520	ppb	#	1
27) Hexane	8.56	57	160978	0.9398	ppb	#	51
28) Chloroform	8.65	83	195783	1.0166	ppb		99
29) Tetrahydrofuran	9.12	42	114266	0.8499	ppb	#	64
30) 1,2-Dichloroethane	9.38	62	152147	1.0675	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	226506	1.1183	ppb	#	92
32) Benzene	10.06	78	290921	0.9666	ppb	#	92
33) Carbon Tetrachloride	10.19	117	228259	1.1193	ppb		100
34) Cyclohexane	10.32	84	129811	0.9910	ppb	#	42
35) 1,2-Dichloropropane	10.85	63	111109	0.9336	ppb		94
36) Bromodichloromethane	11.03	83	223811	1.0989	ppb	#	98
37) 1,4-Dioxane	11.11	88	73046	1.0255	ppb	#	76
38) Trichloroethene	11.07	130	126140	1.0094	ppb	#	85
39) Methyl Methacrylate	11.24	69	91478	0.9188	ppb	#	84
40) Heptane	11.33	71	97786	0.9598	ppb	#	39
41) cis-1,3-Dichloropropene	11.90	75	170408	1.0281	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	244173	0.9071	ppb	#	77
43) trans-1,3-Dichloropropene	12.42	75	164390	1.0653	ppb	#	90
44) 1,1,2-Trichloroethane	12.61	97	117785	1.0454	ppb	#	86
45) Toluene	12.88	91	355849	1.0422	ppb		100
46) 2-Hexanone	13.13	43	218251	0.8932	ppb	#	84
47) Dibromochloromethane	13.33	129	215875	1.1090	ppb		99
48) 1,2-Dibromoethane	13.58	107	178449	1.0439	ppb		97
49) Tetrachloroethene	14.03	166	169478	1.0619	ppb	#	89

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA22S1.D Vial: 1
Acq Time : 04/13/2015 10:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 27464 (20mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 10:52:38 2015 Results File: TO15LA15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	260013	1.0424	ppb	#	84
52)	Ethylbenzene	15.14	91	455400	1.1278	ppb		92
53)	m,p-Xylene	15.32	91	708435	2.3776	ppb		90
54)	Bromoform	15.44	173	215998	1.2619	ppb		99
55)	Styrene	15.72	104	254710	1.1018	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.85	83	241922	1.2229	ppb	#	92
57)	o-Xylene	15.84	91	361118	1.2189	ppb		91
59)	4-Ethyl Toluene	17.27	105	474796	1.2553	ppb		93
60)	1,3,5-Trimethylbenzene	17.36	105	412411	1.3220	ppb		90
61)	1,2,4-Trimethylbenzene	17.88	105	400396	1.3271	ppb		94
62)	Benzyl Chloride	18.07	91	388184	1.4603	ppb	#	88
63)	m-Dichlorobenzene	18.09	146	261983	1.3348	ppb	#	93
64)	p-Dichlorobenzene	18.18	146	259922	1.3663	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	246499	1.4449	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	148281	2.1526	ppb		98
67)	Naphthalene	21.33	128	323347	2.1968	ppb		99
68)	Hexachloro-1,3-butadiene	21.87	225	150358	2.5376	ppb		99

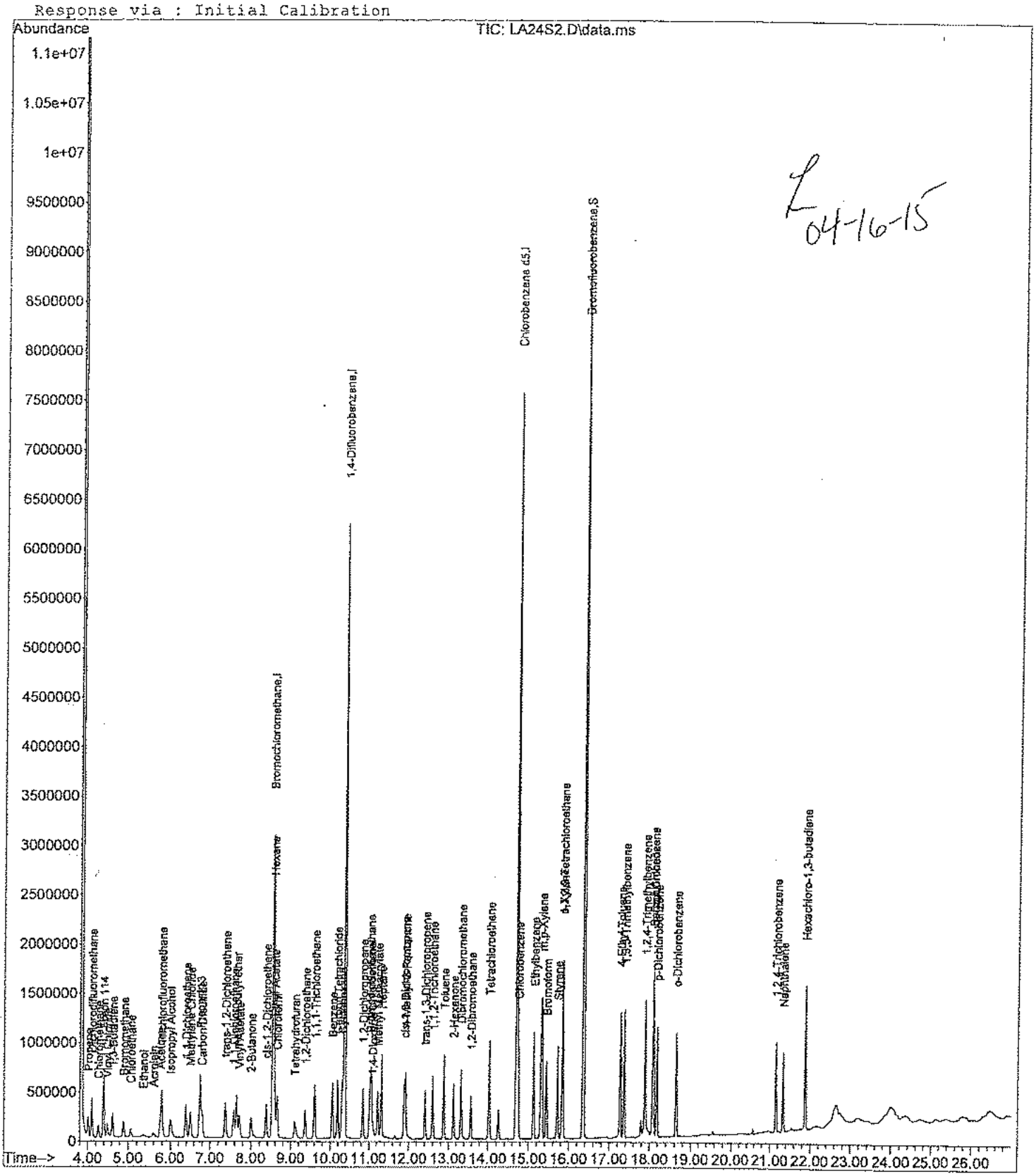
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.53	130	493696	20.0000	ppb		104.58
25) 1,4-Difluorobenzene	10.36	114	6029622	20.0000	ppb		78.82
50) Chlorobenzene d5	14.69	117	5180106	20.0000	ppb		78.74
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4147607	21.2958	ppb		106.48%
Target Compounds							Qvalue
2) Propene	4.01	41	143438	1.5701	ppb		98
3) Dichlorodifluoromethane	4.10	85	489850	1.8431	ppb		99
4) Chloromethane	4.26	50	193836	1.6066	ppb		99
5) Freon 114	4.39	135	311443	1.7293	ppb	#	58
6) Vinyl Chloride	4.48	62	193241	1.7390	ppb		96
7) 1,3-Butadiene	4.62	54	159551	1.6406	ppb	#	79
8) Bromomethane	4.89	94	158302	1.7984	ppb		98
9) Chloroethane	5.06	64	99799	1.6810	ppb	#	90
10) Acrolein	5.59	56	79265	1.6629	ppb		99
11) Acetone	5.74	43	321679	1.5586	ppb		93
12) Trichlorofluoromethane	5.78	101	529982	1.8882	ppb		98
13) Ethanol	5.36	45	66122	1.3822	ppb	#	76
14) Isopropyl Alcohol	5.99	45	517427	1.4414	ppb		98
15) 1,1-Dichloroethene	6.38	61	350623	1.7735	ppb	#	66
16) Methylene Chloride	6.50	84	169670	1.6942	ppb	#	56
17) Freon 113	6.74	151	312500	1.8063	ppb	#	69
18) Carbon Disulfide	6.79	76	522287	1.7003	ppb	#	65
19) trans-1,2-Dichloroethene	7.37	96	198120	1.6940	ppb	#	62
20) 1,1-Dichloroethane	7.58	63	392206	1.7409	ppb	#	95
21) methyl t-butyl ether	7.65	73	567346	1.7765	ppb	#	81
22) Vinyl Acetate	7.72	86	47727	1.5945	ppb	#	1
23) 2-Butanone	7.99	43	414814	1.5347	ppb	#	72
24) cis-1,2-Dichloroethene	8.37	96	208696	1.7259	ppb	#	65
26) Ethyl Acetate	8.58	61	71943	1.9098	ppb	#	1
27) Hexane	8.55	57	353743	2.0576	ppb	#	20
28) Chloroform	8.65	83	432539	2.2244	ppb		100
29) Tetrahydrofuran	9.10	42	238848	1.8648	ppb	#	67
30) 1,2-Dichloroethane	9.37	62	323841	2.2189	ppb	#	95
31) 1,1,1-Trichloroethane	9.60	97	493142	2.3213	ppb	#	93
32) Benzene	10.05	78	613579	2.0483	ppb	#	92
33) Carbon Tetrachloride	10.18	117	494676	2.2880	ppb		100
34) Cyclohexane	10.30	84	274466	2.0573	ppb	#	39
35) 1,2-Dichloropropane	10.84	63	250698	2.0771	ppb		95
36) Bromodichloromethane	11.02	83	485879	2.2807	ppb	#	98
37) 1,4-Dioxane	11.10	88	144378	2.0506	ppb	#	76
38) Trichloroethene	11.05	130	271794	2.1341	ppb	#	86
39) Methyl Methacrylate	11.22	69	202898	2.0172	ppb	#	88
40) Heptane	11.32	71	215349	2.0773	ppb	#	43
41) cis-1,3-Dichloropropene	11.89	75	374230	2.1897	ppb	#	92
42) 4-Methyl-2-Pentanone	11.93	43	517137	1.9452	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	358164	2.2103	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	256965	2.1667	ppb	#	86
45) Toluene	12.88	91	749229	2.1224	ppb		99
46) 2-Hexanone	13.12	43	472774	1.9323	ppb	#	83
47) Dibromochloromethane	13.32	129	473504	2.2780	ppb		99
48) 1,2-Dibromoethane	13.58	107	392617	2.2045	ppb		98
49) Tetrachloroethene	14.03	166	374574	2.2376	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA24S2.D Vial: 1
Acq Time : 04/13/2015 11:36 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 27464 (40mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 12:06:28 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.74	112	579886	2.1972	ppb	#	78
52)	Ethylbenzene	15.13	91	1007324	2.2660	ppb		92
53)	m,p-Xylene	15.32	91	1573144	4.6980	ppb		89
54)	Bromoform	15.44	173	493816	2.5538	ppb		99
55)	Styrene	15.72	104	563039	2.2077	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.84	83	540035	2.4708	ppb		100
57)	o-Xylene	15.83	91	797599	2.3669	ppb		90
59)	4-Ethyl Toluene	17.27	105	1067677	2.4134	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	918201	2.4751	ppb		91
61)	1,2,4-Trimethylbenzene	17.88	105	906581	2.4659	ppb		93
62)	Benzyl Chloride	18.08	91	862297	2.6189	ppb	#	87
63)	m-Dichlorobenzene	18.09	146	574595	2.4404	ppb	#	94
64)	p-Dichlorobenzene	18.18	146	575406	2.4927	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	547857	2.5812	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	381509	3.8078	ppb		98
67)	Naphthalene	21.33	128	805244	3.8311	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	367401	5.2312	ppb		98

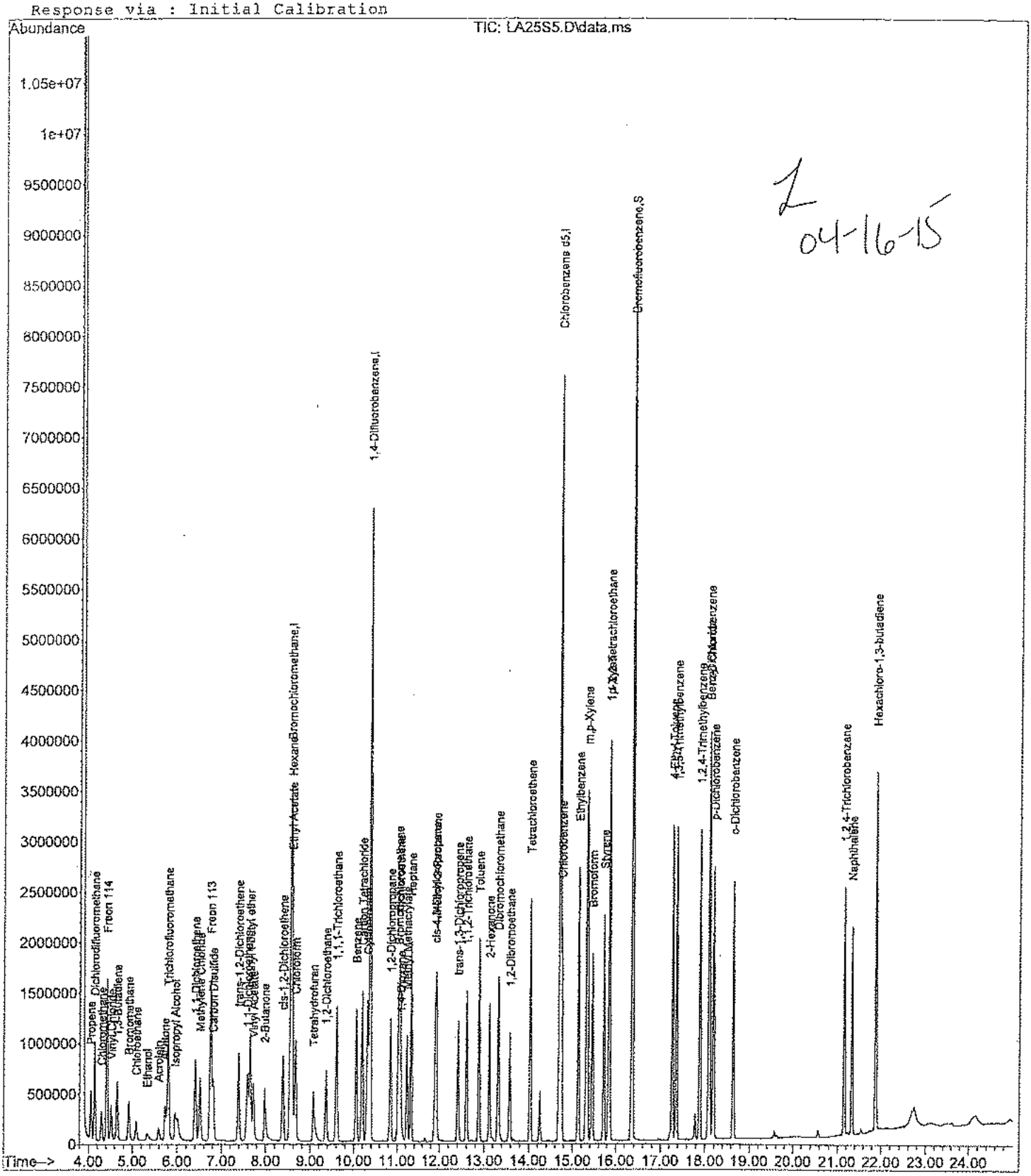
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq. Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



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04-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	504320	20.0000	ppb		106.83
25) 1,4-Difluorobenzene	10.36	114	6082157	20.0000	ppb		79.50
50) Chlorobenzene d5	14.70	117	5244053	20.0000	ppb		79.72
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4174770	20.8256	ppb		104.13%
Target Compounds							Qvalue
2) Propene	4.04	41	348005	3.9410	ppb		98
3) Dichlorodifluoromethane	4.13	85	1219107	4.5940	ppb		99
4) Chloromethane	4.30	50	456668	3.8244	ppb		99
5) Freon 114	4.41	135	770217	4.3714	ppb	#	59
6) Vinyl Chloride	4.51	62	471418	4.3069	ppb		97
7) 1,3-Butadiene	4.65	54	394978	4.1850	ppb	#	81
8) Bromomethane	4.91	94	387685	4.4115	ppb		99
9) Chloroethane	5.09	64	245056	4.2149	ppb	#	91
10) Acrolein	5.59	56	194833	4.1840	ppb	#	98
11) Acetone	5.73	43	762121	3.8589	ppb		94
12) Trichlorofluoromethane	5.80	101	1297438	4.6306	ppb		99
13) Ethanol	5.34	45	159946	3.7489	ppb	#	80
14) Isopropyl Alcohol	5.95	45	1084517	3.3059	ppb	m	89
15) 1,1-Dichloroethene	6.40	61	848943	4.3620	ppb	#	67
16) Methylene Chloride	6.51	84	404784	4.1302	ppb	#	57
17) Freon 113	6.75	151	769786	4.4970	ppb	#	71
18) Carbon Disulfide	6.81	76	1285892	4.2822	ppb	#	61
19) trans-1,2-Dichloroethene	7.38	96	491597	4.3023	ppb	#	63
20) 1,1-Dichloroethane	7.58	63	952082	4.3080	ppb	#	96
21) methyl t-butyl ether	7.65	73	1401935	4.4508	ppb	#	82
22) Vinyl Acetate	7.71	86	109918	3.8032	ppb	#	1
23) 2-Butanone	7.98	43	1018702	3.9254	ppb	#	72
24) cis-1,2-Dichloroethene	8.37	96	505487	4.2738	ppb	#	64
26) Ethyl Acetate	8.57	61	171081	4.6393	ppb	#	1
27) Hexane	8.56	57	846513	4.8878	ppb	#	20
28) Chloroform	8.65	83	1053745	5.2944	ppb		99
29) Tetrahydrofuran	9.07	42	589859	4.6826	ppb	#	68
30) 1,2-Dichloroethane	9.36	62	788766	5.2639	ppb		96
31) 1,1,1-Trichloroethane	9.60	97	1195421	5.4203	ppb	#	93
32) Benzene	10.05	78	1459072	4.8314	ppb	#	92
33) Carbon Tetrachloride	10.19	117	1211175	5.4020	ppb		99
34) Cyclohexane	10.31	84	655790	4.8692	ppb	#	38
35) 1,2-Dichloropropane	10.84	63	603295	4.9481	ppb		93
36) Bromodichloromethane	11.02	83	1185332	5.3877	ppb	#	98
37) 1,4-Dioxane	11.08	88	345579	4.8817	ppb	#	80
38) Trichloroethene	11.05	130	654346	5.0638	ppb	#	85
39) Methyl Methacrylate	11.22	69	484249	4.7974	ppb	#	86
40) Heptane	11.32	71	518476	4.9495	ppb	#	45
41) cis-1,3-Dichloropropene	11.89	75	900246	5.1568	ppb	#	93
42) 4-Methyl-2-Pentanone	11.92	43	1229259	4.6731	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	872103	5.2456	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	619912	5.1176	ppb	#	86
45) Toluene	12.88	91	1801476	5.0259	ppb		99
46) 2-Hexanone	13.12	43	1164412	4.7931	ppb	#	83
47) Dibromochloromethane	13.32	129	1152581	5.3752	ppb		99
48) 1,2-Dibromoethane	13.58	107	952271	5.2258	ppb		98
49) Tetrachloroethene	14.03	166	904568	5.2632	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA25S5.D Vial: 1
Acq Time : 04/13/2015 12:24 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 27464 (100mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.74	112	1401157	5.1745	ppb	#	82
52)	Ethylbenzene	15.13	91	2445179	5.3183	ppb		92
53)	m,p-Xylene	15.32	91	3774212	10.8214	ppb		89
54)	Bromoform	15.44	173	1207246	5.8452	ppb		99
55)	Styrene	15.72	104	1378738	5.2537	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.85	83	1291677	5.6071	ppb		99
57)	o-Xylene	15.84	91	1921501	5.4568	ppb		89
59)	4-Ethyl Toluene	17.27	105	2580983	5.5256	ppb		95
60)	1,3,5-Trimethylbenzene	17.37	105	2192911	5.5606	ppb		91
61)	1,2,4-Trimethylbenzene	17.89	105	2174094	5.5423	ppb		93
62)	Benzyl Chloride	18.08	91	2095810	5.8894	ppb	#	87
63)	m-Dichlorobenzene	18.09	146	1382865	5.5312	ppb	#	93
64)	p-Dichlorobenzene	18.19	146	1393083	5.6377	ppb	#	93
65)	o-Dichlorobenzene	18.64	146	1345619	5.8587	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.16	180	1008039	8.3070	ppb		98
67)	Naphthalene	21.33	128	2102244	8.2345	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	929990	10.1857	ppb		99

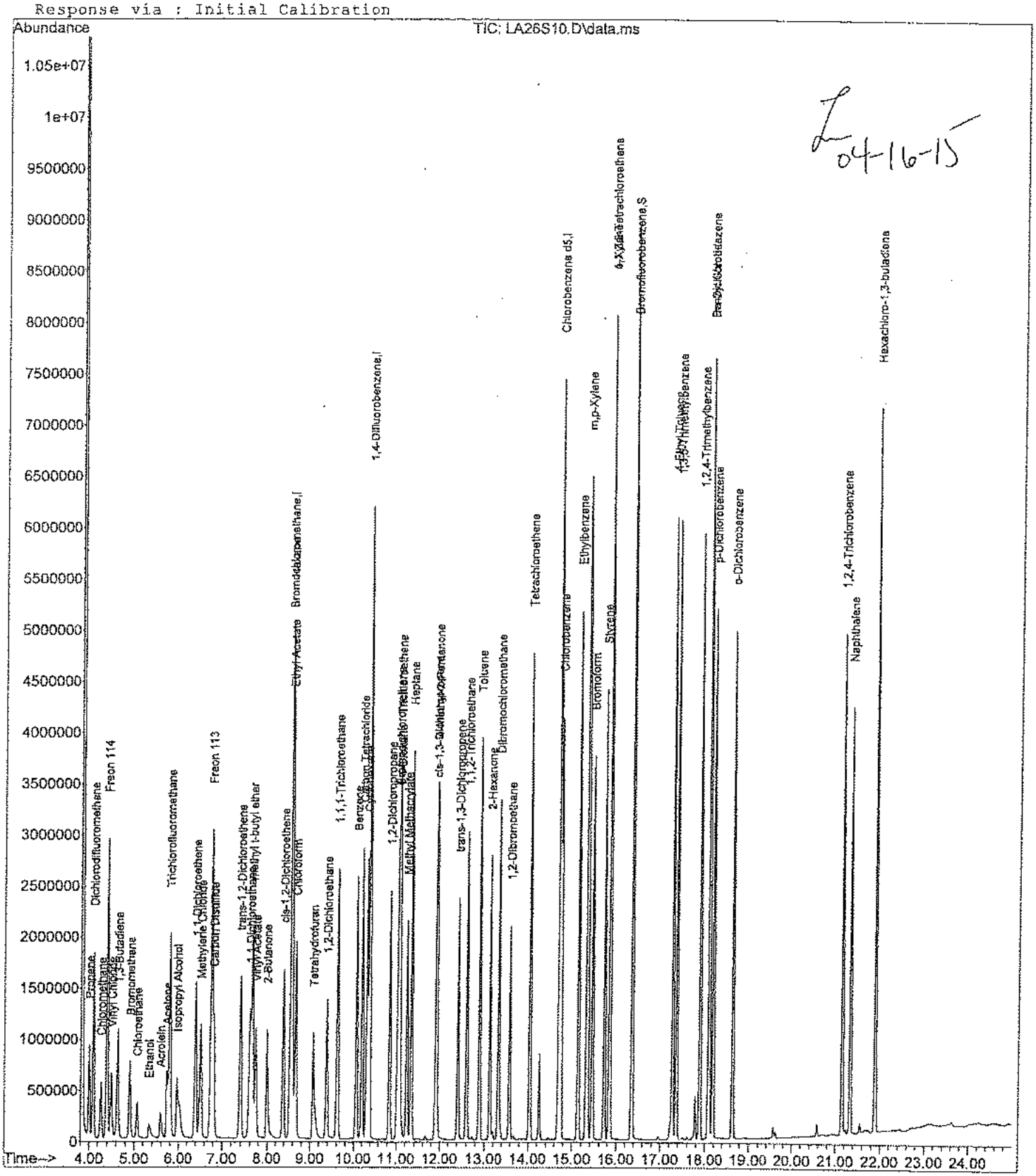
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



LA26S10.D TO15LB15.m Thu Apr 16 13:57:59 2015 Page 3

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.54	130	485696	20.0000	ppb		102.89
25) 1,4-Difluorobenzene	10.37	114	6067016	20.0000	ppb		79.31
50) Chlorobenzene d5	14.70	117	5165174	20.0000	ppb		78.52
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	4150505	20.7090	ppb		103.54%
Target Compounds							Qvalue
2) Propene	4.00	41	696461	8.7632	ppb		97
3) Dichlorodifluoromethane	4.09	85	2442684	9.8481	ppb		99
4) Chloromethane	4.26	50	908677	8.2570	ppb		99
5) Freon 114	4.39	135	1550743	9.5975	ppb	#	59
6) Vinyl Chloride	4.49	62	965932	9.6103	ppb		97
7) 1,3-Butadiene	4.63	54	793409	9.2574	ppb	#	82
8) Bromomethane	4.90	94	784804	9.5937	ppb		99
9) Chloroethane	5.07	64	497204	9.3298	ppb	#	91
10) Acrolein	5.58	56	390458	9.1250	ppb	#	99
11) Acetone	5.71	43	1515803	8.4588	ppb		92
12) Trichlorofluoromethane	5.79	101	2586111	9.8266	ppb		99
13) Ethanol	5.34	45	319698	8.5656	ppb	#	77
14) Isopropyl Alcohol	5.96	45	1972594	7.0932	ppb	m	98
15) 1,1-Dichloroethene	6.39	61	1696498	9.4451	ppb	#	67
16) Methylene Chloride	6.51	84	811594	9.0280	ppb	#	57
17) Freon 113	6.75	151	1527626	9.6157	ppb	#	71
18) Carbon Disulfide	6.80	76	2561531	9.2915	ppb	#	65
19) trans-1,2-Dichloroethene	7.39	96	979097	9.3235	ppb	#	62
20) 1,1-Dichloroethane	7.59	63	1902118	9.3650	ppb	#	96
21) methyl t-butyl ether	7.65	73	2811529	9.6583	ppb	#	82
22) Vinyl Acetate	7.73	86	224946	8.6439	ppb	#	1
23) 2-Butanone	7.98	43	2072241	8.8727	ppb	#	72
24) cis-1,2-Dichloroethene	8.38	96	1016636	9.3511	ppb	#	64
26) Ethyl Acetate	8.58	61	336563	9.2874	ppb	#	1
27) Hexane	8.56	57	1680498	9.8023	ppb	#	22
28) Chloroform	8.66	83	2109741	10.4461	ppb		99
29) Tetrahydrofuran	9.07	42	1205197	9.8027	ppb	#	67
30) 1,2-Dichloroethane	9.38	62	1572391	10.3245	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2370481	10.4999	ppb	#	93
32) Benzene	10.05	78	2896115	9.6481	ppb	#	93
33) Carbon Tetrachloride	10.19	117	2408875	10.5010	ppb		99
34) Cyclohexane	10.31	84	1308051	9.7565	ppb	#	34
35) 1,2-Dichloropropane	10.85	63	1195151	9.8422	ppb		93
36) Bromodichloromethane	11.02	83	2342268	10.4398	ppb	#	98
37) 1,4-Dioxane	11.08	88	652369	9.2624	ppb	#	76
38) Trichloroethene	11.06	130	1285108	9.9696	ppb	#	85
39) Methyl Methacrylate	11.22	69	984453	9.8987	ppb	#	87
40) Heptane	11.33	71	1032369	9.9083	ppb	#	45
41) cis-1,3-Dichloropropene	11.90	75	1787339	10.1905	ppb	#	93
42) 4-Methyl-2-Pentanone	11.93	43	2424565	9.4338	ppb	#	79
43) trans-1,3-Dichloropropene	12.41	75	1729863	10.2709	ppb	#	91
44) 1,1,2-Trichloroethane	12.60	97	1234710	10.1278	ppb	#	87
45) Toluene	12.88	91	3526361	9.8149	ppb		98
46) 2-Hexanone	13.12	43	2300579	9.6539	ppb	#	84
47) Dibromochloromethane	13.32	129	2275716	10.4195	ppb		99
48) 1,2-Dibromoethane	13.58	107	1874037	10.1933	ppb		98
49) Tetrachloroethene	14.03	166	1772150	10.2005	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA26S10.D Vial: 1
Acq Time : 04/13/2015 13:14 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 27464 (200mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:46:16 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LBl5.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	2721690	10.1207	ppb	#	84
52)	Ethylbenzene	15.13	91	4717504	10.2393	ppb		93
53)	m,p-Xylene	15.32	91	7196011	20.4790	ppb		90
54)	Bromoform	15.44	173	2375804	11.1310	ppb		98
55)	Styrene	15.72	104	2670277	10.2075	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.85	83	2465550	10.4790	ppb		99
57)	o-Xylene	15.84	91	3657781	10.2676	ppb		90
59)	4-Ethyl Toluene	17.27	105	5025273	10.5717	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	4234659	10.5121	ppb		91
61)	1,2,4-Trimethylbenzene	17.88	105	4234084	10.5242	ppb		92
62)	Benzyl Chloride	18.08	91	3957251	10.6704	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	2672336	10.4448	ppb	#	94
64)	p-Dichlorobenzene	18.19	146	2717385	10.6825	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	2634516	10.9804	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.16	180	1998425	14.2977	ppb		98
67)	Naphthalene	21.33	128	4193398	14.3135	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	1840610	16.7824	ppb		98

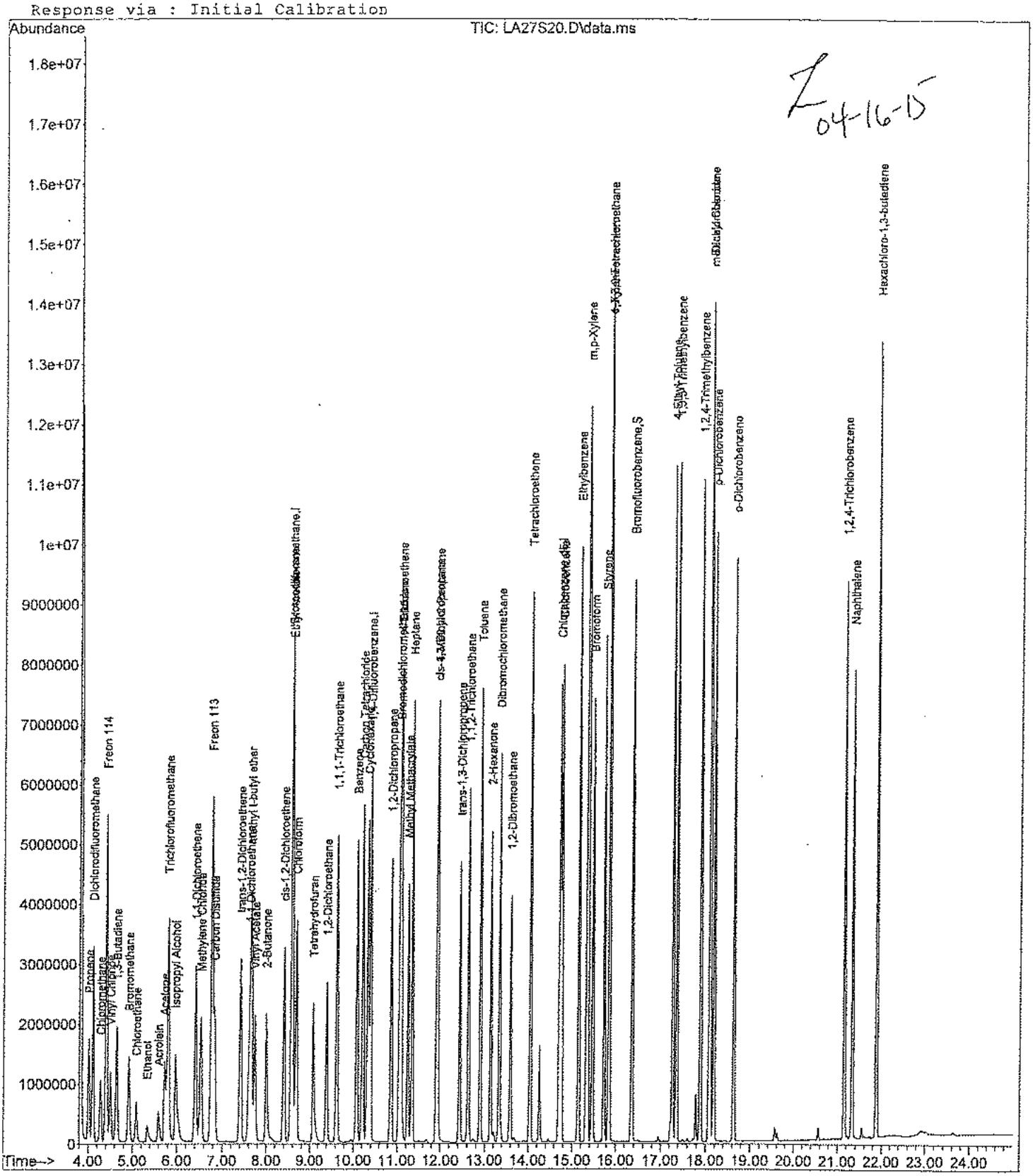
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq.Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



LA27S20.D TO15LB15.m Thu Apr 16 13:58:03 2015 Page 3

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.56	130	482240	20.0000	ppb		99.29
25) 1,4-Difluorobenzene	10.39	114	6204680	20.0000	ppb		102.27
50) Chlorobenzene d5	14.71	117	5324332	20.0000	ppb		103.08
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.36	95	4203248	20.0356	ppb		100.18%
Target Compounds							Qvalue
2) Propene	4.01	41	1387707	18.7824	ppb		98
3) Dichlorodifluoromethane	4.10	85	4694165	19.4731	ppb		99
4) Chloromethane	4.27	50	1816054	17.3419	ppb		98
5) Freon 114	4.40	135	3036028	19.6416	ppb	#	59
6) Vinyl Chloride	4.50	62	1909178	19.8750	ppb		97
7) 1,3-Butadiene	4.64	54	1557674	19.2982	ppb	#	82
8) Bromomethane	4.91	94	1562135	19.7764	ppb		99
9) Chloroethane	5.09	64	988480	19.5106	ppb	#	90
10) Acrolein	5.59	56	785686	19.3319	ppb	#	99
11) Acetone	5.73	43	2988889	17.6755	ppb		93
12) Trichlorofluoromethane	5.80	101	5109836	19.8763	ppb		99
13) Ethanol	5.34	45	631765	18.3666	ppb	#	78
14) Isopropyl Alcohol	5.96	45	3845578	14.5938	ppb		97
15) 1,1-Dichloroethene	6.41	61	3363671	19.5183	ppb	#	67
16) Methylene Chloride	6.53	84	1610813	18.8060	ppb	#	57
17) Freon 113	6.76	151	3023429	19.7548	ppb	#	72
18) Carbon Disulfide	6.82	76	5052211	19.2456	ppb	#	65
19) trans-1,2-Dichloroethene	7.41	96	1961717	19.6230	ppb	#	63
20) 1,1-Dichloroethane	7.62	63	3746567	19.3176	ppb	#	96
21) methyl t-butyl ether	7.66	73	5593061	20.0176	ppb	#	82
22) Vinyl Acetate	7.74	86	447236	18.4455	ppb	#	1
23) 2-Butanone	7.99	43	4173620	19.1634	ppb	#	73
24) cis-1,2-Dichloroethene	8.40	96	2029107	19.6102	ppb	#	65
26) Ethyl Acetate	8.59	61	686363	18.7348	ppb	#	1
27) Hexane	8.57	57	3289988	18.8207	ppb	#	22
28) Chloroform	8.68	83	4198465	19.8985	ppb		99
29) Tetrahydrofuran	9.07	42	2434212	19.6764	ppb	#	67
30) 1,2-Dichloroethane	9.40	62	3161222	19.8849	ppb		96
31) 1,1,1-Trichloroethane	9.63	97	4724086	19.9073	ppb	#	93
32) Benzene	10.07	78	5713362	18.6080	ppb	#	92
33) Carbon Tetrachloride	10.21	117	4799042	19.8915	ppb		99
34) Cyclohexane	10.32	84	2593316	18.8729	ppb	#	36
35) 1,2-Dichloropropane	10.86	63	2394592	19.3020	ppb		93
36) Bromodichloromethane	11.04	83	4643447	19.7543	ppb	#	98
37) 1,4-Dioxane	11.08	88	1316993	18.3193	ppb	#	78
38) Trichloroethene	11.07	130	2495717	18.8487	ppb	#	85
39) Methyl Methacrylate	11.24	69	1999951	19.7826	ppb	#	87
40) Heptane	11.33	71	2015703	18.9237	ppb	#	46
41) cis-1,3-Dichloropropene	11.91	75	3552913	19.5806	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	4767049	18.4697	ppb	#	80
43) trans-1,3-Dichloropropene	12.43	75	3489910	19.9564	ppb	#	91
44) 1,1,2-Trichloroethane	12.62	97	2457041	19.4715	ppb	#	86
45) Toluene	12.89	91	6875369	18.6005	ppb		97
46) 2-Hexanone	13.13	43	4504930	18.8239	ppb	#	84
47) Dibromochloromethane	13.34	129	4515219	19.7879	ppb		99
48) 1,2-Dibromoethane	13.60	107	3716349	19.5275	ppb		99
49) Tetrachloroethene	14.04	166	3477211	19.2659	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA27S20.D Vial: 1
Acq Time : 04/13/2015 14:06 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 27464 (400mL) Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 13 14:37:00 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.75	112	5337358	19.0790	ppb	#	84
52)	Ethylbenzene	15.14	91	9051076	18.7214	ppb		93
53)	m,p-Xylene	15.33	91	13624823	36.7872	ppb		90
54)	Bromoform	15.45	173	4656158	20.1554	ppb		98
55)	Styrene	15.73	104	5232289	19.1817	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.85	83	4619969	18.3671	ppb		99
57)	o-Xylene	15.85	91	6918180	18.3750	ppb		90
59)	4-Ethyl Toluene	17.27	105	9405531	18.6171	ppb		97
60)	1,3,5-Trimethylbenzene	17.37	105	7930720	18.3913	ppb		92
61)	1,2,4-Trimethylbenzene	17.88	105	8005947	18.5623	ppb		93
62)	Benzyl Chloride	18.08	91	7344374	18.2710	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	5070492	18.5062	ppb	#	94
64)	p-Dichlorobenzene	18.18	146	5201526	19.0082	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	5095548	19.5101	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	3904640	23.7308	ppb		98
67)	Naphthalene	21.33	128	7862282	22.8334	ppb		98
68)	Hexachloro-1,3-butadiene	21.87	225	3511611	26.2795	ppb		99

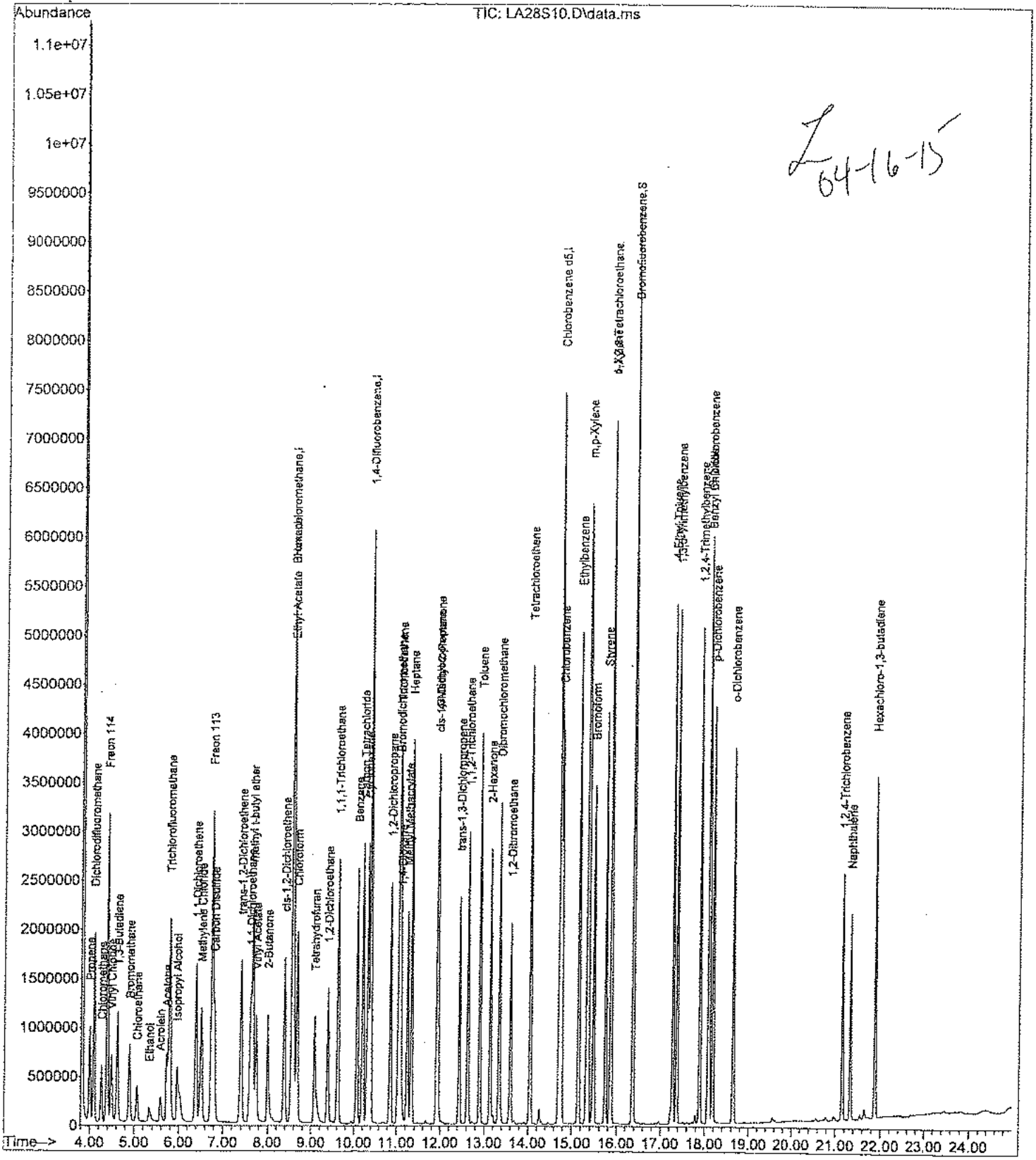
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq.Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration



4-16-15

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.55	130	484480	20.0000	ppb		99.75
25) 1,4-Difluorobenzene	10.38	114	6193622	20.0000	ppb		102.09
50) Chlorobenzene d5	14.72	117	5292414	20.0000	ppb		102.46
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.37	95	4204978	19.9508	ppb		99.75%
Target Compounds							Qvalue
2) Propene	3.99	41	730100	10.6349	ppb		97
3) Dichlorodifluoromethane	4.09	85	2569937	10.9719	ppb		99
4) Chloromethane	4.26	50	954338	9.5418	ppb		99
5) Freon 114	4.38	135	1638227	11.0267	ppb	#	58
6) Vinyl Chloride	4.48	62	1018782	11.0813	ppb		97
7) 1,3-Butadiene	4.62	54	836352	11.0095	ppb		83
8) Bromomethane	4.89	94	826968	10.8030	ppb		99
9) Chloroethane	5.06	64	524403	10.8869	ppb	#	91
10) Acrolein	5.57	56	402864	10.3943	ppb	#	99
11) Acetone	5.71	43	1611859	10.0631	ppb		95
12) Trichlorofluoromethane	5.79	101	2713438	10.7396	ppb		99
13) Ethanol	5.33	45	342022	10.6794	ppb	#	77
14) Isopropyl Alcohol	5.95	45	1924587	7.0817	ppb		96
15) 1,1-Dichloroethene	6.39	61	1786015	10.7582	ppb	#	67
16) Methylene Chloride	6.51	84	853918	10.4187	ppb	#	58
17) Freon 113	6.74	151	1618095	10.8774	ppb	#	71
18) Carbon Disulfide	6.80	76	2690499	10.7217	ppb	#	65
19) trans-1,2-Dichloroethene	7.39	96	1037055	10.8332	ppb	#	63
20) 1,1-Dichloroethane	7.60	63	1999107	10.7337	ppb	#	96
21) methyl t-butyl ether	7.65	73	2979140	11.0182	ppb	#	81
22) Vinyl Acetate	7.73	86	226556	10.0370	ppb	#	1
23) 2-Butanone	7.99	43	2158275	10.6118	ppb	#	73
24) cis-1,2-Dichloroethene	8.38	96	1066061	10.7650	ppb	#	65
26) Ethyl Acetate	8.58	61	352150	9.7115	ppb	#	1
27) Hexane	8.56	57	1751785	10.1093	ppb	#	21
28) Chloroform	8.66	83	2206031	10.2889	ppb		99
29) Tetrahydrofuran	9.07	42	1256871	10.3702	ppb	#	67
30) 1,2-Dichloroethane	9.38	62	1629586	10.0843	ppb		96
31) 1,1,1-Trichloroethane	9.61	97	2492888	10.2682	ppb	#	93
32) Benzene	10.07	78	3012505	9.8616	ppb	#	92
33) Carbon Tetrachloride	10.20	117	2481318	10.0615	ppb		99
34) Cyclohexane	10.32	84	1358834	9.8860	ppb	#	39
35) 1,2-Dichloropropane	10.86	63	1244376	10.0839	ppb		93
36) Bromodichloromethane	11.04	83	2417239	10.0589	ppb	#	98
37) 1,4-Dioxane	11.10	88	684636	9.4514	ppb	#	77
38) Trichloroethene	11.07	130	1331964	10.0078	ppb	#	85
39) Methyl Methacrylate	11.24	69	1025248	10.2029	ppb	#	88
40) Heptane	11.33	71	1063450	10.0096	ppb	#	45
41) cis-1,3-Dichloropropene	11.91	75	1844310	10.0496	ppb	#	93
42) 4-Methyl-2-Pentanone	11.94	43	2632460	10.4123	ppb	#	79
43) trans-1,3-Dichloropropene	12.43	75	1744960	9.8362	ppb	#	91
44) 1,1,2-Trichloroethane	12.62	97	1255962	9.8582	ppb	#	87
45) Toluene	12.89	91	3598653	9.7049	ppb		98
46) 2-Hexanone	13.13	43	2429819	10.3634	ppb	#	84
47) Dibromochloromethane	13.34	129	2283461	9.8086	ppb		99
48) 1,2-Dibromoethane	13.60	107	1887139	9.8002	ppb		98
49) Tetrachloroethene	14.04	166	1801289	9.8473	ppb	#	90

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\13APR15L\LA28S10.D Vial: 1
Acq Time : 04/13/2015 14:55 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 27426 Multiplr: 1.00
MS Integration Params: NA

Quant Time: Apr 14 08:50:54 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 13 14:46:54 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	Chlorobenzene	14.76	112	2686890	9.5720	ppb	#	84
52)	Ethylbenzene	15.15	91	4640316	9.5177	ppb		92
53)	m,p-Xylene	15.33	91	7000751	18.6261	ppb		89
54)	Bromoform	15.46	173	2220237	9.2624	ppb		99
55)	Styrene	15.74	104	2555169	9.3233	ppb	#	91
56)	1,1,2,2-Tetrachloroethane	15.86	83	2131263	8.2807	ppb		100
57)	o-Xylene	15.85	91	3512989	9.1820	ppb		90
59)	4-Ethyl Toluene	17.28	105	4377992	8.5398	ppb		95
60)	1,3,5-Trimethylbenzene	17.37	105	3659621	8.3203	ppb		91
61)	1,2,4-Trimethylbenzene	17.89	105	3539390	8.0213	ppb		93
62)	Benzyl Chloride	18.08	91	3142255	7.5714	ppb	#	87
63)	m-Dichlorobenzene	18.10	146	2192058	7.7989	ppb	#	94
64)	p-Dichlorobenzene	18.19	146	2195842	7.7821	ppb	#	94
65)	o-Dichlorobenzene	18.64	146	2016702	7.4251	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.15	180	1015158	5.5657	ppb		98
67)	Naphthalene	21.33	128	2052345	5.4259	ppb		99
68)	Hexachloro-1,3-butadiene	21.88	225	893841	5.0343	ppb		98

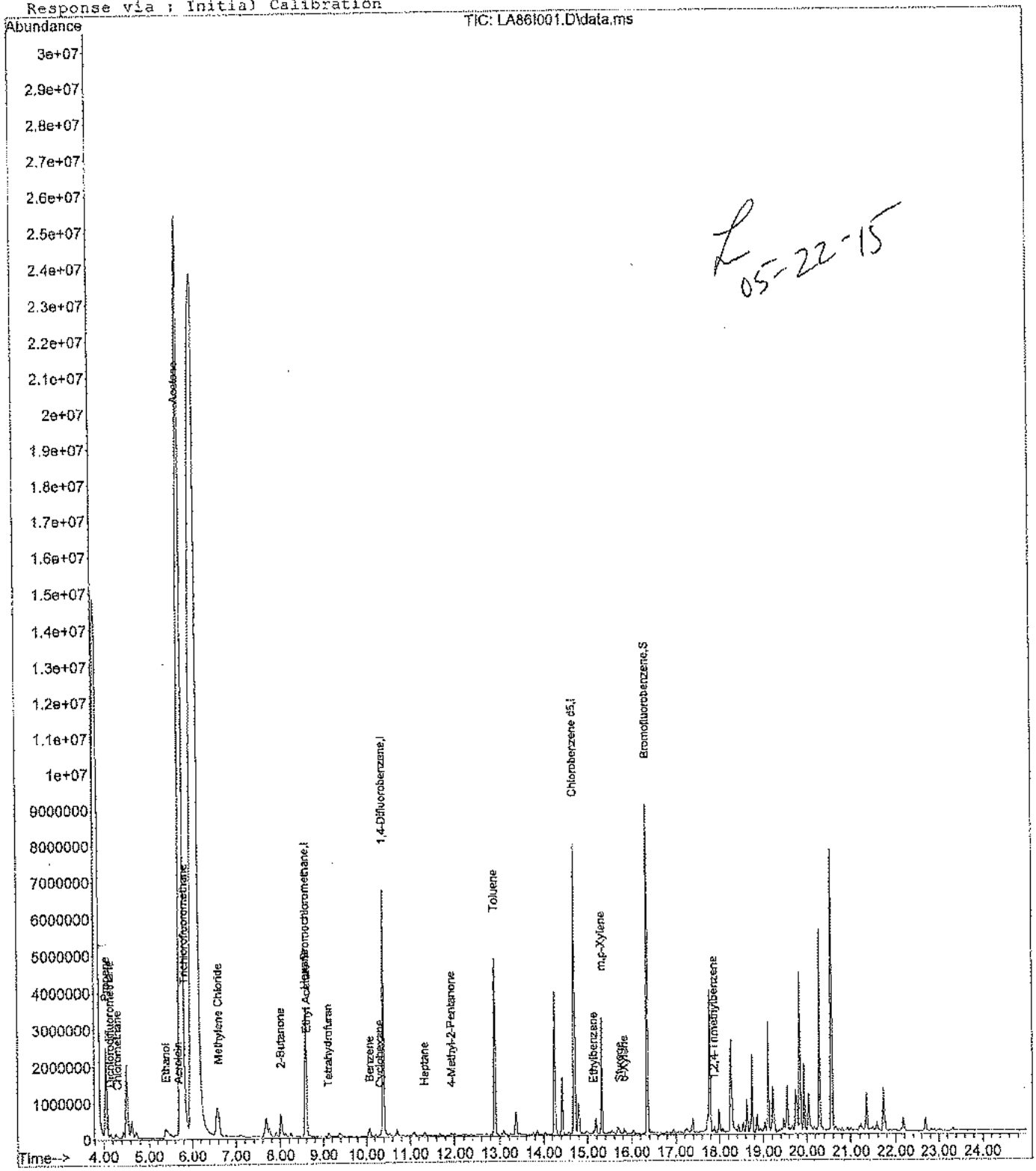
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011B-041315-SG-001 8' Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:43:25 2015 Results File: TO15LB15.RES

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration



05-22-15

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:43:25 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.58	130	591040	20.0000 ppb	121.69
25) 1,4-Difluorobenzene	10.39	114	6604284	20.0000 ppb	108.86
50) Chlorobenzene d5	14.70	117	5495975	20.0000 ppb	106.40
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.36	95	4149042	18.9563 ppb	94.78%
Target Compounds					Qvalue
2) Propene	4.05	41	1851175	22.1034 ppb	97 TIC
3) Dichlorodifluoromethane	4.15	85	139816	0.4893 ppb	99
4) Chloromethane	4.31	50	72774	0.5964 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.66	56	140112	2.9633 ppb #	78 TIC
11) Acetone	5.71	43	60400316	309.1020 ppb m	0
12) Trichlorofluoromethane	5.82	101	68696	0.2229 ppb	98
13) Ethanol	5.38	45	1063712	27.2255 ppb #	77 TIC
14) Isopropyl Alcohol	0.00	45		~~Not Detected~~ 325.44	04-22-15 TIC
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.61	84	356869	3.5692 ppb #	55
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	8.01	43	1200684	4.8392 ppb #	70
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.62	61	32325	0.8360 ppb #	1
27) Hexane	8.57	57	120126	0.6501 ppb #	78
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	9.11	42	96211	0.7445 ppb #	62
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.08	78	194518	0.5972 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.31	84	23190	0.1582 ppb #	41
35) 1,2-Dichloropropane	0.00	63		Not Detected	
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.33	71	25965	0.2292 ppb #	43
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	11.94	43	51166	0.1898 ppb #	75
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.89	91	4262194	10.7796 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 21 10:43:25 2015 Results File: TO15LB15.RES

Quant Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Last Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.13	91	110326	0.2179 ppb	94
53) m,p-Xylene	15.31	91	268927	0.6890 ppb	93
54) Bromoform	0.00	173		Not Detected	
55) Styrene	15.72	104	71389	0.2508 ppb #	90
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.83	91	103566	0.2607 ppb	94
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.88	105	82311	0.1796 ppb	92
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

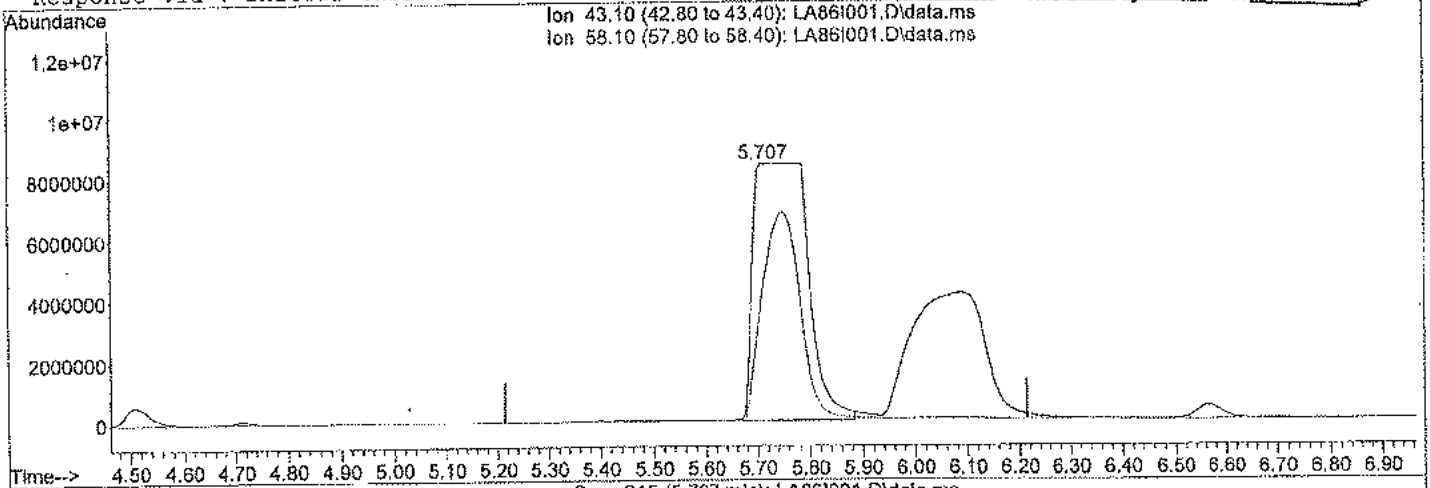
Quantitation Report (Qedit)

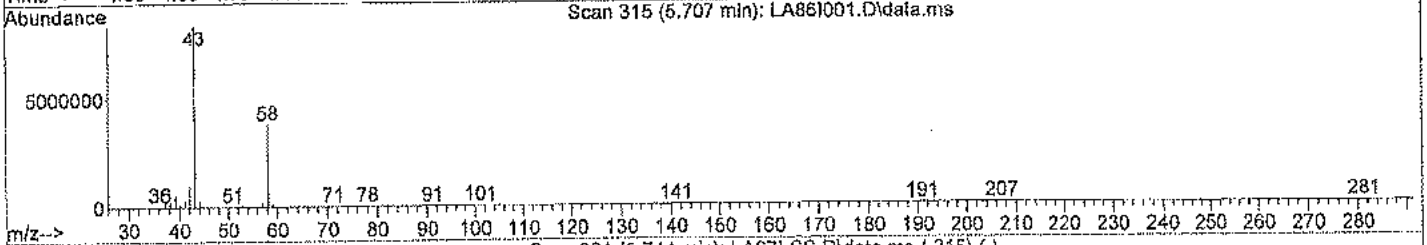
Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA86I001.D
Acq On : 04/21/2015 10:09
Operator : TJM
Sample : 1510561001
Inst : 5975-L
Misc : A0011H-041315-SG-001 8`
ALS Vial : 9 Sample Multiplier: 1

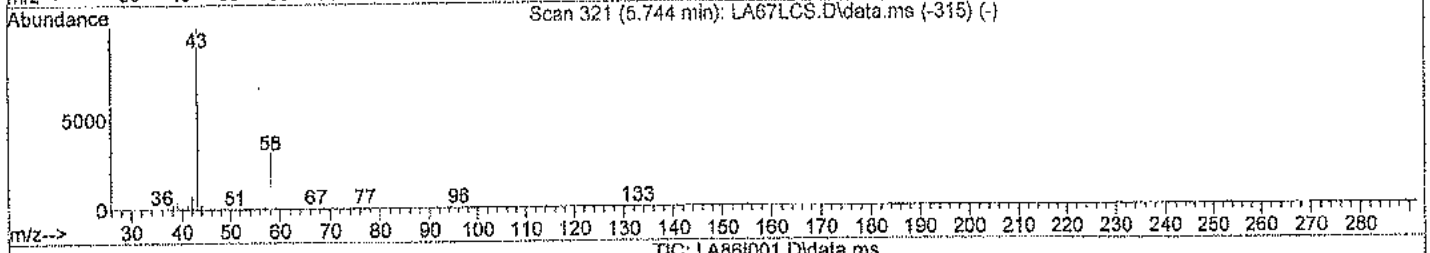
Quant Time: Apr 21 10:40:58 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials Z date 04-22-15







TIC: LA86I001.D\data.ms

(11) Acetone

5.707min (-0.006) 309.10 ppb m

response 60400316

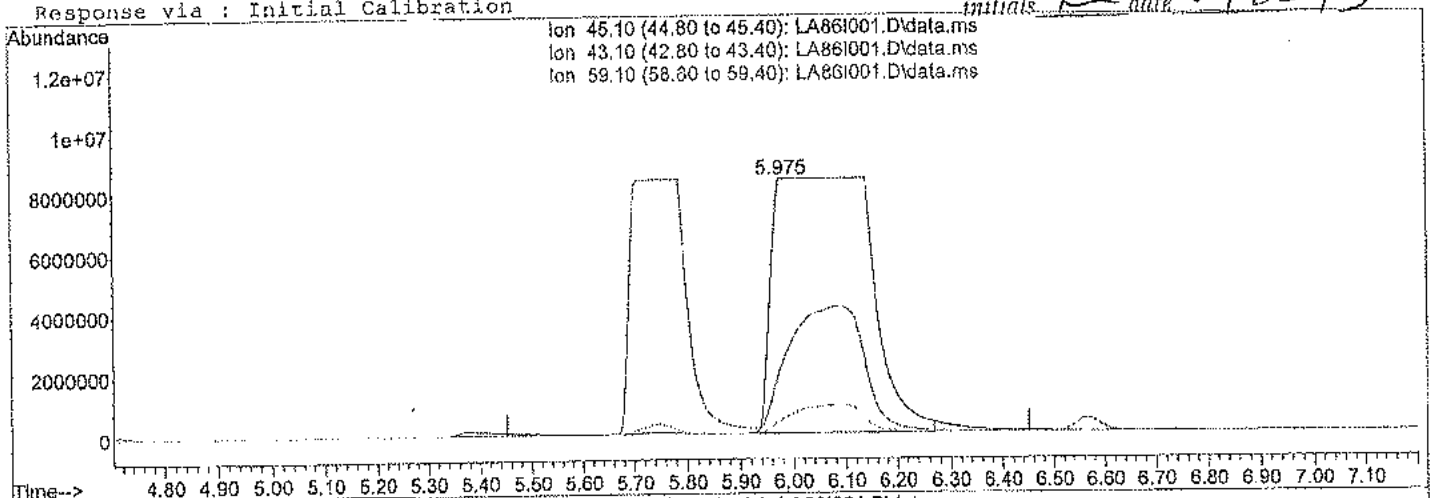
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

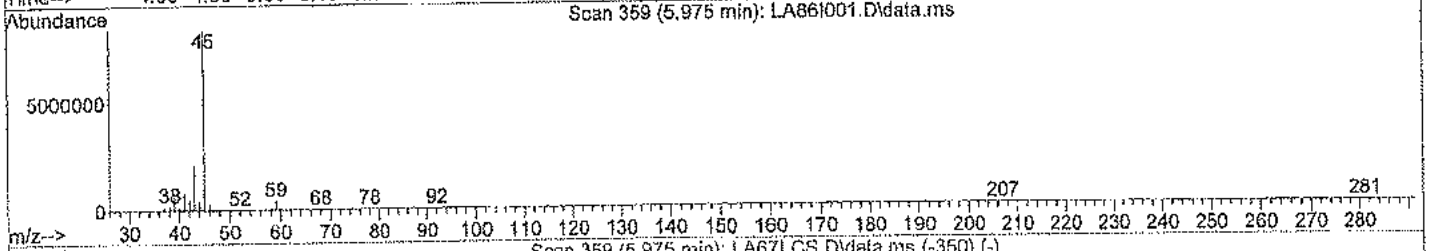
Quantitation Report (Qedit)

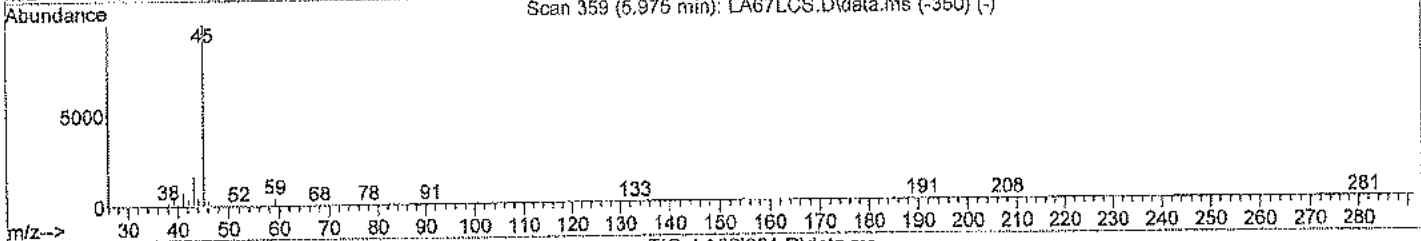
Data Path : J:\L\2015\APR15L\20APR15L\
Data File : LA86I001.D
Acq On : 04/21/2015 10:09
Operator : TJM
Sample : 1510561001
Inst : 5975-L
Misc : A0011R-041315-SG-001 8`
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 10:43:25 2015
Quant Method : J:\L\METHODS\methods\TO15LB15.m
Quant Title : TO-15
QLast Update : Tue Apr 21 09:45:19 2015
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 04-22-15







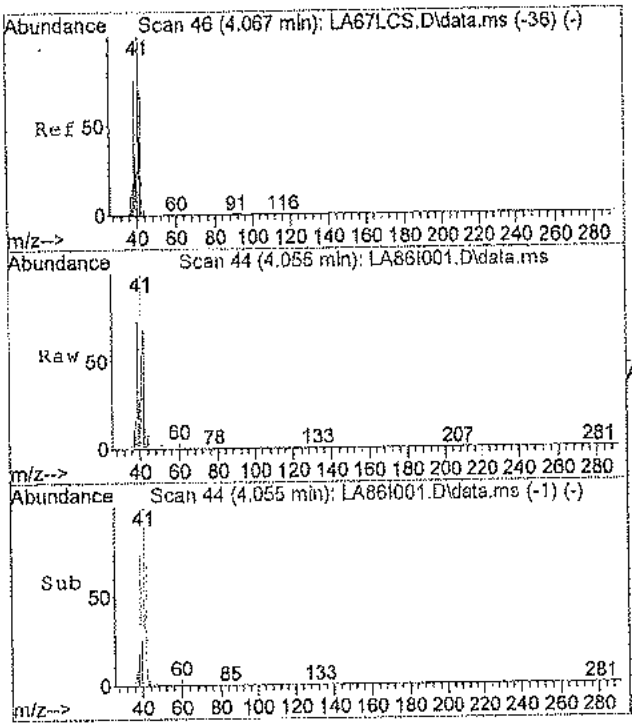
TIC: LA86I001.D\data.ms

(14) Isopropyl Alcohol

5.975min (+ 0.024) 325.44 ppb m

response 107898537

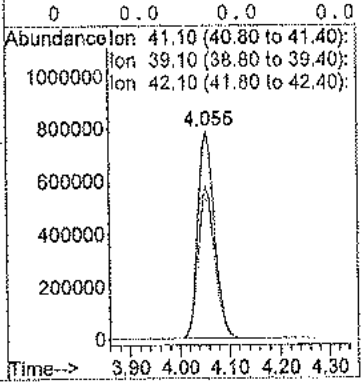
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	0.00#
59.10	4.00	0.00#
0.00	0.00	0.00

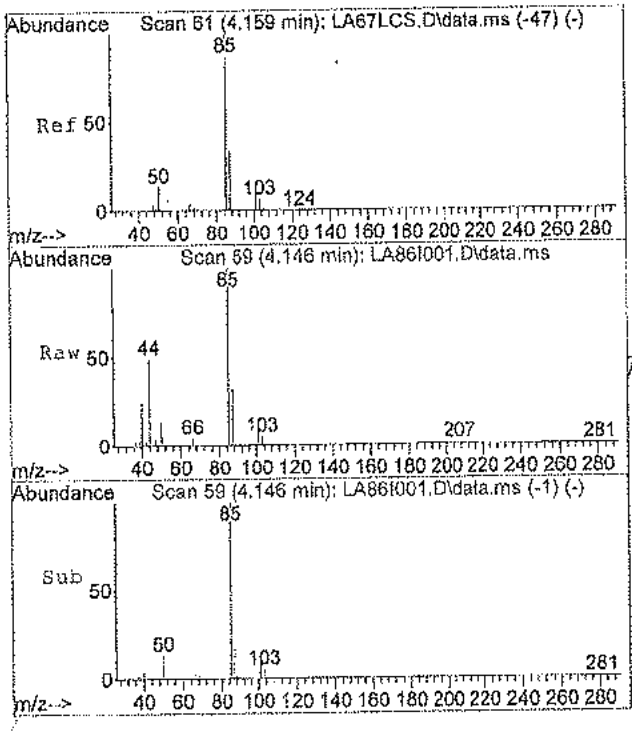


#2
Propene
Concen: 22.10 ppb
RT: 4.05 min Scan# 44
Delta R.T. 0.02 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:41.1 Resp: 1851175

Ion	Ratio	Lower	Upper
41	100		
39	73.5	56.2	84.4
42	68.1	53.8	80.6
0	0.0	0.0	0.0

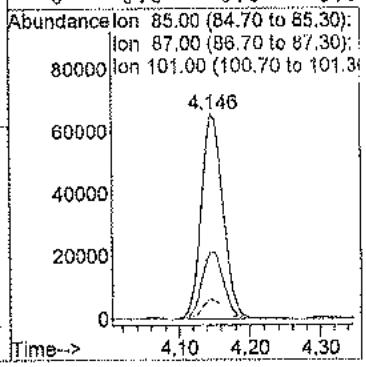


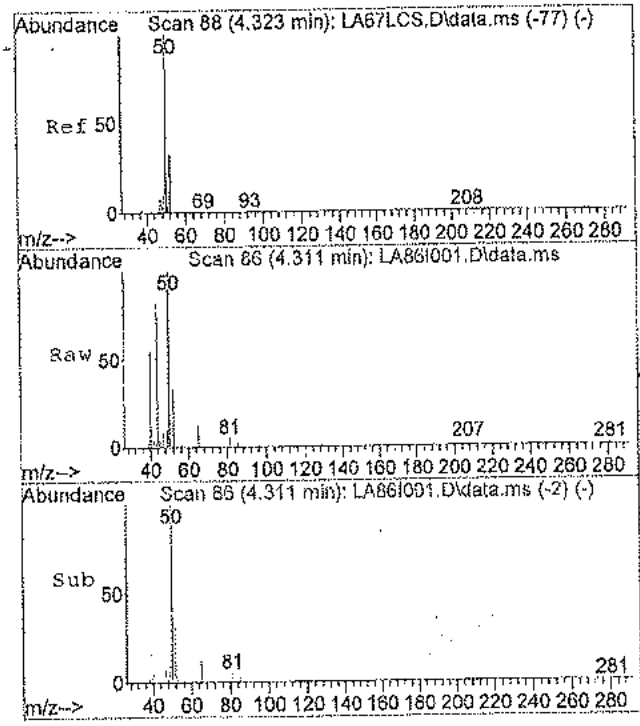


#3
Dichlorodifluoromethane
Concen: 0.49 ppb
RT: 4.15 min Scan# 59
Delta R.T. 0.02 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:85 Resp: 139816

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.1	39.1
101	9.0	8.0	12.0
0	0.0	0.0	0.0

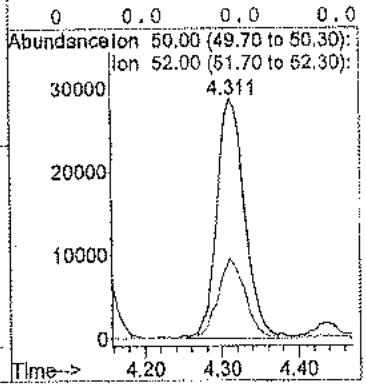


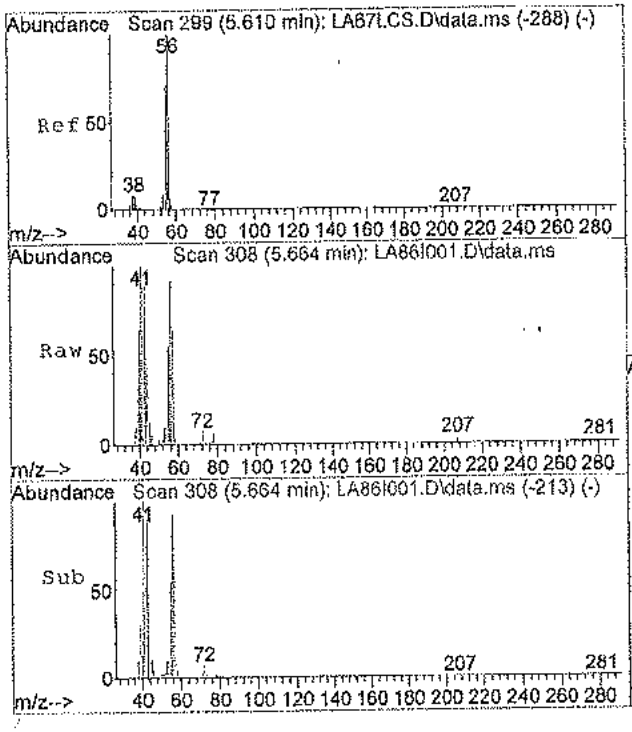


#4
Chloromethane
Concen: 0.60 ppb
RT: 4.31 min Scan# 86
Delta R.T. 0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:50 Resp: 72774

Ion	Ratio	Lower	Upper
50	100		
52	32.3	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

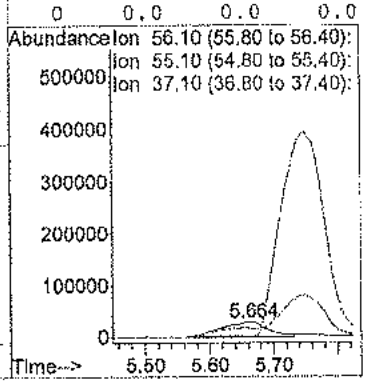


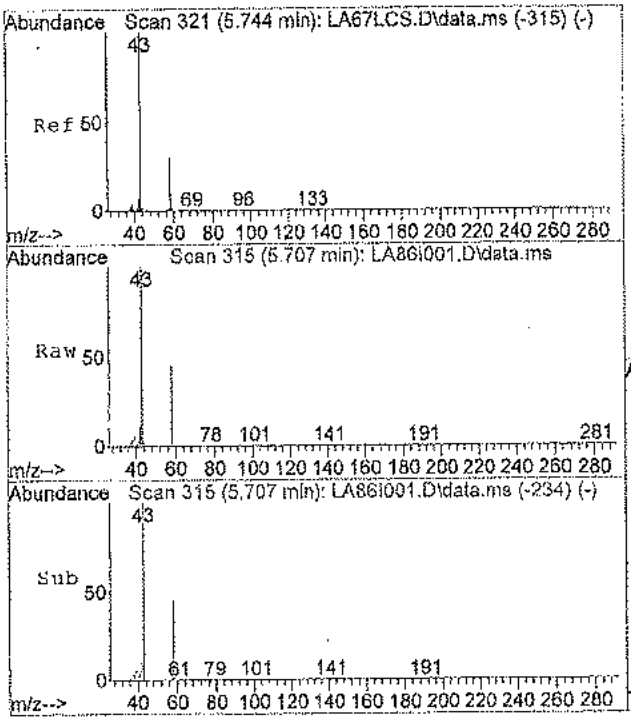


#10
Acrolein
Concen: 2.96 ppb
RT: 5.66 min Scan# 308
Delta R.T. 0.08 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:56.1 Resp: 140112

Ion	Ratio	Lower	Upper
56	100		
55	51.8	55.1	82.7#
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

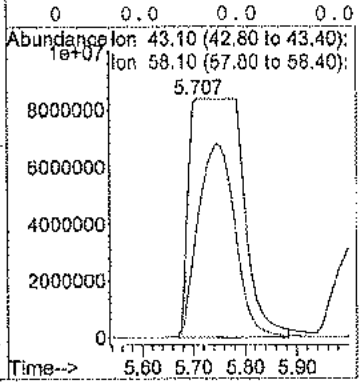


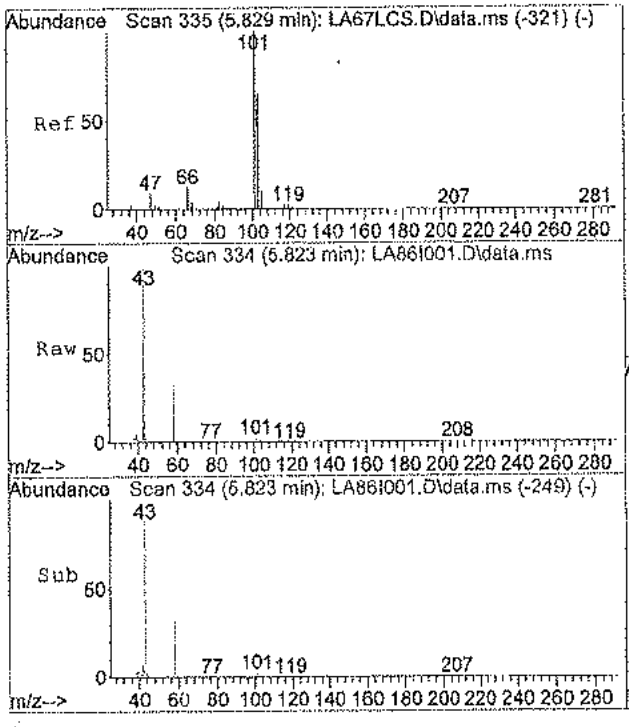


#11
Acetone
Concen: 309.10 ppb m
RT: 5.71 min Scan# 315
Delta R.T. -0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:43.1 Resp:60400316

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

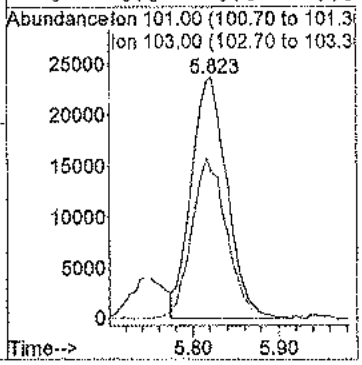


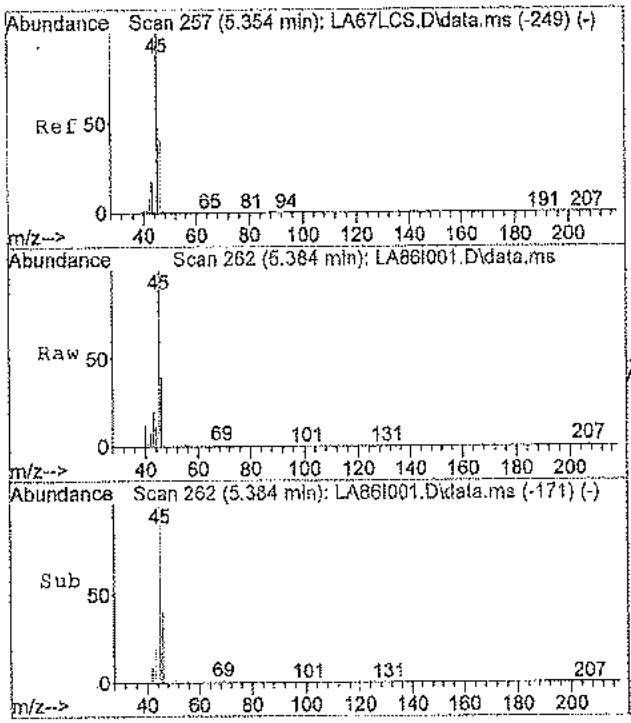


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.82 min Scan# 334
Delta R.T. 0.02 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:101 Resp: 68696

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

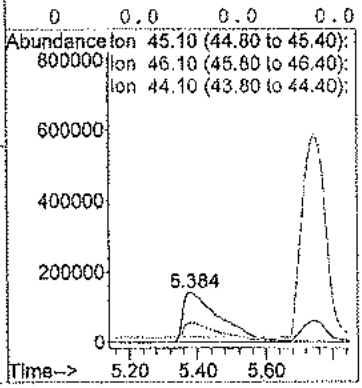


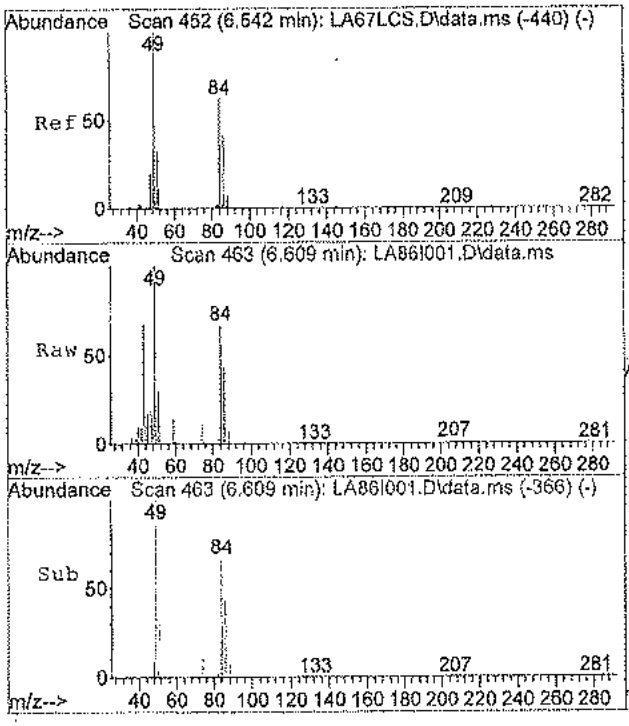


#13
Ethanol
Concen: 27.23 ppb
RT: 5.38 min Scan# 262
Delta R.T. 0.05 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:45.1 Resp: 1063712

Ion	Ratio	Lower	Upper
45	100		
46	40.3	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

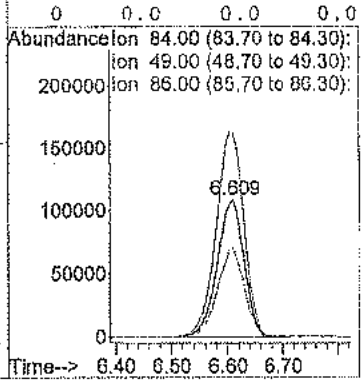


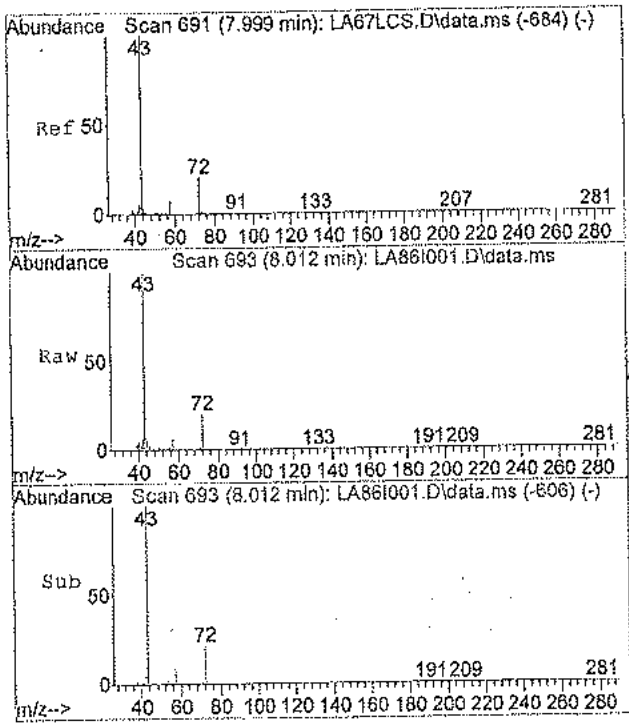


#16
Methylene Chloride
Concen: 3.57 ppb
RT: 6.61 min Scan# 463
Delta R.T. 0.09 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:84 Resp: 356869

Ion	Ratio	Lower	Upper
84	100		
49	155.6	66.6	100.0#
86	64.5	51.6	77.4
0	0.0	0.0	0.0

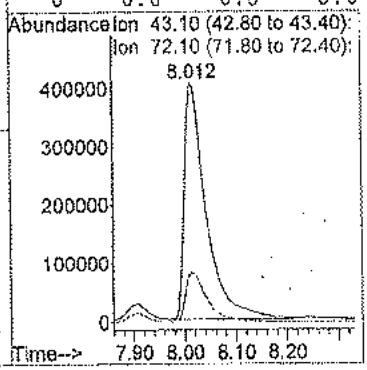


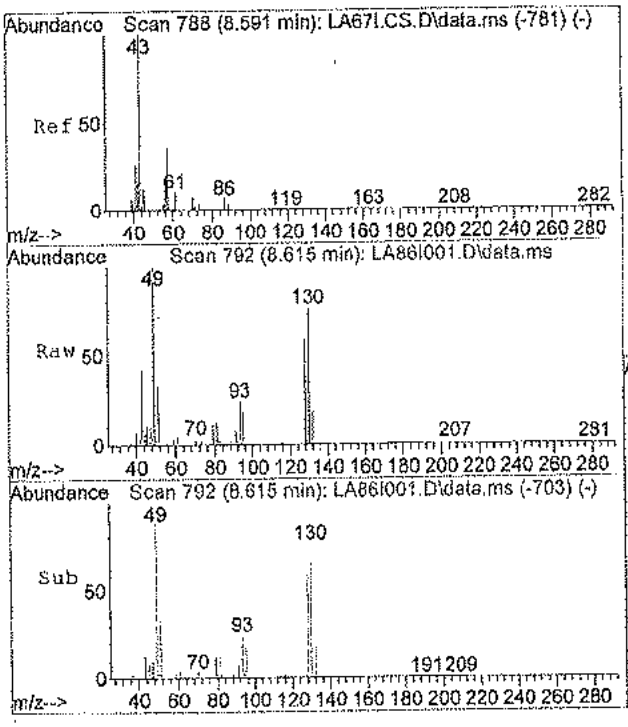


#23
2-Butanone
Concen: 4.84 ppb
RT: 8.01 min Scan# 693
Delta R.T. 0.03 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:43.1 Resp: 1200684

Ion	Ratio	Lower	Upper
43	100		
72	20.8	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

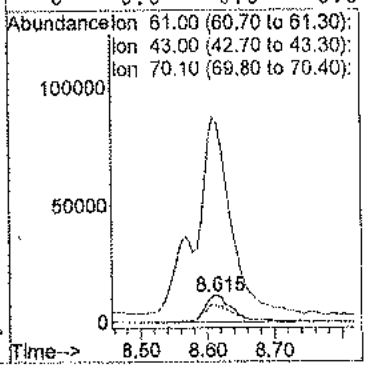


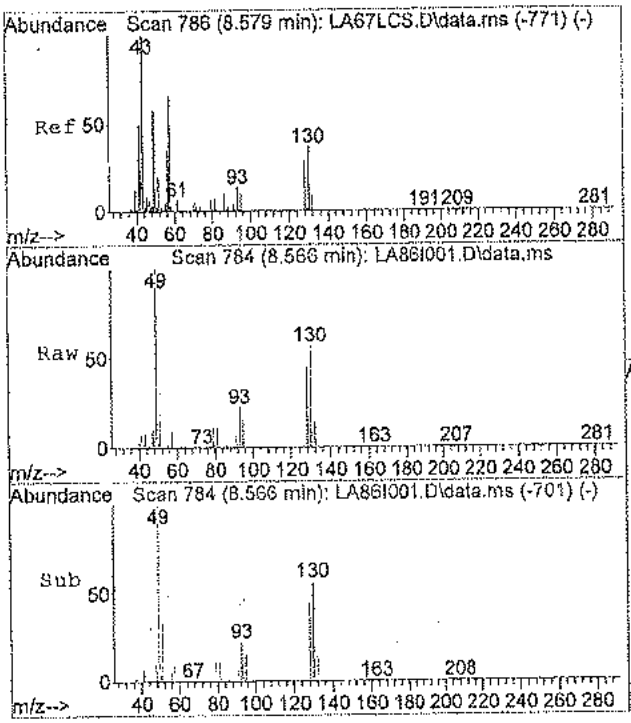


#26
Ethyl Acetate
Concen: 0.84 ppb
RT: 8.62 min Scan# 792
Delta R.T. 0.04 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:61 Resp: 32325

Ion	Ratio	Lower	Upper
61	100		
43	758.7	144.0	216.0#
70	70.7	13.6	20.4#
0	0.0	0.0	0.0

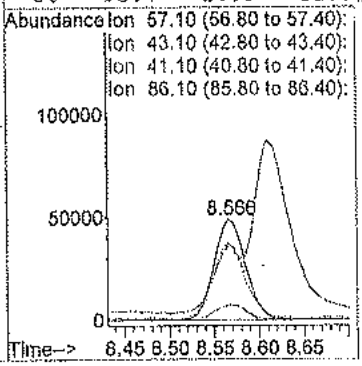


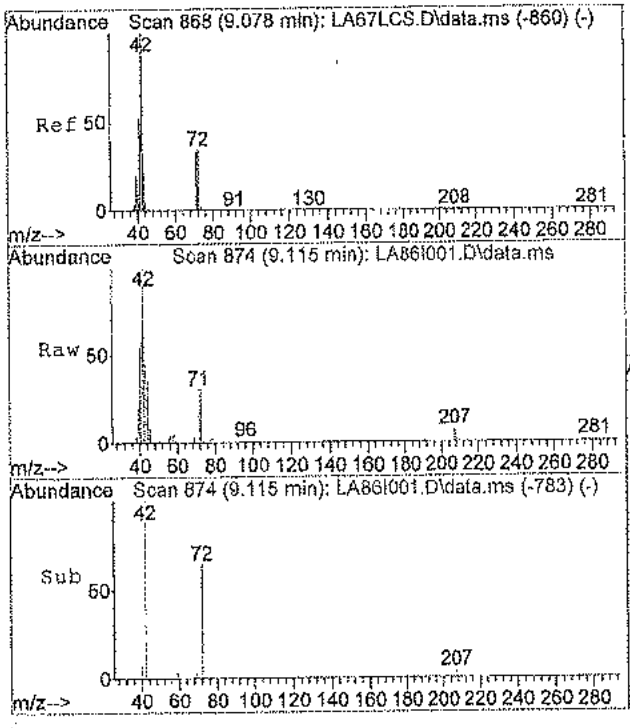


#27
Hexane
Concen: 0.65 ppb
RT: 8.57 min Scan# 784
Delta R.T. 0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:57.1 Resp: 120126

Ion	Ratio	Lower	Upper
57	100		
43	53.8	57.3	85.9#
41	76.2	47.0	70.4#
86	15.7	20.9	31.3#

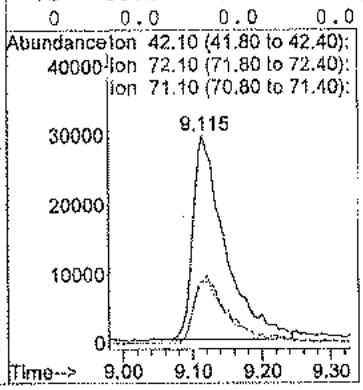


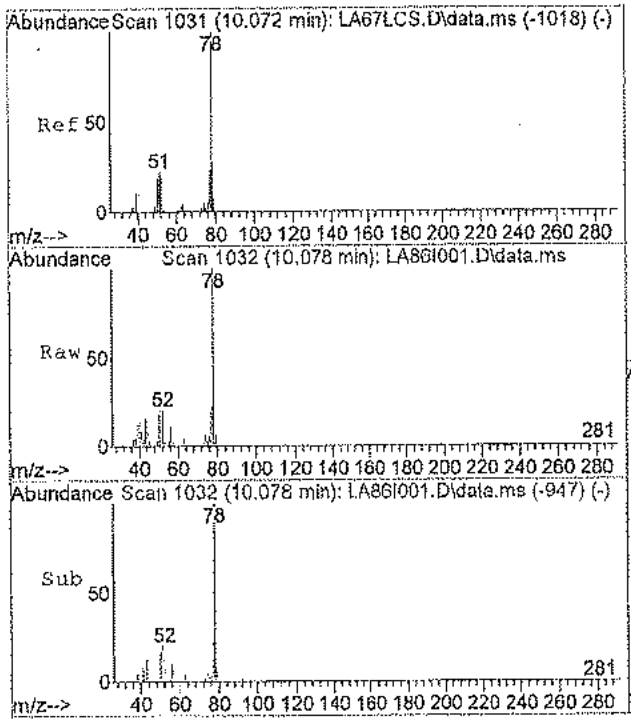


#29
Tetrahydrofuran
Concen: 0.74 ppb
RT: 9.11 min Scan# 874
Delta R.T. 0.05 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:42.1 Resp: 96211

Ion	Ratio	Lower	Upper
42	100		
72	31.8	51.5	77.3#
71	33.1	47.5	71.3#
0	0.0	0.0	0.0

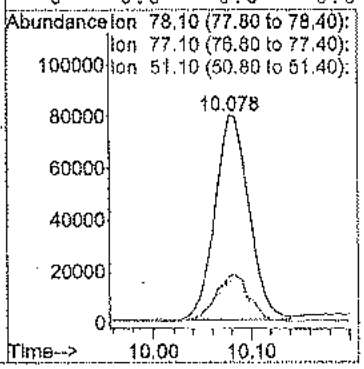


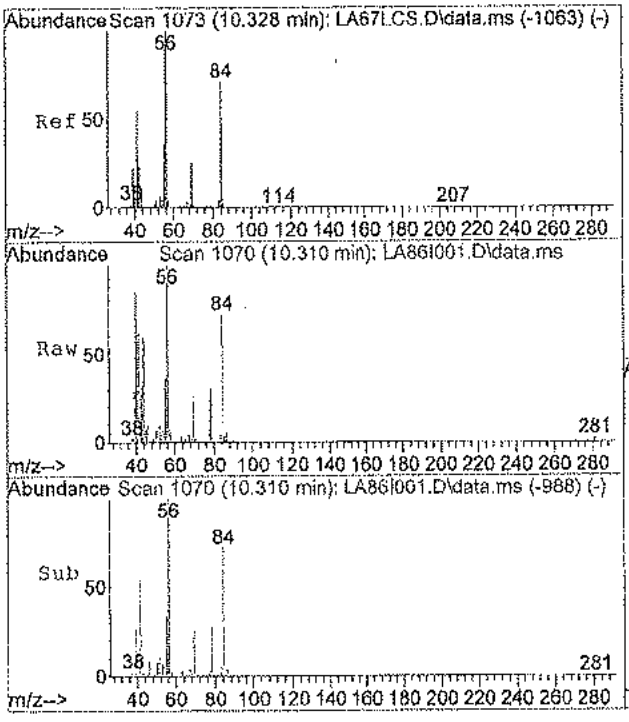


#32
Benzene
Concen: 0.60 ppb
RT: 10.08 min Scan# 1032
Delta R.T. 0.02 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:78.1 Resp: 194518

Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.2	27.4
51	21.3	9.5	14.3#
0	0.0	0.0	0.0

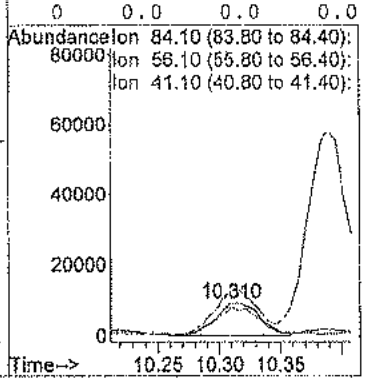


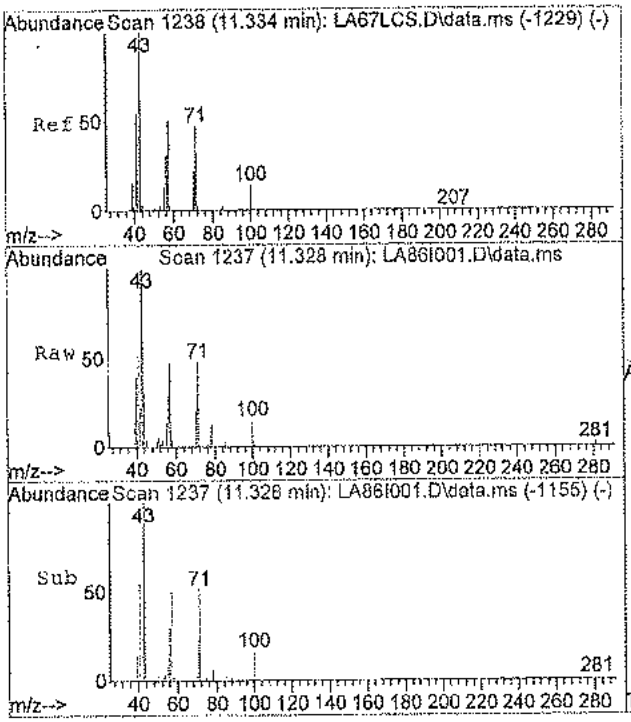


#34
Cyclohexane
Concen: 0.16 ppb
RT: 10.31 min Scan# 1070
Delta R.T. -0.00 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:84.1 Resp: 23190

Ion	Ratio	Lower	Upper
84	100		
56	131.8	67.3	100.9#
41	81.9	30.2	45.4#
0	0.0	0.0	0.0

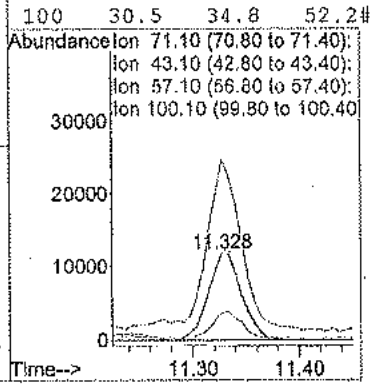


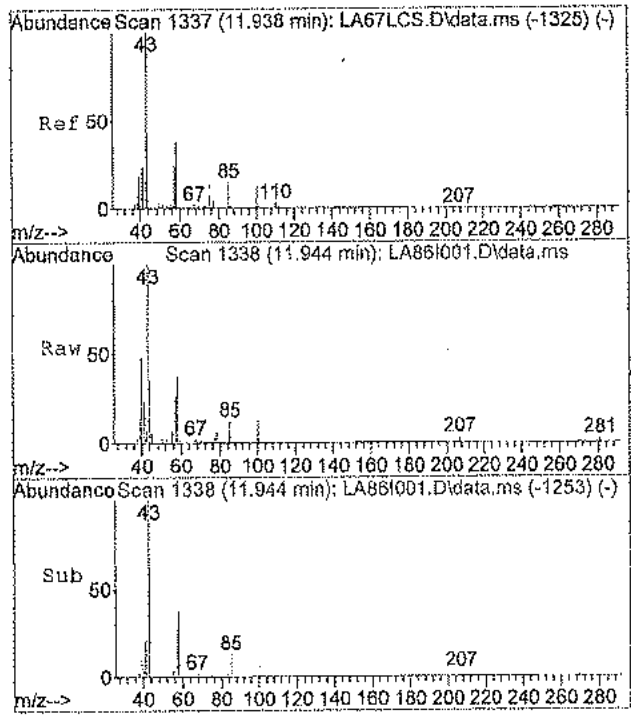


#40
Heptane
Concen: 0.23 ppb
RT: 11.33 min Scan# 1237
Delta R.T. -0.00 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:71.1 Resp: 25965

Ion	Ratio	Lower	Upper
71	100		
43	204.2	87.3	130.9#
57	97.0	57.8	86.6#
100	30.5	34.8	52.2#

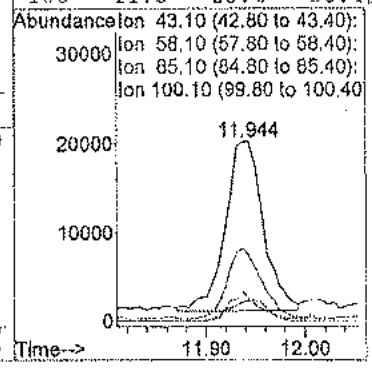


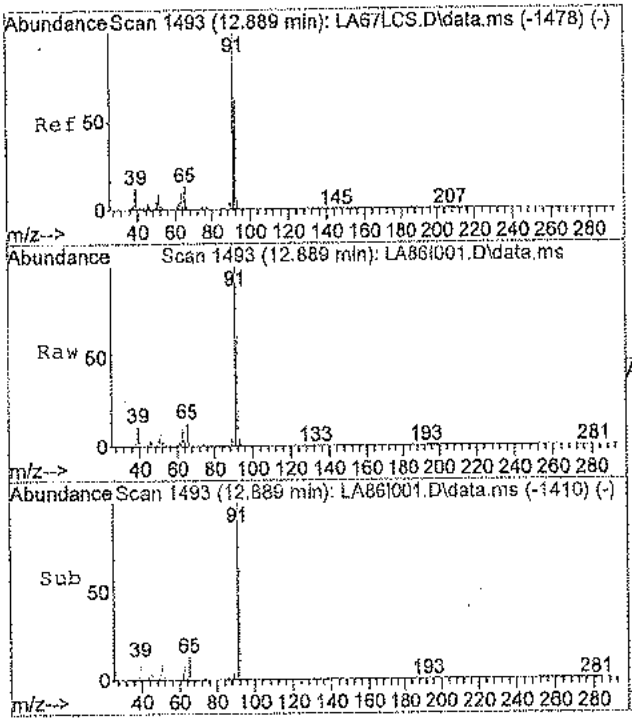


#42
4-Methyl-2-Pentanone
Concen: 0.19 ppb
RT: 11.94 min Scan# 1338
Delta R.T. 0.02 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:43.1 Resp: 51166

Ion	Ratio	Lower	Upper
43	100		
58	39.5	39.5	59.3
85	15.2	25.1	37.7#
100	11.3	25.6	38.4#

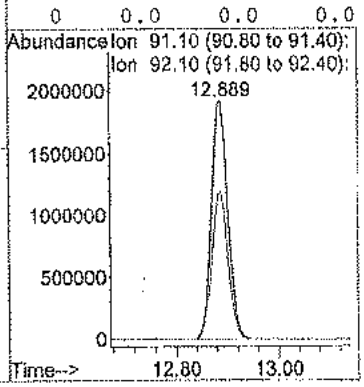


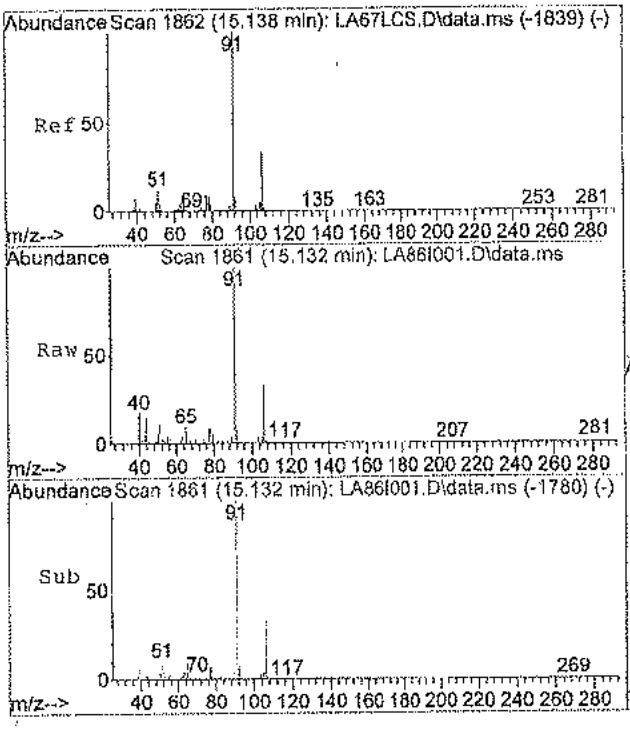


#45
Toluene
Concen: 10.78 ppb
RT: 12.89 min Scan# 1493
Delta R.T. 0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:91.1 Resp: 4262194

Ion	Ratio	Lower	Upper
91	100		
92	61.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

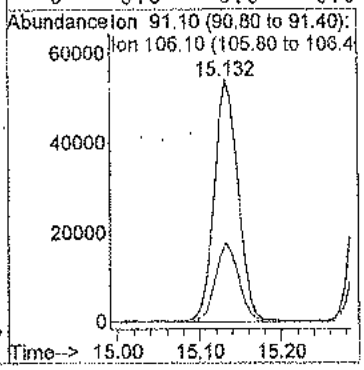


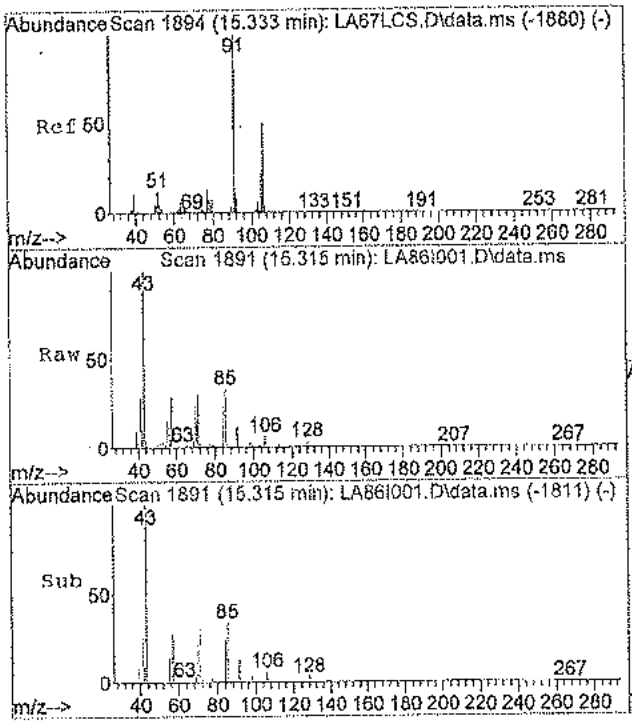


#52
Ethylbenzene
Concen: 0.22 ppb
RT: 15.13 min Scan# 1861
Delta R.T. -0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:91.1 Resp: 110326

Ion	Ratio	Lower	Upper
91	100		
106	31.8	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

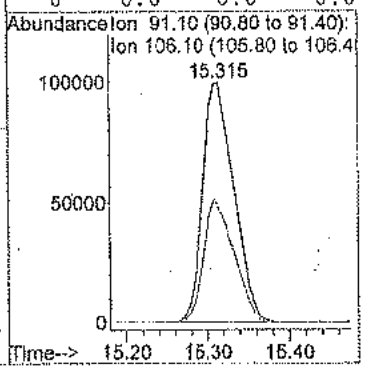


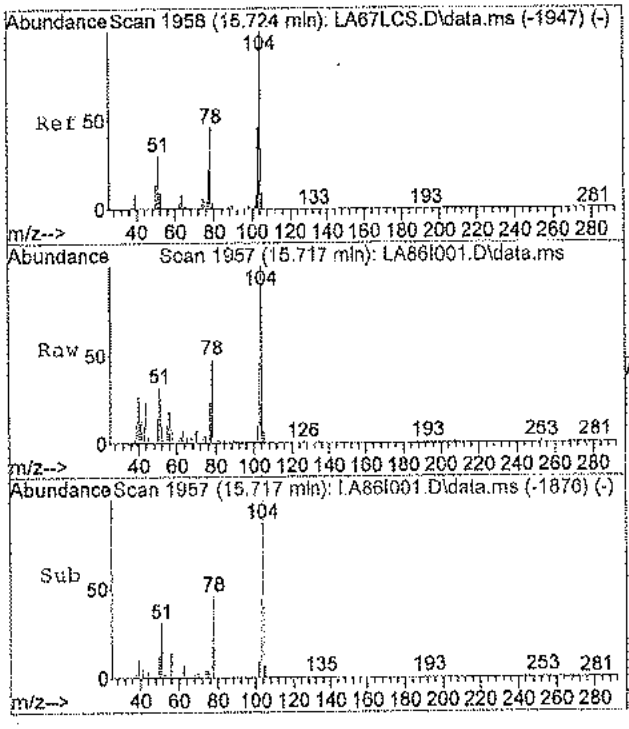


#53
m,p-Xylene
Concen: 0.69 ppb
RT: 15.31 min Scan# 1891
Delta R.T. -0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:91.1 Resp: 268927

Ion	Ratio	Lower	Upper
91	100		
106	50.3	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

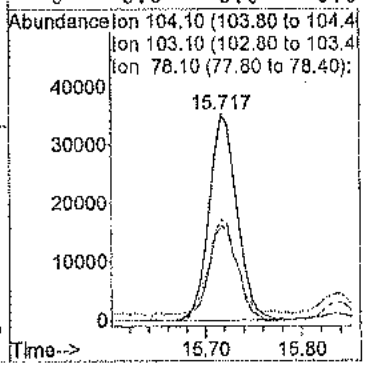


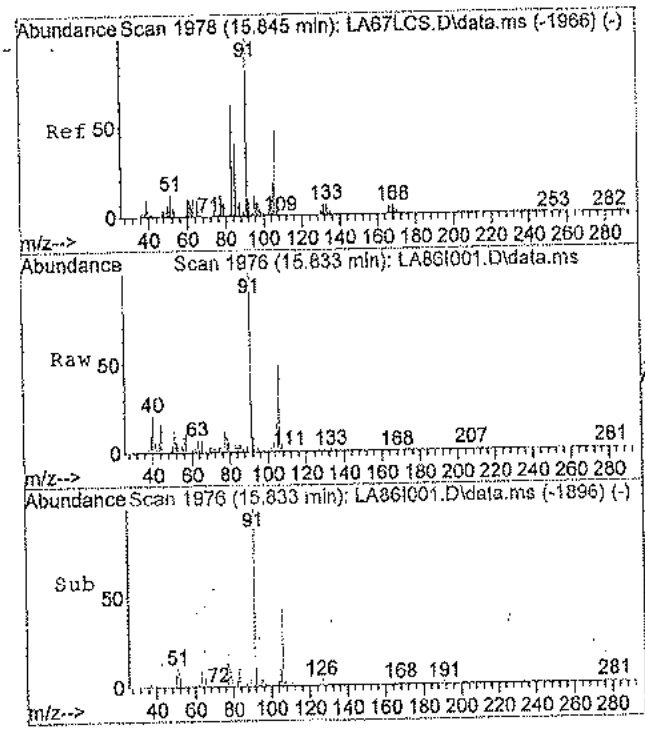


#55
Styrene
Concen: 0.25 ppb
RT: 15.72 min Scan# 1957
Delta R.T. -0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:104.1 Resp: 71389

Ion	Ratio	Lower	Upper
104	100		
103	47.1	36.6	54.8
78	46.5	27.7	41.5#
0	0.0	0.0	0.0

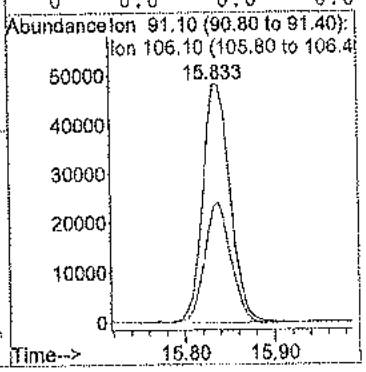


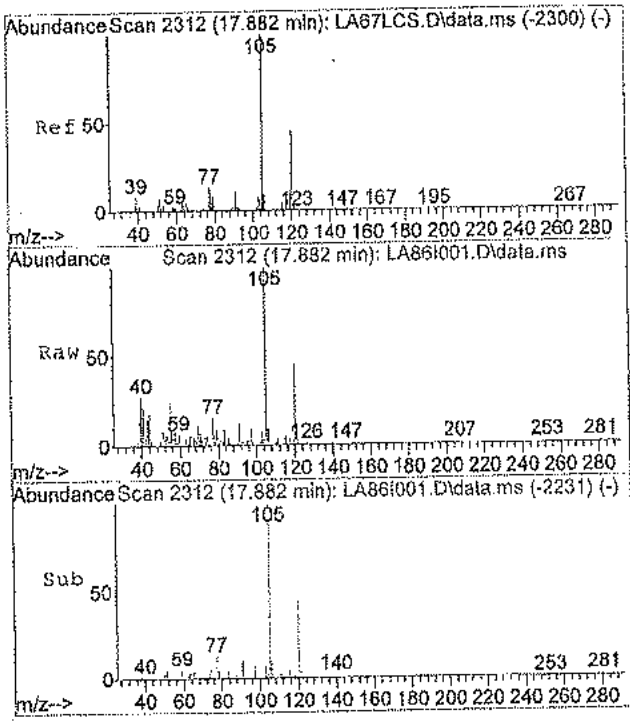


#57
o-Xylene
Concen: 0.26 ppb
RT: 15.83 min Scan# 1976
Delta R.T. -0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:91.1 Resp: 103566

Ion	Ratio	Lower	Upper
91	100		
106	47.8	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

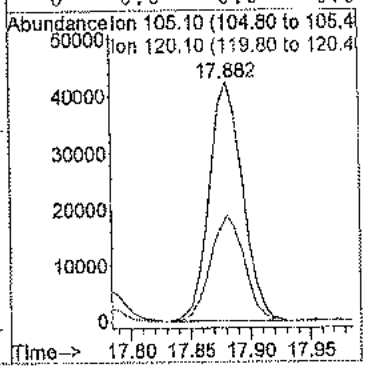




#61
1,2,4-Trimethylbenzene
Concen: 0.18 ppb
RT: 17.88 min Scan# 2312
Delta R.T. -0.01 min
Lab File: LA86I001.D
Acq: 04/21/2015 10:09

Tgt Ion:105.1 Resp: 82311

Ion	Ratio	Lower	Upper
105	100		
120	45.0	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Library Search Compound Report

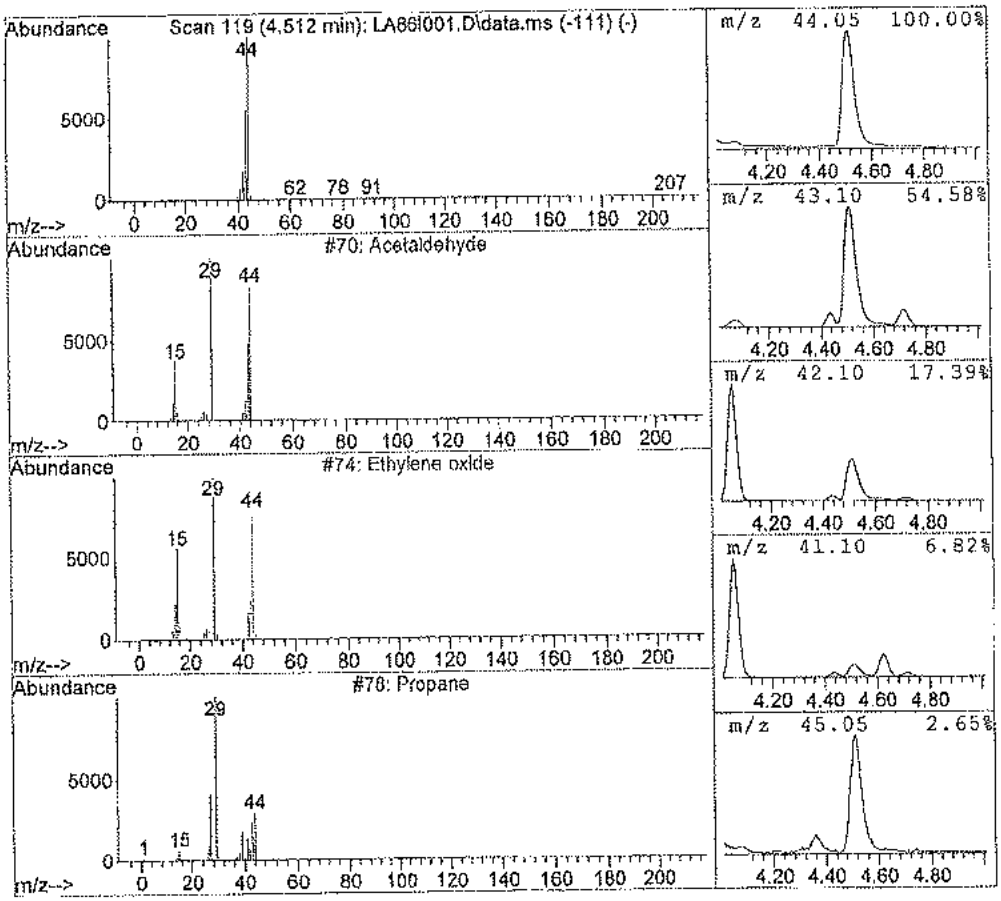
Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D
Acq Time : 04/21/2015 10:09
Sample : 1510561001
Misc : A0011H-041315-SG-001 8`
MS Integration Params: rteint.p

Vial: 9
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.51	13.10 ppb	6417252	Bromochloromethane	9797813

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetaldehyde	70	000075-07-0	64.00
2	Ethylene oxide	74	000075-21-8	5.00
3	Propane	78	000074-98-6	4.00
4	1,2-Propanediamine	788	000078-90-0	4.00
5	Alanine	2136	000056-41-7	4.00



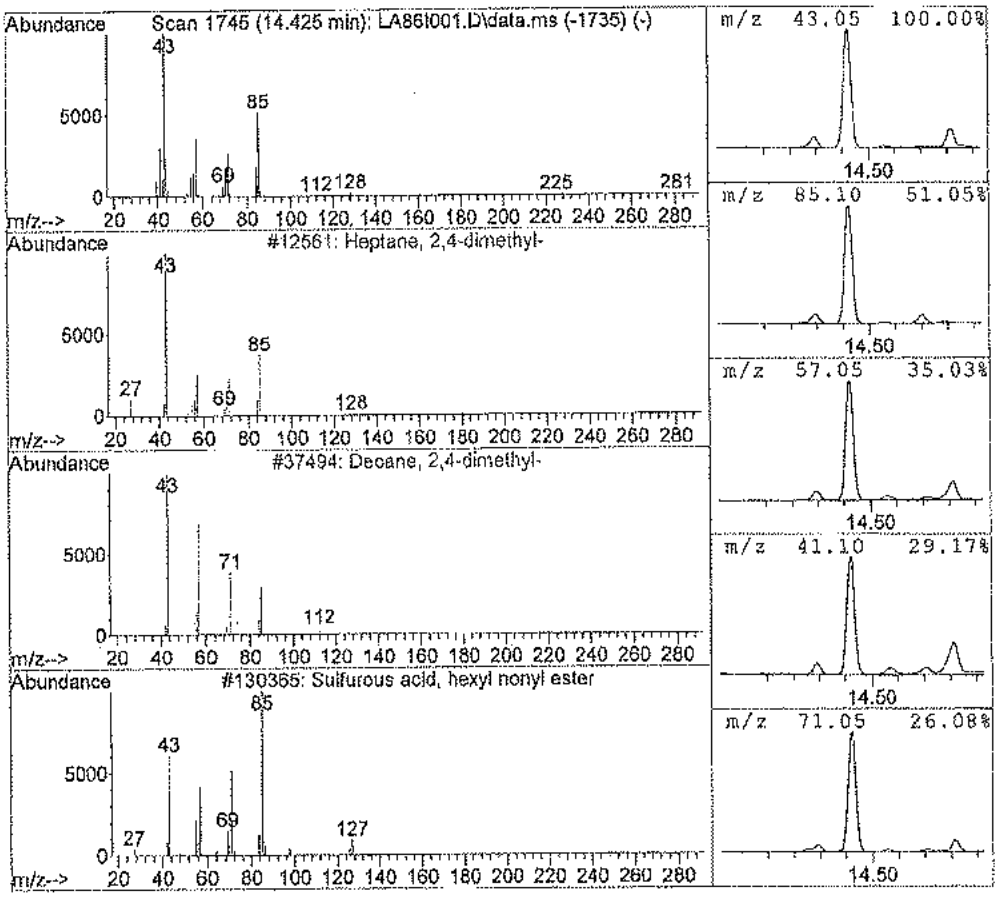
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
14.42	3.68 ppb	3164252	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptane, 2,4-dimethyl-	12561	002213-23-2	81.00
2	Decane, 2,4-dimethyl-	37494	002801-84-5	78.00
3	Sulfurous acid, hexyl nonyl ester	130365	1000309-13-1	72.00
4	Octane, 4-methyl-	12531	002216-34-4	72.00
5	Ether, hexyl pentyl	38914	032357-83-8	59.00



Library Search Compound Report

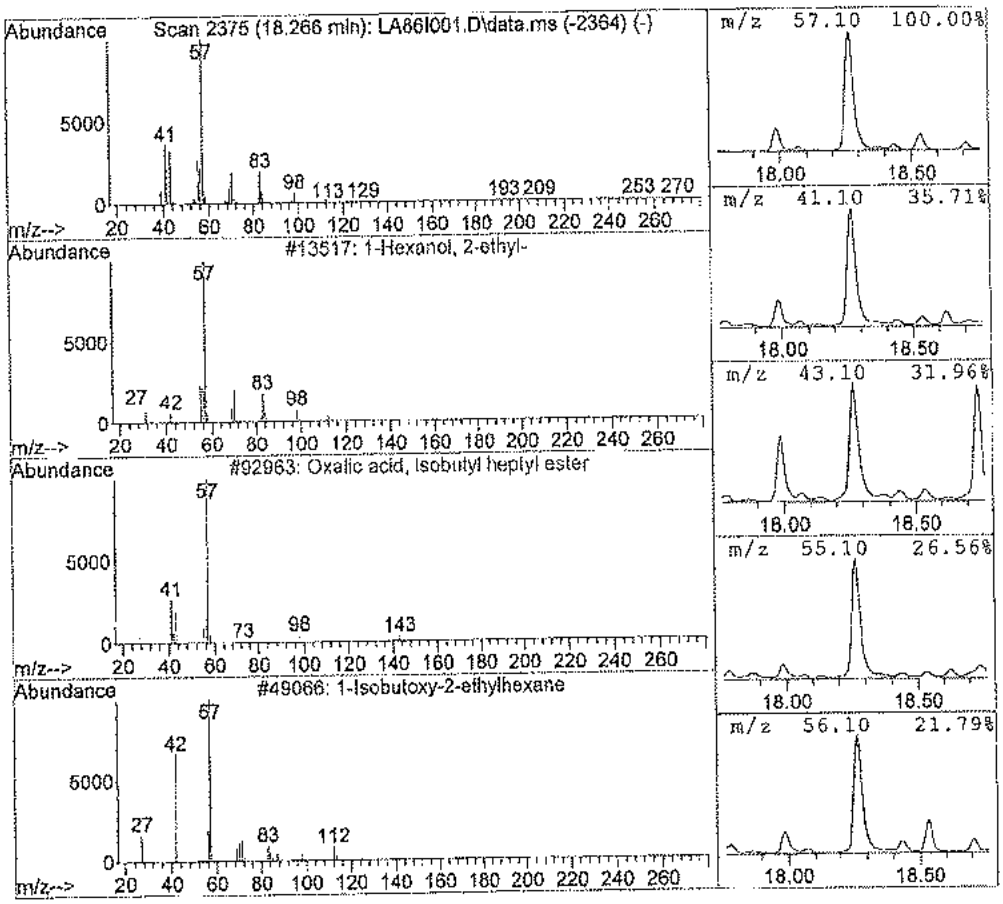
Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D
Acq Time : 04/21/2015 10:09
Sample : 1510561001
Misc : A0011H-041315-SG-001 8'
MS Integration Params: rteint.p

Vial: 9
Operator: TJM
Inst : 5975-L
Multiplr: 1.00

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.27	6.99 ppb	6006813	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13517	000104-76-7	78.00
2	Oxalic acid, isobutyl heptyl ester	92963	1000309-37-2	43.00
3	1-Isobutoxy-2-ethylhexane	49066	1000139-90-3	39.00
4	Oxirane, [[(2-ethylhexyl)oxy]methyl	48860	002461-15-6	38.00
5	Heptane, 1,1'-oxybis-	70368	000629-64-1	38.00



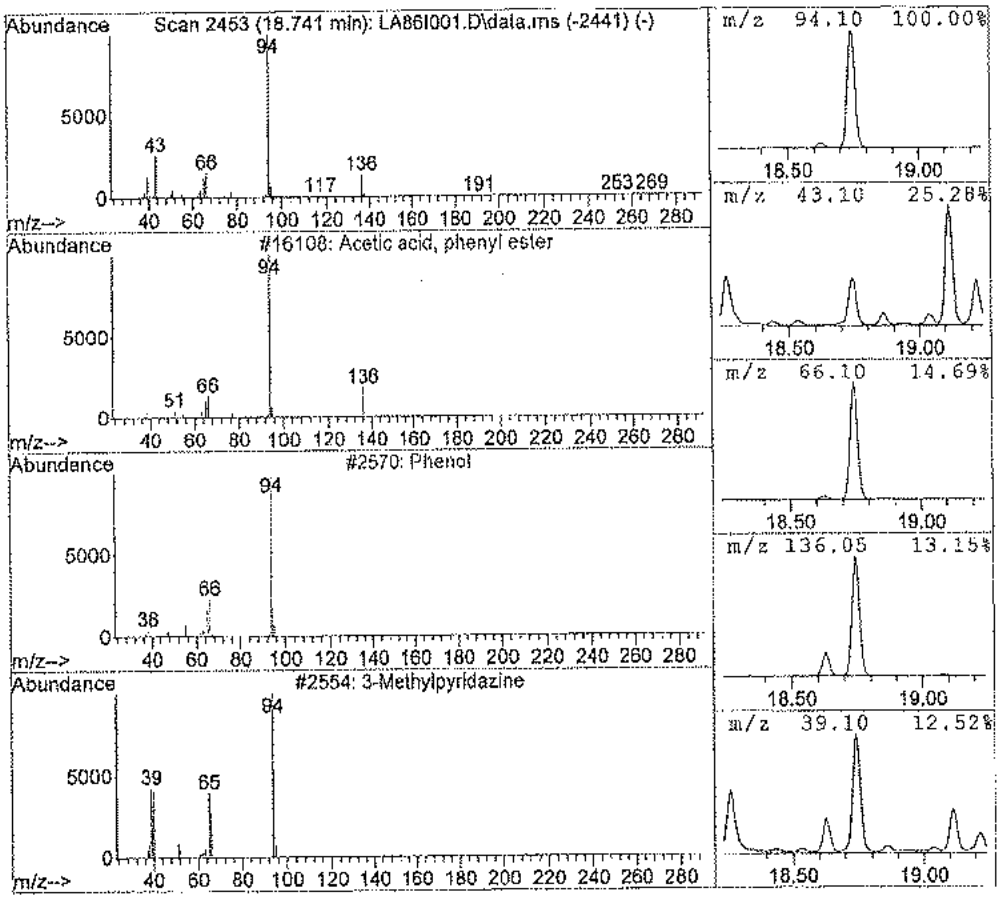
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.74	5.31 ppb	4564917	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, phenyl ester	16108	000122-79-2	94.00
2	Phenol	2570	000108-95-2	80.00
3	3-Methylpyridazine	2554	001632-76-4	72.00
4	Benzene, (1,1-dimethylethoxy)-	23370	006669-13-2	72.00
5	Allophanic acid, phenyl ester	45007	049615-54-5	72.00



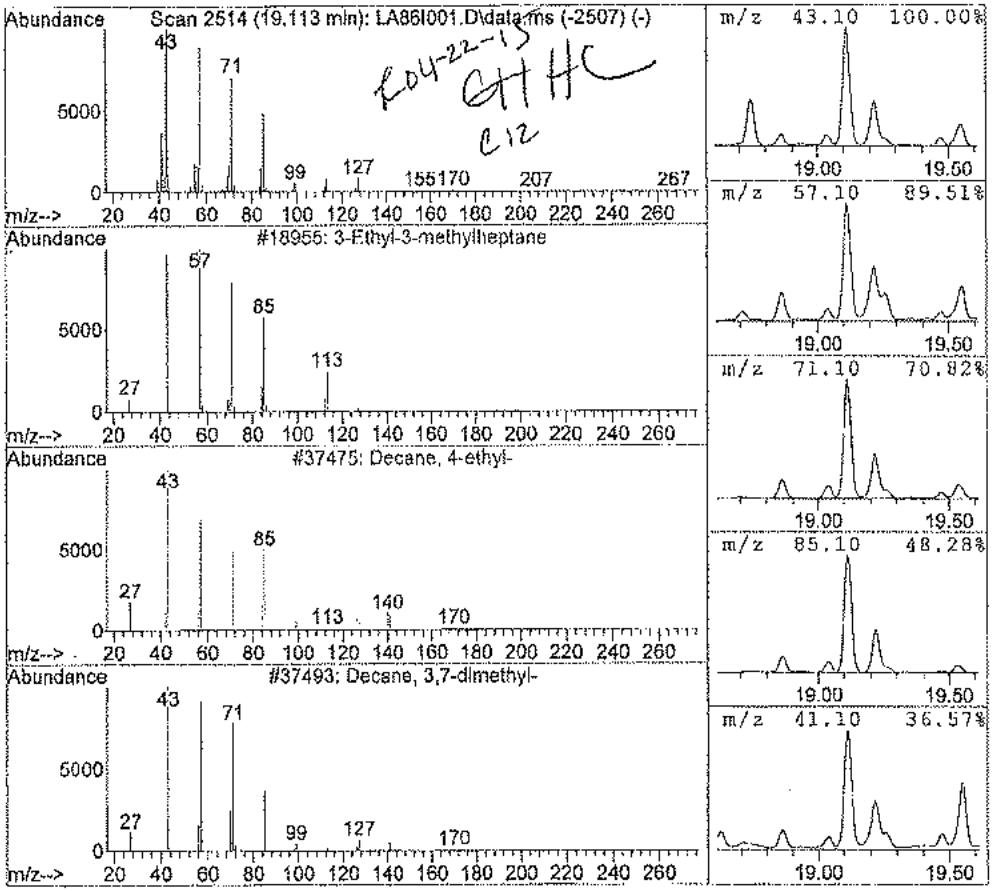
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.11	6.55 ppb	5632496	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	3-Ethyl-3-methylheptane	18955	017302-01-1	78.00
2	Decane, 4-ethyl-	37475	001636-44-8	72.00
3	Decane, 3,7-dimethyl-	37493	017312-54-8	70.00
4	Undecane, 2,4-dimethyl-	47666	017312-80-0	64.00
5	Decane, 3,8-dimethyl-	37504	017312-55-9	64.00



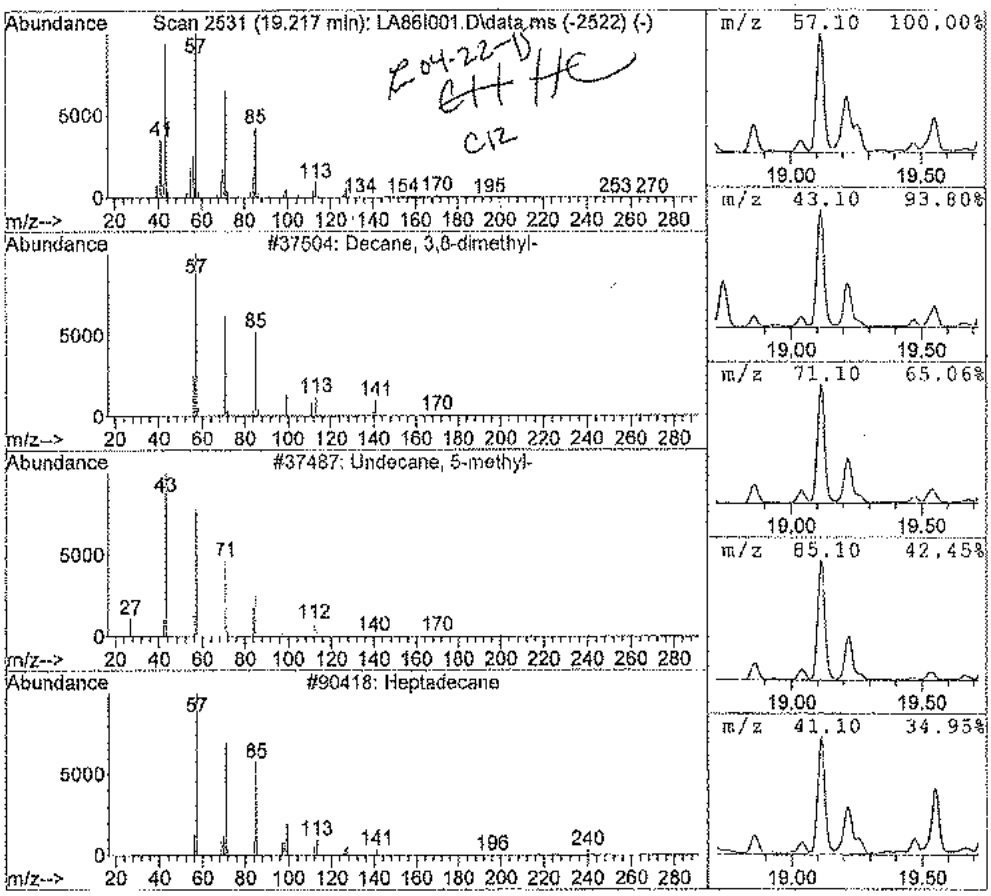
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8' Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.22	2.99 ppb	2570866	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 3,8-dimethyl-	37504	017312-55-9	83.00
2	Undecane, 5-methyl-	37487	001632-70-8	80.00
3	Heptadecane	90418	000629-78-7	78.00
4	Pentacosane	172981	000629-99-2	72.00
5	Octacosane	193568	000630-02-4	72.00



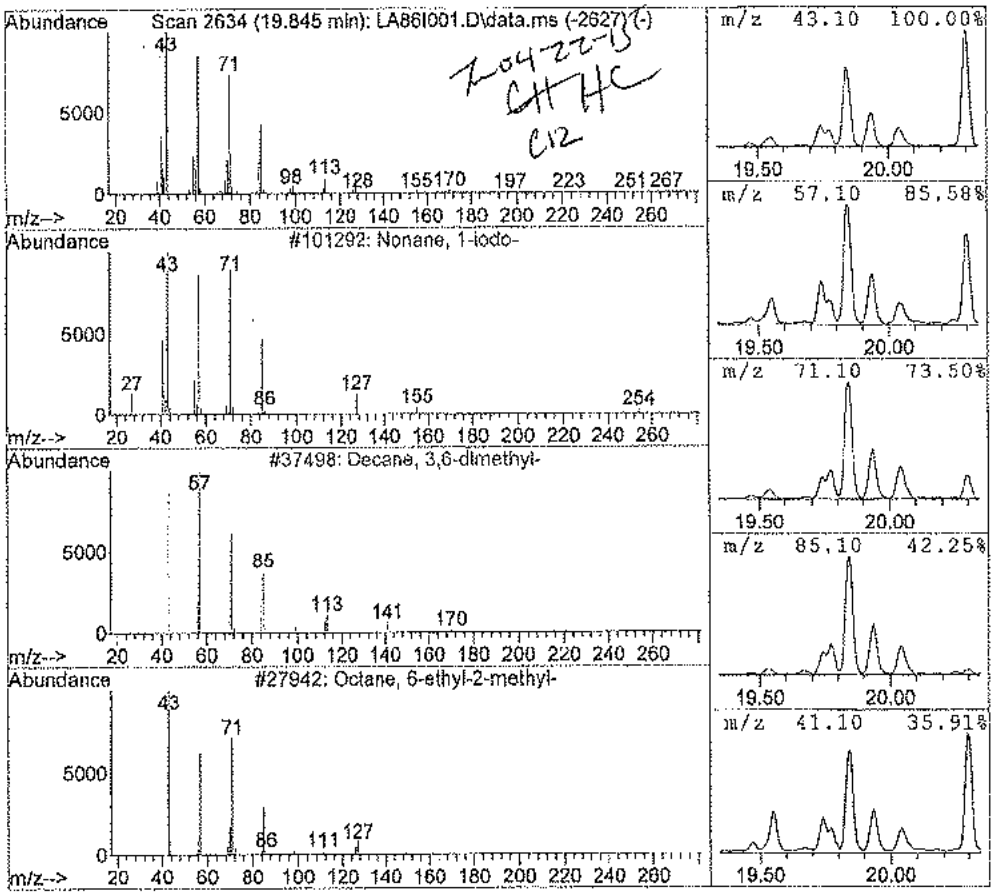
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA861001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.84	9.82 ppb	8436476	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 1-iodo-	101292	004282-42-2	93.00
2	Decane, 3,6-dimethyl-	37498	017312-53-7	83.00
3	Octane, 6-ethyl-2-methyl-	27942	062016-19-7	64.00
4	3-Ethyl-3-methylheptane	18955	017302-01-1	64.00
5	Decane, 3,7-dimethyl-	37493	017312-54-8	64.00



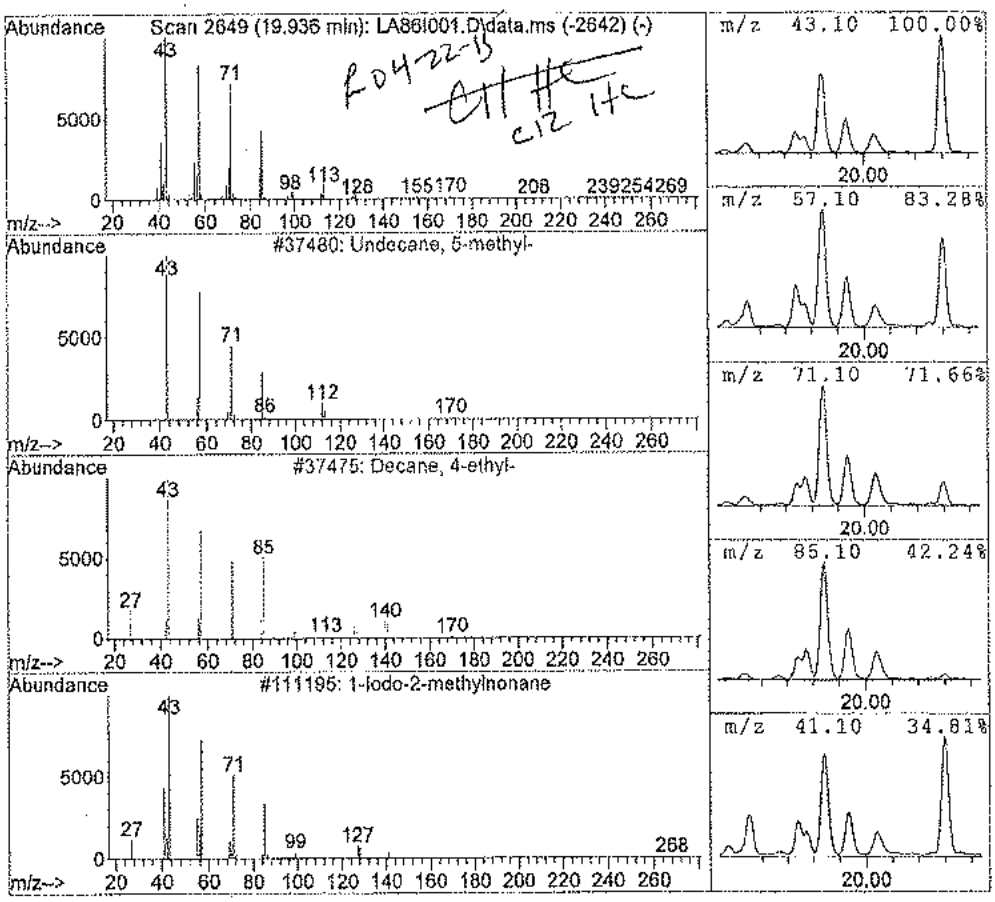
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA861001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.94	4.11 ppb	3531279	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane, 5-methyl-	37480	001632-70-8	81.00
2	Decane, 4-ethyl-	37475	001636-44-8	72.00
3	1-Iodo-2-methylnonane	111195	1000101-47-9	70.00
4	Undecane, 5,7-dimethyl-	47645	017312-83-3	64.00
5	Decane, 3,7-dimethyl-	37493	017312-54-8	64.00



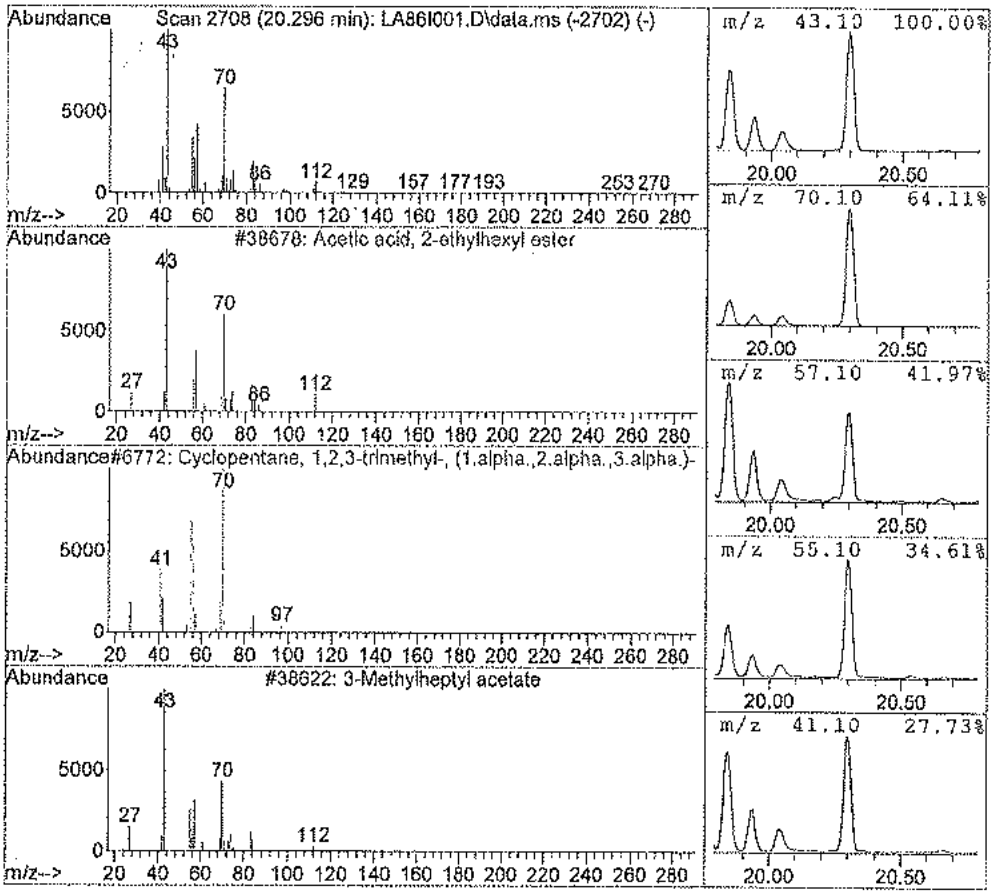
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011R-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
20.30	11.63 ppb	9996501	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Acetic acid, 2-ethylhexyl ester	38678	000103-09-3	90.00
2	Cyclopentane, 1,2,3-trimethyl-, (1,	6772	002613-69-6	72.00
3	3-Methylheptyl acetate	38622	072218-58-7	72.00
4	2-Propenoic acid, 2-ethylhexyl esto	47312	000103-11-7	50.00
5	Cyclopentane, 1,2,4-trimethyl-	6729	002815-58-9	47.00



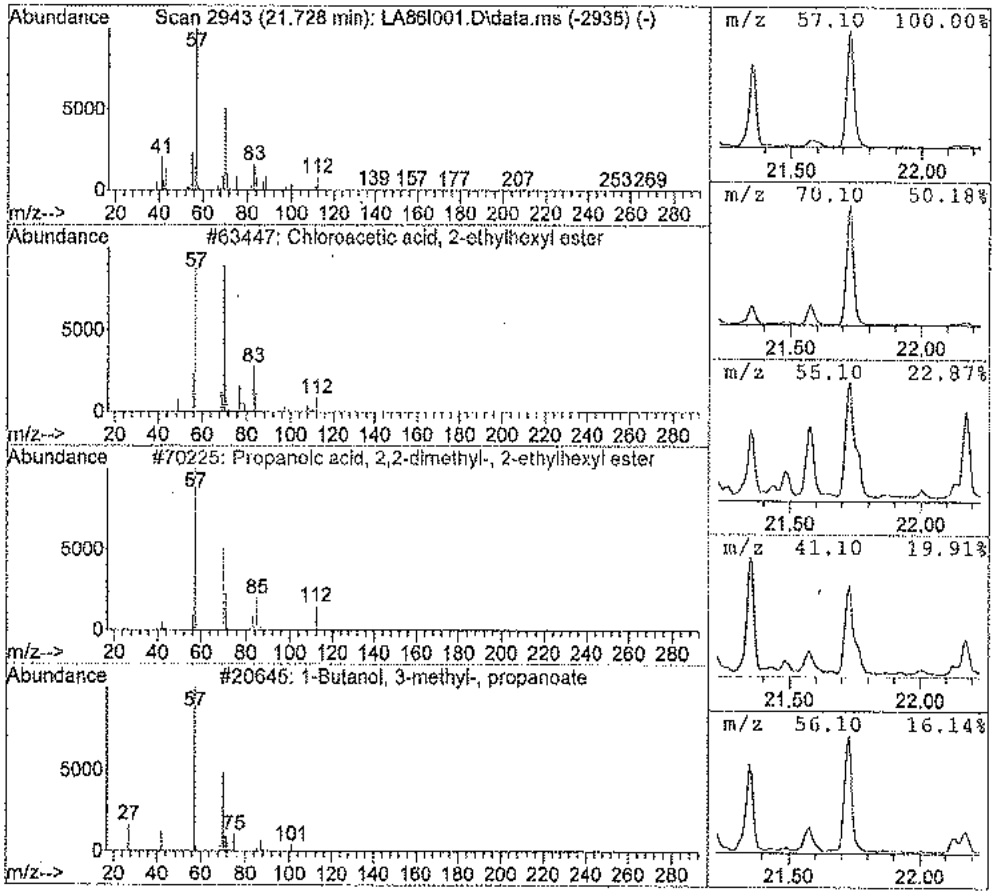
Library Search Compound Report

Data File : J:\L\2015\APR15L\20APR15L\LA86I001.D Vial: 9
Acq Time : 04/21/2015 10:09 Operator: TJM
Sample : 1510561001 Inst : 5975-L
Misc : A0011H-041315-SG-001 8` Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LB15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
21.73	3.21 ppb	2762218	Chlorobenzene d5	17189379

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Chloroacetic acid, 2-ethylhexyl est	63447	005345-58-4	59.00
2	Propanoic acid, 2,2-dimethyl-, 2-et	70225	016387-18-1	59.00
3	1-Butanol, 3-methyl-, propanoate	20645	000105-68-0	50.00
4	Cyclopentane, 1,2,3-trimethyl-, (1.	6770	002613-69-6	47.00
5	Nonane, 4-methyl-5-propyl-	47698	062185-55-1	45.00



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1534300**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid — December 11, 2015

Date

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1534300 (SIM)**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 50 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene calibration is not required for SIM analysis.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 50 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

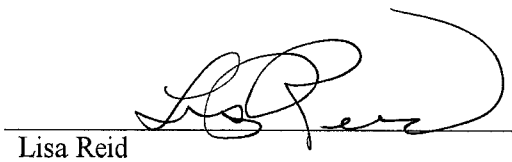
Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.



December 18, 2015

Lisa Reid

Date

ANALYTICAL REPORT

Report Date: December 21, 2015

Shirley Steinmacher
CH2M HILL
4246 S. Riverboat Rd, Suite 21
Salt Lake City, UT 84123

Phone: 385-474-8558

E-mail: Shirley.Steinmacher@ch2m.com

Workorder: **34-1534300**

Project ID: PN 665353.ZZ.01.04/700 South a
Purchase Order: PN 665353.ZZ.01.04
Project Manager Richard W. Wade

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0003H-120415-TO-001-DIN	1534300001	12/03/15	12/07/15	700 South and 1600 E
A-0003H-120415-TO-002-BAS	1534300002	12/03/15	12/07/15	700 South and 1600 E
A-0003H-120415-TO-002-BAS-D	1534300003	12/03/15	12/07/15	700 South and 1600 E

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-001-DIN
Lab ID: 1534300001
Matrix: Air
Sampling Site: 700 South and 1600 E
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 5 L
Collected: 12/03/2015
Received: 12/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 00:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.47	2.3	0.15	0.50	1	J
Chloromethane	**0.60**	**1.2**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	0.42	0.92	0.15	0.50	1	J
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.39	2.2	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**21**	**51**	0.30	1.0	1	E
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.48	1.7	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.47	1.4	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**2.0**	**7.1**	0.15	1.0	1	
Hexane	**9.7**	**34**	0.15	0.50	1	
Chloroform	0.28	1.4	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**3.6**	**11**	0.15	0.50	1	
Cyclohexane	**2.2**	**7.5**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**2.8**	**11**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**18**	**68**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-001-DIN
Lab ID: 1534300001
Matrix: Air
Sampling Site: 700 South and 1600 E
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 5 L
Collected: 12/03/2015
Received: 12/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 00:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.79**	**3.4**	0.15	0.50	1	
m,p-Xylene	**3.9**	**17**	0.15	0.50	1	
o-Xylene	**1.0**	**4.6**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.39	1.9	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.35	1.7	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**1.4**	**6.7**	0.15	1.0	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
Benzyl chloride	ND	<1.6	0.30	1.0	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,2,4-Trichlorobenzene	ND	<2.2	0.30	1.0	1	U
Hexachlorobutadiene	ND	<3.2	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 00:18
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Norflurane	5.2	3.86	1	J
Propene	7.3	3.99	1	J
Ethanol	290	5.27	1	J
Isopropyl Alcohol	16	5.93	1	J
Isobutane	5.2	4.35	1	J
Butane	7.6	4.63	1	J
Pentane	5.6	6.07	1	J
Pentane, 2-methyl-	5.8	7.69	1	J
Pentane, 3-methyl-	3.1	8.07	1	J
Cyclopentane, methyl-	2.5	9.32	1	J
Hexane, 2-methyl-	3.1	10.41	1	J
Hexane, 3-methyl-	3.3	10.66	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-001-DIN | Sampling Site: 700 South and 1600 E | Collected: 12/03/2015
Lab ID: 1534300001 | Media: Summa 6 Liter Canister | Received: 12/07/2015
Matrix: Air | Sampling Parameter: Air Volume 5 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3095 (HBN: 161047) | **Percent Solid:** NA
Analyzed: 12/10/2015 00:18 | **Report Basis:** Wet

Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Cyclohexane, methyl-	3.7	11.97	1	J

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5975-L
Batch: IVOA/3102 (HBN: 161510) | **Percent Solid:** NA
Analyzed: 12/10/2015 17:44 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,4-Dioxane	ND	NA	NA	0.050	1	
Vinyl chloride	ND	NA	NA	0.050	1	
cis-1,2-Dichloroethene	ND	NA	NA	0.050	1	
Tetrachloroethene	**0.079**	0.53	NA	0.050	1	
Trichloroethene	ND	NA	NA	0.050	1	

Sample ID: A-0003H-120415-TO-002-BAS | Sampling Site: 700 South and 1600 E | Collected: 12/03/2015
Lab ID: 1534300002 | Media: Summa 6 Liter Canister | Received: 12/07/2015
Matrix: Air | Sampling Parameter: Air Volume 5 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3095 (HBN: 161047) | **Percent Solid:** NA
Analyzed: 12/10/2015 01:08 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.52**	**2.6**	0.15	0.50	1	
Chloromethane	**0.65**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	0.33	0.73	0.15	0.50	1	J
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.34	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**19**	**45**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.33	1.2	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-002-BAS
Lab ID: 1534300002
Matrix: Air
Sampling Site: 700 South and 1600 E
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 5 L
Collected: 12/03/2015
Received: 12/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 01:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.61**	**1.8**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**4.3**	**15**	0.15	1.0	1	
Hexane	**6.9**	**24**	0.15	0.50	1	
Chloroform	**0.64**	**3.1**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**3.0**	**9.7**	0.15	0.50	1	
Cyclohexane	**1.9**	**6.7**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**1.1**	**4.6**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**6.7**	**25**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.3	1.3	0.15	0.50	1	J
m,p-Xylene	**1.5**	**6.4**	0.15	0.50	1	
o-Xylene	0.39	1.7	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.56	2.7	0.15	1.0	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-002-BAS
Lab ID: 1534300002
Matrix: Air
Sampling Site: 700 South and 1600 E
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 5 L
Collected: 12/03/2015
Received: 12/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 01:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 01:08
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Propene	8.9	3.93	1	J
Ethanol	610	5.27	1	J
Isopropyl Alcohol	36	5.93	1	J
Isobutane	10	4.31	1	J
Pentane	4.2	6.04	1	J
Pentane, 2-methyl-	5.4	7.66	1	J
Pentane, 3-methyl-	2.9	8.05	1	J
Cyclopentane, methyl-	2.7	9.31	1	J
Limonene	2.4	18.61	1	J

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3102 (HBN: 161510)
Analyzed: 12/10/2015 18:34
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,4-Dioxane	ND	NA	NA	0.050	1	
Vinyl chloride	ND	NA	NA	0.050	1	
cis-1,2-Dichloroethene	ND	NA	NA	0.050	1	
Tetrachloroethene	**0.12**	0.82	NA	0.050	1	
Trichloroethene	ND	NA	NA	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-002-BAS-D
Lab ID: 1534300003
Matrix: Air
Sampling Site: 700 South and 1600 E
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 5 L
Collected: 12/03/2015
Received: 12/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 01:57
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.49	2.4	0.15	0.50	1	J
Chloromethane	**0.64**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	0.36	0.79	0.15	0.50	1	J
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.33	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**21**	**49**	0.30	1.0	1	E
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.4	1.4	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.49	1.5	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**4.2**	**15**	0.15	1.0	1	
Hexane	**7.0**	**25**	0.15	0.50	1	
Chloroform	**0.64**	**3.1**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**3.1**	**9.9**	0.15	0.50	1	
Cyclohexane	**2.0**	**6.7**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**1.1**	**4.7**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**6.7**	**25**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-120415-TO-002-BAS-D
Lab ID: 1534300003
Matrix: Air
Sampling Site: 700 South and 1600 E
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 5 L
Collected: 12/03/2015
Received: 12/07/2015

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 01:57
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.3	1.3	0.15	0.50	1	J
m,p-Xylene	**1.5**	**6.4**	0.15	0.50	1	
o-Xylene	0.4	1.7	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.57	2.8	0.15	1.0	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3095 (HBN: 161047)
Analyzed: 12/10/2015 01:57
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Tentatively Identified Compound	Result (ppb)	Retention Time	Dilution	Qual
Propene	9.0	4.01	1	J
Ethanol	600	5.28	1	J
Isopropyl Alcohol	35	5.93	1	J
Isobutane	11	4.36	1	J
Butane	6.2	4.64	1	J
Pentane	4.1	6.07	1	J
Pentane, 2-methyl-	5.4	7.68	1	J
Pentane, 3-methyl-	2.9	8.07	1	J
Cyclopentane, methyl-	2.1	9.32	1	J
Limonene	2.8	18.61	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

Analytical Results

Sample ID:	A-0003H-120415-TO-002-BAS-D	Sampling Site:	700 South and 1600 E	Collected:	12/03/2015
Lab ID:	1534300003	Media:	Summa 6 Liter Canister	Received:	12/07/2015
Matrix:	Air	Sampling Parameter:	Air Volume 5 L		

Analysis Method - EPA TO-15

Preparation: Not Applicable	**Analysis:** EPA TO-15 SIM, Air	**Instrument ID:**	5975-L
	Batch: IVOA/3102 (HBN: 161510)	**Percent Solid:**	NA
	Analyzed: 12/10/2015 19:23	**Report Basis:**	Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,4-Dioxane	ND	NA	NA	0.050	1	
Vinyl chloride	ND	NA	NA	0.050	1	
cis-1,2-Dichloroethene	ND	NA	NA	0.050	1	
Tetrachloroethene	**0.12**	0.83	NA	0.050	1	
Trichloroethene	ND	NA	NA	0.050	1	

Comments

Workorder: 1534300

All three samples had high internal standard recoveries due to the high hydrocarbon content. In the analyst opinion these high internal standard recoveries do not significantly affect the quality of the data.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 12/18/2015 11:19	/S/ Jorden Baum 12/21/2015 10:07

Laboratory Contact Information

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ANALYTICAL REPORT

Workorder: 34-1534300
Client: CH2M Hill / SLC
Project Manager: Richard W. Wade

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1534300**

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/3095 (HBN: 161047)
Analyzed By: Lisa M. Reid

Blank

MB: 480506
Analyzed: 12/09/2015 14:26

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500
2-Hexanone	ND	0.3	1.00
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1534300

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3095 (HBN: 161047)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 480506
Analyzed: 12/09/2015 14:26
Units: ppb

Analyte	Result	MDL	RL
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	1.00
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
Benzyl chloride	ND	0.3	1.00
1,2-Dichlorobenzene	ND	0.3	1.00
1,2,4-Trichlorobenzene	ND	0.3	1.00
Hexachlorobutadiene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 480507
Analyzed: 12/09/2015 12:02
Dilution: 1
Units: ppb

LCSD: 480508
Analyzed: 12/09/2015 12:51
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	10.3	10.0	103	59.3	135.1	10.5	105	1.40	0.0	25.0
Chloromethane	10.6	10.0	106	55.2	137.4	10.6	106	0.859	0.0	25.0
Freon 114	9.37	10.0	93.7	64.6	128.0	9.36	93.6	0.120	0.0	25.0
1,3-Butadiene	10.5	10.0	105	58.0	138.3	10.5	105	0.285	0.0	25.0
Bromomethane	10.7	10.0	107	63.3	129.9	10.6	106	0.206	0.0	25.0
Chloroethane	11.0	10.0	110	57.6	137.1	10.9	109	0.742	0.0	25.0
Freon 11	9.61	10.0	96.1	58.9	132.8	9.63	96.3	0.265	0.0	25.0
Freon 113	8.89	10.0	88.9	68.5	120.0	8.98	89.8	0.968	0.0	25.0
1,1-Dichloroethene	10.4	10.0	104	67.2	125.1	10.3	103	0.290	0.0	25.0
Acetone	10.5	10.0	105	42.5	146.0	10.5	105	0.352	0.0	25.0
Carbon disulfide	9.87	10.0	98.7	63.9	128.8	9.92	99.2	0.463	0.0	25.0
Methylene chloride	9.90	10.0	99.0	63.7	127.9	9.84	98.4	0.588	0.0	25.0
trans-1,2-Dichloroethene	9.58	10.0	95.8	68.1	124.6	9.66	96.6	0.820	0.0	25.0
Methyl t-butyl ether	10.3	10.0	103	60.8	138.0	10.3	103	0.612	0.0	25.0
Vinyl acetate	10.2	10.0	102	59.3	141.1	10.4	104	1.82	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1534300

Limits: Historical/Performance
Basis: ALS Laboratory Group
Preparation: NA
Batch: NA
Prepared By: NA
Analysis: EPA TO-15
Batch: IVOA/3095 (HBN: 161047)
Analyzed By: Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 480507
Analyzed: 12/09/2015 12:02
Dilution: 1
Units: ppb

LCSD: 480508
Analyzed: 12/09/2015 12:51
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
2-Butanone	10.9	10.0	109	51.7	144.2	10.9	109	0.450	0.0	25.0
1,1-Dichloroethane	10.2	10.0	102	67.7	123.6	10.0	100	1.90	0.0	25.0
Ethyl acetate	10.7	10.0	107	53.4	156.9	10.4	104	3.10	0.0	25.0
Hexane	10.7	10.0	107	62.4	129.5	10.7	107	0.196	0.0	25.0
Chloroform	9.71	10.0	97.1	67.3	121.8	9.71	97.1	0.0030	0.0	25.0
Tetrahydrofuran	11.0	10.0	110	50.6	155.3	10.9	109	1.14	0.0	25.0
1,2-Dichloroethane	10.0	10.0	100	62.4	130.5	9.92	99.2	1.05	0.0	25.0
1,1,1-Trichloroethane	9.73	10.0	97.3	60.4	127.7	9.68	96.8	0.526	0.0	25.0
Carbon tetrachloride	9.63	10.0	96.3	58.2	130.6	9.62	96.2	0.0935	0.0	25.0
Benzene	9.93	10.0	99.3	64.1	127.3	9.95	99.5	0.160	0.0	25.0
Cyclohexane	9.98	10.0	99.8	61.9	123.6	9.96	99.6	0.283	0.0	25.0
1,2-Dichloropropane	10.0	10.0	100	60.7	130.6	9.92	99.2	0.967	0.0	25.0
Bromodichloromethane	10.1	10.0	101	62.9	128.3	10.0	100	0.635	0.0	25.0
Heptane	11.3	10.0	113	59.5	133.4	11.2	112	0.666	0.0	25.0
cis-1,3-Dichloropropene	10.9	10.0	109	64.1	133.6	10.7	107	1.11	0.0	25.0
4-Methyl-2-pentanone	11.7	10.0	117	73.5	150.0	11.6	116	1.20	0.0	25.0
trans-1,3-Dichloropropene	11.0	10.0	110	78.5	148.7	10.8	108	1.55	0.0	25.0
1,1,2-Trichloroethane	10.3	10.0	103	65.0	126.6	10.2	102	1.05	0.0	25.0
Toluene	11.3	10.0	113	75.6	139.4	11.1	111	1.17	0.0	25.0
2-Hexanone	12.9	10.0	129	80.8	158.8	12.5	125	2.40	0.0	25.0
Dibromochloromethane	10.4	10.0	104	62.4	130.9	10.3	103	0.975	0.0	25.0
1,2-Dibromoethane	10.8	10.0	108	64.4	129.0	10.7	107	1.06	0.0	25.0
Chlorobenzene	9.93	10.0	99.3	62.8	126.9	9.94	99.4	0.0795	0.0	25.0
Ethyl benzene	11.0	10.0	110	75.9	148.5	11.1	111	0.444	0.0	25.0
m,p-Xylene	21.9	20.0	109	73.7	144.9	21.9	109	0.210	0.0	25.0
o-Xylene	11.0	10.0	110	74.7	147.4	10.9	109	0.632	0.0	25.0
Styrene	11.8	10.0	118	75.9	158.1	11.8	118	0.144	0.0	25.0
Bromoform	10.0	10.0	100	59.7	136.0	10.1	101	0.865	0.0	25.0
1,1,2,2-Tetrachloroethane	10.8	10.0	108	59.3	134.8	10.7	107	1.30	0.0	25.0
4-Ethyl toluene	12.0	10.0	120	69.0	163.3	11.9	119	0.792	0.0	25.0
1,3,5-Trimethylbenzene	11.1	10.0	111	64.2	155.1	11.0	110	0.388	0.0	25.0
1,2,4-Trimethylbenzene	11.9	10.0	119	59.7	169.4	11.8	118	0.397	0.0	25.0
1,3-Dichlorobenzene	11.6	10.0	116	58.6	157.6	11.7	117	1.01	0.0	25.0
1,4-Dichlorobenzene	11.9	10.0	119	57.7	137.2	12.0	120	0.730	0.0	25.0
Benzyl chloride	12.6	10.0	126	60.1	182.5	12.8	128	1.45	0.0	25.0
1,2-Dichlorobenzene	11.1	10.0	111	56.5	140.0	11.3	113	0.928	0.0	25.0
1,2,4-Trichlorobenzene	11.4	10.0	114	0.0	235.7	11.8	118	3.51	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1534300

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3095 (HBN: 161047)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS:	480507	**LCSD:**	480508
Analyzed:	12/09/2015 12:02	**Analyzed:**	12/09/2015 12:51
Dilution:	1	**Dilution:**	1
Units:	ppb	**Units:**	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Hexachlorobutadiene	9.15	10.0	91.5	25.3	155.9	9.13	91.3	0.146	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene		
QC Limits	67.7	129.9	
Units	ppb		
Lab ID	**Result**	**Target**	**% Recovery**
480507-LCS	21.8	20.0	109
480508-LCSD	21.6	20.0	108
480506-MB	20.2	20.0	101
1534264001	20.5	20.0	102
1534196001	21.7	20.0	109
1534147002	20.0	20.0	100
1534147003	19.8	20.0	99.0
1534147004	19.7	20.0	98.3
1534147005	19.8	20.0	98.9
1534147006	19.6	20.0	97.9
1534300001	20.8	20.0	104
1534300002	20.4	20.0	102
1534300003	20.5	20.0	102
1534147001	20.1	20.0	101

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1534300

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3095 (HBN: 161047)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	12/11/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1534300

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3102 (HBN: 161510)		
Analyzed By:	Lisa M. Reid		

Blank

MB: 481809
Analyzed: 12/10/2015 16:55
Units: ppb

Analyte	Result	MDL	RL
1,4-Dioxane	ND	NA	0.0500
Vinyl chloride	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 481810
Analyzed: 12/10/2015 15:19
Dilution: 1
Units: ppb

LCSD: 481811
Analyzed: 12/10/2015 16:07
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.458	0.500	91.6	17.5	153.7	0.461	92.2	0.692	0.0	25.0
cis-1,2-Dichloroethene	0.458	0.500	91.6	65.2	131.2	0.442	88.4	3.57	0.0	25.0
Trichloroethene	0.436	0.500	87.2	68.4	123.4	0.453	90.7	3.91	0.0	25.0
Tetrachloroethene	0.436	0.500	87.2	63.6	127.9	0.464	92.9	6.35	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
481810-LCS	1.07	1.00	107
481811-LCSD	1.04	1.00	104
481809-MB	0.811	1.00	81.1
1534300001	1.51	1.00	151
1534300002	1.25	1.00	125
1534300003	1.21	1.00	121

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1534300

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3102 (HBN: 161510)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

QC Data Approved and Reviewed by

Lisa M. Reid	Jorden Baum	12/21/2015
Analyst	**Peer Review**	**Date**

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

154501 1 $2

1534300

ANALYTICAL REQUEST FORM

1534300

1. ☒ REGULAR Status 14 days

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 12/4/15 Purchase Order No. PN 665353.77.01.04 4. Quote No. 34-15422

3. Company Name CH2M ALS Project Manager Richard Wade

Address 4246 S. Riverboat Rd. Suite 210
Salt Lake City, UT 84123

Person to Contact David Waite

Telephone (385) 474-8560

Fax Telephone ( )

E-mail Address david.waite@ch2m.com

Billing Address (if different from above)
(Same)

5. **Sample Collection**

Sampling Site 700 South and 1600 East PCE Plume AOU-1

Industrial Process N/A

Date of Collection 12/3-12/4/15

Time Collected 1022 to

Date of Shipment 12/4/15

Chain of Custody No. 1

6. How did you first learn about ALS?
Worked there; used previously for this project QAPP

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units** (6)	Lab Comments
~~A-00034-120315-DIN~~	~~AIR~~	~~~5L~~	~~TO15~~ s/c 12/4/15	~~ppbv~~	
~~A-00034-120315-BAS~~	~~AIR~~	~~~5L~~	~~TO15~~ s/c 12/4/15	~~"~~	
~~A-00034-120315-BAS D~~	~~AIR~~	~~~5L~~	~~TO15~~ s/c 12/4/15	~~ppbv~~	
A-00034-120415-TO-001-DIN	Air	~5L	~~TO15~~ TO-15 SIM* + 1,4 dioxane	ppbv	and µg/m³ C996
A-00034-120415-TO-002-BAS	Air	↓	~~TO15~~ TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³ 03605
A-00034-120415-TO-002-BASD	Air	~5L	~~TO15~~ TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³ 02001

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % (5. µg/m³) (6. ppbv) (other) Please indicate one or more units in the column entitled Units**

Comments * Target analyte list for TO-15 SIM = PCE, TCE, cis-1,2-DCE, VC and 1,4-dioxane. All other TO-15 compounds to be analyzed by TO-15.

Possible Contamination and/or Chemical Hazards None

7. **Chain of Custody (Optional)**

Relinquished by		Date/Time	
Received by		Date/Time	12-07-15 10:51
Relinquished by		Date/Time	
Received by		Date/Time	

All for TO-15 SIM + 1,4-dioxane

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method TO15SIM	Screening Level[a]	Lowest Screening Level Value (µg/m³)[a]
1,1,1-Trichloroethane	71-55-6	TO-15 SIM	EPA RSL	520
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1
4-Ethyltoluene	622-96-8	TO-15	--	--
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310
Acetone	67-64-1	TO-15	EPA RSL	3,200
Benzene	71-43-2	TO-15	EPA RSL	0.31
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066
Bromoform	75-25-2	TO-15	EPA RSL	2.2
Bromomethane	74-83-9	TO-15	EPA RSL	0.52
Carbon disulfide	75-15-0	TO-15	EPA RSL	73
Carbon tetrachloride	56-23-5	TO-15	EPA RSL	0.41
Chlorobenzene	108-90-7	TO-15	EPA RSL	5.2
Chloroethane	75-00-3	TO-15	EPA RSL	1,000
Chloroform	67-66-3	TO-15	EPA RSL	0.11
Chloromethane	74-87-3	TO-15	EPA RSL	9.4
cis-1,2-Dichloroethene	156-59-2	TO-15 SIM	EPA RSL	6.3
cis-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Cyclohexane	110-82-7	TO-15	EPA RSL	630
Dibromochloromethane	124-48-1	TO-15	EPA RSL	0.09
Dichlorodifluoromethane (Freon 12)	75-71-8	TO-15	EPA RSL	10
Ethyl Acetate	141-78-6	TO-15	EPA RSL	7.3
Ethylbenzene	100-41-4	TO-15	EPA RSL	0.97
n-Heptane	142-82-5	TO-15	--	--
n-Hexane	110-54-3	TO-15	EPA RSL	73
m,p-Xylene	108-38-3 and 106-42-3	TO-15	EPA RSL	10
Methylene Chloride	75-09-2	TO-15 SIM	EPA RSL	63

Air - Chain of Custody Record & Analytical Service Request

~~2655 Park Center Drive, Suite A~~ SLS
~~Simi Valley, California 93065~~
~~Phone (805) 526-7161~~ SLS
~~Fax (805) 526-7270~~ SLS
(801-266-7700 local)

ALS Laboratory Group 960 W. LeVoy Drive SLC, UT 84123 800-356-9135

Requested Turnaround Time in Business Days (Surcharges) please circle SLS
~~1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day Standard~~ 14 day Std.

ALS Project No

Company Name & Address (Reporting Information)	CH2M 4246 S. Riverboat Road, Suite 210 Taylorsville UT 84123
Project Name	700 South and 1600 East PCE Plume AOU-1
Project Number	665353. ZZ.01.04
Project Manager	David Waite
P.O. # / Billing Information	
Phone	385-474-8560
Fax	
Email Address for Result Reporting	mark.cichy@ch2m.com / david.waite@ch2m.com
Sampler (Print & Sign)	Shirley Steinmacher

ALS Contact: Richard Wade

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15 SIM + COCs + PCE, TCE, cis-1,2-DCE, VC, 1,4-dioxane SLS	TO-15 Full suite except COCs SLS	Comments e.g. Actual Preservative or specific instructions
A-0003H-120415-TO-001-DIN		12/3-12/4/15	1022-1001	0196	0153	-25.56	-0.25	~5L	X	X	Cleaned Canisters 11-23-15
A-0003H-120415-TO-002-BAS		12/3-12/4/15	1050-1011	0365	0451	-25.00	-0.05	~5L	X	X	Cleaned Flow Controllers
A-0003H-120415-TO-002-BAS-D		12/3-12/4/15	1050-1011	0221	0195	-24.51	-0.12	~5L	X	X	12-01-15. All Individually certified

SLS

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____
Tier II (Results + QC Summaries _____
Tier III (Results + QC & Calibration Summaries) _____
(Tier IV) (Date Validation Package) ~~10% Surcharge~~ SLS X

EDD required (YES) No
Type: Lapspec 7 Units: ppbv + µg/m³

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)
Level IV data package, QAPP Table 7, ALS TO15 compounds.

Relinquished by: (Signature) (ALS Analyst Lisa Reid)	Date: 12-1-15	Time: 1600	Received by: (Signature) Shirley Steinmacher	Date: 12/2/15	Time: 1650	Cooler / Blank	N/A
Relinquished by: (Signature) Shirley Steinmacher - CH2M/SLC	Date: 12-7-15	Time: 1655	Received by: (Signature)	Date: 12-07-15	Time: 16:51	Temperature	°C

COC #2 of 2

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: Jacobs Hill

Account No:

PN 665353

Project/Job/Task: 700 South and 1600 East PCE Plume AOU-1

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Laboratory Client Information	ALS use only
0365	11-23-15	-29	24hr	[illegible]	-25.00	~~-0.25~~ -0.05	A 1003H-120415-DIN	120415-002-BAS ~~BAS~~ 1022	
0196	↓	↓	↓	↓	-25.56	-0.25	A 1003H-~~120315~~-BAS DIN	120415-TD-001-DIN	
0221	↓	↓	24hr	↓	-24.51	-0.12	A 1003H-~~120315~~-BAS D	120415-TD-002-BAS-D	
VFR Serial No.:									
0451	12-9-15	—	~4	[illegible]	—	—	1003H-~~120315~~-BAS		
0253	↓	—	↓	↓	—	—	1003H-~~120315~~-DIN		
0195	↓	—	↓	↓	—	—	1003H-~~120315~~-BAS D		

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
[signature]	12-01-15 16:00	[signature] 12/2/15 1650	Canister Pickup for sampling
		~~[illegible]~~ 12-07-15 1654	

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

[For lab use only]

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status 14-days

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 12/4/15 Purchase Order No. PN 665353.ZZ.01.04 4. Quote No. 34-15422

3. Company Name CH2M ALS Project Manager Richard Wade

Address 4246 S. Riverboat Rd. Suite 210 Salt Taylorsville, UT 84123

5. **Sample Collection**

Person to Contact David Waite Sampling Site 700 South and 1600 East RE Plume ADU-1

Telephone (385) 474-8560 Industrial Process N/A

Fax Telephone ( ) _____ Date of Collection 12/3-12/4/15

E-mail Address david.waite@ch2m.com Time Collected 1022 to

Billing Address (if different from above) Date of Shipment 12/4/15

(Same) Chain of Custody No. 1

6. How did you first learn about ALS?

Worked there; used previously for this project / QAPP

7. **REQUEST FOR ANALYSES**

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units** (6)	Lab Comments
~~A-00034-120515-DIN~~	~~AIR~~	~~~5L~~	~~TO15 S/S 12/4/15~~	~~ppbv~~	
~~A-00034-120415-BAS~~	~~AIR~~	~~~5L~~	~~TO15 S/S 12/4/15~~	~~"~~	
~~A-00034-120415-BAS-D~~	~~AIR~~	~~~5L~~	~~TO15 S/S 12/4/15~~	~~ppbv~~	
A-00034-120415-TO-001-DIN	Air	~5L	TO-15 SIM* + 1,4 dioxane	ppbv	and µg/m³
A-00034-120415-TO-002-BAS	Air	↓	TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³
A-00034-120415-TO-002-BAS-D	Air	~5L	TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % (5. µg/m³) (6. ppbv) (other) Please indicate one or more units in the column entitled Units**

Comments * Target analyte list for TO-15 SIM + 1,4-dioxane = PCE, TCE, cis-1,2-DCE, VC's and 1,4-dioxane. All other TO-15 compounds to be analyzed by TO-15 S/S

Possible Contamination and/or Chemical Hazards None

7. **Chain of Custody (Optional)**

Relinquished by		Date/Time	
Received by		Date/Time	12-07-15 10:57
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

All for TO-15 SIM + 1,4-dioxane

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method TO15 SIM	Screening Level[a]	Lowest Screening Level Value (µg/m³)[a]
1,1,1-Trichloroethane	71-55-6	TO-15 SIM	EPA RSL	520
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1
4-Ethyltoluene	622-96-8	TO-15	--	--
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310
Acetone	67-64-1	TO-15	EPA RSL	3,200
Benzene	71-43-2	TO-15	EPA RSL	0.31
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066
Bromoform	75-25-2	TO-15	EPA RSL	2.2
Bromomethane	74-83-9	TO-15	EPA RSL	0.52
Carbon disulfide	75-15-0	TO-15	EPA RSL	73
Carbon tetrachloride	56-23-5	TO-15	EPA RSL	0.41
Chlorobenzene	108-90-7	TO-15	EPA RSL	5.2
Chloroethane	75-00-3	TO-15	EPA RSL	1,000
Chloroform	67-66-3	TO-15	EPA RSL	0.11
Chloromethane	74-87-3	TO-15	EPA RSL	9.4
cis-1,2-Dichloroethene	156-59-2	TO-15 SIM	EPA RSL	6.3
cis-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Cyclohexane	110-82-7	TO-15	EPA RSL	630
Dibromochloromethane	124-48-1	TO-15	EPA RSL	0.09
~~Dichlorodifluoromethane (Freon 12)~~	~~75-71-8~~	~~TO-15~~	~~EPA RSL~~	~~10~~
Ethyl Acetate	141-78-6	TO-15	EPA RSL	7.3
Ethylbenzene	100-41-4	TO-15	EPA RSL	0.97
n-Heptane	142-82-5	TO-15	--	--
n-Hexane	110-54-3	TO-15	EPA RSL	73
m,p-Xylene	108-38-3 and 106-42-3	TO-15	EPA RSL	10
Methylene Chloride	75-09-2	TO-15 SIM	EPA RSL	63

Air - Chain of Custody Record & Analytical Service Request

COC 1 of 2

Page 1 of 1

~~2655 Park Center Drive, Suite A~~ SJS
~~Simi Valley, California 93065~~ SJS
~~Phone (805) 526-7161~~ SJS
~~Fax (805) 526-7270~~ SJS
(801-266-7700 local)

ALS Laboratory Group 960 W. LeVoy Drive SLC, UT 84123 800-356-9135

Requested Turnaround Time in Business Days (Surcharges) please circle SJS
~~1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day Standard~~ 14 day Std.

ALS Project No

Company Name & Address (Reporting Information)	CH2M 4246 S. Riverboat Road, Suite 210 Taylorsville UT 84123
Project Name	700 South and 1600 East PCE Plume AOU-1
Project Number	665353. ZZ.01.04
Project Manager	David Waite
P.O. # / Billing Information	
Phone	385-474-8560
Fax	
Email Address for Result Reporting	mark.cichy@ch2m.com / david.waite@ch2m.com
Sampler (Print & Sign)	Shirley Steinmacher

ALS Contact: Richard Wade

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	TO-15 SIM + COCs - PCE, TCE, cis-1,2-DCE, VC, 1,4-dioxane SJS	TO-15 Full suite except COCs SJS	Comments e.g. Actual Preservative or specific instructions
A-0003H-120415-TO-001-DIN		12/3-12/4/15	1022-1001	0196	0153	-25.56	-0.25	~5L	X	X	Cleaned Canisters 11-23-15
A-0003H-120415-TO-002-BAS		12/3-12/4/15	1050-1011	0365	0451	-25.00	-0.05	~5L	X	X	Cleaned Flow Controllers
A-0003H-120415-TO-002-BAS-D		12/3-12/4/15	1050-1011	0221	0195	-24.51	-0.12	~5L	X	X	12-01-15. All Individually certified

SJS

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____
Tier II (Results + QC Summaries) _____
Tier III (Results + QC & Calibration Summaries) _____
Tier IV (Date Validation Package) ~~10% Surcharge~~ SJS X

EDD required (YES) No
Type: LabSpec 7 Units: ppbv / µg/m³

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)
Level IV data package, QAPP Table 7, ALS TO15 compounds.

Relinquished by: (Signature) (ALS Analyst Lisa Reid)	Date: 12-1-15	Time: 1600	Received by: (Signature) Shirley Steinmacher	Date: 12/2/15	Time: 1650	Cooler / Blank Temperature	N/A °C
Relinquished by: (Signature) Shirley Steinmacher / CH2M/SLC	Date: 12-7-15	Time: 1655	Received by: (Signature)	Date: 12-07-15	Time: 16:57		

COC #2 of 2

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Canister Chain of Custody

Client: CH2M Hill

Account No:

PN 665353

Project/Job/Task: 700 South and 1600 East PCE Plume AOU-1

Please do not apply adhesive labels directly on Canisters

Manilla tags are provided, attached to Canisters for your convenience, to apply adhesive labels

Canister Serial No.:	Date Cleaned	Initial Vacuum (inches of Hg vacuum)	VFR flow rate (ml/min)	Initials:	Field Vacuum before sampling (inches of Hg vacuum)	Final Vacuum after sampling (inches of Hg vacuum)	Client Sample Identification	Other Client Information	ALS use only
03605	11-23-15	> 29	24hr		-25.00 inHg	-0.05 -0.25	A 0003H 120415-BAS-DIN	120415-002-BAS 1022-	
01916	↓	↓	↓	↓	-25.56	-0.125	A 0003H 120415-BAS-DIN	120415-TO-001-DIN	
03221	↓	↓	24hr	↓	-24.51	-0.12	A 0003H 120415-BASD-DIN	120415-TO-002-BAS-D	
VFR Serial No.:									
02751	12-01-15	—	~4		—	—	0003H 120315-BAS		
01953	↓	—	↓	↓	—	—	0003H 120315-DIN		
01955	↓	—	↓	↓	—	—	0003H 120315-BAS-D		

Original Field Sample Chain-of-Custody

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Reason for Transfer/Storage Location
[signature]	12-01-15 1600	[signature] 12/2/15 1650	Canister Pickup for sampling
		[signature] 12-07-15 1651	

Return to:
ALS Laboratory Group
960 W. LeVoy Drive
Salt Lake City, UT 84123
800-356-9135

If canisters are kept for longer than the original project scheduled sampling, a $40 per can - per week rental fee will be assessed. If a project is cancelled after ALS has shipped cans, in addition to the cost of the initial shipping, a $40 weekly rental fee will be charged for each unused can until they are returned to ALS.

Richard Wade

From: Richard Wade
Sent: Tuesday, December 08, 2015 11:35 AM
To: 'Shirley.Steinmacher@CH2M.com'; Mark.Cichy@CH2M.com
Subject: RE: VA TO-15 List and RLs

Shirley

We are logging the samples in with your new instructions in this e-mail and revised table 7 received this morning.

From: Shirley.Steinmacher@CH2M.com [mailto:Shirley.Steinmacher@CH2M.com]
Sent: Tuesday, December 08, 2015 9:39 AM
To: Richard Wade <Richard.Wade@ALSGlobal.com>; Mark.Cichy@CH2M.com
Subject: Re: VA TO-15 List and RLs

Please see email correcting requested methods, sent this morning 12/9/15 at 0912:

TO-15 SIM for COPCs only: PCE, TCE, cis-1,2-DCE, VC, and 1,4-dioxane.

TO-15 for remaining compounds on Table 7

Thank you.

Shirley Steinmacher, P.G.
Professional Geologist
CH2M HILL
4246 S. Riverboat Rd, Suite 210
Taylorsville, UT 84123
385-474-8558 office direct
801-824-3609 mobile
Shirley.Steinmacher@ch2m.com

From: Richard Wade [mailto:Richard.Wade@ALSGlobal.com]
Sent: Tuesday, December 08, 2015 09:22 AM
To: Cichy, Mark/RDD
Cc: Steinmacher, Shirley/SLC
Subject: RE: VA TO-15 List and RLs

Mark

My apologies for not following up on the reporting limits. I did check Table 7 and found that our full scan reporting limit of 0.5 ppb had been converted to ug per cubic meter and is in CRQL column. So table 7 matches exactly our reporting limits for full scan. Since SIM has been requested we should be an order of magnitude lower; our reporting limit for TO15 SIM is 0.05 ppb.

From: Mark.Cichy@CH2M.com [mailto:Mark.Cichy@CH2M.com]
Sent: Monday, December 07, 2015 4:00 PM
To: Richard Wade <Richard.Wade@ALSGlobal.com>

Cc: Shirley.Steinmacher@CH2M.com
Subject: VA TO-15 List and RLs

Hi Richard,
When last we spoke you were going to review the Table 7 and confirm the reporting list and review the RLs to confirm that the RLs presented are consistent with ALS's.

I was provided an email late Friday that the following analytes were not routinely calibrated by ALS and I removed these from the attached revised Table 7, as well as clarified the specific analytes to be performed by TO-15 SIM.
Isopropyl benzene (Cumene)
Isopropyl ether
2-chloro-1,3-butadiene
2-propanol
3-chloropropene
Propyl benzene
Benzyl chloride
Propene
Hexachorobutadiene
1,2,4-Trichlorobenzene

Please review the attached analyte list and let me know if the RLs presented are what will be used for the VA project or provide me the RLs that will be used.

Getting a quick response is pretty urgent at this point.

Thanks
Mark

Mark H. Cichy
Senior Technologist/Data Manager

CH2M HILL
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Redding, CA 96001
Direct 530-229-3274
Fax 530-339-3274
Mobile 530-604-4844
www.ch2mhill.com

ALS Group: Click here to report this email as spam.

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The information contained in this email is confidential. If the reader is not the intended recipient then you must notify the sender immediately by return email and then delete all copies of this email. You must not copy, distribute, print or otherwise use the information. Email may be stored by the Company to support operational activities. All information will be held in accordance with the Company's Privacy Policy which can be found on the Company's website - http://secure-web.cisco.com/1lfcbLvbjUkmR5O4PTl_NBbryfQauHllOmAPDWci3QFQ2qLhOB1D1pmdGHh8VAPj-xi4CO_G_7ndcFunaouXc-olkCxKtzdELIBzwPXDh33kTWC-lyyQJQuurTgZu_TL7xzZtNJcEc5latJZhRcsxFjAU_T-iIDk7gmUpDVkTnF5iveiVxB67PdHnUsLpTJUcSQvaV4BxoadQ6KORHqoisGsbllQhRmZmumL4IwuhE44w

t_d9vfDSorv7Gfyvsc930yTrSAt6Hz7EnwwIN-YWvDmA_fYtrJFOD6Lv3ClPqo8PN4w9TE99qqV3AhedECkfSw31duf7cjQeVU4v-421SlrfR0Lp7Ex3EgOyKSAQKQSSPRyfU3GsB2oygpbc_2BaBZg80I-2EkGfBKbaRBo2NuYxT_tTYIoMEQPLWEHJ_po/http%3A%2F%2Fwww.alsglobal.com.
****

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]
1,1,1-Trichloroethane	71-55-6	TO-15	EPA RSL	520
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1
4-Ethyltoluene	622-96-8	TO-15	--	--
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310
Acetone	67-64-1	TO-15	EPA RSL	3,200
Benzene	71-43-2	TO-15	EPA RSL	0.31
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066
Bromoform	75-25-2	TO-15	EPA RSL	2.2
Bromomethane	74-83-9	TO-15	EPA RSL	0.52
Carbon disulfide	75-15-0	TO-15	EPA RSL	73
Carbon tetrachloride	56-23-5	TO-15	EPA RSL	0.41
Chlorobenzene	108-90-7	TO-15	EPA RSL	5.2
Chloroethane	75-00-3	TO-15	EPA RSL	1,000
Chloroform	67-66-3	TO-15	EPA RSL	0.11
Chloromethane	74-87-3	TO-15	EPA RSL	9.4
cis-1,2-Dichloroethene	156-59-2	TO-15 SIM	EPA RSL	6.3
cis-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Cyclohexane	110-82-7	TO-15	EPA RSL	630
Dibromochloromethane	124-48-1	TO-15	EPA RSL	0.09
Dichlorodifluoromethane (Freon 12)	75-71-8	TO-15	EPA RSL	10
Ethyl Acetate	141-78-6	TO-15	EPA RSL	7.3
Ethylbenzene	100-41-4	TO-15	EPA RSL	0.97
n-Heptane	142-82-5	TO-15	--	--
n-Hexane	110-54-3	TO-15	EPA RSL	73
m,p-Xylene	108-38-3 and 106-42-3	TO-15	EPA RSL	10
Methylene Chloride	75-09-2	TO-15	EPA RSL	63

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]
Methyl tert-butyl ether	1634-04-4	TO-15	EPA RSL	9.4
o-Xylene	95-47-6	TO-15	EPA RSL	10
Styrene	100-42-5	TO-15	EPA RSL	100
Tetrachloroethene (PCE)	127-18-4	TO-15 SIM	EPA RSL	4.2
Tetrahydrofuran	109-99-9	TO-15	EPA RSL	210
Toluene	108-88-3	TO-15	EPA RSL	520
trans-1,2-Dichloroethene	156-60-5	TO-15	EPA RSL	6.3
trans-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Trichloroethene	79-01-6	TO-15 SIM	EPA RSL	0.21
Trichlorofluoromethane (Freon 11)	75-69-4	TO-15	EPA RSL	73
Vinyl Acetate	108-05-4	TO-15	EPA RSL	21
Vinyl Chloride	75-01-4	TO-15 SIM	EPA RSL	0.16

[a] RSLs for residential exposure. RSLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[b] Residential VISLs using an attenuation factor (AF) of 0.1. VISLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[c] RLs are from ALS Global – Salt Lake City
Notes:
µg/m³ = micrograms per cubic meter.
RL= Reporting limit.

Method Path : J:\L\METHODS\methods\
Method File : TO15LM15.m
Title : TO-15
Last Update : Thu Dec 03 08:09:07 2015
Response Via : Initial Calibration

Calibration Files
.5 =LR84S20.D 1 =LR83S1.D 2 =LR82S2.D 5 =LR81S5.D 10 =LR80S10.D 20 =LR79S20.D

		Compound	.5	1	2	5	10	20	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	1.559	1.535	1.632	1.587	1.553	1.590	1.576	2.20
3)		Dichlorodifluo...	7.153	6.662	7.067	6.942	6.802	6.729	6.892	2.82
4)		Chloromethane	2.091	1.968	2.046	1.937	1.896	1.885	1.970	4.20
5)		Freon 114	6.426	5.759	5.785	5.595	5.423	5.481	5.745	6.33
6)		Vinyl Chloride	2.408	2.312	2.504	2.357	2.289	2.388	2.376	3.23
7)		1,3-Butadiene	2.045	1.872	1.916	1.792	1.724	1.779	1.855	6.23
8)		Bromomethane	2.749	2.670	2.847	2.743	2.626	2.656	2.715	2.99
9)		Chloroethane	1.381	1.272	1.305	1.278	1.226	1.251	1.285	4.19
10)		Acrolein	0.929	0.817	0.832	0.858	0.860	0.893	0.865	4.71
11)		Acetone	3.961	3.438	3.343	3.276	3.247	3.300	3.428	7.87
12)		Trichlorofluor...	9.634	8.146	8.163	7.777	7.458	7.540	8.119	9.83
13)		Ethanol	0.936	0.841	0.886	0.832	0.790	0.780	0.844	6.98
14)		Isopropyl Alcohol	4.494	3.873	3.846	3.778	3.736	3.681	3.901	7.66
15)		1,1-Dichloroet...	4.472	3.916	3.978	3.849	3.824	3.919	3.993	6.04
16)		Methylene Chlo...	2.814	2.430	2.427	2.331	2.293	2.331	2.438	7.90
17)		Freon 113	5.830	4.874	4.857	4.721	4.614	4.705	4.934	9.12
18)		Carbon Disulfide	8.808	7.486	7.435	7.091	6.999	7.140	7.493	8.98
19)		trans-1,2-Dich...	3.198	2.746	2.720	2.656	2.642	2.752	2.786	7.43
20)		1,1-Dichloroet...	5.477	4.645	4.592	4.328	4.257	4.385	4.614	9.73
21)		methyl t-butyl...	6.789	6.086	6.346	6.435	6.497	6.678	6.472	3.84
22)		Vinyl Acetate	0.633	0.595	0.626	0.613	0.609	0.644	0.620	2.87
23)		2-Butanone	4.842	4.034	4.100	4.213	4.259	4.537	4.331	7.04
24)		cis-1,2-Dichlo...	3.202	2.843	2.871	2.822	2.829	2.938	2.917	5.00
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.074	0.065	0.068	0.067	0.071	0.070	0.069	4.46
27)		Hexane	0.350	0.329	0.343	0.349	0.355	0.349	0.346	2.62
28)		Chloroform	0.707	0.590	0.575	0.547	0.545	0.547	0.585	10.63
29)		Tetrahydrofuran	0.219	0.214	0.226	0.237	0.238	0.250	0.231	5.90
30)		1,2-Dichloroet...	0.391	0.340	0.327	0.317	0.312	0.322	0.335	8.74

TIC
TIC
TIC

160607

Method Path : J:\L\METHODS\methods\
Method File : TO15LM15.m

1)		1,1,1-Trichlor...	0.703	0.612	0.585	0.573	0.571	0.584	0.605	8.32	
2)		Benzene	0.830	0.736	0.725	0.710	0.706	0.714	0.737	6.39	
3)		Carbon Tetrach...	0.795	0.698	0.671	0.653	0.658	0.680	0.693	7.62	
4)		Cyclohexane	0.379	0.330	0.325	0.326	0.327	0.332	0.337	6.23	
5)		1,2-Dichloropr...	0.319	0.273	0.268	0.262	0.258	0.264	0.274	8.31	
6)		Bromodichlorom...	0.670	0.582	0.571	0.562	0.563	0.591	0.590	6.89	
7)		1,4-Dioxane	0.149	0.158	0.162	0.168	0.171	0.172	0.163	5.36	TIC
8)		Trichloroethene	0.448	0.395	0.398	0.403	0.414	0.438	0.416	5.36	
9)		Methyl Methacr...	0.187	0.185	0.209	0.228	0.235	0.243	0.214	11.53	TIC
10)		Heptane	0.210	0.218	0.237	0.244	0.252	0.254	0.236	7.65	
11)		cis-1,3-Dichlo...	0.371	0.345	0.370	0.390	0.401	0.415	0.382	6.60	
12)		4-Methyl-2-Pen...	0.422	0.424	0.475	0.507	0.526	0.539	0.482	10.49	
13)		trans-1,3-Dich...	0.307	0.284	0.327	0.343	0.354	0.371	0.331	9.63	
14)		1,1,2-Trichlor...	0.330	0.302	0.309	0.316	0.316	0.333	0.318	3.73	
15)		Toluene	0.693	0.738	0.820	0.865	0.886	0.926	0.821	10.94	
16)		2-Hexanone	0.265	0.272	0.338	0.401	0.445	0.473	0.366	24.03	
17)		Dibromochlorom...	0.641	0.599	0.627	0.652	0.673	0.729	0.653	6.84	
18)		1,2-Dibromoethane	0.458	0.422	0.469	0.492	0.504	0.539	0.481	8.37	
19)		Tetrachloroethene	0.374	0.383	0.407	0.441	0.453	0.487	0.424	10.30	
20)	I	Chlorobenzene d5	----------ISTD----------								
21)		Chlorobenzene	0.841	0.809	0.874	0.903	0.917	0.936	0.880	5.49	
22)		Ethylbenzene	0.975	1.050	1.220	1.335	1.387	1.417	1.231	14.92	
23)		m,p-Xylene	0.783	0.845	0.967	1.040	1.085	1.102	0.970	13.51	
24)		Bromoform	0.491	0.481	0.553	0.600	0.652	0.684	0.577	14.46	
25)		Styrene	0.421	0.481	0.626	0.750	0.819	0.855	0.659	27.29	
26)		1,1,2,2-Tetrac...	0.692	0.664	0.701	0.737	0.780	0.795	0.728	7.11	
27)		o-Xylene	0.805	0.877	0.994	1.066	1.124	1.161	1.005	14.00	
28)	S	Bromofluoroben...	0.547	0.550	0.555	0.570	0.578	0.582	0.564	2.67	
29)		4-Ethyl Toluene	0.690	0.815	1.069	1.270	1.374	1.447	1.111	27.71	
30)		1,3,5-Trimethy...	0.836	0.909	1.052	1.134	1.217	1.247	1.066	15.56	
31)		1,2,4-Trimethy...	0.579	0.687	0.892	1.025	1.109	1.165	0.910	25.89	
32)		Benzyl Chloride	0.197	0.261	0.429	0.646	0.790	0.899	0.537	53.37	TIC
33)		m-Dichlorobenzene	0.359	0.431	0.545	0.670	0.758	0.819	0.597	30.62	
34)		p-Dichlorobenzene	0.294	0.358	0.508	0.617	0.703	0.759	0.540	34.66	
35)		o-Dichlorobenzene	0.358	0.394	0.508	0.613	0.675	0.733	0.547	27.84	
36)		1,2,4-Trichlor...	0.024	0.024	0.041	0.076	0.126	0.185	0.079	81.43	TIC
37)		Naphthalene	0.084	0.099	0.178	0.329	0.473	0.610	0.295	72.43	TIC
38)		Hexachloro-1,3...	0.146	0.136	0.157	0.171	0.187	0.204	0.167	15.28	TIC

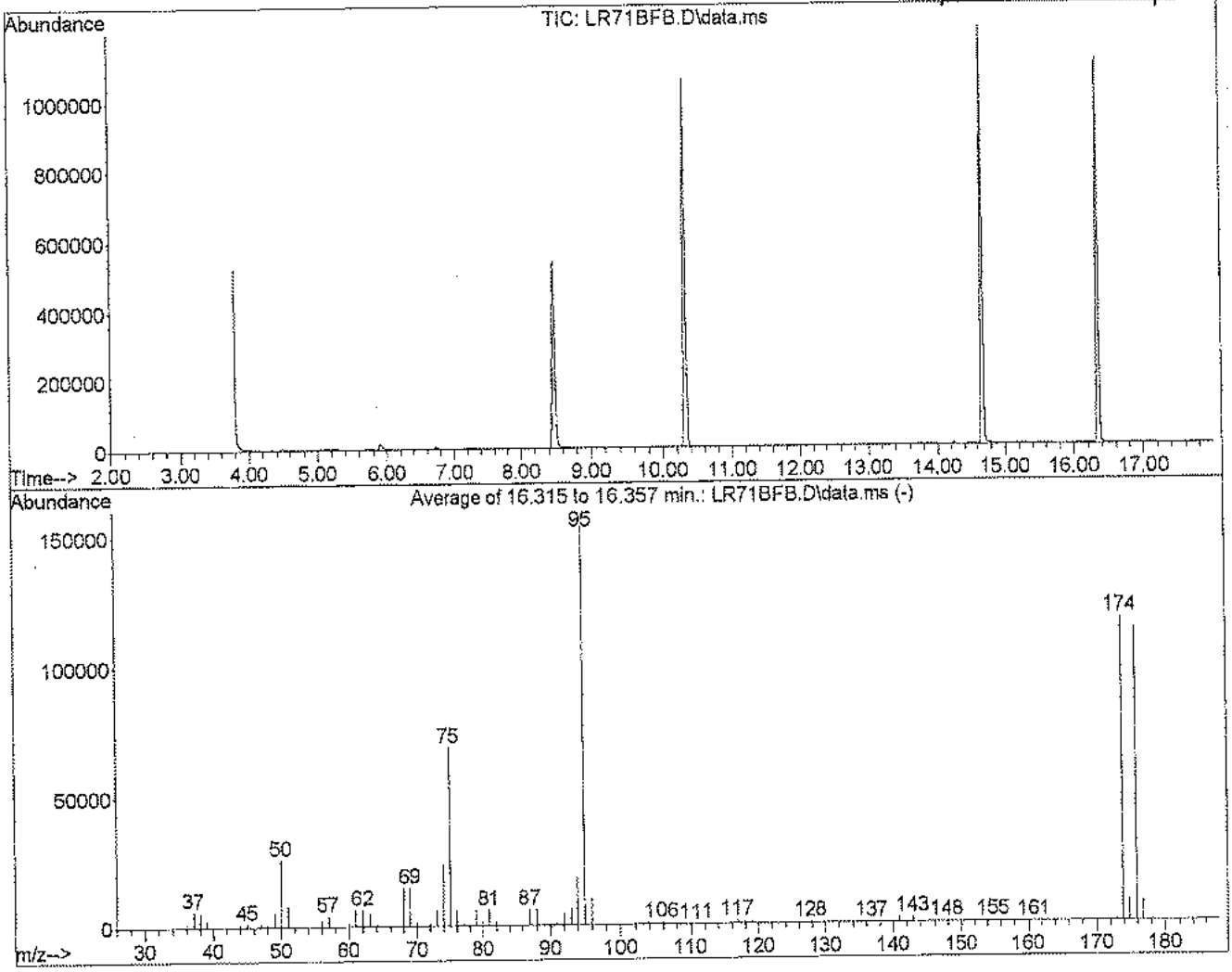
#) = Out of Range

BFB

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR71BFB.D Vial: 1
Acq Time : 12/02/2015 10:32 Operator: TJM
Sample : BFB Inst : 5975-L
Misc : 107IS31296 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15

12-03-15



Peak Apex is scan: Average of 16.315 to 16.357 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	16.86	25786	PASS
75	95	30	66	45.11	68999	PASS
95	95	100	100	100.00	152941	PASS
96	95	5	9	6.67	10194	PASS
173	174	0.00	2	0.61	715	PASS
174	95	50	120	76.26	116633	PASS
175	174	5	9	7.16	8356	PASS
176	174	93	101	96.89	113001	PASS
177	176	5	9	6.55	7404	PASS

LR71BFB.D TO15LM15.m Thu Dec 03 09:53:32 2015

Average of 16.315 to 16.357 min.: LR71BFB.D\data.ms
BFB
Modified:subtracted

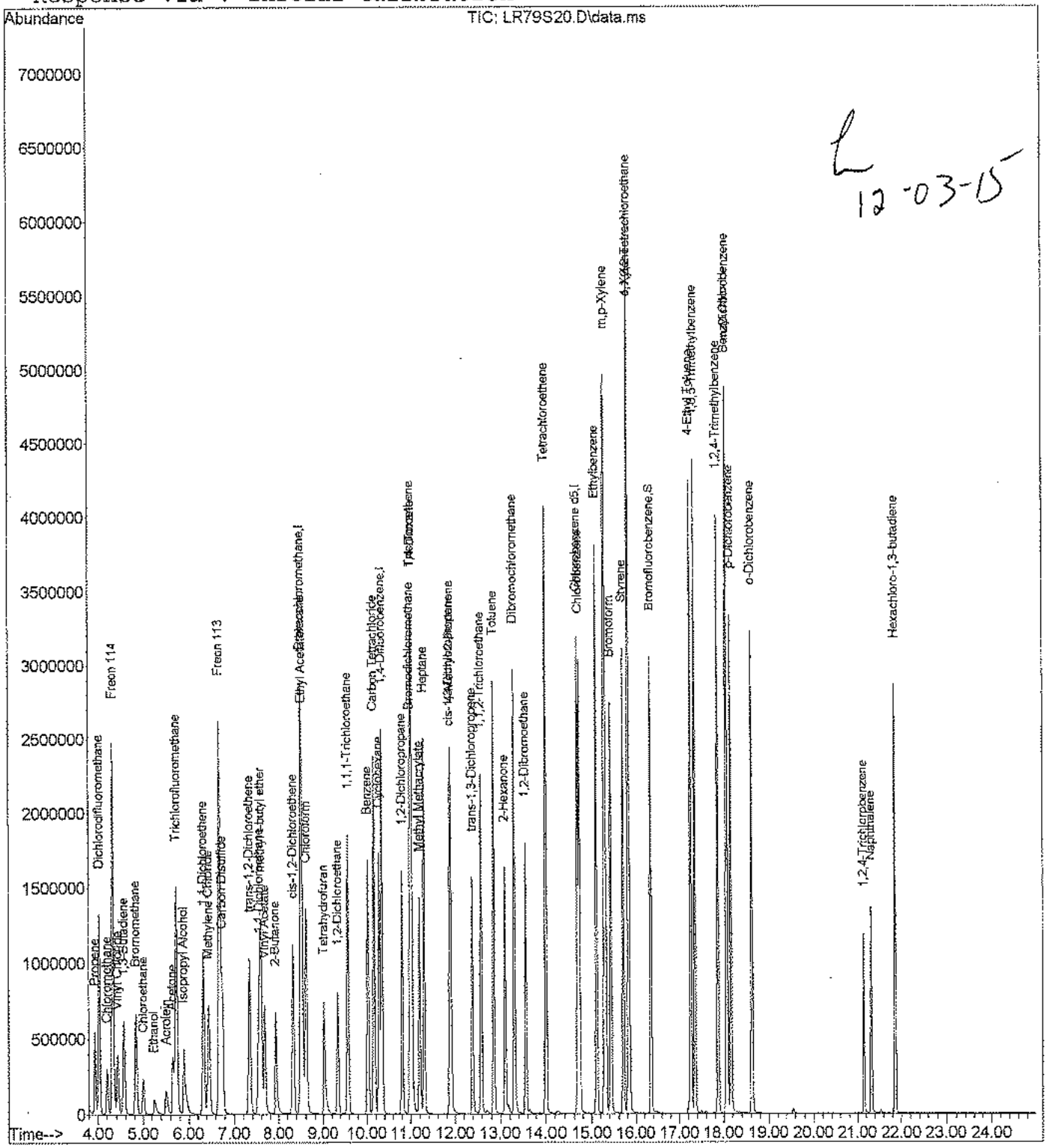
m/z	Abundance
36.00	1018.0
37.05	6102.0
38.05	5548.0
39.05	2219.0
40.00	103.0
44.00	879.0
45.00	1185.0
46.10	19.0
47.05	1459.0
48.05	735.0
49.00	5318.0
50.10	25786.0
51.05	7970.0
52.05	329.0
55.00	322.0
56.00	2216.0
57.00	4058.0
58.05	119.0
60.00	1181.0
61.00	6348.0
62.00	6436.0
63.00	5117.0
64.05	448.0
65.05	50.0
66.95	318.0
68.00	14479.0
69.00	14709.0
70.00	1148.0
72.00	693.0
73.00	6068.0
74.00	23500.0
75.05	68999.0
76.00	6063.0
77.00	806.0
78.00	533.0
78.90	5982.0
79.95	1716.0
80.90	6067.0
81.90	1473.0
83.00	120.0
86.05	78.0
87.00	6188.0
88.00	6132.0
90.95	655.0
92.00	4352.0
93.00	6730.0
94.00	18968.0
95.00	152941.0
96.00	10194.0
97.00	282.0
102.90	19.0
103.90	850.0
104.90	255.0
105.90	885.0
106.90	131.0
109.85	124.0
110.90	185.0
111.85	96.0
112.95	161.0
114.95	164.0
115.90	679.0
116.90	1205.0
117.90	709.0
118.95	1028.0
123.90	73.0
127.85	650.0
128.90	305.0
129.90	648.0
130.85	223.0
134.85	315.0
136.90	316.0
139.85	46.0
140.90	1840.0
141.85	190.0
142.90	1960.0
143.90	23.0
144.85	137.0
145.85	197.0
146.90	24.0
147.90	375.0
148.90	21.0
149.90	147.0
151.90	20.0
152.90	44.0
153.85	41.0
154.90	341.0
156.90	261.0

159.85	101.0
160.90	125.0
171.95	175.0
172.95	715.0
173.90	116633.0
174.90	8356.0
175.90	113001.0
176.90	7404.0
177.95	173.0

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR79S20.D Vial: 1
Acq Time : 12/02/2015 16:42 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30059 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:05:23 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



12-03-15

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR79S20.D Vial: 1
Acq Time : 12/02/2015 16:42 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30059 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:05:23 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Nov 30 14:54:24 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.50	130	273792	20.0000	ppb		97.56
25) 1,4-Difluorobenzene	10.34	114	2845597	20.0000	ppb		97.17
50) Chlorobenzene d5	14.68	117	2361619	20.0000	ppb		99.15
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.35	95	1375535	19.0305	ppb		95.15%
Target Compounds							**Qvalue**
2) Propene	3.94	41	435369	18.1685	ppb		98
3) Dichlorodifluoromethane	4.03	85	1842431	19.0114	ppb		100
4) Chloromethane	4.20	50	516071	16.4187	ppb	m	41
5) Freon 114	4.32	135	1500608	21.6131	ppb	#	71
6) Vinyl Chloride	4.43	62	653947	18.1332	ppb		99
7) 1,3-Butadiene	4.56	54	487140	17.4009	ppb	#	74
8) Bromomethane	4.83	94	727189	19.6492	ppb		99
9) Chloroethane	5.00	64	342507	17.1375	ppb	#	93
10) Acrolein	5.51	56	244593	25.7114	ppb		97
11) Acetone	5.64	43	903580	17.0300	ppb		91
12) Trichlorofluoromethane	5.72	101	2064281	19.0071	ppb		99
13) Ethanol	5.25	45	213435	37.0660	ppb	#	80
14) Isopropyl Alcohol	5.88	45	1007758	22.1386	ppb		96
15) 1,1-Dichloroethene	6.32	61	1072977	18.2796	ppb	#	83
16) Methylene Chloride	6.44	84	638113	19.1221	ppb	#	78
17) Freon 113	6.68	151	1288322	23.2781	ppb	#	61
18) Carbon Disulfide	6.74	76	1954868	19.2034	ppb	#	66
19) trans-1,2-Dichloroethene	7.34	96	753442	21.7744	ppb	#	86
20) 1,1-Dichloroethane	7.54	63	1200519	17.8361	ppb		99
21) methyl t-butyl ether	7.58	73	1828247	20.7985	ppb	#	90
22) Vinyl Acetate	7.68	86	176440	48.6702	ppb	#	1
23) 2-Butanone	7.93	43	1242300	19.3044	ppb	#	79
24) cis-1,2-Dichloroethene	8.33	96	804443	21.9368	ppb	#	86
26) Ethyl Acetate	8.53	61	200198	15.3402	ppb	#	1
27) Hexane	8.51	57	993077	18.9426	ppb	#	19
28) Chloroform	8.62	83	1556391	18.9893	ppb		99
29) Tetrahydrofuran	9.01	42	711842	19.8615	ppb	#	76
30) 1,2-Dichloroethane	9.33	62	915568	17.9079	ppb	#	95
31) 1,1,1-Trichloroethane	9.57	97	1662251	20.8194	ppb	#	95
32) Benzene	10.02	78	2031767	19.1996	ppb	#	96
33) Carbon Tetrachloride	10.15	117	1936196	21.4592	ppb		98
34) Cyclohexane	10.27	84	945151	20.7274	ppb	#	71
35) 1,2-Dichloropropane	10.82	63	752407	18.3473	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR79S20.D Vial: 1
Acq Time : 12/02/2015 16:42 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30059 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:05:23 2015 Results File: TO15LM15.RES

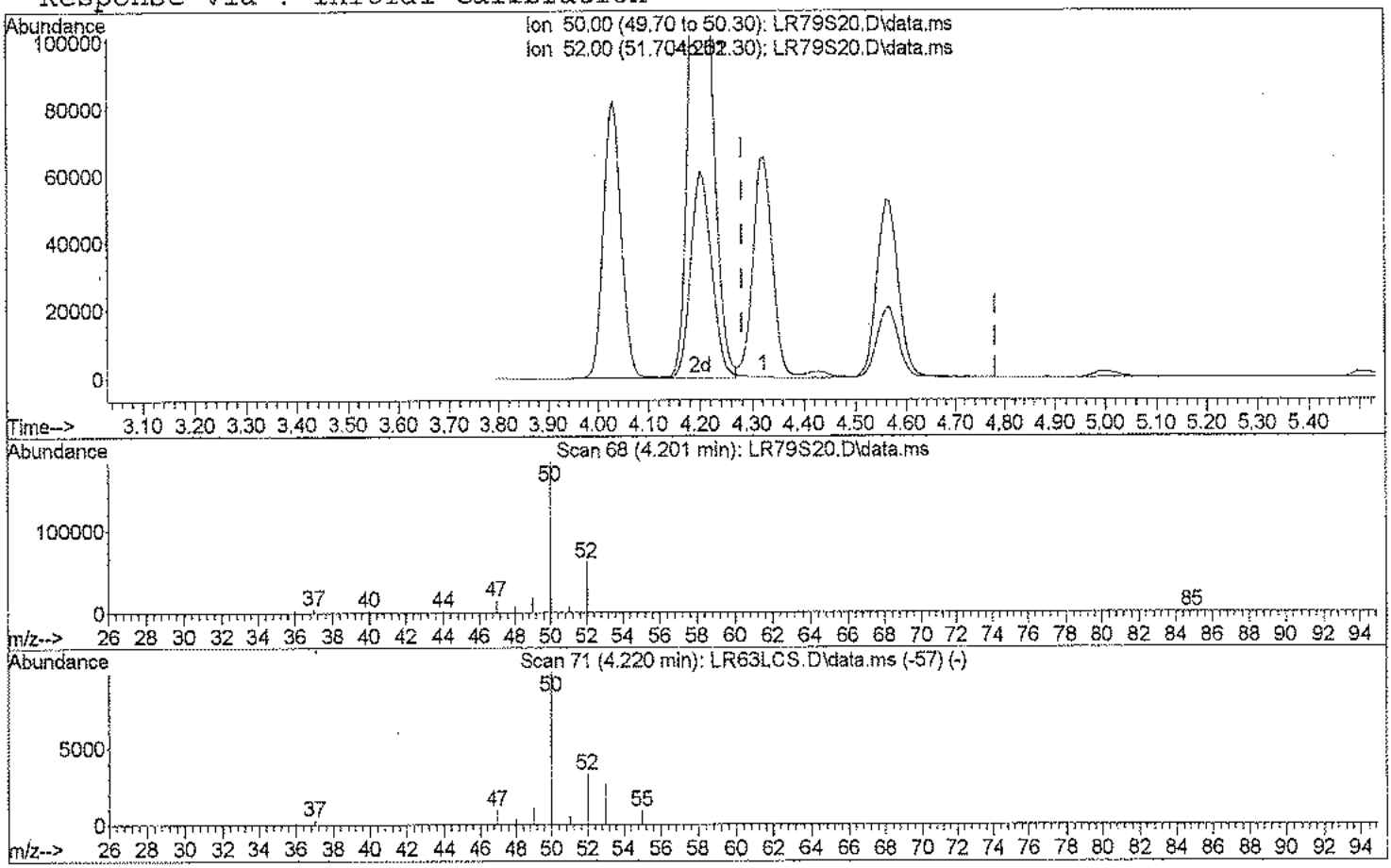
Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Mon Nov 30 14:54:24 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	1681228	19.7912	ppb		100
37)	1,4-Dioxane	11.04	88	490509	22.4418	ppb		99
38)	Trichloroethene	11.03	130	1247544	25.1974	ppb		95
39)	Methyl Methacrylate	11.19	69	690699	22.1004	ppb		97
40)	Heptane	11.30	71	721744	20.7010	ppb	#	69
41)	cis-1,3-Dichloropropene	11.87	75	1180996	20.9581	ppb		97
42)	4-Methyl-2-Pentanone	11.90	43	1533561	20.1810	ppb	#	81
43)	trans-1,3-Dichloropropene	12.39	75	1056624	21.0153	ppb		96
44)	1,1,2-Trichloroethane	12.58	97	947734	21.6952	ppb	#	92
45)	Toluene	12.86	91	2636432	22.7375	ppb		99
46)	2-Hexanone	13.10	43	1345496	23.2412	ppb	#	82
47)	Dibromochloromethane	13.30	129	2075525	23.9894	ppb		99
48)	1,2-Dibromoethane	13.56	107	1532778	23.1136	ppb		98
49)	Tetrachloroethene	14.01	166	1385833	22.5305	ppb	#	80
51)	Chlorobenzene	14.73	112	2209384	21.9121	ppb		94
52)	Ethylbenzene	15.11	91	3347319	22.1402	ppb		99
53)	m,p-Xylene	15.31	91	5206292	42.8875	ppb		100
54)	Bromoform	15.43	173	1616197	24.2498	ppb		99
55)	Styrene	15.71	104	2019316	25.0477	ppb		96
56)	1,1,2,2-Tetrachloroethane	15.83	83	1876711	18.4488	ppb		100
57)	o-Xylene	15.82	91	2742693	21.7944	ppb		100
59)	4-Ethyl Toluene	17.26	105	3417131	23.6223	ppb		98
60)	1,3,5-Trimethylbenzene	17.35	105	2945705	21.7113	ppb		100
61)	1,2,4-Trimethylbenzene	17.87	105	2751870	22.2340	ppb		99
62)	Benzyl Chloride	18.06	91	2122207	25.3012	ppb		99
63)	m-Dichlorobenzene	18.08	146	1933258	23.9112	ppb		96
64)	p-Dichlorobenzene	18.17	146	1792305	23.7795	ppb	#	96
65)	o-Dichlorobenzene	18.63	146	1730843	24.3261	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	435872	27.5752	ppb	#	96
67)	Naphthalene	21.31	128	1440322	26.4512	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	482120	22.0513	ppb		97

(#) = qualifier out of range (m) = manual integration

Data Path : I:\L - 5975-L\2015\DEC15L\02DEC15L\
Data File : LR79S20.D
Acq On : 12/02/2015 16:42
Operator : TJM
Sample : 20.0 PPB STD
Inst : 5975-L
Misc : 30059 (400mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 03 08:05:07 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Mon Nov 30 14:54:24 2015
Response via : Initial Calibration



TIC: LR79S20.D\data.ms

(4) Chloromethane

4.201min (-0.079) 16.42 ppb m

response 516071

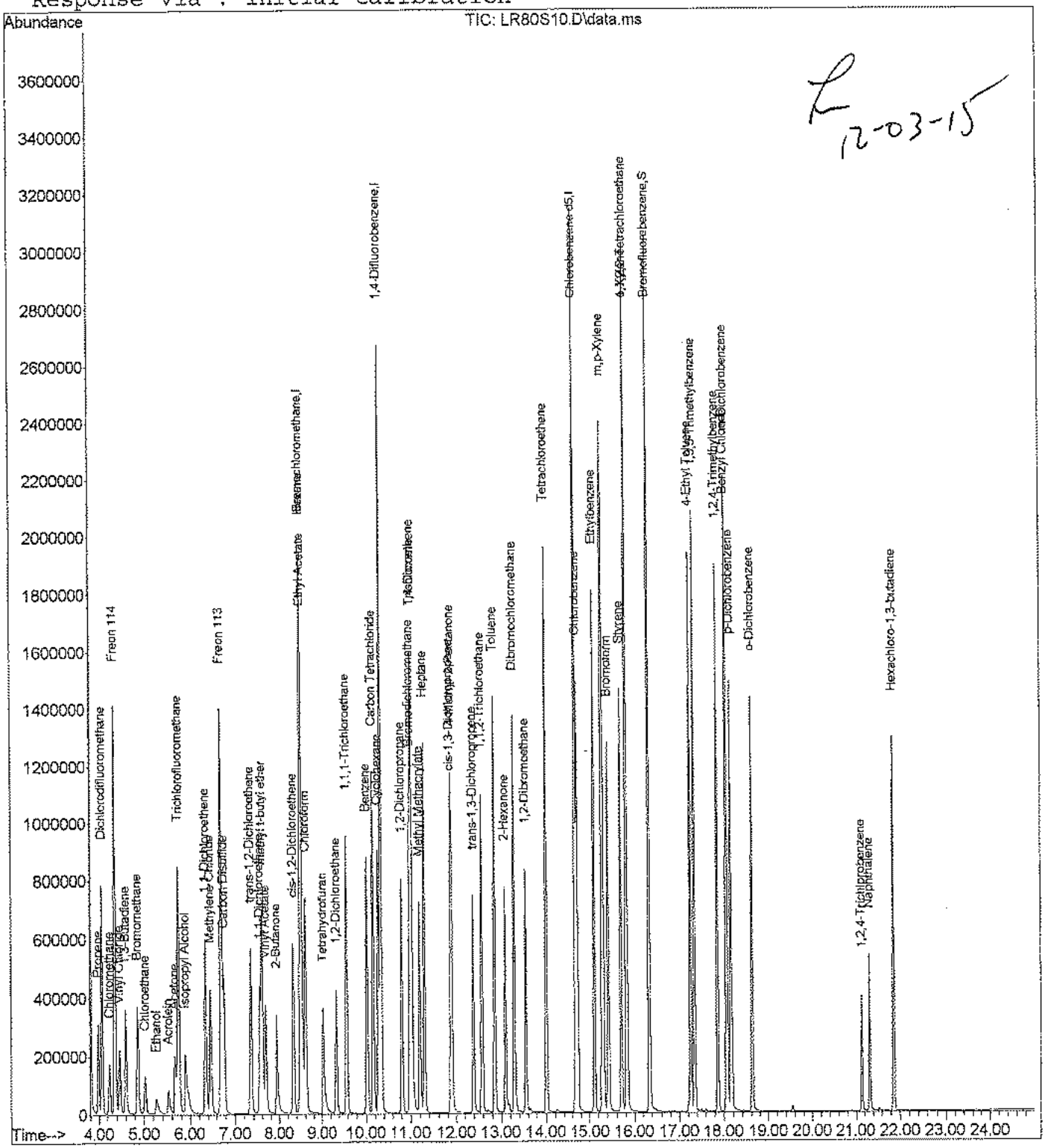
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR80S10.D Vial: 1
Acq Time : 12/02/2015 17:31 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:06:36 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



12-03-15

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR80S10.D Vial: 1
Acq Time : 12/02/2015 17:31 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:06:36 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:05:44 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.50	130	284608	20.0000	ppb		101.41
25) 1,4-Difluorobenzene	10.33	114	2903358	20.0000	ppb		99.14
50) Chlorobenzene d5	14.67	117	2324895	20.0000	ppb		97.61
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1343818	19.1357	ppb		95.68%
Target Compounds							Qvalue
2) Propene	3.99	41	221013	8.9710	ppb		96
3) Dichlorodifluoromethane	4.07	85	967917	9.5969	ppb		99
4) Chloromethane	4.24	50	269756	8.4364	ppb		99
5) Freon 114	4.35	135	771769	10.4128	ppb	#	71
6) Vinyl Chloride	4.46	62	325774	8.7803	ppb		98
7) 1,3-Butadiene	4.59	54	245373	8.5570	ppb	#	72
8) Bromomethane	4.86	94	373624	9.7148	ppb		98
9) Chloroethane	5.02	64	174500	8.5531	ppb	#	93
10) Acrolein	5.52	56	122316	11.8085	ppb		97
11) Acetone	5.66	43	462095	8.5445	ppb		90
12) Trichlorofluoromethane	5.74	101	1061306	9.3970	ppb		99
13) Ethanol	5.27	45	112405	16.6919	ppb	#	78
14) Isopropyl Alcohol	5.89	45	531616	11.0514	ppb		95
15) 1,1-Dichloroethene	6.34	61	544135	9.0277	ppb	#	83
16) Methylene Chloride	6.46	84	326301	9.3640	ppb	#	78
17) Freon 113	6.70	151	656618	11.0487	ppb	#	62
18) Carbon Disulfide	6.76	76	996048	9.3929	ppb	#	61
19) trans-1,2-Dichloroethene	7.34	96	376032	10.2634	ppb	#	86
20) 1,1-Dichloroethane	7.54	63	605849	8.7467	ppb		99
21) methyl t-butyl ether	7.59	73	924563	10.1285	ppb	#	90
22) Vinyl Acetate	7.68	86	86680	18.8346	ppb	#	1
23) 2-Butanone	7.93	43	606021	9.1949	ppb	#	79
24) cis-1,2-Dichloroethene	8.33	96	402532	10.4248	ppb	#	86
26) Ethyl Acetate	8.53	61	102830	8.1312	ppb	#	1
27) Hexane	8.52	57	515132	9.8188	ppb	#	20
28) Chloroform	8.62	83	791682	9.5429	ppb		98
29) Tetrahydrofuran	9.02	42	346056	9.6525	ppb	#	75
30) 1,2-Dichloroethane	9.33	62	453400	8.8549	ppb	#	95
31) 1,1,1-Trichloroethane	9.57	97	828673	10.1417	ppb	#	94
32) Benzene	10.02	78	1024867	9.6017	ppb	#	96
33) Carbon Tetrachloride	10.15	117	955496	10.3241	ppb		98
34) Cyclohexane	10.27	84	474908	10.2431	ppb	#	71
35) 1,2-Dichloropropane	10.81	63	374385	9.1074	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR80S10.D Vial: 1
Acq Time : 12/02/2015 17:31 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:06:36 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:05:44 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

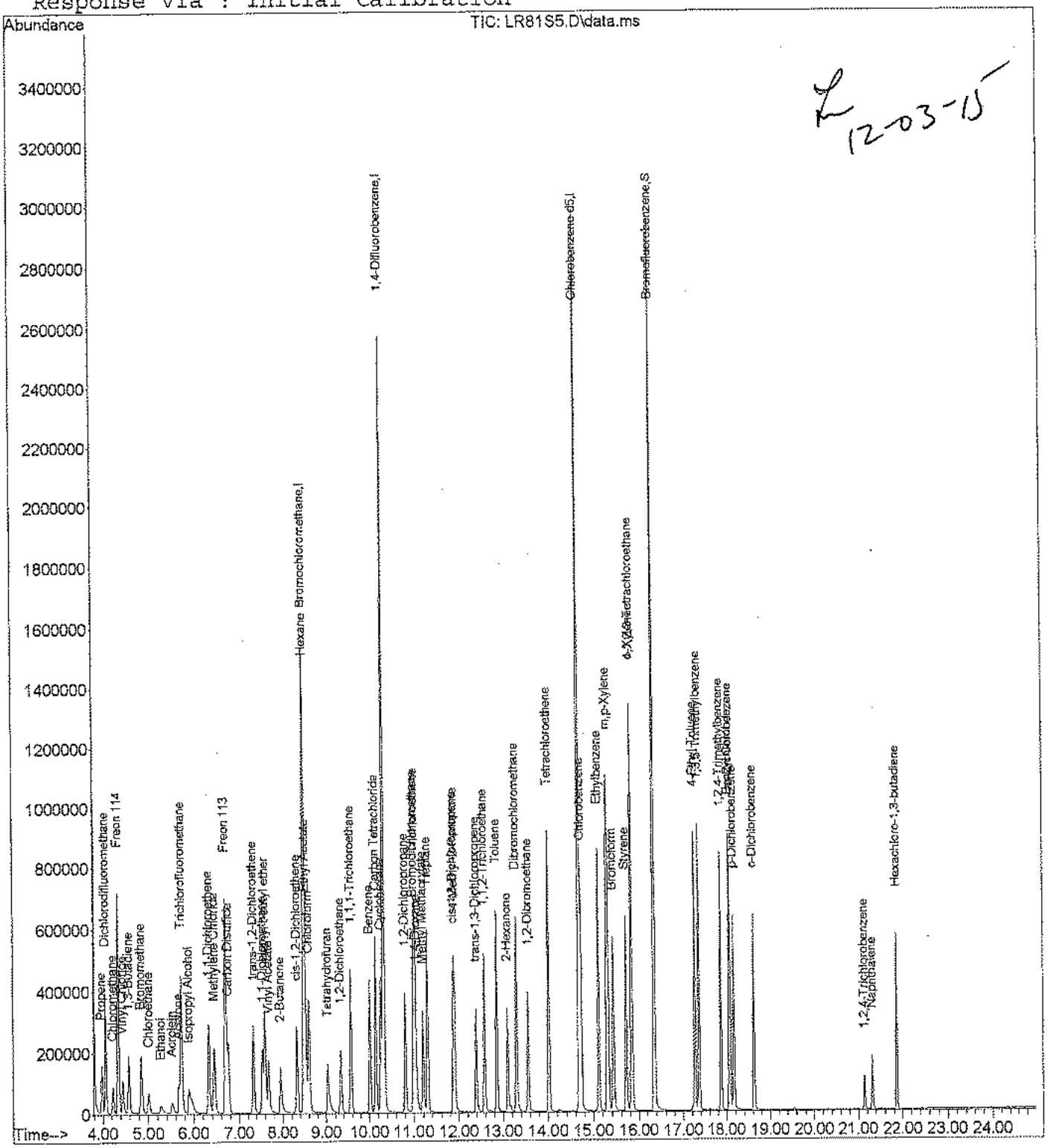
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	816886	9.5561	ppb		99
37)	1,4-Dioxane	11.04	88	247979	11.0870	ppb		100
38)	Trichloroethene	11.03	130	600615	11.6647	ppb		95
39)	Methyl Methacrylate	11.19	69	340470	10.7937	ppb		98
40)	Heptane	11.30	71	365883	10.5267	ppb	#	70
41)	cis-1,3-Dichloropropene	11.86	75	582325	10.3246	ppb		97
42)	4-Methyl-2-Pentanone	11.89	43	763011	10.1332	ppb	#	80
43)	trans-1,3-Dichloropropene	12.39	75	513270	10.2292	ppb		96
44)	1,1,2-Trichloroethane	12.58	97	458098	10.3277	ppb	#	92
45)	Toluene	12.85	91	1286109	11.0164	ppb		99
46)	2-Hexanone	13.10	43	645885	11.3337	ppb	#	82
47)	Dibromochloromethane	13.30	129	976707	11.1184	ppb		99
48)	1,2-Dibromoethane	13.55	107	731664	10.9068	ppb		98
49)	Tetrachloroethene	14.00	166	657733	10.3821	ppb	#	80
51)	Chlorobenzene	14.72	112	1065544	10.7562	ppb		93
52)	Ethylbenzene	15.11	91	1612268	11.0042	ppb		98
53)	m,p-Xylene	15.30	91	2522265	21.5310	ppb		99
54)	Bromoform	15.42	173	757686	11.5729	ppb		99
55)	Styrene	15.70	104	952616	12.1658	ppb		96
56)	1,1,2,2-Tetrachloroethane	15.83	83	906874	9.3725	ppb		99
57)	o-Xylene	15.81	91	1306089	10.7871	ppb		100
59)	4-Ethyl Toluene	17.25	105	1596969	11.4676	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	1414173	10.8347	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	1289267	10.9155	ppb		100
62)	Benzyl Chloride	18.06	91	918242	11.6725	ppb		97
63)	m-Dichlorobenzene	18.08	146	881492	11.3871	ppb		95
64)	p-Dichlorobenzene	18.17	146	817732	11.3615	ppb		95
65)	o-Dichlorobenzene	18.63	146	784261	11.4931	ppb	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	147012	10.3114	ppb	#	95
67)	Naphthalene	21.31	128	550094	11.0373	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	217320	10.2957	ppb		97

(#) = qualifier out of range (m) = manual integration

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR81S5.D Vial: 1
Acq Time : 12/02/2015 18:19 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30059 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:07:16 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



12-03-15

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR81S5.D Vial: 1
Acq Time : 12/02/2015 18:19 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30059 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:07:16 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:07:06 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	274816	20.0000	ppb		96.56
25) 1,4-Difluorobenzene	10.33	114	2828984	20.0000	ppb		97.44
50) Chlorobenzene d5	14.68	117	2268808	20.0000	ppb		97.59
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	1294134	19.1136	ppb		95.57%
Target Compounds							Qvalue
2) Propene	3.98	41	109023	4.6954	ppb		97
3) Dichlorodifluoromethane	4.07	85	476915	4.9536	ppb		100
4) Chloromethane	4.23	50	133078	4.4399	ppb		99
5) Freon 114	4.35	135	384393	5.3089	ppb	#	70
6) Vinyl Chloride	4.45	62	161922	4.6356	ppb		99
7) 1,3-Butadiene	4.59	54	123130	4.5651	ppb	#	71
8) Bromomethane	4.85	94	188453	5.1247	ppb		98
9) Chloroethane	5.01	64	87771	4.5896	ppb	#	93
10) Acrolein	5.52	56	58970	5.7305	ppb	#	98
11) Acetone	5.67	43	225076	4.4173	ppb		89
12) Trichlorofluoromethane	5.73	101	534280	4.9346	ppb		99
13) Ethanol	5.28	45	57184	7.9181	ppb	#	76
14) Isopropyl Alcohol	5.89	45	259557	5.0489	ppb	#	85
15) 1,1-Dichloroethene	6.34	61	264409	4.6376	ppb		83
16) Methylene Chloride	6.45	84	160178	4.7791	ppb	#	78
17) Freon 113	6.69	151	324333	5.5183	ppb	#	62
18) Carbon Disulfide	6.75	76	487168	4.7858	ppb	#	61
19) trans-1,2-Dichloroethene	7.33	96	182504	5.1263	ppb	#	84
20) 1,1-Dichloroethane	7.54	63	297325	4.5295	ppb		99
21) methyl t-butyl ether	7.59	73	442143	5.0548	ppb	#	90
22) Vinyl Acetate	7.67	86	42102	8.1173	ppb	#	1
23) 2-Butanone	7.94	43	289452	4.6536	ppb	#	78
24) cis-1,2-Dichloroethene	8.32	96	193901	5.1726	ppb	#	86
26) Ethyl Acetate	8.54	61	47517	4.0281	ppb	#	1
27) Hexane	8.51	57	247134	4.8952	ppb	#	21
28) Chloroform	8.61	83	387180	4.8236	ppb		98
29) Tetrahydrofuran	9.03	42	167705	4.9074	ppb	#	75
30) 1,2-Dichloroethane	9.33	62	224411	4.5848	ppb	#	95
31) 1,1,1-Trichloroethane	9.57	97	404935	5.0696	ppb	#	94
32) Benzene	10.02	78	501981	4.8727	ppb	#	96
33) Carbon Tetrachloride	10.15	117	461956	5.0909	ppb		98
34) Cyclohexane	10.27	84	230270	5.1086	ppb	#	71
35) 1,2-Dichloropropane	10.81	63	185146	4.6968	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR81S5.D Vial: 1
Acq Time : 12/02/2015 18:19 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30059 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:07:16 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:07:06 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	397729	4.8254	ppb		99
37)	1,4-Dioxane	11.05	88	118960	5.4066	ppb		99
38)	Trichloroethene	11.03	130	284889	5.5454	ppb		94
39)	Methyl Methacrylate	11.20	69	160989	5.2680	ppb		99
40)	Heptane	11.30	71	172781	5.1594	ppb	#	69
41)	cis-1,3-Dichloropropene	11.87	75	275999	5.0796	ppb		96
42)	4-Methyl-2-Pentanone	11.90	43	358426	4.9899	ppb	#	80
43)	trans-1,3-Dichloropropene	12.40	75	242762	5.0518	ppb		95
44)	1,1,2-Trichloroethane	12.58	97	223603	5.1859	ppb	#	92
45)	Toluene	12.86	91	611848	5.4026	ppb		99
46)	2-Hexanone	13.10	43	283650	5.2229	ppb	#	81
47)	Dibromochloromethane	13.30	129	461026	5.3533	ppb		98
48)	1,2-Dibromoethane	13.56	107	347975	5.3183	ppb		98
49)	Tetrachloroethene	14.01	166	311715	4.9651	ppb	#	79
51)	Chlorobenzene	14.73	112	512429	5.2813	ppb	#	91
52)	Ethylbenzene	15.12	91	757243	5.3412	ppb		98
53)	m,p-Xylene	15.31	91	1179738	10.4436	ppb		98
54)	Bromoform	15.43	173	340425	5.3091	ppb		99
55)	Styrene	15.71	104	425145	5.5896	ppb		96
56)	1,1,2,2-Tetrachloroethane	15.83	83	417747	4.5546	ppb		100
57)	o-Xylene	15.83	91	604836	5.1959	ppb		99
59)	4-Ethyl Toluene	17.26	105	720378	5.3911	ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	642942	5.1280	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	581329	5.1599	ppb		99
62)	Benzyl Chloride	18.06	91	366164	4.9993	ppb		95
63)	m-Dichlorobenzene	18.08	146	379813	5.1053	ppb	#	95
64)	p-Dichlorobenzene	18.17	146	350069	5.0849	ppb	#	95
65)	o-Dichlorobenzene	18.63	146	347521	5.2921	ppb	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	43257	3.4168	ppb	#	96
67)	Naphthalene	21.31	128	186567	4.1326	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	97263	4.7881	ppb		97

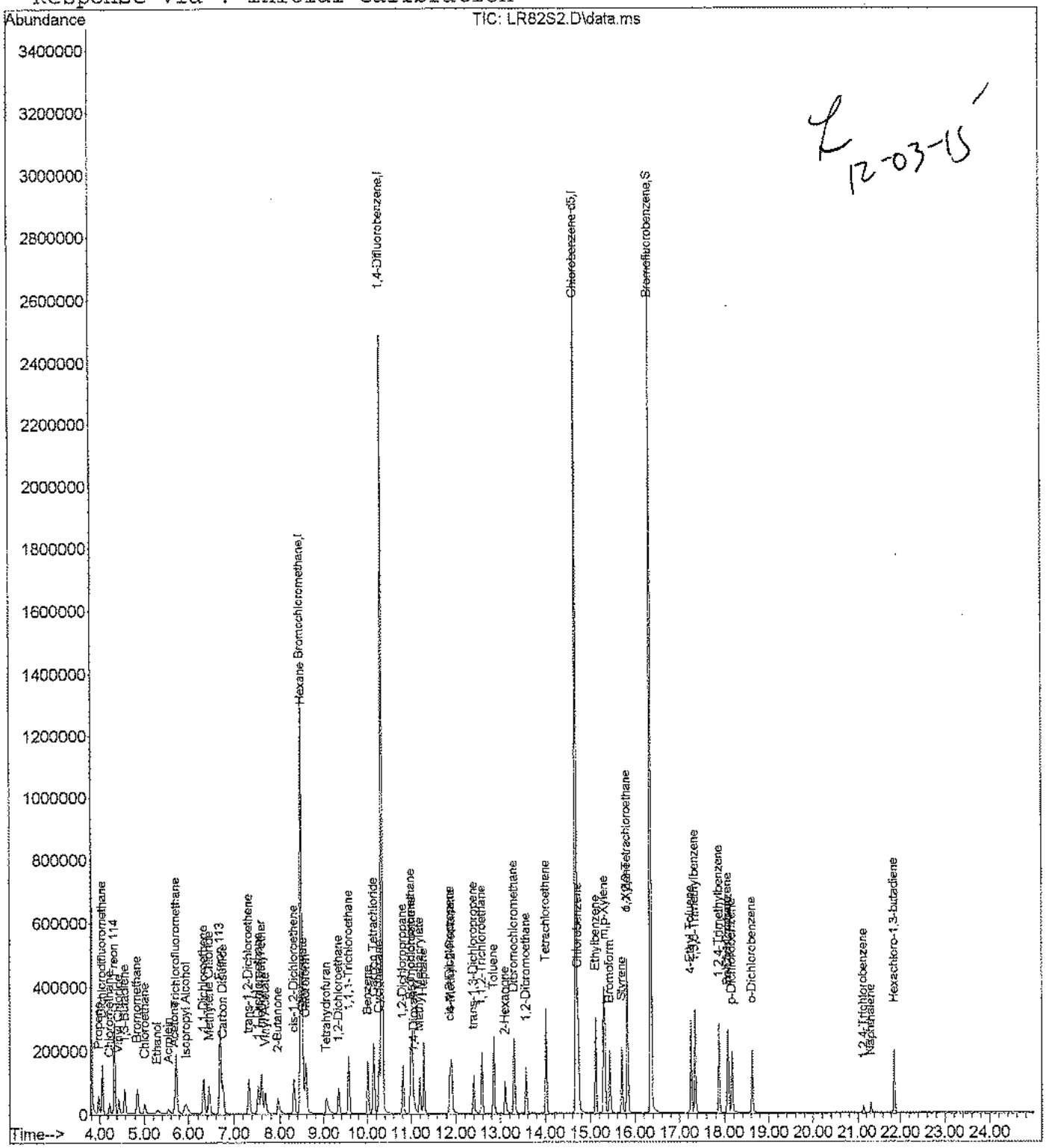
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR82S2.D Vial: 1
Acq Time : 12/02/2015 19:05 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30059 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:07:53 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



12-03-15

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR82S2.D Vial: 1
Acq Time : 12/02/2015 19:05 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30059 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:07:53 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:07:40 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	260032	20.0000	ppb		91.36
25) 1,4-Difluorobenzene	10.33	114	2713802	20.0000	ppb		93.47
50) Chlorobenzene d5	14.69	117	2161100	20.0000	ppb		92.95
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.35	95	1198662	18.8569	ppb		94.28%
Target Compounds							**Qvalue**
2) Propene	3.98	41	42444	1.9855	ppb		97
3) Dichlorodifluoromethane	4.06	85	183770	2.0507	ppb		99
4) Chloromethane	4.23	50	53190	1.9441	ppb		99
5) Freon 114	4.34	135	150419	2.1698	ppb	#	69
6) Vinyl Chloride	4.45	62	65104	2.0316	ppb		98
7) 1,3-Butadiene	4.58	54	49816	2.0071	ppb	#	71
8) Bromomethane	4.85	94	74031	2.1438	ppb		99
9) Chloroethane	5.01	64	33931	1.9329	ppb	#	94
10) Acrolein	5.54	56	21645	2.1523	ppb		95
11) Acetone	5.69	43	86923	1.8556	ppb		92
12) Trichlorofluoromethane	5.73	101	212261	2.0845	ppb		100
13) Ethanol	5.29	45	23030	3.0566	ppb	#	74
14) Isopropyl Alcohol	5.95	45	99997	2.0428	ppb		97
15) 1,1-Dichloroethene	6.34	61	103440	1.9640	ppb	#	81
16) Methylene Chloride	6.45	84	63104	2.0056	ppb	#	77
17) Freon 113	6.69	151	126287	2.2153	ppb	#	59
18) Carbon Disulfide	6.74	76	193328	2.0262	ppb	#	62
19) trans-1,2-Dichloroethene	7.33	96	70725	2.0923	ppb	#	83
20) 1,1-Dichloroethane	7.53	63	119403	1.9685	ppb		98
21) methyl t-butyl ether	7.60	73	165021	2.0152	ppb	#	90
22) Vinyl Acetate	7.67	86	16269	2.8882	ppb	#	1
23) 2-Butanone	7.95	43	106607	1.8596	ppb	#	78
24) cis-1,2-Dichloroethene	8.32	96	74647	2.1033	ppb	#	85
26) Ethyl Acetate	8.54	61	18407	1.7223	ppb	#	1
27) Hexane	8.51	57	93129	1.9584	ppb	#	51
28) Chloroform	8.60	83	155941	2.0439	ppb		99
29) Tetrahydrofuran	9.05	42	61213	1.9021	ppb	#	74
30) 1,2-Dichloroethane	9.33	62	88628	1.9274	ppb	#	94
31) 1,1,1-Trichloroethane	9.57	97	158808	2.0697	ppb	#	94
32) Benzene	10.02	78	196732	2.0130	ppb	#	96
33) Carbon Tetrachloride	10.15	117	182148	2.0845	ppb		99
34) Cyclohexane	10.27	84	88305	2.0494	ppb	#	73
35) 1,2-Dichloropropane	10.81	63	72683	1.9533	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR82S2.D Vial: 1
Acq Time : 12/02/2015 19:05 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30059 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:07:53 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:07:40 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	155071	1.9829	ppb		99
37)	1,4-Dioxane	11.07	88	43877	2.0611	ppb		97
38)	Trichloroethene	11.02	130	107910	2.1402	ppb		94
39)	Methyl Methacrylate	11.20	69	56679	1.9528	ppb		97
40)	Heptane	11.29	71	64311	2.0335	ppb	#	69
41)	cis-1,3-Dichloropropene	11.87	75	100453	1.9520	ppb		96
42)	4-Methyl-2-Pentanone	11.90	43	129022	1.9190	ppb	#	79
43)	trans-1,3-Dichloropropene	12.39	75	88812	1.9612	ppb		95
44)	1,1,2-Trichloroethane	12.58	97	83935	2.0304	ppb	#	90
45)	Toluene	12.86	91	222397	2.0536	ppb		98
46)	2-Hexanone	13.11	43	91631	1.8060	ppb	#	79
47)	Dibromochloromethane	13.30	129	170194	2.0477	ppb		98
48)	1,2-Dibromoethane	13.57	107	127219	2.0264	ppb		98
49)	Tetrachloroethene	14.01	166	110425	1.8067	ppb	#	78
51)	Chlorobenzene	14.73	112	188895	2.0443	ppb		92
52)	Ethylbenzene	15.12	91	263595	1.9767	ppb		97
53)	m,p-Xylene	15.31	91	417937	3.9441	ppb		99
54)	Bromoform	15.44	173	119591	1.9631	ppb		98
55)	Styrene	15.71	104	135314	1.8876	ppb		95
56)	1,1,2,2-Tetrachloroethane	15.84	83	151513	1.7967	ppb		99
57)	o-Xylene	15.83	91	214850	1.9711	ppb		97
59)	4-Ethyl Toluene	17.26	105	231102	1.8580	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	227384	1.9480	ppb		99
61)	1,2,4-Trimethylbenzene	17.88	105	192723	1.8482	ppb		98
62)	Benzyl Chloride	18.06	91	92696	1.4049	ppb		94
63)	m-Dichlorobenzene	18.08	146	117874	1.7041	ppb	#	94
64)	p-Dichlorobenzene	18.17	146	109755	1.7228	ppb	#	93
65)	o-Dichlorobenzene	18.63	146	109832	1.7923	ppb	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	8833	0.8162	ppb	#	96
67)	Naphthalene	21.31	128	38422	0.9758	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	33996	1.7952	ppb		98

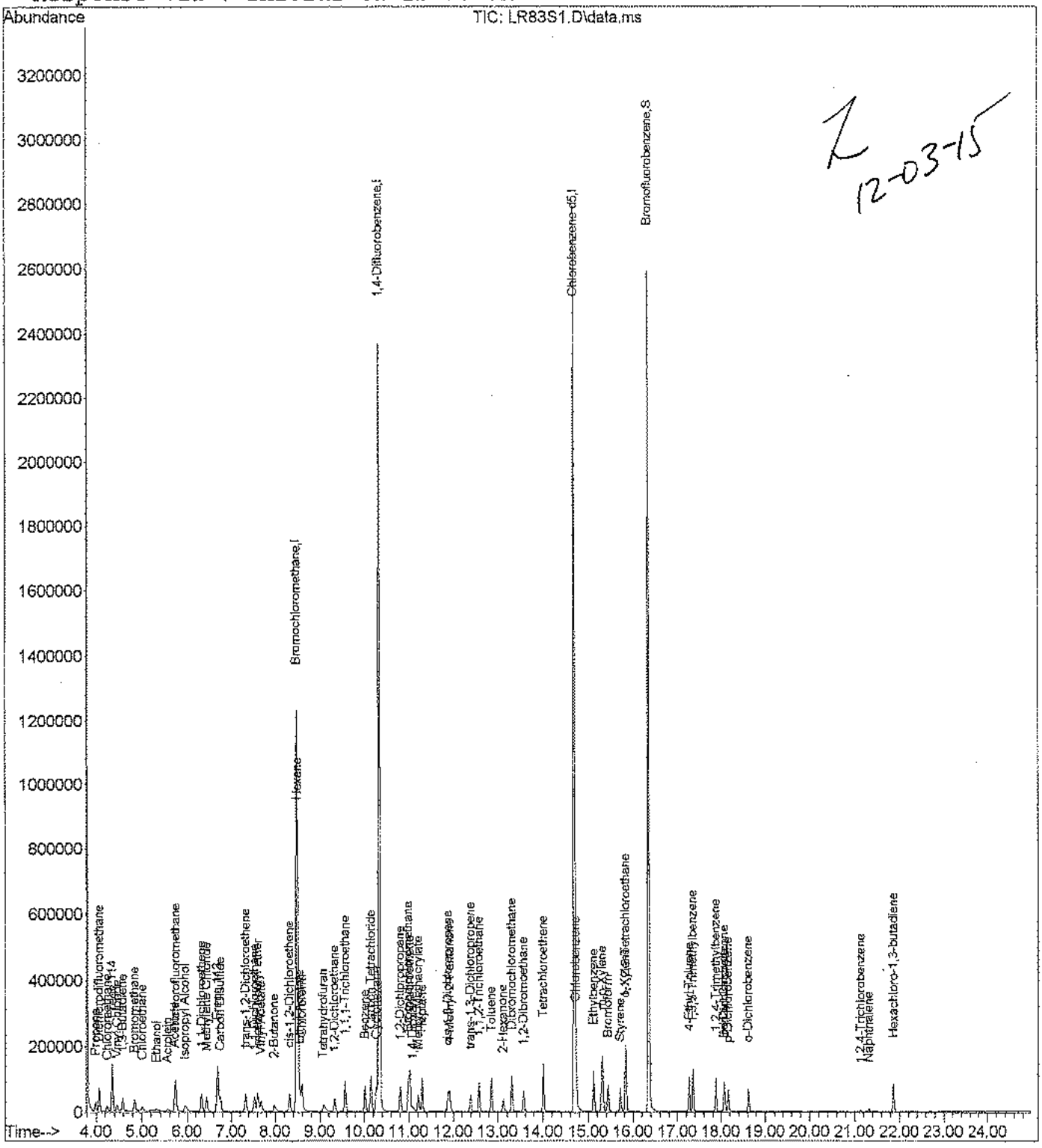
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR83S1.D Vial: 1
Acq Time : 12/02/2015 19:52 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30059 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:08:21 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



L 12-03-15

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR83S1.D Vial: 1
Acq Time : 12/02/2015 19:52 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30059 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:08:21 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:08:10 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	252480	20.0000	ppb		88.71
25) 1,4-Difluorobenzene	10.33	114	2587039	20.0000	ppb		89.11
50) Chlorobenzene d5	14.69	117	2047331	20.0000	ppb		88.06
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	1126828	19.0328	ppb		95.16%
Target Compounds							Qvalue
2) Propene	3.99	41	19372	0.9492	ppb		96
3) Dichlorodifluoromethane	4.07	85	84095	0.9756	ppb		100
4) Chloromethane	4.24	50	24847	0.9641	ppb		97
5) Freon 114	4.35	135	72706	1.0591	ppb	#	68
6) Vinyl Chloride	4.45	62	29186	0.9563	ppb		97
7) 1,3-Butadiene	4.58	54	23627	0.9974	ppb	#	74
8) Bromomethane	4.85	94	33708	1.0042	ppb		97
9) Chloroethane	5.02	64	16059	0.9682	ppb	#	92
10) Acrolein	5.55	56	10315	1.0313	ppb	#	98
11) Acetone	5.70	43	43398	0.9781	ppb		88
12) Trichlorofluoromethane	5.73	101	102830	1.0400	ppb		99
13) Ethanol	5.32	45	10612	1.2966	ppb	#	73
14) Isopropyl Alcohol	5.95	45	48889	1.0168	ppb	#	97
15) 1,1-Dichloroethene	6.34	61	49439	0.9828	ppb	#	82
16) Methylene Chloride	6.45	84	30678	1.0095	ppb	#	75
17) Freon 113	6.69	151	61529	1.0813	ppb	#	58
18) Carbon Disulfide	6.75	76	94506	1.0242	ppb	#	62
19) trans-1,2-Dichloroethene	7.33	96	34666	1.0464	ppb	#	84
20) 1,1-Dichloroethane	7.53	63	58642	1.0131	ppb		97
21) methyl t-butyl ether	7.60	73	76829	0.9701	ppb	#	91
22) Vinyl Acetate	7.68	86	7513	1.2105	ppb	#	1
23) 2-Butanone	7.97	43	50927	0.9355	ppb	#	76
24) cis-1,2-Dichloroethene	8.32	96	35884	1.0320	ppb	#	84
26) Ethyl Acetate	8.55	61	8467	0.8802	ppb	#	1
27) Hexane	8.51	57	42568	0.9534	ppb	#	80
28) Chloroform	8.60	83	76274	1.0548	ppb		99
29) Tetrahydrofuran	9.07	42	27674	0.9192	ppb	#	72
30) 1,2-Dichloroethane	9.33	62	44028	1.0261	ppb	#	93
31) 1,1,1-Trichloroethane	9.57	97	79116	1.0762	ppb	#	93
32) Benzene	10.01	78	95174	1.0286	ppb	#	96
33) Carbon Tetrachloride	10.15	117	90296	1.0753	ppb		99
34) Cyclohexane	10.27	84	42718	1.0401	ppb	#	75
35) 1,2-Dichloropropane	10.81	63	35325	1.0071	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR83S1.D Vial: 1
Acq Time : 12/02/2015 19:52 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30059 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:08:21 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:08:10 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

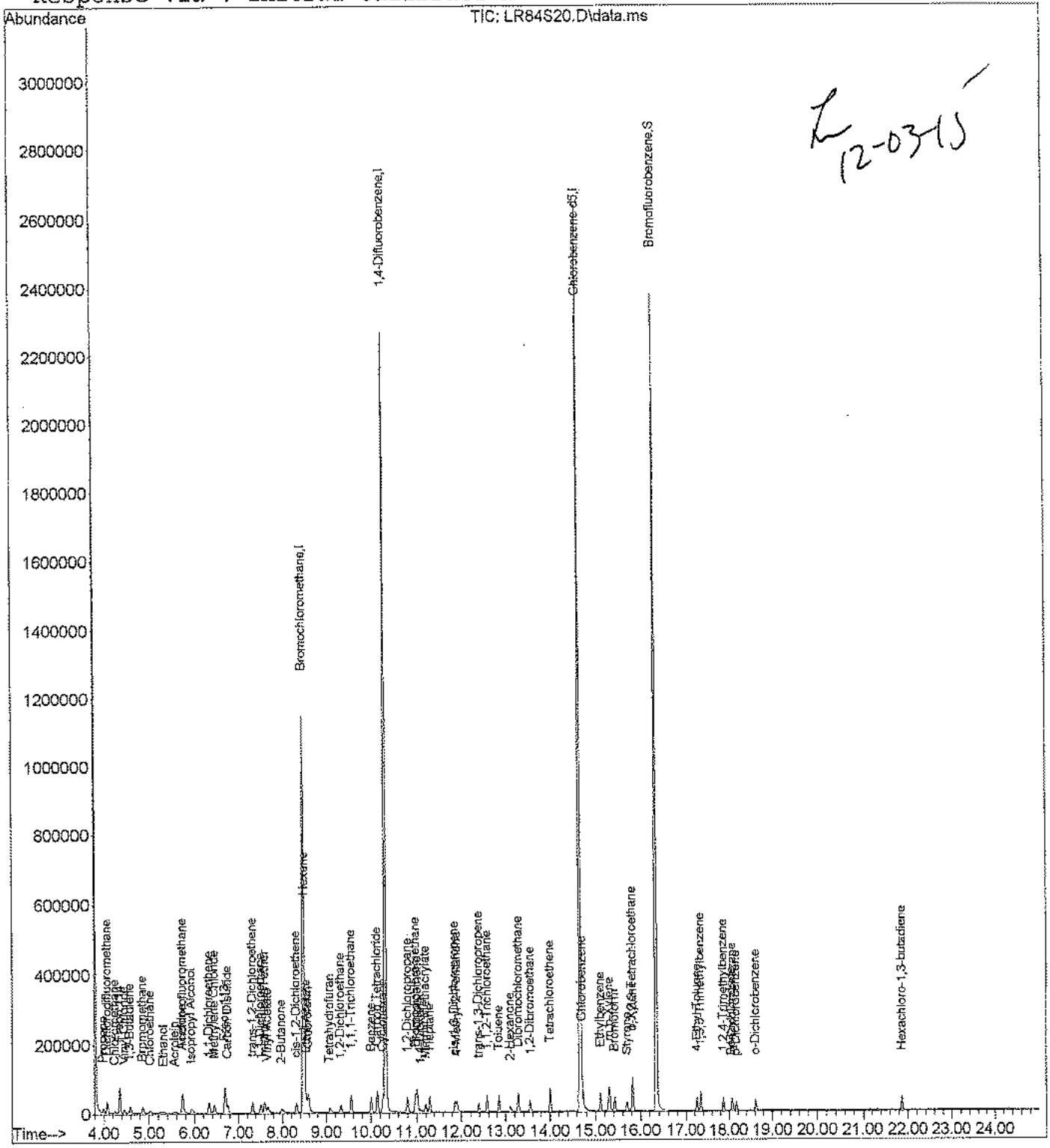
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	75225	1.0176	ppb		99
37)	1,4-Dioxane	11.08	88	20456	0.9968	ppb		98
38)	Trichloroethene	11.02	130	51114	1.0358	ppb		93
39)	Methyl Methacrylate	11.21	69	23867	0.8699	ppb		95
40)	Heptane	11.30	71	28225	0.9439	ppb	#	68
41)	cis-1,3-Dichloropropene	11.87	75	44593	0.9179	ppb		95
42)	4-Methyl-2-Pentanone	11.91	43	54849	0.8737	ppb	#	78
43)	trans-1,3-Dichloropropene	12.40	75	36749	0.8613	ppb		95
44)	1,1,2-Trichloroethane	12.58	97	39068	0.9889	ppb	#	90
45)	Toluene	12.86	91	95524	0.9227	ppb		97
46)	2-Hexanone	13.11	43	35232	0.7431	ppb	#	79
47)	Dibromochloromethane	13.30	129	77439	0.9657	ppb		99
48)	1,2-Dibromoethane	13.57	107	54648	0.9094	ppb		99
49)	Tetrachloroethene	14.01	166	49570	0.8498	ppb	#	80
51)	Chlorobenzene	14.73	112	82768	0.9432	ppb		93
52)	Ethylbenzene	15.12	91	107472	0.8607	ppb		98
53)	m,p-Xylene	15.31	91	173005	1.7477	ppb		99
54)	Bromoform	15.44	173	49250	0.8513	ppb		99
55)	Styrene	15.71	104	49239	0.7320	ppb		95
56)	1,1,2,2-Tetrachloroethane	15.84	83	67921	0.8822	ppb		98
57)	o-Xylene	15.83	91	89781	0.8812	ppb		96
59)	4-Ethyl Toluene	17.27	105	83424	0.7239	ppb		96
60)	1,3,5-Trimethylbenzene	17.36	105	93100	0.8562	ppb		97
61)	1,2,4-Trimethylbenzene	17.88	105	70354	0.7318	ppb		97
62)	Benzyl Chloride	18.06	91	26709	0.4516	ppb		91
63)	m-Dichlorobenzene	18.08	146	44134	0.6927	ppb		94
64)	p-Dichlorobenzene	18.17	146	36637	0.6249	ppb	#	92
65)	o-Dichlorobenzene	18.63	146	40366	0.7105	ppb		94
66)	1,2,4-Trichlorobenzene	21.14	180	2453	0.2604	ppb	#	94
67)	Naphthalene	21.31	128	10107	0.2933	ppb		98
68)	Hexachloro-1,3-butadiene	21.86	225	13968	0.7969	ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR84S20.D Vial: 1
Acq Time : 12/02/2015 20:39 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:08:44 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



12-03-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR84S20.D Vial: 1
Acq Time : 12/02/2015 20:39 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:08:44 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:08:33 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.48	130	234496	20.0000	ppb		82.39
25) 1,4-Difluorobenzene	10.33	114	2448275	20.0000	ppb		84.33
50) Chlorobenzene d5	14.68	117	1916642	20.0000	ppb		82.44
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	1048698	19.1905	ppb		95.95%
Target Compounds							Qvalue
2) Propene	3.99	41	9140	0.4860	ppb		92
3) Dichlorodifluoromethane	4.07	85	41932	0.5215	ppb		99
4) Chloromethane	4.24	50	12259	0.5217	ppb		99
5) Freon 114	4.35	135	37670	0.5764	ppb	#	68
6) Vinyl Chloride	4.46	62	14117	0.5023	ppb		99
7) 1,3-Butadiene	4.59	54	11988	0.5485	ppb	#	66
8) Bromomethane	4.85	94	16117	0.5111	ppb		99
9) Chloroethane	5.02	64	8097	0.5320	ppb	#	95
10) Acrolein	5.56	56	5444	0.5615	ppb	#	95
11) Acetone	5.72	43	23223	0.5688	ppb		95
12) Trichlorofluoromethane	5.73	101	56478	0.6083	ppb		99
13) Ethanol	5.32	45	5485	0.6530	ppb	#	54
14) Isopropyl Alcohol	5.94	45	26345	0.5823	ppb	#	89
15) 1,1-Dichloroethene	6.34	61	26216	0.5619	ppb	#	81
16) Methylene Chloride	6.45	84	16495	0.5812	ppb	#	73
17) Freon 113	6.69	151	34180	0.6229	ppb	#	58
18) Carbon Disulfide	6.75	76	51636	0.5998	ppb	#	63
19) trans-1,2-Dichloroethene	7.33	96	18749	0.5947	ppb	#	83
20) 1,1-Dichloroethane	7.52	63	32108	0.5987	ppb		97
21) methyl t-butyl ether	7.60	73	39797	0.5347	ppb	#	91
22) Vinyl Acetate	7.68	86	3710	0.5725	ppb	#	1
23) 2-Butanone	7.98	43	28385	0.5650	ppb	#	74
24) cis-1,2-Dichloroethene	8.32	96	18772	0.5667	ppb	#	84
26) Ethyl Acetate	8.55	61	4535	0.5245	ppb	#	1
27) Hexane	8.51	57	21424	0.5094	ppb	#	81
28) Chloroform	8.59	83	43252	0.6262	ppb		97
29) Tetrahydrofuran	9.08	42	13393	0.4735	ppb	#	72
30) 1,2-Dichloroethane	9.32	62	23956	0.5933	ppb	#	92
31) 1,1,1-Trichloroethane	9.56	97	43019	0.6058	ppb	#	93
32) Benzene	10.01	78	50821	0.5765	ppb	#	95
33) Carbon Tetrachloride	10.15	117	48678	0.5986	ppb		99
34) Cyclohexane	10.27	84	23201	0.5890	ppb	#	82
35) 1,2-Dichloropropane	10.80	63	19544	0.5897	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR84S20.D Vial: 1
Acq Time : 12/02/2015 20:39 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:08:44 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:08:33 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

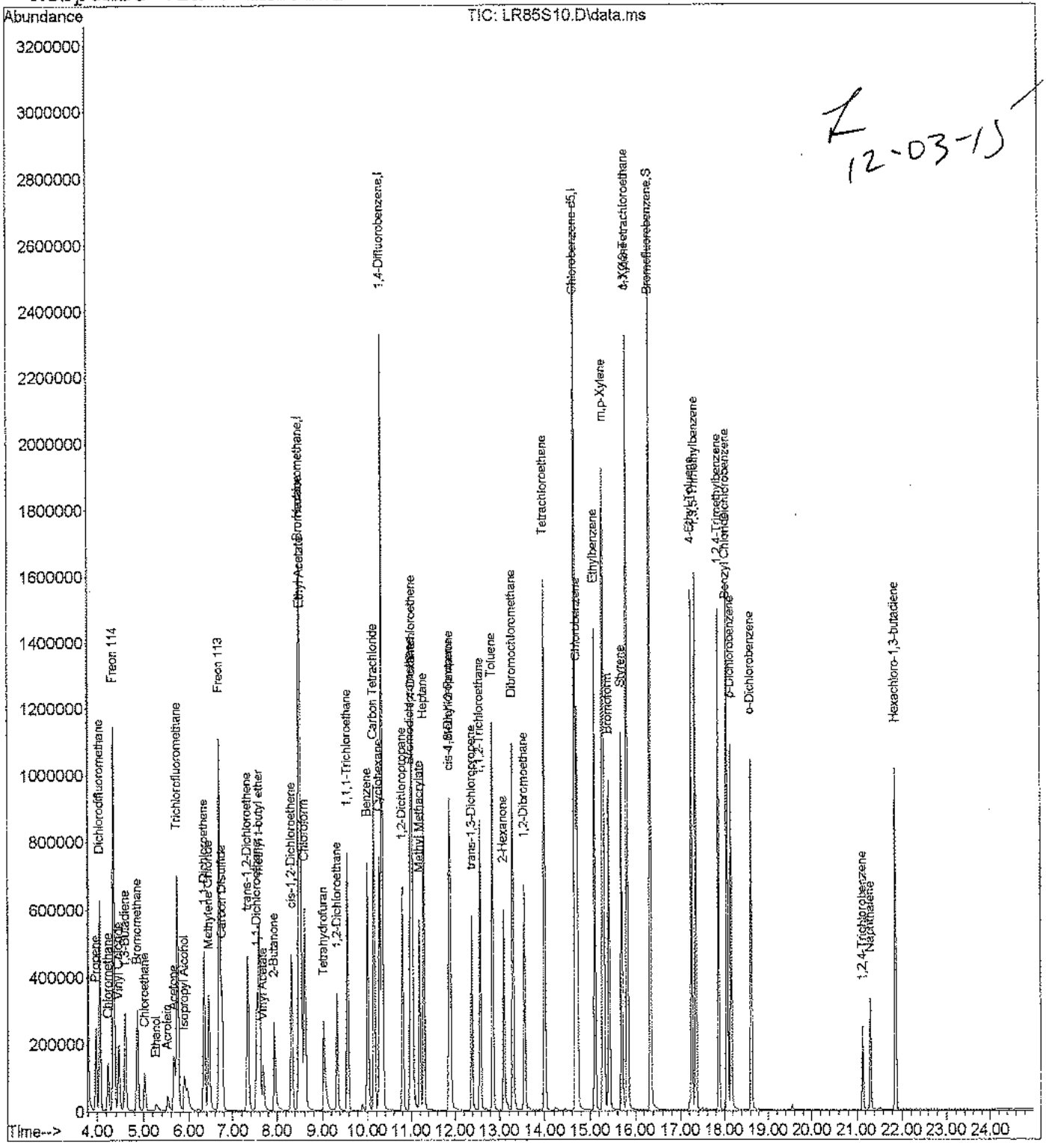
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.98	83	40979	0.5826	ppb		98
37)	1,4-Dioxane	11.09	88	9147	0.4596	ppb		95
38)	Trichloroethene	11.02	130	27432	0.5664	ppb		92
39)	Methyl Methacrylate	11.20	69	11455	0.4410	ppb		98
40)	Heptane	11.29	71	12859	0.4511	ppb	#	68
41)	cis-1,3-Dichloropropene	11.86	75	22706	0.4929	ppb		94
42)	4-Methyl-2-Pentanone	11.90	43	25818	0.4371	ppb	#	77
43)	trans-1,3-Dichloropropene	12.38	75	18781	0.4667	ppb		94
44)	1,1,2-Trichloroethane	12.57	97	20178	0.5314	ppb	#	88
45)	Toluene	12.85	91	42435	0.4260	ppb		99
46)	2-Hexanone	13.11	43	16228	0.3640	ppb	#	73
47)	Dibromochloromethane	13.29	129	39224	0.5059	ppb		97
48)	1,2-Dibromoethane	13.55	107	28023	0.4866	ppb		96
49)	Tetrachloroethene	14.00	166	22901	0.4179	ppb	#	76
51)	Chlorobenzene	14.72	112	40274	0.4837	ppb		92
52)	Ethylbenzene	15.11	91	46696	0.3962	ppb		96
53)	m,p-Xylene	15.30	91	75083	0.8061	ppb		96
54)	Bromoform	15.42	173	23523	0.4281	ppb		97
55)	Styrene	15.70	104	20192	0.3184	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.83	83	33171	0.4692	ppb	#	92
57)	o-Xylene	15.82	91	38563	0.4017	ppb		97
59)	4-Ethyl Toluene	17.25	105	33071	0.3084	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	40071	0.3932	ppb		96
61)	1,2,4-Trimethylbenzene	17.87	105	27755	0.3123	ppb		99
62)	Benzyl Chloride	18.06	91	9417	0.1754	ppb	#	86
63)	m-Dichlorobenzene	18.08	146	17213	0.2920	ppb	#	94
64)	p-Dichlorobenzene	18.17	146	14106	0.2624	ppb	#	93
65)	o-Dichlorobenzene	18.63	146	17139	0.3237	ppb		96
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected			
67)	Naphthalene	0.00	128		Not Detected			
68)	Hexachloro-1,3-butadiene	21.86	225	7002	0.4348	ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR85S10.D Vial: 1
Acq Time : 12/02/2015 21:27 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30061 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:14:47 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:20:35 2015
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR85S10.D Vial: 1
Acq Time : 12/02/2015 21:27 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30061 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:14:47 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:09:07 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	236608	20.0000	ppb		83.13
25) 1,4-Difluorobenzene	10.33	114	2510736	20.0000	ppb		86.48
50) Chlorobenzene d5	14.67	117	2055277	20.0000	ppb		88.40
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.34	95	1193404	20.5962	ppb		102.98%
Target Compounds							**Qvalue**
2) Propene	3.98	41	173952	9.3298	ppb		98
3) Dichlorodifluoromethane	4.07	85	774332	9.4964	ppb		99
4) Chloromethane	4.24	50	220757	9.4702	ppb		100
5) Freon 114	4.35	135	612175	9.0074	ppb	#	70
6) Vinyl Chloride	4.45	62	270401	9.6182	ppb		99
7) 1,3-Butadiene	4.59	54	201075	9.1642	ppb	#	75
8) Bromomethane	4.86	94	301874	9.3980	ppb		98
9) Chloroethane	5.02	64	148621	9.7727	ppb	#	93
10) Acrolein	5.52	56	68747	6.7188	ppb		98
11) Acetone	5.66	43	370973	9.1487	ppb		92
12) Trichlorofluoromethane	5.74	101	857355	8.9256	ppb		99
13) Ethanol	5.27	45	44420	4.4490	ppb	#	74
14) Isopropyl Alcohol	5.90	45	181835	3.9400	ppb		95
15) 1,1-Dichloroethene	6.34	61	439321	9.3003	ppb	#	80
16) Methylene Chloride	6.46	84	262161	9.0908	ppb	#	77
17) Freon 113	6.69	151	503618	8.6286	ppb	#	56
18) Carbon Disulfide	6.76	76	787613	8.8848	ppb	#	61
19) trans-1,2-Dichloroethene	7.33	96	295313	8.9605	ppb	#	83
20) 1,1-Dichloroethane	7.54	63	497031	9.1056	ppb		98
21) methyl t-butyl ether	7.59	73	738796	9.6494	ppb	#	90
22) Vinyl Acetate	7.68	86	29808	4.0639	ppb	#	1
23) 2-Butanone	7.93	43	484301	9.4525	ppb	#	79
24) cis-1,2-Dichloroethene	8.33	96	318189	9.2191	ppb	#	84
26) Ethyl Acetate	8.53	61	107234	12.3276	ppb	#	1
27) Hexane	8.51	57	413894	9.5309	ppb	#	1
28) Chloroform	8.61	83	641233	8.7298	ppb		98
29) Tetrahydrofuran	9.02	42	281037	9.7054	ppb	#	75
30) 1,2-Dichloroethane	9.33	62	375004	8.9182	ppb	#	95
31) 1,1,1-Trichloroethane	9.57	97	657994	8.6702	ppb	#	94
32) Benzene	10.02	78	854177	9.2348	ppb	#	96
33) Carbon Tetrachloride	10.15	117	772414	8.8821	ppb		99
34) Cyclohexane	10.27	84	389675	9.2220	ppb	#	70
35) 1,2-Dichloropropane	10.81	63	307151	8.9278	ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : I:\L - 5975-L\2015\DEC15L\02DEC15L\LR85S10.D Vial: 1
Acq Time : 12/02/2015 21:27 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30061 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 03 08:14:47 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 03 08:09:07 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	668333	9.0275	ppb		99
37)	1,4-Dioxane	11.04	88	191357	9.3262	ppb		98
38)	Trichloroethene	11.03	130	473504	9.0671	ppb		94
39)	Methyl Methacrylate	11.19	69	269827	10.0329	ppb		98
40)	Heptane	11.29	71	300184	10.1376	ppb	#	69
41)	cis-1,3-Dichloropropene	11.87	75	455563	9.4986	ppb		96
42)	4-Methyl-2-Pentanone	11.89	43	604803	9.9932	ppb	#	80
43)	trans-1,3-Dichloropropene	12.39	75	402035	9.6736	ppb		95
44)	1,1,2-Trichloroethane	12.57	97	369327	9.2624	ppb	#	91
45)	Toluene	12.85	91	1042949	10.1134	ppb		99
46)	2-Hexanone	13.10	43	486542	10.5991	ppb	#	81
47)	Dibromochloromethane	13.29	129	773051	9.4238	ppb		99
48)	1,2-Dibromoethane	13.55	107	571418	9.4705	ppb		98
49)	Tetrachloroethene	14.00	166	516115	9.6921	ppb	#	78
51)	Chlorobenzene	14.72	112	848202	9.3817	ppb		92
52)	Ethylbenzene	15.11	91	1281221	10.1314	ppb		98
53)	m,p-Xylene	15.30	91	2020316	20.2588	ppb		98
54)	Bromoform	15.42	173	575424	9.7051	ppb		99
55)	Styrene	15.70	104	726396	10.7299	ppb		96
56)	1,1,2,2-Tetrachloroethane	15.83	83	707729	9.4597	ppb		99
57)	o-Xylene	15.81	91	1032145	9.9983	ppb		99
59)	4-Ethyl Toluene	17.25	105	1244577	10.9022	ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	1106902	10.1055	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	1001484	10.7141	ppb		99
62)	Benzyl Chloride	18.06	91	597808	10.8381	ppb		96
63)	m-Dichlorobenzene	18.08	146	654149	10.6615	ppb	#	95
64)	p-Dichlorobenzene	18.17	146	590802	10.6474	ppb	#	94
65)	o-Dichlorobenzene	18.63	146	573888	10.2140	ppb	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	90824	11.1335	ppb	#	95
67)	Naphthalene	21.31	128	348429	11.4780	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	171752	10.0033	ppb		97

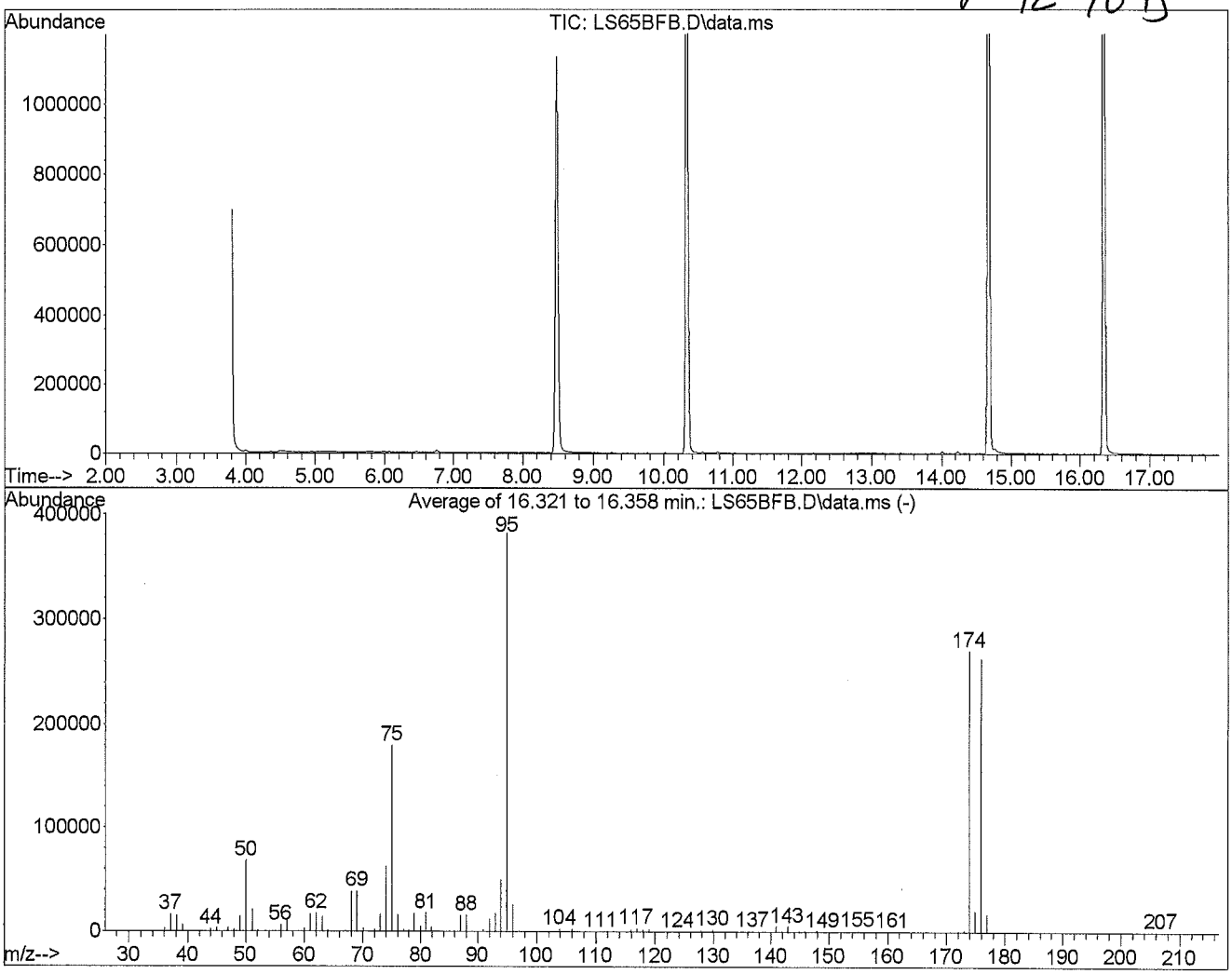
(#) = qualifier out of range (m) = manual integration

BFB

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS65BFB.D Vial: 1
Acq Time : 12/09/2015 11:13 Operator: TJM
Sample : BFB Inst : 5975-L
Misc : 107IS31297 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15

12-10-15



Peak Apex is scan: Average of 16.321 to 16.358 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	17.84	68131	PASS
75	95	30	66	46.99	179418	PASS
95	95	100	100	100.00	381797	PASS
96	95	5	9	6.67	25466	PASS
173	174	0.00	2	0.67	1809	PASS
174	95	50	120	70.92	270766	PASS
175	174	5	9	7.17	19421	PASS
176	174	93	101	97.33	263549	PASS
177	176	5	9	6.41	16904	PASS

LS65BFB.D TO15LM15.m Thu Dec 10 08:05:25 2015

Average of 16.321 to 16.358 min.: LS65BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.05	2773.0
37.10	16377.0
38.10	14966.0
39.10	6177.0
40.00	187.0
42.05	79.0
43.05	335.0
44.00	2510.0
45.05	3353.0
46.05	293.0
47.05	3990.0
48.00	2032.0
49.05	14476.0
50.05	68131.0
51.10	21171.0
52.05	950.0
55.05	951.0
56.00	6244.0
57.05	11125.0
58.00	437.0
60.00	2992.0
61.00	16469.0
62.00	17273.0
63.05	14080.0
64.00	1281.0
65.00	321.0
67.00	885.0
68.00	37934.0
69.00	38597.0
70.05	3224.0
71.10	27.0
72.00	1818.0
73.00	15910.0
74.00	62797.0
75.05	179418.0
76.00	15773.0
77.05	1997.0
77.95	1284.0
78.90	16915.0
79.95	4685.0
80.90	17717.0
81.90	4171.0
83.00	443.0
85.95	396.0
87.00	15145.0
88.00	15721.0
90.95	1785.0
92.00	11455.0
93.00	17376.0
94.00	49366.0
95.00	381797.0
96.00	25466.0
97.05	747.0
102.90	213.0
103.90	2394.0
104.95	672.0
105.95	2383.0
106.90	457.0
109.85	361.0
110.90	552.0
111.95	458.0
112.95	598.0
114.95	502.0
115.90	2030.0
116.90	3162.0
117.90	1957.0
118.90	2824.0
119.90	23.0
121.85	48.0
122.90	95.0
123.90	298.0
124.85	86.0
125.85	178.0
126.95	65.0
127.90	1540.0
128.90	772.0
129.90	1751.0
130.90	714.0
133.85	100.0
134.90	884.0
135.90	138.0
136.90	929.0
138.90	106.0
139.95	235.0
140.90	4972.0
141.90	608.0
142.90	5114.0

143.90	271.0
144.95	468.0
145.90	661.0
146.90	310.0
147.90	962.0
148.95	208.0
149.85	429.0
151.90	152.0
152.90	273.0
153.85	214.0
154.95	825.0
155.80	66.0
155.95	64.0
156.95	691.0
157.90	23.0
158.90	440.0
160.85	451.0
171.95	537.0
172.95	1809.0
173.90	270766.0
174.90	19421.0
175.90	263549.0
176.90	16904.0
177.90	535.0
206.80	23.0

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS66LCS.D
Acq On : 12/09/2015 12:02
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 30059 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 10 08:05:39 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Bromochloromethane	1.000	1.000	0.0	80	0.00	
2		Propene	1.576	1.730	-9.8	89	0.00	TIC
3		Dichlorodifluoromethane	6.892	7.112	-3.2	84	0.00	
4		Chloromethane	1.970	2.097	-6.4	89	0.00	
5		Freon 114	5.745	5.383	6.3	79	0.00	
6		Vinyl Chloride	2.376	2.595	-9.2	91	0.00	
7		1,3-Butadiene	1.855	1.950	-5.1	90	0.00	
8		Bromomethane	2.715	2.896	-6.7	88	0.00	
9		Chloroethane	1.285	1.408	-9.6	92	0.00	
10		Acrolein	0.865	0.924	-6.8	86	0.00	
11		Acetone	3.428	3.613	-5.4	89	0.00	
12		Trichlorofluoromethane	8.119	7.799	3.9	84	0.00	
13		Ethanol	0.844	0.874	-3.6	89	0.00	TIC
14		Isopropyl Alcohol	3.901	3.825	1.9	82	0.00	TIC
15		1,1-Dichloroethene	3.993	4.140	-3.7	87	0.00	
16		Methylene Chloride	2.438	2.413	1.0	84	0.00	
17		Freon 113	4.934	4.388	11.1	76	0.00	
18		Carbon Disulfide	7.493	7.397	1.3	85	0.00	
19		trans-1,2-Dichloroethene	2.786	2.668	4.2	81	0.00	
20		1,1-Dichloroethane	4.614	4.710	-2.1	89	0.00	
21		methyl t-butyl ether	6.472	6.682	-3.2	82	0.00	
22		Vinyl Acetate	0.620	0.633	-2.1	83	0.00	
23		2-Butanone	4.331	4.723	-9.1	89	0.00	
24		cis-1,2-Dichloroethene	2.917	2.911	0.2	82	0.00	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00	
26		Ethyl Acetate	0.069	0.074	-7.2	87	0.00	
27		Hexane	0.346	0.370	-6.9	87	0.00	
28		Chloroform	0.585	0.568	2.9	87	0.00	
29		Tetrahydrofuran	0.231	0.254	-10.0	89	0.00	
30		1,2-Dichloroethane	0.335	0.336	-0.3	89	0.00	
31		1,1,1-Trichloroethane	0.605	0.588	2.8	86	0.00	
32		Benzene	0.737	0.732	0.7	86	0.00	
33		Carbon Tetrachloride	0.693	0.667	3.8	84	0.00	
34		Cyclohexane	0.337	0.336	0.3	85	0.00	
35		1,2-Dichloropropane	0.274	0.275	-0.4	89	0.00	
36		Bromodichloromethane	0.590	0.596	-1.0	88	0.00	

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS66LCS.D
Acq On : 12/09/2015 12:02
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 30059 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 10 08:05:39 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37		1,4-Dioxane	0.163	0.167	-2.5	82	0.00 TIC
38		Trichloroethene	0.416	0.400	3.8	80	0.00
39		Methyl Methacrylate	0.214	0.246	-15.0	87	0.00 TIC
40		Heptane	0.236	0.266	-12.7	88	0.00
41		cis-1,3-Dichloropropene	0.382	0.415	-8.6	86	0.00
42		4-Methyl-2-Pentanone	0.482	0.564	-17.0	89	0.00
43		trans-1,3-Dichloropropene	0.331	0.363	-9.7	85	0.00
44		1,1,2-Trichloroethane	0.318	0.326	-2.5	86	0.00
45		Toluene	0.821	0.925	-12.7	87	0.00
46		2-Hexanone	0.366	0.470	-28.4	88	0.00
47		Dibromochloromethane	0.653	0.680	-4.1	84	0.00
48		1,2-Dibromoethane	0.481	0.518	-7.7	86	0.00
49		Tetrachloroethene	0.424	0.432	-1.9	79	0.00
50	I	Chlorobenzene d5	1.000	1.000	0.0	90	0.00
51		Chlorobenzene	0.880	0.874	0.7	86	0.00
52		Ethylbenzene	1.231	1.355	-10.1	88	0.00
53		m,p-Xylene	0.970	1.062	-9.5	88	0.00
54		Bromoform	0.577	0.578	-0.2	80	0.00
55		Styrene	0.659	0.778	-18.1	86	0.00
56		1,1,2,2-Tetrachloroethane	0.728	0.787	-8.1	91	0.00
57		o-Xylene	1.005	1.101	-9.6	88	0.00
58	S	Bromofluorobenzene	0.564	0.614	-8.9	96	0.00
59		4-Ethyl Toluene	1.111	1.338	-20.4	88	0.00
60		1,3,5-Trimethylbenzene	1.066	1.182	-10.9	88	0.00
61		1,2,4-Trimethylbenzene	0.910	1.080	-18.7	88	0.00
62		Benzyl Chloride	0.537	0.675	-25.7	77	0.00 TIC
63		m-Dichlorobenzene	0.597	0.692	-15.9	82	0.00
64		p-Dichlorobenzene	0.540	0.641	-18.7	82	0.00
65		o-Dichlorobenzene	0.547	0.610	-11.5	82	0.00
66		1,2,4-Trichlorobenzene	0.079	0.091	-15.2	65	0.00 TIC
67		Naphthalene	0.295	0.387	-31.2#	74	0.00 TIC
68		Hexachloro-1,3-butadiene	0.167	0.153	8.4	74	0.00 TIC

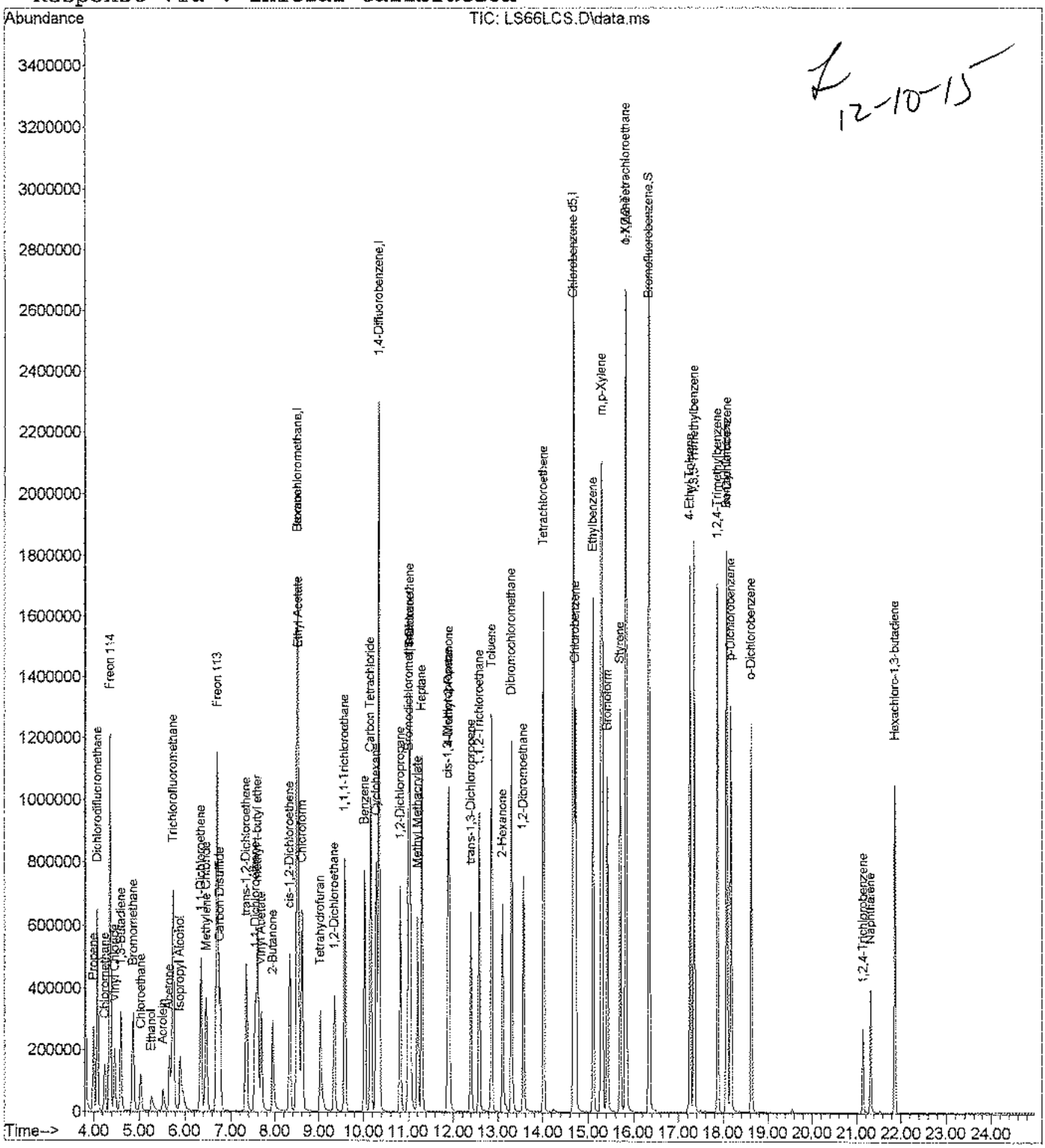
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS66LCS.D Vial: 1
Acq Time : 12/09/2015 12:02 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:39 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS66LCS.D Vial: 1
Acq Time : 12/09/2015 12:02 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:39 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.51	130	227776	20.0000	ppb		80.03
25) 1,4-Difluorobenzene	10.34	114	2415465	20.0000	ppb		83.20
50) Chlorobenzene d5	14.68	117	2099184	20.0000	ppb		90.29
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1289925	21.7964	ppb		108.98%
Target Compounds							Qvalue
2) Propene	3.99	41	197016	10.9766	ppb		98
3) Dichlorodifluoromethane	4.08	85	810016	10.3193	ppb		99
4) Chloromethane	4.24	50	238849	10.6437	ppb		99
5) Freon 114	4.36	135	613081	9.3705	ppb	#	60
6) Vinyl Chloride	4.46	62	295563	10.9209	ppb		98
7) 1,3-Butadiene	4.60	54	222033	10.5118	ppb	#	73
8) Bromomethane	4.87	94	329855	10.6672	ppb		98
9) Chloroethane	5.03	64	160319	10.9507	ppb	#	93
10) Acrolein	5.52	56	105210	10.6812	ppb		99
11) Acetone	5.66	43	411430	10.5398	ppb		90
12) Trichlorofluoromethane	5.74	101	888226	9.6055	ppb		99
13) Ethanol	5.27	45	99562	10.3586	ppb	#	79
14) Isopropyl Alcohol	5.90	45	435605	9.8046	ppb	#	89
15) 1,1-Dichloroethene	6.35	61	471457	10.3676	ppb	#	77
16) Methylene Chloride	6.46	84	274799	9.8986	ppb	#	73
17) Freon 113	6.70	151	499712	8.8937	ppb	#	51
18) Carbon Disulfide	6.76	76	842428	9.8716	ppb	#	61
19) trans-1,2-Dichloroethene	7.34	96	303843	9.5768	ppb	#	80
20) 1,1-Dichloroethane	7.55	63	536388	10.2076	ppb		98
21) methyl t-butyl ether	7.60	73	761034	10.3253	ppb	#	89
22) Vinyl Acetate	7.68	86	72127	10.2148	ppb	#	1
23) 2-Butanone	7.94	43	537869	10.9051	ppb	#	79
24) cis-1,2-Dichloroethene	8.33	96	331529	9.9781	ppb	#	81
26) Ethyl Acetate	8.54	61	89346	10.6763	ppb	#	1
27) Hexane	8.52	57	446832	10.6953	ppb	#	18
28) Chloroform	8.62	83	685910	9.7063	ppb		99
29) Tetrahydrofuran	9.02	42	307302	11.0310	ppb	#	75
30) 1,2-Dichloroethane	9.34	62	405547	10.0250	ppb	#	94
31) 1,1,1-Trichloroethane	9.58	97	710640	9.7333	ppb	#	93
32) Benzene	10.02	78	883608	9.9298	ppb	#	95
33) Carbon Tetrachloride	10.16	117	805462	9.6275	ppb		99
34) Cyclohexane	10.28	84	405866	9.9840	ppb	#	67
35) 1,2-Dichloropropane	10.82	63	331585	10.0182	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS66LCS.D Vial: 1
Acq Time : 12/09/2015 12:02 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:39 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	11.00	83	719887	10.1074	ppb		99
37)	1,4-Dioxane	11.04	88	202136	10.2401	ppb		94
38)	Trichloroethene	11.04	130	483430	9.6223	ppb		92
39)	Methyl Methacrylate	11.20	69	297060	11.4811	ppb		96
40)	Heptane	11.30	71	321666	11.2915	ppb	#	68
41)	cis-1,3-Dichloropropene	11.87	75	501250	10.8634	ppb		95
42)	4-Methyl-2-Pentanone	11.90	43	681721	11.7085	ppb	#	79
43)	trans-1,3-Dichloropropene	12.39	75	438472	10.9665	ppb		94
44)	1,1,2-Trichloroethane	12.58	97	394069	10.2727	ppb	#	89
45)	Toluene	12.86	91	1117180	11.2605	ppb		99
46)	2-Hexanone	13.10	43	567677	12.8544	ppb	#	81
47)	Dibromochloromethane	13.30	129	821135	10.4047	ppb		98
48)	1,2-Dibromoethane	13.56	107	625666	10.7786	ppb		98
49)	Tetrachloroethene	14.01	166	522135	10.1919	ppb	#	76
51)	Chlorobenzene	14.73	112	916931	9.9297	ppb	#	91
52)	Ethylbenzene	15.11	91	1422701	11.0149	ppb		97
53)	m,p-Xylene	15.30	91	2230259	21.8962	ppb		98
54)	Bromoform	15.42	173	606803	10.0203	ppb		99
55)	Styrene	15.71	104	816768	11.8125	ppb		95
56)	1,1,2,2-Tetrachloroethane	15.83	83	825771	10.8066	ppb		99
57)	o-Xylene	15.82	91	1155299	10.9573	ppb		99
59)	4-Ethyl Toluene	17.26	105	1403863	12.0402	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	1240922	11.0921	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	1133368	11.8715	ppb		99
62)	Benzyl Chloride	18.06	91	708688	12.5795	ppb		95
63)	m-Dichlorobenzene	18.08	146	726444	11.5922	ppb	#	94
64)	p-Dichlorobenzene	18.17	146	673183	11.8783	ppb	#	94
65)	o-Dichlorobenzene	18.63	146	639787	11.1487	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	95065	11.4096	ppb	#	96
67)	Naphthalene	21.31	128	406509	13.1112	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	160411	9.1473	ppb		97

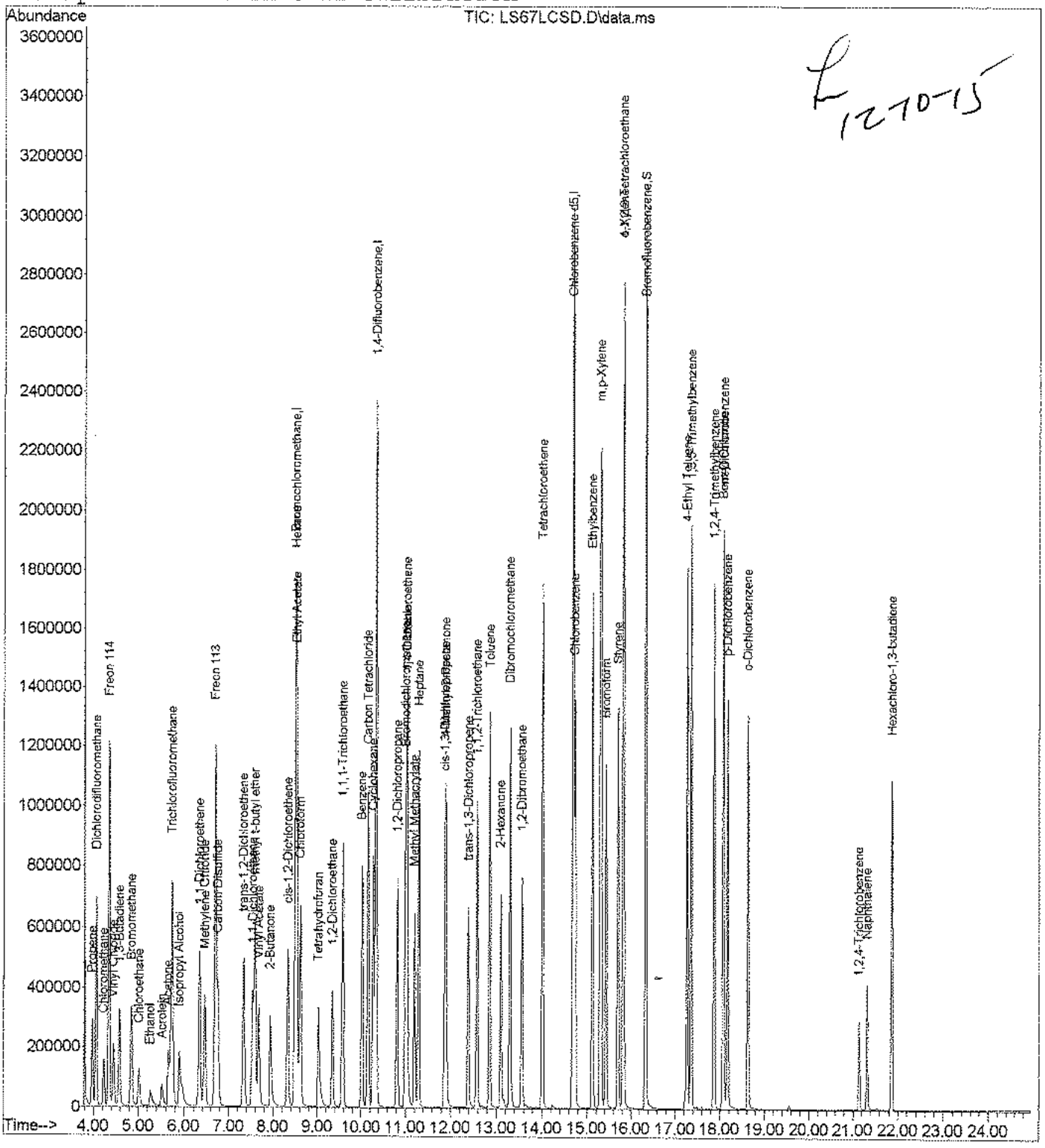
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS67LCSD.D Vial: 1
Acq Time : 12/09/2015 12:51 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:55 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12/10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS67LCSD.D Vial: 1
Acq Time : 12/09/2015 12:51 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:55 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.50	130	241344	20.0000	ppb		84.80
25) 1,4-Difluorobenzene	10.34	114	2550812	20.0000	ppb		87.86
50) Chlorobenzene d5	14.68	117	2186850	20.0000	ppb		94.06
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1331420	21.5957	ppb		107.98%
Target Compounds							Qvalue
2) Propene	3.97	41	211003	11.0950	ppb		98
3) Dichlorodifluoromethane	4.06	85	870385	10.4650	ppb		99
4) Chloromethane	4.23	50	250919	10.5529	ppb		100
5) Freon 114	4.35	135	648821	9.3593	ppb	#	62
6) Vinyl Chloride	4.45	62	314715	10.9748	ppb		98
7) 1,3-Butadiene	4.58	54	235941	10.5422	ppb	#	74
8) Bromomethane	4.85	94	348781	10.6452	ppb		98
9) Chloroethane	5.01	64	168615	10.8698	ppb	#	93
10) Acrolein	5.52	56	111651	10.6978	ppb		99
11) Acetone	5.65	43	434429	10.5033	ppb		90
12) Trichlorofluoromethane	5.73	101	943642	9.6311	ppb		100
13) Ethanol	5.26	45	108921	10.6952	ppb	#	81
14) Isopropyl Alcohol	5.90	45	474230	10.0739	ppb	#	94
15) 1,1-Dichloroethene	6.34	61	498117	10.3380	ppb	#	78
16) Methylene Chloride	6.45	84	289462	9.8406	ppb	#	74
17) Freon 113	6.69	151	534629	8.9802	ppb	#	52
18) Carbon Disulfide	6.75	76	896747	9.9174	ppb	#	62
19) trans-1,2-Dichloroethene	7.34	96	324595	9.6557	ppb	#	81
20) 1,1-Dichloroethane	7.54	63	557668	10.0160	ppb		98
21) methyl t-butyl ether	7.59	73	801418	10.2619	ppb	#	89
22) Vinyl Acetate	7.68	86	77830	10.4028	ppb	#	1
23) 2-Butanone	7.93	43	567326	10.8557	ppb	#	78
24) cis-1,2-Dichloroethene	8.33	96	350043	9.9430	ppb	#	81
26) Ethyl Acetate	8.53	61	91465	10.3496	ppb	#	1
27) Hexane	8.52	57	472805	10.7165	ppb	#	20
28) Chloroform	8.61	83	724324	9.7061	ppb		98
29) Tetrahydrofuran	9.02	42	320849	10.9062	ppb	#	75
30) 1,2-Dichloroethane	9.33	62	423787	9.9200	ppb	#	94
31) 1,1,1-Trichloroethane	9.57	97	746519	9.6821	ppb	#	93
32) Benzene	10.02	78	934621	9.9458	ppb	#	95
33) Carbon Tetrachloride	10.15	117	849799	9.6185	ppb		99
34) Cyclohexane	10.27	84	427396	9.9557	ppb	#	67
35) 1,2-Dichloropropane	10.82	63	346793	9.9217	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS67LCSD.D Vial: 1
Acq Time : 12/09/2015 12:51 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:55 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	755343	10.0425	ppb		98
37)	1,4-Dioxane	11.04	88	214494	10.2896	ppb		96
38)	Trichloroethene	11.03	130	508915	9.5921	ppb		93
39)	Methyl Methacrylate	11.20	69	309951	11.3437	ppb		96
40)	Heptane	11.30	71	337459	11.2174	ppb	#	68
41)	cis-1,3-Dichloropropene	11.87	75	523477	10.7432	ppb		95
42)	4-Methyl-2-Pentanone	11.90	43	711269	11.5678	ppb	#	79
43)	trans-1,3-Dichloropropene	12.39	75	455898	10.7973	ppb		95
44)	1,1,2-Trichloroethane	12.58	97	411826	10.1659	ppb	#	89
45)	Toluene	12.86	91	1166083	11.1298	ppb		99
46)	2-Hexanone	13.10	43	585234	12.5488	ppb	#	81
47)	Dibromochloromethane	13.30	129	858758	10.3041	ppb		99
48)	1,2-Dibromoethane	13.56	107	653784	10.6654	ppb		98
49)	Tetrachloroethene	14.01	166	550283	10.1714	ppb	#	76
51)	Chlorobenzene	14.73	112	955989	9.9377	ppb	#	91
52)	Ethylbenzene	15.11	91	1488784	11.0645	ppb		97
53)	m,p-Xylene	15.31	91	2318514	21.8502	ppb		98
54)	Bromoform	15.42	173	637610	10.1070	ppb		99
55)	Styrene	15.71	104	852147	11.8301	ppb		96
56)	1,1,2,2-Tetrachloroethane	15.83	83	849118	10.6667	ppb		99
57)	o-Xylene	15.82	91	1195921	10.8878	ppb		99
59)	4-Ethyl Toluene	17.26	105	1450946	11.9452	ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	1287764	11.0493	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	1176000	11.8242	ppb		99
62)	Benzyl Chloride	18.06	91	749111	12.7640	ppb		94
63)	m-Dichlorobenzene	18.08	146	764482	11.7101	ppb	#	94
64)	p-Dichlorobenzene	18.17	146	706396	11.9647	ppb	#	94
65)	o-Dichlorobenzene	18.63	146	672724	11.2528	ppb	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	102581	11.8181	ppb	#	95
67)	Naphthalene	21.31	128	426150	13.1937	ppb		100
68)	Hexachloro-1,3-butadiene	21.86	225	166867	9.1340	ppb		97

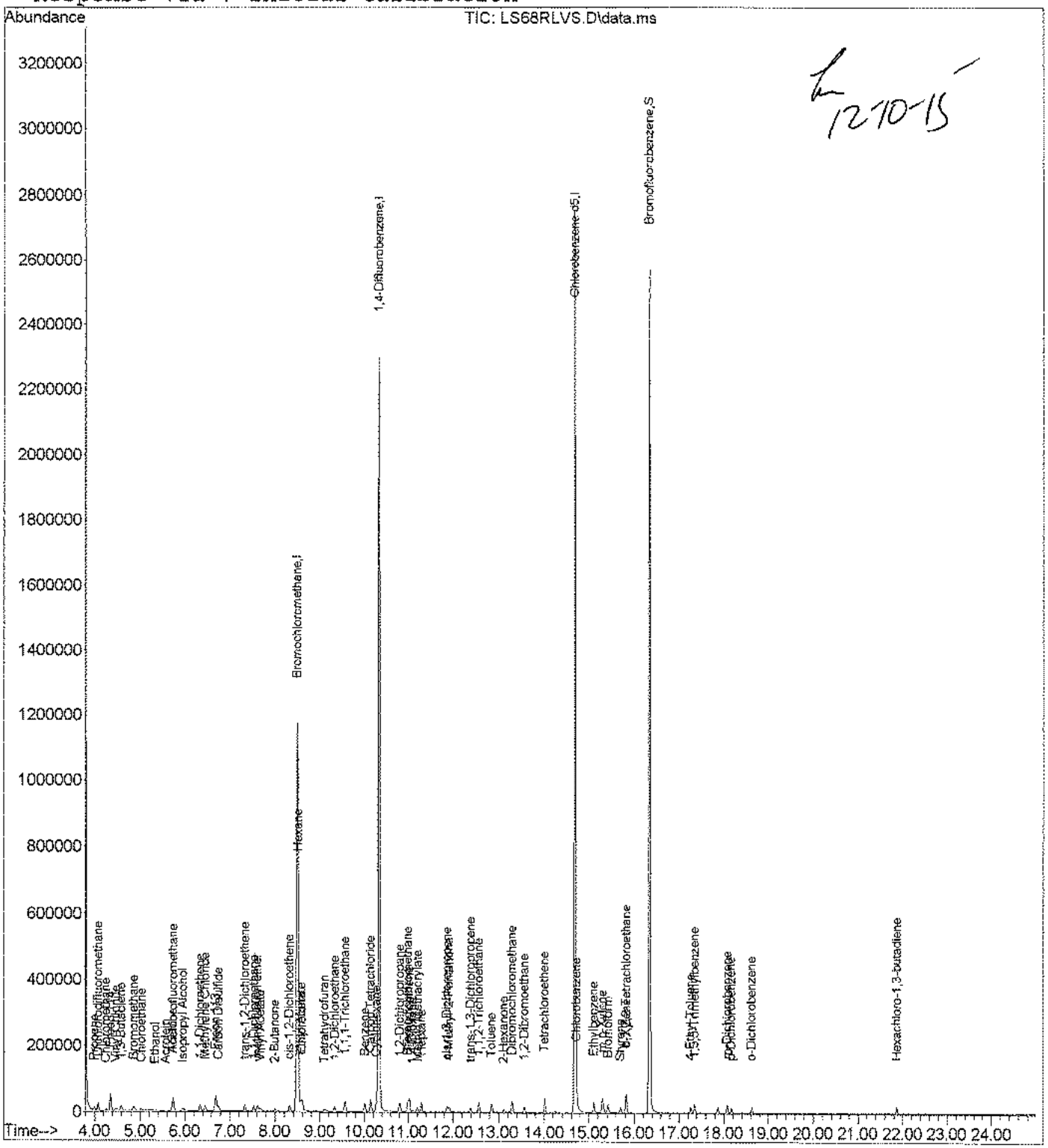
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS68RLVS.D Vial: 1
Acq Time : 12/09/2015 13:38 Operator: TJM
Sample : RLVS Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:04 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS68RLVS.D Vial: 1
Acq Time : 12/09/2015 13:38 Operator: TJM
Sample : RLVS Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:04 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	230976	20.0000	ppb		81.16
25) 1,4-Difluorobenzene	10.33	114	2418694	20.0000	ppb		83.31
50) Chlorobenzene d5	14.67	117	1948323	20.0000	ppb		83.80
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1103428	20.0888	ppb		100.44%
Target Compounds							Qvalue
2) Propene	3.99	41	6696	0.3679	ppb		93
3) Dichlorodifluoromethane	4.07	85	28355	0.3562	ppb		98
4) Chloromethane	4.24	50	8391	0.3687	ppb		98
5) Freon 114	4.35	135	24994	0.3767	ppb	#	62
6) Vinyl Chloride	4.46	62	9935	0.3620	ppb		97
7) 1,3-Butadiene	4.59	54	8833	0.4124	ppb	#	62
8) Bromomethane	4.86	94	11474	0.3659	ppb		96
9) Chloroethane	5.02	64	5676	0.3823	ppb	#	93
10) Acrolein	5.57	56	3528	0.3532	ppb	#	90
11) Acetone	5.72	43	21650	0.5469	ppb	#	82
12) Trichlorofluoromethane	5.73	101	36623	0.3906	ppb		99
13) Ethanol	5.33	45	4032	0.4137	ppb	#	66
14) Isopropyl Alcohol	5.95	45	17225	0.3823	ppb	#	89
15) 1,1-Dichloroethene	6.34	61	17118	0.3712	ppb	#	77
16) Methylene Chloride	6.45	84	11433	0.4061	ppb	#	72
17) Freon 113	6.69	151	20807	0.3652	ppb	#	53
18) Carbon Disulfide	6.75	76	33710	0.3895	ppb	#	64
19) trans-1,2-Dichloroethene	7.33	96	11060	0.3438	ppb	#	79
20) 1,1-Dichloroethane	7.53	63	21531	0.4041	ppb		95
21) methyl t-butyl ether	7.62	73	21492	0.2876	ppb	#	89
22) Vinyl Acetate	7.68	86	2034	0.2841	ppb	#	1
23) 2-Butanone	8.00	43	18014	0.3602	ppb	#	71
24) cis-1,2-Dichloroethene	8.32	96	11418	0.3389	ppb	#	79
26) Ethyl Acetate	8.57	61	2667	0.3183	ppb	#	1
27) Hexane	8.51	57	14044	0.3357	ppb	#	83
28) Chloroform	8.60	83	27106	0.3831	ppb		97
29) Tetrahydrofuran	9.10	42	7964	0.2855	ppb	#	68
30) 1,2-Dichloroethane	9.33	62	15594	0.3850	ppb	#	90
31) 1,1,1-Trichloroethane	9.56	97	26661	0.3647	ppb	#	89
32) Benzene	10.01	78	31527	0.3538	ppb	#	94
33) Carbon Tetrachloride	10.15	117	30628	0.3656	ppb		97
34) Cyclohexane	10.27	84	14578	0.3581	ppb	#	88
35) 1,2-Dichloropropane	10.81	63	12481	0.3766	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS68RLVS.D Vial: 1
Acq Time : 12/09/2015 13:38 Operator: TJM
Sample : RLVS Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:04 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.98	83	26110	0.3661	ppb		95
37)	1,4-Dioxane	11.10	88	5789	0.2929	ppb		95
38)	Trichloroethene	11.02	130	15591	0.3099	ppb	#	90
39)	Methyl Methacrylate	11.20	69	6886	0.2658	ppb		94
40)	Heptane	11.29	71	7587	0.2660	ppb	#	60
41)	cis-1,3-Dichloropropene	11.86	75	12792	0.2769	ppb	#	92
42)	4-Methyl-2-Pentanone	11.91	43	15569	0.2670	ppb	#	72
43)	trans-1,3-Dichloropropene	12.39	75	10207	0.2549	ppb	#	91
44)	1,1,2-Trichloroethane	12.57	97	12896	0.3357	ppb	#	89
45)	Toluene	12.85	91	25151	0.2532	ppb		100
46)	2-Hexanone	13.11	43	9388	0.2123	ppb	#	70
47)	Dibromochloromethane	13.29	129	23632	0.2990	ppb		100
48)	1,2-Dibromoethane	13.56	107	16734	0.2879	ppb		96
49)	Tetrachloroethene	14.00	166	13612	0.2653	ppb	#	75
51)	Chlorobenzene	14.73	112	27388	0.3196	ppb	#	92
52)	Ethylbenzene	15.11	91	28491	0.2377	ppb		95
53)	m,p-Xylene	15.31	91	44451	0.4702	ppb		95
54)	Bromoform	15.42	173	14392	0.2561	ppb		97
55)	Styrene	15.70	104	11807	0.1840	ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.83	83	21194	0.2988	ppb	#	91
57)	o-Xylene	15.82	91	21452	0.2192	ppb		97
59)	4-Ethyl Toluene	17.27	105	17282	0.1597	ppb		96
60)	1,3,5-Trimethylbenzene	17.35	105	20520	0.1976	ppb		92
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected			
62)	Benzyl Chloride	0.00	91		Not Detected			
63)	m-Dichlorobenzene	18.08	146	11768	0.2023	ppb		95
64)	p-Dichlorobenzene	18.17	146	9889	0.1880	ppb	#	88
65)	o-Dichlorobenzene	18.63	146	9596	0.1802	ppb	#	91
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected			
67)	Naphthalene	0.00	128		Not Detected			
68)	Hexachloro-1,3-butadiene	21.86	225	3609	0.2217	ppb		98

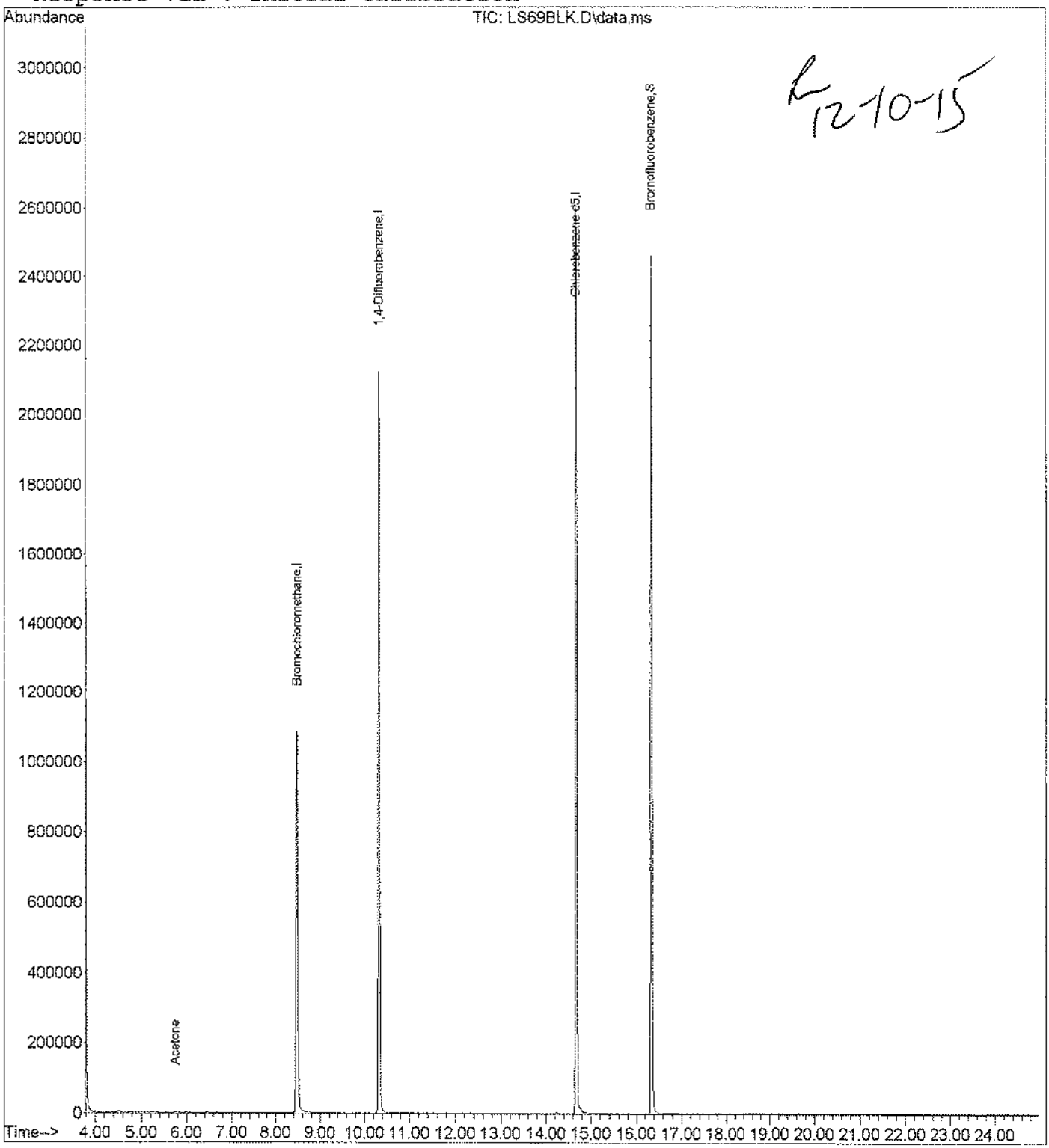
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS69BLK.D Vial: 1
Acq Time : 12/09/2015 14:26 Operator: TJM
Sample : BL- 0436 Inst : 5975-L
Misc : 0436/0379/0370/0368/0108/0248 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:32 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12/10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS69BLK.D Vial: 1
Acq Time : 12/09/2015 14:26 Operator: TJM
Sample : BL- 0436 Inst : 5975-L
Misc : 0436/0379/0370/0368/0108/0248 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:32 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.48	130	211648	20.0000 ppb	74.36
25) 1,4-Difluorobenzene	10.33	114	2210262	20.0000 ppb	76.13
50) Chlorobenzene d5	14.67	117	1817243	20.0000 ppb	78.16
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	1036617	20.2337 ppb	101.17%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.75	43	6696	0.1846 ppb #	68
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS69BLK.D Vial: 1
Acq Time : 12/09/2015 14:26 Operator: TJM
Sample : BL- 0436 Inst : 5975-L
Misc : 0436/0379/0370/0368/0108/0248 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:32 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

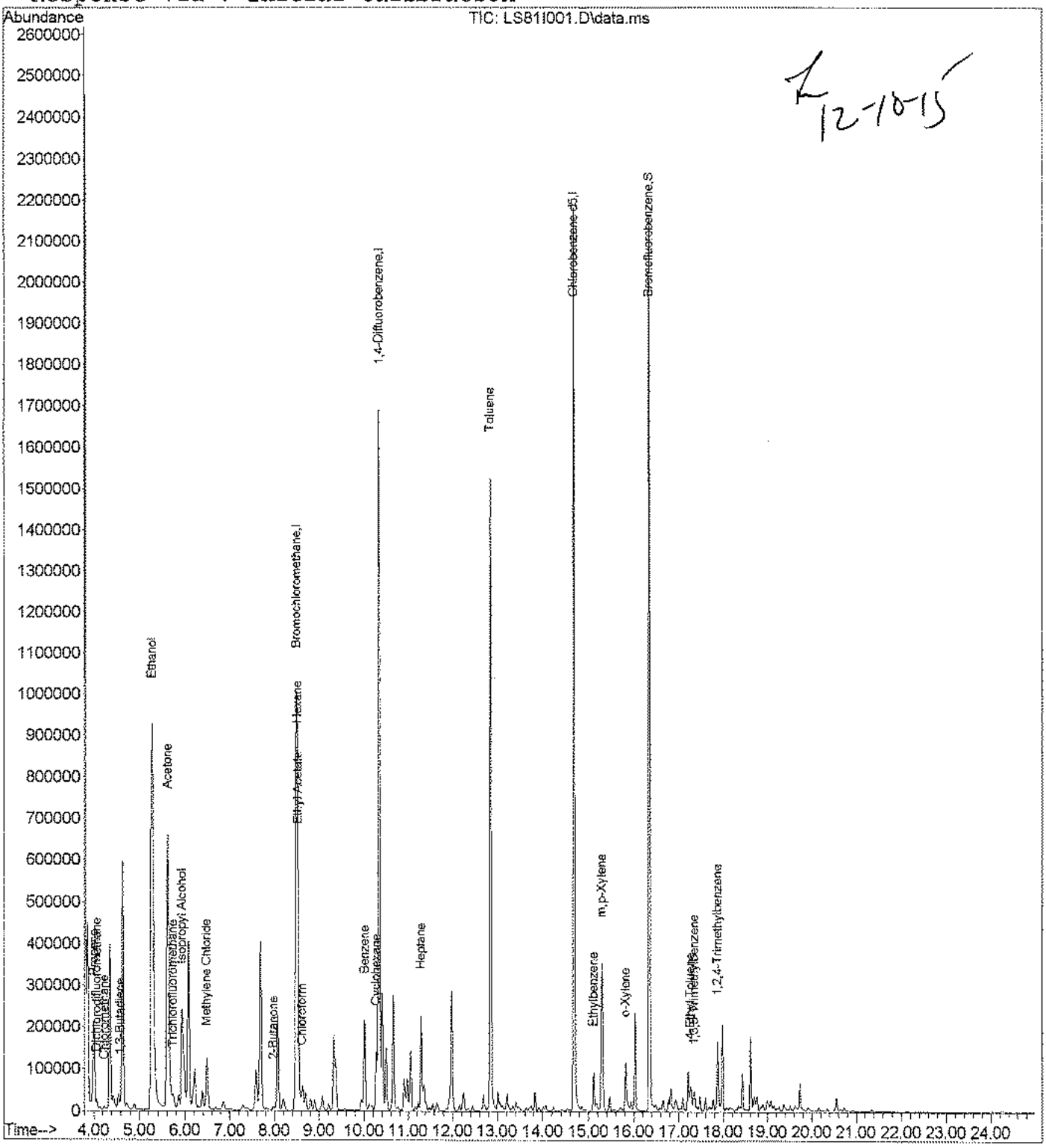
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L ~ 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:21:30 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:21:30 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.49	130	169088	20.0000 ppb	59.41
25) 1,4-Difluorobenzene	10.33	114	1775383	20.0000 ppb	61.15
50) Chlorobenzene d5	14.68	117	1548144	20.0000 ppb	66.59
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	909840	20.8461 ppb	104.23%
Target Compounds					Qvalue
2) Propene	3.99	41	97004	7.2803 ppb #	TIC 67
3) Dichlorodifluoromethane	4.06	85	27615	0.4739 ppb	99
4) Chloromethane	4.23	50	9964	0.5981 ppb	100
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.58	54	6540	0.4171 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.62	43	617485	21.3088 ppb m	h 70
12) Trichlorofluoromethane	5.73	101	26805	0.3905 ppb	100
13) Ethanol	5.27	45	2102166	294.6251 ppb #	TIC 79
14) Isopropyl Alcohol	5.93	45	513131	15.5582 ppb	TIC 97
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.46	84	9938	0.4822 ppb #	72
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.97	43	17168	0.4689 ppb #	83
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.53	61	12126	1.9714 ppb #	1
27) Hexane	8.52	57	296449	9.6540 ppb #	75
28) Chloroform	8.61	83	14625	0.2816 ppb	94
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.01	78	232734	3.5584 ppb #	94
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.27	84	65513	2.1926 ppb #	65
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:21:30 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

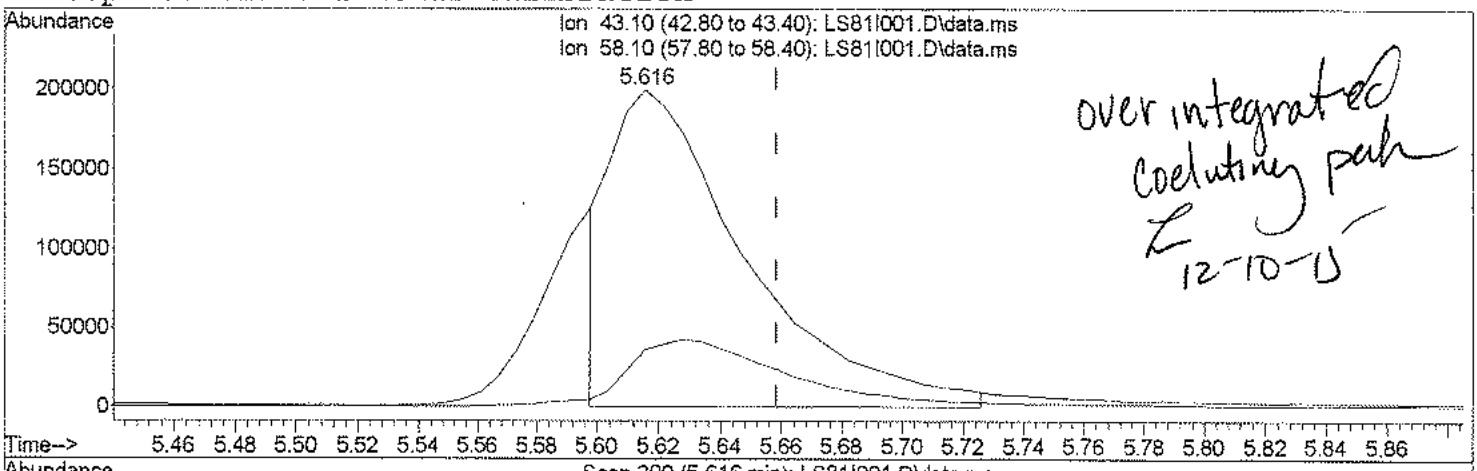
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.29	71	58196	2.7794 ppb #	62
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	1318601	18.0825 ppb	99
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	75454	0.7921 ppb	95
53)	m,p-Xylene	15.29	91	291398	3.8792 ppb	96
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	81503	1.0481 ppb	94
59)	4-Ethyl Toluene	17.26	105	33591	0.3906 ppb	100
60)	1,3,5-Trimethylbenzene	17.35	105	28557	0.3461 ppb	92
61)	1,2,4-Trimethylbenzene	17.87	105	96144	1.3655 ppb	95
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

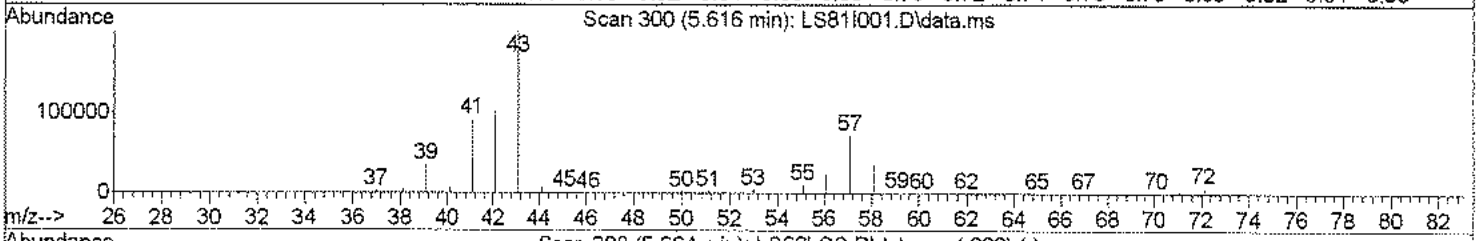
(#) = qualifier out of range (m) = manual integration

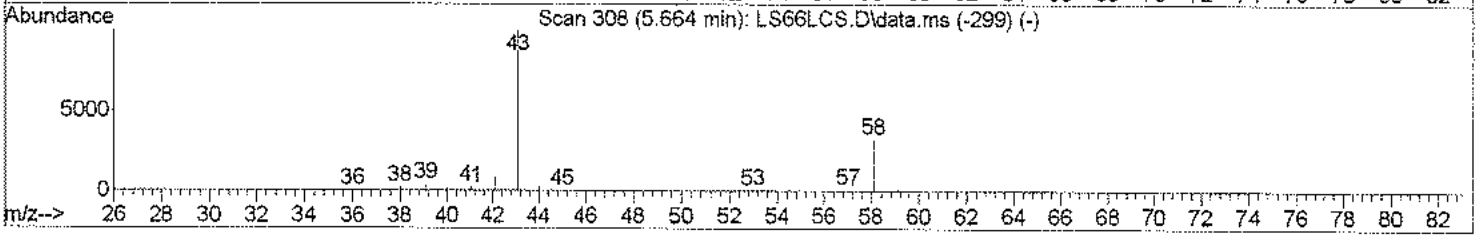
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS81I001.D
Acq On : 12/10/2015 00:18
Operator : TJM
Sample : 1534300001
Inst : 5975-L
Misc : DIN
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 10 08:10:09 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration







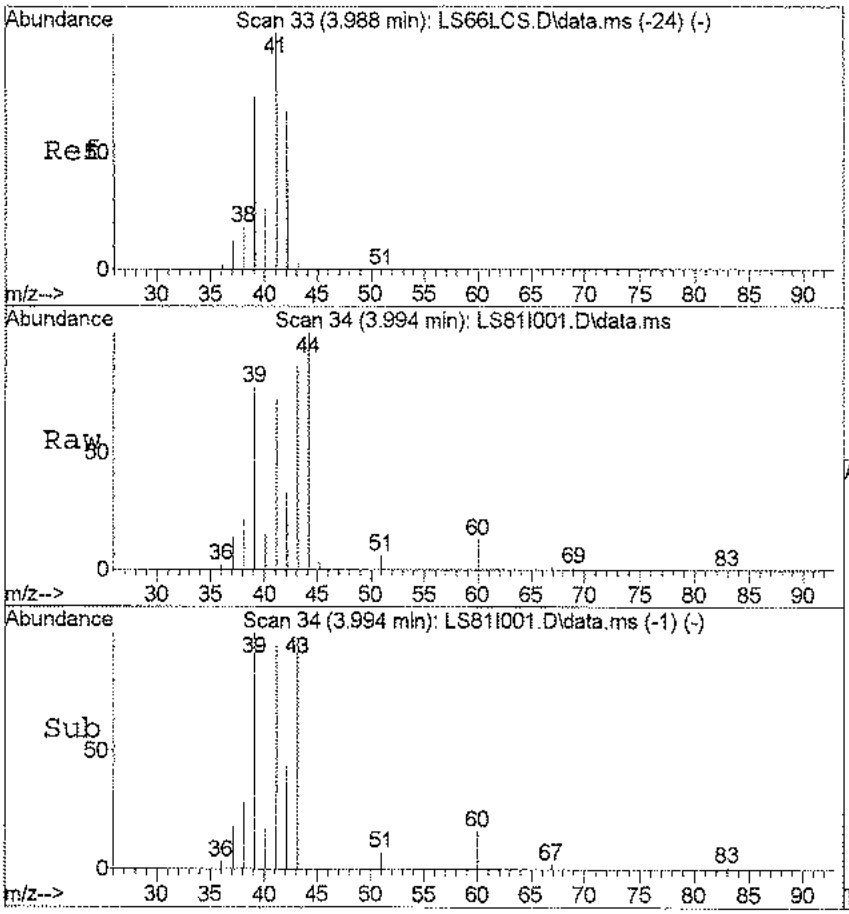
TIC: LS81I001.D\data.ms

(11) Acetone

5.616min (-0.043) 21.31 ppb m

response 617485

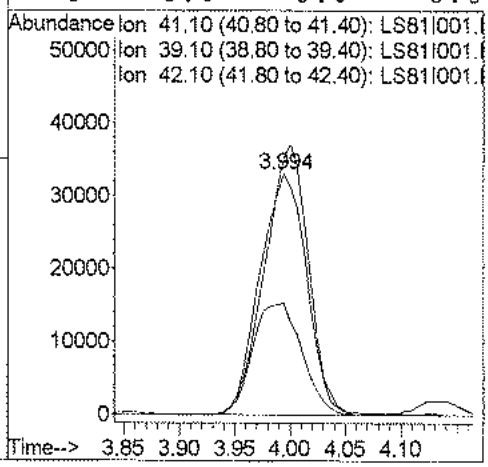
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	26.25#
0.00	0.00	0.00
0.00	0.00	0.00

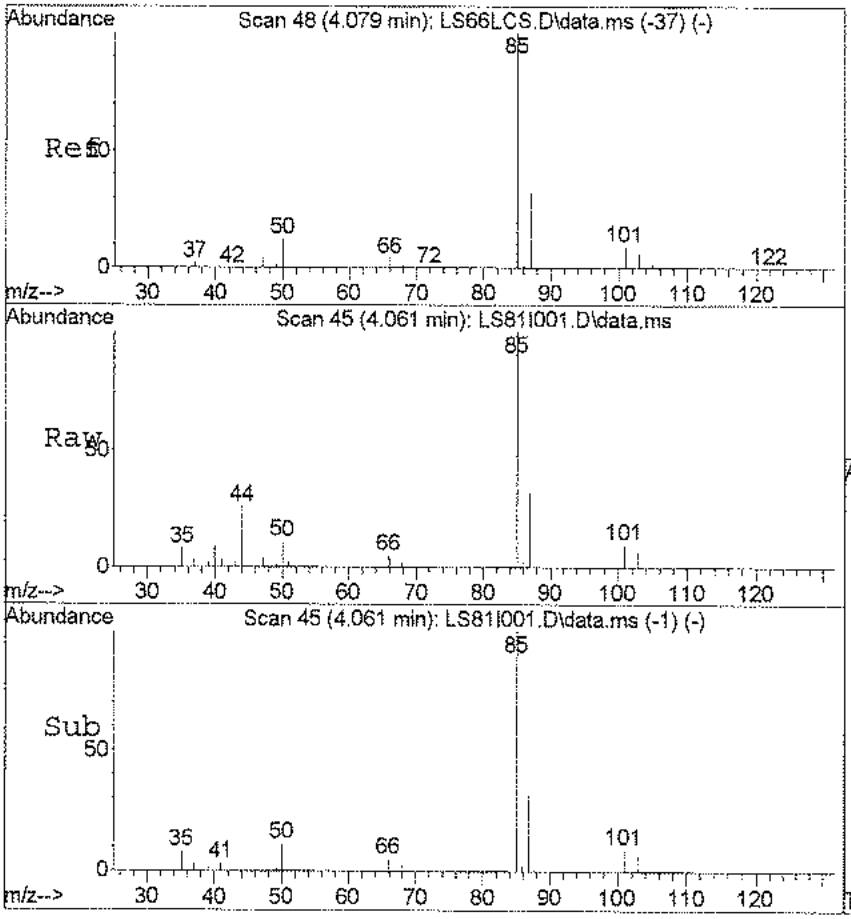


#2
Propene
Concen: 7.28 ppb
RT: 3.99 min Scan# 34
Delta R.T. 0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:41.1 Resp: 97004

Ion	Ratio	Lower	Upper
41	100		
39	105.3	56.2	84.4#
42	48.8	53.8	80.6#
0	0.0	0.0	0.0

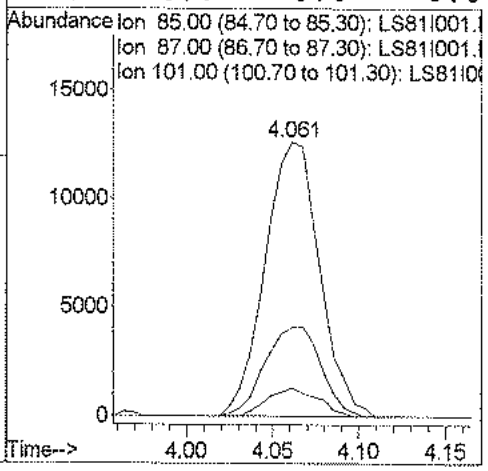


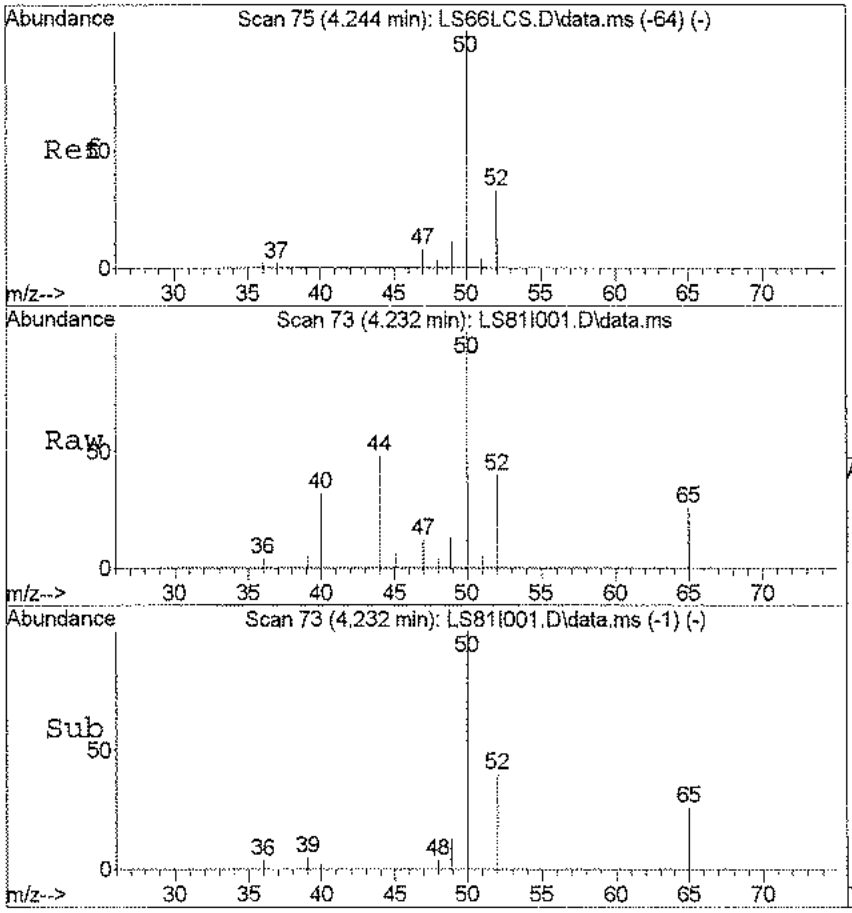


#3
Dichlorodifluoromethane
Concen: 0.47 ppb
RT: 4.06 min Scan# 45
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:85 Resp: 27615

Ion	Ratio	Lower	Upper
85	100		
87	33.4	26.1	39.1
101	9.7	8.0	12.0
0	0.0	0.0	0.0

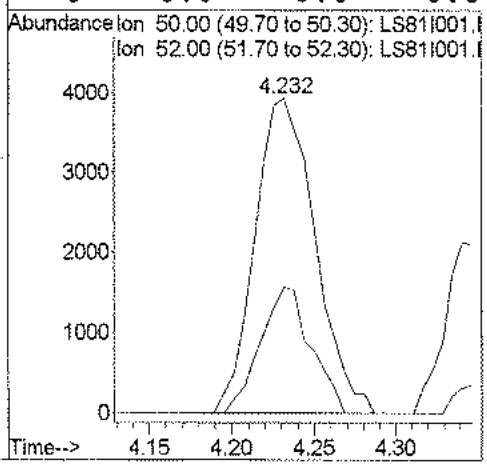


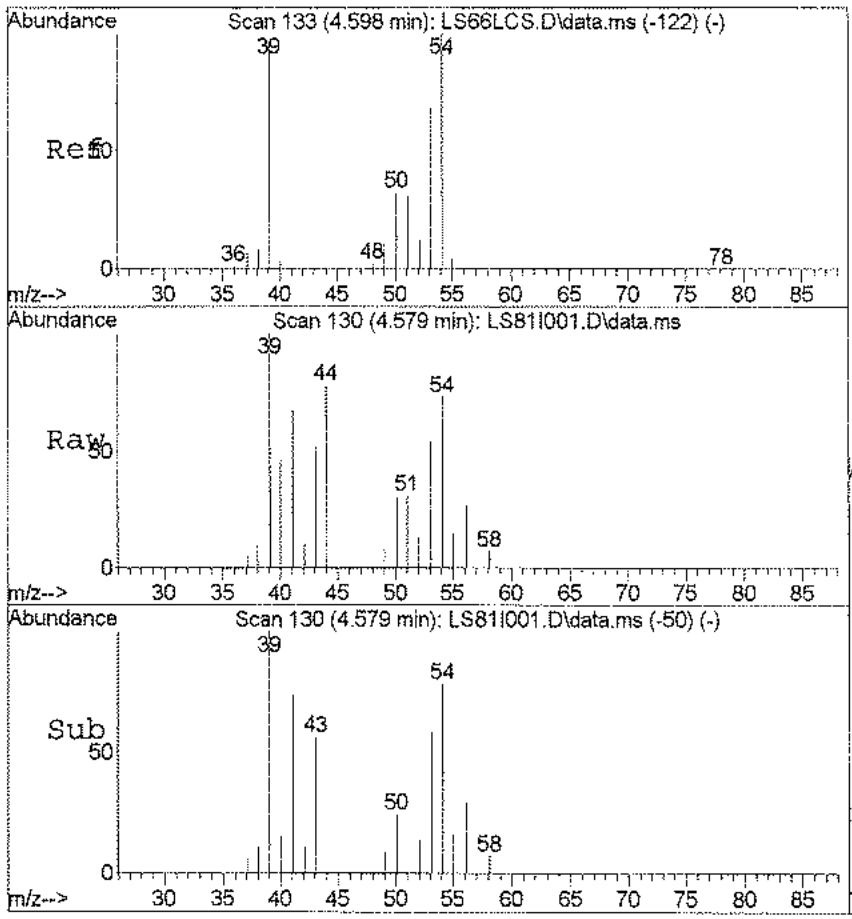


#4
Chloromethane
Concen: 0.60 ppb
RT: 4.23 min Scan# 73
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:50 Resp: 9964

Ion	Ratio	Lower	Upper
50	100		
52	33.6	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

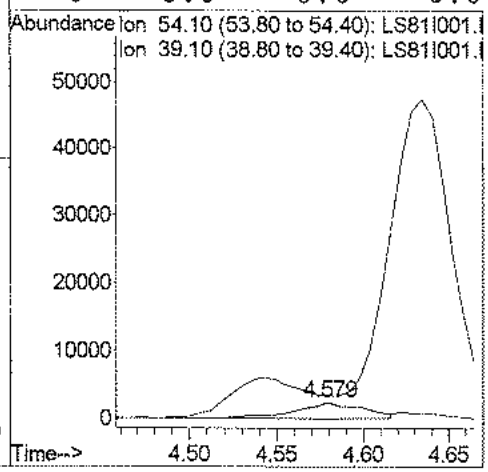


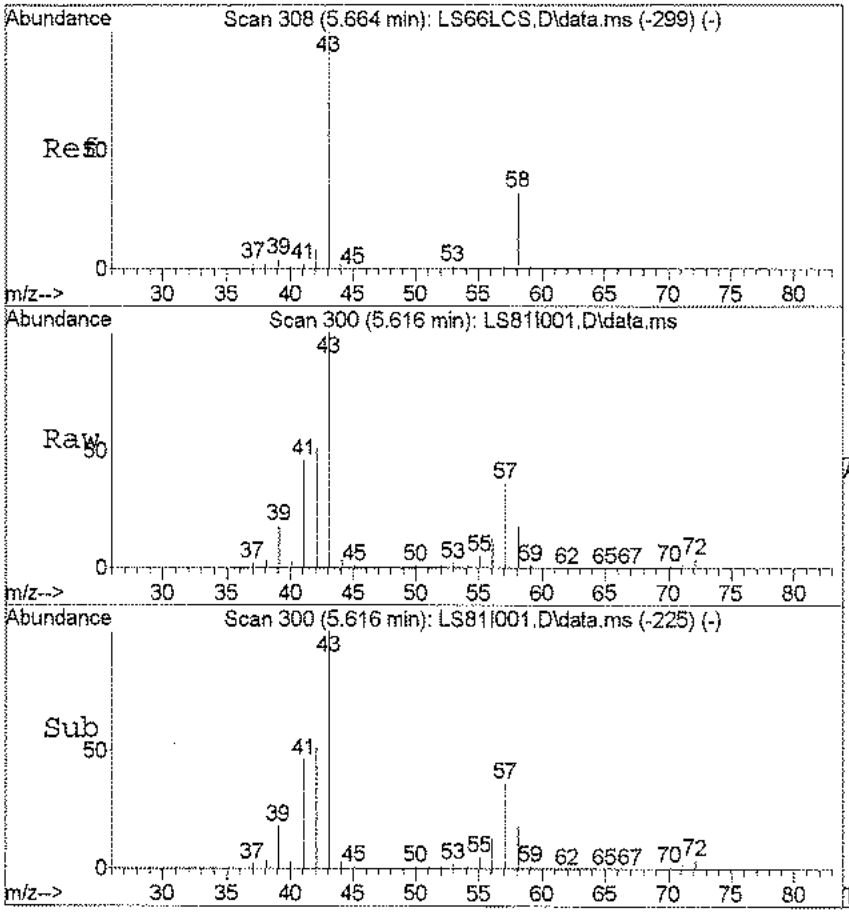


#7
1,3-Butadiene
Concen: 0.42 ppb
RT: 4.58 min Scan# 130
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:54.1 Resp: 6540

Ion	Ratio	Lower	Upper
54	100		
39	0.0	59.8	89.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

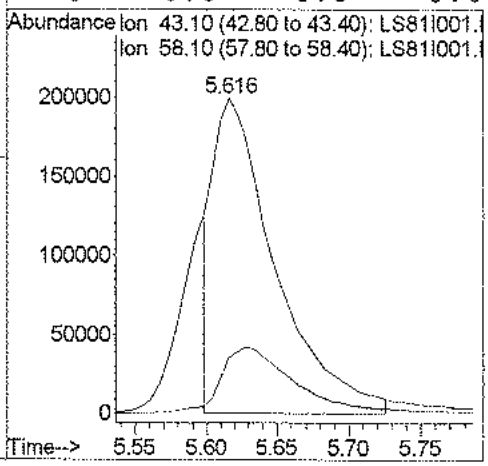


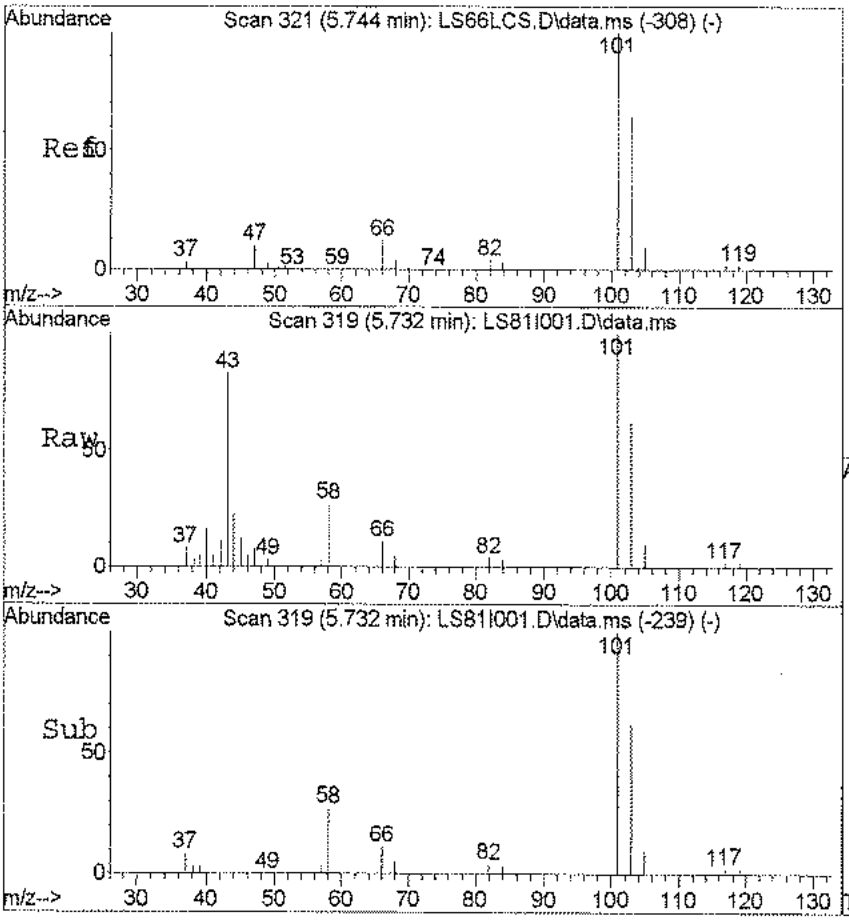


#11
Acetone
Concen: 21.31 ppb m
RT: 5.62 min Scan# 300
Delta R.T. -0.04 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:43.1 Resp: 617485

Ion	Ratio	Lower	Upper
43	100		
58	26.2	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

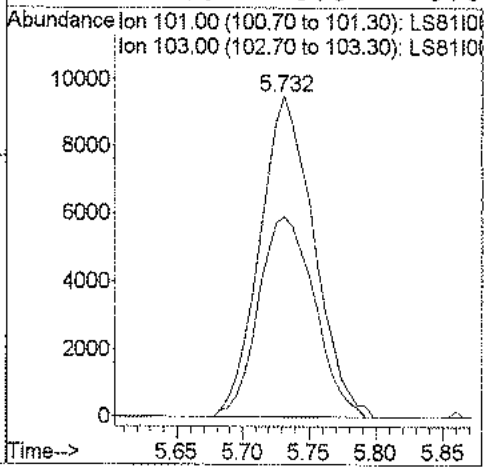


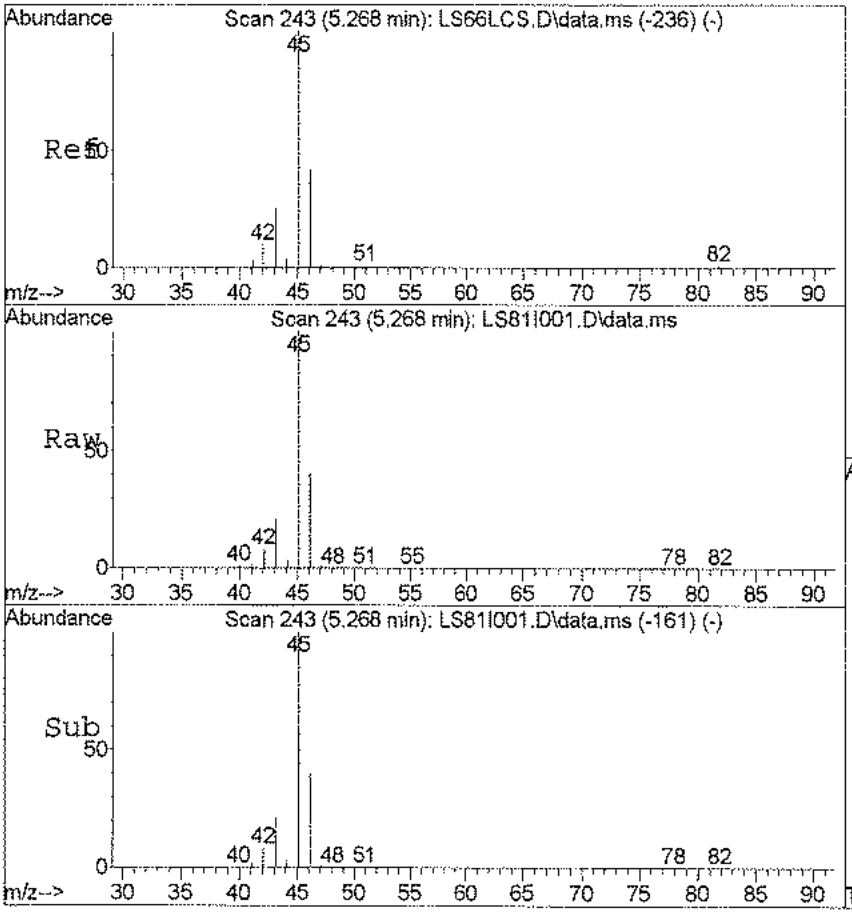


#12
Trichlorofluoromethane
Concen: 0.39 ppb
RT: 5.73 min Scan# 319
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:101 Resp: 26805

Ion	Ratio	Lower	Upper
101	100		
103	64.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

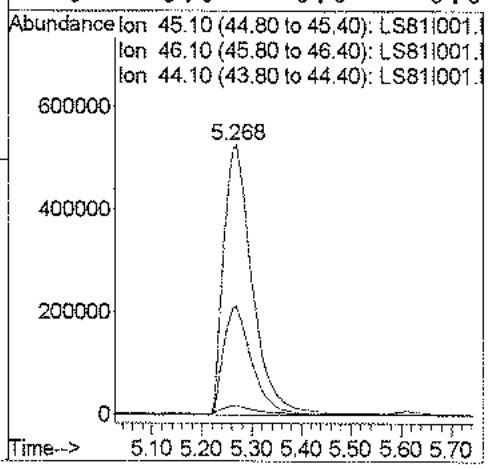


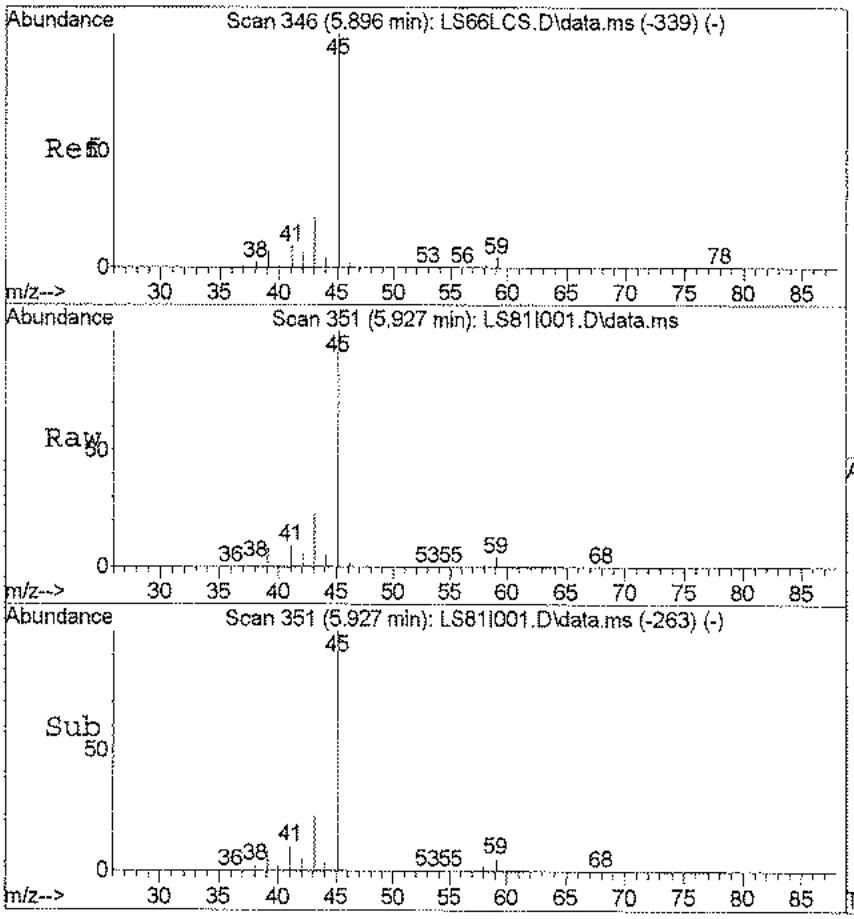


#13
Ethanol
Concen: 294.63 ppb
RT: 5.27 min Scan# 243
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:45.1 Resp: 2102166

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	3.3	23.4	35.2#
0	0.0	0.0	0.0

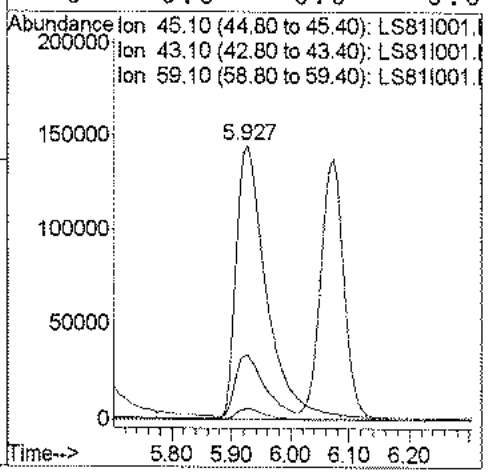


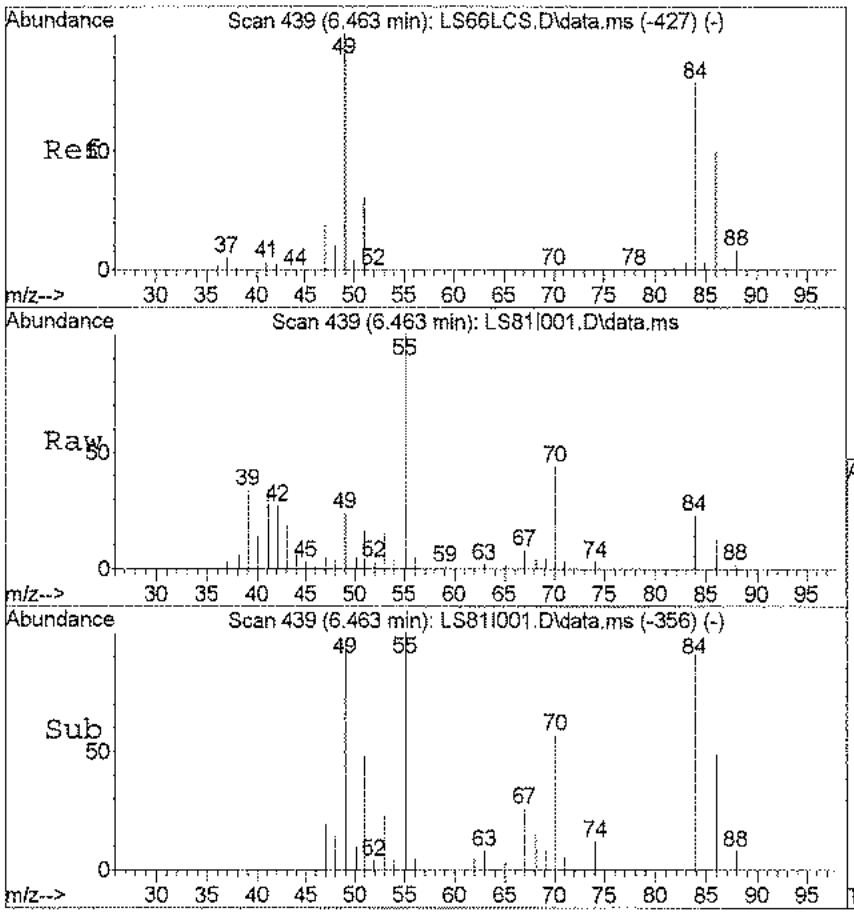


#14
Isopropyl Alcohol
Concen: 15.56 ppb
RT: 5.93 min Scan# 351
Delta R.T. 0.04 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:45.1 Resp: 513131

Ion	Ratio	Lower	Upper
45	100		
43	21.1	15.8	23.6
59	3.9	3.2	4.8
0	0.0	0.0	0.0

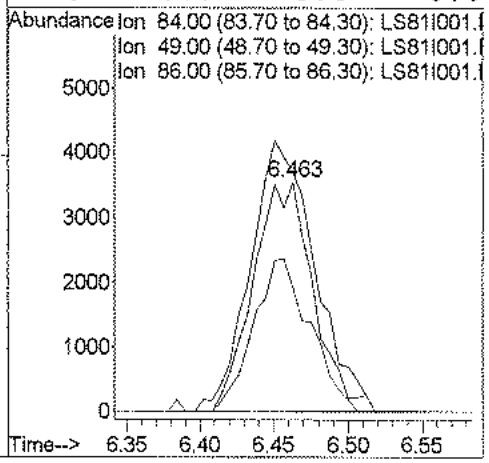


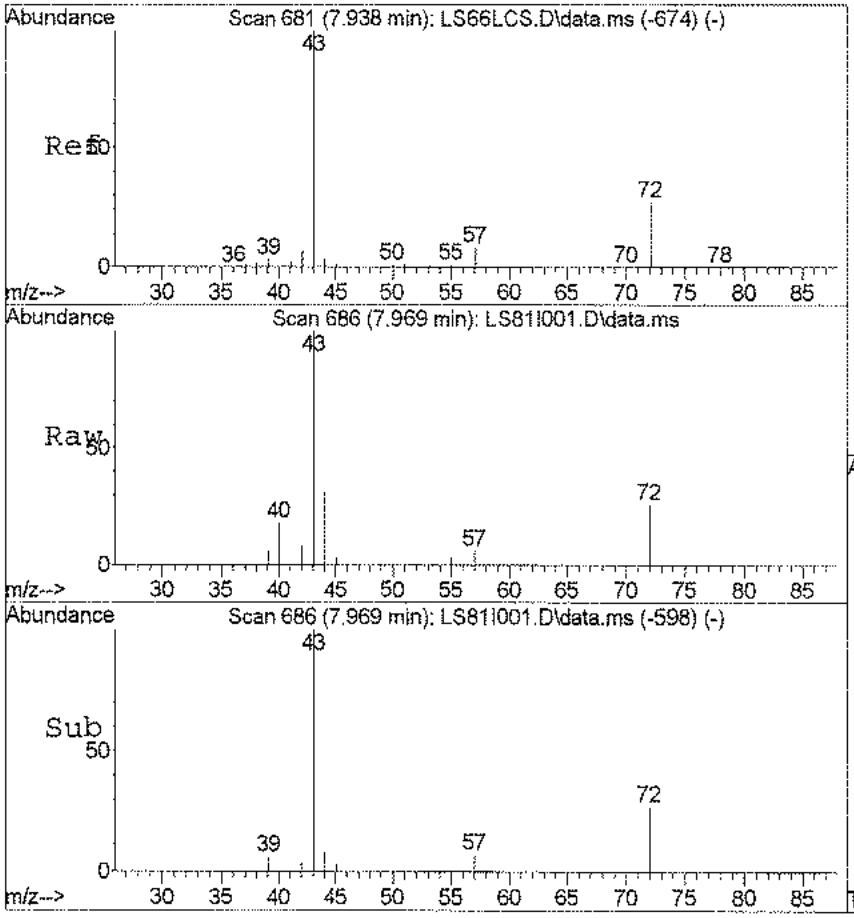


#16
Methylene Chloride
Concen: 0.48 ppb
RT: 6.46 min Scan# 439
Delta R.T. 0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:84 Resp: 9938

Ion	Ratio	Lower	Upper
84	100		
49	126.9	66.6	100.0#
86	62.7	51.6	77.4
0	0.0	0.0	0.0

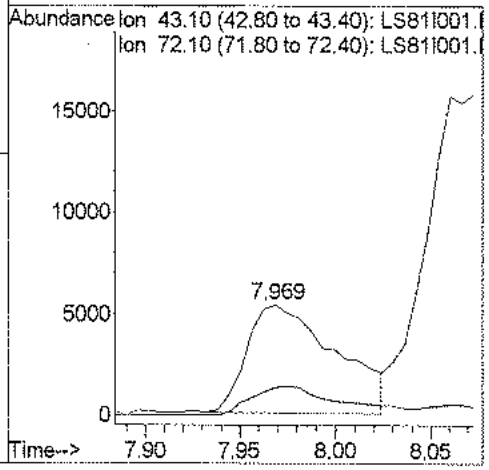


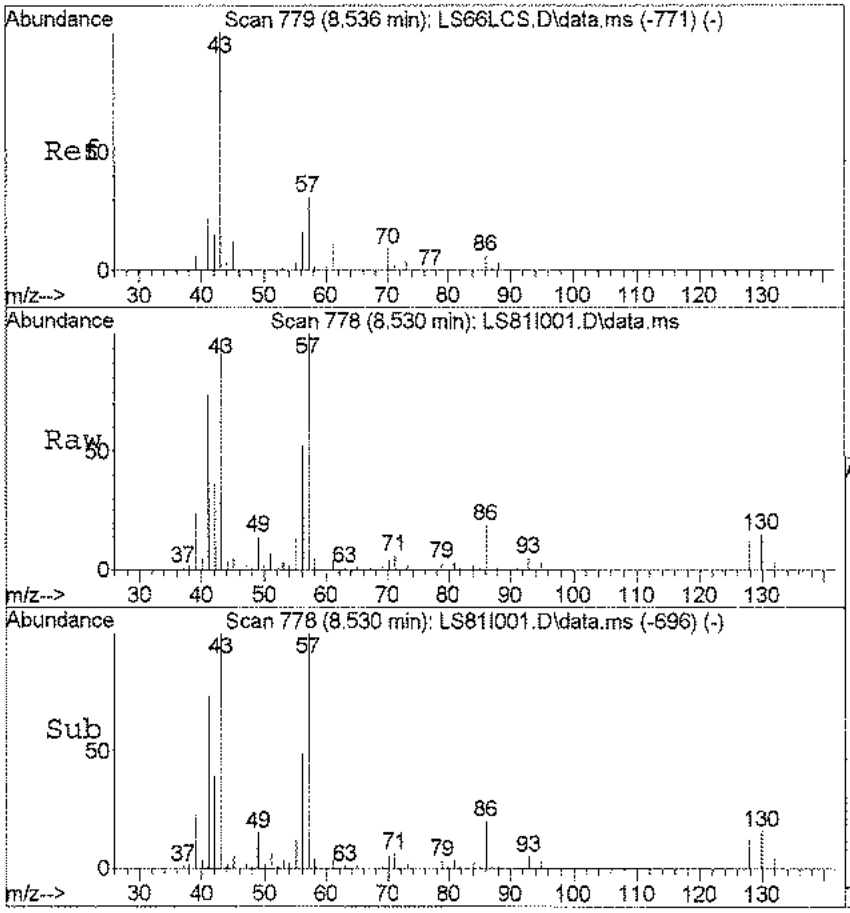


#23
2-Butanone
Concen: 0.47 ppb
RT: 7.97 min Scan# 686
Delta R.T. 0.04 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:43.1 Resp: 17168

Ion	Ratio	Lower	Upper
43	100		
72	28.4	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

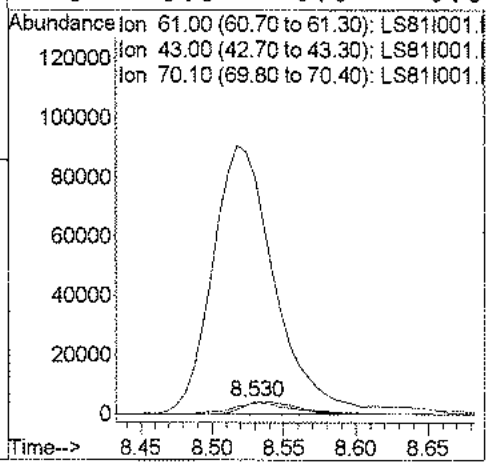


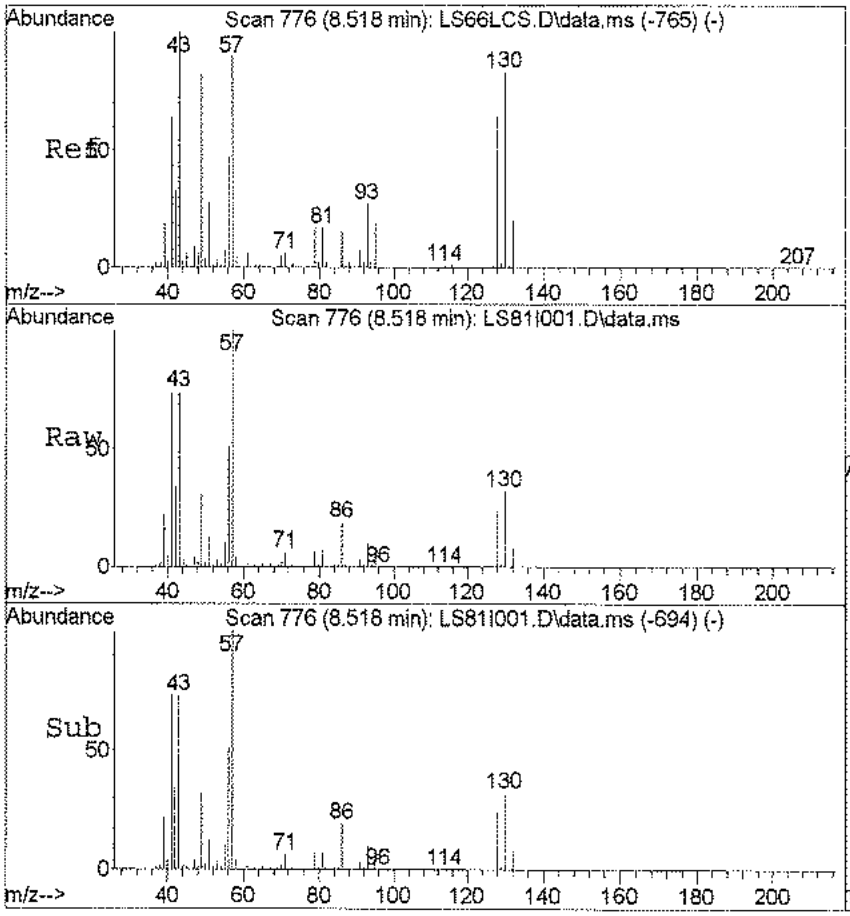


#26
Ethyl Acetate
Concen: 1.97 ppb
RT: 8.53 min Scan# 778
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:61 Resp: 12126

Ion	Ratio	Lower	Upper
61	100		
43	2322.9	144.0	216.0#
70	102.2	13.6	20.4#
0	0.0	0.0	0.0

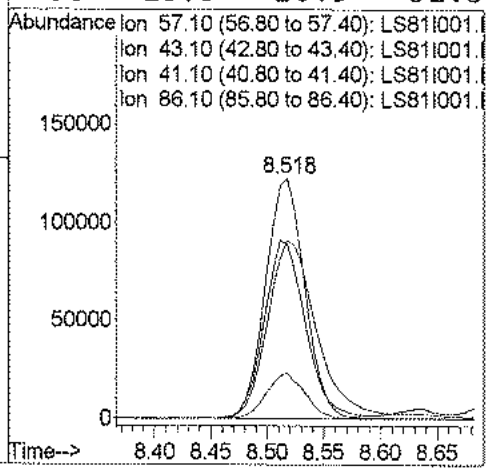


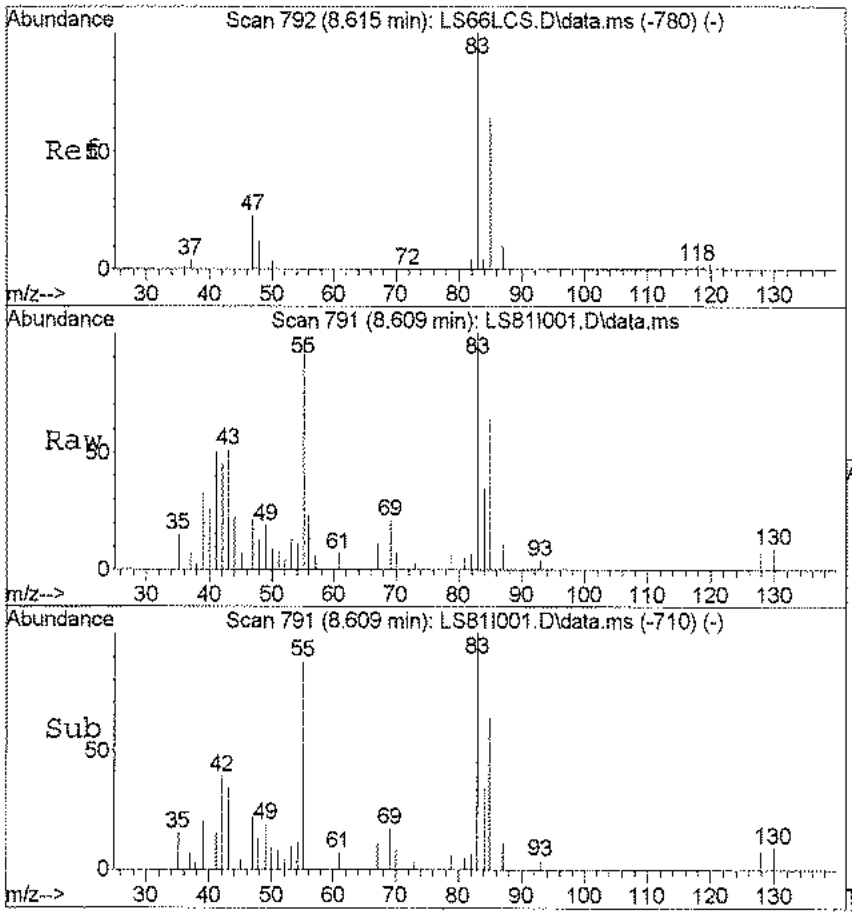


#27
Hexane
Concen: 9.65 ppb
RT: 8.52 min Scan# 776
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:57.1 Resp: 296449

Ion	Ratio	Lower	Upper
57	100		
43	95.0	57.3	85.9#
41	78.4	47.0	70.4#
86	18.3	20.9	31.3#

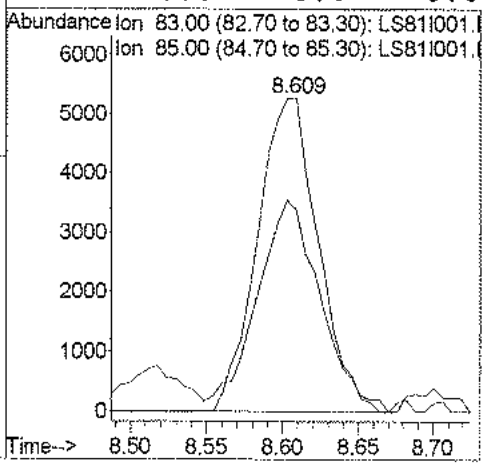


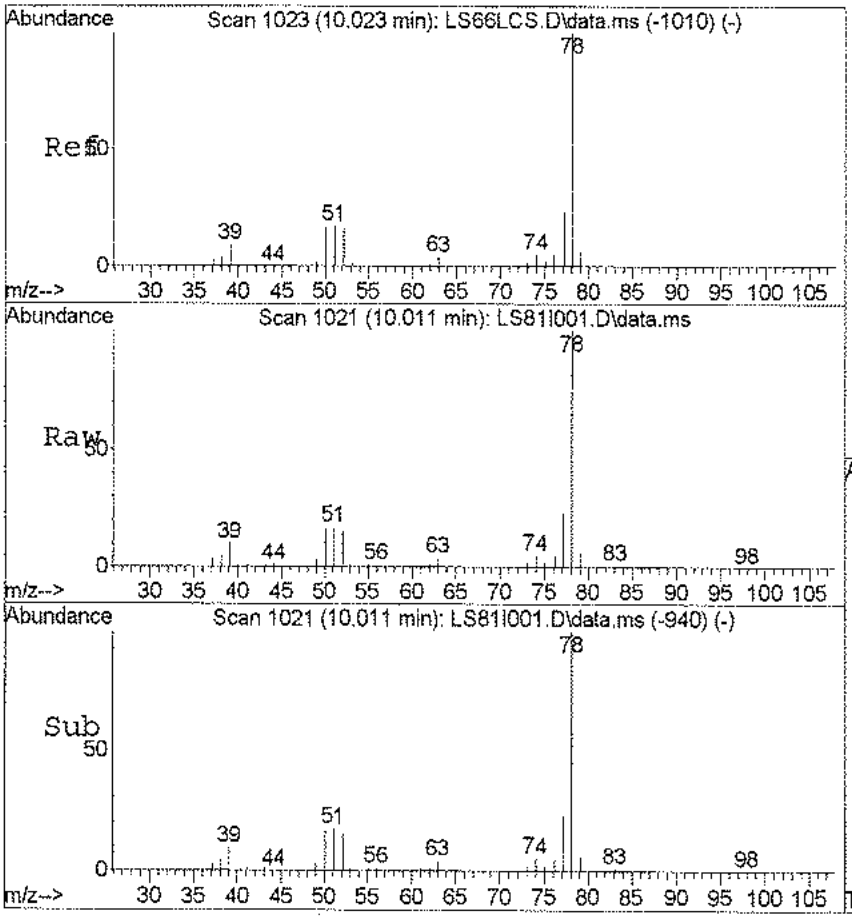


#28
Chloroform
Concen: 0.28 ppb
RT: 8.61 min Scan# 791
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:83 Resp: 14625

Ion	Ratio	Lower	Upper
83	100		
85	70.4	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

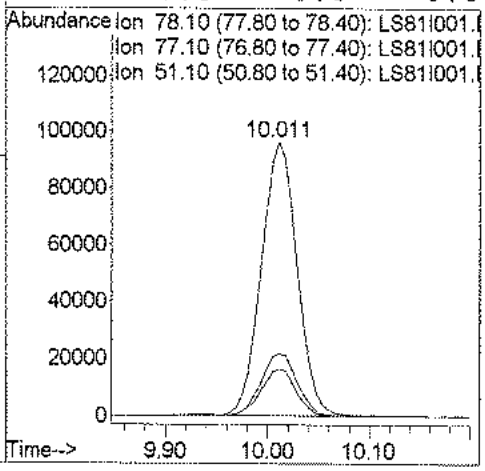


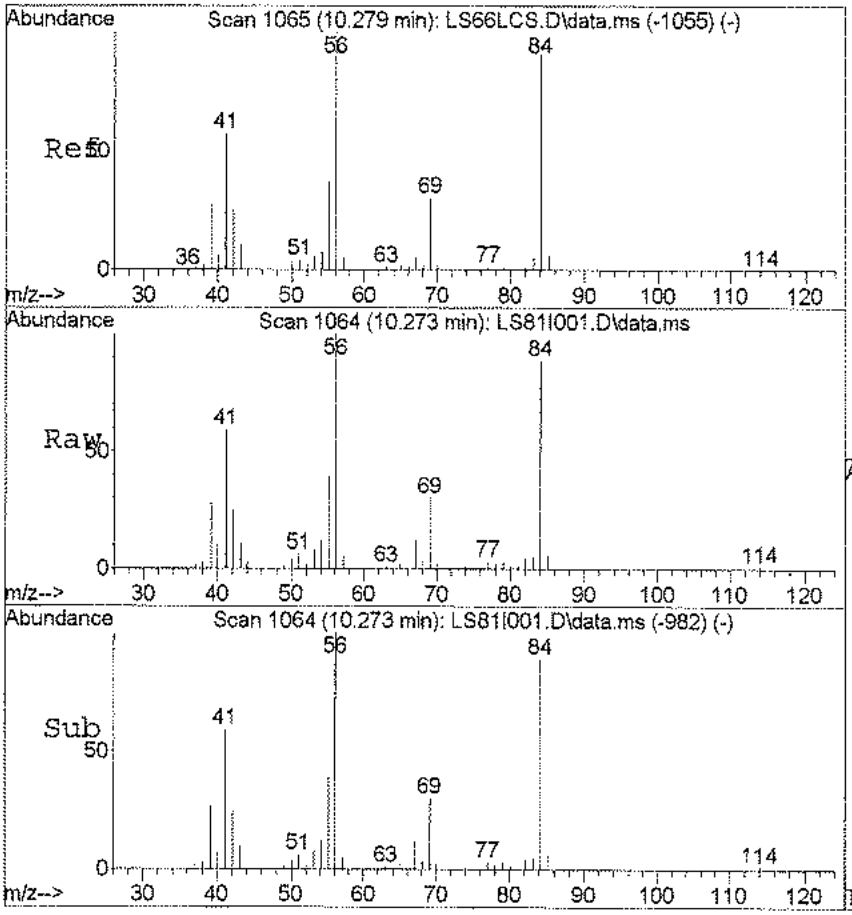


#32
Benzene
Concen: 3.56 ppb
RT: 10.01 min Scan# 1021
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:78.1 Resp: 232734

Ion	Ratio	Lower	Upper
78	100		
77	23.5	18.2	27.4
51	17.2	9.5	14.3#
0	0.0	0.0	0.0

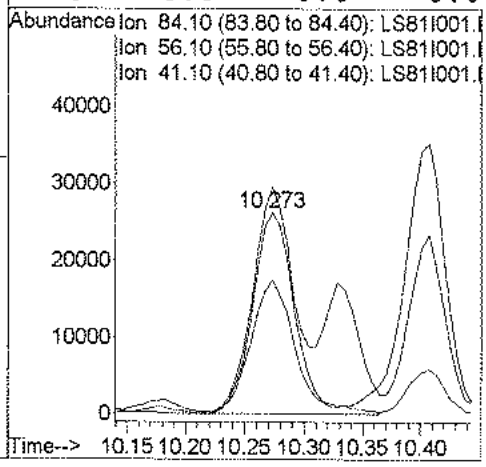


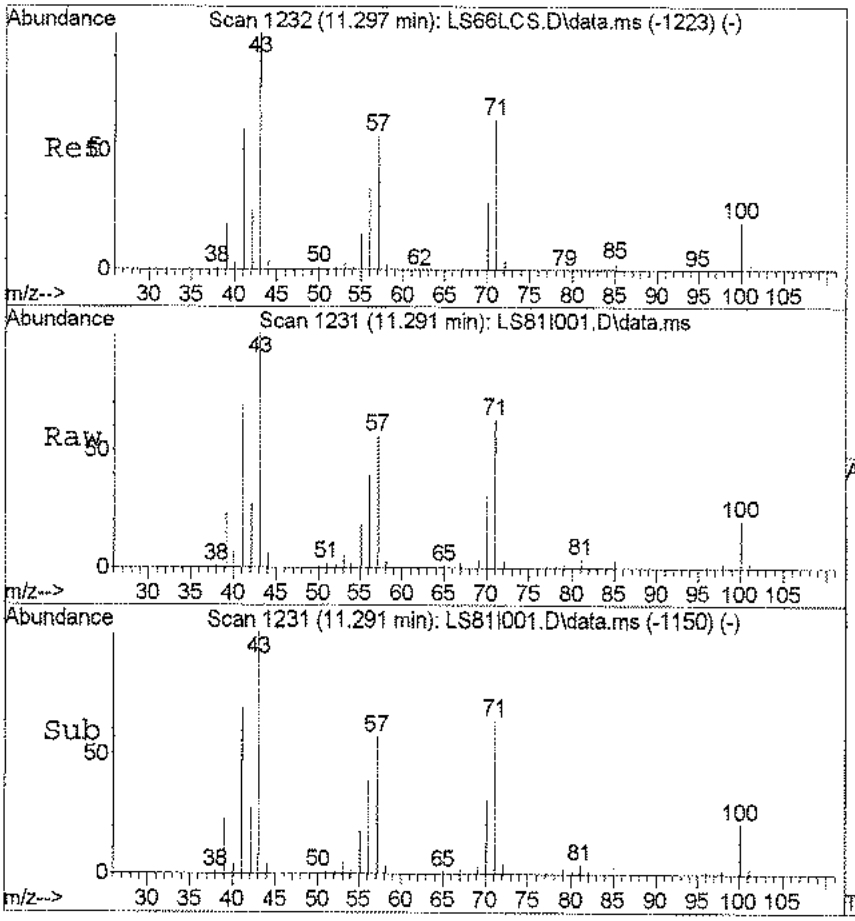


#34
Cyclohexane
Concen: 2.19 ppb
RT: 10.27 min Scan# 1064
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:84.1 Resp: 65513

Ion	Ratio	Lower	Upper
84	100		
56	112.1	67.3	100.9#
41	64.8	30.2	45.4#
0	0.0	0.0	0.0

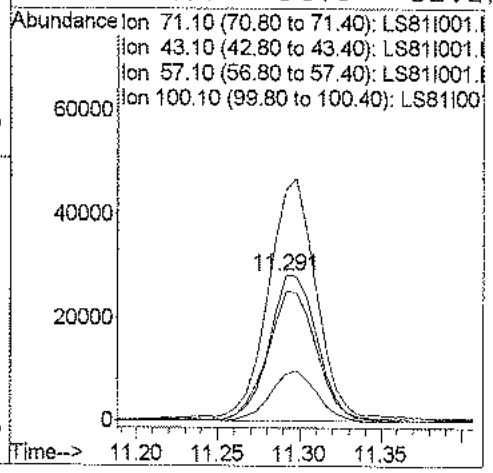


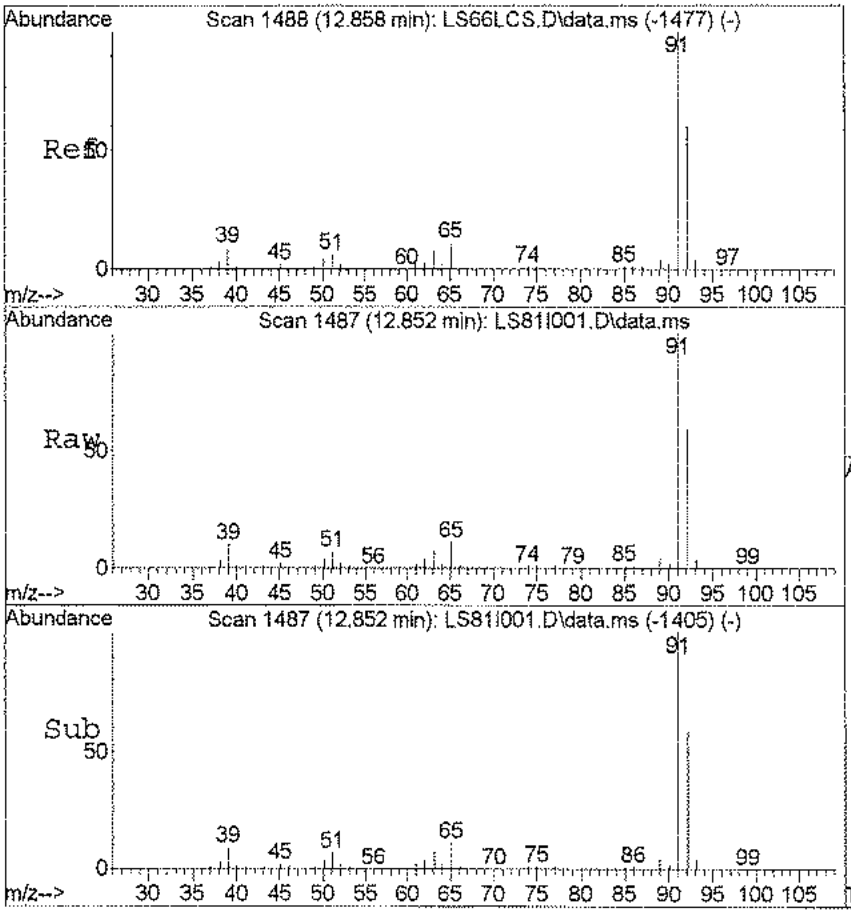


#40
Heptane
Concen: 2.78 ppb
RT: 11.29 min Scan# 1231
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:71.1 Resp: 58196

Ion	Ratio	Lower	Upper
71	100		
43	170.0	87.3	130.9#
57	89.8	57.8	86.6#
100	32.7	34.8	52.2#

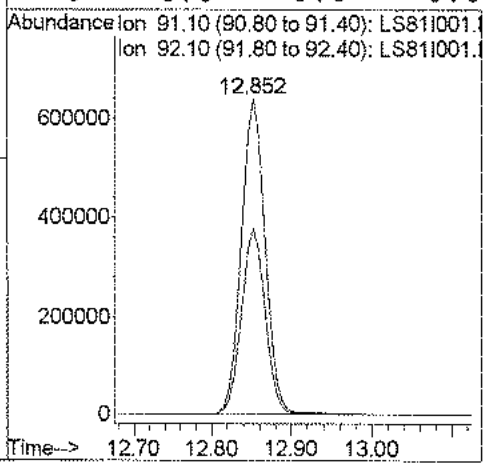


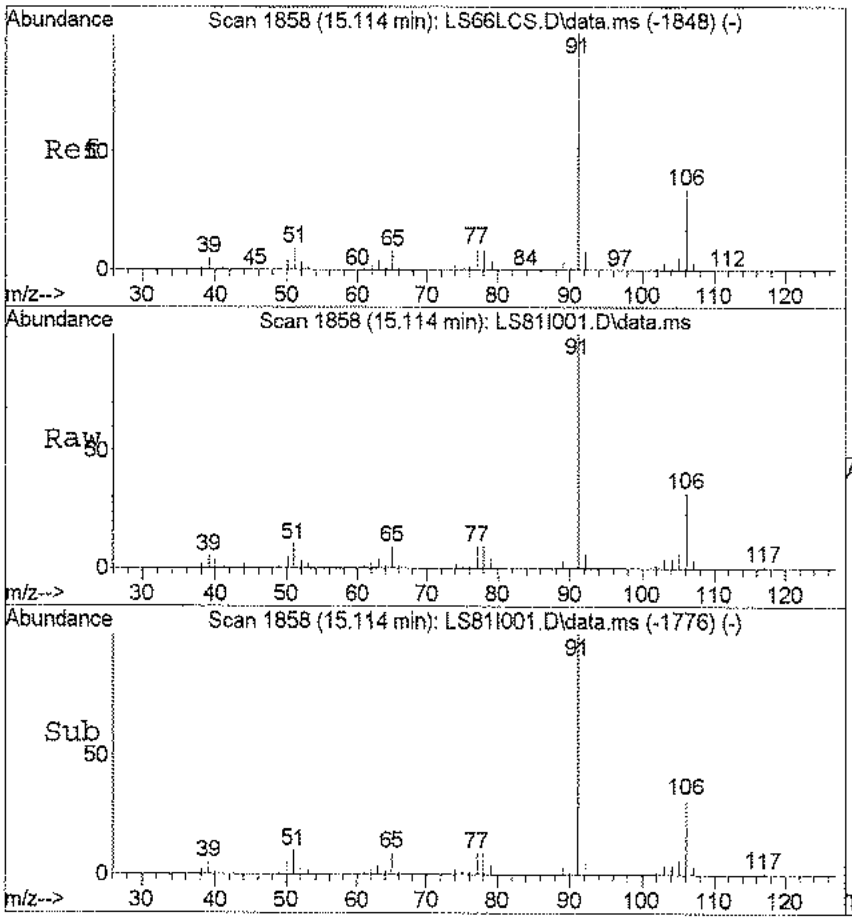


#45
Toluene
Concen: 18.08 ppb
RT: 12.85 min Scan# 1487
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:91.1 Resp: 1318601

Ion	Ratio	Lower	Upper
91	100		
92	59.2	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

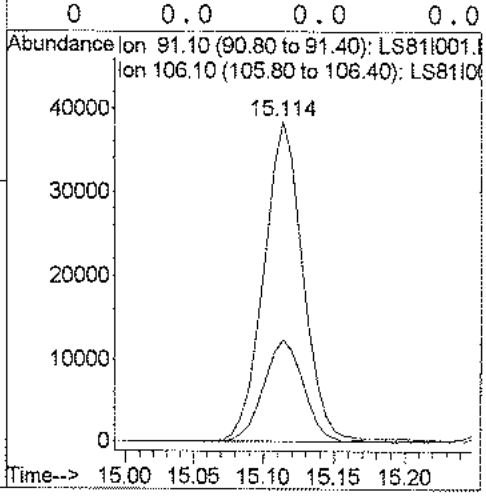


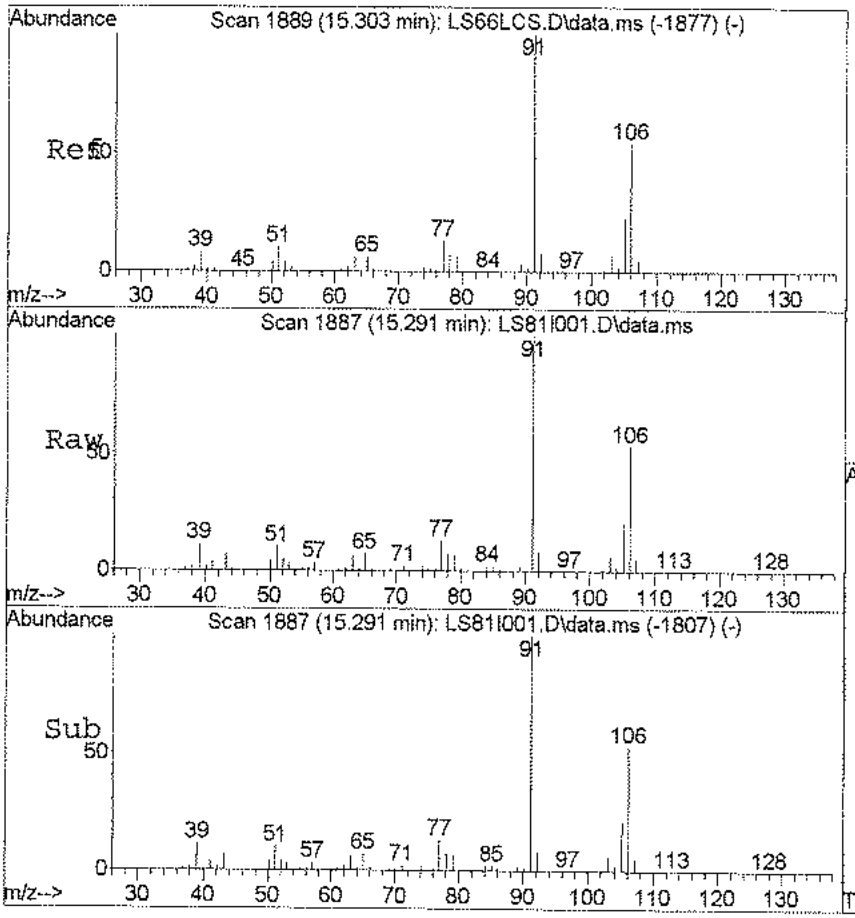


#52
Ethylbenzene
Concen: 0.79 ppb
RT: 15.11 min Scan# 1858
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:91.1 Resp: 75454

Ion	Ratio	Lower	Upper
91	100		
106	32.5	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

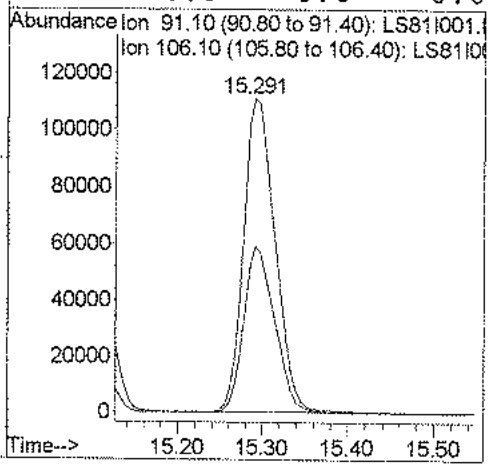


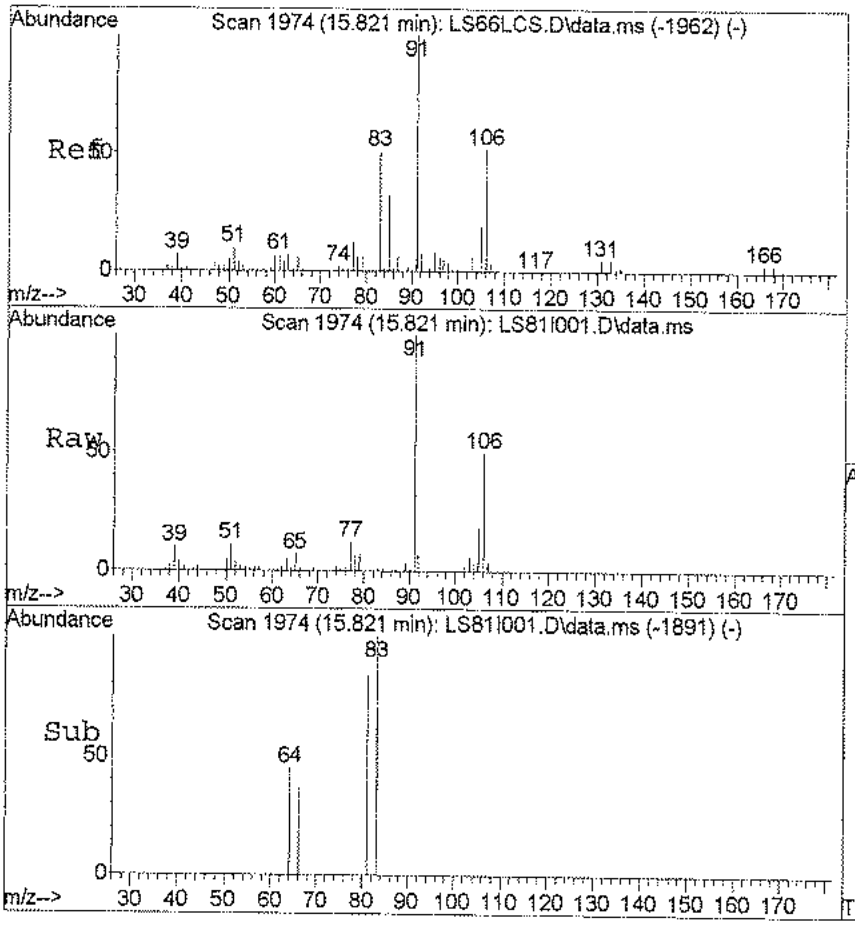


#53
m,p-Xylene
Concen: 3.88 ppb
RT: 15.29 min Scan# 1887
Delta R.T. -0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:91.1 Resp: 291398

Ion	Ratio	Lower	Upper
91	100		
106	52.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

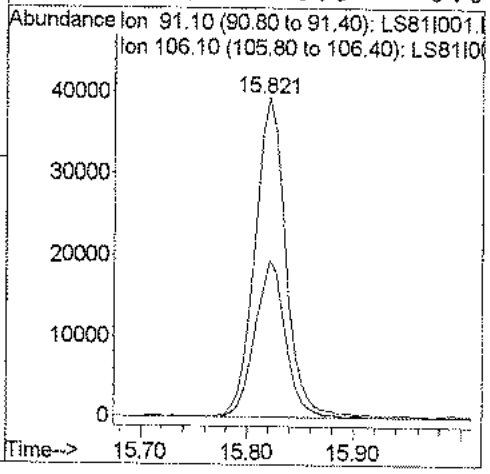


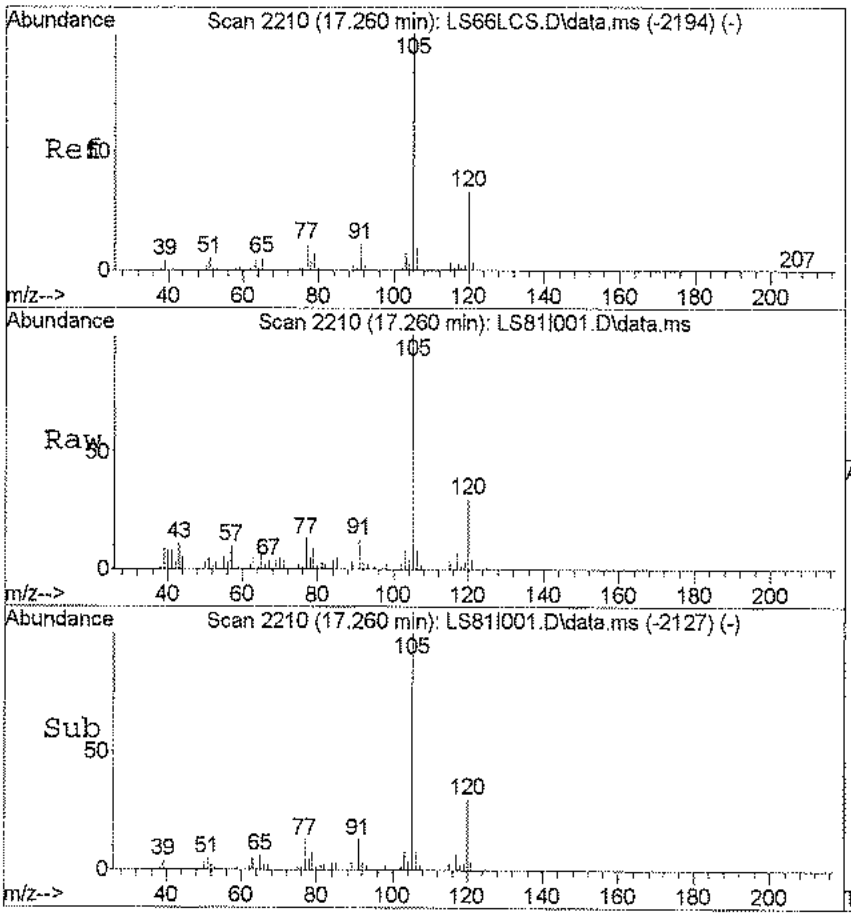


#57
o-Xylene
Concen: 1.05 ppb
RT: 15.82 min Scan# 1974
Delta R.T. 0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:91.1 Resp: 81503

Ion	Ratio	Lower	Upper
91	100		
106	48.4	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

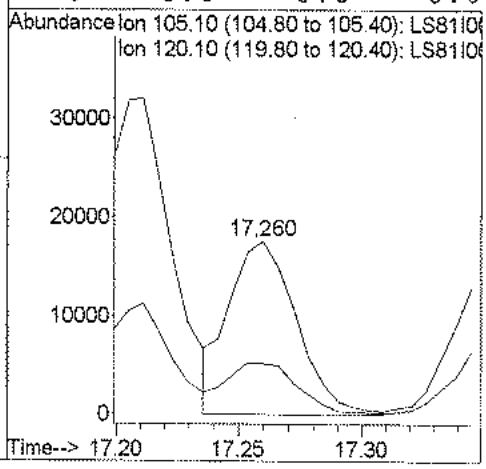


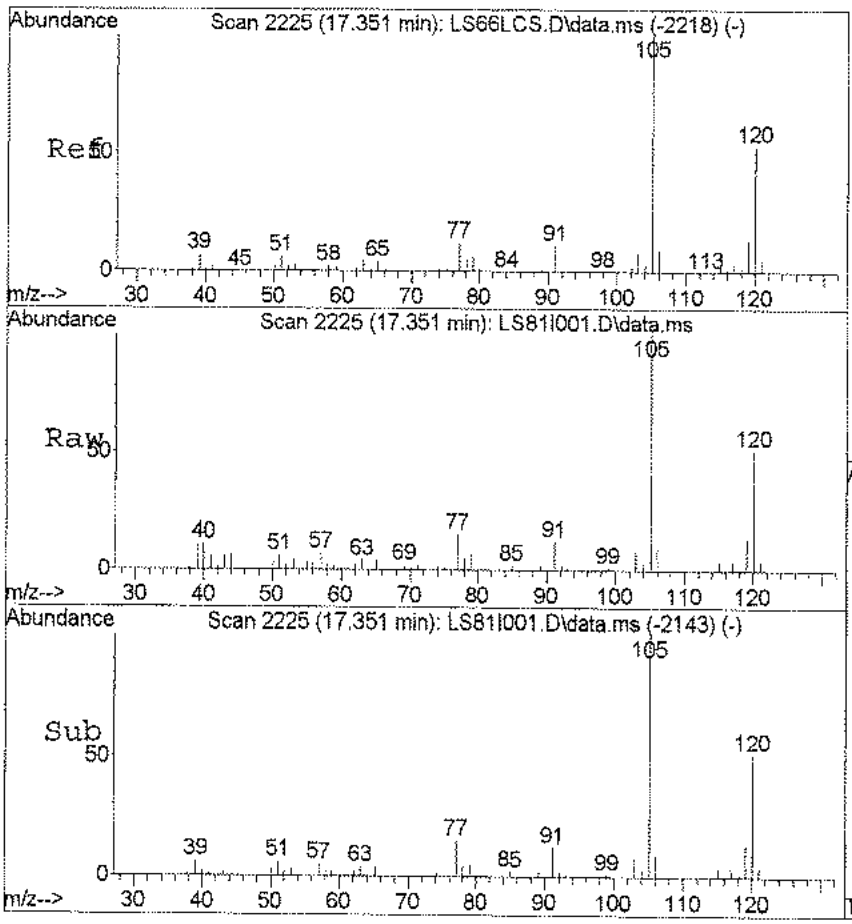


#59
4-Ethyl Toluene
Concen: 0.39 ppb
RT: 17.26 min Scan# 2210
Delta R.T. 0.01 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:105.1 Resp: 33591

Ion	Ratio	Lower	Upper
105	100		
120	32.5	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

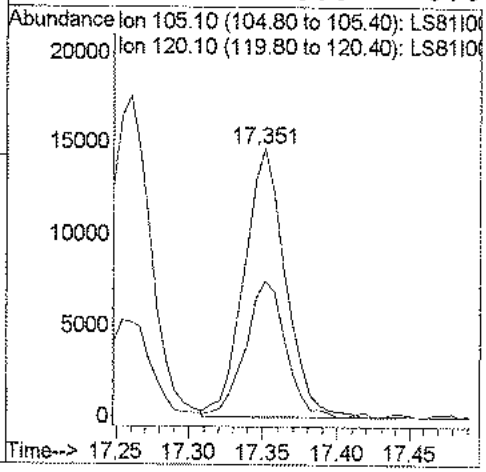


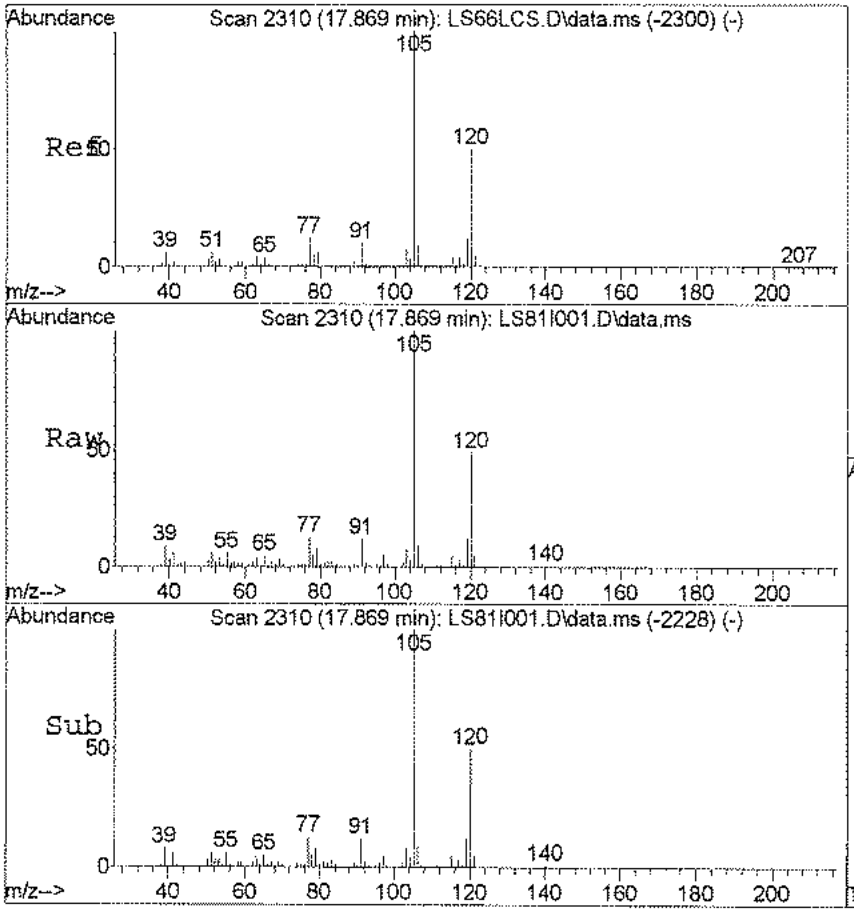


#60
1,3,5-Trimethylbenzene
Concen: 0.35 ppb
RT: 17.35 min Scan# 2225
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:105.1 Resp: 28557

Ion	Ratio	Lower	Upper
105	100		
120	49.5	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

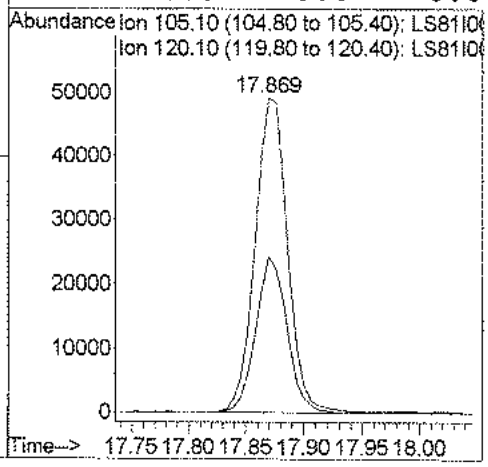




#61
1,2,4-Trimethylbenzene
Concen: 1.37 ppb
RT: 17.87 min Scan# 2310
Delta R.T. 0.00 min
Lab File: LS81I001.D
Acq: 12/10/2015 00:18

Tgt Ion:105.1 Resp: 96144

Ion	Ratio	Lower	Upper
105	100		
120	47.4	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



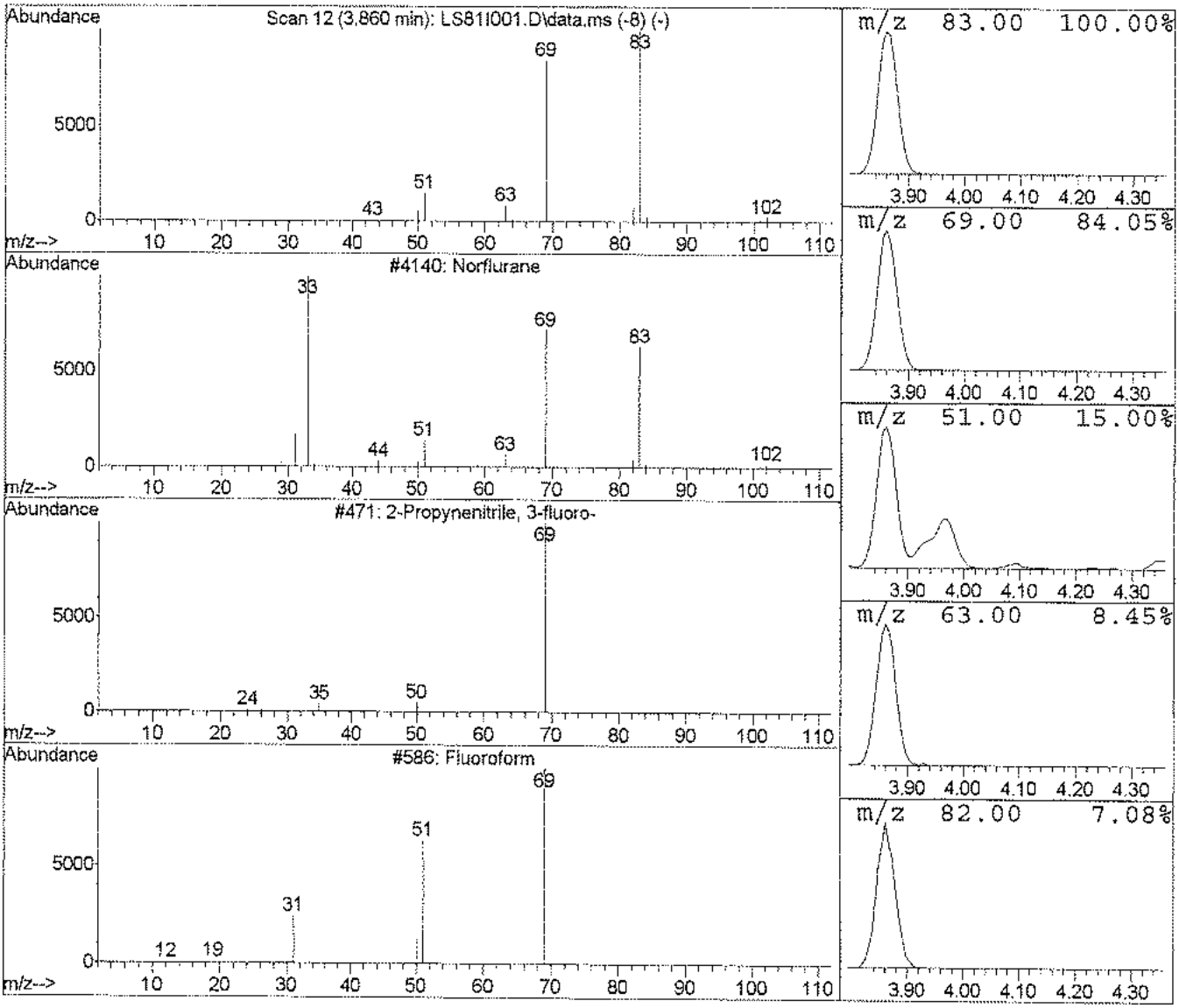
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
3.86	5.25 ppb	991163	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Norflurane	4140	000811-97-2	90.00
2	2-Propynenitrile, 3-fluoro-	471	032038-83-8	3.00
3	Fluoroform	586	000075-46-7	3.00
4	Oxazole	473	000288-42-6	3.00
5	1H-Imidazol-2-amine	1272	007720-39-0	3.00



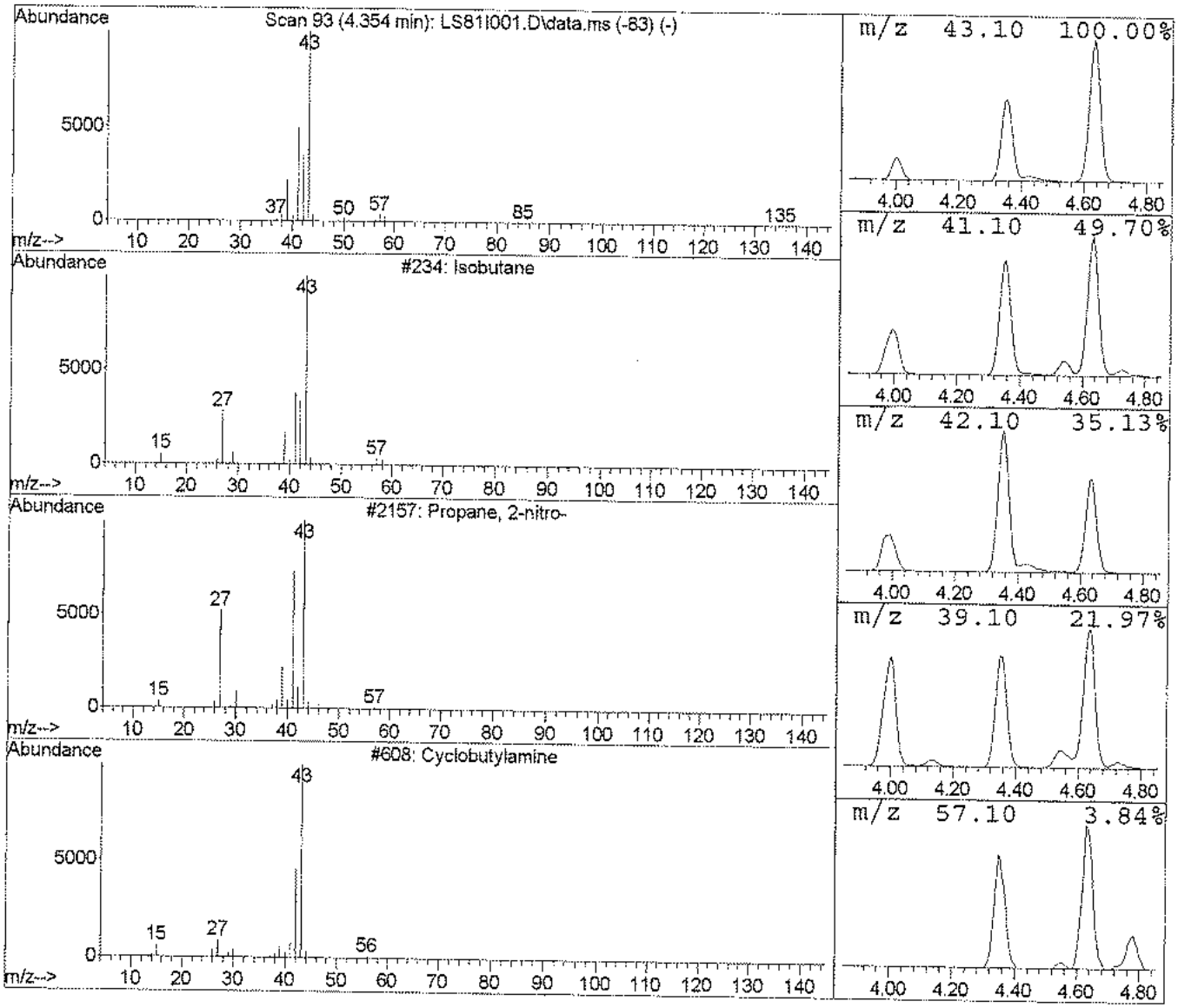
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.35	5.22 ppb	986601	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Propane, 2-nitro-	2157	000079-46-9	9.00
3	Cyclobutylamine	608	002516-34-9	9.00
4	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
5	Propane, 1-chloro-2-methyl-	2419	000513-36-0	4.00



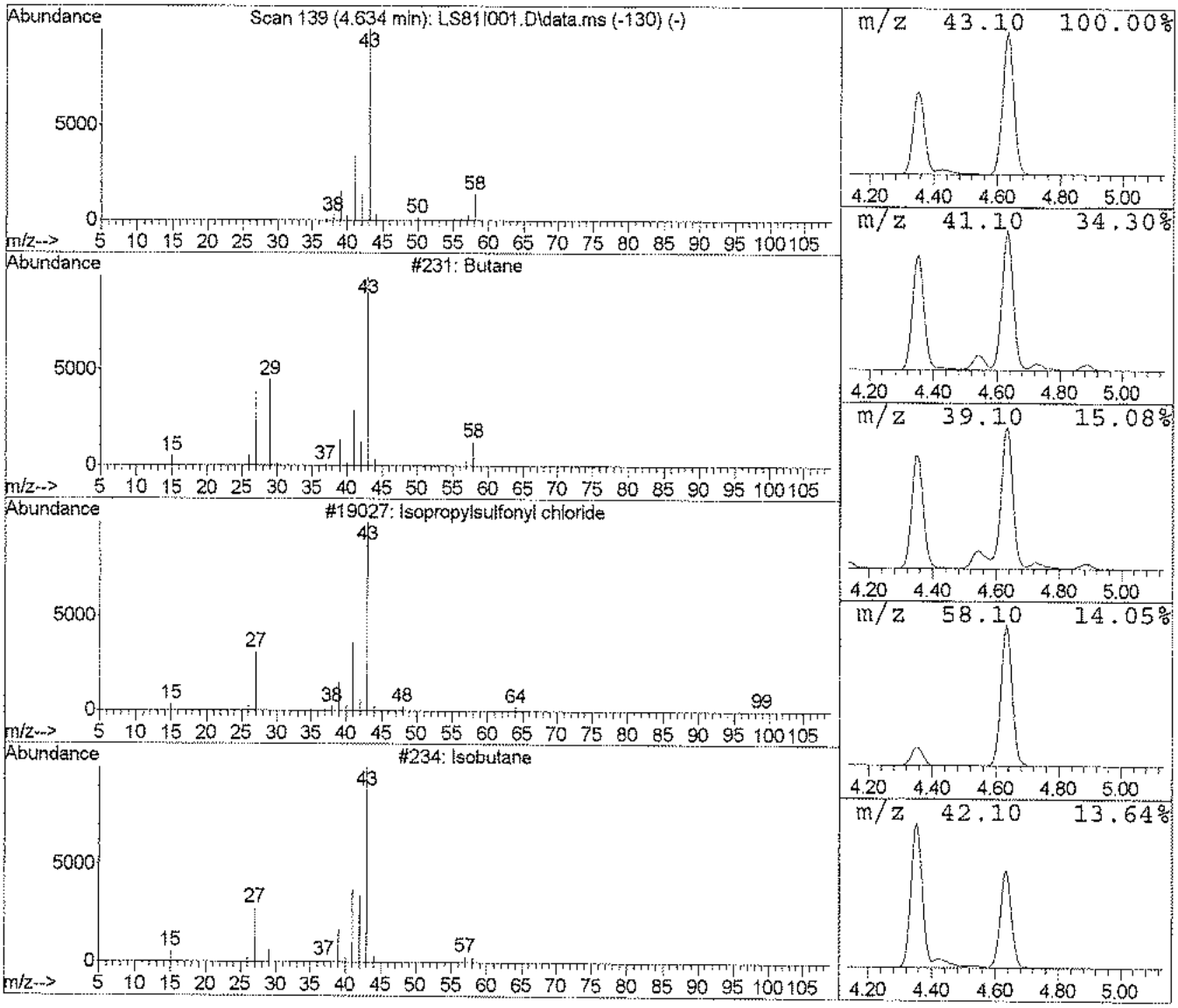
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.63	7.61 ppb	1438710	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	80.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Isobutane	234	000075-28-5	9.00
4	Propane, 1-nitro-	2152	000108-03-2	9.00
5	Cyclobutylamine	607	002516-34-9	4.00



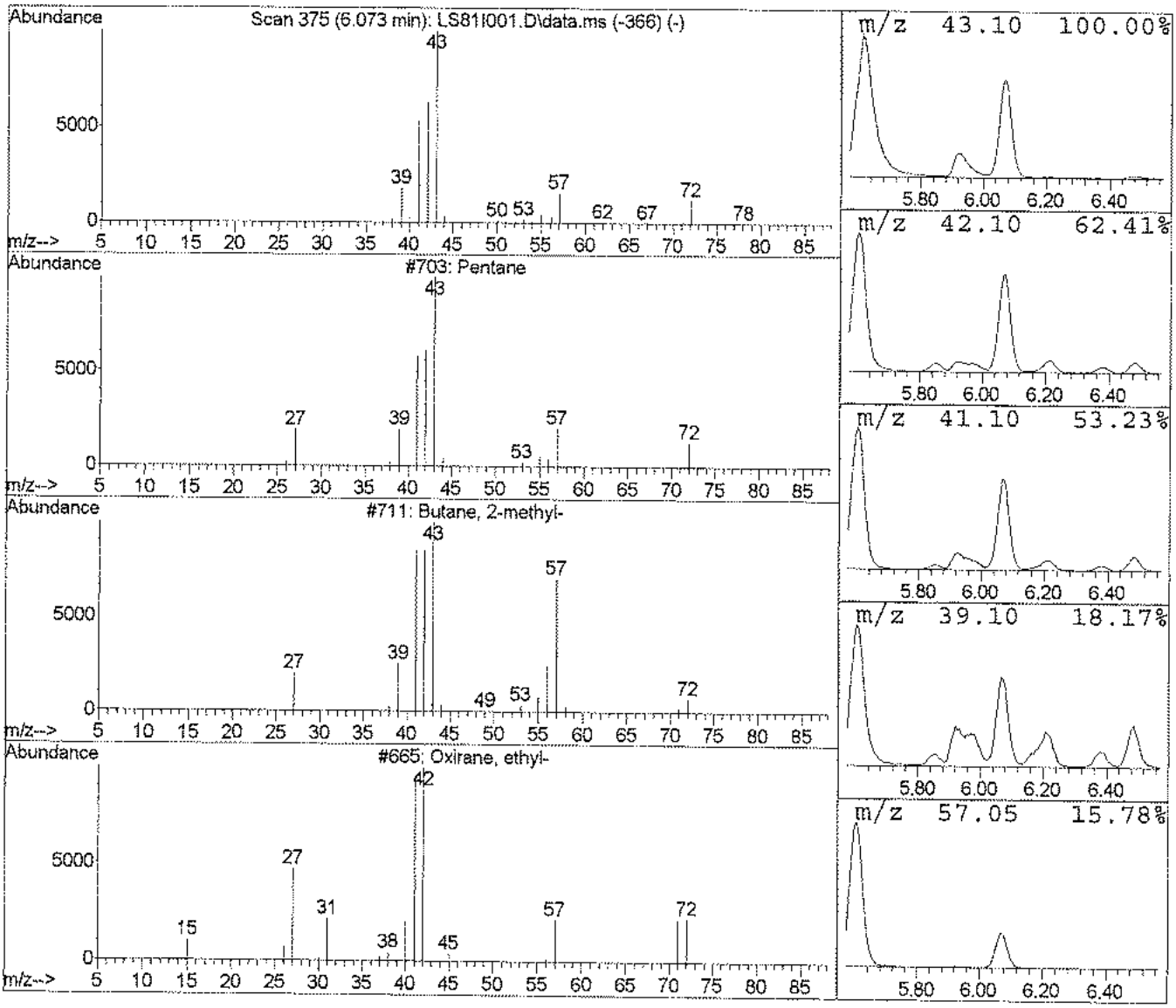
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.07	5.65 ppb	1067162	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	703	000109-66-0	91.00
2	Butane, 2-methyl-	711	000078-78-4	53.00
3	Oxirane, ethyl-	665	000106-88-7	40.00
4	Diaziridine,3,3-dimethyl-	636	004901-76-2	17.00
5	Butane, 2,3-dimethyl-	1822	000079-29-8	9.00



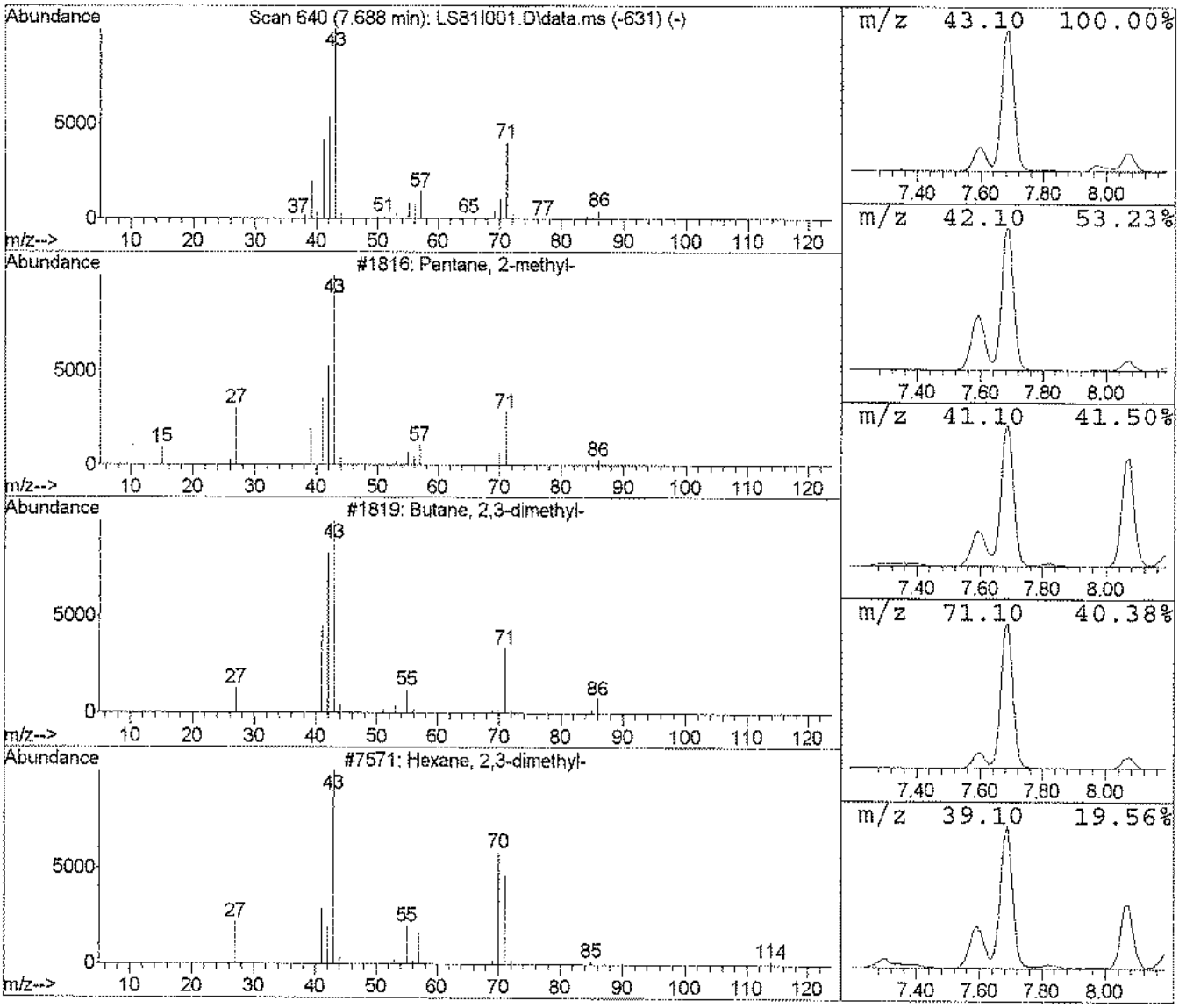
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.69	5.82 ppb	1099983	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1816	000107-83-5	90.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	47.00
3	Hexane, 2,3-dimethyl-	7571	000584-94-1	38.00
4	Pentane, 2,3,4-trimethyl-	7582	000565-75-3	37.00
5	Ether, hexyl pentyl	38914	032357-83-8	33.00



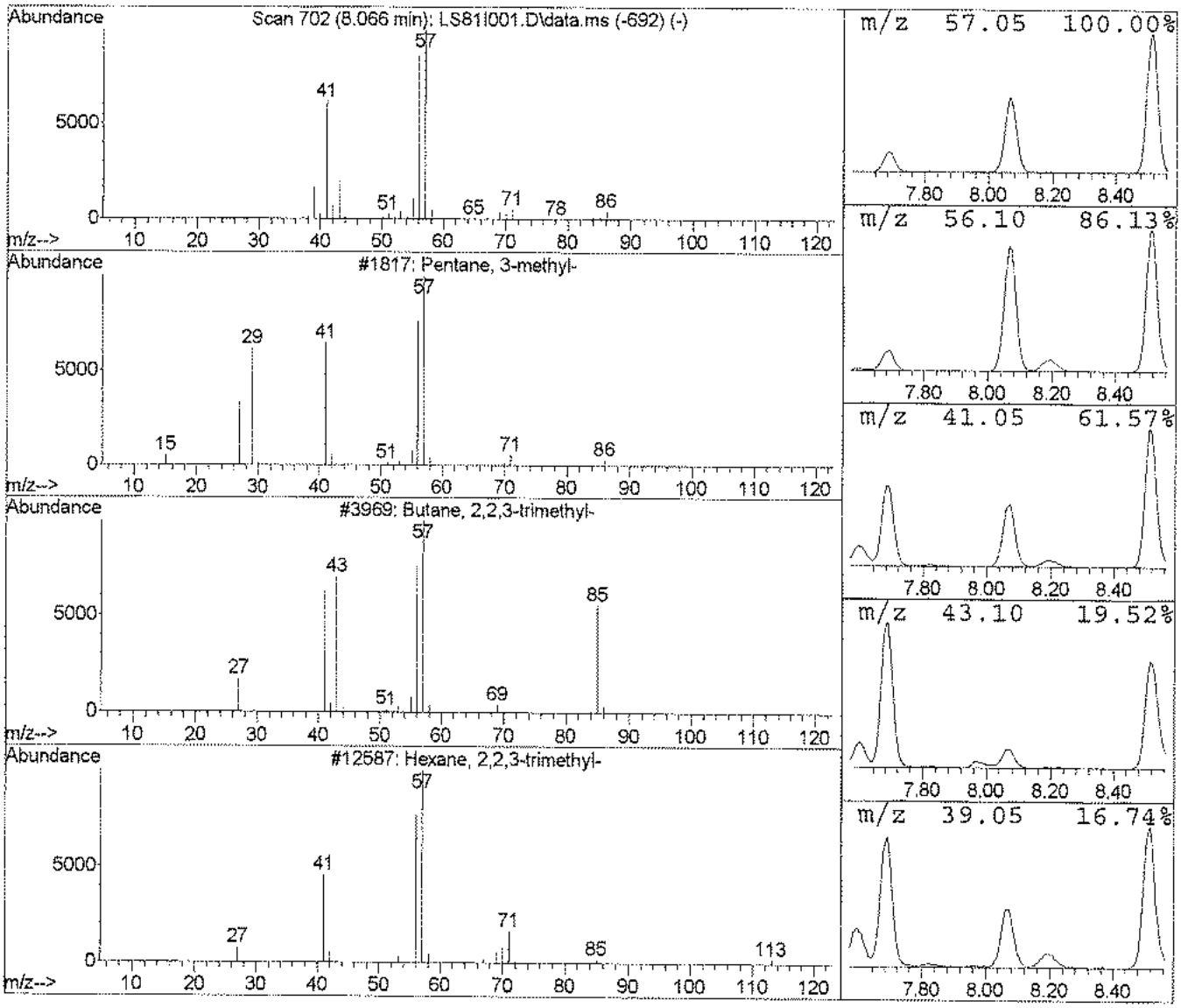
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.07	3.13 ppb	592197	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1817	000096-14-0	90.00
2	Butane, 2,2,3-trimethyl-	3969	000464-06-2	83.00
3	Hexane, 2,2,3-trimethyl-	12587	016747-25-4	78.00
4	Hexane, 3,4-dimethyl-	7564	000583-48-2	78.00
5	Oxirane, (1-methylethyl)-	1788	001438-14-8	45.00



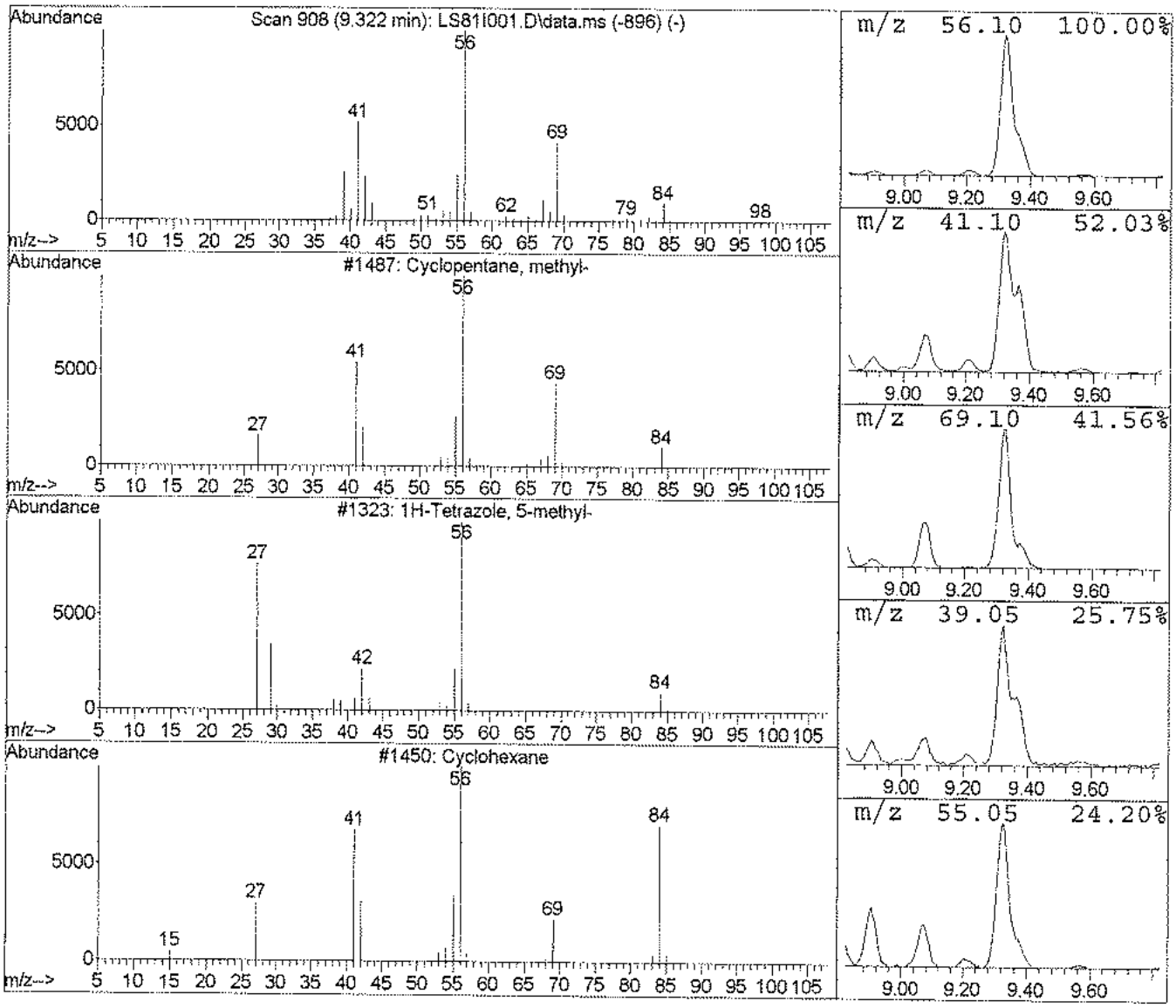
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.32	2.52 ppb	476804	Bromochloromethane	3778730

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	90.00
2	1H-Tetrazole, 5-methyl-	1323	004076-36-2	72.00
3	Cyclohexane	1450	000110-82-7	72.00
4	Cyclobutane, ethyl-	1464	004806-61-5	64.00
5	Cyclobutane	177	000287-23-0	47.00



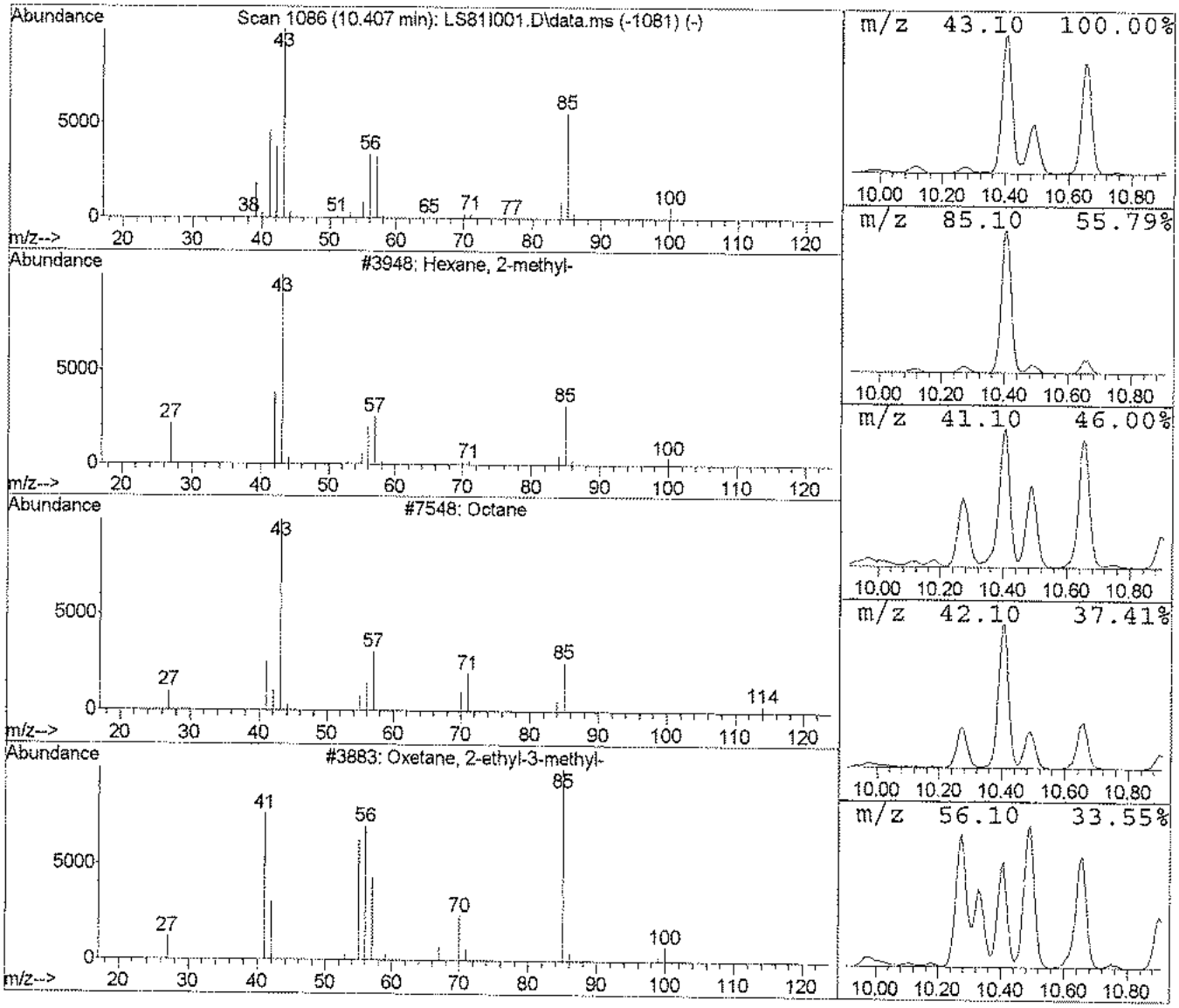
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.41	3.12 ppb	619873	1,4-Difluorobenzene	3977865

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 2-methyl-	3948	000591-76-4	90.00
2	Octane	7548	000111-65-9	59.00
3	Oxetane, 2-ethyl-3-methyl-	3883	053778-62-4	53.00
4	Hexane, 2,3,3-trimethyl-	12580	016747-28-7	53.00
5	2-Pyrrolidinone	1534	000616-45-5	53.00



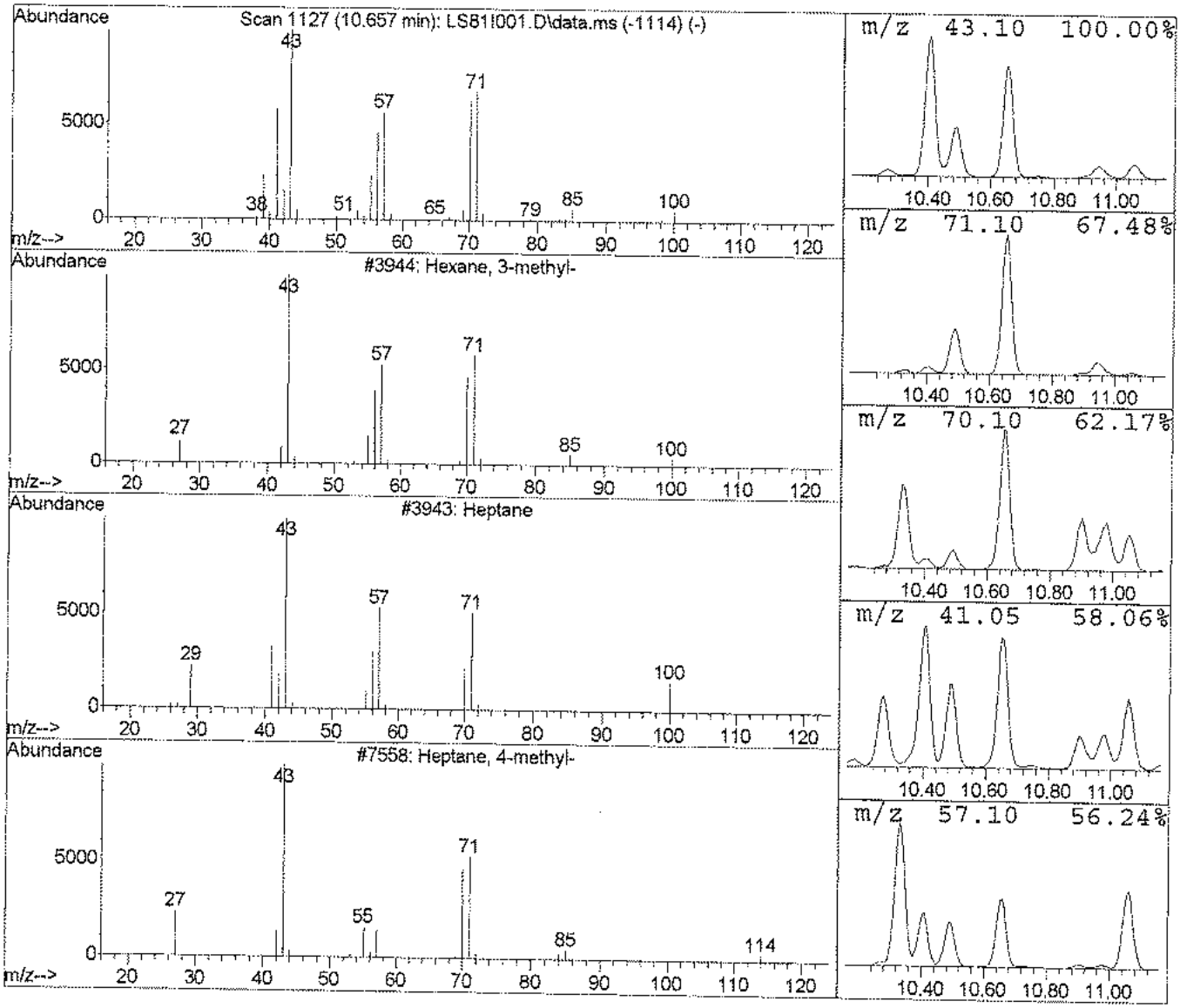
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
10.66	3.35 ppb	665693	1,4-Difluorobenzene	3977865

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexane, 3-methyl-	3944	000589-34-4	91.00
2	Heptane	3943	000142-82-5	80.00
3	Heptane, 4-methyl-	7558	000589-53-7	59.00
4	Decane, 3,3,4-trimethyl-	47693	049622-18-6	53.00
5	Pentane, 2,3,4-trimethyl-	7582	000565-75-3	53.00



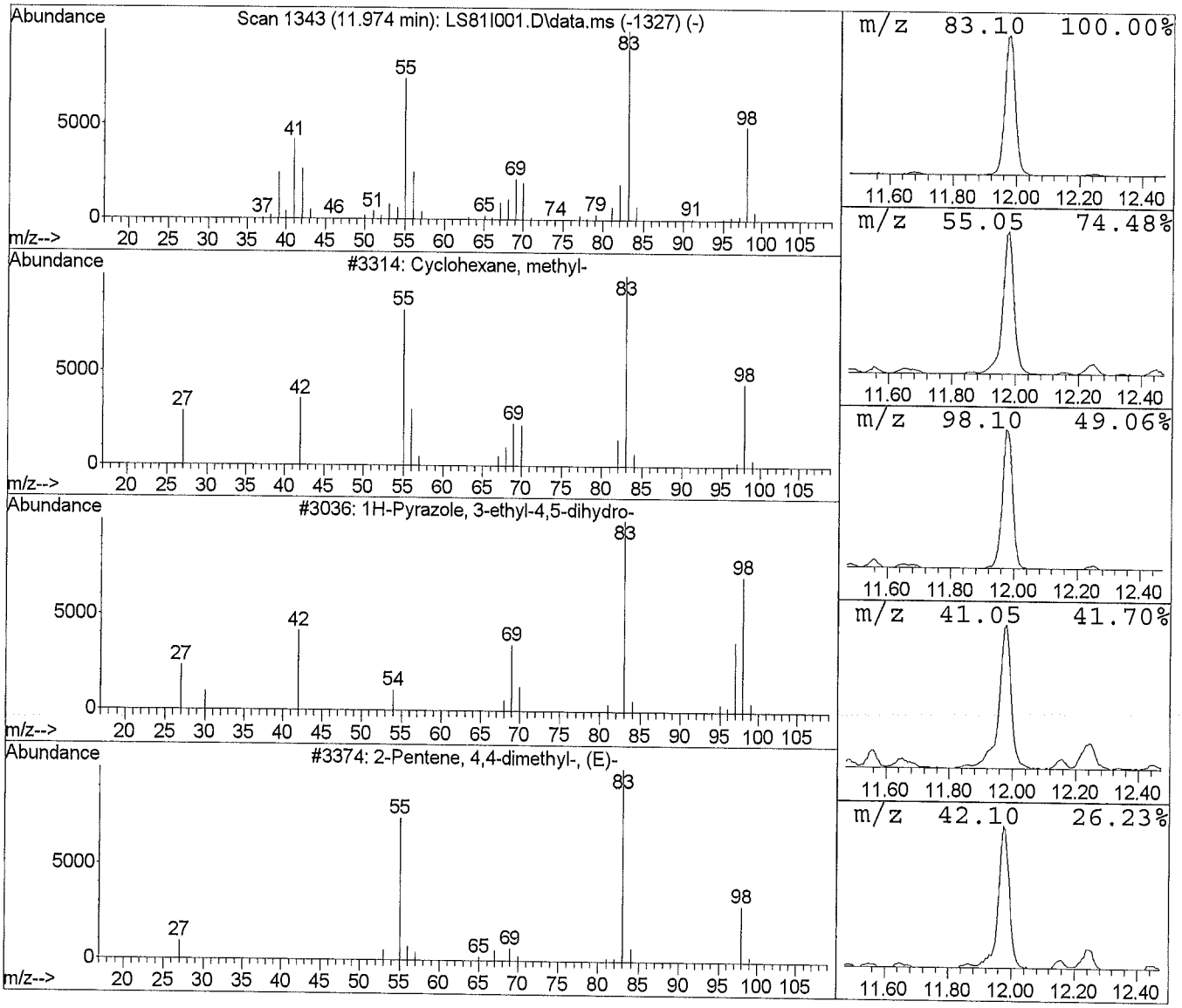
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS81I001.D Vial: 13
Acq Time : 12/10/2015 00:18 Operator: TJM
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
11.97	3.73 ppb	740984	1,4-Difluorobenzene	3977865

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane, methyl-	3314	000108-87-2	96.00
2	1H-Pyrazole, 3-ethyl-4,5-dihydro-	3036	005920-29-6	64.00
3	2-Pentene, 4,4-dimethyl-, (E)-	3374	000690-08-4	58.00
4	2-Pentene, 2,3-dimethyl-	3323	010574-37-5	58.00
5	2-Pentene, 3,4-dimethyl-, (Z)-	3372	004914-91-4	53.00

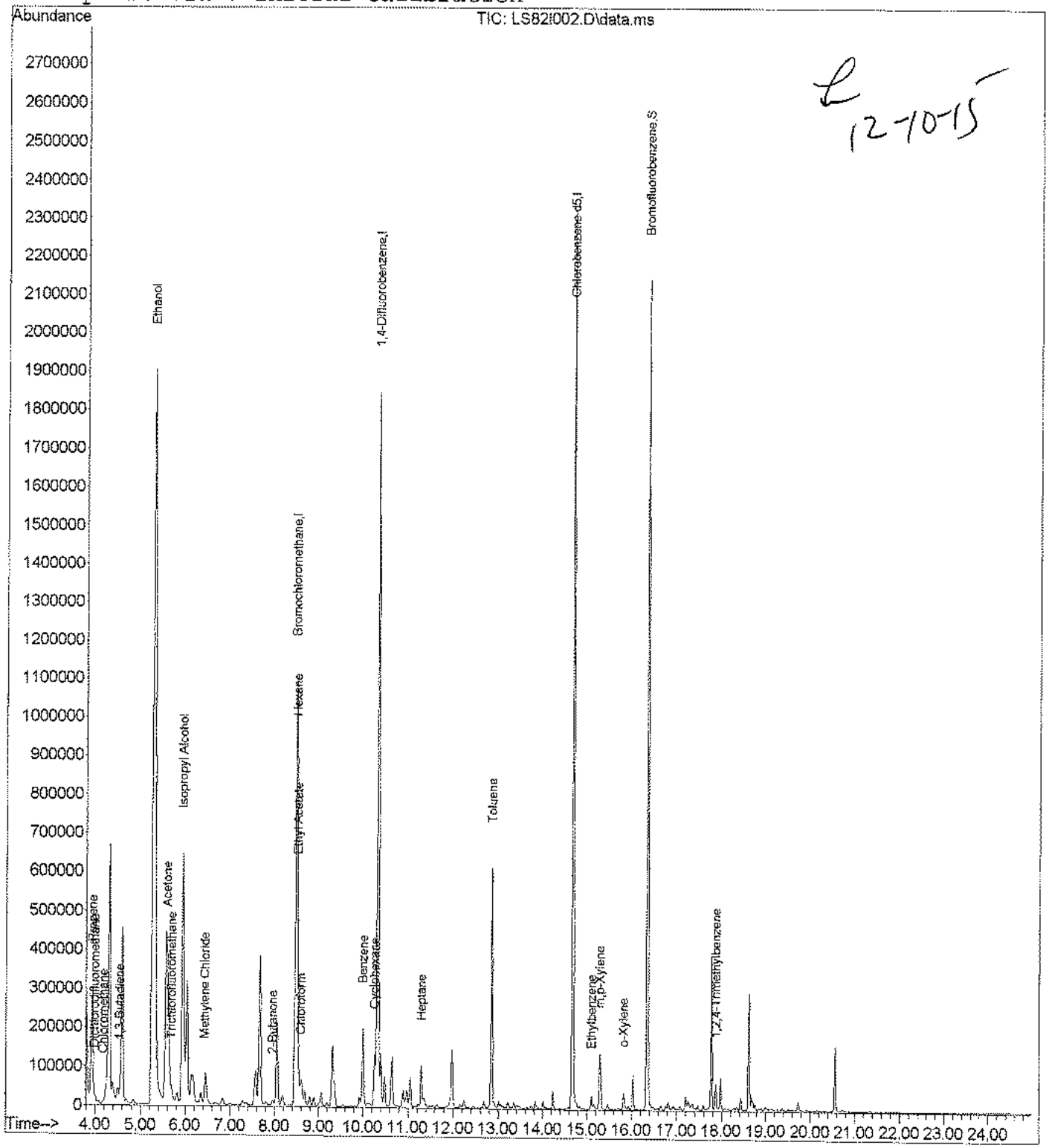


Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:22:35 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:22:35 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.48	130	190144	20.0000 ppb	66.81
25) 1,4-Difluorobenzene	10.32	114	1954829	20.0000 ppb	67.33
50) Chlorobenzene d5	14.68	117	1620857	20.0000 ppb	69.72
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	934207	20.4442 ppb	102.22%
Target Compounds					Qvalue
2) Propene	3.93	41	132621	8.8512 ppb	#TC 60
3) Dichlorodifluoromethane	4.00	85	33817	0.5161 ppb	99
4) Chloromethane	4.17	50	12233	0.6530 ppb	95
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.54	54	5833	0.3308 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.59	43	618338	18.9753 ppb m	h 78
12) Trichlorofluoromethane	5.70	101	26260	0.3402 ppb	100
13) Ethanol	5.27	45	4874750	607.5545 ppb	#TC 79
14) Isopropyl Alcohol	5.93	45	1321601	35.6337 ppb	TC 100
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.43	84	7722	0.3332 ppb #	72
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.95	43	24977	0.6066 ppb #	85
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.52	61	28884	4.2648 ppb #	1
27) Hexane	8.50	57	233644	6.9102 ppb #	42
28) Chloroform	8.59	83	36738	0.6424 ppb	99
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.00	78	218219	3.0302 ppb #	95
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.26	84	63758	1.9380 ppb #	67
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:22:35 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

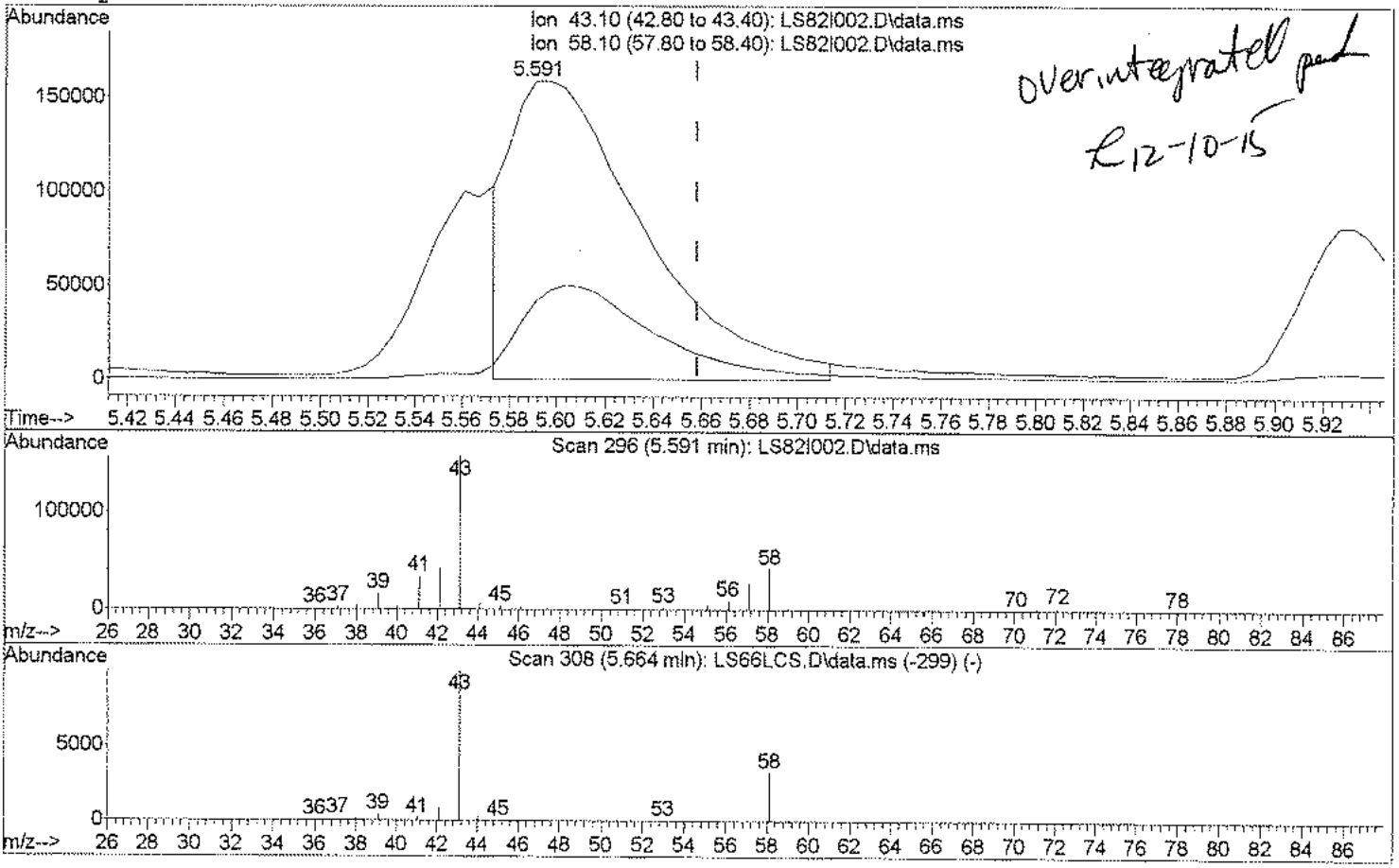
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.29	71	26130	1.1334 ppb #	60
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	536350	6.6800 ppb	98
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	29601	0.2968 ppb	96
53)	m,p-Xylene	15.29	91	116189	1.4774 ppb	96
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	31508	0.3870 ppb	94
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	41106	0.5576 ppb	97
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS82I002.D
Acq On : 12/10/2015 01:08
Operator : TJM
Sample : 1534300002
Inst : 5975-L
Misc : BAS
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 10 08:10:41 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration



Over integrated peak
12-10-15

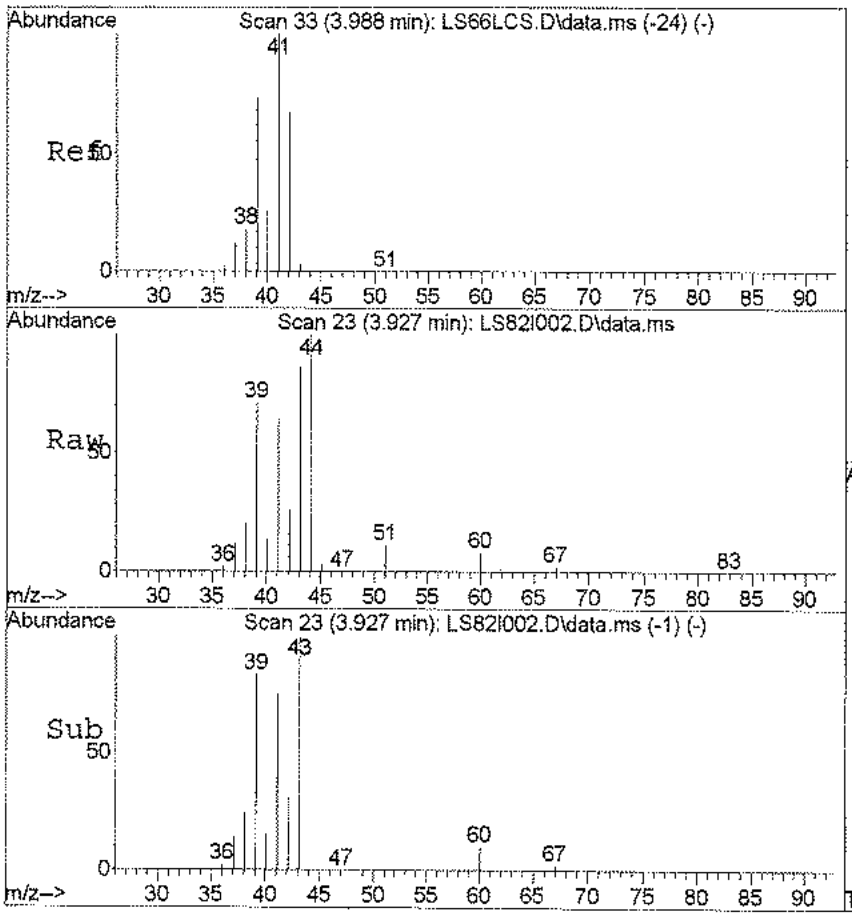
TIC: LS82I002.D\data.ms

(11) Acetone

5.591min (-0.067) 18.98 ppb m

response 618338

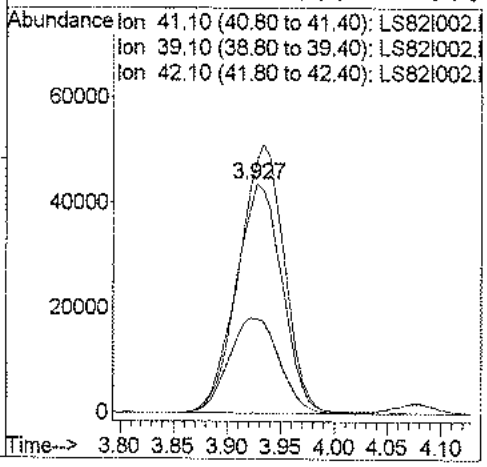
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	34.04
0.00	0.00	0.00
0.00	0.00	0.00

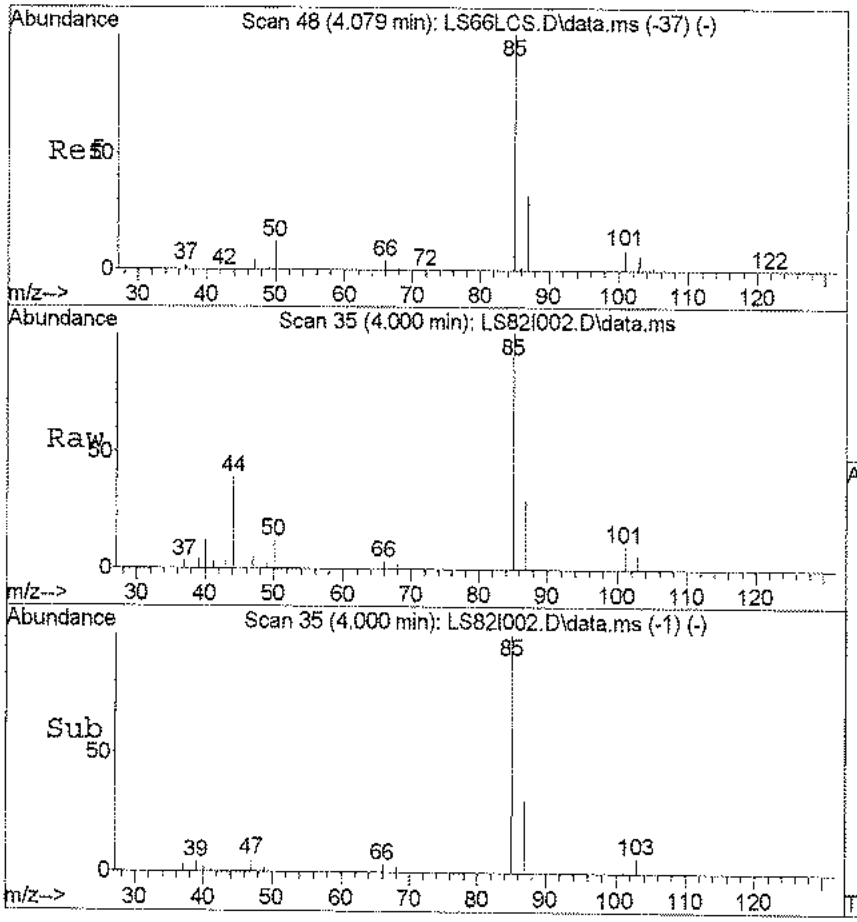


#2
Propene
Concen: 8.85 ppb
RT: 3.93 min Scan# 23
Delta R.T. -0.06 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:41.1 Resp: 132621

Ion	Ratio	Lower	Upper
41	100		
39	112.9	56.2	84.4#
42	44.8	53.8	80.6#
0	0.0	0.0	0.0

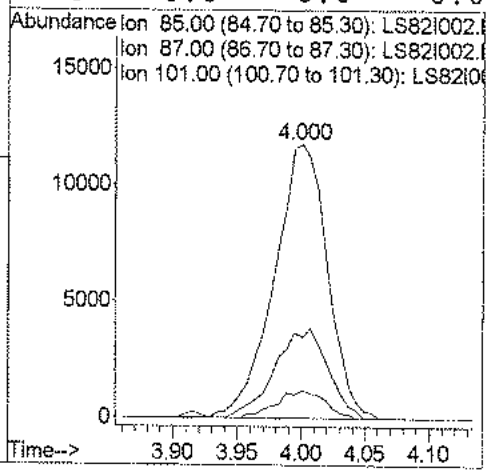


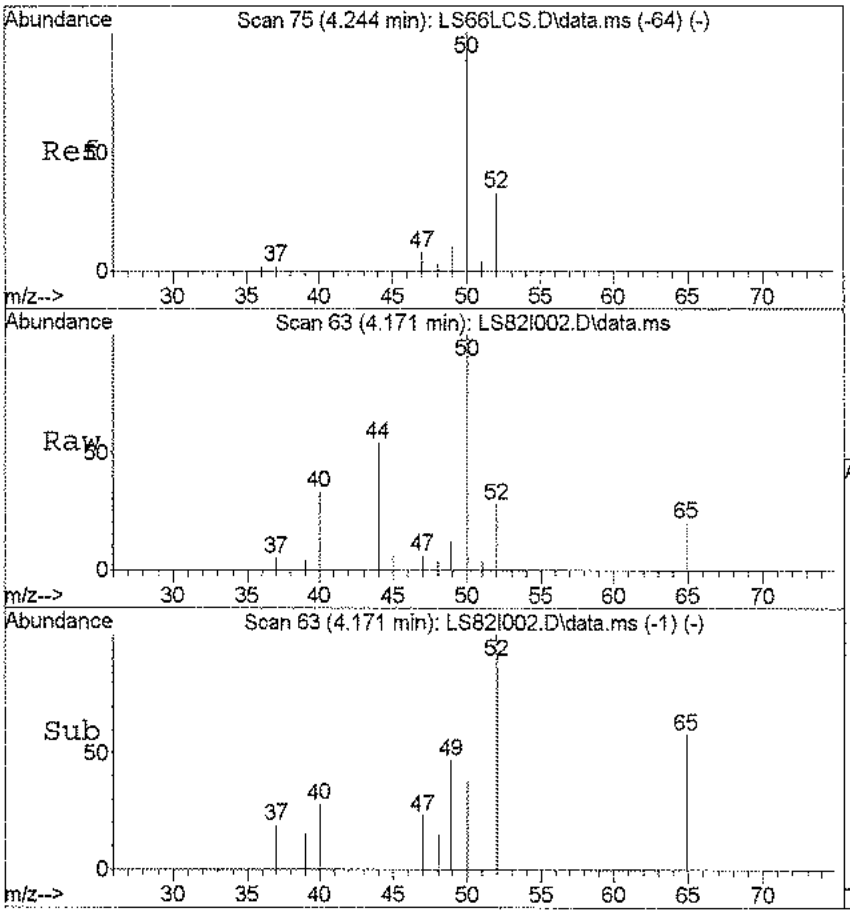


#3
Dichlorodifluoromethane
Concen: 0.52 ppb
RT: 4.00 min Scan# 35
Delta R.T. -0.07 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:85 Resp: 33817

Ion	Ratio	Lower	Upper
85	100		
87	32.8	26.1	39.1
101	9.4	8.0	12.0
0	0.0	0.0	0.0

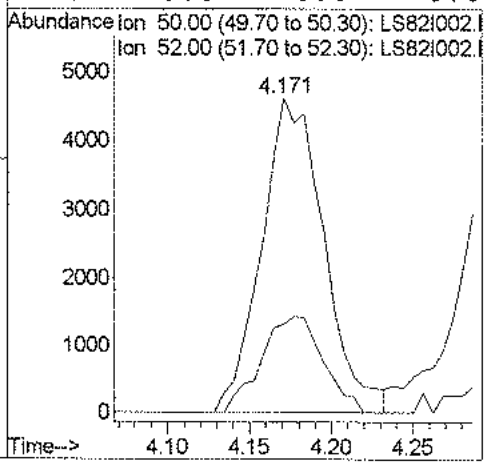


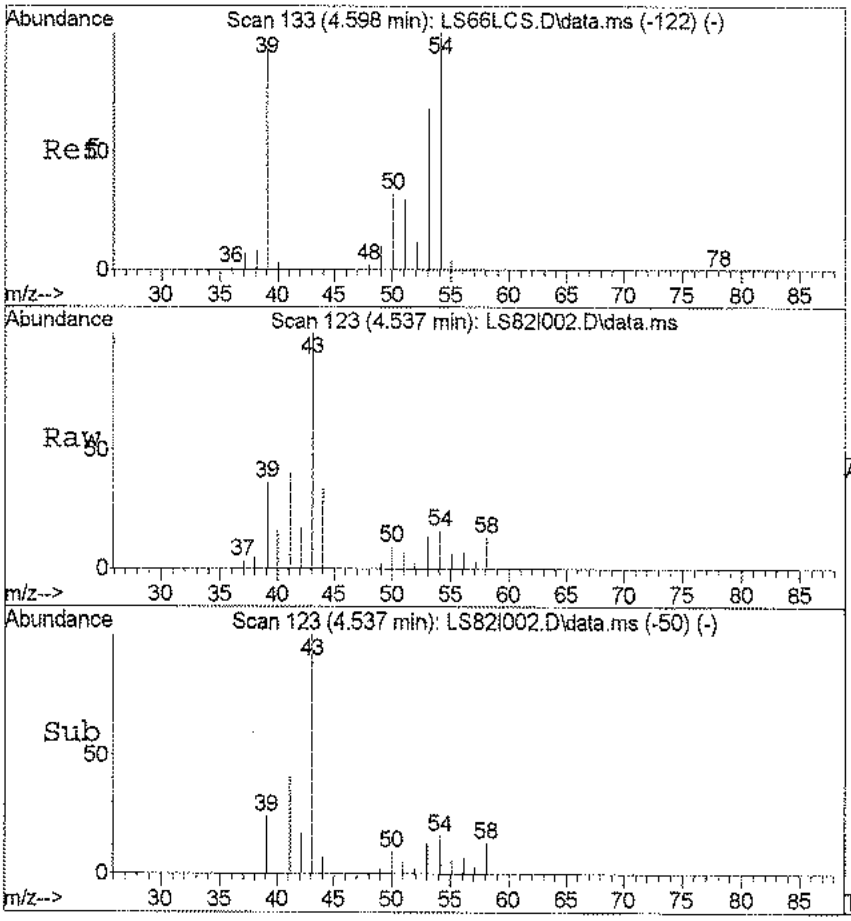


#4
Chloromethane
Concen: 0.65 ppb
RT: 4.17 min Scan# 63
Delta R.T. -0.07 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:50 Resp: 12233

Ion	Ratio	Lower	Upper
50	100		
52	30.5	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

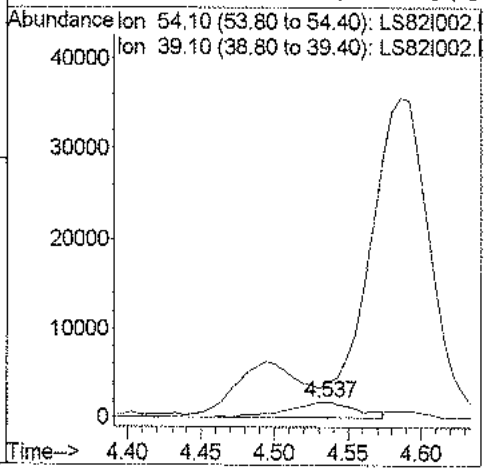


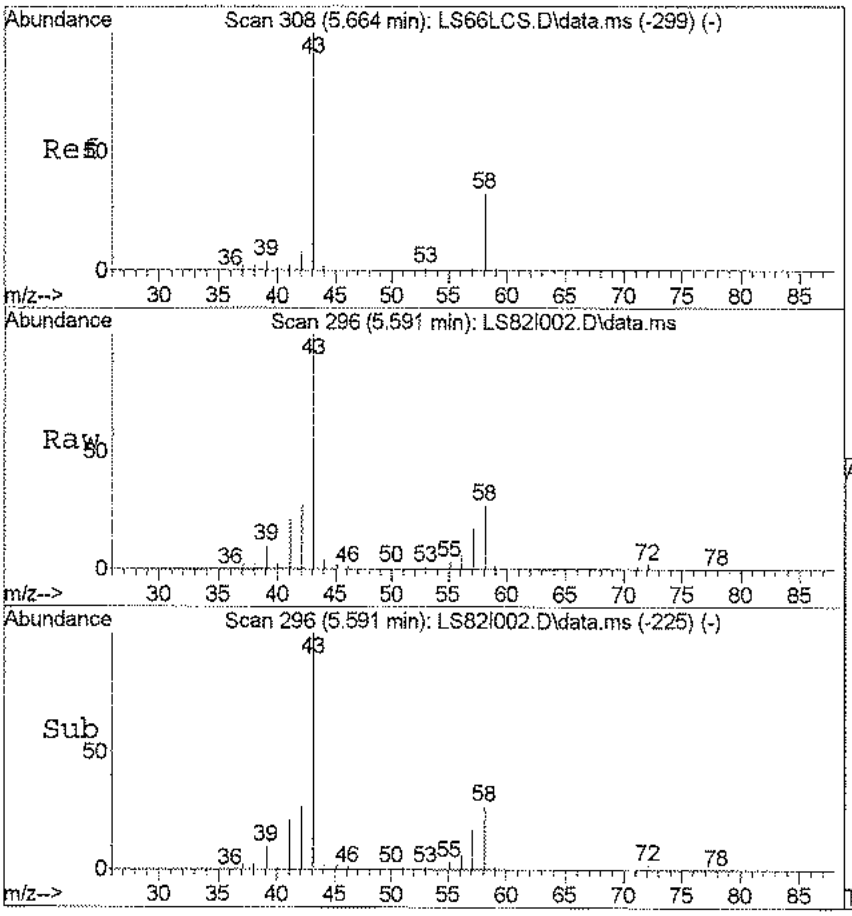


#7
1,3-Butadiene
Concen: 0.33 ppb
RT: 4.54 min Scan# 123
Delta R.T. -0.05 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:54.1 Resp: 5833

Ion	Ratio	Lower	Upper
54	100		
39	0.0	59.8	89.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

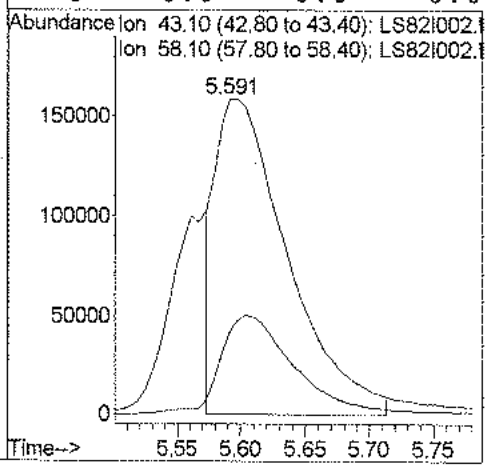


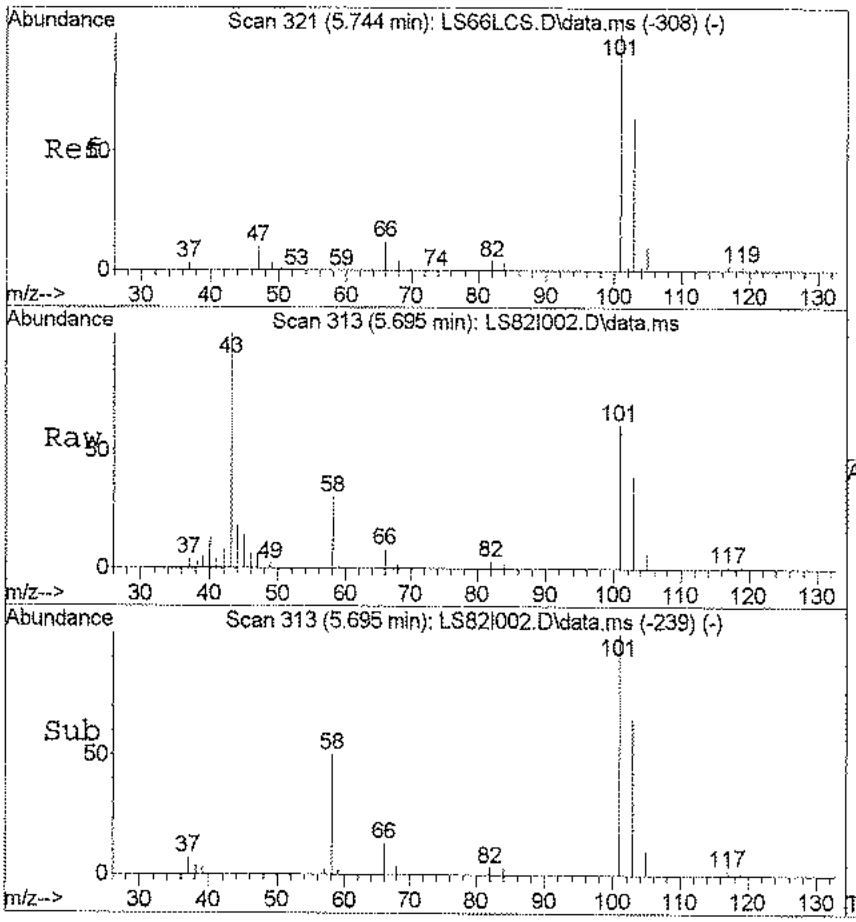


#11
Acetone
Concen: 18.98 ppb m
RT: 5.59 min Scan# 296
Delta R.T. -0.07 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:43.1 Resp: 618338

Ion	Ratio	Lower	Upper
43	100		
58	34.0	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

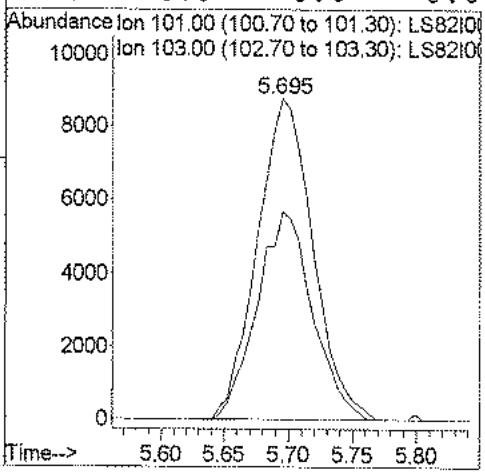


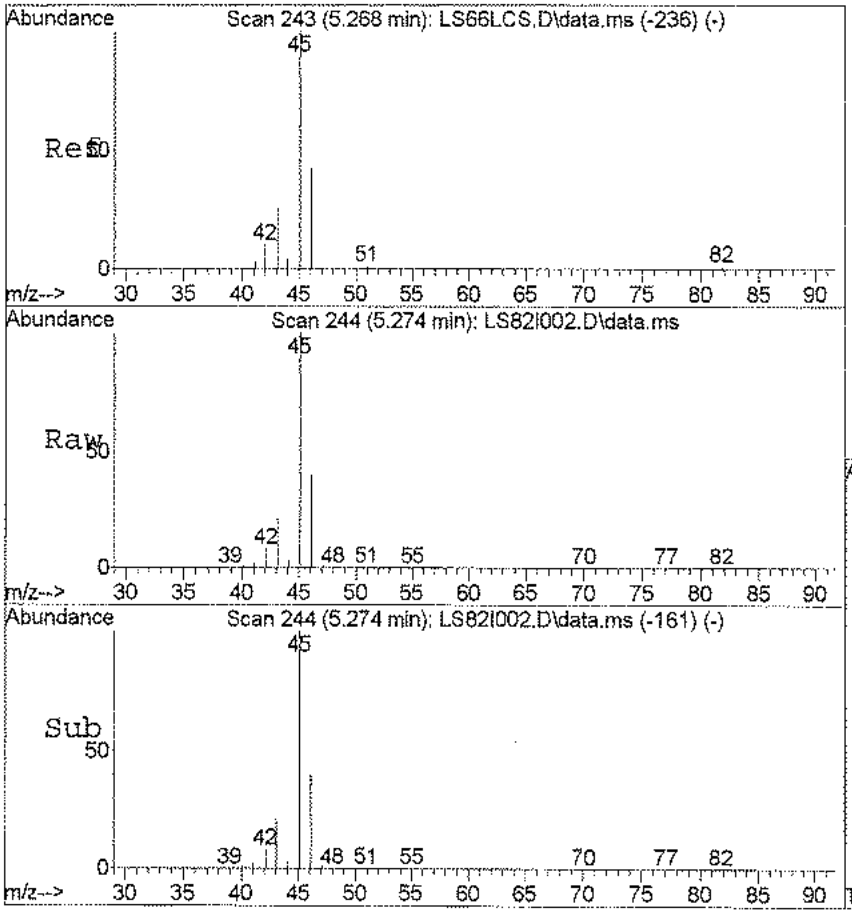


#12
Trichlorofluoromethane
Concen: 0.34 ppb
RT: 5.70 min Scan# 313
Delta R.T. -0.05 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:101 Resp: 26260

Ion	Ratio	Lower	Upper
101	100		
103	64.6	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

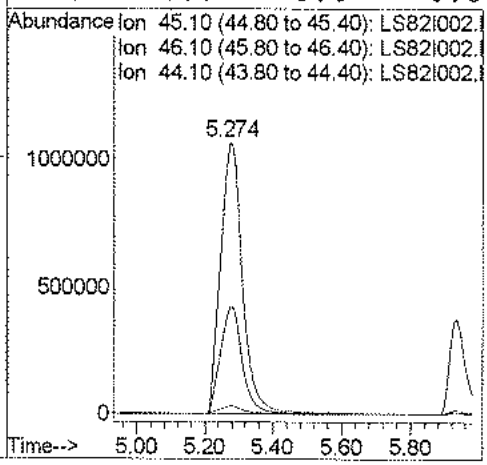


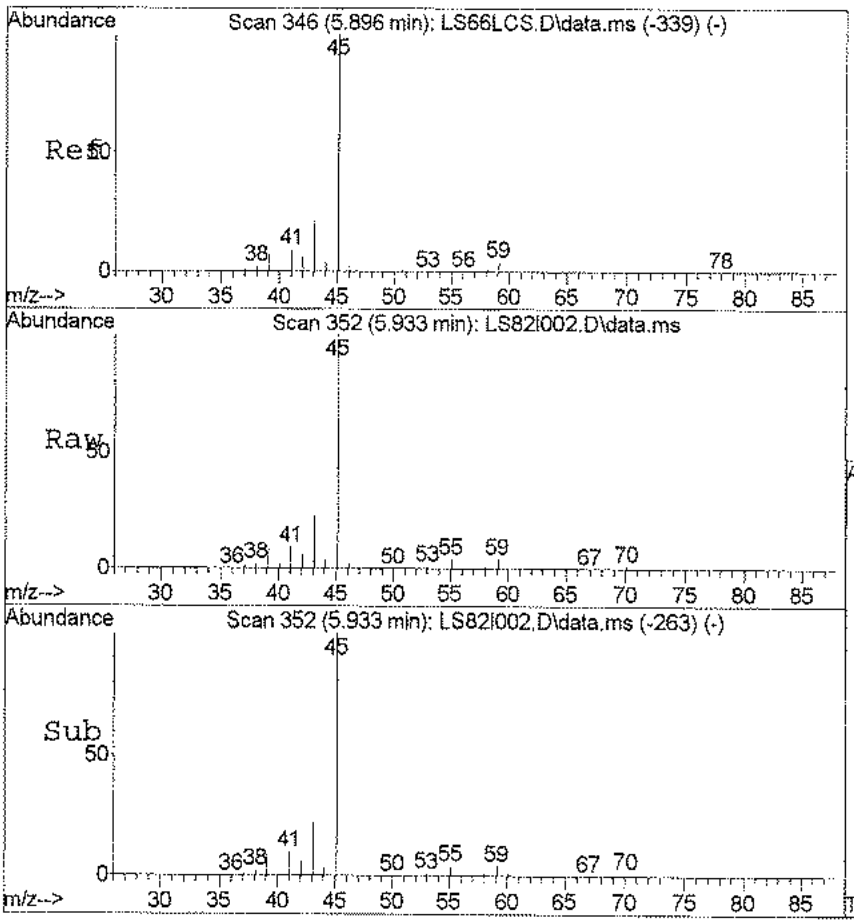


#13
Ethanol
Concen: 607.55 ppb
RT: 5.27 min Scan# 244
Delta R.T. 0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:45.1 Resp: 4874750

Ion	Ratio	Lower	Upper
45	100		
46	40.0	32.4	48.6
44	2.9	23.4	35.2#
0	0.0	0.0	0.0

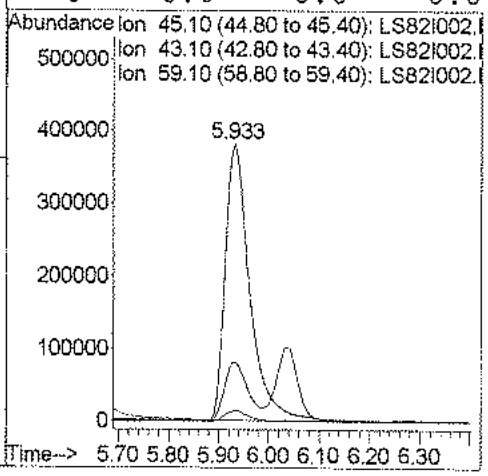


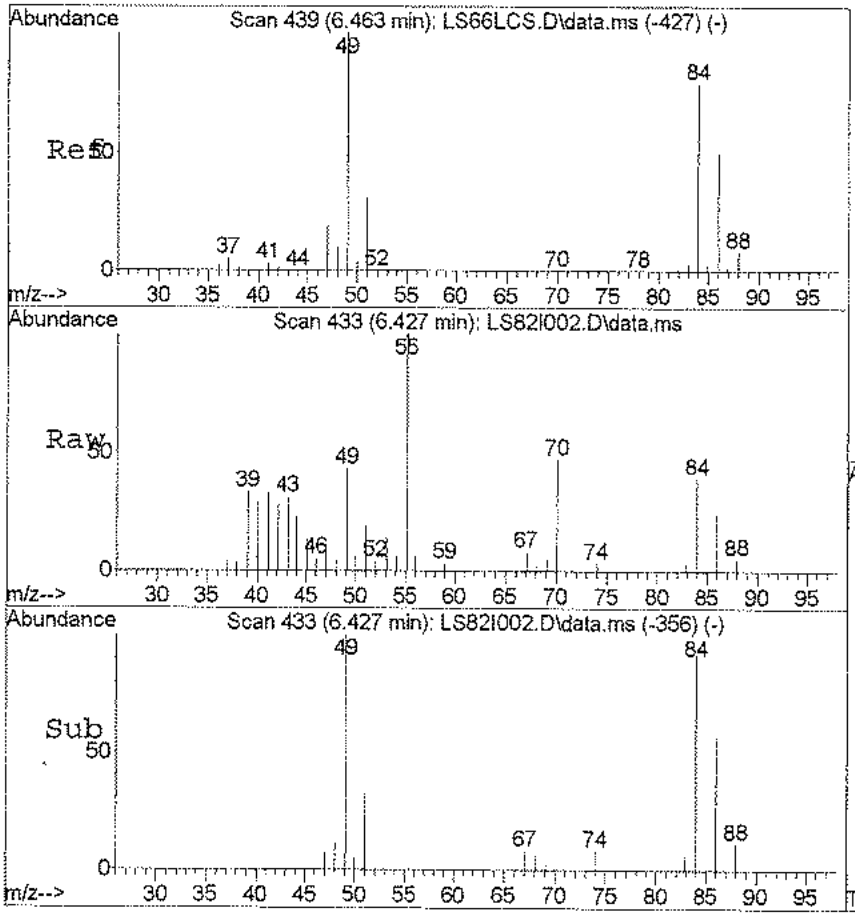


#14
Isopropyl Alcohol
Concen: 35.63 ppb
RT: 5.93 min Scan# 352
Delta R.T. 0.04 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:45.1 Resp: 1321601

Ion	Ratio	Lower	Upper
45	100		
43	19.7	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

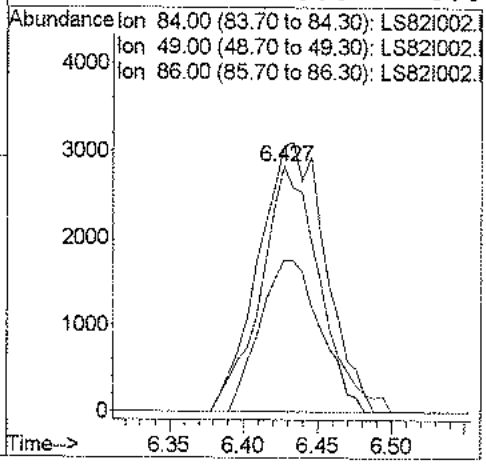


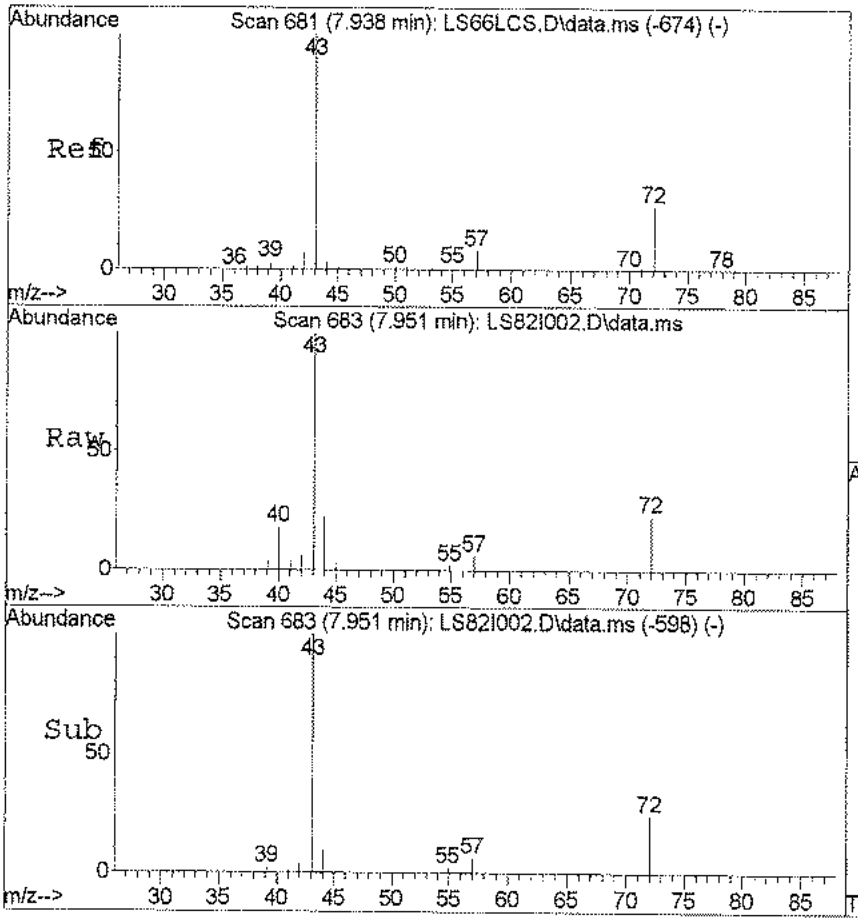


#16
Methylene Chloride
Concen: 0.33 ppb
RT: 6.43 min Scan# 433
Delta R.T. -0.03 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:84 Resp: 7722

Ion	Ratio	Lower	Upper
84	100		
49	127.3	66.6	100.0#
86	64.1	51.6	77.4
0	0.0	0.0	0.0

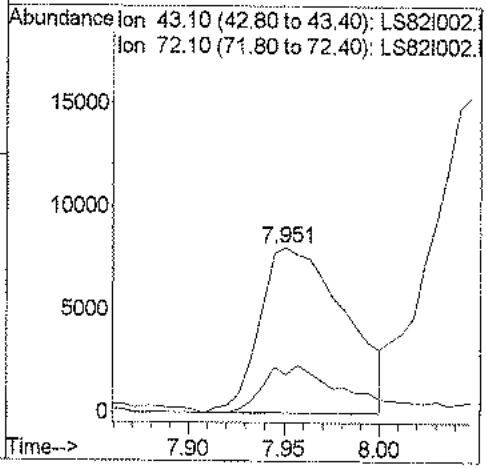


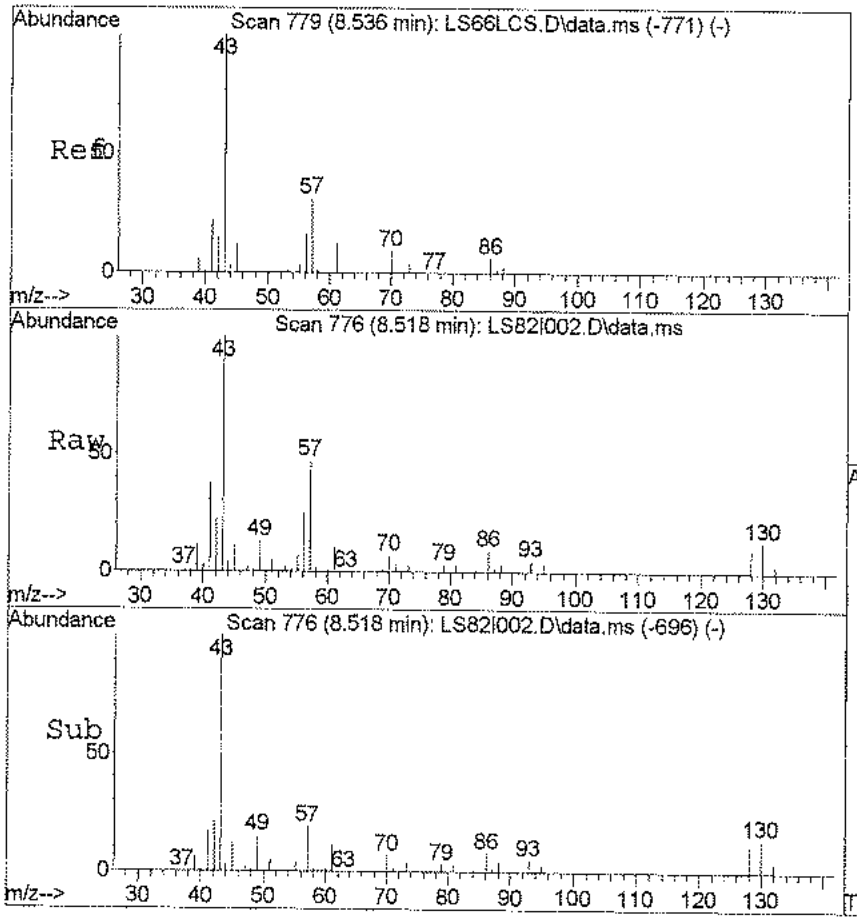


#23
2-Butanone
Concen: 0.61 ppb
RT: 7.95 min Scan# 683
Delta R.T. 0.02 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:43.1 Resp: 24977

Ion	Ratio	Lower	Upper
43	100		
72	29.5	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

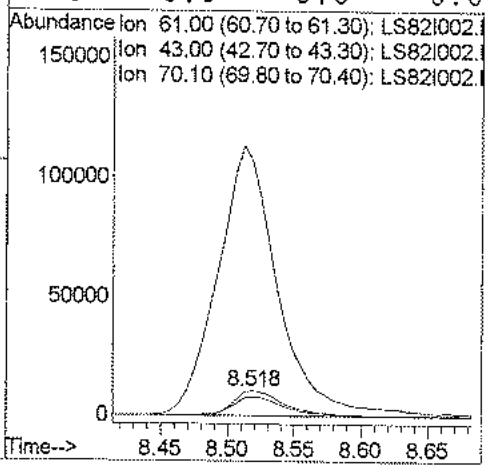


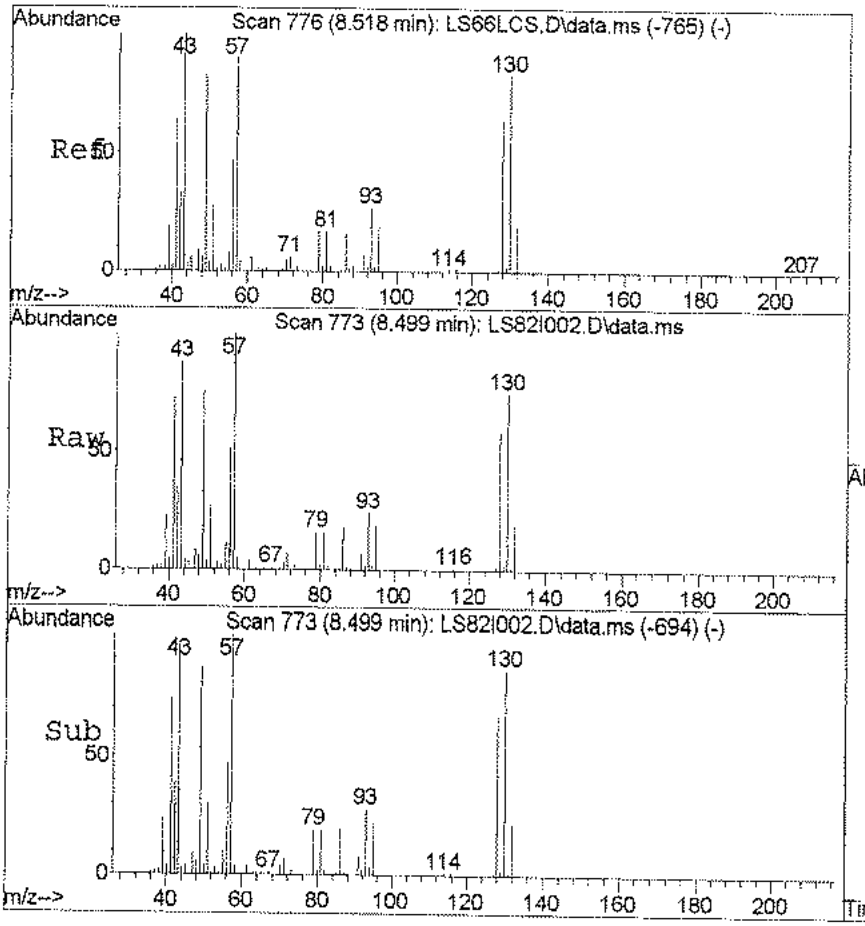


#26
Ethyl Acetate
Concen: 4.26 ppb
RT: 8.52 min Scan# 776
Delta R.T. -0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:61 Resp: 28884

Ion	Ratio	Lower	Upper
61	100		
43	1243.5	144.0	216.0#
70	82.4	13.6	20.4#
0	0.0	0.0	0.0

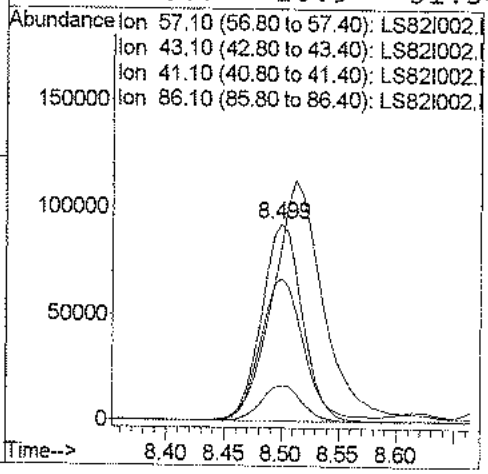


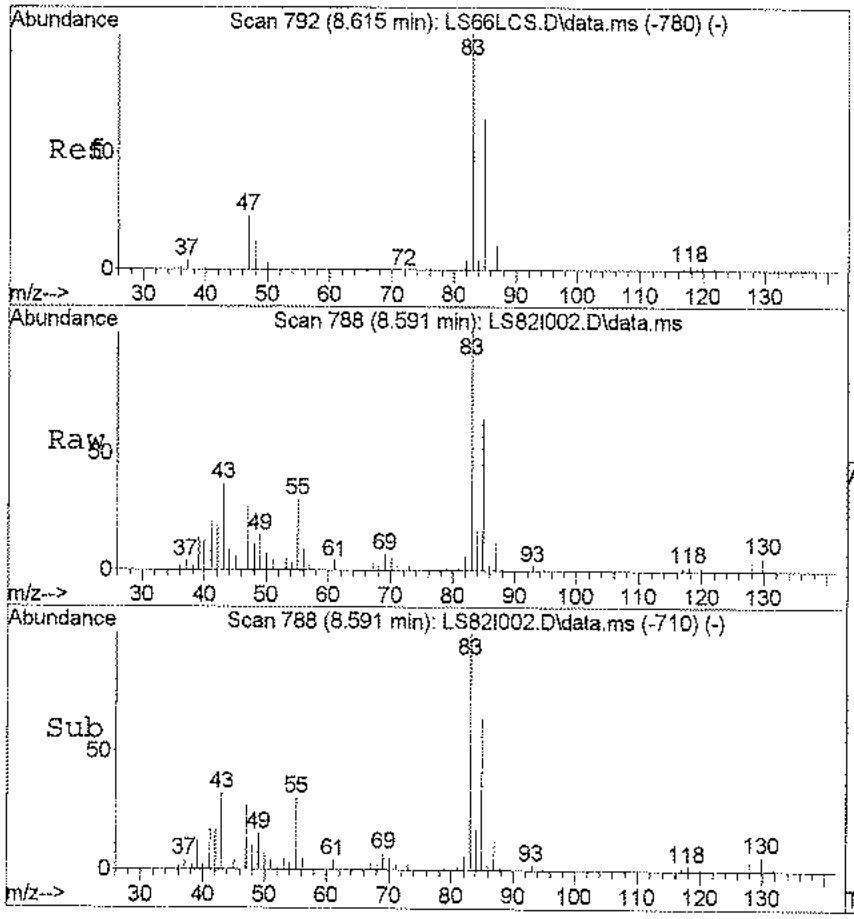


#27
Hexane
Concen: 6.91 ppb
RT: 8.50 min Scan# 773
Delta R.T. -0.02 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:57.1 Resp: 233644

Ion	Ratio	Lower	Upper
57	100		
43	153.7	57.3	85.9#
41	78.6	47.0	70.4#
86	18.3	20.9	31.3#

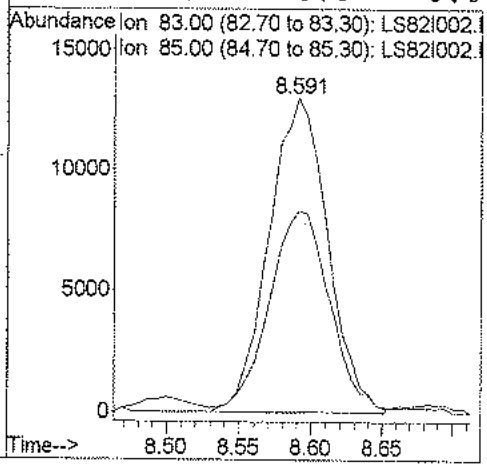


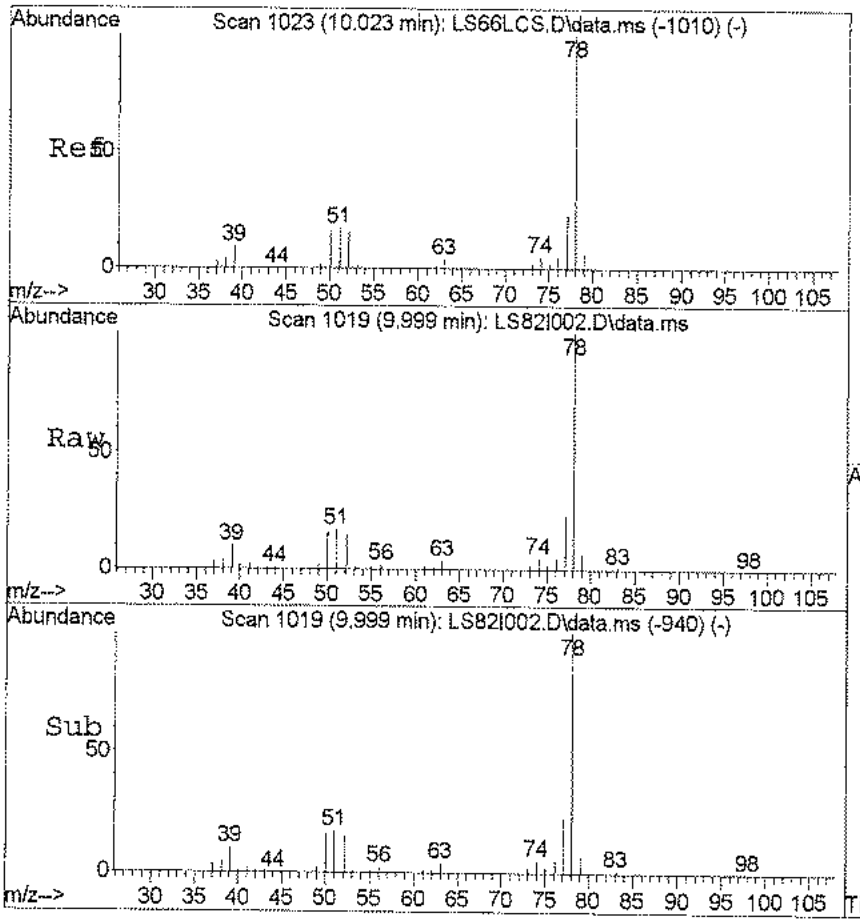


#28
Chloroform
Concen: 0.64 ppb
RT: 8.59 min Scan# 788
Delta R.T. -0.02 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:83 Resp: 36738

Ion	Ratio	Lower	Upper
83	100		
85	66.5	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

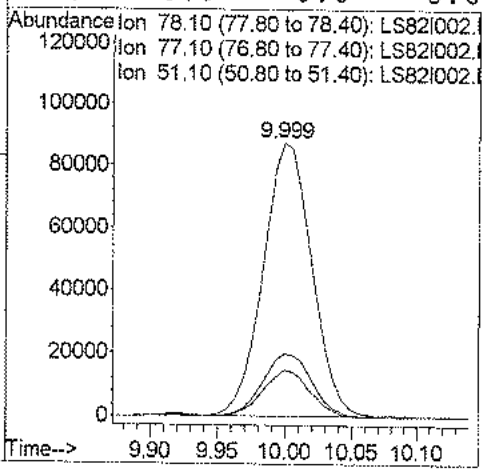


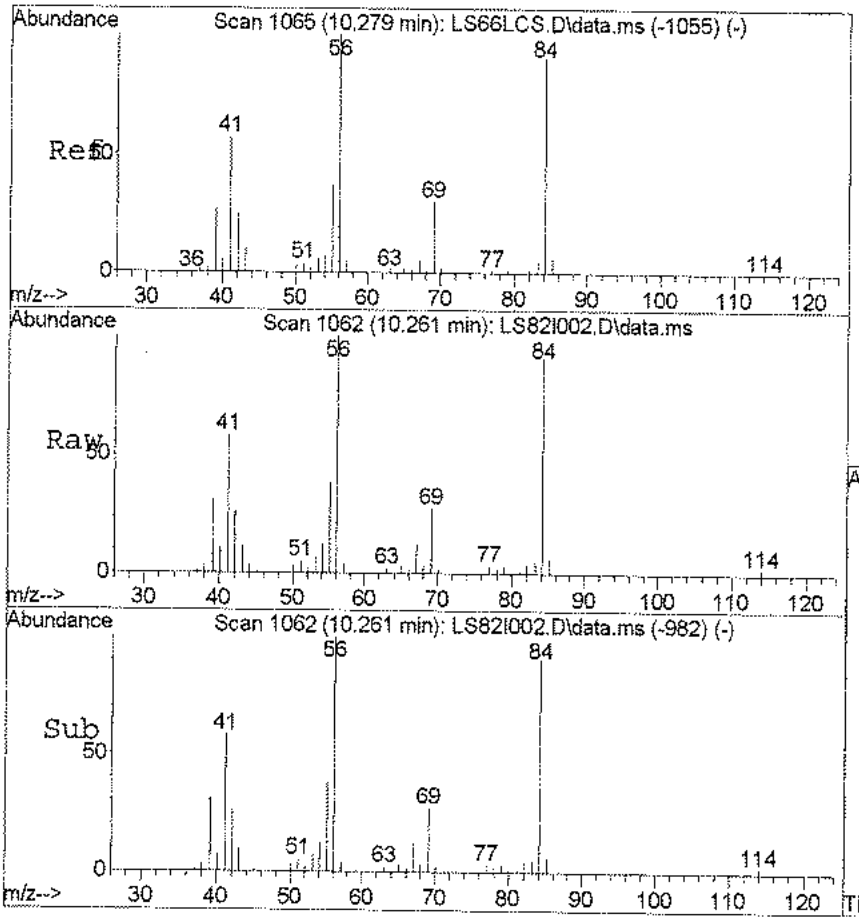


#32
Benzene
Concen: 3.03 ppb
RT: 10.00 min Scan# 1019
Delta R.T. -0.02 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:78.1 Resp: 218219

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.2	27.4
51	16.8	9.5	14.3#
0	0.0	0.0	0.0

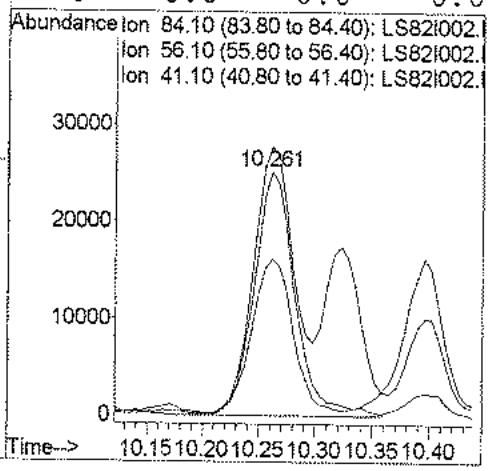


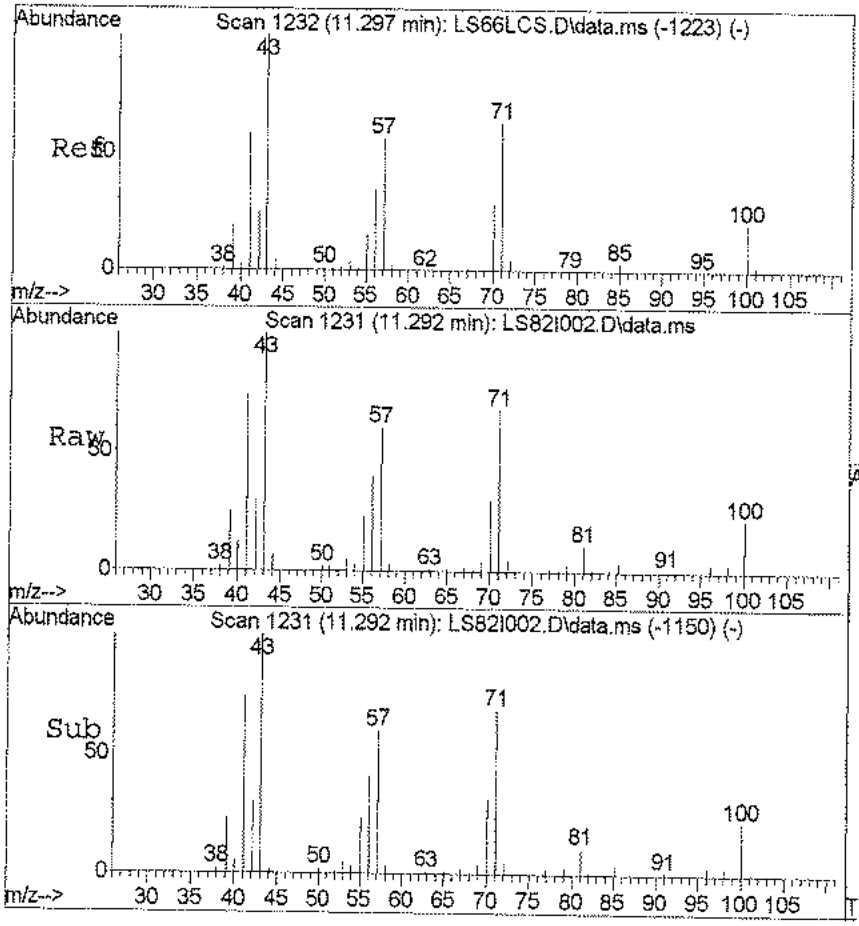


#34
Cyclohexane
Concen: 1.94 ppb
RT: 10.26 min Scan# 1062
Delta R.T. -0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:84.1 Resp: 63758

Ion	Ratio	Lower	Upper
84	100		
56	109.1	67.3	100.9#
41	64.0	30.2	45.4#
0	0.0	0.0	0.0

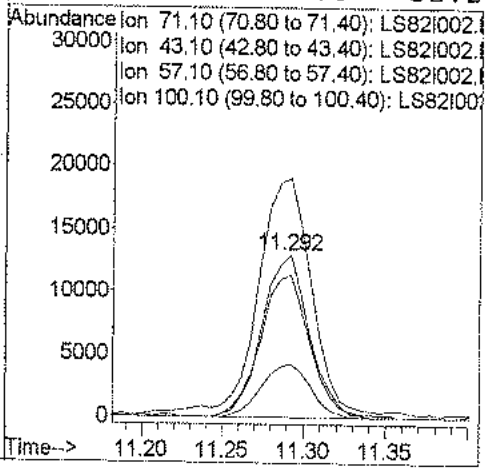


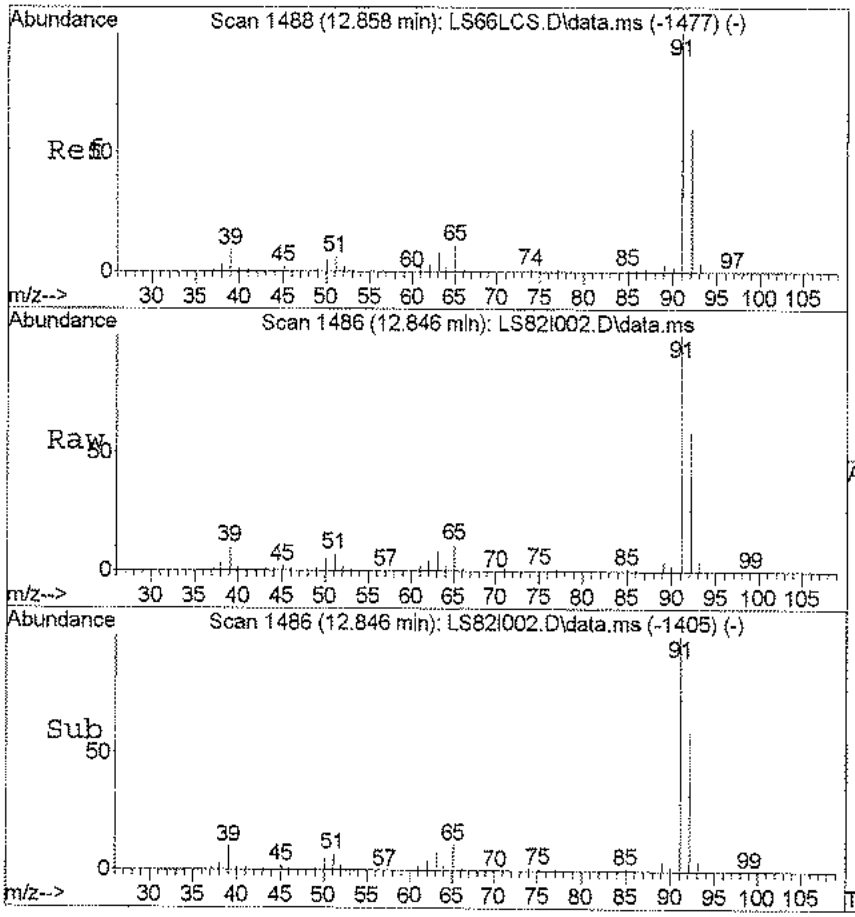


#40
Heptane
Concen: 1.13 ppb
RT: 11.29 min Scan# 1231
Delta R.T. -0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:71.1 Resp: 26130

Ion	Ratio	Lower	Upper
71	100		
43	171.9	87.3	130.9#
57	92.2	57.8	86.6#
100	33.6	34.8	52.2#

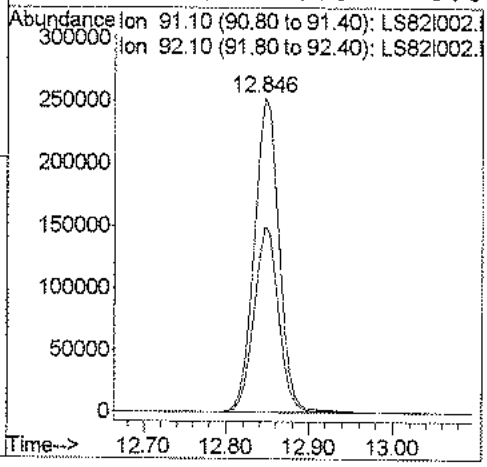


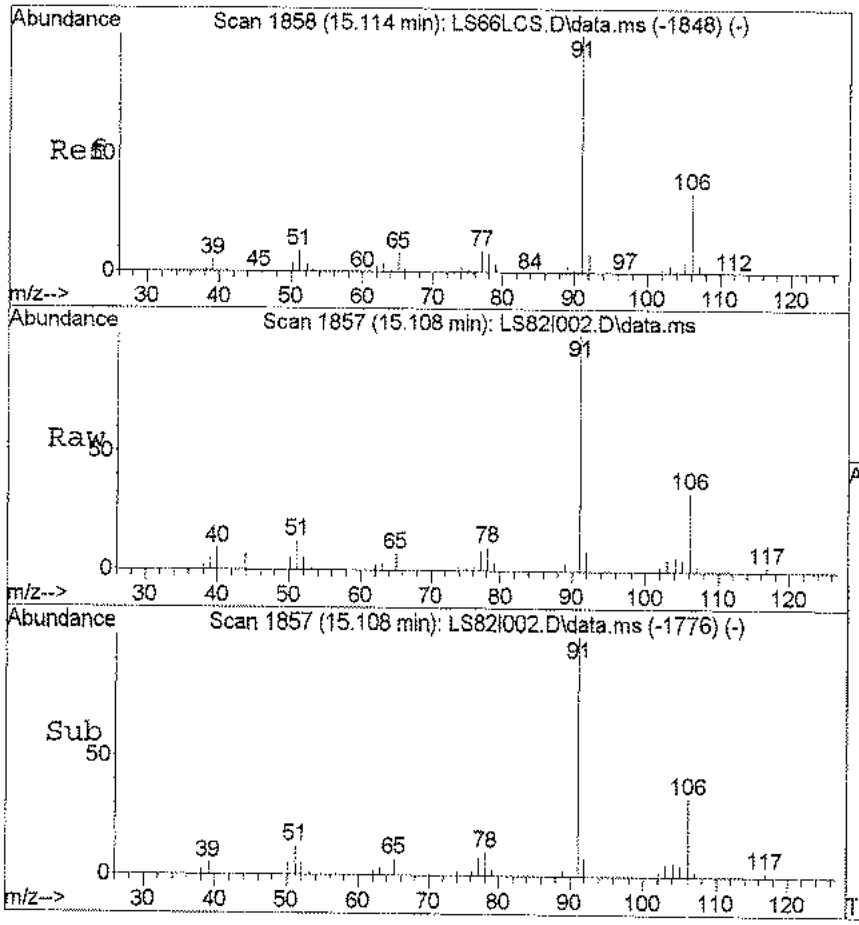


#45
Toluene
Concen: 6.68 ppb
RT: 12.85 min Scan# 1486
Delta R.T. -0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:91.1 Resp: 536350

Ion	Ratio	Lower	Upper
91	100		
92	58.2	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

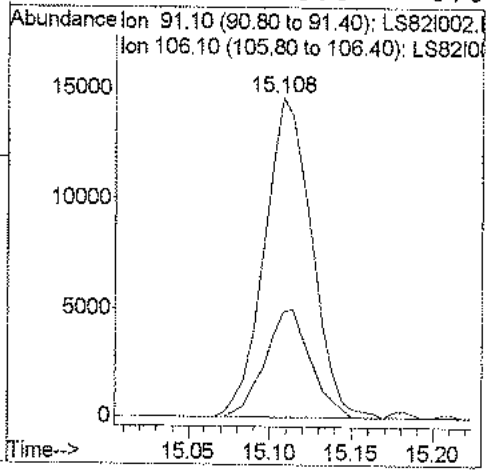


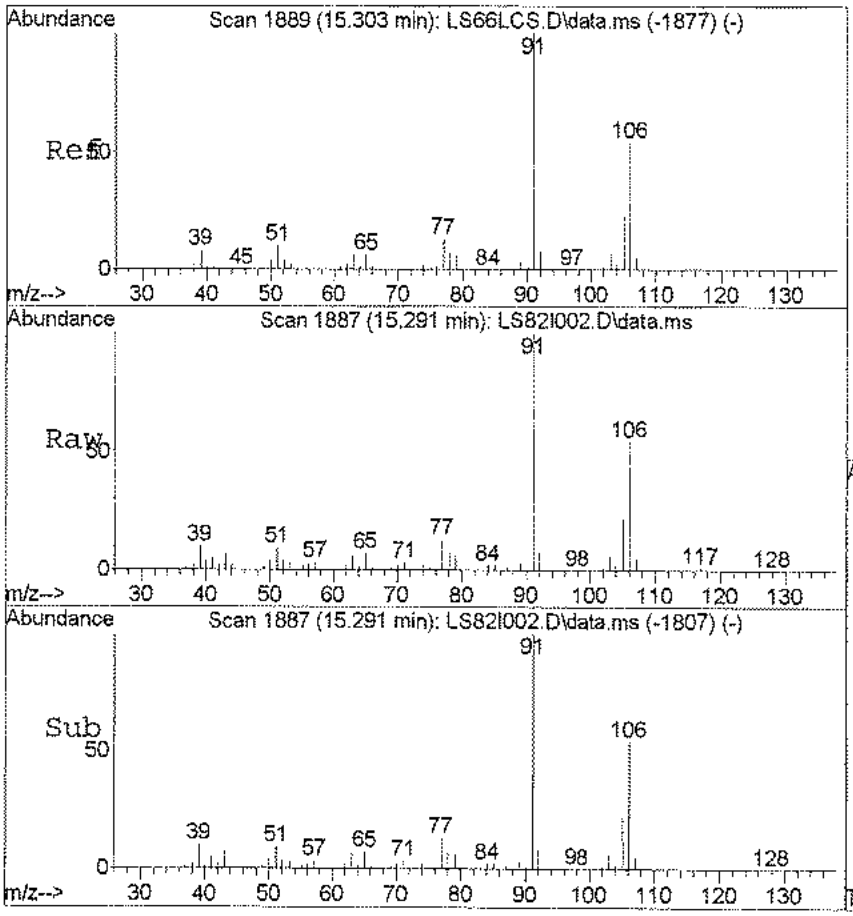


#52
Ethylbenzene
Concen: 0.30 ppb
RT: 15.11 min Scan# 1857
Delta R.T. -0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:91.1 Resp: 29601

Ion	Ratio	Lower	Upper
91	100		
106	33.0	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

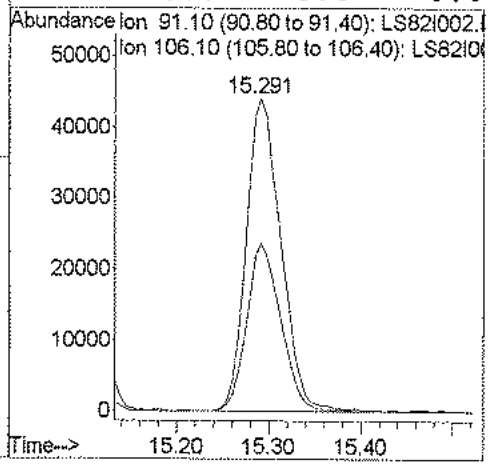


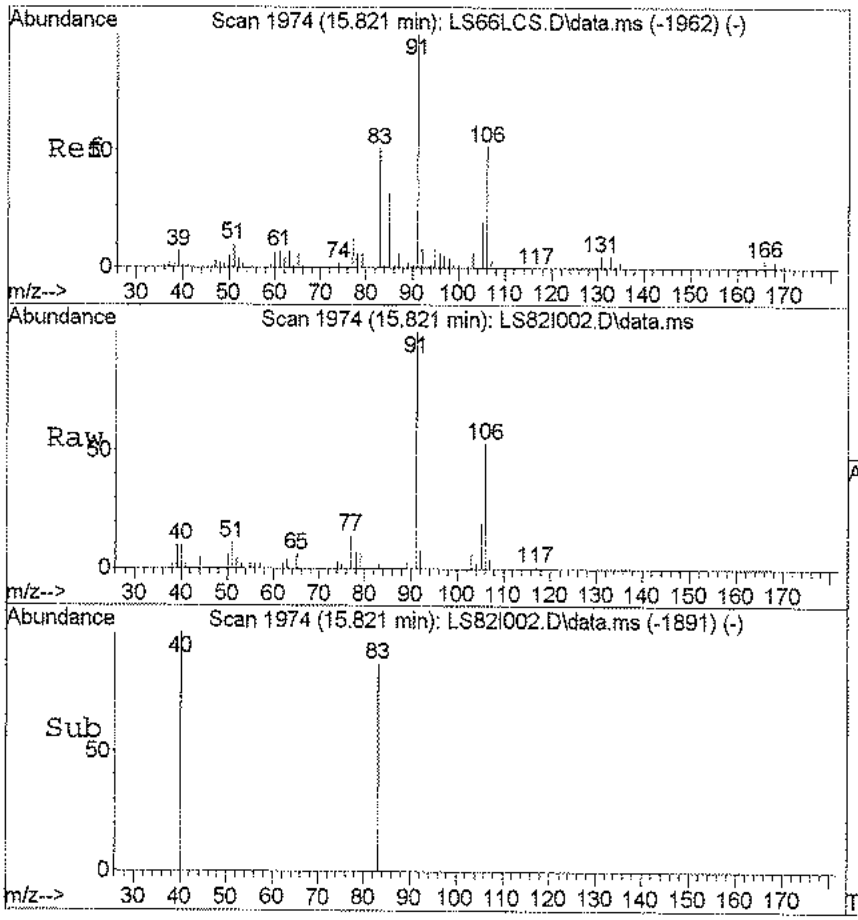


#53
m,p-Xylene
Concen: 1.48 ppb
RT: 15.29 min Scan# 1887
Delta R.T. -0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:91.1 Resp: 116189

Ion	Ratio	Lower	Upper
91	100		
106	52.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

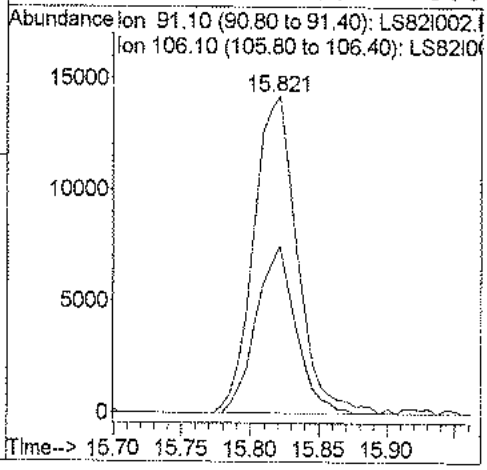


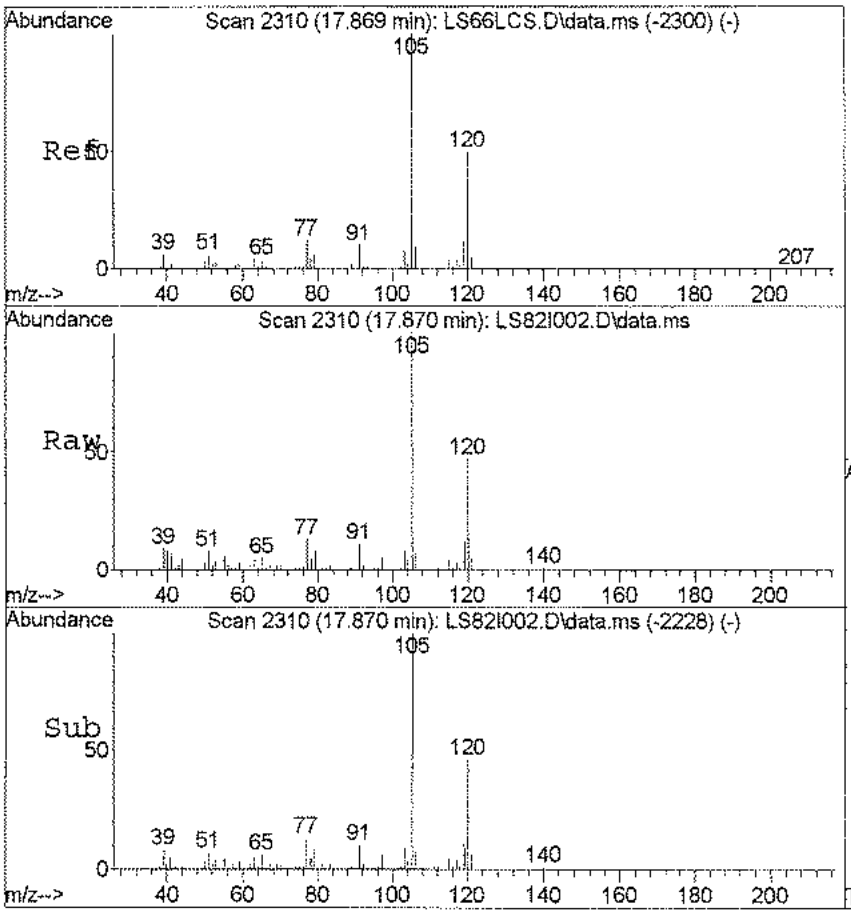


#57
o-Xylene
Concen: 0.39 ppb
RT: 15.82 min Scan# 1974
Delta R.T. 0.01 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:91.1 Resp: 31508

Ion	Ratio	Lower	Upper
91	100		
106	48.2	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

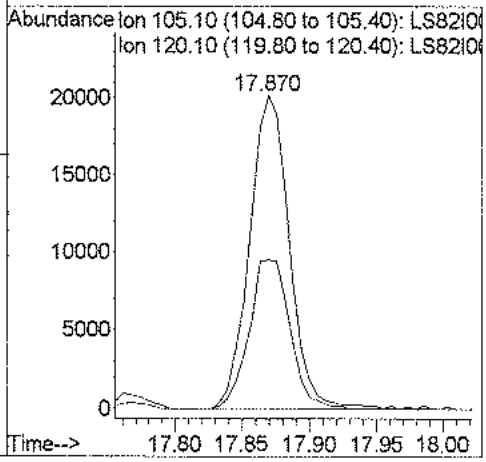




#61
1,2,4-Trimethylbenzene
Concen: 0.56 ppb
RT: 17.87 min Scan# 2310
Delta R.T. 0.00 min
Lab File: LS82I002.D
Acq: 12/10/2015 01:08

Tgt Ion:105.1 Resp: 41106

Ion	Ratio	Lower	Upper
105	100		
120	48.6	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



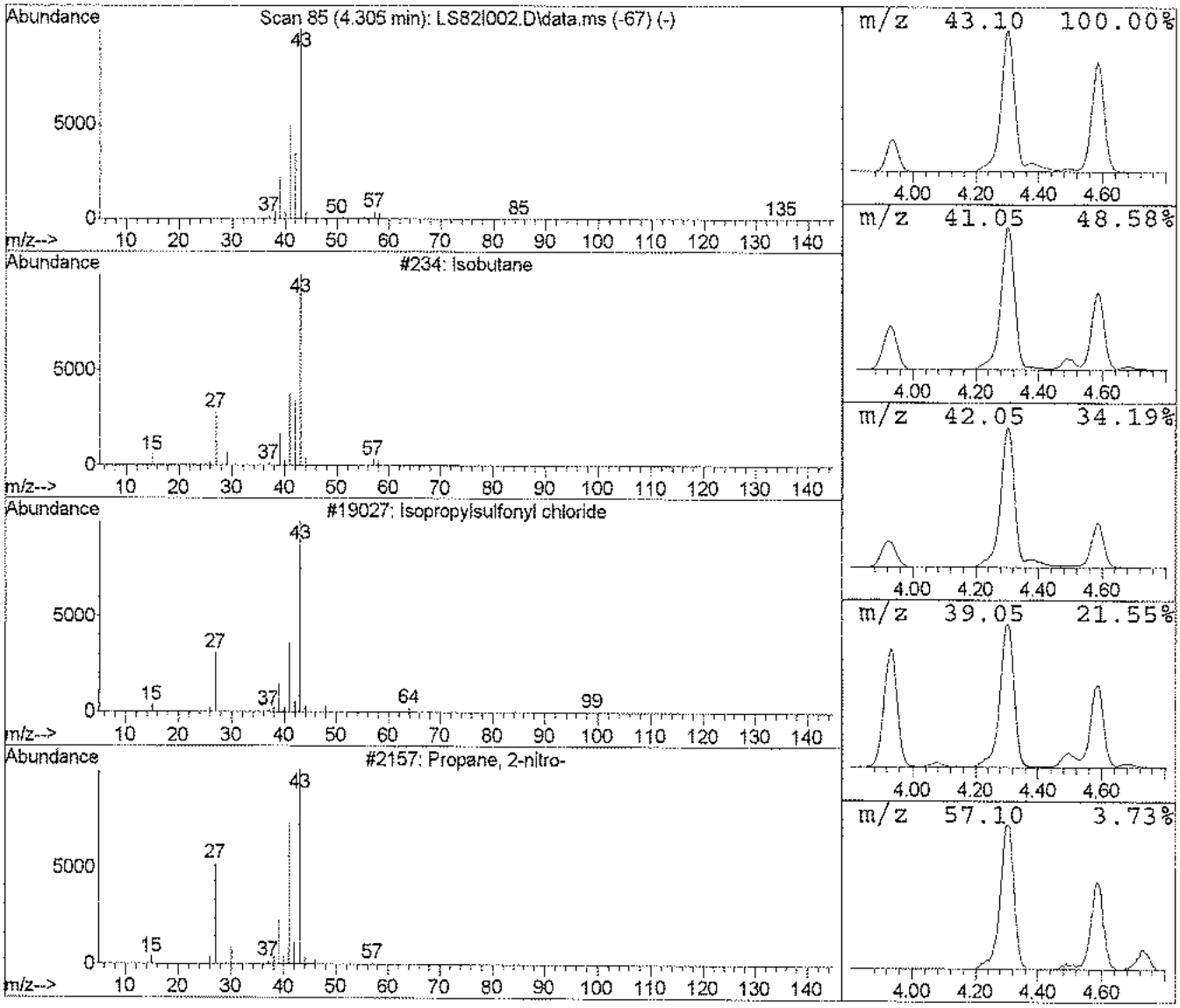
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.31	10.02 ppb	2002417	Bromochloromethane	3995844

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Propane, 2-nitro-	2157	000079-46-9	4.00
4	Cyclobutylamine	608	002516-34-9	4.00
5	Propane, 1-chloro-2-methyl-	2419	000513-36-0	4.00



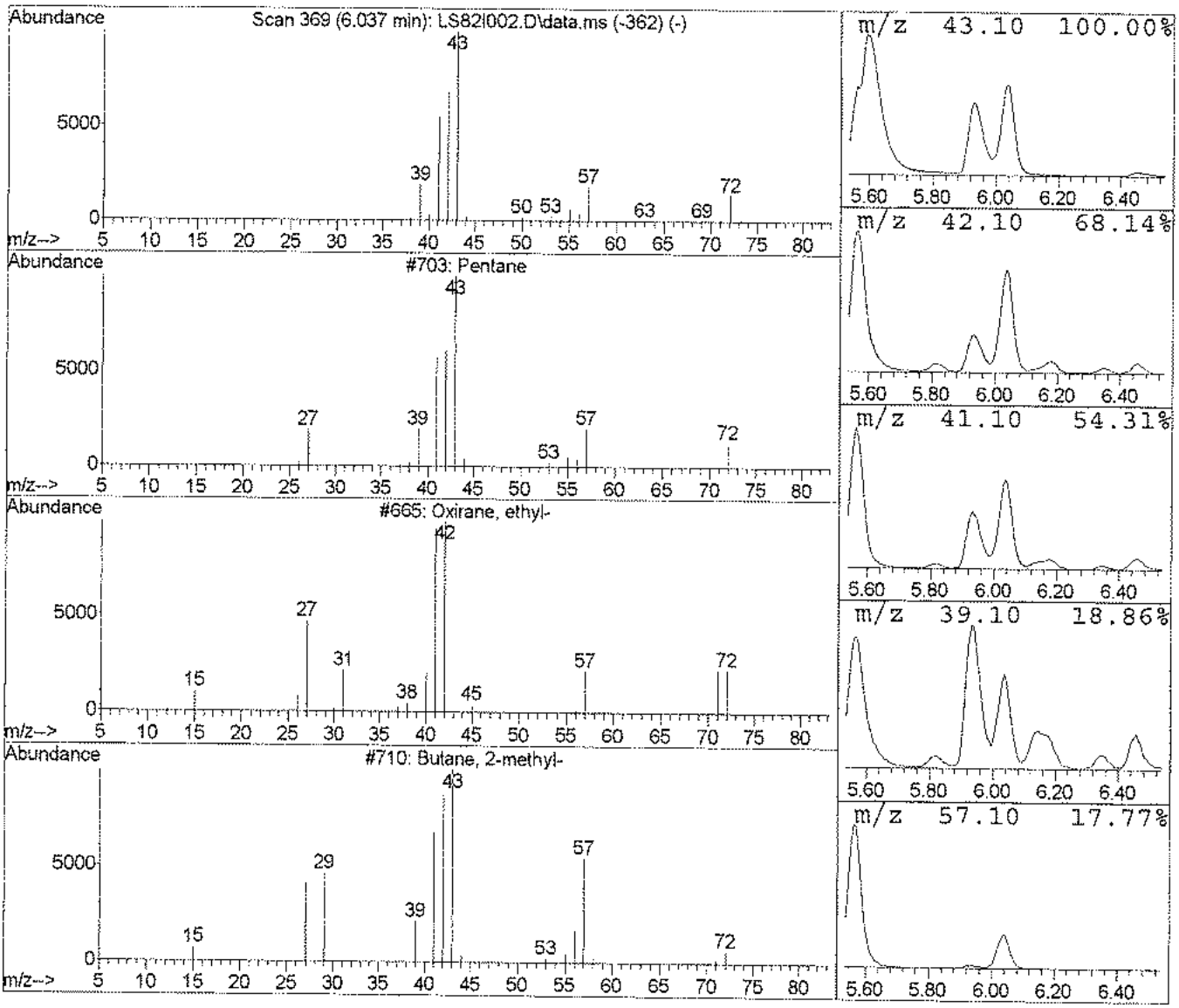
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.04	4.20 ppb	839622	Bromochloromethane	3995844

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	703	000109-66-0	90.00
2	Oxirane, ethyl-	665	000106-88-7	40.00
3	Butane, 2-methyl-	710	000078-78-4	38.00
4	Propanal, 2-methyl-	683	000078-84-2	9.00
5	Diaziridine,3,3-dimethyl-	634	004901-76-2	9.00



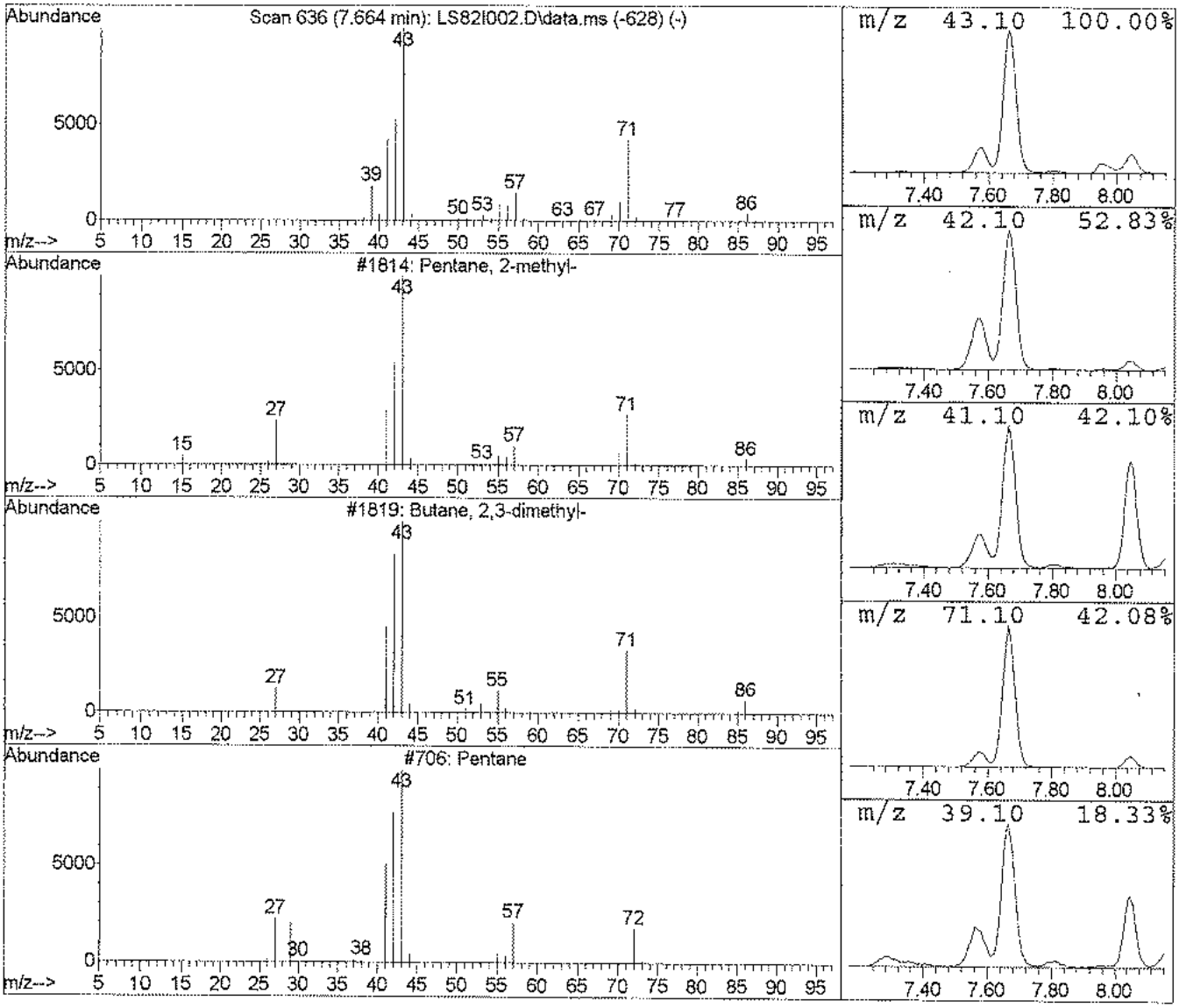
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.66	5.45 ppb	1088140	Bromochloromethane	3995844

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1814	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	50.00
3	Pentane	706	000109-66-0	43.00
4	1-Butanol, 2,3-dimethyl-	4440	019550-30-2	40.00
5	Hexane, 2,3-dimethyl-	7571	000584-94-1	38.00



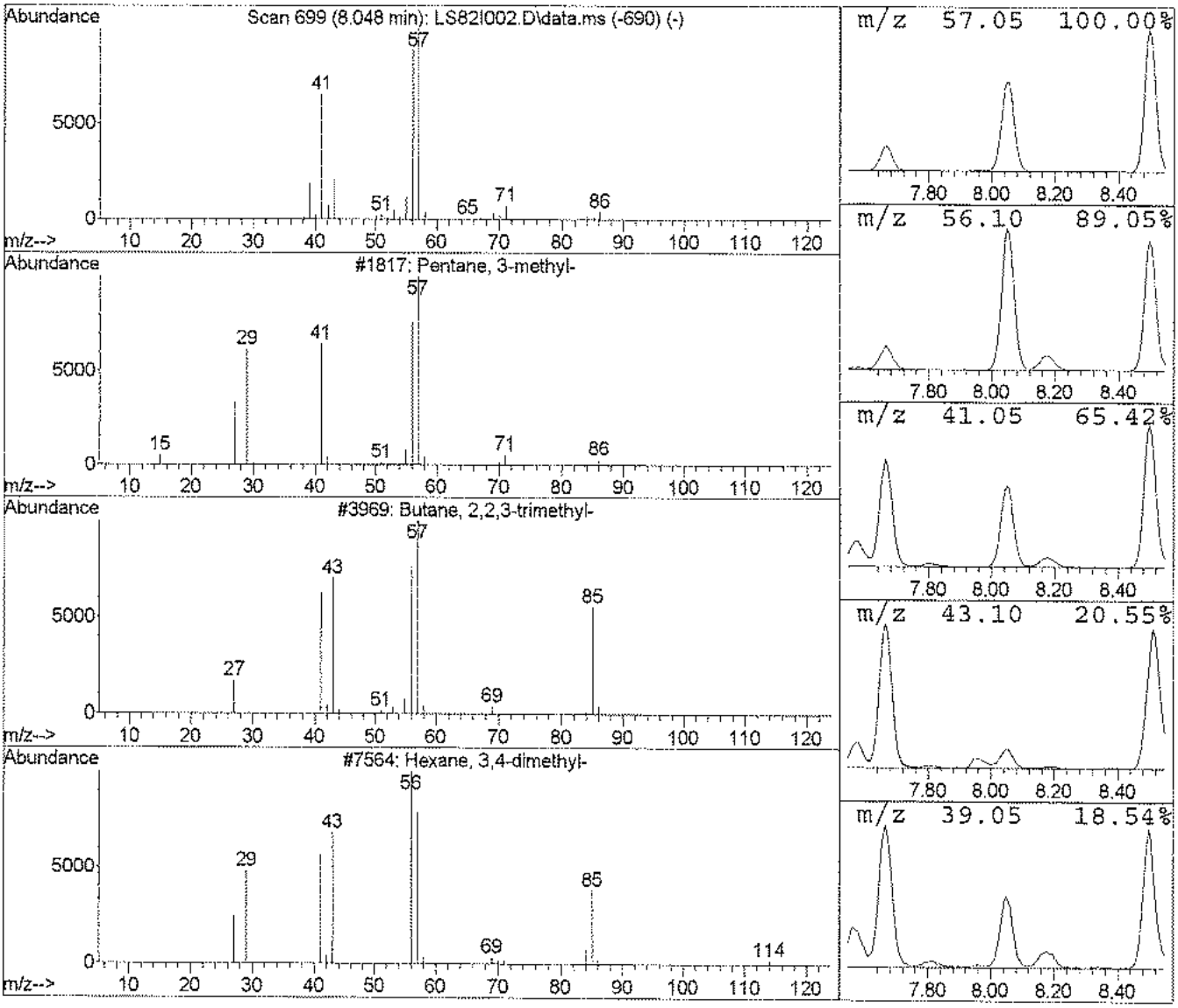
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.05	2.94 ppb	588264	Bromochloromethane	3995844

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1817	000096-14-0	91.00
2	Butane, 2,2,3-trimethyl-	3969	000464-06-2	83.00
3	Hexane, 3,4-dimethyl-	7564	000583-48-2	78.00
4	Oxirane, (1-methylethyl)-	1788	001438-14-8	59.00
5	Propane, 2-cyclopropyl-	1491	003638-35-5	53.00



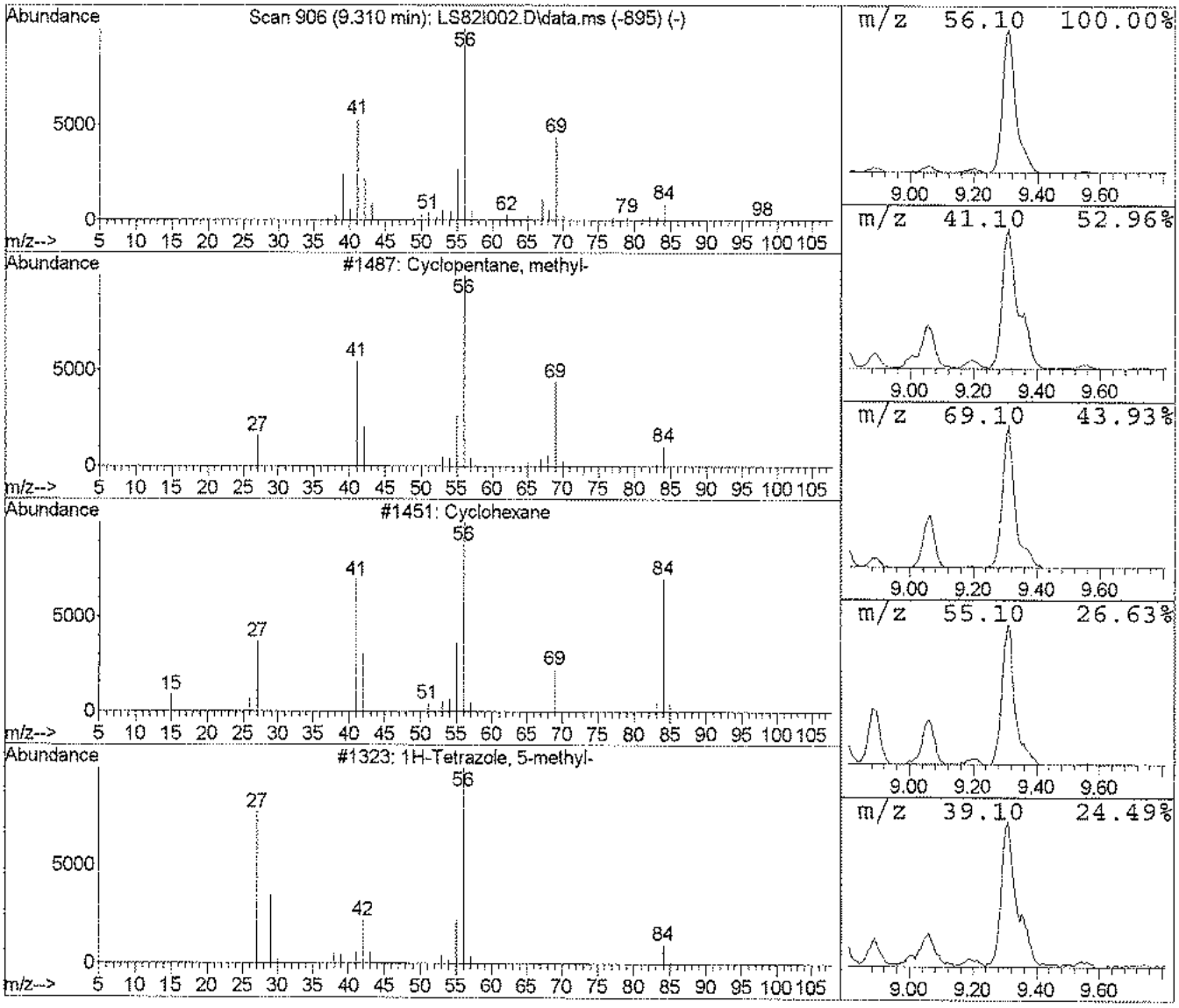
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.31	2.68 ppb	536128	Bromochloromethane	3995844

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	90.00
2	Cyclohexane	1451	000110-82-7	80.00
3	1H-Tetrazole, 5-methyl-	1323	004076-36-2	72.00
4	Cyclobutane, ethyl-	1464	004806-61-5	64.00
5	Tetramethylene diisocyanate	18003	004538-37-8	56.00



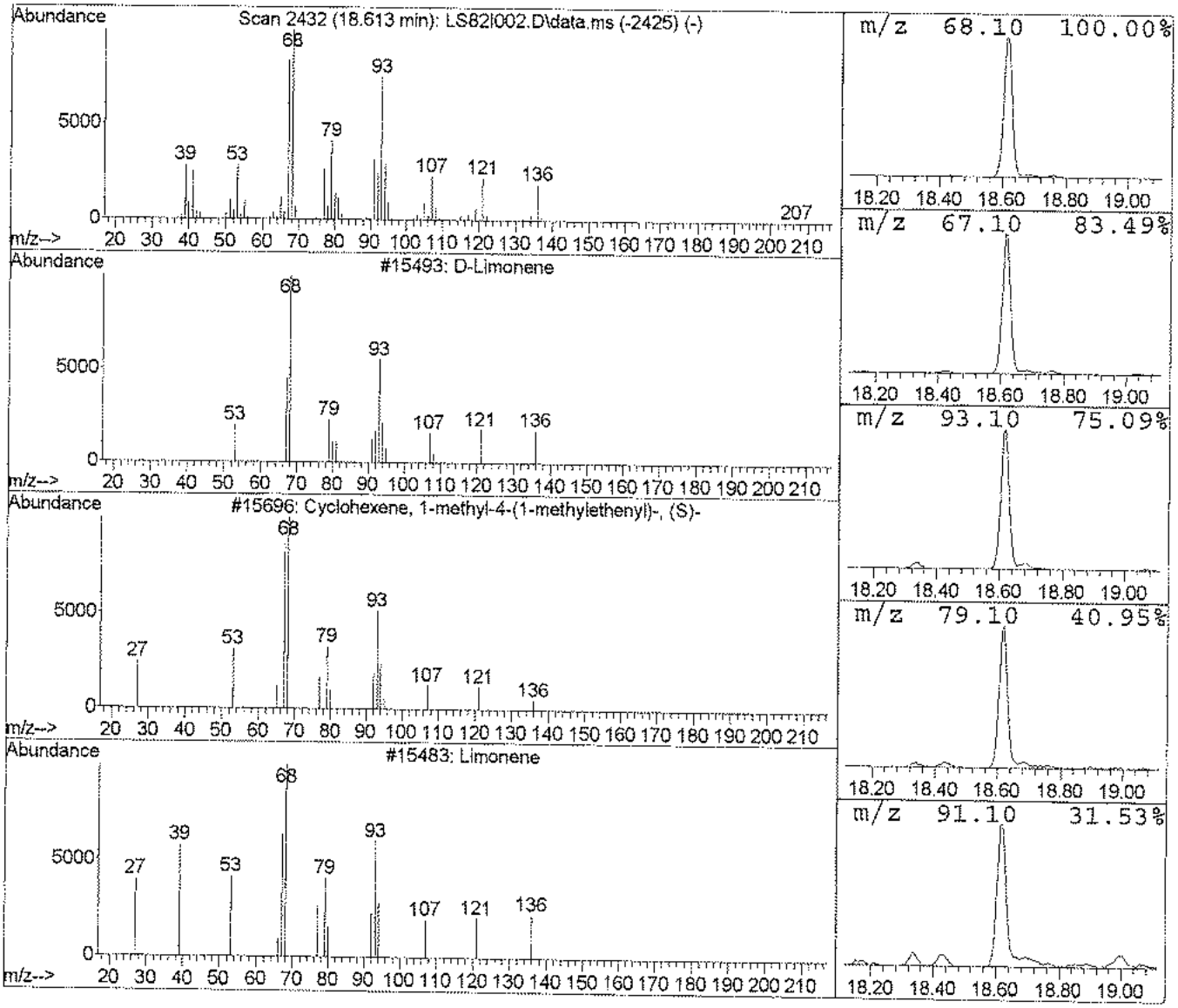
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS82I002.D Vial: 14
Acq Time : 12/10/2015 01:08 Operator: TJM
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.61	2.35 ppb	556034	Chlorobenzene d5	4728294

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	D-Limonene	15493	005989-27-5	95.00
2	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	94.00
3	Limonene	15483	000138-86-3	91.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	70.00
5	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	52.00

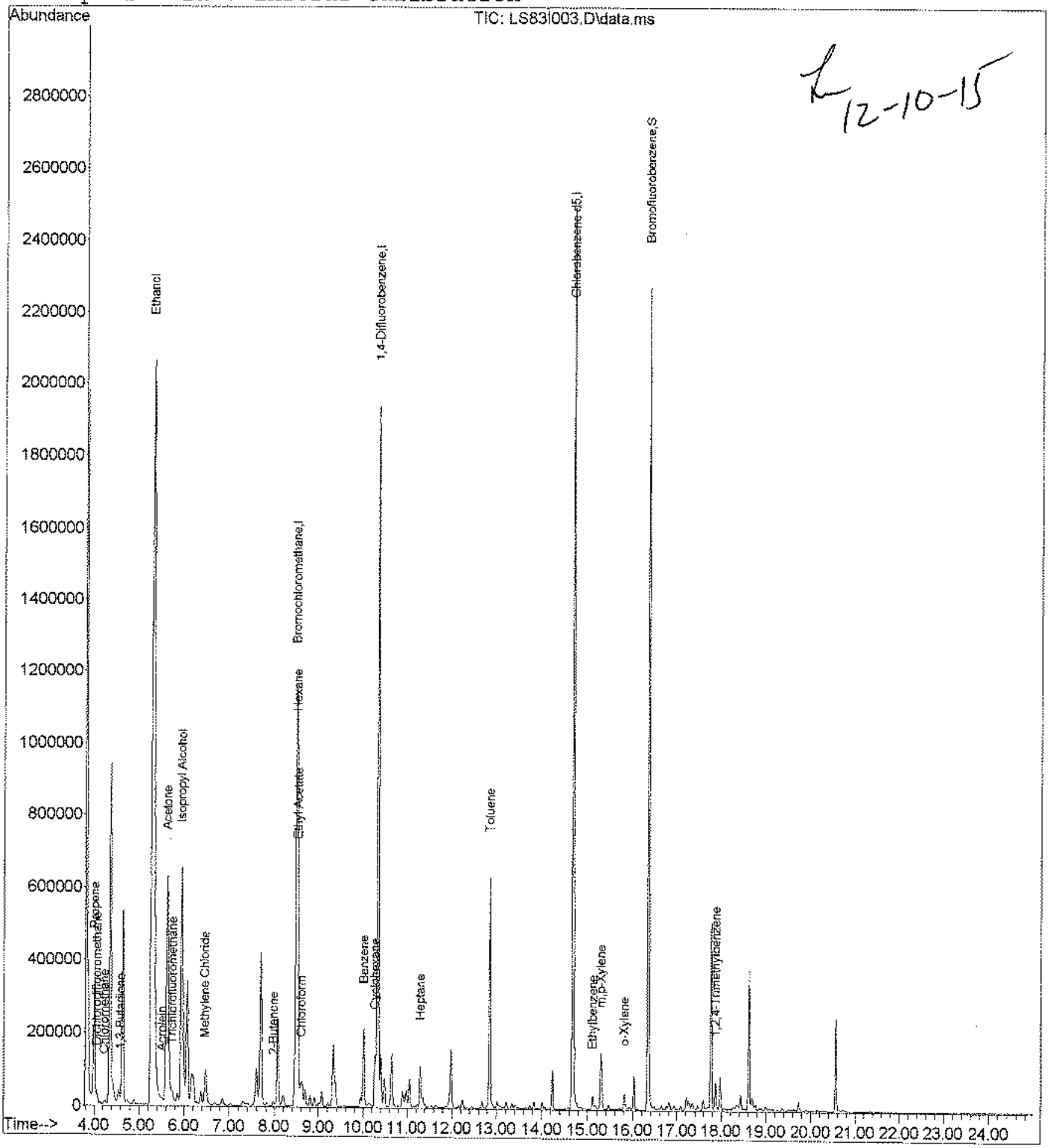


Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:24:14 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:24:14 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.49	130	202624	20.0000 ppb	71.19
25) 1,4-Difluorobenzene	10.33	114	2052700	20.0000 ppb	70.70
50) Chlorobenzene d5	14.67	117	1729288	20.0000 ppb	74.38
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	997339	20.4572 ppb	102.29%
Target Compounds					Qvalue
2) Propene	4.01	41	143492	8.9869 ppb	#TIC 60
3) Dichlorodifluoromethane	4.07	85	34513	0.4943 ppb	99
4) Chloromethane	4.23	50	12827	0.6426 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.59	54	6711	0.3572 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.51	56	4039	0.4609 ppb #	85
11) Acetone	5.62	43	723030	20.8214 ppb m	77
12) Trichlorofluoromethane	5.74	101	27476	0.3340 ppb	100
13) Ethanol	5.28	45	5131081	600.1136 ppb #TIC	79
14) Isopropyl Alcohol	5.93	45	1386062	35.0699 ppb TIC	99
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.46	84	9800	0.3968 ppb #	68
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.97	43	21628	0.4929 ppb #	86
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.53	61	30021	4.2213 ppb #	1
27) Hexane	8.51	57	248365	6.9954 ppb #	42
28) Chloroform	8.60	83	38212	0.6363 ppb	97
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.01	78	233282	3.0849 ppb #	95
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.27	84	67654	1.9583 ppb #	67
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:24:14 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

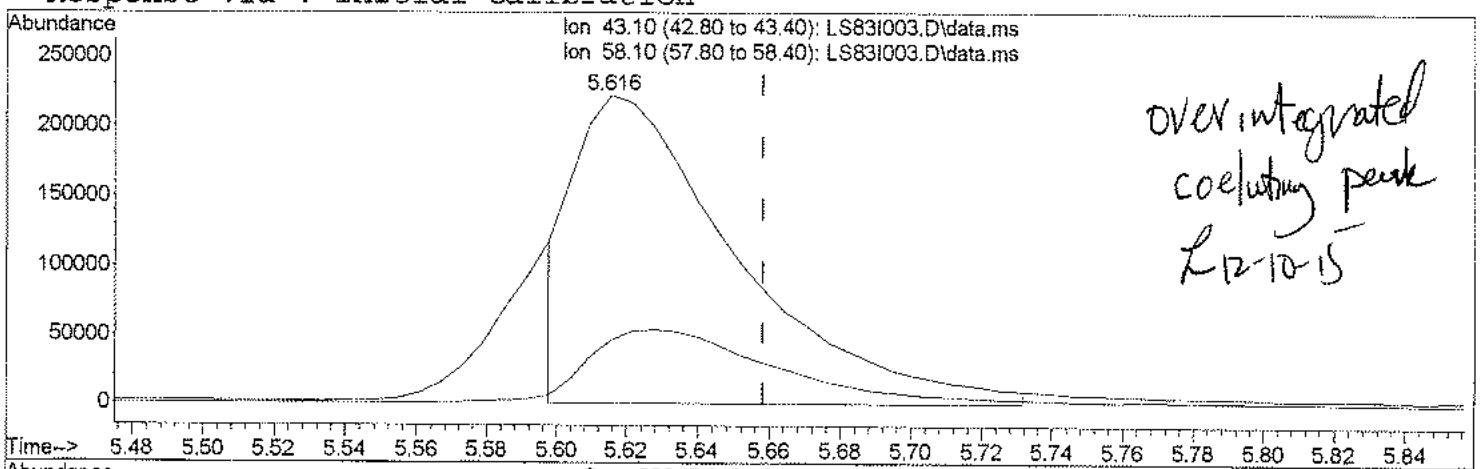
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.29	71	27548	1.1379 ppb #	59
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	565695	6.7095 ppb	98
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	31949	0.3003 ppb	94
53)	m,p-Xylene	15.29	91	124477	1.4835 ppb	96
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	34584	0.3982 ppb	93
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	45024	0.5725 ppb	98
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

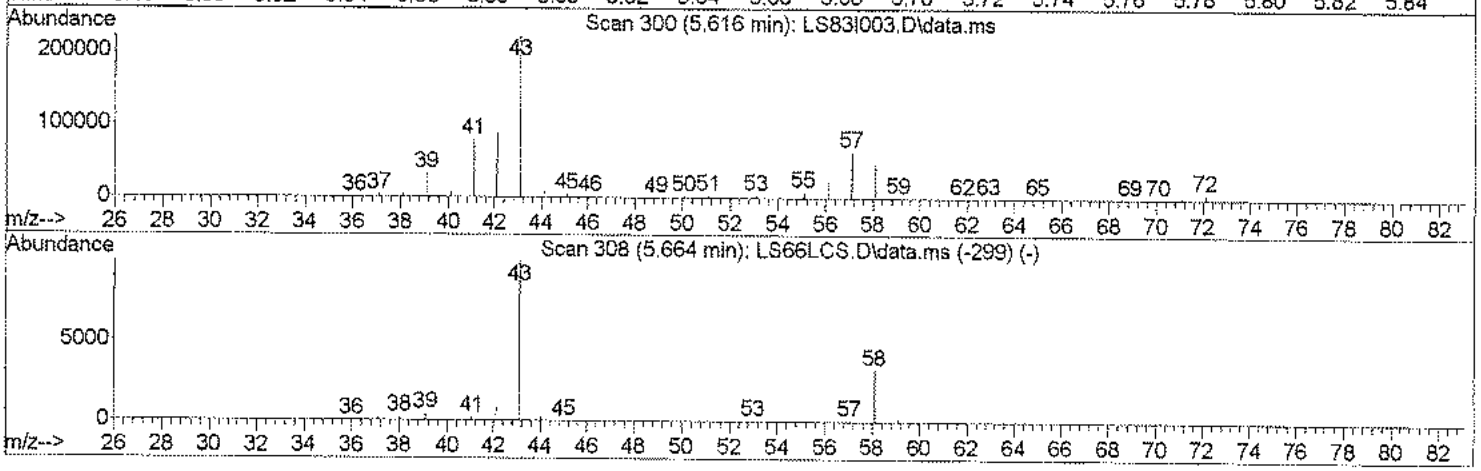
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS83I003.D
Acq On : 12/10/2015 01:57
Operator : TJM
Sample : 1534300003
Inst : 5975-L
Misc : BAS-D
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 10 08:11:08 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration





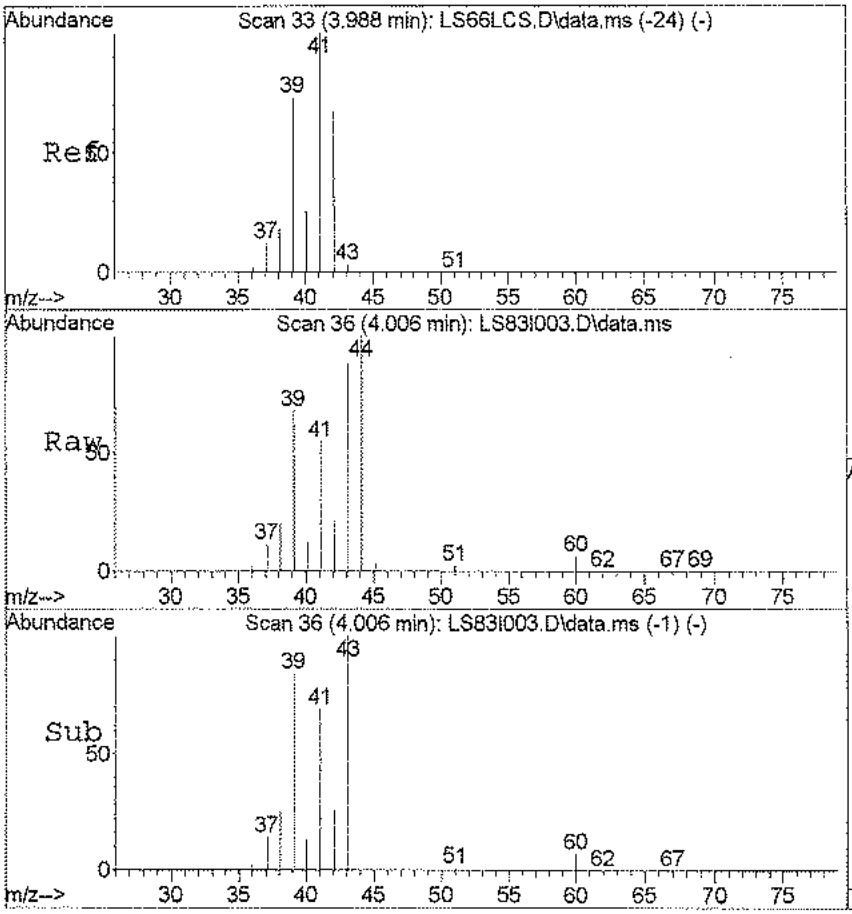
TIC: LS83I003.D\data.ms

(11) Acetone

5.616min (-0.043) 20.82 ppb m

response 723030

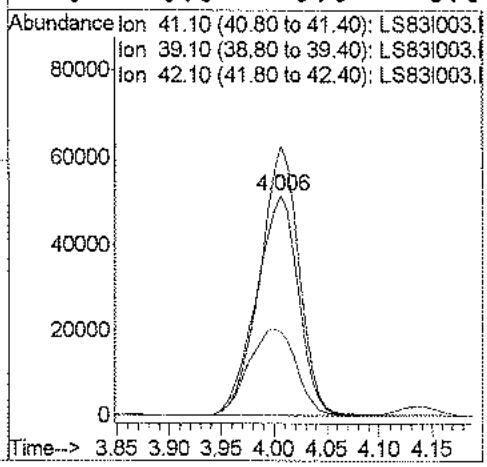
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	29.36#
0.00	0.00	0.00
0.00	0.00	0.00

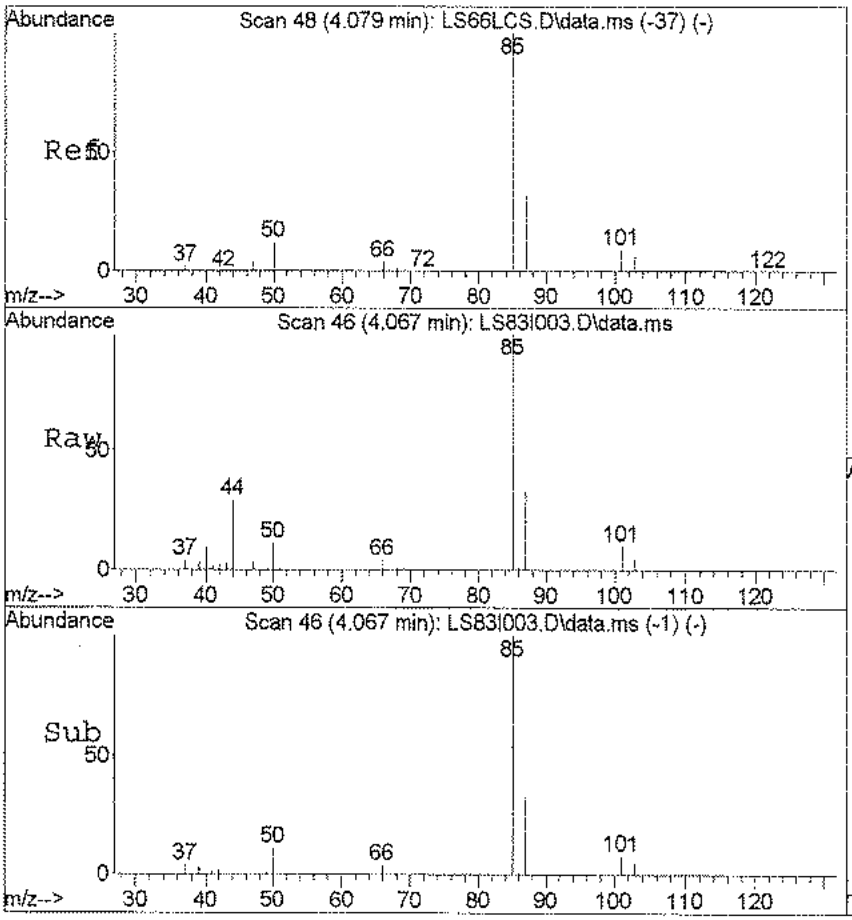


#2
Propene
Concen: 8.99 ppb
RT: 4.01 min Scan# 36
Delta R.T. 0.02 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:41.1 Resp: 143492

Ion	Ratio	Lower	Upper
41	100		
39	113.2	56.2	84.4#
42	44.6	53.8	80.6#
0	0.0	0.0	0.0

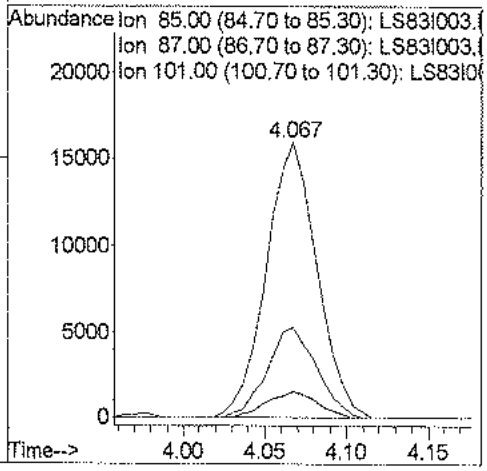


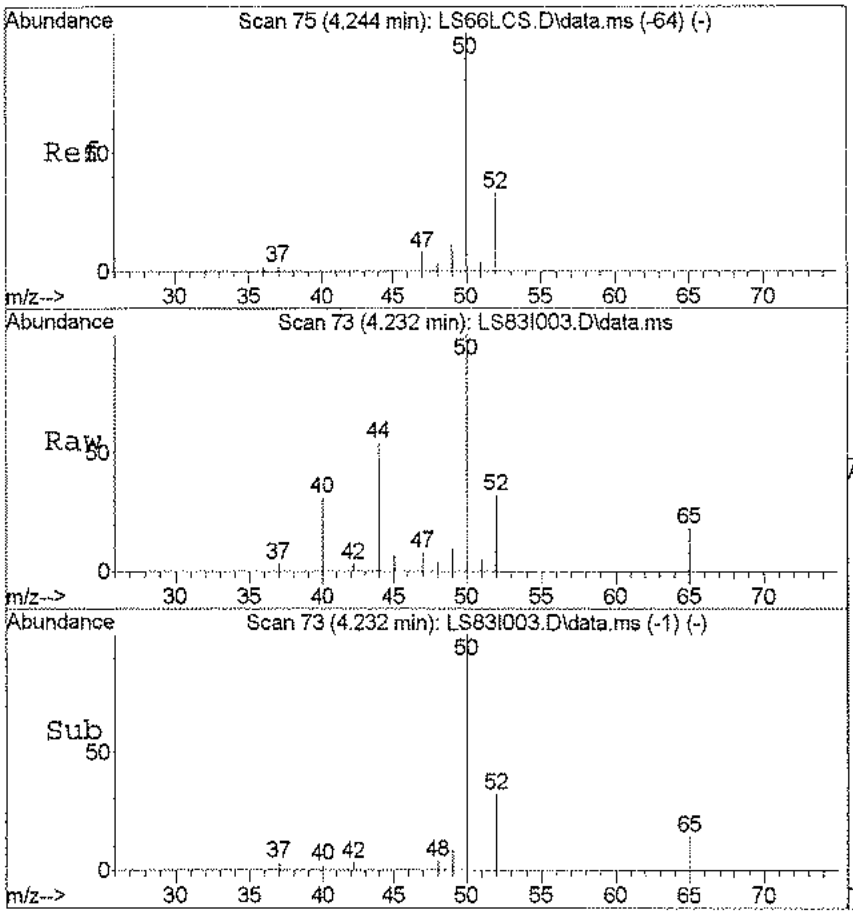


#3
Dichlorodifluoromethane
Concen: 0.49 ppb
RT: 4.07 min Scan# 46
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:85 Resp: 34513

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.1	39.1
101	9.6	8.0	12.0
0	0.0	0.0	0.0

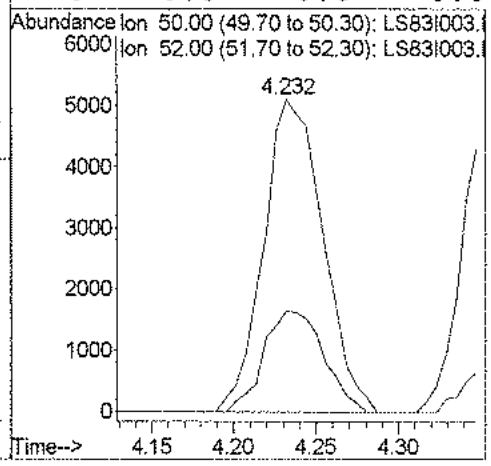


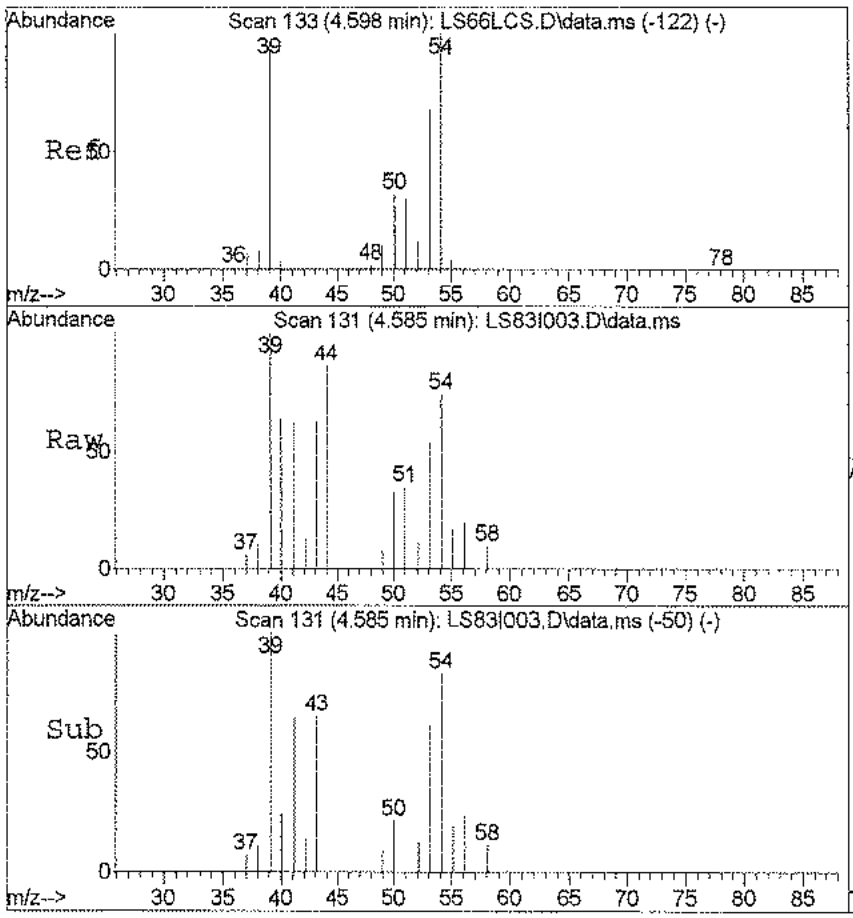


#4
Chloromethane
Concen: 0.64 ppb
RT: 4.23 min Scan# 73
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:50 Resp: 12827

Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

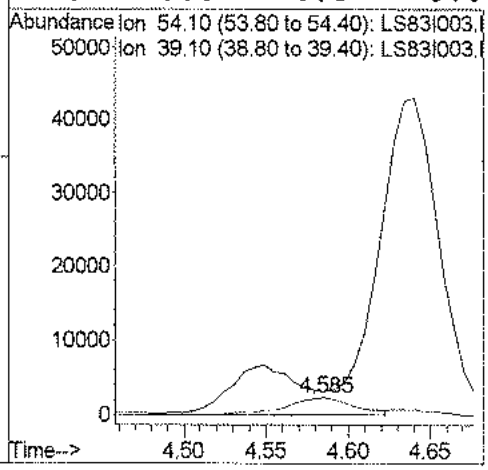


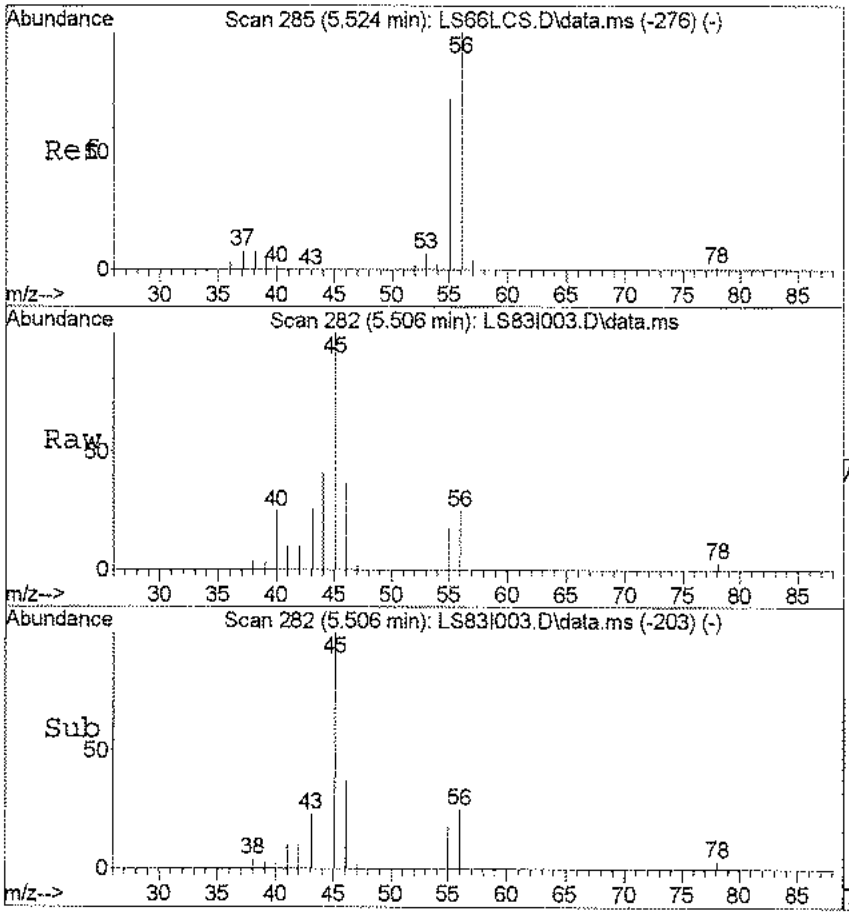


#7
1,3-Butadiene
Concen: 0.36 ppb
RT: 4.59 min Scan# 131
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:54.1 Resp: 6711

Ion	Ratio	Lower	Upper
54	100		
39	0.0	59.8	89.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

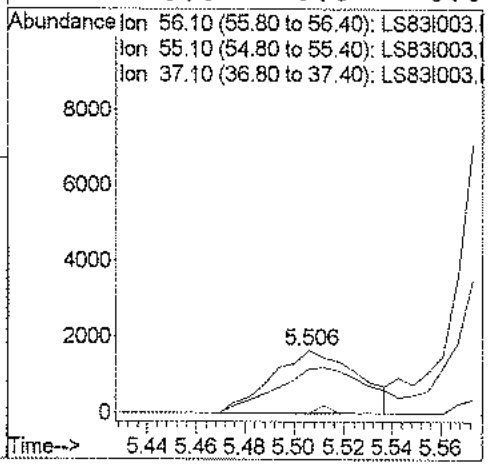


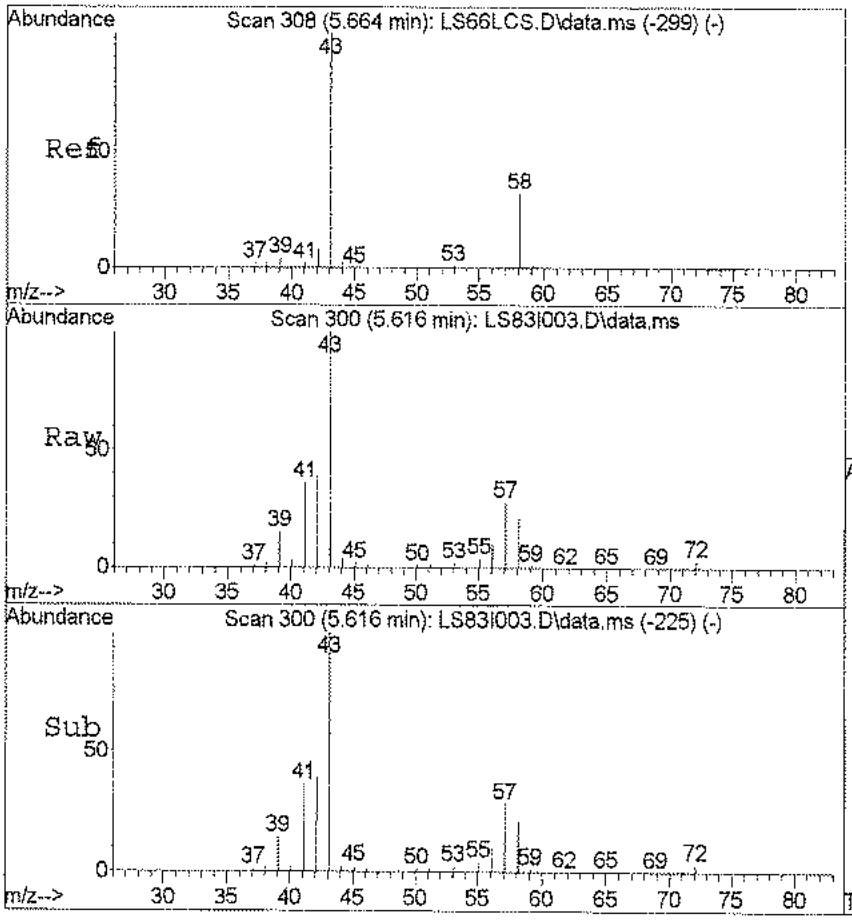


#10
Acrolein
Concen: 0.46 ppb
RT: 5.51 min Scan# 282
Delta R.T. -0.02 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:56.1 Resp: 4039

Ion	Ratio	Lower	Upper
56	100		
55	79.5	55.1	82.7
37	0.0	7.9	11.9#
0	0.0	0.0	0.0

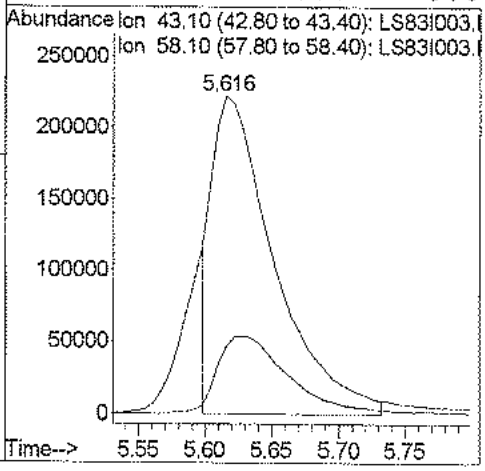


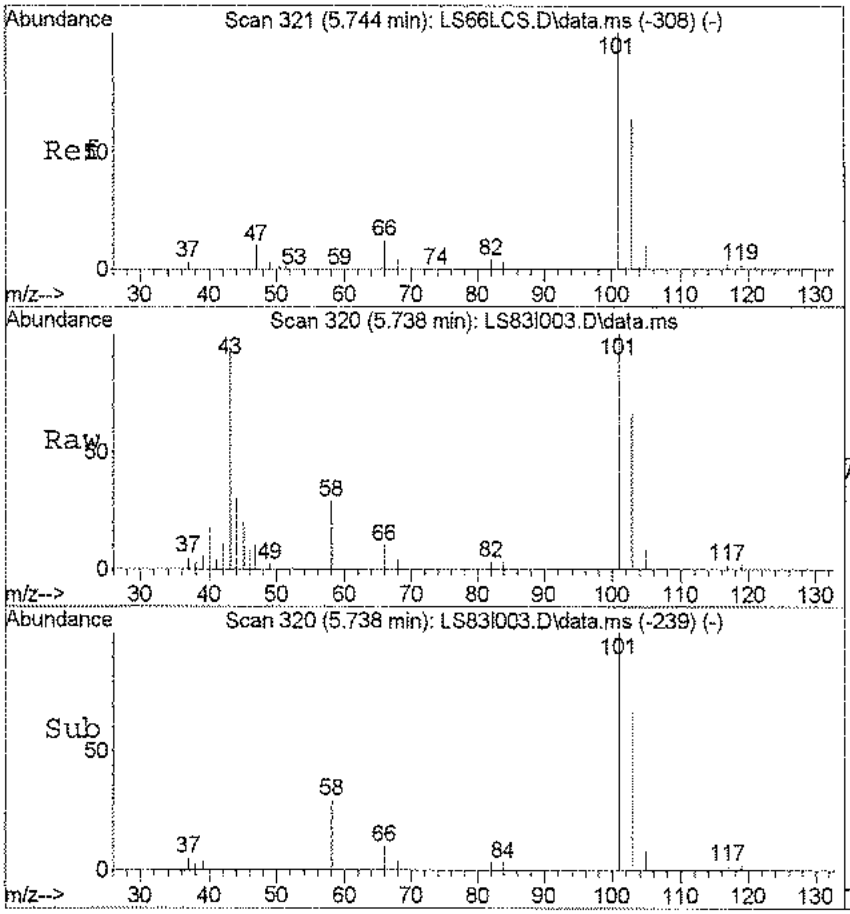


#11
Acetone
Concen: 20.82 ppb m
RT: 5.62 min Scan# 300
Delta R.T. -0.04 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:43.1 Resp: 723030

Ion	Ratio	Lower	Upper
43	100		
58	29.4	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

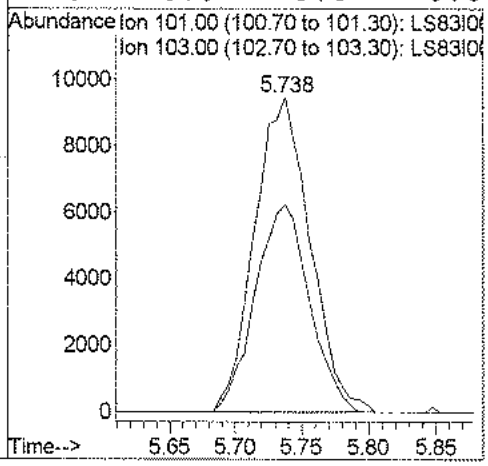


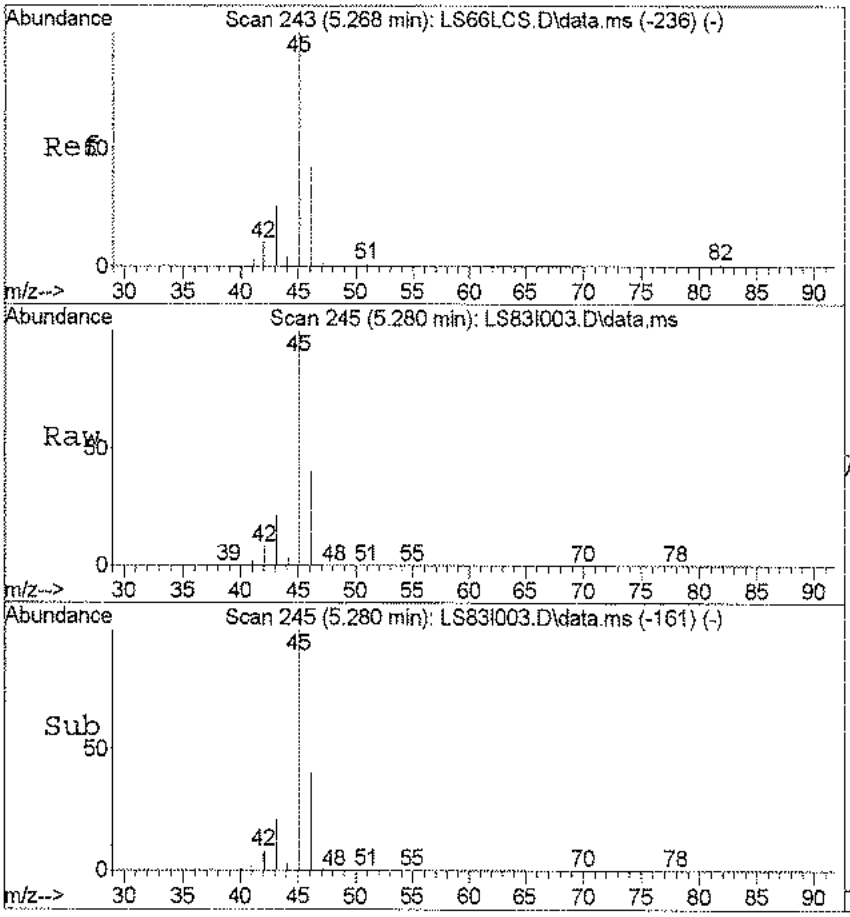


#12
Trichlorofluoromethane
Concen: 0.33 ppb
RT: 5.74 min Scan# 320
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:101 Resp: 27476

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

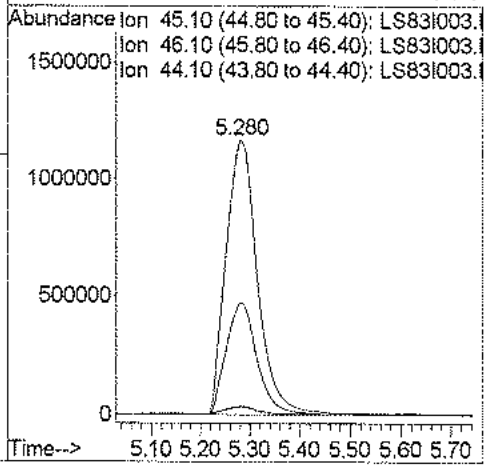


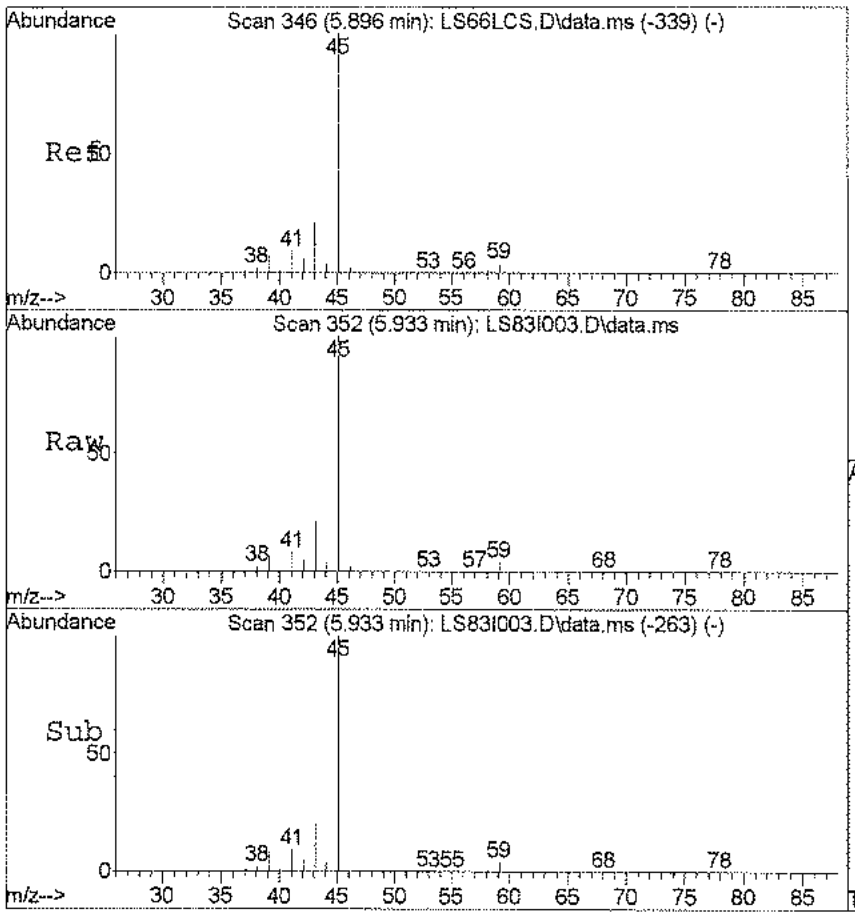


#13
Ethanol
Concen: 600.11 ppb
RT: 5.28 min Scan# 245
Delta R.T. 0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:45.1 Resp: 5131081

Ion	Ratio	Lower	Upper
45	100		
46	40.2	32.4	48.6
44	2.9	23.4	35.2#
0	0.0	0.0	0.0

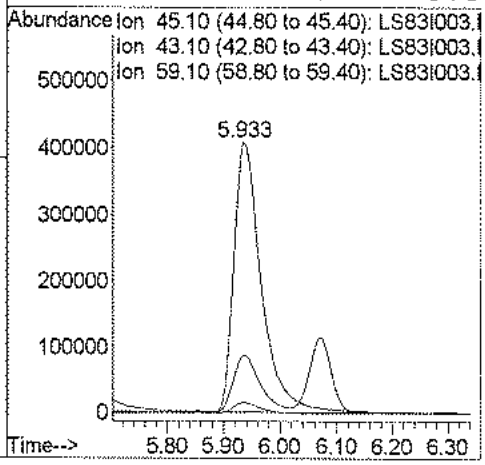


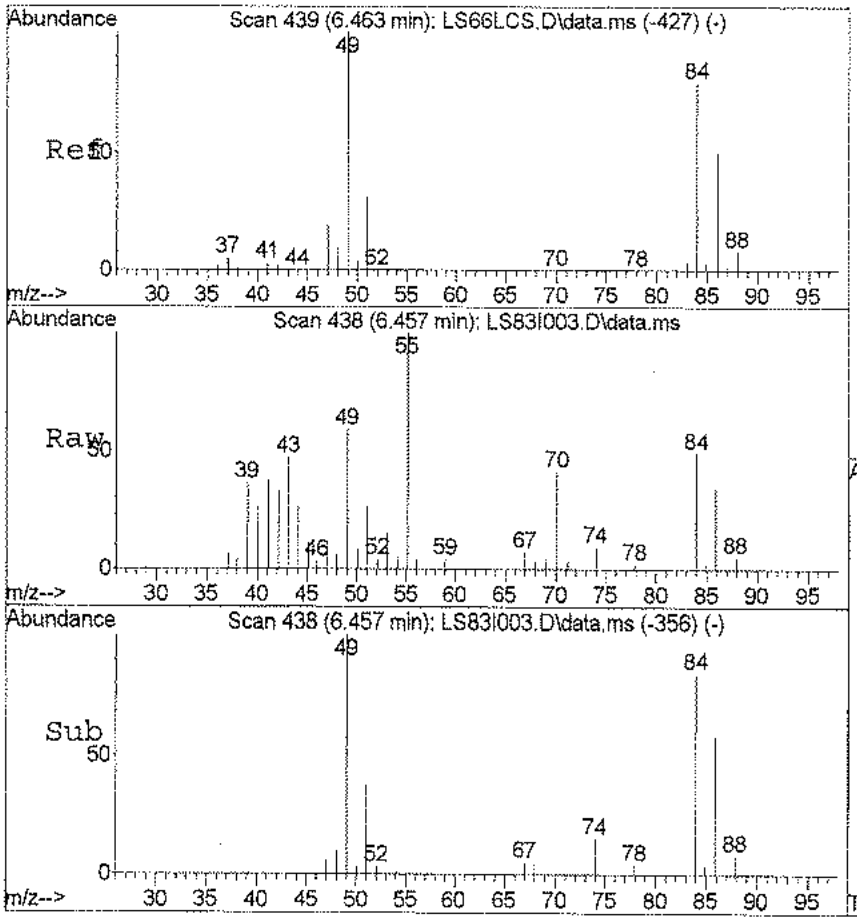


#14
Isopropyl Alcohol
Concen: 35.07 ppb
RT: 5.93 min Scan# 352
Delta R.T. 0.04 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:45.1 Resp: 1386062

Ion	Ratio	Lower	Upper
45	100		
43	20.3	15.8	23.6
59	4.0	3.2	4.8
0	0.0	0.0	0.0

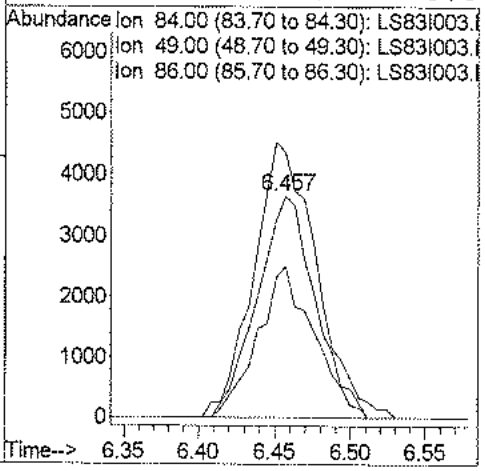


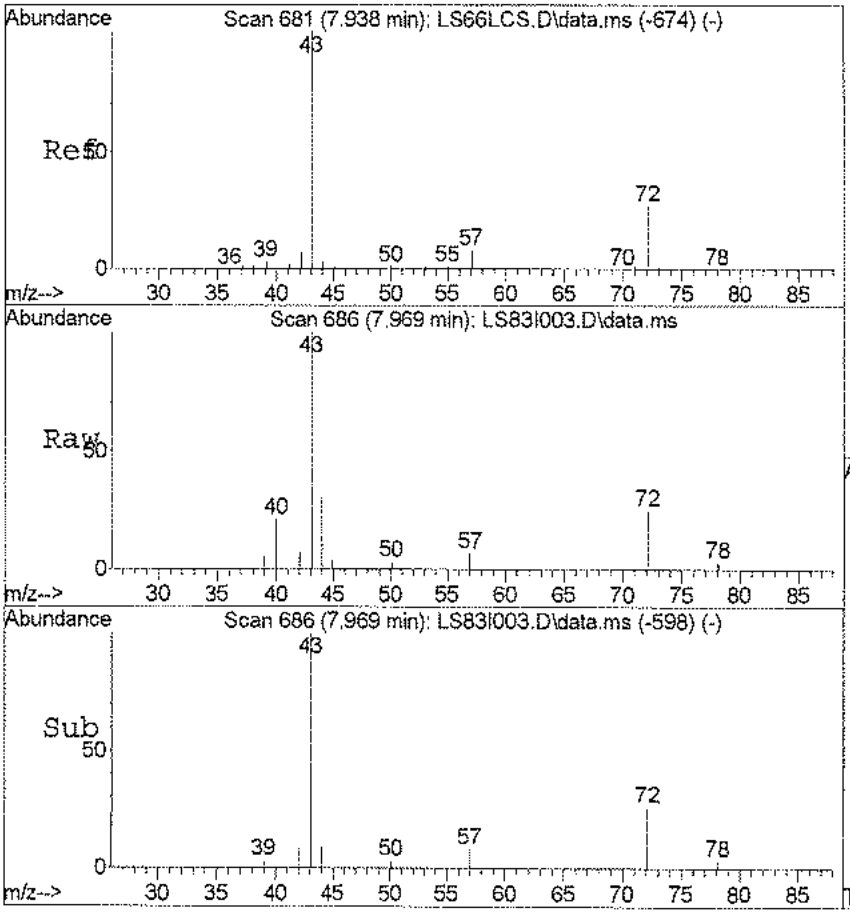


#16
Methylene Chloride
Concen: 0.40 ppb
RT: 6.46 min Scan# 438
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:84 Resp: 9800

Ion	Ratio	Lower	Upper
84	100		
49	133.3	66.6	100.0#
86	66.1	51.6	77.4
0	0.0	0.0	0.0

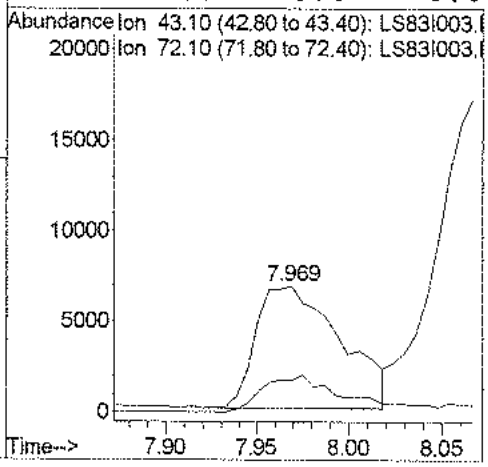


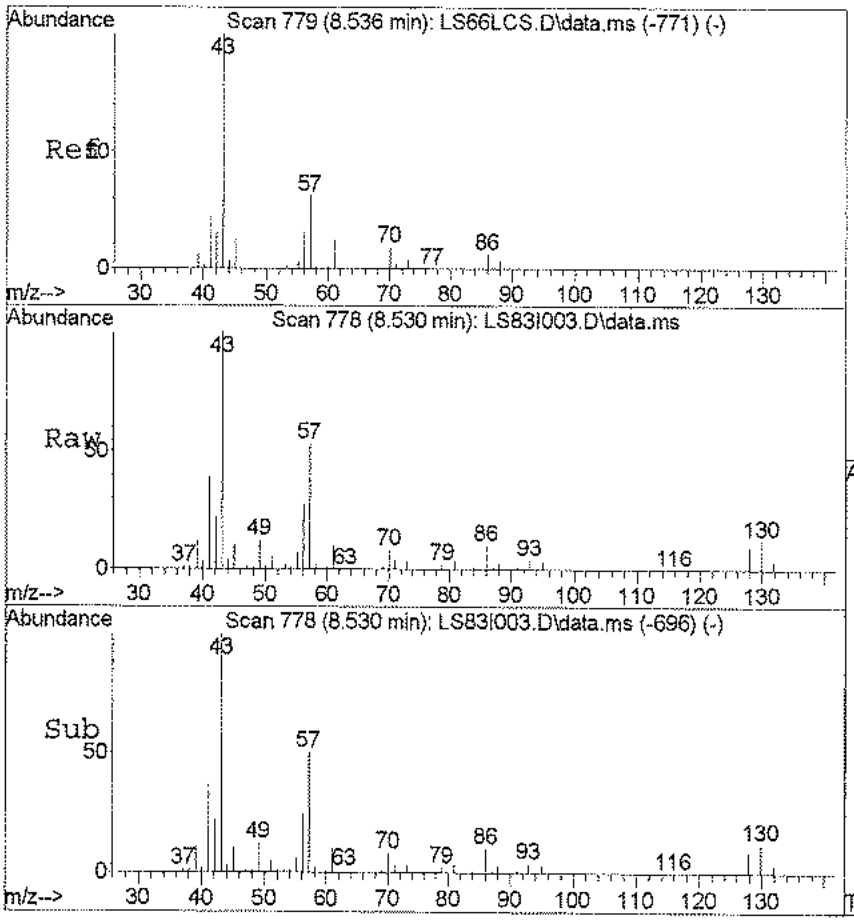


#23
2-Butanone
Concen: 0.49 ppb
RT: 7.97 min Scan# 686
Delta R.T. 0.04 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:43.1 Resp: 21628

Ion	Ratio	Lower	Upper
43	100		
72	30.2	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

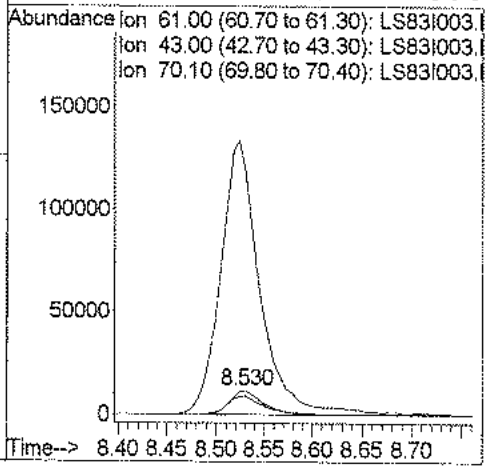


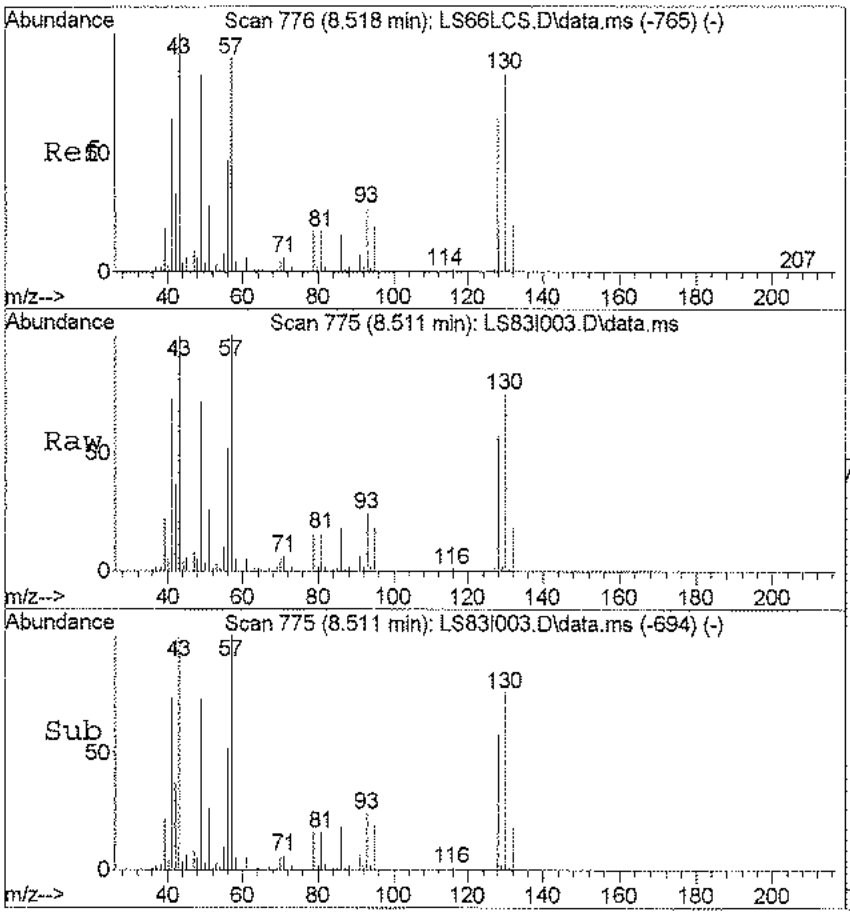


#26
Ethyl Acetate
Concen: 4.22 ppb
RT: 8.53 min Scan# 778
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:61 Resp: 30021

Ion	Ratio	Lower	Upper
61	100		
43	1262.7	144.0	216.0#
70	84.1	13.6	20.4#
0	0.0	0.0	0.0

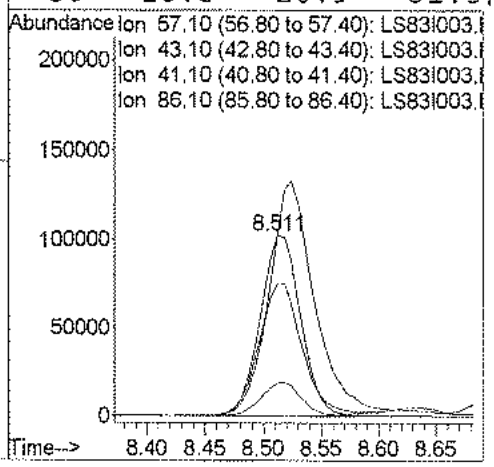


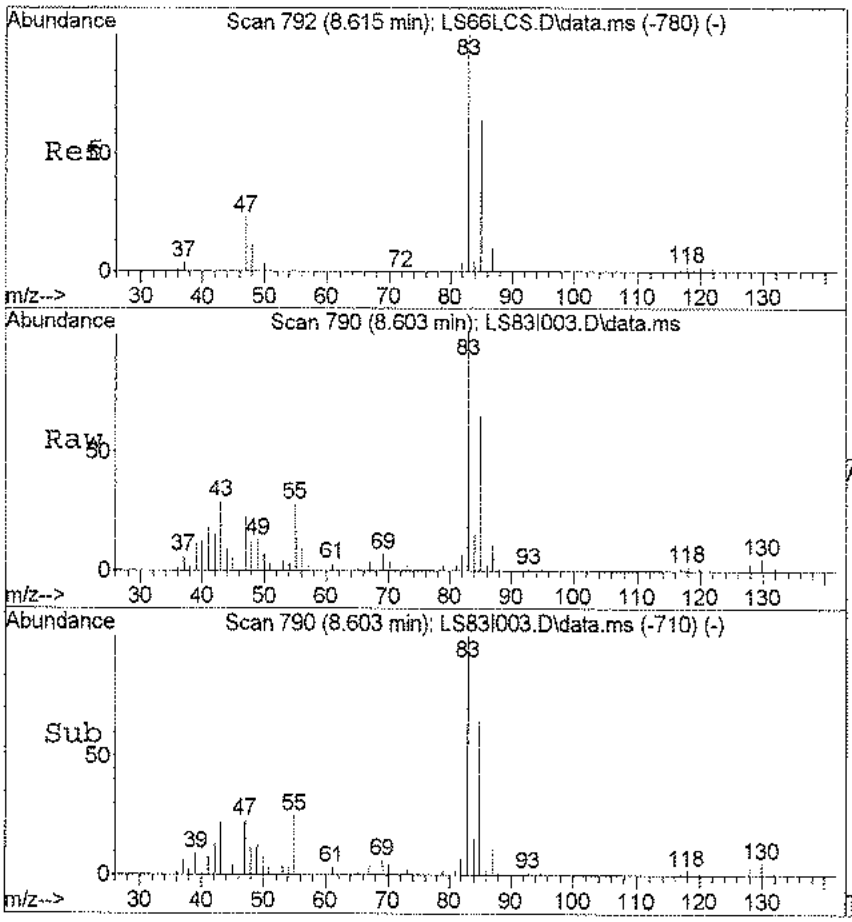


#27
Hexane
Concen: 7.00 ppb
RT: 8.51 min Scan# 775
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:57.1 Resp: 248365

Ion	Ratio	Lower	Upper
57	100		
43	152.6	57.3	85.9#
41	79.4	47.0	70.4#
86	18.5	20.9	31.3#

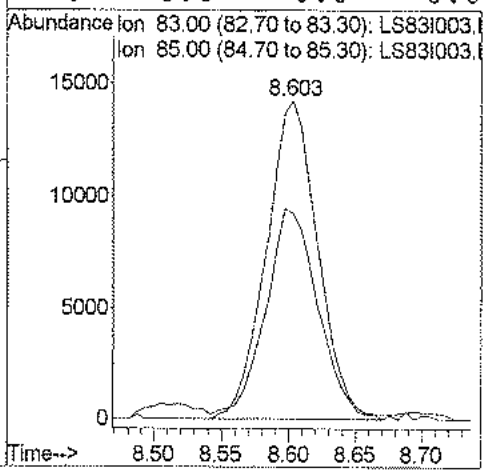


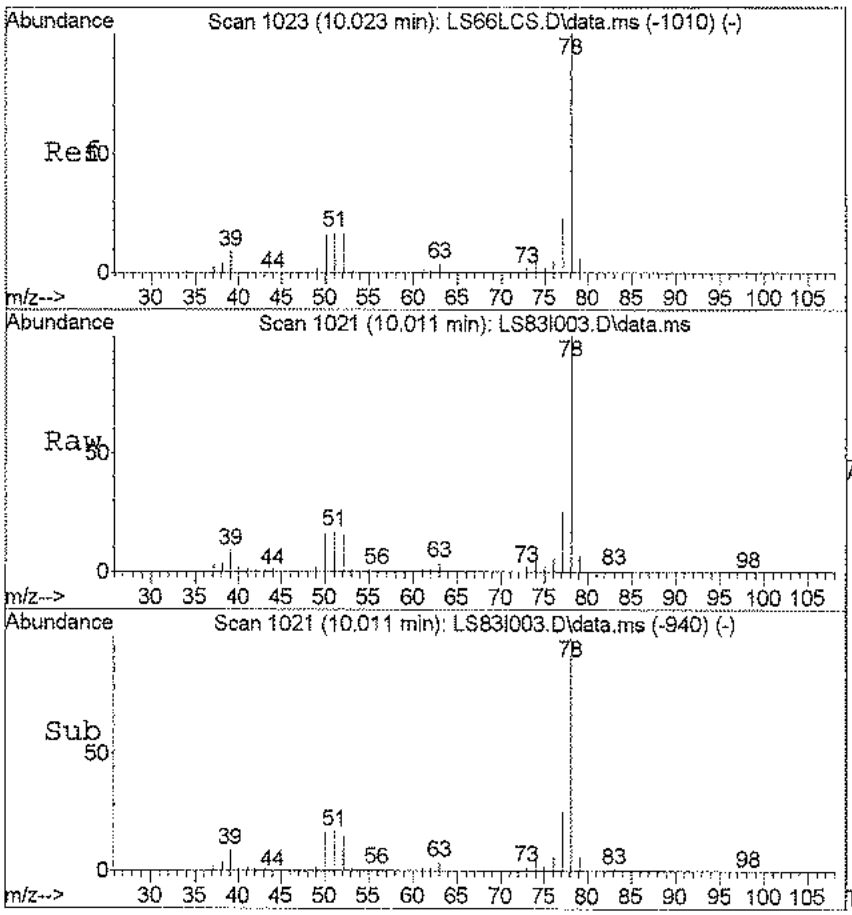


#28
Chloroform
Concen: 0.64 ppb
RT: 8.60 min Scan# 790
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:83 Resp: 38212

Ion	Ratio	Lower	Upper
83	100		
85	67.9	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

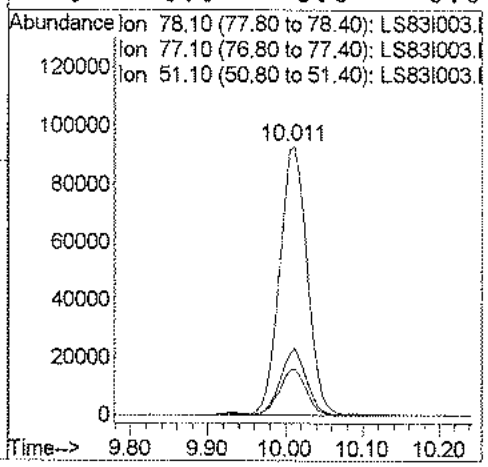


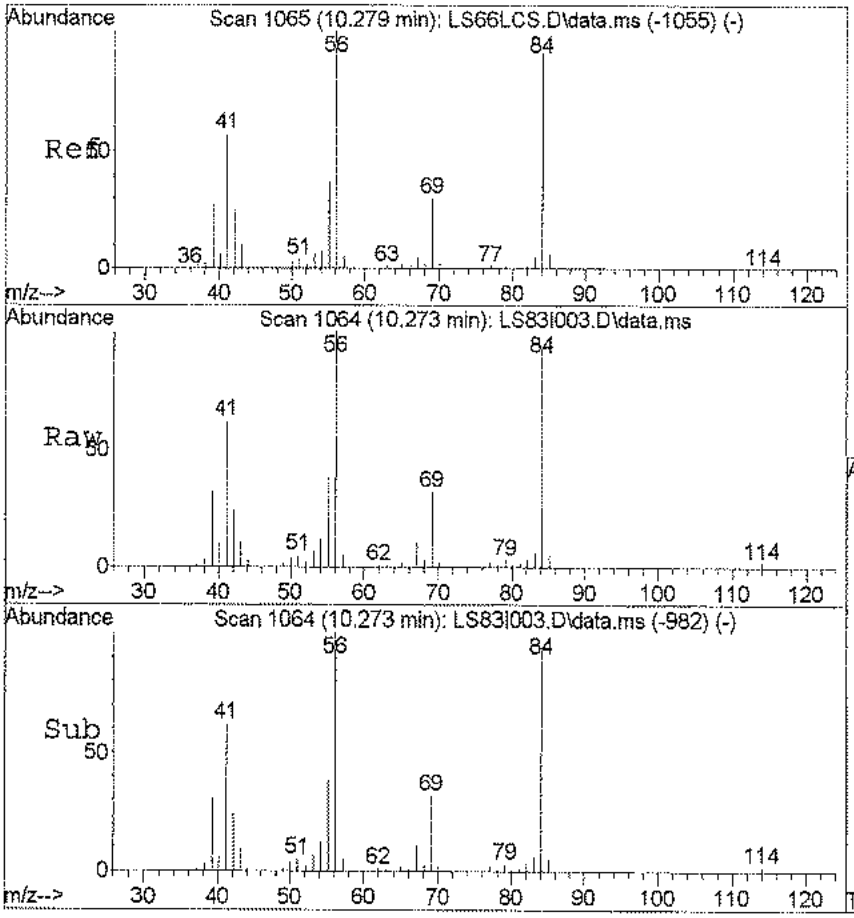


#32
Benzene
Concen: 3.08 ppb
RT: 10.01 min Scan# 1021
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:78.1 Resp: 233282

Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.2	27.4
51	16.8	9.5	14.3#
0	0.0	0.0	0.0

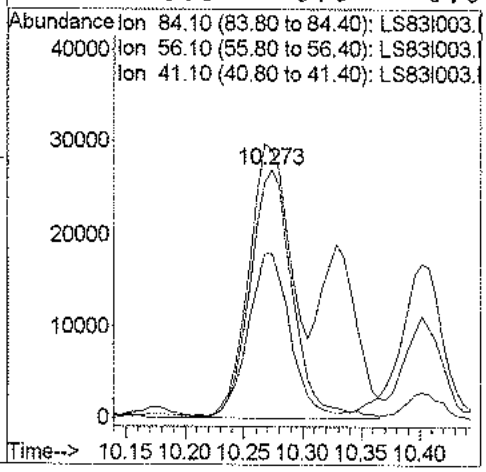


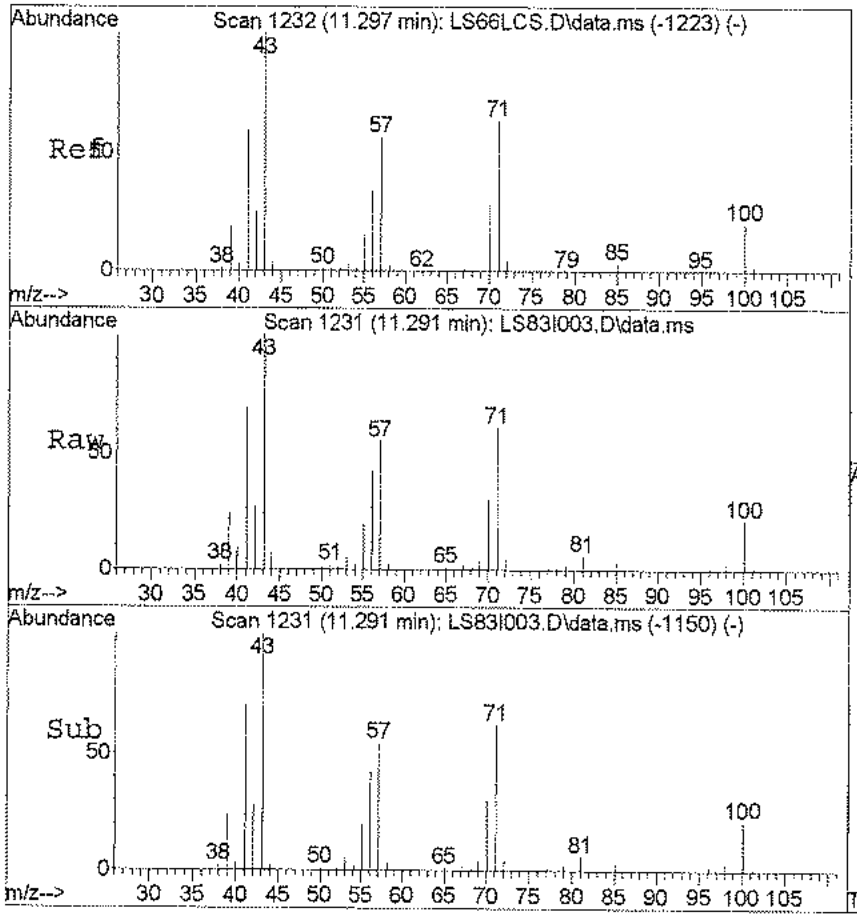


#34
Cyclohexane
Concen: 1.96 ppb
RT: 10.27 min Scan# 1064
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:84.1 Resp: 67654

Ion	Ratio	Lower	Upper
84	100		
56	109.5	67.3	100.9#
41	63.9	30.2	45.4#
0	0.0	0.0	0.0

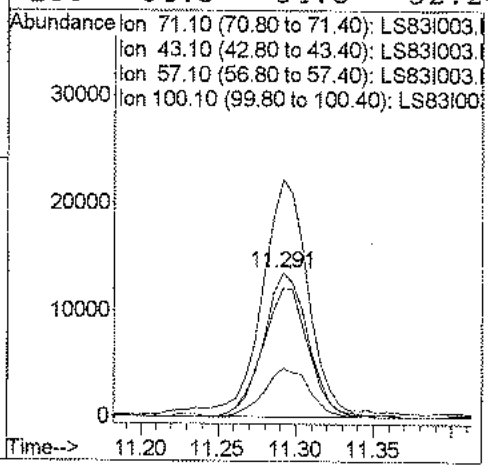


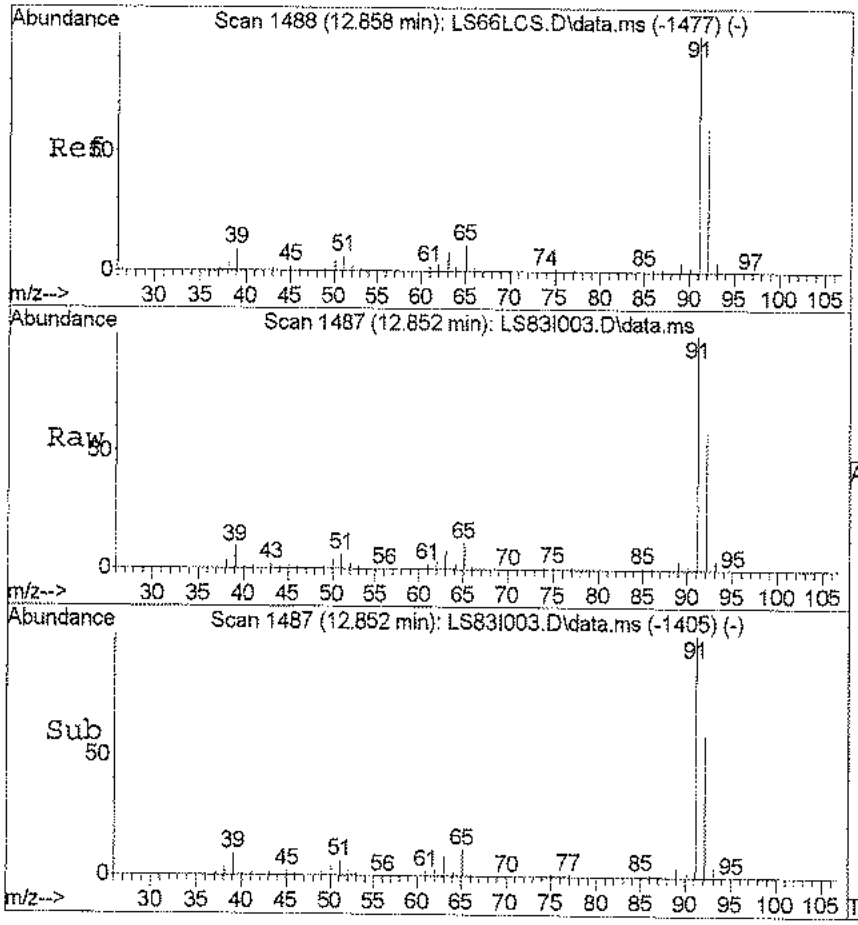


#40
Heptane
Concen: 1.14 ppb
RT: 11.29 min Scan# 1231
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:71.1 Resp: 27548

Ion	Ratio	Lower	Upper
71	100		
43	175.8	87.3	130.9#
57	92.4	57.8	86.6#
100	34.3	34.8	52.2#

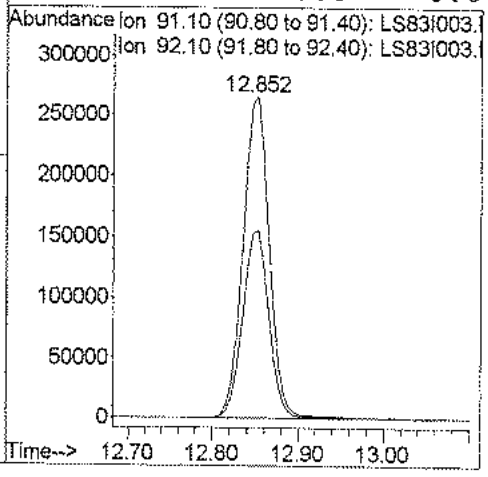


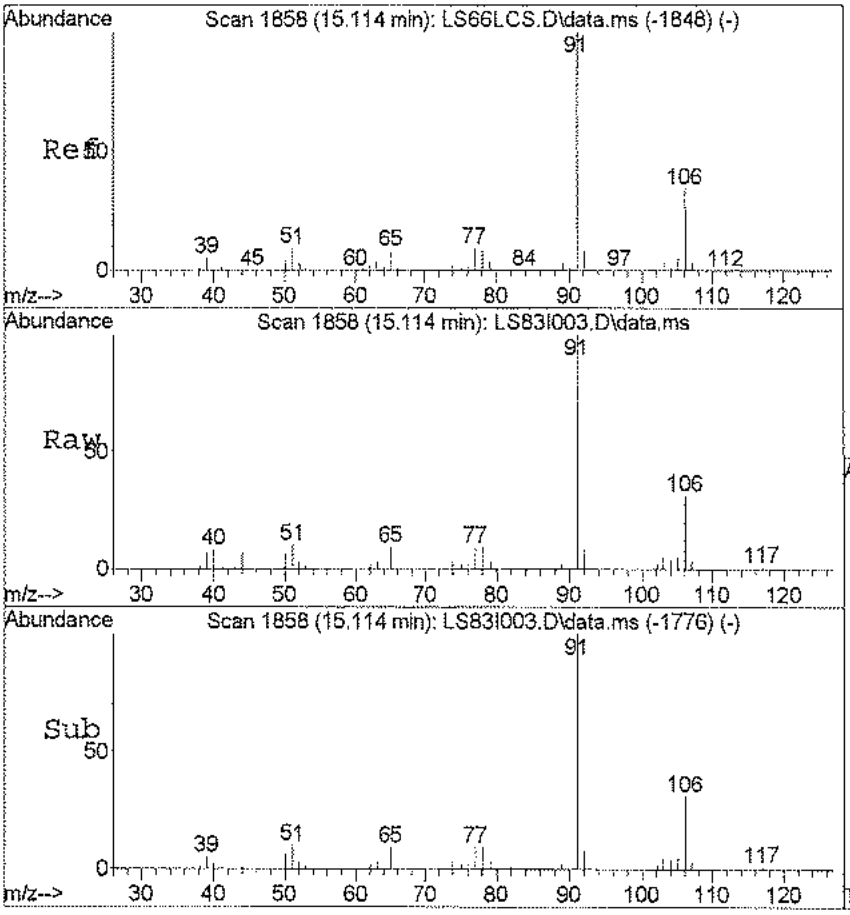


#45
Toluene
Concen: 6.71 ppb
RT: 12.85 min Scan# 1487
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:91.1 Resp: 565695

Ion	Ratio	Lower	Upper
91	100		
92	58.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

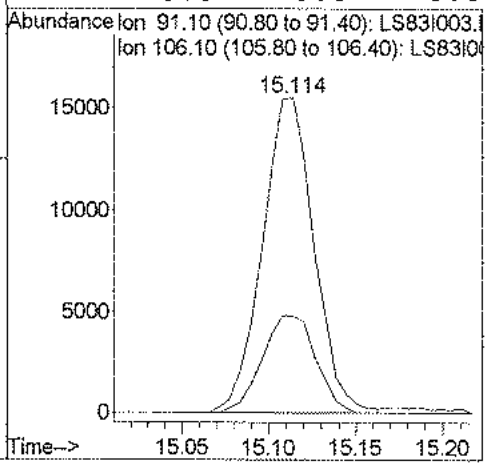


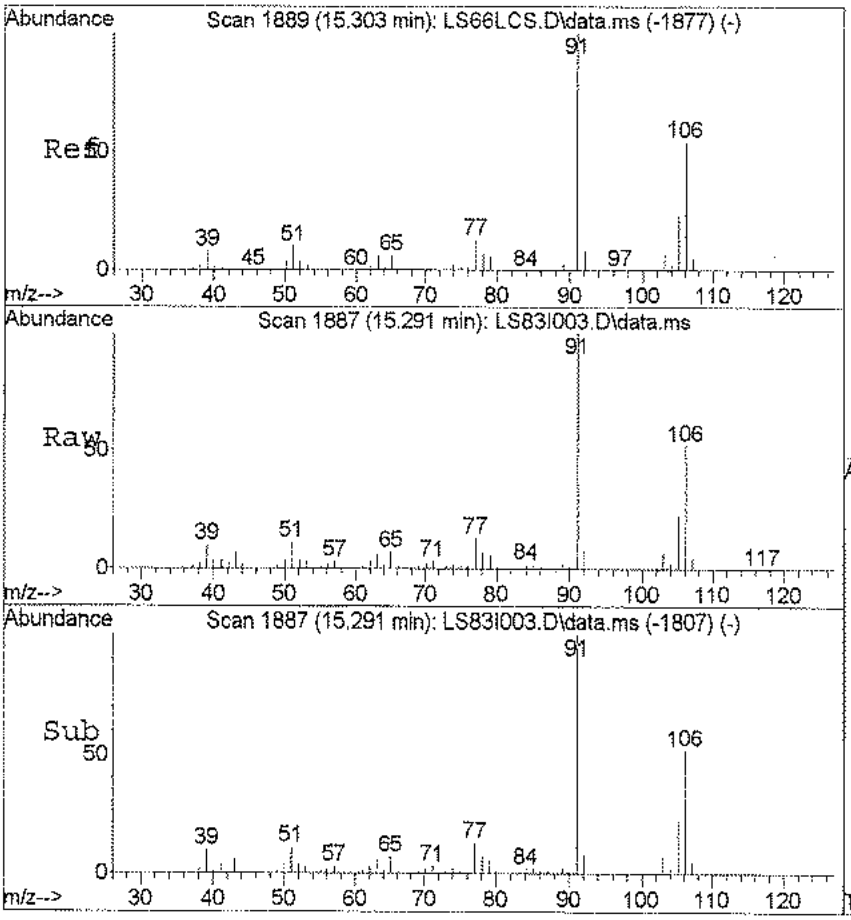


#52
Ethylbenzene
Concen: 0.30 ppb
RT: 15.11 min Scan# 1858
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:91.1 Resp: 31949

Ion	Ratio	Lower	Upper
91	100		
106	32.1	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

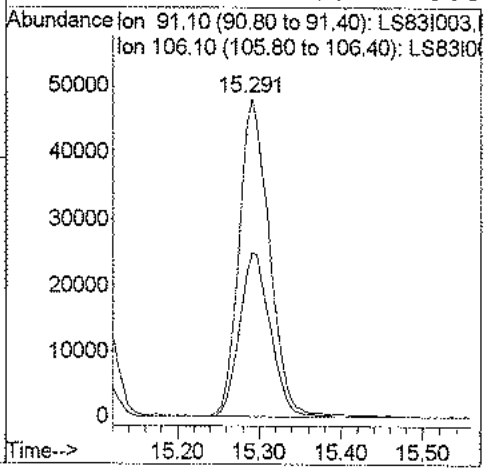


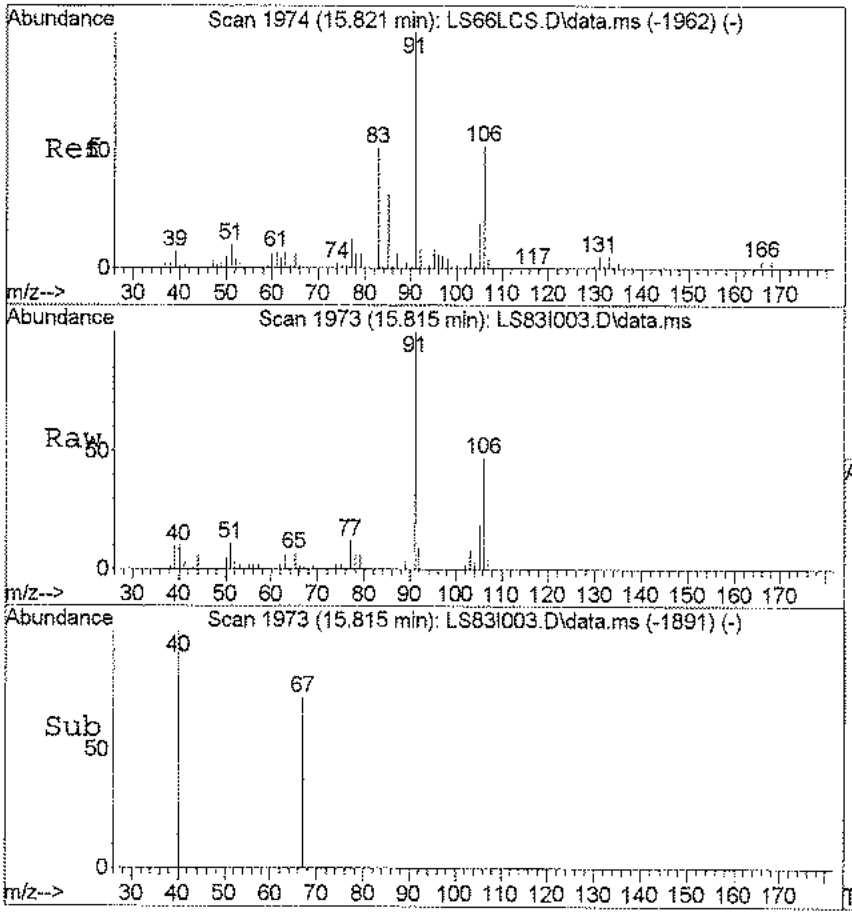


#53
m,p-Xylene
Concen: 1.48 ppb
RT: 15.29 min Scan# 1887
Delta R.T. -0.01 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:91.1 Resp: 124477

Ion	Ratio	Lower	Upper
91	100		
106	52.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

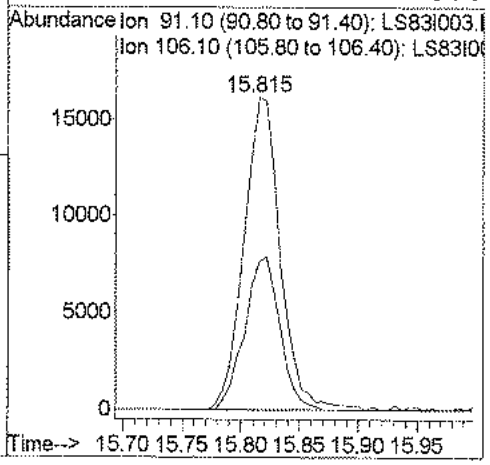


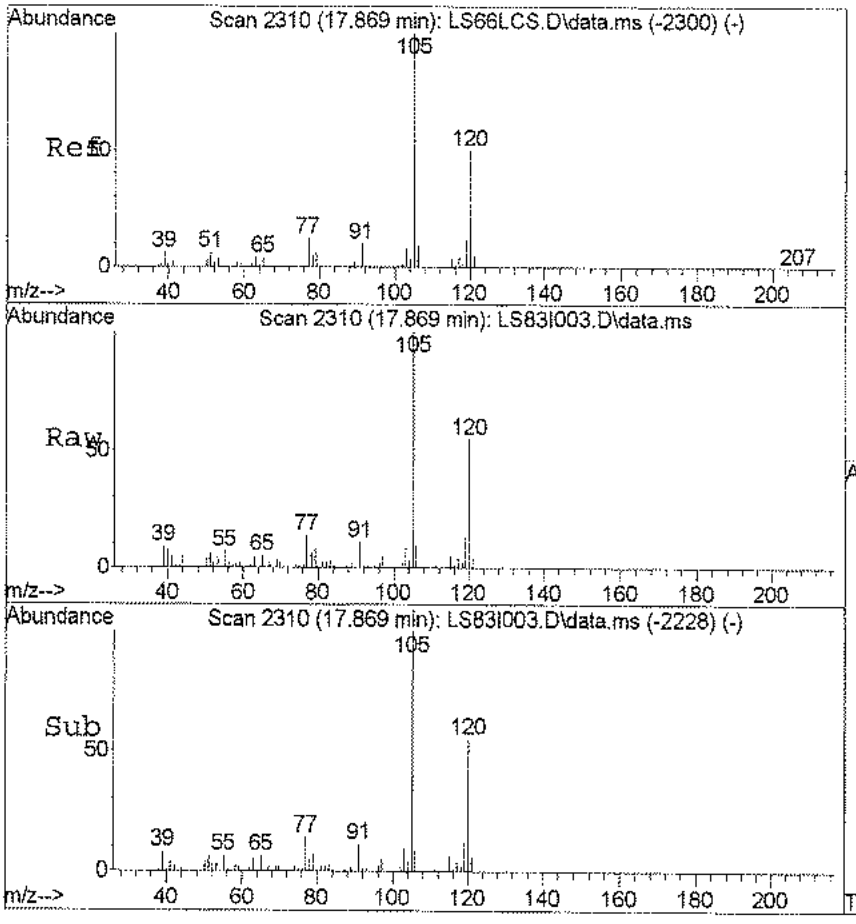


#57
o-Xylene
Concen: 0.40 ppb
RT: 15.81 min Scan# 1973
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:91.1 Resp: 34584

Ion	Ratio	Lower	Upper
91	100		
106	47.1	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

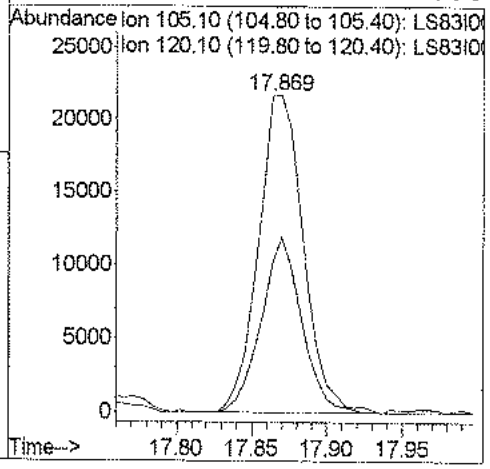




#61
1,2,4-Trimethylbenzene
Concen: 0.57 ppb
RT: 17.87 min Scan# 2310
Delta R.T. 0.00 min
Lab File: LS83I003.D
Acq: 12/10/2015 01:57

Tgt Ion:105.1 Resp: 45024

Ion	Ratio	Lower	Upper
105	100		
120	49.6	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



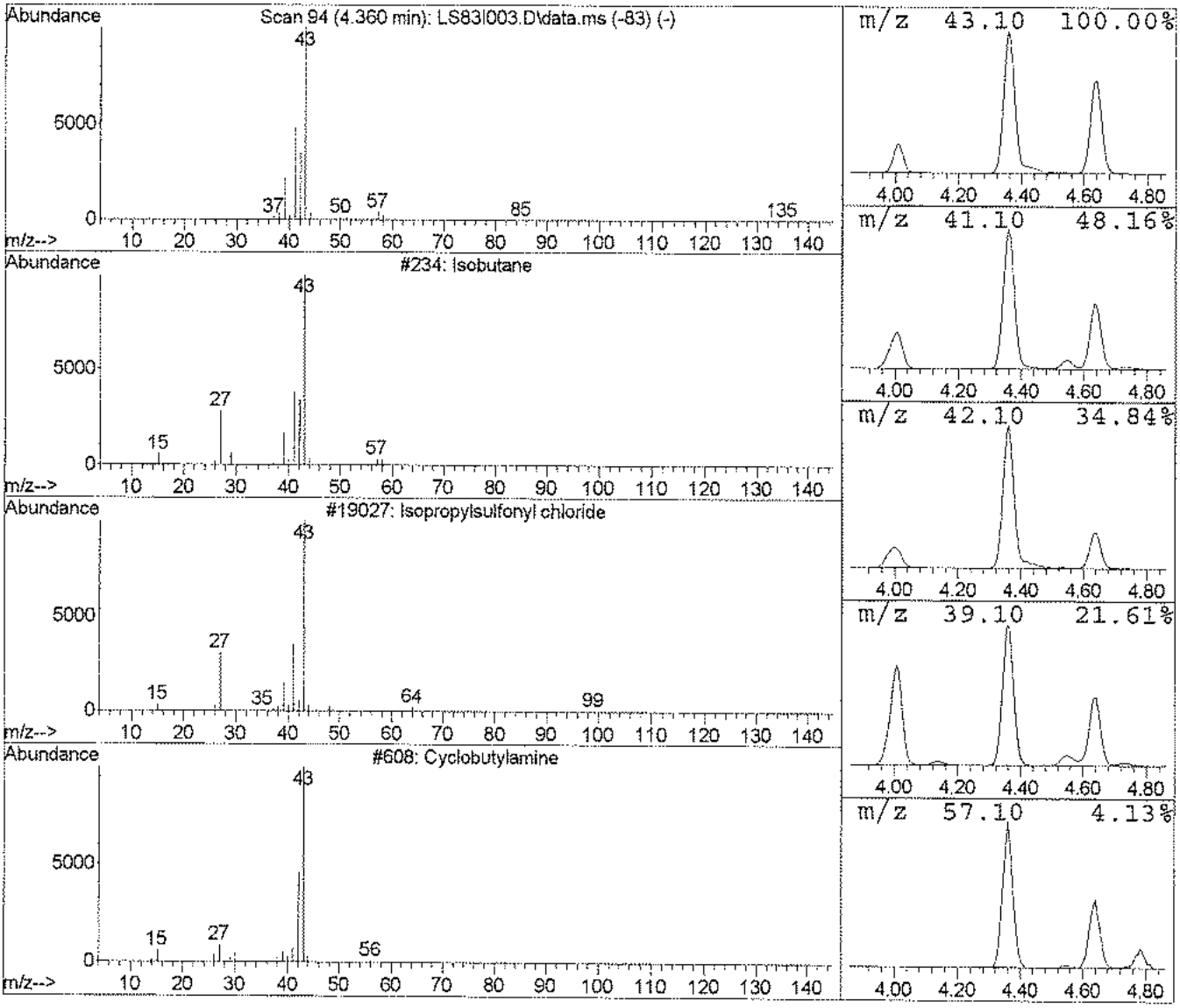
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.36	11.10 ppb	2338849	Bromochloromethane	4213163

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Cyclobutylamine	608	002516-34-9	9.00
4	Propane, 2-nitro-	2157	000079-46-9	4.00
5	5-Methyloxazolidine	1869	058328-22-6	4.00



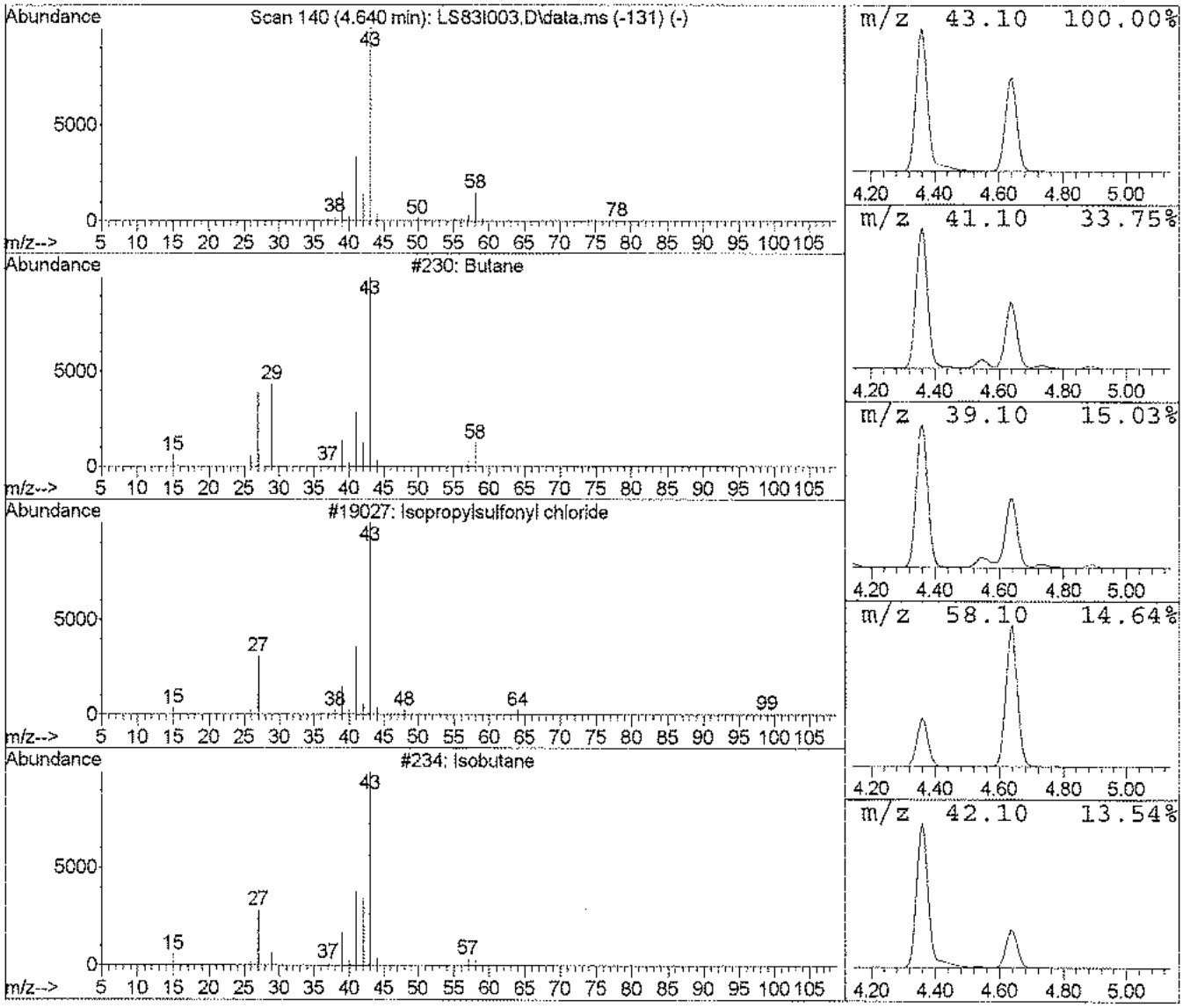
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.64	6.17 ppb	1298793	Bromochloromethane	4213163

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	230	000106-97-8	80.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Isobutane	234	000075-28-5	9.00
4	Propane, 1-nitro-	2152	000108-03-2	9.00
5	Diazene, dimethyl-	211	000503-28-6	4.00



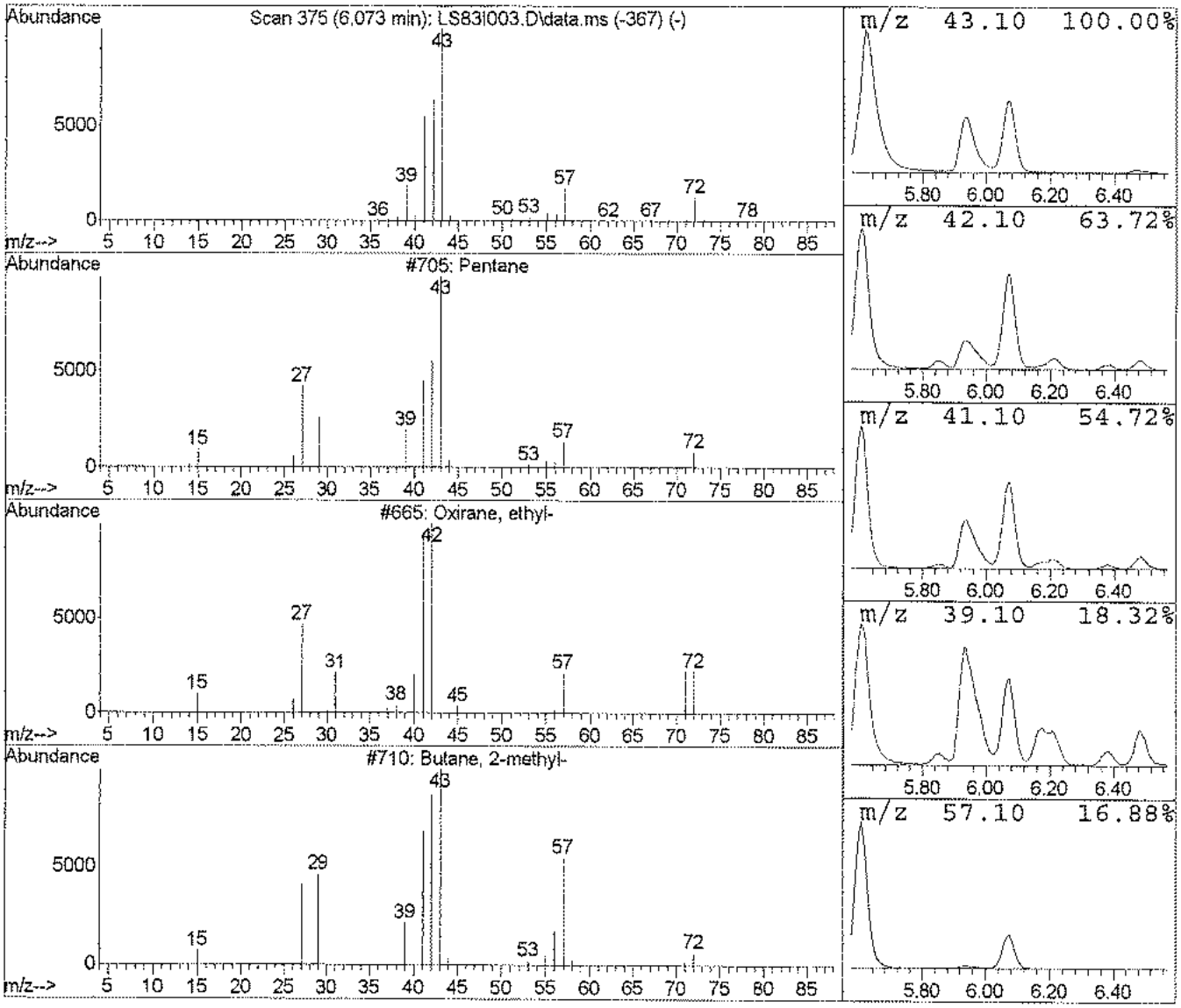
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.07	4.10 ppb	863761	Bromochloromethane	4213163

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	705	000109-66-0	90.00
2	Oxirane, ethyl-	665	000106-88-7	40.00
3	Butane, 2-methyl-	710	000078-78-4	38.00
4	Diaziridine,3,3-dimethyl-	636	004901-76-2	25.00
5	1-Pentanol	2075	000071-41-0	9.00



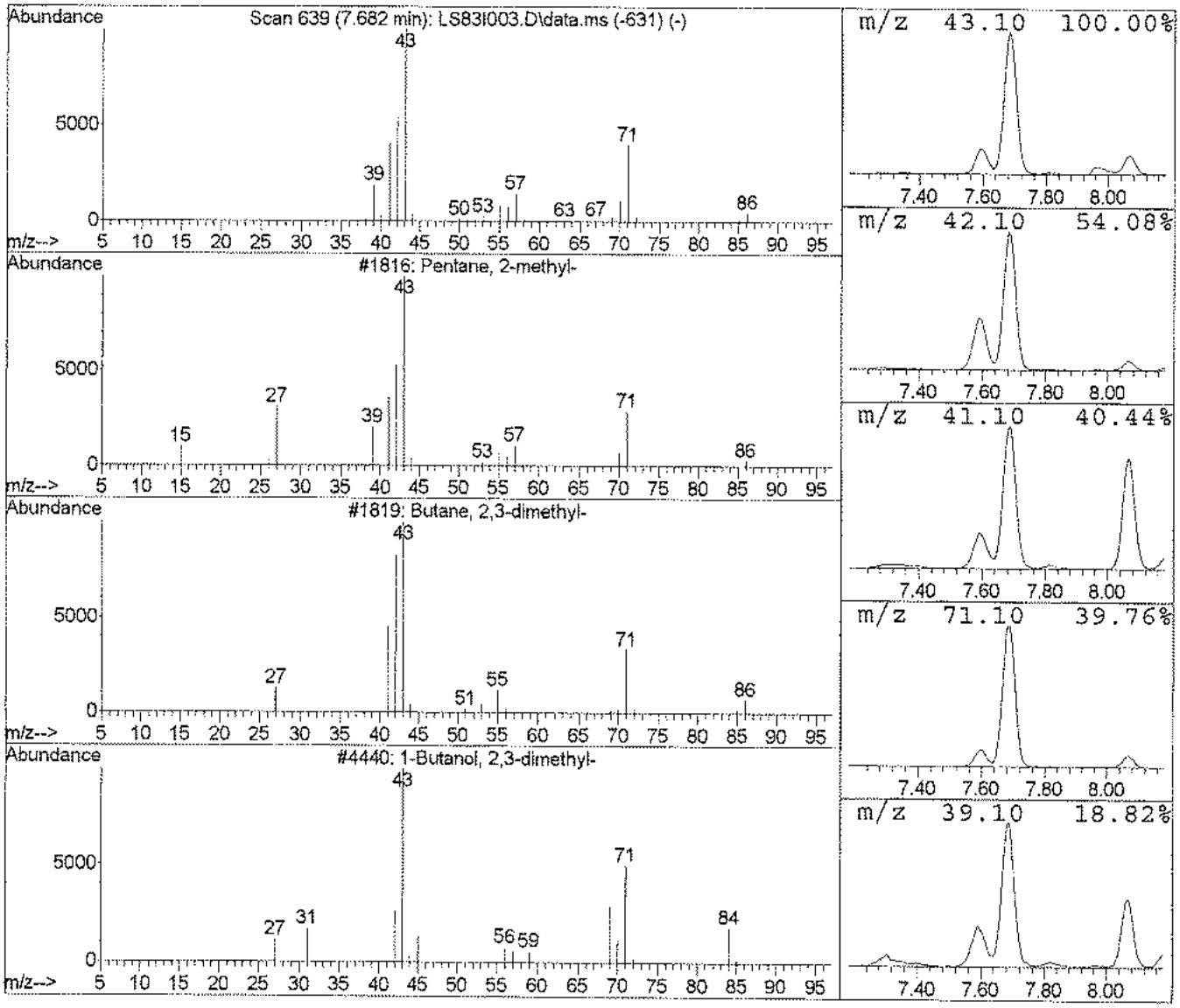
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.68	5.39 ppb	1134909	Bromochloromethane	4213163

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1816	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1819	000079-29-8	72.00
3	1-Butanol, 2,3-dimethyl-	4440	019550-30-2	45.00
4	Pentane	706	000109-66-0	43.00
5	Hexane, 2,3-dimethyl-	7571	000584-94-1	38.00



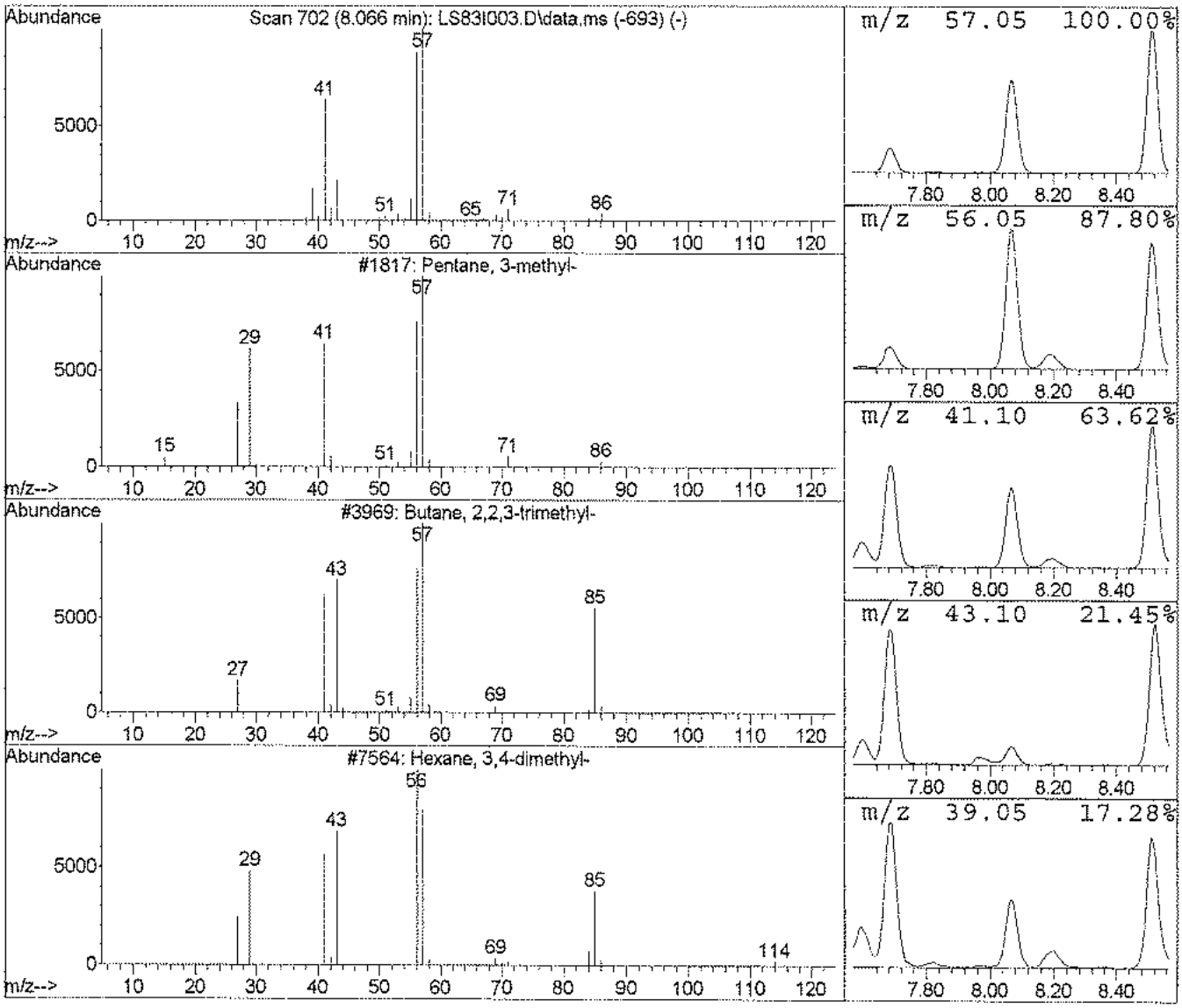
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
8.07	2.89 ppb	608924	Bromochloromethane	4213163

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1817	000096-14-0	91.00
2	Butane, 2,2,3-trimethyl-	3969	000464-06-2	83.00
3	Hexane, 3,4-dimethyl-	7564	000583-48-2	78.00
4	Hexane, 2,2,3-trimethyl-	12587	016747-25-4	64.00
5	Oxirane, (1-methylethyl)-	1788	001438-14-8	59.00



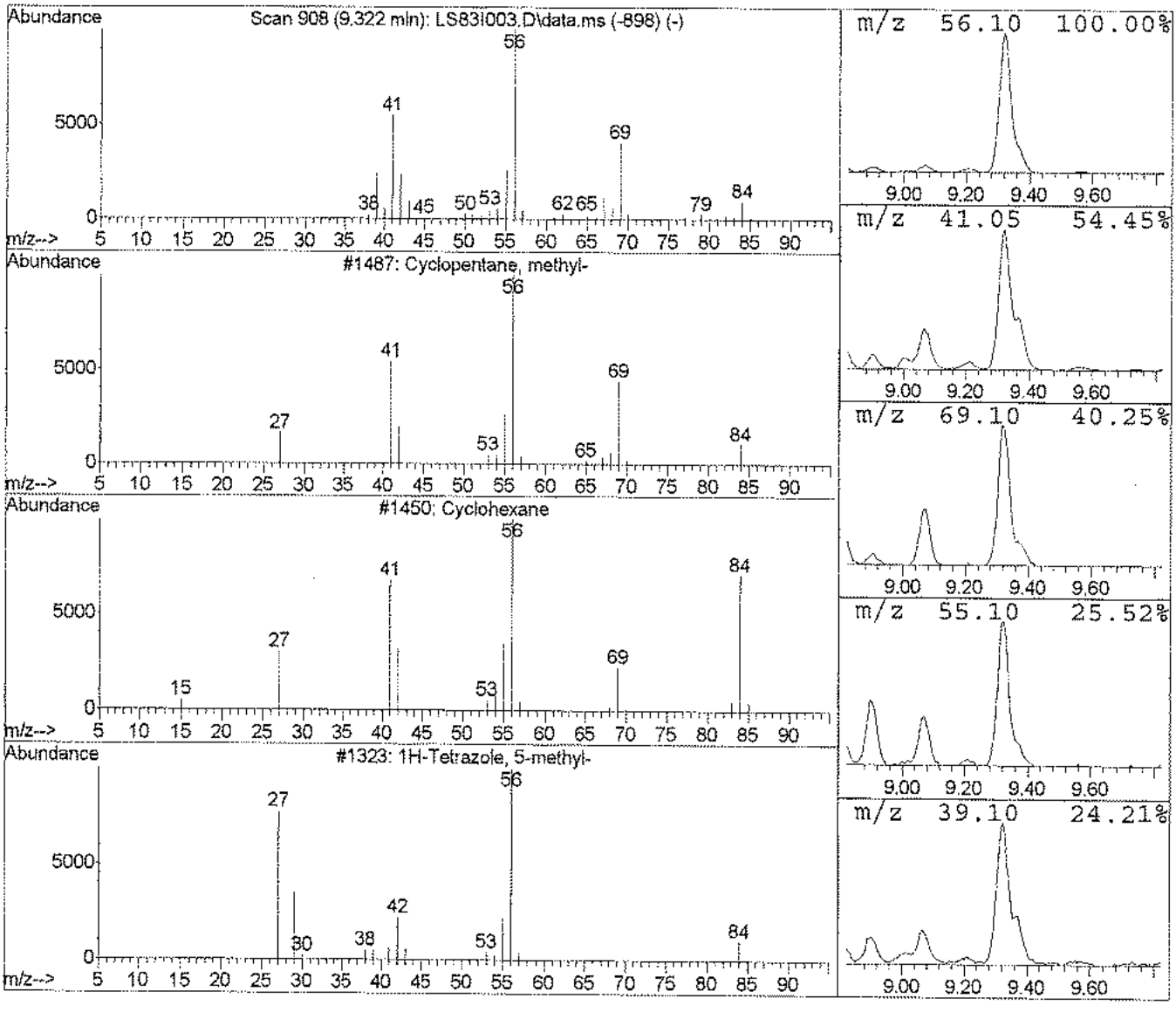
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
9.32	2.11 ppb	444184	Bromochloromethane	4213163

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	1487	000096-37-7	90.00
2	Cyclohexane	1450	000110-82-7	72.00
3	1H-Tetrazole, 5-methyl-	1323	004076-36-2	72.00
4	Cyclobutane, ethyl-	1464	004806-61-5	59.00
5	1-Pentene, 2-methyl-	1471	000763-29-1	50.00



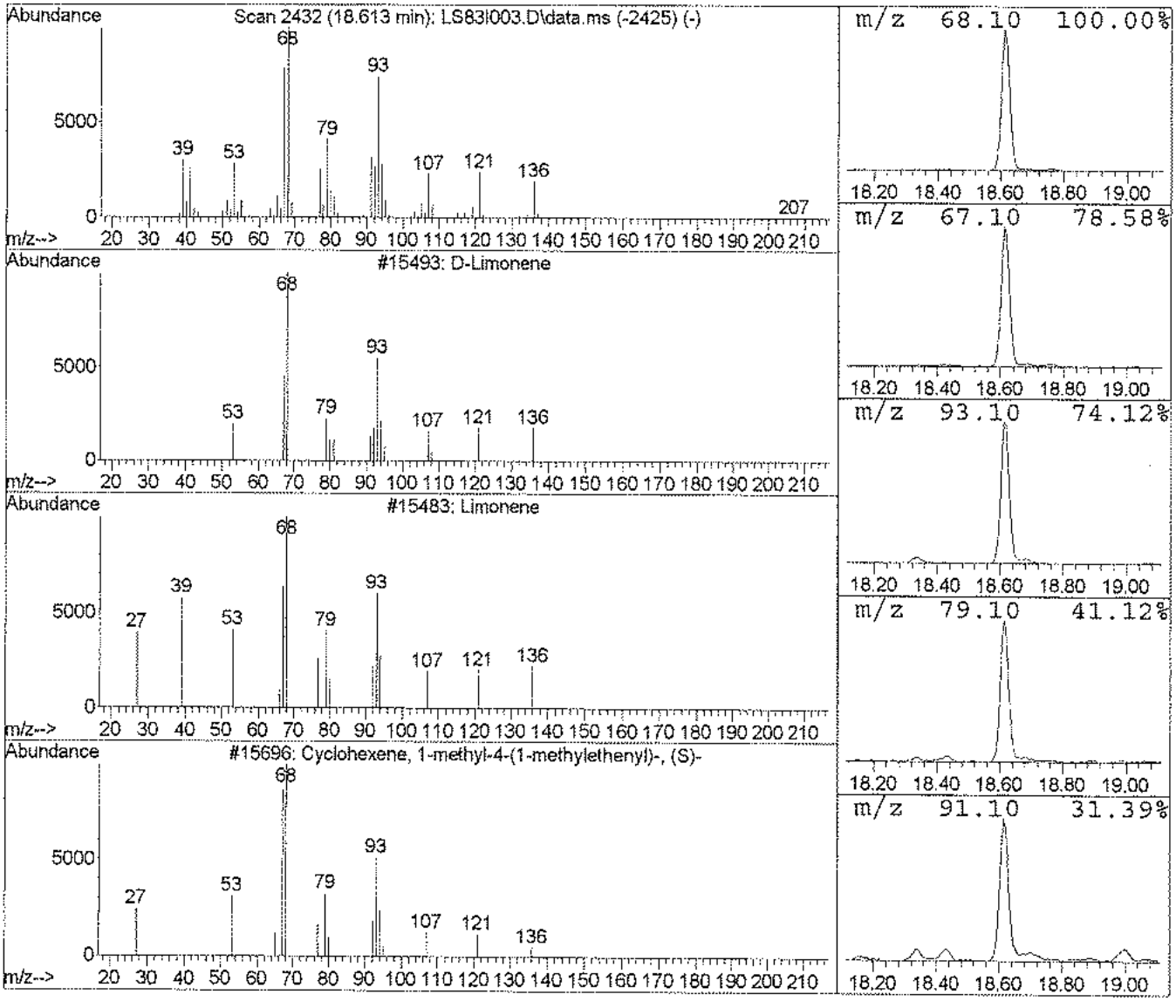
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS83I003.D Vial: 15
Acq Time : 12/10/2015 01:57 Operator: TJM
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.61	2.80 ppb	701842	Chlorobenzene d5	5020035

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	D-Limonene	15493	005989-27-5	94.00
2	Limonene	15483	000138-86-3	94.00
3	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	94.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	81.00
5	1,5-Cyclooctadiene, 1,5-dimethyl-	15580	003760-14-3	64.00



Batch Worklist

Batch: IVOA/3095 Created: 12/10/2015 15:58 Instrument: 5975-L HBN: 161047

Rule: EPA TO-15, Air Analyst: L. Reid Status: WP

Workorder: 1534147
Workorder: 1534196
Workorder: 1534264
Workorder: 1534300

Pos.	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	480507	LCS for HBN 161047 [IVOA/3095]				LCS	1		ETO15...1Q	5320		12/14/2015	12/9/2015
2	480508	LCSD for HBN 161047 [IVOA/3095				LCSD	1		ETO15...1Q	5320		12/14/2015	12/9/2015
3	480509	RLVS for HBN 161047 [IVOA/3095				RLVS	1		ETO15...1Q	5320		12/14/2015	12/9/2015
4	480506	MB for HBN 161047 [IVOA/3095]				MB	1		ETO15...1Q	5320		12/14/2015	12/9/2015
5	1534264001	Lees Corp				SAMPLE	1	1534264001-A	ETO15....1	6171		12/15/2015	12/9/2015
	*E|Result exceeds calibration range												
6	1534196001	VOC-1				SAMPLE	1	1534196001-A	ETO15....1	5003		12/14/2015	12/9/2015
7	1534147002	VMW-1-15-17				SAMPLE	1	1534147002-A	ETO15....1	6171		12/14/2015	12/9/2015
	*E|Result exceeds calibration range												
8	1534147003	VMW-1-180-182				SAMPLE	1	1534147003-A	ETO15....1	6171		12/14/2015	12/9/2015
	*E|Result exceeds calibration range												
9	1534147004	VMW-1-105-107				SAMPLE	1	1534147004-A	ETO15....1	6171		12/14/2015	12/9/2015
	*E|Result exceeds calibration range												
10	1534147001	VMW-1-5-7				SAMPLE	1	1534147001-A	ETO15....1	6171		12/14/2015	12/10/2015
11	1534147005	VMW-1-50-52				SAMPLE	1	1534147005-A	ETO15....1	6171		12/14/2015	12/9/2015
12	1534147006	VMW-1-198-200				SAMPLE	1	1534147006-A	ETO15....1	6171		12/14/2015	12/9/2015
	*E|Result exceeds calibration range												
13	1534300001	A-0003H-120415-TO-001-DIN				SAMPLE	1	1534300001-A	ETO15....1	5012		12/21/2015	12/10/2015
	*E|Result exceeds calibration range												
14	1534300002	A-0003H-120415-TO-002-BAS				SAMPLE	1	1534300002-A	ETO15....1	5012		12/21/2015	12/10/2015
15	1534300003	A-0003H-120415-TO-002-BAS-D				SAMPLE	1	1534300003-A	ETO15....1	5012		12/21/2015	12/10/2015
	*E|Result exceeds calibration range												

Analyst Notebook

161047

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K , 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is TO15LM15 (HBN 160607)

The following compounds in the CCS were outside of +-30%: NA

Dilutions: 1534147002-006 were analyzed at 1:10 DIL

Analyst Signature: 12-11-15

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
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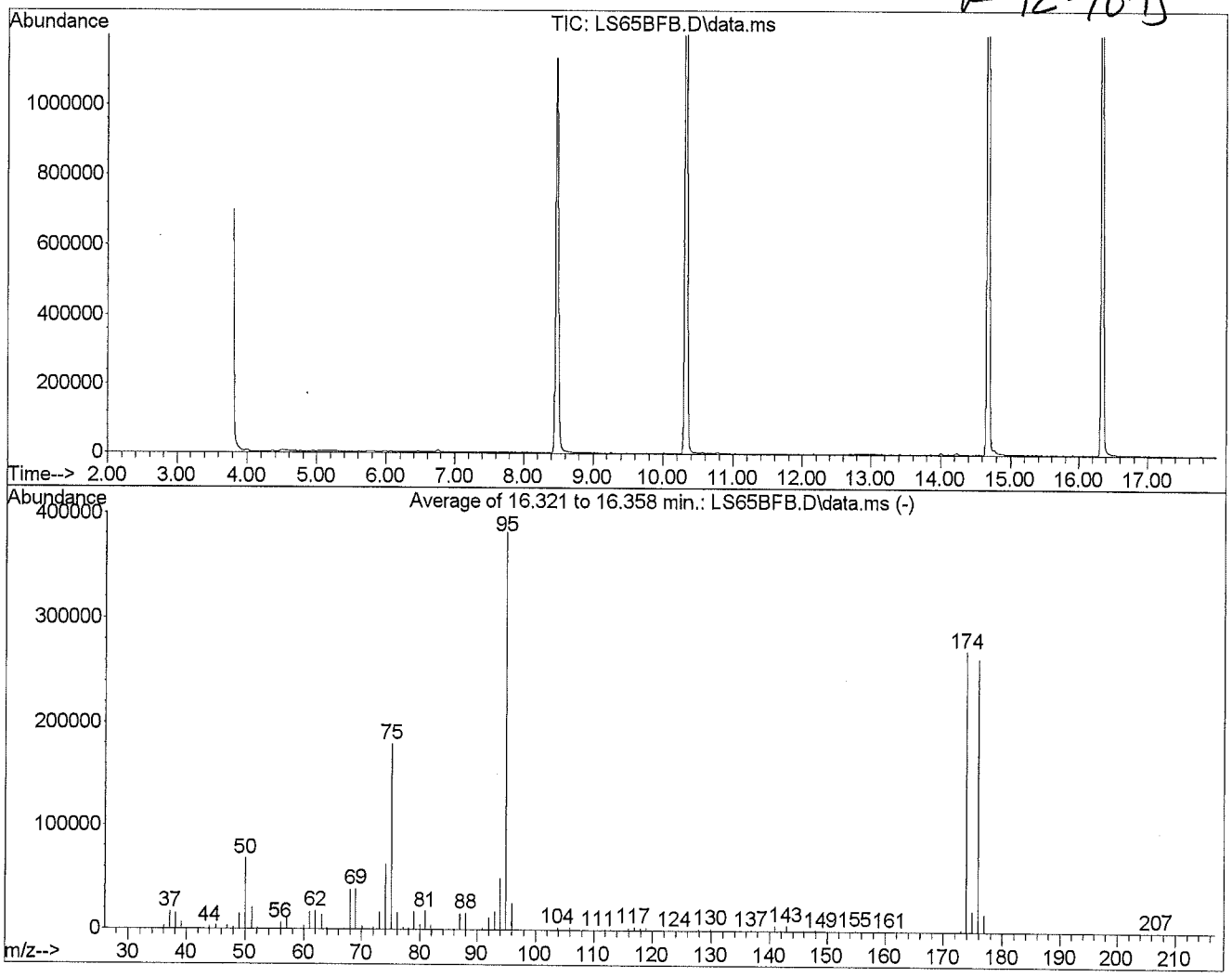
BFB

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS65BFB.D Vial: 1
Acq Time : 12/09/2015 11:13 Operator: TJM
Sample : BFB Inst : 5975-L
Misc : 107IS31297 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15

12-10-15



Peak Apex is scan: Average of 16.321 to 16.358 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	17.84	68131	PASS
75	95	30	66	46.99	179418	PASS
95	95	100	100	100.00	381797	PASS
96	95	5	9	6.67	25466	PASS
173	174	0.00	2	0.67	1809	PASS
174	95	50	120	70.92	270766	PASS
175	174	5	9	7.17	19421	PASS
176	174	93	101	97.33	263549	PASS
177	176	5	9	6.41	16904	PASS

Average of 16.321 to 16.358 min.: LS65BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.05	2773.0
37.10	16377.0
38.10	14966.0
39.10	6177.0
40.00	187.0
42.05	79.0
43.05	335.0
44.00	2510.0
45.05	3353.0
46.05	293.0
47.05	3990.0
48.00	2032.0
49.05	14476.0
50.05	68131.0
51.10	21171.0
52.05	950.0
55.05	951.0
56.00	6244.0
57.05	11125.0
58.00	437.0
60.00	2992.0
61.00	16469.0
62.00	17273.0
63.05	14080.0
64.00	1281.0
65.00	321.0
67.00	885.0
68.00	37934.0
69.00	38597.0
70.05	3224.0
71.10	27.0
72.00	1818.0
73.00	15910.0
74.00	62797.0
75.05	179418.0
76.00	15773.0
77.05	1997.0
77.95	1284.0
78.90	16915.0
79.95	4685.0
80.90	17717.0
81.90	4171.0
83.00	443.0
85.95	396.0
87.00	15145.0
88.00	15721.0
90.95	1785.0
92.00	11455.0
93.00	17376.0
94.00	49366.0
95.00	381797.0
96.00	25466.0
97.05	747.0
102.90	213.0
103.90	2394.0
104.95	672.0
105.95	2383.0
106.90	457.0
109.85	361.0
110.90	552.0
111.95	458.0
112.95	598.0
114.95	502.0
115.90	2030.0
116.90	3162.0
117.90	1957.0
118.90	2824.0
119.90	23.0
121.85	48.0
122.90	95.0
123.90	298.0
124.85	86.0
125.85	178.0
126.95	65.0
127.90	1540.0
128.90	772.0
129.90	1751.0
130.90	714.0
133.85	100.0
134.90	884.0
135.90	138.0
136.90	929.0
138.90	106.0
139.95	235.0
140.90	4972.0
141.90	608.0
142.90	5114.0

143.90	271.0
144.95	468.0
145.90	661.0
146.90	310.0
147.90	962.0
148.95	208.0
149.85	429.0
151.90	152.0
152.90	273.0
153.85	214.0
154.95	825.0
155.80	66.0
155.95	64.0
156.95	691.0
157.90	23.0
158.90	440.0
160.85	451.0
171.95	537.0
172.95	1809.0
173.90	270766.0
174.90	19421.0
175.90	263549.0
176.90	16904.0
177.90	535.0
206.80	23.0

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS66LCS.D
Acq On : 12/09/2015 12:02
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 30059 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 10 08:05:39 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	80	0.00
2		Propene	1.576	1.730	-9.8	89	0.00 TIC
3		Dichlorodifluoromethane	6.892	7.112	-3.2	84	0.00
4		Chloromethane	1.970	2.097	-6.4	89	0.00
5		Freon 114	5.745	5.383	6.3	79	0.00
6		Vinyl Chloride	2.376	2.595	-9.2	91	0.00
7		1,3-Butadiene	1.855	1.950	-5.1	90	0.00
8		Bromomethane	2.715	2.896	-6.7	88	0.00
9		Chloroethane	1.285	1.408	-9.6	92	0.00
10		Acrolein	0.865	0.924	-6.8	86	0.00
11		Acetone	3.428	3.613	-5.4	89	0.00
12		Trichlorofluoromethane	8.119	7.799	3.9	84	0.00
13		Ethanol	0.844	0.874	-3.6	89	0.00 TIC
14		Isopropyl Alcohol	3.901	3.825	1.9	82	0.00 TIC
15		1,1-Dichloroethene	3.993	4.140	-3.7	87	0.00
16		Methylene Chloride	2.438	2.413	1.0	84	0.00
17		Freon 113	4.934	4.388	11.1	76	0.00
18		Carbon Disulfide	7.493	7.397	1.3	85	0.00
19		trans-1,2-Dichloroethene	2.786	2.668	4.2	81	0.00
20		1,1-Dichloroethane	4.614	4.710	-2.1	89	0.00
21		methyl t-butyl ether	6.472	6.682	-3.2	82	0.00
22		Vinyl Acetate	0.620	0.633	-2.1	83	0.00
23		2-Butanone	4.331	4.723	-9.1	89	0.00
24		cis-1,2-Dichloroethene	2.917	2.911	0.2	82	0.00
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00
26		Ethyl Acetate	0.069	0.074	-7.2	87	0.00
27		Hexane	0.346	0.370	-6.9	87	0.00
28		Chloroform	0.585	0.568	2.9	87	0.00
29		Tetrahydrofuran	0.231	0.254	-10.0	89	0.00
30		1,2-Dichloroethane	0.335	0.336	-0.3	89	0.00
31		1,1,1-Trichloroethane	0.605	0.588	2.8	86	0.00
32		Benzene	0.737	0.732	0.7	86	0.00
33		Carbon Tetrachloride	0.693	0.667	3.8	84	0.00
34		Cyclohexane	0.337	0.336	0.3	85	0.00
35		1,2-Dichloropropane	0.274	0.275	-0.4	89	0.00
36		Bromodichloromethane	0.590	0.596	-1.0	88	0.00

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2015\DEC15L\09DEC15L\
Data File : LS66LCS.D
Acq On : 12/09/2015 12:02
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 30059 (200mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 10 08:05:39 2015
Quant Method : J:\L\METHODS\methods\TO15LM15.m
Quant Title : TO-15
QLast Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37		1,4-Dioxane	0.163	0.167	-2.5	82	0.00 TC
38		Trichloroethene	0.416	0.400	3.8	80	0.00
39		Methyl Methacrylate	0.214	0.246	-15.0	87	0.00 TC
40		Heptane	0.236	0.266	-12.7	88	0.00
41		cis-1,3-Dichloropropene	0.382	0.415	-8.6	86	0.00
42		4-Methyl-2-Pentanone	0.482	0.564	-17.0	89	0.00
43		trans-1,3-Dichloropropene	0.331	0.363	-9.7	85	0.00
44		1,1,2-Trichloroethane	0.318	0.326	-2.5	86	0.00
45		Toluene	0.821	0.925	-12.7	87	0.00
46		2-Hexanone	0.366	0.470	-28.4	88	0.00
47		Dibromochloromethane	0.653	0.680	-4.1	84	0.00
48		1,2-Dibromoethane	0.481	0.518	-7.7	86	0.00
49		Tetrachloroethene	0.424	0.432	-1.9	79	0.00
50	I	Chlorobenzene d5	1.000	1.000	0.0	90	0.00
51		Chlorobenzene	0.880	0.874	0.7	86	0.00
52		Ethylbenzene	1.231	1.355	-10.1	88	0.00
53		m,p-Xylene	0.970	1.062	-9.5	88	0.00
54		Bromoform	0.577	0.578	-0.2	80	0.00
55		Styrene	0.659	0.778	-18.1	86	0.00
56		1,1,2,2-Tetrachloroethane	0.728	0.787	-8.1	91	0.00
57		o-Xylene	1.005	1.101	-9.6	88	0.00
58	S	Bromofluorobenzene	0.564	0.614	-8.9	96	0.00
59		4-Ethyl Toluene	1.111	1.338	-20.4	88	0.00
60		1,3,5-Trimethylbenzene	1.066	1.182	-10.9	88	0.00
61		1,2,4-Trimethylbenzene	0.910	1.080	-18.7	88	0.00
62		Benzyl Chloride	0.537	0.675	-25.7	77	0.00 TC
63		m-Dichlorobenzene	0.597	0.692	-15.9	82	0.00
64		p-Dichlorobenzene	0.540	0.641	-18.7	82	0.00
65		o-Dichlorobenzene	0.547	0.610	-11.5	82	0.00
66		1,2,4-Trichlorobenzene	0.079	0.091	-15.2	65	0.00 TC
67		Naphthalene	0.295	0.387	-31.2#	74	0.00 TC
68		Hexachloro-1,3-butadiene	0.167	0.153	8.4	74	0.00 TC

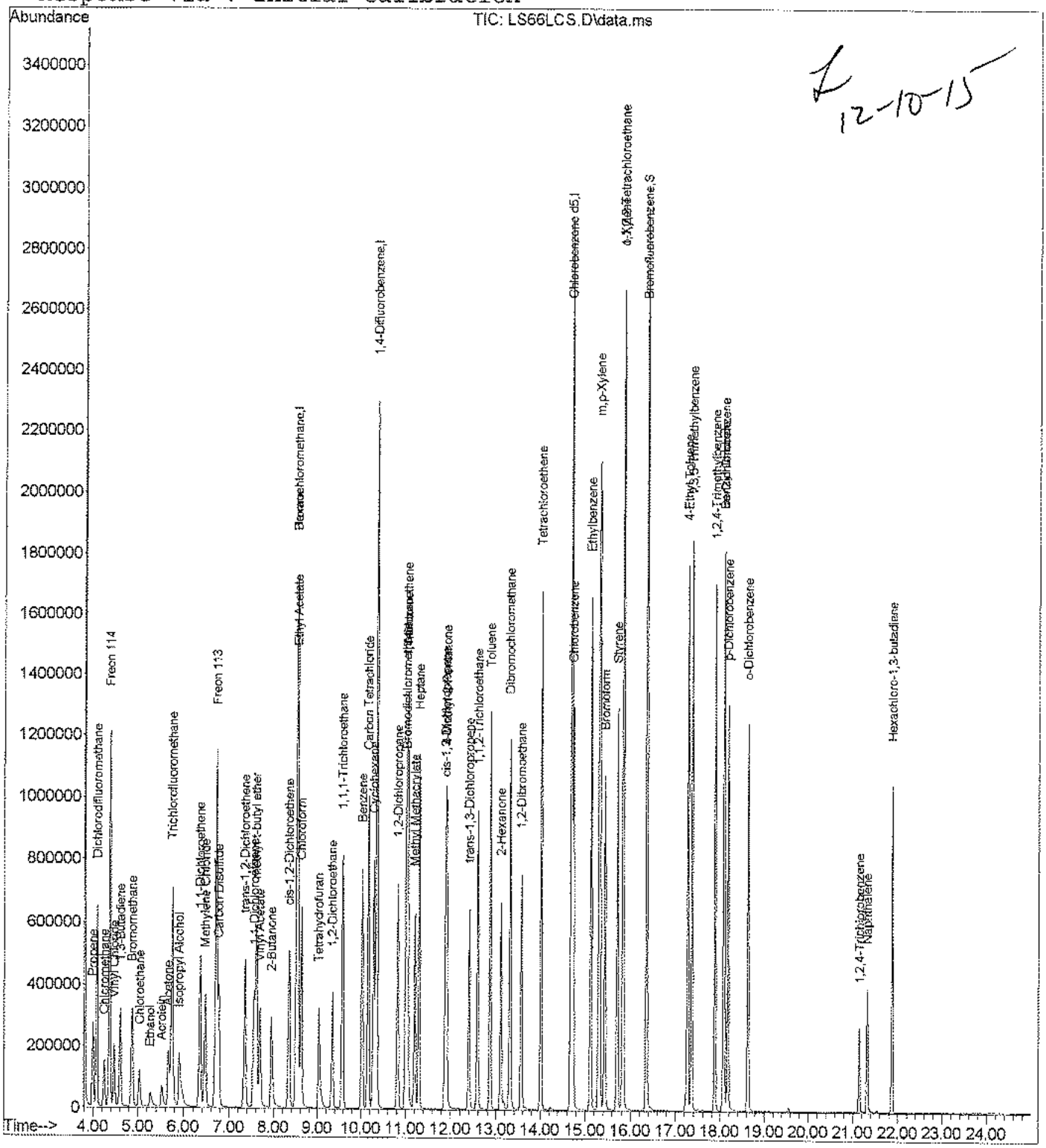
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS66LCS.D Vial: 1
Acq Time : 12/09/2015 12:02 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:39 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS66LCS.D Vial: 1
Acq Time : 12/09/2015 12:02 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:39 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.51	130	227776	20.0000	ppb		80.03
25) 1,4-Difluorobenzene	10.34	114	2415465	20.0000	ppb		83.20
50) Chlorobenzene d5	14.68	117	2099184	20.0000	ppb		90.29
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1289925	21.7964	ppb		108.98%
Target Compounds							Qvalue
2) Propene	3.99	41	197016	10.9766	ppb		98
3) Dichlorodifluoromethane	4.08	85	810016	10.3193	ppb		99
4) Chloromethane	4.24	50	238849	10.6437	ppb		99
5) Freon 114	4.36	135	613081	9.3705	ppb	#	60
6) Vinyl Chloride	4.46	62	295563	10.9209	ppb		98
7) 1,3-Butadiene	4.60	54	222033	10.5118	ppb	#	73
8) Bromomethane	4.87	94	329855	10.6672	ppb		98
9) Chloroethane	5.03	64	160319	10.9507	ppb	#	93
10) Acrolein	5.52	56	105210	10.6812	ppb		99
11) Acetone	5.66	43	411430	10.5398	ppb		90
12) Trichlorofluoromethane	5.74	101	888226	9.6055	ppb		99
13) Ethanol	5.27	45	99562	10.3586	ppb	#	79
14) Isopropyl Alcohol	5.90	45	435605	9.8046	ppb	#	89
15) 1,1-Dichloroethene	6.35	61	471457	10.3676	ppb	#	77
16) Methylene Chloride	6.46	84	274799	9.8986	ppb	#	73
17) Freon 113	6.70	151	499712	8.8937	ppb	#	51
18) Carbon Disulfide	6.76	76	842428	9.8716	ppb	#	61
19) trans-1,2-Dichloroethene	7.34	96	303843	9.5768	ppb	#	80
20) 1,1-Dichloroethane	7.55	63	536388	10.2076	ppb		98
21) methyl t-butyl ether	7.60	73	761034	10.3253	ppb	#	89
22) Vinyl Acetate	7.68	86	72127	10.2148	ppb	#	1
23) 2-Butanone	7.94	43	537869	10.9051	ppb	#	79
24) cis-1,2-Dichloroethene	8.33	96	331529	9.9781	ppb	#	81
26) Ethyl Acetate	8.54	61	89346	10.6763	ppb	#	1
27) Hexane	8.52	57	446832	10.6953	ppb	#	18
28) Chloroform	8.62	83	685910	9.7063	ppb		99
29) Tetrahydrofuran	9.02	42	307302	11.0310	ppb	#	75
30) 1,2-Dichloroethane	9.34	62	405547	10.0250	ppb	#	94
31) 1,1,1-Trichloroethane	9.58	97	710640	9.7333	ppb	#	93
32) Benzene	10.02	78	883608	9.9298	ppb	#	95
33) Carbon Tetrachloride	10.16	117	805462	9.6275	ppb		99
34) Cyclohexane	10.28	84	405866	9.9840	ppb	#	67
35) 1,2-Dichloropropane	10.82	63	331585	10.0182	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS66LCS.D Vial: 1
Acq Time : 12/09/2015 12:02 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:39 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	11.00	83	719887	10.1074	ppb		99
37)	1,4-Dioxane	11.04	88	202136	10.2401	ppb		94
38)	Trichloroethene	11.04	130	483430	9.6223	ppb		92
39)	Methyl Methacrylate	11.20	69	297060	11.4811	ppb		96
40)	Heptane	11.30	71	321666	11.2915	ppb	#	68
41)	cis-1,3-Dichloropropene	11.87	75	501250	10.8634	ppb		95
42)	4-Methyl-2-Pentanone	11.90	43	681721	11.7085	ppb	#	79
43)	trans-1,3-Dichloropropene	12.39	75	438472	10.9665	ppb		94
44)	1,1,2-Trichloroethane	12.58	97	394069	10.2727	ppb	#	89
45)	Toluene	12.86	91	1117180	11.2605	ppb		99
46)	2-Hexanone	13.10	43	567677	12.8544	ppb	#	81
47)	Dibromochloromethane	13.30	129	821135	10.4047	ppb		98
48)	1,2-Dibromoethane	13.56	107	625666	10.7786	ppb		98
49)	Tetrachloroethene	14.01	166	522135	10.1919	ppb	#	76
51)	Chlorobenzene	14.73	112	916931	9.9297	ppb	#	91
52)	Ethylbenzene	15.11	91	1422701	11.0149	ppb		97
53)	m,p-Xylene	15.30	91	2230259	21.8962	ppb		98
54)	Bromoform	15.42	173	606803	10.0203	ppb		99
55)	Styrene	15.71	104	816768	11.8125	ppb		95
56)	1,1,2,2-Tetrachloroethane	15.83	83	825771	10.8066	ppb		99
57)	o-Xylene	15.82	91	1155299	10.9573	ppb		99
59)	4-Ethyl Toluene	17.26	105	1403863	12.0402	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	1240922	11.0921	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	1133368	11.8715	ppb		99
62)	Benzyl Chloride	18.06	91	708688	12.5795	ppb		95
63)	m-Dichlorobenzene	18.08	146	726444	11.5922	ppb	#	94
64)	p-Dichlorobenzene	18.17	146	673183	11.8783	ppb	#	94
65)	o-Dichlorobenzene	18.63	146	639787	11.1487	ppb	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	95065	11.4096	ppb	#	96
67)	Naphthalene	21.31	128	406509	13.1112	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	160411	9.1473	ppb		97

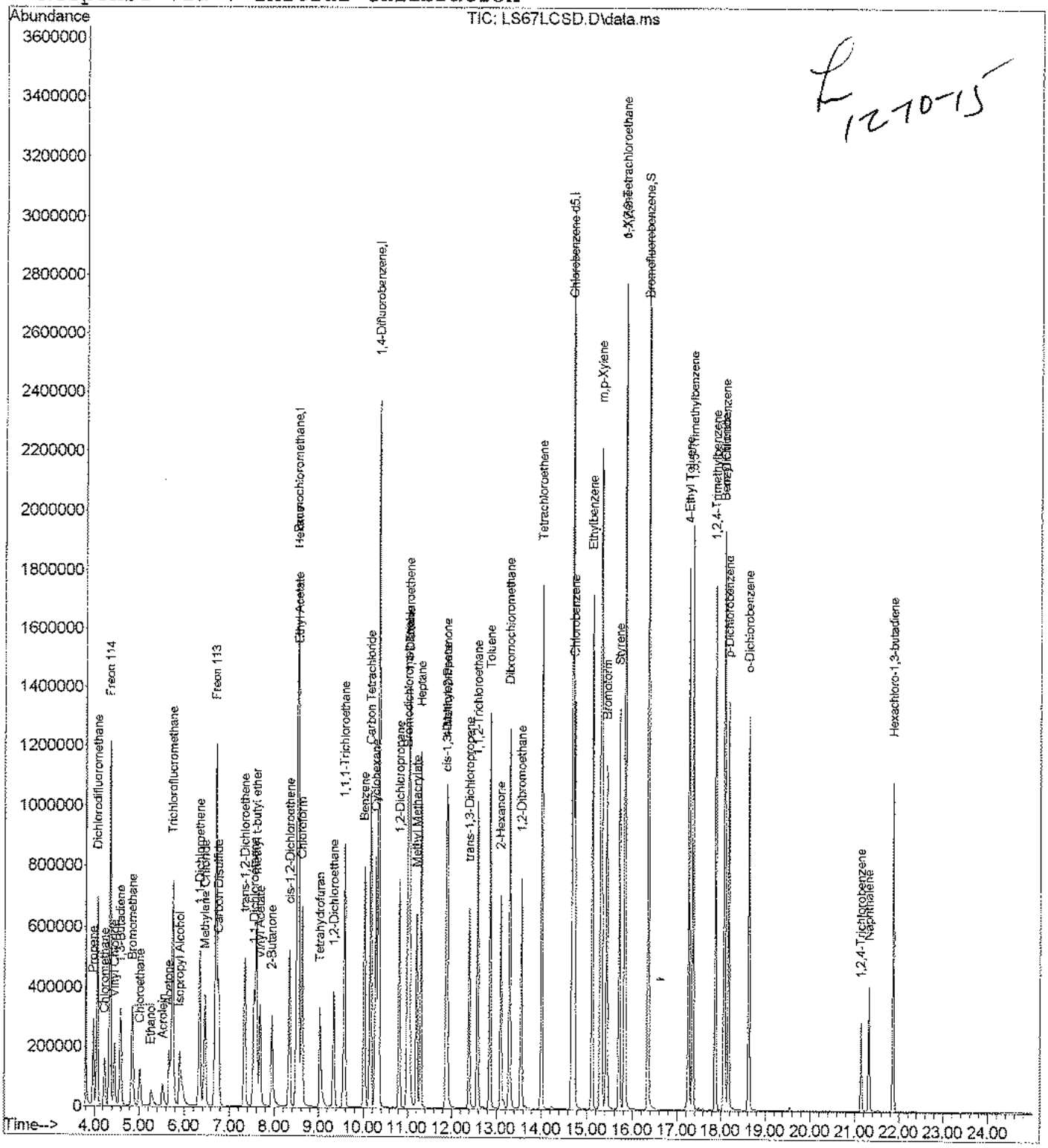
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS67LCSD.D Vial: 1
Acq Time : 12/09/2015 12:51 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:55 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS67LCSD.D Vial: 1
Acq Time : 12/09/2015 12:51 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:55 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.50	130	241344	20.0000	ppb		84.80
25) 1,4-Difluorobenzene	10.34	114	2550812	20.0000	ppb		87.86
50) Chlorobenzene d5	14.68	117	2186850	20.0000	ppb		94.06
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1331420	21.5957	ppb		107.98%
Target Compounds							Qvalue
2) Propene	3.97	41	211003	11.0950	ppb		98
3) Dichlorodifluoromethane	4.06	85	870385	10.4650	ppb		99
4) Chloromethane	4.23	50	250919	10.5529	ppb		100
5) Freon 114	4.35	135	648821	9.3593	ppb	#	62
6) Vinyl Chloride	4.45	62	314715	10.9748	ppb		98
7) 1,3-Butadiene	4.58	54	235941	10.5422	ppb	#	74
8) Bromomethane	4.85	94	348781	10.6452	ppb		98
9) Chloroethane	5.01	64	168615	10.8698	ppb	#	93
10) Acrolein	5.52	56	111651	10.6978	ppb		99
11) Acetone	5.65	43	434429	10.5033	ppb		90
12) Trichlorofluoromethane	5.73	101	943642	9.6311	ppb		100
13) Ethanol	5.26	45	108921	10.6952	ppb	#	81
14) Isopropyl Alcohol	5.90	45	474230	10.0739	ppb	#	94
15) 1,1-Dichloroethene	6.34	61	498117	10.3380	ppb	#	78
16) Methylene Chloride	6.45	84	289462	9.8406	ppb	#	74
17) Freon 113	6.69	151	534629	8.9802	ppb	#	52
18) Carbon Disulfide	6.75	76	896747	9.9174	ppb	#	62
19) trans-1,2-Dichloroethene	7.34	96	324595	9.6557	ppb	#	81
20) 1,1-Dichloroethane	7.54	63	557668	10.0160	ppb		98
21) methyl t-butyl ether	7.59	73	801418	10.2619	ppb	#	89
22) Vinyl Acetate	7.68	86	77830	10.4028	ppb	#	1
23) 2-Butanone	7.93	43	567326	10.8557	ppb	#	78
24) cis-1,2-Dichloroethene	8.33	96	350043	9.9430	ppb	#	81
26) Ethyl Acetate	8.53	61	91465	10.3496	ppb	#	1
27) Hexane	8.52	57	472805	10.7165	ppb	#	20
28) Chloroform	8.61	83	724324	9.7061	ppb		98
29) Tetrahydrofuran	9.02	42	320849	10.9062	ppb	#	75
30) 1,2-Dichloroethane	9.33	62	423787	9.9200	ppb	#	94
31) 1,1,1-Trichloroethane	9.57	97	746519	9.6821	ppb	#	93
32) Benzene	10.02	78	934621	9.9458	ppb	#	95
33) Carbon Tetrachloride	10.15	117	849799	9.6185	ppb		99
34) Cyclohexane	10.27	84	427396	9.9557	ppb	#	67
35) 1,2-Dichloropropane	10.82	63	346793	9.9217	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS67LCSD.D Vial: 1
Acq Time : 12/09/2015 12:51 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 30059 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:05:55 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	755343	10.0425	ppb		98
37)	1,4-Dioxane	11.04	88	214494	10.2896	ppb		96
38)	Trichloroethene	11.03	130	508915	9.5921	ppb		93
39)	Methyl Methacrylate	11.20	69	309951	11.3437	ppb		96
40)	Heptane	11.30	71	337459	11.2174	ppb	#	68
41)	cis-1,3-Dichloropropene	11.87	75	523477	10.7432	ppb		95
42)	4-Methyl-2-Pentanone	11.90	43	711269	11.5678	ppb	#	79
43)	trans-1,3-Dichloropropene	12.39	75	455898	10.7973	ppb		95
44)	1,1,2-Trichloroethane	12.58	97	411826	10.1659	ppb	#	89
45)	Toluene	12.86	91	1166083	11.1298	ppb		99
46)	2-Hexanone	13.10	43	585234	12.5488	ppb	#	81
47)	Dibromochloromethane	13.30	129	858758	10.3041	ppb		99
48)	1,2-Dibromoethane	13.56	107	653784	10.6654	ppb		98
49)	Tetrachloroethene	14.01	166	550283	10.1714	ppb	#	76
51)	Chlorobenzene	14.73	112	955989	9.9377	ppb	#	91
52)	Ethylbenzene	15.11	91	1488784	11.0645	ppb		97
53)	m,p-Xylene	15.31	91	2318514	21.8502	ppb		98
54)	Bromoform	15.42	173	637610	10.1070	ppb		99
55)	Styrene	15.71	104	852147	11.8301	ppb		96
56)	1,1,2,2-Tetrachloroethane	15.83	83	849118	10.6667	ppb		99
57)	o-Xylene	15.82	91	1195921	10.8878	ppb		99
59)	4-Ethyl Toluene	17.26	105	1450946	11.9452	ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	1287764	11.0493	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	1176000	11.8242	ppb		99
62)	Benzyl Chloride	18.06	91	749111	12.7640	ppb		94
63)	m-Dichlorobenzene	18.08	146	764482	11.7101	ppb	#	94
64)	p-Dichlorobenzene	18.17	146	706396	11.9647	ppb	#	94
65)	o-Dichlorobenzene	18.63	146	672724	11.2528	ppb	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	102581	11.8181	ppb	#	95
67)	Naphthalene	21.31	128	426150	13.1937	ppb		100
68)	Hexachloro-1,3-butadiene	21.86	225	166867	9.1340	ppb		97

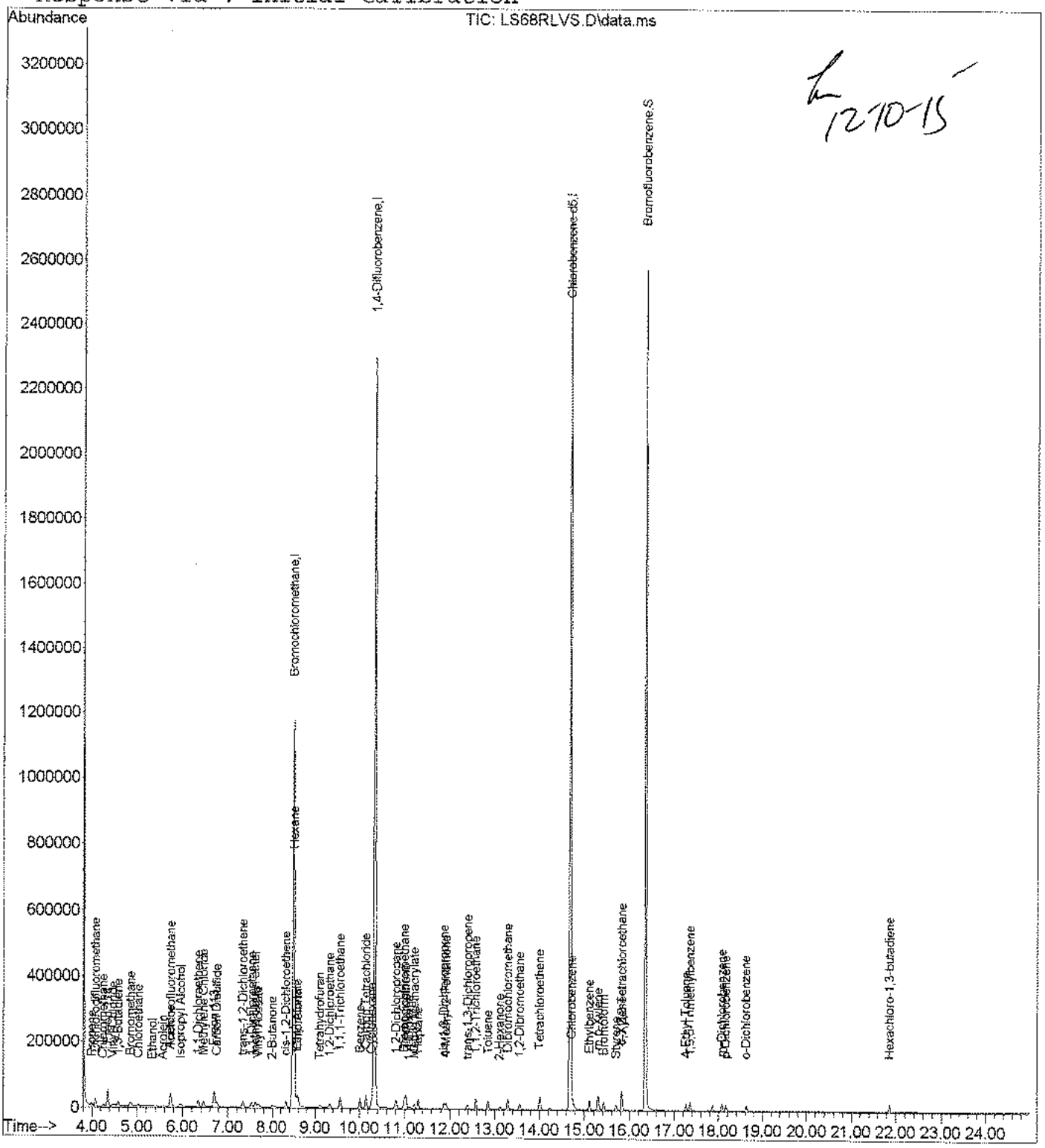
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS68RLVS.D Vial: 1
Acq Time : 12/09/2015 13:38 Operator: TJM
Sample : RLVS Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:04 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12/10/15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS68RLVS.D Vial: 1
Acq Time : 12/09/2015 13:38 Operator: TJM
Sample : RLVS Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:04 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	230976	20.0000	ppb		81.16
25) 1,4-Difluorobenzene	10.33	114	2418694	20.0000	ppb		83.31
50) Chlorobenzene d5	14.67	117	1948323	20.0000	ppb		83.80
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1103428	20.0888	ppb		100.44%
Target Compounds							Qvalue
2) Propene	3.99	41	6696	0.3679	ppb		93
3) Dichlorodifluoromethane	4.07	85	28355	0.3562	ppb		98
4) Chloromethane	4.24	50	8391	0.3687	ppb		98
5) Freon 114	4.35	135	24994	0.3767	ppb	#	62
6) Vinyl Chloride	4.46	62	9935	0.3620	ppb		97
7) 1,3-Butadiene	4.59	54	8833	0.4124	ppb	#	62
8) Bromomethane	4.86	94	11474	0.3659	ppb		96
9) Chloroethane	5.02	64	5676	0.3823	ppb	#	93
10) Acrolein	5.57	56	3528	0.3532	ppb	#	90
11) Acetone	5.72	43	21650	0.5469	ppb	#	82
12) Trichlorofluoromethane	5.73	101	36623	0.3906	ppb		99
13) Ethanol	5.33	45	4032	0.4137	ppb	#	66
14) Isopropyl Alcohol	5.95	45	17225	0.3823	ppb	#	89
15) 1,1-Dichloroethene	6.34	61	17118	0.3712	ppb	#	77
16) Methylene Chloride	6.45	84	11433	0.4061	ppb	#	72
17) Freon 113	6.69	151	20807	0.3652	ppb	#	53
18) Carbon Disulfide	6.75	76	33710	0.3895	ppb	#	64
19) trans-1,2-Dichloroethene	7.33	96	11060	0.3438	ppb	#	79
20) 1,1-Dichloroethane	7.53	63	21531	0.4041	ppb		95
21) methyl t-butyl ether	7.62	73	21492	0.2876	ppb	#	89
22) Vinyl Acetate	7.68	86	2034	0.2841	ppb	#	1
23) 2-Butanone	8.00	43	18014	0.3602	ppb	#	71
24) cis-1,2-Dichloroethene	8.32	96	11418	0.3389	ppb	#	79
26) Ethyl Acetate	8.57	61	2667	0.3183	ppb	#	1
27) Hexane	8.51	57	14044	0.3357	ppb	#	83
28) Chloroform	8.60	83	27106	0.3831	ppb		97
29) Tetrahydrofuran	9.10	42	7964	0.2855	ppb	#	68
30) 1,2-Dichloroethane	9.33	62	15594	0.3850	ppb	#	90
31) 1,1,1-Trichloroethane	9.56	97	26661	0.3647	ppb	#	89
32) Benzene	10.01	78	31527	0.3538	ppb	#	94
33) Carbon Tetrachloride	10.15	117	30628	0.3656	ppb		97
34) Cyclohexane	10.27	84	14578	0.3581	ppb	#	88
35) 1,2-Dichloropropane	10.81	63	12481	0.3766	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS68RLVS.D Vial: 1
Acq Time : 12/09/2015 13:38 Operator: TJM
Sample : RLVS Inst : 5975-L
Misc : 30059 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:04 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.98	83	26110	0.3661 ppb		95
37)	1,4-Dioxane	11.10	88	5789	0.2929 ppb		95
38)	Trichloroethene	11.02	130	15591	0.3099 ppb	#	90
39)	Methyl Methacrylate	11.20	69	6886	0.2658 ppb		94
40)	Heptane	11.29	71	7587	0.2660 ppb	#	60
41)	cis-1,3-Dichloropropene	11.86	75	12792	0.2769 ppb	#	92
42)	4-Methyl-2-Pentanone	11.91	43	15569	0.2670 ppb	#	72
43)	trans-1,3-Dichloropropene	12.39	75	10207	0.2549 ppb	#	91
44)	1,1,2-Trichloroethane	12.57	97	12896	0.3357 ppb	#	89
45)	Toluene	12.85	91	25151	0.2532 ppb		100
46)	2-Hexanone	13.11	43	9388	0.2123 ppb	#	70
47)	Dibromochloromethane	13.29	129	23632	0.2990 ppb		100
48)	1,2-Dibromoethane	13.56	107	16734	0.2879 ppb		96
49)	Tetrachloroethene	14.00	166	13612	0.2653 ppb	#	75
51)	Chlorobenzene	14.73	112	27388	0.3196 ppb	#	92
52)	Ethylbenzene	15.11	91	28491	0.2377 ppb		95
53)	m,p-Xylene	15.31	91	44451	0.4702 ppb		95
54)	Bromoform	15.42	173	14392	0.2561 ppb		97
55)	Styrene	15.70	104	11807	0.1840 ppb	#	90
56)	1,1,2,2-Tetrachloroethane	15.83	83	21194	0.2988 ppb	#	91
57)	o-Xylene	15.82	91	21452	0.2192 ppb		97
59)	4-Ethyl Toluene	17.27	105	17282	0.1597 ppb		96
60)	1,3,5-Trimethylbenzene	17.35	105	20520	0.1976 ppb		92
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	18.08	146	11768	0.2023 ppb		95
64)	p-Dichlorobenzene	18.17	146	9889	0.1880 ppb	#	88
65)	o-Dichlorobenzene	18.63	146	9596	0.1802 ppb	#	91
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	21.86	225	3609	0.2217 ppb		98

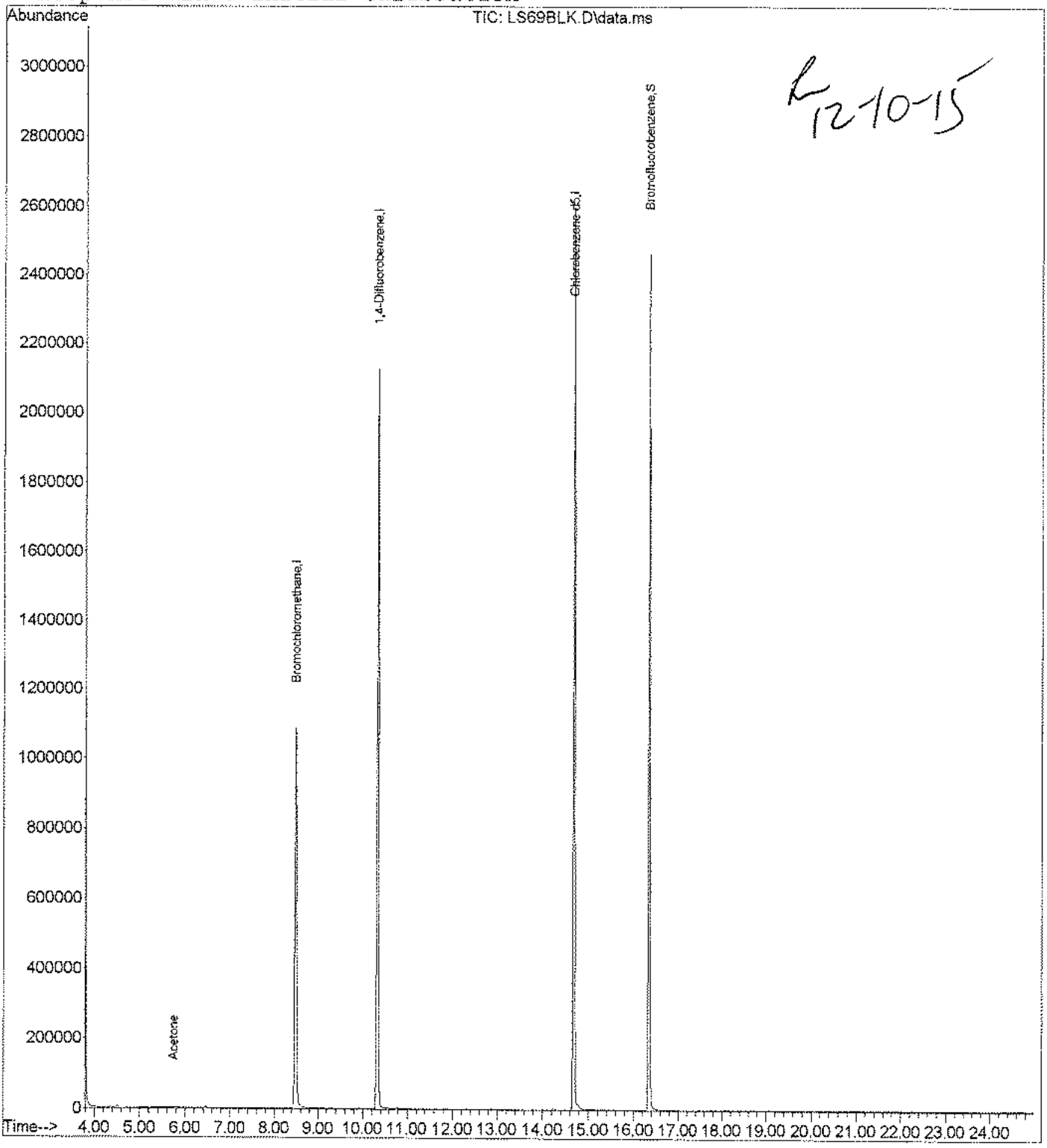
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS69BLK.D Vial: 1
Acq Time : 12/09/2015 14:26 Operator: TJM
Sample : BL- 0436 Inst : 5975-L
Misc : 0436/0379/0370/0368/0108/0248 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:32 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS69BLK.D Vial: 1
Acq Time : 12/09/2015 14:26 Operator: TJM
Sample : BL- 0436 Inst : 5975-L
Misc : 0436/0379/0370/0368/0108/0248 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:32 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.48	130	211648	20.0000 ppb	74.36
25) 1,4-Difluorobenzene	10.33	114	2210262	20.0000 ppb	76.13
50) Chlorobenzene d5	14.67	117	1817243	20.0000 ppb	78.16
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	1036617	20.2337 ppb	101.17%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.75	43	6696	0.1846 ppb #	68
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\09DEC15L\LS69BLK.D Vial: 1
Acq Time : 12/09/2015 14:26 Operator: TJM
Sample : BL- 0436 Inst : 5975-L
Misc : 0436/0379/0370/0368/0108/0248 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 08:06:32 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

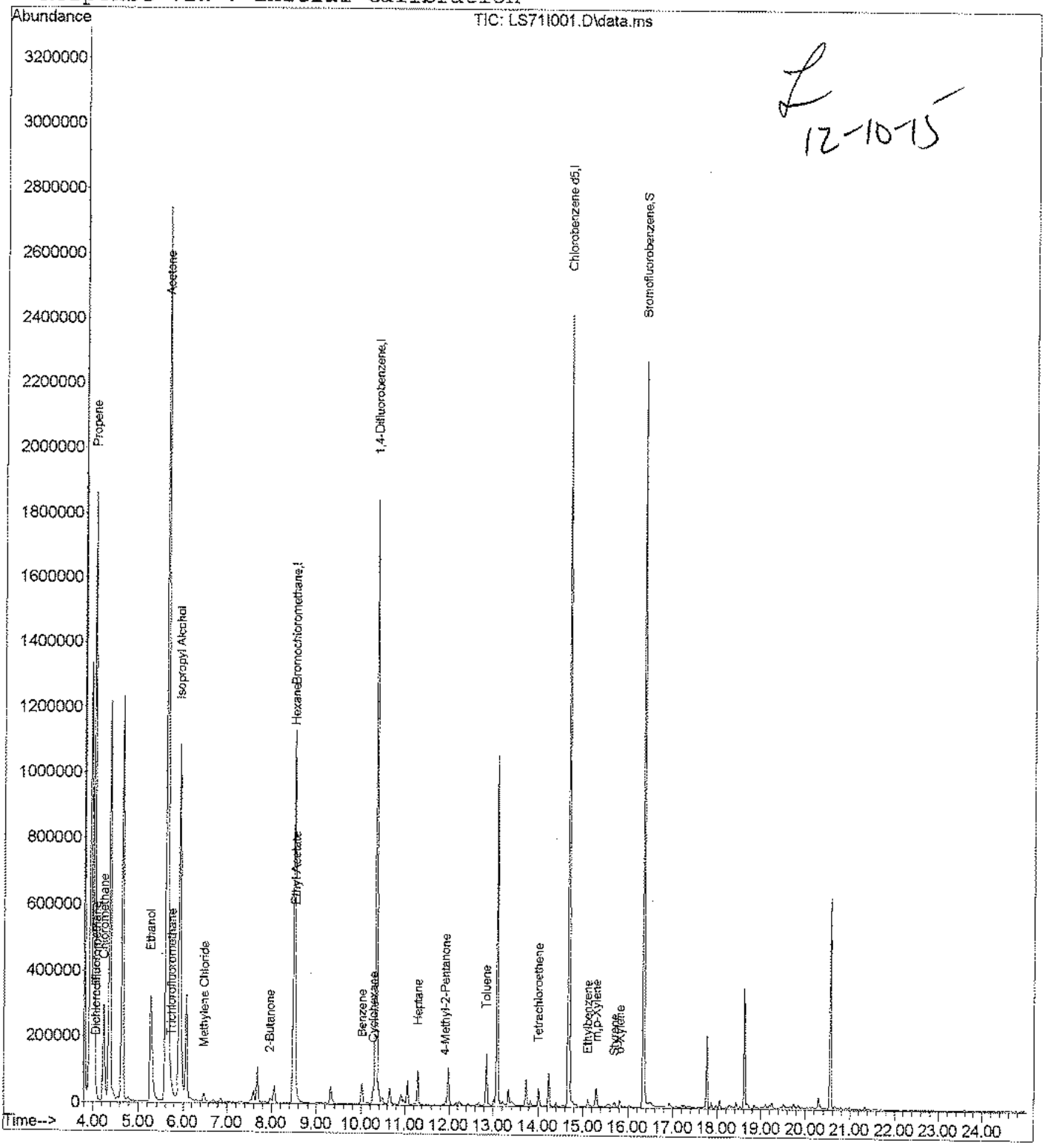
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:15:08 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:15:08 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.50	130	206976	20.0000 ppb		72.72
25) 1,4-Difluorobenzene	10.33	114	1943956	20.0000 ppb		66.96
50) Chlorobenzene d5	14.67	117	1715431	20.0000 ppb		73.79
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	990967	20.4907 ppb		102.45%
Target Compounds						Qvalue
2) Propene	4.02	41	679513	41.6632 ppb	#	43
3) Dichlorodifluoromethane	4.07	85	33707	0.4726 ppb		98
4) Chloromethane	4.24	50	13649	0.6694 ppb		93
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.62	43	4366943	123.1125 ppb	#	80
12) Trichlorofluoromethane	5.74	101	18359	0.2185 ppb		97
13) Ethanol	5.26	45	739806	84.7058 ppb	#	80
14) Isopropyl Alcohol	5.90	45	2352399	58.2686 ppb		97
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	6.49	84	7434	0.2947 ppb	#	69
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	0.00	76		Not Detected		
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	7.96	43	28670	0.6397 ppb	#	83
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	8.53	61	29602	4.3952 ppb	#	1
27) Hexane	8.51	57	57468	1.7092 ppb	#	47
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	10.02	78	69791	0.9745 ppb	#	95
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	10.27	84	20400	0.6235 ppb	#	58
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

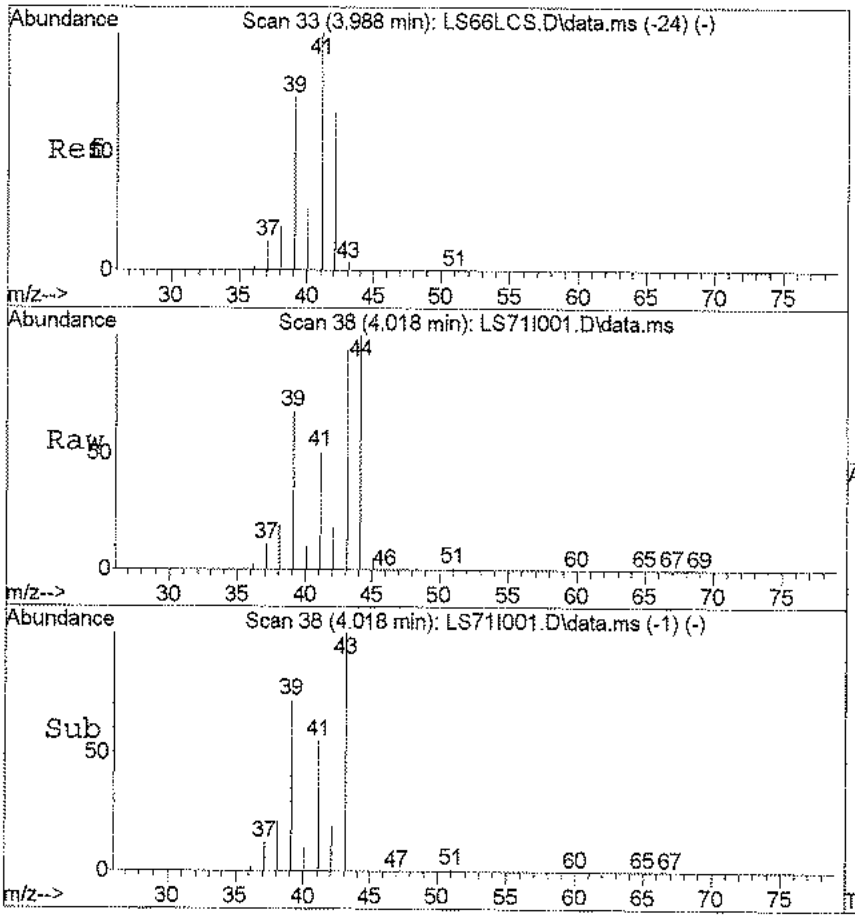
Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:15:08 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.29	71	25695	1.1208 ppb #	51
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.91	43	9758	0.2082 ppb #	69
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	135637	1.6987 ppb	97
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.00	166	17832	0.4325 ppb #	79
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	17783	0.1685 ppb	97
53)	m,p-Xylene	15.30	91	47967	0.5763 ppb	93
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.70	104	8787	0.1555 ppb #	86
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	16149	0.1874 ppb	92
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

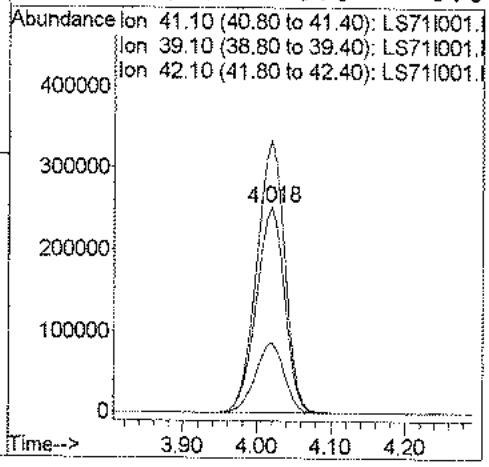
(#) = qualifier out of range (m) = manual integration

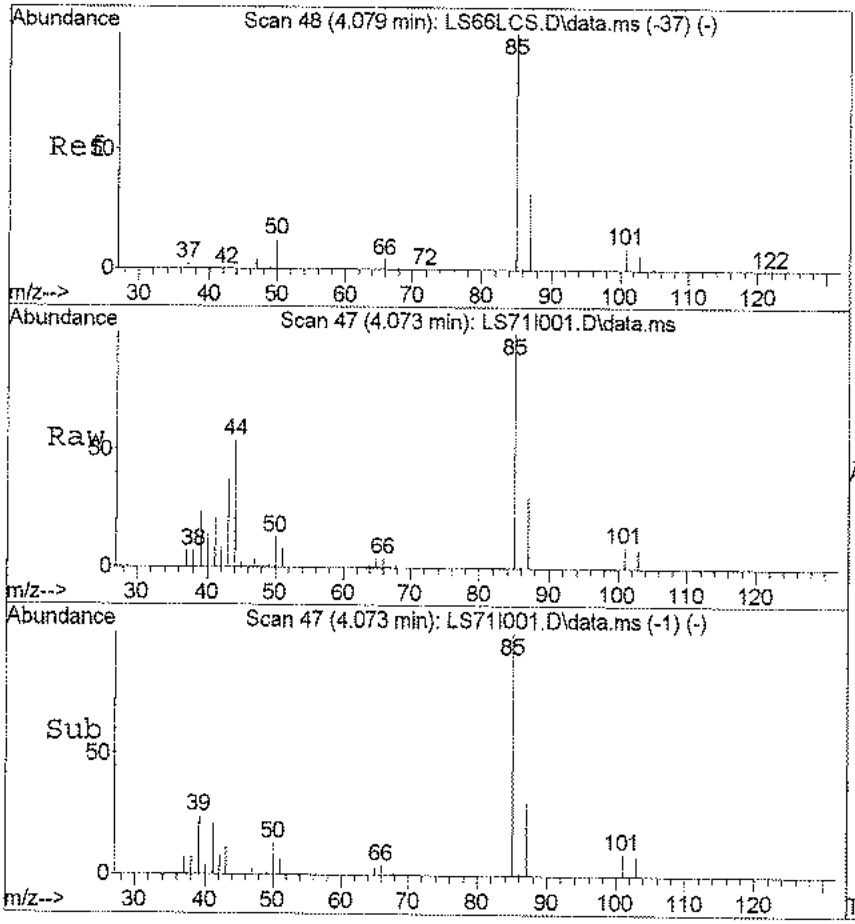


#2
Propene
Concen: 41.66 ppb
RT: 4.02 min Scan# 38
Delta R.T. 0.03 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:41.1 Resp: 679513

Ion	Ratio	Lower	Upper
41	100		
39	129.9	56.2	84.4#
42	34.9	53.8	80.6#
0	0.0	0.0	0.0

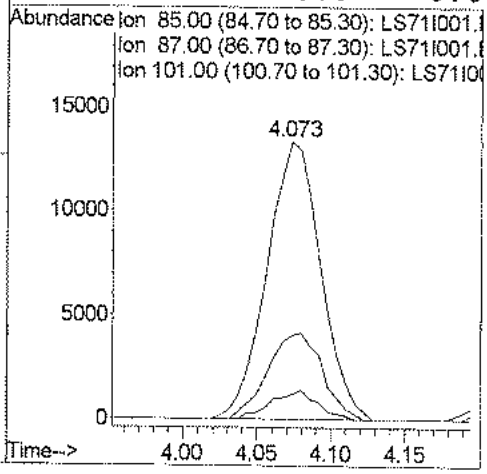


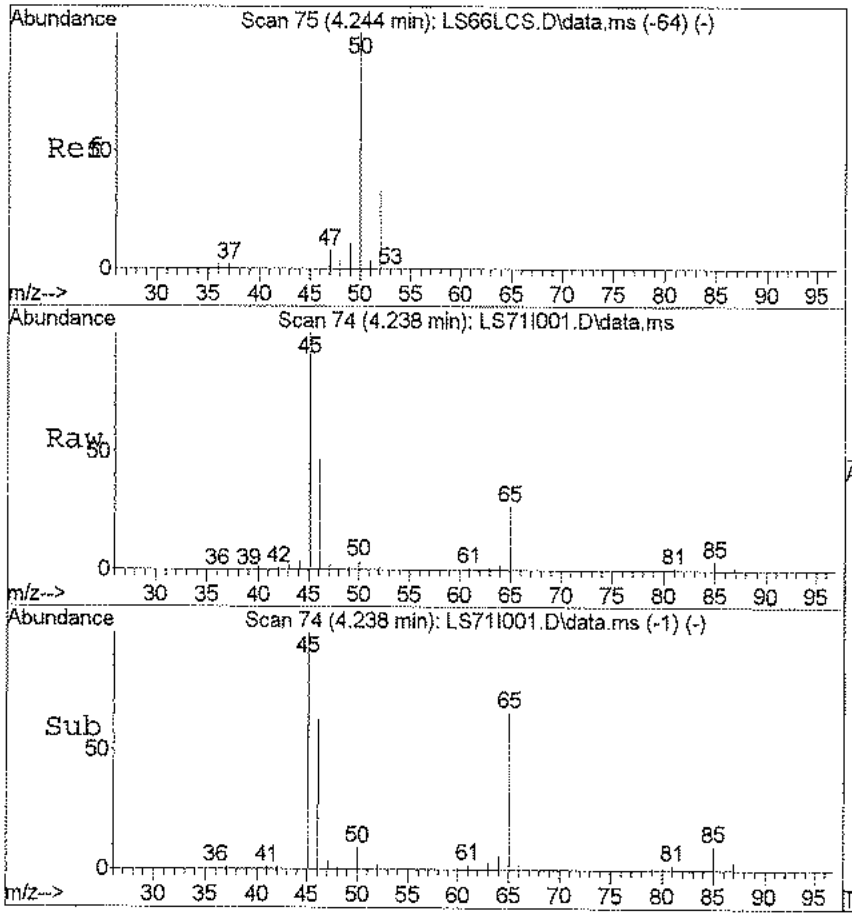


#3
Dichlorodifluoromethane
Concen: 0.47 ppb
RT: 4.07 min Scan# 47
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:85 Resp: 33707

Ion	Ratio	Lower	Upper
85	100		
87	31.8	26.1	39.1
101	9.3	8.0	12.0
0	0.0	0.0	0.0

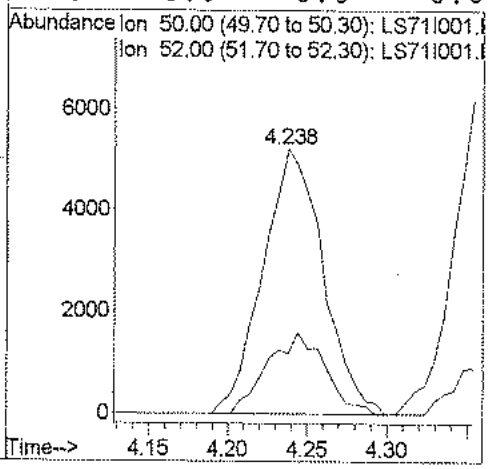


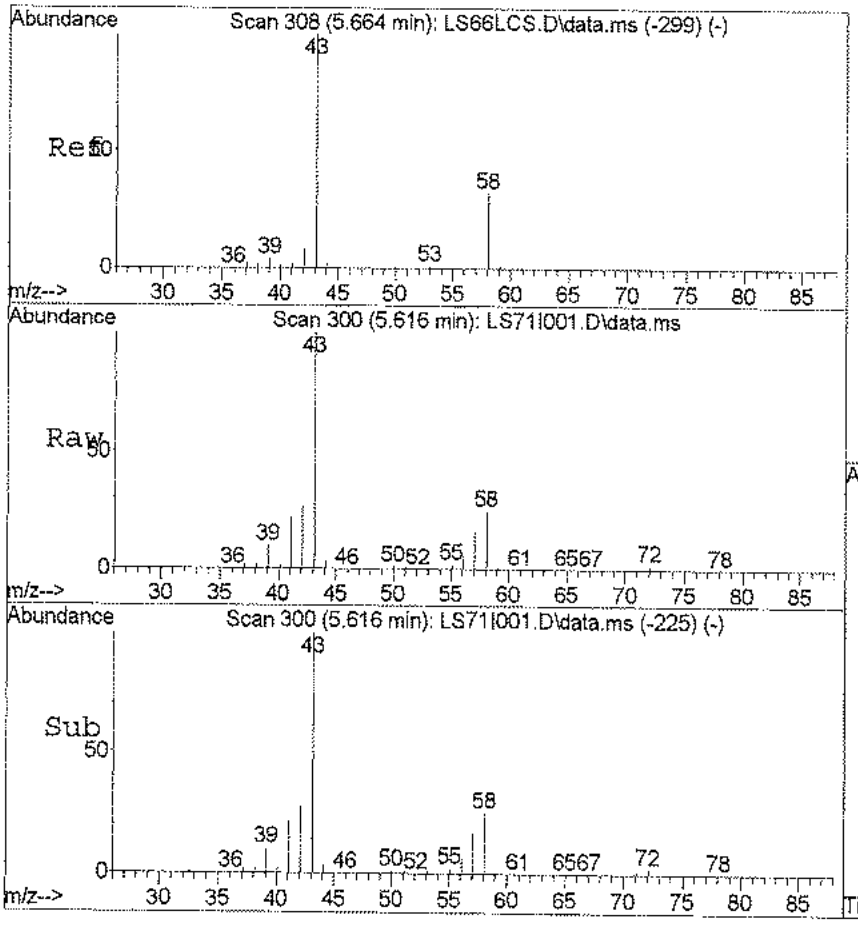


#4
Chloromethane
Concen: 0.67 ppb
RT: 4.24 min Scan# 74
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:50 Resp: 13649

Ion	Ratio	Lower	Upper
50	100		
52	29.1	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

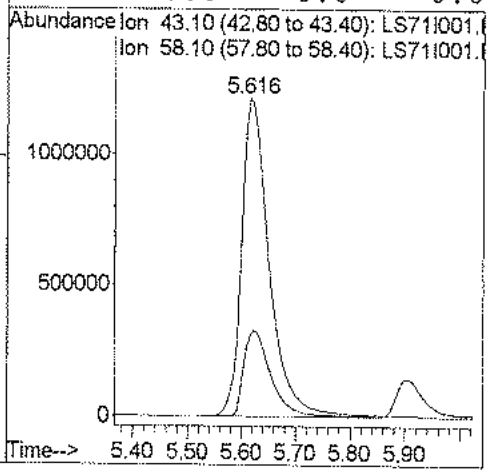


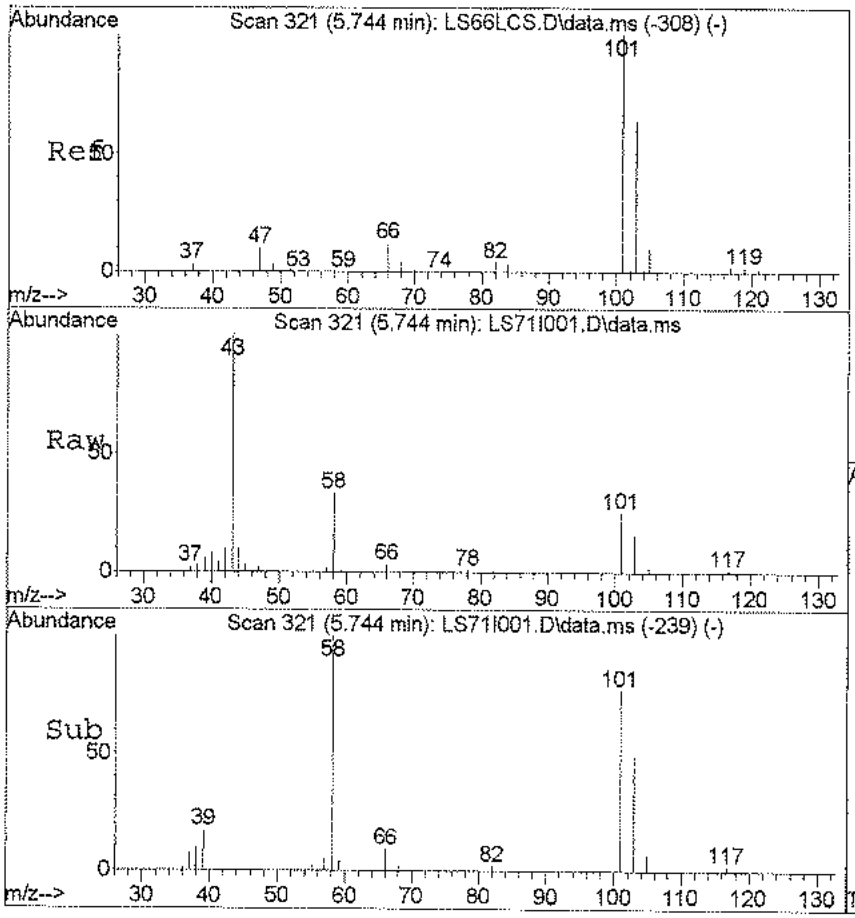


#11
Acetone
Concen: 123.11 ppb
RT: 5.62 min Scan# 300
Delta R.T. -0.04 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:43.1 Resp: 4366943

Ion	Ratio	Lower	Upper
43	100		
58	26.5	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

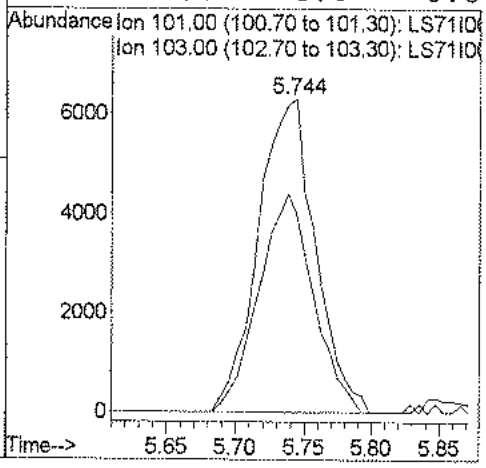


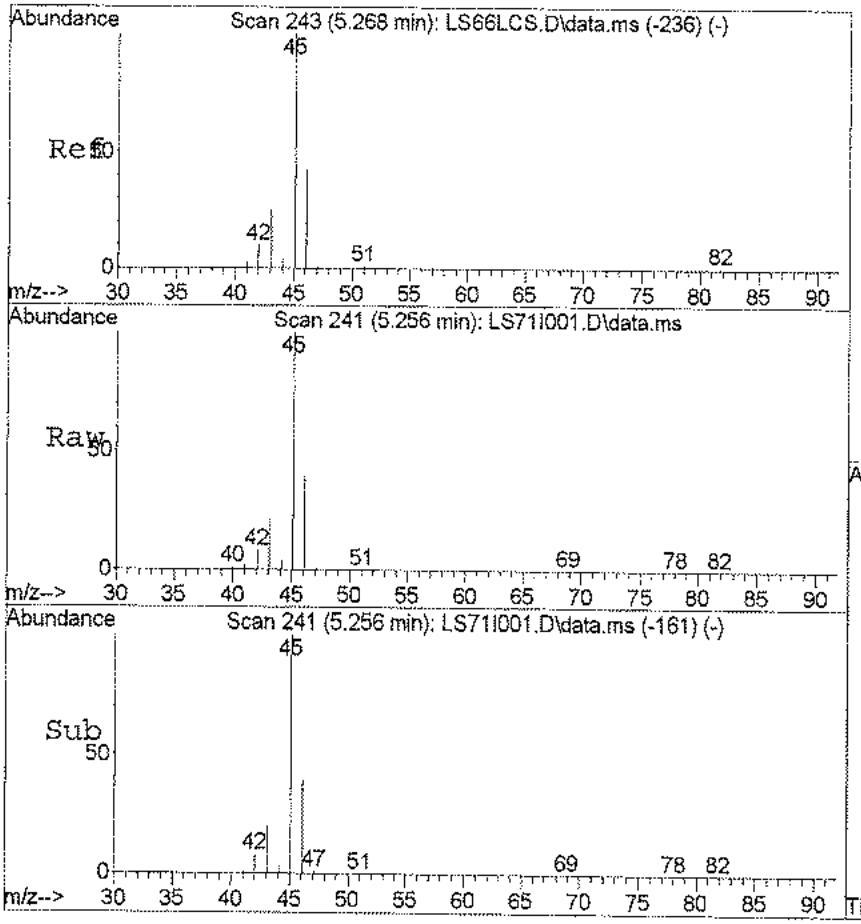


#12
Trichlorofluoromethane
Concen: 0.22 ppb
RT: 5.74 min Scan# 321
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:101 Resp: 18359

Ion	Ratio	Lower	Upper
101	100		
103	66.8	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

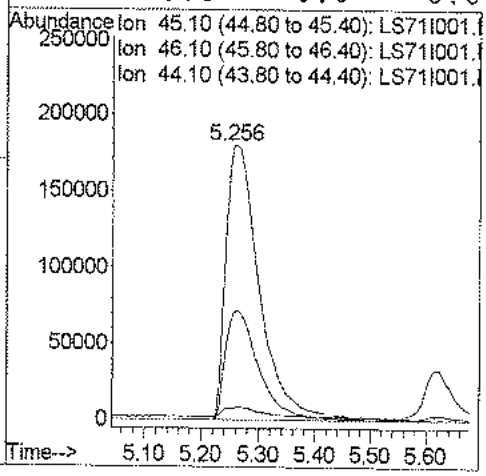


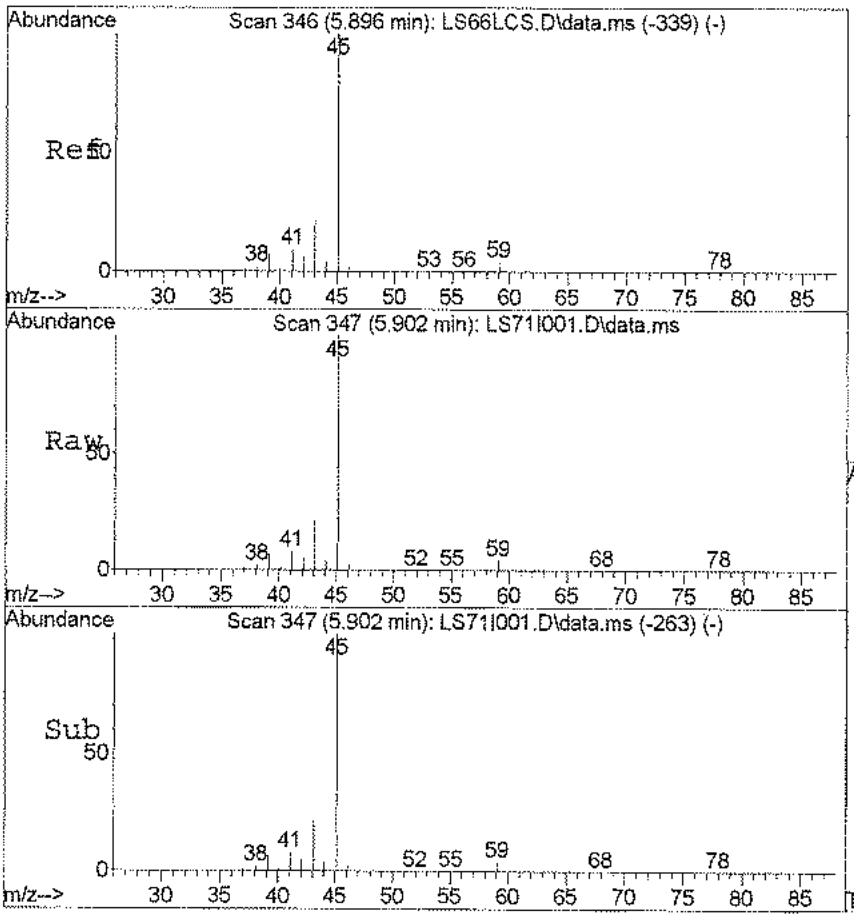


#13
Ethanol
Concen: 84.71 ppb
RT: 5.26 min Scan# 241
Delta R.T. -0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:45.1 Resp: 739806

Ion	Ratio	Lower	Upper
45	100		
46	40.0	32.4	48.6
44	3.9	23.4	35.2#
0	0.0	0.0	0.0

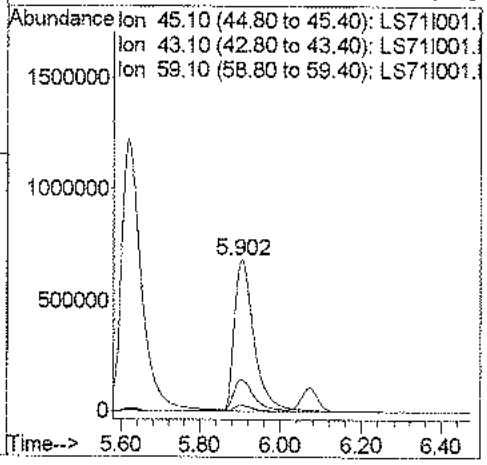


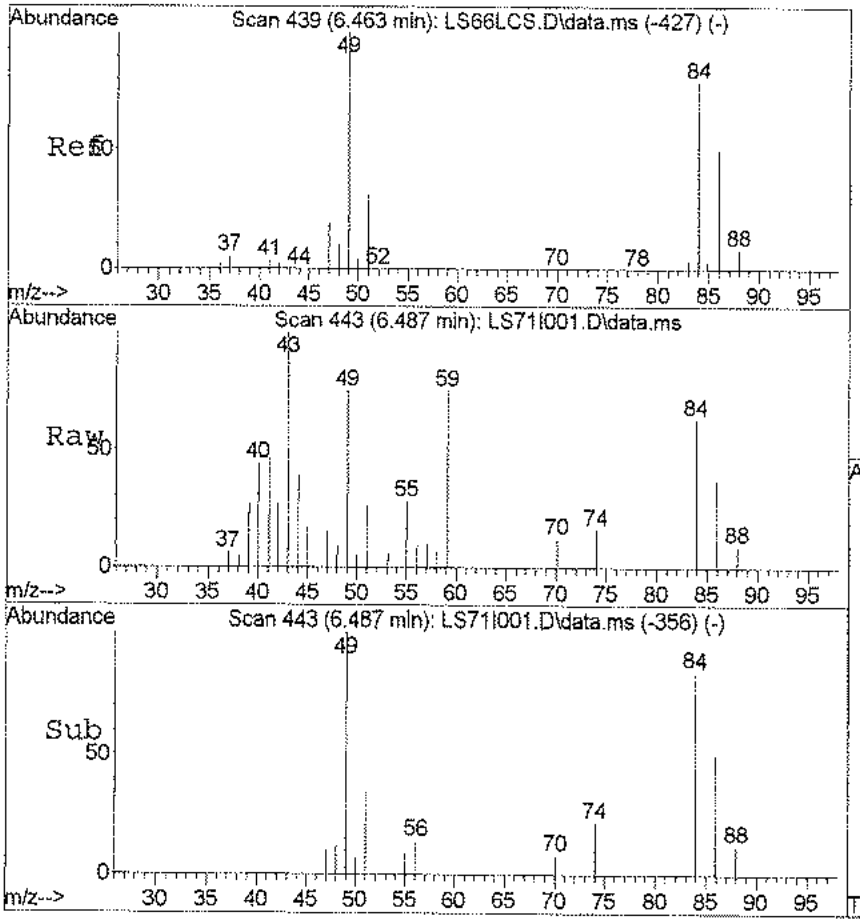


#14
Isopropyl Alcohol
Concen: 58.27 ppb
RT: 5.90 min Scan# 347
Delta R.T. 0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:45.1 Resp: 2352399

Ion	Ratio	Lower	Upper
45	100		
43	21.4	15.8	23.6
59	4.1	3.2	4.8
0	0.0	0.0	0.0

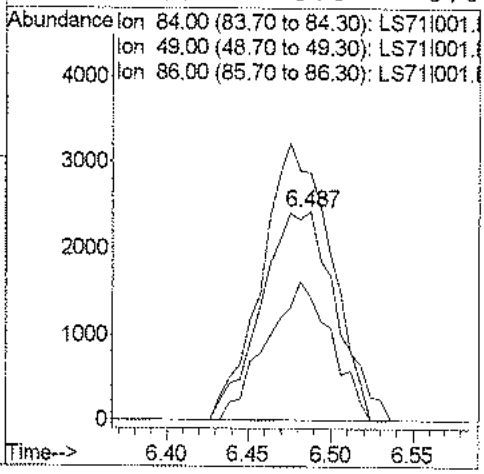


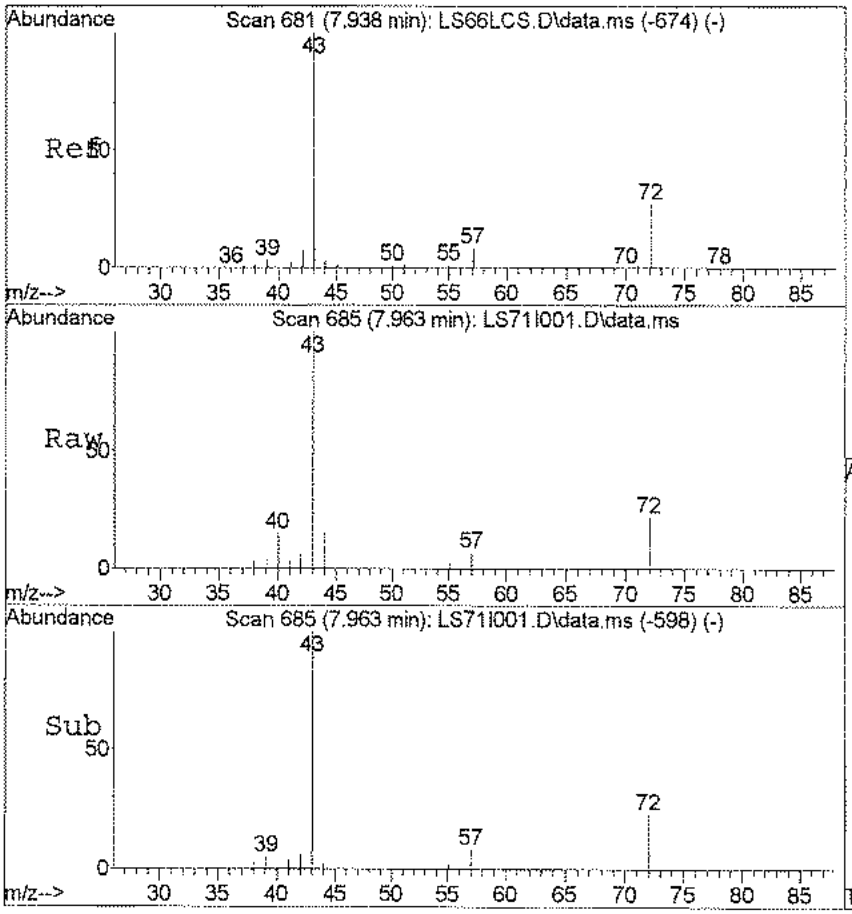


#16
Methylene Chloride
Concen: 0.29 ppb
RT: 6.49 min Scan# 443
Delta R.T. 0.03 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:84 Resp: 7434

Ion	Ratio	Lower	Upper
84	100		
49	128.8	66.6	100.0#
86	59.6	51.6	77.4
0	0.0	0.0	0.0

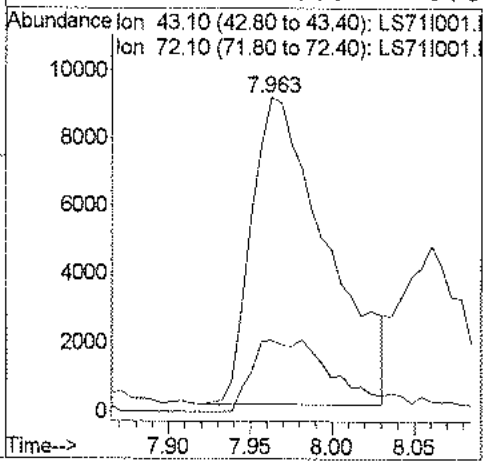


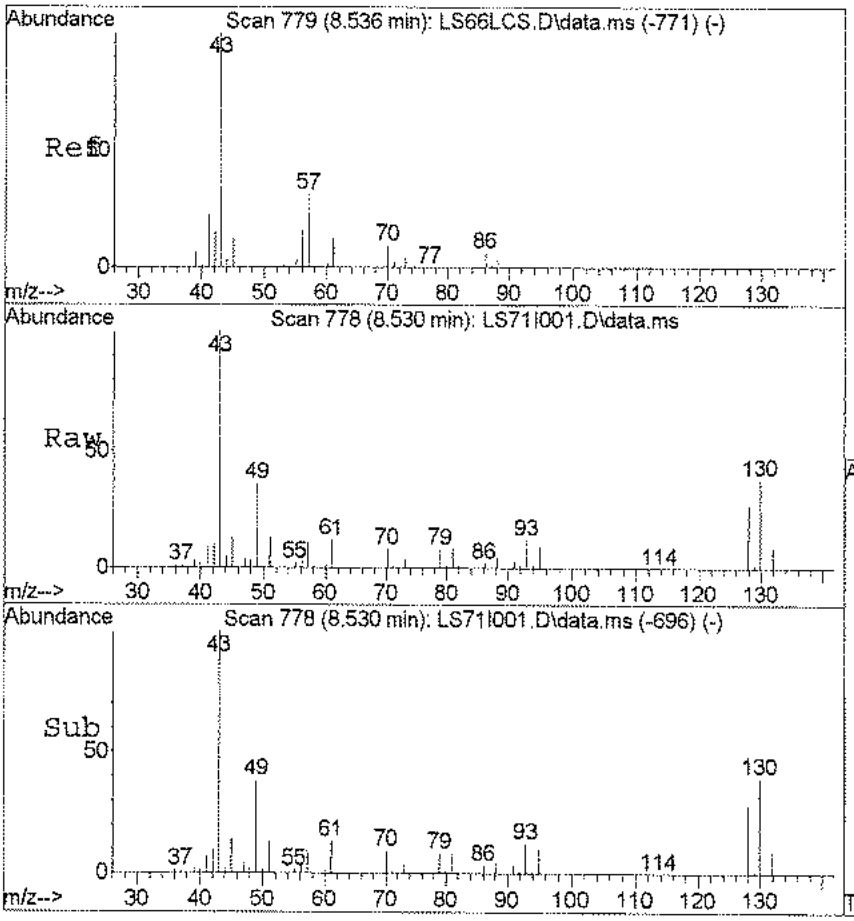


#23
2-Butanone
Concen: 0.64 ppb
RT: 7.96 min Scan# 685
Delta R.T. 0.03 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:43.1 Resp: 28670

Ion	Ratio	Lower	Upper
43	100		
72	28.8	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

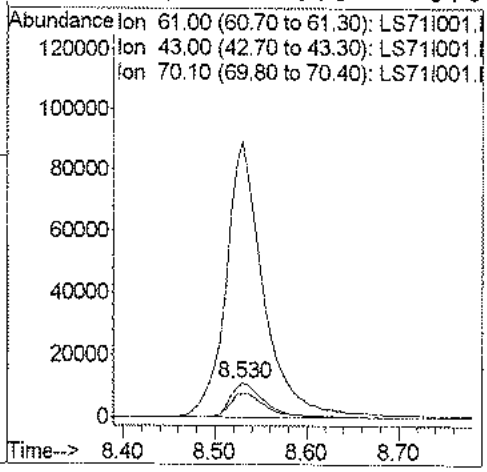


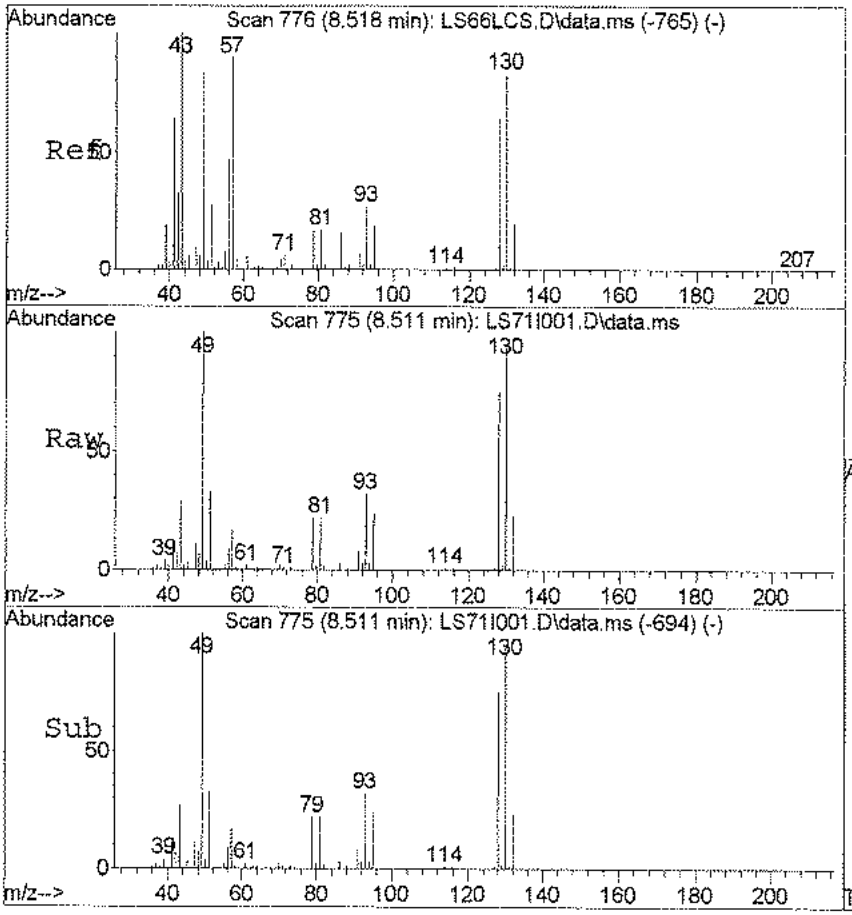


#26
Ethyl Acetate
Concen: 4.40 ppb
RT: 8.53 min Scan# 778
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:61 Resp: 29602

Ion	Ratio	Lower	Upper
61	100		
43	842.9	144.0	216.0#
70	72.4	13.6	20.4#
0	0.0	0.0	0.0

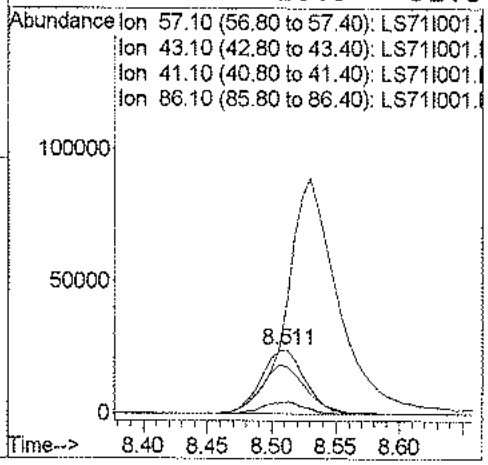


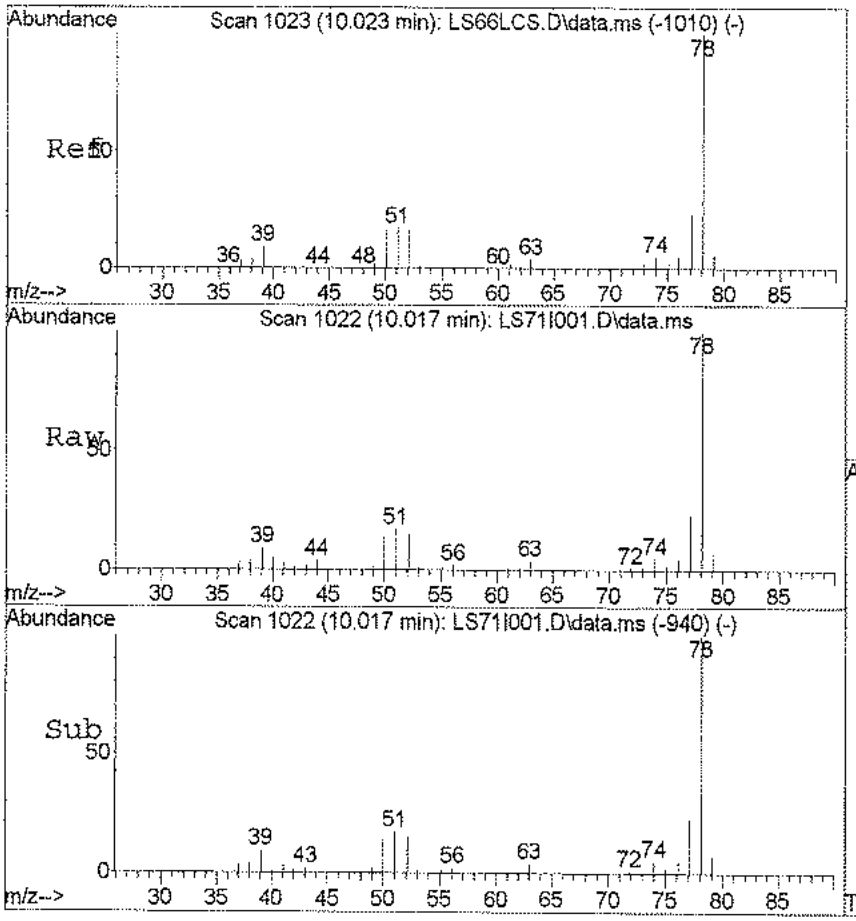


#27
Hexane
Concen: 1.71 ppb
RT: 8.51 min Scan# 775
Delta R.T. -0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:57.1 Resp: 57468

Ion	Ratio	Lower	Upper
57	100		
43	0.0	57.3	85.9#
41	79.6	47.0	70.4#
86	17.9	20.9	31.3#

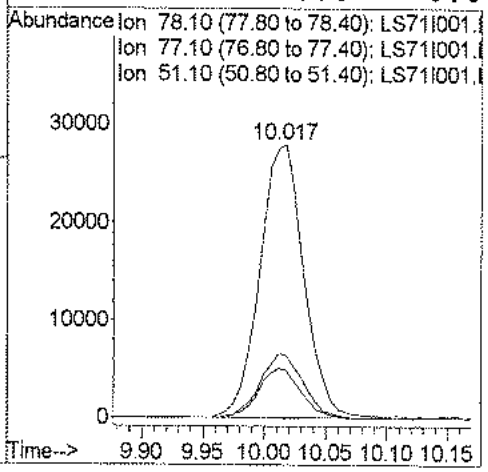


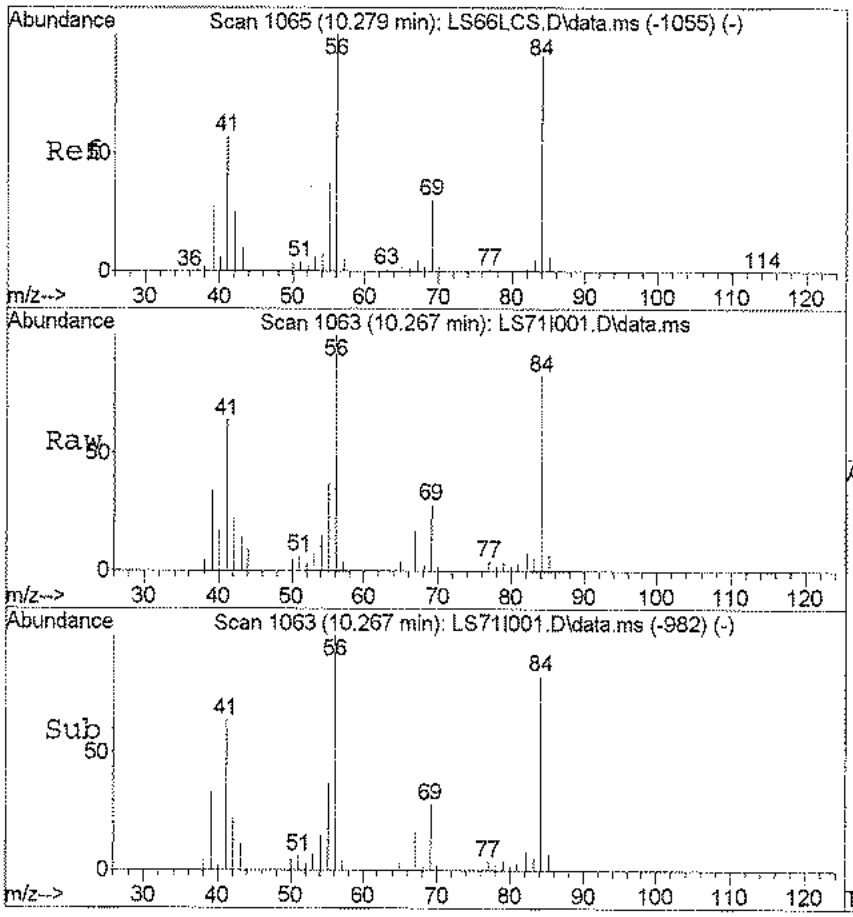


#32
Benzene
Concen: 0.97 ppb
RT: 10.02 min Scan# 1022
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:78.1 Resp: 69791

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4
51	17.3	9.5	14.3#
0	0.0	0.0	0.0

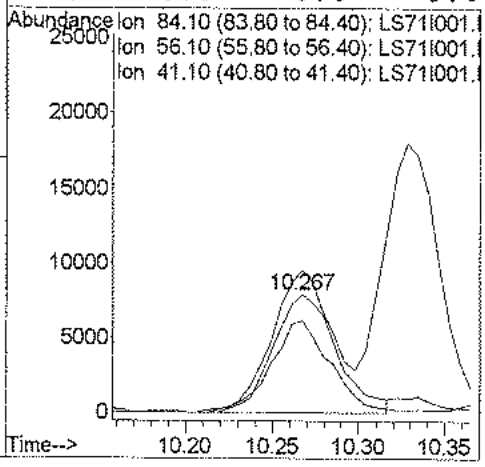


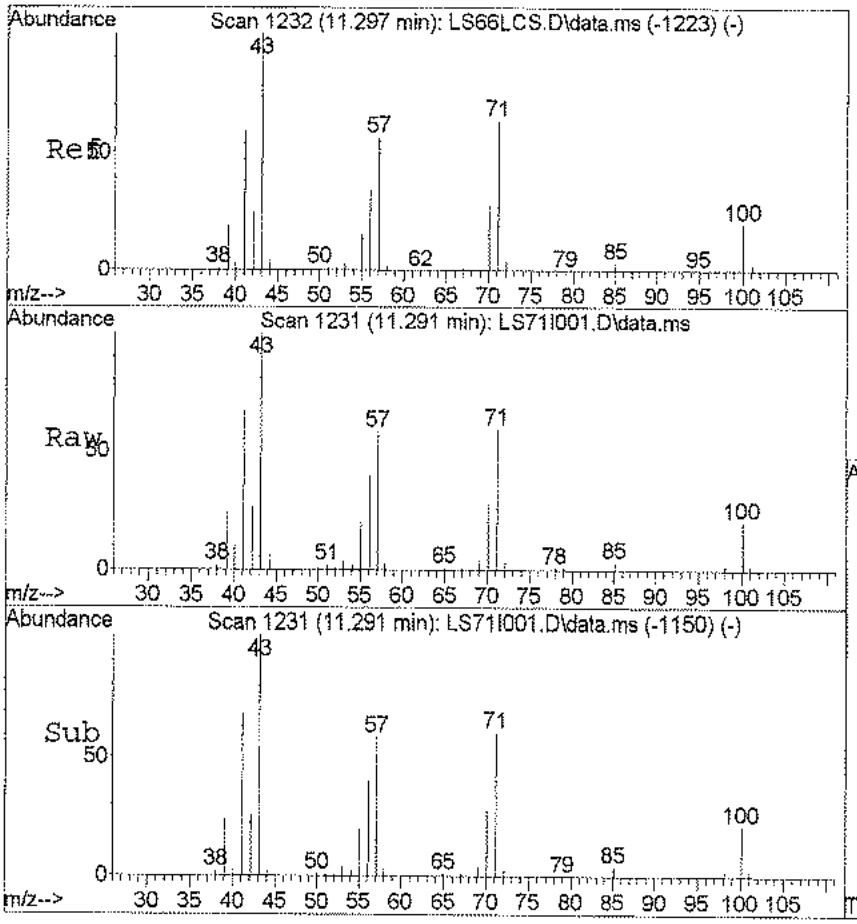


#34
Cyclohexane
Concen: 0.62 ppb
RT: 10.27 min Scan# 1063
Delta R.T. -0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:84.1 Resp: 20400

Ion	Ratio	Lower	Upper
84	100		
56	114.2	67.3	100.9#
41	74.0	30.2	45.4#
0	0.0	0.0	0.0

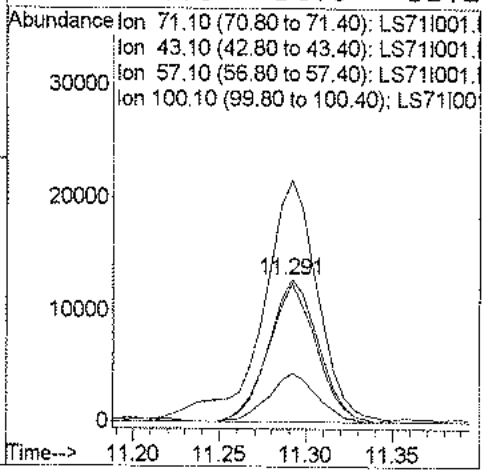


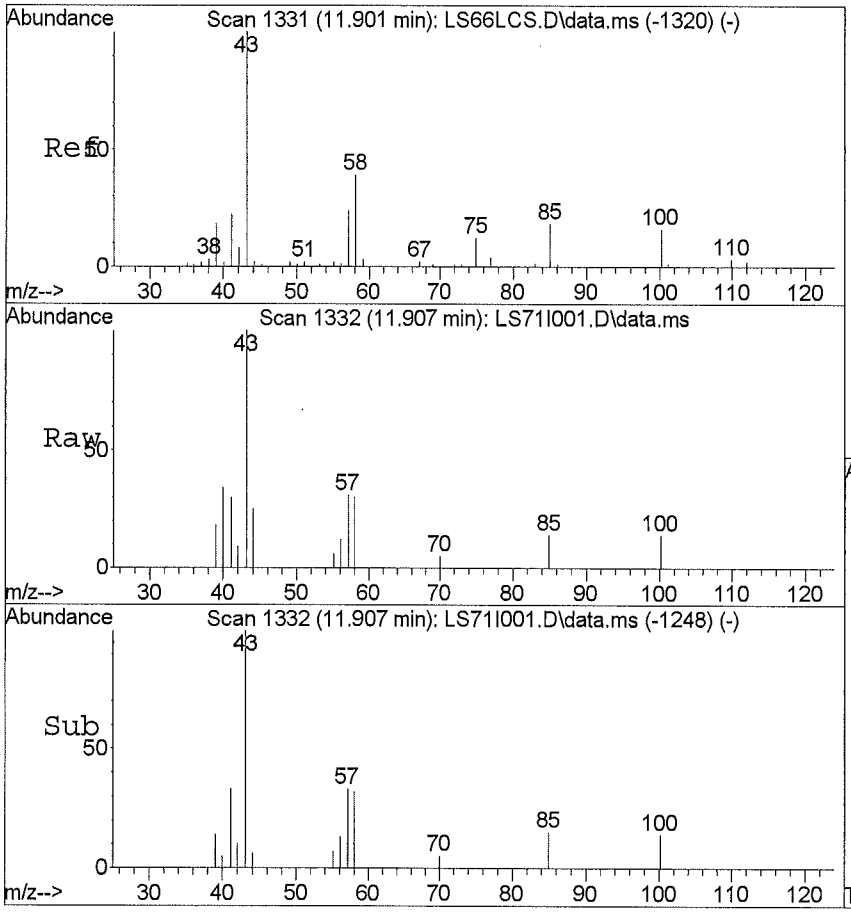


#40
Heptane
Concen: 1.12 ppb
RT: 11.29 min Scan# 1231
Delta R.T. -0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:71.1 Resp: 25695

Ion	Ratio	Lower	Upper
71	100		
43	190.5	87.3	130.9#
57	94.6	57.8	86.6#
100	33.8	34.8	52.2#

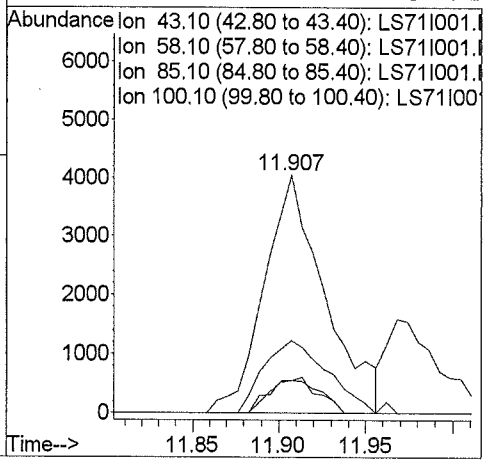


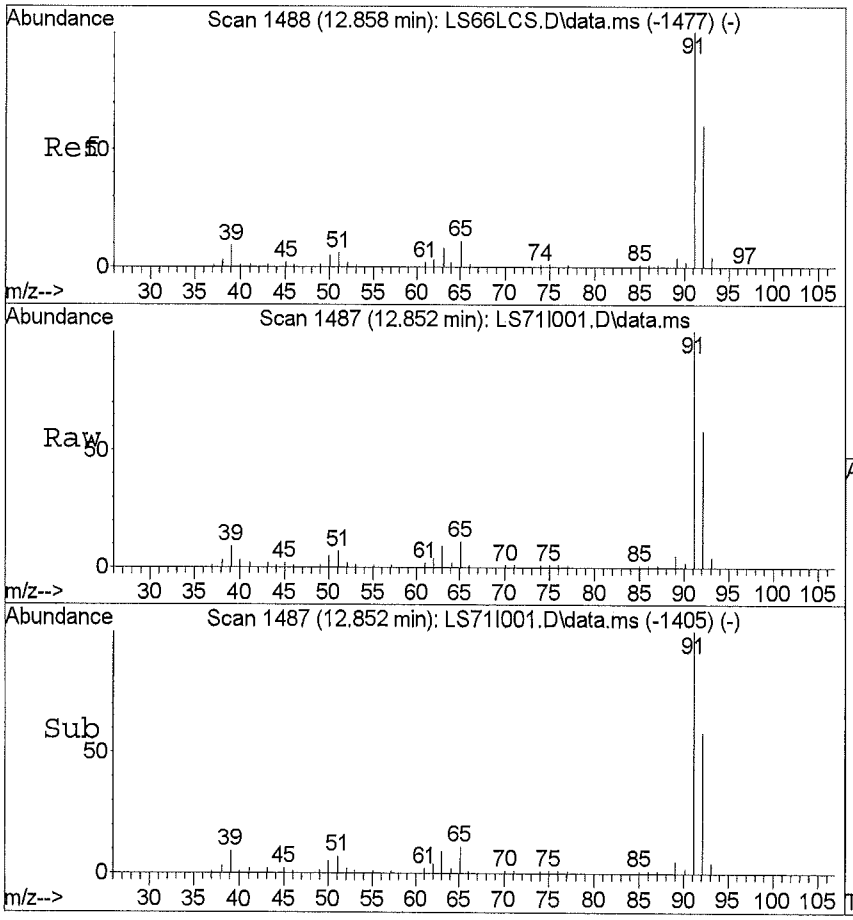


#42
4-Methyl-2-Pentanone
Concen: 0.21 ppb
RT: 11.91 min Scan# 1332
Delta R.T. 0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:43.1 Resp: 9758

Ion	Ratio	Lower	Upper
43	100		
58	32.5	39.5	59.3#
85	12.0	25.1	37.7#
100	11.5	25.6	38.4#

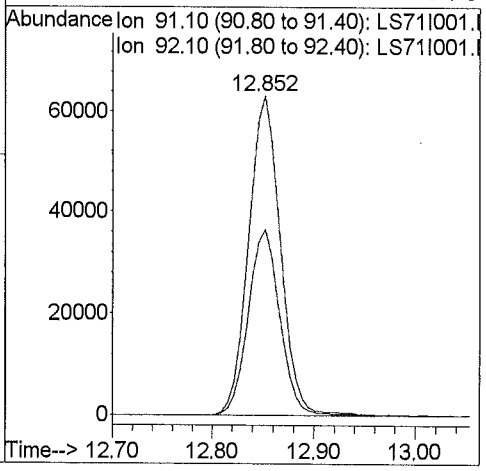


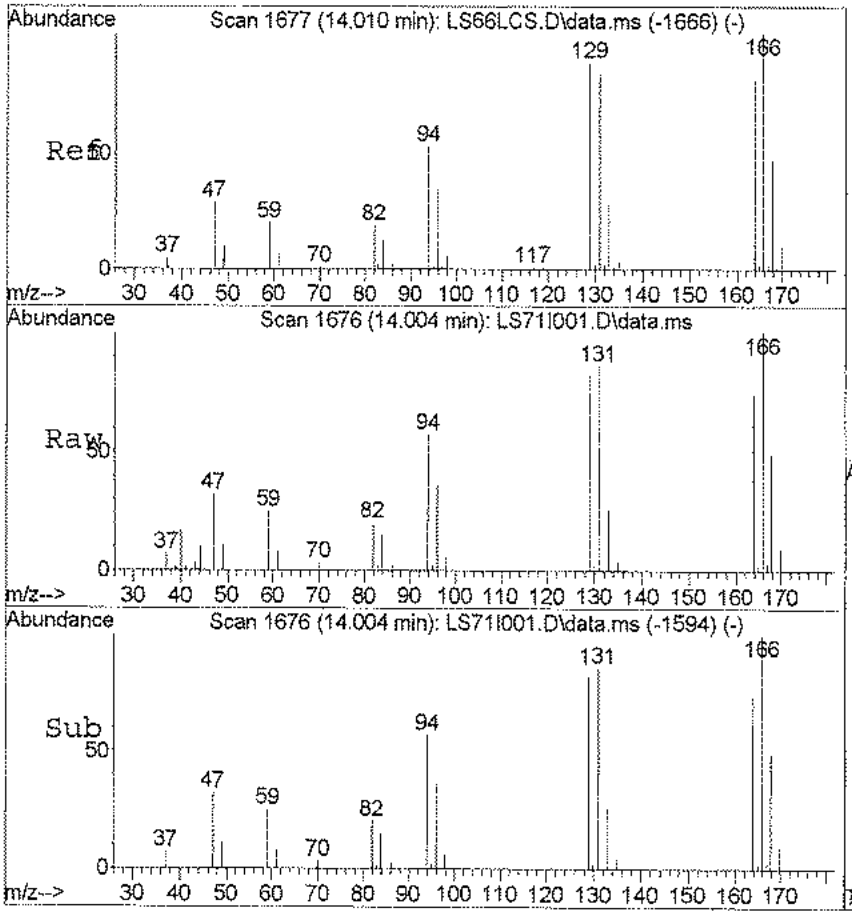


#45
Toluene
Concen: 1.70 ppb
RT: 12.85 min Scan# 1487
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:91.1 Resp: 135637

Ion	Ratio	Lower	Upper
91	100		
92	57.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

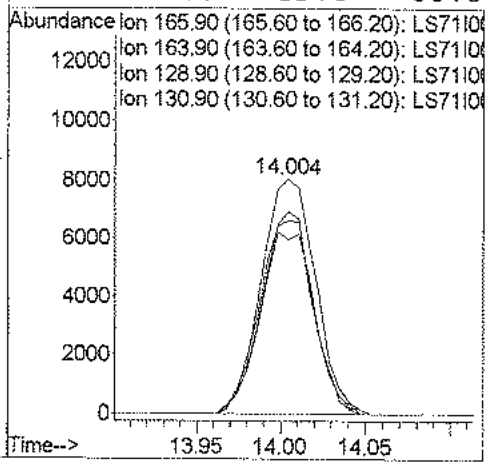


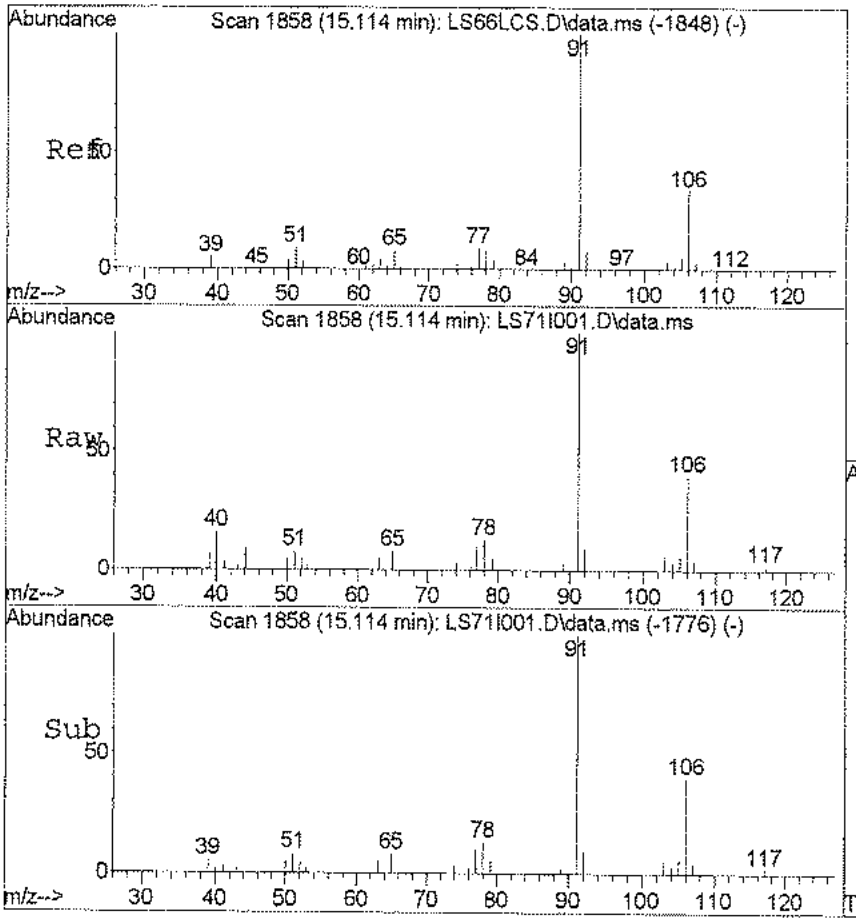


#49
Tetrachloroethene
Concen: 0.43 ppb
RT: 14.00 min Scan# 1676
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:165.9 Resp: 17832

Ion	Ratio	Lower	Upper
166	100		
164	77.7	61.0	91.4
129	83.2	45.9	68.9#
131	80.6	45.5	68.3#

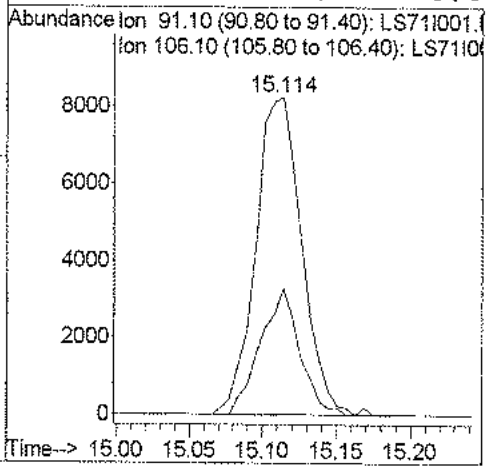


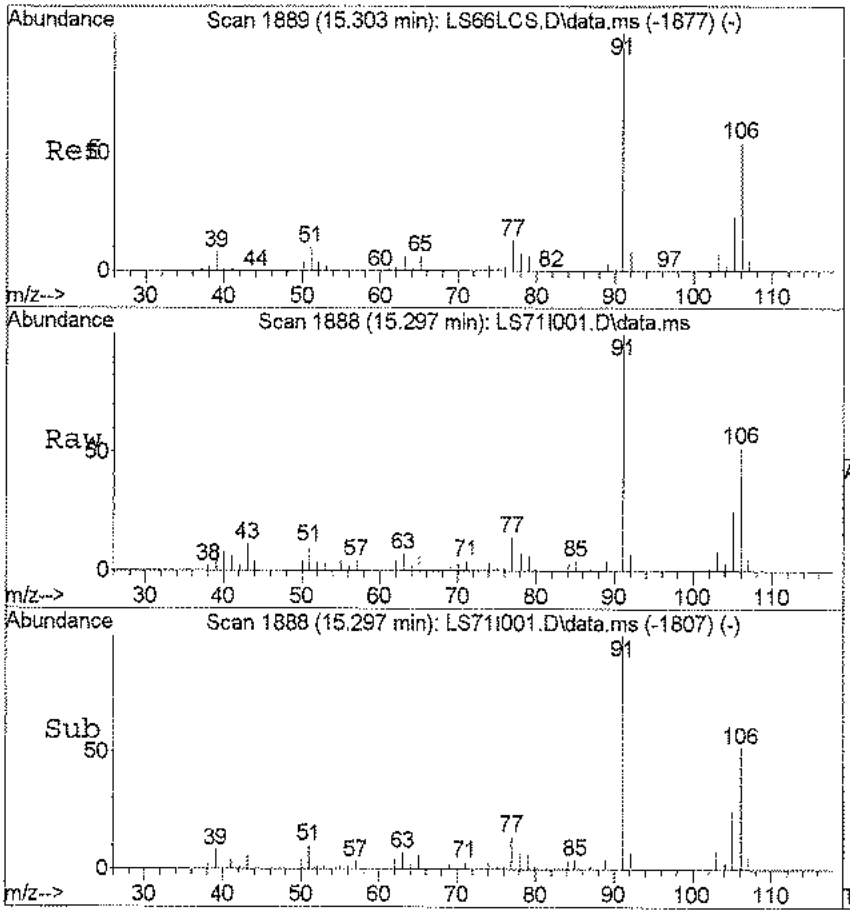


#52
Ethylbenzene
Concen: 0.17 ppb
RT: 15.11 min Scan# 1858
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:91.1 Resp: 17783

Ion	Ratio	Lower	Upper
91	100		
106	33.8	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

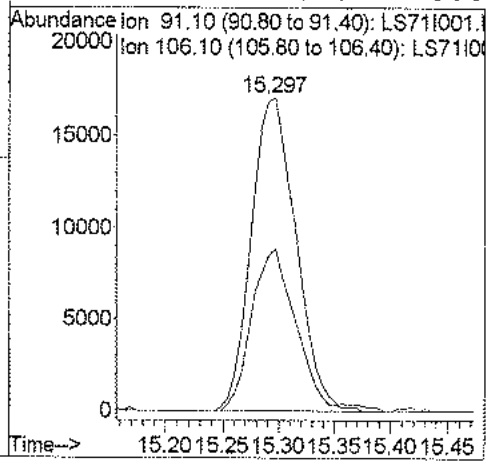


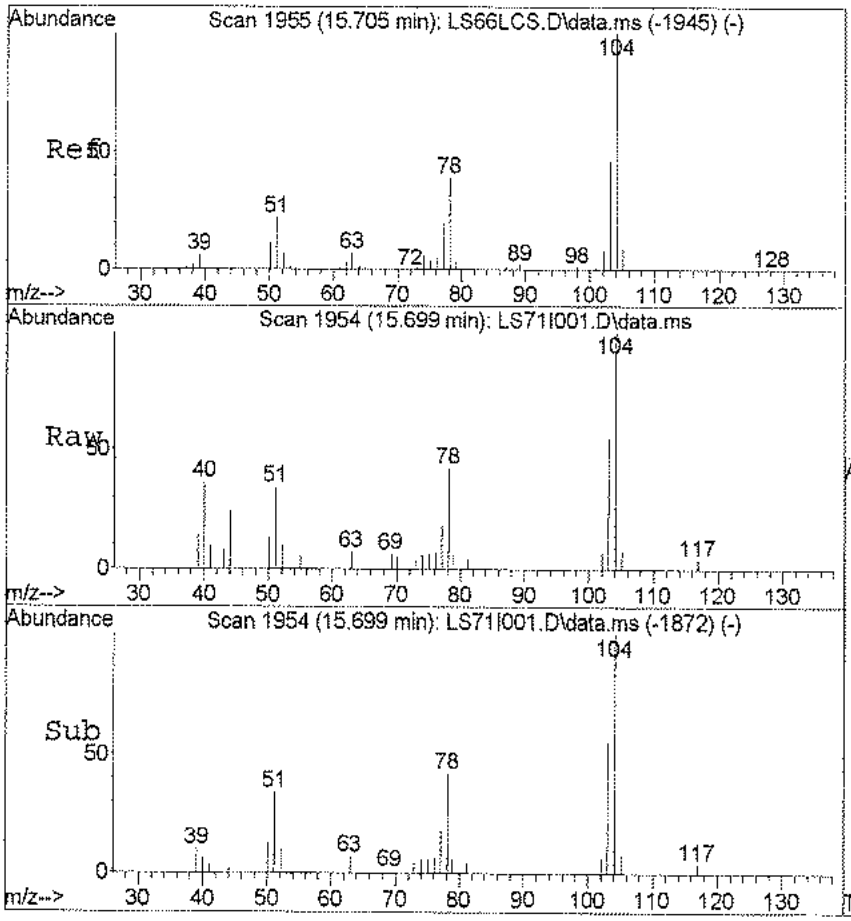


#53
m,p-Xylene
Concen: 0.58 ppb
RT: 15.30 min Scan# 1888
Delta R.T. -0.01 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:91.1 Resp: 47967

Ion	Ratio	Lower	Upper
91	100		
106	50.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

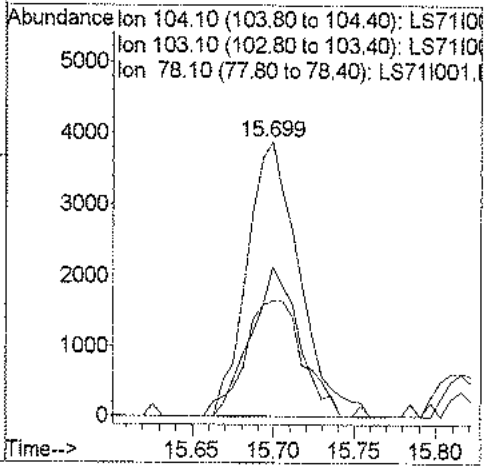


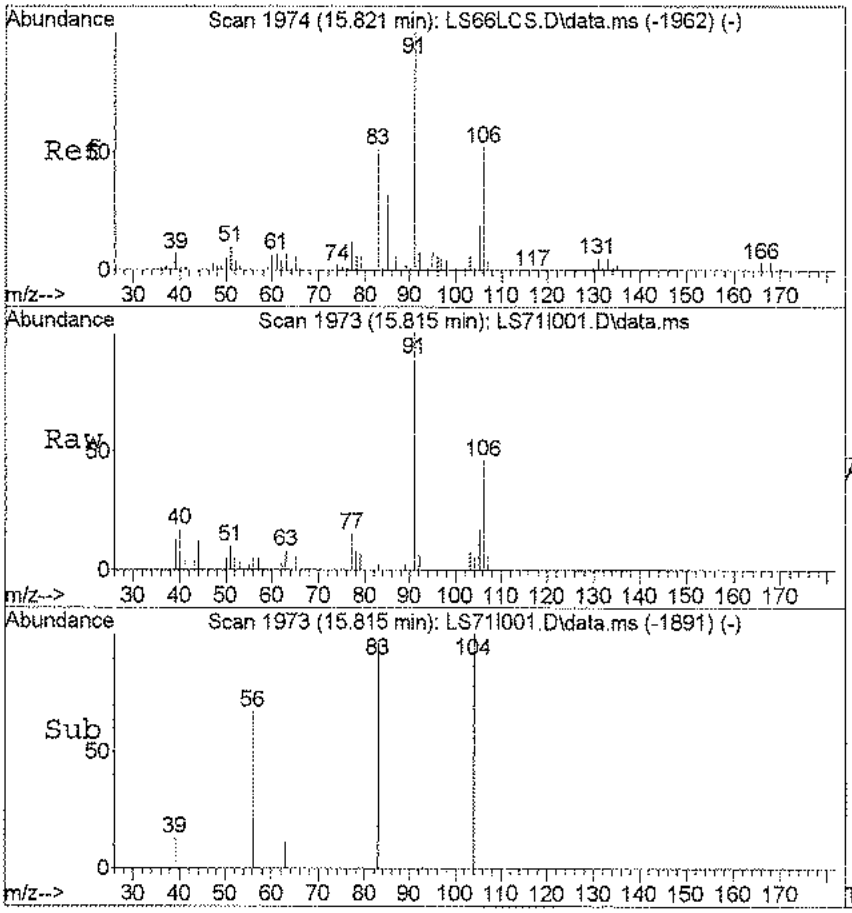


#55
Styrene
Concen: 0.16 ppb
RT: 15.70 min Scan# 1954
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:104.1 Resp: 8787

Ion	Ratio	Lower	Upper
104	100		
103	50.1	36.6	54.8
78	47.7	27.7	41.5#
0	0.0	0.0	0.0

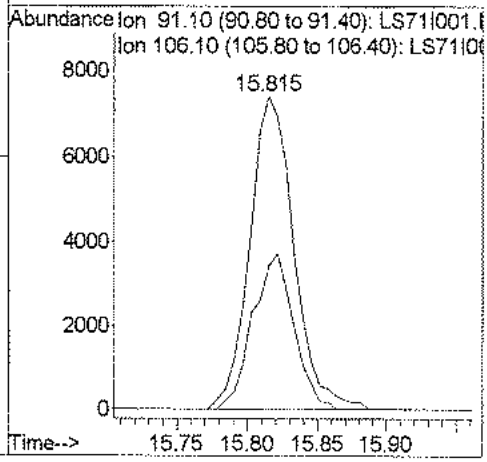




#57
o-Xylene
Concen: 0.19 ppb
RT: 15.81 min Scan# 1973
Delta R.T. 0.00 min
Lab File: LS71I001.D
Acq: 12/09/2015 16:18

Tgt Ion:91.1 Resp: 16149

Ion	Ratio	Lower	Upper
91	100		
106	46.4	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



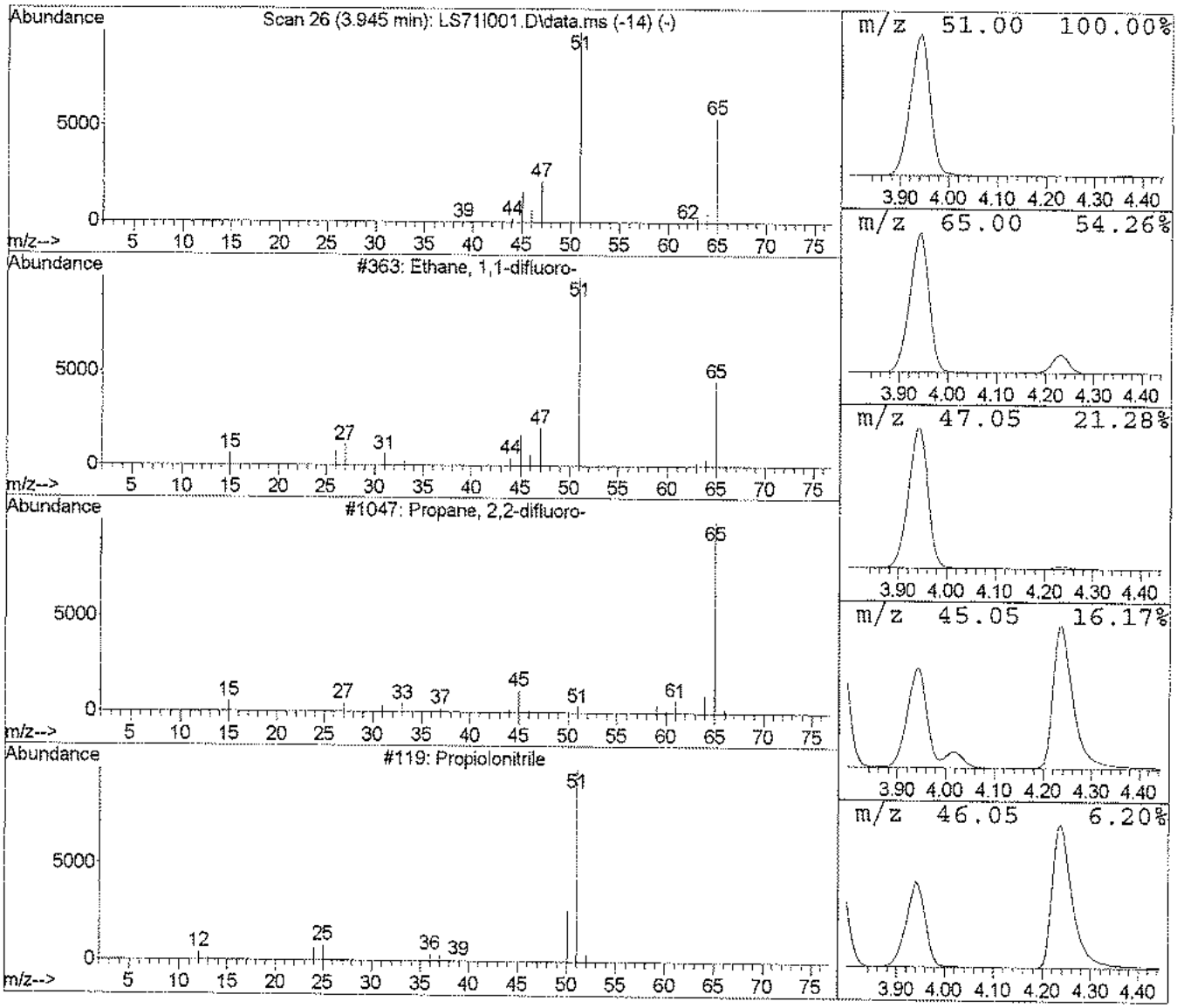
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
3.95	22.16 ppb	3681620	Bromochloromethane	3322814

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Ethane, 1,1-difluoro-	363	000075-37-6	91.00
2	Propane, 2,2-difluoro-	1047	000420-45-1	4.00
3	Propiolonitrile	119	001070-71-9	3.00
4	Methylene fluoride	127	000075-10-5	1.00
5	2-Chloroethanol	1042	000107-07-3	1.00



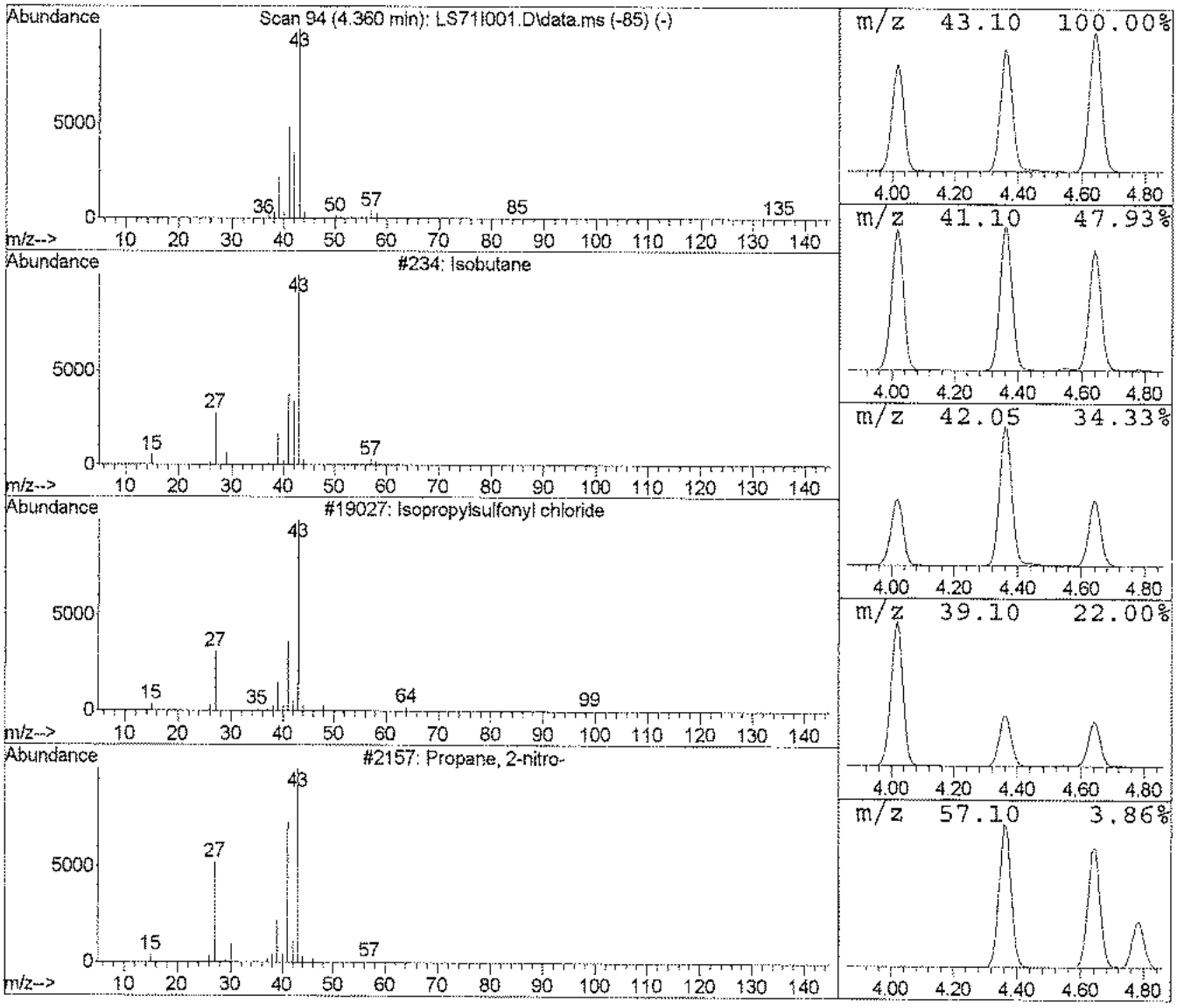
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.36	19.61 ppb	3257963	Bromochloromethane	3322814

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Propane, 2-nitro-	2157	000079-46-9	4.00
4	Propane, 1-chloro-2-methyl-	2419	000513-36-0	4.00
5	5-Methyloxazolidine	1869	058328-22-6	4.00



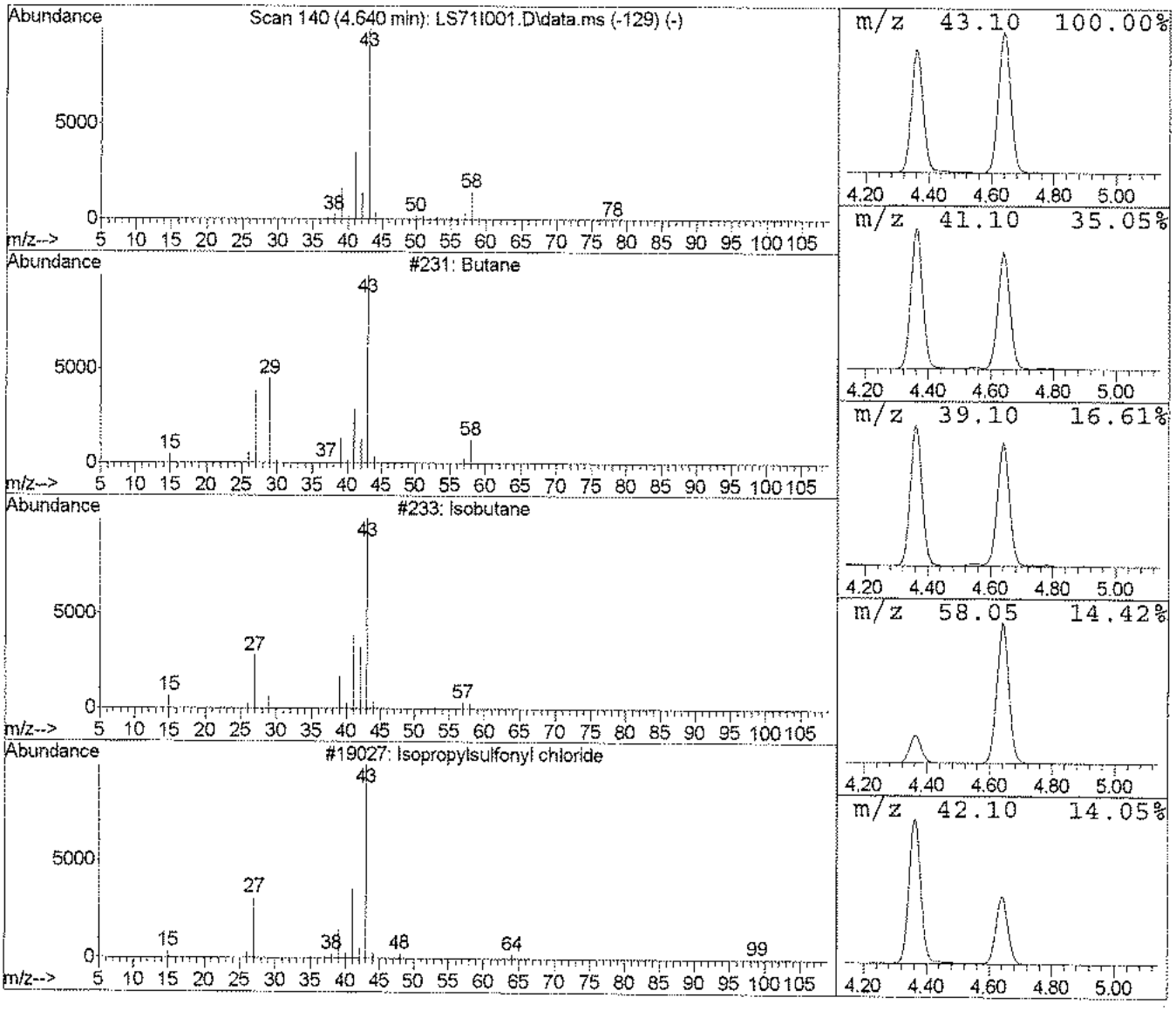
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.64	19.50 ppb	3239641	Bromochloromethane	3322814

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	80.00
2	Isobutane	233	000075-28-5	9.00
3	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
4	Propane, 1-nitro-	2152	000108-03-2	9.00
5	Diazene, dimethyl-	211	000503-28-6	5.00



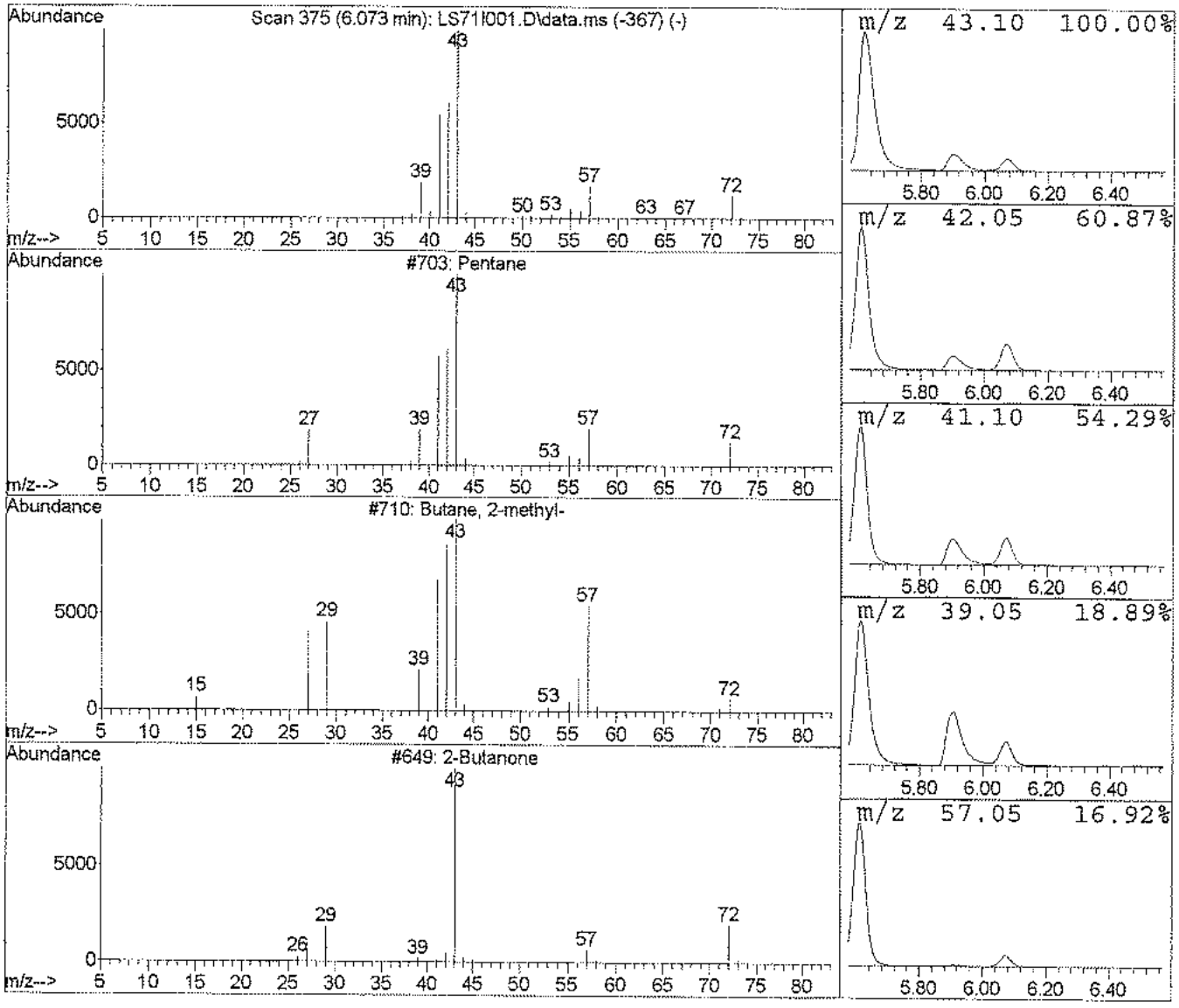
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
6.07	5.10 ppb	847760	Bromochloromethane	3322814

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	703	000109-66-0	91.00
2	Butane, 2-methyl-	710	000078-78-4	45.00
3	2-Butanone	649	000078-93-3	9.00
4	Diaziridine,3,3-dimethyl-	636	004901-76-2	9.00
5	Oxirane, ethyl-	665	000106-88-7	9.00



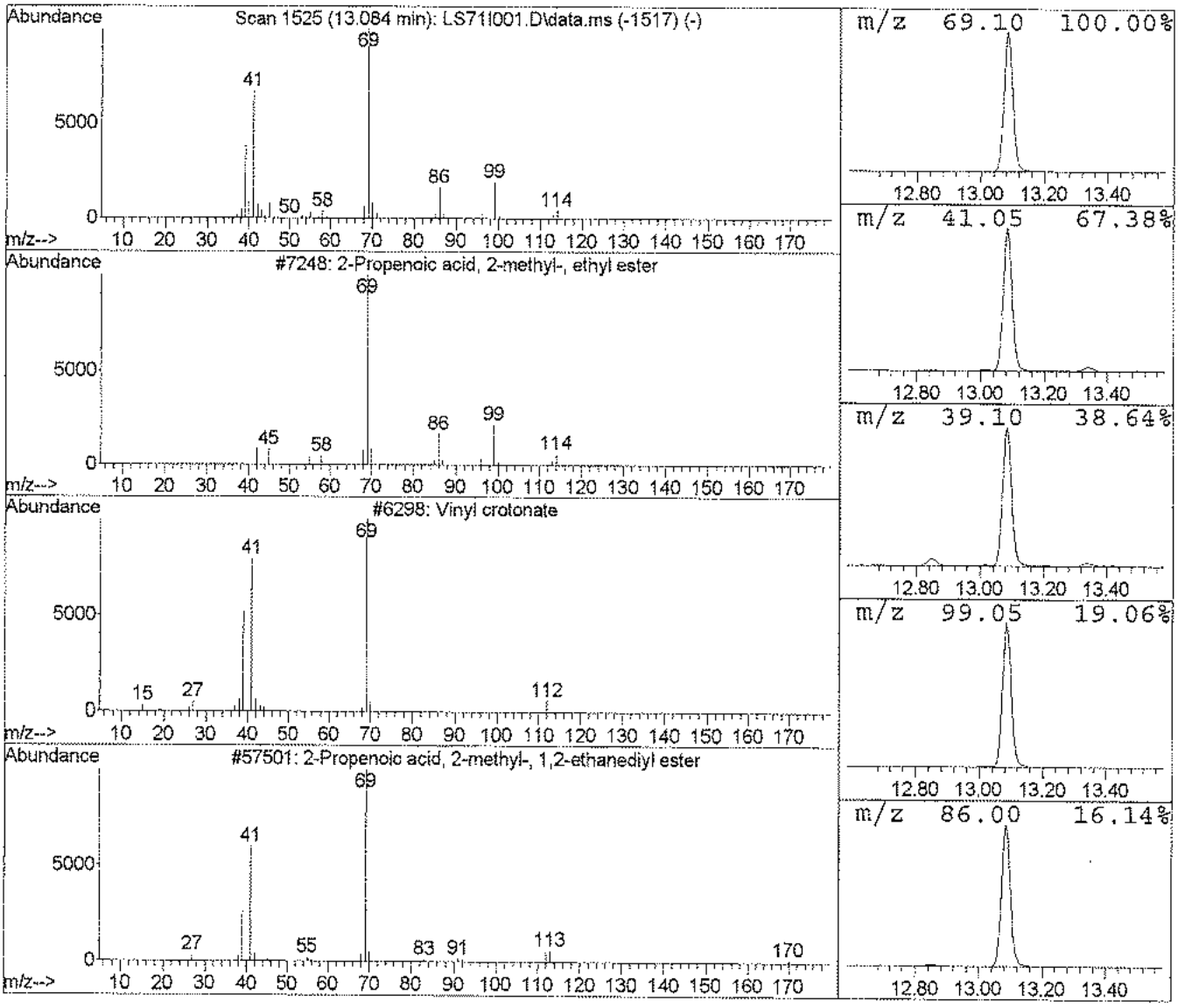
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
13.08	8.30 ppb	2067492	Chlorobenzene d5	4983841

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Propenoic acid, 2-methyl-, ethyl	7248	000097-63-2	94.00
2	~~Vinyl crotonate~~	6298	014861-06-4	53.00
3	2-Propenoic acid, 2-methyl-, 1,2-et	57501	000097-90-5	53.00
4	2-Butenoic acid, ethyl ester, (E)-	7212	000623-70-1	50.00
5	2-Butenoic acid, ethyl ester	7168	010544-63-5	46.00



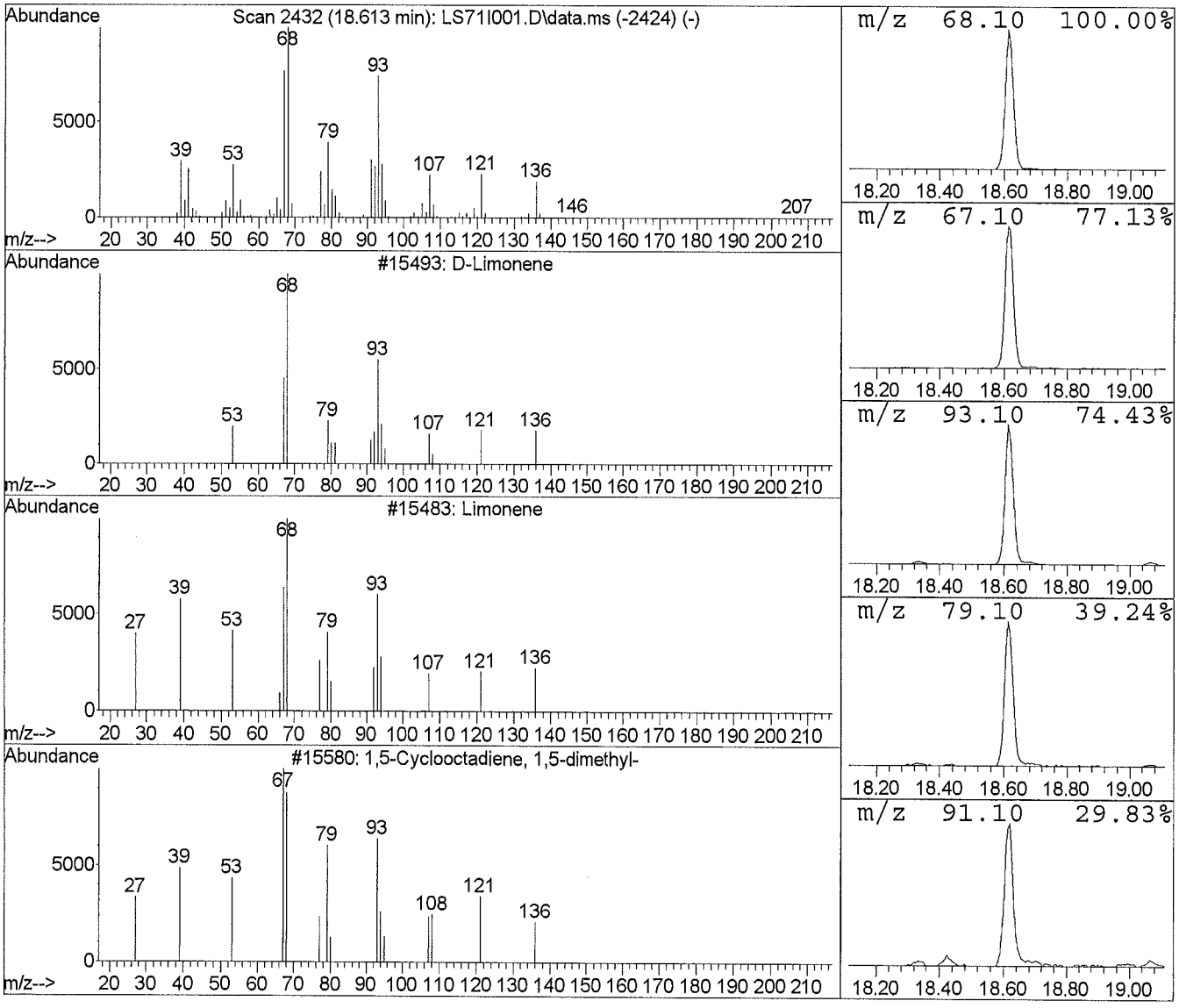
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS71I001.D Vial: 3
Acq Time : 12/09/2015 16:18 Operator: TJM
Sample : 1534264001 Inst : 5975-L
Misc : LEES CARP Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.61	2.68 ppb	667305	Chlorobenzene d5	4983841

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	D-Limonene	15493	005989-27-5	94.00
2	Limonene	15483	000138-86-3	94.00
3	1,5-Cyclooctadiene, 1,5-dimethyl-	15580	003760-14-3	64.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	58.00
5	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	49.00

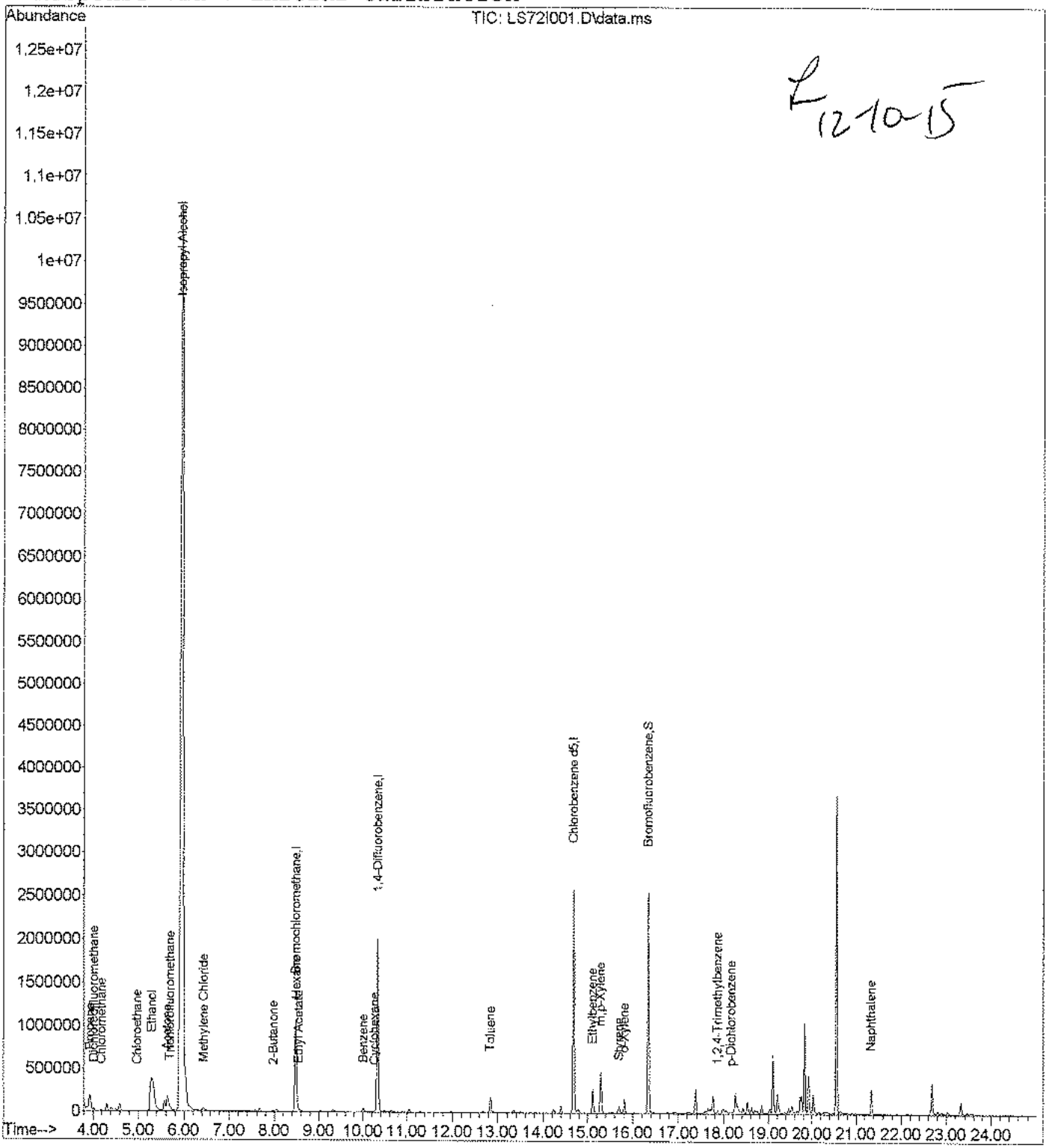


Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:16:17 2015 Results File: TO15LM15.RES

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Thu Dec 10 15:11:57 2015
Response via : Initial Calibration



12/10/15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:16:17 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.48	130	208320	20.0000 ppb	73.20
25) 1,4-Difluorobenzene	10.33	114	2105520	20.0000 ppb	72.52
50) Chlorobenzene d5	14.68	117	1848051	20.0000 ppb	79.49
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	1131069	21.7093 ppb	108.55%
Target Compounds					Qvalue
2) Propene	3.95	41	32601	1.9860 ppb #	NC 66/03
3) Dichlorodifluoromethane	4.02	85	37379	0.5207 ppb	98
4) Chloromethane	4.19	50	14130	0.6885 ppb	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	4.98	64	7134	0.5328 ppb #	91
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.63	43	377624	10.5773 ppb	95
12) Trichlorofluoromethane	5.70	101	20714	0.2449 ppb	98
13) Ethanol	5.29	45	1400759	159.3485 ppb #	NC 79
14) Isopropyl Alcohol	5.95	45	26300087	647.2461 ppb	NC 96
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.44	84	21351	0.8409 ppb #	72
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.97	43	17613	0.3904 ppb #	78
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.55	61	2766	0.3792 ppb #	1
27) Hexane	8.50	57	19269	0.5291 ppb #	84
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.01	78	33067	0.4263 ppb #	95
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.26	84	6037	0.1704 ppb #	60
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

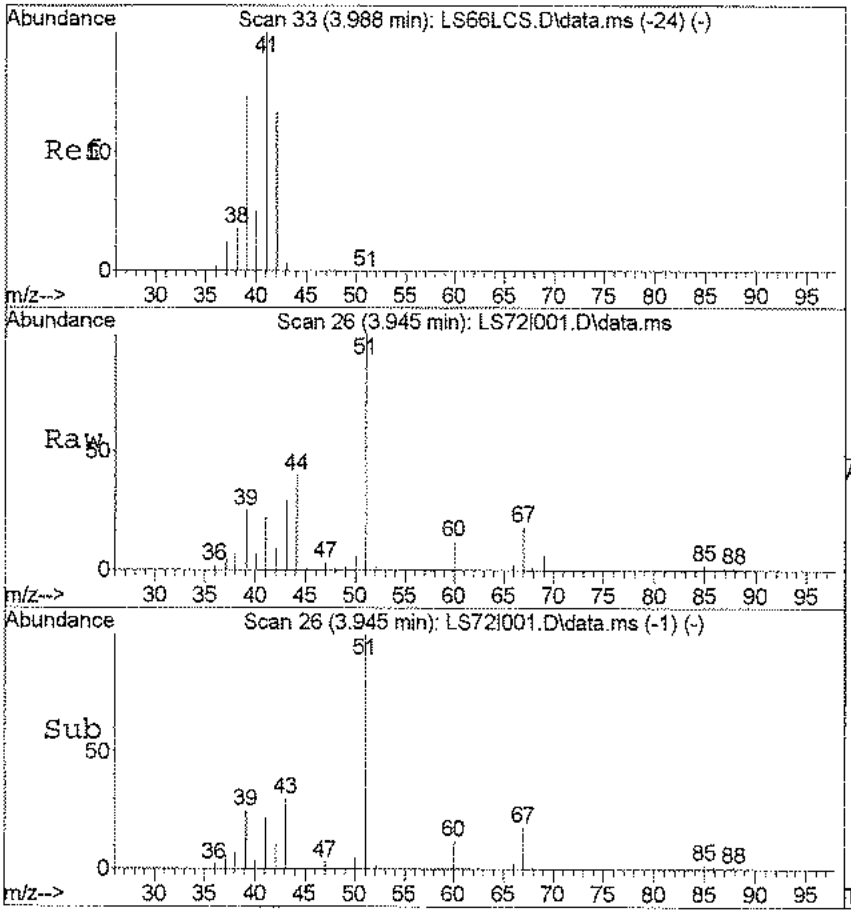
Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 15:16:17 2015 Results File: TO15LM15.RES

Quant Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Last Update : Wed Dec 09 10:07:13 2015
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	147809	1.7091 ppb	97
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	238024	2.0933 ppb	96
53)	m,p-Xylene	15.29	91	337203	3.7605 ppb	96
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.71	104	49067	0.8061 ppb #	92
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	127553	1.3742 ppb	96
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	23207	0.2761 ppb	94
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	18.17	146	7536	0.1510 ppb #	88
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	21.33	128	4278	0.1567 ppb #TC	47 40
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

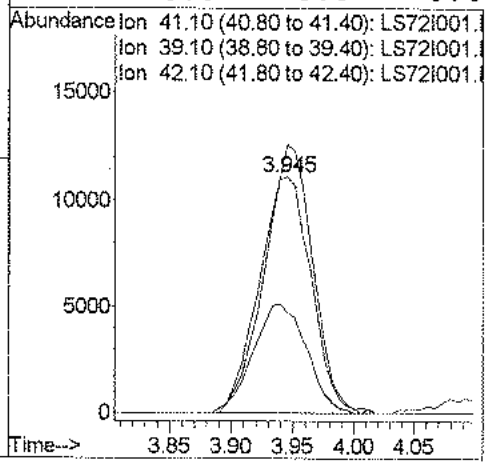
(#) = qualifier out of range (m) = manual integration

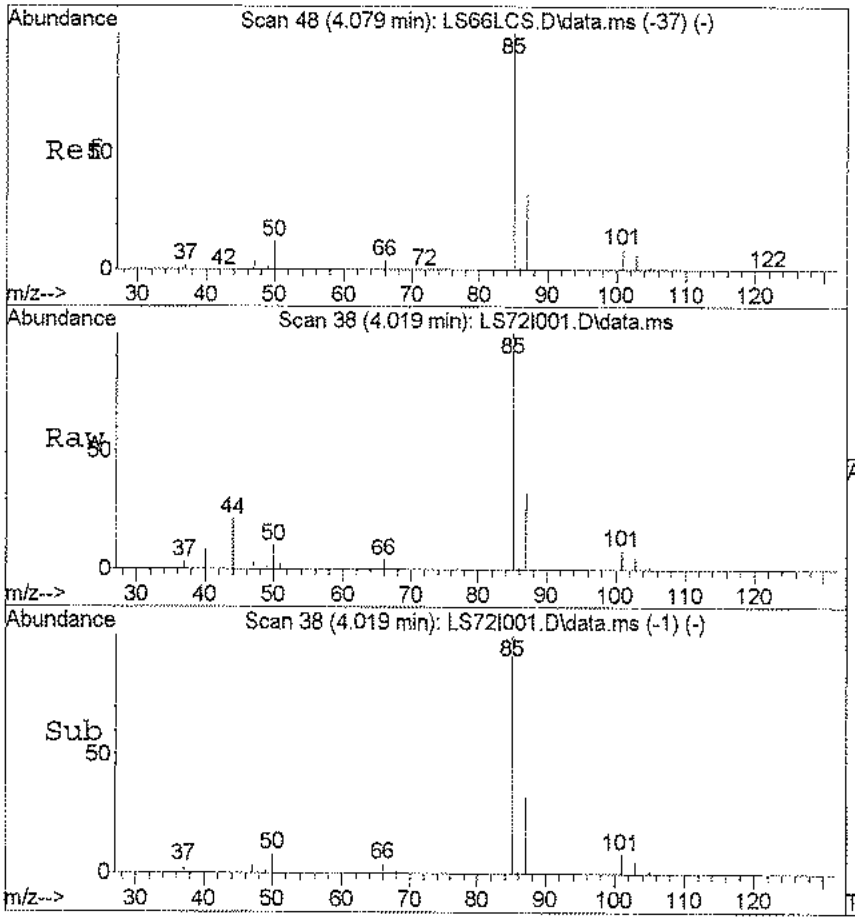


#2
Propene
Concen: 1.99 ppb
RT: 3.95 min Scan# 26
Delta R.T. -0.04 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:41.1 Resp: 32601

Ion	Ratio	Lower	Upper
41	100		
39	105.7	56.2	84.4#
42	47.1	53.8	80.6#
0	0.0	0.0	0.0

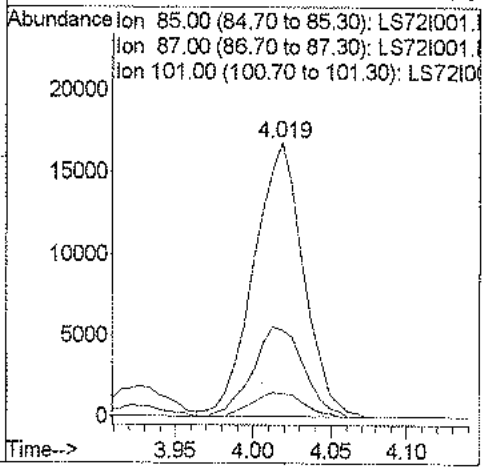


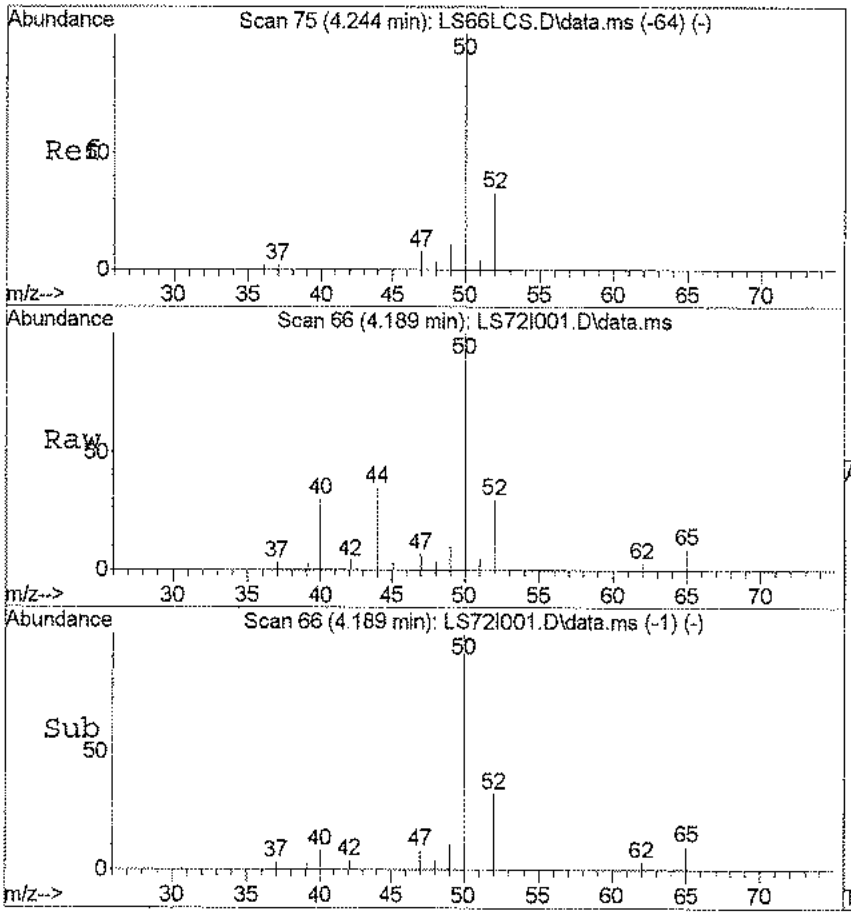


#3
Dichlorodifluoromethane
Concen: 0.52 ppb
RT: 4.02 min Scan# 38
Delta R.T. -0.05 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:85 Resp: 37379

Ion	Ratio	Lower	Upper
85	100		
87	33.9	26.1	39.1
101	9.1	8.0	12.0
0	0.0	0.0	0.0

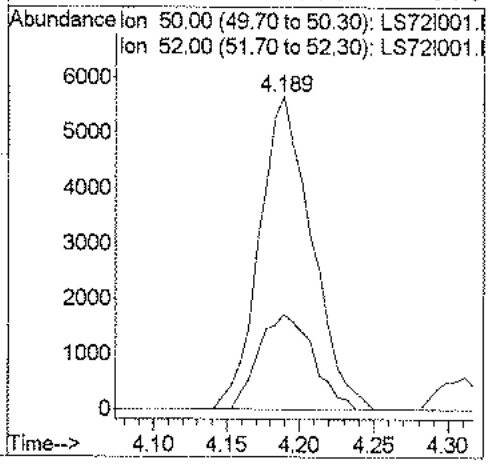


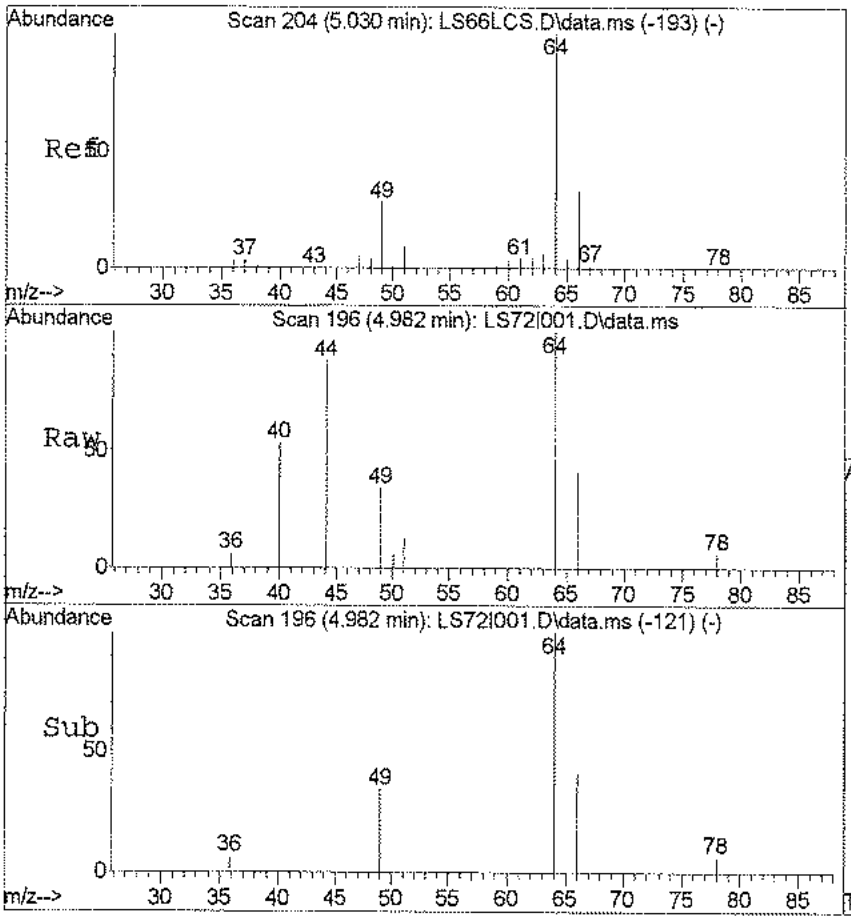


#4
Chloromethane
Concen: 0.69 ppb
RT: 4.19 min Scan# 66
Delta R.T. -0.05 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:50 Resp: 14130

Ion	Ratio	Lower	Upper
50	100		
52	31.7	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

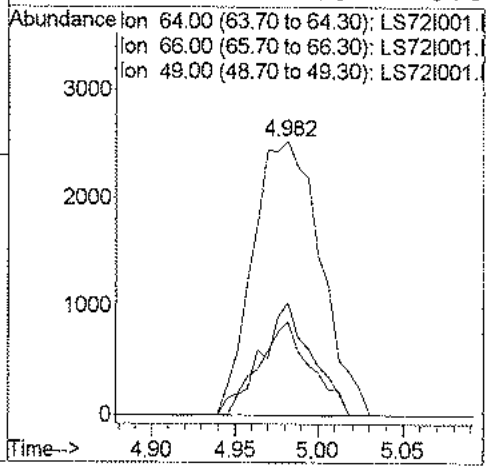


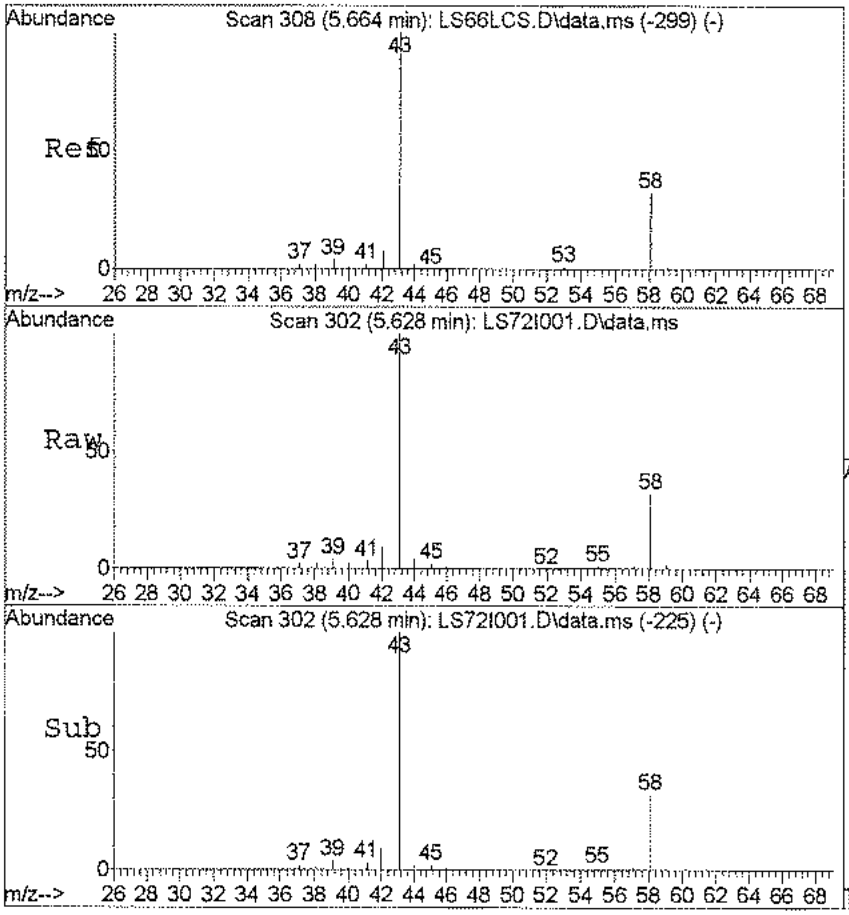


#9
Chloroethane
Concen: 0.53 ppb
RT: 4.98 min Scan# 196
Delta R.T. -0.04 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:64 Resp: 7134

Ion	Ratio	Lower	Upper
64	100		
66	29.7	26.3	39.5
49	26.7	15.8	23.8#
0	0.0	0.0	0.0

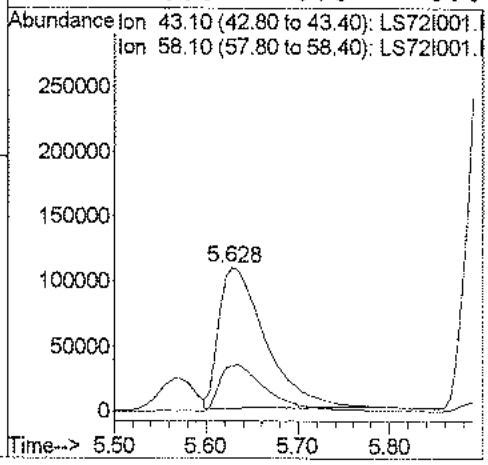


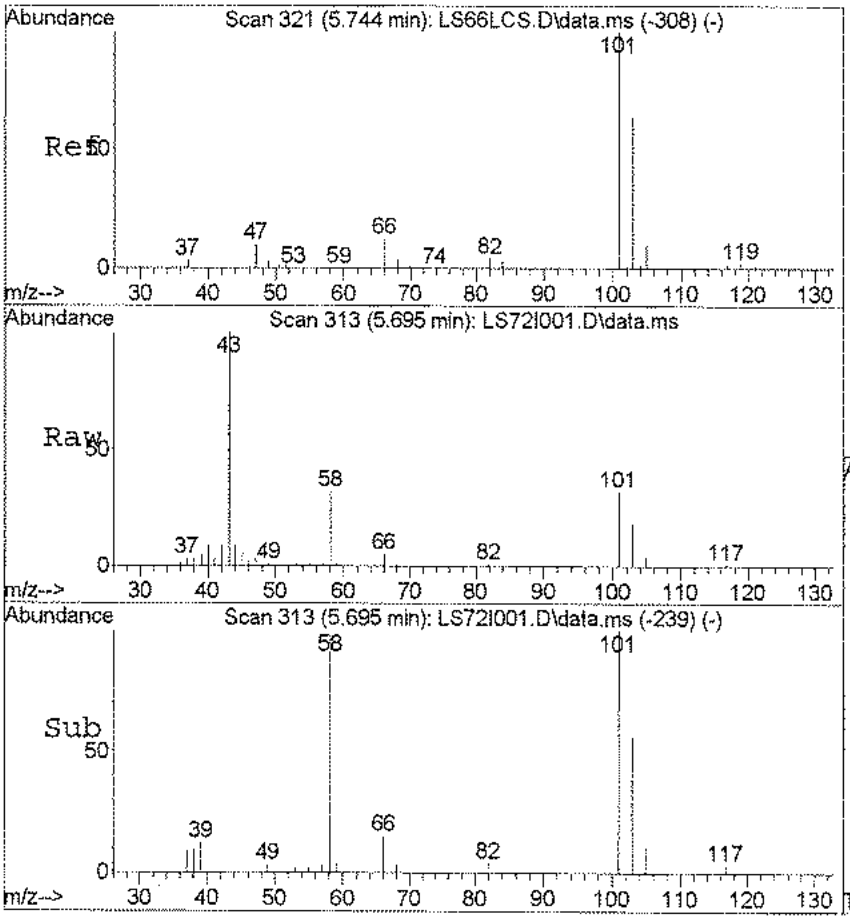


#11
Acetone
Concen: 10.58 ppb
RT: 5.63 min Scan# 302
Delta R.T. -0.03 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:43.1 Resp: 377624

Ion	Ratio	Lower	Upper
43	100		
58	35.5	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

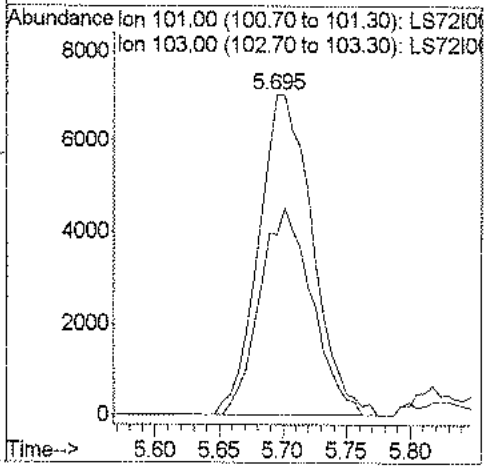


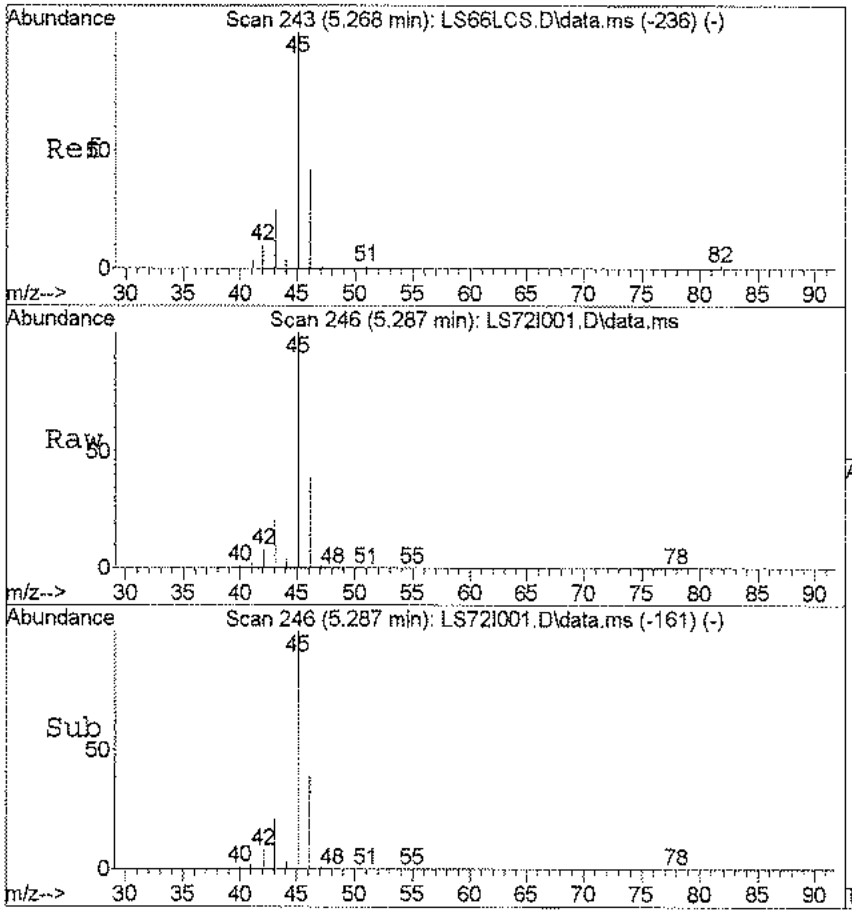


#12
Trichlorofluoromethane
Concen: 0.24 ppb
RT: 5.70 min Scan# 313
Delta R.T. -0.05 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:101 Resp: 20714

Ion	Ratio	Lower	Upper
101	100		
103	62.6	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

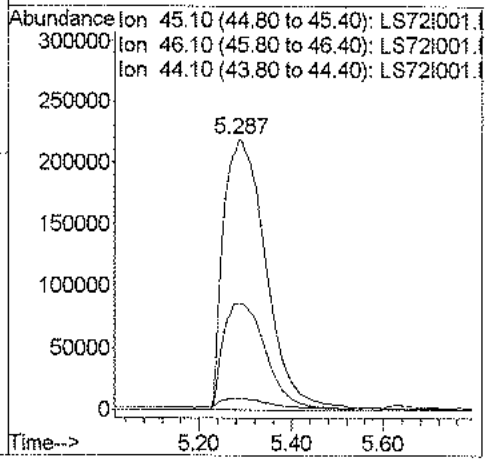


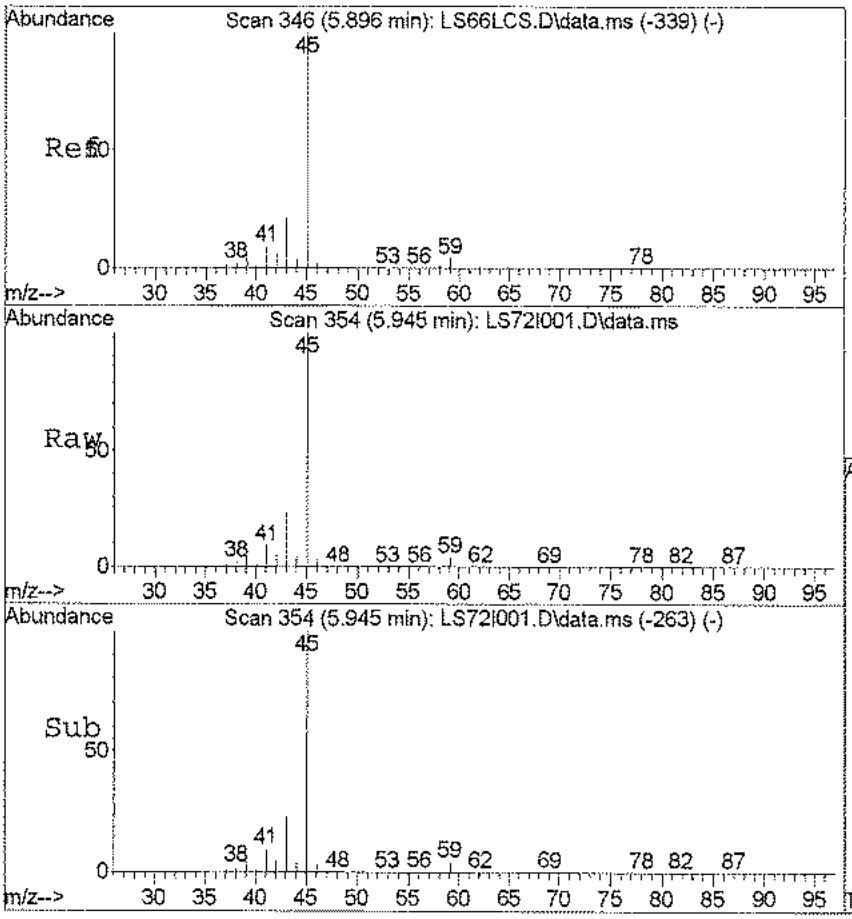


#13
Ethanol
Concen: 159.35 ppb
RT: 5.29 min Scan# 246
Delta R.T. 0.02 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:45.1 Resp: 1400759

Ion	Ratio	Lower	Upper
45	100		
46	39.6	32.4	48.6
44	3.4	23.4	35.2#
0	0.0	0.0	0.0

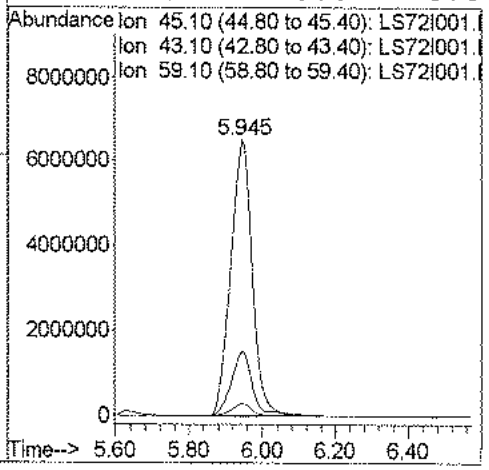


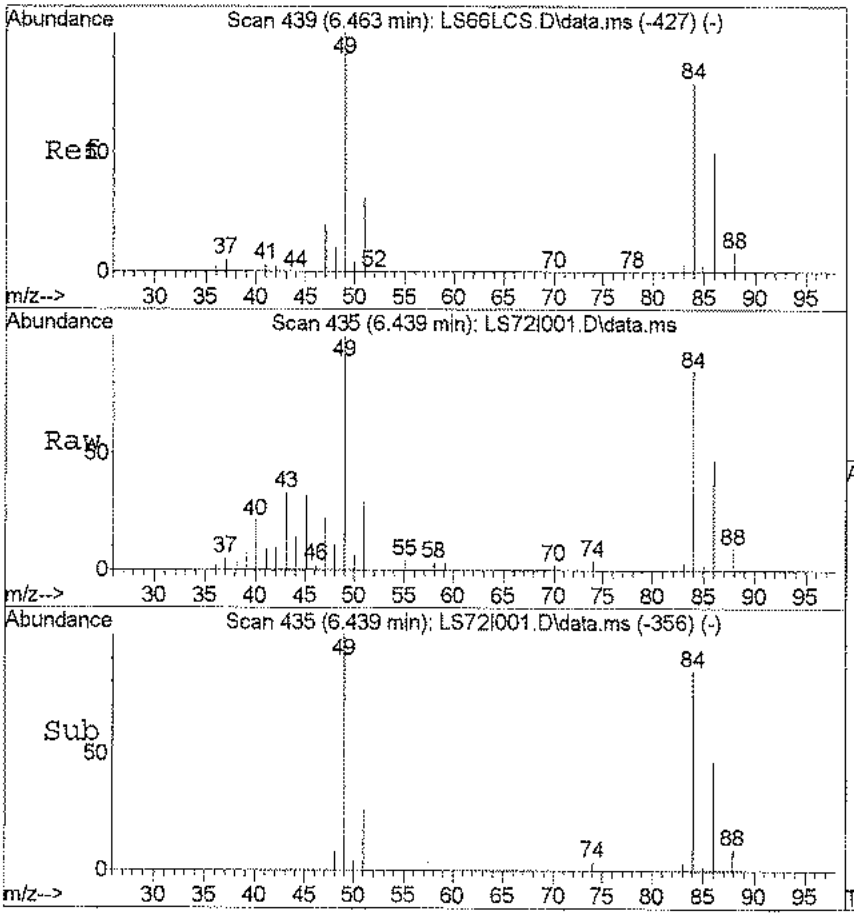


#14
Isopropyl Alcohol
Concen: 647.25 ppb
RT: 5.95 min Scan# 354
Delta R.T. 0.06 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:45.1 Resp:26300087

Ion	Ratio	Lower	Upper
45	100		
43	21.9	15.8	23.6
59	4.3	3.2	4.8
0	0.0	0.0	0.0

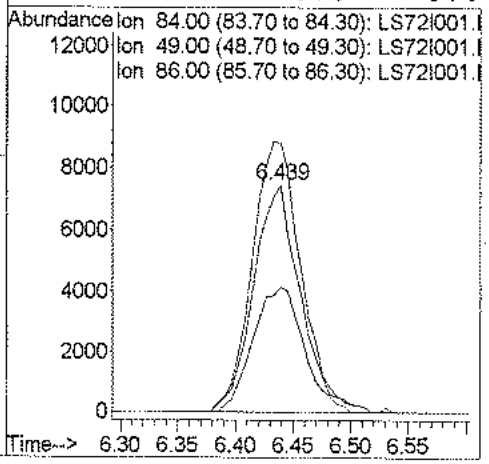


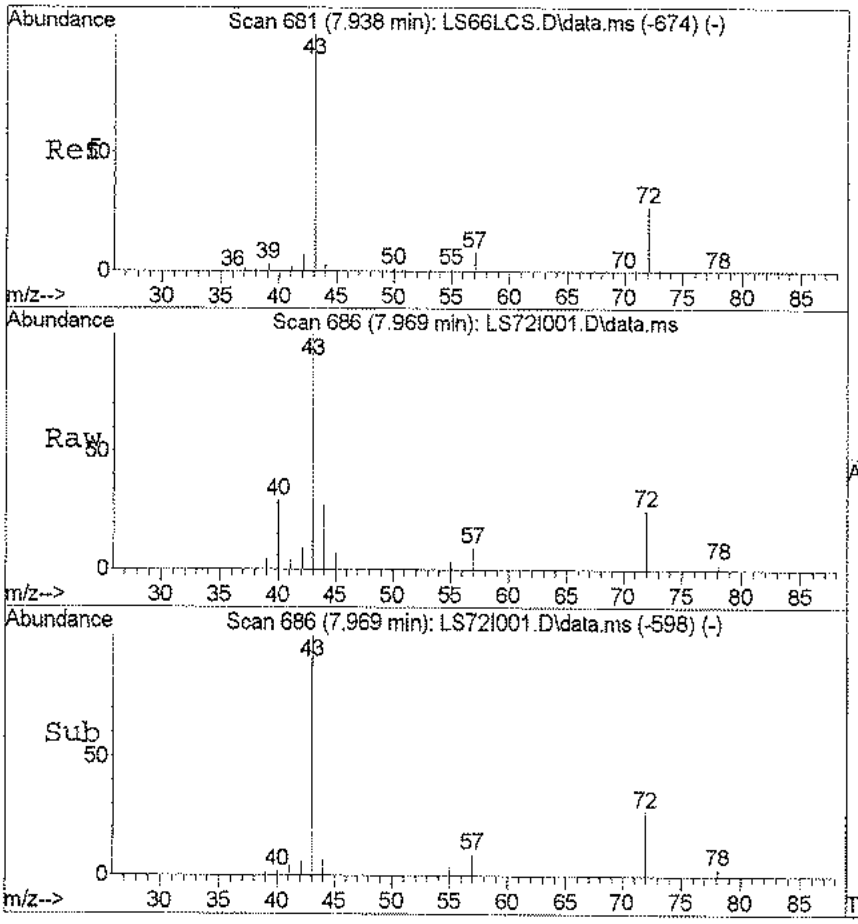


#16
Methylene Chloride
Concen: 0.84 ppb
RT: 6.44 min Scan# 435
Delta R.T. -0.02 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:84 Resp: 21351

Ion	Ratio	Lower	Upper
84	100		
49	124.3	66.6	100.0#
86	59.6	51.6	77.4
0	0.0	0.0	0.0

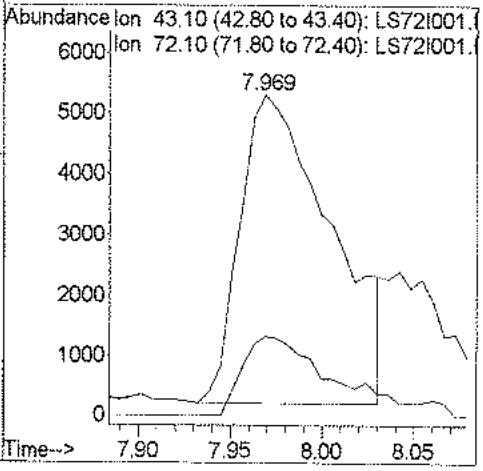


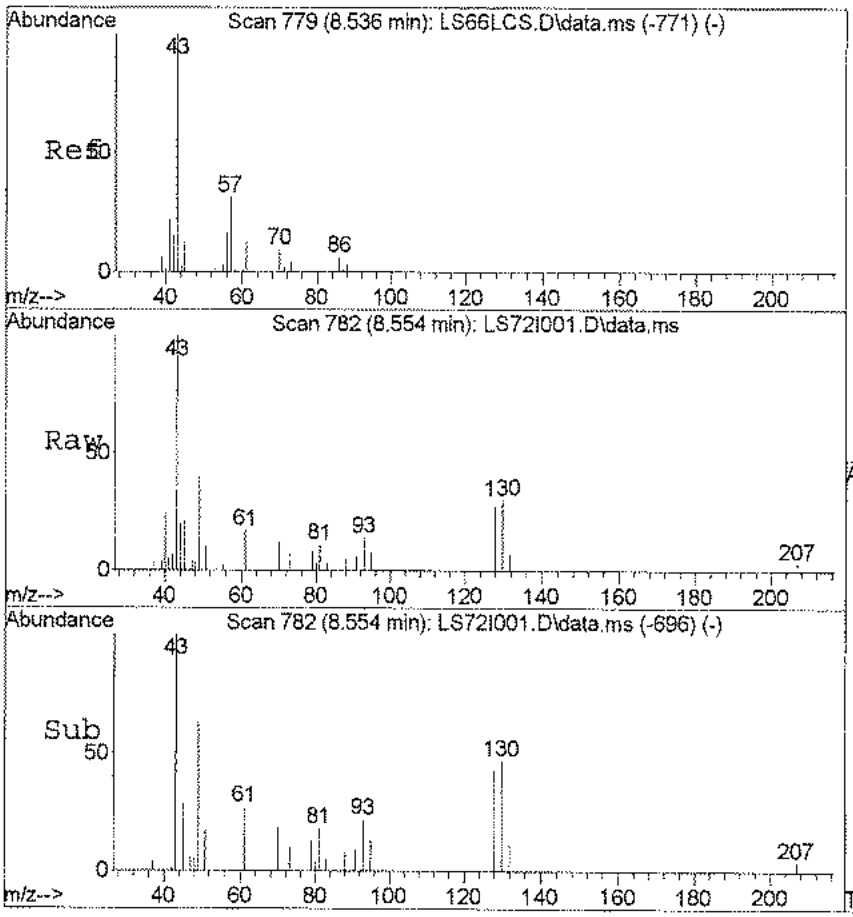


#23
2-Butanone
Concen: 0.39 ppb
RT: 7.97 min Scan# 686
Delta R.T. 0.04 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:43.1 Resp: 17613

Ion	Ratio	Lower	Upper
43	100		
72	25.5	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

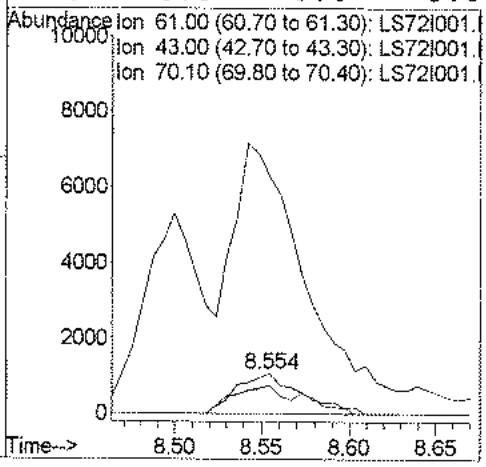


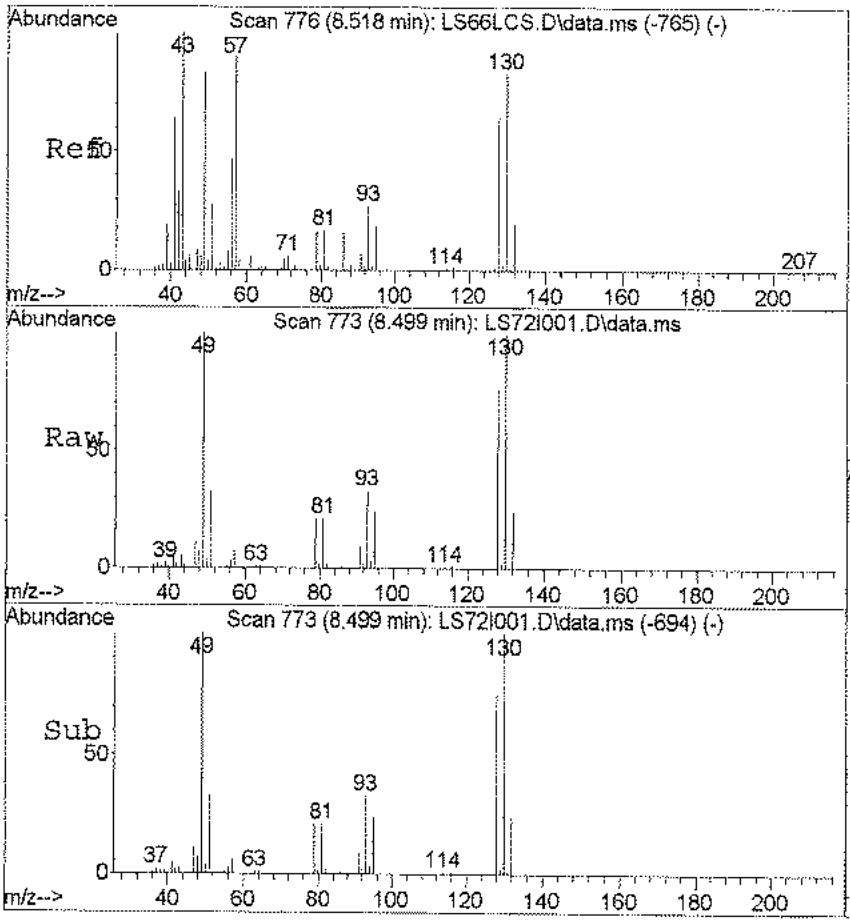


#26
Ethyl Acetate
Concen: 0.38 ppb
RT: 8.55 min Scan# 782
Delta R.T. 0.02 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:61 Resp: 2766

Ion	Ratio	Lower	Upper
61	100		
43	642.0	144.0	216.0#
70	54.2	13.6	20.4#
0	0.0	0.0	0.0

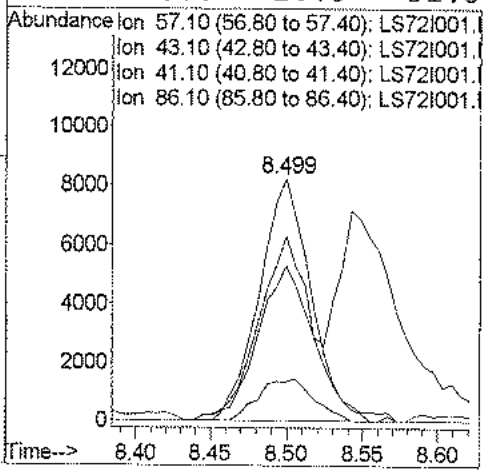


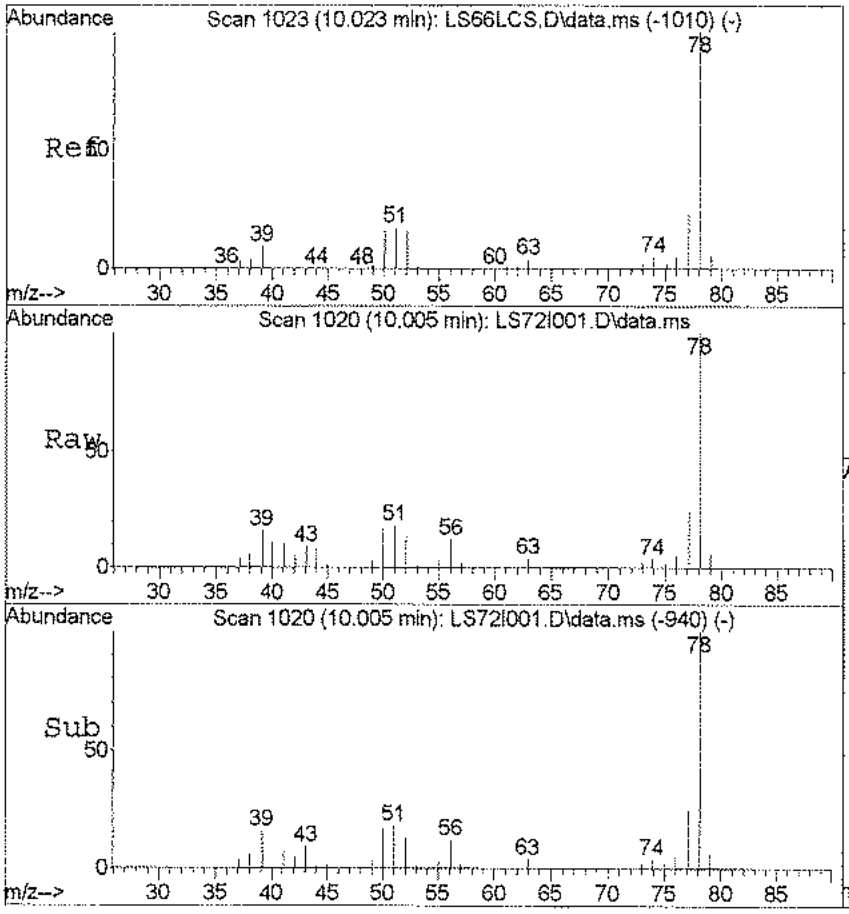


#27
Hexane
Concen: 0.53 ppb
RT: 8.50 min Scan# 773
Delta R.T. -0.02 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:57.1 Resp: 19269

Ion	Ratio	Lower	Upper
57	100		
43	66.6	57.3	85.9
41	81.1	47.0	70.4#
86	18.6	20.9	31.3#

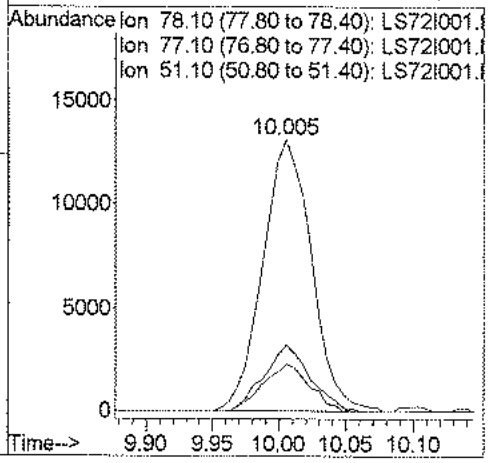


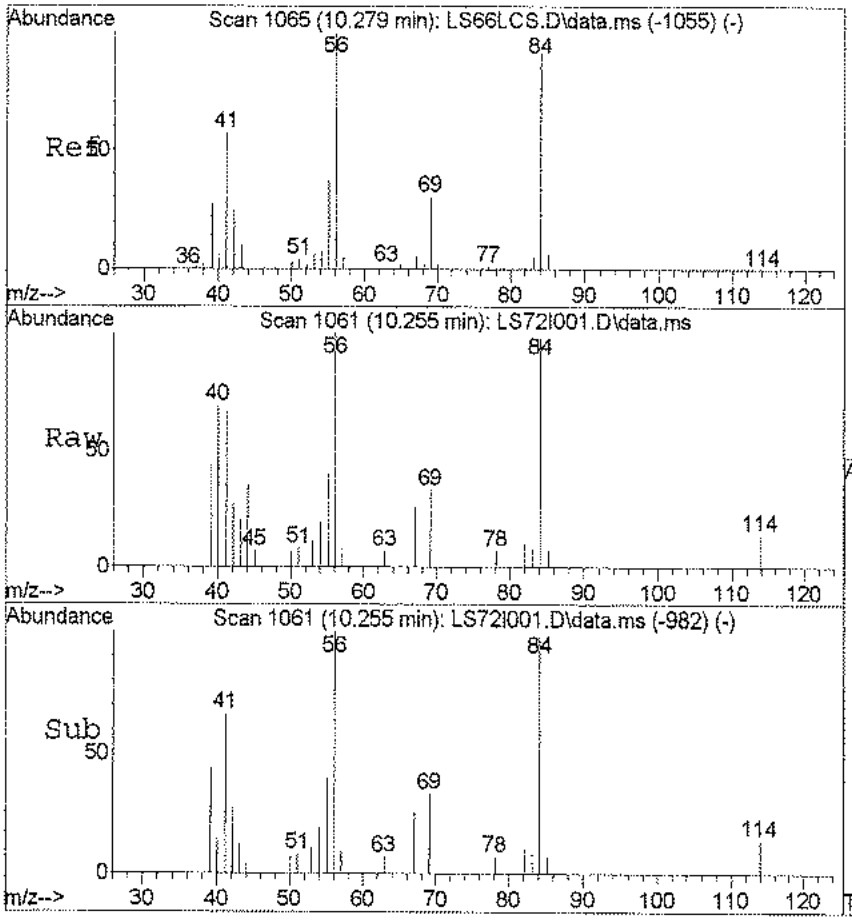


#32
Benzene
Concen: 0.43 ppb
RT: 10.01 min Scan# 1020
Delta R.T. -0.01 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:78.1 Resp: 33067

Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.2	27.4
51	17.0	9.5	14.3#
0	0.0	0.0	0.0

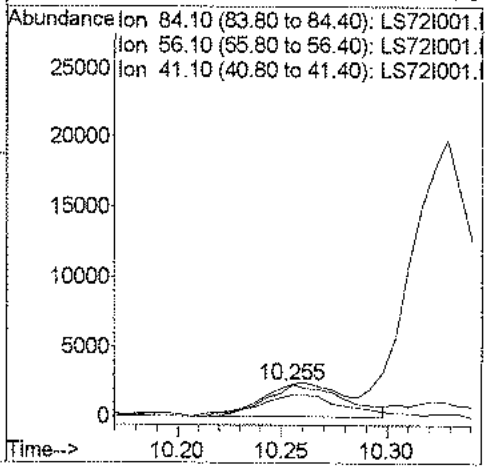


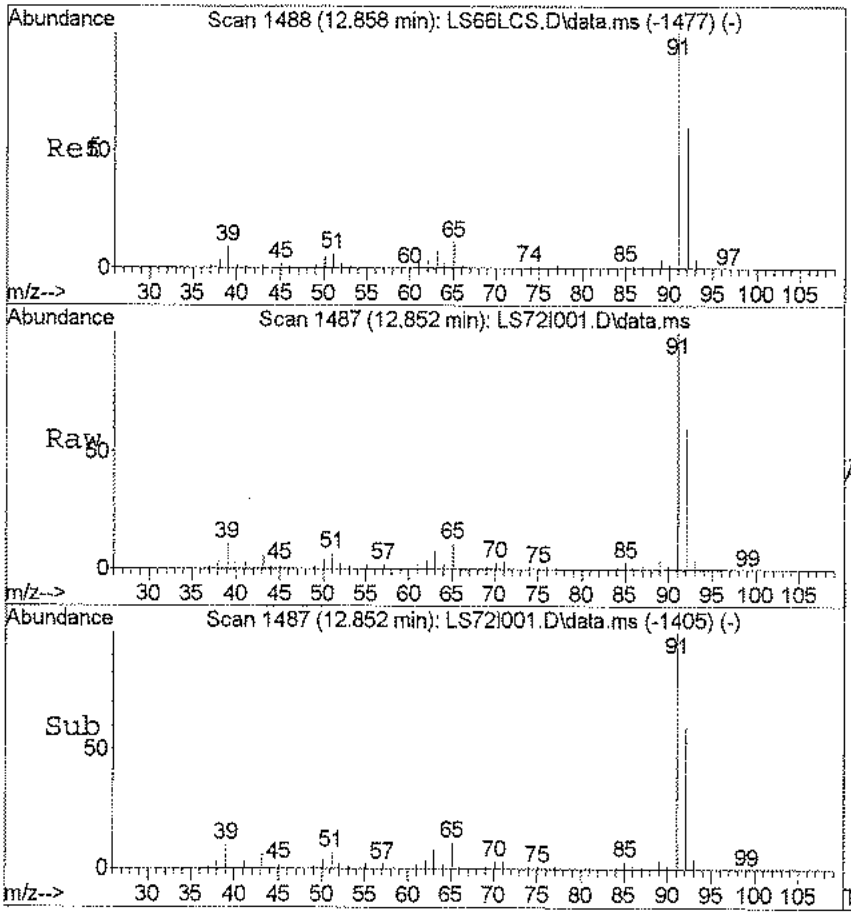


#34
Cyclohexane
Concen: 0.17 ppb
RT: 10.26 min Scan# 1061
Delta R.T. -0.02 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:84.1 Resp: 6037

Ion	Ratio	Lower	Upper
84	100		
56	106.7	67.3	100.9#
41	82.6	30.2	45.4#
0	0.0	0.0	0.0

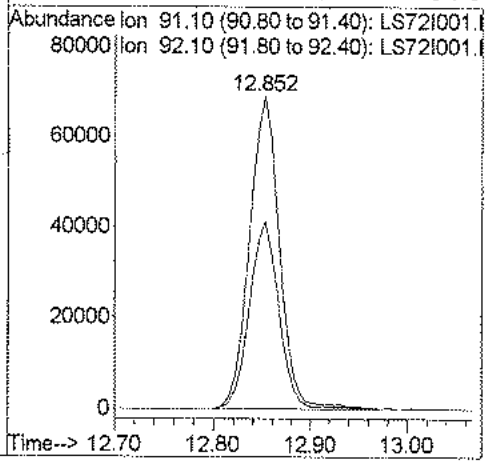


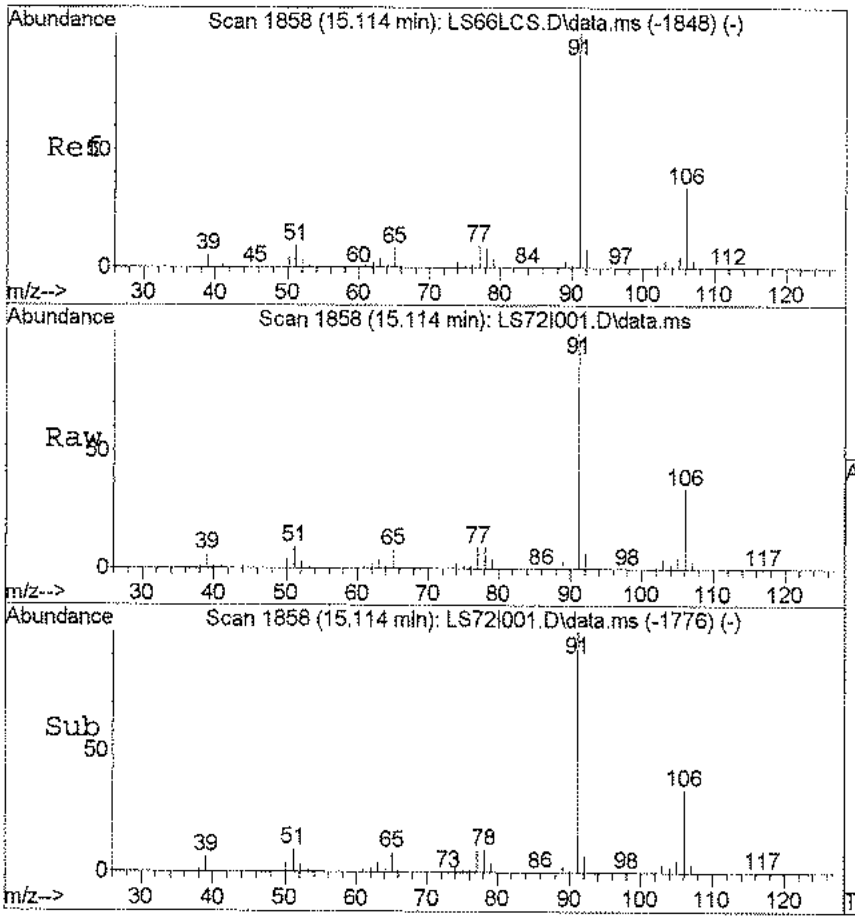


#45
Toluene
Concen: 1.71 ppb
RT: 12.85 min Scan# 1487
Delta R.T. 0.00 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:91.1 Resp: 147809

Ion	Ratio	Lower	Upper
91	100		
92	57.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

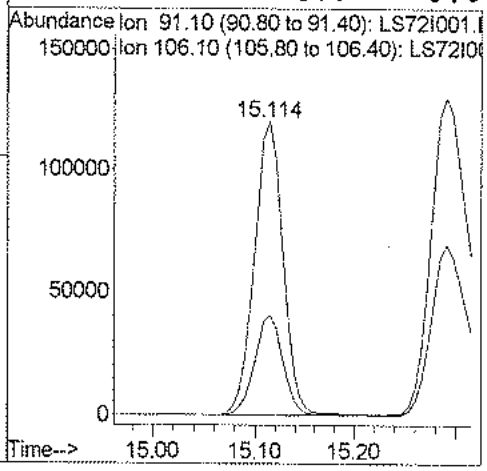


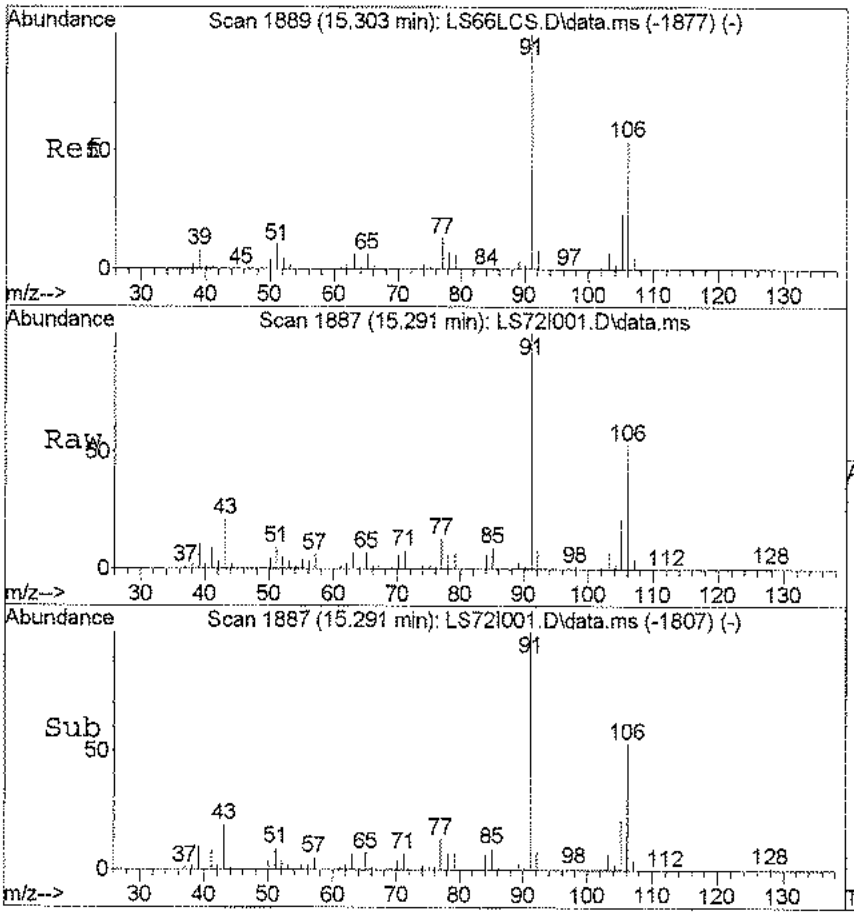


#52
Ethylbenzene
Concen: 2.09 ppb
RT: 15.11 min Scan# 1858
Delta R.T. 0.00 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:91.1 Resp: 238024

Ion	Ratio	Lower	Upper
91	100		
106	33.0	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

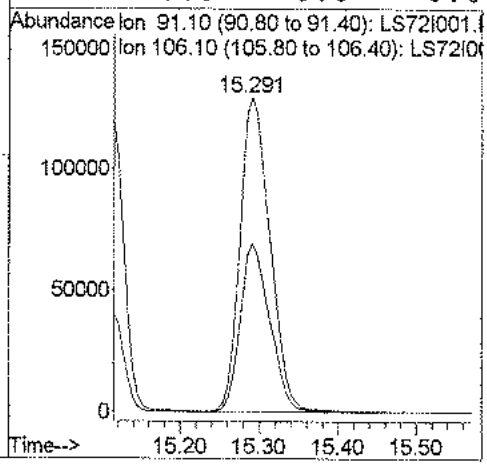


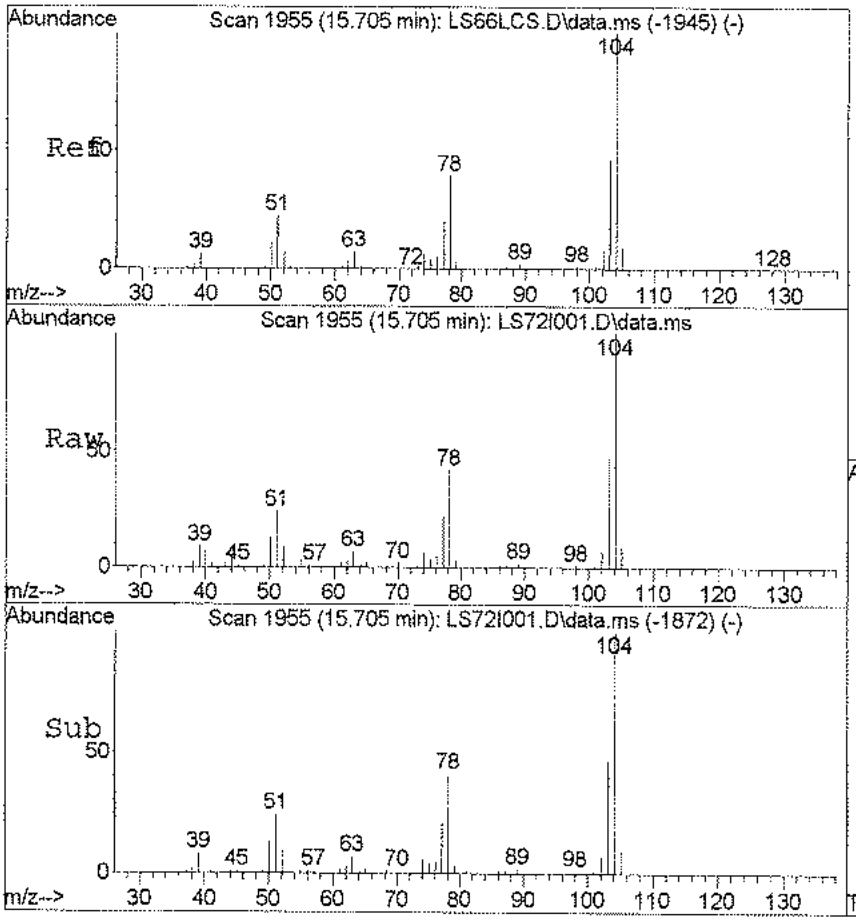


#53
m,p-Xylene
Concen: 3.76 ppb
RT: 15.29 min Scan# 1887
Delta R.T. -0.01 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:91.1 Resp: 337203

Ion	Ratio	Lower	Upper
91	100		
106	53.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

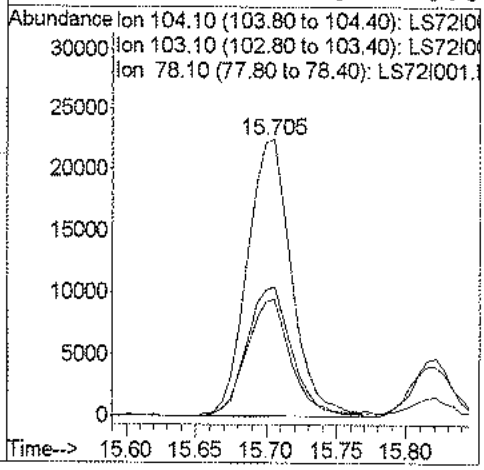


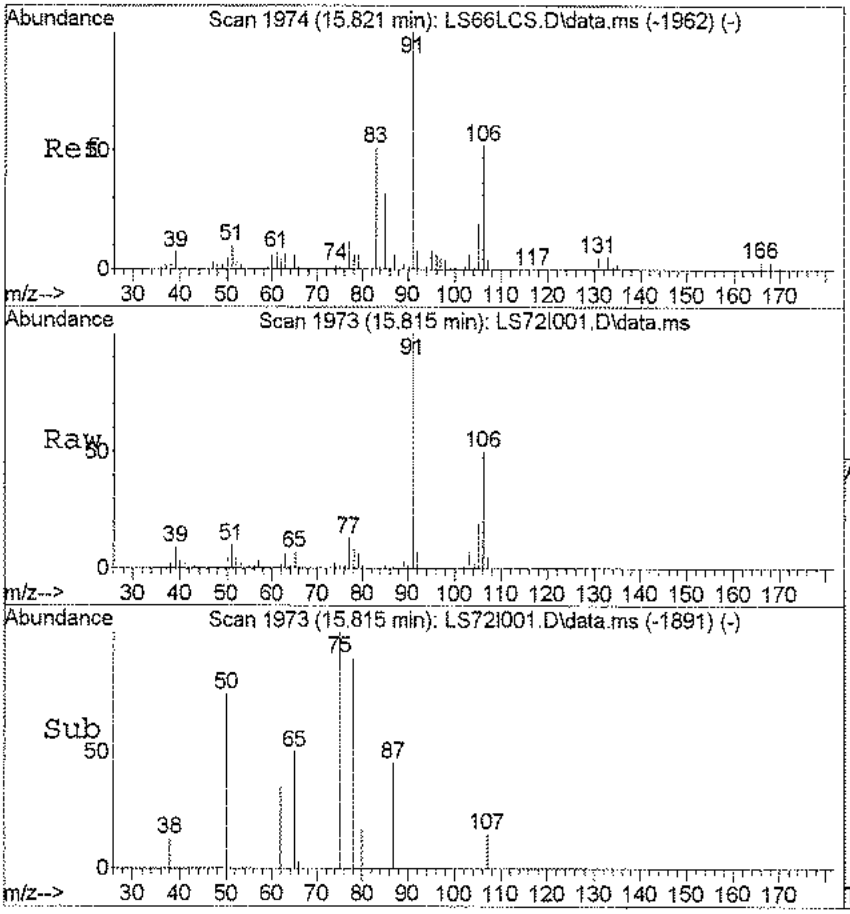


#55
Styrene
Concen: 0.81 ppb
RT: 15.71 min Scan# 1955
Delta R.T. 0.01 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:104.1 Resp: 49067

Ion	Ratio	Lower	Upper
104	100		
103	47.4	36.6	54.8
78	42.8	27.7	41.5#
0	0.0	0.0	0.0

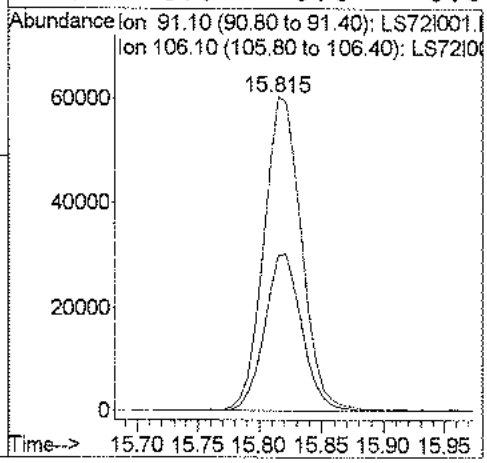


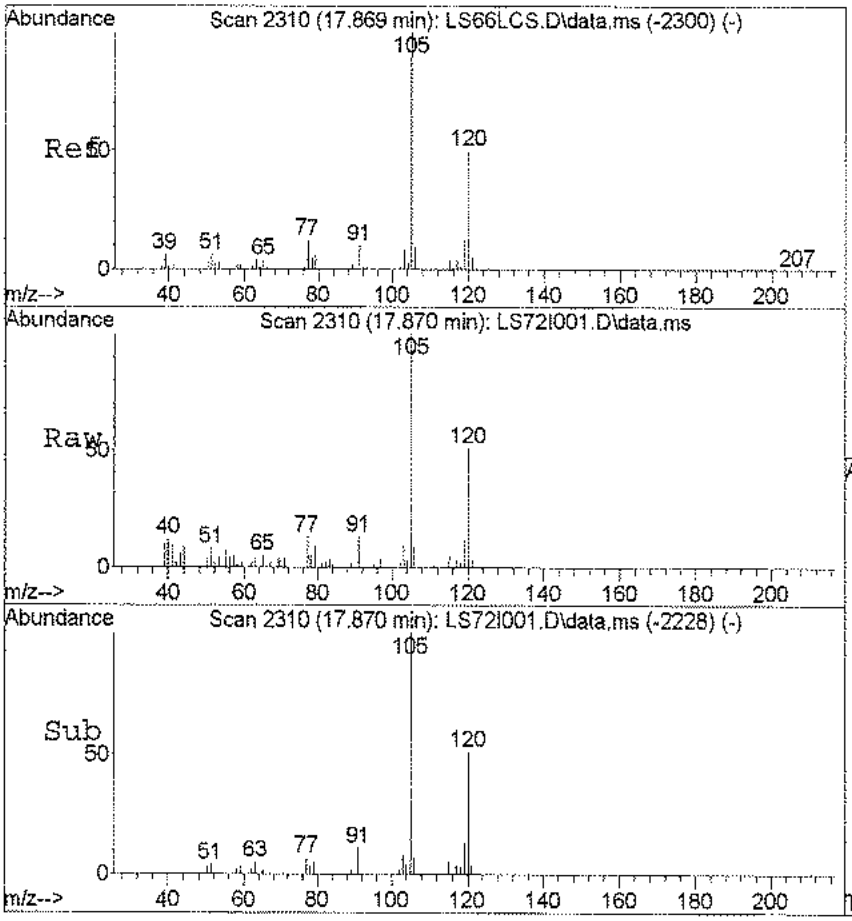


#57
o-Xylene
Concen: 1.37 ppb
RT: 15.82 min Scan# 1973
Delta R.T. 0.00 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:91.1 Resp: 127553

Ion	Ratio	Lower	Upper
91	100		
106	49.8	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

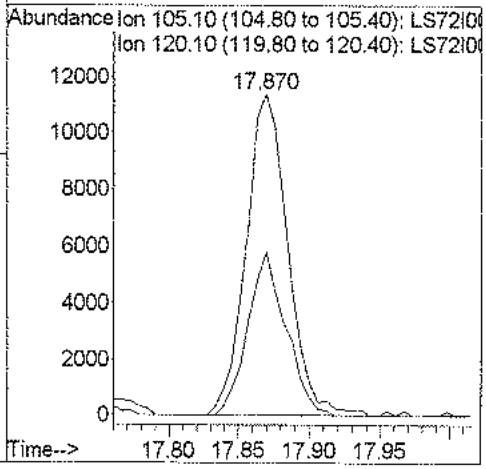


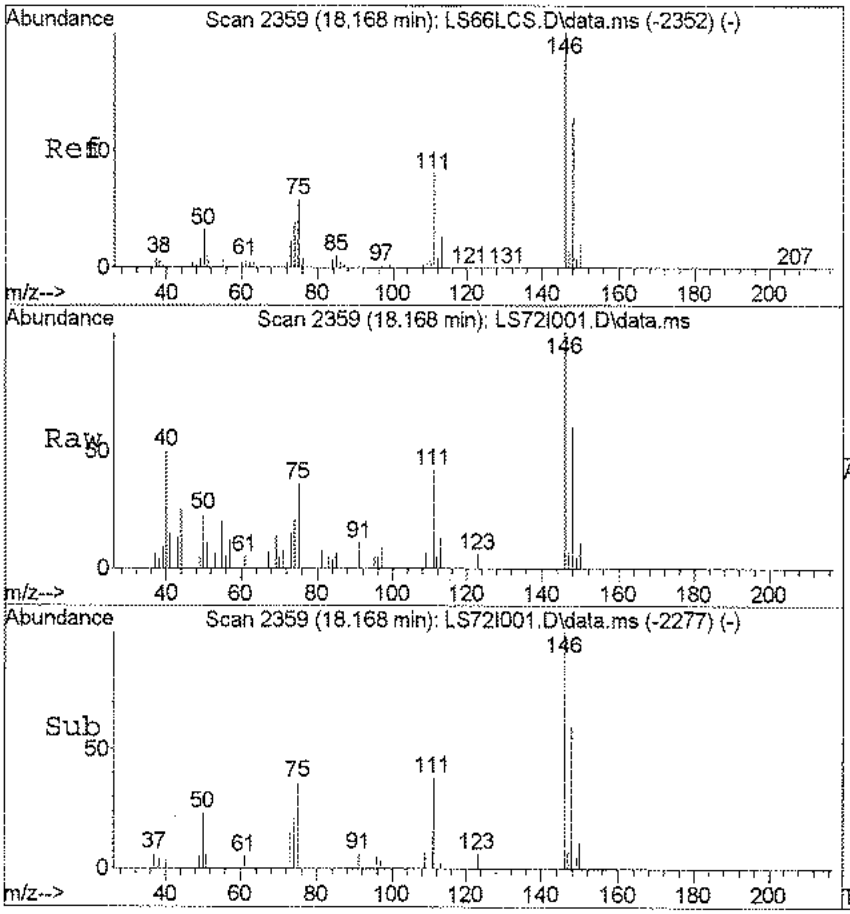


#61
1,2,4-Trimethylbenzene
Concen: 0.28 ppb
RT: 17.87 min Scan# 2310
Delta R.T. 0.00 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:105.1 Resp: 23207

Ion	Ratio	Lower	Upper
105	100		
120	46.9	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

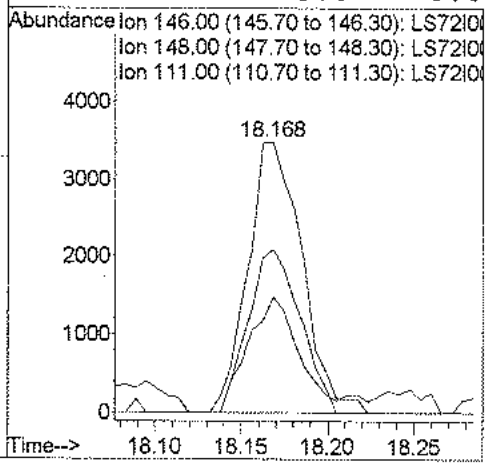


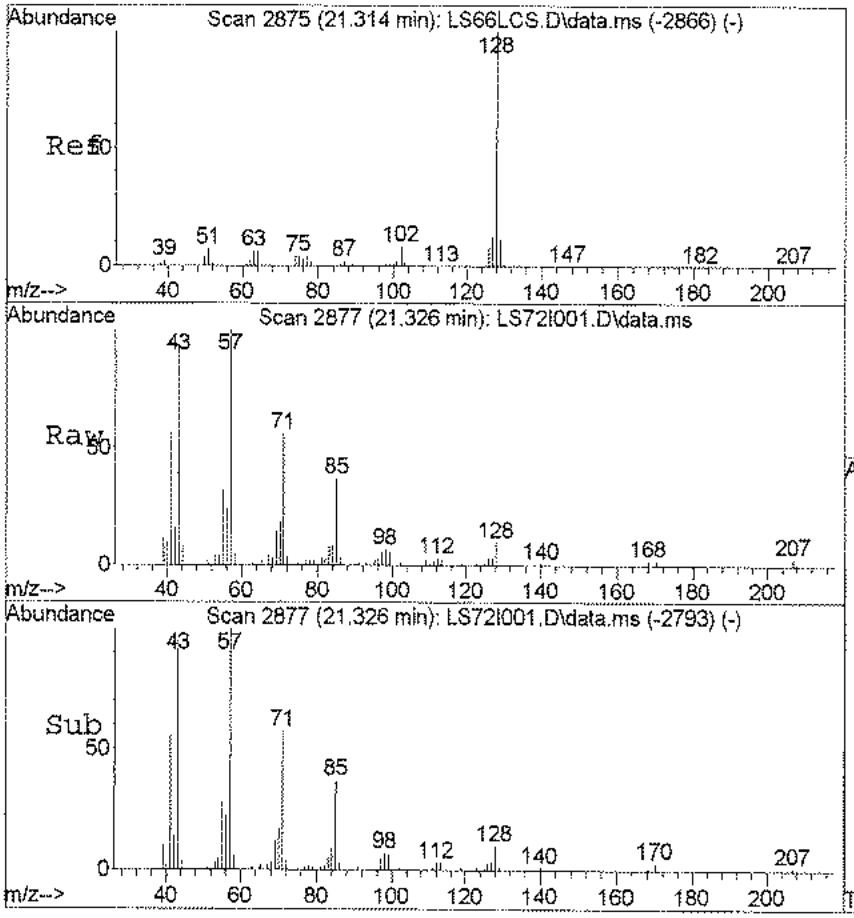


#64
p-Dichlorobenzene
Concen: 0.15 ppb
RT: 18.17 min Scan# 2359
Delta R.T. 0.00 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:146 Resp: 7536

Ion	Ratio	Lower	Upper
146	100		
148	57.8	51.7	77.5
111	40.4	24.6	36.8#
0	0.0	0.0	0.0

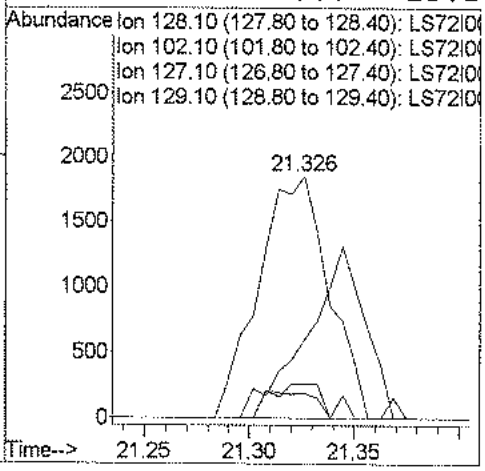




#67
Naphthalene
Concen: 0.16 ppb
RT: 21.33 min Scan# 2877
Delta R.T. 0.01 min
Lab File: LS72I001.D
Acq: 12/09/2015 17:08

Tgt Ion:128.1 Resp: 4278

Ion	Ratio	Lower	Upper
128	100		
102	0.0	6.7	10.1#
127	58.8	10.0	15.0#
129	11.2	8.8	13.2



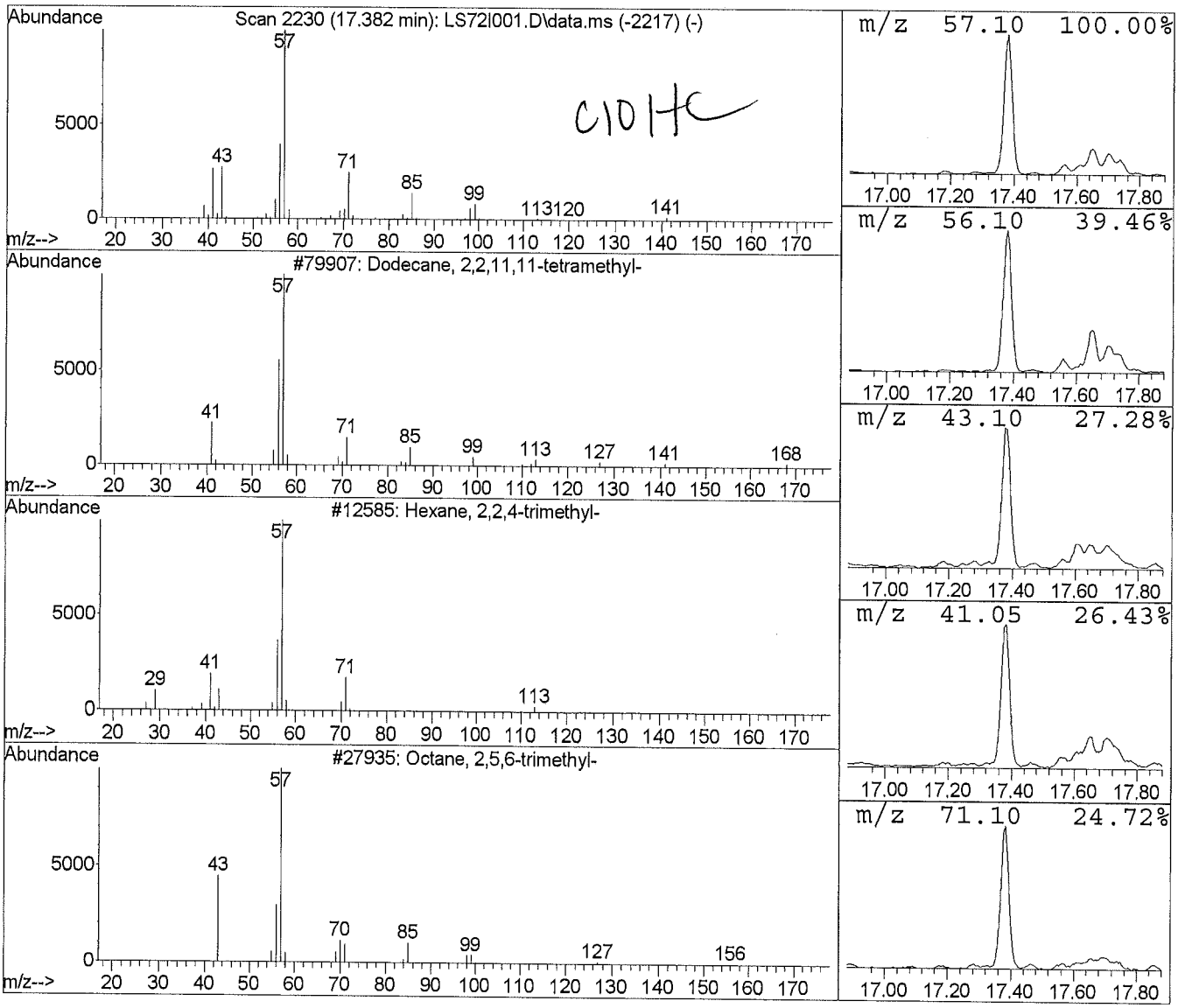
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
17.38	2.09 ppb	558754	Chlorobenzene d5	5349283

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane, 2,2,11,11-tetramethyl-	79907	127204-12-0	64.00
2	Hexane, 2,2,4-trimethyl-	12585	016747-26-5	59.00
3	Octane, 2,5,6-trimethyl-	27935	062016-14-2	59.00
4	Heptane, 2,2-dimethyl-	12569	001071-26-7	53.00
5	Heptane, 2,2,4,6,6-pentamethyl-	37514	013475-82-6	53.00



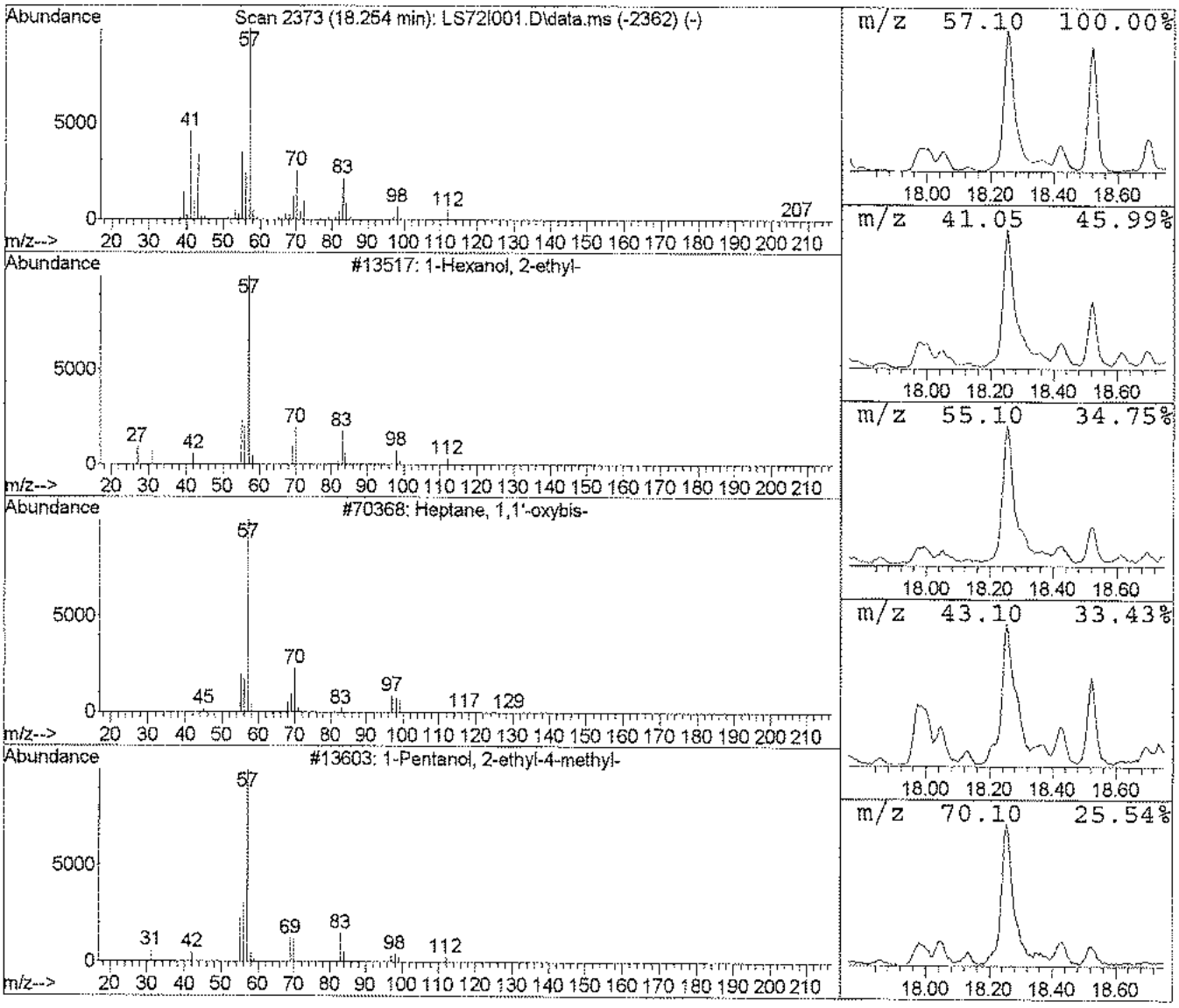
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.25	2.80 ppb	750059	Chlorobenzene d5	5349283

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Hexanol, 2-ethyl-	13517	000104-76-7	64.00
2	Heptane, 1,1'-oxybis-	70368	000629-64-1	50.00
3	1-Pentanol, 2-ethyl-4-methyl-	13603	000106-67-2	45.00
4	Bicyclo[3.1.0]hexan-2-ol	3186	1000194-18-6	43.00
5	2-Propyl-1-pentanol	13510	058175-57-8	40.00



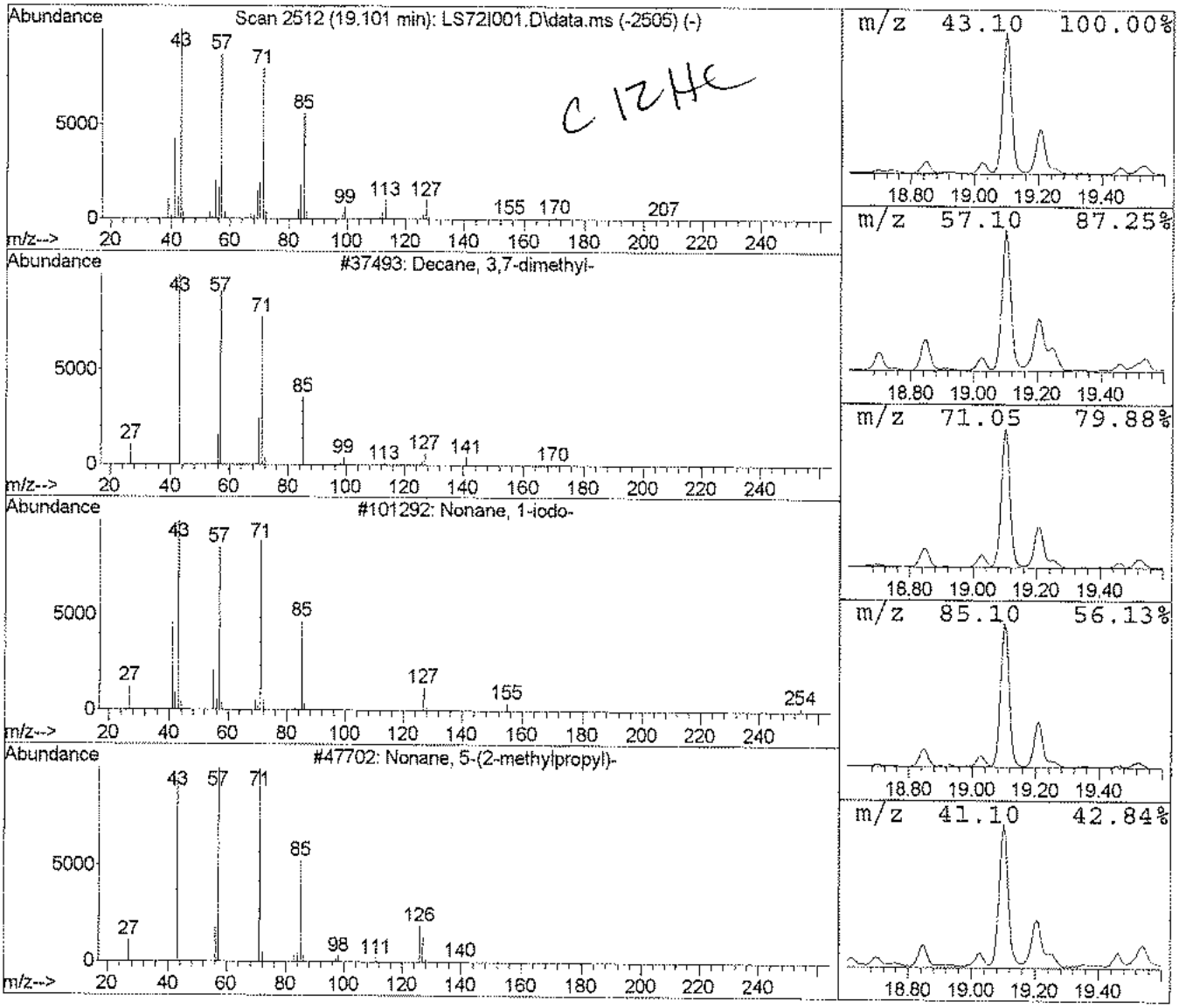
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.10	4.82 ppb	1287844	Chlorobenzene d5	5349283

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	~~Decane, 3,7-dimethyl-~~	37493	017312-54-8	81.00
2	Nonane, 1-iodo-	101292	004282-42-2	72.00
3	Nonane, 5-(2-methylpropyl)-	47702	062185-53-9	64.00
4	Oxalic acid, isohexyl neopentyl est	92987	1000309-73-0	59.00
5	Dodecane, 2,7,10-trimethyl-	68987	074645-98-0	59.00



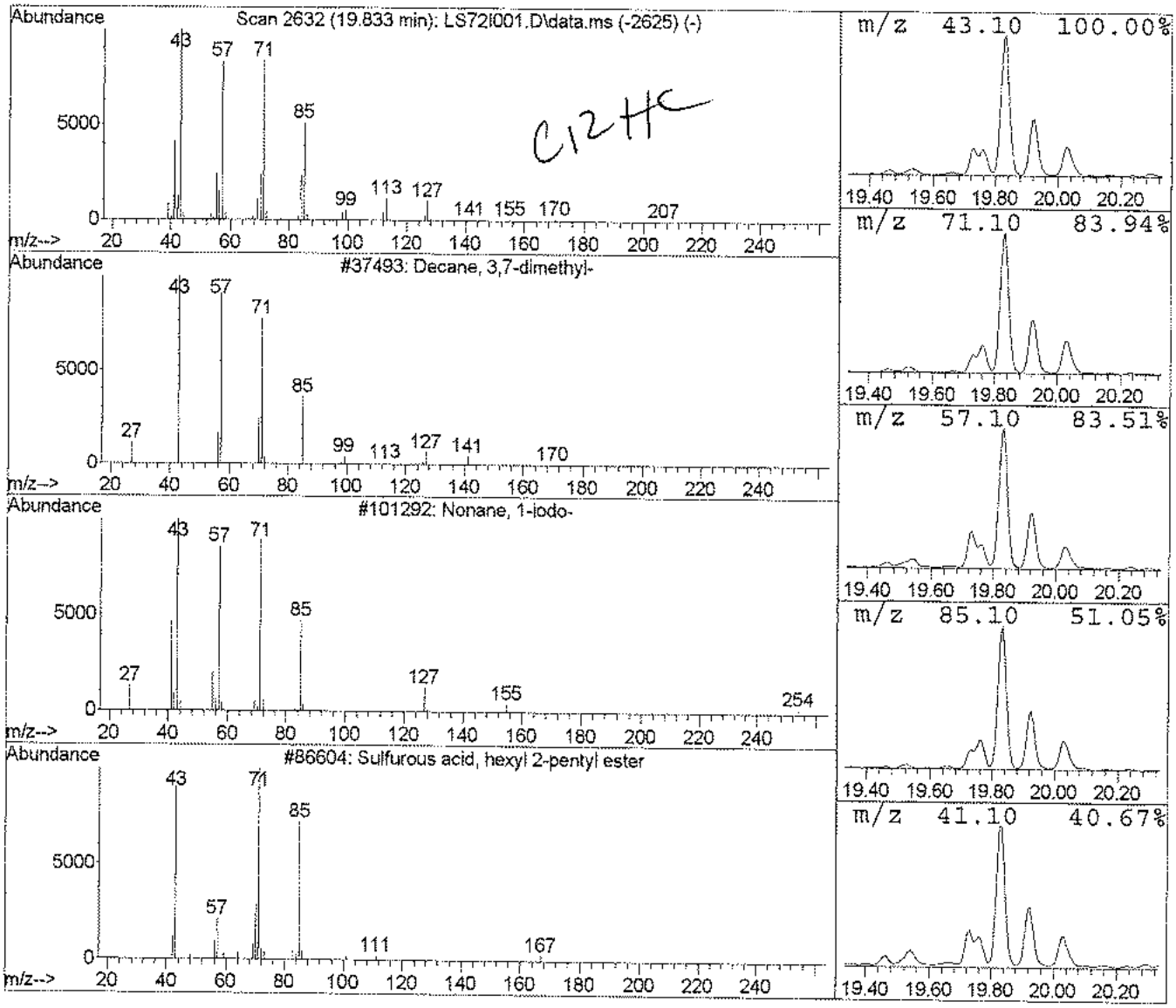
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.83	7.39 ppb	1977402	Chlorobenzene d5	5349283

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 3,7-dimethyl-	37493	017312-54-8	81.00
2	Nonane, 1-iodo-	101292	004282-42-2	58.00
3	Sulfurous acid, hexyl 2-pentyl este	86604	1000309-15-6	53.00
4	Dodecane, 2,7,10-trimethyl-	68987	074645-98-0	50.00
5	Decane, 4-ethyl-	37475	001636-44-8	49.00



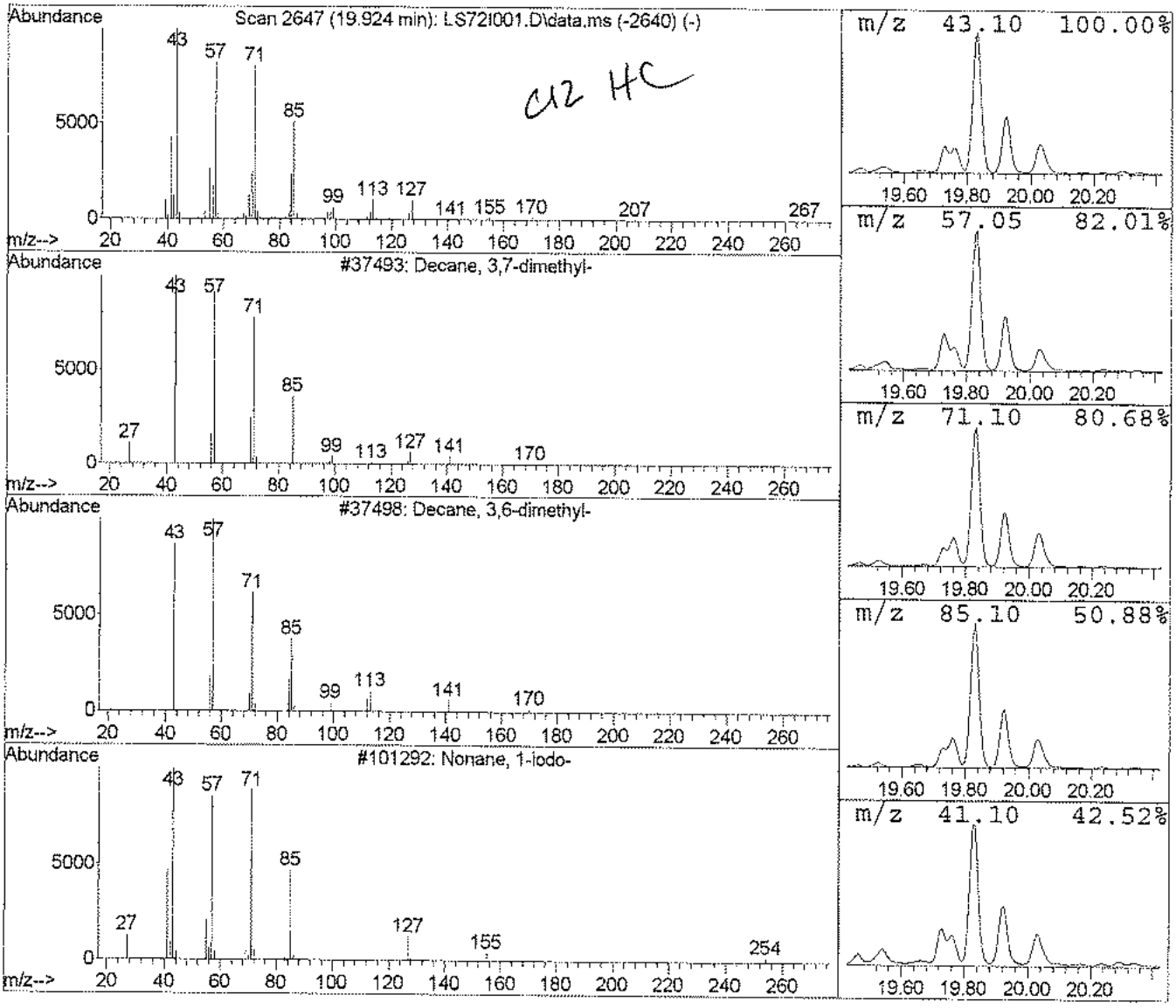
Library Search Compound Report

Data File : I:\L - 5975-L\2015\D...L\09DEC15L\LS72I001.D Vial: 4
Acq Time : 12/09/2015 17:08 Operator: TJM
Sample : 1534196001 Inst : 5975-L
Misc : VOC-1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LM15.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
19.92	3.13 ppb	838033	Chlorobenzene d5	5349283

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 3,7-dimethyl-	37493	017312-54-8	87.00
2	Decane, 3,6-dimethyl-	37498	017312-53-7	64.00
3	Nonane, 1-iodo-	101292	004282-42-2	53.00
4	Undecane, 5-methyl-	37486	001632-70-8	53.00
5	Oxalic acid, 2-ethylhexyl nonyl est	157244	1000309-39-2	52.00



Batch Worklist

Batch: IVOA/3102 Created: 12/18/2015 10:57 Instrument: 5975-L HBN: 161510

Rule: EPA TO-15 SIM, Air Analyst: L. Reid Status: WP

Workorder: 1534300

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	481809	MB for HBN 161510 [IVOA/3102]				MB	1		ETO15SIM1Q	5320		12/21/2015	12/10/2015
2	481810	LCS for HBN 161510 [IVOA/3102]				LCS	1		ETO15SIM1Q	5320		12/21/2015	12/10/2015
3	481811	LCSD for HBN 161510 [IVOA/3102				LCSD	1		ETO15SIM1Q	5320		12/21/2015	12/10/2015
4	1534300001	A-0003H-120415-TO-001-DIN				SAMPLE	1	1534300001-A	ETO15SIM.1	5012		12/21/2015	12/10/2015
5	1534300002	A-0003H-120415-TO-002-BAS				SAMPLE	1	1534300002-A	ETO15SIM.1	5012		12/21/2015	12/10/2015
6	1534300003	A-0003H-120415-TO-002-BAS-D				SAMPLE	1	1534300003-A	ETO15SIM.1	5012		12/21/2015	12/10/2015

Analyst Notebook

TO15
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is TO15LSIM.7(HBN 161510)

The following compounds in the CCS were outside of +-30%: NA

Sim Analysis

Dilutions: NA

Analyst Signature [signature] 12-18-15

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1534300 (SIM)**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 50 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene calibration is not required for SIM analysis.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 50 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{A_x}{A_{is}}\right]\left[\frac{C_{is}}{C_x}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

Lisa Reid — December 18, 2015

Date

[For lab use only] 1534300

ANALYTICAL REQUEST FORM

1. ☒ REGULAR Status 14 days

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____ DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 12/4/15 Purchase Order No. PN 665353.22.01.04 4. Quote No. 34-15422

3. Company Name CH2M ALS Project Manager Richard Wade

Address 4246 S. Riverboat Rd. Suite 210
Salt Lake City, UT 84123

Person to Contact David Waite

Telephone (385) 474-8560

Fax Telephone ( )

E-mail Address david.waite@ch2m.com

Billing Address (if different from above)
(Same)

5. Sample Collection

Sampling Site 700 South and 1600 East REPlume AOU-1

Industrial Process N/A

Date of Collection 12/3-12/4/15

Time Collected 1022 to

Date of Shipment 12/4/15

Chain of Custody No. 1

6. How did you first learn about ALS?
Worked there; used previously for this project /QAPP

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units** (76)	Lab Comments
~~A-000334-120315-TO-001-DUP~~	~~AIR~~	~~~5L~~	~~TO15~~ S/S 12/4/15	~~ppbv~~	
~~A-000334-120315-TO-001-BAS~~	~~AIR~~	~~~5L~~	~~TO15~~ S/S 12/4/15	~~"~~	
~~A-000334-120315-TO-001-BASD~~	~~AIR~~	~~~5L~~	~~TO15~~ S/S 12/4/15	~~ppbv~~	
A-000334-120415-TO-001-DUP	Air	~5L	TO-15 SIM* + 1,4 dioxane	ppbv	and µg/m³
A-000334-120415-TO-002-BAS	Air	"	TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³
A-000334-120415-TO-002-BASD	Air	~5L	TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % (5. µg/m³) (6. ppbv) (other) Please indicate one or more units in the column entitled Units**

Comments * Target analyte list for TO-15 SIM + 1,4-dioxane = PCE, TCE, cis-1,2-DCE, vc's and 1,4-dioxane. All other TO-15 compounds to be analyzed by TO-15 only.

Possible Contamination and/or Chemical Hazards None

7. Chain of Custody (Optional)

Relinquished by		Date/Time	
Received by		Date/Time	12-07-15 16:51
Relinquished by		Date/Time	
Received by		Date/Time	

All for TO-15 SIM + 1,4-dioxane

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method TO15 SIM	Screening Level[a]	Lowest Screening Level Value (µg/m³)[a]
1,1,1-Trichloroethane	71-55-6	TO-15 SIM	EPA RSL	520
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1
4-Ethyltoluene	622-96-8	TO-15	--	--
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310
Acetone	67-64-1	TO-15	EPA RSL	3,200
Benzene	71-43-2	TO-15	EPA RSL	0.31
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066
Bromoform	75-25-2	TO-15	EPA RSL	2.2
Bromomethane	74-83-9	TO-15	EPA RSL	0.52
Carbon disulfide	75-15-0	TO-15	EPA RSL	73
Carbon tetrachloride	56-23-5	TO-15	EPA RSL	0.41
Chlorobenzene	108-90-7	TO-15	EPA RSL	5.2
Chloroethane	75-00-3	TO-15	EPA RSL	1,000
Chloroform	67-66-3	TO-15	EPA RSL	0.11
Chloromethane	74-87-3	TO-15	EPA RSL	9.4
cis-1,2-Dichloroethene	156-59-2	TO-15 SIM	EPA RSL	6.3
cis-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Cyclohexane	110-82-7	TO-15	EPA RSL	630
~~Dibromochloromethane~~	~~124-48-1~~	~~TO-15~~	~~EPA RSL~~	~~0.09~~
~~Dichlorodifluoromethane (Freon 12)~~	~~75-71-8~~	~~TO-15~~	~~EPA RSL~~	~~10~~
Ethyl Acetate	141-78-6	TO-15	EPA RSL	7.3
Ethylbenzene	100-41-4	TO-15	EPA RSL	0.97
n-Heptane	142-82-5	TO-15	--	--
n-Hexane	110-54-3	TO-15	EPA RSL	73
m,p-Xylene	108-38-3 and 106-42-3	TO-15	EPA RSL	10
Methylene Chloride	75-09-2	TO-15 SIM	EPA RSL	63

Air - Chain of Custody Record & Analytical Service Request

~~2655 Park Center Drive, Suite A~~ SJS
~~Simi Valley, California 93065~~
~~Phone (805) 526-7161~~ SJS
~~Fax (805) 526-7270~~ SJS
(801-266-7700 local)

ALS Laboratory Group 960 W. LeVoy Drive SLC, UT 84123 800-356-9135

Requested Turnaround Time in Business Days (Surcharges) please circle SJS
~~1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day Standard~~ 14 day Std.

ALS Project No

Company Name & Address (Reporting Information)	CH2M 4246 S. Riverboat Road, Suite 210 Taylorsville UT 84123
Project Name	700 SOUTH AND 1600 EAST PCE Plume AOU-1
Project Number	665353. ZZ. 01. 04
Project Manager	David Waite
P.O. # / Billing Information	
Phone	385-474-8560
Fax	
Email Address for Result Reporting	mark.cichy@ch2m.com / david.waite@ch2m.com
Sampler (Print & Sign)	Shirley Steinmacher

ALS Contact: Richard Wade

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	COPCs + PCE, TCE (4-8-1, 2-DCE, MC, BC, 1,4-D, 2-B, 1,2-DCB, MC, 1,4-D, 2-B) SJS	TO-15 SIM + six	TO-15 Full-scale except COPCs SJS	Comments e.g. Actual Preservative or specific instructions
A-0003H-120415-TO-001-DIN		12/3-12/4/15	1022-1001	0196	0153	-25.56	-0.25	~5L		X	X	Cleaned Canisters 11-2375
A-0003H-120415-TO-002-BAS			1050-1011	0365	0451	-25.00	-0.05	~5L		X	X	Cleaned Flow Controllers
A-0003H-120415-TO-002-BAS-D		12/3-12/4/15	1050-1011	0221	0195	-24.51	-0.12	~5L		X	X	12-01-15. All Individually certified
											SJS	

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____ Tier III (Results + QC & Calibration Summaries) _____
Tier II (Results + QC Summaries _____ (Tier IV) (Data Validation Package) ~~10% Surcharge~~ SJS X

EDD required (YES) No
Type: Lapspec 7 Units: ppbv + µg/m³

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)
Level IV data package, QAPP Table 7, ALS DIS limits.

Relinquished by: (Signature) (ALS Analyst Lisa Reid)	Date: 12-1-15	Time: 1600	Received by: (Signature) Shirley Steinmacher	Date: 12/2/15	Time: 1650
Relinquished by: (Signature) Shirley Steinmacher / CH2M/SLC	Date: 12-7-15	Time: 1655	Received by: (Signature)	Date: 12-07-15	Time: 16:51

Cooler / Blank N/A
Temperature _____ °C

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]
1,1,1-Trichloroethane	71-55-6	TO-15	EPA RSL	520
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1
4-Ethyltoluene	622-96-8	TO-15	--	--
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310
Acetone	67-64-1	TO-15	EPA RSL	3,200
Benzene	71-43-2	TO-15	EPA RSL	0.31
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066
Bromoform	75-25-2	TO-15	EPA RSL	2.2
Bromomethane	74-83-9	TO-15	EPA RSL	0.52
Carbon disulfide	75-15-0	TO-15	EPA RSL	73
Carbon tetrachloride	56-23-5	TO-15	EPA RSL	0.41
Chlorobenzene	108-90-7	TO-15	EPA RSL	5.2
Chloroethane	75-00-3	TO-15	EPA RSL	1,000
Chloroform	67-66-3	TO-15	EPA RSL	0.11
Chloromethane	74-87-3	TO-15	EPA RSL	9.4
cis-1,2-Dichloroethene	156-59-2	TO-15 SIM	EPA RSL	6.3
cis-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Cyclohexane	110-82-7	TO-15	EPA RSL	630
Dibromochloromethane	124-48-1	TO-15	EPA RSL	0.09
Dichlorodifluoromethane (Freon 12)	75-71-8	TO-15	EPA RSL	10
Ethyl Acetate	141-78-6	TO-15	EPA RSL	7.3
Ethylbenzene	100-41-4	TO-15	EPA RSL	0.97
n-Heptane	142-82-5	TO-15	--	--
n-Hexane	110-54-3	TO-15	EPA RSL	73
m,p-Xylene	108-38-3 and 106-42-3	TO-15	EPA RSL	10
Methylene Chloride	75-09-2	TO-15	EPA RSL	63

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]
Methyl tert-butyl ether	1634-04-4	TO-15	EPA RSL	9.4
o-Xylene	95-47-6	TO-15	EPA RSL	10
Styrene	100-42-5	TO-15	EPA RSL	100
Tetrachloroethene (PCE)	127-18-4	TO-15 SIM	EPA RSL	4.2
Tetrahydrofuran	109-99-9	TO-15	EPA RSL	210
Toluene	108-88-3	TO-15	EPA RSL	520
trans-1,2-Dichloroethene	156-60-5	TO-15	EPA RSL	6.3
trans-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Trichloroethene	79-01-6	TO-15 SIM	EPA RSL	0.21
Trichlorofluoromethane (Freon 11)	75-69-4	TO-15	EPA RSL	73
Vinyl Acetate	108-05-4	TO-15	EPA RSL	21
Vinyl Chloride	75-01-4	TO-15 SIM	EPA RSL	0.16

[a] RSLs for residential exposure. RSLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[b] Residential VISLs using an attenuation factor (AF) of 0.1. VISLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[c] RLs are from ALS Global – Salt Lake City
Notes:
µg/m³ = micrograms per cubic meter.
RL= Reporting limit.

154501 1 $2

1534300

ANALYTICAL REQUEST FORM

1534300

1. ☒ REGULAR Status 14-days

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 12/4/15 Purchase Order No. PN 605353.77.01404 4. Quote No. 34-15422

3. Company Name CH2M ALS Project Manager Richard Wade

Address 4246 S. Riverboat Rd. Suite 210
~~Salt~~ Taylorsville, UT 84123

5. Sample Collection

Person to Contact David Waite
Sampling Site 700 South and 1600 East RE Plume AOU-1

Telephone (385) 474-8560
Industrial Process N/A

Fax Telephone ( )
Date of Collection 12/3-12/4/15

E-mail Address david.waite@ch2m.com
Time Collected 1022 to

Billing Address (if different from above)
(Same)
Date of Shipment 12/4/15

Chain of Custody No. 1

6. How did you first learn about ALS?
Worked there; used previously for this project / QAPP

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units** (6)	Lab Comments
~~A-000SH-120515-DIN~~	~~AIR~~	~~~5L~~	~~TO15~~ s/s 12/4/15	~~ppbv~~	
~~A-000SH-120515-BAS~~	~~AIR~~	~~~5L~~	~~TO15~~ s/s 12/4/15	~~ppbv~~	
~~A-000SH-120515-BASD~~	~~AIR~~	~~~5L~~	~~TO15~~ s/s 12/4/15	~~ppbv~~	
A-000SH-120415-TO-001-DIN	Air	~5L	~~TO15 SCAN~~ TO-15 SIM* + 1,4 dioxane	ppbv	and µg/m³ 0996
A-000SH-120415-TO-002-BAS	Air	↓	~~TO15 SCAN~~ TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³ 0365
A-000SH-120415-TO-002-BASD	Air	~5L	~~TO15 SCAN~~ TO-15 SIM* + 1,4-dioxane	ppbv	and µg/m³ 0371

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % (5. µg/m³) (6. ppbv) (other) Please indicate one or more units in the column entitled Units**

Comments * Target analyte list for TO-15 SIM + 1,4-dioxane = PCE, TCE, cis-1,2-DCE, VC's and 1,4-dioxane. All other TO-15 compounds to be analyzed by TO-15 v.s

Possible Contamination and/or Chemical Hazards None

7. Chain of Custody (Optional)

Relinquished by		Date/Time	
Received by		Date/Time	12-07-15 16:51
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

All for TO-15 SIM + 1,4-dioxane

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air ~~and Soil Gas~~
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

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1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1
4-Ethyltoluene	622-96-8	TO-15	--	--
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310
Acetone	67-64-1	TO-15	EPA RSL	3,200
Benzene	71-43-2	TO-15	EPA RSL	0.31
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066
Bromoform	75-25-2	TO-15	EPA RSL	2.2
Bromomethane	74-83-9	TO-15	EPA RSL	0.52
Carbon disulfide	75-15-0	TO-15	EPA RSL	73
Carbon tetrachloride	56-23-5	TO-15	EPA RSL	0.41
Chlorobenzene	108-90-7	TO-15	EPA RSL	5.2
Chloroethane	75-00-3	TO-15	EPA RSL	1,000
Chloroform	67-66-3	TO-15	EPA RSL	0.11
Chloromethane	74-87-3	TO-15	EPA RSL	9.4
cis-1,2-Dichloroethene	156-59-2	TO-15 SIM	EPA RSL	6.3
cis-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61
Cyclohexane	110-82-7	TO-15	EPA RSL	630
Dibromochloromethane	124-48-1	TO-15	EPA RSL	0.09
Dichlorodifluoromethane (Freon 12)	75-71-8	TO-15	EPA RSL	10
Ethyl Acetate	141-78-6	TO-15	EPA RSL	7.3
Ethylbenzene	100-41-4	TO-15	EPA RSL	0.97
n-Heptane	142-82-5	TO-15	--	--
n-Hexane	110-54-3	TO-15	EPA RSL	73
m,p-Xylene	108-38-3 and 106-42-3	TO-15	EPA RSL	10
Methylene Chloride	75-09-2	TO-15 SIM	EPA RSL	63

Air - Chain of Custody Record & Analytical Service Request

COC#1 of 2

Page 1 of 1

~~2655 Park Center Drive, Suite A~~
~~Simi Valley, California 93065~~ 915
~~Phone (805) 526-7161~~ 915
~~Fax (805) 526-7270~~ 915
(801-266-7700 local)

ALS Laboratory Group 960 W. LeVoy Drive SLC, UT 84123 800-356-9135

Requested Turnaround Time in Business Days (Surcharges) please circle 915
~~1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day Standard~~ 14 day Std.

ALS Project No

Company Name & Address (Reporting Information)	CH2M 4246 S. Riverboat Road, Suite 210 Taylorsville UT 84123
Project Manager	David Waite
Phone	385-474-8560
Fax	
Email Address for Result Reporting	mark.cichy@ch2m.com / david.waite@ch2m.com
Project Name	700 SOUTH AND 1600 EAST PCE Plume AOU-1
Project Number	665353.ZZ.01.04
P.O. # / Billing Information	
Sampler (Print & Sign)	Shirley Steinmacher

ALS Contact: Richard Wade

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	6 pt 4-PCE, MC, 1,4-dioxane	TO-15 SIM + cVOCs, PCE, TCE	TO-15 Full suite except cVOCs 915	Comments e.g. Actual Preservative or specific instructions
A-0003H-120415-TO-001-DIN		12/3-12/4/15	1022-1001	0196	0153	-25.56	-0.25	~5L	X		X	Cleaned Canisters 11-23-15
A-0003H-120415-TO-002-BAS		"	1050-1011	0365	0451	-25.00	-0.05	~5L	X		X	Cleaned Flow Controllers
A-0003H-120415-TO-002-BAS-D		12/3-12/4/15	1050-1011	0221	0195	-24.51	-0.12	~5L	X		X	12-01-15. All Individually certified
											N/S	
					915							

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____
Tier II (Results + QC Summaries) _____
Tier III (Results + QC & Calibration Summaries) _____
(Tier IV) (Data Validation Package) ~~10% Surcharge~~ 915 X

EDD required (YES) No
Type: LaPSpec 7 Units: ppbv + µg/m³

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)
Level IV data package, QAPP Table 7, ALS TO15 compounds.

Relinquished by: (Signature) (ALS Analyst Lisa Reid)	Date: 12-1-15	Time: 1600	Received by: (Signature) Shirley Steinmacher	Date: 12/2/15	Time: 1650	Cooler / Blank	N/A
Relinquished by: (Signature) Shirley Steinmacher / CH2M/SLC	Date: 12-7-15	Time: 1655	Received by: (Signature)	Date: 12-07-15	Time: 16:51	Temperature	°C

Response Factor Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA7.m
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response Via : Initial Calibration

161510

Calibration Files
50 =LS90S50PPT.D 100 =LS89S100PPT.D 200 =LS88S200PPT.D 500 =LS87S500PPT.D
1000=LS86S1000PPT.D

		Compound	50	100	200	500	1000	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	2.311	2.028	1.734	1.554	1.534	1.832		18.19
3)		Dichlorodifluoro...	1.138	1.050	0.952	0.869	0.818	0.965	E1	13.54
4)		Chloromethane	3.061	2.782	2.542	2.312	0.820	2.304		37.97
5)		Freon 114	8.242	7.455	6.663	6.267	5.944	6.914		13.49
6)		Vinyl Chloride	3.355	3.111	2.879	2.749	2.643	2.948		9.74
7)		1,3-Butadiene	2.170	1.881	1.769	1.721	1.706	1.849		10.37
8)		Bromomethane	4.671	4.113	3.719	3.463	3.325	3.858		14.11
9)		Chloroethane	2.075	1.841	1.649	1.506	1.447	1.704		15.09
10)		Acrolein	1.147	0.987	0.911	0.868	0.971	0.977		10.91
11)		Acetone	9.096	6.862	5.575	4.879	4.884	6.259		28.44
12)		Trichlorofluorom...	1.605	1.423	1.263	1.140	1.094	1.305	E1	16.14
13)		Ethanol	2.137	1.385	1.281	0.979	0.833	1.323		38.27
14)		Isopropyl Alcohol	7.080	5.159	4.424	3.936	3.814	4.883		27.39
15)		1,1-Dichloroethene	5.123	4.784	4.604	4.476	4.581	4.713		5.40
16)		Methylene Chloride	8.383	5.880	4.520	3.718	3.445	5.189		38.94
17)		Freon 113	8.113	7.314	6.516	5.965	5.763	6.734		14.51
18)		Carbon Disulfide	1.528	1.313	1.160	1.056	1.024	1.216	E1	17.06
19)		trans-1,2-Dichlo...	3.414	3.152	2.991	2.890	2.903	3.070		7.13
20)		1,1-Dichloroethane	7.910	7.202	6.453	5.984	5.712	6.652		13.56
21)		methyl t-butyl e...	4.504	4.440	4.449	4.867	5.534	4.759		9.83
22)		Vinyl Acetate	0.476	0.382	0.405	0.462	0.559	0.457		15.12
23)		2-Butanone	4.215	3.914	3.931	4.381	4.782	4.245		8.47
24)		cis-1,2-Dichloro...	3.013	2.892	2.817	2.889	3.023	2.927		3.03
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.091	0.083	0.080	0.081	0.082	0.083		5.01
27)		Hexane	0.392	0.356	0.336	0.342	0.346	0.355		6.28
28)		Chloroform	1.820	1.504	1.249	1.022	0.883	1.295		29.01
29)		Tetrahydrofuran	0.274	0.243	0.225	0.214	0.215	0.234		10.77
30)		1,2-Dichloroethane	0.965	0.820	0.686	0.574	0.487	0.706		27.03
31)		1,1,1-Trichloroe...	1.754	1.480	1.206	0.989	0.831	1.252		29.68
32)		Benzene	1.475	1.283	1.154	0.983	0.872	1.154		20.70
33)		Carbon Tetrachlo...	2.085	1.688	1.387	1.119	0.928	1.441		31.90
34)		Cyclohexane	0.268	0.284	0.273	0.289	0.289	0.281		3.49
35)		1,2-Dichloropropane	0.610	0.522	0.454	0.385	0.339	0.462		23.35
36)		Bromodichloromet...	1.705	1.450	1.192	0.983	0.838	1.234		28.36
37)		1,4-Dioxane	0.180	0.143	0.129	0.133	0.133	0.144		14.54
38)		Trichloroethene	0.694	0.602	0.534	0.470	0.422	0.544		19.78
39)		Methyl Methacrylate	0.172	0.171	0.173	0.195	0.219	0.186		11.22
40)		Heptane	0.202	0.198	0.198	0.241	0.267	0.221		14.19
41)		cis-1,3-Dichloro...	0.484	0.440	0.417	0.399	0.383	0.425		9.28
42)		4-Methyl-2-Penta...	0.490	0.469	0.454	0.489	0.527	0.485		5.67
43)		trans-1,3-Dichlo...	0.373	0.343	0.331	0.324	0.313	0.337		6.84
44)		1,1,2-Trichloroe...	0.671	0.620	0.539	0.466	0.418	0.543		19.33

Method Path : J:\L\METHODS\
Method File : TO15LSIMA7.m
Title : TO-15 SIM

45)		Toluene	0.892	0.830	0.776	0.779	0.806	0.816	5.80
46)		2-Hexanone	0.226	0.201	0.201	0.221	0.275	0.225	13.60
47)		Dibromochloromet...	1.298	1.158	1.009	0.884	0.793	1.028	19.80
48)		1,2-Dibromoethane	0.756	0.706	0.658	0.599	0.576	0.659	11.28
49)		Tetrachloroethene	0.731	0.637	0.550	0.494	0.465	0.575	18.94
50)	I	Chlorobenzene d5	----------ISTD----------						
51)		Chlorobenzene	1.265	1.320	1.260	1.263	1.257	1.273	2.07
52)		Ethylbenzene	1.080	1.101	1.115	1.260	1.475	1.206	13.78
53)		m,p-Xylene	0.746	0.741	0.788	1.047	1.349	0.934	28.27
54)		Bromoform	1.091	1.067	0.994	0.917	0.845	0.983	10.45
55)		Styrene	0.325	0.344	0.395	0.493	0.617	0.435	27.81
56)		1,1,2,2-Tetrachl...	1.677	1.543	1.464	1.423	1.353	1.492	8.33
57)		o-Xylene	0.780	0.777	0.847	1.083	1.375	0.972	26.47
58)	S	Bromofluorobenzene	0.169	0.186	0.217	0.255	0.279	0.221	20.80
59)		4-Ethyl Toluene	0.417	0.453	0.502	0.599	0.769	0.548	25.75
60)		1,3,5-Trimethylb...	0.549	0.561	0.574	0.723	1.091	0.700	32.86
61)		1,2,4-Trimethylb...	0.437	0.439	0.444	0.510	0.681	0.502	20.80
62)		Benzyl Chloride	0.089	0.109	0.142	0.240	0.387	0.193	63.41
63)		m-Dichlorobenzene	0.220	0.276	0.330	0.495	0.636	0.391	43.72
64)		p-Dichlorobenzene	0.137	0.172	0.242	0.388	0.526	0.293	55.31
65)		o-Dichlorobenzene	0.305	0.325	0.359	0.466	0.579	0.407	28.18
66)		1,2,4-Trichlorob...	0.018	0.015	0.015	0.022	0.040	0.022	47.44
67)		Naphthalene	0.058	0.058	0.068	0.097	0.153	0.087	46.47
68)		Hexachloro-1,3-b...	0.482	0.480	0.465	0.455	0.435	0.463	4.14

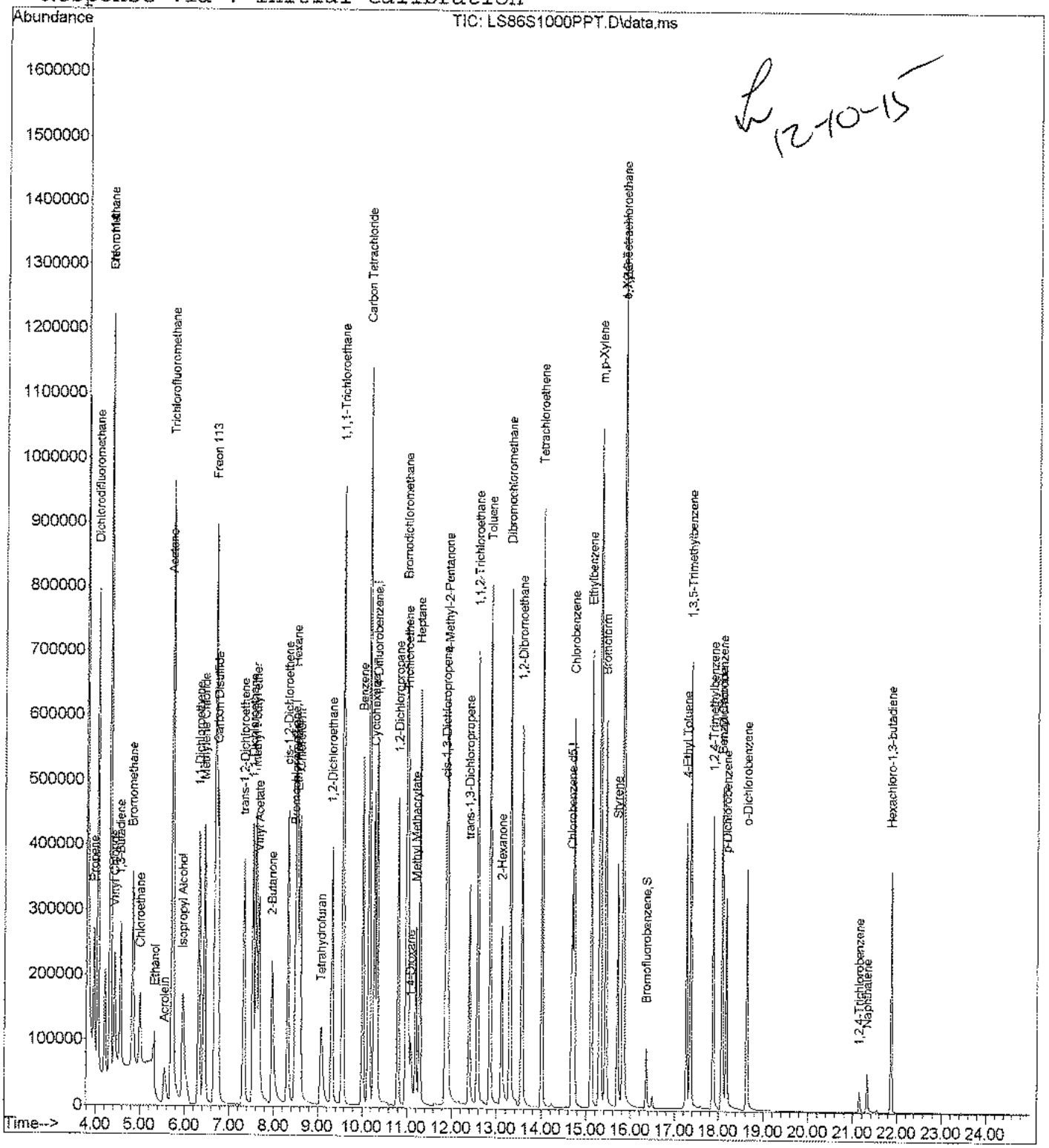
(#) = Out of Range

Quantitation Report

Data File : I:\L - 5975-L\2015\D...DEC15L\LS86S1000PPT.D Vial: 1
Acq Time : 12/10/2015 10:37 Operator: LMR
Sample : 1.0PPB Inst : 5975-L
Misc : 400 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 12:03:39 2015 Results File: TO15LSIMA6.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...DEC15L\LS86S1000PPT.D Vial: 1
Acq Time : 12/10/2015 10:37 Operator: LMR
Sample : 1.0PPB Inst : 5975-L
Misc : 400 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 12:03:39 2015 Results File: TO15LSIMA6.RES

Quant Method : Z:\L\METHODS\TO15LSIMA6.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Nov 13 08:01:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.48	130	124519	1000.0000	ppt		72.62
25) 1,4-Difluorobenzene	10.33	114	1200539	1000.0000	ppt		68.57
50) Chlorobenzene d5	14.68	117	668205	1000.0000	ppt		34.06#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	186563	819.6316	ppt		81.96%
Target Compounds							Qvalue
2) Propene	3.96	41	191002	1106.3920	ppt		94
3) Dichlorodifluoromethane	4.05	85	1018048	1355.8257	ppt		99
4) Chloromethane	4.33	50	102130	650.4548	ppt	#	41
5) Freon 114	4.33	135	740152	1398.4496	ppt	#	61
6) Vinyl Chloride	4.43	62	329118	1219.8913	ppt		98
7) 1,3-Butadiene	4.57	54	212487	1075.8486	ppt	#	66
8) Bromomethane	4.83	94	414061	1330.7859	ppt		98
9) Chloroethane	5.00	64	180194	1174.4164	ppt	#	93
10) Acrolein	5.54	56	120913	1421.2483	ppt		99
11) Acetone	5.69	43	608205	827.7878	ppt		88
12) Trichlorofluoromethane	5.71	101	1361959	1310.5876	ppt		100
13) Ethanol	5.32	45	103741	1575.7839	ppt	#	58
14) Isopropyl Alcohol	5.96	45	474861	698.0054	ppt	#	83
15) 1,1-Dichloroethene	6.32	61	570426	1234.0761	ppt	#	77
16) Methylene Chloride	6.44	84	428985	1060.3846	ppt	#	72
17) Freon 113	6.68	151	717644	1389.7665	ppt	#	49
18) Carbon Disulfide	6.73	76	1274843	1333.9369	ppt	#	61
19) trans-1,2-Dichloroethene	7.32	96	361529	1332.4220	ppt	#	80
20) 1,1-Dichloroethane	7.52	63	711246	1280.2833	ppt		97
21) methyl t-butyl ether	7.59	73	689102	1326.4218	ppt	#	88
22) Vinyl Acetate	7.66	86	69588	2946.8464	ppt	#	1
23) 2-Butanone	7.95	43	595509	1325.1922	ppt	#	74
24) cis-1,2-Dichloroethene	8.31	96	376431	1424.6521	ppt	#	80
26) Ethyl Acetate	8.54	61	98938	1222.0249	ppt	#	1
27) Hexane	8.50	57	415639	1543.5036	ppt	#	41
28) Chloroform	8.59	83	1060181	1534.0472	ppt	#	17
29) Tetrahydrofuran	9.06	42	258483	1370.3653	ppt	#	45
30) 1,2-Dichloroethane	9.31	62	584855	1411.4047	ppt	#	95
31) 1,1,1-Trichloroethane	9.55	97	997417	1506.0808	ppt	#	92
32) Benzene	10.00	78	1047225	1373.5986	ppt	#	89
33) Carbon Tetrachloride	10.14	117	1113540	1497.8885	ppt		98
34) Cyclohexane	10.26	84	347025	1656.8984	ppt	#	52
35) 1,2-Dichloropropane	10.80	63	407046	1408.7975	ppt		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...DEC15L\LS86S1000PPT.D Vial: 1
Acq Time : 12/10/2015 10:37 Operator: LMR
Sample : 1.0PPB Inst : 5975-L
Misc : 400 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 12:03:39 2015 Results File: TO15LSIMA6.RES

Quant Method : Z:\L\METHODS\TO15LSIMA6.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Nov 13 08:01:02 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.98	83	1006440	1453.3253	ppt		99
37)	1,4-Dioxane	11.08	88	159431	1559.6196	ppt	#	75
38)	Trichloroethene	11.02	130	507069	1546.6596	ppt	#	34
39)	Methyl Methacrylate	11.20	69	262437	1761.7638	ppt	#	58
40)	Heptane	11.29	71	320342	1872.1178	ppt	#	28
41)	cis-1,3-Dichloropropene	11.86	75	460104	1512.3332	ppt		93
42)	4-Methyl-2-Pentanone	11.90	43	632261	1656.1120	ppt	#	73
43)	trans-1,3-Dichloropropene	12.38	75	376045	1479.1410	ppt	#	93
44)	1,1,2-Trichloroethane	12.58	97	501603	1600.5149	ppt	#	78
45)	Toluene	12.85	91	967516	1592.5510	ppt		97
46)	2-Hexanone	13.11	43	330531	1544.1337	ppt	#	69
47)	Dibromochloromethane	13.30	129	952396	1595.5962	ppt	#	87
48)	1,2-Dibromoethane	13.56	107	691295	1655.4028	ppt		97
49)	Tetrachloroethene	14.01	166	557719	1577.2688	ppt	#	78
51)	Chlorobenzene	14.73	112	839863	2820.6543	ppt	#	67
52)	Ethylbenzene	15.11	91	985600	3225.9043	ppt		93
53)	m,p-Xylene	15.31	91	1802764	5910.2019	ppt		92
54)	Bromoform	15.43	173	564871	3158.0288	ppt		94
55)	Styrene	15.71	104	412326	3472.7141	ppt	#	93
56)	1,1,2,2-Tetrachloroethane	15.84	83	903772	3461.8361	ppt		98
57)	o-Xylene	15.83	91	918614	3868.8276	ppt		92
59)	4-Ethyl Toluene	17.26	105	513567	3415.9973	ppt		97
60)	1,3,5-Trimethylbenzene	17.36	105	729071	4167.4939	ppt		93
61)	1,2,4-Trimethylbenzene	17.88	105	455043	3605.2224	ppt		97
62)	Benzyl Chloride	18.07	91	258379	3845.9379	ppt		91
63)	m-Dichlorobenzene	18.08	146	424916	3987.8904	ppt	#	94
64)	p-Dichlorobenzene	18.18	146	351602	3961.8835	ppt	#	94
65)	o-Dichlorobenzene	18.63	146	386998	4173.5585	ppt	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	26970	2776.7548	ppt	#	96
67)	Naphthalene	21.32	128	102404	3636.1320	ppt		99
68)	Hexachloro-1,3-butadiene	21.87	225	290980	4017.3048	ppt		98

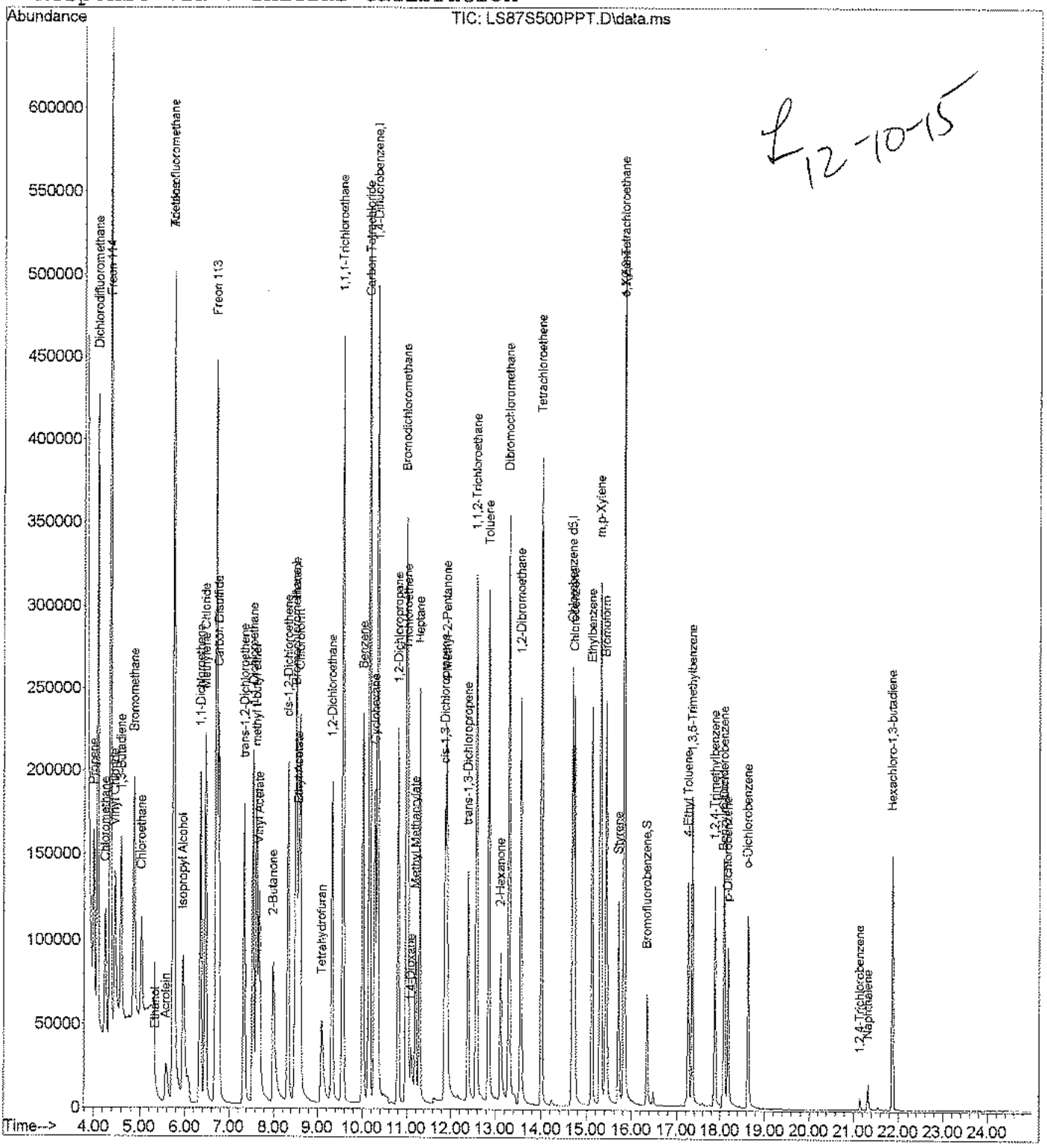
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS87S500PPT.D Vial: 1
Acq Time : 12/10/2015 11:25 Operator: LMR
Sample : 0.5PPB Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:56:38 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS87S500PPT.D Vial: 1
Acq Time : 12/10/2015 11:25 Operator: LMR
Sample : 0.5PPB Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:56:38 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 13:56:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	117072	1000.0000	ppt		68.28
25) 1,4-Difluorobenzene	10.33	114	962153	1000.0000	ppt		54.95
50) Chlorobenzene d5	14.68	117	543545	1000.0000	ppt		27.71#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	138646	762.6125	ppt		76.26%
Target Compounds							Qvalue
2) Propene	4.00	41	90949	525.2841	ppt		93
3) Dichlorodifluoromethane	4.09	85	508523	639.6676	ppt		98
4) Chloromethane	4.25	50	135324	959.2477	ppt		99
5) Freon 114	4.36	135	366846	669.1360	ppt	#	60
6) Vinyl Chloride	4.46	62	160918	601.9032	ppt		98
7) 1,3-Butadiene	4.59	54	100720	521.5369	ppt	#	66
8) Bromomethane	4.87	94	202702	640.7330	ppt		97
9) Chloroethane	5.03	64	88172	577.2310	ppt	#	93
10) Acrolein	5.57	56	50798	574.7198	ppt	#	93
11) Acetone	5.73	43	285569	397.2969	ppt		89
12) Trichlorofluoromethane	5.74	101	667137	627.3475	ppt		100
13) Ethanol	5.33	45	57331	723.1589	ppt	#	50
14) Isopropyl Alcohol	5.95	45	230424	333.9901	ppt	#	82
15) 1,1-Dichloroethene	6.34	61	261979	575.1397	ppt	#	77
16) Methylene Chloride	6.46	84	217663	544.9248	ppt	#	72
17) Freon 113	6.70	151	349176	654.9512	ppt	#	48
18) Carbon Disulfide	6.75	76	618231	629.6308	ppt	#	61
19) trans-1,2-Dichloroethene	7.34	96	169173	615.5513	ppt	#	80
20) 1,1-Dichloroethane	7.54	63	350303	635.1584	ppt		98
21) methyl t-butyl ether	7.61	73	284922	577.4348	ppt	#	88
22) Vinyl Acetate	7.68	86	27046	893.9063	ppt	#	1
23) 2-Butanone	7.99	43	256452	596.4232	ppt	#	73
24) cis-1,2-Dichloroethene	8.32	96	169105	637.0744	ppt	#	81
26) Ethyl Acetate	8.56	61	39198	604.6466	ppt	#	1
27) Hexane	8.51	57	164308	720.2703	ppt	#	71
28) Chloroform	8.60	83	491693	770.8074	ppt	#	17
29) Tetrahydrofuran	9.08	42	102992	651.3037	ppt	#	45
30) 1,2-Dichloroethane	9.32	62	276204	740.0285	ppt	#	95
31) 1,1,1-Trichloroethane	9.56	97	475987	779.5576	ppt	#	92
32) Benzene	10.01	78	473086	693.6687	ppt	#	89
33) Carbon Tetrachloride	10.15	117	538327	786.2598	ppt		99
34) Cyclohexane	10.27	84	139255	777.1975	ppt	#	47
35) 1,2-Dichloropropane	10.80	63	185189	717.1394	ppt		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS87S500PPT.D Vial: 1
Acq Time : 12/10/2015 11:25 Operator: LMR
Sample : 0.5PPB Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:56:38 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 13:56:29 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	473113	750.8619	ppt		98
37)	1,4-Dioxane	11.10	88	64071	715.4061	ppt	#	75
38)	Trichloroethene	11.03	130	225912	761.6823	ppt	#	34
39)	Methyl Methacrylate	11.20	69	93602	740.5569	ppt	#	58
40)	Heptane	11.29	71	115828	793.6953	ppt	#	27
41)	cis-1,3-Dichloropropene	11.86	75	192105	724.5935	ppt		94
42)	4-Methyl-2-Pentanone	11.90	43	235029	747.3499	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	155748	719.1951	ppt	#	93
44)	1,1,2-Trichloroethane	12.58	97	223994	784.2552	ppt	#	78
45)	Toluene	12.85	91	374779	720.4166	ppt		96
46)	2-Hexanone	13.11	43	106286	644.4136	ppt	#	69
47)	Dibromochloromethane	13.30	129	425452	785.8826	ppt	#	88
48)	1,2-Dibromoethane	13.56	107	288293	767.0205	ppt		98
49)	Tetrachloroethene	14.01	166	237580	740.5759	ppt	#	78
51)	Chlorobenzene	14.73	112	343202	1050.1322	ppt	#	65
52)	Ethylbenzene	15.11	91	342367	1030.9279	ppt		92
53)	m,p-Xylene	15.30	91	569320	2111.8271	ppt		92
54)	Bromoform	15.43	173	249229	1203.9816	ppt		98
55)	Styrene	15.71	104	133884	1060.0359	ppt	#	91
56)	1,1,2,2-Tetrachloroethane	15.83	83	386813	1269.3158	ppt		97
57)	o-Xylene	15.82	91	294382	1099.3014	ppt		92
59)	4-Ethyl Toluene	17.26	105	162851	1039.9354	ppt		96
60)	1,3,5-Trimethylbenzene	17.35	105	196472	985.6125	ppt		93
61)	1,2,4-Trimethylbenzene	17.88	105	138529	1024.9476	ppt		98
62)	Benzyl Chloride	18.06	91	65321	949.4600	ppt		92
63)	m-Dichlorobenzene	18.08	146	134631	1115.4299	ppt	#	93
64)	p-Dichlorobenzene	18.17	146	105510	1080.9558	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	126617	1145.3203	ppt	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	6056	759.3791	ppt	#	95
67)	Naphthalene	21.32	128	26323	931.4876	ppt		99
68)	Hexachloro-1,3-butadiene	21.87	225	123537	1346.2737	ppt		98

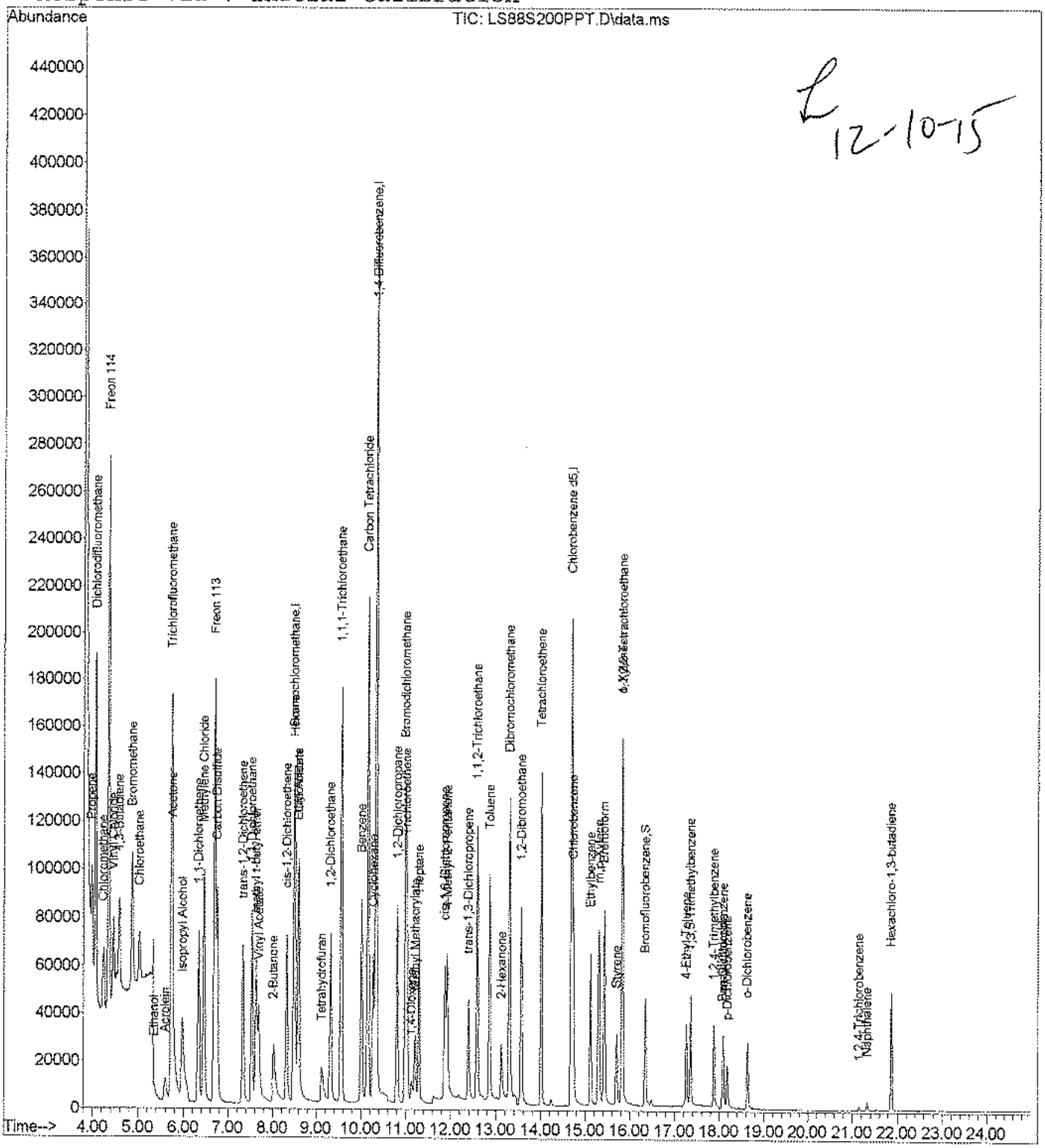
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS88S200PPT.D Vial: 1
Acq Time : 12/10/2015 12:11 Operator: LMR
Sample : 0.2PPB Inst : 5975-L
Misc : 80 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:57:25 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



L 12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS88S200PPT.D Vial: 1
Acq Time : 12/10/2015 12:11 Operator: LMR
Sample : 0.2PPB Inst : 5975-L
Misc : 80 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:57:25 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 13:56:51 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.48	130	106013	1000.0000	ppt		61.83
25) 1,4-Difluorobenzene	10.33	114	763860	1000.0000	ppt		43.63#
50) Chlorobenzene d5	14.68	117	437006	1000.0000	ppt		22.28#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	94862	720.1625	ppt		72.02%
Target Compounds							Qvalue
2) Propene	3.98	41	36772	224.7036	ppt		91
3) Dichlorodifluoromethane	4.06	85	201762	257.1693	ppt		98
4) Chloromethane	4.23	50	53898	327.7668	ppt		98
5) Freon 114	4.35	135	141273	260.2726	ppt	#	58
6) Vinyl Chloride	4.45	62	61048	237.2128	ppt		98
7) 1,3-Butadiene	4.58	54	37504	207.2181	ppt	#	58
8) Bromomethane	4.86	94	78856	254.1150	ppt		99
9) Chloroethane	5.02	64	34969	238.8042	ppt	#	91
10) Acrolein	5.59	56	19305	225.9860	ppt		96
11) Acetone	5.76	43	118214	180.5935	ppt		90
12) Trichlorofluoromethane	5.73	101	267816	256.4713	ppt		99
13) Ethanol	5.34	45	27163	326.2951	ppt	#	39
14) Isopropyl Alcohol	5.96	45	93807	150.6579	ppt	#	83
15) 1,1-Dichloroethene	6.33	61	97608	225.9600	ppt	#	76
16) Methylene Chloride	6.45	84	95838	251.8475	ppt	#	72
17) Freon 113	6.69	151	138154	262.4021	ppt	#	47
18) Carbon Disulfide	6.75	76	245996	254.1248	ppt	#	61
19) trans-1,2-Dichloroethene	7.33	96	63413	239.4298	ppt	#	80
20) 1,1-Dichloroethane	7.52	63	136822	252.4019	ppt		98
21) methyl t-butyl ether	7.62	73	94329	205.9064	ppt	#	86
22) Vinyl Acetate	7.69	86	8582	258.6797	ppt	#	1
23) 2-Butanone	8.01	43	83350	206.7206	ppt	#	72
24) cis-1,2-Dichloroethene	8.32	96	59725	233.2623	ppt	#	80
26) Ethyl Acetate	8.58	61	12202	226.8556	ppt	#	1
27) Hexane	8.51	57	51379	257.0822	ppt	#	72
28) Chloroform	8.60	83	190752	323.7761	ppt	#	17
29) Tetrahydrofuran	9.11	42	34310	254.0577	ppt	#	43
30) 1,2-Dichloroethane	9.32	62	104778	308.6132	ppt	#	95
31) 1,1,1-Trichloroethane	9.55	97	184202	326.7666	ppt	#	91
32) Benzene	10.00	78	176330	290.7101	ppt	#	89
33) Carbon Tetrachloride	10.14	117	211840	334.4443	ppt		99
34) Cyclohexane	10.26	84	41734	263.5577	ppt	#	49
35) 1,2-Dichloropropane	10.80	63	69401	299.9200	ppt		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS88S200PPT.D Vial: 1
Acq Time : 12/10/2015 12:11 Operator: LMR
Sample : 0.2PPB Inst : 5975-L
Misc : 80 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:57:25 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 13:56:51 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.98	83	182123	316.1428	ppt		98
37)	1,4-Dioxane	11.13	88	19732	251.3946	ppt	#	74
38)	Trichloroethene	11.02	130	81610	304.0540	ppt	#	34
39)	Methyl Methacrylate	11.21	69	26394	239.6408	ppt	#	60
40)	Heptane	11.29	71	30177	232.3140	ppt	#	25
41)	cis-1,3-Dichloropropene	11.86	75	63644	271.8880	ppt		92
42)	4-Methyl-2-Pentanone	11.91	43	69289	250.3552	ppt	#	70
43)	trans-1,3-Dichloropropene	12.38	75	50589	267.0385	ppt	#	94
44)	1,1,2-Trichloroethane	12.57	97	82281	314.2222	ppt	#	78
45)	Toluene	12.85	91	118551	262.6071	ppt		95
46)	2-Hexanone	13.11	43	30672	225.0975	ppt	#	67
47)	Dibromochloromethane	13.30	129	154108	310.9911	ppt	#	87
48)	1,2-Dibromoethane	13.56	107	100549	297.4849	ppt		97
49)	Tetrachloroethene	14.01	166	83980	291.7147	ppt	#	78
51)	Chlorobenzene	14.73	112	110114	327.6790	ppt	#	62
52)	Ethylbenzene	15.11	91	97420	291.2024	ppt		92
53)	m,p-Xylene	15.30	91	137773	503.2276	ppt		91
54)	Bromoform	15.42	173	86894	389.0167	ppt		99
55)	Styrene	15.70	104	34565	270.9679	ppt	#	85
56)	1,1,2,2-Tetrachloroethane	15.83	83	127998	379.2559	ppt	#	97
57)	o-Xylene	15.82	91	74010	268.3761	ppt		92
59)	4-Ethyl Toluene	17.26	105	43861	278.9292	ppt		93
60)	1,3,5-Trimethylbenzene	17.35	105	50150	251.4756	ppt		91
61)	1,2,4-Trimethylbenzene	17.88	105	38811	285.7409	ppt		94
62)	Benzyl Chloride	18.07	91	12398	184.6872	ppt		90
63)	m-Dichlorobenzene	18.08	146	28833	229.4523	ppt	#	93
64)	p-Dichlorobenzene	18.18	146	21188	213.6045	ppt		93
65)	o-Dichlorobenzene	18.63	146	31372	268.3303	ppt	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	1344	183.0051	ppt	#	94
67)	Naphthalene	21.32	128	5915	214.0666	ppt		97
68)	Hexachloro-1,3-butadiene	21.87	225	40611	388.4846	ppt		99

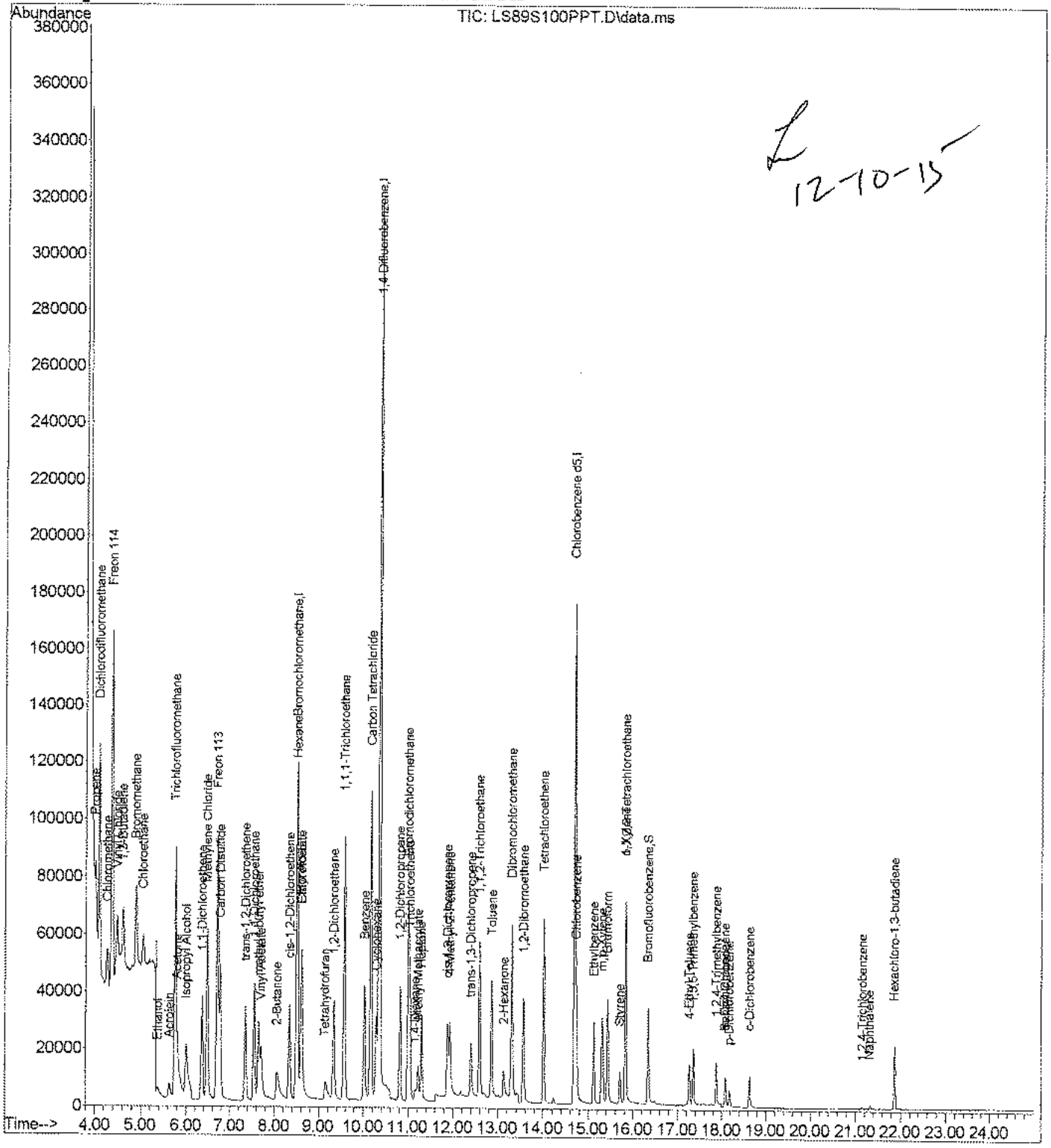
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS89S100PPT.D Vial: 1
Acq Time : 12/10/2015 12:57 Operator: LMR
Sample : 0.1PPB Inst : 5975-L
Misc : 40 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:57:47 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



L 12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS89S100PPT.D Vial: 1
Acq Time : 12/10/2015 12:57 Operator: LMR
Sample : 0.1PPB Inst : 5975-L
Misc : 40 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:57:47 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 13:57:35 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.50	130	98601	1000.0000	ppt		93.01
25) 1,4-Difluorobenzene	10.34	114	645255	1000.0000	ppt		84.47
50) Chlorobenzene d5	14.68	117	374468	1000.0000	ppt		85.69
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	69782	684.0847	ppt		68.41%
Target Compounds							Qvalue
2) Propene	4.00	41	19999	125.1375	ppt	#	87
3) Dichlorodifluoromethane	4.09	85	103573	130.7272	ppt		99
4) Chloromethane	4.27	50	27433	165.4769	ppt		99
5) Freon 114	4.37	135	73511	133.6536	ppt	#	58
6) Vinyl Chloride	4.48	62	30679	121.2218	ppt		100
7) 1,3-Butadiene	4.61	54	18543	108.3289	ppt	#	43
8) Bromomethane	4.89	94	40557	129.6556	ppt		98
9) Chloroethane	5.04	64	18151	125.5802	ppt	#	92
10) Acrolein	5.63	56	9733	116.3653	ppt	#	98
11) Acetone	5.80	43	67662	111.6635	ppt		89
12) Trichlorofluoromethane	5.75	101	140321	133.2251	ppt		99
13) Ethanol	5.37	45	13652	148.6127	ppt	#	39
14) Isopropyl Alcohol	5.99	45	50868	90.0467	ppt	#	1
15) 1,1-Dichloroethene	6.35	61	47168	112.7097	ppt	#	76
16) Methylene Chloride	6.47	84	57976	152.7241	ppt	#	72
17) Freon 113	6.70	151	72118	134.6528	ppt	#	47
18) Carbon Disulfide	6.77	76	129421	132.5339	ppt	#	61
19) trans-1,2-Dichloroethene	7.35	96	31079	118.6928	ppt	#	79
20) 1,1-Dichloroethane	7.55	63	71010	131.7254	ppt		98
21) methyl t-butyl ether	7.64	73	43777	100.3172	ppt	#	87
22) Vinyl Acetate	7.71	86	3769	106.3196	ppt	#	1
23) 2-Butanone	8.05	43	38591	100.2149	ppt	#	75
24) cis-1,2-Dichloroethene	8.34	96	28516	113.1773	ppt	#	80
26) Ethyl Acetate	8.60	61	5341	112.4390	ppt	#	1
27) Hexane	8.52	57	23001	124.6654	ppt	#	72
28) Chloroform	8.61	83	97043	166.3822	ppt	#	17
29) Tetrahydrofuran	9.15	42	15709	127.5437	ppt	#	43
30) 1,2-Dichloroethane	9.34	62	52906	160.1249	ppt		95
31) 1,1,1-Trichloroethane	9.57	97	95508	170.7406	ppt	#	91
32) Benzene	10.02	78	82764	143.6646	ppt	#	89
33) Carbon Tetrachloride	10.16	117	108918	172.0150	ppt		99
34) Cyclohexane	10.27	84	18344	127.8186	ppt	#	42
35) 1,2-Dichloropropane	10.81	63	33687	151.8441	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...0DEC15L\LS89S100PPT.D Vial: 1
Acq Time : 12/10/2015 12:57 Operator: LMR
Sample : 0.1PPB Inst : 5975-L
Misc : 40 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 13:57:47 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 13:57:35 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	11.00	83	93549	165.8077	ppt		98
37)	1,4-Dioxane	11.17	88	9239	128.1373	ppt	#	78
38)	Trichloroethene	11.04	130	38836	149.6967	ppt	#	35
39)	Methyl Methacrylate	11.22	69	11030	109.5423	ppt	#	57
40)	Heptane	11.30	71	12757	107.3707	ppt	#	24
41)	cis-1,3-Dichloropropene	11.87	75	28389	129.6375	ppt	#	93
42)	4-Methyl-2-Pentanone	11.92	43	30233	118.1731	ppt	#	71
43)	trans-1,3-Dichloropropene	12.39	75	22107	125.8559	ppt		91
44)	1,1,2-Trichloroethane	12.58	97	40014	155.7063	ppt	#	77
45)	Toluene	12.86	91	53538	127.0893	ppt		95
46)	2-Hexanone	13.13	43	12938	105.2647	ppt	#	66
47)	Dibromochloromethane	13.31	129	74712	154.0637	ppt	#	88
48)	1,2-Dibromoethane	13.57	107	45526	139.6014	ppt		98
49)	Tetrachloroethene	14.02	166	41113	148.8118	ppt	#	79
51)	Chlorobenzene	14.73	112	49415	141.5725	ppt	#	59
52)	Ethylbenzene	15.11	91	41222	120.9945	ppt		91
53)	m,p-Xylene	15.30	91	55494	203.6807	ppt		91
54)	Bromoform	15.42	173	39968	162.8538	ppt		98
55)	Styrene	15.71	104	12887	100.1027	ppt	#	93
56)	1,1,2,2-Tetrachloroethane	15.83	83	57790	155.6372	ppt	#	96
57)	o-Xylene	15.82	91	29110	104.2367	ppt		91
59)	4-Ethyl Toluene	17.26	105	16959	106.1749	ppt		96
60)	1,3,5-Trimethylbenzene	17.35	105	21011	104.8399	ppt		94
61)	1,2,4-Trimethylbenzene	17.87	105	16442	118.2622	ppt		95
62)	Benzyl Chloride	18.07	91	4098	64.3291	ppt		90
63)	m-Dichlorobenzene	18.08	146	10317	83.8766	ppt	#	93
64)	p-Dichlorobenzene	18.17	146	6428	67.1565	ppt	#	94
65)	o-Dichlorobenzene	18.63	146	12176	102.6484	ppt	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	572	83.5814	ppt	#	90
67)	Naphthalene	21.31	128	2190	81.7580	ppt	#	93
68)	Hexachloro-1,3-butadiene	21.87	225	17973	153.9796	ppt		97

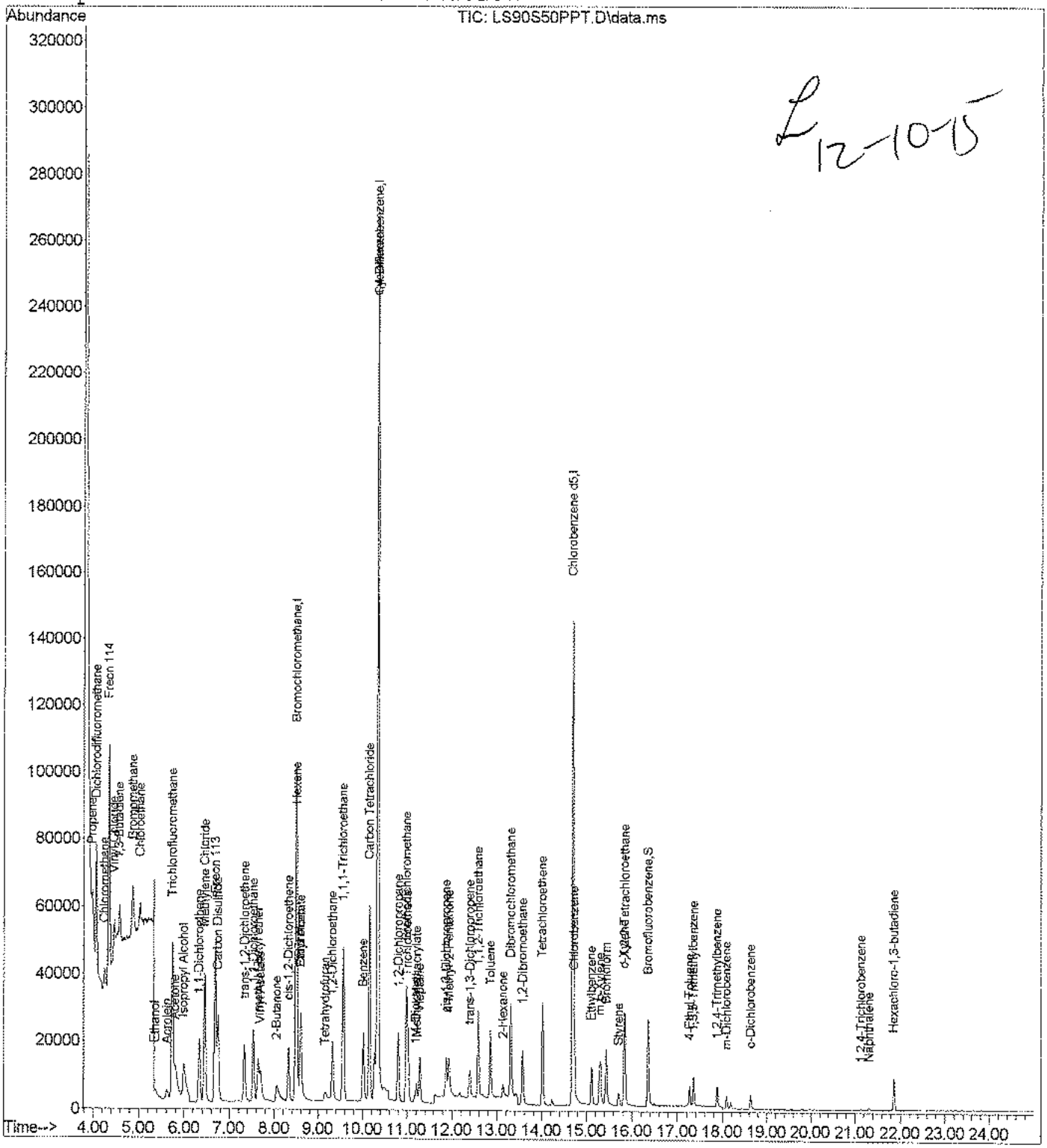
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...10DEC15L\LS90S50PPT.D Vial: 1
Acq Time : 12/10/2015 13:43 Operator: LMR
Sample : 0.05PPB Inst : 5975-L
Misc : 20 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 14:10:23 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-10-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...10DEC15L\LS90S50PPT.D Vial: 1
Acq Time : 12/10/2015 13:43 Operator: LMR
Sample : 0.05PPB Inst : 5975-L
Misc : 20 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 14:10:23 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:00:37 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.48	130	91004	1000.0000	ppt		85.84
25) 1,4-Difluorobenzene	10.33	114	547943	1000.0000	ppt		71.73
50) Chlorobenzene d5	14.69	117	326652	1000.0000	ppt		74.75
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	55187	692.2606	ppt		69.23%
Target Compounds							Qvalue
2) Propene	3.98	41	10517	67.9901	ppt	#	85
3) Dichlorodifluoromethane	4.06	85	51777	65.6528	ppt		99
4) Chloromethane	4.25	50	13930	73.4634	ppt		96
5) Freon 114	4.35	135	37504	66.7087	ppt	#	58
6) Vinyl Chloride	4.46	62	15268	61.4740	ppt		99
7) 1,3-Butadiene	4.59	54	9872	61.4475	ppt	#	54
8) Bromomethane	4.86	94	21256	67.7141	ppt		96
9) Chloroethane	5.03	64	9441	66.4774	ppt	#	91
10) Acrolein	5.62	56	5220	64.1079	ppt	#	95
11) Acetone	5.80	43	41387	74.3396	ppt		91
12) Trichlorofluoromethane	5.73	101	73008	68.9588	ppt		99
13) Ethanol	5.36	45	9722	99.4458	ppt	#	39
14) Isopropyl Alcohol	6.00	45	32215	65.9723	ppt	#	1
15) 1,1-Dichloroethene	6.34	61	23311	58.0535	ppt	#	77
16) Methylene Chloride	6.46	84	38145	97.7713	ppt	#	72
17) Freon 113	6.69	151	36916	67.6885	ppt	#	44
18) Carbon Disulfide	6.75	76	69513	70.6275	ppt	#	60
19) trans-1,2-Dichloroethene	7.33	96	15535	60.5849	ppt	#	82
20) 1,1-Dichloroethane	7.53	63	35990	65.3474	ppt		100
21) methyl t-butyl ether	7.64	73	20495	49.5084	ppt	#	88
22) Vinyl Acetate	7.69	86	2168	60.0966	ppt	#	1
23) 2-Butanone	8.06	43	19178	52.3256	ppt	#	70
24) cis-1,2-Dichloroethene	8.32	96	13712	55.6446	ppt	#	78
26) Ethyl Acetate	8.60	61	2483	58.5724	ppt	#	1
27) Hexane	8.51	57	10741	62.0945	ppt	#	68
28) Chloroform	8.59	83	49850	84.6824	ppt	#	17
29) Tetrahydrofuran	9.16	42	7516	65.5233	ppt	#	41
30) 1,2-Dichloroethane	9.32	62	26443	80.6965	ppt	#	96
31) 1,1,1-Trichloroethane	9.55	97	48052	84.5027	ppt	#	91
32) Benzene	10.00	78	40411	72.8323	ppt	#	87
33) Carbon Tetrachloride	10.14	117	57113	88.4763	ppt		99
34) Cyclohexane	10.33	84	7335	50.5107	ppt	#	1
35) 1,2-Dichloropropane	10.80	63	16704	77.1182	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...10DEC15L\LS90S50PPT.D Vial: 1
Acq Time : 12/10/2015 13:43 Operator: LMR
Sample : 0.05PPB Inst : 5975-L
Misc : 20 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 14:10:23 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:00:37 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	46720	82.5464	ppt		98
37)	1,4-Dioxane	11.19	88	4926	71.6811	ppt	#	30
38)	Trichloroethene	11.02	130	19025	74.7933	ppt	#	35
39)	Methyl Methacrylate	11.21	69	4708	50.5968	ppt	#	58
40)	Heptane	11.29	71	5541	50.3263	ppt	#	25
41)	cis-1,3-Dichloropropene	11.86	75	13269	64.3805	ppt	#	93
42)	4-Methyl-2-Pentanone	11.92	43	13413	56.1699	ppt	#	69
43)	trans-1,3-Dichloropropene	12.39	75	10227	62.3964	ppt	#	91
44)	1,1,2-Trichloroethane	12.58	97	18381	72.1339	ppt	#	78
45)	Toluene	12.85	91	24428	61.4906	ppt		94
46)	2-Hexanone	13.13	43	6183	55.3805	ppt	#	61
47)	Dibromochloromethane	13.31	129	35561	74.2468	ppt	#	87
48)	1,2-Dibromoethane	13.57	107	20719	65.8289	ppt		94
49)	Tetrachloroethene	14.01	166	20016	74.3743	ppt	#	81
51)	Chlorobenzene	14.73	112	20666	57.2573	ppt	#	51
52)	Ethylbenzene	15.11	91	17645	51.1500	ppt		95
53)	m,p-Xylene	15.30	91	24366	90.1899	ppt		93
54)	Bromoform	15.44	173	17821	66.8519	ppt		98
55)	Styrene	15.71	104	5302	41.7388	ppt	#	91
56)	1,1,2,2-Tetrachloroethane	15.85	83	27390	68.3825	ppt	#	96
57)	o-Xylene	15.83	91	12739	45.6193	ppt		90
59)	4-Ethyl Toluene	17.27	105	6811	42.7749	ppt		97
60)	1,3,5-Trimethylbenzene	17.35	105	8971	44.5141	ppt		94
61)	1,2,4-Trimethylbenzene	17.88	105	7136	50.2040	ppt		94
62)	Benzyl Chloride	0.00	91		Not Detected			
63)	m-Dichlorobenzene	18.09	146	3597	30.3587	ppt	#	92
64)	p-Dichlorobenzene	0.00	146		Not Detected			
65)	o-Dichlorobenzene	18.64	146	4978	42.1081	ppt	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	290	44.5299	ppt	#	86
67)	Naphthalene	21.33	128	947	36.7703	ppt	#	92
68)	Hexachloro-1,3-butadiene	21.87	225	7868	62.2831	ppt		100

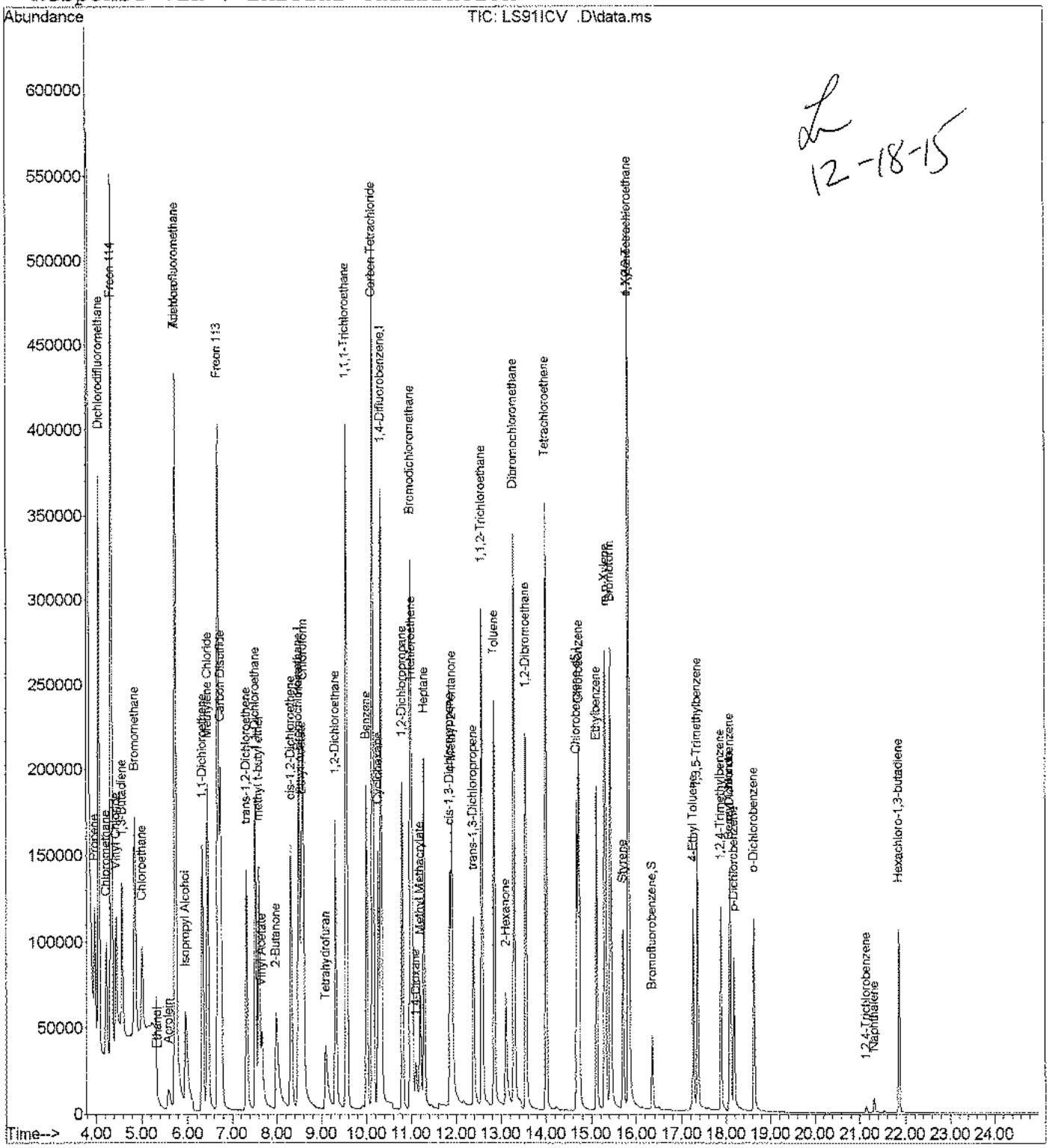
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...\10DEC15L\LS91ICV .D Vial: 1
Acq Time : 12/10/2015 14:30 Operator: LMR
Sample : ICV 0.5 ppb Inst : 5975-L
Misc : 30127 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 14:56:40 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-18-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...\10DEC15L\LS91ICV .D Vial: 1
Acq Time : 12/10/2015 14:30 Operator: LMR
Sample : ICV 0.5 ppb Inst : 5975-L
Misc : 30127 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 14:56:40 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.48	130	95683	1000.0000	ppt		90.26
25) 1,4-Difluorobenzene	10.33	114	734838	1000.0000	ppt		96.20
50) Chlorobenzene d5	14.68	117	380822	1000.0000	ppt		87.14
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.35	95	93046	1103.9172	ppt		110.39%
Target Compounds							**Qvalue**
2) Propene	3.98	41	65172	371.7292	ppt		92
3) Dichlorodifluoromethane	4.06	85	445355	482.2058	ppt		99
4) Chloromethane	4.23	50	118555	537.8859	ppt		99
5) Freon 114	4.35	135	314403	475.2259	ppt	#	60
6) Vinyl Chloride	4.45	62	133050	471.7396	ppt		98
7) 1,3-Butadiene	4.58	54	81419	460.1513	ppt	#	61
8) Bromomethane	4.85	94	178804	484.3232	ppt		99
9) Chloroethane	5.01	64	80560	494.1934	ppt	#	92
10) Acrolein	5.58	56	26784	286.5927	ppt		96
11) Acetone	5.74	43	234131	390.9326	ppt	#	87
12) Trichlorofluoromethane	5.72	101	612084	490.2494	ppt		100
13) Ethanol	5.34	45	28079	221.8182	ppt	#	48
14) Isopropyl Alcohol	5.95	45	137625	294.5830	ppt	#	3
15) 1,1-Dichloroethene	6.32	61	207039	459.0756	ppt	#	76
16) Methylene Chloride	6.45	84	187290	377.1966	ppt	#	70
17) Freon 113	6.69	151	314299	487.7700	ppt	#	46
18) Carbon Disulfide	6.74	76	528060	453.8191	ppt	#	61
19) trans-1,2-Dichloroethene	7.33	96	132285	450.3246	ppt	#	79
20) 1,1-Dichloroethane	7.52	63	300563	472.2142	ppt		98
21) methyl t-butyl ether	7.61	73	206458	453.4088	ppt	#	87
22) Vinyl Acetate	7.68	86	8198	187.5328	ppt	#	1
23) 2-Butanone	7.99	43	197705	486.7879	ppt	#	69
24) cis-1,2-Dichloroethene	8.32	96	130263	465.1371	ppt	#	79
26) Ethyl Acetate	8.55	61	41757	681.0825	ppt	#	1
27) Hexane	8.51	57	119299	457.9418	ppt	#	65
28) Chloroform	8.59	83	447849	470.4570	ppt	#	17
29) Tetrahydrofuran	9.09	42	81088	470.8630	ppt	#	43
30) 1,2-Dichloroethane	9.32	62	247602	476.9603	ppt	#	95
31) 1,1,1-Trichloroethane	9.55	97	413841	449.8171	ppt	#	91
32) Benzene	10.00	78	377307	445.1247	ppt	#	88
33) Carbon Tetrachloride	10.14	117	493664	466.1523	ppt		99
34) Cyclohexane	10.26	84	103576	502.0614	ppt	#	43
35) 1,2-Dichloropropane	10.80	63	157324	463.3959	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...\10DEC15L\LS91ICV .D Vial: 1
Acq Time : 12/10/2015 14:30 Operator: LMR
Sample : ICV 0.5 ppb Inst : 5975-L
Misc : 30127 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 14:56:40 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.98	83	437778	482.8576	ppt	#	98
37) 1,4-Dioxane	11.10	88	48187	456.5707	ppt	#	69
38) Trichloroethene	11.02	130	189591	473.8457	ppt	#	34
39) Methyl Methacrylate	11.20	69	71086	520.8096	ppt	#	58
40) Heptane	11.29	71	90771	558.8961	ppt	#	26
41) cis-1,3-Dichloropropene	11.86	75	154217	494.1608	ppt	#	93
42) 4-Methyl-2-Pentanone	11.90	43	186107	521.7906	ppt	#	70
43) trans-1,3-Dichloropropene	12.38	75	126380	510.6352	ppt	#	93
44) 1,1,2-Trichloroethane	12.58	97	210175	527.1109	ppt	#	77
45) Toluene	12.85	91	294146	490.2728	ppt		95
46) 2-Hexanone	13.11	43	86983	526.9275	ppt	#	66
47) Dibromochloromethane	13.30	129	406212	537.4966	ppt	#	87
48) 1,2-Dibromoethane	13.56	107	261626	540.2535	ppt		97
49) Tetrachloroethene	14.01	166	216515	512.2693	ppt	#	77
51) Chlorobenzene	14.73	112	294797	608.1427	ppt	#	65
52) Ethylbenzene	15.11	91	270566	589.0662	ppt		93
53) m,p-Xylene	15.31	91	482546	1356.2359	ppt		91
54) Bromoform	15.43	173	270794	723.3660	ppt		98
55) Styrene	15.71	104	117874	711.8987	ppt	#	92
56) 1,1,2,2-Tetrachloroethane	15.83	83	434851	765.2708	ppt		97
57) o-Xylene	15.83	91	263797	712.3553	ppt		92
59) 4-Ethyl Toluene	17.26	105	141485	678.0818	ppt		97
60) 1,3,5-Trimethylbenzene	17.35	105	173335	650.5696	ppt		92
61) 1,2,4-Trimethylbenzene	17.88	105	129039	674.7806	ppt		95
62) Benzyl Chloride	18.07	91	56597	768.2765	ppt	#	90
63) m-Dichlorobenzene	18.09	146	134131	899.9177	ppt	#	93
64) p-Dichlorobenzene	18.18	146	100696	902.2394	ppt		93
65) o-Dichlorobenzene	18.63	146	121210	782.4350	ppt	#	94
66) 1,2,4-Trichlorobenzene	21.14	180	3319	392.3946	ppt	#	94
67) Naphthalene	21.32	128	15321	463.2277	ppt		97
68) Hexachloro-1,3-butadiene	21.87	225	85999	487.4532	ppt		98

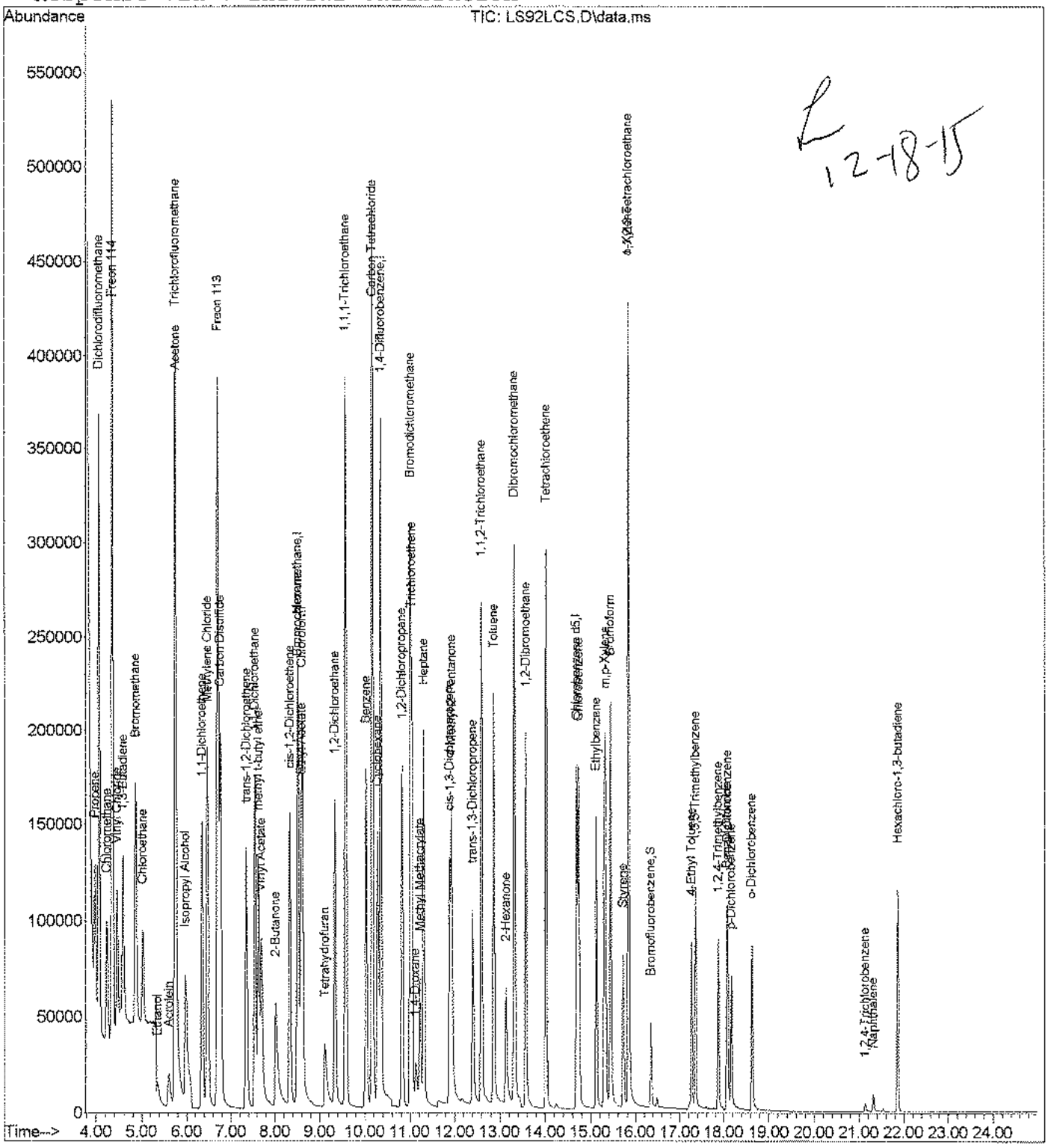
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\10DEC15L\LS92LCS.D Vial: 1
Acq Time : 12/10/2015 15:19 Operator: LMR
Sample : QC- Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 16:07:27 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-18-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\10DEC15L\LS92LCS.D Vial: 1
Acq Time : 12/10/2015 15:19 Operator: LMR
Sample : QC- Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 16:07:27 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.50	130	96965	1000.0000	ppt		91.47
25) 1,4-Difluorobenzene	10.35	114	748824	1000.0000	ppt		98.03
50) Chlorobenzene d5	14.69	117	380712	1000.0000	ppt		87.12
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	90419	1073.0599	ppt		107.31%
Target Compounds							Qvalue
2) Propene	3.98	41	71893	404.6429	ppt		92
3) Dichlorodifluoromethane	4.07	85	446800	477.3743	ppt		99
4) Chloromethane	4.25	50	118252	529.4178	ppt		99
5) Freon 114	4.35	135	303184	452.2093	ppt	#	56
6) Vinyl Chloride	4.46	62	130882	457.9174	ppt		98
7) 1,3-Butadiene	4.59	54	80454	448.6858	ppt	#	60
8) Bromomethane	4.86	94	182368	487.4459	ppt		98
9) Chloroethane	5.03	64	79082	478.7127	ppt	#	92
10) Acrolein	5.60	56	40526	427.9009	ppt	#	97
11) Acetone	5.76	43	235745	388.4232	ppt	#	87
12) Trichlorofluoromethane	5.74	101	592309	468.1383	ppt		100
13) Ethanol	5.36	45	47790	372.5396	ppt	#	39
14) Isopropyl Alcohol	5.97	45	168078	355.0103	ppt	#	70
15) 1,1-Dichloroethene	6.35	61	205295	449.1902	ppt	#	76
16) Methylene Chloride	6.47	84	189232	376.0690	ppt	#	70
17) Freon 113	6.70	151	307128	470.3393	ppt	#	45
18) Carbon Disulfide	6.76	76	537414	455.7517	ppt	#	61
19) trans-1,2-Dichloroethene	7.35	96	131885	443.0270	ppt	#	79
20) 1,1-Dichloroethane	7.54	63	301234	467.0112	ppt		97
21) methyl t-butyl ether	7.62	73	200641	434.8081	ppt	#	86
22) Vinyl Acetate	7.69	86	18250	411.9571	ppt	#	1
23) 2-Butanone	8.01	43	189740	460.9998	ppt	#	72
24) cis-1,2-Dichloroethene	8.34	96	130051	458.2404	ppt	#	79
26) Ethyl Acetate	8.58	61	31258	500.3150	ppt	#	1
27) Hexane	8.52	57	119642	450.6808	ppt	#	70
28) Chloroform	8.62	83	437917	451.4316	ppt	#	17
29) Tetrahydrofuran	9.11	42	75589	430.7333	ppt	#	42
30) 1,2-Dichloroethane	9.34	62	240177	454.0162	ppt	#	95
31) 1,1,1-Trichloroethane	9.57	97	411777	439.2142	ppt	#	91
32) Benzene	10.02	78	361010	417.9438	ppt	#	89
33) Carbon Tetrachloride	10.16	117	475129	440.2707	ppt		99
34) Cyclohexane	10.28	84	102915	489.5401	ppt	#	60
35) 1,2-Dichloropropane	10.82	63	152601	441.0892	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\10DEC15L\LS92LCS.D Vial: 1
Acq Time : 12/10/2015 15:19 Operator: LMR
Sample : QC- Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 16:07:27 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	11.00	83	416204	450.4880	ppt		98
37)	1,4-Dioxane	11.12	88	45749	425.3747	ppt	#	77
38)	Trichloroethene	11.04	130	177723	435.8878	ppt	#	33
39)	Methyl Methacrylate	11.22	69	65326	469.6700	ppt	#	58
40)	Heptane	11.30	71	86294	521.4064	ppt	#	26
41)	cis-1,3-Dichloropropene	11.88	75	145050	456.1058	ppt		95
42)	4-Methyl-2-Pentanone	11.92	43	174023	478.7977	ppt	#	70
43)	trans-1,3-Dichloropropene	12.40	75	118320	469.1399	ppt	#	93
44)	1,1,2-Trichloroethane	12.60	97	192626	474.0757	ppt	#	78
45)	Toluene	12.86	91	277786	454.3568	ppt		95
46)	2-Hexanone	13.13	43	77667	461.7053	ppt	#	67
47)	Dibromochloromethane	13.32	129	358498	465.5020	ppt	#	87
48)	1,2-Dibromoethane	13.57	107	228901	463.8486	ppt		98
49)	Tetrachloroethene	14.02	166	187685	435.7644	ppt	#	78
51)	Chlorobenzene	14.74	112	247651	511.0319	ppt	#	66
52)	Ethylbenzene	15.12	91	219869	478.8289	ppt		93
53)	m,p-Xylene	15.32	91	362063	1017.9024	ppt		92
54)	Bromoform	15.44	173	216393	578.2128	ppt		97
55)	Styrene	15.71	104	87580	529.0912	ppt	#	92
56)	1,1,2,2-Tetrachloroethane	15.84	83	332338	585.0327	ppt		97
57)	o-Xylene	15.83	91	194469	525.2943	ppt		90
59)	4-Ethyl Toluene	17.27	105	106051	508.4074	ppt		98
60)	1,3,5-Trimethylbenzene	17.35	105	123194	462.5115	ppt		93
61)	1,2,4-Trimethylbenzene	17.88	105	96408	504.2898	ppt		94
62)	Benzyl Chloride	18.07	91	51353	697.2932	ppt		92
63)	m-Dichlorobenzene	18.08	146	99700	669.1050	ppt	#	93
64)	p-Dichlorobenzene	18.17	146	73756	661.0471	ppt	#	95
65)	o-Dichlorobenzene	18.63	146	93372	602.9092	ppt	#	95
66)	1,2,4-Trichlorobenzene	21.14	180	3890	460.0350	ppt	#	97
67)	Naphthalene	21.32	128	17834	539.3637	ppt		99
68)	Hexachloro-1,3-butadiene	21.87	225	94433	535.4128	ppt		98

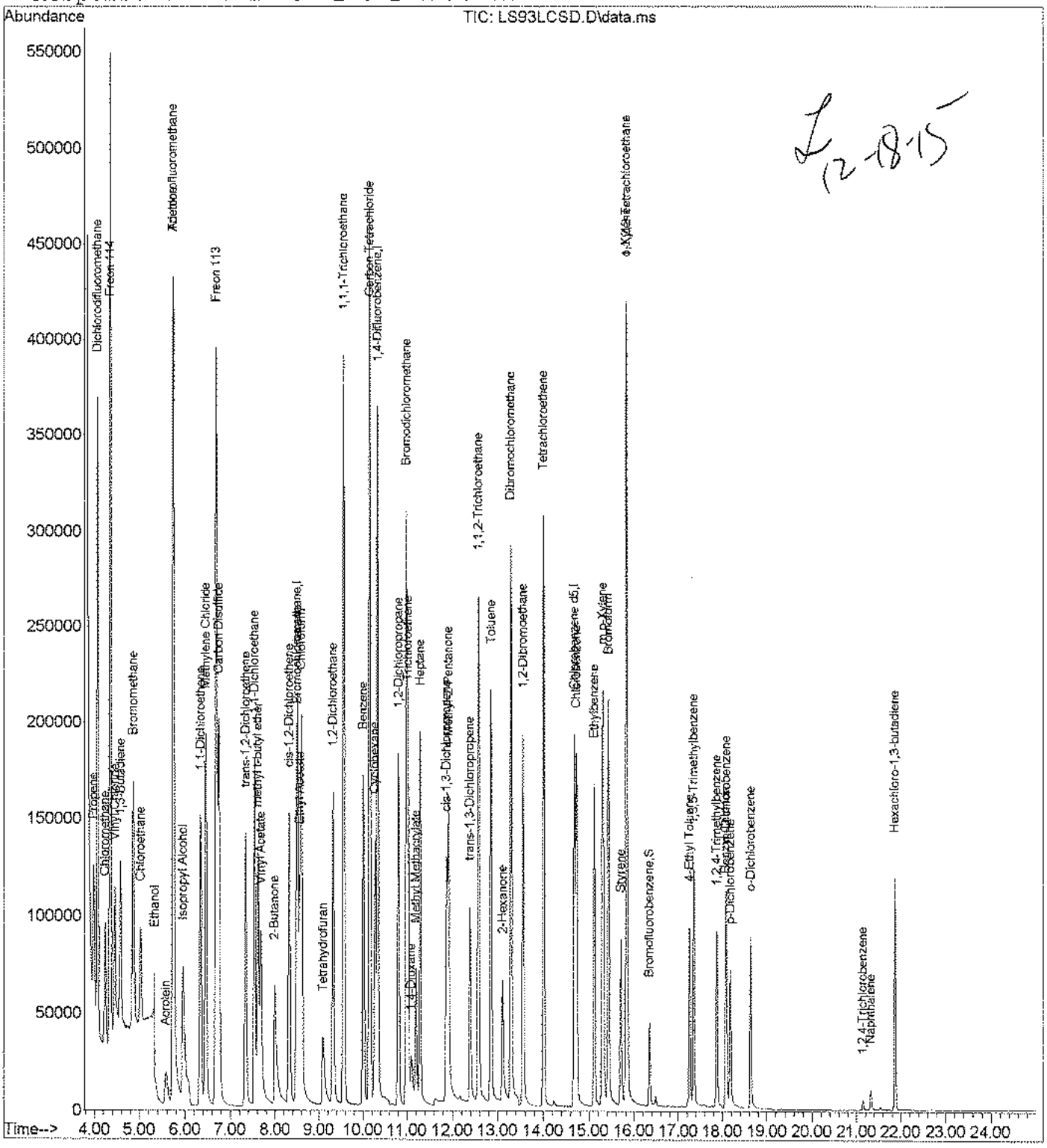
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS93LCSD.D Vial: 1
Acq Time : 12/10/2015 16:07 Operator: LMR
Sample : QD- Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 16:37:43 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-18-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS93LCSD.D Vial: 1
Acq Time : 12/10/2015 16:07 Operator: LMR
Sample : QD- Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 16:37:43 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	97109	1000.0000	ppt		91.60
25) 1,4-Difluorobenzene	10.33	114	696689	1000.0000	ppt		91.21
50) Chlorobenzene d5	14.68	117	398979	1000.0000	ppt		91.30
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	91980	1041.6077	ppt		104.16%
Target Compounds							Qvalue
2) Propene	3.98	41	72186	405.6896	ppt		90
3) Dichlorodifluoromethane	4.07	85	443761	473.4243	ppt		99
4) Chloromethane	4.24	50	117500	525.2710	ppt		98
5) Freon 114	4.35	135	308435	459.3592	ppt	#	57
6) Vinyl Chloride	4.46	62	131987	461.0987	ppt		99
7) 1,3-Butadiene	4.59	54	80168	446.4278	ppt	#	62
8) Bromomethane	4.86	94	182032	485.8263	ppt		98
9) Chloroethane	5.02	64	79331	479.5079	ppt	#	91
10) Acrolein	5.57	56	40110	422.8804	ppt	#	99
11) Acetone	5.73	43	239956	394.7752	ppt		87
12) Trichlorofluoromethane	5.73	101	587088	463.3238	ppt		100
13) Ethanol	5.33	45	49965	388.9169	ppt	#	50
14) Isopropyl Alcohol	5.95	45	171564	361.8360	ppt	#	69
15) 1,1-Dichloroethene	6.34	61	202227	441.8212	ppt	#	76
16) Methylene Chloride	6.46	84	187659	372.3899	ppt	#	70
17) Freon 113	6.69	151	303118	463.5100	ppt	#	46
18) Carbon Disulfide	6.75	76	531293	449.8927	ppt	#	61
19) trans-1,2-Dichloroethene	7.33	96	128864	432.2370	ppt	#	79
20) 1,1-Dichloroethane	7.53	63	295218	457.0058	ppt		97
21) methyl t-butyl ether	7.61	73	193400	418.4947	ppt	#	85
22) Vinyl Acetate	7.68	86	17604	396.7857	ppt	#	1
23) 2-Butanone	7.99	43	190700	462.6452	ppt	#	71
24) cis-1,2-Dichloroethene	8.32	96	125673	442.1577	ppt	#	79
26) Ethyl Acetate	8.56	61	31387	539.9741	ppt	#	1
27) Hexane	8.51	57	116429	471.3976	ppt	#	67
28) Chloroform	8.60	83	432921	479.6778	ppt	#	17
29) Tetrahydrofuran	9.09	42	73367	449.3569	ppt	#	43
30) 1,2-Dichloroethane	9.32	62	235131	477.7390	ppt	#	95
31) 1,1,1-Trichloroethane	9.56	97	403868	463.0144	ppt	#	90
32) Benzene	10.01	78	349143	434.4530	ppt	#	88
33) Carbon Tetrachloride	10.15	117	469310	467.4217	ppt		99
34) Cyclohexane	10.27	84	96311	492.4093	ppt	#	53
35) 1,2-Dichloropropane	10.80	63	149775	465.3172	ppt		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS93LCSD.D Vial: 1
Acq Time : 12/10/2015 16:07 Operator: LMR
Sample : QD- Inst : 5975-L
Misc : 200 mL OF 0.5PPB (30126) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 10 16:37:43 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.99	83	410622	477.7052	ppt	#	98
37)	1,4-Dioxane	11.09	88	41582	415.5624	ppt	#	67
38)	Trichloroethene	11.03	130	171951	453.2905	ppt	#	33
39)	Methyl Methacrylate	11.20	69	65928	509.4686	ppt	#	58
40)	Heptane	11.29	71	82004	532.5638	ppt	#	26
41)	cis-1,3-Dichloropropene	11.86	75	140398	474.5146	ppt	#	93
42)	4-Methyl-2-Pentanone	11.90	43	170575	504.4308	ppt	#	69
43)	trans-1,3-Dichloropropene	12.38	75	114494	487.9415	ppt	#	93
44)	1,1,2-Trichloroethane	12.58	97	186989	494.6405	ppt	#	77
45)	Toluene	12.85	91	262718	461.8674	ppt		96
46)	2-Hexanone	13.11	43	80097	511.7824	ppt	#	65
47)	Dibromochloromethane	13.30	129	353861	493.8651	ppt	#	88
48)	1,2-Dibromoethane	13.56	107	228712	498.1479	ppt		96
49)	Tetrachloroethene	14.01	166	186074	464.3535	ppt	#	79
51)	Chlorobenzene	14.73	112	259955	511.8617	ppt	#	64
52)	Ethylbenzene	15.11	91	240171	499.0953	ppt		92
53)	m,p-Xylene	15.30	91	394418	1058.0964	ppt		91
54)	Bromoform	15.43	173	212931	542.9126	ppt		98
55)	Styrene	15.71	104	94799	546.4821	ppt	#	92
56)	1,1,2,2-Tetrachloroethane	15.83	83	344330	578.3910	ppt		97
57)	o-Xylene	15.82	91	208284	536.8522	ppt		92
59)	4-Ethyl Toluene	17.26	105	112950	516.6898	ppt		97
60)	1,3,5-Trimethylbenzene	17.35	105	129671	464.5392	ppt		92
61)	1,2,4-Trimethylbenzene	17.88	105	96379	481.0564	ppt		97
62)	Benzyl Chloride	18.06	91	53161	688.7939	ppt		93
63)	m-Dichlorobenzene	18.08	146	102160	654.2241	ppt	#	95
64)	p-Dichlorobenzene	18.18	146	80042	684.5411	ppt	#	92
65)	o-Dichlorobenzene	18.63	146	95646	589.3165	ppt	#	94
66)	1,2,4-Trichlorobenzene	21.14	180	4344	490.2049	ppt	#	96
67)	Naphthalene	21.32	128	18079	521.7397	ppt		99
68)	Hexachloro-1,3-butadiene	21.87	225	96071	519.7612	ppt		98

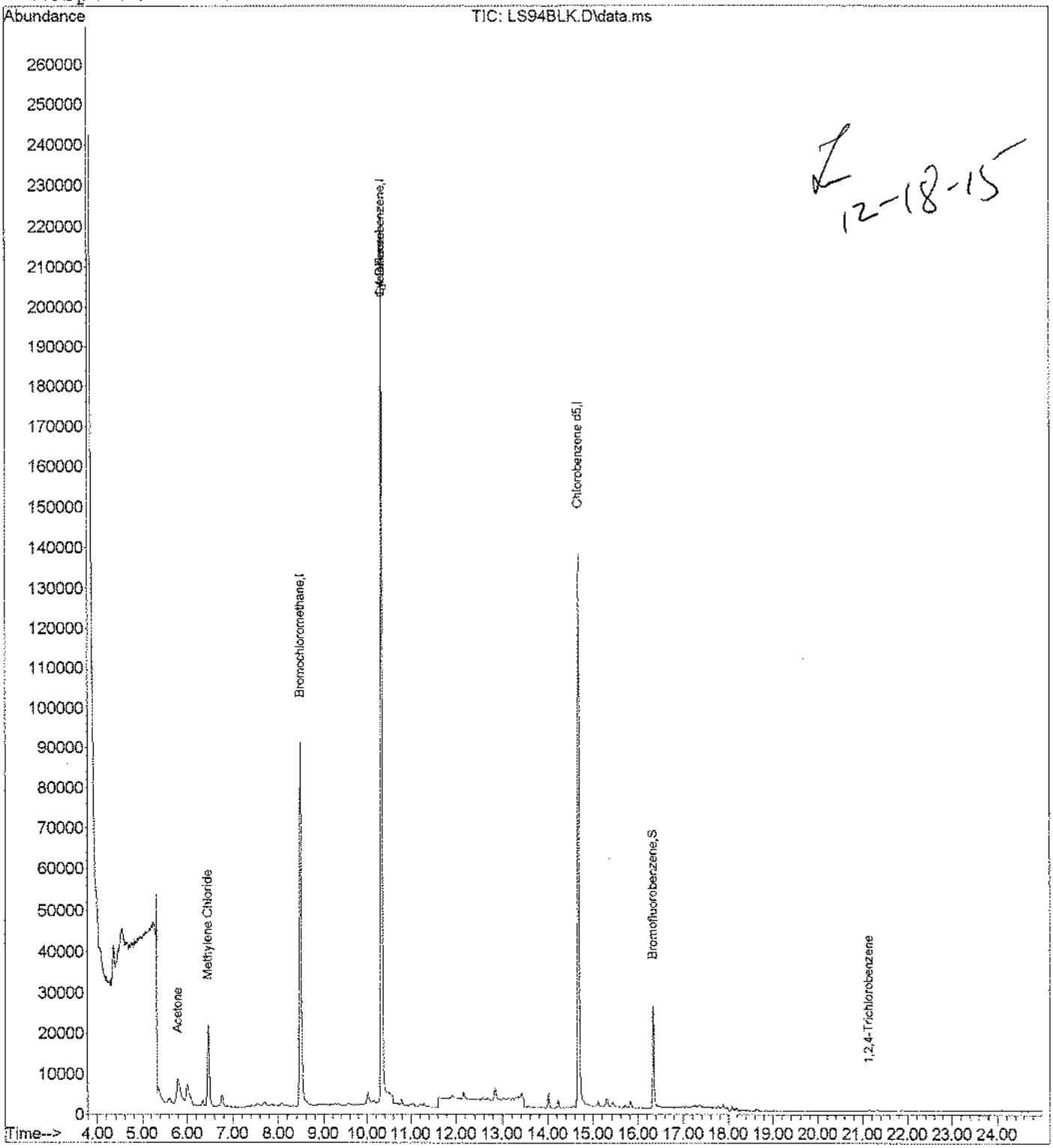
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\10DEC15L\LS94BLK.D Vial: 2
Acq Time : 12/10/2015 16:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:29:13 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-18-15

Quantitation Report

Data File : I:\L - 5975-L\2015\DEC15L\10DEC15L\LS94BLK.D Vial: 2
Acq Time : 12/10/2015 16:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:29:13 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.49	130	87299	1000.0000 ppt	82.35
25) 1,4-Difluorobenzene	10.33	114	445944	1000.0000 ppt	58.38
50) Chlorobenzene d5	14.68	117	295649	1000.0000 ppt	67.65
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	53096	811.4209 ppt	81.14%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.79	43	26028	47.6331 ppt	89
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.46	84	18732	41.3488 ppt #	70
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.33	84	7761	61.9907 ppt #	19
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : I:\L - 5975-L\2015\DEC15L\10DEC15L\LS94BLK.D Vial: 2
Acq Time : 12/10/2015 16:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:29:13 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	298	45.3814 ppt #	90
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

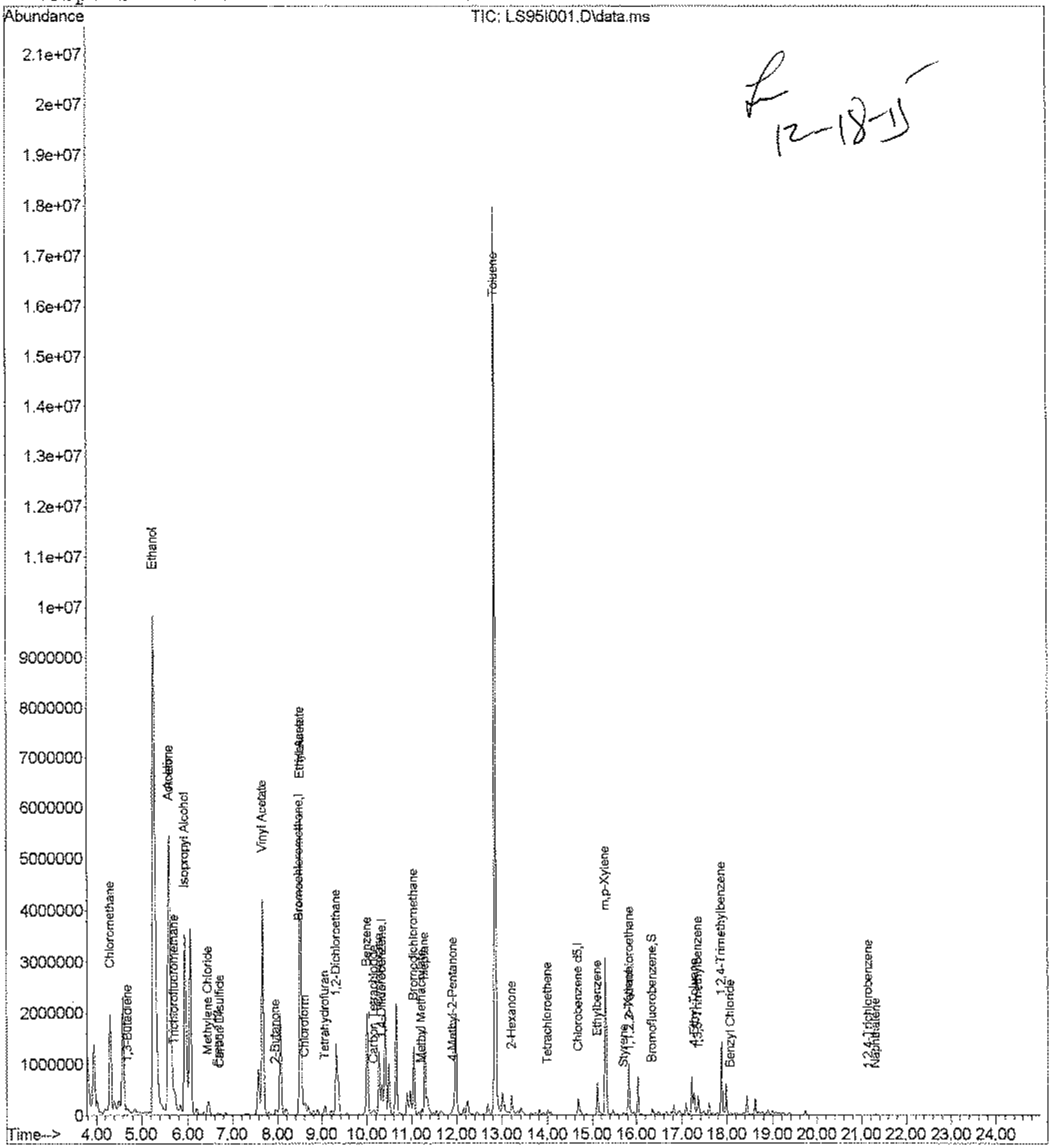
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS95I001.D Vial: 13
Acq Time : 12/10/2015 17:44 Operator: LMR
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:29:45 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-18-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS95I001.D Vial: 13
Acq Time : 12/10/2015 17:44 Operator: LMR
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:29:45 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.48	130	118126	1000.0000 ppt	111.43
25) 1,4-Difluorobenzene	10.33	114	1207255	1000.0000 ppt	158.05#
50) Chlorobenzene d5	14.68	117	676695	1000.0000 ppt	154.85#
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	226304	1510.9848 ppt	151.10%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	4.31	50	74777	274.8069 ppt #	69
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.70	54	11215	51.3409 ppt #	1
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.58	56	1461391	12666.1708 ppt #	83
11) Acetone	5.60	43	13124291	17750.3968 ppt #	70
12) Trichlorofluoromethane	5.71	101	472275	306.4011 ppt	99
13) Ethanol	5.26	45	21031453	134578.0281 ppt #	77
14) Isopropyl Alcohol	5.93	45	8275084	14347.3609 ppt #	91
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.45	84	163552	266.8077 ppt #	68
17) Freon 113	6.68	151	41934	52.7142 ppt #	47
18) Carbon Disulfide	6.73	76	53631	37.3340 ppt #	59
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.68	86	203441	3769.6163 ppt #	1
23) 2-Butanone	7.96	43	241737	482.1193 ppt #	78
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.52	61	199316	1978.8151 ppt #	1
27) Hexane	8.51	57	4517167	10554.3683 ppt #	70
28) Chloroform	8.60	83	265341	169.6623 ppt #	17
29) Tetrahydrofuran	9.06	42	41548	146.8523 ppt #	19
30) 1,2-Dichloroethane	9.32	62	59575	69.8530 ppt #	88
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.00	78	3834959	2753.8491 ppt #	89
33) Carbon Tetrachloride	10.14	117	76672	44.0682 ppt	99
34) Cyclohexane	10.27	84	896003	2643.6244 ppt #	55
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS95I001.D Vial: 13
Acq Time : 12/10/2015 17:44 Operator: LMR
Sample : 1534300001 Inst : 5975-L
Misc : DIN Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:29:45 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

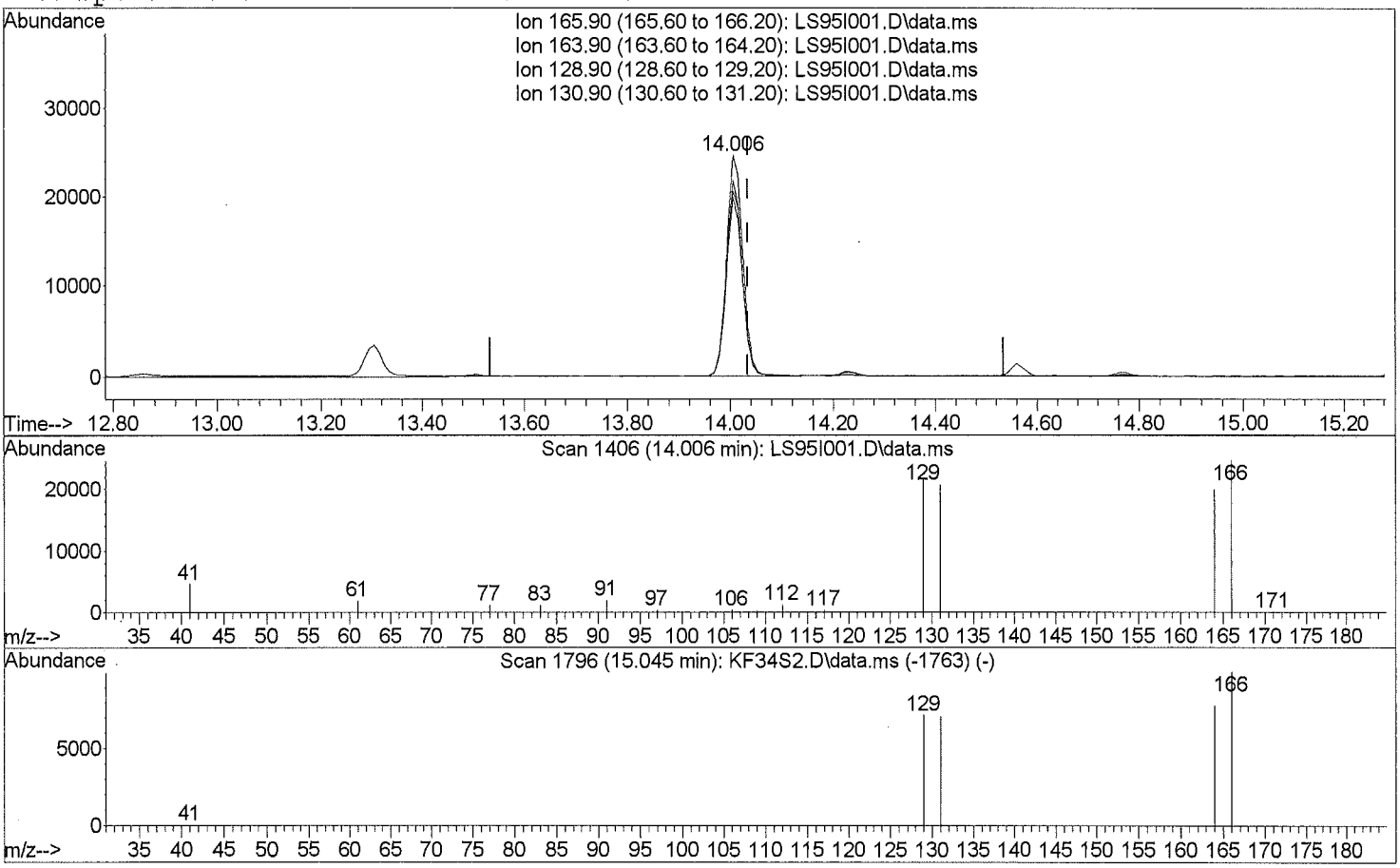
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	11.05	83	88724	59.5661 ppt #	27
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	11.23	69	53583	238.9541 ppt #	35
40)	Heptane	11.29	71	883153	3309.8816 ppt #	29
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.90	43	101704	173.5658 ppt #	64
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	19700911	19987.2814 ppt	96
46)	2-Hexanone	13.21	43	252431	930.7900 ppt #	28
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.01	166	54564	78.5795 ppt #	75
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	899980	1102.6885 ppt	93
53)	m,p-Xylene	15.29	91	4426938	7002.1115 ppt	92
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.71	104	23913	81.2762 ppt #	80
56)	1,1,2,2-Tetrachloroethane	15.85	83	78506	77.7511 ppt #	32
57)	o-Xylene	15.83	91	1094195	1662.8405 ppt	92
59)	4-Ethyl Toluene	17.26	105	461162	1243.8106 ppt	98
60)	1,3,5-Trimethylbenzene	17.35	105	388871	821.3762 ppt	93
61)	1,2,4-Trimethylbenzene	17.88	105	1367781	4025.1979 ppt	94
62)	Benzyl Chloride	18.07	91	6877	52.5354 ppt #	55
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.15	180	669	44.5114 ppt #	87
67)	Naphthalene	21.32	128	17446	296.8468 ppt #	91
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2015\DEC15L\10DEC15L\
Data File : LS95I001.D
Acq On : 12/10/2015 17:44
Operator : LMR
Sample : 1534300001
Inst : 5975-L
Misc : DIN
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 11 07:29:45 2015
Quant Method : J:\L\METHODS\TO15LSIMA7.m
Quant Title : TO-15 SIM
QLast Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



TIC: LS95I001.D\data.ms

(49) Tetrachloroethene

14.006min (-0.029) 78.58 ppt

response 54564

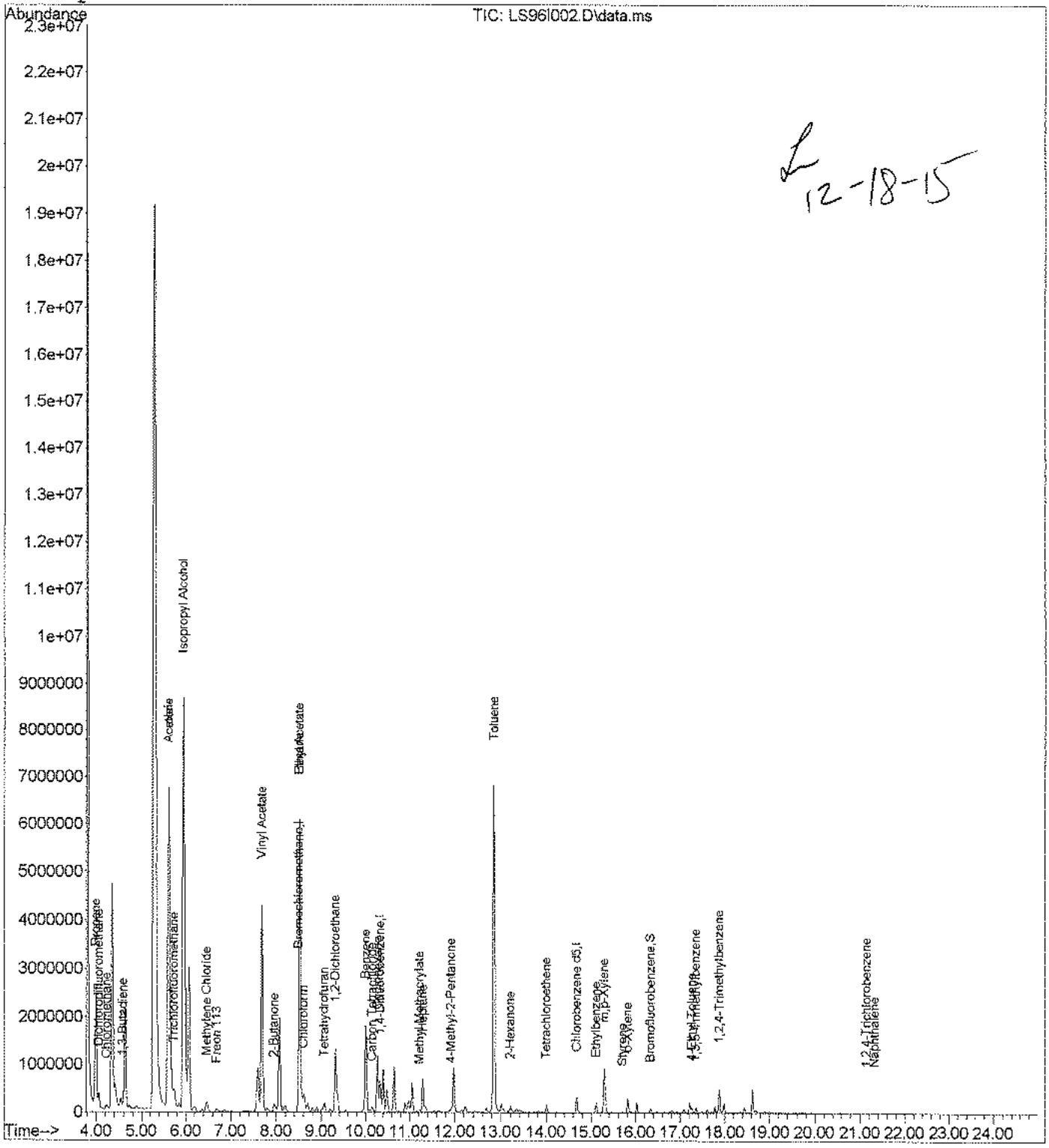
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	79.61
128.90	57.40	87.36#
130.90	56.90	83.45#

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS96I002.D Vial: 14
Acq Time : 12/10/2015 18:34 Operator: LMR
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:30:01 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



12-18-15

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS96I002.D Vial: 14
Acq Time : 12/10/2015 18:34 Operator: LMR
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:30:01 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.49	130	136266	1000.0000 ppt	128.54
25) 1,4-Difluorobenzene	10.33	114	1333124	1000.0000 ppt	174.52#
50) Chlorobenzene d5	14.68	117	676085	1000.0000 ppt	154.71#
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	186321	1245.1490 ppt	124.51%
Target Compounds					Qvalue
2) Propene	4.00	41	1542303	6177.0706 ppt #	56
3) Dichlorodifluoromethane	4.06	85	455589	346.3751 ppt	99
4) Chloromethane	4.23	50	153745	489.7997 ppt	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.58	54	71224	282.6497 ppt #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.60	56	1171574	8802.5121 ppt #	78
11) Acetone	5.61	43	14562509	17073.6515 ppt #	76
12) Trichlorofluoromethane	5.73	101	456612	256.8033 ppt	100
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	5.94	45	21349187	32087.7262 ppt	95
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.46	84	132947	188.0091 ppt #	71
17) Freon 113	6.69	151	49624	54.0768 ppt #	50
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.69	86	204251	3280.8082 ppt #	1
23) 2-Butanone	7.96	43	409492	707.9699 ppt #	75
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.52	61	473326	4255.5125 ppt #	1
27) Hexane	8.51	57	3493606	7392.1112 ppt #	35
28) Chloroform	8.60	83	632156	366.0443 ppt #	17
29) Tetrahydrofuran	9.06	42	42926	137.3977 ppt #	29
30) 1,2-Dichloroethane	9.32	62	55362	58.7842 ppt #	89
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	10.00	78	3480417	2263.2845 ppt #	89
33) Carbon Tetrachloride	10.15	117	81848	42.6016 ppt	99
34) Cyclohexane	10.27	84	845619	2259.4019 ppt #	56
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS96I002.D Vial: 14
Acq Time : 12/10/2015 18:34 Operator: LMR
Sample : 1534300002 Inst : 5975-L
Misc : BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:30:01 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

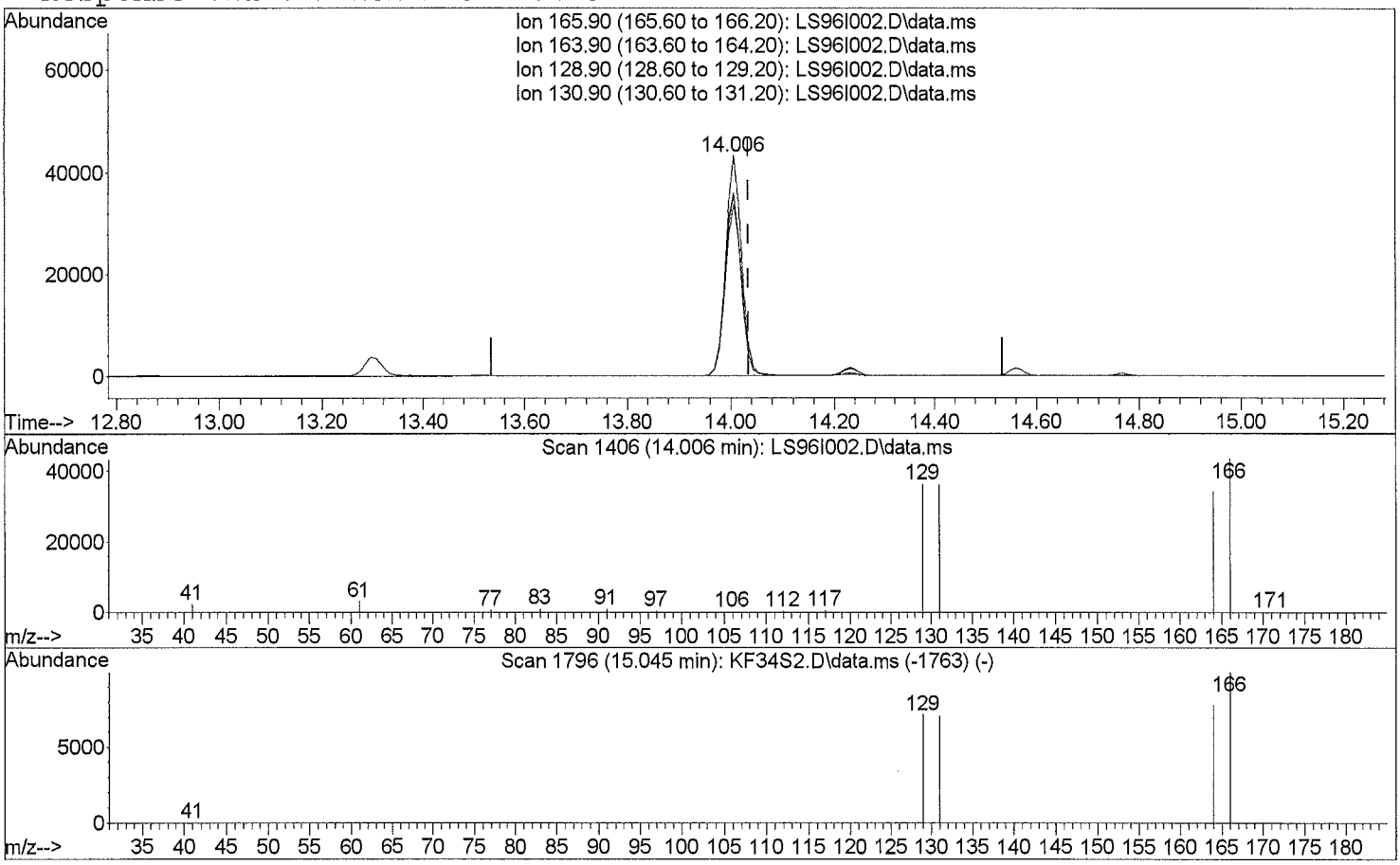
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	11.22	69	19520	78.8308 ppt #	35
40)	Heptane	11.29	71	344117	1167.9147 ppt #	29
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.90	43	58984	91.1567 ppt #	58
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.85	91	7944354	7298.8506 ppt	99
46)	2-Hexanone	13.21	43	90026	300.6114 ppt #	28
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.01	166	92234	120.2880 ppt #	77
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	301927	370.2658 ppt	93
53)	m,p-Xylene	15.29	91	1421316	2250.1315 ppt	92
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.71	104	16196	55.0971 ppt #	76
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	355225	540.3200 ppt	92
59)	4-Ethyl Toluene	17.26	105	136655	368.9079 ppt	92
60)	1,3,5-Trimethylbenzene	17.35	105	115550	244.2858 ppt	93
61)	1,2,4-Trimethylbenzene	17.87	105	518955	1528.5936 ppt	94
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	489	32.5646 ppt #	96
67)	Naphthalene	21.32	128	12168	207.2275 ppt #	80
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2015\DEC15L\10DEC15L\
Data File : LS96I002.D
Acq On : 12/10/2015 18:34
Operator : LMR
Sample : 1534300002
Inst : 5975-L
Misc : BAS
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 11 07:30:01 2015
Quant Method : J:\L\METHODS\TO15LSIMA7.m
Quant Title : TO-15 SIM
QLast Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



TIC: LS96I002.D\data.ms

(49) Tetrachloroethene

14.006min (-0.029) 120.29 ppt

response 92234

Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	79.34
128.90	57.40	84.63#
130.90	56.90	83.08#

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS97I003.D Vial: 15
Acq Time : 12/10/2015 19:23 Operator: LMR
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:30:17 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.49	130	136638	1000.0000	ppt		128.89
25) 1,4-Difluorobenzene	10.33	114	1348094	1000.0000	ppt		176.48#
50) Chlorobenzene d5	14.68	117	706244	1000.0000	ppt		161.61#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	188645	1206.8446	ppt		120.68%
Target Compounds							Qvalue
2) Propene	3.99	41	1615233	6451.5498	ppt	#	57
3) Dichlorodifluoromethane	4.06	85	456413	346.0568	ppt		99
4) Chloromethane	4.23	50	154859	492.0056	ppt		99
5) Freon 114	0.00	135		Not Detected			
6) Vinyl Chloride	0.00	62		Not Detected			
7) 1,3-Butadiene	4.58	54	76268	301.8426	ppt	#	12
8) Bromomethane	0.00	94		Not Detected			
9) Chloroethane	0.00	64		Not Detected			
10) Acrolein	5.60	56	1184522	8875.5658	ppt	#	77
11) Acetone	5.61	43	14265398	16679.7720	ppt	#	76
12) Trichlorofluoromethane	5.73	101	457693	256.7105	ppt		100
13) Ethanol	0.00	45		Not Detected			
14) Isopropyl Alcohol	5.94	45	21399360	32075.5711	ppt		95
15) 1,1-Dichloroethene	0.00	61		Not Detected			
16) Methylene Chloride	6.46	84	167628	236.4084	ppt	#	74
17) Freon 113	6.69	151	49696	54.0078	ppt	#	50
18) Carbon Disulfide	0.00	76		Not Detected			
19) trans-1,2-Dichloroethene	0.00	96		Not Detected			
20) 1,1-Dichloroethane	0.00	63		Not Detected			
21) methyl t-butyl ether	0.00	73		Not Detected			
22) Vinyl Acetate	7.69	86	205941	3298.9481	ppt	#	1
23) 2-Butanone	7.96	43	340184	586.5422	ppt	#	76
24) cis-1,2-Dichloroethene	0.00	96		Not Detected			
26) Ethyl Acetate	8.52	61	473753	4212.0533	ppt	#	1
27) Hexane	8.51	57	3549842	7427.6933	ppt	#	36
28) Chloroform	8.60	83	635349	363.8078	ppt	#	17
29) Tetrahydrofuran	9.06	42	48021	151.9990	ppt	#	19
30) 1,2-Dichloroethane	9.32	62	55650	58.4339	ppt	#	90
31) 1,1,1-Trichloroethane	0.00	97		Not Detected			
32) Benzene	10.00	78	3546211	2280.4619	ppt	#	89
33) Carbon Tetrachloride	10.15	117	83485	42.9711	ppt		99
34) Cyclohexane	10.27	84	879925	2324.9563	ppt	#	57
35) 1,2-Dichloropropane	0.00	63		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS97I003.D Vial: 15
Acq Time : 12/10/2015 19:23 Operator: LMR
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:30:17 2015 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected		
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	0.00	130		Not Detected		
39)	Methyl Methacrylate	11.22	69	21498	85.8548 ppt	#	35
40)	Heptane	11.29	71	359526	1206.6621 ppt	#	29
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	11.90	43	62349	95.2872 ppt	#	59
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.85	91	8143258	7398.5131 ppt		99
46)	2-Hexanone	13.21	43	95358	314.8799 ppt	#	29
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	14.01	166	94842	122.3158 ppt	#	78
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.11	91	334123	392.2514 ppt		92
53)	m,p-Xylene	15.29	91	1542468	2337.6524 ppt		91
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	15.71	104	18831	61.3255 ppt		93
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.82	91	382268	556.6241 ppt		91
59)	4-Ethyl Toluene	17.26	105	145626	376.3378 ppt		93
60)	1,3,5-Trimethylbenzene	17.35	105	127780	258.6054 ppt		93
61)	1,2,4-Trimethylbenzene	17.87	105	565325	1594.0688 ppt		94
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	21.32	128	12112	197.4652 ppt	#	81
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

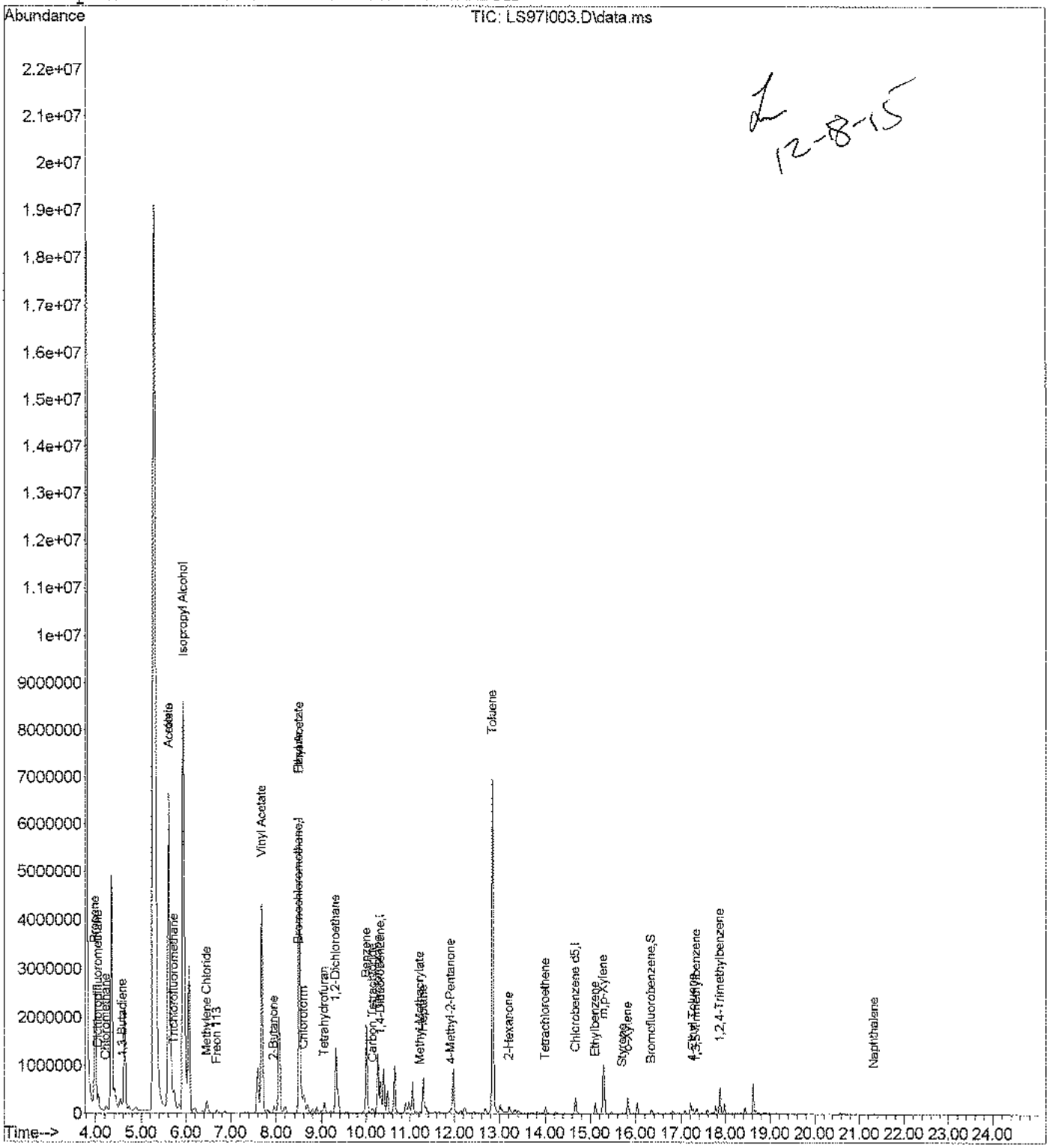
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2015\D...L\10DEC15L\LS97I003.D Vial: 15
Acq Time : 12/10/2015 19:23 Operator: LMR
Sample : 1534300003 Inst : 5975-L
Misc : BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Dec 11 07:30:17 2015 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration

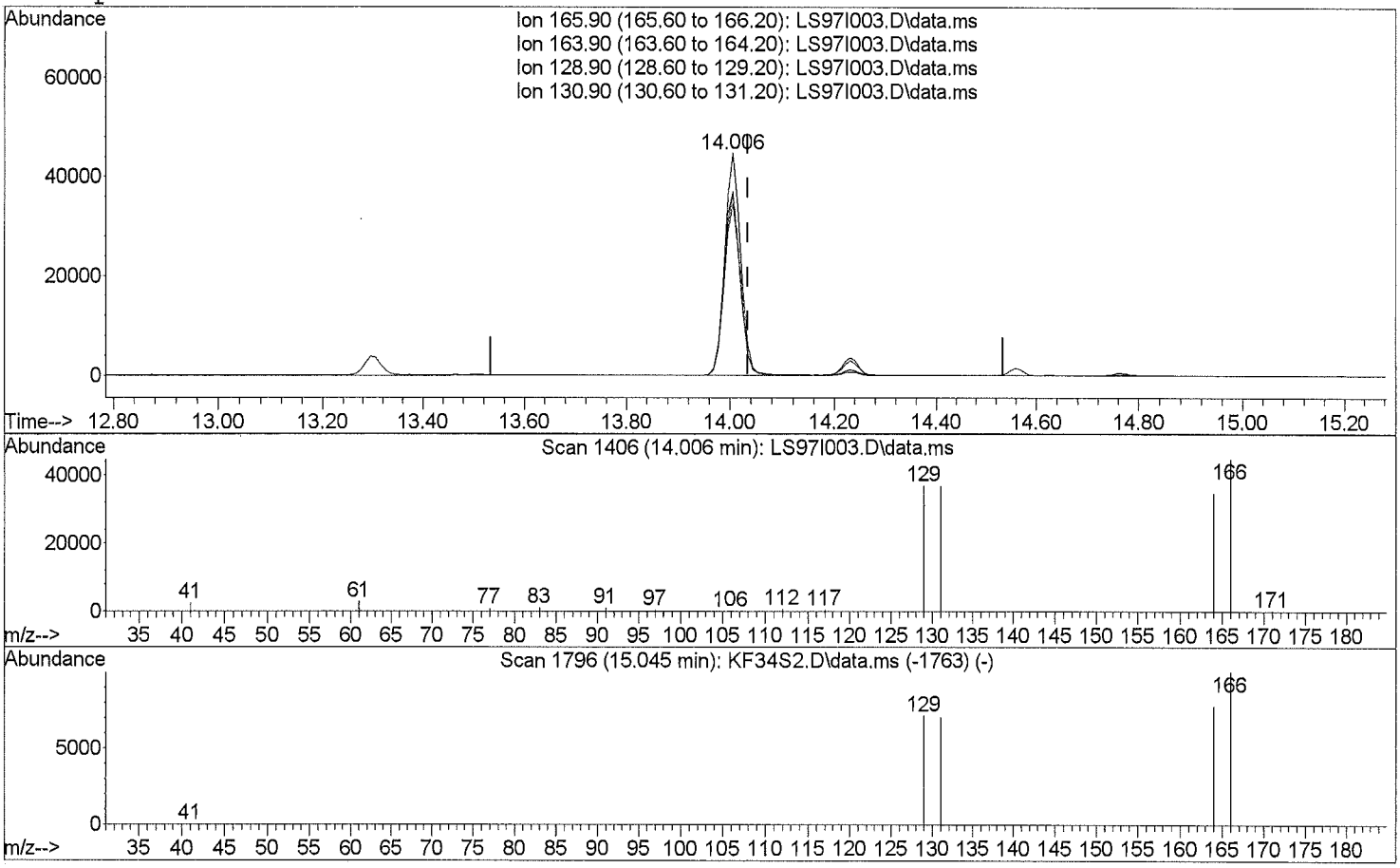


12-8-15

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2015\DEC15L\10DEC15L\
Data File : LS97I003.D
Acq On : 12/10/2015 19:23
Operator : LMR
Sample : 1534300003
Inst : 5975-L
Misc : BAS-D
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 11 07:30:17 2015
Quant Method : J:\L\METHODS\TO15LSIMA7.m
Quant Title : TO-15 SIM
QLast Update : Thu Dec 10 14:10:39 2015
Response via : Initial Calibration



TIC: LS97I003.D\data.ms

(49) Tetrachloroethene

14.006min (-0.029) 122.32 ppt

response 94842

Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.15
128.90	57.40	84.36#
130.90	56.90	82.40#

J-2
2016 VAPOR INTRUSION ANALYTICAL DATA

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1606379**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received two summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $$C = \mathbf{ppb\ v/v\ (MW/24.45)}$$

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ANALYTICAL REPORT

Report Date: March 14, 2016

CH2MHill Deliverables
CH2MHill
4246 South Riverboat Road
Suite 210
Salt Lake City, UT 84123

Phone: (385) 474-8553
Fax: (385) 474-8653
E-mail: edata@ch2m.com

Workorder: **34-1606379**
Project ID: 665353-ZZ-01.04
Purchase Order: 665353-ZZ-01.04
Project Manager Richard W. Wade

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0011H-030116-IA-012A-LLL	1606379001	03/01/16	03/03/16	
A-0003H-030316-IA-BAS	1606379002	03/03/16	03/03/16	

ANALYTICAL REPORT

Workorder: 34-1606379
Client: CH2M
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0011H-030116-IA-012A-LLL
Lab ID: 1606379001
Matrix: Air
Sampling Site: NA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 03/01/2016
Received: 03/03/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3191 (HBN: 165682)
Analyzed: 03/10/2016 10:12
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.43	2.2	0.15	0.50	1	J
Chloromethane	0.43	0.89	0.15	0.50	1	J
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.19	1.1	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**3.4**	**8.1**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	**1.1**	**3.7**	0.15	0.50	1	
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.29	0.85	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.45	1.6	0.15	1.0	1	J
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.36	1.4	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1606379
Client: CH2M
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0011H-030116-IA-012A-LLL
Lab ID: 1606379001
Matrix: Air
Sampling Site: NA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 03/01/2016
Received: 03/03/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3191 (HBN: 165682)
Analyzed: 03/10/2016 10:12
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.15	0.66	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3192 (HBN: 165702)
Analyzed: 03/11/2016 11:58
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
1,4-Dioxane	ND	<0.18	0.050	1	
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Tetrachloroethene	**1.7**	**12**	0.050	1	E
Trichloroethene	ND	<0.27	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1606379
Client: CH2M
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-030316-IA-BAS
Lab ID: 1606379002
Matrix: Air
Sampling Site: NA
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 03/03/2016
Received: 03/03/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3191 (HBN: 165682)
Analyzed: 03/10/2016 12:15
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.41	2.0	0.15	0.50	1	J
Chloromethane	**0.58**	**1.2**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.25	1.4	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**11**	**27**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.36	1.1	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**1.9**	**6.9**	0.15	1.0	1	
Hexane	**3.6**	**13**	0.15	0.50	1	
Chloroform	0.41	2.0	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**2.0**	**6.5**	0.15	0.50	1	
Cyclohexane	**1.2**	**4.2**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**1.4**	**5.9**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**7.4**	**28**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1606379
Client: CH2M
Project Manager: Richard W. Wade

Analytical Results

Sample ID: A-0003H-030316-IA-BAS | Sampling Site: NA | Collected: 03/03/2016
Lab ID: 1606379002 | Media: Summa 6 Liter Canister | Received: 03/03/2016
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Instrument ID:** 5975-L | **Batch:** IVOA/3191 (HBN: 165682) | **Percent Solid:** NA | **Analyzed:** 03/10/2016 12:15 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.81**	**3.5**	0.15	0.50	1	
m,p-Xylene	**3.7**	**16**	0.15	0.50	1	
o-Xylene	**1.2**	**5.0**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.45	2.2	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.36	1.8	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**0.90**	**4.4**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15 SIM, Air | **Instrument ID:** 5975-L | **Batch:** IVOA/3192 (HBN: 165702) | **Percent Solid:** NA | **Analyzed:** 03/11/2016 12:52 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
1,4-Dioxane	ND	<0.18	0.050	1	
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Tetrachloroethene	**0.19**	**1.3**	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	

Comments

Quality Control: EPA TO-15 - (HBN: 165682)

The following compound in the CCV was outside of +/- 30%: 2-Hexanone

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 03/14/2016 14:16	/S/ Jorden Baum 03/14/2016 15:21

ANALYTICAL REPORT

Workorder: 34-1606379
Client: CH2M
Project Manager: Richard W. Wade

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1606379
Client: CH2M
Project Manager: Richard W. Wade

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1606379

Limits: Historical/Performance
Basis: ALS Laboratory Group

Preparation: NA
Batch: NA
Prepared By: NA

Analysis: EPA TO-15
Batch: IVOA/3191 (HBN: 165682)
Analyzed By: Lisa M. Reid

Blank

MB: 491962
Analyzed: 03/09/2016 17:53

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500
2-Hexanone	ND	0.3	1.00
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1606379

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3191 (HBN: 165682)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 491962
Analyzed: 03/09/2016 17:53
Units: ppb

Analyte	Result	MDL	RL
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
1,2-Dichlorobenzene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 491963
Analyzed: 03/09/2016 16:00
Dilution: 1
Units: ppb

LCSD: 491964
Analyzed: 03/09/2016 16:58
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	10.2	10.0	102	59.3	135.1	10.2	102	0.353	0.0	25.0
Chloromethane	9.51	10.0	95.1	55.2	137.4	9.52	95.2	0.0999	0.0	25.0
Freon 114	10.1	10.0	101	64.6	128.0	10.0	100	0.815	0.0	25.0
1,3-Butadiene	9.39	10.0	93.9	58.0	138.3	9.33	93.3	0.594	0.0	25.0
Bromomethane	10.1	10.0	101	63.3	129.9	10.1	101	0.217	0.0	25.0
Chloroethane	9.88	10.0	98.8	57.6	137.1	9.81	98.1	0.647	0.0	25.0
Freon 11	9.83	10.0	98.3	58.9	132.8	9.84	98.4	0.103	0.0	25.0
Freon 113	10.2	10.0	102	68.5	120.0	10.2	102	0.363	0.0	25.0
1,1-Dichloroethene	10.0	10.0	100	67.2	125.1	9.99	99.9	0.130	0.0	25.0
Acetone	10.2	10.0	102	42.5	146.0	10.1	101	0.652	0.0	25.0
Carbon disulfide	9.25	10.0	92.5	63.9	128.8	9.21	92.1	0.469	0.0	25.0
Methylene chloride	9.29	10.0	92.9	63.7	127.9	9.22	92.2	0.747	0.0	25.0
trans-1,2-Dichloroethene	9.46	10.0	94.6	68.1	124.6	9.38	93.8	0.771	0.0	25.0
Methyl t-butyl ether	10.5	10.0	105	60.8	138.0	10.5	105	0.200	0.0	25.0
Vinyl acetate	10.0	10.0	100	59.3	141.1	10.0	100	0.459	0.0	25.0
2-Butanone	9.24	10.0	92.4	51.7	144.2	9.12	91.2	1.29	0.0	25.0
1,1-Dichloroethane	9.58	10.0	95.8	67.7	123.6	9.55	95.5	0.314	0.0	25.0
Ethyl acetate	9.19	10.0	91.9	53.4	156.9	9.02	90.2	1.94	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1606379

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3191 (HBN: 165682)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 491963	LCSD: 491964
	Analyzed: 03/09/2016 16:00	Analyzed: 03/09/2016 16:58
	Dilution: 1	Dilution: 1
	Units: ppb	Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Hexane	11.1	10.0	111	62.4	129.5	11.2	112	1.18	0.0	25.0
Chloroform	10.3	10.0	103	67.3	121.8	10.4	104	0.960	0.0	25.0
Tetrahydrofuran	10.7	10.0	107	50.6	155.3	10.7	107	0.364	0.0	25.0
1,2-Dichloroethane	11.2	10.0	112	62.4	130.5	11.3	113	0.675	0.0	25.0
1,1,1-Trichloroethane	10.9	10.0	109	60.4	127.7	10.9	109	0.285	0.0	25.0
Carbon tetrachloride	10.8	10.0	108	58.2	130.6	10.9	109	0.497	0.0	25.0
Benzene	10.4	10.0	104	64.1	127.3	10.3	103	1.07	0.0	25.0
Cyclohexane	10.8	10.0	108	61.9	123.6	10.9	109	0.342	0.0	25.0
1,2-Dichloropropane	10.4	10.0	104	60.7	130.6	10.6	106	2.36	0.0	25.0
Bromodichloromethane	10.4	10.0	104	62.9	128.3	10.5	105	1.30	0.0	25.0
Heptane	11.4	10.0	114	59.5	133.4	11.5	115	1.17	0.0	25.0
cis-1,3-Dichloropropene	11.1	10.0	111	64.1	133.6	11.3	113	1.81	0.0	25.0
4-Methyl-2-pentanone	9.98	10.0	99.8	73.5	150.0	10.2	102	2.13	0.0	25.0
trans-1,3-Dichloropropene	11.4	10.0	114	78.5	148.7	11.7	117	2.85	0.0	25.0
1,1,2-Trichloroethane	10.4	10.0	104	65.0	126.6	10.6	106	1.66	0.0	25.0
Toluene	11.2	10.0	112	75.6	139.4	11.4	114	1.90	0.0	25.0
2-Hexanone	5.06	10.0	* 50.6	80.8	158.8	4.73	* 47.3	6.76	0.0	25.0
Dibromochloromethane	10.8	10.0	108	62.4	130.9	11.0	110	1.34	0.0	25.0
1,2-Dibromoethane	10.7	10.0	107	64.4	129.0	11.0	110	2.17	0.0	25.0
Chlorobenzene	11.3	10.0	113	62.8	126.9	11.3	113	0.239	0.0	25.0
Ethyl benzene	11.4	10.0	114	75.9	148.5	11.5	115	0.717	0.0	25.0
m,p-Xylene	22.8	20.0	114	73.7	144.9	22.8	114	0.0394	0.0	25.0
o-Xylene	11.3	10.0	113	74.7	147.4	11.4	114	0.547	0.0	25.0
Styrene	12.0	10.0	120	75.9	158.1	12.0	120	0.209	0.0	25.0
Bromoform	9.85	10.0	98.5	59.7	136.0	9.88	98.8	0.311	0.0	25.0
1,1,2,2-Tetrachloroethane	10.2	10.0	102	59.3	134.8	10.2	102	0.206	0.0	25.0
4-Ethyl toluene	11.6	10.0	116	69.0	163.3	11.6	116	0.0689	0.0	25.0
1,3,5-Trimethylbenzene	11.3	10.0	113	64.2	155.1	11.3	113	0.0088	0.0	25.0
1,2,4-Trimethylbenzene	11.5	10.0	115	59.7	169.4	11.4	114	0.445	0.0	25.0
1,3-Dichlorobenzene	11.7	10.0	117	58.6	157.6	11.8	118	0.357	0.0	25.0
1,4-Dichlorobenzene	11.8	10.0	118	57.7	137.2	11.8	118	0.280	0.0	25.0
1,2-Dichlorobenzene	11.6	10.0	116	56.5	140.0	11.7	117	0.327	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1606379**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3191 (HBN: 165682)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene		
QC Limits	67.7	129.9	
Units	ppb		
Lab ID	**Result**	**Target**	**% Recovery**
491963-LCS	19.8	20.0	99.0
491964-LCSD	19.8	20.0	99.0
491962-MB	19.6	20.0	98.1
1606379001	20.5	20.0	102
1606379002	20.7	20.0	104

Comments

The following compound in the CCV was outside of +/- 30%: 2-Hexanone

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
03/14/2016 12:01	03/14/2016 14:20

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1606379

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3192 (HBN: 165702)		
Analyzed By:	Lisa M. Reid		

Blank

MB: 492000
Analyzed: 03/11/2016 09:28
Units: ppb

Analyte	Result	MDL	RL
1,4-Dioxane	ND	NA	0.0500
Vinyl chloride	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 492001
Analyzed: 03/11/2016 00:12
Dilution: 1
Units: ppb

LCSD: 492002
Analyzed: 03/11/2016 01:06
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
1,4-Dioxane	0.426	0.500	85.2	70.0	130.0	0.452	90.4	5.88	0.0	25.0
Vinyl chloride	0.471	0.500	94.1	17.5	153.7	0.494	98.9	4.93	0.0	25.0
cis-1,2-Dichloroethene	0.453	0.500	90.5	65.2	131.2	0.477	95.4	5.26	0.0	25.0
Trichloroethene	0.496	0.500	99.1	68.4	123.4	0.479	95.8	3.43	0.0	25.0
Tetrachloroethene	0.484	0.500	96.8	63.6	127.9	0.476	95.2	1.62	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
492001-LCS	1.01	1.00	101
492002-LCSD	1.01	1.00	101
492000-MB	0.835	1.00	83.5
1606379001	0.972	1.00	97.2
1606379002	1.16	1.00	116

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid 03/14/2016 14:16	/S/ Jorden Baum 03/14/2016 15:19

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1606379

1606379

vironmental

ALS Field Chain-of-Custody Record

CoC #: 001

Page 1 of 1

Client Name & Address:	Project Name & No.:
CHEM 4246 S. Riverboat Rd Suite 210 Taylorsville, UT 84123	665353-77.01.04
	ALS Quote No: 10006-7-104589
	Report to: mark.eichy@chem.com
Phone: 385-474-8505	Report to e-mail:
e-mail: Qwn.bingham@chem.com	Bill to:

Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample for Matrix QC	Analyses Requested: TO-15 VOCs	Preservation Code	Sample Matrix Code	Remarks
A-001H-030316-IA-012A-LLL	3/1/16	0830	—	Canister 3477 (0159)	1	✓	✓		A	Final P: -0.14 inHg
~~A-002H-030316-IA-BAS~~	~~3/3/16~~	1030	—	Canister 0361	1		✓ DO NOT ANALYZE ✱		A	Final P: 0.43 inHg
~~A-002H-030316-IA-BAS~~ ☑	3/3/16	1030	—	Canister 0217	1		✓ DO NOT ANALYZE ✱		A	Final P: 0.41 inHg
A-003H-030316-IA-BAS	3/3/16	0858	—	Canister (0422)	1		✓		A	Final P: -6.3 inHg
~~A-004H-030516-IA-BAS~~	~~3/3/16~~	1515	—	Canister 0144	1		✓ DO NOT ANALYZE ✱		A	Final P: 0.41 inHg

Matrix Codes: W) Water, B) Bulk, L) Liquid, F) Filter, S) Soil, G) Wipe, C) Solid, M) Media

Preservation Codes: 1) Cool to 4°C, 2) HCl to pH<2, 4°C, 3) H_2SO_4 to pH<2, 4°C, 4) HNO_3 to pH<2, 4°C, 5) NaOH to pH>12, 4°C, 6) ZnOAc/NaOH to pH>9, 4°C

Possible Hazard Identification
☑ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive _____ Months
☑ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☑ Level 4
EDD Type: LabSpec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☒ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #: NONE

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/3/16	1700		03/04/16	17:17
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

ALSCoC 121013

12/12/2013

Analyst Notebook

1606379

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LG116 (HBN 164186)

The following compounds in the CCS were outside of +-30%: 2-Hexanone

Client Requested NO TICS to be reported.

Dilutions: NA

Analyst Signature:

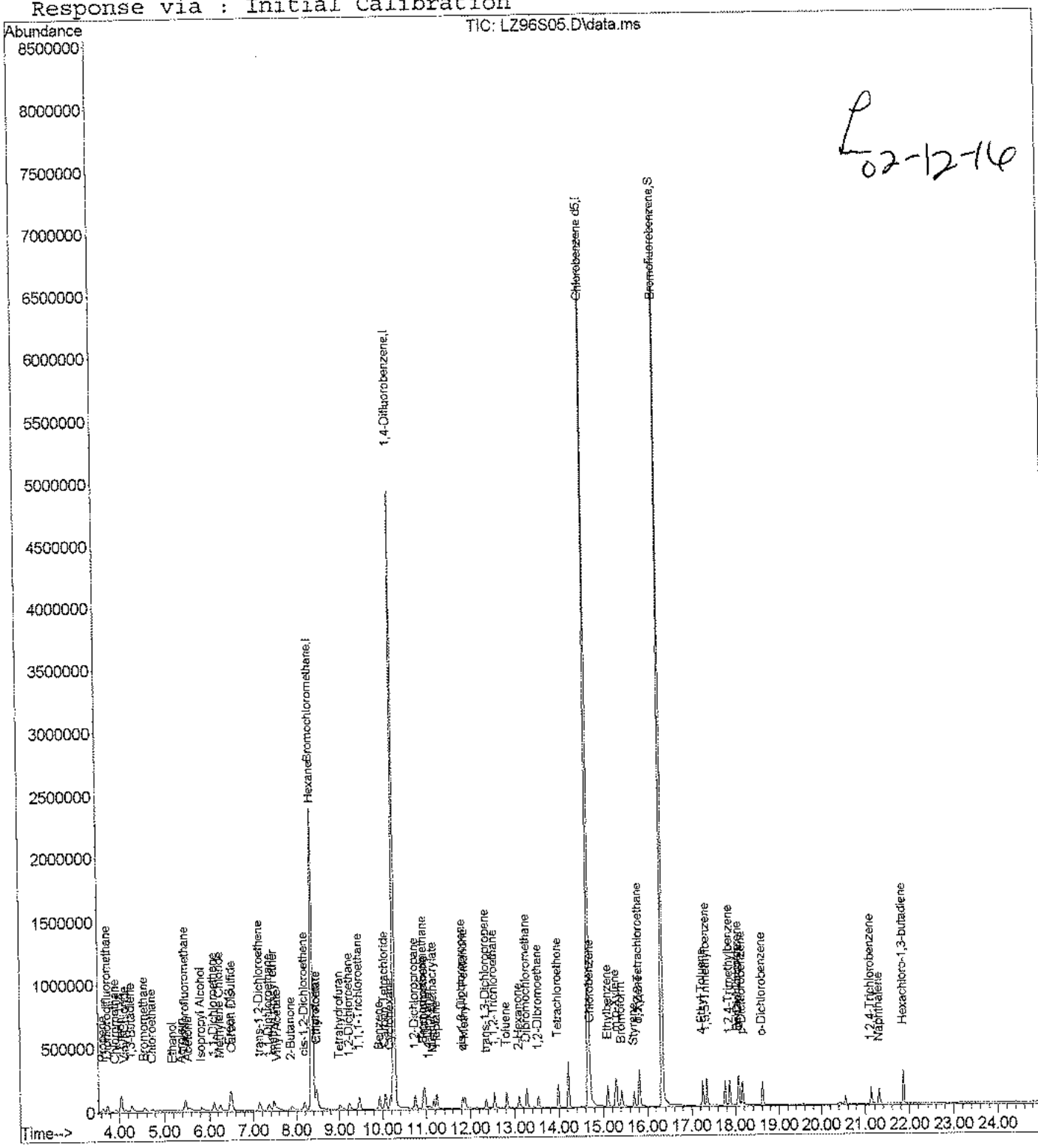
ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	483456	20.0000	ppb		67.97
25) 1,4-Difluorobenzene	10.27	114	6261074	20.0000	ppb		84.46
50) Chlorobenzene d5	14.67	117	5559437	20.0000	ppb		86.26
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3142950	20.9575	ppb		104.79%
Target Compounds							**Qvalue**
2) Propene	3.64	41	27851	0.5264	ppb	m	15
3) Dichlorodifluoromethane	3.74	85	82057	0.5277	ppb	m	91
4) Chloromethane	3.93	50	32873	0.5729	ppb	m	92
5) Freon 114	4.05	135	91544	0.6822	ppb	m	0
6) Vinyl Chloride	4.15	62	29755	0.4916	ppb	m	0
7) 1,3-Butadiene	4.28	54	31513	0.6400	ppb	m	0
8) Bromomethane	4.57	94	30436	0.4903	ppb	m	0
9) Chloroethane	4.74	64	17805	0.5457	ppb	m	0
10) Acrolein	5.39	56	11456	0.4988	ppb	m	23
11) Acetone	5.55	43	68282	0.6322	ppb		90
12) Trichlorofluoromethane	5.47	101	123068	0.7179	ppb	m	0
13) Ethanol	5.19	45	9699	0.3972	ppb	m	59
14) Isopropyl Alcohol	5.82	45	65049	0.5613	ppb	#	84
15) 1,1-Dichloroethene	6.11	61	65785	0.6794	ppb	m	0
16) Methylene Chloride	6.24	84	38391	0.6654	ppb	m	41
17) Freon 113	6.48	151	88151	0.7256	ppb	m	0
18) Carbon Disulfide	6.52	76	114355	0.7051	ppb	m	0
19) trans-1,2-Dichloroethene	7.15	96	47412	0.7519	ppb	m	0
20) 1,1-Dichloroethane	7.37	63	78620	0.7314	ppb		96
21) methyl t-butyl ether	7.47	73	98557	0.6684	ppb	#	83
22) Vinyl Acetate	7.57	86	4107	0.2708	ppb	#	1
23) 2-Butanone	7.88	43	82234	0.6688	ppb	#	70
24) cis-1,2-Dichloroethene	8.19	96	48660	0.7287	ppb	m	10
26) Ethyl Acetate	8.47	61	17957	0.8012	ppb	#	1
27) Hexane	8.38	57	56331	0.4532	ppb	#	84
28) Chloroform	8.49	83	94758	0.5984	ppb		100
29) Tetrahydrofuran	9.01	42	47532	0.5214	ppb	#	59
30) 1,2-Dichloroethane	9.24	62	56616	0.5675	ppb	#	88
31) 1,1,1-Trichloroethane	9.47	97	97476	0.5637	ppb	#	92
32) Benzene	9.93	78	126501	0.5832	ppb	#	93
33) Carbon Tetrachloride	10.06	117	119276	0.5749	ppb		99
34) Cyclohexane	10.18	84	53772	0.5139	ppb	m	1
35) 1,2-Dichloropropane	10.75	63	46807	0.5522	ppb	#	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.93	83	97032	0.5852	ppb		98
37) 1,4-Dioxane	11.06	88	33316	0.6728	ppb		98
38) Trichloroethene	10.97	130	73834	0.5582	ppb		96
39) Methyl Methacrylate	11.16	69	33779	0.4892	ppb	#	82
40) Heptane	11.24	71	29347	0.3788	ppb	#	47
41) cis-1,3-Dichloropropene	11.83	75	62055	0.5148	ppb		96
42) 4-Methyl-2-Pentanone	11.88	43	83760	0.4364	ppb	#	73
43) trans-1,3-Dichloropropene	12.36	75	53696	0.5164	ppb		96
44) 1,1,2-Trichloroethane	12.55	97	53137	0.5411	ppb	#	91
45) Toluene	12.82	91	112750	0.4066	ppb		98
46) 2-Hexanone	13.10	43	85954	0.5443	ppb	#	73
47) Dibromochloromethane	13.27	129	113336	0.5353	ppb		100
48) 1,2-Dibromoethane	13.54	107	84212	0.5551	ppb		97
49) Tetrachloroethene	13.99	166	67908	0.4425	ppb	#	80
51) Chlorobenzene	14.72	112	115921	0.4480	ppb		97
52) Ethylbenzene	15.11	91	147328	0.4034	ppb		100
53) m,p-Xylene	15.30	91	231370	0.8187	ppb		99
54) Bromoform	15.42	173	85957	0.4826	ppb		99
55) Styrene	15.70	104	82531	0.3916	ppb		98
56) 1,1,2,2-Tetrachloroethane	15.83	83	100651	0.5023	ppb	#	91
57) o-Xylene	15.81	91	117450	0.3955	ppb		98
59) 4-Ethyl Toluene	17.25	105	161004	0.4444	ppb		99
60) 1,3,5-Trimethylbenzene	17.35	105	149642	0.4411	ppb		98
61) 1,2,4-Trimethylbenzene	17.87	105	137199	0.4469	ppb		98
62) Benzyl Chloride	18.06	91	84183	0.5016	ppb		98
63) m-Dichlorobenzene	18.08	146	113667	0.5909	ppb		96
64) p-Dichlorobenzene	18.17	146	112253	0.5557	ppb		95
65) o-Dichlorobenzene	18.62	146	105869	0.5087	ppb		94
66) 1,2,4-Trichlorobenzene	21.14	180	56158	1.2499	ppb	#	95
67) Naphthalene	21.31	128	145969	0.8722	ppb		98
68) Hexachloro-1,3-butadiene	21.86	225	54255	0.5774	ppb		98

(#) = qualifier out of range (m) = manual integration

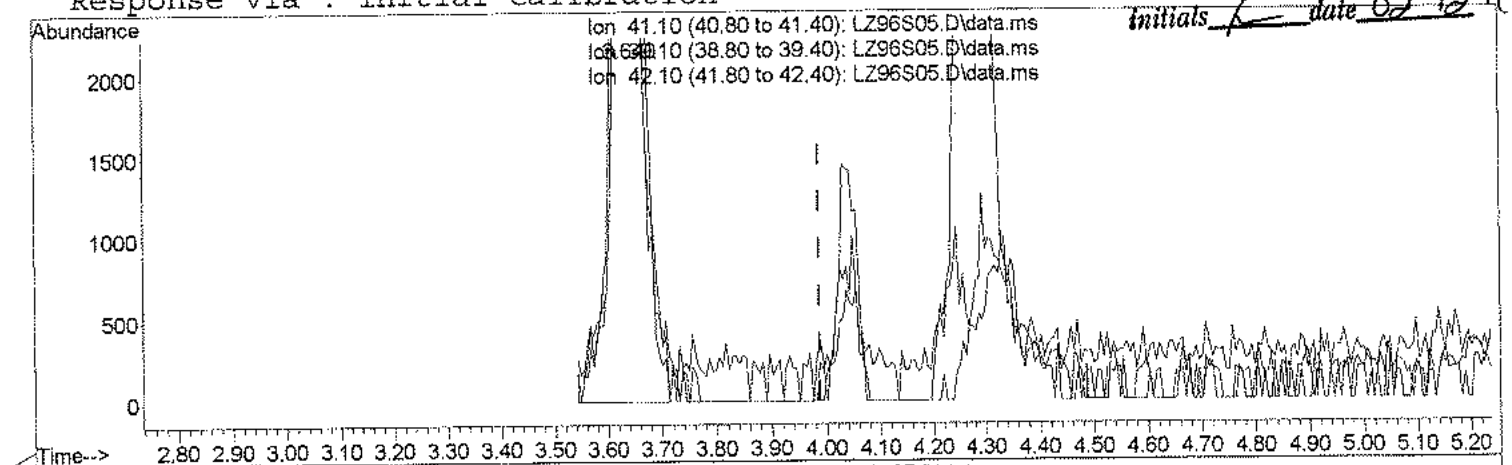
Quantitation Report (Qedit)

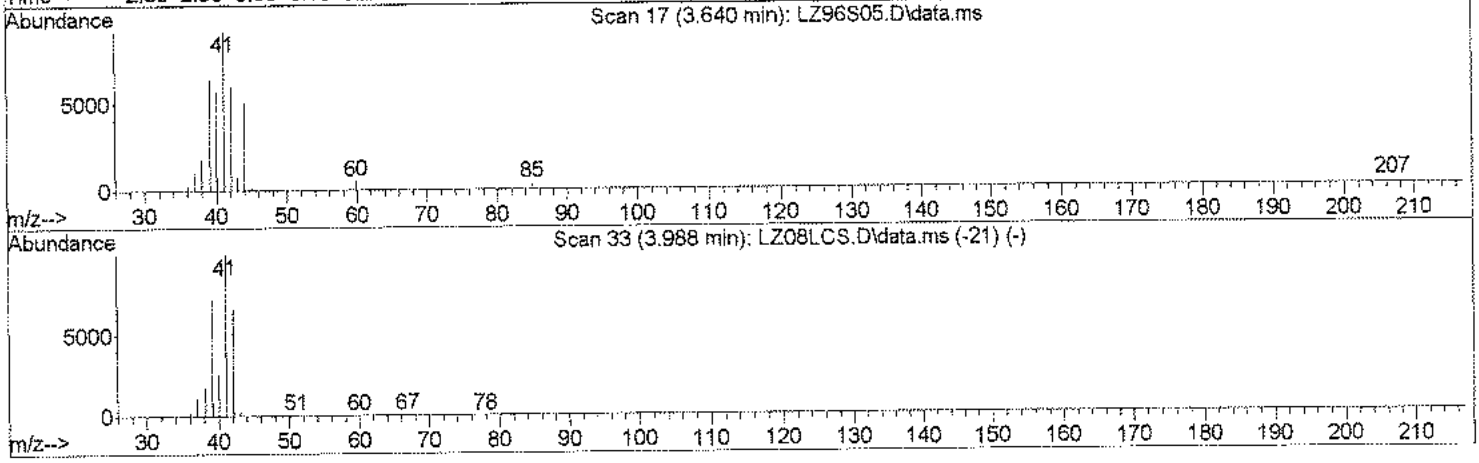
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

Initials L date 02-12-16





TIC: LZ96S05.D\data.ms

(2) Propene

3.640min (-0.348) 0.53 ppb m

response 27851

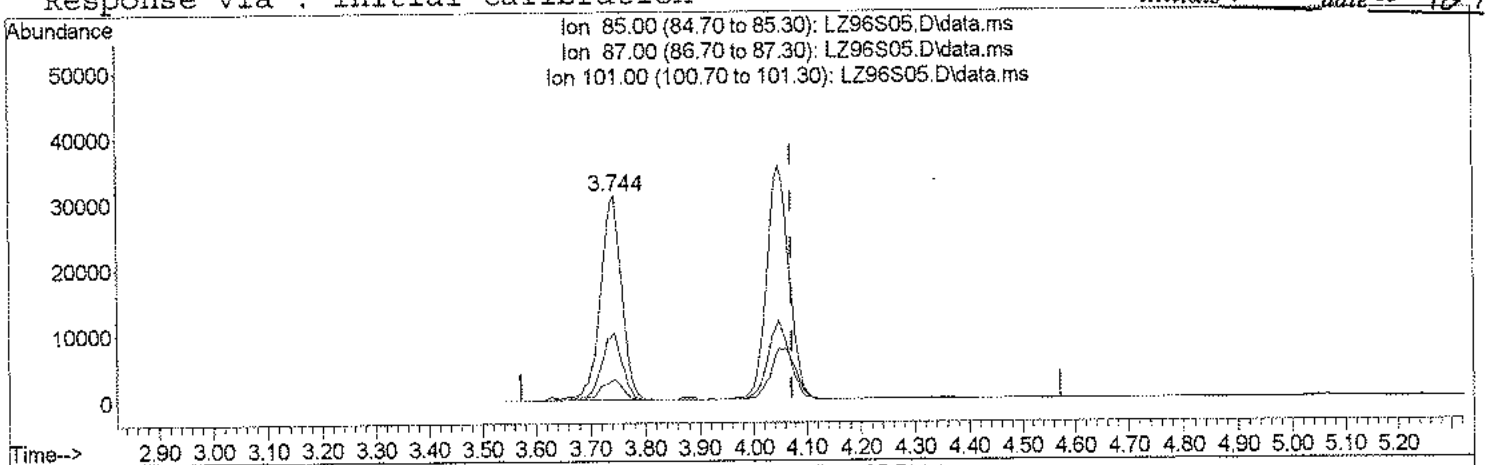
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

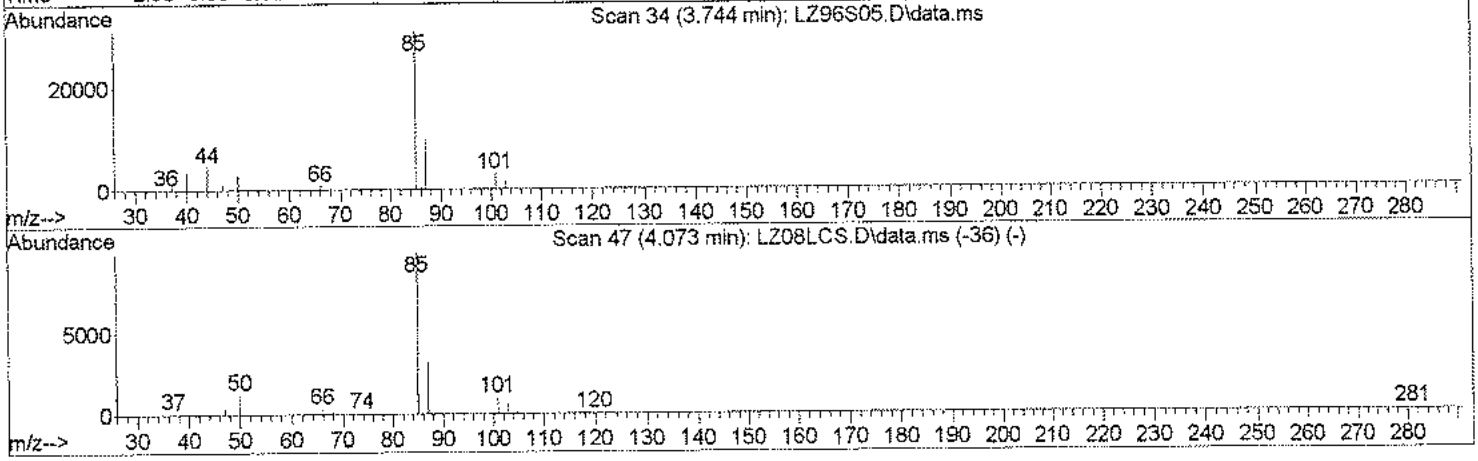
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02-12-16





TIC: LZ96S05.D\data.ms

(3) Dichlorodifluoromethane

3.744min (-0.329) 0.53 ppb m

response 82057

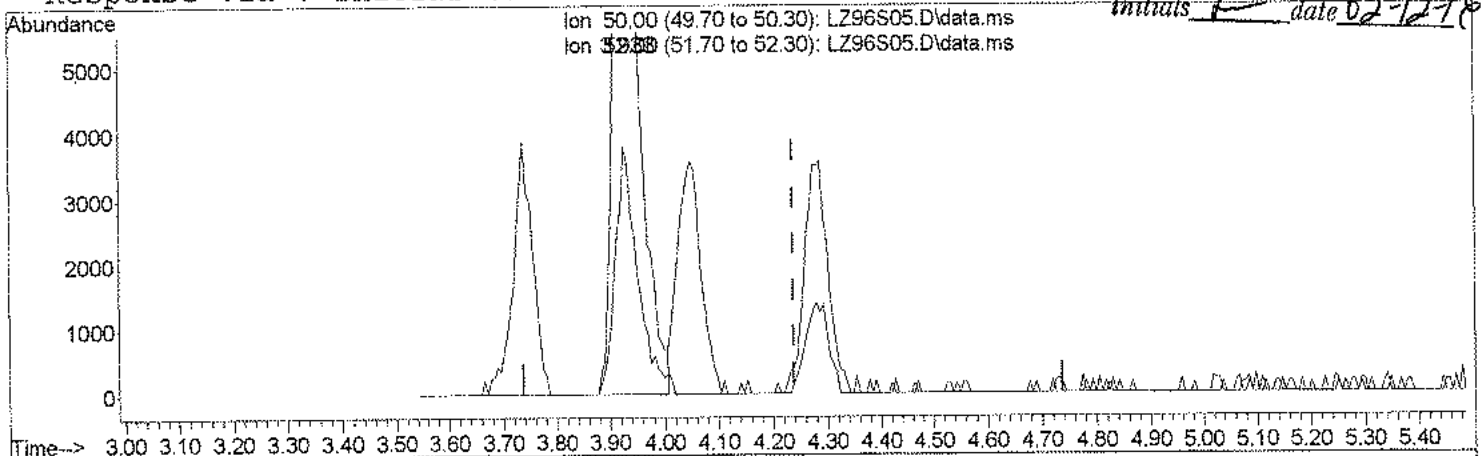
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	40.56#
101.00	10.00	29.84#
0.00	0.00	0.00

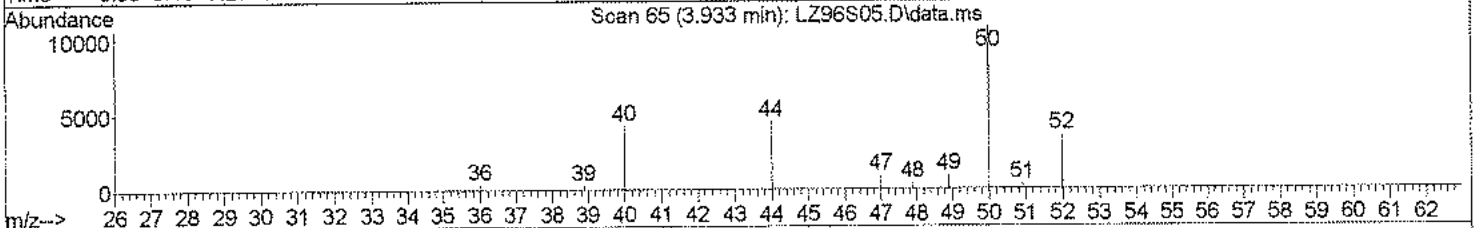
Quantitation Report (Qedit)

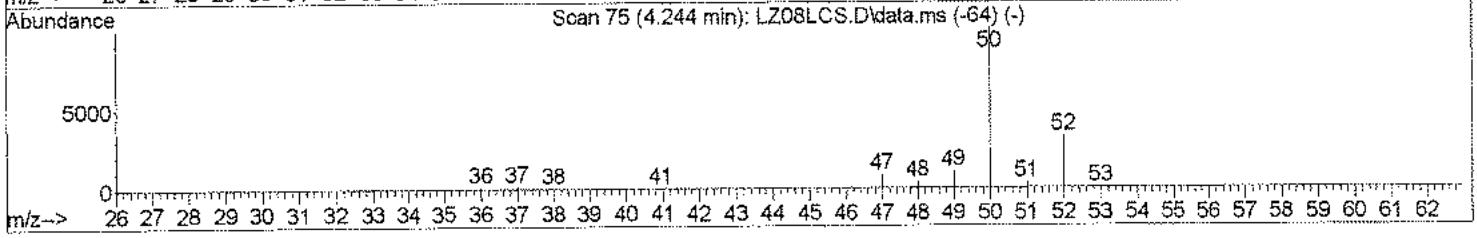
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02-12-16







TIC: LZ96S05.D\data.ms

(4) Chloromethane

3.933min (-0.305) 0.57 ppb m

response 32873

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	12.38#
0.00	0.00	0.00
0.00	0.00	0.00

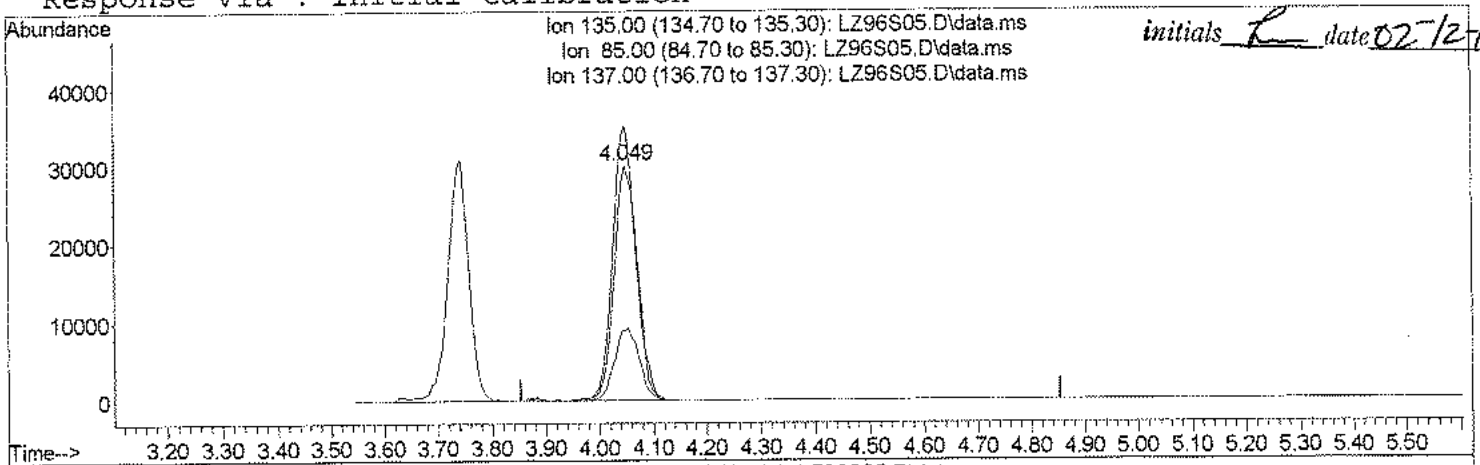
Quantitation Report (Qedit)

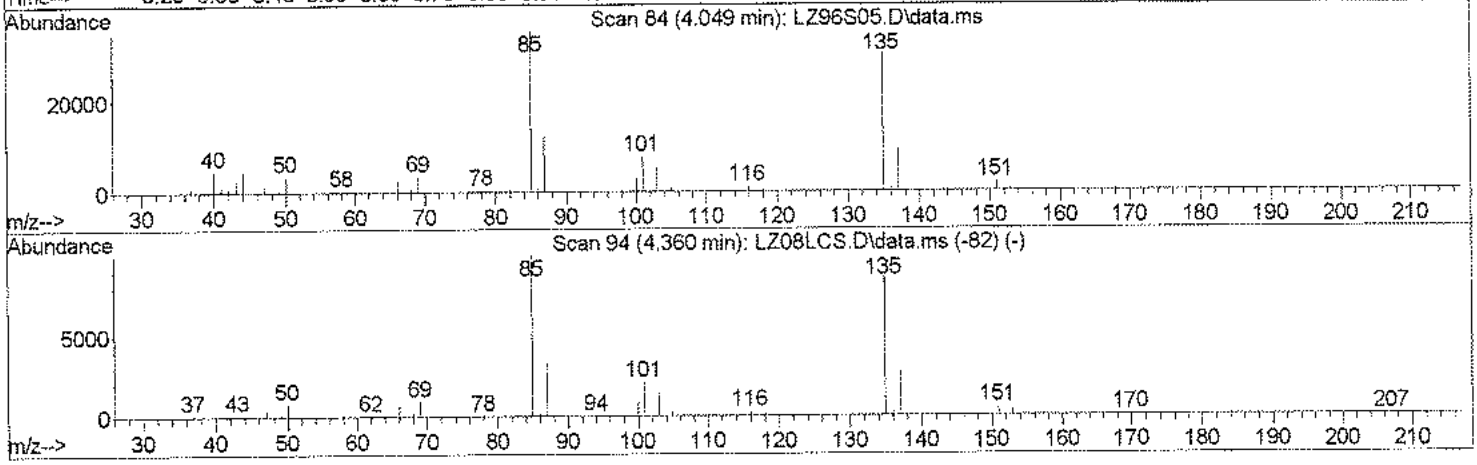
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 02-12-16





TIC: LZ96S05.D\data.ms

(5) Freon 114

4.049min (-0.305) 0.68 ppb m

response 91544

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	0.00#
137.00	32.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
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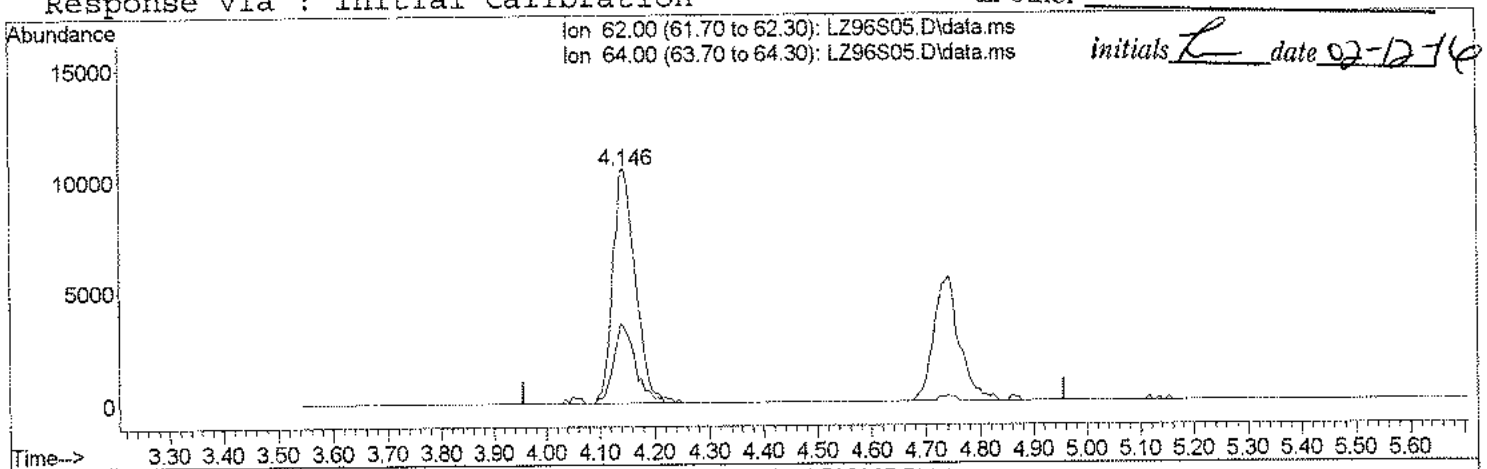
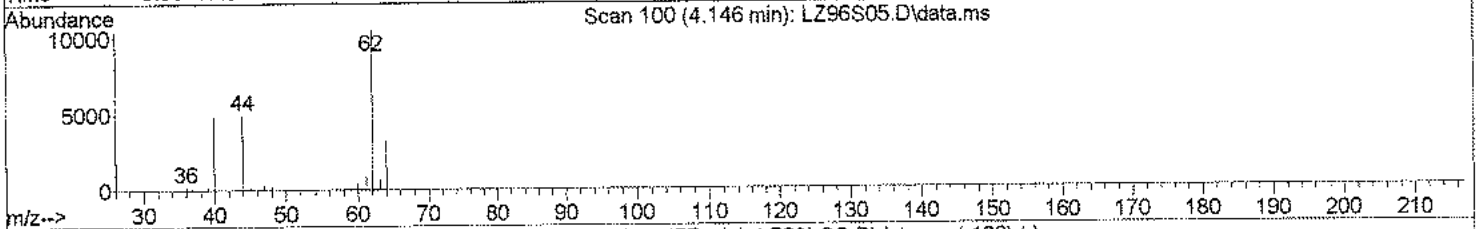
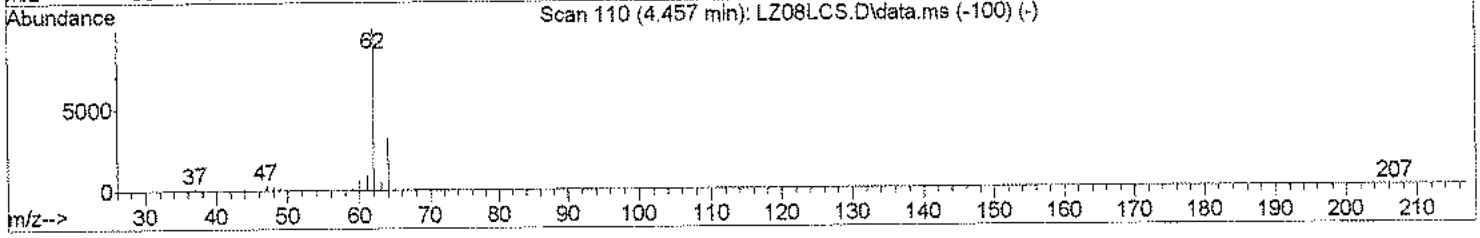
initials L date 02-12-16







TIC: LZ96S05.D\data.ms

(6) Vinyl Chloride

4.146min (-0.311) 0.49 ppb m

response 29755

Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
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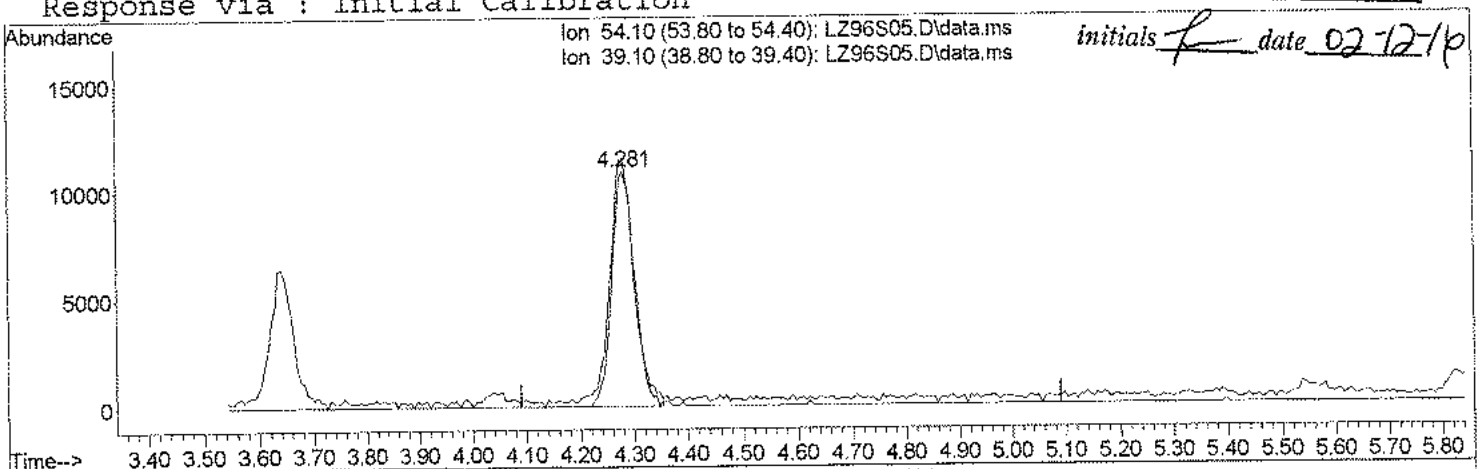
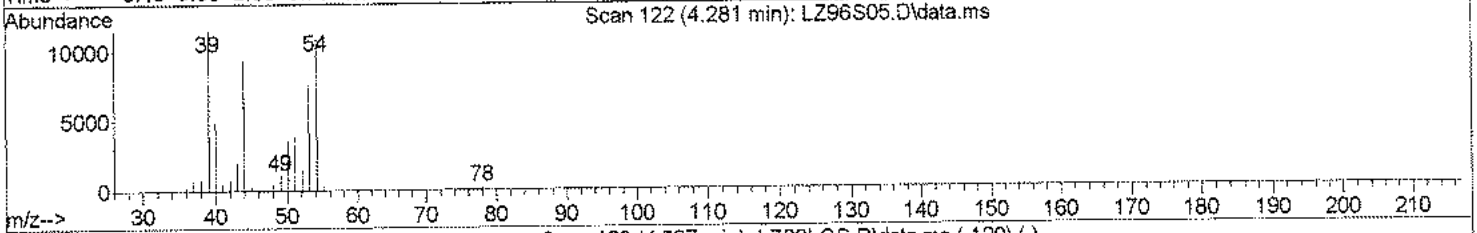
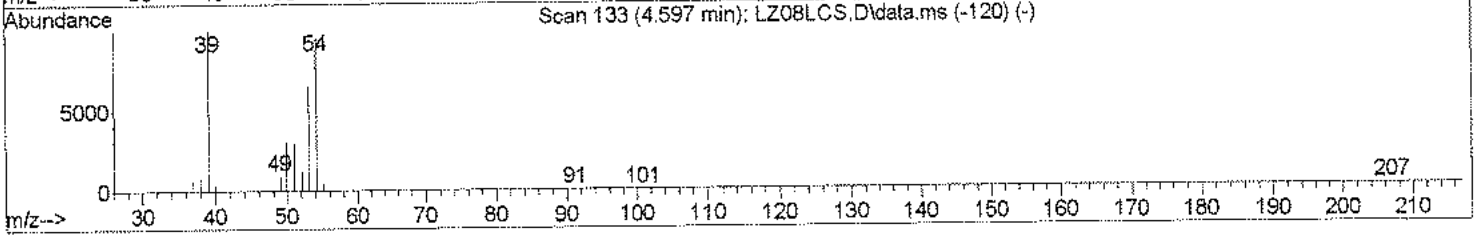
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials _____ date 02-12-16







TIC: LZ96S05.D\data.ms

(7) 1,3-Butadiene

4.281min (-0.311) 0.64 ppb m

response 31513

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
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MANUAL RE-INTEGRATION
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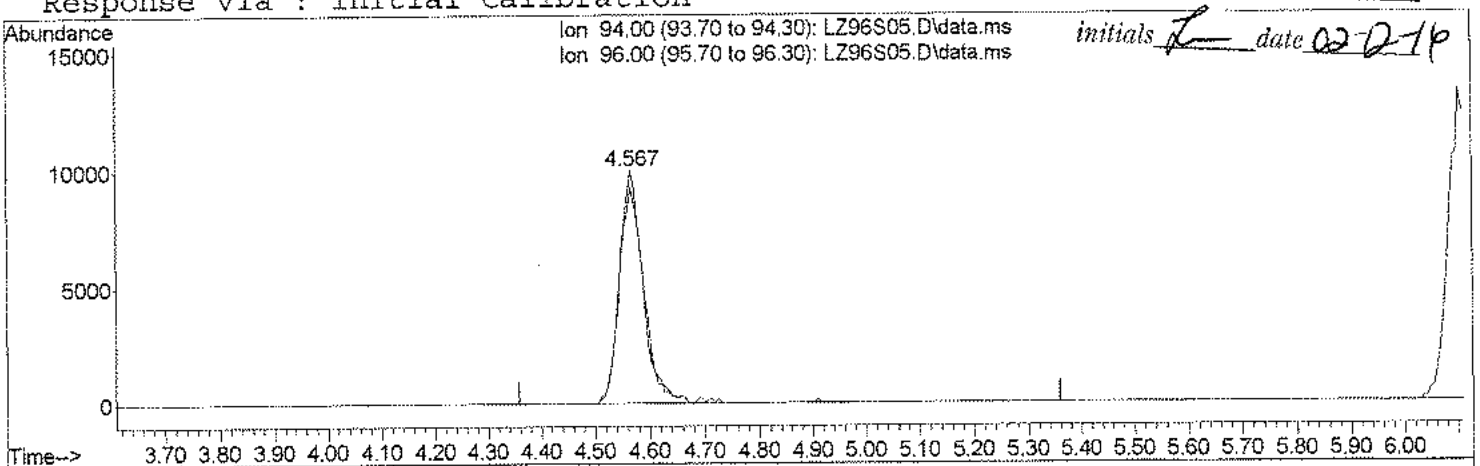
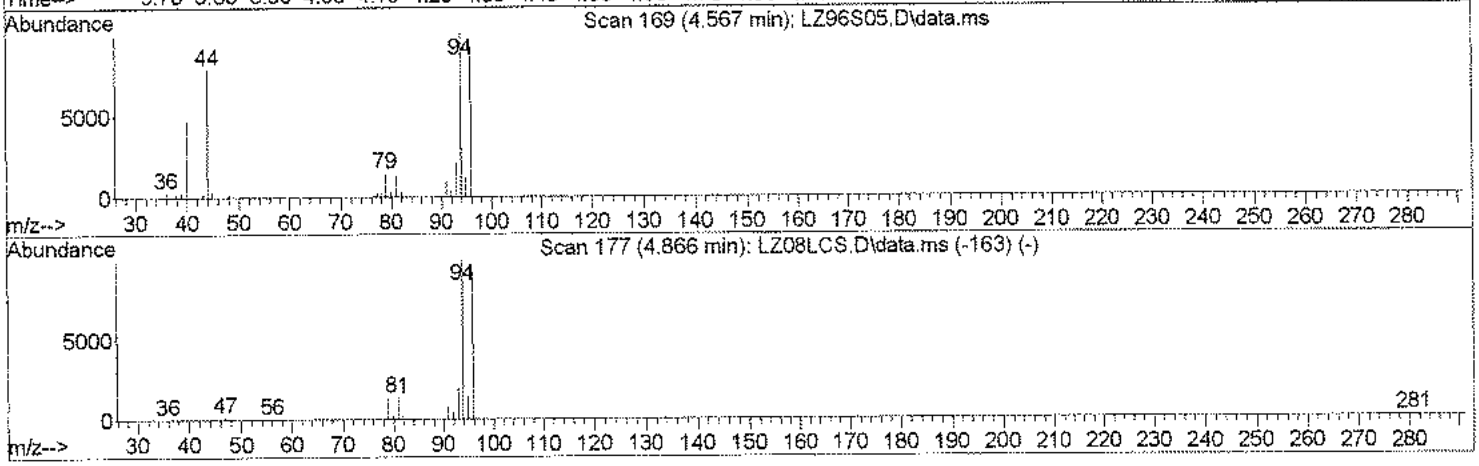
☐ under-integrated peak's area
☐ other _____

initials L date 02-12-16





TIC: LZ96S05.D\data.ms

(8) Bromomethane

4.567min (-0.293) 0.49 ppb m

response 30436

Ion	Exp%	Act%
94.00	100.00	100.00
96.00	95.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
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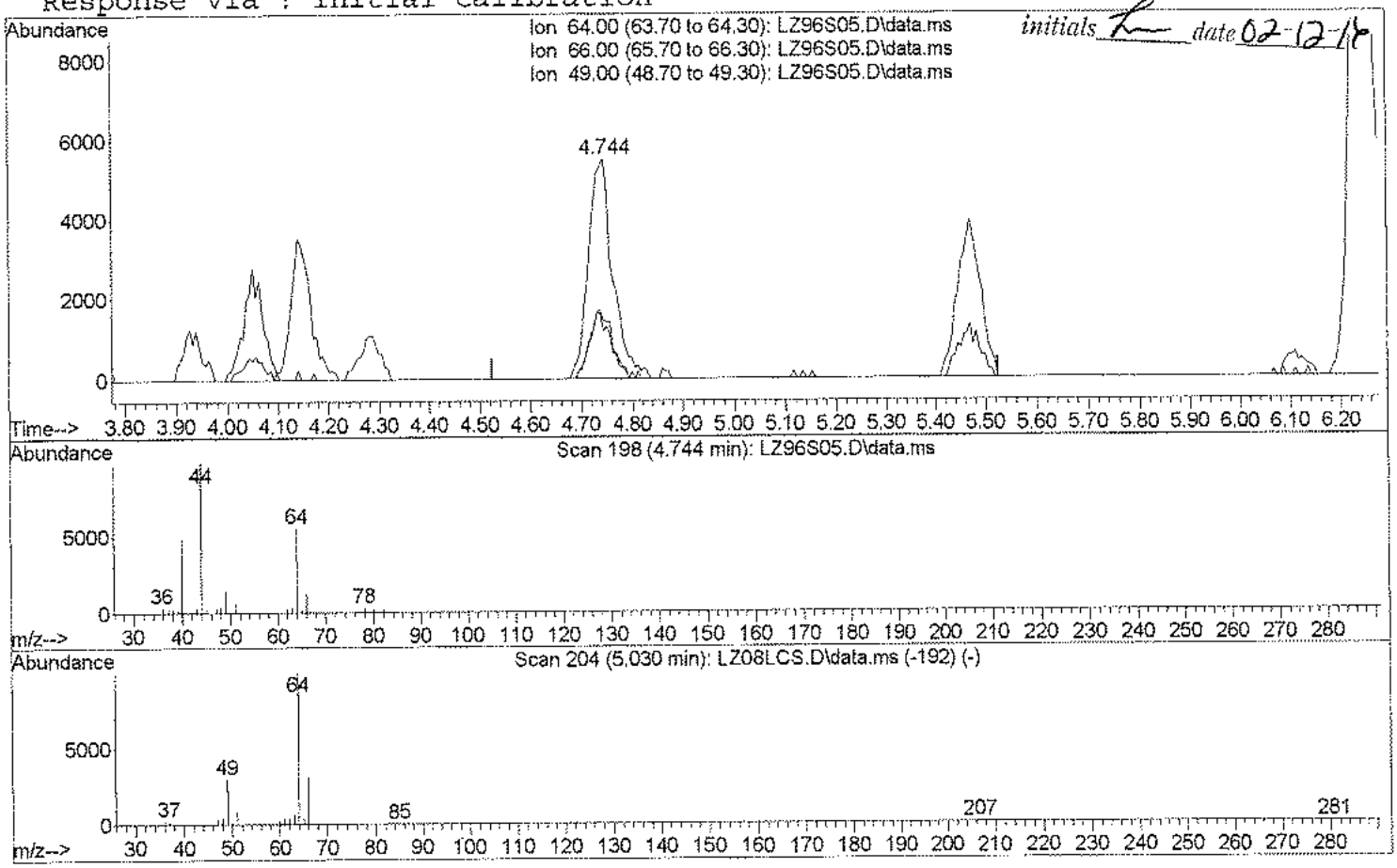
☐ under-integrated peak's area
☐ other _____

initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(9) Chloroethane

4.744min (-0.280) 0.55 ppb m

response 17805

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
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MANUAL RE-INTEGRATION
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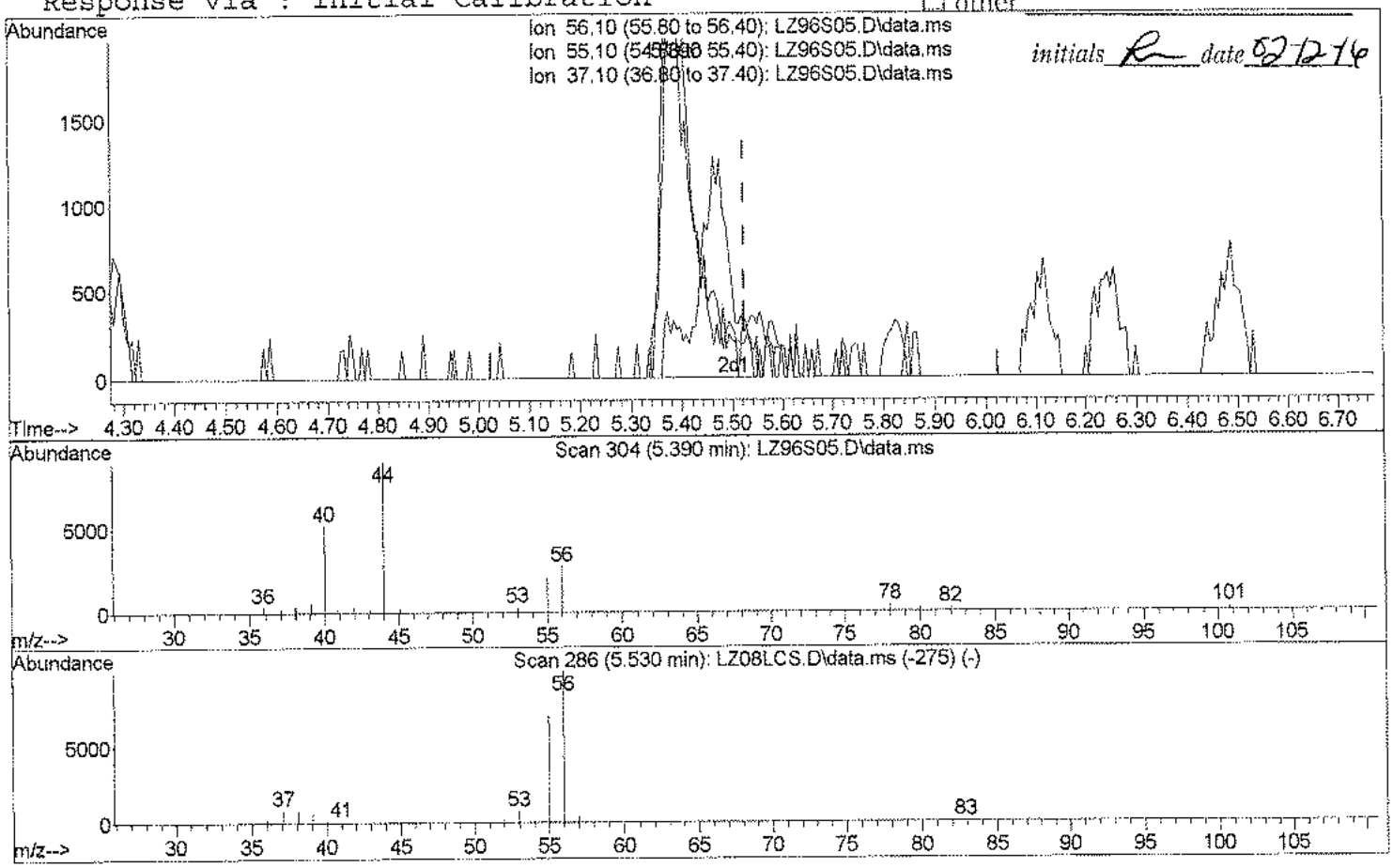
☐ under-integrated peak's area
☐ other

initials R date 02/12/16



TIC: LZ96S05.D\data.ms

(10) Acrolein

5.390min (-0.134) 0.50 ppb m

response 11456

Ion	Exp%	Act%
56.10	100.00	100.00
55.10	68.90	0.00#
37.10	9.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
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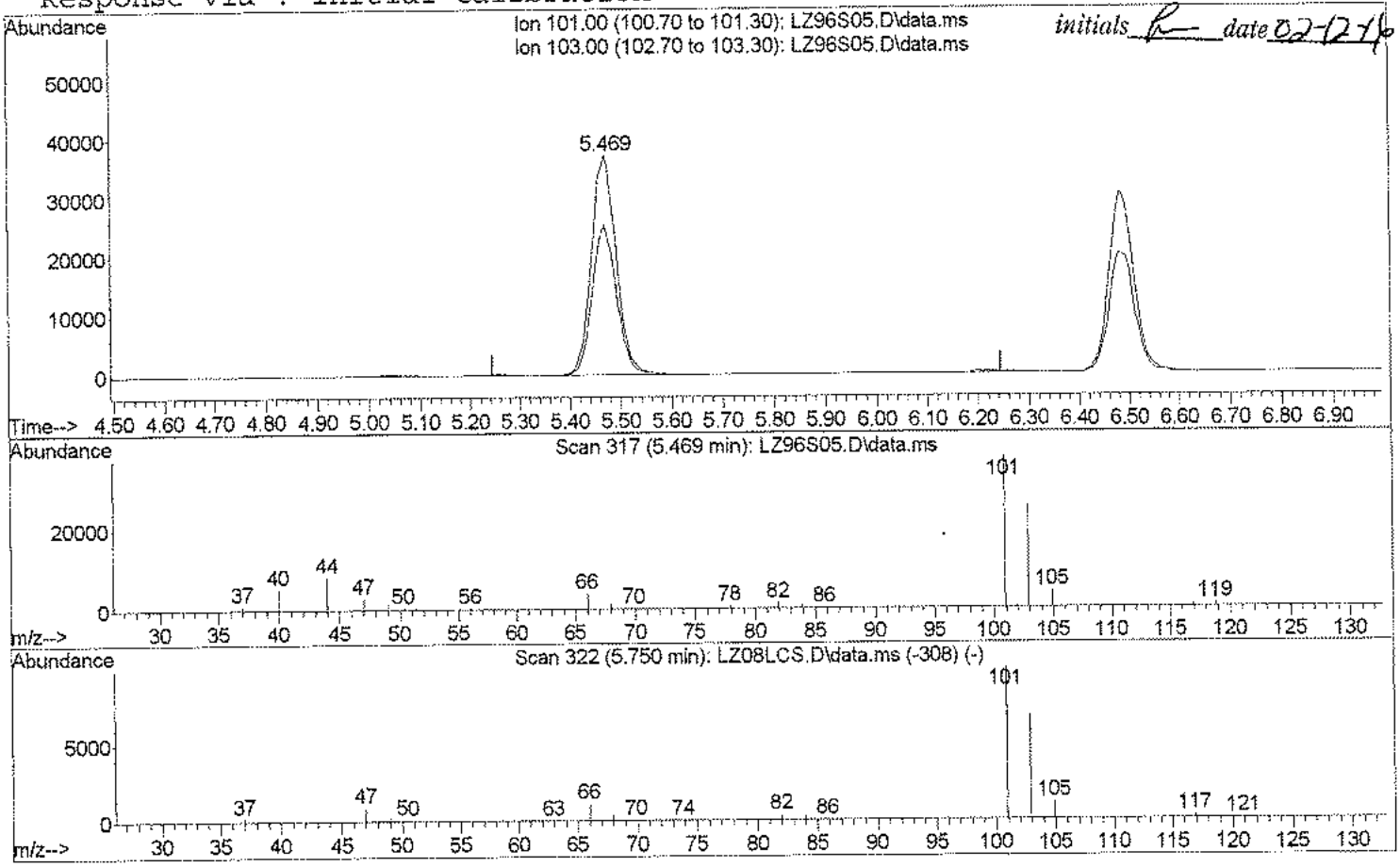
☐ other _____

initials R date 02-12-16



TIC: LZ96S05.D\data.ms

(12) Trichlorofluoromethane

5.469min (-0.274) 0.72 ppb m

response 123068

Ion	Exp%	Act%
101.00	100.00	100.00
103.00	64.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☐ missed peak assignment
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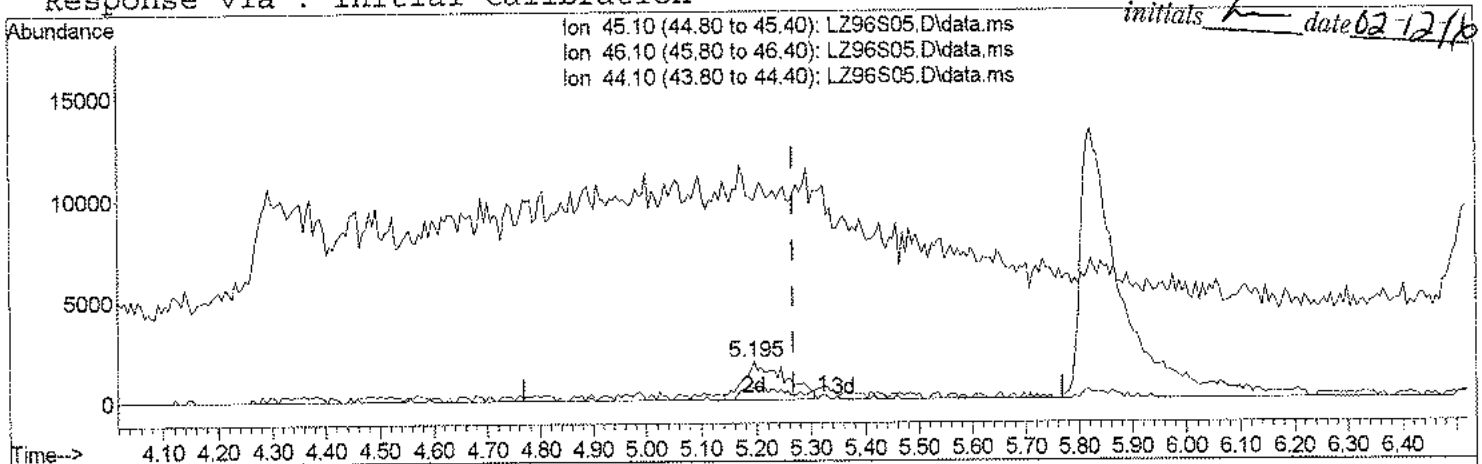
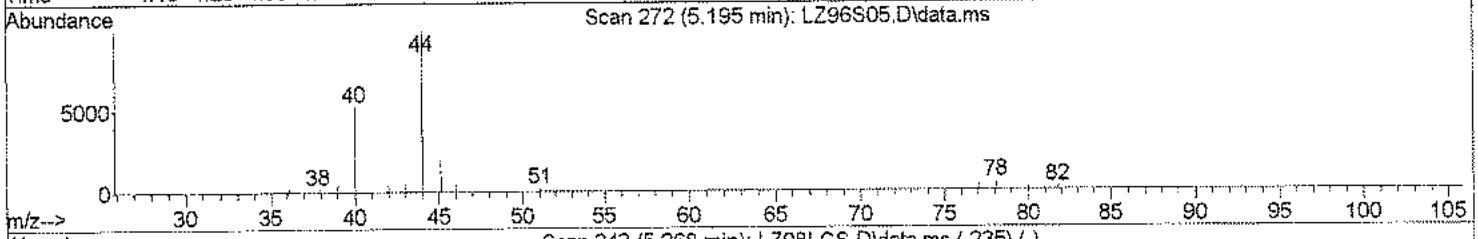
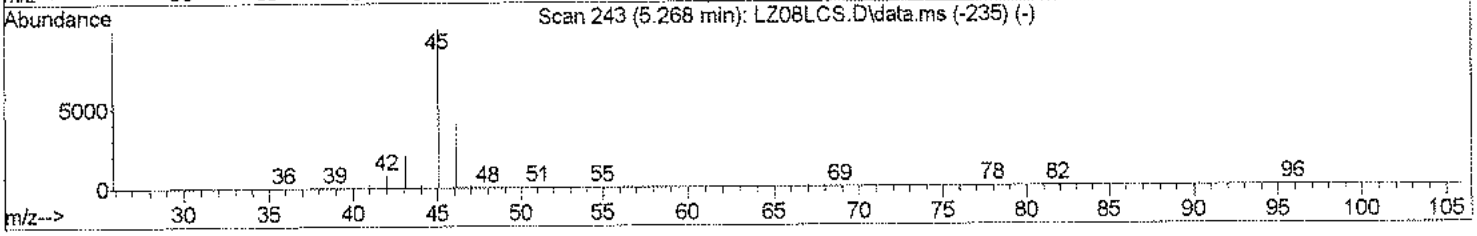
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials _____ date 02-12-16







TIC: LZ96S05.D\data.ms

(13) Ethanol

5.195min (-0.073) 0.40 ppb m

response 9699

Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	1.99#
44.10	29.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
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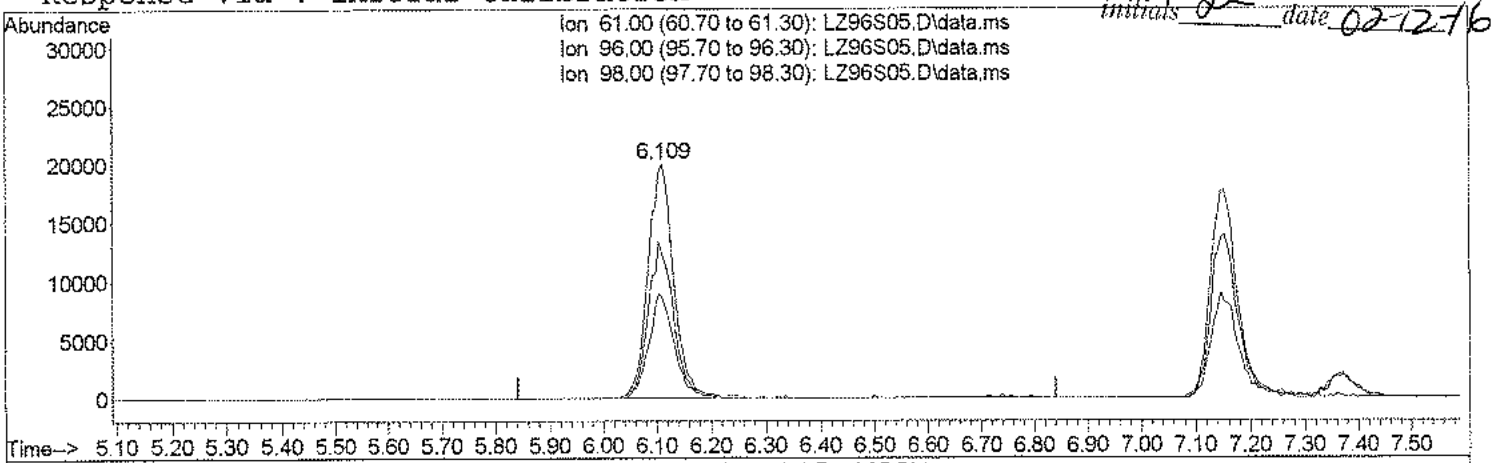
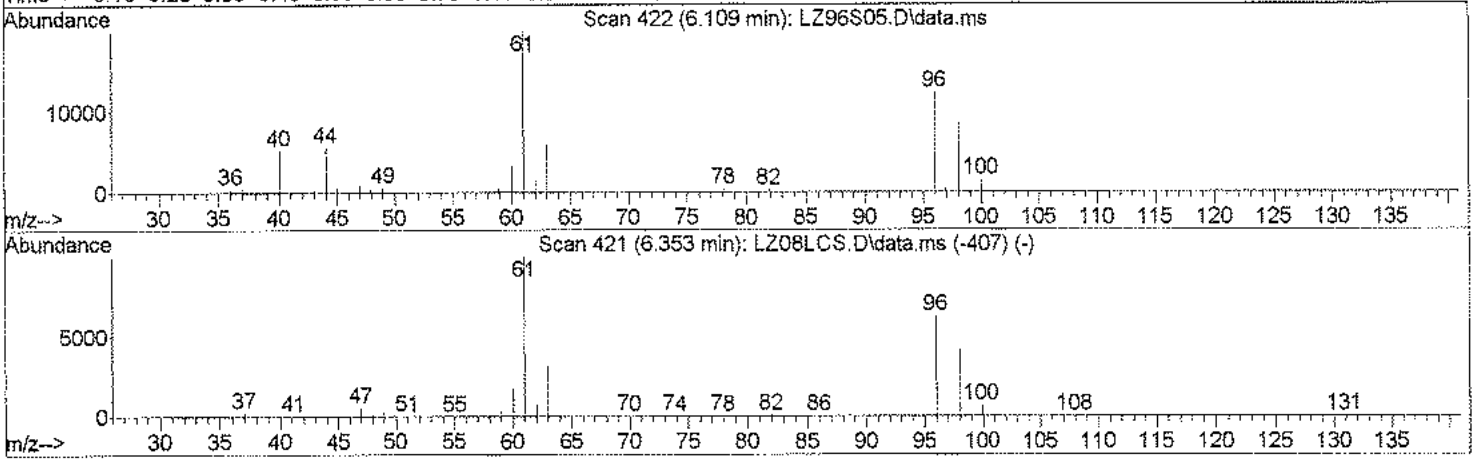
☐ other _____
initials L date 02-12-16





TIC: LZ96S05.D\data.ms

(15) 1,1-Dichloroethene

6.109min (-0.232) 0.68 ppb m

response 65785

Ion	Exp%	Act%
61.00	100.00	100.00
96.00	86.40	0.00#
98.00	55.10	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
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MANUAL RE-INTEGRATION
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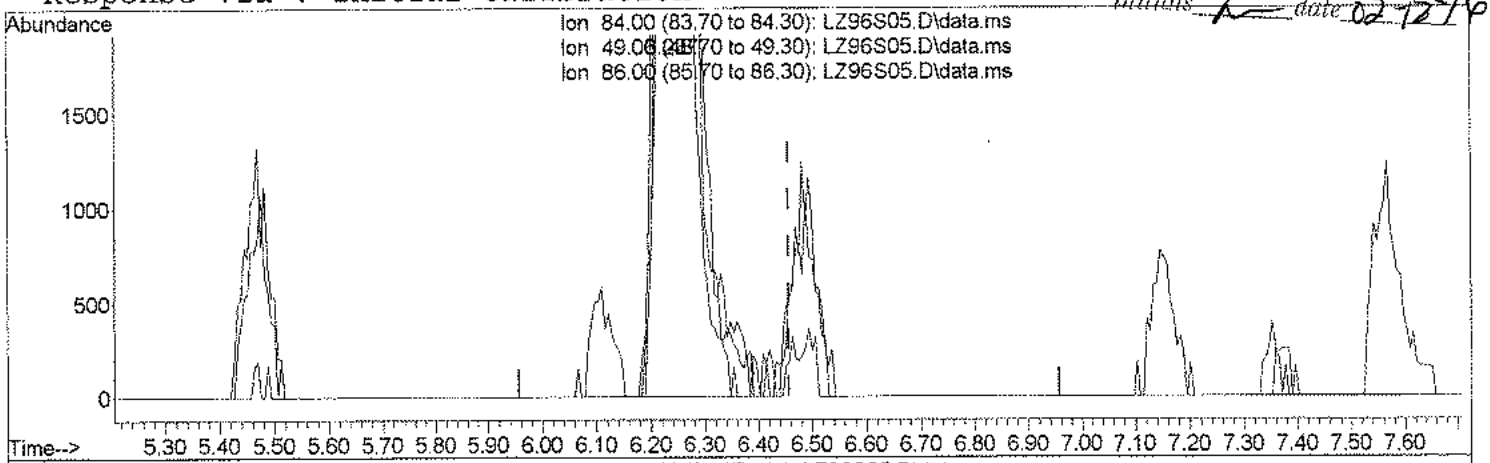
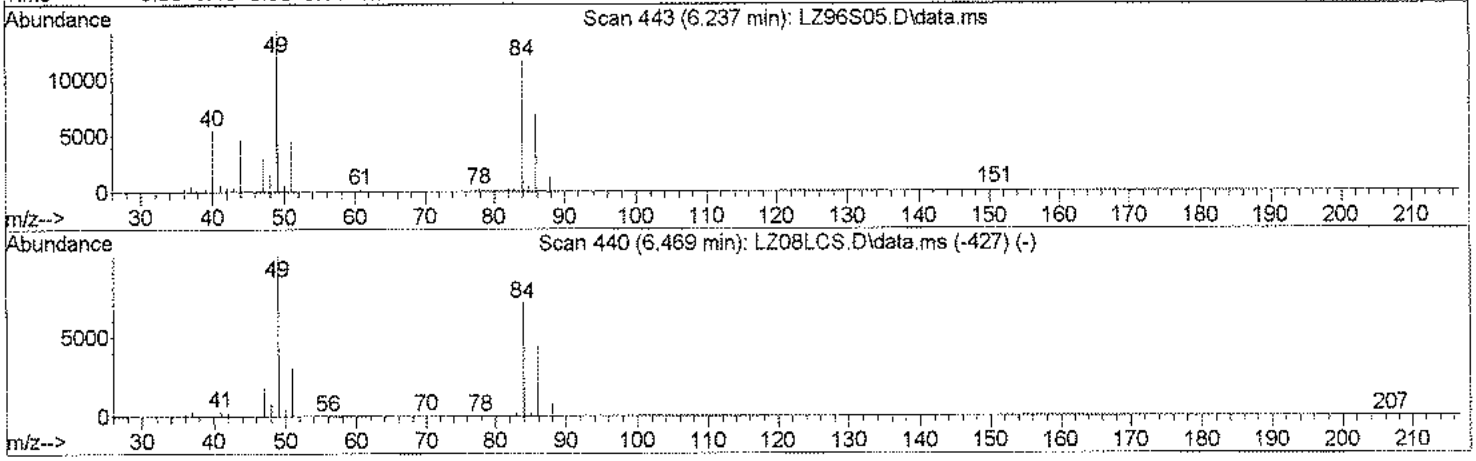
☐ other _____
initials L date 02/12/16





TIC: LZ96S05.D\data.ms

(16) Methylene Chloride

6.237min (-0.220) 0.67 ppb m

response 38391

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	9.64#
86.00	64.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
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Quant Method : J:\L\METHODS\methods\TO15LG16.m
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MANUAL RE-INTEGRATION
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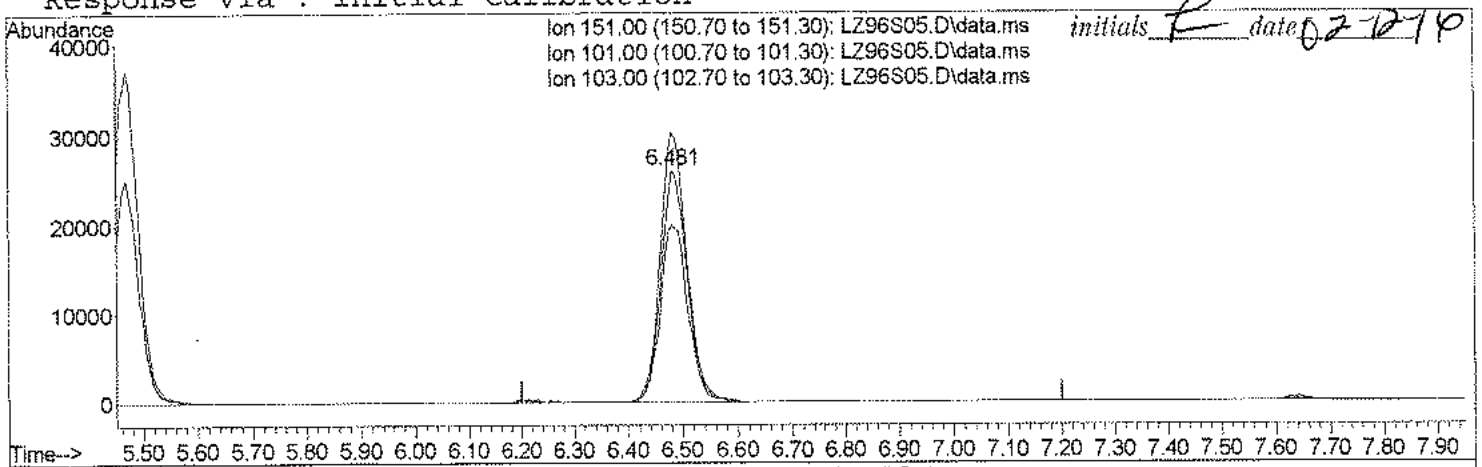
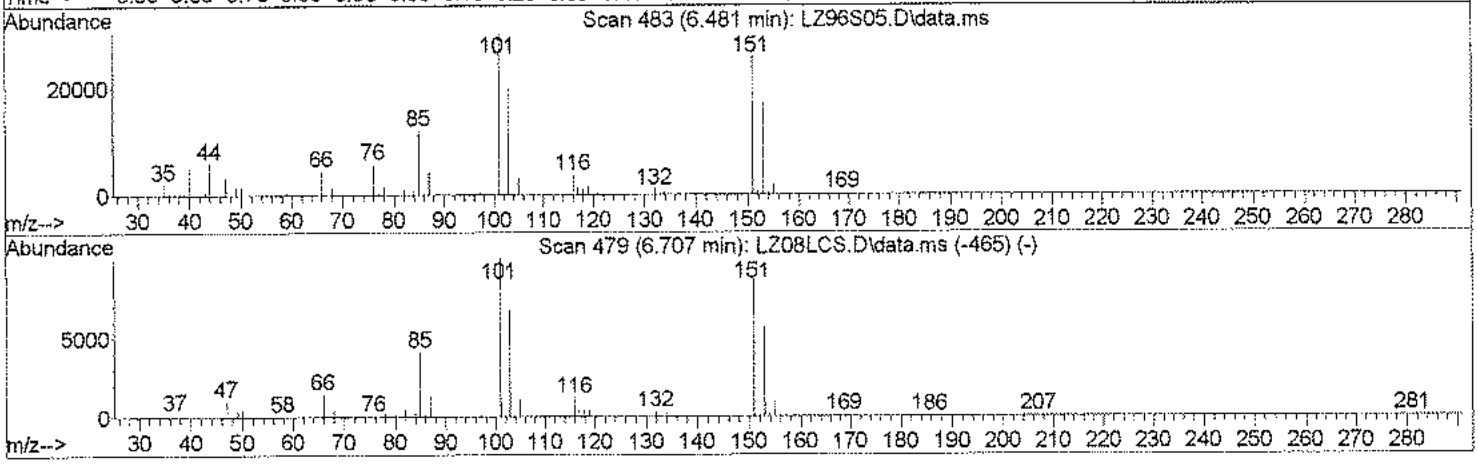
- [ ] other _____

initials L *date* 02-12-16





TIC: LZ96S05.D\data.ms

(17) Freon 113

6.481min (-0.220) 0.73 ppb m

response 88151

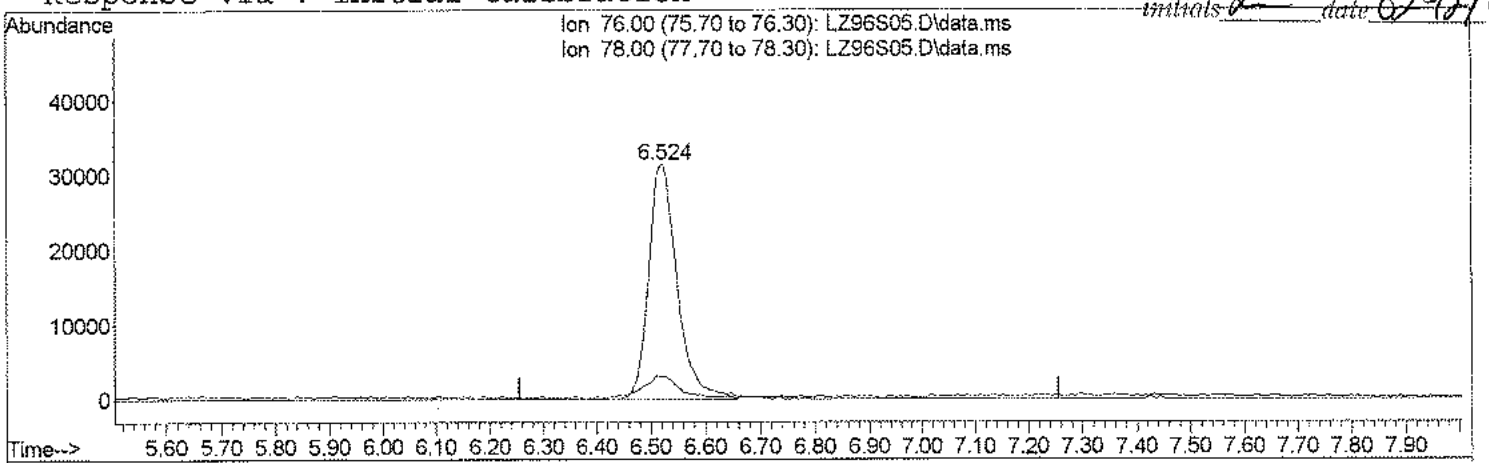
Ion	Exp%	Act%
151.00	100.00	100.00
101.00	90.90	0.00#
103.00	58.80	0.00#
0.00	0.00	0.00

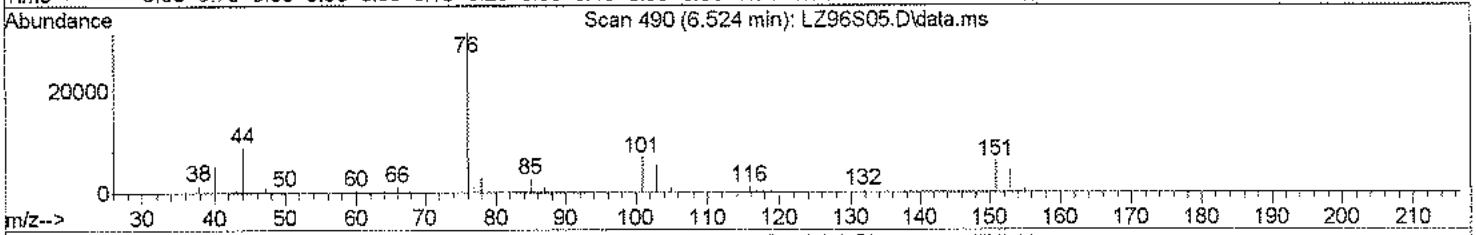
Quantitation Report (Qedit)

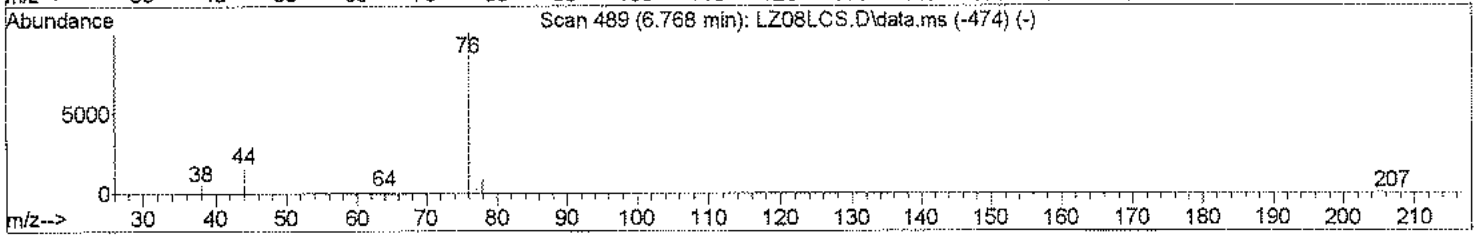
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02-12-16







TIC: LZ96S05.D\data.ms

(18) Carbon Disulfide

6.524min (-0.232) 0.71 ppb m

response 114355

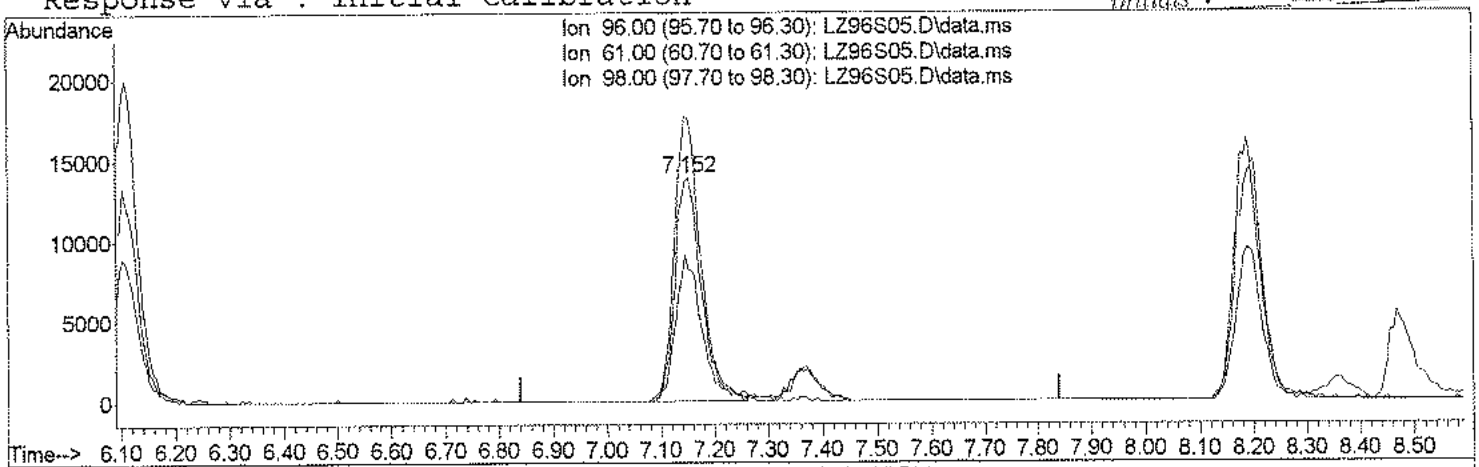
Ion	Exp%	Act%
76.00	100.00	100.00
78.00	30.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

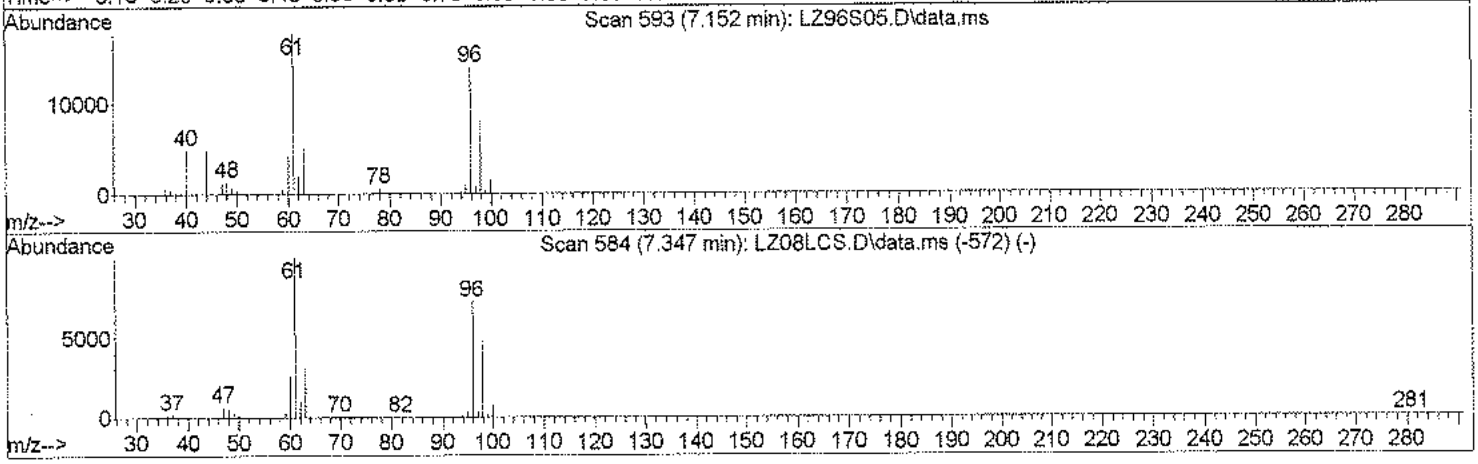
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials E date 02/12/16





TIC: LZ96S05.D\data.ms

(19) trans-1,2-Dichloroethene

7.152min (-0.189) 0.75 ppb m

response 47412

Ion	Exp%	Act%
96.00	100.00	100.00
61.00	100.20	0.00#
98.00	64.10	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

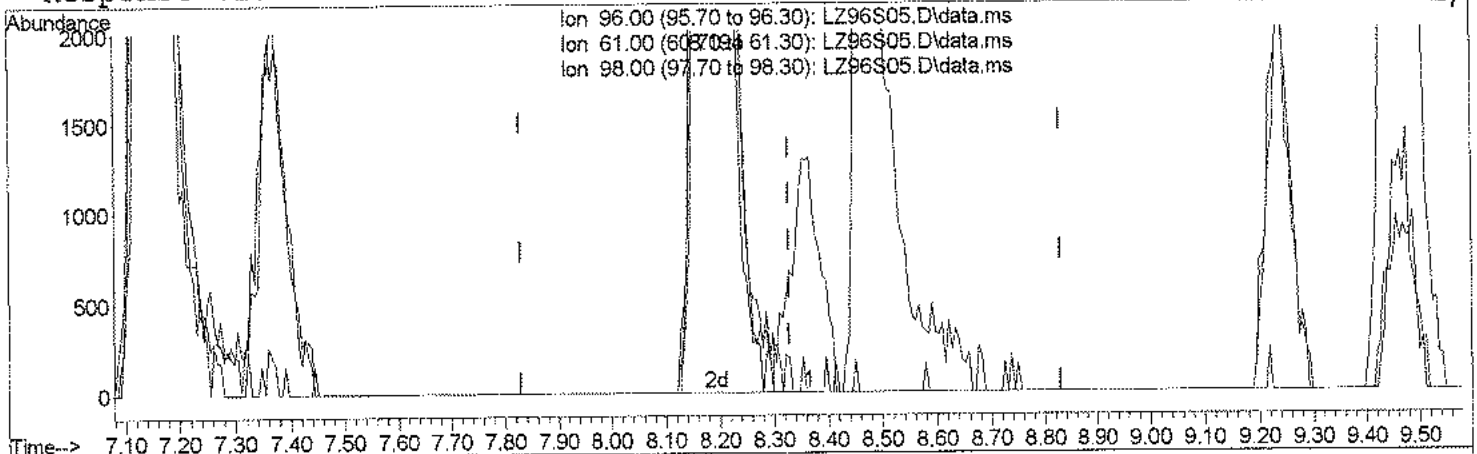
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

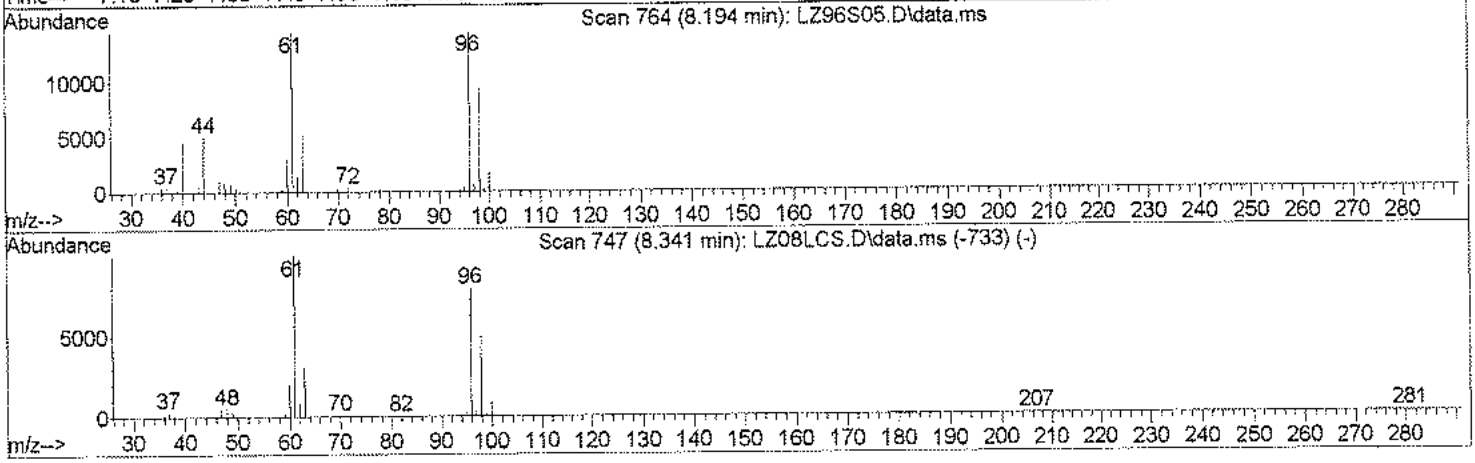
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 02/27/16





TIC: LZ96S05.D\data.ms

(24) cis-1,2-Dichloroethene

8.194min (-0.134) 0.73 ppb m

response 48660

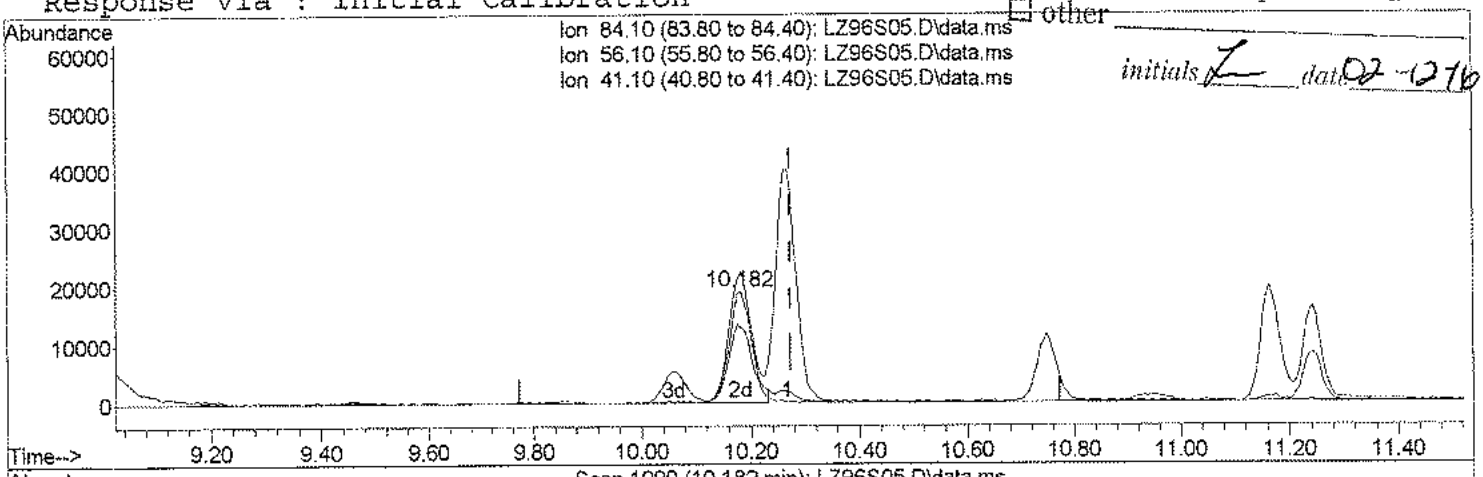
Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	0.00#
98.00	64.90	0.00#
0.00	0.00	0.00

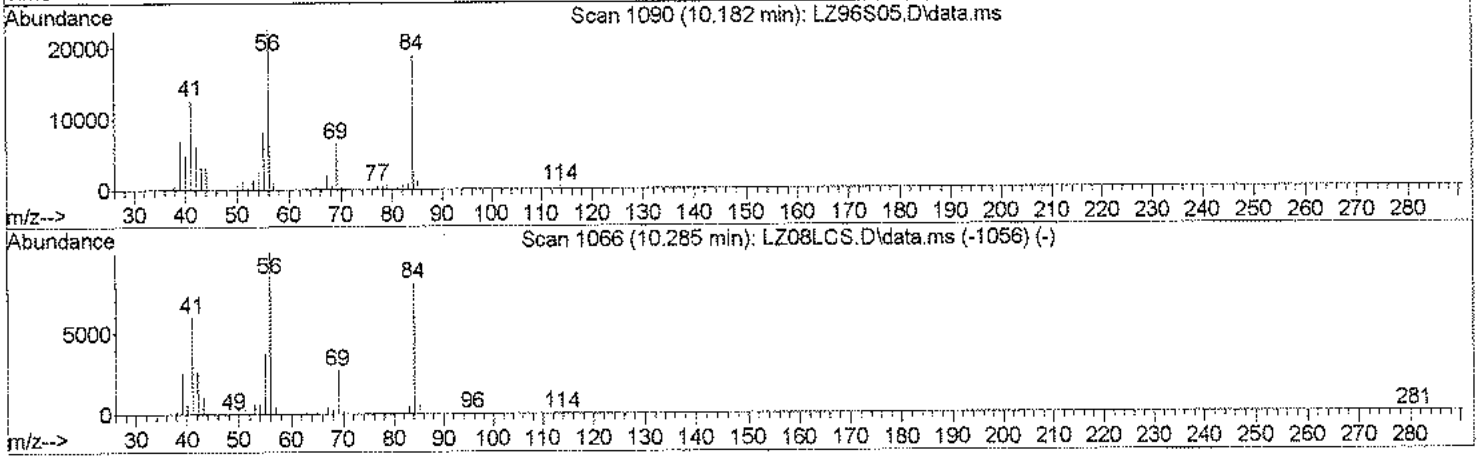
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other
initials L date 02-12-16





TIC: LZ96S05.D\data.ms

(34) Cyclohexane

10.182min (-0.091) 0.51 ppb m

response 53772

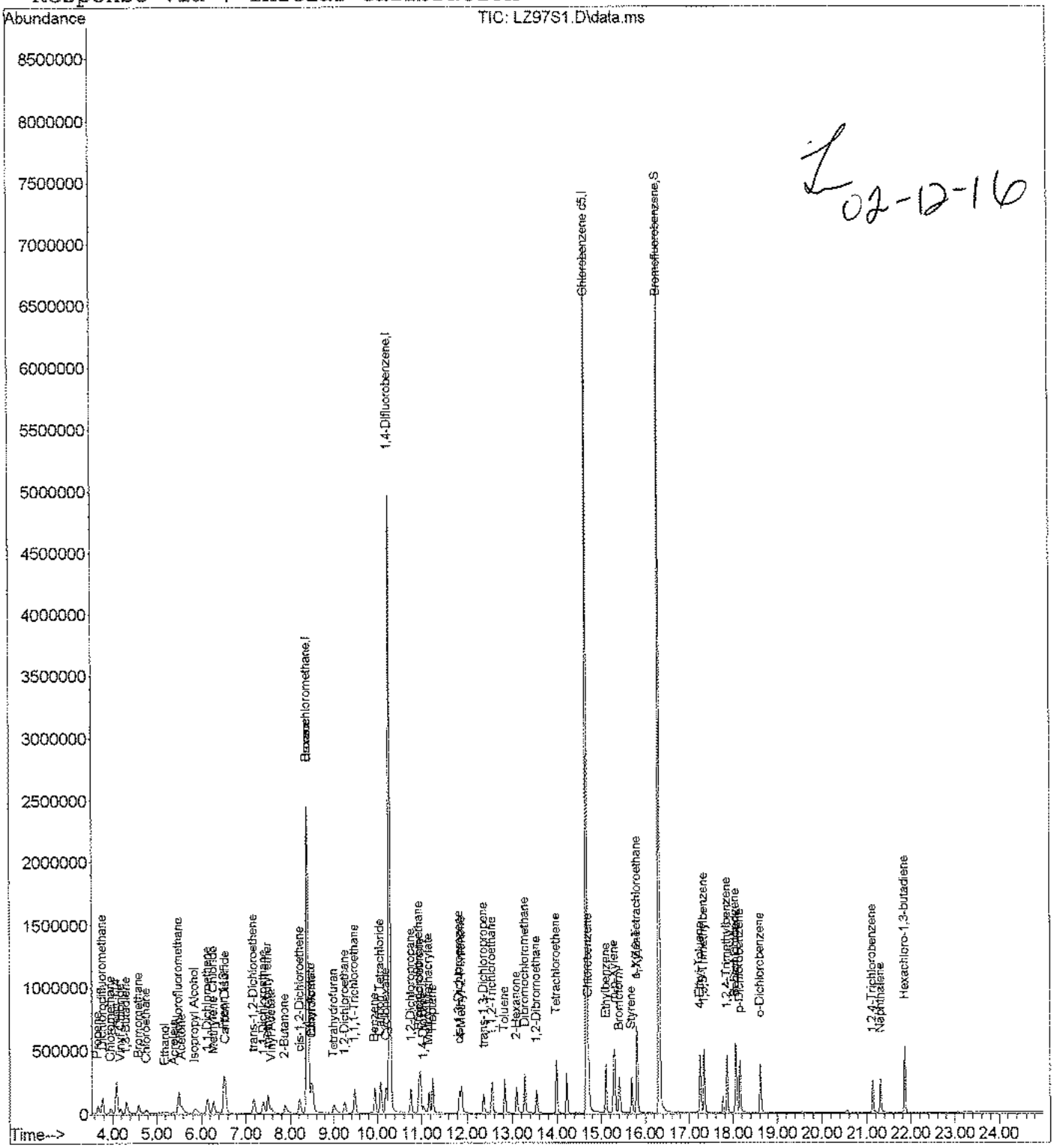
Ion	Exp%	Act%
84.10	100.00	100.00
56.10	84.10	198.17#
41.10	37.80	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	472704	20.0000	ppb		66.46
25) 1,4-Difluorobenzene	10.29	114	6181399	20.0000	ppb		83.39
50) Chlorobenzene d5	14.67	117	5556593	20.0000	ppb		86.22
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3110545	20.4063	ppb		102.03%
Target Compounds							**Qvalue**
2) Propene	3.67	41	59206	1.1311	ppb		96
3) Dichlorodifluoromethane	3.77	85	190480	1.2312	ppb		99
4) Chloromethane	3.95	50	70757	1.2177	ppb		98
5) Freon 114	4.09	135	180042	1.2798	ppb	#	80
6) Vinyl Chloride	4.18	62	67944	1.1386	ppb		98
7) 1,3-Butadiene	4.31	54	62549	1.2201	ppb	#	58
8) Bromomethane	4.59	94	71235	1.1619	ppb		99
9) Chloroethane	4.77	64	38838	1.1915	ppb	#	89
10) Acrolein	5.41	56	19905	0.8561	ppb	#	93
11) Acetone	5.56	43	126622	1.1896	ppb		88
12) Trichlorofluoromethane	5.50	101	240341	1.3194	ppb		96
13) Ethanol	5.21	45	15713	0.6637	ppb	#	65
14) Isopropyl Alcohol	5.85	45	121065	1.0317	ppb	m	97
15) 1,1-Dichloroethene	6.13	61	127915	1.2528	ppb	#	81
16) Methylene Chloride	6.27	84	75934	1.2785	ppb	#	66
17) Freon 113	6.51	151	170569	1.3203	ppb	#	73
18) Carbon Disulfide	6.55	76	223428	1.2985	ppb	#	66
19) trans-1,2-Dichloroethene	7.18	96	88802	1.3034	ppb	#	81
20) 1,1-Dichloroethane	7.40	63	151046	1.3136	ppb		97
21) methyl t-butyl ether	7.50	73	194422	1.2460	ppb	#	84
22) Vinyl Acetate	7.58	86	8110	0.5732	ppb	#	1
23) 2-Butanone	7.88	43	169595	1.2887	ppb	#	70
24) cis-1,2-Dichloroethene	8.22	96	93088	1.2976	ppb	#	83
26) Ethyl Acetate	8.47	61	36648	1.4699	ppb	#	1
27) Hexane	8.40	57	120041	0.9759	ppb	#	83
28) Chloroform	8.51	83	179011	1.0936	ppb		97
29) Tetrahydrofuran	9.01	42	96246	1.0229	ppb	#	62
30) 1,2-Dichloroethane	9.26	62	106858	1.0429	ppb	#	89
31) 1,1,1-Trichloroethane	9.49	97	188949	1.0679	ppb	#	92
32) Benzene	9.95	78	248089	1.1113	ppb	#	94
33) Carbon Tetrachloride	10.08	117	228967	1.0748	ppb		100
34) Cyclohexane	10.20	84	109585	1.0437	ppb	#	57
35) 1,2-Dichloropropane	10.77	63	94151	1.0865	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	188097	1.0927	ppb		98
37) 1,4-Dioxane	11.05	88	61496	1.1530	ppb		92
38) Trichloroethene	10.98	130	144037	1.0614	ppb		97
39) Methyl Methacrylate	11.17	69	73512	1.0407	ppb	#	79
40) Heptane	11.25	71	74268	0.9818	ppb	#	50
41) cis-1,3-Dichloropropene	11.84	75	126483	1.0187	ppb		98
42) 4-Methyl-2-Pentanone	11.88	43	191474	0.9894	ppb	#	72
43) trans-1,3-Dichloropropene	12.36	75	108406	1.0046	ppb		96
44) 1,1,2-Trichloroethane	12.55	97	108822	1.0771	ppb	#	93
45) Toluene	12.83	91	269770	0.9835	ppb		97
46) 2-Hexanone	13.09	43	193840	1.2252	ppb	#	74
47) Dibromochloromethane	13.28	129	229397	1.0462	ppb		99
48) 1,2-Dibromoethane	13.54	107	169448	1.0672	ppb		100
49) Tetrachloroethene	13.99	166	149598	0.9846	ppb	#	80
51) Chlorobenzene	14.71	112	259500	0.9939	ppb		98
52) Ethylbenzene	15.11	91	338758	0.9239	ppb		98
53) m,p-Xylene	15.30	91	522658	1.8368	ppb		99
54) Bromoform	15.41	173	178406	0.9609	ppb		98
55) Styrene	15.69	104	194827	0.9046	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.81	83	216229	1.0311	ppb	#	91
57) o-Xylene	15.81	91	267469	0.9014	ppb		100
59) 4-Ethyl Toluene	17.25	105	373121	0.9749	ppb		99
60) 1,3,5-Trimethylbenzene	17.34	105	346068	0.9883	ppb		96
61) 1,2,4-Trimethylbenzene	17.86	105	324322	1.0044	ppb		98
62) Benzyl Chloride	18.06	91	198303	1.0388	ppb		96
63) m-Dichlorobenzene	18.07	146	244711	1.1306	ppb		96
64) p-Dichlorobenzene	18.16	146	234346	1.1396	ppb		94
65) o-Dichlorobenzene	18.62	146	227267	1.0894	ppb		97
66) 1,2,4-Trichlorobenzene	21.14	180	111375	1.9841	ppb	#	95
67) Naphthalene	21.31	128	296545	1.5772	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	108013	1.1212	ppb		99

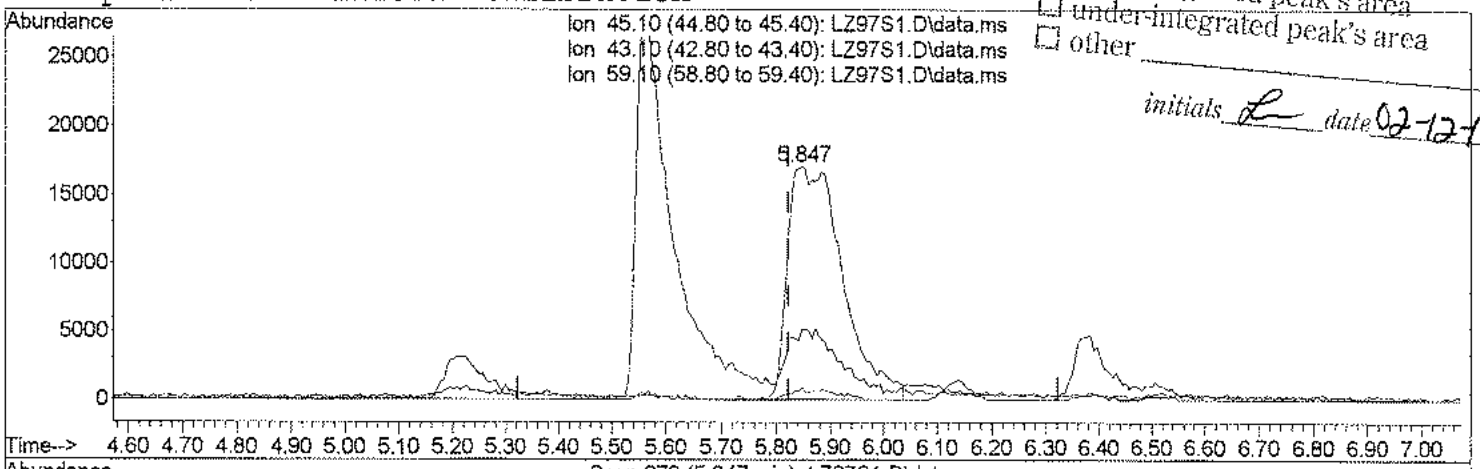
(#) = qualifier out of range (m) = manual integration

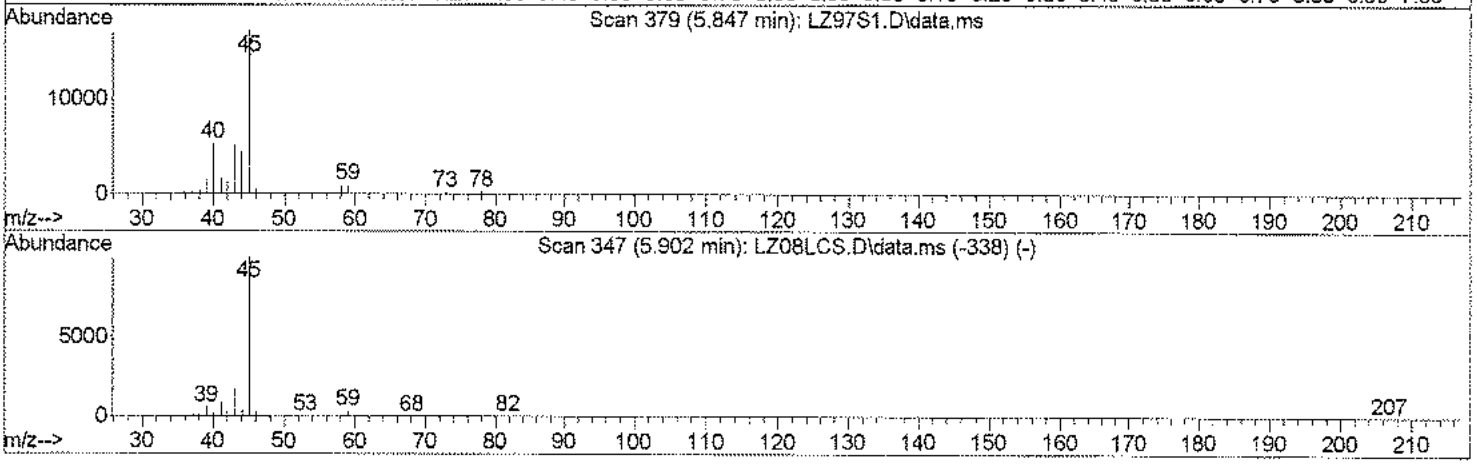
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ97S1.D
Acq On : 02/11/2016 18:15
Operator : TJM
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 30851 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:59:25 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other
initials L date 02-12-16





TIC: LZ97S1.D\data.ms

(14) Isopropyl Alcohol

5.847min (+ 0.024) 1.03 ppb m

response 121065

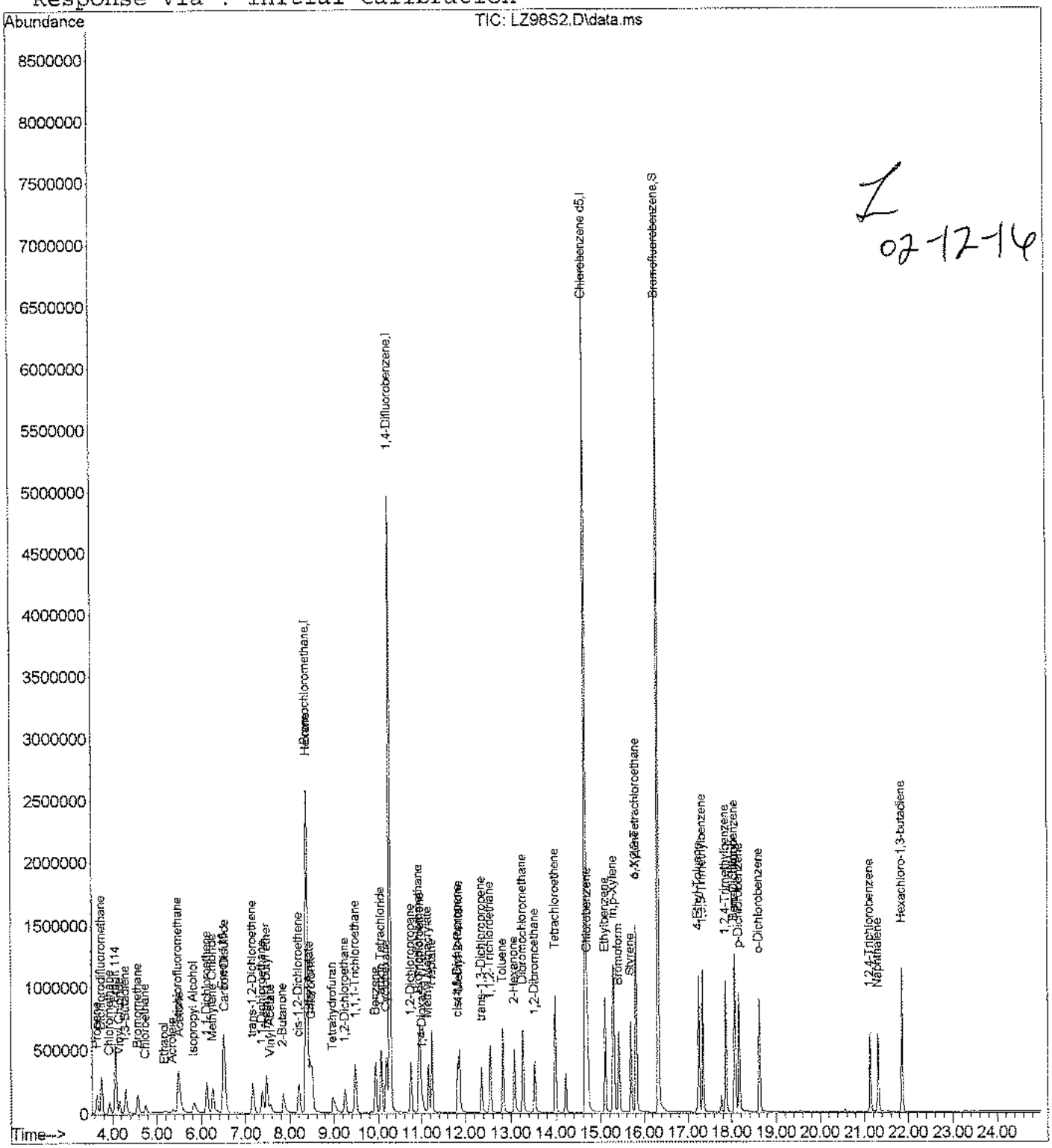
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	10.14#
59.10	4.00	1.40#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



1
02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:45 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	467072	20.0000	ppb		65.67
25) 1,4-Difluorobenzene	10.27	114	6134129	20.0000	ppb		82.75
50) Chlorobenzene d5	14.66	117	5515844	20.0000	ppb		85.59
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3190876	20.8699	ppb		104.35%
Target Compounds							**Qvalue**
2) Propene	3.66	41	132638	2.5012	ppb		98
3) Dichlorodifluoromethane	3.76	85	428279	2.6926	ppb		99
4) Chloromethane	3.93	50	160827	2.6843	ppb		98
5) Freon 114	4.07	135	373686	2.5338	ppb	#	78
6) Vinyl Chloride	4.16	62	155811	2.5726	ppb		99
7) 1,3-Butadiene	4.30	54	133871	2.5126	ppb	#	63
8) Bromomethane	4.57	94	164068	2.6256	ppb		99
9) Chloroethane	4.74	64	88761	2.6577	ppb	#	90
10) Acrolein	5.36	56	42075	1.8628	ppb	#	92
11) Acetone	5.52	43	273239	2.5094	ppb		88
12) Trichlorofluoromethane	5.49	101	498127	2.5894	ppb		97
13) Ethanol	5.18	45	32560	1.4753	ppb	#	64
14) Isopropyl Alcohol	5.83	45	243804	2.2512	ppb	#	90
15) 1,1-Dichloroethene	6.12	61	269522	2.5183	ppb	#	82
16) Methylene Chloride	6.26	84	161860	2.6130	ppb	#	65
17) Freon 113	6.51	151	345306	2.5250	ppb	#	71
18) Carbon Disulfide	6.54	76	466830	2.5718	ppb	#	64
19) trans-1,2-Dichloroethene	7.16	96	185535	2.5721	ppb	#	83
20) 1,1-Dichloroethane	7.38	63	307085	2.5238	ppb		97
21) methyl t-butyl ether	7.48	73	410469	2.5008	ppb	#	83
22) Vinyl Acetate	7.57	86	17788	1.3593	ppb	#	1
23) 2-Butanone	7.85	43	352084	2.5095	ppb	#	73
24) cis-1,2-Dichloroethene	8.21	96	194690	2.5579	ppb	#	82
26) Ethyl Acetate	8.46	61	72892	2.6609	ppb	#	1
27) Hexane	8.40	57	265300	2.1605	ppb	#	82
28) Chloroform	8.50	83	367237	2.2003	ppb		98
29) Tetrahydrofuran	8.97	42	206357	2.1509	ppb	#	62
30) 1,2-Dichloroethane	9.25	62	222264	2.1472	ppb	#	90
31) 1,1,1-Trichloroethane	9.48	97	381447	2.1255	ppb	#	92
32) Benzene	9.94	78	509475	2.2314	ppb	#	93
33) Carbon Tetrachloride	10.07	117	472529	2.1820	ppb		99
34) Cyclohexane	10.19	84	229710	2.1661	ppb	#	54
35) 1,2-Dichloropropane	10.75	63	193216	2.1852	ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:45 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.94	83	385487	2.1865	ppb		97
37) 1,4-Dioxane	11.02	88	128818	2.2966	ppb	#	95
38) Trichloroethene	10.97	130	306814	2.2228	ppb		97
39) Methyl Methacrylate	11.16	69	169636	2.3448	ppb	#	80
40) Heptane	11.25	71	171022	2.2647	ppb	#	48
41) cis-1,3-Dichloropropene	11.83	75	275670	2.1742	ppb		98
42) 4-Methyl-2-Pentanone	11.87	43	427053	2.1720	ppb	#	74
43) trans-1,3-Dichloropropene	12.36	75	247696	2.2306	ppb		96
44) 1,1,2-Trichloroethane	12.55	97	233251	2.2540	ppb	#	93
45) Toluene	12.82	91	633270	2.2993	ppb		99
46) 2-Hexanone	13.08	43	454766	2.6373	ppb	#	75
47) Dibromochloromethane	13.27	129	501362	2.2269	ppb		99
48) 1,2-Dibromoethane	13.53	107	372638	2.2672	ppb		100
49) Tetrachloroethene	13.99	166	341812	2.2462	ppb	#	82
51) Chlorobenzene	14.71	112	593654	2.2610	ppb		92
52) Ethylbenzene	15.10	91	811637	2.2190	ppb		99
53) m,p-Xylene	15.29	91	1248609	4.4019	ppb		100
54) Bromoform	15.41	173	416644	2.2035	ppb		99
55) Styrene	15.69	104	485440	2.2222	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.82	83	478482	2.2283	ppb		98
57) o-Xylene	15.81	91	644133	2.1879	ppb		100
59) 4-Ethyl Toluene	17.25	105	901104	2.2815	ppb		100
60) 1,3,5-Trimethylbenzene	17.35	105	790321	2.2201	ppb		98
61) 1,2,4-Trimethylbenzene	17.87	105	744237	2.2270	ppb		99
62) Benzyl Chloride	18.06	91	488353	2.2826	ppb		97
63) m-Dichlorobenzene	18.08	146	553865	2.3553	ppb		96
64) p-Dichlorobenzene	18.17	146	545937	2.4226	ppb		96
65) o-Dichlorobenzene	18.62	146	519933	2.3236	ppb		97
66) 1,2,4-Trichlorobenzene	21.14	180	252332	3.4347	ppb	#	98
67) Naphthalene	21.31	128	690483	2.9898	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	231635	2.2208	ppb		99

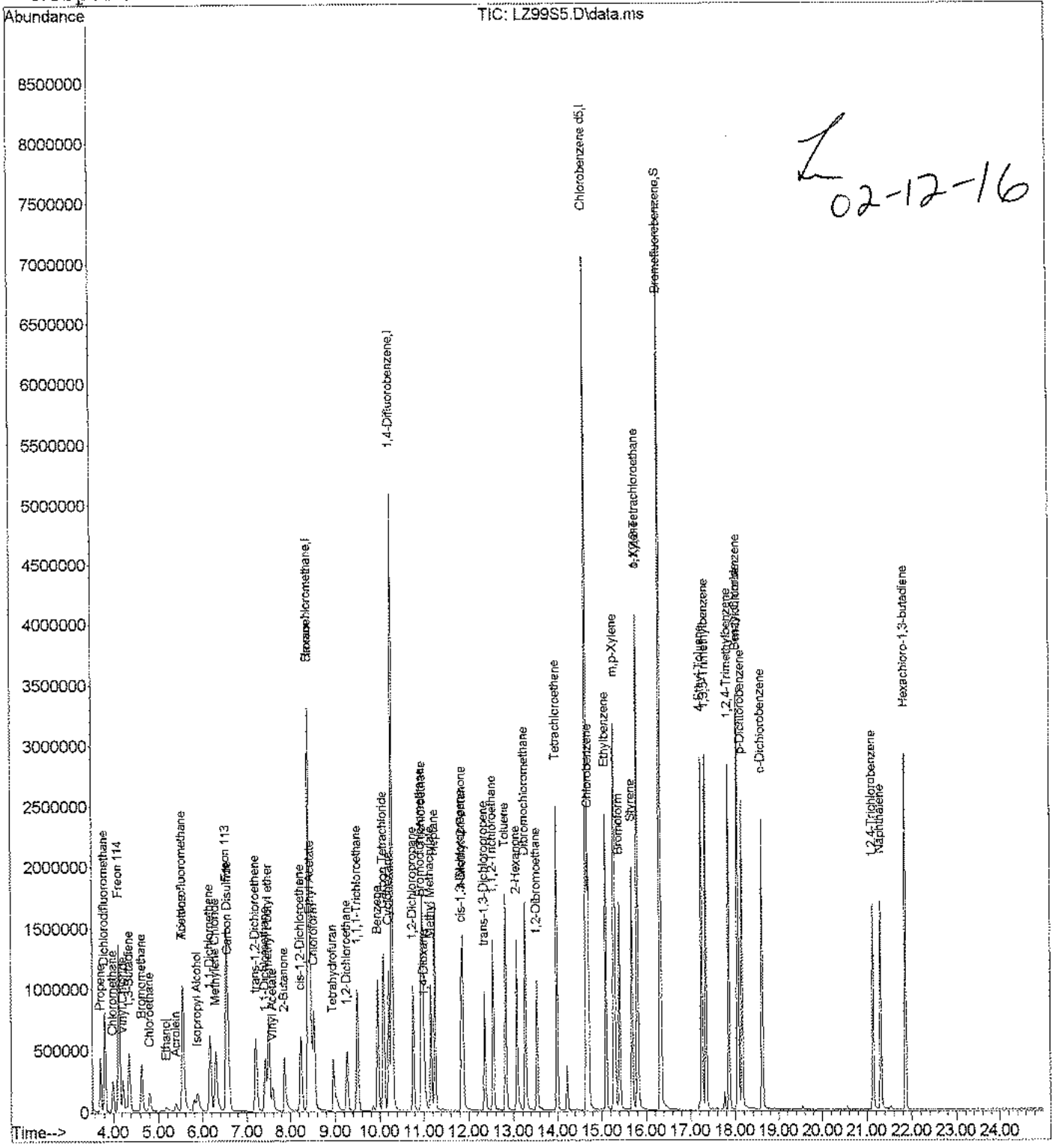
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



L 02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	498624	20.0000	ppb		70.11
25) 1,4-Difluorobenzene	10.29	114	6190640	20.0000	ppb		83.51
50) Chlorobenzene d5	14.66	117	5598828	20.0000	ppb		86.87
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3281478	20.9163	ppb		104.58%
Target Compounds							**Qvalue**
2) Propene	3.73	41	339749	5.7455	ppb		99
3) Dichlorodifluoromethane	3.82	85	1107007	6.1492	ppb		99
4) Chloromethane	3.99	50	410999	6.0332	ppb		98
5) Freon 114	4.13	135	951144	5.6823	ppb	#	79
6) Vinyl Chloride	4.22	62	409586	6.0230	ppb		98
7) 1,3-Butadiene	4.36	54	340904	5.6650	ppb	#	62
8) Bromomethane	4.63	94	423273	6.0085	ppb		99
9) Chloroethane	4.81	64	220722	5.8235	ppb	#	89
10) Acrolein	5.38	56	108339	4.5068	ppb	#	97
11) Acetone	5.54	43	677391	5.5500	ppb		88
12) Trichlorofluoromethane	5.55	101	1222070	5.5586	ppb		97
13) Ethanol	5.17	45	79442	3.5720	ppb	#	73
14) Isopropyl Alcohol	5.88	45	601519	5.2038	ppb	m	82
15) 1,1-Dichloroethene	6.17	61	679308	5.5839	ppb	#	81
16) Methylene Chloride	6.30	84	404261	5.7343	ppb	#	67
17) Freon 113	6.55	151	852356	5.4753	ppb	#	73
18) Carbon Disulfide	6.59	76	1155786	5.5886	ppb	#	64
19) trans-1,2-Dichloroethene	7.21	96	459860	5.5577	ppb	#	81
20) 1,1-Dichloroethane	7.43	63	766207	5.5206	ppb		97
21) methyl t-butyl ether	7.50	73	1067492	5.7149	ppb	#	83
22) Vinyl Acetate	7.58	86	46331	3.5876	ppb	#	1
23) 2-Butanone	7.86	43	947569	5.9210	ppb	#	71
24) cis-1,2-Dichloroethene	8.24	96	494145	5.6718	ppb	#	82
26) Ethyl Acetate	8.46	61	194665	6.4578	ppb	#	1
27) Hexane	8.42	57	685969	5.4708	ppb	#	48
28) Chloroform	8.54	83	905853	5.2560	ppb		99
29) Tetrahydrofuran	8.96	42	541558	5.4817	ppb	#	63
30) 1,2-Dichloroethane	9.27	62	552390	5.1819	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	956483	5.1918	ppb	#	93
32) Benzene	9.96	78	1285337	5.4284	ppb	#	94
33) Carbon Tetrachloride	10.10	117	1181653	5.2845	ppb		99
34) Cyclohexane	10.21	84	608962	5.5957	ppb	#	58
35) 1,2-Dichloropropane	10.77	63	489564	5.3736	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	966106	5.2917	ppb		98
37) 1,4-Dioxane	11.02	88	330271	5.6041	ppb		95
38) Trichloroethene	10.99	130	765743	5.3548	ppb		97
39) Methyl Methacrylate	11.16	69	451409	5.9632	ppb	#	80
40) Heptane	11.26	71	453876	5.8605	ppb	#	47
41) cis-1,3-Dichloropropene	11.84	75	728055	5.5459	ppb		97
42) 4-Methyl-2-Pentanone	11.87	43	1147523	5.6593	ppb	#	74
43) trans-1,3-Dichloropropene	12.36	75	652201	5.6281	ppb		97
44) 1,1,2-Trichloroethane	12.55	97	591512	5.5106	ppb	#	93
45) Toluene	12.83	91	1664738	5.8490	ppb		100
46) 2-Hexanone	13.08	43	1246634	6.5684	ppb	#	75
47) Dibromochloromethane	13.27	129	1292063	5.5183	ppb		99
48) 1,2-Dibromoethane	13.54	107	959178	5.5788	ppb		100
49) Tetrachloroethene	13.99	166	882903	5.6234	ppb	#	82
51) Chlorobenzene	14.71	112	1518093	5.5782	ppb		96
52) Ethylbenzene	15.10	91	2147523	5.6880	ppb		99
53) m,p-Xylene	15.29	91	3304810	11.2923	ppb		99
54) Bromoform	15.41	173	1092502	5.5527	ppb		99
55) Styrene	15.69	104	1340684	5.9069	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.81	83	1235241	5.5155	ppb		98
57) o-Xylene	15.81	91	1712954	5.6535	ppb		100
59) 4-Ethyl Toluene	17.25	105	2411355	5.8168	ppb		99
60) 1,3,5-Trimethylbenzene	17.35	105	2100186	5.6786	ppb		99
61) 1,2,4-Trimethylbenzene	17.86	105	2005677	5.7397	ppb		100
62) Benzyl Chloride	18.06	91	1389671	5.8956	ppb		99
63) m-Dichlorobenzene	18.07	146	1469987	5.7992	ppb		96
64) p-Dichlorobenzene	18.16	146	1452161	5.9314	ppb		96
65) o-Dichlorobenzene	18.62	146	1386448	5.7895	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	693930	7.4565	ppb	#	98
67) Naphthalene	21.31	128	1916770	6.8981	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	603177	5.4105	ppb		99

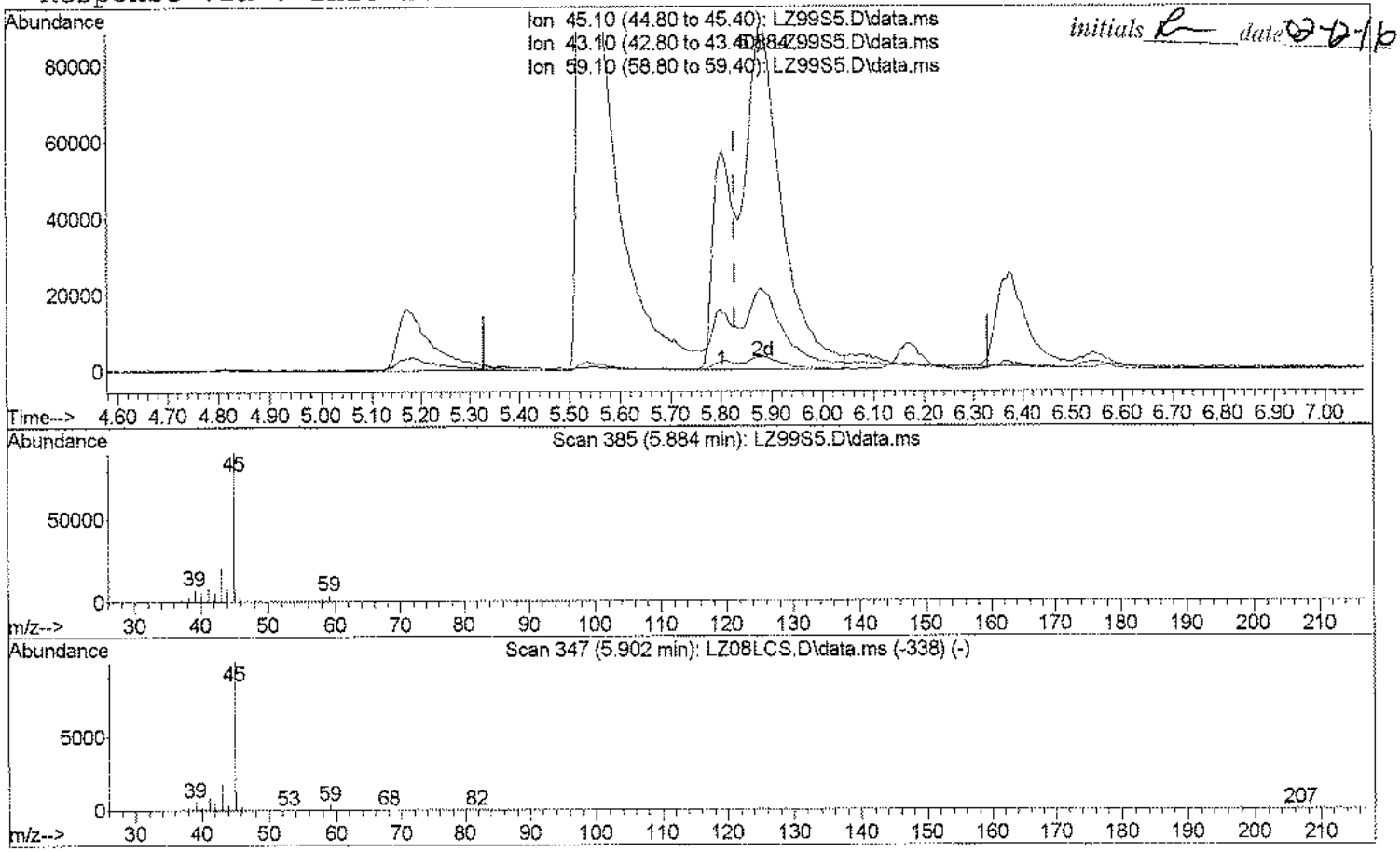
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ99S5.D
Acq On : 02/11/2016 19:49
Operator : TJM
Sample : 5.0 PPB STD
Inst : 5975-L
Misc : 30851 (100mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 08:00:18 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials _____ date 02-12-16



TIC: LZ99S5.D\data.ms

(14) Isopropyl Alcohol

5.884min (+ 0.055) 5.20 ppb m

response 601519

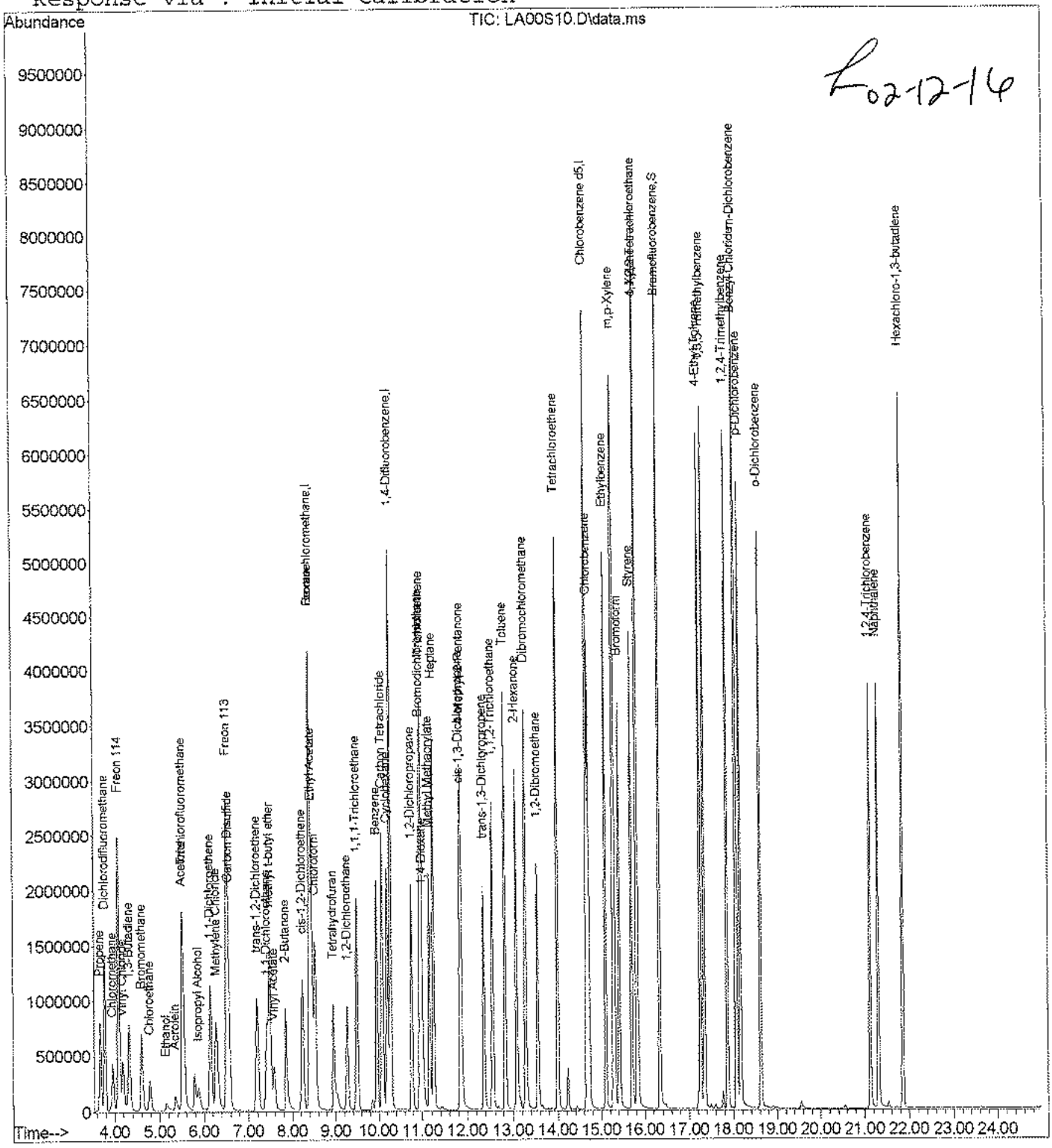
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	8.25#
59.10	4.00	1.11#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:03 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	485440	20.0000	ppb		68.25
25) 1,4-Difluorobenzene	10.29	114	6266319	20.0000	ppb		84.53
50) Chlorobenzene d5	14.67	117	5800685	20.0000	ppb		90.01
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3420474	20.7975	ppb		103.99%
Target Compounds							Qvalue
2) Propene	3.68	41	694541	11.7431	ppb		99
3) Dichlorodifluoromethane	3.78	85	2197608	12.0643	ppb		99
4) Chloromethane	3.96	50	809288	11.6744	ppb		98
5) Freon 114	4.10	135	1888015	11.1210	ppb	#	79
6) Vinyl Chloride	4.18	62	833748	12.1475	ppb		98
7) 1,3-Butadiene	4.33	54	685278	11.2862	ppb	#	62
8) Bromomethane	4.60	94	855503	12.0470	ppb		98
9) Chloroethane	4.78	64	452093	11.8234	ppb	#	89
10) Acrolein	5.35	56	238257	10.5201	ppb		97
11) Acetone	5.50	43	1394926	11.3397	ppb		88
12) Trichlorofluoromethane	5.52	101	2440197	10.9563	ppb		96
13) Ethanol	5.15	45	170811	8.6130	ppb	#	76
14) Isopropyl Alcohol	5.87	45	511309	4.5651	ppb		97
15) 1,1-Dichloroethene	6.15	61	1390118	11.3294	ppb	#	81
16) Methylene Chloride	6.28	84	803658	11.2271	ppb	#	64
17) Freon 113	6.53	151	1716368	10.9141	ppb	#	73
18) Carbon Disulfide	6.57	76	2332991	11.1516	ppb	#	65
19) trans-1,2-Dichloroethene	7.20	96	937658	11.1773	ppb	#	81
20) 1,1-Dichloroethane	7.43	63	1542417	10.9843	ppb		98
21) methyl t-butyl ether	7.49	73	2196850	11.6138	ppb	#	82
22) Vinyl Acetate	7.59	86	96257	8.4938	ppb	#	1
23) 2-Butanone	7.85	43	1987962	12.1543	ppb	#	70
24) cis-1,2-Dichloroethene	8.24	96	1007417	11.3882	ppb	#	82
26) Ethyl Acetate	8.46	61	399830	12.0910	ppb	#	1
27) Hexane	8.41	57	1416513	11.0518	ppb	#	48
28) Chloroform	8.53	83	1843551	10.3936	ppb		99
29) Tetrahydrofuran	8.95	42	1139829	11.2024	ppb	#	60
30) 1,2-Dichloroethane	9.27	62	1134587	10.4074	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	1955415	10.3667	ppb	#	92
32) Benzene	9.96	78	2616687	10.6746	ppb	#	94
33) Carbon Tetrachloride	10.10	117	2417904	10.5147	ppb		99
34) Cyclohexane	10.21	84	1254570	11.1677	ppb	#	58
35) 1,2-Dichloropropane	10.77	63	1005455	10.7128	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:03 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	2002306	10.6429	ppb		98
37)	1,4-Dioxane	11.02	88	689521	11.1364	ppb		92
38)	Trichloroethene	10.99	130	1588013	10.7808	ppb		98
39)	Methyl Methacrylate	11.16	69	971407	12.2613	ppb	#	79
40)	Heptane	11.25	71	936034	11.7292	ppb	#	45
41)	cis-1,3-Dichloropropene	11.84	75	1546216	11.4183	ppb		97
42)	4-Methyl-2-Pentanone	11.87	43	2441656	11.7179	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	1400417	11.6906	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	1226917	11.0598	ppb	#	93
45)	Toluene	12.83	91	3496002	11.8972	ppb		100
46)	2-Hexanone	13.08	43	2748693	13.3194	ppb	#	75
47)	Dibromochloromethane	13.28	129	2751952	11.3753	ppb		99
48)	1,2-Dibromoethane	13.55	107	2035523	11.4043	ppb		100
49)	Tetrachloroethene	13.99	166	1876485	11.6300	ppb	#	82
51)	Chlorobenzene	14.72	112	3209671	11.2457	ppb		98
52)	Ethylbenzene	15.11	91	4564943	11.5566	ppb		100
53)	m,p-Xylene	15.30	91	7080810	23.1468	ppb		100
54)	Bromoform	15.42	173	2371986	11.4591	ppb		99
55)	Styrene	15.70	104	2916836	12.2135	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.83	83	2590980	11.0117	ppb		98
57)	o-Xylene	15.81	91	3669650	11.6025	ppb		100
59)	4-Ethyl Toluene	17.26	105	5173846	11.8226	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	4450049	11.4459	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	4328757	11.7444	ppb		99
62)	Benzyl Chloride	18.06	91	3165466	12.4741	ppb		99
63)	m-Dichlorobenzene	18.08	146	3158097	11.6083	ppb		96
64)	p-Dichlorobenzene	18.17	146	3127771	11.8279	ppb		96
65)	o-Dichlorobenzene	18.63	146	2984776	11.6746	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	1581918	13.9053	ppb	#	97
67)	Naphthalene	21.31	128	4270025	13.1484	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1320207	11.1532	ppb		99

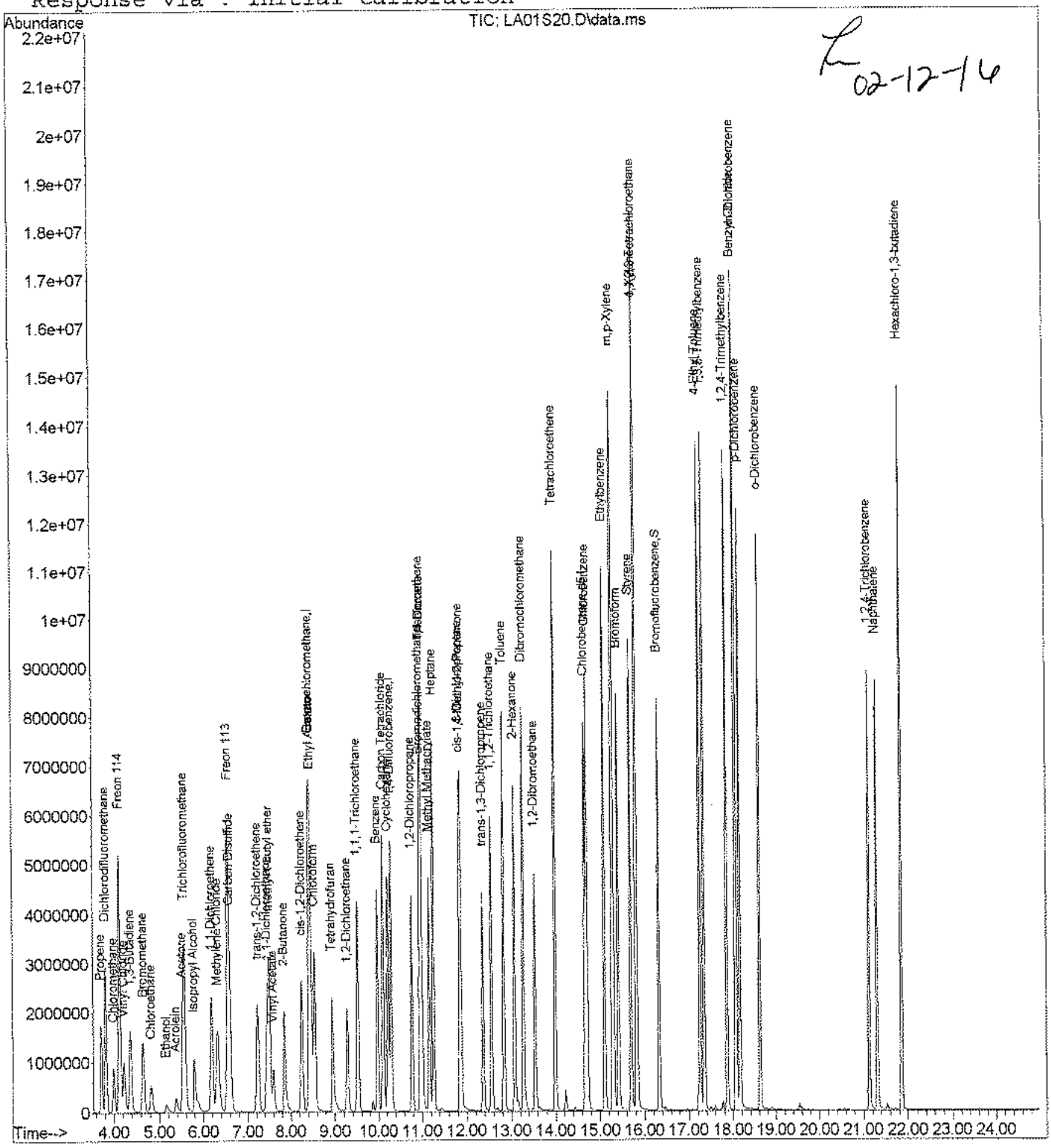
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:39 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.43	130	531904	20.0000	ppb		109.57
25) 1,4-Difluorobenzene	10.30	114	6514360	20.0000	ppb		103.96
50) Chlorobenzene d5	14.67	117	6088197	20.0000	ppb		104.96
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3652934	20.9477	ppb		104.74%
Target Compounds							**Qvalue**
2) Propene	3.72	41	1454520	21.4216	ppb		99
3) Dichlorodifluoromethane	3.82	85	4619221	21.9179	ppb		100
4) Chloromethane	3.99	50	1726758	21.5443	ppb		99
5) Freon 114	4.13	135	4006135	20.5173	ppb	#	80
6) Vinyl Chloride	4.23	62	1782596	22.5348	ppb		99
7) 1,3-Butadiene	4.37	54	1489424	21.3696	ppb	#	62
8) Bromomethane	4.65	94	1807442	22.0781	ppb		99
9) Chloroethane	4.82	64	949806	21.5253	ppb	#	89
10) Acrolein	5.37	56	498826	20.2915	ppb		99
11) Acetone	5.51	43	2988881	21.0379	ppb		87
12) Trichlorofluoromethane	5.56	101	5107892	19.9172	ppb		96
13) Ethanol	5.15	45	359084	17.7965	ppb	#	77
14) Isopropyl Alcohol	5.79	45	2780179	25.1775	ppb		98
15) 1,1-Dichloroethene	6.19	61	2917052	20.6377	ppb	#	81
16) Methylene Chloride	6.32	84	1665392	20.1364	ppb	#	63
17) Freon 113	6.56	151	3593072	19.8693	ppb	#	74
18) Carbon Disulfide	6.60	76	4811668	19.9443	ppb	#	65
19) trans-1,2-Dichloroethene	7.23	96	1966443	20.2844	ppb	#	81
20) 1,1-Dichloroethane	7.45	63	3248446	20.0998	ppb		97
21) methyl t-butyl ether	7.50	73	4635159	21.2313	ppb	#	81
22) Vinyl Acetate	7.60	86	209842	18.8114	ppb	#	1
23) 2-Butanone	7.85	43	4289396	22.5302	ppb	#	71
24) cis-1,2-Dichloroethene	8.26	96	2106550	20.5727	ppb	#	81
26) Ethyl Acetate	8.46	61	853981	22.9985	ppb	#	1
27) Hexane	8.43	57	3006631	22.2584	ppb	#	48
28) Chloroform	8.55	83	3813589	20.2797	ppb		98
29) Tetrahydrofuran	8.94	42	2448072	22.6755	ppb	#	63
30) 1,2-Dichloroethane	9.28	62	2400419	20.8918	ppb	#	90
31) 1,1,1-Trichloroethane	9.51	97	4115065	20.6963	ppb	#	92
32) Benzene	9.97	78	5456676	20.8811	ppb	#	93
33) Carbon Tetrachloride	10.10	117	5127660	21.0496	ppb		99
34) Cyclohexane	10.22	84	2598460	21.7002	ppb	#	55
35) 1,2-Dichloropropane	10.77	63	2104584	21.1294	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:39 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	4194048	20.9867	ppb		97
37)	1,4-Dioxane	11.00	88	1490569	22.2910	ppb	#	92
38)	Trichloroethene	10.99	130	3353916	21.4336	ppb		97
39)	Methyl Methacrylate	11.16	69	2068221	24.0987	ppb	#	77
40)	Heptane	11.26	71	1966938	23.2055	ppb	#	43
41)	cis-1,3-Dichloropropene	11.85	75	3273699	22.7144	ppb		98
42)	4-Methyl-2-Pentanone	11.87	43	5276898	23.8741	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	2997250	23.4321	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	2589327	21.8979	ppb	#	94
45)	Toluene	12.83	91	7360767	23.4832	ppb		100
46)	2-Hexanone	13.08	43	6056930	26.3790	ppb	#	75
47)	Dibromochloromethane	13.28	129	5956572	23.0604	ppb		99
48)	1,2-Dibromoethane	13.54	107	4350632	22.7885	ppb		100
49)	Tetrachloroethene	13.99	166	4019905	23.3927	ppb	#	81
51)	Chlorobenzene	14.72	112	6692661	21.9345	ppb		98
52)	Ethylbenzene	15.11	91	9696170	23.0398	ppb		100
53)	m,p-Xylene	15.30	91	15176928	46.6131	ppb		100
54)	Bromoform	15.42	173	5184356	23.4097	ppb		98
55)	Styrene	15.69	104	6274511	24.5103	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.82	83	5543598	22.1126	ppb		98
57)	o-Xylene	15.82	91	7965576	23.6893	ppb		100
59)	4-Ethyl Toluene	17.25	105	11092545	23.6599	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	9563952	23.0464	ppb		100
61)	1,2,4-Trimethylbenzene	17.87	105	9358127	23.6975	ppb		99
62)	Benzyl Chloride	18.06	91	7169476	26.3375	ppb		99
63)	m-Dichlorobenzene	18.08	146	6866704	23.3227	ppb		96
64)	p-Dichlorobenzene	18.17	146	6721586	23.3467	ppb		96
65)	o-Dichlorobenzene	18.62	146	6412665	23.2171	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	3544179	26.3888	ppb	#	97
67)	Naphthalene	21.31	128	9347501	25.2182	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	2947360	23.1728	ppb		99

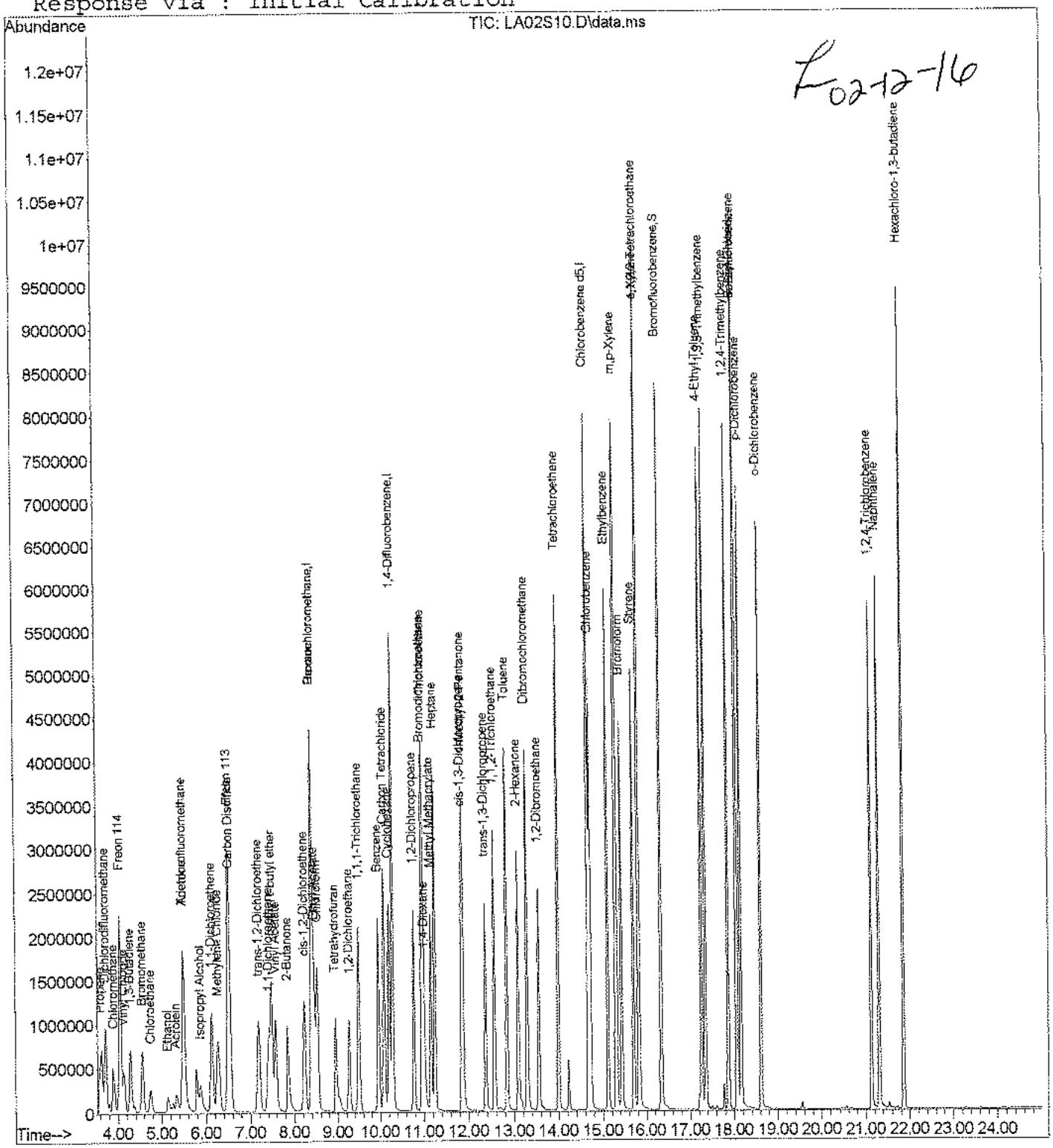
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	489024	20.0000	ppb		100.74
25) 1,4-Difluorobenzene	10.29	114	6764977	20.0000	ppb		107.96
50) Chlorobenzene d5	14.67	117	6180371	20.0000	ppb		106.55
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3635448	20.2872	ppb		101.44%
Target Compounds							Qvalue
2) Propene	3.61	41	745757	11.4585	ppb	m	0
3) Dichlorodifluoromethane	3.73	85	2344087	11.3595	ppb	m	91
4) Chloromethane	3.90	50	893818	11.5228	ppb	m	41
5) Freon 114	4.05	135	1908152	10.1497	ppb	#	77
6) Vinyl Chloride	4.13	62	813206	10.6458	ppb		98
7) 1,3-Butadiene	4.29	54	690480	10.2824	ppb	#	60
8) Bromomethane	4.56	94	922042	11.6850	ppb		98
9) Chloroethane	4.74	64	473575	11.1357	ppb	#	89
10) Acrolein	5.32	56	394704	17.6763	ppb		98
11) Acetone	5.49	43	1551169	11.3092	ppb	#	84
12) Trichlorofluoromethane	5.49	101	2607586	10.5805	ppb		96
13) Ethanol	5.13	45	406646	23.8692	ppb	#	78
14) Isopropyl Alcohol	5.87	45	748790	6.5898	ppb		99
15) 1,1-Dichloroethene	6.12	61	1541980	11.3675	ppb	#	80
16) Methylene Chloride	6.26	84	882301	11.0803	ppb	#	63
17) Freon 113	6.51	151	1906335	10.9894	ppb	#	74
18) Carbon Disulfide	6.54	76	2570980	11.0994	ppb	#	65
19) trans-1,2-Dichloroethene	7.18	96	1051790	11.2699	ppb	#	80
20) 1,1-Dichloroethane	7.41	63	1744085	11.2392	ppb		97
21) methyl t-butyl ether	7.48	73	2486576	11.8487	ppb	#	82
22) Vinyl Acetate	7.58	86	280681	30.9339	ppb	#	1
23) 2-Butanone	7.85	43	2209480	11.9492	ppb	#	71
24) cis-1,2-Dichloroethene	8.23	96	1128404	11.4382	ppb	#	81
26) Ethyl Acetate	8.46	61	309299	7.4483	ppb	#	1
27) Hexane	8.40	57	1613265	11.2769	ppb	#	82
28) Chloroform	8.53	83	2077298	10.4021	ppb		99
29) Tetrahydrofuran	8.94	42	1103477	9.5904	ppb	#	68
30) 1,2-Dichloroethane	9.27	62	1308600	10.7600	ppb	#	91
31) 1,1,1-Trichloroethane	9.50	97	2267425	10.7837	ppb	#	92
32) Benzene	9.96	78	2885330	10.3507	ppb	#	93
33) Carbon Tetrachloride	10.09	117	2743301	10.5890	ppb		99
34) Cyclohexane	10.21	84	1383906	10.8364	ppb	#	56
35) 1,2-Dichloropropane	10.77	63	1136861	10.7327	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.96	83	2259464	10.6479	ppb		97
37) 1,4-Dioxane	11.02	88	737701	10.1905	ppb	#	91
38) Trichloroethene	10.99	130	1782511	10.7024	ppb		97
39) Methyl Methacrylate	11.17	69	1032042	11.0991	ppb	#	78
40) Heptane	11.25	71	1056157	11.7051	ppb	#	44
41) cis-1,3-Dichloropropene	11.85	75	1798896	11.7248	ppb		97
42) 4-Methyl-2-Pentanone	11.88	43	2868842	12.1696	ppb	#	74
43) trans-1,3-Dichloropropene	12.37	75	1656410	12.1110	ppb		97
44) 1,1,2-Trichloroethane	12.57	97	1402209	11.0887	ppb	#	93
45) Toluene	12.84	91	3969358	11.8398	ppb		100
46) 2-Hexanone	13.09	43	2711056	10.6153	ppb	#	75
47) Dibromochloromethane	13.28	129	3130692	11.3076	ppb		99
48) 1,2-Dibromoethane	13.55	107	2363280	11.5452	ppb		100
49) Tetrachloroethene	14.00	166	2164263	11.7706	ppb	#	82
51) Chlorobenzene	14.72	112	3668876	11.6117	ppb		97
52) Ethylbenzene	15.11	91	5310490	12.2001	ppb		100
53) m,p-Xylene	15.30	91	8298624	24.5906	ppb		100
54) Bromoform	15.42	173	2784961	12.1083	ppb		99
55) Styrene	15.71	104	3454864	12.9769	ppb		98
56) 1,1,2,2-Tetrachloroethane	15.83	83	3108398	11.9363	ppb		98
57) o-Xylene	15.82	91	4360739	12.5011	ppb		99
59) 4-Ethyl Toluene	17.26	105	6290035	12.9051	ppb		99
60) 1,3,5-Trimethylbenzene	17.35	105	5413751	12.5724	ppb		99
61) 1,2,4-Trimethylbenzene	17.87	105	5359610	13.0631	ppb		100
62) Benzyl Chloride	18.06	91	4877426	17.3235	ppb		99
63) m-Dichlorobenzene	18.08	146	3994463	12.9919	ppb		96
64) p-Dichlorobenzene	18.17	146	3952062	13.0928	ppb		96
65) o-Dichlorobenzene	18.62	146	3799599	13.1851	ppb		97
66) 1,2,4-Trichlorobenzene	21.13	180	2345582	15.7820	ppb	#	97
67) Naphthalene	21.31	128	6551648	16.4216	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	1907763	14.4170	ppb		99

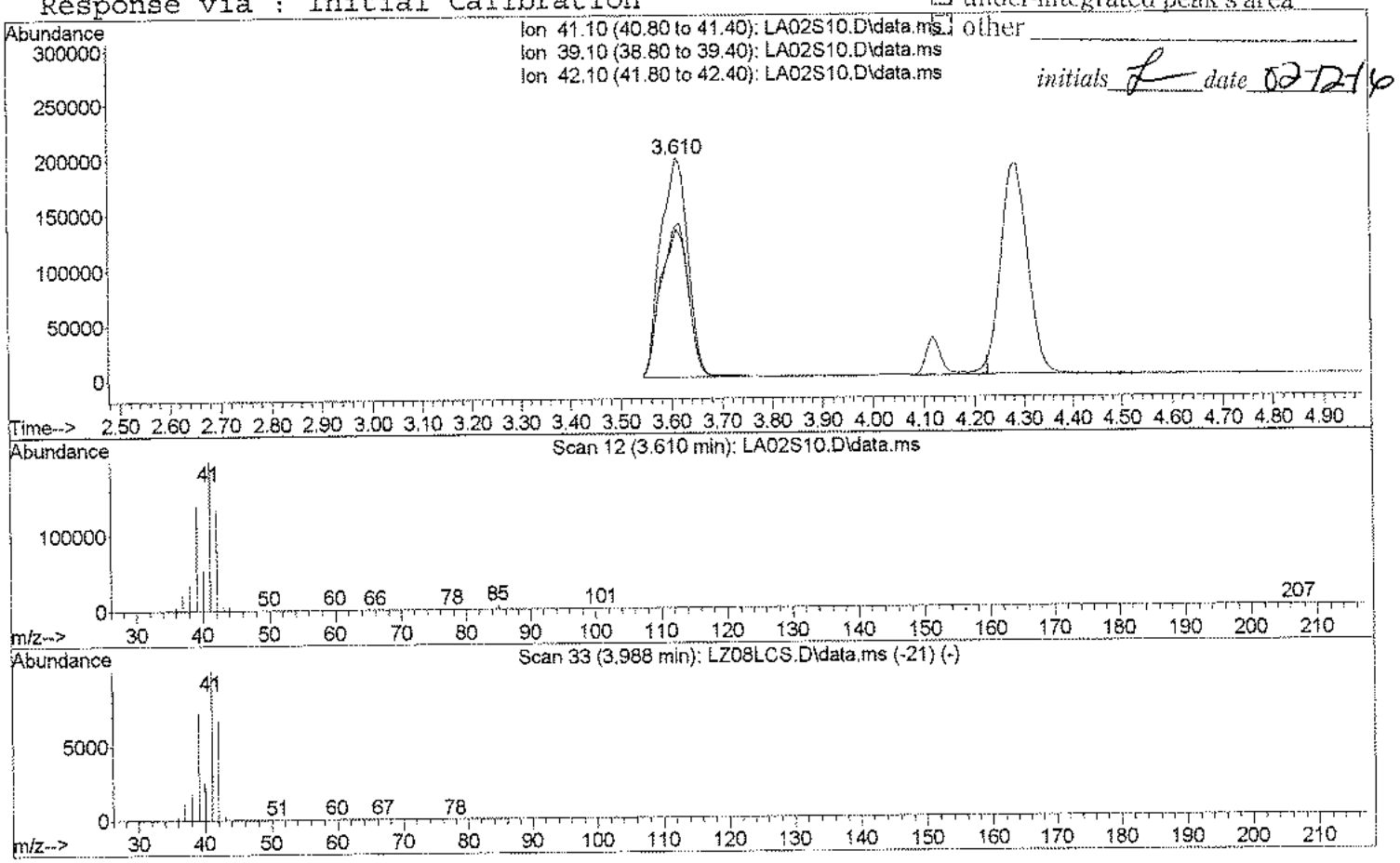
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02/12/16



TIC: LA02S10.D\data.ms

(2) Propene

3.610min (-0.116) 11.46 ppb m

response 745757

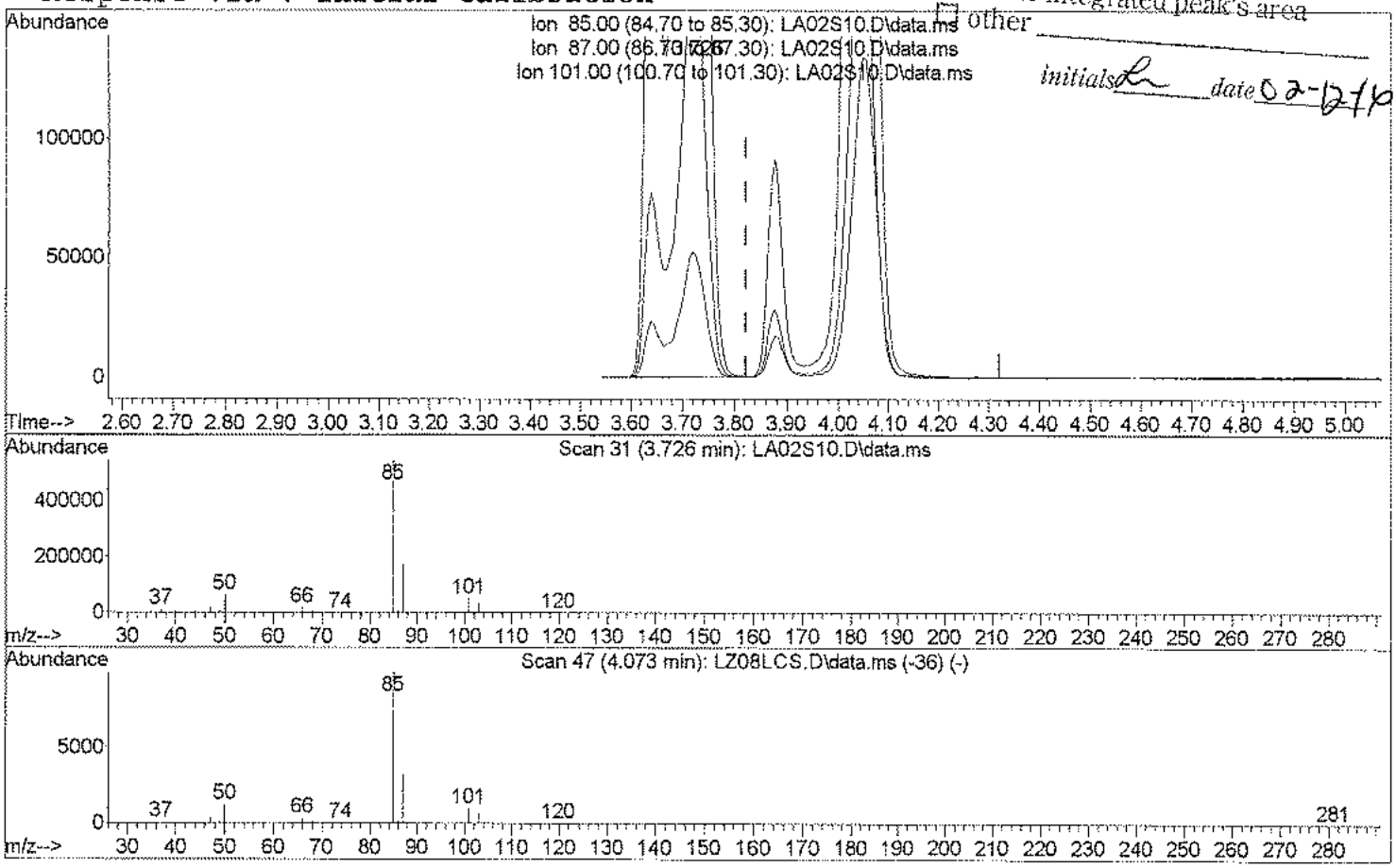
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other
initials LL date 02-12-16



TIC: LA02S10.D\data.ms

(3) Dichlorodifluoromethane

3.726min (-0.098) 11.36 ppb m

response 2344087

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	2.43#
101.00	10.00	1.59#
0.00	0.00	0.00

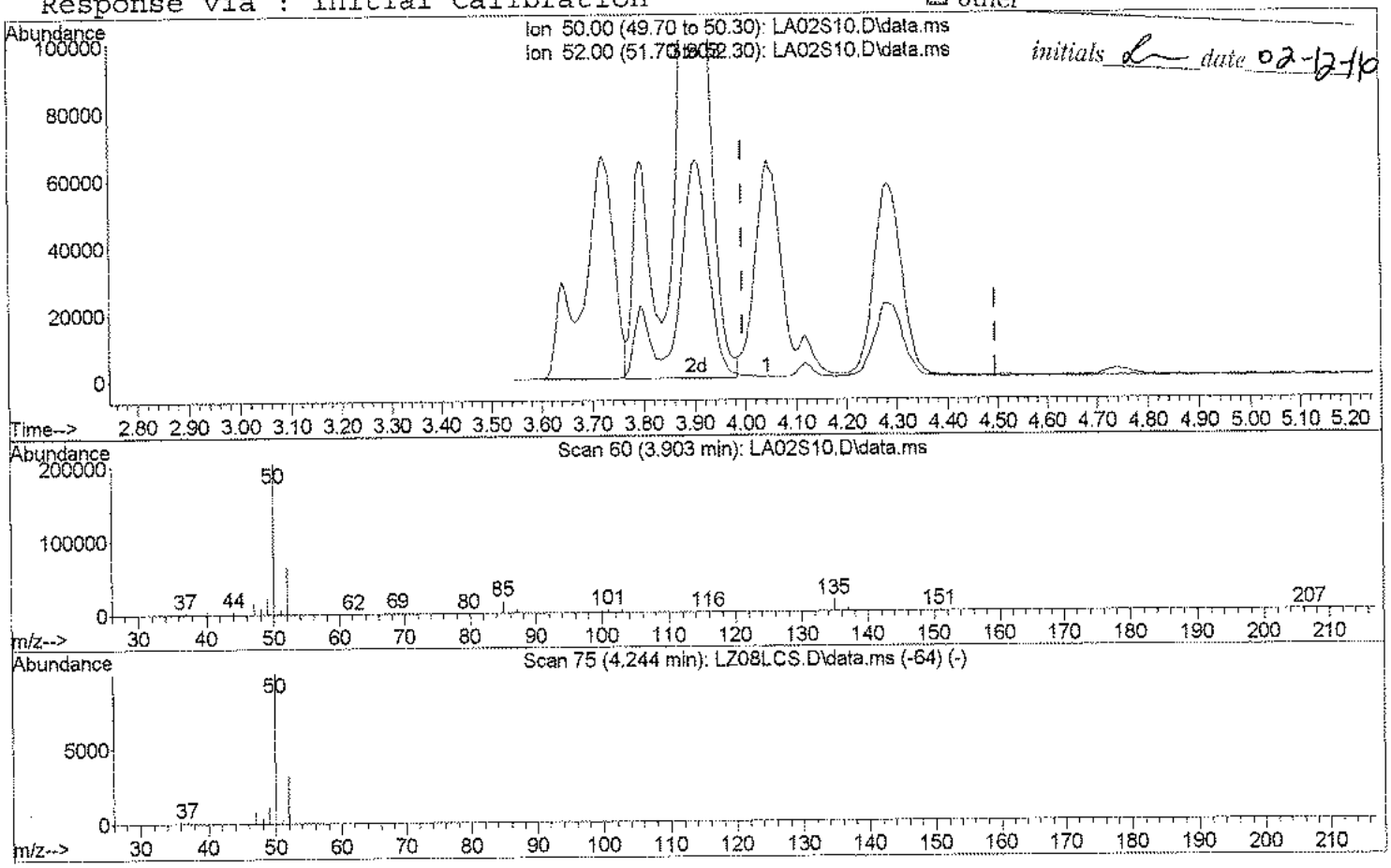
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other

initials _____ date 02-12-16



TIC: LA02S10.D\data.ms

(4) Chloromethane

3.903min (-0.092) 11.52 ppb m

response 893818

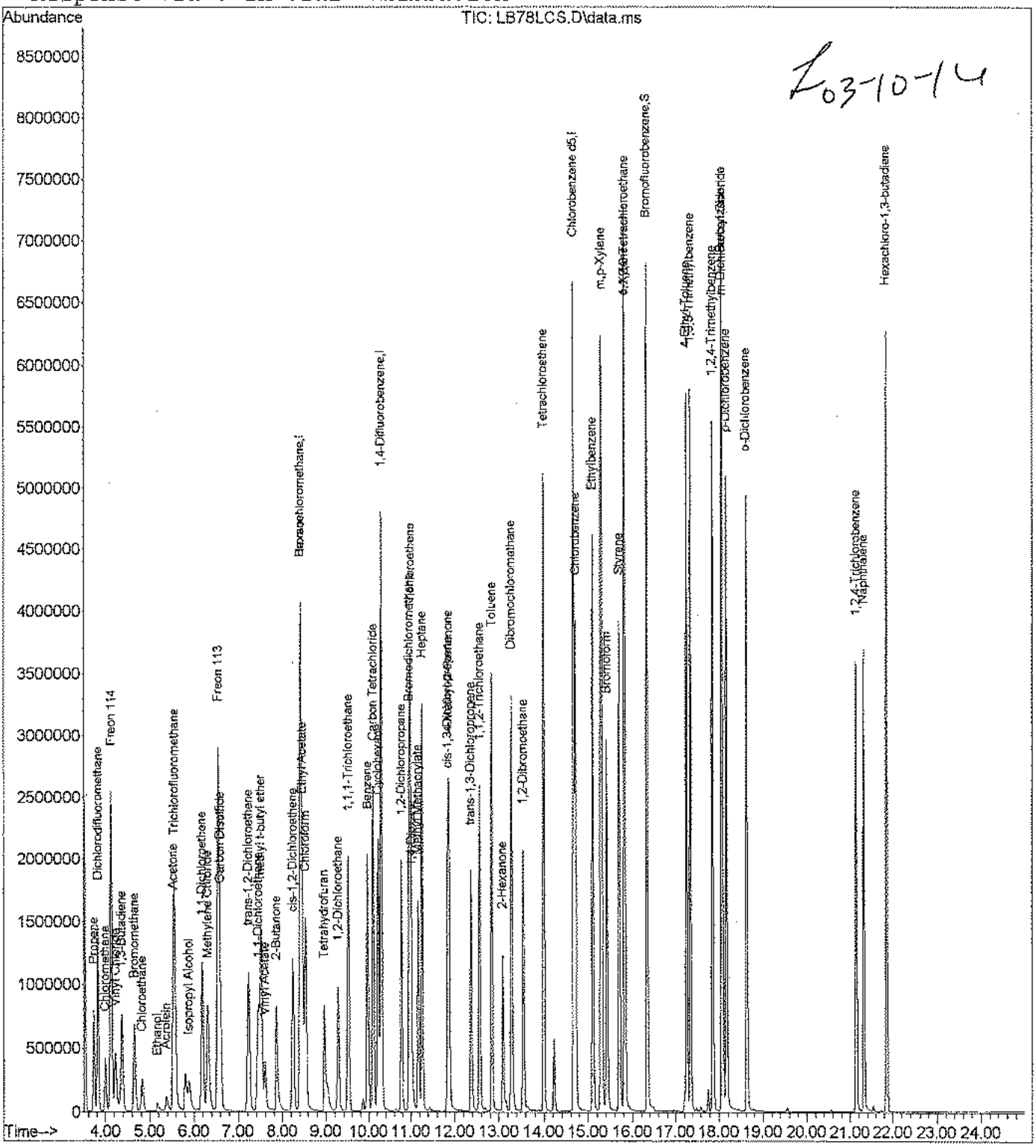
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\09MAR16L\LB78LCS.D Vial: 2
Acq Time : 03/09/2016 16:00 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 30851 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 09 16:35:55 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Thu Mar 10 09:08:38 2016
Response via : Initial Calibration



LB78LCS.D TO15LG16.m Thu Mar 10 11:53:53 2016 Page 3

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\09MAR16L\LB78LCS.D Vial: 2
Acq Time : 03/09/2016 16:00 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 30851 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 09 16:35:55 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 11:43:19 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	492736	20.0000	ppb		101.50
25) 1,4-Difluorobenzene	10.30	114	5796191	20.0000	ppb		92.50
50) Chlorobenzene d5	14.67	117	5253240	20.0000	ppb		90.56
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3015394	19.7968	ppb		98.98%
Target Compounds							Qvalue
2) Propene	3.73	41	620335	9.4596	ppb		98
3) Dichlorodifluoromethane	3.83	85	2122765	10.2095	ppb		99
4) Chloromethane	4.01	50	743208	9.5090	ppb		99
5) Freon 114	4.14	135	1914371	10.1061	ppb		87
6) Vinyl Chloride	4.23	62	776456	10.0881	ppb		99
7) 1,3-Butadiene	4.37	54	635203	9.3879	ppb	#	63
8) Bromomethane	4.65	94	806261	10.1407	ppb		99
9) Chloroethane	4.82	64	423293	9.8784	ppb	#	90
10) Acrolein	5.38	56	189215	8.4099	ppb		99
11) Acetone	5.53	43	1403603	10.1562	ppb		88
12) Trichlorofluoromethane	5.56	101	2440181	9.8266	ppb		96
13) Ethanol	5.17	45	166399	9.6937	ppb	#	77
14) Isopropyl Alcohol	5.88	45	602961	5.2664	ppb		100
15) 1,1-Dichloroethene	6.18	61	1366553	9.9983	ppb	#	78
16) Methylene Chloride	6.32	84	745405	9.2906	ppb	#	64
17) Freon 113	6.56	151	1782841	10.2001	ppb	#	82
18) Carbon Disulfide	6.60	76	2159183	9.2514	ppb	#	65
19) trans-1,2-Dichloroethene	7.22	96	889225	9.4562	ppb	#	78
20) 1,1-Dichloroethane	7.44	63	1497662	9.5785	ppb		97
21) methyl t-butyl ether	7.50	73	2222645	10.5112	ppb	#	84
22) Vinyl Acetate	7.60	86	91448	10.0026	ppb	#	1
23) 2-Butanone	7.86	43	1721123	9.2380	ppb	#	71
24) cis-1,2-Dichloroethene	8.25	96	951644	9.5738	ppb	#	79
26) Ethyl Acetate	8.47	61	327119	9.1940	ppb	#	1
27) Hexane	8.43	57	1354917	11.0540	ppb	#	48
28) Chloroform	8.54	83	1756000	10.2629	ppb		98
29) Tetrahydrofuran	8.96	42	1059071	10.7429	ppb	#	64
30) 1,2-Dichloroethane	9.28	62	1169358	11.2221	ppb	#	93
31) 1,1,1-Trichloroethane	9.51	97	1954919	10.8515	ppb	#	92
32) Benzene	9.97	78	2479662	10.3822	ppb	#	93
33) Carbon Tetrachloride	10.10	117	2407992	10.8482	ppb		99
34) Cyclohexane	10.22	84	1183207	10.8135	ppb	#	56
35) 1,2-Dichloropropane	10.78	63	942048	10.3800	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\09MAR16L\LB78LCS.D Vial: 2
Acq Time : 03/09/2016 16:00 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 30851 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 09 16:35:55 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 11:43:19 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	1892879	10.4113	ppb		97
37)	1,4-Dioxane	11.02	88	483888	7.8016	ppb	#	90
38)	Trichloroethene	10.99	130	1629946	11.4221	ppb		99
39)	Methyl Methacrylate	11.17	69	759382	9.5318	ppb	#	80
40)	Heptane	11.27	71	882155	11.4108	ppb	#	47
41)	cis-1,3-Dichloropropene	11.85	75	1453168	11.0545	ppb		98
42)	4-Methyl-2-Pentanone	11.88	43	2015284	9.9777	ppb	#	76
43)	trans-1,3-Dichloropropene	12.37	75	1330813	11.3567	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	1127352	10.4052	ppb	#	93
45)	Toluene	12.84	91	3219799	11.2092	ppb		100
46)	2-Hexanone	13.09	43	1107335	5.0605	ppb	#	76
47)	Dibromochloromethane	13.28	129	2567811	10.8247	ppb		99
48)	1,2-Dibromoethane	13.55	107	1885206	10.7490	ppb		99
49)	Tetrachloroethene	14.00	166	1898745	12.0525	ppb	#	82
51)	Chlorobenzene	14.72	112	3037531	11.3102	ppb		98
52)	Ethylbenzene	15.11	91	4215689	11.3942	ppb		99
53)	m,p-Xylene	15.30	91	6545940	22.8204	ppb		98
54)	Bromoform	15.42	173	1925187	9.8474	ppb		99
55)	Styrene	15.70	104	2706472	11.9599	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	2256175	10.1928	ppb		97
57)	o-Xylene	15.82	91	3352436	11.3067	ppb		98
59)	4-Ethyl Toluene	17.26	105	4814744	11.6216	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	4141985	11.3166	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	4010144	11.4990	ppb		98
62)	Benzyl Chloride	18.06	91	2724711	11.3855	ppb		97
63)	m-Dichlorobenzene	18.08	146	3065153	11.7288	ppb		97
64)	p-Dichlorobenzene	18.17	146	3018854	11.7662	ppb		97
65)	o-Dichlorobenzene	18.62	146	2845157	11.6155	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	1523215	12.0576	ppb	#	97
67)	Naphthalene	21.31	128	4101795	12.0956	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1353540	12.0339	ppb		98

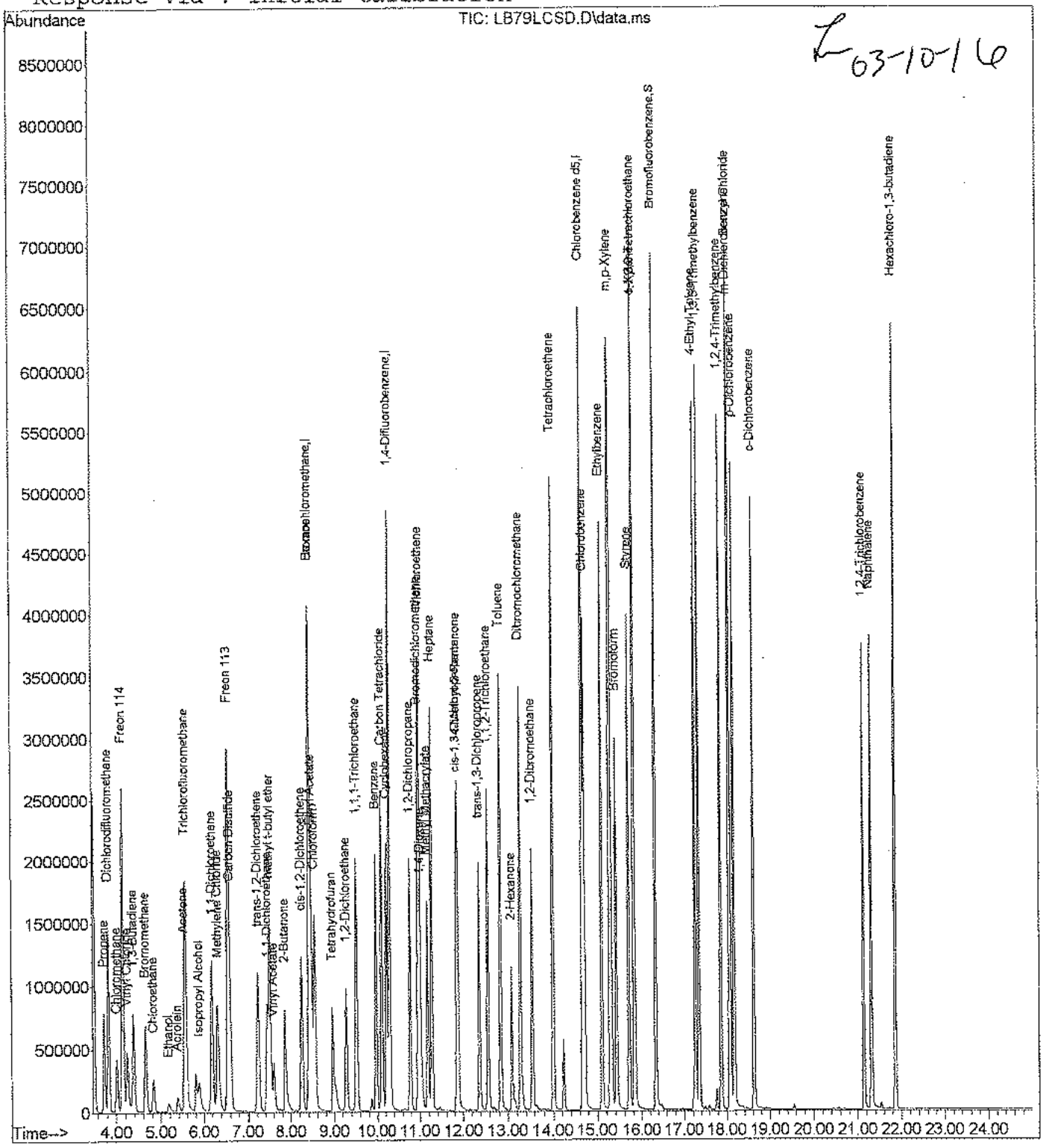
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB79LCSD.D Vial: 2
Acq Time : 03/09/2016 16:58 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 30851 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 10 07:32:30 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Thu Mar 10 09:08:38 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB79LCSD.D Vial: 2
Acq Time : 03/09/2016 16:58 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 30851 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 10 07:32:30 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 16:36:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	495424	20.0000	ppb		102.06
25) 1,4-Difluorobenzene	10.30	114	5731986	20.0000	ppb		91.47
50) Chlorobenzene d5	14.67	117	5270710	20.0000	ppb		90.86
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3024907	19.7934	ppb		98.97%
Target Compounds							Qvalue
2) Propene	3.74	41	616520	9.3504	ppb		97
3) Dichlorodifluoromethane	3.83	85	2126815	10.1735	ppb		99
4) Chloromethane	4.01	50	748014	9.5186	ppb		99
5) Freon 114	4.15	135	1909095	10.0236	ppb		86
6) Vinyl Chloride	4.24	62	778103	10.0546	ppb		99
7) 1,3-Butadiene	4.38	54	634887	9.3324	ppb	#	63
8) Bromomethane	4.65	94	808900	10.1187	ppb		99
9) Chloroethane	4.83	64	422858	9.8147	ppb	#	90
10) Acrolein	5.38	56	191122	8.4486	ppb		99
11) Acetone	5.52	43	1402026	10.0898	ppb	#	87
12) Trichlorofluoromethane	5.56	101	2456026	9.8368	ppb		96
13) Ethanol	5.17	45	164217	9.5146	ppb	#	78
14) Isopropyl Alcohol	5.88	45	596916	5.1854	ppb		99
15) 1,1-Dichloroethene	6.19	61	1372221	9.9853	ppb	#	78
16) Methylene Chloride	6.32	84	743893	9.2214	ppb	#	64
17) Freon 113	6.56	151	1786001	10.1627	ppb	#	82
18) Carbon Disulfide	6.60	76	2160806	9.2081	ppb	#	65
19) trans-1,2-Dichloroethene	7.22	96	887214	9.3836	ppb	#	77
20) 1,1-Dichloroethane	7.44	63	1501123	9.5486	ppb		97
21) methyl t-butyl ether	7.50	73	2230207	10.4898	ppb	#	83
22) Vinyl Acetate	7.60	86	92370	10.0486	ppb	#	1
23) 2-Butanone	7.86	43	1708247	9.1191	ppb	#	71
24) cis-1,2-Dichloroethene	8.25	96	947730	9.4827	ppb	#	78
26) Ethyl Acetate	8.47	61	317285	9.0175	ppb	#	1
27) Hexane	8.43	57	1355763	11.1848	ppb	#	48
28) Chloroform	8.54	83	1753318	10.3620	ppb		98
29) Tetrahydrofuran	8.96	42	1043520	10.7037	ppb	#	64
30) 1,2-Dichloroethane	9.28	62	1164231	11.2981	ppb	#	93
31) 1,1,1-Trichloroethane	9.51	97	1938791	10.8825	ppb	#	92
32) Benzene	9.97	78	2425950	10.2711	ppb	#	92
33) Carbon Tetrachloride	10.10	117	2393084	10.9018	ppb		99
34) Cyclohexane	10.22	84	1174049	10.8500	ppb	#	56
35) 1,2-Dichloropropane	10.78	63	953842	10.6277	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB79LCSD.D Vial: 2
Acq Time : 03/09/2016 16:58 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 30851 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 10 07:32:30 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 16:36:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	1896346	10.5472	ppb		97
37)	1,4-Dioxane	11.02	88	478589	7.8026	ppb	#	89
38)	Trichloroethene	10.99	130	1629842	11.5493	ppb		100
39)	Methyl Methacrylate	11.17	69	746255	9.4719	ppb	#	80
40)	Heptane	11.27	71	882637	11.5449	ppb	#	47
41)	cis-1,3-Dichloropropene	11.84	75	1463234	11.2557	ppb		97
42)	4-Methyl-2-Pentanone	11.88	43	2035759	10.1920	ppb	#	75
43)	trans-1,3-Dichloropropene	12.37	75	1354106	11.6849	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	1133463	10.5788	ppb	#	93
45)	Toluene	12.84	91	3245017	11.4235	ppb		100
46)	2-Hexanone	13.09	43	1023467	4.7296	ppb	#	76
47)	Dibromochloromethane	13.28	129	2573613	10.9707	ppb		99
48)	1,2-Dibromoethane	13.55	107	1905263	10.9851	ppb		99
49)	Tetrachloroethene	14.00	166	1918314	12.3131	ppb	#	83
51)	Chlorobenzene	14.72	112	3040173	11.2825	ppb		98
52)	Ethylbenzene	15.11	91	4260191	11.4763	ppb		99
53)	m,p-Xylene	15.30	91	6570104	22.8287	ppb		98
54)	Bromoform	15.42	173	1937607	9.8781	ppb		99
55)	Styrene	15.70	104	2721137	11.9849	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	2268334	10.2137	ppb		97
57)	o-Xylene	15.82	91	3382158	11.3692	ppb		99
59)	4-Ethyl Toluene	17.26	105	4827723	11.6143	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	4156223	11.3179	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	4005738	11.4483	ppb		97
62)	Benzyl Chloride	18.06	91	2760896	11.4985	ppb		98
63)	m-Dichlorobenzene	18.08	146	3086324	11.7706	ppb		97
64)	p-Dichlorobenzene	18.17	146	3037214	11.7985	ppb		97
65)	o-Dichlorobenzene	18.62	146	2863998	11.6537	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	1574316	12.4208	ppb	#	98
67)	Naphthalene	21.31	128	4221748	12.4080	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1406374	12.4622	ppb		99

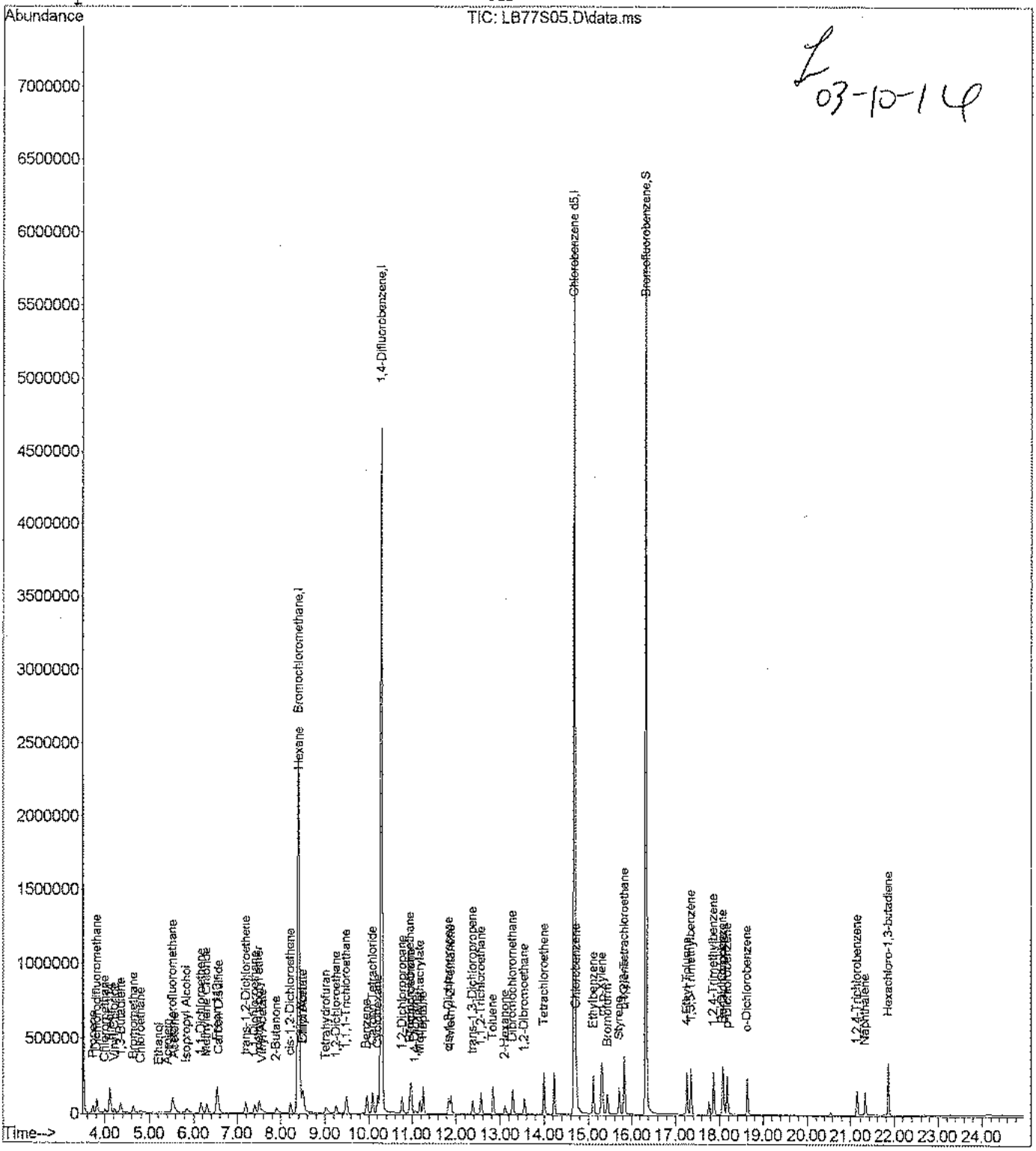
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\09MAR16L\LB77S05.D Vial: 2
Acq Time : 03/09/2016 15:04 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 09 15:33:17 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Thu Mar 10 09:08:38 2016
Response via : Initial Calibration



L 03-10-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\09MAR16L\LB77S05.D Vial: 2
Acq Time : 03/09/2016 15:04 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 09 15:33:17 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 11:43:19 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	497984	20.0000	ppb		102.58
25) 1,4-Difluorobenzene	10.28	114	5827354	20.0000	ppb		92.99
50) Chlorobenzene d5	14.67	117	4987537	20.0000	ppb		85.98
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	2710202	18.7410	ppb		93.71%
Target Compounds							Qvalue
2) Propene	3.73	41	40099	0.6050	ppb		97
3) Dichlorodifluoromethane	3.82	85	125685	0.5981	ppb		98
4) Chloromethane	4.00	50	43021	0.5446	ppb		99
5) Freon 114	4.12	135	111406	0.5819	ppb		86
6) Vinyl Chloride	4.22	62	44904	0.5773	ppb		95
7) 1,3-Butadiene	4.35	54	35453	0.5185	ppb	#	55
8) Bromomethane	4.63	94	46290	0.5761	ppb		99
9) Chloroethane	4.80	64	26952	0.6224	ppb	#	88
10) Acrolein	5.42	56	9790	0.4305	ppb	#	93
11) Acetone	5.57	43	87931	0.6295	ppb	#	87
12) Trichlorofluoromethane	5.53	101	142019	0.5659	ppb		97
13) Ethanol	5.21	45	3694	0.2129	ppb	#	22
14) Isopropyl Alcohol	5.85	45	76184	0.6584	ppb	#	96
15) 1,1-Dichloroethene	6.16	61	77706	0.5625	ppb	#	79
16) Methylene Chloride	6.29	84	45399	0.5599	ppb	#	63
17) Freon 113	6.54	151	101399	0.5740	ppb	#	81
18) Carbon Disulfide	6.58	76	124248	0.5268	ppb	#	67
19) trans-1,2-Dichloroethene	7.19	96	48813	0.5136	ppb	#	76
20) 1,1-Dichloroethane	7.41	63	85699	0.5423	ppb		96
21) methyl t-butyl ether	7.51	73	122069	0.5712	ppb	#	85
22) Vinyl Acetate	7.60	86	5237	0.5668	ppb	#	1
23) 2-Butanone	7.90	43	87980	0.4672	ppb	#	71
24) cis-1,2-Dichloroethene	8.22	96	52916	0.5267	ppb	#	79
26) Ethyl Acetate	8.49	61	17585	0.4916	ppb	#	1
27) Hexane	8.41	57	74432	0.6040	ppb	#	84
28) Chloroform	8.50	83	98868	0.5747	ppb		97
29) Tetrahydrofuran	9.02	42	56470	0.5698	ppb	#	62
30) 1,2-Dichloroethane	9.26	62	65504	0.6253	ppb	#	94
31) 1,1,1-Trichloroethane	9.49	97	111663	0.6165	ppb	#	93
32) Benzene	9.95	78	144821	0.6031	ppb	#	93
33) Carbon Tetrachloride	10.08	117	134810	0.6041	ppb		99
34) Cyclohexane	10.21	84	66353	0.6032	ppb	#	59
35) 1,2-Dichloropropane	10.77	63	54500	0.5973	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\09MAR16L\LB77S05.D Vial: 2
Acq Time : 03/09/2016 15:04 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 09 15:33:17 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 11:43:19 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	106930	0.5850	ppb		97
37) 1,4-Dioxane	11.07	88	26939	0.4320	ppb	#	93
38) Trichloroethene	10.98	130	91890	0.6405	ppb		100
39) Methyl Methacrylate	11.17	69	40083	0.5004	ppb	#	85
40) Heptane	11.25	71	50374	0.6481	ppb	#	49
41) cis-1,3-Dichloropropene	11.84	75	77058	0.5831	ppb		97
42) 4-Methyl-2-Pentanone	11.89	43	105552	0.5198	ppb	#	75
43) trans-1,3-Dichloropropene	12.38	75	68821	0.5842	ppb		97
44) 1,1,2-Trichloroethane	12.56	97	63264	0.5808	ppb	#	93
45) Toluene	12.83	91	172521	0.5974	ppb		100
46) 2-Hexanone	13.11	43	52931	0.2406	ppb	#	74
47) Dibromochloromethane	13.28	129	129691	0.5438	ppb		98
48) 1,2-Dibromoethane	13.55	107	98800	0.5603	ppb		98
49) Tetrachloroethene	14.00	166	104920	0.6624	ppb	#	82
51) Chlorobenzene	14.72	112	172594	0.6769	ppb		99
52) Ethylbenzene	15.11	91	232757	0.6626	ppb		99
53) m,p-Xylene	15.30	91	360608	1.3241	ppb		100
54) Bromoform	15.43	173	90877	0.4896	ppb		98
55) Styrene	15.70	104	133709	0.6223	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.84	83	117043	0.5569	ppb		96
57) o-Xylene	15.82	91	181777	0.6457	ppb		99
59) 4-Ethyl Toluene	17.26	105	237241	0.6031	ppb		99
60) 1,3,5-Trimethylbenzene	17.35	105	214820	0.6182	ppb		98
61) 1,2,4-Trimethylbenzene	17.87	105	204752	0.6184	ppb		100
62) Benzyl Chloride	18.06	91	112872	0.4968	ppb		100
63) m-Dichlorobenzene	18.08	146	154370	0.6222	ppb		96
64) p-Dichlorobenzene	18.17	146	156922	0.6442	ppb		96
65) o-Dichlorobenzene	18.62	146	149338	0.6422	ppb		97
66) 1,2,4-Trichlorobenzene	21.14	180	71301	0.5945	ppb	#	97
67) Naphthalene	21.31	128	188852	0.5866	ppb		98
68) Hexachloro-1,3-butadiene	21.86	225	75316	0.7053	ppb		99

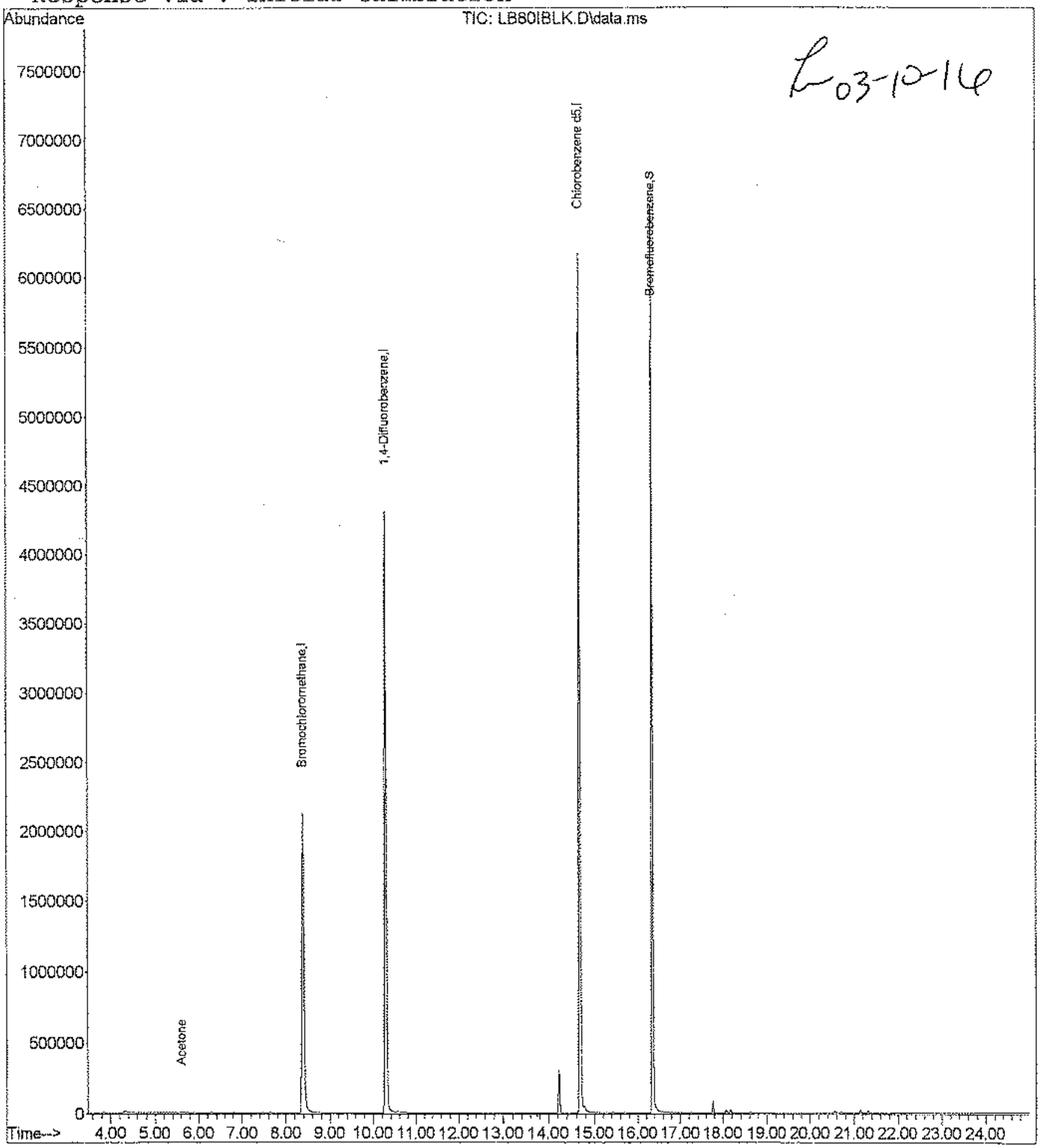
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB80IBLK.D Vial: 1
Acq Time : 03/09/2016 17:53 Operator: JCB
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 10 07:32:45 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Thu Mar 10 09:08:38 2016
Response via : Initial Calibration



L 03-10-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB80IBLK.D Vial: 1
Acq Time : 03/09/2016 17:53 Operator: JCB
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 10 07:32:45 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 16:36:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	453312	20.0000 ppb	93.38
25) 1,4-Difluorobenzene	10.28	114	5462958	20.0000 ppb	87.18
50) Chlorobenzene d5	14.68	117	4885149	20.0000 ppb	84.22
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	2778391	19.6152 ppb	98.08%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.62	43	32435	0.2551 ppb #	37
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB80IBLK.D Vial: 1
Acq Time : 03/09/2016 17:53 Operator: JCB
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 10 07:32:45 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 16:36:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

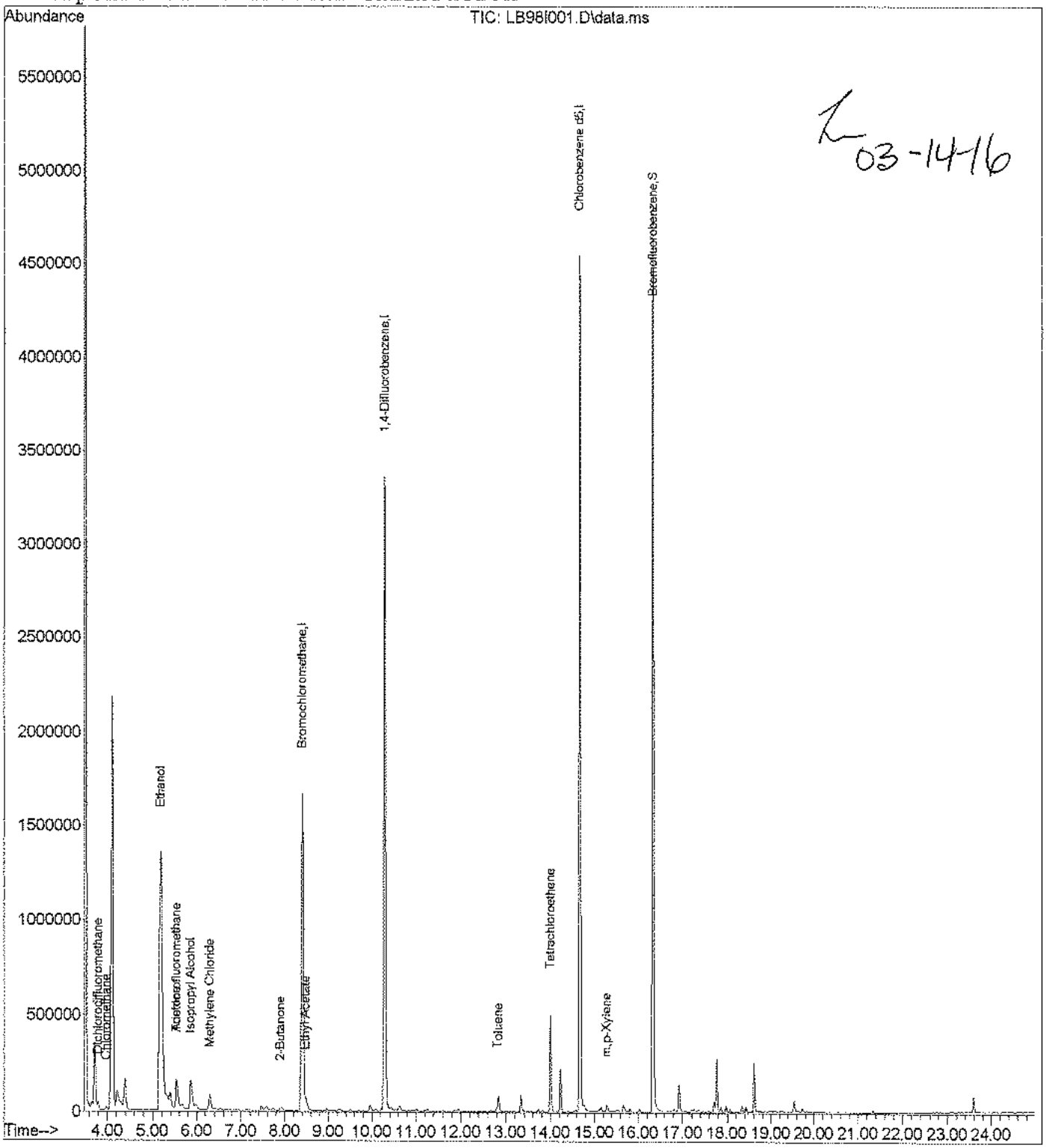
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB98I001.D Vial: 12
Acq Time : 03/10/2016 10:12 Operator: JCB
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 11:45:13 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration



03-1416

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB98I001.D Vial: 12
Acq Time : 03/10/2016 10:12 Operator: JCB
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 11:45:13 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Thu Mar 10 09:08:38 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.40	130	334656	20.0000 ppb	68.94
25) 1,4-Difluorobenzene	10.28	114	3969508	20.0000 ppb	63.35
50) Chlorobenzene d5	14.67	117	3497454	20.0000 ppb	60.29
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	2077662	20.4881 ppb	102.44%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.80	85	61405	0.4348 ppb	99
4) Chloromethane	3.99	50	22841	0.4303 ppb	100
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.53	43	321522	3.4254 ppb	91
12) Trichlorofluoromethane	5.53	101	32253	0.1912 ppb	98
13) Ethanol	5.18	45	3658174	313.7743 ppb #	78
14) Isopropyl Alcohol	5.86	45	352445	4.5325 ppb #	84
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.29	84	58322	1.0703 ppb #	61
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.90	43	36467	0.2882 ppb #	69
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.48	61	10877	0.4464 ppb #	1
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

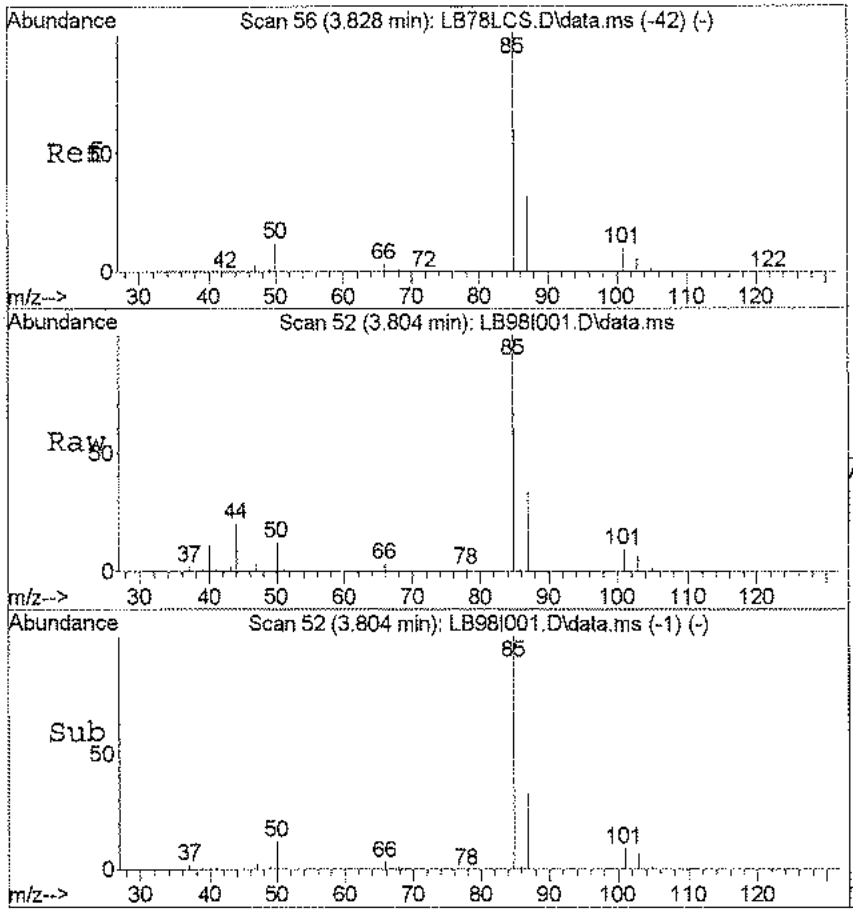
Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB98I001.D Vial: 12
Acq Time : 03/10/2016 10:12 Operator: JCB
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 11:45:13 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Thu Mar 10 09:08:38 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	71561	0.3638 ppb	100
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.00	166	187187	1.7350 ppb #	83
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	15.28	91	28957	0.1516 ppb	99
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

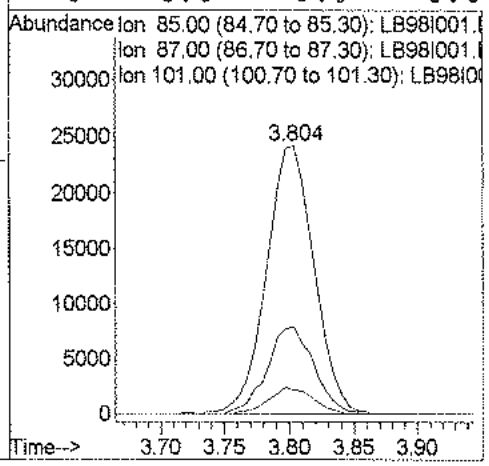
(#) = qualifier out of range (m) = manual integration

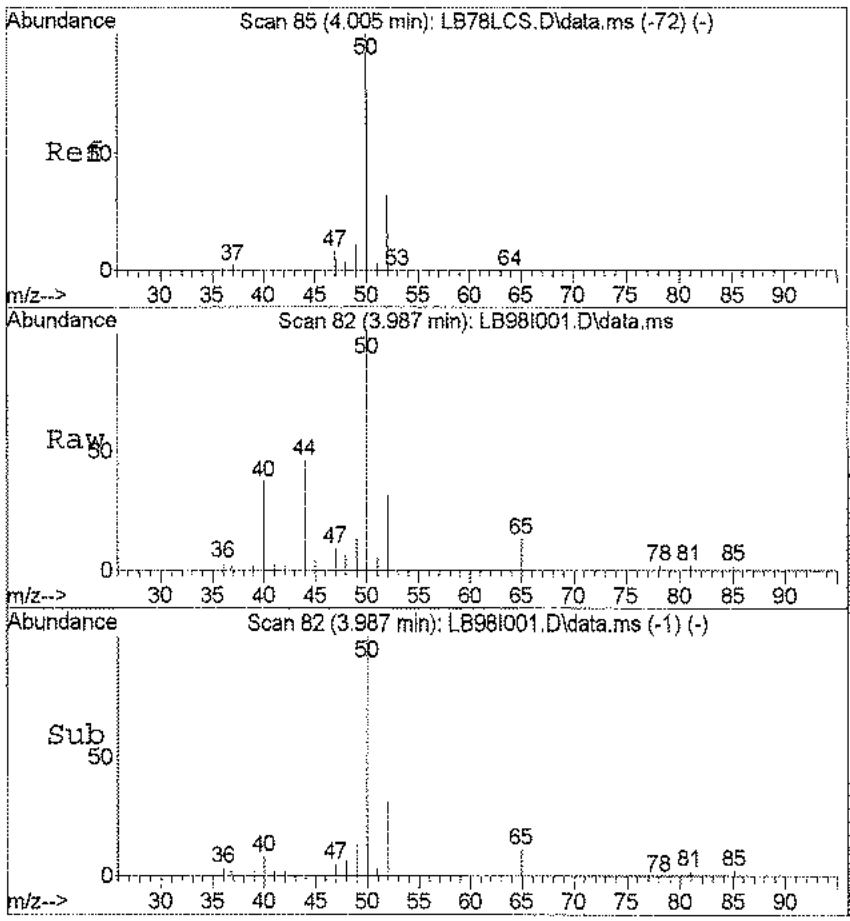


#3
Dichlorodifluoromethane
Concen: 0.43 ppb
RT: 3.80 min Scan# 52
Delta R.T. -0.02 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:85 Resp: 61405

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.1	39.1
101	9.4	8.0	12.0
0	0.0	0.0	0.0

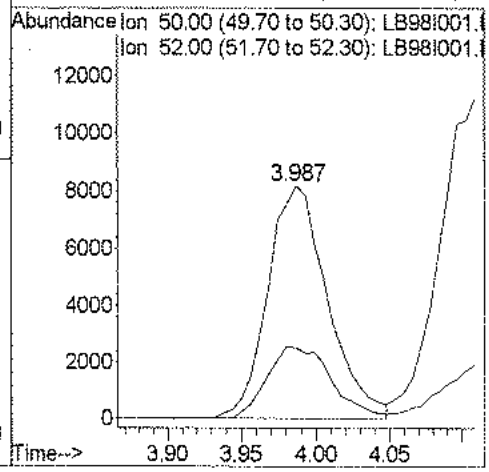


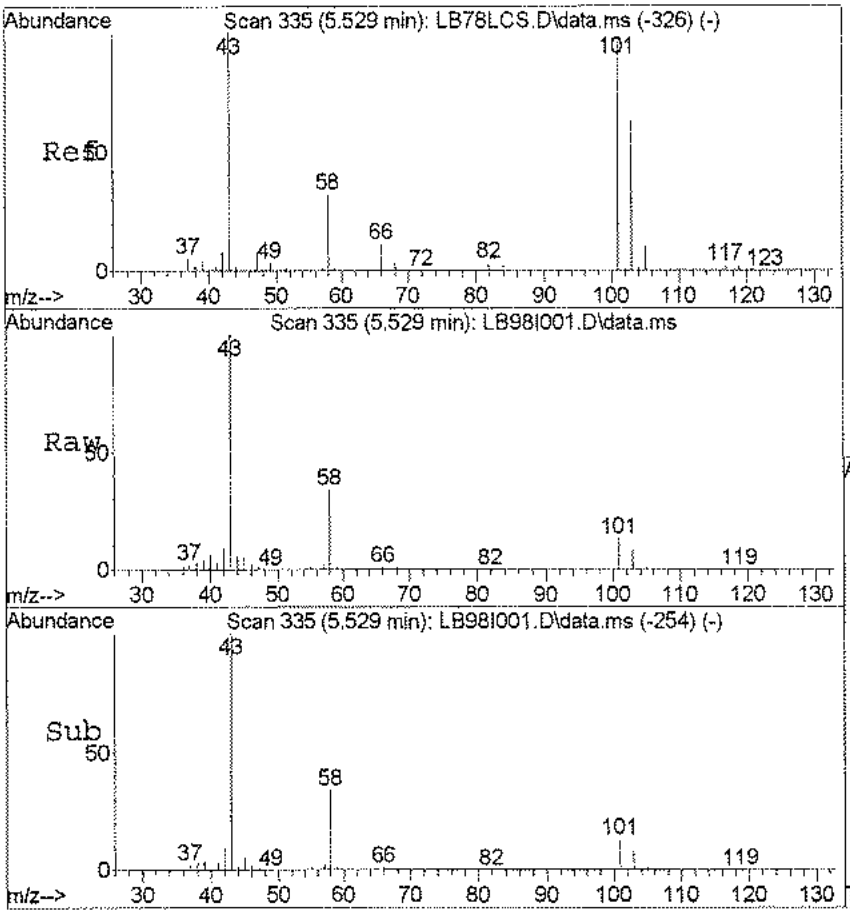


#4
Chloromethane
Concen: 0.43 ppb
RT: 3.99 min Scan# 82
Delta R.T. -0.01 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:50 Resp: 22841

Ion	Ratio	Lower	Upper
50	100		
52	33.5	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

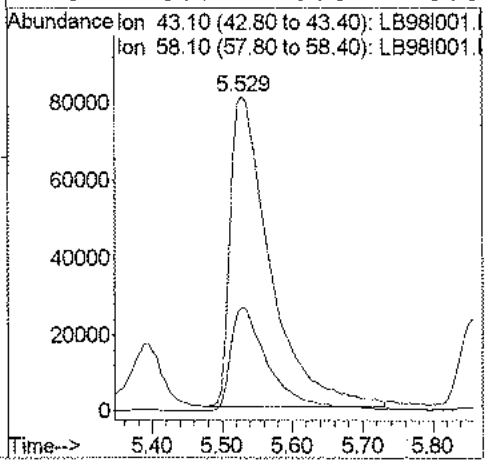


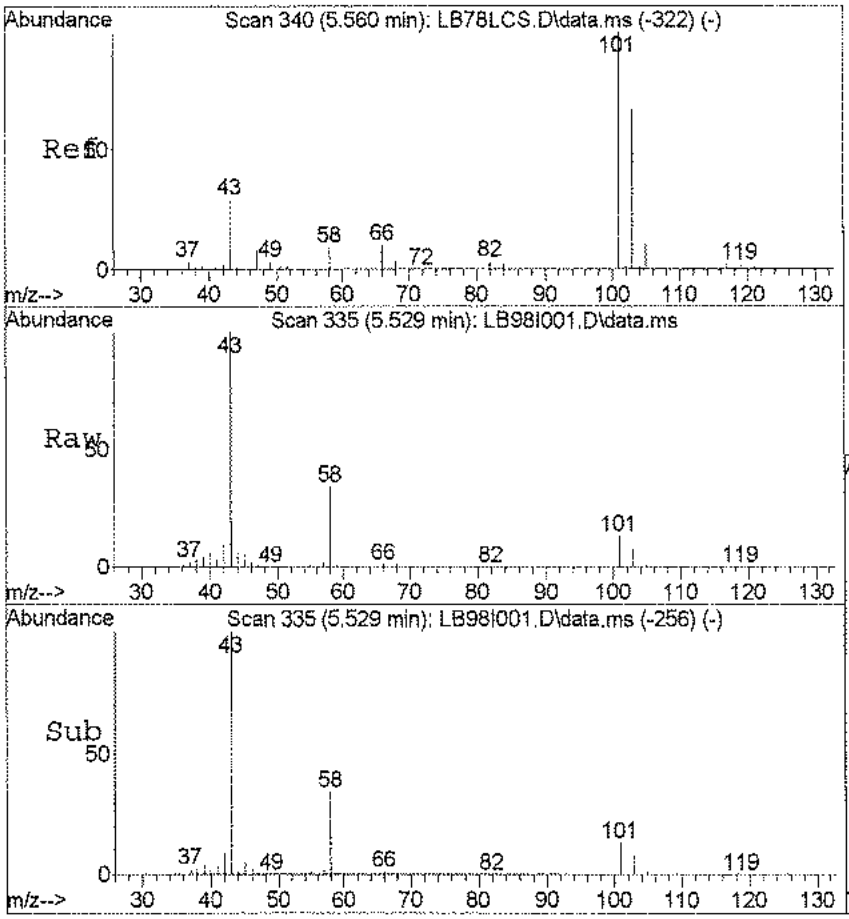


#11
Acetone
Concen: 3.43 ppb
RT: 5.53 min Scan# 335
Delta R.T. -0.01 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:43.1 Resp: 321522

Ion	Ratio	Lower	Upper
43	100		
58	32.9	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

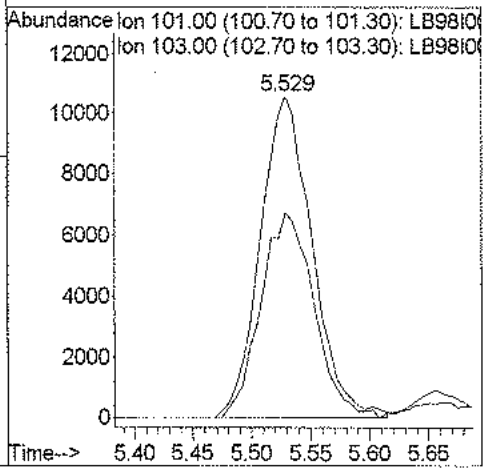


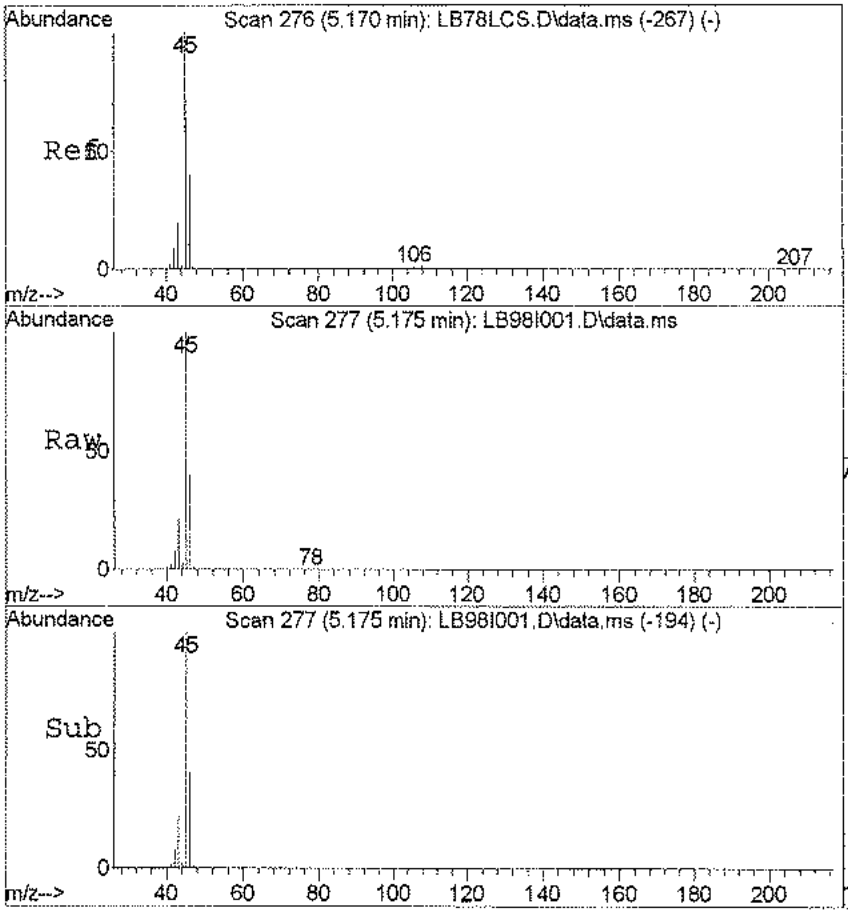


#12
Trichlorofluoromethane
Concen: 0.19 ppb
RT: 5.53 min Scan# 335
Delta R.T. -0.02 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:101 Resp: 32253

Ion	Ratio	Lower	Upper
101	100		
103	65.6	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

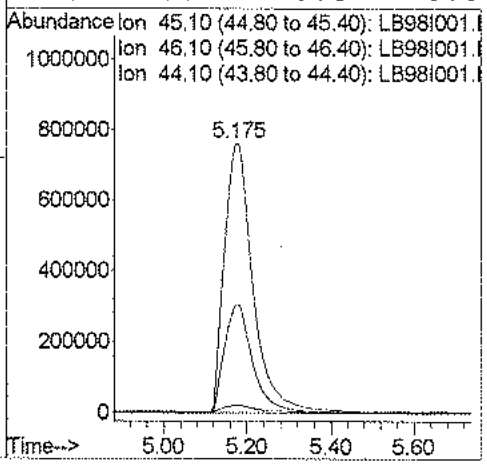


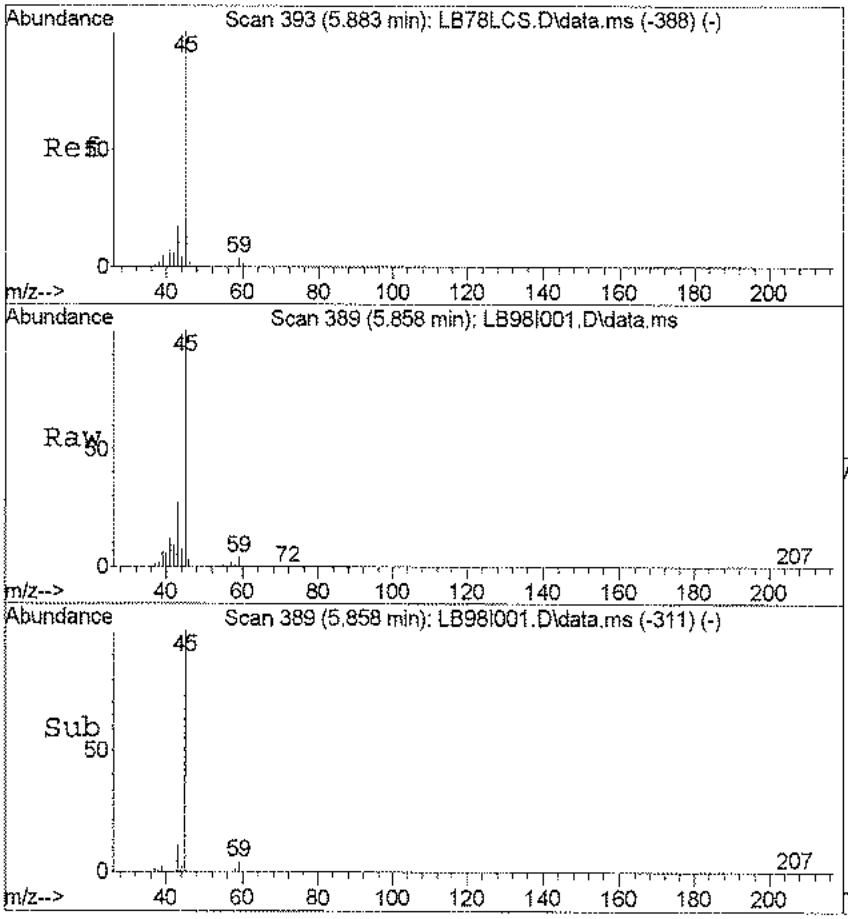


#13
Ethanol
Concen: 313.77 ppb
RT: 5.18 min Scan# 277
Delta R.T. 0.00 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:45.1 Resp: 3658174

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	2.7	23.4	35.2#
0	0.0	0.0	0.0

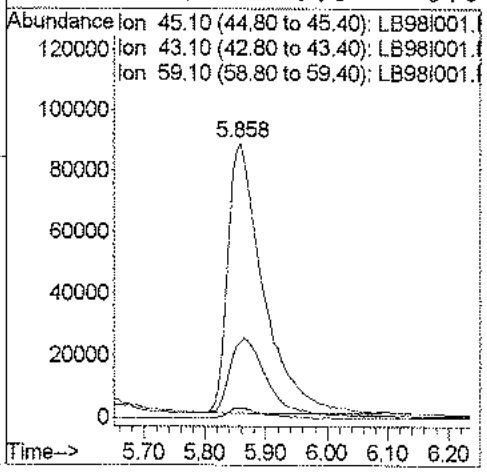


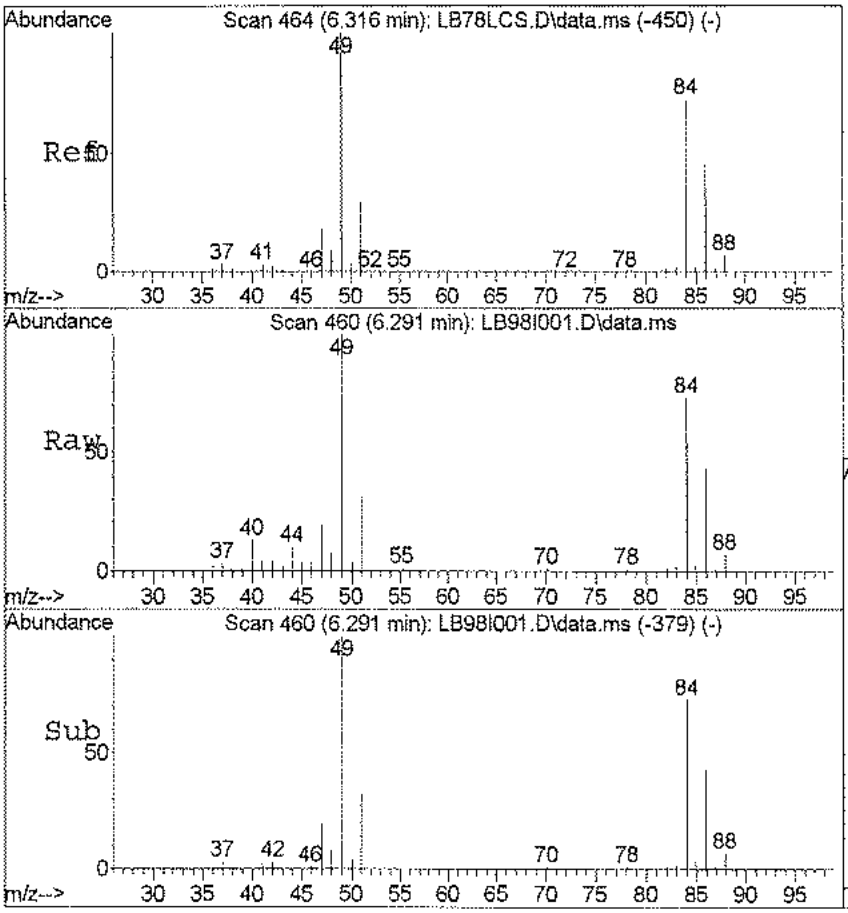


#14
Isopropyl Alcohol
Concen: 4.53 ppb
RT: 5.86 min Scan# 389
Delta R.T. -0.03 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:45.1 Resp: 352445

Ion	Ratio	Lower	Upper
45	100		
43	28.5	15.8	23.6#
59	3.6	3.2	4.8
0	0.0	0.0	0.0

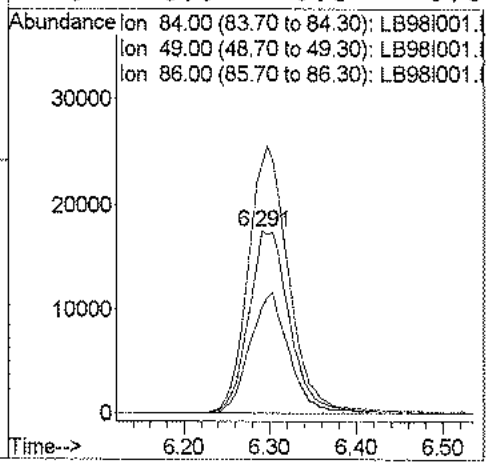


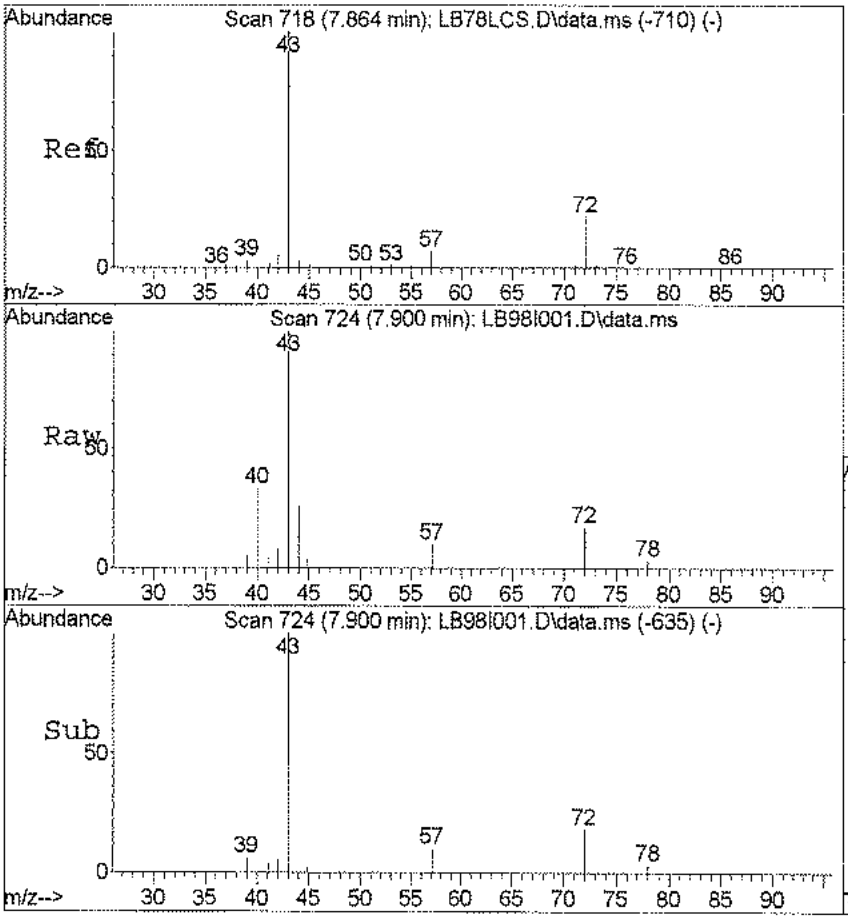


#16
Methylene Chloride
Concen: 1.07 ppb
RT: 6.29 min Scan# 460
Delta R.T. -0.01 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:84 Resp: 58322

Ion	Ratio	Lower	Upper
84	100		
49	144.7	66.6	100.0#
86	62.4	51.6	77.4
0	0.0	0.0	0.0

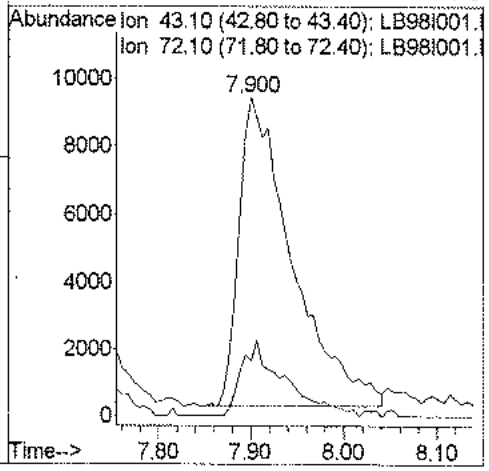


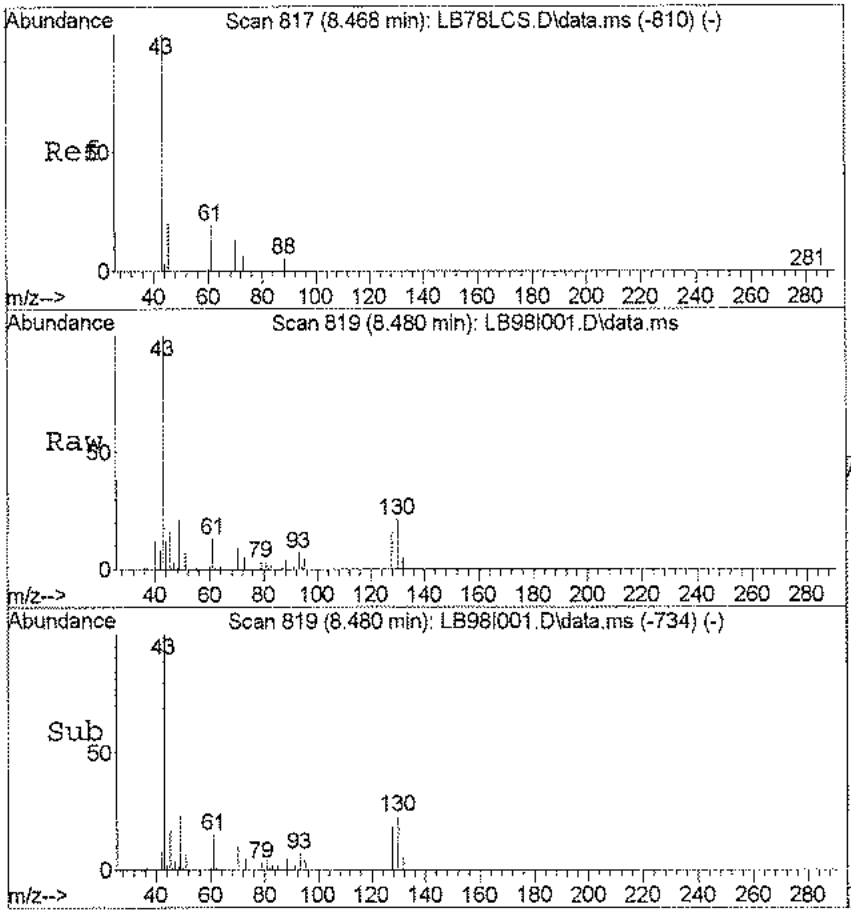


#23
2-Butanone
Concen: 0.29 ppb
RT: 7.90 min Scan# 724
Delta R.T. 0.04 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:43.1 Resp: 36467

Ion	Ratio	Lower	Upper
43	100		
72	20.1	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

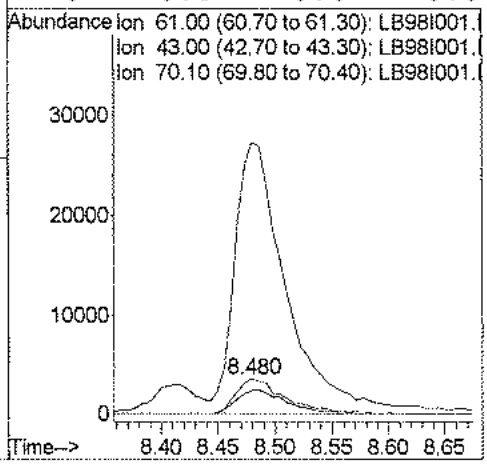


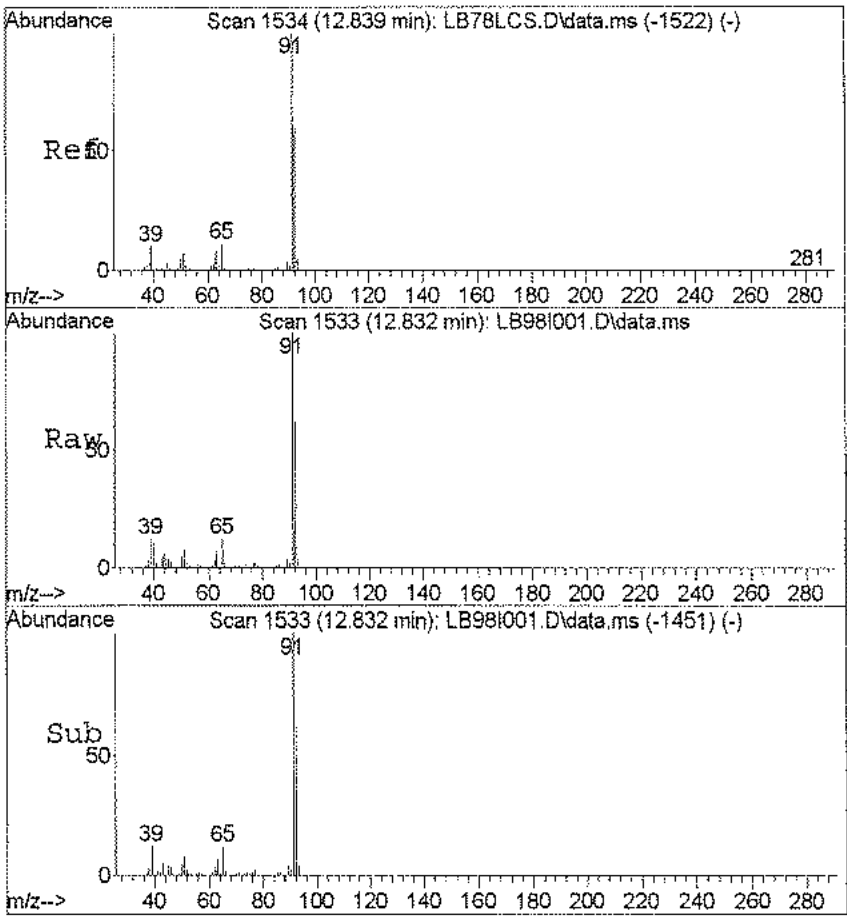


#26
Ethyl Acetate
Concen: 0.45 ppb
RT: 8.48 min Scan# 819
Delta R.T. 0.02 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:61 Resp: 10877

Ion	Ratio	Lower	Upper
61	100		
43	770.4	144.0	216.0#
70	68.3	13.6	20.4#
0	0.0	0.0	0.0

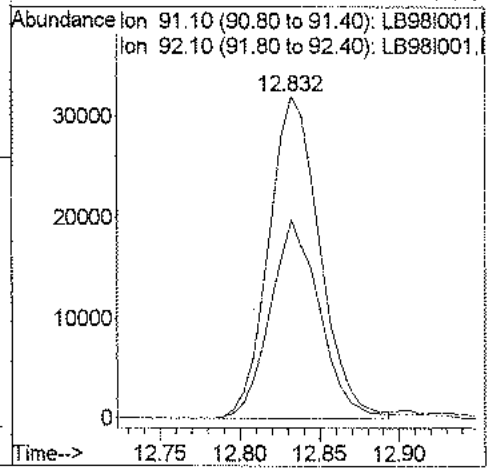


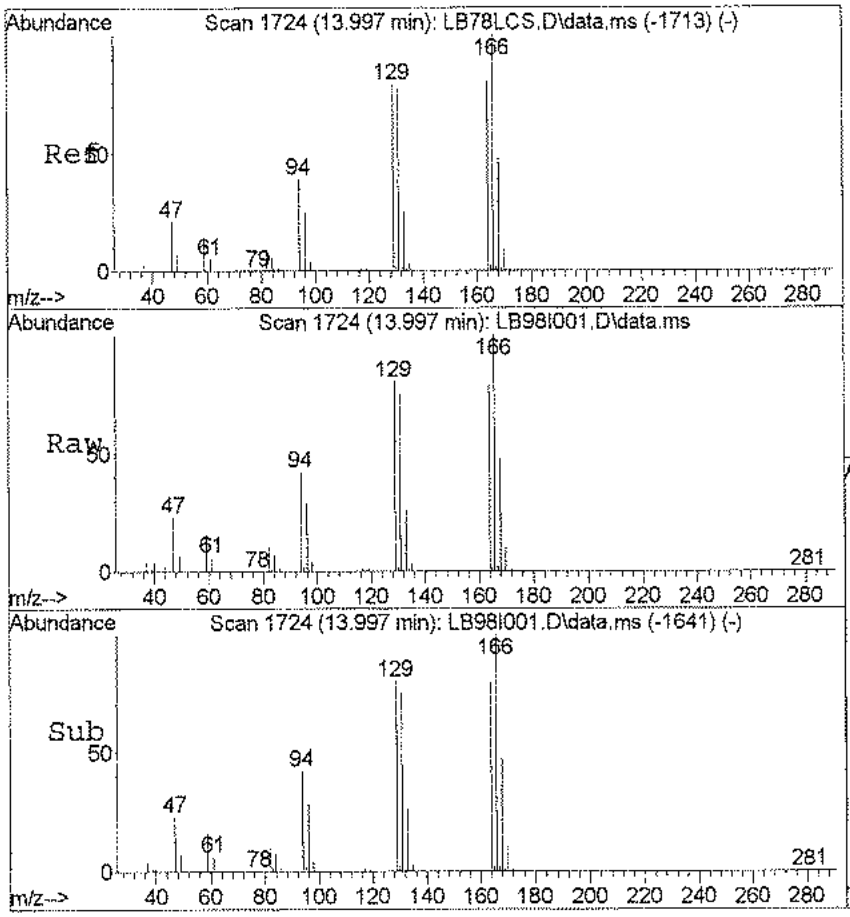


#45
Toluene
Concen: 0.36 ppb
RT: 12.83 min Scan# 1533
Delta R.T. -0.00 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:91.1 Resp: 71561

Ion	Ratio	Lower	Upper
91	100		
92	60.3	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

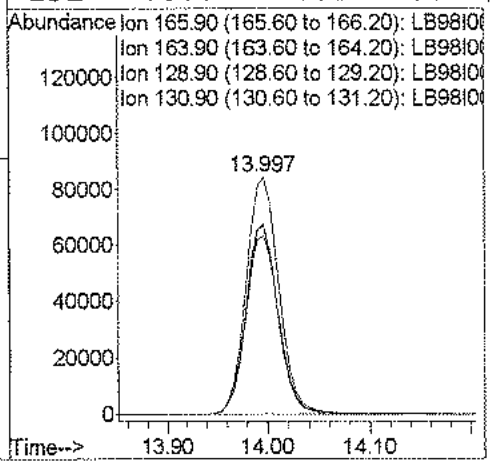


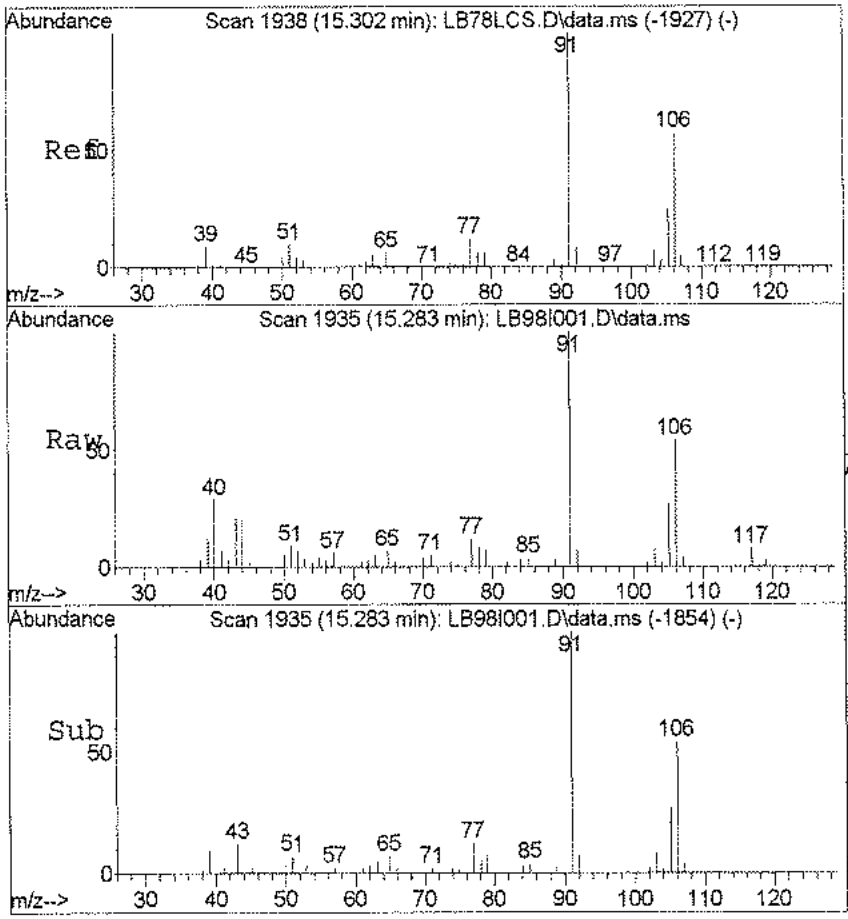


#49
Tetrachloroethene
Concen: 1.73 ppb
RT: 14.00 min Scan# 1724
Delta R.T. 0.00 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:165.9 Resp: 187187

Ion	Ratio	Lower	Upper
166	100		
164	77.7	61.0	91.4
129	79.2	45.9	68.9#
131	76.0	45.5	68.3#

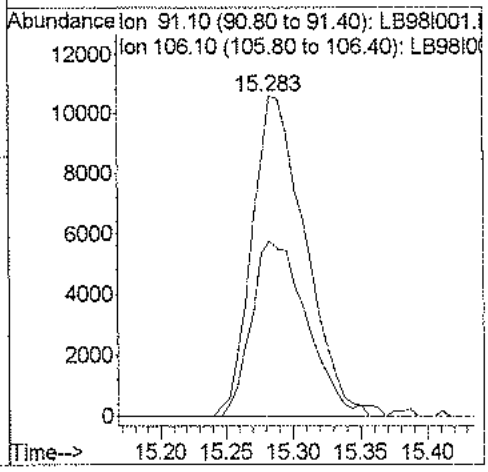




#53
m,p-Xylene
Concen: 0.15 ppb
RT: 15.28 min Scan# 1935
Delta R.T. -0.01 min
Lab File: LB98I001.D
Acq: 03/10/2016 10:12

Tgt Ion:91.1 Resp: 28957

Ion	Ratio	Lower	Upper
91	100		
106	56.2	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



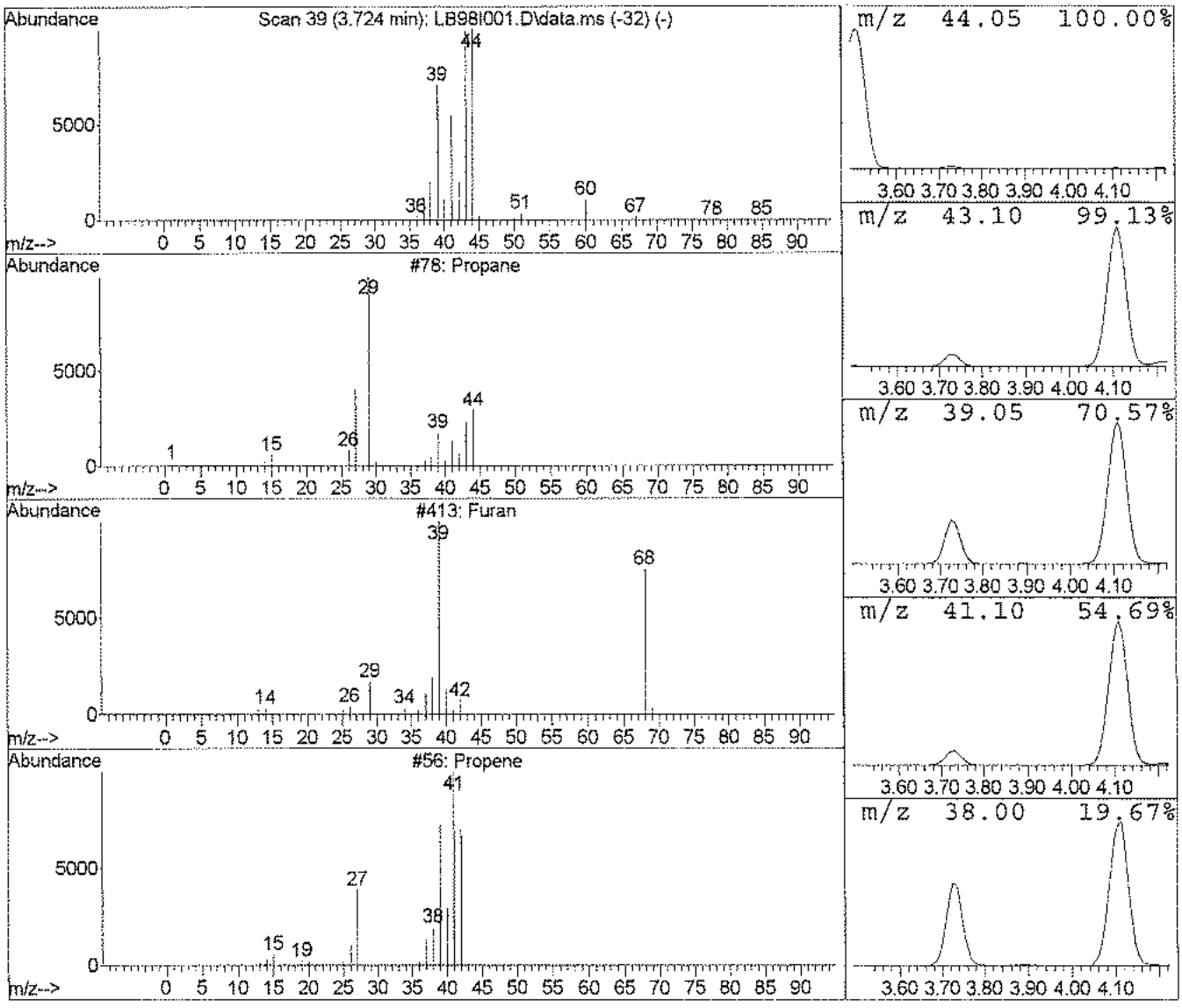
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB98I001.D Vial: 12
Acq Time : 03/10/2016 10:12 Operator: JCB
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
3.72	3.33 ppb	910590	Bromochloromethane	5472208

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Propane	78	000074-98-6	83.00
2	Furan	413	000110-00-9	25.00
3	Propene	56	000115-07-1	9.00
4	Ethylene oxide	73	000075-21-8	5.00
5	Acetaldehyde	71	000075-07-0	4.00



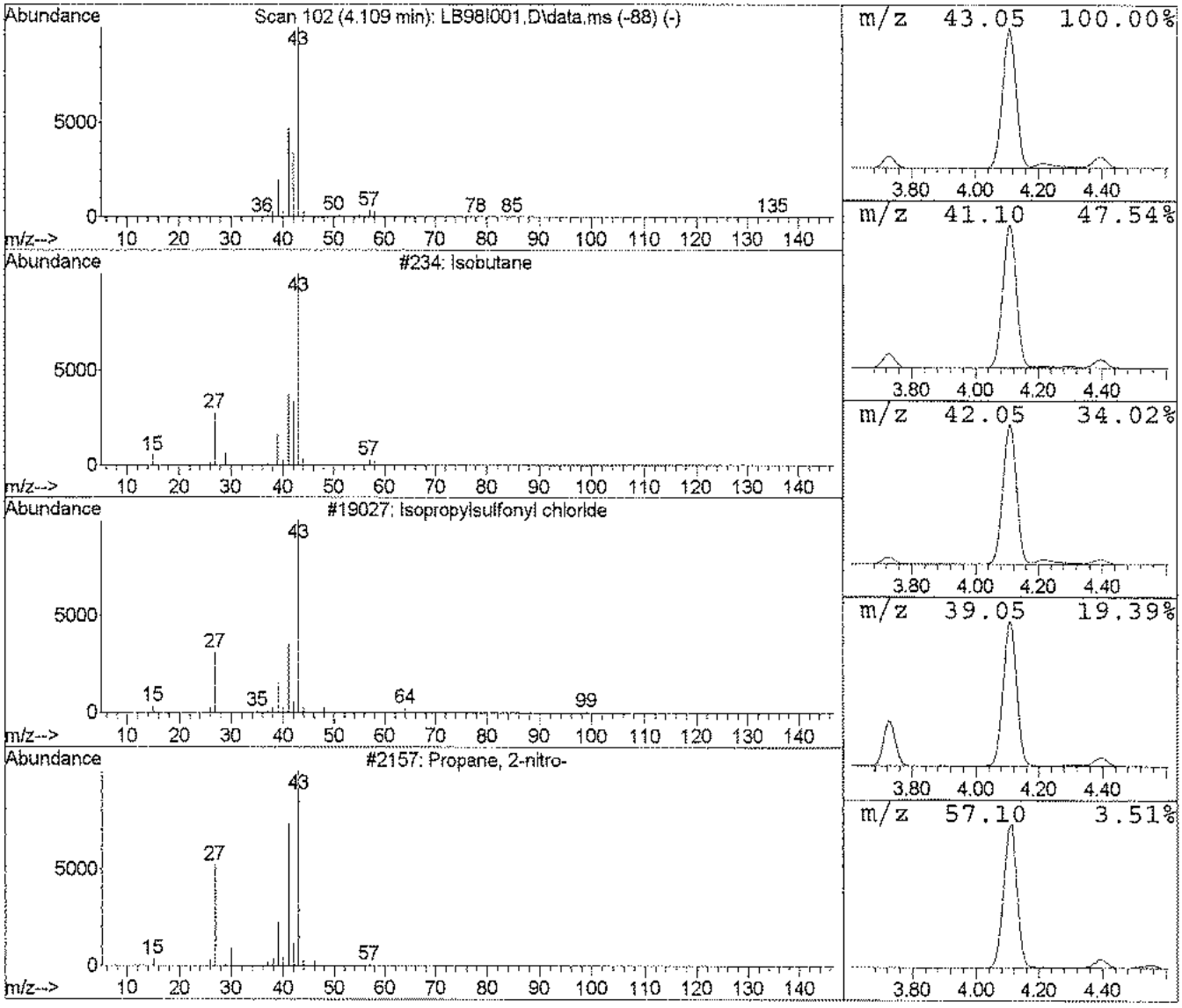
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB98I001.D Vial: 12
Acq Time : 03/10/2016 10:12 Operator: JCB
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.11	24.03 ppb	6574866	Bromochloromethane	5472208

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
3	Propane, 2-nitro-	2157	000079-46-9	4.00
4	Cyclobutylamine	607	002516-34-9	4.00
5	Propane, 1-chloro-2-methyl-	2419	000513-36-0	4.00

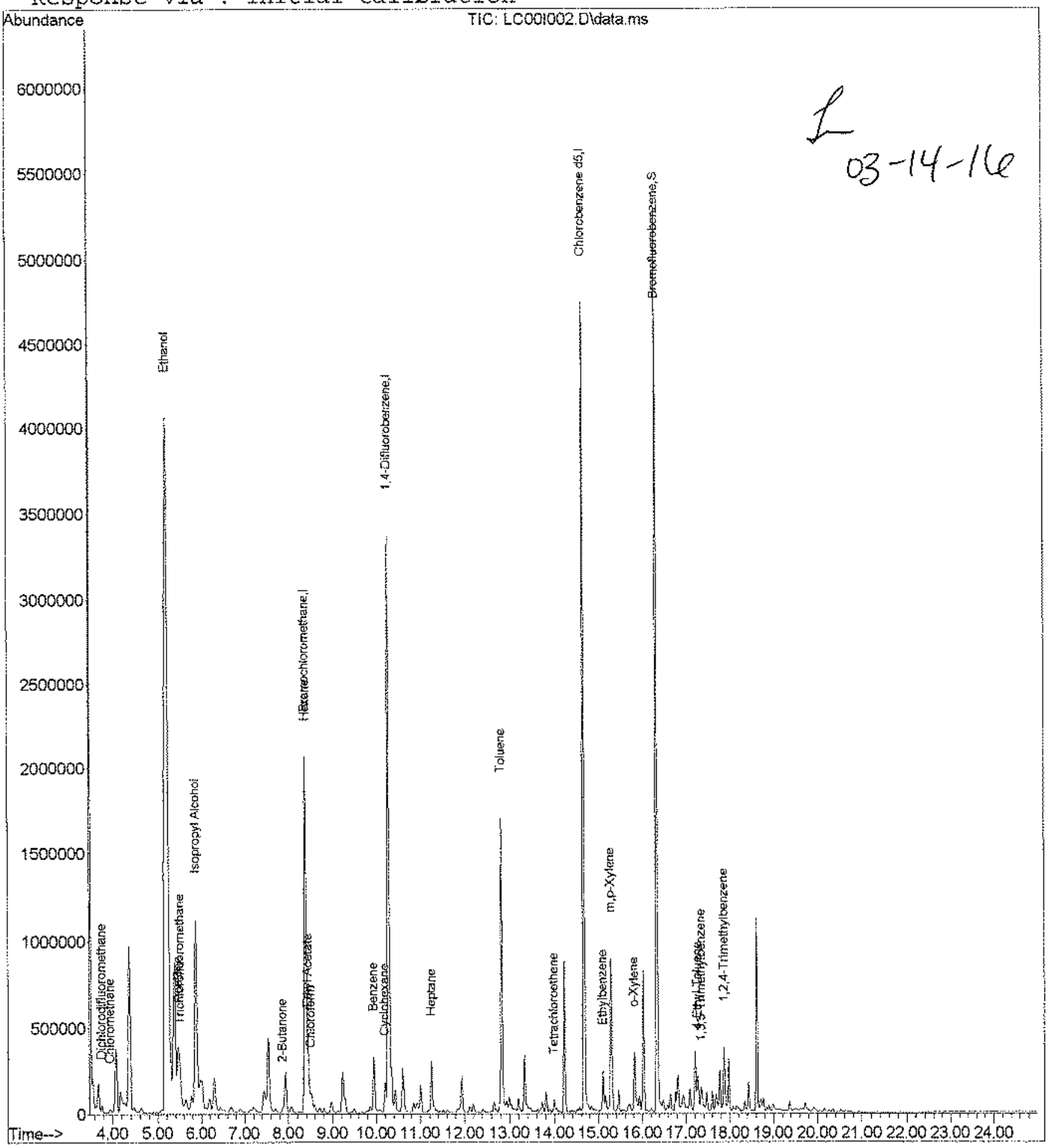


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 11:39:40 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 11:39:40 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 16:36:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.38	130	353408	20.0000 ppb	72.80
25) 1,4-Difluorobenzene	10.28	114	4203394	20.0000 ppb	67.08
50) Chlorobenzene d5	14.67	117	3781948	20.0000 ppb	65.20
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	2273146	20.7295 ppb	103.65%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.77	85	60913	0.4085 ppb	98
4) Chloromethane	3.96	50	32376	0.5775 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.47	43	1110425	11.2025 ppb	88
12) Trichlorofluoromethane	5.51	101	45366	0.2547 ppb	98
13) Ethanol	5.21	45	13013943	1057.0224 ppb # TC	78
14) Isopropyl Alcohol	5.88	45	1187735	14.4639 ppb # TC	1
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.87	43	48479	0.3628 ppb	88
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.45	61	49067	1.9017 ppb #	1
27) Hexane	8.40	57	323936	3.6443 ppb #	78
28) Chloroform	8.51	83	50882	0.4101 ppb	97
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.94	78	349798	2.0196 ppb #	93
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.20	84	97082	1.2234 ppb #	59
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

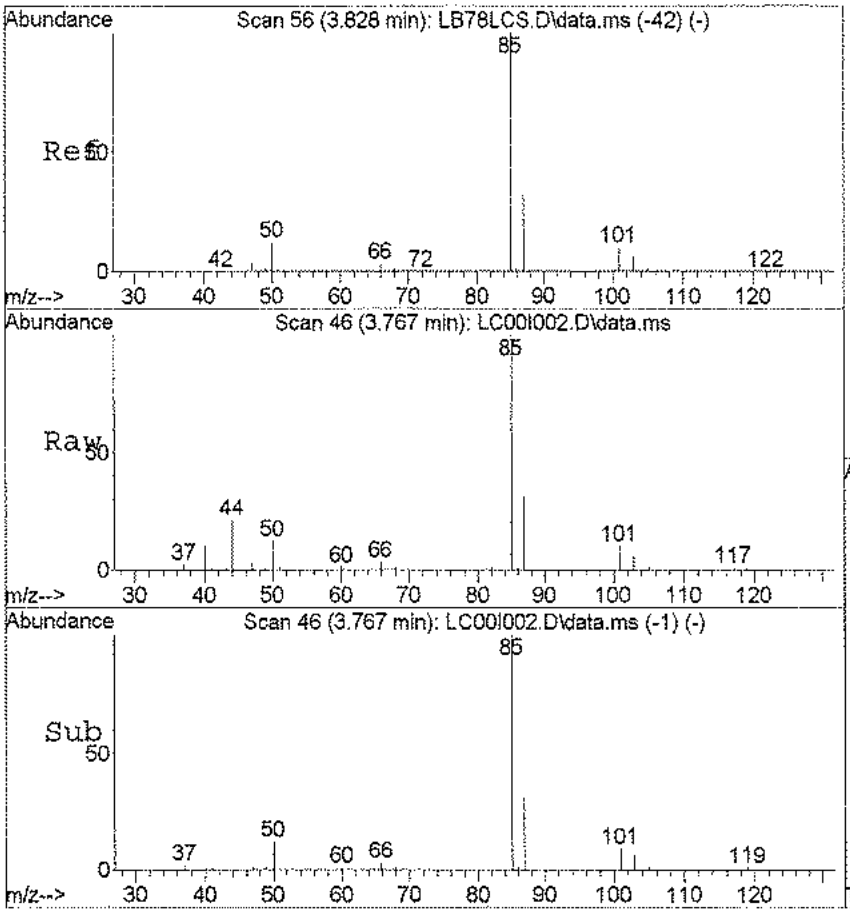
Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 11:39:40 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 09 16:36:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected		
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	0.00	130		Not Detected		
39)	Methyl Methacrylate	0.00	69		Not Detected		
40)	Heptane	11.25	71	80133	1.4293 ppb	#	43
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected		
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.83	91	1543291	7.4086 ppb		99
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.99	166	22524	0.1972 ppb	#	82
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.11	91	215269	0.8082 ppb		98
53)	m,p-Xylene	15.28	91	762919	3.6944 ppb		98
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	0.00	104		Not Detected		
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.81	91	247861	1.1612 ppb		100
59)	4-Ethyl Toluene	17.26	105	132730	0.4450 ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	94278	0.3578 ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	225556	0.8984 ppb		100
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

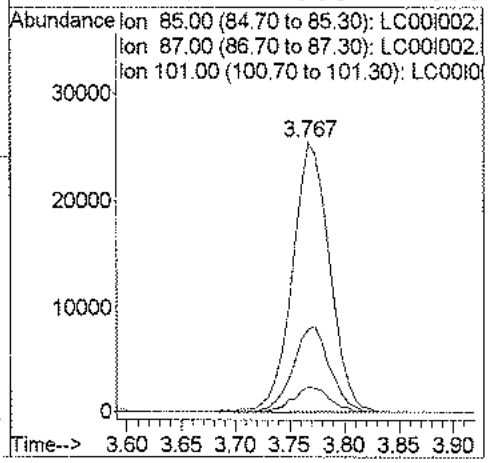
(#) = qualifier out of range (m) = manual integration

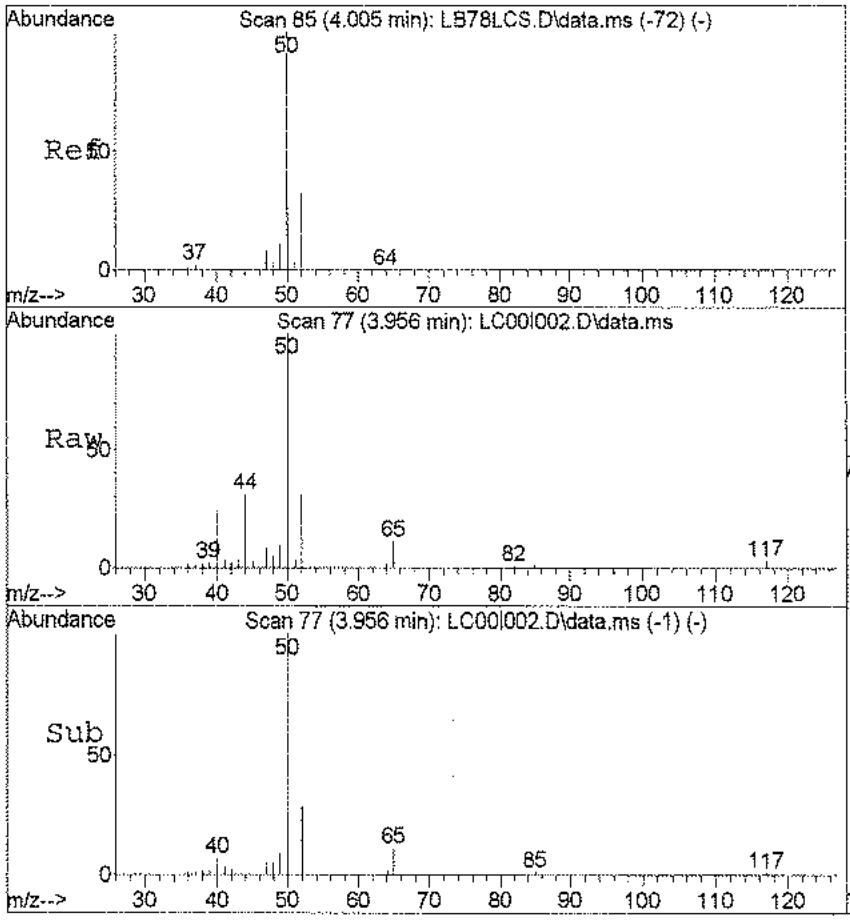


#3
Dichlorodifluoromethane
Concen: 0.41 ppb
RT: 3.77 min Scan# 46
Delta R.T. -0.06 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:85 Resp: 60913

Ion	Ratio	Lower	Upper
85	100		
87	31.6	26.1	39.1
101	9.3	8.0	12.0
0	0.0	0.0	0.0

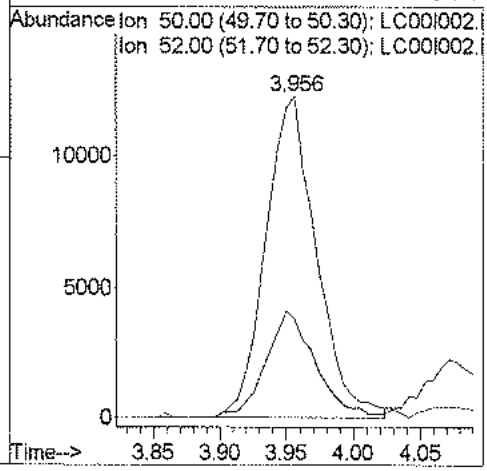


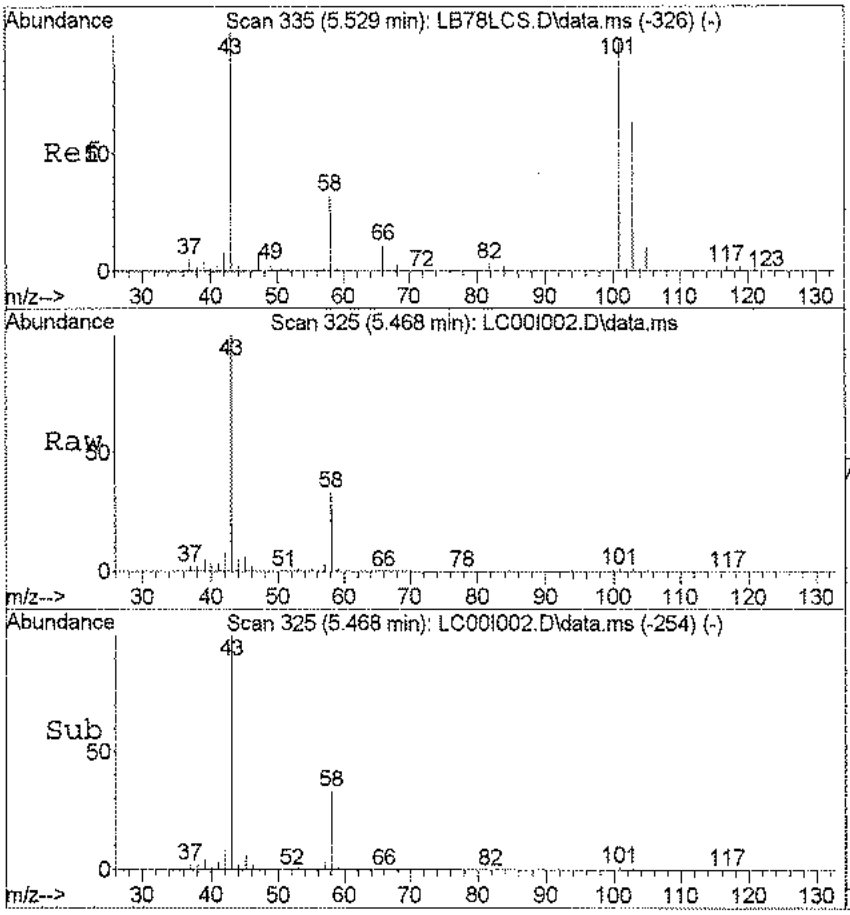


#4
Chloromethane
Concen: 0.58 ppb
RT: 3.96 min Scan# 77
Delta R.T. -0.04 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:50 Resp: 32376

Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

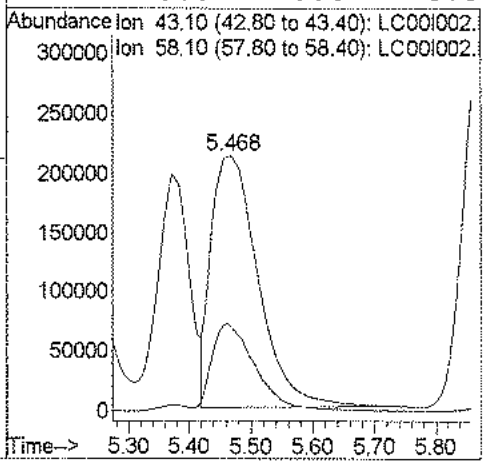


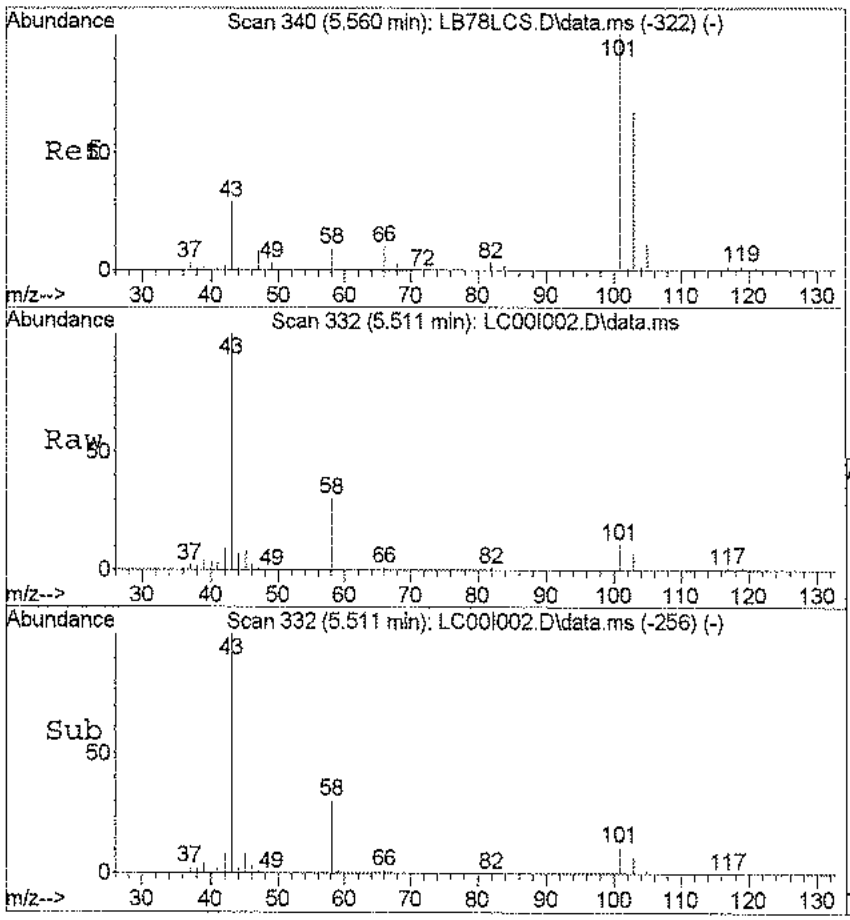


#11
Acetone
Concen: 11.20 ppb
RT: 5.47 min Scan# 325
Delta R.T. -0.07 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:43.1 Resp: 1110425

Ion	Ratio	Lower	Upper
43	100		
58	30.9	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

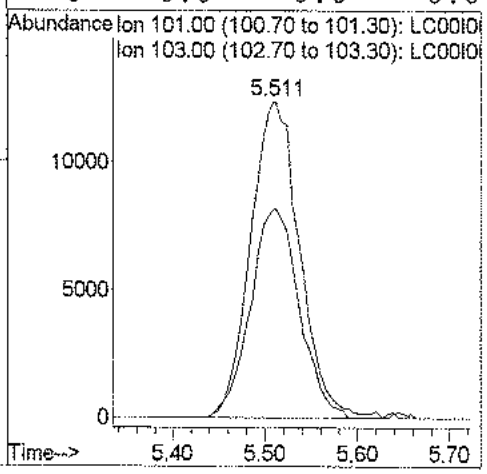


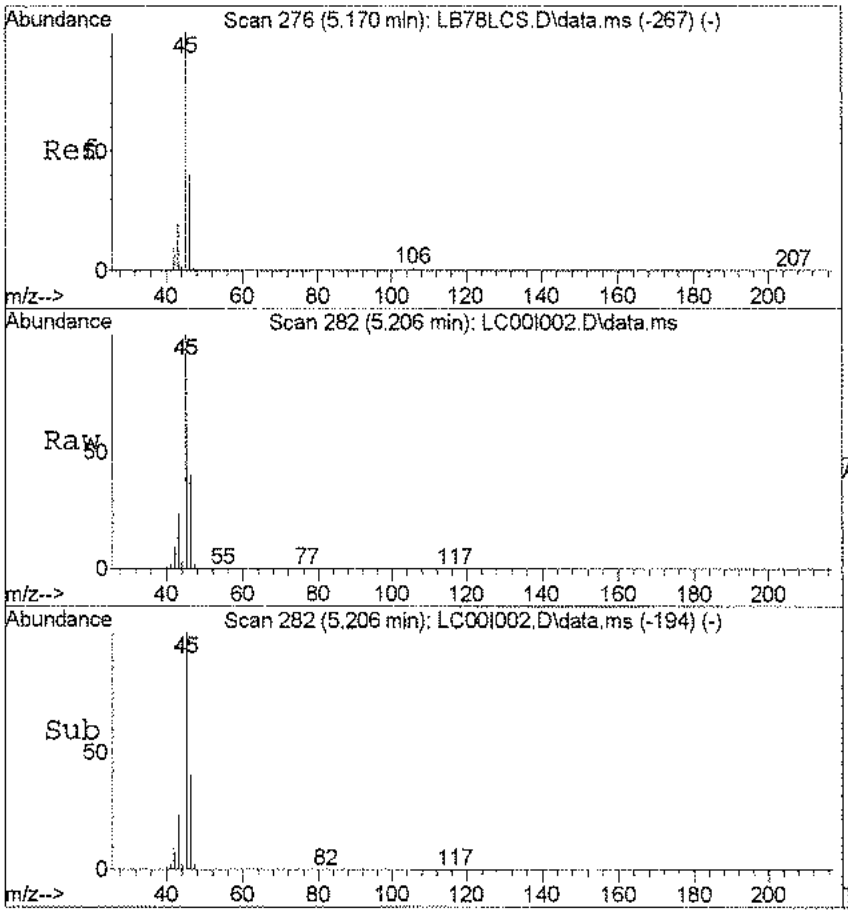


#12
Trichlorofluoromethane
Concen: 0.25 ppb
RT: 5.51 min Scan# 332
Delta R.T. -0.04 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:101 Resp: 45366

Ion	Ratio	Lower	Upper
101	100		
103	65.9	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

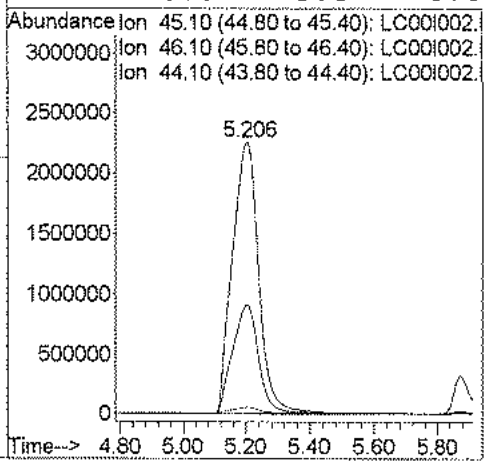


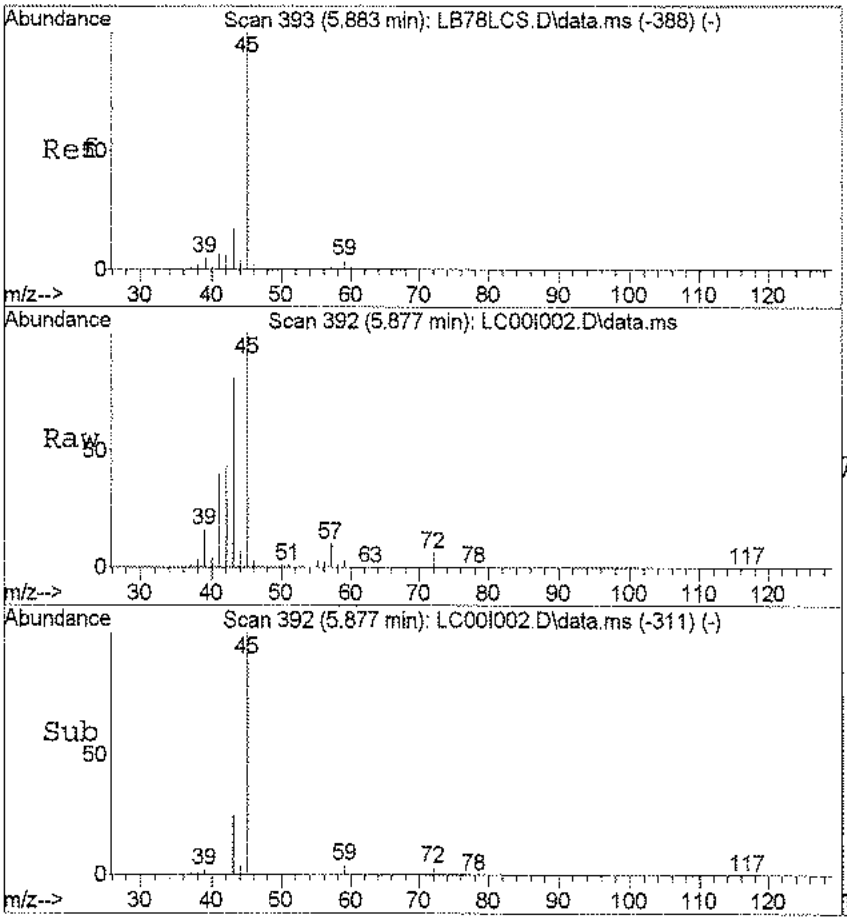


#13
Ethanol
Concen: 1057.02 ppb
RT: 5.21 min Scan# 282
Delta R.T. 0.04 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:45.1 Resp:13013943

Ion	Ratio	Lower	Upper
45	100		
46	40.2	32.4	48.6
44	2.2	23.4	35.2#
0	0.0	0.0	0.0

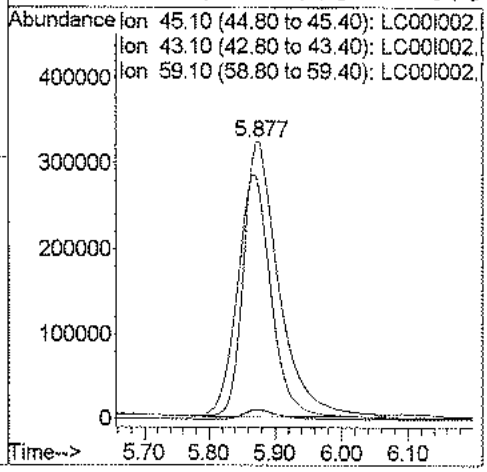


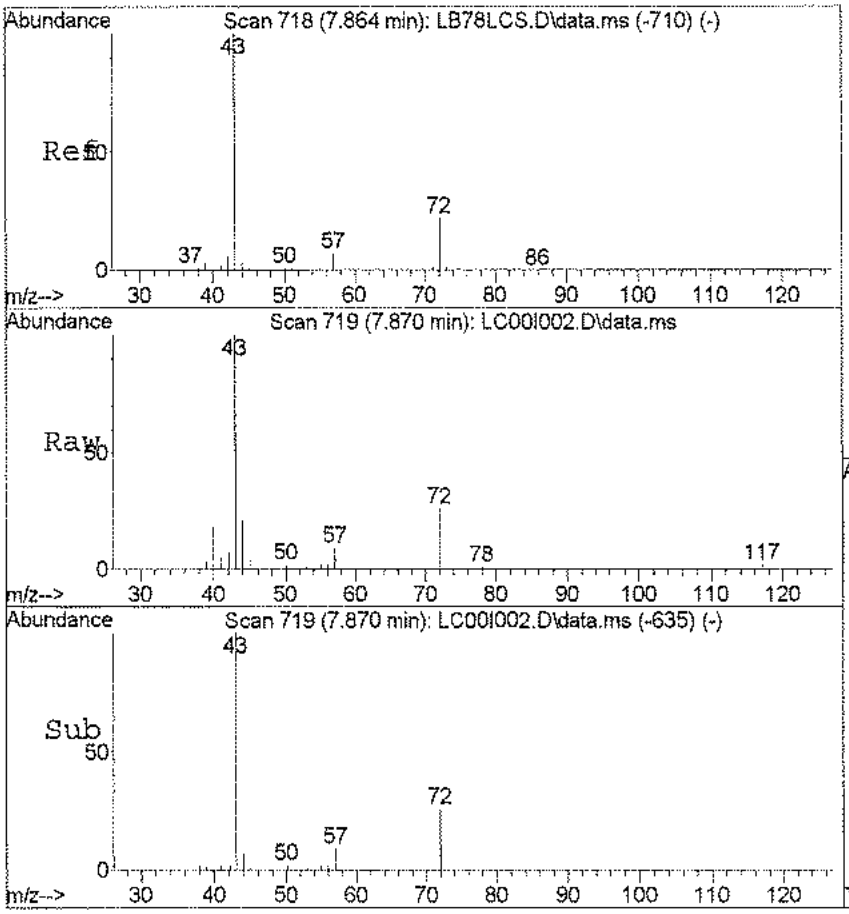


#14
Isopropyl Alcohol
Concen: 14.46 ppb
RT: 5.88 min Scan# 392
Delta R.T. -0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:45.1 Resp: 1187735

Ion	Ratio	Lower	Upper
45	100		
43	86.3	15.8	23.6#
59	3.6	3.2	4.8
0	0.0	0.0	0.0

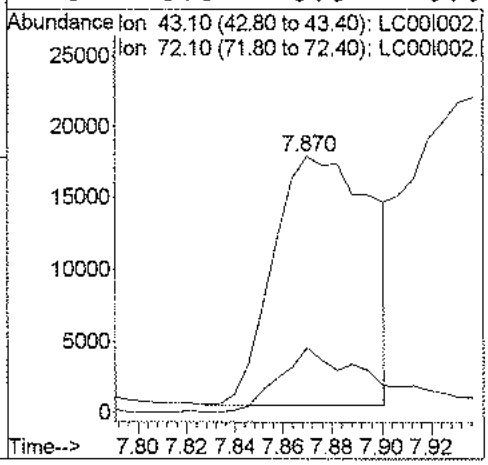


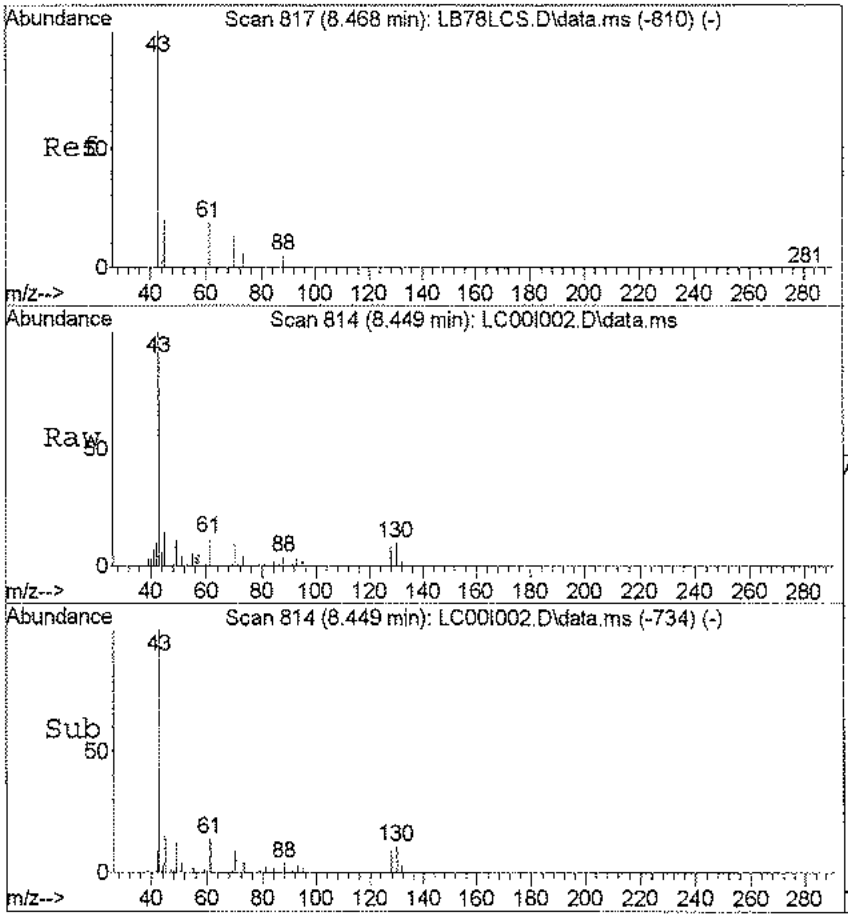


#23
2-Butanone
Concen: 0.36 ppb
RT: 7.87 min Scan# 719
Delta R.T. 0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:43.1 Resp: 48479

Ion	Ratio	Lower	Upper
43	100		
72	31.4	31.1	46.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

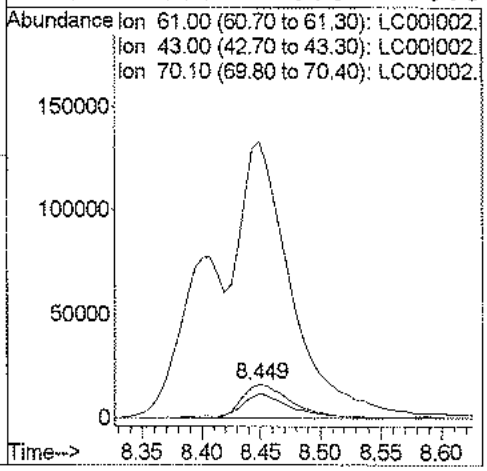


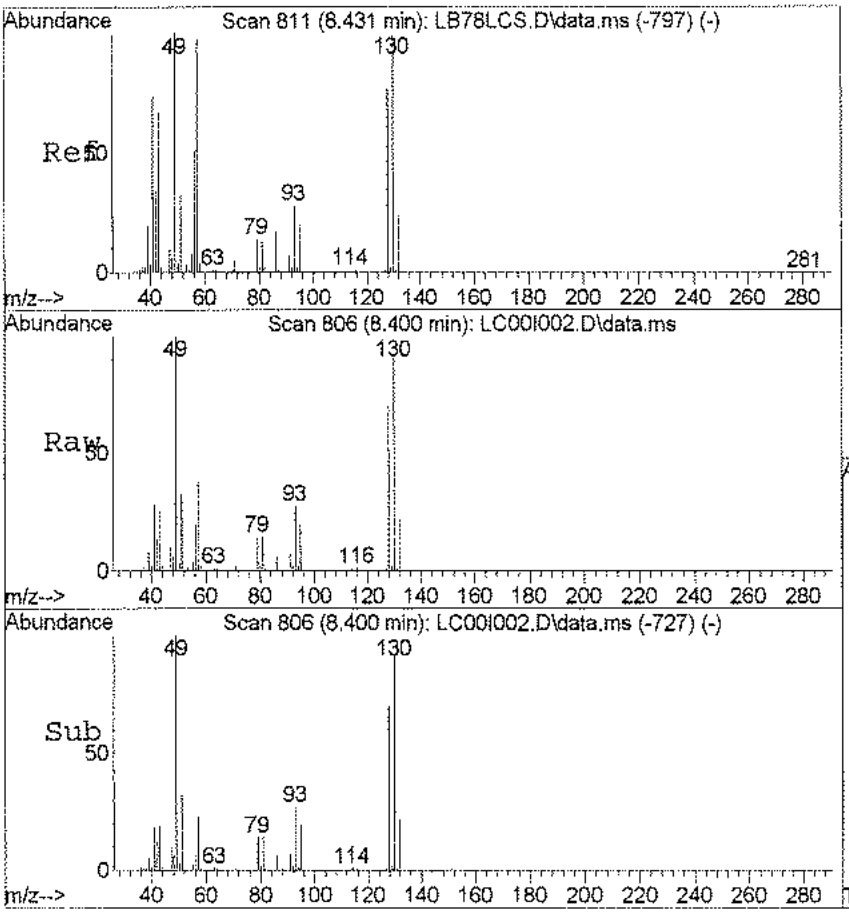


#26
Ethyl Acetate
Concen: 1.90 ppb
RT: 8.45 min Scan# 814
Delta R.T. -0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:61 Resp: 49067

Ion	Ratio	Lower	Upper
61	100		
43	853.8	144.0	216.0#
70	77.7	13.6	20.4#
0	0.0	0.0	0.0

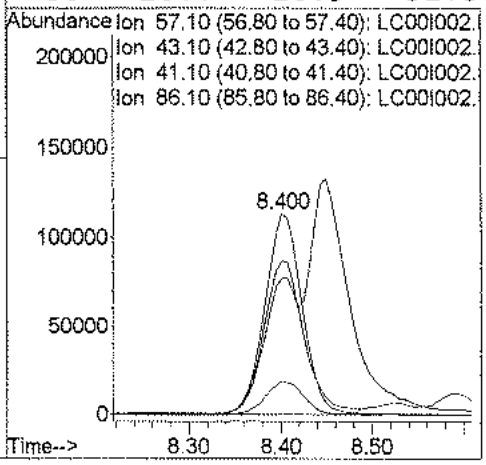


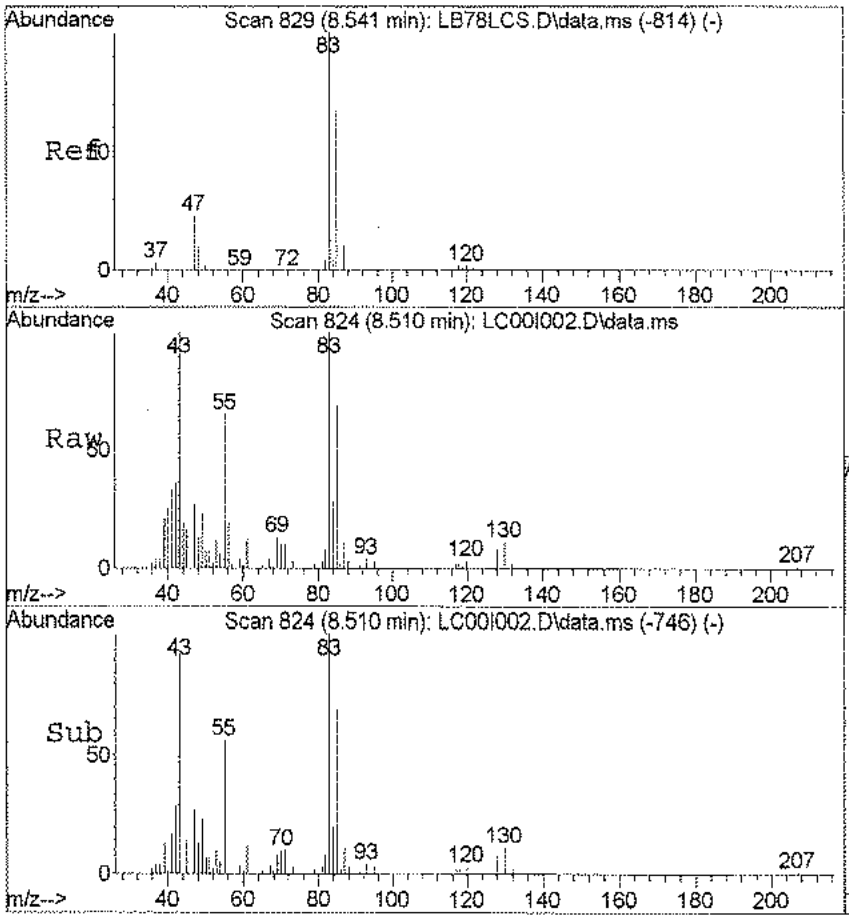


#27
Hexane
Concen: 3.64 ppb
RT: 8.40 min Scan# 806
Delta R.T. -0.02 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:57.1 Resp: 323936

Ion	Ratio	Lower	Upper
57	100		
43	59.3	57.3	85.9
41	82.7	47.0	70.4#
86	16.7	20.9	31.3#

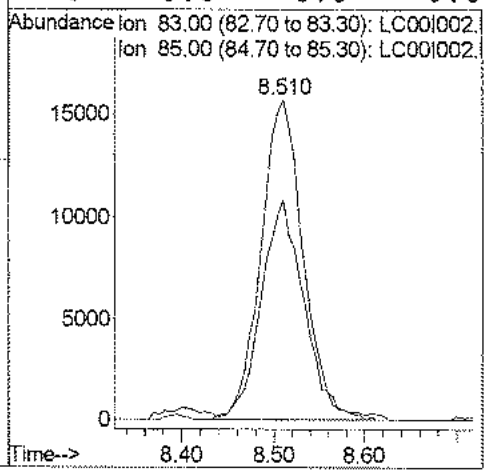


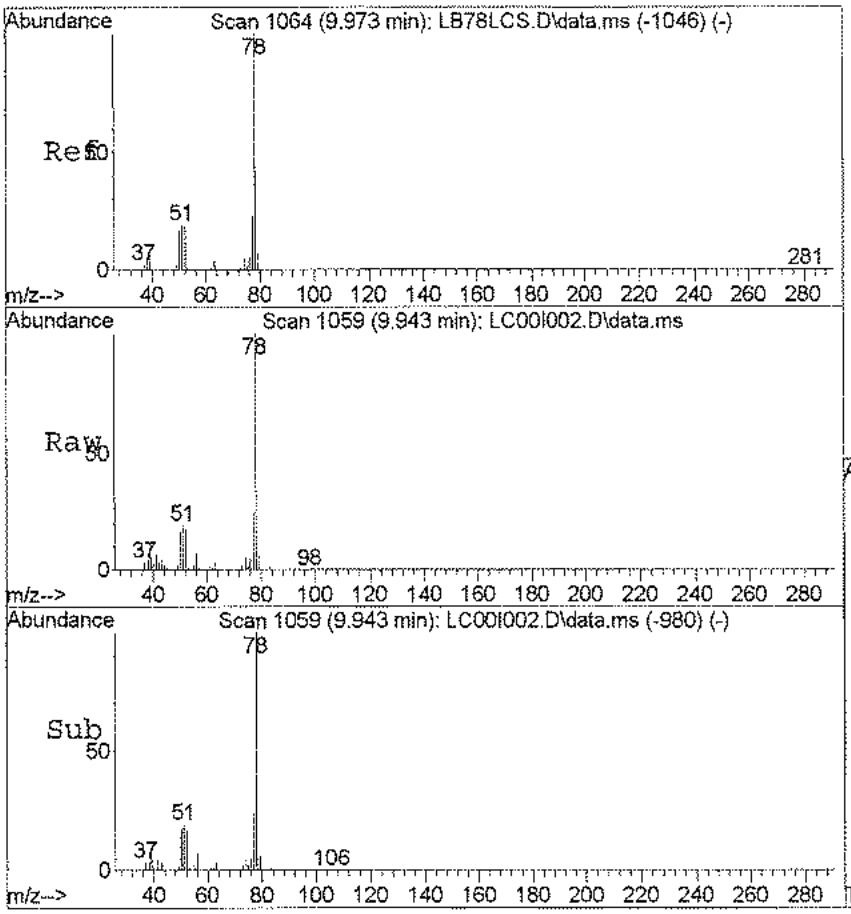


#28
Chloroform
Concen: 0.41 ppb
RT: 8.51 min Scan# 824
Delta R.T. -0.03 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:83 Resp: 50882

Ion	Ratio	Lower	Upper
83	100		
85	67.9	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

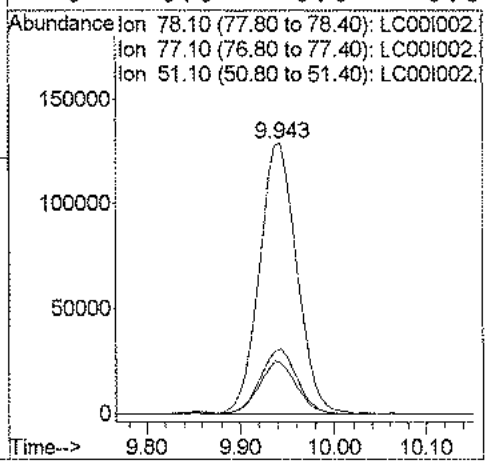


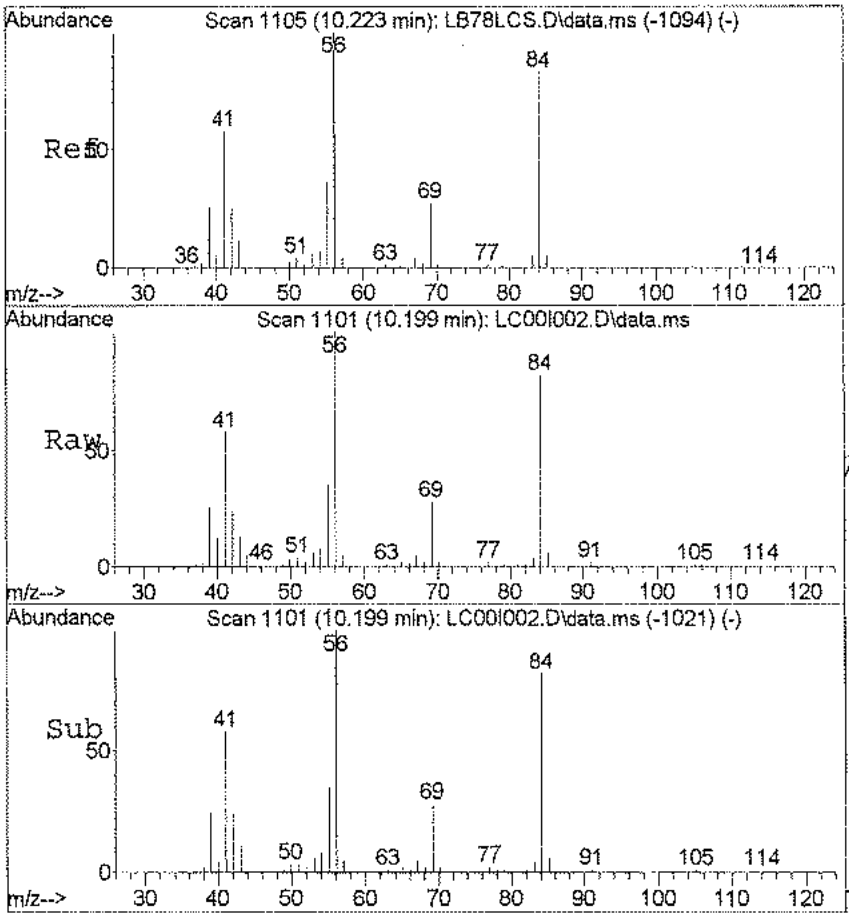


#32
Benzene
Concen: 2.02 ppb
RT: 9.94 min Scan# 1059
Delta R.T. -0.02 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:78.1 Resp: 349798

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.2	27.4
51	18.9	9.5	14.3#
0	0.0	0.0	0.0

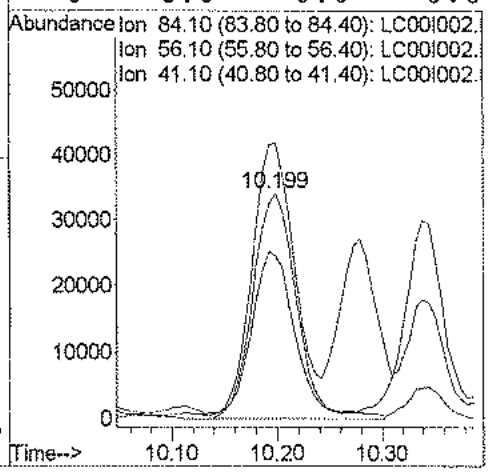


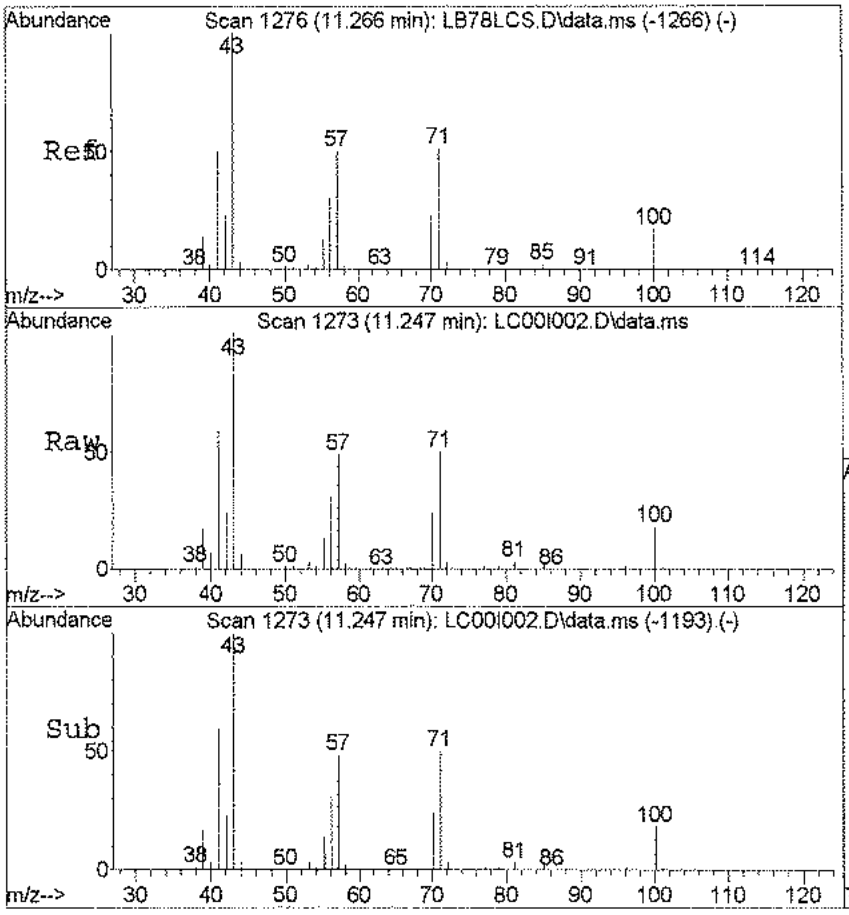


#34
Cyclohexane
Concen: 1.22 ppb
RT: 10.20 min Scan# 1101
Delta R.T. -0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:84.1 Resp: 97082

Ion	Ratio	Lower	Upper
84	100		
56	117.1	67.3	100.9#
41	68.1	30.2	45.4#
0	0.0	0.0	0.0

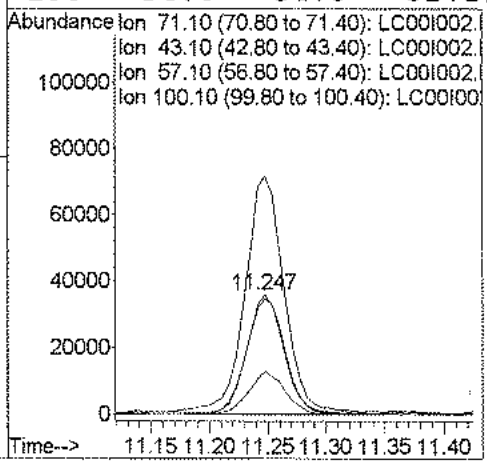


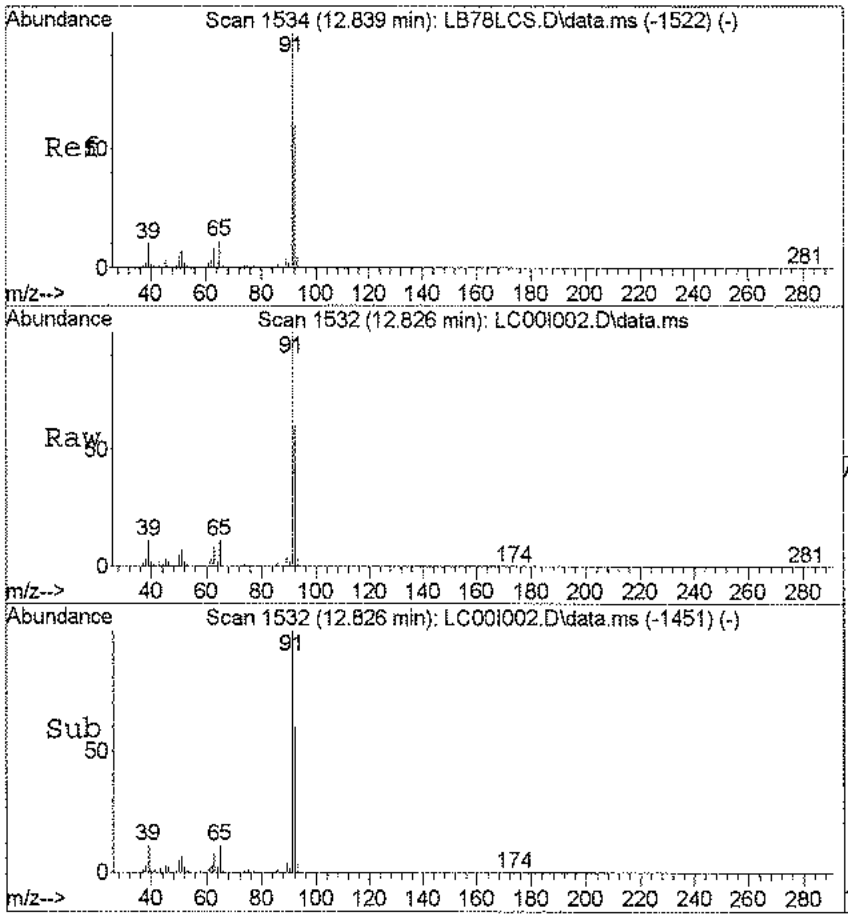


#40
Heptane
Concen: 1.43 ppb
RT: 11.25 min Scan# 1273
Delta R.T. -0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:71.1 Resp: 80133

Ion	Ratio	Lower	Upper
71	100		
43	206.8	87.3	130.9#
57	97.1	57.8	86.6#
100	34.6	34.8	52.2#

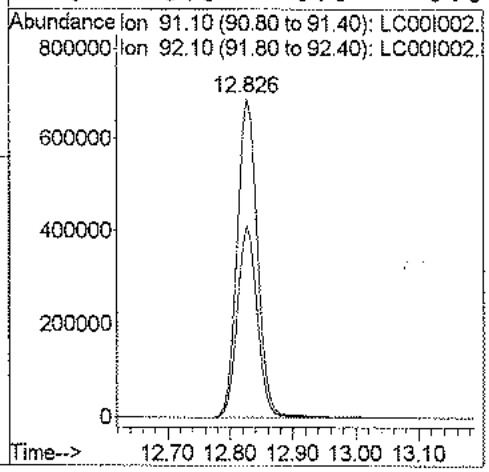


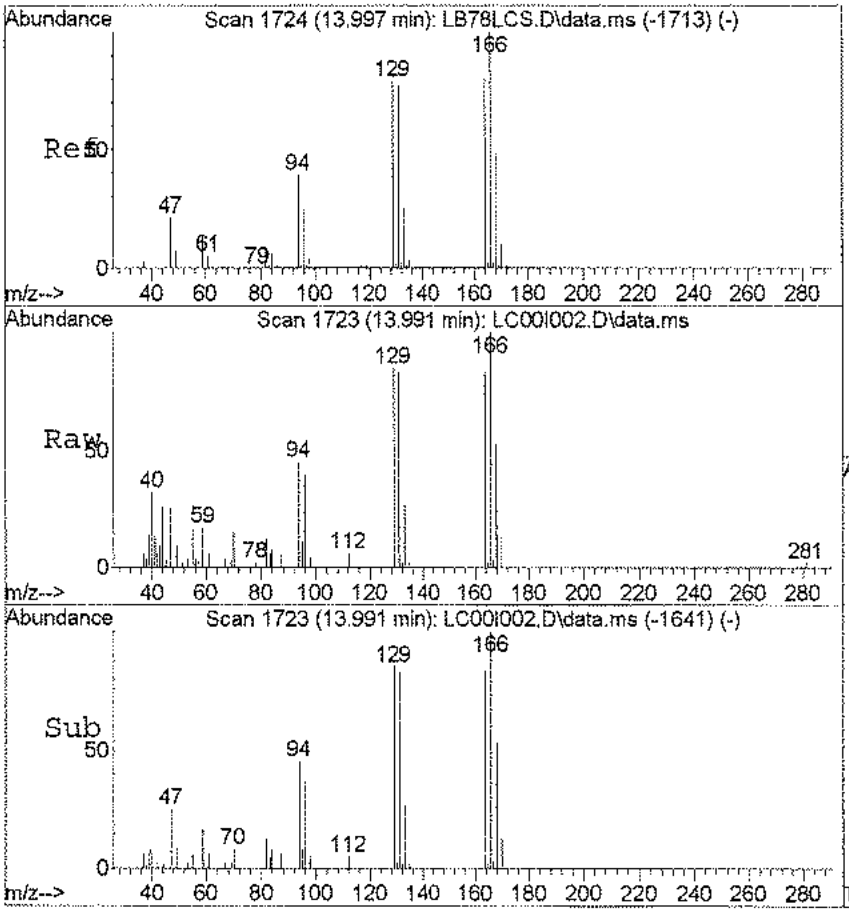


#45
Toluene
Concen: 7.41 ppb
RT: 12.83 min Scan# 1532
Delta R.T. -0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:91.1 Resp: 1543291

Ion	Ratio	Lower	Upper
91	100		
92	59.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

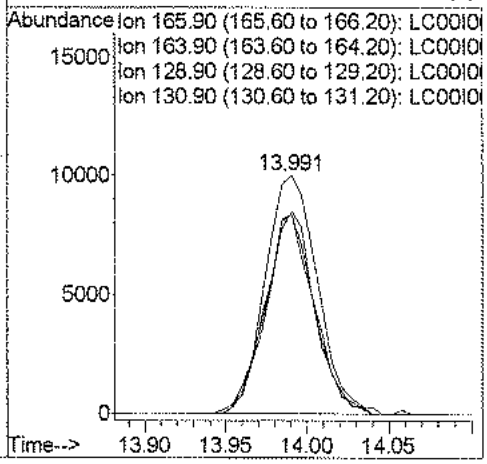


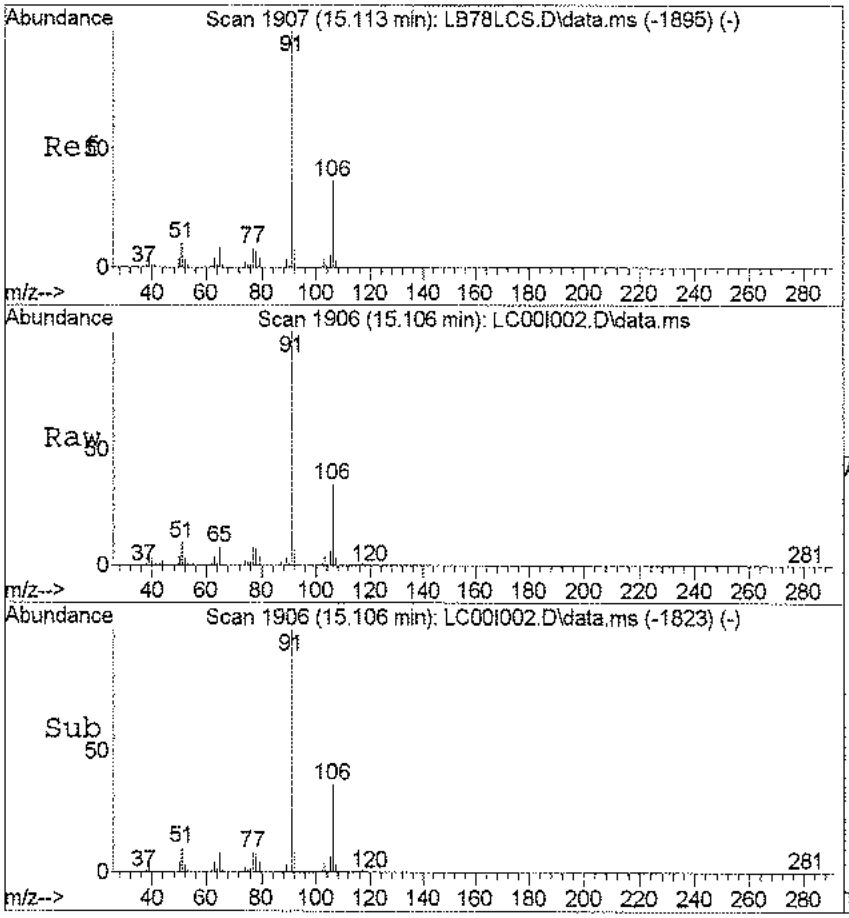


#49
Tetrachloroethene
Concen: 0.20 ppb
RT: 13.99 min Scan# 1723
Delta R.T. -0.00 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:165.9 Resp: 22524

Ion	Ratio	Lower	Upper
166	100		
164	77.5	61.0	91.4
129	79.8	45.9	68.9#
131	77.8	45.5	68.3#

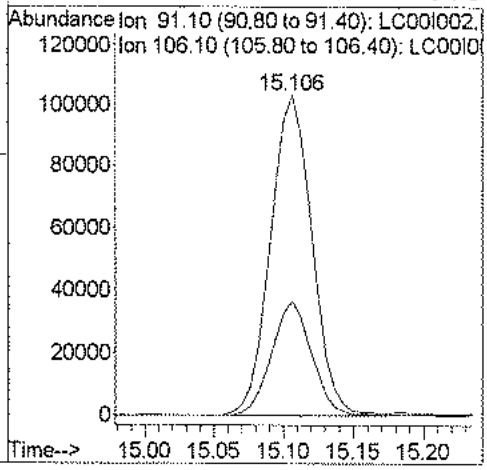


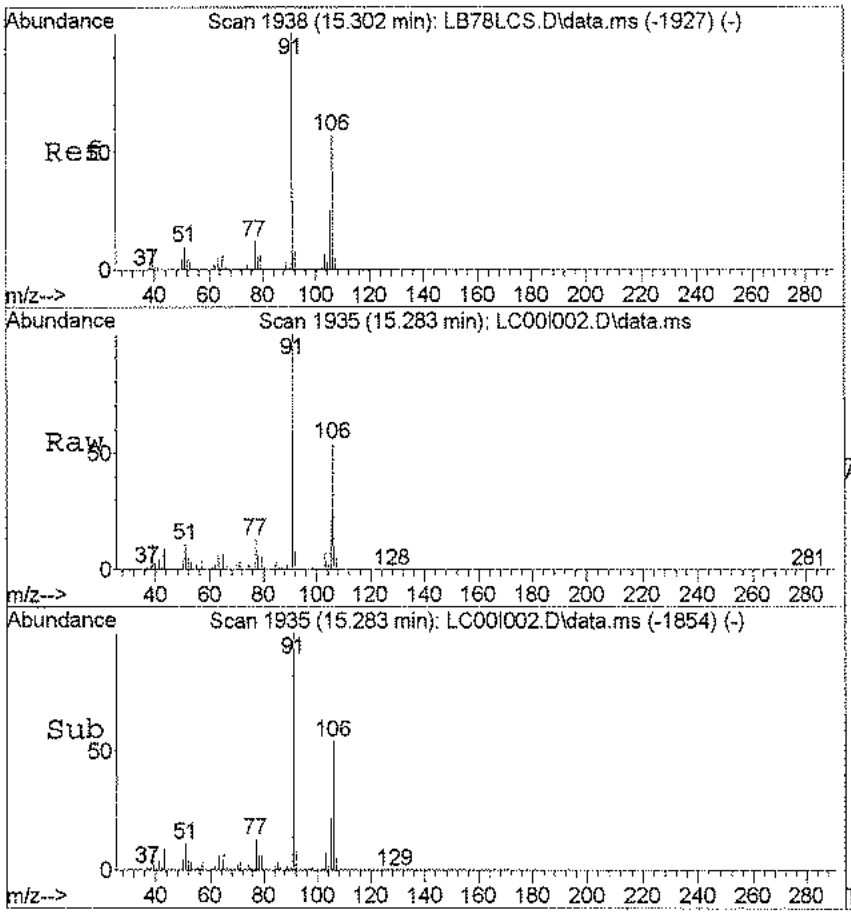


#52
Ethylbenzene
Concen: 0.81 ppb
RT: 15.11 min Scan# 1906
Delta R.T. 0.00 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:91.1 Resp: 215269

Ion	Ratio	Lower	Upper
91	100		
106	34.4	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

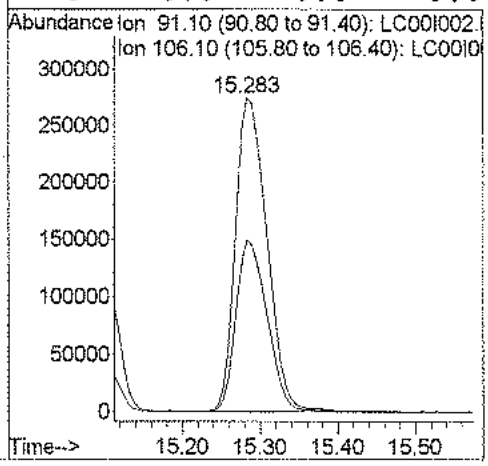


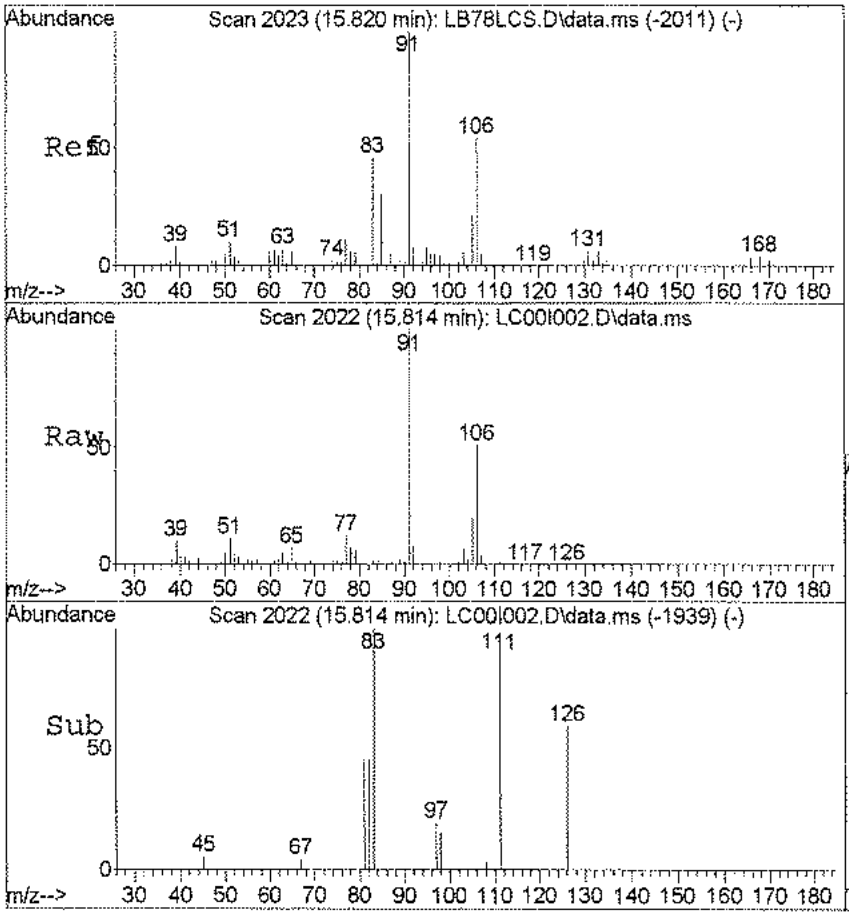


#53
m,p-Xylene
Concen: 3.69 ppb
RT: 15.28 min Scan# 1935
Delta R.T. -0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:91.1 Resp: 762919

Ion	Ratio	Lower	Upper
91	100		
106	54.2	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

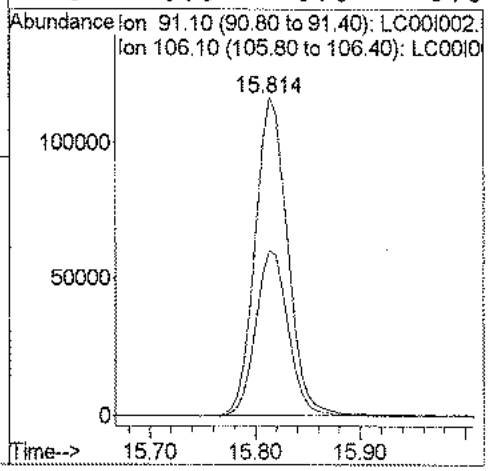


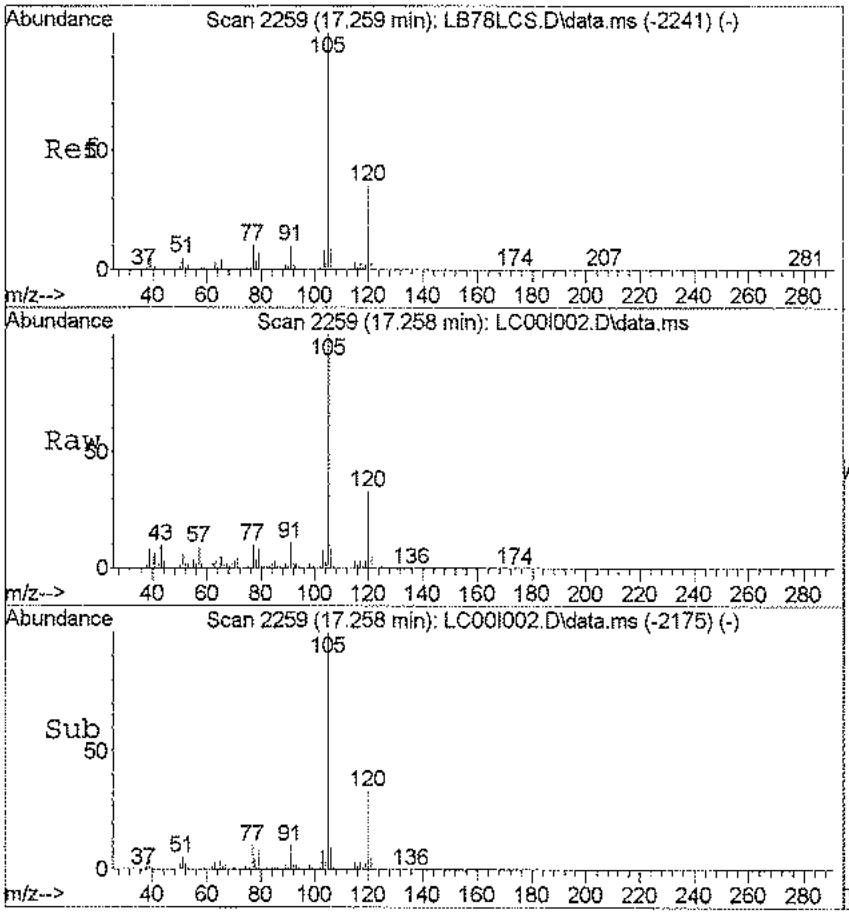


#57
o-Xylene
Concen: 1.16 ppb
RT: 15.81 min Scan# 2022
Delta R.T. 0.00 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:91.1 Resp: 247861

Ion	Ratio	Lower	Upper
91	100		
106	52.3	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

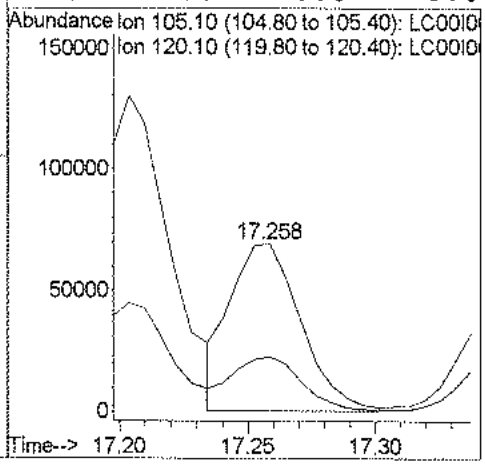


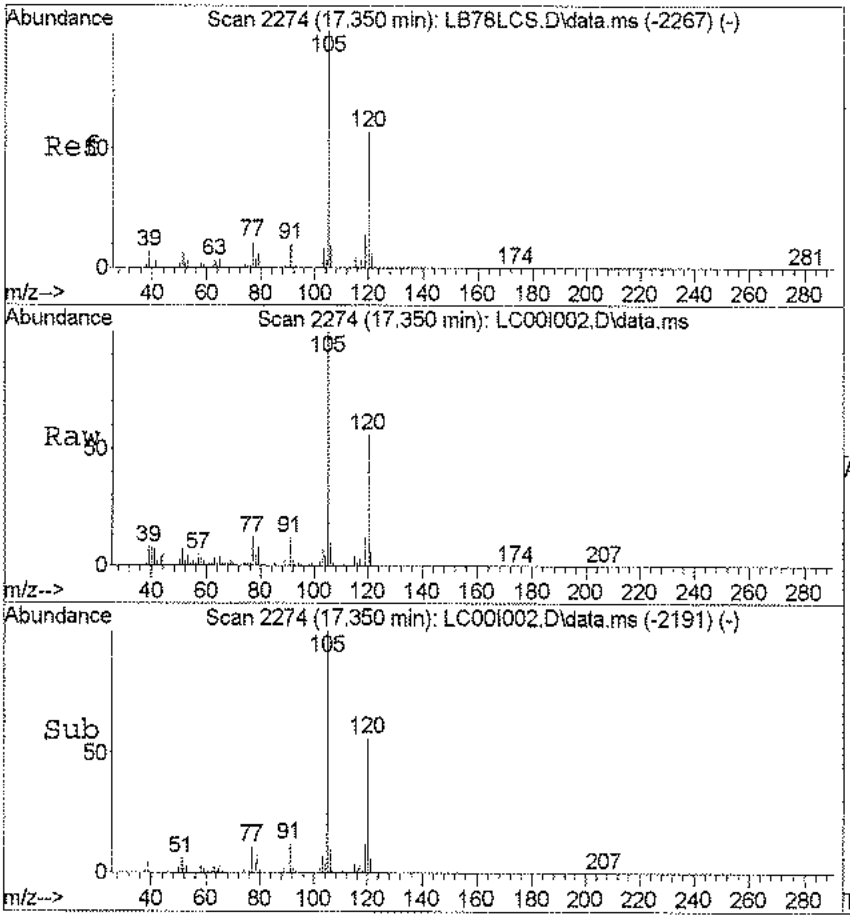


#59
4-Ethyl Toluene
Concen: 0.45 ppb
RT: 17.26 min Scan# 2259
Delta R.T. 0.01 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:105.1 Resp: 132730

Ion	Ratio	Lower	Upper
105	100		
120	32.8	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

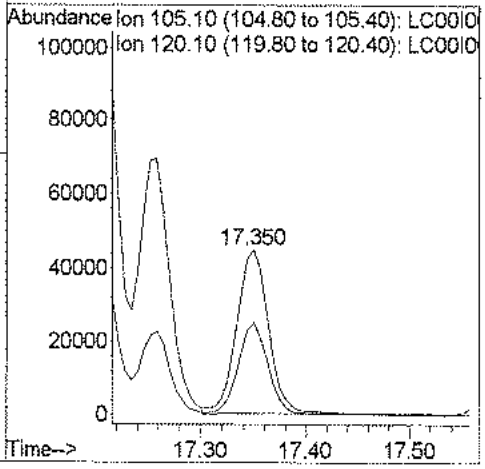


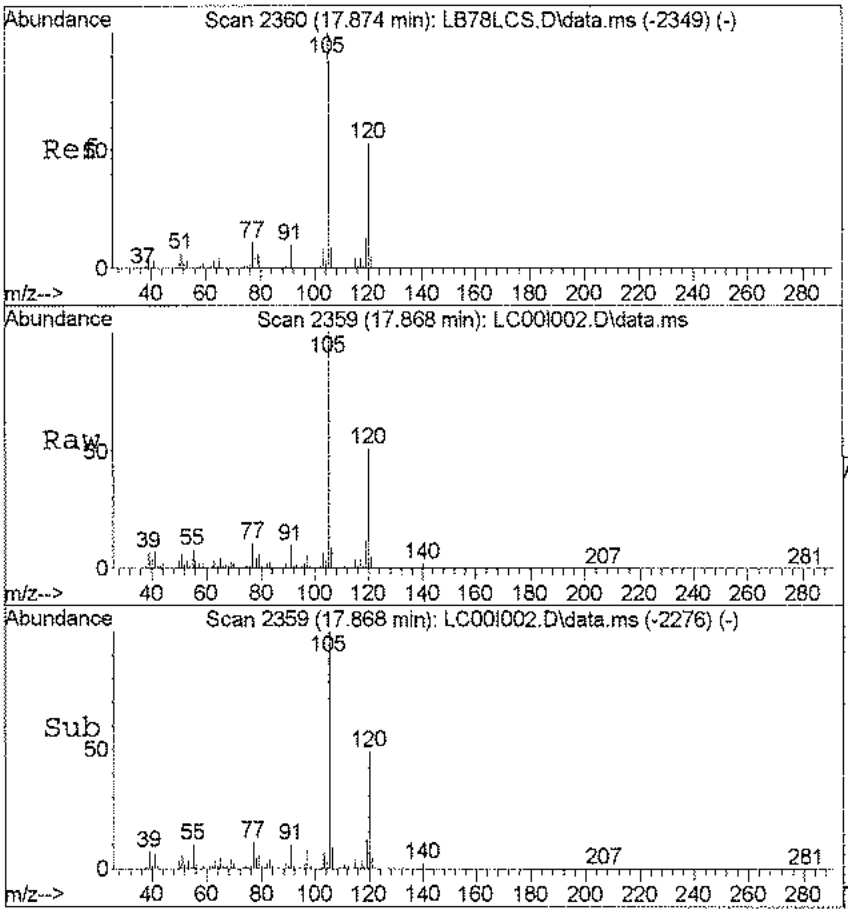


#60
1,3,5-Trimethylbenzene
Concen: 0.36 ppb
RT: 17.35 min Scan# 2274
Delta R.T. 0.00 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:105.1 Resp: 94278

Ion	Ratio	Lower	Upper
105	100		
120	53.2	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

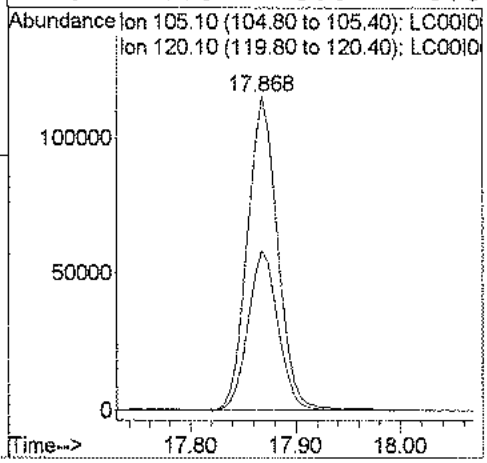




#61
1,2,4-Trimethylbenzene
Concen: 0.90 ppb
RT: 17.87 min Scan# 2359
Delta R.T. 0.00 min
Lab File: LC00I002.D
Acq: 03/10/2016 12:15

Tgt Ion:105.1 Resp: 225556

Ion	Ratio	Lower	Upper
105	100		
120	51.2	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0



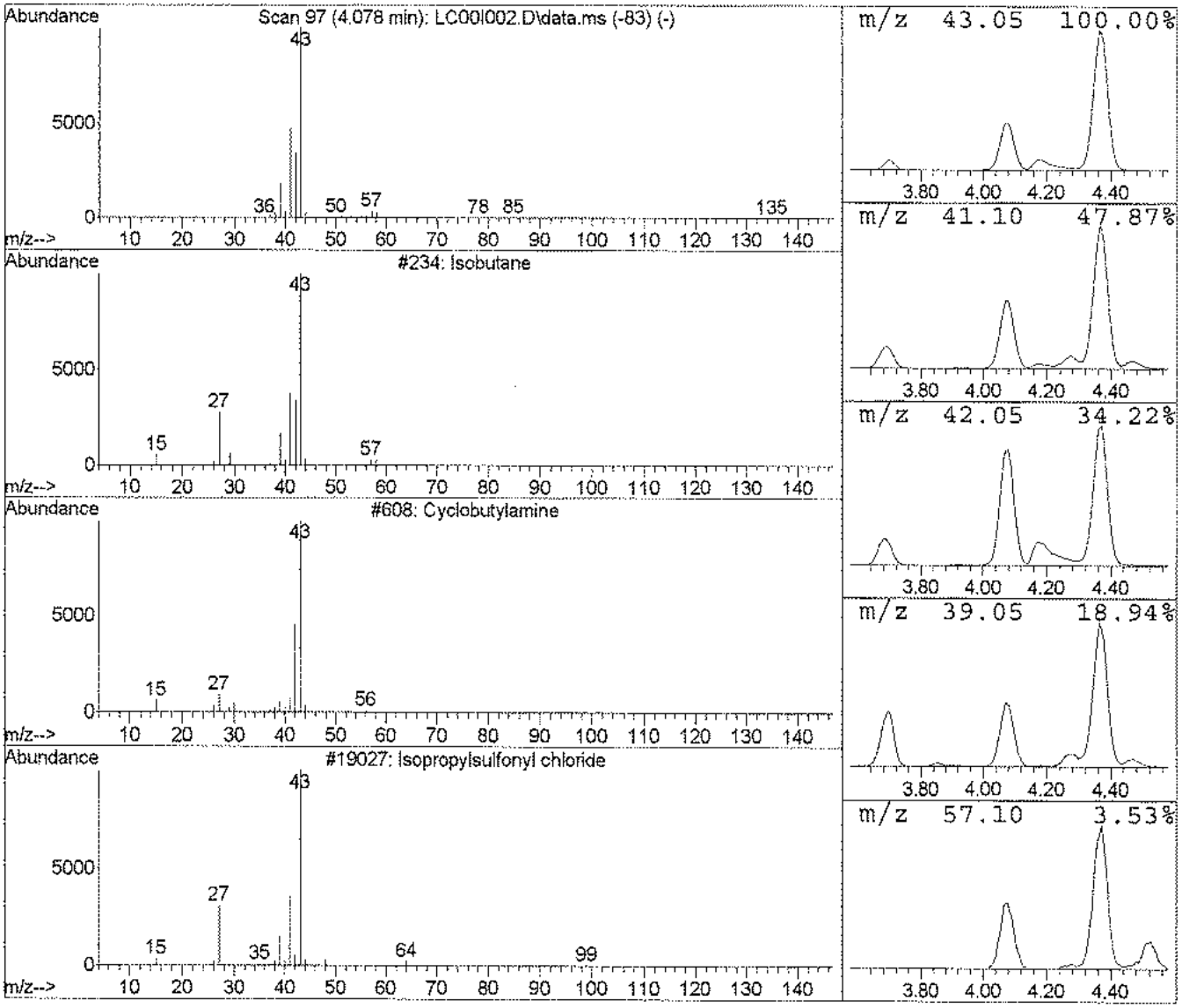
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.08	3.02 ppb	1143838	Bromochloromethane	7583948

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Isobutane	234	000075-28-5	86.00
2	Cyclobutylamine	608	002516-34-9	9.00
3	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
4	Oxirane, trimethyl-	1737	005076-19-7	9.00
5	5-Methyloxazolidine	1869	058328-22-6	4.00



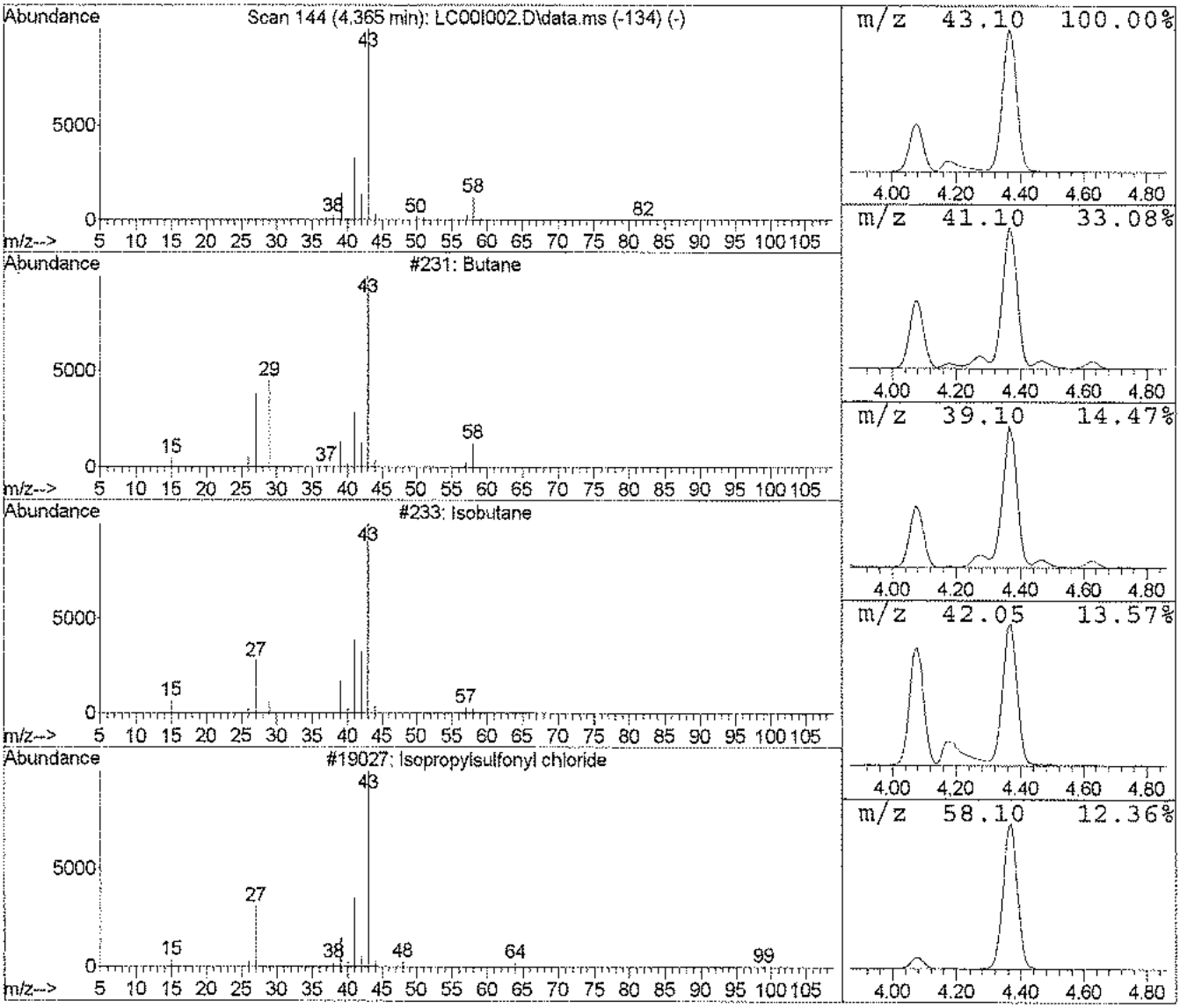
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
4.36	7.71 ppb	2922105	Bromochloromethane	7583948

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane	231	000106-97-8	80.00
2	Isobutane	233	000075-28-5	9.00
3	Isopropylsulfonyl chloride	19027	010147-37-2	9.00
4	Propane, 1-nitro-	2152	000108-03-2	9.00
5	Diazene, dimethyl-	211	000503-28-6	5.00



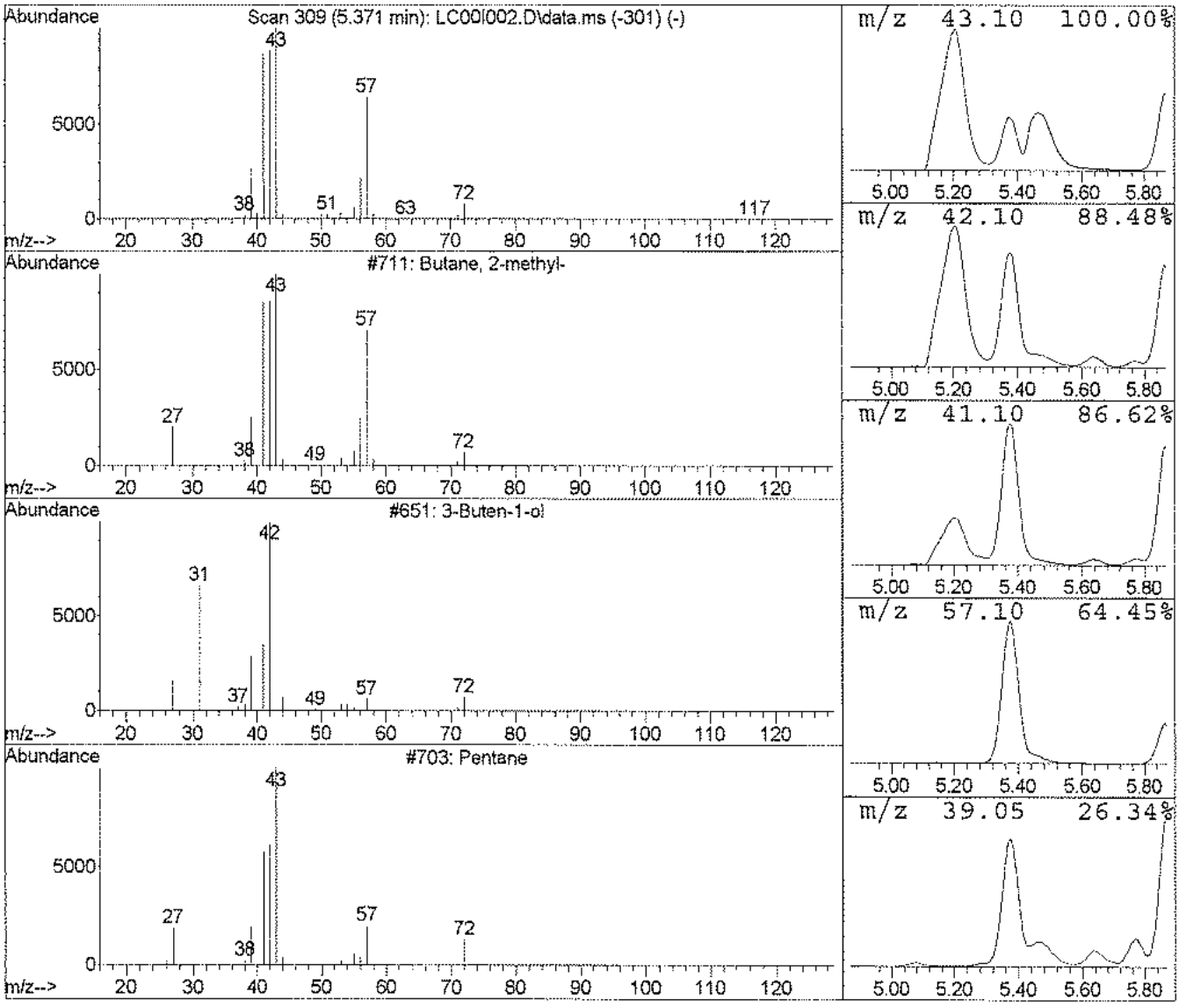
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
5.37	7.87 ppb	2982443	Bromochloromethane	7583948

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2-methyl-	711	000078-78-4	94.00
2	3-Buten-1-ol	651	000627-27-0	47.00
3	Pentane	703	000109-66-0	9.00
4	Methane, isocyanato-	189	000624-83-9	9.00
5	Propane, 2-methyl-2-nitro-	4530	000594-70-7	9.00



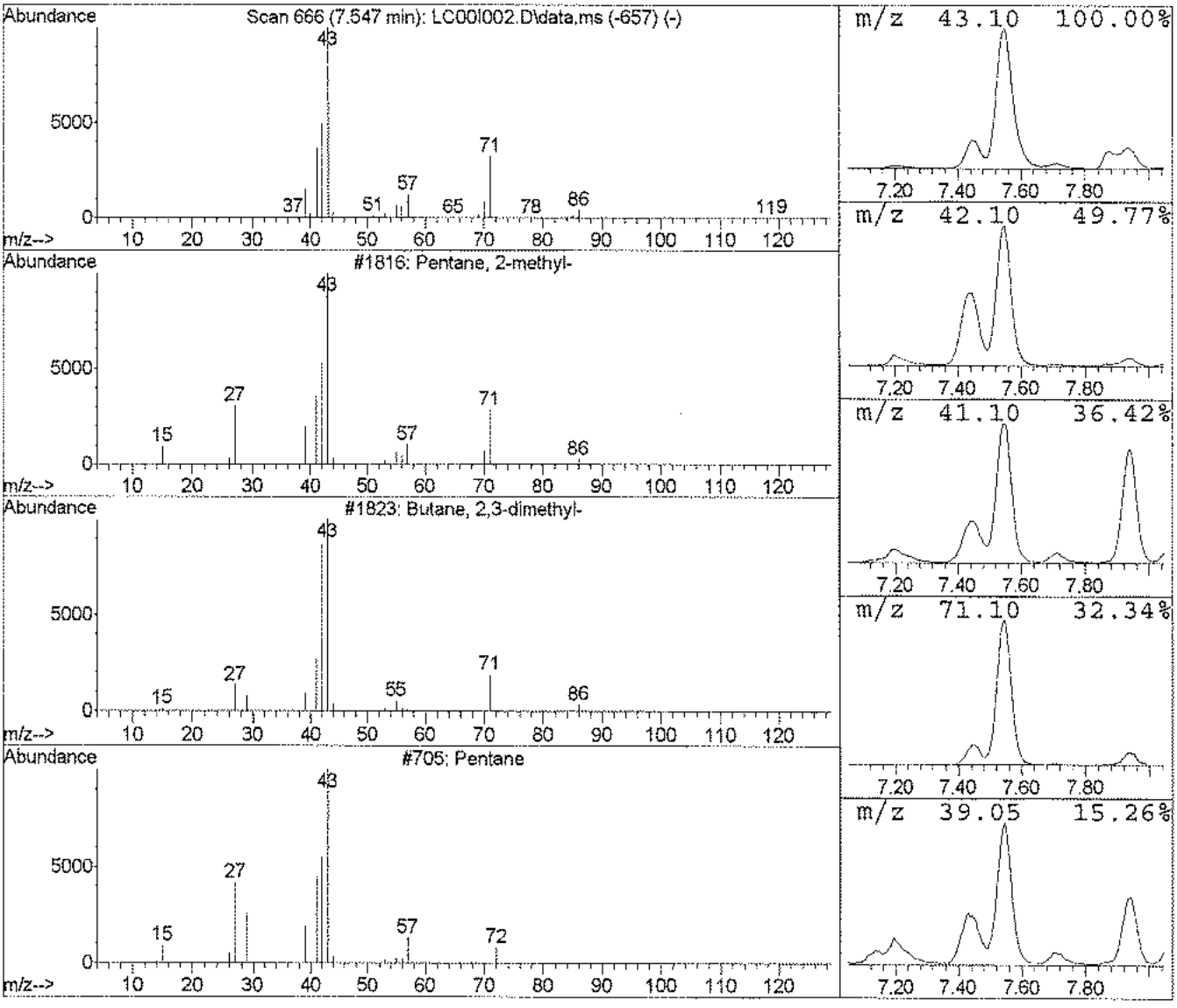
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.55	4.08 ppb	1546875	Bromochloromethane	7583948

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	1816	000107-83-5	91.00
2	Butane, 2,3-dimethyl-	1823	000079-29-8	53.00
3	Pentane	705	000109-66-0	40.00
4	Hexane, 2,3-dimethyl-	7563	000584-94-1	25.00
5	Pyrrolidine	606	000123-75-1	9.00



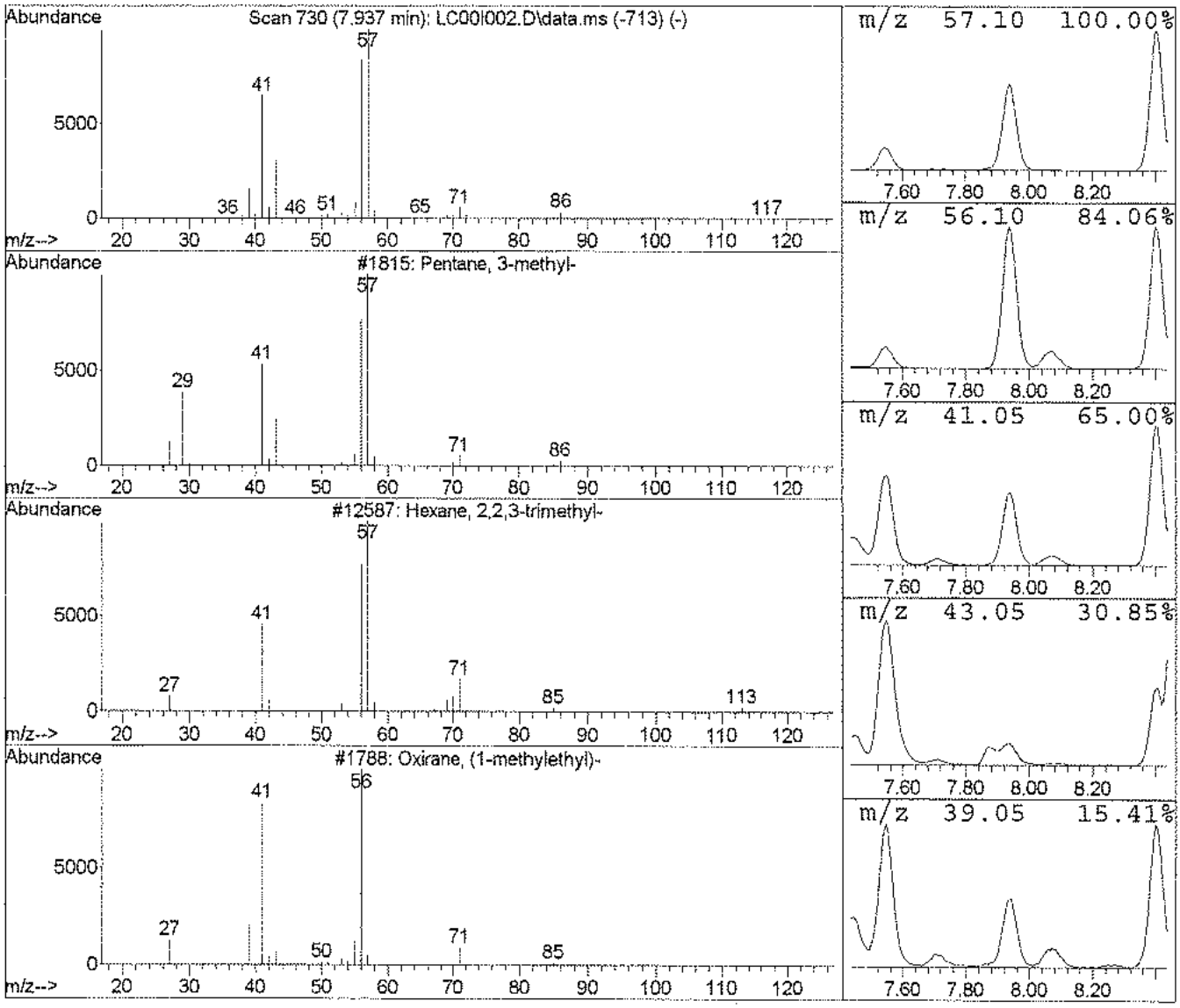
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
7.94	2.20 ppb	833354	Bromochloromethane	7583948

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 3-methyl-	1815	000096-14-0	91.00
2	Hexane, 2,2,3-trimethyl-	12587	016747-25-4	64.00
3	Oxirane, (1-methylethyl)-	1788	001438-14-8	59.00
4	Pentane, 3-ethyl-2,2-dimethyl-	12608	016747-32-3	56.00
5	Pentane, 2,2,3-trimethyl-	7590	000564-02-3	50.00



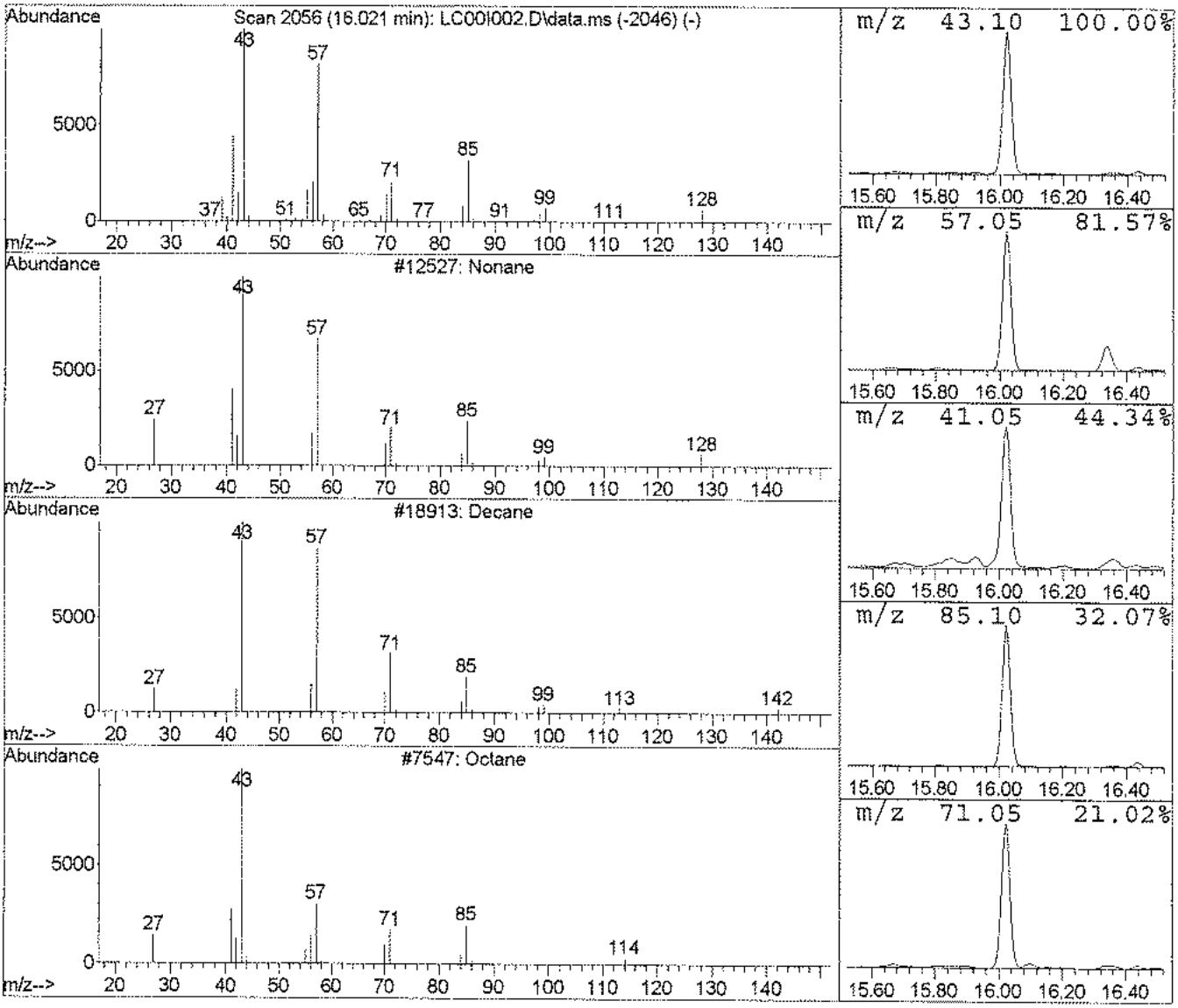
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
16.02	3.04 ppb	1601041	Chlorobenzene d5	10534494

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane	12527	000111-84-2	97.00
2	Decane	18913	000124-18-5	59.00
3	Octane	7547	000111-65-9	59.00
4	Octane, 2,3,3-trimethyl-	27934	062016-30-2	53.00
5	Oxalic acid, isohexyl pentyl ester	92962	1000309-32-8	53.00



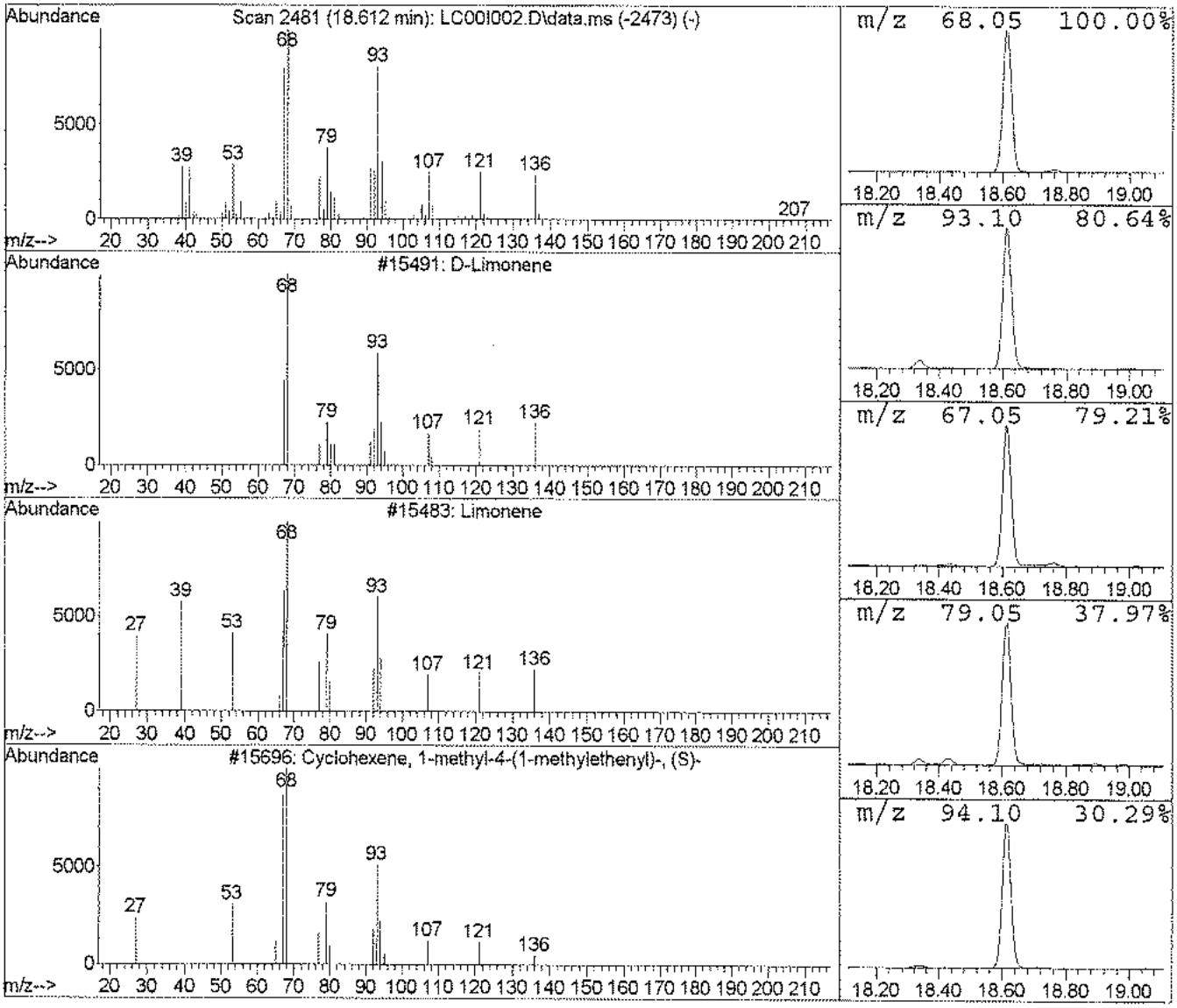
Library Search Compound Report

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LC00I002.D Vial: 13
Acq Time : 03/10/2016 12:15 Operator: JCB
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-030316-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Library : C:\Database\NIST08.L

R.T.	Conc	Area	Relative to ISTD	ISTD Area
18.61	4.19 ppb	2204985	Chlorobenzene d5	10534494

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	D-Limonene	15491	005989-27-5	94.00
2	Limonene	15483	000138-86-3	91.00
3	Cyclohexene, 1-methyl-4-(1-methylet	15696	005989-54-8	90.00
4	Cyclohexene, 1-methyl-4-(1-methylet	15703	007705-14-8	87.00
5	Cyclohexene, 4-ethenyl-1,4-dimethyl	15608	001743-61-9	86.00



Analyst Notebook

SIM

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LSIMA8 (HBN 165702)

1606379

The following compounds in the CCS were outside of +-30%: NA

Dilutions: NA

Analyst Signature: 03-14-16

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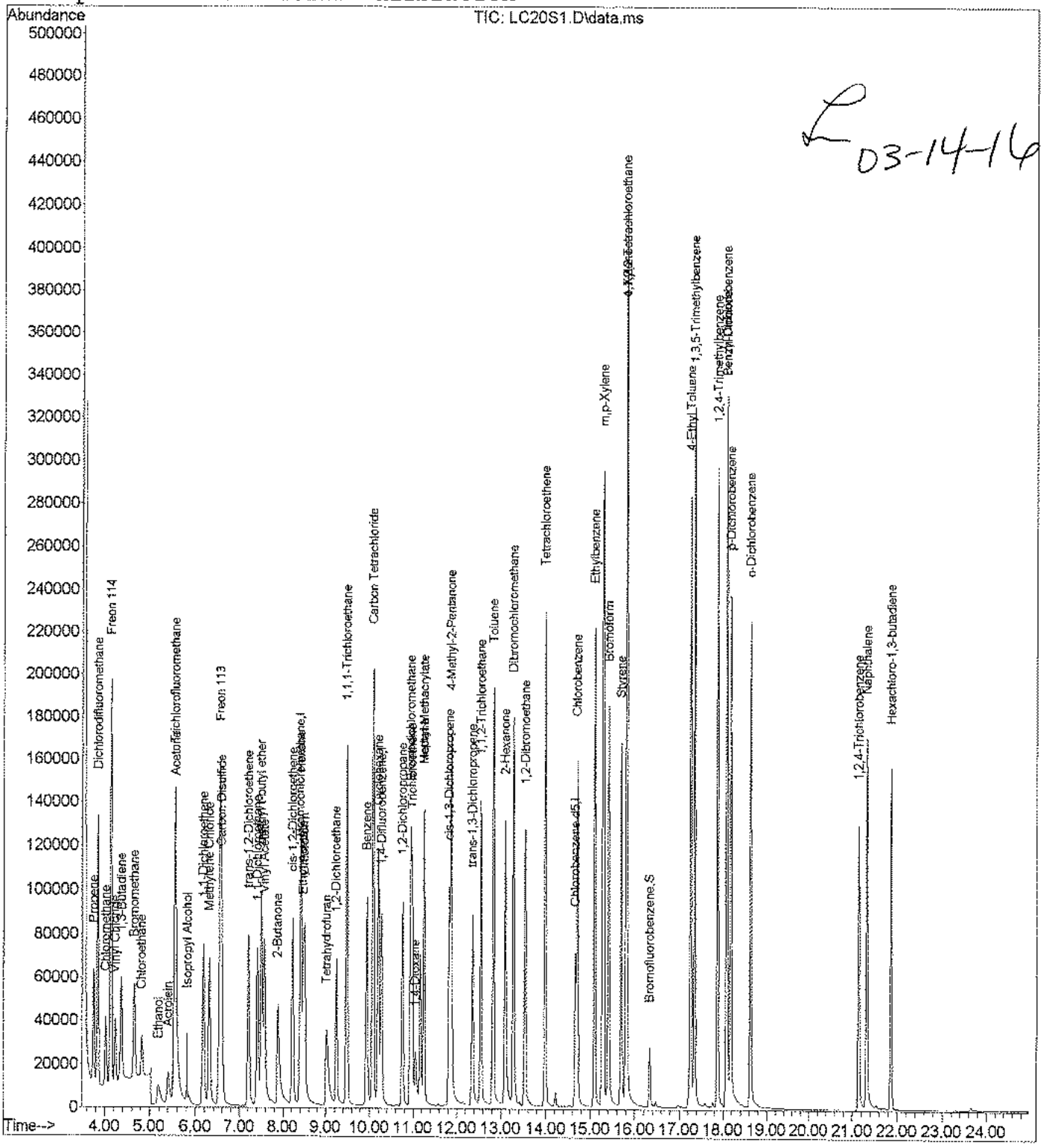
Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	19215	1000.0000	ppt		18.13#
25) 1,4-Difluorobenzene	10.28	114	184783	1000.0000	ppt		24.19#
50) Chlorobenzene d5	14.66	117	151677	1000.0000	ppt		34.71#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	59898	1784.2406	ppt		178.42%
Target Compounds							Qvalue
2) Propene	3.75	41	51297	1456.9745	ppt	m	56
3) Dichlorodifluoromethane	3.84	85	172951	932.4887	ppt	m	93
4) Chloromethane	4.02	50	62081	1402.5662	ppt	m	94
5) Freon 114	4.14	135	140328	1056.2146	ppt	m	0
6) Vinyl Chloride	4.24	62	57276	1011.2406	ppt	m	0
7) 1,3-Butadiene	4.37	54	42731	1202.5754	ppt	m	0
8) Bromomethane	4.65	94	63420	855.4185	ppt	m	0
9) Chloroethane	4.82	64	31079	949.3775	ppt	m	0
10) Acrolein	5.41	56	26650	1419.9768	ppt	m	0
11) Acetone	5.57	43	155609	1293.8146	ppt	#	84
12) Trichlorofluoromethane	5.55	101	220866	880.9055	ppt	m	0
13) Ethanol	5.19	45	42506	1672.0922	ppt	m	0
14) Isopropyl Alcohol	5.82	45	15686	167.1926	ppt	#	56
15) 1,1-Dichloroethene	6.17	61	112350	1240.5079	ppt	m	0
16) Methylene Chloride	6.31	84	69717	699.1755	ppt	m	55
17) Freon 113	6.54	151	150250	1161.1303	ppt	m	0
18) Carbon Disulfide	6.59	76	205034	877.4448	ppt	m	0
19) trans-1,2-Dichloroethene	7.20	96	70785	1199.9156	ppt	m	0
20) 1,1-Dichloroethane	7.41	63	132835	1039.2271	ppt		97
21) methyl t-butyl ether	7.50	73	156882	1715.6382	ppt	#	81
22) Vinyl Acetate	7.57	86	16458	1874.7391	ppt	#	1
23) 2-Butanone	7.87	43	150665	1847.2636	ppt	#	68
24) cis-1,2-Dichloroethene	8.22	96	77369	1375.6923	ppt	#	80
26) Ethyl Acetate	8.47	61	21053	1365.5702	ppt	#	1
27) Hexane	8.41	57	101067	1542.8101	ppt	#	79
28) Chloroform	8.51	83	162898	680.5086	ppt	#	17
29) Tetrahydrofuran	9.02	42	96378	2225.5919	ppt	#	40
30) 1,2-Dichloroethane	9.24	62	97347	745.7277	ppt	#	90
31) 1,1,1-Trichloroethane	9.48	97	178743	772.6113	ppt	#	91
32) Benzene	9.94	78	207869	975.2279	ppt	#	89
33) Carbon Tetrachloride	10.08	117	217090	815.2031	ppt		99
34) Cyclohexane	10.21	84	83698	1613.4012	ppt	#	42
35) 1,2-Dichloropropane	10.75	63	81662	956.5480	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	172789	757.8981	ppt		98
37)	1,4-Dioxane	11.05	88	45892	1729.1981	ppt	#	77
38)	Trichloroethene	10.97	130	118799	1180.7600	ppt	#	41
39)	Methyl Methacrylate	11.25	69	6849	199.5500	ppt	#	1
40)	Heptane	11.25	71	67459	1651.7846	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	110107	1403.0738	ppt		97
42)	4-Methyl-2-Pentanone	11.87	43	185753	2071.0900	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	98701	1585.9281	ppt		96
44)	1,1,2-Trichloroethane	12.54	97	103081	1028.0853	ppt	#	82
45)	Toluene	12.83	91	244919	1623.4051	ppt		98
46)	2-Hexanone	13.08	43	157378	3791.3166	ppt	#	70
47)	Dibromochloromethane	13.27	129	220368	1159.5810	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	160132	1314.9959	ppt		99
49)	Tetrachloroethene	13.98	166	148239	1394.7695	ppt	#	84
51)	Chlorobenzene	14.71	112	237663	1230.9667	ppt	#	74
52)	Ethylbenzene	15.10	91	316747	1731.4331	ppt		98
53)	m,p-Xylene	15.29	91	521909	3682.9312	ppt		94
54)	Bromoform	15.41	173	165708	1111.3858	ppt		99
55)	Styrene	15.69	104	184083	2791.3620	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.82	83	233945	1033.6910	ppt		98
57)	o-Xylene	15.81	91	287091	1946.4744	ppt		98
59)	4-Ethyl Toluene	17.25	105	336798	4052.6908	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	348726	3286.2009	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	301178	3954.2776	ppt		98
62)	Benzyl Chloride	18.06	91	257375	8771.8823	ppt		100
63)	m-Dichlorobenzene	18.08	146	253633	4272.4965	ppt		97
64)	p-Dichlorobenzene	18.17	146	254158	5717.6249	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	244934	3969.7318	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	115753	34359.7803	ppt	#	97
67)	Naphthalene	21.32	128	293387	22271.5590	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	130085	1851.2670	ppt		99

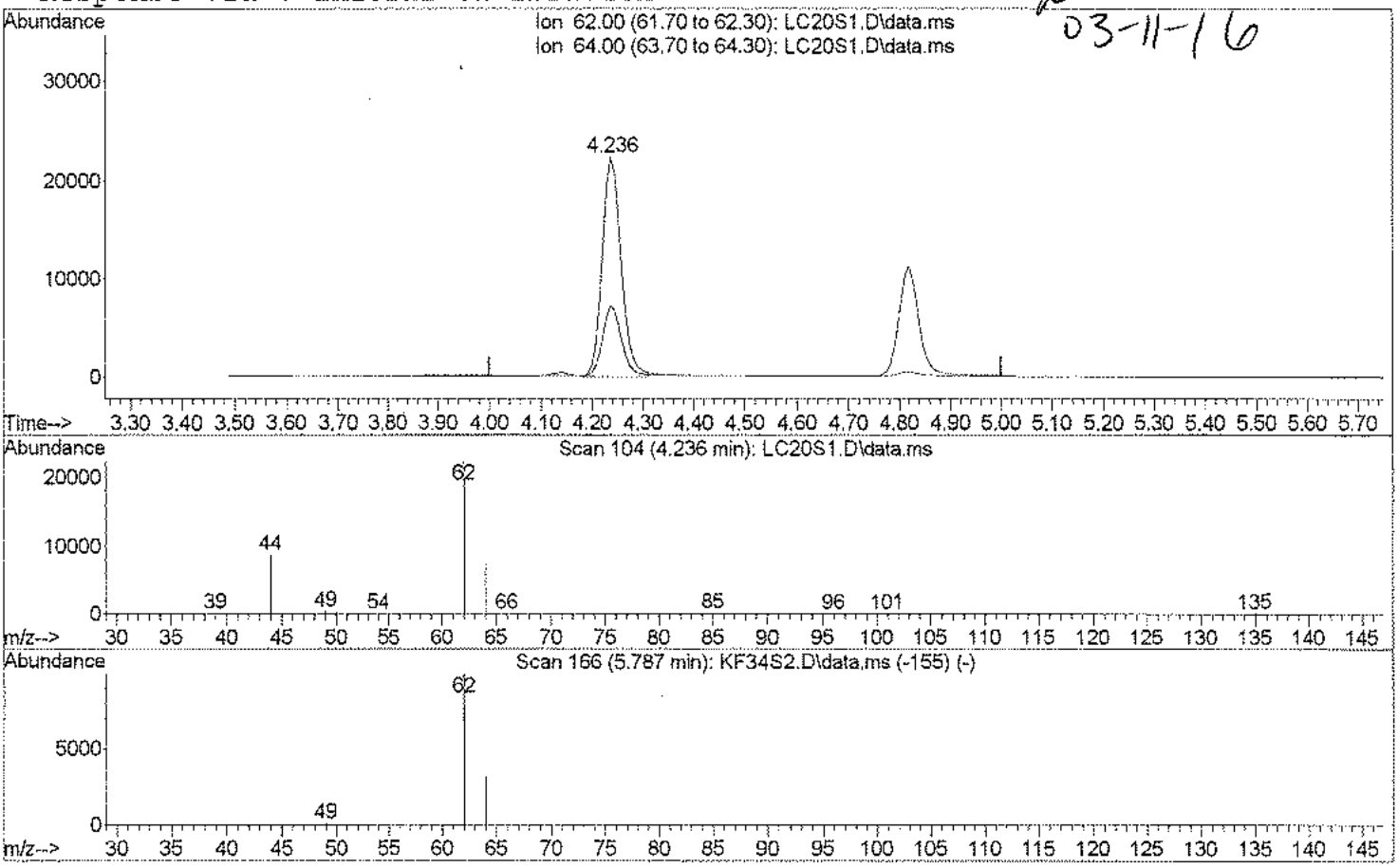
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\10MAR16L\
Data File : LC20S1.D
Acq On : 03/11/2016 08:28
Operator : LMR
Sample : 1.0 PPB
Inst : 5975-L
Misc : 31070 (400mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 08:58:01 2016
Quant Method : J:\L\METHODS\TO15LSIMA7.m
Quant Title : TO-15 SIM
QLast Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration

missed peak
L
03-11-16



TIC: LC20S1.D\data.ms

(6) Vinyl Chloride

4.236min (-0.264) 1011.24 ppt m

response 57276

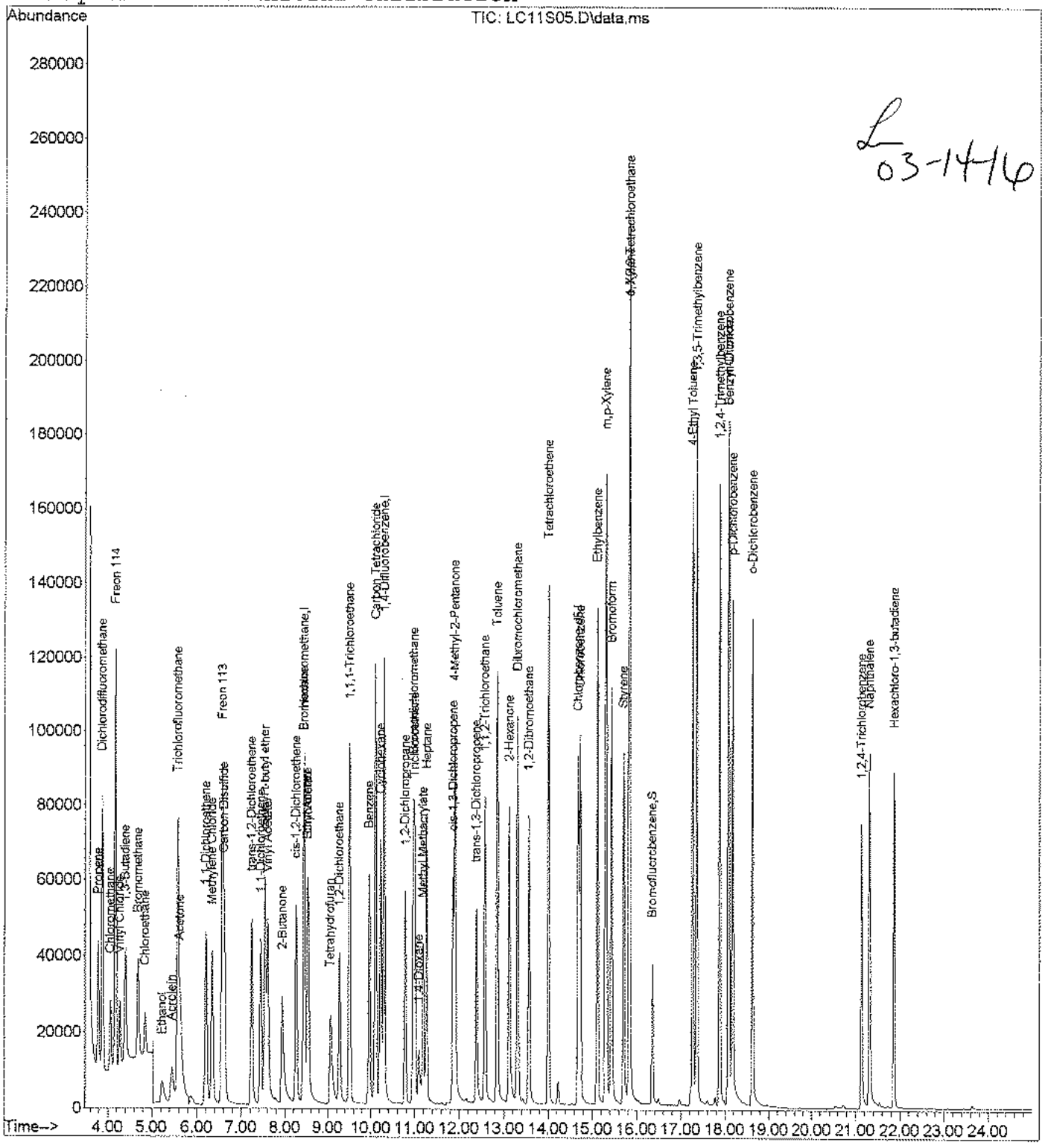
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:22 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	24687	1000.0000	ppt		23.29#
25) 1,4-Difluorobenzene	10.29	114	241247	1000.0000	ppt		31.58#
50) Chlorobenzene d5	14.68	117	202059	1000.0000	ppt		46.24#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	77846	1575.9116	ppt		157.59%
Target Compounds							Qvalue
2) Propene	3.78	41	32346	636.2090	ppt		96
3) Dichlorodifluoromethane	3.87	85	103410	426.6720	ppt		99
4) Chloromethane	4.05	50	35895	521.9587	ppt		98
5) Freon 114	4.17	135	84495	476.2846	ppt	#	76
6) Vinyl Chloride	4.27	62	34733	466.6143	ppt		100
7) 1,3-Butadiene	4.40	54	26236	544.2436	ppt	#	52
8) Bromomethane	4.68	94	37019	389.1405	ppt		99
9) Chloroethane	4.85	64	17836	415.7612	ppt	#	88
10) Acrolein	5.46	56	16917	646.5250	ppt	#	98
11) Acetone	5.63	43	94951	557.2560	ppt	#	84
12) Trichlorofluoromethane	5.58	101	130846	402.7569	ppt		97
13) Ethanol	5.23	45	24018	608.5318	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.20	61	69443	566.3733	ppt	#	78
16) Methylene Chloride	6.34	84	40603	314.7193	ppt	#	61
17) Freon 113	6.57	151	90017	510.2958	ppt	#	75
18) Carbon Disulfide	6.61	76	123102	407.1494	ppt	#	65
19) trans-1,2-Dichloroethene	7.23	96	43860	550.6973	ppt	#	78
20) 1,1-Dichloroethane	7.44	63	79425	466.7885	ppt		97
21) methyl t-butyl ether	7.53	73	98899	758.0172	ppt	#	81
22) Vinyl Acetate	7.60	86	10284	806.6820	ppt	#	1
23) 2-Butanone	7.92	43	92474	771.3290	ppt	#	68
24) cis-1,2-Dichloroethene	8.25	96	46592	603.4438	ppt	#	78
26) Ethyl Acetate	8.51	61	12445	574.8560	ppt	#	1
27) Hexane	8.44	57	62183	653.1053	ppt	#	81
28) Chloroform	8.53	83	95712	306.3279	ppt	#	17
29) Tetrahydrofuran	9.05	42	61159	857.5993	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	58991	342.2904	ppt	#	89
31) 1,1,1-Trichloroethane	9.50	97	107116	347.0708	ppt	#	92
32) Benzene	9.96	78	125153	430.8627	ppt	#	89
33) Carbon Tetrachloride	10.10	117	129186	359.2415	ppt		99
34) Cyclohexane	10.22	84	50259	664.4805	ppt	#	40
35) 1,2-Dichloropropane	10.77	63	49050	421.3104	ppt		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:22 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	102066	337.6108	ppt		98
37)	1,4-Dioxane	11.09	88	29258	727.3649	ppt	#	78
38)	Trichloroethene	11.00	130	72859	513.1009	ppt	#	42
39)	Methyl Methacrylate	11.18	69	36246	1005.4053	ppt	#	44
40)	Heptane	11.27	71	39413	678.8376	ppt	#	24
41)	cis-1,3-Dichloropropene	11.86	75	67836	601.8405	ppt		97
42)	4-Methyl-2-Pentanone	11.90	43	108763	775.8432	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	60313	656.2055	ppt		96
44)	1,1,2-Trichloroethane	12.57	97	60176	437.1366	ppt	#	82
45)	Toluene	12.85	91	147886	666.0469	ppt		99
46)	2-Hexanone	13.11	43	94186	1148.5546	ppt	#	71
47)	Dibromochloromethane	13.30	129	127851	478.1688	ppt	#	88
48)	1,2-Dibromoethane	13.55	107	93973	543.1533	ppt		99
49)	Tetrachloroethene	14.00	166	90764	585.3806	ppt	#	84
51)	Chlorobenzene	14.73	112	143729	532.8633	ppt	#	73
52)	Ethylbenzene	15.11	91	192641	717.4975	ppt		98
53)	m,p-Xylene	15.31	91	300056	1472.3449	ppt		97
54)	Bromoform	15.43	173	92634	444.0445	ppt		98
55)	Styrene	15.71	104	109151	974.8932	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	130974	423.6334	ppt		98
57)	o-Xylene	15.83	91	162740	748.5069	ppt		98
59)	4-Ethyl Toluene	17.26	105	199068	1175.2467	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	196056	1030.8615	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	168487	1092.7354	ppt		96
62)	Benzyl Chloride	18.06	91	143853	1563.0427	ppt		100
63)	m-Dichlorobenzene	18.08	146	145299	1201.2051	ppt		96
64)	p-Dichlorobenzene	18.17	146	152396	1442.2024	ppt		96
65)	o-Dichlorobenzene	18.63	146	144140	1161.9618	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	67221	1994.8526	ppt	#	97
67)	Naphthalene	21.31	128	164789	1840.7303	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	76235	688.8508	ppt		99

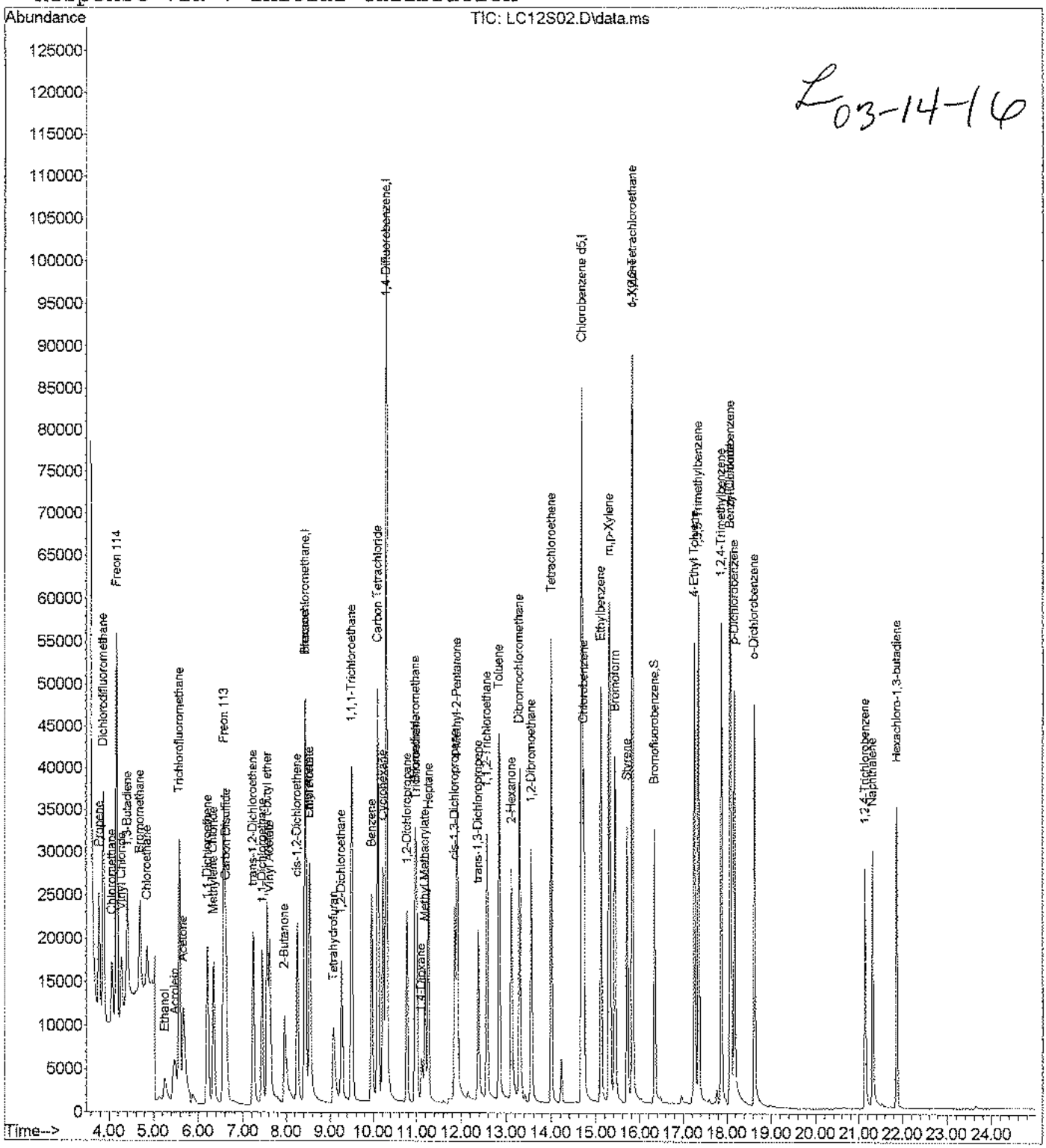
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



3-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:55 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	22607	1000.0000	ppt		21.32#
25) 1,4-Difluorobenzene	10.29	114	221891	1000.0000	ppt		29.05#
50) Chlorobenzene d5	14.68	117	181915	1000.0000	ppt		41.63#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	67176	1365.1050	ppt		136.51%
Target Compounds							Qvalue
2) Propene	3.78	41	14919	290.3582	ppt		94
3) Dichlorodifluoromethane	3.87	85	41684	189.0056	ppt		99
4) Chloromethane	4.06	50	14449	220.0201	ppt		99
5) Freon 114	4.16	135	34432	208.5879	ppt	#	76
6) Vinyl Chloride	4.27	62	13902	203.0743	ppt		100
7) 1,3-Butadiene	4.40	54	10494	228.2536	ppt	#	45
8) Bromomethane	4.69	94	15062	177.1625	ppt		98
9) Chloroethane	4.85	64	7358	188.6285	ppt	#	89
10) Acrolein	5.49	56	6982	266.1393	ppt	#	96
11) Acetone	5.66	43	42350	250.9530	ppt	#	85
12) Trichlorofluoromethane	5.58	101	53385	181.6424	ppt		97
13) Ethanol	5.25	45	9876	243.7751	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.20	61	27846	237.0262	ppt	#	78
16) Methylene Chloride	6.34	84	16529	142.2417	ppt	#	60
17) Freon 113	6.57	151	36690	218.9910	ppt	#	75
18) Carbon Disulfide	6.62	76	50510	184.1983	ppt	#	64
19) trans-1,2-Dichloroethene	7.23	96	17823	234.7210	ppt	#	79
20) 1,1-Dichloroethane	7.44	63	32180	203.8629	ppt		97
21) methyl t-butyl ether	7.55	73	38168	285.4822	ppt	#	81
22) Vinyl Acetate	7.62	86	3878	290.4361	ppt	#	1
23) 2-Butanone	7.95	43	36020	290.8303	ppt	#	68
24) cis-1,2-Dichloroethene	8.25	96	18668	249.8745	ppt	#	79
26) Ethyl Acetate	8.53	61	4729	226.5431	ppt	#	1
27) Hexane	8.43	57	23822	249.9877	ppt	#	82
28) Chloroform	8.53	83	38533	138.9898	ppt	#	17
29) Tetrahydrofuran	9.08	42	23040	293.1579	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	23993	155.0552	ppt	#	86
31) 1,1,1-Trichloroethane	9.50	97	43312	155.0365	ppt	#	92
32) Benzene	9.96	78	50836	188.5826	ppt	#	89
33) Carbon Tetrachloride	10.10	117	51782	157.5721	ppt		99
34) Cyclohexane	10.22	84	20690	275.0867	ppt	#	51
35) 1,2-Dichloropropane	10.77	63	19627	181.6573	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:55 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	40840	150.1638	ppt		98
37)	1,4-Dioxane	11.11	88	11727	280.2076	ppt	#	80
38)	Trichloroethene	10.99	130	28855	211.2836	ppt	#	41
39)	Methyl Methacrylate	11.18	69	13274	350.6148	ppt	#	45
40)	Heptane	11.27	71	14626	255.6247	ppt	#	24
41)	cis-1,3-Dichloropropene	11.85	75	25899	233.5201	ppt		97
42)	4-Methyl-2-Pentanone	11.91	43	40390	274.2527	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	22964	248.6370	ppt		97
44)	1,1,2-Trichloroethane	12.57	97	24029	187.5934	ppt	#	82
45)	Toluene	12.84	91	56922	254.0519	ppt		98
46)	2-Hexanone	13.11	43	34068	339.7574	ppt	#	70
47)	Dibromochloromethane	13.30	129	50215	197.9196	ppt	#	88
48)	1,2-Dibromoethane	13.55	107	36691	219.5603	ppt		100
49)	Tetrachloroethene	14.00	166	36023	233.7828	ppt	#	83
51)	Chlorobenzene	14.73	112	56372	226.7087	ppt	#	72
52)	Ethylbenzene	15.11	91	70858	267.1225	ppt		97
53)	m,p-Xylene	15.30	91	106468	533.9477	ppt		95
54)	Bromoform	15.43	173	36217	192.8372	ppt		95
55)	Styrene	15.70	104	38087	311.7174	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	50595	184.8361	ppt		98
57)	o-Xylene	15.82	91	57854	269.1626	ppt		98
59)	4-Ethyl Toluene	17.26	105	67476	333.4041	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	66348	307.8393	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	59050	326.3380	ppt		98
62)	Benzyl Chloride	18.06	91	52185	414.4339	ppt		100
63)	m-Dichlorobenzene	18.08	146	53752	375.3527	ppt		96
64)	p-Dichlorobenzene	18.17	146	55896	411.3305	ppt		96
65)	o-Dichlorobenzene	18.62	146	53027	361.6149	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	24502	455.9794	ppt	#	97
67)	Naphthalene	21.31	128	55741	408.6013	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	30034	271.6720	ppt		99

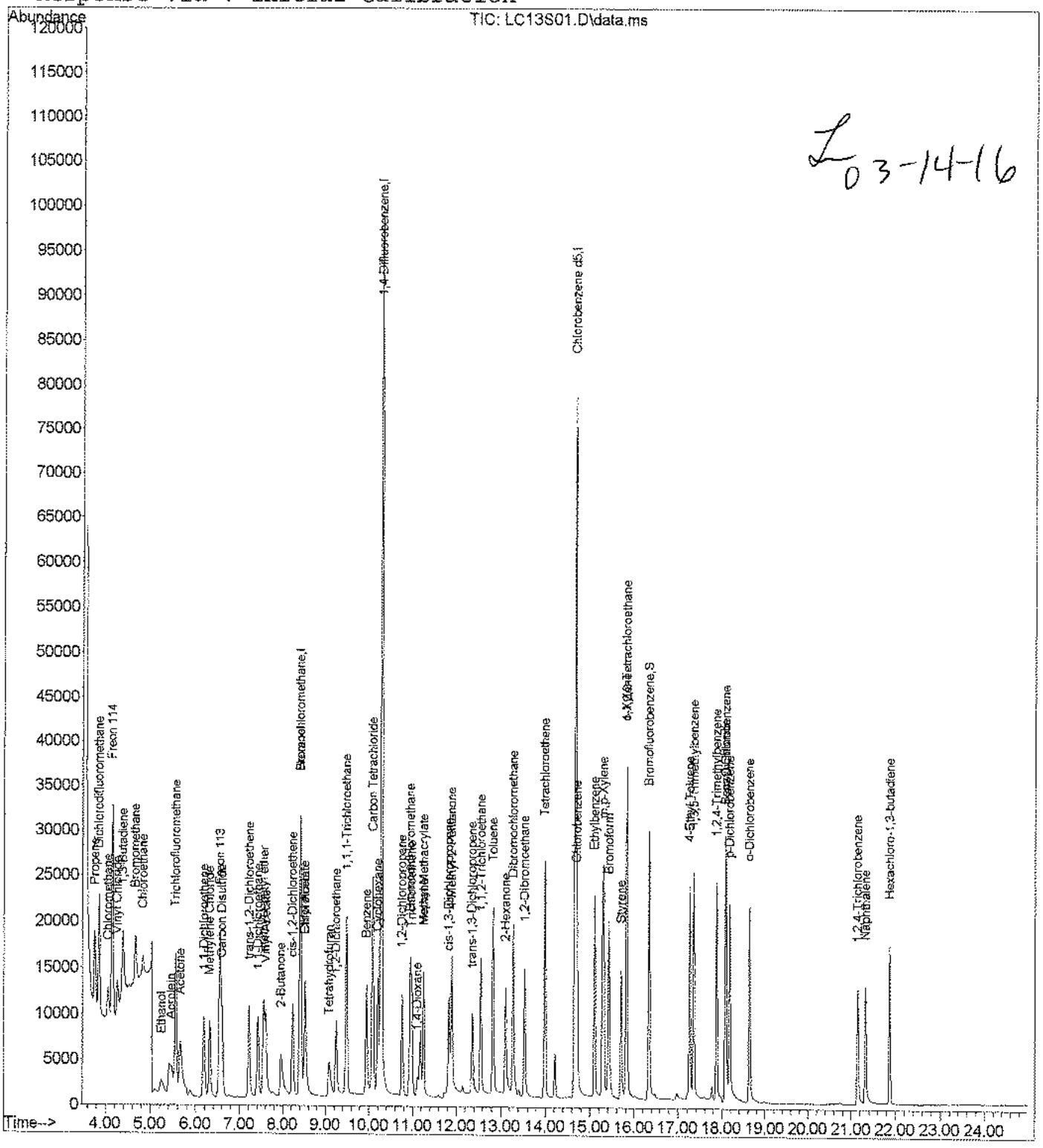
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:18 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	21903	1000.0000	ppt		96.89
25) 1,4-Difluorobenzene	10.28	114	212324	1000.0000	ppt		95.69
50) Chlorobenzene d5	14.67	117	173165	1000.0000	ppt		95.19
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	63614	1220.6804	ppt		122.07%
Target Compounds							Qvalue
2) Propene	3.76	41	9238	163.1049	ppt		93
3) Dichlorodifluoromethane	3.85	85	20252	95.3590	ppt		99
4) Chloromethane	4.05	50	7105	106.8589	ppt		100
5) Freon 114	4.15	135	16686	101.6799	ppt	#	76
6) Vinyl Chloride	4.26	62	6727	100.1309	ppt		98
7) 1,3-Butadiene	4.38	54	5234	111.4516	ppt	#	34
8) Bromomethane	4.67	94	7313	90.6519	ppt		98
9) Chloroethane	4.83	64	3402	90.2455	ppt	#	91
10) Acrolein	5.46	56	3165	112.2601	ppt	#	98
11) Acetone	5.65	43	25524	141.7143	ppt	#	86
12) Trichlorofluoromethane	5.55	101	26290	93.5124	ppt		97
13) Ethanol	5.24	45	5977	138.3323	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.18	61	13346	110.6316	ppt	#	78
16) Methylene Chloride	6.32	84	8207	75.4331	ppt	#	60
17) Freon 113	6.55	151	18041	106.5449	ppt	#	75
18) Carbon Disulfide	6.60	76	25419	96.3612	ppt	#	65
19) trans-1,2-Dichloroethene	7.21	96	8695	111.8550	ppt	#	80
20) 1,1-Dichloroethane	7.41	63	15918	102.1399	ppt		97
21) methyl t-butyl ether	7.55	73	18000	122.4293	ppt	#	81
22) Vinyl Acetate	7.60	86	1817	121.7774	ppt	#	1
23) 2-Butanone	7.95	43	17305	125.6963	ppt	#	68
24) cis-1,2-Dichloroethene	8.23	96	8967	114.7702	ppt	#	79
26) Ethyl Acetate	8.52	61	2254	106.7841	ppt	#	1
27) Hexane	8.41	57	11197	112.3097	ppt	#	81
28) Chloroform	8.51	83	18729	75.1768	ppt	#	17
29) Tetrahydrofuran	9.07	42	10107	115.2272	ppt	#	41
30) 1,2-Dichloroethane	9.25	62	11966	84.3264	ppt	#	84
31) 1,1,1-Trichloroethane	9.48	97	20940	81.2999	ppt	#	91
32) Benzene	9.94	78	26287	102.0548	ppt	#	89
33) Carbon Tetrachloride	10.08	117	25143	82.4033	ppt		99
34) Cyclohexane	10.20	84	9941	124.0032	ppt	#	56
35) 1,2-Dichloropropane	10.75	63	9527	92.6070	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:18 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	19863	79.8675	ppt		98
37)	1,4-Dioxane	11.12	88	5797	126.6182	ppt	#	81
38)	Trichloroethene	10.97	130	13903	102.5234	ppt	#	41
39)	Methyl Methacrylate	11.25	69	882	21.2060	ppt	#	1
40)	Heptane	11.25	71	6467	107.1457	ppt	#	23
41)	cis-1,3-Dichloropropene	11.83	75	13578	119.9292	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	18029	112.4619	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	10725	111.3829	ppt		94
44)	1,1,2-Trichloroethane	12.55	97	11533	94.0011	ppt	#	82
45)	Toluene	12.83	91	26388	111.8556	ppt		97
46)	2-Hexanone	13.10	43	15698	130.7930	ppt	#	67
47)	Dibromochloromethane	13.28	129	24221	97.6697	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	17481	104.6351	ppt		100
49)	Tetrachloroethene	13.99	166	17695	111.5907	ppt	#	84
51)	Chlorobenzene	14.72	112	26807	108.6530	ppt	#	70
52)	Ethylbenzene	15.10	91	32348	114.9735	ppt		98
53)	m,p-Xylene	15.29	91	47080	220.8422	ppt		98
54)	Bromoform	15.42	173	18258	102.1023	ppt		97
55)	Styrene	15.70	104	16999	122.4130	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	24077	93.3200	ppt		98
57)	o-Xylene	15.81	91	25152	109.1919	ppt		99
59)	4-Ethyl Toluene	17.26	105	29507	123.2021	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	28260	113.7471	ppt		98
61)	1,2,4-Trimethylbenzene	17.87	105	25687	120.5540	ppt		97
62)	Benzyl Chloride	18.06	91	23260	141.2914	ppt		96
63)	m-Dichlorobenzene	18.08	146	24249	137.7335	ppt		96
64)	p-Dichlorobenzene	18.17	146	25117	144.2129	ppt		93
65)	o-Dichlorobenzene	18.63	146	24932	140.3581	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	11580	156.6110	ppt	#	96
67)	Naphthalene	21.32	128	24817	137.4344	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	14580	123.8405	ppt		99

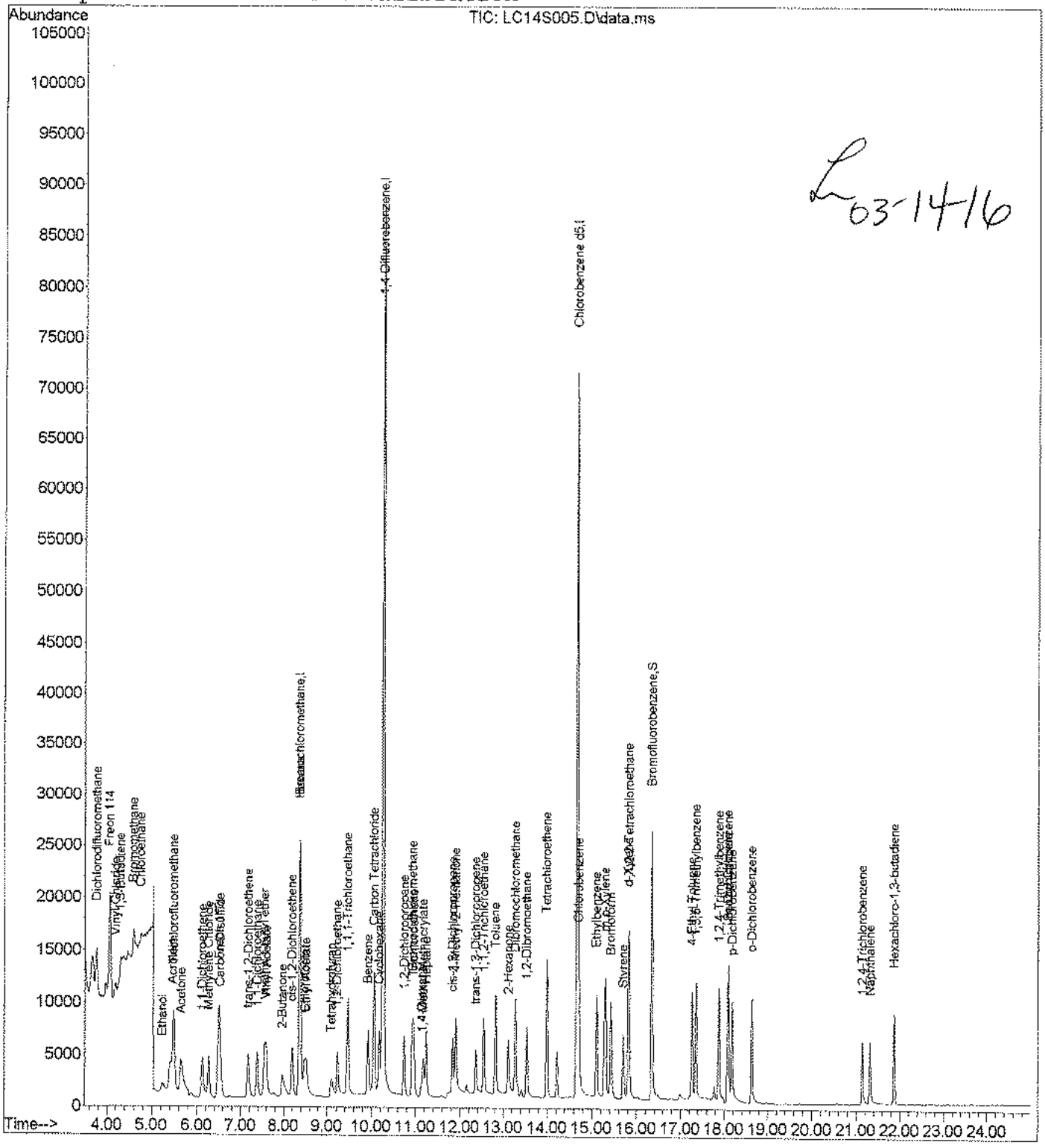
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:45 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	19808	1000.0000	ppt		87.62
25) 1,4-Difluorobenzene	10.26	114	197310	1000.0000	ppt		88.92
50) Chlorobenzene d5	14.67	117	161915	1000.0000	ppt		89.01
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	56113	1027.9068	ppt		102.79%
Target Compounds							Qvalue
2) Propene	0.00	41		Not Detected			
3) Dichlorodifluoromethane	3.75	85	9856	52.6836	ppt		99
4) Chloromethane	0.00	50		Not Detected			
5) Freon 114	4.06	135	8309	55.7458	ppt	#	75
6) Vinyl Chloride	4.18	62	3180	52.4778	ppt		94
7) 1,3-Butadiene	4.30	54	2500	56.1965	ppt	#	9
8) Bromomethane	4.59	94	3434	49.1364	ppt		98
9) Chloroethane	4.75	64	1683	51.0743	ppt	#	88
10) Acrolein	5.45	56	1673	61.2578	ppt	#	92
11) Acetone	5.65	43	13655	75.0846	ppt		95
12) Trichlorofluoromethane	5.48	101	13380	54.5186	ppt		98
13) Ethanol	5.23	45	2927	65.9230	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.12	61	6793	59.4398	ppt	#	75
16) Methylene Chloride	6.27	84	4111	45.7071	ppt	#	58
17) Freon 113	6.50	151	9143	58.3149	ppt	#	74
18) Carbon Disulfide	6.54	76	13500	58.0560	ppt	#	63
19) trans-1,2-Dichloroethene	7.17	96	4709	64.0340	ppt	#	79
20) 1,1-Dichloroethane	7.38	63	7949	56.2964	ppt		98
21) methyl t-butyl ether	7.55	73	9001	60.8468	ppt	#	82
22) Vinyl Acetate	7.59	86	936	61.3142	ppt	#	1
23) 2-Butanone	7.97	43	8768	62.4950	ppt	#	68
24) cis-1,2-Dichloroethene	8.20	96	4598	60.9665	ppt	#	80
26) Ethyl Acetate	8.52	61	1110	54.0456	ppt	#	1
27) Hexane	8.38	57	5512	55.4575	ppt	#	79
28) Chloroform	8.48	83	9470	45.7540	ppt	#	17
29) Tetrahydrofuran	9.09	42	4531	49.9622	ppt	#	43
30) 1,2-Dichloroethane	9.23	62	5927	48.6815	ppt	#	75
31) 1,1,1-Trichloroethane	9.46	97	10610	48.2579	ppt	#	91
32) Benzene	9.92	78	14363	60.4494	ppt	#	89
33) Carbon Tetrachloride	10.06	117	12889	48.8841	ppt		99
34) Cyclohexane	10.18	84	4468	54.6505	ppt	#	39
35) 1,2-Dichloropropane	10.74	63	4753	51.2698	ppt		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:45 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	9895	46.9362	ppt		96
37)	1,4-Dioxane	11.14	88	3243	68.0306	ppt	#	86
38)	Trichloroethene	10.97	130	6937	54.1498	ppt	#	41
39)	Methyl Methacrylate	11.18	69	3428	102.1924	ppt	#	54
40)	Heptane	11.24	71	3160	52.3989	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	6686	59.1238	ppt	#	72
42)	4-Methyl-2-Pentanone	11.90	43	8708	53.0993	ppt	#	70
43)	trans-1,3-Dichloropropene	12.36	75	5368	55.9786	ppt		95
44)	1,1,2-Trichloroethane	12.55	97	5842	52.6411	ppt	#	82
45)	Toluene	12.83	91	13186	55.9841	ppt		99
46)	2-Hexanone	13.11	43	6726	50.6483	ppt	#	71
47)	Dibromochloromethane	13.28	129	12129	52.7858	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	8758	54.7717	ppt		99
49)	Tetrachloroethene	13.98	166	9080	58.5423	ppt	#	83
51)	Chlorobenzene	14.72	112	13101	55.0253	ppt	#	65
52)	Ethylbenzene	15.10	91	14988	52.0564	ppt		99
53)	m,p-Xylene	15.29	91	21259	96.9136	ppt		100
54)	Bromoform	15.42	173	9371	56.1866	ppt		96
55)	Styrene	15.70	104	7696	51.1399	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	11972	50.6659	ppt	#	98
57)	o-Xylene	15.81	91	11469	48.3426	ppt		98
59)	4-Ethyl Toluene	17.26	105	13553	51.2487	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	12736	47.7033	ppt		96
61)	1,2,4-Trimethylbenzene	17.88	105	12454	53.4393	ppt		99
62)	Benzyl Chloride	18.07	91	10276	53.0010	ppt		98
63)	m-Dichlorobenzene	18.08	146	11409	56.7485	ppt		96
64)	p-Dichlorobenzene	18.18	146	11302	55.3307	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	12112	59.9052	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	5676	62.8584	ppt		97
67)	Naphthalene	21.32	128	11739	55.0203	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	7372	60.5223	ppt		99

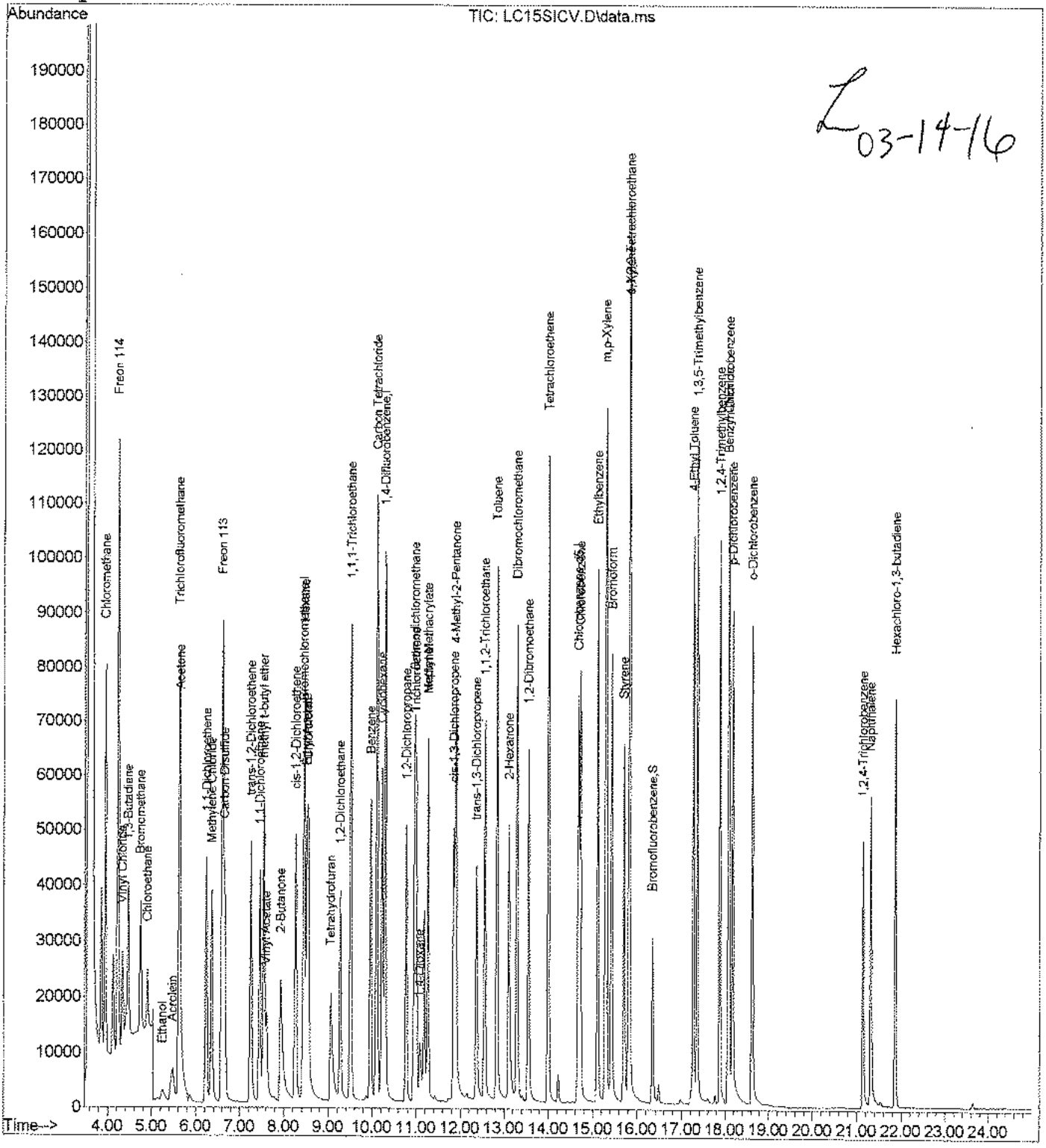
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	22023	1000.0000	ppt		97.42
25) 1,4-Difluorobenzene	10.28	114	204847	1000.0000	ppt		92.32
50) Chlorobenzene d5	14.67	117	165988	1000.0000	ppt		91.24
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	62813	1015.4214	ppt		101.54%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	0.00	85	Not Detected				
4) Chloromethane	3.94	50	11712	195.1522	ppt	#	41
5) Freon 114	4.23	135	77838	467.8671	ppt	#	79
6) Vinyl Chloride	4.33	62	30952	463.7965	ppt		99
7) 1,3-Butadiene	4.46	54	23589	462.3160	ppt	#	51
8) Bromomethane	4.74	94	32360	446.9716	ppt		98
9) Chloroethane	4.90	64	17447	498.7327	ppt	#	85
10) Acrolein	5.47	56	9736	297.2631	ppt	#	96
11) Acetone	5.65	43	69429	311.5320	ppt	#	85
12) Trichlorofluoromethane	5.62	101	121149	462.9348	ppt		97
13) Ethanol	5.24	45	7130	134.6004	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.23	61	61188	454.2243	ppt	#	78
16) Methylene Chloride	6.36	84	36086	443.5437	ppt	#	60
17) Freon 113	6.60	151	81933	457.0977	ppt	#	75
18) Carbon Disulfide	6.65	76	108888	433.3217	ppt	#	66
19) trans-1,2-Dichloroethene	7.25	96	39806	454.0600	ppt	#	80
20) 1,1-Dichloroethane	7.45	63	71768	455.6649	ppt		97
21) methyl t-butyl ether	7.54	73	83831	453.9708	ppt	#	81
22) Vinyl Acetate	7.61	86	3088	162.2129	ppt	#	1
23) 2-Butanone	7.92	43	76423	433.1939	ppt	#	67
24) cis-1,2-Dichloroethene	8.26	96	41145	452.0066	ppt	#	79
26) Ethyl Acetate	8.50	61	14193	638.7688	ppt	#	1
27) Hexane	8.44	57	52813	480.0473	ppt	#	80
28) Chloroform	8.53	83	86626	482.1543	ppt	#	17
29) Tetrahydrofuran	9.05	42	49029	481.9534	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	53344	478.5399	ppt	#	89
31) 1,1,1-Trichloroethane	9.51	97	92925	463.5512	ppt	#	91
32) Benzene	9.96	78	111453	453.2523	ppt	#	89
33) Carbon Tetrachloride	10.10	117	114550	473.6308	ppt		99
34) Cyclohexane	10.23	84	43246	467.7022	ppt	#	38
35) 1,2-Dichloropropane	10.76	63	42995	472.4407	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	92086	484.4121	ppt		98
37)	1,4-Dioxane	11.08	88	21720	390.7048	ppt	#	77
38)	Trichloroethene	10.99	130	64608	484.4655	ppt	#	41
39)	Methyl Methacrylate	11.26	69	4291	102.1146	ppt	#	1
40)	Heptane	11.27	71	33516	496.9223	ppt	#	24
41)	cis-1,3-Dichloropropene	11.84	75	56467	450.5547	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	83364	447.3187	ppt	#	71
43)	trans-1,3-Dichloropropene	12.37	75	48894	458.8588	ppt		96
44)	1,1,2-Trichloroethane	12.56	97	51825	462.7606	ppt	#	82
45)	Toluene	12.84	91	123326	469.3530	ppt		98
46)	2-Hexanone	13.10	43	62055	396.3745	ppt	#	70
47)	Dibromochloromethane	13.29	129	110222	467.5444	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	78592	458.5427	ppt		99
49)	Tetrachloroethene	13.99	166	77929	461.6597	ppt	#	84
51)	Chlorobenzene	14.72	112	118319	462.5514	ppt	#	74
52)	Ethylbenzene	15.11	91	142519	444.3222	ppt		98
53)	m,p-Xylene	15.30	91	227360	932.9392	ppt		91
54)	Bromoform	15.43	173	72711	419.8505	ppt		98
55)	Styrene	15.70	104	77356	441.8922	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	97769	414.8785	ppt		98
57)	o-Xylene	15.82	91	119095	450.5221	ppt		97
59)	4-Ethyl Toluene	17.26	105	126851	405.4825	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	131425	427.1337	ppt		97
61)	1,2,4-Trimethylbenzene	17.88	105	110825	402.3028	ppt		98
62)	Benzyl Chloride	18.06	91	78808	331.2000	ppt		100
63)	m-Dichlorobenzene	18.08	146	99437	404.9153	ppt		96
64)	p-Dichlorobenzene	18.17	146	99671	396.7742	ppt		96
65)	o-Dichlorobenzene	18.63	146	96880	392.5117	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	43460	377.0759	ppt	#	97
67)	Naphthalene	21.31	128	103179	389.4472	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	62730	450.9455	ppt		99

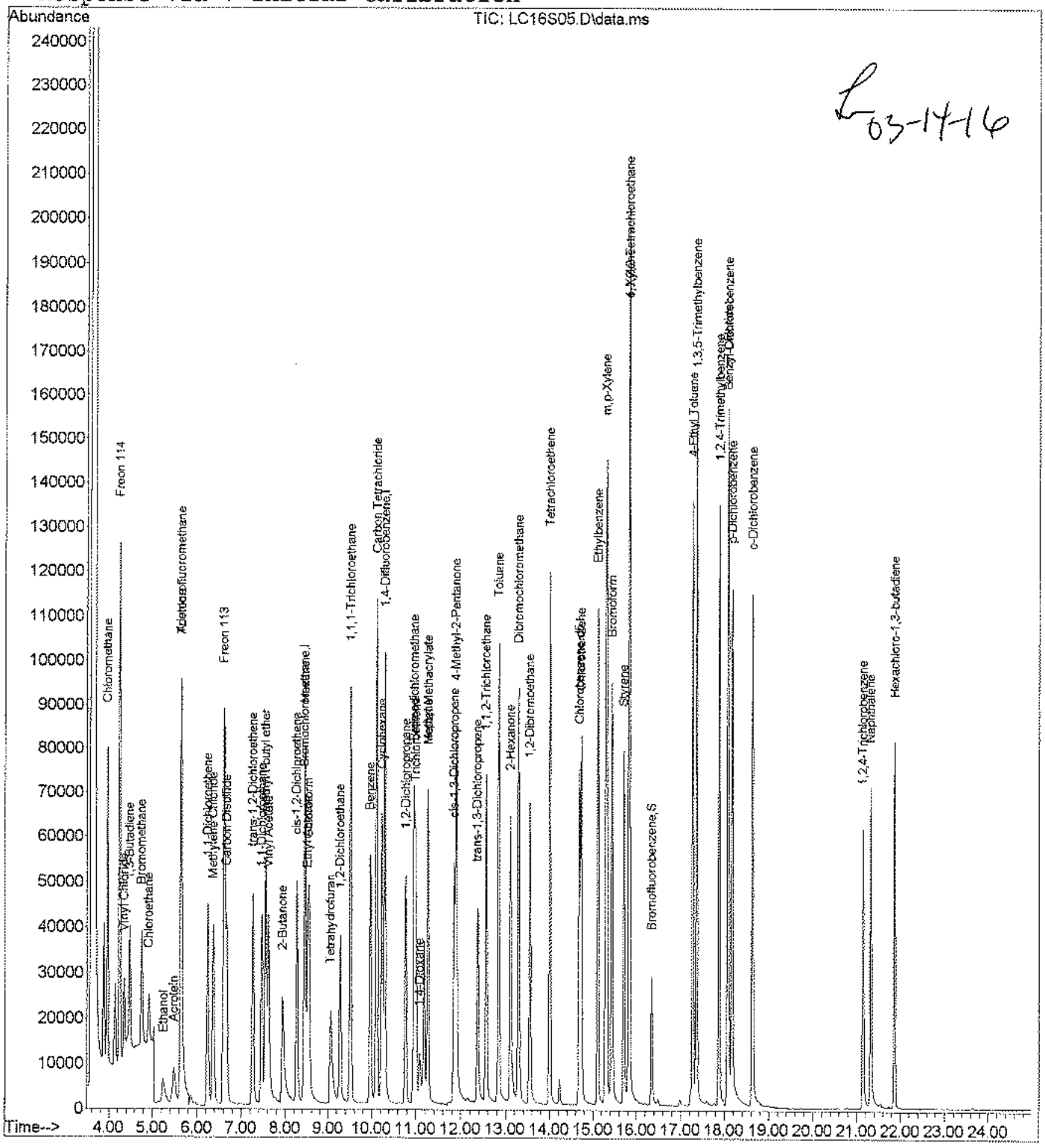
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC16S05.D Vial: 2
Acq Time : 03/11/2016 00:12 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:26:26 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC16S05.D Vial: 2
Acq Time : 03/11/2016 00:12 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:26:26 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.43	130	22016	1000.0000	ppt		97.39
25) 1,4-Difluorobenzene	10.29	114	200110	1000.0000	ppt		90.18
50) Chlorobenzene d5	14.68	117	161956	1000.0000	ppt		89.03
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	60898	1008.9728	ppt		100.90%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	0.00	85	Not Detected				
4) Chloromethane	3.96	50	11717	195.2976	ppt	#	41
5) Freon 114	4.24	135	75857	456.1048	ppt	#	75
6) Vinyl Chloride	4.35	62	31396	470.5992	ppt	m	0
7) 1,3-Butadiene	4.48	54	23158	454.0132	ppt	#	50
8) Bromomethane	4.75	94	34070	470.7406	ppt		98
9) Chloroethane	4.91	64	17302	494.7451	ppt	#	89
10) Acrolein	5.48	56	14934	456.1153	ppt		98
11) Acetone	5.65	43	83482	374.7077	ppt	#	84
12) Trichlorofluoromethane	5.64	101	118597	453.3271	ppt		97
13) Ethanol	5.24	45	20325	383.8181	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.25	61	61204	454.4875	ppt	#	78
16) Methylene Chloride	6.37	84	36881	453.4594	ppt	#	60
17) Freon 113	6.61	151	81196	453.1301	ppt	#	75
18) Carbon Disulfide	6.66	76	111280	442.9815	ppt	#	62
19) trans-1,2-Dichloroethene	7.26	96	39584	451.6713	ppt	#	79
20) 1,1-Dichloroethane	7.46	63	71523	454.2537	ppt		97
21) methyl t-butyl ether	7.55	73	84206	456.1466	ppt	#	81
22) Vinyl Acetate	7.61	86	8557	449.6427	ppt	#	1
23) 2-Butanone	7.93	43	80001	453.6195	ppt	#	67
24) cis-1,2-Dichloroethene	8.27	96	41190	452.6448	ppt	#	79
26) Ethyl Acetate	8.51	61	10977	505.7245	ppt	#	1
27) Hexane	8.46	57	53342	496.3332	ppt	#	79
28) Chloroform	8.54	83	86912	495.1973	ppt	#	17
29) Tetrahydrofuran	9.05	42	52730	530.6041	ppt	#	40
30) 1,2-Dichloroethane	9.28	62	53364	490.0516	ppt	#	89
31) 1,1,1-Trichloroethane	9.51	97	96047	490.4669	ppt	#	91
32) Benzene	9.96	78	111013	462.1500	ppt	#	89
33) Carbon Tetrachloride	10.11	117	115571	489.1640	ppt		99
34) Cyclohexane	10.23	84	45042	498.6571	ppt	#	42
35) 1,2-Dichloropropane	10.77	63	43897	493.7704	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC16S05.D Vial: 2
Acq Time : 03/11/2016 00:12 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:26:26 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	92405	497.5969	ppt		98
37)	1,4-Dioxane	11.08	88	23139	426.0831	ppt	#	78
38)	Trichloroethene	10.99	130	64580	495.7189	ppt	#	42
39)	Methyl Methacrylate	11.27	69	4001	97.4672	ppt	#	1
40)	Heptane	11.27	71	34249	519.8105	ppt	#	24
41)	cis-1,3-Dichloropropene	11.85	75	58507	477.8829	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	94232	517.6041	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	51560	495.3329	ppt		96
44)	1,1,2-Trichloroethane	12.56	97	53953	493.1664	ppt	#	82
45)	Toluene	12.84	91	128033	498.8014	ppt		98
46)	2-Hexanone	13.10	43	78258	511.7036	ppt	#	70
47)	Dibromochloromethane	13.29	129	115352	500.8879	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	83905	501.1296	ppt		99
49)	Tetrachloroethene	13.99	166	79793	483.8921	ppt	#	83
51)	Chlorobenzene	14.73	112	126164	505.4994	ppt	#	73
52)	Ethylbenzene	15.11	91	161738	516.7934	ppt		98
53)	m,p-Xylene	15.30	91	259281	1090.4095	ppt		87
54)	Bromoform	15.43	173	83361	493.3295	ppt		96
55)	Styrene	15.70	104	90327	528.8342	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	119664	520.4307	ppt		98
57)	o-Xylene	15.82	91	142991	554.3843	ppt		97
59)	4-Ethyl Toluene	17.26	105	162848	533.5072	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	169845	565.7418	ppt		97
61)	1,2,4-Trimethylbenzene	17.88	105	138837	516.5356	ppt		99
62)	Benzyl Chloride	18.06	91	123949	533.8788	ppt		98
63)	m-Dichlorobenzene	18.08	146	127834	533.5095	ppt		96
64)	p-Dichlorobenzene	18.17	146	135335	552.1593	ppt		97
65)	o-Dichlorobenzene	18.63	146	124900	518.6335	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	54118	481.2386	ppt	#	97
67)	Naphthalene	21.31	128	128621	497.5638	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	68156	502.1489	ppt		99

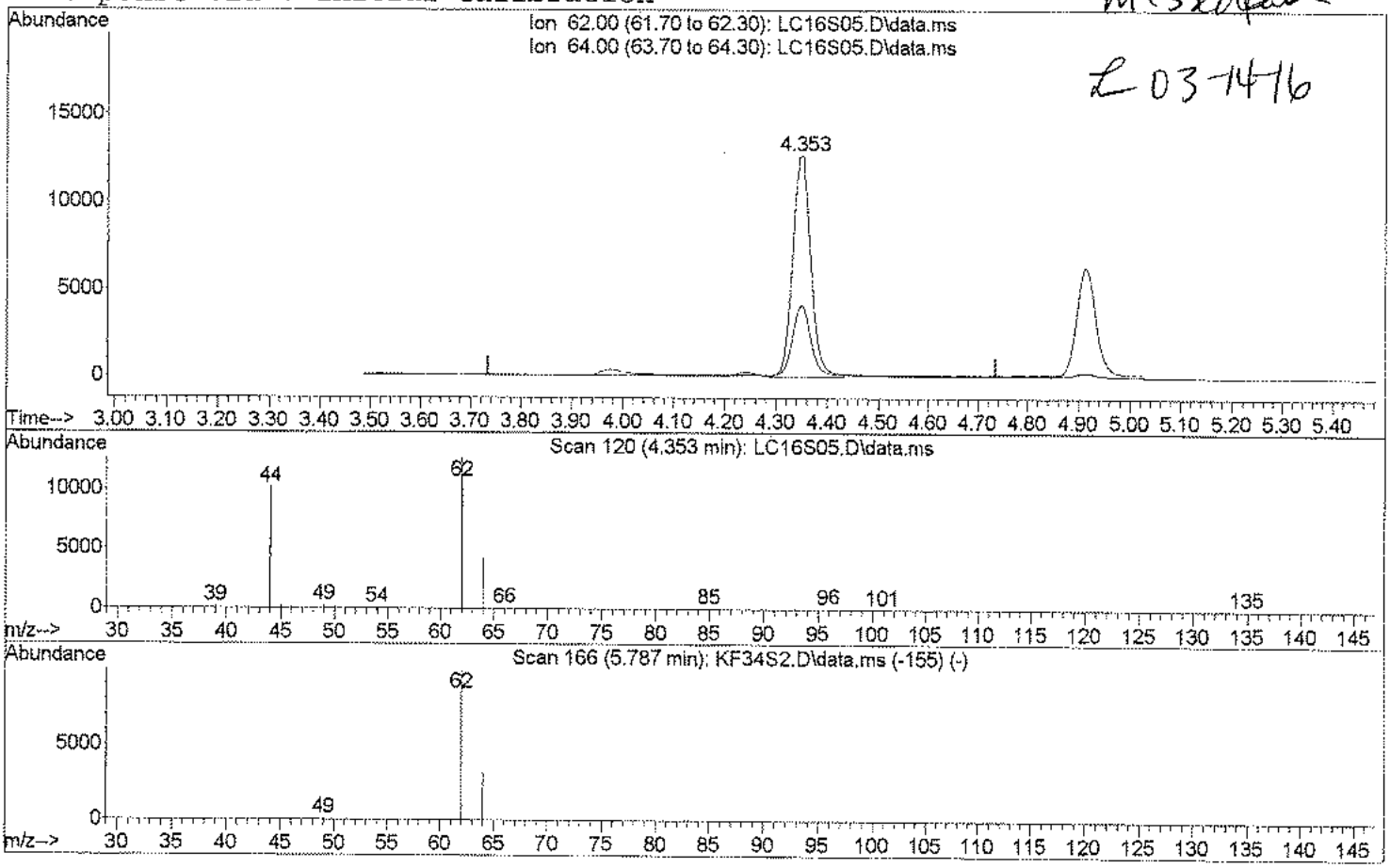
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\10MAR16L\
Data File : LC16S05.D
Acq On : 03/11/2016 00:12
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31070 (200 mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 10:09:23 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration

missed peak
L 03-1476



TIC: LC16S05.D\data.ms

(6) Vinyl Chloride

4.353min (+ 0.117) 470.60 ppt m

response 31396

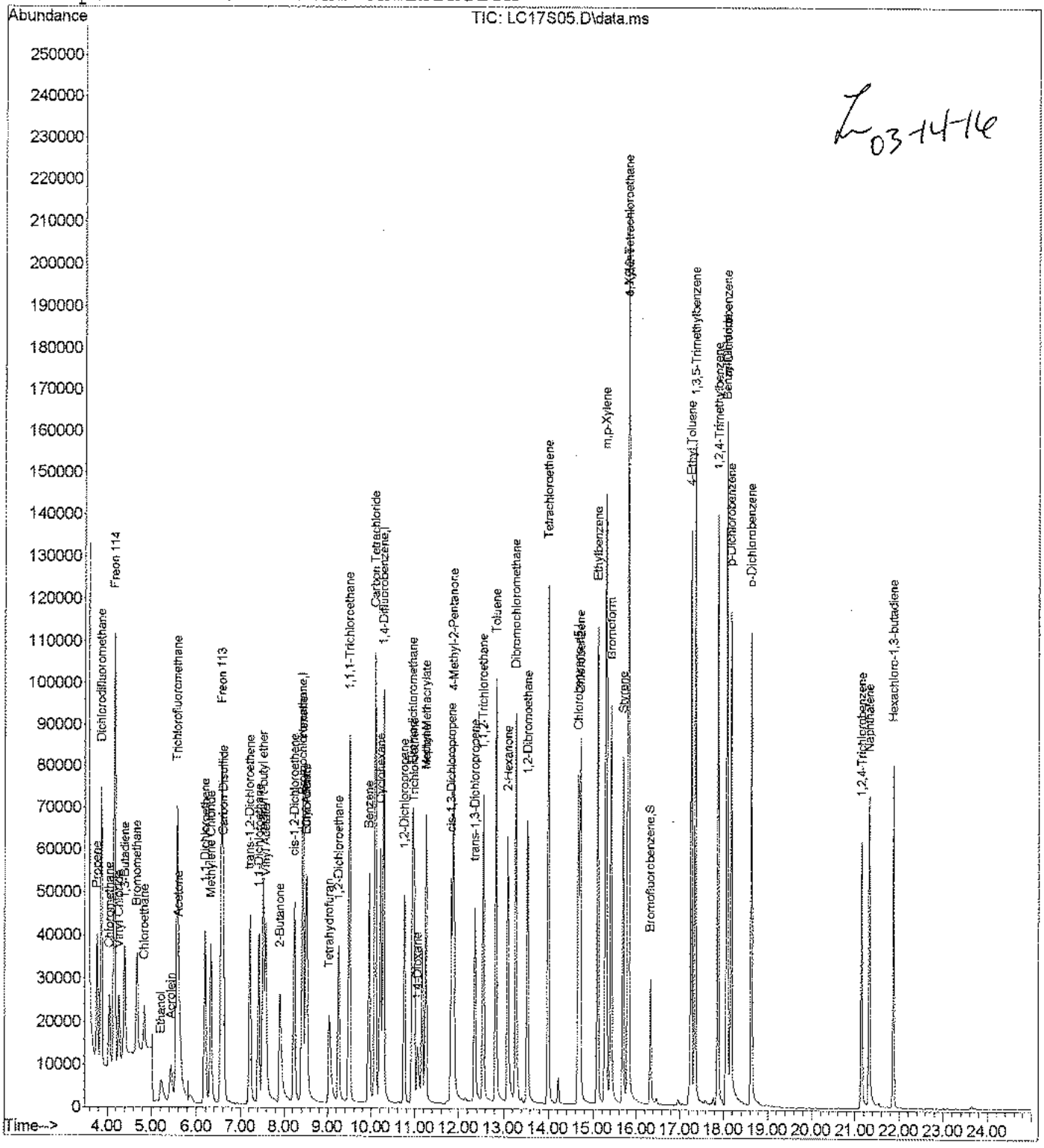
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC17S05.D Vial: 2
Acq Time : 03/11/2016 01:06 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:27:02 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



LC17S05.D TO15LSIMA8.m Mon Mar 14 13:27:51 2016 Page 3

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC17S05.D Vial: 2
Acq Time : 03/11/2016 01:06 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:27:02 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	20727	1000.0000	ppt		91.68
25) 1,4-Difluorobenzene	10.27	114	202984	1000.0000	ppt		91.48
50) Chlorobenzene d5	14.66	117	164526	1000.0000	ppt		90.44
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	62101	1012.8322	ppt		101.28%
Target Compounds							Qvalue
2) Propene	3.76	41	28784	296.4007	ppt		96
3) Dichlorodifluoromethane	3.86	85	93153	490.6899	ppt		99
4) Chloromethane	4.04	50	32607	577.2889	ppt		98
5) Freon 114	4.16	135	75576	482.6750	ppt	#	75
6) Vinyl Chloride	4.26	62	31051	494.3726	ppt		99
7) 1,3-Butadiene	4.39	54	23045	479.8949	ppt	#	50
8) Bromomethane	4.66	94	33948	498.2252	ppt		98
9) Chloroethane	4.83	64	16409	498.3899	ppt	#	88
10) Acrolein	5.43	56	14998	486.5571	ppt	#	97
11) Acetone	5.61	43	81297	387.5933	ppt	#	84
12) Trichlorofluoromethane	5.56	101	118675	481.8360	ppt		98
13) Ethanol	5.21	45	22393	449.1684	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.18	61	60869	480.1095	ppt	#	78
16) Methylene Chloride	6.32	84	36502	476.7101	ppt	#	60
17) Freon 113	6.55	151	80472	477.0183	ppt	#	74
18) Carbon Disulfide	6.60	76	111395	471.0166	ppt	#	65
19) trans-1,2-Dichloroethene	7.21	96	38938	471.9309	ppt	#	80
20) 1,1-Dichloroethane	7.42	63	71246	480.6348	ppt		97
21) methyl t-butyl ether	7.52	73	82895	476.9707	ppt	#	80
22) Vinyl Acetate	7.58	86	8743	487.9873	ppt	#	1
23) 2-Butanone	7.90	43	81194	489.0151	ppt	#	68
24) cis-1,2-Dichloroethene	8.23	96	40874	477.1060	ppt	#	79
26) Ethyl Acetate	8.49	61	10804	490.7066	ppt	#	1
27) Hexane	8.42	57	52470	481.3069	ppt	#	80
28) Chloroform	8.51	83	86111	483.6867	ppt	#	17
29) Tetrahydrofuran	9.03	42	51887	514.7287	ppt	#	41
30) 1,2-Dichloroethane	9.25	62	52226	472.8106	ppt	#	89
31) 1,1,1-Trichloroethane	9.48	97	94844	477.4664	ppt	#	91
32) Benzene	9.94	78	110277	452.5859	ppt	#	89
33) Carbon Tetrachloride	10.08	117	114898	479.4299	ppt		99
34) Cyclohexane	10.21	84	43819	478.2486	ppt	#	39
35) 1,2-Dichloropropane	10.75	63	43185	478.8838	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC17S05.D Vial: 2
Acq Time : 03/11/2016 01:06 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:27:02 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	91068	483.4538	ppt		98
37)	1,4-Dioxane	11.06	88	24892	451.8731	ppt	#	76
38)	Trichloroethene	10.97	130	63301	479.0214	ppt	#	42
39)	Methyl Methacrylate	11.25	69	3898	93.6136	ppt	#	1
40)	Heptane	11.25	71	33849	506.4656	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	57896	466.1967	ppt		96
42)	4-Methyl-2-Pentanone	11.88	43	93131	504.3135	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	50536	478.6214	ppt		96
44)	1,1,2-Trichloroethane	12.54	97	53400	481.2005	ppt	#	82
45)	Toluene	12.83	91	125367	481.4996	ppt		98
46)	2-Hexanone	13.08	43	78897	508.5776	ppt	#	70
47)	Dibromochloromethane	13.27	129	114203	488.8773	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	82834	487.7282	ppt		99
49)	Tetrachloroethene	13.98	166	79640	476.1260	ppt	#	84
51)	Chlorobenzene	14.71	112	127307	502.1113	ppt	#	73
52)	Ethylbenzene	15.10	91	166084	522.3904	ppt		98
53)	m,p-Xylene	15.29	91	260117	1076.8375	ppt		89
54)	Bromoform	15.41	173	82707	481.8135	ppt		96
55)	Styrene	15.69	104	92113	530.8666	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.81	83	120435	515.6021	ppt		98
57)	o-Xylene	15.81	91	140969	538.0075	ppt		98
59)	4-Ethyl Toluene	17.25	105	164635	530.9364	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	169324	555.1963	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	144088	527.6979	ppt		98
62)	Benzyl Chloride	18.06	91	123397	523.1988	ppt		100
63)	m-Dichlorobenzene	18.08	146	127977	525.7632	ppt		96
64)	p-Dichlorobenzene	18.17	146	134263	539.2288	ppt		94
65)	o-Dichlorobenzene	18.63	146	126033	515.1633	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	56073	490.8345	ppt	#	97
67)	Naphthalene	21.32	128	131585	501.0785	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	67194	487.3280	ppt		99

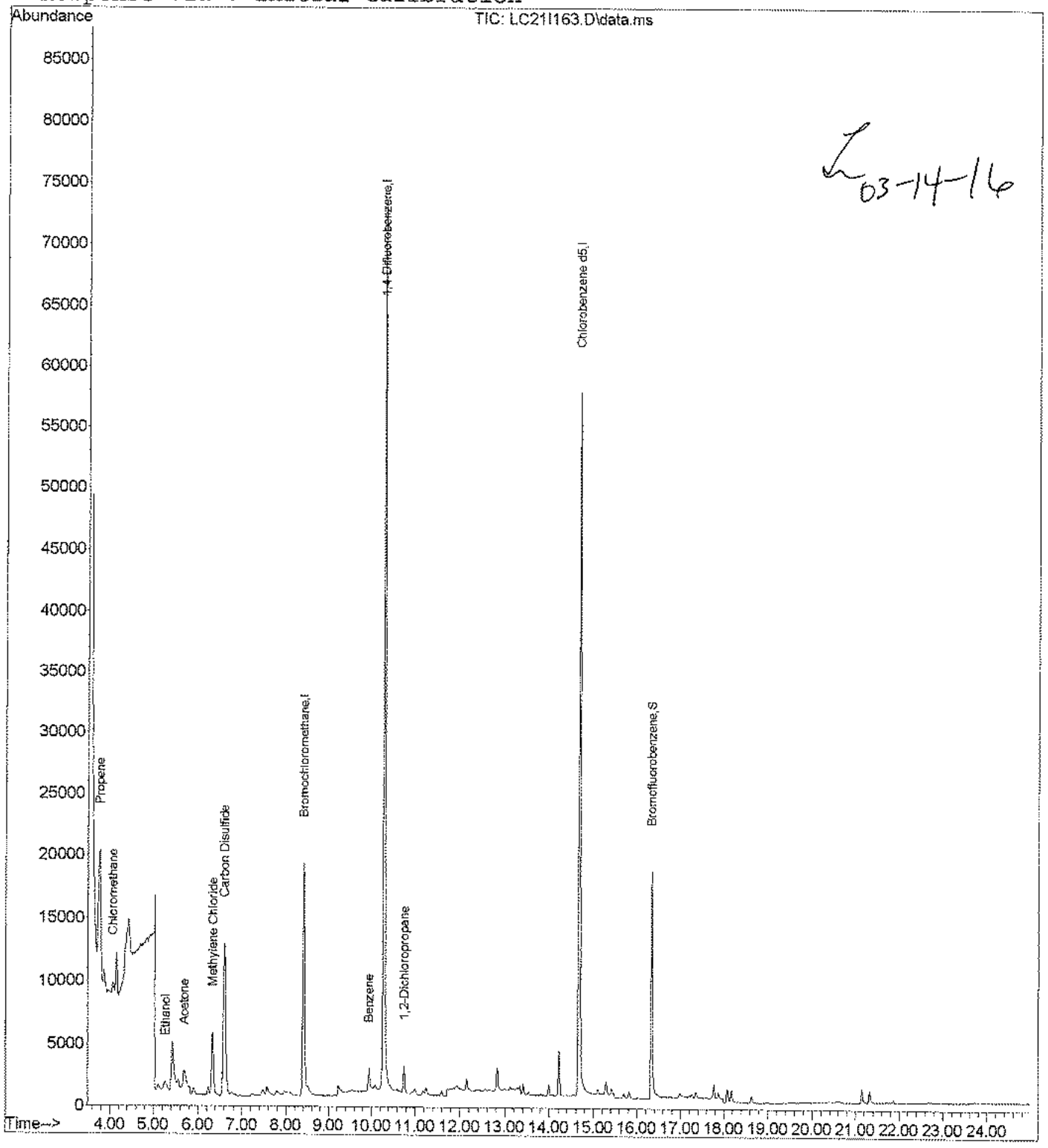
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC21I163.D Vial: 6
Acq Time : 03/11/2016 09:28 Operator: LMR
Sample : 0163 TEST BL- Inst : 5975-L
Misc : 0163 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:54:58 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC21I163.D Vial: 6
Acq Time : 03/11/2016 09:28 Operator: LMR
Sample : 0163 TEST BL- Inst : 5975-L
Misc : 0163 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:54:58 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.40	130	17662	1000.0000 ppt	78.13
25) 1,4-Difluorobenzene	10.28	114	155734	1000.0000 ppt	70.18
50) Chlorobenzene d5	14.67	117	130087	1000.0000 ppt	71.51
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	40483	835.0496 ppt	83.50%
Target Compounds					Qvalue
2) Propene	3.76	41	6416	77.5334 ppt #	73
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	4.06	50	2214	45.9999 ppt	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.69	43	10530	58.9151 ppt #	79
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.26	45	3006	70.7591 ppt #	39
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.33	84	4956	75.9566 ppt #	61
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.60	76	40504	200.9856 ppt #	61
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.94	78	4092	21.8892 ppt #	88
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	10.76	63	1391	20.1049 ppt	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC21I163.D Vial: 6
Acq Time : 03/11/2016 09:28 Operator: LMR
Sample : 0163 TEST BL- Inst : 5975-L
Misc : 0163 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:54:58 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

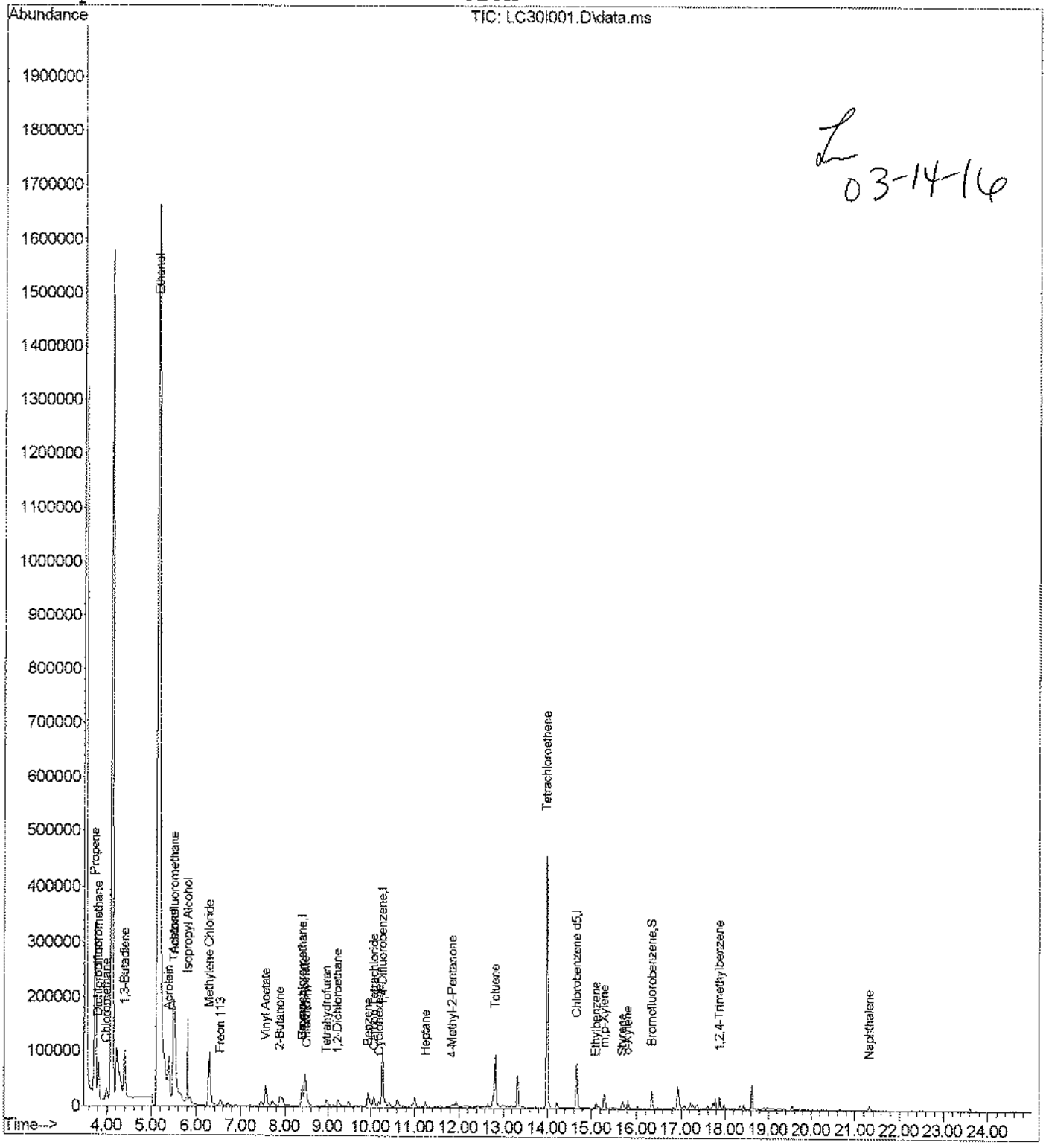
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC30I001.D Vial: 15
Acq Time : 03/11/2016 11:58 Operator: LMR
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 13:30:03 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC30I001.D Vial: 15
Acq Time : 03/11/2016 11:58 Operator: LMR
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 13:30:03 2016 Results File: TO15LSIMA8.RES

Quant Method : Z:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	23004	1000.0000 ppt	101.76
25) 1,4-Difluorobenzene	10.28	114	213625	1000.0000 ppt	96.27
50) Chlorobenzene d5	14.67	117	178648	1000.0000 ppt	98.20
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	64720	972.1064 ppt	97.21%
Target Compounds					Qvalue
2) Propene	3.73	41	180901	1678.4260 ppt #	46
3) Dichlorodifluoromethane	3.81	85	96534	458.1669 ppt	99
4) Chloromethane	3.99	50	35609	568.0352 ppt	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.39	54	2272	42.6296 ppt #	1
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.39	56	29045	848.9946 ppt #	75
11) Acetone	5.50	43	601526	2583.9805 ppt #	84
12) Trichlorofluoromethane	5.53	101	57131	208.9993 ppt	97
13) Ethanol	5.14	45	6444851	116477.7220 ppt #	39
14) Isopropyl Alcohol	5.82	45	101449	229.7318 ppt #	85
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.29	84	98854	1163.2285 ppt #	59
17) Freon 113	6.54	151	11525	61.5551 ppt #	76
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.57	86	8765	440.7913 ppt #	1
23) 2-Butanone	7.88	43	62529	339.3227 ppt #	66
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.46	61	18257	787.9097 ppt #	1
27) Hexane	8.41	57	16454	143.4142 ppt #	69
28) Chloroform	8.51	83	16822	89.7827 ppt #	17
29) Tetrahydrofuran	8.96	42	10369	97.7387 ppt #	24
30) 1,2-Dichloroethane	9.24	62	9087	78.1683 ppt #	82
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.93	78	35661	139.0655 ppt #	89
33) Carbon Tetrachloride	10.08	117	18896	74.9190 ppt	100
34) Cyclohexane	10.20	84	5827	60.4291 ppt #	25
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC30I001.D Vial: 15
Acq Time : 03/11/2016 11:58 Operator: LMR
Sample : 1606379001 Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 13:30:03 2016 Results File: TO15LSIMA8.RES

Quant Method : Z:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

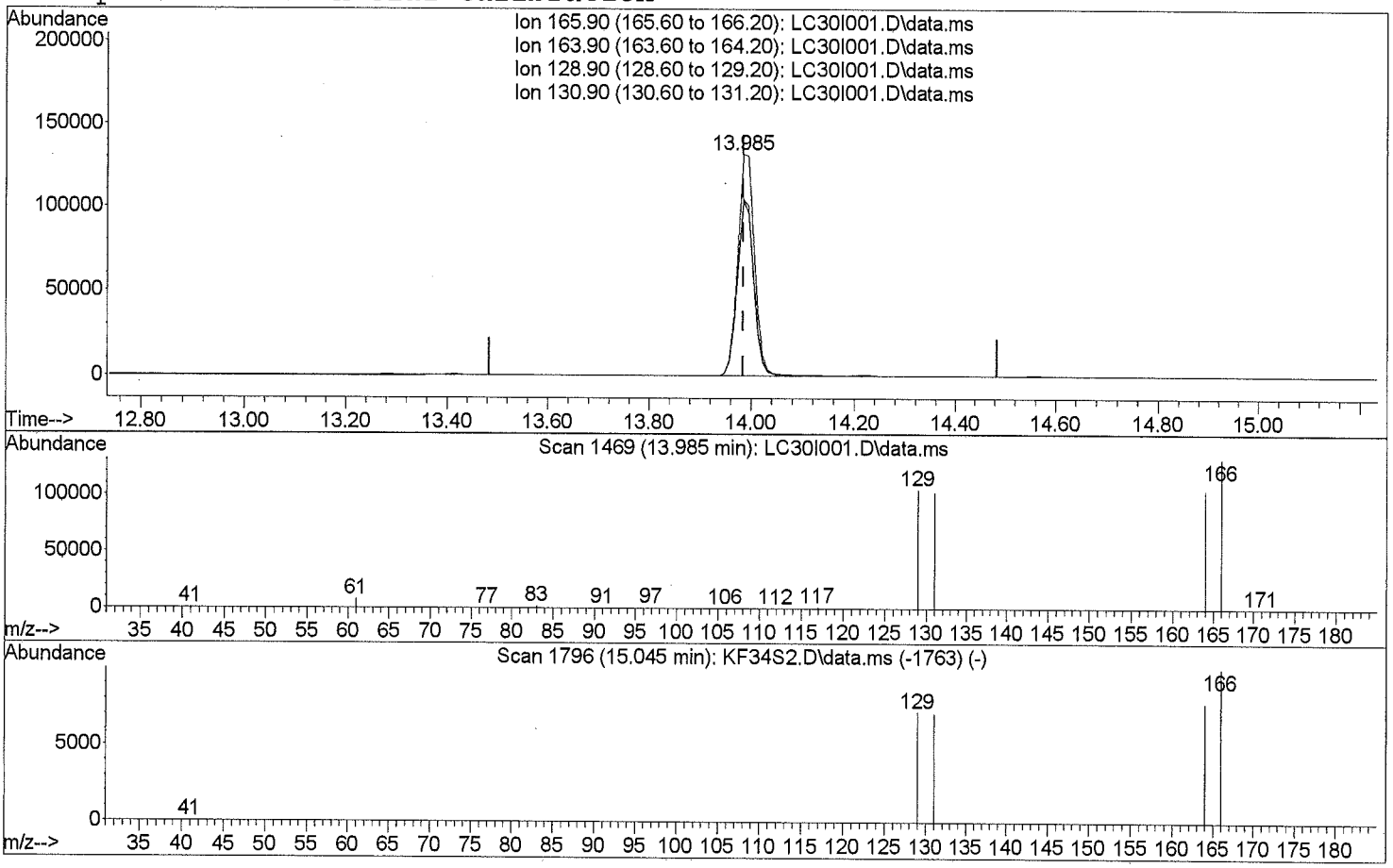
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.25	71	4734	67.3042 ppt #	24
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.85	43	9922	51.0523 ppt #	36
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	119434	435.8634 ppt	97
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.98	166	302736	1719.7467 ppt #	83
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.10	91	15936	46.1618 ppt	97
53)	m,p-Xylene	15.28	91	43277	164.9966 ppt	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.70	104	12519	66.4462 ppt	96
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	16049	56.4091 ppt	98
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	23368	78.8162 ppt	99
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	21.32	128	15335	53.7798 ppt	98
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\10MAR16L\
Data File : LC30I001.D
Acq On : 03/11/2016 11:58
Operator : LMR
Sample : 1606379001
Inst : 5975-L
Misc : A-0011H-03016-IA-012A-LLL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 11 13:30:03 2016
Quant Method : Z:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



TIC: LC30I001.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 1719.75 ppt

response 302736

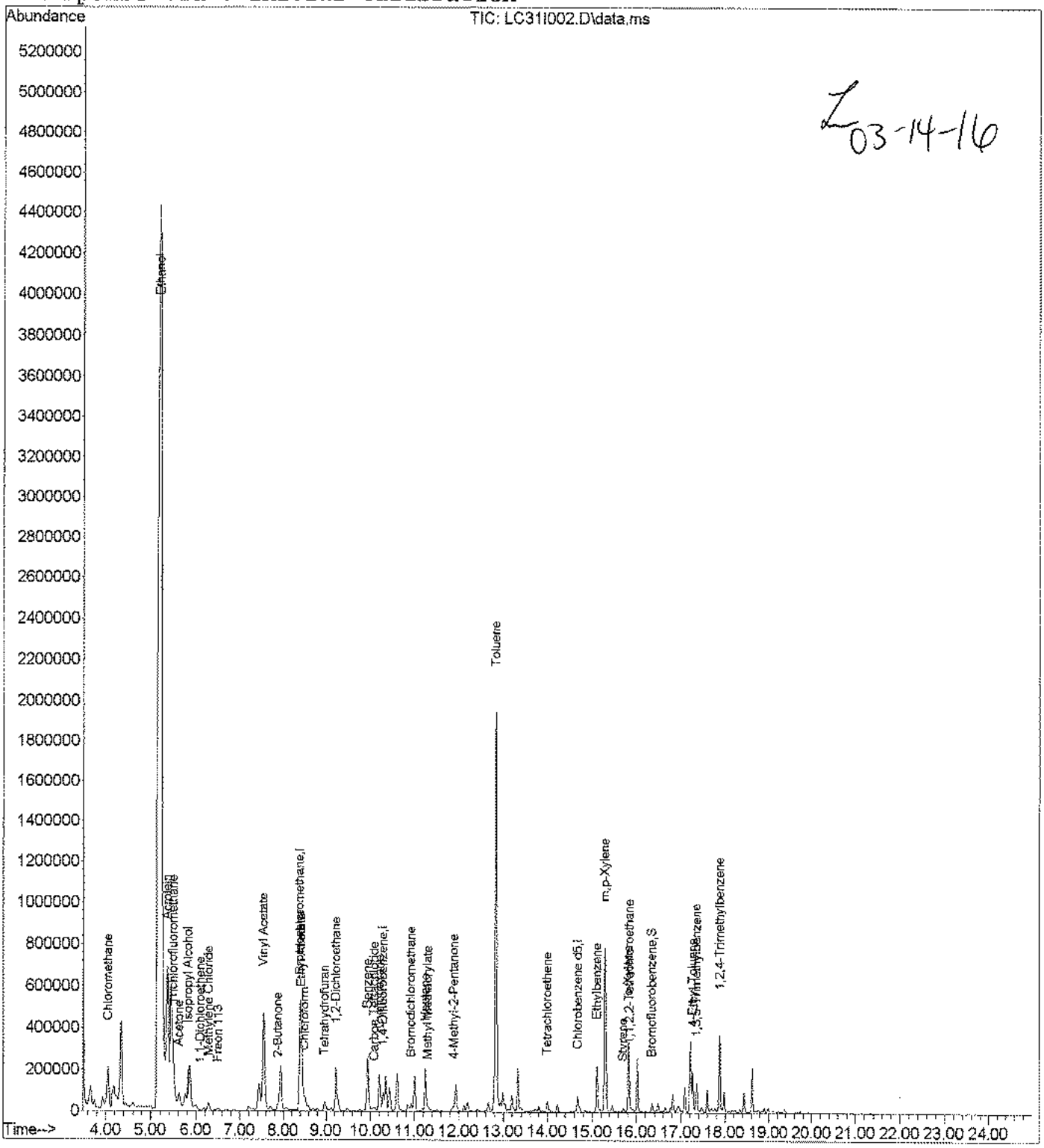
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.31
128.90	57.40	77.20#
130.90	56.90	76.16#

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC31I002.D Vial: 16
Acq Time : 03/11/2016 12:52 Operator: LMR
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-03016-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:36:56 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC31I002.D Vial: 16
Acq Time : 03/11/2016 12:52 Operator: LMR
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-03016-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:36:56 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.38	130	18631	1000.0000 ppt	82.41
25) 1,4-Difluorobenzene	10.28	114	201553	1000.0000 ppt	90.83
50) Chlorobenzene d5	14.68	117	162369	1000.0000 ppt	89.26
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.35	95	70323	1162.1649 ppt	116.22%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	4.05	50	7655	150.7745 ppt #	66
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.36	56	247309	8925.6669 ppt #	66
11) Acetone	5.61	43	157627	836.0507 ppt #	37
12) Trichlorofluoromethane	5.50	101	67029	302.7631 ppt	97
13) Ethanol	5.19	45	21952800	489877.0579 ppt #	39
14) Isopropyl Alcohol	5.82	45	27315	76.3733 ppt #	1
15) 1,1-Dichloroethene	6.10	61	9663	84.7923 ppt #	13
16) Methylene Chloride	6.28	84	12138	176.3539 ppt #	52
17) Freon 113	6.51	151	10762	70.9714 ppt #	76
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.55	86	37920	2354.5972 ppt #	1
23) 2-Butanone	7.87	43	61804	414.1095 ppt	90
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.44	61	74459	3405.8621 ppt #	1
27) Hexane	8.40	57	488854	4516.0914 ppt #	43
28) Chloroform	8.51	83	81200	459.3398 ppt #	17
29) Tetrahydrofuran	8.97	42	33144	331.1290 ppt #	21
30) 1,2-Dichloroethane	9.24	62	14092	128.4830 ppt #	84
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.93	78	538933	2227.5293 ppt #	89
33) Carbon Tetrachloride	10.08	117	17325	72.8045 ppt	100
34) Cyclohexane	10.20	84	137000	1505.8593 ppt #	46
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC31I002.D Vial: 16
Acq Time : 03/11/2016 12:52 Operator: LMR
Sample : 1606379002 Inst : 5975-L
Misc : A-0003H-03016-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 14 13:36:56 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

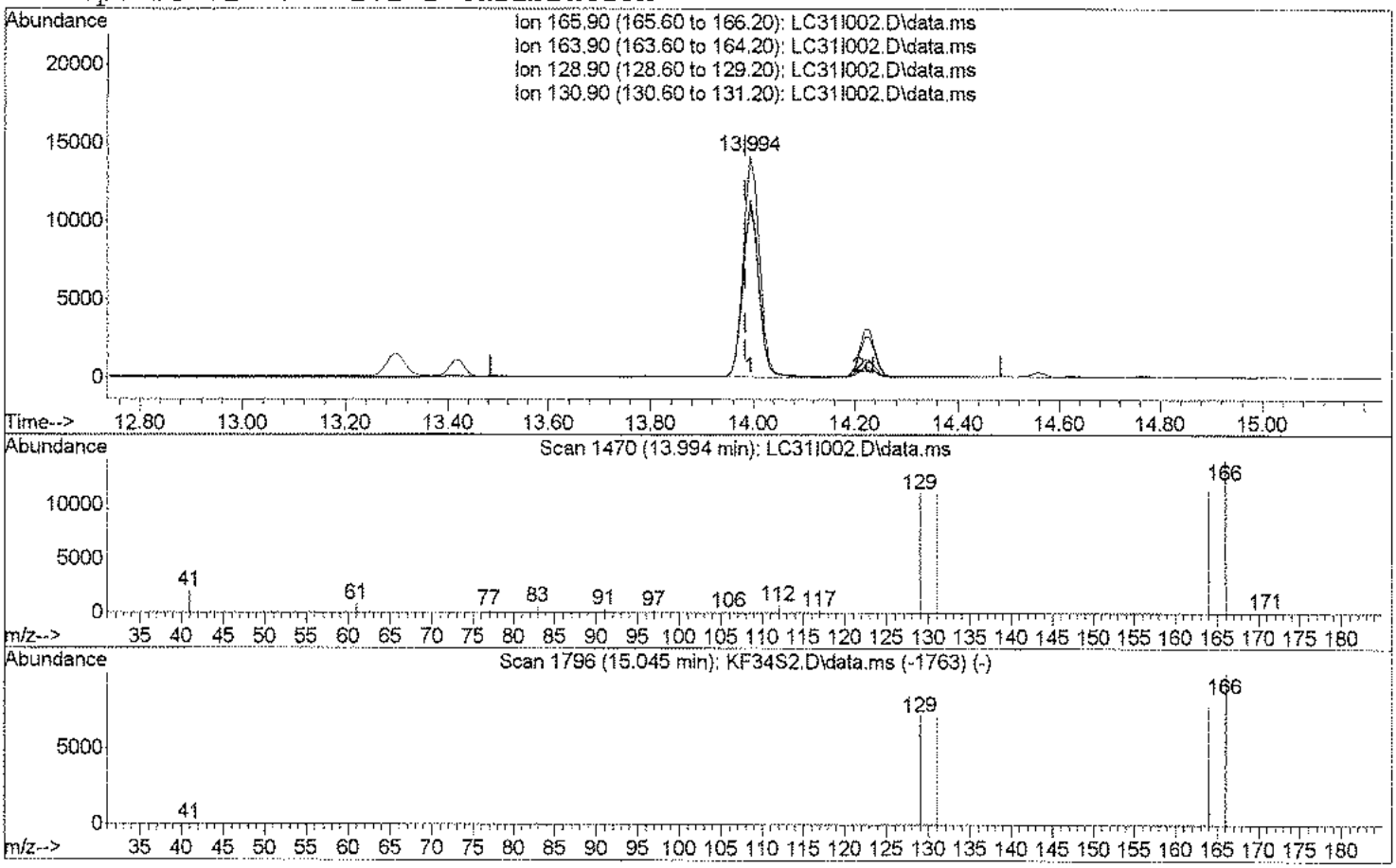
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	10.93	83	26675	142.6153 ppt #	27
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	11.31	69	36274	877.3340 ppt #	8
40)	Heptane	11.25	71	112978	1702.4350 ppt #	25
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.89	43	42657	232.6318 ppt #	53
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	2385367	9226.5738 ppt	99
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.99	166	32144	193.5366 ppt #	83
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	315992	1007.1053 ppt	98
53)	m,p-Xylene	15.29	91	1027025	4308.1804 ppt	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.70	104	16399	95.7664 ppt	96
56)	1,1,2,2-Tetrachloroethane	15.85	83	34958	151.6491 ppt #	28
57)	o-Xylene	15.82	91	381595	1475.7025 ppt	98
59)	4-Ethyl Toluene	17.26	105	208080	679.9581 ppt	100
60)	1,3,5-Trimethylbenzene	17.35	105	153246	509.1533 ppt	95
61)	1,2,4-Trimethylbenzene	17.88	105	335924	1246.6082 ppt	97
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\10MAR16L\
Data File : LC31I002.D
Acq On : 03/11/2016 12:52
Operator : LMR
Sample : 1606379002
Inst : 5975-L
Misc : A-0003H-03016-IA-BAS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 14 13:36:56 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



TIC: LC31I002.D\data.ms

(49) Tetrachloroethene

13.994min (+ 0.010) 193.54 ppt

response 32144

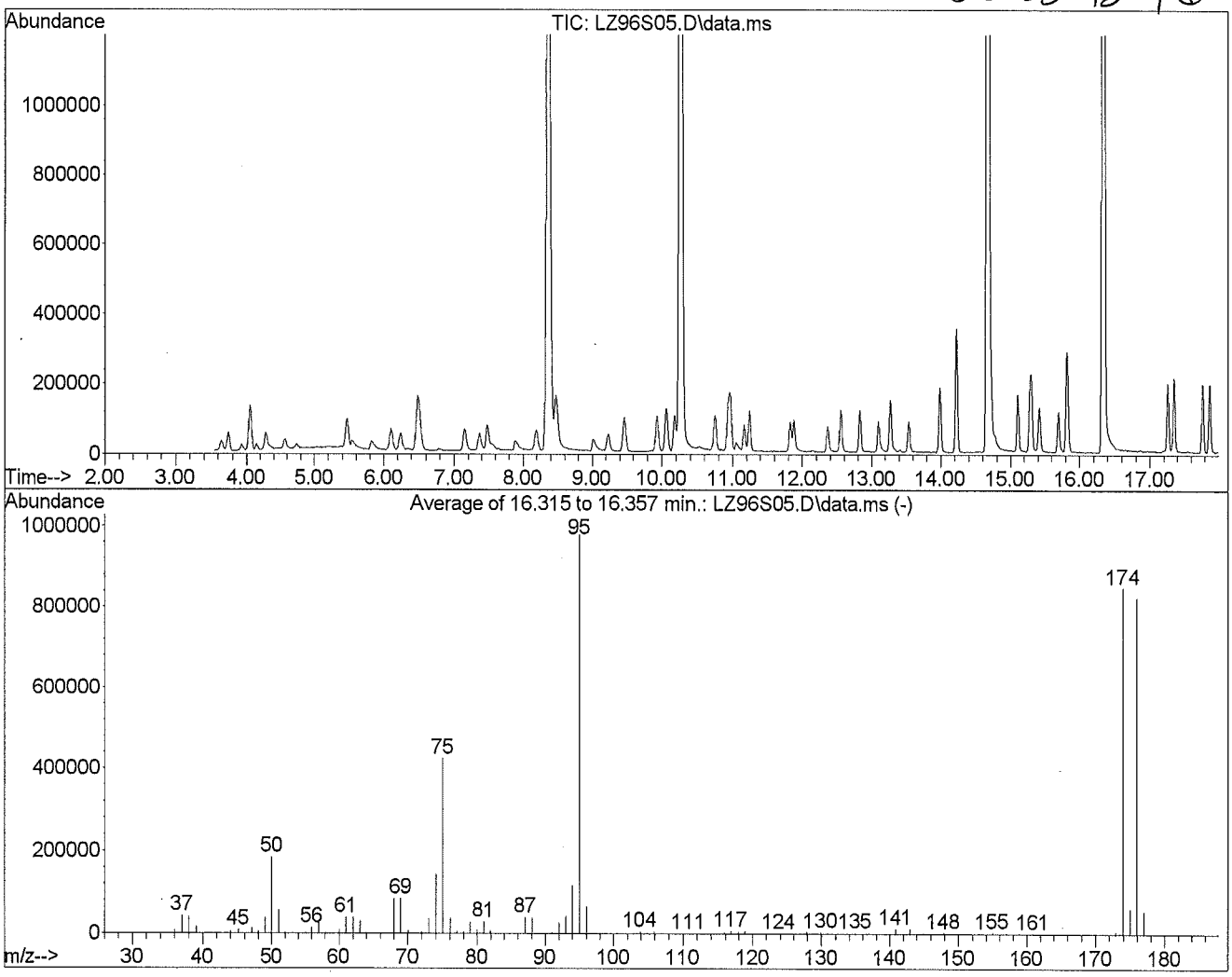
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.91
128.90	57.40	77.20#
130.90	56.90	76.32#

BFB

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15

L 02-12-16



Peak Apex is scan: Average of 16.315 to 16.357 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.88	184521	PASS
75	95	30	66	43.33	423520	PASS
95	95	100	100	100.00	977472	PASS
96	95	5	9	6.71	65578	PASS
173	174	0.00	2	0.62	5260	PASS
174	95	50	120	86.78	848264	PASS
175	174	5	9	7.22	61209	PASS
176	174	93	101	97.08	823512	PASS
177	176	5	9	6.62	54552	PASS

LZ96S05.D TO15LG16.m Fri Feb 12 10:05:24 2016

Average of 16.315 to 16.357 min.: LZ96S05.D\data.ms
0.5 PPB STD
Modified:subtracted

m/z	Abundance
36.00	7489.0
37.05	43630.0
38.05	40562.0
39.05	16110.0
40.00	879.0
41.00	40.0
42.05	40.0
43.05	460.0
44.00	5240.0
45.05	8530.0
46.05	675.0
47.05	12304.0
48.00	5001.0
49.00	38640.0
50.00	184521.0
51.05	56753.0
52.05	2475.0
53.10	24.0
55.00	2178.0
56.00	13527.0
57.05	25865.0
58.05	1075.0
58.75	80.0
59.10	21.0
60.05	7183.0
61.00	39159.0
62.00	38467.0
63.00	29653.0
64.00	2619.0
65.05	344.0
67.00	1862.0
68.00	84420.0
69.00	84896.0
70.05	6469.0
70.90	53.0
71.10	204.0
72.00	3775.0
73.00	35362.0
74.00	142284.0
75.00	423520.0
76.05	36729.0
77.05	4724.0
77.95	3023.0
78.90	27103.0
79.95	7689.0
80.95	28139.0
81.90	5876.0
83.00	673.0
86.05	873.0
87.00	38506.0
88.00	36797.0
90.95	3383.0
92.00	25584.0
93.00	40701.0
94.00	116213.0
95.00	977472.0
96.00	65578.0
97.05	1755.0
98.00	23.0
102.60	20.0
102.90	449.0
103.90	4772.0
104.90	1470.0
105.90	4770.0
106.95	1003.0
109.85	695.0
110.85	1105.0
111.90	746.0
112.80	319.0
112.95	675.0
114.85	1033.0
115.90	3897.0
116.85	7195.0
117.90	4245.0
118.90	5780.0
119.90	128.0
121.95	241.0
122.85	358.0
123.85	696.0
124.85	340.0
125.90	456.0
126.85	279.0
127.90	3959.0
128.85	1955.0
129.90	4180.0
130.90	1606.0
131.85	166.0

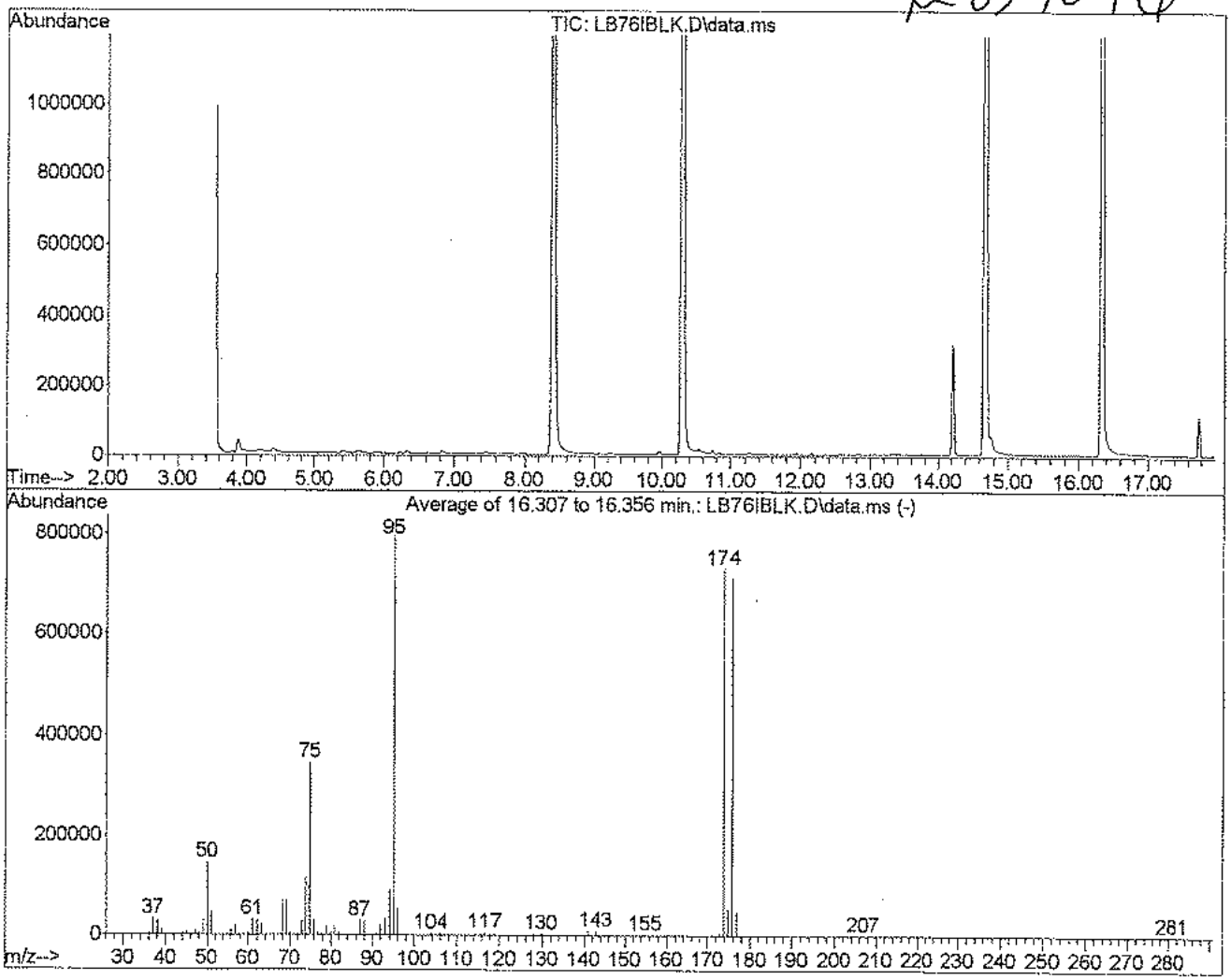
133.05	82.0
133.85	327.0
134.90	2058.0
135.90	356.0
136.95	2133.0
137.90	36.0
138.85	255.0
139.05	65.0
139.80	41.0
139.95	758.0
140.90	11895.0
141.85	1287.0
142.90	11621.0
143.85	669.0
144.10	29.0
144.90	908.0
145.95	1504.0
146.95	789.0
147.90	2586.0
148.90	712.0
149.90	1060.0
150.80	29.0
150.95	54.0
151.90	514.0
152.90	753.0
153.90	579.0
154.95	2577.0
155.70	21.0
155.80	62.0
155.95	420.0
156.95	1848.0
157.85	336.0
158.90	1130.0
160.90	999.0
162.00	21.0
169.90	49.0
171.00	19.0
171.95	745.0
172.90	5260.0
173.95	848264.0
174.95	61209.0
175.90	823512.0
176.95	54552.0
177.95	1593.0

BFB

Data File : I:\L - 5975-L\2016\M...L\09MAR16L\LB76IBLK.D Vial: 1
Acq Time : 03/09/2016 14:11 Operator: JCB
Sample : BFB Inst : 5975-L
Misc : 170IS31308 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15

L 03-10-16



Peak Apex is scan: Average of 16.307 to 16.356 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.25	145448	PASS
75	95	30	66	43.39	345725	PASS
95	95	100	100	100.00	796821	PASS
96	95	5	9	6.69	53304	PASS
173	174	0.00	2	0.60	4408	PASS
174	95	50	120	91.71	730766	PASS
175	174	5	9	7.21	52673	PASS
176	174	93	101	97.15	709938	PASS
177	176	5	9	6.63	47038	PASS

Average of 16.307 to 16.356 min.: LB76IBLK.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.00	5486.0
37.00	32170.0
38.05	29546.0
39.05	12098.0
40.00	61.0
43.00	187.0
44.00	3397.0
45.00	6410.0
46.05	400.0
47.05	9074.0
47.95	3883.0
49.00	29061.0
50.00	145448.0
51.00	44282.0
52.05	1948.0
55.00	1686.0
56.00	10157.0
57.00	19219.0
58.05	821.0
58.85	39.0
60.00	5660.0
61.00	30593.0
62.00	29698.0
63.00	23055.0
64.00	1967.0
65.05	86.0
67.00	1567.0
68.00	69016.0
69.00	68889.0
70.00	4899.0
71.05	168.0
71.95	3128.0
73.00	27303.0
74.00	113487.0
75.00	345725.0
76.00	30081.0
76.95	3756.0
77.95	2557.0
78.90	17893.0
79.95	5149.0
80.90	18626.0
81.90	3845.0
82.95	396.0
86.00	623.0
87.00	28641.0
88.00	28552.0
90.95	2413.0
92.00	20285.0
93.00	32626.0
94.00	91321.0
95.00	796821.0
96.00	53304.0
97.05	1541.0
102.90	292.0
103.90	3482.0
104.95	1105.0
105.90	3384.0
106.90	868.0
109.85	464.0
110.95	672.0
111.85	448.0
112.90	723.0
114.85	845.0
115.90	3099.0
116.90	5431.0
117.90	3205.0
118.95	4640.0
119.80	22.0
119.95	107.0
121.90	140.0
122.90	271.0
123.70	21.0
123.90	556.0
124.85	276.0
125.85	373.0
126.95	204.0
127.95	3305.0
128.90	1630.0
129.90	3479.0
130.95	1340.0
131.85	129.0
133.85	186.0
134.90	1663.0
135.85	231.0
136.90	1604.0
138.00	17.0
138.95	212.0

139.75	318.0
139.95	211.0
140.90	9047.0
141.90	1056.0
142.90	9397.0
143.90	521.0
144.95	773.0
145.90	1299.0
146.95	636.0
147.90	2064.0
148.70	18.0
148.90	632.0
149.90	979.0
151.00	21.0
151.80	104.0
151.95	369.0
152.95	682.0
153.90	549.0
154.95	2152.0
155.90	204.0
156.95	1498.0
157.90	91.0
158.85	1024.0
160.95	1034.0
170.95	58.0
171.30	24.0
172.00	415.0
172.95	4408.0
173.90	730766.0
174.95	52673.0
175.90	709938.0
176.90	47038.0
177.95	1275.0
207.05	122.0
281.05	145.0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Fri Mar 11 15:44:55 2016
Response Via : Initial Calibration

Calibration Files
.5 =LZ96S05.D 1 =LZ97S1.D 2 =LZ98S2.D 5 =LZ99S5.D 10 =LA00S10.D 20 =LA01S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	2.304	2.505	2.840	2.725	2.861	2.735	2.662		8.11	TIC
3)		Dichlorodifluo...	6.789	8.059	9.169	8.880	9.054	8.684	8.439		10.64	
4)		Chloromethane	2.720	2.994	3.443	3.297	3.334	3.246	3.172		8.43	
5)		Freon 114	7.574	7.618	8.001	7.630	7.779	7.532	7.689		2.26	
6)		Vinyl Chloride	2.462	2.875	3.336	3.286	3.435	3.351	3.124		12.15	
7)		1,3-Butadiene	2.607	2.646	2.866	2.735	2.823	2.800	2.746		3.74	
8)		Bromomethane	2.518	3.014	3.513	3.396	3.525	3.398	3.227		12.20	
9)		Chloroethane	1.473	1.643	1.900	1.771	1.863	1.786	1.739		9.07	
10)		Acrolein	0.948	0.842	0.901	0.869	0.982	0.938	0.913		5.72	TIC
11)		Acetone	5.649	5.357	5.850	5.434	5.747	5.619	5.610		3.31	
12)		Trichlorofluor...	1.018	1.017	1.066	0.980	1.005	0.960	1.008	E1	3.62	
13)		Ethanol	0.802	0.665	0.697	0.637	0.704	0.675	0.697		8.18	TIC
14)		Isopropyl Alcohol	5.382	5.122	5.220	4.825	2.107	5.227	4.647		27.08	TIC
15)		1,1-Dichloroet...	5.443	5.412	5.770	5.449	5.727	5.484	5.548		2.85	
16)		Methylene Chlo...	3.176	3.213	3.465	3.243	3.311	3.131	3.257		3.66	
17)		Freon 113	7.293	7.217	7.393	6.838	7.071	6.755	7.095		3.60	
18)		Carbon Disulfide	9.461	9.453	9.995	9.272	9.612	9.046	9.473		3.39	
19)		trans-1,2-Dich...	3.923	3.757	3.972	3.689	3.863	3.697	3.817		3.14	
20)		1,1-Dichloroet...	6.505	6.391	6.575	6.147	6.355	6.107	6.346		2.96	
21)		methyl t-butyl...	8.154	8.226	8.788	8.564	9.051	8.714	8.583		4.00	
22)		Vinyl Acetate	0.340	0.343	0.381	0.372	0.397	0.395	0.371		6.66	
23)		2-Butanone	6.804	7.176	7.538	7.601	8.190	8.064	7.562		6.93	
24)		cis-1,2-Dichlo...	4.026	3.939	4.168	3.964	4.151	3.960	4.035		2.51	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.115	0.119	0.119	0.126	0.128	0.131	0.123		5.15	
27)		Hexane	0.360	0.388	0.432	0.443	0.452	0.462	0.423		9.47	
28)		Chloroform	0.605	0.579	0.599	0.585	0.588	0.585	0.590		1.65	
29)		Tetrahydrofuran	0.304	0.311	0.336	0.350	0.364	0.376	0.340		8.41	
30)		1,2-Dichloroet...	0.362	0.346	0.362	0.357	0.362	0.368	0.360		2.14	

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m

31)		1,1,1-Trichlor...	0.623	0.611	0.622	0.618	0.624	0.632	0.622	1.08	
32)		Benzene	0.808	0.803	0.831	0.831	0.835	0.838	0.824	1.80	
33)		Carbon Tetrach...	0.762	0.741	0.770	0.764	0.772	0.787	0.766	1.98	
34)		Cyclohexane	0.344	0.355	0.374	0.393	0.400	0.399	0.378	6.41	
35)		1,2-Dichloropr...	0.299	0.305	0.315	0.316	0.321	0.323	0.313	3.01	
36)		Bromodichlorom...	0.620	0.609	0.628	0.624	0.639	0.644	0.627	2.05	
37)		1,4-Dioxane	0.213	0.199	0.210	0.213	0.220	0.229	0.214	4.67	TIC
38)		Trichloroethene	0.472	0.466	0.500	0.495	0.507	0.515	0.492	3.96	
39)		Methyl Methacr...	0.216	0.238	0.277	0.292	0.310	0.317	0.275	14.73	TIC
40)		Heptane	0.187	0.240	0.279	0.293	0.299	0.302	0.267	16.84	
41)		cis-1,3-Dichlo...	0.396	0.409	0.449	0.470	0.494	0.503	0.454	9.62	
42)		4-Methyl-2-Pen...	0.535	0.620	0.696	0.741	0.779	0.810	0.697	14.88	
43)		trans-1,3-Dich...	0.343	0.351	0.404	0.421	0.447	0.460	0.404	12.04	
44)		1,1,2-Trichlor...	0.339	0.352	0.380	0.382	0.392	0.397	0.374	6.14	
45)		Toluene	0.720	0.873	1.032	1.076	1.116	1.130	0.991	16.33	
46)		2-Hexanone	0.549	0.627	0.741	0.805	0.877	0.930	0.755	19.37	
47)		Dibromochlorom...	0.724	0.742	0.817	0.835	0.878	0.914	0.819	9.11	
48)		1,2-Dibromoethane	0.538	0.548	0.607	0.620	0.650	0.668	0.605	8.71	
49)		Tetrachloroethene	0.434	0.484	0.557	0.570	0.599	0.617	0.544	13.00	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.834	0.934	1.076	1.085	1.107	1.099	1.022	10.98	
52)		Ethylbenzene	1.060	1.219	1.471	1.534	1.574	1.593	1.409	15.50	
53)		m,p-Xylene	0.832	0.941	1.132	1.181	1.221	1.246	1.092	15.33	
54)		Bromoform	0.618	0.642	0.755	0.781	0.818	0.852	0.744	12.69	
55)		Styrene	0.594	0.701	0.880	0.958	1.006	1.031	0.862	20.53	
56)		1,1,2,2-Tetrac...	0.724	0.778	0.867	0.882	0.893	0.911	0.843	8.81	
57)		o-Xylene	0.845	0.963	1.168	1.224	1.265	1.308	1.129	16.31	
58)	S	Bromofluoroben...	0.565	0.560	0.578	0.586	0.590	0.600	0.580	2.62	
59)		4-Ethyl Toluene	1.158	1.343	1.634	1.723	1.784	1.822	1.577	16.95	
60)		1,3,5-Trimethy...	1.077	1.246	1.433	1.500	1.534	1.571	1.393	13.86	
61)		1,2,4-Trimethy...	0.987	1.167	1.349	1.433	1.492	1.537	1.328	15.95	
62)		Benzyl Chloride	0.606	0.714	0.885	0.993	1.091	1.178	0.911	24.20	EST
63)		m-Dichlorobenzene	0.818	0.881	1.004	1.050	1.089	1.128	0.995	12.23	
64)		p-Dichlorobenzene	0.808	0.843	0.990	1.037	1.078	1.104	0.977	12.68	
65)		o-Dichlorobenzene	0.762	0.818	0.943	0.991	1.029	1.053	0.933	12.66	
66)		1,2,4-Trichlor...	0.404	0.401	0.457	0.496	0.545	0.582	0.481	15.42	EST
67)		Naphthalene	1.050	1.067	1.252	1.369	1.472	1.535	1.291	15.81	TIC
68)		Hexachloro-1,3...	0.390	0.389	0.420	0.431	0.455	0.484	0.428	8.69	EST

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Thu Mar 10 11:55:58 2016
Response Via : Initial Calibration

CC Data File: LB78LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
1	I	Bromochloromethane	1.000	1.000	0.0	102	
2		Propene	2.662	2.518	5.4	89	TC
3		Dichlorodifluoromethane	8.439	8.616	-2.1	97	
4		Chloromethane	3.172	3.017	4.9	92	
5		Freon 114	7.689	7.770	-1.1	101	
6		Vinyl Chloride	3.124	3.152	-0.9	93	
7		1,3-Butadiene	2.746	2.578	6.1	93	
8		Bromomethane	3.227	3.273	-1.4	94	
9		Chloroethane	1.739	1.718	1.2	94	
10		Acrolein	0.913	0.768	15.9	79	TC
11		Acetone	5.610	5.697	-1.6	101	
12		Trichlorofluoromethane	10.079	9.905	1.7	100	
13		Ethanol	0.697	0.675	3.1	97	TC
14		Isopropyl Alcohol	4.647	2.447	47.3#	118	TC
15		1,1-Dichloroethene	5.548	5.547	0.0	98	
16		Methylene Chloride	3.257	3.026	7.1	93	
17		Freon 113	7.095	7.236	-2.0	104	
18		Carbon Disulfide	9.473	8.764	7.5	93	
19		trans-1,2-Dichloroethene	3.817	3.609	5.4	95	
20		1,1-Dichloroethane	6.346	6.079	4.2	97	
21		methyl t-butyl ether	8.583	9.022	-5.1	101	
22		Vinyl Acetate	0.371	0.371	-0.0	95	
23		2-Butanone	7.562	6.986	7.6	87	
24		cis-1,2-Dichloroethene	4.035	3.863	4.3	94	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	92	
26		Ethyl Acetate	0.123	0.113	8.1	82	
27		Hexane	0.423	0.468	-10.5	96	
28		Chloroform	0.590	0.606	-2.6	95	
29		Tetrahydrofuran	0.340	0.365	-7.4	93	
30		1,2-Dichloroethane	0.360	0.403	-12.2	103	
31		1,1,1-Trichloroethane	0.622	0.675	-8.5	100	
32		Benzene	0.824	0.856	-3.8	95	
33		Carbon Tetrachloride	0.766	0.831	-8.5	100	
34		Cyclohexane	0.378	0.408	-8.1	94	
35		1,2-Dichloropropane	0.313	0.325	-3.8	94	
36		Bromodichloromethane	0.627	0.653	-4.1	95	
37		1,4-Dioxane	0.214	0.167	22.0	70	TC
38		Trichloroethene	0.492	0.562	-14.2	103	
39		Methyl Methacrylate	0.275	0.262	4.7	78	
40		Heptane	0.267	0.304	-14.1	94	
41		cis-1,3-Dichloropropene	0.454	0.501	-10.5	94	
42		4-Methyl-2-Pentanone	0.697	0.695	0.2	83	
43		trans-1,3-Dichloropropene	0.404	0.459	-13.6	95	
44		1,1,2-Trichloroethane	0.374	0.389	-4.1	92	

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Thu Mar 10 11:55:58 2016
Response Via : Initial Calibration

CC Data File: LB78LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
45		Toluene	0.991	1.111	-12.1	92	
46		2-Hexanone	0.755	0.382	49.4#	40#	
47		Dibromochloromethane	0.819	0.886	-8.2	93	
48		1,2-Dibromoethane	0.605	0.650	-7.5	93	
49		Tetrachloroethene	0.544	0.655	-20.5	101	
50	I	Chlorobenzene d5	1.000	1.000	0.0	91	
51		Chlorobenzene	1.022	1.156	-13.1	95	
52		Ethylbenzene	1.409	1.605	-13.9	92	
53		m,p-Xylene	1.092	1.246	-14.1	92	
54		Bromoform	0.744	0.733	1.5	81	
55		Styrene	0.862	1.030	-19.6	93	
56		1,1,2,2-Tetrachloroethane	0.843	0.859	-1.9	87	
57		o-Xylene	1.129	1.276	-13.1	91	
58	S	Bromofluorobenzene	0.580	0.574	1.0	88	
59		4-Ethyl Toluene	1.577	1.833	-16.2	93	
60		1,3,5-Trimethylbenzene	1.393	1.577	-13.2	93	
61		1,2,4-Trimethylbenzene	1.328	1.527	-15.0	93	
62		Benzyl Chloride	0.911	1.037	-13.9	86	EST
63		m-Dichlorobenzene	0.995	1.167	-17.3	97	
64		p-Dichlorobenzene	0.977	1.149	-17.7	97	
65		o-Dichlorobenzene	0.933	1.083	-16.2	95	
66		1,2,4-Trichlorobenzene	0.481	0.580	-20.6	96	EST
67		Naphthalene	1.291	1.562	-21.0	96	TIC
68		Hexachloro-1,3-butadiene	0.428	0.515	-20.3	103	EST

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response Via : Initial Calibration

Calibration Files
50 =LC14S005.D 100 =LC13S01.D 200 =LC12S02.D 500 =LC11S05.D
1000=LC20S1.D

		Compound	50	100	200	500	1000	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	1.062	0.422	0.330	0.262	0.267	0.469	E1	72.12
3)		Dichlorodifluoro...	9.952	9.246	9.219	8.378	9.001	9.159		6.16
4)		Chloromethane	1.047	3.244	3.196	2.908	3.231	2.725		34.79
5)		Freon 114	8.390	7.618	7.615	6.845	7.303	7.554		7.46
6)		Vinyl Chloride	3.211	3.071	3.075	2.814	2.981	3.030		4.83
7)		1,3-Butadiene	2.524	2.390	2.321	2.125	2.224	2.317		6.60
8)		Bromomethane	3.467	3.339	3.331	2.999	3.301	3.287		5.27
9)		Chloroethane	1.699	1.553	1.627	1.445	1.617	1.588		6.01
10)		Acrolein	1.689	1.445	1.544	1.371	1.387	1.487		8.86
11)		Acetone	1.379	1.165	0.937	0.769	0.810	1.012	E1	25.36
12)		Trichlorofluorom...	1.351	1.200	1.181	1.060	1.149	1.188	E1	8.89
13)		Ethanol	2.955	2.729	2.184	1.946	2.212	2.405		17.45
14)		Isopropyl Alcohol	3.253	2.322	2.075	1.867	0.082	1.920	E1	60.21
15)		1,1-Dichloroethene	6.859	6.093	6.159	5.626	5.847	6.117		7.61
16)		Methylene Chloride	4.151	3.747	3.656	3.289	3.628	3.694		8.35
17)		Freon 113	9.232	8.237	8.115	7.293	7.819	8.139		8.74
18)		Carbon Disulfide	1.363	1.161	1.117	0.997	1.067	1.141	E1	12.11
19)		trans-1,2-Dichlo...	4.755	3.970	3.942	3.553	3.684	3.981		11.73
20)		1,1-Dichloroethane	8.026	7.267	7.117	6.435	6.913	7.152		8.12
21)		methyl t-butyl e...	9.088	8.218	8.442	8.012	8.165	8.385		5.04
22)		Vinyl Acetate	0.945	0.830	0.858	0.833	0.857	0.864		5.43
23)		2-Butanone	8.853	7.901	7.967	7.492	7.841	8.011		6.31
24)		cis-1,2-Dichloro...	4.643	4.094	4.129	3.775	4.026	4.133		7.66
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.113	0.106	0.107	0.103	0.114	0.108		4.21
27)		Hexane	0.559	0.527	0.537	0.516	0.547	0.537		3.12
28)		Chloroform	0.960	0.882	0.868	0.793	0.882	0.877		6.74
29)		Tetrahydrofuran	0.459	0.476	0.519	0.507	0.522	0.497		5.57
30)		1,2-Dichloroethane	0.601	0.564	0.541	0.489	0.527	0.544		7.65
31)		1,1,1-Trichloroe...	1.075	0.986	0.976	0.888	0.967	0.979		6.81
32)		Benzene	1.456	1.238	1.146	1.038	1.125	1.200		13.30
33)		Carbon Tetrachlo...	1.306	1.184	1.167	1.071	1.175	1.181		7.10
34)		Cyclohexane	0.453	0.468	0.466	0.417	0.453	0.451		4.59
35)		1,2-Dichloropropane	0.482	0.449	0.442	0.407	0.442	0.444		6.01
36)		Bromodichloromet...	1.003	0.936	0.920	0.846	0.935	0.928		6.02
37)		1,4-Dioxane	0.329	0.273	0.264	0.243	0.248	0.271		12.63
38)		Trichloroethene	0.703	0.655	0.650	0.604	0.643	0.651		5.44
39)		Methyl Methacrylate	0.347	0.042	0.299	0.300	0.037	0.205		74.41
40)		Heptane	0.320	0.305	0.330	0.327	0.365	0.329		6.75
41)		cis-1,3-Dichloro...	0.678	0.639	0.584	0.562	0.596	0.612		7.58
42)		4-Methyl-2-Penta...	0.883	0.849	0.910	0.902	1.005	0.910		6.41
43)		trans-1,3-Dichlo...	0.544	0.505	0.517	0.500	0.534	0.520		3.61
44)		1,1,2-Trichloroe...	0.592	0.543	0.541	0.499	0.558	0.547		6.15

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM

45)		Toluene	1.337	1.243	1.283	1.226	1.325	1.283	3.81
46)		2-Hexanone	0.682	0.739	0.768	0.781	0.852	0.764	8.11
47)		Dibromochloromet...	1.229	1.141	1.132	1.060	1.193	1.151	5.61
48)		1,2-Dibromoethane	0.888	0.823	0.827	0.779	0.867	0.837	5.03
49)		Tetrachloroethene	0.920	0.833	0.812	0.752	0.802	0.824	7.46
50)	I	Chlorobenzene d5	----------ISTD----------						
51)		Chlorobenzene	1.618	1.548	1.549	1.423	1.567	1.541	4.68
52)		Ethylbenzene	1.851	1.868	1.948	1.907	2.088	1.932	4.90
53)		m,p-Xylene	1.313	1.359	1.463	1.485	1.720	1.468	10.76
54)		Bromoform	1.158	1.054	0.995	0.917	1.093	1.043	8.82
55)		Styrene	0.951	0.982	1.047	1.080	1.214	1.055	9.73
56)		1,1,2,2-Tetrachl...	1.479	1.390	1.391	1.296	1.542	1.420	6.63
57)		o-Xylene	1.417	1.452	1.590	1.611	1.893	1.593	11.79
58)	S	Bromofluorobenzene	0.347	0.367	0.369	0.385	0.395	0.373	4.97
59)		4-Ethyl Toluene	1.674	1.704	1.855	1.970	2.220	1.885	11.81
60)		1,3,5-Trimethylb...	1.573	1.632	1.824	1.941	2.299	1.854	15.61
61)		1,2,4-Trimethylb...	1.538	1.483	1.623	1.668	1.986	1.660	11.80
62)		Benzyl Chloride	1.269	1.343	1.434	1.424	1.697	1.434	11.28
63)		m-Dichlorobenzene	1.409	1.400	1.477	1.438	1.672	1.479	7.56
64)		p-Dichlorobenzene	1.396	1.450	1.536	1.508	1.676	1.513	6.98
65)		o-Dichlorobenzene	1.496	1.440	1.457	1.427	1.615	1.487	5.12
66)		1,2,4-Trichlorob...	0.701	0.669	0.673	0.665	0.763	0.694	5.90
67)		Naphthalene	1.450	1.433	1.532	1.631	1.934	1.596	12.82
68)		Hexachloro-1,3-b...	0.911	0.842	0.825	0.755	0.858	0.838	6.75

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response Via : Initial Calibration

CC Data File: LC16S05.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
1	I	Bromochloromethane	1.000	1.000	0.0	89
2		Propene	4.685	2.597	44.6#	88
3		Dichlorodifluoromethane	9.159	8.528	6.9	91
4		Chloromethane	2.725	2.992	-9.8	92
5		Freon 114	7.554	6.891	8.8	90
6		Vinyl Chloride	3.030	2.852	5.9	90
7		1,3-Butadiene	2.317	2.104	9.2	88
8		Bromomethane	3.287	3.095	5.9	92
9		Chloroethane	1.588	1.572	1.1	97
10		Acrolein	1.487	1.357	8.8	88
11		Acetone	10.120	7.584	25.1	88
12		Trichlorofluoromethane	11.883	10.774	9.3	91
13		Ethanol	2.405	1.846	23.2	85
14		Isopropyl Alcohol	19.197	0.024	99.9#	0#
15		1,1-Dichloroethene	6.117	5.560	9.1	88
16		Methylene Chloride	3.694	3.350	9.3	91
17		Freon 113	8.139	7.376	9.4	90
18		Carbon Disulfide	11.410	10.109	11.4	90
19		trans-1,2-Dichloroethene	3.981	3.596	9.7	90
20		1,1-Dichloroethane	7.152	6.497	9.1	90
21		methyl t-butyl ether	8.385	7.650	8.8	85
22		Vinyl Acetate	0.864	0.777	10.1	83
23		2-Butanone	8.011	7.268	9.3	87
24		cis-1,2-Dichloroethene	4.133	3.742	9.5	88
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	83
26		Ethyl Acetate	0.108	0.110	-1.1	88
27		Hexane	0.537	0.533	0.7	86
28		Chloroform	0.877	0.869	1.0	91
29		Tetrahydrofuran	0.497	0.527	-6.1	86
30		1,2-Dichloroethane	0.544	0.533	2.0	90
31		1,1,1-Trichloroethane	0.979	0.960	1.9	90
32		Benzene	1.200	1.110	7.6	89
33		Carbon Tetrachloride	1.181	1.155	2.2	89
34		Cyclohexane	0.451	0.450	0.3	90
35		1,2-Dichloropropane	0.444	0.439	1.2	89
36		Bromodichloromethane	0.928	0.924	0.5	91
37		1,4-Dioxane	0.271	0.231	14.8	79
38		Trichloroethene	0.651	0.645	0.9	89
39		Methyl Methacrylate	0.205	0.040	80.5#	11#
40		Heptane	0.329	0.342	-4.0	87
41		cis-1,3-Dichloropropene	0.612	0.585	4.4	86
42		4-Methyl-2-Pentanone	0.910	0.942	-3.5	87
43		trans-1,3-Dichloropropene	0.520	0.515	0.9	85
44		1,1,2-Trichloroethane	0.547	0.539	1.4	90

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response Via : Initial Calibration

CC Data File: LC16S05.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
45		Toluene	1.283	1.280	0.2	87
46		2-Hexanone	0.764	0.782	-2.3	83
47		Dibromochloromethane	1.151	1.153	-0.2	90
48		1,2-Dibromoethane	0.837	0.839	-0.2	89
49		Tetrachloroethene	0.824	0.797	3.2	88
50	I	Chlorobenzene d5	1.000	1.000	0.0	80
51		Chlorobenzene	1.541	1.558	-1.1	88
52		Ethylbenzene	1.932	1.997	-3.4	84
53		m,p-Xylene	1.468	3.202	-118.1#	86
54		Bromoform	1.043	1.029	1.3	90
55		Styrene	1.055	1.115	-5.8	83
56		1,1,2,2-Tetrachloroethane	1.420	1.478	-4.1	91
57		o-Xylene	1.593	1.766	-10.9	88
58	S	Bromofluorobenzene	0.373	0.376	-0.9	78
59		4-Ethyl Toluene	1.885	2.011	-6.7	82
60		1,3,5-Trimethylbenzene	1.854	2.097	-13.1	87
61		1,2,4-Trimethylbenzene	1.660	1.715	-3.3	82
62		Benzyl Chloride	1.434	1.531	-6.8	86
63		m-Dichlorobenzene	1.479	1.579	-6.7	88
64		p-Dichlorobenzene	1.513	1.671	-10.4	89
65		o-Dichlorobenzene	1.487	1.542	-3.7	87
66		1,2,4-Trichlorobenzene	0.694	0.668	3.8	81
67		Naphthalene	1.596	1.588	0.5	78
68		Hexachloro-1,3-butadiene	0.838	0.842	-0.4	89

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1607440 (SIM)**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received one summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 50 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene calibration is not required for SIM analysis.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 50 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\ (I_s)\ (Df)}}{\mathbf{(A_{is})\ (RRF)}}\right]$$

Concentration in ug/m^3 : $$C = \mathbf{ppb\ v/v\ (MW/24.45)}$$

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1607440**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received one summa canister for VOA analysis. The sample was analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and $\mu g/m^3$.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: 1607440001 was also analyzed at 1:10 dilution for methylene chloride.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ANALYTICAL REPORT

Report Date: March 17, 2016

CH2MHill Deliverables
CH2MHill
4246 South Riverboat Road
Suite 210
Salt Lake City, UT 84123

Phone: (385) 474-8553
Fax: (385) 474-8653
E-mail: edata@ch2m.com

Workorder: **34-1607440**
Project ID: 665353.ZZ.01.04 031416
Purchase Order: 665353.ZZ.01.04
Project Manager Kevin W. Griffiths

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0040H-031216-IA-BAS	1607440001	03/12/16	03/14/16	665353.ZZ.01.04

ANALYTICAL REPORT

Workorder: 34-1607440
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0040H-031216-IA-BAS
Lab ID: 1607440001
Matrix: Air
Sampling Site: 665353.ZZ.01.04
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 03/12/2016
Received: 03/14/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3193 (HBN: 165756)
Analyzed: 03/14/2016 19:43
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.57**	**2.8**	0.15	0.50	1	
Chloromethane	**1.3**	**2.8**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	**0.55**	**1.2**	0.15	0.50	1	
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.34	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**17**	**41**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**3.0**	**8.9**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	**1.2**	**4.4**	0.15	0.50	1	
Chloroform	**0.97**	**4.8**	0.15	0.50	1	
Tetrahydrofuran	**5.4**	**16**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	0.25	1.4	0.15	0.50	1	J
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.74**	**2.4**	0.15	0.50	1	
Cyclohexane	0.25	0.86	0.15	0.50	1	J
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.49	2.0	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**4.3**	**16**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1607440
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0040H-031216-IA-BAS | Sampling Site: 665353.ZZ.01.04 | Collected: 03/12/2016
Lab ID: 1607440001 | Media: Summa 6 Liter Canister | Received: 03/14/2016
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable | Analysis: EPA TO-15, Air | Batch: IVOA/3193 (HBN: 165756) | Analyzed: 03/14/2016 19:43 | Instrument ID: 5975-L | Percent Solid: NA | Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.50**	**2.2**	0.15	0.50	1	
m,p-Xylene	**1.8**	**7.9**	0.15	0.50	1	
o-Xylene	**0.54**	**2.3**	0.15	0.50	1	
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.26	1.3	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.22	1.1	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**0.83**	**4.1**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable | Analysis: EPA TO-15, Air | Batch: IVOA/3193 (HBN: 165756) | Analyzed: 03/15/2016 08:28 | Instrument ID: 5975-L | Percent Solid: NA | Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Methylene chloride	**61**	**210**	1.5	5.0	10	

Analysis Method - EPA TO-15

Preparation: Not Applicable | Analysis: EPA TO-15 SIM, Air | Batch: IVOA/3197 (HBN: 165896) | Analyzed: 03/15/2016 13:45 | Instrument ID: 5975-L | Percent Solid: NA | Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	**0.14**	**0.55**	0.050	1	
Trichloroethene	**0.96**	**5.2**	0.050	1	
Tetrachloroethene	**11**	**74**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

Comments

Quality Control: EPA TO-15 - (HBN: 165756)

The following compounds in the CCV were outside of +/- 30%: Vinyl Acetate, and 2-Hexanone.

Vinyl Acetate was above the limit in the reporting limit verification sample.

ANALYTICAL REPORT

Workorder: 34-1607440
Client: CH2M
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 03/17/2016 10:20	/S/ Jorden Baum 03/17/2016 11:51

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1607440
Client: CH2M
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607440

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3193 (HBN: 165756)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 492136
Analyzed: 03/14/2016 13:19

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	0.318	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500
2-Hexanone	ND	0.3	1.00
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607440

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3193 (HBN: 165756)		
Analyzed By:	Lisa M. Reid		

Blank

MB: 492136
Analyzed: 03/14/2016 13:19
Units: ppb

Analyte	Result	MDL	RL
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
1,2-Dichlorobenzene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 492137
Analyzed: 03/14/2016 11:40
Dilution: 1
Units: ppb

LCSD: 492138
Analyzed: 03/14/2016 12:30
Dilution: 1
Units: ppb

Analyte	LCS Result	Target	% Rec	QC Limits		LCSD Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	11.5	10.0	115	59.3	135.1	11.8	118	2.64	0.0	25.0
Chloromethane	9.28	10.0	92.8	55.2	137.4	9.49	94.9	2.21	0.0	25.0
Freon 114	10.3	10.0	103	64.6	128.0	10.6	106	2.67	0.0	25.0
1,3-Butadiene	9.65	10.0	96.5	58.0	138.3	9.77	97.7	1.27	0.0	25.0
Bromomethane	10.6	10.0	106	63.3	129.9	10.8	108	1.84	0.0	25.0
Chloroethane	9.80	10.0	98.0	57.6	137.1	9.94	99.4	1.50	0.0	25.0
Freon 11	10.8	10.0	108	58.9	132.8	11.0	110	2.26	0.0	25.0
Freon 113	11.1	10.0	111	68.5	120.0	11.3	113	2.13	0.0	25.0
1,1-Dichloroethene	11.2	10.0	112	67.2	125.1	11.5	115	2.24	0.0	25.0
Acetone	10.9	10.0	109	42.5	146.0	11.3	113	2.98	0.0	25.0
Carbon disulfide	10.6	10.0	106	63.9	128.8	10.8	108	1.91	0.0	25.0
Methylene chloride	10.5	10.0	105	63.7	127.9	10.8	108	2.10	0.0	25.0
trans-1,2-Dichloroethene	10.7	10.0	107	68.1	124.6	11.1	111	2.85	0.0	25.0
Methyl t-butyl ether	12.0	10.0	120	60.8	138.0	12.3	123	2.91	0.0	25.0
Vinyl acetate	29.7	10.0	* 297	59.3	141.1	30.8	* 308	3.55	0.0	25.0
2-Butanone	11.0	10.0	110	51.7	144.2	11.4	114	2.93	0.0	25.0
1,1-Dichloroethane	11.0	10.0	110	67.7	123.6	11.3	113	2.43	0.0	25.0
Ethyl acetate	8.19	10.0	81.9	53.4	156.9	8.33	83.3	1.70	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607440

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3193 (HBN: 165756)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 492137 Analyzed: 03/14/2016 11:40 Dilution: 1 Units: ppb					LCSD: 492138 Analyzed: 03/14/2016 12:30 Dilution: 1 Units: ppb				
Analyte	**Result**	**Target**	**% Rec**	**QC Limits**		**Result**	**% Rec**	**RPD**	**QC Limits**	
Hexane	11.4	10.0	114	62.4	129.5	11.4	114	0.404	0.0	25.0
Chloroform	11.2	10.0	112	67.3	121.8	11.3	113	1.06	0.0	25.0
Tetrahydrofuran	11.6	10.0	116	50.6	155.3	11.6	116	0.759	0.0	25.0
1,2-Dichloroethane	12.1	10.0	121	62.4	130.5	12.3	123	1.46	0.0	25.0
1,1,1-Trichloroethane	12.0	10.0	120	60.4	127.7	12.1	121	1.32	0.0	25.0
Carbon tetrachloride	11.8	10.0	118	58.2	130.6	12.1	121	1.73	0.0	25.0
Benzene	10.8	10.0	108	64.1	127.3	10.9	109	0.813	0.0	25.0
Cyclohexane	11.2	10.0	112	61.9	123.6	11.4	114	1.51	0.0	25.0
1,2-Dichloropropane	11.3	10.0	113	60.7	130.6	11.3	113	0.177	0.0	25.0
Bromodichloromethane	11.4	10.0	114	62.9	128.3	11.6	116	1.47	0.0	25.0
Heptane	11.8	10.0	118	59.5	133.4	11.9	119	1.29	0.0	25.0
cis-1,3-Dichloropropene	12.3	10.0	123	64.1	133.6	12.4	124	1.18	0.0	25.0
4-Methyl-2-pentanone	11.8	10.0	118	73.5	150.0	12.0	120	1.41	0.0	25.0
trans-1,3-Dichloropropene	13.0	10.0	130	78.5	148.7	13.1	131	0.919	0.0	25.0
1,1,2-Trichloroethane	11.2	10.0	112	65.0	126.6	11.3	113	1.04	0.0	25.0
Toluene	11.8	10.0	118	75.6	139.4	11.9	119	1.25	0.0	25.0
2-Hexanone	13.8	10.0	138	80.8	158.8	11.4	114	19.3	0.0	25.0
Dibromochloromethane	12.0	10.0	120	62.4	130.9	12.3	123	1.97	0.0	25.0
1,2-Dibromoethane	11.7	10.0	117	64.4	129.0	11.9	119	1.37	0.0	25.0
Chlorobenzene	11.6	10.0	116	62.8	126.9	11.8	118	1.07	0.0	25.0
Ethyl benzene	12.0	10.0	120	75.9	148.5	12.2	122	1.42	0.0	25.0
m,p-Xylene	23.7	20.0	119	73.7	144.9	24.0	120	0.851	0.0	25.0
o-Xylene	11.8	10.0	118	74.7	147.4	11.9	119	1.27	0.0	25.0
Styrene	12.6	10.0	126	75.9	158.1	12.8	128	1.48	0.0	25.0
Bromoform	12.7	10.0	127	59.7	136.0	13.0	130	2.80	0.0	25.0
1,1,2,2-Tetrachloroethane	10.6	10.0	106	59.3	134.8	10.9	109	2.31	0.0	25.0
4-Ethyl toluene	12.2	10.0	122	69.0	163.3	12.5	125	1.84	0.0	25.0
1,3,5-Trimethylbenzene	11.8	10.0	118	64.2	155.1	12.1	121	2.22	0.0	25.0
1,2,4-Trimethylbenzene	12.2	10.0	122	59.7	169.4	12.3	123	1.10	0.0	25.0
1,3-Dichlorobenzene	12.2	10.0	122	58.6	157.6	12.4	124	1.37	0.0	25.0
1,4-Dichlorobenzene	12.4	10.0	124	57.7	137.2	12.5	125	1.40	0.0	25.0
1,2-Dichlorobenzene	12.2	10.0	122	56.5	140.0	12.4	124	1.78	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1607440**

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3193 (HBN: 165756)		
Analyzed By:	Lisa M. Reid		

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene		
QC Limits	67.7	129.9	
Units	ppb		
Lab ID	**Result**	**Target**	**% Recovery**
492137-LCS	20.0	20.0	100
492138-LCSD	20.3	20.0	101
492136-MB	20.2	20.0	101
1607440001	20.6	20.0	103

Comments

The following compounds in the CCV were outside of +/- 30%: Vinyl Acetate, and 2-Hexanone.

Vinyl Acetate was above the limit in the reporting limit verification sample.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
03/15/2016 10:12	03/17/2016 11:51

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607440

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3197 (HBN: 165896)		
Analyzed By:	Lisa M. Reid		

Blank

MB: 492458
Analyzed: 03/15/2016 12:55
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500
1,4-Dioxane	0.00	NA	NA

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 492459
Analyzed: 03/15/2016 10:32
Dilution: 1
Units: ppb

LCSD: 492460
Analyzed: 03/15/2016 11:20
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.502	0.500	100	17.5	153.7	0.511	102	1.82	0.0	25.0
cis-1,2-Dichloroethene	0.534	0.500	107	65.2	131.2	0.532	106	0.507	0.0	25.0
Trichloroethene	0.542	0.500	108	68.4	123.4	0.517	103	4.84	0.0	25.0
Tetrachloroethene	0.534	0.500	107	63.6	127.9	0.509	102	4.74	0.0	25.0
1,4-Dioxane	0.528	0.500	106	70.0	130.0	0.484	96.9	8.55	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
492459-LCS	1.10	1.00	110
492460-LCSD	1.07	1.00	107
492458-MB	0.982	1.00	98.2
1607440001	1.12	1.00	112

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
03/17/2016 10:24	03/17/2016 11:15

Symbols and Definitions

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RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1607440

ronmental

(ALS) Field Chain-of-Custody Record

1537/#5+6 For Lauren 1+3 For Nanda

160 1440

CoC #: 002

Page 1 of 1

Client Name & Address:	Project Name & No.:
CHEM HILL 4248 S Riverboat Rd, Suite 210 Taylorsville, UT 84123	665353.ZZ.01.04
	ALS Quote No: 10006-7-104589
	Report to: Mark Cichy
Phone: 385-474-8505	Report to e-mail: mark.cichy@chem.com
e-mail: Dan.bingham@chem.com	Bill to: 665353.ZZ.01.04

Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample for Matrix QC	Analyses Requested: TO-15★	Analyses Requested: TAT	Preservation Code	Sample Matrix Code	Remarks
A-0037H-030816-IA-LAU	3/8/16	0745	/	Canister 0370	1			14		A	Final P= -0.71 inHg
A-0040H-031216-IA-KIT	3/12/16	1238	/	Canister 0162	1			14		A	Final P= -1.26 inHg
A-0040H-031216-IA-BAS	3/12/16	1238	/	Canister 0086	1			3 ← RUSH		A	Final P= -0.26 inHg
A-0040H-031216-IA-BAS-D	3/12/16	1238	/	Canister 0114	1			14		A	Final P= -0.17 inHg

Matrix Codes: W) Water B) Bulk L) Liquid F) Filter S) Soil G) Wipe C) Solid M) Media A) Air (indoor)

Preservation Codes: 1) Cool to 4°C 2) HCl to pH<2, 4°C 3) H_2SO_4 to pH<2, 4°C 4) HNO_3 to pH<2, 4°C 5) NaOH to pH>12, 4°C 6) ZnOAc/NaOH to pH>9, 4°C

Possible Hazard Identification
☒ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive _____ Months
☒ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☒ Level 4
EDD Type: Lab Spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☐ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/14/16	1204		03/14/16	12:07
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB: www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

ALSCoC 121013 ★ = Hr. (15 Days) 12/12/2013

Analyst Notebook

1657560
1607440

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LG16 (HBN 1641860)

The following compounds in the CCS were outside of +-30%: Vinyl Acetate, 2-Hexanone

Dilutions: Sample also analyzed @ 1:10 for methylene chloride

Analyst Signature: 03-15-16

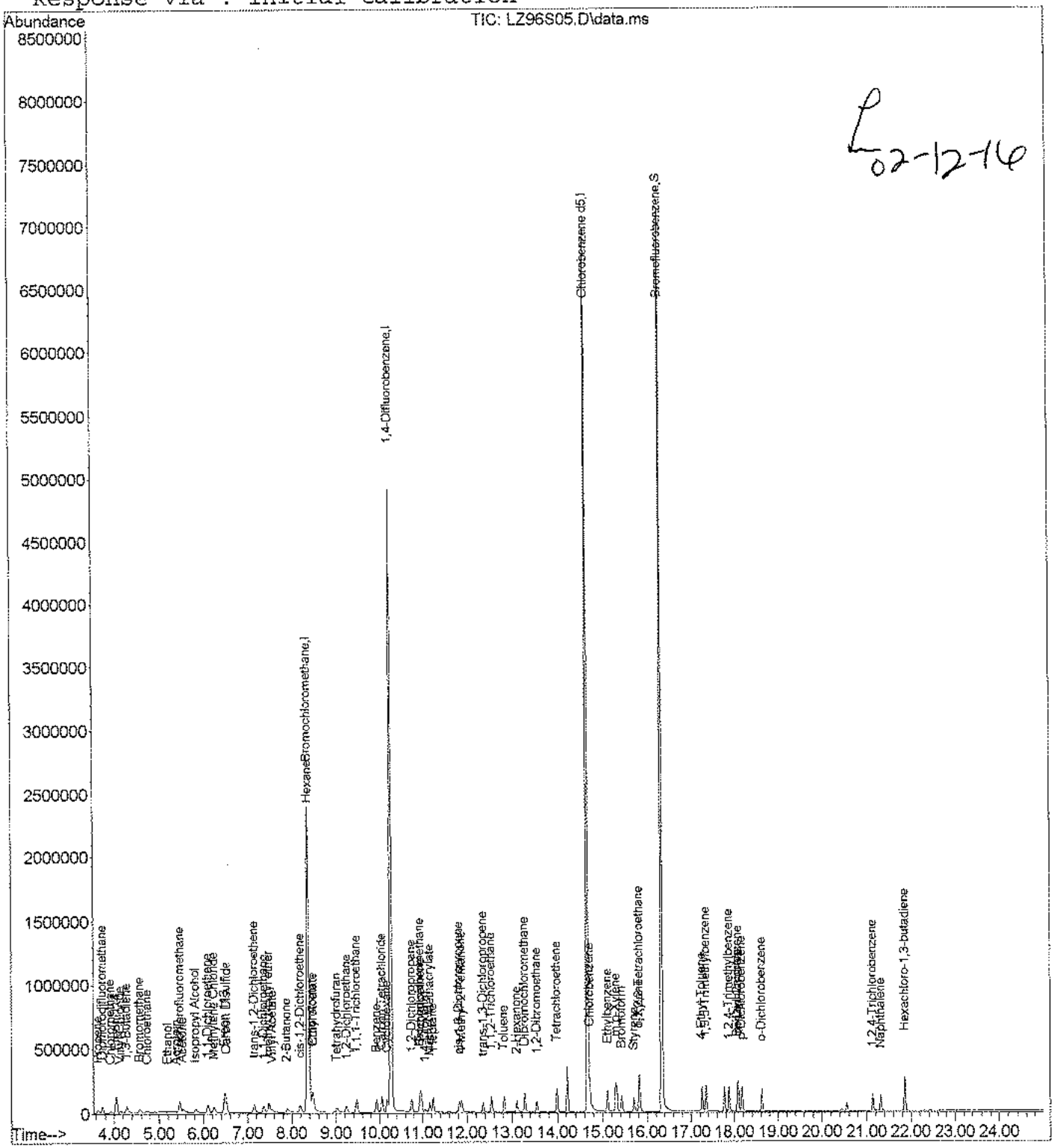
ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	8.37	130	483456	20.0000	ppb	67.97
25) 1,4-Difluorobenzene	10.27	114	6261074	20.0000	ppb	84.46
50) Chlorobenzene d5	14.67	117	5559437	20.0000	ppb	86.26
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	3142950	20.9575	ppb	104.79%
Target Compounds						Qvalue
2) Propene	3.64	41	27851	0.5264	ppb	m 15
3) Dichlorodifluoromethane	3.74	85	82057	0.5277	ppb	m 91
4) Chloromethane	3.93	50	32873	0.5729	ppb	m 92
5) Freon 114	4.05	135	91544	0.6822	ppb	m 0
6) Vinyl Chloride	4.15	62	29755	0.4916	ppb	m 0
7) 1,3-Butadiene	4.28	54	31513	0.6400	ppb	m 0
8) Bromomethane	4.57	94	30436	0.4903	ppb	m 0
9) Chloroethane	4.74	64	17805	0.5457	ppb	m 0
10) Acrolein	5.39	56	11456	0.4988	ppb	m 23
11) Acetone	5.55	43	68282	0.6322	ppb	90
12) Trichlorofluoromethane	5.47	101	123068	0.7179	ppb	m 0
13) Ethanol	5.19	45	9699	0.3972	ppb	m 59
14) Isopropyl Alcohol	5.82	45	65049	0.5613	ppb	# 84
15) 1,1-Dichloroethene	6.11	61	65785	0.6794	ppb	m 0
16) Methylene Chloride	6.24	84	38391	0.6654	ppb	m 41
17) Freon 113	6.48	151	88151	0.7256	ppb	m 0
18) Carbon Disulfide	6.52	76	114355	0.7051	ppb	m 0
19) trans-1,2-Dichloroethene	7.15	96	47412	0.7519	ppb	m 0
20) 1,1-Dichloroethane	7.37	63	78620	0.7314	ppb	96
21) methyl t-butyl ether	7.47	73	98557	0.6684	ppb	# 83
22) Vinyl Acetate	7.57	86	4107	0.2708	ppb	# 1
23) 2-Butanone	7.88	43	82234	0.6688	ppb	# 70
24) cis-1,2-Dichloroethene	8.19	96	48660	0.7287	ppb	m 10
26) Ethyl Acetate	8.47	61	17957	0.8012	ppb	# 1
27) Hexane	8.38	57	56331	0.4532	ppb	# 84
28) Chloroform	8.49	83	94758	0.5984	ppb	100
29) Tetrahydrofuran	9.01	42	47532	0.5214	ppb	# 59
30) 1,2-Dichloroethane	9.24	62	56616	0.5675	ppb	# 88
31) 1,1,1-Trichloroethane	9.47	97	97476	0.5637	ppb	# 92
32) Benzene	9.93	78	126501	0.5832	ppb	# 93
33) Carbon Tetrachloride	10.06	117	119276	0.5749	ppb	99
34) Cyclohexane	10.18	84	53772	0.5139	ppb	m 1
35) 1,2-Dichloropropane	10.75	63	46807	0.5522	ppb	# 92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	97032	0.5852	ppb		98
37)	1,4-Dioxane	11.06	88	33316	0.6728	ppb		98
38)	Trichloroethene	10.97	130	73834	0.5582	ppb		96
39)	Methyl Methacrylate	11.16	69	33779	0.4892	ppb	#	82
40)	Heptane	11.24	71	29347	0.3788	ppb	#	47
41)	cis-1,3-Dichloropropene	11.83	75	62055	0.5148	ppb		96
42)	4-Methyl-2-Pentanone	11.88	43	83760	0.4364	ppb	#	73
43)	trans-1,3-Dichloropropene	12.36	75	53696	0.5164	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	53137	0.5411	ppb	#	91
45)	Toluene	12.82	91	112750	0.4066	ppb		98
46)	2-Hexanone	13.10	43	85954	0.5443	ppb	#	73
47)	Dibromochloromethane	13.27	129	113336	0.5353	ppb		100
48)	1,2-Dibromoethane	13.54	107	84212	0.5551	ppb		97
49)	Tetrachloroethene	13.99	166	67908	0.4425	ppb	#	80
51)	Chlorobenzene	14.72	112	115921	0.4480	ppb		97
52)	Ethylbenzene	15.11	91	147328	0.4034	ppb		100
53)	m,p-Xylene	15.30	91	231370	0.8187	ppb		99
54)	Bromoform	15.42	173	85957	0.4826	ppb		99
55)	Styrene	15.70	104	82531	0.3916	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	100651	0.5023	ppb	#	91
57)	o-Xylene	15.81	91	117450	0.3955	ppb		98
59)	4-Ethyl Toluene	17.25	105	161004	0.4444	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	149642	0.4411	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	137199	0.4469	ppb		98
62)	Benzyl Chloride	18.06	91	84183	0.5016	ppb		98
63)	m-Dichlorobenzene	18.08	146	113667	0.5909	ppb		96
64)	p-Dichlorobenzene	18.17	146	112253	0.5557	ppb		95
65)	o-Dichlorobenzene	18.62	146	105869	0.5087	ppb		94
66)	1,2,4-Trichlorobenzene	21.14	180	56158	1.2499	ppb	#	95
67)	Naphthalene	21.31	128	145969	0.8722	ppb		98
68)	Hexachloro-1,3-butadiene	21.86	225	54255	0.5774	ppb		98

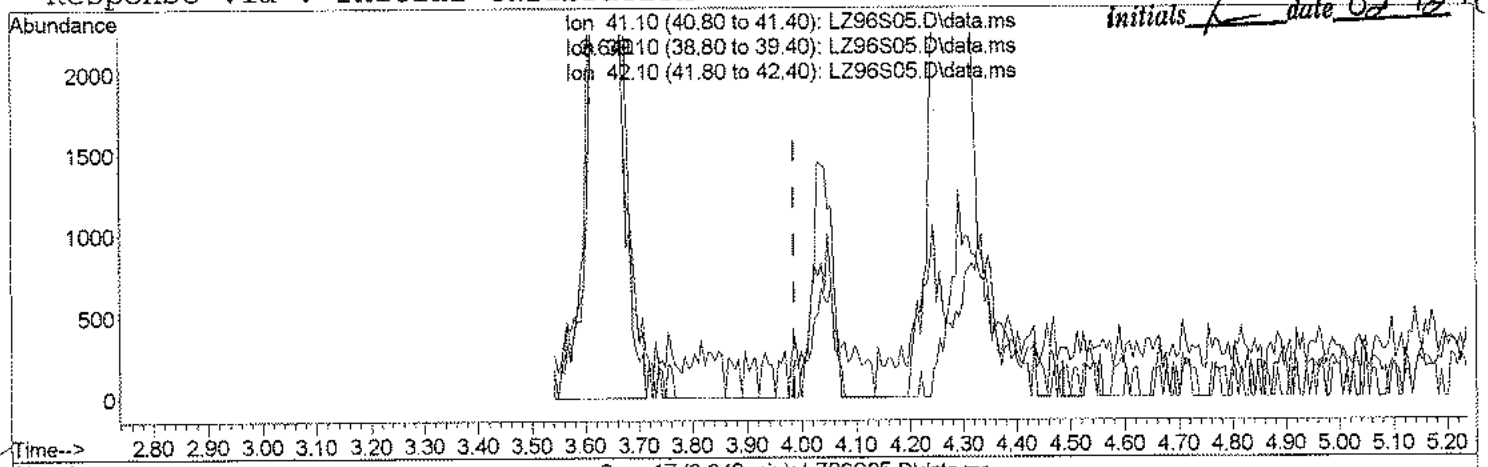
(#) = qualifier out of range (m) = manual integration

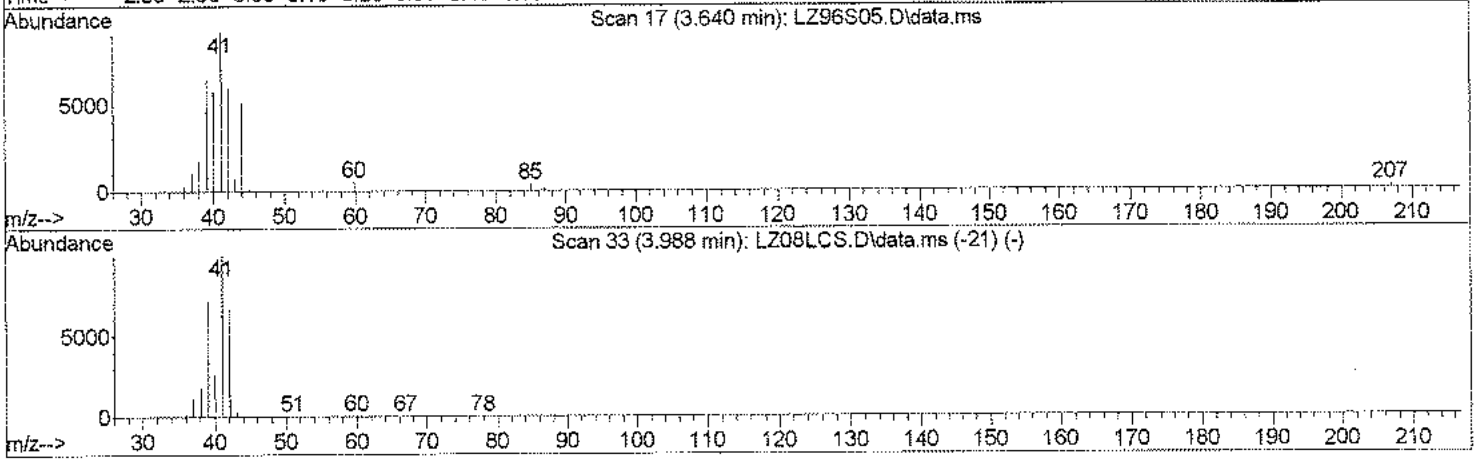
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L *date* 02-12-16





TIC: LZ96S05.D\data.ms

(2) Propene

3.640min (-0.348) 0.53 ppb m

response 27851

Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
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QLast Update : Wed Feb 10 08:59:28 2016
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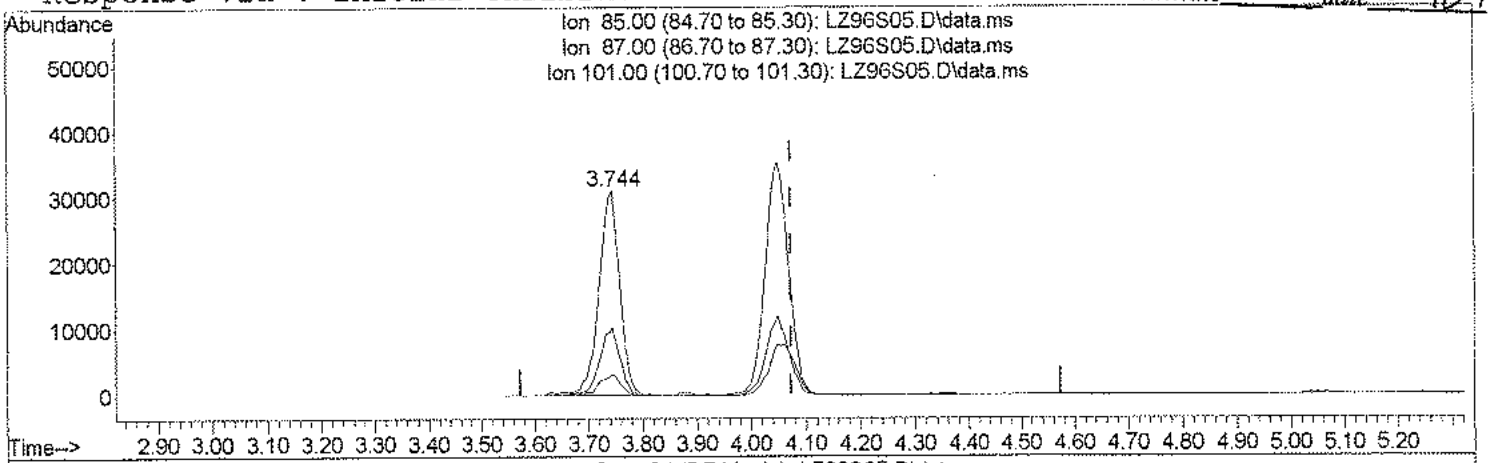
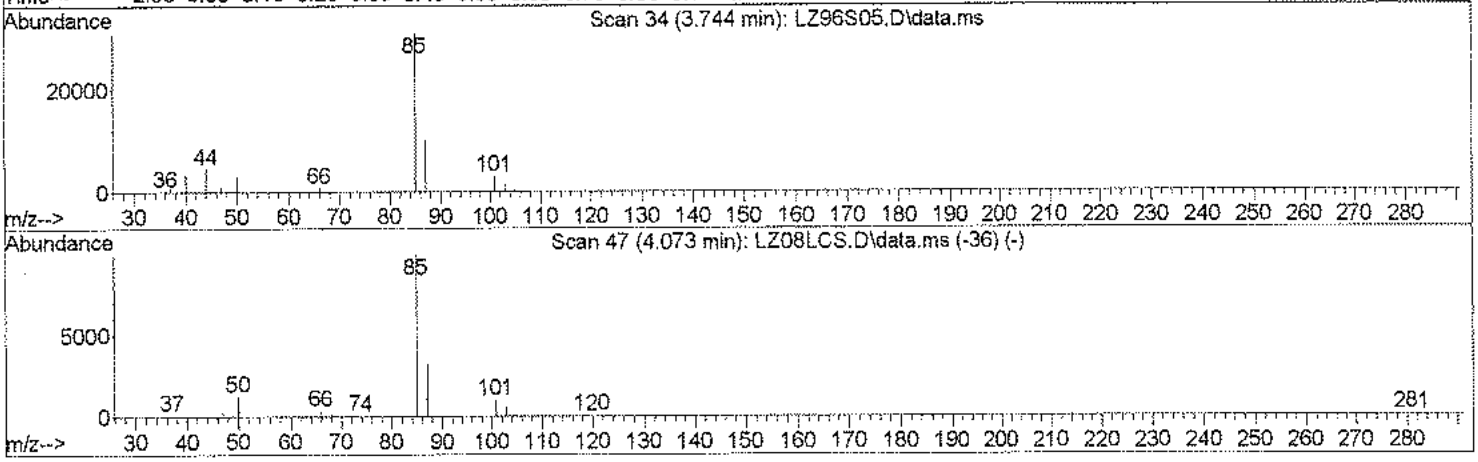
initials L date 02-12-16





TIC: LZ96S05.D\data.ms

(3) Dichlorodifluoromethane

3.744min (-0.329) 0.53 ppb m

response 82057

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	40.56#
101.00	10.00	29.84#
0.00	0.00	0.00

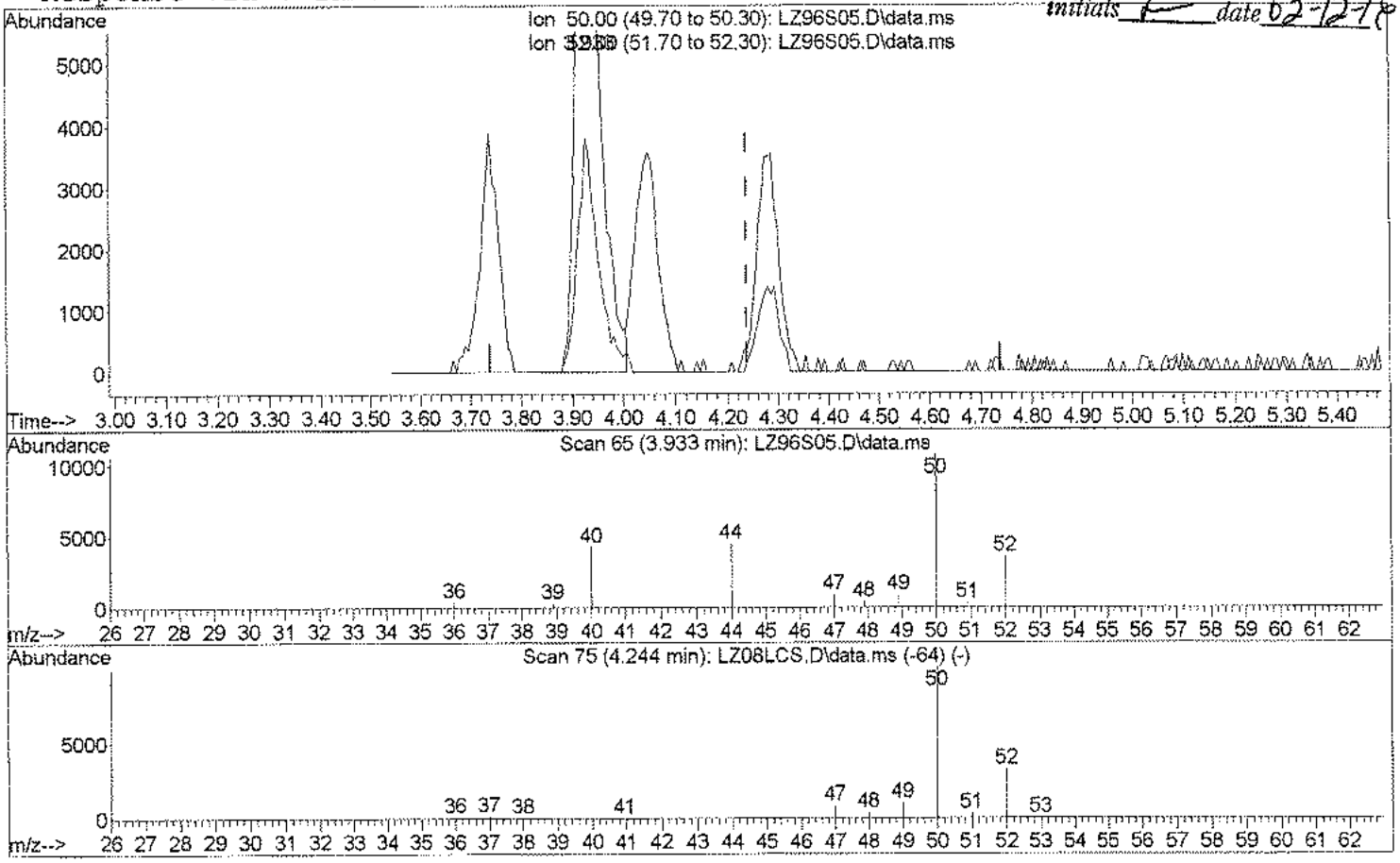
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(4) Chloromethane

3.933min (-0.305) 0.57 ppb m

response 32873

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	12.38#
0.00	0.00	0.00
0.00	0.00	0.00

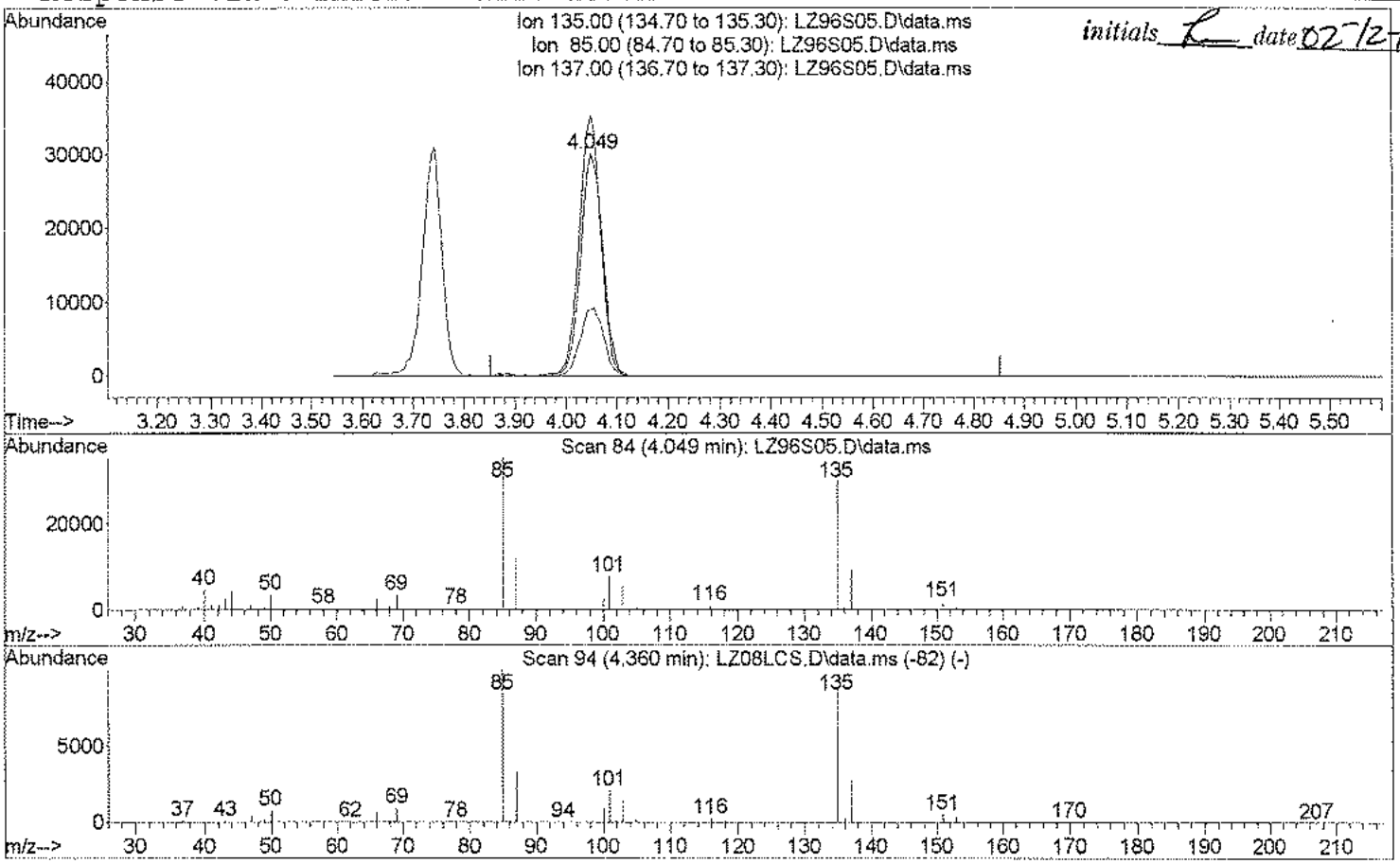
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 02/12/16



TIC: LZ96S05.D\data.ms

(5) Freon 114

4.049min (-0.305) 0.68 ppb m

response 91544

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	0.00#
137.00	32.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
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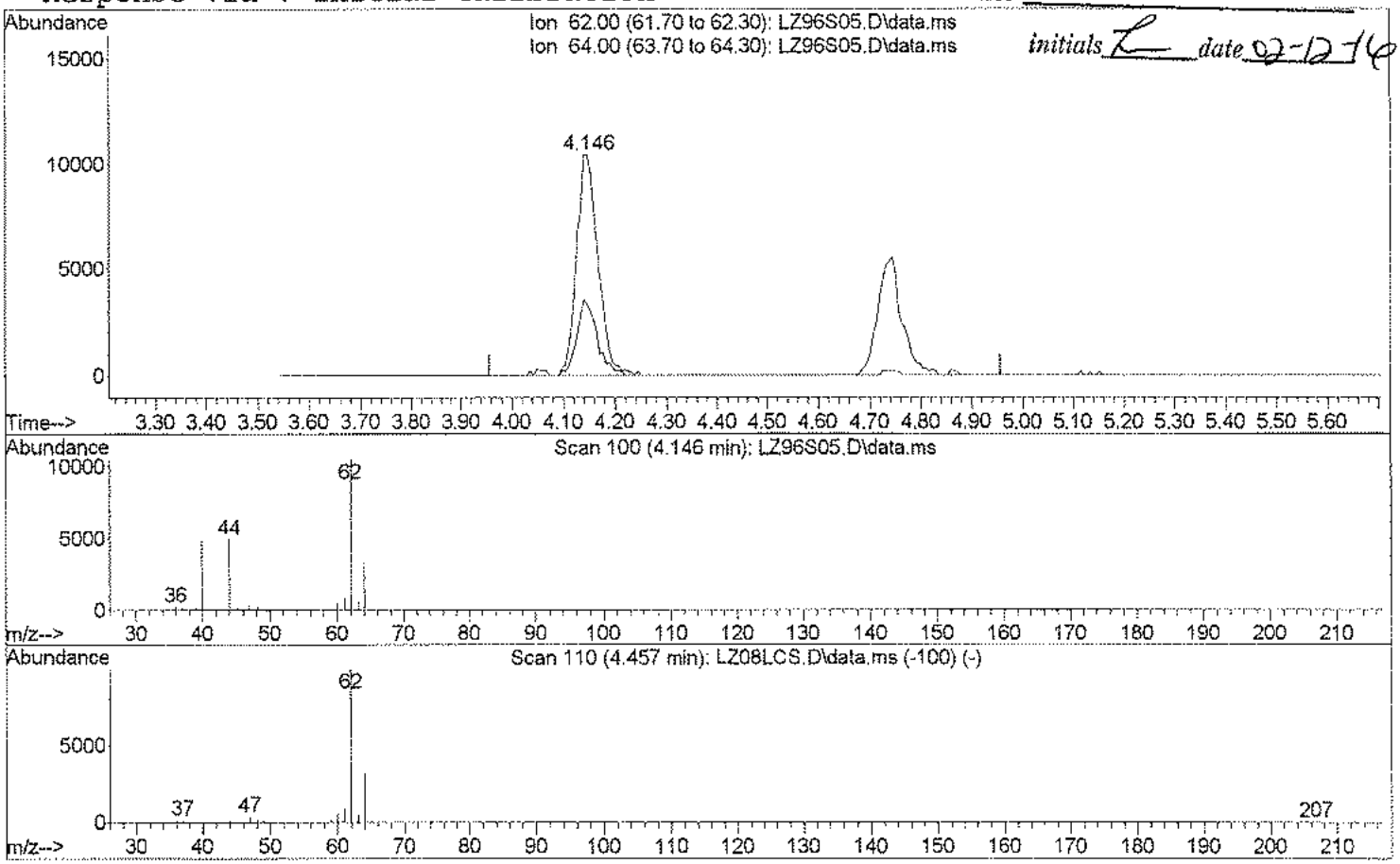
☐ other _____

initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(6) Vinyl Chloride

4.146min (-0.311) 0.49 ppb m

response 29755

Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
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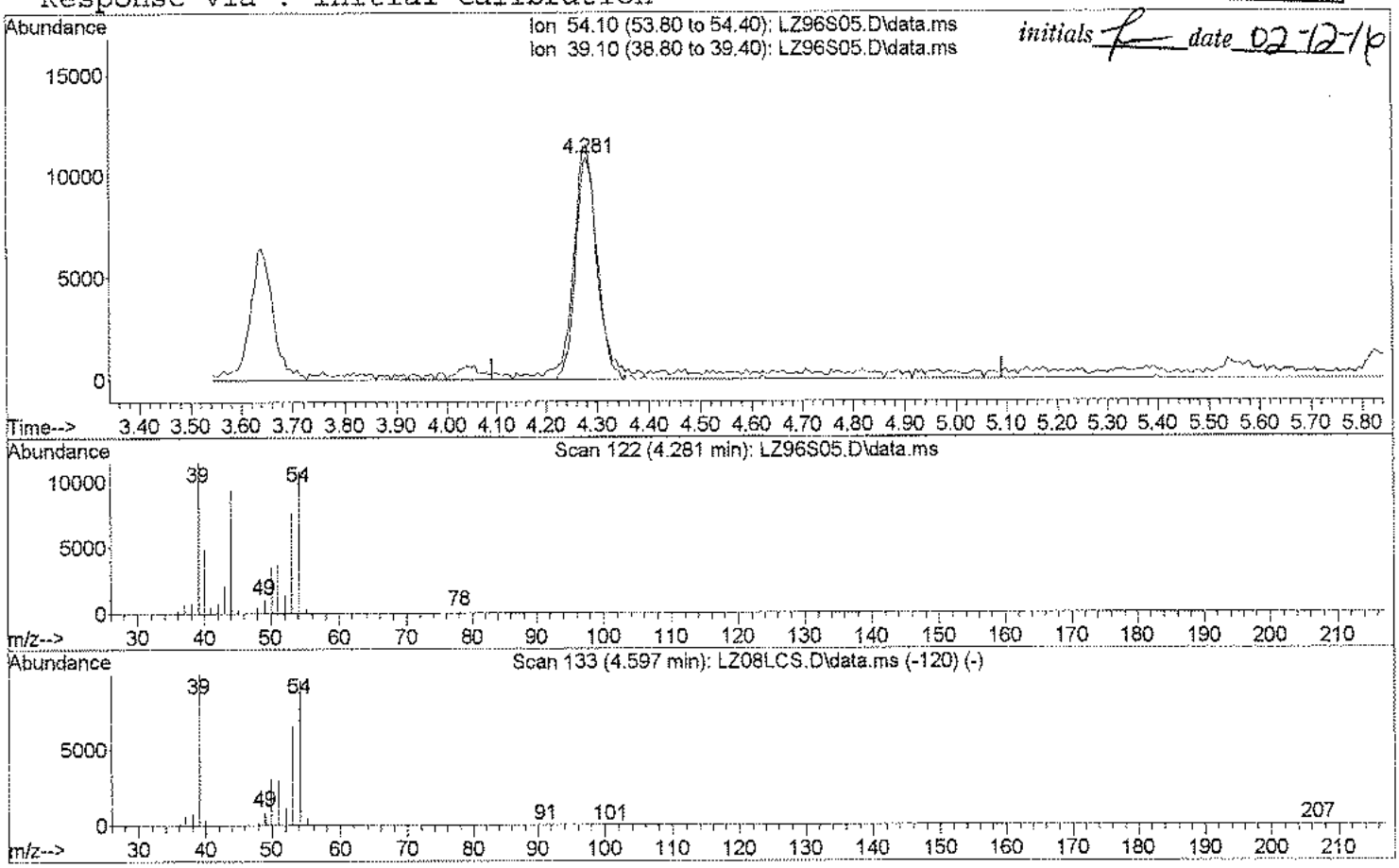
☐ other _____

initials _____ date 02-12-16



TIC: LZ96S05.D\data.ms

(7) 1,3-Butadiene

4.281min (-0.311) 0.64 ppb m

response 31513

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

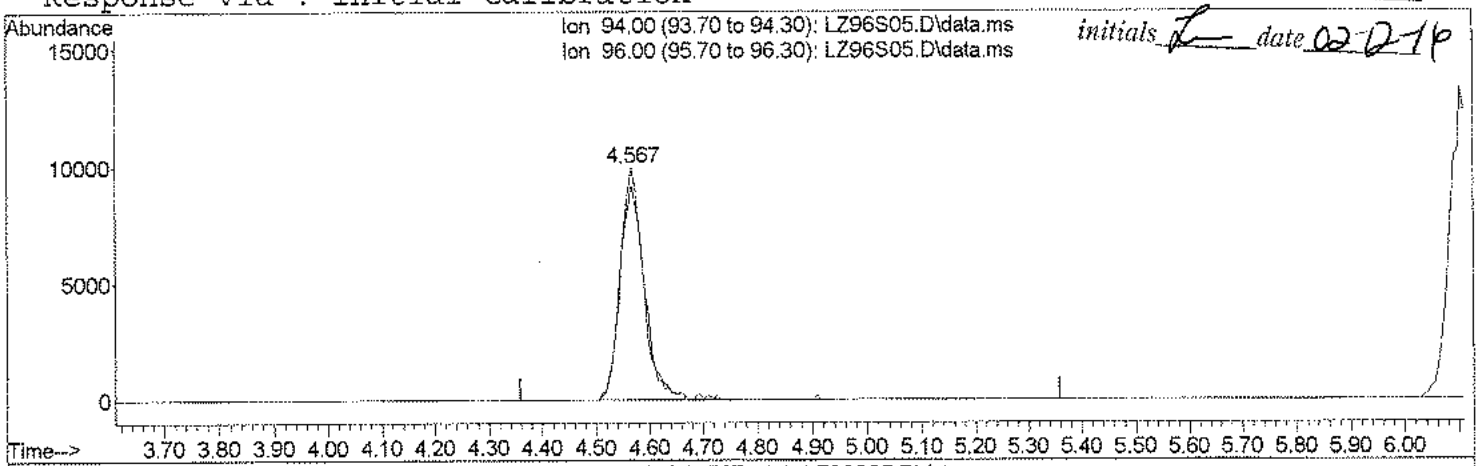
Quantitation Report (Qedit)

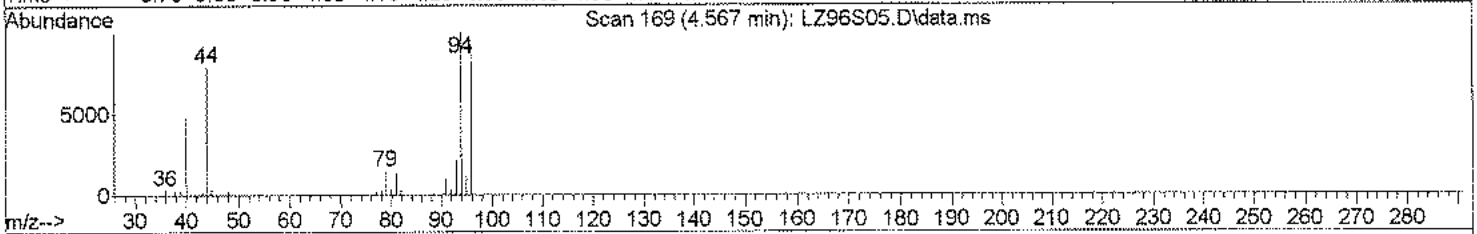
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

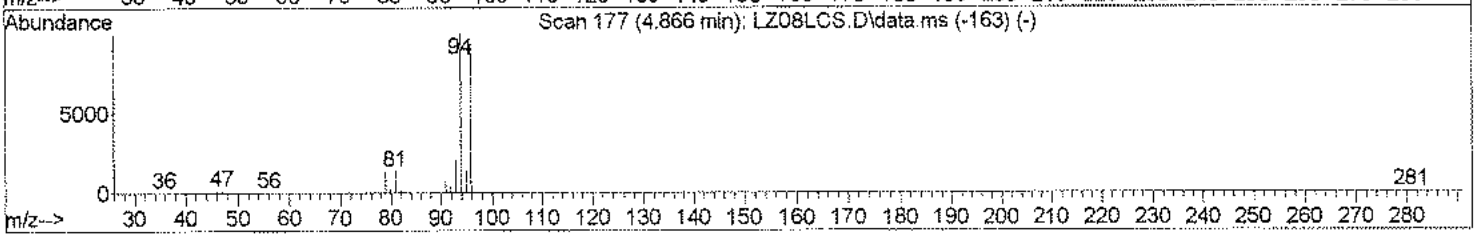
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L date 02-12-16







TIC: LZ96S05.D\data.ms

(8) Bromomethane

4.567min (-0.293) 0.49 ppb m

response 30436

Ion	Exp%	Act%
94.00	100.00	100.00
96.00	95.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

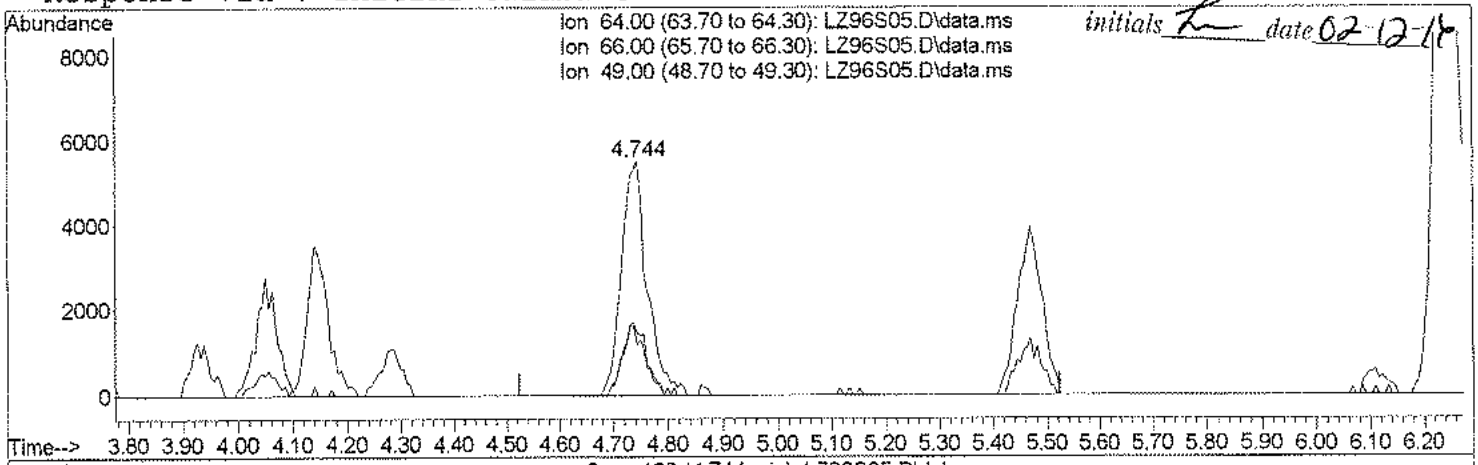
Quantitation Report (Qedit)

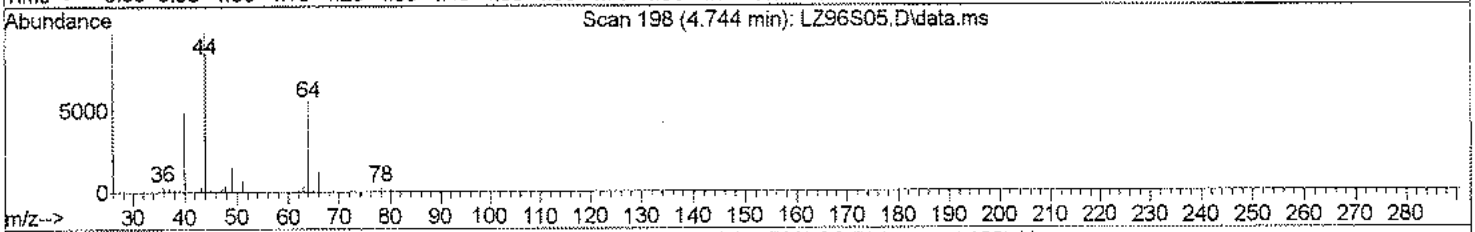
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

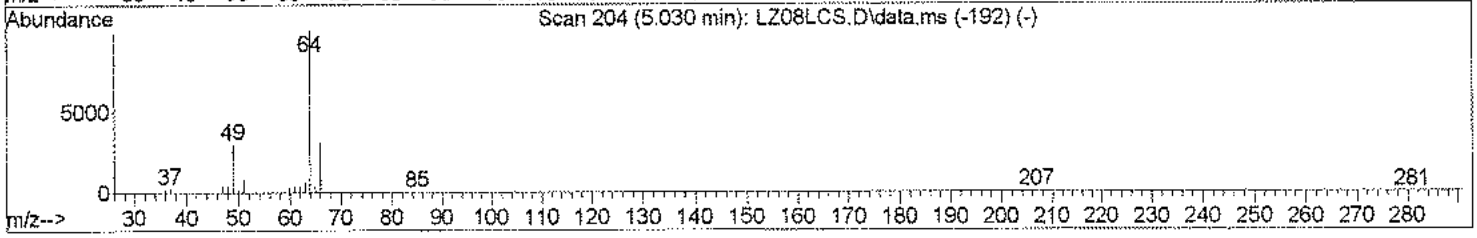
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 02-12-16







TIC: LZ96S05.D\data.ms

(9) Chloroethane

4.744min (-0.280) 0.55 ppb m

response 17805

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

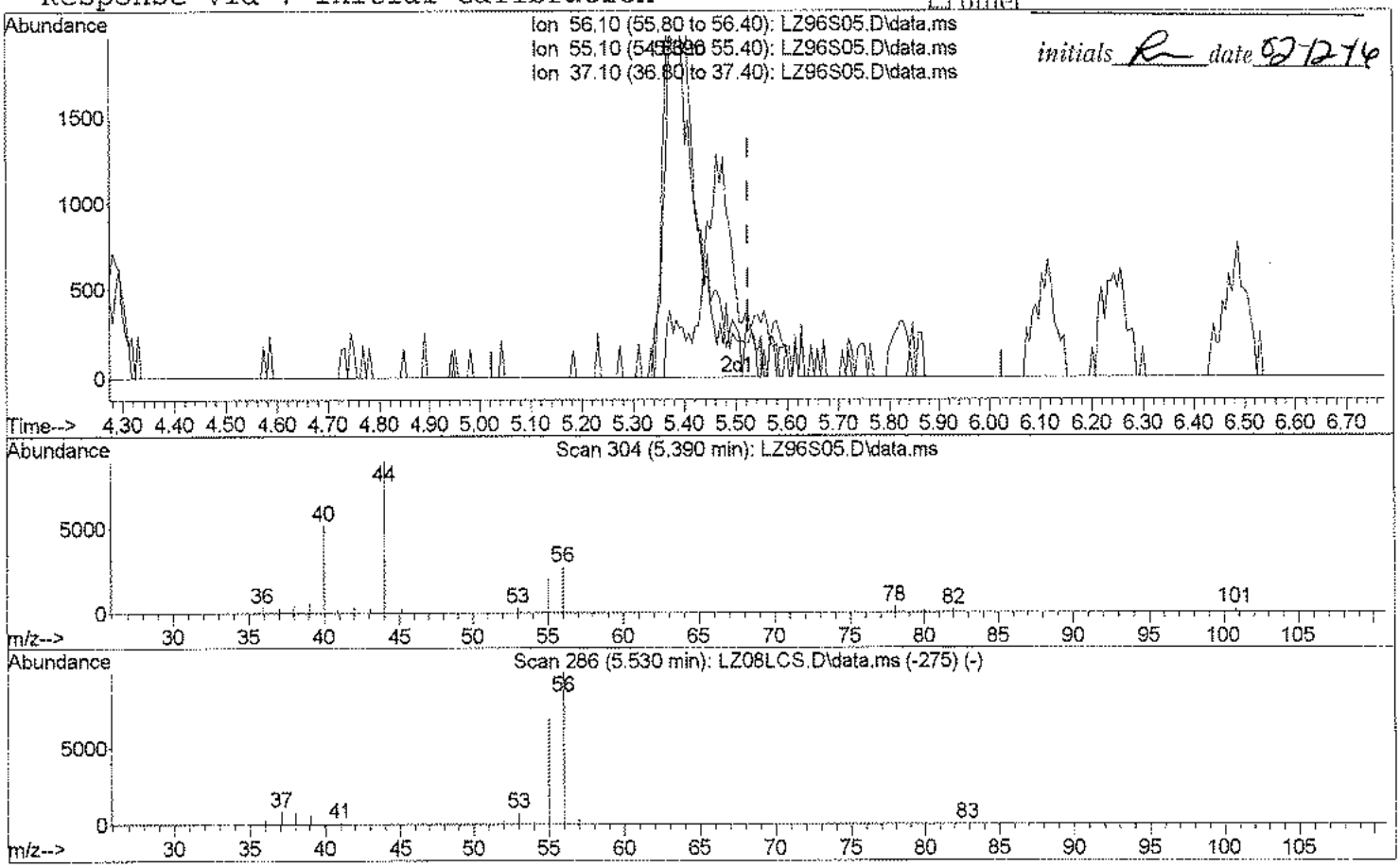
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials R date 02/12/16



TIC: LZ96S05.D\data.ms

(10) Acrolein

5.390min (-0.134) 0.50 ppb m

response 11456

Ion	Exp%	Act%
56.10	100.00	100.00
55.10	68.90	0.00#
37.10	9.90	0.00#
0.00	0.00	0.00

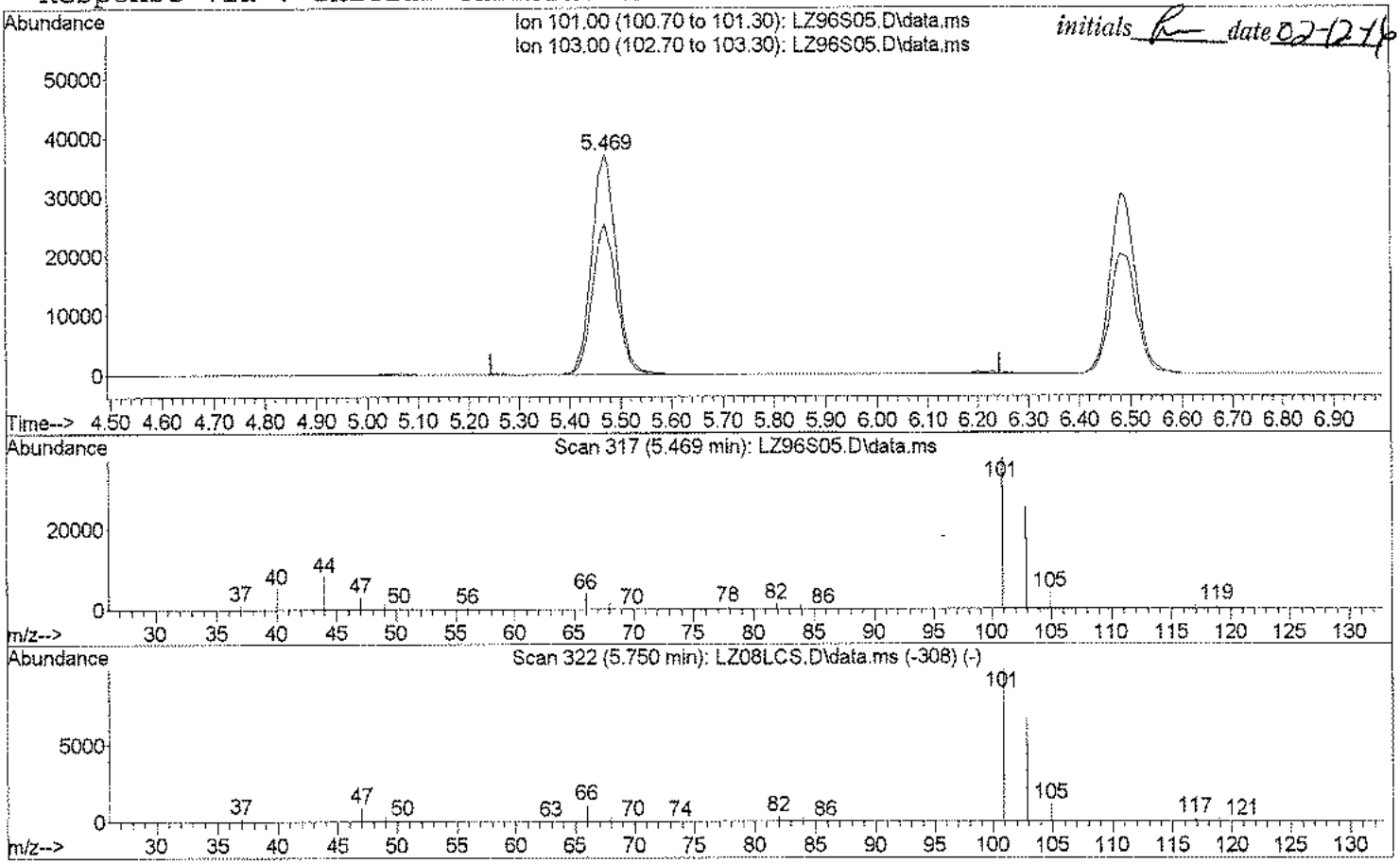
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials RL date 02-12-16



TIC: LZ96S05.D\data.ms

(12) Trichlorofluoromethane

5.469min (-0.274) 0.72 ppb m

response 123068

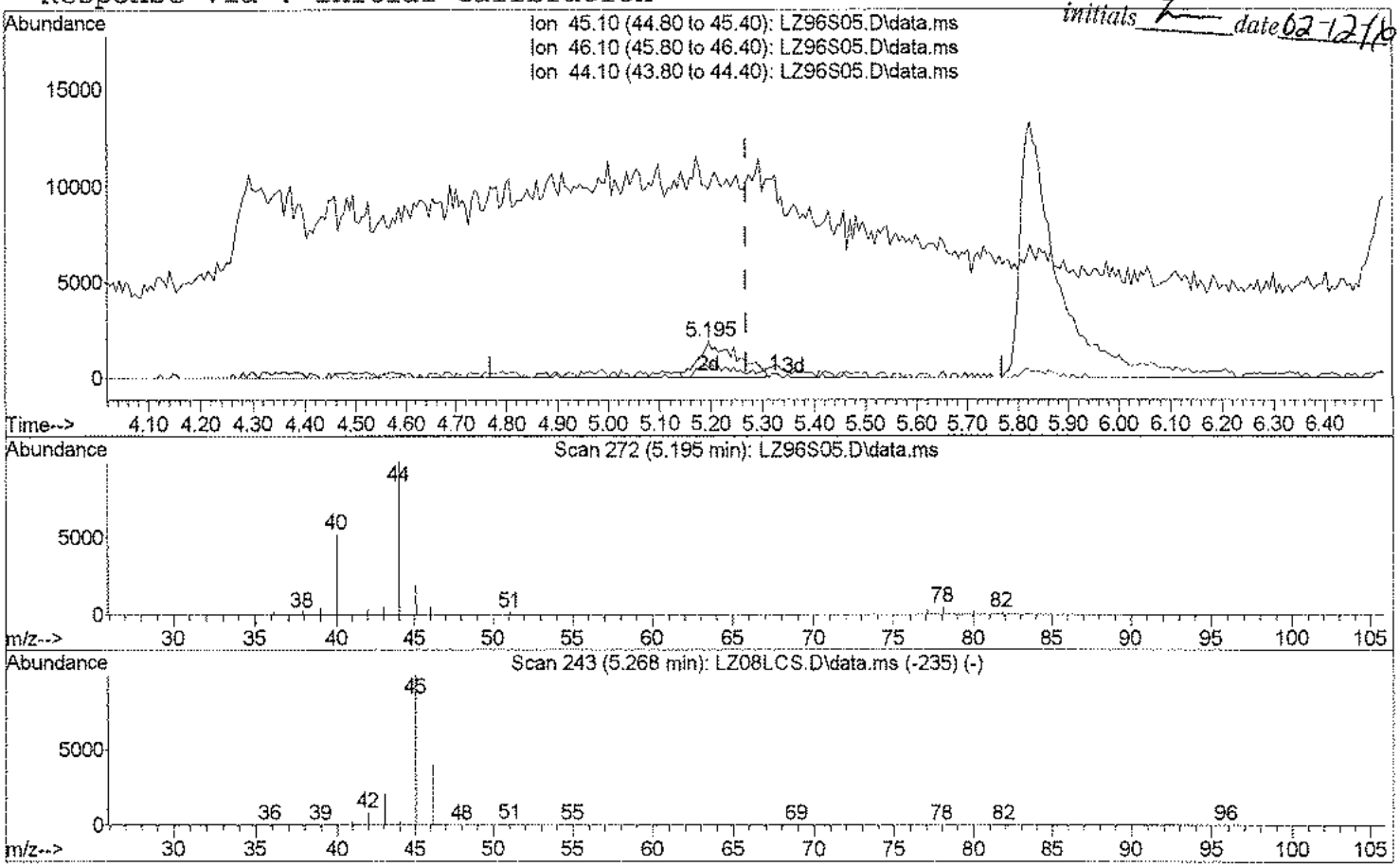
Ion	Exp%	Act%
101.00	100.00	100.00
103.00	64.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☐ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials Z date 02-12-16



TIC: LZ96S05.D\data.ms

(13) Ethanol

5.195min (-0.073) 0.40 ppb m

response 9699

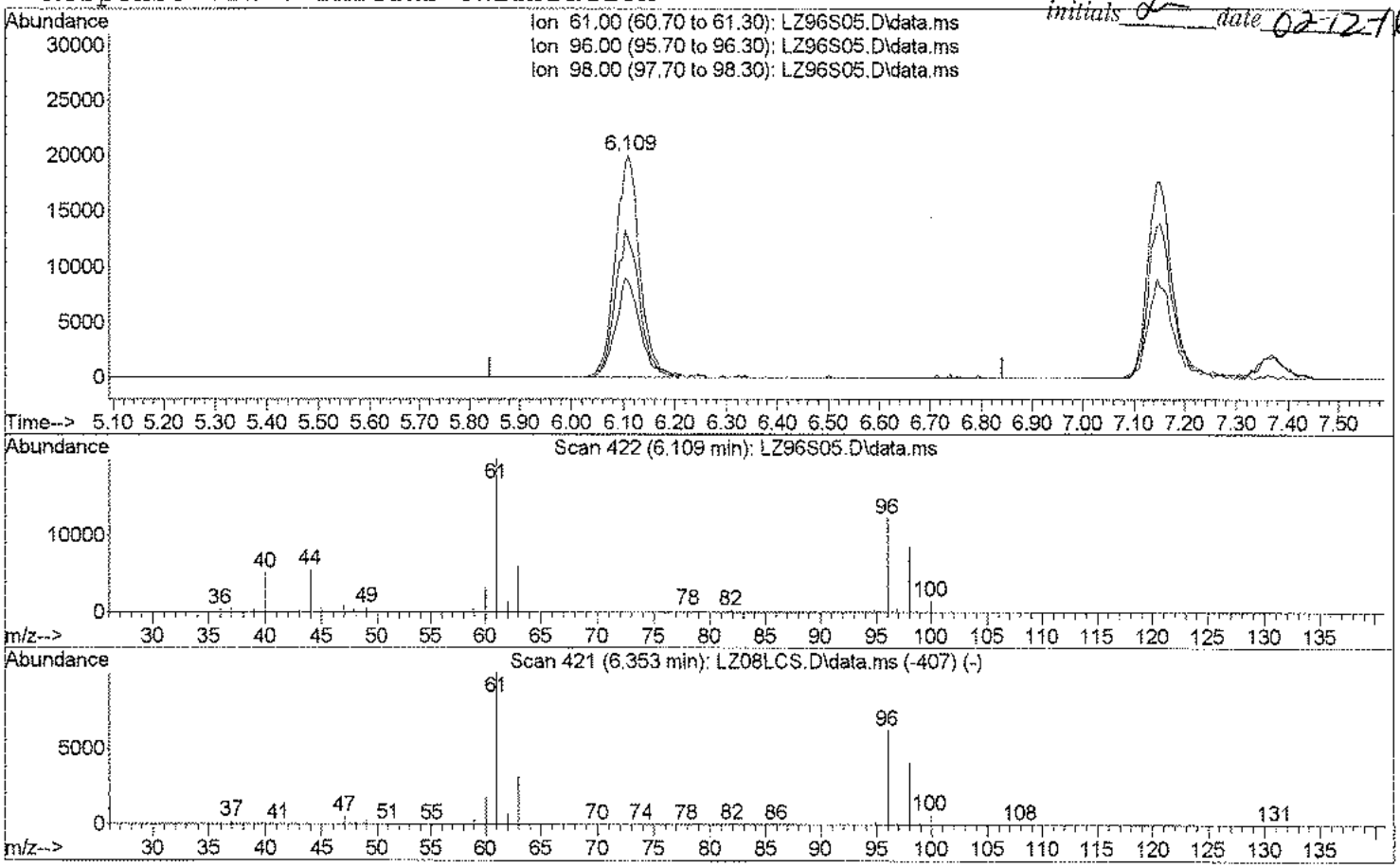
Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	1.99#
44.10	29.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(15) 1,1-Dichloroethene

6.109min (-0.232) 0.68 ppb m

response 65785

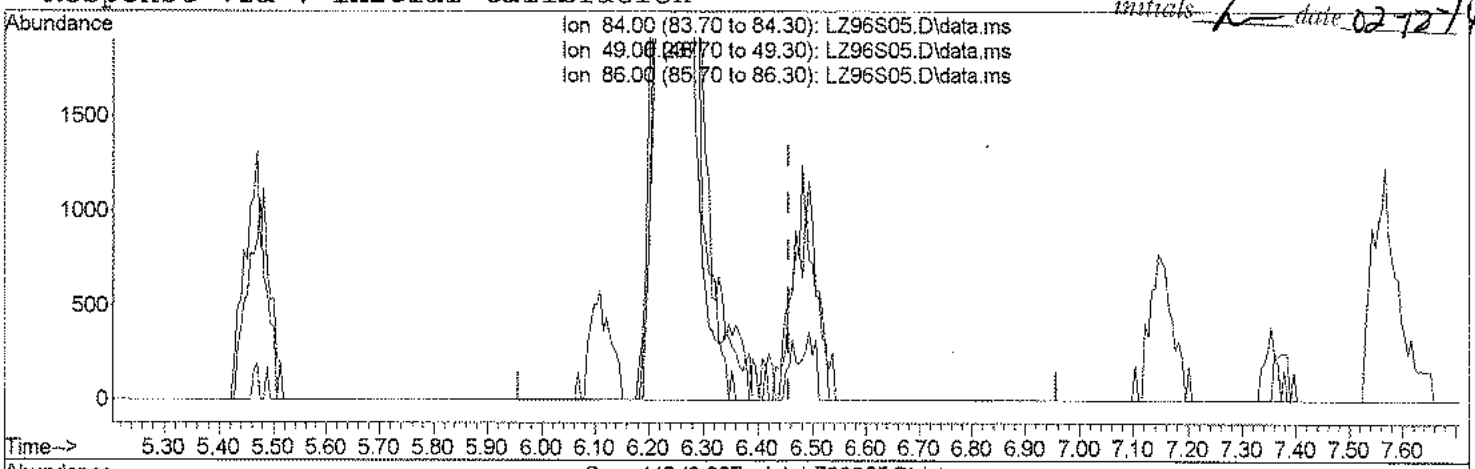
Ion	Exp%	Act%
61.00	100.00	100.00
96.00	86.40	0.00#
98.00	55.10	0.00#
0.00	0.00	0.00

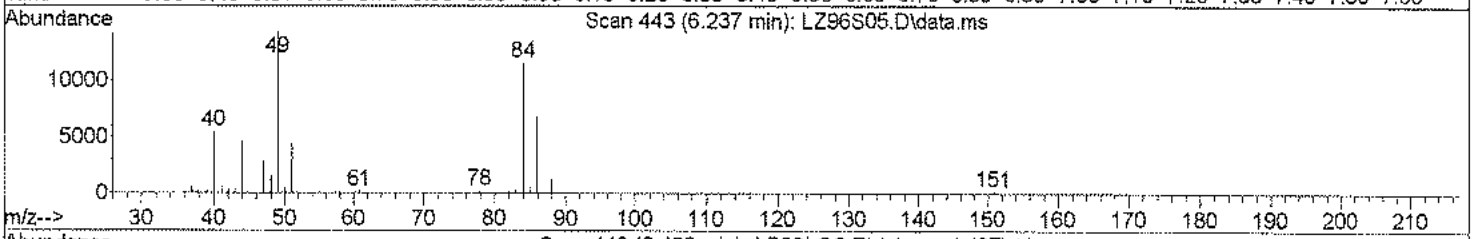
Quantitation Report (Qedit)

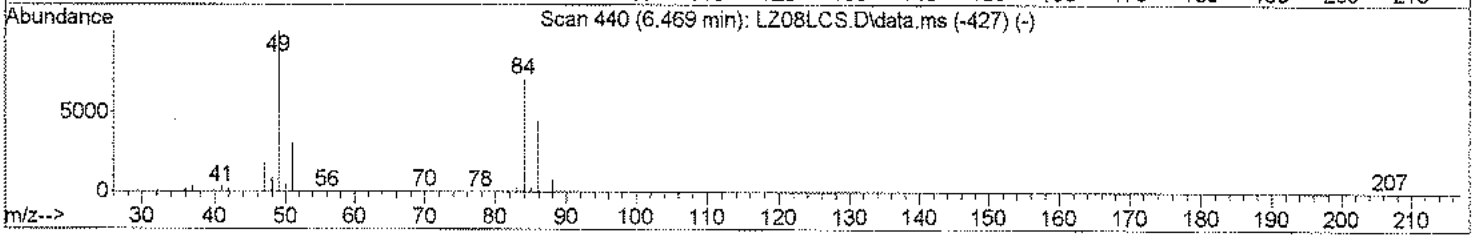
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02/12/16







TIC: LZ96S05.D\data.ms

(16) Methylene Chloride

6.237min (-0.220) 0.67 ppb m

response 38391

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	9.64#
86.00	64.50	0.00#
0.00	0.00	0.00

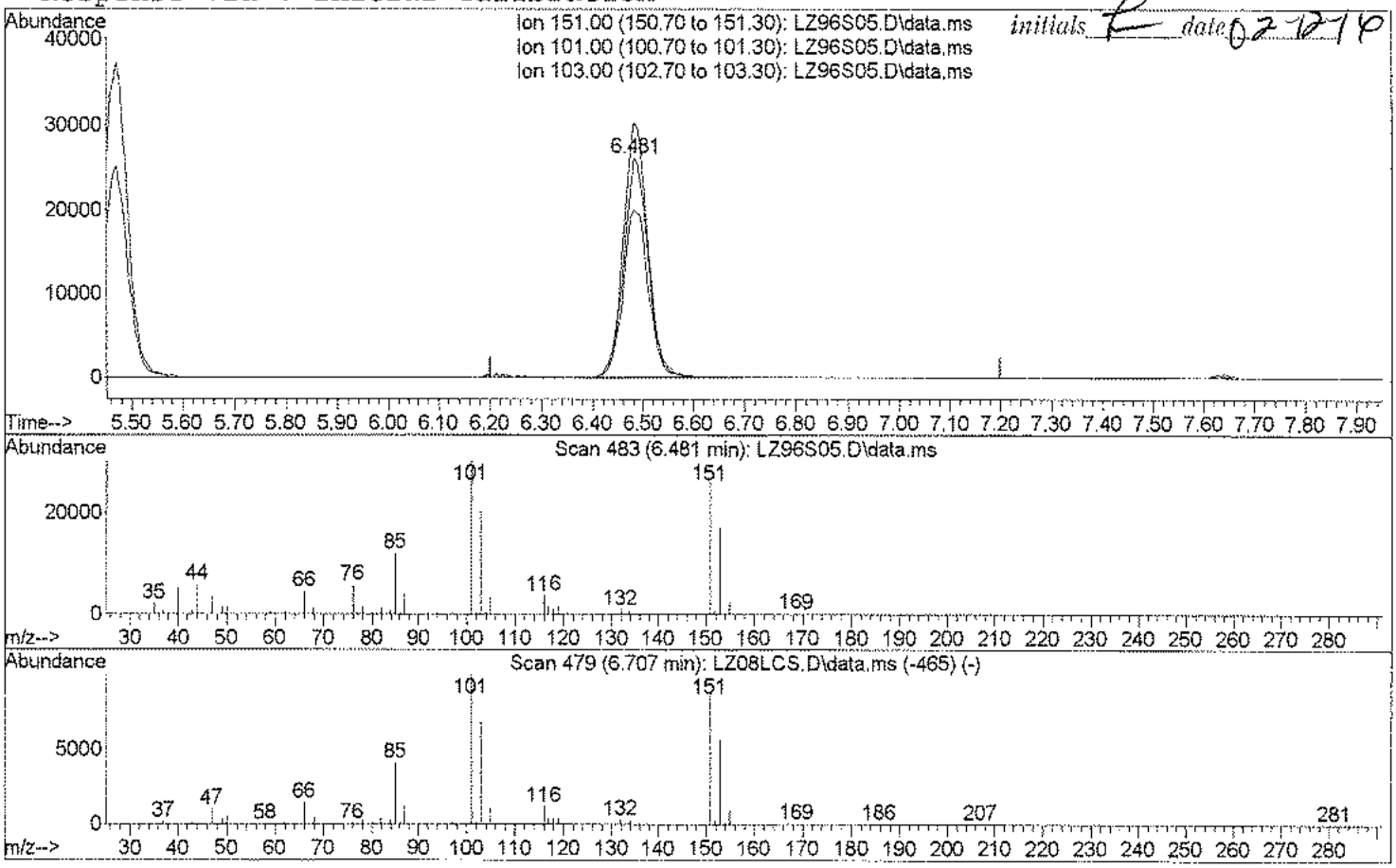
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L date 02/12/16



TIC: LZ96S05.D\data.ms

(17) Freon 113

6.481min (-0.220) 0.73 ppb m

response 88151

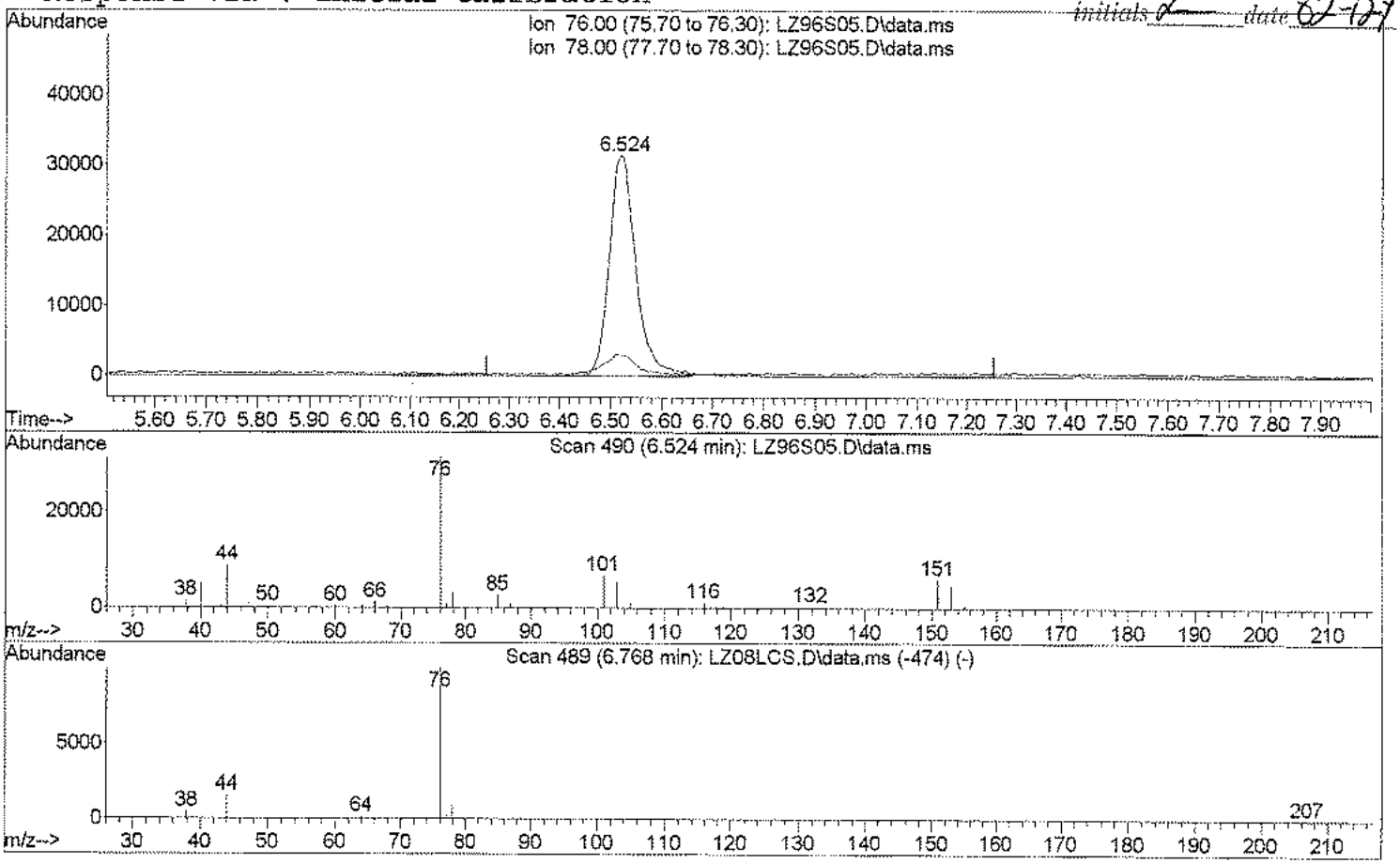
Ion	Exp%	Act%
151.00	100.00	100.00
101.00	90.90	0.00#
103.00	58.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L *date* 02-12-16



TIC: LZ96S05.D\data.ms

(18) Carbon Disulfide

6.524min (-0.232) 0.71 ppb m

response 114355

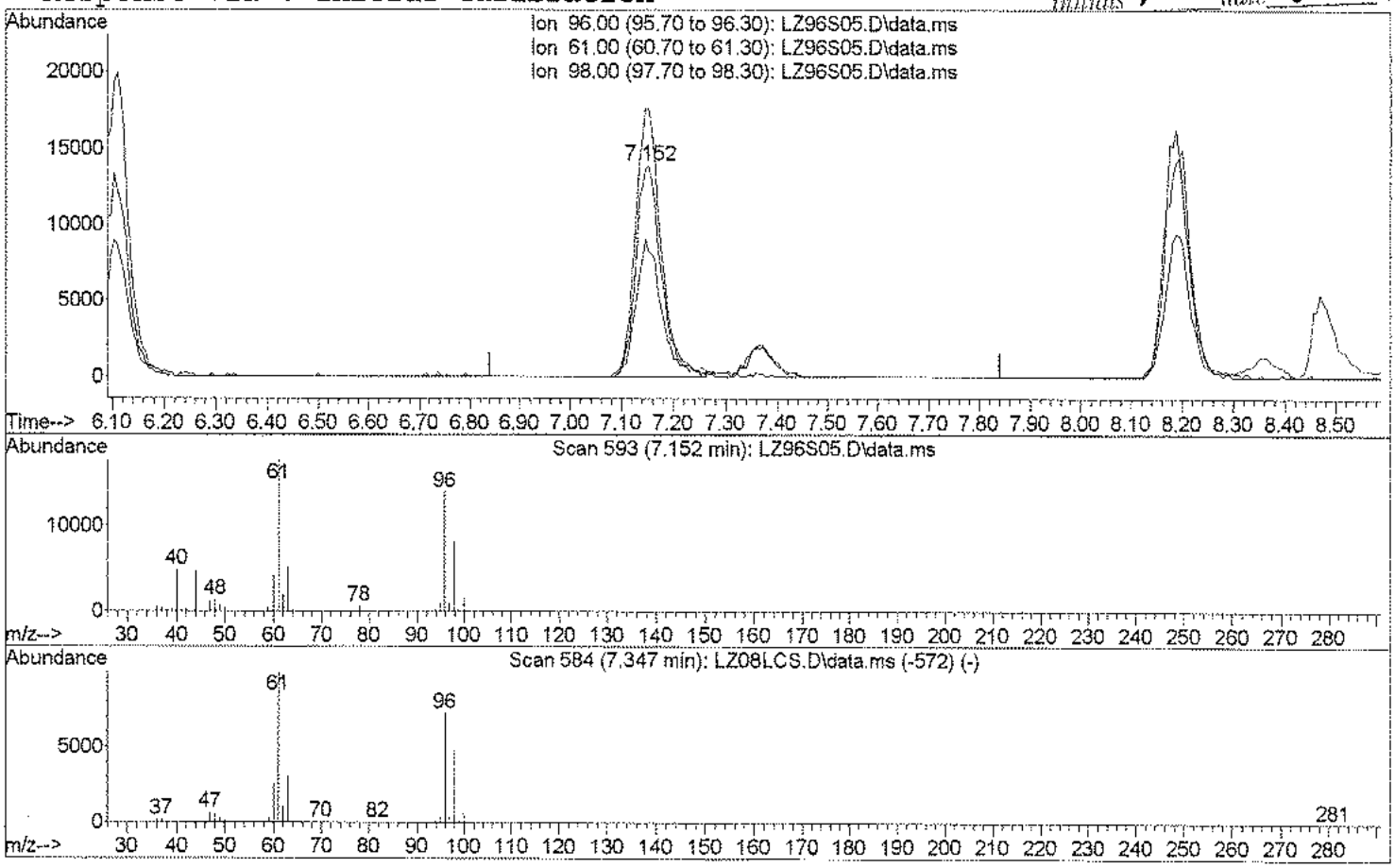
Ion	Exp%	Act%
76.00	100.00	100.00
78.00	30.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials [illegible] date 02/12/16



TIC: LZ96S05.D\data.ms

(19) trans-1,2-Dichloroethene

7.152min (~0.169) 0.75 ppb m

response 47412

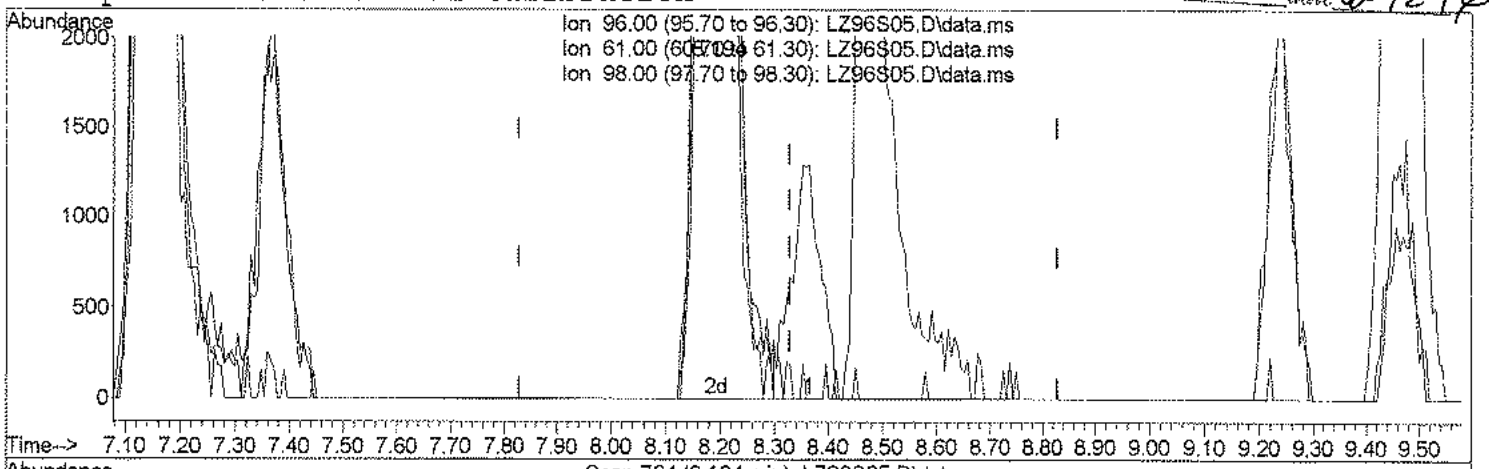
Ion	Exp%	Act%
96.00	100.00	100.00
61.00	100.20	0.00#
98.00	64.10	0.00#
0.00	0.00	0.00

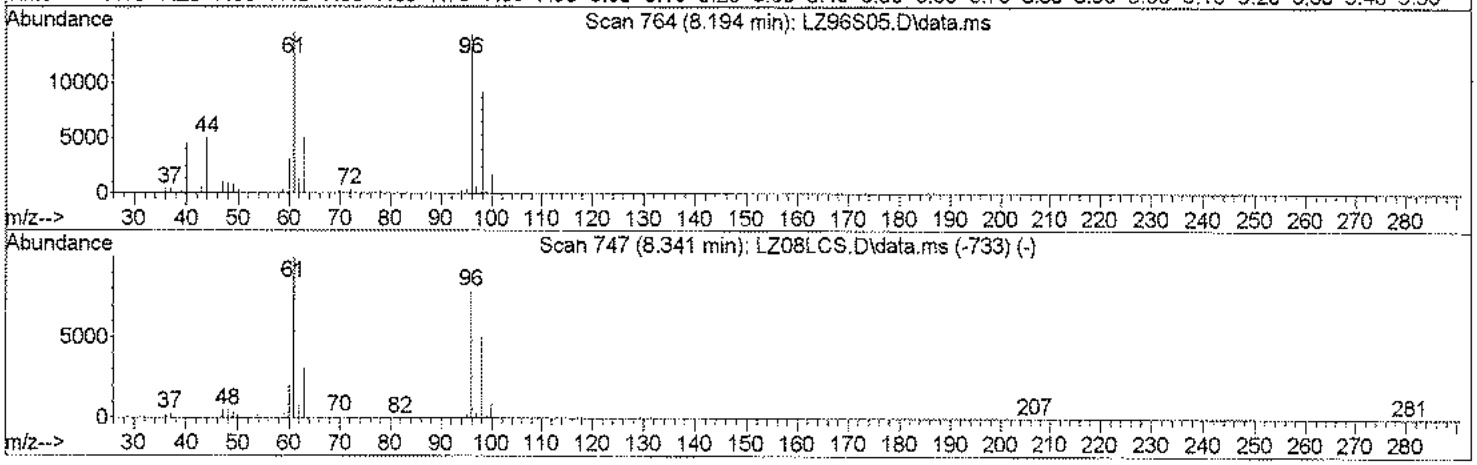
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02/27/16





TIC: LZ96S05.D\data.ms

(24) cis-1,2-Dichloroethene

8.194min (-0.134) 0.73 ppb m

response 48660

Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	0.00#
98.00	64.90	0.00#
0.00	0.00	0.00

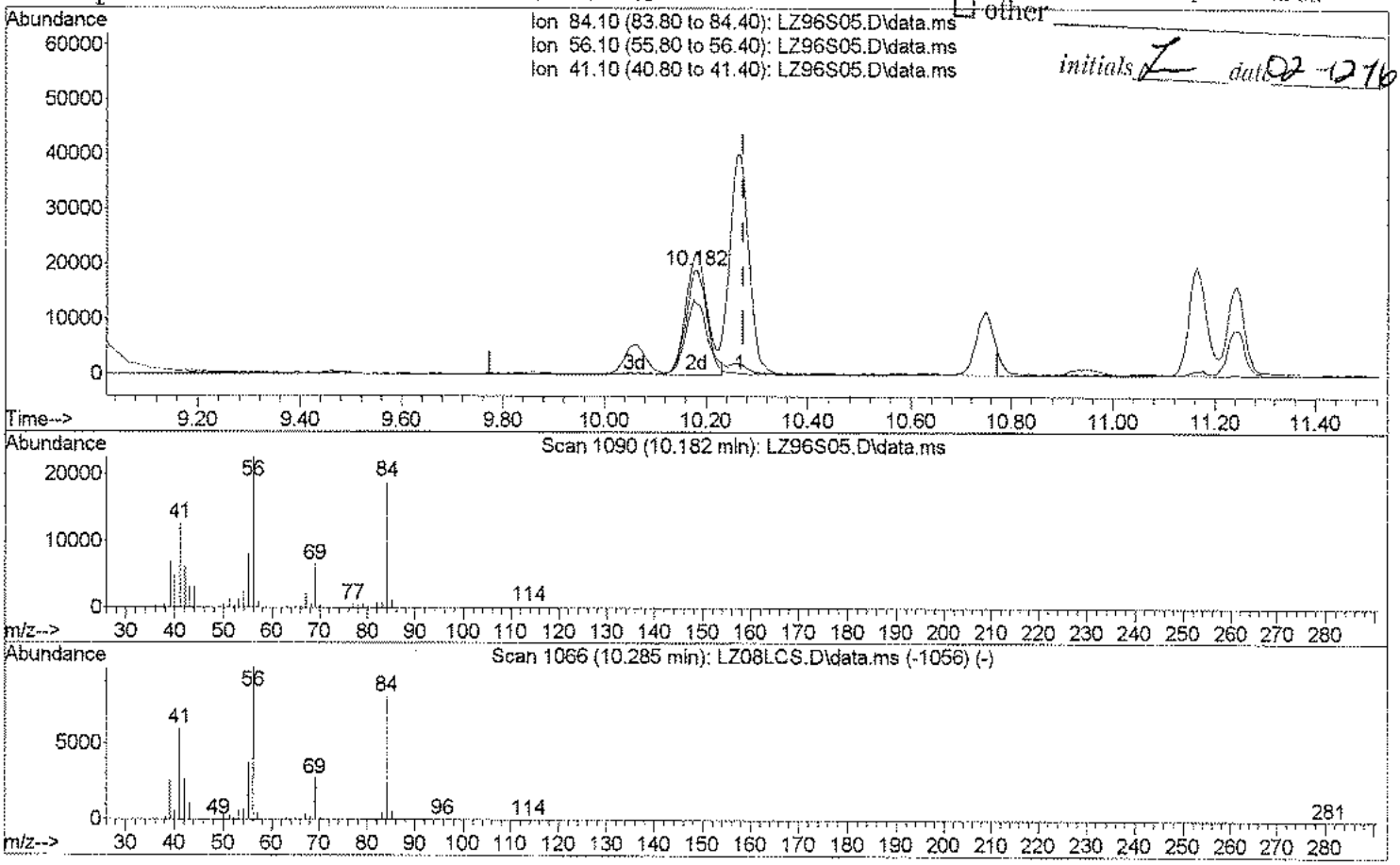
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other

initials Z date 02-12-16



TIC: LZ96S05.D\data.ms

(34) Cyclohexane

10.182min (-0.091) 0.51 ppb m

response 53772

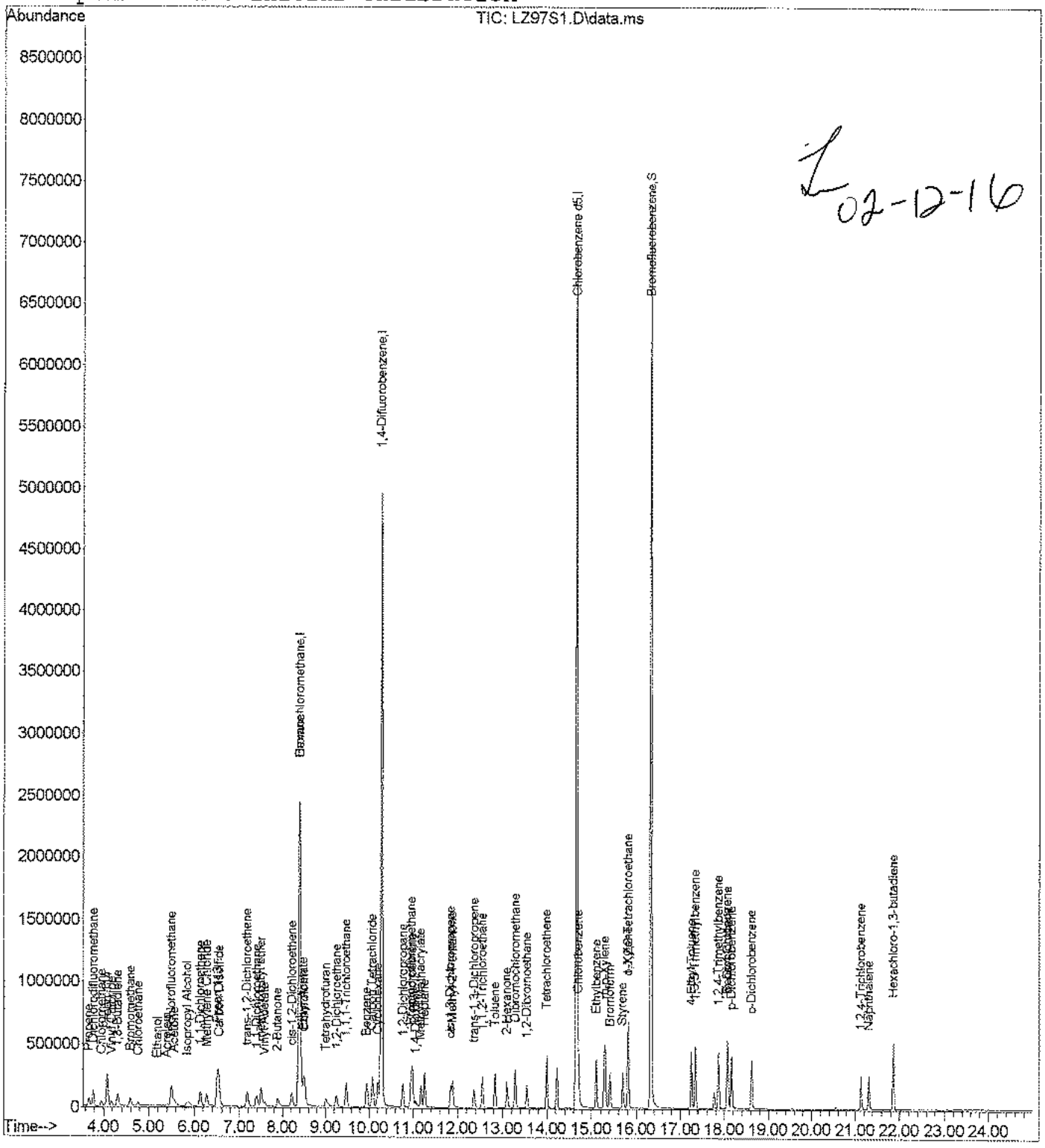
Ion	Exp%	Act%
84.10	100.00	100.00
56.10	84.10	198.17#
41.10	37.80	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	472704	20.0000	ppb		66.46
25) 1,4-Difluorobenzene	10.29	114	6181399	20.0000	ppb		83.39
50) Chlorobenzene d5	14.67	117	5556593	20.0000	ppb		86.22
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3110545	20.4063	ppb		102.03%
Target Compounds							Qvalue
2) Propene	3.67	41	59206	1.1311	ppb		96
3) Dichlorodifluoromethane	3.77	85	190480	1.2312	ppb		99
4) Chloromethane	3.95	50	70757	1.2177	ppb		98
5) Freon 114	4.09	135	180042	1.2798	ppb	#	80
6) Vinyl Chloride	4.18	62	67944	1.1386	ppb		98
7) 1,3-Butadiene	4.31	54	62549	1.2201	ppb	#	58
8) Bromomethane	4.59	94	71235	1.1619	ppb		99
9) Chloroethane	4.77	64	38838	1.1915	ppb	#	89
10) Acrolein	5.41	56	19905	0.8561	ppb	#	93
11) Acetone	5.56	43	126622	1.1896	ppb		88
12) Trichlorofluoromethane	5.50	101	240341	1.3194	ppb		96
13) Ethanol	5.21	45	15713	0.6637	ppb	#	65
14) Isopropyl Alcohol	5.85	45	121065	1.0317	ppb	m	97
15) 1,1-Dichloroethene	6.13	61	127915	1.2528	ppb	#	81
16) Methylene Chloride	6.27	84	75934	1.2785	ppb	#	66
17) Freon 113	6.51	151	170569	1.3203	ppb	#	73
18) Carbon Disulfide	6.55	76	223428	1.2985	ppb	#	66
19) trans-1,2-Dichloroethene	7.18	96	88802	1.3034	ppb	#	81
20) 1,1-Dichloroethane	7.40	63	151046	1.3136	ppb		97
21) methyl t-butyl ether	7.50	73	194422	1.2460	ppb	#	84
22) Vinyl Acetate	7.58	86	8110	0.5732	ppb	#	1
23) 2-Butanone	7.88	43	169595	1.2887	ppb	#	70
24) cis-1,2-Dichloroethene	8.22	96	93088	1.2976	ppb	#	83
26) Ethyl Acetate	8.47	61	36648	1.4699	ppb	#	1
27) Hexane	8.40	57	120041	0.9759	ppb	#	83
28) Chloroform	8.51	83	179011	1.0936	ppb		97
29) Tetrahydrofuran	9.01	42	96246	1.0229	ppb	#	62
30) 1,2-Dichloroethane	9.26	62	106858	1.0429	ppb	#	89
31) 1,1,1-Trichloroethane	9.49	97	188949	1.0679	ppb	#	92
32) Benzene	9.95	78	248089	1.1113	ppb	#	94
33) Carbon Tetrachloride	10.08	117	228967	1.0748	ppb		100
34) Cyclohexane	10.20	84	109585	1.0437	ppb	#	57
35) 1,2-Dichloropropane	10.77	63	94151	1.0865	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	188097	1.0927	ppb		98
37)	1,4-Dioxane	11.05	88	61496	1.1530	ppb		92
38)	Trichloroethene	10.98	130	144037	1.0614	ppb		97
39)	Methyl Methacrylate	11.17	69	73512	1.0407	ppb	#	79
40)	Heptane	11.25	71	74268	0.9818	ppb	#	50
41)	cis-1,3-Dichloropropene	11.84	75	126483	1.0187	ppb		98
42)	4-Methyl-2-Pentanone	11.88	43	191474	0.9894	ppb	#	72
43)	trans-1,3-Dichloropropene	12.36	75	108406	1.0046	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	108822	1.0771	ppb	#	93
45)	Toluene	12.83	91	269770	0.9835	ppb		97
46)	2-Hexanone	13.09	43	193840	1.2252	ppb	#	74
47)	Dibromochloromethane	13.28	129	229397	1.0462	ppb		99
48)	1,2-Dibromoethane	13.54	107	169448	1.0672	ppb		100
49)	Tetrachloroethene	13.99	166	149598	0.9846	ppb	#	80
51)	Chlorobenzene	14.71	112	259500	0.9939	ppb		98
52)	Ethylbenzene	15.11	91	338758	0.9239	ppb		98
53)	m,p-Xylene	15.30	91	522658	1.8368	ppb		99
54)	Bromoform	15.41	173	178406	0.9609	ppb		98
55)	Styrene	15.69	104	194827	0.9046	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	216229	1.0311	ppb	#	91
57)	o-Xylene	15.81	91	267469	0.9014	ppb		100
59)	4-Ethyl Toluene	17.25	105	373121	0.9749	ppb		99
60)	1,3,5-Trimethylbenzene	17.34	105	346068	0.9883	ppb		96
61)	1,2,4-Trimethylbenzene	17.86	105	324322	1.0044	ppb		98
62)	Benzyl Chloride	18.06	91	198303	1.0388	ppb		96
63)	m-Dichlorobenzene	18.07	146	244711	1.1306	ppb		96
64)	p-Dichlorobenzene	18.16	146	234346	1.1396	ppb		94
65)	o-Dichlorobenzene	18.62	146	227267	1.0894	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	111375	1.9841	ppb	#	95
67)	Naphthalene	21.31	128	296545	1.5772	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	108013	1.1212	ppb		99

(#) = qualifier out of range (m) = manual integration

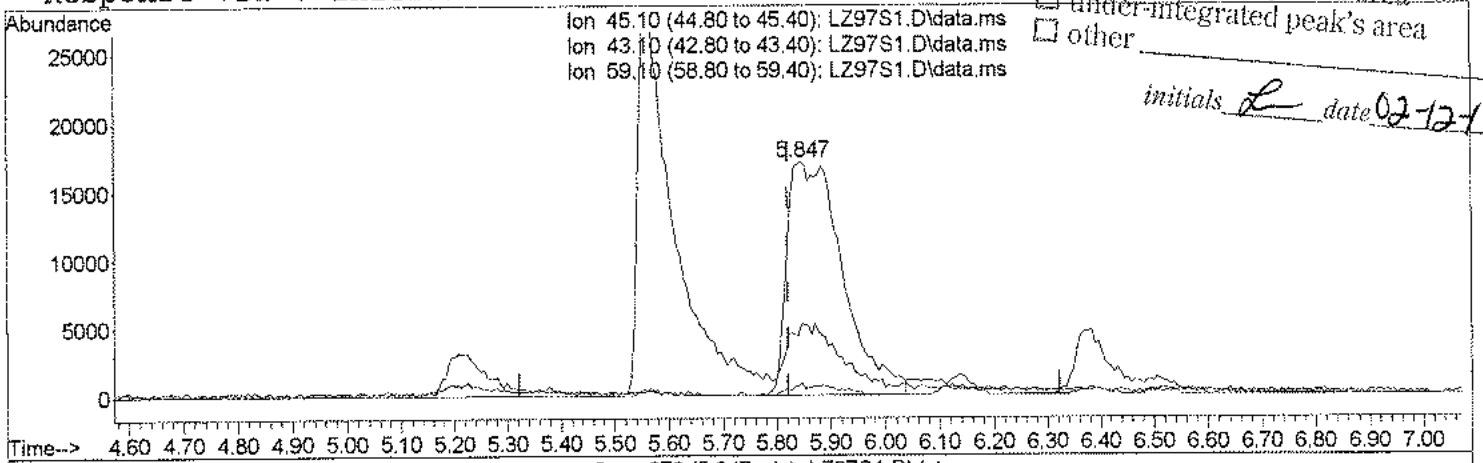
Quantitation Report (Qedit)

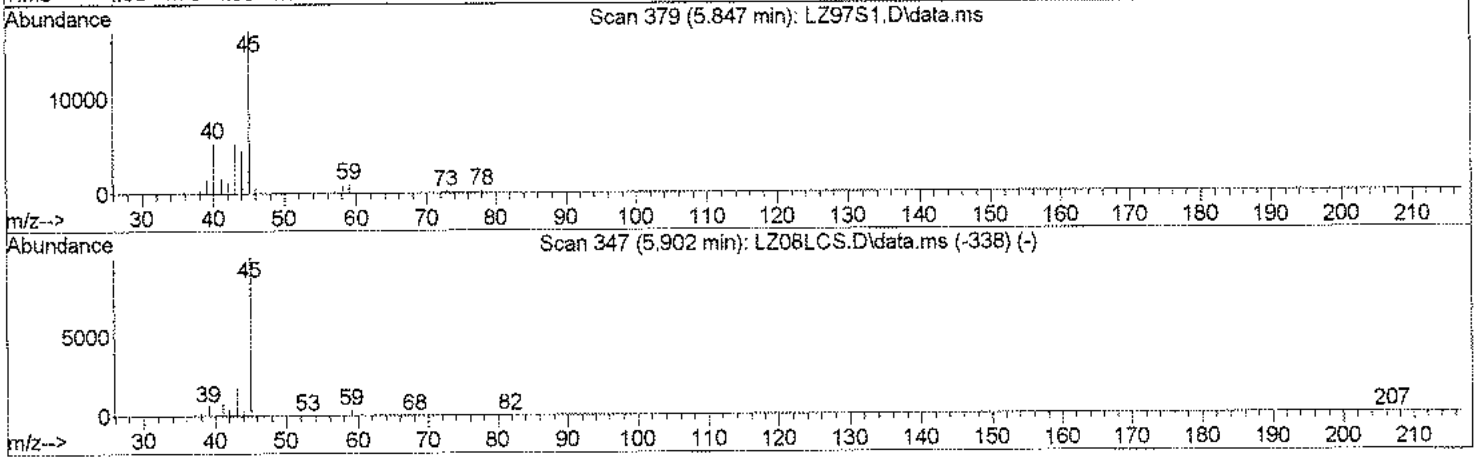
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ97S1.D
Acq On : 02/11/2016 18:15
Operator : TJM
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 30851 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:59:25 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials L *date* 02-12-16





TIC: LZ97S1.D\data.ms

(14) Isopropyl Alcohol

5.847min (+ 0.024) 1.03 ppb m

response 121065

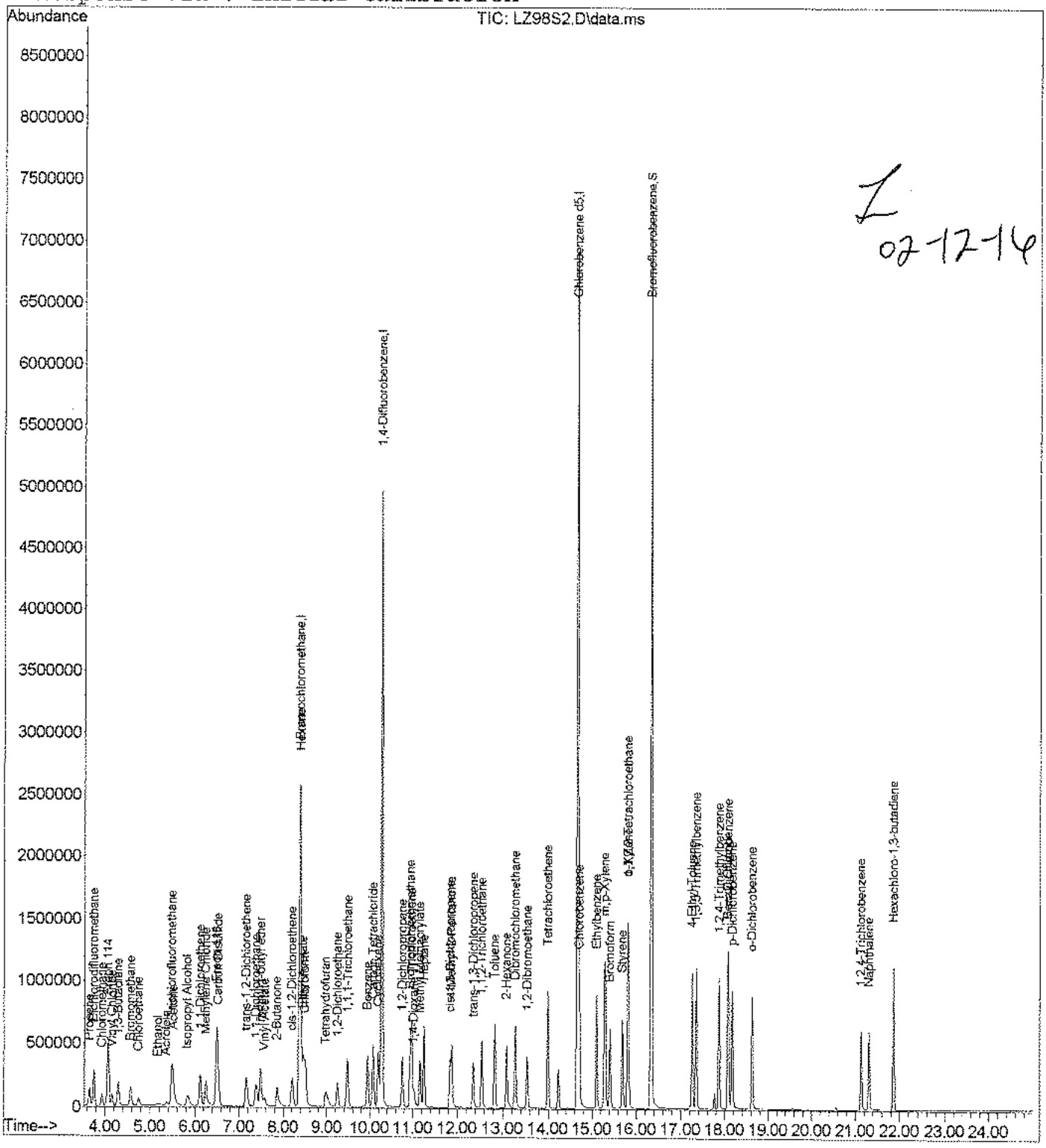
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	10.14#
59.10	4.00	1.40#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



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02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:45 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	467072	20.0000	ppb		65.67
25) 1,4-Difluorobenzene	10.27	114	6134129	20.0000	ppb		82.75
50) Chlorobenzene d5	14.66	117	5515844	20.0000	ppb		85.59
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3190876	20.8699	ppb		104.35%
Target Compounds							Qvalue
2) Propene	3.66	41	132638	2.5012	ppb		98
3) Dichlorodifluoromethane	3.76	85	428279	2.6926	ppb		99
4) Chloromethane	3.93	50	160827	2.6843	ppb		98
5) Freon 114	4.07	135	373686	2.5338	ppb	#	78
6) Vinyl Chloride	4.16	62	155811	2.5726	ppb		99
7) 1,3-Butadiene	4.30	54	133871	2.5126	ppb	#	63
8) Bromomethane	4.57	94	164068	2.6256	ppb		99
9) Chloroethane	4.74	64	88761	2.6577	ppb	#	90
10) Acrolein	5.36	56	42075	1.8628	ppb	#	92
11) Acetone	5.52	43	273239	2.5094	ppb		88
12) Trichlorofluoromethane	5.49	101	498127	2.5894	ppb		97
13) Ethanol	5.18	45	32560	1.4753	ppb	#	64
14) Isopropyl Alcohol	5.83	45	243804	2.2512	ppb	#	90
15) 1,1-Dichloroethene	6.12	61	269522	2.5183	ppb	#	82
16) Methylene Chloride	6.26	84	161860	2.6130	ppb	#	65
17) Freon 113	6.51	151	345306	2.5250	ppb	#	71
18) Carbon Disulfide	6.54	76	466830	2.5718	ppb	#	64
19) trans-1,2-Dichloroethene	7.16	96	185535	2.5721	ppb	#	83
20) 1,1-Dichloroethane	7.38	63	307085	2.5238	ppb		97
21) methyl t-butyl ether	7.48	73	410469	2.5008	ppb	#	83
22) Vinyl Acetate	7.57	86	17788	1.3593	ppb	#	1
23) 2-Butanone	7.85	43	352084	2.5095	ppb	#	73
24) cis-1,2-Dichloroethene	8.21	96	194690	2.5579	ppb	#	82
26) Ethyl Acetate	8.46	61	72892	2.6609	ppb	#	1
27) Hexane	8.40	57	265300	2.1605	ppb	#	82
28) Chloroform	8.50	83	367237	2.2003	ppb		98
29) Tetrahydrofuran	8.97	42	206357	2.1509	ppb	#	62
30) 1,2-Dichloroethane	9.25	62	222264	2.1472	ppb	#	90
31) 1,1,1-Trichloroethane	9.48	97	381447	2.1255	ppb	#	92
32) Benzene	9.94	78	509475	2.2314	ppb	#	93
33) Carbon Tetrachloride	10.07	117	472529	2.1820	ppb		99
34) Cyclohexane	10.19	84	229710	2.1661	ppb	#	54
35) 1,2-Dichloropropane	10.75	63	193216	2.1852	ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:45 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.94	83	385487	2.1865	ppb		97
37)	1,4-Dioxane	11.02	88	128818	2.2966	ppb	#	95
38)	Trichloroethene	10.97	130	306814	2.2228	ppb		97
39)	Methyl Methacrylate	11.16	69	169636	2.3448	ppb	#	80
40)	Heptane	11.25	71	171022	2.2647	ppb	#	48
41)	cis-1,3-Dichloropropene	11.83	75	275670	2.1742	ppb		98
42)	4-Methyl-2-Pentanone	11.87	43	427053	2.1720	ppb	#	74
43)	trans-1,3-Dichloropropene	12.36	75	247696	2.2306	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	233251	2.2540	ppb	#	93
45)	Toluene	12.82	91	633270	2.2993	ppb		99
46)	2-Hexanone	13.08	43	454766	2.6373	ppb	#	75
47)	Dibromochloromethane	13.27	129	501362	2.2269	ppb		99
48)	1,2-Dibromoethane	13.53	107	372638	2.2672	ppb		100
49)	Tetrachloroethene	13.99	166	341812	2.2462	ppb	#	82
51)	Chlorobenzene	14.71	112	593654	2.2610	ppb		92
52)	Ethylbenzene	15.10	91	811637	2.2190	ppb		99
53)	m,p-Xylene	15.29	91	1248609	4.4019	ppb		100
54)	Bromoform	15.41	173	416644	2.2035	ppb		99
55)	Styrene	15.69	104	485440	2.2222	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.82	83	478482	2.2283	ppb		98
57)	o-Xylene	15.81	91	644133	2.1879	ppb		100
59)	4-Ethyl Toluene	17.25	105	901104	2.2815	ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	790321	2.2201	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	744237	2.2270	ppb		99
62)	Benzyl Chloride	18.06	91	488353	2.2826	ppb		97
63)	m-Dichlorobenzene	18.08	146	553865	2.3553	ppb		96
64)	p-Dichlorobenzene	18.17	146	545937	2.4226	ppb		96
65)	o-Dichlorobenzene	18.62	146	519933	2.3236	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	252332	3.4347	ppb	#	98
67)	Naphthalene	21.31	128	690483	2.9898	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	231635	2.2208	ppb		99

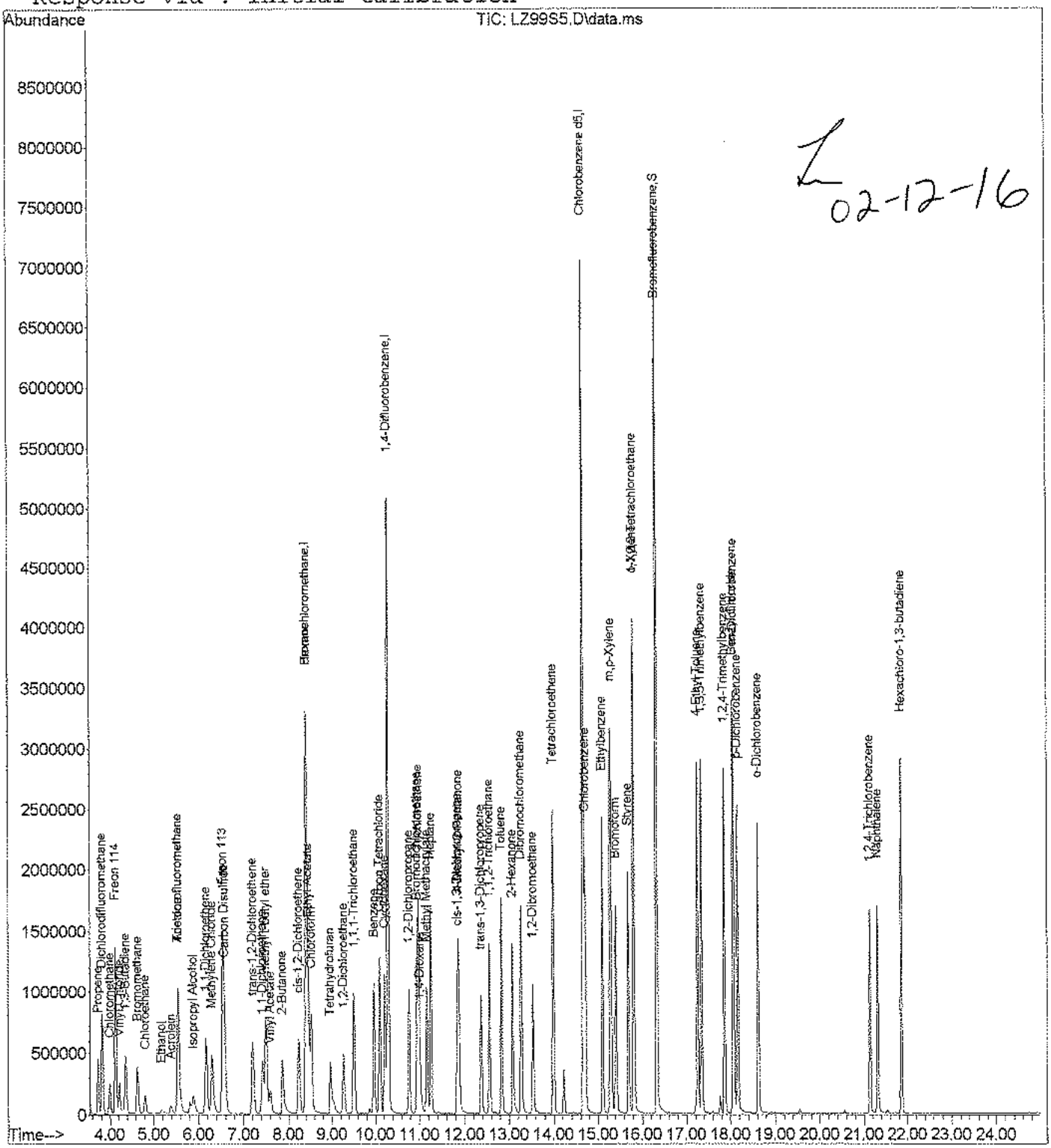
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



LZ 02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	498624	20.0000	ppb		70.11
25) 1,4-Difluorobenzene	10.29	114	6190640	20.0000	ppb		83.51
50) Chlorobenzene d5	14.66	117	5598828	20.0000	ppb		86.87
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3281478	20.9163	ppb		104.58%
Target Compounds							Qvalue
2) Propene	3.73	41	339749	5.7455	ppb		99
3) Dichlorodifluoromethane	3.82	85	1107007	6.1492	ppb		99
4) Chloromethane	3.99	50	410999	6.0332	ppb		98
5) Freon 114	4.13	135	951144	5.6823	ppb	#	79
6) Vinyl Chloride	4.22	62	409586	6.0230	ppb		98
7) 1,3-Butadiene	4.36	54	340904	5.6650	ppb	#	62
8) Bromomethane	4.63	94	423273	6.0085	ppb		99
9) Chloroethane	4.81	64	220722	5.8235	ppb	#	89
10) Acrolein	5.38	56	108339	4.5068	ppb	#	97
11) Acetone	5.54	43	677391	5.5500	ppb		88
12) Trichlorofluoromethane	5.55	101	1222070	5.5586	ppb		97
13) Ethanol	5.17	45	79442	3.5720	ppb	#	73
14) Isopropyl Alcohol	5.88	45	601519	5.2038	ppb	m	82
15) 1,1-Dichloroethene	6.17	61	679308	5.5839	ppb	#	81
16) Methylene Chloride	6.30	84	404261	5.7343	ppb	#	67
17) Freon 113	6.55	151	852356	5.4753	ppb	#	73
18) Carbon Disulfide	6.59	76	1155786	5.5886	ppb	#	64
19) trans-1,2-Dichloroethene	7.21	96	459860	5.5577	ppb	#	81
20) 1,1-Dichloroethane	7.43	63	766207	5.5206	ppb		97
21) methyl t-butyl ether	7.50	73	1067492	5.7149	ppb	#	83
22) Vinyl Acetate	7.58	86	46331	3.5876	ppb	#	1
23) 2-Butanone	7.86	43	947569	5.9210	ppb	#	71
24) cis-1,2-Dichloroethene	8.24	96	494145	5.6718	ppb	#	82
26) Ethyl Acetate	8.46	61	194665	6.4578	ppb	#	1
27) Hexane	8.42	57	685969	5.4708	ppb	#	48
28) Chloroform	8.54	83	905853	5.2560	ppb		99
29) Tetrahydrofuran	8.96	42	541558	5.4817	ppb	#	63
30) 1,2-Dichloroethane	9.27	62	552390	5.1819	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	956483	5.1918	ppb	#	93
32) Benzene	9.96	78	1285337	5.4284	ppb	#	94
33) Carbon Tetrachloride	10.10	117	1181653	5.2845	ppb		99
34) Cyclohexane	10.21	84	608962	5.5957	ppb	#	58
35) 1,2-Dichloropropane	10.77	63	489564	5.3736	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	966106	5.2917	ppb		98
37)	1,4-Dioxane	11.02	88	330271	5.6041	ppb		95
38)	Trichloroethene	10.99	130	765743	5.3548	ppb		97
39)	Methyl Methacrylate	11.16	69	451409	5.9632	ppb	#	80
40)	Heptane	11.26	71	453876	5.8605	ppb	#	47
41)	cis-1,3-Dichloropropene	11.84	75	728055	5.5459	ppb		97
42)	4-Methyl-2-Pentanone	11.87	43	1147523	5.6593	ppb	#	74
43)	trans-1,3-Dichloropropene	12.36	75	652201	5.6281	ppb		97
44)	1,1,2-Trichloroethane	12.55	97	591512	5.5106	ppb	#	93
45)	Toluene	12.83	91	1664738	5.8490	ppb		100
46)	2-Hexanone	13.08	43	1246634	6.5684	ppb	#	75
47)	Dibromochloromethane	13.27	129	1292063	5.5183	ppb		99
48)	1,2-Dibromoethane	13.54	107	959178	5.5788	ppb		100
49)	Tetrachloroethene	13.99	166	882903	5.6234	ppb	#	82
51)	Chlorobenzene	14.71	112	1518093	5.5782	ppb		96
52)	Ethylbenzene	15.10	91	2147523	5.6880	ppb		99
53)	m,p-Xylene	15.29	91	3304810	11.2923	ppb		99
54)	Bromoform	15.41	173	1092502	5.5527	ppb		99
55)	Styrene	15.69	104	1340684	5.9069	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	1235241	5.5155	ppb		98
57)	o-Xylene	15.81	91	1712954	5.6535	ppb		100
59)	4-Ethyl Toluene	17.25	105	2411355	5.8168	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	2100186	5.6786	ppb		99
61)	1,2,4-Trimethylbenzene	17.86	105	2005677	5.7397	ppb		100
62)	Benzyl Chloride	18.06	91	1389671	5.8956	ppb		99
63)	m-Dichlorobenzene	18.07	146	1469987	5.7992	ppb		96
64)	p-Dichlorobenzene	18.16	146	1452161	5.9314	ppb		96
65)	o-Dichlorobenzene	18.62	146	1386448	5.7895	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	693930	7.4565	ppb	#	98
67)	Naphthalene	21.31	128	1916770	6.8981	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	603177	5.4105	ppb		99

(#) = qualifier out of range (m) = manual integration

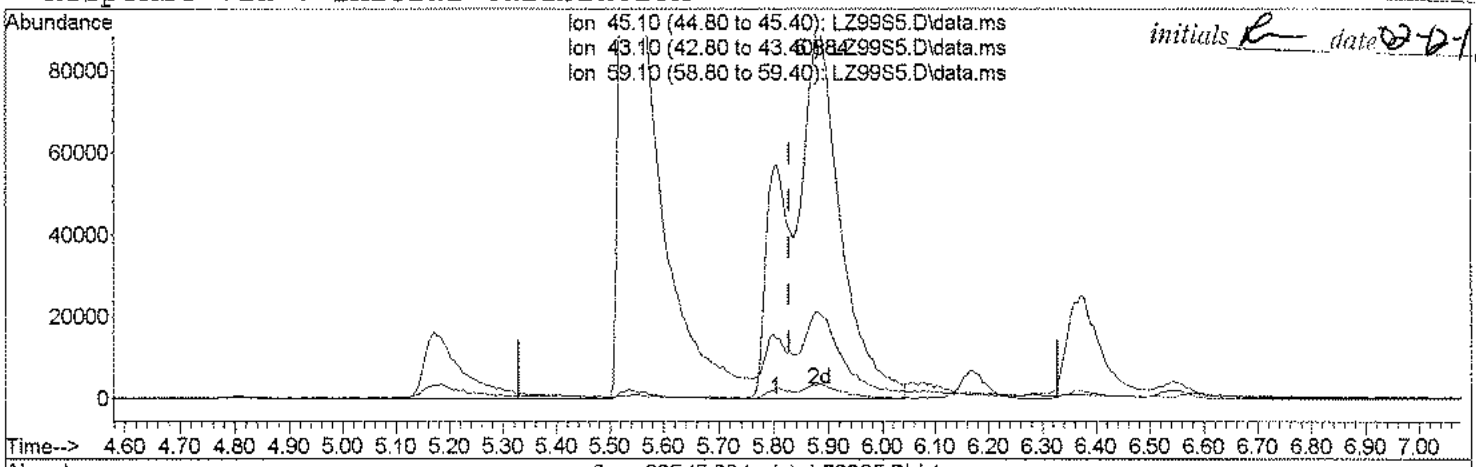
Quantitation Report (Qedit)

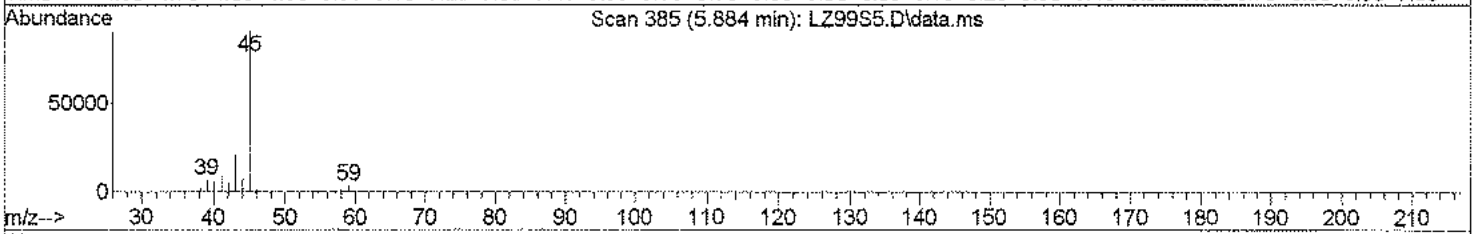
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ99S5.D
Acq On : 02/11/2016 19:49
Operator : TJM
Sample : 5.0 PPB STD
Inst : 5975-L
Misc : 30851 (100mL)
ALS Vial : 2 Sample Multiplier: 1

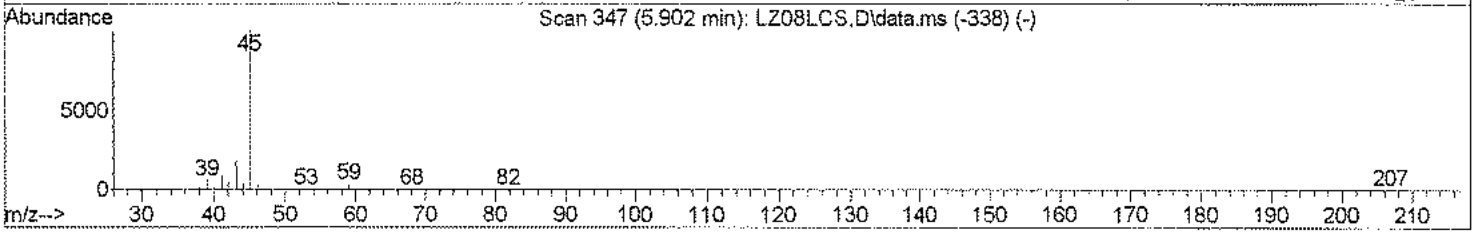
Quant Time: Feb 12 08:00:18 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials _____ date 2-12-16







TIC: LZ99S5.D\data.ms

(14) Isopropyl Alcohol

5.884min (+ 0.055) 5.20 ppb m

response 601519

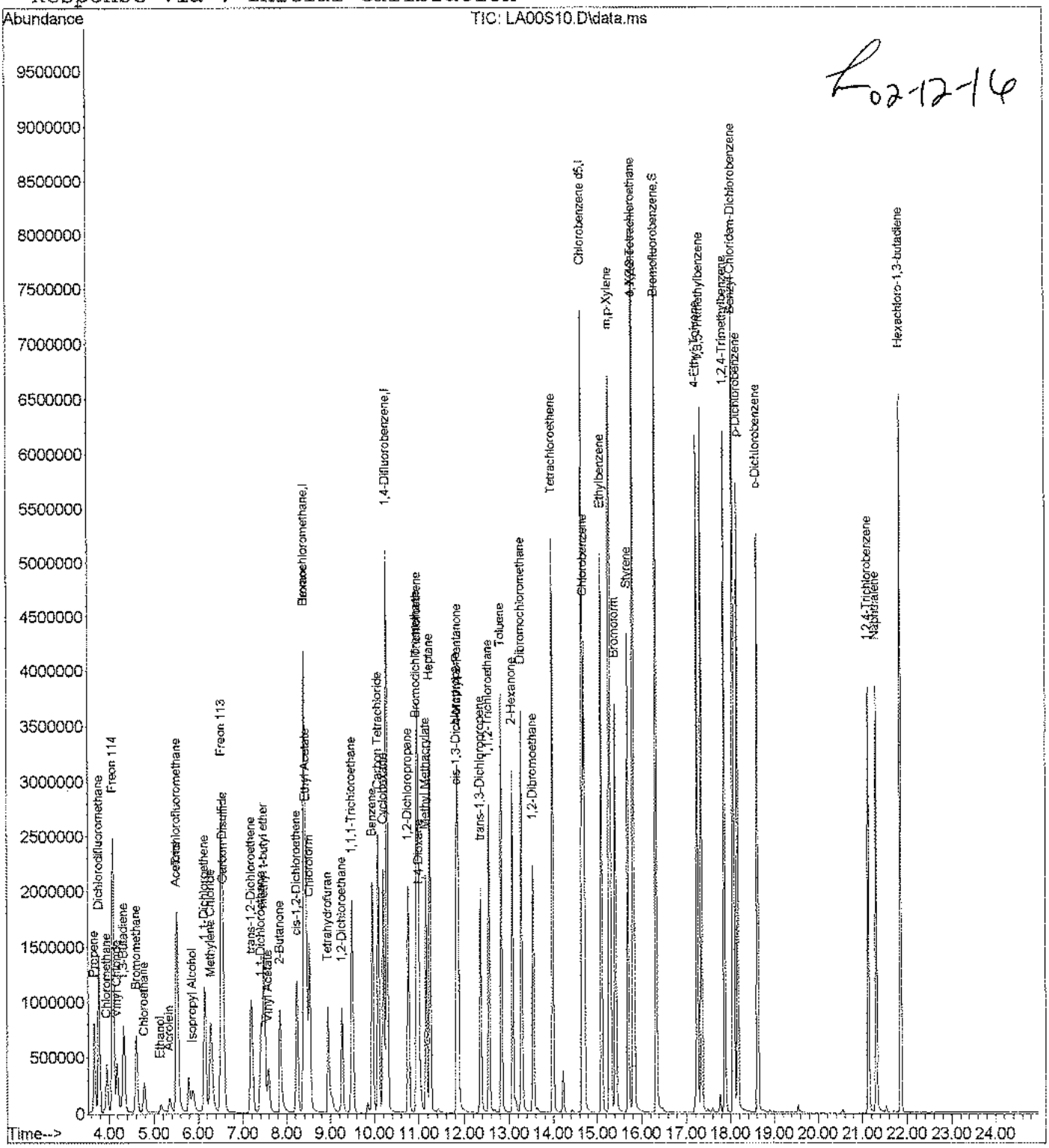
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	8.25#
59.10	4.00	1.11#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:03 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	485440	20.0000	ppb		68.25
25) 1,4-Difluorobenzene	10.29	114	6266319	20.0000	ppb		84.53
50) Chlorobenzene d5	14.67	117	5800685	20.0000	ppb		90.01
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3420474	20.7975	ppb		103.99%
Target Compounds							Qvalue
2) Propene	3.68	41	694541	11.7431	ppb		99
3) Dichlorodifluoromethane	3.78	85	2197608	12.0643	ppb		99
4) Chloromethane	3.96	50	809288	11.6744	ppb		98
5) Freon 114	4.10	135	1888015	11.1210	ppb	#	79
6) Vinyl Chloride	4.18	62	833748	12.1475	ppb		98
7) 1,3-Butadiene	4.33	54	685278	11.2862	ppb	#	62
8) Bromomethane	4.60	94	855503	12.0470	ppb		98
9) Chloroethane	4.78	64	452093	11.8234	ppb	#	89
10) Acrolein	5.35	56	238257	10.5201	ppb		97
11) Acetone	5.50	43	1394926	11.3397	ppb		88
12) Trichlorofluoromethane	5.52	101	2440197	10.9563	ppb		96
13) Ethanol	5.15	45	170811	8.6130	ppb	#	76
14) Isopropyl Alcohol	5.87	45	511309	4.5651	ppb		97
15) 1,1-Dichloroethene	6.15	61	1390118	11.3294	ppb	#	81
16) Methylene Chloride	6.28	84	803658	11.2271	ppb	#	64
17) Freon 113	6.53	151	1716368	10.9141	ppb	#	73
18) Carbon Disulfide	6.57	76	2332991	11.1516	ppb	#	65
19) trans-1,2-Dichloroethene	7.20	96	937658	11.1773	ppb	#	81
20) 1,1-Dichloroethane	7.43	63	1542417	10.9843	ppb		98
21) methyl t-butyl ether	7.49	73	2196850	11.6138	ppb	#	82
22) Vinyl Acetate	7.59	86	96257	8.4938	ppb	#	1
23) 2-Butanone	7.85	43	1987962	12.1543	ppb	#	70
24) cis-1,2-Dichloroethene	8.24	96	1007417	11.3882	ppb	#	82
26) Ethyl Acetate	8.46	61	399830	12.0910	ppb	#	1
27) Hexane	8.41	57	1416513	11.0518	ppb	#	48
28) Chloroform	8.53	83	1843551	10.3936	ppb		99
29) Tetrahydrofuran	8.95	42	1139829	11.2024	ppb	#	60
30) 1,2-Dichloroethane	9.27	62	1134587	10.4074	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	1955415	10.3667	ppb	#	92
32) Benzene	9.96	78	2616687	10.6746	ppb	#	94
33) Carbon Tetrachloride	10.10	117	2417904	10.5147	ppb		99
34) Cyclohexane	10.21	84	1254570	11.1677	ppb	#	58
35) 1,2-Dichloropropane	10.77	63	1005455	10.7128	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:03 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	2002306	10.6429	ppb		98
37)	1,4-Dioxane	11.02	88	689521	11.1364	ppb		92
38)	Trichloroethene	10.99	130	1588013	10.7808	ppb		98
39)	Methyl Methacrylate	11.16	69	971407	12.2613	ppb	#	79
40)	Heptane	11.25	71	936034	11.7292	ppb	#	45
41)	cis-1,3-Dichloropropene	11.84	75	1546216	11.4183	ppb		97
42)	4-Methyl-2-Pentanone	11.87	43	2441656	11.7179	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	1400417	11.6906	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	1226917	11.0598	ppb	#	93
45)	Toluene	12.83	91	3496002	11.8972	ppb		100
46)	2-Hexanone	13.08	43	2748693	13.3194	ppb	#	75
47)	Dibromochloromethane	13.28	129	2751952	11.3753	ppb		99
48)	1,2-Dibromoethane	13.55	107	2035523	11.4043	ppb		100
49)	Tetrachloroethene	13.99	166	1876485	11.6300	ppb	#	82
51)	Chlorobenzene	14.72	112	3209671	11.2457	ppb		98
52)	Ethylbenzene	15.11	91	4564943	11.5566	ppb		100
53)	m,p-Xylene	15.30	91	7080810	23.1468	ppb		100
54)	Bromoform	15.42	173	2371986	11.4591	ppb		99
55)	Styrene	15.70	104	2916836	12.2135	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.83	83	2590980	11.0117	ppb		98
57)	o-Xylene	15.81	91	3669650	11.6025	ppb		100
59)	4-Ethyl Toluene	17.26	105	5173846	11.8226	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	4450049	11.4459	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	4328757	11.7444	ppb		99
62)	Benzyl Chloride	18.06	91	3165466	12.4741	ppb		99
63)	m-Dichlorobenzene	18.08	146	3158097	11.6083	ppb		96
64)	p-Dichlorobenzene	18.17	146	3127771	11.8279	ppb		96
65)	o-Dichlorobenzene	18.63	146	2984776	11.6746	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	1581918	13.9053	ppb	#	97
67)	Naphthalene	21.31	128	4270025	13.1484	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1320207	11.1532	ppb		99

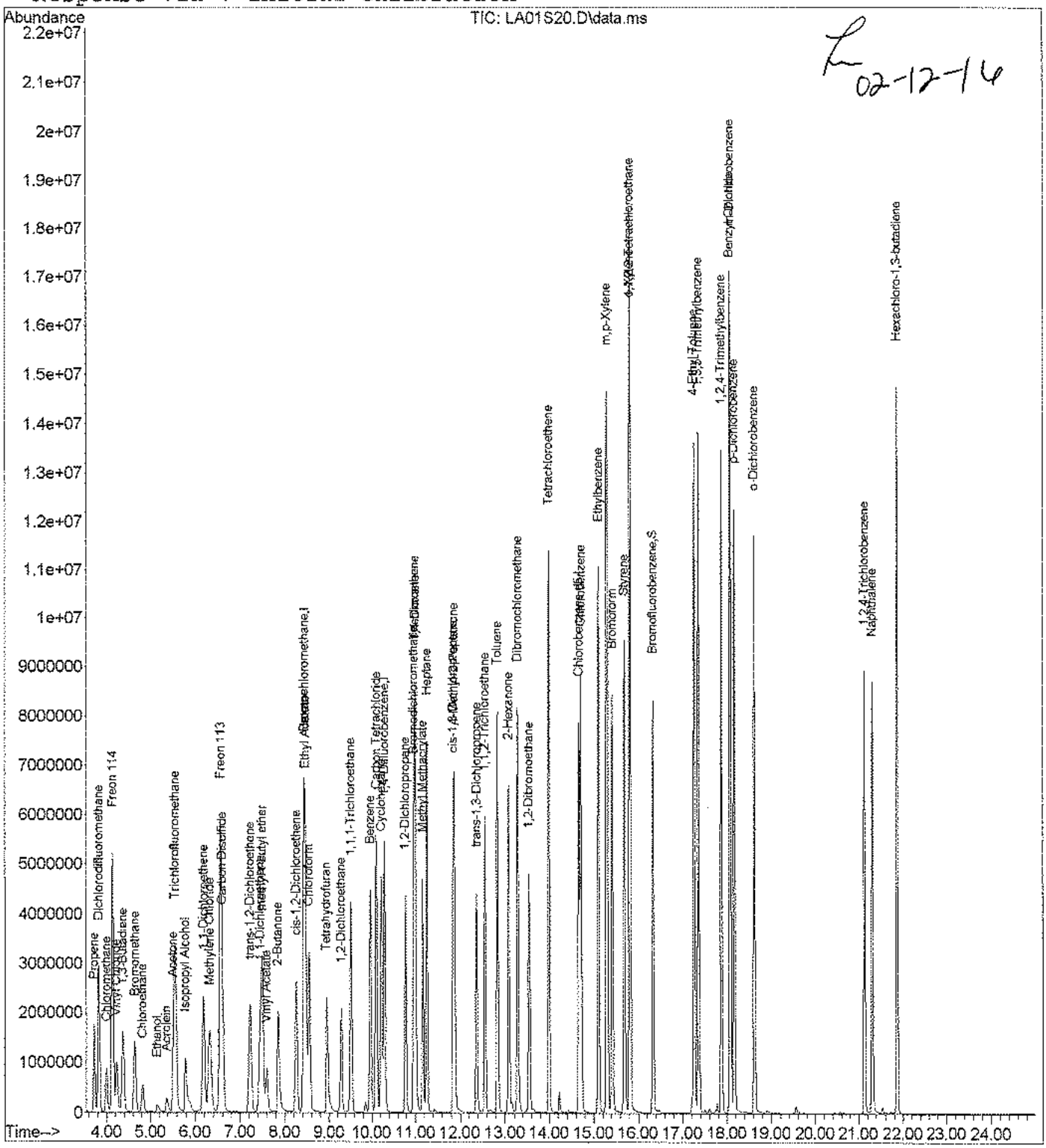
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:39 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.43	130	531904	20.0000	ppb		109.57
25) 1,4-Difluorobenzene	10.30	114	6514360	20.0000	ppb		103.96
50) Chlorobenzene d5	14.67	117	6088197	20.0000	ppb		104.96
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3652934	20.9477	ppb		104.74%
Target Compounds							**Qvalue**
2) Propene	3.72	41	1454520	21.4216	ppb		99
3) Dichlorodifluoromethane	3.82	85	4619221	21.9179	ppb		100
4) Chloromethane	3.99	50	1726758	21.5443	ppb		99
5) Freon 114	4.13	135	4006135	20.5173	ppb	#	80
6) Vinyl Chloride	4.23	62	1782596	22.5348	ppb		99
7) 1,3-Butadiene	4.37	54	1489424	21.3696	ppb	#	62
8) Bromomethane	4.65	94	1807442	22.0781	ppb		99
9) Chloroethane	4.82	64	949806	21.5253	ppb	#	89
10) Acrolein	5.37	56	498826	20.2915	ppb		99
11) Acetone	5.51	43	2988881	21.0379	ppb		87
12) Trichlorofluoromethane	5.56	101	5107892	19.9172	ppb		96
13) Ethanol	5.15	45	359084	17.7965	ppb	#	77
14) Isopropyl Alcohol	5.79	45	2780179	25.1775	ppb		98
15) 1,1-Dichloroethene	6.19	61	2917052	20.6377	ppb	#	81
16) Methylene Chloride	6.32	84	1665392	20.1364	ppb	#	63
17) Freon 113	6.56	151	3593072	19.8693	ppb	#	74
18) Carbon Disulfide	6.60	76	4811668	19.9443	ppb	#	65
19) trans-1,2-Dichloroethene	7.23	96	1966443	20.2844	ppb	#	81
20) 1,1-Dichloroethane	7.45	63	3248446	20.0998	ppb		97
21) methyl t-butyl ether	7.50	73	4635159	21.2313	ppb	#	81
22) Vinyl Acetate	7.60	86	209842	18.8114	ppb	#	1
23) 2-Butanone	7.85	43	4289396	22.5302	ppb	#	71
24) cis-1,2-Dichloroethene	8.26	96	2106550	20.5727	ppb	#	81
26) Ethyl Acetate	8.46	61	853981	22.9985	ppb	#	1
27) Hexane	8.43	57	3006631	22.2584	ppb	#	48
28) Chloroform	8.55	83	3813589	20.2797	ppb		98
29) Tetrahydrofuran	8.94	42	2448072	22.6755	ppb	#	63
30) 1,2-Dichloroethane	9.28	62	2400419	20.8918	ppb	#	90
31) 1,1,1-Trichloroethane	9.51	97	4115065	20.6963	ppb	#	92
32) Benzene	9.97	78	5456676	20.8811	ppb	#	93
33) Carbon Tetrachloride	10.10	117	5127660	21.0496	ppb		99
34) Cyclohexane	10.22	84	2598460	21.7002	ppb	#	55
35) 1,2-Dichloropropane	10.77	63	2104584	21.1294	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:39 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	4194048	20.9867	ppb		97
37)	1,4-Dioxane	11.00	88	1490569	22.2910	ppb	#	92
38)	Trichloroethene	10.99	130	3353916	21.4336	ppb		97
39)	Methyl Methacrylate	11.16	69	2068221	24.0987	ppb	#	77
40)	Heptane	11.26	71	1966938	23.2055	ppb	#	43
41)	cis-1,3-Dichloropropene	11.85	75	3273699	22.7144	ppb		98
42)	4-Methyl-2-Pentanone	11.87	43	5276898	23.8741	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	2997250	23.4321	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	2589327	21.8979	ppb	#	94
45)	Toluene	12.83	91	7360767	23.4832	ppb		100
46)	2-Hexanone	13.08	43	6056930	26.3790	ppb	#	75
47)	Dibromochloromethane	13.28	129	5956572	23.0604	ppb		99
48)	1,2-Dibromoethane	13.54	107	4350632	22.7885	ppb		100
49)	Tetrachloroethene	13.99	166	4019905	23.3927	ppb	#	81
51)	Chlorobenzene	14.72	112	6692661	21.9345	ppb		98
52)	Ethylbenzene	15.11	91	9696170	23.0398	ppb		100
53)	m,p-Xylene	15.30	91	15176928	46.6131	ppb		100
54)	Bromoform	15.42	173	5184356	23.4097	ppb		98
55)	Styrene	15.69	104	6274511	24.5103	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.82	83	5543598	22.1126	ppb		98
57)	o-Xylene	15.82	91	7965576	23.6893	ppb		100
59)	4-Ethyl Toluene	17.25	105	11092545	23.6599	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	9563952	23.0464	ppb		100
61)	1,2,4-Trimethylbenzene	17.87	105	9358127	23.6975	ppb		99
62)	Benzyl Chloride	18.06	91	7169476	26.3375	ppb		99
63)	m-Dichlorobenzene	18.08	146	6866704	23.3227	ppb		96
64)	p-Dichlorobenzene	18.17	146	6721586	23.3467	ppb		96
65)	o-Dichlorobenzene	18.62	146	6412665	23.2171	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	3544179	26.3888	ppb	#	97
67)	Naphthalene	21.31	128	9347501	25.2182	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	2947360	23.1728	ppb		99

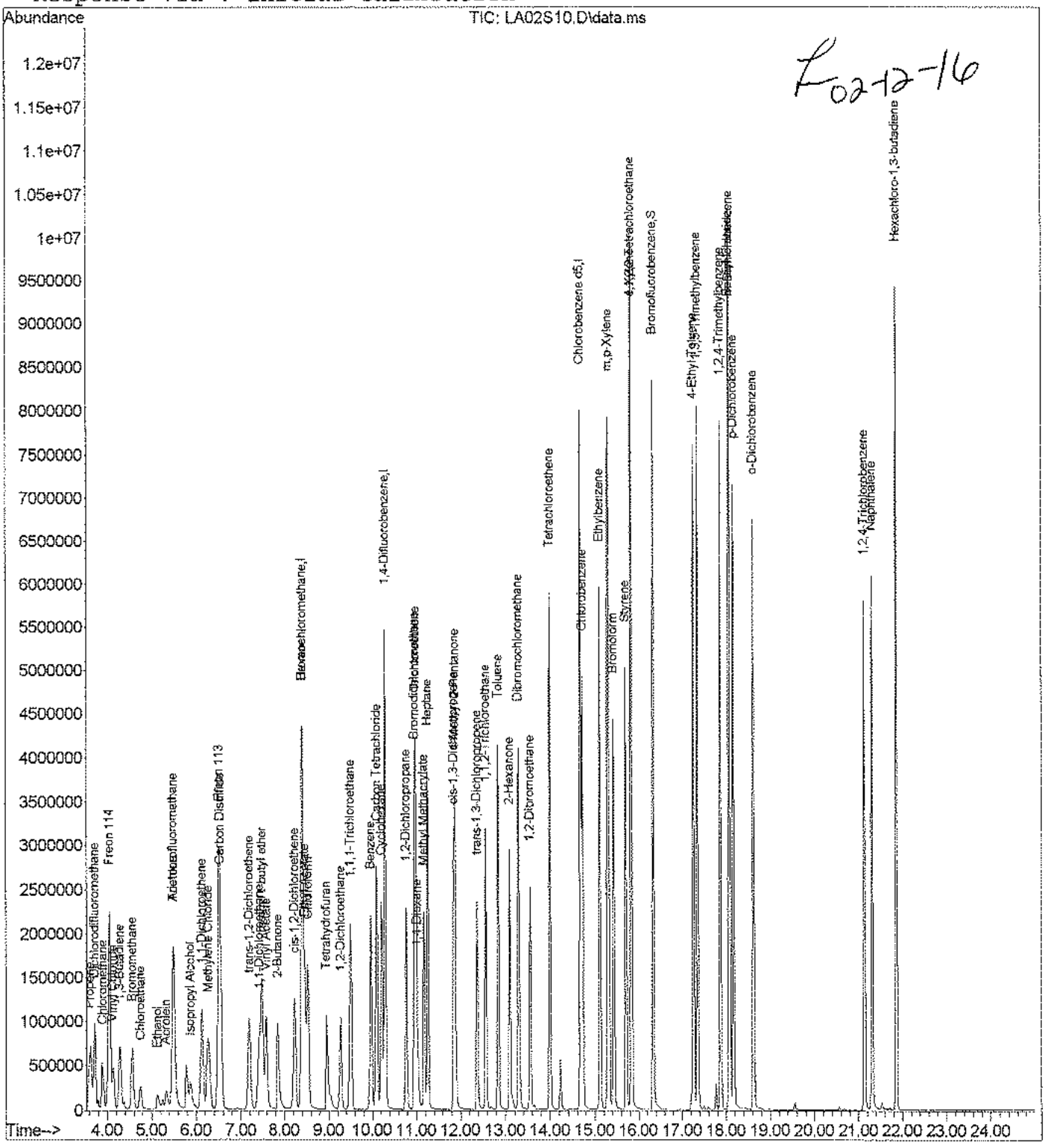
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	489024	20.0000	ppb		100.74
25) 1,4-Difluorobenzene	10.29	114	6764977	20.0000	ppb		107.96
50) Chlorobenzene d5	14.67	117	6180371	20.0000	ppb		106.55
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.34	95	3635448	20.2872	ppb		101.44%
Target Compounds							**Qvalue**
2) Propene	3.61	41	745757	11.4585	ppb	m	0
3) Dichlorodifluoromethane	3.73	85	2344087	11.3595	ppb	m	91
4) Chloromethane	3.90	50	893818	11.5228	ppb	m	41
5) Freon 114	4.05	135	1908152	10.1497	ppb	#	77
6) Vinyl Chloride	4.13	62	813206	10.6458	ppb		98
7) 1,3-Butadiene	4.29	54	690480	10.2824	ppb	#	60
8) Bromomethane	4.56	94	922042	11.6850	ppb		98
9) Chloroethane	4.74	64	473575	11.1357	ppb	#	89
10) Acrolein	5.32	56	394704	17.6763	ppb		98
11) Acetone	5.49	43	1551169	11.3092	ppb	#	84
12) Trichlorofluoromethane	5.49	101	2607586	10.5805	ppb		96
13) Ethanol	5.13	45	406646	23.8692	ppb	#	78
14) Isopropyl Alcohol	5.87	45	748790	6.5898	ppb		99
15) 1,1-Dichloroethene	6.12	61	1541980	11.3675	ppb	#	80
16) Methylene Chloride	6.26	84	882301	11.0803	ppb	#	63
17) Freon 113	6.51	151	1906335	10.9894	ppb	#	74
18) Carbon Disulfide	6.54	76	2570980	11.0994	ppb	#	65
19) trans-1,2-Dichloroethene	7.18	96	1051790	11.2699	ppb	#	80
20) 1,1-Dichloroethane	7.41	63	1744085	11.2392	ppb		97
21) methyl t-butyl ether	7.48	73	2486576	11.8487	ppb	#	82
22) Vinyl Acetate	7.58	86	280681	30.9339	ppb	#	1
23) 2-Butanone	7.85	43	2209480	11.9492	ppb	#	71
24) cis-1,2-Dichloroethene	8.23	96	1128404	11.4382	ppb	#	81
26) Ethyl Acetate	8.46	61	309299	7.4483	ppb	#	1
27) Hexane	8.40	57	1613265	11.2769	ppb	#	82
28) Chloroform	8.53	83	2077298	10.4021	ppb		99
29) Tetrahydrofuran	8.94	42	1103477	9.5904	ppb	#	68
30) 1,2-Dichloroethane	9.27	62	1308600	10.7600	ppb	#	91
31) 1,1,1-Trichloroethane	9.50	97	2267425	10.7837	ppb	#	92
32) Benzene	9.96	78	2885330	10.3507	ppb	#	93
33) Carbon Tetrachloride	10.09	117	2743301	10.5890	ppb		99
34) Cyclohexane	10.21	84	1383906	10.8364	ppb	#	56
35) 1,2-Dichloropropane	10.77	63	1136861	10.7327	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	2259464	10.6479	ppb		97
37)	1,4-Dioxane	11.02	88	737701	10.1905	ppb	#	91
38)	Trichloroethene	10.99	130	1782511	10.7024	ppb		97
39)	Methyl Methacrylate	11.17	69	1032042	11.0991	ppb	#	78
40)	Heptane	11.25	71	1056157	11.7051	ppb	#	44
41)	cis-1,3-Dichloropropene	11.85	75	1798896	11.7248	ppb		97
42)	4-Methyl-2-Pentanone	11.88	43	2868842	12.1696	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	1656410	12.1110	ppb		97
44)	1,1,2-Trichloroethane	12.57	97	1402209	11.0887	ppb	#	93
45)	Toluene	12.84	91	3969358	11.8398	ppb		100
46)	2-Hexanone	13.09	43	2711056	10.6153	ppb	#	75
47)	Dibromochloromethane	13.28	129	3130692	11.3076	ppb		99
48)	1,2-Dibromoethane	13.55	107	2363280	11.5452	ppb		100
49)	Tetrachloroethene	14.00	166	2164263	11.7706	ppb	#	82
51)	Chlorobenzene	14.72	112	3668876	11.6117	ppb		97
52)	Ethylbenzene	15.11	91	5310490	12.2001	ppb		100
53)	m,p-Xylene	15.30	91	8298624	24.5906	ppb		100
54)	Bromoform	15.42	173	2784961	12.1083	ppb		99
55)	Styrene	15.71	104	3454864	12.9769	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	3108398	11.9363	ppb		98
57)	o-Xylene	15.82	91	4360739	12.5011	ppb		99
59)	4-Ethyl Toluene	17.26	105	6290035	12.9051	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	5413751	12.5724	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	5359610	13.0631	ppb		100
62)	Benzyl Chloride	18.06	91	4877426	17.3235	ppb		99
63)	m-Dichlorobenzene	18.08	146	3994463	12.9919	ppb		96
64)	p-Dichlorobenzene	18.17	146	3952062	13.0928	ppb		96
65)	o-Dichlorobenzene	18.62	146	3799599	13.1851	ppb		97
66)	1,2,4-Trichlorobenzene	21.13	180	2345582	15.7820	ppb	#	97
67)	Naphthalene	21.31	128	6551648	16.4216	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1907763	14.4170	ppb		99

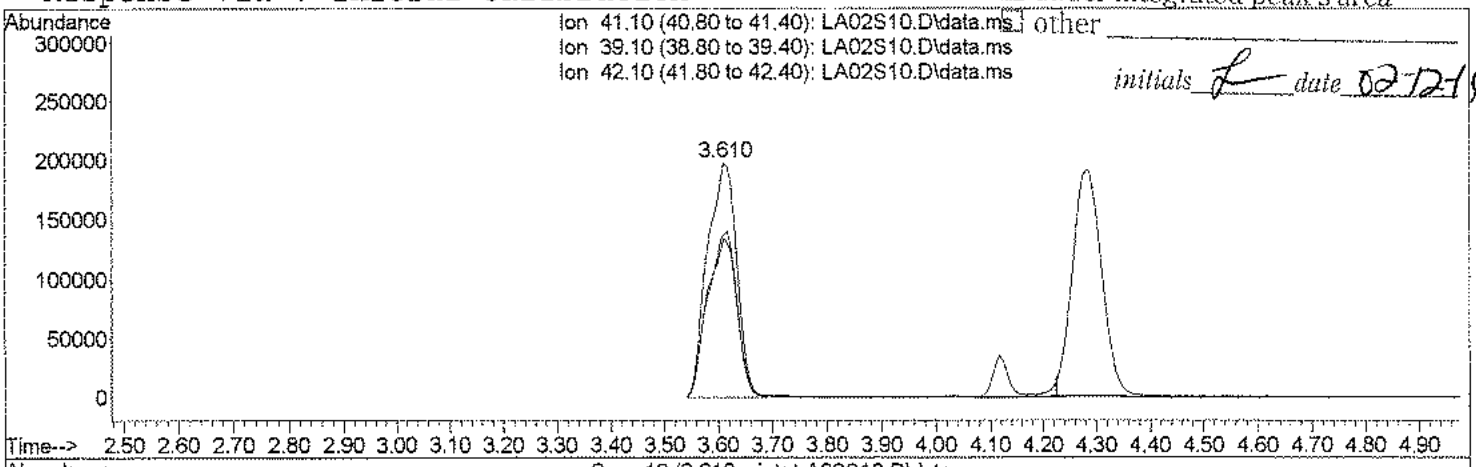
(#) = qualifier out of range (m) = manual integration

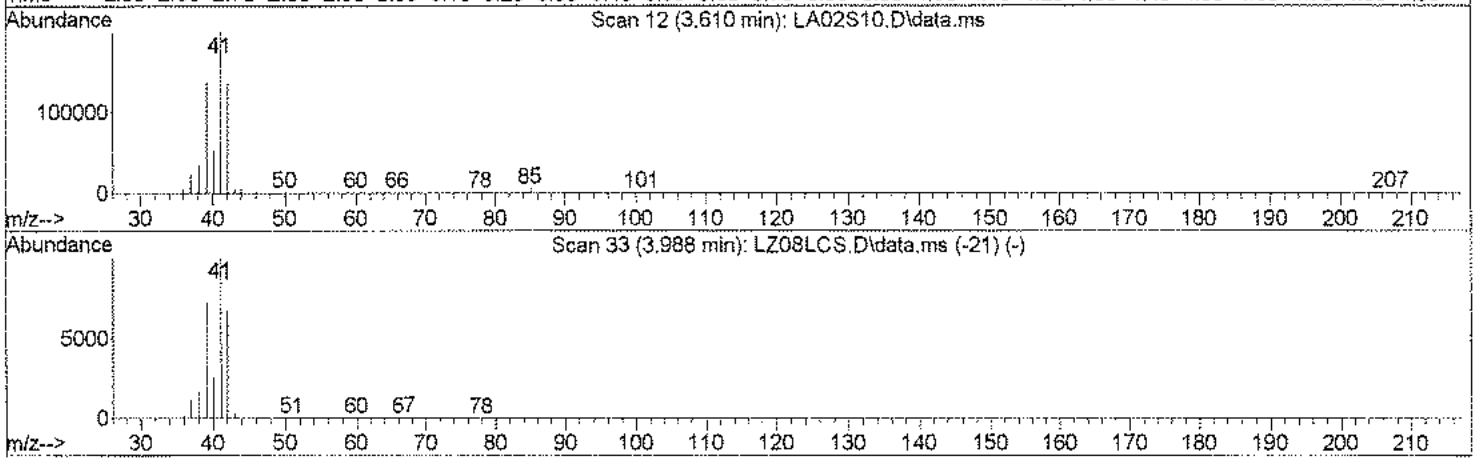
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02-12-16





TIC: LA02S10.D\data.ms

(2) Propene

3.610min (-0.116) 11.46 ppb m

response 745757

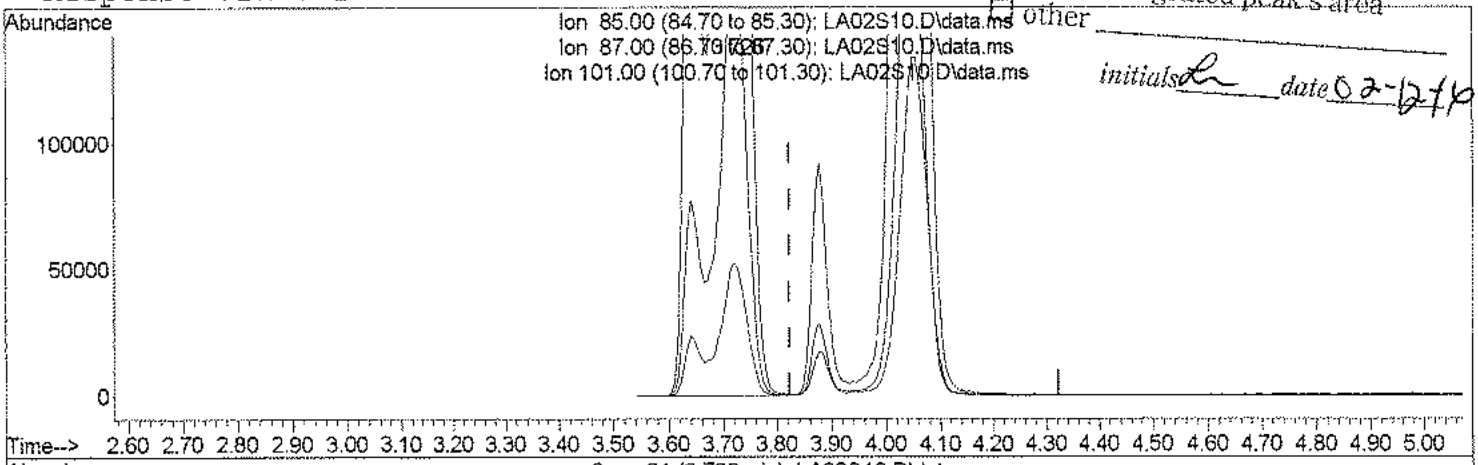
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

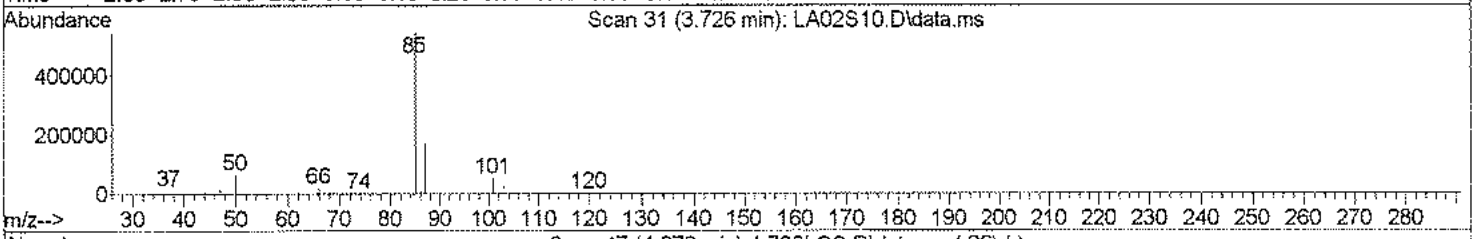
Quantitation Report (Qedit)

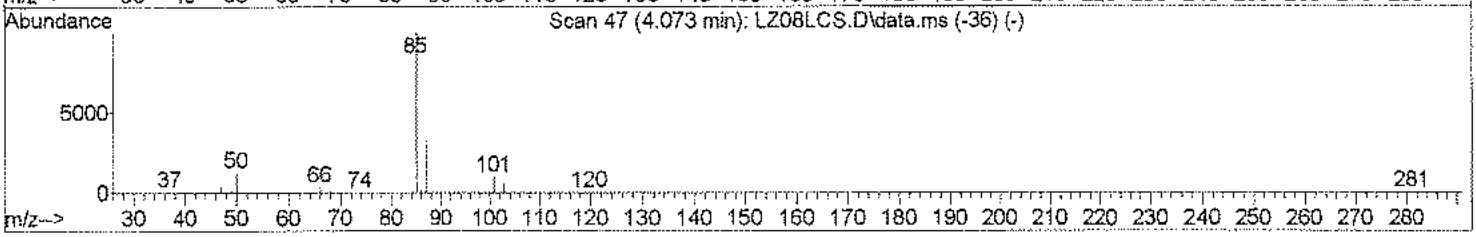
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials LL date 02-12-16







TIC: LA02S10.D\data.ms

(3) Dichlorodifluoromethane

3.726min (-0.098) 11.36 ppb m

response 2344087

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	2.43#
101.00	10.00	1.59#
0.00	0.00	0.00

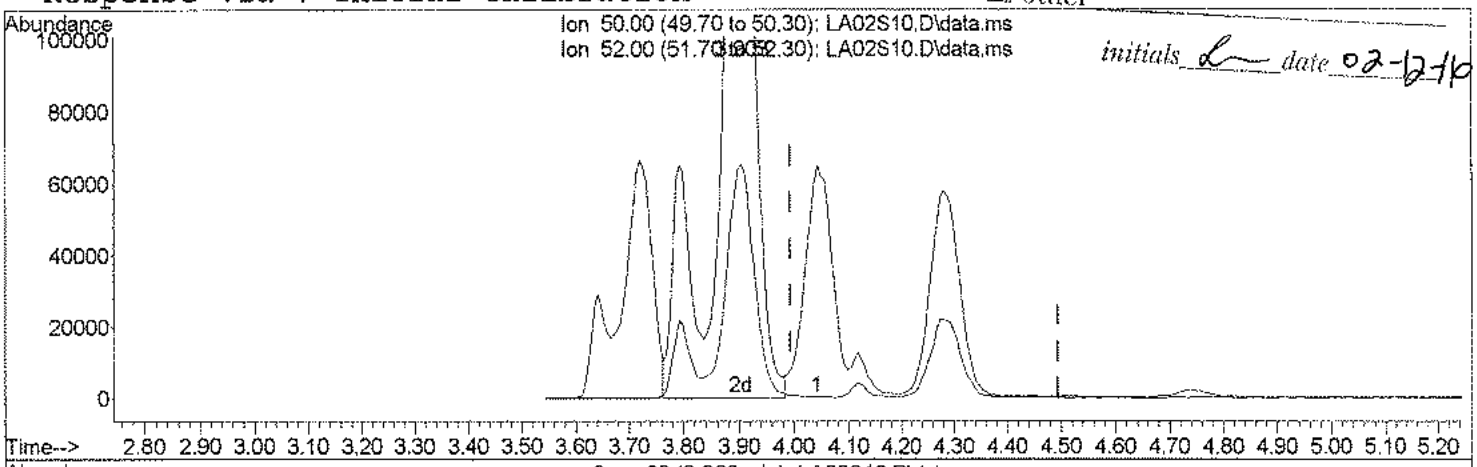
Quantitation Report (Qedit)

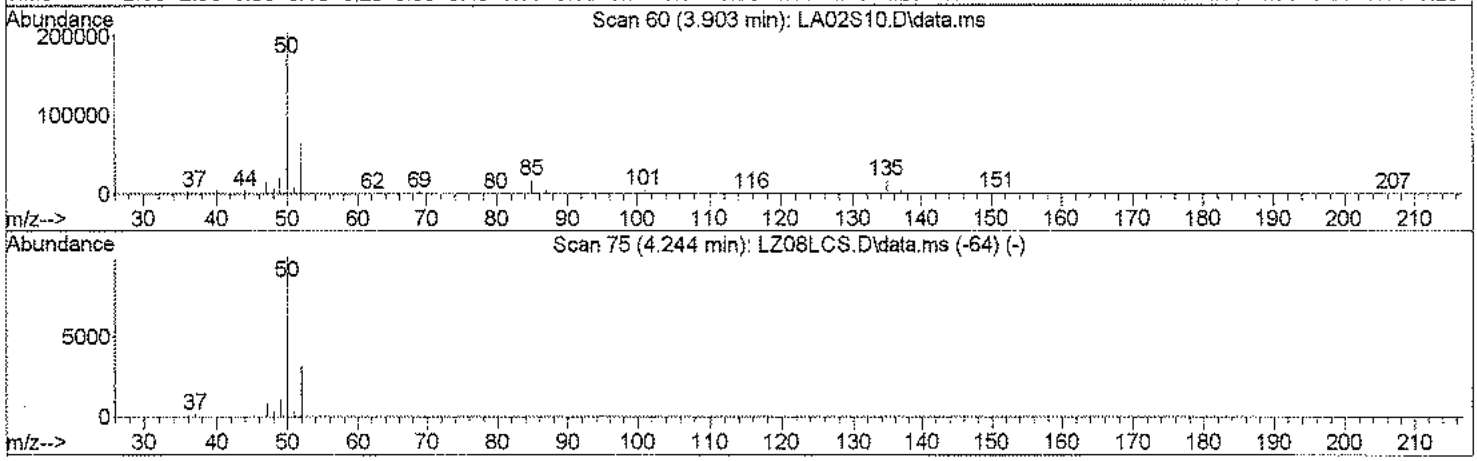
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☐ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials L date 02-12-16





TIC: LA02S10.D\data.ms

(4) Chloromethane

3.903min (-0.092) 11.52 ppb m

response 893818

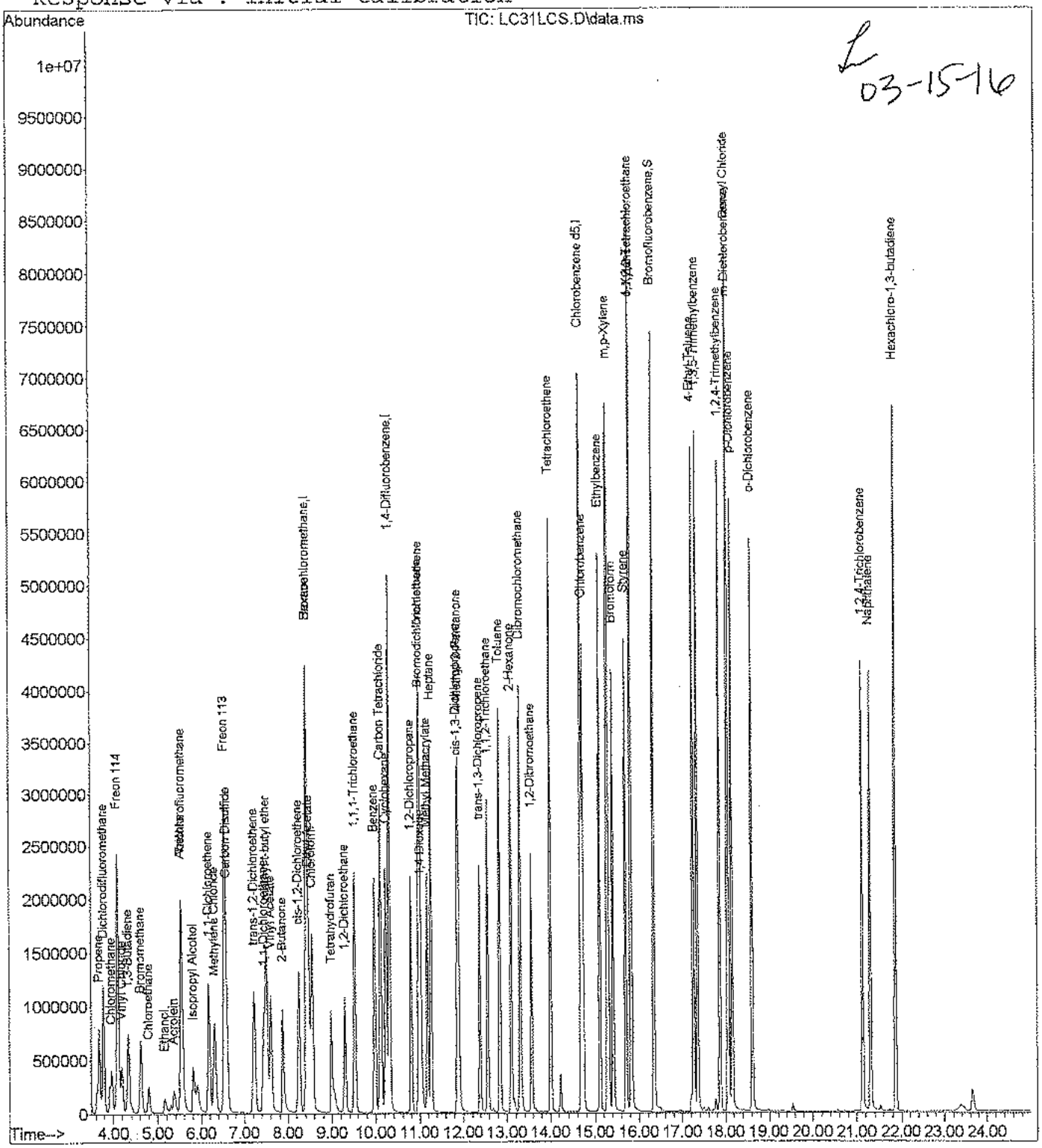
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\14MAR16L\LC31LCS.D Vial: 2
Acq Time : 03/14/2016 11:40 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:00:14 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration



03-15-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\14MAR16L\LC31LCS.D Vial: 2
Acq Time : 03/14/2016 11:40 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:00:14 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.43	130	489344	20.0000	ppb		100.80
25) 1,4-Difluorobenzene	10.31	114	6151974	20.0000	ppb		98.18
50) Chlorobenzene d5	14.68	117	5532951	20.0000	ppb		95.38
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3214561	20.0375	ppb		100.19%
Target Compounds							Qvalue
2) Propene	3.68	41	700996	10.7637	ppb		98
3) Dichlorodifluoromethane	3.79	85	2372424	11.4893	ppb	m	0
4) Chloromethane	3.96	50	720275	9.2795	ppb		99
5) Freon 114	4.10	135	1934591	10.2837	ppb	#	80
6) Vinyl Chloride	4.19	62	812870	10.6344	ppb		99
7) 1,3-Butadiene	4.34	54	648478	9.6506	ppb	#	63
8) Bromomethane	4.62	94	834544	10.5692	ppb		99
9) Chloroethane	4.80	64	416891	9.7965	ppb	#	90
10) Acrolein	5.36	56	370712	16.5910	ppb	#	94
11) Acetone	5.52	43	1500947	10.9359	ppb	#	85
12) Trichlorofluoromethane	5.54	101	2664043	10.8025	ppb		97
13) Ethanol	5.16	45	339695	19.9263	ppb	#	76
14) Isopropyl Alcohol	5.80	45	902416	7.9366	ppb	#	62
15) 1,1-Dichloroethene	6.17	61	1525239	11.2367	ppb	#	78
16) Methylene Chloride	6.31	84	839749	10.5390	ppb	#	64
17) Freon 113	6.55	151	1923294	11.0799	ppb	#	79
18) Carbon Disulfide	6.59	76	2457600	10.6030	ppb	#	65
19) trans-1,2-Dichloroethene	7.22	96	1003584	10.7463	ppb	#	76
20) 1,1-Dichloroethane	7.45	63	1705025	10.9803	ppb		97
21) methyl t-butyl ether	7.50	73	2511294	11.9586	ppb	#	83
22) Vinyl Acetate	7.60	86	269483	29.6803	ppb	#	1
23) 2-Butanone	7.87	43	2044148	11.0478	ppb	m	0
24) cis-1,2-Dichloroethene	8.26	96	1073294	10.8725	ppb	#	79
26) Ethyl Acetate	8.48	61	309198	8.1878	ppb	m	1
27) Hexane	8.43	57	1478982	11.3684	ppb	#	48
28) Chloroform	8.55	83	2026060	11.1564	ppb		98
29) Tetrahydrofuran	8.97	42	1209009	11.5546	ppb	#	64
30) 1,2-Dichloroethane	9.29	62	1341206	12.1269	ppb	#	93
31) 1,1,1-Trichloroethane	9.52	97	2285220	11.9513	ppb	#	93
32) Benzene	9.98	78	2731164	10.7739	ppb	#	93
33) Carbon Tetrachloride	10.11	117	2790216	11.8432	ppb		99
34) Cyclohexane	10.23	84	1302244	11.2131	ppb	#	56
35) 1,2-Dichloropropane	10.79	63	1087539	11.2901	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\14MAR16L\LC31LCS.D Vial: 2
Acq Time : 03/14/2016 11:40 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:00:14 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.97	83	2202500	11.4137	ppb		97
37)	1,4-Dioxane	11.03	88	824634	12.5264	ppb	#	79
38)	Trichloroethene	11.00	130	1740409	11.4909	ppb		98
39)	Methyl Methacrylate	11.18	69	1014183	11.9938	ppb	#	80
40)	Heptane	11.27	71	966898	11.7837	ppb	#	36
41)	cis-1,3-Dichloropropene	11.86	75	1711952	12.2699	ppb		97
42)	4-Methyl-2-Pentanone	11.89	43	2533791	11.8193	ppb	#	75
43)	trans-1,3-Dichloropropene	12.38	75	1616631	12.9979	ppb		96
44)	1,1,2-Trichloroethane	12.58	97	1289185	11.2108	ppb	#	93
45)	Toluene	12.84	91	3587625	11.7674	ppb		100
46)	2-Hexanone	13.09	43	3202763	13.7902	ppb	#	76
47)	Dibromochloromethane	13.30	129	3024570	12.0128	ppb		99
48)	1,2-Dibromoethane	13.56	107	2186502	11.7459	ppb		99
49)	Tetrachloroethene	14.00	166	2027381	12.1248	ppb	#	81
51)	Chlorobenzene	14.73	112	3293202	11.6423	ppb		97
52)	Ethylbenzene	15.11	91	4690524	12.0367	ppb	m	65
53)	m,p-Xylene	15.31	91	7175048	23.7490	ppb		100
54)	Bromoform	15.42	173	2605956	12.6557	ppb		99
55)	Styrene	15.70	104	3008278	12.6216	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.83	83	2477101	10.6251	ppb		97
57)	o-Xylene	15.82	91	3673142	11.7621	ppb		100
59)	4-Ethyl Toluene	17.25	105	5344124	12.2473	ppb	#	42
60)	1,3,5-Trimethylbenzene	17.35	105	4563964	11.8391	ppb	m	24
61)	1,2,4-Trimethylbenzene	17.87	105	4483139	12.2054	ppb		99
62)	Benzyl Chloride	18.06	91	3910161	15.5130	ppb		99
63)	m-Dichlorobenzene	18.08	146	3361337	12.2119	ppb		97
64)	p-Dichlorobenzene	18.17	146	3338241	12.3533	ppb	m	96
65)	o-Dichlorobenzene	18.62	146	3138112	12.1638	ppb	m	79
66)	1,2,4-Trichlorobenzene	21.14	180	1744579	13.1117	ppb	#	97
67)	Naphthalene	21.31	128	4628893	12.9599	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1450309	12.2424	ppb		99

(#) = qualifier out of range (m) = manual integration

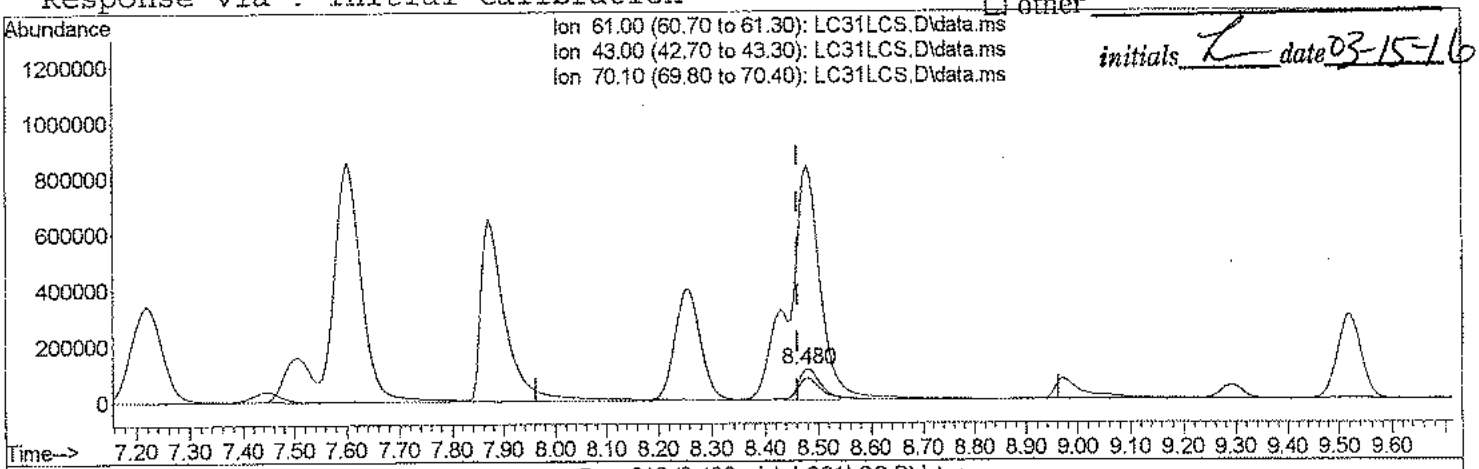
Quantitation Report (Qedit)

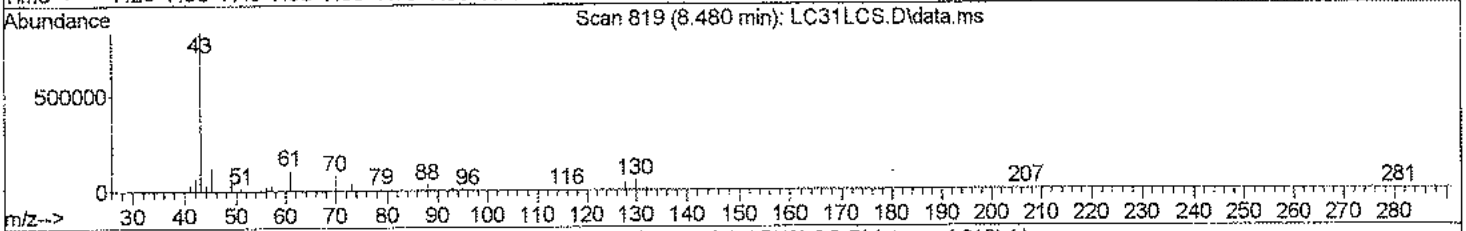
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

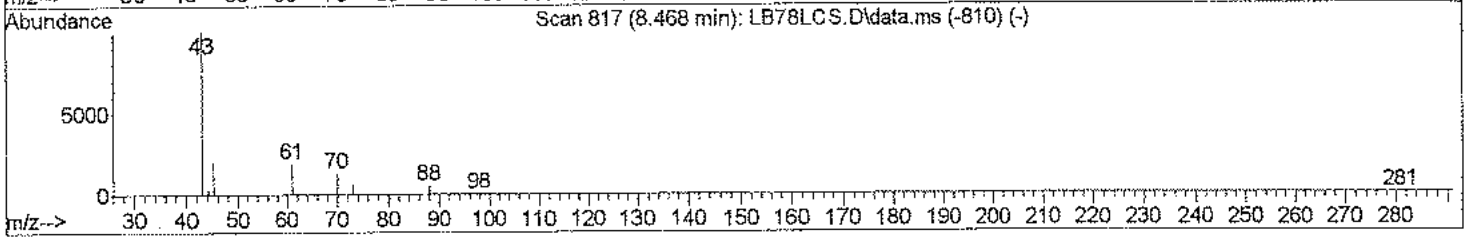
Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other

initials L date 03-15-16







TIC: LC31LCS.D\data.ms

(26) Ethyl Acetate

8.480min (+ 0.017) 8.19 ppb m

response 309198

Ion	Exp%	Act%
61.00	100.00	100.00
43.00	180.00	0.00#
70.10	17.00	0.00#
0.00	0.00	0.00

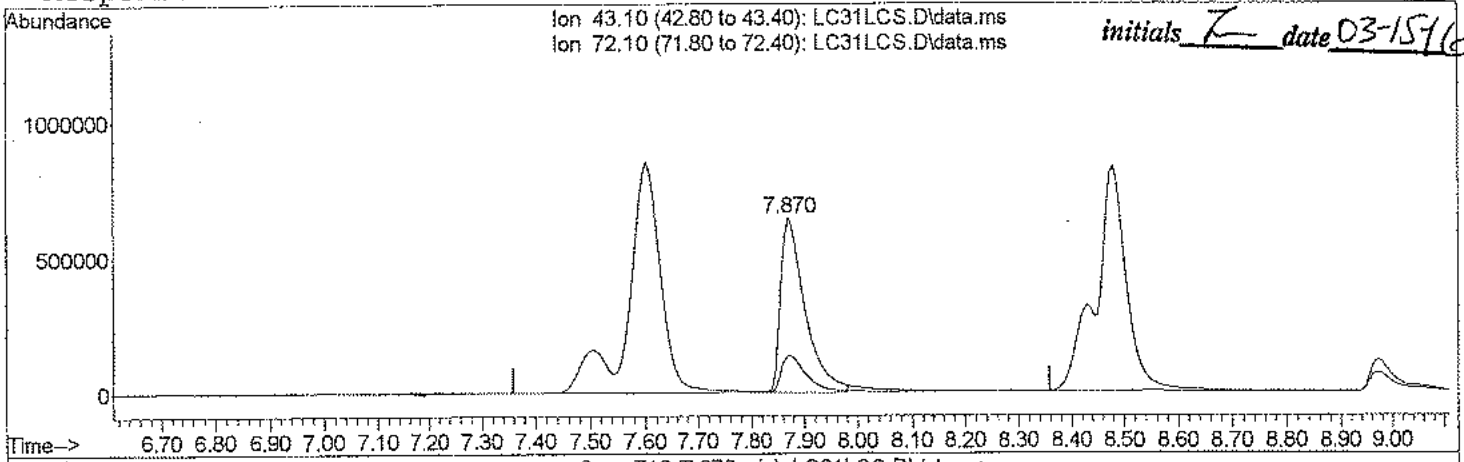
Quantitation Report (Qedit)

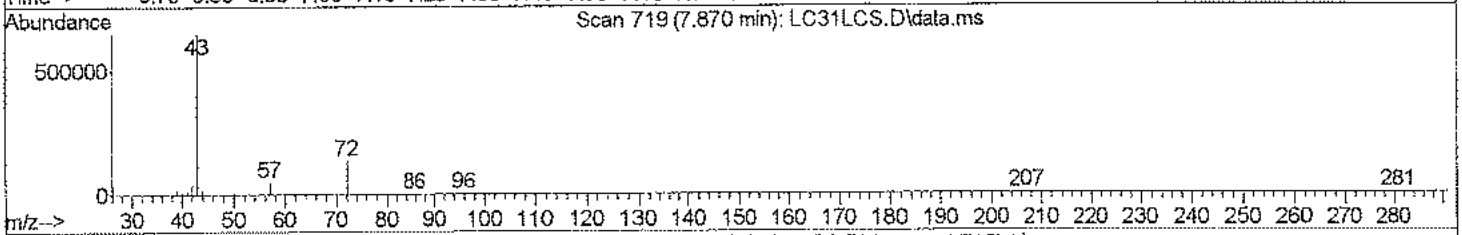
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

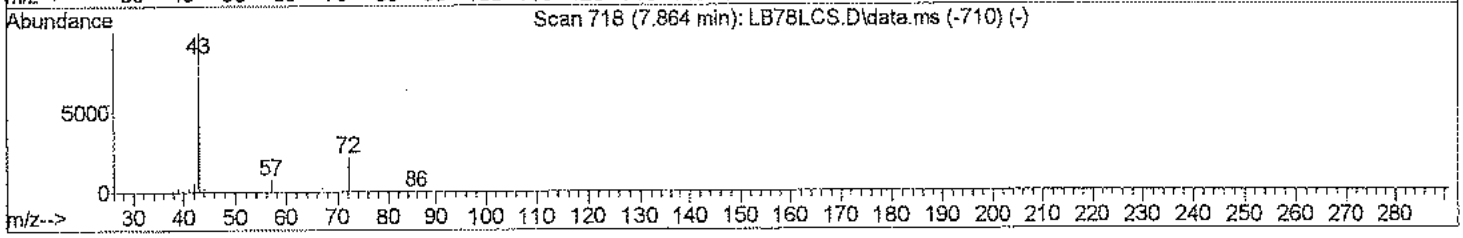
Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials Z date 03-15-16







TIC: LC31LCS.D\data.ms

(23) 2-Butanone

7.870min (+ 0.011) 11.05 ppb m

response 2044148

Ion	Exp%	Act%
43.10	100.00	100.00
72.10	38.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

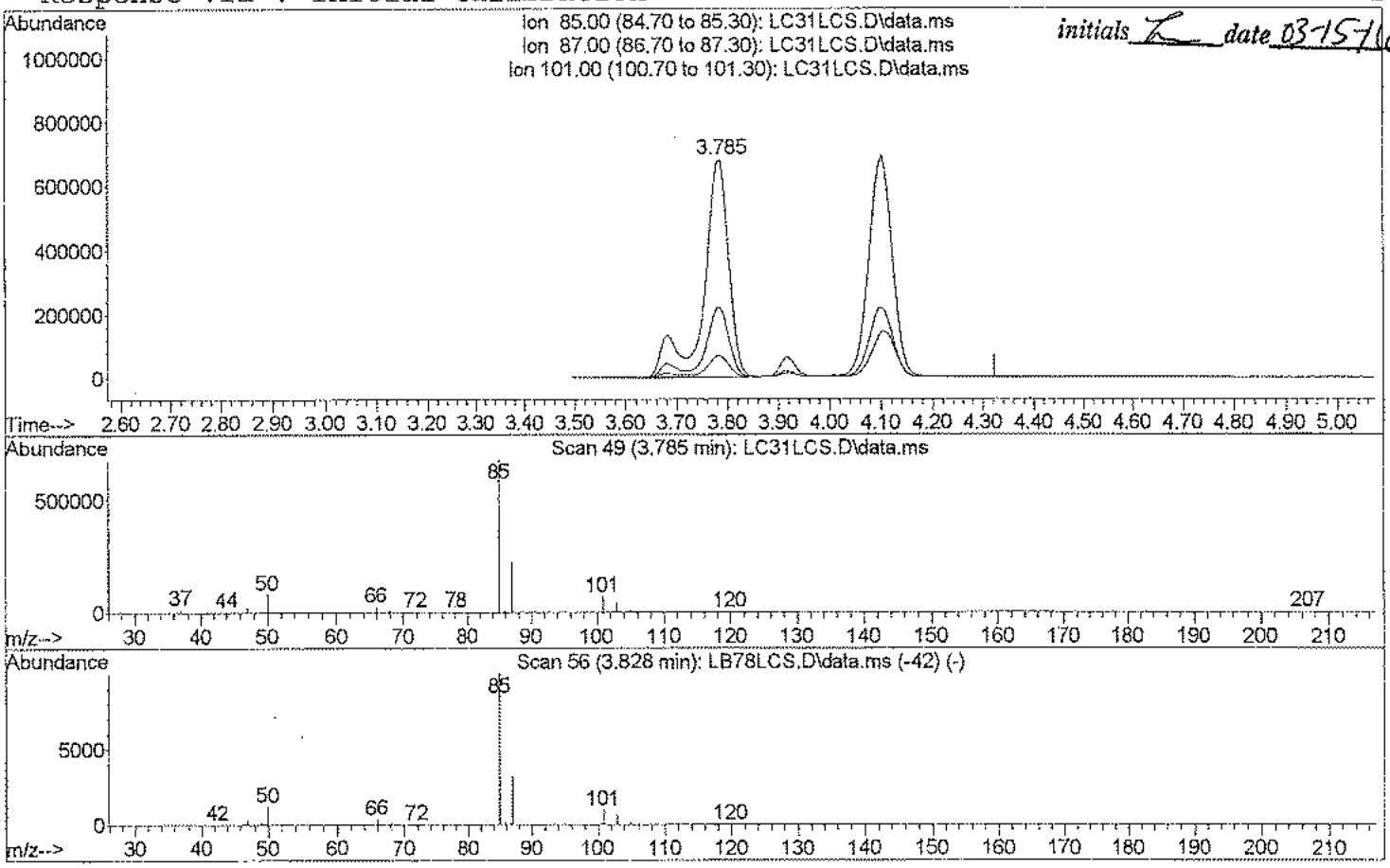
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials K date 03-15-16



TIC: LC31LCS.D\data.ms

(3) Dichlorodifluoromethane

3.785min (-0.038) 11.49 ppb m

response 2372424

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

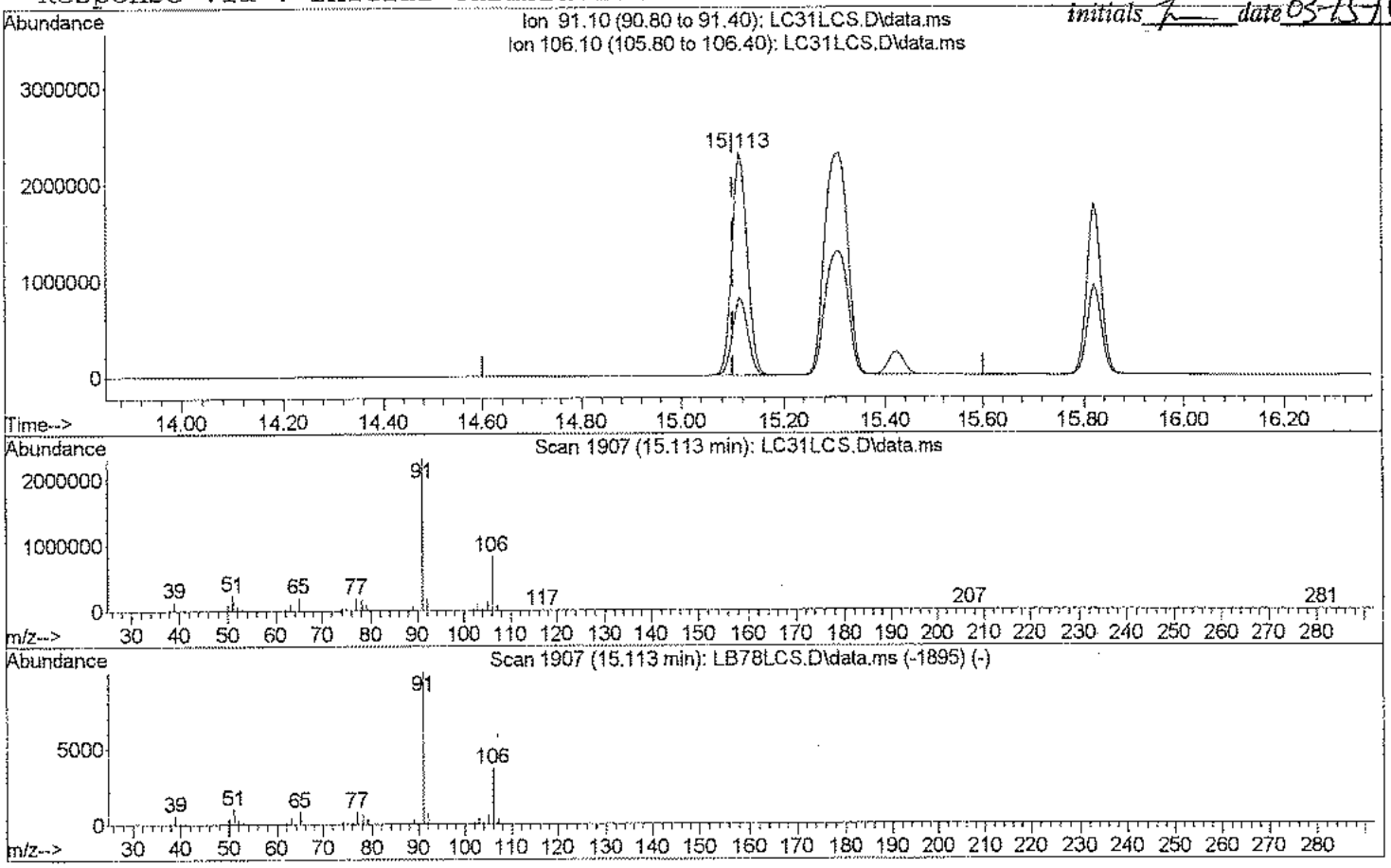
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials _____ *date* 03-15-16



TIC: LC31LCS.D\data.ms

(52) Ethylbenzene

15.113min (+ 0.011) 12.04 ppb m

response 4690524

Ion	Exp%	Act%
91.10	100.00	100.00
106.10	35.50	85.36#
0.00	0.00	0.00
0.00	0.00	0.00

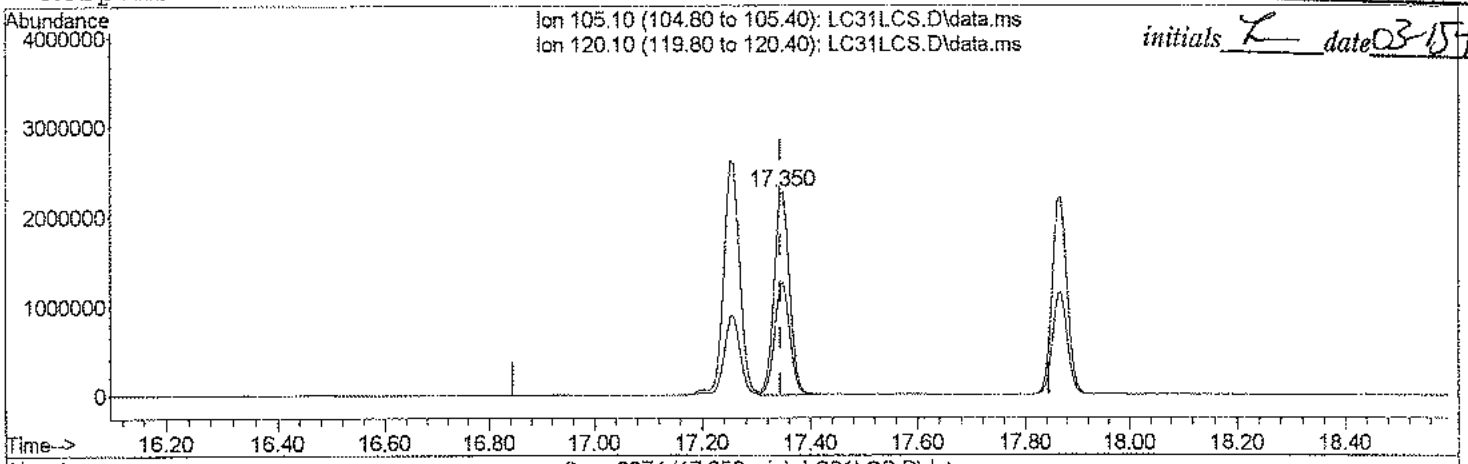
Quantitation Report (Qedit)

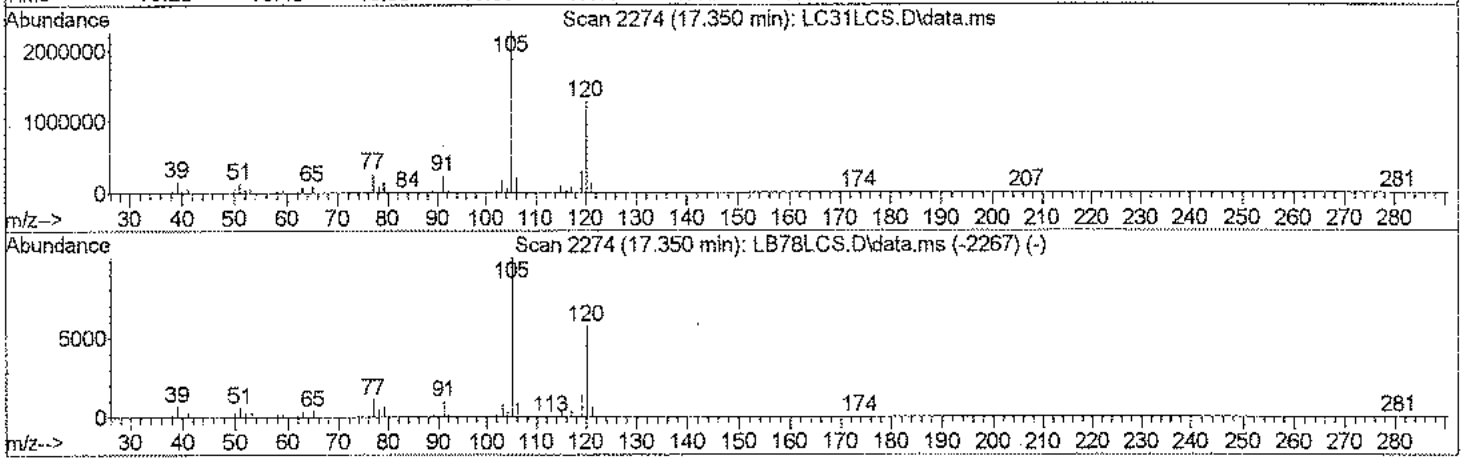
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L date 03-15-16





TIC: LC31LCS.D\data.ms

(60) 1,3,5-Trimethylbenzene

17.350min (+ 0.005) 11.84 ppb m

response 4563964

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	54.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

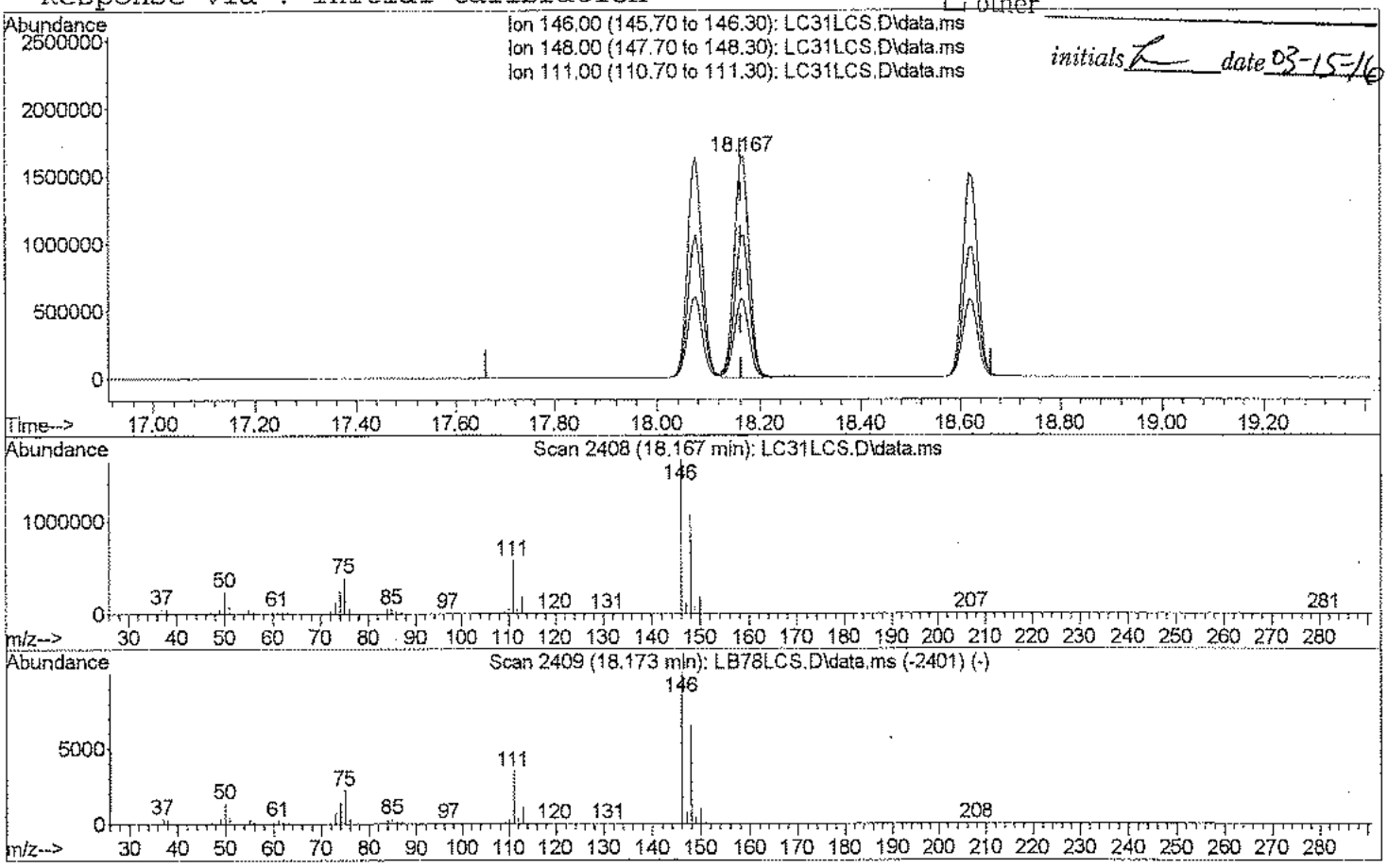
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other

initials L date 03-15-16



TIC: LC31LCS.D\data.ms

(64) p-Dichlorobenzene

18.167min (+ 0.005) 12.35 ppb m

response 3338241

Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.60	64.54
111.00	30.70	37.24#
0.00	0.00	0.00

Quantitation Report (Qedit)

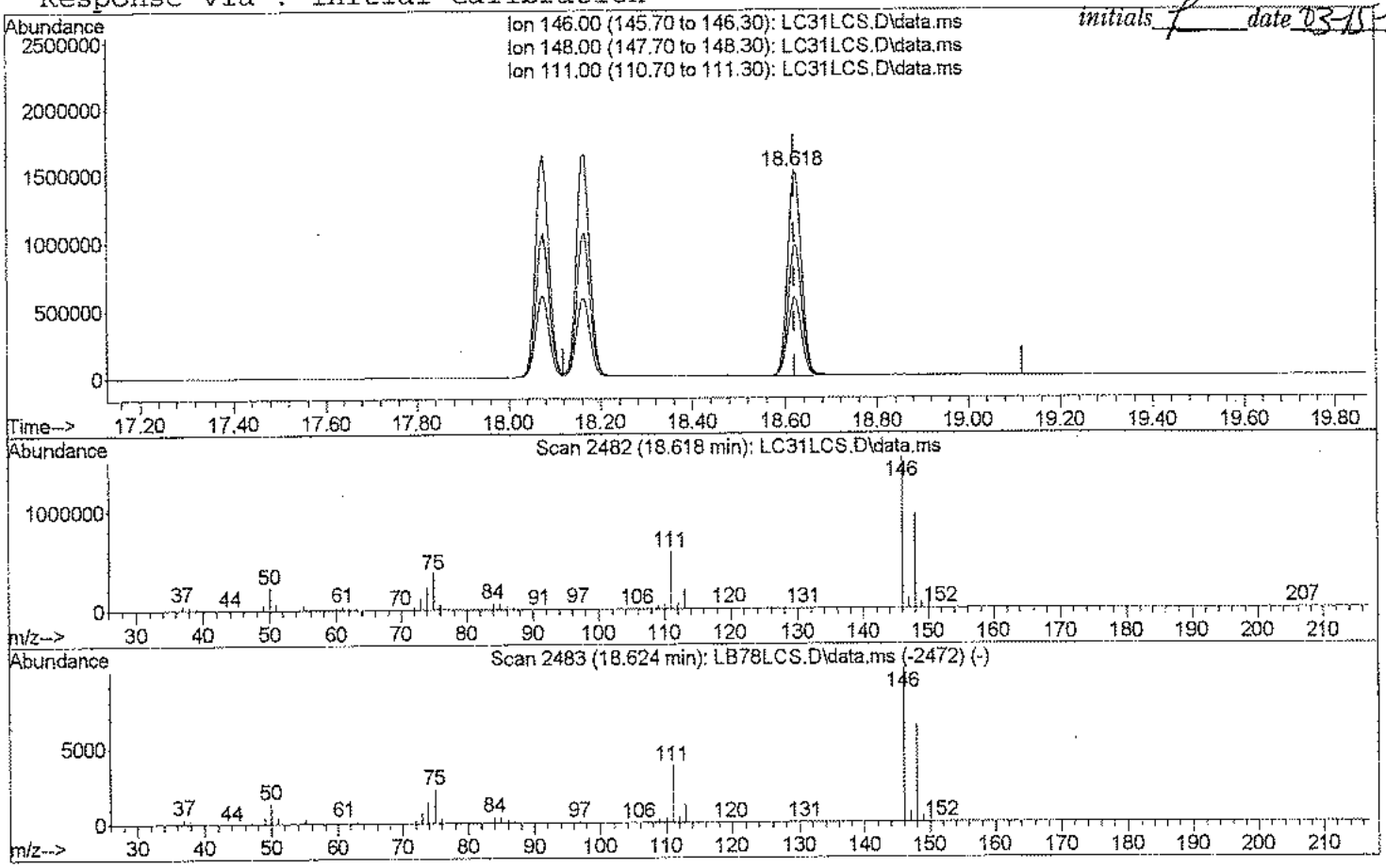
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC31LCS.D
Acq On : 03/14/2016 11:40
Operator : JCB
Sample : QC-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials _____ *date* 03-15-16



TIC: LC31LCS.D\data.ms

(65) o-Dichlorobenzene

18.618min (-0.001) 12.16 ppb m

response 3138112

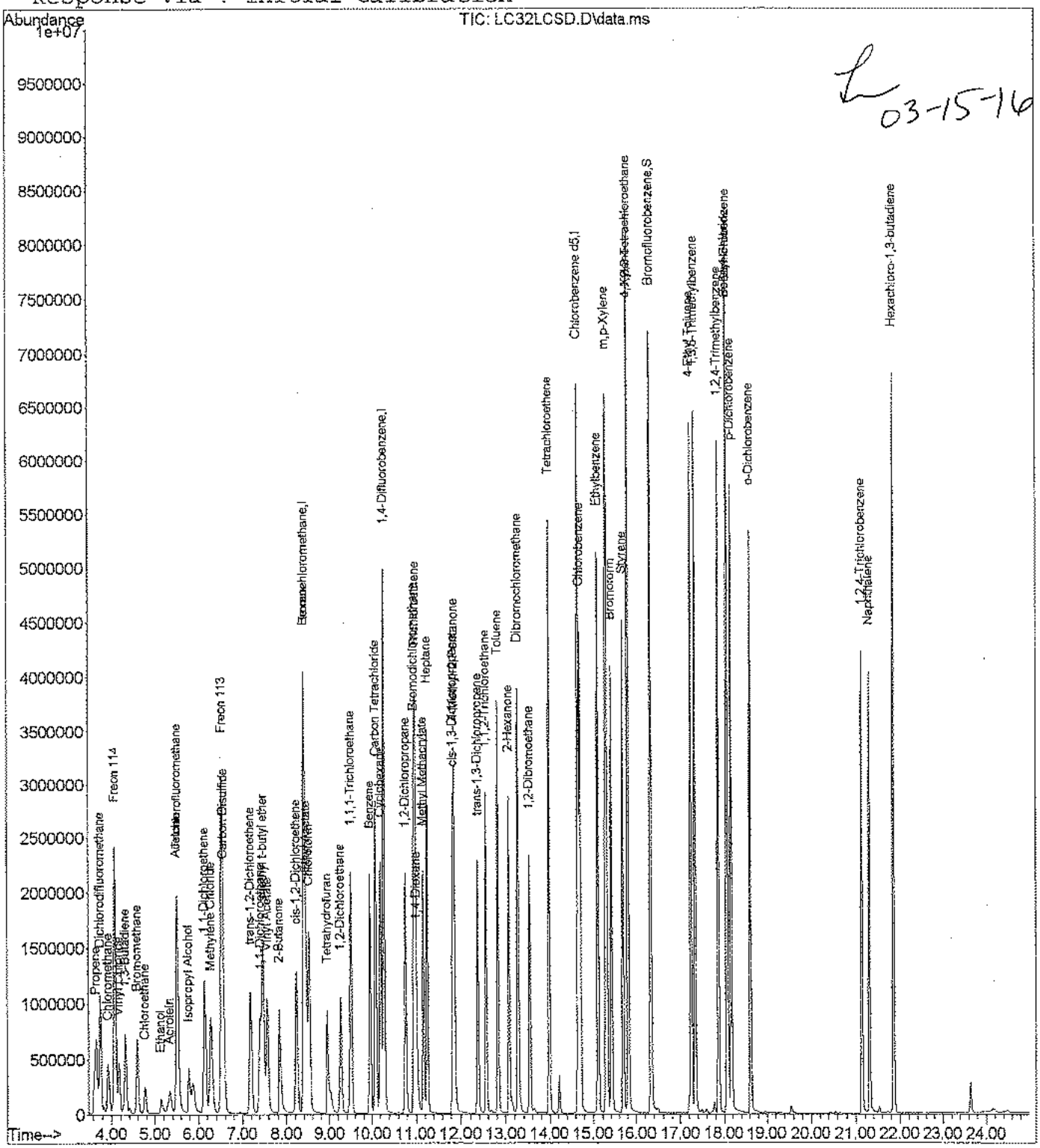
Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.10	67.26
111.00	33.60	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC32LCSD.D Vial: 2
Acq Time : 03/14/2016 12:30 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:43:45 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration



03-15-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC32LCSD.D Vial: 2
Acq Time : 03/14/2016 12:30 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:43:45 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	470080	20.0000	ppb		96.84
25) 1,4-Difluorobenzene	10.28	114	5982115	20.0000	ppb		95.46
50) Chlorobenzene d5	14.66	117	5425091	20.0000	ppb		93.53
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3191736	20.2907	ppb		101.45%
Target Compounds							Qvalue
2) Propene	3.65	41	688585	11.0064	ppb		98
3) Dichlorodifluoromethane	3.76	85	2339869	11.7960	ppb	m	0
4) Chloromethane	3.94	50	707409	9.4872	ppb		96
5) Freon 114	4.08	135	1908663	10.5616	ppb	#	81
6) Vinyl Chloride	4.16	62	786593	10.7123	ppb		99
7) 1,3-Butadiene	4.31	54	630922	9.7741	ppb	#	63
8) Bromomethane	4.58	94	816543	10.7650	ppb		99
9) Chloroethane	4.77	64	406527	9.9444	ppb	#	89
10) Acrolein	5.33	56	359114	16.7306	ppb	#	96
11) Acetone	5.49	43	1485483	11.2668	ppb	#	85
12) Trichlorofluoromethane	5.50	101	2617560	11.0490	ppb		97
13) Ethanol	5.13	45	329112	20.0966	ppb	#	77
14) Isopropyl Alcohol	5.77	45	871702	7.9807	ppb	#	62
15) 1,1-Dichloroethene	6.14	61	1498473	11.4919	ppb	#	77
16) Methylene Chloride	6.28	84	823852	10.7632	ppb	#	64
17) Freon 113	6.52	151	1887409	11.3188	ppb	#	78
18) Carbon Disulfide	6.56	76	2406180	10.8066	ppb	#	65
19) trans-1,2-Dichloroethene	7.19	96	991929	11.0568	ppb	#	78
20) 1,1-Dichloroethane	7.42	63	1678084	11.2497	ppb		97
21) methyl t-butyl ether	7.48	73	2483656	12.3117	ppb	#	83
22) Vinyl Acetate	7.58	86	268240	30.7541	ppb	#	1
23) 2-Butanone	7.85	43	2022061	11.3763	ppb	m	0
24) cis-1,2-Dichloroethene	8.23	96	1053150	11.1056	ppb	#	78
26) Ethyl Acetate	8.46	61	305800	8.3277	ppb	m	0
27) Hexane	8.41	57	1443863	11.4136	ppb	#	48
28) Chloroform	8.52	83	1991135	11.2754	ppb		97
29) Tetrahydrofuran	8.94	42	1184641	11.6432	ppb	#	60
30) 1,2-Dichloroethane	9.26	62	1323345	12.3052	ppb	#	93
31) 1,1,1-Trichloroethane	9.49	97	2251570	12.1097	ppb	#	92
32) Benzene	9.96	78	2677591	10.8625	ppb	#	93
33) Carbon Tetrachloride	10.09	117	2760565	12.0501	ppb		99
34) Cyclohexane	10.21	84	1285640	11.3844	ppb	#	56
35) 1,2-Dichloropropane	10.77	63	1059400	11.3102	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC32LCSD.D Vial: 2
Acq Time : 03/14/2016 12:30 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:43:45 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	2173493	11.5832	ppb		97
37)	1,4-Dioxane	11.02	88	680465	10.6300	ppb	#	79
38)	Trichloroethene	10.98	130	1712472	11.6274	ppb		98
39)	Methyl Methacrylate	11.16	69	1008999	12.2713	ppb	#	80
40)	Heptane	11.25	71	952455	11.9372	ppb	#	36
41)	cis-1,3-Dichloropropene	11.84	75	1684452	12.4156	ppb		97
42)	4-Methyl-2-Pentanone	11.87	43	2498863	11.9874	ppb	#	75
43)	trans-1,3-Dichloropropene	12.36	75	1586570	13.1184	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	1266685	11.3279	ppb	#	93
45)	Toluene	12.83	91	3532318	11.9150	ppb		100
46)	2-Hexanone	13.08	43	2566892	11.3661	ppb	#	77
47)	Dibromochloromethane	13.28	129	2999658	12.2522	ppb		99
48)	1,2-Dibromoethane	13.54	107	2155380	11.9075	ppb		99
49)	Tetrachloroethene	13.99	166	2002900	12.3185	ppb	#	82
51)	Chlorobenzene	14.71	112	3263598	11.7670	ppb		97
52)	Ethylbenzene	15.10	91	4664866	12.2088	ppb	m	65
53)	m,p-Xylene	15.29	91	7095354	23.9522	ppb		100
54)	Bromoform	15.41	173	2627768	13.0154	ppb		99
55)	Styrene	15.69	104	2993683	12.8101	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.82	83	2485519	10.8732	ppb		97
57)	o-Xylene	15.81	91	3647379	11.9118	ppb		100
59)	4-Ethyl Toluene	17.25	105	5337037	12.4743	ppb	#	42
60)	1,3,5-Trimethylbenzene	17.34	105	4575609	12.1053	ppb	m	24
61)	1,2,4-Trimethylbenzene	17.87	105	4444332	12.3403	ppb		99
62)	Benzyl Chloride	18.06	91	3889239	15.7368	ppb		99
63)	m-Dichlorobenzene	18.08	146	3341578	12.3815	ppb		97
64)	p-Dichlorobenzene	18.17	146	3319201	12.5270	ppb	m	96
65)	o-Dichlorobenzene	18.62	146	3132428	12.3832	ppb	m	80
66)	1,2,4-Trichlorobenzene	21.14	180	1742582	13.3571	ppb	#	97
67)	Naphthalene	21.31	128	4534953	12.9493	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1447769	12.4640	ppb		99

(#) = qualifier out of range (m) = manual integration

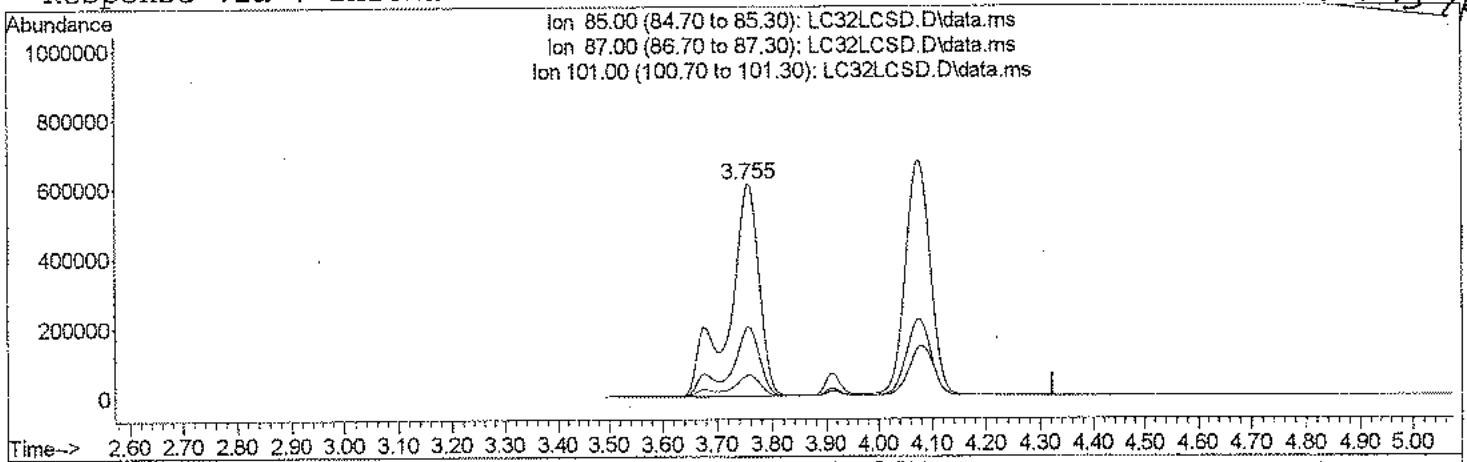
Quantitation Report (Qedit)

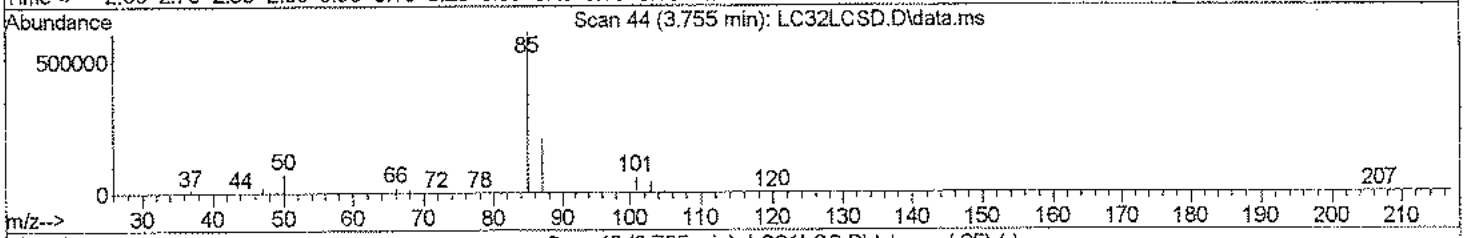
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

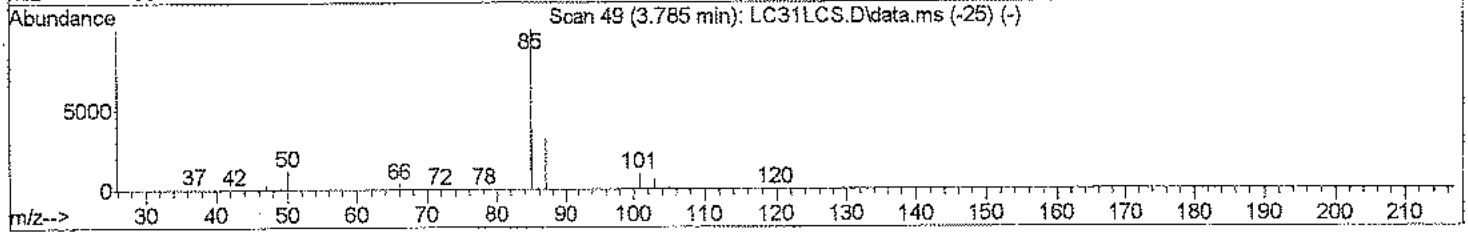
Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials L date 03-15-16







TIC: LC32LCSD.D\data.ms

(3) Dichlorodifluoromethane

3.755min (-0.068) 11.80 ppb m

response 2339869

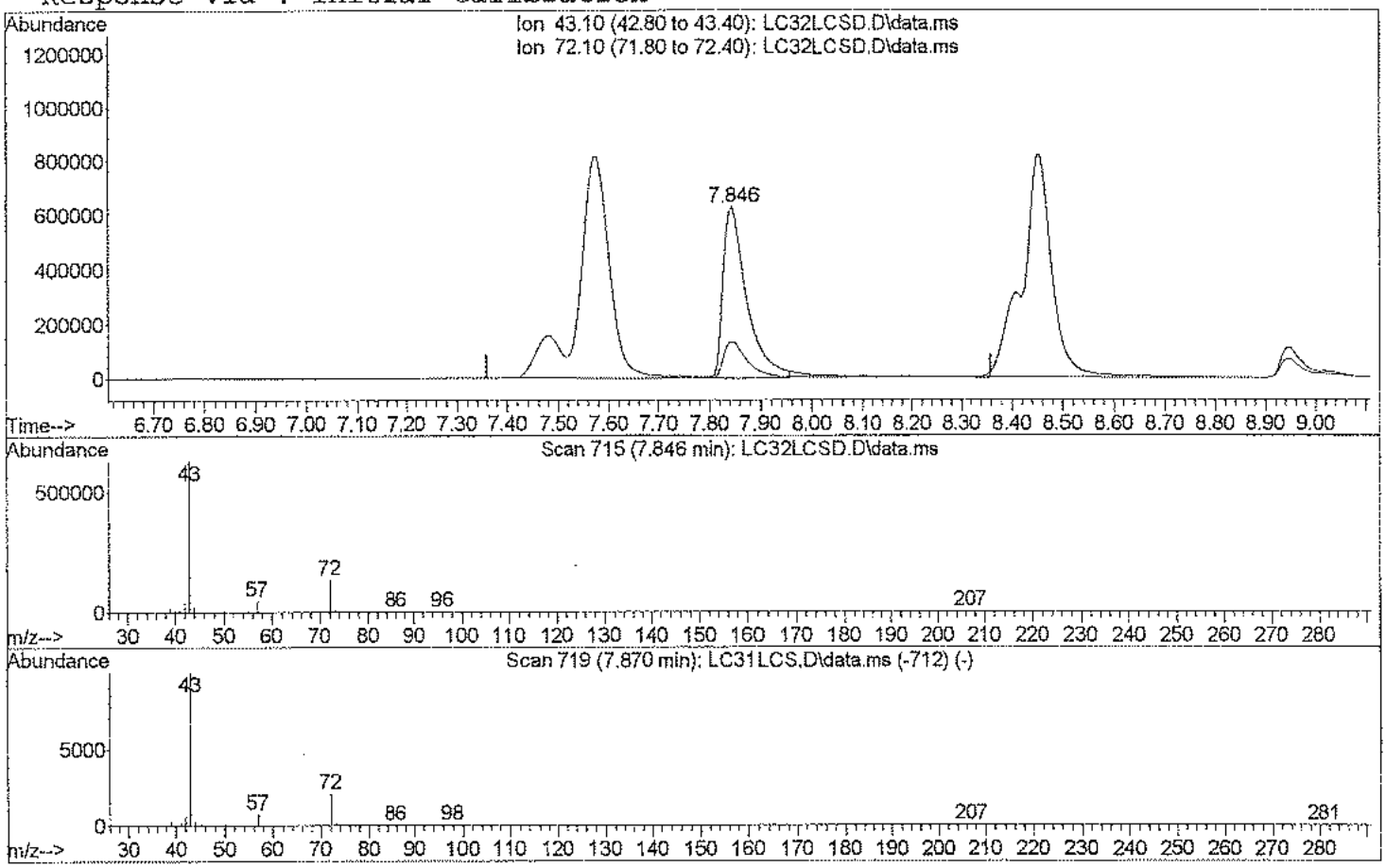
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 03-15-16



TIC: LC32LCSD.D\data.ms

(23) 2-Butanone

7.846min (-0.014) 11.38 ppb m

response 2022061

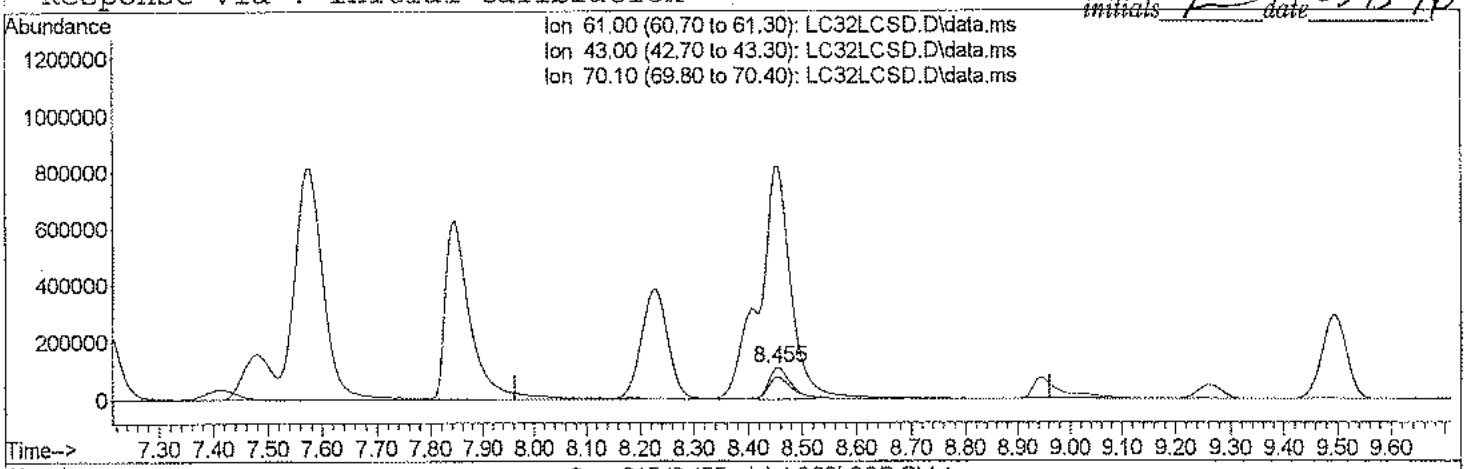
Ion	Exp%	Act%
43.10	100.00	100.00
72.10	38.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

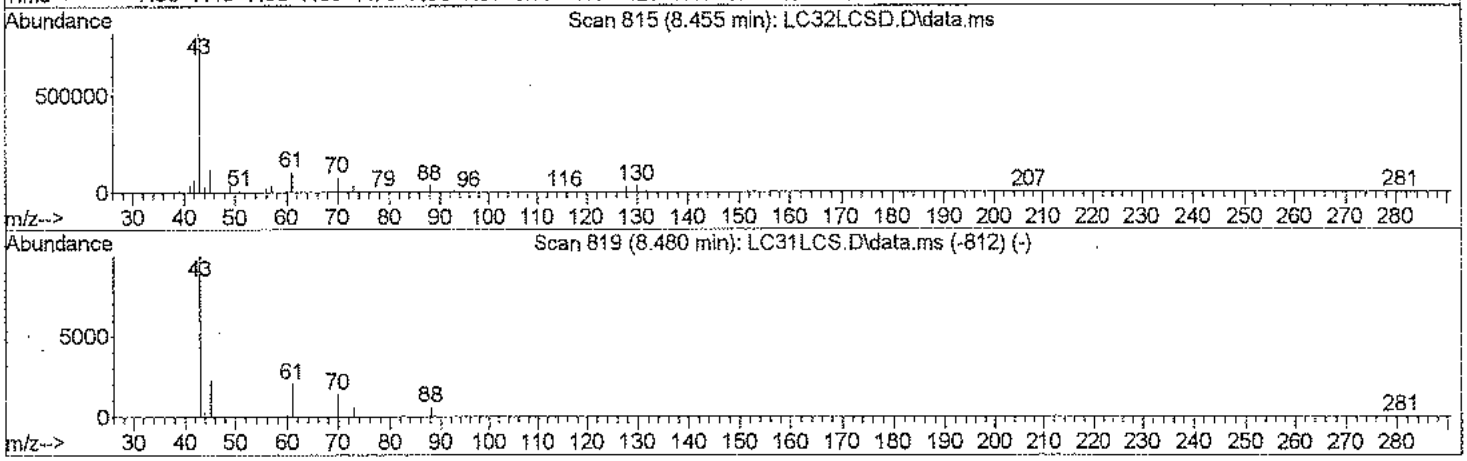
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials _____ date 03-15-16





TIC: LC32LCSD.D\data.ms

(26) Ethyl Acetate

8.455min (-0.007) 8.33 ppb m

response 305800

Ion	Exp%	Act%
61.00	100.00	100.00
43.00	180.00	0.00#
70.10	17.00	0.00#
0.00	0.00	0.00

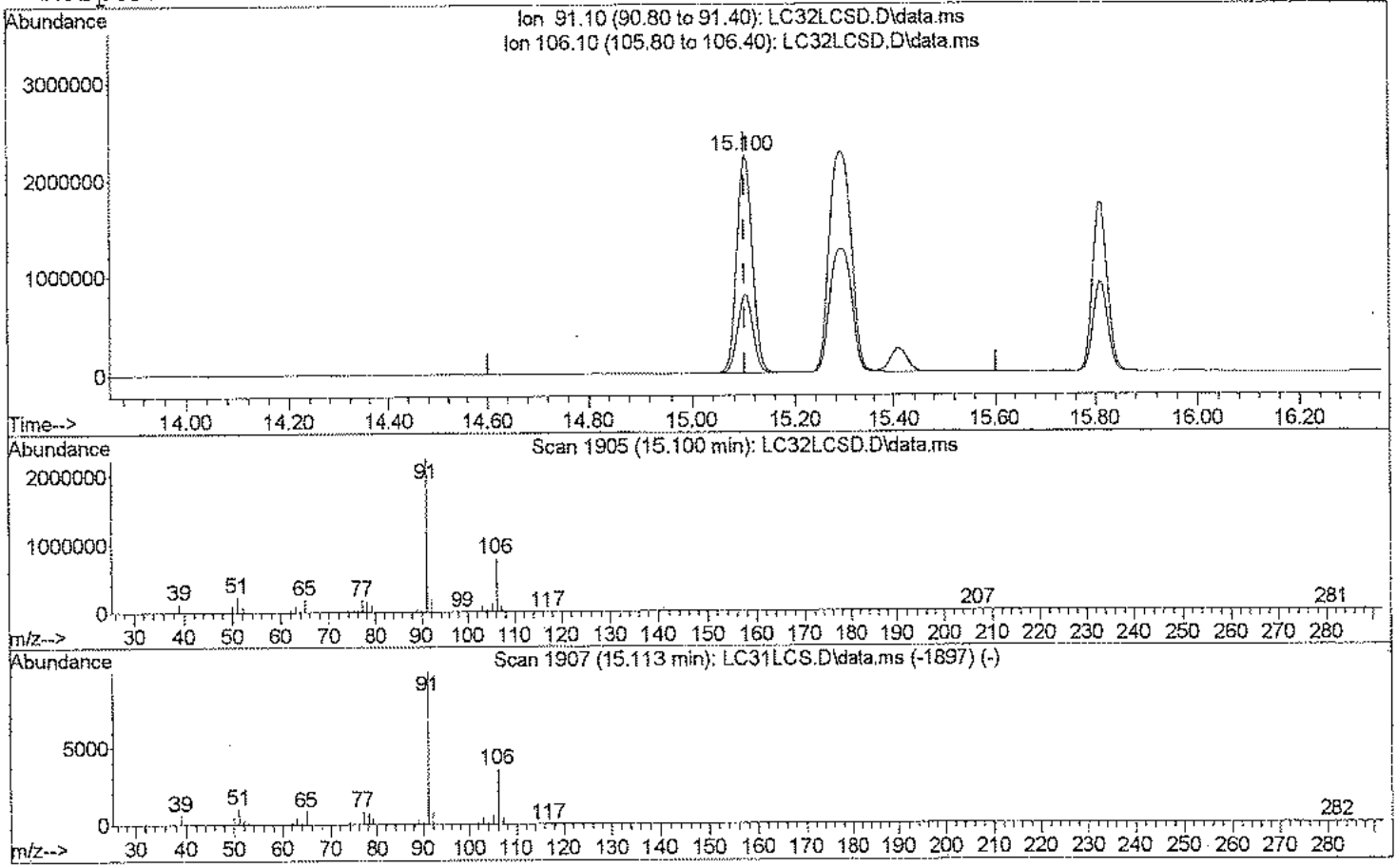
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L *date* 03-15-16



TIC: LC32LCSD.D\data.ms

(52) Ethylbenzene

15.100min (-0.001) 12.21 ppb m

response 4664866

Ion	Exp%	Act%
91.10	100.00	100.00
106.10	35.50	84.72#
0.00	0.00	0.00
0.00	0.00	0.00

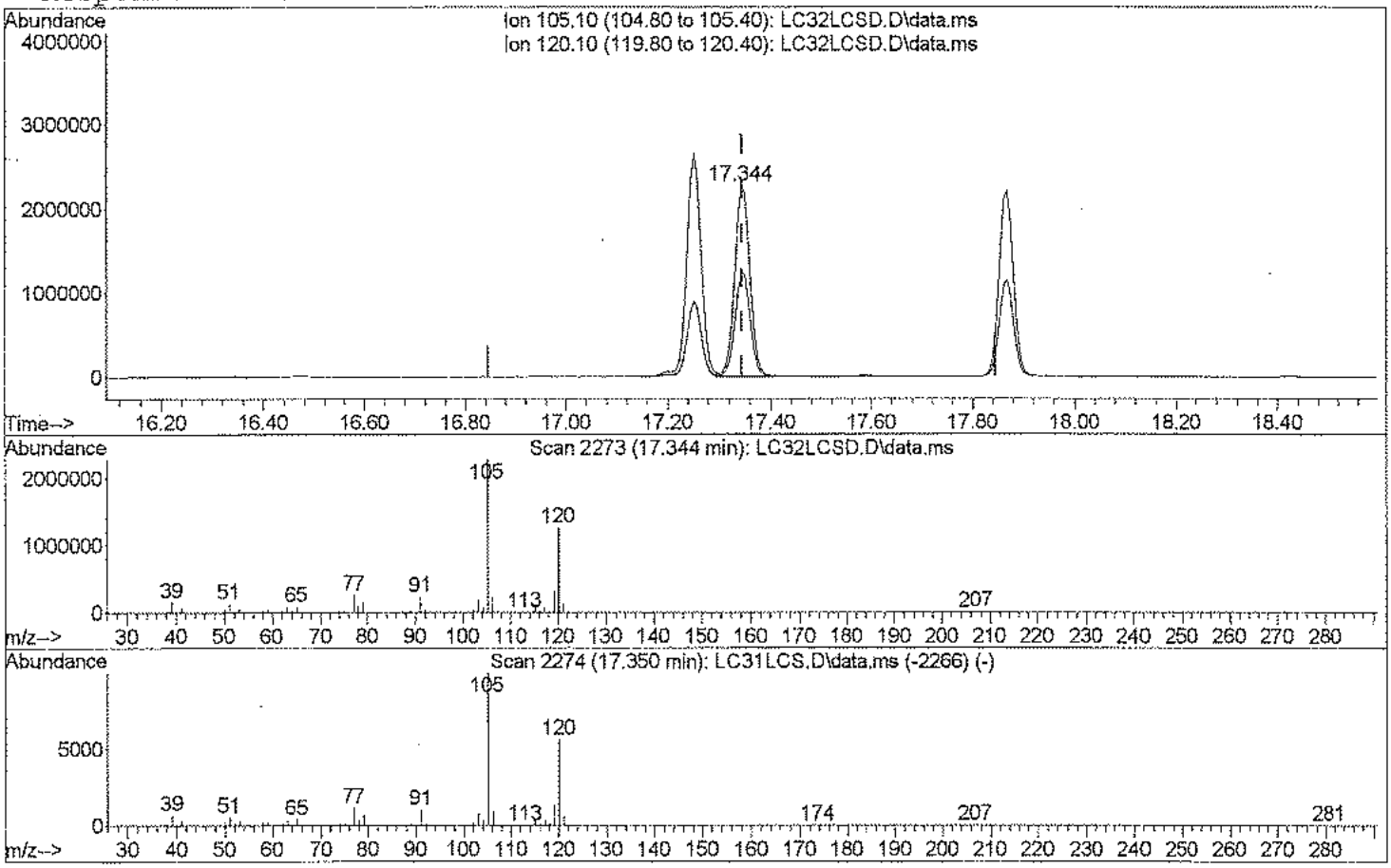
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L *date* 03-15-16



TIC: LC32LCSD.D\data.ms

(60) 1,3,5-Trimethylbenzene

17.344min (-0.001) 12.11 ppb m

response 4575609

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	54.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

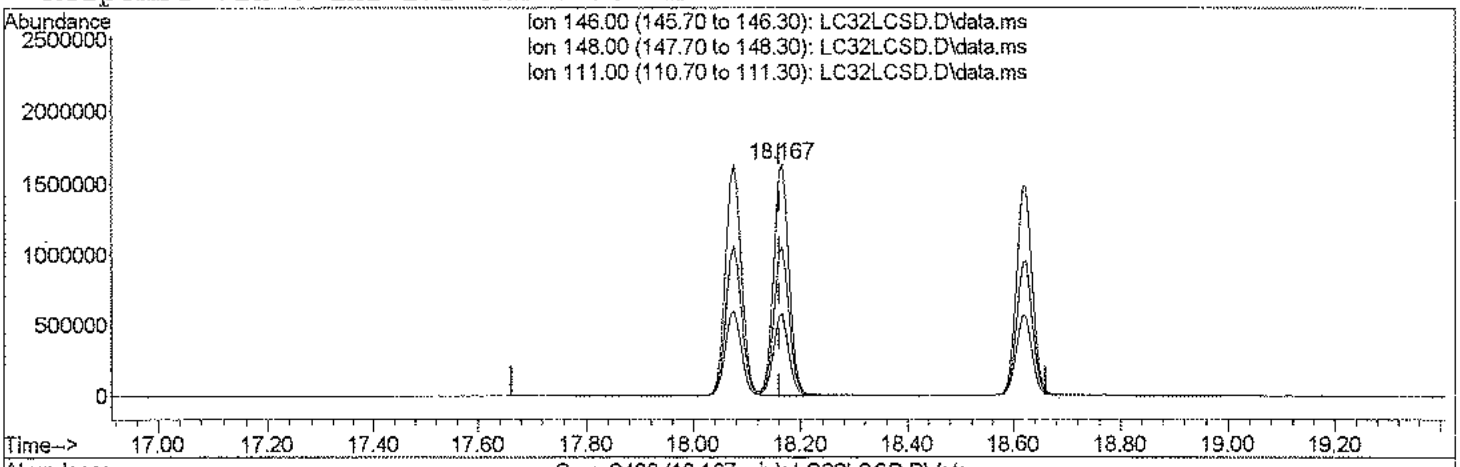
Quantitation Report (Qedit)

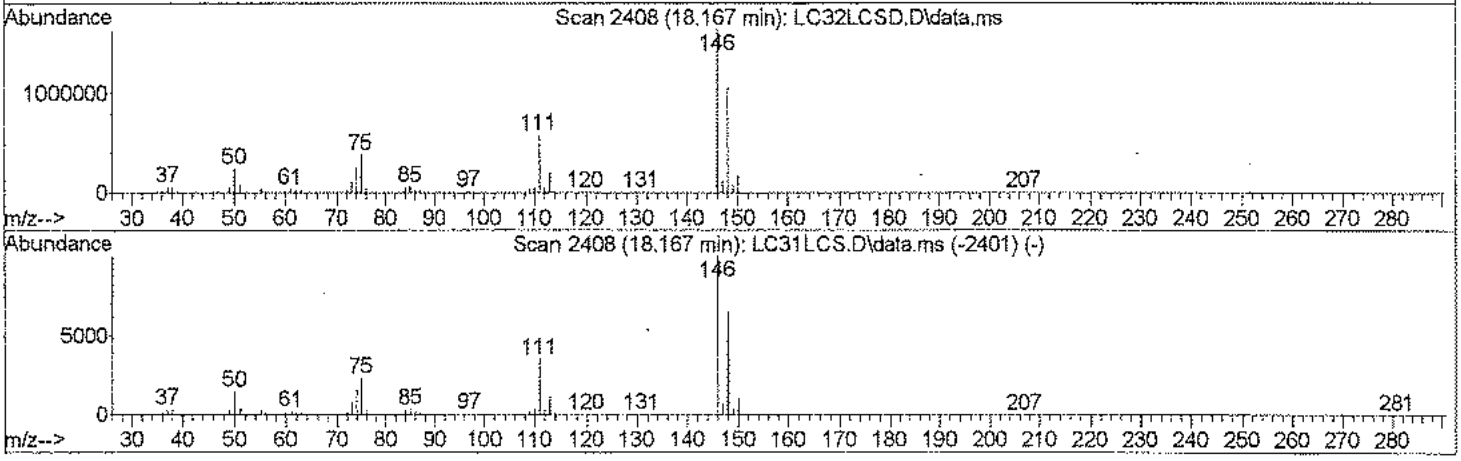
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L *date* 03-15-16





TIC: LC32LCSD.D\data.ms

(64) p-Dichlorobenzene

18.167min (+ 0.005) 12.53 ppb m

response 3319201

Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.60	64.66
111.00	30.70	37.00#
0.00	0.00	0.00

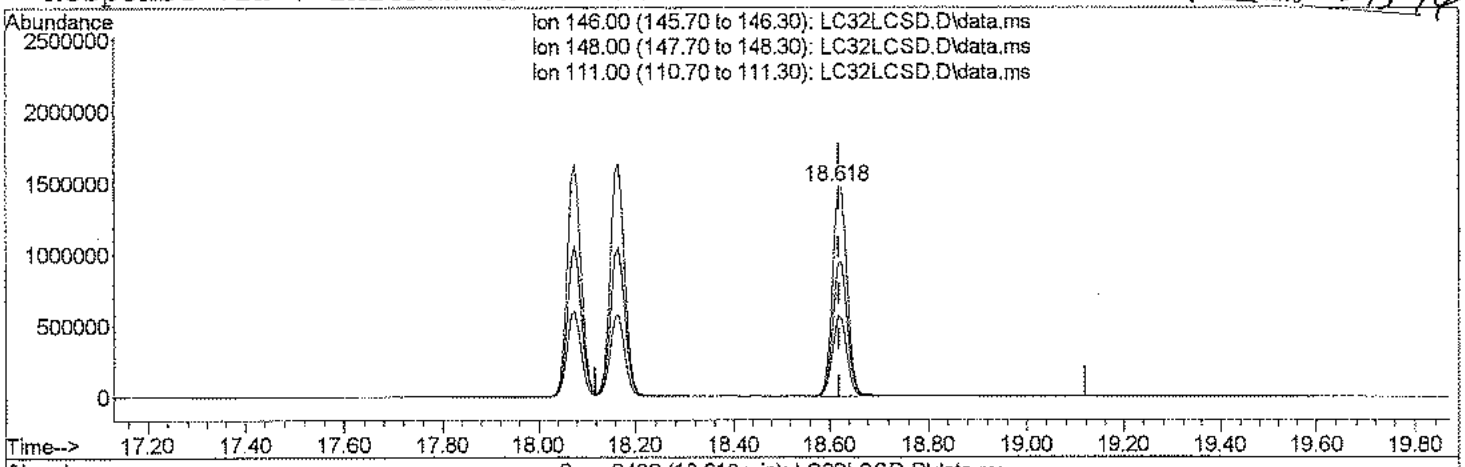
Quantitation Report (Qedit)

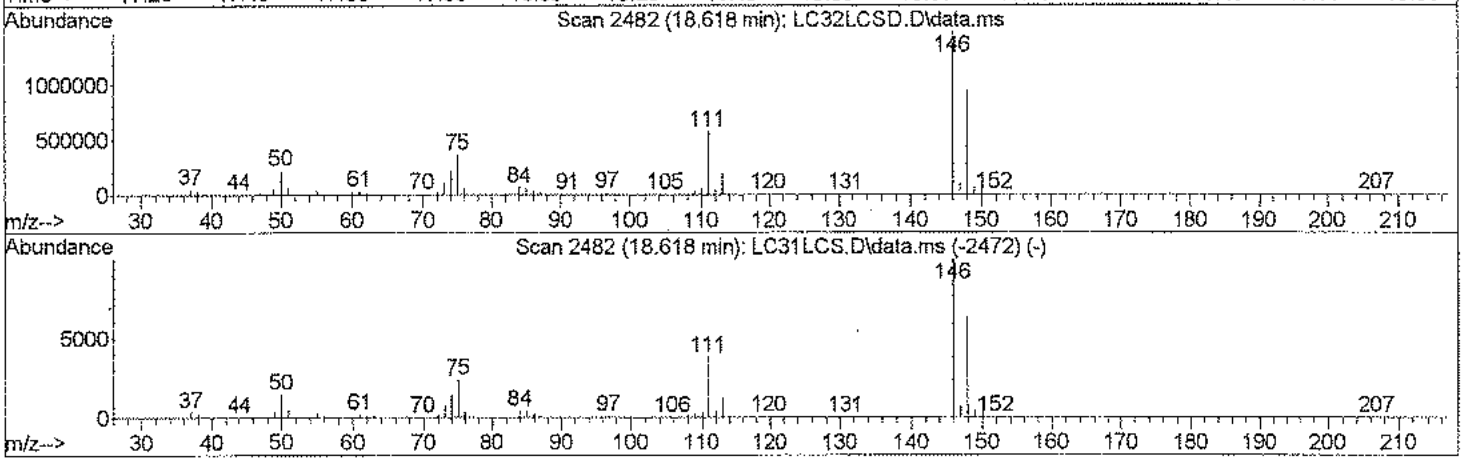
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC32LCSD.D
Acq On : 03/14/2016 12:30
Operator : JCB
Sample : QD-
Inst : 5975-L
Misc : 31169 200mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 08:00:41 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials L date 03-15-16





TIC: LC32LCSD.D\data.ms

(65) o-Dichlorobenzene

18.618min (-0.001) 12.38 ppb m

response 3132428

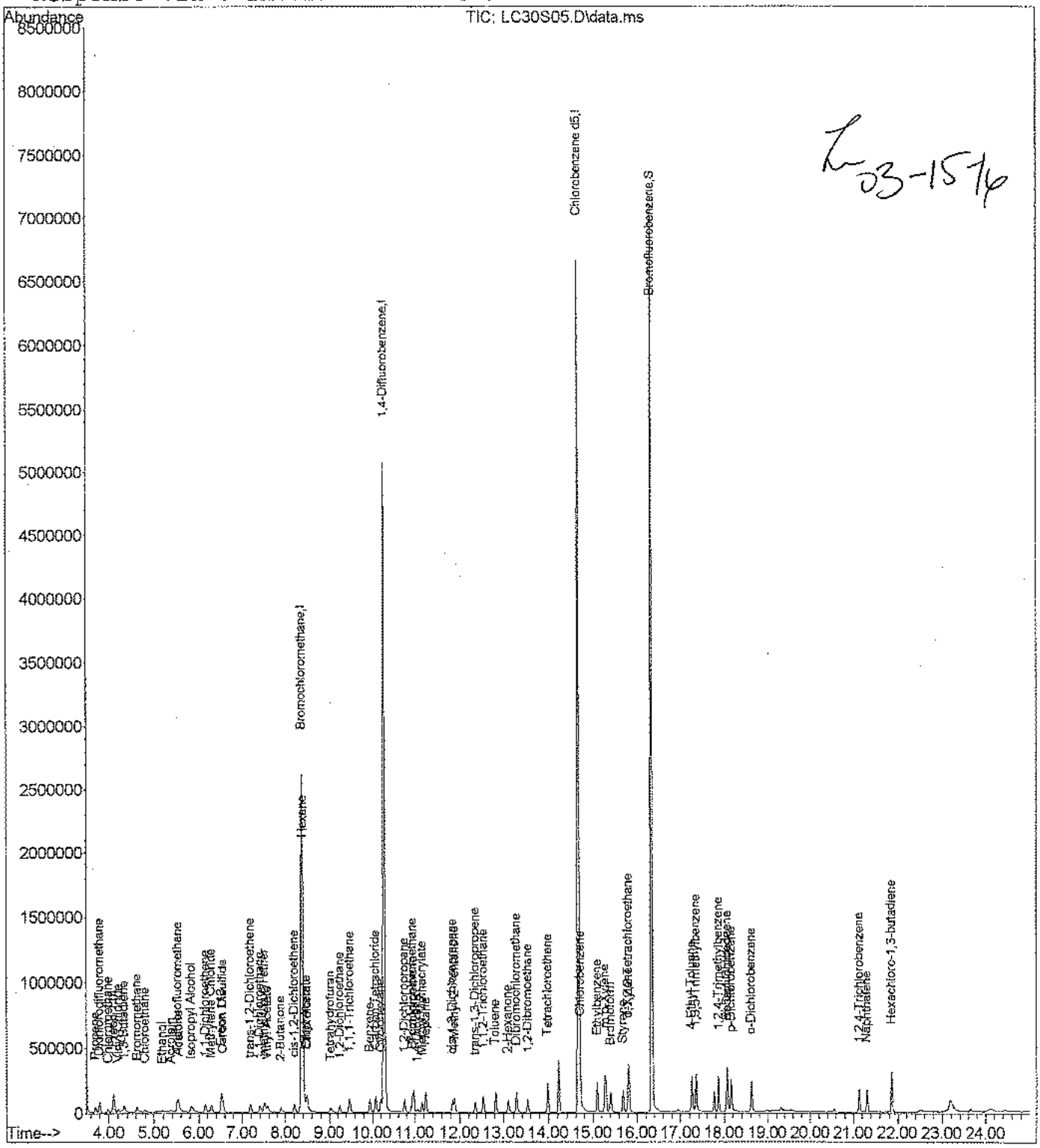
Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.10	67.08
111.00	33.60	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\14MAR16L\LC30S05.D Vial: 2
Acq Time : 03/14/2016 10:51 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:40:49 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration



LC 03-15 LG

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\14MAR16L\LC30S05.D Vial: 2
Acq Time : 03/14/2016 10:51 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:40:49 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration
DataAcq Meth : \TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	535616	20.0000	ppb		110.34
25) 1,4-Difluorobenzene	10.27	114	6080638	20.0000	ppb		97.04
50) Chlorobenzene d5	14.66	117	5408968	20.0000	ppb		93.25
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3155583	20.1207	ppb		100.60%
Target Compounds							Qvalue
2) Propene	3.71	41	39297	0.5513	ppb		95
3) Dichlorodifluoromethane	3.80	85	107895	0.4774	ppb	#	93
4) Chloromethane	3.99	50	38260	0.4503	ppb		99
5) Freon 114	4.11	135	91767	0.4457	ppb	#	31
6) Vinyl Chloride	4.21	62	39465	0.4717	ppb		98
7) 1,3-Butadiene	4.34	54	29821	0.4055	ppb	#	57
8) Bromomethane	4.62	94	40443	0.4679	ppb		98
9) Chloroethane	4.79	64	19610	0.4210	ppb	#	92
10) Acrolein	5.37	56	15717	0.6426	ppb	#	95
11) Acetone	5.55	43	119442	0.7951	ppb		88
12) Trichlorofluoromethane	5.52	101	122411	0.4535	ppb		95
13) Ethanol	5.18	45	23527	1.2609	ppb	#	52
14) Isopropyl Alcohol	5.83	45	130330	1.0472	ppb	#	64
15) 1,1-Dichloroethene	6.15	61	66327	0.4464	ppb	#	80
16) Methylene Chloride	6.29	84	40787	0.4677	ppb	#	65
17) Freon 113	6.52	151	85129	0.4481	ppb	#	77
18) Carbon Disulfide	6.56	76	112990	0.4454	ppb	#	64
19) trans-1,2-Dichloroethene	7.19	96	44538	0.4357	ppb	#	81
20) 1,1-Dichloroethane	7.39	63	74995	0.4412	ppb		97
21) methyl t-butyl ether	7.50	73	105641	0.4596	ppb	#	83
22) Vinyl Acetate	7.57	86	11539	1.1611	ppb	#	1
23) 2-Butanone	7.89	43	88591	0.4374	ppb	m	0
24) cis-1,2-Dichloroethene	8.21	96	45710	0.4230	ppb	#	80
26) Ethyl Acetate	8.47	61	12073	0.3235	ppb	m	0
27) Hexane	8.41	57	66666	0.5184	ppb	#	49
28) Chloroform	8.50	83	88300	0.4919	ppb		97
29) Tetrahydrofuran	9.02	42	46247	0.4472	ppb	#	63
30) 1,2-Dichloroethane	9.25	62	57431	0.5254	ppb	#	92
31) 1,1,1-Trichloroethane	9.48	97	97974	0.5184	ppb	#	92
32) Benzene	9.94	78	123227	0.4918	ppb	#	89
33) Carbon Tetrachloride	10.07	117	117428	0.5043	ppb		99
34) Cyclohexane	10.19	84	55574	0.4841	ppb	#	18
35) 1,2-Dichloropropane	10.75	63	47047	0.4941	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\14MAR16L\LC30S05.D Vial: 2
Acq Time : 03/14/2016 10:51 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:40:49 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.94	83	91663	0.4806	ppb		97
37)	1,4-Dioxane	11.05	88	28243	0.4341	ppb	#	77
38)	Trichloroethene	10.97	130	72782	0.4862	ppb		97
39)	Methyl Methacrylate	11.16	69	38585	0.4617	ppb	#	73
40)	Heptane	11.25	71	41795	0.5153	ppb	#	45
41)	cis-1,3-Dichloropropene	11.83	75	68188	0.4945	ppb		96
42)	4-Methyl-2-Pentanone	11.88	43	102257	0.4826	ppb	#	73
43)	trans-1,3-Dichloropropene	12.36	75	60525	0.4923	ppb		95
44)	1,1,2-Trichloroethane	12.55	97	54596	0.4803	ppb	#	91
45)	Toluene	12.83	91	147552	0.4896	ppb		100
46)	2-Hexanone	13.09	43	89901	0.3916	ppb	#	76
47)	Dibromochloromethane	13.27	129	117463	0.4720	ppb		98
48)	1,2-Dibromoethane	13.53	107	89667	0.4873	ppb		100
49)	Tetrachloroethene	13.98	166	83940	0.5079	ppb	#	83
51)	Chlorobenzene	14.71	112	140189	0.5070	ppb		95
52)	Ethylbenzene	15.10	91	199565	0.5239	ppb	m	66
53)	m,p-Xylene	15.29	91	302336	1.0237	ppb		99
54)	Bromoform	15.41	173	99793	0.4957	ppb		99
55)	Styrene	15.69	104	116552	0.5002	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.82	83	120033	0.5267	ppb		98
57)	o-Xylene	15.81	91	160658	0.5262	ppb		100
59)	4-Ethyl Toluene	17.25	105	225834	0.5294	ppb	#	42
60)	1,3,5-Trimethylbenzene	17.34	105	201841	0.5356	ppb	m	24
61)	1,2,4-Trimethylbenzene	17.87	105	190661	0.5310	ppb		100
62)	Benzyl Chloride	18.06	91	149229	0.6056	ppb		99
63)	m-Dichlorobenzene	18.08	146	140029	0.5204	ppb		95
64)	p-Dichlorobenzene	18.17	146	142900	0.5409	ppb	m	95
65)	o-Dichlorobenzene	18.62	146	139357	0.5526	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	74800	0.5751	ppb	#	97
67)	Naphthalene	21.31	128	188963	0.5412	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	67384	0.5818	ppb		97

(#) = qualifier out of range (m) = manual integration

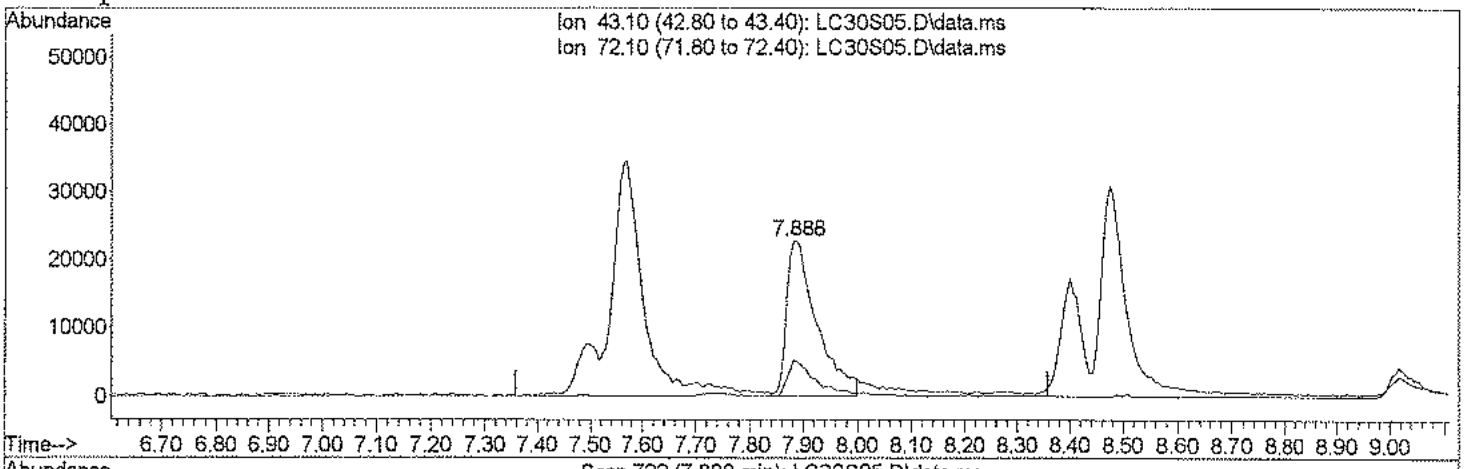
Quantitation Report (Qedit)

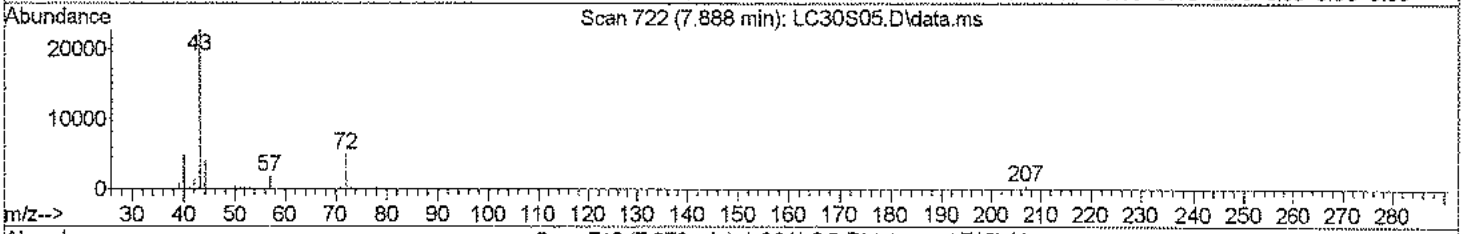
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC30S05.D
Acq On : 03/14/2016 10:51
Operator : JCB
Sample : 0.5 RLVS
Inst : 5975-L
Misc : 31070 (200mL)
ALS Vial : 2 Sample Multiplier: 1

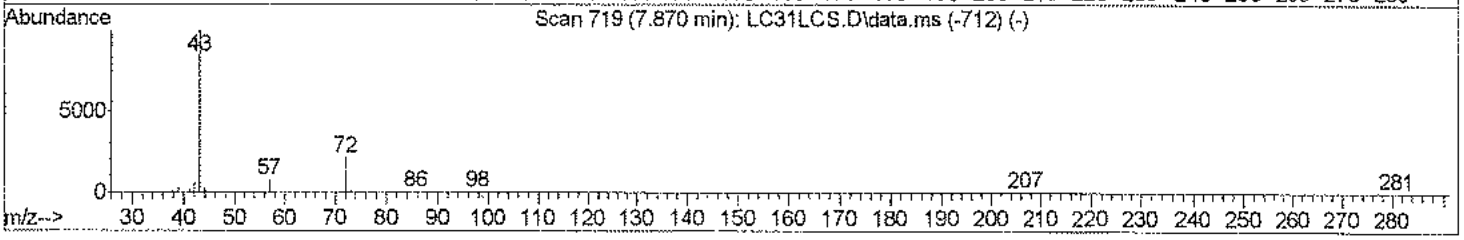
Quant Time: Mar 15 07:57:28 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L *date* 03-15-16







TIC: LC30S05.D\data.ms

(23) 2-Butanone

7.888min (+ 0.029) 0.44 ppb m

response 88591

Ion	Exp%	Act%
43.10	100.00	100.00
72.10	38.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

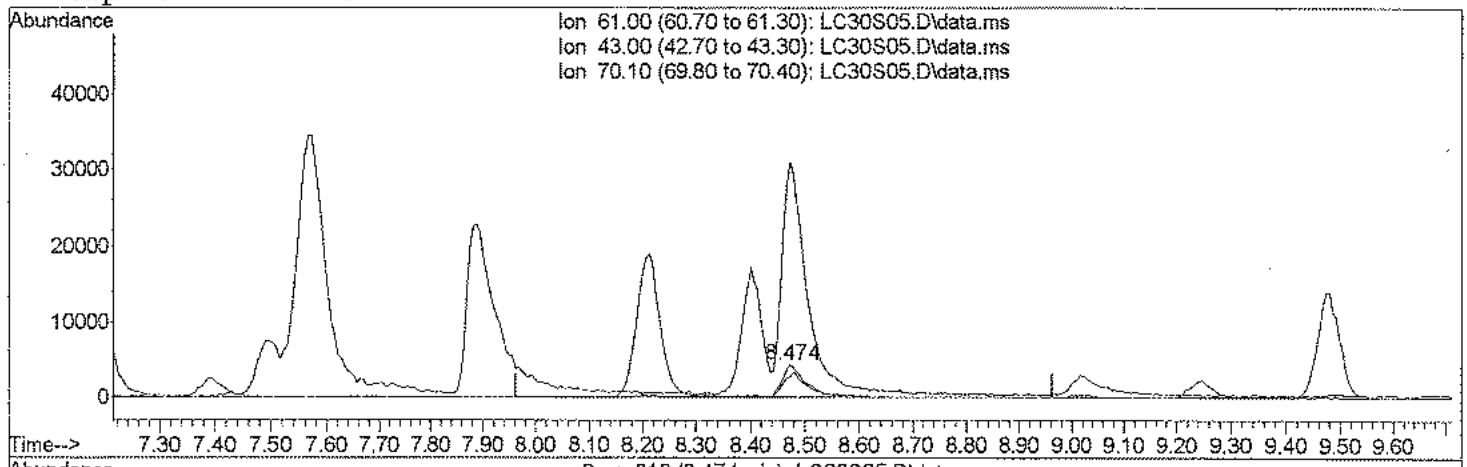
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC30S05.D
Acq On : 03/14/2016 10:51
Operator : JCB
Sample : 0.5 RLVS
Inst : 5975-L
Misc : 31070 (200mL)
ALS Vial : 2 Sample Multiplier: 1

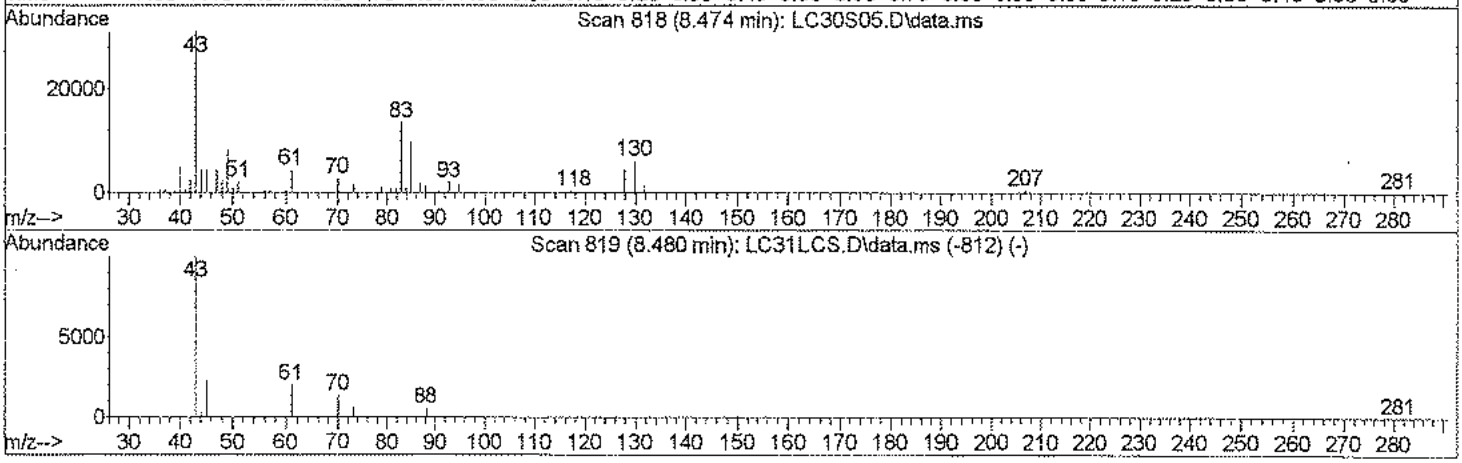
Quant Time: Mar 15 07:57:28 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials L *date* 03-15-16





TIC: LC30S05.D\data.ms

(26) Ethyl Acetate

8.474min (+ 0.011) 0.32 ppb m

response 12073

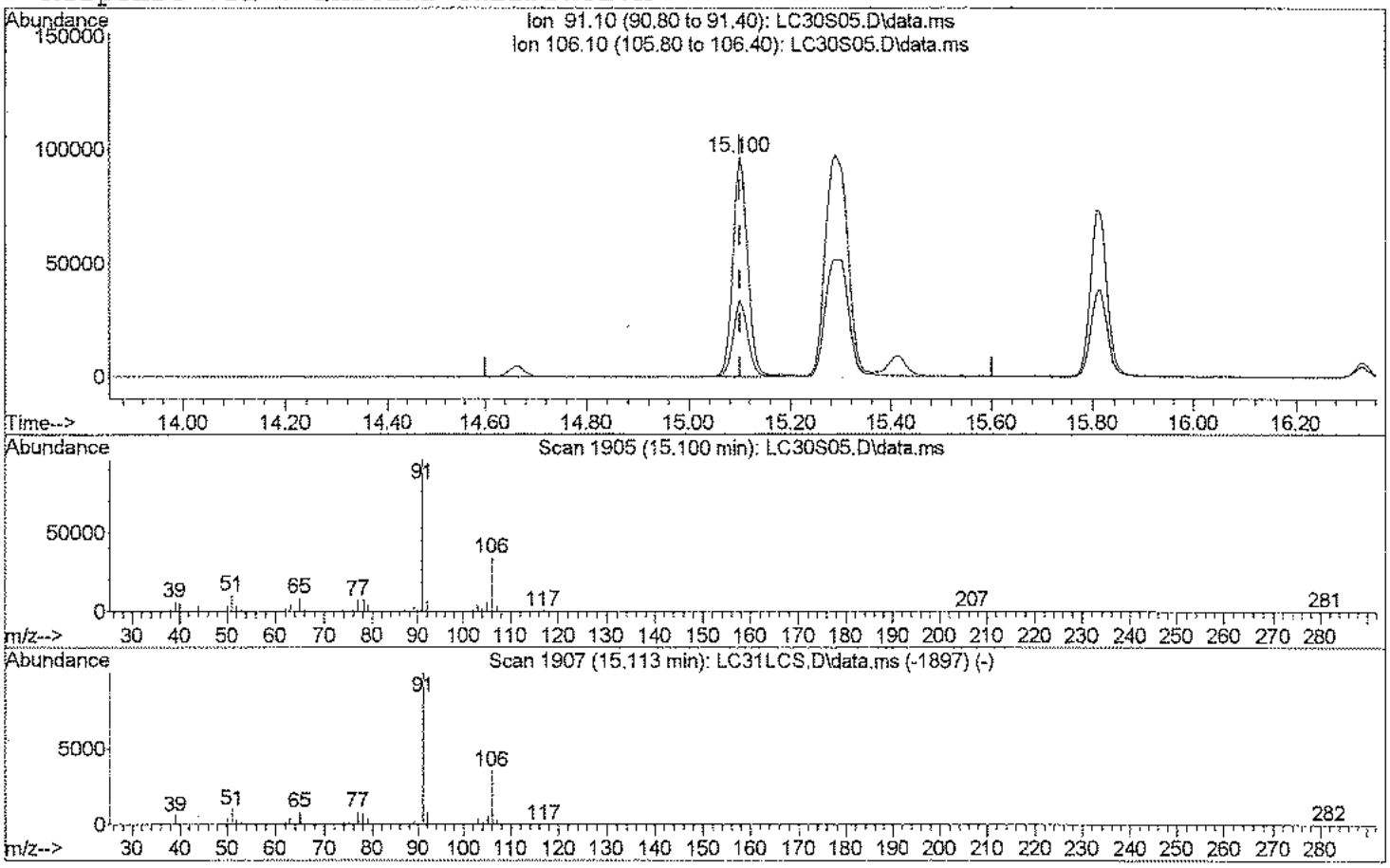
Ion	Exp%	Act%
61.00	100.00	100.00
43.00	180.00	0.00#
70.10	17.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC30S05.D
Acq On : 03/14/2016 10:51
Operator : JCB
Sample : 0.5 RLVS
Inst : 5975-L
Misc : 31070 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:28 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials Z date 03-15-16



TIC: LC30S05.D\data.ms

(52) Ethylbenzene

15.100min (-0.001) 0.52 ppb m

response 199565

Ion	Exp%	Act%
91.10	100.00	100.00
106.10	35.50	83.59#
0.00	0.00	0.00
0.00	0.00	0.00

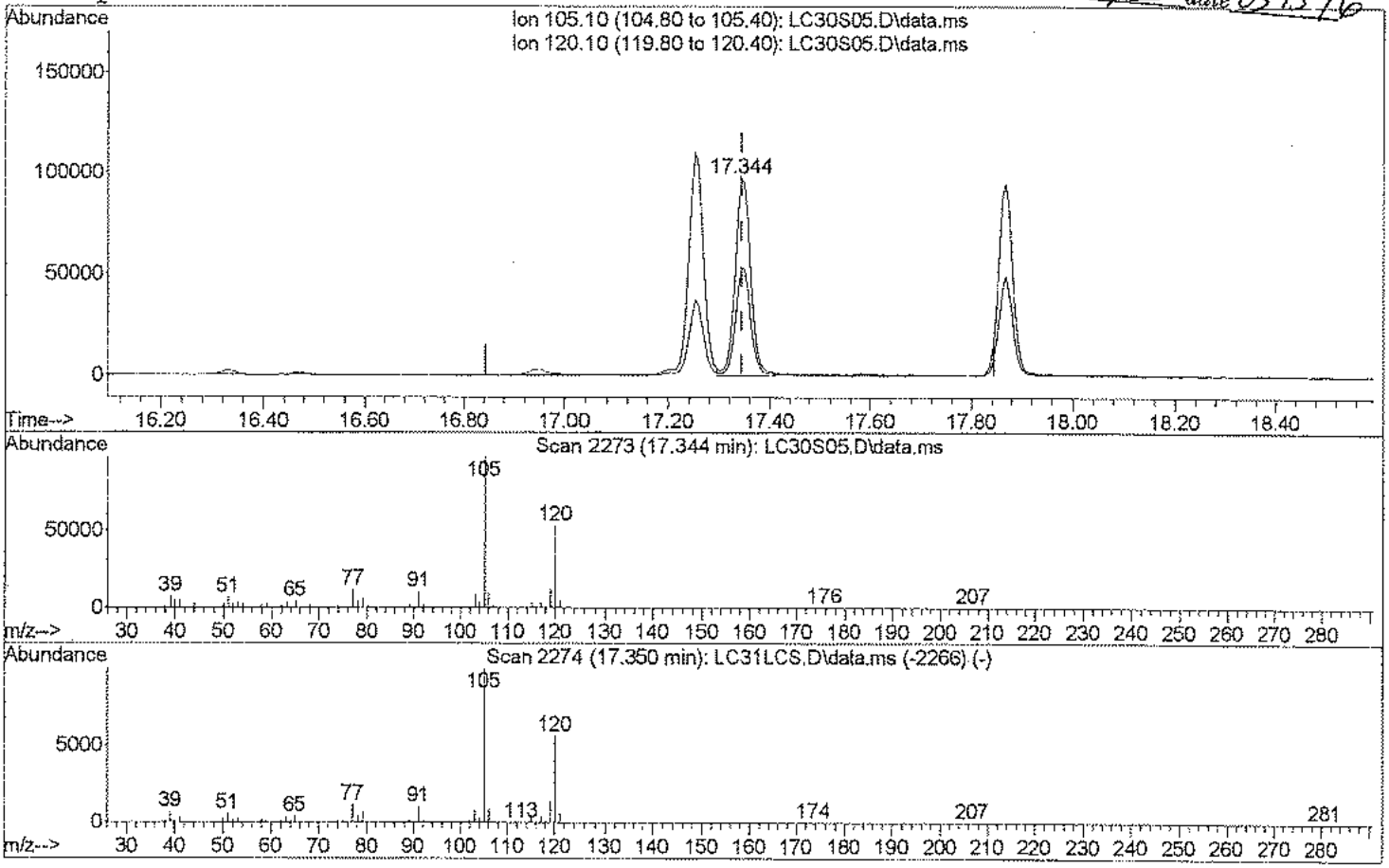
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC30S05.D
Acq On : 03/14/2016 10:51
Operator : JCB
Sample : 0.5 RLVS
Inst : 5975-L
Misc : 31070 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:28 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials Z date 03-15-16



TIC: LC30S05.D\data.ms

(60) 1,3,5-Trimethylbenzene

17.344min (-0.001) 0.54 ppb m

response 201841

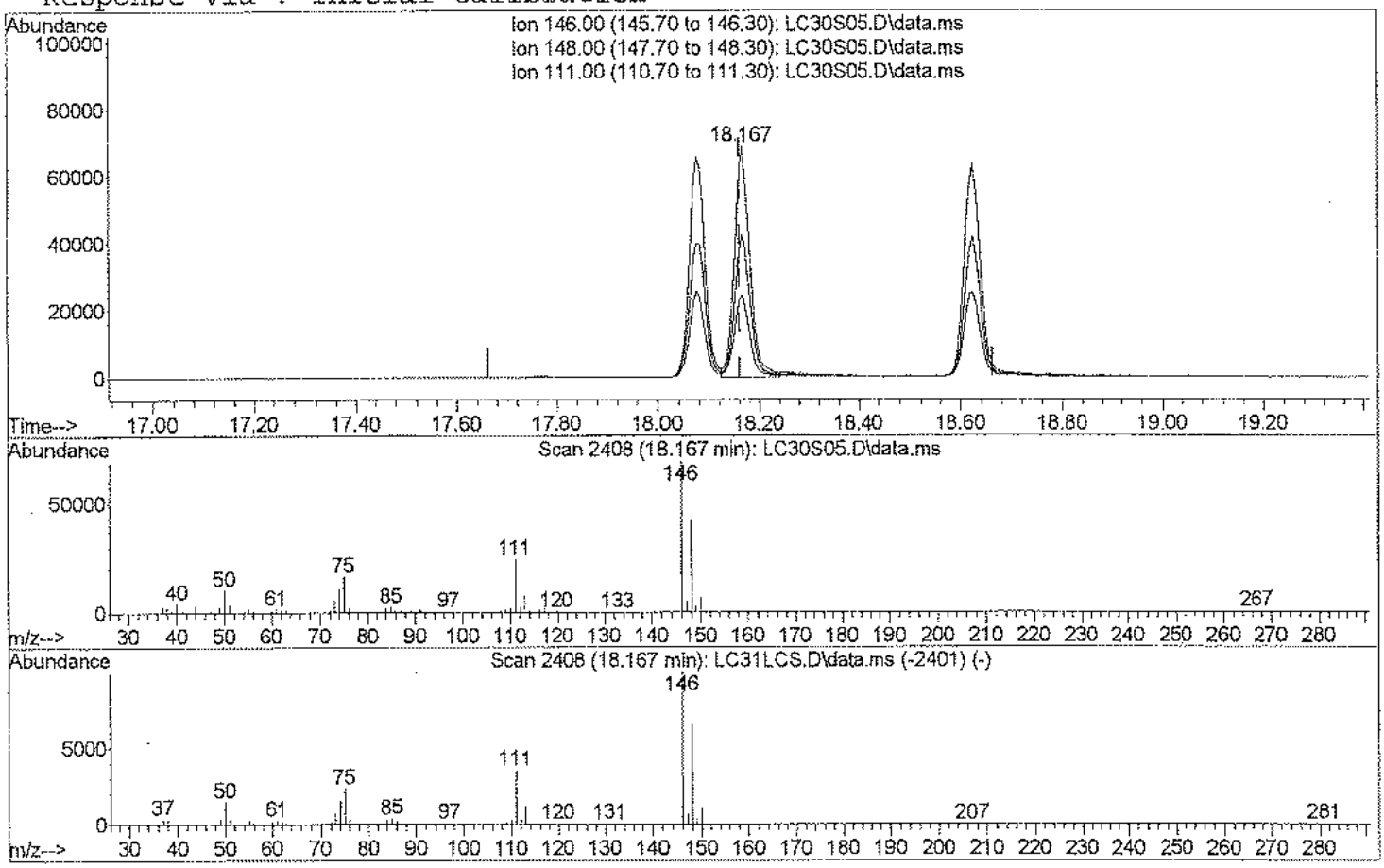
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	54.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC30S05.D
Acq On : 03/14/2016 10:51
Operator : JCB
Sample : 0.5 RLVS
Inst : 5975-L
Misc : 31070 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 07:57:28 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Mon Mar 14 11:34:13 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 03-15-16



TIC: LC30S05.D\data.ms

(64) p-Dichlorobenzene

18.167min (+ 0.005) 0.54 ppb m

response 142900

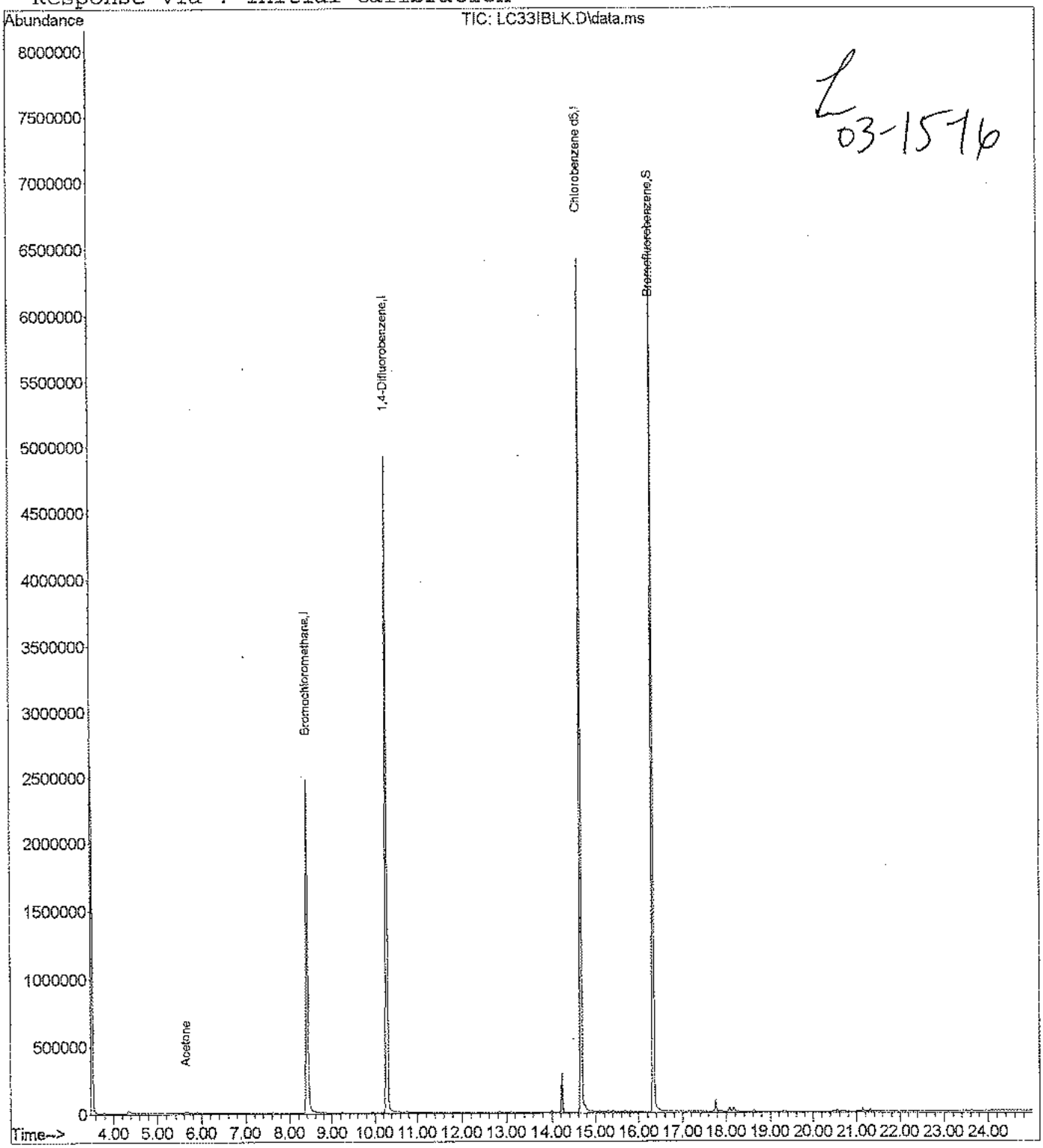
Ion	Exp%	Act%
146.00	100.00	100.00
148.00	64.60	61.64
111.00	30.70	36.54
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC33IBLK.D Vial: 1
Acq Time : 03/14/2016 13:19 Operator: JCB
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:44:28 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration



L 03-15-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC33IBLK.D Vial: 1
Acq Time : 03/14/2016 13:19 Operator: JCB
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:44:28 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	8.41	130	522368	20.0000	ppb	107.61
25) 1,4-Difluorobenzene	10.28	114	5763014	20.0000	ppb	91.97
50) Chlorobenzene d5	14.67	117	5036105	20.0000	ppb	86.82
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	2950505	20.2060	ppb	101.03%
Target Compounds						Qvalue
2) Propene	0.00	41		Not Detected		
3) Dichlorodifluoromethane	0.00	85		Not Detected		
4) Chloromethane	0.00	50		Not Detected		
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.64	43	46549	0.3177	ppb #	37
12) Trichlorofluoromethane	0.00	101		Not Detected		
13) Ethanol	0.00	45		Not Detected		
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	0.00	84		Not Detected		
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	0.00	76		Not Detected		
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	0.00	57		Not Detected		
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	0.00	78		Not Detected		
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC33IBLK.D Vial: 1
Acq Time : 03/14/2016 13:19 Operator: JCB
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:44:28 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

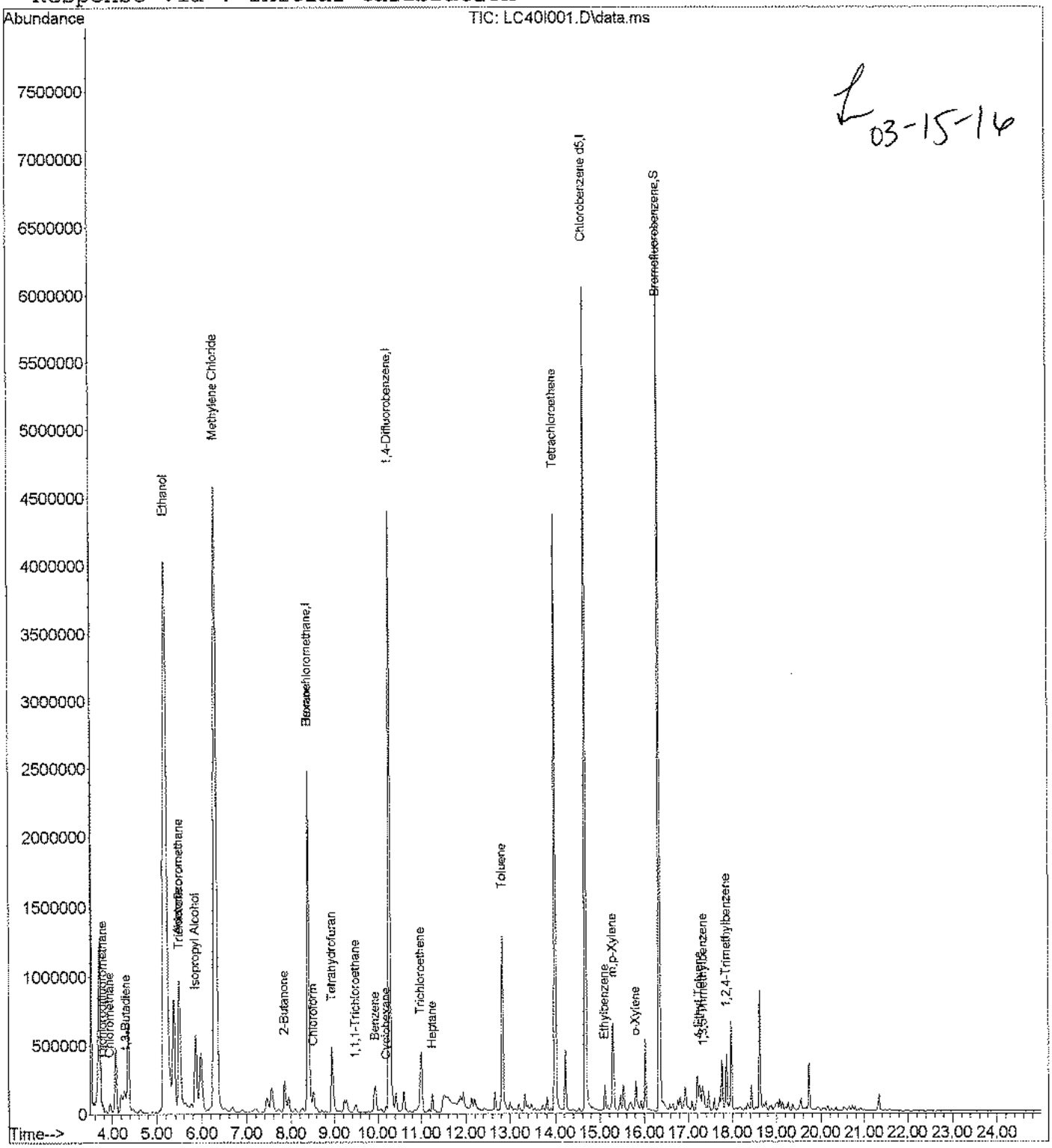
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC40I001.D Vial: 9
Acq Time : 03/14/2016 19:43 Operator: JCB
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 09:26:39 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 09:23:05 2016
Response via : Initial Calibration



03-15-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC40I001.D Vial: 9
Acq Time : 03/14/2016 19:43 Operator: JCB
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 09:26:39 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.40	130	463680	20.0000 ppb	95.52
25) 1,4-Difluorobenzene	10.28	114	5299466	20.0000 ppb	84.57
50) Chlorobenzene d5	14.67	117	4822384	20.0000 ppb	83.13
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	2876482	20.5721 ppb	102.86%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.77	85	111456	0.5696 ppb	97
4) Chloromethane	3.94	50	98698	1.3419 ppb	100
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.31	54	34825	0.5469 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.48	43	2257893	17.3615 ppb m	0
12) Trichlorofluoromethane	5.50	101	79826	0.3416 ppb	98
13) Ethanol	5.18	45	13223422	818.6102 ppb #	78
14) Isopropyl Alcohol	5.86	45	471684	4.3780 ppb #	62
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.30	84	4643287	61.4996 ppb #	63
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.84	43	528953	3.0170 ppb #	70
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.41	57	138478	1.2357 ppb #	85
28) Chloroform	8.52	83	152313	0.9736 ppb	98
29) Tetrahydrofuran	8.94	42	483601	5.3653 ppb #	61
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.49	97	41572	0.2524 ppb #	93
32) Benzene	9.95	78	162313	0.7433 ppb #	87
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.21	84	24863	0.2485 ppb #	17
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC40I001.D Vial: 9
Acq Time : 03/14/2016 19:43 Operator: JCB
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 09:26:39 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected		
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	10.98	130	109911	0.8424 ppb		96
39)	Methyl Methacrylate	0.00	69		Not Detected		
40)	Heptane	11.25	71	34760	0.4918 ppb	#	19
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected		
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.83	91	1123275	4.2770 ppb		100
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.99	166	1558165	10.8177 ppb	#	81
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.11	91	171379	0.5046 ppb	m	67
53)	m,p-Xylene	15.28	91	481523	1.8287 ppb		99
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	0.00	104		Not Detected		
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.81	91	146099	0.5368 ppb		99
59)	4-Ethyl Toluene	17.25	105	97349	0.2560 ppb	m	96
60)	1,3,5-Trimethylbenzene	17.35	105	75038	0.2233 ppb	m	72
61)	1,2,4-Trimethylbenzene	17.87	105	266772	0.8333 ppb		99
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

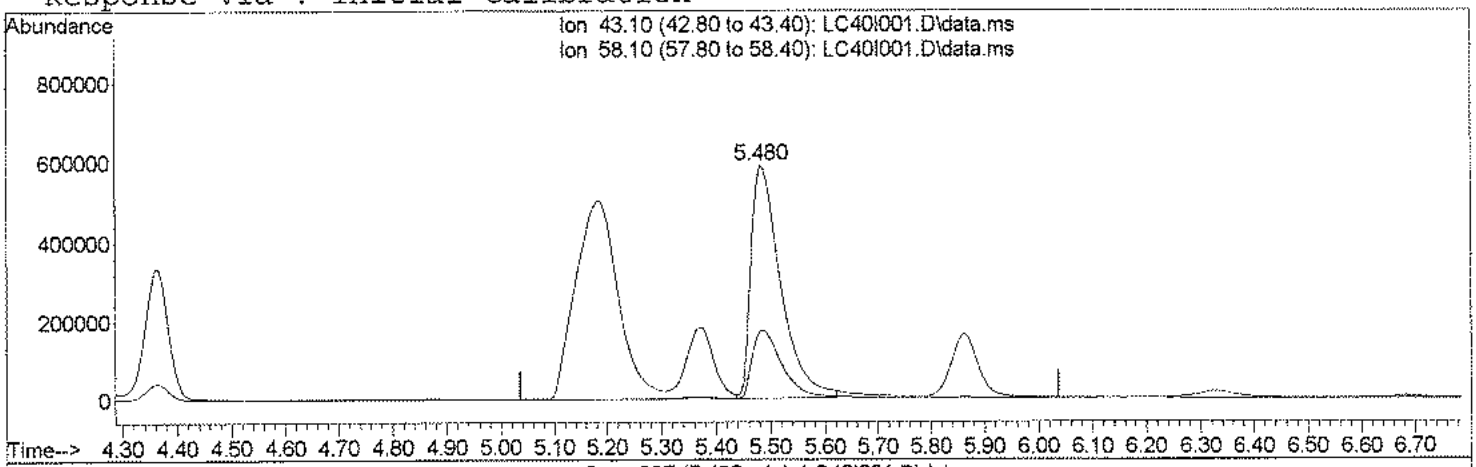
(#) = qualifier out of range (m) = manual integration

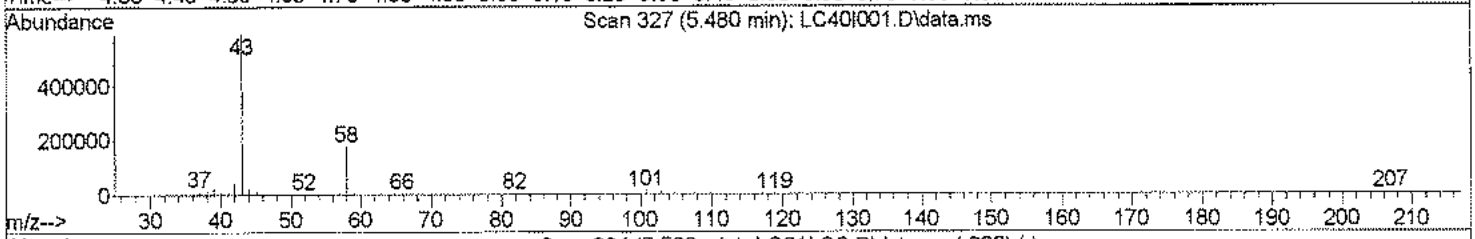
Quantitation Report (Qedit)

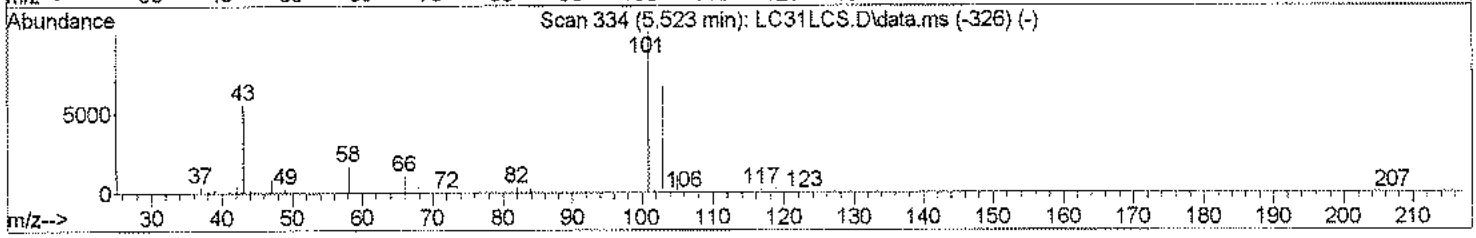
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC40I001.D
Acq On : 03/14/2016 19:43
Operator : JCB
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 15 08:01:51 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L *date* 03-15-16







TIC: LC40I001.D\data.ms

(11) Acetone

5.480min (-0.056) 17.36 ppb m

response 2257893

Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

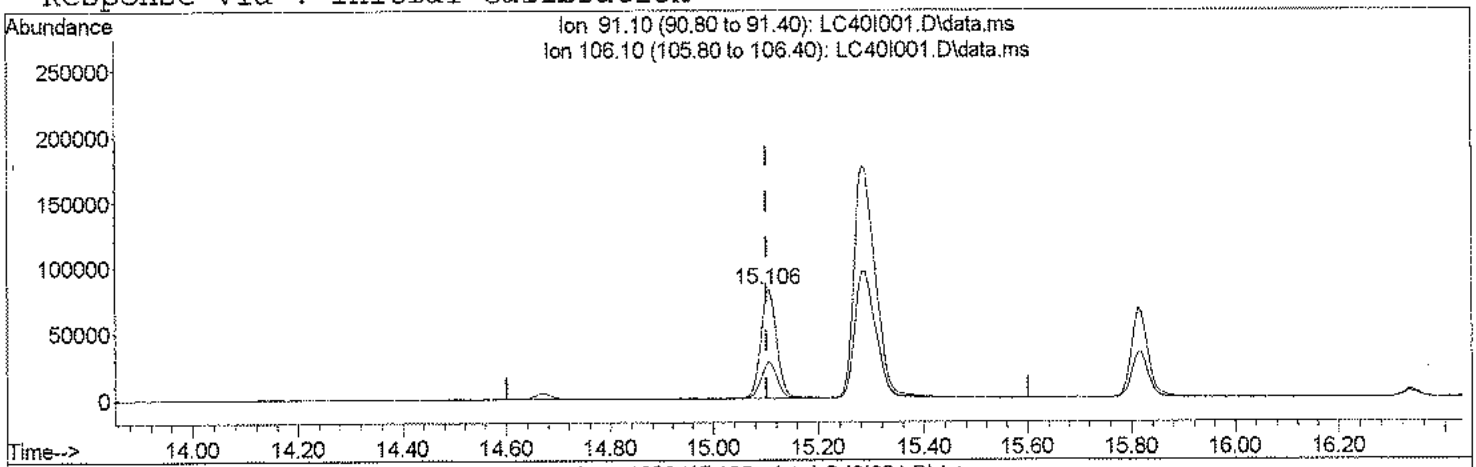
Quantitation Report (Qedit)

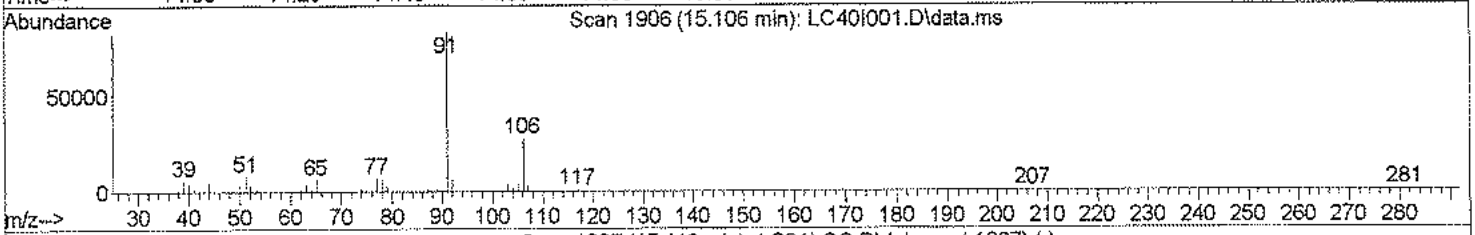
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC40I001.D
Acq On : 03/14/2016 19:43
Operator : JCB
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086
ALS Vial : 9 Sample Multiplier: 1

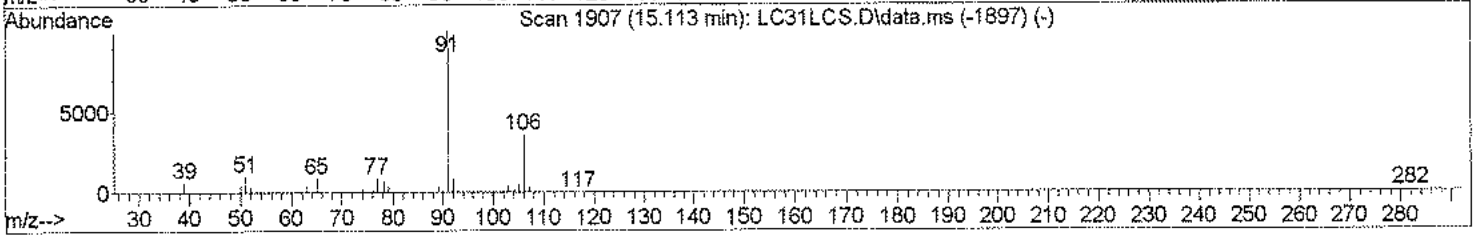
Quant Time: Mar 15 08:01:51 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L date 03-15-16







TIC: LC40I001.D\data.ms

(52) Ethylbenzene

15.106min (+ 0.005) 0.50 ppb m

response 171379

Ion	Exp%	Act%
91.10	100.00	100.00
106.10	35.50	153.76#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

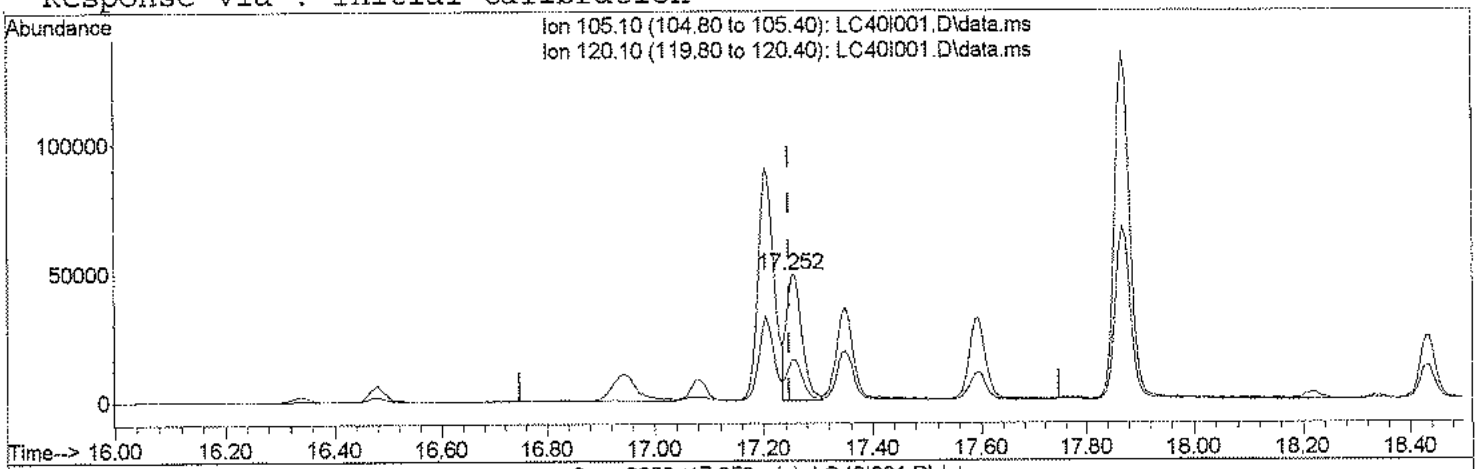
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC40I001.D
Acq On : 03/14/2016 19:43
Operator : JCB
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086
ALS Vial : 9 Sample Multiplier: 1

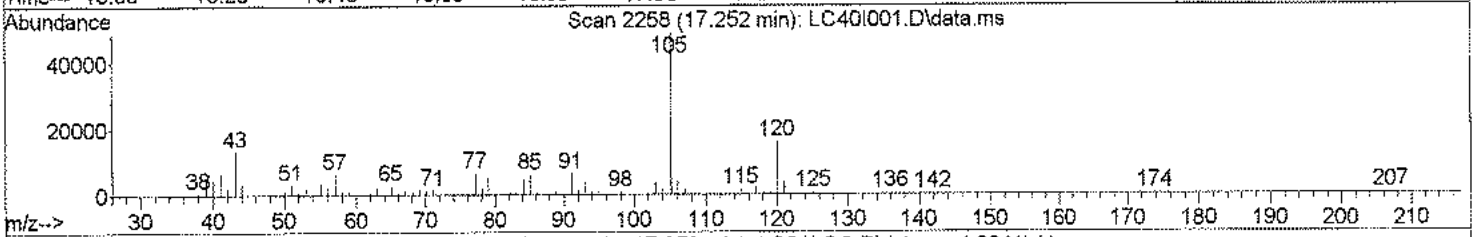
Quant Time: Mar 15 08:01:51 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

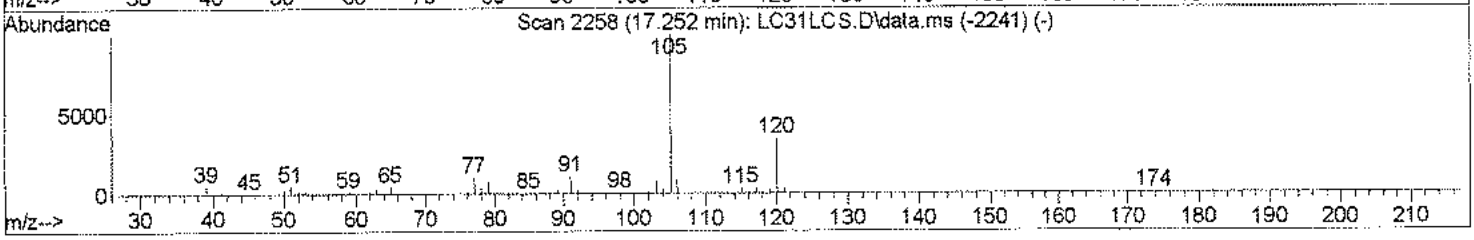
MANUAL RE-INTEGRATION

☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials K *date* 03-15-16







TIC: LC40I001.D\data.ms

(59) 4-Ethyl Toluene

17.252min (+ 0.005) 0.26 ppb m

response 97349

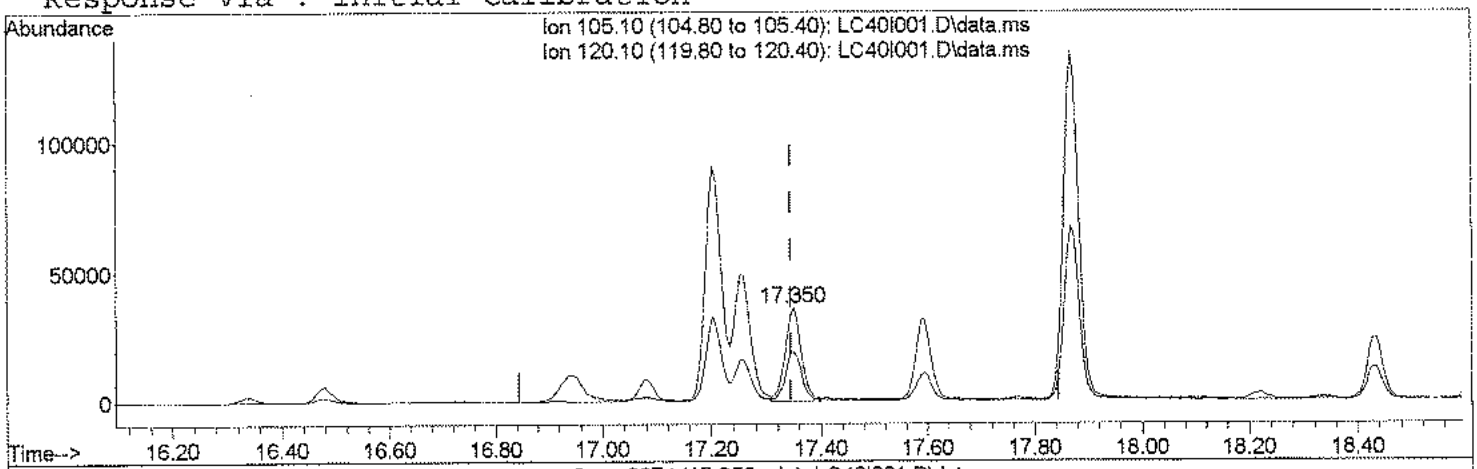
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	32.60	66.03#
0.00	0.00	0.00
0.00	0.00	0.00

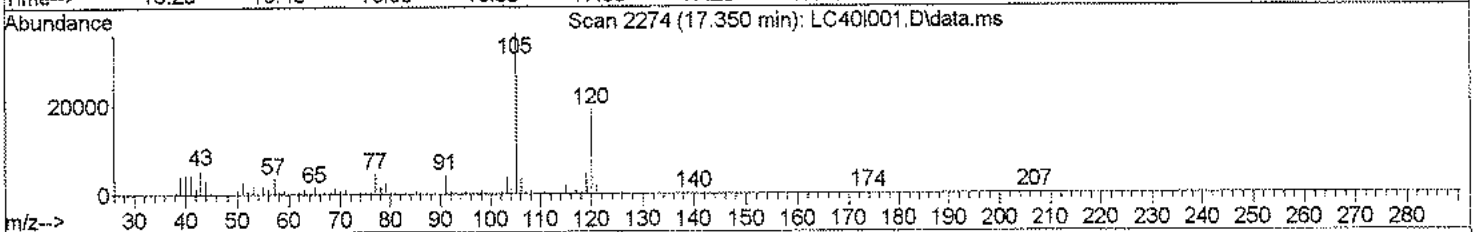
Quantitation Report (Qedit)

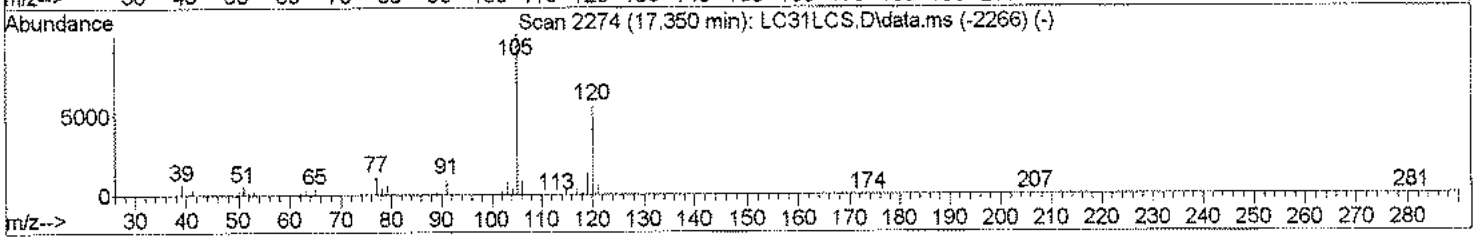
Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC40I001.D
Acq On : 03/14/2016 19:43
Operator : JCB
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 15 08:01:51 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials LM date 03-15-16







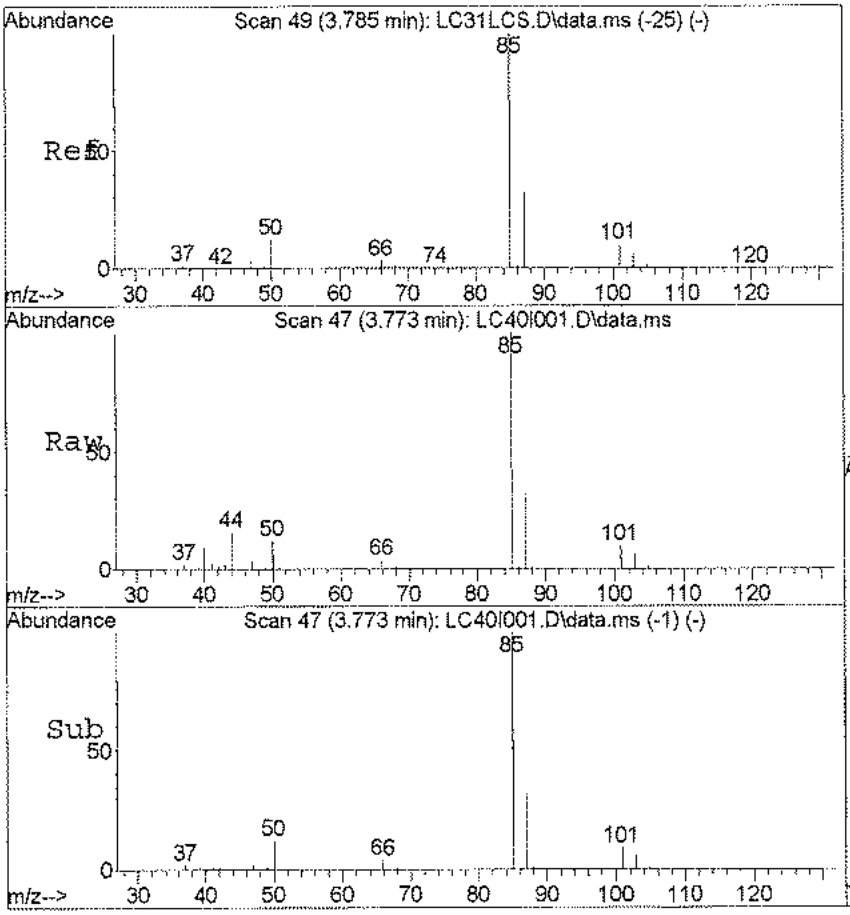
TIC: LC40I001.D\data.ms

(60) 1,3,5-Trimethylbenzene

17.350min (+ 0.005) 0.22 ppb m

response 75038

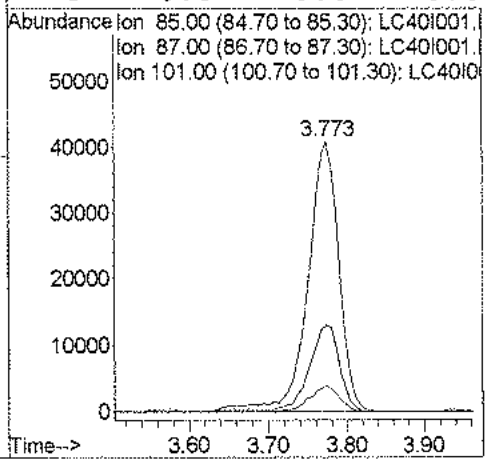
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	54.90	85.67#
0.00	0.00	0.00
0.00	0.00	0.00

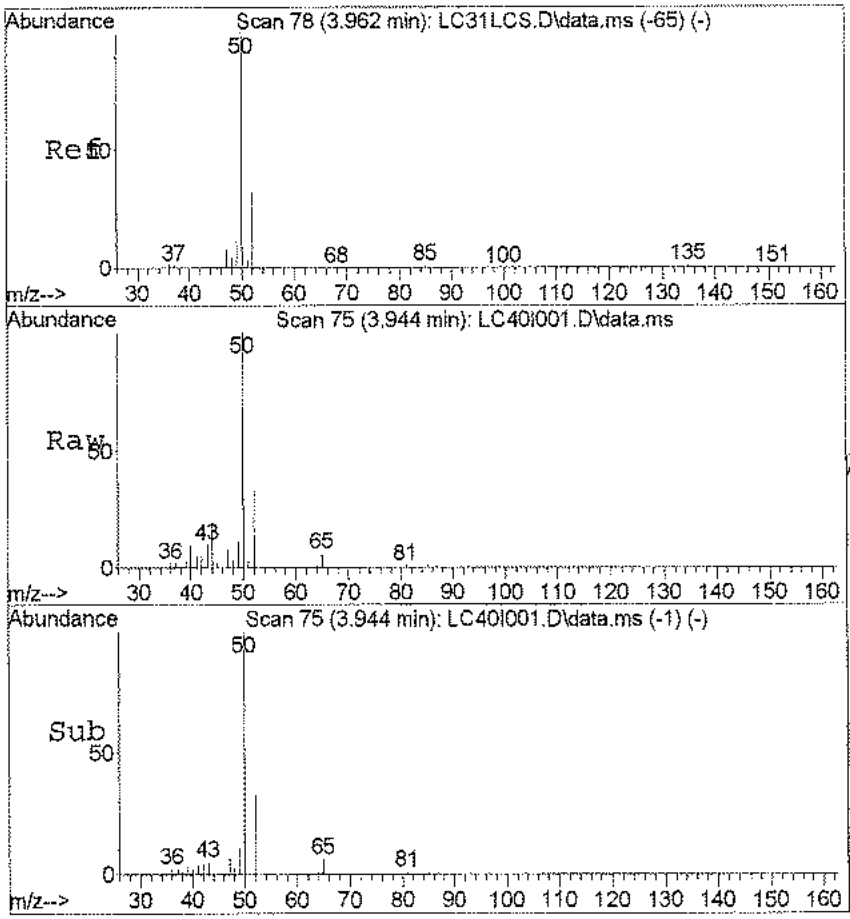


#3
Dichlorodifluoromethane
Concen: 0.57 ppb
RT: 3.77 min Scan# 47
Delta R.T. -0.05 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:85 Resp: 111456

Ion	Ratio	Lower	Upper
85	100		
87	30.9	26.1	39.1
101	9.2	8.0	12.0
0	0.0	0.0	0.0

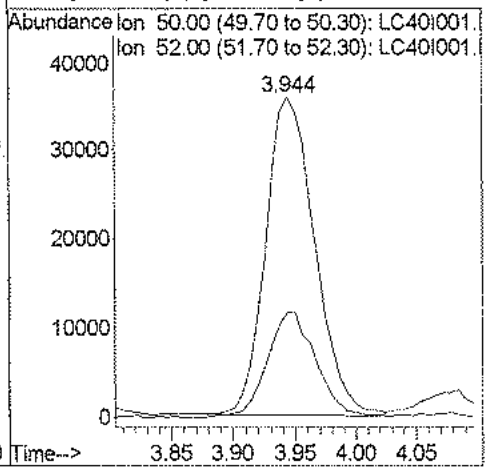


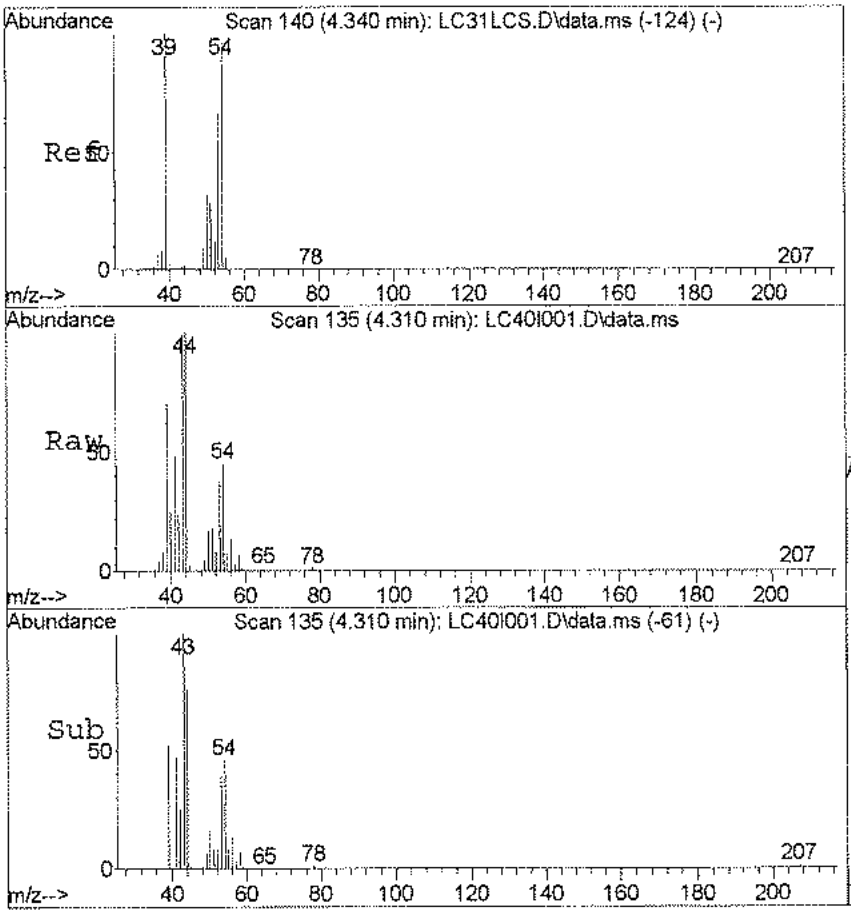


#4
Chloromethane
Concen: 1.34 ppb
RT: 3.94 min Scan# 75
Delta R.T. -0.05 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:50 Resp: 98698

Ion	Ratio	Lower	Upper
50	100		
52	33.1	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

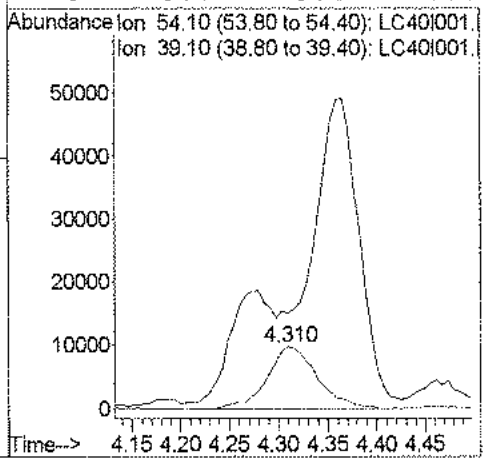


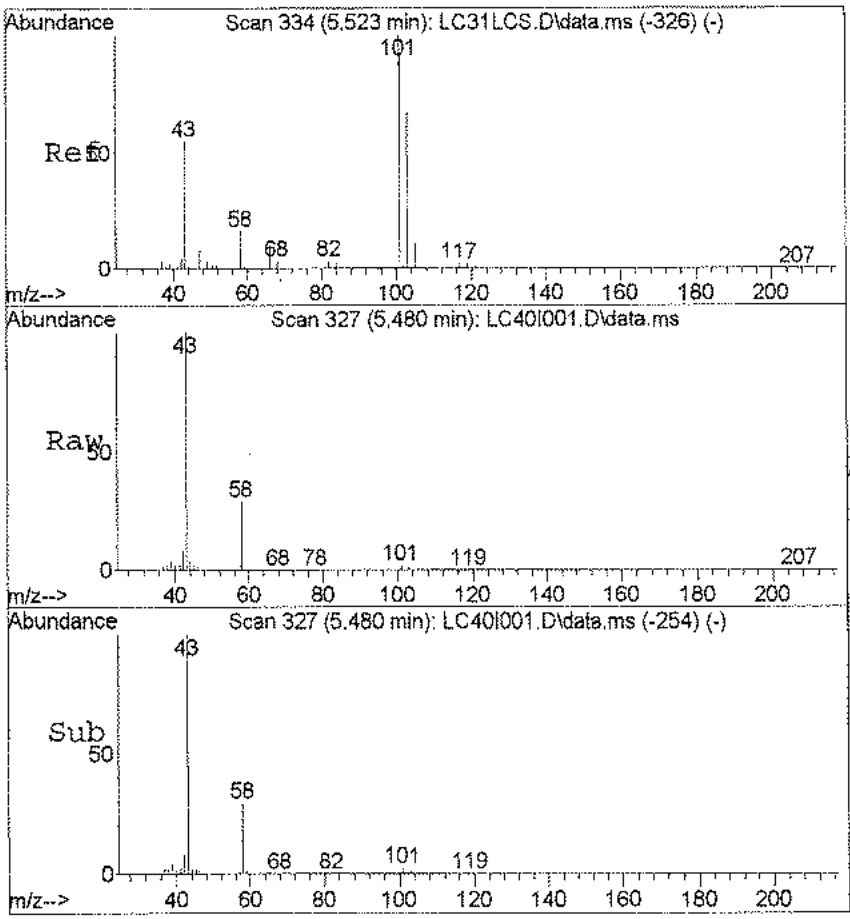


#7
1,3-Butadiene
Concen: 0.55 ppb
RT: 4.31 min Scan# 135
Delta R.T. -0.05 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:54.1 Resp: 34825

Ion	Ratio	Lower	Upper
54	100		
39	0.0	59.8	89.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

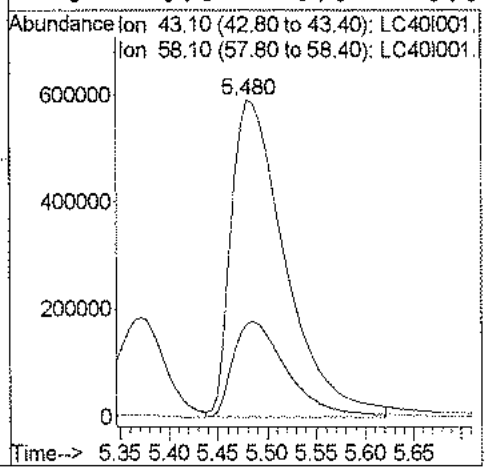


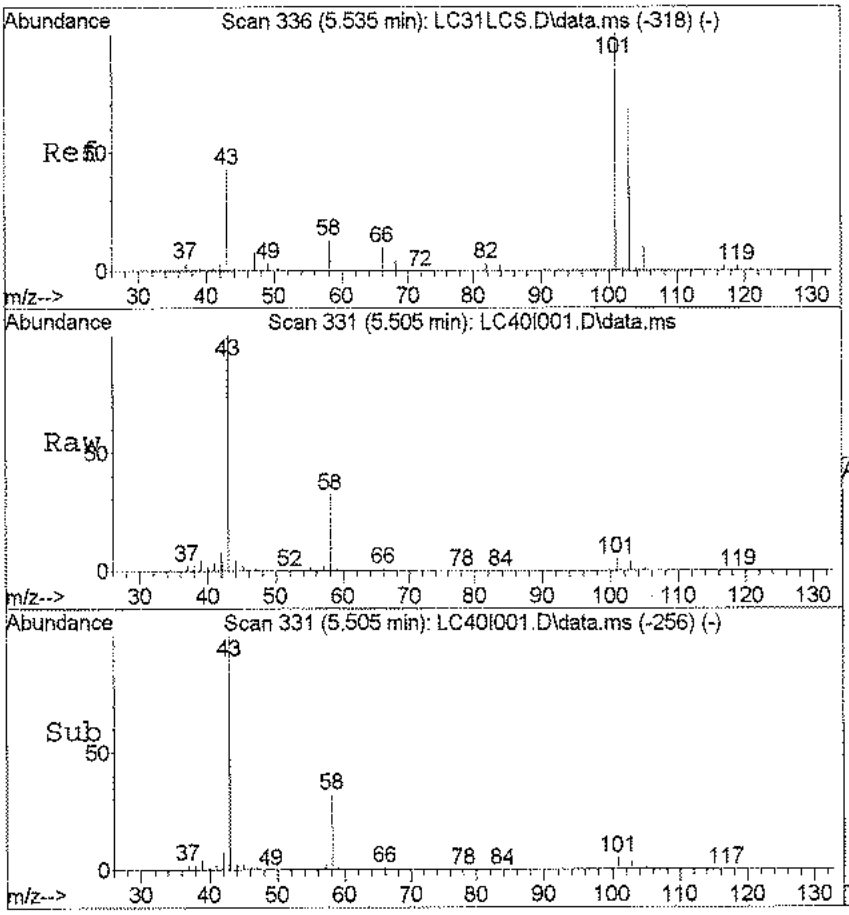


#11
Acetone
Concen: 17.36 ppb m
RT: 5.48 min Scan# 327
Delta R.T. -0.06 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:43.1 Resp: 2257893

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

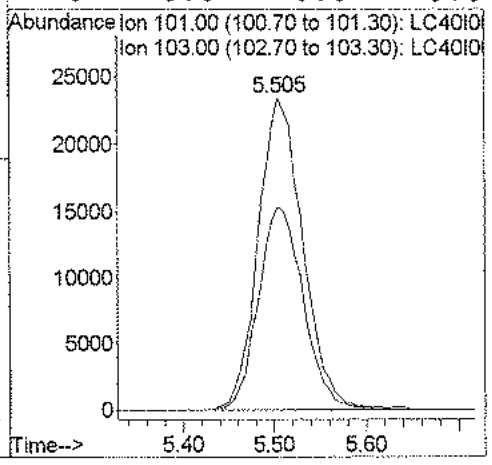


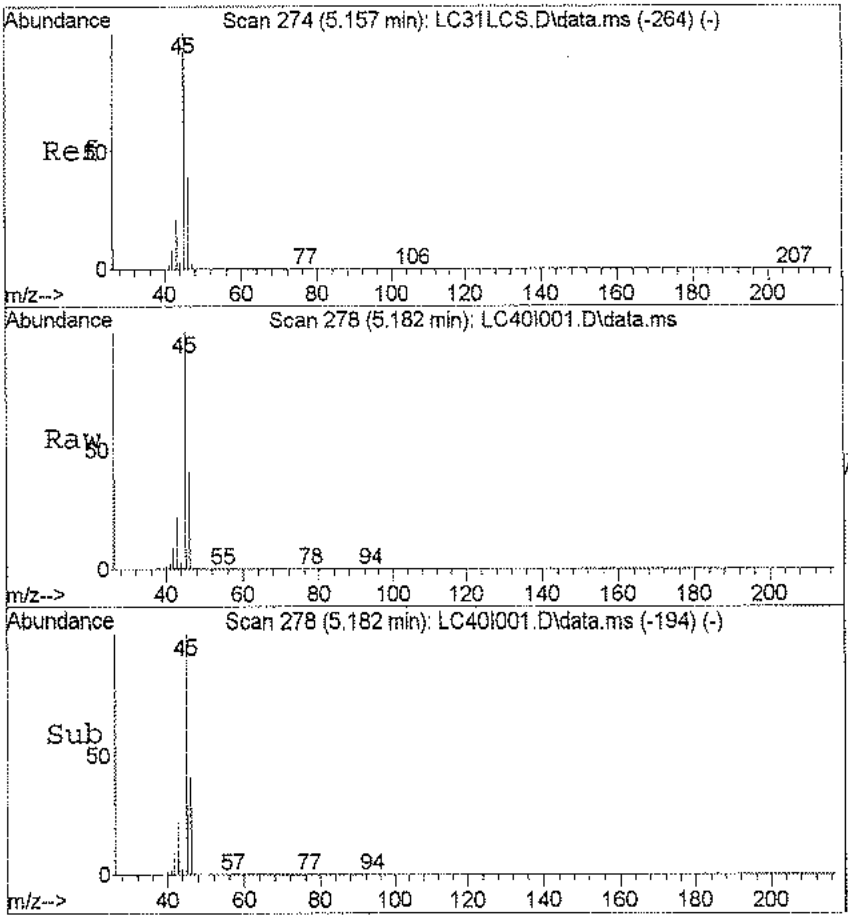


#12
Trichlorofluoromethane
Concen: 0.34 ppb
RT: 5.50 min Scan# 331
Delta R.T. -0.04 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:101 Resp: 79826

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

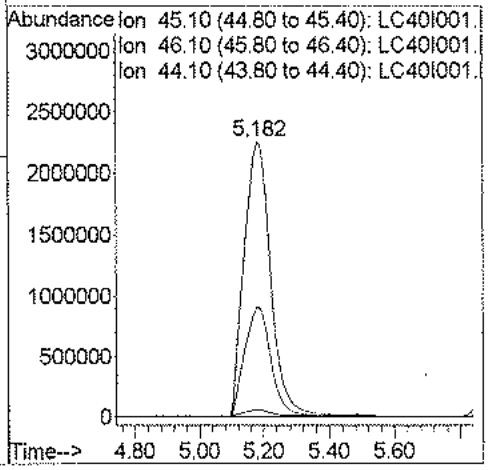


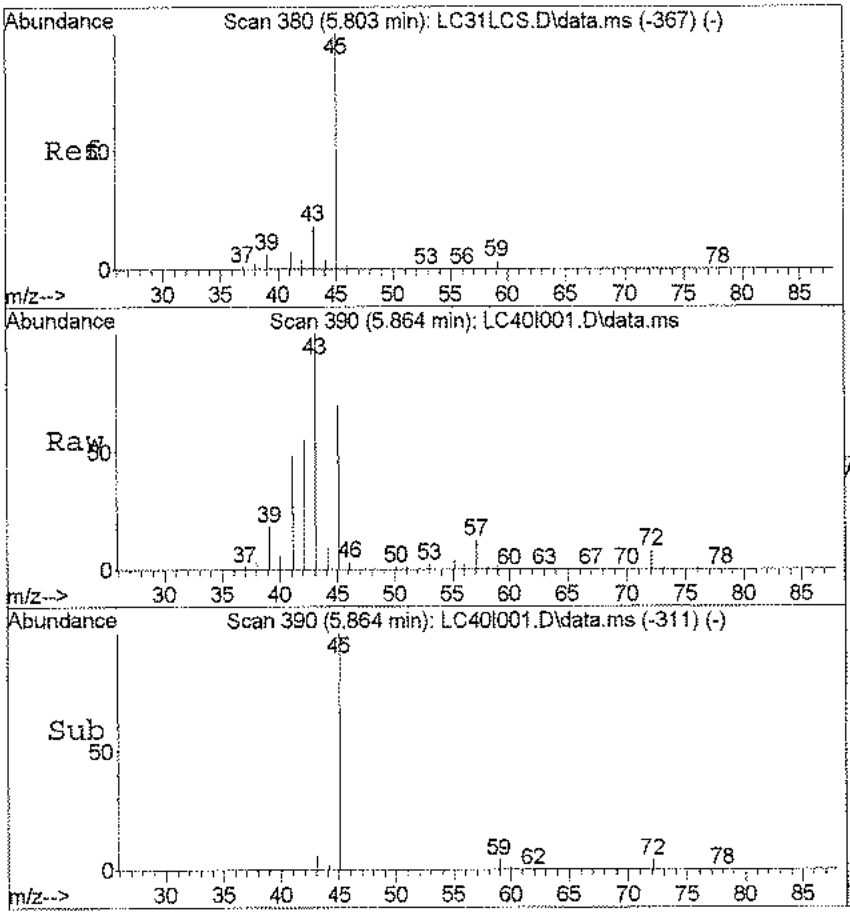


#13
Ethanol
Concen: 818.61 ppb
RT: 5.18 min Scan# 278
Delta R.T. 0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:45.1 Resp:13223422

Ion	Ratio	Lower	Upper
45	100		
46	40.1	32.4	48.6
44	2.3	23.4	35.2#
0	0.0	0.0	0.0

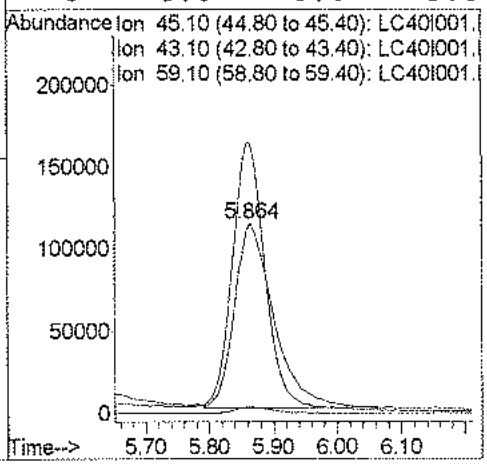


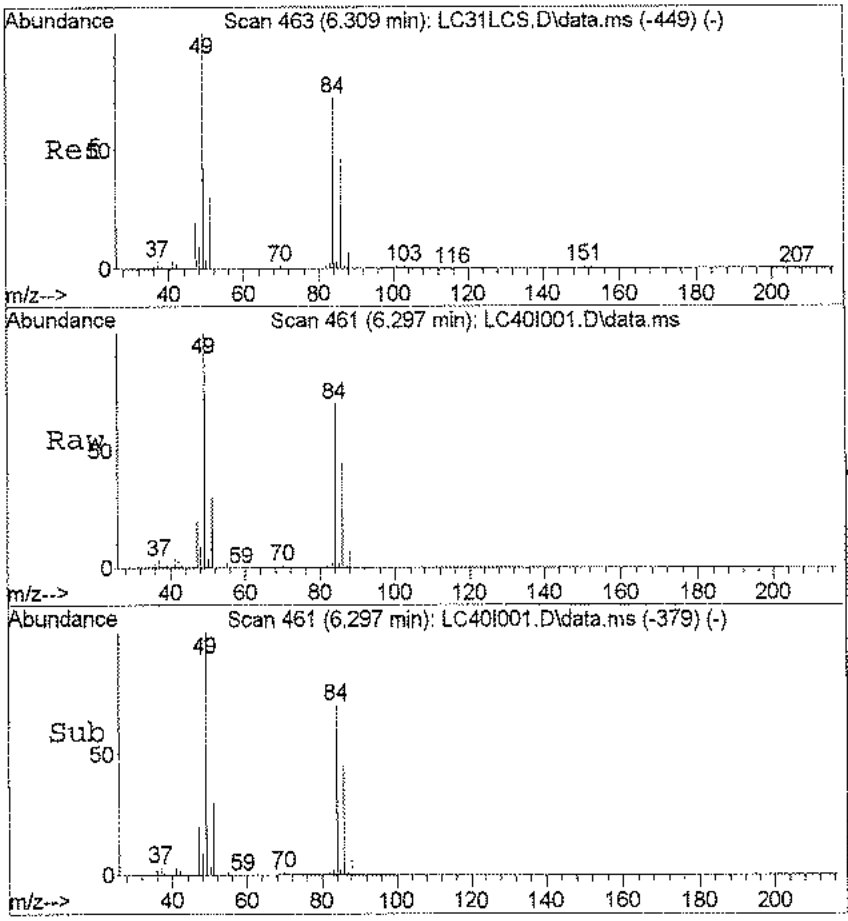


#14
Isopropyl Alcohol
Concen: 4.38 ppb
RT: 5.86 min Scan# 390
Delta R.T. -0.02 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:45.1 Resp: 471684

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	0.0	3.2	4.8#
0	0.0	0.0	0.0

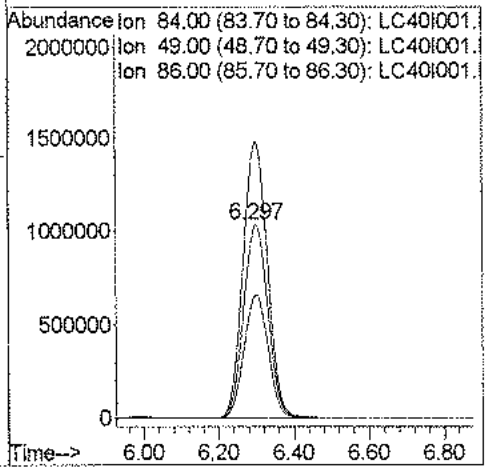


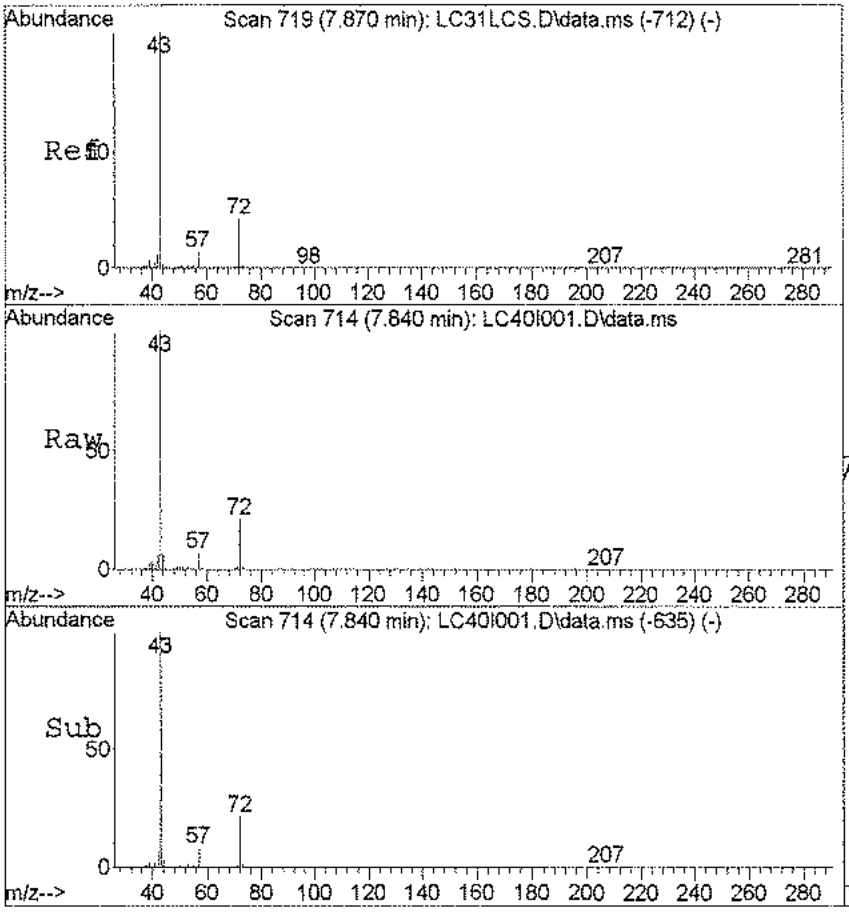


#16
Methylene Chloride
Concen: 61.50 ppb
RT: 6.30 min Scan# 461
Delta R.T. -0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:84 Resp: 4643287

Ion	Ratio	Lower	Upper
84	100		
49	142.6	66.6	100.0#
86	63.9	51.6	77.4
0	0.0	0.0	0.0

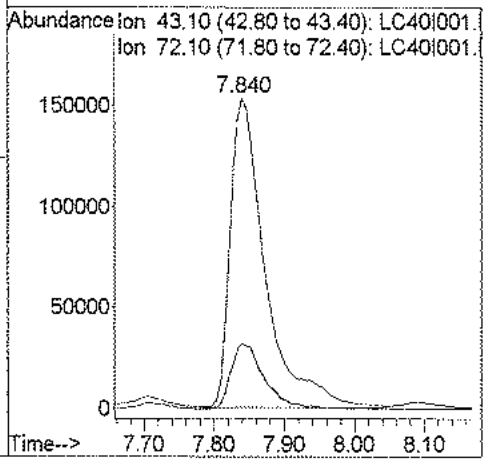


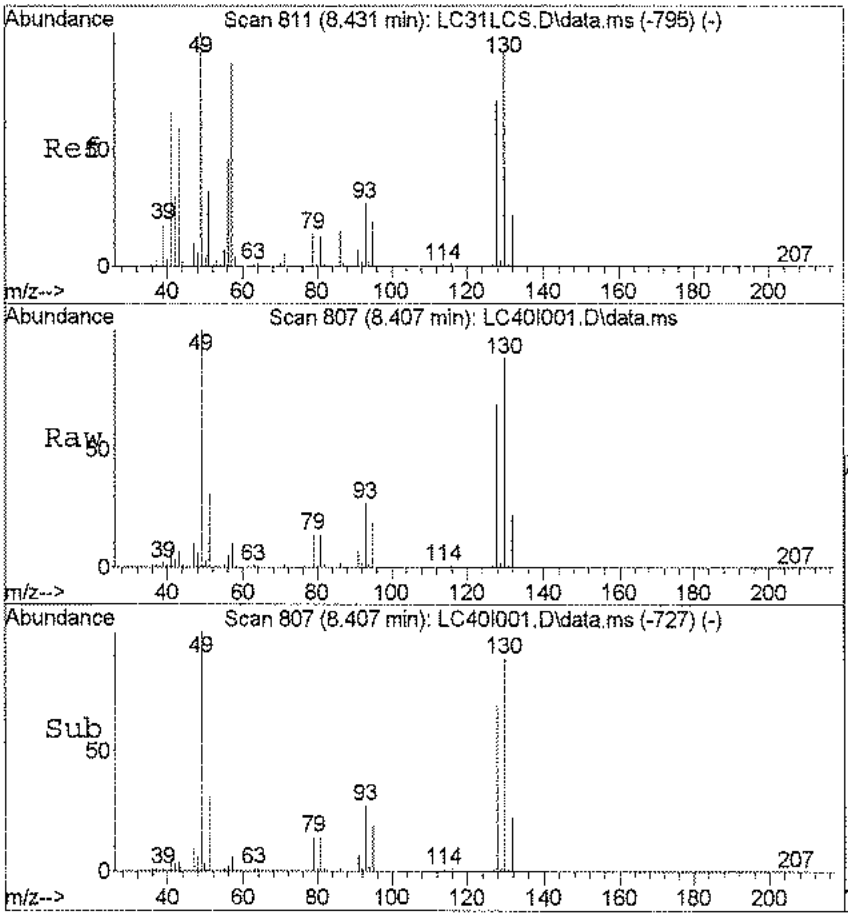


#23
2-Butanone
Concen: 3.02 ppb
RT: 7.84 min Scan# 714
Delta R.T. -0.02 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:43.1 Resp: 528953

Ion	Ratio	Lower	Upper
43	100		
72	20.4	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

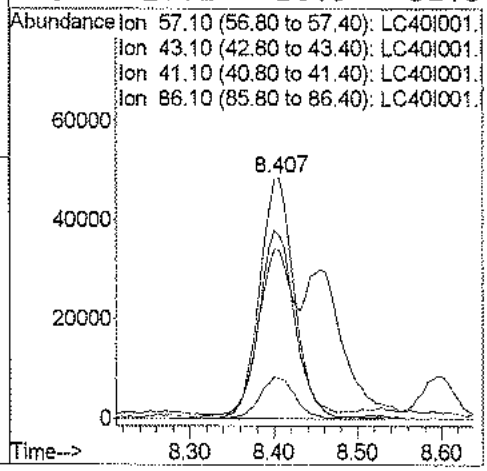


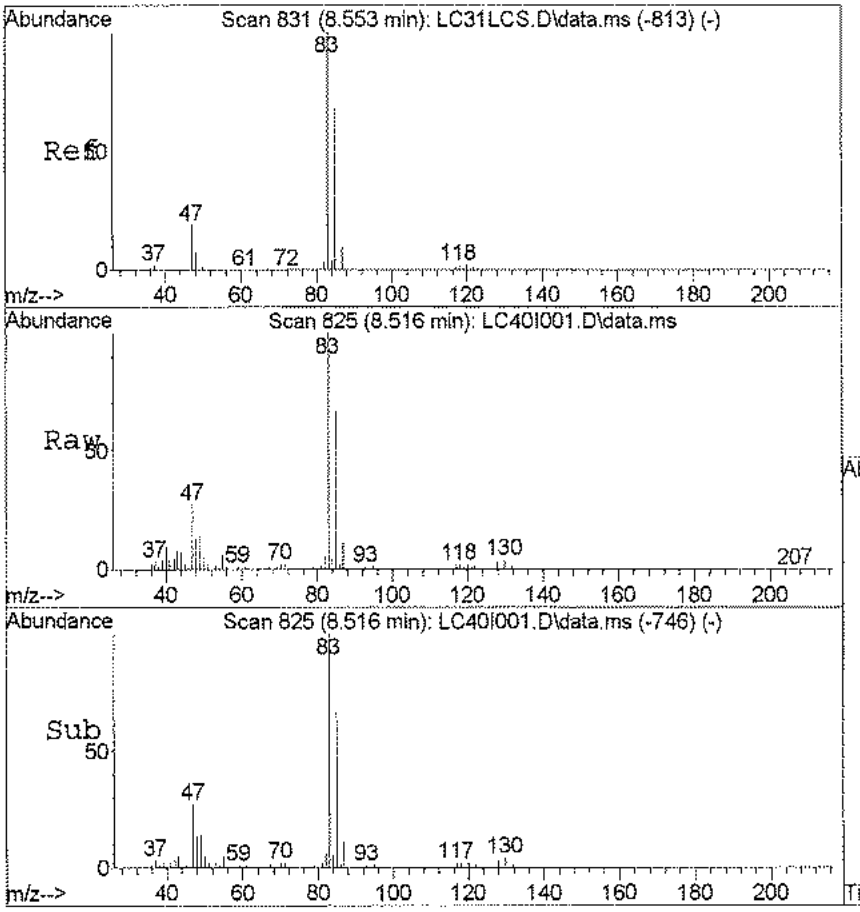


#27
Hexane
Concen: 1.24 ppb
RT: 8.41 min Scan# 807
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:57.1 Resp: 138478

Ion	Ratio	Lower	Upper
57	100		
43	69.9	57.3	85.9
41	81.3	47.0	70.4#
86	17.2	20.9	31.3#

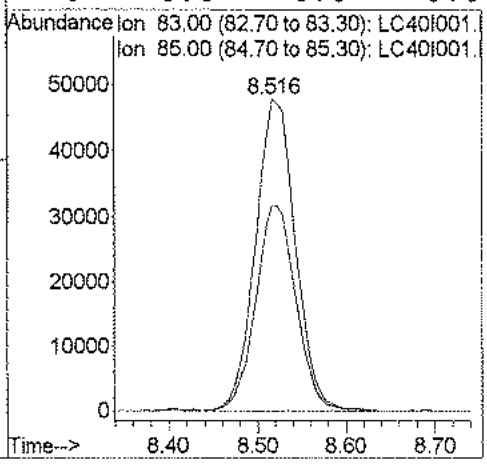


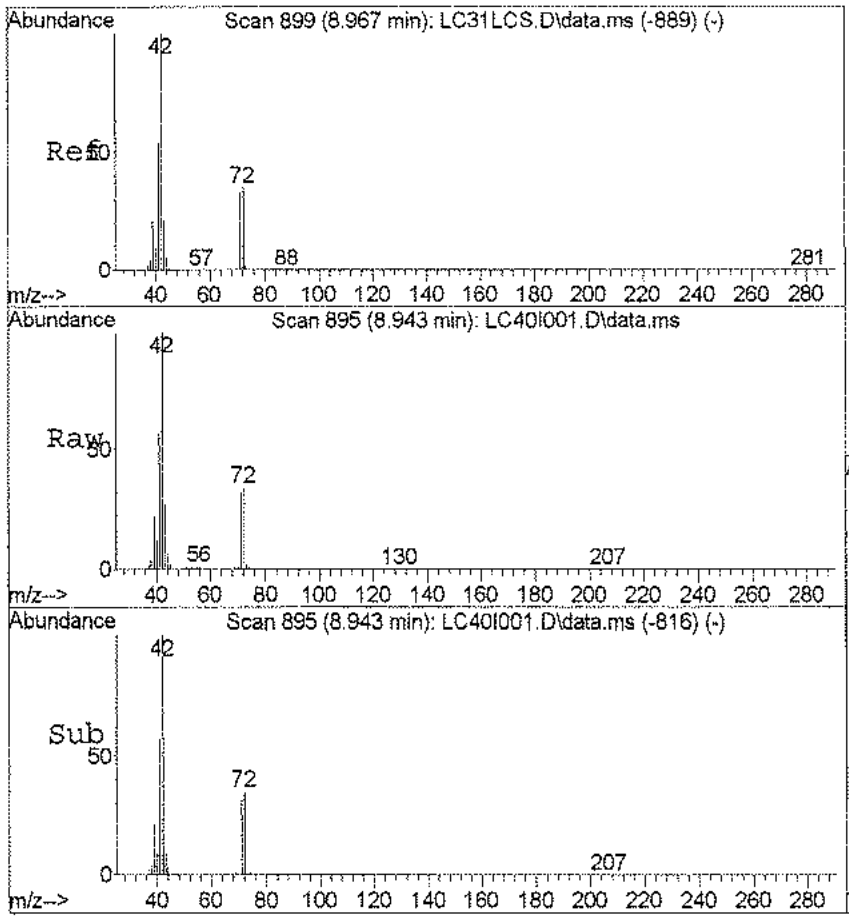


#28
Chloroform
Concen: 0.97 ppb
RT: 8.52 min Scan# 825
Delta R.T. -0.02 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:83 Resp: 152313

Ion	Ratio	Lower	Upper
83	100		
85	67.2	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

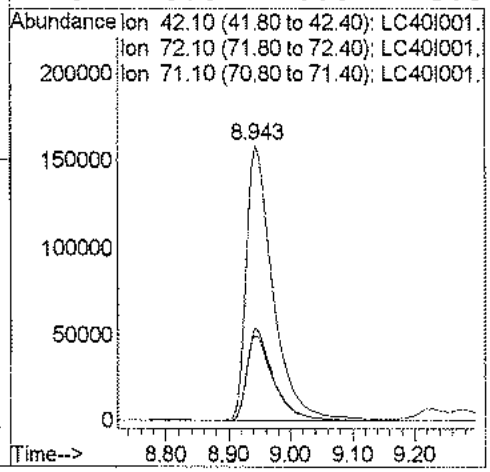


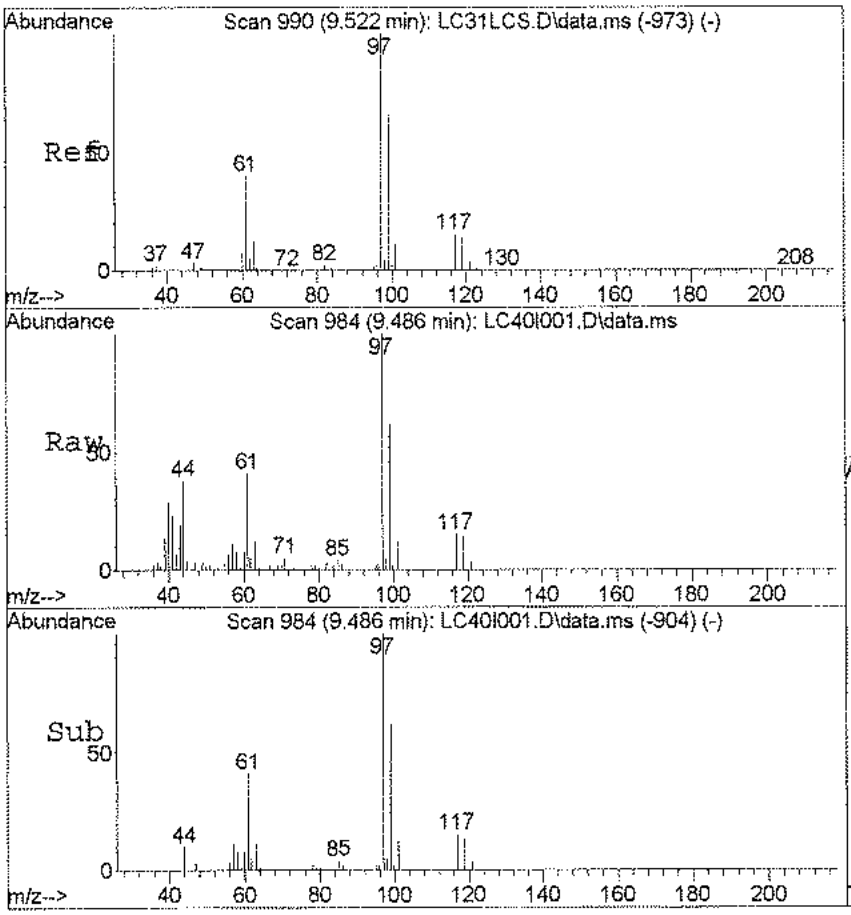


#29
Tetrahydrofuran
Concen: 5.37 ppb
RT: 8.94 min Scan# 895
Delta R.T. -0.02 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:42.1 Resp: 483601

Ion	Ratio	Lower	Upper
42	100		
72	33.4	51.5	77.3#
71	30.9	47.5	71.3#
0	0.0	0.0	0.0

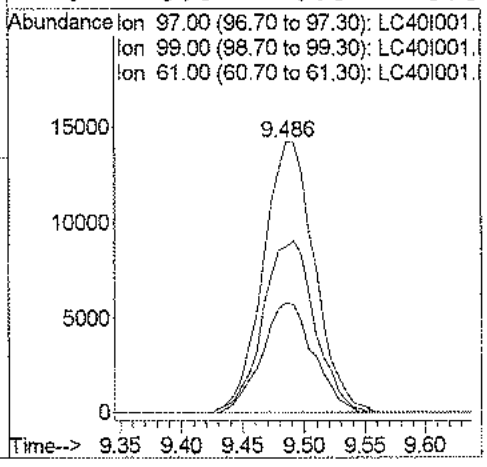


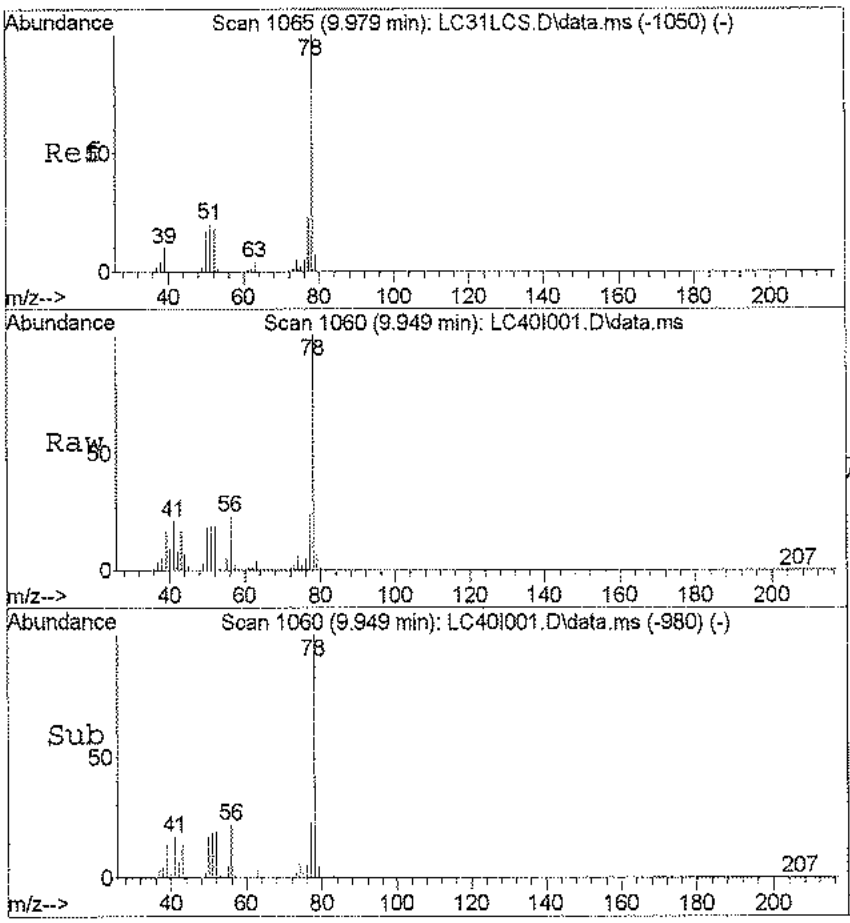


#31
1,1,1-Trichloroethane
Concen: 0.25 ppb
RT: 9.49 min Scan# 984
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:97 Resp: 41572

Ion	Ratio	Lower	Upper
97	100		
99	64.3	51.6	77.4
61	41.3	24.2	36.2#
0	0.0	0.0	0.0

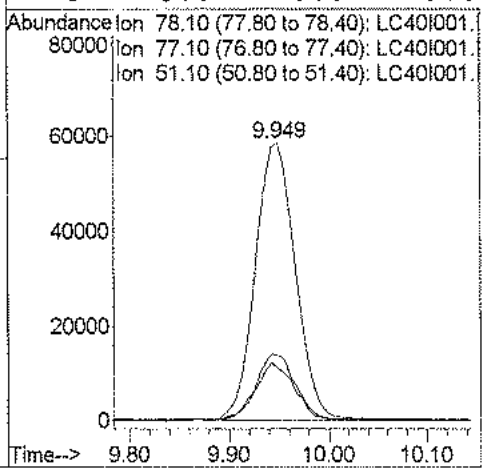


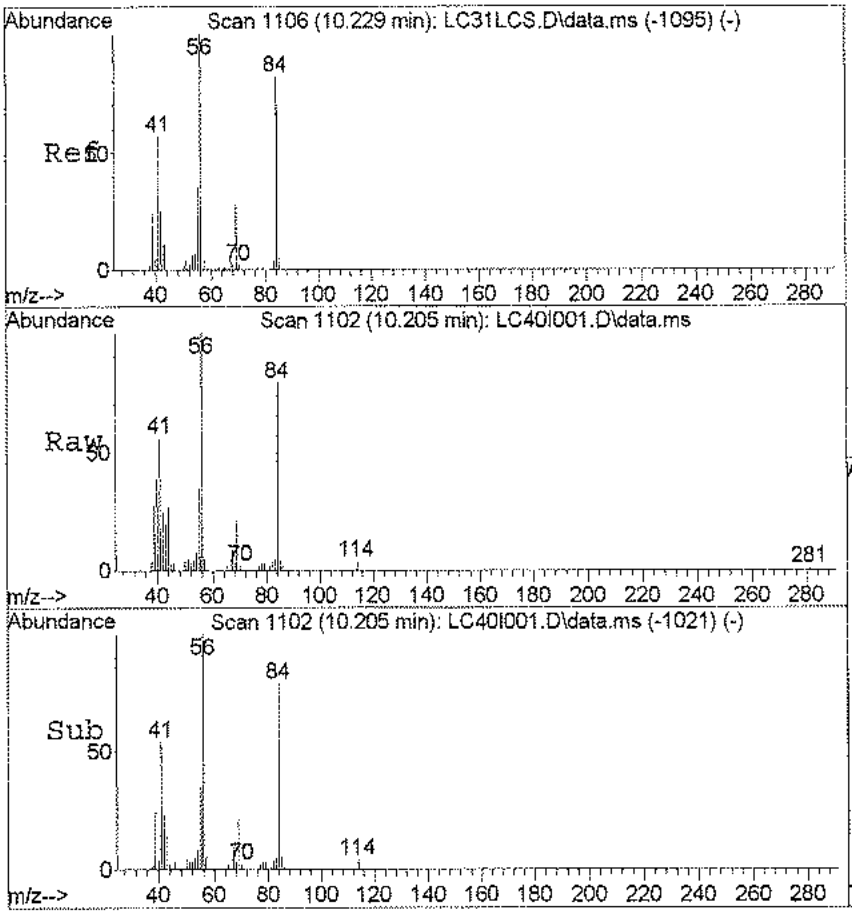


#32
Benzene
Concen: 0.74 ppb
RT: 9.95 min Scan# 1060
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:78.1 Resp: 162313

Ion	Ratio	Lower	Upper
78	100		
77	24.5	18.2	27.4
51	0.0	9.5	14.3#
0	0.0	0.0	0.0

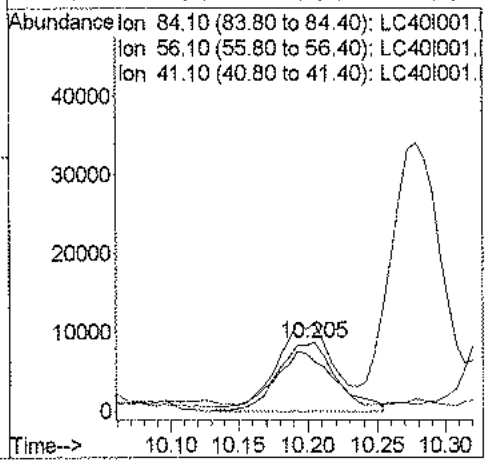


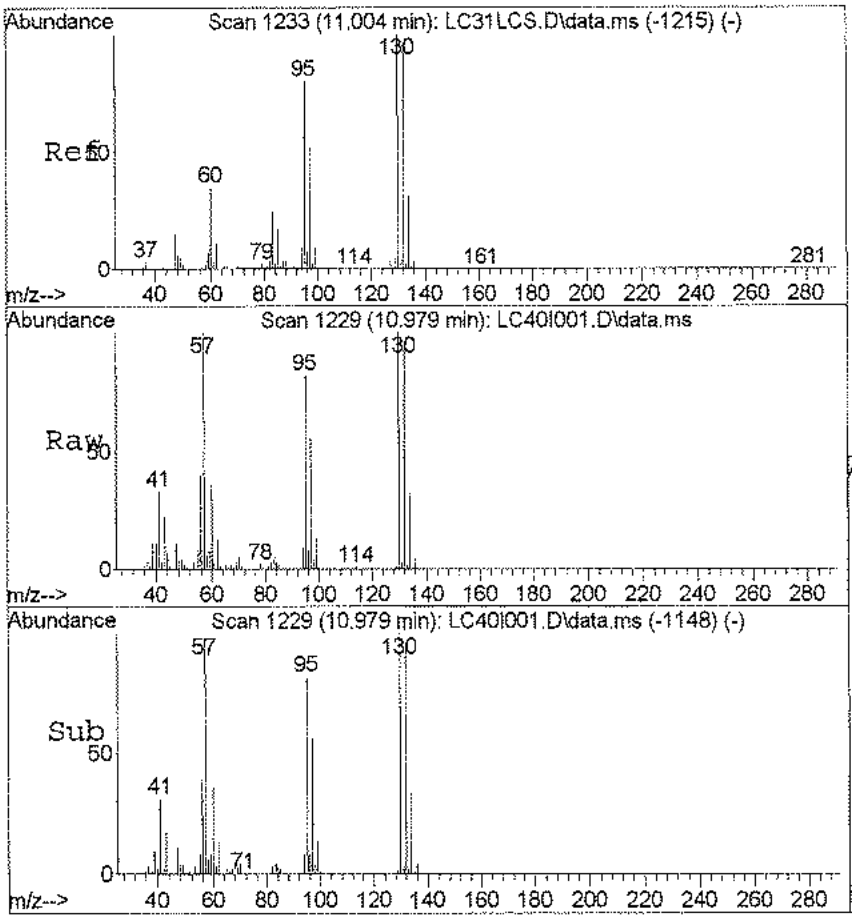


#34
Cyclohexane
Concen: 0.25 ppb
RT: 10.21 min Scan# 1102
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:84.1 Resp: 24863

Ion	Ratio	Lower	Upper
84	100		
56	0.0	67.3	100.9#
41	0.0	30.2	45.4#
0	0.0	0.0	0.0

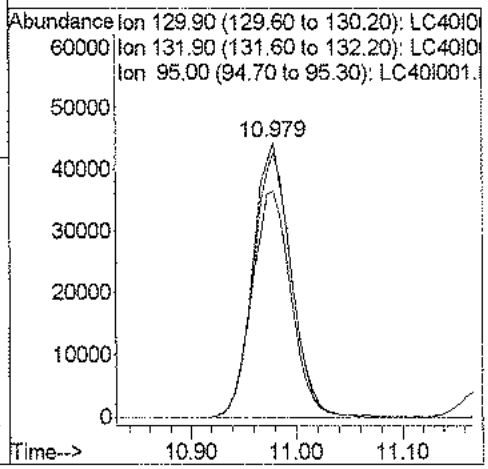


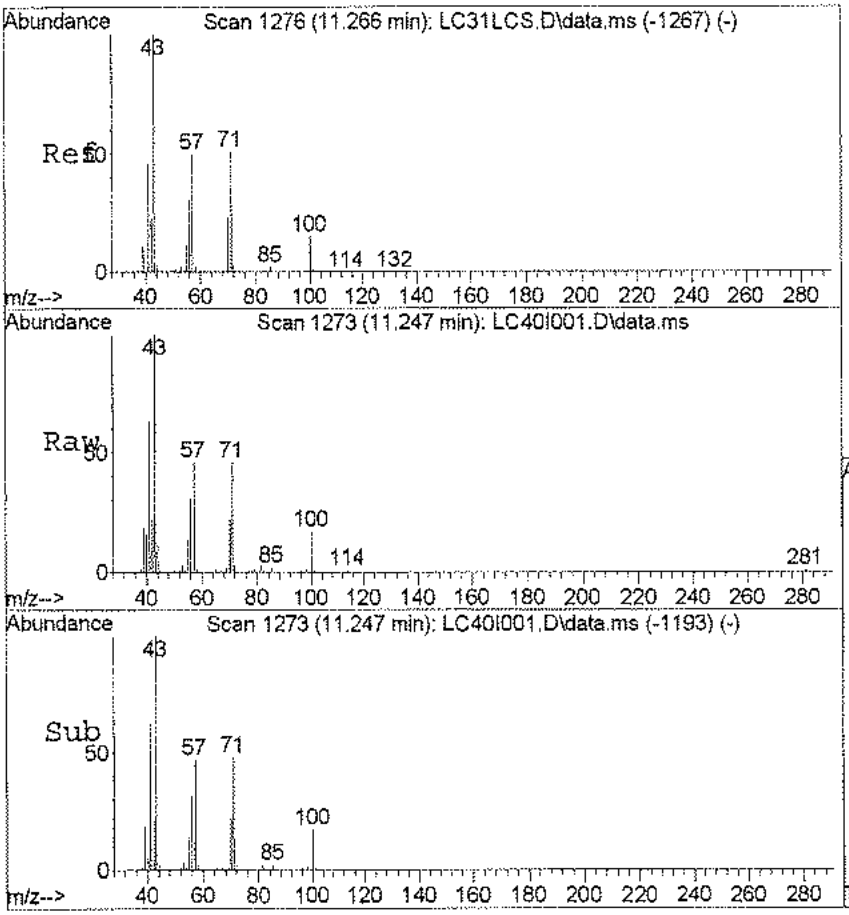


#38
Trichloroethene
Concen: 0.84 ppb
RT: 10.98 min Scan# 1229
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:129.9 Resp: 109911

Ion	Ratio	Lower	Upper
130	100		
132	96.2	77.1	115.7
95	84.4	61.7	92.5
0	0.0	0.0	0.0

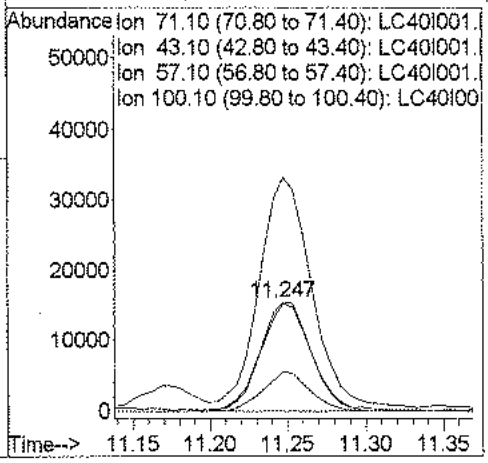


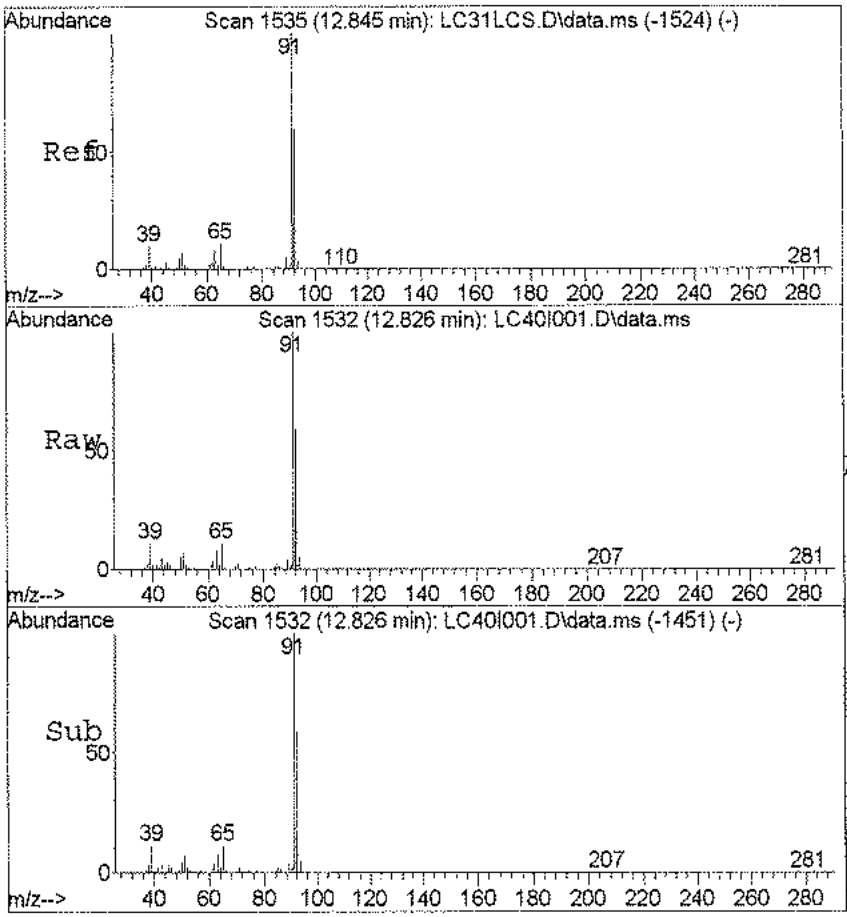


#40
Heptane
Concen: 0.49 ppb
RT: 11.25 min Scan# 1273
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:71.1 Resp: 34760

Ion	Ratio	Lower	Upper
71	100		
43	0.0	87.3	130.9#
57	0.0	57.8	86.6#
100	33.1	34.8	52.2#

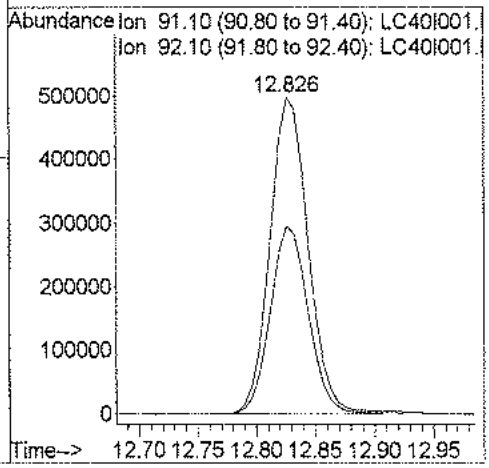


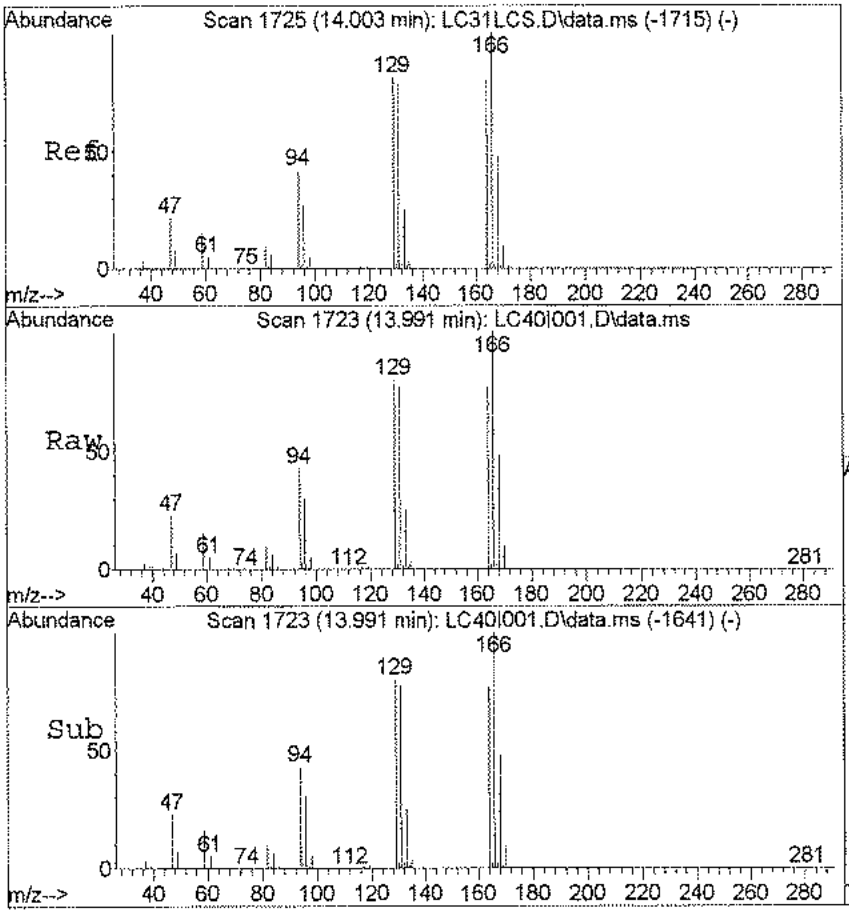


#45
Toluene
Concen: 4.28 ppb
RT: 12.83 min Scan# 1532
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:91.1 Resp: 1123275

Ion	Ratio	Lower	Upper
91	100		
92	60.1	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

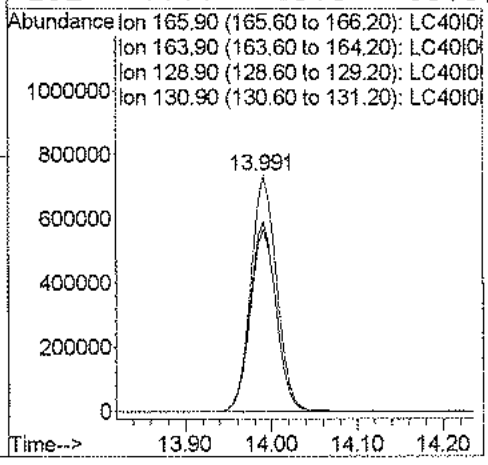


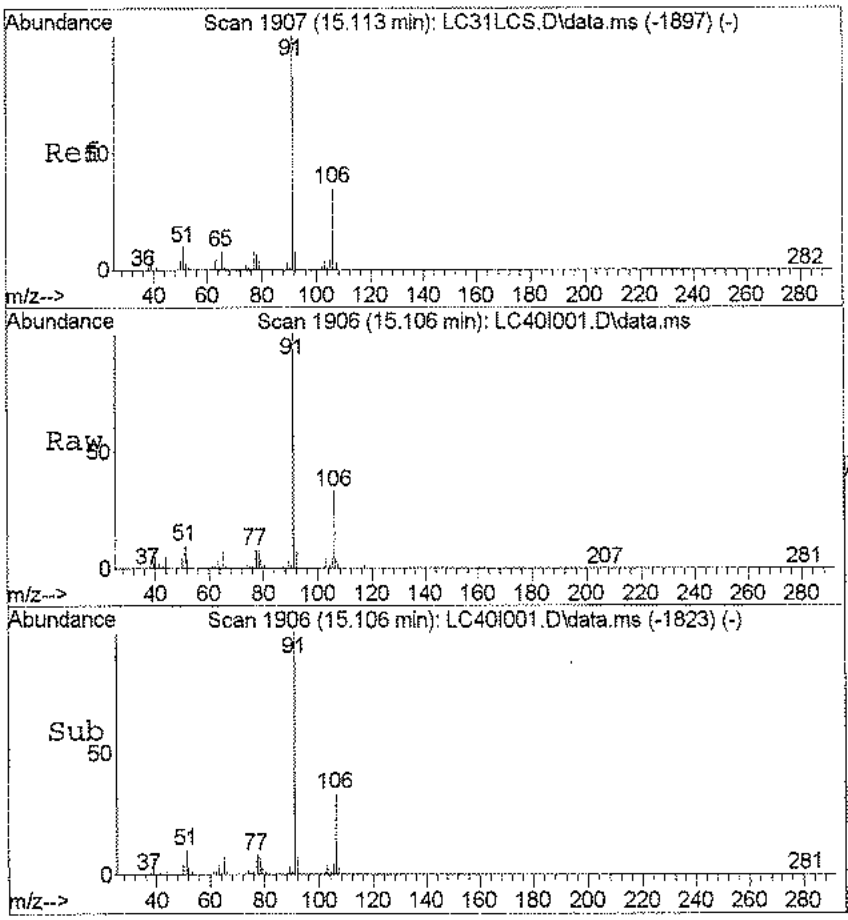


#49
Tetrachloroethene
Concen: 10.82 ppb
RT: 13.99 min Scan# 1723
Delta R.T. -0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:165.9 Resp: 1558165

Ion	Ratio	Lower	Upper
166	100		
164	78.6	61.0	91.4
129	80.8	45.9	68.9#
131	77.7	45.5	68.3#

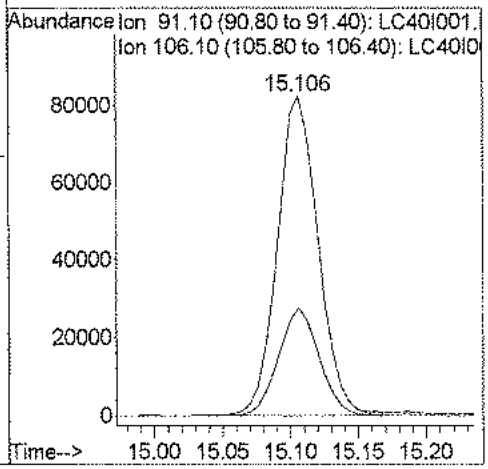


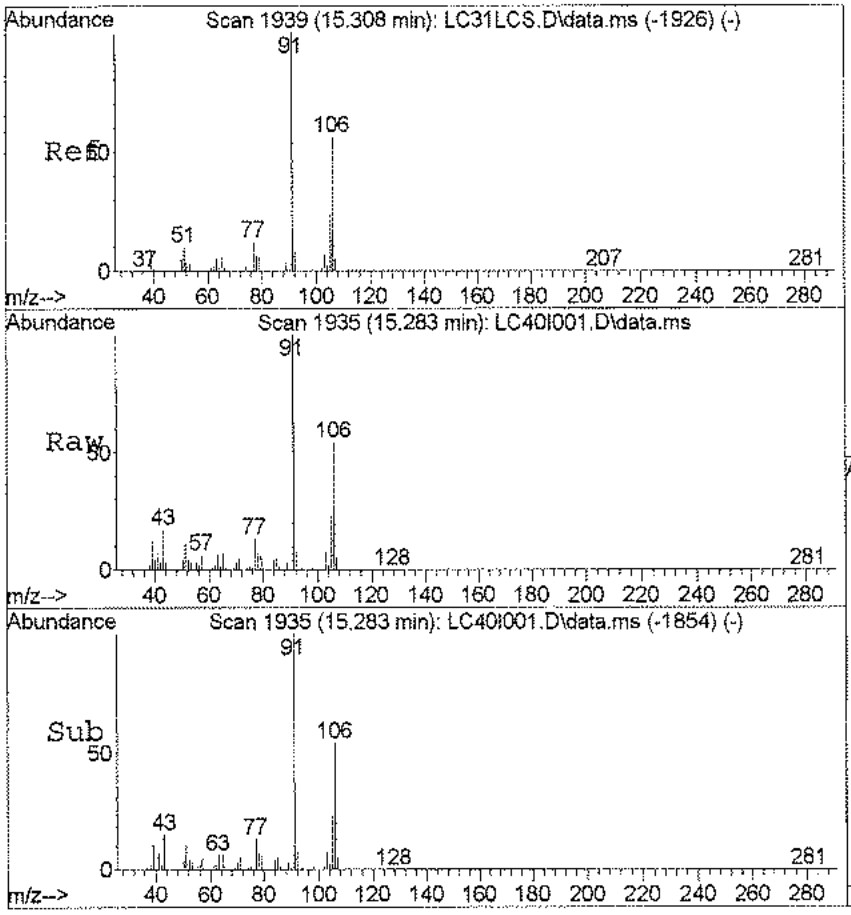


#52
Ethylbenzene
Concen: 0.50 ppb m
RT: 15.11 min Scan# 1906
Delta R.T. 0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:91.1 Resp: 171379

Ion	Ratio	Lower	Upper
91	100		
106	153.8	28.4	42.6#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

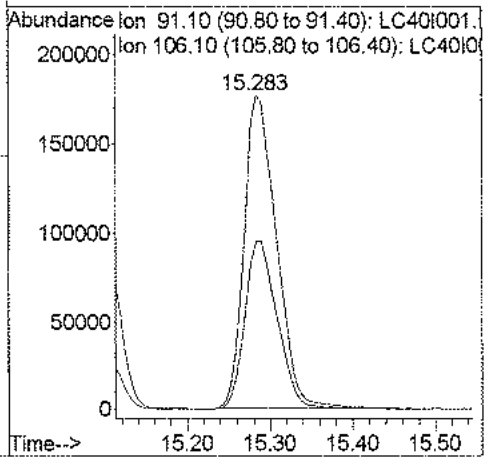


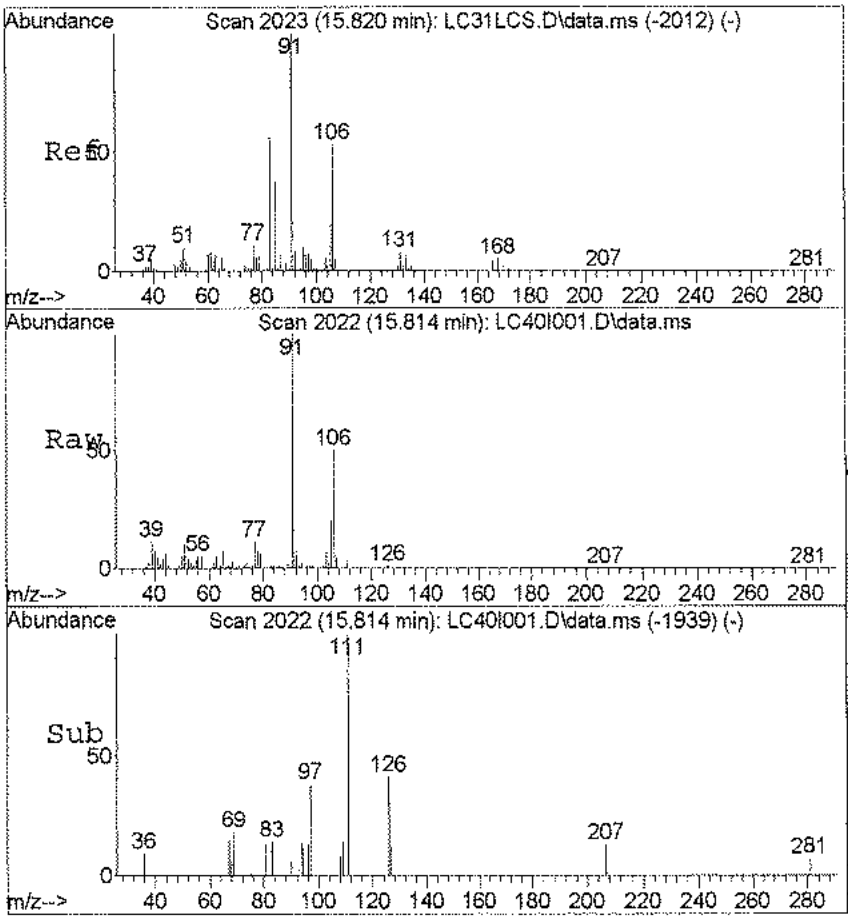


#53
m,p-Xylene
Concen: 1.83 ppb
RT: 15.28 min Scan# 1935
Delta R.T. -0.01 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:91.1 Resp: 481523

Ion	Ratio	Lower	Upper
91	100		
106	54.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

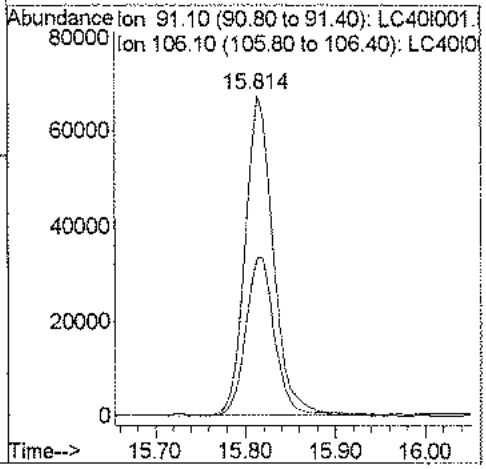


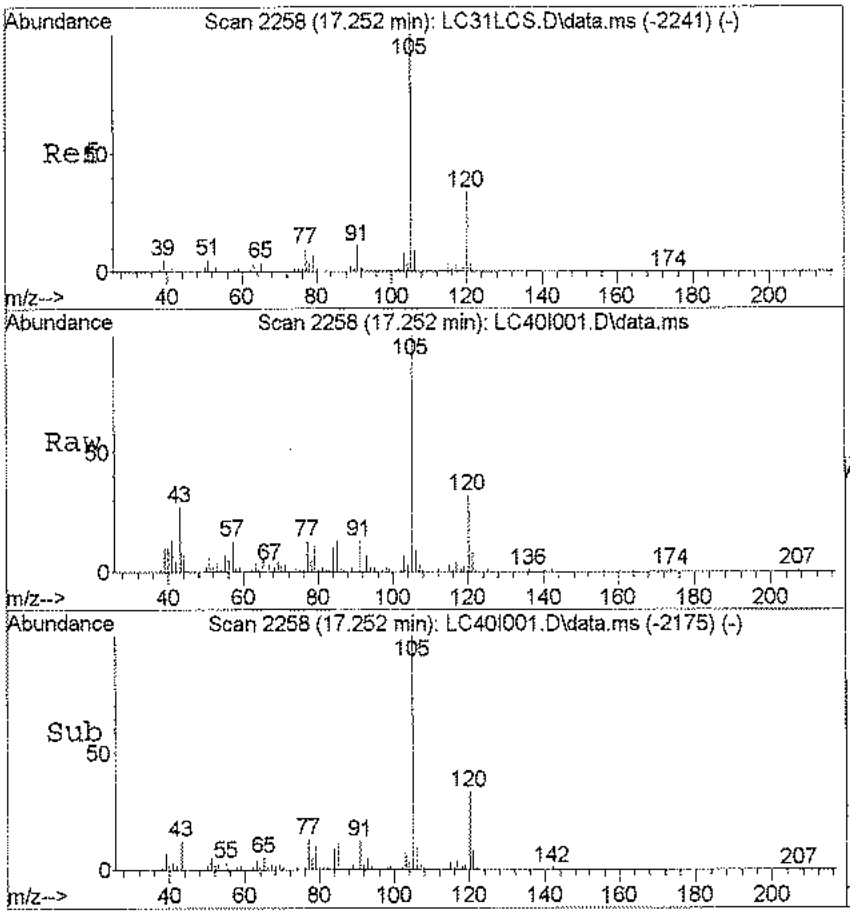


#57
o-Xylene
Concen: 0.54 ppb
RT: 15.81 min Scan# 2022
Delta R.T. 0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:91.1 Resp: 146099

Ion	Ratio	Lower	Upper
91	100		
106	51.8	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

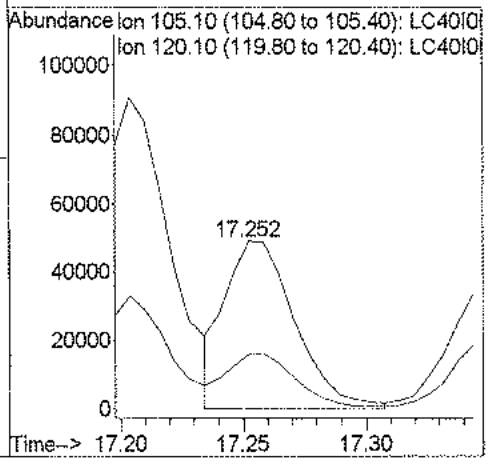


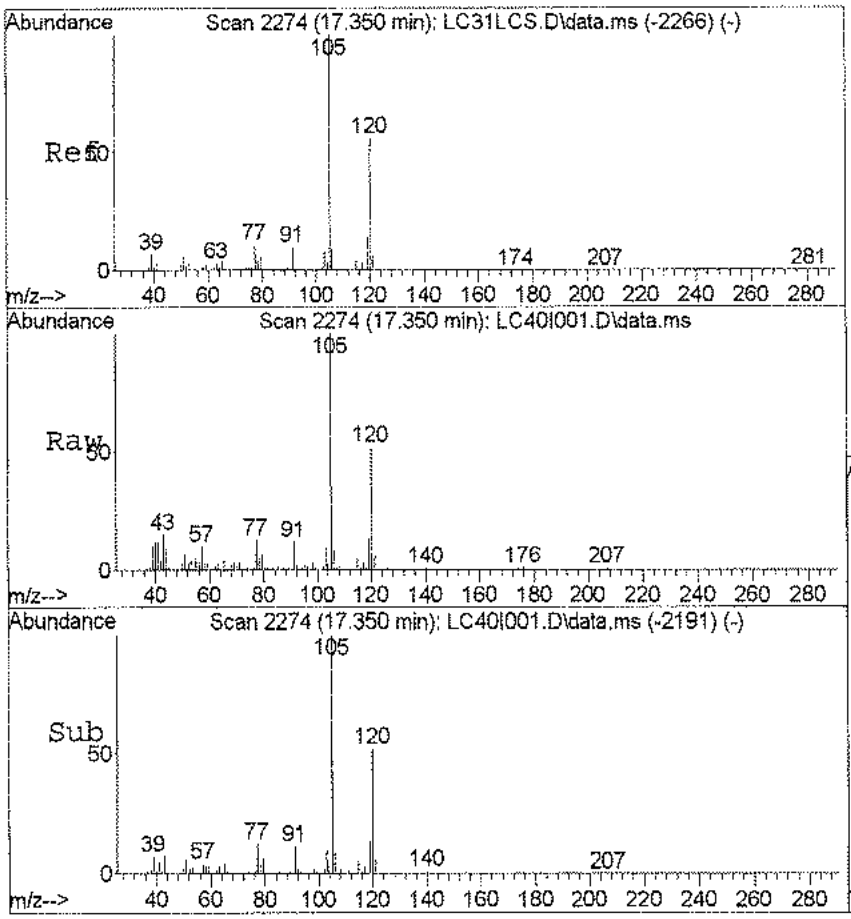


#59
4-Ethyl Toluene
Concen: 0.26 ppb m
RT: 17.25 min Scan# 2258
Delta R.T. 0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:105.1 Resp: 97349

Ion	Ratio	Lower	Upper
105	100		
120	66.0	26.1	39.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

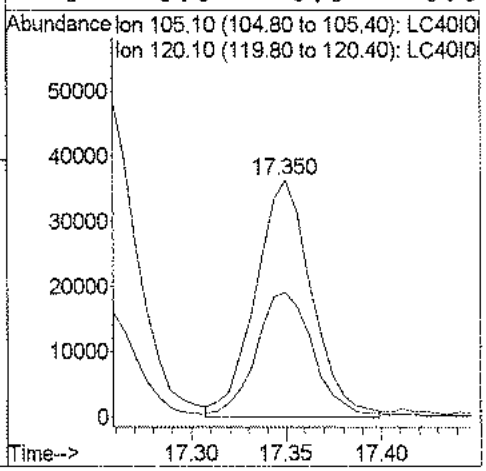


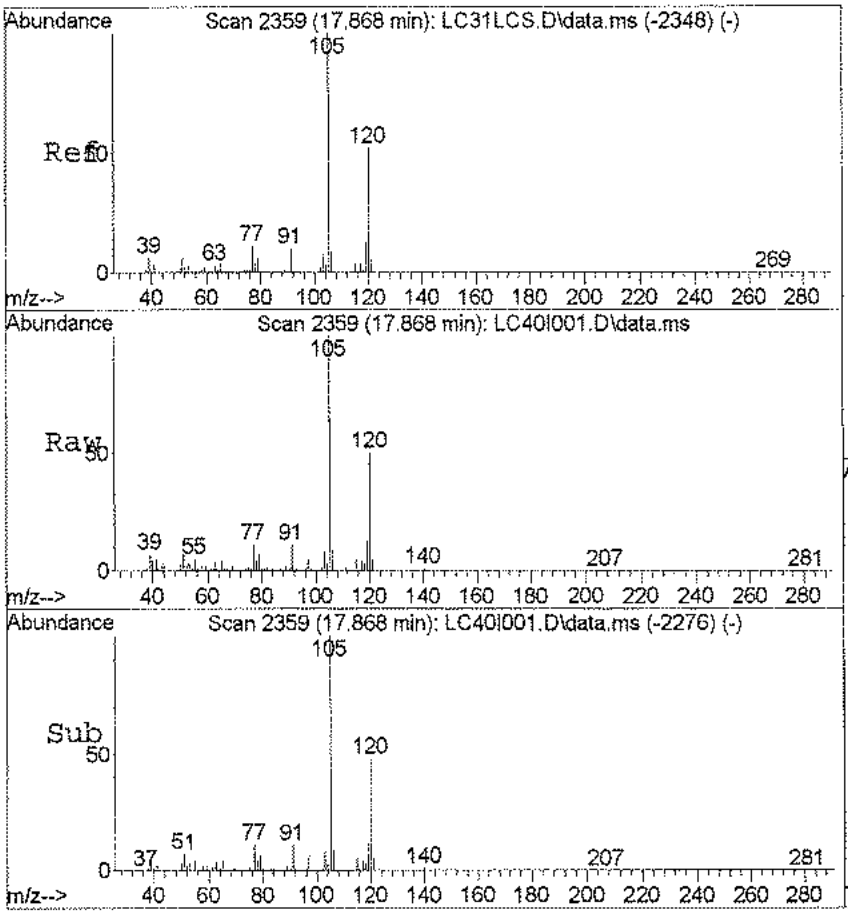


#60
1,3,5-Trimethylbenzene
Concen: 0.22 ppb m
RT: 17.35 min Scan# 2274
Delta R.T. 0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:105.1 Resp: 75038

Ion	Ratio	Lower	Upper
105	100		
120	85.7	43.9	65.9#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

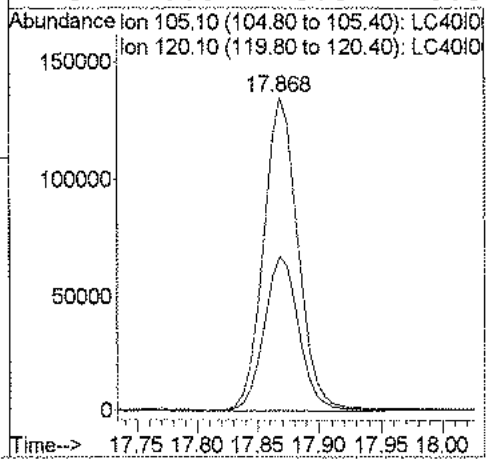




#61
1,2,4-Trimethylbenzene
Concen: 0.83 ppb
RT: 17.87 min Scan# 2359
Delta R.T. 0.00 min
Lab File: LC40I001.D
Acq: 03/14/2016 19:43

Tgt Ion:105.1 Resp: 266772

Ion	Ratio	Lower	Upper
105	100		
120	50.5	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

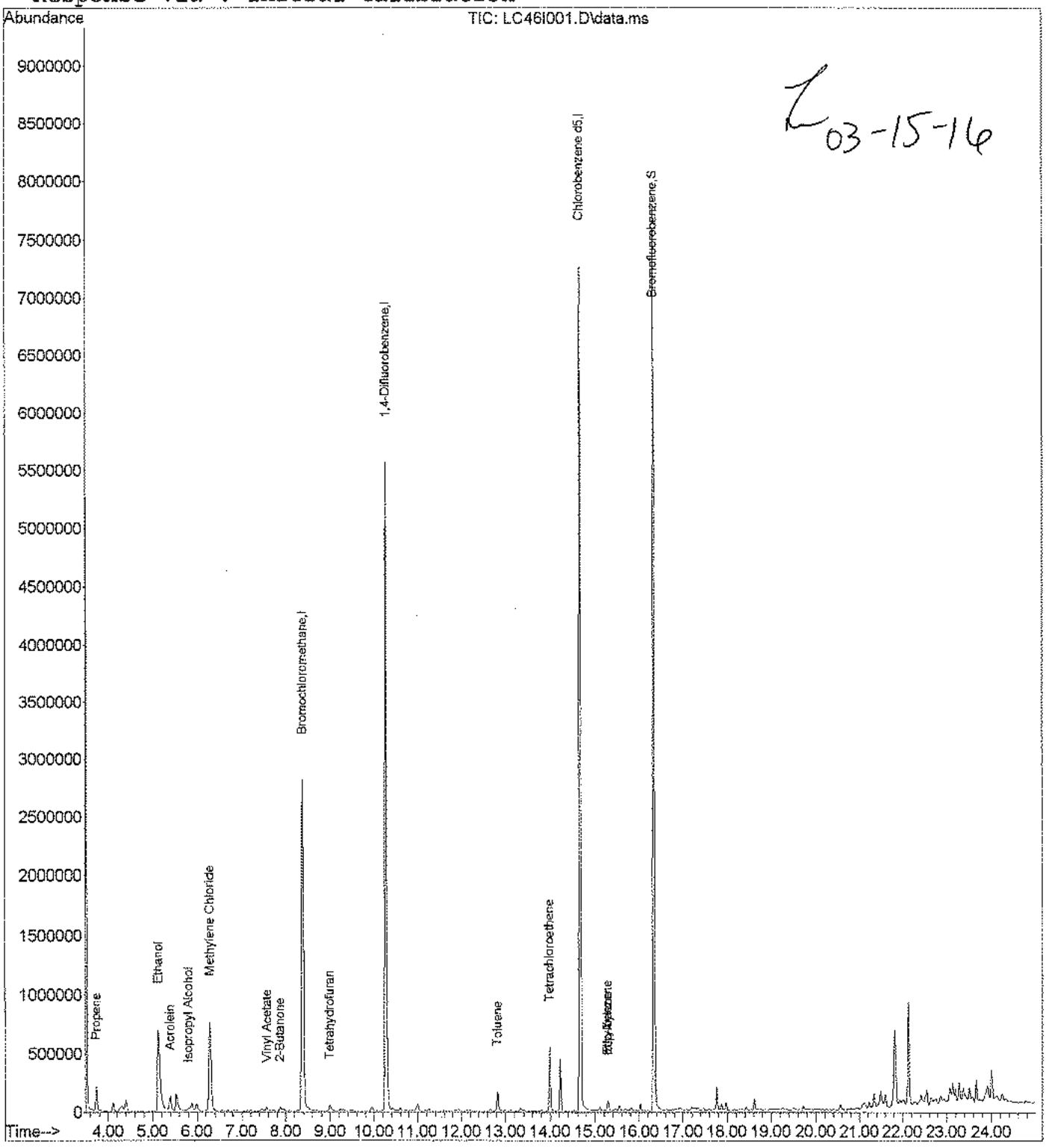


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC46I001.D Vial: 9
Acq Time : 03/15/2016 08:28 Operator: JCB
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:55:57 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 09:23:05 2016
Response via : Initial Calibration



03-15-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC46I001.D Vial: 9
Acq Time : 03/15/2016 08:28 Operator: JCB
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:55:57 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	609536	20.0000 ppb	125.56
25) 1,4-Difluorobenzene	10.27	114	6670935	20.0000 ppb	106.46
50) Chlorobenzene d5	14.67	117	5986060	20.0000 ppb	103.20
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	3435097	19.7914 ppb	98.96%
Target Compounds					Qvalue
2) Propene	3.73	41	88555	1.0916 ppb #	56
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.39	56	23749	0.8533 ppb #	71
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.13	45	1695890	79.8638 ppb #	78
14) Isopropyl Alcohol	5.82	45	80013	0.5649 ppb #	62
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.29	84	610090	6.1470 ppb #	67
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.58	86	4725	0.4178 ppb #	1
23) 2-Butanone	7.87	43	73545	0.3191 ppb #	71
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	8.99	42	57994	0.5111 ppb #	63
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC46I001.D Vial: 9
Acq Time : 03/15/2016 08:28 Operator: JCB
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 15 08:55:57 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

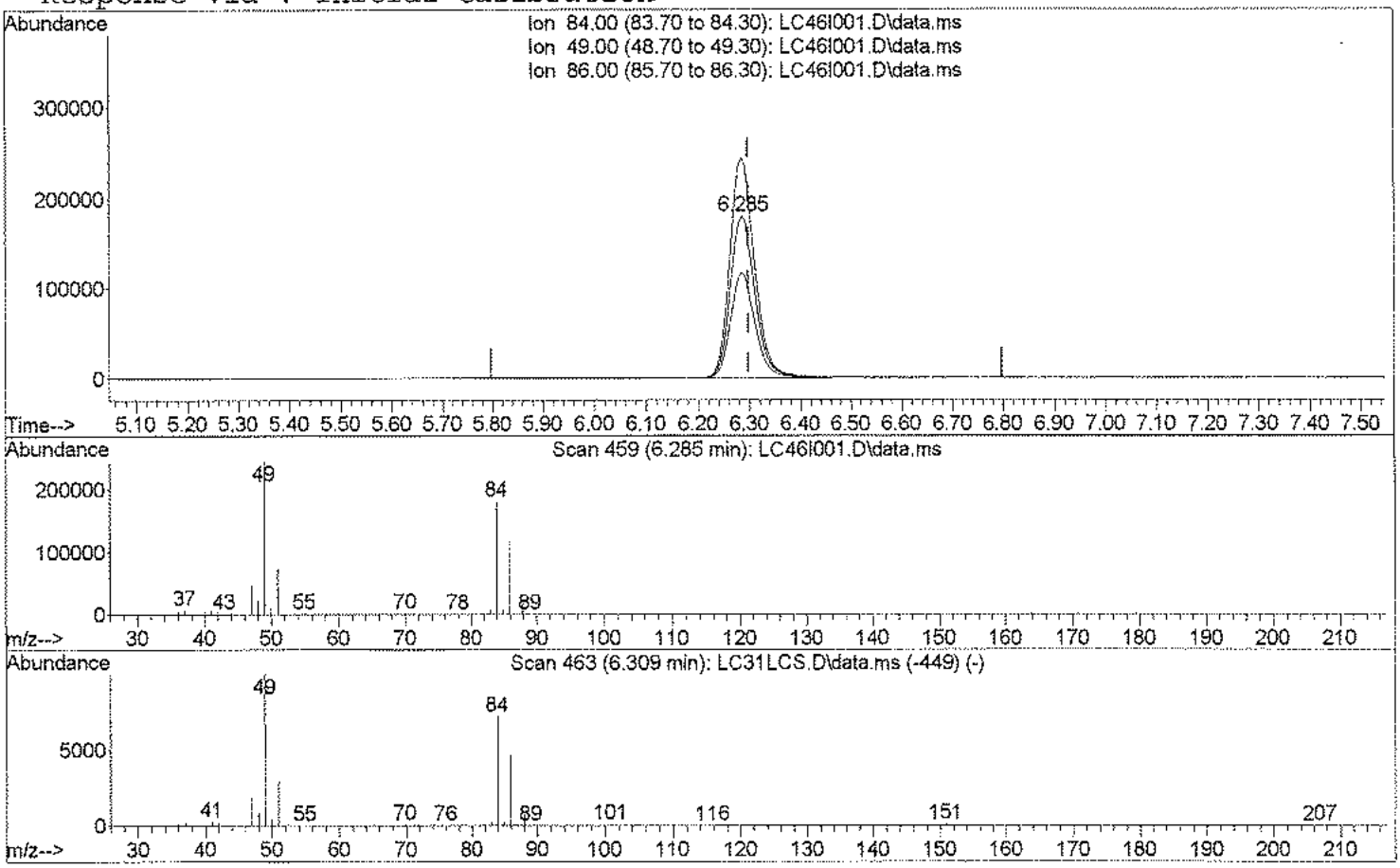
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	143950	0.4354 ppb	99
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.99	166	209093	1.1532 ppb #	83
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.29	91	65941	0.1564 ppb #	69
53)	m,p-Xylene	15.29	91	65941	0.2017 ppb	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\14MAR16L\
Data File : LC46I001.D
Acq On : 03/15/2016 08:28
Operator : JCB
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS 0086 1:10DIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 15 08:55:57 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 15 08:00:28 2016
Response via : Initial Calibration



TIC: LC46I001.D\data.ms

(16) Methylene Chloride

6.285min (-0.013) 6.15 ppb

response 610090

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	135.63#
86.00	64.50	64.06
0.00	0.00	0.00

Batch Worklist

Batch: IVOA/3193 Created: 3/15/2016 10:00 Instrument: 5975-L HBN: 165756

Rule: EPATO-15, Air Analyst: L. Reid Status: WP

Workorder: 1607440

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	492136	MB for HBN 165756 [IVOA/3193]				MB	1		ETO15...1Q	5320		3/17/2016	3/14/2016
2	492137	LCS for HBN 165756 [IVOA/3193]				LCS	1		ETO15...1Q	5320		3/17/2016	3/14/2016
3	492138	LCSD for HBN 165756 [IVOA/3193				LCSD	1		ETO15...1Q	5320		3/17/2016	3/14/2016
4	492139	RLVS for HBN 165756 [IVOA/3195				RLVS	1		ETO15...1Q	5320		3/17/2016	3/14/2016
5	1607440001	A-0040H-031216-IA-BAS				SAMPLE	1	1607440001-A	ETO15....1	5480		3/17/2016	3/14/2016
6	1607440001 *RERUN[5320,ORI]	A-0040H-031216-IA-BAS				SAMPLE	1	1607440001-A	ETO15...1	5480		3/17/2016	3/15/2016

Analyst Notebook

SIM

TO15
Instrument : See Batch Worklist — 160740
HBN: See Batch Worklist — 165896
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is TO15LSIMA (HBN ~~164186~~ 165702) — 03-17-16

The following compounds in the CCS were outside of +-30%: NA

Dilutions: NA

Analyst Signature: 03-17-16

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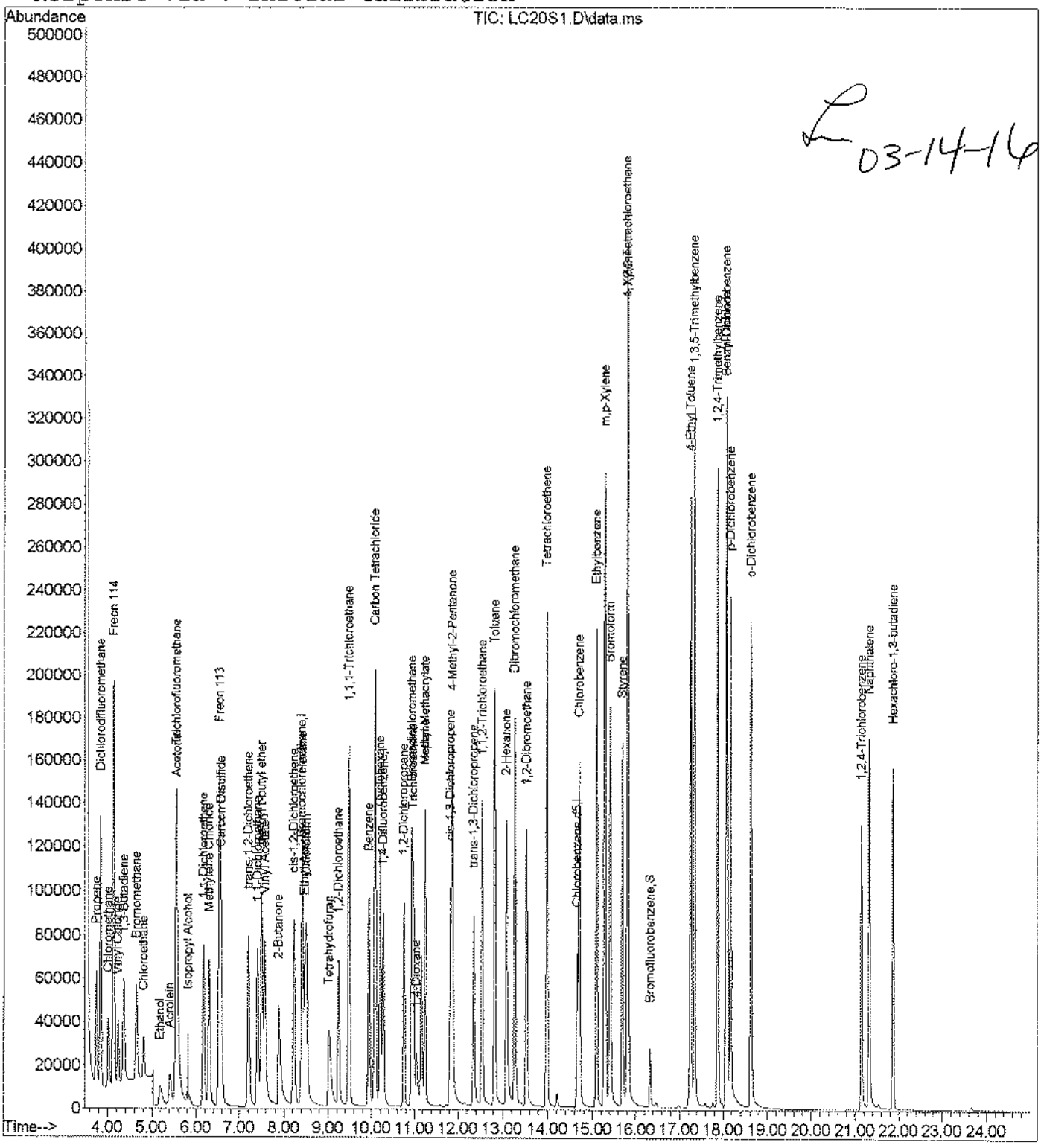
Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	19215	1000.0000	ppt		18.13#
25) 1,4-Difluorobenzene	10.28	114	184783	1000.0000	ppt		24.19#
50) Chlorobenzene d5	14.66	117	151677	1000.0000	ppt		34.71#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	59898	1784.2406	ppt		178.42%
Target Compounds							Qvalue
2) Propene	3.75	41	51297	1456.9745	ppt	m	56
3) Dichlorodifluoromethane	3.84	85	172951	932.4887	ppt	m	93
4) Chloromethane	4.02	50	62081	1402.5662	ppt	m	94
5) Freon 114	4.14	135	140328	1056.2146	ppt	m	0
6) Vinyl Chloride	4.24	62	57276	1011.2406	ppt	m	0
7) 1,3-Butadiene	4.37	54	42731	1202.5754	ppt	m	0
8) Bromomethane	4.65	94	63420	855.4185	ppt	m	0
9) Chloroethane	4.82	64	31079	949.3775	ppt	m	0
10) Acrolein	5.41	56	26650	1419.9768	ppt	m	0
11) Acetone	5.57	43	155609	1293.8146	ppt	#	84
12) Trichlorofluoromethane	5.55	101	220866	880.9055	ppt	m	0
13) Ethanol	5.19	45	42506	1672.0922	ppt	m	0
14) Isopropyl Alcohol	5.82	45	15686	167.1926	ppt	#	56
15) 1,1-Dichloroethene	6.17	61	112350	1240.5079	ppt	m	0
16) Methylene Chloride	6.31	84	69717	699.1755	ppt	m	55
17) Freon 113	6.54	151	150250	1161.1303	ppt	m	0
18) Carbon Disulfide	6.59	76	205034	877.4448	ppt	m	0
19) trans-1,2-Dichloroethene	7.20	96	70785	1199.9156	ppt	m	0
20) 1,1-Dichloroethane	7.41	63	132835	1039.2271	ppt		97
21) methyl t-butyl ether	7.50	73	156882	1715.6382	ppt	#	81
22) Vinyl Acetate	7.57	86	16458	1874.7391	ppt	#	1
23) 2-Butanone	7.87	43	150665	1847.2636	ppt	#	68
24) cis-1,2-Dichloroethene	8.22	96	77369	1375.6923	ppt	#	80
26) Ethyl Acetate	8.47	61	21053	1365.5702	ppt	#	1
27) Hexane	8.41	57	101067	1542.8101	ppt	#	79
28) Chloroform	8.51	83	162898	680.5086	ppt	#	17
29) Tetrahydrofuran	9.02	42	96378	2225.5919	ppt	#	40
30) 1,2-Dichloroethane	9.24	62	97347	745.7277	ppt	#	90
31) 1,1,1-Trichloroethane	9.48	97	178743	772.6113	ppt	#	91
32) Benzene	9.94	78	207869	975.2279	ppt	#	89
33) Carbon Tetrachloride	10.08	117	217090	815.2031	ppt		99
34) Cyclohexane	10.21	84	83698	1613.4012	ppt	#	42
35) 1,2-Dichloropropane	10.75	63	81662	956.5480	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	172789	757.8981	ppt		98
37)	1,4-Dioxane	11.05	88	45892	1729.1981	ppt	#	77
38)	Trichloroethene	10.97	130	118799	1180.7600	ppt	#	41
39)	Methyl Methacrylate	11.25	69	6849	199.5500	ppt	#	1
40)	Heptane	11.25	71	67459	1651.7846	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	110107	1403.0738	ppt		97
42)	4-Methyl-2-Pentanone	11.87	43	185753	2071.0900	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	98701	1585.9281	ppt		96
44)	1,1,2-Trichloroethane	12.54	97	103081	1028.0853	ppt	#	82
45)	Toluene	12.83	91	244919	1623.4051	ppt		98
46)	2-Hexanone	13.08	43	157378	3791.3166	ppt	#	70
47)	Dibromochloromethane	13.27	129	220368	1159.5810	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	160132	1314.9959	ppt		99
49)	Tetrachloroethene	13.98	166	148239	1394.7695	ppt	#	84
51)	Chlorobenzene	14.71	112	237663	1230.9667	ppt	#	74
52)	Ethylbenzene	15.10	91	316747	1731.4331	ppt		98
53)	m,p-Xylene	15.29	91	521909	3682.9312	ppt		94
54)	Bromoform	15.41	173	165708	1111.3858	ppt		99
55)	Styrene	15.69	104	184083	2791.3620	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.82	83	233945	1033.6910	ppt		98
57)	o-Xylene	15.81	91	287091	1946.4744	ppt		98
59)	4-Ethyl Toluene	17.25	105	336798	4052.6908	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	348726	3286.2009	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	301178	3954.2776	ppt		98
62)	Benzyl Chloride	18.06	91	257375	8771.8823	ppt		100
63)	m-Dichlorobenzene	18.08	146	253633	4272.4965	ppt		97
64)	p-Dichlorobenzene	18.17	146	254158	5717.6249	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	244934	3969.7318	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	115753	34359.7803	ppt	#	97
67)	Naphthalene	21.32	128	293387	22271.5590	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	130085	1851.2670	ppt		99

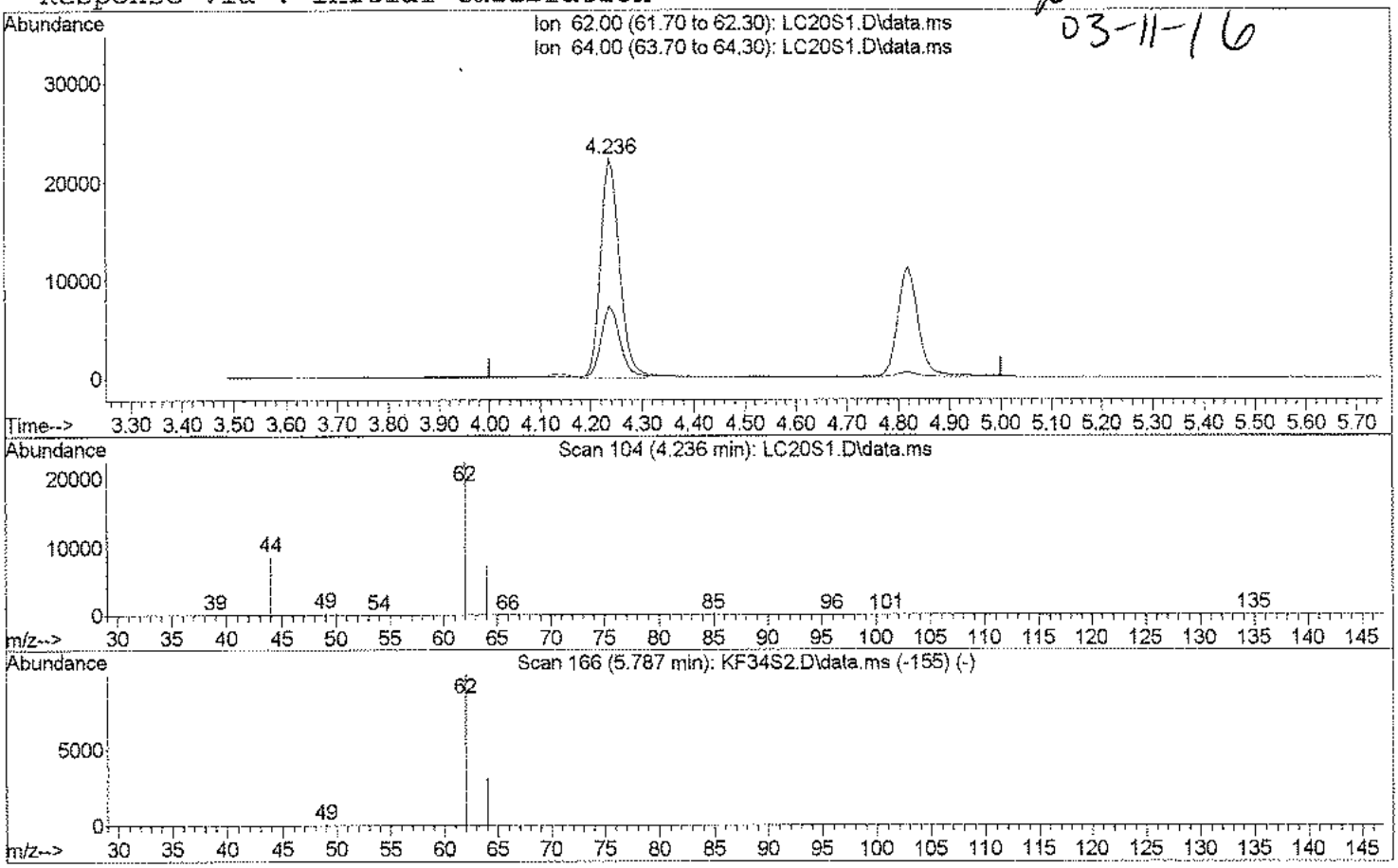
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\10MAR16L\
Data File : LC20S1.D
Acq On : 03/11/2016 08:28
Operator : LMR
Sample : 1.0 PPB
Inst : 5975-L
Misc : 31070 (400mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 08:58:01 2016
Quant Method : J:\L\METHODS\TO15LSIMA7.m
Quant Title : TO-15 SIM
QLast Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration

missed peak
L
03-11-16



TIC: LC20S1.D\data.ms

(6) Vinyl Chloride

4.236min (-0.264) 1011.24 ppt m

response 57276

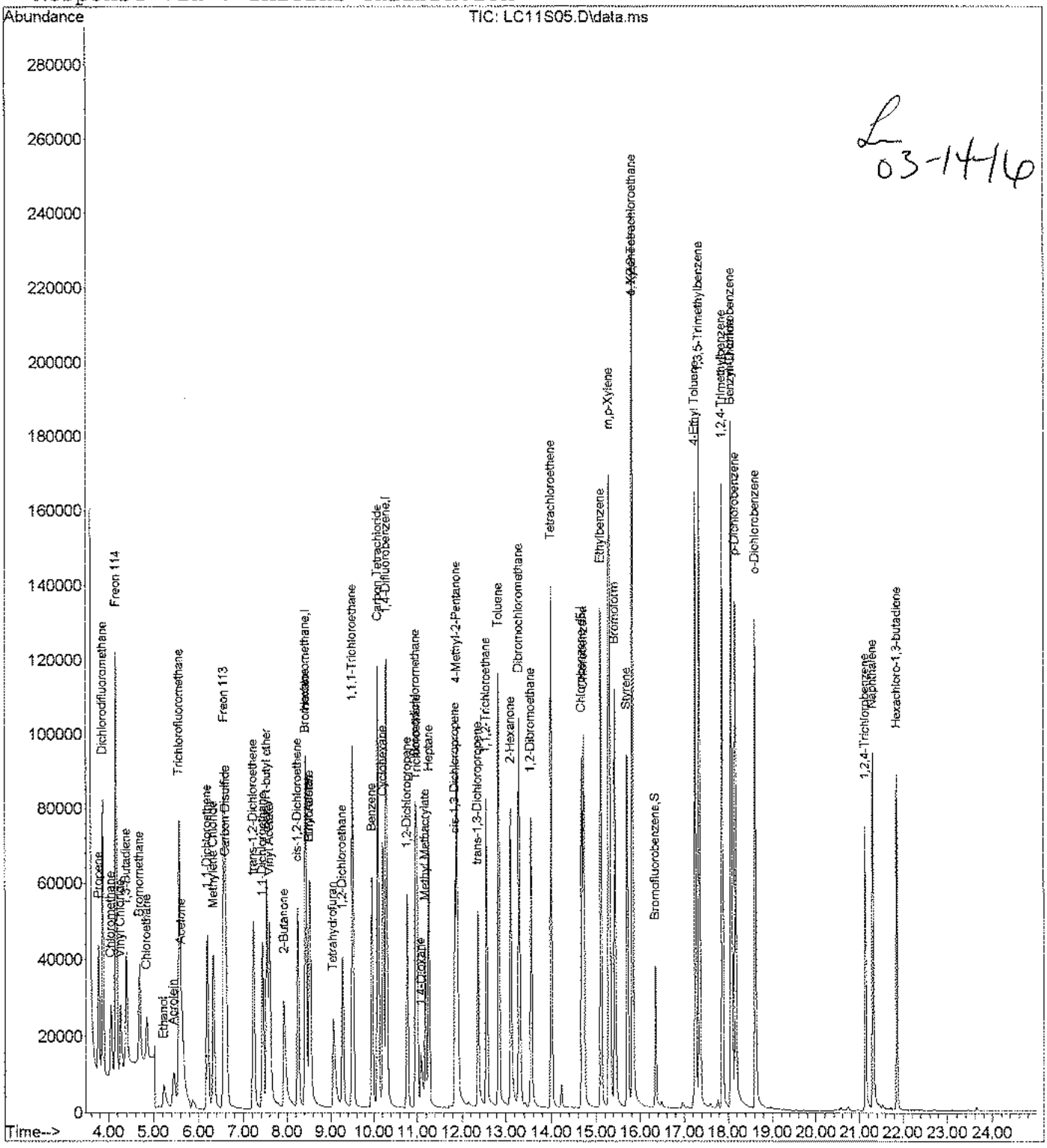
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-1416

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:22 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	24687	1000.0000	ppt		23.29#
25) 1,4-Difluorobenzene	10.29	114	241247	1000.0000	ppt		31.58#
50) Chlorobenzene d5	14.68	117	202059	1000.0000	ppt		46.24#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	77846	1575.9116	ppt		157.59%
Target Compounds							Qvalue
2) Propene	3.78	41	32346	636.2090	ppt		96
3) Dichlorodifluoromethane	3.87	85	103410	426.6720	ppt		99
4) Chloromethane	4.05	50	35895	521.9587	ppt		98
5) Freon 114	4.17	135	84495	476.2846	ppt	#	76
6) Vinyl Chloride	4.27	62	34733	466.6143	ppt		100
7) 1,3-Butadiene	4.40	54	26236	544.2436	ppt	#	52
8) Bromomethane	4.68	94	37019	389.1405	ppt		99
9) Chloroethane	4.85	64	17836	415.7612	ppt	#	88
10) Acrolein	5.46	56	16917	646.5250	ppt	#	98
11) Acetone	5.63	43	94951	557.2560	ppt	#	84
12) Trichlorofluoromethane	5.58	101	130846	402.7569	ppt		97
13) Ethanol	5.23	45	24018	608.5318	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.20	61	69443	566.3733	ppt	#	78
16) Methylene Chloride	6.34	84	40603	314.7193	ppt	#	61
17) Freon 113	6.57	151	90017	510.2958	ppt	#	75
18) Carbon Disulfide	6.61	76	123102	407.1494	ppt	#	65
19) trans-1,2-Dichloroethene	7.23	96	43860	550.6973	ppt	#	78
20) 1,1-Dichloroethane	7.44	63	79425	466.7885	ppt		97
21) methyl t-butyl ether	7.53	73	98899	758.0172	ppt	#	81
22) Vinyl Acetate	7.60	86	10284	806.6820	ppt	#	1
23) 2-Butanone	7.92	43	92474	771.3290	ppt	#	68
24) cis-1,2-Dichloroethene	8.25	96	46592	603.4438	ppt	#	78
26) Ethyl Acetate	8.51	61	12445	574.8560	ppt	#	1
27) Hexane	8.44	57	62183	653.1053	ppt	#	81
28) Chloroform	8.53	83	95712	306.3279	ppt	#	17
29) Tetrahydrofuran	9.05	42	61159	857.5993	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	58991	342.2904	ppt	#	89
31) 1,1,1-Trichloroethane	9.50	97	107116	347.0708	ppt	#	92
32) Benzene	9.96	78	125153	430.8627	ppt	#	89
33) Carbon Tetrachloride	10.10	117	129186	359.2415	ppt		99
34) Cyclohexane	10.22	84	50259	664.4805	ppt	#	40
35) 1,2-Dichloropropane	10.77	63	49050	421.3104	ppt		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:22 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	102066	337.6108	ppt		98
37)	1,4-Dioxane	11.09	88	29258	727.3649	ppt	#	78
38)	Trichloroethene	11.00	130	72859	513.1009	ppt	#	42
39)	Methyl Methacrylate	11.18	69	36246	1005.4053	ppt	#	44
40)	Heptane	11.27	71	39413	678.8376	ppt	#	24
41)	cis-1,3-Dichloropropene	11.86	75	67836	601.8405	ppt		97
42)	4-Methyl-2-Pentanone	11.90	43	108763	775.8432	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	60313	656.2055	ppt		96
44)	1,1,2-Trichloroethane	12.57	97	60176	437.1366	ppt	#	82
45)	Toluene	12.85	91	147886	666.0469	ppt		99
46)	2-Hexanone	13.11	43	94186	1148.5546	ppt	#	71
47)	Dibromochloromethane	13.30	129	127851	478.1688	ppt	#	88
48)	1,2-Dibromoethane	13.55	107	93973	543.1533	ppt		99
49)	Tetrachloroethene	14.00	166	90764	585.3806	ppt	#	84
51)	Chlorobenzene	14.73	112	143729	532.8633	ppt	#	73
52)	Ethylbenzene	15.11	91	192641	717.4975	ppt		98
53)	m,p-Xylene	15.31	91	300056	1472.3449	ppt		97
54)	Bromoform	15.43	173	92634	444.0445	ppt		98
55)	Styrene	15.71	104	109151	974.8932	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	130974	423.6334	ppt		98
57)	o-Xylene	15.83	91	162740	748.5069	ppt		98
59)	4-Ethyl Toluene	17.26	105	199068	1175.2467	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	196056	1030.8615	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	168487	1092.7354	ppt		96
62)	Benzyl Chloride	18.06	91	143853	1563.0427	ppt		100
63)	m-Dichlorobenzene	18.08	146	145299	1201.2051	ppt		96
64)	p-Dichlorobenzene	18.17	146	152396	1442.2024	ppt		96
65)	o-Dichlorobenzene	18.63	146	144140	1161.9618	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	67221	1994.8526	ppt	#	97
67)	Naphthalene	21.31	128	164789	1840.7303	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	76235	688.8508	ppt		99

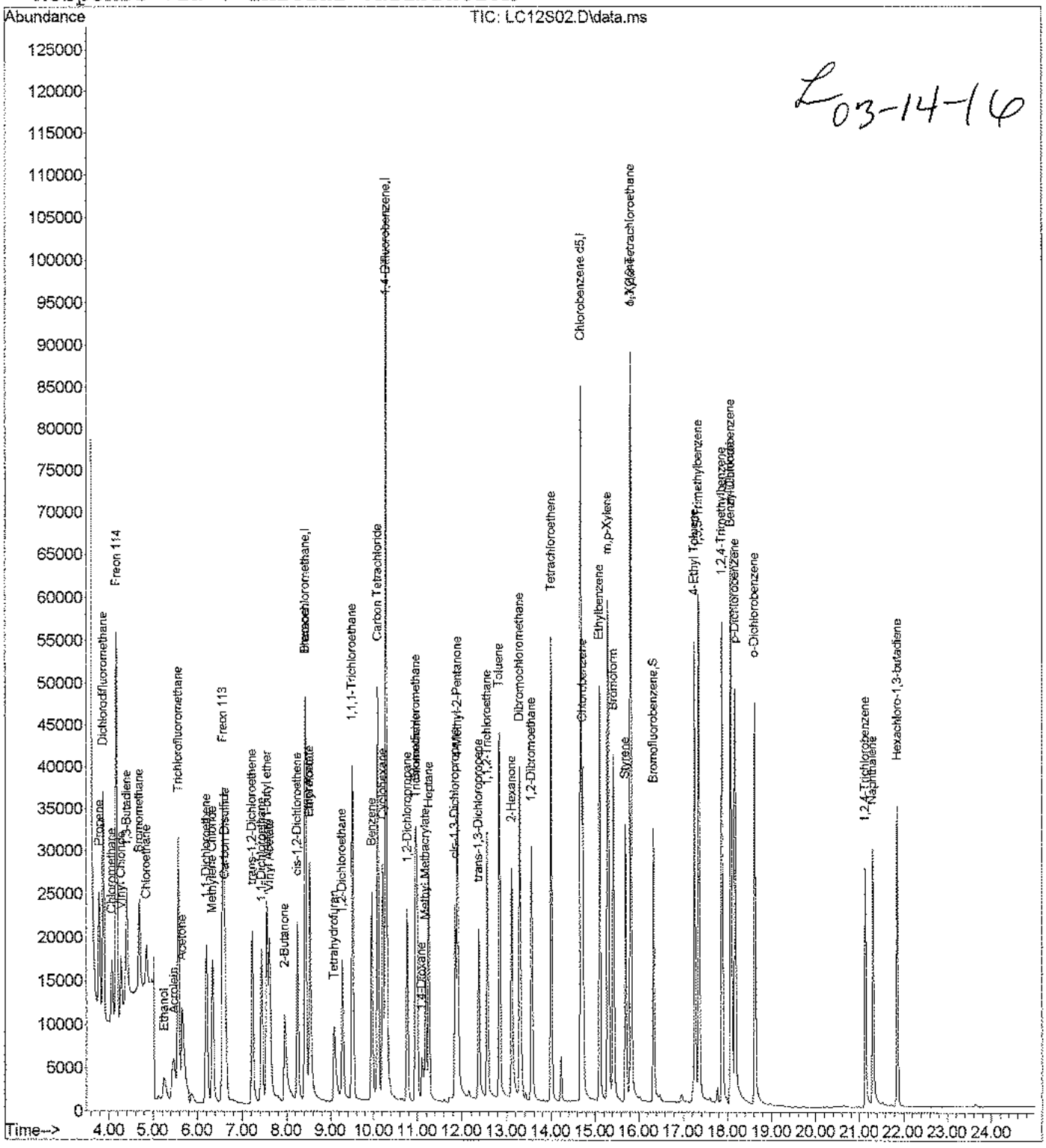
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:55 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	22607	1000.0000	ppt		21.32#
25) 1,4-Difluorobenzene	10.29	114	221891	1000.0000	ppt		29.05#
50) Chlorobenzene d5	14.68	117	181915	1000.0000	ppt		41.63#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	67176	1365.1050	ppt		136.51%
Target Compounds							Qvalue
2) Propene	3.78	41	14919	290.3582	ppt		94
3) Dichlorodifluoromethane	3.87	85	41684	189.0056	ppt		99
4) Chloromethane	4.06	50	14449	220.0201	ppt		99
5) Freon 114	4.16	135	34432	208.5879	ppt	#	76
6) Vinyl Chloride	4.27	62	13902	203.0743	ppt		100
7) 1,3-Butadiene	4.40	54	10494	228.2536	ppt	#	45
8) Bromomethane	4.69	94	15062	177.1625	ppt		98
9) Chloroethane	4.85	64	7358	188.6285	ppt	#	89
10) Acrolein	5.49	56	6982	266.1393	ppt	#	96
11) Acetone	5.66	43	42350	250.9530	ppt	#	85
12) Trichlorofluoromethane	5.58	101	53385	181.6424	ppt		97
13) Ethanol	5.25	45	9876	243.7751	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.20	61	27846	237.0262	ppt	#	78
16) Methylene Chloride	6.34	84	16529	142.2417	ppt	#	60
17) Freon 113	6.57	151	36690	218.9910	ppt	#	75
18) Carbon Disulfide	6.62	76	50510	184.1983	ppt	#	64
19) trans-1,2-Dichloroethene	7.23	96	17823	234.7210	ppt	#	79
20) 1,1-Dichloroethane	7.44	63	32180	203.8629	ppt		97
21) methyl t-butyl ether	7.55	73	38168	285.4822	ppt	#	81
22) Vinyl Acetate	7.62	86	3878	290.4361	ppt	#	1
23) 2-Butanone	7.95	43	36020	290.8303	ppt	#	68
24) cis-1,2-Dichloroethene	8.25	96	18668	249.8745	ppt	#	79
26) Ethyl Acetate	8.53	61	4729	226.5431	ppt	#	1
27) Hexane	8.43	57	23822	249.9877	ppt	#	82
28) Chloroform	8.53	83	38533	138.9898	ppt	#	17
29) Tetrahydrofuran	9.08	42	23040	293.1579	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	23993	155.0552	ppt	#	86
31) 1,1,1-Trichloroethane	9.50	97	43312	155.0365	ppt	#	92
32) Benzene	9.96	78	50836	188.5826	ppt	#	89
33) Carbon Tetrachloride	10.10	117	51782	157.5721	ppt		99
34) Cyclohexane	10.22	84	20690	275.0867	ppt	#	51
35) 1,2-Dichloropropane	10.77	63	19627	181.6573	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:55 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	40840	150.1638	ppt		98
37)	1,4-Dioxane	11.11	88	11727	280.2076	ppt	#	80
38)	Trichloroethene	10.99	130	28855	211.2836	ppt	#	41
39)	Methyl Methacrylate	11.18	69	13274	350.6148	ppt	#	45
40)	Heptane	11.27	71	14626	255.6247	ppt	#	24
41)	cis-1,3-Dichloropropene	11.85	75	25899	233.5201	ppt		97
42)	4-Methyl-2-Pentanone	11.91	43	40390	274.2527	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	22964	248.6370	ppt		97
44)	1,1,2-Trichloroethane	12.57	97	24029	187.5934	ppt	#	82
45)	Toluene	12.84	91	56922	254.0519	ppt		98
46)	2-Hexanone	13.11	43	34068	339.7574	ppt	#	70
47)	Dibromochloromethane	13.30	129	50215	197.9196	ppt	#	88
48)	1,2-Dibromoethane	13.55	107	36691	219.5603	ppt		100
49)	Tetrachloroethene	14.00	166	36023	233.7828	ppt	#	83
51)	Chlorobenzene	14.73	112	56372	226.7087	ppt	#	72
52)	Ethylbenzene	15.11	91	70858	267.1225	ppt		97
53)	m,p-Xylene	15.30	91	106468	533.9477	ppt		95
54)	Bromoform	15.43	173	36217	192.8372	ppt		95
55)	Styrene	15.70	104	38087	311.7174	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	50595	184.8361	ppt		98
57)	o-Xylene	15.82	91	57854	269.1626	ppt		98
59)	4-Ethyl Toluene	17.26	105	67476	333.4041	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	66348	307.8393	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	59050	326.3380	ppt		98
62)	Benzyl Chloride	18.06	91	52185	414.4339	ppt		100
63)	m-Dichlorobenzene	18.08	146	53752	375.3527	ppt		96
64)	p-Dichlorobenzene	18.17	146	55896	411.3305	ppt		96
65)	o-Dichlorobenzene	18.62	146	53027	361.6149	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	24502	455.9794	ppt	#	97
67)	Naphthalene	21.31	128	55741	408.6013	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	30034	271.6720	ppt		99

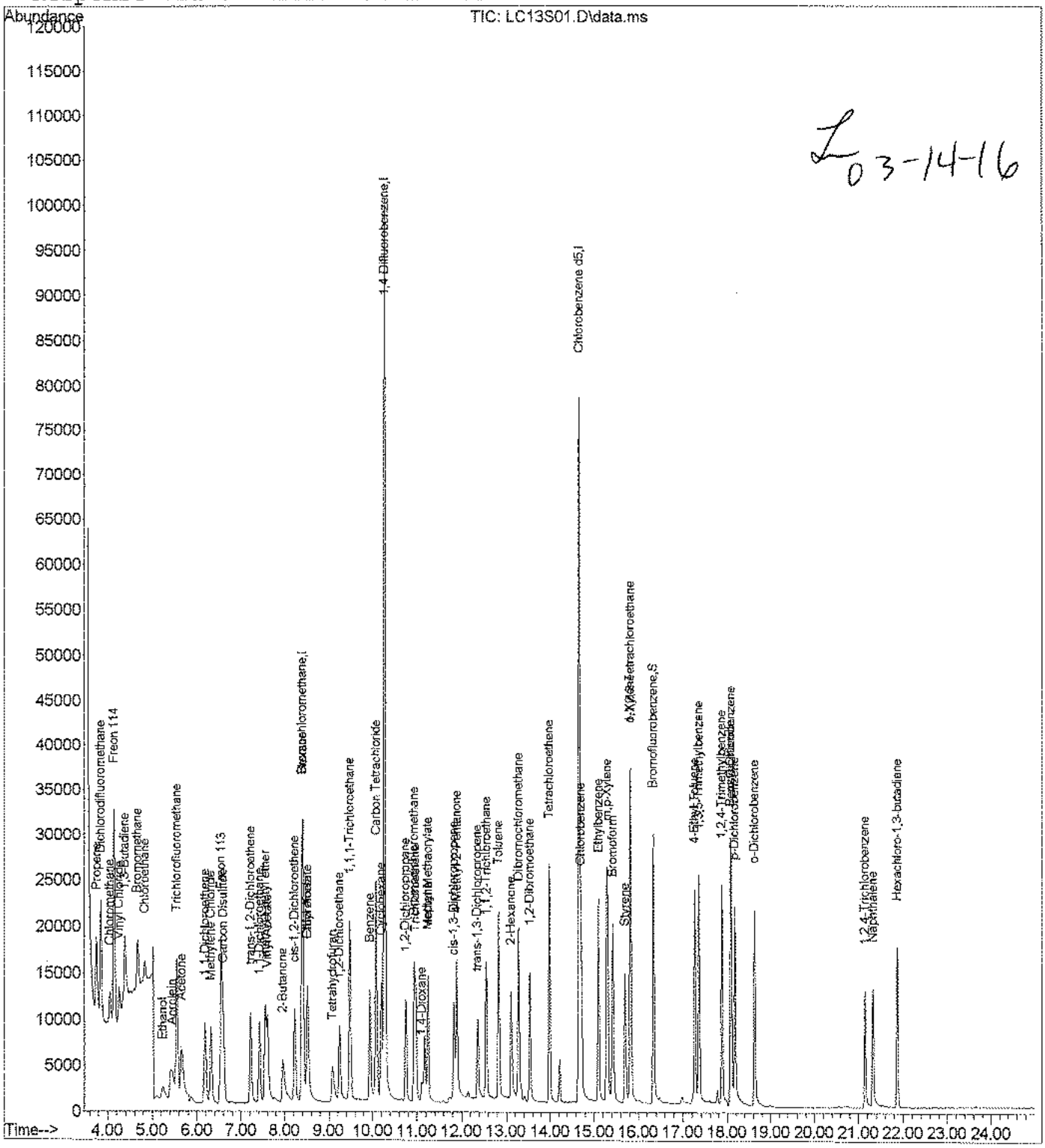
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:18 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	21903	1000.0000	ppt		96.89
25) 1,4-Difluorobenzene	10.28	114	212324	1000.0000	ppt		95.69
50) Chlorobenzene d5	14.67	117	173165	1000.0000	ppt		95.19
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	63614	1220.6804	ppt		122.07%
Target Compounds							Qvalue
2) Propene	3.76	41	9238	163.1049	ppt		93
3) Dichlorodifluoromethane	3.85	85	20252	95.3590	ppt		99
4) Chloromethane	4.05	50	7105	106.8589	ppt		100
5) Freon 114	4.15	135	16686	101.6799	ppt	#	76
6) Vinyl Chloride	4.26	62	6727	100.1309	ppt		98
7) 1,3-Butadiene	4.38	54	5234	111.4516	ppt	#	34
8) Bromomethane	4.67	94	7313	90.6519	ppt		98
9) Chloroethane	4.83	64	3402	90.2455	ppt	#	91
10) Acrolein	5.46	56	3165	112.2601	ppt	#	98
11) Acetone	5.65	43	25524	141.7143	ppt	#	86
12) Trichlorofluoromethane	5.55	101	26290	93.5124	ppt		97
13) Ethanol	5.24	45	5977	138.3323	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.18	61	13346	110.6316	ppt	#	78
16) Methylene Chloride	6.32	84	8207	75.4331	ppt	#	60
17) Freon 113	6.55	151	18041	106.5449	ppt	#	75
18) Carbon Disulfide	6.60	76	25419	96.3612	ppt	#	65
19) trans-1,2-Dichloroethene	7.21	96	8695	111.8550	ppt	#	80
20) 1,1-Dichloroethane	7.41	63	15918	102.1399	ppt		97
21) methyl t-butyl ether	7.55	73	18000	122.4293	ppt	#	81
22) Vinyl Acetate	7.60	86	1817	121.7774	ppt	#	1
23) 2-Butanone	7.95	43	17305	125.6963	ppt	#	68
24) cis-1,2-Dichloroethene	8.23	96	8967	114.7702	ppt	#	79
26) Ethyl Acetate	8.52	61	2254	106.7841	ppt	#	1
27) Hexane	8.41	57	11197	112.3097	ppt	#	81
28) Chloroform	8.51	83	18729	75.1768	ppt	#	17
29) Tetrahydrofuran	9.07	42	10107	115.2272	ppt	#	41
30) 1,2-Dichloroethane	9.25	62	11966	84.3264	ppt	#	84
31) 1,1,1-Trichloroethane	9.48	97	20940	81.2999	ppt	#	91
32) Benzene	9.94	78	26287	102.0548	ppt	#	89
33) Carbon Tetrachloride	10.08	117	25143	82.4033	ppt		99
34) Cyclohexane	10.20	84	9941	124.0032	ppt	#	56
35) 1,2-Dichloropropane	10.75	63	9527	92.6070	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:18 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	19863	79.8675	ppt		98
37)	1,4-Dioxane	11.12	88	5797	126.6182	ppt	#	81
38)	Trichloroethene	10.97	130	13903	102.5234	ppt	#	41
39)	Methyl Methacrylate	11.25	69	882	21.2060	ppt	#	1
40)	Heptane	11.25	71	6467	107.1457	ppt	#	23
41)	cis-1,3-Dichloropropene	11.83	75	13578	119.9292	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	18029	112.4619	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	10725	111.3829	ppt		94
44)	1,1,2-Trichloroethane	12.55	97	11533	94.0011	ppt	#	82
45)	Toluene	12.83	91	26388	111.8556	ppt		97
46)	2-Hexanone	13.10	43	15698	130.7930	ppt	#	67
47)	Dibromochloromethane	13.28	129	24221	97.6697	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	17481	104.6351	ppt		100
49)	Tetrachloroethene	13.99	166	17695	111.5907	ppt	#	84
51)	Chlorobenzene	14.72	112	26807	108.6530	ppt	#	70
52)	Ethylbenzene	15.10	91	32348	114.9735	ppt		98
53)	m,p-Xylene	15.29	91	47080	220.8422	ppt		98
54)	Bromoform	15.42	173	18258	102.1023	ppt		97
55)	Styrene	15.70	104	16999	122.4130	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	24077	93.3200	ppt		98
57)	o-Xylene	15.81	91	25152	109.1919	ppt		99
59)	4-Ethyl Toluene	17.26	105	29507	123.2021	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	28260	113.7471	ppt		98
61)	1,2,4-Trimethylbenzene	17.87	105	25687	120.5540	ppt		97
62)	Benzyl Chloride	18.06	91	23260	141.2914	ppt		96
63)	m-Dichlorobenzene	18.08	146	24249	137.7335	ppt		96
64)	p-Dichlorobenzene	18.17	146	25117	144.2129	ppt		93
65)	o-Dichlorobenzene	18.63	146	24932	140.3581	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	11580	156.6110	ppt	#	96
67)	Naphthalene	21.32	128	24817	137.4344	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	14580	123.8405	ppt		99

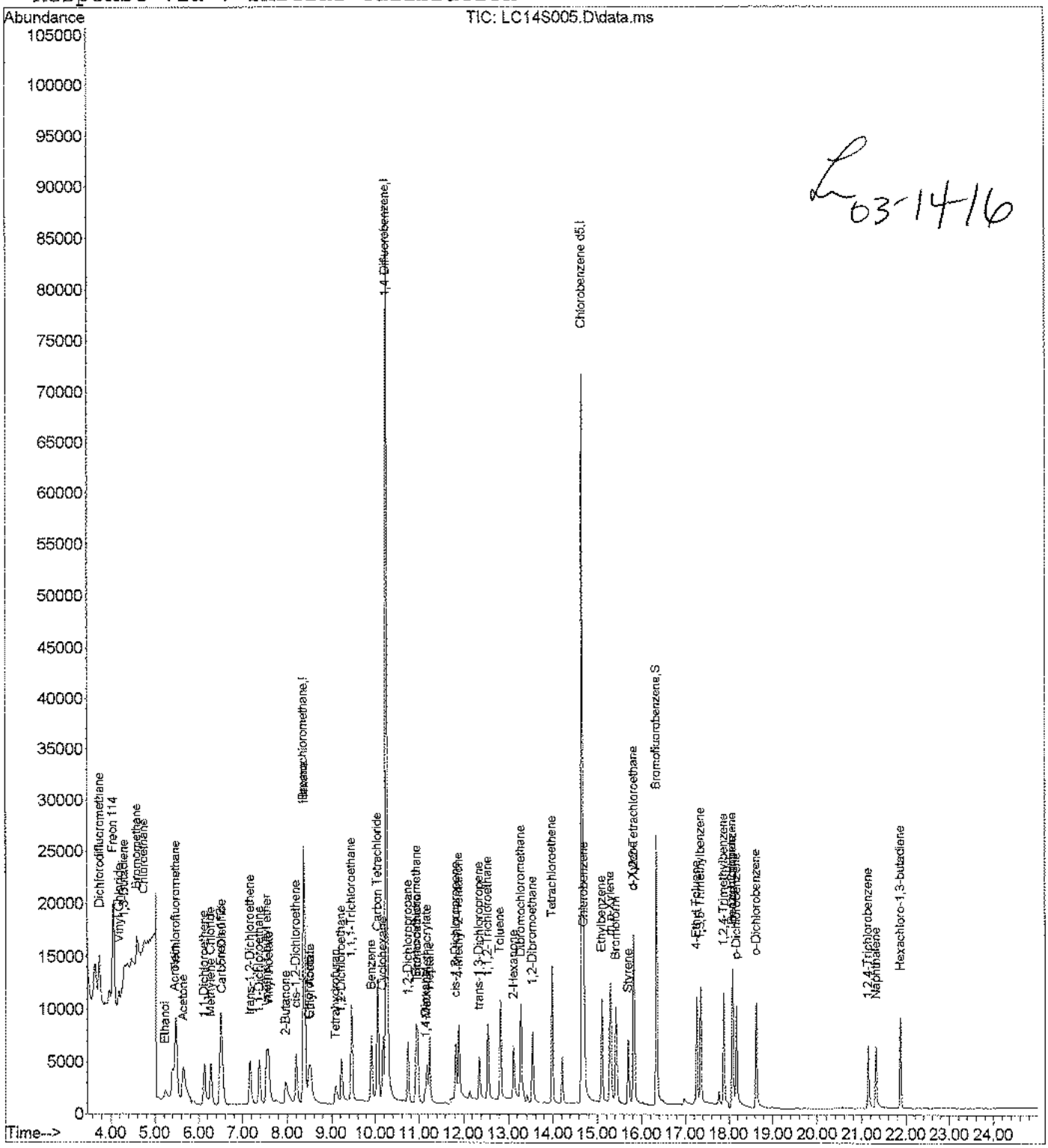
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:45 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.37	130	19808	1000.0000 ppt	87.62
25) 1,4-Difluorobenzene	10.26	114	197310	1000.0000 ppt	88.92
50) Chlorobenzene d5	14.67	117	161915	1000.0000 ppt	89.01
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	56113	1027.9068 ppt	102.79%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.75	85	9856	52.6836 ppt	99
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	4.06	135	8309	55.7458 ppt #	75
6) Vinyl Chloride	4.18	62	3180	52.4778 ppt	94
7) 1,3-Butadiene	4.30	54	2500	56.1965 ppt #	9
8) Bromomethane	4.59	94	3434	49.1364 ppt	98
9) Chloroethane	4.75	64	1683	51.0743 ppt #	88
10) Acrolein	5.45	56	1673	61.2578 ppt #	92
11) Acetone	5.65	43	13655	75.0846 ppt	95
12) Trichlorofluoromethane	5.48	101	13380	54.5186 ppt	98
13) Ethanol	5.23	45	2927	65.9230 ppt #	39
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	6.12	61	6793	59.4398 ppt #	75
16) Methylene Chloride	6.27	84	4111	45.7071 ppt #	58
17) Freon 113	6.50	151	9143	58.3149 ppt #	74
18) Carbon Disulfide	6.54	76	13500	58.0560 ppt #	63
19) trans-1,2-Dichloroethene	7.17	96	4709	64.0340 ppt #	79
20) 1,1-Dichloroethane	7.38	63	7949	56.2964 ppt	98
21) methyl t-butyl ether	7.55	73	9001	60.8468 ppt #	82
22) Vinyl Acetate	7.59	86	936	61.3142 ppt #	1
23) 2-Butanone	7.97	43	8768	62.4950 ppt #	68
24) cis-1,2-Dichloroethene	8.20	96	4598	60.9665 ppt #	80
26) Ethyl Acetate	8.52	61	1110	54.0456 ppt #	1
27) Hexane	8.38	57	5512	55.4575 ppt #	79
28) Chloroform	8.48	83	9470	45.7540 ppt #	17
29) Tetrahydrofuran	9.09	42	4531	49.9622 ppt #	43
30) 1,2-Dichloroethane	9.23	62	5927	48.6815 ppt #	75
31) 1,1,1-Trichloroethane	9.46	97	10610	48.2579 ppt #	91
32) Benzene	9.92	78	14363	60.4494 ppt #	89
33) Carbon Tetrachloride	10.06	117	12889	48.8841 ppt	99
34) Cyclohexane	10.18	84	4468	54.6505 ppt #	39
35) 1,2-Dichloropropane	10.74	63	4753	51.2698 ppt	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:45 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	9895	46.9362	ppt		96
37)	1,4-Dioxane	11.14	88	3243	68.0306	ppt	#	86
38)	Trichloroethene	10.97	130	6937	54.1498	ppt	#	41
39)	Methyl Methacrylate	11.18	69	3428	102.1924	ppt	#	54
40)	Heptane	11.24	71	3160	52.3989	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	6686	59.1238	ppt	#	72
42)	4-Methyl-2-Pentanone	11.90	43	8708	53.0993	ppt	#	70
43)	trans-1,3-Dichloropropene	12.36	75	5368	55.9786	ppt		95
44)	1,1,2-Trichloroethane	12.55	97	5842	52.6411	ppt	#	82
45)	Toluene	12.83	91	13186	55.9841	ppt		99
46)	2-Hexanone	13.11	43	6726	50.6483	ppt	#	71
47)	Dibromochloromethane	13.28	129	12129	52.7858	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	8758	54.7717	ppt		99
49)	Tetrachloroethene	13.98	166	9080	58.5423	ppt	#	83
51)	Chlorobenzene	14.72	112	13101	55.0253	ppt	#	65
52)	Ethylbenzene	15.10	91	14988	52.0564	ppt		99
53)	m,p-Xylene	15.29	91	21259	96.9136	ppt		100
54)	Bromoform	15.42	173	9371	56.1866	ppt		96
55)	Styrene	15.70	104	7696	51.1399	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	11972	50.6659	ppt	#	98
57)	o-Xylene	15.81	91	11469	48.3426	ppt		98
59)	4-Ethyl Toluene	17.26	105	13553	51.2487	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	12736	47.7033	ppt		96
61)	1,2,4-Trimethylbenzene	17.88	105	12454	53.4393	ppt		99
62)	Benzyl Chloride	18.07	91	10276	53.0010	ppt		98
63)	m-Dichlorobenzene	18.08	146	11409	56.7485	ppt		96
64)	p-Dichlorobenzene	18.18	146	11302	55.3307	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	12112	59.9052	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	5676	62.8584	ppt		97
67)	Naphthalene	21.32	128	11739	55.0203	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	7372	60.5223	ppt		99

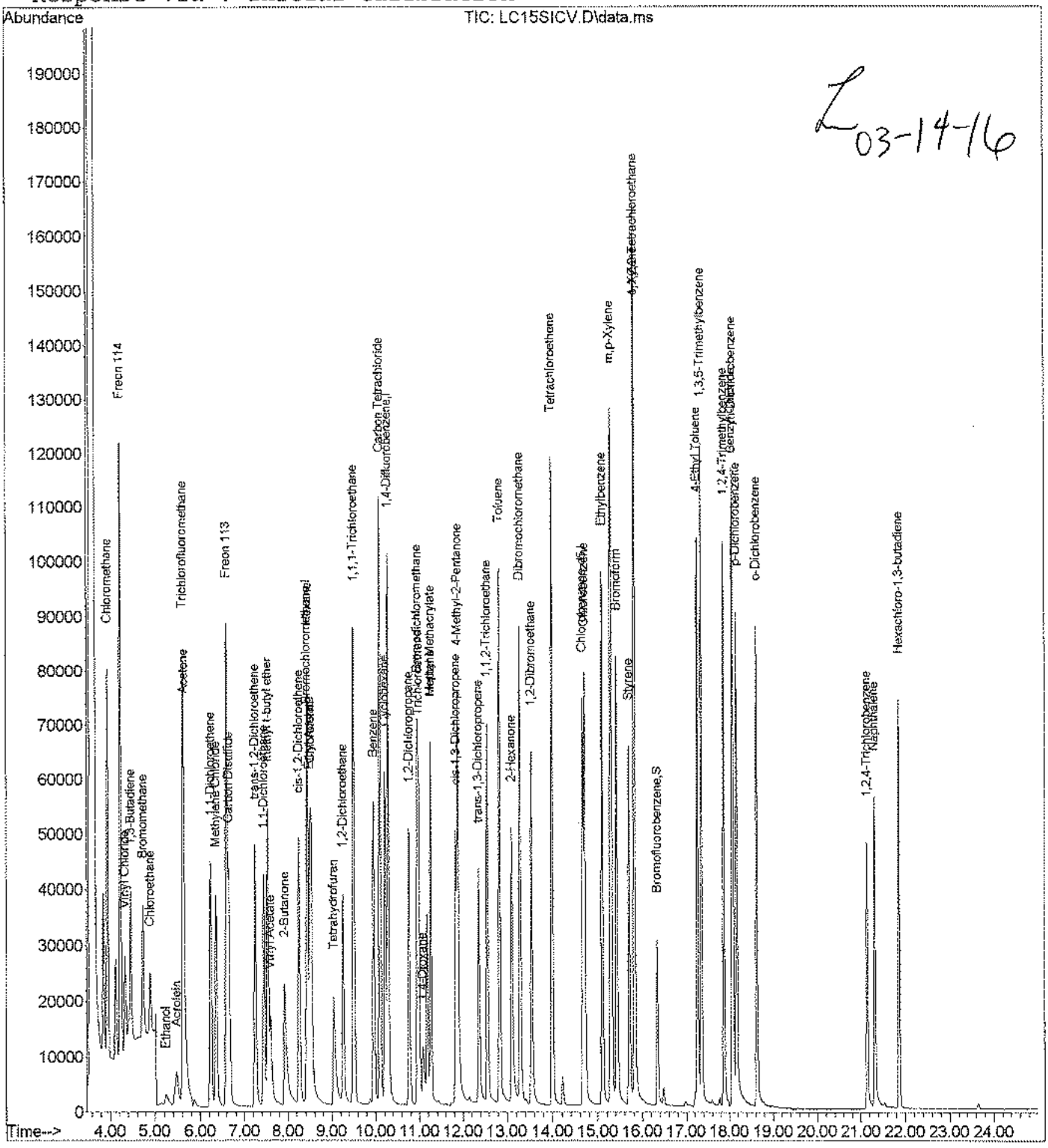
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration



L 03-14-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	22023	1000.0000	ppt		97.42
25) 1,4-Difluorobenzene	10.28	114	204847	1000.0000	ppt		92.32
50) Chlorobenzene d5	14.67	117	165988	1000.0000	ppt		91.24
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	62813	1015.4214	ppt		101.54%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	0.00	85	Not Detected				
4) Chloromethane	3.94	50	11712	195.1522	ppt	#	41
5) Freon 114	4.23	135	77838	467.8671	ppt	#	79
6) Vinyl Chloride	4.33	62	30952	463.7965	ppt		99
7) 1,3-Butadiene	4.46	54	23589	462.3160	ppt	#	51
8) Bromomethane	4.74	94	32360	446.9716	ppt		98
9) Chloroethane	4.90	64	17447	498.7327	ppt	#	85
10) Acrolein	5.47	56	9736	297.2631	ppt	#	96
11) Acetone	5.65	43	69429	311.5320	ppt	#	85
12) Trichlorofluoromethane	5.62	101	121149	462.9348	ppt		97
13) Ethanol	5.24	45	7130	134.6004	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.23	61	61188	454.2243	ppt	#	78
16) Methylene Chloride	6.36	84	36086	443.5437	ppt	#	60
17) Freon 113	6.60	151	81933	457.0977	ppt	#	75
18) Carbon Disulfide	6.65	76	108888	433.3217	ppt	#	66
19) trans-1,2-Dichloroethene	7.25	96	39806	454.0600	ppt	#	80
20) 1,1-Dichloroethane	7.45	63	71768	455.6649	ppt		97
21) methyl t-butyl ether	7.54	73	83831	453.9708	ppt	#	81
22) Vinyl Acetate	7.61	86	3088	162.2129	ppt	#	1
23) 2-Butanone	7.92	43	76423	433.1939	ppt	#	67
24) cis-1,2-Dichloroethene	8.26	96	41145	452.0066	ppt	#	79
26) Ethyl Acetate	8.50	61	14193	638.7688	ppt	#	1
27) Hexane	8.44	57	52813	480.0473	ppt	#	80
28) Chloroform	8.53	83	86626	482.1543	ppt	#	17
29) Tetrahydrofuran	9.05	42	49029	481.9534	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	53344	478.5399	ppt	#	89
31) 1,1,1-Trichloroethane	9.51	97	92925	463.5512	ppt	#	91
32) Benzene	9.96	78	111453	453.2523	ppt	#	89
33) Carbon Tetrachloride	10.10	117	114550	473.6308	ppt		99
34) Cyclohexane	10.23	84	43246	467.7022	ppt	#	38
35) 1,2-Dichloropropane	10.76	63	42995	472.4407	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	92086	484.4121	ppt		98
37)	1,4-Dioxane	11.08	88	21720	390.7048	ppt	#	77
38)	Trichloroethene	10.99	130	64608	484.4655	ppt	#	41
39)	Methyl Methacrylate	11.26	69	4291	102.1146	ppt	#	1
40)	Heptane	11.27	71	33516	496.9223	ppt	#	24
41)	cis-1,3-Dichloropropene	11.84	75	56467	450.5547	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	83364	447.3187	ppt	#	71
43)	trans-1,3-Dichloropropene	12.37	75	48894	458.8588	ppt		96
44)	1,1,2-Trichloroethane	12.56	97	51825	462.7606	ppt	#	82
45)	Toluene	12.84	91	123326	469.3530	ppt		98
46)	2-Hexanone	13.10	43	62055	396.3745	ppt	#	70
47)	Dibromochloromethane	13.29	129	110222	467.5444	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	78592	458.5427	ppt		99
49)	Tetrachloroethene	13.99	166	77929	461.6597	ppt	#	84
51)	Chlorobenzene	14.72	112	118319	462.5514	ppt	#	74
52)	Ethylbenzene	15.11	91	142519	444.3222	ppt		98
53)	m,p-Xylene	15.30	91	227360	932.9392	ppt		91
54)	Bromoform	15.43	173	72711	419.8505	ppt		98
55)	Styrene	15.70	104	77356	441.8922	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	97769	414.8785	ppt		98
57)	o-Xylene	15.82	91	119095	450.5221	ppt		97
59)	4-Ethyl Toluene	17.26	105	126851	405.4825	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	131425	427.1337	ppt		97
61)	1,2,4-Trimethylbenzene	17.88	105	110825	402.3028	ppt		98
62)	Benzyl Chloride	18.06	91	78808	331.2000	ppt		100
63)	m-Dichlorobenzene	18.08	146	99437	404.9153	ppt		96
64)	p-Dichlorobenzene	18.17	146	99671	396.7742	ppt		96
65)	o-Dichlorobenzene	18.63	146	96880	392.5117	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	43460	377.0759	ppt	#	97
67)	Naphthalene	21.31	128	103179	389.4472	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	62730	450.9455	ppt		99

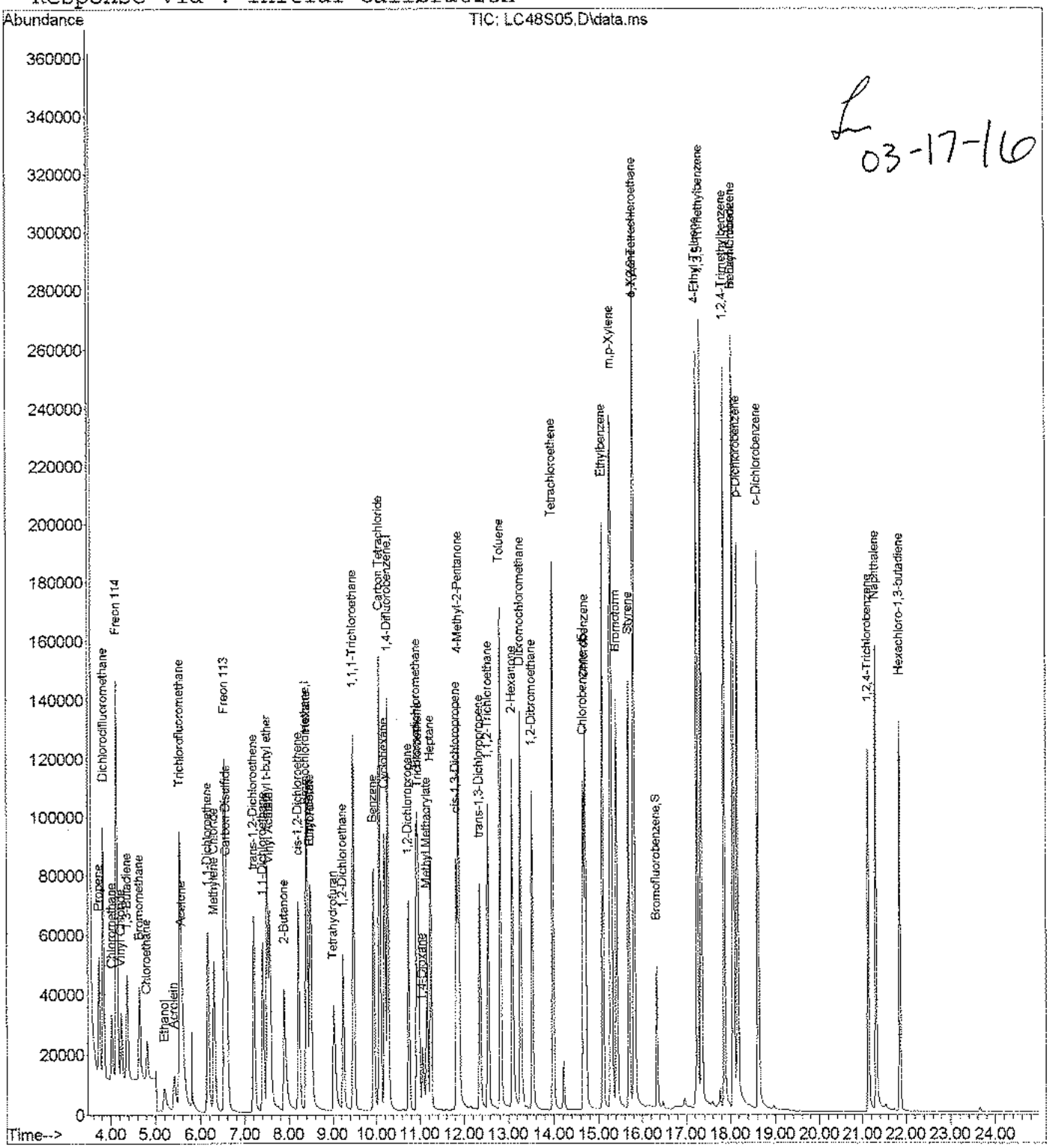
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC48S05.D Vial: 2
Acq Time : 03/15/2016 10:32 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:12 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



L 03-17-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC48S05.D Vial: 2
Acq Time : 03/15/2016 10:32 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:12 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	28462	1000.0000	ppt		115.29
25) 1,4-Difluorobenzene	10.27	114	287285	1000.0000	ppt		119.08
50) Chlorobenzene d5	14.67	117	242607	1000.0000	ppt		120.07
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	99434	1099.7780	ppt		109.98%
Target Compounds							Qvalue
2) Propene	3.74	41	38455	288.3713	ppt		96
3) Dichlorodifluoromethane	3.84	85	128510	492.9675	ppt		100
4) Chloromethane	4.02	50	42379	546.3917	ppt		99
5) Freon 114	4.14	135	113882	529.6598	ppt	#	84
6) Vinyl Chloride	4.24	62	43306	502.1089	ppt		99
7) 1,3-Butadiene	4.37	54	32256	489.1600	ppt	#	58
8) Bromomethane	4.65	94	45995	491.5788	ppt		99
9) Chloroethane	4.82	64	21682	479.5761	ppt	#	89
10) Acrolein	5.43	56	21910	517.6234	ppt	#	98
11) Acetone	5.60	43	120974	420.0150	ppt	#	84
12) Trichlorofluoromethane	5.55	101	166369	491.9075	ppt		98
13) Ethanol	5.20	45	29601	432.3887	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.17	61	89816	515.9040	ppt	#	80
16) Methylene Chloride	6.31	84	51160	486.5632	ppt	#	65
17) Freon 113	6.55	151	122758	529.9209	ppt	#	83
18) Carbon Disulfide	6.59	76	152313	469.0061	ppt	#	64
19) trans-1,2-Dichloroethene	7.20	96	59686	526.8031	ppt	#	81
20) 1,1-Dichloroethane	7.41	63	101182	497.0831	ppt		97
21) methyl t-butyl ether	7.52	73	141799	594.1656	ppt	#	84
22) Vinyl Acetate	7.58	86	14781	600.7902	ppt	#	1
23) 2-Butanone	7.89	43	119975	526.2112	ppt	#	70
24) cis-1,2-Dichloroethene	8.23	96	62852	534.2664	ppt	#	80
26) Ethyl Acetate	8.48	61	16424	527.0661	ppt	#	1
27) Hexane	8.42	57	85354	553.2020	ppt	#	83
28) Chloroform	8.51	83	121516	482.2674	ppt	#	17
29) Tetrahydrofuran	9.02	42	80197	562.1171	ppt	#	42
30) 1,2-Dichloroethane	9.25	62	76599	489.9732	ppt	#	93
31) 1,1,1-Trichloroethane	9.48	97	139998	497.9705	ppt	#	93
32) Benzene	9.94	78	168027	487.2412	ppt	#	89
33) Carbon Tetrachloride	10.08	117	164827	485.9480	ppt		100
34) Cyclohexane	10.21	84	74288	572.8736	ppt	#	49
35) 1,2-Dichloropropane	10.75	63	63110	494.4749	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC48S05.D Vial: 2
Acq Time : 03/15/2016 10:32 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:12 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	129965	487.4886	ppt		98
37)	1,4-Dioxane	11.06	88	41140	527.6791	ppt	#	79
38)	Trichloroethene	10.97	130	101426	542.3037	ppt	#	44
39)	Methyl Methacrylate	11.17	69	51768	878.4301	ppt	#	46
40)	Heptane	11.25	71	55461	586.3280	ppt	#	26
41)	cis-1,3-Dichloropropene	11.83	75	94249	536.2240	ppt		98
42)	4-Methyl-2-Pentanone	11.88	43	146101	558.9955	ppt	#	74
43)	trans-1,3-Dichloropropene	12.36	75	85067	569.2476	ppt		96
44)	1,1,2-Trichloroethane	12.55	97	77844	495.6314	ppt	#	82
45)	Toluene	12.83	91	211810	574.7884	ppt		99
46)	2-Hexanone	13.09	43	133739	609.1211	ppt	#	73
47)	Dibromochloromethane	13.28	129	168454	509.5098	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	127144	528.9492	ppt		99
49)	Tetrachloroethene	13.99	166	126435	534.0807	ppt	#	85
51)	Chlorobenzene	14.72	112	202712	542.1986	ppt	#	74
52)	Ethylbenzene	15.10	91	283448	604.6053	ppt		98
53)	m,p-Xylene	15.29	91	432225	1213.4518	ppt		88
54)	Bromoform	15.42	173	121681	480.7183	ppt		95
55)	Styrene	15.70	104	165565	647.0892	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	166462	483.2905	ppt		98
57)	o-Xylene	15.81	91	230902	597.6180	ppt		99
59)	4-Ethyl Toluene	17.26	105	310134	678.2674	ppt		99
60)	1,3,5-Trimethylbenzene	17.35	105	288369	641.2211	ppt		99
61)	1,2,4-Trimethylbenzene	17.87	105	256856	637.9380	ppt		99
62)	Benzyl Chloride	18.06	91	217214	624.5701	ppt		99
63)	m-Dichlorobenzene	18.08	146	206053	574.0747	ppt		97
64)	p-Dichlorobenzene	18.17	146	217227	591.6457	ppt		97
65)	o-Dichlorobenzene	18.63	146	207780	575.9644	ppt		98
66)	1,2,4-Trichlorobenzene	21.14	180	104963	623.0870	ppt	#	97
67)	Naphthalene	21.31	128	269157	695.0824	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	110925	545.5713	ppt		99

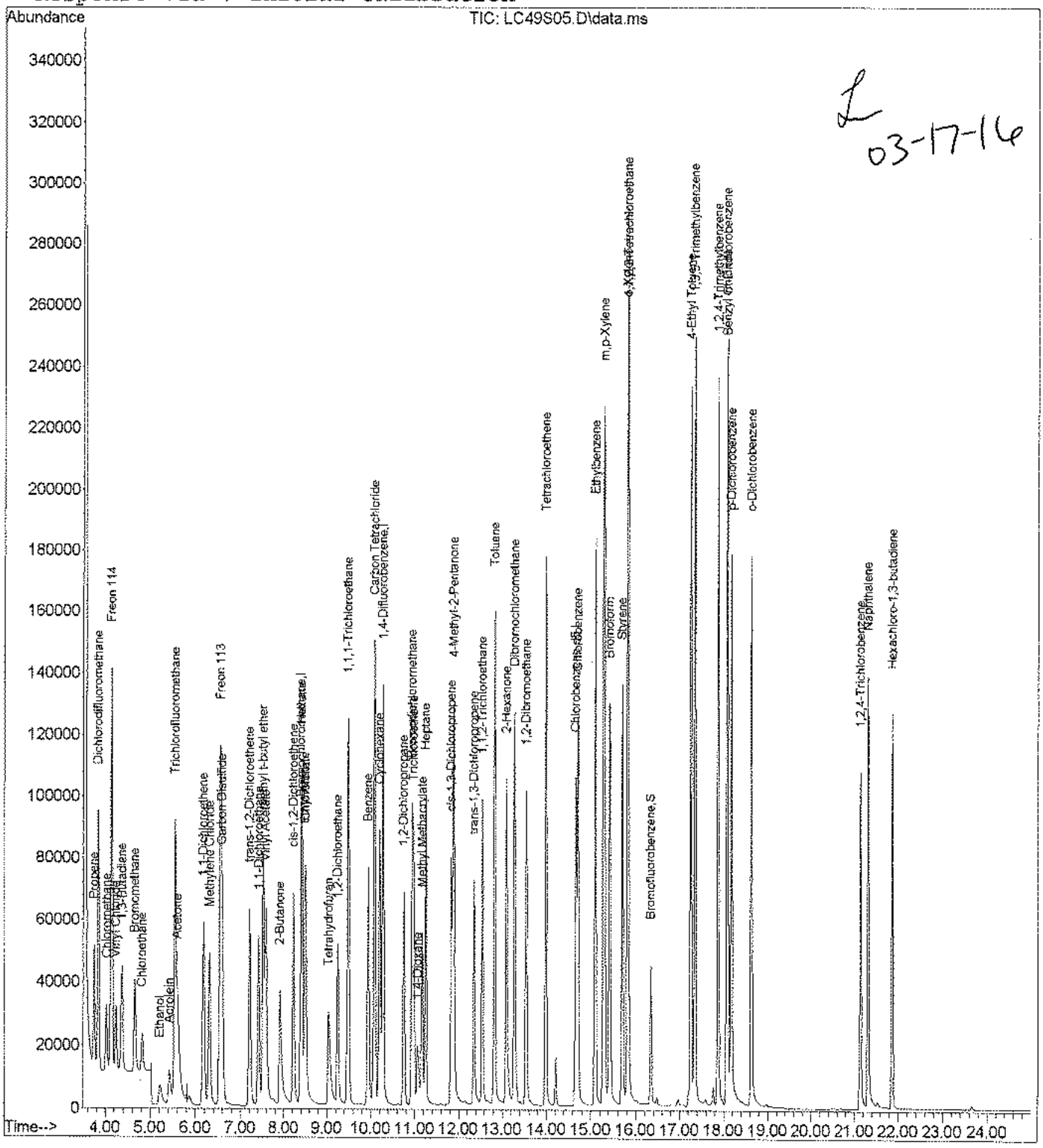
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC49S05.D Vial: 2
Acq Time : 03/15/2016 11:20 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:33 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



L 03-17-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC49S05.D Vial: 2
Acq Time : 03/15/2016 11:20 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	27501	1000.0000	ppt		111.40
25) 1,4-Difluorobenzene	10.28	114	287849	1000.0000	ppt		119.32
50) Chlorobenzene d5	14.66	117	232360	1000.0000	ppt		115.00
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	92551	1068.7920	ppt		106.88%
Target Compounds							Qvalue
2) Propene	3.74	41	37801	293.3725	ppt		95
3) Dichlorodifluoromethane	3.84	85	126071	500.5108	ppt		99
4) Chloromethane	4.03	50	41639	555.6107	ppt		99
5) Freon 114	4.14	135	110602	532.3801	ppt	#	84
6) Vinyl Chloride	4.24	62	42614	511.3509	ppt		98
7) 1,3-Butadiene	4.37	54	31074	487.7020	ppt	#	58
8) Bromomethane	4.65	94	44736	494.8307	ppt		98
9) Chloroethane	4.82	64	20807	476.3044	ppt	#	89
10) Acrolein	5.43	56	20874	510.3805	ppt	#	99
11) Acetone	5.60	43	115470	414.9147	ppt	#	86
12) Trichlorofluoromethane	5.55	101	162861	498.3621	ppt		97
13) Ethanol	5.21	45	27648	417.9733	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.17	61	87784	521.8521	ppt	#	79
16) Methylene Chloride	6.31	84	49946	491.6164	ppt	#	65
17) Freon 113	6.55	151	118773	530.6350	ppt	#	83
18) Carbon Disulfide	6.59	76	148682	473.8238	ppt	#	65
19) trans-1,2-Dichloroethene	7.20	96	57469	524.9602	ppt	#	81
20) 1,1-Dichloroethane	7.41	63	98885	502.7743	ppt		97
21) methyl t-butyl ether	7.52	73	135743	588.6657	ppt	#	83
22) Vinyl Acetate	7.58	86	14013	589.4773	ppt	#	1
23) 2-Butanone	7.90	43	114573	520.0781	ppt	#	70
24) cis-1,2-Dichloroethene	8.23	96	60423	531.5670	ppt	#	80
26) Ethyl Acetate	8.49	61	16285	521.5815	ppt	#	1
27) Hexane	8.42	57	82153	531.4122	ppt	#	82
28) Chloroform	8.51	83	118207	468.2155	ppt	#	17
29) Tetrahydrofuran	9.04	42	75670	529.3472	ppt	#	43
30) 1,2-Dichloroethane	9.25	62	73921	471.9167	ppt	#	92
31) 1,1,1-Trichloroethane	9.48	97	136431	484.3319	ppt	#	93
32) Benzene	9.94	78	161301	466.8208	ppt	#	89
33) Carbon Tetrachloride	10.08	117	161182	474.2706	ppt		100
34) Cyclohexane	10.21	84	69637	535.9551	ppt	#	47
35) 1,2-Dichloropropane	10.75	63	60672	474.4414	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC49S05.D Vial: 2
Acq Time : 03/15/2016 11:20 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	125887	471.2671	ppt		98
37)	1,4-Dioxane	11.06	88	37842	484.4265	ppt	#	80
38)	Trichloroethene	10.97	130	96820	516.6620	ppt	#	43
39)	Methyl Methacrylate	11.17	69	48430	820.1788	ppt	#	47
40)	Heptane	11.25	71	52980	559.0017	ppt	#	26
41)	cis-1,3-Dichloropropene	11.83	75	89171	506.3390	ppt		97
42)	4-Methyl-2-Pentanone	11.88	43	136881	522.6928	ppt	#	74
43)	trans-1,3-Dichloropropene	12.36	75	80411	537.0365	ppt		96
44)	1,1,2-Trichloroethane	12.55	97	74879	475.8192	ppt	#	82
45)	Toluene	12.83	91	199380	539.9970	ppt		99
46)	2-Hexanone	13.09	43	121036	550.1845	ppt	#	74
47)	Dibromochloromethane	13.28	129	162662	491.0272	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	120930	502.1117	ppt		99
49)	Tetrachloroethene	13.98	166	120817	509.3494	ppt	#	85
51)	Chlorobenzene	14.72	112	192003	536.2026	ppt	#	74
52)	Ethylbenzene	15.10	91	264308	588.6415	ppt		98
53)	m,p-Xylene	15.29	91	407147	1193.4545	ppt		89
54)	Bromoform	15.42	173	117650	485.2905	ppt		97
55)	Styrene	15.69	104	153147	624.9512	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	160129	485.4059	ppt		98
57)	o-Xylene	15.81	91	219627	593.5040	ppt		98
59)	4-Ethyl Toluene	17.26	105	283895	648.2631	ppt		99
60)	1,3,5-Trimethylbenzene	17.35	105	273433	634.8222	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	237768	616.5724	ppt		100
62)	Benzyl Chloride	18.06	91	202354	607.5011	ppt		100
63)	m-Dichlorobenzene	18.08	146	194842	566.7794	ppt		97
64)	p-Dichlorobenzene	18.17	146	205467	584.2947	ppt		97
65)	o-Dichlorobenzene	18.63	146	193660	560.4976	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	97601	604.9350	ppt	#	97
67)	Naphthalene	21.31	128	245169	661.0558	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	104953	538.9630	ppt		99

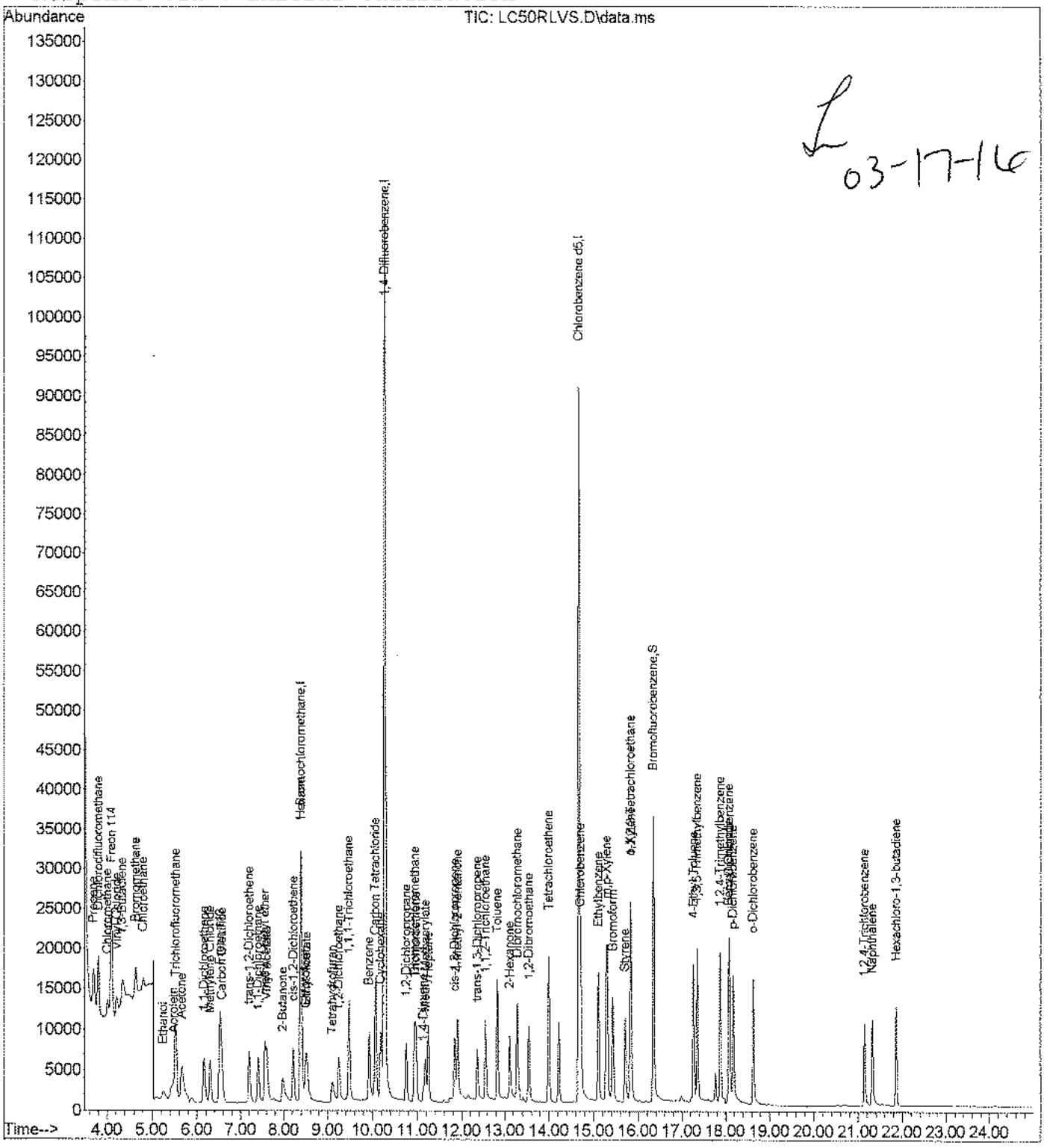
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC50RLVS.D Vial: 2
Acq Time : 03/15/2016 12:07 Operator: LMR
Sample : RLVS 0.05 PPB Inst : 5975-L
Misc : 31070 (20 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:44 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



L 03-17-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC50RLVS.D Vial: 2
Acq Time : 03/15/2016 12:07 Operator: LMR
Sample : RLVS 0.05 PPB Inst : 5975-L
Misc : 31070 (20 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:44 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	23903	1000.0000	ppt		96.82
25) 1,4-Difluorobenzene	10.28	114	252610	1000.0000	ppt		104.71
50) Chlorobenzene d5	14.67	117	205078	1000.0000	ppt		101.49
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	77434	1013.1788	ppt		101.32%
Target Compounds							Qvalue
2) Propene	3.69	41	7117	63.5491	ppt		94
3) Dichlorodifluoromethane	3.80	85	13524	61.7731	ppt		99
4) Chloromethane	4.01	50	4604	70.6808	ppt		99
5) Freon 114	4.11	135	11662	64.5845	ppt	#	83
6) Vinyl Chloride	4.22	62	4533	62.5819	ppt		100
7) 1,3-Butadiene	4.35	54	3282	59.2641	ppt	#	27
8) Bromomethane	4.64	94	4727	60.1563	ppt		99
9) Chloroethane	4.80	64	2260	59.5223	ppt	#	90
10) Acrolein	5.47	56	2082	58.5687	ppt	#	94
11) Acetone	5.66	43	19920	82.3522	ppt		89
12) Trichlorofluoromethane	5.52	101	17386	61.2102	ppt		98
13) Ethanol	5.25	45	3480	60.5285	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.16	61	9051	61.9049	ppt	#	78
16) Methylene Chloride	6.31	84	5454	61.7642	ppt	#	65
17) Freon 113	6.53	151	12311	63.2802	ppt	#	81
18) Carbon Disulfide	6.57	76	16810	61.6343	ppt	#	64
19) trans-1,2-Dichloroethene	7.20	96	5957	62.6061	ppt	#	79
20) 1,1-Dichloroethane	7.40	63	10471	61.2529	ppt		96
21) methyl t-butyl ether	7.56	73	13033	65.0267	ppt	#	84
22) Vinyl Acetate	7.60	86	1279	61.9017	ppt	#	1
23) 2-Butanone	7.97	43	11708	61.1456	ppt	#	69
24) cis-1,2-Dichloroethene	8.22	96	6119	61.9344	ppt	#	81
26) Ethyl Acetate	8.53	61	1408	51.3868	ppt	#	1
27) Hexane	8.41	57	7990	58.8937	ppt	#	84
28) Chloroform	8.50	83	12205	55.0877	ppt	#	17
29) Tetrahydrofuran	9.10	42	7404	59.0198	ppt	#	41
30) 1,2-Dichloroethane	9.25	62	8149	59.2811	ppt	#	82
31) 1,1,1-Trichloroethane	9.47	97	14072	56.9246	ppt	#	92
32) Benzene	9.93	78	18592	61.3131	ppt	#	89
33) Carbon Tetrachloride	10.07	117	16796	56.3157	ppt		99
34) Cyclohexane	10.20	84	6681	58.5928	ppt	#	46
35) 1,2-Dichloropropane	10.76	63	6193	55.1835	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC50RLVS.D Vial: 2
Acq Time : 03/15/2016 12:07 Operator: LMR
Sample : RLVS 0.05 PPB Inst : 5975-L
Misc : 31070 (20 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:44 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.94	83	12796	54.5852	ppt		98
37)	1,4-Dioxane	11.14	88	4282	62.4618	ppt	#	85
38)	Trichloroethene	10.97	130	9696	58.9587	ppt	#	43
39)	Methyl Methacrylate	11.18	69	5001	96.5084	ppt	#	56
40)	Heptane	11.25	71	4806	57.7829	ppt	#	24
41)	cis-1,3-Dichloropropene	11.84	75	9061	58.6284	ppt	#	66
42)	4-Methyl-2-Pentanone	11.90	43	12042	52.3982	ppt	#	73
43)	trans-1,3-Dichloropropene	12.37	75	7434	56.5751	ppt		96
44)	1,1,2-Trichloroethane	12.55	97	7533	54.5461	ppt	#	82
45)	Toluene	12.83	91	19499	60.1778	ppt		98
46)	2-Hexanone	13.11	43	10878	56.3452	ppt	#	68
47)	Dibromochloromethane	13.29	129	15937	54.8201	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	11668	55.2048	ppt		98
49)	Tetrachloroethene	13.99	166	12213	58.6711	ppt	#	85
51)	Chlorobenzene	14.72	112	19475	61.6227	ppt	#	67
52)	Ethylbenzene	15.11	91	24590	62.0499	ppt		98
53)	m,p-Xylene	15.30	91	35868	119.1253	ppt		95
54)	Bromoform	15.43	173	11750	54.9149	ppt		93
55)	Styrene	15.70	104	12743	58.9185	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	15083	51.8042	ppt	#	96
57)	o-Xylene	15.82	91	19222	58.8544	ppt		97
59)	4-Ethyl Toluene	17.26	105	22121	57.2322	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	20745	54.5704	ppt		97
61)	1,2,4-Trimethylbenzene	17.88	105	20788	61.0781	ppt		99
62)	Benzyl Chloride	18.06	91	17008	57.8537	ppt		94
63)	m-Dichlorobenzene	18.08	146	18380	60.5786	ppt		95
64)	p-Dichlorobenzene	18.17	146	20152	64.9307	ppt		94
65)	o-Dichlorobenzene	18.63	146	17723	58.1184	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	9548	67.0516	ppt	#	97
67)	Naphthalene	21.32	128	20274	61.9376	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	10348	60.2092	ppt		99

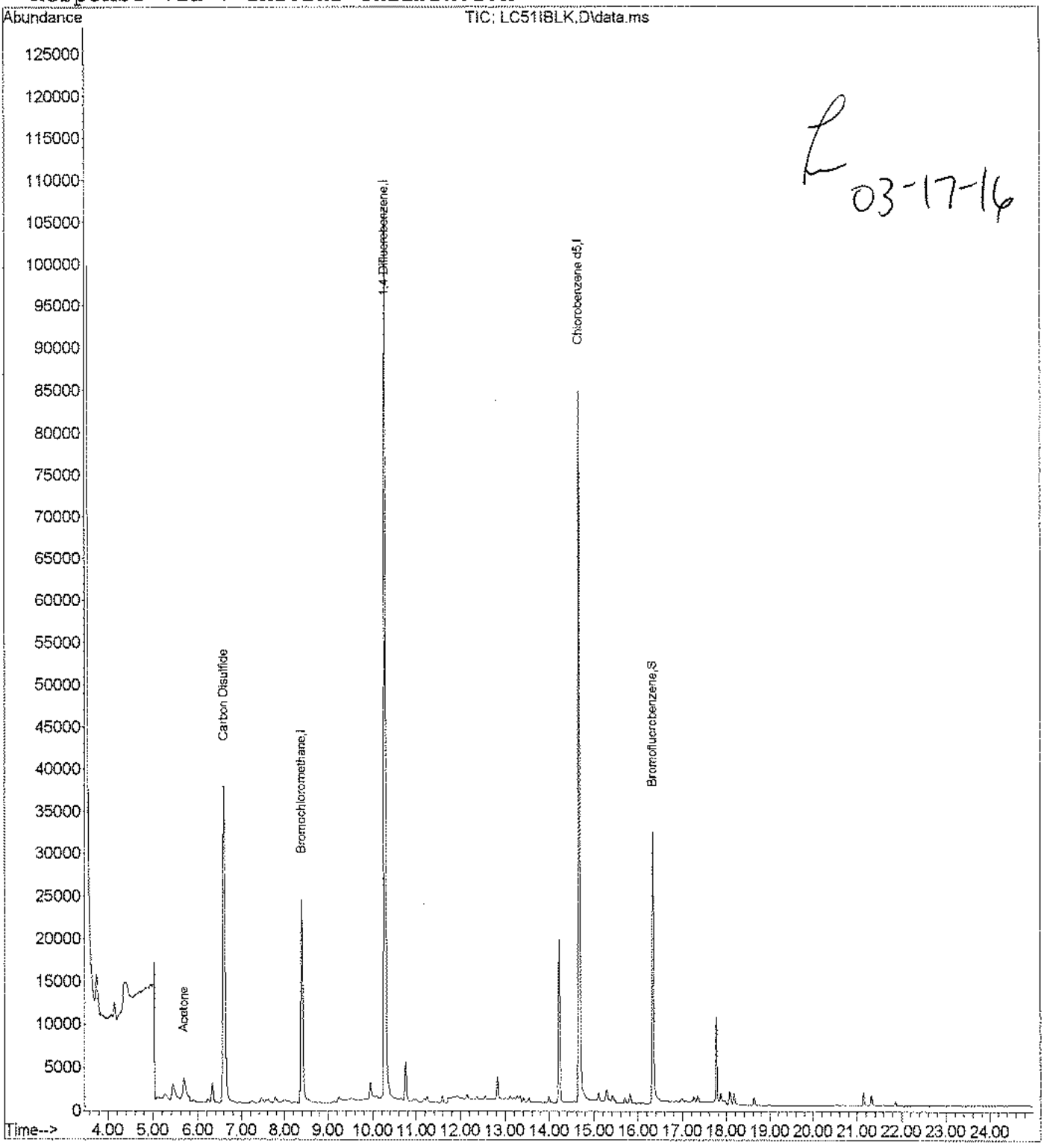
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC51IBLK.D Vial: 1
Acq Time : 03/15/2016 12:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:54 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



L 03-17-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC51IBLK.D Vial: 1
Acq Time : 03/15/2016 12:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:54 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	8.39	130	23071	1000.0000	ppt	93.45
25) 1,4-Difluorobenzene	10.28	114	233032	1000.0000	ppt	96.59
50) Chlorobenzene d5	14.66	117	189921	1000.0000	ppt	93.99
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	69520	982.2233	ppt	98.22%
Target Compounds						Qvalue
2) Propene	0.00	41		Not Detected		
3) Dichlorodifluoromethane	0.00	85		Not Detected		
4) Chloromethane	0.00	50		Not Detected		
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.68	43	13243	56.7229	ppt #	82
12) Trichlorofluoromethane	0.00	101		Not Detected		
13) Ethanol	0.00	45		Not Detected		
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	0.00	84		Not Detected		
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	6.59	76	118382	449.7034	ppt #	61
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	0.00	57		Not Detected		
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	0.00	78		Not Detected		
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC51IBLK.D Vial: 1
Acq Time : 03/15/2016 12:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:54 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

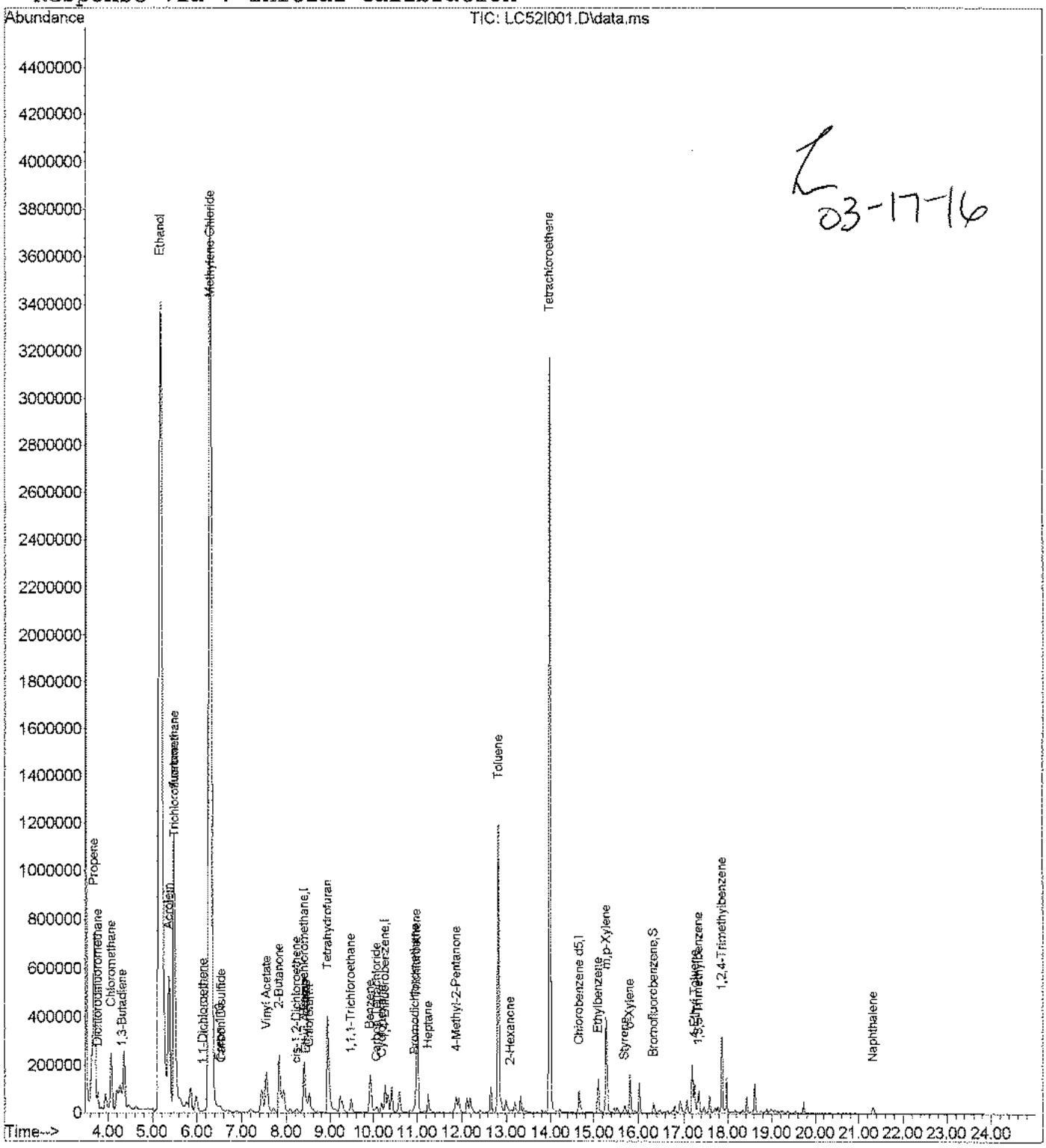
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC52I001.D Vial: 9
Acq Time : 03/15/2016 13:45 Operator: LMR
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:07 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



L 03-17-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC52I001.D Vial: 9
Acq Time : 03/15/2016 13:45 Operator: LMR
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.40	130	23025	1000.0000 ppt	93.27
25) 1,4-Difluorobenzene	10.28	114	235929	1000.0000 ppt	97.80
50) Chlorobenzene d5	14.67	117	195704	1000.0000 ppt	96.85
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	81507	1117.5544 ppt	111.76%
Target Compounds					Qvalue
2) Propene	3.69	41	704458	6530.1034 ppt #	54
3) Dichlorodifluoromethane	3.77	85	118747	563.0796 ppt	100
4) Chloromethane	4.07	50	8390	133.7153 ppt #	68
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.31	54	35203	659.9118 ppt #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.37	56	217144	6341.3995 ppt #	69
11) Acetone	5.48	43	3053455	13104.7900 ppt #	83
12) Trichlorofluoromethane	5.51	101	102410	374.2994 ppt	98
13) Ethanol	5.18	45	16376641	295704.9100 ppt #	39
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	6.14	61	11085	78.7076 ppt #	65
16) Methylene Chloride	6.30	84	5831197	68553.9067 ppt #	63
17) Freon 113	6.52	151	14312	76.3708 ppt #	79
18) Carbon Disulfide	6.55	76	13106	49.8859 ppt #	66
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.57	86	23830	1197.3162 ppt #	1
23) 2-Butanone	7.83	43	678242	3677.2216 ppt #	68
24) cis-1,2-Dichloroethene	8.23	96	13301	139.7619 ppt #	79
26) Ethyl Acetate	8.46	61	14536	568.0188 ppt #	1
27) Hexane	8.41	57	174228	1375.0214 ppt #	81
28) Chloroform	8.52	83	204733	989.4045 ppt #	17
29) Tetrahydrofuran	8.94	42	625839	5341.4959 ppt #	45
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.48	97	55966	242.4028 ppt #	92
32) Benzene	9.94	78	217308	767.3125 ppt #	89
33) Carbon Tetrachloride	10.08	117	20753	74.5030 ppt	100
34) Cyclohexane	10.20	84	30741	288.6621 ppt #	54
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC52I001.D Vial: 9
Acq Time : 03/15/2016 13:45 Operator: LMR
Sample : 1607440001 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

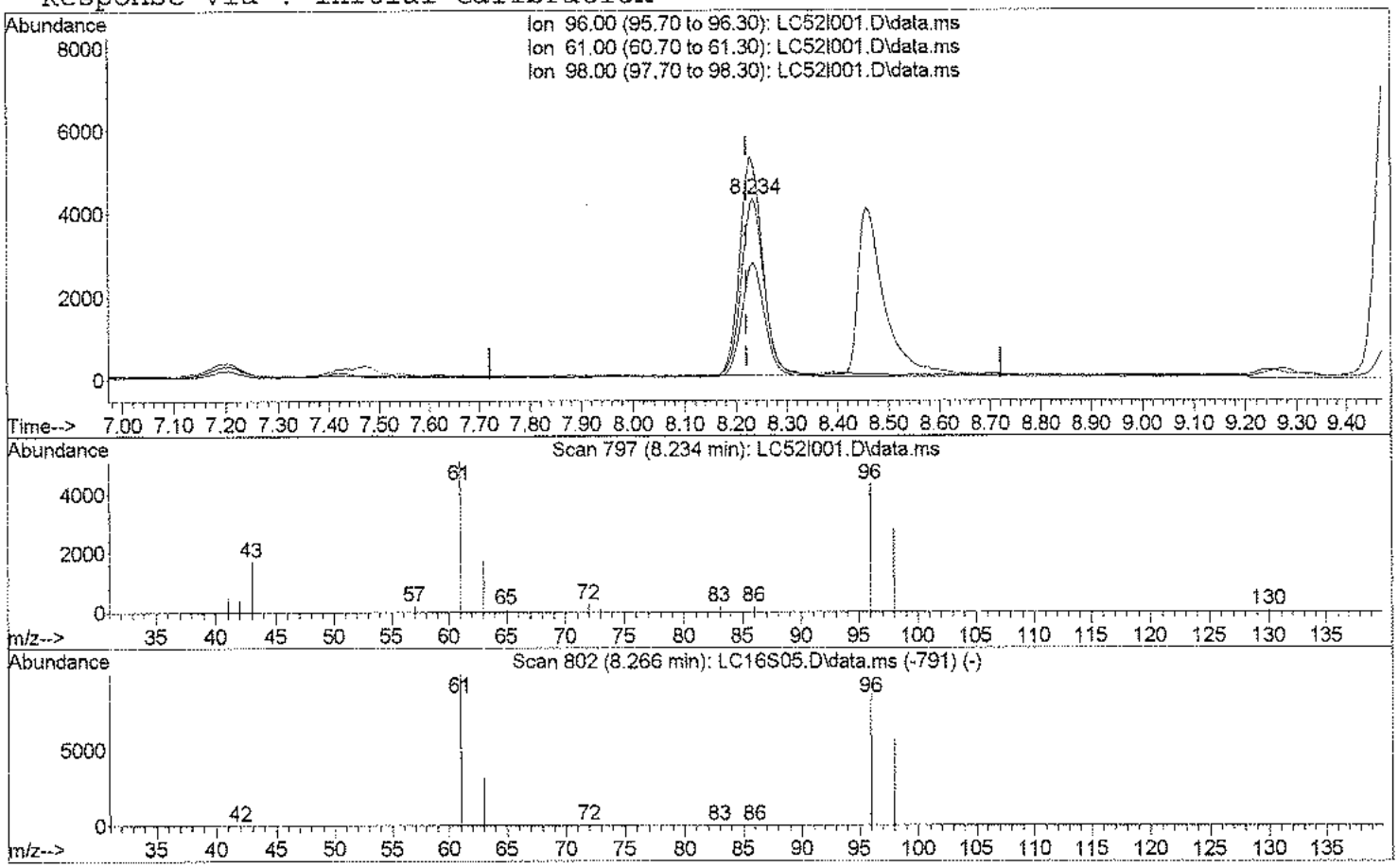
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	10.94	83	26433	120.7303 ppt #	75
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	10.97	130	148137	964.4693 ppt #	42
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.25	71	42537	547.5849 ppt #	26
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.88	43	90543	421.8341 ppt #	65
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	1447280	4782.3984 ppt	99
46)	2-Hexanone	13.09	43	11811	65.5034 ppt #	55
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.98	166	2121333	10911.3884 ppt #	85
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.10	91	208361	550.9582 ppt	97
53)	m,p-Xylene	15.28	91	566160	1970.4048 ppt	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.69	104	33794	163.7340 ppt	97
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	185862	596.3348 ppt	97
59)	4-Ethyl Toluene	17.25	105	120628	327.0419 ppt	99
60)	1,3,5-Trimethylbenzene	17.35	105	99045	273.0206 ppt	96
61)	1,2,4-Trimethylbenzene	17.87	105	328226	1010.5675 ppt	94
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	21.32	128	43694	139.8801 ppt #	95
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC52I001.D
Acq On : 03/15/2016 13:45
Operator : LMR
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 09:53:07 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC52I001.D\data.ms

(24) cis-1,2-Dichloroethene

8.234min (+ 0.013) 139.76 ppt

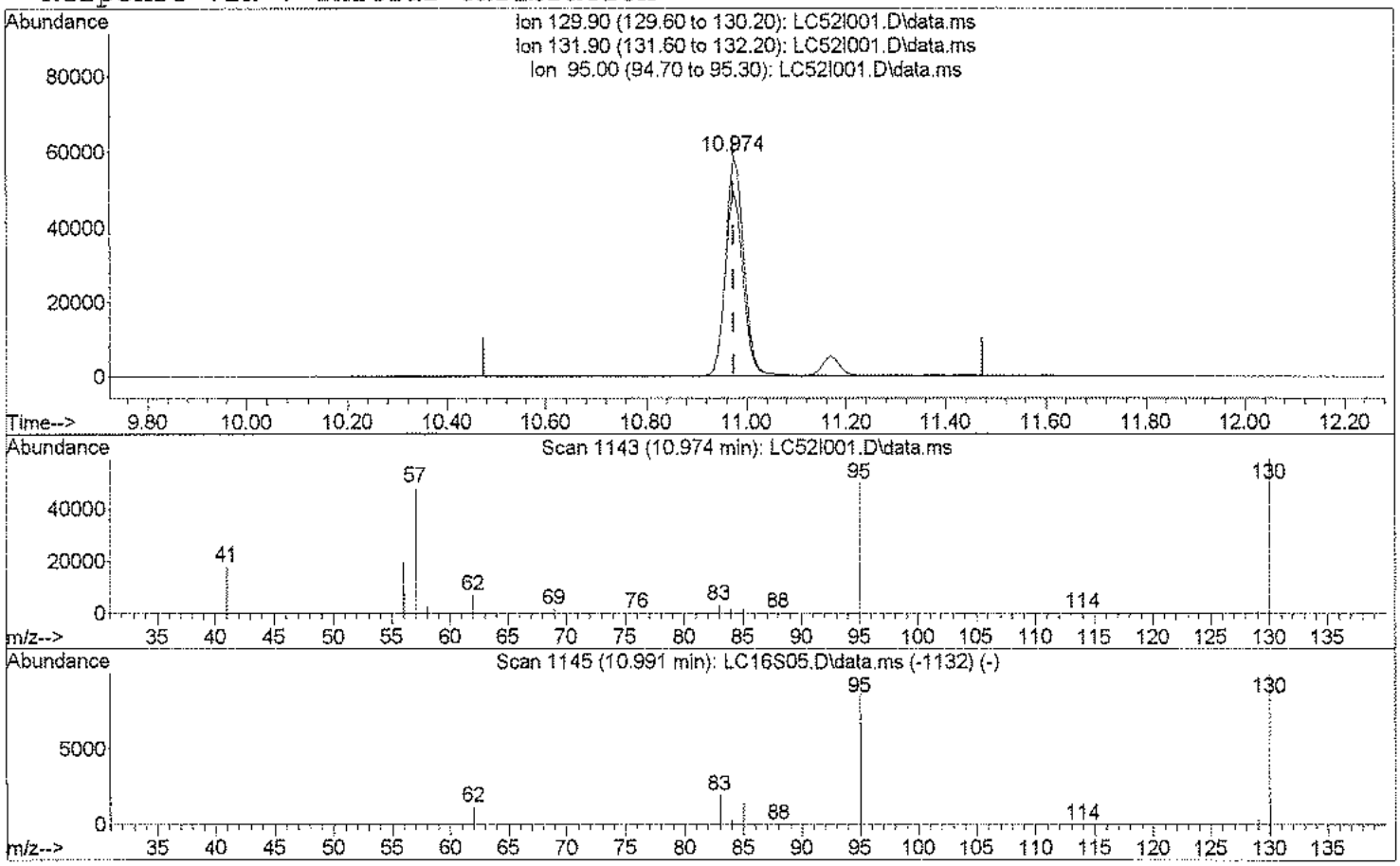
response 13301

Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	124.98#
98.00	64.90	65.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC52I001.D
Acq On : 03/15/2016 13:45
Operator : LMR
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 09:53:07 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC52I001.D\data.ms

(38) Trichloroethene

10.974min (-0.000) 964.47 ppt

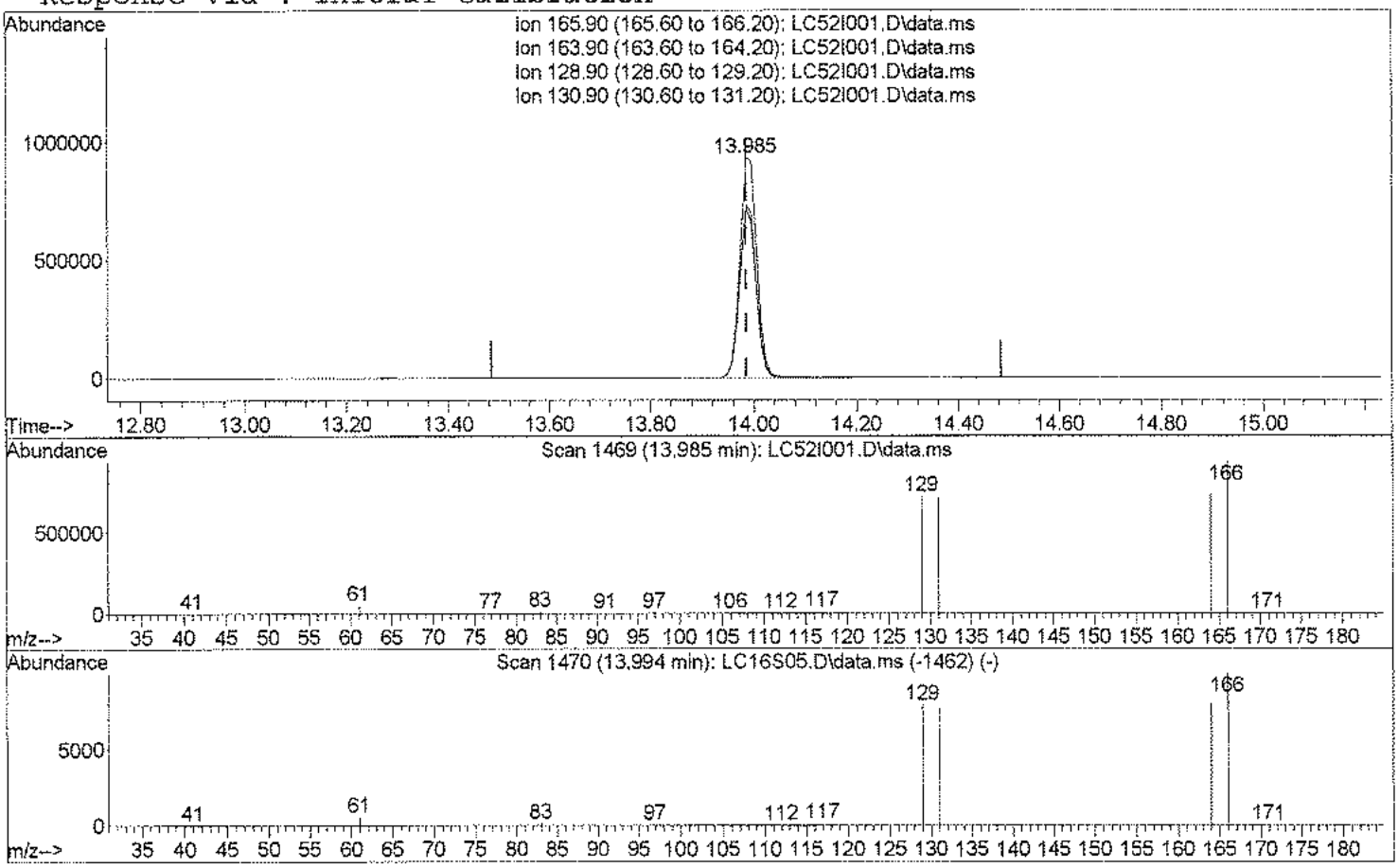
response 148137

Ion	Exp%	Act%
129.90	100.00	100.00
131.90	96.40	0.00#
95.00	77.10	83.41
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC52I001.D
Acq On : 03/15/2016 13:45
Operator : LMR
Sample : 1607440001
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 09:53:07 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC52I001.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 10911.39 ppt

response 2121333

Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	77.71
128.90	57.40	75.45#
130.90	56.90	75.15#

Batch Worklist

Batch: IVOA/3197 Created: 3/17/2016 10:10 Instrument: 5975-L HBN: 165896

Rule: EPA TO-15 SIM, Air Analyst: L. Reid Status: WP

Workorder: 1607440

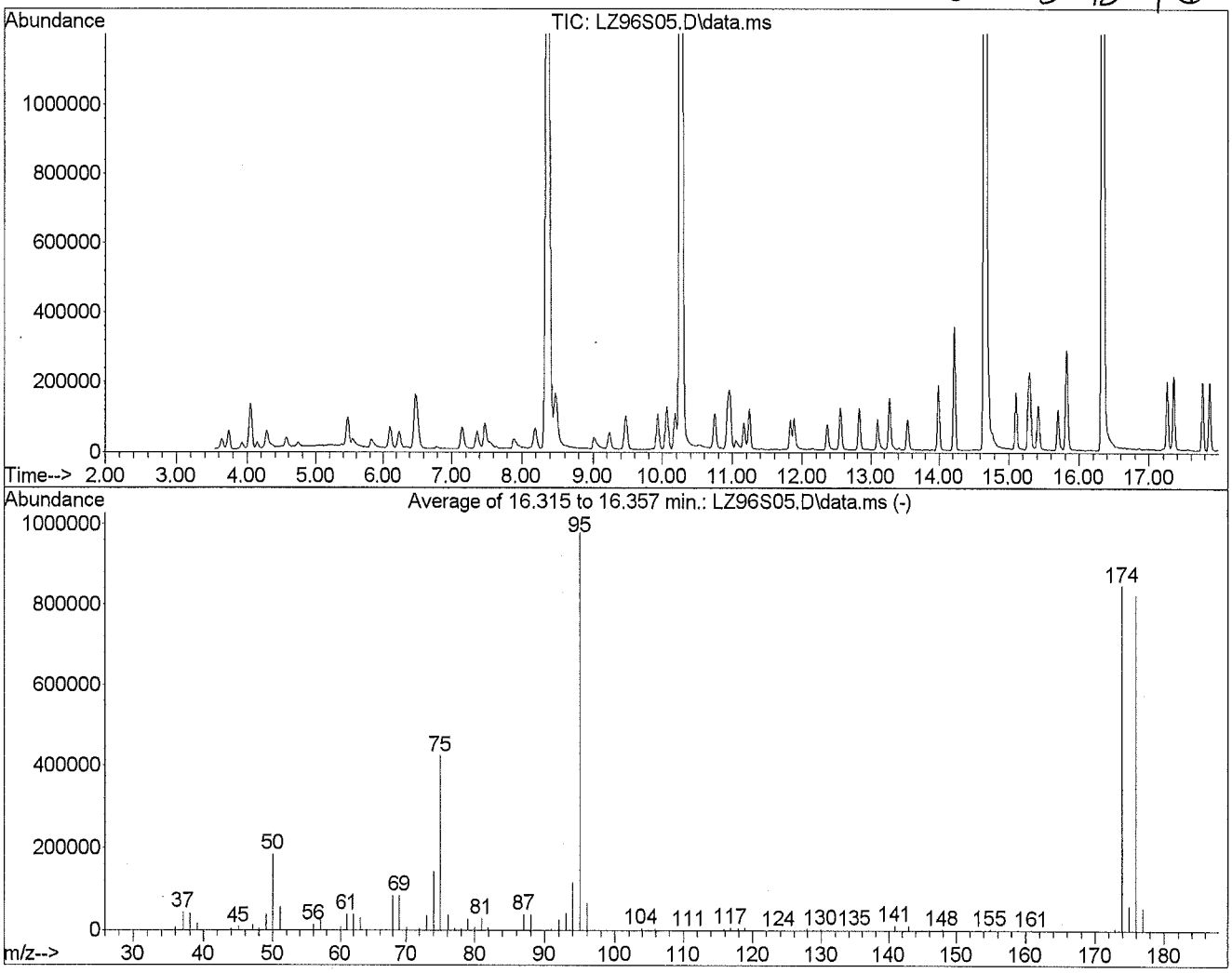
Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	492458	MB for HBN 165896 [IVOA/3197]				MB	1		ETO15SIM1Q	5320		3/17/2016	3/15/2016
2	492459	LCS for HBN 165896 [IVOA/3197]				LCS	1		ETO15SIM1Q	5320		3/17/2016	3/15/2016
3	492460	LCSD for HBN 165896 [IVOA/3197				LCSD	1		ETO15SIM1Q	5320		3/17/2016	3/15/2016
4	1607440001	A-00401H-031216-1A-BAS				SAMPLE	1	1607440001-A	ETO15SIM1	5480		3/17/2016	3/15/2016
	*E|Result exceeds calibration range												

BFB

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15

L 02-12-16



Peak Apex is scan: Average of 16.315 to 16.357 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.88	184521	PASS
75	95	30	66	43.33	423520	PASS
95	95	100	100	100.00	977472	PASS
96	95	5	9	6.71	65578	PASS
173	174	0.00	2	0.62	5260	PASS
174	95	50	120	86.78	848264	PASS
175	174	5	9	7.22	61209	PASS
176	174	93	101	97.08	823512	PASS
177	176	5	9	6.62	54552	PASS

LZ96S05.D TO15LG16.m Fri Feb 12 10:05:24 2016

Average of 16.315 to 16.357 min.: LZ96S05.D\data.ms
0.5 PPB STD
Modified:subtracted

m/z	Abundance
36.00	7489.0
37.05	43630.0
38.05	40562.0
39.05	16110.0
40.00	879.0
41.00	40.0
42.05	40.0
43.05	460.0
44.00	5240.0
45.05	8530.0
46.05	675.0
47.05	12304.0
48.00	5001.0
49.00	38640.0
50.00	184521.0
51.05	56753.0
52.05	2475.0
53.10	24.0
55.00	2178.0
56.00	13527.0
57.05	25865.0
58.05	1075.0
58.75	80.0
59.10	21.0
60.05	7183.0
61.00	39159.0
62.00	38467.0
63.00	29653.0
64.00	2619.0
65.05	344.0
67.00	1862.0
68.00	84420.0
69.00	84896.0
70.05	6469.0
70.90	53.0
71.10	204.0
72.00	3775.0
73.00	35362.0
74.00	142284.0
75.00	423520.0
76.05	36729.0
77.05	4724.0
77.95	3023.0
78.90	27103.0
79.95	7689.0
80.95	28139.0
81.90	5876.0
83.00	673.0
86.05	873.0
87.00	38506.0
88.00	36797.0
90.95	3383.0
92.00	25584.0
93.00	40701.0
94.00	116213.0
95.00	977472.0
96.00	65578.0
97.05	1755.0
98.00	23.0
102.60	20.0
102.90	449.0
103.90	4772.0
104.90	1470.0
105.90	4770.0
106.95	1003.0
109.85	695.0
110.85	1105.0
111.90	746.0
112.80	319.0
112.95	675.0
114.85	1033.0
115.90	3897.0
116.85	7195.0
117.90	4245.0
118.90	5780.0
119.90	128.0
121.95	241.0
122.85	358.0
123.85	696.0
124.85	340.0
125.90	456.0
126.85	279.0
127.90	3959.0
128.85	1955.0
129.90	4180.0
130.90	1606.0
131.85	166.0

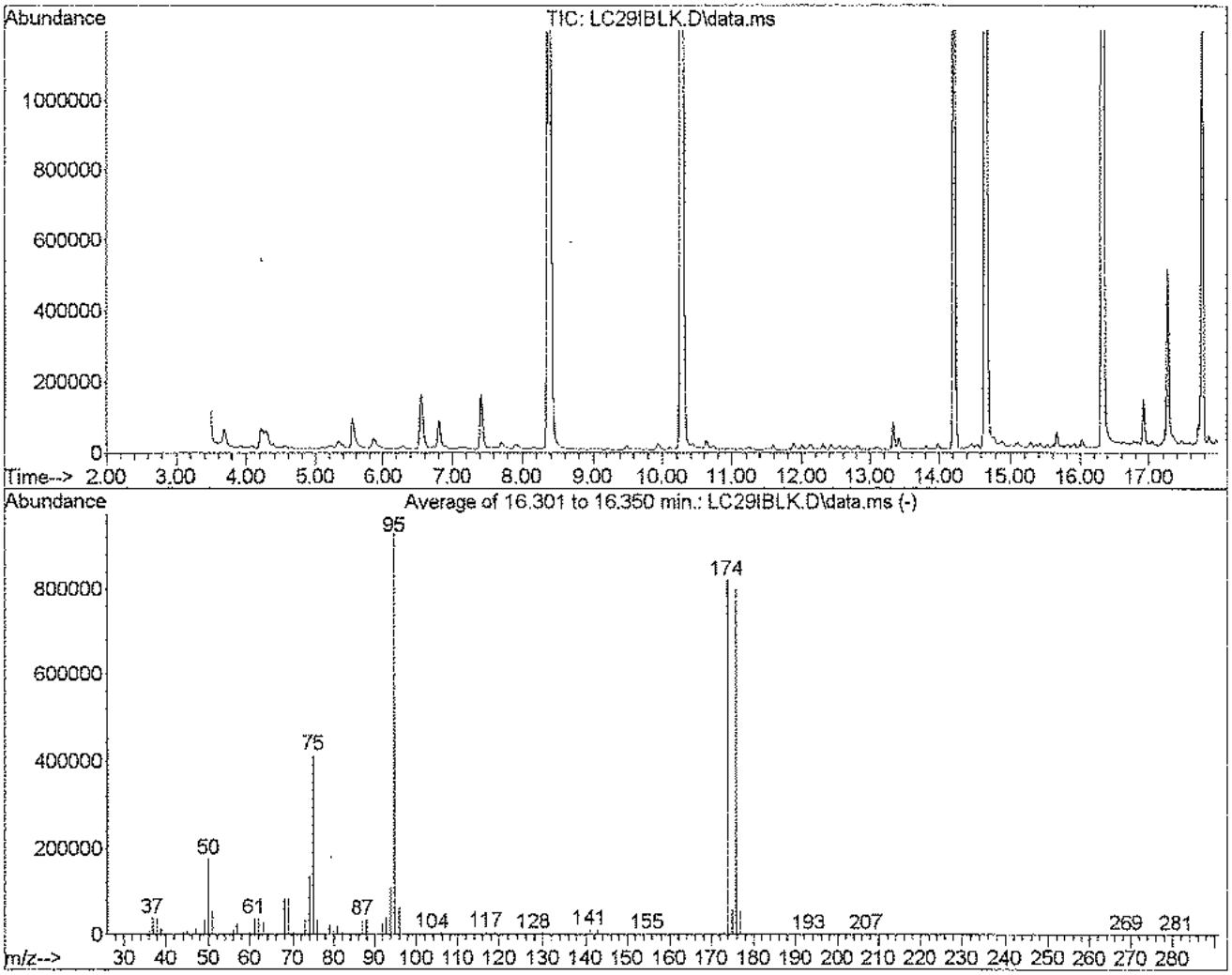
133.05	82.0
133.85	327.0
134.90	2058.0
135.90	356.0
136.95	2133.0
137.90	36.0
138.85	255.0
139.05	65.0
139.80	41.0
139.95	758.0
140.90	11895.0
141.85	1287.0
142.90	11621.0
143.85	669.0
144.10	29.0
144.90	908.0
145.95	1504.0
146.95	789.0
147.90	2586.0
148.90	712.0
149.90	1060.0
150.80	29.0
150.95	54.0
151.90	514.0
152.90	753.0
153.90	579.0
154.95	2577.0
155.70	21.0
155.80	62.0
155.95	420.0
156.95	1848.0
157.85	336.0
158.90	1130.0
160.90	999.0
162.00	21.0
169.90	49.0
171.00	19.0
171.95	745.0
172.90	5260.0
173.95	848264.0
174.95	61209.0
175.90	823512.0
176.95	54552.0
177.95	1593.0

BFB

Data File : I:\L - 5975-L\2016\M...L\14MAR16L\LC29IBLK.D Vial: 1
Acq Time : 03/14/2016 10:01 Operator: JCB
Sample : BFB Inst : 5975-L
Misc : 170IS31307 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15

LO3-15-16



Peak Apex is scan: Average of 16.301 to 16.350 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.81	175118	PASS
75	95	30	66	44.35	412936	PASS
95	95	100	100	100.00	931180	PASS
96	95	5	9	6.68	62229	PASS
173	174	0.00	2	0.67	5521	PASS
174	95	50	120	88.08	820139	PASS
175	174	5	9	7.27	59616	PASS
176	174	93	101	97.49	799524	PASS
177	176	5	9	6.68	53426	PASS

Average of 16.301 to 16.350 min.: LC29IBLK.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.05	6592.0
37.00	38665.0
38.00	35208.0
39.00	14576.0
40.00	548.0
41.00	646.0
41.95	52.0
43.05	932.0
44.00	4261.0
45.00	7572.0
45.95	238.0
46.15	230.0
47.00	10516.0
47.95	4710.0
49.00	34730.0
50.00	175118.0
51.00	53342.0
52.00	2269.0
53.00	172.0
54.00	282.0
55.00	2161.0
56.00	11817.0
57.00	22842.0
58.05	913.0
59.00	107.0
60.00	6698.0
61.00	36474.0
62.00	35597.0
63.00	27595.0
64.05	2585.0
65.05	505.0
66.00	280.0
66.95	1865.0
68.00	82015.0
68.95	82187.0
70.05	5926.0
71.05	415.0
72.00	3658.0
73.00	33236.0
74.00	135350.0
75.00	412936.0
76.00	35472.0
77.00	4067.0
77.95	2791.0
78.90	20499.0
79.95	5732.0
80.90	21214.0
81.90	4029.0
82.95	358.0
83.90	22.0
84.10	17.0
84.90	18.0
85.10	58.0
86.00	846.0
87.00	33818.0
88.00	33876.0
90.95	2861.0
92.00	24910.0
93.00	39454.0
94.00	109346.0
95.00	931180.0
96.00	62229.0
97.00	2054.0
102.90	487.0
103.90	4010.0
104.90	1610.0
105.90	3827.0
106.95	857.0
108.00	117.0
108.95	115.0
109.95	625.0
110.95	937.0
111.85	598.0
112.85	805.0
114.95	1169.0
115.90	3396.0
116.90	6249.0
117.90	3718.0
118.90	5363.0
119.90	519.0
121.10	156.0
121.90	267.0
122.95	523.0
123.95	588.0
124.85	374.0
125.95	472.0
126.85	355.0

127.90	4069.0
128.95	1914.0
129.90	4010.0
130.90	1666.0
131.80	37.0
131.90	116.0
132.05	87.0
132.95	403.0
133.85	190.0
134.05	95.0
134.90	1998.0
135.85	335.0
136.90	1936.0
137.95	79.0
138.80	83.0
138.95	341.0
139.90	670.0
140.95	11586.0
141.80	69.0
141.95	1178.0
142.90	11109.0
143.90	642.0
144.95	1059.0
145.90	1587.0
146.95	817.0
147.90	2507.0
148.95	878.0
149.90	1134.0
150.10	44.0
150.95	134.0
151.95	603.0
152.95	878.0
153.90	645.0
154.95	2557.0
155.90	94.0
156.05	495.0
156.95	1960.0
157.95	173.0
158.95	1207.0
159.90	47.0
160.95	1222.0
161.80	43.0
169.90	22.0
170.50	19.0
170.90	17.0
171.30	26.0
172.00	428.0
172.95	5521.0
173.90	820139.0
174.95	59616.0
175.90	799524.0
176.90	53426.0
177.90	1516.0
179.00	36.0
193.10	292.0
206.90	92.0
207.10	104.0
269.05	123.0
270.00	18.0
271.15	56.0
281.05	89.0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Fri Mar 11 15:44:55 2016
Response Via : Initial Calibration

Calibration Files
.5 =LZ96S05.D 1 =LZ97S1.D 2 =LZ98S2.D 5 =LZ99S5.D 10 =LA00S10.D 20 =LA01S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	2.304	2.505	2.840	2.725	2.861	2.735	2.662		8.11	TC
3)		Dichlorodifluo...	6.789	8.059	9.169	8.880	9.054	8.684	8.439		10.64	
4)		Chloromethane	2.720	2.994	3.443	3.297	3.334	3.246	3.172		8.43	
5)		Freon 114	7.574	7.618	8.001	7.630	7.779	7.532	7.689		2.26	
6)		Vinyl Chloride	2.462	2.875	3.336	3.286	3.435	3.351	3.124		12.15	
7)		1,3-Butadiene	2.607	2.646	2.866	2.735	2.823	2.800	2.746		3.74	
8)		Bromomethane	2.518	3.014	3.513	3.396	3.525	3.398	3.227		12.20	
9)		Chloroethane	1.473	1.643	1.900	1.771	1.863	1.786	1.739		9.07	
10)		Acrolein	0.948	0.842	0.901	0.869	0.982	0.938	0.913		5.72	TC
11)		Acetone	5.649	5.357	5.850	5.434	5.747	5.619	5.610		3.31	
12)		Trichlorofluor...	1.018	1.017	1.066	0.980	1.005	0.960	1.008	E1	3.62	
13)		Ethanol	0.802	0.665	0.697	0.637	0.704	0.675	0.697		8.18	TC
14)		Isopropyl Alcohol	5.382	5.122	5.220	4.825	2.107	5.227	4.647		27.08	TC
15)		1,1-Dichloroet...	5.443	5.412	5.770	5.449	5.727	5.484	5.548		2.85	
16)		Methylene Chlo...	3.176	3.213	3.465	3.243	3.311	3.131	3.257		3.66	
17)		Freon 113	7.293	7.217	7.393	6.838	7.071	6.755	7.095		3.60	
18)		Carbon Disulfide	9.461	9.453	9.995	9.272	9.612	9.046	9.473		3.39	
19)		trans-1,2-Dich...	3.923	3.757	3.972	3.689	3.863	3.697	3.817		3.14	
20)		1,1-Dichloroet...	6.505	6.391	6.575	6.147	6.355	6.107	6.346		2.96	
21)		methyl t-butyl...	8.154	8.226	8.788	8.564	9.051	8.714	8.583		4.00	
22)		Vinyl Acetate	0.340	0.343	0.381	0.372	0.397	0.395	0.371		6.66	
23)		2-Butanone	6.804	7.176	7.538	7.601	8.190	8.064	7.562		6.93	
24)		cis-1,2-Dichlo...	4.026	3.939	4.168	3.964	4.151	3.960	4.035		2.51	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.115	0.119	0.119	0.126	0.128	0.131	0.123		5.15	
27)		Hexane	0.360	0.388	0.432	0.443	0.452	0.462	0.423		9.47	
28)		Chloroform	0.605	0.579	0.599	0.585	0.588	0.585	0.590		1.65	
29)		Tetrahydrofuran	0.304	0.311	0.336	0.350	0.364	0.376	0.340		8.41	
30)		1,2-Dichloroet...	0.362	0.346	0.362	0.357	0.362	0.368	0.360		2.14	

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m

31)		1,1,1-Trichlor...	0.623	0.611	0.622	0.618	0.624	0.632	0.622	1.08	
32)		Benzene	0.808	0.803	0.831	0.831	0.835	0.838	0.824	1.80	
33)		Carbon Tetrach...	0.762	0.741	0.770	0.764	0.772	0.787	0.766	1.98	
34)		Cyclohexane	0.344	0.355	0.374	0.393	0.400	0.399	0.378	6.41	
35)		1,2-Dichloropr...	0.299	0.305	0.315	0.316	0.321	0.323	0.313	3.01	
36)		Bromodichlorom...	0.620	0.609	0.628	0.624	0.639	0.644	0.627	2.05	
37)		1,4-Dioxane	0.213	0.199	0.210	0.213	0.220	0.229	0.214	4.67	TIC
38)		Trichloroethene	0.472	0.466	0.500	0.495	0.507	0.515	0.492	3.96	
39)		Methyl Methacr...	0.216	0.238	0.277	0.292	0.310	0.317	0.275	14.73	TIC
40)		Heptane	0.187	0.240	0.279	0.293	0.299	0.302	0.267	16.84	
41)		cis-1,3-Dichlo...	0.396	0.409	0.449	0.470	0.494	0.503	0.454	9.62	
42)		4-Methyl-2-Pen...	0.535	0.620	0.696	0.741	0.779	0.810	0.697	14.88	
43)		trans-1,3-Dich...	0.343	0.351	0.404	0.421	0.447	0.460	0.404	12.04	
44)		1,1,2-Trichlor...	0.339	0.352	0.380	0.382	0.392	0.397	0.374	6.14	
45)		Toluene	0.720	0.873	1.032	1.076	1.116	1.130	0.991	16.33	
46)		2-Hexanone	0.549	0.627	0.741	0.805	0.877	0.930	0.755	19.37	
47)		Dibromochlorom...	0.724	0.742	0.817	0.835	0.878	0.914	0.819	9.11	
48)		1,2-Dibromoethane	0.538	0.548	0.607	0.620	0.650	0.668	0.605	8.71	
49)		Tetrachloroethene	0.434	0.484	0.557	0.570	0.599	0.617	0.544	13.00	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.834	0.934	1.076	1.085	1.107	1.099	1.022	10.98	
52)		Ethylbenzene	1.060	1.219	1.471	1.534	1.574	1.593	1.409	15.50	
53)		m,p-Xylene	0.832	0.941	1.132	1.181	1.221	1.246	1.092	15.33	
54)		Bromoform	0.618	0.642	0.755	0.781	0.818	0.852	0.744	12.69	
55)		Styrene	0.594	0.701	0.880	0.958	1.006	1.031	0.862	20.53	
56)		1,1,2,2-Tetrac...	0.724	0.778	0.867	0.882	0.893	0.911	0.843	8.81	
57)		o-Xylene	0.845	0.963	1.168	1.224	1.265	1.308	1.129	16.31	
58)	S	Bromofluoroben...	0.565	0.560	0.578	0.586	0.590	0.600	0.580	2.62	
59)		4-Ethyl Toluene	1.158	1.343	1.634	1.723	1.784	1.822	1.577	16.95	
60)		1,3,5-Trimethy...	1.077	1.246	1.433	1.500	1.534	1.571	1.393	13.86	
61)		1,2,4-Trimethy...	0.987	1.167	1.349	1.433	1.492	1.537	1.328	15.95	
62)		Benzyl Chloride	0.606	0.714	0.885	0.993	1.091	1.178	0.911	24.20	EST
63)		m-Dichlorobenzene	0.818	0.881	1.004	1.050	1.089	1.128	0.995	12.23	
64)		p-Dichlorobenzene	0.808	0.843	0.990	1.037	1.078	1.104	0.977	12.68	
65)		o-Dichlorobenzene	0.762	0.818	0.943	0.991	1.029	1.053	0.933	12.66	
66)		1,2,4-Trichlor...	0.404	0.401	0.457	0.496	0.545	0.582	0.481	15.42	EST
67)		Naphthalene	1.050	1.067	1.252	1.369	1.472	1.535	1.291	15.81	TIC
68)		Hexachloro-1,3...	0.390	0.389	0.420	0.431	0.455	0.484	0.428	8.69	EST

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Tue Mar 15 09:23:05 2016
Response Via : Initial Calibration

CC Data File: LC31LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
1	I	Bromochloromethane	1.000	1.000	0.0	101	
2		Propene	2.662	2.865	-7.6	101	TC
3		Dichlorodifluoromethane	8.439	9.696	-14.9	108	
4		Chloromethane	3.172	2.944	7.2	89	
5		Freon 114	7.689	7.907	-2.8	102	
6		Vinyl Chloride	3.124	3.322	-6.3	97	
7		1,3-Butadiene	2.746	2.650	3.5	95	
8		Bromomethane	3.227	3.411	-5.7	98	
9		Chloroethane	1.739	1.704	2.0	92	
10		Acrolein	0.913	1.515	-65.9#	156#	TC
11		Acetone	5.610	6.135	-9.4	108	
12		Trichlorofluoromethane	10.079	10.888	-8.0	109	
13		Ethanol	0.697	1.388	-99.3#	199#	TC
14		Isopropyl Alcohol	4.647	3.688	20.6	176#	TC
15		1,1-Dichloroethene	5.548	6.234	-12.4	110	
16		Methylene Chloride	3.257	3.432	-5.4	104	
17		Freon 113	7.095	7.861	-10.8	112	
18		Carbon Disulfide	9.473	10.044	-6.0	105	
19		trans-1,2-Dichloroethene	3.817	4.102	-7.5	107	
20		1,1-Dichloroethane	6.346	6.969	-9.8	111	
21		methyl t-butyl ether	8.583	10.264	-19.6	114	
22		Vinyl Acetate	0.371	1.101	-196.8#	280#	
23		2-Butanone	7.562	8.355	-10.5	103	
24		cis-1,2-Dichloroethene	4.035	4.387	-8.7	107	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	
26		Ethyl Acetate	0.123	0.101	18.1	77	
27		Hexane	0.423	0.481	-13.7	104	
28		Chloroform	0.590	0.659	-11.6	110	
29		Tetrahydrofuran	0.340	0.393	-15.5	106	
30		1,2-Dichloroethane	0.360	0.436	-21.3	118	
31		1,1,1-Trichloroethane	0.622	0.743	-19.5	117	
32		Benzene	0.824	0.888	-7.7	104	
33		Carbon Tetrachloride	0.766	0.907	-18.4	115	
34		Cyclohexane	0.378	0.423	-12.1	104	
35		1,2-Dichloropropane	0.313	0.354	-12.9	108	
36		Bromodichloromethane	0.627	0.716	-14.1	110	
37		1,4-Dioxane	0.214	0.268	-25.3	120	TC
38		Trichloroethene	0.492	0.566	-14.9	110	
39		Methyl Methacrylate	0.275	0.330	-19.9	104	TC
40		Heptane	0.267	0.314	-17.8	103	
41		cis-1,3-Dichloropropene	0.454	0.557	-22.7	111	
42		4-Methyl-2-Pentanone	0.697	0.824	-18.2	104	
43		trans-1,3-Dichloropropene	0.404	0.526	-30.0	115	
44		1,1,2-Trichloroethane	0.374	0.419	-12.1	105	

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Tue Mar 15 09:23:05 2016
Response Via : Initial Calibration

CC Data File: LC31LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
45		Toluene	0.991	1.166	-17.7	103	
46		2-Hexanone	0.755	1.041	-37.9#	117	
47		Dibromochloromethane	0.819	0.983	-20.1	110	
48		1,2-Dibromoethane	0.605	0.711	-17.5	107	
49		Tetrachloroethene	0.544	0.659	-21.2	108	
50	I	Chlorobenzene d5	1.000	1.000	0.0	95	
51		Chlorobenzene	1.022	1.190	-16.4	103	
52		Ethylbenzene	1.409	1.695	-20.4	103	
53		m,p-Xylene	1.092	1.297	-18.7	101	
54		Bromoform	0.744	0.942	-26.6	110	
55		Styrene	0.862	1.087	-26.2	103	
56		1,1,2,2-Tetrachloroethane	0.843	0.895	-6.3	96	
57		o-Xylene	1.129	1.328	-17.6	100	
58	S	Bromofluorobenzene	0.580	0.581	-0.2	94	
59		4-Ethyl Toluene	1.577	1.932	-22.5	103	
60		1,3,5-Trimethylbenzene	1.393	1.650	-18.4	103	
61		1,2,4-Trimethylbenzene	1.328	1.621	-22.1	104	
62		Benzyl Chloride	0.911	1.413	-55.1#	124	EST
63		m-Dichlorobenzene	0.995	1.215	-22.1	106	
64		p-Dichlorobenzene	0.977	1.207	-23.5	107	
65		o-Dichlorobenzene	0.933	1.134	-21.6	105	
66		1,2,4-Trichlorobenzene	0.481	0.631	-31.1#	110	EST
67		Naphthalene	1.291	1.673	-29.6	108	TIC
68		Hexachloro-1,3-butadiene	0.428	0.524	-22.4	110	EST

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response Via : Initial Calibration

Calibration Files
50 =LC14S005.D 100 =LC13S01.D 200 =LC12S02.D 500 =LC11S05.D
1000=LC20S1.D

		Compound	50	100	200	500	1000	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	1.062	0.422	0.330	0.262	0.267	0.469	E1	72.12
3)		Dichlorodifluoro...	9.952	9.246	9.219	8.378	9.001	9.159		6.16
4)		Chloromethane	1.047	3.244	3.196	2.908	3.231	2.725		34.79
5)		Freon 114	8.390	7.618	7.615	6.845	7.303	7.554		7.46
6)		Vinyl Chloride	3.211	3.071	3.075	2.814	2.981	3.030		4.83
7)		1,3-Butadiene	2.524	2.390	2.321	2.125	2.224	2.317		6.60
8)		Bromomethane	3.467	3.339	3.331	2.999	3.301	3.287		5.27
9)		Chloroethane	1.699	1.553	1.627	1.445	1.617	1.588		6.01
10)		Acrolein	1.689	1.445	1.544	1.371	1.387	1.487		8.86
11)		Acetone	1.379	1.165	0.937	0.769	0.810	1.012	E1	25.36
12)		Trichlorofluorom...	1.351	1.200	1.181	1.060	1.149	1.188	E1	8.89
13)		Ethanol	2.955	2.729	2.184	1.946	2.212	2.405		17.45
14)		Isopropyl Alcohol	3.253	2.322	2.075	1.867	0.082	1.920	E1	60.21
15)		1,1-Dichloroethene	6.859	6.093	6.159	5.626	5.847	6.117		7.61
16)		Methylene Chloride	4.151	3.747	3.656	3.289	3.628	3.694		8.35
17)		Freon 113	9.232	8.237	8.115	7.293	7.819	8.139		8.74
18)		Carbon Disulfide	1.363	1.161	1.117	0.997	1.067	1.141	E1	12.11
19)		trans-1,2-Dichlo...	4.755	3.970	3.942	3.553	3.684	3.981		11.73
20)		1,1-Dichloroethane	8.026	7.267	7.117	6.435	6.913	7.152		8.12
21)		methyl t-butyl e...	9.088	8.218	8.442	8.012	8.165	8.385		5.04
22)		Vinyl Acetate	0.945	0.830	0.858	0.833	0.857	0.864		5.43
23)		2-Butanone	8.853	7.901	7.967	7.492	7.841	8.011		6.31
24)		cis-1,2-Dichloro...	4.643	4.094	4.129	3.775	4.026	4.133		7.66
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.113	0.106	0.107	0.103	0.114	0.108		4.21
27)		Hexane	0.559	0.527	0.537	0.516	0.547	0.537		3.12
28)		Chloroform	0.960	0.882	0.868	0.793	0.882	0.877		6.74
29)		Tetrahydrofuran	0.459	0.476	0.519	0.507	0.522	0.497		5.57
30)		1,2-Dichloroethane	0.601	0.564	0.541	0.489	0.527	0.544		7.65
31)		1,1,1-Trichloroe...	1.075	0.986	0.976	0.888	0.967	0.979		6.81
32)		Benzene	1.456	1.238	1.146	1.038	1.125	1.200		13.30
33)		Carbon Tetrachlo...	1.306	1.184	1.167	1.071	1.175	1.181		7.10
34)		Cyclohexane	0.453	0.468	0.466	0.417	0.453	0.451		4.59
35)		1,2-Dichloropropane	0.482	0.449	0.442	0.407	0.442	0.444		6.01
36)		Bromodichloromet...	1.003	0.936	0.920	0.846	0.935	0.928		6.02
37)		1,4-Dioxane	0.329	0.273	0.264	0.243	0.248	0.271		12.63
38)		Trichloroethene	0.703	0.655	0.650	0.604	0.643	0.651		5.44
39)		Methyl Methacrylate	0.347	0.042	0.299	0.300	0.037	0.205		74.41
40)		Heptane	0.320	0.305	0.330	0.327	0.365	0.329		6.75
41)		cis-1,3-Dichloro...	0.678	0.639	0.584	0.562	0.596	0.612		7.58
42)		4-Methyl-2-Penta...	0.883	0.849	0.910	0.902	1.005	0.910		6.41
43)		trans-1,3-Dichlo...	0.544	0.505	0.517	0.500	0.534	0.520		3.61
44)		1,1,2-Trichloroe...	0.592	0.543	0.541	0.499	0.558	0.547		6.15

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM

45)		Toluene	1.337	1.243	1.283	1.226	1.325	1.283	3.81
46)		2-Hexanone	0.682	0.739	0.768	0.781	0.852	0.764	8.11
47)		Dibromochloromet...	1.229	1.141	1.132	1.060	1.193	1.151	5.61
48)		1,2-Dibromoethane	0.888	0.823	0.827	0.779	0.867	0.837	5.03
49)		Tetrachloroethene	0.920	0.833	0.812	0.752	0.802	0.824	7.46
50)	I	Chlorobenzene d5	----------ISTD----------						
51)		Chlorobenzene	1.618	1.548	1.549	1.423	1.567	1.541	4.68
52)		Ethylbenzene	1.851	1.868	1.948	1.907	2.088	1.932	4.90
53)		m,p-Xylene	1.313	1.359	1.463	1.485	1.720	1.468	10.76
54)		Bromoform	1.158	1.054	0.995	0.917	1.093	1.043	8.82
55)		Styrene	0.951	0.982	1.047	1.080	1.214	1.055	9.73
56)		1,1,2,2-Tetrachl...	1.479	1.390	1.391	1.296	1.542	1.420	6.63
57)		o-Xylene	1.417	1.452	1.590	1.611	1.893	1.593	11.79
58)	S	Bromofluorobenzene	0.347	0.367	0.369	0.385	0.395	0.373	4.97
59)		4-Ethyl Toluene	1.674	1.704	1.855	1.970	2.220	1.885	11.81
60)		1,3,5-Trimethylb...	1.573	1.632	1.824	1.941	2.299	1.854	15.61
61)		1,2,4-Trimethylb...	1.538	1.483	1.623	1.668	1.986	1.660	11.80
62)		Benzyl Chloride	1.269	1.343	1.434	1.424	1.697	1.434	11.28
63)		m-Dichlorobenzene	1.409	1.400	1.477	1.438	1.672	1.479	7.56
64)		p-Dichlorobenzene	1.396	1.450	1.536	1.508	1.676	1.513	6.98
65)		o-Dichlorobenzene	1.496	1.440	1.457	1.427	1.615	1.487	5.12
66)		1,2,4-Trichlorob...	0.701	0.669	0.673	0.665	0.763	0.694	5.90
67)		Naphthalene	1.450	1.433	1.532	1.631	1.934	1.596	12.82
68)		Hexachloro-1,3-b...	0.911	0.842	0.825	0.755	0.858	0.838	6.75

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response Via : Initial Calibration

CC Data File: LC48S05.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
1	I	Bromochloromethane	1.000	1.000	0.0	115
2		Propene	4.685	2.702	42.3#	119
3		Dichlorodifluoromethane	9.159	9.030	1.4	124
4		Chloromethane	2.725	2.978	-9.3	118
5		Freon 114	7.554	8.002	-5.9	135
6		Vinyl Chloride	3.030	3.043	-0.4	125
7		1,3-Butadiene	2.317	2.267	2.2	123
8		Bromomethane	3.287	3.232	1.7	124
9		Chloroethane	1.588	1.524	4.1	122
10		Acrolein	1.487	1.540	-3.5	130
11		Acetone	10.120	8.501	16.0	127
12		Trichlorofluoromethane	11.883	11.691	1.6	127
13		Ethanol	2.405	2.080	13.5	123
14		Isopropyl Alcohol	19.197	0.848	95.6#	5#
15		1,1-Dichloroethene	6.117	6.311	-3.2	129
16		Methylene Chloride	3.694	3.595	2.7	126
17		Freon 113	8.139	8.626	-6.0	136
18		Carbon Disulfide	11.410	10.703	6.2	124
19		trans-1,2-Dichloroethene	3.981	4.194	-5.4	136
20		1,1-Dichloroethane	7.152	7.110	0.6	127
21		methyl t-butyl ether	8.385	9.964	-18.8	143
22		Vinyl Acetate	0.864	1.039	-20.2	144
23		2-Butanone	8.011	8.431	-5.2	130
24		cis-1,2-Dichloroethene	4.133	4.417	-6.9	135
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	119
26		Ethyl Acetate	0.108	0.114	-5.4	132
27		Hexane	0.537	0.594	-10.6	137
28		Chloroform	0.877	0.846	3.5	127
29		Tetrahydrofuran	0.497	0.558	-12.4	131
30		1,2-Dichloroethane	0.544	0.533	2.0	130
31		1,1,1-Trichloroethane	0.979	0.975	0.4	131
32		Benzene	1.200	1.170	2.6	134
33		Carbon Tetrachloride	1.181	1.147	2.8	128
34		Cyclohexane	0.451	0.517	-14.6	148
35		1,2-Dichloropropane	0.444	0.439	1.1	129
36		Bromodichloromethane	0.928	0.905	2.5	127
37		1,4-Dioxane	0.271	0.286	-5.5	141
38		Trichloroethene	0.651	0.706	-8.5	139
39		Methyl Methacrylate	0.205	0.360	-75.7#	143
40		Heptane	0.329	0.386	-17.3	141
41		cis-1,3-Dichloropropene	0.612	0.656	-7.2	139
42		4-Methyl-2-Pentanone	0.910	1.017	-11.8	134
43		trans-1,3-Dichloropropene	0.520	0.592	-13.8	141
44		1,1,2-Trichloroethane	0.547	0.542	0.9	129

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response Via : Initial Calibration

CC Data File: LC48S05.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
45		Toluene	1.283	1.475	-15.0	143
46		2-Hexanone	0.764	0.931	-21.8	142
47		Dibromochloromethane	1.151	1.173	-1.9	132
48		1,2-Dibromoethane	0.837	0.885	-5.8	135
49		Tetrachloroethene	0.824	0.880	-6.8	139
50	I	Chlorobenzene d5	1.000	1.000	0.0	120
51		Chlorobenzene	1.541	1.671	-8.4	141
52		Ethylbenzene	1.932	2.337	-20.9	147
53		m,p-Xylene	1.468	3.563	-142.7#	144
54		Bromoform	1.043	1.003	3.9	131
55		Styrene	1.055	1.365	-29.4	152#
56		1,1,2,2-Tetrachloroethane	1.420	1.372	3.3	127
57		o-Xylene	1.593	1.904	-19.5	142
58	S	Bromofluorobenzene	0.373	0.410	-10.0	128
59		4-Ethyl Toluene	1.885	2.557	-35.7#	156#
60		1,3,5-Trimethylbenzene	1.854	2.377	-28.2	147
61		1,2,4-Trimethylbenzene	1.660	2.117	-27.6	152#
62		Benzyl Chloride	1.434	1.791	-24.9	151#
63		m-Dichlorobenzene	1.479	1.699	-14.8	142
64		p-Dichlorobenzene	1.513	1.791	-18.3	143
65		o-Dichlorobenzene	1.487	1.713	-15.2	144
66		1,2,4-Trichlorobenzene	0.694	0.865	-24.6	156#
67		Naphthalene	1.596	2.219	-39.0#	163#
68		Hexachloro-1,3-butadiene	0.838	0.914	-9.1	146

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1607459**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and μg/m³.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: 1607440002 was also analyzed at 1:10 dilution for methylene chloride.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range. In the analyst opinion the high level of carbon dioxide in sample 1607459003 caused a shift in the RRT.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{A_x}{A_{is}}\right]\left[\frac{C_{is}}{C_x}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{(A_x)\,(I_s)\,(Df)}{(A_{is})\,(RRF)}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1607459 (SIM)**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received three summa canisters for VOA analysis. The samples were analyzed within fourteen days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and μg/m³.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 50 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene calibration is not required for SIM analysis.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 50 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\ (I_s)\ (Df)}}{\mathbf{(A_{is})\ (RRF)}}\right]$$

Concentration in ug/m^3 : $$C = \mathbf{ppb\ v/v\ (MW/24.45)}$$

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ANALYTICAL REPORT

Report Date: March 28, 2016

CH2MHill Deliverables
CH2MHill
4246 South Riverboat Road
Suite 210
Salt Lake City, UT 84123

Phone: (385) 474-8553
Fax: (385) 474-8653
E-mail: edata@ch2m.com

Workorder: **34-1607459**
Project ID: 665353.ZZ.01.04/10006-7-104589
Purchase Order: 665353.ZZ.01.04
Project Manager Kevin W. Griffiths

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0037H-030816-IA-LAU	1607459001	03/08/16	03/14/16	1006-7-104589
A-0040H-031216-IA-KIT	1607459002	03/12/16	03/14/16	1006-7-104589
A-0040H-031216-IA-BAS-D	1607459003	03/12/16	03/14/16	1006-7-104589

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-030816-IA-LAU | Sampling Site: 1006-7-104589 | Collected: 03/08/2016
Lab ID: 1607459001 | Media: Summa 6 Liter Canister | Received: 03/14/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable | Analysis: EPA TO-15 SIM, Air | Instrument ID: 5975-L
Batch: IVOA/3205 (HBN: 166464) | Percent Solid: NA
Analyzed: 03/15/2016 14:54 | Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**0.59**	**4.0**	0.050	1	
1,4-Dioxane	**0.051**	**0.18**	0.050	1	

Analysis Method - EPA TO-15

Preparation: Not Applicable | Analysis: EPA TO-15, Air | Instrument ID: 5975-L
Batch: IVOA/3206 (HBN: 166496) | Percent Solid: NA
Analyzed: 03/21/2016 16:10 | Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	0.42	2.1	0.15	0.50	1	J
Chloromethane	**0.82**	**1.7**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.18	0.99	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**7.2**	**17**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.17	0.60	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.45	1.3	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.22	0.79	0.15	1.0	1	J
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.3	0.96	0.15	0.50	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0037H-030816-IA-LAU
Lab ID: 1607459001
Matrix: Air
Sampling Site: 1006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/08/2016
Received: 03/14/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3206 (HBN: 166496)
Analyzed: 03/21/2016 16:10
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Cyclohexane	0.17	0.60	0.15	0.50	1	J
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**0.92**	**3.5**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.27	1.2	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0040H-031216-IA-KIT
Lab ID: 1607459002
Matrix: Air
Sampling Site: 1006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/12/2016
Received: 03/14/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3205 (HBN: 166464)
Analyzed: 03/15/2016 15:44
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	**0.098**	**0.39**	0.050	1	
Trichloroethene	**0.79**	**4.3**	0.050	1	
Tetrachloroethene	**8.7**	**59**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3206 (HBN: 166496)
Analyzed: 03/21/2016 17:49
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.54**	**2.7**	0.15	0.50	1	
Chloromethane	**1.6**	**3.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	**0.65**	**1.4**	0.15	0.50	1	
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.35	1.9	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**17**	**41**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**3.0**	**8.9**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.36	1.3	0.15	1.0	1	J
Hexane	**1.2**	**4.2**	0.15	0.50	1	
Chloroform	**0.93**	**4.5**	0.15	0.50	1	
Tetrahydrofuran	**4.9**	**15**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	0.21	1.1	0.15	0.50	1	J
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.80**	**2.6**	0.15	0.50	1	
Cyclohexane	0.21	0.71	0.15	0.50	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0040H-031216-IA-KIT | Sampling Site: 1006-7-104589 | Collected: 03/12/2016
Lab ID: 1607459002 | Media: Summa 6 Liter Canister | Received: 03/14/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3206 (HBN: 166496) | **Percent Solid:** NA
Analyzed: 03/21/2016 17:49 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.43	1.8	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.37	1.5	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**4.4**	**16**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.42	1.8	0.15	0.50	1	J
m,p-Xylene	**1.6**	**7.0**	0.15	0.50	1	
o-Xylene	0.46	2.0	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.22	1.1	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.19	0.93	0.15	0.50	1	J
1,2,4-Trimethylbenzene	**0.73**	**3.6**	0.15	0.50	1	
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3206 (HBN: 166496) | **Percent Solid:** NA
Analyzed: 03/21/2016 18:36 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Methylene chloride	**74**	**260**	1.5	5.0	10	

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0040H-031216-IA-BAS-D | Sampling Site: 1006-7-104589 | Collected: 03/12/2016
Lab ID: 1607459003 | Media: Summa 6 Liter Canister | Received: 03/14/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15 SIM, Air | **Batch:** IVOA/3205 (HBN: 166464) | **Analyzed:** 03/15/2016 16:34 | **Instrument ID:** 5975-L | **Percent Solid:** NA | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	**0.15**	**0.58**	0.050	1	
Trichloroethene	**1.0**	**5.4**	0.050	1	E
Tetrachloroethene	**12**	**78**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

Analysis Method - EPA TO-15

Preparation: Not Applicable | **Analysis:** EPA TO-15, Air | **Batch:** IVOA/3206 (HBN: 166496) | **Analyzed:** 03/21/2016 19:28 | **Instrument ID:** 5975-L | **Percent Solid:** NA | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	**1.3**	**2.7**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	ND	<0.84	0.15	0.50	1	U
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**16**	**38**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	ND	<0.52	0.15	0.50	1	U
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**2.6**	**7.5**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	**1.1**	**3.9**	0.15	0.50	1	
Chloroform	**0.95**	**4.6**	0.15	0.50	1	
Tetrahydrofuran	**4.9**	**14**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	0.24	1.3	0.15	0.50	1	J
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.70**	**2.2**	0.15	0.50	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0040H-031216-IA-BAS-D | Sampling Site: 1006-7-104589 | Collected: 03/12/2016
Lab ID: 1607459003 | Media: Summa 6 Liter Canister | Received: 03/14/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3206 (HBN: 166496)
Analyzed: 03/21/2016 19:28
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.4	1.6	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**3.9**	**15**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.36	1.6	0.15	0.50	1	J
m,p-Xylene	**1.4**	**6.2**	0.15	0.50	1	
o-Xylene	0.4	1.7	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	0.2	0.96	0.15	1.0	1	J
1,3,5-Trimethylbenzene	0.18	0.87	0.15	0.50	1	J
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Comments

Sample: 1607459003

In the analysts opinion the high level of carbon dioxide in this sample caused a shift in the RRT.

Quality Control: EPA TO-15 - (HBN: 166496)

The following compound in the CCV was outside of +/- 30%:Vinyl Acetate.

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 03/28/2016 13:14	/S/ Jorden Baum 03/28/2016 14:41

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1607459
Client: CH2M
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607459

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3205 (HBN: 166464)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 493686
Analyzed: 03/15/2016 12:55
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500
1,4-Dioxane	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 493687
Analyzed: 03/15/2016 10:32
Dilution: 1
Units: ppb

LCSD: 493688
Analyzed: 03/15/2016 11:20
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.502	0.500	100	17.5	153.7	0.511	102	1.82	0.0	25.0
cis-1,2-Dichloroethene	0.534	0.500	107	65.2	131.2	0.532	106	0.507	0.0	25.0
Trichloroethene	0.542	0.500	108	68.4	123.4	0.517	103	4.84	0.0	25.0
Tetrachloroethene	0.534	0.500	107	63.6	127.9	0.509	102	4.74	0.0	25.0
1,4-Dioxane	0.528	0.500	106	70.0	130.0	0.484	96.9	8.55	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
493687-LCS	1.10	1.00	110
493688-LCSD	1.07	1.00	107
493686-MB	0.982	1.00	98.2
1607459001	1.03	1.00	103
1607459002	1.12	1.00	112
1607459003	1.10	1.00	110

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1607459**

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3205 (HBN: 166464)		
Analyzed By:	Lisa M. Reid		

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
03/28/2016 11:48	03/28/2016 14:41

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607459

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3206 (HBN: 166496)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 493766
Analyzed: 03/21/2016 11:52

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500
2-Hexanone	ND	0.3	1.00
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607459

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3206 (HBN: 166496)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 493766
Analyzed: 03/21/2016 11:52
Units: ppb

Analyte	Result	MDL	RL
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
1,2-Dichlorobenzene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 493767
Analyzed: 03/21/2016 10:14
Dilution: 1
Units: ppb

LCSD: 493768
Analyzed: 03/21/2016 11:03
Dilution: 1
Units: ppb

Analyte	LCS Result	Target	% Rec	QC Limits		LCSD Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	11.3	10.0	113	59.3	135.1	11.4	114	0.415	0.0	25.0
Chloromethane	10.5	10.0	105	55.2	137.4	10.4	104	1.35	0.0	25.0
Freon 114	10.1	10.0	101	64.6	128.0	10.2	102	0.847	0.0	25.0
1,3-Butadiene	10.1	10.0	101	58.0	138.3	10.2	102	0.611	0.0	25.0
Bromomethane	11.1	10.0	111	63.3	129.9	11.0	110	0.363	0.0	25.0
Chloroethane	10.4	10.0	104	57.6	137.1	10.3	103	0.617	0.0	25.0
Freon 11	10.6	10.0	106	58.9	132.8	10.6	106	0.473	0.0	25.0
Freon 113	10.1	10.0	101	68.5	120.0	10.1	101	0.327	0.0	25.0
1,1-Dichloroethene	10.7	10.0	107	67.2	125.1	10.7	107	0.327	0.0	25.0
Acetone	10.5	10.0	105	42.5	146.0	10.3	103	1.91	0.0	25.0
Carbon disulfide	10.3	10.0	103	63.9	128.8	10.2	102	0.999	0.0	25.0
Methylene chloride	10.1	10.0	101	63.7	127.9	9.98	99.8	1.23	0.0	25.0
trans-1,2-Dichloroethene	9.93	10.0	99.3	68.1	124.6	9.85	98.5	0.821	0.0	25.0
Methyl t-butyl ether	10.7	10.0	107	60.8	138.0	10.5	105	1.26	0.0	25.0
Vinyl acetate	26.7	10.0	* 267	59.3	141.1	26.1	* 261	2.30	0.0	25.0
2-Butanone	10.9	10.0	109	51.7	144.2	10.6	106	2.88	0.0	25.0
1,1-Dichloroethane	10.4	10.0	104	67.7	123.6	10.2	102	1.67	0.0	25.0
Ethyl acetate	7.51	10.0	75.1	53.4	156.9	7.62	76.2	1.44	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1607459

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3206 (HBN: 166496)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 493767 Analyzed: 03/21/2016 10:14 Dilution: 1 Units: ppb					LCSD: 493768 Analyzed: 03/21/2016 11:03 Dilution: 1 Units: ppb				
Analyte	**Result**	**Target**	**% Rec**	**QC Limits**		**Result**	**% Rec**	**RPD**	**QC Limits**	
Hexane	10.9	10.0	109	62.4	129.5	10.9	109	0.128	0.0	25.0
Chloroform	10.3	10.0	103	67.3	121.8	10.3	103	0.185	0.0	25.0
Tetrahydrofuran	10.8	10.0	108	50.6	155.3	8.25	82.5	* 27.1	0.0	25.0
1,2-Dichloroethane	11.1	10.0	111	62.4	130.5	11.1	111	0.361	0.0	25.0
1,1,1-Trichloroethane	10.9	10.0	109	60.4	127.7	10.9	109	0.156	0.0	25.0
Carbon tetrachloride	10.9	10.0	109	58.2	130.6	10.9	109	0.385	0.0	25.0
Benzene	9.91	10.0	99.1	64.1	127.3	9.86	98.6	0.496	0.0	25.0
Cyclohexane	10.3	10.0	103	61.9	123.6	10.3	103	0.310	0.0	25.0
1,2-Dichloropropane	10.5	10.0	105	60.7	130.6	10.4	104	0.230	0.0	25.0
Bromodichloromethane	10.7	10.0	107	62.9	128.3	10.7	107	0.0187	0.0	25.0
Heptane	11.2	10.0	112	59.5	133.4	11.2	112	0.286	0.0	25.0
cis-1,3-Dichloropropene	11.3	10.0	113	64.1	133.6	11.2	112	1.04	0.0	25.0
4-Methyl-2-pentanone	11.8	10.0	118	73.5	150.0	11.7	117	0.468	0.0	25.0
trans-1,3-Dichloropropene	11.7	10.0	117	78.5	148.7	11.8	118	0.485	0.0	25.0
1,1,2-Trichloroethane	10.4	10.0	104	65.0	126.6	10.5	105	0.583	0.0	25.0
Toluene	11.0	10.0	110	75.6	139.4	11.2	112	1.07	0.0	25.0
2-Hexanone	10.9	10.0	109	80.8	158.8	11.2	112	3.35	0.0	25.0
Dibromochloromethane	11.0	10.0	110	62.4	130.9	11.1	111	0.497	0.0	25.0
1,2-Dibromoethane	11.0	10.0	110	64.4	129.0	11.0	110	0.617	0.0	25.0
Chlorobenzene	9.58	10.0	95.8	62.8	126.9	9.56	95.6	0.121	0.0	25.0
Ethyl benzene	10.1	10.0	101	75.9	148.5	10.1	101	0.367	0.0	25.0
m,p-Xylene	20.4	20.0	102	73.7	144.9	20.2	101	0.606	0.0	25.0
o-Xylene	10.2	10.0	102	74.7	147.4	10.2	102	0.677	0.0	25.0
Styrene	10.4	10.0	104	75.9	158.1	10.4	104	0.211	0.0	25.0
Bromoform	9.80	10.0	98.0	59.7	136.0	9.82	98.2	0.227	0.0	25.0
1,1,2,2-Tetrachloroethane	9.50	10.0	95.0	59.3	134.8	9.45	94.5	0.532	0.0	25.0
4-Ethyl toluene	10.3	10.0	103	69.0	163.3	10.2	102	0.420	0.0	25.0
1,3,5-Trimethylbenzene	10.0	10.0	100	64.2	155.1	9.95	99.5	0.664	0.0	25.0
1,2,4-Trimethylbenzene	10.2	10.0	102	59.7	169.4	10.1	101	0.874	0.0	25.0
1,3-Dichlorobenzene	10.1	10.0	101	58.6	157.6	9.97	99.7	1.21	0.0	25.0
1,4-Dichlorobenzene	10.1	10.0	101	57.7	137.2	10.0	100	0.892	0.0	25.0
1,2-Dichlorobenzene	10.0	10.0	100	56.5	140.0	9.97	99.7	0.528	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1607459**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3206 (HBN: 166496)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene		
QC Limits	67.7	129.9	
Units	ppb		
Lab ID	**Result**	**Target**	**% Recovery**
493767-LCS	22.9	20.0	114
493768-LCSD	22.9	20.0	114
493766-MB	22.4	20.0	112
1607459001	22.8	20.0	114
1607459002	22.7	20.0	113
1607459002	22.7	20.0	114
1607459003	22.4	20.0	112

Comments

The following compound in the CCV was outside of +/- 30%:Vinyl Acetate.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
03/28/2016 13:14	03/28/2016 14:41

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1607459

1607459

›nmental
-of-Custody Record

CoC #: 002

Page 1 of 1

Client Name & Address:	Project Name & No.:
CHZM HILL 4248 S Riverboat Rd, Suite 210 Taylorsville, UT 84123	665353.ZZ.01.04
	ALS Quote No: 10006-7-104589
	Report to: Mark Cichy
Phone: 385-474-8505	Report to e-mail: mark.cichy@chzm.com
e-mail: Quin.bingham@chzm.com	Bill to: 665353.ZZ.01.04

Matrix Codes: W) Water, B) Bulk, L) Liquid, F) Filter, S) Soil, G) Wipe, O) Solid, M) Media, A) Air (indoor)
Preservation Codes: 1) Cool to 4°C; 2) HCl to pH<2, 4°C; 3) H_2SO_4 to pH<2, 4°C; 4) HNO_3 to pH<2, 4°C; 5) NaOH to pH>12, 4°C; 6) ZnOAc/NaOH to pH>9, 4°C

Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample for Matrix QC	Analyses Requested: TO-15 ★	Analyses Requested: TAT	Preservation Code	Sample Matrix Code	Remarks
A-0037H-030816-IA-LAU	3/8/16	0745	/	Canister 0370	1			14		A	Final P=-0.71 inHg
A-0040H-031216-IA-KIT	3/12/16	1238	/	Canister 0162	1			14		A	Final P=-1.26 inHg
A-0040H-031216-IA-BAS	3/12/16	1238	/	Canister 0086	1			3 ← RUSH		A	Final P=-0.26 inHg
A-0040H-031216-IA-BAS-D	3/12/16	1238	/	Canister 0114	1			14		A	Final P=-0.17 inHg

Possible Hazard Identification
☒ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive ____ Months
☒ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☒ Level 4
EDD Type: Lab spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☐ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/14/16	1204		03/14/16	12:07
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

ALSCoC 121013 ★=4C, CIS1,2DCE, TCE, PCE, 1,1,1-TCA, CCl4, Propylene (see LL7-4...) 12/12/2013

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]	RL [(c)] (µg/m³)	Soil Gas Method	Screening Level[b]	Lowest Screening Level Value (µg/m³) [b]	RL [(c)] (µg/m³)
1,1,1-Trichloroethane	71-55-6	TO-15	EPA RSL	520	2.7	TO-15	VISL	520	2.7
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042	3.4	TO-15	VISL	0.42	3.4
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15	2.7	TO-15	VISL	0.21	2.7
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100	3.8	TO-15	VISL	34,000	3.8
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5	2.0	TO-15	VISL	15	2.0
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21	2.0	TO-15	VISL	210	2.0
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73	2.5	TO-15	VISL	7.3	2.5
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041	3.8	TO-15	VISL	0.041	3.8
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21	6.0	TO-15	VISL	210	6.0
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094	2.0	TO-15	VISL	0.94	2.0
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24	2.3	TO-15	VISL	2.4	2.3
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100	3.5	TO-15	VISL	31,000	3.5
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73	2.5	TO-15	VISL	7.3	2.5
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081	1.1	TO-15	VISL	0.81	1.1
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21	3.0	TO-15	VISL	210	3.0
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22	3.0	TO-15	VISL	2.2	3.0
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49	0.72	TO-15	VISL	4.9	7.2
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520	0.15	TO-15	VISL	5,200	0.15
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1	4.0	TO-15	VISL	31	4.0
4-Ethyltoluene	622-96-8	TO-15	–	--	2.5	TO-15	VISL	--	2.5
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310	2.0	TO-15	VISL	3,100	2.0
Acetone	67-64-1	TO-15	EPA RSL	3,200	1.2	TO-15	VISL	32,000	1.2
Benzene	71-43-2	TO-15	EPA RSL	0.31	1.6	TO-15	VISL	3.1	1.6
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066	3.4	TO-15	VISL	0.66	3.4

FINAL

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]	RL [(c)] (µg/m³)	Soil Gas Method	Screening Level[b]	Lowest Screening Level Value (µg/m³) [b]	RL [(c)] (µg/m³)
trans-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61	2.3	TO-15	VISL	6.1	2.3
Trichloroethene	79-01-6	TO-15 SIM	EPA RSL	0.21	0.27	TO-15	VISL	0.42	2.7
Trichlorofluoromethane (Freon 11)	75-69-4	TO-15	EPA RSL	73	2.8	TO-15	VISL	730	2.8
Vinyl Acetate	108-05-4	TO-15	EPA RSL	21	1.8	TO-15	VISL	210	1.8
Vinyl Chloride	75-01-4	TO-15 SIM	EPA RSL	0.16	0.13	TO-15	VISL	1.6	1.3

[a] RSLs for residential exposure. RSLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[b] Residential VISLs using an attenuation factor (AF) of 0.1. VISLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[c] RLs are from ALS Global – Salt Lake City
Notes:
µg/m³ = micrograms per cubic meter.
RL= Reporting limit.

Analyst Notebook

1664916

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist 1607459
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LG116 (HBN 1641866)

The following compounds in the CCS were outside of +-30%: Vinyl Acetate

Dilutions: 1607459002 = 1:10 DIL for Methylene Chloride

In the analyst opinion the high level of CO_2 in sample 1607459003 caused a shift in the RRT. Sample will not be reanalyzed

Analyst Signature: 03-28-16

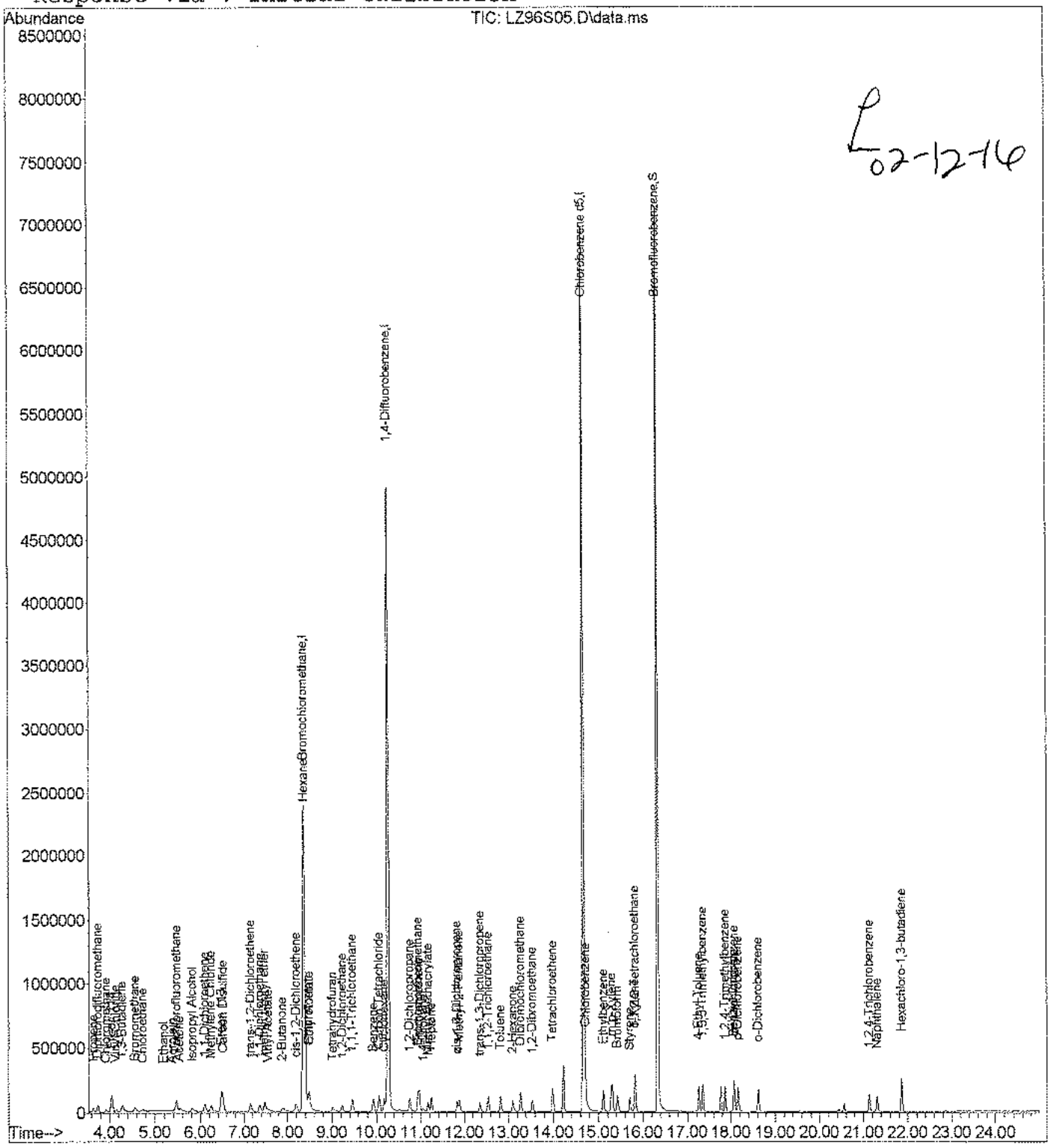
ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	483456	20.0000	ppb		67.97
25) 1,4-Difluorobenzene	10.27	114	6261074	20.0000	ppb		84.46
50) Chlorobenzene d5	14.67	117	5559437	20.0000	ppb		86.26
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3142950	20.9575	ppb		104.79%
Target Compounds							Qvalue
2) Propene	3.64	41	27851	0.5264	ppb	m	15
3) Dichlorodifluoromethane	3.74	85	82057	0.5277	ppb	m	91
4) Chloromethane	3.93	50	32873	0.5729	ppb	m	92
5) Freon 114	4.05	135	91544	0.6822	ppb	m	0
6) Vinyl Chloride	4.15	62	29755	0.4916	ppb	m	0
7) 1,3-Butadiene	4.28	54	31513	0.6400	ppb	m	0
8) Bromomethane	4.57	94	30436	0.4903	ppb	m	0
9) Chloroethane	4.74	64	17805	0.5457	ppb	m	0
10) Acrolein	5.39	56	11456	0.4988	ppb	m	23
11) Acetone	5.55	43	68282	0.6322	ppb		90
12) Trichlorofluoromethane	5.47	101	123068	0.7179	ppb	m	0
13) Ethanol	5.19	45	9699	0.3972	ppb	m	59
14) Isopropyl Alcohol	5.82	45	65049	0.5613	ppb	#	84
15) 1,1-Dichloroethene	6.11	61	65785	0.6794	ppb	m	0
16) Methylene Chloride	6.24	84	38391	0.6654	ppb	m	41
17) Freon 113	6.48	151	88151	0.7256	ppb	m	0
18) Carbon Disulfide	6.52	76	114355	0.7051	ppb	m	0
19) trans-1,2-Dichloroethene	7.15	96	47412	0.7519	ppb	m	0
20) 1,1-Dichloroethane	7.37	63	78620	0.7314	ppb		96
21) methyl t-butyl ether	7.47	73	98557	0.6684	ppb	#	83
22) Vinyl Acetate	7.57	86	4107	0.2708	ppb	#	1
23) 2-Butanone	7.88	43	82234	0.6688	ppb	#	70
24) cis-1,2-Dichloroethene	8.19	96	48660	0.7287	ppb	m	10
26) Ethyl Acetate	8.47	61	17957	0.8012	ppb	#	1
27) Hexane	8.38	57	56331	0.4532	ppb	#	84
28) Chloroform	8.49	83	94758	0.5984	ppb		100
29) Tetrahydrofuran	9.01	42	47532	0.5214	ppb	#	59
30) 1,2-Dichloroethane	9.24	62	56616	0.5675	ppb	#	88
31) 1,1,1-Trichloroethane	9.47	97	97476	0.5637	ppb	#	92
32) Benzene	9.93	78	126501	0.5832	ppb	#	93
33) Carbon Tetrachloride	10.06	117	119276	0.5749	ppb		99
34) Cyclohexane	10.18	84	53772	0.5139	ppb	m	1
35) 1,2-Dichloropropane	10.75	63	46807	0.5522	ppb	#	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:58:07 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	97032	0.5852	ppb		98
37)	1,4-Dioxane	11.06	88	33316	0.6728	ppb		98
38)	Trichloroethene	10.97	130	73834	0.5582	ppb		96
39)	Methyl Methacrylate	11.16	69	33779	0.4892	ppb	#	82
40)	Heptane	11.24	71	29347	0.3788	ppb	#	47
41)	cis-1,3-Dichloropropene	11.83	75	62055	0.5148	ppb		96
42)	4-Methyl-2-Pentanone	11.88	43	83760	0.4364	ppb	#	73
43)	trans-1,3-Dichloropropene	12.36	75	53696	0.5164	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	53137	0.5411	ppb	#	91
45)	Toluene	12.82	91	112750	0.4066	ppb		98
46)	2-Hexanone	13.10	43	85954	0.5443	ppb	#	73
47)	Dibromochloromethane	13.27	129	113336	0.5353	ppb		100
48)	1,2-Dibromoethane	13.54	107	84212	0.5551	ppb		97
49)	Tetrachloroethene	13.99	166	67908	0.4425	ppb	#	80
51)	Chlorobenzene	14.72	112	115921	0.4480	ppb		97
52)	Ethylbenzene	15.11	91	147328	0.4034	ppb		100
53)	m,p-Xylene	15.30	91	231370	0.8187	ppb		99
54)	Bromoform	15.42	173	85957	0.4826	ppb		99
55)	Styrene	15.70	104	82531	0.3916	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	100651	0.5023	ppb	#	91
57)	o-Xylene	15.81	91	117450	0.3955	ppb		98
59)	4-Ethyl Toluene	17.25	105	161004	0.4444	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	149642	0.4411	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	137199	0.4469	ppb		98
62)	Benzyl Chloride	18.06	91	84183	0.5016	ppb		98
63)	m-Dichlorobenzene	18.08	146	113667	0.5909	ppb		96
64)	p-Dichlorobenzene	18.17	146	112253	0.5557	ppb		95
65)	o-Dichlorobenzene	18.62	146	105869	0.5087	ppb		94
66)	1,2,4-Trichlorobenzene	21.14	180	56158	1.2499	ppb	#	95
67)	Naphthalene	21.31	128	145969	0.8722	ppb		98
68)	Hexachloro-1,3-butadiene	21.86	225	54255	0.5774	ppb		98

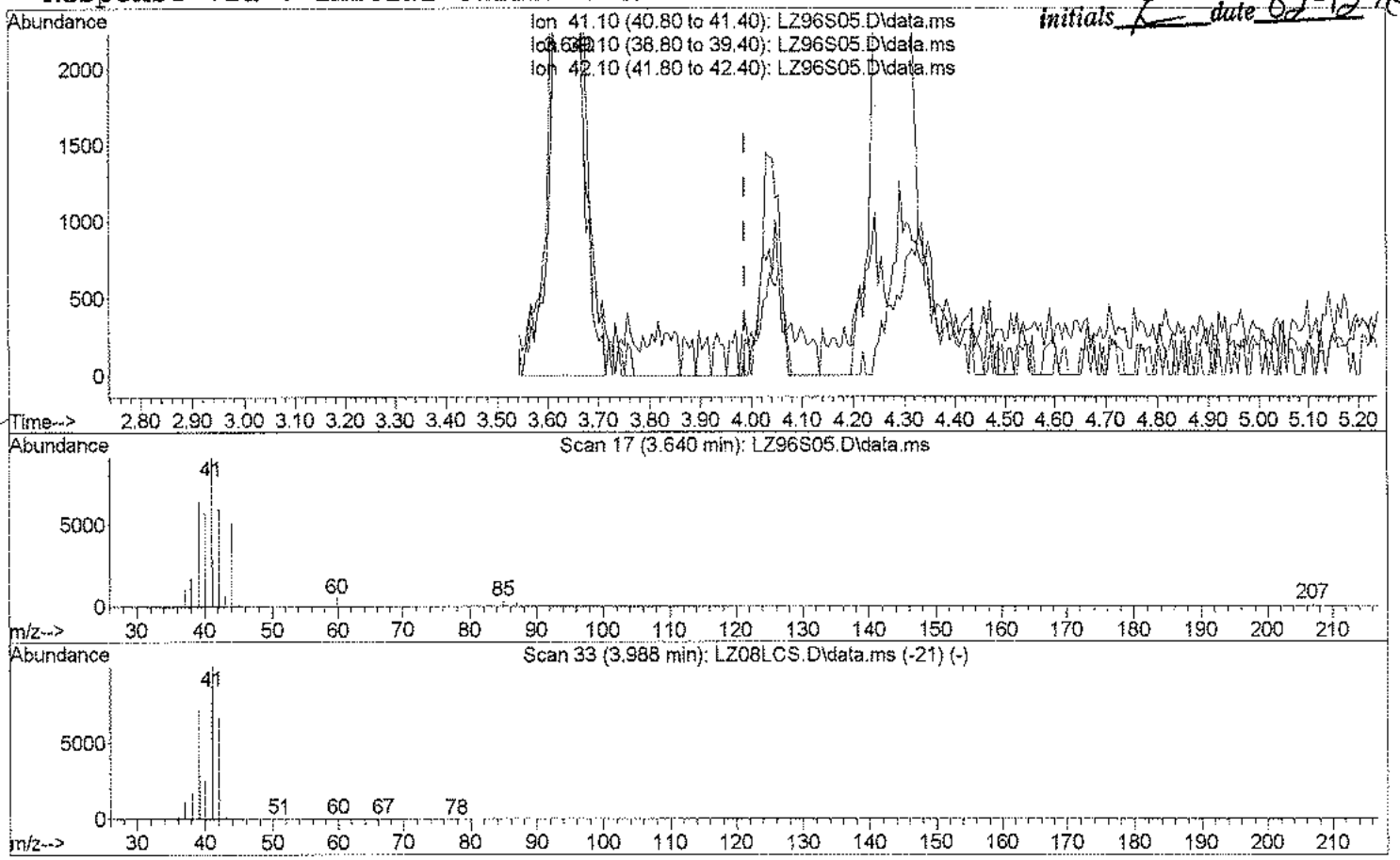
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(2) Propene

3.640min (-0.348) 0.53 ppb m

response 27851

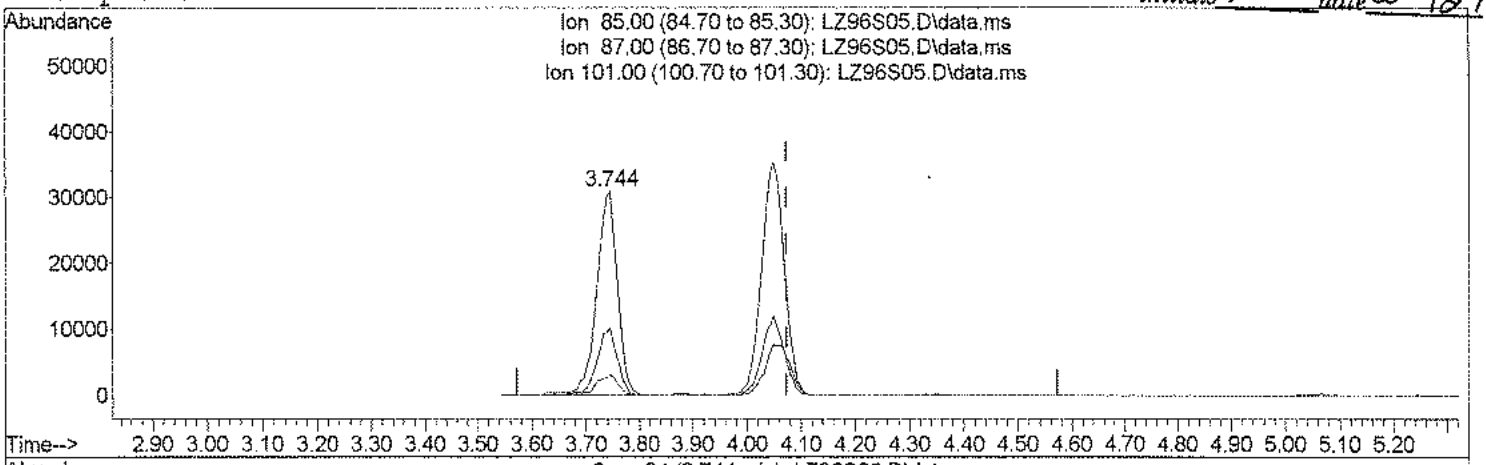
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

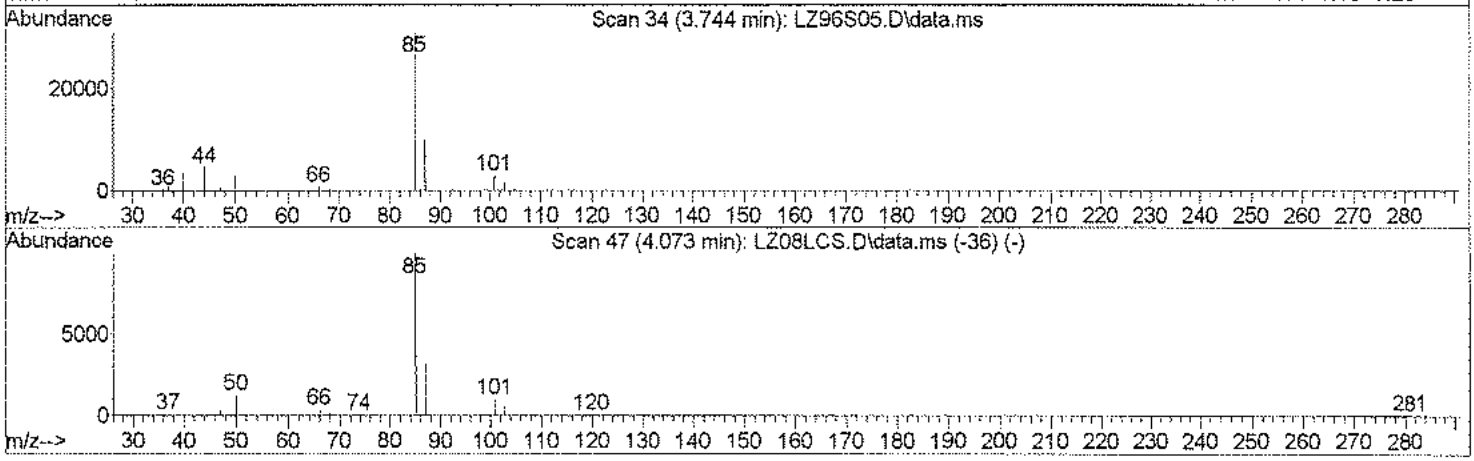
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials Z date 02-12-16





TIC: LZ96S05.D\data.ms

(3) Dichlorodifluoromethane

3.744min (-0.329) 0.53 ppb m

response 82057

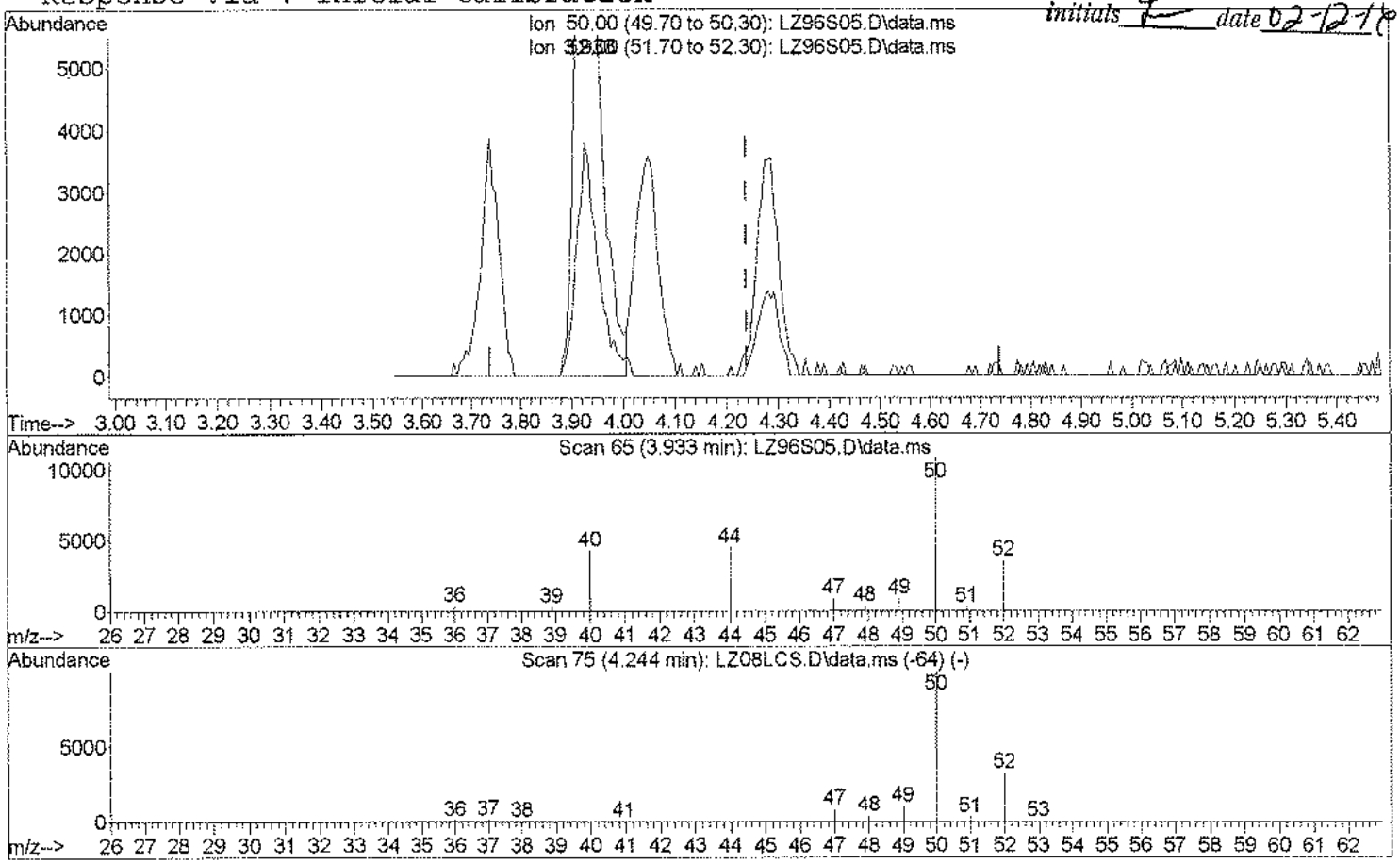
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	40.56#
101.00	10.00	29.84#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials _____ date 02-12-16



TIC: LZ96S05.D\data.ms

(4) Chloromethane

3.933min (-0.305) 0.57 ppb m

response 32873

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	12.38#
0.00	0.00	0.00
0.00	0.00	0.00

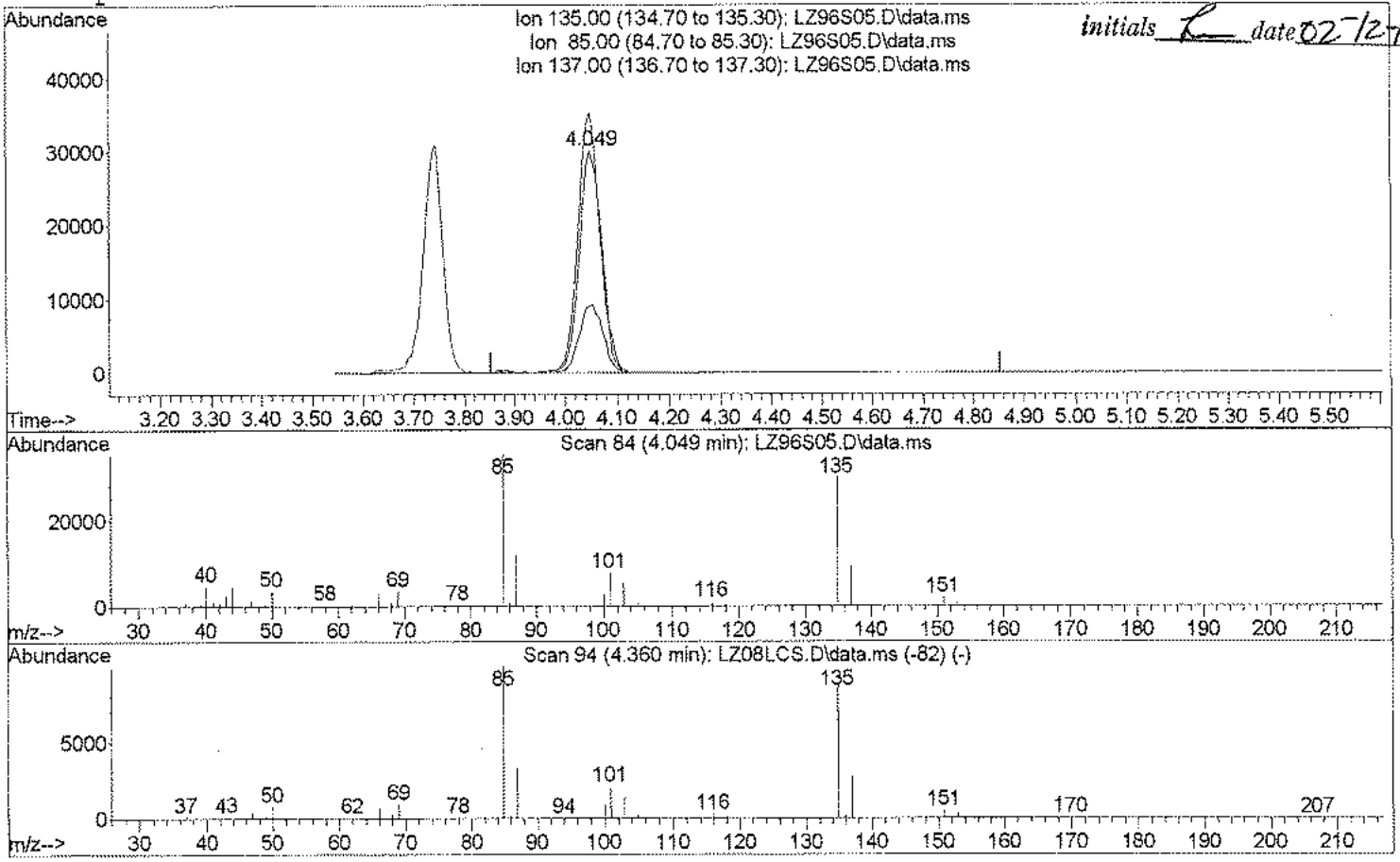
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 02-12-16



TIC: LZ96S05.D\data.ms

(5) Freon 114

4.049min (-0.305) 0.68 ppb m

response 91544

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	0.00#
137.00	32.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
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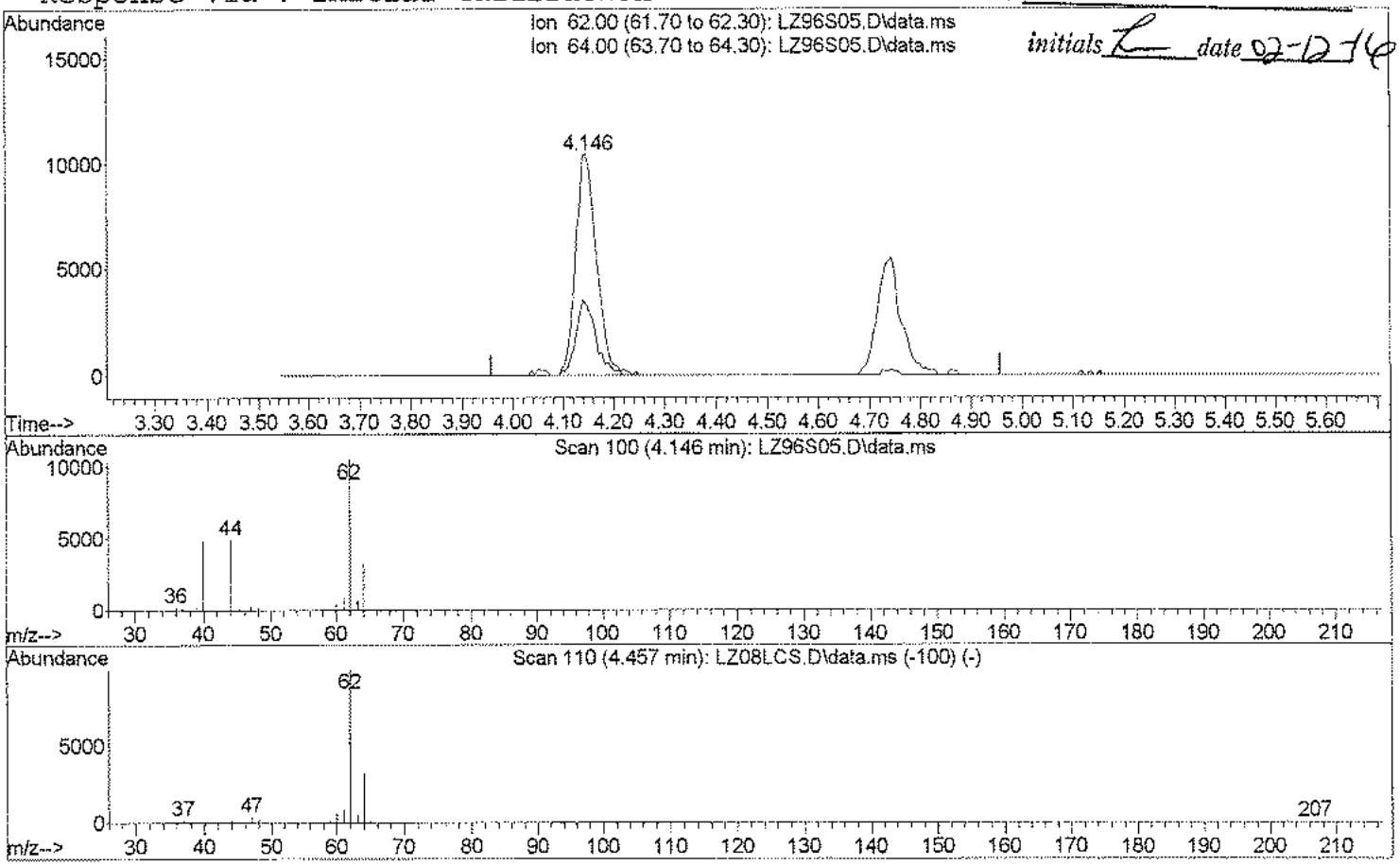
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(6) Vinyl Chloride

4.146min (-0.311) 0.49 ppb m

response 29755

Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

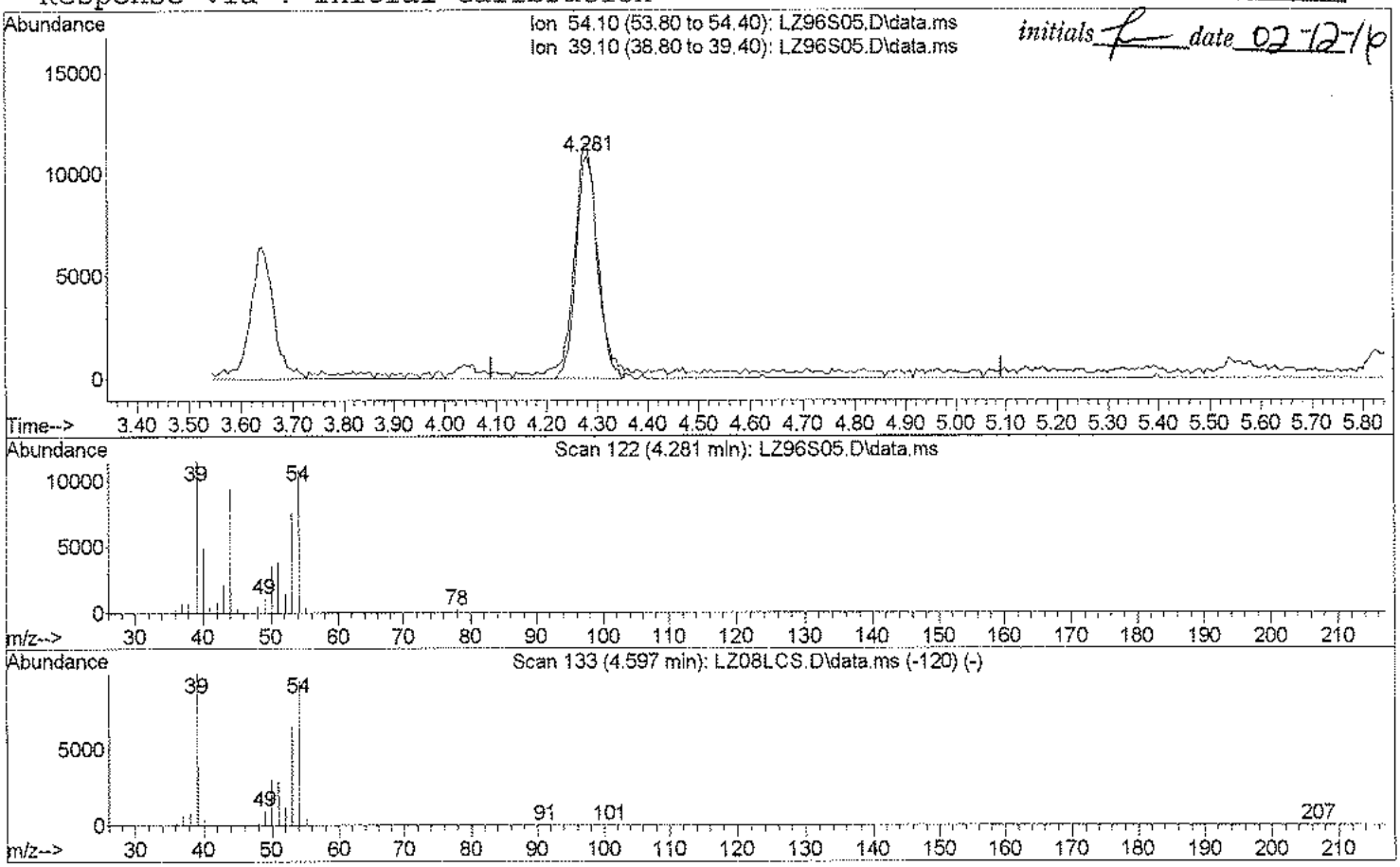
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(7) 1,3-Butadiene

4.281min (-0.311) 0.64 ppb m

response 31513

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

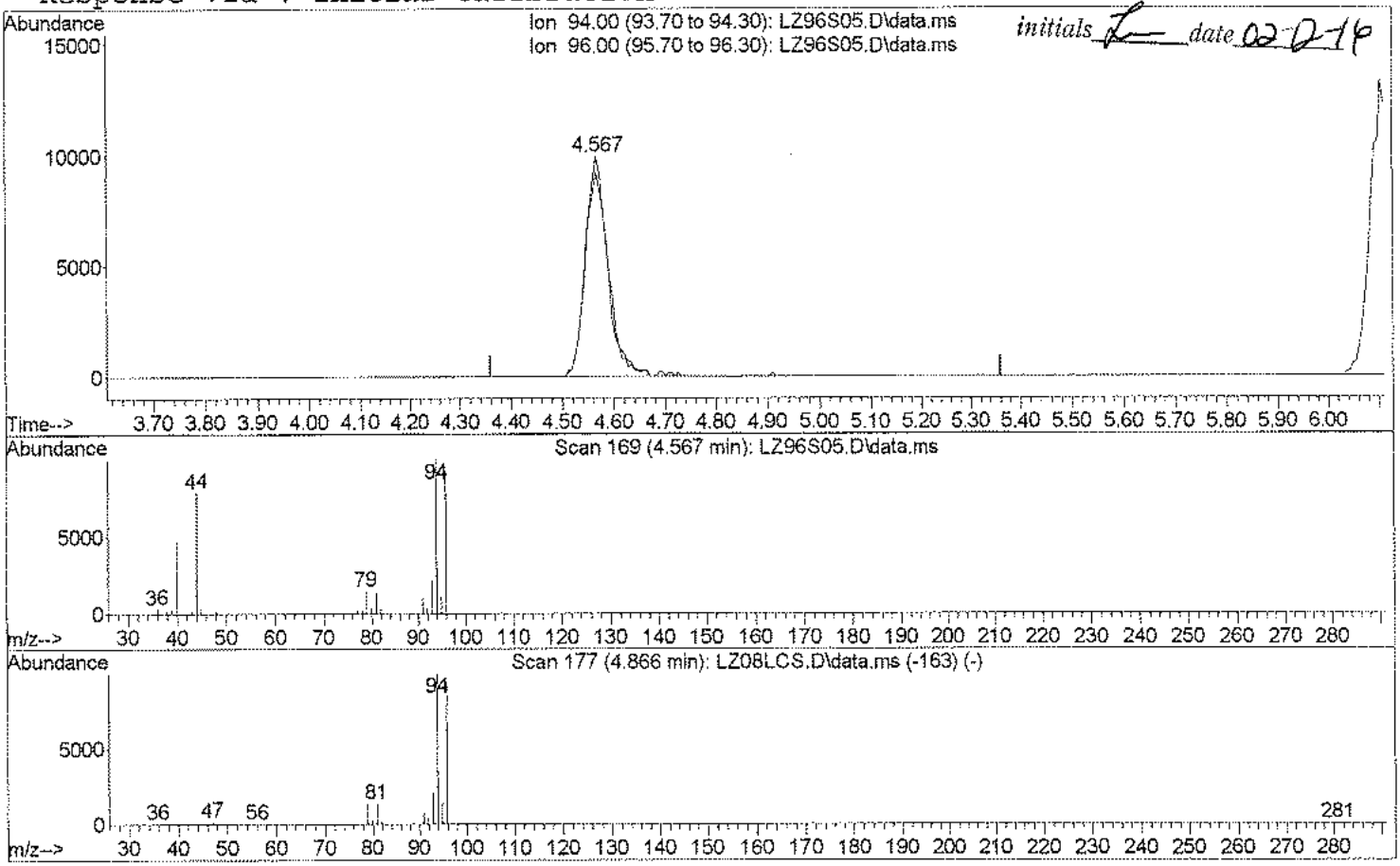
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(8) Bromomethane

4.567min (-0.293) 0.49 ppb m

response 30436

Ion	Exp%	Act%
94.00	100.00	100.00
96.00	95.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

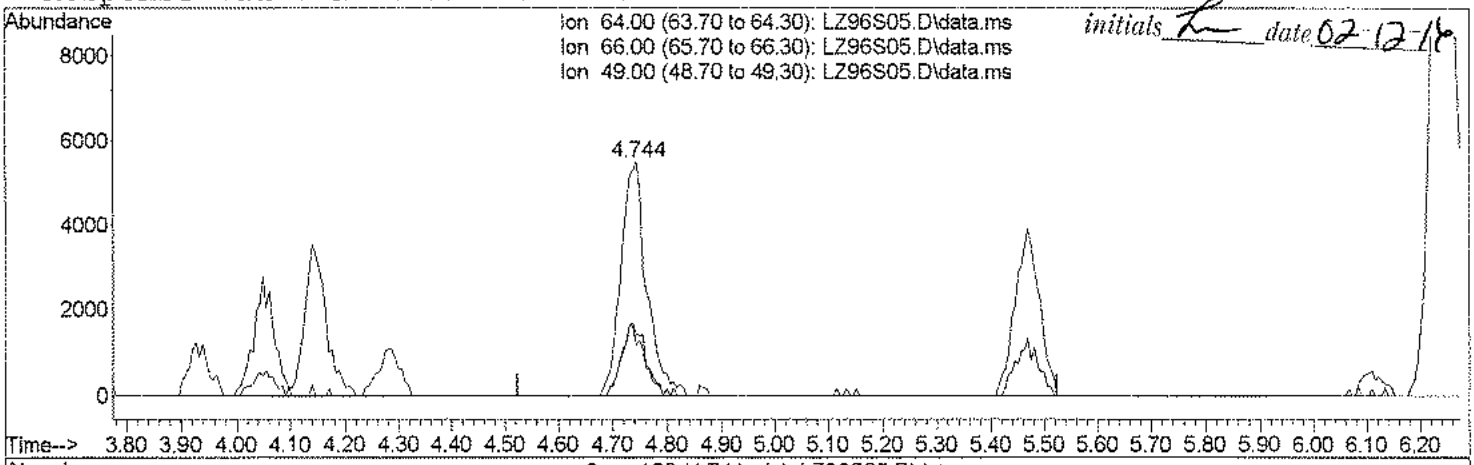
Quantitation Report (Qedit)

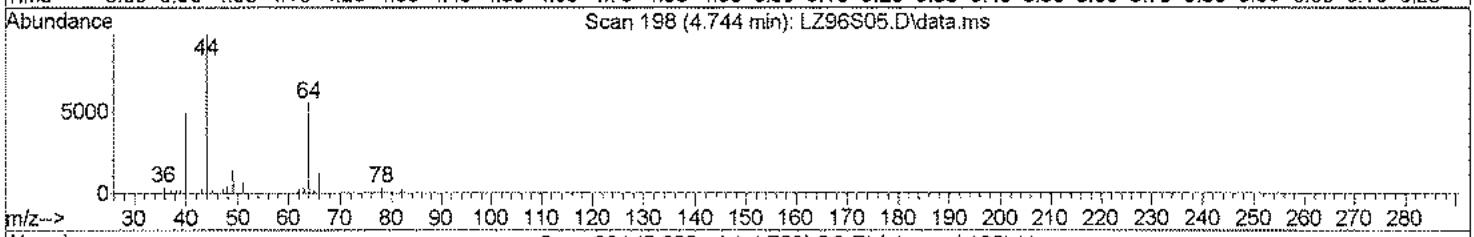
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

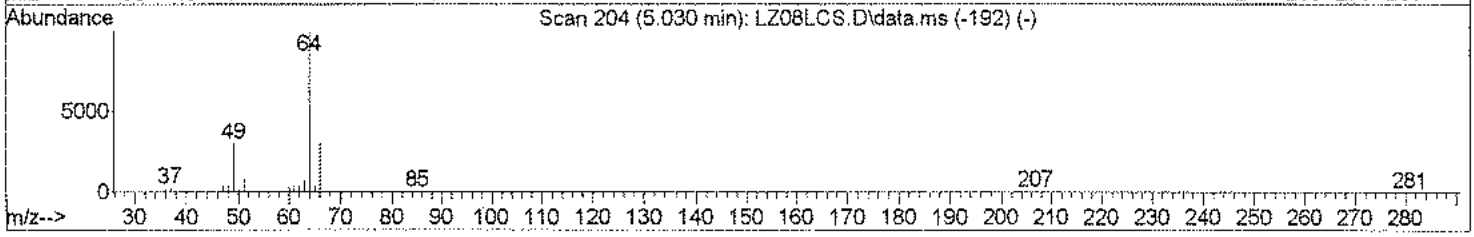
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L date 02-12-16







TIC: LZ96S05.D\data.ms

(9) Chloroethane

4.744min (-0.280) 0.55 ppb m

response 17805

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

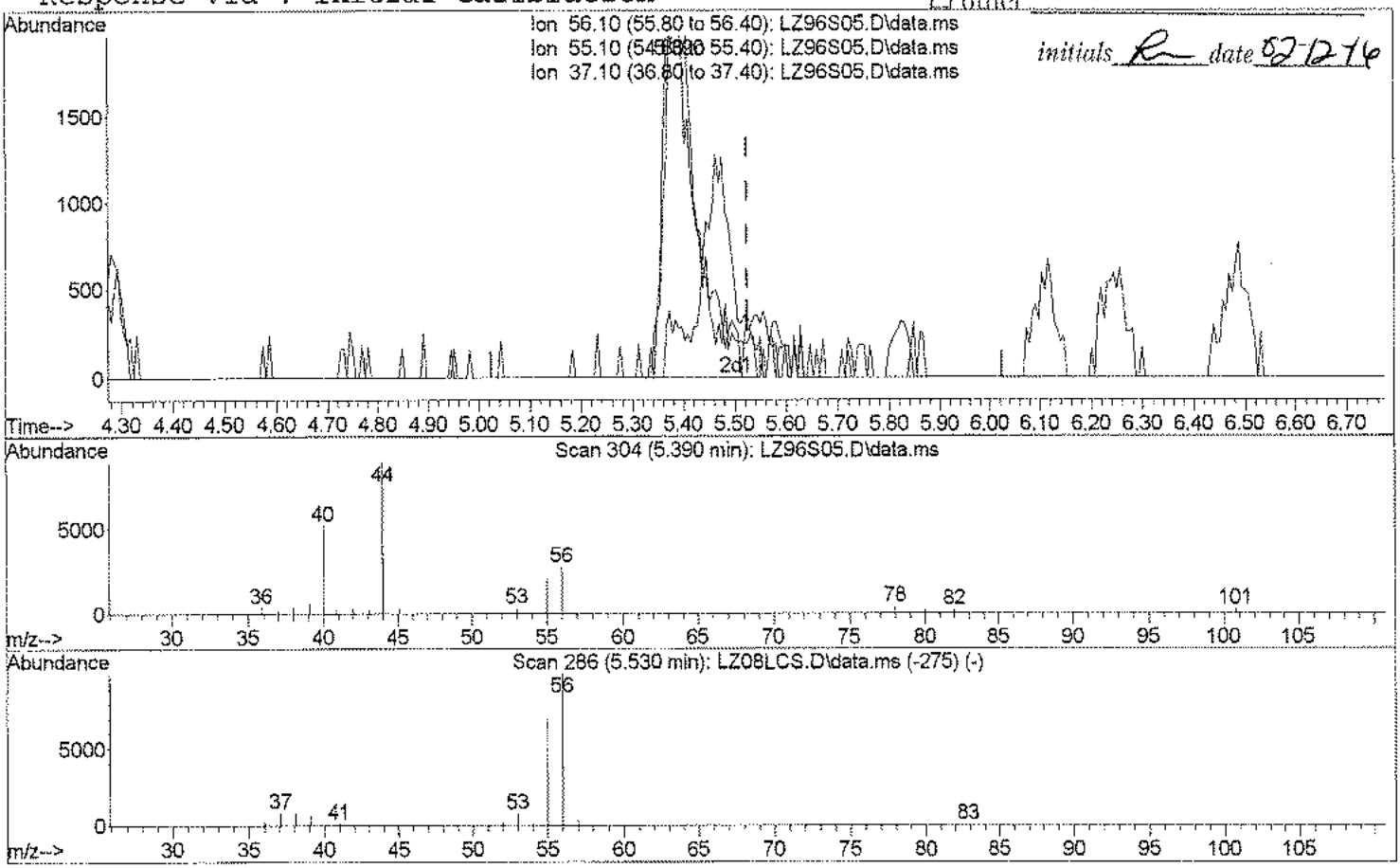
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other

initials R *date* 02-12-16



TIC: LZ96S05.D\data.ms

(10) Acrolein

5.390min (-0.134) 0.50 ppb m

response 11456

Ion	Exp%	Act%
56.10	100.00	100.00
55.10	68.90	0.00#
37.10	9.90	0.00#
0.00	0.00	0.00

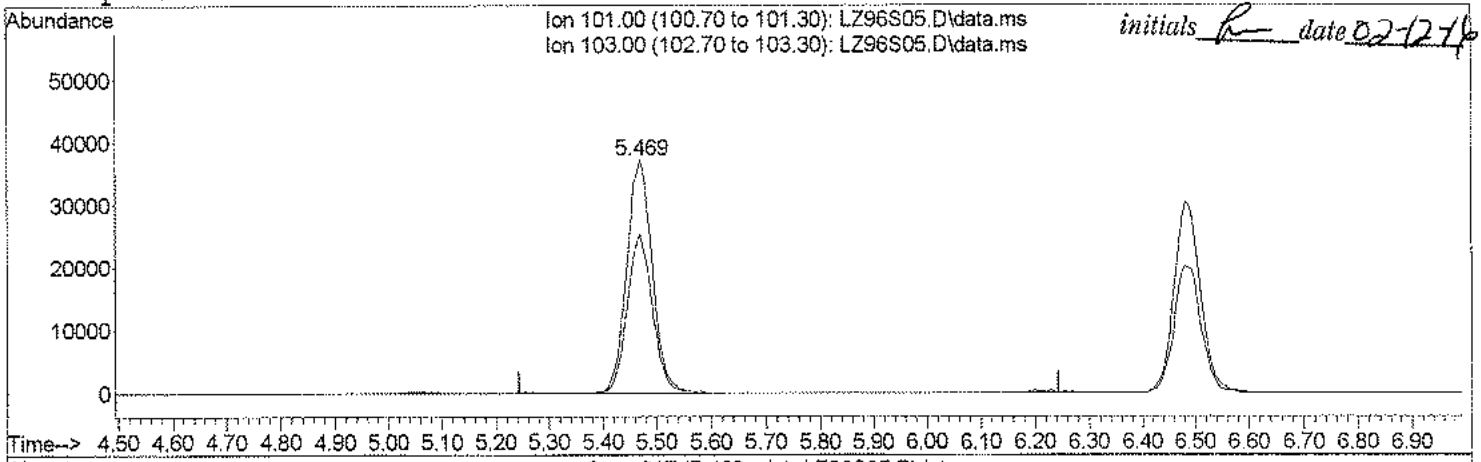
Quantitation Report (Qedit)

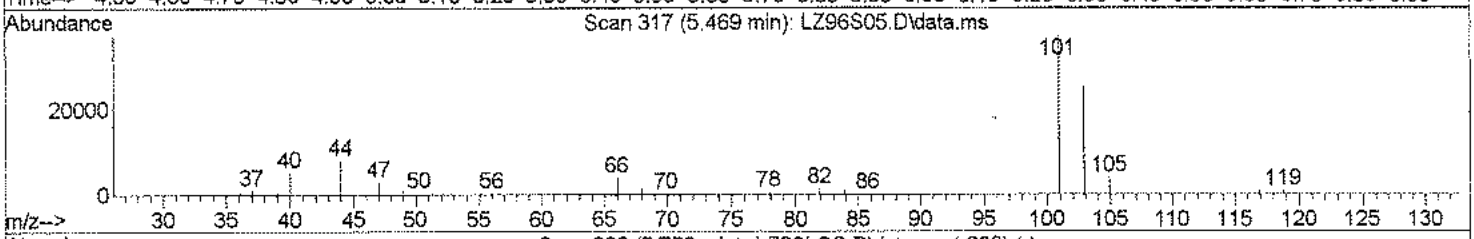
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

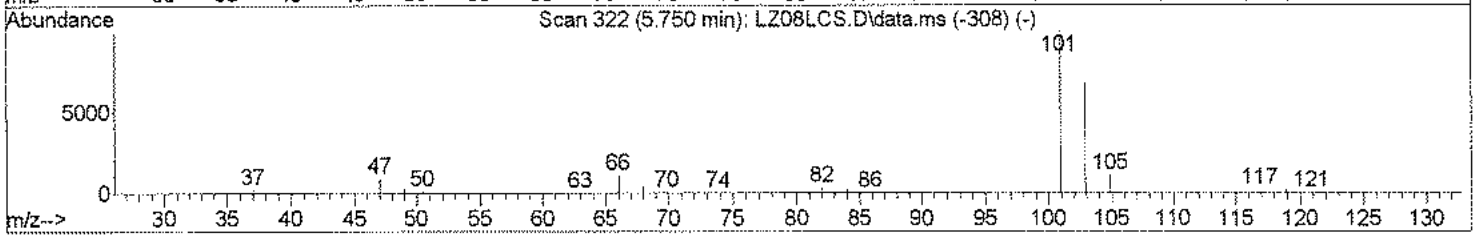
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials [illegible] date 02-12-16







TIC: LZ96S05.D\data.ms

(12) Trichlorofluoromethane

5.469min (-0.274) 0.72 ppb m

response 123068

Ion	Exp%	Act%
101.00	100.00	100.00
103.00	64.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☐ missed peak assignment
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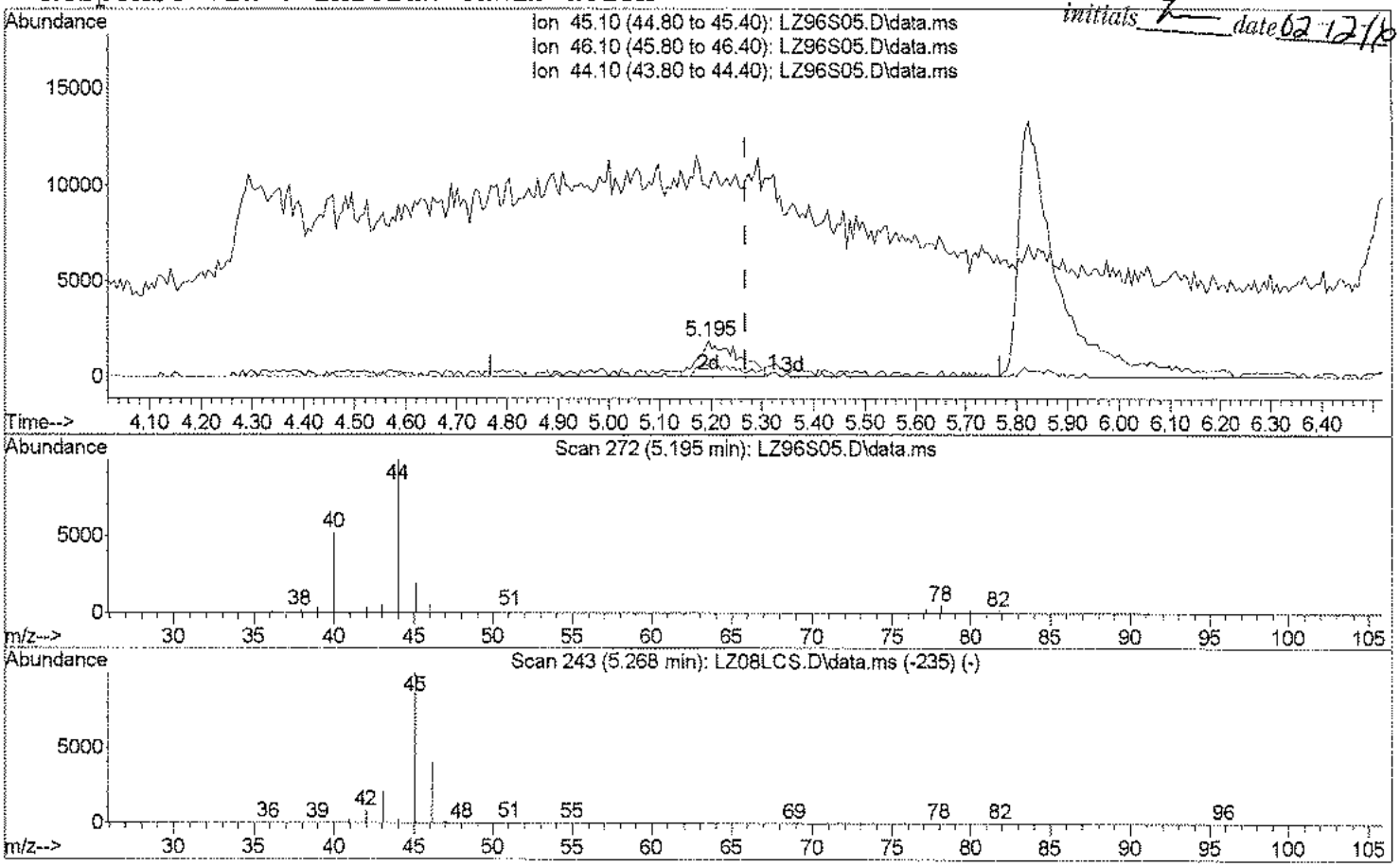
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials T date 02 12/16



TIC: LZ96S05.D\data.ms

(13) Ethanol

5.195min (-0.073) 0.40 ppb m

response 9699

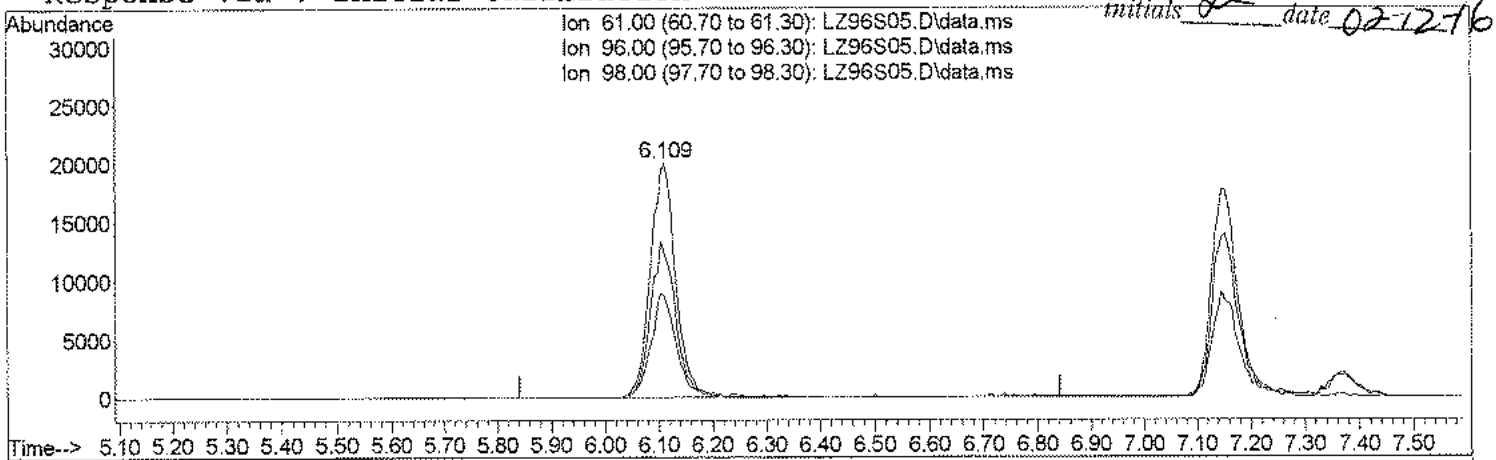
Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	1.99#
44.10	29.30	0.00#
0.00	0.00	0.00

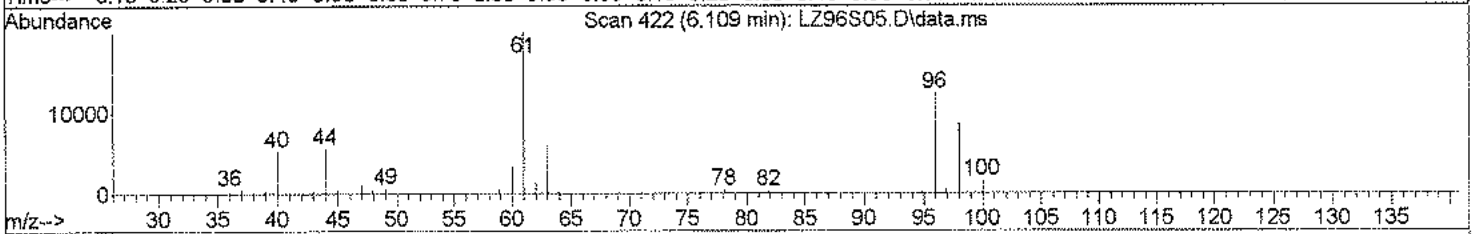
Quantitation Report (Qedit)

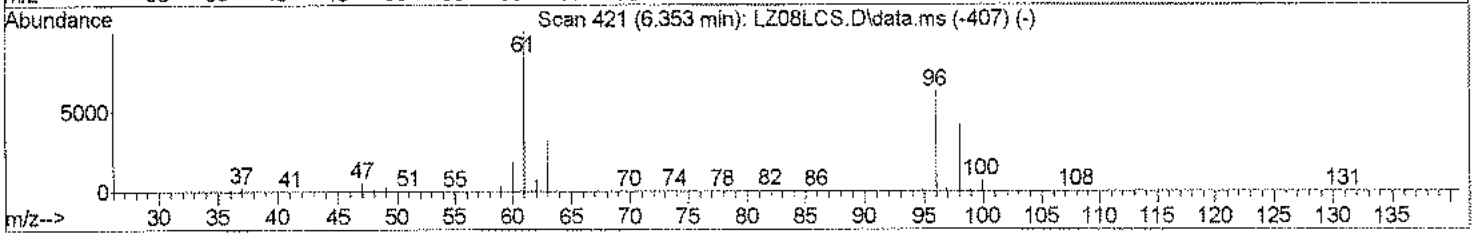
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials JL date 02-12-16







TIC: LZ96S05.D\data.ms

(15) 1,1-Dichloroethene

6.109min (-0.232) 0.68 ppb m

response 65785

Ion	Exp%	Act%
61.00	100.00	100.00
96.00	86.40	0.00#
98.00	55.10	0.00#
0.00	0.00	0.00

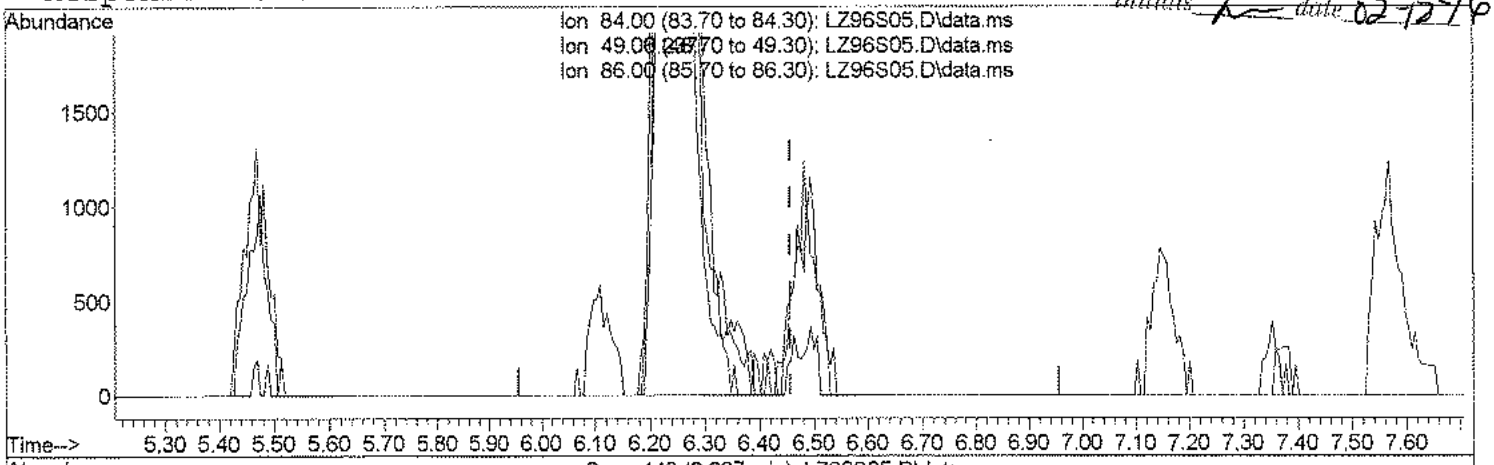
Quantitation Report (Qedit)

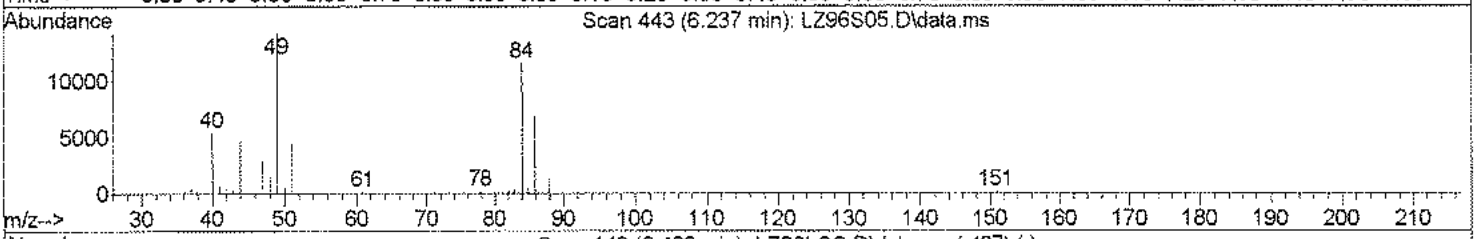
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

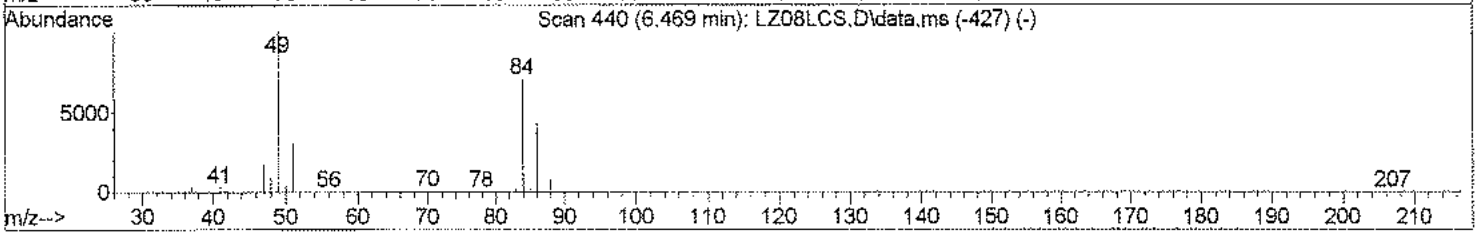
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials [illegible] date 02/12/16







TIC: LZ96S05.D\data.ms

(16) Methylene Chloride

6.237min (-0.220) 0.67 ppb m

response 38391

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	9.64#
86.00	64.50	0.00#
0.00	0.00	0.00

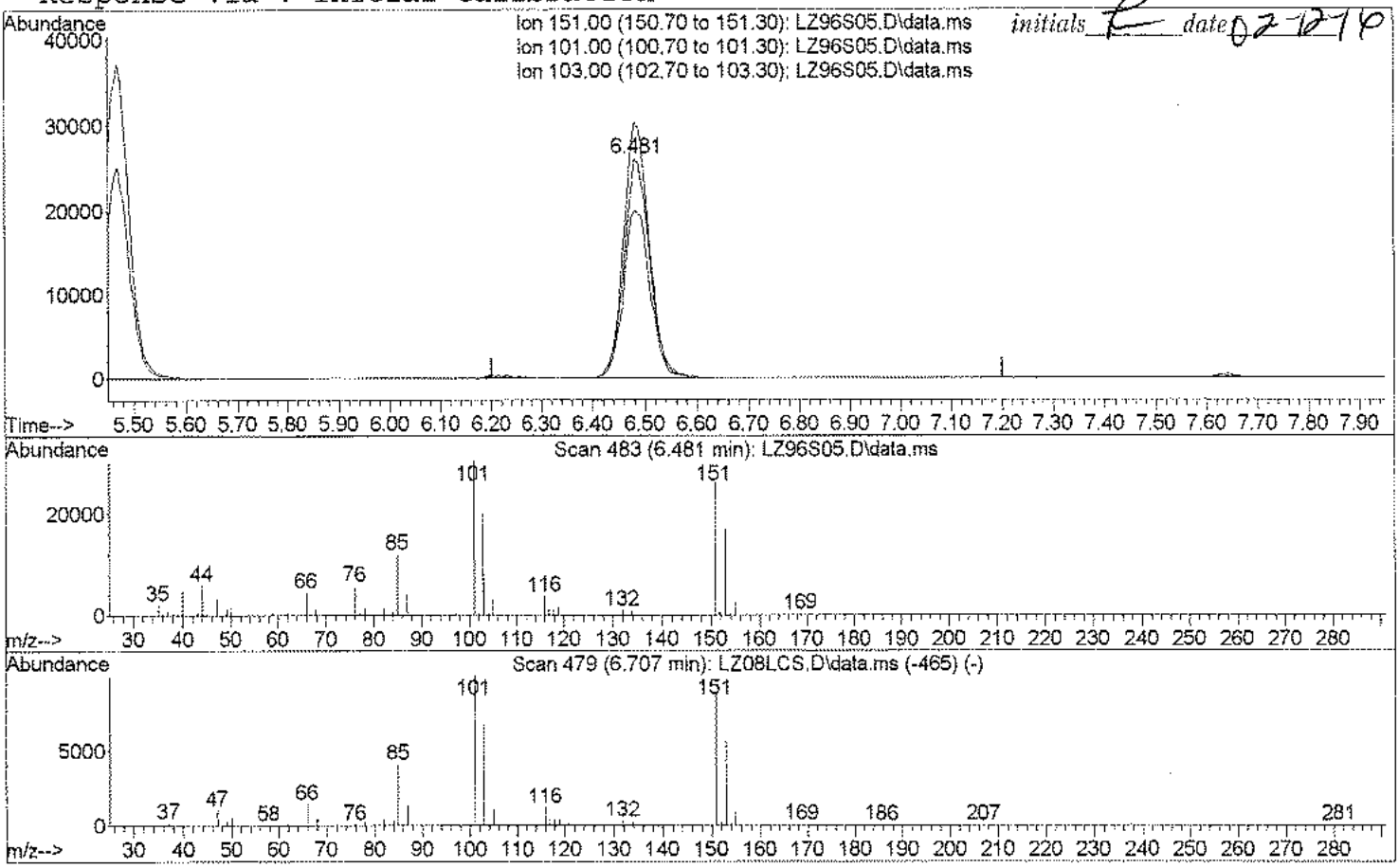
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 02-12-16



TIC: LZ96S05.D\data.ms

(17) Freon 113

6.481min (-0.220) 0.73 ppb m

response 88151

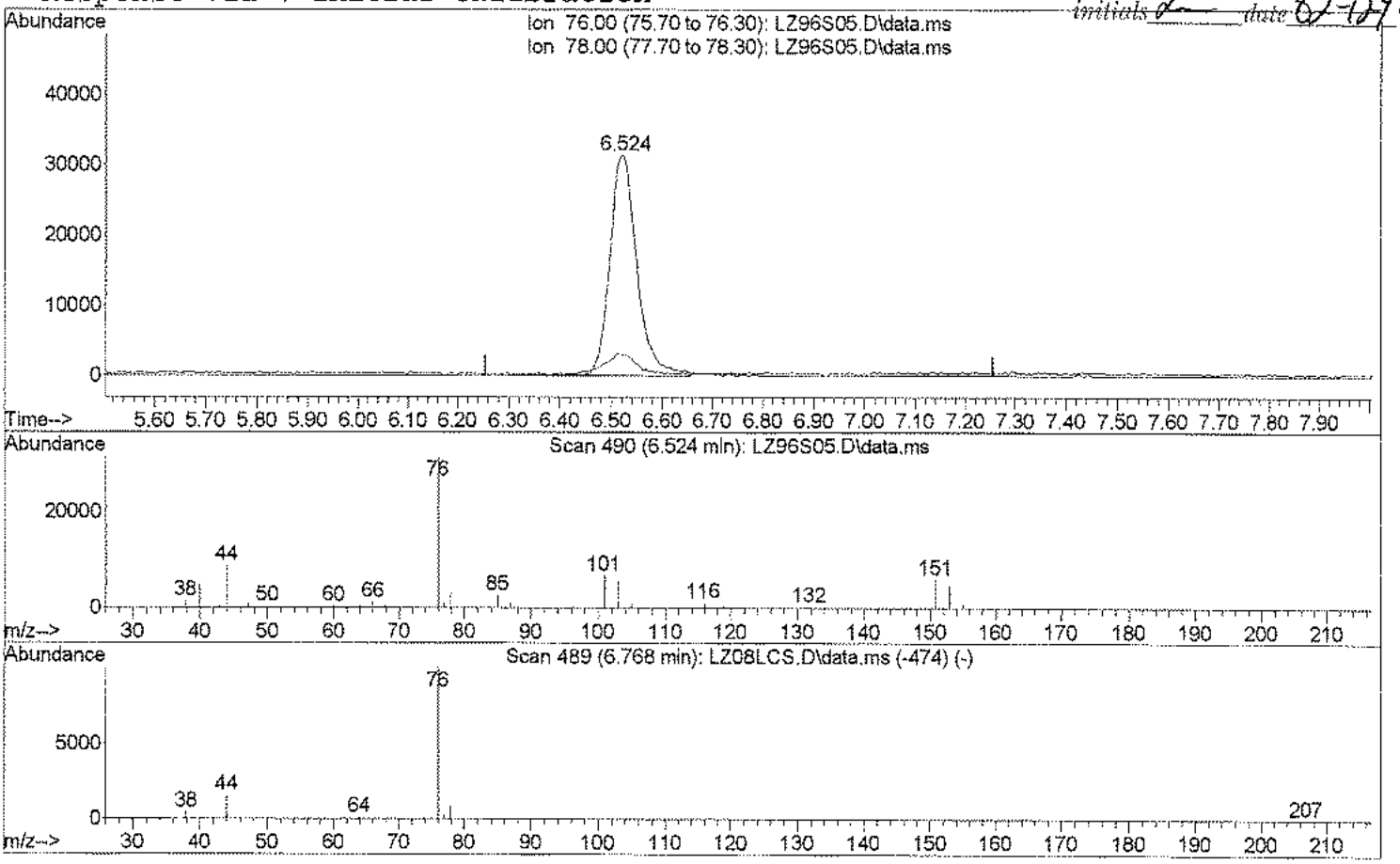
Ion	Exp%	Act%
151.00	100.00	100.00
101.00	90.90	0.00#
103.00	58.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L *date* 02-12-16



TIC: LZ96S05.D\data.ms

(18) Carbon Disulfide

6.524min (-0.232) 0.71 ppb m

response 114355

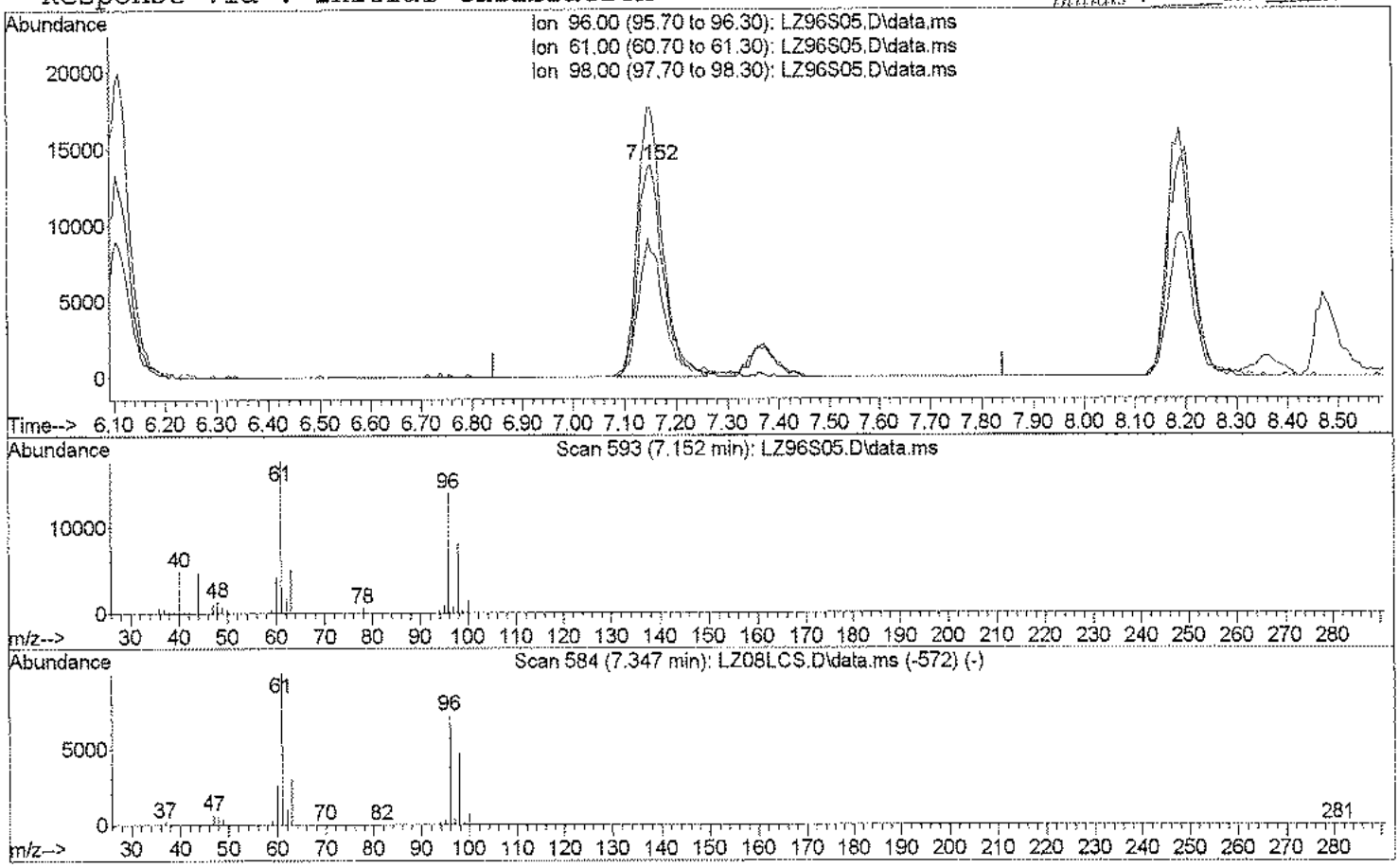
Ion	Exp%	Act%
76.00	100.00	100.00
78.00	30.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials [illegible] date 02/12/16



TIC: LZ96S05.D\data.ms

(19) trans-1,2-Dichloroethene

7.152min (-0.189) 0.75 ppb m

response 47412

Ion	Exp%	Act%
96.00	100.00	100.00
61.00	100.20	0.00#
98.00	64.10	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

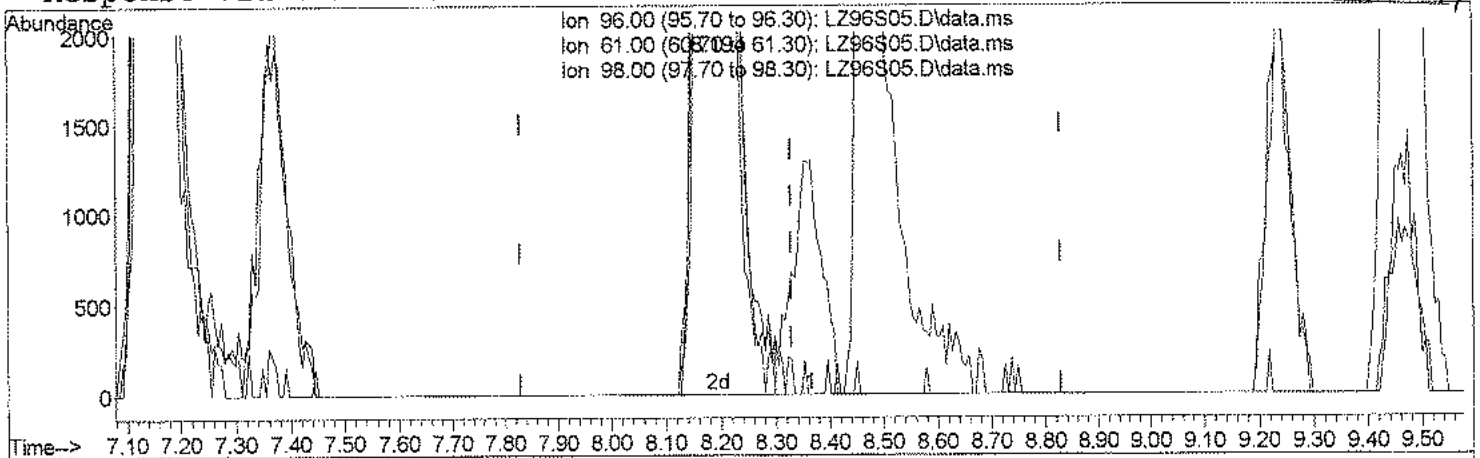
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

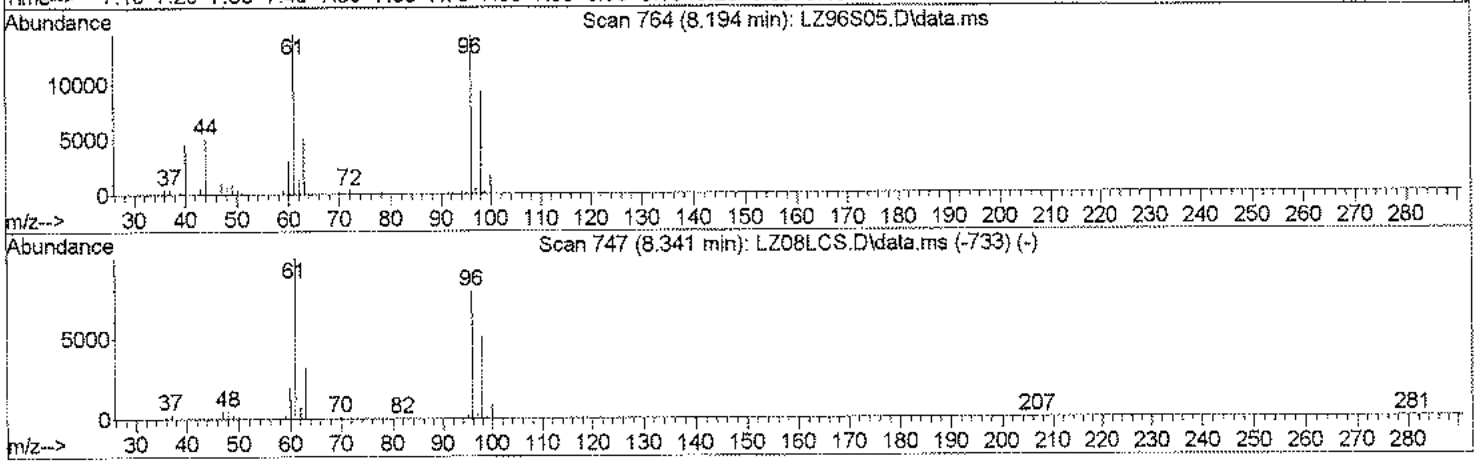
Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L date 02/12/16





TIC: LZ96S05.D\data.ms

(24) cis-1,2-Dichloroethene

8.194min (-0.134) 0.73 ppb m

response 48660

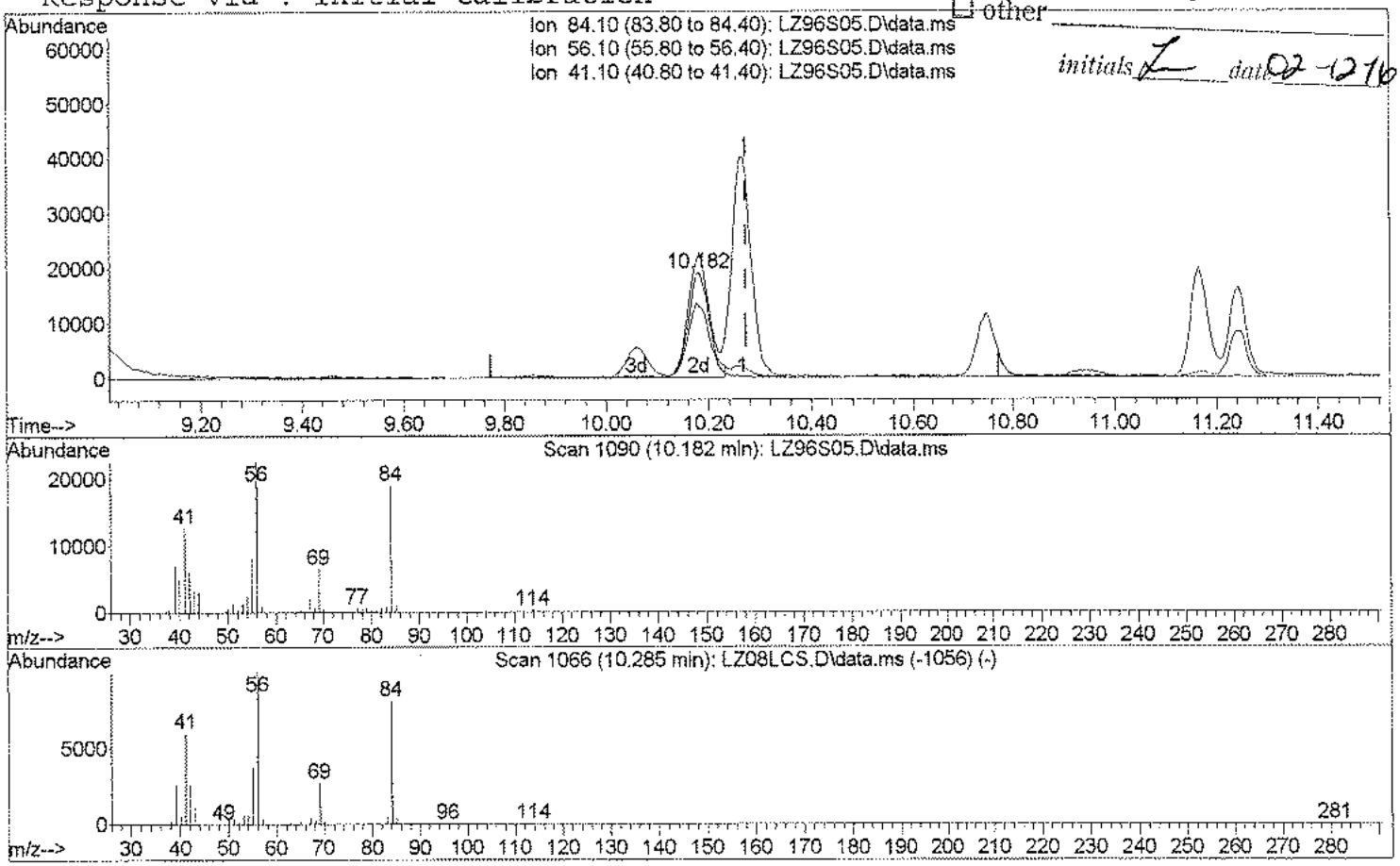
Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	0.00#
98.00	64.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ96S05.D
Acq On : 02/11/2016 17:28
Operator : TJM
Sample : 0.5 PPB STD
Inst : 5975-L
Misc : 30851 (10mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:54:08 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Wed Feb 10 08:59:28 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other
initials L date 02-12-16



TIC: LZ96S05.D\data.ms

(34) Cyclohexane

10.182min (-0.091) 0.51 ppb m

response 53772

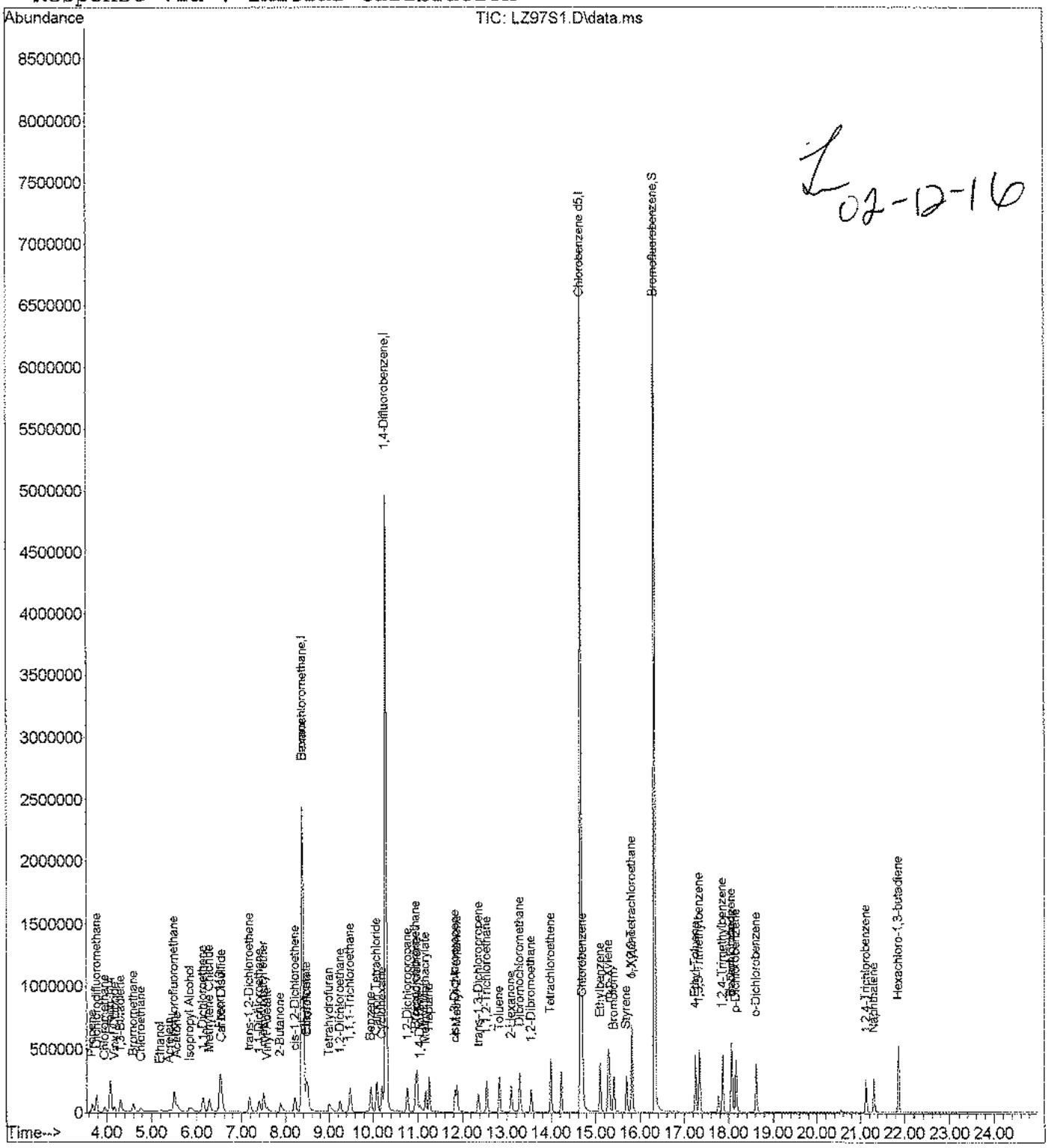
Ion	Exp%	Act%
84.10	100.00	100.00
56.10	84.10	198.17#
41.10	37.80	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	472704	20.0000	ppb		66.46
25) 1,4-Difluorobenzene	10.29	114	6181399	20.0000	ppb		83.39
50) Chlorobenzene d5	14.67	117	5556593	20.0000	ppb		86.22
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3110545	20.4063	ppb		102.03%
Target Compounds							Qvalue
2) Propene	3.67	41	59206	1.1311	ppb		96
3) Dichlorodifluoromethane	3.77	85	190480	1.2312	ppb		99
4) Chloromethane	3.95	50	70757	1.2177	ppb		98
5) Freon 114	4.09	135	180042	1.2798	ppb	#	80
6) Vinyl Chloride	4.18	62	67944	1.1386	ppb		98
7) 1,3-Butadiene	4.31	54	62549	1.2201	ppb	#	58
8) Bromomethane	4.59	94	71235	1.1619	ppb		99
9) Chloroethane	4.77	64	38838	1.1915	ppb	#	89
10) Acrolein	5.41	56	19905	0.8561	ppb	#	93
11) Acetone	5.56	43	126622	1.1896	ppb		88
12) Trichlorofluoromethane	5.50	101	240341	1.3194	ppb		96
13) Ethanol	5.21	45	15713	0.6637	ppb	#	65
14) Isopropyl Alcohol	5.85	45	121065	1.0317	ppb	m	97
15) 1,1-Dichloroethene	6.13	61	127915	1.2528	ppb	#	81
16) Methylene Chloride	6.27	84	75934	1.2785	ppb	#	66
17) Freon 113	6.51	151	170569	1.3203	ppb	#	73
18) Carbon Disulfide	6.55	76	223428	1.2985	ppb	#	66
19) trans-1,2-Dichloroethene	7.18	96	88802	1.3034	ppb	#	81
20) 1,1-Dichloroethane	7.40	63	151046	1.3136	ppb		97
21) methyl t-butyl ether	7.50	73	194422	1.2460	ppb	#	84
22) Vinyl Acetate	7.58	86	8110	0.5732	ppb	#	1
23) 2-Butanone	7.88	43	169595	1.2887	ppb	#	70
24) cis-1,2-Dichloroethene	8.22	96	93088	1.2976	ppb	#	83
26) Ethyl Acetate	8.47	61	36648	1.4699	ppb	#	1
27) Hexane	8.40	57	120041	0.9759	ppb	#	83
28) Chloroform	8.51	83	179011	1.0936	ppb		97
29) Tetrahydrofuran	9.01	42	96246	1.0229	ppb	#	62
30) 1,2-Dichloroethane	9.26	62	106858	1.0429	ppb	#	89
31) 1,1,1-Trichloroethane	9.49	97	188949	1.0679	ppb	#	92
32) Benzene	9.95	78	248089	1.1113	ppb	#	94
33) Carbon Tetrachloride	10.08	117	228967	1.0748	ppb		100
34) Cyclohexane	10.20	84	109585	1.0437	ppb	#	57
35) 1,2-Dichloropropane	10.77	63	94151	1.0865	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ97S1.D Vial: 2
Acq Time : 02/11/2016 18:15 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 30851 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:04:43 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	188097	1.0927	ppb		98
37)	1,4-Dioxane	11.05	88	61496	1.1530	ppb		92
38)	Trichloroethene	10.98	130	144037	1.0614	ppb		97
39)	Methyl Methacrylate	11.17	69	73512	1.0407	ppb	#	79
40)	Heptane	11.25	71	74268	0.9818	ppb	#	50
41)	cis-1,3-Dichloropropene	11.84	75	126483	1.0187	ppb		98
42)	4-Methyl-2-Pentanone	11.88	43	191474	0.9894	ppb	#	72
43)	trans-1,3-Dichloropropene	12.36	75	108406	1.0046	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	108822	1.0771	ppb	#	93
45)	Toluene	12.83	91	269770	0.9835	ppb		97
46)	2-Hexanone	13.09	43	193840	1.2252	ppb	#	74
47)	Dibromochloromethane	13.28	129	229397	1.0462	ppb		99
48)	1,2-Dibromoethane	13.54	107	169448	1.0672	ppb		100
49)	Tetrachloroethene	13.99	166	149598	0.9846	ppb	#	80
51)	Chlorobenzene	14.71	112	259500	0.9939	ppb		98
52)	Ethylbenzene	15.11	91	338758	0.9239	ppb		98
53)	m,p-Xylene	15.30	91	522658	1.8368	ppb		99
54)	Bromoform	15.41	173	178406	0.9609	ppb		98
55)	Styrene	15.69	104	194827	0.9046	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	216229	1.0311	ppb	#	91
57)	o-Xylene	15.81	91	267469	0.9014	ppb		100
59)	4-Ethyl Toluene	17.25	105	373121	0.9749	ppb		99
60)	1,3,5-Trimethylbenzene	17.34	105	346068	0.9883	ppb		96
61)	1,2,4-Trimethylbenzene	17.86	105	324322	1.0044	ppb		98
62)	Benzyl Chloride	18.06	91	198303	1.0388	ppb		96
63)	m-Dichlorobenzene	18.07	146	244711	1.1306	ppb		96
64)	p-Dichlorobenzene	18.16	146	234346	1.1396	ppb		94
65)	o-Dichlorobenzene	18.62	146	227267	1.0894	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	111375	1.9841	ppb	#	95
67)	Naphthalene	21.31	128	296545	1.5772	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	108013	1.1212	ppb		99

(#) = qualifier out of range (m) = manual integration

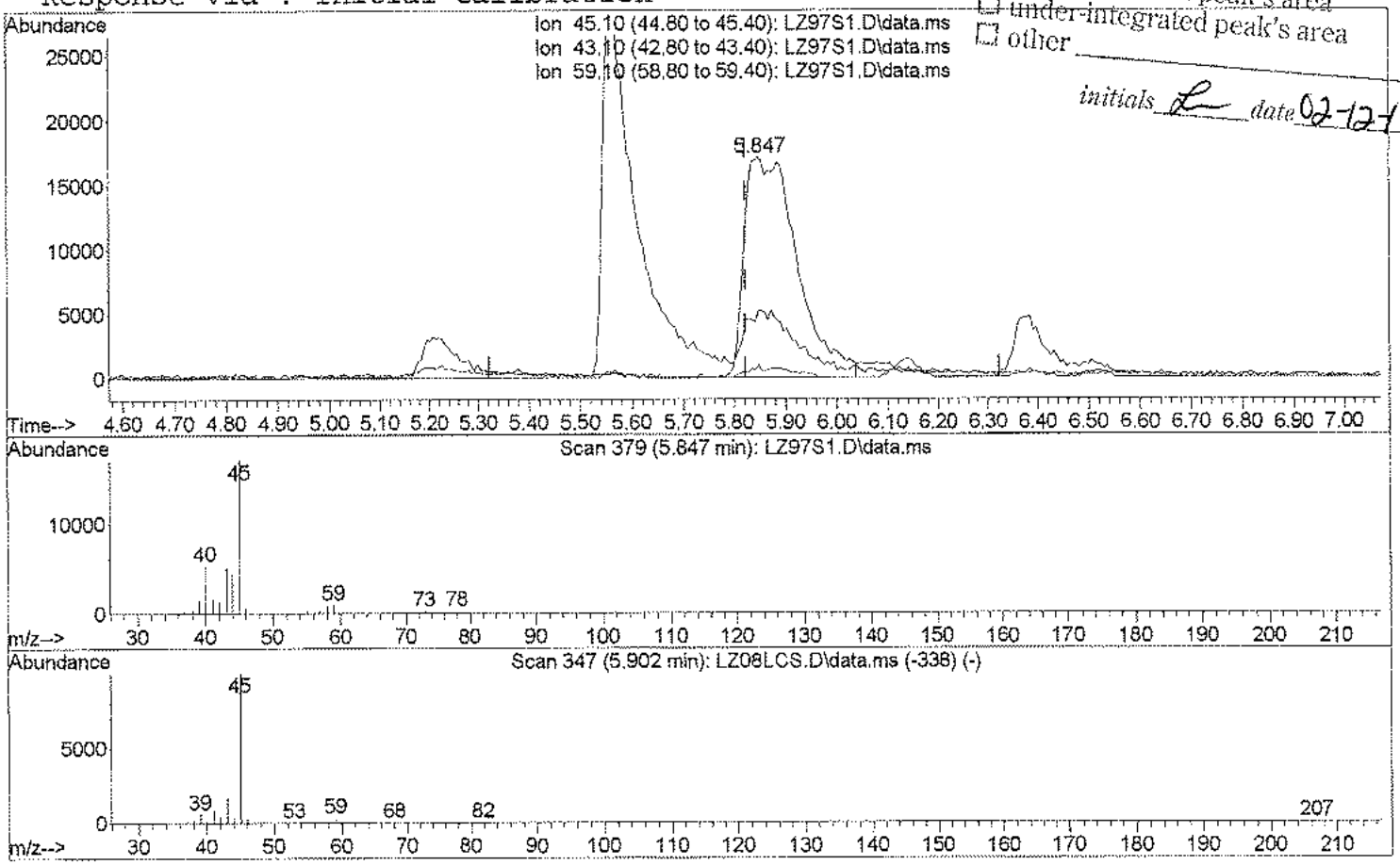
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ97S1.D
Acq On : 02/11/2016 18:15
Operator : TJM
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 30851 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 07:59:25 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 07:59:10 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials L *date* 02-12-16



TIC: LZ97S1.D\data.ms

(14) Isopropyl Alcohol

5.847min (+ 0.024) 1.03 ppb m

response 121065

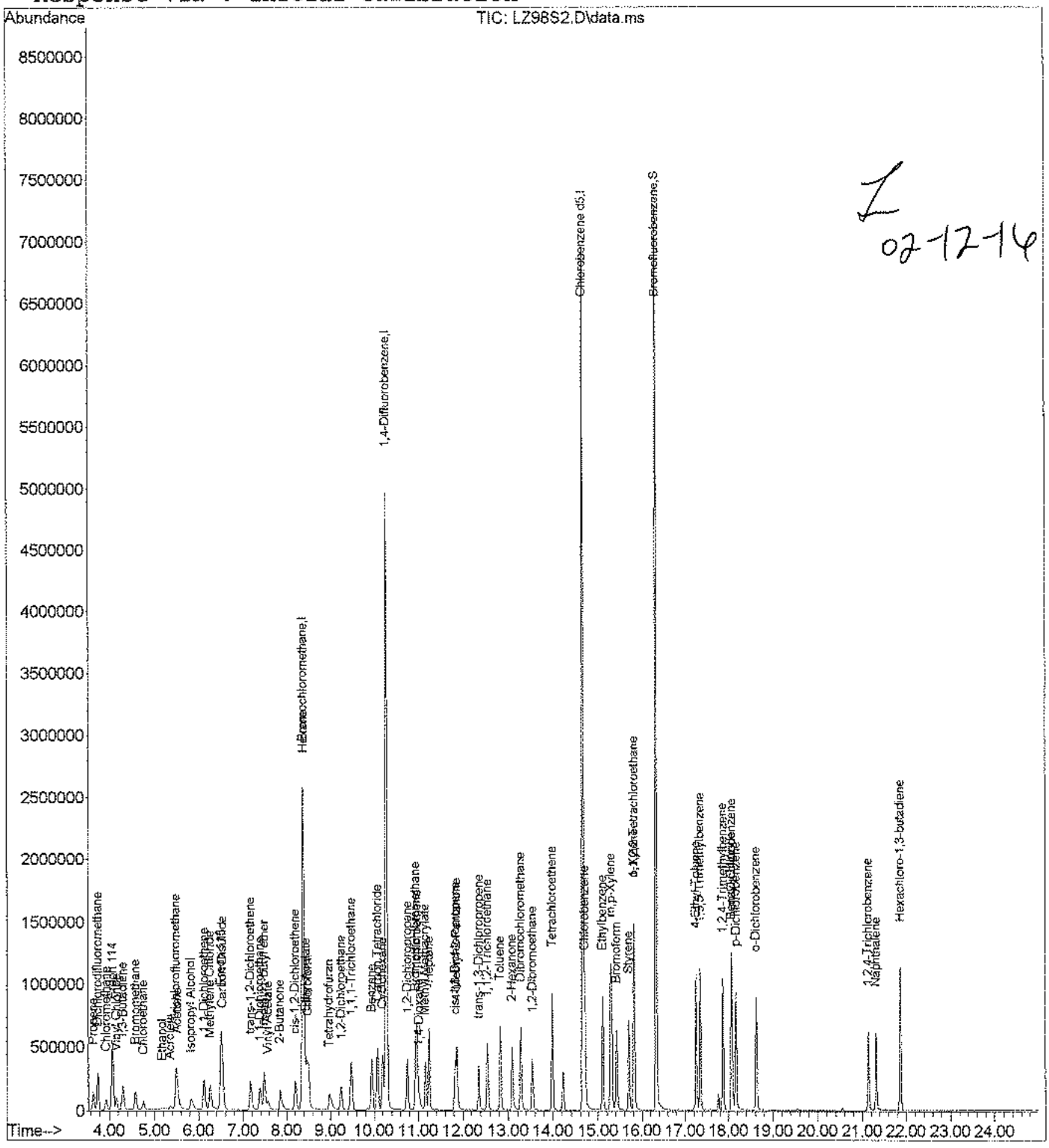
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	10.14#
59.10	4.00	1.40#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



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02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:45 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	467072	20.0000	ppb		65.67
25) 1,4-Difluorobenzene	10.27	114	6134129	20.0000	ppb		82.75
50) Chlorobenzene d5	14.66	117	5515844	20.0000	ppb		85.59
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3190876	20.8699	ppb		104.35%
Target Compounds							Qvalue
2) Propene	3.66	41	132638	2.5012	ppb		98
3) Dichlorodifluoromethane	3.76	85	428279	2.6926	ppb		99
4) Chloromethane	3.93	50	160827	2.6843	ppb		98
5) Freon 114	4.07	135	373686	2.5338	ppb	#	78
6) Vinyl Chloride	4.16	62	155811	2.5726	ppb		99
7) 1,3-Butadiene	4.30	54	133871	2.5126	ppb	#	63
8) Bromomethane	4.57	94	164068	2.6256	ppb		99
9) Chloroethane	4.74	64	88761	2.6577	ppb	#	90
10) Acrolein	5.36	56	42075	1.8628	ppb	#	92
11) Acetone	5.52	43	273239	2.5094	ppb		88
12) Trichlorofluoromethane	5.49	101	498127	2.5894	ppb		97
13) Ethanol	5.18	45	32560	1.4753	ppb	#	64
14) Isopropyl Alcohol	5.83	45	243804	2.2512	ppb	#	90
15) 1,1-Dichloroethene	6.12	61	269522	2.5183	ppb	#	82
16) Methylene Chloride	6.26	84	161860	2.6130	ppb	#	65
17) Freon 113	6.51	151	345306	2.5250	ppb	#	71
18) Carbon Disulfide	6.54	76	466830	2.5718	ppb	#	64
19) trans-1,2-Dichloroethene	7.16	96	185535	2.5721	ppb	#	83
20) 1,1-Dichloroethane	7.38	63	307085	2.5238	ppb		97
21) methyl t-butyl ether	7.48	73	410469	2.5008	ppb	#	83
22) Vinyl Acetate	7.57	86	17788	1.3593	ppb	#	1
23) 2-Butanone	7.85	43	352084	2.5095	ppb	#	73
24) cis-1,2-Dichloroethene	8.21	96	194690	2.5579	ppb	#	82
26) Ethyl Acetate	8.46	61	72892	2.6609	ppb	#	1
27) Hexane	8.40	57	265300	2.1605	ppb	#	82
28) Chloroform	8.50	83	367237	2.2003	ppb		98
29) Tetrahydrofuran	8.97	42	206357	2.1509	ppb	#	62
30) 1,2-Dichloroethane	9.25	62	222264	2.1472	ppb	#	90
31) 1,1,1-Trichloroethane	9.48	97	381447	2.1255	ppb	#	92
32) Benzene	9.94	78	509475	2.2314	ppb	#	93
33) Carbon Tetrachloride	10.07	117	472529	2.1820	ppb		99
34) Cyclohexane	10.19	84	229710	2.1661	ppb	#	54
35) 1,2-Dichloropropane	10.75	63	193216	2.1852	ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ98S2.D Vial: 2
Acq Time : 02/11/2016 19:02 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 30851 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 07:59:58 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 07:59:45 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.94	83	385487	2.1865	ppb		97
37)	1,4-Dioxane	11.02	88	128818	2.2966	ppb	#	95
38)	Trichloroethene	10.97	130	306814	2.2228	ppb		97
39)	Methyl Methacrylate	11.16	69	169636	2.3448	ppb	#	80
40)	Heptane	11.25	71	171022	2.2647	ppb	#	48
41)	cis-1,3-Dichloropropene	11.83	75	275670	2.1742	ppb		98
42)	4-Methyl-2-Pentanone	11.87	43	427053	2.1720	ppb	#	74
43)	trans-1,3-Dichloropropene	12.36	75	247696	2.2306	ppb		96
44)	1,1,2-Trichloroethane	12.55	97	233251	2.2540	ppb	#	93
45)	Toluene	12.82	91	633270	2.2993	ppb		99
46)	2-Hexanone	13.08	43	454766	2.6373	ppb	#	75
47)	Dibromochloromethane	13.27	129	501362	2.2269	ppb		99
48)	1,2-Dibromoethane	13.53	107	372638	2.2672	ppb		100
49)	Tetrachloroethene	13.99	166	341812	2.2462	ppb	#	82
51)	Chlorobenzene	14.71	112	593654	2.2610	ppb		92
52)	Ethylbenzene	15.10	91	811637	2.2190	ppb		99
53)	m,p-Xylene	15.29	91	1248609	4.4019	ppb		100
54)	Bromoform	15.41	173	416644	2.2035	ppb		99
55)	Styrene	15.69	104	485440	2.2222	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.82	83	478482	2.2283	ppb		98
57)	o-Xylene	15.81	91	644133	2.1879	ppb		100
59)	4-Ethyl Toluene	17.25	105	901104	2.2815	ppb		100
60)	1,3,5-Trimethylbenzene	17.35	105	790321	2.2201	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	744237	2.2270	ppb		99
62)	Benzyl Chloride	18.06	91	488353	2.2826	ppb		97
63)	m-Dichlorobenzene	18.08	146	553865	2.3553	ppb		96
64)	p-Dichlorobenzene	18.17	146	545937	2.4226	ppb		96
65)	o-Dichlorobenzene	18.62	146	519933	2.3236	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	252332	3.4347	ppb	#	98
67)	Naphthalene	21.31	128	690483	2.9898	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	231635	2.2208	ppb		99

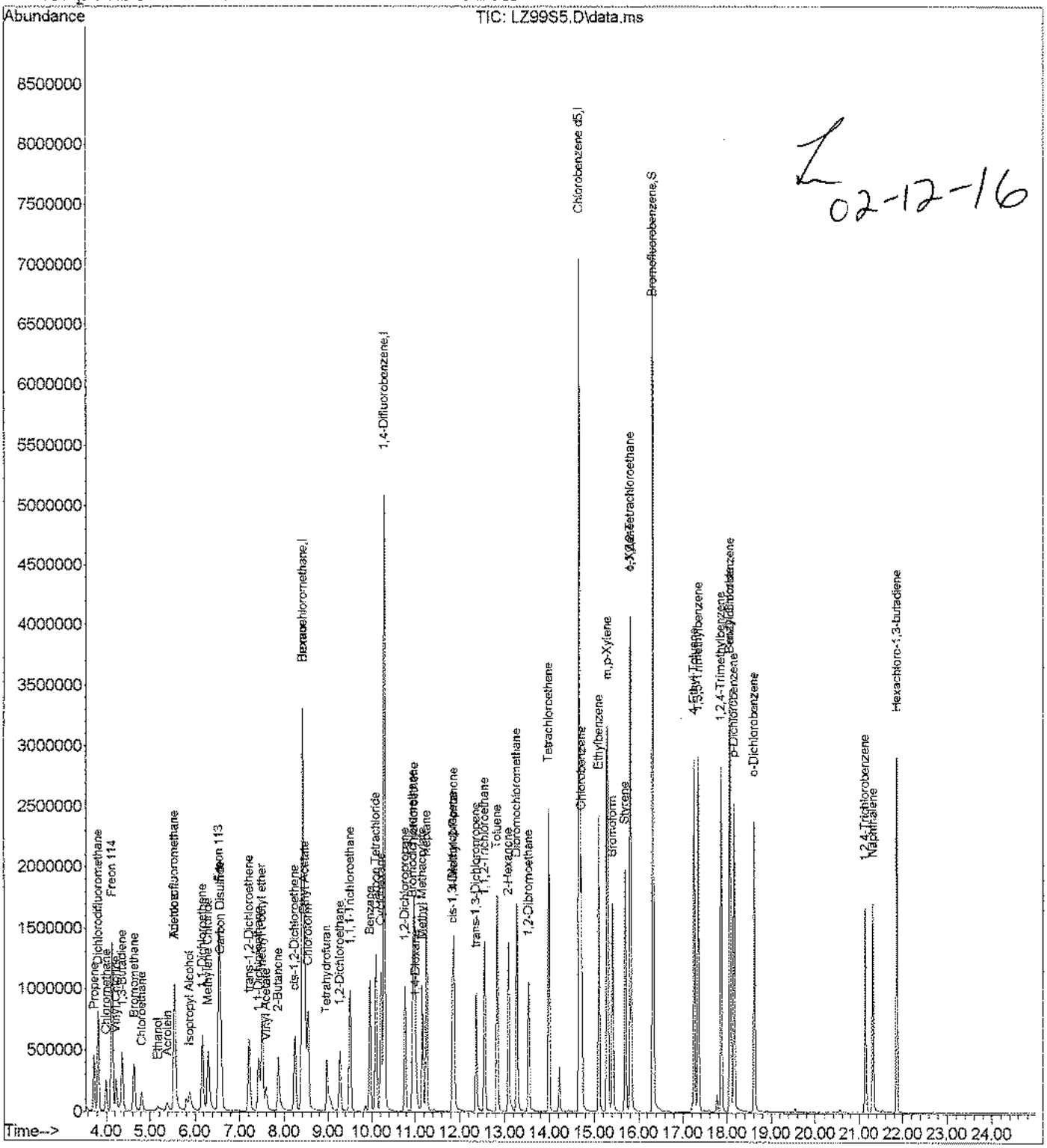
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



LZ 02-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	498624	20.0000	ppb		70.11
25) 1,4-Difluorobenzene	10.29	114	6190640	20.0000	ppb		83.51
50) Chlorobenzene d5	14.66	117	5598828	20.0000	ppb		86.87
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	3281478	20.9163	ppb		104.58%
Target Compounds							Qvalue
2) Propene	3.73	41	339749	5.7455	ppb		99
3) Dichlorodifluoromethane	3.82	85	1107007	6.1492	ppb		99
4) Chloromethane	3.99	50	410999	6.0332	ppb		98
5) Freon 114	4.13	135	951144	5.6823	ppb	#	79
6) Vinyl Chloride	4.22	62	409586	6.0230	ppb		98
7) 1,3-Butadiene	4.36	54	340904	5.6650	ppb	#	62
8) Bromomethane	4.63	94	423273	6.0085	ppb		99
9) Chloroethane	4.81	64	220722	5.8235	ppb	#	89
10) Acrolein	5.38	56	108339	4.5068	ppb	#	97
11) Acetone	5.54	43	677391	5.5500	ppb		88
12) Trichlorofluoromethane	5.55	101	1222070	5.5586	ppb		97
13) Ethanol	5.17	45	79442	3.5720	ppb	#	73
14) Isopropyl Alcohol	5.88	45	601519	5.2038	ppb	m	82
15) 1,1-Dichloroethene	6.17	61	679308	5.5839	ppb	#	81
16) Methylene Chloride	6.30	84	404261	5.7343	ppb	#	67
17) Freon 113	6.55	151	852356	5.4753	ppb	#	73
18) Carbon Disulfide	6.59	76	1155786	5.5886	ppb	#	64
19) trans-1,2-Dichloroethene	7.21	96	459860	5.5577	ppb	#	81
20) 1,1-Dichloroethane	7.43	63	766207	5.5206	ppb		97
21) methyl t-butyl ether	7.50	73	1067492	5.7149	ppb	#	83
22) Vinyl Acetate	7.58	86	46331	3.5876	ppb	#	1
23) 2-Butanone	7.86	43	947569	5.9210	ppb	#	71
24) cis-1,2-Dichloroethene	8.24	96	494145	5.6718	ppb	#	82
26) Ethyl Acetate	8.46	61	194665	6.4578	ppb	#	1
27) Hexane	8.42	57	685969	5.4708	ppb	#	48
28) Chloroform	8.54	83	905853	5.2560	ppb		99
29) Tetrahydrofuran	8.96	42	541558	5.4817	ppb	#	63
30) 1,2-Dichloroethane	9.27	62	552390	5.1819	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	956483	5.1918	ppb	#	93
32) Benzene	9.96	78	1285337	5.4284	ppb	#	94
33) Carbon Tetrachloride	10.10	117	1181653	5.2845	ppb		99
34) Cyclohexane	10.21	84	608962	5.5957	ppb	#	58
35) 1,2-Dichloropropane	10.77	63	489564	5.3736	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ99S5.D Vial: 2
Acq Time : 02/11/2016 19:49 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 30851 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:00:48 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	966106	5.2917	ppb		98
37)	1,4-Dioxane	11.02	88	330271	5.6041	ppb		95
38)	Trichloroethene	10.99	130	765743	5.3548	ppb		97
39)	Methyl Methacrylate	11.16	69	451409	5.9632	ppb	#	80
40)	Heptane	11.26	71	453876	5.8605	ppb	#	47
41)	cis-1,3-Dichloropropene	11.84	75	728055	5.5459	ppb		97
42)	4-Methyl-2-Pentanone	11.87	43	1147523	5.6593	ppb	#	74
43)	trans-1,3-Dichloropropene	12.36	75	652201	5.6281	ppb		97
44)	1,1,2-Trichloroethane	12.55	97	591512	5.5106	ppb	#	93
45)	Toluene	12.83	91	1664738	5.8490	ppb		100
46)	2-Hexanone	13.08	43	1246634	6.5684	ppb	#	75
47)	Dibromochloromethane	13.27	129	1292063	5.5183	ppb		99
48)	1,2-Dibromoethane	13.54	107	959178	5.5788	ppb		100
49)	Tetrachloroethene	13.99	166	882903	5.6234	ppb	#	82
51)	Chlorobenzene	14.71	112	1518093	5.5782	ppb		96
52)	Ethylbenzene	15.10	91	2147523	5.6880	ppb		99
53)	m,p-Xylene	15.29	91	3304810	11.2923	ppb		99
54)	Bromoform	15.41	173	1092502	5.5527	ppb		99
55)	Styrene	15.69	104	1340684	5.9069	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	1235241	5.5155	ppb		98
57)	o-Xylene	15.81	91	1712954	5.6535	ppb		100
59)	4-Ethyl Toluene	17.25	105	2411355	5.8168	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	2100186	5.6786	ppb		99
61)	1,2,4-Trimethylbenzene	17.86	105	2005677	5.7397	ppb		100
62)	Benzyl Chloride	18.06	91	1389671	5.8956	ppb		99
63)	m-Dichlorobenzene	18.07	146	1469987	5.7992	ppb		96
64)	p-Dichlorobenzene	18.16	146	1452161	5.9314	ppb		96
65)	o-Dichlorobenzene	18.62	146	1386448	5.7895	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	693930	7.4565	ppb	#	98
67)	Naphthalene	21.31	128	1916770	6.8981	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	603177	5.4105	ppb		99

(#) = qualifier out of range (m) = manual integration

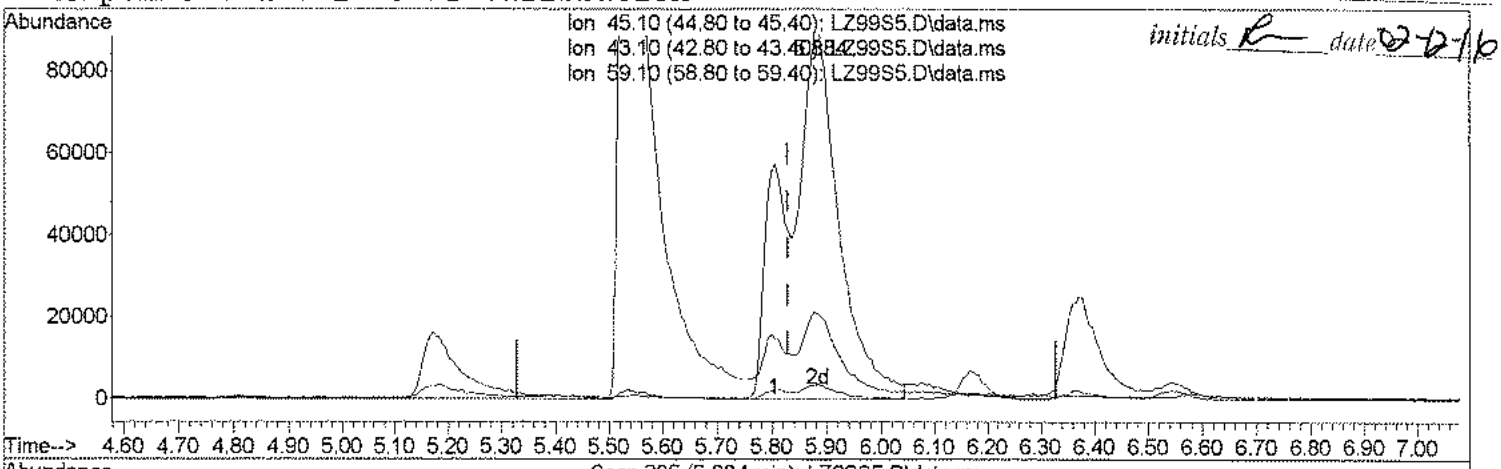
Quantitation Report (Qedit)

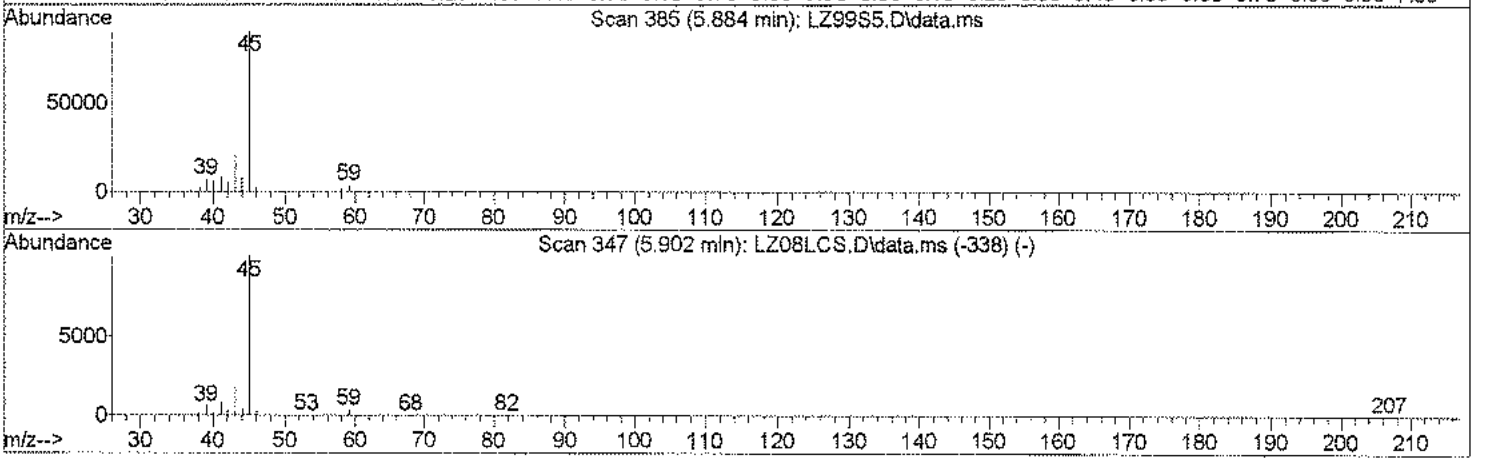
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LZ99S5.D
Acq On : 02/11/2016 19:49
Operator : TJM
Sample : 5.0 PPB STD
Inst : 5975-L
Misc : 30851 (100mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 08:00:18 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:00:08 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials _____ date 02-12-16





TIC: LZ99S5.D\data.ms

(14) Isopropyl Alcohol

5.884min (+ 0.055) 5.20 ppb m

response 601519

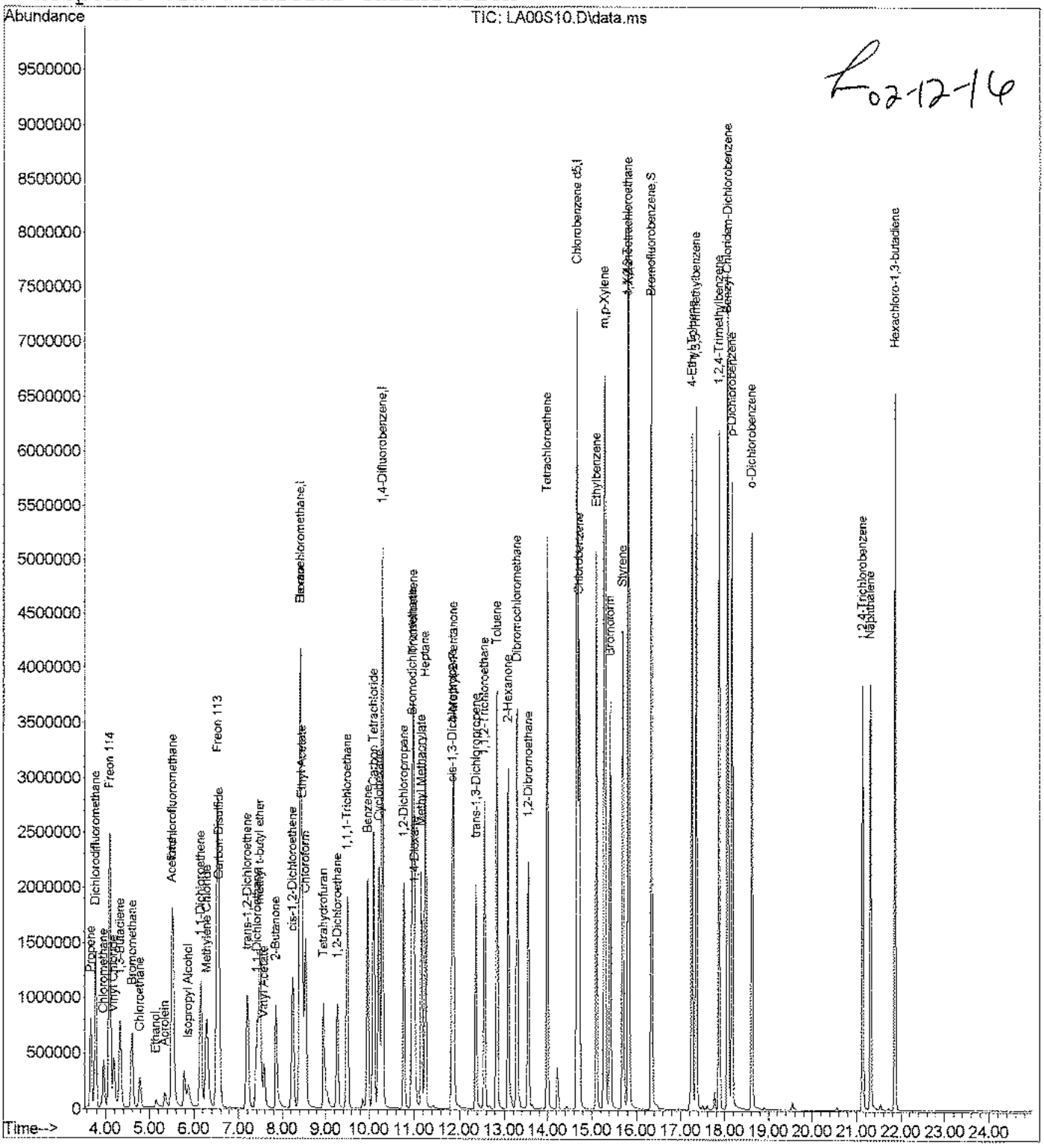
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	8.25#
59.10	4.00	1.11#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:03 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	485440	20.0000	ppb		68.25
25) 1,4-Difluorobenzene	10.29	114	6266319	20.0000	ppb		84.53
50) Chlorobenzene d5	14.67	117	5800685	20.0000	ppb		90.01
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3420474	20.7975	ppb		103.99%
Target Compounds							Qvalue
2) Propene	3.68	41	694541	11.7431	ppb		99
3) Dichlorodifluoromethane	3.78	85	2197608	12.0643	ppb		99
4) Chloromethane	3.96	50	809288	11.6744	ppb		98
5) Freon 114	4.10	135	1888015	11.1210	ppb	#	79
6) Vinyl Chloride	4.18	62	833748	12.1475	ppb		98
7) 1,3-Butadiene	4.33	54	685278	11.2862	ppb	#	62
8) Bromomethane	4.60	94	855503	12.0470	ppb		98
9) Chloroethane	4.78	64	452093	11.8234	ppb	#	89
10) Acrolein	5.35	56	238257	10.5201	ppb		97
11) Acetone	5.50	43	1394926	11.3397	ppb		88
12) Trichlorofluoromethane	5.52	101	2440197	10.9563	ppb		96
13) Ethanol	5.15	45	170811	8.6130	ppb	#	76
14) Isopropyl Alcohol	5.87	45	511309	4.5651	ppb		97
15) 1,1-Dichloroethene	6.15	61	1390118	11.3294	ppb	#	81
16) Methylene Chloride	6.28	84	803658	11.2271	ppb	#	64
17) Freon 113	6.53	151	1716368	10.9141	ppb	#	73
18) Carbon Disulfide	6.57	76	2332991	11.1516	ppb	#	65
19) trans-1,2-Dichloroethene	7.20	96	937658	11.1773	ppb	#	81
20) 1,1-Dichloroethane	7.43	63	1542417	10.9843	ppb		98
21) methyl t-butyl ether	7.49	73	2196850	11.6138	ppb	#	82
22) Vinyl Acetate	7.59	86	96257	8.4938	ppb	#	1
23) 2-Butanone	7.85	43	1987962	12.1543	ppb	#	70
24) cis-1,2-Dichloroethene	8.24	96	1007417	11.3882	ppb	#	82
26) Ethyl Acetate	8.46	61	399830	12.0910	ppb	#	1
27) Hexane	8.41	57	1416513	11.0518	ppb	#	48
28) Chloroform	8.53	83	1843551	10.3936	ppb		99
29) Tetrahydrofuran	8.95	42	1139829	11.2024	ppb	#	60
30) 1,2-Dichloroethane	9.27	62	1134587	10.4074	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	1955415	10.3667	ppb	#	92
32) Benzene	9.96	78	2616687	10.6746	ppb	#	94
33) Carbon Tetrachloride	10.10	117	2417904	10.5147	ppb		99
34) Cyclohexane	10.21	84	1254570	11.1677	ppb	#	58
35) 1,2-Dichloropropane	10.77	63	1005455	10.7128	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA00S10.D Vial: 2
Acq Time : 02/11/2016 20:38 Operator: TJM
Sample : 10.0 PPB STD Inst : 5975-L
Misc : 30851 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:18 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:03 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	2002306	10.6429	ppb		98
37)	1,4-Dioxane	11.02	88	689521	11.1364	ppb		92
38)	Trichloroethene	10.99	130	1588013	10.7808	ppb		98
39)	Methyl Methacrylate	11.16	69	971407	12.2613	ppb	#	79
40)	Heptane	11.25	71	936034	11.7292	ppb	#	45
41)	cis-1,3-Dichloropropene	11.84	75	1546216	11.4183	ppb		97
42)	4-Methyl-2-Pentanone	11.87	43	2441656	11.7179	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	1400417	11.6906	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	1226917	11.0598	ppb	#	93
45)	Toluene	12.83	91	3496002	11.8972	ppb		100
46)	2-Hexanone	13.08	43	2748693	13.3194	ppb	#	75
47)	Dibromochloromethane	13.28	129	2751952	11.3753	ppb		99
48)	1,2-Dibromoethane	13.55	107	2035523	11.4043	ppb		100
49)	Tetrachloroethene	13.99	166	1876485	11.6300	ppb	#	82
51)	Chlorobenzene	14.72	112	3209671	11.2457	ppb		98
52)	Ethylbenzene	15.11	91	4564943	11.5566	ppb		100
53)	m,p-Xylene	15.30	91	7080810	23.1468	ppb		100
54)	Bromoform	15.42	173	2371986	11.4591	ppb		99
55)	Styrene	15.70	104	2916836	12.2135	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.83	83	2590980	11.0117	ppb		98
57)	o-Xylene	15.81	91	3669650	11.6025	ppb		100
59)	4-Ethyl Toluene	17.26	105	5173846	11.8226	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	4450049	11.4459	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	4328757	11.7444	ppb		99
62)	Benzyl Chloride	18.06	91	3165466	12.4741	ppb		99
63)	m-Dichlorobenzene	18.08	146	3158097	11.6083	ppb		96
64)	p-Dichlorobenzene	18.17	146	3127771	11.8279	ppb		96
65)	o-Dichlorobenzene	18.63	146	2984776	11.6746	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	1581918	13.9053	ppb	#	97
67)	Naphthalene	21.31	128	4270025	13.1484	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1320207	11.1532	ppb		99

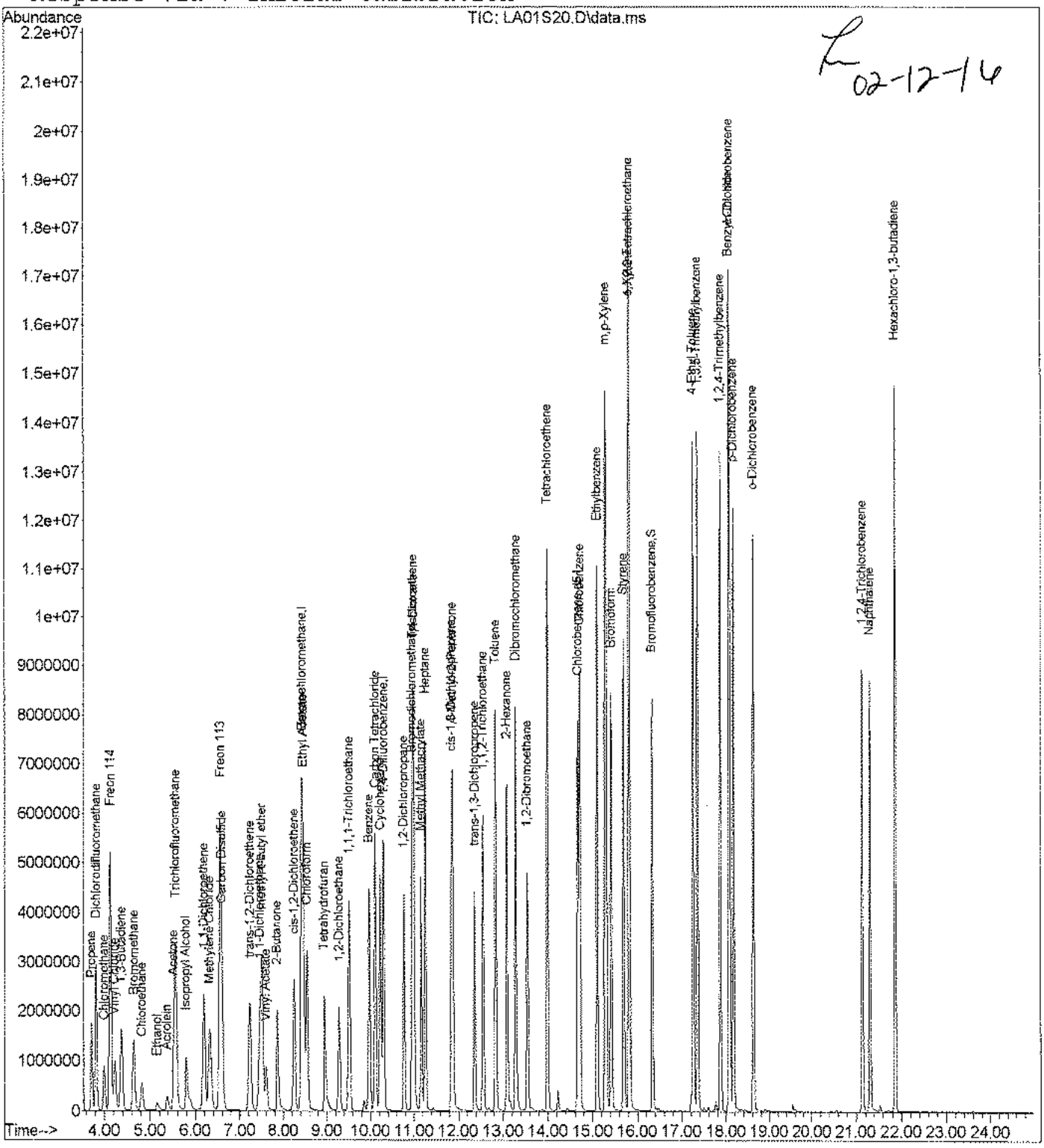
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



LA01S20.D TO15LG16.m Fri Feb 12 10:07:29 2016 Page 3

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:39 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.43	130	531904	20.0000	ppb		109.57
25) 1,4-Difluorobenzene	10.30	114	6514360	20.0000	ppb		103.96
50) Chlorobenzene d5	14.67	117	6088197	20.0000	ppb		104.96
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	3652934	20.9477	ppb		104.74%
Target Compounds							**Qvalue**
2) Propene	3.72	41	1454520	21.4216	ppb		99
3) Dichlorodifluoromethane	3.82	85	4619221	21.9179	ppb		100
4) Chloromethane	3.99	50	1726758	21.5443	ppb		99
5) Freon 114	4.13	135	4006135	20.5173	ppb	#	80
6) Vinyl Chloride	4.23	62	1782596	22.5348	ppb		99
7) 1,3-Butadiene	4.37	54	1489424	21.3696	ppb	#	62
8) Bromomethane	4.65	94	1807442	22.0781	ppb		99
9) Chloroethane	4.82	64	949806	21.5253	ppb	#	89
10) Acrolein	5.37	56	498826	20.2915	ppb		99
11) Acetone	5.51	43	2988881	21.0379	ppb		87
12) Trichlorofluoromethane	5.56	101	5107892	19.9172	ppb		96
13) Ethanol	5.15	45	359084	17.7965	ppb	#	77
14) Isopropyl Alcohol	5.79	45	2780179	25.1775	ppb		98
15) 1,1-Dichloroethene	6.19	61	2917052	20.6377	ppb	#	81
16) Methylene Chloride	6.32	84	1665392	20.1364	ppb	#	63
17) Freon 113	6.56	151	3593072	19.8693	ppb	#	74
18) Carbon Disulfide	6.60	76	4811668	19.9443	ppb	#	65
19) trans-1,2-Dichloroethene	7.23	96	1966443	20.2844	ppb	#	81
20) 1,1-Dichloroethane	7.45	63	3248446	20.0998	ppb		97
21) methyl t-butyl ether	7.50	73	4635159	21.2313	ppb	#	81
22) Vinyl Acetate	7.60	86	209842	18.8114	ppb	#	1
23) 2-Butanone	7.85	43	4289396	22.5302	ppb	#	71
24) cis-1,2-Dichloroethene	8.26	96	2106550	20.5727	ppb	#	81
26) Ethyl Acetate	8.46	61	853981	22.9985	ppb	#	1
27) Hexane	8.43	57	3006631	22.2584	ppb	#	48
28) Chloroform	8.55	83	3813589	20.2797	ppb		98
29) Tetrahydrofuran	8.94	42	2448072	22.6755	ppb	#	63
30) 1,2-Dichloroethane	9.28	62	2400419	20.8918	ppb	#	90
31) 1,1,1-Trichloroethane	9.51	97	4115065	20.6963	ppb	#	92
32) Benzene	9.97	78	5456676	20.8811	ppb	#	93
33) Carbon Tetrachloride	10.10	117	5127660	21.0496	ppb		99
34) Cyclohexane	10.22	84	2598460	21.7002	ppb	#	55
35) 1,2-Dichloropropane	10.77	63	2104584	21.1294	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA01S20.D Vial: 2
Acq Time : 02/11/2016 21:30 Operator: TJM
Sample : 20.0 PPB STD Inst : 5975-L
Misc : 30851 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:01:51 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:01:39 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	4194048	20.9867	ppb		97
37)	1,4-Dioxane	11.00	88	1490569	22.2910	ppb	#	92
38)	Trichloroethene	10.99	130	3353916	21.4336	ppb		97
39)	Methyl Methacrylate	11.16	69	2068221	24.0987	ppb	#	77
40)	Heptane	11.26	71	1966938	23.2055	ppb	#	43
41)	cis-1,3-Dichloropropene	11.85	75	3273699	22.7144	ppb		98
42)	4-Methyl-2-Pentanone	11.87	43	5276898	23.8741	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	2997250	23.4321	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	2589327	21.8979	ppb	#	94
45)	Toluene	12.83	91	7360767	23.4832	ppb		100
46)	2-Hexanone	13.08	43	6056930	26.3790	ppb	#	75
47)	Dibromochloromethane	13.28	129	5956572	23.0604	ppb		99
48)	1,2-Dibromoethane	13.54	107	4350632	22.7885	ppb		100
49)	Tetrachloroethene	13.99	166	4019905	23.3927	ppb	#	81
51)	Chlorobenzene	14.72	112	6692661	21.9345	ppb		98
52)	Ethylbenzene	15.11	91	9696170	23.0398	ppb		100
53)	m,p-Xylene	15.30	91	15176928	46.6131	ppb		100
54)	Bromoform	15.42	173	5184356	23.4097	ppb		98
55)	Styrene	15.69	104	6274511	24.5103	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.82	83	5543598	22.1126	ppb		98
57)	o-Xylene	15.82	91	7965576	23.6893	ppb		100
59)	4-Ethyl Toluene	17.25	105	11092545	23.6599	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	9563952	23.0464	ppb		100
61)	1,2,4-Trimethylbenzene	17.87	105	9358127	23.6975	ppb		99
62)	Benzyl Chloride	18.06	91	7169476	26.3375	ppb		99
63)	m-Dichlorobenzene	18.08	146	6866704	23.3227	ppb		96
64)	p-Dichlorobenzene	18.17	146	6721586	23.3467	ppb		96
65)	o-Dichlorobenzene	18.62	146	6412665	23.2171	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	3544179	26.3888	ppb	#	97
67)	Naphthalene	21.31	128	9347501	25.2182	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	2947360	23.1728	ppb		99

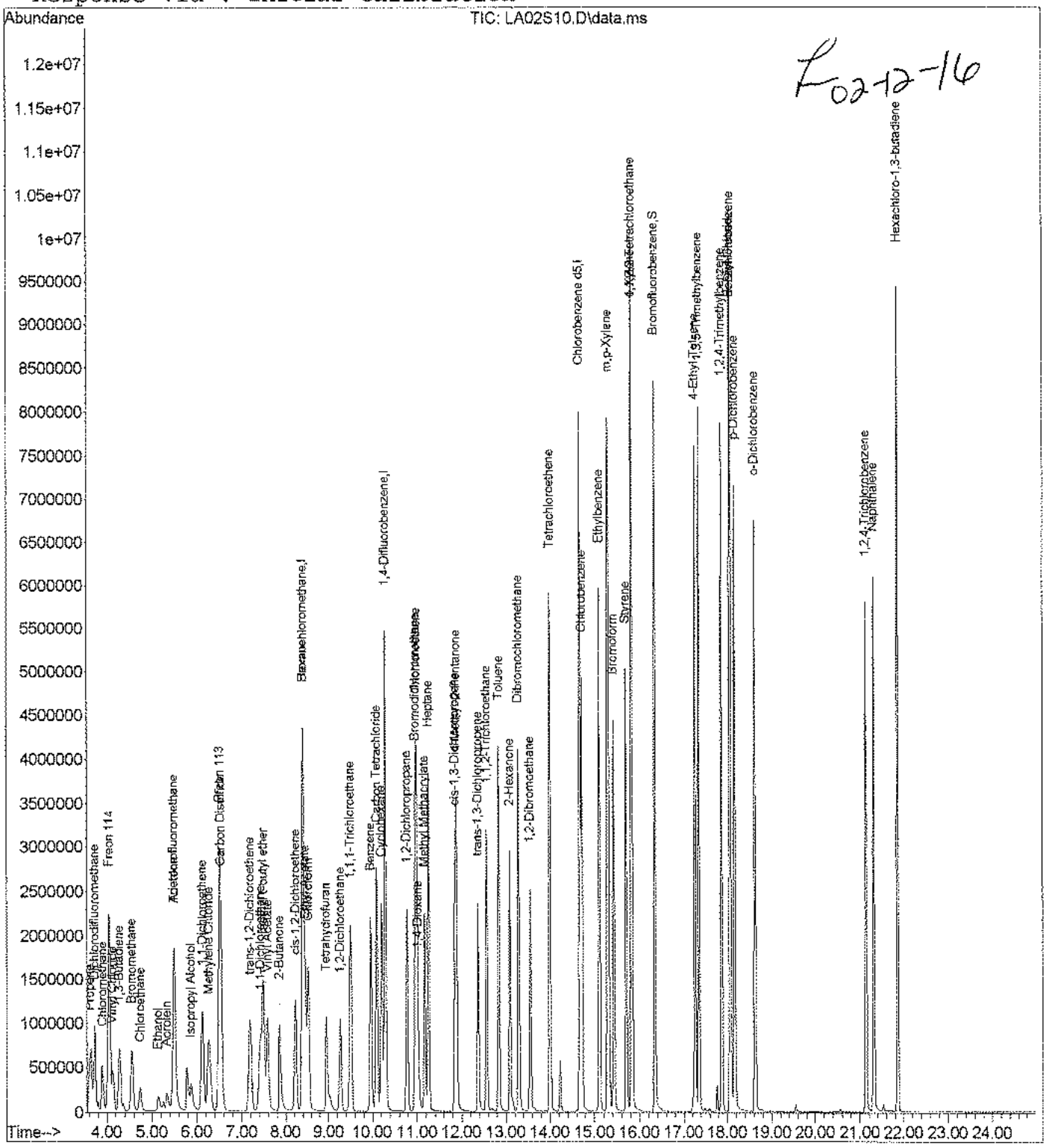
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration



2-12-16

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	489024	20.0000	ppb		100.74
25) 1,4-Difluorobenzene	10.29	114	6764977	20.0000	ppb		107.96
50) Chlorobenzene d5	14.67	117	6180371	20.0000	ppb		106.55
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3635448	20.2872	ppb		101.44%
Target Compounds							Qvalue
2) Propene	3.61	41	745757	11.4585	ppb	m	0
3) Dichlorodifluoromethane	3.73	85	2344087	11.3595	ppb	m	91
4) Chloromethane	3.90	50	893818	11.5228	ppb	m	41
5) Freon 114	4.05	135	1908152	10.1497	ppb	#	77
6) Vinyl Chloride	4.13	62	813206	10.6458	ppb		98
7) 1,3-Butadiene	4.29	54	690480	10.2824	ppb	#	60
8) Bromomethane	4.56	94	922042	11.6850	ppb		98
9) Chloroethane	4.74	64	473575	11.1357	ppb	#	89
10) Acrolein	5.32	56	394704	17.6763	ppb		98
11) Acetone	5.49	43	1551169	11.3092	ppb	#	84
12) Trichlorofluoromethane	5.49	101	2607586	10.5805	ppb		96
13) Ethanol	5.13	45	406646	23.8692	ppb	#	78
14) Isopropyl Alcohol	5.87	45	748790	6.5898	ppb		99
15) 1,1-Dichloroethene	6.12	61	1541980	11.3675	ppb	#	80
16) Methylene Chloride	6.26	84	882301	11.0803	ppb	#	63
17) Freon 113	6.51	151	1906335	10.9894	ppb	#	74
18) Carbon Disulfide	6.54	76	2570980	11.0994	ppb	#	65
19) trans-1,2-Dichloroethene	7.18	96	1051790	11.2699	ppb	#	80
20) 1,1-Dichloroethane	7.41	63	1744085	11.2392	ppb		97
21) methyl t-butyl ether	7.48	73	2486576	11.8487	ppb	#	82
22) Vinyl Acetate	7.58	86	280681	30.9339	ppb	#	1
23) 2-Butanone	7.85	43	2209480	11.9492	ppb	#	71
24) cis-1,2-Dichloroethene	8.23	96	1128404	11.4382	ppb	#	81
26) Ethyl Acetate	8.46	61	309299	7.4483	ppb	#	1
27) Hexane	8.40	57	1613265	11.2769	ppb	#	82
28) Chloroform	8.53	83	2077298	10.4021	ppb		99
29) Tetrahydrofuran	8.94	42	1103477	9.5904	ppb	#	68
30) 1,2-Dichloroethane	9.27	62	1308600	10.7600	ppb	#	91
31) 1,1,1-Trichloroethane	9.50	97	2267425	10.7837	ppb	#	92
32) Benzene	9.96	78	2885330	10.3507	ppb	#	93
33) Carbon Tetrachloride	10.09	117	2743301	10.5890	ppb		99
34) Cyclohexane	10.21	84	1383906	10.8364	ppb	#	56
35) 1,2-Dichloropropane	10.77	63	1136861	10.7327	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LA02S10.D Vial: 3
Acq Time : 02/11/2016 22:19 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 30844 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 12 08:06:37 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	2259464	10.6479	ppb		97
37)	1,4-Dioxane	11.02	88	737701	10.1905	ppb	#	91
38)	Trichloroethene	10.99	130	1782511	10.7024	ppb		97
39)	Methyl Methacrylate	11.17	69	1032042	11.0991	ppb	#	78
40)	Heptane	11.25	71	1056157	11.7051	ppb	#	44
41)	cis-1,3-Dichloropropene	11.85	75	1798896	11.7248	ppb		97
42)	4-Methyl-2-Pentanone	11.88	43	2868842	12.1696	ppb	#	74
43)	trans-1,3-Dichloropropene	12.37	75	1656410	12.1110	ppb		97
44)	1,1,2-Trichloroethane	12.57	97	1402209	11.0887	ppb	#	93
45)	Toluene	12.84	91	3969358	11.8398	ppb		100
46)	2-Hexanone	13.09	43	2711056	10.6153	ppb	#	75
47)	Dibromochloromethane	13.28	129	3130692	11.3076	ppb		99
48)	1,2-Dibromoethane	13.55	107	2363280	11.5452	ppb		100
49)	Tetrachloroethene	14.00	166	2164263	11.7706	ppb	#	82
51)	Chlorobenzene	14.72	112	3668876	11.6117	ppb		97
52)	Ethylbenzene	15.11	91	5310490	12.2001	ppb		100
53)	m,p-Xylene	15.30	91	8298624	24.5906	ppb		100
54)	Bromoform	15.42	173	2784961	12.1083	ppb		99
55)	Styrene	15.71	104	3454864	12.9769	ppb		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	3108398	11.9363	ppb		98
57)	o-Xylene	15.82	91	4360739	12.5011	ppb		99
59)	4-Ethyl Toluene	17.26	105	6290035	12.9051	ppb		99
60)	1,3,5-Trimethylbenzene	17.35	105	5413751	12.5724	ppb		99
61)	1,2,4-Trimethylbenzene	17.87	105	5359610	13.0631	ppb		100
62)	Benzyl Chloride	18.06	91	4877426	17.3235	ppb		99
63)	m-Dichlorobenzene	18.08	146	3994463	12.9919	ppb		96
64)	p-Dichlorobenzene	18.17	146	3952062	13.0928	ppb		96
65)	o-Dichlorobenzene	18.62	146	3799599	13.1851	ppb		97
66)	1,2,4-Trichlorobenzene	21.13	180	2345582	15.7820	ppb	#	97
67)	Naphthalene	21.31	128	6551648	16.4216	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1907763	14.4170	ppb		99

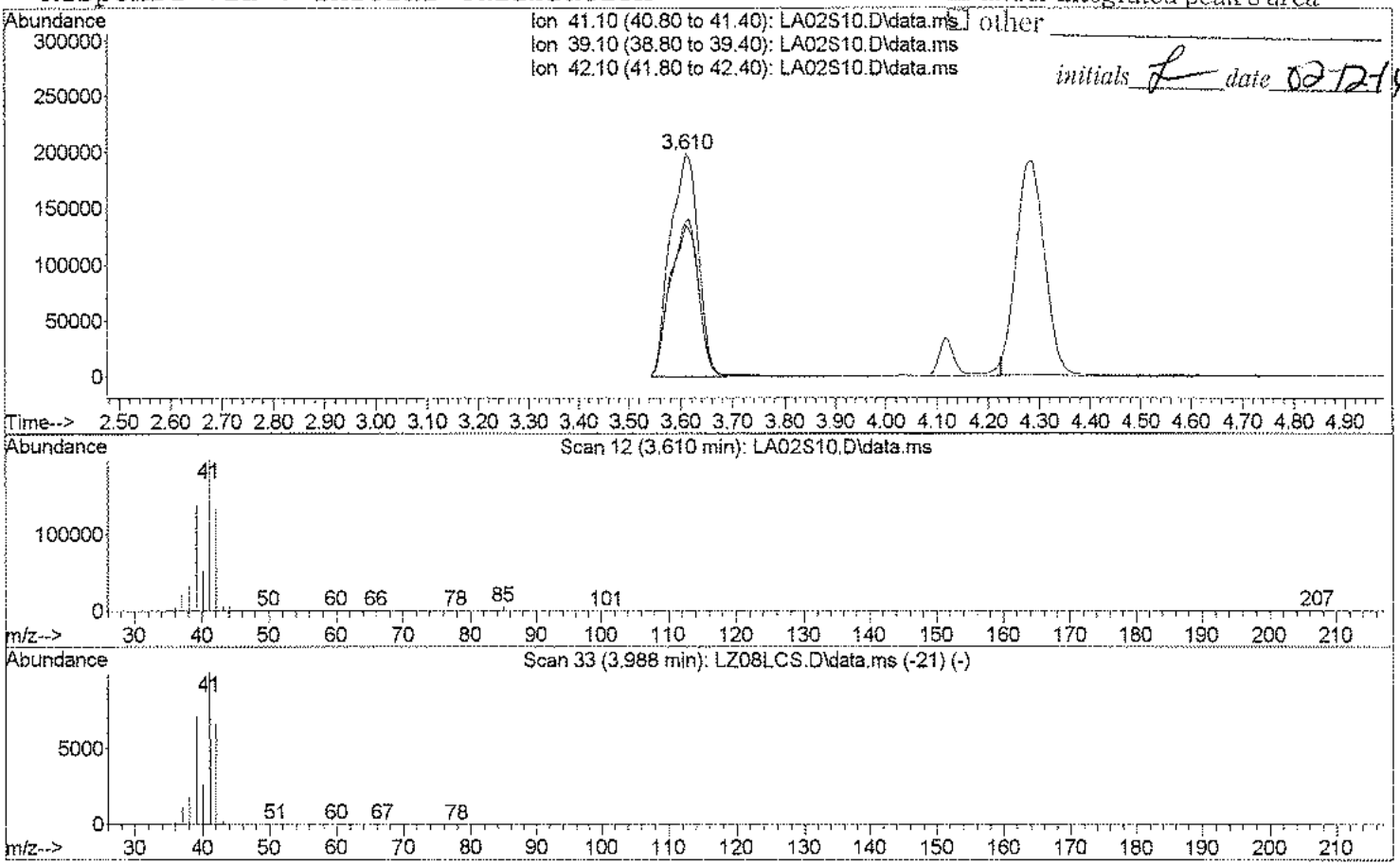
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 02/12/16



TIC: LA02S10.D\data.ms

(2) Propene

3.610min (-0.116) 11.46 ppb m

response 745757

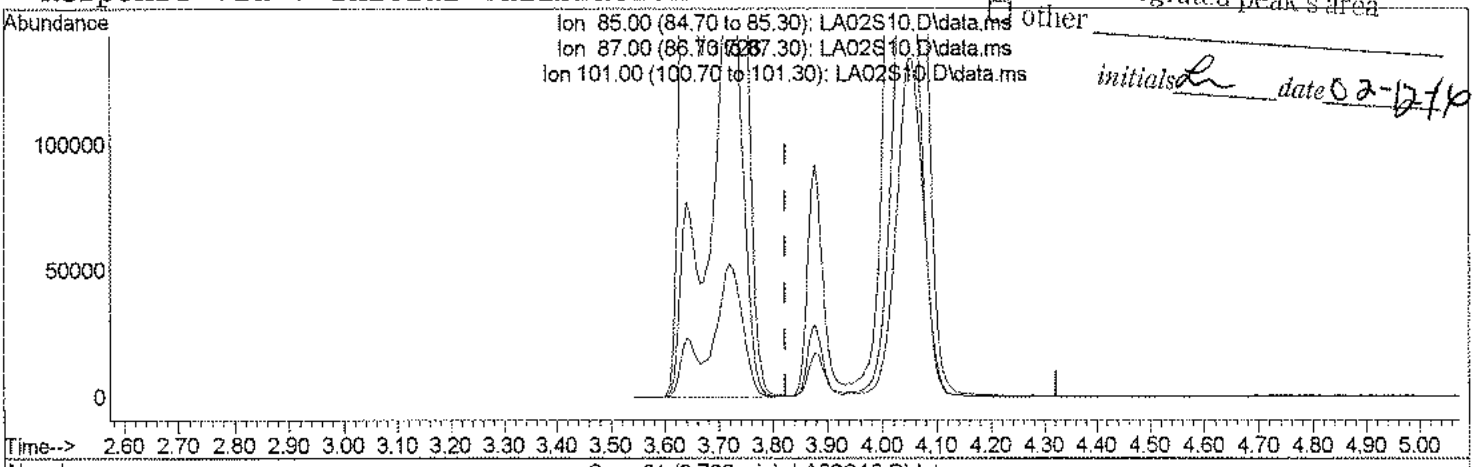
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

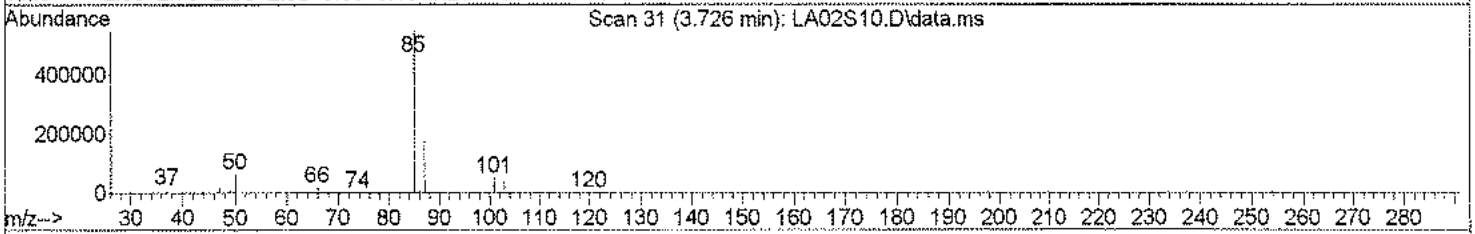
Quantitation Report (Qedit)

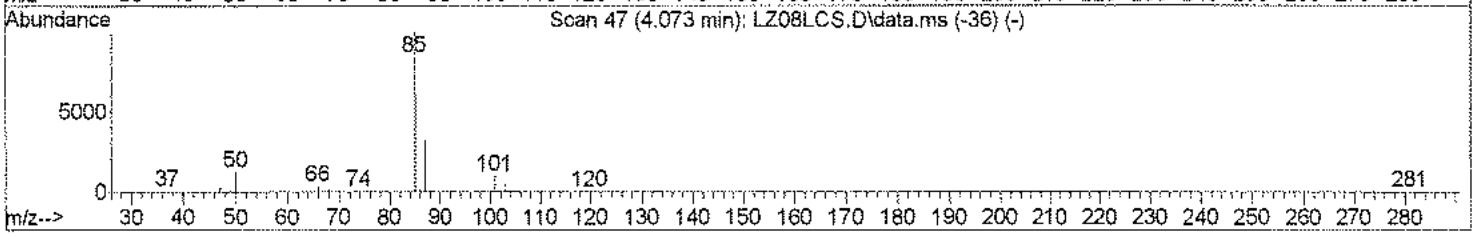
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other
initials LL date 02-12-16







TIC: LA02S10.D\data.ms

(3) Dichlorodifluoromethane

3.726min (-0.098) 11.36 ppb m

response 2344087

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	2.43#
101.00	10.00	1.59#
0.00	0.00	0.00

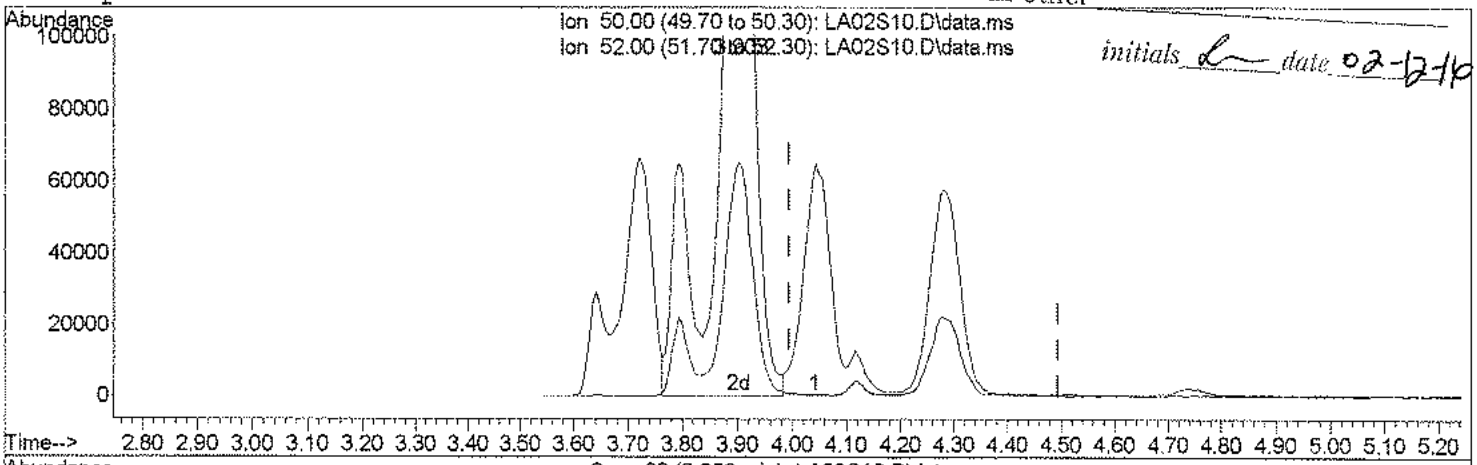
Quantitation Report (Qedit)

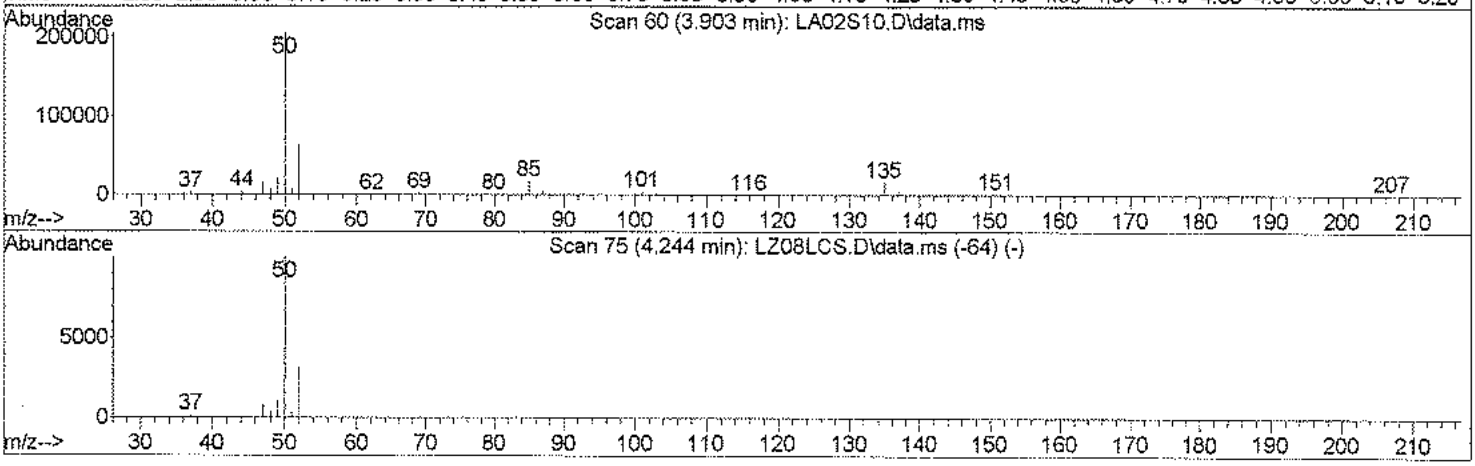
Data Path : I:\L - 5975-L\2016\FEB16L\11FEB16L\
Data File : LA02S10.D
Acq On : 02/11/2016 22:19
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 30844 (200mL)
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 08:05:46 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Fri Feb 12 08:04:53 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☐ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other

initials L date 02-12-16





TIC: LA02S10.D\data.ms

(4) Chloromethane

3.903min (-0.092) 11.52 ppb m

response 893818

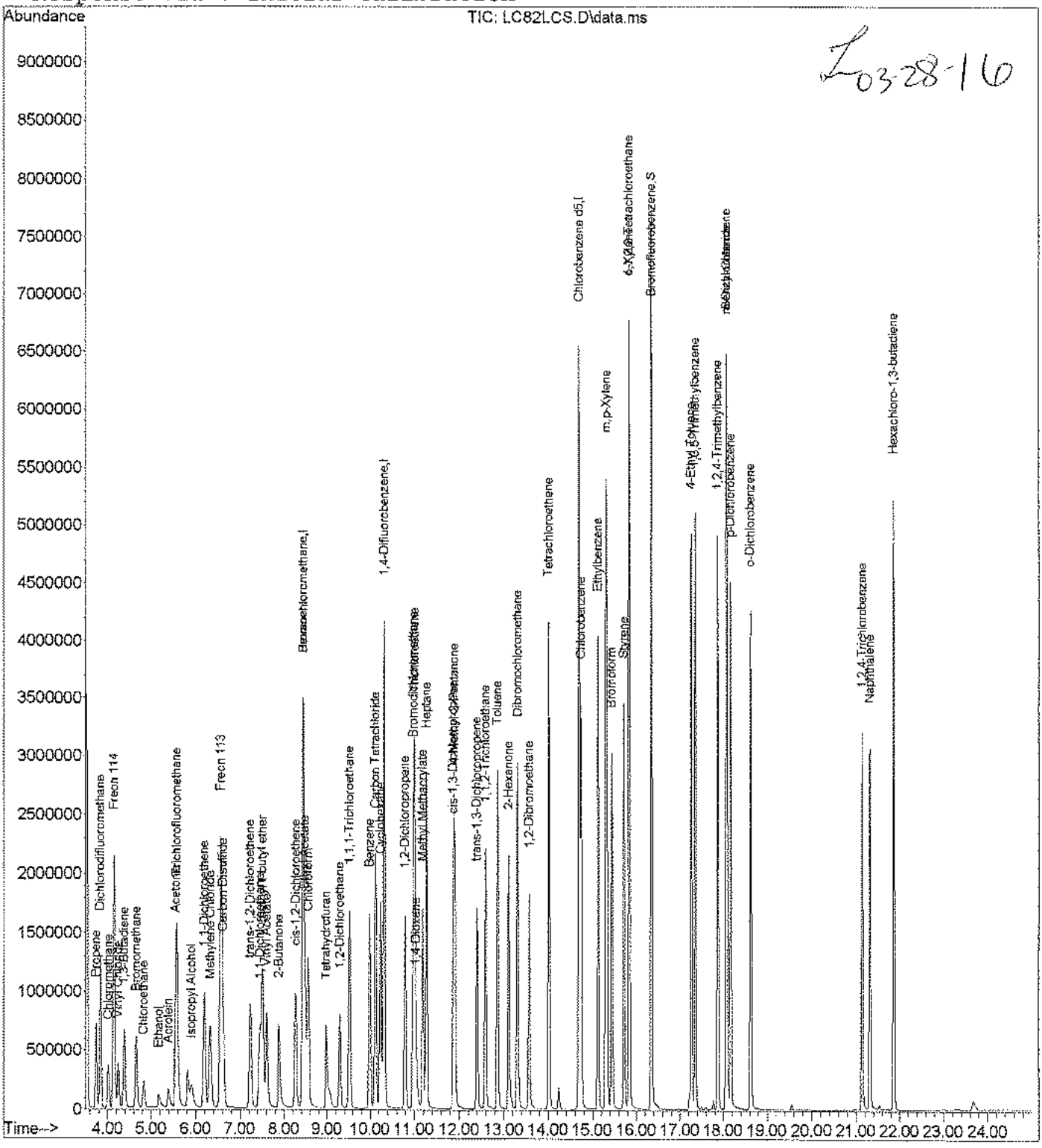
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\21MAR16L\LC82LCS.D Vial: 2
Acq Time : 03/21/2016 10:14 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 10:51:21 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 11:48:29 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\21MAR16L\LC82LCS.D Vial: 2
Acq Time : 03/21/2016 10:14 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 10:51:21 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.44	130	378880	20.0000	ppb		78.05
25) 1,4-Difluorobenzene	10.31	114	4878811	20.0000	ppb		77.86
50) Chlorobenzene d5	14.69	117	5032998	20.0000	ppb		86.77
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.35	95	3337057	22.8673	ppb		114.34%
Target Compounds							Qvalue
2) Propene	3.74	41	556512	11.0365	ppb		98
3) Dichlorodifluoromethane	3.83	85	1807490	11.3055	ppb		100
4) Chloromethane	4.01	50	630921	10.4981	ppb		99
5) Freon 114	4.15	135	1473279	10.1148	ppb	#	76
6) Vinyl Chloride	4.24	62	649137	10.9683	ppb		98
7) 1,3-Butadiene	4.38	54	526570	10.1211	ppb	#	58
8) Bromomethane	4.66	94	675798	11.0541	ppb		99
9) Chloroethane	4.83	64	342668	10.4000	ppb	#	89
10) Acrolein	5.38	56	263864	15.2521	ppb		99
11) Acetone	5.54	43	1120296	10.5423	ppb	#	84
12) Trichlorofluoromethane	5.57	101	2024274	10.6014	ppb		97
13) Ethanol	5.17	45	261743	19.8301	ppb	#	79
14) Isopropyl Alcohol	5.90	45	572321	6.5010	ppb		99
15) 1,1-Dichloroethene	6.19	61	1128298	10.7359	ppb	#	76
16) Methylene Chloride	6.33	84	623587	10.1079	ppb	#	61
17) Freon 113	6.57	151	1356435	10.0926	ppb	#	73
18) Carbon Disulfide	6.61	76	1841454	10.2611	ppb	#	65
19) trans-1,2-Dichloroethene	7.23	96	718208	9.9327	ppb	#	77
20) 1,1-Dichloroethane	7.46	63	1244892	10.3545	ppb		97
21) methyl t-butyl ether	7.52	73	1733031	10.6587	ppb	#	81
22) Vinyl Acetate	7.61	86	187740	26.7059	ppb	#	1
23) 2-Butanone	7.88	43	1564471	10.9205	ppb	#	69
24) cis-1,2-Dichloroethene	8.27	96	766370	10.0268	ppb	#	77
26) Ethyl Acetate	8.49	61	224954	7.5114	ppb	#	1
27) Hexane	8.44	57	1125825	10.9121	ppb	#	80
28) Chloroform	8.56	83	1484333	10.3064	ppb		98
29) Tetrahydrofuran	8.98	42	899051	10.8345	ppb	#	62
30) 1,2-Dichloroethane	9.30	62	973894	11.1037	ppb	#	92
31) 1,1,1-Trichloroethane	9.53	97	1647449	10.8643	ppb	#	91
32) Benzene	9.99	78	1991757	9.9074	ppb	#	92
33) Carbon Tetrachloride	10.12	117	2036887	10.9018	ppb		99
34) Cyclohexane	10.24	84	952625	10.3432	ppb	#	53
35) 1,2-Dichloropropane	10.80	63	798638	10.4545	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\21MAR16L\LC82LCS.D Vial: 2
Acq Time : 03/21/2016 10:14 Operator: JCB
Sample : QC- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 10:51:21 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.98	83	1640618	10.7206	ppb		97
37)	1,4-Dioxane	11.05	88	489728	9.3804	ppb	#	89
38)	Trichloroethene	11.01	130	1233221	10.2670	ppb		96
39)	Methyl Methacrylate	11.19	69	746155	11.1268	ppb	#	76
40)	Heptane	11.27	71	726978	11.1717	ppb	#	43
41)	cis-1,3-Dichloropropene	11.86	75	1253587	11.3294	ppb		96
42)	4-Methyl-2-Pentanone	11.89	43	2002884	11.7809	ppb	#	73
43)	trans-1,3-Dichloropropene	12.39	75	1156280	11.7227	ppb		96
44)	1,1,2-Trichloroethane	12.58	97	950828	10.4261	ppb	#	91
45)	Toluene	12.85	91	2668061	11.0350	ppb		100
46)	2-Hexanone	13.11	43	2003246	10.8763	ppb	#	74
47)	Dibromochloromethane	13.31	129	2202091	11.0285	ppb		99
48)	1,2-Dibromoethane	13.57	107	1620788	10.9790	ppb		100
49)	Tetrachloroethene	14.01	166	1463416	11.0359	ppb	#	80
51)	Chlorobenzene	14.73	112	2463860	9.5756	ppb		96
52)	Ethylbenzene	15.12	91	3577425	10.0922	ppb		99
53)	m,p-Xylene	15.31	91	5595883	20.3620	ppb		98
54)	Bromoform	15.44	173	1835315	9.7985	ppb		99
55)	Styrene	15.72	104	2259940	10.4237	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.84	83	2014520	9.4993	ppb		97
57)	o-Xylene	15.83	91	2904817	10.2258	ppb		98
59)	4-Ethyl Toluene	17.26	105	4072614	10.2605	ppb		99
60)	1,3,5-Trimethylbenzene	17.36	105	3512866	10.0177	ppb		98
61)	1,2,4-Trimethylbenzene	17.87	105	3415897	10.2236	ppb		99
62)	Benzyl Chloride	18.06	91	3003950	13.1016	ppb		99
63)	m-Dichlorobenzene	18.08	146	2525911	10.0883	ppb		96
64)	p-Dichlorobenzene	18.17	146	2490083	10.1300	ppb		96
65)	o-Dichlorobenzene	18.62	146	2351184	10.0189	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	1261232	10.4206	ppb	#	97
67)	Naphthalene	21.31	128	3326242	10.2378	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1052068	9.7630	ppb		98

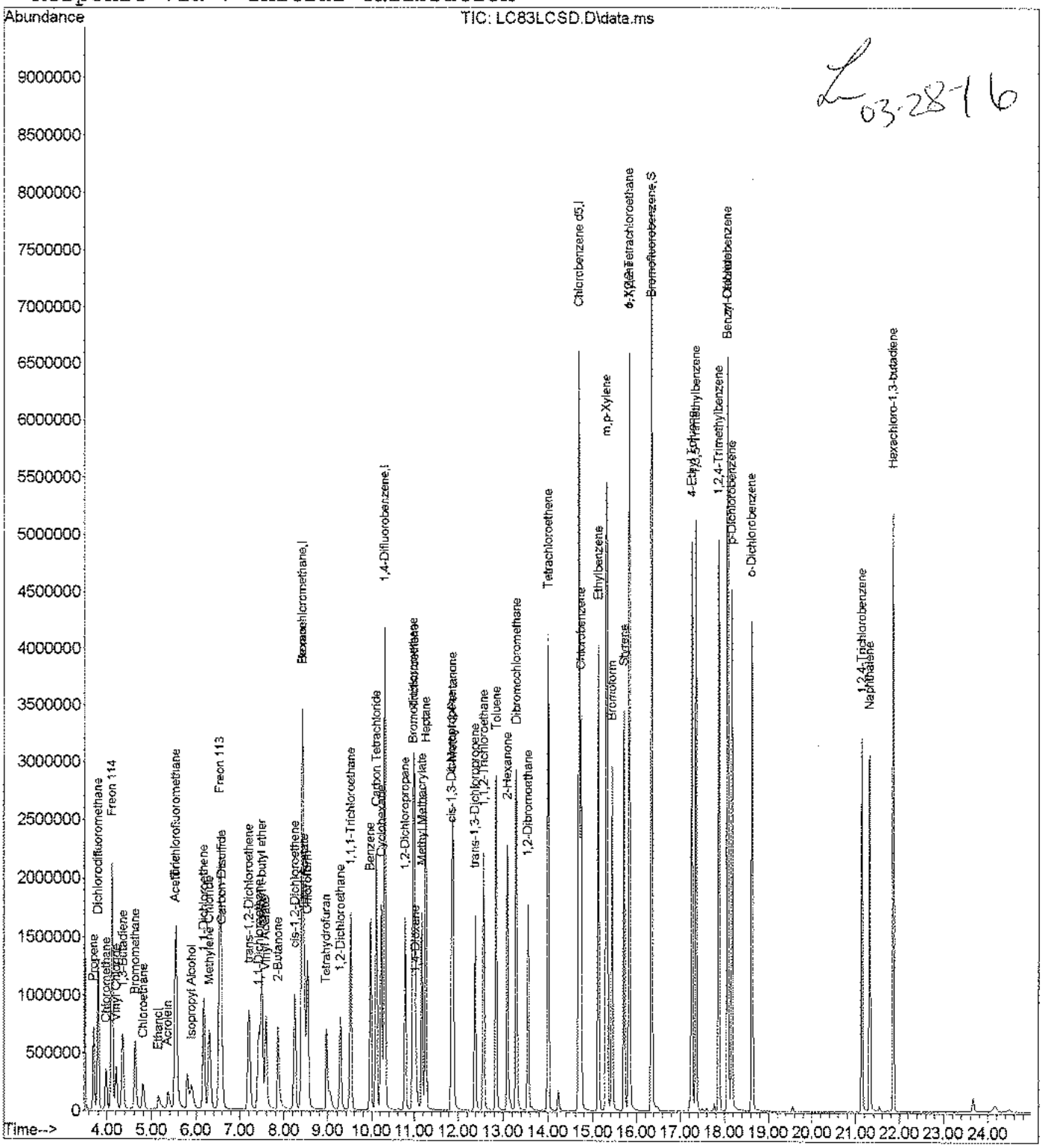
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC83LCSD.D Vial: 2
Acq Time : 03/21/2016 11:03 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 12:15:02 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 11:48:29 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC83LCSD.D Vial: 2
Acq Time : 03/21/2016 11:03 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 12:15:02 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	388928	20.0000	ppb		80.12
25) 1,4-Difluorobenzene	10.30	114	4916572	20.0000	ppb		78.46
50) Chlorobenzene d5	14.68	117	5094529	20.0000	ppb		87.83
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3378153	22.8693	ppb		114.35%
Target Compounds							Qvalue
2) Propene	3.70	41	569070	10.9940	ppb		98
3) Dichlorodifluoromethane	3.80	85	1863215	11.3530	ppb		99
4) Chloromethane	3.98	50	638933	10.3568	ppb		99
5) Freon 114	4.11	135	1525308	10.2014	ppb	#	77
6) Vinyl Chloride	4.21	62	660107	10.8655	ppb		99
7) 1,3-Butadiene	4.35	54	543848	10.1831	ppb	#	61
8) Bromomethane	4.63	94	691233	11.0144	ppb		99
9) Chloroethane	4.80	64	349578	10.3356	ppb	#	88
10) Acrolein	5.36	56	274101	15.4345	ppb		97
11) Acetone	5.52	43	1128246	10.3428	ppb	#	84
12) Trichlorofluoromethane	5.54	101	2068018	10.5507	ppb		97
13) Ethanol	5.15	45	275403	20.3260	ppb	#	79
14) Isopropyl Alcohol	5.89	45	590947	6.5392	ppb		94
15) 1,1-Dichloroethene	6.17	61	1154412	10.7006	ppb	#	77
16) Methylene Chloride	6.30	84	632303	9.9844	ppb	#	60
17) Freon 113	6.54	151	1387852	10.0596	ppb	#	73
18) Carbon Disulfide	6.59	76	1871531	10.1592	ppb	#	65
19) trans-1,2-Dichloroethene	7.21	96	731228	9.8515	ppb	#	78
20) 1,1-Dichloroethane	7.44	63	1256733	10.1829	ppb		97
21) methyl t-butyl ether	7.50	73	1756912	10.5264	ppb	#	82
22) Vinyl Acetate	7.60	86	188336	26.0985	ppb	#	1
23) 2-Butanone	7.86	43	1560446	10.6110	ppb	#	71
24) cis-1,2-Dichloroethene	8.25	96	782368	9.9716	ppb	#	78
26) Ethyl Acetate	8.47	61	229990	7.6206	ppb	#	1
27) Hexane	8.42	57	1135968	10.9258	ppb	#	78
28) Chloroform	8.54	83	1492961	10.2866	ppb		98
29) Tetrahydrofuran	8.96	42	689581	8.2464	ppb	#	63
30) 1,2-Dichloroethane	9.28	62	977957	11.0644	ppb	#	92
31) 1,1,1-Trichloroethane	9.51	97	1662732	10.8808	ppb	#	91
32) Benzene	9.97	78	1997243	9.8584	ppb	#	92
33) Carbon Tetrachloride	10.10	117	2060515	10.9436	ppb		99
34) Cyclohexane	10.22	84	957000	10.3109	ppb	#	53
35) 1,2-Dichloropropane	10.78	63	802949	10.4302	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC83LCSD.D Vial: 2
Acq Time : 03/21/2016 11:03 Operator: JCB
Sample : QD- Inst : 5975-L
Misc : 31169 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 12:15:02 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.97	83	1653014	10.7187	ppb		97
37) 1,4-Dioxane	11.03	88	507076	9.6381	ppb	#	89
38) Trichloroethene	10.99	130	1248870	10.3174	ppb		97
39) Methyl Methacrylate	11.17	69	760281	11.2504	ppb	#	77
40) Heptane	11.27	71	734706	11.2038	ppb	#	44
41) cis-1,3-Dichloropropene	11.85	75	1250195	11.2119	ppb		97
42) 4-Methyl-2-Pentanone	11.88	43	2008903	11.7256	ppb	#	74
43) trans-1,3-Dichloropropene	12.38	75	1170878	11.7795	ppb		95
44) 1,1,2-Trichloroethane	12.57	97	963749	10.4866	ppb	#	91
45) Toluene	12.84	91	2717796	11.1543	ppb		98
46) 2-Hexanone	13.09	43	2087594	11.2472	ppb	#	74
47) Dibromochloromethane	13.30	129	2230325	11.0841	ppb		99
48) 1,2-Dibromoethane	13.56	107	1643485	11.0473	ppb		100
49) Tetrachloroethene	14.00	166	1475814	11.0439	ppb	#	80
51) Chlorobenzene	14.73	112	2490948	9.5639	ppb		96
52) Ethylbenzene	15.12	91	3607816	10.0550	ppb		99
53) m,p-Xylene	15.31	91	5630133	20.2392	ppb		98
54) Bromoform	15.44	173	1861991	9.8209	ppb		99
55) Styrene	15.71	104	2282865	10.4023	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.84	83	2028332	9.4489	ppb		97
57) o-Xylene	15.83	91	2920638	10.1573	ppb		98
59) 4-Ethyl Toluene	17.26	105	4104754	10.2166	ppb		99
60) 1,3,5-Trimethylbenzene	17.36	105	3532405	9.9518	ppb		99
61) 1,2,4-Trimethylbenzene	17.87	105	3427567	10.1346	ppb		99
62) Benzyl Chloride	18.06	91	3038840	13.0937	ppb		99
63) m-Dichlorobenzene	18.08	146	2525990	9.9668	ppb		96
64) p-Dichlorobenzene	18.17	146	2498127	10.0400	ppb		96
65) o-Dichlorobenzene	18.62	146	2367419	9.9662	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	1260126	10.2857	ppb	#	97
67) Naphthalene	21.31	128	3327047	10.1166	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	1050549	9.6311	ppb		99

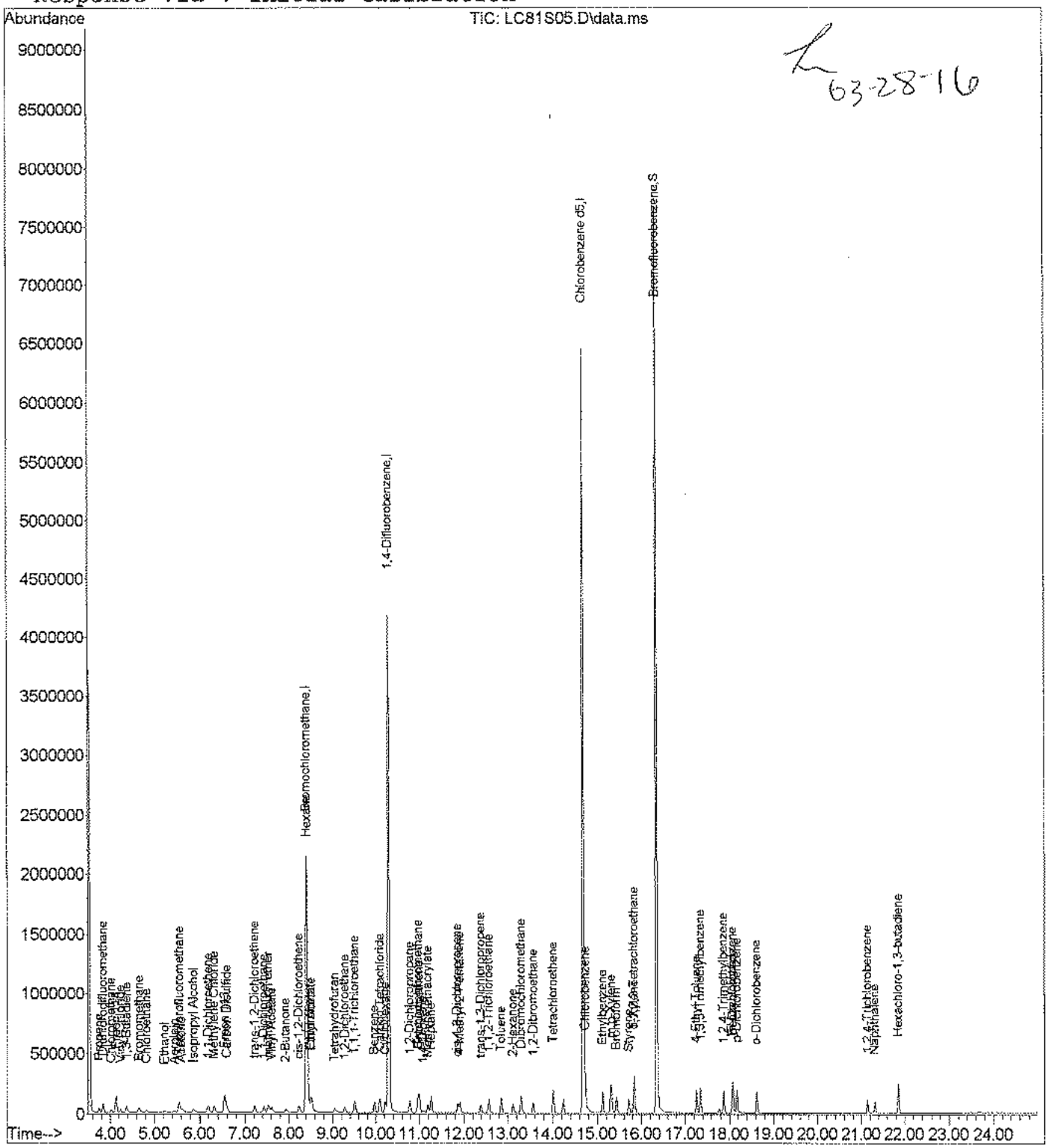
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\21MAR16L\LC81S05.D Vial: 2
Acq Time : 03/21/2016 09:25 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 31169 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 10:25:58 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 11:48:29 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\21MAR16L\LC81S05.D Vial: 2
Acq Time : 03/21/2016 09:25 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 31169 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 10:25:58 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	408448	20.0000	ppb		84.14
25) 1,4-Difluorobenzene	10.30	114	4947649	20.0000	ppb		78.96
50) Chlorobenzene d5	14.69	117	4899199	20.0000	ppb		84.46
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	3221587	22.6789	ppb		113.39%
Target Compounds							Qvalue
2) Propene	3.75	41	31300	0.5758	ppb		96
3) Dichlorodifluoromethane	3.84	85	99903	0.5796	ppb		99
4) Chloromethane	4.02	50	33841	0.5223	ppb		99
5) Freon 114	4.14	135	88880	0.5660	ppb	#	76
6) Vinyl Chloride	4.24	62	33805	0.5298	ppb		98
7) 1,3-Butadiene	4.37	54	29316	0.5227	ppb	#	54
8) Bromomethane	4.65	94	36729	0.5573	ppb		100
9) Chloroethane	4.82	64	19853	0.5589	ppb	#	90
10) Acrolein	5.44	56	13336	0.7151	ppb	#	94
11) Acetone	5.61	43	69062	0.6028	ppb	#	81
12) Trichlorofluoromethane	5.55	101	118948	0.5779	ppb		97
13) Ethanol	5.24	45	14401	1.0121	ppb	#	59
14) Isopropyl Alcohol	5.86	45	66617	0.7019	ppb	#	92
15) 1,1-Dichloroethene	6.18	61	62958	0.5557	ppb	#	76
16) Methylene Chloride	6.32	84	38199	0.5744	ppb	#	59
17) Freon 113	6.55	151	80233	0.5538	ppb	#	73
18) Carbon Disulfide	6.60	76	109168	0.5643	ppb	#	68
19) trans-1,2-Dichloroethene	7.22	96	38822	0.4980	ppb	#	74
20) 1,1-Dichloroethane	7.43	63	72747	0.5613	ppb		96
21) methyl t-butyl ether	7.53	73	83007	0.4736	ppb	#	80
22) Vinyl Acetate	7.61	86	8589	1.1333	ppb	#	1
23) 2-Butanone	7.93	43	71479	0.4628	ppb	#	66
24) cis-1,2-Dichloroethene	8.24	96	42228	0.5125	ppb	#	81
26) Ethyl Acetate	8.51	61	11682	0.3846	ppb	#	1
27) Hexane	8.43	57	58224	0.5565	ppb	#	84
28) Chloroform	8.52	83	86417	0.5917	ppb		99
29) Tetrahydrofuran	9.05	42	39301	0.4670	ppb	#	64
30) 1,2-Dichloroethane	9.28	62	53732	0.6041	ppb	#	87
31) 1,1,1-Trichloroethane	9.50	97	92069	0.5987	ppb	#	90
32) Benzene	9.97	78	110355	0.5413	ppb	#	93
33) Carbon Tetrachloride	10.10	117	113313	0.5980	ppb		99
34) Cyclohexane	10.21	84	44962	0.4814	ppb	#	48
35) 1,2-Dichloropropane	10.78	63	45553	0.5880	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\21MAR16L\LC81S05.D Vial: 2
Acq Time : 03/21/2016 09:25 Operator: JCB
Sample : 0.5 RLVS Inst : 5975-L
Misc : 31169 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 10:25:58 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.97	83	90783	0.5850	ppb		98
37)	1,4-Dioxane	11.08	88	23639	0.4465	ppb	#	91
38)	Trichloroethene	11.00	130	66182	0.5433	ppb		97
39)	Methyl Methacrylate	11.19	69	34054	0.5008	ppb	#	82
40)	Heptane	11.27	71	32906	0.4986	ppb	#	40
41)	cis-1,3-Dichloropropene	11.86	75	57100	0.5089	ppb		97
42)	4-Methyl-2-Pentanone	11.91	43	86175	0.4998	ppb	#	71
43)	trans-1,3-Dichloropropene	12.39	75	51160	0.5115	ppb		96
44)	1,1,2-Trichloroethane	12.58	97	50125	0.5420	ppb	#	90
45)	Toluene	12.84	91	116386	0.4747	ppb		98
46)	2-Hexanone	13.12	43	77339	0.4141	ppb	#	73
47)	Dibromochloromethane	13.30	129	110161	0.5440	ppb		99
48)	1,2-Dibromoethane	13.56	107	79149	0.5287	ppb		99
49)	Tetrachloroethene	14.01	166	71808	0.5340	ppb	#	81
51)	Chlorobenzene	14.73	112	122936	0.4908	ppb		97
52)	Ethylbenzene	15.12	91	150010	0.4347	ppb		98
53)	m,p-Xylene	15.31	91	237800	0.8889	ppb		100
54)	Bromoform	15.44	173	86164	0.4726	ppb		99
55)	Styrene	15.72	104	85317	0.4043	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.84	83	101547	0.4919	ppb		98
57)	o-Xylene	15.83	91	124497	0.4502	ppb		98
59)	4-Ethyl Toluene	17.26	105	156643	0.4054	ppb		97
60)	1,3,5-Trimethylbenzene	17.36	105	151431	0.4436	ppb		97
61)	1,2,4-Trimethylbenzene	17.87	105	133810	0.4114	ppb		98
62)	Benzyl Chloride	18.06	91	105546	0.4729	ppb		97
63)	m-Dichlorobenzene	18.08	146	112441	0.4613	ppb		96
64)	p-Dichlorobenzene	18.17	146	111243	0.4649	ppb		95
65)	o-Dichlorobenzene	18.62	146	102666	0.4494	ppb		96
66)	1,2,4-Trichlorobenzene	21.14	180	48243	0.4095	ppb	#	95
67)	Naphthalene	21.31	128	113097	0.3576	ppb		98
68)	Hexachloro-1,3-butadiene	21.86	225	50300	0.4795	ppb		99

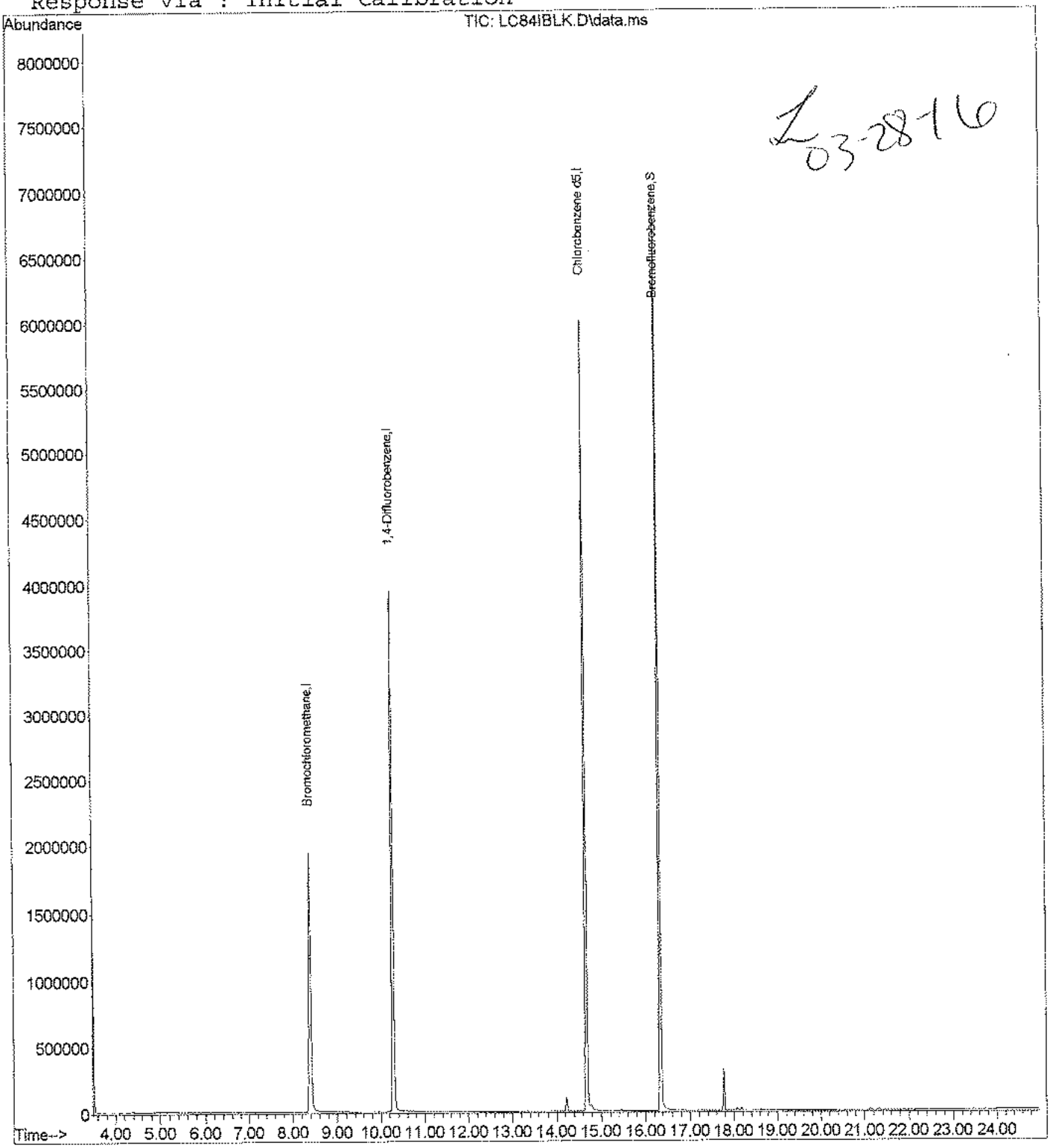
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC84IBLK.D Vial: 1
Acq Time : 03/21/2016 11:52 Operator: JCB
Sample : BL- 0365 Inst : 5975-L
Misc : 0365 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 12:19:55 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 11:48:29 2016
Response via : Initial Calibration



L 03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC84IBLK.D Vial: 1
Acq Time : 03/21/2016 11:52 Operator: JCB
Sample : BL- 0365 Inst : 5975-L
Misc : 0365 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 12:19:55 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	8.39	130	383232	20.0000	ppb	78.95
25) 1,4-Difluorobenzene	10.28	114	4580512	20.0000	ppb	73.10
50) Chlorobenzene d5	14.67	117	4559567	20.0000	ppb	78.60
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.34	95	2964334	22.4224	ppb	112.11%
Target Compounds						Qvalue
2) Propene	0.00	41		Not Detected		
3) Dichlorodifluoromethane	0.00	85		Not Detected		
4) Chloromethane	0.00	50		Not Detected		
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	0.00	43		Not Detected		
12) Trichlorofluoromethane	0.00	101		Not Detected		
13) Ethanol	0.00	45		Not Detected		
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	0.00	84		Not Detected		
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	0.00	76		Not Detected		
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	0.00	57		Not Detected		
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	0.00	78		Not Detected		
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC84IBLK.D Vial: 1
Acq Time : 03/21/2016 11:52 Operator: JCB
Sample : BL- 0365 Inst : 5975-L
Misc : 0365 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 21 12:19:55 2016 Results File: TO15LG16.RES

Quant Method : Z:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

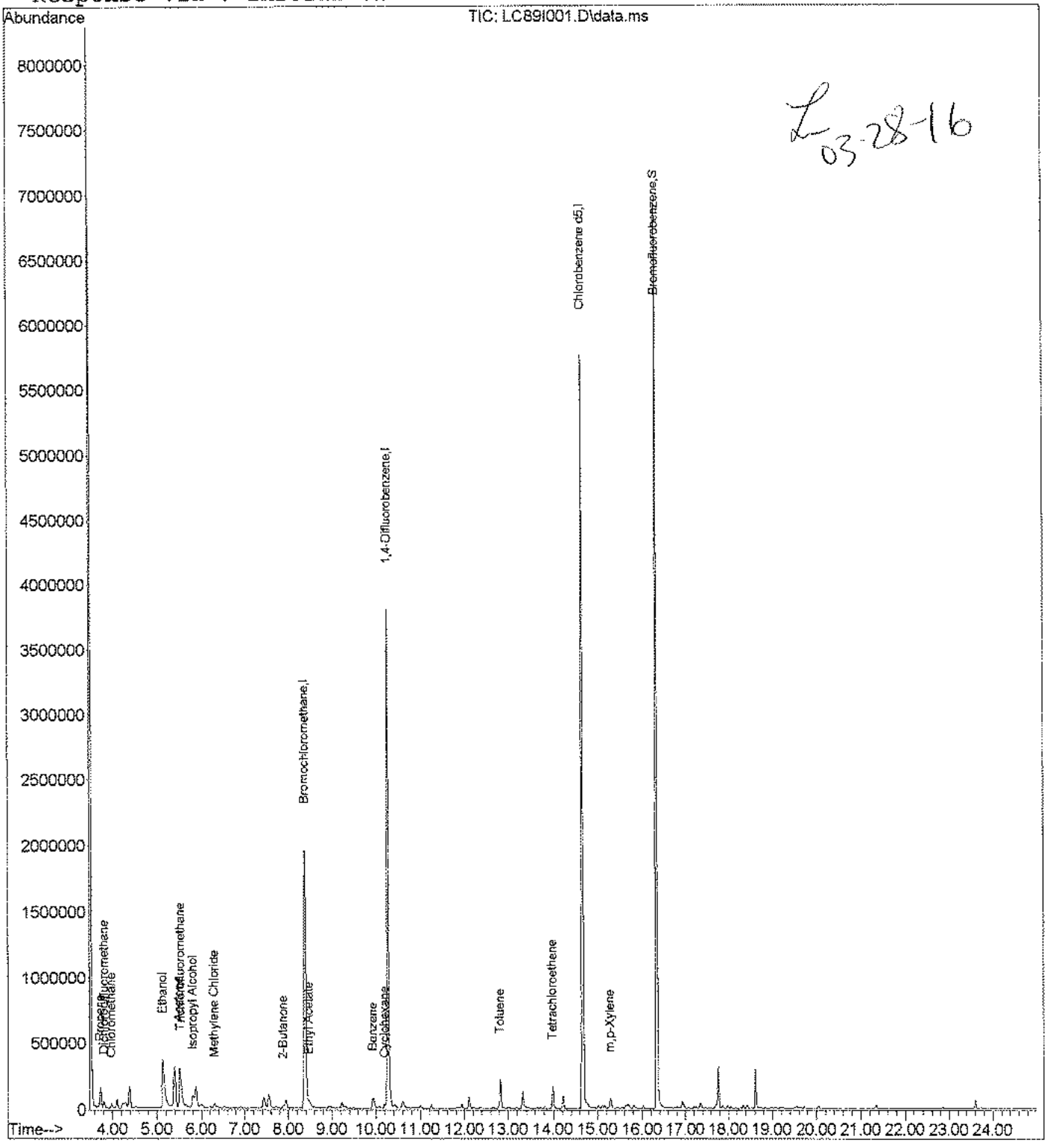
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC89I001.D Vial: 4
Acq Time : 03/21/2016 16:10 Operator: JCB
Sample : 1607459001 Inst : 5975-L
Misc : A-0037H-030816-IA-LAU Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:53:01 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 12:52:00 2016
Response via : Initial Calibration



L 03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC89I001.D Vial: 4
Acq Time : 03/21/2016 16:10 Operator: JCB
Sample : 1607459001 Inst : 5975-L
Misc : A-0037H-030816-IA-LAU Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:53:01 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 16:15:51 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	375296	20.0000 ppb	77.31
25) 1,4-Difluorobenzene	10.27	114	4367277	20.0000 ppb	69.69
50) Chlorobenzene d5	14.66	117	4408106	20.0000 ppb	75.99
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	2911781	22.7816 ppb	113.91%
Target Compounds					Qvalue
2) Propene	3.73	41	56506	1.1313 ppb #	60
3) Dichlorodifluoromethane	3.82	85	65929	0.4163 ppb	100
4) Chloromethane	3.99	50	49001	0.8231 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.50	43	757849	7.1997 ppb #	87
12) Trichlorofluoromethane	5.53	101	33262	0.1759 ppb	97
13) Ethanol	5.13	45	833367	63.7403 ppb #	79
14) Isopropyl Alcohol	5.81	45	258970	2.9697 ppb #	84
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.30	84	10472	0.1714 ppb #	57
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.89	43	63909	0.4504 ppb #	64
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.48	61	5858	0.2185 ppb #	1
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.94	78	54078	0.3005 ppb #	90
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.20	84	14370	0.1743 ppb #	58
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

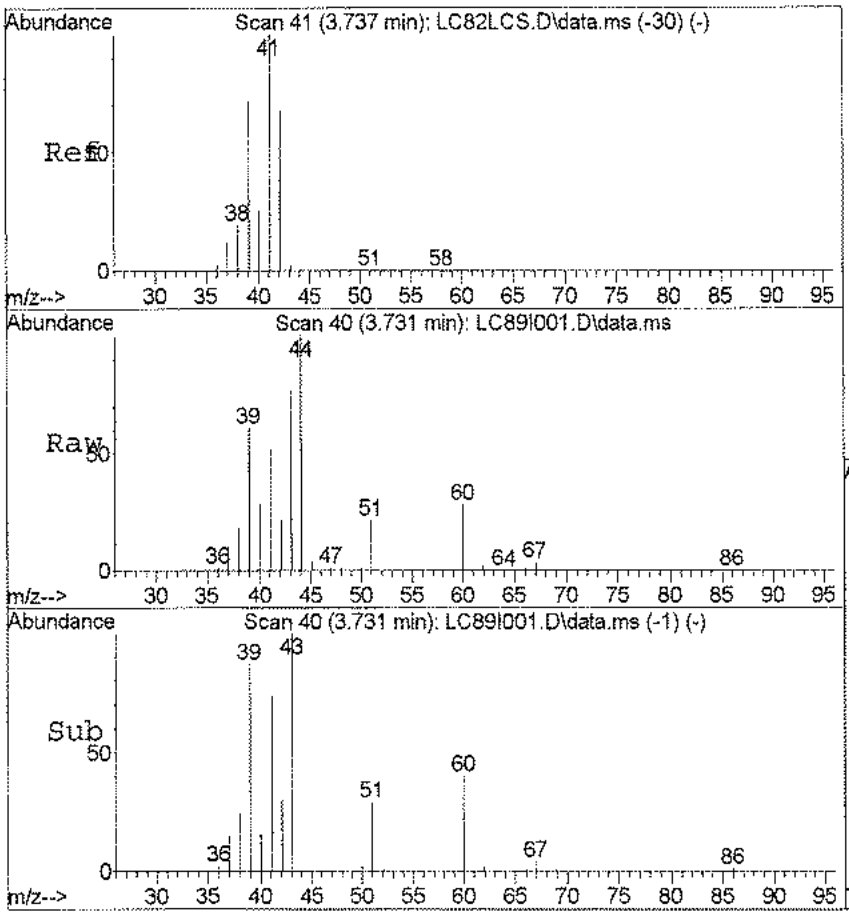
Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC89I001.D Vial: 4
Acq Time : 03/21/2016 16:10 Operator: JCB
Sample : 1607459001 Inst : 5975-L
Misc : A-0037H-030816-IA-LAU Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:53:01 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Mar 21 16:15:51 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	198684	0.9180 ppb	97
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.98	166	59991	0.5054 ppb #	80
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	15.28	91	66055	0.2744 ppb	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

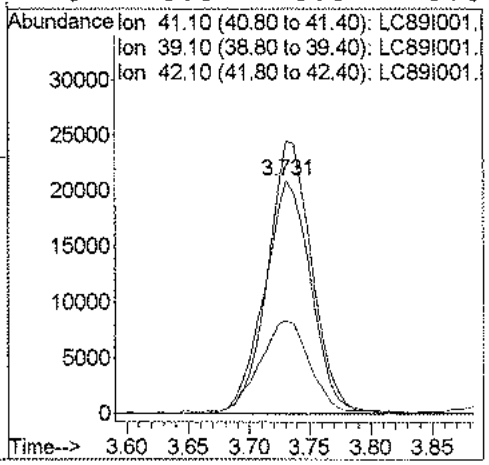
(#) = qualifier out of range (m) = manual integration

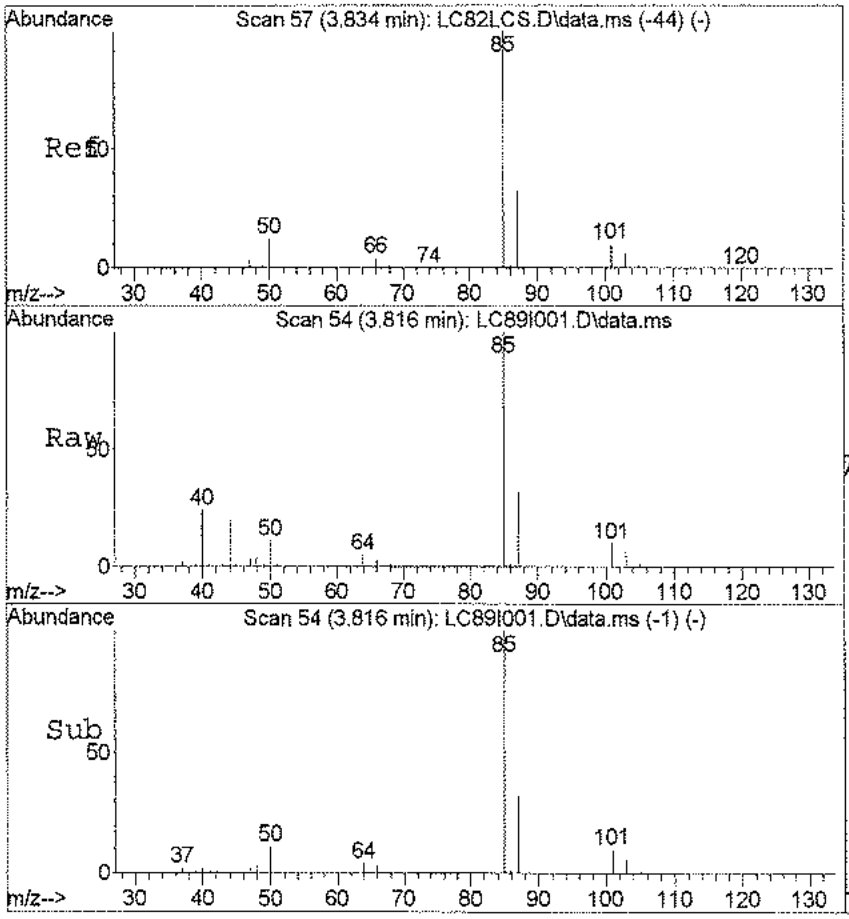


#2
Propene
Concen: 1.13 ppb
RT: 3.73 min Scan# 40
Delta R.T. 0.00 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:41.1 Resp: 56506

Ion	Ratio	Lower	Upper
41	100		
39	111.8	56.2	84.4#
42	44.2	53.8	80.6#
0	0.0	0.0	0.0

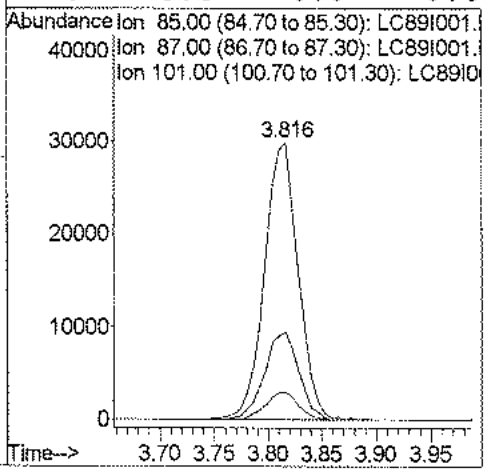


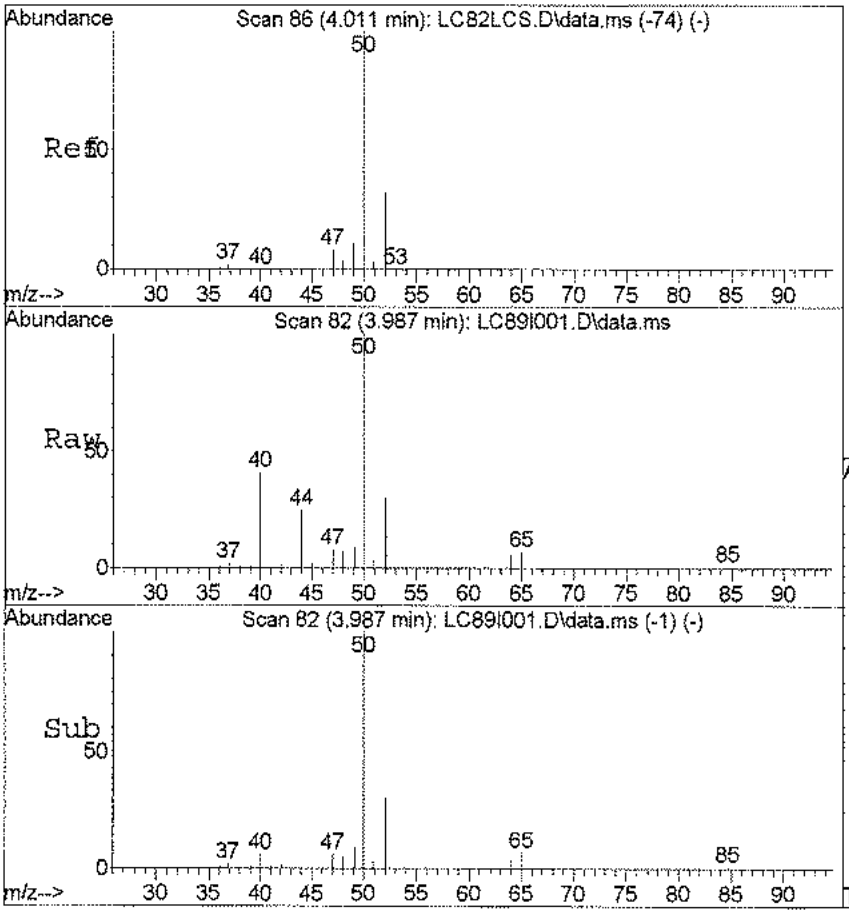


#3
Dichlorodifluoromethane
Concen: 0.42 ppb
RT: 3.82 min Scan# 54
Delta R.T. -0.01 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:85 Resp: 65929

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.1	39.1
101	9.8	8.0	12.0
0	0.0	0.0	0.0

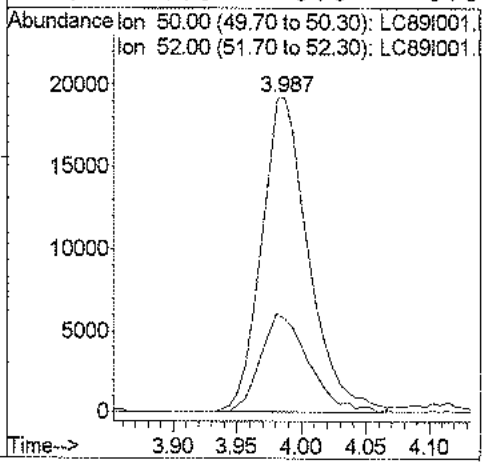


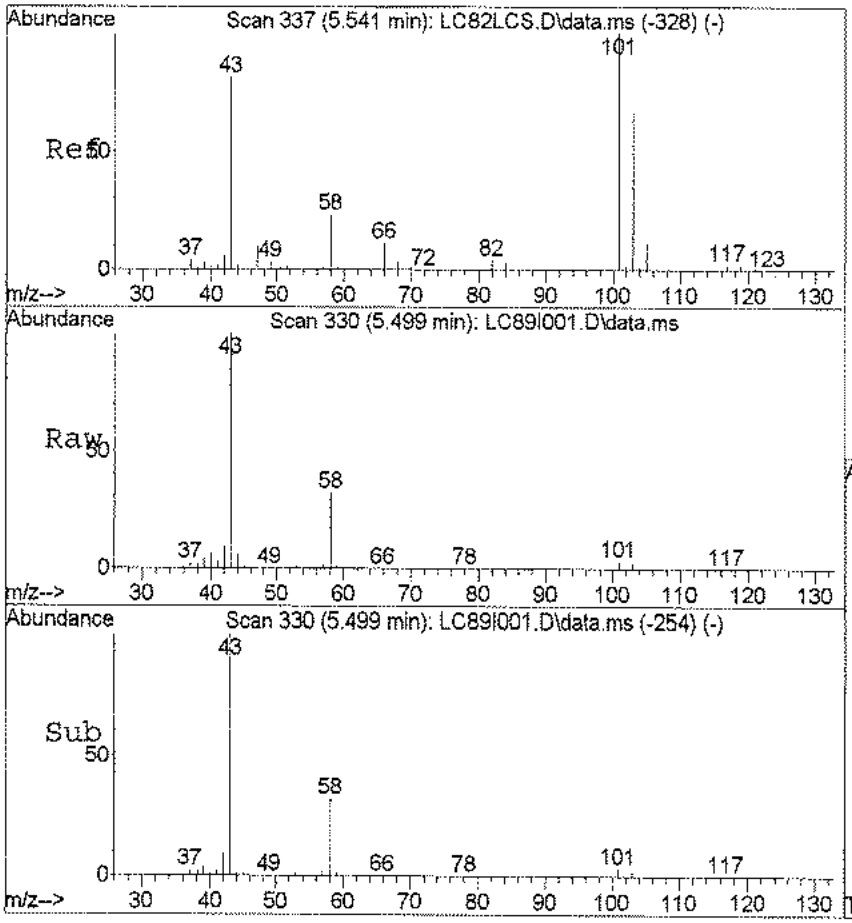


#4
Chloromethane
Concen: 0.82 ppb
RT: 3.99 min Scan# 82
Delta R.T. -0.01 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:50 Resp: 49001

Ion	Ratio	Lower	Upper
50	100		
52	32.2	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

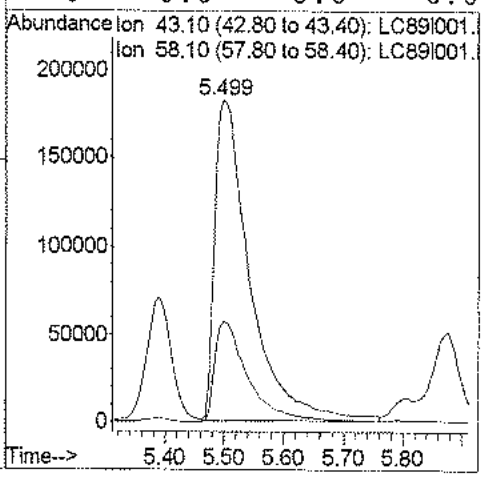


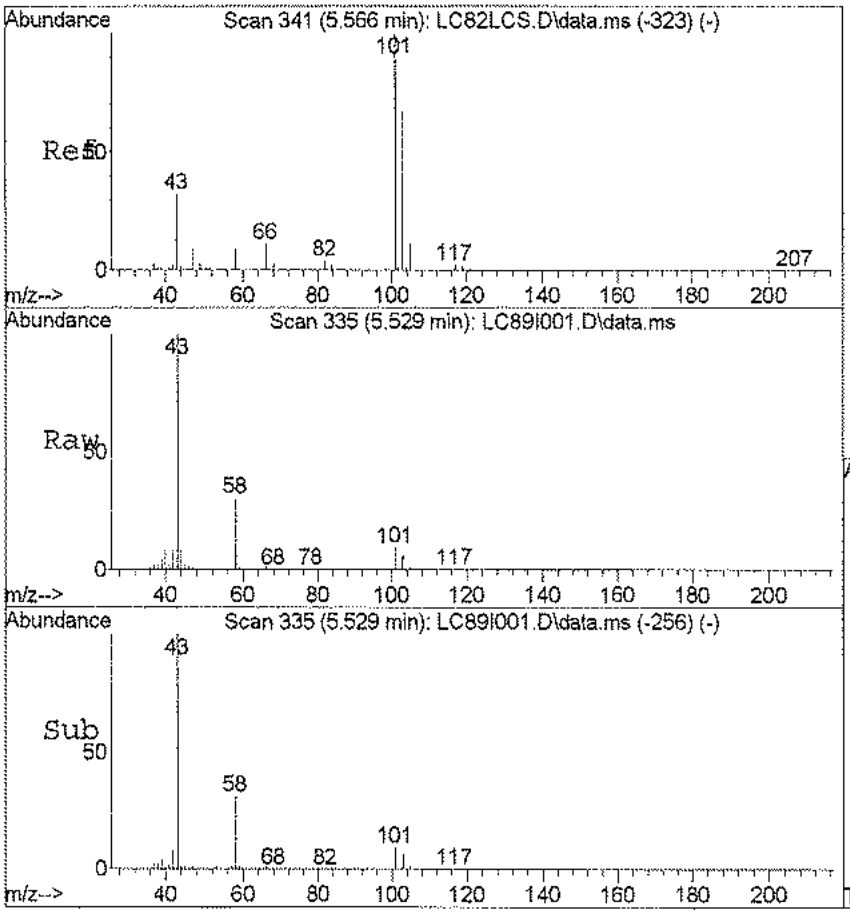


#11
Acetone
Concen: 7.20 ppb
RT: 5.50 min Scan# 330
Delta R.T. -0.04 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:43.1 Resp: 757849

Ion	Ratio	Lower	Upper
43	100		
58	30.5	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

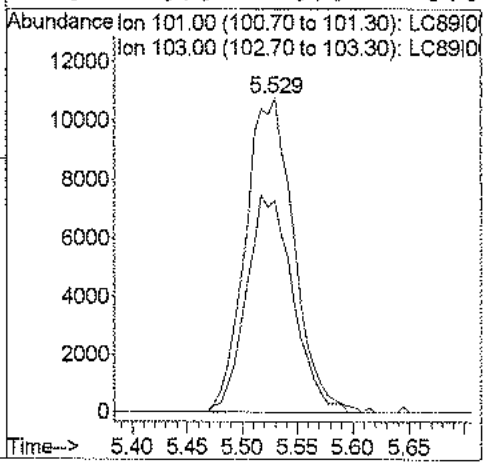


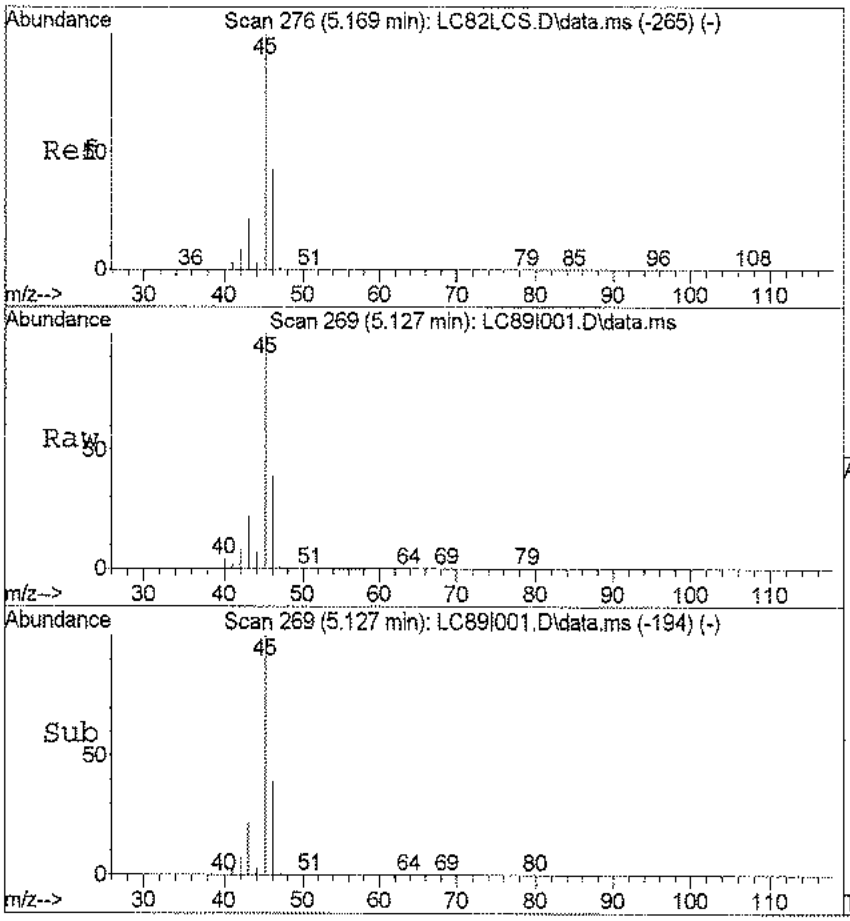


#12
Trichlorofluoromethane
Concen: 0.18 ppb
RT: 5.53 min Scan# 335
Delta R.T. -0.02 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:101 Resp: 33262

Ion	Ratio	Lower	Upper
101	100		
103	66.8	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

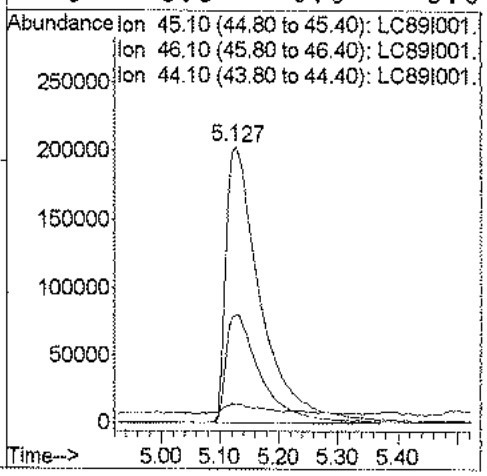


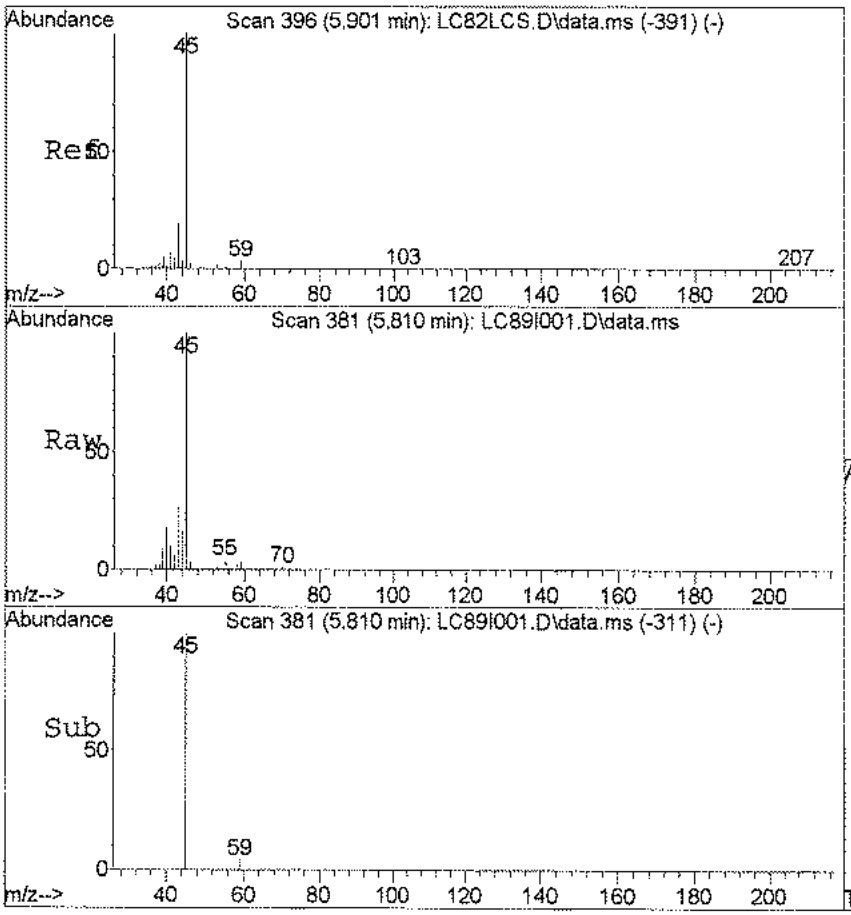


#13
Ethanol
Concen: 63.74 ppb
RT: 5.13 min Scan# 269
Delta R.T. -0.04 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:45.1 Resp: 833367

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	3.8	23.4	35.2#
0	0.0	0.0	0.0

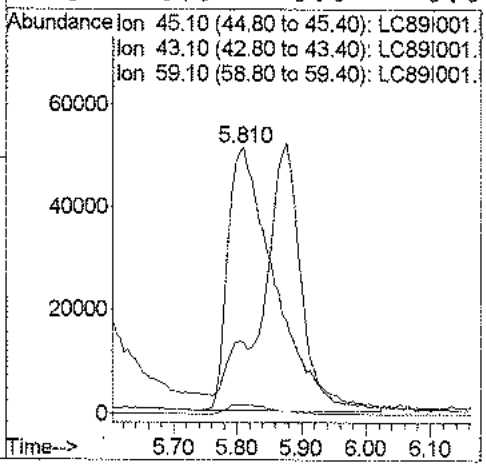


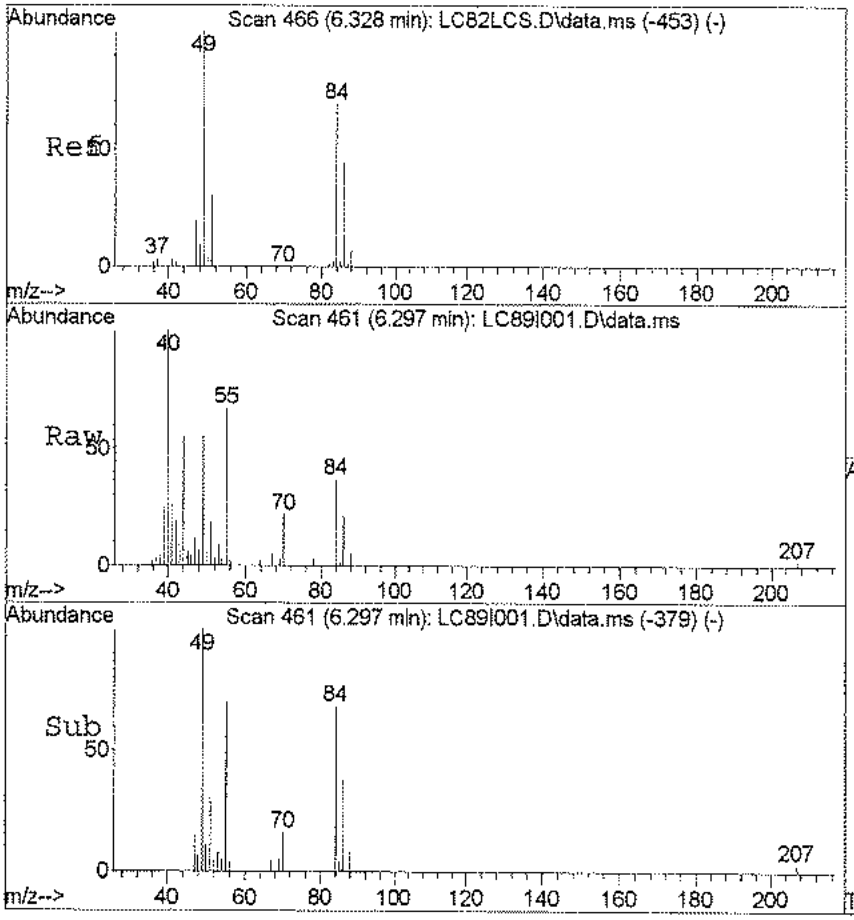


#14
Isopropyl Alcohol
Concen: 2.97 ppb
RT: 5.81 min Scan# 381
Delta R.T. -0.07 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:45.1 Resp: 258970

Ion	Ratio	Lower	Upper
45	100		
43	11.3	15.8	23.6#
59	3.4	3.2	4.8
0	0.0	0.0	0.0

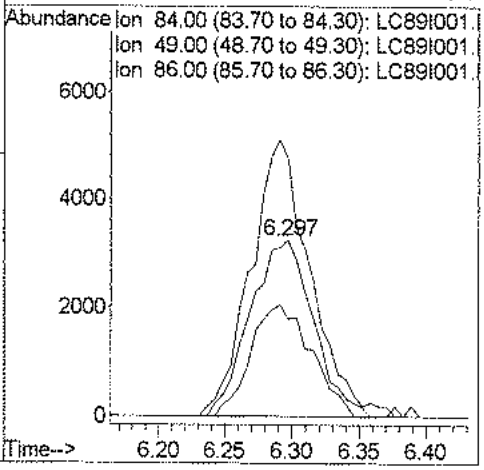


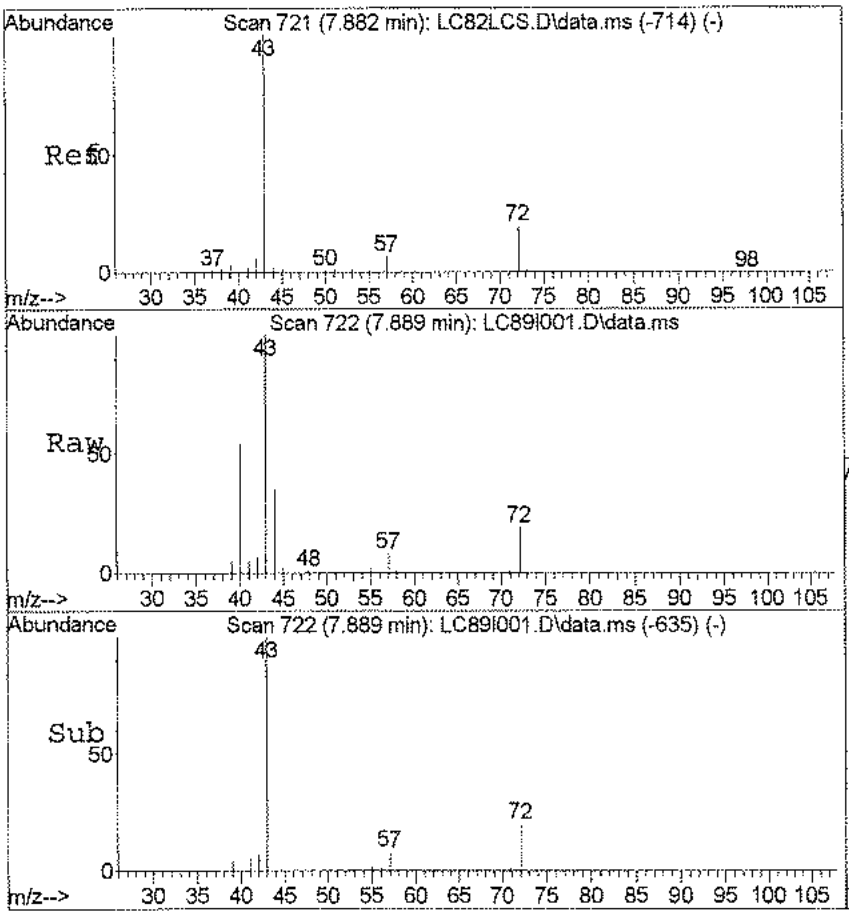


#16
Methylene Chloride
Concen: 0.17 ppb
RT: 6.30 min Scan# 461
Delta R.T. -0.00 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:84 Resp: 10472

Ion	Ratio	Lower	Upper
84	100		
49	149.3	66.6	100.0#
86	61.0	51.6	77.4
0	0.0	0.0	0.0

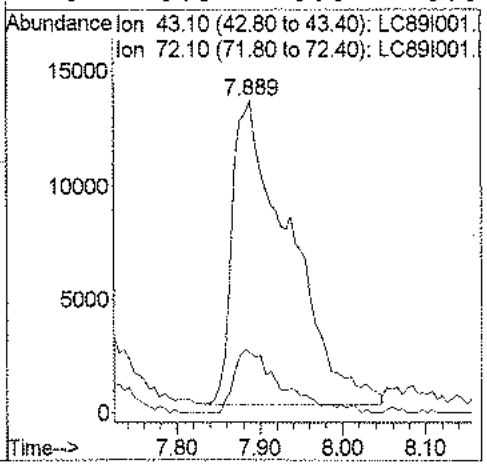


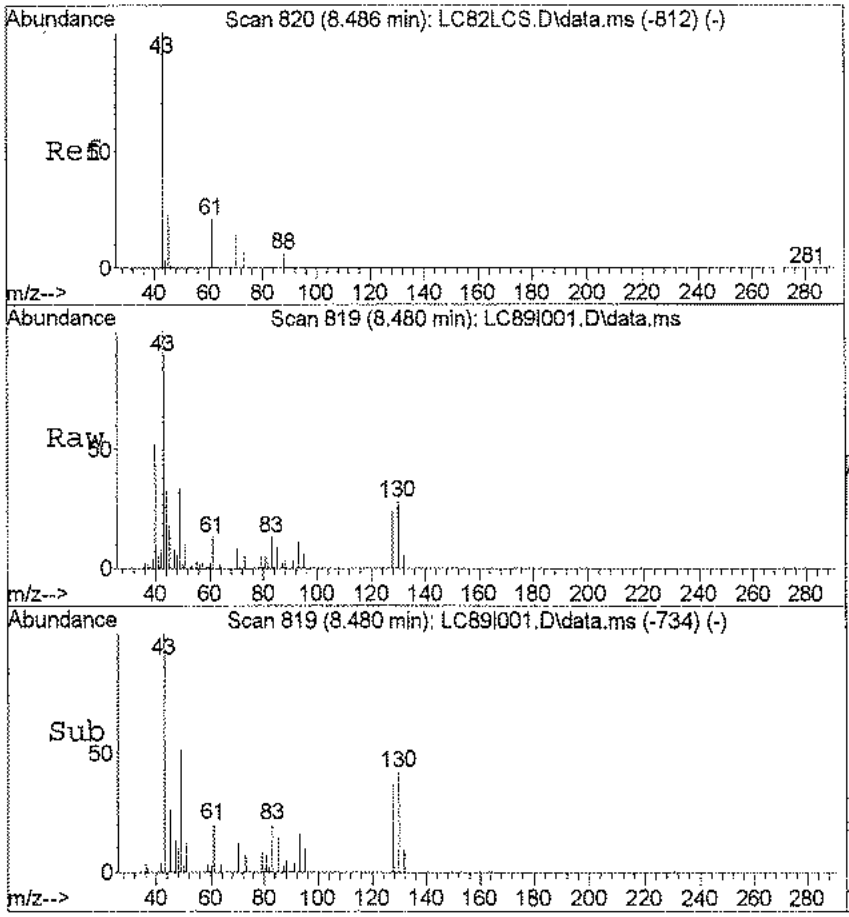


#23
2-Butanone
Concen: 0.45 ppb
RT: 7.89 min Scan# 722
Delta R.T. 0.03 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:43.1 Resp: 63909

Ion	Ratio	Lower	Upper
43	100		
72	16.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

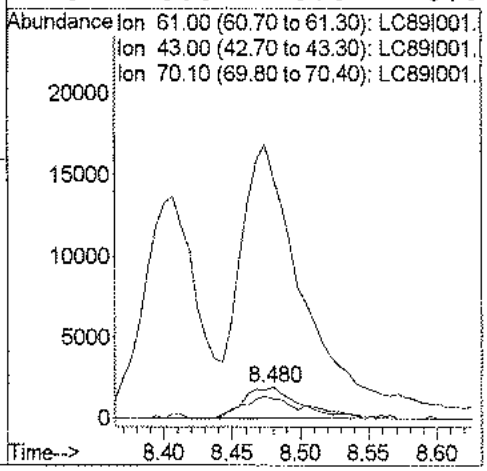


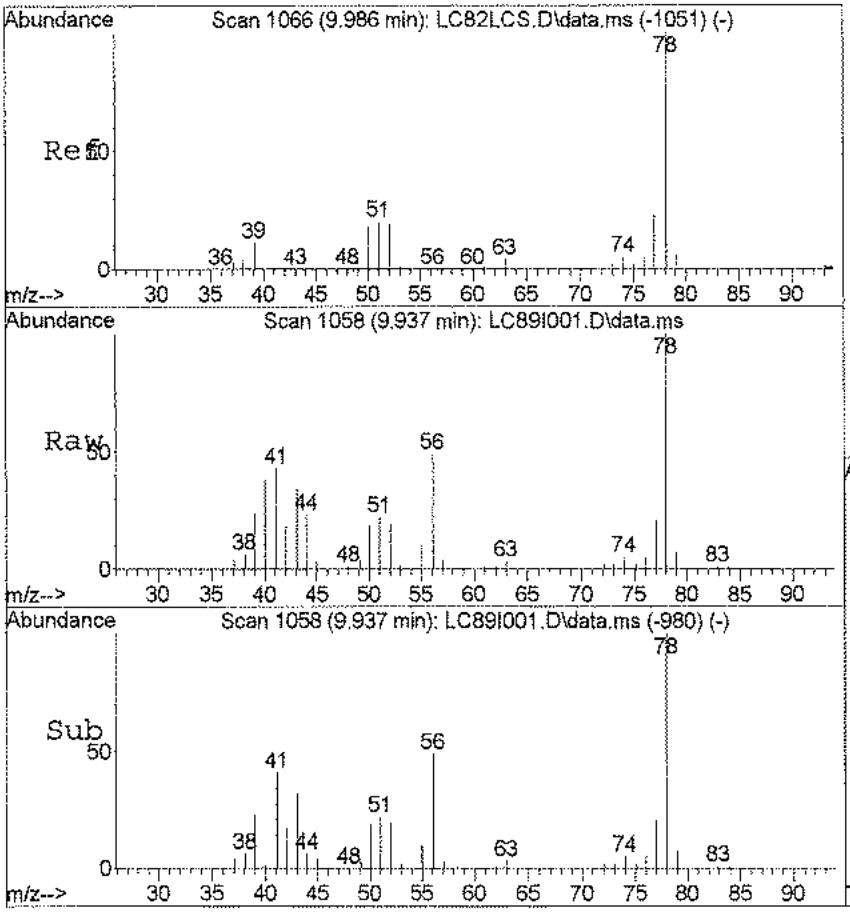


#26
Ethyl Acetate
Concen: 0.22 ppb
RT: 8.48 min Scan# 819
Delta R.T. 0.02 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:61 Resp: 5858

Ion	Ratio	Lower	Upper
61	100		
43	893.9	144.0	216.0#
70	71.4	13.6	20.4#
0	0.0	0.0	0.0

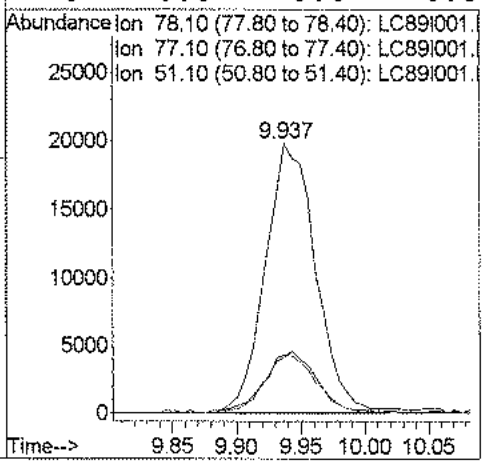


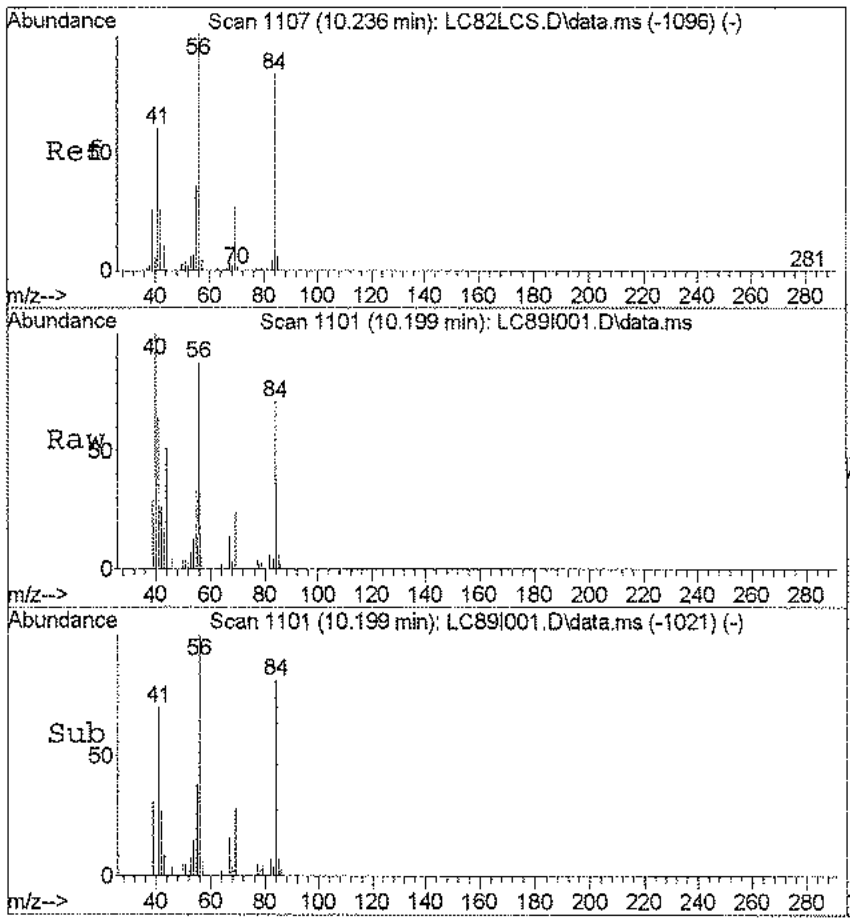


#32
Benzene
Concen: 0.30 ppb
RT: 9.94 min Scan# 1058
Delta R.T. -0.03 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:78.1 Resp: 54078

Ion	Ratio	Lower	Upper
78	100		
77	23.1	18.2	27.4
51	22.8	9.5	14.3#
0	0.0	0.0	0.0

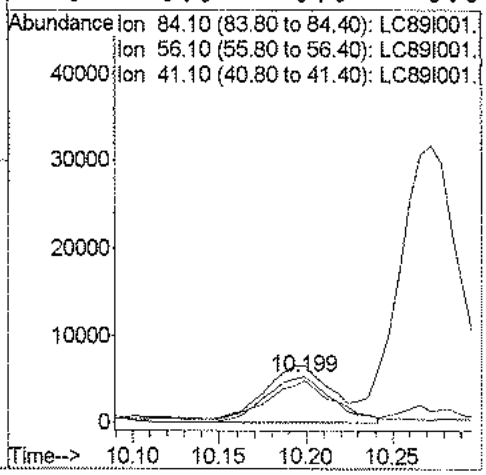


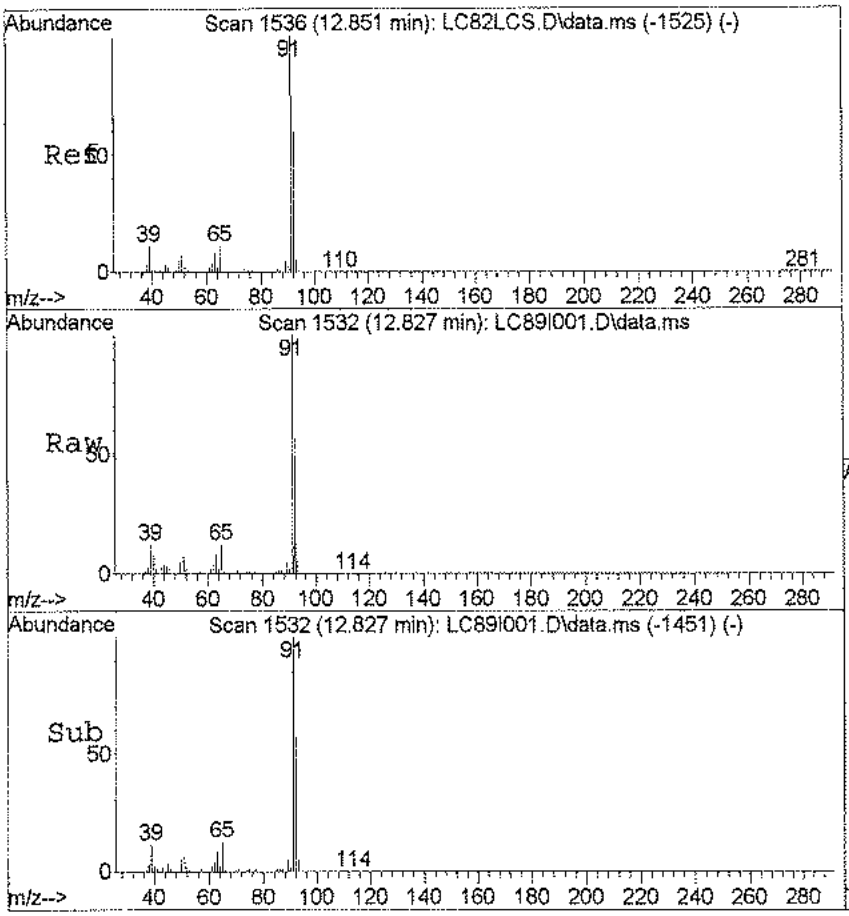


#34
Cyclohexane
Concen: 0.17 ppb
RT: 10.20 min Scan# 1101
Delta R.T. -0.01 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:84.1 Resp: 14370

Ion	Ratio	Lower	Upper
84	100		
56	112.5	67.3	100.9#
41	76.5	30.2	45.4#
0	0.0	0.0	0.0

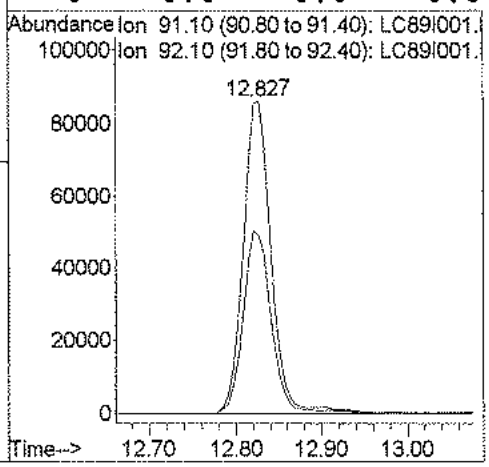


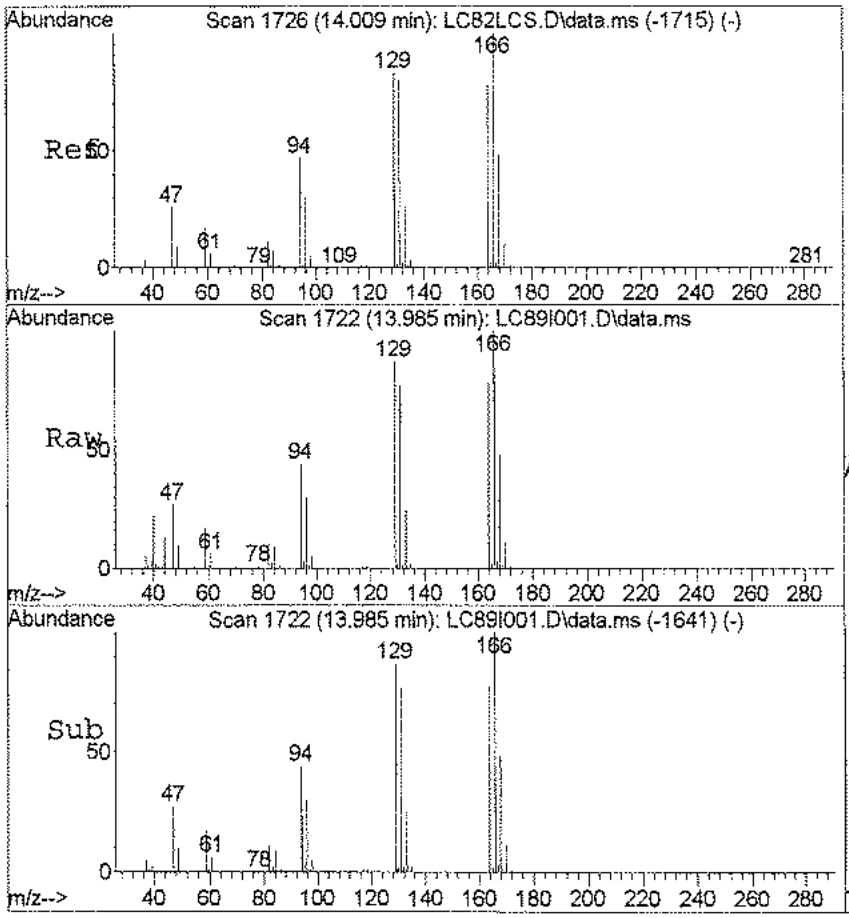


#45
Toluene
Concen: 0.92 ppb
RT: 12.83 min Scan# 1532
Delta R.T. -0.01 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:91.1 Resp: 198684

Ion	Ratio	Lower	Upper
91	100		
92	57.8	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

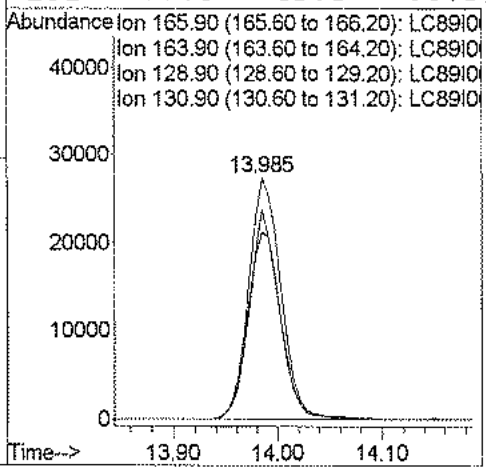


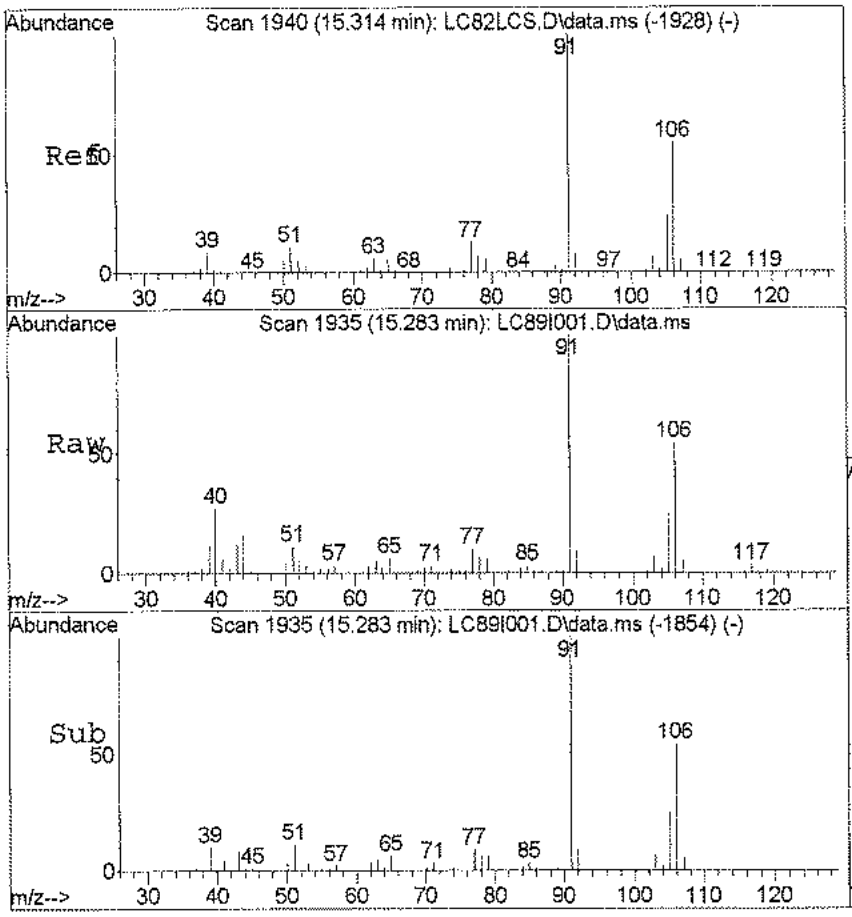


#49
Tetrachloroethene
Concen: 0.51 ppb
RT: 13.98 min Scan# 1722
Delta R.T. -0.01 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:165.9 Resp: 59991

Ion	Ratio	Lower	Upper
166	100		
164	79.9	61.0	91.4
129	81.7	45.9	68.9#
131	77.3	45.5	68.3#

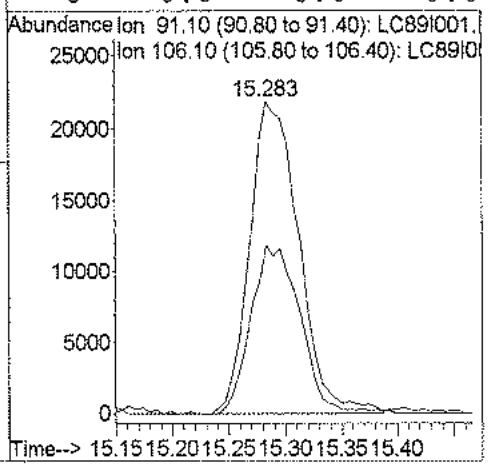




#53
m,p-Xylene
Concen: 0.27 ppb
RT: 15.28 min Scan# 1935
Delta R.T. -0.01 min
Lab File: LC89I001.D
Acq: 03/21/2016 16:10

Tgt Ion:91.1 Resp: 66055

Ion	Ratio	Lower	Upper
91	100		
106	53.5	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

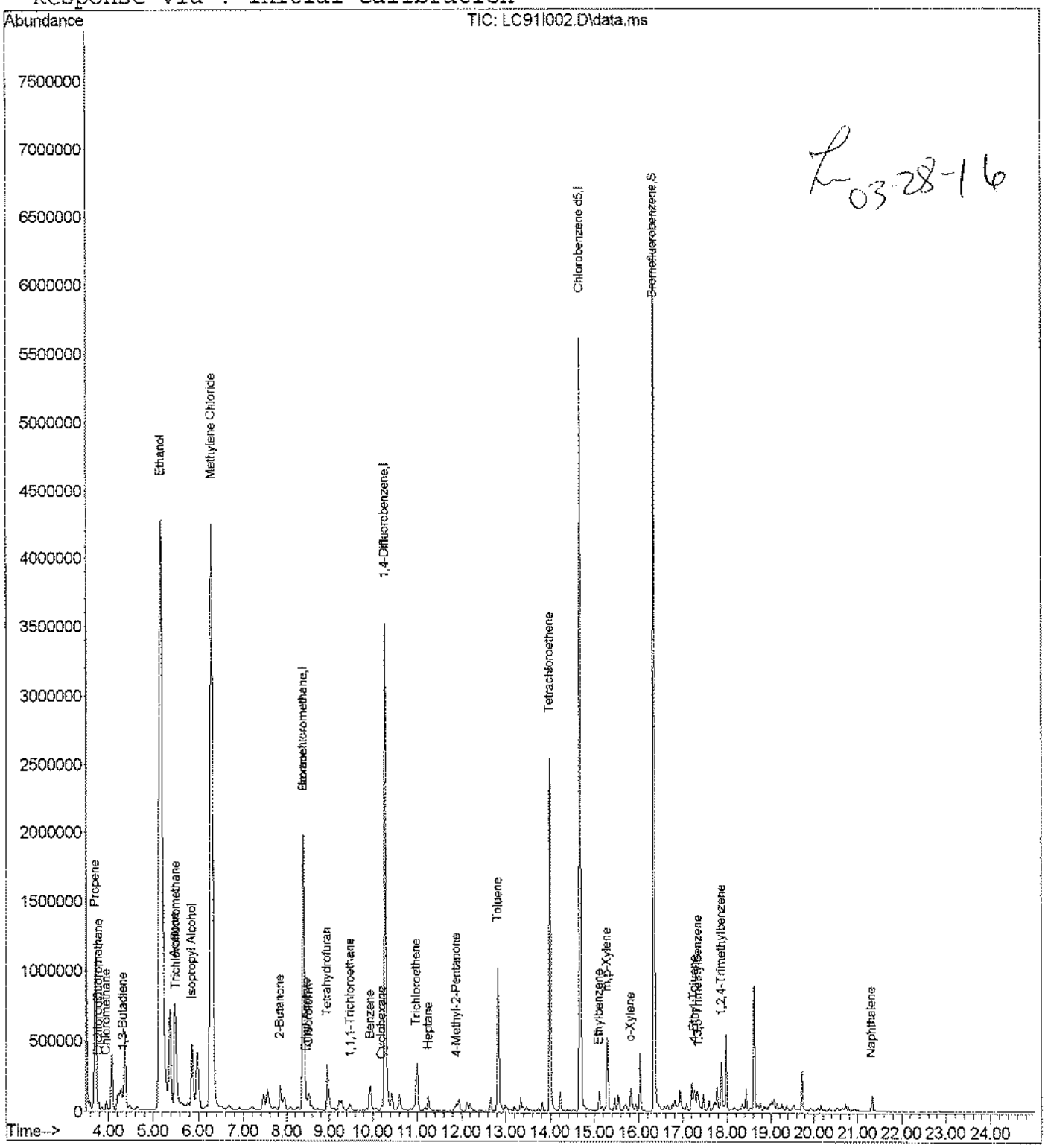


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC91I002.D Vial: 5
Acq Time : 03/21/2016 17:49 Operator: JCB
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-031216-IA-KIT Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:53:56 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 12:52:00 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC91I002.D Vial: 5
Acq Time : 03/21/2016 17:49 Operator: JCB
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-031216-IA-KIT Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:53:56 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.40	130	361472	20.0000 ppb	74.46
25) 1,4-Difluorobenzene	10.28	114	4155088	20.0000 ppb	66.31
50) Chlorobenzene d5	14.67	117	4286305	20.0000 ppb	73.89
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	2825679	22.7362 ppb	113.68%
Target Compounds					Qvalue
2) Propene	3.71	41	549899	11.4306 ppb #	NC 60
3) Dichlorodifluoromethane	3.78	85	81961	0.5373 ppb	100
4) Chloromethane	3.96	50	91751	1.6002 ppb	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.32	54	32237	0.6495 ppb #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.48	43	1740483	17.1671 ppb #	85
12) Trichlorofluoromethane	5.51	101	62925	0.3454 ppb	97
13) Ethanol	5.18	45	13007299	1032.9139 ppb #	NC 79
14) Isopropyl Alcohol	5.86	45	345200	4.1100 ppb #	NC 1
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.30	84	3871038	65.7685 ppb #	DIL 59
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.85	43	410190	3.0012 ppb #	69
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.47	61	9236	0.3621 ppb #	1
27) Hexane	8.41	57	103521	1.1781 ppb #	82
28) Chloroform	8.52	83	114301	0.9319 ppb	96
29) Tetrahydrofuran	8.95	42	349646	4.9475 ppb #	60
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.49	97	26683	0.2066 ppb #	92
32) Benzene	9.94	78	137350	0.8022 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.19	84	16097	0.2052 ppb #	46
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

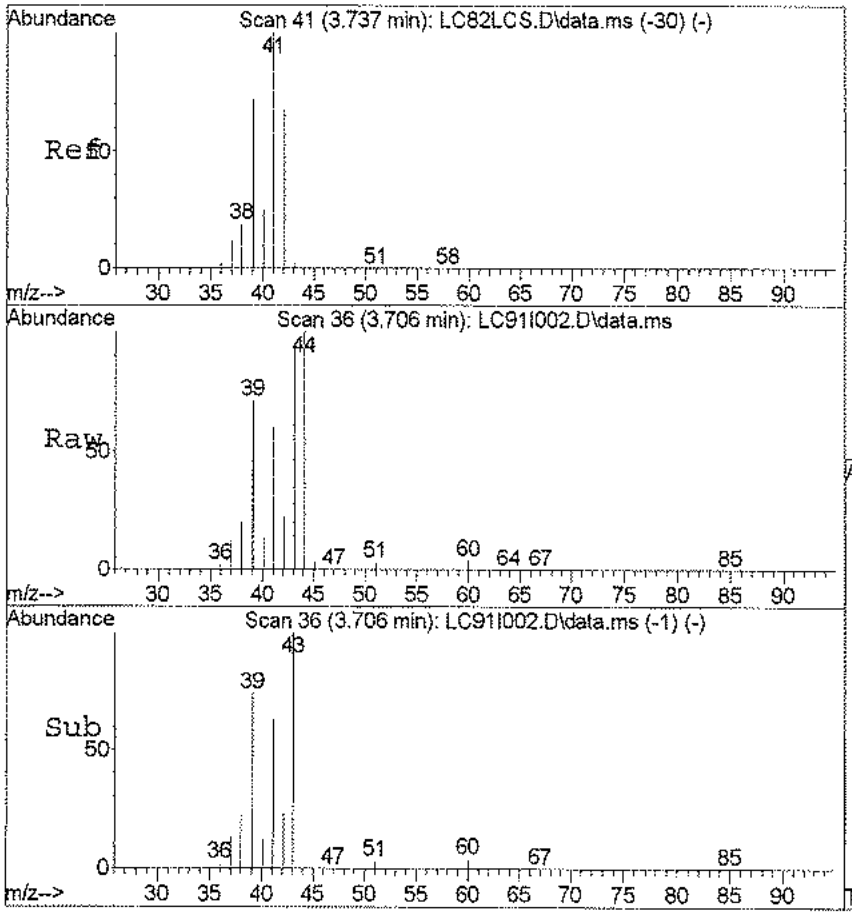
Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC91I002.D Vial: 5
Acq Time : 03/21/2016 17:49 Operator: JCB
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-031216-IA-KIT Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:53:56 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	10.98	130	66886	0.6538 ppb	96
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.25	71	23885	0.4310 ppb #	23
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.89	43	53081	0.3666 ppb #	63
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	900018	4.3708 ppb	99
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.99	166	902319	7.9898 ppb #	80
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	126632	0.4195 ppb	97
53)	m,p-Xylene	15.29	91	376023	1.6066 ppb	99
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	112082	0.4633 ppb	98
59)	4-Ethyl Toluene	17.26	105	73515	0.2175 ppb	99
60)	1,3,5-Trimethylbenzene	17.35	105	56768	0.1901 ppb	98
61)	1,2,4-Trimethylbenzene	17.87	105	209056	0.7347 ppb	99
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	21.31	128	43520	0.1573 ppb # TLC	94
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

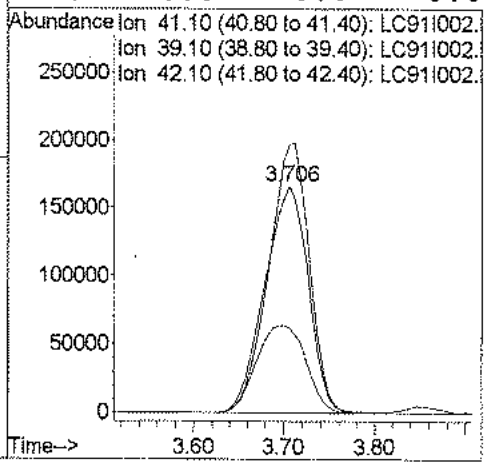
(#) = qualifier out of range (m) = manual integration

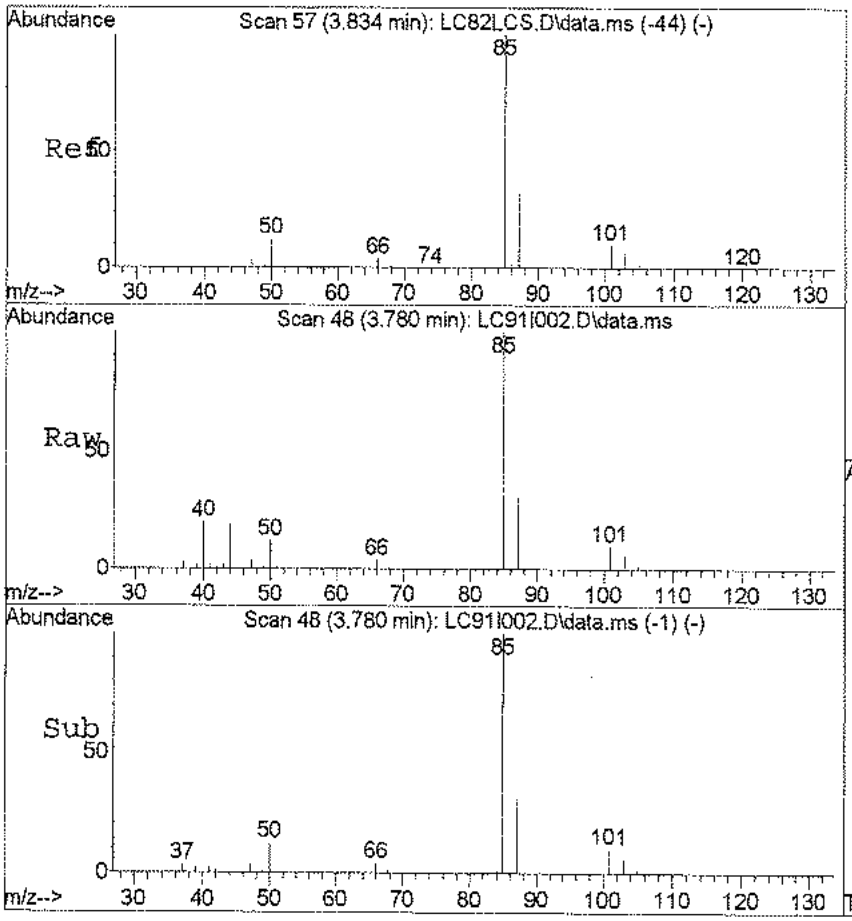


#2
Propene
Concen: 11.43 ppb
RT: 3.71 min Scan# 36
Delta R.T. -0.02 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:41.1 Resp: 549899

Ion	Ratio	Lower	Upper
41	100		
39	111.3	56.2	84.4#
42	43.6	53.8	80.6#
0	0.0	0.0	0.0

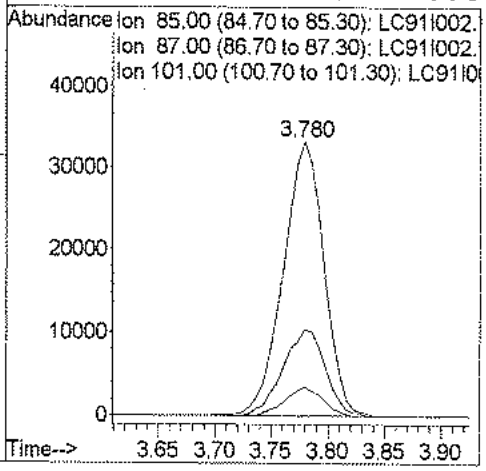


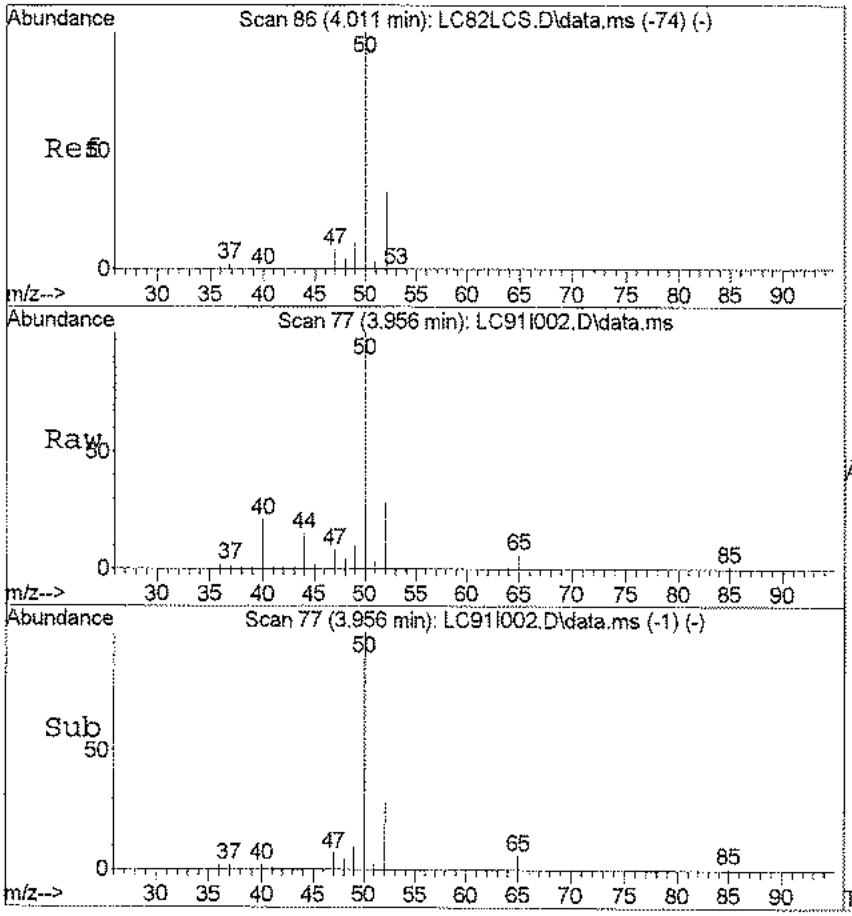


#3
Dichlorodifluoromethane
Concen: 0.54 ppb
RT: 3.78 min Scan# 48
Delta R.T. -0.04 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:85 Resp: 81961

Ion	Ratio	Lower	Upper
85	100		
87	32.5	26.1	39.1
101	9.7	8.0	12.0
0	0.0	0.0	0.0

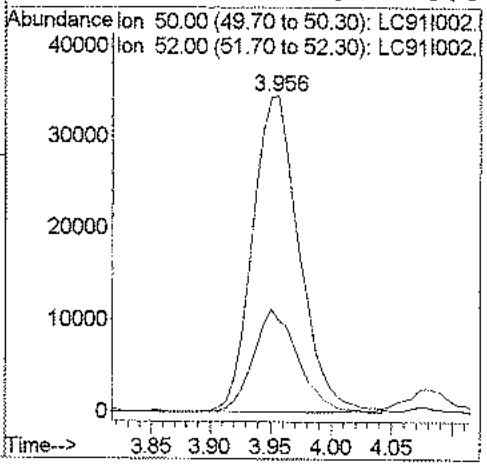


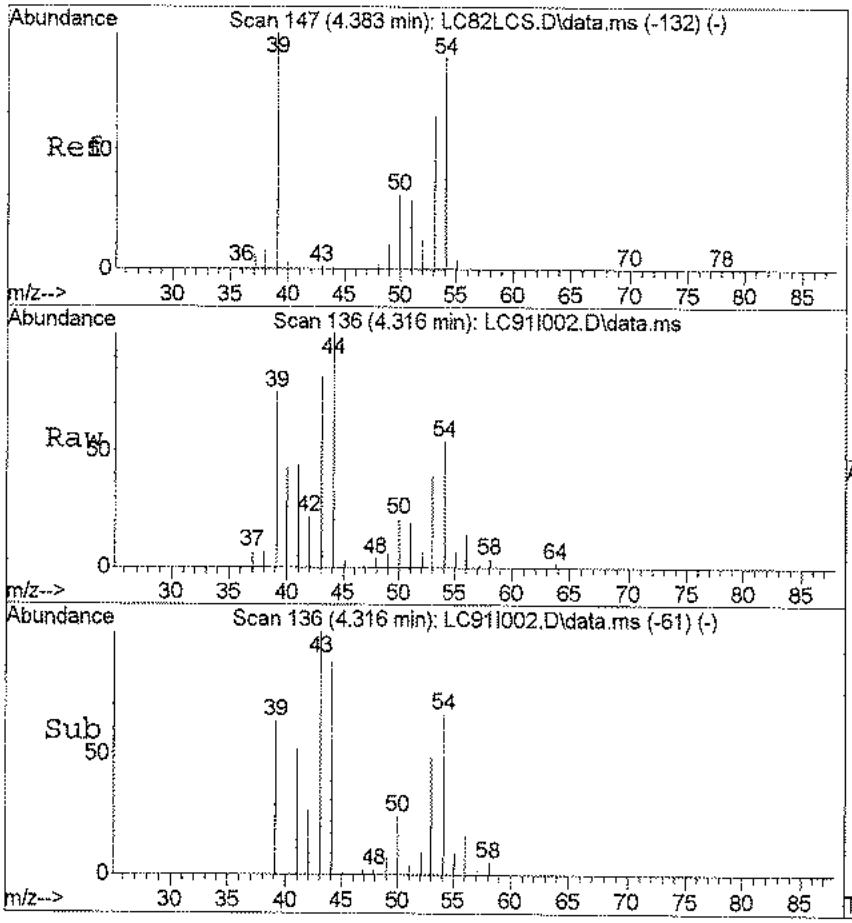


#4
Chloromethane
Concen: 1.60 ppb
RT: 3.96 min Scan# 77
Delta R.T. -0.04 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:50 Resp: 91751

Ion	Ratio	Lower	Upper
50	100		
52	31.3	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

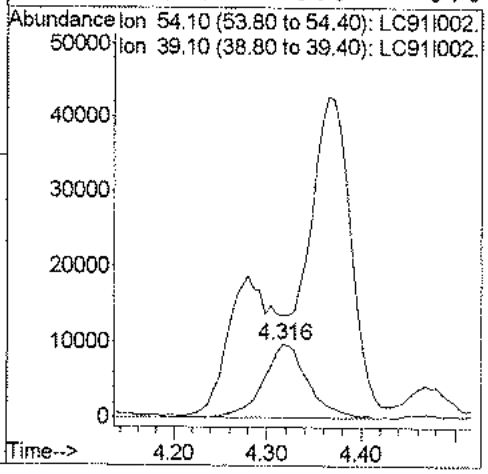


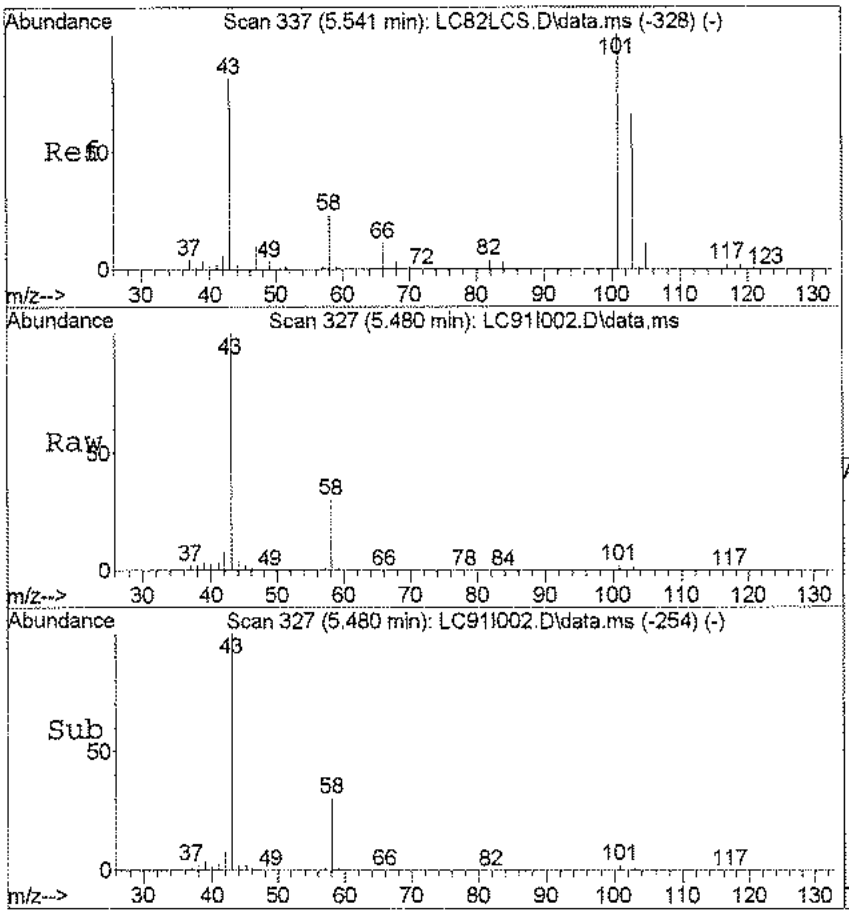


#7
1,3-Butadiene
Concen: 0.65 ppb
RT: 4.32 min Scan# 136
Delta R.T. -0.04 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:54.1 Resp: 32237

Ion	Ratio	Lower	Upper
54	100		
39	0.0	59.8	89.8#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

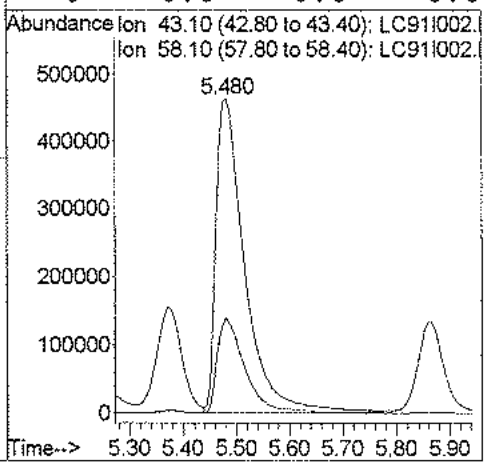


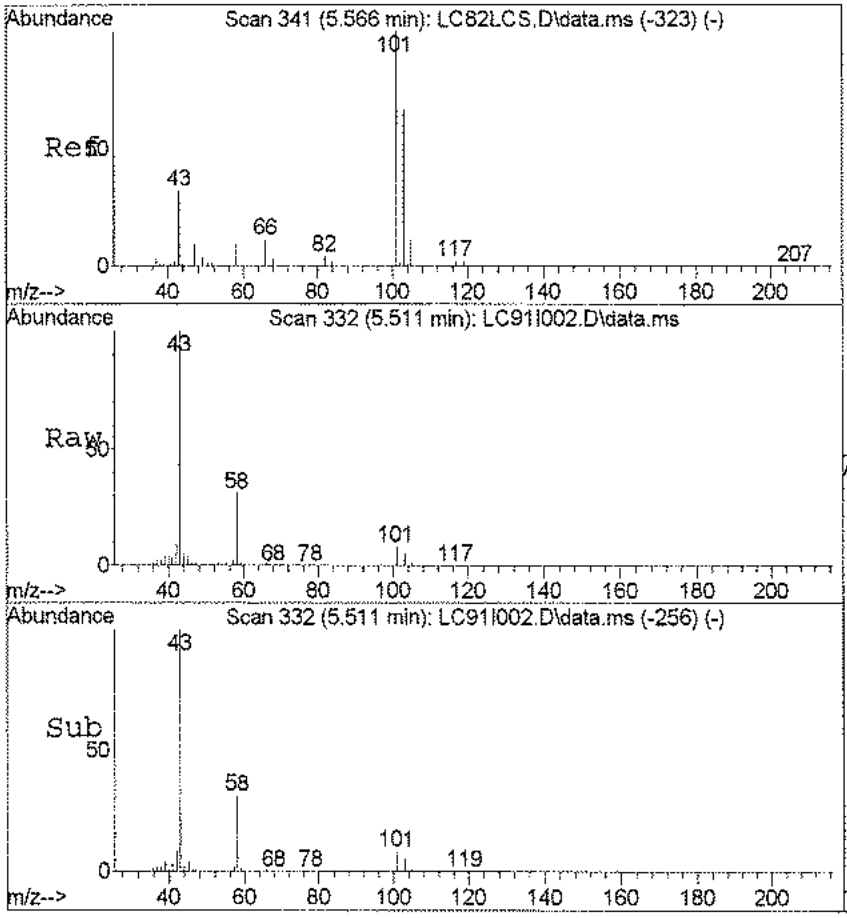


#11
Acetone
Concen: 17.17 ppb
RT: 5.48 min Scan# 327
Delta R.T. -0.06 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:43.1 Resp: 1740483

Ion	Ratio	Lower	Upper
43	100		
58	29.4	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

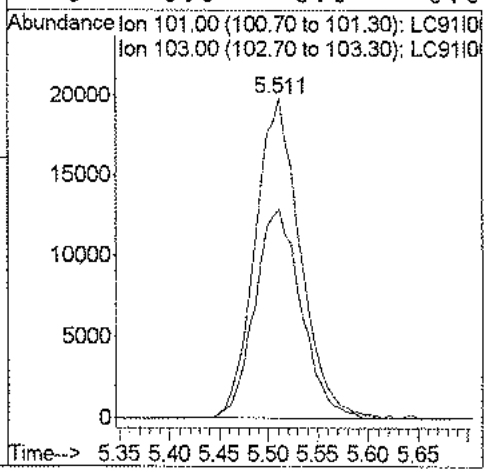


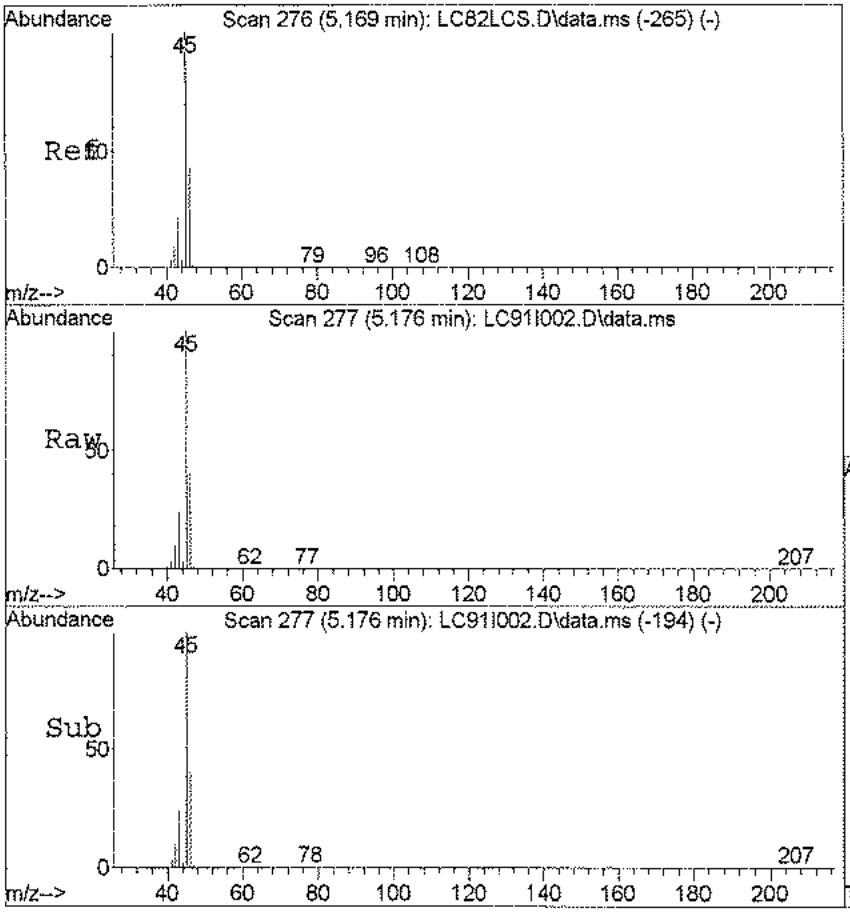


#12
Trichlorofluoromethane
Concen: 0.35 ppb
RT: 5.51 min Scan# 332
Delta R.T. -0.04 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:101 Resp: 62925

Ion	Ratio	Lower	Upper
101	100		
103	67.0	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

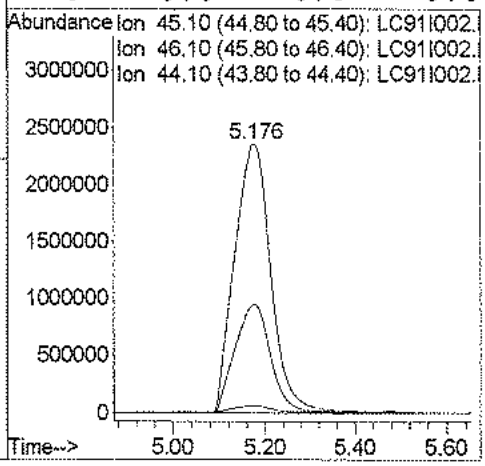


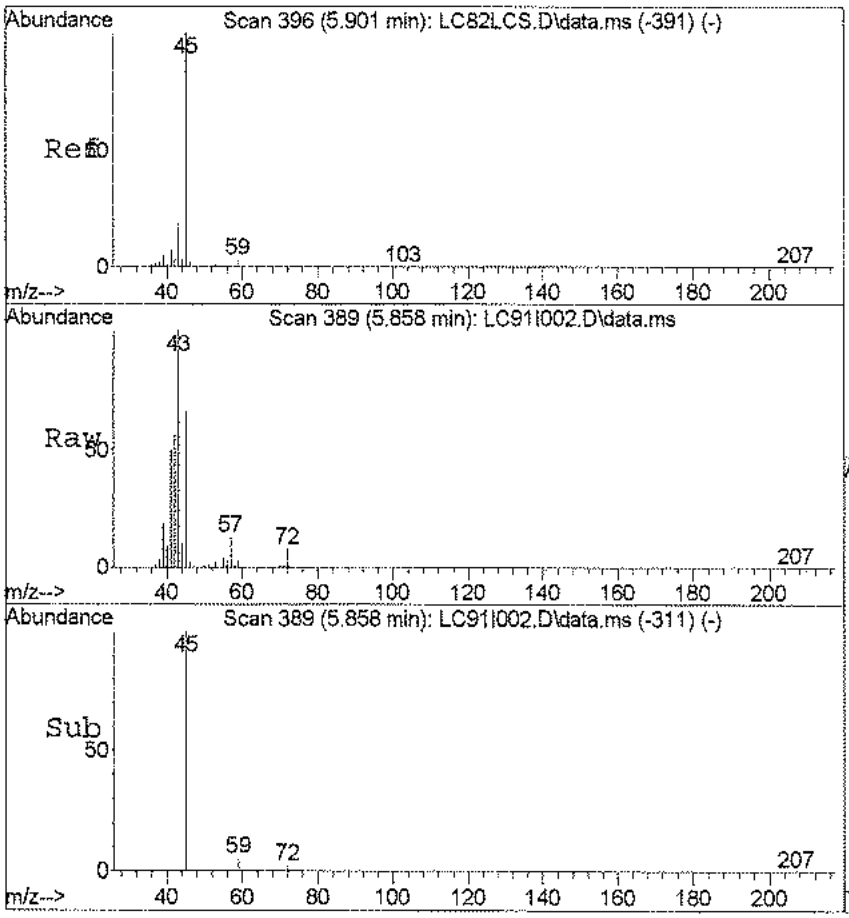


#13
Ethanol
Concen: 1032.91 ppb
RT: 5.18 min Scan# 277
Delta R.T. 0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:45.1 Resp:13007299

Ion	Ratio	Lower	Upper
45	100		
46	40.0	32.4	48.6
44	2.6	23.4	35.2#
0	0.0	0.0	0.0

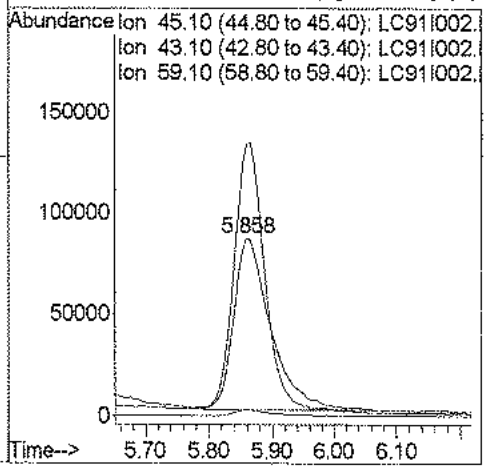


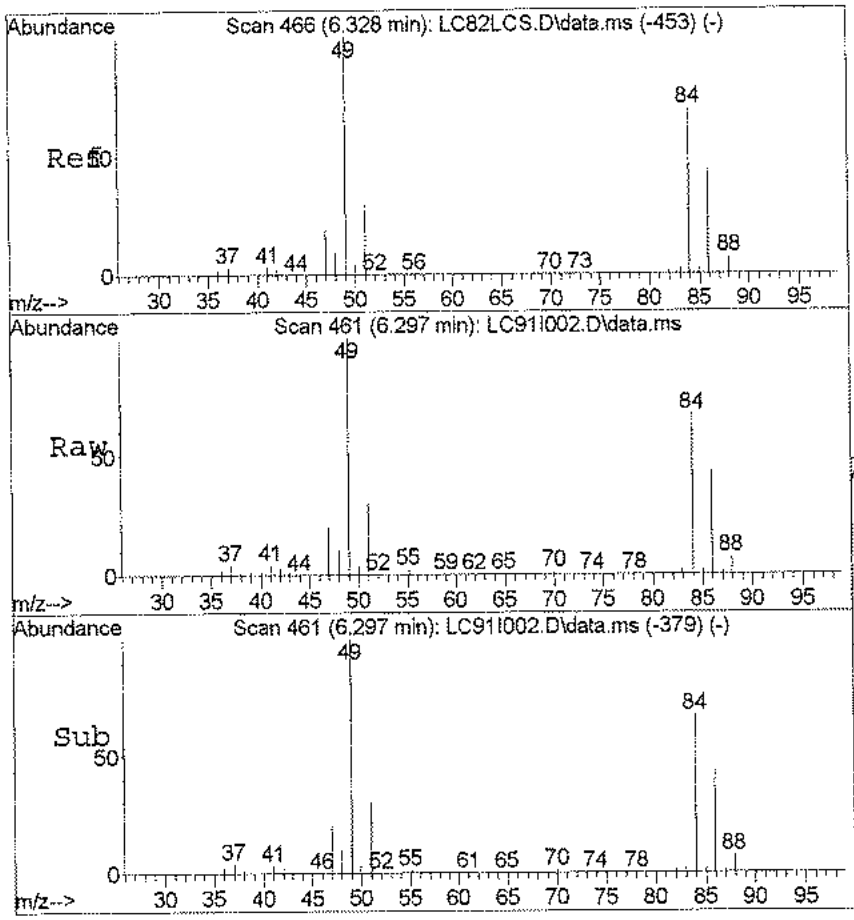


#14
Isopropyl Alcohol
Concen: 4.11 ppb
RT: 5.86 min Scan# 389
Delta R.T. -0.03 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:45.1 Resp: 345200

Ion	Ratio	Lower	Upper
45	100		
43	131.8	15.8	23.6#
59	3.6	3.2	4.8
0	0.0	0.0	0.0

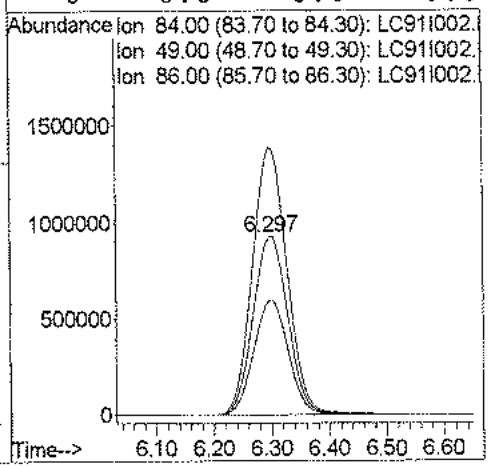


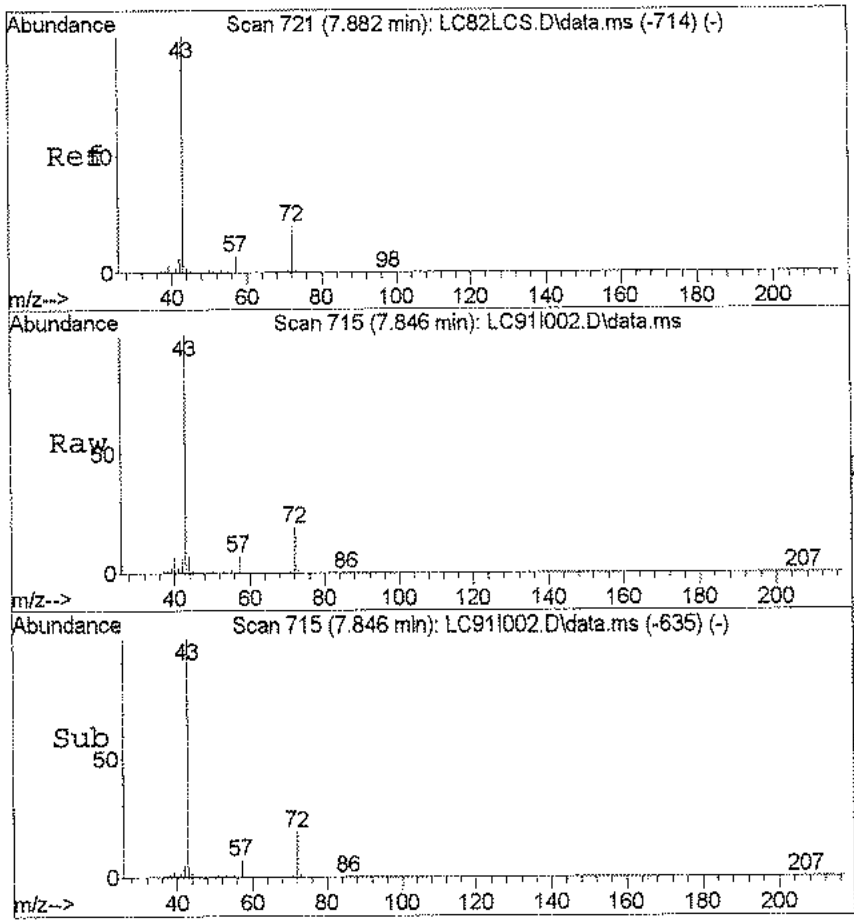


#16
Methylene Chloride
Concen: 65.77 ppb
RT: 6.30 min Scan# 461
Delta R.T. -0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:84 Resp: 3871038

Ion	Ratio	Lower	Upper
84	100		
49	149.0	66.6	100.0#
86	63.8	51.6	77.4
0	0.0	0.0	0.0

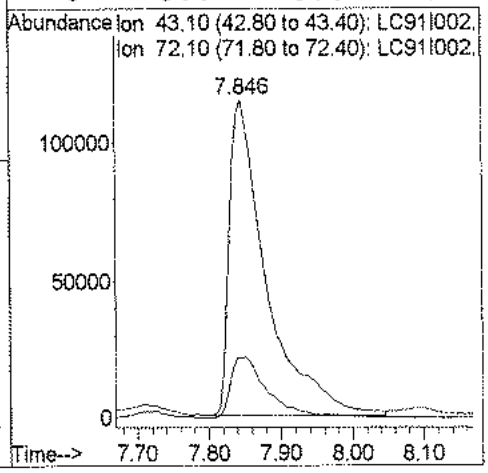


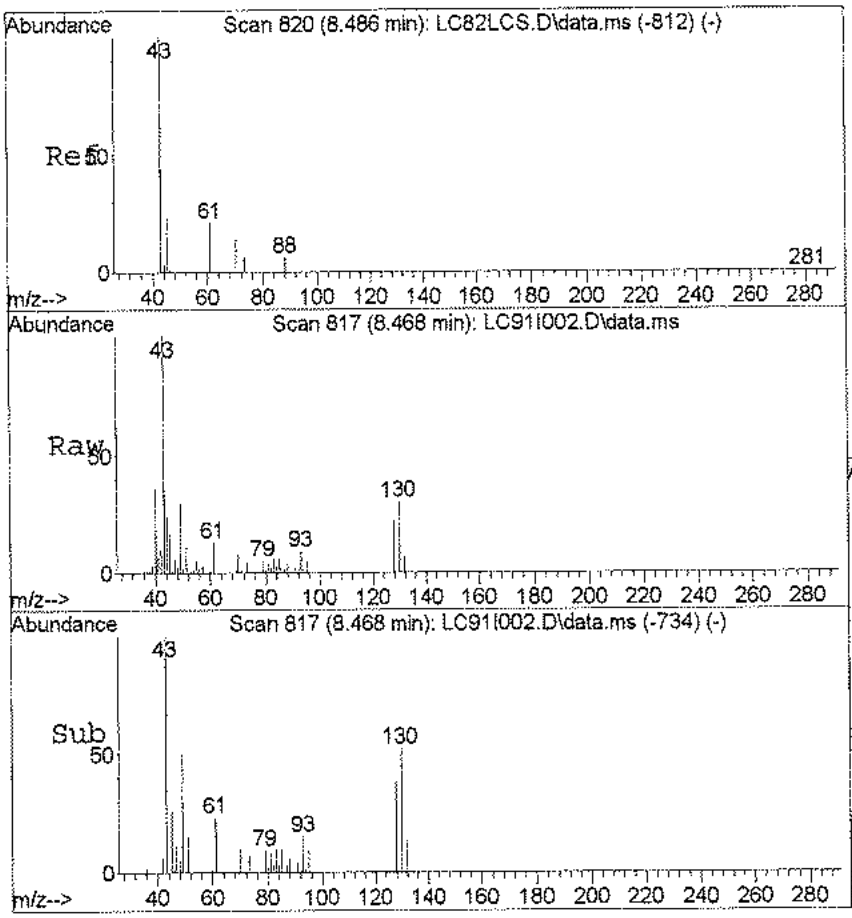


#23
2-Butanone
Concen: 3.00 ppb
RT: 7.85 min Scan# 715
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:43.1 Resp: 410190

Ion	Ratio	Lower	Upper
43	100		
72	19.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

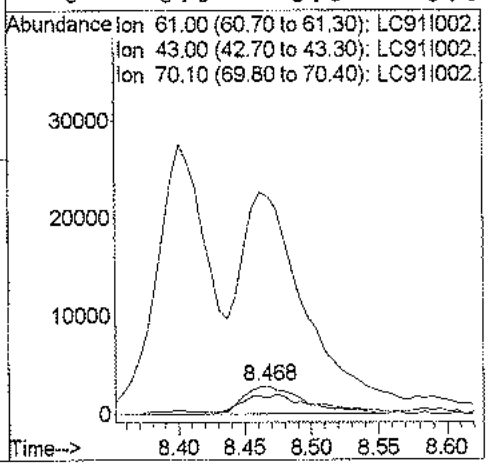


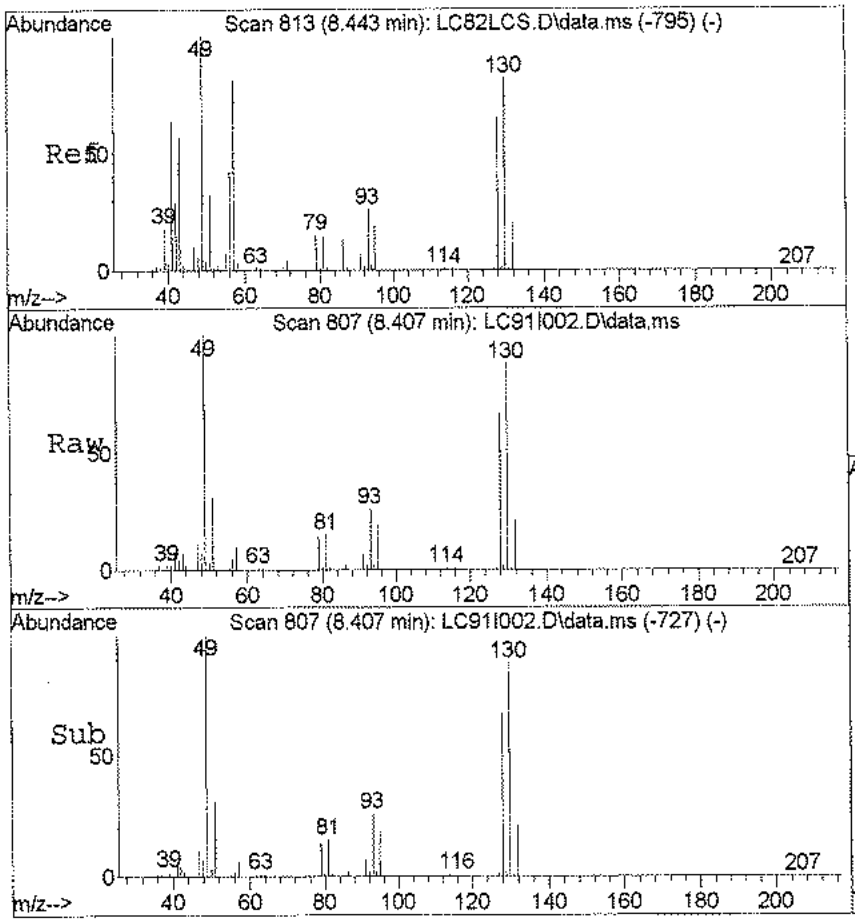


#26
Ethyl Acetate
Concen: 0.36 ppb
RT: 8.47 min Scan# 817
Delta R.T. 0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:61 Resp: 9236

Ion	Ratio	Lower	Upper
61	100		
43	743.8	144.0	216.0#
70	86.3	13.6	20.4#
0	0.0	0.0	0.0

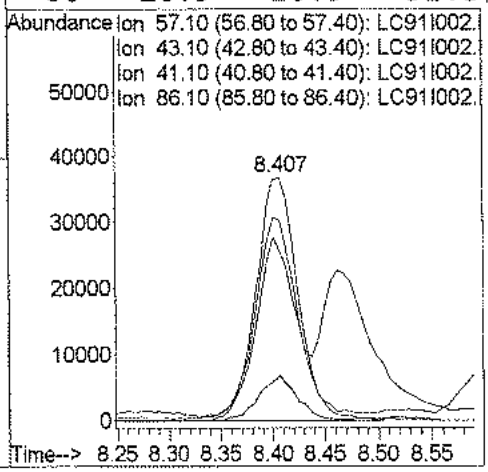


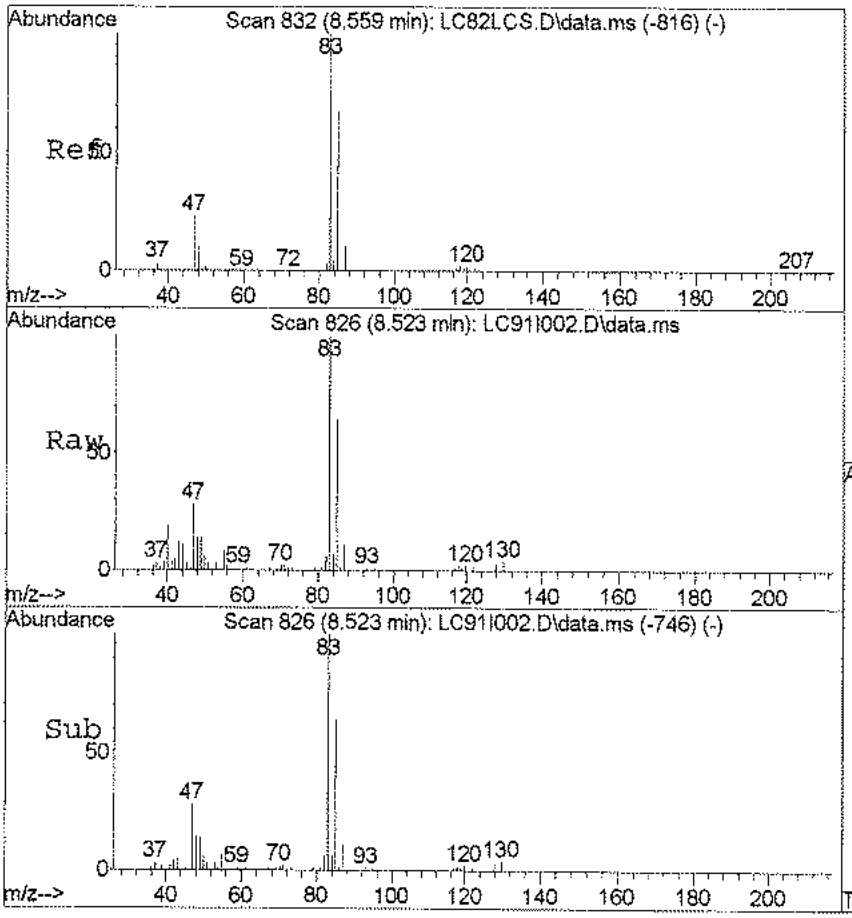


#27
Hexane
Concen: 1.18 ppb
RT: 8.41 min Scan# 807
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:57.1 Resp: 103521

Ion	Ratio	Lower	Upper
57	100		
43	69.6	57.3	85.9
41	85.6	47.0	70.4#
86	16.9	20.9	31.3#

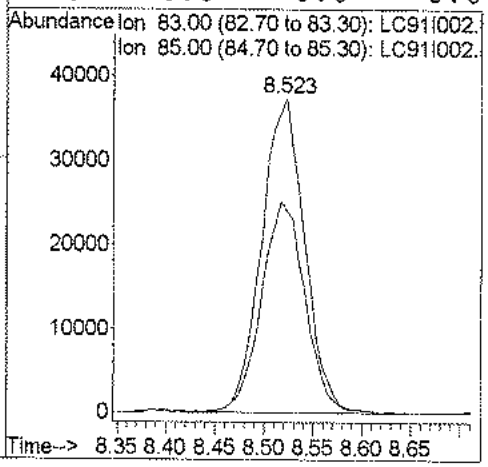


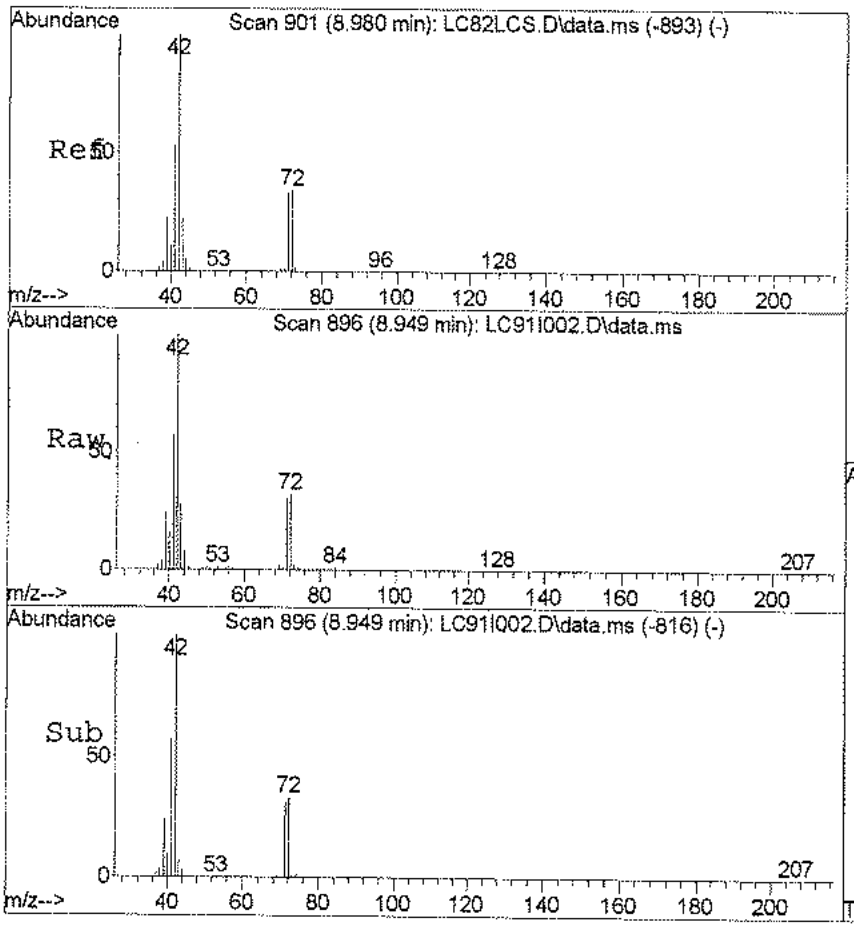


#28
Chloroform
Concen: 0.93 ppb
RT: 8.52 min Scan# 826
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:83 Resp: 114301

Ion	Ratio	Lower	Upper
83	100		
85	68.7	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

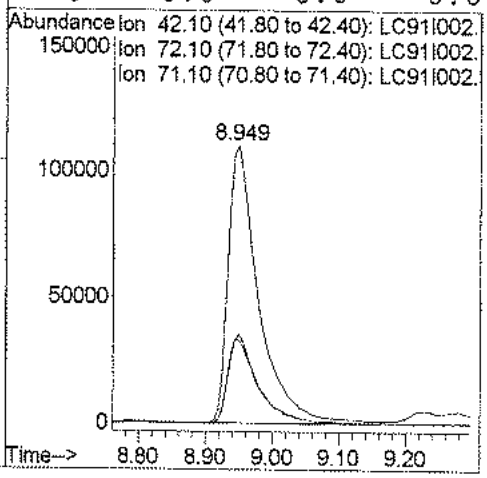


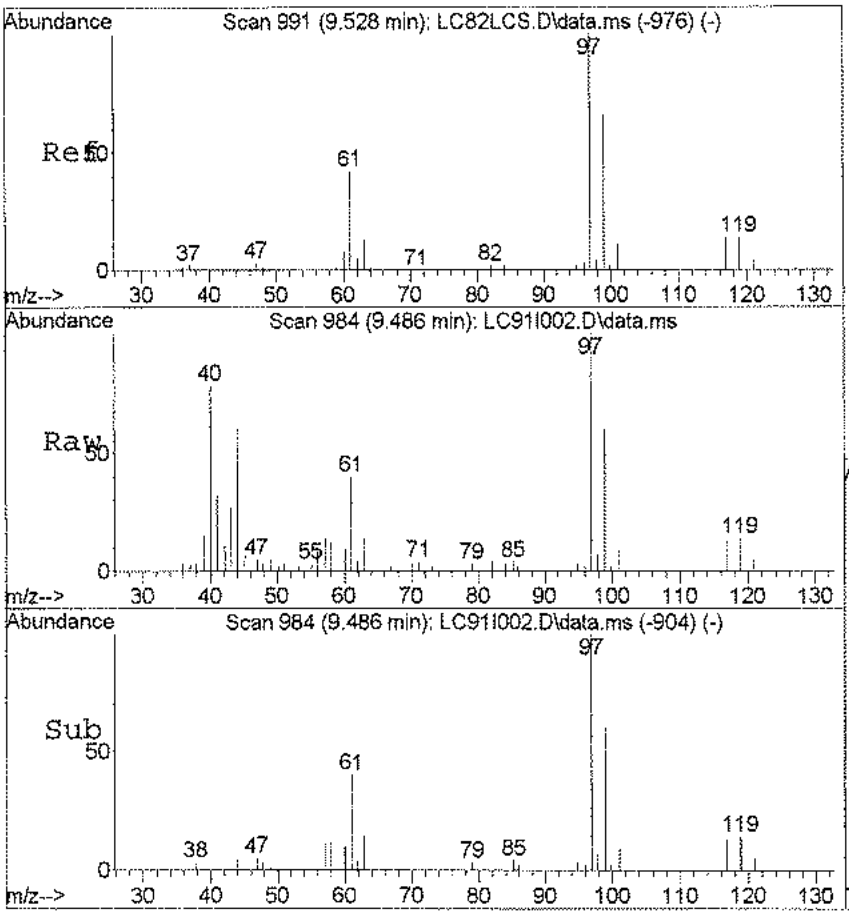


#29
Tetrahydrofuran
Concen: 4.95 ppb
RT: 8.95 min Scan# 896
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:42.1 Resp: 349646

Ion	Ratio	Lower	Upper
42	100		
72	31.7	51.5	77.3#
71	30.3	47.5	71.3#
0	0.0	0.0	0.0

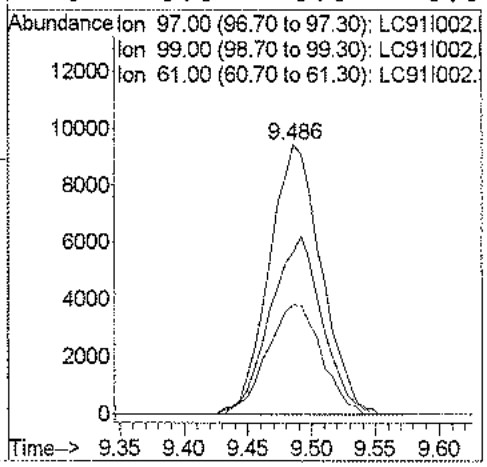


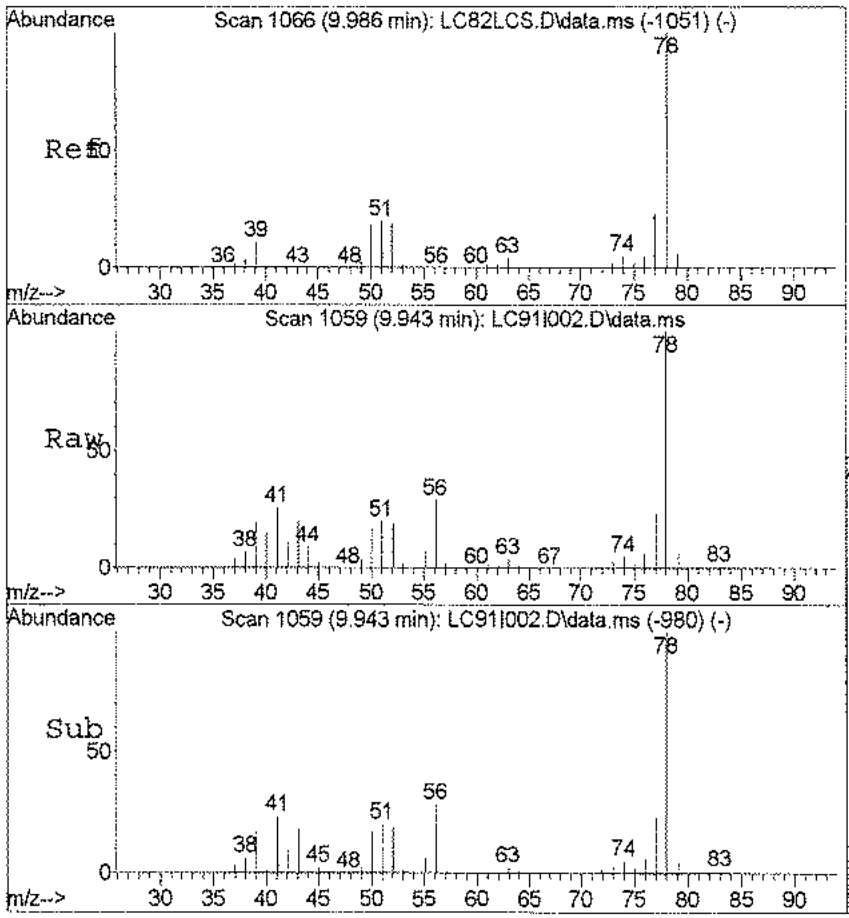


#31
1,1,1-Trichloroethane
Concen: 0.21 ppb
RT: 9.49 min Scan# 984
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:97 Resp: 26683

Ion	Ratio	Lower	Upper
97	100		
99	65.1	51.6	77.4
61	42.2	24.2	36.2#
0	0.0	0.0	0.0

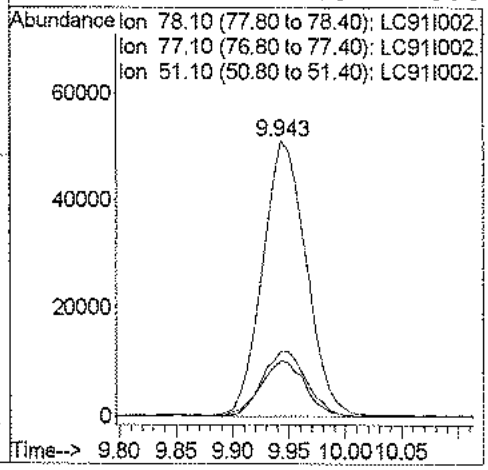


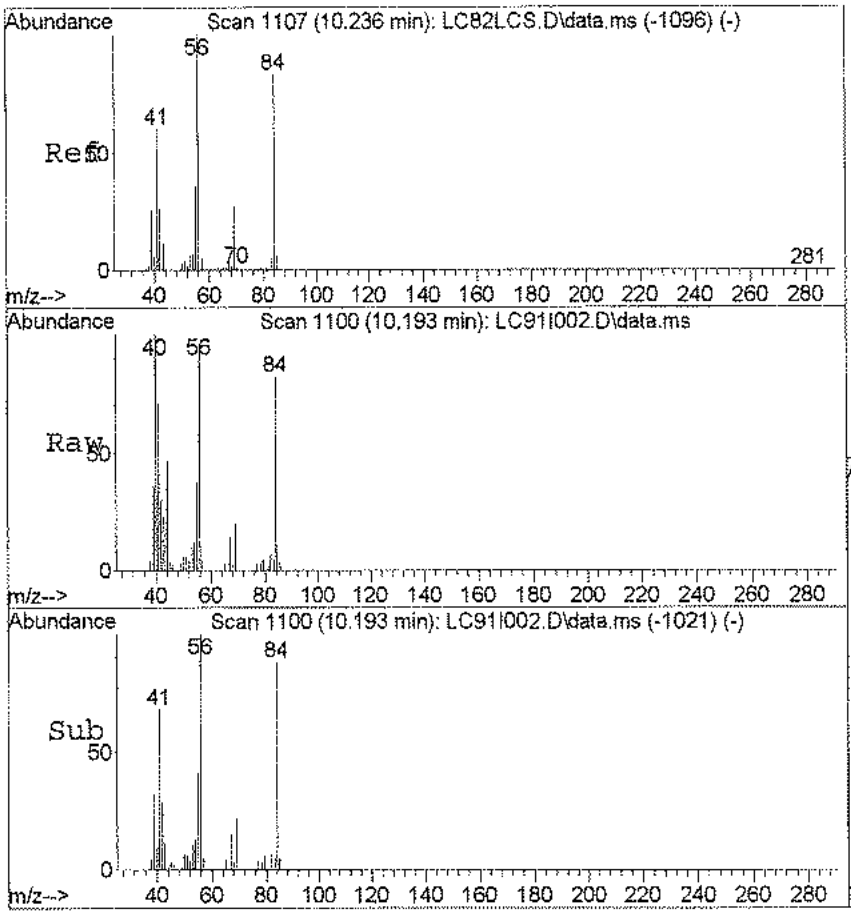


#32
Benzene
Concen: 0.80 ppb
RT: 9.94 min Scan# 1059
Delta R.T. -0.02 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:78.1 Resp: 137350

Ion	Ratio	Lower	Upper
78	100		
77	24.0	18.2	27.4
51	20.3	9.5	14.3#
0	0.0	0.0	0.0

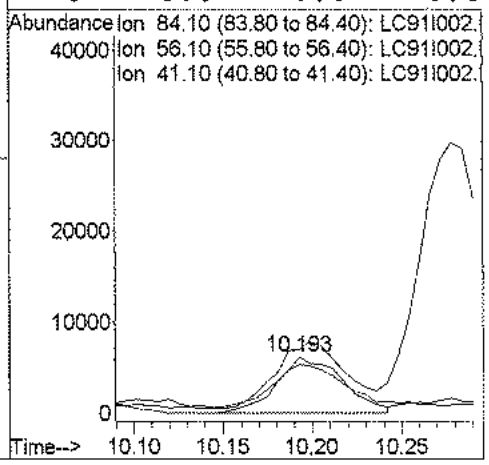


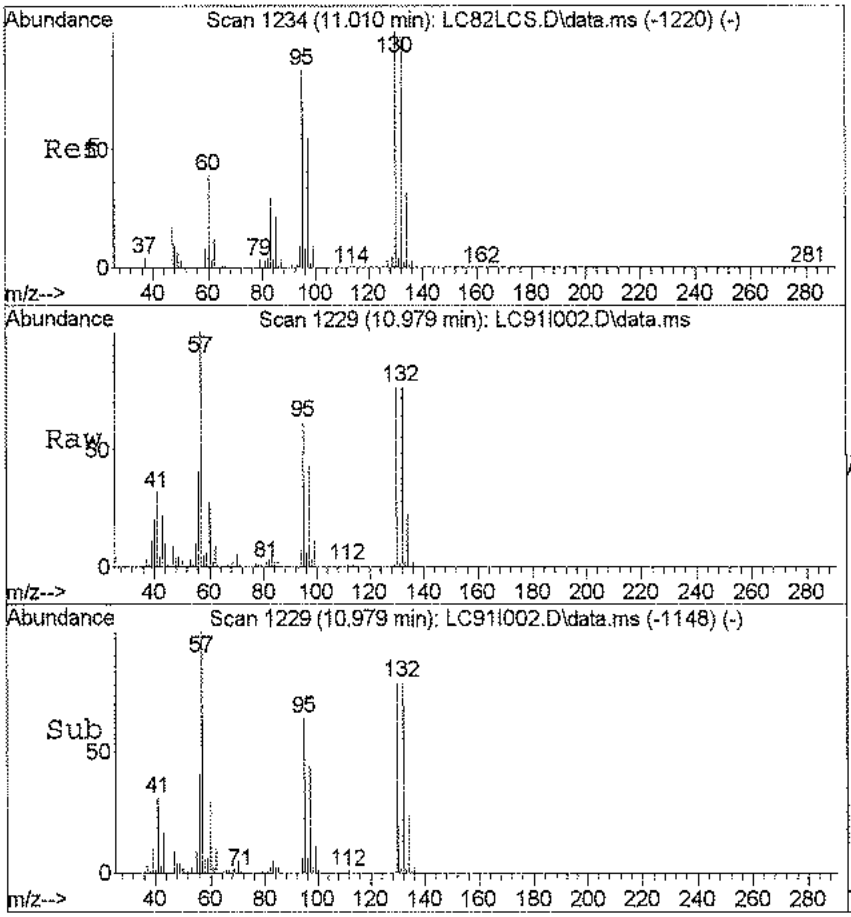


#34
Cyclohexane
Concen: 0.21 ppb
RT: 10.19 min Scan# 1100
Delta R.T. -0.02 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:84.1 Resp: 16097

Ion	Ratio	Lower	Upper
84	100		
56	123.4	67.3	100.9#
41	85.1	30.2	45.4#
0	0.0	0.0	0.0

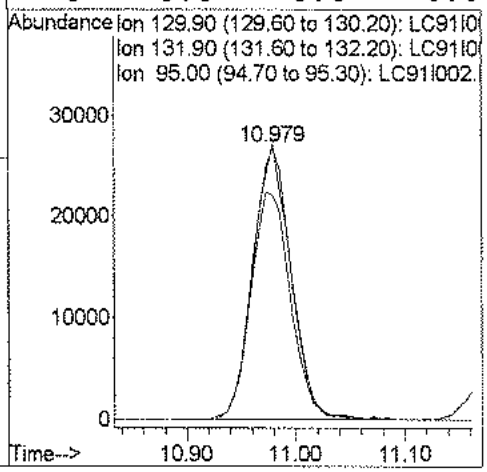


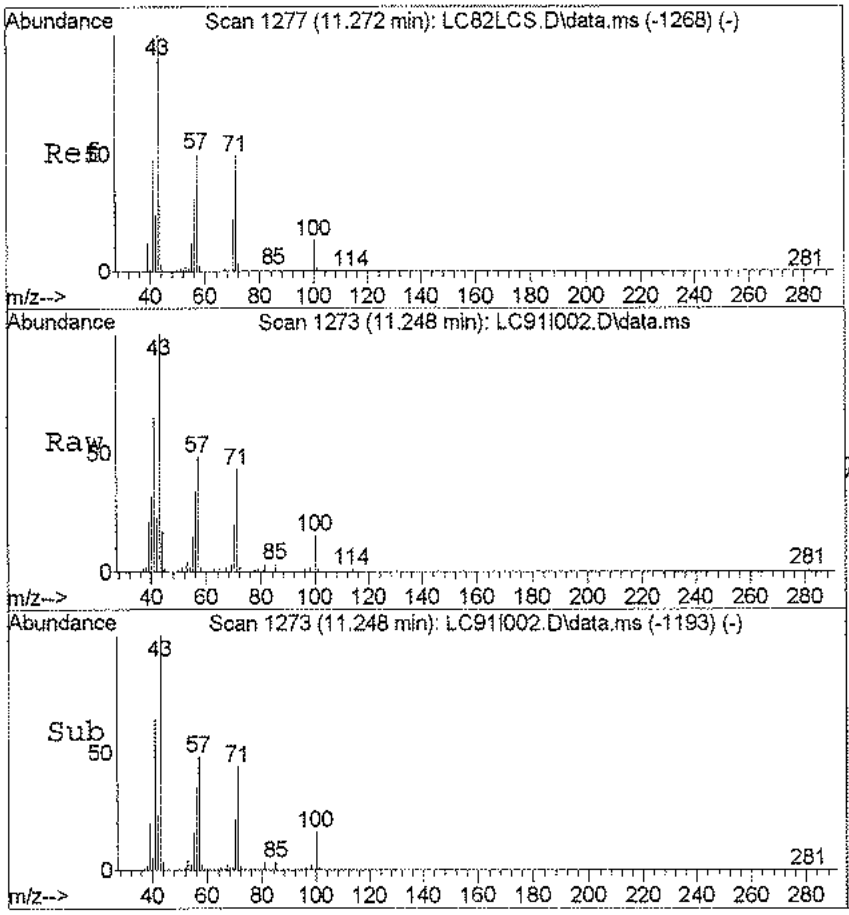


#38
Trichloroethene
Concen: 0.65 ppb
RT: 10.98 min Scan# 1229
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:129.9 Resp: 66886

Ion	Ratio	Lower	Upper
130	100		
132	96.6	77.1	115.7
95	85.3	61.7	92.5
0	0.0	0.0	0.0

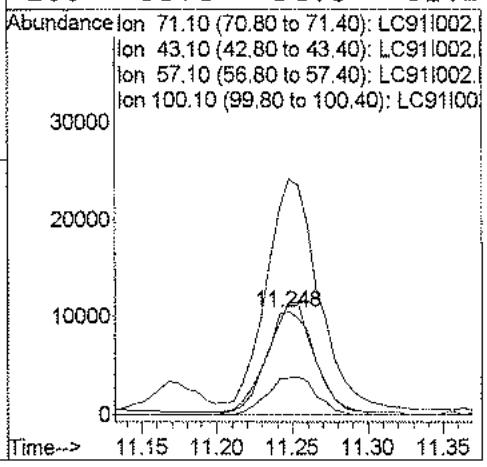


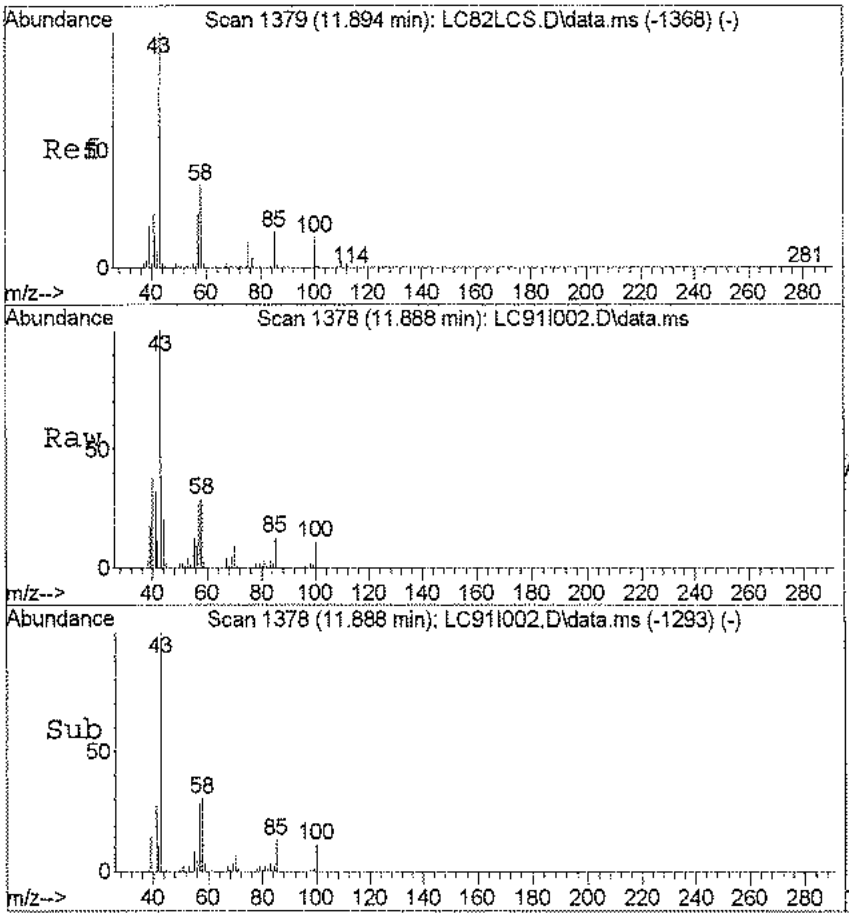


#40
Heptane
Concen: 0.43 ppb
RT: 11.25 min Scan# 1273
Delta R.T. -0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:71.1 Resp: 23885

Ion	Ratio	Lower	Upper
71	100		
43	241.3	87.3	130.9#
57	106.3	57.8	86.6#
100	35.4	34.8	52.2

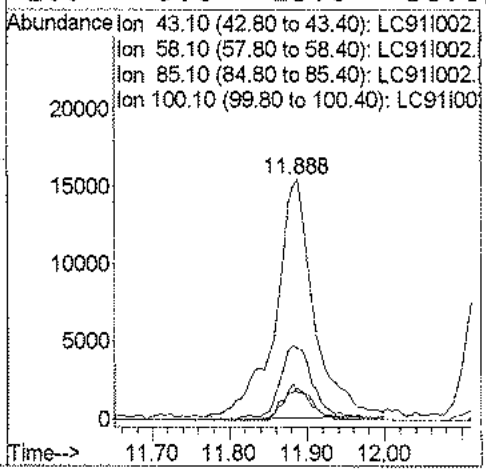


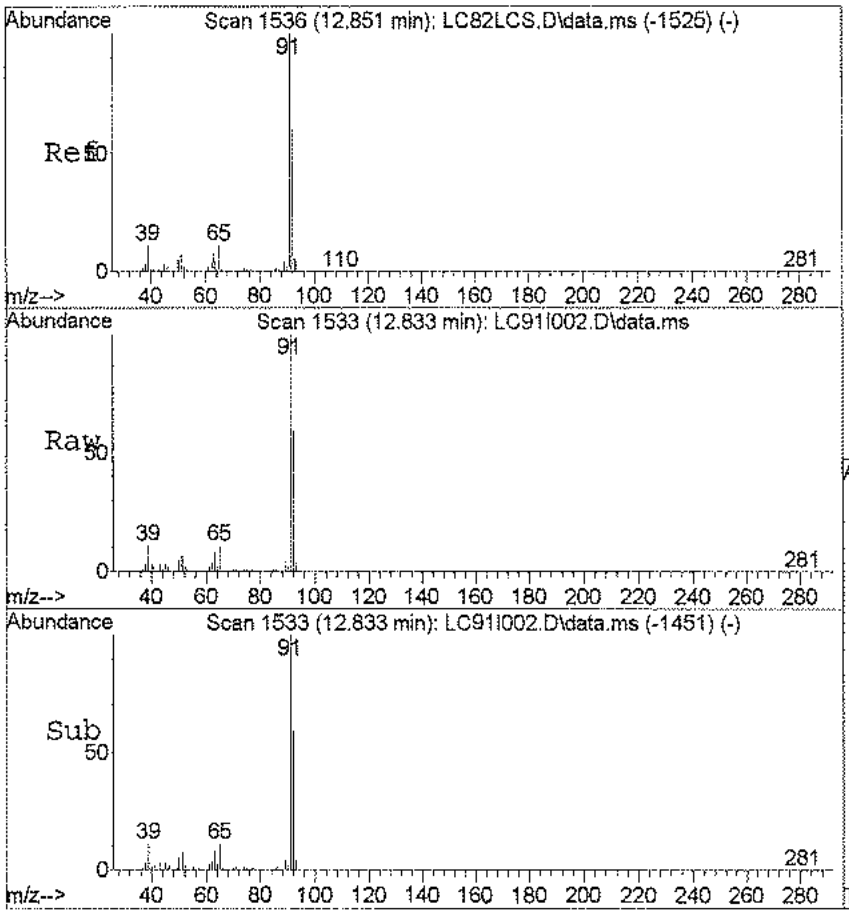


#42
4-Methyl-2-Pentanone
Concen: 0.37 ppb
RT: 11.89 min Scan# 1378
Delta R.T. 0.02 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:43.1 Resp: 53081

Ion	Ratio	Lower	Upper
43	100		
58	26.6	39.5	59.3#
85	10.2	25.1	37.7#
100	9.6	25.6	38.4#

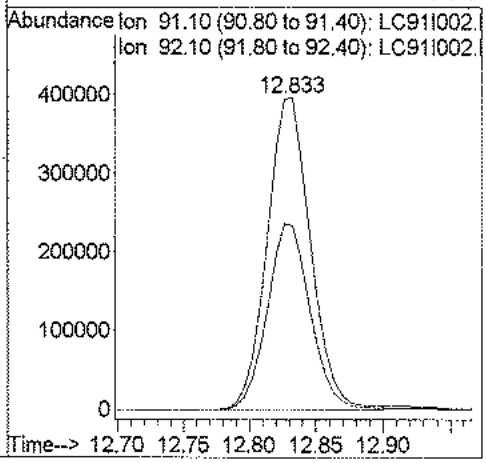


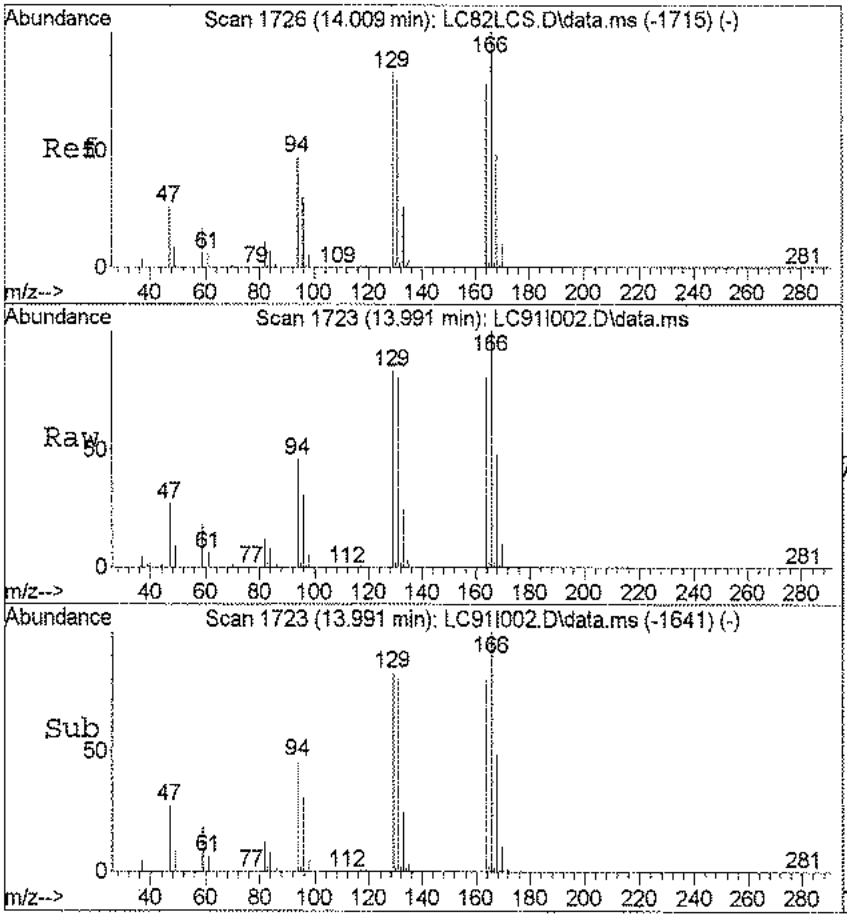


#45
Toluene
Concen: 4.37 ppb
RT: 12.83 min Scan# 1533
Delta R.T. -0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:91.1 Resp: 900018

Ion	Ratio	Lower	Upper
91	100		
92	59.2	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

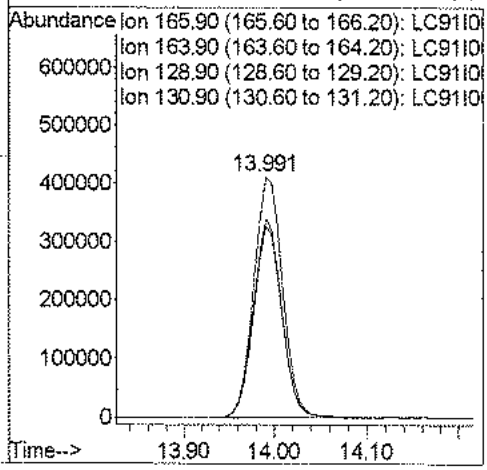


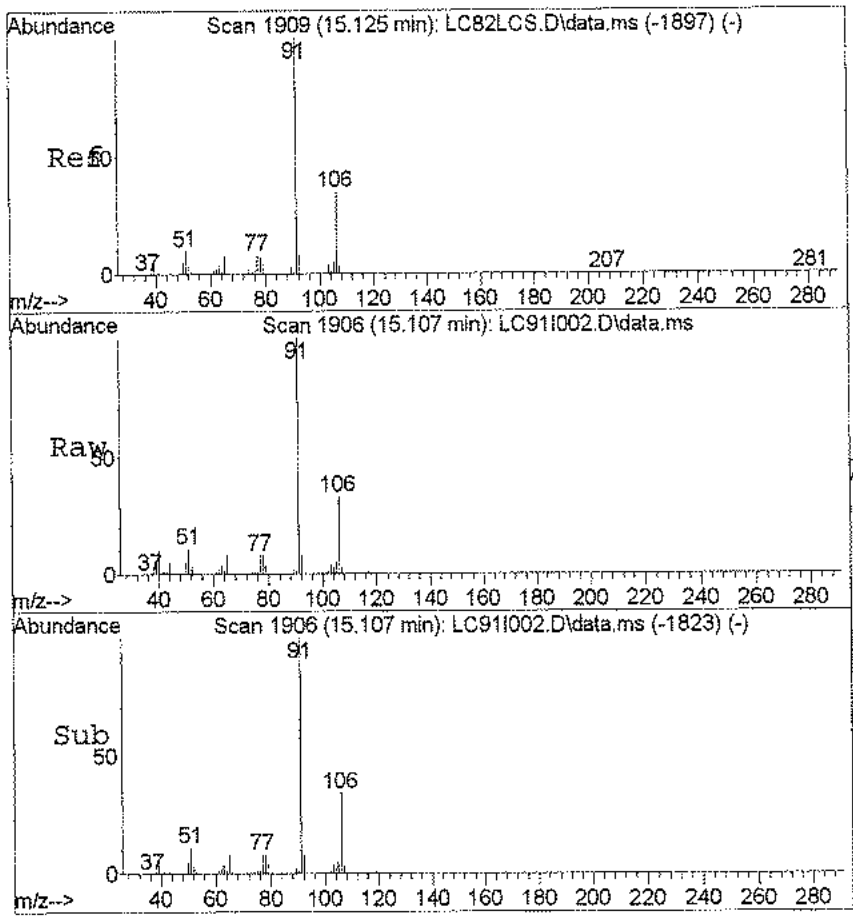


#49
Tetrachloroethene
Concen: 7.99 ppb
RT: 13.99 min Scan# 1723
Delta R.T. -0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:165.9 Resp: 902319

Ion	Ratio	Lower	Upper
166	100		
164	78.9	61.0	91.4
129	81.1	45.9	68.9#
131	78.3	45.5	68.3#

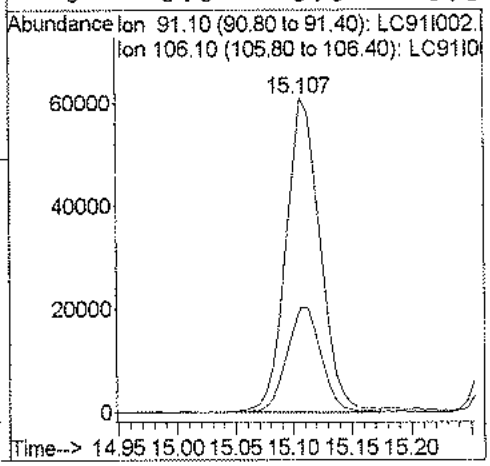


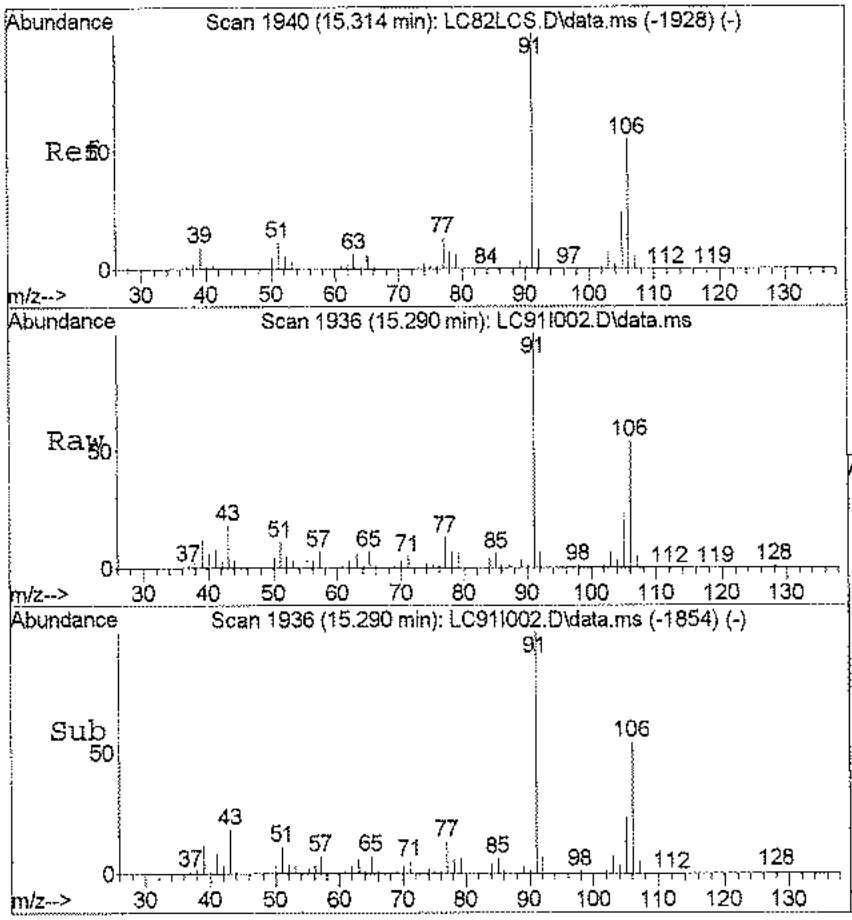


#52
Ethylbenzene
Concen: 0.42 ppb
RT: 15.11 min Scan# 1906
Delta R.T. 0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:91.1 Resp: 126632

Ion	Ratio	Lower	Upper
91	100		
106	33.7	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

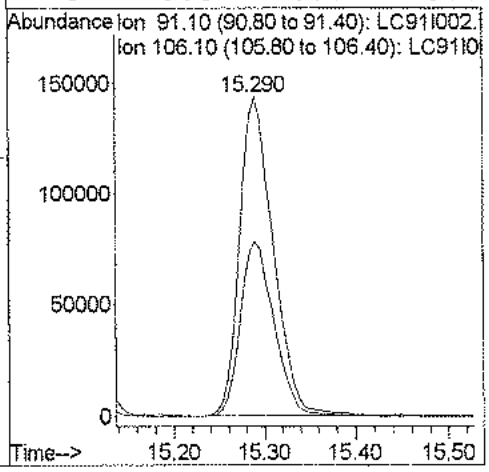


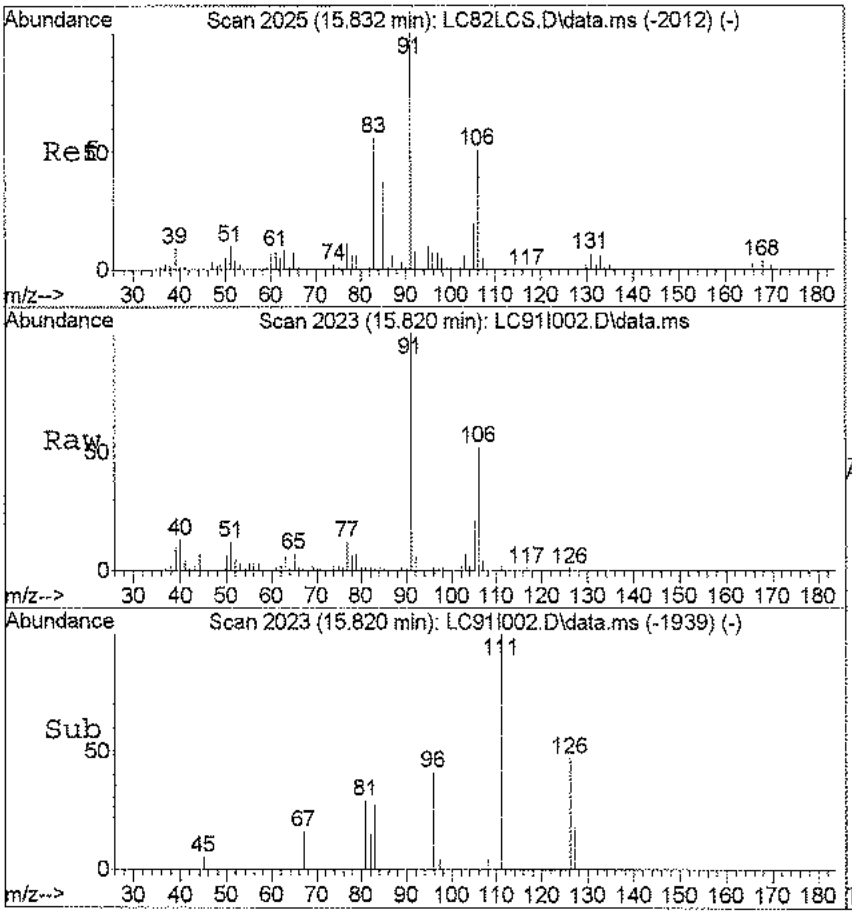


#53
m,p-Xylene
Concen: 1.61 ppb
RT: 15.29 min Scan# 1936
Delta R.T. -0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:91.1 Resp: 376023

Ion	Ratio	Lower	Upper
91	100		
106	54.8	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

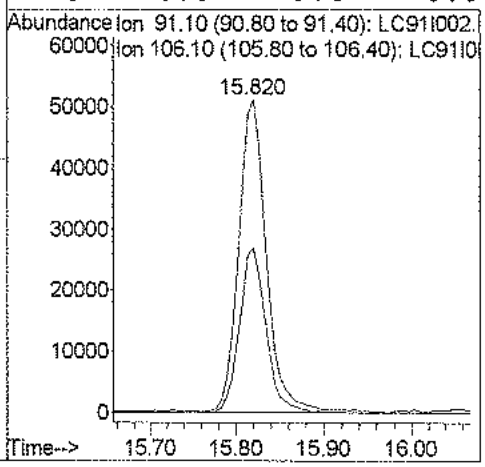


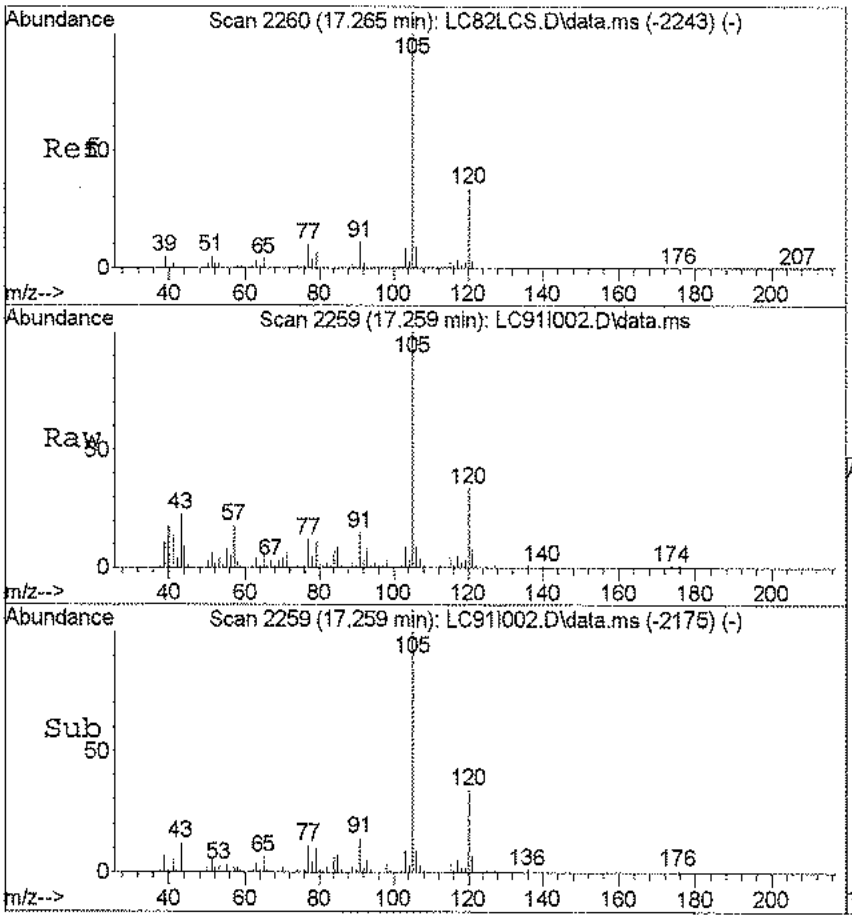


#57
o-Xylene
Concen: 0.46 ppb
RT: 15.82 min Scan# 2023
Delta R.T. 0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:91.1 Resp: 112082

Ion	Ratio	Lower	Upper
91	100		
106	51.0	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

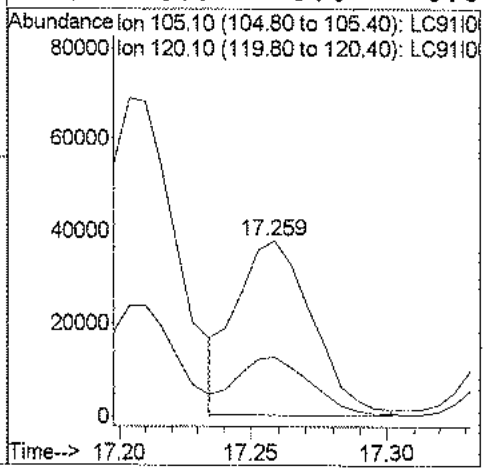


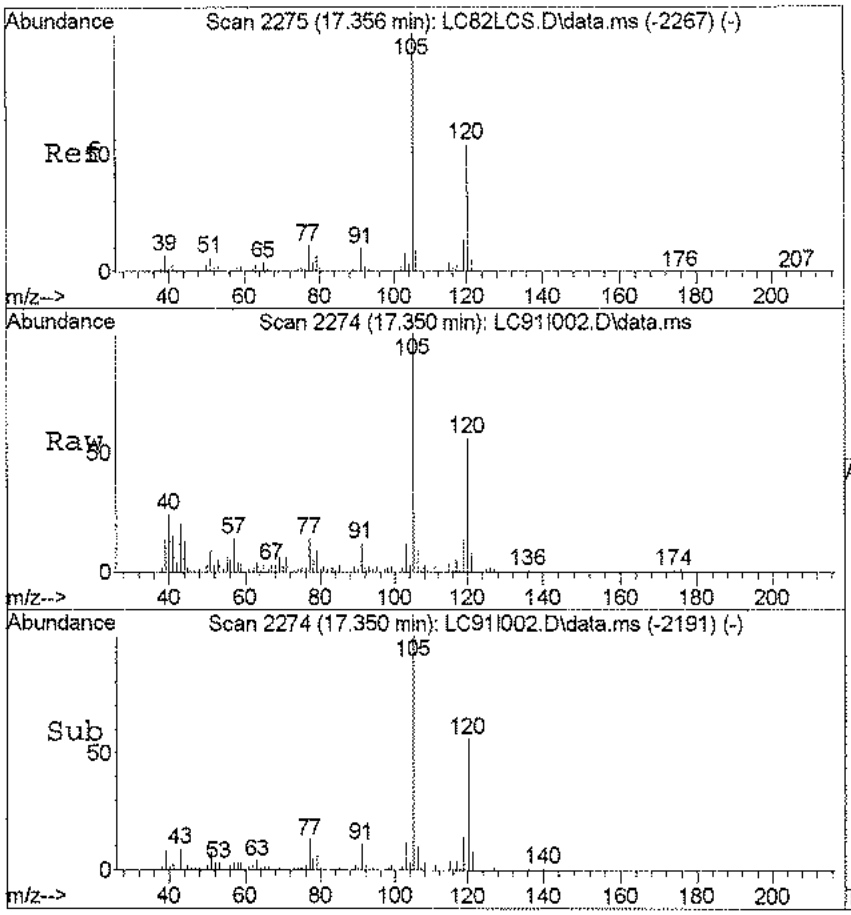


#59
4-Ethyl Toluene
Concen: 0.22 ppb
RT: 17.26 min Scan# 2259
Delta R.T. 0.01 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:105.1 Resp: 73515

Ion	Ratio	Lower	Upper
105	100		
120	33.2	26.1	39.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

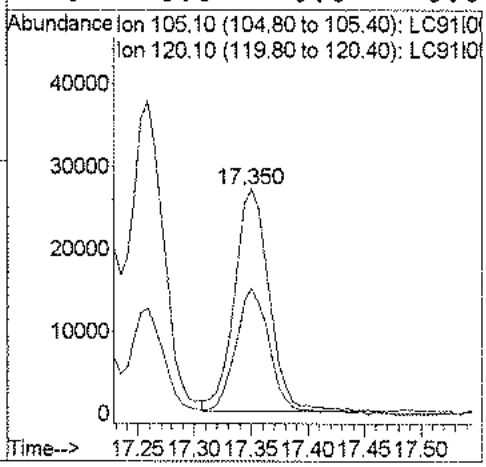


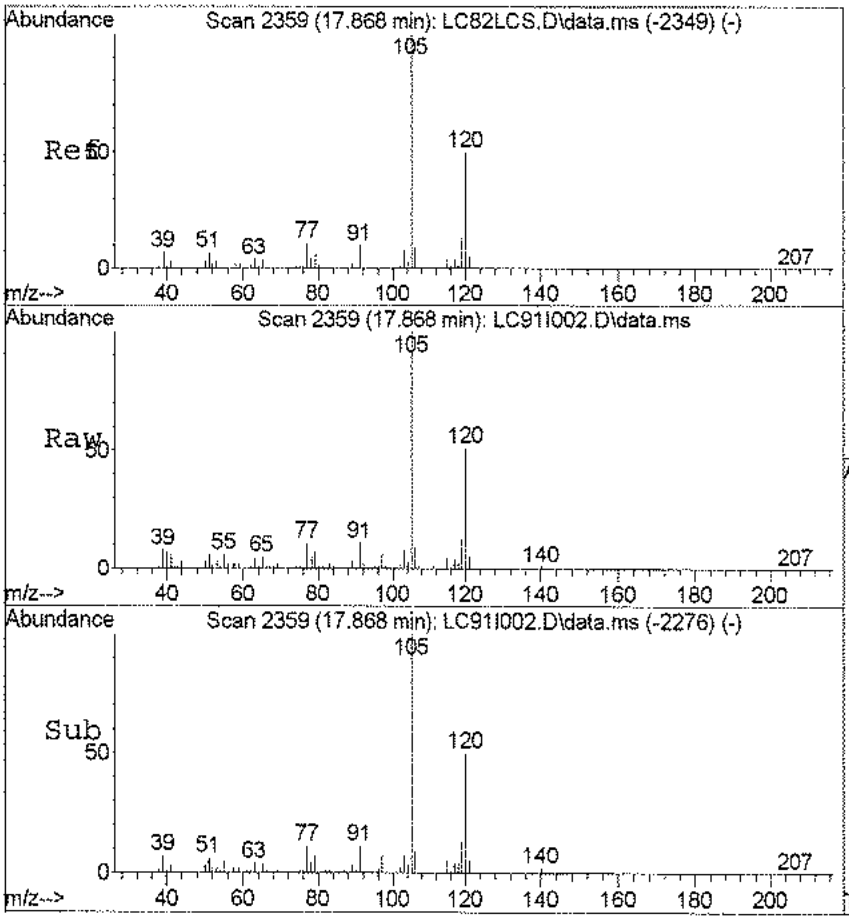


#60
1,3,5-Trimethylbenzene
Concen: 0.19 ppb
RT: 17.35 min Scan# 2274
Delta R.T. 0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:105.1 Resp: 56768

Ion	Ratio	Lower	Upper
105	100		
120	53.1	43.9	65.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

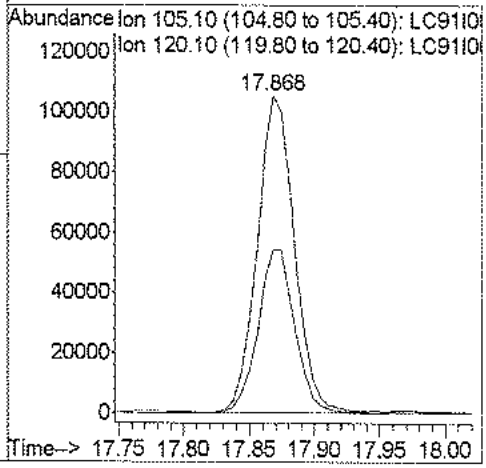


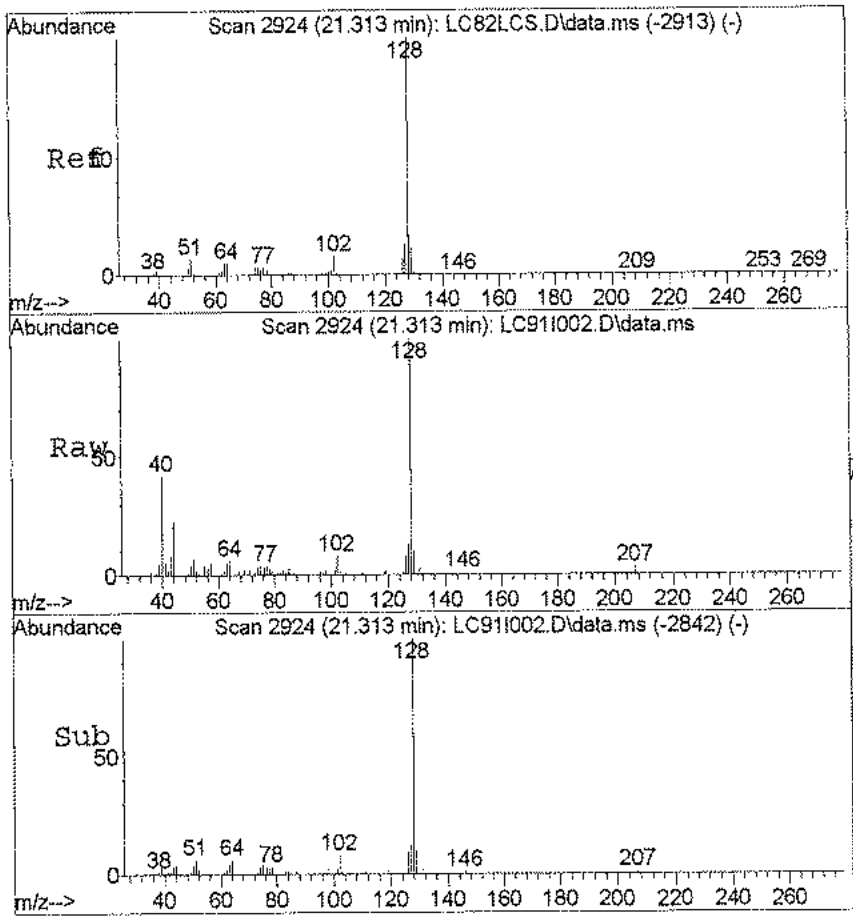


#61
1,2,4-Trimethylbenzene
Concen: 0.73 ppb
RT: 17.87 min Scan# 2359
Delta R.T. 0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:105.1 Resp: 209056

Ion	Ratio	Lower	Upper
105	100		
120	51.3	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

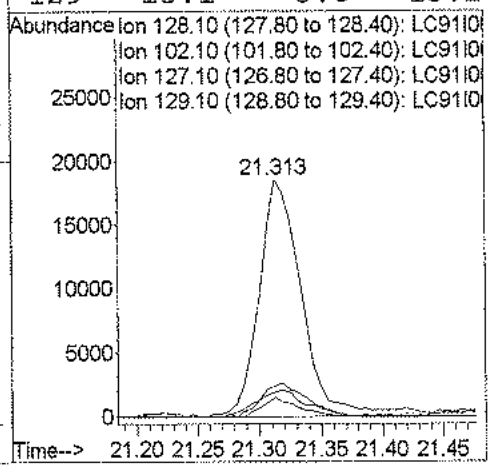




#67
Naphthalene
Concen: 0.16 ppb
RT: 21.31 min Scan# 2924
Delta R.T. -0.00 min
Lab File: LC91I002.D
Acq: 03/21/2016 17:49

Tgt Ion:128.1 Resp: 43520

Ion	Ratio	Lower	Upper
128	100		
102	6.6	6.7	10.1#
127	15.0	10.0	15.0#
129	13.1	8.8	13.2

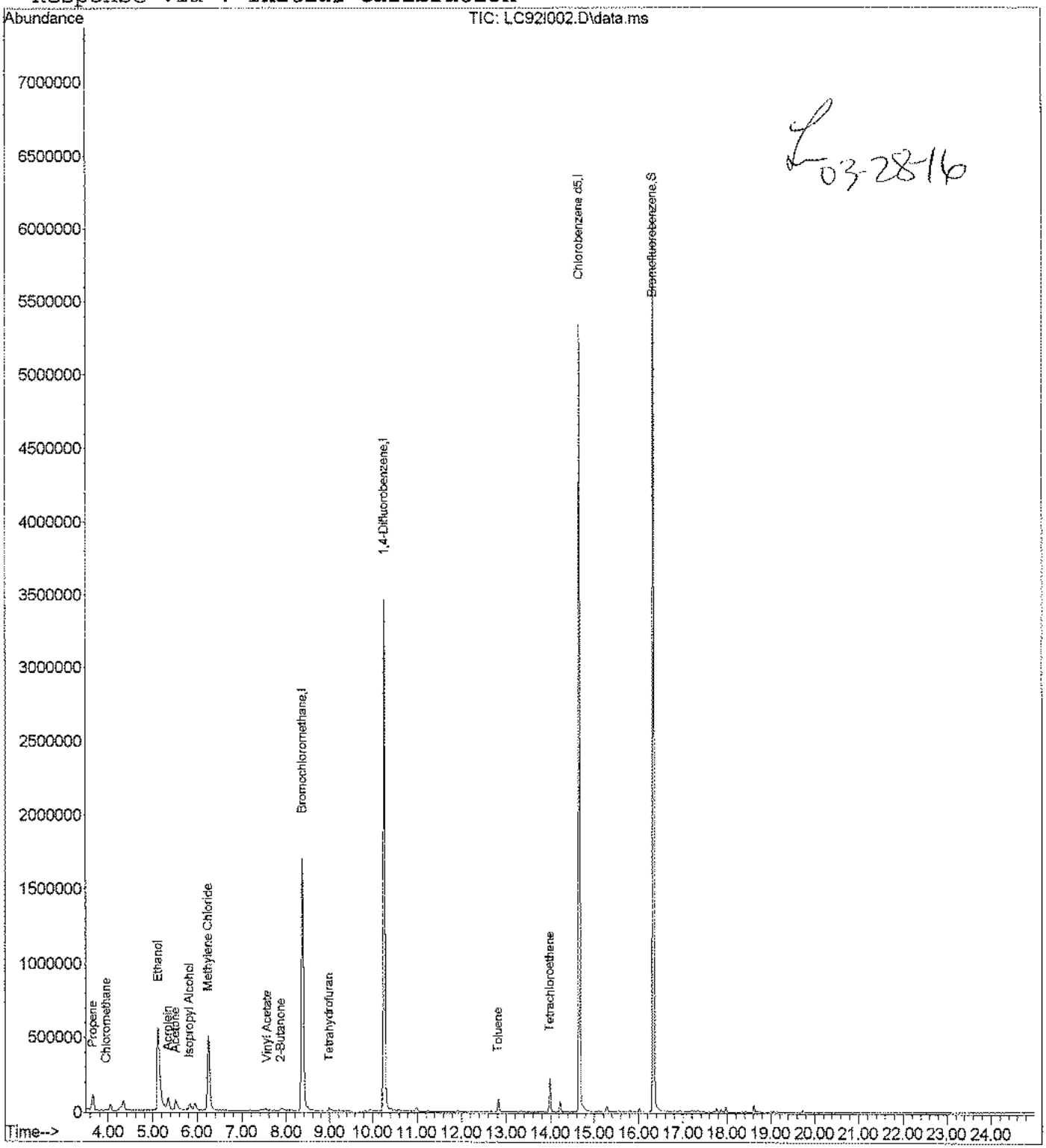


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC92I002.D Vial: 5
Acq Time : 03/21/2016 18:36 Operator: JCB
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-031216-IA-KIT 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 22 07:45:15 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 12:52:00 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC92I002.D Vial: 5
Acq Time : 03/21/2016 18:36 Operator: JCB
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-031216-IA-KIT 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 22 07:45:15 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.36	130	337856	20.0000 ppb	69.60
25) 1,4-Difluorobenzene	10.26	114	4086389	20.0000 ppb	65.21
50) Chlorobenzene d5	14.66	117	4049130	20.0000 ppb	69.80
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	2659706	22.6542 ppb	113.27%
Target Compounds					Qvalue
2) Propene	3.65	41	62583	1.3918 ppb #	62
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	3.96	50	10069	0.1879 ppb	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.35	56	14016	0.9085 ppb #	80
11) Acetone	5.51	43	171224	1.8069 ppb #	82
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.11	45	1414125	120.1456 ppb #	79
14) Isopropyl Alcohol	5.82	45	14502	0.1847 ppb #	1
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.25	84	408617	7.4276 ppb #	61
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.57	86	1700	0.2712 ppb #	1
23) 2-Butanone	7.88	43	37167	0.2909 ppb #	63
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	8.99	42	27847	0.4007 ppb #	60
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC92I002.D Vial: 5
Acq Time : 03/21/2016 18:36 Operator: JCB
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-031216-IA-KIT 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 22 07:45:15 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

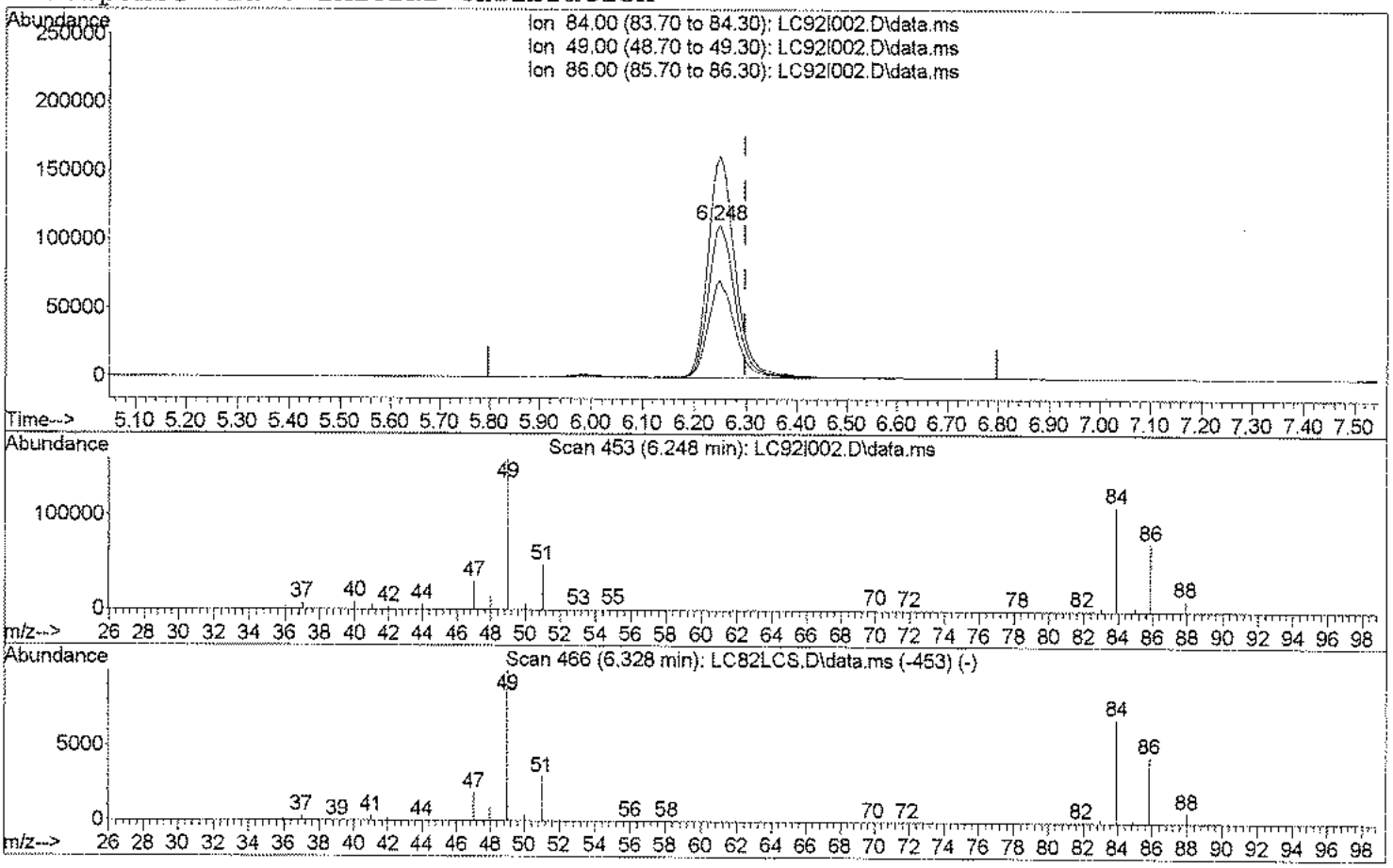
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.82	91	74132	0.3661 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	13.98	166	84890	0.7643 ppb #	83
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\21MAR16L\
Data File : LC92I002.D
Acq On : 03/21/2016 18:36
Operator : JCB
Sample : 1607459002
Inst : 5975-L
Misc : A-0040H-031216-IA-KIT 1:10DIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 22 07:45:15 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration



TIC: LC92I002.D\data.ms

(16) Methylene Chloride

6.248min (-0.050) 7.43 ppb

response 408617

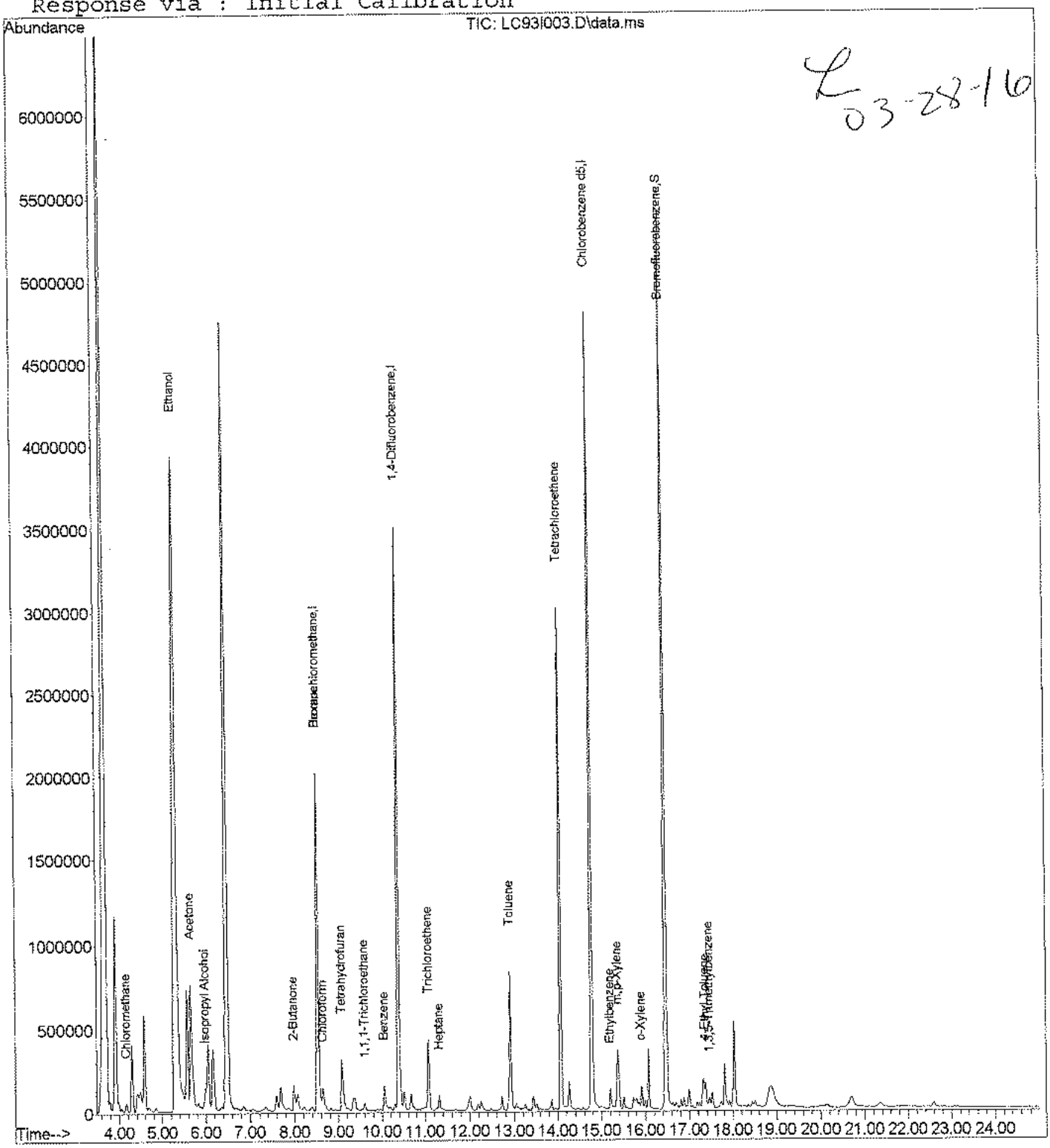
Ion	Exp%	Act%
84.00	100.00	100.00
49.00	83.30	144.84#
86.00	64.50	63.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC93I003.D Vial: 6
Acq Time : 03/21/2016 19:28 Operator: JCB
Sample : 1607459003 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:57:15 2016 Results File: TO15LG16.RES

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Wed Mar 23 12:52:00 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC93I003.D Vial: 6
Acq Time : 03/21/2016 19:28 Operator: JCB
Sample : 1607459003 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:57:15 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.53	130	373440	20.0000 ppb	76.93
25) 1,4-Difluorobenzene	10.38	114	4103572	20.0000 ppb	65.49
50) Chlorobenzene d5	14.77	117	4165402	20.0000 ppb	71.81
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.47	95	2702770	22.3784 ppb	111.89%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	4.17	50	77260	1.3043 ppb m	41
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.65	43	1656987	15.8198 ppb m	37
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.30	45	10966515	842.9455 ppb m	
14) Isopropyl Alcohol	5.99	45	310211	3.5750 ppb #	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.98	43	361073	2.5571 ppb #	68
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.52	57	96850	1.1161 ppb #	83
28) Chloroform	8.64	83	114838	0.9480 ppb	97
29) Tetrahydrofuran	9.07	42	339661	4.8666 ppb #	60
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.60	97	30427	0.2386 ppb #	90
32) Benzene	10.05	78	118721	0.7021 ppb #	92
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC93I003.D Vial: 6
Acq Time : 03/21/2016 19:28 Operator: JCB
Sample : 1607459003 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 23 12:57:15 2016 Results File: TO15LG16.RES

Quant Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	11.07	130	83924	0.8307 ppb	96
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.31	71	21908	0.4003 ppb #	37
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.91	91	799783	3.9328 ppb	99
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.07	166	1152597	10.3340 ppb #	80
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.20	91	107021	0.3648 ppb	99
53)	m,p-Xylene	15.37	91	326473	1.4354 ppb	98
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.91	91	94440	0.4017 ppb	99
59)	4-Ethyl Toluene	17.36	105	64167	0.1953 ppb m	98
60)	1,3,5-Trimethylbenzene	17.46	105	51400	0.1771 ppb m	62
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

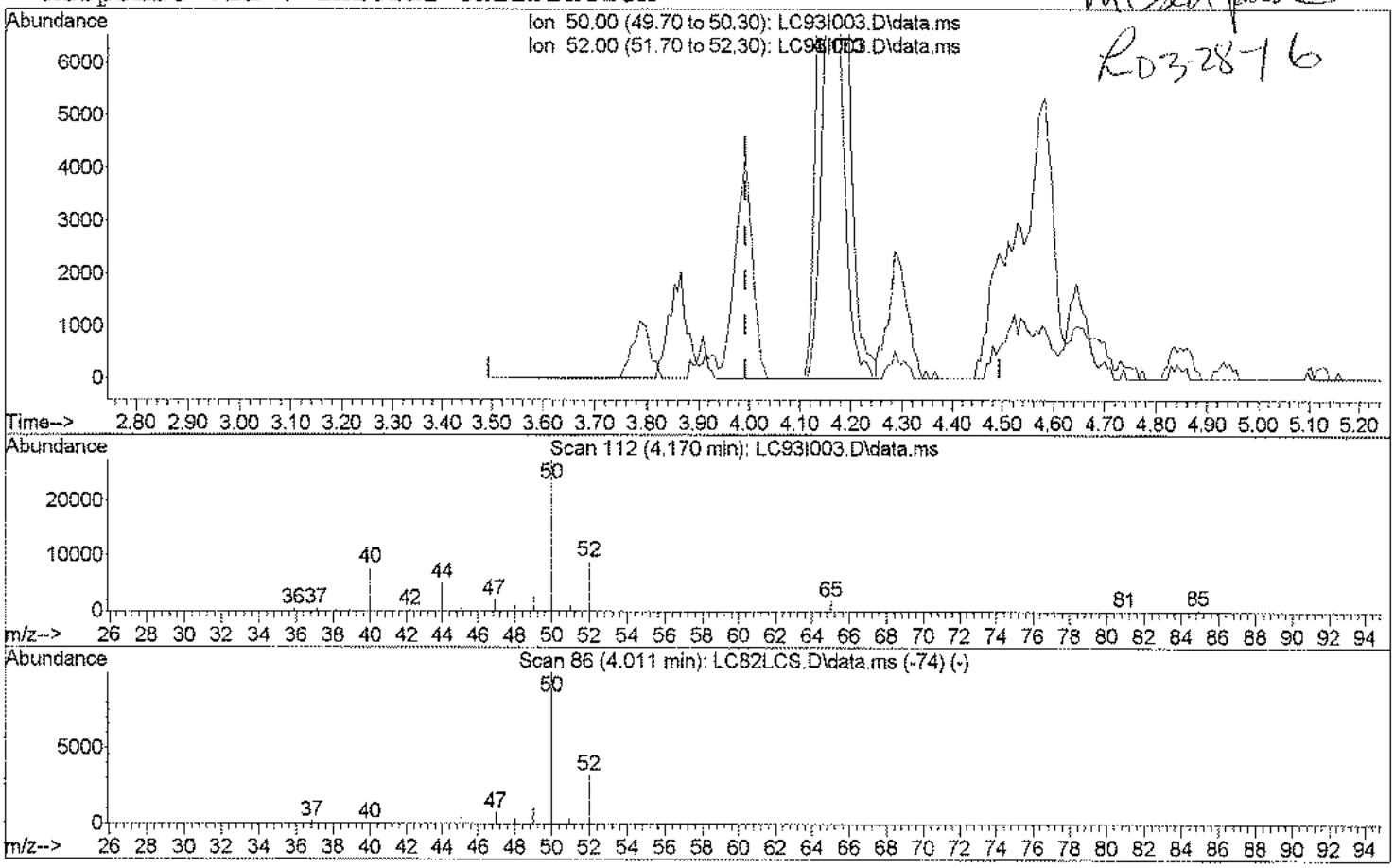
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\21MAR16L\
Data File : LC93I003.D
Acq On : 03/21/2016 19:28
Operator : JCB
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 07:45:59 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration

missed peak
RD 3-28-16



TIC: LC93I003.D\data.ms

(4) Chloromethane

4.170min (+ 0.175) 1.30 ppb m

response 77260

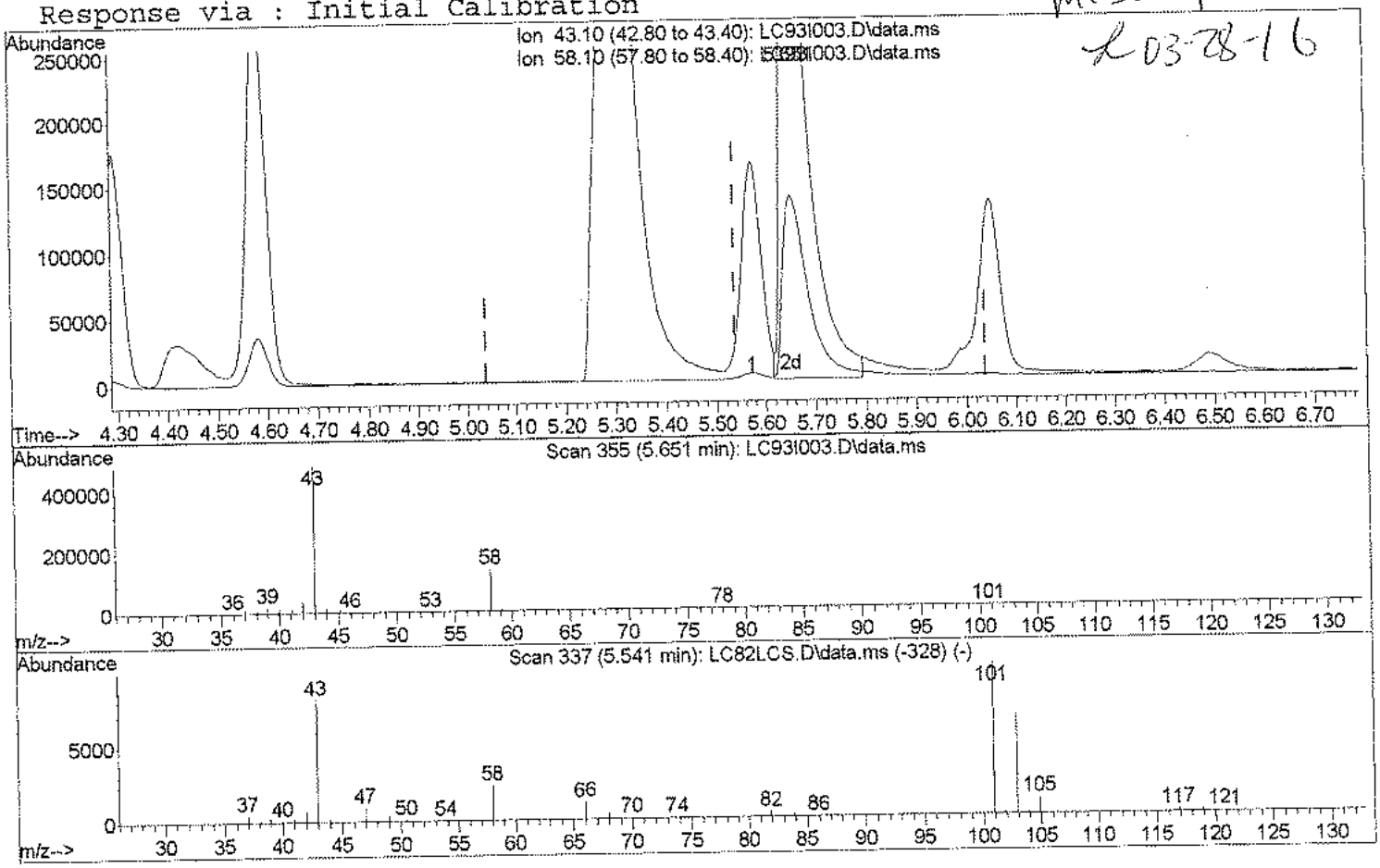
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\21MAR16L\
Data File : LC93I003.D
Acq On : 03/21/2016 19:28
Operator : JCB
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 07:45:59 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration

missed peak
L 03-28-16



TIC: LC93I003.D\data.ms

(11) Acetone

5.651min (+ 0.114) 15.82 ppb m

response 1656987

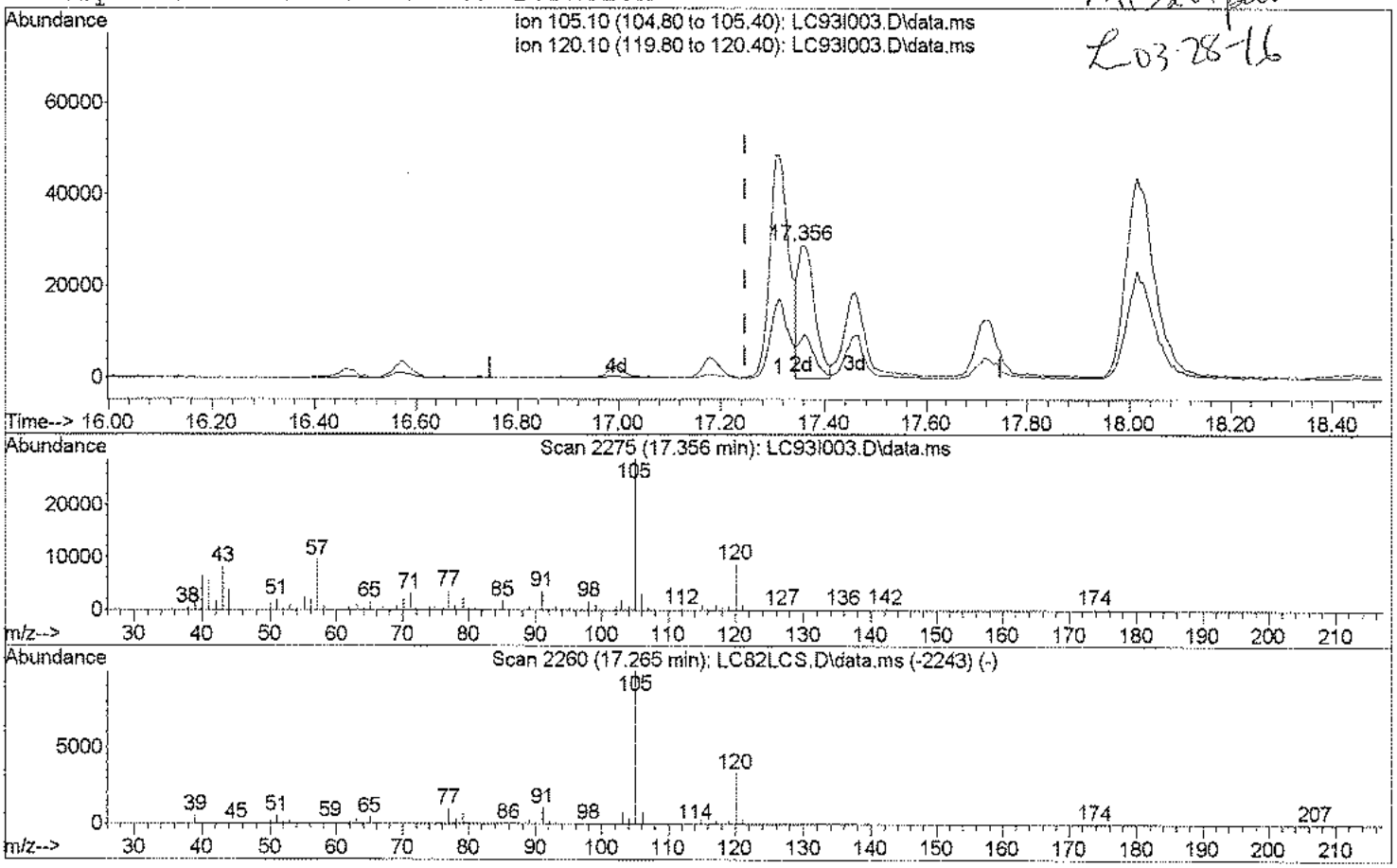
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\21MAR16L\
Data File : LC93I003.D
Acq On : 03/21/2016 19:28
Operator : JCB
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 07:45:59 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration

missed peak
L 03-28-16



TIC: LC93I003.D\data.ms

(59) 4-Ethyl Toluene

17.356min (+ 0.108) 0.20 ppb m

response 64167

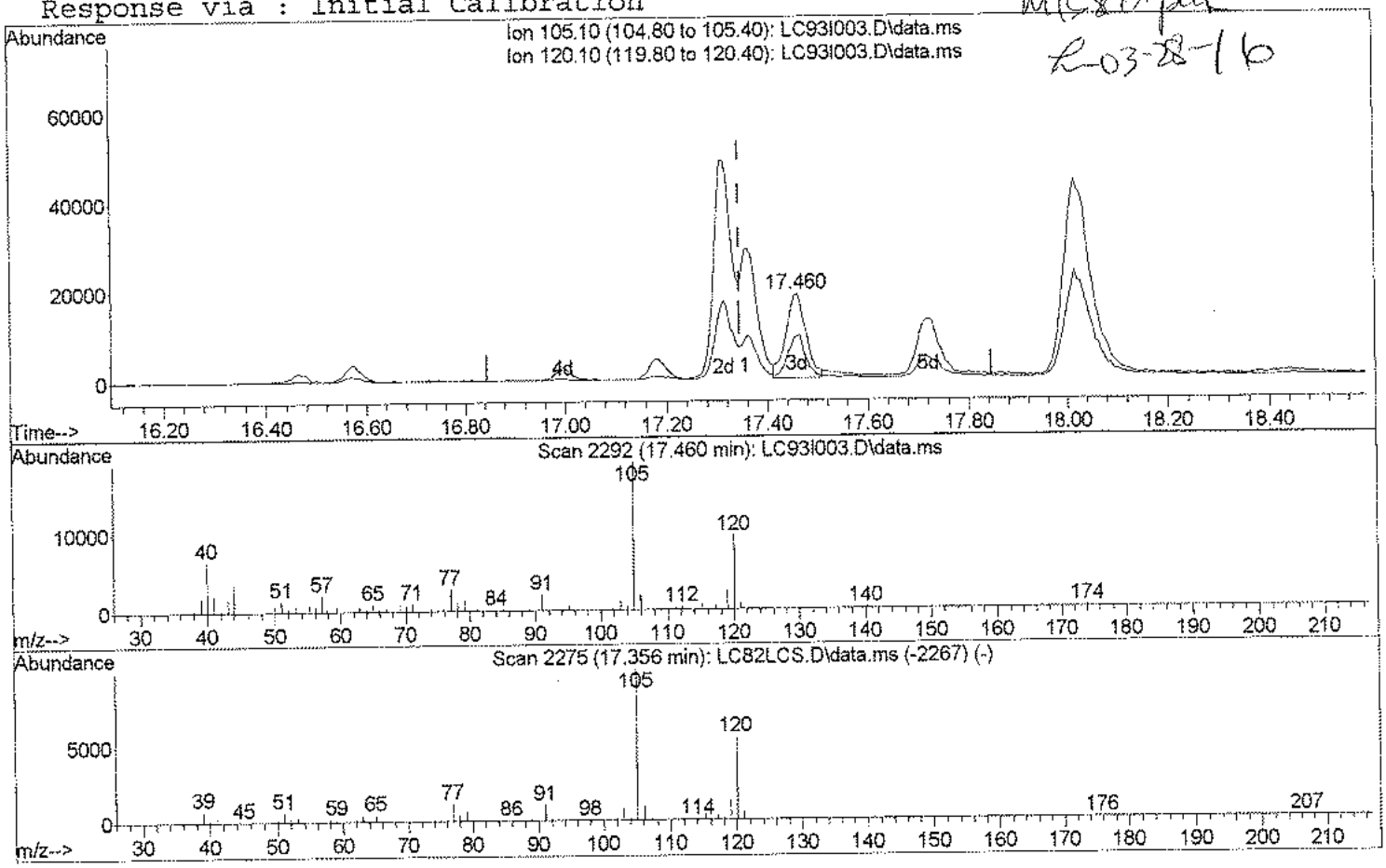
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	32.60	66.61#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\21MAR16L\
Data File : LC93I003.D
Acq On : 03/21/2016 19:28
Operator : JCB
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 22 07:45:59 2016
Quant Method : J:\L\METHODS\methods\TO15LG16.m
Quant Title : TO-15
QLast Update : Tue Mar 22 07:44:30 2016
Response via : Initial Calibration

MICSelpeak
L-03-28-16



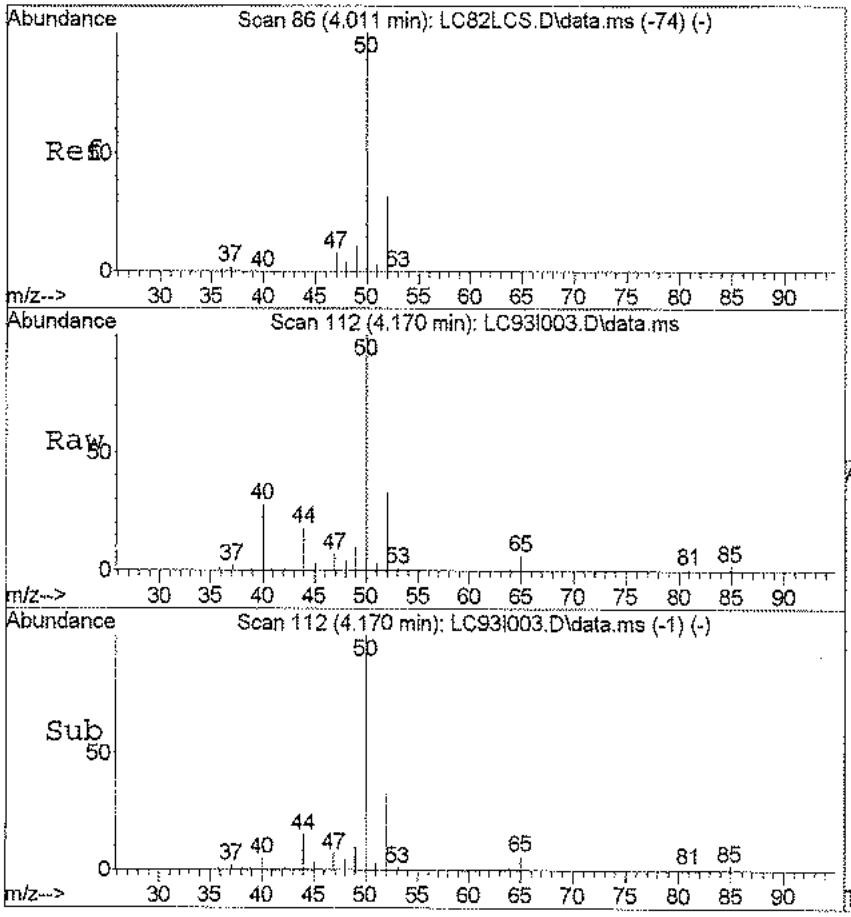
TIC: LC93I003.D\data.ms

(60) 1,3,5-Trimethylbenzene

17.460min (+ 0.114) 0.18 ppb m

response 51400

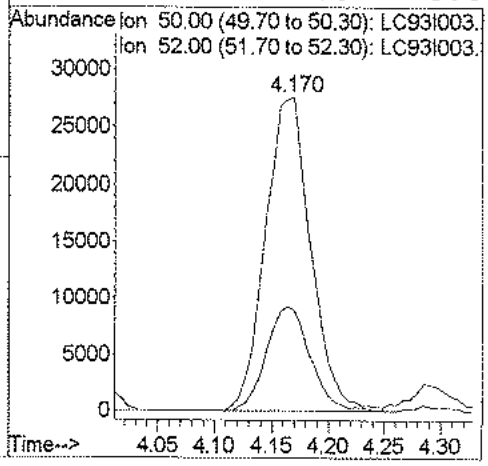
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	54.90	33.03#
0.00	0.00	0.00
0.00	0.00	0.00

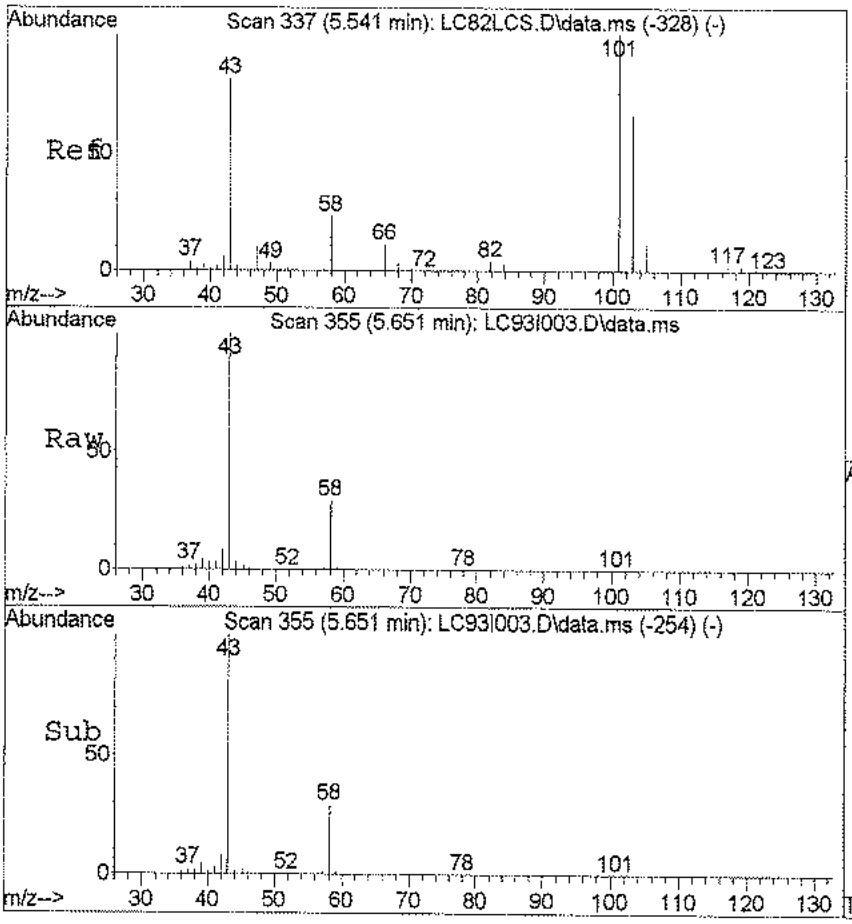


#4
Chloromethane
Concen: 1.30 ppb m
RT: 4.17 min Scan# 112
Delta R.T. 0.18 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:50 Resp: 77260

Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.6	40.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

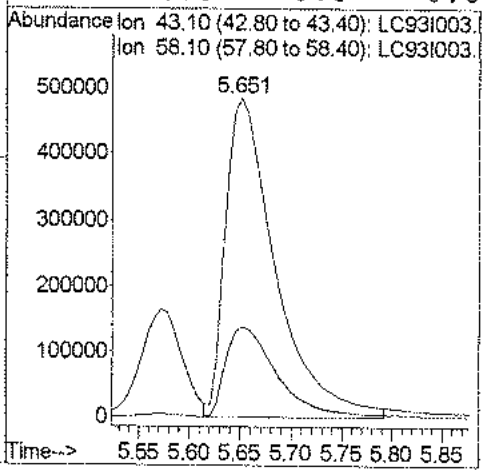


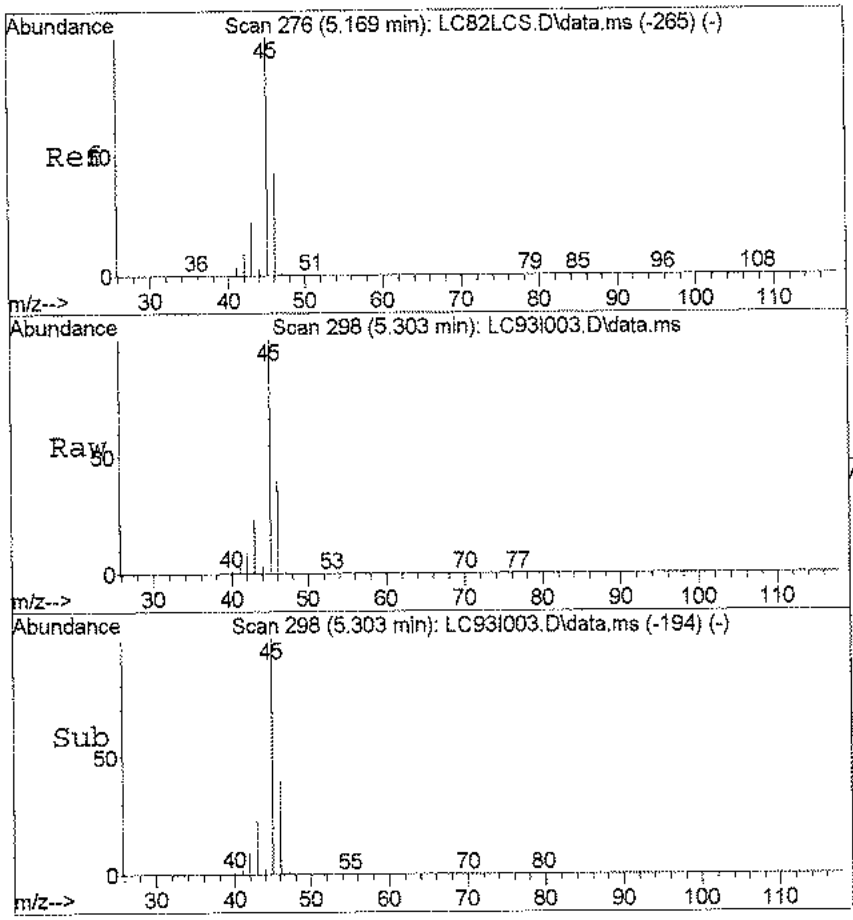


#11
Acetone
Concen: 15.82 ppb m
RT: 5.65 min Scan# 355
Delta R.T. 0.11 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:43.1 Resp: 1656987

Ion	Ratio	Lower	Upper
43	100		
58	0.0	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

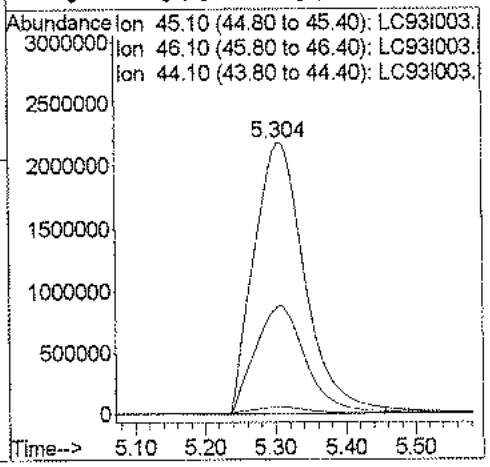


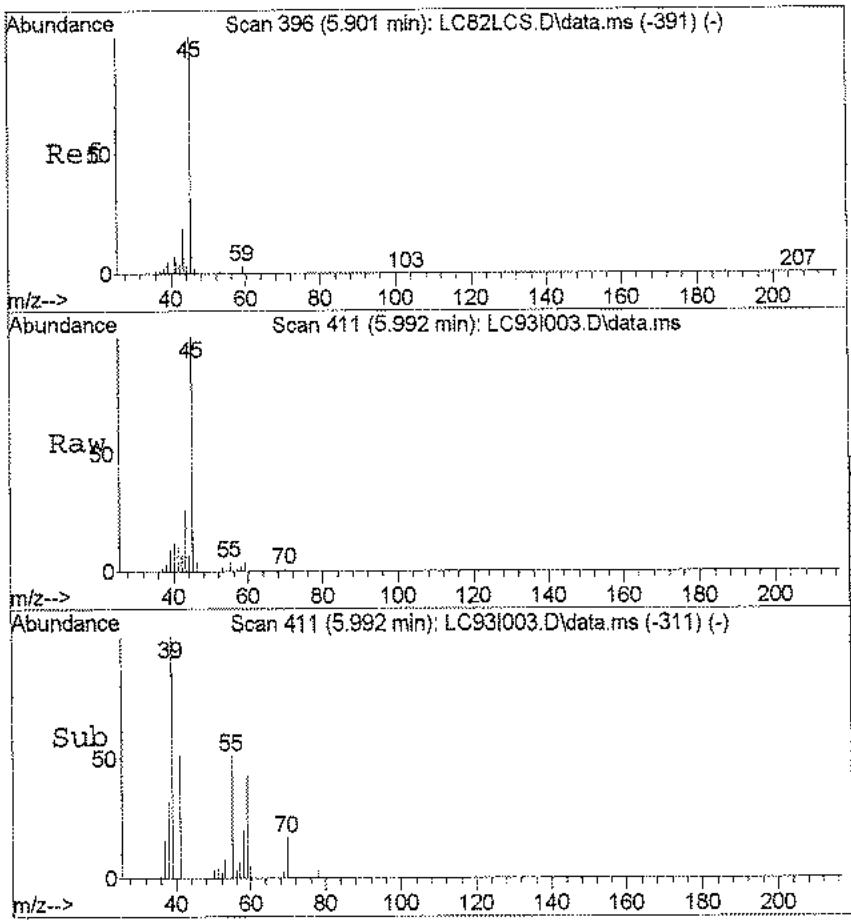


#13
Ethanol
Concen: 842.95 ppb m
RT: 5.30 min Scan# 298
Delta R.T. 0.13 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:45.1 Resp:10966515

Ion	Ratio	Lower	Upper
45	100		
46	0.0	32.4	48.6#
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

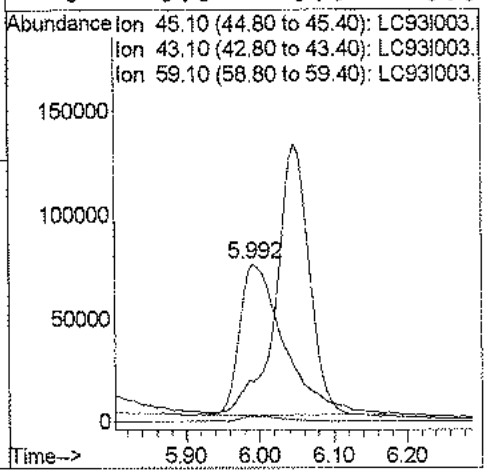


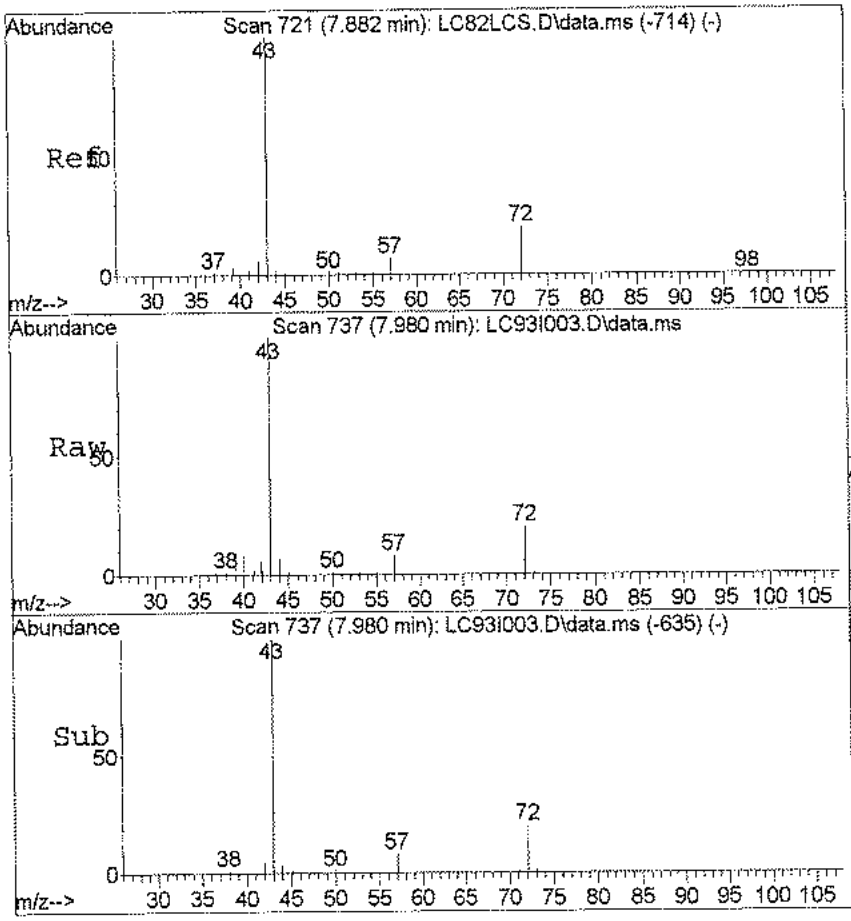


#14
Isopropyl Alcohol
Concen: 3.58 ppb
RT: 5.99 min Scan# 411
Delta R.T. 0.11 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:45.1 Resp: 310211

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	3.6	3.2	4.8
0	0.0	0.0	0.0

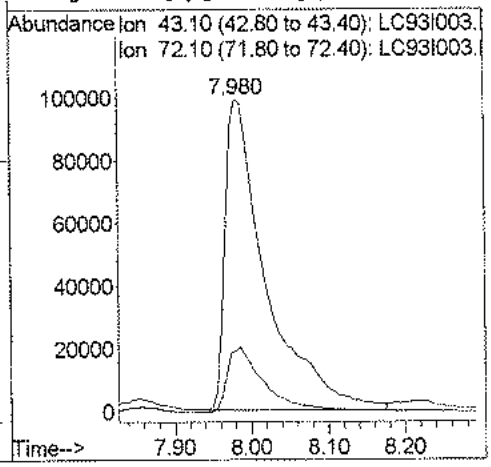


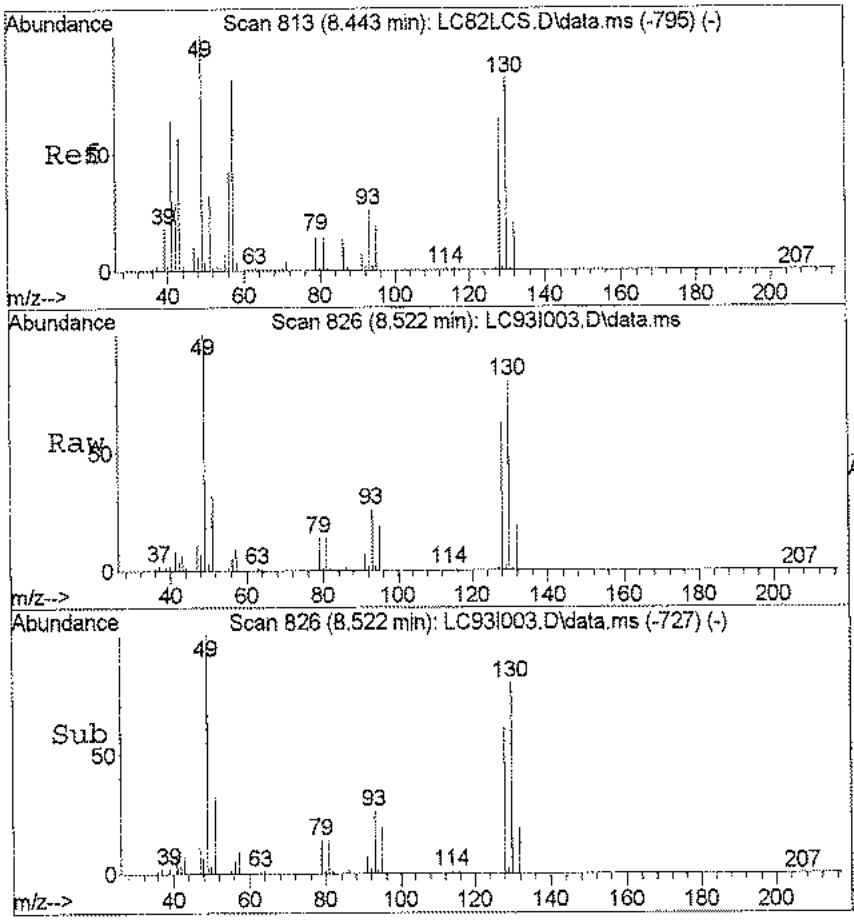


#23
2-Butanone
Concen: 2.56 ppb
RT: 7.98 min Scan# 737
Delta R.T. 0.12 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:43.1 Resp: 361073

Ion	Ratio	Lower	Upper
43	100		
72	19.5	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

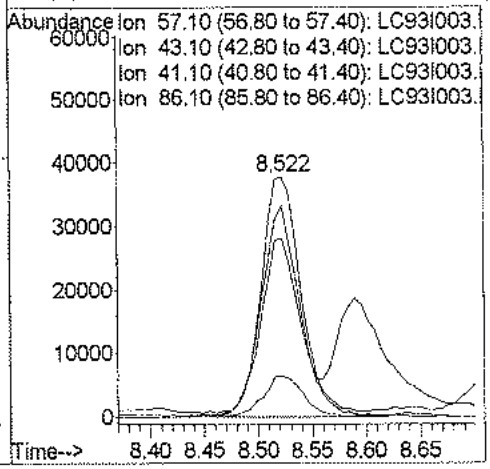


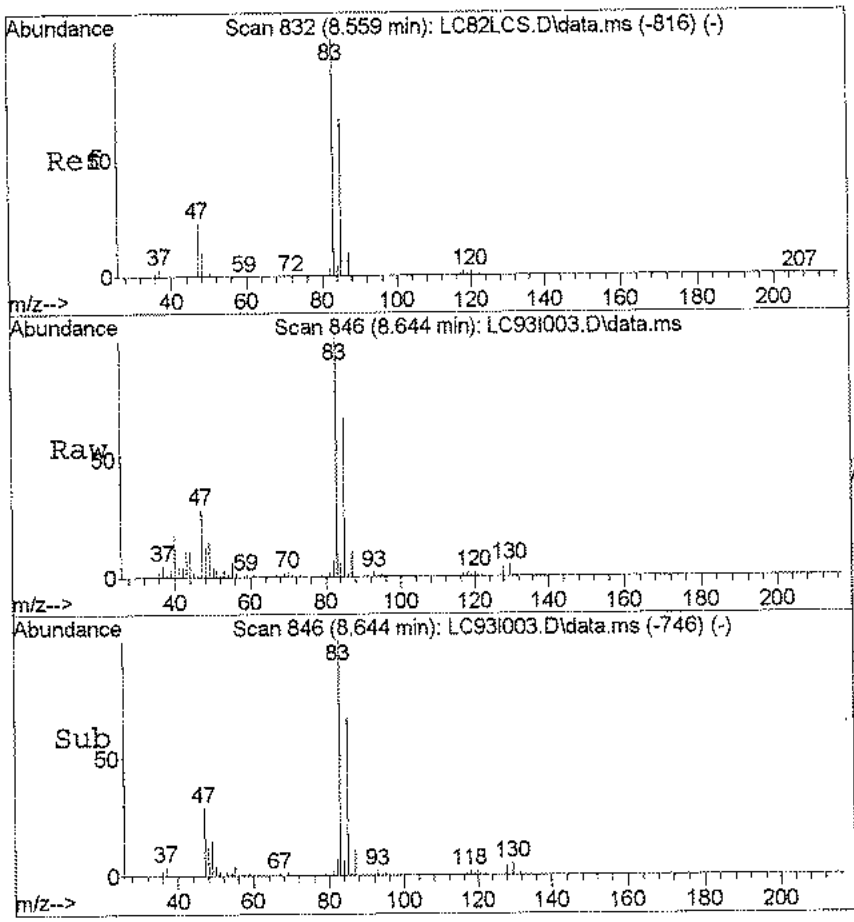


#27
Hexane
Concen: 1.12 ppb
RT: 8.52 min Scan# 826
Delta R.T. 0.10 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:57.1 Resp: 96850

Ion	Ratio	Lower	Upper
57	100		
43	71.0	57.3	85.9
41	85.2	47.0	70.4#
86	16.9	20.9	31.3#

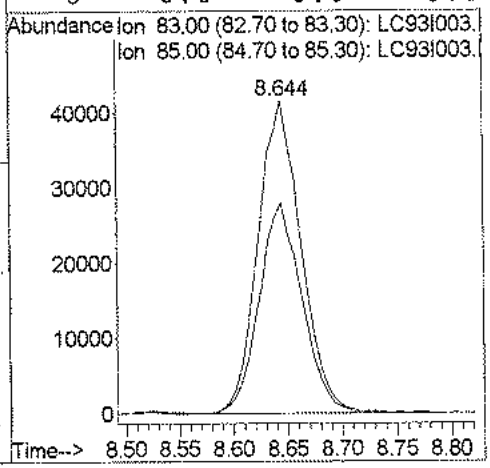


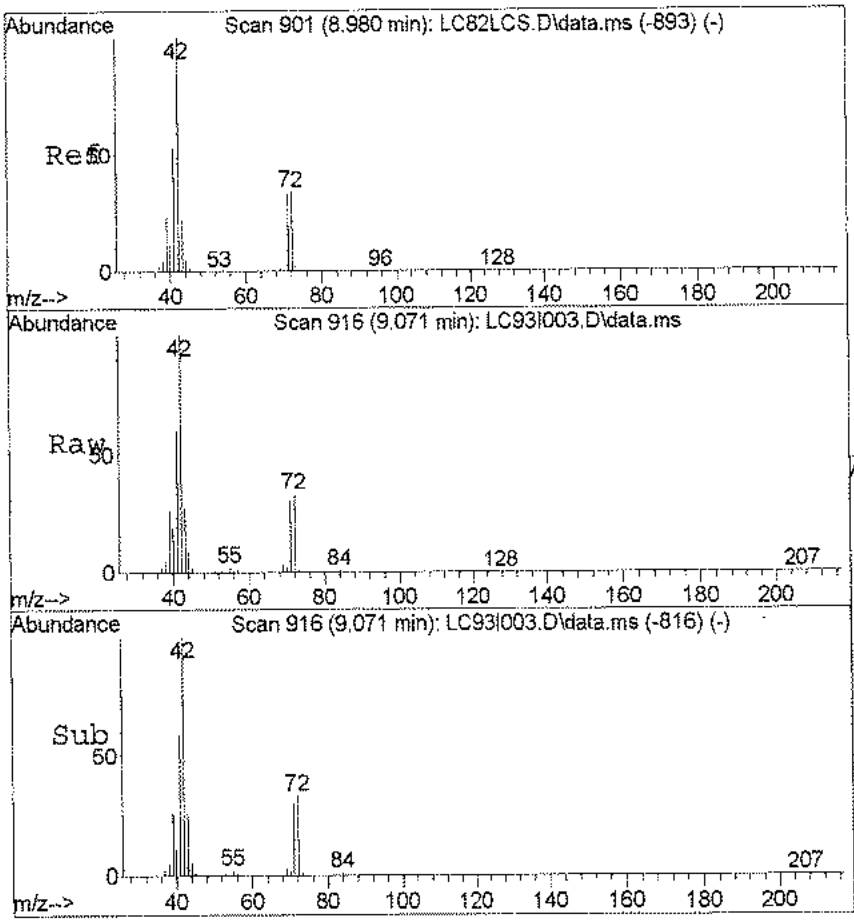


#28
Chloroform
Concen: 0.95 ppb
RT: 8.64 min Scan# 846
Delta R.T. 0.11 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:83 Resp: 114838

Ion	Ratio	Lower	Upper
83	100		
85	67.7	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

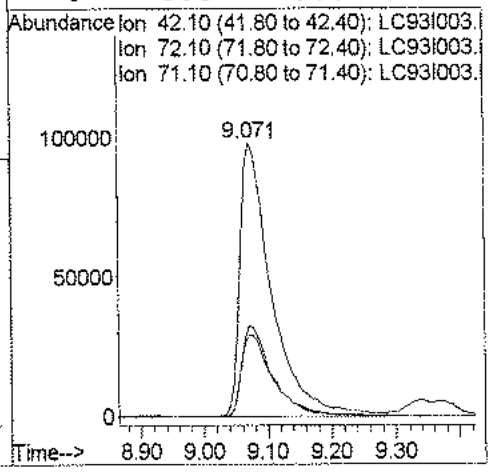


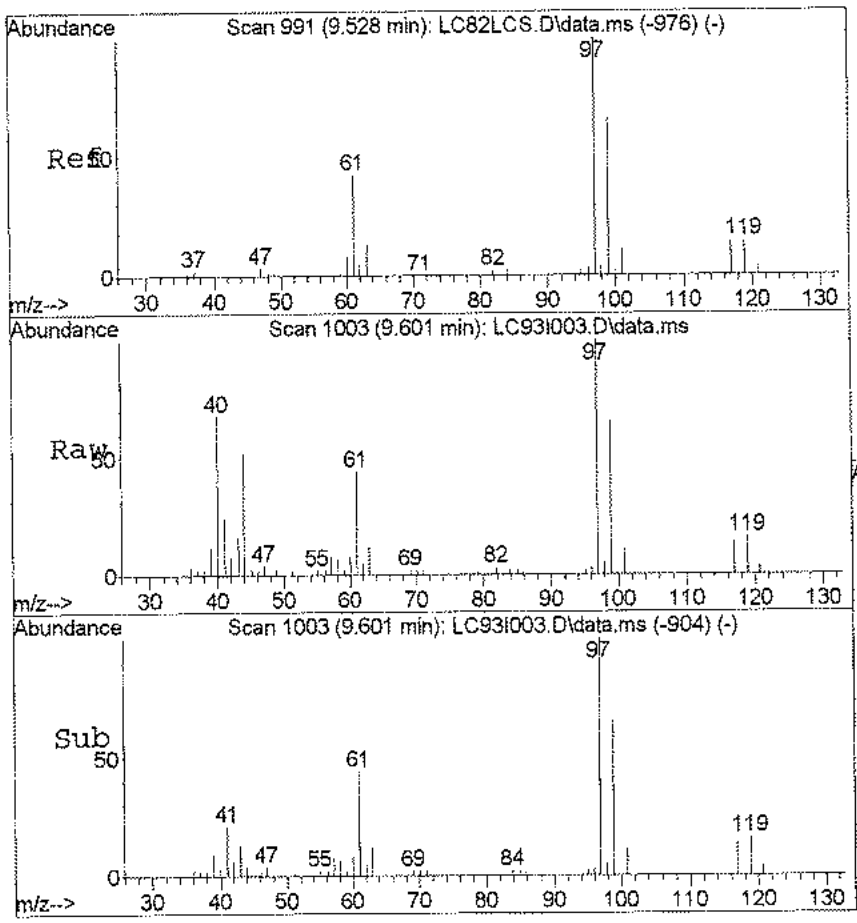


#29
Tetrahydrofuran
Concen: 4.87 ppb
RT: 9.07 min Scan# 916
Delta R.T. 0.11 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:42.1 Resp: 339661

Ion	Ratio	Lower	Upper
42	100		
72	32.1	51.5	77.3#
71	30.2	47.5	71.3#
0	0.0	0.0	0.0

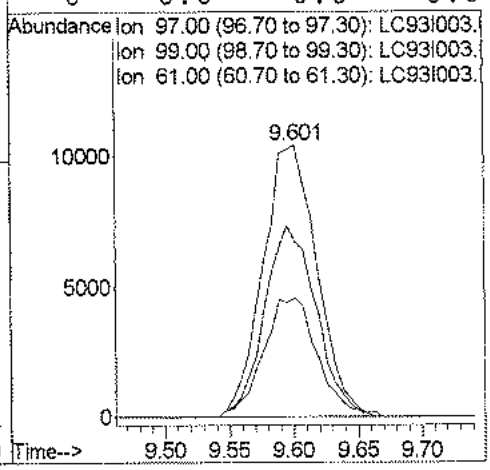


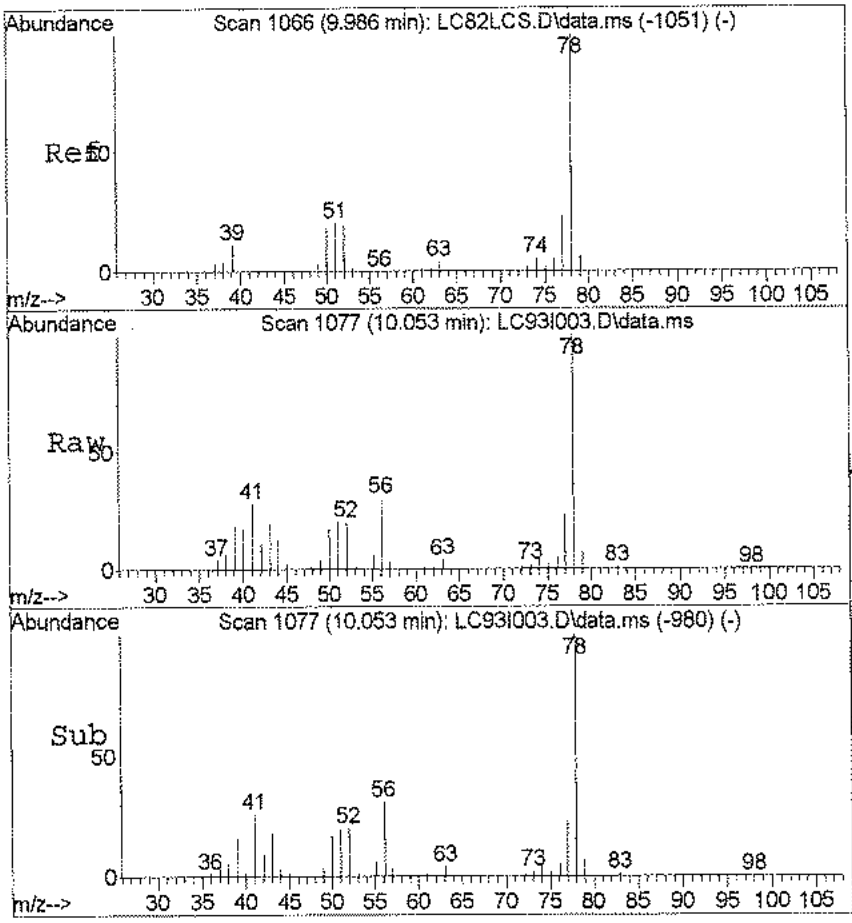


#31
1,1,1-Trichloroethane
Concen: 0.24 ppb
RT: 9.60 min Scan# 1003
Delta R.T. 0.10 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:97 Resp: 30427

Ion	Ratio	Lower	Upper
97	100		
99	67.4	51.6	77.4
61	43.6	24.2	36.2#
0	0.0	0.0	0.0

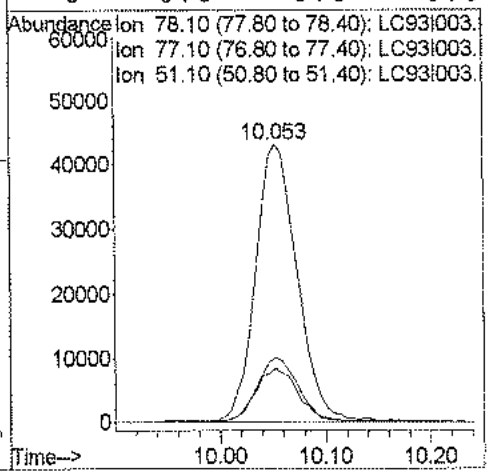


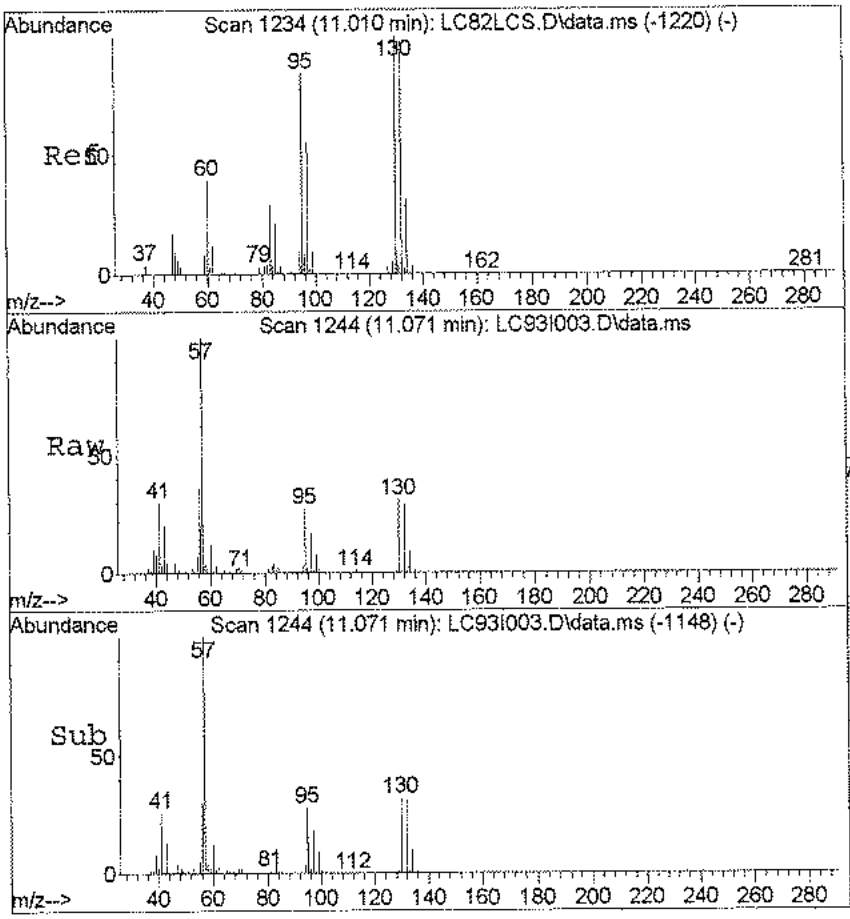


#32
Benzene
Concen: 0.70 ppb
RT: 10.05 min Scan# 1077
Delta R.T. 0.09 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:78.1 Resp: 118721

Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.2	27.4
51	20.2	9.5	14.3#
0	0.0	0.0	0.0

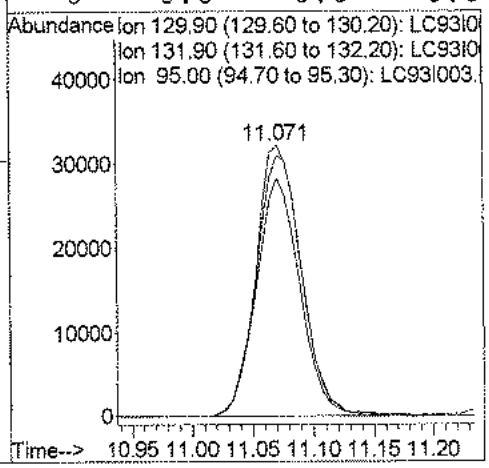


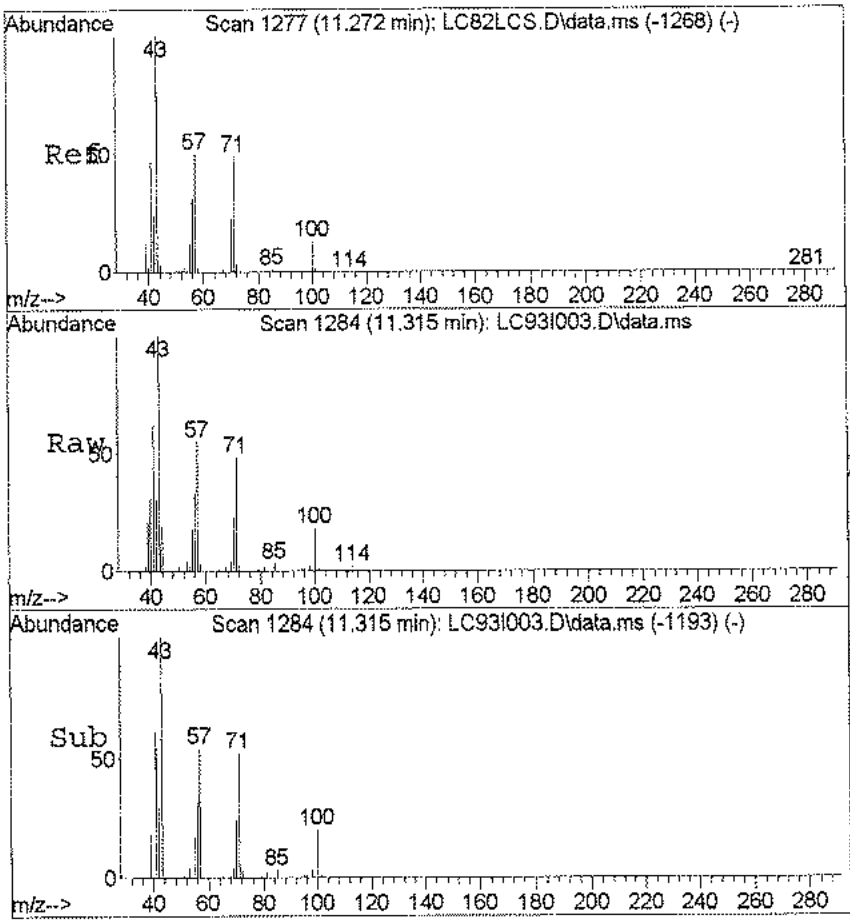


#38
Trichloroethene
Concen: 0.83 ppb
RT: 11.07 min Scan# 1244
Delta R.T. 0.08 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:129.9 Resp: 83924

Ion	Ratio	Lower	Upper
130	100		
132	96.6	77.1	115.7
95	84.1	61.7	92.5
0	0.0	0.0	0.0

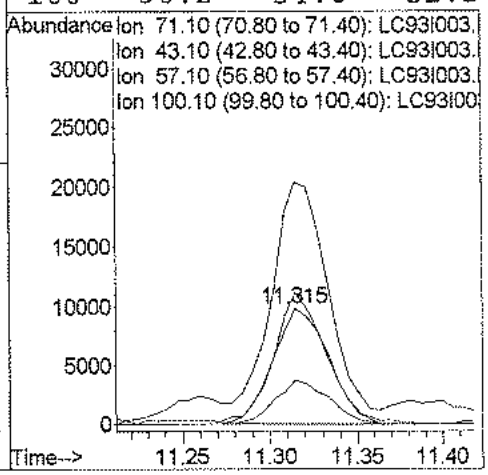


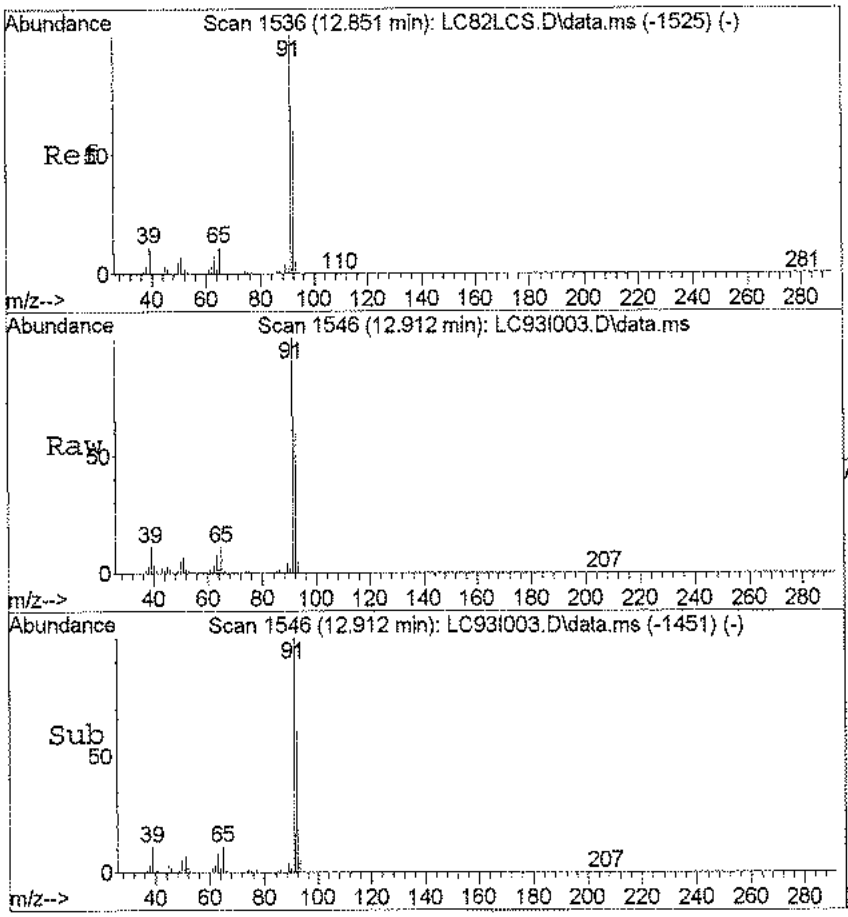


#40
Heptane
Concen: 0.40 ppb
RT: 11.31 min Scan# 1284
Delta R.T. 0.05 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:71.1 Resp: 21908

Ion	Ratio	Lower	Upper
71	100		
43	210.0	87.3	130.9#
57	108.1	57.8	86.6#
100	36.2	34.8	52.2

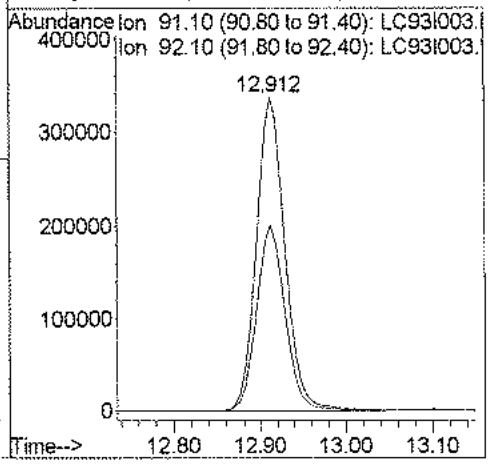


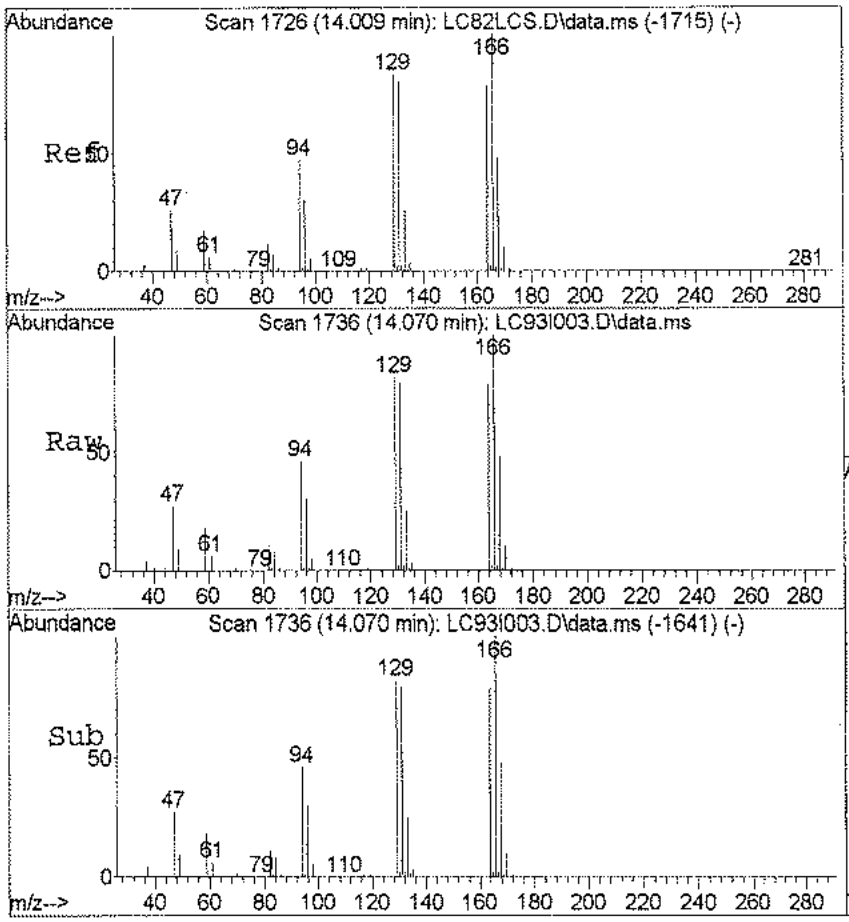


#45
Toluene
Concen: 3.93 ppb
RT: 12.91 min Scan# 1546
Delta R.T. 0.08 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:91.1 Resp: 799783

Ion	Ratio	Lower	Upper
91	100		
92	59.3	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

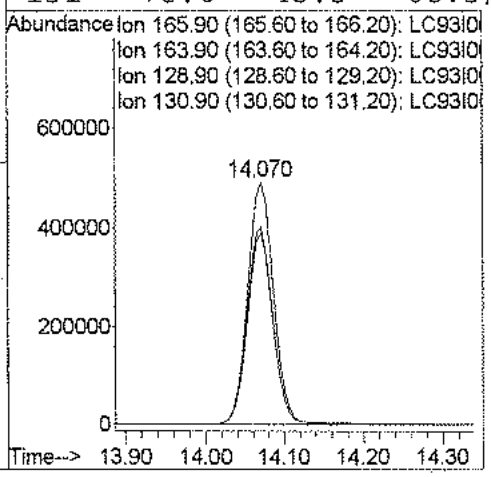


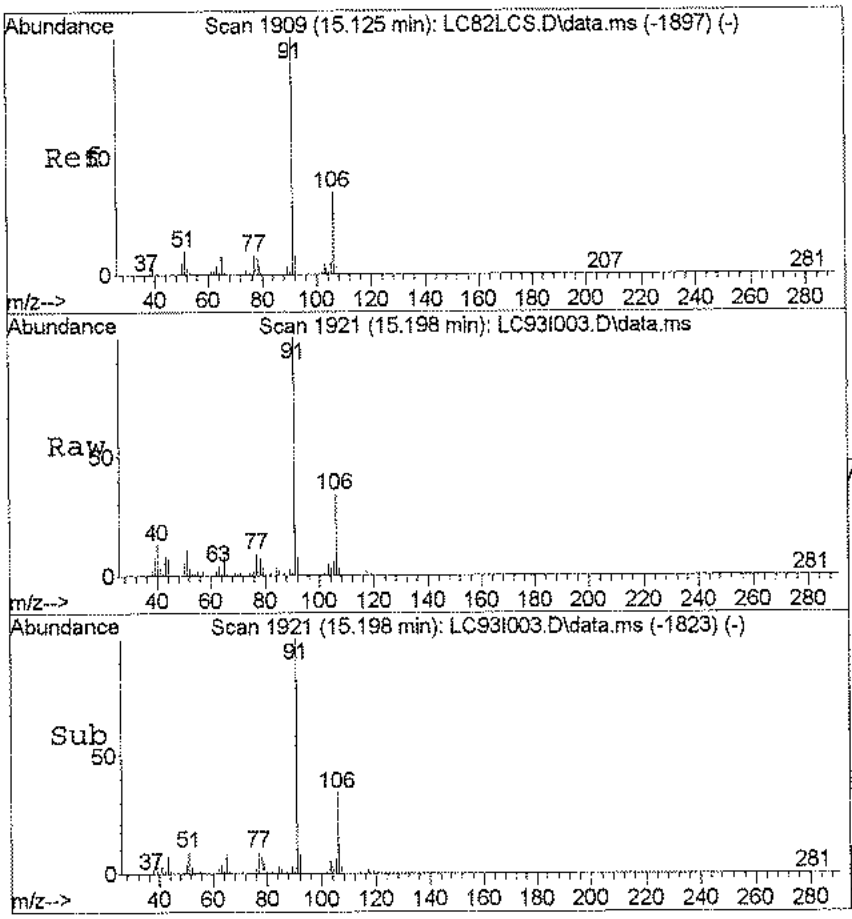


#49
Tetrachloroethene
Concen: 10.33 ppb
RT: 14.07 min Scan# 1736
Delta R.T. 0.08 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:165.9 Resp: 1152597

Ion	Ratio	Lower	Upper
166	100		
164	78.2	61.0	91.4
129	81.6	45.9	68.9#
131	78.6	45.5	68.3#

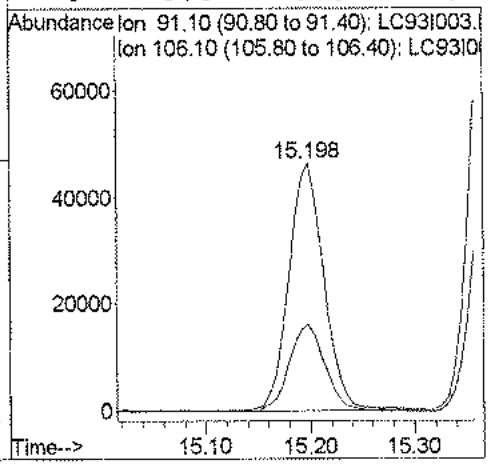


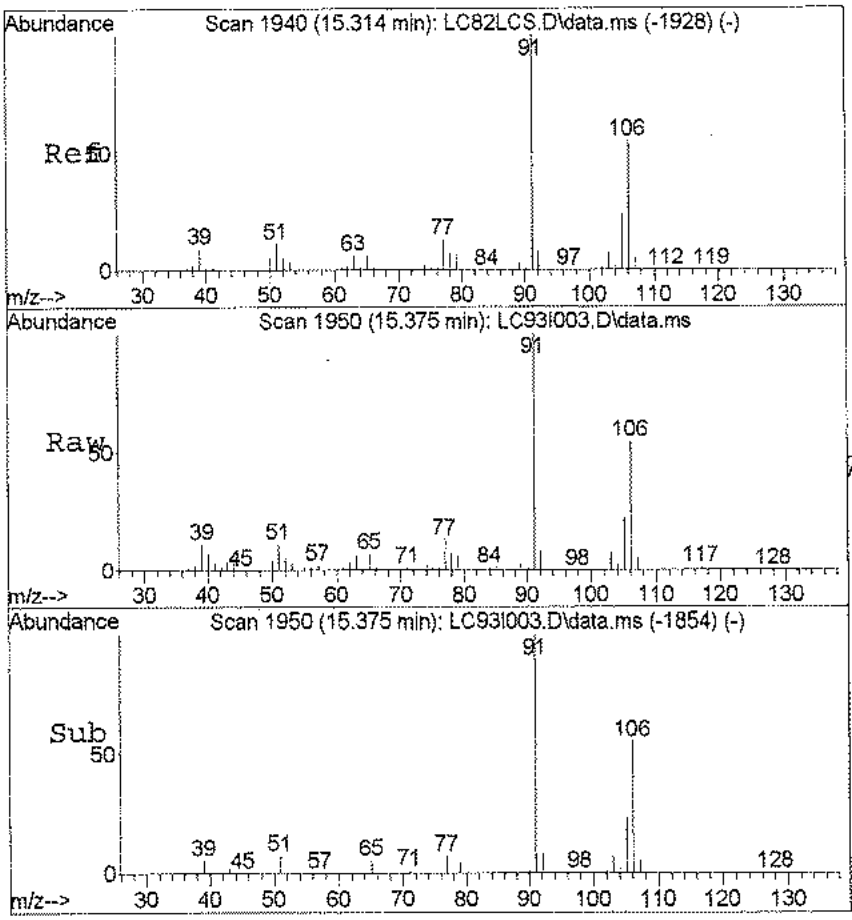


#52
Ethylbenzene
Concen: 0.36 ppb
RT: 15.20 min Scan# 1921
Delta R.T. 0.10 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:91.1 Resp: 107021

Ion	Ratio	Lower	Upper
91	100		
106	34.9	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

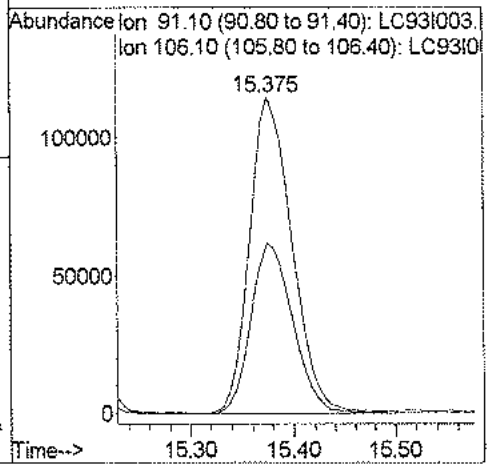


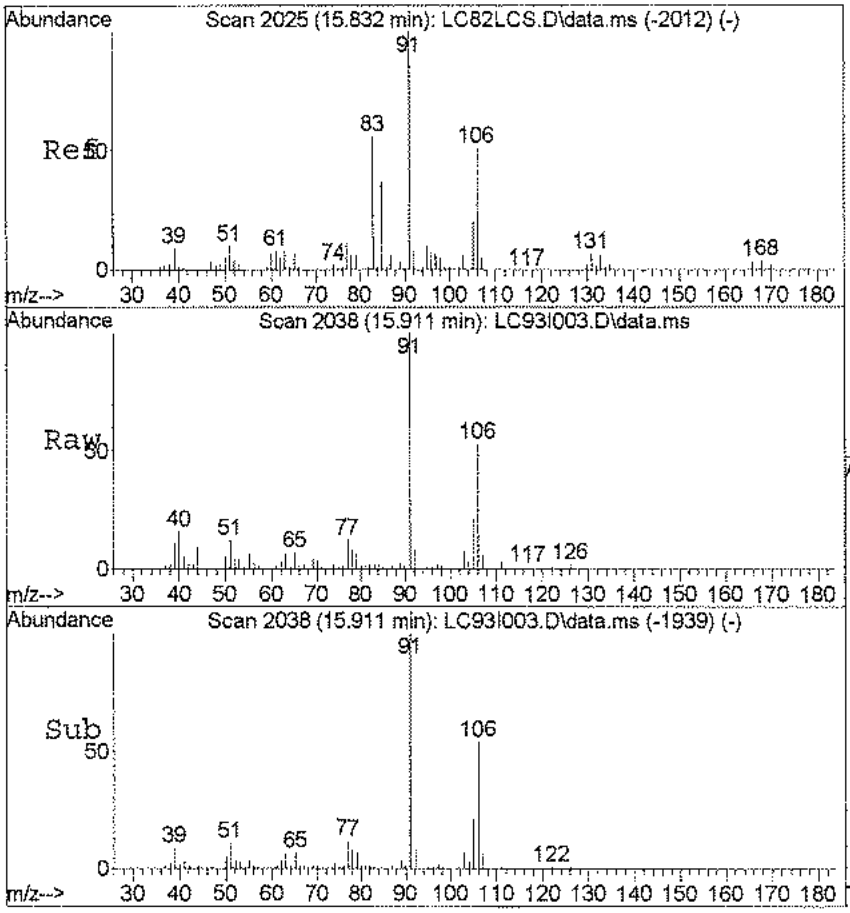


#53
m,p-Xylene
Concen: 1.44 ppb
RT: 15.37 min Scan# 1950
Delta R.T. 0.08 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:91.1 Resp: 326473

Ion	Ratio	Lower	Upper
91	100		
106	54.2	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

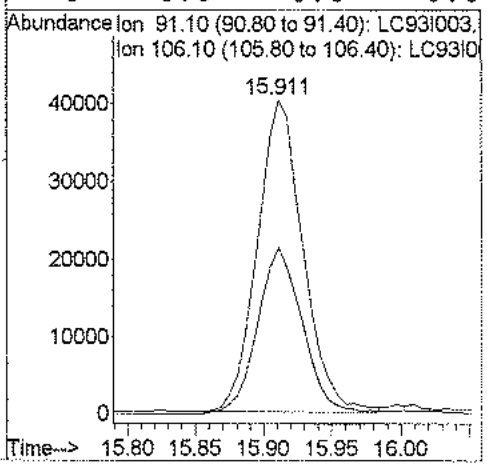


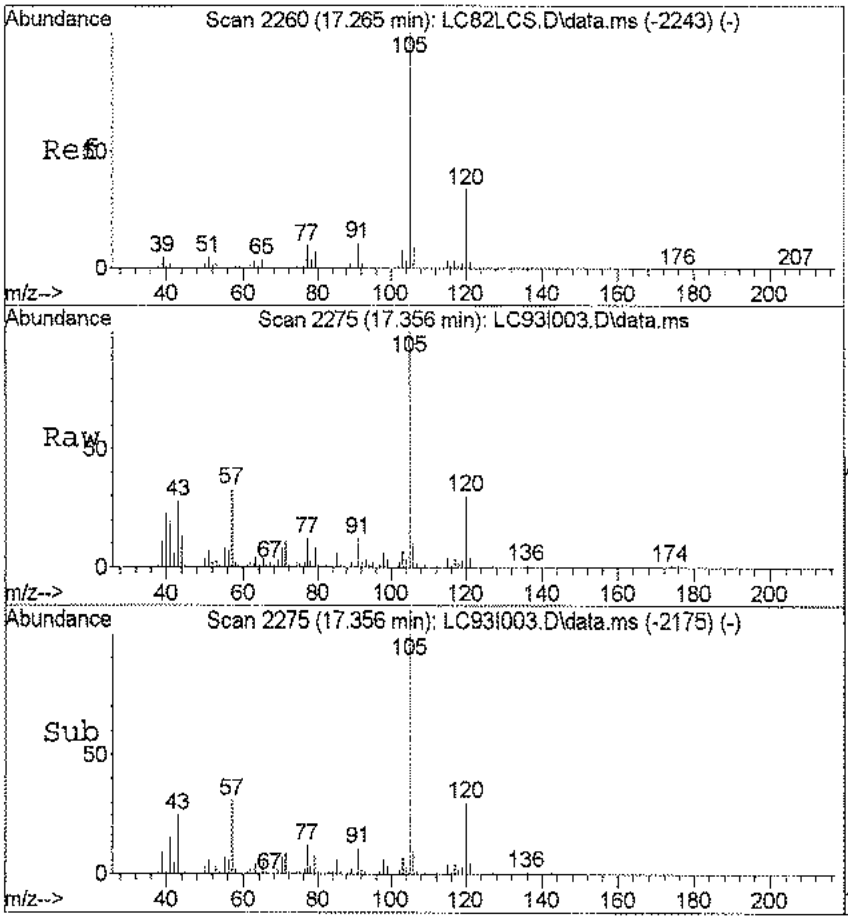


#57
o-Xylene
Concen: 0.40 ppb
RT: 15.91 min Scan# 2038
Delta R.T. 0.10 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:91.1 Resp: 94440

Ion	Ratio	Lower	Upper
91	100		
106	52.9	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

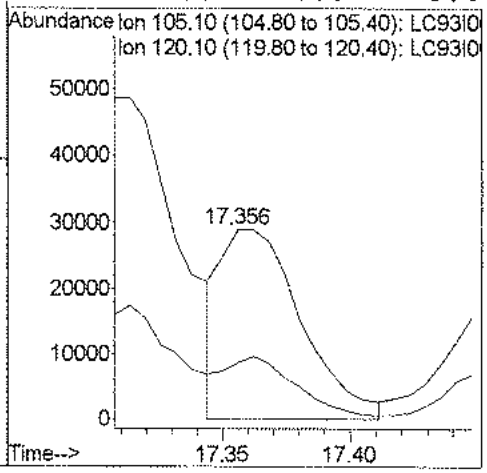


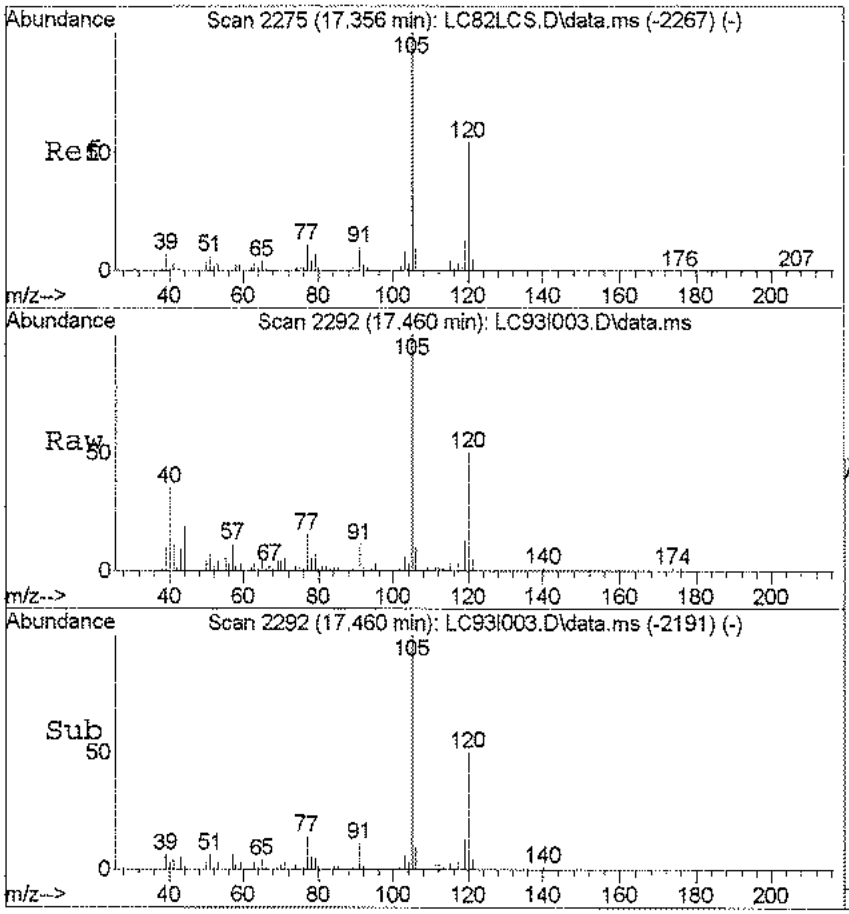


#59
4-Ethyl Toluene
Concen: 0.20 ppb m
RT: 17.36 min Scan# 2275
Delta R.T. 0.11 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:105.1 Resp: 64167

Ion	Ratio	Lower	Upper
105	100		
120	66.6	26.1	39.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

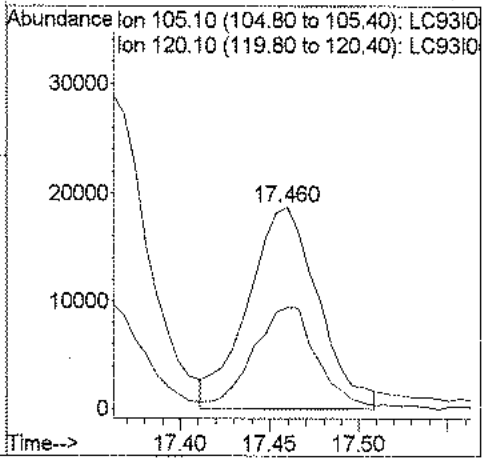




#60
1,3,5-Trimethylbenzene
Concen: 0.18 ppb m
RT: 17.46 min Scan# 2292
Delta R.T. 0.11 min
Lab File: LC93I003.D
Acq: 03/21/2016 19:28

Tgt Ion:105.1 Resp: 51400

Ion	Ratio	Lower	Upper
105	100		
120	33.0	43.9	65.9#
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Batch Worklist

Batch: IVOA/3206 Created: 3/28/2016 12:50 Instrument: 5975-L HBN: 166496

Rule: EPA TO-15, Air Analyst: L. Reid Status: WP

Workorder: 1607459

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	493766	MB for HBN 166496 [IVOA/3206]				MB	1		ETO15...1Q	5320		3/28/2016	3/21/2016
2	493767	LCS for HBN 166496 [IVOA/3206]				LCS	1		ETO15...1Q	5320		3/28/2016	3/21/2016
3	493768	LCSD for HBN 166496 [IVOA/3206				LCSD	1		ETO15...1Q	5320		3/28/2016	3/21/2016
4	493769	RLVS for HBN 166496 [IVOA/3206				RLVS	1		ETO15...1Q	5320		3/28/2016	3/21/2016
5	1607459001	A-0037H-030816-IA-LAU				SAMPLE	1	1607459001-A	ETO15...1	5480		3/28/2016	3/21/2016
6	1607459002	A-0040H-031216-IA-KIT				SAMPLE	1	1607459002-A	ETO15...1	5480		3/28/2016	3/21/2016
7	1607459002	A-0040H-031216-IA-KIT				SAMPLE	1	1607459002-A	ETO15...1	5480		3/28/2016	3/21/2016
8	1607459003	A-0040H-031216-IA-BAS-D				SAMPLE	1	1607459003-A	ETO15...1	5480		3/28/2016	3/21/2016

** In the analysts opinion the high level of carbon dioxide in this sample caused a shift in the RRT*

1607440 (Rush Sample)
1607459

ALS Environmental
Field Chain-of-Custody Record

CoC #: 002

Page 1 of 1

Client Name & Address:	Project Name & No.:
CHEM HILL 4248 S Riverboat Rd, Suite 210 Taylorsville, UT 84123	665353.77.01.04
	ALS Quote No: 10006-7-104589
	Report to: Mark Cicky
Phone: 385-474-8505	Report to e-mail: mark.cicky@chem.com
e-mail: Quin.bingham@chem.com	Bill to: 665353.77.01.04

Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample for Matrix QC	Analyses Requested: TO-15★	Analyses Requested: TAT	Preservation Code	Sample Matrix Code	Remarks
A-0037H-030816-IA-LAU	3/8/16	0745	—	Canister 0370	1			14		A	Final P=-0.71 inHg
A-0040H-031216-IA-KIT	3/12/16	1238	—	Canister 0162	1			14		A	Final P=-1.26 inHg
A-0040H-031216-IA-BAS	3/12/16	1238	—	Canister 0086	1			3 ← RUSH		A	Final P=-0.26 inHg
A-0040H-031216-IA-BAS-D	3/12/16	1238	—	Canister 0114	1			14		A	Final P=-0.17 inHg

Matrix Codes: W) Water, B) Bulk, L) Liquid, F) Filter, S) Soil, G) Wipe, C) Solid, M) Media, A) Air (indoor)

Preservation Codes: 1) Cool to 4°C; 2) HCl to pH<2, 4°C; 3) H_2SO_4 to pH<2, 4°C; 4) HNO_3 to pH<2, 4°C; 5) NaOH to pH>12, 4°C; 6) ZnOAc/NaOH to pH>9, 4°C

Possible Hazard Identification
☒ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive _____ Months
☒ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☒ Level 4
EDD Type: Lab spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☐ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/14/16	1204		03/14/16	12:07
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

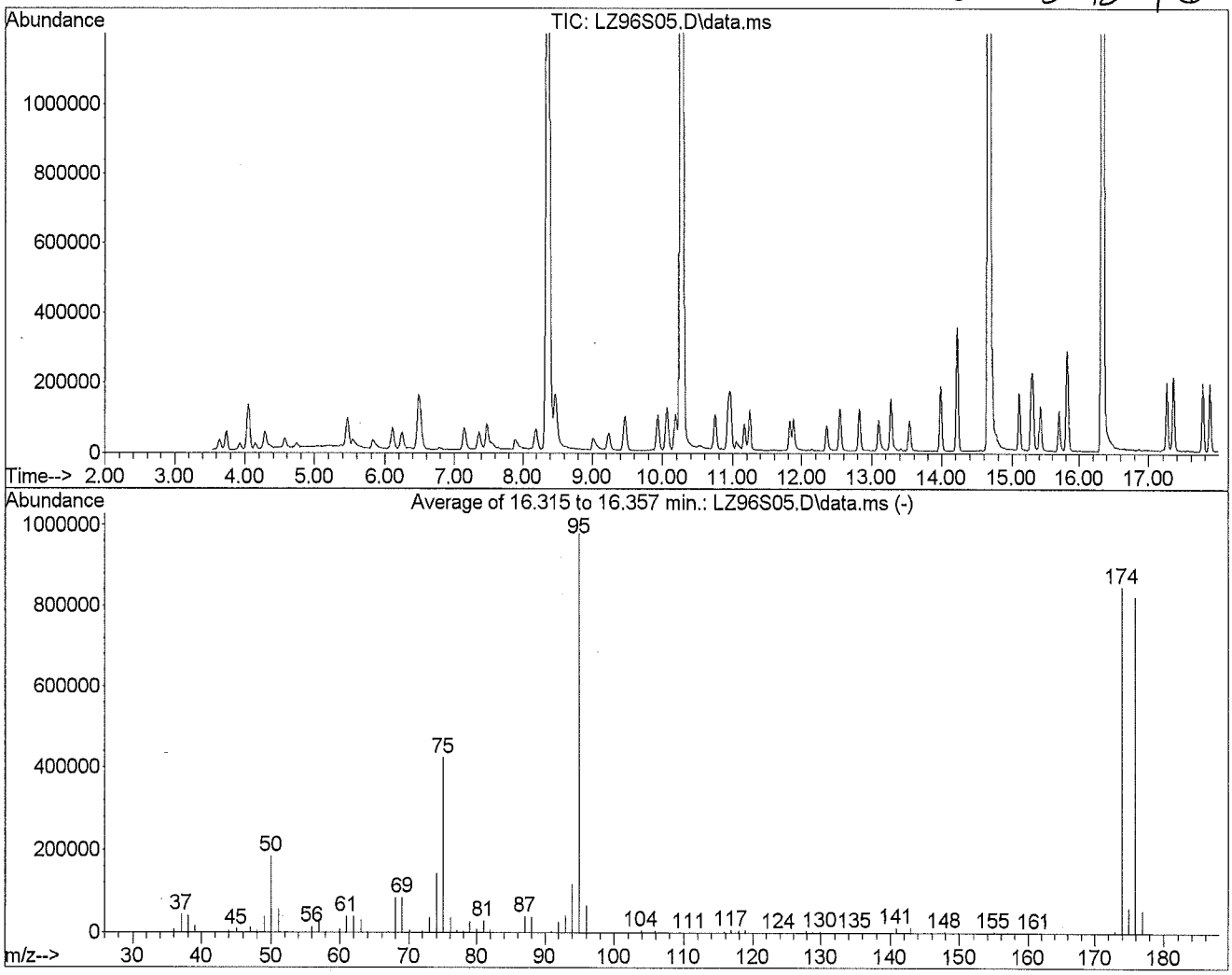
ALSCoC 121013 ★=4C, CIS1,2DCE, TCE, PCE & TMB (see Lab Sample Receipt Checklist) 12/12/2013

BFB

Data File : I:\L - 5975-L\2016\FEB16L\11FEB16L\LZ96S05.D Vial: 2
Acq Time : 02/11/2016 17:28 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 30851 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15

L 02-12-16



Peak Apex is scan: Average of 16.315 to 16.357 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.88	184521	PASS
75	95	30	66	43.33	423520	PASS
95	95	100	100	100.00	977472	PASS
96	95	5	9	6.71	65578	PASS
173	174	0.00	2	0.62	5260	PASS
174	95	50	120	86.78	848264	PASS
175	174	5	9	7.22	61209	PASS
176	174	93	101	97.08	823512	PASS
177	176	5	9	6.62	54552	PASS

Average of 16.315 to 16.357 min.: LZ96S05.D\data.ms
0.5 PPB STD
Modified:subtracted

m/z	Abundance
36.00	7489.0
37.05	43630.0
38.05	40562.0
39.05	16110.0
40.00	879.0
41.00	40.0
42.05	40.0
43.05	460.0
44.00	5240.0
45.05	8530.0
46.05	675.0
47.05	12304.0
48.00	5001.0
49.00	38640.0
50.00	184521.0
51.05	56753.0
52.05	2475.0
53.10	24.0
55.00	2178.0
56.00	13527.0
57.05	25865.0
58.05	1075.0
58.75	80.0
59.10	21.0
60.05	7183.0
61.00	39159.0
62.00	38467.0
63.00	29653.0
64.00	2619.0
65.05	344.0
67.00	1862.0
68.00	84420.0
69.00	84896.0
70.05	6469.0
70.90	53.0
71.10	204.0
72.00	3775.0
73.00	35362.0
74.00	142284.0
75.00	423520.0
76.05	36729.0
77.05	4724.0
77.95	3023.0
78.90	27103.0
79.95	7689.0
80.95	28139.0
81.90	5876.0
83.00	673.0
86.05	873.0
87.00	38506.0
88.00	36797.0
90.95	3383.0
92.00	25584.0
93.00	40701.0
94.00	116213.0
95.00	977472.0
96.00	65578.0
97.05	1755.0
98.00	23.0
102.60	20.0
102.90	449.0
103.90	4772.0
104.90	1470.0
105.90	4770.0
106.95	1003.0
109.85	695.0
110.85	1105.0
111.90	746.0
112.80	319.0
112.95	675.0
114.85	1033.0
115.90	3897.0
116.85	7195.0
117.90	4245.0
118.90	5780.0
119.90	128.0
121.95	241.0
122.85	358.0
123.85	696.0
124.85	340.0
125.90	456.0
126.85	279.0
127.90	3959.0
128.85	1955.0
129.90	4180.0
130.90	1606.0
131.85	166.0

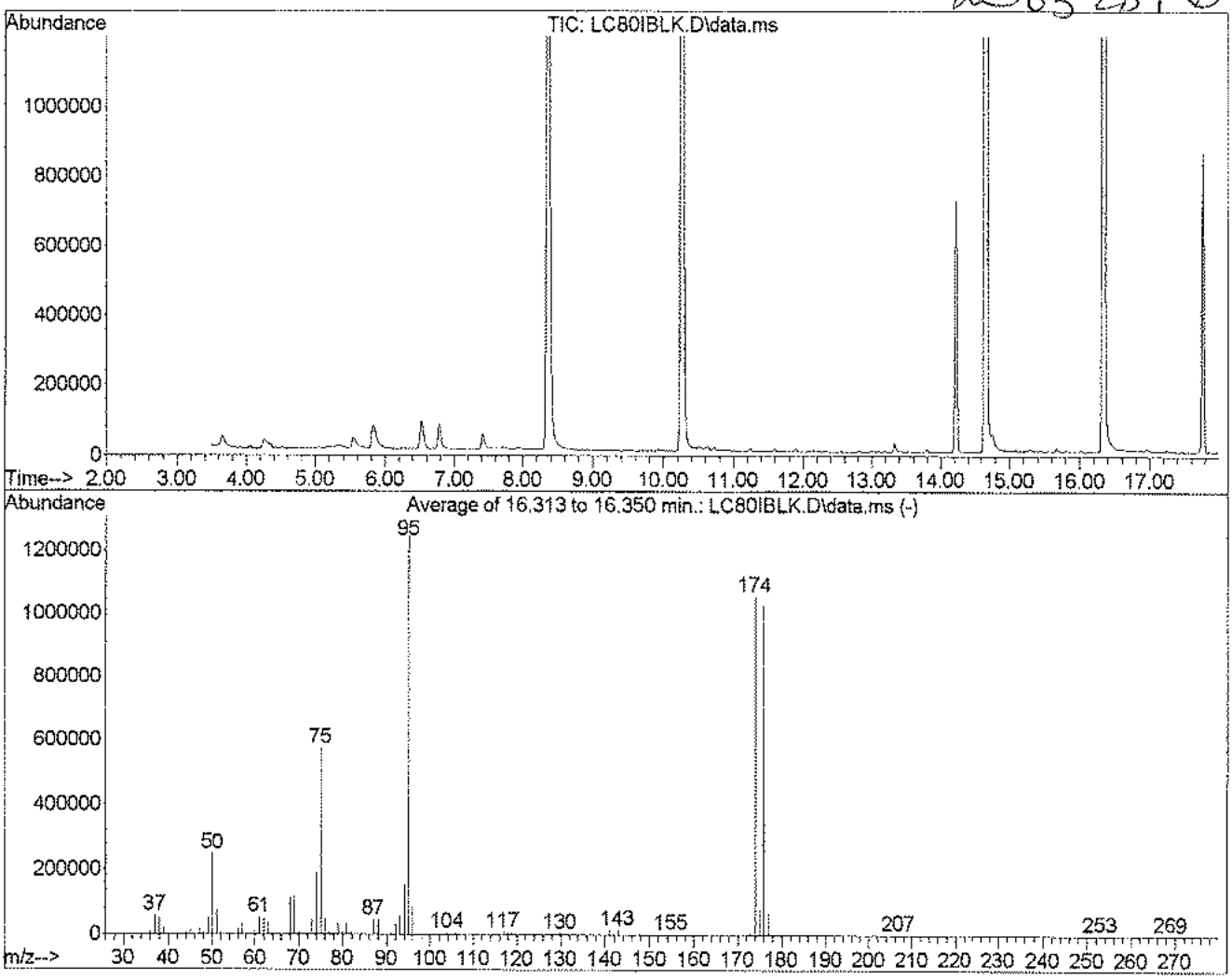
133.05	82.0
133.85	327.0
134.90	2058.0
135.90	356.0
136.95	2133.0
137.90	36.0
138.85	255.0
139.05	65.0
139.80	41.0
139.95	758.0
140.90	11895.0
141.85	1287.0
142.90	11621.0
143.85	669.0
144.10	29.0
144.90	908.0
145.95	1504.0
146.95	789.0
147.90	2586.0
148.90	712.0
149.90	1060.0
150.80	29.0
150.95	54.0
151.90	514.0
152.90	753.0
153.90	579.0
154.95	2577.0
155.70	21.0
155.80	62.0
155.95	420.0
156.95	1848.0
157.85	336.0
158.90	1130.0
160.90	999.0
162.00	21.0
169.90	49.0
171.00	19.0
171.95	745.0
172.90	5260.0
173.95	848264.0
174.95	61209.0
175.90	823512.0
176.95	54552.0
177.95	1593.0

BFB

Data File : I:\L - 5975-L\2016\M...L\21MAR16L\LC80IBLK.D Vial: 1
Acq Time : 03/21/2016 08:38 Operator: JCB
Sample : BFB Inst : 5975-L
Misc : 170IS31311 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LG16.m (RTE Integrator)
Title : TO-15

L03-2816



Peak Apex is scan: Average of 16.313 to 16.350 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	19.95	248167	PASS
75	95	30	66	46.14	573998	PASS
95	95	100	100	100.00	1243977	PASS
96	95	5	9	6.65	82704	PASS
173	174	0.00	2	0.66	6924	PASS
174	95	50	120	84.95	1056814	PASS
175	174	5	9	7.27	76851	PASS
176	174	93	101	97.25	1027776	PASS
177	176	5	9	6.68	68605	PASS

Average of 16.313 to 16.350 min.: LC80IBLK.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.00	9880.0
37.00	56591.0
38.05	51728.0
39.05	20920.0
40.95	206.0
42.05	73.0
43.05	648.0
44.00	6937.0
45.05	11251.0
46.10	746.0
47.00	14549.0
47.95	6797.0
49.00	50567.0
50.00	248167.0
51.00	76050.0
52.00	3016.0
52.90	32.0
53.20	22.0
54.05	78.0
55.00	2838.0
56.00	17432.0
57.00	32438.0
58.00	1219.0
58.90	60.0
59.10	36.0
60.00	9732.0
61.00	53245.0
62.00	50848.0
63.00	39026.0
64.05	3607.0
65.00	421.0
66.10	23.0
67.00	2538.0
68.00	114509.0
69.00	116618.0
70.05	8339.0
71.00	286.0
72.00	5365.0
73.00	47315.0
74.00	191432.0
75.00	573998.0
76.00	49576.0
77.00	5832.0
77.95	3986.0
78.90	32090.0
79.95	8476.0
80.90	33450.0
81.90	6626.0
82.95	719.0
86.00	948.0
87.00	45906.0
88.00	44398.0
90.95	4242.0
92.00	34901.0
93.00	54176.0
94.00	151961.0
95.00	1243977.0
96.00	82704.0
97.00	2375.0
102.90	582.0
103.90	5831.0
104.90	1766.0
105.90	5787.0
106.90	1291.0
109.85	879.0
110.85	1059.0
111.90	861.0
112.95	1175.0
114.90	1416.0
115.90	4909.0
116.90	9186.0
117.90	5326.0
118.90	7694.0
119.90	269.0
121.80	312.0
122.85	438.0
123.75	230.0
123.95	640.0
124.80	236.0
124.95	200.0
125.90	615.0
126.95	542.0
127.90	5381.0
128.90	2530.0
129.90	5497.0
130.85	2279.0
131.85	254.0

133.85	396.0
134.85	2786.0
135.85	470.0
136.95	2639.0
137.90	21.0
138.90	497.0
139.95	926.0
140.90	16009.0
141.90	1837.0
142.90	16619.0
143.90	995.0
144.90	1373.0
145.90	1884.0
146.85	1009.0
147.85	3307.0
148.90	998.0
149.90	1597.0
150.90	49.0
151.85	700.0
152.85	961.0
153.90	901.0
154.90	3476.0
155.95	442.0
156.90	2363.0
157.95	247.0
158.90	1621.0
159.90	39.0
160.90	1653.0
161.95	55.0
169.90	52.0
170.70	51.0
171.10	94.0
171.50	87.0
171.95	897.0
172.90	6924.0
173.90	1056814.0
174.90	76851.0
175.90	1027776.0
176.90	68605.0
177.95	1823.0
206.95	147.0
252.80	43.0
253.05	155.0
269.00	240.0
270.00	182.0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Fri Mar 11 15:44:55 2016
Response Via : Initial Calibration

Calibration Files
.5 =LZ96S05.D 1 =LZ97S1.D 2 =LZ98S2.D 5 =LZ99S5.D 10 =LA00S10.D 20 =LA01S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	----------ISTD----------									
2)		Propene	2.304	2.505	2.840	2.725	2.861	2.735	2.662		8.11	TIC
3)		Dichlorodifluo...	6.789	8.059	9.169	8.880	9.054	8.684	8.439		10.64	
4)		Chloromethane	2.720	2.994	3.443	3.297	3.334	3.246	3.172		8.43	
5)		Freon 114	7.574	7.618	8.001	7.630	7.779	7.532	7.689		2.26	
6)		Vinyl Chloride	2.462	2.875	3.336	3.286	3.435	3.351	3.124		12.15	
7)		1,3-Butadiene	2.607	2.646	2.866	2.735	2.823	2.800	2.746		3.74	
8)		Bromomethane	2.518	3.014	3.513	3.396	3.525	3.398	3.227		12.20	
9)		Chloroethane	1.473	1.643	1.900	1.771	1.863	1.786	1.739		9.07	
10)		Acrolein	0.948	0.842	0.901	0.869	0.982	0.938	0.913		5.72	TIC
11)		Acetone	5.649	5.357	5.850	5.434	5.747	5.619	5.610		3.31	
12)		Trichlorofluor...	1.018	1.017	1.066	0.980	1.005	0.960	1.008	E1	3.62	
13)		Ethanol	0.802	0.665	0.697	0.637	0.704	0.675	0.697		8.18	TIC
14)		Isopropyl Alcohol	5.382	5.122	5.220	4.825	2.107	5.227	4.647		27.08	TIC
15)		1,1-Dichloroet...	5.443	5.412	5.770	5.449	5.727	5.484	5.548		2.85	
16)		Methylene Chlo...	3.176	3.213	3.465	3.243	3.311	3.131	3.257		3.66	
17)		Freon 113	7.293	7.217	7.393	6.838	7.071	6.755	7.095		3.60	
18)		Carbon Disulfide	9.461	9.453	9.995	9.272	9.612	9.046	9.473		3.39	
19)		trans-1,2-Dich...	3.923	3.757	3.972	3.689	3.863	3.697	3.817		3.14	
20)		1,1-Dichloroet...	6.505	6.391	6.575	6.147	6.355	6.107	6.346		2.96	
21)		methyl t-butyl...	8.154	8.226	8.788	8.564	9.051	8.714	8.583		4.00	
22)		Vinyl Acetate	0.340	0.343	0.381	0.372	0.397	0.395	0.371		6.66	
23)		2-Butanone	6.804	7.176	7.538	7.601	8.190	8.064	7.562		6.93	
24)		cis-1,2-Dichlo...	4.026	3.939	4.168	3.964	4.151	3.960	4.035		2.51	
25)	I	1,4-Difluorobenzene	----------ISTD----------									
26)		Ethyl Acetate	0.115	0.119	0.119	0.126	0.128	0.131	0.123		5.15	
27)		Hexane	0.360	0.388	0.432	0.443	0.452	0.462	0.423		9.47	
28)		Chloroform	0.605	0.579	0.599	0.585	0.588	0.585	0.590		1.65	
29)		Tetrahydrofuran	0.304	0.311	0.336	0.350	0.364	0.376	0.340		8.41	
30)		1,2-Dichloroet...	0.362	0.346	0.362	0.357	0.362	0.368	0.360		2.14	

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m

31)		1,1,1-Trichlor...	0.623	0.611	0.622	0.618	0.624	0.632	0.622	1.08	
32)		Benzene	0.808	0.803	0.831	0.831	0.835	0.838	0.824	1.80	
33)		Carbon Tetrach...	0.762	0.741	0.770	0.764	0.772	0.787	0.766	1.98	
34)		Cyclohexane	0.344	0.355	0.374	0.393	0.400	0.399	0.378	6.41	
35)		1,2-Dichloropr...	0.299	0.305	0.315	0.316	0.321	0.323	0.313	3.01	
36)		Bromodichlorom...	0.620	0.609	0.628	0.624	0.639	0.644	0.627	2.05	
37)		1,4-Dioxane	0.213	0.199	0.210	0.213	0.220	0.229	0.214	4.67	TIC
38)		Trichloroethene	0.472	0.466	0.500	0.495	0.507	0.515	0.492	3.96	
39)		Methyl Methacr...	0.216	0.238	0.277	0.292	0.310	0.317	0.275	14.73	TIC
40)		Heptane	0.187	0.240	0.279	0.293	0.299	0.302	0.267	16.84	
41)		cis-1,3-Dichlo...	0.396	0.409	0.449	0.470	0.494	0.503	0.454	9.62	
42)		4-Methyl-2-Pen...	0.535	0.620	0.696	0.741	0.779	0.810	0.697	14.88	
43)		trans-1,3-Dich...	0.343	0.351	0.404	0.421	0.447	0.460	0.404	12.04	
44)		1,1,2-Trichlor...	0.339	0.352	0.380	0.382	0.392	0.397	0.374	6.14	
45)		Toluene	0.720	0.873	1.032	1.076	1.116	1.130	0.991	16.33	
46)		2-Hexanone	0.549	0.627	0.741	0.805	0.877	0.930	0.755	19.37	
47)		Dibromochlorom...	0.724	0.742	0.817	0.835	0.878	0.914	0.819	9.11	
48)		1,2-Dibromoethane	0.538	0.548	0.607	0.620	0.650	0.668	0.605	8.71	
49)		Tetrachloroethene	0.434	0.484	0.557	0.570	0.599	0.617	0.544	13.00	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.834	0.934	1.076	1.085	1.107	1.099	1.022	10.98	
52)		Ethylbenzene	1.060	1.219	1.471	1.534	1.574	1.593	1.409	15.50	
53)		m,p-Xylene	0.832	0.941	1.132	1.181	1.221	1.246	1.092	15.33	
54)		Bromoform	0.618	0.642	0.755	0.781	0.818	0.852	0.744	12.69	
55)		Styrene	0.594	0.701	0.880	0.958	1.006	1.031	0.862	20.53	
56)		1,1,2,2-Tetrac...	0.724	0.778	0.867	0.882	0.893	0.911	0.843	8.81	
57)		o-Xylene	0.845	0.963	1.168	1.224	1.265	1.308	1.129	16.31	
58)	S	Bromofluoroben...	0.565	0.560	0.578	0.586	0.590	0.600	0.580	2.62	
59)		4-Ethyl Toluene	1.158	1.343	1.634	1.723	1.784	1.822	1.577	16.95	
60)		1,3,5-Trimethy...	1.077	1.246	1.433	1.500	1.534	1.571	1.393	13.86	
61)		1,2,4-Trimethy...	0.987	1.167	1.349	1.433	1.492	1.537	1.328	15.95	
62)		Benzyl Chloride	0.606	0.714	0.885	0.993	1.091	1.178	0.911	24.20	EST
63)		m-Dichlorobenzene	0.818	0.881	1.004	1.050	1.089	1.128	0.995	12.23	
64)		p-Dichlorobenzene	0.808	0.843	0.990	1.037	1.078	1.104	0.977	12.68	
65)		o-Dichlorobenzene	0.762	0.818	0.943	0.991	1.029	1.053	0.933	12.66	
66)		1,2,4-Trichlor...	0.404	0.401	0.457	0.496	0.545	0.582	0.481	15.42	EST
67)		Naphthalene	1.050	1.067	1.252	1.369	1.472	1.535	1.291	15.81	TIC
68)		Hexachloro-1,3...	0.390	0.389	0.420	0.431	0.455	0.484	0.428	8.69	EST

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response Via : Initial Calibration

CC Data File: LC50LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
1	I	Bromochloromethane	1.000	1.000	0.0	75
2		Propene	2.662	2.781	-4.5	73 TLC
3		Dichlorodifluoromethane	8.439	8.841	-4.8	73
4		Chloromethane	3.172	3.146	0.8	70
5		Freon 114	7.689	7.487	2.6	72
6		Vinyl Chloride	3.124	3.247	-3.9	71
7		1,3-Butadiene	2.746	2.653	3.4	70
8		Bromomethane	3.227	3.380	-4.7	72
9		Chloroethane	1.739	1.732	0.4	69
10		Acrolein	0.913	1.350	-47.8#	103 TLC
11		Acetone	5.610	5.790	-3.2	75
12		Trichlorofluoromethane	10.079	10.374	-2.9	77
13		Ethanol	0.697	1.379	-97.9#	146 TLC
14		Isopropyl Alcohol	4.647	3.308	28.8	117 TLC
15		1,1-Dichloroethene	5.548	5.862	-5.7	76
16		Methylene Chloride	3.257	3.201	1.7	72
17		Freon 113	7.095	7.121	-0.4	75
18		Carbon Disulfide	9.473	9.586	-1.2	74
19		trans-1,2-Dichloroethene	3.817	3.749	1.8	72
20		1,1-Dichloroethane	6.346	6.499	-2.4	76
21		methyl t-butyl ether	8.583	9.107	-6.1	75
22		Vinyl Acetate	0.371	0.972	-162.0#	183#
23		2-Butanone	7.562	8.088	-7.0	74
24		cis-1,2-Dichloroethene	4.035	4.027	0.2	72
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	78
26		Ethyl Acetate	0.123	0.091	25.7	56
27		Hexane	0.423	0.436	-3.1	75
28		Chloroform	0.590	0.577	2.3	77
29		Tetrahydrofuran	0.340	0.269	21.0	58
30		1,2-Dichloroethane	0.360	0.381	-5.9	82
31		1,1,1-Trichloroethane	0.622	0.639	-2.8	80
32		Benzene	0.824	0.773	6.3	72
33		Carbon Tetrachloride	0.766	0.787	-2.7	80
34		Cyclohexane	0.378	0.367	2.8	72
35		1,2-Dichloropropane	0.313	0.311	0.7	76
36		Bromodichloromethane	0.627	0.639	-1.8	78
37		1,4-Dioxane	0.214	0.189	11.8	67 TLC
38		Trichloroethene	0.492	0.482	2.1	74
39		Methyl Methacrylate	0.275	0.292	-6.4	74 TLC
40		Heptane	0.267	0.282	-5.8	74
41		cis-1,3-Dichloropropene	0.454	0.486	-7.1	77
42		4-Methyl-2-Pentanone	0.697	0.772	-10.8	77
43		trans-1,3-Dichloropropene	0.404	0.451	-11.6	79
44		1,1,2-Trichloroethane	0.374	0.371	0.8	74

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LG16.m
Title : TO-15
Last Update : Mon Mar 21 10:07:55 2016
Response Via : Initial Calibration

CC Data File: LC50LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
45		Toluene	0.991	1.042	-5.1	73	
46		2-Hexanone	0.755	0.813	-7.6	72	
47		Dibromochloromethane	0.819	0.866	-5.8	77	
48		1,2-Dibromoethane	0.605	0.634	-4.7	76	
49		Tetrachloroethene	0.544	0.568	-4.5	74	
50	I	Chlorobenzene d5	1.000	1.000	0.0	88	
51		Chlorobenzene	1.022	0.919	10.1	73	
52		Ethylbenzene	1.409	1.330	5.6	74	
53		m,p-Xylene	1.092	1.038	4.9	75	
54		Bromoform	0.744	0.715	3.9	77	
55		Styrene	0.862	0.841	2.4	74	
56		1,1,2,2-Tetrachloroethane	0.843	0.758	10.1	75	
57		o-Xylene	1.129	1.082	4.1	75	
58	S	Bromofluorobenzene	0.580	0.669	-15.4	100	
59		4-Ethyl Toluene	1.577	1.533	2.8	76	
60		1,3,5-Trimethylbenzene	1.393	1.326	4.9	76	
61		1,2,4-Trimethylbenzene	1.328	1.281	3.5	76	
62		Benzyl Chloride	0.911	1.128	-23.8	91	ESJ
63		m-Dichlorobenzene	0.995	0.944	5.1	76	
64		p-Dichlorobenzene	0.977	0.927	5.1	76	
65		o-Dichlorobenzene	0.933	0.878	5.9	75	
66		1,2,4-Trichlorobenzene	0.481	0.475	1.2	77	ESJ
67		Naphthalene	1.291	1.254	2.9	75	NC
68		Hexachloro-1,3-butadiene	0.428	0.401	6.3	78	ESJ

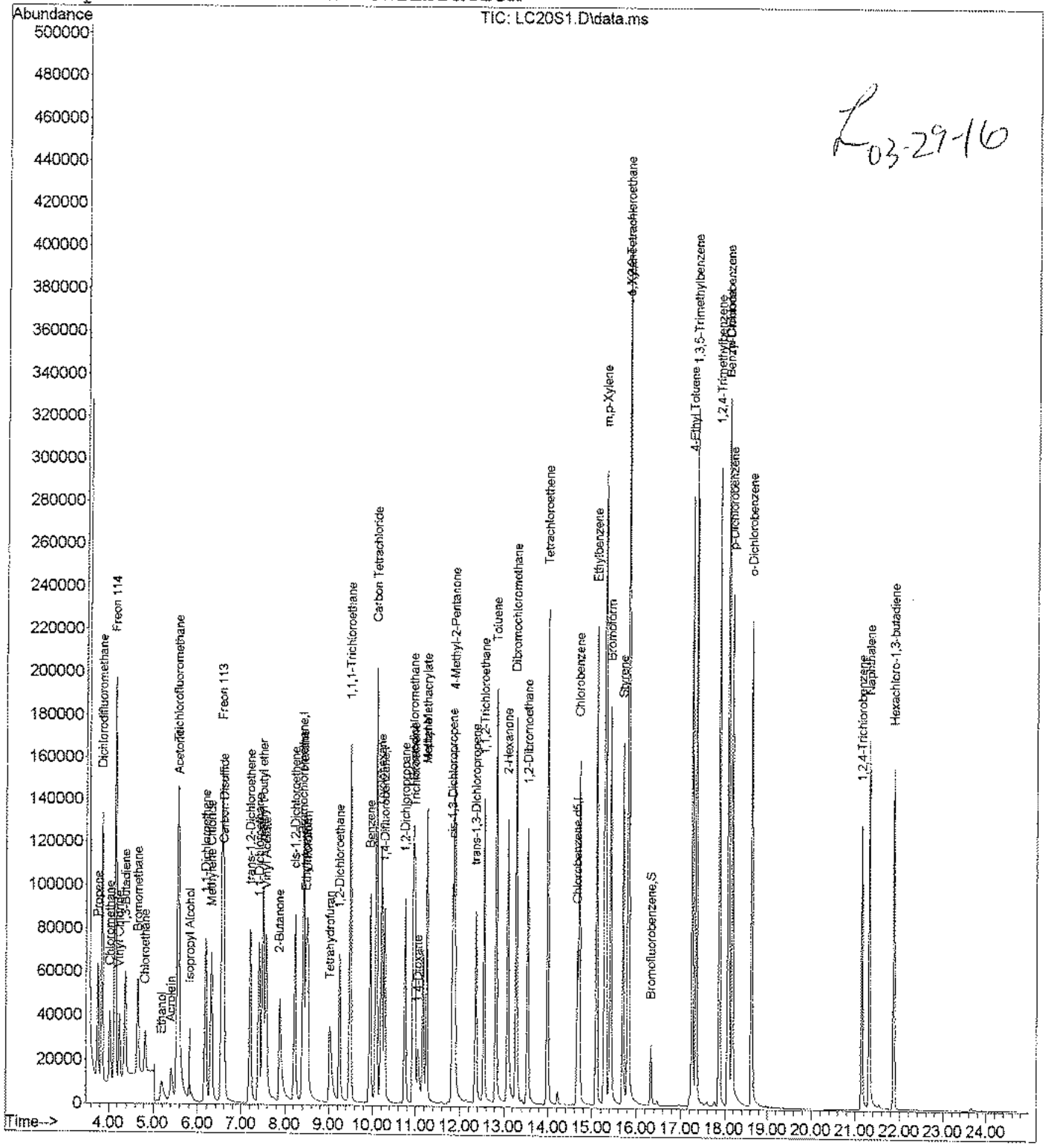
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



LC20S1.D TO15LSIMA8.m Tue Mar 29 11:04:50 2016 Page 3

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	19215	1000.0000	ppt		16.41#
25) 1,4-Difluorobenzene	10.28	114	184783	1000.0000	ppt		19.21#
50) Chlorobenzene d5	14.66	117	151677	1000.0000	ppt		27.91#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	59898	1784.2406	ppt		178.42%
Target Compounds							Qvalue
2) Propene	3.75	41	51297	1456.9745	ppt	m	56
3) Dichlorodifluoromethane	3.84	85	172951	932.4887	ppt	m	93
4) Chloromethane	4.02	50	62081	1402.5662	ppt	m	94
5) Freon 114	4.14	135	140328	1056.2146	ppt	m	0
6) Vinyl Chloride	4.24	62	57276	1011.2406	ppt	m	0
7) 1,3-Butadiene	4.37	54	42731	1202.5754	ppt	m	0
8) Bromomethane	4.65	94	63420	855.4185	ppt	m	0
9) Chloroethane	4.82	64	31079	949.3775	ppt	m	0
10) Acrolein	5.41	56	26650	1419.9768	ppt	m	0
11) Acetone	5.57	43	155609	1293.8146	ppt	#	84
12) Trichlorofluoromethane	5.55	101	220866	880.9055	ppt	m	0
13) Ethanol	5.19	45	42506	1672.0922	ppt	m	0
14) Isopropyl Alcohol	5.82	45	15686	167.1926	ppt	#	56
15) 1,1-Dichloroethene	6.17	61	112350	1240.5079	ppt	m	0
16) Methylene Chloride	6.31	84	69717	699.1755	ppt	m	55
17) Freon 113	6.54	151	150250	1161.1303	ppt	m	0
18) Carbon Disulfide	6.59	76	205034	877.4448	ppt	m	0
19) trans-1,2-Dichloroethene	7.20	96	70785	1199.9156	ppt	m	0
20) 1,1-Dichloroethane	7.41	63	132835	1039.2271	ppt		97
21) methyl t-butyl ether	7.50	73	156882	1715.6382	ppt	#	81
22) Vinyl Acetate	7.57	86	16458	1874.7391	ppt	#	1
23) 2-Butanone	7.87	43	150665	1847.2636	ppt	#	68
24) cis-1,2-Dichloroethene	8.22	96	77369	1375.6923	ppt	#	80
26) Ethyl Acetate	8.47	61	21053	1365.5702	ppt	#	1
27) Hexane	8.41	57	101067	1542.8101	ppt	#	79
28) Chloroform	8.51	83	162898	680.5086	ppt	#	17
29) Tetrahydrofuran	9.02	42	96378	2225.5919	ppt	#	40
30) 1,2-Dichloroethane	9.24	62	97347	745.7277	ppt	#	90
31) 1,1,1-Trichloroethane	9.48	97	178743	772.6113	ppt	#	91
32) Benzene	9.94	78	207869	975.2279	ppt	#	89
33) Carbon Tetrachloride	10.08	117	217090	815.2031	ppt		99
34) Cyclohexane	10.21	84	83698	1613.4012	ppt	#	42
35) 1,2-Dichloropropane	10.75	63	81662	956.5480	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC20S1.D Vial: 2
Acq Time : 03/11/2016 08:28 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31070 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 09:59:45 2016 Results File: TO15LSIMA7.RES

Quant Method : J:\L\METHODS\TO15LSIMA7.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	172789	757.8981	ppt		98
37)	1,4-Dioxane	11.05	88	45892	1729.1981	ppt	#	77
38)	Trichloroethene	10.97	130	118799	1180.7600	ppt	#	41
39)	Methyl Methacrylate	11.25	69	6849	199.5500	ppt	#	1
40)	Heptane	11.25	71	67459	1651.7846	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	110107	1403.0738	ppt		97
42)	4-Methyl-2-Pentanone	11.87	43	185753	2071.0900	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	98701	1585.9281	ppt		96
44)	1,1,2-Trichloroethane	12.54	97	103081	1028.0853	ppt	#	82
45)	Toluene	12.83	91	244919	1623.4051	ppt		98
46)	2-Hexanone	13.08	43	157378	3791.3166	ppt	#	70
47)	Dibromochloromethane	13.27	129	220368	1159.5810	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	160132	1314.9959	ppt		99
49)	Tetrachloroethene	13.98	166	148239	1394.7695	ppt	#	84
51)	Chlorobenzene	14.71	112	237663	1230.9667	ppt	#	74
52)	Ethylbenzene	15.10	91	316747	1731.4331	ppt		98
53)	m,p-Xylene	15.29	91	521909	3682.9312	ppt		94
54)	Bromoform	15.41	173	165708	1111.3858	ppt		99
55)	Styrene	15.69	104	184083	2791.3620	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.82	83	233945	1033.6910	ppt		98
57)	o-Xylene	15.81	91	287091	1946.4744	ppt		98
59)	4-Ethyl Toluene	17.25	105	336798	4052.6908	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	348726	3286.2009	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	301178	3954.2776	ppt		98
62)	Benzyl Chloride	18.06	91	257375	8771.8823	ppt		100
63)	m-Dichlorobenzene	18.08	146	253633	4272.4965	ppt		97
64)	p-Dichlorobenzene	18.17	146	254158	5717.6249	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	244934	3969.7318	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	115753	34359.7803	ppt	#	97
67)	Naphthalene	21.32	128	293387	22271.5590	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	130085	1851.2670	ppt		99

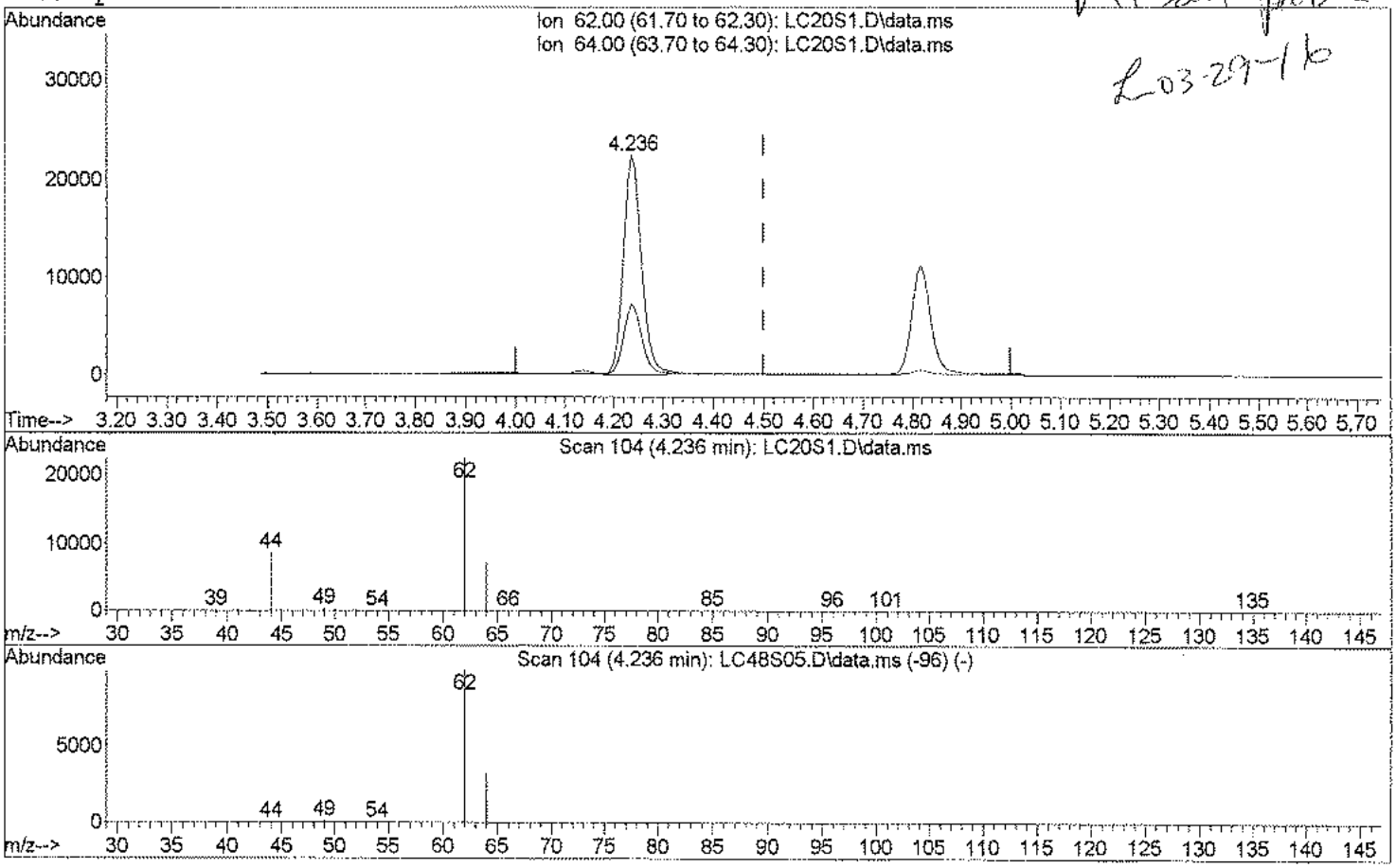
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\10MAR16L\
Data File : LC20S1.D
Acq On : 03/11/2016 08:28
Operator : LMR
Sample : 1.0 PPB
Inst : 5975-L
Misc : 31070 (400mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 09:59:45 2016
Quant Method : J:\L\METHODS\TO15LSIMA7.m
Quant Title : TO-15 SIM
QLast Update : Mon Feb 22 13:11:32 2016
Response via : Initial Calibration

Missed peak
L03-29-16



TIC: LC20S1.D\data.ms

(6) Vinyl Chloride

4.236min (-0.264) 1011.24 ppt m

response 57276

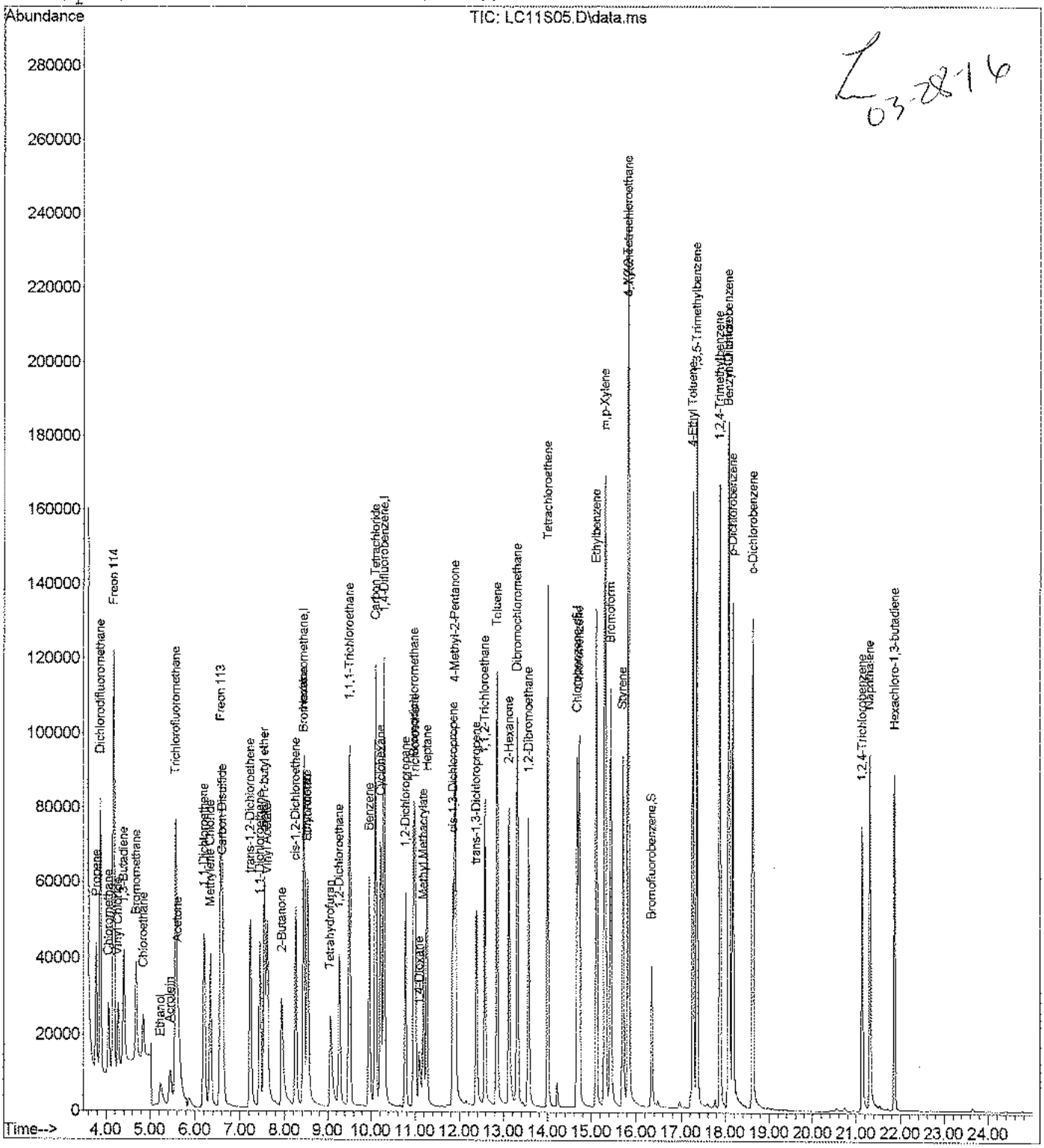
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) 0. Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:22 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	24687	1000.0000	ppt		21.09#
25) 1,4-Difluorobenzene	10.29	114	241247	1000.0000	ppt		25.07#
50) Chlorobenzene d5	14.68	117	202059	1000.0000	ppt		37.17#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	77846	1575.9116	ppt		157.59%
Target Compounds							Qvalue
2) Propene	3.78	41	32346	636.2090	ppt		96
3) Dichlorodifluoromethane	3.87	85	103410	426.6720	ppt		99
4) Chloromethane	4.05	50	35895	521.9587	ppt		98
5) Freon 114	4.17	135	84495	476.2846	ppt	#	76
6) Vinyl Chloride	4.27	62	34733	466.6143	ppt		100
7) 1,3-Butadiene	4.40	54	26236	544.2436	ppt	#	52
8) Bromomethane	4.68	94	37019	389.1405	ppt		99
9) Chloroethane	4.85	64	17836	415.7612	ppt	#	88
10) Acrolein	5.46	56	16917	646.5250	ppt	#	98
11) Acetone	5.63	43	94951	557.2560	ppt	#	84
12) Trichlorofluoromethane	5.58	101	130846	402.7569	ppt		97
13) Ethanol	5.23	45	24018	608.5318	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.20	61	69443	566.3733	ppt	#	78
16) Methylene Chloride	6.34	84	40603	314.7193	ppt	#	61
17) Freon 113	6.57	151	90017	510.2958	ppt	#	75
18) Carbon Disulfide	6.61	76	123102	407.1494	ppt	#	65
19) trans-1,2-Dichloroethene	7.23	96	43860	550.6973	ppt	#	78
20) 1,1-Dichloroethane	7.44	63	79425	466.7885	ppt		97
21) methyl t-butyl ether	7.53	73	98899	758.0172	ppt	#	81
22) Vinyl Acetate	7.60	86	10284	806.6820	ppt	#	1
23) 2-Butanone	7.92	43	92474	771.3290	ppt	#	68
24) cis-1,2-Dichloroethene	8.25	96	46592	603.4438	ppt	#	78
26) Ethyl Acetate	8.51	61	12445	574.8560	ppt	#	1
27) Hexane	8.44	57	62183	653.1053	ppt	#	81
28) Chloroform	8.53	83	95712	306.3279	ppt	#	17
29) Tetrahydrofuran	9.05	42	61159	857.5993	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	58991	342.2904	ppt	#	89
31) 1,1,1-Trichloroethane	9.50	97	107116	347.0708	ppt	#	92
32) Benzene	9.96	78	125153	430.8627	ppt	#	89
33) Carbon Tetrachloride	10.10	117	129186	359.2415	ppt		99
34) Cyclohexane	10.22	84	50259	664.4805	ppt	#	40
35) 1,2-Dichloropropane	10.77	63	49050	421.3104	ppt		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC11S05.D Vial: 2
Acq Time : 03/10/2016 19:55 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31070 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:01:34 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:22 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	102066	337.6108	ppt		98
37)	1,4-Dioxane	11.09	88	29258	727.3649	ppt	#	78
38)	Trichloroethene	11.00	130	72859	513.1009	ppt	#	42
39)	Methyl Methacrylate	11.18	69	36246	1005.4053	ppt	#	44
40)	Heptane	11.27	71	39413	678.8376	ppt	#	24
41)	cis-1,3-Dichloropropene	11.86	75	67836	601.8405	ppt		97
42)	4-Methyl-2-Pentanone	11.90	43	108763	775.8432	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	60313	656.2055	ppt		96
44)	1,1,2-Trichloroethane	12.57	97	60176	437.1366	ppt	#	82
45)	Toluene	12.85	91	147886	666.0469	ppt		99
46)	2-Hexanone	13.11	43	94186	1148.5546	ppt	#	71
47)	Dibromochloromethane	13.30	129	127851	478.1688	ppt	#	88
48)	1,2-Dibromoethane	13.55	107	93973	543.1533	ppt		99
49)	Tetrachloroethene	14.00	166	90764	585.3806	ppt	#	84
51)	Chlorobenzene	14.73	112	143729	532.8633	ppt	#	73
52)	Ethylbenzene	15.11	91	192641	717.4975	ppt		98
53)	m,p-Xylene	15.31	91	300056	1472.3449	ppt		97
54)	Bromoform	15.43	173	92634	444.0445	ppt		98
55)	Styrene	15.71	104	109151	974.8932	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	130974	423.6334	ppt		98
57)	o-Xylene	15.83	91	162740	748.5069	ppt		98
59)	4-Ethyl Toluene	17.26	105	199068	1175.2467	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	196056	1030.8615	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	168487	1092.7354	ppt		96
62)	Benzyl Chloride	18.06	91	143853	1563.0427	ppt		100
63)	m-Dichlorobenzene	18.08	146	145299	1201.2051	ppt		96
64)	p-Dichlorobenzene	18.17	146	152396	1442.2024	ppt		96
65)	o-Dichlorobenzene	18.63	146	144140	1161.9618	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	67221	1994.8526	ppt	#	97
67)	Naphthalene	21.31	128	164789	1840.7303	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	76235	688.8508	ppt		99

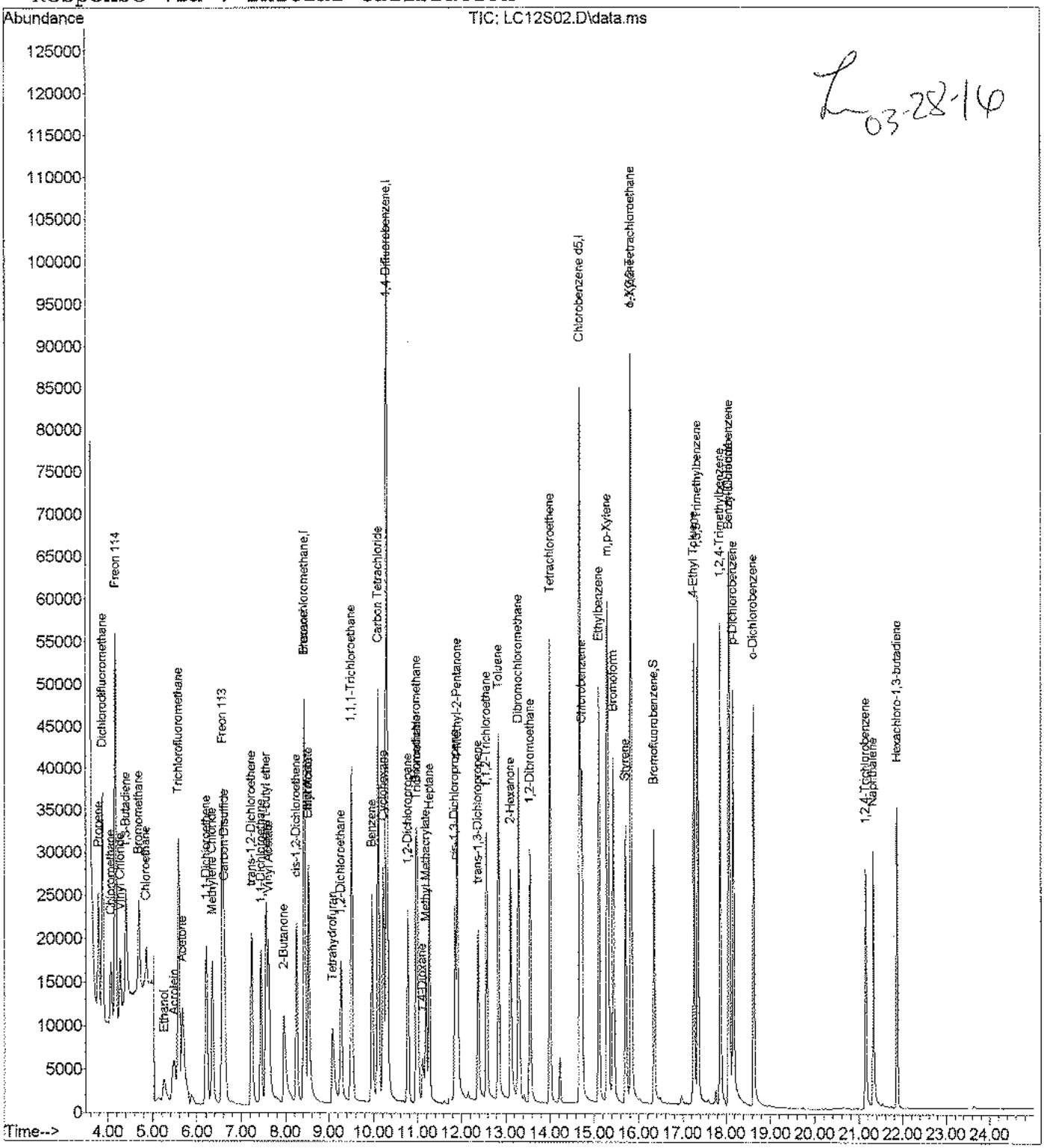
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



3-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:55 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	22607	1000.0000	ppt		91.57
25) 1,4-Difluorobenzene	10.29	114	221891	1000.0000	ppt		91.98
50) Chlorobenzene d5	14.68	117	181915	1000.0000	ppt		90.03
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	67176	1365.1050	ppt		136.51%
Target Compounds							Qvalue
2) Propene	3.78	41	14919	290.3582	ppt		94
3) Dichlorodifluoromethane	3.87	85	41684	189.0056	ppt		99
4) Chloromethane	4.06	50	14449	220.0201	ppt		99
5) Freon 114	4.16	135	34432	208.5879	ppt	#	76
6) Vinyl Chloride	4.27	62	13902	203.0743	ppt		100
7) 1,3-Butadiene	4.40	54	10494	228.2536	ppt	#	45
8) Bromomethane	4.69	94	15062	177.1625	ppt		98
9) Chloroethane	4.85	64	7358	188.6285	ppt	#	89
10) Acrolein	5.49	56	6982	266.1393	ppt	#	96
11) Acetone	5.66	43	42350	250.9530	ppt	#	85
12) Trichlorofluoromethane	5.58	101	53385	181.6424	ppt		97
13) Ethanol	5.25	45	9876	243.7751	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.20	61	27846	237.0262	ppt	#	78
16) Methylene Chloride	6.34	84	16529	142.2417	ppt	#	60
17) Freon 113	6.57	151	36690	218.9910	ppt	#	75
18) Carbon Disulfide	6.62	76	50510	184.1983	ppt	#	64
19) trans-1,2-Dichloroethene	7.23	96	17823	234.7210	ppt	#	79
20) 1,1-Dichloroethane	7.44	63	32180	203.8629	ppt		97
21) methyl t-butyl ether	7.55	73	38168	285.4822	ppt	#	81
22) Vinyl Acetate	7.62	86	3878	290.4361	ppt	#	1
23) 2-Butanone	7.95	43	36020	290.8303	ppt	#	68
24) cis-1,2-Dichloroethene	8.25	96	18668	249.8745	ppt	#	79
26) Ethyl Acetate	8.53	61	4729	226.5431	ppt	#	1
27) Hexane	8.43	57	23822	249.9877	ppt	#	82
28) Chloroform	8.53	83	38533	138.9898	ppt	#	17
29) Tetrahydrofuran	9.08	42	23040	293.1579	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	23993	155.0552	ppt	#	86
31) 1,1,1-Trichloroethane	9.50	97	43312	155.0365	ppt	#	92
32) Benzene	9.96	78	50836	188.5826	ppt	#	89
33) Carbon Tetrachloride	10.10	117	51782	157.5721	ppt		99
34) Cyclohexane	10.22	84	20690	275.0867	ppt	#	51
35) 1,2-Dichloropropane	10.77	63	19627	181.6573	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC12S02.D Vial: 2
Acq Time : 03/10/2016 20:47 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31070 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:07 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:01:55 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.96	83	40840	150.1638	ppt		98
37)	1,4-Dioxane	11.11	88	11727	280.2076	ppt	#	80
38)	Trichloroethene	10.99	130	28855	211.2836	ppt	#	41
39)	Methyl Methacrylate	11.18	69	13274	350.6148	ppt	#	45
40)	Heptane	11.27	71	14626	255.6247	ppt	#	24
41)	cis-1,3-Dichloropropene	11.85	75	25899	233.5201	ppt		97
42)	4-Methyl-2-Pentanone	11.91	43	40390	274.2527	ppt	#	71
43)	trans-1,3-Dichloropropene	12.38	75	22964	248.6370	ppt		97
44)	1,1,2-Trichloroethane	12.57	97	24029	187.5934	ppt	#	82
45)	Toluene	12.84	91	56922	254.0519	ppt		98
46)	2-Hexanone	13.11	43	34068	339.7574	ppt	#	70
47)	Dibromochloromethane	13.30	129	50215	197.9196	ppt	#	88
48)	1,2-Dibromoethane	13.55	107	36691	219.5603	ppt		100
49)	Tetrachloroethene	14.00	166	36023	233.7828	ppt	#	83
51)	Chlorobenzene	14.73	112	56372	226.7087	ppt	#	72
52)	Ethylbenzene	15.11	91	70858	267.1225	ppt		97
53)	m,p-Xylene	15.30	91	106468	533.9477	ppt		95
54)	Bromoform	15.43	173	36217	192.8372	ppt		95
55)	Styrene	15.70	104	38087	311.7174	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	50595	184.8361	ppt		98
57)	o-Xylene	15.82	91	57854	269.1626	ppt		98
59)	4-Ethyl Toluene	17.26	105	67476	333.4041	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	66348	307.8393	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	59050	326.3380	ppt		98
62)	Benzyl Chloride	18.06	91	52185	414.4339	ppt		100
63)	m-Dichlorobenzene	18.08	146	53752	375.3527	ppt		96
64)	p-Dichlorobenzene	18.17	146	55896	411.3305	ppt		96
65)	o-Dichlorobenzene	18.62	146	53027	361.6149	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	24502	455.9794	ppt	#	97
67)	Naphthalene	21.31	128	55741	408.6013	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	30034	271.6720	ppt		99

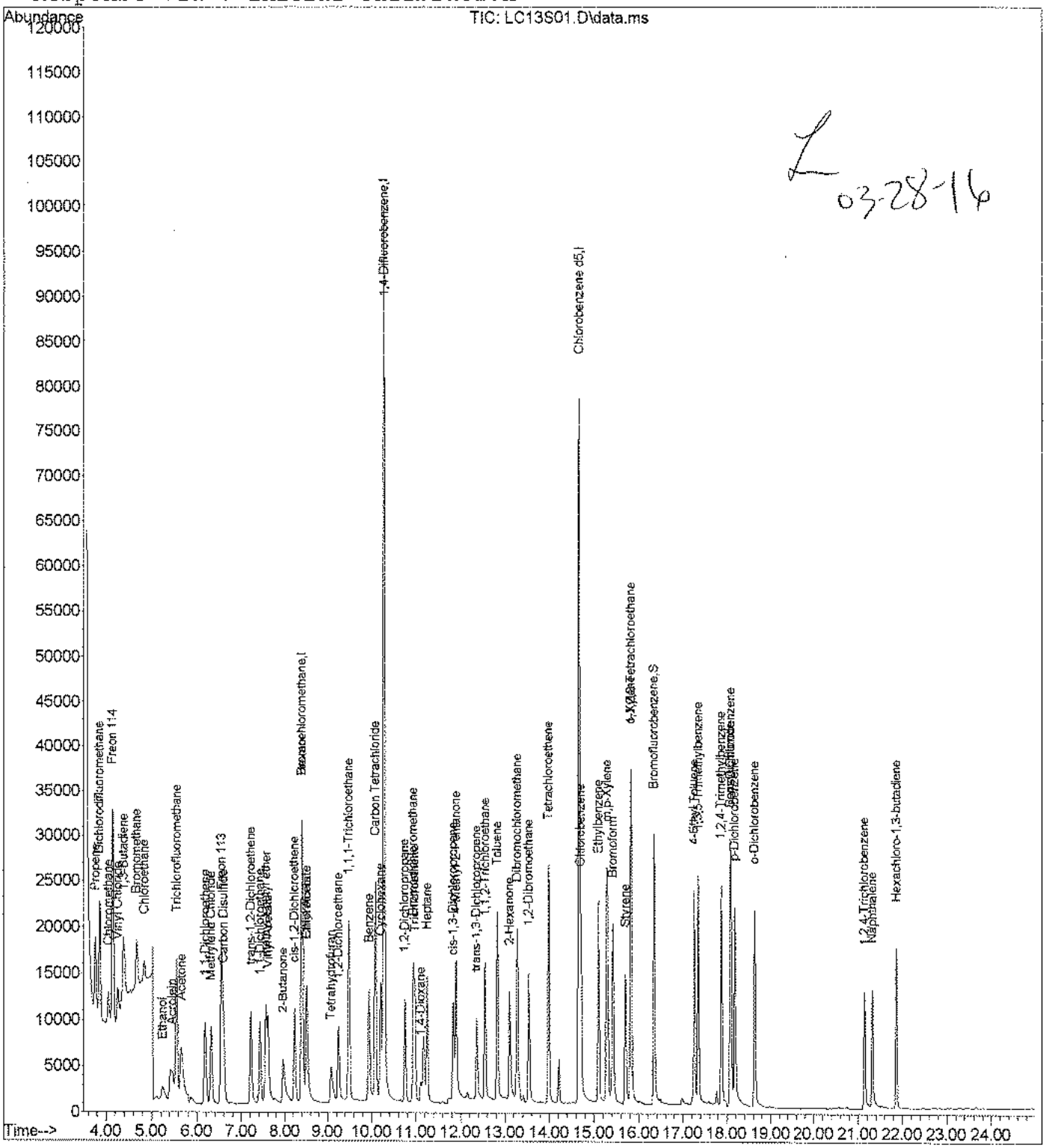
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



L 03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:18 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	21903	1000.0000	ppt		88.72
25) 1,4-Difluorobenzene	10.28	114	212324	1000.0000	ppt		88.01
50) Chlorobenzene d5	14.67	117	173165	1000.0000	ppt		85.70
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	63614	1220.6804	ppt		122.07%
Target Compounds							Qvalue
2) Propene	3.76	41	9238	163.1049	ppt		93
3) Dichlorodifluoromethane	3.85	85	20252	95.3590	ppt		99
4) Chloromethane	4.05	50	7105	106.8589	ppt		100
5) Freon 114	4.15	135	16686	101.6799	ppt	#	76
6) Vinyl Chloride	4.26	62	6727	100.1309	ppt		98
7) 1,3-Butadiene	4.38	54	5234	111.4516	ppt	#	34
8) Bromomethane	4.67	94	7313	90.6519	ppt		98
9) Chloroethane	4.83	64	3402	90.2455	ppt	#	91
10) Acrolein	5.46	56	3165	112.2601	ppt	#	98
11) Acetone	5.65	43	25524	141.7143	ppt	#	86
12) Trichlorofluoromethane	5.55	101	26290	93.5124	ppt		97
13) Ethanol	5.24	45	5977	138.3323	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.18	61	13346	110.6316	ppt	#	78
16) Methylene Chloride	6.32	84	8207	75.4331	ppt	#	60
17) Freon 113	6.55	151	18041	106.5449	ppt	#	75
18) Carbon Disulfide	6.60	76	25419	96.3612	ppt	#	65
19) trans-1,2-Dichloroethene	7.21	96	8695	111.8550	ppt	#	80
20) 1,1-Dichloroethane	7.41	63	15918	102.1399	ppt		97
21) methyl t-butyl ether	7.55	73	18000	122.4293	ppt	#	81
22) Vinyl Acetate	7.60	86	1817	121.7774	ppt	#	1
23) 2-Butanone	7.95	43	17305	125.6963	ppt	#	68
24) cis-1,2-Dichloroethene	8.23	96	8967	114.7702	ppt	#	79
26) Ethyl Acetate	8.52	61	2254	106.7841	ppt	#	1
27) Hexane	8.41	57	11197	112.3097	ppt	#	81
28) Chloroform	8.51	83	18729	75.1768	ppt	#	17
29) Tetrahydrofuran	9.07	42	10107	115.2272	ppt	#	41
30) 1,2-Dichloroethane	9.25	62	11966	84.3264	ppt	#	84
31) 1,1,1-Trichloroethane	9.48	97	20940	81.2999	ppt	#	91
32) Benzene	9.94	78	26287	102.0548	ppt	#	89
33) Carbon Tetrachloride	10.08	117	25143	82.4033	ppt		99
34) Cyclohexane	10.20	84	9941	124.0032	ppt	#	56
35) 1,2-Dichloropropane	10.75	63	9527	92.6070	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\10MAR16L\LC13S01.D Vial: 2
Acq Time : 03/10/2016 21:38 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31070 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:18 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	19863	79.8675	ppt		98
37)	1,4-Dioxane	11.12	88	5797	126.6182	ppt	#	81
38)	Trichloroethene	10.97	130	13903	102.5234	ppt	#	41
39)	Methyl Methacrylate	0.00	69		Not Detected			
40)	Heptane	11.25	71	6467	107.1457	ppt	#	23
41)	cis-1,3-Dichloropropene	11.83	75	13578	119.9292	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	18029	112.4619	ppt	#	71
43)	trans-1,3-Dichloropropene	12.36	75	10725	111.3829	ppt		94
44)	1,1,2-Trichloroethane	12.55	97	11533	94.0011	ppt	#	82
45)	Toluene	12.83	91	26388	111.8556	ppt		97
46)	2-Hexanone	13.10	43	15698	130.7930	ppt	#	67
47)	Dibromochloromethane	13.28	129	24221	97.6697	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	17481	104.6351	ppt		100
49)	Tetrachloroethene	13.99	166	17695	111.5907	ppt	#	84
51)	Chlorobenzene	14.72	112	26807	108.6530	ppt	#	70
52)	Ethylbenzene	15.10	91	32348	114.9735	ppt		98
53)	m,p-Xylene	15.29	91	47080	220.8422	ppt		98
54)	Bromoform	15.42	173	18258	102.1023	ppt		97
55)	Styrene	15.70	104	16999	122.4130	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	24077	93.3200	ppt		98
57)	o-Xylene	15.81	91	25152	109.1919	ppt		99
59)	4-Ethyl Toluene	17.26	105	29507	123.2021	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	28260	113.7471	ppt		98
61)	1,2,4-Trimethylbenzene	17.87	105	25687	120.5540	ppt		97
62)	Benzyl Chloride	18.06	91	23260	141.2914	ppt		96
63)	m-Dichlorobenzene	18.08	146	24249	137.7335	ppt		96
64)	p-Dichlorobenzene	18.17	146	25117	144.2129	ppt		93
65)	o-Dichlorobenzene	18.63	146	24932	140.3581	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	11580	156.6110	ppt	#	96
67)	Naphthalene	21.32	128	24817	137.4344	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	14580	123.8405	ppt		99

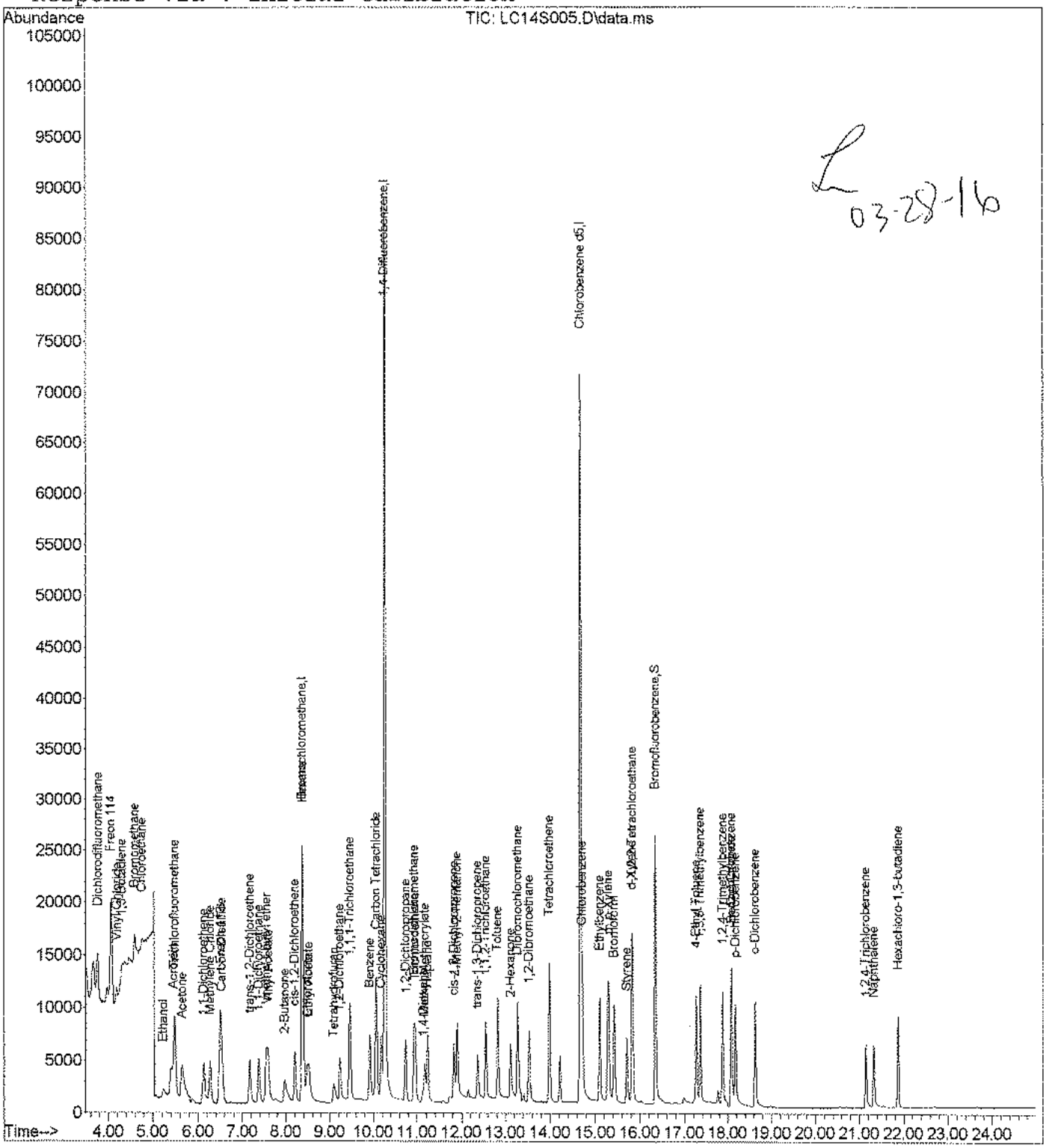
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



L 03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:45 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	19808	1000.0000	ppt		80.24
25) 1,4-Difluorobenzene	10.26	114	197310	1000.0000	ppt		81.79
50) Chlorobenzene d5	14.67	117	161915	1000.0000	ppt		80.13
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	56113	1027.9068	ppt		102.79%
Target Compounds							Qvalue
2) Propene	0.00	41		Not Detected			
3) Dichlorodifluoromethane	3.75	85	9856	52.6836	ppt		99
4) Chloromethane	0.00	50		Not Detected			
5) Freon 114	4.06	135	8309	55.7458	ppt	#	75
6) Vinyl Chloride	4.18	62	3180	52.4778	ppt		94
7) 1,3-Butadiene	4.30	54	2500	56.1965	ppt	#	9
8) Bromomethane	4.59	94	3434	49.1364	ppt		98
9) Chloroethane	4.75	64	1683	51.0743	ppt	#	88
10) Acrolein	5.45	56	1673	61.2578	ppt	#	92
11) Acetone	5.65	43	13655	75.0846	ppt		95
12) Trichlorofluoromethane	5.48	101	13380	54.5186	ppt		98
13) Ethanol	5.23	45	2927	65.9230	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.12	61	6793	59.4398	ppt	#	75
16) Methylene Chloride	6.27	84	4111	45.7071	ppt	#	58
17) Freon 113	6.50	151	9143	58.3149	ppt	#	74
18) Carbon Disulfide	6.54	76	13500	58.0560	ppt	#	63
19) trans-1,2-Dichloroethene	7.17	96	4709	64.0340	ppt	#	79
20) 1,1-Dichloroethane	7.38	63	7949	56.2964	ppt		98
21) methyl t-butyl ether	7.55	73	9001	60.8468	ppt	#	82
22) Vinyl Acetate	7.59	86	936	61.3142	ppt	#	1
23) 2-Butanone	7.97	43	8768	62.4950	ppt	#	68
24) cis-1,2-Dichloroethene	8.20	96	4598	60.9665	ppt	#	80
26) Ethyl Acetate	8.52	61	1110	54.0456	ppt	#	1
27) Hexane	8.38	57	5512	55.4575	ppt	#	79
28) Chloroform	8.48	83	9470	45.7540	ppt	#	17
29) Tetrahydrofuran	9.09	42	4531	49.9622	ppt	#	43
30) 1,2-Dichloroethane	9.23	62	5927	48.6815	ppt	#	75
31) 1,1,1-Trichloroethane	9.46	97	10610	48.2579	ppt	#	91
32) Benzene	9.92	78	14363	60.4494	ppt	#	89
33) Carbon Tetrachloride	10.06	117	12889	48.8841	ppt		99
34) Cyclohexane	10.18	84	4468	54.6505	ppt	#	39
35) 1,2-Dichloropropane	10.74	63	4753	51.2698	ppt		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC14S005.D Vial: 2
Acq Time : 03/10/2016 22:30 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31070 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:02:57 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:02:45 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	9895	46.9362	ppt		96
37)	1,4-Dioxane	11.14	88	3243	68.0306	ppt	#	86
38)	Trichloroethene	10.97	130	6937	54.1498	ppt	#	41
39)	Methyl Methacrylate	11.18	69	3428	102.1924	ppt	#	54
40)	Heptane	11.24	71	3160	52.3989	ppt	#	24
41)	cis-1,3-Dichloropropene	11.83	75	6686	59.1238	ppt	#	72
42)	4-Methyl-2-Pentanone	11.90	43	8708	53.0993	ppt	#	70
43)	trans-1,3-Dichloropropene	12.36	75	5368	55.9786	ppt		95
44)	1,1,2-Trichloroethane	12.55	97	5842	52.6411	ppt	#	82
45)	Toluene	12.83	91	13186	55.9841	ppt		99
46)	2-Hexanone	13.11	43	6726	50.6483	ppt	#	71
47)	Dibromochloromethane	13.28	129	12129	52.7858	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	8758	54.7717	ppt		99
49)	Tetrachloroethene	13.98	166	9080	58.5423	ppt	#	83
51)	Chlorobenzene	14.72	112	13101	55.0253	ppt	#	65
52)	Ethylbenzene	15.10	91	14988	52.0564	ppt		99
53)	m,p-Xylene	15.29	91	21259	96.9136	ppt		100
54)	Bromoform	15.42	173	9371	56.1866	ppt		96
55)	Styrene	15.70	104	7696	51.1399	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	11972	50.6659	ppt	#	98
57)	o-Xylene	15.81	91	11469	48.3426	ppt		98
59)	4-Ethyl Toluene	17.26	105	13553	51.2487	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	12736	47.7033	ppt		96
61)	1,2,4-Trimethylbenzene	17.88	105	12454	53.4393	ppt		99
62)	Benzyl Chloride	18.07	91	10276	53.0010	ppt		98
63)	m-Dichlorobenzene	18.08	146	11409	56.7485	ppt		96
64)	p-Dichlorobenzene	18.18	146	11302	55.3307	ppt	#	96
65)	o-Dichlorobenzene	18.63	146	12112	59.9052	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	5676	62.8584	ppt		97
67)	Naphthalene	21.32	128	11739	55.0203	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	7372	60.5223	ppt		99

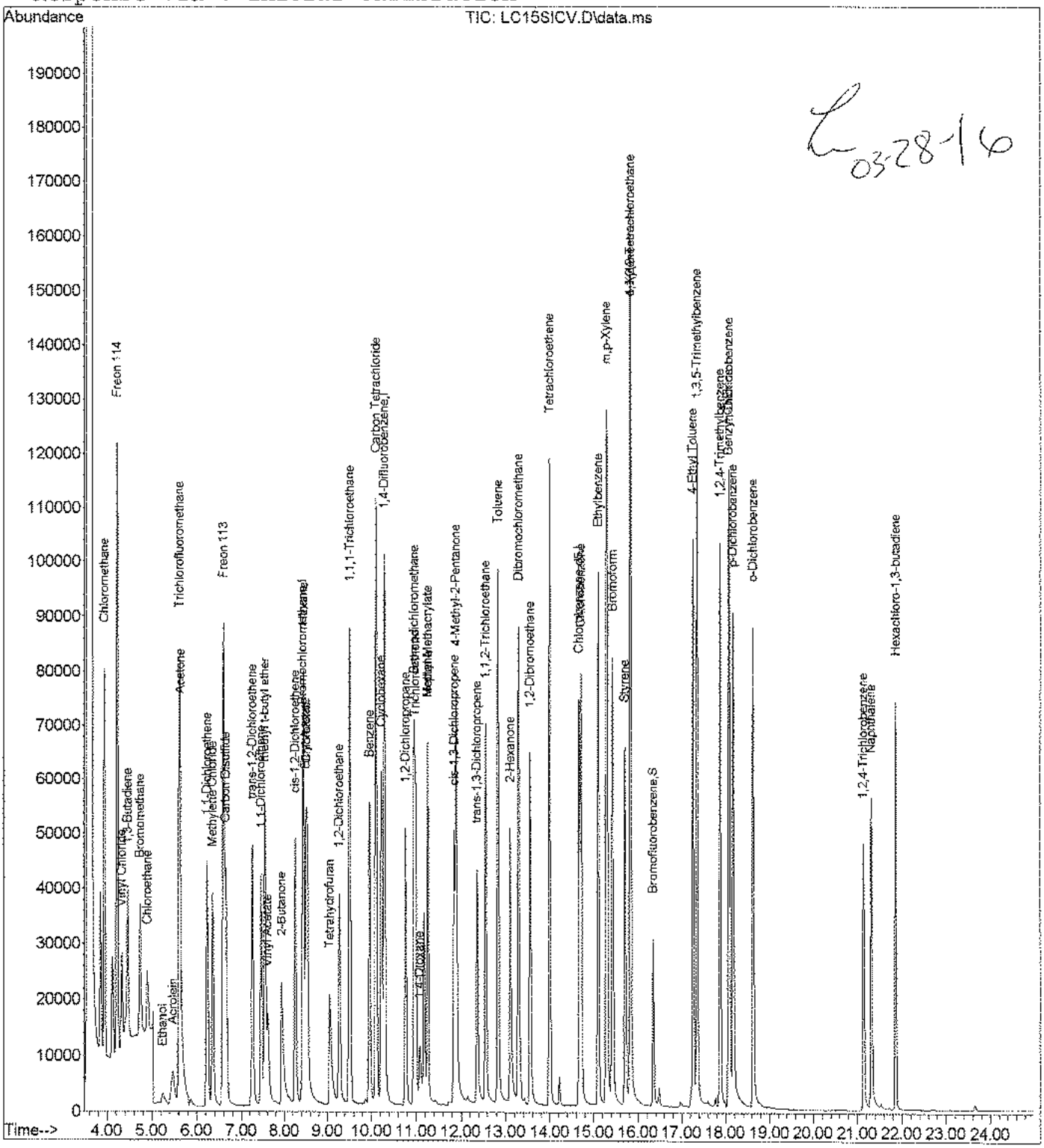
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	22023	1000.0000	ppt		89.21
25) 1,4-Difluorobenzene	10.28	114	204847	1000.0000	ppt		84.91
50) Chlorobenzene d5	14.67	117	165988	1000.0000	ppt		82.15
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	62813	1015.4214	ppt		101.54%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	0.00	85	Not Detected				
4) Chloromethane	3.94	50	11712	195.1522	ppt	#	41
5) Freon 114	4.23	135	77838	467.8671	ppt	#	79
6) Vinyl Chloride	4.33	62	30952	463.7965	ppt		99
7) 1,3-Butadiene	4.46	54	23589	462.3160	ppt	#	51
8) Bromomethane	4.74	94	32360	446.9716	ppt		98
9) Chloroethane	4.90	64	17447	498.7327	ppt	#	85
10) Acrolein	5.47	56	9736	297.2631	ppt	#	96
11) Acetone	5.65	43	69429	311.5320	ppt	#	85
12) Trichlorofluoromethane	5.62	101	121149	462.9348	ppt		97
13) Ethanol	5.24	45	7130	134.6004	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.23	61	61188	454.2243	ppt	#	78
16) Methylene Chloride	6.36	84	36086	443.5437	ppt	#	60
17) Freon 113	6.60	151	81933	457.0977	ppt	#	75
18) Carbon Disulfide	6.65	76	108888	433.3217	ppt	#	66
19) trans-1,2-Dichloroethene	7.25	96	39806	454.0600	ppt	#	80
20) 1,1-Dichloroethane	7.45	63	71768	455.6649	ppt		97
21) methyl t-butyl ether	7.54	73	83831	453.9708	ppt	#	81
22) Vinyl Acetate	7.61	86	3088	162.2129	ppt	#	1
23) 2-Butanone	7.92	43	76423	433.1939	ppt	#	67
24) cis-1,2-Dichloroethene	8.26	96	41145	452.0066	ppt	#	79
26) Ethyl Acetate	8.50	61	14193	638.7688	ppt	#	1
27) Hexane	8.44	57	52813	480.0473	ppt	#	80
28) Chloroform	8.53	83	86626	482.1543	ppt	#	17
29) Tetrahydrofuran	9.05	42	49029	481.9534	ppt	#	41
30) 1,2-Dichloroethane	9.27	62	53344	478.5399	ppt	#	89
31) 1,1,1-Trichloroethane	9.51	97	92925	463.5512	ppt	#	91
32) Benzene	9.96	78	111453	453.2523	ppt	#	89
33) Carbon Tetrachloride	10.10	117	114550	473.6308	ppt		99
34) Cyclohexane	10.23	84	43246	467.7022	ppt	#	38
35) 1,2-Dichloropropane	10.76	63	42995	472.4407	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\10MAR16L\LC15SICV.D Vial: 3
Acq Time : 03/10/2016 23:23 Operator: LMR
Sample : ICV 0.5 PPB Inst : 5975-L
Misc : 31149 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 11 10:04:39 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Fri Mar 11 09:03:33 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	92086	484.4121	ppt		98
37)	1,4-Dioxane	11.08	88	21720	390.7048	ppt	#	77
38)	Trichloroethene	10.99	130	64608	484.4655	ppt	#	41
39)	Methyl Methacrylate	11.26	69	4291	102.1146	ppt	#	1
40)	Heptane	11.27	71	33516	496.9223	ppt	#	24
41)	cis-1,3-Dichloropropene	11.84	75	56467	450.5547	ppt		96
42)	4-Methyl-2-Pentanone	11.89	43	83364	447.3187	ppt	#	71
43)	trans-1,3-Dichloropropene	12.37	75	48894	458.8588	ppt		96
44)	1,1,2-Trichloroethane	12.56	97	51825	462.7606	ppt	#	82
45)	Toluene	12.84	91	123326	469.3530	ppt		98
46)	2-Hexanone	13.10	43	62055	396.3745	ppt	#	70
47)	Dibromochloromethane	13.29	129	110222	467.5444	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	78592	458.5427	ppt		99
49)	Tetrachloroethene	13.99	166	77929	461.6597	ppt	#	84
51)	Chlorobenzene	14.72	112	118319	462.5514	ppt	#	74
52)	Ethylbenzene	15.11	91	142519	444.3222	ppt		98
53)	m,p-Xylene	15.30	91	227360	932.9392	ppt		91
54)	Bromoform	15.43	173	72711	419.8505	ppt		98
55)	Styrene	15.70	104	77356	441.8922	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	97769	414.8785	ppt		98
57)	o-Xylene	15.82	91	119095	450.5221	ppt		97
59)	4-Ethyl Toluene	17.26	105	126851	405.4825	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	131425	427.1337	ppt		97
61)	1,2,4-Trimethylbenzene	17.88	105	110825	402.3028	ppt		98
62)	Benzyl Chloride	18.06	91	78808	331.2000	ppt		100
63)	m-Dichlorobenzene	18.08	146	99437	404.9153	ppt		96
64)	p-Dichlorobenzene	18.17	146	99671	396.7742	ppt		96
65)	o-Dichlorobenzene	18.63	146	96880	392.5117	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	43460	377.0759	ppt	#	97
67)	Naphthalene	21.31	128	103179	389.4472	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	62730	450.9455	ppt		99

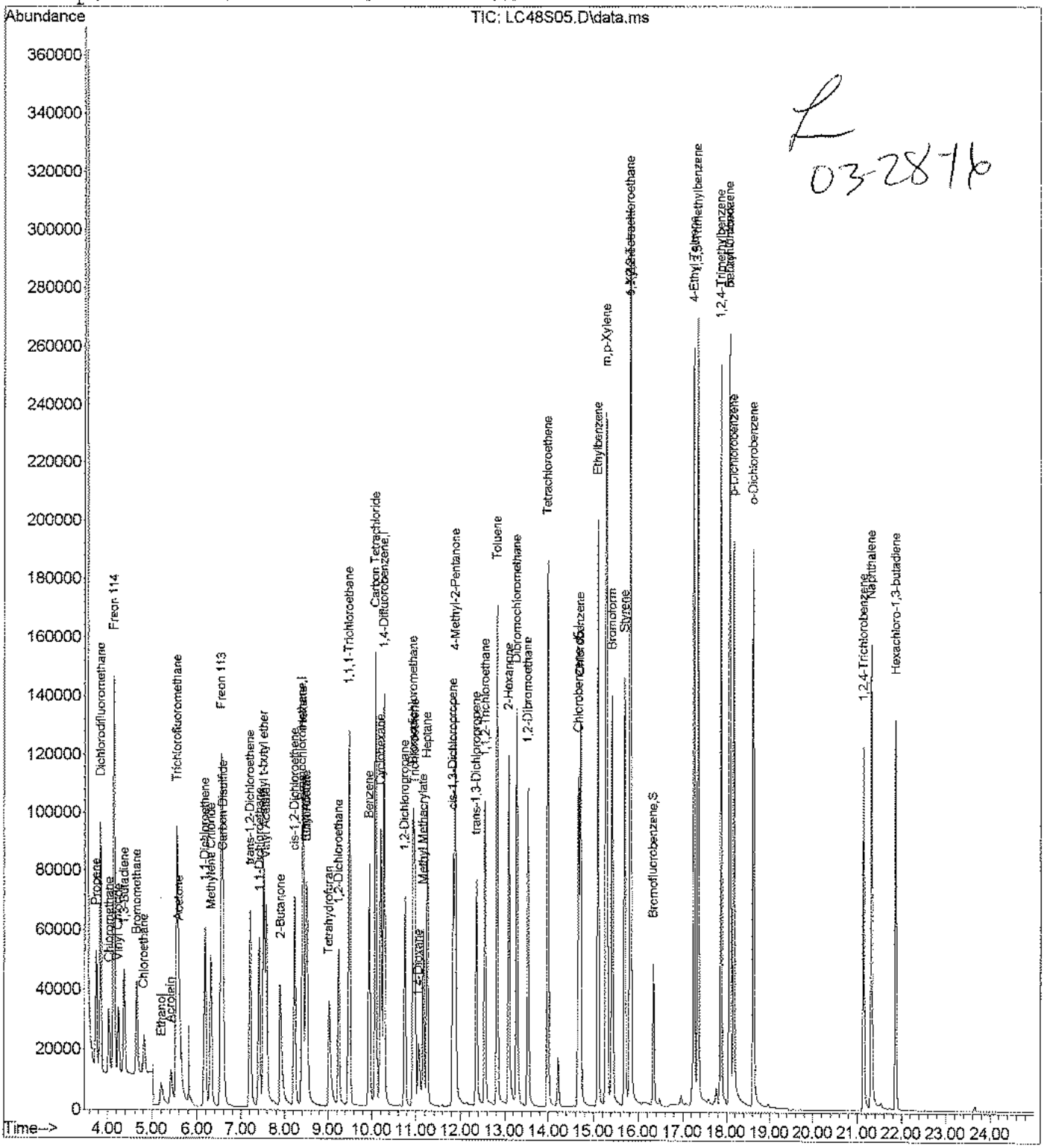
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC48S05.D Vial: 2
Acq Time : 03/15/2016 10:32 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:12 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



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03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC48S05.D Vial: 2
Acq Time : 03/15/2016 10:32 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:12 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	28462	1000.0000	ppt		115.29
25) 1,4-Difluorobenzene	10.27	114	287285	1000.0000	ppt		119.08
50) Chlorobenzene d5	14.67	117	242607	1000.0000	ppt		120.07
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	99434	1099.7780	ppt		109.98%
Target Compounds							Qvalue
2) Propene	3.74	41	38455	288.3713	ppt		96
3) Dichlorodifluoromethane	3.84	85	128510	492.9675	ppt		100
4) Chloromethane	4.02	50	42379	546.3917	ppt		99
5) Freon 114	4.14	135	113882	529.6598	ppt	#	84
6) Vinyl Chloride	4.24	62	43306	502.1089	ppt		99
7) 1,3-Butadiene	4.37	54	32256	489.1600	ppt	#	58
8) Bromomethane	4.65	94	45995	491.5788	ppt		99
9) Chloroethane	4.82	64	21682	479.5761	ppt	#	89
10) Acrolein	5.43	56	21910	517.6234	ppt	#	98
11) Acetone	5.60	43	120974	420.0150	ppt	#	84
12) Trichlorofluoromethane	5.55	101	166369	491.9075	ppt		98
13) Ethanol	5.20	45	29601	432.3887	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.17	61	89816	515.9040	ppt	#	80
16) Methylene Chloride	6.31	84	51160	486.5632	ppt	#	65
17) Freon 113	6.55	151	122758	529.9209	ppt	#	83
18) Carbon Disulfide	6.59	76	152313	469.0061	ppt	#	64
19) trans-1,2-Dichloroethene	7.20	96	59686	526.8031	ppt	#	81
20) 1,1-Dichloroethane	7.41	63	101182	497.0831	ppt		97
21) methyl t-butyl ether	7.52	73	141799	594.1656	ppt	#	84
22) Vinyl Acetate	7.58	86	14781	600.7902	ppt	#	1
23) 2-Butanone	7.89	43	119975	526.2112	ppt	#	70
24) cis-1,2-Dichloroethene	8.23	96	62852	534.2664	ppt	#	80
26) Ethyl Acetate	8.48	61	16424	527.0661	ppt	#	1
27) Hexane	8.42	57	85354	553.2020	ppt	#	83
28) Chloroform	8.51	83	121516	482.2674	ppt	#	17
29) Tetrahydrofuran	9.02	42	80197	562.1171	ppt	#	42
30) 1,2-Dichloroethane	9.25	62	76599	489.9732	ppt	#	93
31) 1,1,1-Trichloroethane	9.48	97	139998	497.9705	ppt	#	93
32) Benzene	9.94	78	168027	487.2412	ppt	#	89
33) Carbon Tetrachloride	10.08	117	164827	485.9480	ppt		100
34) Cyclohexane	10.21	84	74288	572.8736	ppt	#	49
35) 1,2-Dichloropropane	10.75	63	63110	494.4749	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC48S05.D Vial: 2
Acq Time : 03/15/2016 10:32 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:12 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	129965	487.4886	ppt		98
37)	1,4-Dioxane	11.06	88	41140	527.6791	ppt	#	79
38)	Trichloroethene	10.97	130	101426	542.3037	ppt	#	44
39)	Methyl Methacrylate	11.17	69	51768	878.4301	ppt	#	46
40)	Heptane	11.25	71	55461	586.3280	ppt	#	26
41)	cis-1,3-Dichloropropene	11.83	75	94249	536.2240	ppt		98
42)	4-Methyl-2-Pentanone	11.88	43	146101	558.9955	ppt	#	74
43)	trans-1,3-Dichloropropene	12.36	75	85067	569.2476	ppt		96
44)	1,1,2-Trichloroethane	12.55	97	77844	495.6314	ppt	#	82
45)	Toluene	12.83	91	211810	574.7884	ppt		99
46)	2-Hexanone	13.09	43	133739	609.1211	ppt	#	73
47)	Dibromochloromethane	13.28	129	168454	509.5098	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	127144	528.9492	ppt		99
49)	Tetrachloroethene	13.99	166	126435	534.0807	ppt	#	85
51)	Chlorobenzene	14.72	112	202712	542.1986	ppt	#	74
52)	Ethylbenzene	15.10	91	283448	604.6053	ppt		98
53)	m,p-Xylene	15.29	91	432225	1213.4518	ppt		88
54)	Bromoform	15.42	173	121681	480.7183	ppt		95
55)	Styrene	15.70	104	165565	647.0892	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	166462	483.2905	ppt		98
57)	o-Xylene	15.81	91	230902	597.6180	ppt		99
59)	4-Ethyl Toluene	17.26	105	310134	678.2674	ppt		99
60)	1,3,5-Trimethylbenzene	17.35	105	288369	641.2211	ppt		99
61)	1,2,4-Trimethylbenzene	17.87	105	256856	637.9380	ppt		99
62)	Benzyl Chloride	18.06	91	217214	624.5701	ppt		99
63)	m-Dichlorobenzene	18.08	146	206053	574.0747	ppt		97
64)	p-Dichlorobenzene	18.17	146	217227	591.6457	ppt		97
65)	o-Dichlorobenzene	18.63	146	207780	575.9644	ppt		98
66)	1,2,4-Trichlorobenzene	21.14	180	104963	623.0870	ppt	#	97
67)	Naphthalene	21.31	128	269157	695.0824	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	110925	545.5713	ppt		99

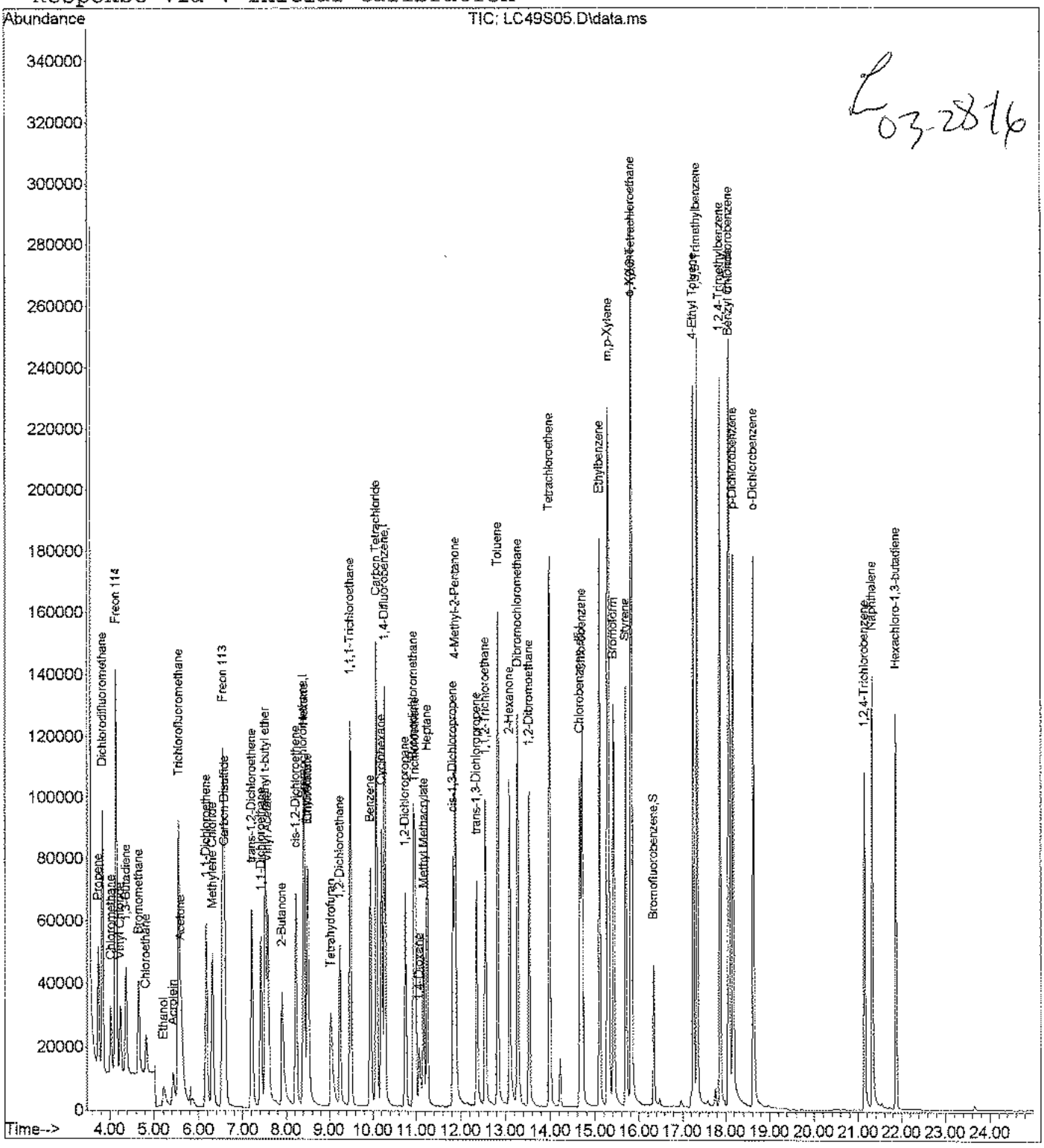
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC49S05.D Vial: 2
Acq Time : 03/15/2016 11:20 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:33 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC49S05.D Vial: 2
Acq Time : 03/15/2016 11:20 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	27501	1000.0000	ppt		111.40
25) 1,4-Difluorobenzene	10.28	114	287849	1000.0000	ppt		119.32
50) Chlorobenzene d5	14.66	117	232360	1000.0000	ppt		115.00
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	92551	1068.7920	ppt		106.88%
Target Compounds							Qvalue
2) Propene	3.74	41	37801	293.3725	ppt		95
3) Dichlorodifluoromethane	3.84	85	126071	500.5108	ppt		99
4) Chloromethane	4.03	50	41639	555.6107	ppt		99
5) Freon 114	4.14	135	110602	532.3801	ppt	#	84
6) Vinyl Chloride	4.24	62	42614	511.3509	ppt		98
7) 1,3-Butadiene	4.37	54	31074	487.7020	ppt	#	58
8) Bromomethane	4.65	94	44736	494.8307	ppt		98
9) Chloroethane	4.82	64	20807	476.3044	ppt	#	89
10) Acrolein	5.43	56	20874	510.3805	ppt	#	99
11) Acetone	5.60	43	115470	414.9147	ppt	#	86
12) Trichlorofluoromethane	5.55	101	162861	498.3621	ppt		97
13) Ethanol	5.21	45	27648	417.9733	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.17	61	87784	521.8521	ppt	#	79
16) Methylene Chloride	6.31	84	49946	491.6164	ppt	#	65
17) Freon 113	6.55	151	118773	530.6350	ppt	#	83
18) Carbon Disulfide	6.59	76	148682	473.8238	ppt	#	65
19) trans-1,2-Dichloroethene	7.20	96	57469	524.9602	ppt	#	81
20) 1,1-Dichloroethane	7.41	63	98885	502.7743	ppt		97
21) methyl t-butyl ether	7.52	73	135743	588.6657	ppt	#	83
22) Vinyl Acetate	7.58	86	14013	589.4773	ppt	#	1
23) 2-Butanone	7.90	43	114573	520.0781	ppt	#	70
24) cis-1,2-Dichloroethene	8.23	96	60423	531.5670	ppt	#	80
26) Ethyl Acetate	8.49	61	16285	521.5815	ppt	#	1
27) Hexane	8.42	57	82153	531.4122	ppt	#	82
28) Chloroform	8.51	83	118207	468.2155	ppt	#	17
29) Tetrahydrofuran	9.04	42	75670	529.3472	ppt	#	43
30) 1,2-Dichloroethane	9.25	62	73921	471.9167	ppt	#	92
31) 1,1,1-Trichloroethane	9.48	97	136431	484.3319	ppt	#	93
32) Benzene	9.94	78	161301	466.8208	ppt	#	89
33) Carbon Tetrachloride	10.08	117	161182	474.2706	ppt		100
34) Cyclohexane	10.21	84	69637	535.9551	ppt	#	47
35) 1,2-Dichloropropane	10.75	63	60672	474.4414	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAR16L\15MAR16L\LC49S05.D Vial: 2
Acq Time : 03/15/2016 11:20 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31070 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:33 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	125887	471.2671	ppt		98
37)	1,4-Dioxane	11.06	88	37842	484.4265	ppt	#	80
38)	Trichloroethene	10.97	130	96820	516.6620	ppt	#	43
39)	Methyl Methacrylate	11.17	69	48430	820.1788	ppt	#	47
40)	Heptane	11.25	71	52980	559.0017	ppt	#	26
41)	cis-1,3-Dichloropropene	11.83	75	89171	506.3390	ppt		97
42)	4-Methyl-2-Pentanone	11.88	43	136881	522.6928	ppt	#	74
43)	trans-1,3-Dichloropropene	12.36	75	80411	537.0365	ppt		96
44)	1,1,2-Trichloroethane	12.55	97	74879	475.8192	ppt	#	82
45)	Toluene	12.83	91	199380	539.9970	ppt		99
46)	2-Hexanone	13.09	43	121036	550.1845	ppt	#	74
47)	Dibromochloromethane	13.28	129	162662	491.0272	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	120930	502.1117	ppt		99
49)	Tetrachloroethene	13.98	166	120817	509.3494	ppt	#	85
51)	Chlorobenzene	14.72	112	192003	536.2026	ppt	#	74
52)	Ethylbenzene	15.10	91	264308	588.6415	ppt		98
53)	m,p-Xylene	15.29	91	407147	1193.4545	ppt		89
54)	Bromoform	15.42	173	117650	485.2905	ppt		97
55)	Styrene	15.69	104	153147	624.9512	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	160129	485.4059	ppt		98
57)	o-Xylene	15.81	91	219627	593.5040	ppt		98
59)	4-Ethyl Toluene	17.26	105	283895	648.2631	ppt		99
60)	1,3,5-Trimethylbenzene	17.35	105	273433	634.8222	ppt		97
61)	1,2,4-Trimethylbenzene	17.87	105	237768	616.5724	ppt		100
62)	Benzyl Chloride	18.06	91	202354	607.5011	ppt		100
63)	m-Dichlorobenzene	18.08	146	194842	566.7794	ppt		97
64)	p-Dichlorobenzene	18.17	146	205467	584.2947	ppt		97
65)	o-Dichlorobenzene	18.63	146	193660	560.4976	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	97601	604.9350	ppt	#	97
67)	Naphthalene	21.31	128	245169	661.0558	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	104953	538.9630	ppt		99

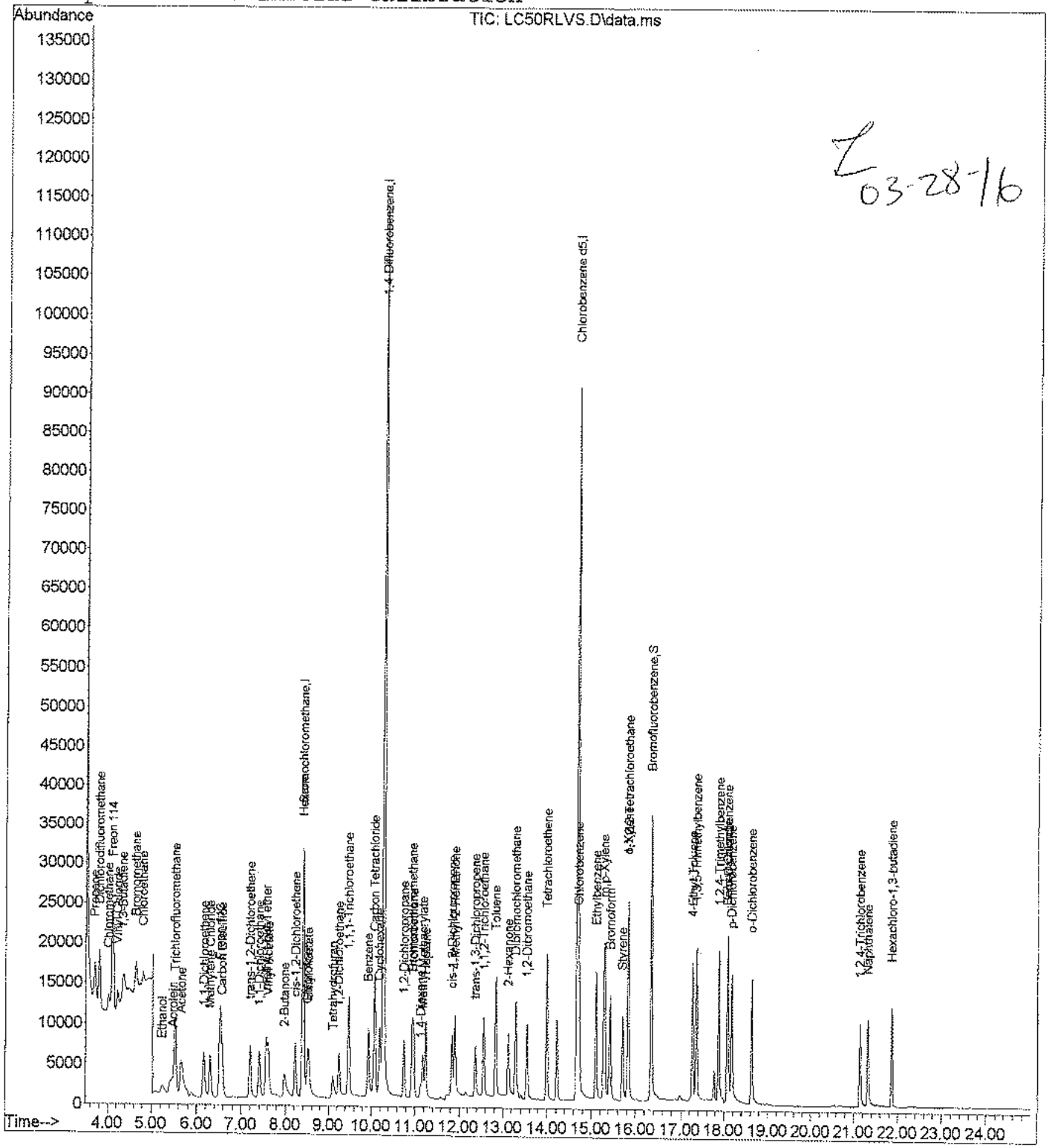
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC50RLVS.D Vial: 2
Acq Time : 03/15/2016 12:07 Operator: LMR
Sample : RLVS 0.05 PPB Inst : 5975-L
Misc : 31070 (20 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:44 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



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Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC50RLVS.D Vial: 2
Acq Time : 03/15/2016 12:07 Operator: LMR
Sample : RLVS 0.05 PPB Inst : 5975-L
Misc : 31070 (20 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:44 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	23903	1000.0000	ppt		96.82
25) 1,4-Difluorobenzene	10.28	114	252610	1000.0000	ppt		104.71
50) Chlorobenzene d5	14.67	117	205078	1000.0000	ppt		101.49
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	77434	1013.1788	ppt		101.32%
Target Compounds							Qvalue
2) Propene	3.69	41	7117	63.5491	ppt		94
3) Dichlorodifluoromethane	3.80	85	13524	61.7731	ppt		99
4) Chloromethane	4.01	50	4604	70.6808	ppt		99
5) Freon 114	4.11	135	11662	64.5845	ppt	#	83
6) Vinyl Chloride	4.22	62	4533	62.5819	ppt		100
7) 1,3-Butadiene	4.35	54	3282	59.2641	ppt	#	27
8) Bromomethane	4.64	94	4727	60.1563	ppt		99
9) Chloroethane	4.80	64	2260	59.5223	ppt	#	90
10) Acrolein	5.47	56	2082	58.5687	ppt	#	94
11) Acetone	5.66	43	19920	82.3522	ppt		89
12) Trichlorofluoromethane	5.52	101	17386	61.2102	ppt		98
13) Ethanol	5.25	45	3480	60.5285	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.16	61	9051	61.9049	ppt	#	78
16) Methylene Chloride	6.31	84	5454	61.7642	ppt	#	65
17) Freon 113	6.53	151	12311	63.2802	ppt	#	81
18) Carbon Disulfide	6.57	76	16810	61.6343	ppt	#	64
19) trans-1,2-Dichloroethene	7.20	96	5957	62.6061	ppt	#	79
20) 1,1-Dichloroethane	7.40	63	10471	61.2529	ppt		96
21) methyl t-butyl ether	7.56	73	13033	65.0267	ppt	#	84
22) Vinyl Acetate	7.60	86	1279	61.9017	ppt	#	1
23) 2-Butanone	7.97	43	11708	61.1456	ppt	#	69
24) cis-1,2-Dichloroethene	8.22	96	6119	61.9344	ppt	#	81
26) Ethyl Acetate	8.53	61	1408	51.3868	ppt	#	1
27) Hexane	8.41	57	7990	58.8937	ppt	#	84
28) Chloroform	8.50	83	12205	55.0877	ppt	#	17
29) Tetrahydrofuran	9.10	42	7404	59.0198	ppt	#	41
30) 1,2-Dichloroethane	9.25	62	8149	59.2811	ppt	#	82
31) 1,1,1-Trichloroethane	9.47	97	14072	56.9246	ppt	#	92
32) Benzene	9.93	78	18592	61.3131	ppt	#	89
33) Carbon Tetrachloride	10.07	117	16796	56.3157	ppt		99
34) Cyclohexane	10.20	84	6681	58.5928	ppt	#	46
35) 1,2-Dichloropropane	10.76	63	6193	55.1835	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC50RLVS.D Vial: 2
Acq Time : 03/15/2016 12:07 Operator: LMR
Sample : RLVS 0.05 PPB Inst : 5975-L
Misc : 31070 (20 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:44 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.94	83	12796	54.5852	ppt		98
37)	1,4-Dioxane	11.14	88	4282	62.4618	ppt	#	85
38)	Trichloroethene	10.97	130	9696	58.9587	ppt	#	43
39)	Methyl Methacrylate	11.18	69	5001	96.5084	ppt	#	56
40)	Heptane	11.25	71	4806	57.7829	ppt	#	24
41)	cis-1,3-Dichloropropene	11.84	75	9061	58.6284	ppt	#	66
42)	4-Methyl-2-Pentanone	11.90	43	12042	52.3982	ppt	#	73
43)	trans-1,3-Dichloropropene	12.37	75	7434	56.5751	ppt		96
44)	1,1,2-Trichloroethane	12.55	97	7533	54.5461	ppt	#	82
45)	Toluene	12.83	91	19499	60.1778	ppt		98
46)	2-Hexanone	13.11	43	10878	56.3452	ppt	#	68
47)	Dibromochloromethane	13.29	129	15937	54.8201	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	11668	55.2048	ppt		98
49)	Tetrachloroethene	13.99	166	12213	58.6711	ppt	#	85
51)	Chlorobenzene	14.72	112	19475	61.6227	ppt	#	67
52)	Ethylbenzene	15.11	91	24590	62.0499	ppt		98
53)	m,p-Xylene	15.30	91	35868	119.1253	ppt		95
54)	Bromoform	15.43	173	11750	54.9149	ppt		93
55)	Styrene	15.70	104	12743	58.9185	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	15083	51.8042	ppt	#	96
57)	o-Xylene	15.82	91	19222	58.8544	ppt		97
59)	4-Ethyl Toluene	17.26	105	22121	57.2322	ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	20745	54.5704	ppt		97
61)	1,2,4-Trimethylbenzene	17.88	105	20788	61.0781	ppt		99
62)	Benzyl Chloride	18.06	91	17008	57.8537	ppt		94
63)	m-Dichlorobenzene	18.08	146	18380	60.5786	ppt		95
64)	p-Dichlorobenzene	18.17	146	20152	64.9307	ppt		94
65)	o-Dichlorobenzene	18.63	146	17723	58.1184	ppt		97
66)	1,2,4-Trichlorobenzene	21.14	180	9548	67.0516	ppt	#	97
67)	Naphthalene	21.32	128	20274	61.9376	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	10348	60.2092	ppt		99

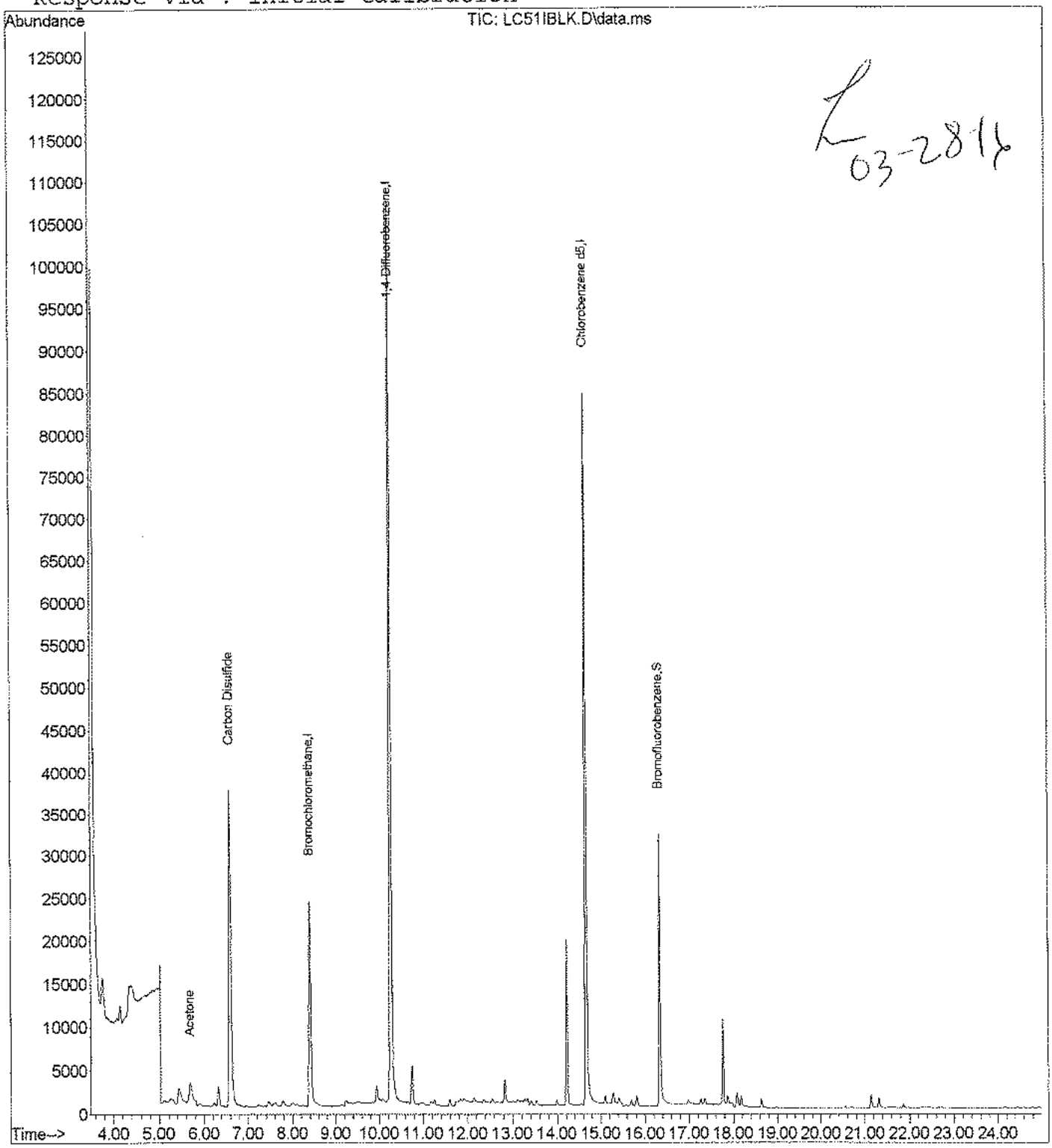
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC51IBLK.D Vial: 1
Acq Time : 03/15/2016 12:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:54 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



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Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC51IBLK.D Vial: 1
Acq Time : 03/15/2016 12:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:54 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	8.39	130	23071	1000.0000	ppt	93.45
25) 1,4-Difluorobenzene	10.28	114	233032	1000.0000	ppt	96.59
50) Chlorobenzene d5	14.66	117	189921	1000.0000	ppt	93.99
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	69520	982.2233	ppt	98.22%
Target Compounds						Qvalue
2) Propene	0.00	41		Not Detected		
3) Dichlorodifluoromethane	0.00	85		Not Detected		
4) Chloromethane	0.00	50		Not Detected		
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.68	43	13243	56.7229	ppt #	82
12) Trichlorofluoromethane	0.00	101		Not Detected		
13) Ethanol	0.00	45		Not Detected		
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	0.00	84		Not Detected		
17) Freon 113	0.00	151		Not Detected		
18) Carbon Disulfide	6.59	76	118382	449.7034	ppt #	61
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	0.00	57		Not Detected		
28) Chloroform	0.00	83		Not Detected		
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	0.00	78		Not Detected		
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	0.00	84		Not Detected		
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC51IBLK.D Vial: 1
Acq Time : 03/15/2016 12:55 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:52:54 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

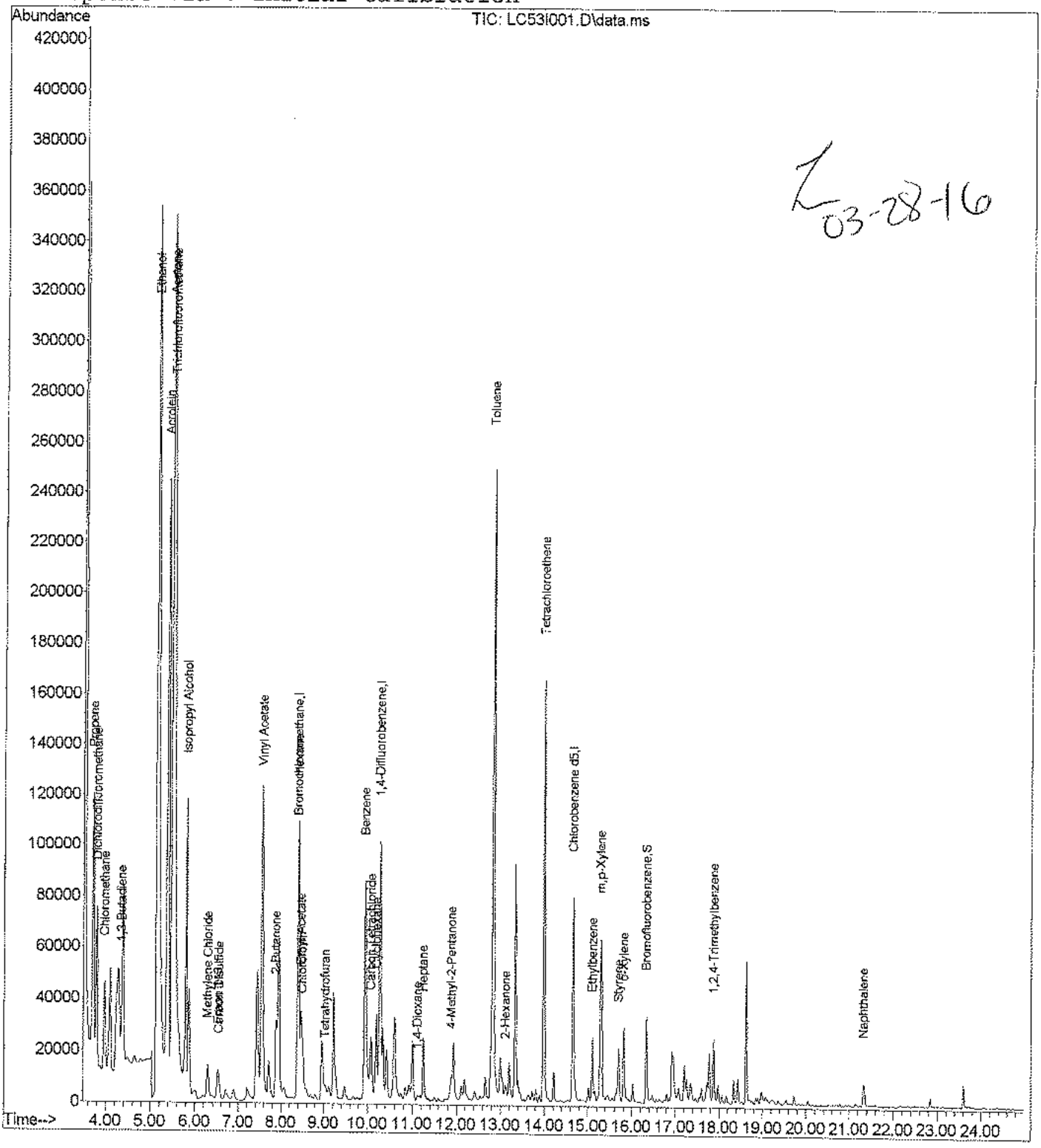
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC53I001.D Vial: 4
Acq Time : 03/15/2016 14:54 Operator: LMR
Sample : 1607459001 Inst : 5975-L
Misc : A-0037H-030816-IA-LAU Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:15 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC53I001.D Vial: 4
Acq Time : 03/15/2016 14:54 Operator: LMR
Sample : 1607459001 Inst : 5975-L
Misc : A-0037H-030816-IA-LAU Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:15 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.38	130	21966	1000.0000 ppt	88.98
25) 1,4-Difluorobenzene	10.27	114	221399	1000.0000 ppt	91.77
50) Chlorobenzene d5	14.66	117	180151	1000.0000 ppt	89.16
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	69210	1030.8741 ppt	103.09%
Target Compounds					Qvalue
2) Propene	3.71	41	69063	671.0564 ppt #	56
3) Dichlorodifluoromethane	3.79	85	93043	462.4657 ppt	100
4) Chloromethane	3.97	50	63340	1058.1467 ppt	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.34	54	2554	50.1852 ppt #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.38	56	86181	2638.1378 ppt #	68
11) Acetone	5.47	43	1288475	5796.4647 ppt #	85
12) Trichlorofluoromethane	5.52	101	53636	205.4858 ppt	98
13) Ethanol	5.13	45	1254780	23749.2530 ppt #	39
14) Isopropyl Alcohol	5.81	45	148418	351.9753 ppt #	79
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.29	84	10866	133.9038 ppt #	61
17) Freon 113	6.53	151	11688	65.3756 ppt #	79
18) Carbon Disulfide	6.56	76	11568	46.1545 ppt #	68
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.56	86	12902	679.5017 ppt #	1
23) 2-Butanone	7.87	43	119649	679.9749 ppt #	64
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.46	61	10690	445.1447 ppt #	1
27) Hexane	8.40	57	84196	708.0903 ppt #	81
28) Chloroform	8.50	83	21412	110.2679 ppt #	17
29) Tetrahydrofuran	9.03	42	8129	73.9338 ppt #	37
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.93	78	89217	335.6989 ppt #	88
33) Carbon Tetrachloride	10.07	117	22432	85.8157 ppt	100
34) Cyclohexane	10.20	84	24815	248.3086 ppt #	35
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC53I001.D Vial: 4
Acq Time : 03/15/2016 14:54 Operator: LMR
Sample : 1607459001 Inst : 5975-L
Misc : A-0037H-030816-IA-LAU Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:15 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

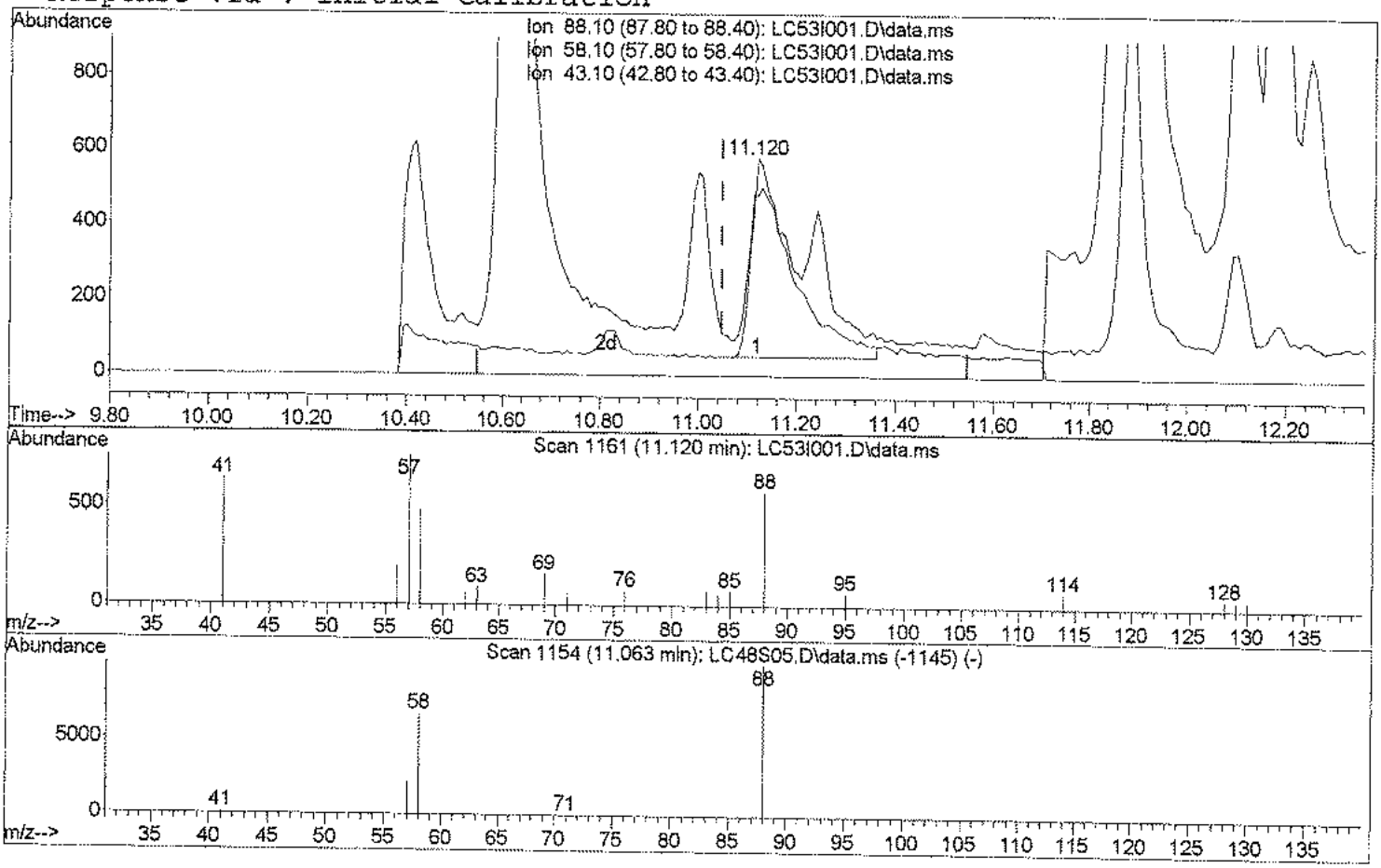
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	11.12	88	3048	50.7292 ppt #	76
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.24	71	12915	177.1677 ppt #	26
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.89	43	15835	78.6159 ppt #	56
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	312530	1100.5013 ppt	98
46)	2-Hexanone	13.10	43	7740	45.7429 ppt #	60
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.98	166	108038	592.1795 ppt #	83
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.10	91	36025	103.4830 ppt	98
53)	m,p-Xylene	15.28	91	100073	378.3522 ppt	100
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.70	104	21795	114.7147 ppt	98
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	31541	109.9355 ppt	99
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	25306	84.6406 ppt	99
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	21.32	128	13754	47.8329 ppt #	95
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC53I001.D
Acq On : 03/15/2016 14:54
Operator : LMR
Sample : 1607459001
Inst : 5975-L
Misc : A-0037H-030816-IA-LAU
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 17 09:53:15 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC53I001.D\data.ms

(37) 1,4-Dioxane

11.120min (+ 0.073) 50.73 ppt

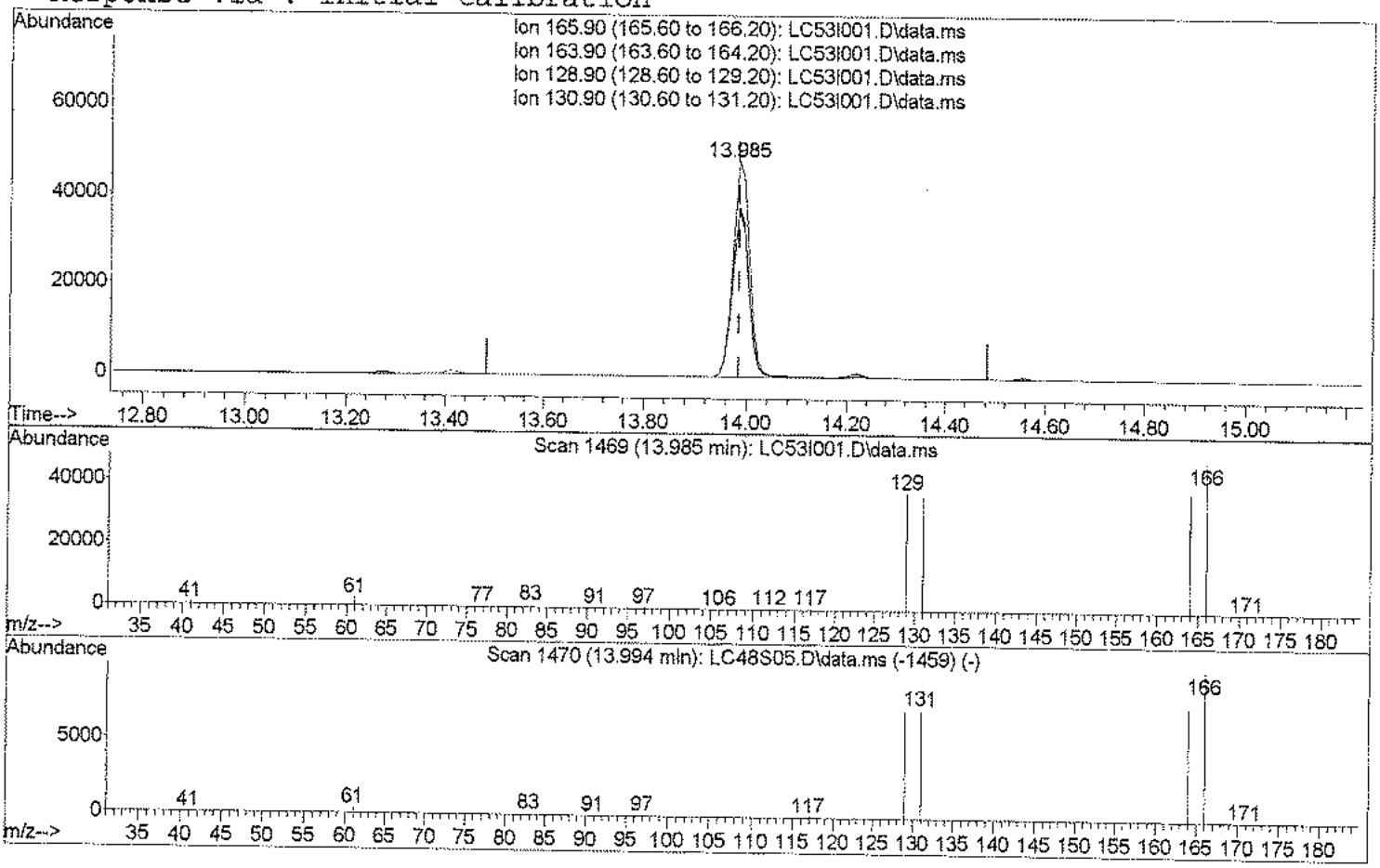
response 3048

Ion	Exp%	Act%
88.10	100.00	100.00
58.10	59.50	69.85
43.10	23.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC53I001.D
Acq On : 03/15/2016 14:54
Operator : LMR
Sample : 1607459001
Inst : 5975-L
Misc : A-0037H-030816-IA-LAU
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 17 09:53:15 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC53I001.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 592.18 ppt

response 108038

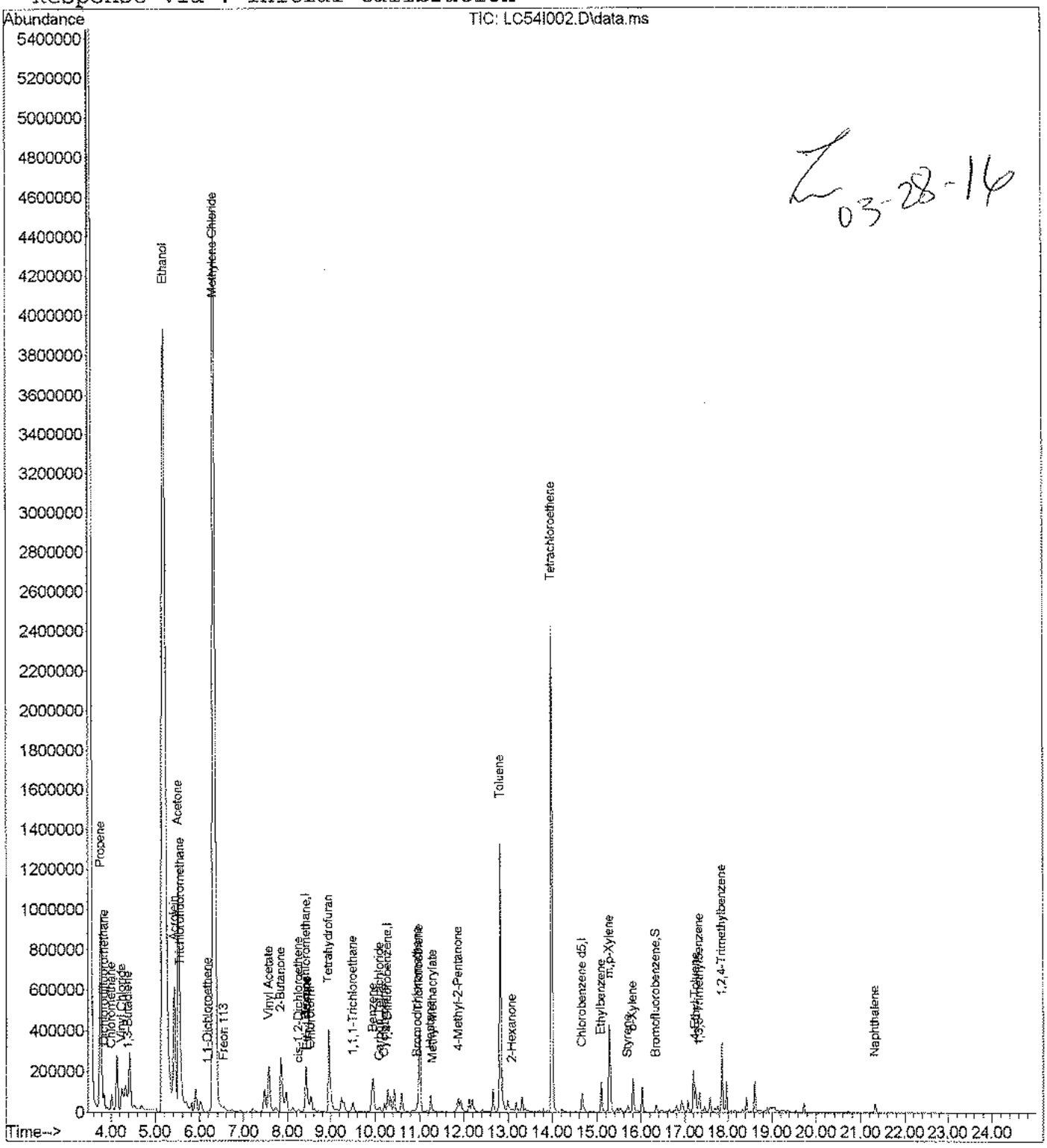
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.40
128.90	57.40	76.75#
130.90	56.90	75.85#

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC54I002.D Vial: 5
Acq Time : 03/15/2016 15:44 Operator: LMR
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-030816-IA-KIT Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:46 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC54I002.D Vial: 5
Acq Time : 03/15/2016 15:44 Operator: LMR
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-030816-IA-KIT Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:46 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.42	130	22991	1000.0000 ppt	93.13
25) 1,4-Difluorobenzene	10.28	114	222420	1000.0000 ppt	92.20
50) Chlorobenzene d5	14.67	117	181691	1000.0000 ppt	89.92
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	75644	1117.1578 ppt	111.72%
Target Compounds					Qvalue
2) Propene	3.77	41	718942	6674.2211 ppt #	57
3) Dichlorodifluoromethane	3.84	85	122602	582.2191 ppt	99
4) Chloromethane	4.01	50	128851	2056.5948 ppt	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	4.24	62	2928	42.0270 ppt	97
7) 1,3-Butadiene	4.37	54	43494	816.5398 ppt #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.42	56	234424	6856.1630 ppt #	69
11) Acetone	5.51	43	2993541	12866.6513 ppt #	84
12) Trichlorofluoromethane	5.56	101	104861	383.8244 ppt	97
13) Ethanol	5.20	45	18353359	331887.6134 ppt #	39
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	6.18	61	8801	62.5828 ppt #	63
16) Methylene Chloride	6.33	84	6169316	72636.2289 ppt #	62
17) Freon 113	6.56	151	13809	73.7957 ppt #	78
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.59	86	33494	1685.3636 ppt #	1
23) 2-Butanone	7.85	43	716352	3889.5860 ppt #	68
24) cis-1,2-Dichloroethene	8.25	96	9356	98.4547 ppt #	77
26) Ethyl Acetate	8.47	61	16367	678.4133 ppt #	1
27) Hexane	8.42	57	176211	1475.1358 ppt #	79
28) Chloroform	8.54	83	190538	976.7313 ppt #	17
29) Tetrahydrofuran	8.95	42	597806	5412.1278 ppt #	45
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.50	97	46390	213.1303 ppt #	91
32) Benzene	9.95	78	236269	884.9339 ppt #	89
33) Carbon Tetrachloride	10.10	117	19227	73.2170 ppt	100
34) Cyclohexane	10.22	84	29668	295.5068 ppt #	48
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC54I002.D Vial: 5
Acq Time : 03/15/2016 15:44 Operator: LMR
Sample : 1607459002 Inst : 5975-L
Misc : A-0040H-030816-IA-KIT Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:46 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

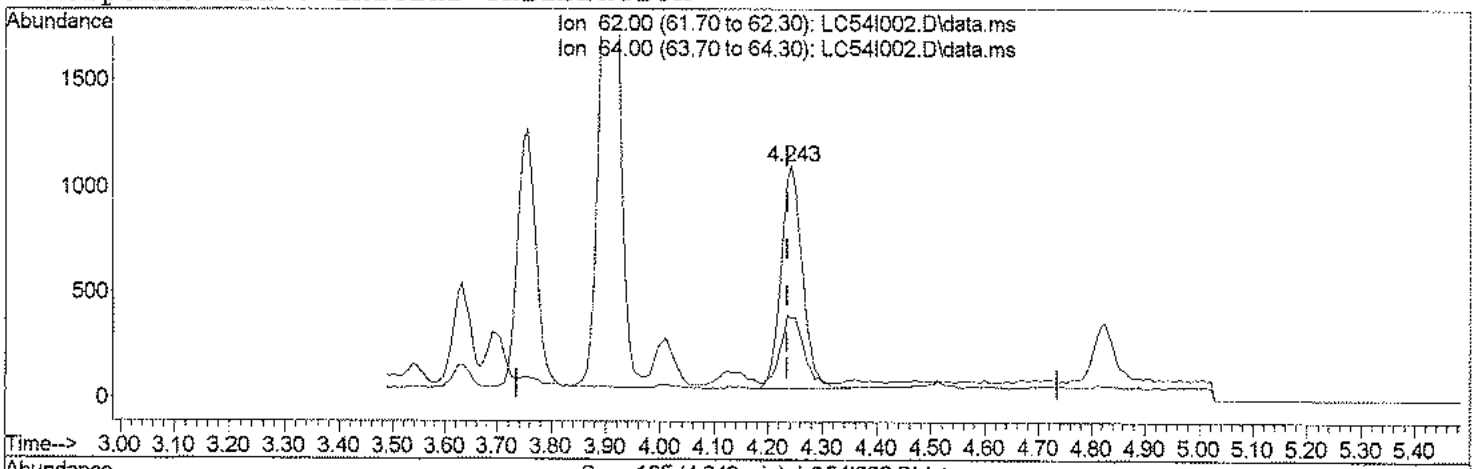
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.95	83	15135	73.3263 ppt		88
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	10.98	130	114741	792.4119 ppt	#	41
39)	Methyl Methacrylate	11.31	69	14485	317.4705 ppt	#	8
40)	Heptane	11.26	71	43214	590.0877 ppt	#	26
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	11.88	43	99154	490.0095 ppt	#	64
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.83	91	1538912	5394.0438 ppt		99
46)	2-Hexanone	13.09	43	15369	90.4129 ppt	#	60
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.99	166	1597007	8713.3564 ppt	#	84
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.10	91	216627	616.9942 ppt		98
53)	m,p-Xylene	15.28	91	638048	2391.8609 ppt		91
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	15.70	104	39680	207.0796 ppt		97
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.81	91	191340	661.2590 ppt		97
59)	4-Ethyl Toluene	17.26	105	125689	367.0445 ppt		100
60)	1,3,5-Trimethylbenzene	17.35	105	102600	304.6327 ppt		95
61)	1,2,4-Trimethylbenzene	17.87	105	318331	1055.6928 ppt		100
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	21.31	128	76811	264.8646 ppt		96
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

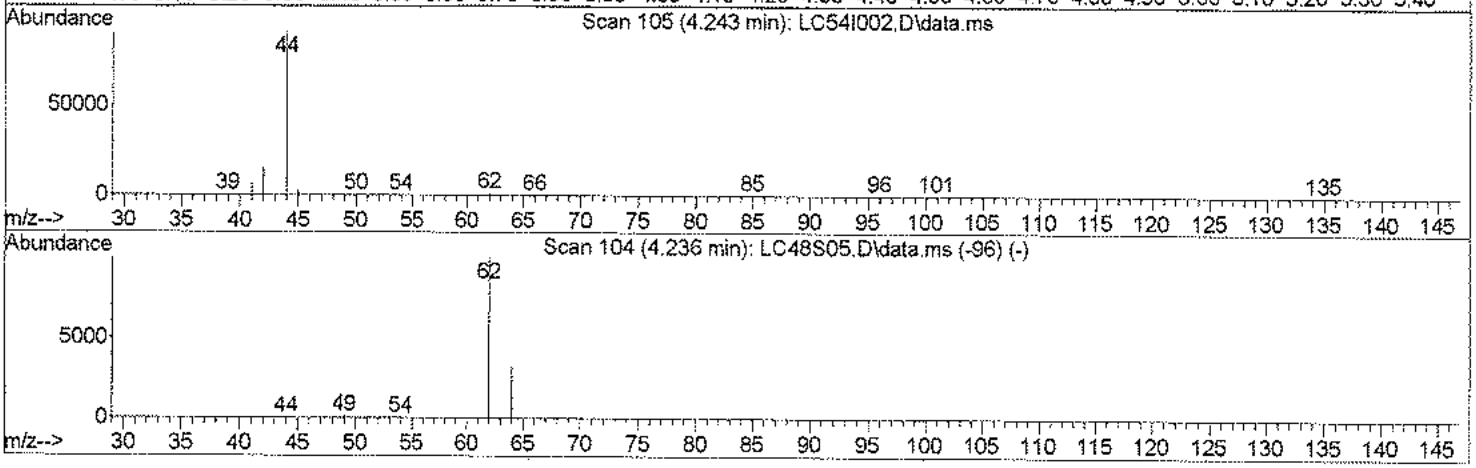
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC54I002.D
Acq On : 03/15/2016 15:44
Operator : LMR
Sample : 1607459002
Inst : 5975-L
Misc : A-0040H-030816-IA-KIT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 09:53:46 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration





TIC: LC54I002.D\data.ms

(6) Vinyl Chloride

4.243min (+ 0.007) 42.03 ppt

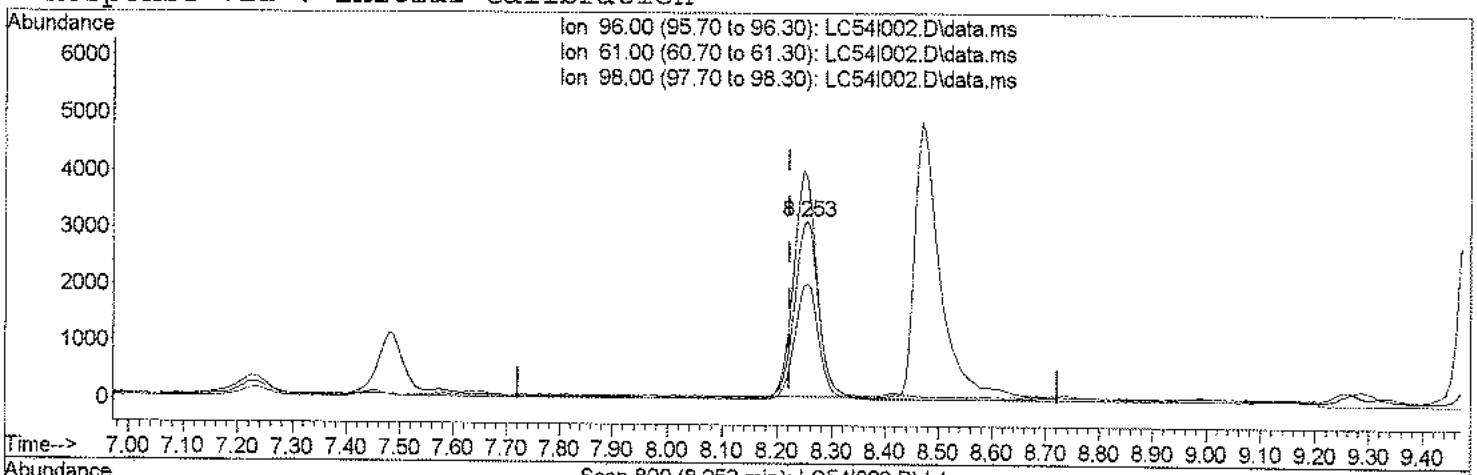
response 2928

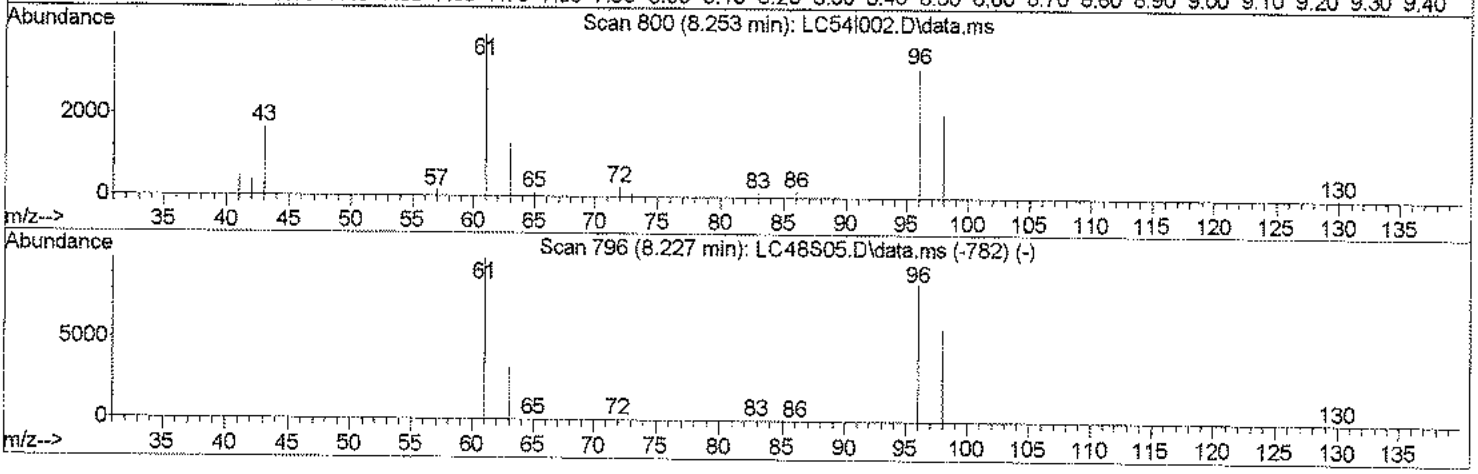
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	31.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC54I002.D
Acq On : 03/15/2016 15:44
Operator : LMR
Sample : 1607459002
Inst : 5975-L
Misc : A-0040H-030816-IA-KIT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 09:53:46 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration





TIC: LC54I002.D\data.ms

(24) cis-1,2-Dichloroethene

8.253min (+ 0.032) 98.45 ppt

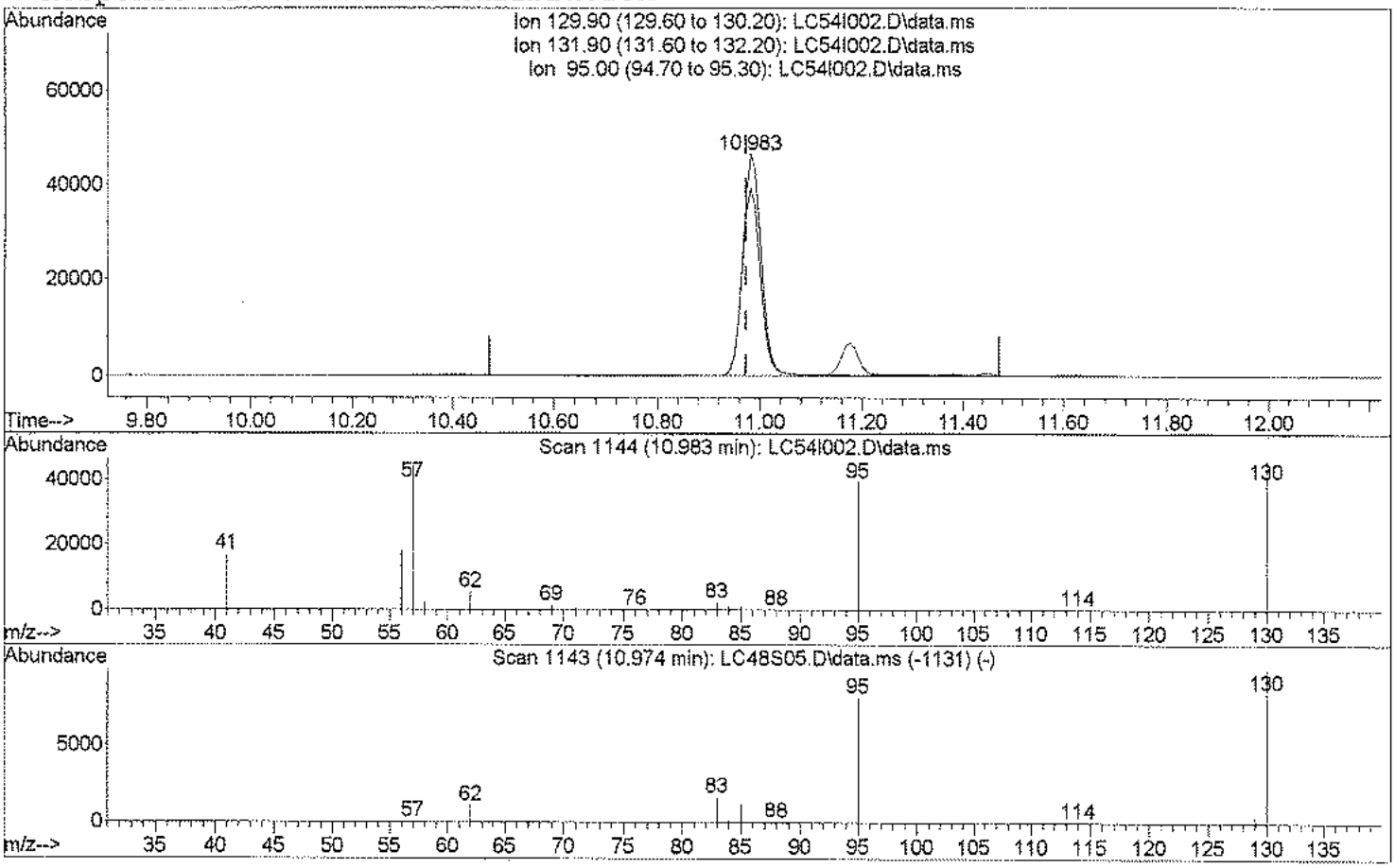
response 9356

Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	127.33#
98.00	64.90	65.85
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC54I002.D
Acq On : 03/15/2016 15:44
Operator : LMR
Sample : 1607459002
Inst : 5975-L
Misc : A-0040H-030816-IA-KIT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 09:53:46 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC54I002.D\data.ms

(38) Trichloroethene

10.983min (+ 0.008) 792.41 ppt

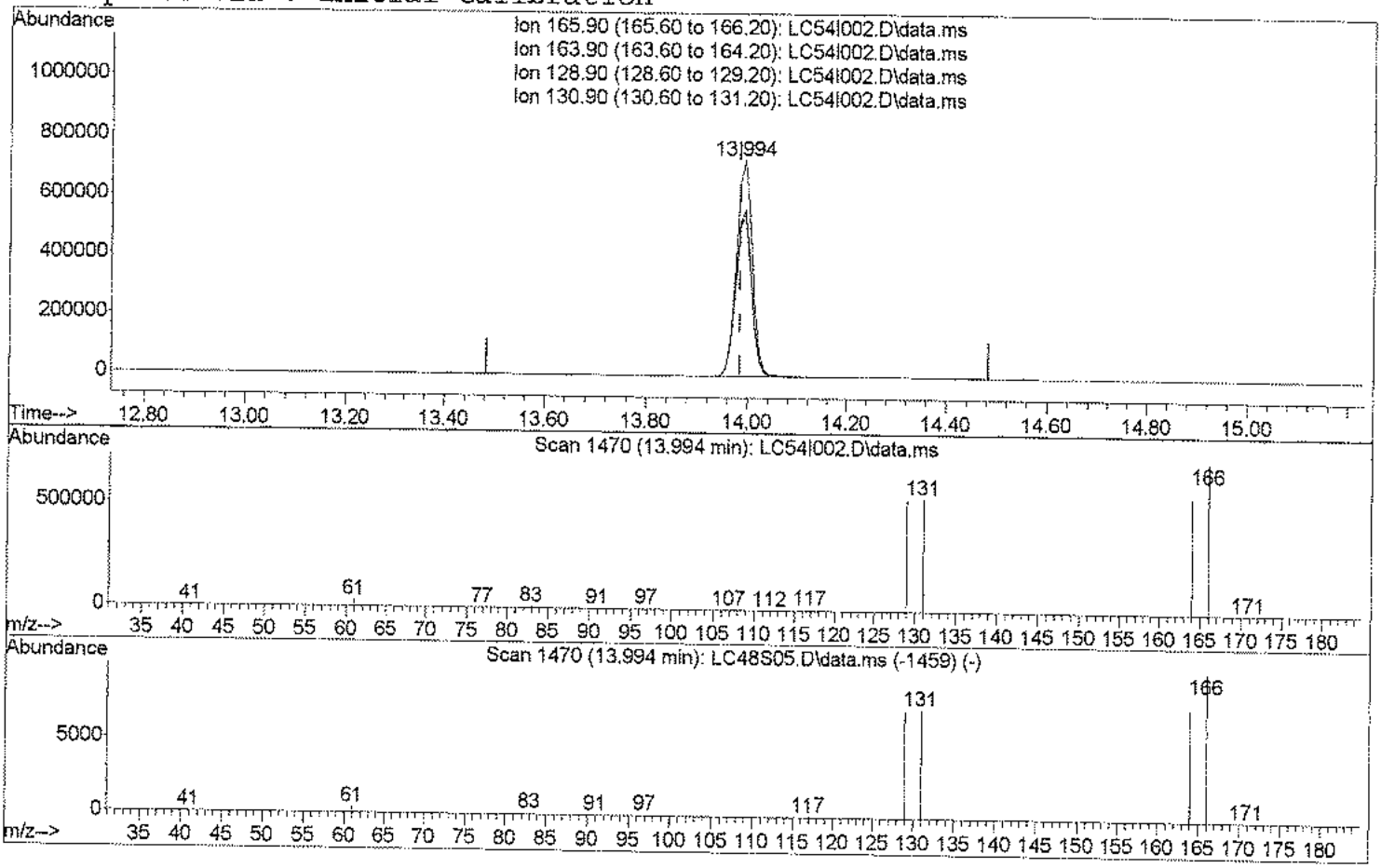
response 114741

Ion	Exp%	Act%
129.90	100.00	100.00
131.90	96.40	0.00#
95.00	77.10	84.62
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC54I002.D
Acq On : 03/15/2016 15:44
Operator : LMR
Sample : 1607459002
Inst : 5975-L
Misc : A-0040H-030816-IA-KIT
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 17 09:53:46 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC54I002.D\data.ms

(49) Tetrachloroethene

13.994min (+ 0.009) 8713.36 ppt

response 1597007

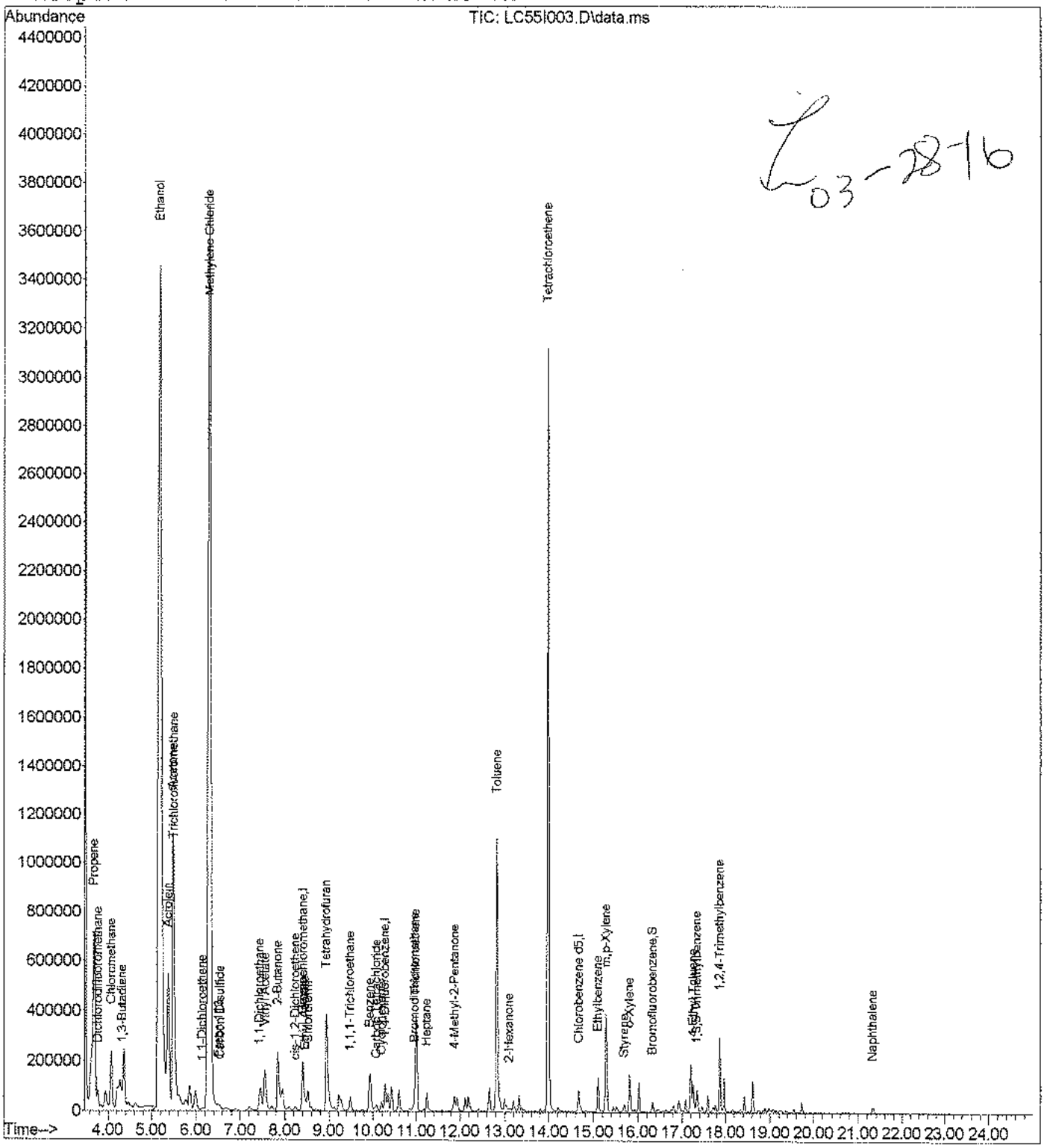
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	77.86
128.90	57.40	75.91#
130.90	56.90	75.43#

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC55I003.D Vial: 6
Acq Time : 03/15/2016 16:34 Operator: LMR
Sample : 1607459003 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:58 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration



L 03-28-16

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC55I003.D Vial: 6
Acq Time : 03/15/2016 16:34 Operator: LMR
Sample : 1607459003 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:58 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.40	130	21505	1000.0000 ppt	87.11
25) 1,4-Difluorobenzene	10.28	114	217379	1000.0000 ppt	90.11
50) Chlorobenzene d5	14.67	117	181690	1000.0000 ppt	89.92
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	74529	1100.6969 ppt	110.07%
Target Compounds					Qvalue
2) Propene	3.69	41	690116	6849.3166 ppt #	54
3) Dichlorodifluoromethane	3.77	85	111864	567.9337 ppt	99
4) Chloromethane	4.07	50	7947	135.6071 ppt #	65
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.31	54	33922	680.8444 ppt #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.37	56	206862	6468.1219 ppt #	69
11) Acetone	5.48	43	2931175	13469.1591 ppt #	84
12) Trichlorofluoromethane	5.51	101	96494	377.6046 ppt	98
13) Ethanol	5.18	45	16280481	314746.6604 ppt #	39
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	6.14	61	10726	81.5415 ppt #	66
16) Methylene Chloride	6.30	84	5543271	69775.1531 ppt #	62
17) Freon 113	6.52	151	13181	75.3070 ppt #	77
18) Carbon Disulfide	6.55	76	12385	50.4735 ppt #	69
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	7.43	63	6399	41.6068 ppt #	85
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.57	86	22158	1191.9981 ppt #	1
23) 2-Butanone	7.83	43	645087	3744.6704 ppt #	68
24) cis-1,2-Dichloroethene	8.23	96	12982	146.0516 ppt #	77
26) Ethyl Acetate	8.46	61	13850	587.3964 ppt #	1
27) Hexane	8.41	57	163158	1397.5379 ppt #	81
28) Chloroform	8.52	83	197464	1035.7089 ppt #	17
29) Tetrahydrofuran	8.93	42	596005	5520.9514 ppt #	45
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.48	97	53716	252.5113 ppt #	92
32) Benzene	9.94	78	203391	779.4568 ppt #	89
33) Carbon Tetrachloride	10.08	117	19335	75.3357 ppt	99
34) Cyclohexane	10.20	84	28280	288.2139 ppt #	52
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\15MAR16L\LC55I003.D Vial: 6
Acq Time : 03/15/2016 16:34 Operator: LMR
Sample : 1607459003 Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Mar 17 09:53:58 2016 Results File: TO15LSIMA8.RES

Quant Method : J:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

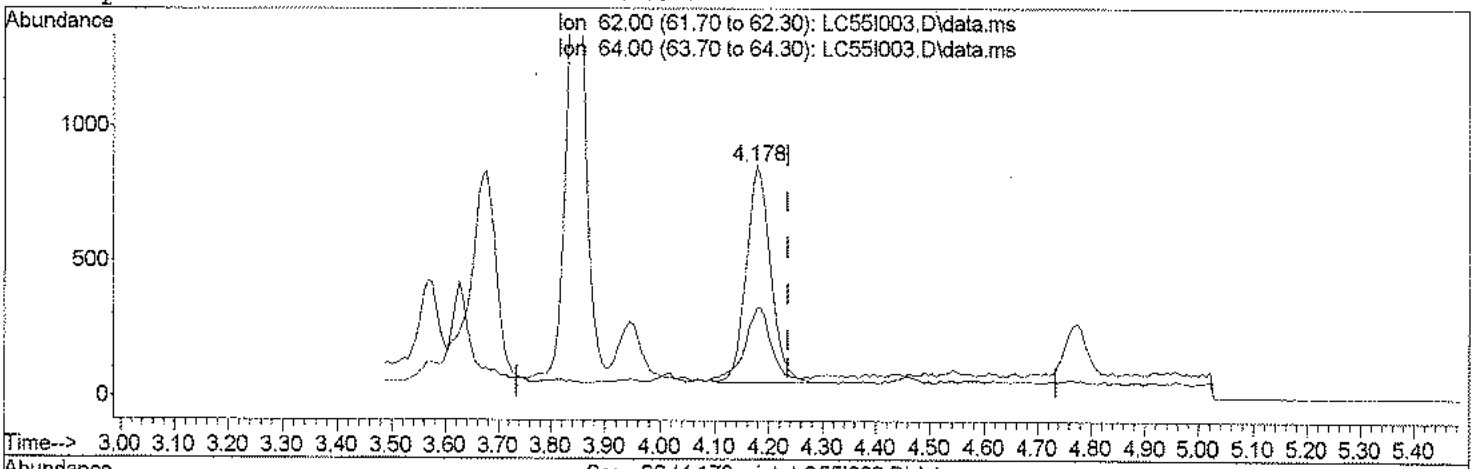
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.95	83	25300	125.4163 ppt	#	76
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	10.97	130	141976	1003.2370 ppt	#	42
39)	Methyl Methacrylate	0.00	69		Not Detected		
40)	Heptane	11.25	71	38878	543.1906 ppt	#	25
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	11.87	43	88459	447.2934 ppt	#	63
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.83	91	1347570	4832.9051 ppt		99
46)	2-Hexanone	13.09	43	10542	63.4547 ppt	#	58
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.98	166	2068847	11549.5026 ppt	#	84
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.10	91	193898	552.2608 ppt		98
53)	m,p-Xylene	15.28	91	572467	2146.0281 ppt		94
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	15.69	104	31524	164.5164 ppt		95
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.81	91	171436	592.4753 ppt		97
59)	4-Ethyl Toluene	17.25	105	110974	324.0747 ppt		99
60)	1,3,5-Trimethylbenzene	17.35	105	91717	272.3212 ppt		96
61)	1,2,4-Trimethylbenzene	17.87	105	287688	954.0756 ppt		100
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	21.31	128	36974	127.4968 ppt	#	95
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

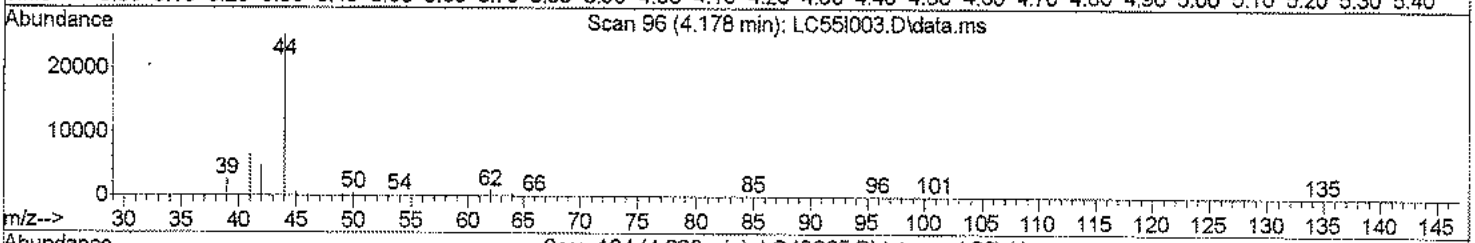
(#) = qualifier out of range (m) = manual integration

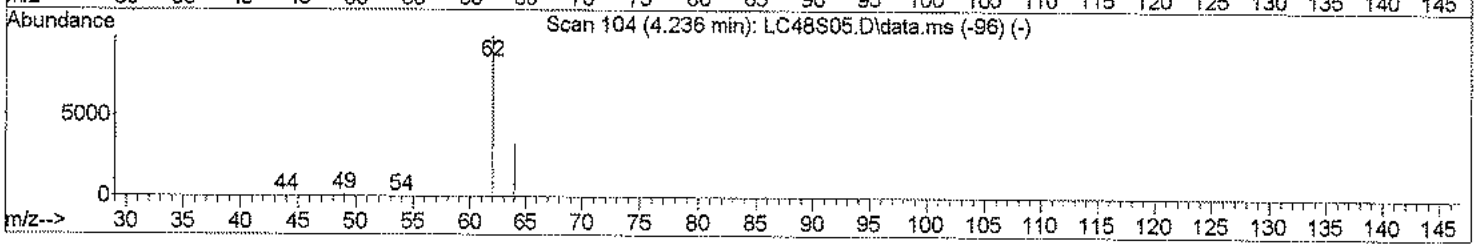
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC55I003.D
Acq On : 03/15/2016 16:34
Operator : LMR
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 17 09:53:58 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration







TIC: LC55I003.D\data.ms

(6) Vinyl Chloride

4.178min (-0.058) 38.76 ppt

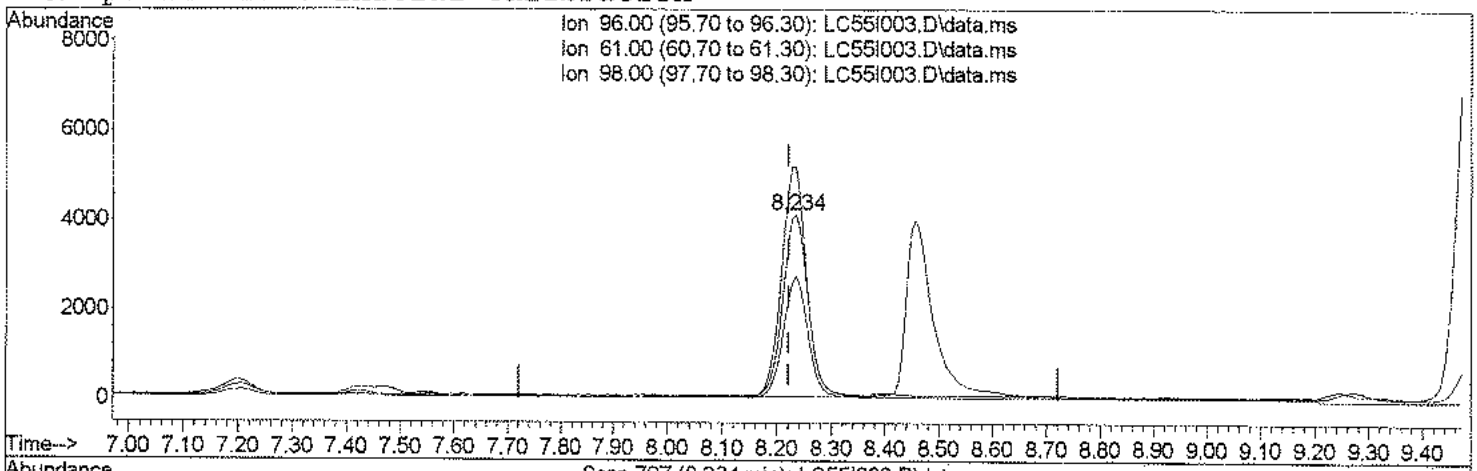
response 2526

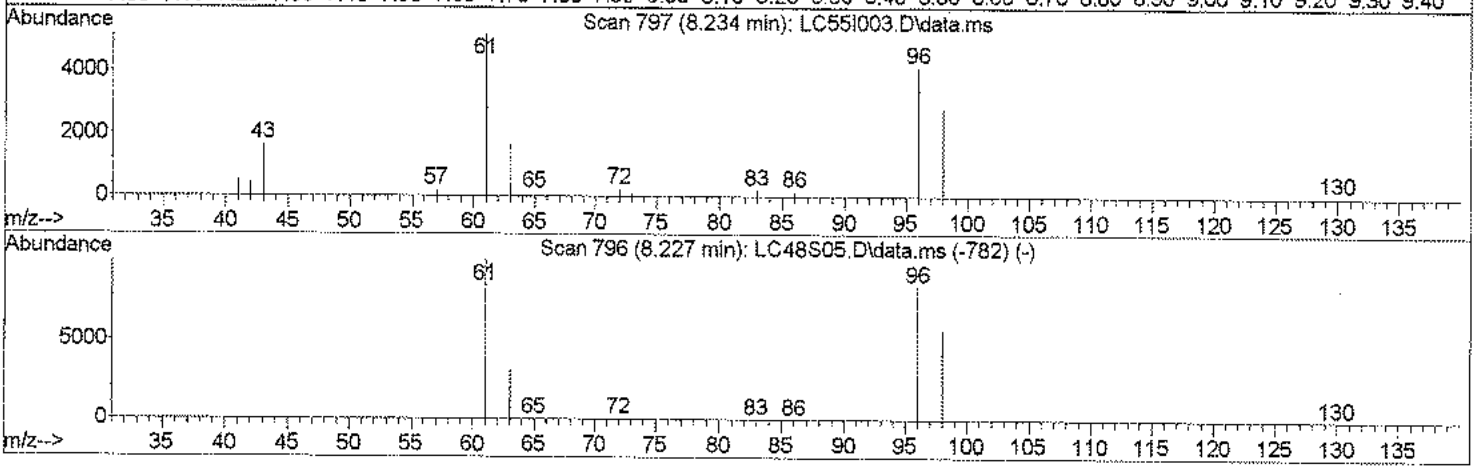
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	37.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC55I003.D
Acq On : 03/15/2016 16:34
Operator : LMR
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 17 09:53:58 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration





TIC: LC55I003.D\data.ms

(24) cis-1,2-Dichloroethene

8.234min (+ 0.013) 146.05 ppt

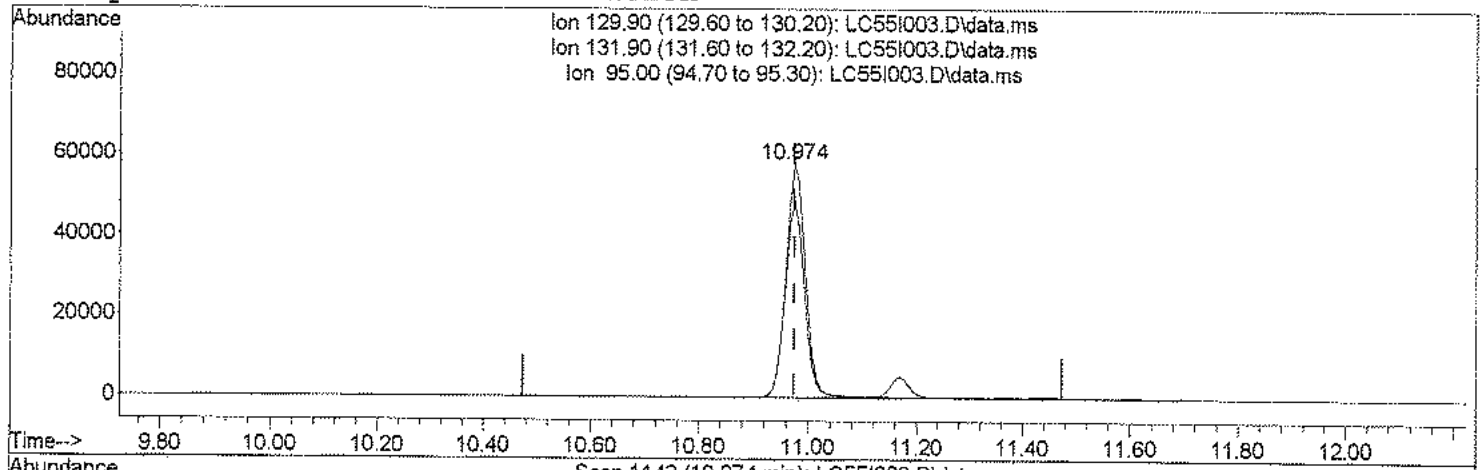
response 12982

Ion	Exp%	Act%
96.00	100.00	100.00
61.00	90.70	126.51#
98.00	64.90	65.94
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC55I003.D
Acq On : 03/15/2016 16:34
Operator : LMR
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 17 09:53:58 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration



TIC: LC55I003.D\data.ms

(38) Trichloroethene

10.974min (-0.000) 1003.24 ppt

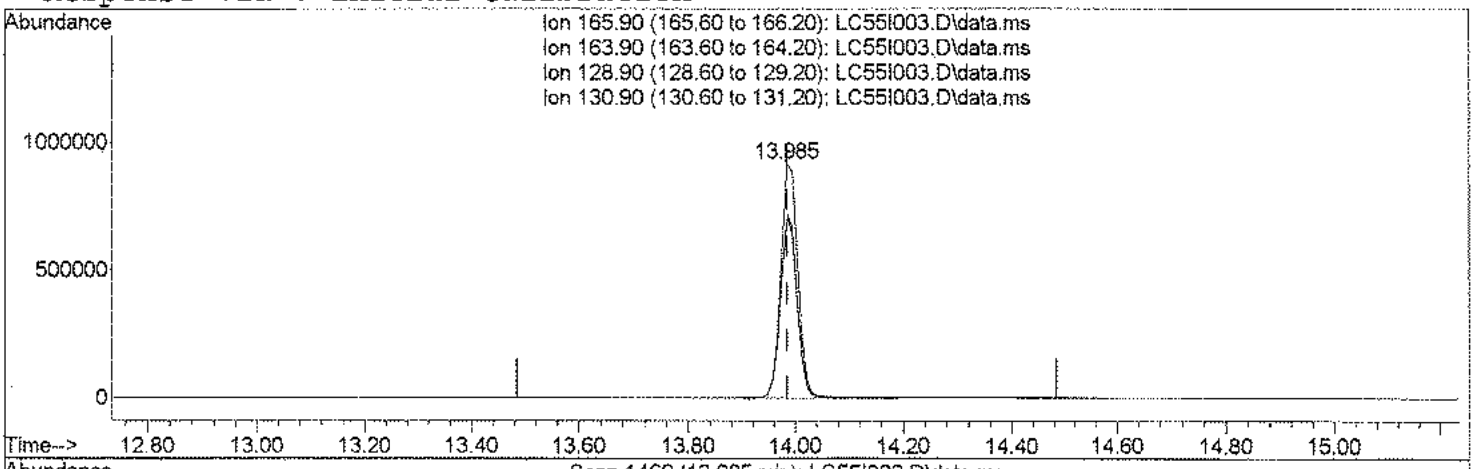
response 141976

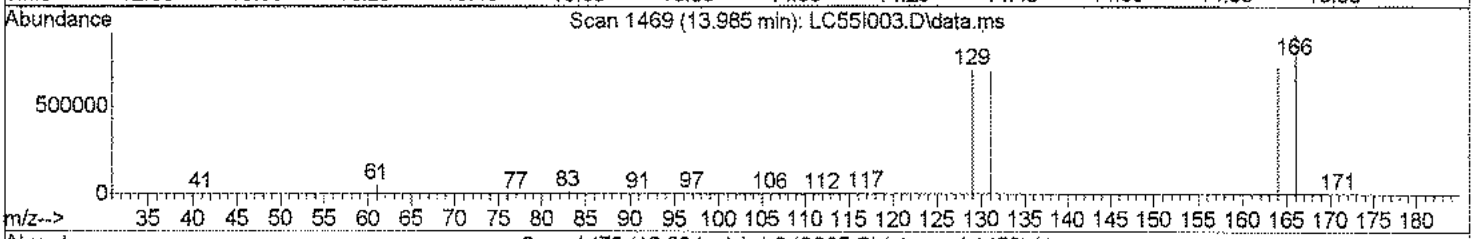
Ion	Exp%	Act%
129.90	100.00	100.00
131.90	96.40	0.00#
95.00	77.10	84.31
0.00	0.00	0.00

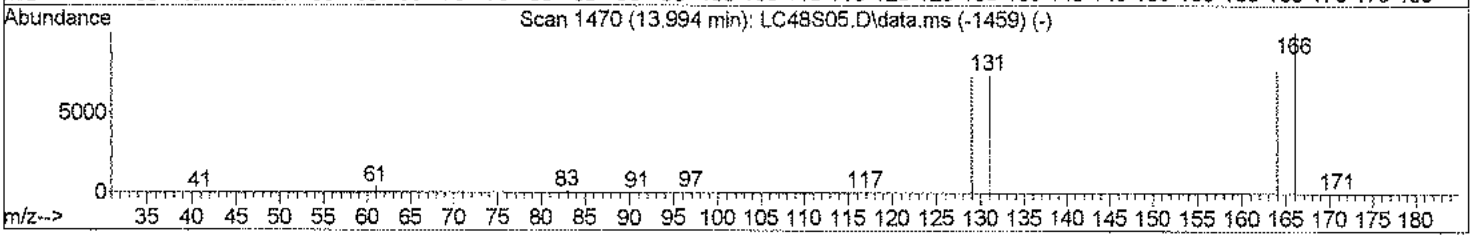
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC55I003.D
Acq On : 03/15/2016 16:34
Operator : LMR
Sample : 1607459003
Inst : 5975-L
Misc : A-0040H-031216-IA-BAS-D
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 17 09:53:58 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration







TIC: LC55I003.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 11549.50 ppt

response 2068847

Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	77.61
128.90	57.40	75.75#
130.90	56.90	75.39#

Batch Worklist

Batch: IVOA/ 3205 Created: 3/28/2016 09:36 Instrument: 6975-L HBN: 166464

Rule: EPA TO-15 SIM, Air Analyst: L. Reid Status: WP

Workorder: 1607459

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	493686	MB for HBN 166464 [IVOA/3205]				MB	1		ETO15SIM1Q	5320		3/28/2016	3/15/2016
2	493687	LCS for HBN 166464 [IVOA/3205]				LCS	1		ETO15SIM1Q	5320		3/28/2016	3/15/2016
3	493688	LCSD for HBN 166464 [IVOA/3205				LCSD	1		ETO15SIM1Q	5320		3/28/2016	3/15/2016
4	1607459001	A-0037H-030816-IA-LAU				SAMPLE	1	1607459001-A	ETO15SIM.1	5480		3/28/2016	3/15/2016
5	1607459002	A-0040H-031216-IA-KIT				SAMPLE	1	1607459002-A	ETO15SIM.1	5480		3/28/2016	3/15/2016
	*E\Result exceeds calibration range												
6	1607459003	A-0040H-031216-IA-BAS-D				SAMPLE	1	1607459003-A	ETO15SIM.1	5480		3/28/2016	3/15/2016
	*E\Result exceeds calibration range												

1607459

ALS Environmental
Field Chain-of-Custody Record

CoC #: 002

Page 1 of 1

Client Name & Address:	Project Name & No.:	No. of Containers	Sample for Matrix QC	Analyses Requested								Preservation Code	Sample Matrix Code	Matrix Codes: W) Water B) Bulk L) Liquid F) Filter S) Soil G) Wipe C) Solid M) Media A) Air (Indoor) Preservation Codes: 1) Cool to 4°C 2) HCl to pH<2, 4°C 3) H_2SO_4 to pH<2, 4°C 4) HNO_3 to pH<2, 4°C 5) NaOH to pH>12, 4°C 6) ZnOAc/NaOH to pH>9, 4°C Remarks
CH2M HILL 4246 S Riverboat Rd, Suite 210 Taylorsville, UT 84123	665353.ZZ.01.04			TO-15-★	TMT									
Phone: 385-474-8505	ALS Quote No: 10006-7-104589													
e-mail: Quin.bingham@ch2m.com	Report to: Mark Cicky													
	Report to e-mail: mark.cicky@ch2m.com													
	Bill to: 665353.ZZ.01.04													

Field Sample Number	Date	Time	Depth	ALS Sample Number											
A-0037H-030816-IA-LAU	3/8/16	0745	—	Canister 0370	1			14						A	Final P=-0.71 inHg
A-0040H-031216-IA-KIT	3/12/16	1238	—	Canister 0162	1			14						A	Final P=-1.26 inHg
A-0040H-031216-IA-BAS	3/12/16	1238	—	Canister 0086	1			3	←	RUSH				A	Final P=-0.26 inHg
A-0040H-031216-IA-BAS-D	3/12/16	1238	—	Canister 0114	1			14						A	Final P=-0.17 inHg

Possible Hazard Identification
☒ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive _____ Months
☒ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☒ Level 4
EDD Type: Lab spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☐ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/14/16	1204		03/14/16	12:07
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy *Yellow - Client Copy*

ALSCoC 121013 ★=VC, CIS1,2DCE, TCE, PCE & TMB by SIM; CH4, Propane, Ethane, Ethene 12/12/2013

Response Factor Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response Via : Initial Calibration

Calibration Files
50 =LC14S005.D 100 =LC13S01.D 200 =LC12S02.D 500 =LC11S05.D
1000=LC20S1.D

		Compound	50	100	200	500	1000	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	1.062	0.422	0.330	0.262	0.267	0.469	E1	72.12
3)		Dichlorodifluoro...	9.952	9.246	9.219	8.378	9.001	9.159		6.16
4)		Chloromethane	1.047	3.244	3.196	2.908	3.231	2.725		34.79
5)		Freon 114	8.390	7.618	7.615	6.845	7.303	7.554		7.46
6)		Vinyl Chloride	3.211	3.071	3.075	2.814	2.981	3.030		4.83
7)		1,3-Butadiene	2.524	2.390	2.321	2.125	2.224	2.317		6.60
8)		Bromomethane	3.467	3.339	3.331	2.999	3.301	3.287		5.27
9)		Chloroethane	1.699	1.553	1.627	1.445	1.617	1.588		6.01
10)		Acrolein	1.689	1.445	1.544	1.371	1.387	1.487		8.86
11)		Acetone	1.379	1.165	0.937	0.769	0.810	1.012	E1	25.36
12)		Trichlorofluorom...	1.351	1.200	1.181	1.060	1.149	1.188	E1	8.89
13)		Ethanol	2.955	2.729	2.184	1.946	2.212	2.405		17.45
14)		Isopropyl Alcohol	3.253	2.322	2.075	1.867	0.082	1.920	E1	60.21
15)		1,1-Dichloroethene	6.859	6.093	6.159	5.626	5.847	6.117		7.61
16)		Methylene Chloride	4.151	3.747	3.656	3.289	3.628	3.694		8.35
17)		Freon 113	9.232	8.237	8.115	7.293	7.819	8.139		8.74
18)		Carbon Disulfide	1.363	1.161	1.117	0.997	1.067	1.141	E1	12.11
19)		trans-1,2-Dichlo...	4.755	3.970	3.942	3.553	3.684	3.981		11.73
20)		1,1-Dichloroethane	8.026	7.267	7.117	6.435	6.913	7.152		8.12
21)		methyl t-butyl e...	9.088	8.218	8.442	8.012	8.165	8.385		5.04
22)		Vinyl Acetate	0.945	0.830	0.858	0.833	0.857	0.864		5.43
23)		2-Butanone	8.853	7.901	7.967	7.492	7.841	8.011		6.31
24)		cis-1,2-Dichloro...	4.643	4.094	4.129	3.775	4.026	4.133		7.66
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.113	0.106	0.107	0.103	0.114	0.108		4.21
27)		Hexane	0.559	0.527	0.537	0.516	0.547	0.537		3.12
28)		Chloroform	0.960	0.882	0.868	0.793	0.882	0.877		6.74
29)		Tetrahydrofuran	0.459	0.476	0.519	0.507	0.522	0.497		5.57
30)		1,2-Dichloroethane	0.601	0.564	0.541	0.489	0.527	0.544		7.65
31)		1,1,1-Trichloroe...	1.075	0.986	0.976	0.888	0.967	0.979		6.81
32)		Benzene	1.456	1.238	1.146	1.038	1.125	1.200		13.30
33)		Carbon Tetrachlo...	1.306	1.184	1.167	1.071	1.175	1.181		7.10
34)		Cyclohexane	0.453	0.468	0.466	0.417	0.453	0.451		4.59
35)		1,2-Dichloropropane	0.482	0.449	0.442	0.407	0.442	0.444		6.01
36)		Bromodichloromet...	1.003	0.936	0.920	0.846	0.935	0.928		6.02
37)		1,4-Dioxane	0.329	0.273	0.264	0.243	0.248	0.271		12.63
38)		Trichloroethene	0.703	0.655	0.650	0.604	0.643	0.651		5.44
39)		Methyl Methacrylate	0.347	0.042	0.299	0.300	0.037	0.205		74.41
40)		Heptane	0.320	0.305	0.330	0.327	0.365	0.329		6.75
41)		cis-1,3-Dichloro...	0.678	0.639	0.584	0.562	0.596	0.612		7.58
42)		4-Methyl-2-Penta...	0.883	0.849	0.910	0.902	1.005	0.910		6.41
43)		trans-1,3-Dichlo...	0.544	0.505	0.517	0.500	0.534	0.520		3.61
44)		1,1,2-Trichloroe...	0.592	0.543	0.541	0.499	0.558	0.547		6.15

Method Path : J:\L\METHODS\
Method File : TO15LSIMA8.m
Title : TO-15 SIM

45)		Toluene	1.337	1.243	1.283	1.226	1.325	1.283	3.81
46)		2-Hexanone	0.682	0.739	0.768	0.781	0.852	0.764	8.11
47)		Dibromochloromet...	1.229	1.141	1.132	1.060	1.193	1.151	5.61
48)		1,2-Dibromoethane	0.888	0.823	0.827	0.779	0.867	0.837	5.03
49)		Tetrachloroethene	0.920	0.833	0.812	0.752	0.802	0.824	7.46
50)	I	Chlorobenzene d5	----------ISTD----------						
51)		Chlorobenzene	1.618	1.548	1.549	1.423	1.567	1.541	4.68
52)		Ethylbenzene	1.851	1.868	1.948	1.907	2.088	1.932	4.90
53)		m,p-Xylene	1.313	1.359	1.463	1.485	1.720	1.468	10.76
54)		Bromoform	1.158	1.054	0.995	0.917	1.093	1.043	8.82
55)		Styrene	0.951	0.982	1.047	1.080	1.214	1.055	9.73
56)		1,1,2,2-Tetrachl...	1.479	1.390	1.391	1.296	1.542	1.420	6.63
57)		o-Xylene	1.417	1.452	1.590	1.611	1.893	1.593	11.79
58)	S	Bromofluorobenzene	0.347	0.367	0.369	0.385	0.395	0.373	4.97
59)		4-Ethyl Toluene	1.674	1.704	1.855	1.970	2.220	1.885	11.81
60)		1,3,5-Trimethylb...	1.573	1.632	1.824	1.941	2.299	1.854	15.61
61)		1,2,4-Trimethylb...	1.538	1.483	1.623	1.668	1.986	1.660	11.80
62)		Benzyl Chloride	1.269	1.343	1.434	1.424	1.697	1.434	11.28
63)		m-Dichlorobenzene	1.409	1.400	1.477	1.438	1.672	1.479	7.56
64)		p-Dichlorobenzene	1.396	1.450	1.536	1.508	1.676	1.513	6.98
65)		o-Dichlorobenzene	1.496	1.440	1.457	1.427	1.615	1.487	5.12
66)		1,2,4-Trichlorob...	0.701	0.669	0.673	0.665	0.763	0.694	5.90
67)		Naphthalene	1.450	1.433	1.532	1.631	1.934	1.596	12.82
68)		Hexachloro-1,3-b...	0.911	0.842	0.825	0.755	0.858	0.838	6.75

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC48S05.D
Acq On : 03/15/2016 10:32
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31070 (200 mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 09:52:12 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	115	0.00
2		Propene	4.685	2.702	42.3#	119	0.00
3		Dichlorodifluoromethane	9.159	9.030	1.4	124	0.00
4		Chloromethane	2.725	2.978	-9.3	118	0.00
5		Freon 114	7.554	8.002	-5.9	135	0.00
6		Vinyl Chloride	3.030	3.043	-0.4	125	0.00
7		1,3-Butadiene	2.317	2.267	2.2	123	0.00
8		Bromomethane	3.287	3.232	1.7	124	0.00
9		Chloroethane	1.588	1.524	4.0	122	0.00
10		Acrolein	1.487	1.540	-3.6	130	0.02
11		Acetone	10.120	8.501	16.0	127	0.03
12		Trichlorofluoromethane	11.883	11.691	1.6	127	0.00
13		Ethanol	2.405	2.080	13.5	123	0.02
14		Isopropyl Alcohol	19.197	0.848	95.6#	5#	0.00
15		1,1-Dichloroethene	6.117	6.311	-3.2	129	0.00
16		Methylene Chloride	3.694	3.595	2.7	126	0.00
17		Freon 113	8.139	8.626	-6.0	136	0.00
18		Carbon Disulfide	11.410	10.703	6.2	124	0.00
19		trans-1,2-Dichloroethene	3.981	4.194	-5.4	136	0.00
20		1,1-Dichloroethane	7.152	7.110	0.6	127	0.00
21		methyl t-butyl ether	8.385	9.964	-18.8	143	0.02
22		Vinyl Acetate	0.864	1.039	-20.3	144	0.01
23		2-Butanone	8.011	8.431	-5.2	130	0.02
24		cis-1,2-Dichloroethene	4.133	4.417	-6.9	135	0.00
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	119	0.00
26		Ethyl Acetate	0.108	0.114	-5.6	132	0.01
27		Hexane	0.537	0.594	-10.6	137	0.00
28		Chloroform	0.877	0.846	3.5	127	0.00
29		Tetrahydrofuran	0.497	0.558	-12.3	131	0.00
30		1,2-Dichloroethane	0.544	0.533	2.0	130	0.00
31		1,1,1-Trichloroethane	0.979	0.975	0.4	131	0.00
32		Benzene	1.200	1.170	2.5	134	0.00
33		Carbon Tetrachloride	1.181	1.147	2.9	128	0.00
34		Cyclohexane	0.451	0.517	-14.6	148	0.00
35		1,2-Dichloropropane	0.444	0.439	1.1	129	0.00
36		Bromodichloromethane	0.928	0.905	2.5	127	0.00

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2016\MAR16L\15MAR16L\
Data File : LC48S05.D
Acq On : 03/15/2016 10:32
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31070 (200 mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 09:52:12 2016
Quant Method : J:\L\METHODS\TO15LSIMA8.m
Quant Title : TO-15 SIM
QLast Update : Mon Mar 14 15:56:10 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37		1,4-Dioxane	0.271	0.286	-5.5	141	0.02
38		Trichloroethene	0.651	0.706	-8.4	139	0.00
39		Methyl Methacrylate	0.205	0.360	-75.6#	143	-0.08
40		Heptane	0.329	0.386	-17.3	141	0.00
41		cis-1,3-Dichloropropene	0.612	0.656	-7.2	139	0.00
42		4-Methyl-2-Pentanone	0.910	1.017	-11.8	134	0.00
43		trans-1,3-Dichloropropene	0.520	0.592	-13.8	141	0.00
44		1,1,2-Trichloroethane	0.547	0.542	0.9	129	0.00
45		Toluene	1.283	1.475	-15.0	143	0.00
46		2-Hexanone	0.764	0.931	-21.9	142	0.00
47		Dibromochloromethane	1.151	1.173	-1.9	132	0.00
48		1,2-Dibromoethane	0.837	0.885	-5.7	135	0.00
49		Tetrachloroethene	0.824	0.880	-6.8	139	0.00
50	I	Chlorobenzene d5	1.000	1.000	0.0	120	0.00
51		Chlorobenzene	1.541	1.671	-8.4	141	0.00
52		Ethylbenzene	1.932	2.337	-21.0	147	0.00
53		m,p-Xylene	1.468	1.782	-21.4	144	0.00
54		Bromoform	1.043	1.003	3.8	131	0.00
55		Styrene	1.055	1.365	-29.4	152#	0.00
56		1,1,2,2-Tetrachloroethane	1.420	1.372	3.4	127	0.00
57		o-Xylene	1.593	1.904	-19.5	142	0.00
58	S	Bromofluorobenzene	0.373	0.410	-9.9	128	0.00
59		4-Ethyl Toluene	1.885	2.557	-35.6#	156#	0.00
60		1,3,5-Trimethylbenzene	1.854	2.377	-28.2	147	0.00
61		1,2,4-Trimethylbenzene	1.660	2.117	-27.5	152#	0.00
62		Benzyl Chloride	1.434	1.791	-24.9	151#	0.00
63		m-Dichlorobenzene	1.479	1.699	-14.9	142	0.00
64		p-Dichlorobenzene	1.513	1.791	-18.4	143	0.00
65		o-Dichlorobenzene	1.487	1.713	-15.2	144	0.00
66		1,2,4-Trichlorobenzene	0.694	0.865	-24.6	156#	0.00
67		Naphthalene	1.596	2.219	-39.0#	163#	0.00
68		Hexachloro-1,3-butadiene	0.838	0.914	-9.1	146	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1608222 (SIM)**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received five summa canisters for VOA analysis. The samples were analyzed within thirty days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and μg/m³.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 50 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene calibration is not required for SIM analysis.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 50 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\ (I_s)\ (Df)}}{\mathbf{(A_{is})\ (RRF)}}\right]$$

Concentration in ug/m^3 : $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1608222**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received five summa canisters for VOA analysis. The samples were analyzed within thirty days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and µg/m³.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The “E” qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The “E” qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard **,** $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3: $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ANALYTICAL REPORT

Report Date: April 05, 2016

CH2MHill Deliverables
CH2MHill
4246 South Riverboat Road
Suite 210
Salt Lake City, UT 84123

Phone: (385) 474-8553
Fax: (385) 474-8653
E-mail: edata@ch2m.com

Workorder: **34-1608222**
Project ID: 665353.ZZ.01.04/10006-7-104589
Purchase Order: 665353.ZZ.01.04
Project Manager Kevin W. Griffiths

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0017H-031616-IA-BAS	1608222001	03/16/16	03/21/16	10006-7-104589
A-0018H-031616-IA-BAS	1608222002	03/16/16	03/21/16	10006-7-104589
A-0051-031616-IA-BAS	1608222003	03/16/16	03/21/16	10006-7-104589
A-0051-031616-IA-BAS-D	1608222004	03/16/16	03/21/16	10006-7-104589
A-0023-031616-IA-BA1	1608222005	03/16/16	03/21/16	10006-7-104589

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0017H-031616-IA-BAS
Lab ID: 1608222001
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 09:06
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.24	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**14**	**34**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.24	0.83	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**1.1**	**3.4**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.91	3.3	0.15	1.0	1	J
Hexane	0.3	1.0	0.15	0.50	1	J
Chloroform	0.33	1.6	0.15	0.50	1	J
Tetrahydrofuran	**0.98**	**2.9**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.25	0.80	0.15	0.50	1	J
Cyclohexane	0.19	0.64	0.15	0.50	1	J
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.3**	**5.0**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0017H-031616-IA-BAS
Lab ID: 1608222001
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 09:06
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.47	2.0	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.2	0.97	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3214 (HBN: 166977)
Analyzed: 04/04/2016 18:57
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	**0.073**	**0.39**	0.050	1	
Tetrachloroethene	**1.5**	**10**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: **A-0018H-031616-IA-BAS** | Sampling Site: 10006-7-104589 | Collected: 03/16/2016
Lab ID: 1608222002 | Media: Summa 6 Liter Canister | Received: 03/21/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3213 (HBN: 166946) | **Percent Solid:** NA
Analyzed: 04/02/2016 09:57 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.57**	**2.8**	0.15	0.50	1	
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.26	1.4	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**17**	**40**	0.30	1.0	1	
Carbon disulfide	0.42	1.3	0.15	0.50	1	J
Methylene chloride	0.37	1.3	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.71**	**2.1**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**1.3**	**4.6**	0.15	1.0	1	
Hexane	**0.62**	**2.2**	0.15	0.50	1	
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	**0.57**	**1.7**	0.15	0.50	1	
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.48	1.5	0.15	0.50	1	J
Cyclohexane	0.3	1.0	0.15	0.50	1	J
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	0.27	1.1	0.15	0.50	1	J
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.7**	**6.4**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

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ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: **A-0018H-031616-IA-BAS** | Sampling Site: 10006-7-104589 | Collected: 03/16/2016
Lab ID: 1608222002 | Media: Summa 6 Liter Canister | Received: 03/21/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3213 (HBN: 166946) | **Percent Solid:** NA
Analyzed: 04/02/2016 09:57 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.21	0.90	0.15	0.50	1	J
m,p-Xylene	**0.82**	**3.5**	0.15	0.50	1	
o-Xylene	0.23	0.98	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.16	0.81	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5975-L
Batch: IVOA/3214 (HBN: 166977) | **Percent Solid:** NA
Analyzed: 04/04/2016 19:47 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	**0.15**	**0.83**	0.050	1	
Tetrachloroethene	**1.8**	**12**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0051-031616-IA-BAS
Lab ID: 1608222003
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 10:48
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.24	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**5.5**	**13**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.27	0.94	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	**0.52**	**1.8**	0.15	0.50	1	
2-Butanone	**0.76**	**2.2**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	**1.4**	**5.0**	0.15	1.0	1	
Hexane	ND	<0.53	0.15	0.50	1	U
Chloroform	0.26	1.3	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.19	0.60	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	0.42	1.6	0.15	0.50	1	J
2-Hexanone	ND	<1.2	0.30	1.0	1	U

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ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0051-031616-IA-BAS
Lab ID: 1608222003
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 10:48
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	ND	<0.65	0.15	0.50	1	U
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3214 (HBN: 166977)
Analyzed: 04/04/2016 20:37
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**0.27**	**1.8**	0.050	1	
1,4-Dioxane	ND	<0.18	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0051-031616-IA-BAS-D
Lab ID: 1608222004
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 11:42
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.52**	**2.6**	0.15	0.50	1	
Chloromethane	**0.84**	**1.7**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.24	1.3	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**3.3**	**7.8**	0.30	1.0	1	
Carbon disulfide	**0.55**	**1.7**	0.15	0.50	1	
Methylene chloride	0.2	0.71	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.28	0.83	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.72	2.6	0.15	1.0	1	J
Hexane	0.18	0.62	0.15	0.50	1	J
Chloroform	0.37	1.8	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.22	0.69	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**0.53**	**2.0**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

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ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0051-031616-IA-BAS-D
Lab ID: 1608222004
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 11:42
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	0.2	0.88	0.15	0.50	1	J
o-Xylene	ND	<0.65	0.15	0.50	1	U
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3214 (HBN: 166977)
Analyzed: 04/04/2016 21:31
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**0.30**	**2.0**	0.050	1	
1,4-Dioxane	ND	<0.18	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0023-031616-IA-BA1
Lab ID: 1608222005
Matrix: Air
Sampling Site: 10006-7-104589
Media: Summa 6 Liter Canister
Sampling Parameter: NA
Collected: 03/16/2016
Received: 03/21/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3213 (HBN: 166946)
Analyzed: 04/02/2016 12:34
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	ND	<0.74	0.15	0.50	1	U
Chloromethane	ND	<0.31	0.15	0.50	1	U
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.24	1.4	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**5.9**	**14**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.18	0.64	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	0.36	1.1	0.15	0.50	1	J
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	0.26	0.92	0.15	0.50	1	J
Chloroform	ND	<0.73	0.15	0.50	1	U
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.42	1.4	0.15	0.50	1	J
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	0.16	0.64	0.15	0.50	1	J
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.4**	**5.4**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U

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ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0023-031616-IA-BA1 | Sampling Site: 10006-7-104589 | Collected: 03/16/2016
Lab ID: 1608222005 | Media: Summa 6 Liter Canister | Received: 03/21/2016
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3213 (HBN: 166946) | **Percent Solid:** NA
Analyzed: 04/02/2016 12:34 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	ND	<0.65	0.15	0.50	1	U
m,p-Xylene	**0.53**	**2.3**	0.15	0.50	1	
o-Xylene	0.16	0.68	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5975-L
Batch: IVOA/3214 (HBN: 166977) | **Percent Solid:** NA
Analyzed: 04/04/2016 22:22 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**0.20**	**1.4**	0.050	1	
1,4-Dioxane	ND	<0.18	0.050	1	

Comments

Quality Control: **EPA TO-15 - (HBN: 166946)**

The following compound in the CCV is outside od +/- 30%: Vinyl Acetate.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 04/04/2016 15:34	/S/ Jorden Baum 04/05/2016 11:23

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15 SIM	/S/ Lisa M. Reid 04/05/2016 10:05	/S/ Jorden Baum 04/05/2016 11:29

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1608222
Client: CH2M
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1608222

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3213 (HBN: 166946)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 494865
Analyzed: 04/01/2016 19:04

Units: ppb

Analyte	Result	MDL	RL
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Toluene	ND	0.15	0.500
2-Hexanone	ND	0.3	1.00
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1608222

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3213 (HBN: 166946)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 494865
Analyzed: 04/01/2016 19:04
Units: ppb

Analyte	Result	MDL	RL
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
1,2-Dichlorobenzene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 494866
Analyzed: 04/01/2016 17:26
Dilution: 1
Units: ppb

LCSD: 494867
Analyzed: 04/01/2016 18:15
Dilution: 1
Units: ppb

Analyte	LCS Result	Target	% Rec	QC Limits		LCSD Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	11.8	10.0	118	59.3	135.1	11.8	118	0.262	0.0	25.0
Chloromethane	11.9	10.0	119	55.2	137.4	12.6	126	5.40	0.0	25.0
Freon 114	11.4	10.0	114	64.6	128.0	11.6	116	1.26	0.0	25.0
1,3-Butadiene	12.3	10.0	123	58.0	138.3	12.3	123	0.357	0.0	25.0
Bromomethane	11.6	10.0	116	63.3	129.9	11.9	119	2.03	0.0	25.0
Chloroethane	11.3	10.0	113	57.6	137.1	11.8	118	3.99	0.0	25.0
Freon 11	11.3	10.0	113	58.9	132.8	11.7	117	3.30	0.0	25.0
Freon 113	11.3	10.0	113	68.5	120.0	11.8	118	4.62	0.0	25.0
1,1-Dichloroethene	11.9	10.0	119	67.2	125.1	12.5	125	4.48	0.0	25.0
Acetone	12.0	10.0	120	42.5	146.0	12.6	126	5.26	0.0	25.0
Carbon disulfide	11.4	10.0	114	63.9	128.8	11.8	118	3.80	0.0	25.0
Methylene chloride	11.1	10.0	111	63.7	127.9	11.7	117	4.92	0.0	25.0
trans-1,2-Dichloroethene	11.9	10.0	119	68.1	124.6	12.4	124	4.44	0.0	25.0
Methyl t-butyl ether	12.5	10.0	125	60.8	138.0	13.3	133	5.91	0.0	25.0
Vinyl acetate	13.1	10.0	131	59.3	141.1	13.7	137	4.88	0.0	25.0
2-Butanone	12.5	10.0	125	51.7	144.2	13.3	133	6.23	0.0	25.0
1,1-Dichloroethane	11.3	10.0	113	67.7	123.6	11.9	119	5.35	0.0	25.0
Ethyl acetate	11.5	10.0	115	53.4	156.9	11.4	114	0.804	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1608222

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3213 (HBN: 166946)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS:	494866	**LCSD:**	494867
Analyzed:	04/01/2016 17:26	**Analyzed:**	04/01/2016 18:15
Dilution:	1	**Dilution:**	1
Units:	ppb	**Units:**	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Hexane	11.1	10.0	111	62.4	129.5	10.9	109	1.45	0.0	25.0
Chloroform	10.6	10.0	106	67.3	121.8	10.3	103	2.57	0.0	25.0
Tetrahydrofuran	12.1	10.0	121	50.6	155.3	9.26	92.6	* 26.9	0.0	25.0
1,2-Dichloroethane	10.6	10.0	106	62.4	130.5	10.5	105	1.36	0.0	25.0
1,1,1-Trichloroethane	10.6	10.0	106	60.4	127.7	10.5	105	1.72	0.0	25.0
Carbon tetrachloride	10.6	10.0	106	58.2	130.6	10.5	105	1.38	0.0	25.0
Benzene	10.9	10.0	109	64.1	127.3	10.6	106	2.12	0.0	25.0
Cyclohexane	11.8	10.0	118	61.9	123.6	11.4	114	2.89	0.0	25.0
1,2-Dichloropropane	10.8	10.0	108	60.7	130.6	10.5	105	2.34	0.0	25.0
Bromodichloromethane	10.7	10.0	107	62.9	128.3	10.5	105	1.56	0.0	25.0
Heptane	11.5	10.0	115	59.5	133.4	11.2	112	2.25	0.0	25.0
cis-1,3-Dichloropropene	11.9	10.0	119	64.1	133.6	11.6	116	2.99	0.0	25.0
4-Methyl-2-pentanone	12.0	10.0	120	73.5	150.0	11.7	117	1.86	0.0	25.0
trans-1,3-Dichloropropene	12.0	10.0	120	78.5	148.7	11.7	117	2.03	0.0	25.0
1,1,2-Trichloroethane	10.9	10.0	109	65.0	126.6	10.7	107	2.39	0.0	25.0
Toluene	11.9	10.0	119	75.6	139.4	11.6	116	1.86	0.0	25.0
2-Hexanone	12.5	10.0	125	80.8	158.8	12.3	123	1.87	0.0	25.0
Dibromochloromethane	11.1	10.0	111	62.4	130.9	10.8	108	2.27	0.0	25.0
1,2-Dibromoethane	11.3	10.0	113	64.4	129.0	11.1	111	1.89	0.0	25.0
Chlorobenzene	10.7	10.0	107	62.8	126.9	10.5	105	2.43	0.0	25.0
Ethyl benzene	11.8	10.0	118	75.9	148.5	11.5	115	2.83	0.0	25.0
m,p-Xylene	23.0	20.0	115	73.7	144.9	22.6	113	1.88	0.0	25.0
o-Xylene	11.7	10.0	117	74.7	147.4	11.5	115	2.35	0.0	25.0
Styrene	12.5	10.0	125	75.9	158.1	12.2	122	1.83	0.0	25.0
Bromoform	11.1	10.0	111	59.7	136.0	10.9	109	1.89	0.0	25.0
1,1,2,2-Tetrachloroethane	10.9	10.0	109	59.3	134.8	10.6	106	2.68	0.0	25.0
4-Ethyl toluene	12.5	10.0	125	69.0	163.3	12.3	123	2.13	0.0	25.0
1,3,5-Trimethylbenzene	11.9	10.0	119	64.2	155.1	11.5	115	2.66	0.0	25.0
1,2,4-Trimethylbenzene	12.5	10.0	125	59.7	169.4	12.2	122	2.53	0.0	25.0
1,3-Dichlorobenzene	11.3	10.0	113	58.6	157.6	11.1	111	2.12	0.0	25.0
1,4-Dichlorobenzene	11.5	10.0	115	57.7	137.2	11.1	111	3.64	0.0	25.0
1,2-Dichlorobenzene	11.8	10.0	118	56.5	140.0	11.4	114	3.01	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1608222**

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3213 (HBN: 166946)		
Analyzed By:	Lisa M. Reid		

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene		
QC Limits	67.7	129.9	
Units	ppb		
Lab ID	**Result**	**Target**	**% Recovery**
494866-LCS	20.5	20.0	103
494867-LCSD	20.5	20.0	102
494865-MB	19.5	20.0	97.6
1608222001	19.3	20.0	96.7
1608222002	19.3	20.0	96.3
1608222003	19.2	20.0	95.8
1608222004	19.2	20.0	96.0
1608222005	19.1	20.0	95.6

Comments

The following compound in the CCV is outside od +/- 30%: Vinyl Acetate.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
04/04/2016 15:34	04/05/2016 11:23

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1608222

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15 SIM
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3214 (HBN: 166977)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 494926
Analyzed: 04/04/2016 18:05
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500
1,4-Dioxane	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 494927
Analyzed: 04/04/2016 16:29
Dilution: 1
Units: ppb

LCSD: 494928
Analyzed: 04/04/2016 17:17
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.530	0.500	106	17.5	153.7	0.521	104	1.72	0.0	25.0
cis-1,2-Dichloroethene	0.537	0.500	107	65.2	131.2	0.524	105	2.48	0.0	25.0
Trichloroethene	0.508	0.500	102	68.4	123.4	0.506	101	0.408	0.0	25.0
Tetrachloroethene	0.521	0.500	104	63.6	127.9	0.514	103	1.33	0.0	25.0
1,4-Dioxane	0.498	0.500	99.5	70.0	130.0	0.452	90.4	9.55	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
494927-LCS	1.02	1.00	102
494928-LCSD	1.02	1.00	102
494926-MB	0.804	1.00	80.4
1608222001	0.773	1.00	77.3
1608222002	0.882	1.00	88.2
1608222003	0.754	1.00	75.4
1608222004	0.675	1.00	67.5
1608222005	0.738	1.00	73.8

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1608222**

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15 SIM
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3214 (HBN: 166977)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid	/S/ Jorden Baum
04/05/2016 10:05	04/05/2016 11:29

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◒ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1608222

nental -Custody Record

15837/#173

1608222

CoC #: C103

Page 1 of 1

Client Name & Address:	Project Name & No.:	No. of Containers	Sample for Matrix QC	Analyses Requested	Preservation Code	Sample Matrix Code	Matrix Codes: W) Water B) Bulk L) Liquid F) Filter S) Soil G) Wipe C) Solid M) Media A) In Low Air Preservation Codes: 1) Cool to 4°C 2) HCl to pH<2, 4°C 3) H_2SO_4 to pH<2, 4°C 4) HNO_3 to pH<2, 4°C 5) NaOH to pH>12, 4°C 6) ZnOAc/NaOH to pH>9, 4°C Remarks
Chem Hill 4246 S. Riverboat Rd. Suite 200 Taylorsville, UT 84123	065353.77.01.04 ALS Quote No: 10006-7-104589 Report to: Mark Lacky Report to e-mail: mark.lacky@chem.com Bill to: 065353.77.01.04			* SV-12L			
Phone: 385-474-8505							
e-mail: Quinn.bingham@chem.com							

Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample for Matrix QC	* SV-12L	Preservation Code	Sample Matrix Code	Remarks
A-0017H-031616-IA+BAS	3/16/16	1554		Canister 0228	1		1		A	Final P= -3.5 inHg
A-0018H-031616-IA-BAS	3/16/16	1559		Canister 0196	1		1		A	Final P= 0 inHg
A-0057-031616-IA-BAS	3/16/16	1300		Canister 0309	1		1		A	Final P= 0 inHg
A-0057-031616-IA-BAS-D	3/16/16	~~1300~~ 1800		Canister 0165	1		1		A	Final P= -6.9 inHg
A-0023-031616-IA-BA1	3/16/16	1759		Canister 0371	1		1		A	Final P= -4.3 inHg

Possible Hazard Identification
☑ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive ____ Months
☑ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☑ Level 4
EDD Type: Lab Spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☑ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/21/16	1718		03-21-16	17:16
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB:www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

ALSCoC 121013

* 1,4-Dioxane, HC; ~~120~~ CO12DCE, TCE, PCE by TO-15 SIM; SCAN for all other VOCs

See attached analytes table

12/02/2013

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]	RL [(c)] (µg/m³)	Soil Gas Method	Screening Level[b]	Lowest Screening Level Value (µg/m³) [b]	RL [(c)] (µg/m³)
1,1,1-Trichloroethane	71-55-6	TO-15	EPA RSL	520	2.7	TO-15	VISL	520	2.7
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042	3.4	TO-15	VISL	0.42	3.4
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15	2.7	TO-15	VISL	0.21	2.7
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100	3.8	TO-15	VISL	34,000	3.8
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5	2.0	TO-15	VISL	15	2.0
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21	2.0	TO-15	VISL	210	2.0
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73	2.5	TO-15	VISL	7.3	2.5
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041	3.8	TO-15	VISL	0.041	3.8
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21	6.0	TO-15	VISL	210	6.0
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094	2.0	TO-15	VISL	0.94	2.0
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24	2.3	TO-15	VISL	2.4	2.3
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100	3.5	TO-15	VISL	31,000	3.5
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73	2.5	TO-15	VISL	7.3	2.5
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081	1.1	TO-15	VISL	0.81	1.1
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21	3.0	TO-15	VISL	210	3.0
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22	3.0	TO-15	VISL	2.2	3.0
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49	0.72	TO-15	VISL	4.9	7.2
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520	0.15	TO-15	VISL	5,200	0.15
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1	4.0	TO-15	VISL	31	4.0
4-Ethyltoluene	622-96-8	TO-15	--	--	2.5	TO-15	VISL	--	2.5
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310	2.0	TO-15	VISL	3,100	2.0
Acetone	67-64-1	TO-15	EPA RSL	3,200	1.2	TO-15	VISL	32,000	1.2
Benzene	71-43-2	TO-15	EPA RSL	0.31	1.6	TO-15	VISL	3.1	1.6
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066	3.4	TO-15	VISL	0.66	3.4

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]	RL [(c)] (µg/m³)	Soil Gas Method	Screening Level[b]	Lowest Screening Level Value (µg/m³) [b]	RL [(c)] (µg/m³)
trans-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61	2.3	TO-15	VISL	6.1	2.3
Trichloroethene	79-01-6	TO-15 SIM	EPA RSL	0.21	0.27	TO-15	VISL	0.42	2.7
Trichlorofluoromethane (Freon 11)	75-69-4	TO-15	EPA RSL	73	2.8	TO-15	VISL	730	2.8
Vinyl Acetate	108-05-4	TO-15	EPA RSL	21	1.8	TO-15	VISL	210	1.8
Vinyl Chloride	75-01-4	TO-15 SIM	EPA RSL	0.16	0.13	TO-15	VISL	1.6	1.3

[a] RSLs for residential exposure. RSLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[b] Residential VISLs using an attenuation factor (AF) of 0.1. VISLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[c] RLs are from ALS Global – Salt Lake City
Notes:
µg/m³ = micrograms per cubic meter.
RL= Reporting limit.

Analyst Notebook ~~Notebook~~ SIM

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K , 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LSIM49 (HBN 166977)

The following compounds in the CCS were outside of +-30%: NA

Dilutions: NA

Analyst Signature: [signature] 04-05-16

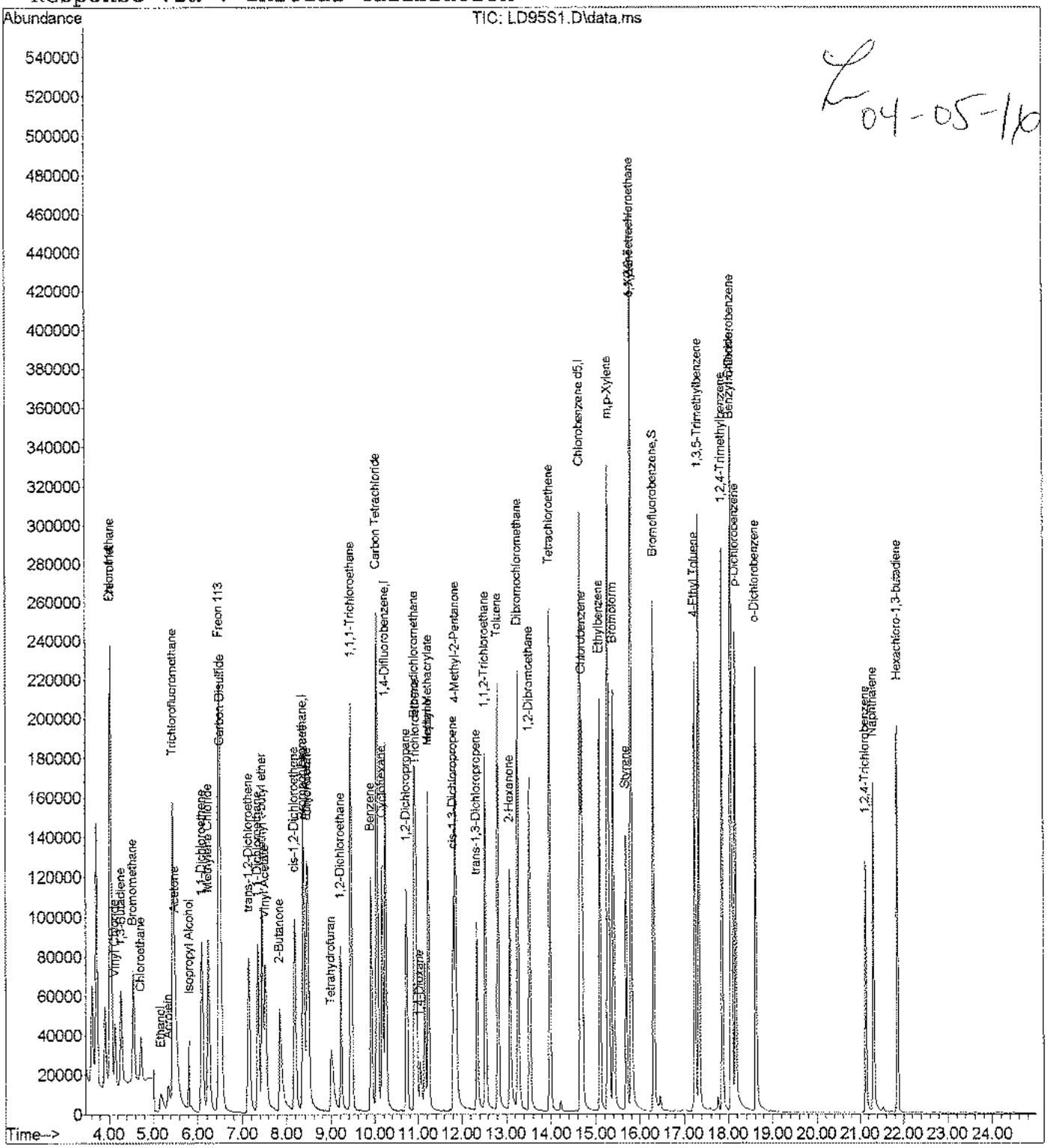
ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD95S1.D Vial: 1
Acq Time : 04/04/2016 11:01 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31390 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 11:33:11 2016 Results File: TO15LSIMA8.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD95S1.D Vial: 1
Acq Time : 04/04/2016 11:01 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31390 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 11:33:11 2016 Results File: TO15LSIMA8.RES

Quant Method : Z:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.35	130	35403	1000.0000	ppt		143.41
25) 1,4-Difluorobenzene	10.26	114	406665	1000.0000	ppt		168.57#
50) Chlorobenzene d5	14.66	117	643764	1000.0000	ppt		318.60#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	511290	2131.1503	ppt		213.12%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	0.00	85	Not Detected				
4) Chloromethane	4.03	50	24950	258.6124	ppt	#	41
5) Freon 114	4.04	135	189531	708.6757	ppt	#	69
6) Vinyl Chloride	4.13	62	68941	642.6178	ppt		98
7) 1,3-Butadiene	4.27	54	48677	593.4575	ppt	#	56
8) Bromomethane	4.55	94	91726	788.1345	ppt		98
9) Chloroethane	4.72	64	41349	735.2728	ppt	#	88
10) Acrolein	5.34	56	27379	520.0133	ppt	#	94
11) Acetone	5.51	43	191552	534.6688	ppt	#	85
12) Trichlorofluoromethane	5.46	101	301586	716.8818	ppt		97
13) Ethanol	5.17	45	41146	483.1933	ppt	#	39
14) Isopropyl Alcohol	5.82	45	31492	46.3379	ppt	#	43
15) 1,1-Dichloroethene	6.10	61	134850	622.7181	ppt		83
16) Methylene Chloride	6.24	84	98879	756.0284	ppt	#	65
17) Freon 113	6.48	151	204774	710.6593	ppt	#	69
18) Carbon Disulfide	6.51	76	286031	708.0762	ppt	#	64
19) trans-1,2-Dichloroethene	7.15	96	97749	693.6070	ppt	#	85
20) 1,1-Dichloroethane	7.36	63	173169	683.9451	ppt		97
21) methyl t-butyl ether	7.46	73	164848	555.3201	ppt	#	80
22) Vinyl Acetate	7.53	86	16145	527.5729	ppt	#	1
23) 2-Butanone	7.85	43	171869	606.0274	ppt	#	68
24) cis-1,2-Dichloroethene	8.18	96	96174	657.2367	ppt	#	85
26) Ethyl Acetate	8.45	61	27217	617.0247	ppt	#	1
27) Hexane	8.38	57	112917	517.0057	ppt	#	78
28) Chloroform	8.48	83	225426	632.0254	ppt	#	17
29) Tetrahydrofuran	9.00	42	90981	450.5007	ppt	#	40
30) 1,2-Dichloroethane	9.22	62	97619	441.1231	ppt	#	89
31) 1,1,1-Trichloroethane	9.45	97	242706	609.8717	ppt	#	92
32) Benzene	9.91	78	259010	530.5883	ppt	#	89
33) Carbon Tetrachloride	10.05	117	298475	621.6495	ppt		99
34) Cyclohexane	10.18	84	96089	523.4678	ppt	#	51
35) 1,2-Dichloropropane	10.73	63	100136	554.2586	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD95S1.D Vial: 1
Acq Time : 04/04/2016 11:01 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31390 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 11:33:11 2016 Results File: TO15LSIMA8.RES

Quant Method : Z:\L\METHODS\TO15LSIMA8.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu Mar 17 11:41:59 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.92	83	231194	612.6194	ppt		97
37)	1,4-Dioxane	11.05	88	44649	404.5698	ppt	#	77
38)	Trichloroethene	10.96	130	150661	569.0760	ppt	#	41
39)	Methyl Methacrylate	11.23	69	12467	149.4459	ppt	#	1
40)	Heptane	11.24	71	81414	608.0345	ppt	#	24
41)	cis-1,3-Dichloropropene	11.82	75	122546	492.5437	ppt		98
42)	4-Methyl-2-Pentanone	11.87	43	196523	531.1836	ppt	#	70
43)	trans-1,3-Dichloropropene	12.35	75	105995	501.0738	ppt		98
44)	1,1,2-Trichloroethane	12.53	97	136450	613.7385	ppt	#	82
45)	Toluene	12.82	91	268838	515.3810	ppt		97
46)	2-Hexanone	13.08	43	146069	469.9804	ppt	#	67
47)	Dibromochloromethane	13.27	129	282616	603.8709	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	198671	583.8869	ppt		100
49)	Tetrachloroethene	13.98	166	170414	508.5351	ppt	#	81
51)	Chlorobenzene	14.71	112	297114	299.4875	ppt	#	74
52)	Ethylbenzene	15.09	91	300528	241.5795	ppt		98
53)	m,p-Xylene	15.29	91	547327	579.0768	ppt		93
54)	Bromoform	15.40	173	195274	290.7294	ppt		95
55)	Styrene	15.69	104	159378	234.7473	ppt		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	262404	287.1047	ppt		98
57)	o-Xylene	15.81	91	281445	274.5150	ppt		99
59)	4-Ethyl Toluene	17.25	105	261108	215.2030	ppt		100
60)	1,3,5-Trimethylbenzene	17.34	105	319961	268.1223	ppt		97
61)	1,2,4-Trimethylbenzene	17.86	105	293821	275.0098	ppt		98
62)	Benzyl Chloride	18.05	91	255968	277.3676	ppt		99
63)	m-Dichlorobenzene	18.07	146	276556	290.3683	ppt		96
64)	p-Dichlorobenzene	18.17	146	262621	269.5591	ppt		95
65)	o-Dichlorobenzene	18.62	146	239535	250.2289	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	107050	239.4836	ppt	#	97
67)	Naphthalene	21.31	128	282025	274.4700	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	163949	303.8838	ppt		99

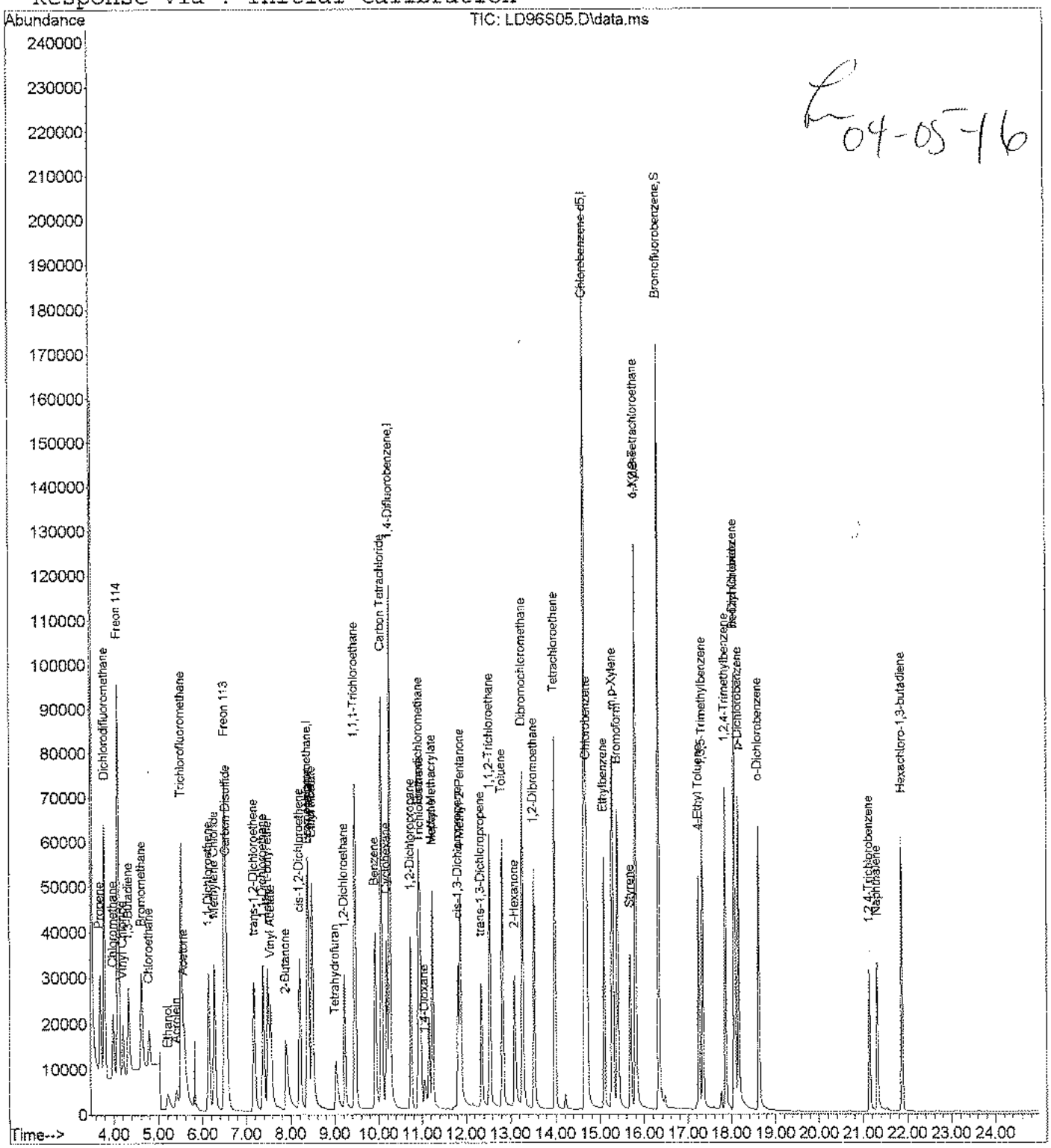
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD96S05.D Vial: 1
Acq Time : 04/04/2016 11:50 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31390 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 14:21:04 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD96S05.D Vial: 1
Acq Time : 04/04/2016 11:50 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31390 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 14:21:04 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 14:20:42 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	24351	1000.0000	ppt		98.64
25) 1,4-Difluorobenzene	10.27	114	253992	1000.0000	ppt		105.28
50) Chlorobenzene d5	14.66	117	418566	1000.0000	ppt		207.15#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	325600	1718.9709	ppt		171.90%
Target Compounds							Qvalue
2) Propene	3.70	41	22092	204.2790	ppt		95
3) Dichlorodifluoromethane	3.80	85	81955	403.7400	ppt		99
4) Chloromethane	3.98	50	28272	523.0130	ppt		98
5) Freon 114	4.10	135	66412	380.6727	ppt	#	69
6) Vinyl Chloride	4.20	62	23805	346.2170	ppt		98
7) 1,3-Butadiene	4.33	54	17286	330.6248	ppt	#	56
8) Bromomethane	4.61	94	31783	414.9470	ppt		99
9) Chloroethane	4.78	64	14285	391.4607	ppt	#	88
10) Acrolein	5.40	56	8336	250.8878	ppt	#	97
11) Acetone	5.57	43	64642	277.0388	ppt	#	85
12) Trichlorofluoromethane	5.51	101	104697	380.8985	ppt		97
13) Ethanol	5.20	45	14132	264.3578	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.14	61	44422	319.5297	ppt	#	83
16) Methylene Chloride	6.28	84	33691	392.2553	ppt	#	64
17) Freon 113	6.51	151	70623	375.0928	ppt	#	68
18) Carbon Disulfide	6.56	76	99035	373.3931	ppt	#	65
19) trans-1,2-Dichloroethene	7.18	96	32781	354.6206	ppt	#	86
20) 1,1-Dichloroethane	7.39	63	58443	355.6990	ppt		98
21) methyl t-butyl ether	7.50	73	49214	263.0414	ppt	#	78
22) Vinyl Acetate	7.56	86	4523	236.8236	ppt	#	1
23) 2-Butanone	7.89	43	53198	294.6898	ppt	#	67
24) cis-1,2-Dichloroethene	8.20	96	31117	330.0836	ppt	#	86
26) Ethyl Acetate	8.48	61	8421	334.6699	ppt	#	1
27) Hexane	8.40	57	32527	265.0265	ppt	#	73
28) Chloroform	8.49	83	76260	369.9339	ppt	#	17
29) Tetrahydrofuran	9.02	42	25720	231.7001	ppt	#	40
30) 1,2-Dichloroethane	9.23	62	39748	321.4599	ppt	#	87
31) 1,1,1-Trichloroethane	9.46	97	82105	357.3882	ppt	#	92
32) Benzene	9.92	78	83961	299.7553	ppt	#	89
33) Carbon Tetrachloride	10.07	117	101277	364.9849	ppt		99
34) Cyclohexane	10.19	84	27717	267.4308	ppt	#	51
35) 1,2-Dichloropropane	10.74	63	33112	321.7933	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD96S05.D Vial: 1
Acq Time : 04/04/2016 11:50 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31390 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 14:21:04 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 14:20:42 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	78404	361.1698	ppt		98
37)	1,4-Dioxane	11.06	88	13175	212.8772	ppt	#	78
38)	Trichloroethene	10.97	130	48095	317.4282	ppt	#	41
39)	Methyl Methacrylate	11.24	69	4792	92.5502	ppt	#	1
40)	Heptane	11.25	71	21731	288.7717	ppt	#	23
41)	cis-1,3-Dichloropropene	11.83	75	37258	265.3068	ppt		95
42)	4-Methyl-2-Pentanone	11.88	43	53668	262.3608	ppt	#	69
43)	trans-1,3-Dichloropropene	12.35	75	32196	272.3256	ppt		97
44)	1,1,2-Trichloroethane	12.54	97	44844	351.5369	ppt	#	82
45)	Toluene	12.82	91	77214	264.3887	ppt		96
46)	2-Hexanone	13.09	43	37977	224.5861	ppt	#	66
47)	Dibromochloromethane	13.27	129	92206	345.3064	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	62826	325.0013	ppt		100
49)	Tetrachloroethene	13.98	166	54324	286.1654	ppt	#	81
51)	Chlorobenzene	14.71	112	96219	174.1526	ppt	#	73
52)	Ethylbenzene	15.09	91	82013	121.8436	ppt		98
53)	m,p-Xylene	15.29	91	138721	274.0991	ppt		92
54)	Bromoform	15.40	173	62138	167.6482	ppt		100
55)	Styrene	15.69	104	40213	111.5294	ppt		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	84737	169.7281	ppt		98
57)	o-Xylene	15.81	91	71012	130.3578	ppt		98
59)	4-Ethyl Toluene	17.25	105	62857	98.6850	ppt		99
60)	1,3,5-Trimethylbenzene	17.34	105	72352	115.7575	ppt		95
61)	1,2,4-Trimethylbenzene	17.86	105	79156	139.6932	ppt		96
62)	Benzyl Chloride	18.06	91	70038	142.5688	ppt		97
63)	m-Dichlorobenzene	18.07	146	80643	156.5168	ppt		96
64)	p-Dichlorobenzene	18.17	146	76609	145.2781	ppt		97
65)	o-Dichlorobenzene	18.62	146	70042	135.1213	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	27335	113.5790	ppt	#	97
67)	Naphthalene	21.31	128	58476	107.7242	ppt		99
68)	Hexachloro-1,3-butadiene	21.86	225	50263	167.3725	ppt		99

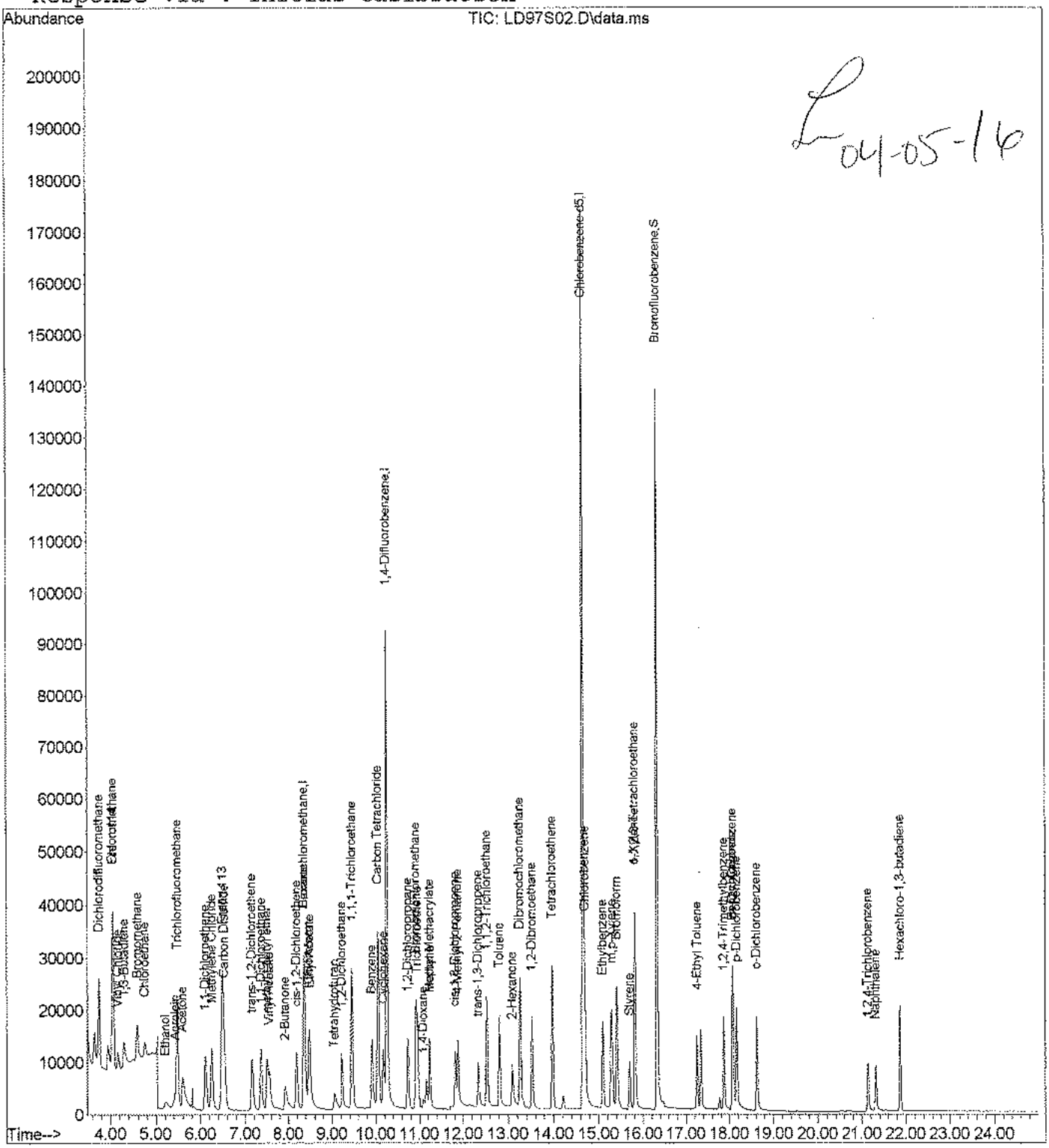
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD97S02.D Vial: 1
Acq Time : 04/04/2016 12:36 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31390 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 14:21:52 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD97S02.D Vial: 1
Acq Time : 04/04/2016 12:36 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31390 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 14:21:52 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 14:21:42 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.35	130	22023	1000.0000	ppt		90.44
25) 1,4-Difluorobenzene	10.26	114	205259	1000.0000	ppt		80.81
50) Chlorobenzene d5	14.66	117	373696	1000.0000	ppt		89.28
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	270895	1365.0177	ppt		136.50%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	3.75	85	30428	172.5618	ppt		99
4) Chloromethane	4.05	50	3391	73.2283	ppt	#	41
5) Freon 114	4.05	135	24562	161.9595	ppt	#	67
6) Vinyl Chloride	4.16	62	8311	142.3072	ppt		99
7) 1,3-Butadiene	4.29	54	5442	123.1893	ppt	#	50
8) Bromomethane	4.59	94	12001	177.6327	ppt		100
9) Chloroethane	4.75	64	5428	170.6592	ppt	#	87
10) Acrolein	5.42	56	2788	103.1501	ppt	#	96
11) Acetone	5.60	43	26158	130.4457	ppt	#	83
12) Trichlorofluoromethane	5.47	101	40069	167.1107	ppt		97
13) Ethanol	5.21	45	5537	123.3485	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.11	61	15827	135.2474	ppt		84
16) Methylene Chloride	6.25	84	12873	170.7778	ppt	#	65
17) Freon 113	6.49	151	26653	162.8076	ppt	#	66
18) Carbon Disulfide	6.53	76	37446	161.5632	ppt	#	64
19) trans-1,2-Dichloroethene	7.16	96	11960	149.8554	ppt	#	85
20) 1,1-Dichloroethane	7.36	63	21862	154.6138	ppt		97
21) methyl t-butyl ether	7.51	73	15742	103.7554	ppt	#	78
22) Vinyl Acetate	7.56	86	1461	95.8706	ppt	#	1
23) 2-Butanone	7.92	43	17360	116.1121	ppt	#	67
24) cis-1,2-Dichloroethene	8.19	96	10819	135.4257	ppt	#	86
26) Ethyl Acetate	8.49	61	2660	141.3315	ppt	#	1
27) Hexane	8.37	57	9881	111.6061	ppt	#	71
28) Chloroform	8.47	83	28501	179.6246	ppt	#	17
29) Tetrahydrofuran	9.05	42	8319	107.7494	ppt	#	36
30) 1,2-Dichloroethane	9.22	62	12782	137.8910	ppt	#	83
31) 1,1,1-Trichloroethane	9.45	97	30645	174.3740	ppt	#	91
32) Benzene	9.91	78	29713	140.8842	ppt	#	89
33) Carbon Tetrachloride	10.05	117	38543	180.9405	ppt		99
34) Cyclohexane	10.18	84	8113	107.2990	ppt	#	44
35) 1,2-Dichloropropane	10.73	63	11871	153.8376	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LD97S02.D Vial: 1
Acq Time : 04/04/2016 12:36 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31390 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 14:21:52 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 14:21:42 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.92	83	29023	174.7950	ppt		97
37)	1,4-Dioxane	11.09	88	4150	93.6438	ppt	#	79
38)	Trichloroethene	10.96	130	16689	147.4365	ppt	#	41
39)	Methyl Methacrylate	11.23	69	1730	55.7053	ppt	#	1
40)	Heptane	11.24	71	5552	102.0106	ppt	#	20
41)	cis-1,3-Dichloropropene	11.82	75	12125	118.3550	ppt		96
42)	4-Methyl-2-Pentanone	11.88	43	16036	110.1050	ppt	#	66
43)	trans-1,3-Dichloropropene	12.35	75	10211	119.5340	ppt		98
44)	1,1,2-Trichloroethane	12.53	97	16249	167.3326	ppt	#	82
45)	Toluene	12.82	91	23899	113.4577	ppt		95
46)	2-Hexanone	13.09	43	10954	93.7240	ppt	#	63
47)	Dibromochloromethane	13.26	129	32975	163.1723	ppt	#	87
48)	1,2-Dibromoethane	13.53	107	21324	147.5232	ppt		99
49)	Tetrachloroethene	13.98	166	18744	133.8076	ppt	#	81
51)	Chlorobenzene	14.71	112	33891	80.4429	ppt	#	67
52)	Ethylbenzene	15.09	91	24474	50.1802	ppt		98
53)	m,p-Xylene	15.28	91	34832	95.2664	ppt		100
54)	Bromoform	15.40	173	21782	76.5423	ppt		96
55)	Styrene	15.69	104	11047	43.2332	ppt		97
56)	1,1,2,2-Tetrachloroethane	15.81	83	29401	77.5543	ppt	#	97
57)	o-Xylene	15.81	91	17442	44.5723	ppt		100
59)	4-Ethyl Toluene	17.25	105	17967	40.4802	ppt		99
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected			
61)	1,2,4-Trimethylbenzene	17.86	105	20261	49.4746	ppt		96
62)	Benzyl Chloride	18.06	91	20348	56.9672	ppt		98
63)	m-Dichlorobenzene	18.08	146	23990	62.9142	ppt		96
64)	p-Dichlorobenzene	18.17	146	22238	57.6985	ppt		96
65)	o-Dichlorobenzene	18.62	146	21157	55.5043	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	8507	48.6383	ppt	#	97
67)	Naphthalene	21.31	128	16523	43.0718	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	17137	74.6168	ppt		99

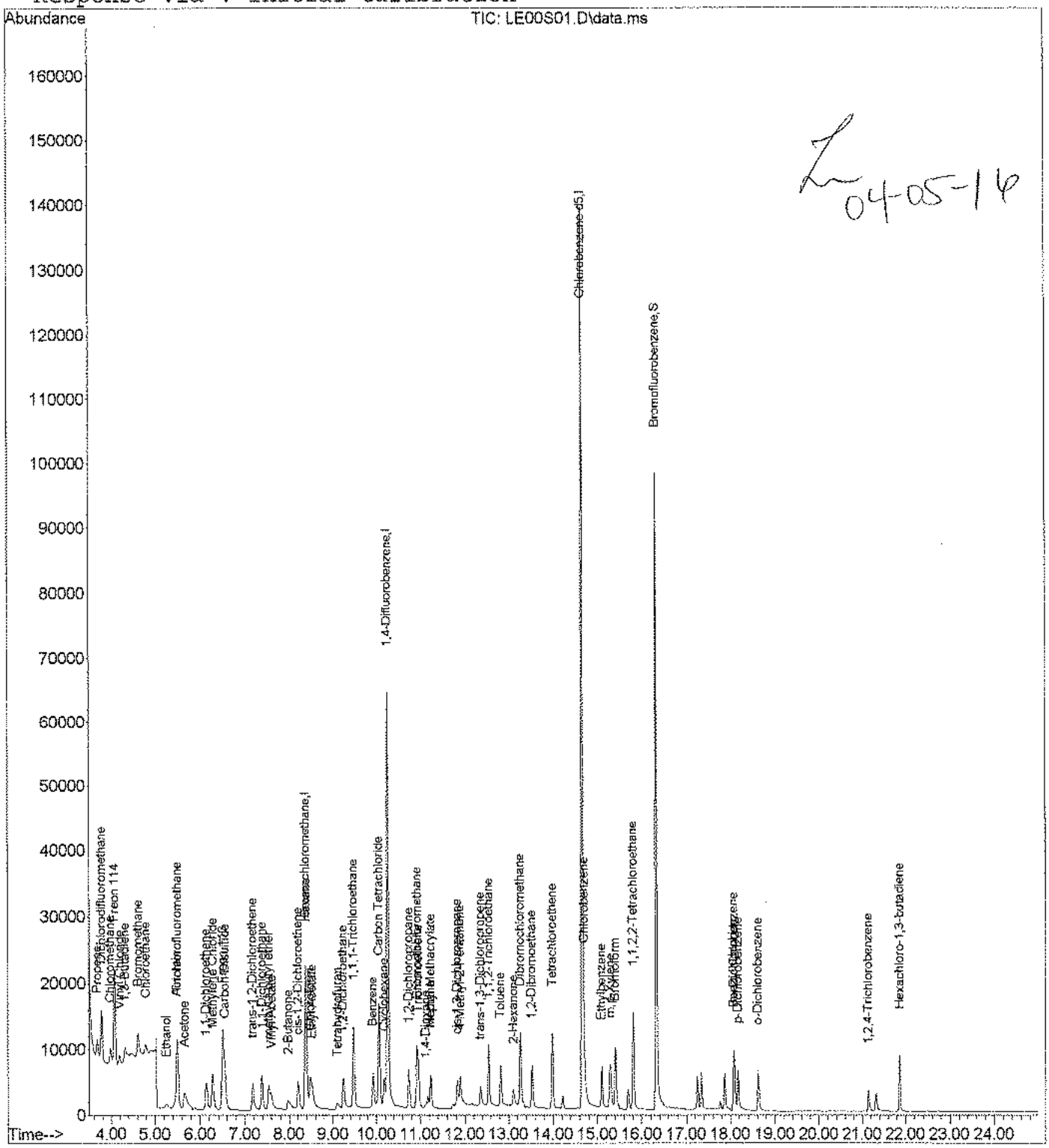
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE00S01.D Vial: 1
Acq Time : 04/04/2016 14:55 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31390 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:21:44 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE00S01.D Vial: 1
Acq Time : 04/04/2016 14:55 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31390 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:21:44 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:14:48 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	18358	1000.0000	ppt		75.39
25) 1,4-Difluorobenzene	10.27	114	144215	1000.0000	ppt		56.78
50) Chlorobenzene d5	14.66	117	296634	1000.0000	ppt		70.87
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	196412	998.9978	ppt		99.90%
Target Compounds							Qvalue
2) Propene	3.67	41	4000	82.1136	ppt		91
3) Dichlorodifluoromethane	3.78	85	13800	110.4908	ppt		99
4) Chloromethane	3.97	50	4842	142.5686	ppt		99
5) Freon 114	4.08	135	11196	104.1037	ppt	#	65
6) Vinyl Chloride	4.19	62	3417	88.0638	ppt		100
7) 1,3-Butadiene	4.32	54	2381	84.2104	ppt	#	52
8) Bromomethane	4.61	94	5590	112.5585	ppt		98
9) Chloroethane	4.78	64	2589	113.6392	ppt	#	87
10) Acrolein	5.48	56	1108	74.7301	ppt	#	51
11) Acetone	5.66	43	13404	97.5382	ppt	#	77
12) Trichlorofluoromethane	5.50	101	18755	108.8430	ppt		97
13) Ethanol	5.25	45	2122	84.9291	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.13	61	6414	86.4033	ppt		83
16) Methylene Chloride	6.28	84	5896	106.9181	ppt	#	64
17) Freon 113	6.50	151	12177	104.9585	ppt	#	63
18) Carbon Disulfide	6.55	76	17238	105.0253	ppt	#	68
19) trans-1,2-Dichloroethene	7.17	96	4796	90.3478	ppt	#	83
20) 1,1-Dichloroethane	7.38	63	9862	100.7095	ppt		96
21) methyl t-butyl ether	7.54	73	5688	66.4658	ppt	#	77
22) Vinyl Acetate	7.60	86	412	48.8453	ppt	#	1
23) 2-Butanone	7.97	43	6401	72.1414	ppt	#	63
24) cis-1,2-Dichloroethene	8.20	96	4183	82.2508	ppt	#	84
26) Ethyl Acetate	8.53	61	907	87.0606	ppt	#	1
27) Hexane	8.39	57	3579	81.1986	ppt	#	66
28) Chloroform	8.48	83	12976	127.5520	ppt	#	17
29) Tetrahydrofuran	9.10	42	2375	64.0503	ppt	#	45
30) 1,2-Dichloroethane	9.23	62	6917	127.8023	ppt	#	74
31) 1,1,1-Trichloroethane	9.46	97	13820	124.7679	ppt	#	91
32) Benzene	9.92	78	11511	97.4232	ppt	#	87
33) Carbon Tetrachloride	10.06	117	17801	129.3398	ppt		99
34) Cyclohexane	10.19	84	2866	76.1298	ppt	#	34
35) 1,2-Dichloropropane	10.74	63	5166	113.9826	ppt		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE00S01.D Vial: 1
Acq Time : 04/04/2016 14:55 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31390 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:21:44 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:14:48 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	13202	125.8902	ppt		96
37)	1,4-Dioxane	11.13	88	1367	67.5204	ppt	#	79
38)	Trichloroethene	10.97	130	6664	103.5197	ppt	#	40
39)	Methyl Methacrylate	11.24	69	756	141.5222	ppt	#	1
40)	Heptane	11.24	71	2007	74.9804	ppt	#	22
41)	cis-1,3-Dichloropropene	11.83	75	4959	92.8393	ppt	#	77
42)	4-Methyl-2-Pentanone	11.90	43	5886	80.1793	ppt	#	64
43)	trans-1,3-Dichloropropene	12.36	75	3888	88.7870	ppt		97
44)	1,1,2-Trichloroethane	12.54	97	7116	119.6307	ppt	#	82
45)	Toluene	12.82	91	8760	83.0448	ppt		96
46)	2-Hexanone	13.10	43	3975	72.2813	ppt	#	62
47)	Dibromochloromethane	13.27	129	14167	115.8661	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	8418	102.3626	ppt		96
49)	Tetrachloroethene	13.98	166	7588	101.1577	ppt	#	80
51)	Chlorobenzene	14.71	112	14269	71.8173	ppt	#	60
52)	Ethylbenzene	15.09	91	9557	47.9946	ppt		98
53)	m,p-Xylene	15.29	91	12380	82.1453	ppt		100
54)	Bromoform	15.41	173	10224	76.8671	ppt		95
55)	Styrene	0.00	104		Not Detected			
56)	1,1,2,2-Tetrachloroethane	15.81	83	12506	70.9876	ppt	#	96
57)	o-Xylene	0.00	91		Not Detected			
59)	4-Ethyl Toluene	0.00	105		Not Detected			
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected			
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected			
62)	Benzyl Chloride	18.06	91	6505	43.0079	ppt		100
63)	m-Dichlorobenzene	18.07	146	8266	50.0152	ppt	#	95
64)	p-Dichlorobenzene	18.17	146	7246	44.5768	ppt		96
65)	o-Dichlorobenzene	18.62	146	7643	48.4464	ppt		96
66)	1,2,4-Trichlorobenzene	21.14	180	3073	44.0345	ppt	#	97
67)	Naphthalene	0.00	128		Not Detected			
68)	Hexachloro-1,3-butadiene	21.86	225	7220	68.4313	ppt		99

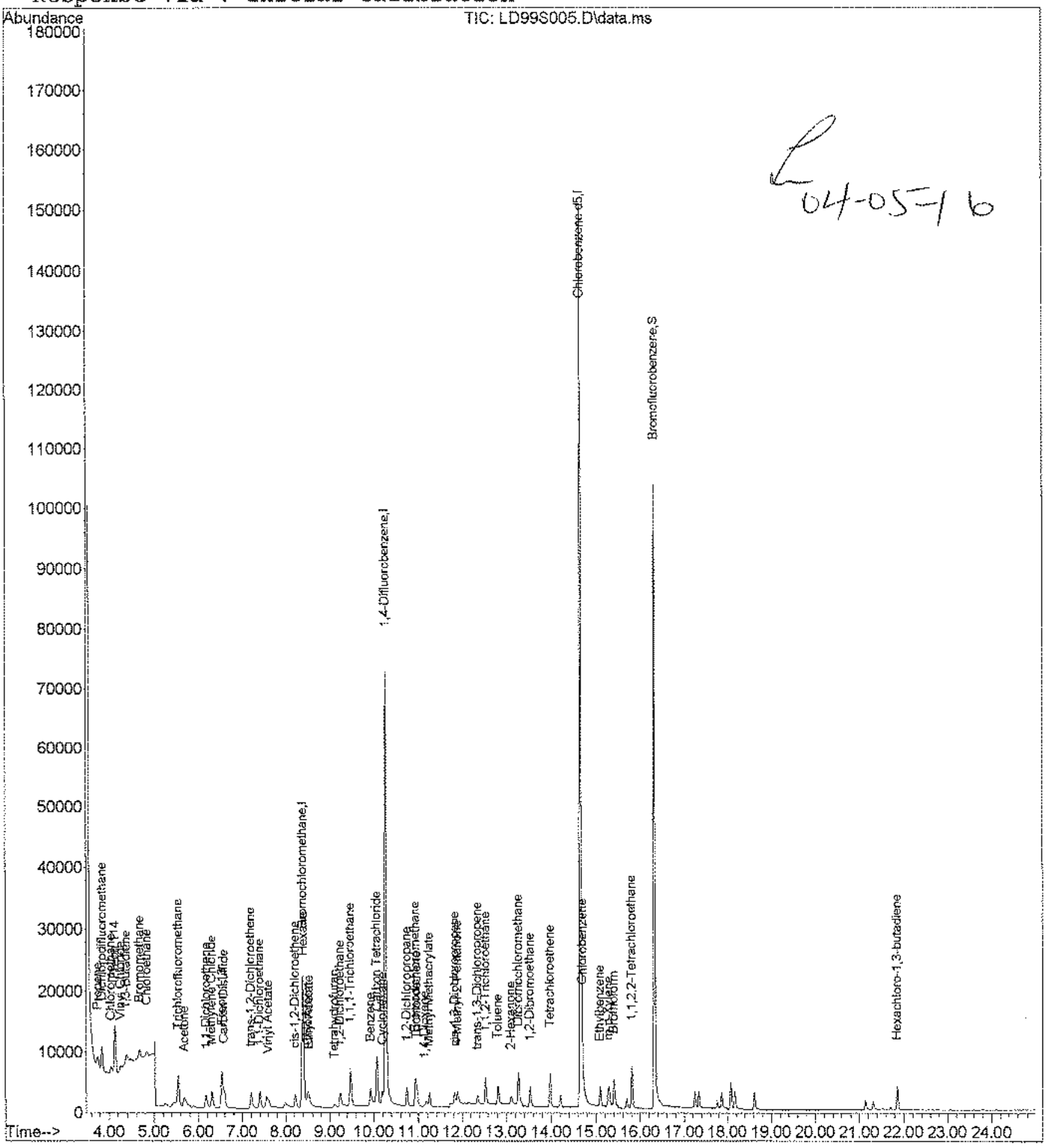
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LD99S005.D Vial: 1
Acq Time : 04/04/2016 14:12 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31390 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:46:00 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LD99S005.D Vial: 1
Acq Time : 04/04/2016 14:12 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31390 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:46:00 2016 Results File: TO15LSIMA9.RES

Quant Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	20031	1000.0000	ppt		82.26
25) 1,4-Difluorobenzene	10.27	114	153315	1000.0000	ppt		60.36
50) Chlorobenzene d5	14.66	117	317183	1000.0000	ppt		75.78
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	206048	900.0541	ppt		90.01%
Target Compounds							Qvalue
2) Propene	3.74	41	2403	53.4184	ppt	#	89
3) Dichlorodifluoromethane	3.84	85	6256	48.3640	ppt		100
4) Chloromethane	4.05	50	2213	63.9065	ppt		99
5) Freon 114	4.13	135	5297	47.6091	ppt	#	64
6) Vinyl Chloride	4.25	62	1710	45.6120	ppt		97
7) 1,3-Butadiene	4.38	54	1283	48.4631	ppt	#	31
8) Bromomethane	4.66	94	2265	42.7263	ppt		98
9) Chloroethane	4.83	64	1080	44.4696	ppt	#	88
10) Acrolein	0.00	56		Not Detected			
11) Acetone	5.68	43	9131	68.9066	ppt	#	72
12) Trichlorofluoromethane	5.54	101	8727	48.2534	ppt		96
13) Ethanol	0.00	45		Not Detected			
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.17	61	3079	43.6214	ppt	#	83
16) Methylene Chloride	6.31	84	2794	48.1508	ppt	#	64
17) Freon 113	6.54	151	5735	47.7259	ppt	#	64
18) Carbon Disulfide	6.59	76	8396	49.3260	ppt	#	63
19) trans-1,2-Dichloroethene	7.20	96	2323	44.2613	ppt	#	85
20) 1,1-Dichloroethane	7.40	63	4756	47.9166	ppt		95
21) methyl t-butyl ether	0.00	73		Not Detected			
22) Vinyl Acetate	7.61	86	309	45.5809	ppt	#	1
23) 2-Butanone	0.00	43		Not Detected			
24) cis-1,2-Dichloroethene	8.21	96	2032	42.1415	ppt	#	80
26) Ethyl Acetate	8.53	61	437	44.8263	ppt	#	1
27) Hexane	8.41	57	1735	45.3029	ppt	#	66
28) Chloroform	8.50	83	6101	56.1310	ppt	#	17
29) Tetrahydrofuran	9.09	42	1385	46.3620	ppt	#	42
30) 1,2-Dichloroethane	9.24	62	3438	62.5501	ppt	#	56
31) 1,1,1-Trichloroethane	9.47	97	6625	56.6732	ppt	#	92
32) Benzene	9.93	78	6413	57.1965	ppt	#	88
33) Carbon Tetrachloride	10.07	117	8564	57.9227	ppt		98
34) Cyclohexane	10.20	84	1417	44.6172	ppt	#	37
35) 1,2-Dichloropropane	10.75	63	2503	55.1224	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LD99S005.D Vial: 1
Acq Time : 04/04/2016 14:12 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31390 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:46:00 2016 Results File: TO15LSIMA9.RES

Quant Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.93	83	6190	55.8306 ppt		98
37)	1,4-Dioxane	11.14	88	648	40.3538 ppt	#	59
38)	Trichloroethene	10.97	130	3230	51.6576 ppt	#	38
39)	Methyl Methacrylate	11.25	69	254	42.2443 ppt	#	1
40)	Heptane	0.00	71		Not Detected		
41)	cis-1,3-Dichloropropene	11.83	75	2471	51.7808 ppt	#	92
42)	4-Methyl-2-Pentanone	11.90	43	3063	47.4731 ppt	#	64
43)	trans-1,3-Dichloropropene	12.36	75	1918	48.7651 ppt		98
44)	1,1,2-Trichloroethane	12.54	97	3332	53.9936 ppt	#	81
45)	Toluene	12.82	91	4317	46.5905 ppt		95
46)	2-Hexanone	13.10	43	1857	41.9710 ppt	#	64
47)	Dibromochloromethane	13.27	129	6701	53.5529 ppt	#	87
48)	1,2-Dibromoethane	13.53	107	4026	50.2752 ppt		96
49)	Tetrachloroethene	13.98	166	3556	50.5659 ppt	#	79
51)	Chlorobenzene	14.71	112	6759	46.6912 ppt	#	74
52)	Ethylbenzene	15.09	91	4793	41.7304 ppt		98
53)	m,p-Xylene	15.28	91	6070	68.8593 ppt		98
54)	Bromoform	15.40	173	4693	48.2810 ppt		98
55)	Styrene	0.00	104		Not Detected		
56)	1,1,2,2-Tetrachloroethane	15.81	83	5919	46.6365 ppt	#	91
57)	o-Xylene	0.00	91		Not Detected		
59)	4-Ethyl Toluene	0.00	105		Not Detected		
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected		
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	21.86	225	3367	44.9865 ppt		99

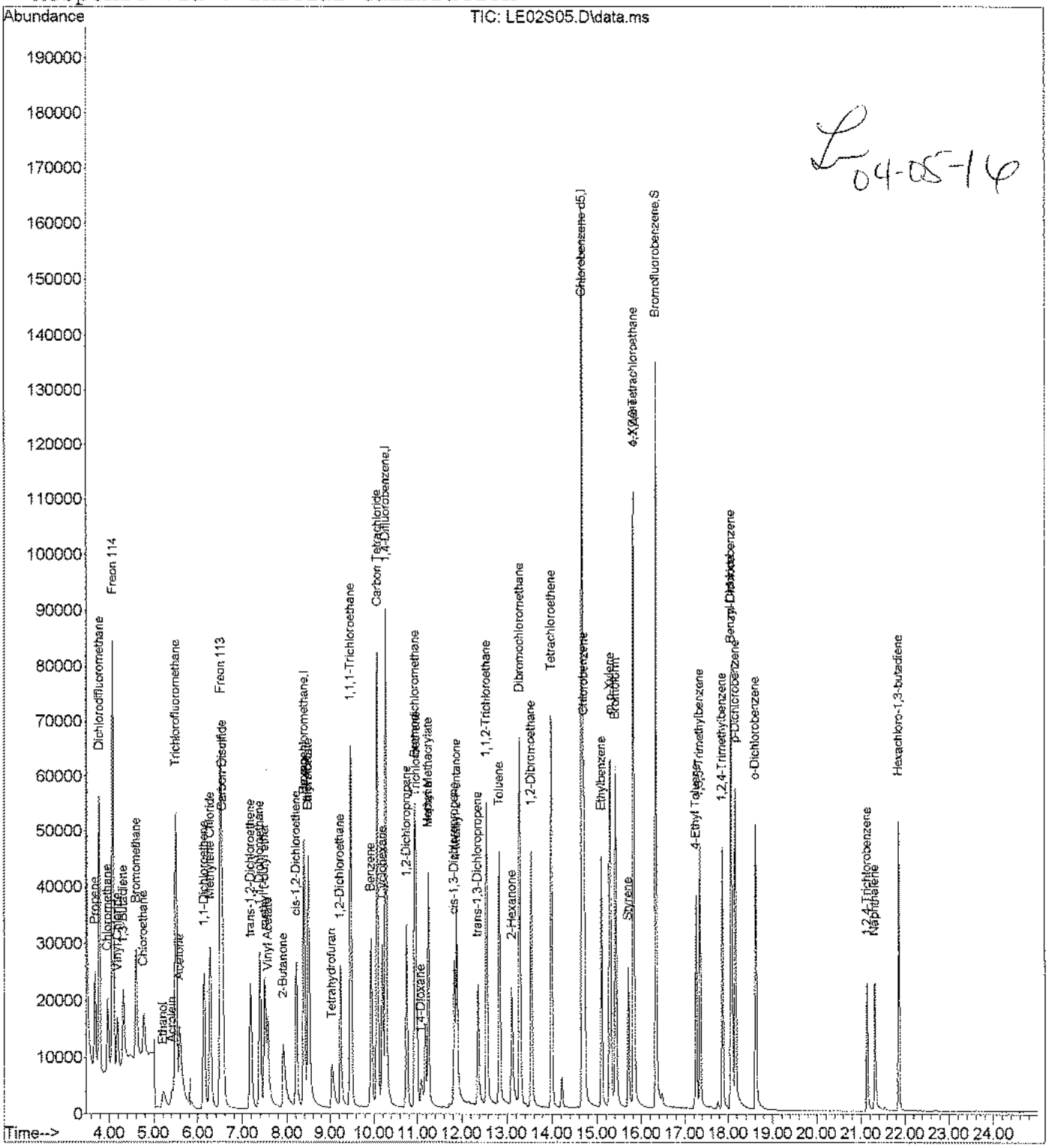
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE02S05.D Vial: 1
Acq Time : 04/04/2016 16:29 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31390 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:04:22 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE02S05.D Vial: 1
Acq Time : 04/04/2016 16:29 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31390 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:04:22 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	19695	1000.0000	ppt		80.88
25) 1,4-Difluorobenzene	10.28	114	190160	1000.0000	ppt		74.87
50) Chlorobenzene d5	14.68	117	350156	1000.0000	ppt		83.66
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	257319	1018.1703	ppt		101.82%
Target Compounds							Qvalue
2) Propene	3.68	41	18104	409.3157	ppt		94
3) Dichlorodifluoromethane	3.78	85	75269	591.8181	ppt		99
4) Chloromethane	3.97	50	26496	778.1992	ppt		99
5) Freon 114	4.08	135	58782	537.3418	ppt	#	64
6) Vinyl Chloride	4.19	62	19541	530.1224	ppt		99
7) 1,3-Butadiene	4.32	54	13037	500.8510	ppt	#	51
8) Bromomethane	4.61	94	30884	592.5255	ppt		98
9) Chloroethane	4.77	64	13477	564.3897	ppt	#	89
10) Acrolein	5.41	56	6479	514.5325	ppt	#	95
11) Acetone	5.58	43	56486	433.5407	ppt		88
12) Trichlorofluoromethane	5.50	101	97791	549.9311	ppt		97
13) Ethanol	5.21	45	12785	620.3487	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	6.14	61	36554	526.7100	ppt	#	83
16) Methylene Chloride	6.28	84	31780	557.0291	ppt	#	65
17) Freon 113	6.51	151	63717	539.2898	ppt	#	63
18) Carbon Disulfide	6.55	76	91609	547.3796	ppt	#	66
19) trans-1,2-Dichloroethene	7.18	96	26753	518.4345	ppt	#	87
20) 1,1-Dichloroethane	7.39	63	52790	540.9317	ppt		97
21) methyl t-butyl ether	7.50	73	36553	510.2030	ppt	#	77
22) Vinyl Acetate	7.57	86	3371	505.7434	ppt	#	1
23) 2-Butanone	7.91	43	43259	556.0002	ppt	#	67
24) cis-1,2-Dichloroethene	8.21	96	25471	537.2528	ppt	#	85
26) Ethyl Acetate	8.49	61	6901	570.7278	ppt	#	1
27) Hexane	8.40	57	25275	532.0873	ppt	#	70
28) Chloroform	8.49	83	72413	537.1353	ppt	#	17
29) Tetrahydrofuran	9.04	42	20657	557.5004	ppt	#	40
30) 1,2-Dichloroethane	9.24	62	37901	555.9534	ppt	#	87
31) 1,1,1-Trichloroethane	9.47	97	74894	516.5403	ppt	#	91
32) Benzene	9.93	78	67951	488.6180	ppt	#	88
33) Carbon Tetrachloride	10.08	117	94878	517.3726	ppt		99
34) Cyclohexane	10.20	84	21239	539.1784	ppt	#	50
35) 1,2-Dichloropropane	10.76	63	28996	514.8385	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE02S05.D Vial: 1
Acq Time : 04/04/2016 16:29 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31390 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:04:22 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.94	83	73138	531.8508	ppt		98
37)	1,4-Dioxane	11.08	88	9910	497.5637	ppt	#	75
38)	Trichloroethene	10.97	130	39391	507.9190	ppt	#	39
39)	Methyl Methacrylate	11.25	69	5047	676.7570	ppt	#	1
40)	Heptane	11.26	71	17696	610.1320	ppt	#	22
41)	cis-1,3-Dichloropropene	11.84	75	31357	529.7804	ppt		98
42)	4-Methyl-2-Pentanone	11.90	43	43873	548.2306	ppt	#	67
43)	trans-1,3-Dichloropropene	12.37	75	25666	526.1189	ppt		97
44)	1,1,2-Trichloroethane	12.56	97	41675	544.4759	ppt	#	82
45)	Toluene	12.84	91	61071	531.3929	ppt		95
46)	2-Hexanone	13.10	43	29804	543.0972	ppt	#	64
47)	Dibromochloromethane	13.29	129	83945	540.8834	ppt	#	87
48)	1,2-Dibromoethane	13.54	107	54896	552.6958	ppt		99
49)	Tetrachloroethene	13.99	166	45428	520.8174	ppt	#	80
51)	Chlorobenzene	14.72	112	86521	541.4050	ppt	#	72
52)	Ethylbenzene	15.11	91	65196	514.1790	ppt		97
53)	m,p-Xylene	15.30	91	109735	1127.6314	ppt		92
54)	Bromoform	15.42	173	53889	502.1975	ppt		97
55)	Styrene	15.70	104	30298	510.3495	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.83	83	81262	579.9806	ppt		97
57)	o-Xylene	15.82	91	54908	558.8954	ppt		98
59)	4-Ethyl Toluene	17.26	105	45872	478.1268	ppt		99
60)	1,3,5-Trimethylbenzene	17.35	105	53203	516.0099	ppt		94
61)	1,2,4-Trimethylbenzene	17.87	105	48499	455.4780	ppt		99
62)	Benzyl Chloride	18.06	91	56403	564.9820	ppt		95
63)	m-Dichlorobenzene	18.08	146	67114	575.9025	ppt	#	95
64)	p-Dichlorobenzene	18.17	146	66195	616.2876	ppt		94
65)	o-Dichlorobenzene	18.62	146	56818	549.2757	ppt		95
66)	1,2,4-Trichlorobenzene	21.14	180	20641	482.2546	ppt	#	96
67)	Naphthalene	21.31	128	42360	460.4403	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	42590	515.4599	ppt		99

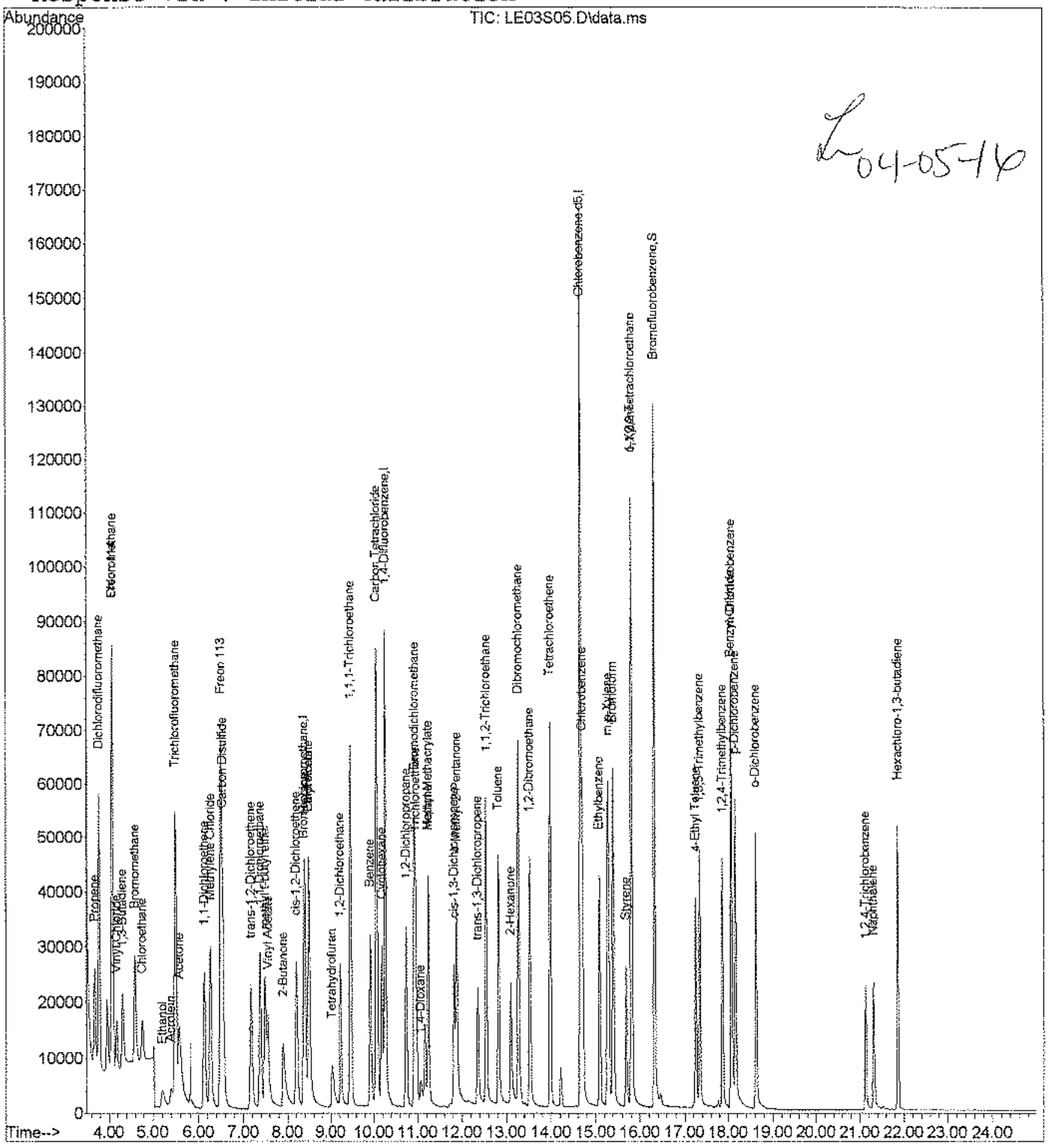
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE03S05.D Vial: 1
Acq Time : 04/04/2016 17:17 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31390 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:04:50 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



LE 04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE03S05.D Vial: 1
Acq Time : 04/04/2016 17:17 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31390 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:04:50 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	20215	1000.0000	ppt		83.02
25) 1,4-Difluorobenzene	10.27	114	192444	1000.0000	ppt		75.77
50) Chlorobenzene d5	14.66	117	347788	1000.0000	ppt		83.09
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	255840	1019.2107	ppt		101.92%
Target Compounds							Qvalue
2) Propene	3.68	41	18444	406.2761	ppt		94
3) Dichlorodifluoromethane	3.77	85	76152	583.3587	ppt		100
4) Chloromethane	4.07	50	8347	238.8488	ppt	#	41
5) Freon 114	4.08	135	59227	527.4827	ppt	#	64
6) Vinyl Chloride	4.18	62	19715	521.0848	ppt		98
7) 1,3-Butadiene	4.31	54	13116	490.9243	ppt	#	53
8) Bromomethane	4.59	94	31005	579.5455	ppt		99
9) Chloroethane	4.77	64	13832	564.3559	ppt	#	88
10) Acrolein	5.39	56	6894	533.4065	ppt	#	97
11) Acetone	5.57	43	57492	429.9112	ppt	#	87
12) Trichlorofluoromethane	5.49	101	98547	539.9270	ppt		97
13) Ethanol	5.20	45	12821	606.0930	ppt	#	39
14) Isopropyl Alcohol	0.00	45	Not Detected				
15) 1,1-Dichloroethene	6.13	61	36685	515.0002	ppt		83
16) Methylene Chloride	6.27	84	32128	548.6431	ppt	#	65
17) Freon 113	6.50	151	64078	528.3943	ppt	#	62
18) Carbon Disulfide	6.54	76	92943	541.0650	ppt	#	65
19) trans-1,2-Dichloroethene	7.17	96	27226	514.0288	ppt	#	86
20) 1,1-Dichloroethane	7.38	63	53112	530.2317	ppt		98
21) methyl t-butyl ether	7.49	73	36683	498.8467	ppt	#	77
22) Vinyl Acetate	7.56	86	3615	528.3991	ppt	#	1
23) 2-Butanone	7.90	43	43215	541.1470	ppt	#	66
24) cis-1,2-Dichloroethene	8.20	96	25502	524.0698	ppt	#	85
26) Ethyl Acetate	8.48	61	7207	588.9607	ppt	#	1
27) Hexane	8.39	57	25364	527.6236	ppt	#	70
28) Chloroform	8.48	83	72708	532.9226	ppt	#	17
29) Tetrahydrofuran	9.03	42	21033	560.9110	ppt	#	38
30) 1,2-Dichloroethane	9.23	62	35076	508.4083	ppt	#	87
31) 1,1,1-Trichloroethane	9.46	97	75519	514.6692	ppt	#	91
32) Benzene	9.92	78	69606	494.5783	ppt	#	88
33) Carbon Tetrachloride	10.06	117	95158	512.7410	ppt		99
34) Cyclohexane	10.19	84	21237	532.7291	ppt	#	49
35) 1,2-Dichloropropane	10.74	63	29224	512.7284	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\04APR16L\LE03S05.D Vial: 1
Acq Time : 04/04/2016 17:17 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31390 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:04:50 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	72711	522.4704	ppt		97
37)	1,4-Dioxane	11.06	88	9115	452.2166	ppt	#	70
38)	Trichloroethene	10.97	130	39702	505.8533	ppt	#	40
39)	Methyl Methacrylate	11.24	69	4682	620.3627	ppt	#	1
40)	Heptane	11.24	71	17476	595.3955	ppt	#	21
41)	cis-1,3-Dichloropropene	11.83	75	30076	502.1070	ppt		97
42)	4-Methyl-2-Pentanone	11.88	43	43432	536.2787	ppt	#	67
43)	trans-1,3-Dichloropropene	12.36	75	25913	524.8778	ppt		96
44)	1,1,2-Trichloroethane	12.54	97	41652	537.7169	ppt	#	82
45)	Toluene	12.82	91	60309	518.5345	ppt		95
46)	2-Hexanone	13.09	43	30868	555.8099	ppt	#	61
47)	Dibromochloromethane	13.27	129	83519	531.7517	ppt	#	88
48)	1,2-Dibromoethane	13.53	107	54668	543.8680	ppt		100
49)	Tetrachloroethene	13.98	166	45366	513.9338	ppt	#	81
51)	Chlorobenzene	14.71	112	85471	538.4762	ppt	#	71
52)	Ethylbenzene	15.09	91	63656	505.4518	ppt		98
53)	m,p-Xylene	15.29	91	107225	1109.3409	ppt		92
54)	Bromoform	15.40	173	56977	534.5902	ppt		99
55)	Styrene	15.69	104	30038	509.4150	ppt		98
56)	1,1,2,2-Tetrachloroethane	15.81	83	81583	586.2362	ppt		98
57)	o-Xylene	15.81	91	53955	552.9343	ppt		98
59)	4-Ethyl Toluene	17.25	105	46168	484.4885	ppt		99
60)	1,3,5-Trimethylbenzene	17.34	105	52639	514.0158	ppt		94
61)	1,2,4-Trimethylbenzene	17.86	105	48846	461.8602	ppt		97
62)	Benzyl Chloride	18.05	91	58026	585.1969	ppt		97
63)	m-Dichlorobenzene	18.07	146	66480	574.3463	ppt	#	95
64)	p-Dichlorobenzene	18.16	146	63937	599.3182	ppt		94
65)	o-Dichlorobenzene	18.62	146	55548	540.6545	ppt		95
66)	1,2,4-Trichlorobenzene	21.14	180	20327	478.1520	ppt	#	97
67)	Naphthalene	21.31	128	41771	457.1295	ppt		98
68)	Hexachloro-1,3-butadiene	21.86	225	42712	520.4561	ppt		99

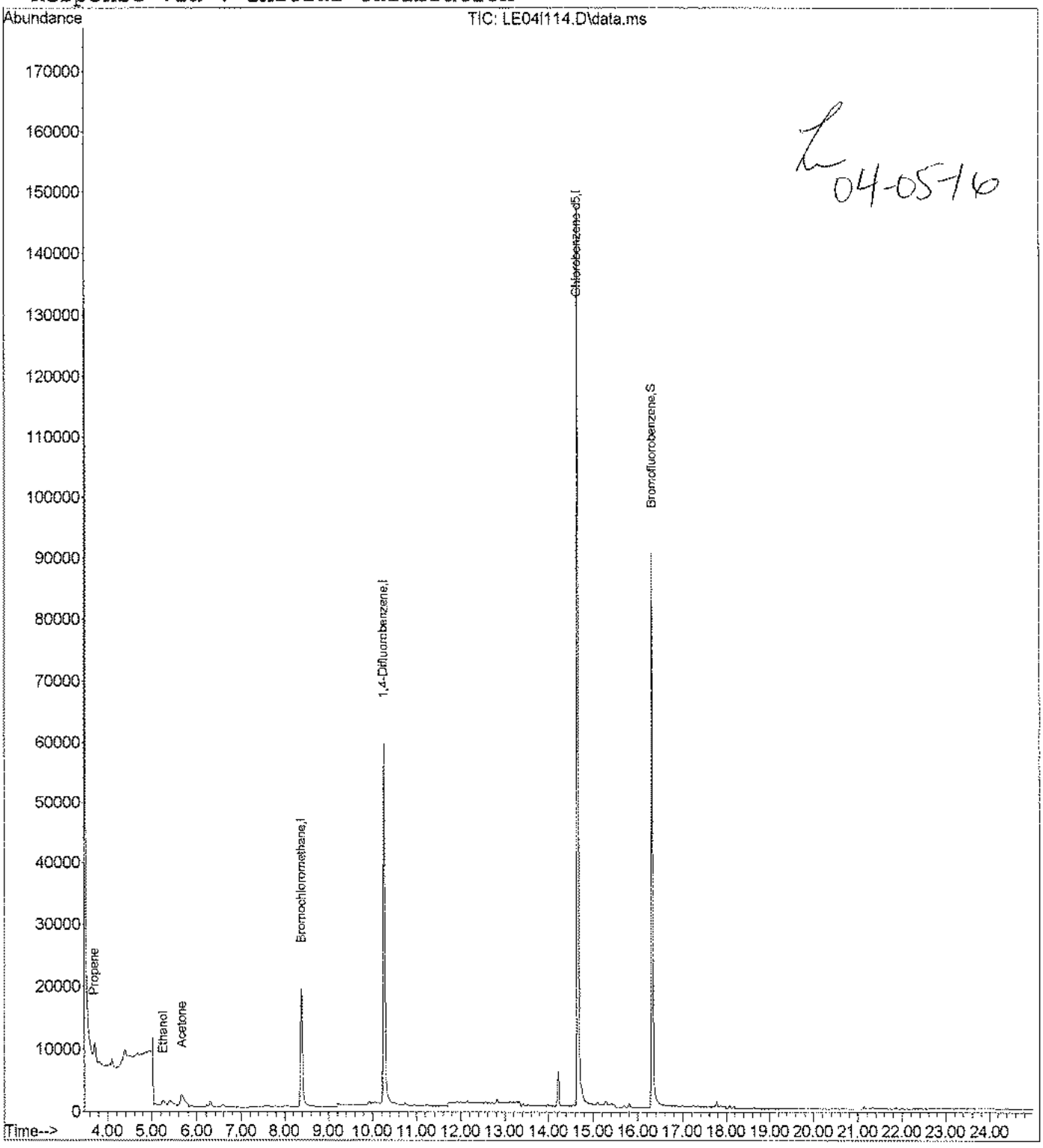
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE04I114.D Vial: 1
Acq Time : 04/04/2016 18:05 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:05:14 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



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Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE04I114.D Vial: 1
Acq Time : 04/04/2016 18:05 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:05:14 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	18247	1000.0000	ppt		74.93
25) 1,4-Difluorobenzene	10.27	114	127923	1000.0000	ppt		50.36
50) Chlorobenzene d5	14.66	117	310636	1000.0000	ppt		74.21
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	180195	803.7132	ppt		80.37%
Target Compounds							Qvalue
2) Propene	3.71	41	2558	62.4236	ppt	#	76
3) Dichlorodifluoromethane	0.00	85		Not Detected			
4) Chloromethane	0.00	50		Not Detected			
5) Freon 114	0.00	135		Not Detected			
6) Vinyl Chloride	0.00	62		Not Detected			
7) 1,3-Butadiene	0.00	54		Not Detected			
8) Bromomethane	0.00	94		Not Detected			
9) Chloroethane	0.00	64		Not Detected			
10) Acrolein	0.00	56		Not Detected			
11) Acetone	5.66	43	11371	94.2003	ppt		95
12) Trichlorofluoromethane	0.00	101		Not Detected			
13) Ethanol	5.25	45	2301	120.5081	ppt	#	39
14) Isopropyl Alcohol	0.00	45		Not Detected			
15) 1,1-Dichloroethene	0.00	61		Not Detected			
16) Methylene Chloride	0.00	84		Not Detected			
17) Freon 113	0.00	151		Not Detected			
18) Carbon Disulfide	0.00	76		Not Detected			
19) trans-1,2-Dichloroethene	0.00	96		Not Detected			
20) 1,1-Dichloroethane	0.00	63		Not Detected			
21) methyl t-butyl ether	0.00	73		Not Detected			
22) Vinyl Acetate	0.00	86		Not Detected			
23) 2-Butanone	0.00	43		Not Detected			
24) cis-1,2-Dichloroethene	0.00	96		Not Detected			
26) Ethyl Acetate	0.00	61		Not Detected			
27) Hexane	0.00	57		Not Detected			
28) Chloroform	0.00	83		Not Detected			
29) Tetrahydrofuran	0.00	42		Not Detected			
30) 1,2-Dichloroethane	0.00	62		Not Detected			
31) 1,1,1-Trichloroethane	0.00	97		Not Detected			
32) Benzene	0.00	78		Not Detected			
33) Carbon Tetrachloride	0.00	117		Not Detected			
34) Cyclohexane	0.00	84		Not Detected			
35) 1,2-Dichloropropane	0.00	63		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE04I114.D Vial: 1
Acq Time : 04/04/2016 18:05 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:05:14 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected		
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	0.00	130		Not Detected		
39)	Methyl Methacrylate	0.00	69		Not Detected		
40)	Heptane	0.00	71		Not Detected		
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected		
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	0.00	91		Not Detected		
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	0.00	166		Not Detected		
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	0.00	91		Not Detected		
53)	m,p-Xylene	0.00	91		Not Detected		
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	0.00	104		Not Detected		
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	0.00	91		Not Detected		
59)	4-Ethyl Toluene	0.00	105		Not Detected		
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected		
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected		
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

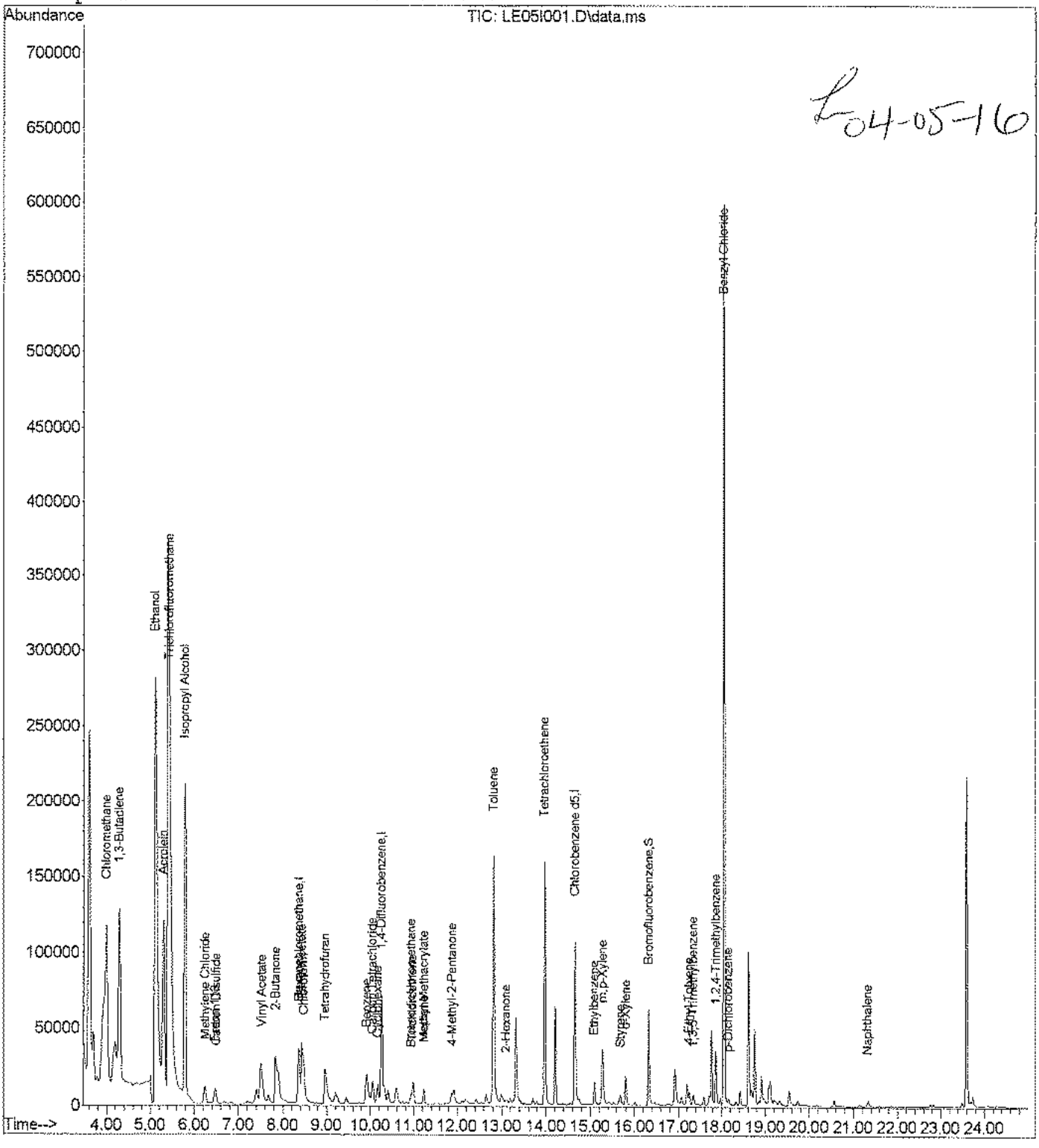
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE05I001.D Vial: 5
Acq Time : 04/04/2016 18:57 Operator: LMR
Sample : 1608222001 Inst : 5975-L
Misc : A-0017H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:05:30 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE05I001.D Vial: 5
Acq Time : 04/04/2016 18:57 Operator: LMR
Sample : 1608222001 Inst : 5975-L
Misc : A-0017H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:05:30 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.35	130	18601	1000.0000	ppt		76.39
25) 1,4-Difluorobenzene	10.26	114	154877	1000.0000	ppt		60.98
50) Chlorobenzene d5	14.66	117	228941	1000.0000	ppt		54.70
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	127766	773.2178	ppt		77.32%
Target Compounds							Qvalue
2) Propene	0.00	41	Not Detected				
3) Dichlorodifluoromethane	0.00	85	Not Detected				
4) Chloromethane	4.00	50	4257	132.3835	ppt	#	71
5) Freon 114	0.00	135	Not Detected				
6) Vinyl Chloride	0.00	62	Not Detected				
7) 1,3-Butadiene	4.29	54	4223	171.7796	ppt	#	1
8) Bromomethane	0.00	94	Not Detected				
9) Chloroethane	0.00	64	Not Detected				
10) Acrolein	5.30	56	42910	3608.1370	ppt	#	93
11) Acetone	0.00	43	Not Detected				
12) Trichlorofluoromethane	5.45	101	42528	253.2235	ppt		97
13) Ethanol	5.12	45	1020157	52410.9254	ppt	#	39
14) Isopropyl Alcohol	5.79	45	289917	1261.0165	ppt	#	18
15) 1,1-Dichloroethene	0.00	61	Not Detected				
16) Methylene Chloride	6.24	84	13269	246.2532	ppt	#	66
17) Freon 113	6.47	151	9081	81.3805	ppt	#	64
18) Carbon Disulfide	6.50	76	8152	51.5744	ppt	#	57
19) trans-1,2-Dichloroethene	0.00	96	Not Detected				
20) 1,1-Dichloroethane	0.00	63	Not Detected				
21) methyl t-butyl ether	0.00	73	Not Detected				
22) Vinyl Acetate	7.53	86	6242	991.5507	ppt	#	1
23) 2-Butanone	7.83	43	106517	1449.5630	ppt	#	67
24) cis-1,2-Dichloroethene	0.00	96	Not Detected				
26) Ethyl Acetate	8.43	61	12460	1265.2236	ppt	#	1
27) Hexane	8.37	57	15432	398.8836	ppt	#	64
28) Chloroform	8.48	83	45745	416.6228	ppt	#	17
29) Tetrahydrofuran	8.96	42	42778	1417.5247	ppt	#	39
30) 1,2-Dichloroethane	0.00	62	Not Detected				
31) 1,1,1-Trichloroethane	0.00	97	Not Detected				
32) Benzene	9.91	78	33202	293.1366	ppt	#	88
33) Carbon Tetrachloride	10.05	117	15130	101.2999	ppt		99
34) Cyclohexane	10.17	84	8546	266.3751	ppt	#	37
35) 1,2-Dichloropropane	0.00	63	Not Detected				

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE05I001.D Vial: 5
Acq Time : 04/04/2016 18:57 Operator: LMR
Sample : 1608222001 Inst : 5975-L
Misc : A-0017H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:05:30 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

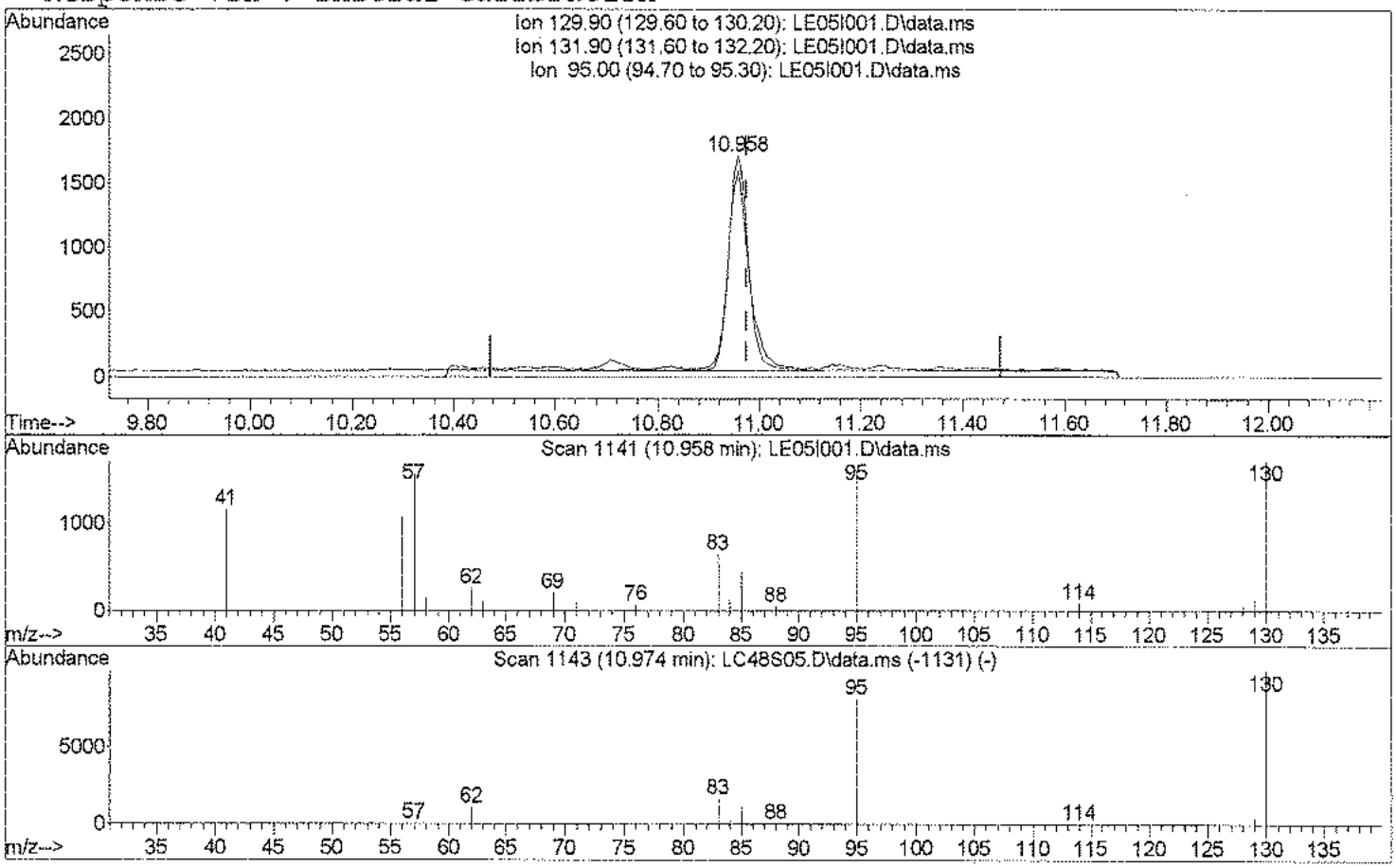
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.93	83	7414	66.1960 ppt		91
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	10.96	130	4597	72.7787 ppt	#	35
39)	Methyl Methacrylate	11.23	69	901	148.3394 ppt	#	1
40)	Heptane	11.23	71	4047	171.3224 ppt	#	18
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	11.87	43	11366	174.3837 ppt	#	60
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.82	91	202710	2165.6492 ppt		96
46)	2-Hexanone	13.09	43	3412	76.3386 ppt	#	53
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.98	166	106636	1501.0597 ppt	#	81
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.09	91	20520	247.5191 ppt		97
53)	m,p-Xylene	15.27	91	61369	964.5151 ppt		98
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	15.69	104	6961	179.3343 ppt		96
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.80	91	19787	308.0441 ppt		99
59)	4-Ethyl Toluene	17.25	105	9225	147.0618 ppt		99
60)	1,3,5-Trimethylbenzene	17.34	105	7664	113.6882 ppt		93
61)	1,2,4-Trimethylbenzene	17.86	105	37285	535.5583 ppt		98
62)	Benzyl Chloride	18.05	91	9675	148.2250 ppt	#	74
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	18.16	146	2847	40.5400 ppt		97
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	21.32	128	4628	76.9394 ppt	#	96
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE05I001.D
Acq On : 04/04/2016 18:57
Operator : LMR
Sample : 1608222001
Inst : 5975-L
Misc : A-0017H-031616-IA-BAS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 09:05:30 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE05I001.D\data.ms

(38) Trichloroethene

10.958min (-0.017) 72.78 ppt

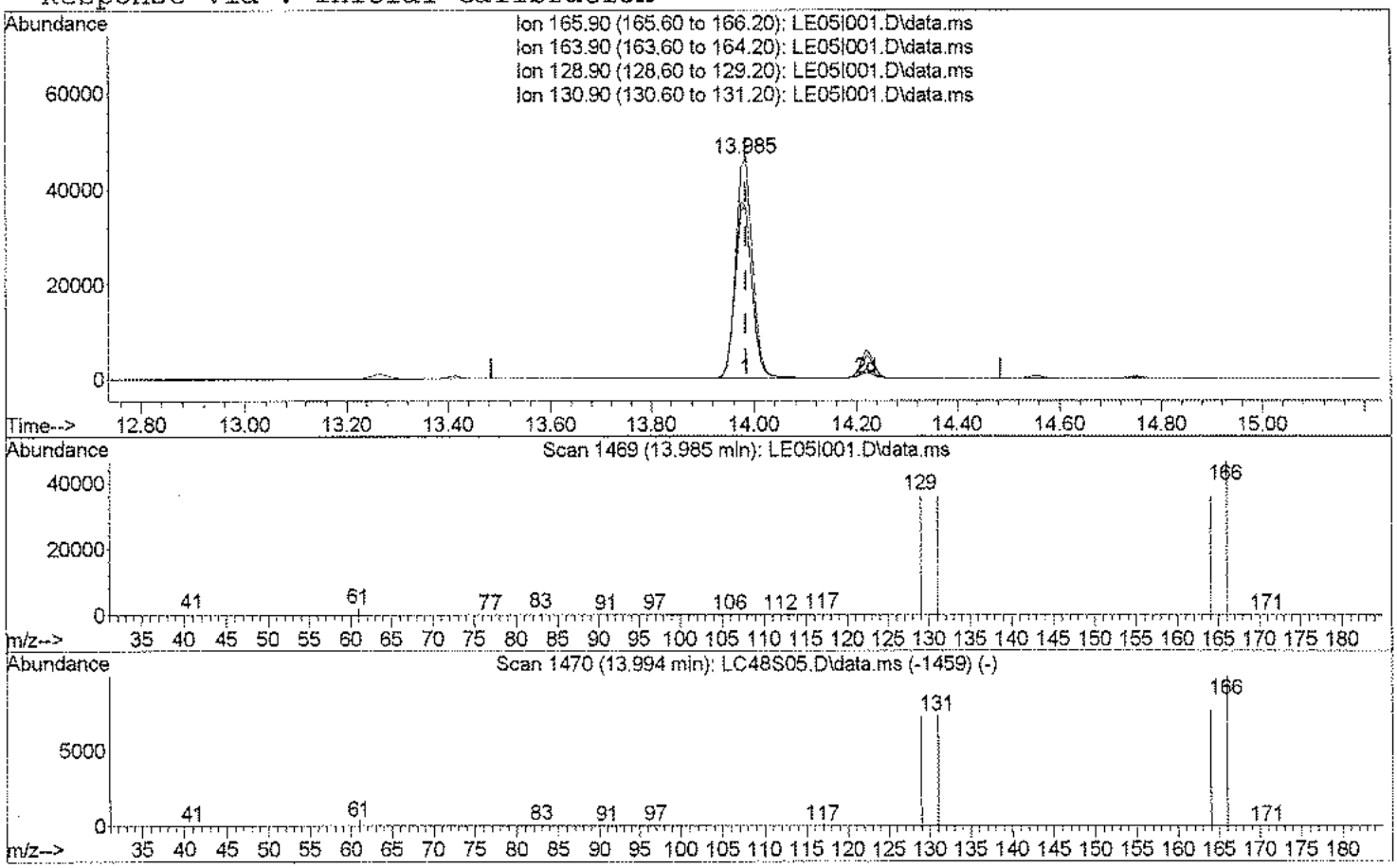
response 4597

Ion	Exp%	Act%
129.90	100.00	100.00
131.90	96.40	0.00#
95.00	77.10	97.32#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE05I001.D
Acq On : 04/04/2016 18:57
Operator : LMR
Sample : 1608222001
Inst : 5975-L
Misc : A-0017H-031616-IA-BAS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 09:05:30 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE05I001.D\data.ms

(49) Tetrachloroethene

13.985min (0.000) 1501.06 ppt

response 106636

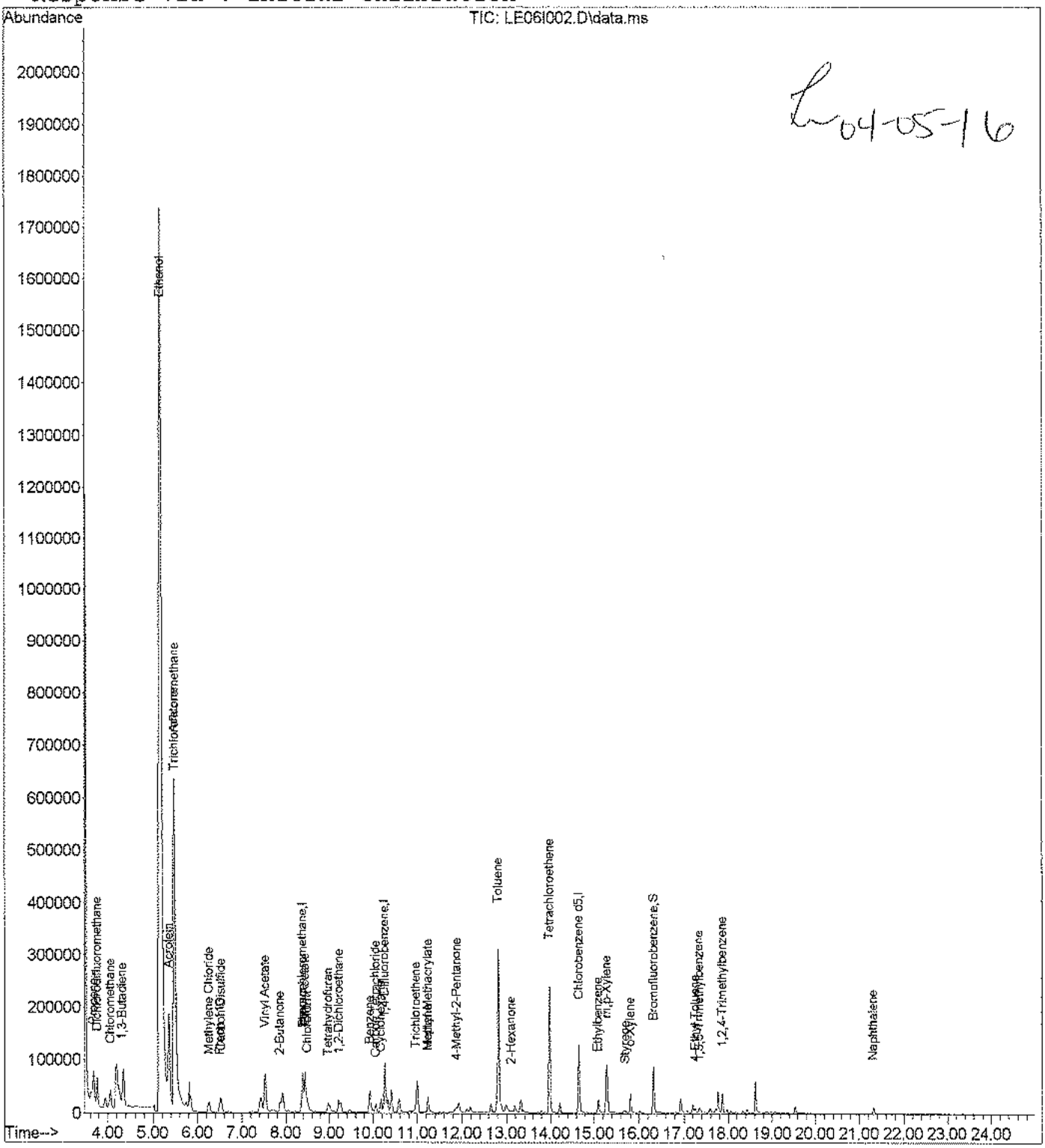
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.22
128.90	57.40	80.79#
130.90	56.90	78.96#

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE06I002.D Vial: 6
Acq Time : 04/04/2016 19:47 Operator: LMR
Sample : 1608222002 Inst : 5975-L
Misc : A-0018H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:00 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE06I002.D Vial: 6
Acq Time : 04/04/2016 19:47 Operator: LMR
Sample : 1608222002 Inst : 5975-L
Misc : A-0018H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:00 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.37	130	20173	1000.0000 ppt	82.84
25) 1,4-Difluorobenzene	10.27	114	190523	1000.0000 ppt	75.01
50) Chlorobenzene d5	14.66	117	269414	1000.0000 ppt	64.37
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	171541	882.1814 ppt	88.22%
Target Compounds					Qvalue
2) Propene	3.68	41	47042	1038.3772 ppt #	66
3) Dichlorodifluoromethane	3.76	85	81588	626.3021 ppt	99
4) Chloromethane	4.06	50	1515	43.4419 ppt #	41
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	4.32	54	3032	113.7223 ppt #	12
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.35	56	56489	4379.7992 ppt #	93
11) Acetone	5.46	43	1662124	12454.8356 ppt #	86
12) Trichlorofluoromethane	5.49	101	47479	260.6733 ppt	97
13) Ethanol	5.15	45	6862306	325080.3346 ppt #	39
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.26	84	20302	347.4148 ppt #	66
17) Freon 113	6.50	151	9878	81.6247 ppt #	67
18) Carbon Disulfide	6.53	76	75379	439.7303 ppt #	62
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.53	86	3113	455.9698 ppt #	1
23) 2-Butanone	7.86	43	72216	906.1861 ppt #	66
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.44	61	22866	1887.4652 ppt #	1
27) Hexane	8.39	57	45804	962.4249 ppt #	67
28) Chloroform	8.49	83	17188	127.2519 ppt #	17
29) Tetrahydrofuran	8.98	42	31477	847.8968 ppt #	42
30) 1,2-Dichloroethane	9.23	62	2821	41.3012 ppt #	46
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.92	78	82342	590.9719 ppt #	89
33) Carbon Tetrachloride	10.06	117	15628	85.0576 ppt	100
34) Cyclohexane	10.19	84	17938	454.5108 ppt #	48
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE06I002.D Vial: 6
Acq Time : 04/04/2016 19:47 Operator: LMR
Sample : 1608222002 Inst : 5975-L
Misc : A-0018H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:00 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

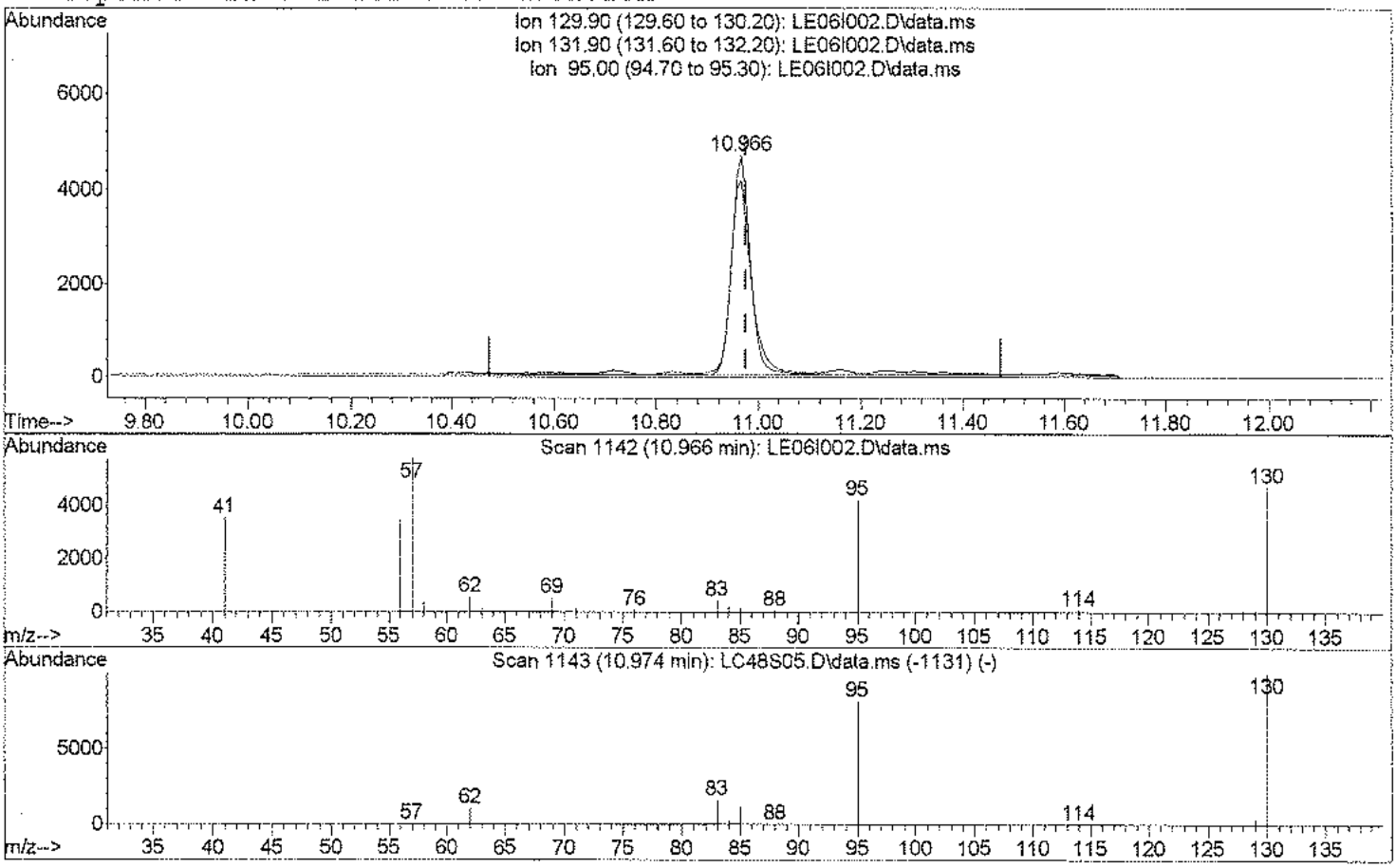
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected			
37)	1,4-Dioxane	0.00	88		Not Detected			
38)	Trichloroethene	10.97	130	12040	154.9515	ppt	#	35
39)	Methyl Methacrylate	11.24	69	2669	357.2069	ppt	#	1
40)	Heptane	11.24	71	12481	429.5066	ppt	#	23
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected			
42)	4-Methyl-2-Pentanone	11.88	43	18831	234.8611	ppt	#	55
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected			
44)	1,1,2-Trichloroethane	0.00	97		Not Detected			
45)	Toluene	12.82	91	365292	3172.4341	ppt		96
46)	2-Hexanone	13.09	43	4467	81.2439	ppt	#	50
47)	Dibromochloromethane	0.00	129		Not Detected			
48)	1,2-Dibromoethane	0.00	107		Not Detected			
49)	Tetrachloroethene	13.98	166	155424	1778.4912	ppt	#	81
51)	Chlorobenzene	0.00	112		Not Detected			
52)	Ethylbenzene	15.09	91	39297	402.8044	ppt		98
53)	m,p-Xylene	15.28	91	144115	1924.7423	ppt		99
54)	Bromoform	0.00	173		Not Detected			
55)	Styrene	15.69	104	4507	98.6694	ppt		95
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected			
57)	o-Xylene	15.81	91	39393	521.1411	ppt		99
59)	4-Ethyl Toluene	17.25	105	8930	120.9730	ppt		99
60)	1,3,5-Trimethylbenzene	17.34	105	8339	105.1180	ppt		95
61)	1,2,4-Trimethylbenzene	17.86	105	37338	455.7504	ppt		99
62)	Benzyl Chloride	0.00	91		Not Detected			
63)	m-Dichlorobenzene	0.00	146		Not Detected			
64)	p-Dichlorobenzene	0.00	146		Not Detected			
65)	o-Dichlorobenzene	0.00	146		Not Detected			
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected			
67)	Naphthalene	21.31	128	23204	327.8096	ppt		98
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE06I002.D
Acq On : 04/04/2016 19:47
Operator : LMR
Sample : 1608222002
Inst : 5975-L
Misc : A-0018H-031616-IA-BAS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 09:06:00 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE06I002.D\data.ms

(38) Trichloroethene

10.966min (-0.009) 154.95 ppt

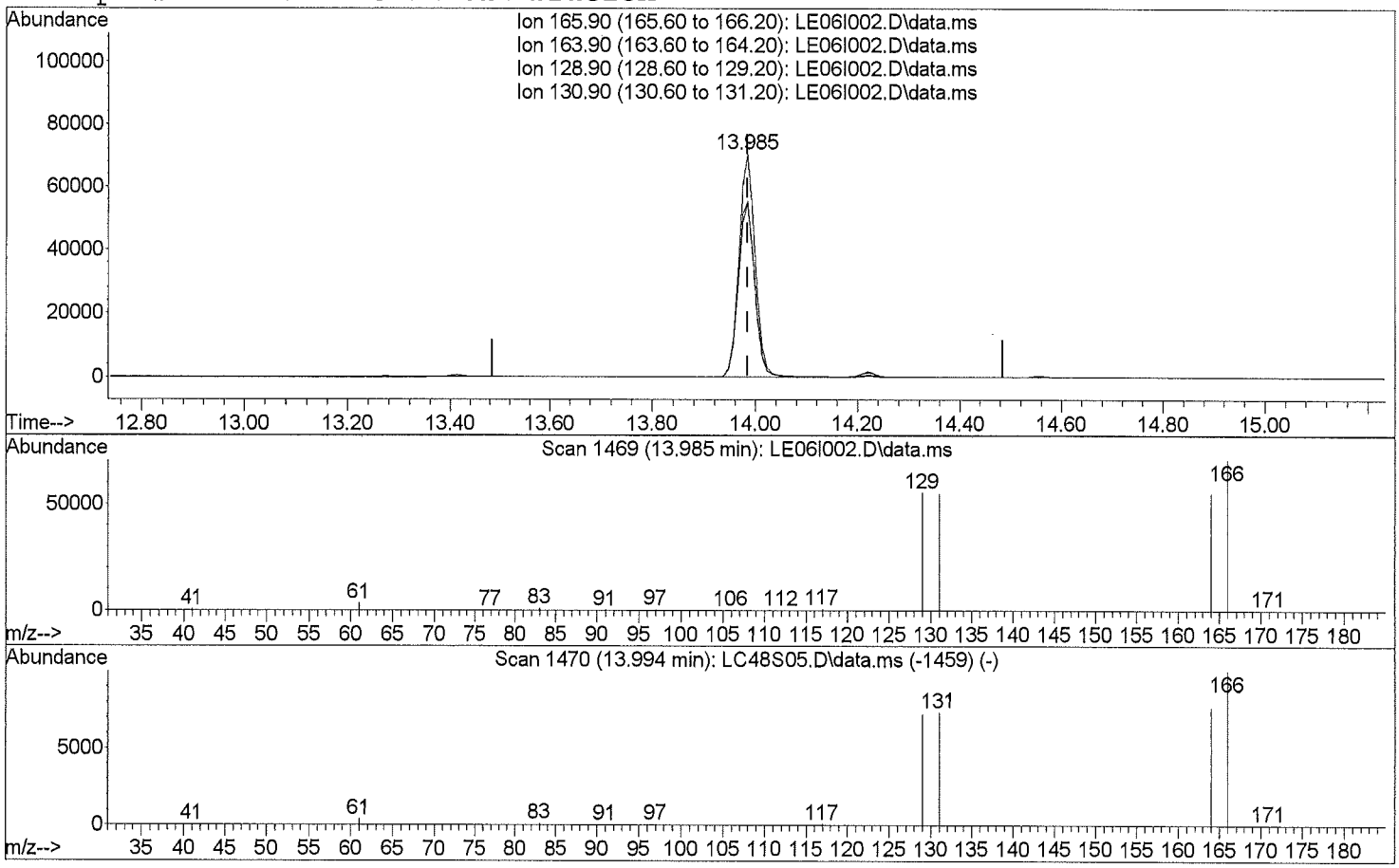
response 12040

Ion	Exp%	Act%
129.90	100.00	100.00
131.90	96.40	0.00#
95.00	77.10	97.59#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE06I002.D
Acq On : 04/04/2016 19:47
Operator : LMR
Sample : 1608222002
Inst : 5975-L
Misc : A-0018H-031616-IA-BAS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 09:06:00 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE06I002.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 1778.49 ppt

response 155424

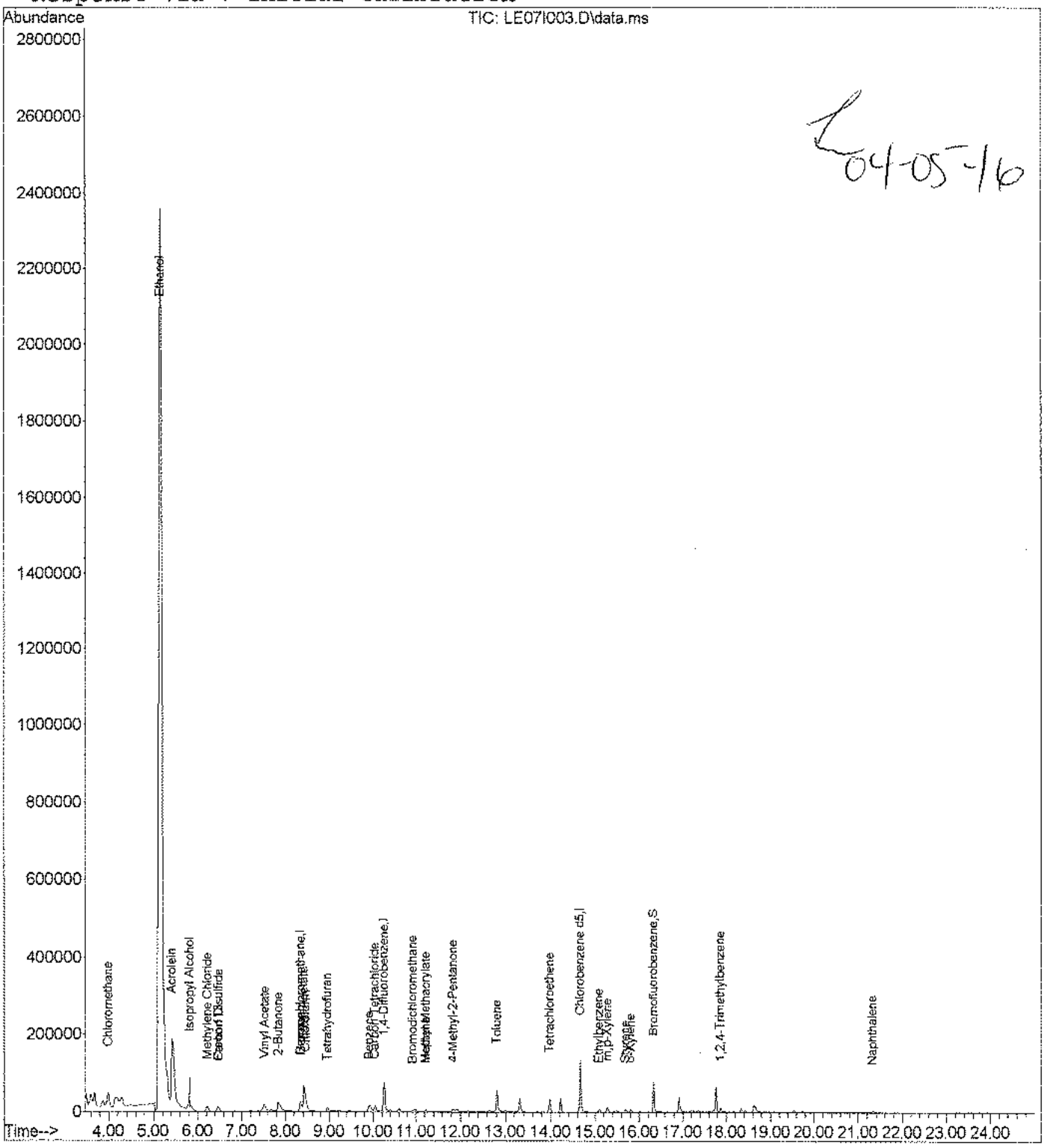
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.55
128.90	57.40	80.22#
130.90	56.90	78.38#

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE07I003.D Vial: 7
Acq Time : 04/04/2016 20:37 Operator: LMR
Sample : 1608222003 Inst : 5975-L
Misc : A-0051-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:23 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE07I003.D Vial: 7
Acq Time : 04/04/2016 20:37 Operator: LMR
Sample : 1608222003 Inst : 5975-L
Misc : A-0051-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:23 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.34	130	19944	1000.0000 ppt	81.90
25) 1,4-Difluorobenzene	10.26	114	173136	1000.0000 ppt	68.17
50) Chlorobenzene d5	14.66	117	282368	1000.0000 ppt	67.46
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	153667	754.0068 ppt	75.40%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	3.98	50	1838	53.3089 ppt #	41
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.41	56	633	49.6423 ppt #	1
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.16	45	10701908	512790.5986 ppt #	39
14) Isopropyl Alcohol	5.82	45	35992	146.0082 ppt #	1
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.23	84	15074	260.9133 ppt #	66
17) Freon 113	6.46	151	9356	78.1989 ppt #	67
18) Carbon Disulfide	6.49	76	13492	79.6105 ppt #	67
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.53	86	7579	1122.8639 ppt #	1
23) 2-Butanone	7.83	43	81485	1034.2365 ppt #	68
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.42	61	22318	2027.2348 ppt #	1
27) Hexane	8.36	57	6285	145.3211 ppt #	33
28) Chloroform	8.47	83	39577	322.4347 ppt #	17
29) Tetrahydrofuran	8.95	42	9971	295.5619 ppt #	25
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.90	78	27804	219.5901 ppt #	88
33) Carbon Tetrachloride	10.05	117	14591	87.3886 ppt	99
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE07I003.D Vial: 7
Acq Time : 04/04/2016 20:37 Operator: LMR
Sample : 1608222003 Inst : 5975-L
Misc : A-0051-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:23 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

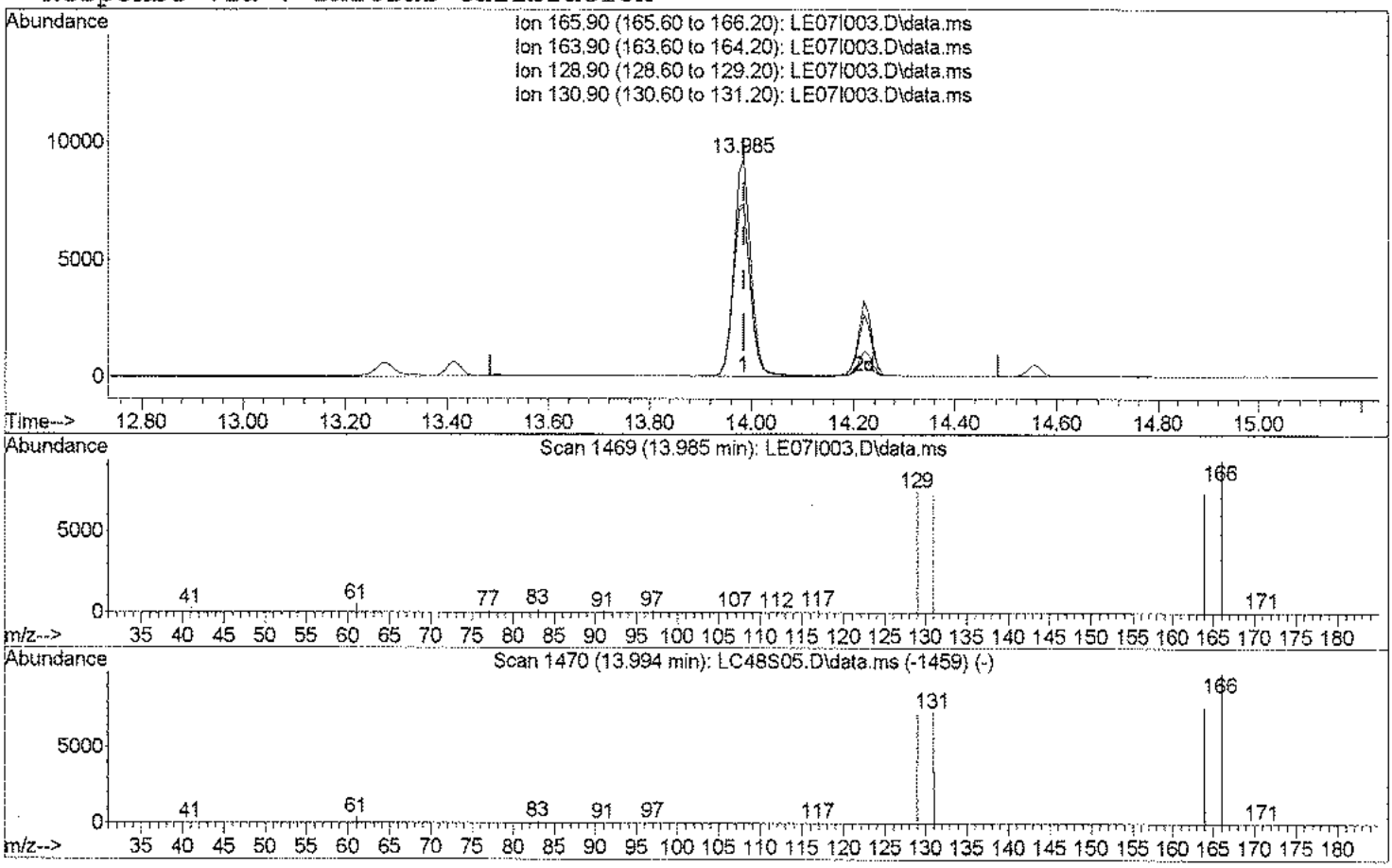
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.93	83	5825	46.5237 ppt		98
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	0.00	130		Not Detected		
39)	Methyl Methacrylate	11.23	69	434	63.9177 ppt	#	1
40)	Heptane	11.23	71	1891	71.6097 ppt	#	18
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	11.83	43	10193	139.8942 ppt	#	36
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.82	91	70606	674.7674 ppt		96
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.98	166	21510	270.8533 ppt	#	79
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.09	91	10167	99.4334 ppt		99
53)	m,p-Xylene	15.28	91	17963	228.9006 ppt		100
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	15.69	104	6963	145.4441 ppt		97
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.81	91	8056	101.6858 ppt		98
59)	4-Ethyl Toluene	0.00	105		Not Detected		
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected		
61)	1,2,4-Trimethylbenzene	17.86	105	10938	127.3851 ppt		97
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	21.31	128	4894	65.9671 ppt	#	96
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE07I003.D
Acq On : 04/04/2016 20:37
Operator : LMR
Sample : 1608222003
Inst : 5975-L
Misc : A-0051-031616-IA-BAS
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 09:06:23 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE07I003.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 270.85 ppt

response 21510

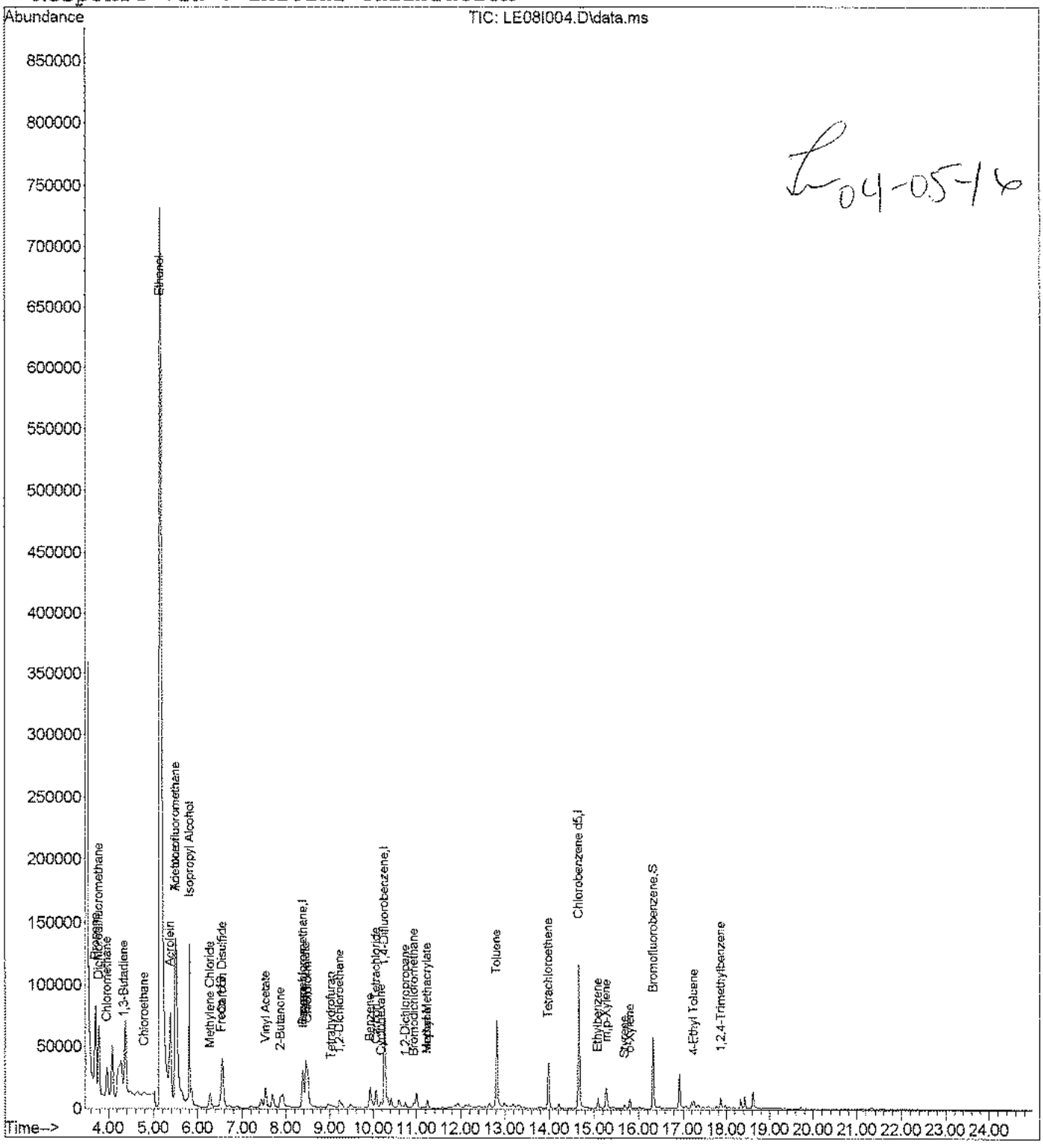
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	79.65
128.90	57.40	81.66#
130.90	56.90	79.74#

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE08I004.D Vial: 8
Acq Time : 04/04/2016 21:31 Operator: LMR
Sample : 1608222004 Inst : 5975-L
Misc : A-0051-031616-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:51 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE08I004.D Vial: 8
Acq Time : 04/04/2016 21:31 Operator: LMR
Sample : 1608222004 Inst : 5975-L
Misc : A-0051-031616-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:51 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.37	130	21534	1000.0000 ppt		88.43
25) 1,4-Difluorobenzene	10.27	114	163876	1000.0000 ppt		64.52
50) Chlorobenzene d5	14.66	117	240820	1000.0000 ppt		57.53
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	117387	675.3635 ppt		67.54%
Target Compounds						Qvalue
2) Propene	3.71	41	44613	922.5217 ppt	#	67
3) Dichlorodifluoromethane	3.78	85	76653	551.2296 ppt		100
4) Chloromethane	3.97	50	43174	1159.7491 ppt		96
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	4.34	54	2227	78.2496 ppt	#	12
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	4.78	64	1285	49.2176 ppt	#	82
10) Acrolein	5.38	56	22682	1647.4697 ppt	#	91
11) Acetone	5.50	43	337989	2372.5912 ppt		96
12) Trichlorofluoromethane	5.51	101	47750	245.5919 ppt		97
13) Ethanol	5.14	45	2633096	116851.1770 ppt	#	39
14) Isopropyl Alcohol	5.82	45	100257	376.6807 ppt	#	64
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	6.28	84	10757	172.4433 ppt	#	66
17) Freon 113	6.52	151	9442	73.0907 ppt	#	67
18) Carbon Disulfide	6.55	76	112898	616.9756 ppt	#	61
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	7.55	86	1103	151.3486 ppt	#	1
23) 2-Butanone	7.88	43	32958	387.4276 ppt	#	63
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	8.45	61	11456	1099.3951 ppt	#	1
27) Hexane	8.40	57	9888	241.5483 ppt	#	61
28) Chloroform	8.49	83	56243	484.1048 ppt	#	17
29) Tetrahydrofuran	9.03	42	2312	72.4052 ppt	#	39
30) 1,2-Dichloroethane	9.23	62	2519	42.8765 ppt	#	72
31) 1,1,1-Trichloroethane	0.00	97		Not Detected		
32) Benzene	9.92	78	32390	270.2641 ppt	#	87
33) Carbon Tetrachloride	10.07	117	14688	92.9404 ppt		99
34) Cyclohexane	10.19	84	2946	86.7831 ppt	#	36
35) 1,2-Dichloropropane	10.74	63	3209	66.1160 ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE08I004.D Vial: 8
Acq Time : 04/04/2016 21:31 Operator: LMR
Sample : 1608222004 Inst : 5975-L
Misc : A-0051-031616-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:06:51 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

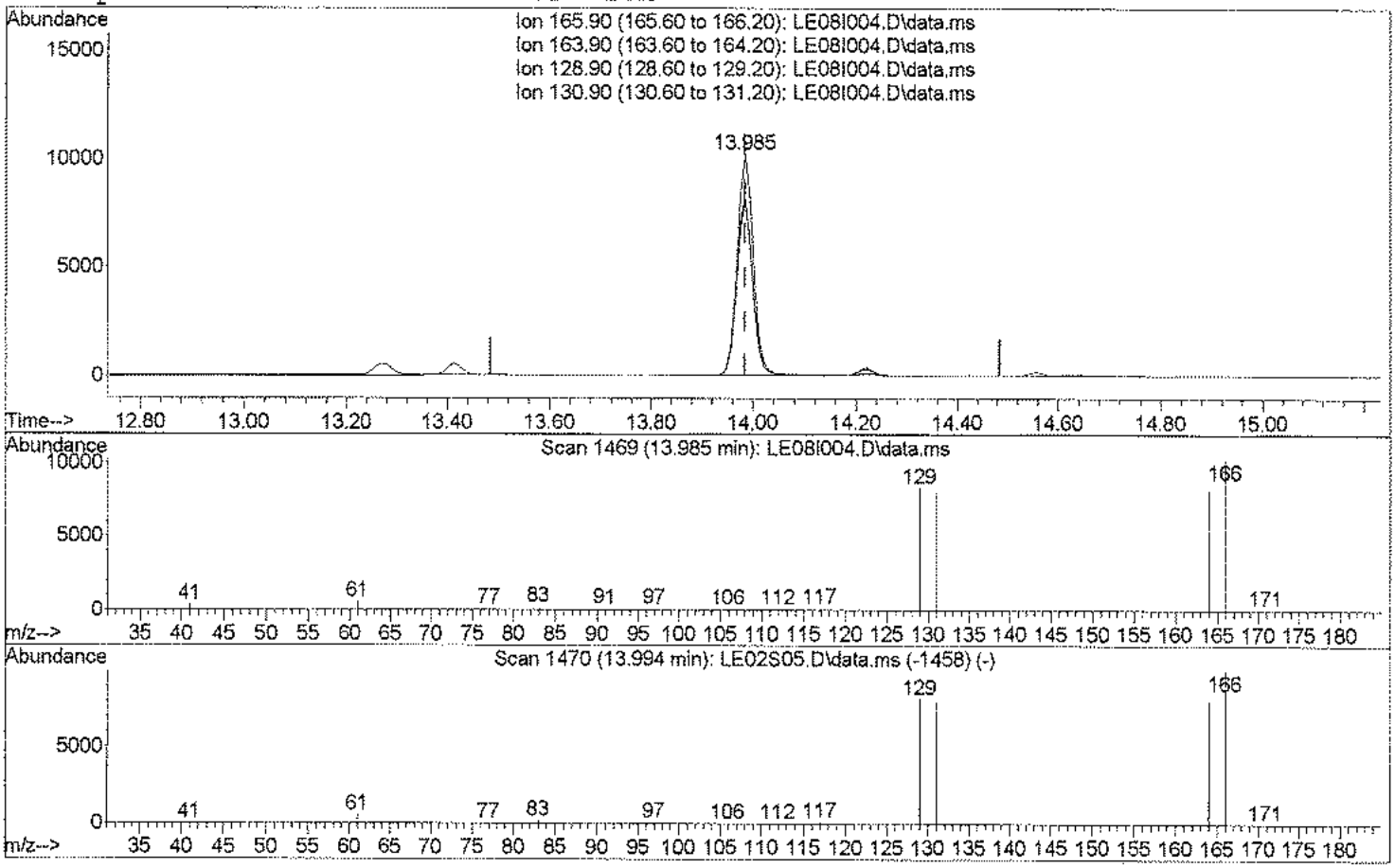
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	10.93	83	4904	41.3810 ppt		98
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	0.00	130		Not Detected		
39)	Methyl Methacrylate	11.24	69	621	96.6262 ppt	#	1
40)	Heptane	11.24	71	2682	107.3029 ppt	#	22
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected		
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	12.82	91	88857	897.1729 ppt		95
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	13.98	166	22406	298.0781 ppt	#	81
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	15.09	91	11440	131.1863 ppt		98
53)	m,p-Xylene	15.27	91	26081	389.6864 ppt		98
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	15.69	104	4180	102.3762 ppt		96
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected		
57)	o-Xylene	15.81	91	8667	128.2722 ppt		96
59)	4-Ethyl Toluene	17.24	105	3564	54.0135 ppt		93
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected		
61)	1,2,4-Trimethylbenzene	17.86	105	8619	117.6957 ppt		98
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE08I004.D
Acq On : 04/04/2016 21:31
Operator : LMR
Sample : 1608222004
Inst : 5975-L
Misc : A-0051-031616-IA-BAS-D
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 09:06:51 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE08I004.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 298.08 ppt

response 22406

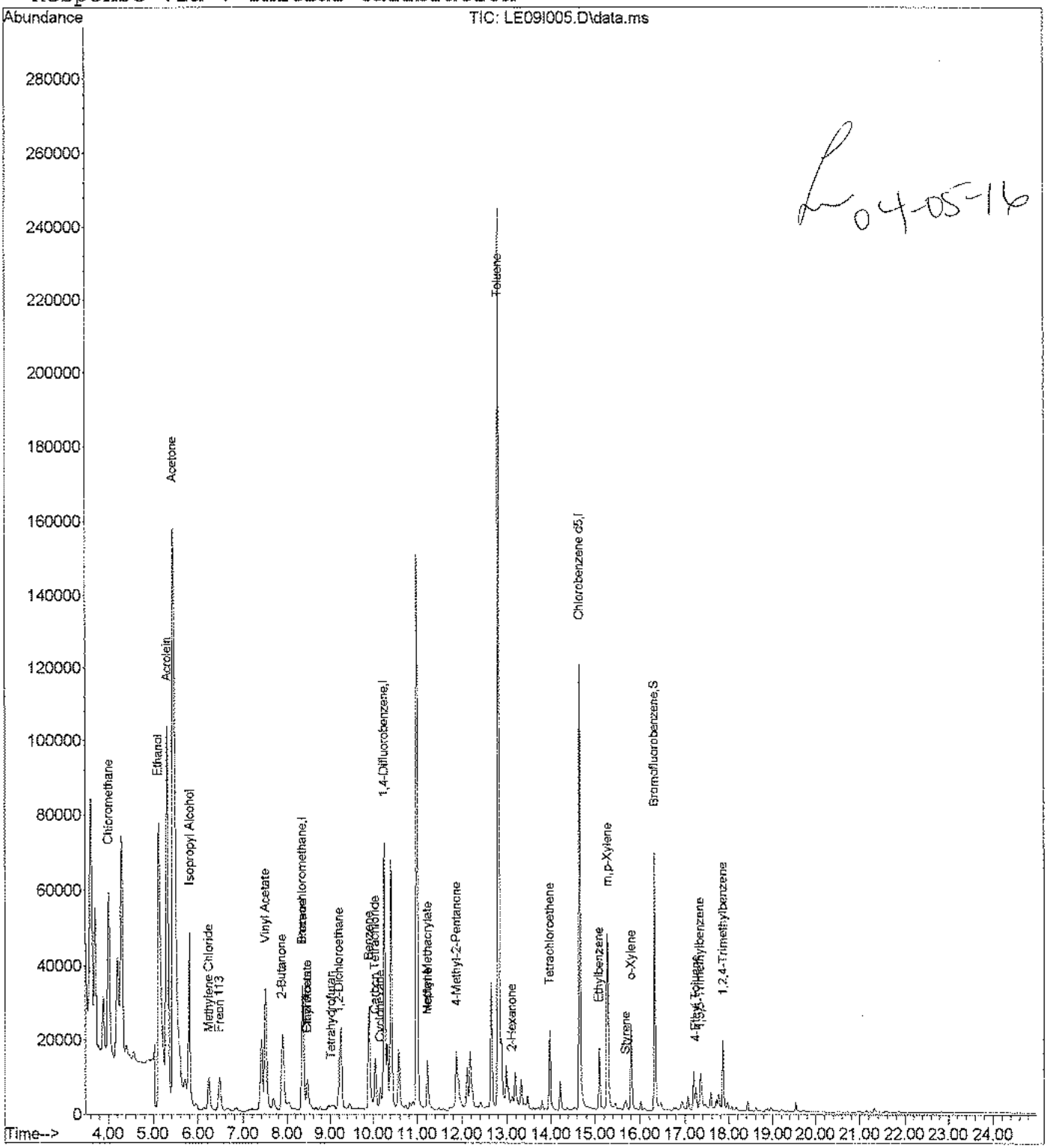
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.85
128.90	57.40	79.98#
130.90	56.90	78.12#

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE09I005.D Vial: 9
Acq Time : 04/04/2016 22:22 Operator: LMR
Sample : 1608222005 Inst : 5975-L
Misc : A-0023-031616-IA-BA1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:07:19 2016 Results File: TO15LSIMA9.RES

Method : J:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



04-05-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE09I005.D Vial: 9
Acq Time : 04/04/2016 22:22 Operator: LMR
Sample : 1608222005 Inst : 5975-L
Misc : A-0023-031616-IA-BA1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:07:19 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.35	130	19226	1000.0000 ppt	78.95
25) 1,4-Difluorobenzene	10.26	114	154757	1000.0000 ppt	60.93
50) Chlorobenzene d5	14.66	117	258204	1000.0000 ppt	61.69
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.32	95	137551	738.0927 ppt	73.81%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	4.01	50	1868	56.2023 ppt #	41
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	5.32	56	34297	2790.1528 ppt #	93
11) Acetone	5.44	43	561811	4417.1929 ppt	87
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	5.12	45	330848	16444.8790 ppt #	39
14) Isopropyl Alcohol	5.82	45	18224	76.6899 ppt #	1
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.23	84	8060	144.7192 ppt #	65
17) Freon 113	6.48	151	8957	77.6598 ppt #	63
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.52	86	2307	354.5571 ppt #	1
23) 2-Butanone	7.88	43	36427	479.6108 ppt #	65
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.47	61	494	50.2011 ppt #	1
27) Hexane	8.37	57	14897	385.3536 ppt #	63
28) Chloroform	8.48	83	18446	168.1273 ppt #	17
29) Tetrahydrofuran	9.03	42	2387	79.1588 ppt #	42
30) 1,2-Dichloroethane	9.21	62	7752	139.7238 ppt #	84
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.91	78	64171	566.9977 ppt #	88
33) Carbon Tetrachloride	10.05	117	14586	97.7334 ppt	99
34) Cyclohexane	10.18	84	3807	118.7545 ppt #	44
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\04APR16L\LE09I005.D Vial: 9
Acq Time : 04/04/2016 22:22 Operator: LMR
Sample : 1608222005 Inst : 5975-L
Misc : A-0023-031616-IA-BA1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 05 09:07:19 2016 Results File: TO15LSIMA9.RES

Quant Method : Z:\L\METHODS\TO15LSIMA9.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

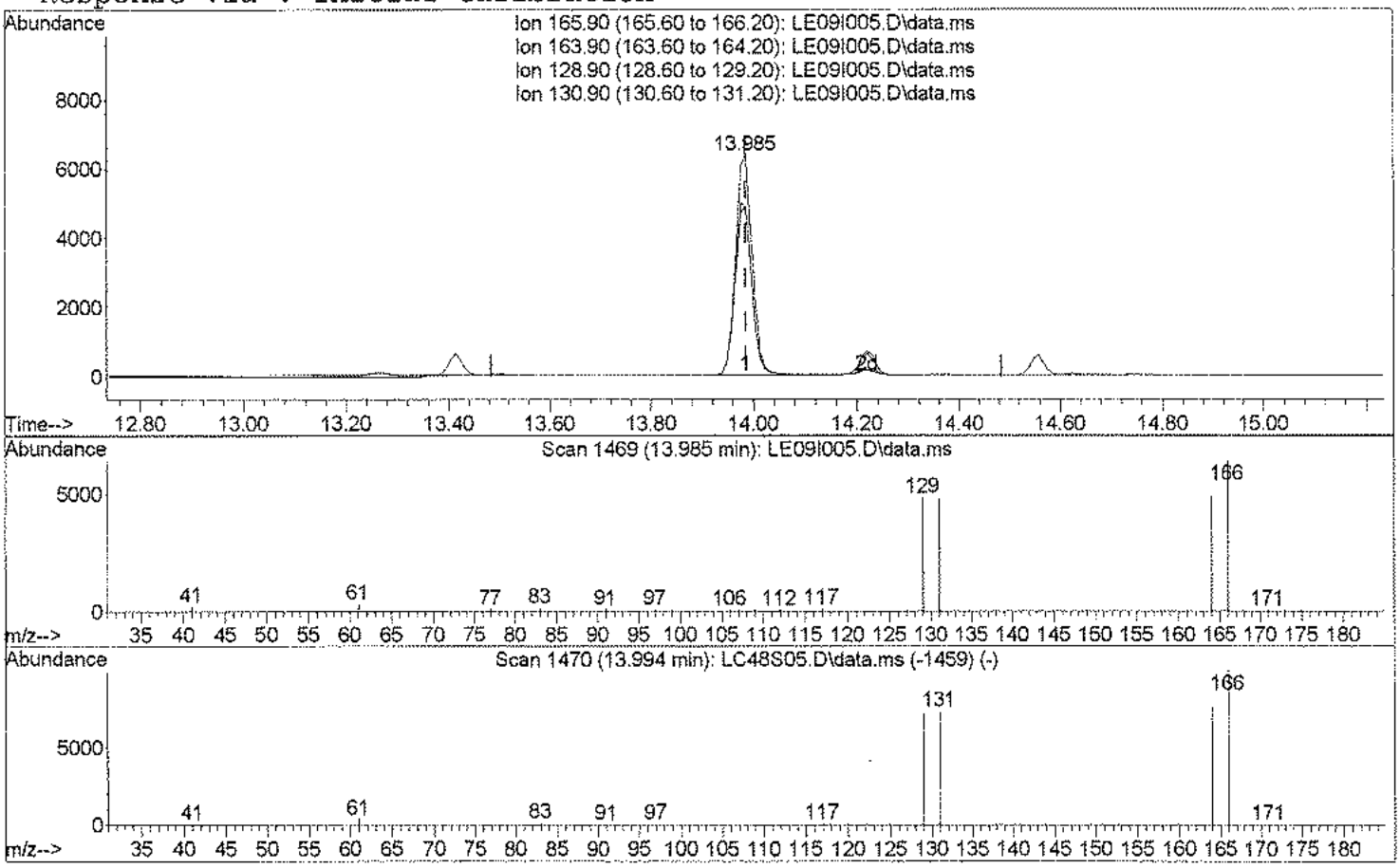
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	11.23	69	1277	210.4065 ppt #	1
40)	Heptane	11.23	71	5774	244.6214 ppt #	20
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.88	43	20173	309.7457 ppt #	62
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.82	91	276813	2959.6206 ppt	96
46)	2-Hexanone	13.10	43	2651	59.3583 ppt #	48
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.98	166	14431	203.2952 ppt #	82
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.09	91	24158	258.3765 ppt	98
53)	m,p-Xylene	15.27	91	71907	1002.0555 ppt	97
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.69	104	2816	64.3258 ppt	97
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	24495	338.1201 ppt	97
59)	4-Ethyl Toluene	17.24	105	6076	85.8839 ppt	98
60)	1,3,5-Trimethylbenzene	17.34	105	4858	63.8966 ppt	93
61)	1,2,4-Trimethylbenzene	17.86	105	20079	255.7262 ppt	97
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE09I005.D
Acq On : 04/04/2016 22:22
Operator : LMR
Sample : 1608222005
Inst : 5975-L
Misc : A-0023-031616-IA-BA1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 09:07:19 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration



TIC: LE09I005.D\data.ms

(49) Tetrachloroethene

13.985min (-0.000) 203.30 ppt

response 14431

Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	77.67
128.90	57.40	80.03#
130.90	56.90	77.15#

Batch Worklist

Batch: IVOA/3214 Created: 4/5/2016 10:00 Instrument: 5975-L HBN: 166977

Rule: EPA TO-15 SIM, Air Analyst: L. Reid Status: WP

Workorder: 1608222

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	494926	MB for HBN 166977 [IVOA/3214]				MB	1		ETO15SIM1Q	5320		4/5/2016	4/4/2016
2	494927	LCS for HBN 166977 [IVOA/3214]				LCS	1		ETO15SIM1Q	5320		4/5/2016	4/4/2016
3	494928	LCSD for HBN 166977 [IVOA/3214				LCSD	1		ETO15SIM1Q	5320		4/5/2016	4/4/2016
4	1608222001	A-0017H-031616-IA-BAS				SAMPLE	1	1608222001-A	ETO15SIM.1	5480		4/5/2016	4/4/2016
	E|Result exceeds calibration range												
5	1608222002	A-0018H-031616-IA-BAS				SAMPLE	1	1608222002-A	ETO15SIM.1	5480		4/5/2016	4/4/2016
	E|Result exceeds calibration range												
6	1608222003	A-0051-031616-IA-BAS				SAMPLE	1	1608222003-A	ETO15SIM.1	5480		4/5/2016	4/4/2016
7	1608222004	A-0051-031616-IA-BAS-D				SAMPLE	1	1608222004-A	ETO15SIM.1	5480		4/5/2016	4/4/2016
8	1608222005	A-0023-031616-IA-BA1				SAMPLE	1	1608222005-A	ETO15SIM.1	5480		4/5/2016	4/4/2016

1608222

nental -Custody Record

15837/#173

1608222

CoC #: 003

Page 1 of 1

Client Name & Address:	Project Name & No.:	No. of Containers	Sample to Matrix QC	Analyses Requested	Preservation Code	Sample Matrix Code	Matrix Codes: W) Water B) Bulk L) Liquid F) Filter S) Soil G) Wipe C) Solid M) Media A) Indoor Air Preservation Codes: 1) Cool to 4°C 2) HCl to pH<2, 4°C 3) H_2SO_4 to pH<2, 4°C 4) HNO_3 to pH<2, 4°C 5) NaOH to pH>12, 4°C 6) ZnOAc/NaOH to pH>9, 4°C
CH2M HILL 4246 S. Riverboat Rd. Suite 200 Taylorsville, UT 84123	665353.ZZ.01.04 ALS Quote No: LQ006-7-104589 Report to: Mark Conley Report to e-mail: mark.conley@chem.com Bill to: 665353.ZZ.01.04			TO-15 SIM			
Phone: 385-474-8825							
e-mail: ann.bingham@chem.com							

Lab #	Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample to Matrix QC	TO-15 SIM	Preservation Code	Sample Matrix Code	Remarks
	A-0017R-031616-IA-BAS	3/16/16	1554		Canister 0228	1		1		A	Final P= -3.5 in Hg
	A-0016R-031616-IA-BAS	3/16/16	1559		Canister 0196	1		1		A	Final P= 0 in Hg
	A-0057-031616-IA-BAS	3/16/16	1900		Canister 0309	1		1		A	Final P= 0 in Hg
	A-0057-031616-IA-BAS-D	3/16/16	~~1930~~ 1902		Canister 0163	1		1		A	Final P= -6.9 in Hg
	A-0033-031616-IA-BA1	3/16/16	1759		Canister 0371	1		1		A	Final P= -4.3 in Hg

Possible Hazard Identification
☑ Non-Hazard ☐ Skin Irritant ☐ Rad
☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive ____ Months
☑ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3
☐ Level 2 ☑ Level 4
EDD Type: Lab Spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush)
☐ 3 Days (Rush) ☑ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/21/16	1716		03-21-16	17:16
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB: www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

ALSCoC 121013

* 1,4-Dioxane, VC, ~~120~~ cis 1,2 DCE, TCE, PCE by TO-15 SIM; SCAN for all other VOCs

See attached analysis table

12/18/2013

Response Factor Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA9.m
Title : TO-15 SIM
Last Update : Mon Apr 04 15:22:31 2016
Response Via : Initial Calibration

Calibration Files
50 =LD99S005.D 100 =LE00S01.D 200 =LD97S02.D 500 =LD96S05.D
1000=LD95S1.D

		Compound	50	100	200	500	1000	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	2.399	2.179	3.387	1.814	1.449	2.246		32.66
3)		Dichlorodifluoro...	6.246	7.517	6.908	6.731	4.885	6.458		15.33
4)		Chloromethane	2.210	2.638	0.770	2.322	0.705	1.729		53.15
5)		Freon 114	5.289	6.099	5.576	5.455	5.354	5.554		5.82
6)		Vinyl Chloride	1.707	1.861	1.887	1.955	1.947	1.872		5.35
7)		1,3-Butadiene	1.281	1.297	1.236	1.420	1.375	1.322		5.63
8)		Bromomethane	2.261	3.045	2.725	2.610	2.591	2.646		10.65
9)		Chloroethane	1.078	1.410	1.232	1.173	1.168	1.212		10.19
10)		Acrolein	0.502	0.604	0.633	0.685	0.773	0.639		15.67
11)		Acetone	9.117	7.301	5.939	5.309	5.411	6.615		24.31
12)		Trichlorofluorom...	0.871	1.022	0.910	0.860	0.852	0.903	E1	7.75
13)		Ethanol	0.496	1.156	1.257	1.161	1.162	1.046		29.67
14)		Isopropyl Alcohol	3.217	2.771	0.045	0.059	0.089	1.236	E1	130.45
15)		1,1-Dichloroethene	3.074	3.494	3.593	3.648	3.809	3.524		7.83
16)		Methylene Chloride	2.790	3.212	2.923	2.767	2.793	2.897		6.43
17)		Freon 113	5.726	6.633	6.051	5.800	5.784	5.999		6.26
18)		Carbon Disulfide	8.383	9.390	8.502	8.134	8.079	8.498		6.22
19)		trans-1,2-Dichlo...	2.319	2.612	2.715	2.692	2.761	2.620		6.74
20)		1,1-Dichloroethane	4.749	5.372	4.963	4.800	4.891	4.955		4.99
21)		methyl t-butyl e...	2.818	3.098	3.574	4.042	4.656	3.638		20.24
22)		Vinyl Acetate	0.309	0.224	0.332	0.371	0.456	0.338		25.10
23)		2-Butanone	3.100	3.487	3.941	4.369	4.855	3.950		17.59
24)		cis-1,2-Dichloro...	2.029	2.279	2.456	2.556	2.717	2.407		10.99
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.057	0.063	0.065	0.066	0.067	0.064		6.28
27)		Hexane	0.226	0.248	0.241	0.256	0.278	0.250		7.63
28)		Chloroform	0.796	0.900	0.694	0.600	0.554	0.709		19.93
29)		Tetrahydrofuran	0.181	0.165	0.203	0.203	0.224	0.195		11.66
30)		1,2-Dichloroethane	0.448	0.480	0.311	0.313	0.240	0.359		28.27
31)		1,1,1-Trichloroe...	0.864	0.958	0.746	0.647	0.597	0.762		19.66
32)		Benzene	0.837	0.798	0.724	0.661	0.637	0.731		11.73
33)		Carbon Tetrachlo...	1.117	1.234	0.939	0.797	0.734	0.964		21.86
34)		Cyclohexane	0.185	0.199	0.198	0.218	0.236	0.207		9.75
35)		1,2-Dichloropropane	0.327	0.358	0.289	0.261	0.246	0.296		15.63
36)		Bromodichloromet...	0.807	0.915	0.707	0.617	0.569	0.723		19.49
37)		1,4-Dioxane	0.114	0.095	0.101	0.104	0.110	0.105		7.24
38)		Trichloroethene	0.421	0.462	0.407	0.379	0.370	0.408		8.99
39)		Methyl Methacrylate	0.033	0.052	0.042	0.038	0.031	0.039		21.91
40)		Heptane	0.117	0.139	0.135	0.171	0.200	0.153		21.66
41)		cis-1,3-Dichloro...	0.322	0.344	0.295	0.293	0.301	0.311		6.92
42)		4-Methyl-2-Penta...	0.400	0.408	0.391	0.423	0.483	0.421		8.75
43)		trans-1,3-Dichlo...	0.250	0.270	0.249	0.254	0.261	0.257		3.36
44)		1,1,2-Trichloroe...	0.435	0.493	0.396	0.353	0.336	0.403		15.85

Method Path : J:\L\METHODS\
Method File : TO15LSIMA9.m
Title : TO-15 SIM

45)		Toluene	0.563	0.607	0.582	0.608	0.661	0.604	6.10
46)		2-Hexanone	0.242	0.276	0.267	0.299	0.359	0.289	15.38
47)		Dibromochloromet...	0.874	0.982	0.803	0.726	0.695	0.816	14.23
48)		1,2-Dibromoethane	0.525	0.584	0.519	0.495	0.489	0.522	7.22
49)		Tetrachloroethene	0.464	0.526	0.457	0.428	0.419	0.459	9.19
50)	I	Chlorobenzene d5	----------ISTD----------						
51)		Chlorobenzene	0.426	0.481	0.453	0.460	0.462	0.456	4.33
52)		Ethylbenzene	0.302	0.322	0.327	0.392	0.467	0.362	18.64
53)		m,p-Xylene	0.191	0.209	0.233	0.331	0.425	0.278	35.45
54)		Bromoform	0.296	0.345	0.291	0.297	0.303	0.306	7.11
55)		Styrene	0.126	0.134	0.148	0.192	0.248	0.170	29.81
56)		1,1,2,2-Tetrachl...	0.373	0.422	0.393	0.405	0.408	0.400	4.52
57)		o-Xylene	0.186	0.207	0.233	0.339	0.437	0.281	37.62
58)	S	Bromofluorobenzene	0.650	0.662	0.725	0.778	0.794	0.722	9.08
59)		4-Ethyl Toluene	0.209	0.215	0.240	0.300	0.406	0.274	29.92
60)		1,3,5-Trimethylb...	0.181	0.214	0.234	0.346	0.497	0.294	43.81
61)		1,2,4-Trimethylb...	0.195	0.219	0.271	0.378	0.456	0.304	36.32
62)		Benzyl Chloride	0.202	0.219	0.272	0.335	0.398	0.285	28.58
63)		m-Dichlorobenzene	0.250	0.279	0.321	0.385	0.430	0.333	22.35
64)		p-Dichlorobenzene	0.218	0.244	0.298	0.366	0.408	0.307	26.10
65)		o-Dichlorobenzene	0.230	0.258	0.283	0.335	0.372	0.295	19.54
66)		1,2,4-Trichlorob...	0.097	0.104	0.114	0.131	0.166	0.122	22.68
67)		Naphthalene	0.175	0.200	0.221	0.279	0.438	0.263	40.09
68)		Hexachloro-1,3-b...	0.212	0.243	0.229	0.240	0.255	0.236	6.79

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE02S05.D
Acq On : 04/04/2016 16:29
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31390 (200 mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 09:04:22 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	81	0.00
2		Propene	2.246	1.838	18.2	82	-0.07
3		Dichlorodifluoromethane	6.458	7.643	-18.3	92	-0.07
4		Chloromethane	1.729	2.691	-55.6#	94	-0.05
5		Freon 114	5.554	5.969	-7.5	89	-0.06
6		Vinyl Chloride	1.872	1.984	-6.0	82	-0.05
7		1,3-Butadiene	1.322	1.324	-0.2	75	-0.06
8		Bromomethane	2.646	3.136	-18.5	97	-0.04
9		Chloroethane	1.212	1.369	-13.0	94	-0.04
10		Acrolein	0.639	0.658	-3.0	78	0.00
11		Acetone	6.615	5.736	13.3	87	0.01
12		Trichlorofluoromethane	9.029	9.931	-10.0	93	-0.05
13		Ethanol	1.046	1.298	-24.1	90	0.02
14		Isopropyl Alcohol	12.360	0.175	98.6#	24#	0.00
15		1,1-Dichloroethene	3.524	3.712	-5.3	82	-0.03
16		Methylene Chloride	2.897	3.227	-11.4	94	-0.03
17		Freon 113	5.999	6.470	-7.9	90	-0.03
18		Carbon Disulfide	8.498	9.303	-9.5	93	-0.03
19		trans-1,2-Dichloroethene	2.620	2.717	-3.7	82	-0.02
20		1,1-Dichloroethane	4.955	5.361	-8.2	90	-0.02
21		methyl t-butyl ether	3.638	3.712	-2.0	74	0.00
22		Vinyl Acetate	0.338	0.342	-1.2	75	0.00
23		2-Butanone	3.950	4.393	-11.2	81	0.04
24		cis-1,2-Dichloroethene	2.407	2.587	-7.5	82	0.00
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	75	0.00
26		Ethyl Acetate	0.064	0.073	-14.1	82	0.03
27		Hexane	0.250	0.266	-6.4	78	-0.01
28		Chloroform	0.709	0.762	-7.5	95	-0.01
29		Tetrahydrofuran	0.195	0.217	-11.3	80	0.03
30		1,2-Dichloroethane	0.359	0.399	-11.1	95	0.00
31		1,1,1-Trichloroethane	0.762	0.788	-3.4	91	0.00
32		Benzene	0.731	0.715	2.2	81	0.00
33		Carbon Tetrachloride	0.964	0.998	-3.5	94	0.00
34		Cyclohexane	0.207	0.223	-7.7	77	0.00
35		1,2-Dichloropropane	0.296	0.305	-3.0	88	0.00
36		Bromodichloromethane	0.723	0.769	-6.4	93	0.00

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2016\APR16L\04APR16L\
Data File : LE02S05.D
Acq On : 04/04/2016 16:29
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31390 (200 mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 09:04:22 2016
Quant Method : Z:\L\METHODS\TO15LSIMA9.m
Quant Title : TO-15 SIM
QLast Update : Mon Apr 04 15:22:31 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37		1,4-Dioxane	0.105	0.104	1.0	75	0.03
38		Trichloroethene	0.408	0.414	-1.5	82	0.00
39		Methyl Methacrylate	0.039	0.053	-35.9#	105	0.00
40		Heptane	0.153	0.186	-21.6	81	0.00
41		cis-1,3-Dichloropropene	0.311	0.330	-6.1	84	0.00
42		4-Methyl-2-Pentanone	0.421	0.461	-9.5	82	0.03
43		trans-1,3-Dichloropropene	0.257	0.270	-5.1	80	0.00
44		1,1,2-Trichloroethane	0.403	0.438	-8.7	93	0.02
45		Toluene	0.604	0.642	-6.3	79	0.00
46		2-Hexanone	0.289	0.313	-8.3	78	0.02
47		Dibromochloromethane	0.816	0.883	-8.2	91	0.02
48		1,2-Dibromoethane	0.522	0.577	-10.5	87	0.00
49		Tetrachloroethene	0.459	0.478	-4.1	84	0.00
50	I	Chlorobenzene d5	1.000	1.000	0.0	84	0.02
51		Chlorobenzene	0.456	0.494	-8.3	90	0.00
52		Ethylbenzene	0.362	0.372	-2.8	79	0.00
53		m,p-Xylene	0.278	0.313	-12.6	79	0.00
54		Bromoform	0.306	0.308	-0.7	87	0.00
55		Styrene	0.170	0.173	-1.8	75	0.01
56		1,1,2,2-Tetrachloroethane	0.400	0.464	-16.0	96	0.00
57		o-Xylene	0.281	0.314	-11.7	77	0.01
58	S	Bromofluorobenzene	0.722	0.735	-1.8	79	0.01
59		4-Ethyl Toluene	0.274	0.262	4.4	73	0.00
60		1,3,5-Trimethylbenzene	0.294	0.304	-3.4	74	0.00
61		1,2,4-Trimethylbenzene	0.304	0.277	8.9	61	0.00
62		Benzyl Chloride	0.285	0.322	-13.0	81	0.00
63		m-Dichlorobenzene	0.333	0.383	-15.0	83	0.00
64		p-Dichlorobenzene	0.307	0.378	-23.1	86	0.00
65		o-Dichlorobenzene	0.295	0.325	-10.2	81	0.00
66		1,2,4-Trichlorobenzene	0.122	0.118	3.3	76	0.00
67		Naphthalene	0.263	0.242	8.0	72	0.00
68		Hexachloro-1,3-butadiene	0.236	0.243	-3.0	85	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Analyst Notebook

1608222

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LI16.M (HBN 166946) Here

The following compounds in the CCS were outside of +-30%: Vinyl Acetate

Dilutions: NA

Analyst Signature: _____

ADDRESS 960 West LeVoy Drive, Salt Lake City, Utah, USA 84123 | PHONE +1 801 266 7700 | FAX +1 801 268 9992
ALS GROUP USA, CORP. Part of the ALS Laboratory Group A Campbell Brothers Limited Company
www.alsglobal.com

Quantitation Report

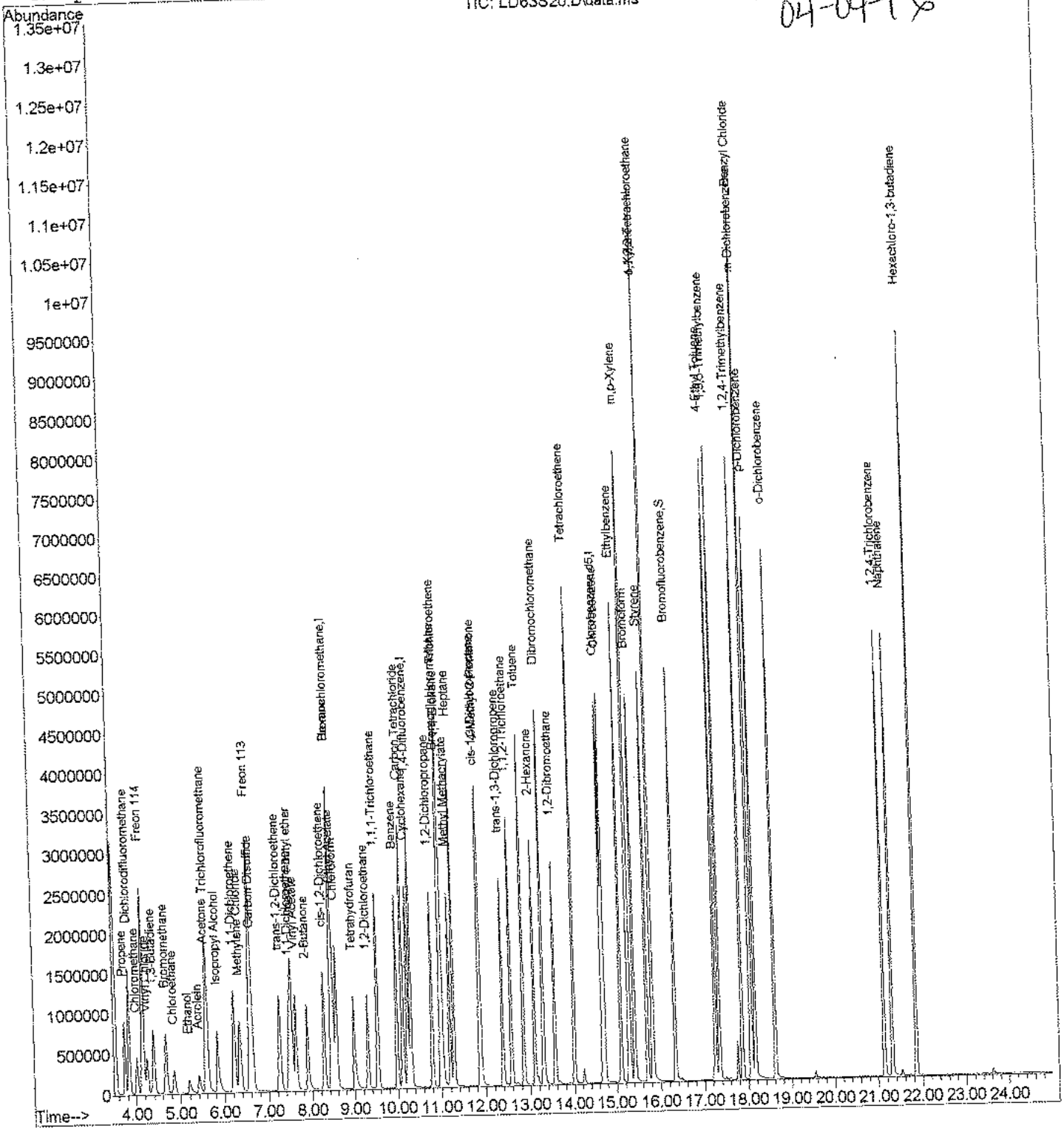
Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD63S20.D Vial: 1
Acq Time : 04/01/2016 11:01 Operator: TJM
Sample : 20 PPB STD Inst : 5975-L
Misc : 31343 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 12:03:43 2016 Results File: TO15LH16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration

Z
04-04-16

TIC: LD63S20.D\data.ms



Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD63S20.D Vial: 1
Acq Time : 04/01/2016 11:01 Operator: TJM
Sample : 20 PPB STD Inst : 5975-L
Misc : 31343 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 12:03:43 2016 Results File: TO15LH16.RES

Quant Method : Z:\L\METHODS\methods\TO15LH16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 29 10:31:05 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.46	130	307776	20.0000	ppb		83.82
25) 1,4-Difluorobenzene	10.32	114	3786822	20.0000	ppb		81.83
50) Chlorobenzene d5	14.68	117	3569266	20.0000	ppb		84.02
							%Recovery
System Monitoring Compounds							
58) Bromofluorobenzene	16.33	95	2197034	20.6202	ppb		103.10%
							Qvalue
Target Compounds							
2) Propene	3.74	41	766509	24.3456	ppb		98
3) Dichlorodifluoromethane	3.84	85	2483644	24.3558	ppb		99
4) Chloromethane	4.02	50	878268	23.9615	ppb		99
5) Freon 114	4.16	135	2013267	23.8113	ppb	#	74
6) Vinyl Chloride	4.25	62	894768	25.6140	ppb		99
7) 1,3-Butadiene	4.40	54	735318	26.0146	ppb	#	60
8) Bromomethane	4.68	94	952710	24.9695	ppb		98
9) Chloroethane	4.85	64	472947	24.4397	ppb	#	88
10) Acrolein	5.41	56	373017	25.9309	ppb		100
11) Acetone	5.55	43	1528745	22.5796	ppb	#	84
12) Trichlorofluoromethane	5.59	101	2791824	24.1575	ppb		96
13) Ethanol	5.19	45	360801	24.0236	ppb	#	79
14) Isopropyl Alcohol	5.83	45	1723106	26.7187	ppb		96
15) 1,1-Dichloroethene	6.22	61	1543365	25.7902	ppb	#	78
16) Methylene Chloride	6.35	84	867672	23.7062	ppb	#	60
17) Freon 113	6.59	151	1820508	24.0314	ppb	#	69
18) Carbon Disulfide	6.64	76	2561022	24.1569	ppb	#	65
19) trans-1,2-Dichloroethene	7.25	96	996079	25.8433	ppb	#	80
20) 1,1-Dichloroethane	7.48	63	1680102	24.4579	ppb		97
21) methyl t-butyl ether	7.53	73	2317638	27.6324	ppb	#	81
22) Vinyl Acetate	7.63	86	264768	28.8309	ppb	#	1
23) 2-Butanone	7.89	43	2148122	28.2770	ppb	#	70
24) cis-1,2-Dichloroethene	8.28	96	1086450	26.5358	ppb	#	79
26) Ethyl Acetate	8.50	61	306270	27.6314	ppb	#	1
27) Hexane	8.46	57	1548114	27.5140	ppb	#	47
28) Chloroform	8.57	83	2070306	25.4964	ppb		97
29) Tetrahydrofuran	8.98	42	1259993	33.0437	ppb	#	62
30) 1,2-Dichloroethane	9.31	62	1321327	26.0159	ppb	#	90
31) 1,1,1-Trichloroethane	9.53	97	2288260	26.2131	ppb	#	91
32) Benzene	9.99	78	2768085	27.0342	ppb	#	92
33) Carbon Tetrachloride	10.13	117	2888622	26.3871	ppb		99
34) Cyclohexane	10.24	84	1324155	29.2641	ppb	#	54
35) 1,2-Dichloropropane	10.80	63	1111592	26.1006	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD63S20.D Vial: 1
Acq Time : 04/01/2016 11:01 Operator: TJM
Sample : 20 PPB STD Inst : 5975-L
Misc : 31343 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 12:03:43 2016 Results File: TO15LH16.RES

Quant Method : Z:\L\METHODS\methods\TO15LH16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 29 10:31:05 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.98	83	2312980	26.6450	ppb		97
37) 1,4-Dioxane	11.03	88	691402	32.0595	ppb	#	90
38) Trichloroethene	11.01	130	1701097	27.5791	ppb		96
39) Methyl Methacrylate	11.19	69	1002517	30.7733	ppb	#	75
40) Heptane	11.28	71	1010820	28.7236	ppb	#	42
41) cis-1,3-Dichloropropene	11.86	75	1771651	30.2795	ppb		97
42) 4-Methyl-2-Pentanone	11.89	43	2818209	30.9527	ppb	#	73
43) trans-1,3-Dichloropropene	12.39	75	1657472	30.6478	ppb		96
44) 1,1,2-Trichloroethane	12.58	97	1373293	27.0105	ppb	#	91
45) Toluene	12.85	91	3845581	30.2729	ppb		99
46) 2-Hexanone	13.09	43	2675099	32.9639	ppb	#	73
47) Dibromochloromethane	13.30	129	3277949	28.6884	ppb		99
48) 1,2-Dibromoethane	13.56	107	2367757	28.4968	ppb		100
49) Tetrachloroethene	14.00	166	2061719	29.2410	ppb	#	79
51) Chlorobenzene	14.73	112	3533361	25.9638	ppb		97
52) Ethylbenzene	15.11	91	5149896	29.2567	ppb		98
53) m,p-Xylene	15.30	91	8089330	58.3661	ppb		98
54) Bromoform	15.42	173	2903434	28.2904	ppb		99
55) Styrene	15.70	104	3305320	31.3190	ppb		96
56) 1,1,2,2-Tetrachloroethane	15.83	83	3019315	26.1942	ppb		96
57) o-Xylene	15.82	91	4343737	29.7559	ppb		96
59) 4-Ethyl Toluene	17.25	105	6171373	32.0821	ppb		99
60) 1,3,5-Trimethylbenzene	17.34	105	5361795	30.3526	ppb		98
61) 1,2,4-Trimethylbenzene	17.87	105	5342358	33.0805	ppb		99
62) Benzyl Chloride	18.06	91	4871380	33.8447	ppb		98
63) m-Dichlorobenzene	18.08	146	3877229	29.3632	ppb	#	95
64) p-Dichlorobenzene	18.17	146	3811281	28.8683	ppb	#	95
65) o-Dichlorobenzene	18.62	146	3656147	30.2759	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	2108096	36.3309	ppb	#	97
67) Naphthalene	21.31	128	5928070	38.5018	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	1782414	33.3855	ppb		99

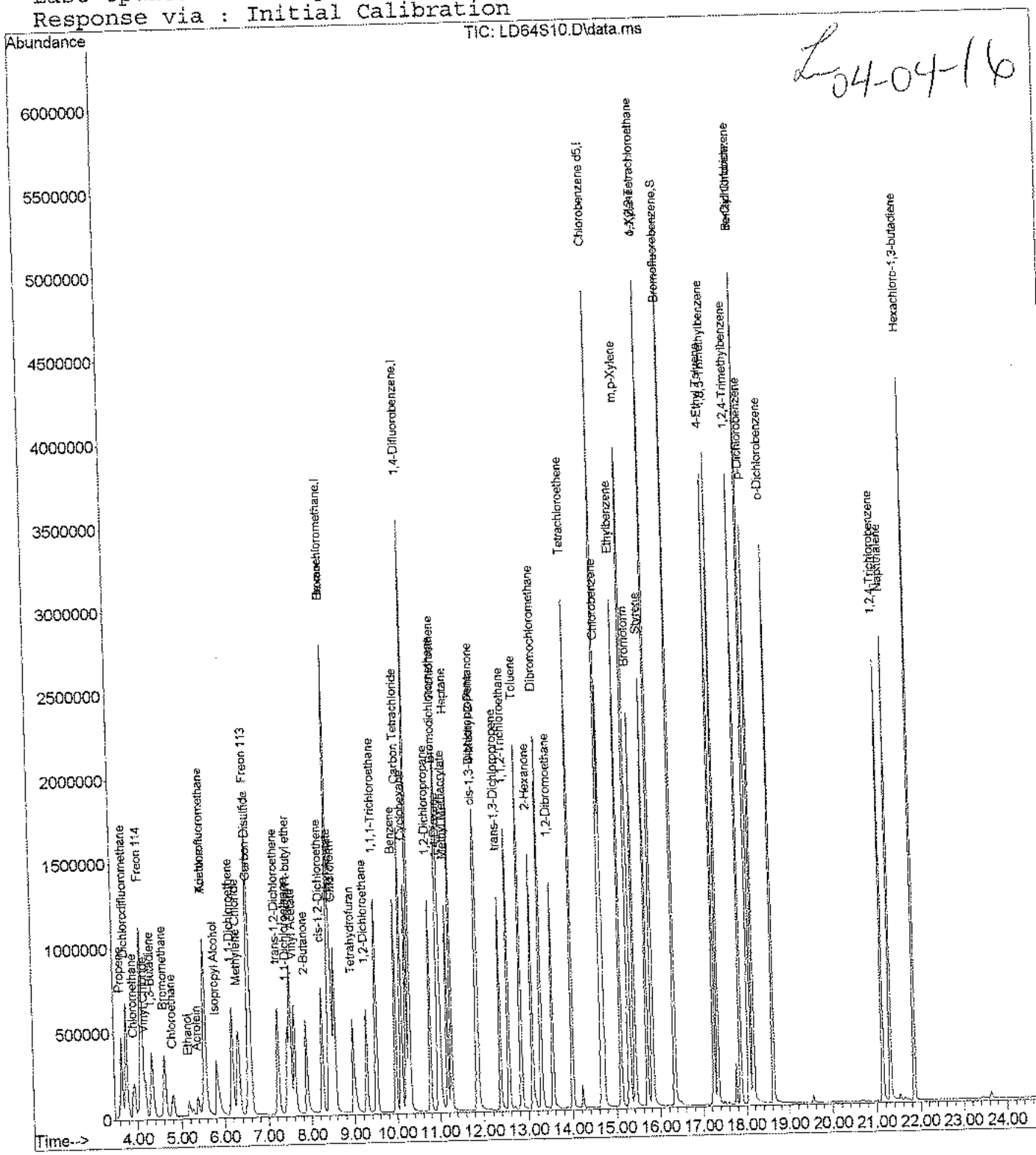
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD64S10.D Vial: 1
Acq Time : 04/01/2016 11:51 Operator: TJM
Sample : 10 PPB STD Inst : 5975-L
Misc : 31343 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 13:16:47 2016 Results File: TO15LH16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD64S10.D Vial: 1
Acq Time : 04/01/2016 11:51 Operator: TJM
Sample : 10 PPB STD Inst : 5975-L
Misc : 31343 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 13:16:47 2016 Results File: TO15LH16.RES

Quant Method : Z:\L\METHODS\methods\TO15LH16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 29 10:31:05 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.43	130	321728	20.0000	ppb		87.62
25) 1,4-Difluorobenzene	10.30	114	3977749	20.0000	ppb		85.96
50) Chlorobenzene d5	14.67	117	3658699	20.0000	ppb		86.13
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	2214870	20.2795	ppb		101.40%
Target Compounds							Qvalue
2) Propene	3.65	41	409146	12.4316	ppb		98
3) Dichlorodifluoromethane	3.76	85	1189189	11.1560	ppb		99
4) Chloromethane	3.94	50	401588	10.4812	ppb		97
5) Freon 114	4.11	135	1036076	11.7225	ppb	#	75
6) Vinyl Chloride	4.18	62	434809	11.9073	ppb		97
7) 1,3-Butadiene	4.33	54	364744	12.3446	ppb	#	60
8) Bromomethane	4.61	94	488349	12.2440	ppb		99
9) Chloroethane	4.80	64	249702	12.3439	ppb	#	88
10) Acrolein	5.38	56	199744	13.2834	ppb		99
11) Acetone	5.54	43	821264	11.6041	ppb	#	82
12) Trichlorofluoromethane	5.55	101	1466619	12.1402	ppb		97
13) Ethanol	5.18	45	202782	12.9165	ppb	#	81
14) Isopropyl Alcohol	5.82	45	934225	13.8580	ppb		97
15) 1,1-Dichloroethene	6.18	61	809190	12.9355	ppb	#	78
16) Methylene Chloride	6.32	84	462001	12.0752	ppb	#	60
17) Freon 113	6.56	151	983492	12.4195	ppb	#	70
18) Carbon Disulfide	6.60	76	1355932	12.2352	ppb	#	65
19) trans-1,2-Dichloroethene	7.22	96	524223	13.0112	ppb	#	78
20) 1,1-Dichloroethane	7.45	63	899814	12.5309	ppb		97
21) methyl t-butyl ether	7.51	73	1229787	14.0265	ppb	#	81
22) Vinyl Acetate	7.61	86	138370	14.4138	ppb	#	1
23) 2-Butanone	7.88	43	1130510	14.2362	ppb	#	69
24) cis-1,2-Dichloroethene	8.25	96	568779	13.2896	ppb	#	80
26) Ethyl Acetate	8.48	61	154301	13.2527	ppb	#	1
27) Hexane	8.44	57	809784	13.7012	ppb	#	78
28) Chloroform	8.55	83	1087059	12.7448	ppb		98
29) Tetrahydrofuran	8.97	42	652168	16.2824	ppb	#	62
30) 1,2-Dichloroethane	9.29	62	694488	13.0176	ppb	#	91
31) 1,1,1-Trichloroethane	9.52	97	1184643	12.9193	ppb	#	91
32) Benzene	9.97	78	1444190	13.4275	ppb	#	92
33) Carbon Tetrachloride	10.11	117	1494095	12.9932	ppb		99
34) Cyclohexane	10.22	84	689808	14.5132	ppb	#	53
35) 1,2-Dichloropropane	10.78	63	577497	12.9090	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD64S10.D Vial: 1
Acq Time : 04/01/2016 11:51 Operator: TJM
Sample : 10 PPB STD Inst : 5975-L
Misc : 31343 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 13:16:47 2016 Results File: TO15LH16.RES

Quant Method : Z:\L\METHODS\methods\TO15LH16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 29 10:31:05 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.96	83	1194069	13.0952	ppb		97
37) 1,4-Dioxane	11.02	88	358045	15.8052	ppb	#	88
38) Trichloroethene	11.00	130	885068	13.6605	ppb		95
39) Methyl Methacrylate	11.17	69	513526	15.0066	ppb	#	77
40) Heptane	11.27	71	526195	14.2348	ppb	#	43
41) cis-1,3-Dichloropropene	11.85	75	897011	14.5951	ppb		96
42) 4-Methyl-2-Pentanone	11.88	43	1446692	15.1265	ppb	#	73
43) trans-1,3-Dichloropropene	12.38	75	827855	14.5729	ppb		96
44) 1,1,2-Trichloroethane	12.56	97	701187	13.1293	ppb	#	91
45) Toluene	12.84	91	1950786	14.6197	ppb		99
46) 2-Hexanone	13.09	43	1341256	15.7343	ppb	#	74
47) Dibromochloromethane	13.29	129	1630741	13.5871	ppb		99
48) 1,2-Dibromoethane	13.55	107	1188536	13.6179	ppb		100
49) Tetrachloroethene	14.00	166	1037163	14.0039	ppb	#	80
51) Chlorobenzene	14.72	112	1812807	12.9952	ppb		97
52) Ethylbenzene	15.11	91	2592211	14.3664	ppb		98
53) m,p-Xylene	15.30	91	4065480	28.6162	ppb		98
54) Bromoform	15.42	173	1433178	13.6232	ppb		99
55) Styrene	15.70	104	1643863	15.1954	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.83	83	1535664	12.9970	ppb		97
57) o-Xylene	15.82	91	2134911	14.2673	ppb		98
59) 4-Ethyl Toluene	17.26	105	3010211	15.2662	ppb		99
60) 1,3,5-Trimethylbenzene	17.35	105	2623414	14.4879	ppb		98
61) 1,2,4-Trimethylbenzene	17.87	105	2562735	15.4809	ppb		100
62) Benzyl Chloride	18.06	91	2292644	15.5392	ppb		99
63) m-Dichlorobenzene	18.08	146	1880596	13.8941	ppb		95
64) p-Dichlorobenzene	18.17	146	1857526	13.7258	ppb	#	96
65) o-Dichlorobenzene	18.62	146	1787915	14.4435	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	992483	16.6863	ppb	#	97
67) Naphthalene	21.31	128	2856232	18.0973	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	827992	15.1296	ppb		99

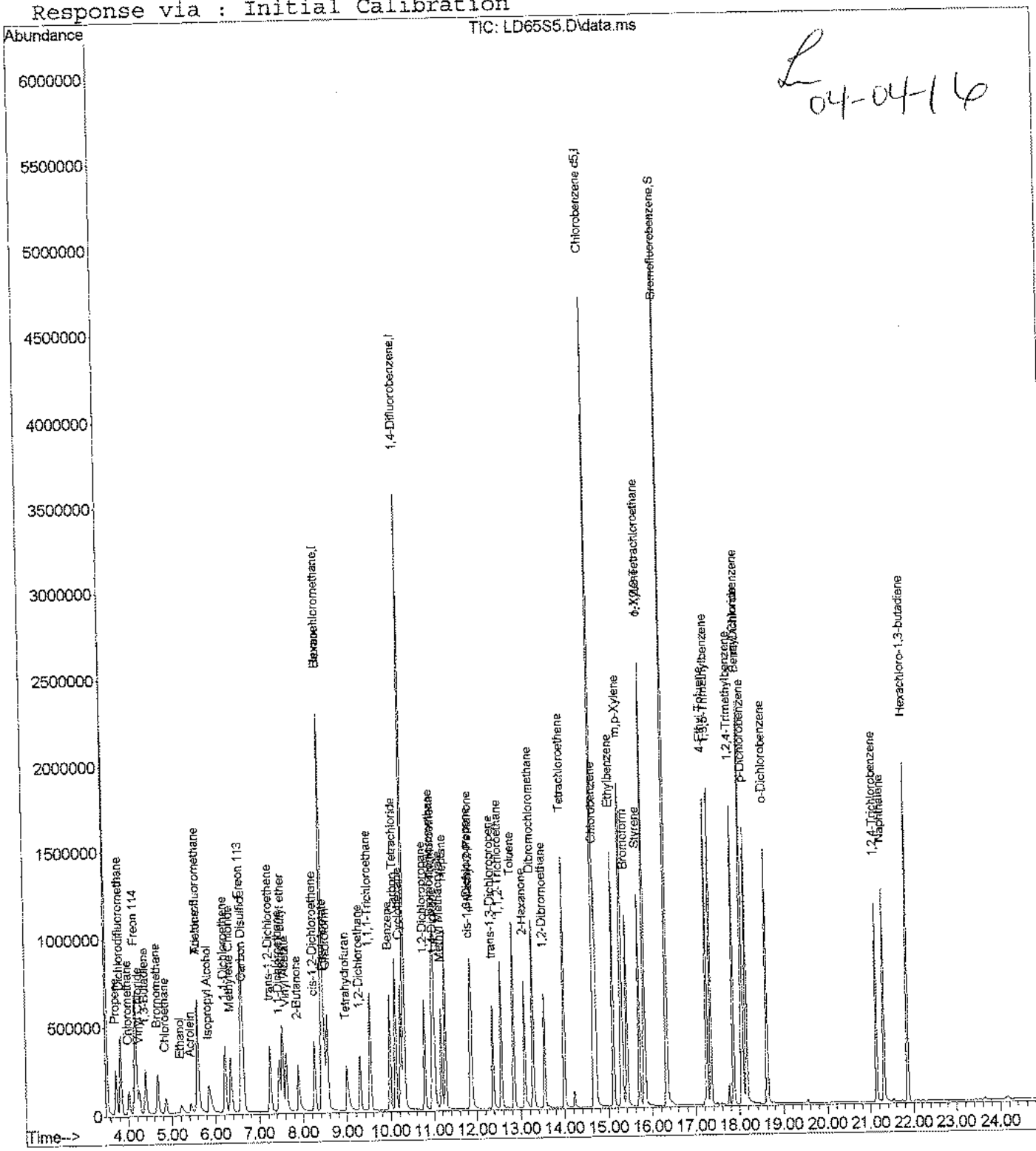
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD65S5.D Vial: 1
Acq Time : 04/01/2016 12:41 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 31343 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 13:16:55 2016 Results File: TO15LH16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



L 04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD65S5.D Vial: 1
Acq Time : 04/01/2016 12:41 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 31343 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 13:16:55 2016 Results File: TO15LH16.RES

Quant Method : Z:\L\METHODS\methods\TO15LH16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 29 10:31:05 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.44	130	346688	20.0000	ppb		94.42
25) 1,4-Difluorobenzene	10.31	114	3944202	20.0000	ppb		85.24
50) Chlorobenzene d5	14.67	117	3538537	20.0000	ppb		83.30
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2129048	20.1557	ppb		100.78%
Target Compounds							Qvalue
2) Propene	3.73	41	209841	5.9168	ppb		98
3) Dichlorodifluoromethane	3.83	85	679869	5.9188	ppb		100
4) Chloromethane	4.01	50	242196	5.8661	ppb		98
5) Freon 114	4.17	135	559219	5.8716	ppb	#	75
6) Vinyl Chloride	4.25	62	242960	6.1744	ppb		98
7) 1,3-Butadiene	4.40	54	199862	6.2772	ppb	#	61
8) Bromomethane	4.68	94	259840	6.0458	ppb		98
9) Chloroethane	4.86	64	128916	5.9141	ppb	#	87
10) Acrolein	5.44	56	98890	6.1029	ppb		97
11) Acetone	5.60	43	406246	5.3268	ppb	#	83
12) Trichlorofluoromethane	5.60	101	754166	5.7933	ppb		96
13) Ethanol	5.21	45	102290	6.0464	ppb	#	79
14) Isopropyl Alcohol	5.85	45	457283	6.2948	ppb	#	92
15) 1,1-Dichloroethene	6.22	61	403175	5.9810	ppb	#	79
16) Methylene Chloride	6.35	84	233450	5.6623	ppb	#	60
17) Freon 113	6.60	151	502707	5.8911	ppb	#	71
18) Carbon Disulfide	6.64	76	688171	5.7626	ppb	#	66
19) trans-1,2-Dichloroethene	7.25	96	259129	5.9685	ppb	#	78
20) 1,1-Dichloroethane	7.47	63	452033	5.8418	ppb		97
21) methyl t-butyl ether	7.54	73	597189	6.3209	ppb	#	81
22) Vinyl Acetate	7.63	86	66037	6.3837	ppb	#	1
23) 2-Butanone	7.90	43	540779	6.3196	ppb	#	69
24) cis-1,2-Dichloroethene	8.27	96	276052	5.9856	ppb	#	79
26) Ethyl Acetate	8.50	61	77195	6.6866	ppb	#	1
27) Hexane	8.46	57	404167	6.8965	ppb	#	81
28) Chloroform	8.57	83	543926	6.4313	ppb		98
29) Tetrahydrofuran	9.00	42	311923	7.8539	ppb	#	61
30) 1,2-Dichloroethane	9.30	62	342340	6.4715	ppb	#	91
31) 1,1,1-Trichloroethane	9.53	97	589980	6.4888	ppb	#	91
32) Benzene	9.99	78	711929	6.6755	ppb	#	92
33) Carbon Tetrachloride	10.12	117	736193	6.4567	ppb		99
34) Cyclohexane	10.24	84	340137	7.2172	ppb	#	55
35) 1,2-Dichloropropane	10.79	63	286133	6.4504	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD65S5.D Vial: 1
Acq Time : 04/01/2016 12:41 Operator: TJM
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 31343 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 13:16:55 2016 Results File: TO15LH16.RES

Quant Method : Z:\L\METHODS\methods\TO15LH16.m (RTE Integrator)
Title : TO-15
Last Update : Tue Mar 29 10:31:05 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.97	83	578446	6.3977	ppb		97
37) 1,4-Dioxane	11.03	88	170273	7.5803	ppb	#	88
38) Trichloroethene	11.00	130	429915	6.6919	ppb		96
39) Methyl Methacrylate	11.18	69	242604	7.1498	ppb	#	77
40) Heptane	11.27	71	261450	7.1330	ppb	#	46
41) cis-1,3-Dichloropropene	11.85	75	427108	7.0085	ppb		96
42) 4-Methyl-2-Pentanone	11.89	43	692683	7.3043	ppb	#	73
43) trans-1,3-Dichloropropene	12.38	75	385576	6.8451	ppb		96
44) 1,1,2-Trichloroethane	12.56	97	341983	6.4579	ppb	#	91
45) Toluene	12.84	91	931985	7.0439	ppb		99
46) 2-Hexanone	13.09	43	628346	7.4338	ppb	#	73
47) Dibromochloromethane	13.28	129	774513	6.5080	ppb		99
48) 1,2-Dibromoethane	13.55	107	566400	6.5448	ppb		100
49) Tetrachloroethene	14.00	166	496548	6.7615	ppb	#	81
51) Chlorobenzene	14.72	112	872499	6.4670	ppb		95
52) Ethylbenzene	15.11	91	1231267	7.0556	ppb		98
53) m,p-Xylene	15.30	91	1922669	13.9929	ppb		99
54) Bromoform	15.41	173	680859	6.6917	ppb		100
55) Styrene	15.69	104	768672	7.3467	ppb		98
56) 1,1,2,2-Tetrachloroethane	15.82	83	743555	6.5068	ppb		97
57) o-Xylene	15.81	91	1000641	6.9142	ppb		99
59) 4-Ethyl Toluene	17.25	105	1405162	7.3682	ppb		100
60) 1,3,5-Trimethylbenzene	17.34	105	1240594	7.0839	ppb		98
61) 1,2,4-Trimethylbenzene	17.86	105	1193172	7.4524	ppb		99
62) Benzyl Chloride	18.06	91	1033581	7.2433	ppb		98
63) m-Dichlorobenzene	18.08	146	891278	6.8085	ppb		96
64) p-Dichlorobenzene	18.16	146	883220	6.7480	ppb		96
65) o-Dichlorobenzene	18.62	146	837041	6.9916	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	442939	7.6999	ppb	#	98
67) Naphthalene	21.31	128	1298586	8.5073	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	387377	7.3188	ppb		99

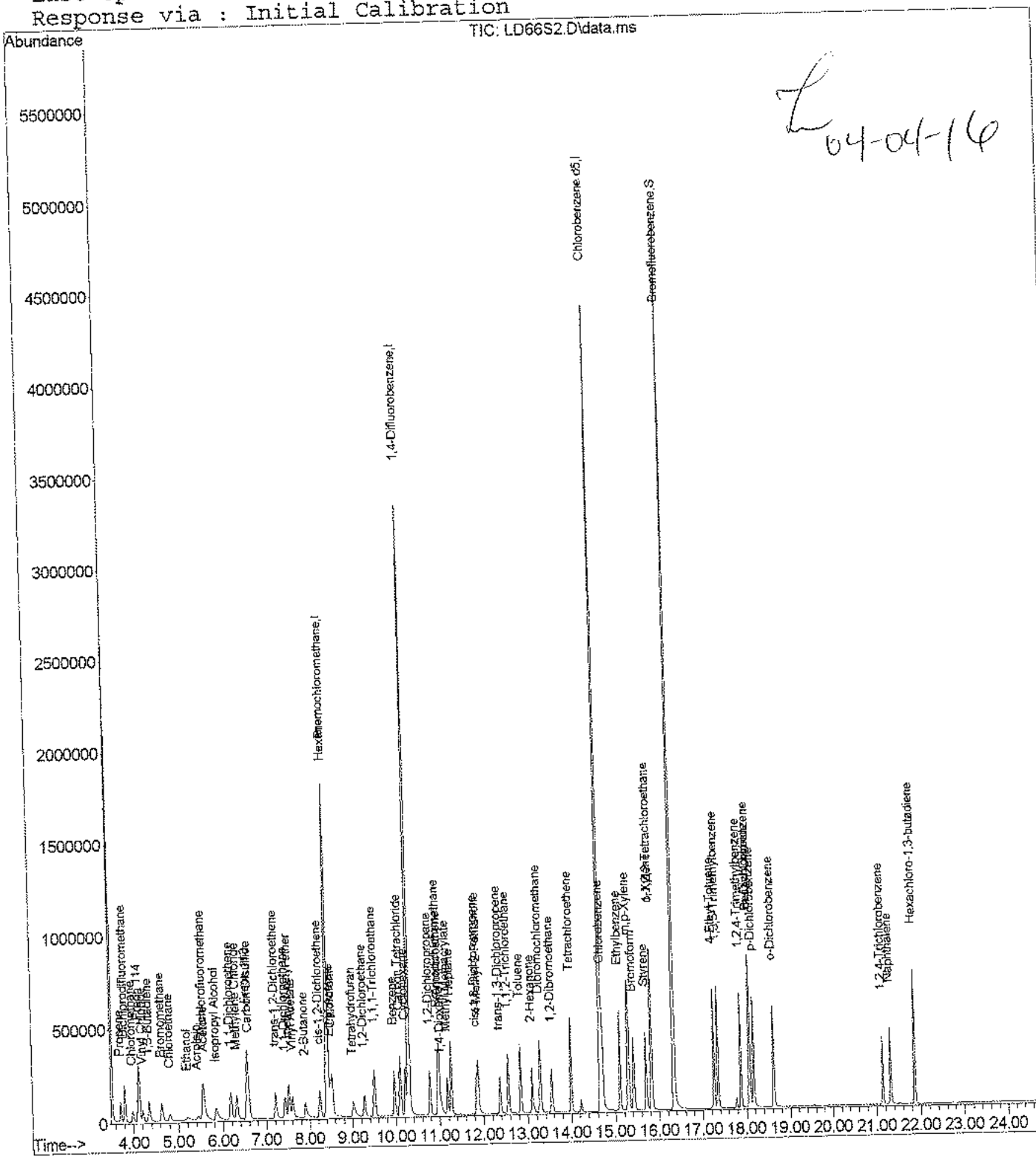
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD66S2.D Vial: 1
Acq Time : 04/01/2016 13:30 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 31343 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 15:02:07 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



L 04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD66S2.D Vial: 1
Acq Time : 04/01/2016 13:30 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 31343 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 15:02:07 2016 Results File: TO15LI16.RES

Quant Method : Z:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 13:20:58 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.42	130	319808	20.0000	ppb		99.40
25) 1,4-Difluorobenzene	10.30	114	3789792	20.0000	ppb		95.27
50) Chlorobenzene d5	14.67	117	3402254	20.0000	ppb		92.99
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.34	95	2019549	19.7125	ppb		98.56%
Target Compounds							**Qvalue**
2) Propene	3.71	41	80093	2.1702	ppb		97
3) Dichlorodifluoromethane	3.81	85	267926	2.2928	ppb		99
4) Chloromethane	3.99	50	93007	2.2466	ppb		100
5) Freon 114	4.13	135	220121	2.2425	ppb	#	74
6) Vinyl Chloride	4.21	62	91525	2.2501	ppb		98
7) 1,3-Butadiene	4.35	54	74445	2.2529	ppb	#	56
8) Bromomethane	4.63	94	100650	2.2528	ppb		99
9) Chloroethane	4.82	64	51294	2.2647	ppb	#	88
10) Acrolein	5.44	56	33972	2.0283	ppb	#	96
11) Acetone	5.59	43	154368	1.9800	ppb	#	84
12) Trichlorofluoromethane	5.55	101	294750	2.1954	ppb		96
13) Ethanol	5.20	45	38194	2.1370	ppb	#	79
14) Isopropyl Alcohol	5.85	45	169658	2.1525	ppb	#	90
15) 1,1-Dichloroethene	6.18	61	154383	2.2117	ppb	#	78
16) Methylene Chloride	6.32	84	91914	2.1590	ppb	#	59
17) Freon 113	6.56	151	193603	2.1929	ppb	#	70
18) Carbon Disulfide	6.60	76	272787	2.2171	ppb	#	65
19) trans-1,2-Dichloroethene	7.22	96	98356	2.1811	ppb	#	79
20) 1,1-Dichloroethane	7.43	63	175006	2.1885	ppb		97
21) methyl t-butyl ether	7.52	73	213636	2.1566	ppb	#	81
22) Vinyl Acetate	7.61	86	23407	2.1345	ppb	#	1
23) 2-Butanone	7.89	43	192003	2.1344	ppb	#	67
24) cis-1,2-Dichloroethene	8.24	96	104930	2.1826	ppb	#	79
26) Ethyl Acetate	8.49	61	27860	2.1320	ppb	#	1
27) Hexane	8.43	57	151177	2.2536	ppb	#	84
28) Chloroform	8.53	83	209972	2.2009	ppb		97
29) Tetrahydrofuran	9.01	42	105899	2.1251	ppb	#	62
30) 1,2-Dichloroethane	9.27	62	132159	2.2112	ppb	#	90
31) 1,1,1-Trichloroethane	9.50	97	226222	2.1983	ppb	#	90
32) Benzene	9.97	78	269949	2.2189	ppb	#	92
33) Carbon Tetrachloride	10.10	117	282978	2.1907	ppb		99
34) Cyclohexane	10.22	84	125361	2.3039	ppb	#	57
35) 1,2-Dichloropropane	10.78	63	108415	2.1595	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD66S2.D Vial: 1
Acq Time : 04/01/2016 13:30 Operator: TJM
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 31343 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 15:02:07 2016 Results File: TO15LI16.RES

Quant Method : Z:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 13:20:58 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	224875	2.1944	ppb		97
37) 1,4-Dioxane	11.03	88	62748	2.3482	ppb	#	87
38) Trichloroethene	10.99	130	163066	2.2236	ppb		95
39) Methyl Methacrylate	11.17	69	85453	2.1888	ppb	#	77
40) Heptane	11.26	71	97918	2.3182	ppb	#	45
41) cis-1,3-Dichloropropene	11.85	75	150491	2.1336	ppb		96
42) 4-Methyl-2-Pentanone	11.88	43	250084	2.2587	ppb	#	72
43) trans-1,3-Dichloropropene	12.37	75	136311	2.0972	ppb		96
44) 1,1,2-Trichloroethane	12.56	97	132644	2.2100	ppb	#	91
45) Toluene	12.84	91	340512	2.2252	ppb		97
46) 2-Hexanone	13.09	43	220384	2.2228	ppb	#	72
47) Dibromochloromethane	13.28	129	294834	2.1663	ppb		99
48) 1,2-Dibromoethane	13.55	107	210505	2.1310	ppb		100
49) Tetrachloroethene	14.00	166	185102	2.1849	ppb	#	80
51) Chlorobenzene	14.72	112	339712	2.2327	ppb	#	91
52) Ethylbenzene	15.11	91	450534	2.2487	ppb		98
53) m,p-Xylene	15.30	91	718152	4.5385	ppb		99
54) Bromoform	15.42	173	254730	2.1829	ppb		99
55) Styrene	15.70	104	267522	2.2007	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.83	83	288220	2.2155	ppb		98
57) o-Xylene	15.82	91	371796	2.2231	ppb		99
59) 4-Ethyl Toluene	17.26	105	489911	2.1879	ppb		100
60) 1,3,5-Trimethylbenzene	17.35	105	452907	2.2137	ppb		98
61) 1,2,4-Trimethylbenzene	17.87	105	419784	2.1969	ppb		99
62) Benzyl Chloride	18.06	91	365893	2.1317	ppb		97
63) m-Dichlorobenzene	18.08	146	331014	2.1669	ppb		96
64) p-Dichlorobenzene	18.17	146	326816	2.1471	ppb		95
65) o-Dichlorobenzene	18.62	146	307181	2.1752	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	145237	2.0048	ppb	#	96
67) Naphthalene	21.31	128	418381	2.1125	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	141780	2.1665	ppb		99

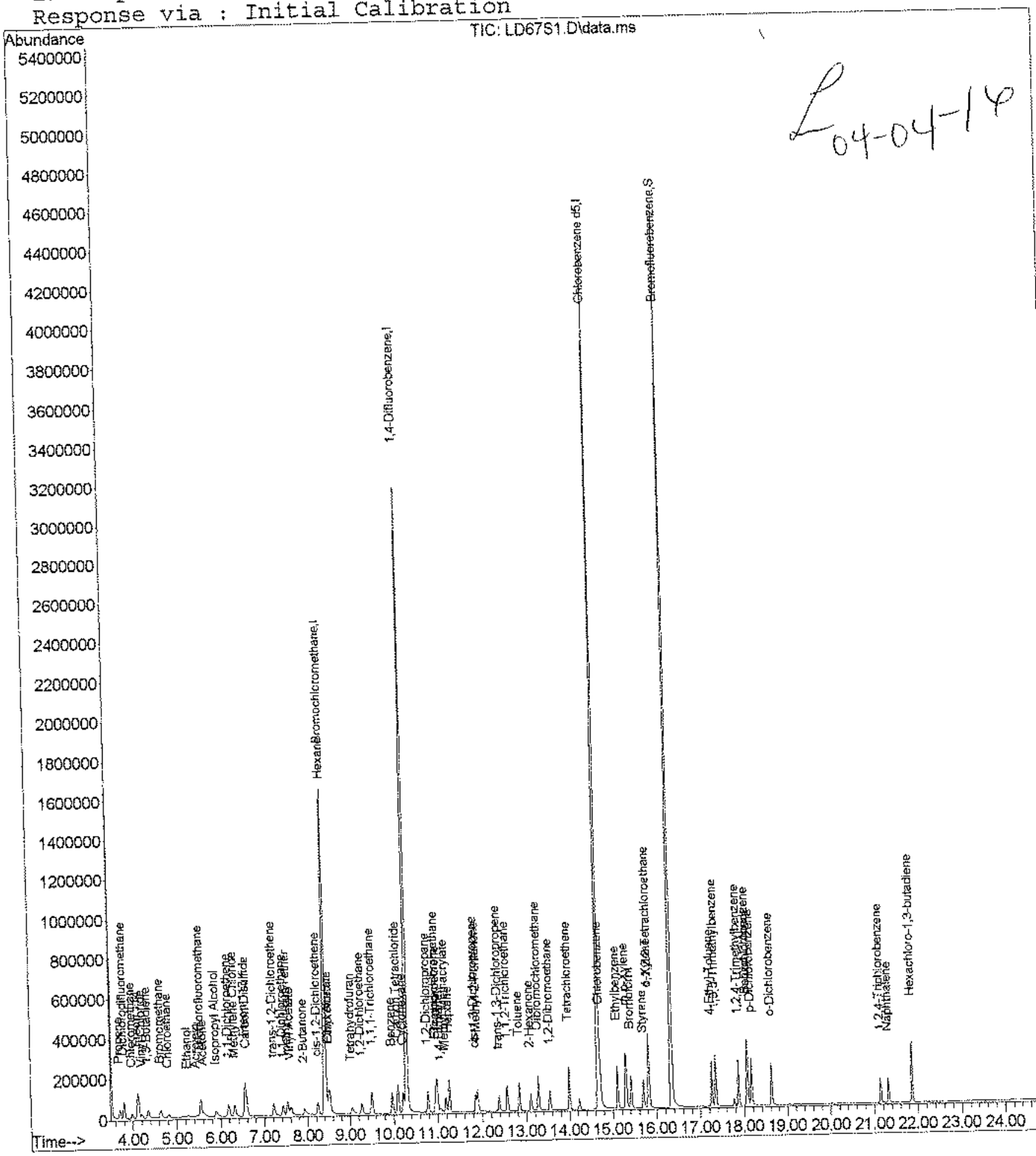
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD67S1.D Vial: 1
Acq Time : 04/01/2016 14:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 31343 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 15:02:35 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD67S1.D Vial: 1
Acq Time : 04/01/2016 14:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 31343 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 15:02:35 2016 Results File: TO15LI16.RES

Quant Method : Z:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 15:02:21 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	R.T.	QIon	Response	Conc	Units		Area%
Internal Standards							
1) Bromochloromethane	8.41	130	304512	20.0000	ppb		94.65
25) 1,4-Difluorobenzene	10.30	114	3622142	20.0000	ppb		91.06
50) Chlorobenzene d5	14.67	117	3229451	20.0000	ppb		88.27
							%Recovery
System Monitoring Compounds							
58) Bromofluorobenzene	16.33	95	1911946	19.6582	ppb		98.29%
							Qvalue
Target Compounds							
2) Propene	3.71	41	33992	0.9422	ppb		96
3) Dichlorodifluoromethane	3.80	85	114625	1.0002	ppb		99
4) Chloromethane	3.99	50	40052	0.9915	ppb		97
5) Freon 114	4.12	135	94557	0.9874	ppb	#	74
6) Vinyl Chloride	4.21	62	37632	0.9441	ppb		99
7) 1,3-Butadiene	4.35	54	30293	0.9397	ppb	#	52
8) Bromomethane	4.63	94	43399	0.9927	ppb		100
9) Chloroethane	4.81	64	22023	0.9947	ppb	#	88
10) Acrolein	5.46	56	14353	0.8827	ppb		96
11) Acetone	5.61	43	64923	0.8506	ppb	#	85
12) Trichlorofluoromethane	5.55	101	130859	1.0015	ppb		98
13) Ethanol	5.25	45	16943	0.9761	ppb	#	58
14) Isopropyl Alcohol	5.90	45	68068	0.8766	ppb		93
15) 1,1-Dichloroethene	6.18	61	65103	0.9549	ppb	#	78
16) Methylene Chloride	6.32	84	41417	0.9983	ppb	#	62
17) Freon 113	6.56	151	85132	0.9897	ppb	#	67
18) Carbon Disulfide	6.59	76	118341	0.9860	ppb	#	66
19) trans-1,2-Dichloroethene	7.21	96	40934	0.9303	ppb	#	79
20) 1,1-Dichloroethane	7.43	63	76653	0.9843	ppb	#	95
21) methyl t-butyl ether	7.53	73	82906	0.8584	ppb	#	81
22) Vinyl Acetate	7.61	86	8243	0.7699	ppb	#	1
23) 2-Butanone	7.92	43	73037	0.8257	ppb	#	71
24) cis-1,2-Dichloroethene	8.25	96	43061	0.9172	ppb	#	78
26) Ethyl Acetate	8.50	61	11731	0.9178	ppb	#	1
27) Hexane	8.43	57	62558	0.9413	ppb	#	82
28) Chloroform	8.53	83	91721	0.9765	ppb		96
29) Tetrahydrofuran	9.05	42	40867	0.8295	ppb	#	59
30) 1,2-Dichloroethane	9.27	62	57183	0.9696	ppb	#	91
31) 1,1,1-Trichloroethane	9.51	97	98171	0.9678	ppb	#	89
32) Benzene	9.97	78	115457	0.9585	ppb	#	93
33) Carbon Tetrachloride	10.10	117	124475	0.9769	ppb		97
34) Cyclohexane	10.22	84	47907	0.8829	ppb	#	56
35) 1,2-Dichloropropane	10.77	63	47501	0.9610	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD67S1.D Vial: 1
Acq Time : 04/01/2016 14:19 Operator: TJM
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 31343 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 15:02:35 2016 Results File: TO15LI16.RES

Quant Method : Z:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 15:02:21 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	97201	0.9627	ppb		97
37) 1,4-Dioxane	11.06	88	22025	0.8110	ppb	#	80
38) Trichloroethene	10.99	130	68082	0.9369	ppb		95
39) Methyl Methacrylate	11.18	69	32431	0.8372	ppb	#	75
40) Heptane	11.26	71	38337	0.9086	ppb	#	42
41) cis-1,3-Dichloropropene	11.85	75	58360	0.8365	ppb		96
42) 4-Methyl-2-Pentanone	11.89	43	93623	0.8451	ppb	#	73
43) trans-1,3-Dichloropropene	12.37	75	52504	0.8189	ppb		95
44) 1,1,2-Trichloroethane	12.56	97	55975	0.9424	ppb	#	90
45) Toluene	12.84	91	129715	0.8518	ppb		99
46) 2-Hexanone	13.10	43	78923	0.7912	ppb	#	70
47) Dibromochloromethane	13.28	129	122807	0.9124	ppb		98
48) 1,2-Dibromoethane	13.54	107	87313	0.8947	ppb		100
49) Tetrachloroethene	14.00	166	75330	0.8967	ppb	#	79
51) Chlorobenzene	14.72	112	143087	0.9563	ppb		99
52) Ethylbenzene	15.11	91	169927	0.8575	ppb		98
53) m,p-Xylene	15.30	91	281951	1.8018	ppb		99
54) Bromoform	15.42	173	105824	0.9206	ppb		99
55) Styrene	15.70	104	95458	0.7940	ppb		98
56) 1,1,2,2-Tetrachloroethane	15.83	83	122613	0.9562	ppb		98
57) o-Xylene	15.81	91	145802	0.8823	ppb		99
59) 4-Ethyl Toluene	17.26	105	172005	0.7748	ppb		99
60) 1,3,5-Trimethylbenzene	17.35	105	178793	0.8826	ppb		97
61) 1,2,4-Trimethylbenzene	17.87	105	153889	0.8081	ppb		97
62) Benzyl Chloride	18.06	91	133247	0.7797	ppb		97
63) m-Dichlorobenzene	18.08	146	137329	0.9098	ppb		96
64) p-Dichlorobenzene	18.17	146	135022	0.8998	ppb		96
65) o-Dichlorobenzene	18.62	146	123059	0.8765	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	51556	0.7114	ppb	#	97
67) Naphthalene	21.31	128	139491	0.7001	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	59259	0.9050	ppb		97

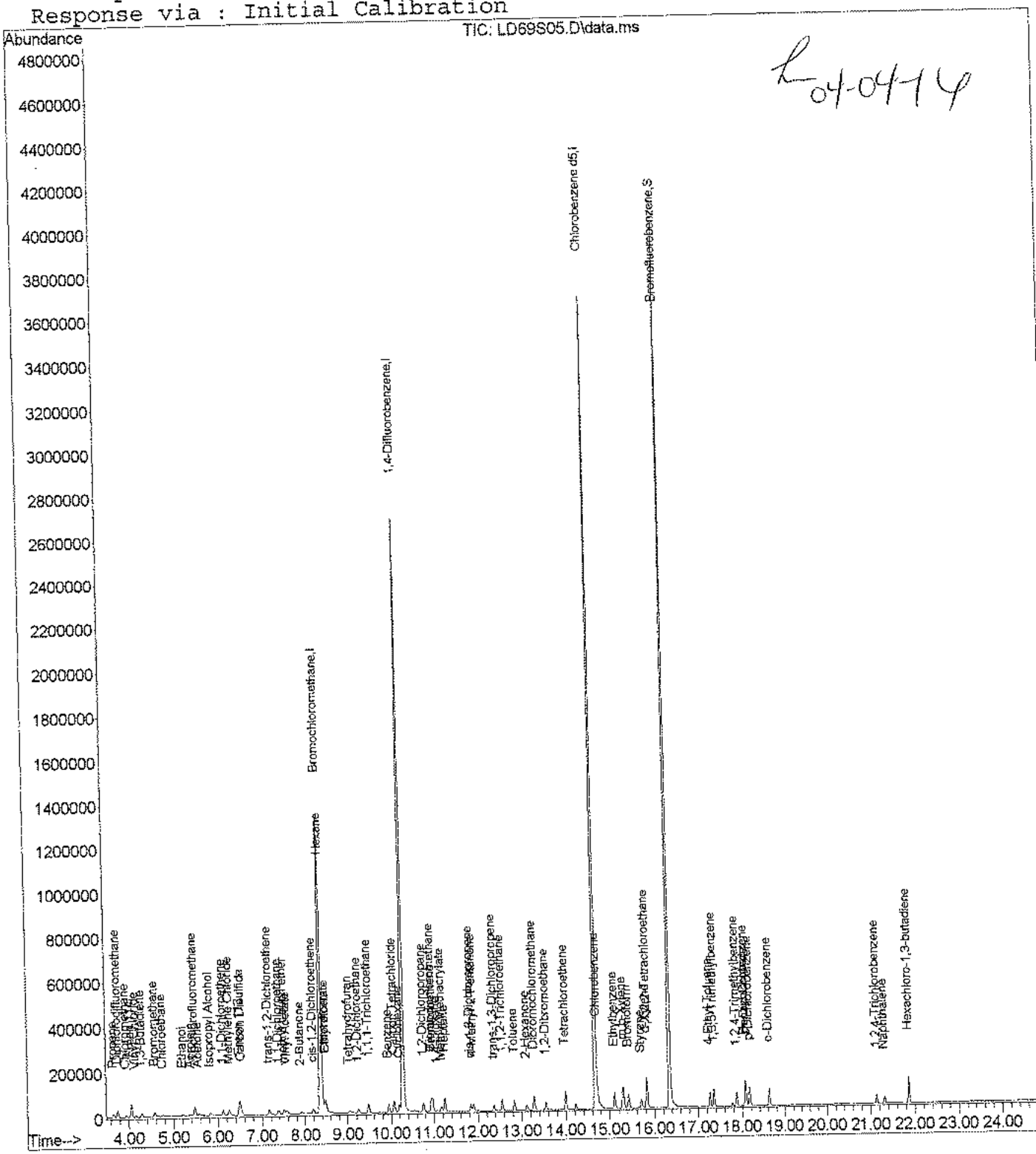
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD69S05.D Vial: 1
Acq Time : 04/01/2016 15:48 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31343 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 16:15:23 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



L04-0414

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD69S05.D Vial: 1
Acq Time : 04/01/2016 15:48 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31343 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 16:15:23 2016 Results File: TO15LI16.RES

Quant Method : Z:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 15:02:48 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.37	130	251712	20.0000	ppb		78.24
25) 1,4-Difluorobenzene	10.27	114	3169155	20.0000	ppb		79.67
50) Chlorobenzene d5	14.67	117	2807373	20.0000	ppb		76.73
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	1673104	19.8275	ppb		99.14%
Target Compounds							Qvalue
2) Propene	3.66	41	13794	0.4440	ppb		94
3) Dichlorodifluoromethane	3.76	85	46800	0.4728	ppb		100
4) Chloromethane	3.94	50	16380	0.4703	ppb		98
5) Freon 114	4.06	135	38459	0.4703	ppb	#	70
6) Vinyl Chloride	4.15	62	14505	0.4216	ppb		95
7) 1,3-Butadiene	4.30	54	10917	0.3946	ppb	#	36
8) Bromomethane	4.57	94	17680	0.4666	ppb		100
9) Chloroethane	4.75	64	8917	0.4649	ppb	#	87
10) Acrolein	5.39	56	4642	0.3323	ppb	#	79
11) Acetone	5.57	43	22910	0.3515	ppb		89
12) Trichlorofluoromethane	5.48	101	54342	0.4856	ppb		98
13) Ethanol	5.19	45	8185	0.5493	ppb	#	78
14) Isopropyl Alcohol	5.83	45	24063	0.3613	ppb	#	74
15) 1,1-Dichloroethene	6.12	61	24372	0.4164	ppb	#	78
16) Methylene Chloride	6.25	84	17700	0.4974	ppb	#	60
17) Freon 113	6.49	151	33930	0.4612	ppb	#	64
18) Carbon Disulfide	6.54	76	49913	0.4859	ppb	#	66
19) trans-1,2-Dichloroethene	7.16	96	16225	0.4311	ppb	#	82
20) 1,1-Dichloroethane	7.38	63	30880	0.4629	ppb	#	95
21) methyl t-butyl ether	7.49	73	27481	0.3322	ppb	#	82
22) Vinyl Acetate	7.57	86	2503	0.2771	ppb	#	1
23) 2-Butanone	7.90	43	27158	0.3567	ppb	#	65
24) cis-1,2-Dichloroethene	8.20	96	16204	0.4033	ppb	#	80
26) Ethyl Acetate	8.48	61	4165	0.3547	ppb	#	1
27) Hexane	8.39	57	22771	0.3752	ppb	#	78
28) Chloroform	8.49	83	39360	0.4619	ppb		100
29) Tetrahydrofuran	9.03	42	12150	0.2703	ppb	#	51
30) 1,2-Dichloroethane	9.24	62	22985	0.4287	ppb	#	87
31) 1,1,1-Trichloroethane	9.47	97	40339	0.4378	ppb	#	89
32) Benzene	9.94	78	45404	0.4135	ppb	#	93
33) Carbon Tetrachloride	10.07	117	50171	0.4335	ppb		100
34) Cyclohexane	10.19	84	15244	0.3069	ppb	#	54
35) 1,2-Dichloropropane	10.75	63	19354	0.4315	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD69S05.D Vial: 1
Acq Time : 04/01/2016 15:48 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31343 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 01 16:15:23 2016 Results File: TO15LI16.RES

Quant Method : Z:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 15:02:48 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.94	83	40286	0.4397	ppb		98
37) 1,4-Dioxane	11.07	88	7479	0.3003	ppb	#	85
38) Trichloroethene	10.97	130	26156	0.3958	ppb		94
39) Methyl Methacrylate	11.17	69	10716	0.3017	ppb	#	75
40) Heptane	11.24	71	13569	0.3504	ppb	#	40
41) cis-1,3-Dichloropropene	11.83	75	21253	0.3362	ppb		97
42) 4-Methyl-2-Pentanone	11.89	43	30198	0.2968	ppb	#	71
43) trans-1,3-Dichloropropene	12.36	75	19754	0.3405	ppb	#	92
44) 1,1,2-Trichloroethane	12.55	97	22633	0.4188	ppb	#	90
45) Toluene	12.83	91	44137	0.3164	ppb		96
46) 2-Hexanone	13.11	43	24535	0.2655	ppb	#	68
47) Dibromochloromethane	13.28	129	49740	0.4073	ppb		99
48) 1,2-Dibromoethane	13.55	107	34316	0.3870	ppb		98
49) Tetrachloroethene	13.99	166	29046	0.3784	ppb	#	81
51) Chlorobenzene	14.72	112	60059	0.4424	ppb		98
52) Ethylbenzene	15.11	91	60218	0.3337	ppb		96
53) m,p-Xylene	15.30	91	97571	0.6828	ppb		99
54) Bromoform	15.42	173	41263	0.3976	ppb		100
55) Styrene	15.70	104	30460	0.2782	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.83	83	50738	0.4379	ppb		98
57) o-Xylene	15.81	91	48866	0.3239	ppb		99
59) 4-Ethyl Toluene	17.26	105	52373	0.2597	ppb		98
60) 1,3,5-Trimethylbenzene	17.35	105	56365	0.3060	ppb		100
61) 1,2,4-Trimethylbenzene	17.87	105	44302	0.2538	ppb		99
62) Benzyl Chloride	18.06	91	46404	0.2988	ppb		93
63) m-Dichlorobenzene	18.08	146	50357	0.3670	ppb	#	96
64) p-Dichlorobenzene	18.17	146	46682	0.3414	ppb	#	94
65) o-Dichlorobenzene	18.62	146	44486	0.3483	ppb		95
66) 1,2,4-Trichlorobenzene	21.14	180	17653	0.2700	ppb		93
67) Naphthalene	21.31	128	38268	0.2118	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	22303	0.3738	ppb		99

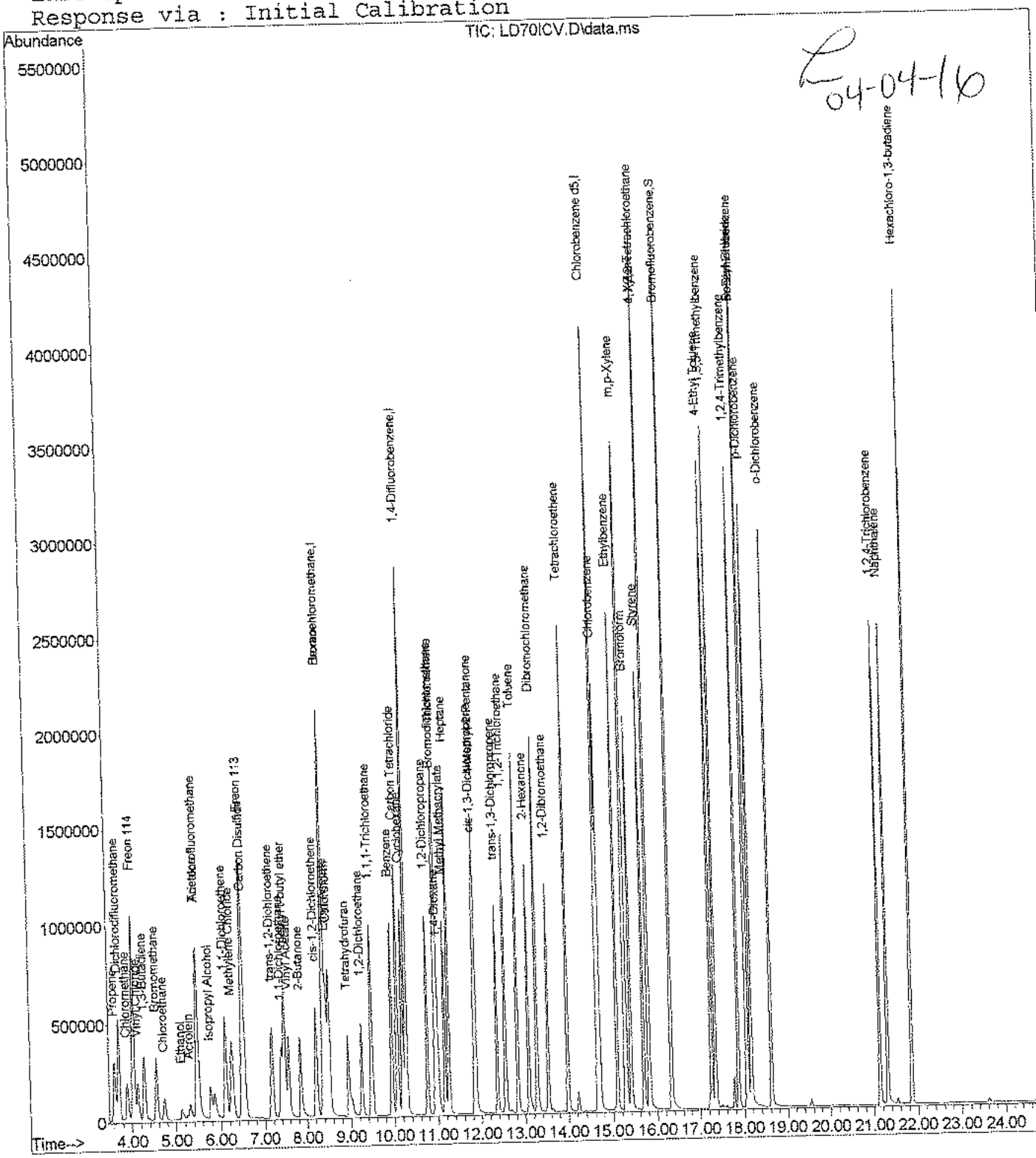
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD70ICV.D Vial: 2
Acq Time : 04/01/2016 16:37 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 31345 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:23:04 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



4-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD70ICV.D Vial: 2
Acq Time : 04/01/2016 16:37 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 31345 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:23:04 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	244288	20.0000	ppb		75.93
25) 1,4-Difluorobenzene	10.28	114	3337726	20.0000	ppb		83.91
50) Chlorobenzene d5	14.67	117	3148840	20.0000	ppb		86.06
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	1948694	20.6048	ppb		103.02%
Target Compounds							Qvalue
2) Propene	3.61	41	324438	11.0798	ppb	m	0
3) Dichlorodifluoromethane	3.72	85	1050378	11.0606	ppb	m	0
4) Chloromethane	3.90	50	370234	11.1670	ppb	m	41
5) Freon 114	4.04	135	824518	10.4822	ppb	#	67
6) Vinyl Chloride	4.13	62	373922	11.4428	ppb		98
7) 1,3-Butadiene	4.28	54	303720	11.4635	ppb	#	62
8) Bromomethane	4.55	94	401201	10.9877	ppb		99
9) Chloroethane	4.74	64	199019	10.8101	ppb	#	88
10) Acrolein	5.32	56	137745	10.6771	ppb		99
11) Acetone	5.47	43	683123	12.2063	ppb	#	84
12) Trichlorofluoromethane	5.47	101	1187972	10.9412	ppb		97
13) Ethanol	5.12	45	135412	9.2119	ppb	#	78
14) Isopropyl Alcohol	5.77	45	673007	10.9174	ppb	m	91
15) 1,1-Dichloroethene	6.11	61	654294	11.6144	ppb	#	79
16) Methylene Chloride	6.25	84	383383	11.2155	ppb	#	61
17) Freon 113	6.49	151	777920	10.9601	ppb	#	66
18) Carbon Disulfide	6.53	76	1122688	11.2724	ppb	#	66
19) trans-1,2-Dichloroethene	7.16	96	425993	11.7381	ppb	#	80
20) 1,1-Dichloroethane	7.39	63	727537	11.2804	ppb		97
21) methyl t-butyl ether	7.47	73	989633	12.6079	ppb	#	82
22) Vinyl Acetate	7.56	86	101083	11.9551	ppb	#	1
23) 2-Butanone	7.84	43	902383	12.5349	ppb	#	70
24) cis-1,2-Dichloroethene	8.21	96	469270	12.1741	ppb	#	80
26) Ethyl Acetate	8.46	61	137140	11.5306	ppb	#	1
27) Hexane	8.39	57	662847	10.5560	ppb	#	83
28) Chloroform	8.52	83	914207	10.2643	ppb		97
29) Tetrahydrofuran	8.94	42	415945	9.1441	ppb	#	62
30) 1,2-Dichloroethane	9.25	62	579163	10.4119	ppb	#	90
31) 1,1,1-Trichloroethane	9.49	97	1001680	10.4496	ppb	#	90
32) Benzene	9.95	78	1219209	10.6859	ppb	#	92
33) Carbon Tetrachloride	10.08	117	1249689	10.3815	ppb		99
34) Cyclohexane	10.20	84	584741	11.4932	ppb	#	55
35) 1,2-Dichloropropane	10.76	63	483371	10.4267	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD70ICV.D Vial: 2
Acq Time : 04/01/2016 16:37 Operator: TJM
Sample : 10.0 ICV Inst : 5975-L
Misc : 31345 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:23:04 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

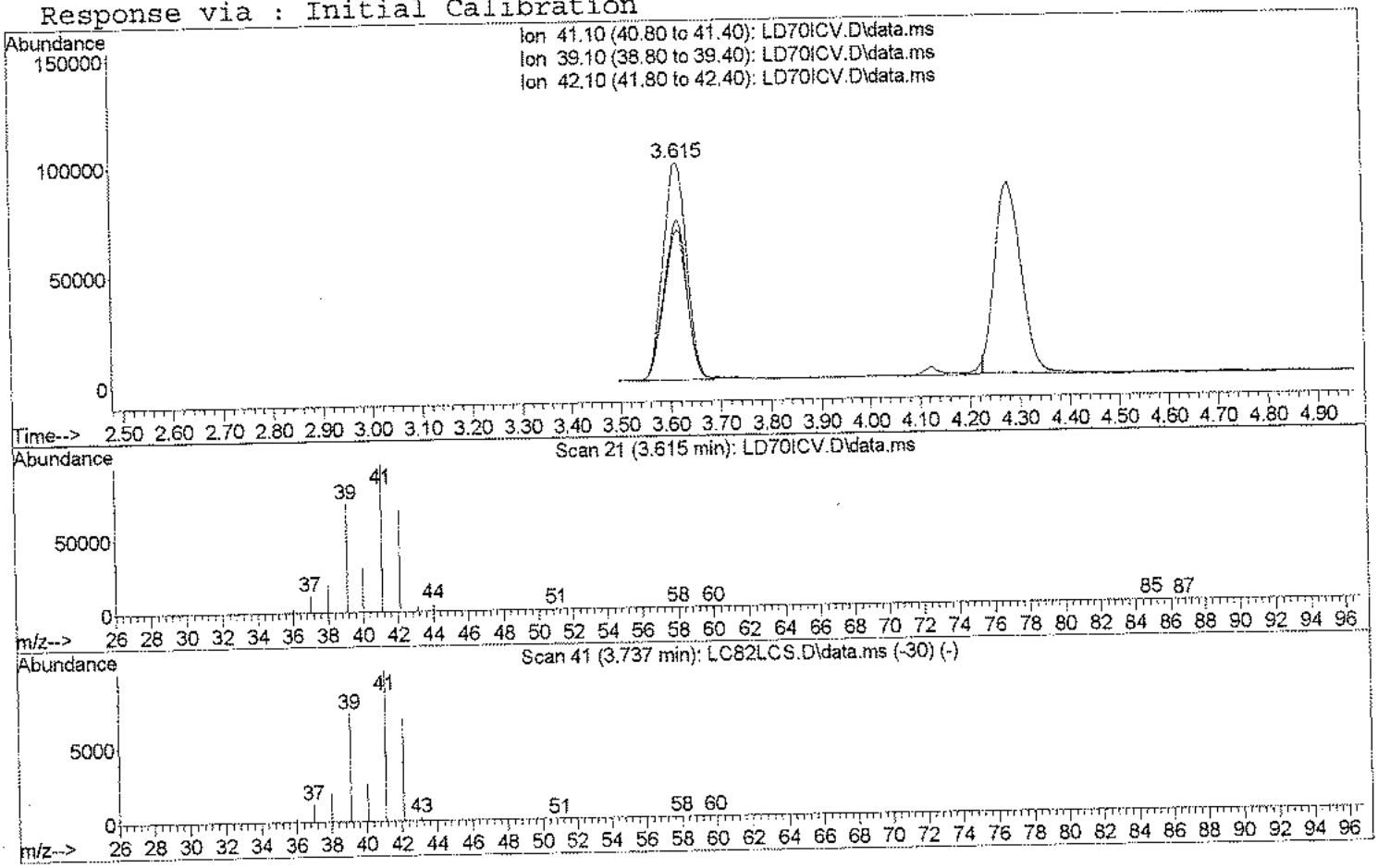
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.94	83	1003966	10.5039	ppb		97
37) 1,4-Dioxane	11.01	88	305893	11.9948	ppb	#	91
38) Trichloroethene	10.98	130	734551	10.7069	ppb		95
39) Methyl Methacrylate	11.16	69	430095	11.8148	ppb	#	77
40) Heptane	11.25	71	448359	11.2101	ppb	#	44
41) cis-1,3-Dichloropropene	11.83	75	755027	11.6025	ppb		97
42) 4-Methyl-2-Pentanone	11.87	43	1220458	11.7572	ppb	#	73
43) trans-1,3-Dichloropropene	12.36	75	701180	11.7587	ppb		96
44) 1,1,2-Trichloroethane	12.55	97	600981	10.7670	ppb	#	90
45) Toluene	12.83	91	1652770	11.6208	ppb		99
46) 2-Hexanone	13.08	43	1135733	12.2070	ppb	#	73
47) Dibromochloromethane	13.27	129	1400802	11.0568	ppb		99
48) 1,2-Dibromoethane	13.53	107	1024732	11.2737	ppb		99
49) Tetrachloroethene	13.98	166	868313	10.9905	ppb	#	79
51) Chlorobenzene	14.71	112	1569929	10.4824	ppb		96
52) Ethylbenzene	15.10	91	2262432	11.5170	ppb		98
53) m,p-Xylene	15.29	91	3528526	22.5823	ppb		99
54) Bromoform	15.41	173	1246593	10.8997	ppb		99
55) Styrene	15.69	104	1438087	12.1651	ppb		98
56) 1,1,2,2-Tetrachloroethane	15.82	83	1370387	10.7561	ppb		97
57) o-Xylene	15.81	91	1869924	11.4805	ppb		98
59) 4-Ethyl Toluene	17.25	105	2754580	12.7795	ppb		100
60) 1,3,5-Trimethylbenzene	17.34	105	2391261	12.0220	ppb		98
61) 1,2,4-Trimethylbenzene	17.86	105	2356451	12.7117	ppb		99
62) Benzyl Chloride	18.06	91	2122255	12.7401	ppb		98
63) m-Dichlorobenzene	18.08	146	1719521	11.5722	ppb	#	95
64) p-Dichlorobenzene	18.16	146	1722647	11.8424	ppb		95
65) o-Dichlorobenzene	18.62	146	1643705	11.9390	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	955679	13.8398	ppb	#	97
67) Naphthalene	21.31	128	2683330	13.9528	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	801555	12.2609	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD70ICV.D
Acq On : 04/01/2016 16:37
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 31345 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 02 07:22:10 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



TIC: LD70ICV.D\data.ms

(2) Propene

3.615min (-0.111) 11.08 ppb m

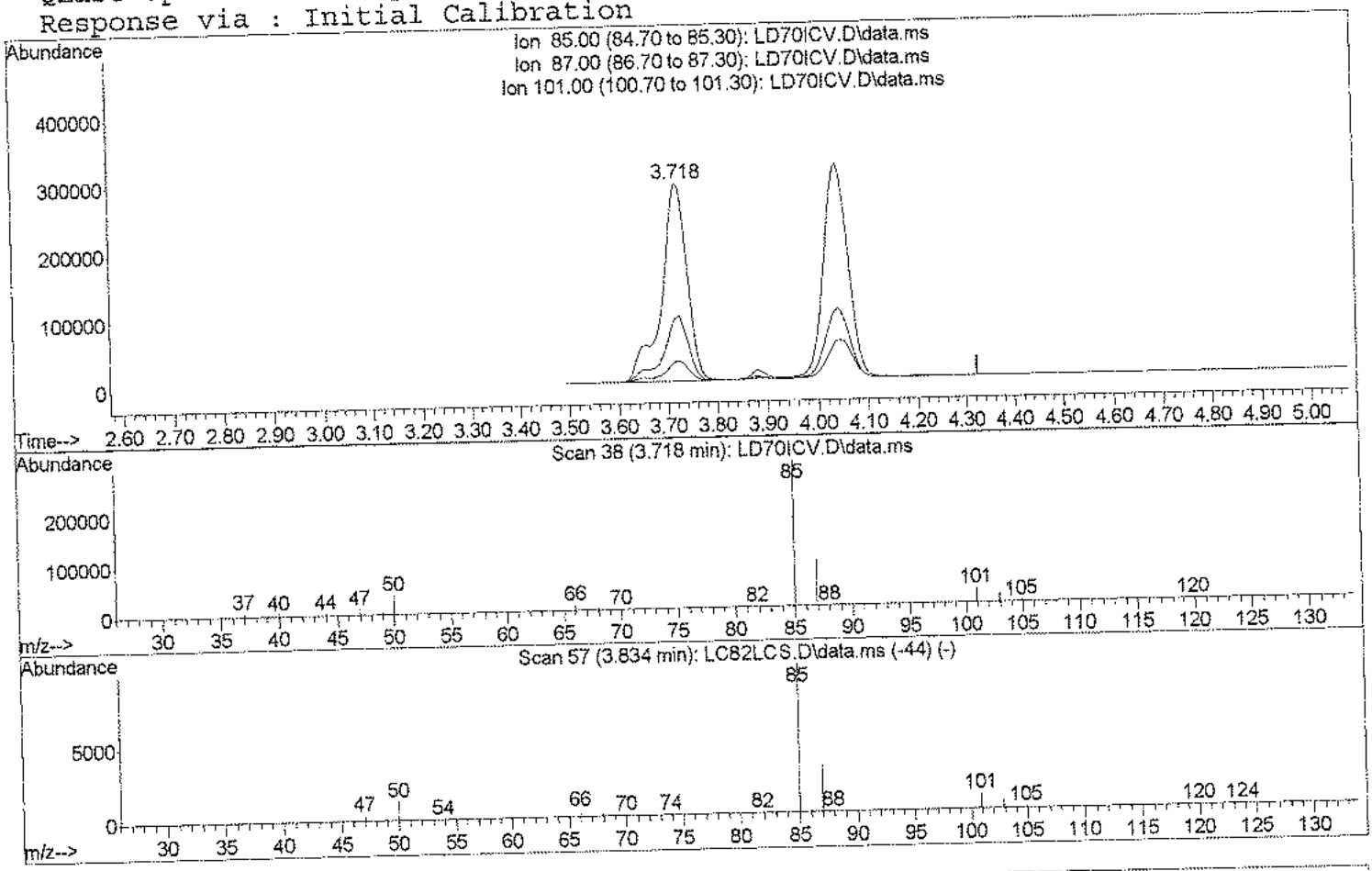
response 324438

Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD70ICV.D
Acq On : 04/01/2016 16:37
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 31345 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 02 07:22:10 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



TIC: LD70ICV.D\data.ms

(3) Dichlorodifluoromethane

3.718min (-0.105) 11.06 ppb m

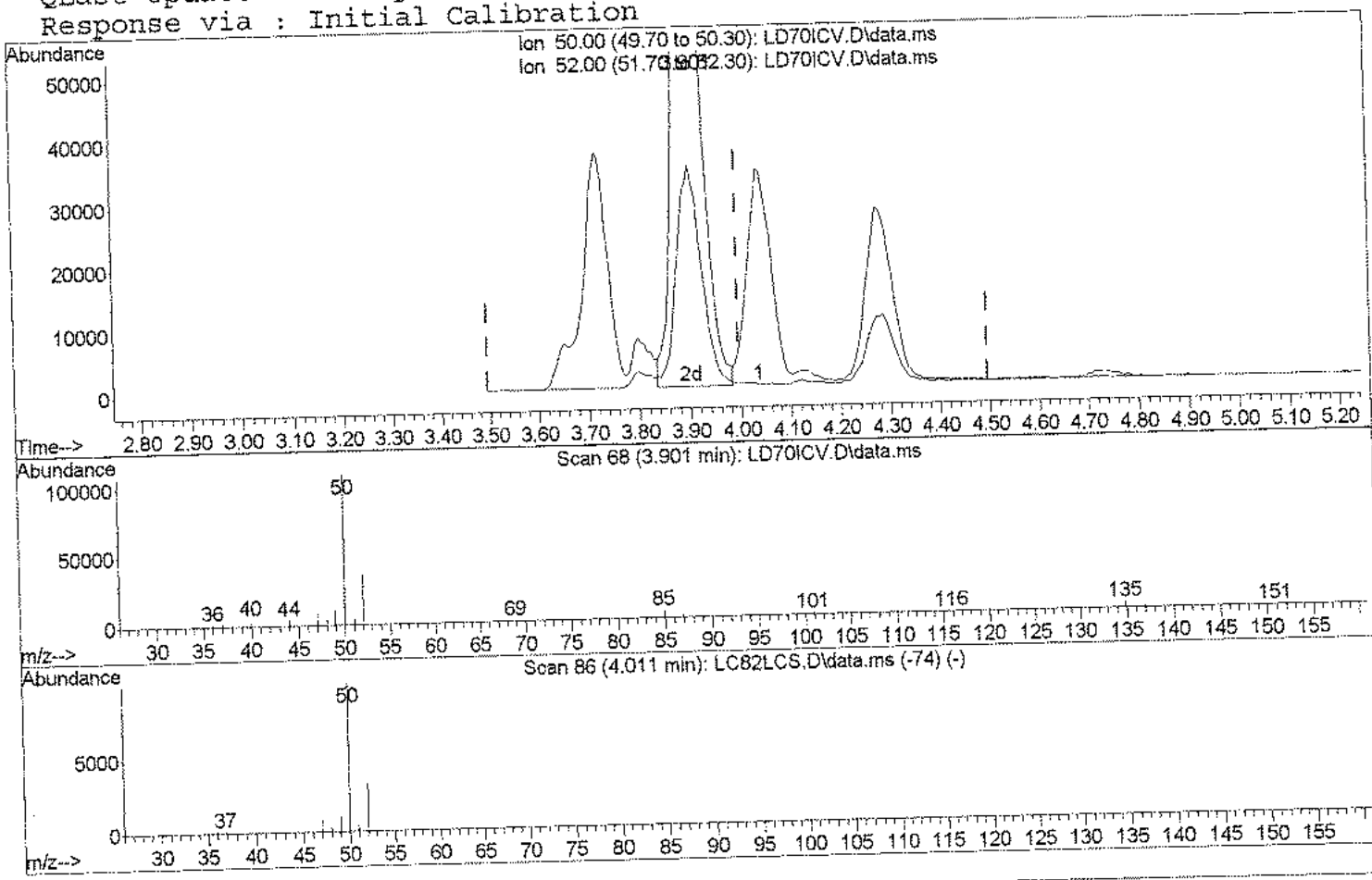
response 1050378

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD70ICV.D
Acq On : 04/01/2016 16:37
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 31345 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 02 07:22:10 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



TIC: LD70ICV.D\data.ms

(4) Chloromethane

3.901min (-0.093) 11.17 ppb m

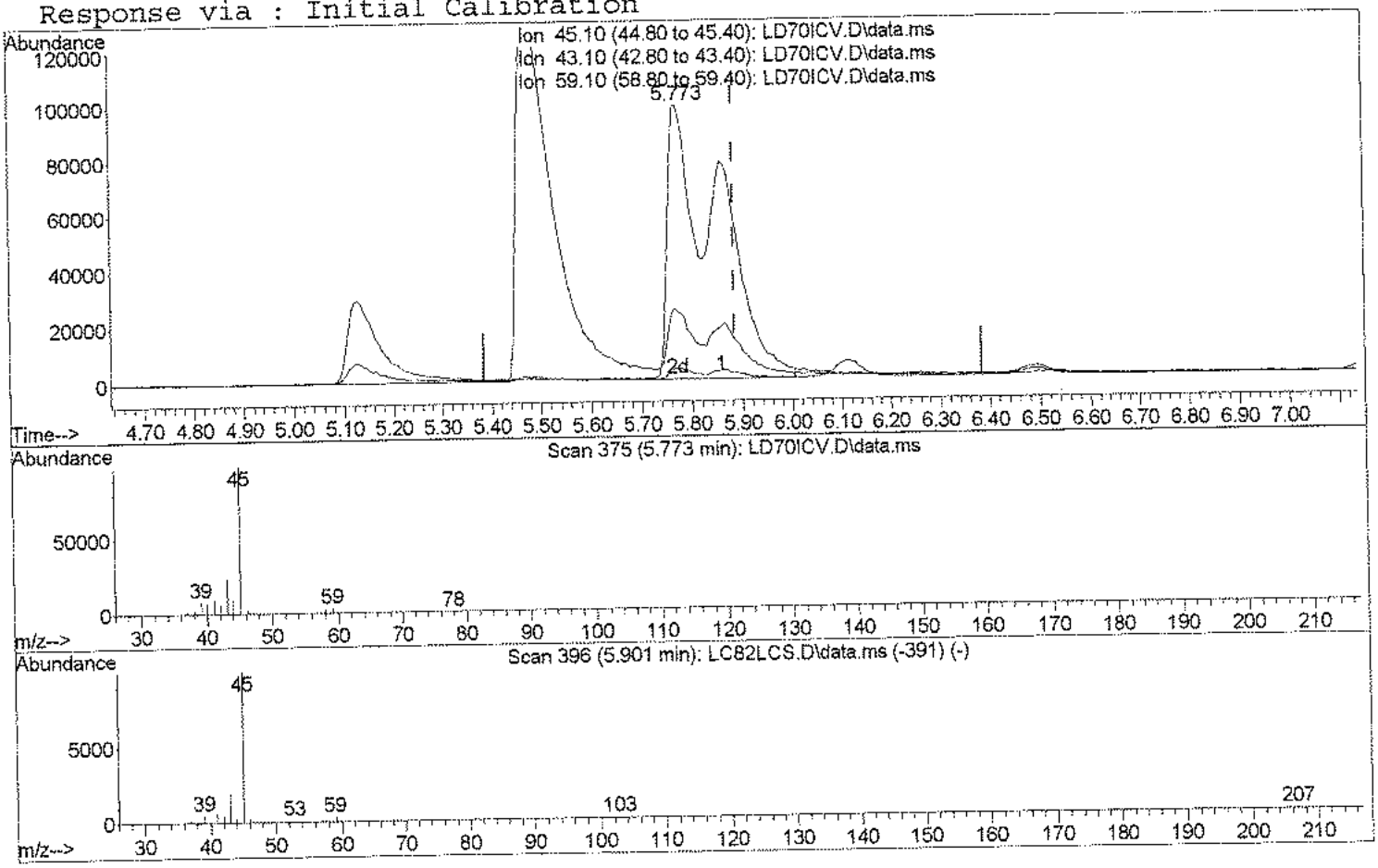
response 370234

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD70ICV.D
Acq On : 04/01/2016 16:37
Operator : TJM
Sample : 10.0 ICV
Inst : 5975-L
Misc : 31345 (200mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 02 07:22:10 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



TIC: LD70ICV.D\data.ms

(14) Isopropyl Alcohol

5.773min (-0.111) 10.92 ppb m

response 673007

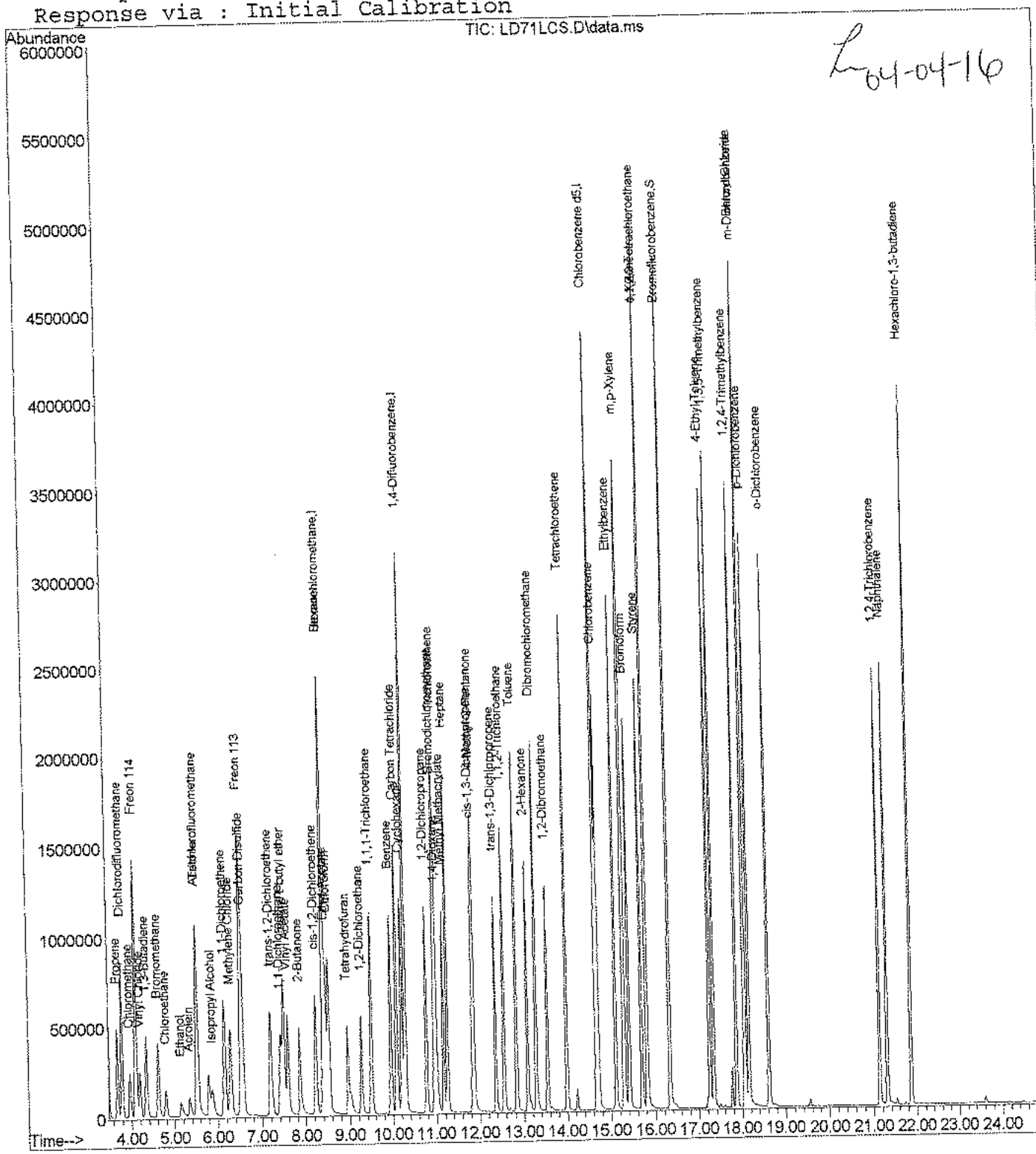
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	11.92#
59.10	4.00	1.80#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD71LCS.D Vial: 1
Acq Time : 04/01/2016 17:26 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 31343 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:25:03 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



LD71LCS.D TO15LI16.m Mon Apr 04 11:00:53 2016 Page 3

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD71LCS.D Vial: 1
Acq Time : 04/01/2016 17:26 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 31343 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:25:03 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	276288	20.0000	ppb		85.88
25) 1,4-Difluorobenzene	10.28	114	3583626	20.0000	ppb		90.09
50) Chlorobenzene d5	14.66	117	3295258	20.0000	ppb		90.07
System Monitoring Compounds							**%Recovery**
58) Bromofluorobenzene	16.33	95	2029784	20.5086	ppb		102.54%
Target Compounds							**Qvalue**
2) Propene	3.68	41	391415	11.8189	ppb		98
3) Dichlorodifluoromethane	3.79	85	1268170	11.8073	ppb		100
4) Chloromethane	3.96	50	447750	11.9408	ppb		98
5) Freon 114	4.10	135	1017609	11.4386	ppb	#	74
6) Vinyl Chloride	4.19	62	451723	12.2226	ppb		99
7) 1,3-Butadiene	4.33	54	368608	12.3012	ppb	#	57
8) Bromomethane	4.61	94	480779	11.6421	ppb		98
9) Chloroethane	4.79	64	236038	11.3359	ppb	#	88
10) Acrolein	5.34	56	183181	12.5545	ppb		99
11) Acetone	5.50	43	758554	11.9843	ppb	#	84
12) Trichlorofluoromethane	5.52	101	1390727	11.3250	ppb		97
13) Ethanol	5.14	45	185712	11.1705	ppb	#	80
14) Isopropyl Alcohol	5.86	45	356301	5.1104	ppb	#	96
15) 1,1-Dichloroethene	6.15	61	759122	11.9145	ppb	#	78
16) Methylene Chloride	6.28	84	430569	11.1370	ppb	#	61
17) Freon 113	6.52	151	906279	11.2896	ppb	#	68
18) Carbon Disulfide	6.57	76	1279196	11.3562	ppb	#	65
19) trans-1,2-Dichloroethene	7.19	96	487659	11.8809	ppb	#	80
20) 1,1-Dichloroethane	7.41	63	826195	11.3264	ppb		97
21) methyl t-butyl ether	7.49	73	1112700	12.5339	ppb	#	81
22) Vinyl Acetate	7.58	86	125124	13.0845	ppb	#	1
23) 2-Butanone	7.85	43	1017219	12.4935	ppb	#	70
24) cis-1,2-Dichloroethene	8.23	96	527694	12.1042	ppb	#	81
26) Ethyl Acetate	8.46	61	146695	11.4877	ppb	#	1
27) Hexane	8.41	57	746221	11.0683	ppb	#	78
28) Chloroform	8.53	83	1011260	10.5749	ppb		98
29) Tetrahydrofuran	8.95	42	592704	12.1358	ppb	#	62
30) 1,2-Dichloroethane	9.27	62	635254	10.6366	ppb	#	91
31) 1,1,1-Trichloroethane	9.50	97	1095645	10.6455	ppb	#	91
32) Benzene	9.96	78	1332429	10.8769	ppb	#	92
33) Carbon Tetrachloride	10.09	117	1371317	10.6102	ppb		99
34) Cyclohexane	10.21	84	641830	11.7496	ppb	#	55
35) 1,2-Dichloropropane	10.77	63	535698	10.7626	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD71LCS.D Vial: 1
Acq Time : 04/01/2016 17:26 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 31343 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:25:03 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	1095455	10.6747	ppb		97
37) 1,4-Dioxane	11.01	88	327252	11.9518	ppb	#	89
38) Trichloroethene	10.98	130	812486	11.0302	ppb		95
39) Methyl Methacrylate	11.16	69	472474	12.0884	ppb	#	77
40) Heptane	11.25	71	492846	11.4768	ppb	#	44
41) cis-1,3-Dichloropropene	11.84	75	834634	11.9458	ppb		96
42) 4-Methyl-2-Pentanone	11.87	43	1333306	11.9629	ppb	#	73
43) trans-1,3-Dichloropropene	12.36	75	765851	11.9620	ppb		96
44) 1,1,2-Trichloroethane	12.55	97	654008	10.9130	ppb	#	91
45) Toluene	12.83	91	1811345	11.8619	ppb		99
46) 2-Hexanone	13.08	43	1248165	12.4949	ppb	#	73
47) Dibromochloromethane	13.27	129	1503214	11.0510	ppb		98
48) 1,2-Dibromoethane	13.54	107	1102576	11.2977	ppb		100
49) Tetrachloroethene	13.99	166	945653	11.1481	ppb	#	79
51) Chlorobenzene	14.71	112	1683454	10.7410	ppb		97
52) Ethylbenzene	15.10	91	2434363	11.8416	ppb		98
53) m,p-Xylene	15.30	91	3757436	22.9788	ppb		99
54) Bromoform	15.41	173	1324913	11.0698	ppb		99
55) Styrene	15.69	104	1542381	12.4676	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.81	83	1450793	10.8813	ppb		97
57) o-Xylene	15.81	91	1999767	11.7322	ppb		99
59) 4-Ethyl Toluene	17.25	105	2828709	12.5403	ppb		99
60) 1,3,5-Trimethylbenzene	17.34	105	2468117	11.8570	ppb		98
61) 1,2,4-Trimethylbenzene	17.86	105	2419055	12.4696	ppb		99
62) Benzyl Chloride	18.06	91	2162835	12.4068	ppb		98
63) m-Dichlorobenzene	18.08	146	1762306	11.3331	ppb		95
64) p-Dichlorobenzene	18.16	146	1754890	11.5281	ppb		96
65) o-Dichlorobenzene	18.62	146	1695531	11.7682	ppb		95
66) 1,2,4-Trichlorobenzene	21.14	180	922087	12.7600	ppb	#	97
67) Naphthalene	21.31	128	2680321	13.3179	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	782599	11.4391	ppb		98

(#) = qualifier out of range (m) = manual integration

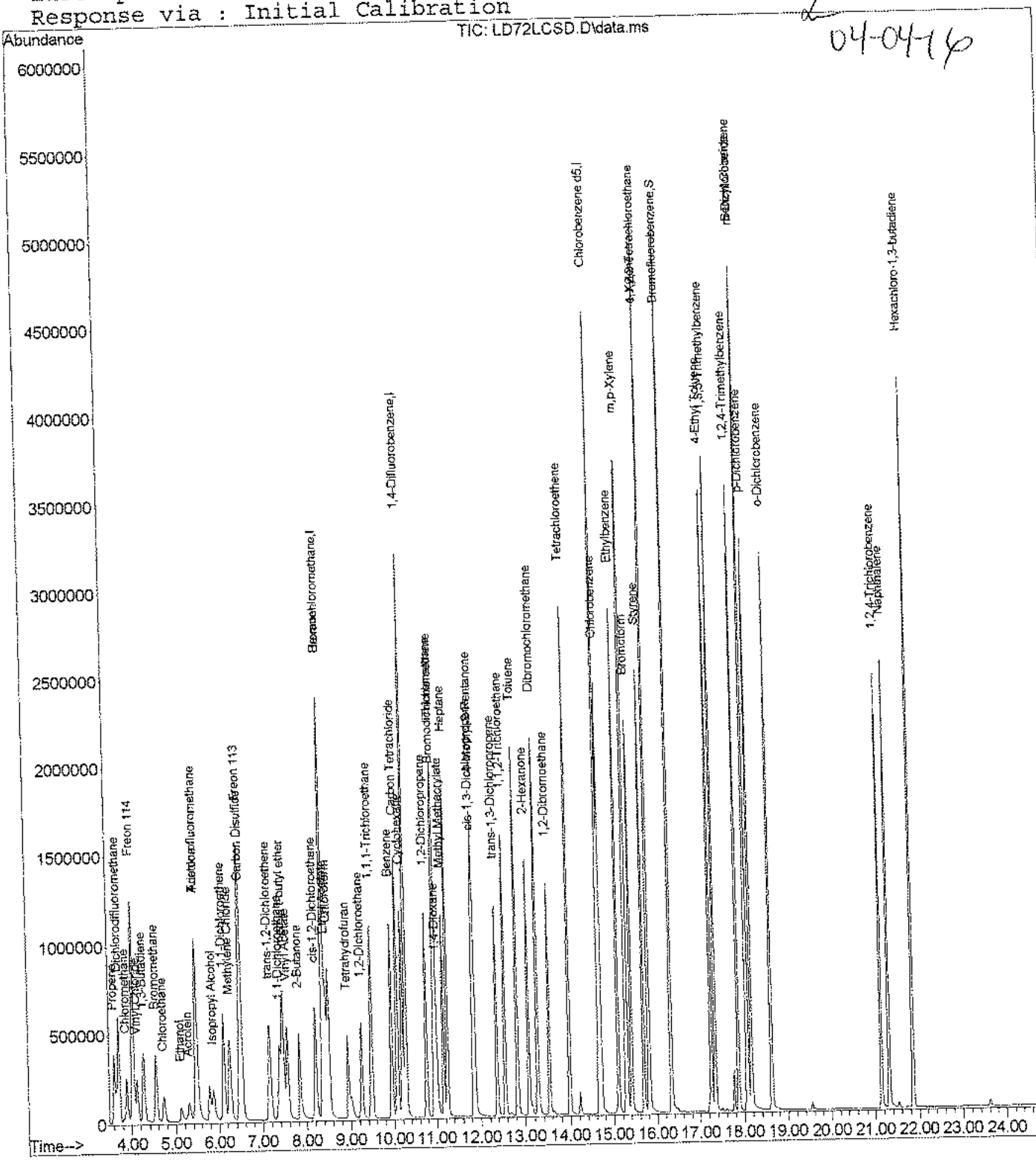
Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD72LCSD.D Vial: 1
Acq Time : 04/01/2016 18:15 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 31343 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 11:22:08 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration

L
04-04-16



Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD72LCSD.D Vial: 1
Acq Time : 04/01/2016 18:15 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 31343 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 11:22:08 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	270208	20.0000	ppb		83.99
25) 1,4-Difluorobenzene	10.28	114	3748434	20.0000	ppb		94.24
50) Chlorobenzene d5	14.66	117	3440516	20.0000	ppb		94.04
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2113966	20.4573	ppb		102.29%
Target Compounds							Qvalue
2) Propene	3.61	41	373714	11.5383	ppb	m	0
3) Dichlorodifluoromethane	3.71	85	1243478	11.8379	ppb	m	0
4) Chloromethane	3.89	50	462222	12.6042	ppb	m	41
5) Freon 114	4.04	135	1007856	11.5839	ppb	#	74
6) Vinyl Chloride	4.13	62	442924	12.2542	ppb		97
7) 1,3-Butadiene	4.27	54	361792	12.3454	ppb	#	60
8) Bromomethane	4.55	94	479848	11.8810	ppb		98
9) Chloroethane	4.72	64	240257	11.7982	ppb	#	88
10) Acrolein	5.30	56	188947	13.2410	ppb		99
11) Acetone	5.47	43	781982	12.6324	ppb	#	83
12) Trichlorofluoromethane	5.47	101	1405743	11.7049	ppb		96
13) Ethanol	5.11	45	192445	11.8359	ppb	#	81
14) Isopropyl Alcohol	5.86	45	460912	6.7596	ppb		97
15) 1,1-Dichloroethene	6.10	61	776494	12.4614	ppb	#	78
16) Methylene Chloride	6.24	84	442332	11.6987	ppb	#	61
17) Freon 113	6.49	151	928282	11.8239	ppb	#	69
18) Carbon Disulfide	6.52	76	1299537	11.7964	ppb	#	65
19) trans-1,2-Dichloroethene	7.16	96	498600	12.4208	ppb	#	79
20) 1,1-Dichloroethane	7.39	63	852463	11.9495	ppb		97
21) methyl t-butyl ether	7.47	73	1154463	13.2969	ppb	#	81
22) Vinyl Acetate	7.56	86	128491	13.7389	ppb	#	1
23) 2-Butanone	7.83	43	1058832	13.2972	ppb	#	69
24) cis-1,2-Dichloroethene	8.21	96	539977	12.6646	ppb	#	80
26) Ethyl Acetate	8.44	61	152223	11.3965	ppb	#	1
27) Hexane	8.39	57	769338	10.9095	ppb	#	81
28) Chloroform	8.51	83	1030924	10.3065	ppb		98
29) Tetrahydrofuran	8.94	42	472864	9.2564	ppb	#	63
30) 1,2-Dichloroethane	9.25	62	655508	10.4932	ppb	#	90
31) 1,1,1-Trichloroethane	9.49	97	1126524	10.4643	ppb	#	91
32) Benzene	9.94	78	1364472	10.6488	ppb	#	92
33) Carbon Tetrachloride	10.08	117	1414805	10.4654	ppb		99
34) Cyclohexane	10.19	84	652237	11.4152	ppb	#	54
35) 1,2-Dichloropropane	10.76	63	547401	10.5142	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD72LCSD.D Vial: 1
Acq Time : 04/01/2016 18:15 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 31343 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 11:22:08 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.94	83	1128124	10.5097	ppb		97
37) 1,4-Dioxane	11.01	88	335958	11.7303	ppb	#	90
38) Trichloroethene	10.97	130	828956	10.7590	ppb		95
39) Methyl Methacrylate	11.16	69	490475	11.9972	ppb	#	77
40) Heptane	11.25	71	504048	11.2216	ppb	#	43
41) cis-1,3-Dichloropropene	11.83	75	847307	11.5940	ppb		97
42) 4-Methyl-2-Pentanone	11.86	43	1368911	11.7424	ppb	#	73
43) trans-1,3-Dichloropropene	12.36	75	784971	11.7215	ppb		96
44) 1,1,2-Trichloroethane	12.55	97	667920	10.6551	ppb	#	91
45) Toluene	12.83	91	1859674	11.6429	ppb		98
46) 2-Hexanone	13.08	43	1281409	12.2637	ppb	#	73
47) Dibromochloromethane	13.27	129	1537033	10.8028	ppb		99
48) 1,2-Dibromoethane	13.53	107	1131720	11.0865	ppb		100
49) Tetrachloroethene	13.98	166	976467	11.0052	ppb	#	80
51) Chlorobenzene	14.71	112	1715525	10.4835	ppb		97
52) Ethylbenzene	15.10	91	2470905	11.5119	ppb		99
53) m,p-Xylene	15.29	91	3850275	22.5524	ppb		99
54) Bromoform	15.41	173	1357419	10.8625	ppb		99
55) Styrene	15.69	104	1581202	12.2418	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.81	83	1474576	10.5927	ppb		97
57) o-Xylene	15.81	91	2039240	11.4587	ppb		98
59) 4-Ethyl Toluene	17.25	105	2891129	12.2758	ppb		100
60) 1,3,5-Trimethylbenzene	17.34	105	2509297	11.5459	ppb		98
61) 1,2,4-Trimethylbenzene	17.86	105	2462730	12.1588	ppb		99
62) Benzyl Chloride	18.06	91	2208487	12.1338	ppb		98
63) m-Dichlorobenzene	18.08	146	1801288	11.0947	ppb		95
64) p-Dichlorobenzene	18.16	146	1766787	11.1162	ppb		96
65) o-Dichlorobenzene	18.62	146	1717703	11.4187	ppb		96
66) 1,2,4-Trichlorobenzene	21.14	180	934685	12.3883	ppb	#	98
67) Naphthalene	21.31	128	2711659	12.9047	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	799620	11.1944	ppb		99

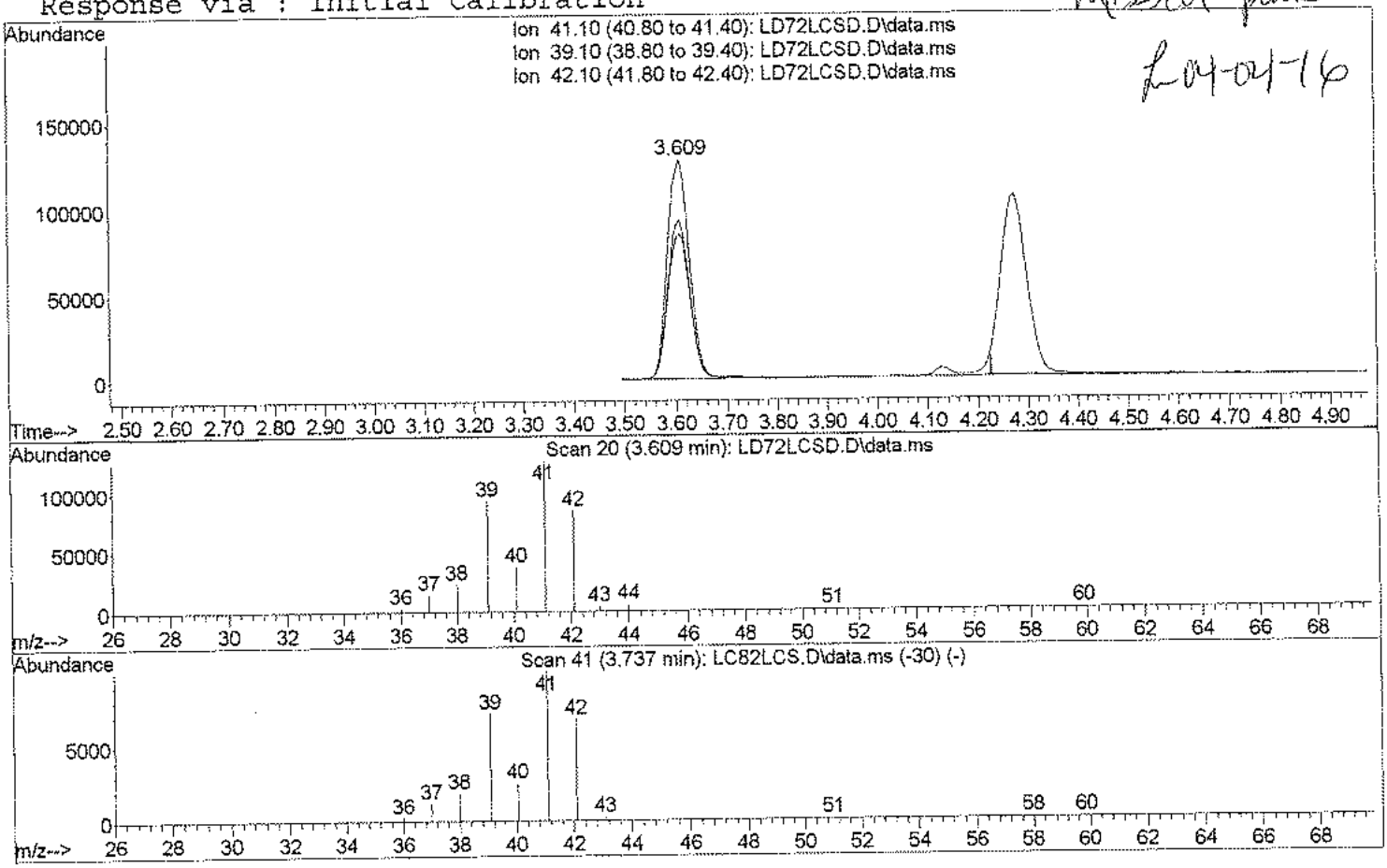
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD72LCSD.D
Acq On : 04/01/2016 18:15
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31343 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 07:26:03 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration

missed peak
L 04-04-16



TIC: LD72LCSD.D\data.ms

(2) Propene

3.609min (-0.117) 11.54 ppb m

response 373714

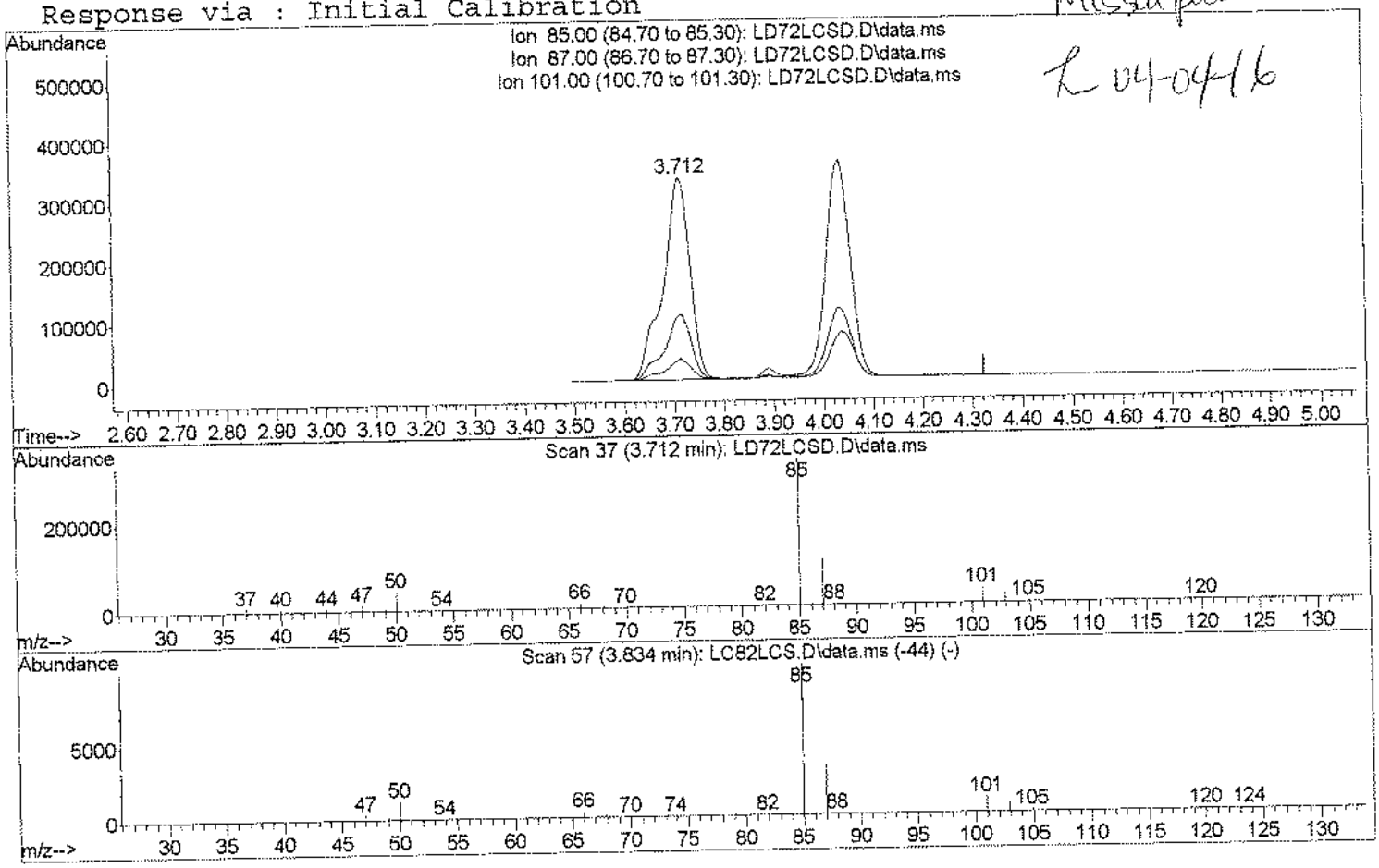
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD72LCSD.D
Acq On : 04/01/2016 18:15
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31343 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 07:26:03 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration

MCSD path
L 04-04-16



TIC: LD72LCSD.D\data.ms

(3) Dichlorodifluoromethane

3.712min (-0.111) 11.84 ppb m

response 1243478

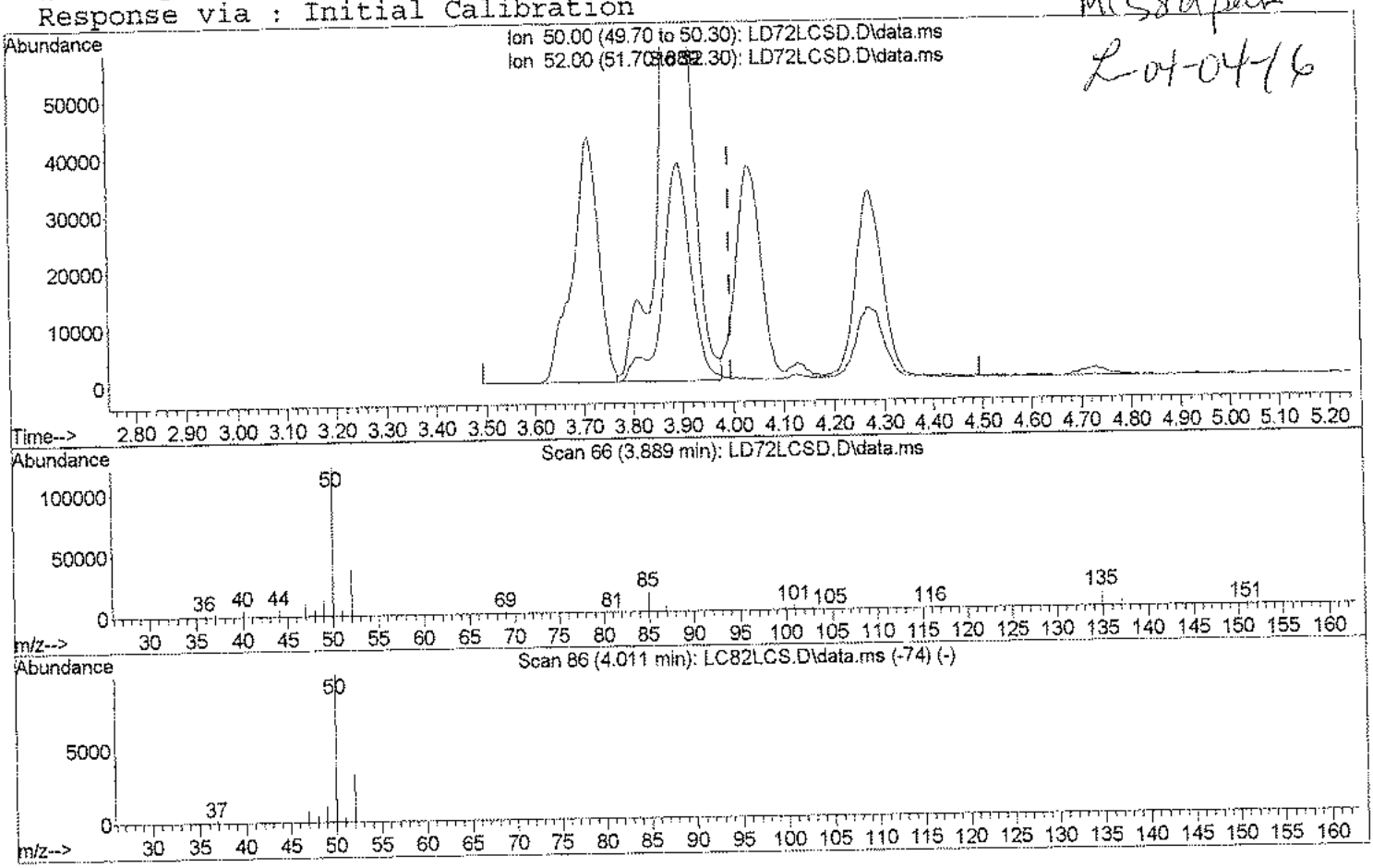
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\01APR16K\
Data File : LD72LCSD.D
Acq On : 04/01/2016 18:15
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31343 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 02 07:26:03 2016
Quant Method : J:\L\METHODS\methods\TO15LI16.m
Quant Title : TO-15
QLast Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration

MS Std part
L-04-476



TIC: LD72LCSD.D\data.ms

(4) Chloromethane

3.889min (-0.105) 12.60 ppb m

response 462222

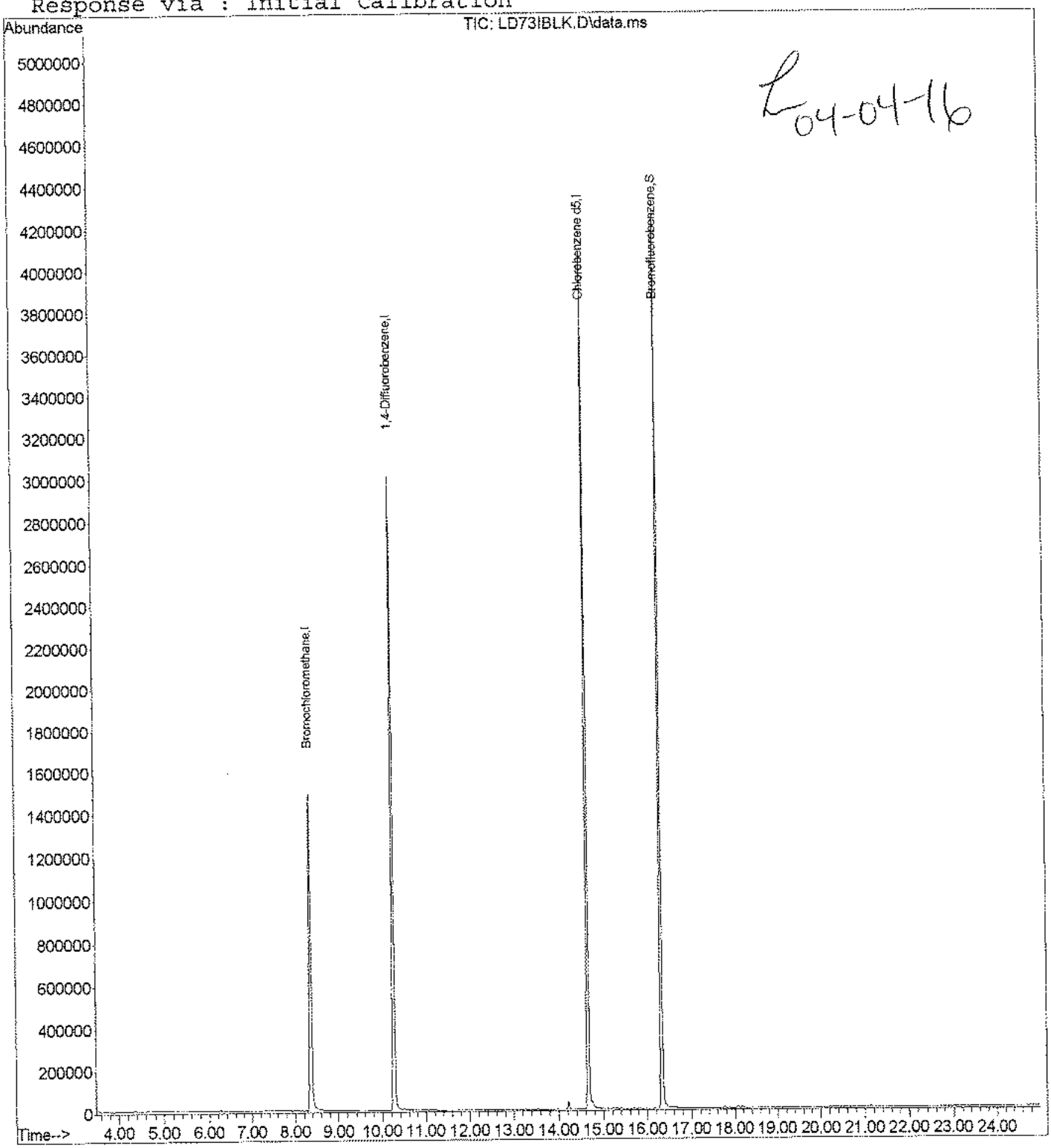
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD73IBLK.D Vial: 1
Acq Time : 04/01/2016 19:04 Operator: TJM
Sample : BL- 0081 Inst : 5975-L
Misc : 0081/0055/0075/0011/0063/0058/0072/0587 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:26:27 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration



4-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD73IBLK.D Vial: 1
Acq Time : 04/01/2016 19:04 Operator: TJM
Sample : BL- 0081 Inst : 5975-L
Misc : 0081/0055/0075/0011/0063/0058/0072/0587 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:26:27 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Area%
1) Bromochloromethane	8.36	130	289600	20.0000	ppb	90.01
25) 1,4-Difluorobenzene	10.26	114	3471096	20.0000	ppb	87.26
50) Chlorobenzene d5	14.66	117	3017206	20.0000	ppb	82.47
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.33	95	1769712	19.5287	ppb	97.64%
Target Compounds						Qvalue
2) Propene	0.00	41				Not Detected
3) Dichlorodifluoromethane	0.00	85				Not Detected
4) Chloromethane	0.00	50				Not Detected
5) Freon 114	0.00	135				Not Detected
6) Vinyl Chloride	0.00	62				Not Detected
7) 1,3-Butadiene	0.00	54				Not Detected
8) Bromomethane	0.00	94				Not Detected
9) Chloroethane	0.00	64				Not Detected
10) Acrolein	0.00	56				Not Detected
11) Acetone	0.00	43				Not Detected
12) Trichlorofluoromethane	0.00	101				Not Detected
13) Ethanol	0.00	45				Not Detected
14) Isopropyl Alcohol	0.00	45				Not Detected
15) 1,1-Dichloroethene	0.00	61				Not Detected
16) Methylene Chloride	0.00	84				Not Detected
17) Freon 113	0.00	151				Not Detected
18) Carbon Disulfide	0.00	76				Not Detected
19) trans-1,2-Dichloroethene	0.00	96				Not Detected
20) 1,1-Dichloroethane	0.00	63				Not Detected
21) methyl t-butyl ether	0.00	73				Not Detected
22) Vinyl Acetate	0.00	86				Not Detected
23) 2-Butanone	0.00	43				Not Detected
24) cis-1,2-Dichloroethene	0.00	96				Not Detected
26) Ethyl Acetate	0.00	61				Not Detected
27) Hexane	0.00	57				Not Detected
28) Chloroform	0.00	83				Not Detected
29) Tetrahydrofuran	0.00	42				Not Detected
30) 1,2-Dichloroethane	0.00	62				Not Detected
31) 1,1,1-Trichloroethane	0.00	97				Not Detected
32) Benzene	0.00	78				Not Detected
33) Carbon Tetrachloride	0.00	117				Not Detected
34) Cyclohexane	0.00	84				Not Detected
35) 1,2-Dichloropropane	0.00	63				Not Detected

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD73IBLK.D Vial: 1
Acq Time : 04/01/2016 19:04 Operator: TJM
Sample : BL- 0081 Inst : 5975-L
Misc : 0081/0055/0075/0011/0063/0058/0072/0587 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 02 07:26:27 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	0.00	91		Not Detected	
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	0.00	166		Not Detected	
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

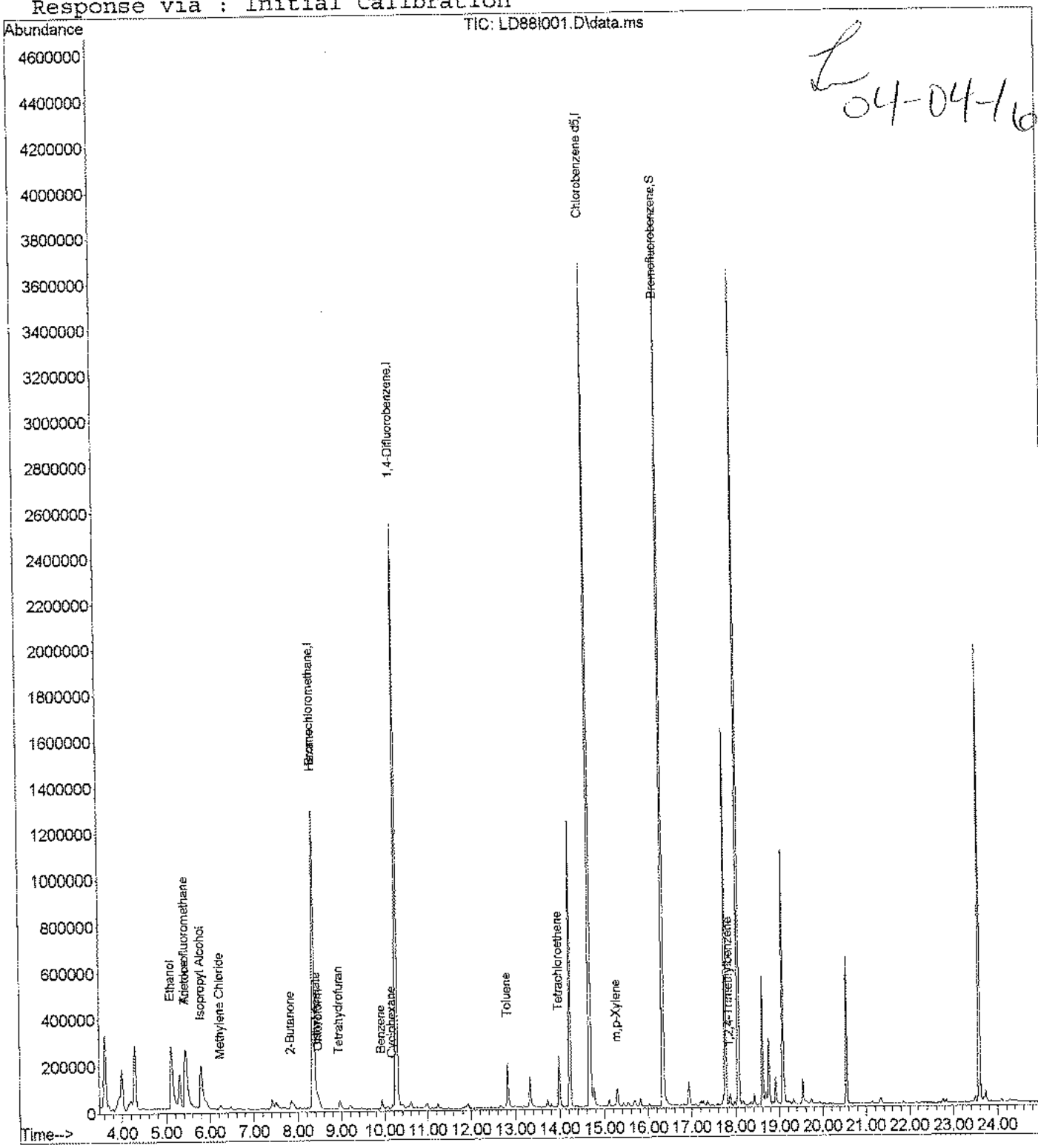
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD88I001.D Vial: 5
Acq Time : 04/02/2016 09:06 Operator: TJM
Sample : 1608222001 Inst : 5975-L
Misc : 0228 A-0017H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:08:35 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD88I001.D Vial: 5
Acq Time : 04/02/2016 09:06 Operator: TJM
Sample : 1608222001 Inst : 5975-L
Misc : 0228 A-0017H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:08:35 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.36	130	245312	20.0000 ppb	76.25
25) 1,4-Difluorobenzene	10.26	114	3118134	20.0000 ppb	78.39
50) Chlorobenzene d5	14.67	117	2852837	20.0000 ppb	77.97
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	1656327	19.3305 ppb	96.65%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.44	43	811747	14.4441 ppb	88
12) Trichlorofluoromethane	5.44	101	25864	0.2372 ppb	98
13) Ethanol	5.11	45	644480	43.6601 ppb #	77
14) Isopropyl Alcohol	5.79	45	394252	6.3688 ppb #	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.24	84	8173	0.2381 ppb #	60
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.84	43	83013	1.1483 ppb #	69
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.44	61	10140	0.9126 ppb #	1
27) Hexane	8.37	57	17366	0.2960 ppb #	75
28) Chloroform	8.48	83	27128	0.3260 ppb	96
29) Tetrahydrofuran	8.96	42	41627	0.9796 ppb #	57
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.92	78	26645	0.2500 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.17	84	8806	0.1853 ppb #	39
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

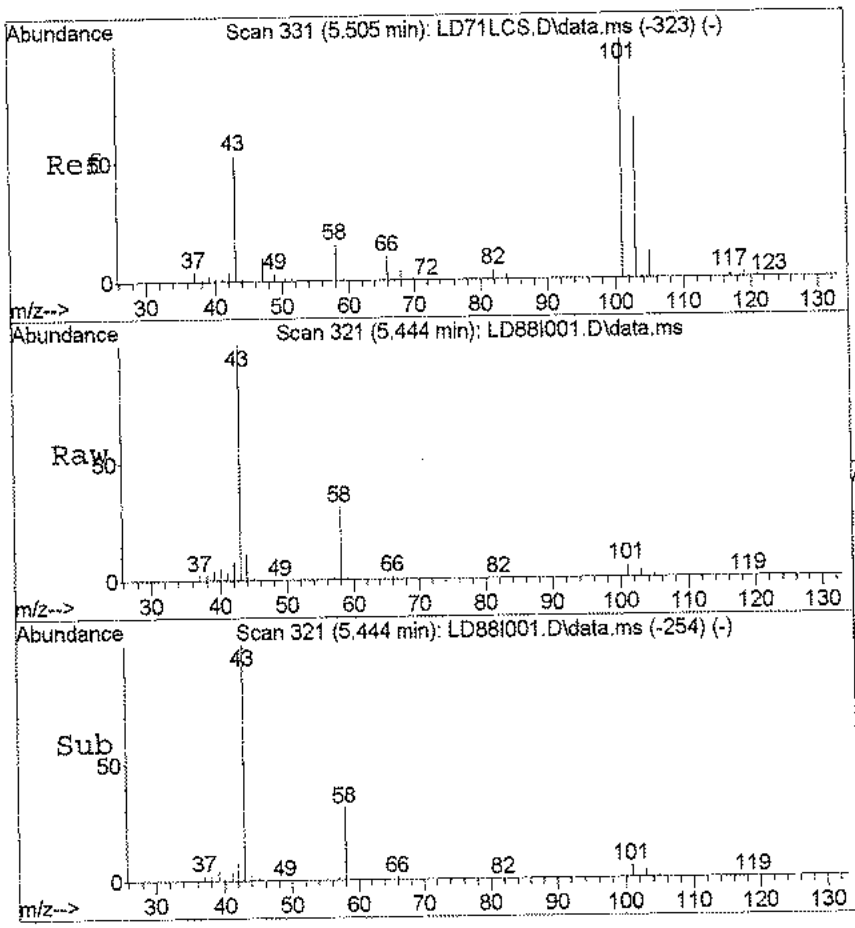
Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD88I001.D Vial: 5
Acq Time : 04/02/2016 09:06 Operator: TJM
Sample : 1608222001 Inst : 5975-L
Misc : 0228 A-0017H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:08:35 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.82	91	174697	1.3148 ppb	96
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	13.98	166	75455	1.0223 ppb #	80
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.29	91	66283	0.4682 ppb	99
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.87	105	32988	0.1964 ppb	99
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

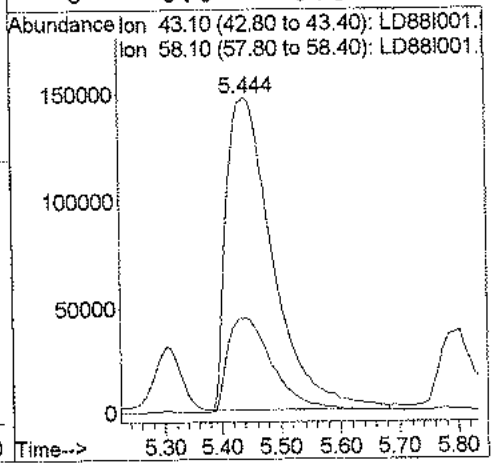
(#) = qualifier out of range (m) = manual integration

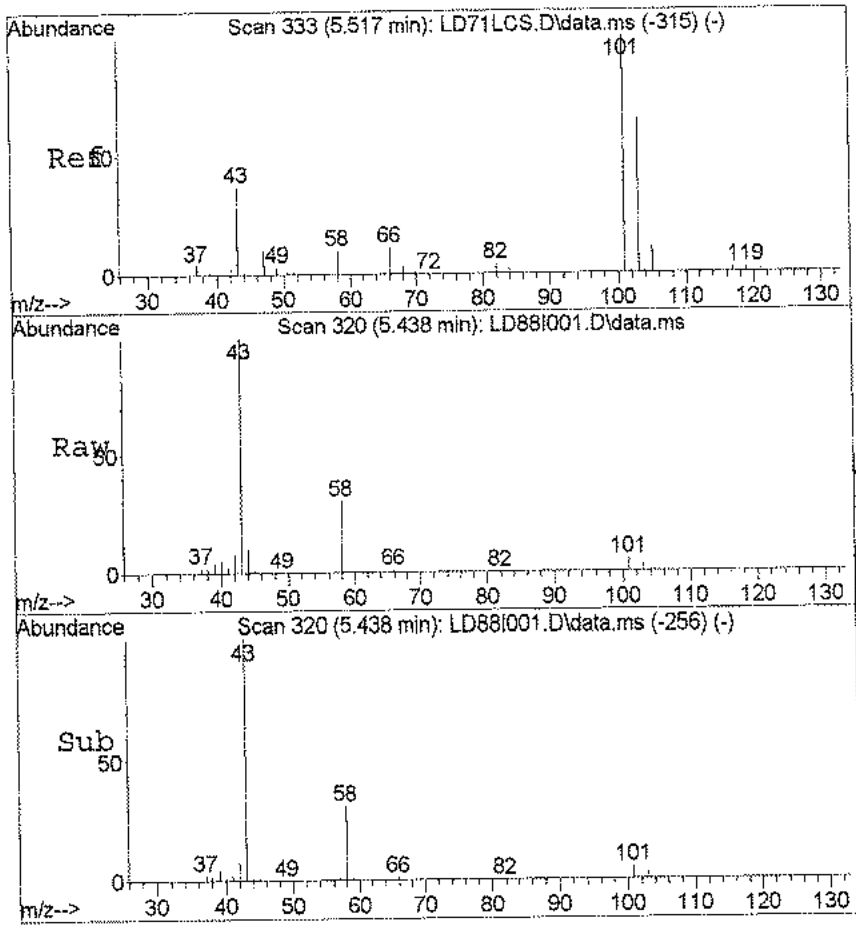


#11
Acetone
Concen: 14.44 ppb
RT: 5.44 min Scan# 321
Delta R.T. -0.09 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:43.1 Resp: 811747

Ion	Ratio	Lower	Upper
43	100		
58	31.3	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

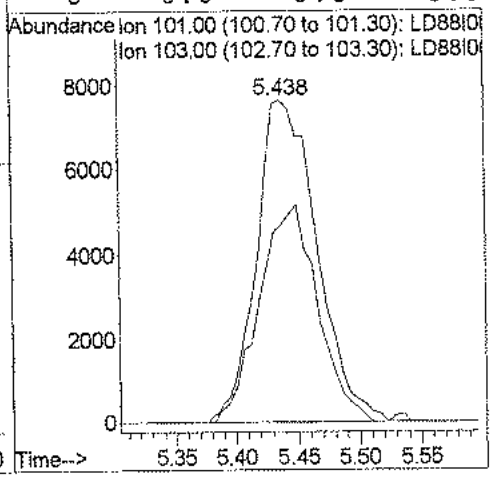


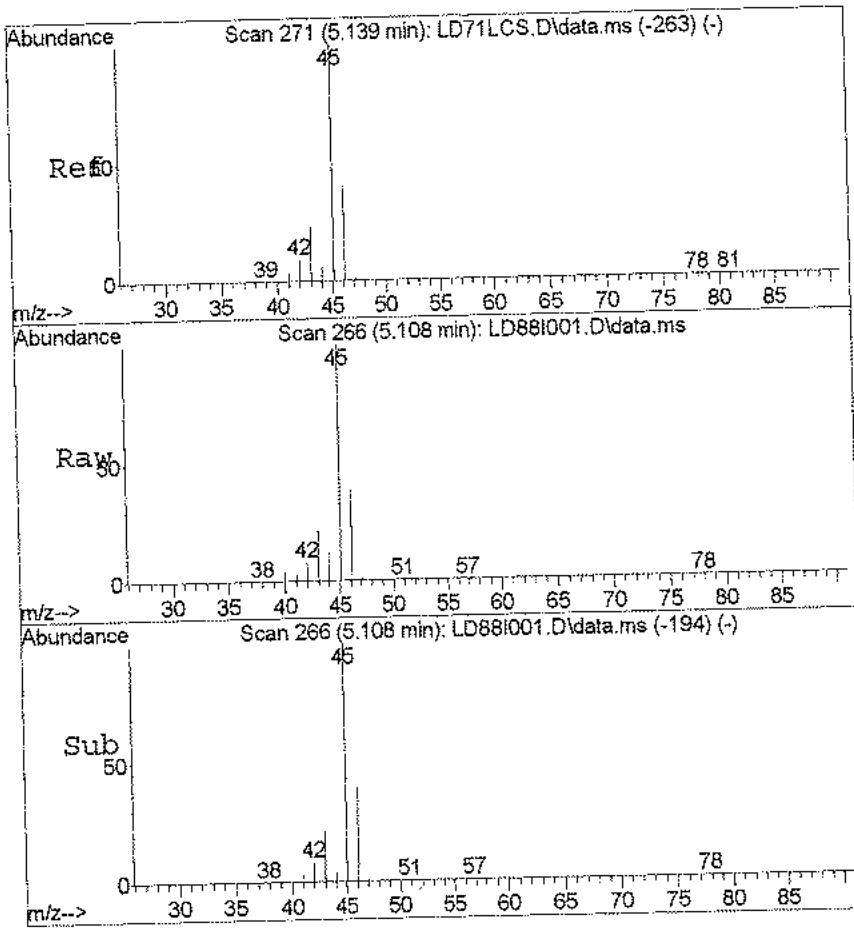


#12
Trichlorofluoromethane
Concen: 0.24 ppb
RT: 5.44 min Scan# 320
Delta R.T. -0.11 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:101 Resp: 25864

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

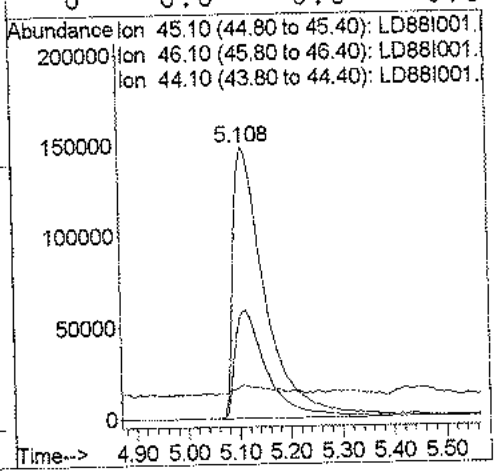


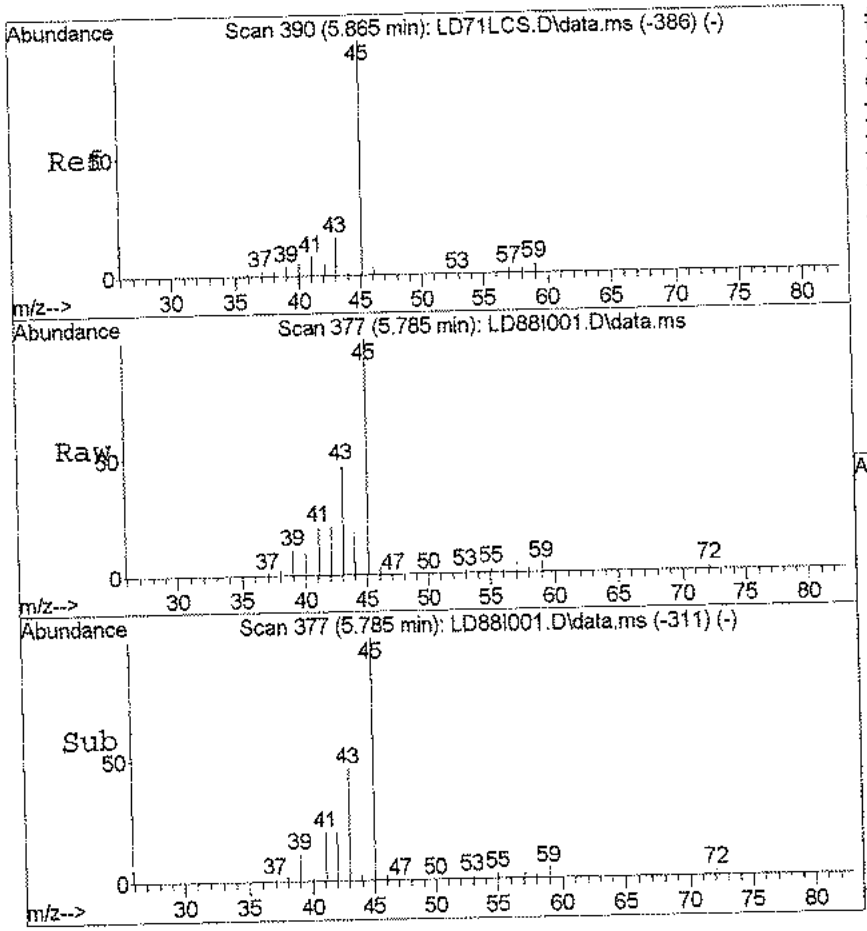


#13
Ethanol
Concen: 43.66 ppb
RT: 5.11 min Scan# 266
Delta R.T. -0.06 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:45.1 Resp: 644480

Ion	Ratio	Lower	Upper
45	100		
46	38.0	32.4	48.6
44	2.7	23.4	35.2#
0	0.0	0.0	0.0

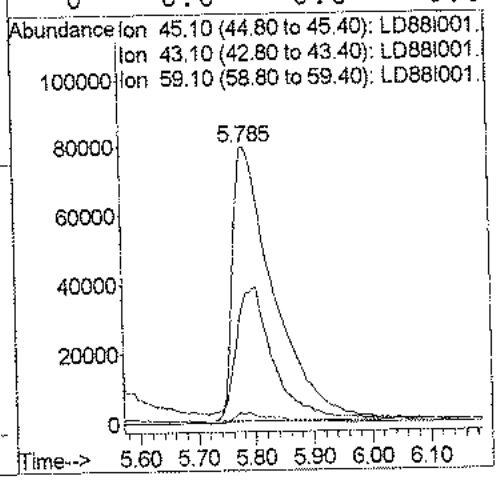


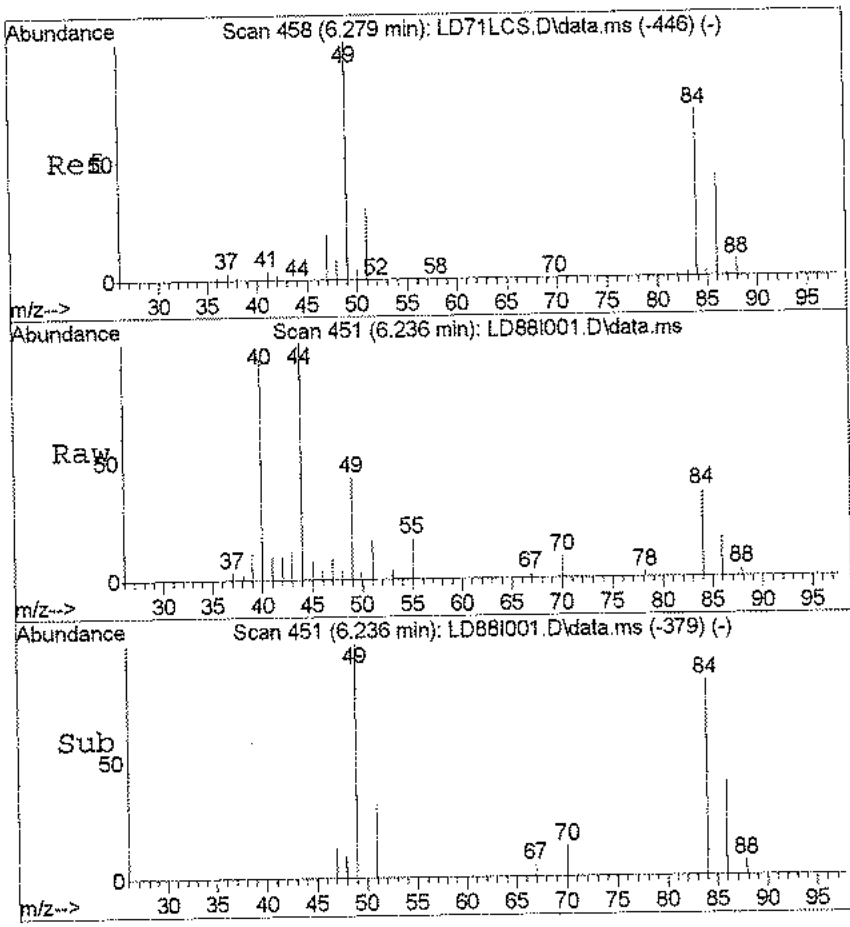


#14
Isopropyl Alcohol
Concen: 6.37 ppb
RT: 5.79 min Scan# 377
Delta R.T. -0.10 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:45.1 Resp: 394252

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	3.2	3.2	4.8#
0	0.0	0.0	0.0

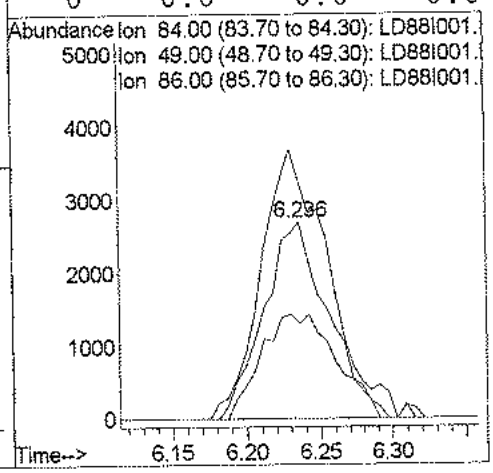


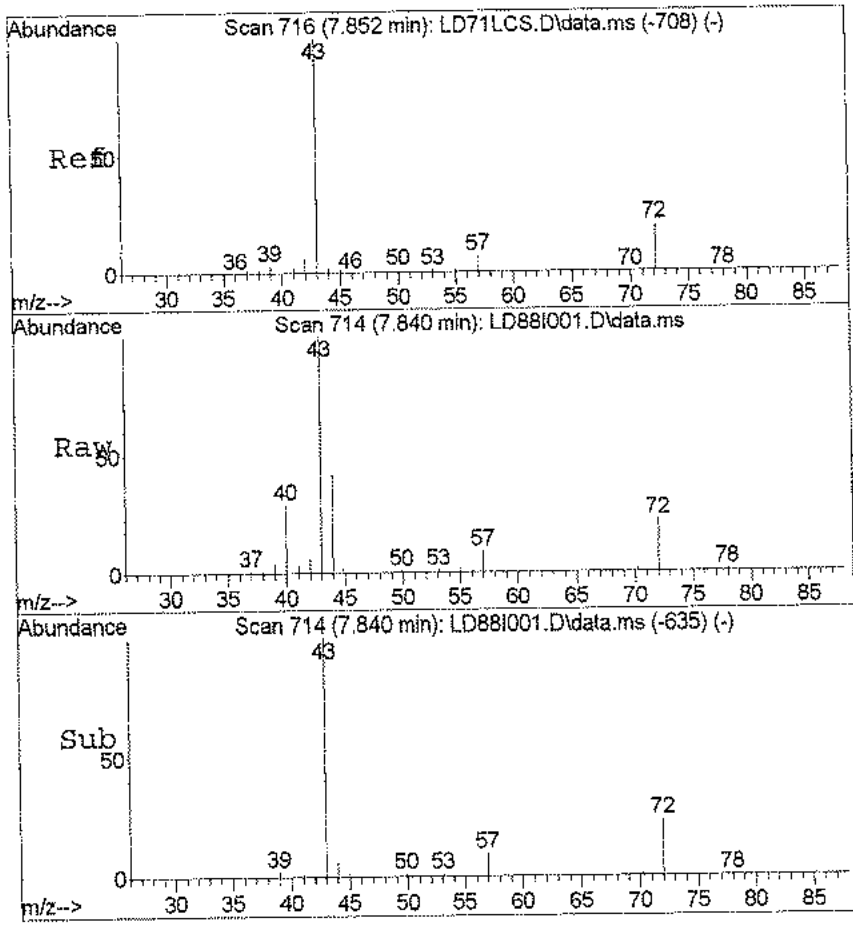


#16
Methylene Chloride
Concen: 0.24 ppb
RT: 6.24 min Scan# 451
Delta R.T. -0.06 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:84 Resp: 8173

Ion	Ratio	Lower	Upper
84	100		
49	145.2	66.6	100.0#
86	62.3	51.6	77.4
0	0.0	0.0	0.0

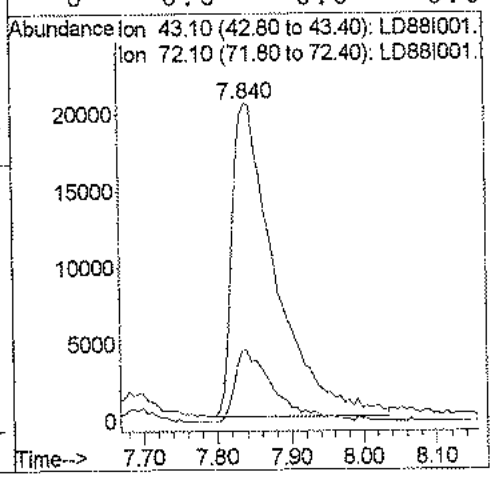


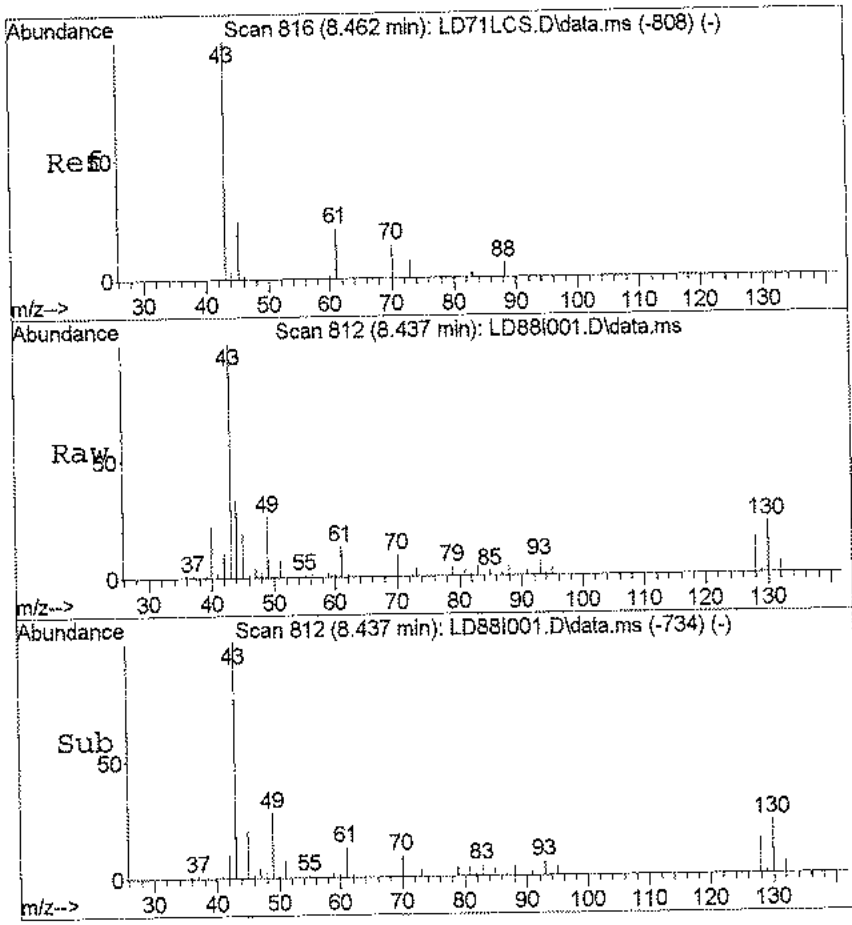


#23
2-Butanone
Concen: 1.15 ppb
RT: 7.84 min Scan# 714
Delta R.T. -0.02 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:43.1 Resp: 83013

Ion	Ratio	Lower	Upper
43	100		
72	20.2	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

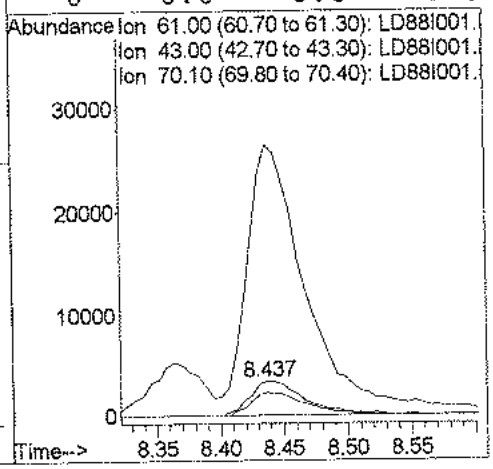


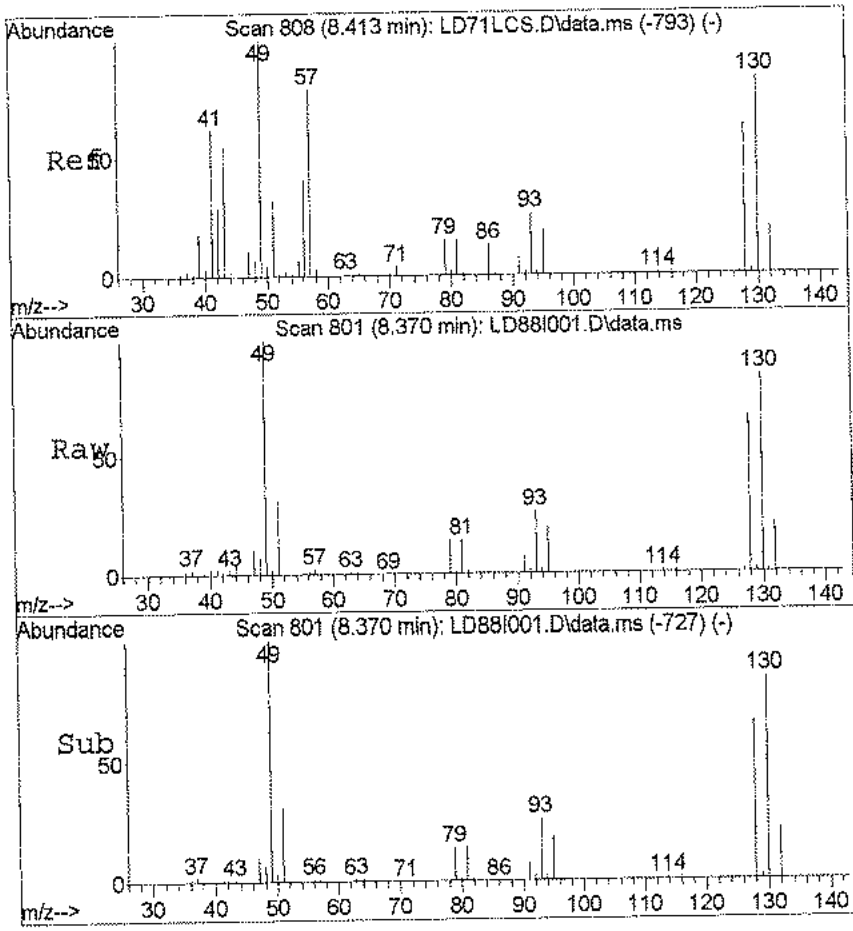


#26
Ethyl Acetate
Concen: 0.91 ppb
RT: 8.44 min Scan# 812
Delta R.T. -0.03 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:61 Resp: 10140

Ion	Ratio	Lower	Upper
61	100		
43	820.3	144.0	216.0#
70	67.3	13.6	20.4#
0	0.0	0.0	0.0

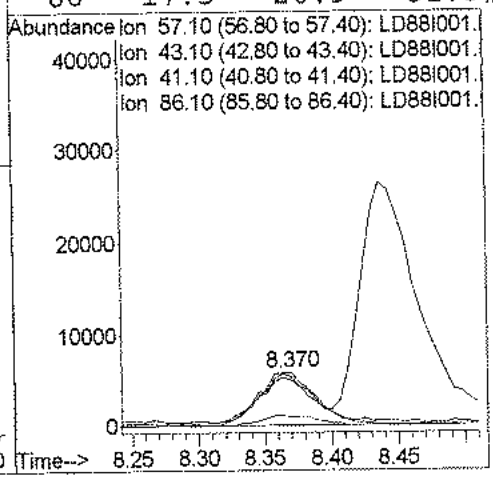


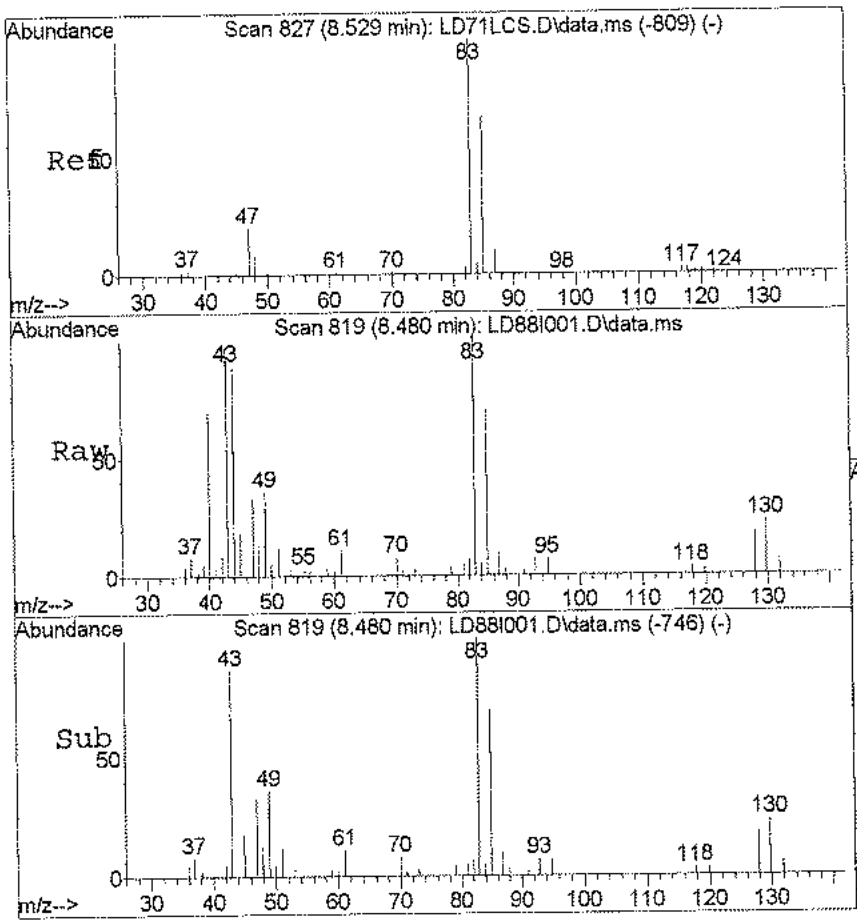


#27
Hexane
Concen: 0.30 ppb
RT: 8.37 min Scan# 801
Delta R.T. -0.05 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:57.1 Resp: 17366

Ion	Ratio	Lower	Upper
57	100		
43	78.5	57.3	85.9
41	95.0	47.0	70.4#
86	17.5	20.9	31.3#

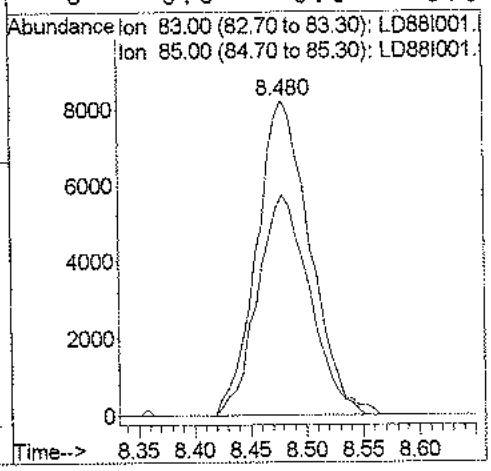


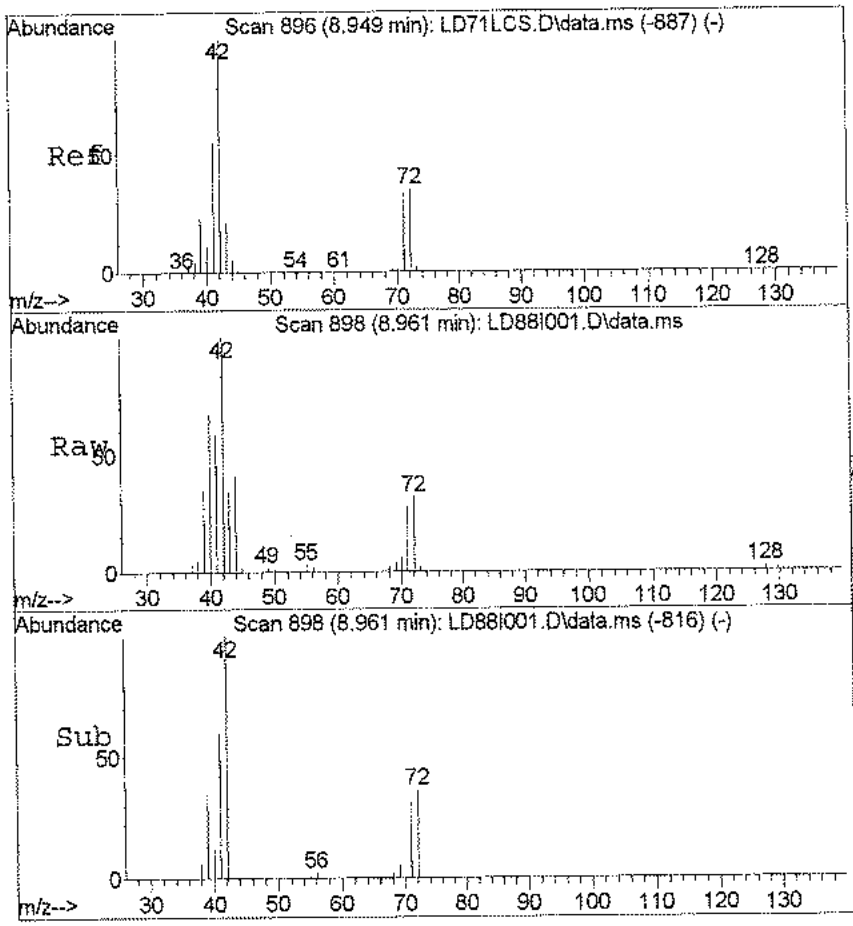


#28
Chloroform
Concen: 0.33 ppb
RT: 8.48 min Scan# 819
Delta R.T. -0.06 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:83 Resp: 27128

Ion	Ratio	Lower	Upper
83	100		
85	68.4	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

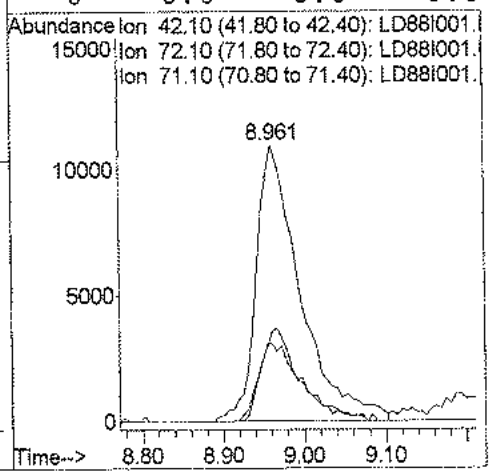


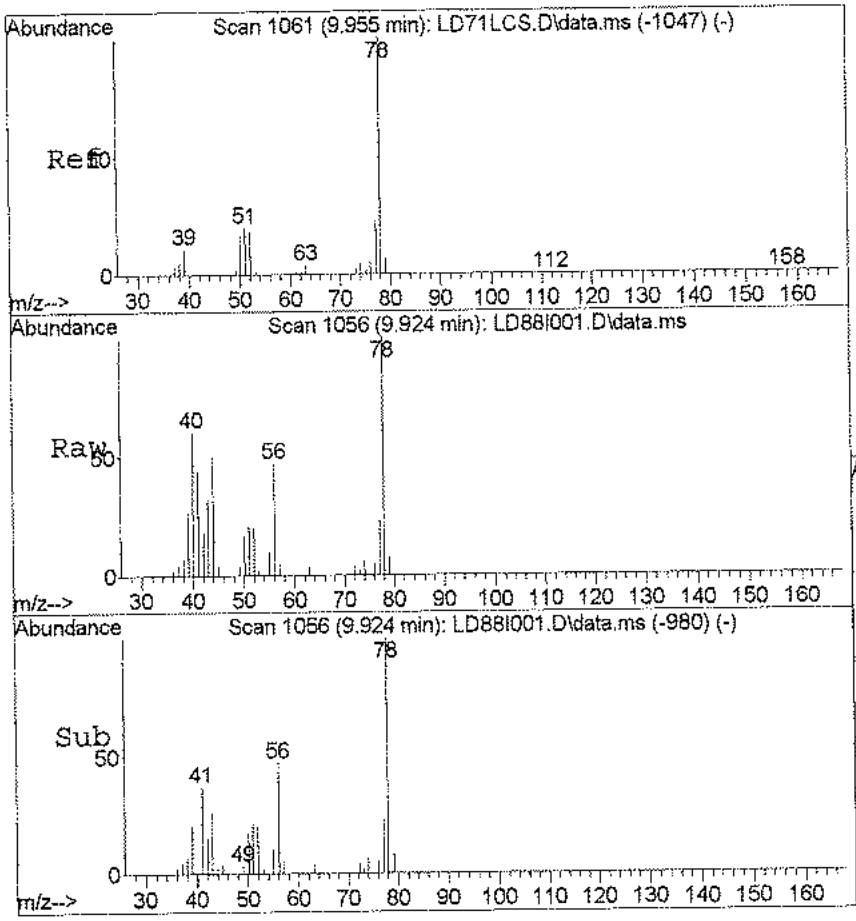


#29
Tetrahydrofuran
Concen: 0.98 ppb
RT: 8.96 min Scan# 898
Delta R.T. -0.00 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:42.1 Resp: 41627

Ion	Ratio	Lower	Upper
42	100		
72	29.9	51.5	77.3#
71	27.5	47.5	71.3#
0	0.0	0.0	0.0

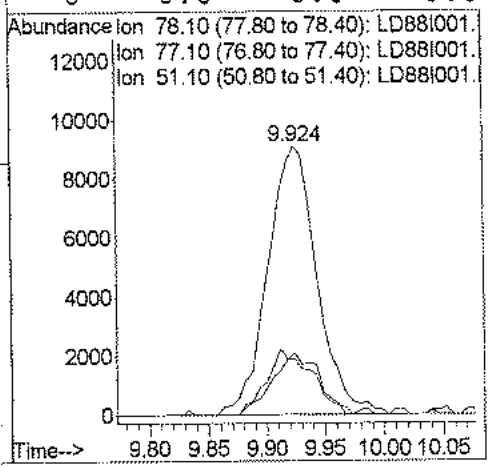


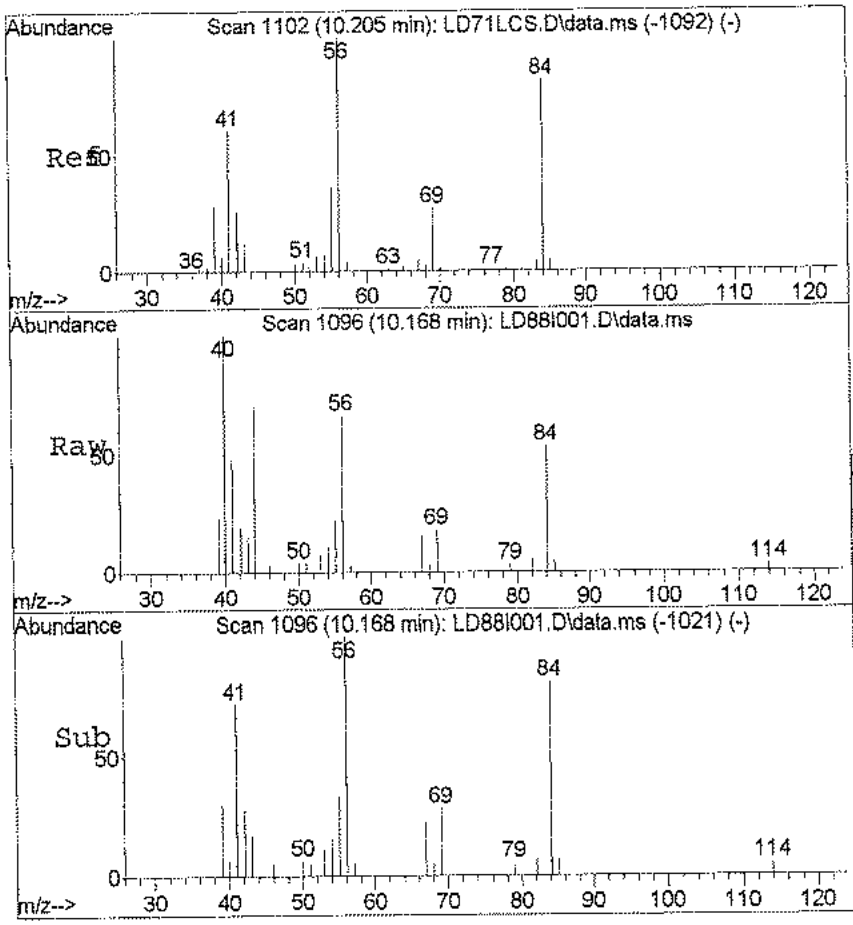


#32
Benzene
Concen: 0.25 ppb
RT: 9.92 min Scan# 1056
Delta R.T. -0.04 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:78.1 Resp: 26645

Ion	Ratio	Lower	Upper
78	100		
77	24.0	18.2	27.4
51	20.2	9.5	14.3#
0	0.0	0.0	0.0

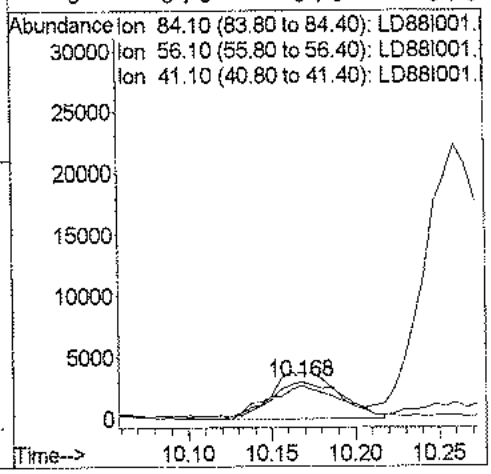


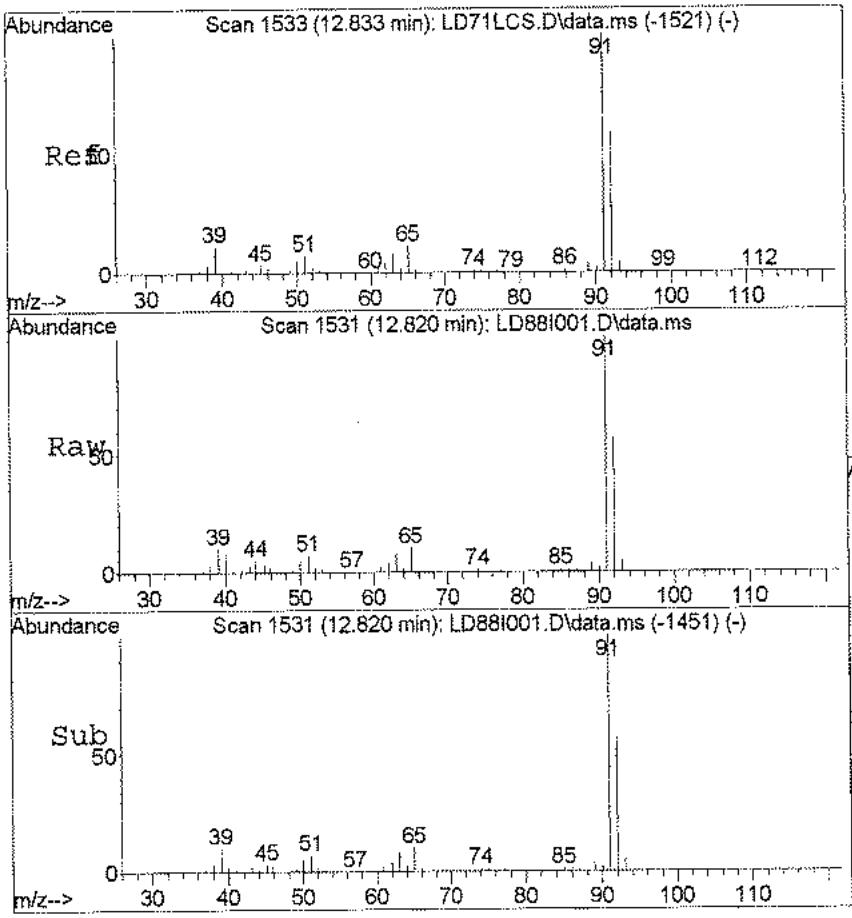


#34
Cyclohexane
Concen: 0.19 ppb
RT: 10.17 min Scan# 1096
Delta R.T. -0.04 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:84.1 Resp: 8806

Ion	Ratio	Lower	Upper
84	100		
56	125.9	67.3	100.9#
41	93.7	30.2	45.4#
0	0.0	0.0	0.0

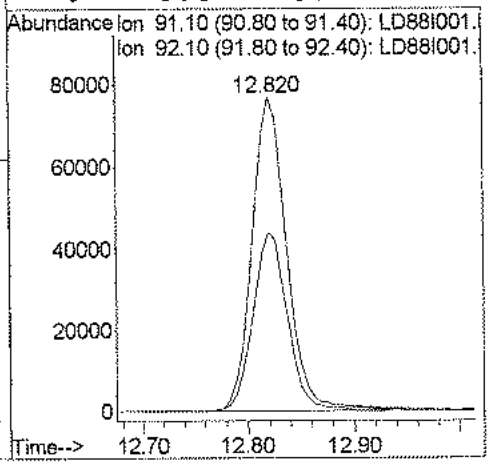


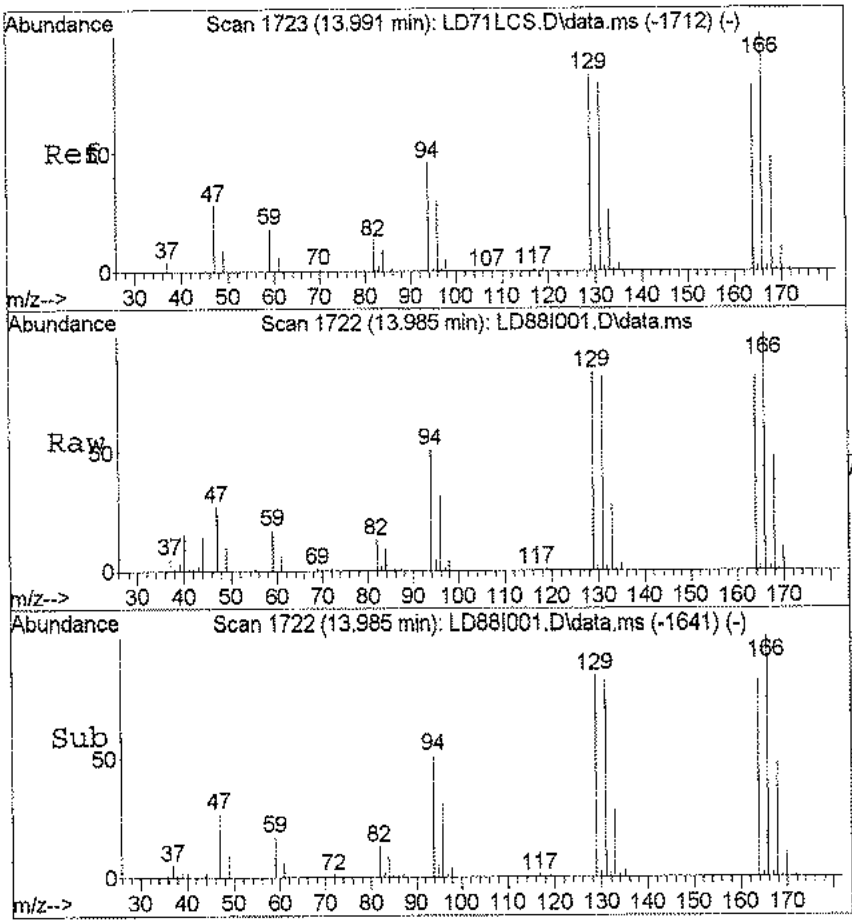


#45
Toluene
Concen: 1.31 ppb
RT: 12.82 min Scan# 1531
Delta R.T. -0.01 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:91.1 Resp: 174697

Ion	Ratio	Lower	Upper
91	100		
92	56.8	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

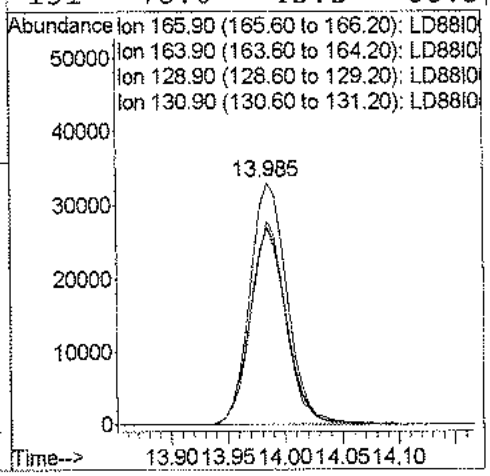


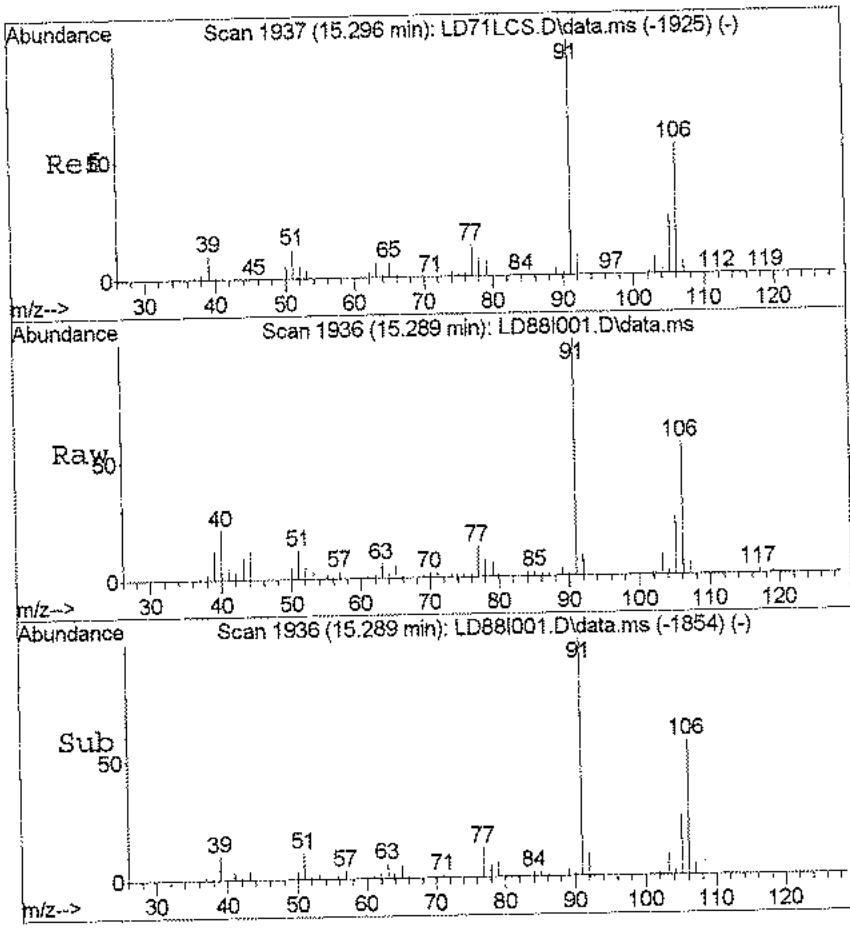


#49
Tetrachloroethene
Concen: 1.02 ppb
RT: 13.98 min Scan# 1722
Delta R.T. -0.01 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:165.9 Resp: 75455

Ion	Ratio	Lower	Upper
166	100		
164	80.4	61.0	91.4
129	80.8	45.9	68.9#
131	78.0	45.5	68.3#

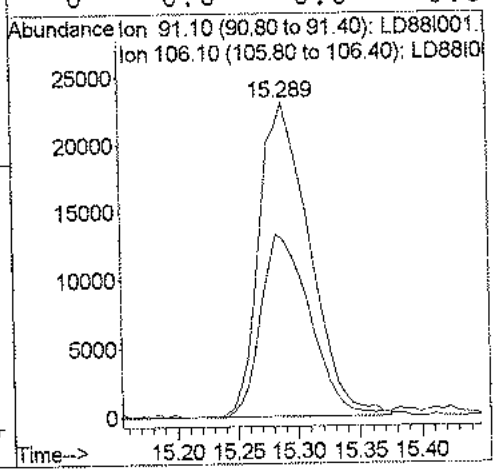


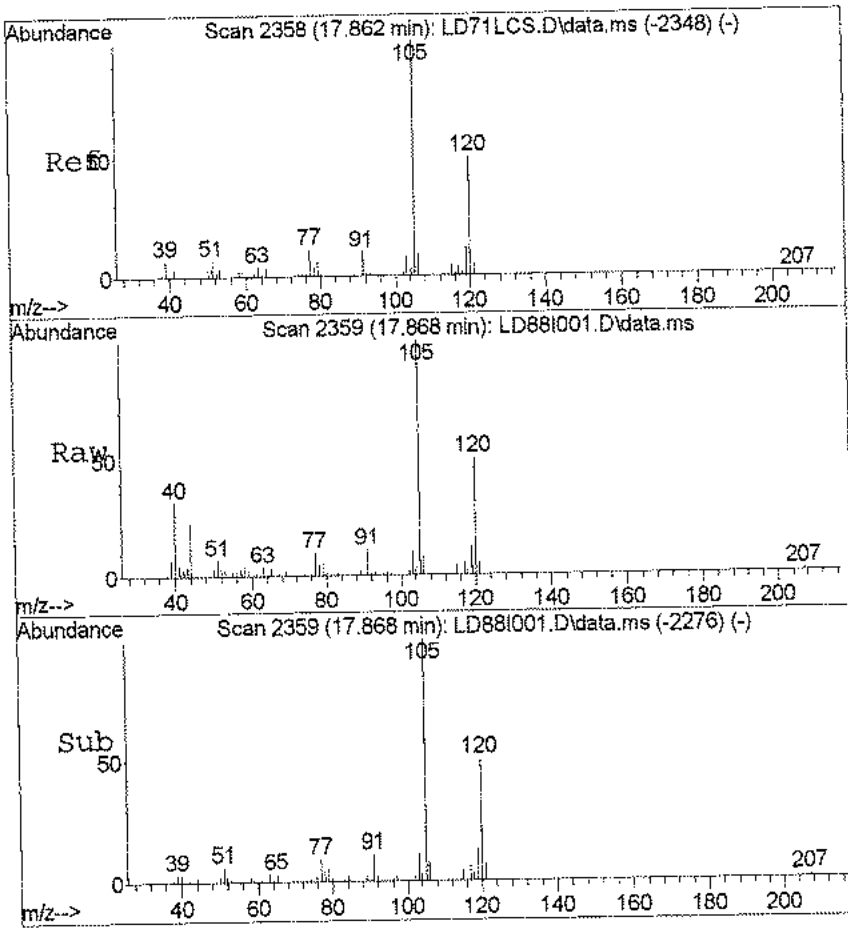


#53
m,p-Xylene
Concen: 0.47 ppb
RT: 15.29 min Scan# 1936
Delta R.T. -0.00 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:91.1 Resp: 66283

Ion	Ratio	Lower	Upper
91	100		
106	56.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

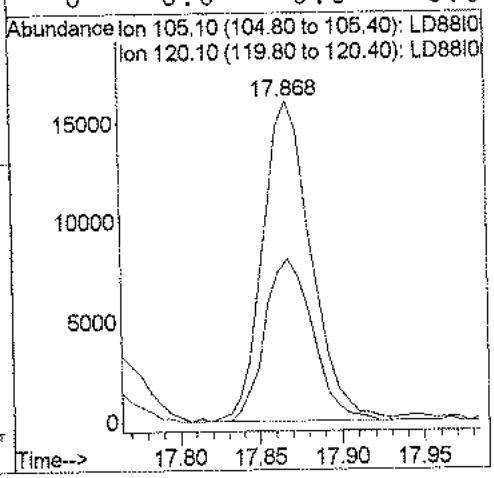




#61
1,2,4-Trimethylbenzene
Concen: 0.20 ppb
RT: 17.87 min Scan# 2359
Delta R.T. 0.00 min
Lab File: LD88I001.D
Acq: 04/02/2016 09:06

Tgt Ion:105.1 Resp: 32988

Ion	Ratio	Lower	Upper
105	100		
120	50.2	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

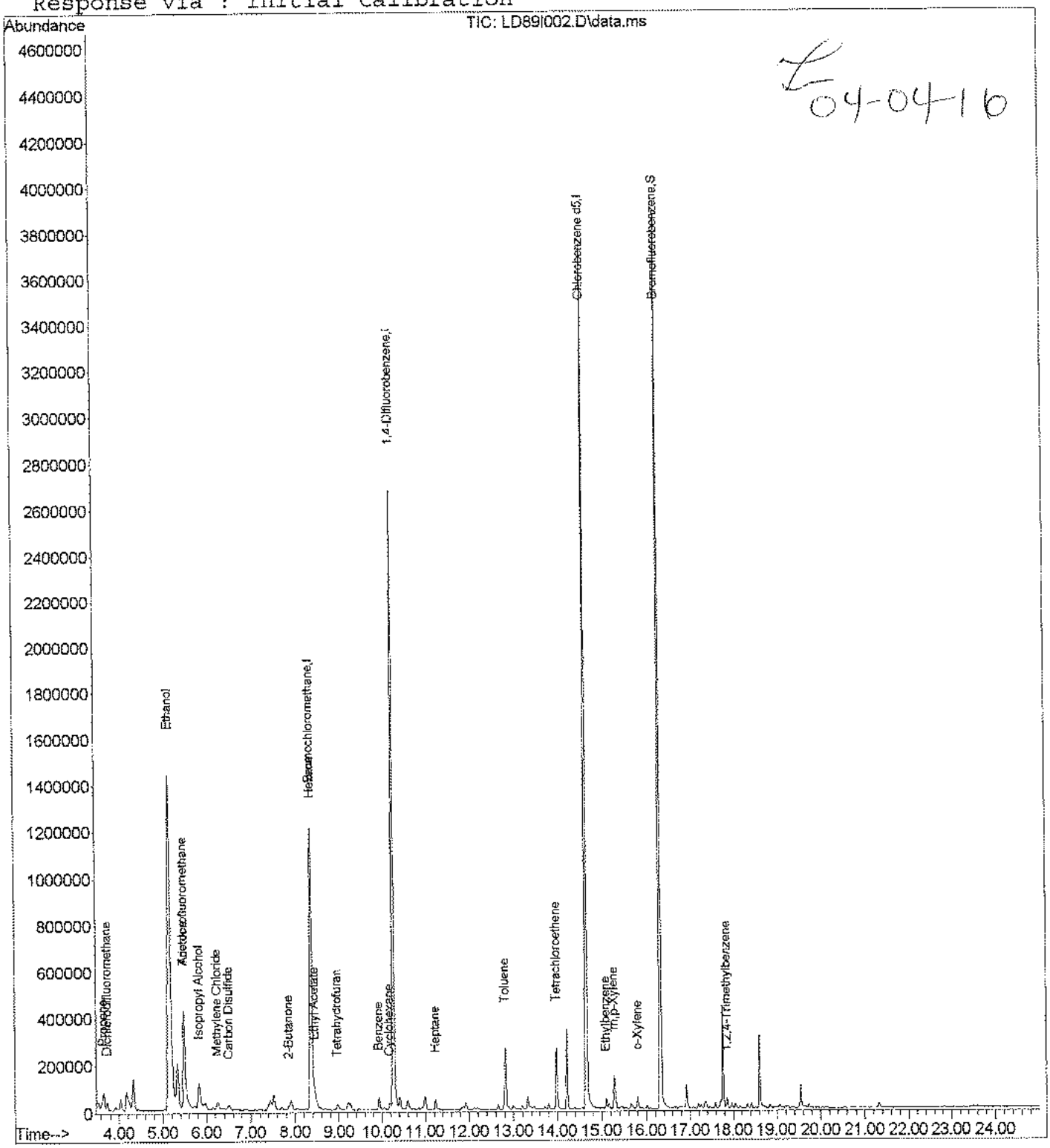


Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD89I002.D Vial: 6
Acq Time : 04/02/2016 09:57 Operator: TJM
Sample : 1608222002 Inst : 5975-L
Misc : 0196 A-0018H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:09:34 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD89I002.D Vial: 6
Acq Time : 04/02/2016 09:57 Operator: TJM
Sample : 1608222002 Inst : 5975-L
Misc : 0196 A-0018H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:09:34 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.37	130	229888	20.0000 ppb	71.45
25) 1,4-Difluorobenzene	10.27	114	3193294	20.0000 ppb	80.28
50) Chlorobenzene d5	14.66	117	2907440	20.0000 ppb	79.47
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.32	95	1681047	19.2506 ppb	96.25%
Target Compounds					Qvalue
2) Propene	3.65	41	33134	1.2024 ppb #	66
3) Dichlorodifluoromethane	3.74	85	51018	0.5709 ppb	99
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.48	43	882866	16.7636 ppb	89
12) Trichlorofluoromethane	5.47	101	26057	0.2550 ppb	97
13) Ethanol	5.16	45	3939162	284.7618 ppb #	79
14) Isopropyl Alcohol	5.85	45	93697	1.6151 ppb #	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.24	84	11897	0.3698 ppb #	58
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.52	76	39433	0.4207 ppb #	67
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.86	43	47957	0.7079 ppb #	66
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.44	61	14636	1.2862 ppb #	1
27) Hexane	8.38	57	37390	0.6224 ppb #	77
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	8.97	42	24946	0.5732 ppb #	55
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.93	78	52765	0.4834 ppb #	90
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.18	84	14382	0.2955 ppb #	56
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

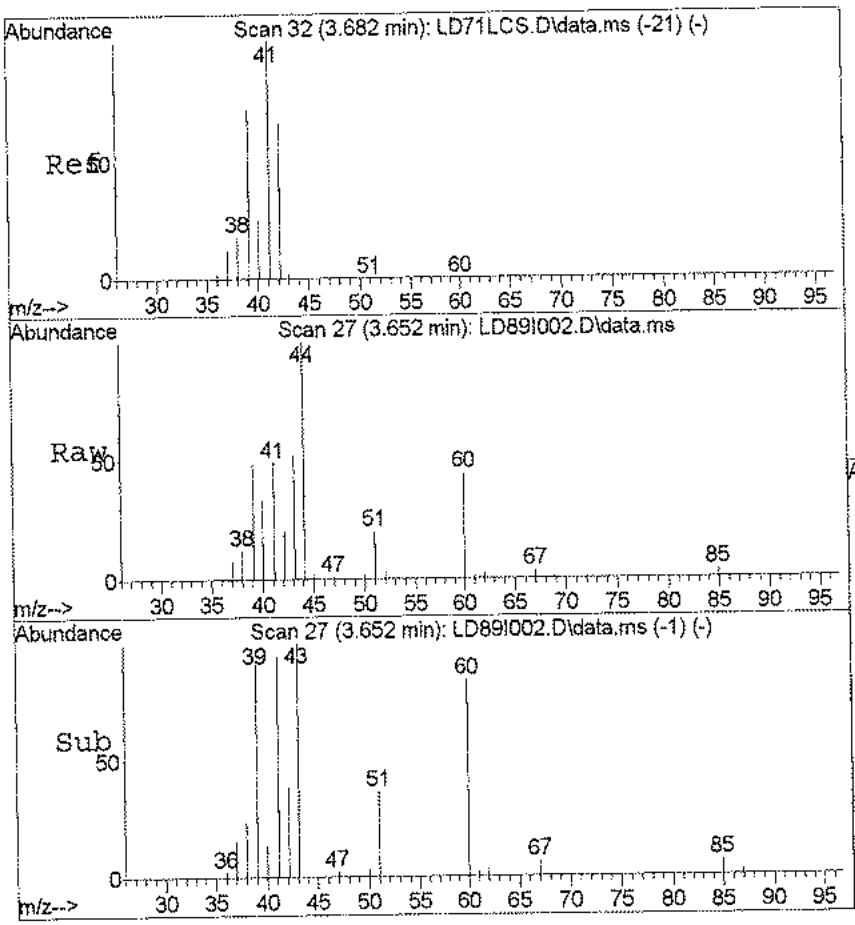
Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD89I002.D Vial: 6
Acq Time : 04/02/2016 09:57 Operator: TJM
Sample : 1608222002 Inst : 5975-L
Misc : 0196 A-0018H-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:09:34 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	11.24	71	10250	0.2679 ppb #	27
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.82	91	231536	1.7016 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	13.98	166	95163	1.2590 ppb #	80
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.09	91	37621	0.2074 ppb	98
53) m,p-Xylene	15.28	91	117722	0.8160 ppb	100
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.81	91	34003	0.2261 ppb	98
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	17.86	105	28182	0.1646 ppb	100
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

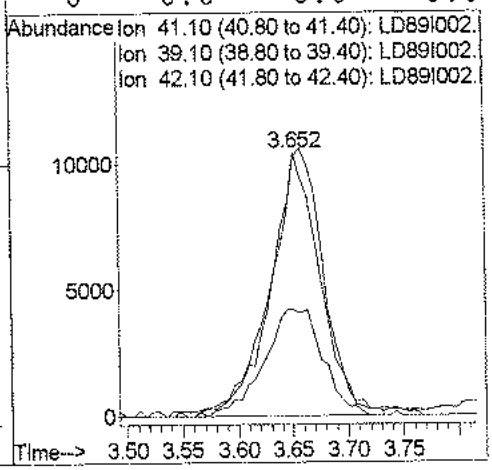
(#) = qualifier out of range (m) = manual integration

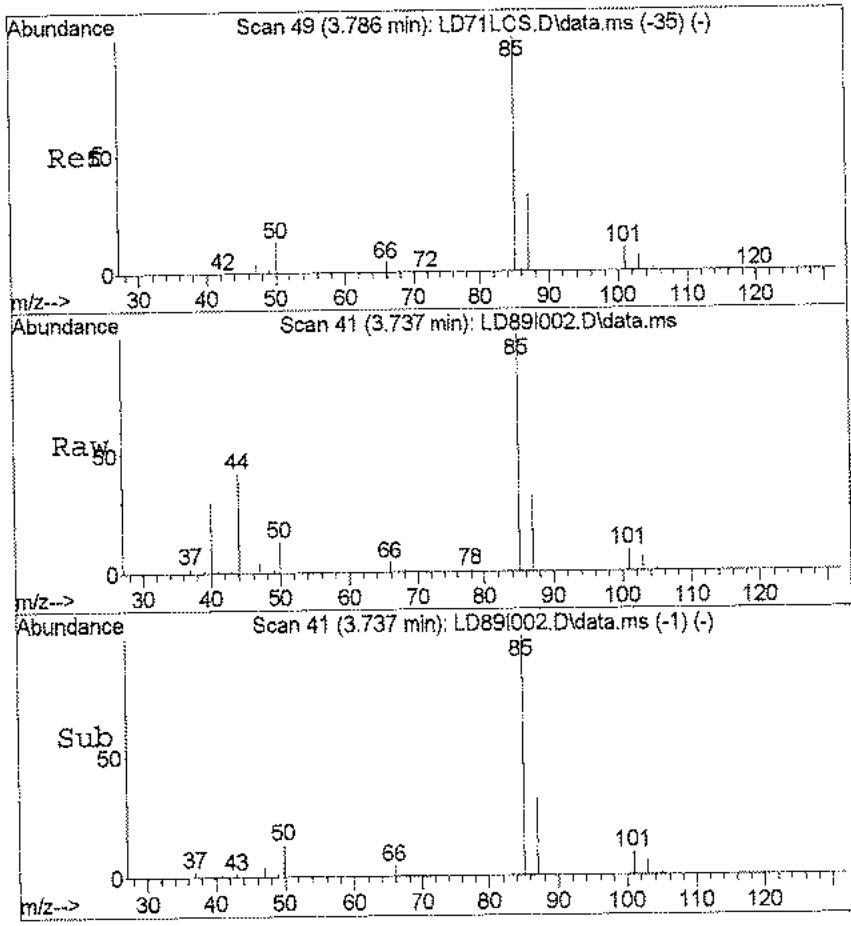


#2
Propene
Concen: 1.20 ppb
RT: 3.65 min Scan# 27
Delta R.T. -0.07 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:41.1 Resp: 33134

Ion	Ratio	Lower	Upper
41	100		
39	106.3	56.2	84.4#
42	47.3	53.8	80.6#
0	0.0	0.0	0.0

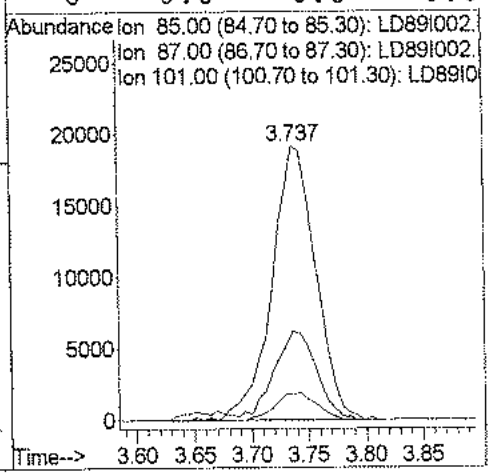


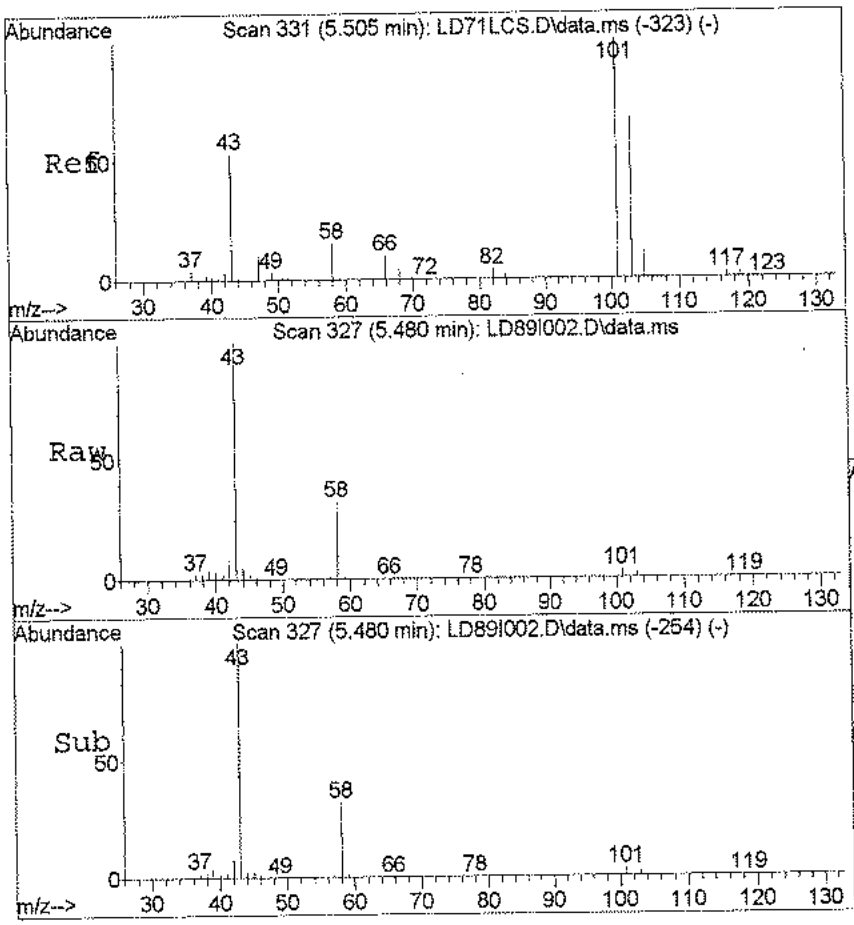


#3
Dichlorodifluoromethane
Concen: 0.57 ppb
RT: 3.74 min Scan# 41
Delta R.T. -0.09 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:85 Resp: 51018

Ion	Ratio	Lower	Upper
85	100		
87	32.0	26.1	39.1
101	9.2	8.0	12.0
0	0.0	0.0	0.0

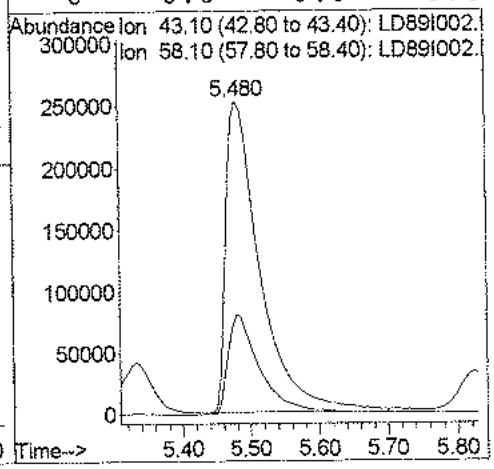


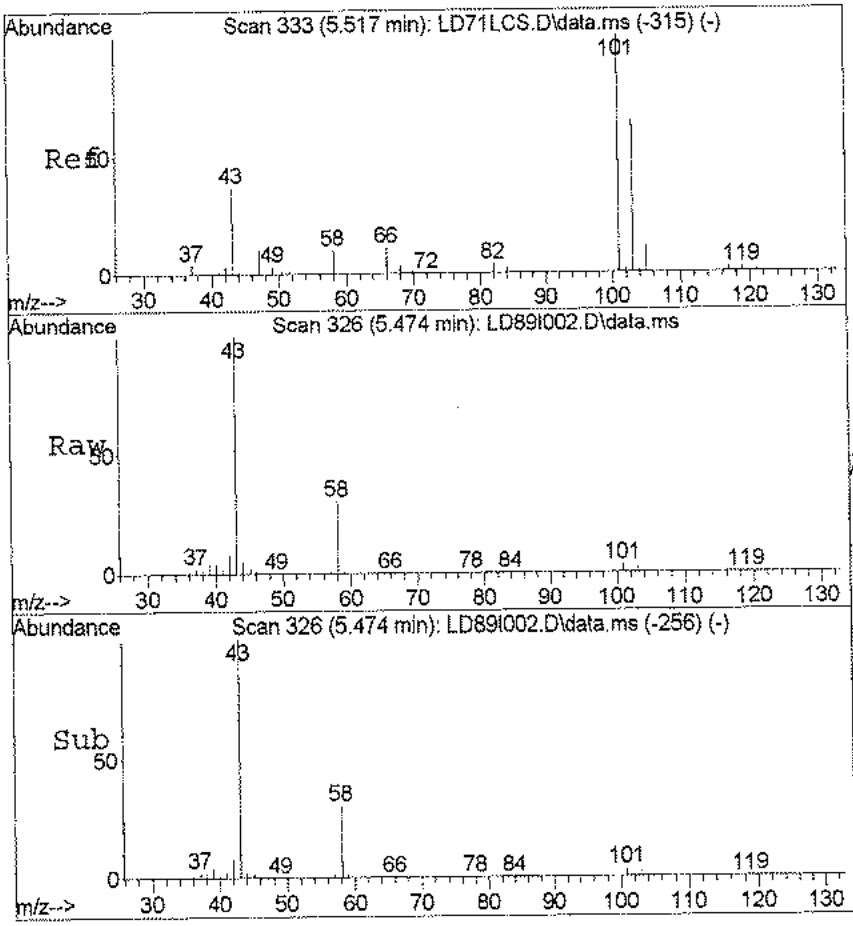


#11
Acetone
Concen: 16.76 ppb
RT: 5.48 min Scan# 327
Delta R.T. -0.06 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:43.1 Resp: 882866

Ion	Ratio	Lower	Upper
43	100		
58	31.6	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

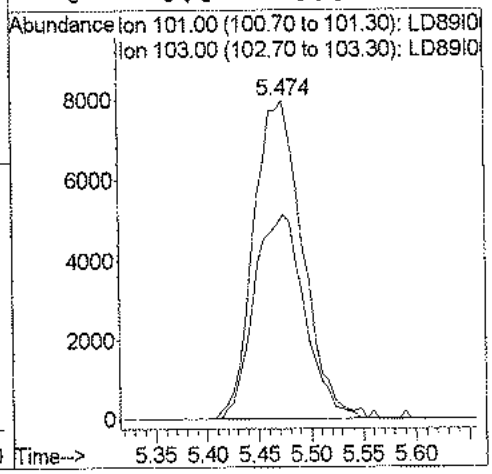


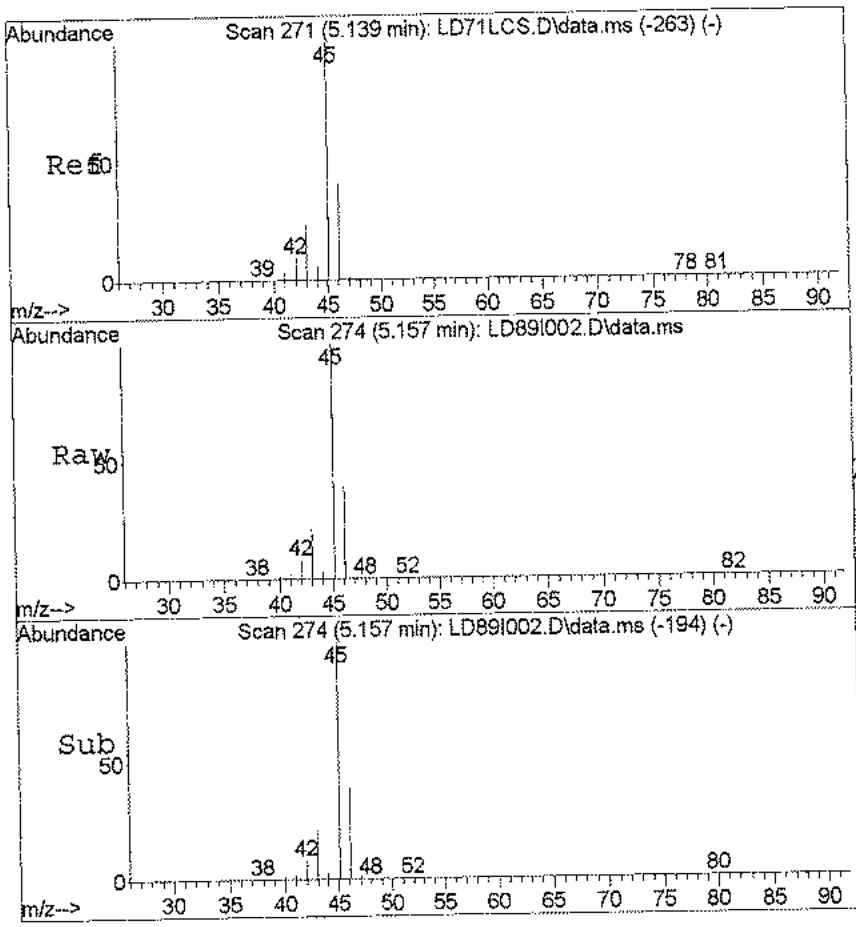


#12
Trichlorofluoromethane
Concen: 0.26 ppb
RT: 5.47 min Scan# 326
Delta R.T. -0.07 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:101 Resp: 26057

Ion	Ratio	Lower	Upper
101	100		
103	66.4	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

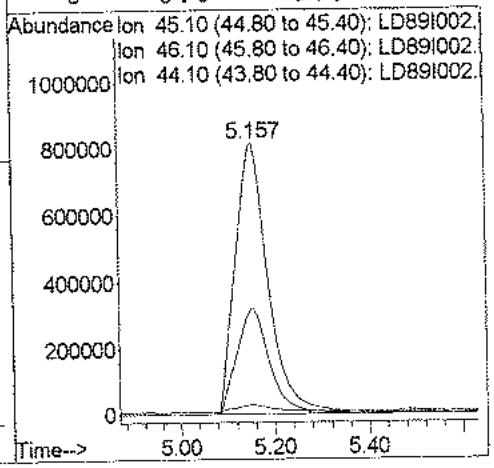


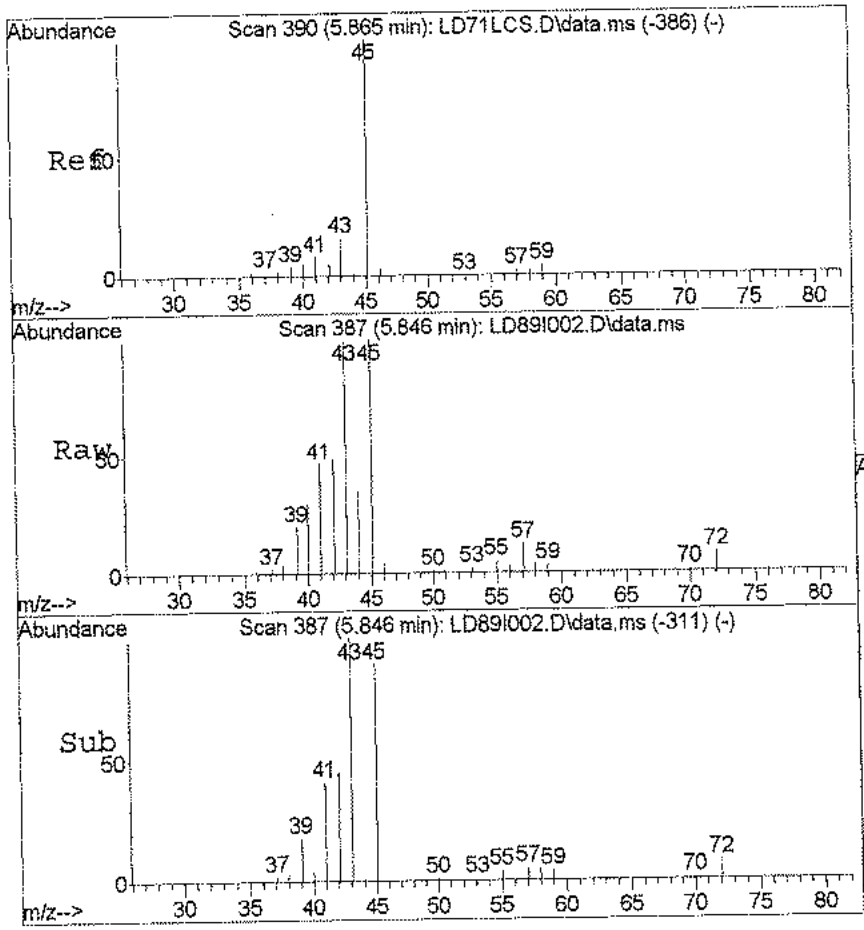


#13
Ethanol
Concen: 284.76 ppb
RT: 5.16 min Scan# 274
Delta R.T. -0.01 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:45.1 Resp: 3939162

Ion	Ratio	Lower	Upper
45	100		
46	39.8	32.4	48.6
44	2.8	23.4	35.2#
0	0.0	0.0	0.0

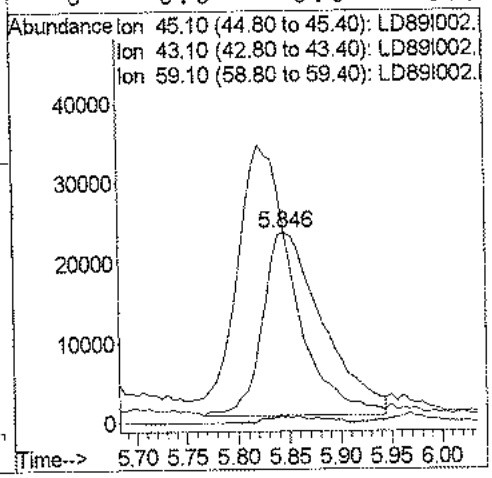


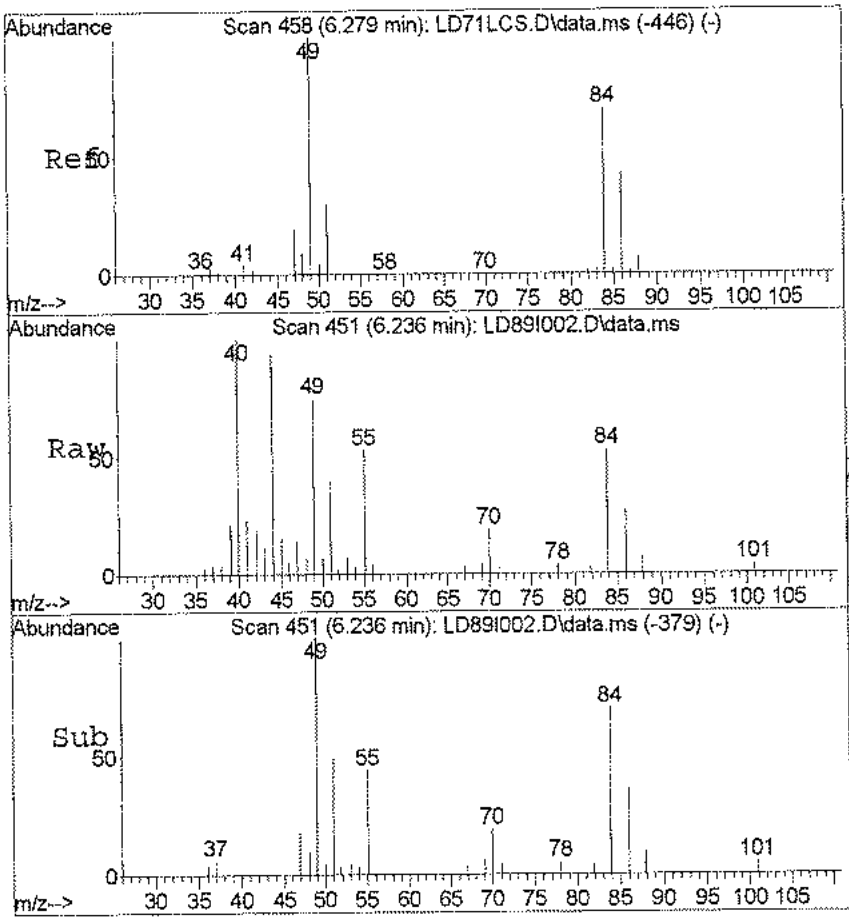


#14
Isopropyl Alcohol
Concen: 1.62 ppb
RT: 5.85 min Scan# 387
Delta R.T. -0.04 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:45.1 Resp: 93697

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	3.2	3.2	4.8#
0	0.0	0.0	0.0

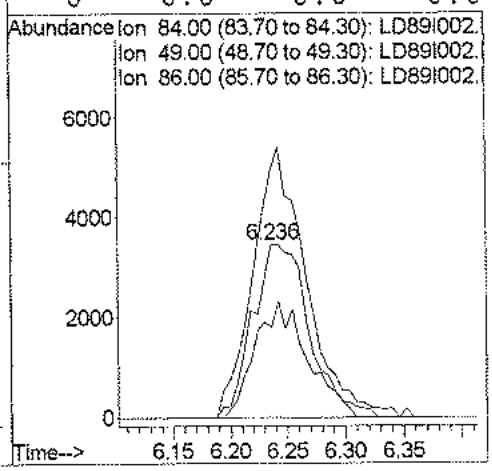


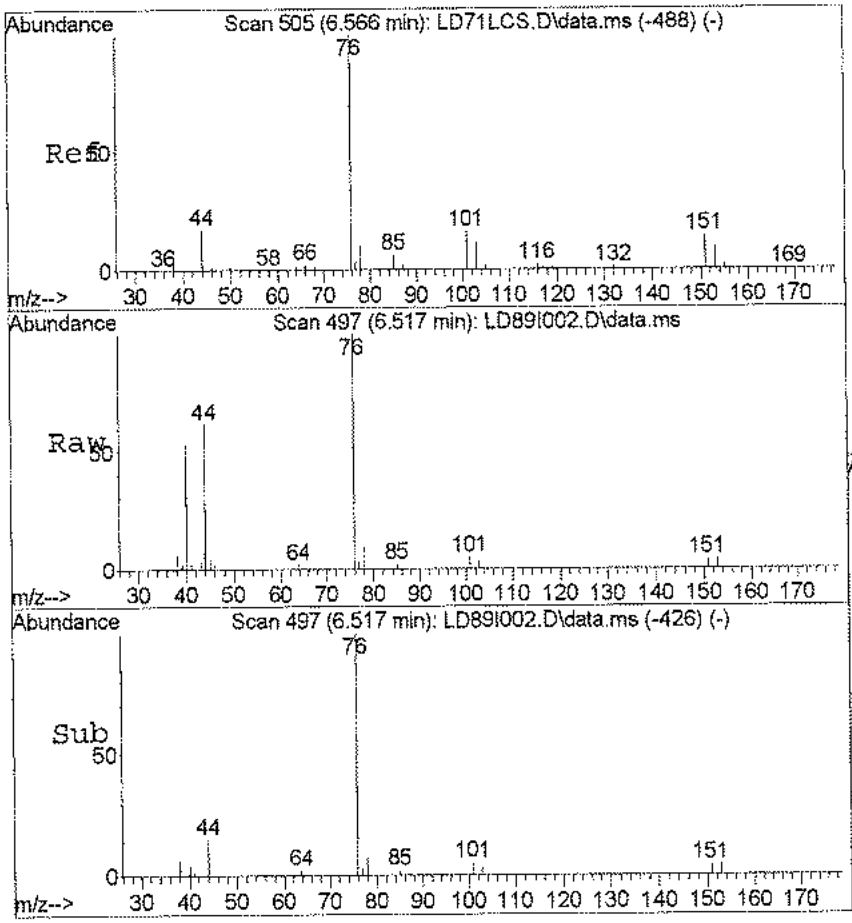


#16
Methylene Chloride
Concen: 0.37 ppb
RT: 6.24 min Scan# 451
Delta R.T. -0.06 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:84 Resp: 11897

Ion	Ratio	Lower	Upper
84	100		
49	148.0	66.6	100.0#
86	62.4	51.6	77.4
0	0.0	0.0	0.0

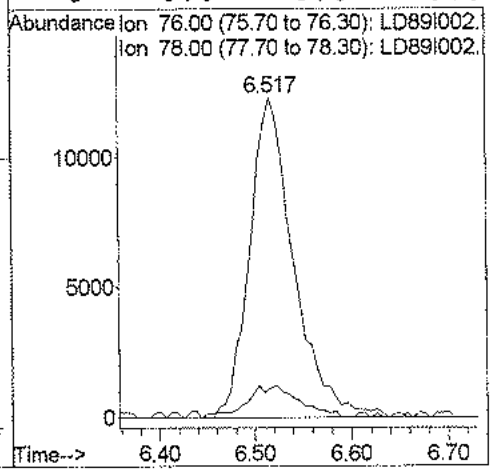


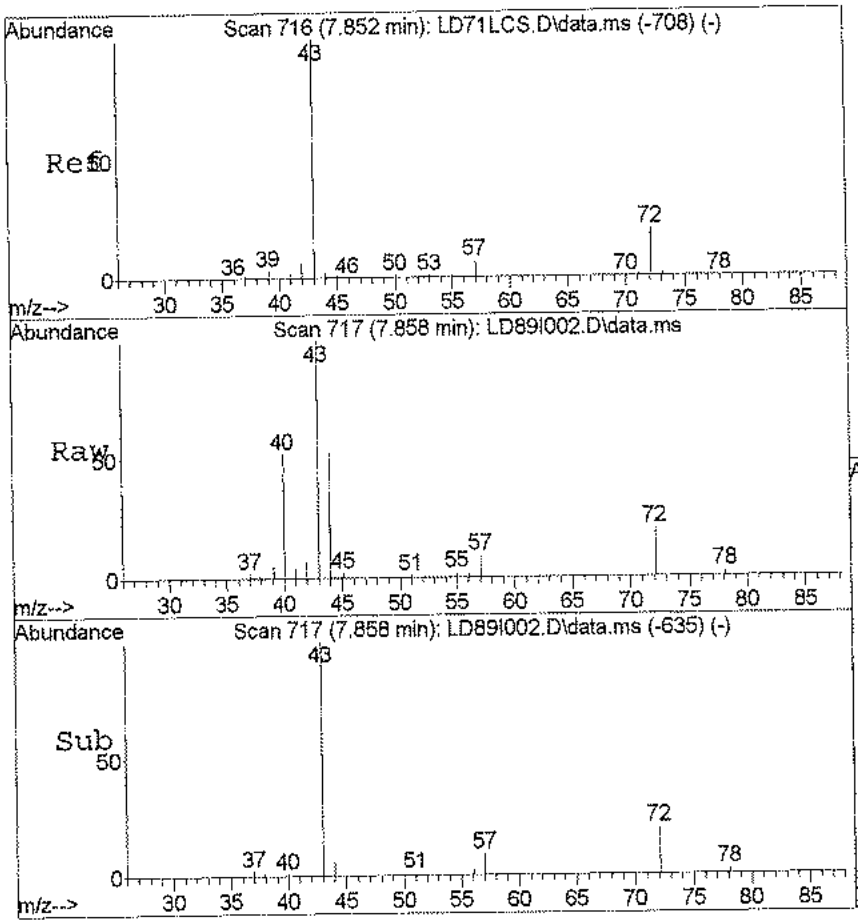


#18
Carbon Disulfide
Concen: 0.42 ppb
RT: 6.52 min Scan# 497
Delta R.T. -0.07 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:76 Resp: 39433

Ion	Ratio	Lower	Upper
76	100		
78	12.1	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

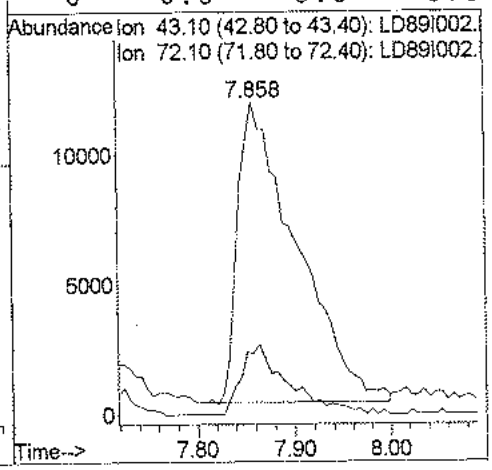


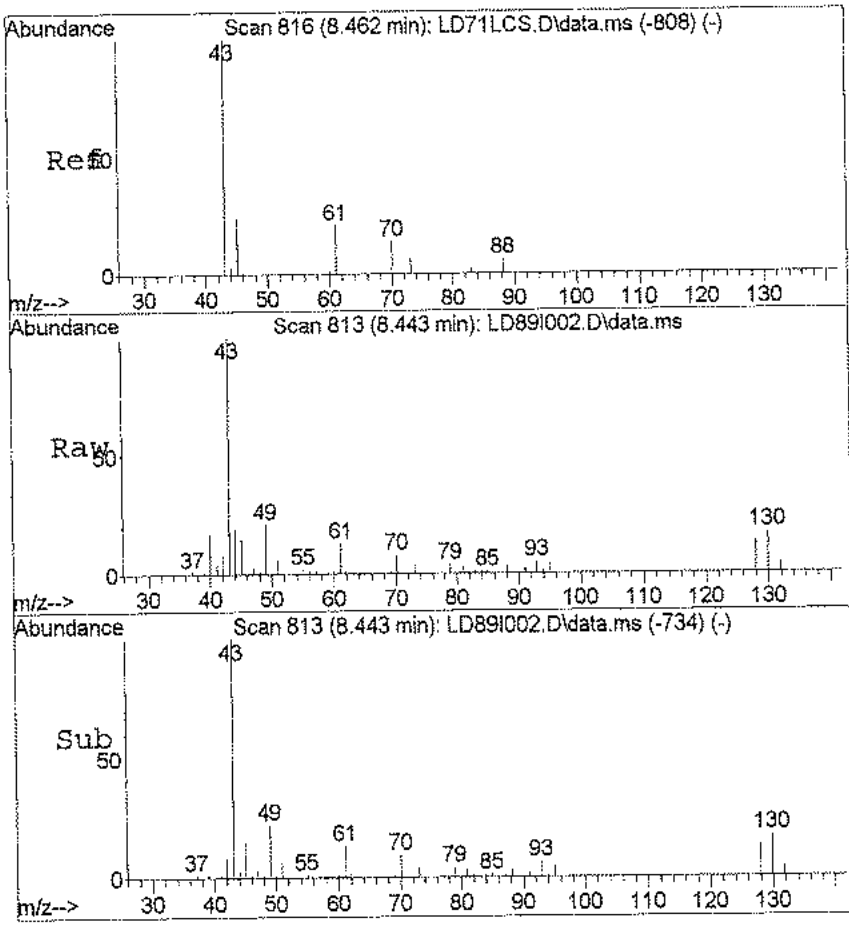


#23
2-Butanone
Concen: 0.71 ppb
RT: 7.86 min Scan# 717
Delta R.T. -0.00 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:43.1 Resp: 47957

Ion	Ratio	Lower	Upper
43	100		
72	18.3	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

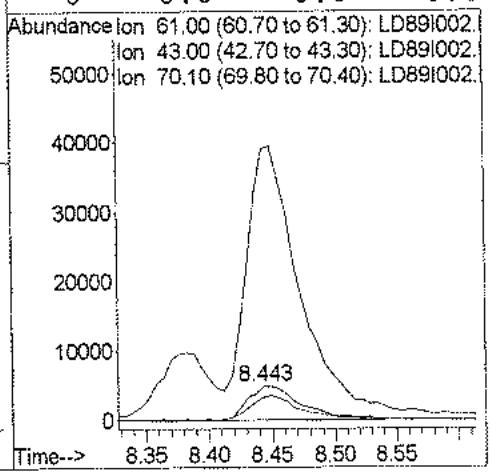


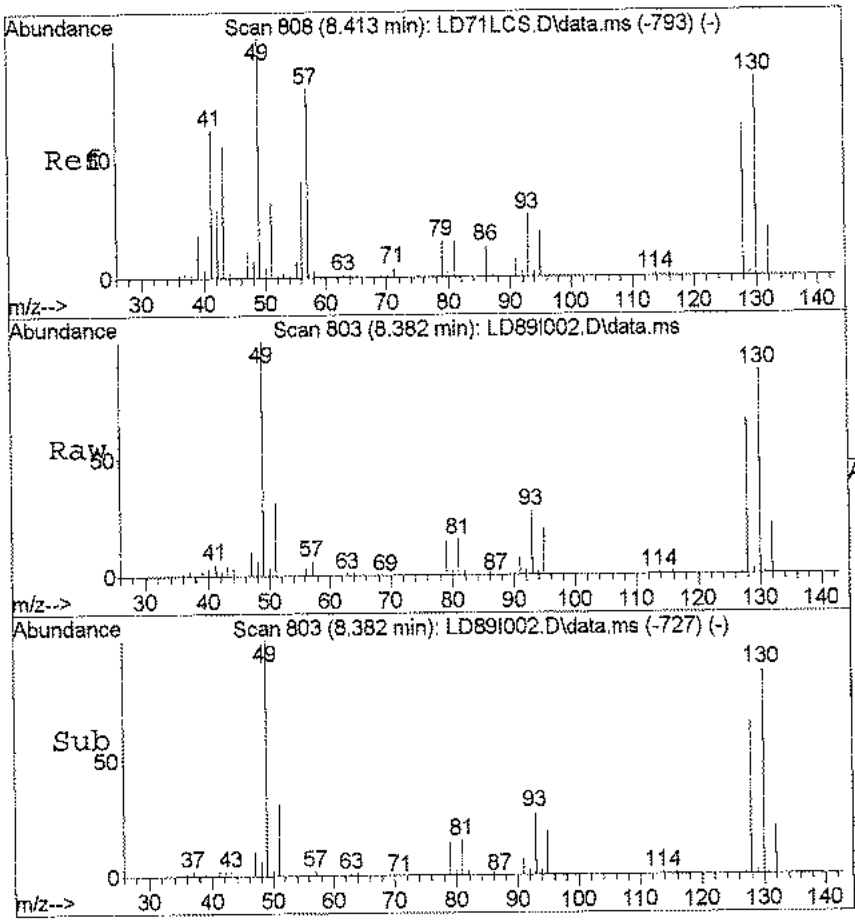


#26
Ethyl Acetate
Concen: 1.29 ppb
RT: 8.44 min Scan# 813
Delta R.T. -0.02 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:61 Resp: 14636

Ion	Ratio	Lower	Upper
61	100		
43	800.0	144.0	216.0#
70	69.7	13.6	20.4#
0	0.0	0.0	0.0

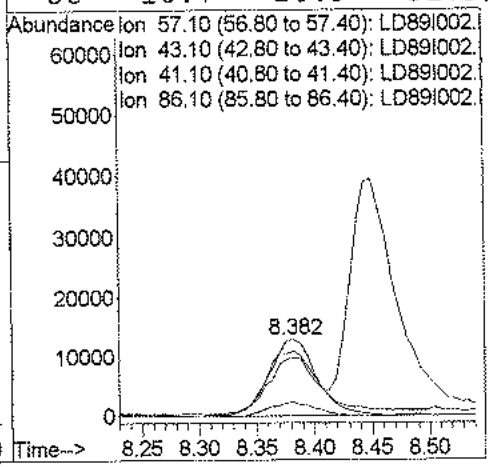


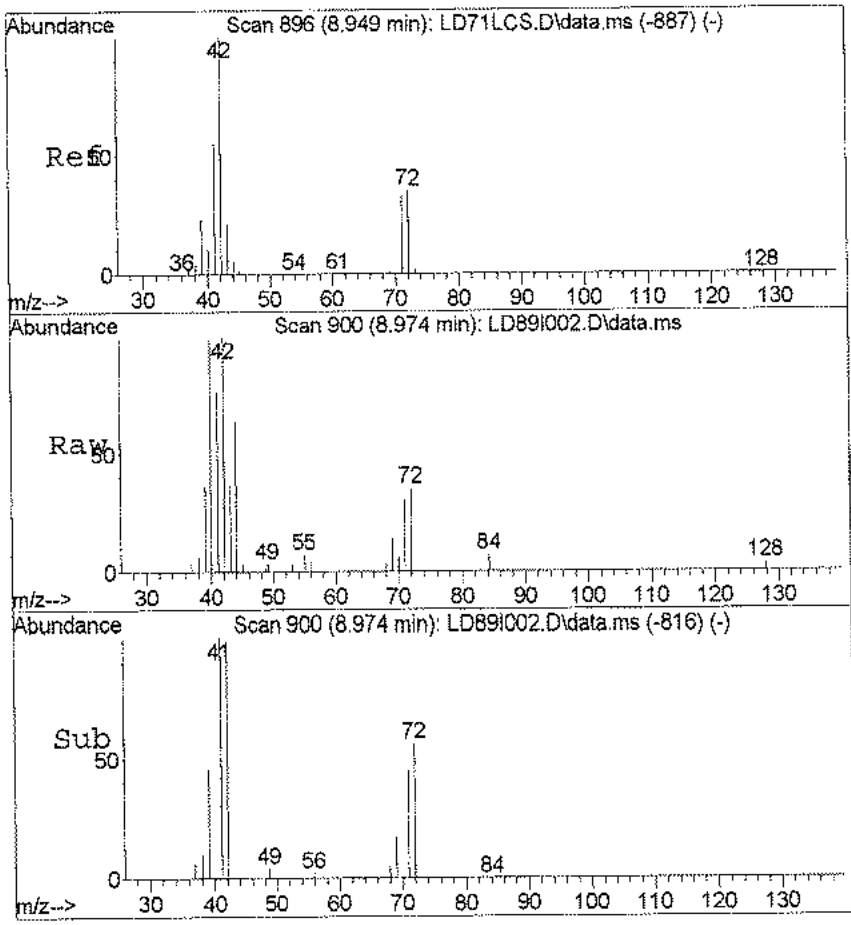


#27
Hexane
Concen: 0.62 ppb
RT: 8.38 min Scan# 803
Delta R.T. -0.04 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:57.1 Resp: 37390

Ion	Ratio	Lower	Upper
57	100		
43	72.7	57.3	85.9
41	98.1	47.0	70.4#
86	16.7	20.9	31.3#

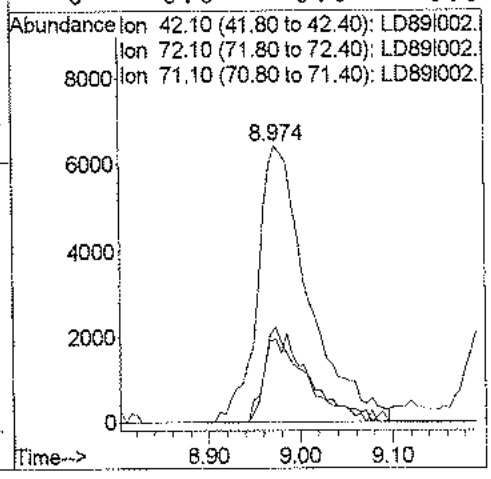


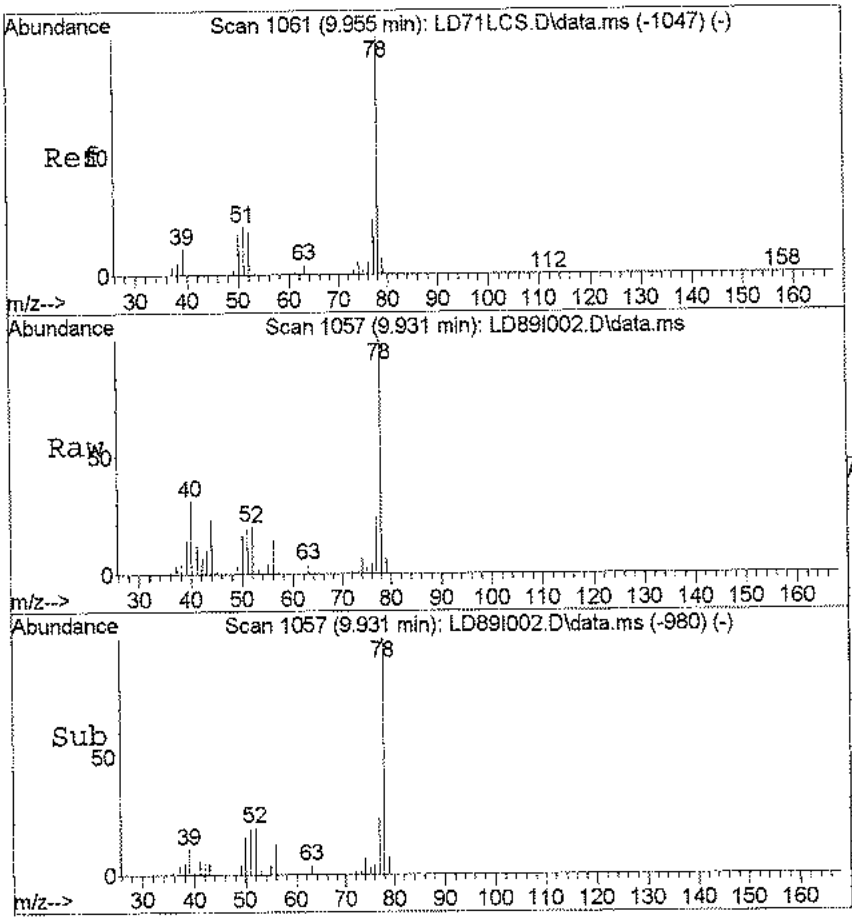


#29
Tetrahydrofuran
Concen: 0.57 ppb
RT: 8.97 min Scan# 900
Delta R.T. 0.01 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:42.1 Resp: 24946

Ion	Ratio	Lower	Upper
42	100		
72	28.5	51.5	77.3#
71	26.8	47.5	71.3#
0	0.0	0.0	0.0

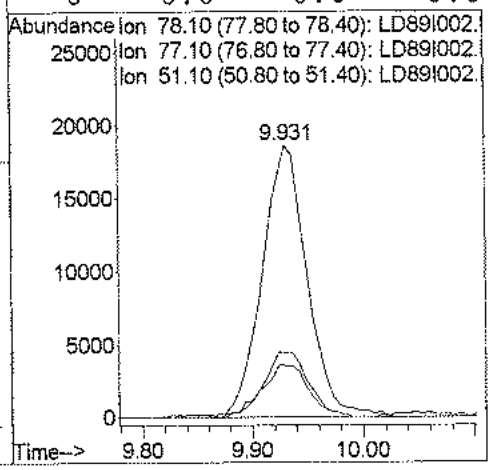


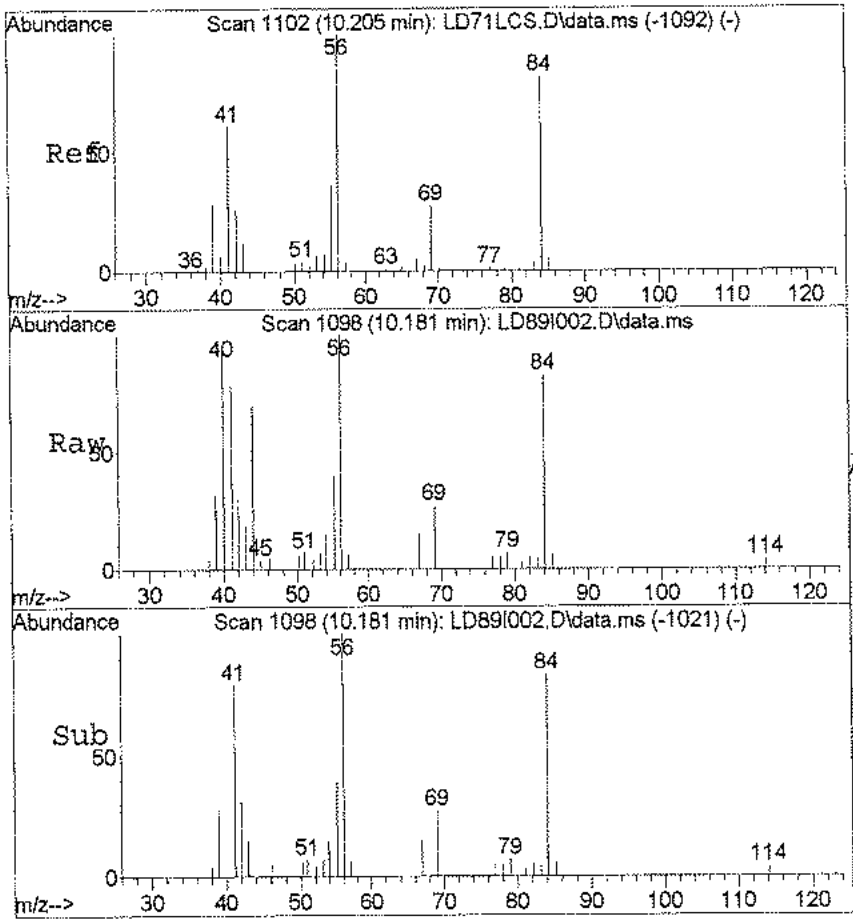


#32
Benzene
Concen: 0.48 ppb
RT: 9.93 min Scan# 1057
Delta R.T. -0.03 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:78.1 Resp: 52765

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.4
51	20.4	9.5	14.3#
0	0.0	0.0	0.0

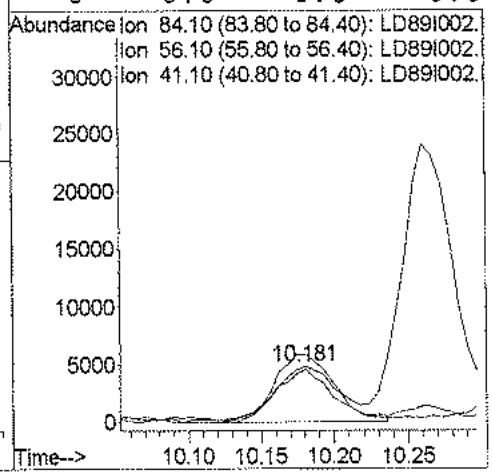


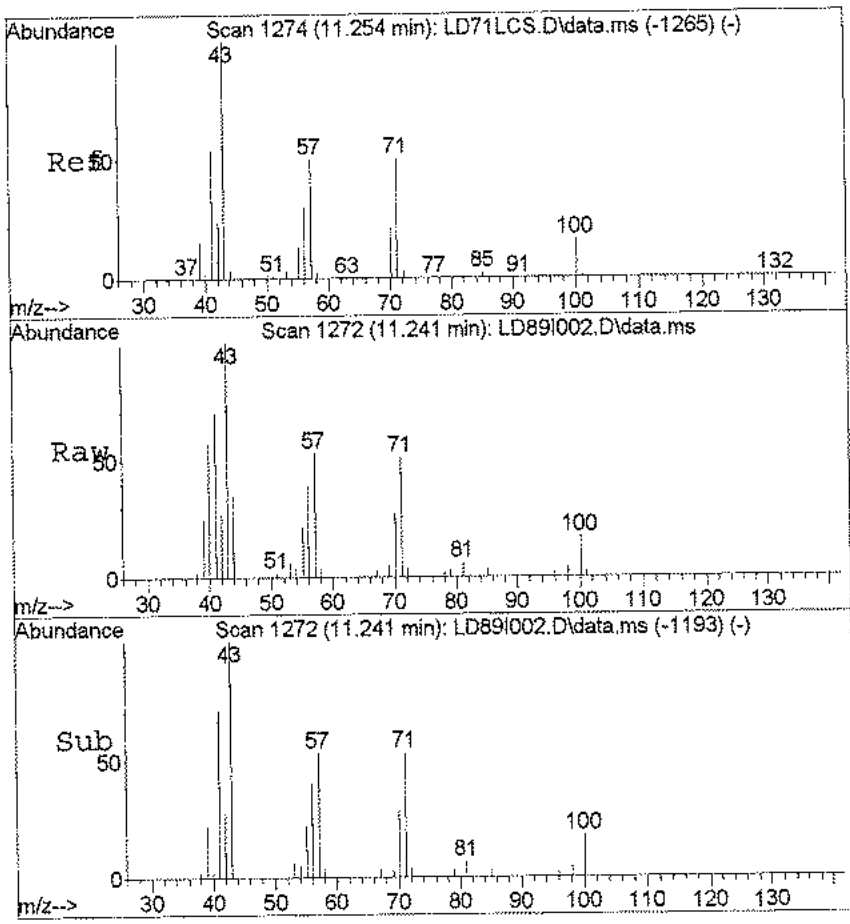


#34
Cyclohexane
Concen: 0.30 ppb
RT: 10.18 min Scan# 1098
Delta R.T. -0.03 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:84.1 Resp: 14382

Ion	Ratio	Lower	Upper
84	100		
56	110.8	67.3	100.9#
41	83.6	30.2	45.4#
0	0.0	0.0	0.0

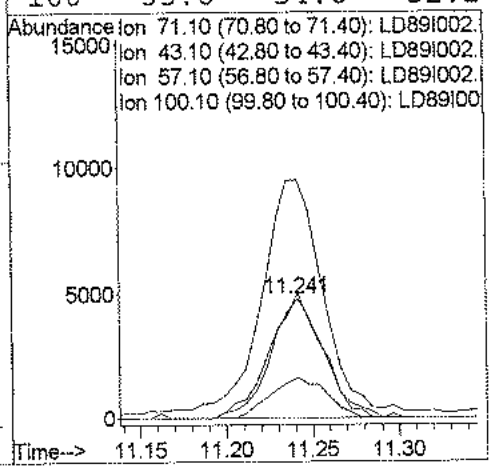


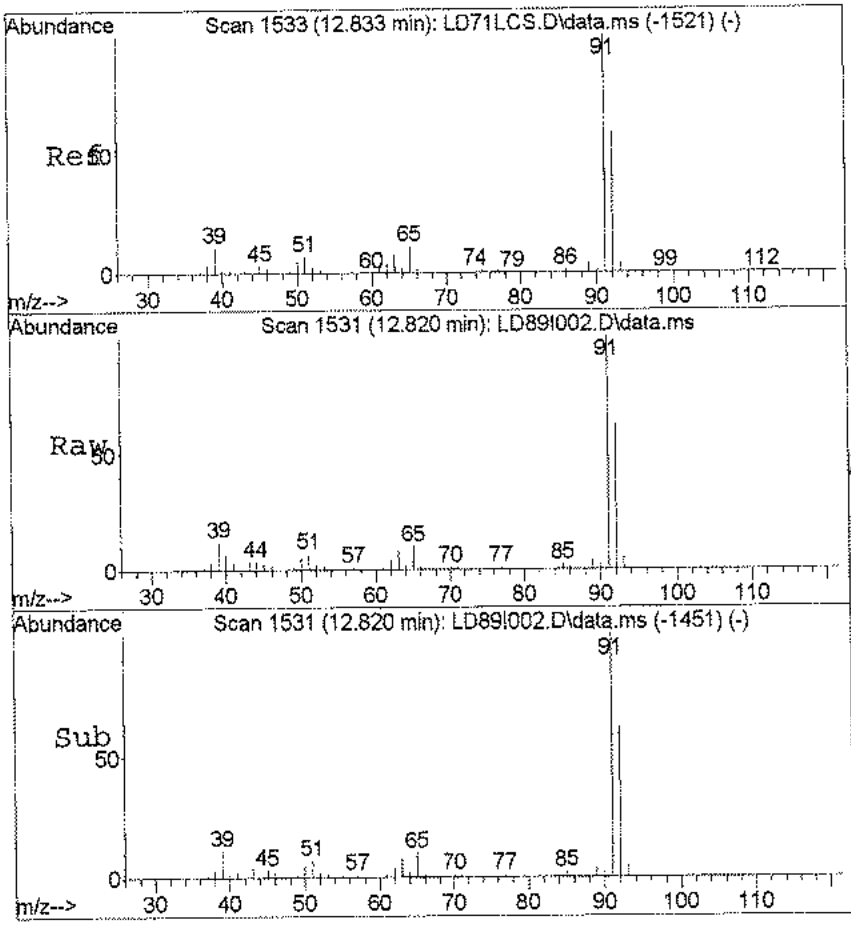


#40
Heptane
Concen: 0.27 ppb
RT: 11.24 min Scan# 1272
Delta R.T. -0.02 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:71.1 Resp: 10250

Ion	Ratio	Lower	Upper
71	100		
43	233.0	87.3	130.9#
57	107.0	57.8	86.6#
100	35.8	34.8	52.2

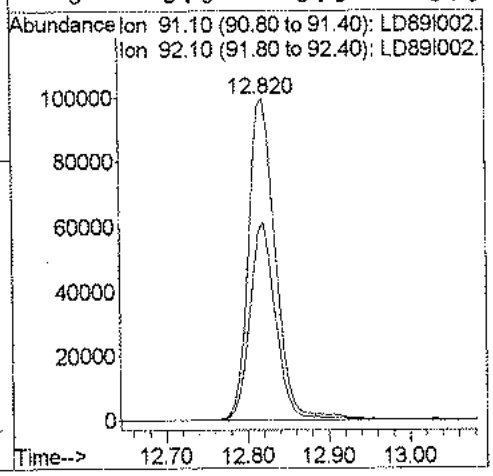


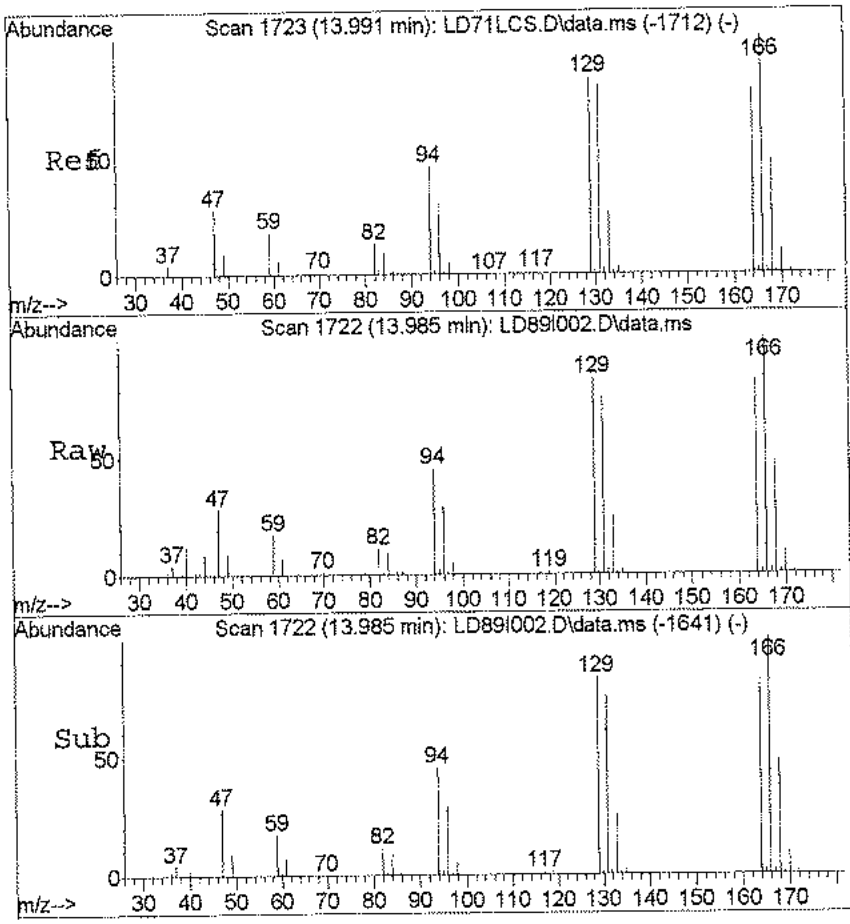


#45
Toluene
Concen: 1.70 ppb
RT: 12.82 min Scan# 1531
Delta R.T. -0.01 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:91.1 Resp: 231536

Ion	Ratio	Lower	Upper
91	100		
92	58.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

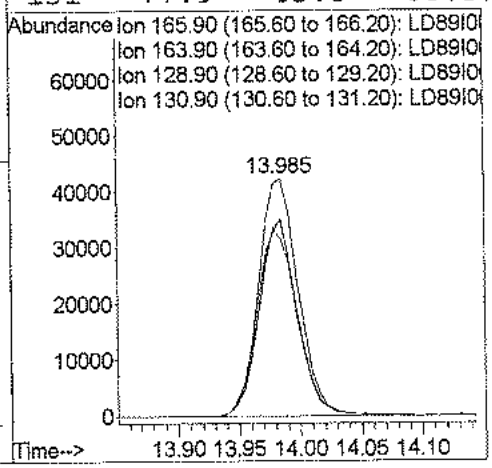


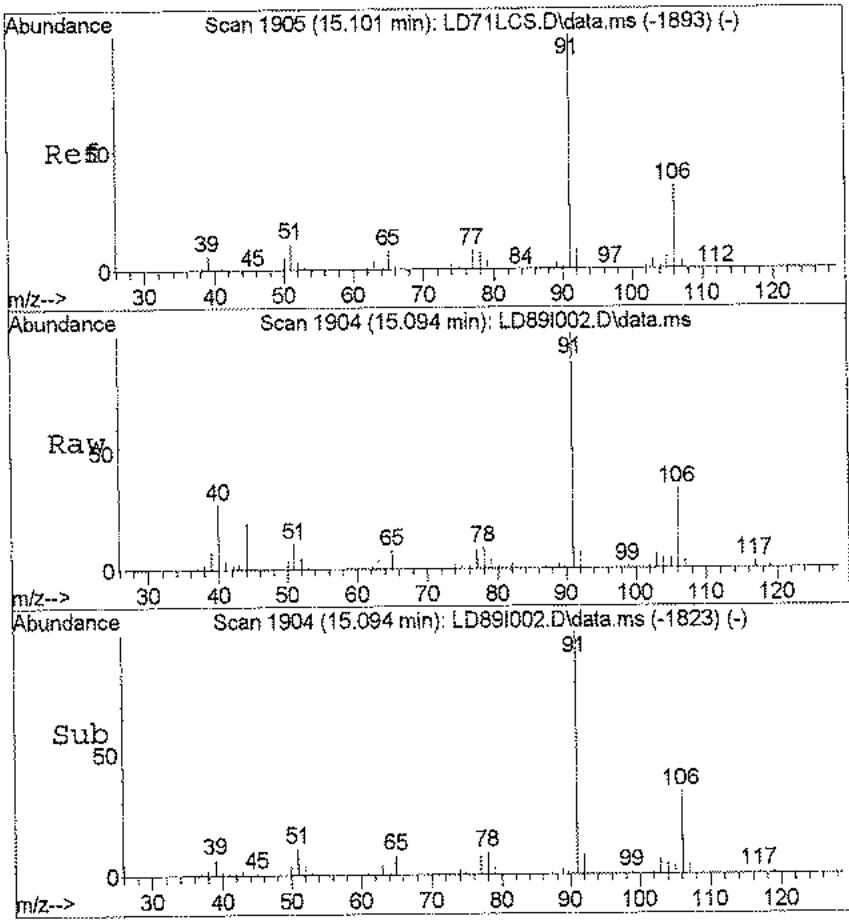


#49
Tetrachloroethene
Concen: 1.26 ppb
RT: 13.98 min Scan# 1722
Delta R.T. -0.01 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:165.9 Resp: 95163

Ion	Ratio	Lower	Upper
166	100		
164	79.2	61.0	91.4
129	81.6	45.9	68.9#
131	77.9	45.5	68.3#

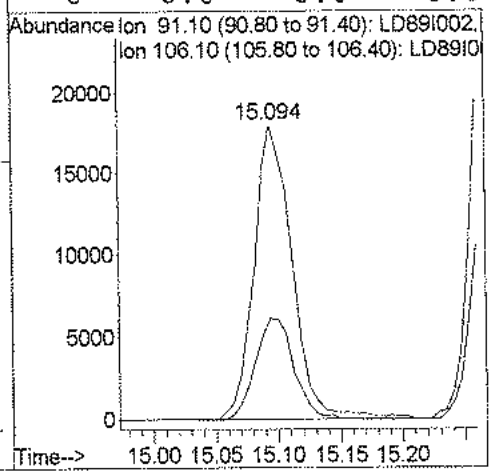


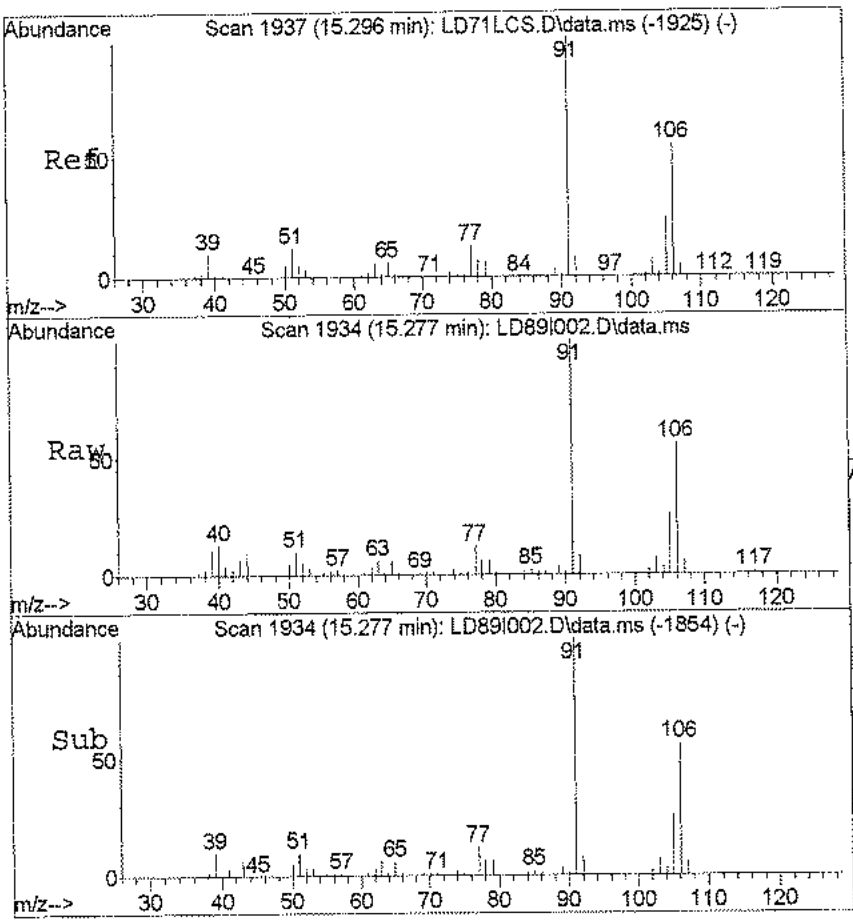


#52
Ethylbenzene
Concen: 0.21 ppb
RT: 15.09 min Scan# 1904
Delta R.T. -0.01 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:91.1 Resp: 37621

Ion	Ratio	Lower	Upper
91	100		
106	34.4	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

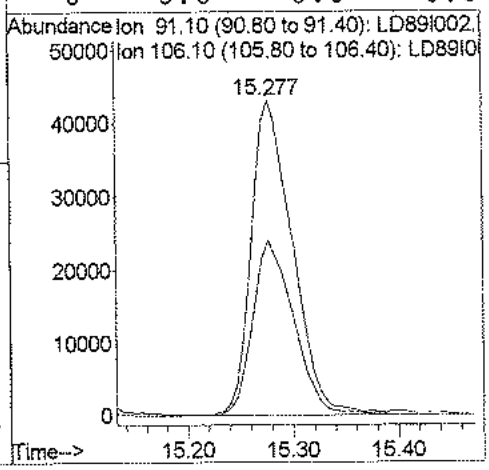


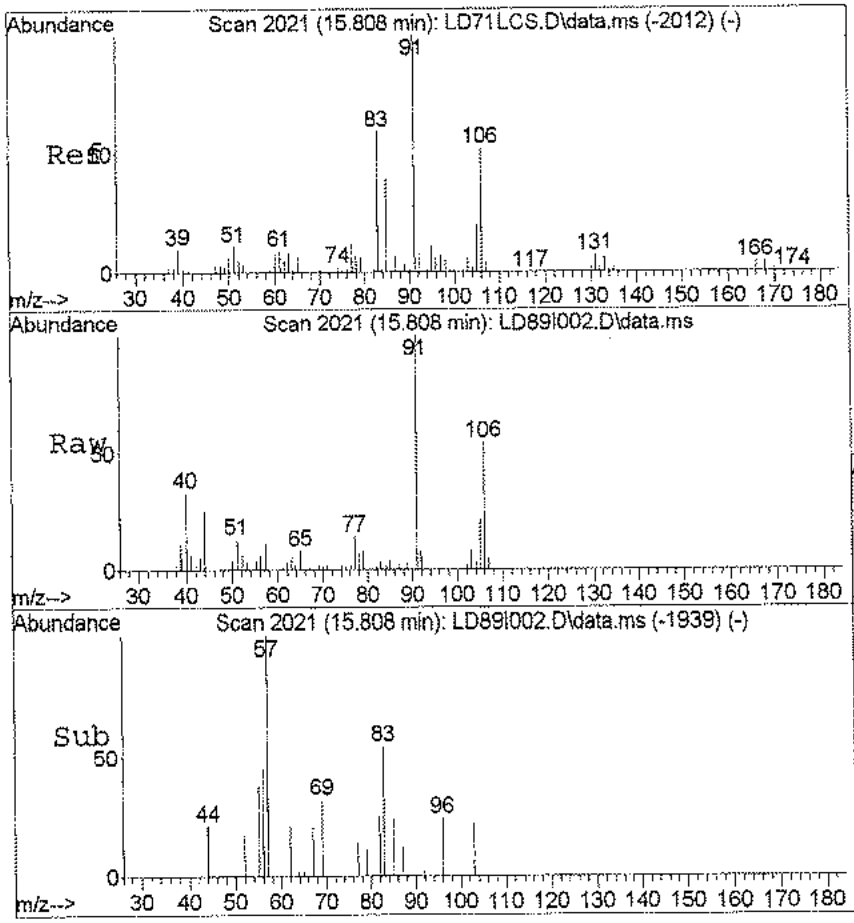


#53
m,p-Xylene
Concen: 0.82 ppb
RT: 15.28 min Scan# 1934
Delta R.T. -0.01 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:91.1 Resp: 117722

Ion	Ratio	Lower	Upper
91	100		
106	55.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

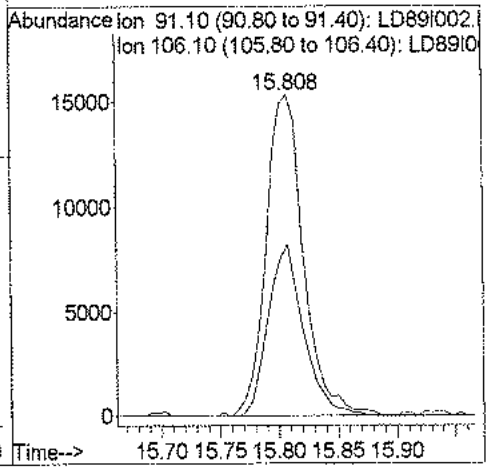


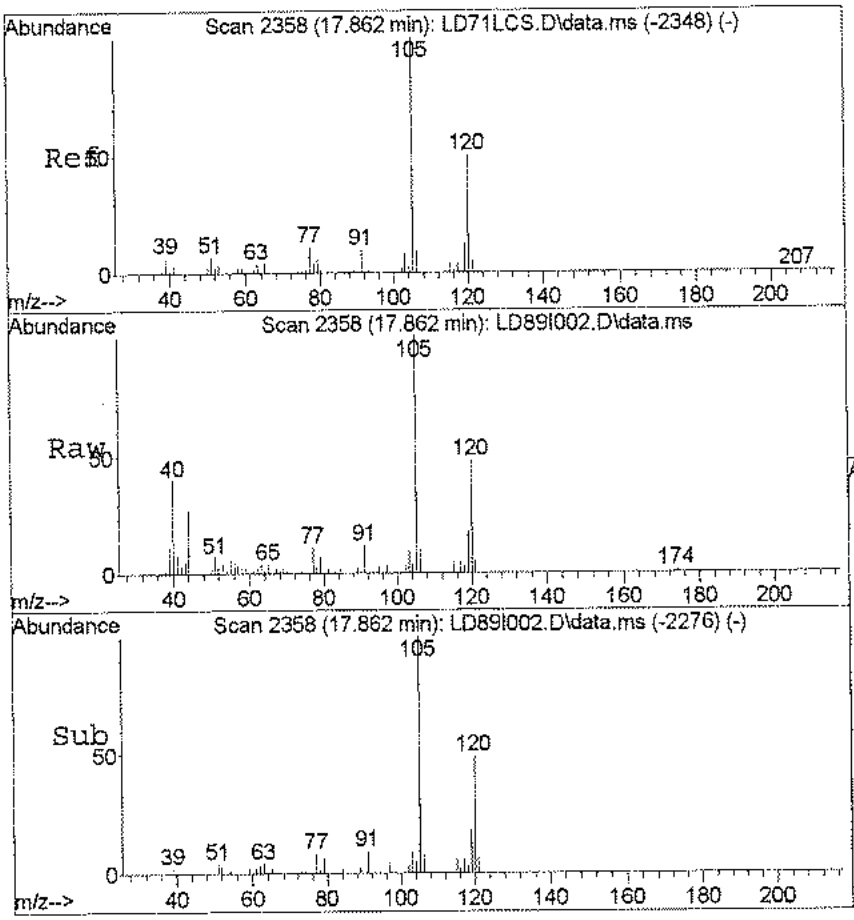


#57
o-Xylene
Concen: 0.23 ppb
RT: 15.81 min Scan# 2021
Delta R.T. -0.00 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:91.1 Resp: 34003

Ion	Ratio	Lower	Upper
91	100		
106	50.9	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

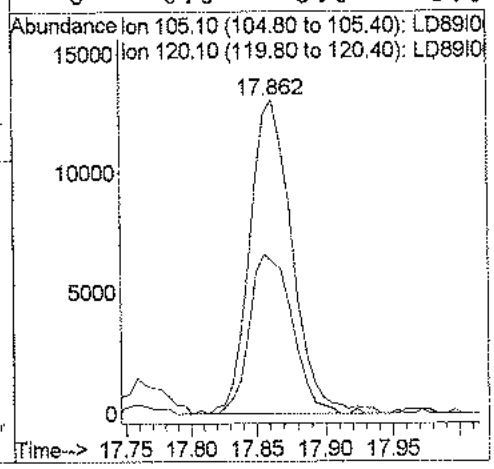




#61
1,2,4-Trimethylbenzene
Concen: 0.16 ppb
RT: 17.86 min Scan# 2358
Delta R.T. -0.00 min
Lab File: LD89I002.D
Acq: 04/02/2016 09:57

Tgt Ion:105.1 Resp: 28182

Ion	Ratio	Lower	Upper
105	100		
120	51.2	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

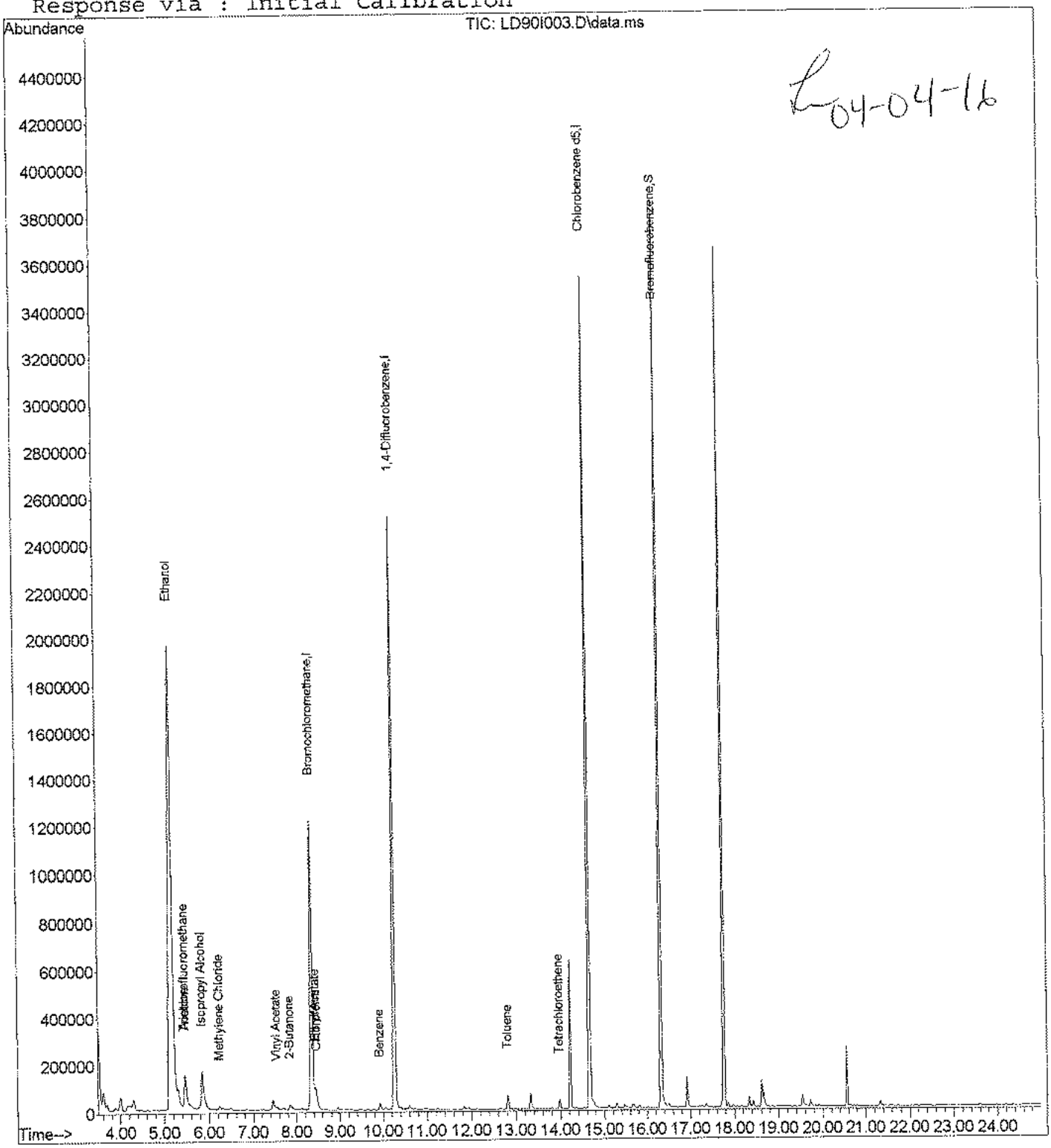


Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD90I003.D Vial: 7
Acq Time : 04/02/2016 10:48 Operator: TJM
Sample : 1608222003 Inst : 5975-L
Misc : 0304 A-0051-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:10:34 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD90I003.D Vial: 7
Acq Time : 04/02/2016 10:48 Operator: TJM
Sample : 1608222003 Inst : 5975-L
Misc : 0304 A-0051-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:10:34 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.35	130	235584	20.0000 ppb	73.22
25) 1,4-Difluorobenzene	10.26	114	3040751	20.0000 ppb	76.44
50) Chlorobenzene d5	14.66	117	2769830	20.0000 ppb	75.71
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	1593822	19.1585 ppb	95.79%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.46	43	295960	5.4837 ppb	91
12) Trichlorofluoromethane	5.44	101	24735	0.2362 ppb	93
13) Ethanol	5.16	45	5769637	407.0023 ppb #TIC	78
14) Isopropyl Alcohol	5.84	45	361570	6.0820 ppb #TIC	87
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.23	84	8907	0.2702 ppb #	61
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	7.55	86	4234	0.5193 ppb #	1
23) 2-Butanone	7.85	43	52461	0.7557 ppb #	67
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.44	61	15098	1.3934 ppb #	1
27) Hexane	0.00	57		Not Detected	
28) Chloroform	8.47	83	21146	0.2606 ppb	99
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.92	78	19565	0.1882 ppb #	90
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

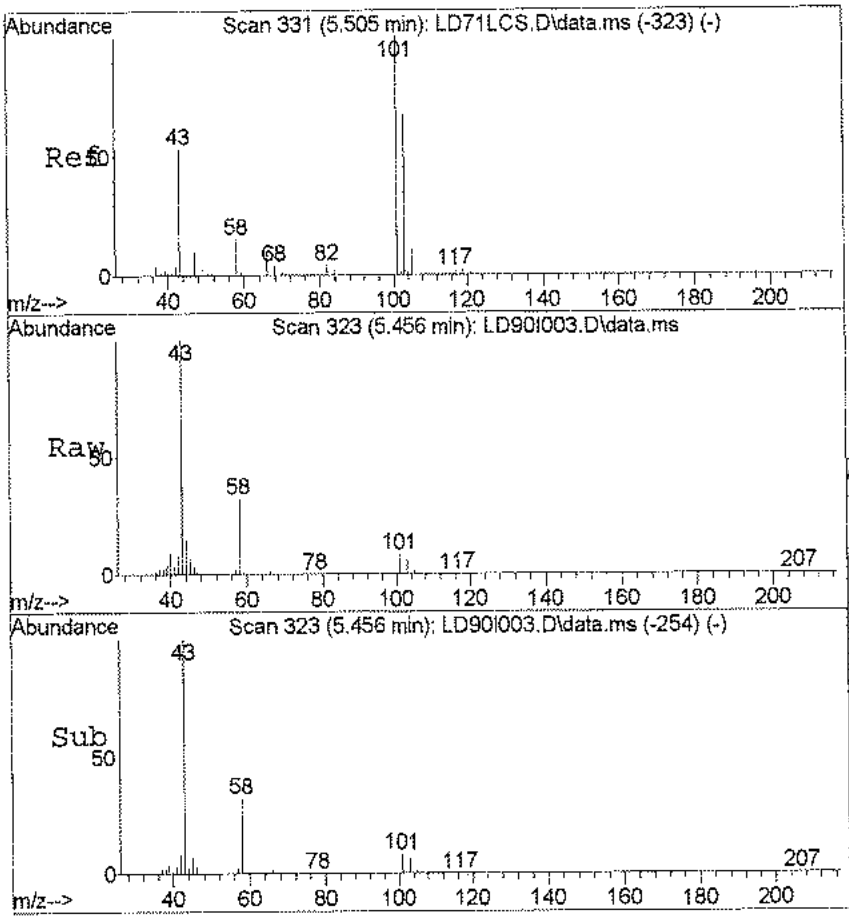
Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD90I003.D Vial: 7
Acq Time : 04/02/2016 10:48 Operator: TJM
Sample : 1608222003 Inst : 5975-L
Misc : 0304 A-0051-031616-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:10:34 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.81	91	54719	0.4223 ppb	99
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	13.98	166	13856	0.1925 ppb #	81
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	0.00	91		Not Detected	
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

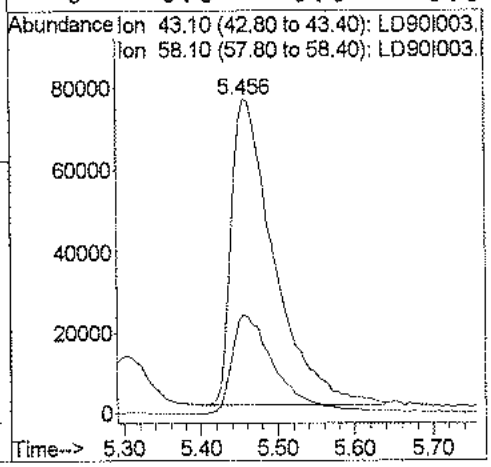
(#) = qualifier out of range (m) = manual integration

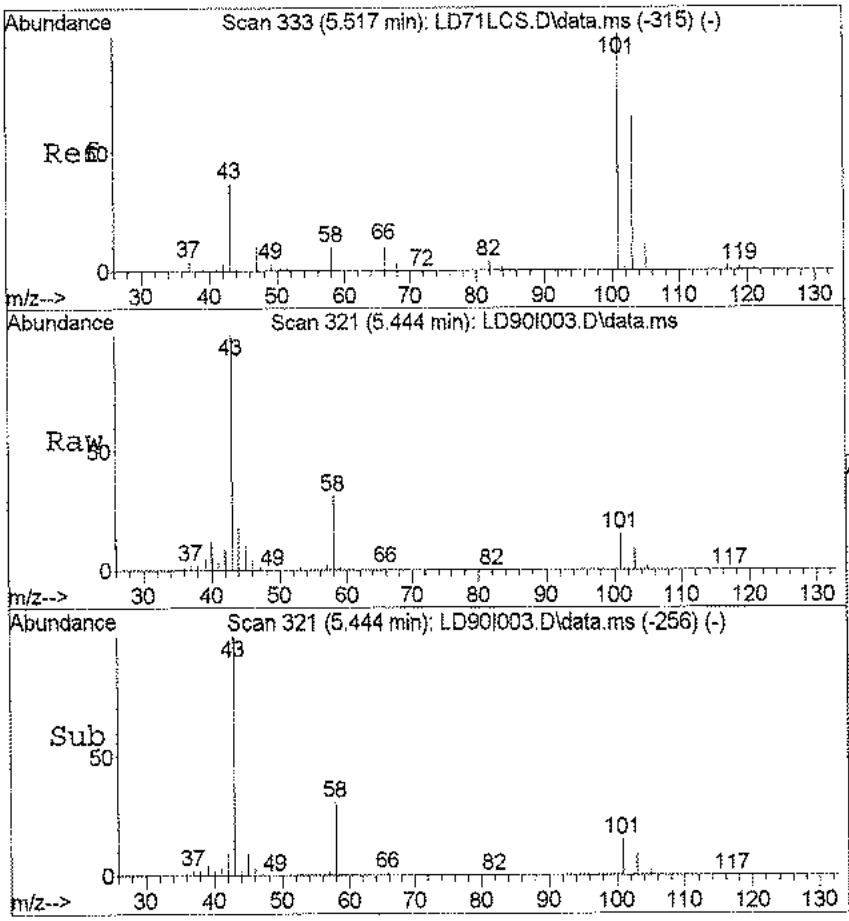


#11
Acetone
Concen: 5.48 ppb
RT: 5.46 min Scan# 323
Delta R.T. -0.08 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:43.1 Resp: 295960

Ion	Ratio	Lower	Upper
43	100		
58	32.9	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

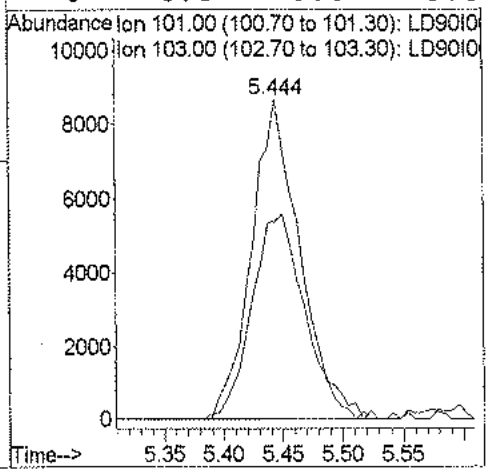


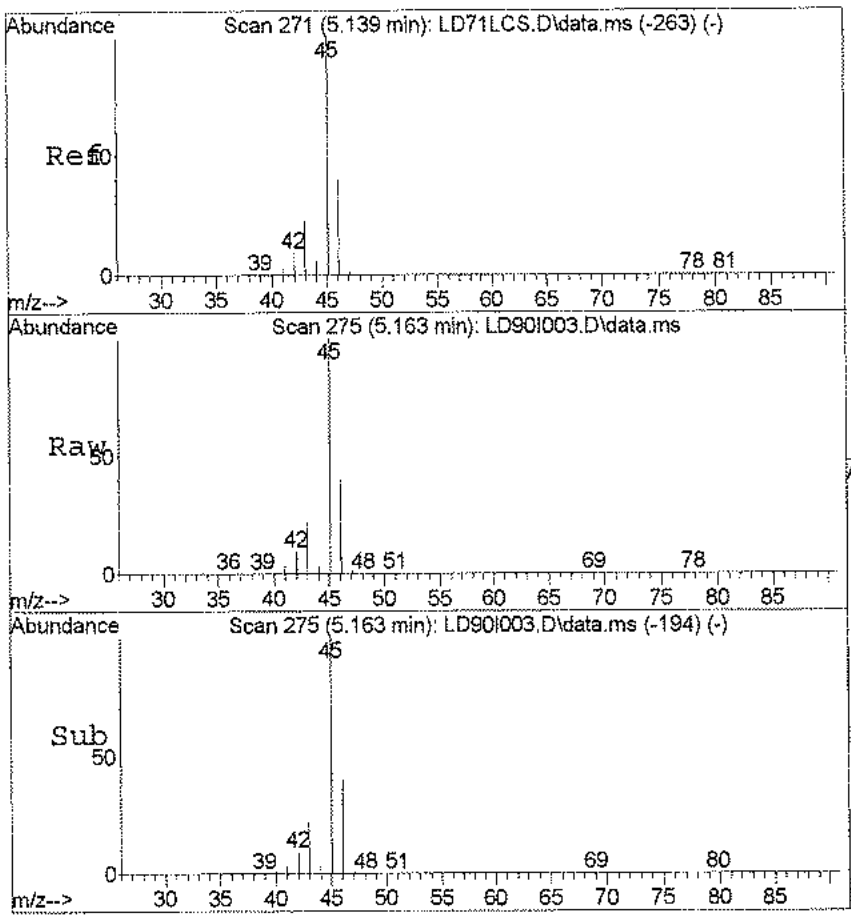


#12
Trichlorofluoromethane
Concen: 0.24 ppb
RT: 5.44 min Scan# 321
Delta R.T. -0.10 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:101 Resp: 24735

Ion	Ratio	Lower	Upper
101	100		
103	70.1	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

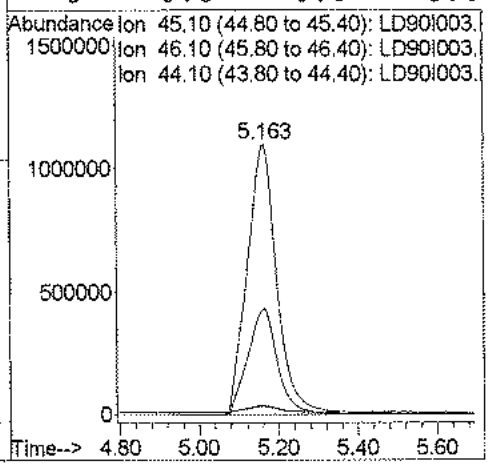


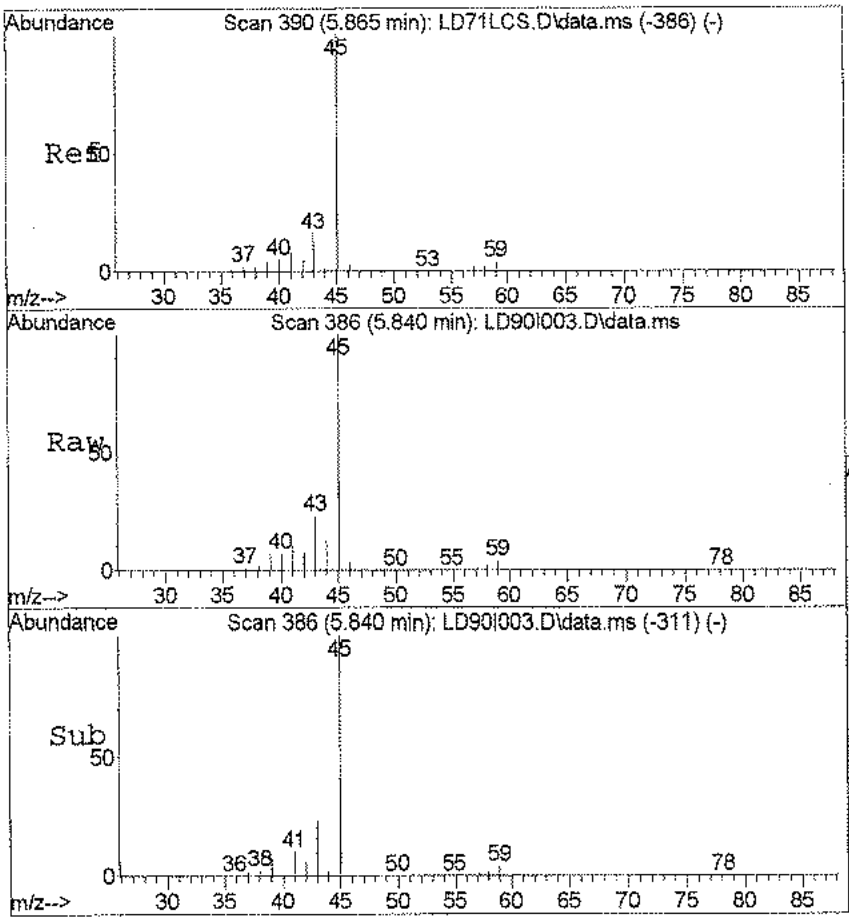


#13
Ethanol
Concen: 407.00 ppb
RT: 5.16 min Scan# 275
Delta R.T. -0.01 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:45.1 Resp: 5769637

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	2.8	23.4	35.2#
0	0.0	0.0	0.0

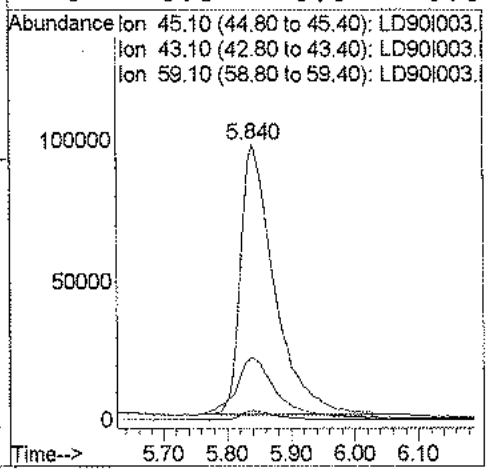


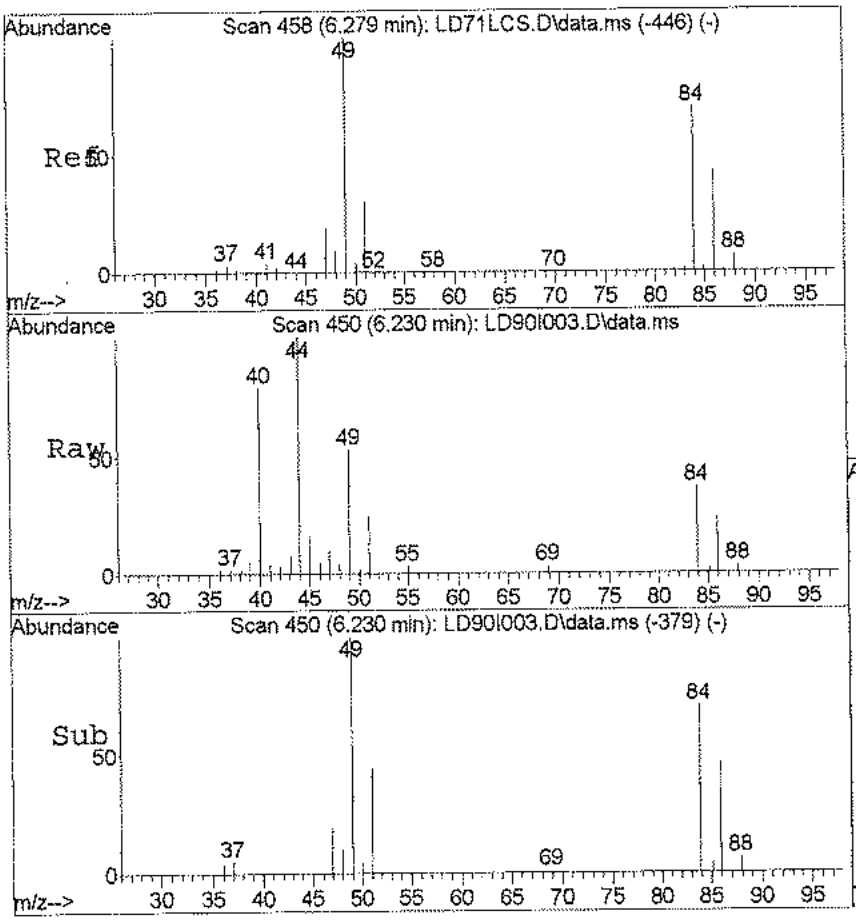


#14
Isopropyl Alcohol
Concen: 6.08 ppb
RT: 5.84 min Scan# 386
Delta R.T. -0.04 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:45.1 Resp: 361570

Ion	Ratio	Lower	Upper
45	100		
43	26.6	15.8	23.6#
59	3.5	3.2	4.8
0	0.0	0.0	0.0

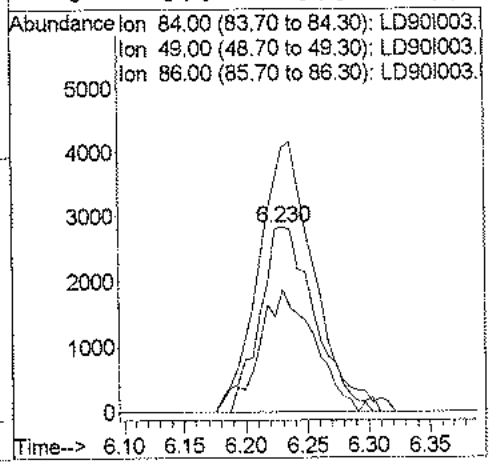


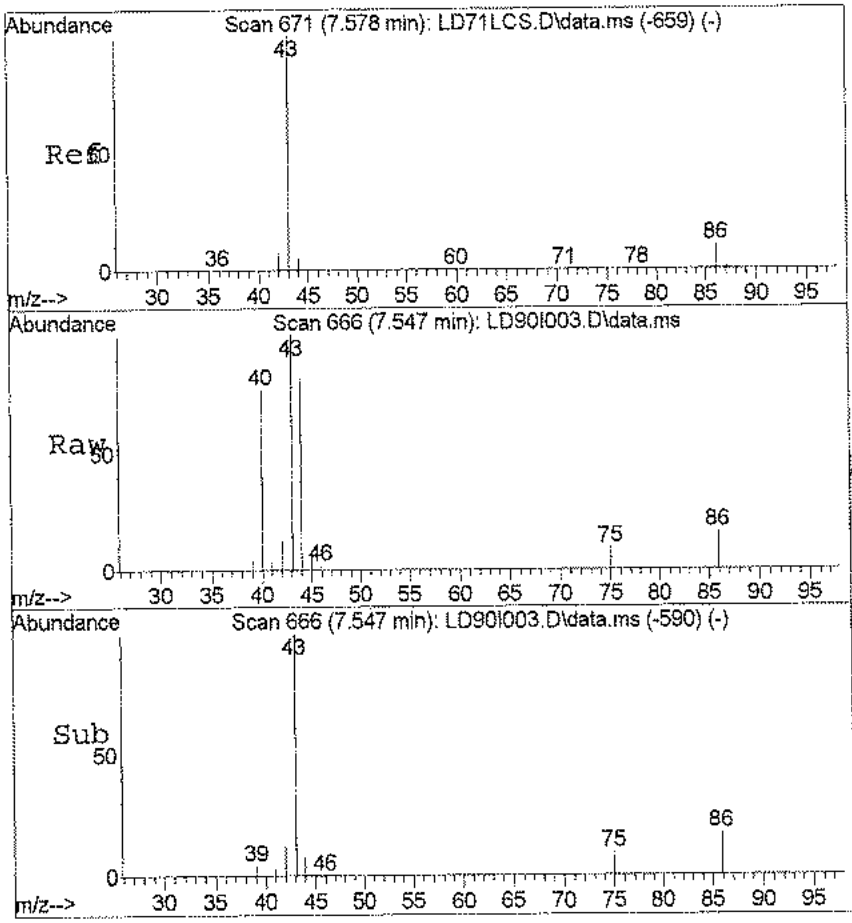


#16
Methylene Chloride
Concen: 0.27 ppb
RT: 6.23 min Scan# 450
Delta R.T. -0.07 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:84 Resp: 8907

Ion	Ratio	Lower	Upper
84	100		
49	145.1	66.6	100.0#
86	64.0	51.6	77.4
0	0.0	0.0	0.0

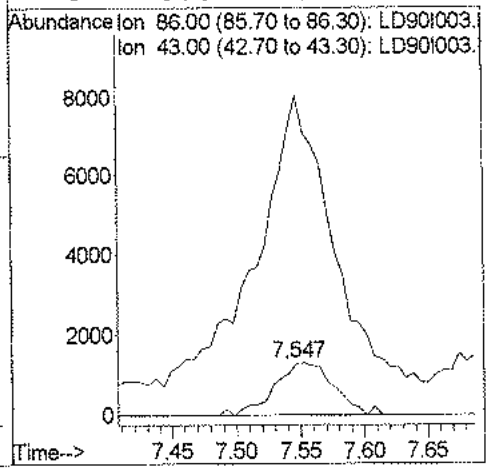


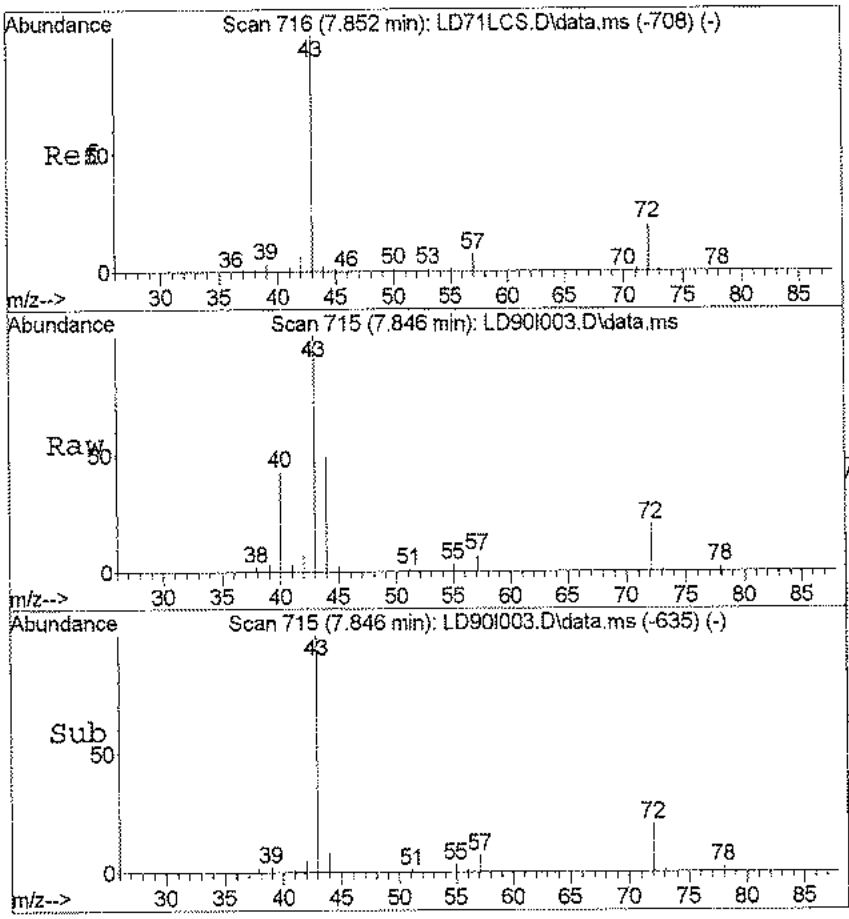


#22
Vinyl Acetate
Concen: 0.52 ppb
RT: 7.55 min Scan# 666
Delta R.T. -0.04 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:86 Resp: 4234

Ion	Ratio	Lower	Upper
86	100		
43	810.8	144.0	216.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

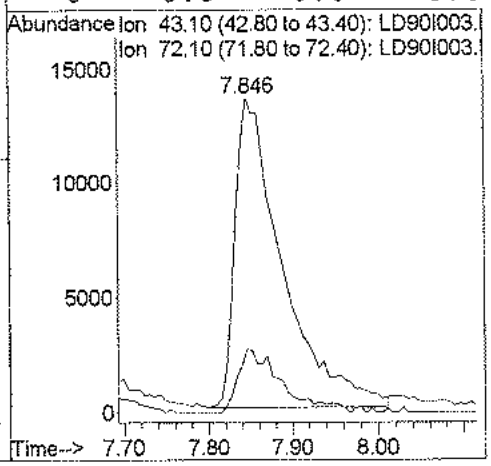


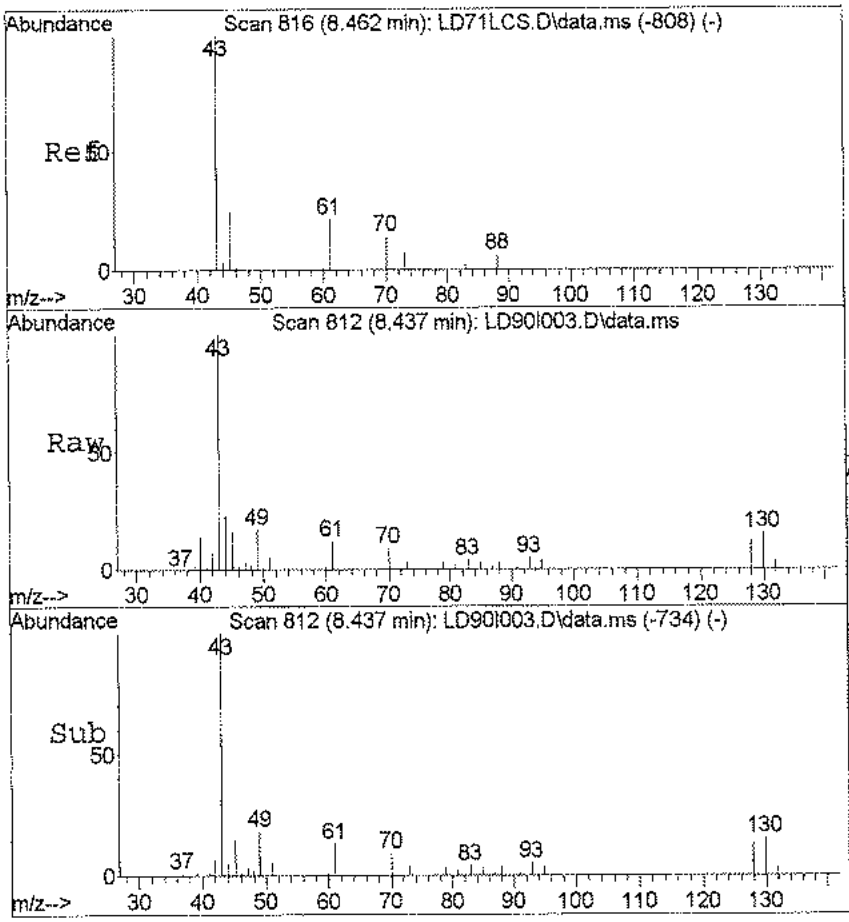


#23
2-Butanone
Concen: 0.76 ppb
RT: 7.85 min Scan# 715
Delta R.T. -0.01 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:43.1 Resp: 52461

Ion	Ratio	Lower	Upper
43	100		
72	19.0	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

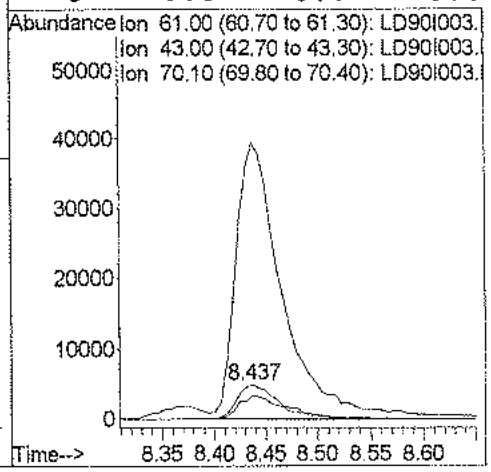


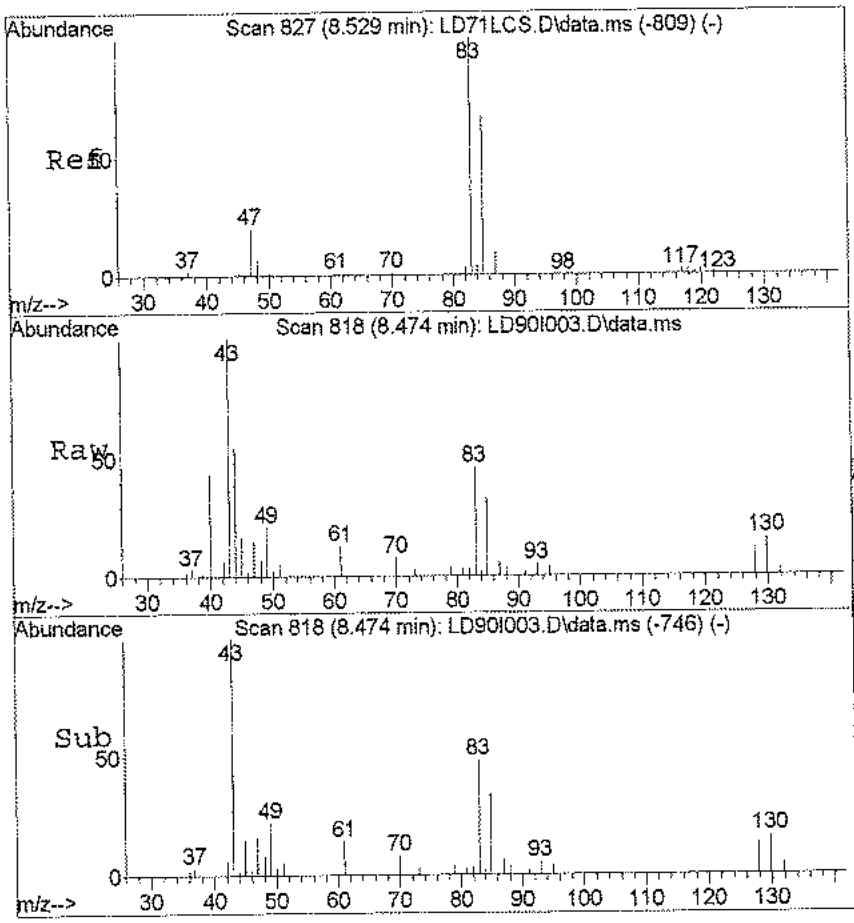


#26
Ethyl Acetate
Concen: 1.39 ppb
RT: 8.44 min Scan# 812
Delta R.T. -0.03 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:61 Resp: 15098

Ion	Ratio	Lower	Upper
61	100		
43	804.3	144.0	216.0#
70	66.3	13.6	20.4#
0	0.0	0.0	0.0

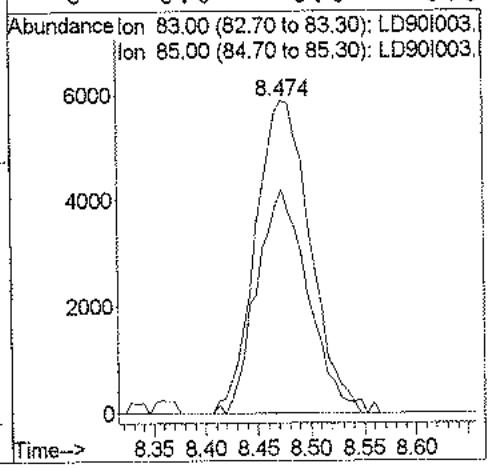


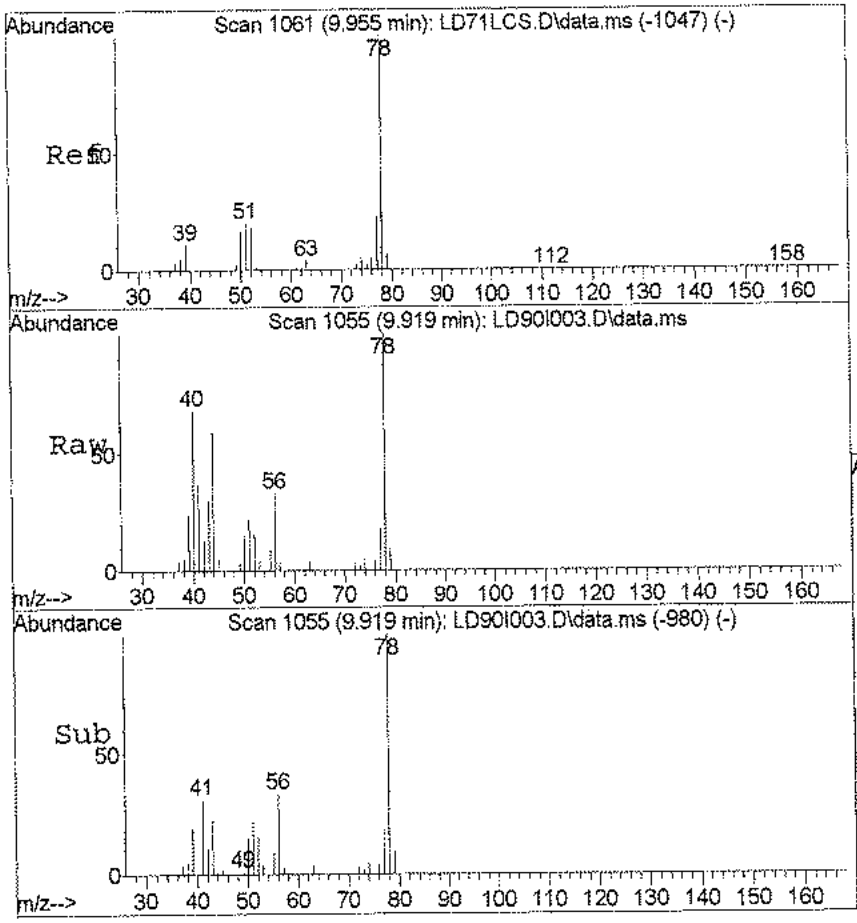


#28
Chloroform
Concen: 0.26 ppb
RT: 8.47 min Scan# 818
Delta R.T. -0.06 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:83 Resp: 21146

Ion	Ratio	Lower	Upper
83	100		
85	66.2	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

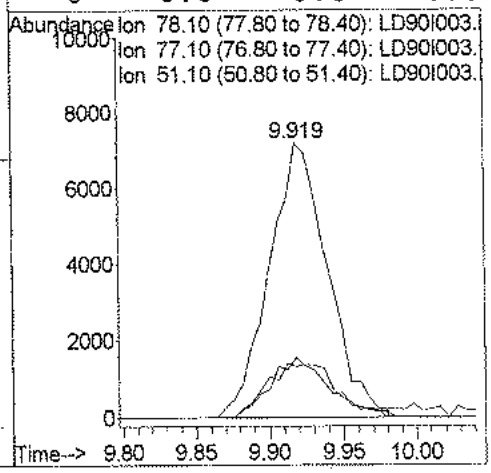


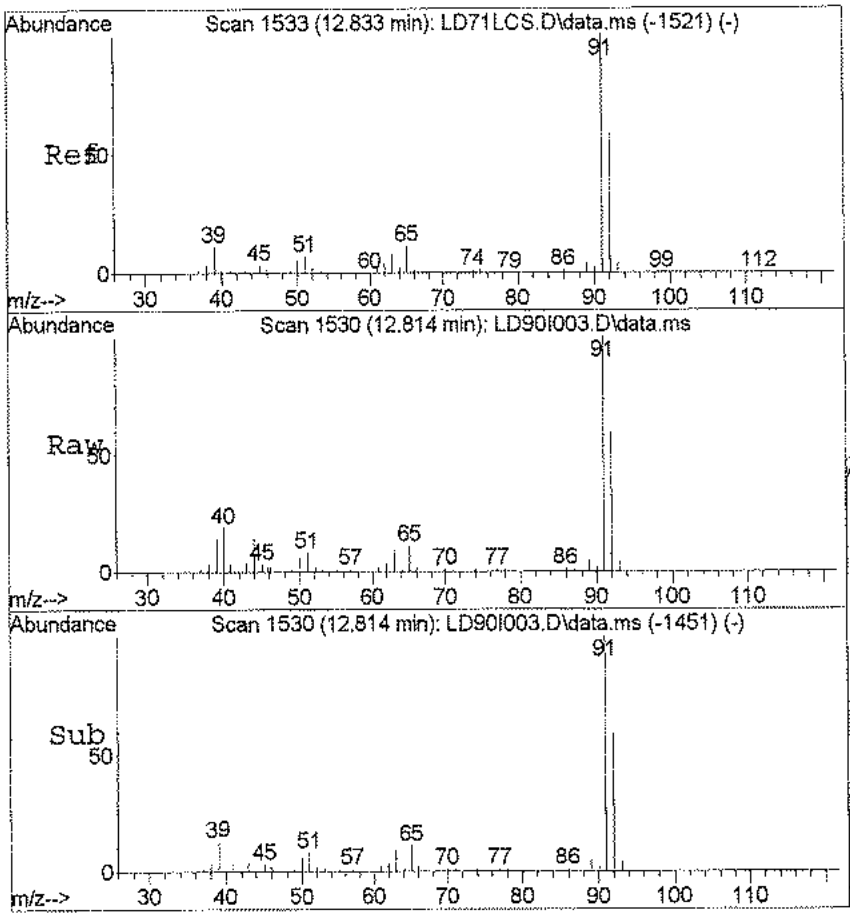


#32
Benzene
Concen: 0.19 ppb
RT: 9.92 min Scan# 1055
Delta R.T. -0.04 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:78.1 Resp: 19565

Ion	Ratio	Lower	Upper
78	100		
77	23.1	18.2	27.4
51	22.1	9.5	14.3#
0	0.0	0.0	0.0

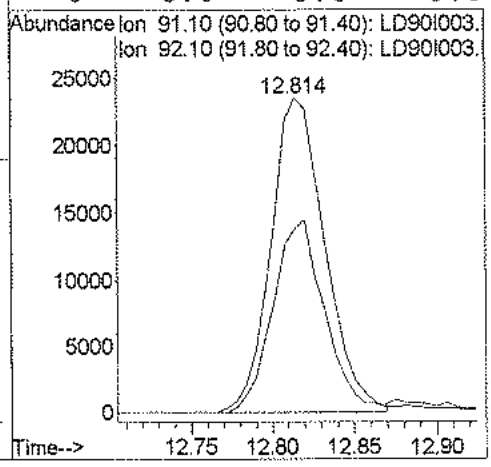


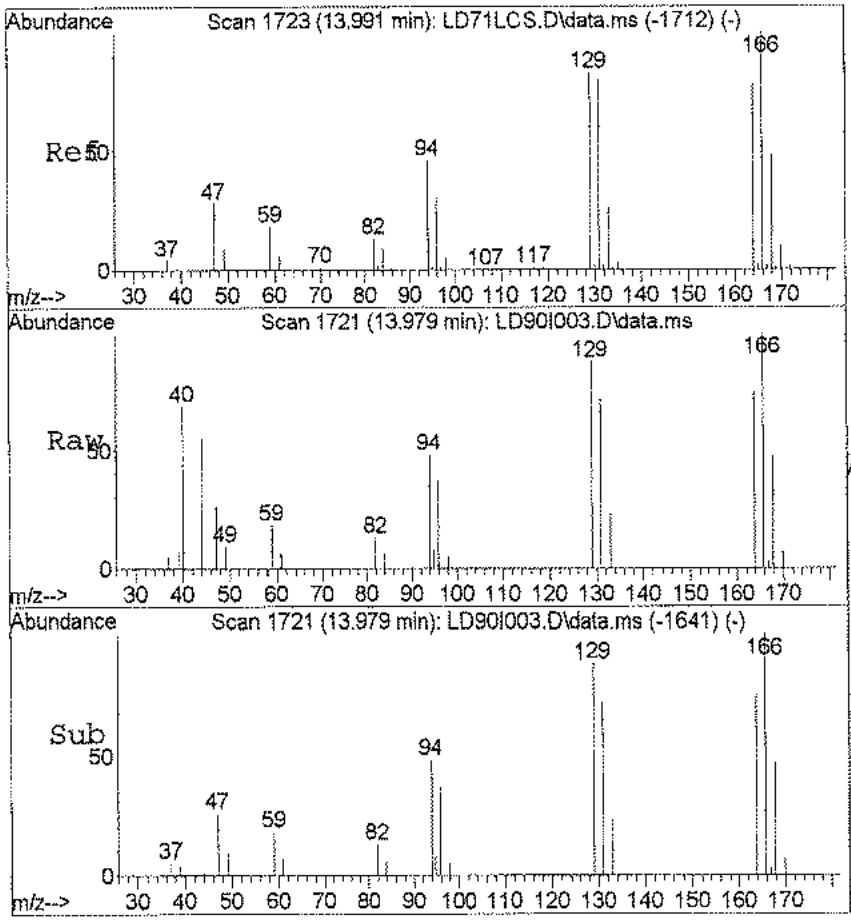


#45
Toluene
Concen: 0.42 ppb
RT: 12.81 min Scan# 1530
Delta R.T. -0.02 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:91.1 Resp: 54719

Ion	Ratio	Lower	Upper
91	100		
92	59.3	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

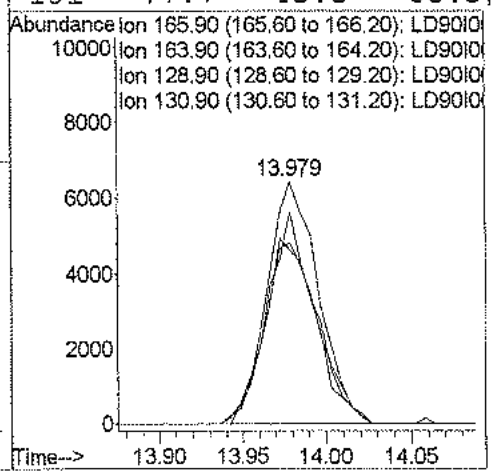




#49
Tetrachloroethene
Concen: 0.19 ppb
RT: 13.98 min Scan# 1721
Delta R.T. -0.01 min
Lab File: LD90I003.D
Acq: 04/02/2016 10:48

Tgt Ion:165.9 Resp: 13856

Ion	Ratio	Lower	Upper
166	100		
164	78.7	61.0	91.4
129	81.3	45.9	68.9#
131	77.7	45.5	68.3#

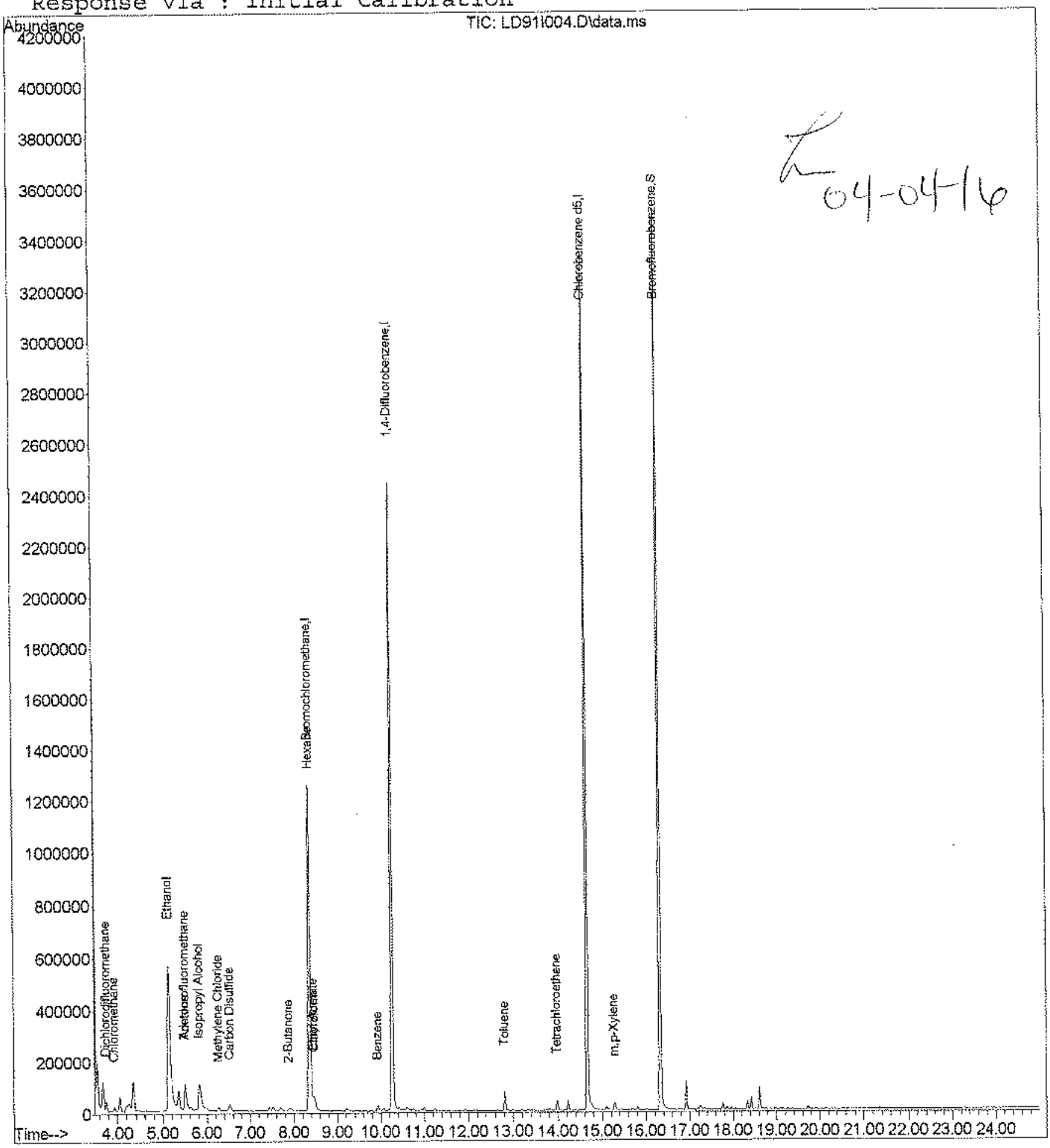


Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD91I004.D Vial: 8
Acq Time : 04/02/2016 11:42 Operator: TJM
Sample : 1608222004 Inst : 5975-L
Misc : 0163 A-0051-031616-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:11:27 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD91I004.D Vial: 8
Acq Time : 04/02/2016 11:42 Operator: TJM
Sample : 1608222004 Inst : 5975-L
Misc : 0163 A-0051-031616-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:11:27 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.37	130	240768	20.0000 ppb	74.84
25) 1,4-Difluorobenzene	10.27	114	2921799	20.0000 ppb	73.45
50) Chlorobenzene d5	14.66	117	2593572	20.0000 ppb	70.89
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	1495702	19.2009 ppb	96.00%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.76	85	48546	0.5187 ppb	99
4) Chloromethane	3.94	50	27336	0.8366 ppb	99
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.49	43	181443	3.2895 ppb	93
12) Trichlorofluoromethane	5.49	101	25358	0.2370 ppb	96
13) Ethanol	5.13	45	1448375	99.9715 ppb #	79
14) Isopropyl Alcohol	5.81	45	248655	4.0926 ppb #	63
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.27	84	6864	0.2037 ppb #	60
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	6.54	76	53778	0.5479 ppb #	63
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.88	43	19987	0.2817 ppb #	46
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.46	61	7513	0.7216 ppb #	1
27) Hexane	8.38	57	9745	0.1773 ppb #	77
28) Chloroform	8.49	83	29223	0.3748 ppb	97
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.93	78	21585	0.2161 ppb #	90
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

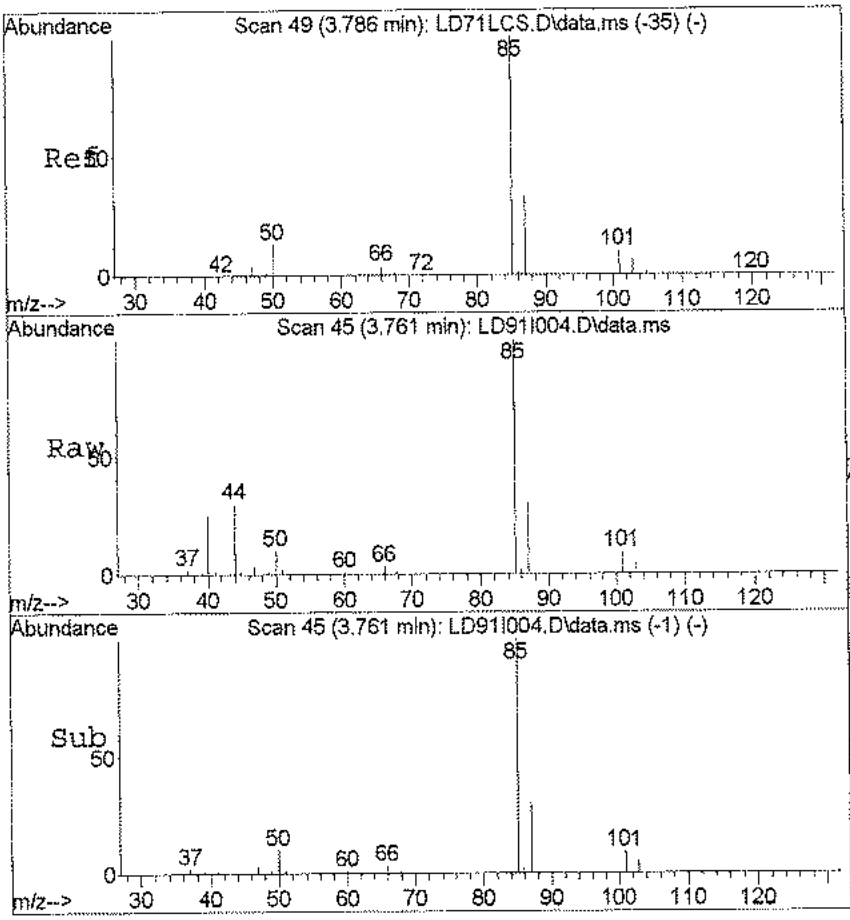
Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD91I004.D Vial: 8
Acq Time : 04/02/2016 11:42 Operator: TJM
Sample : 1608222004 Inst : 5975-L
Misc : 0163 A-0051-031616-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:11:27 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.82	91	65693	0.5276 ppb	98
46) 2-Hexanone	0.00	43		Not Detected	
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	13.98	166	14447	0.2089 ppb #	81
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	0.00	91		Not Detected	
53) m,p-Xylene	15.28	91	26188	0.2035 ppb	96
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	0.00	91		Not Detected	
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

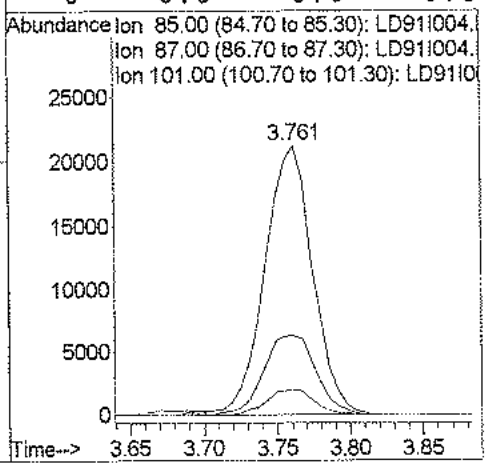
(#) = qualifier out of range (m) = manual integration

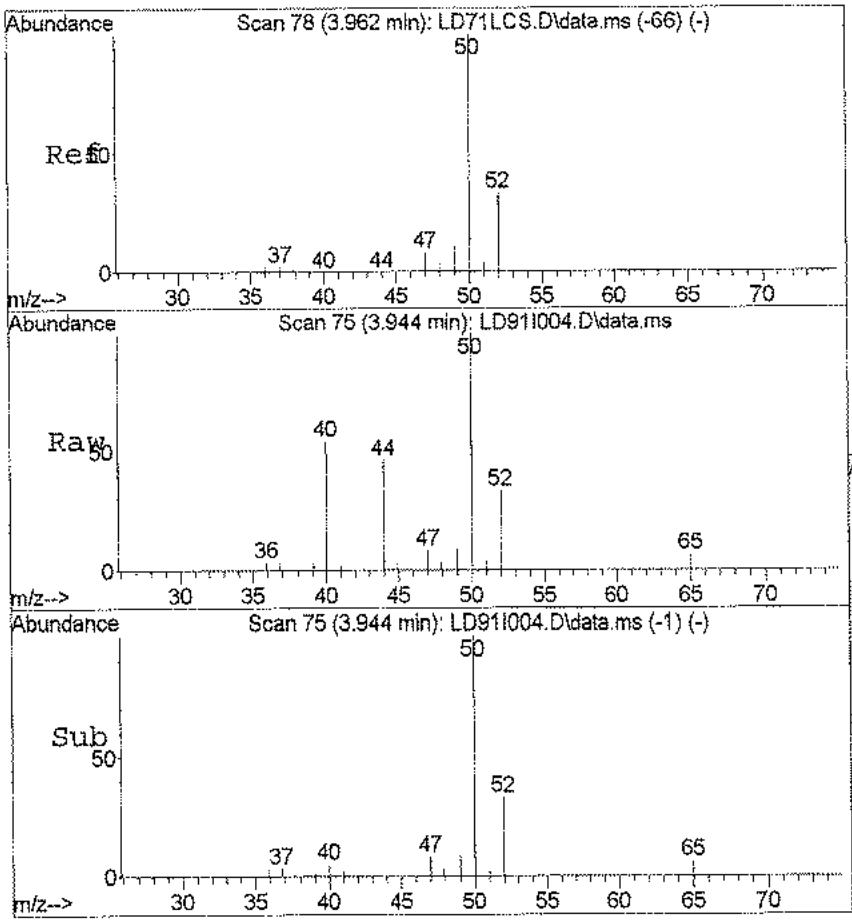


#3
Dichlorodifluoromethane
Concen: 0.52 ppb
RT: 3.76 min Scan# 45
Delta R.T. -0.06 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:85 Resp: 48546

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.1	39.1
101	9.4	8.0	12.0
0	0.0	0.0	0.0

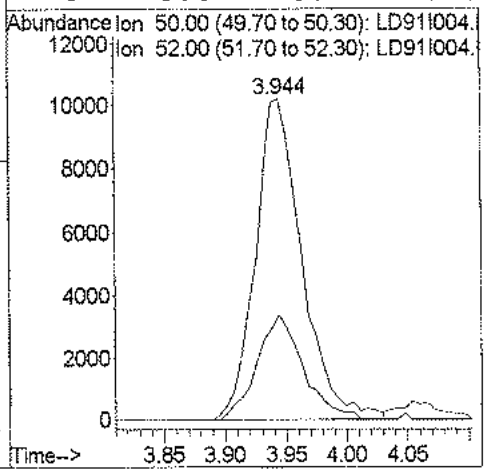


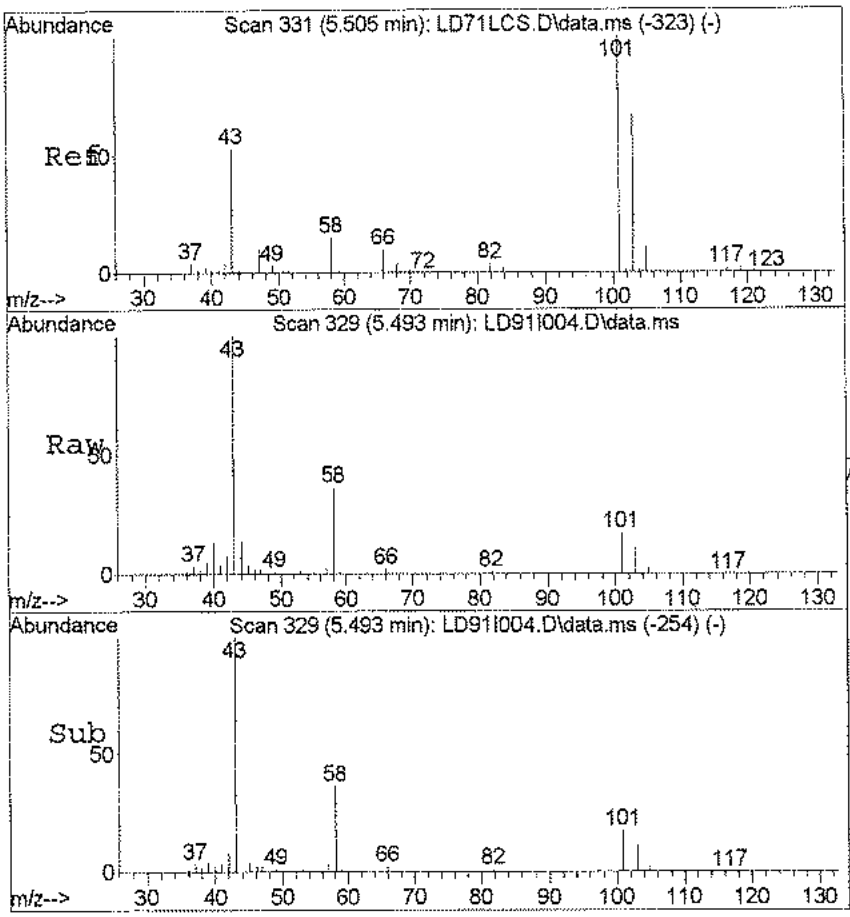


#4
Chloromethane
Concen: 0.84 ppb
RT: 3.94 min Scan# 75
Delta R.T. -0.05 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:50 Resp: 27336

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

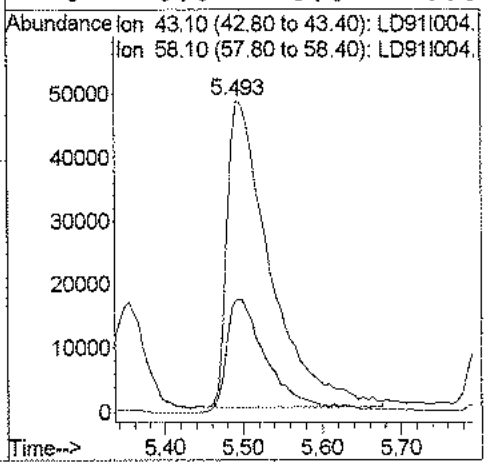


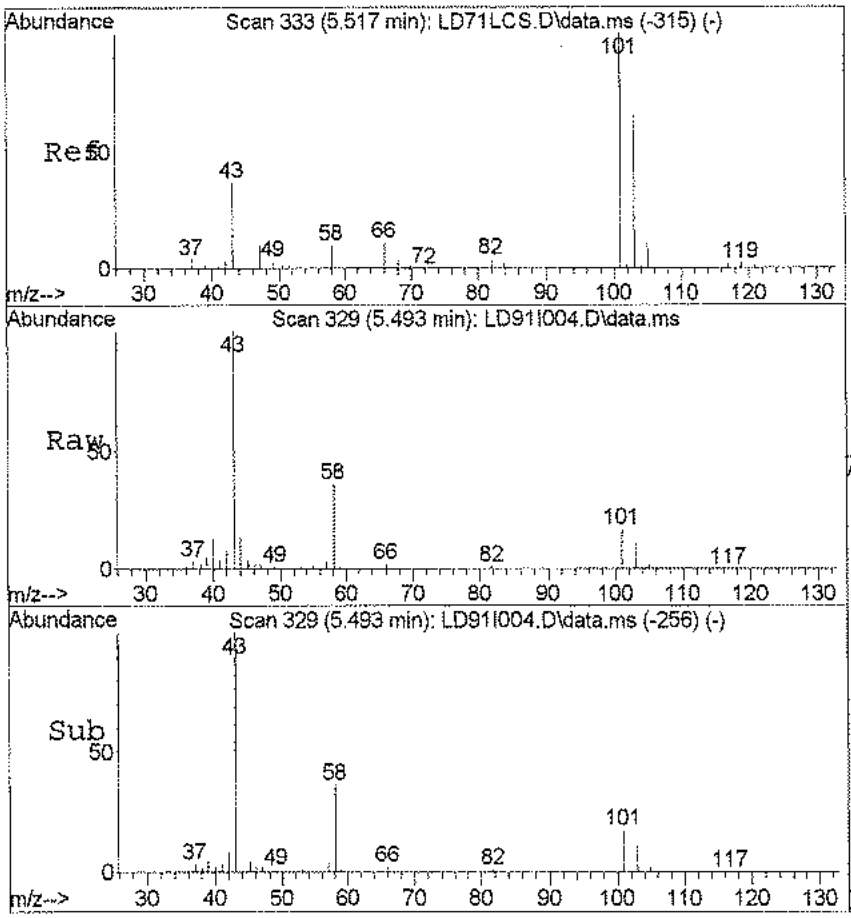


#11
Acetone
Concen: 3.29 ppb
RT: 5.49 min Scan# 329
Delta R.T. -0.04 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:43.1 Resp: 181443

Ion	Ratio	Lower	Upper
43	100		
58	34.3	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

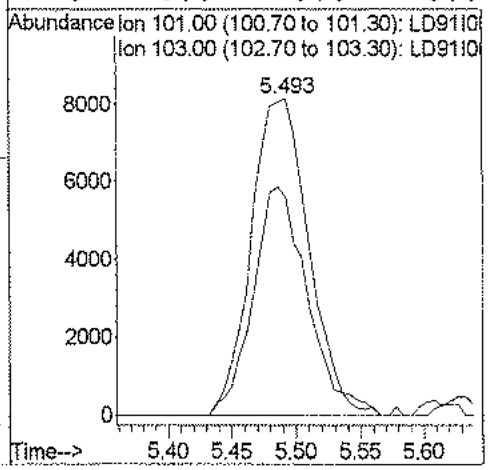


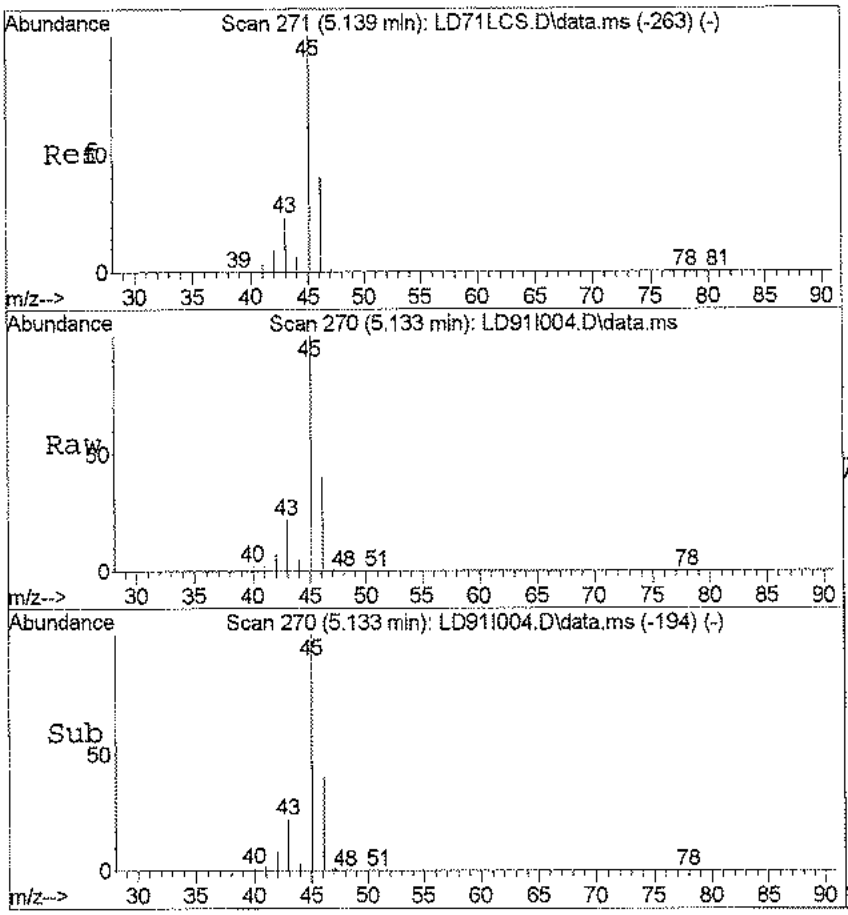


#12
Trichlorofluoromethane
Concen: 0.24 ppb
RT: 5.49 min Scan# 329
Delta R.T. -0.06 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:101 Resp: 25358

Ion	Ratio	Lower	Upper
101	100		
103	67.2	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

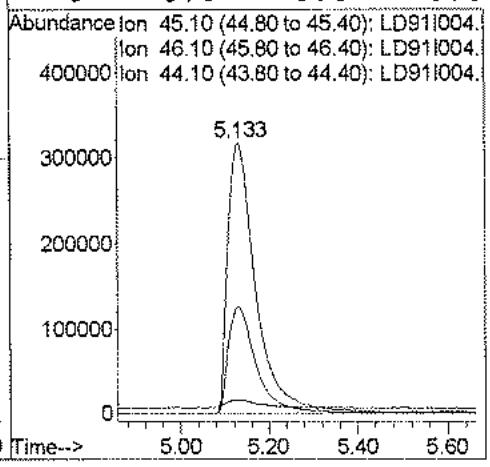


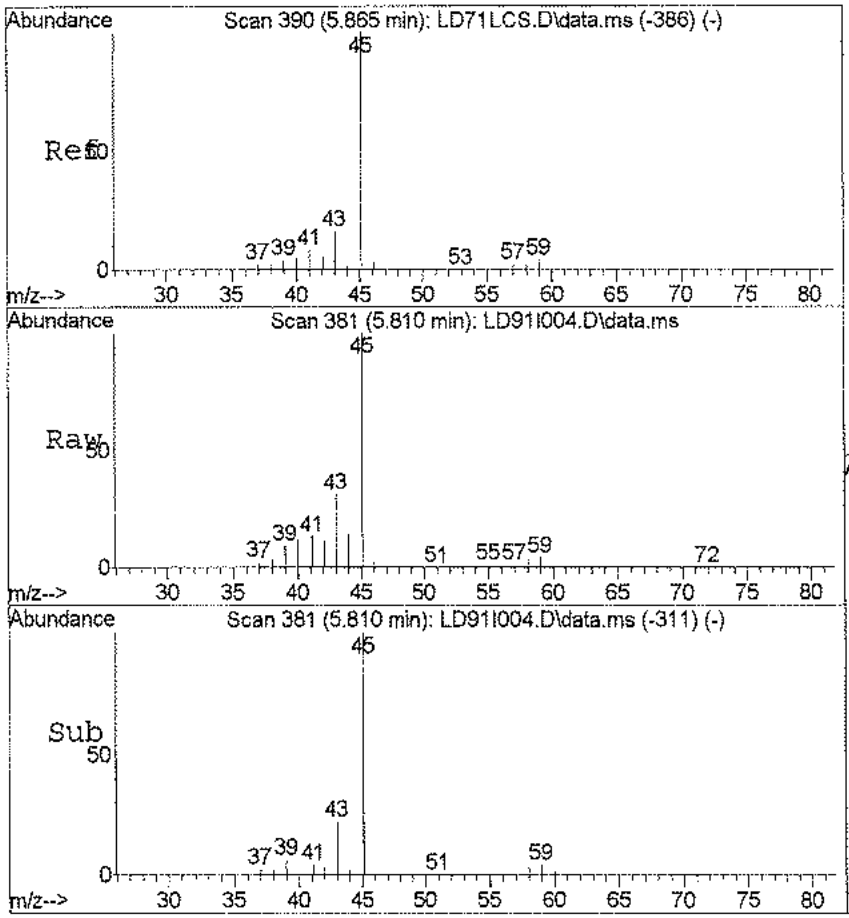


#13
Ethanol
Concen: 99.97 ppb
RT: 5.13 min Scan# 270
Delta R.T. -0.04 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:45.1 Resp: 1448375

Ion	Ratio	Lower	Upper
45	100		
46	39.4	32.4	48.6
44	3.4	23.4	35.2#
0	0.0	0.0	0.0

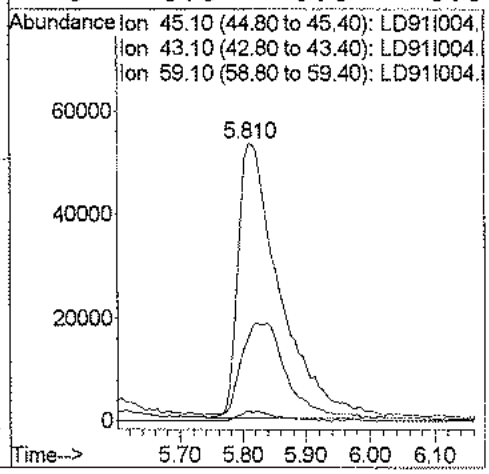


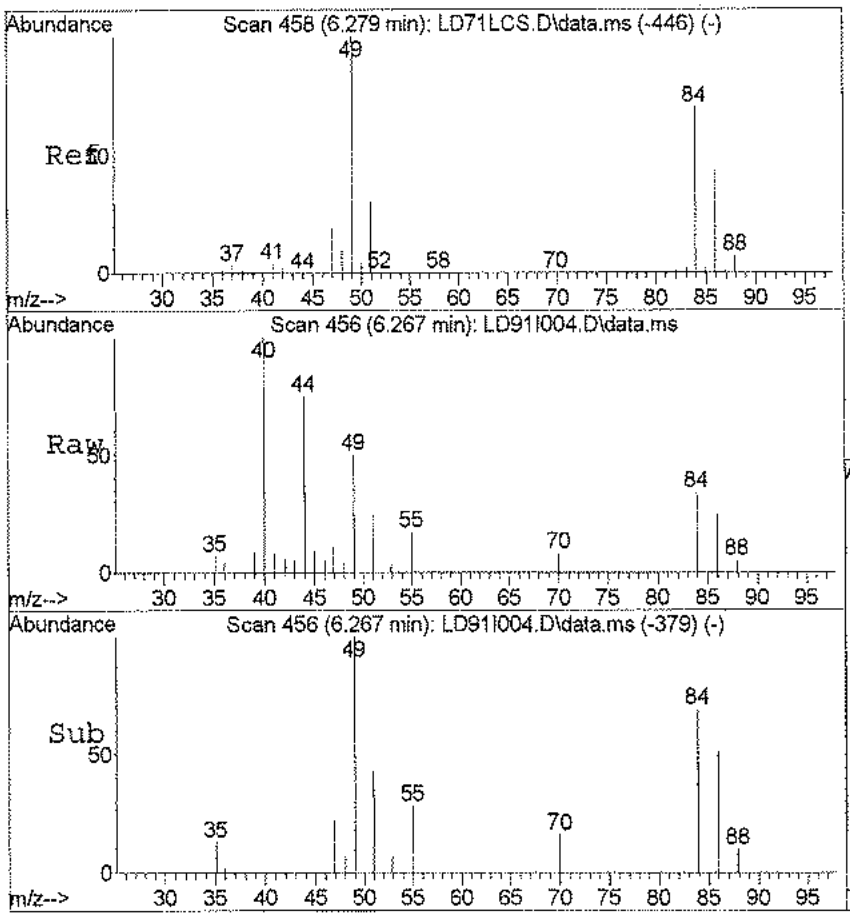


#14
Isopropyl Alcohol
Concen: 4.09 ppb
RT: 5.81 min Scan# 381
Delta R.T. -0.07 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:45.1 Resp: 248655

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	1.3	3.2	4.8#
0	0.0	0.0	0.0

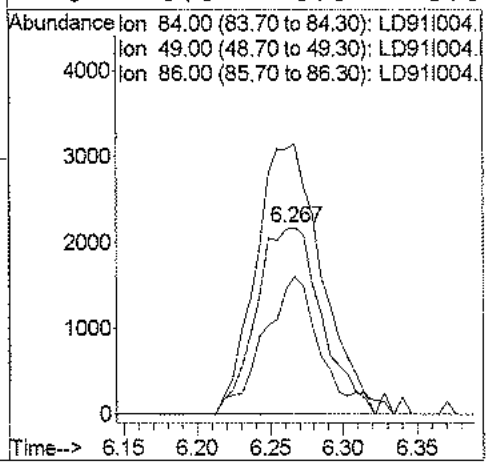


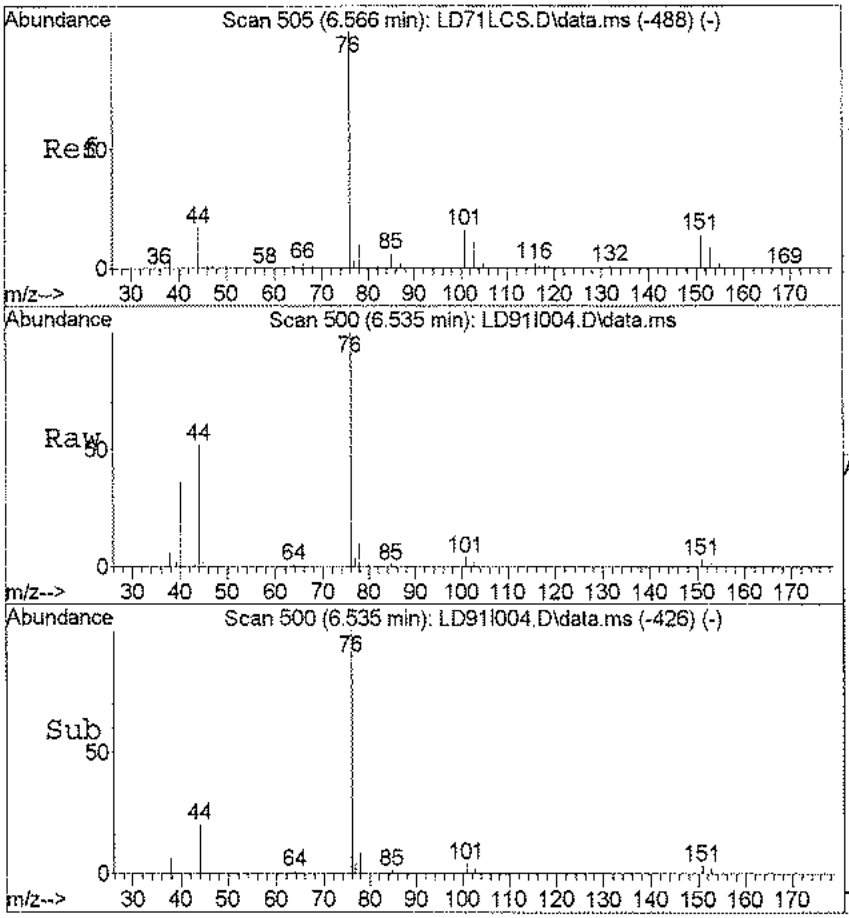


#16
Methylene Chloride
Concen: 0.20 ppb
RT: 6.27 min Scan# 456
Delta R.T. -0.03 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:84 Resp: 6864

Ion	Ratio	Lower	Upper
84	100		
49	146.2	66.6	100.0#
86	63.5	51.6	77.4
0	0.0	0.0	0.0

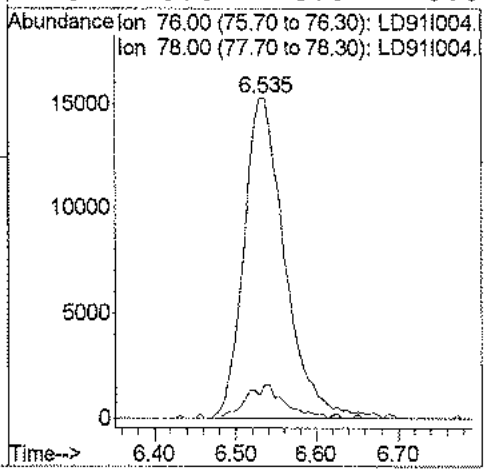


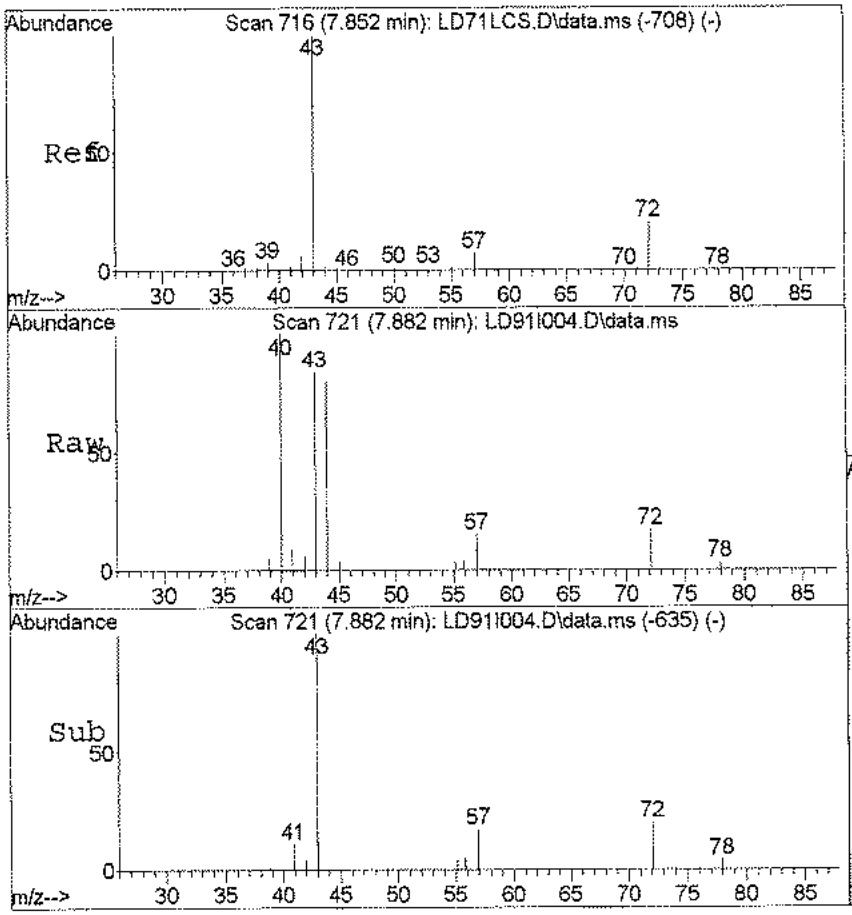


#18
Carbon Disulfide
Concen: 0.55 ppb
RT: 6.54 min Scan# 500
Delta R.T. -0.05 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:76 Resp: 53778

Ion	Ratio	Lower	Upper
76	100		
78	10.0	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

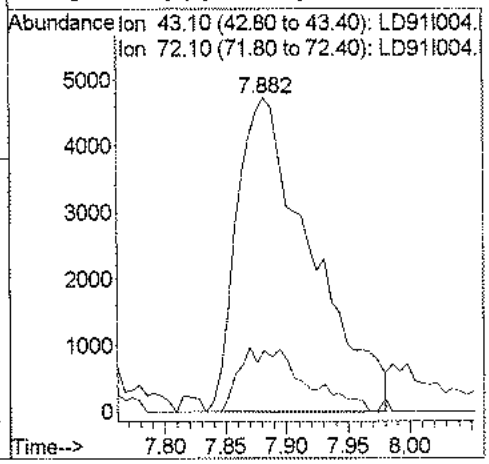


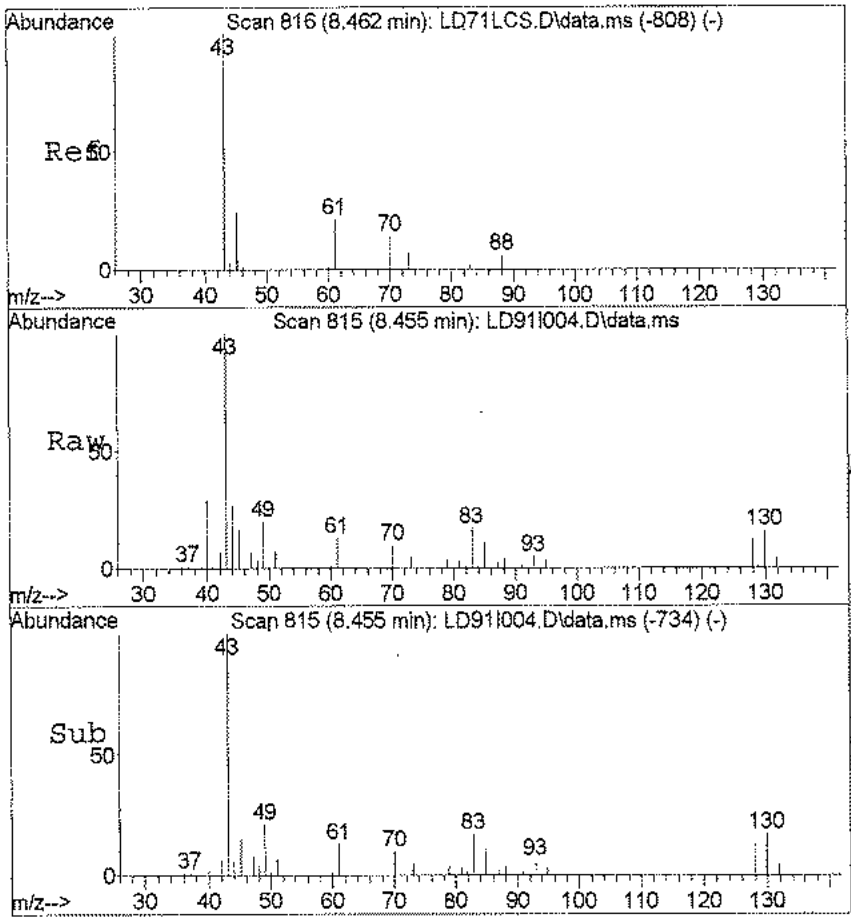


#23
2-Butanone
Concen: 0.28 ppb
RT: 7.88 min Scan# 721
Delta R.T. 0.02 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:43.1 Resp: 19987

Ion	Ratio	Lower	Upper
43	100		
72	5.9	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

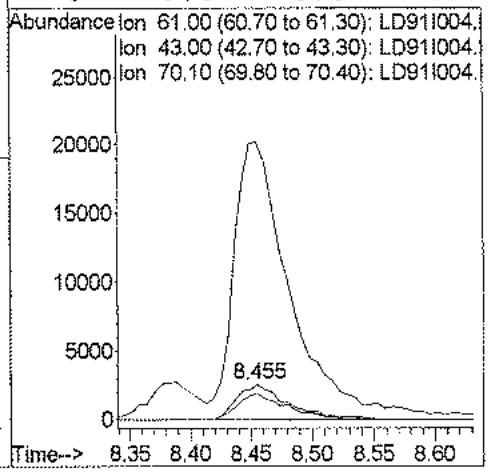


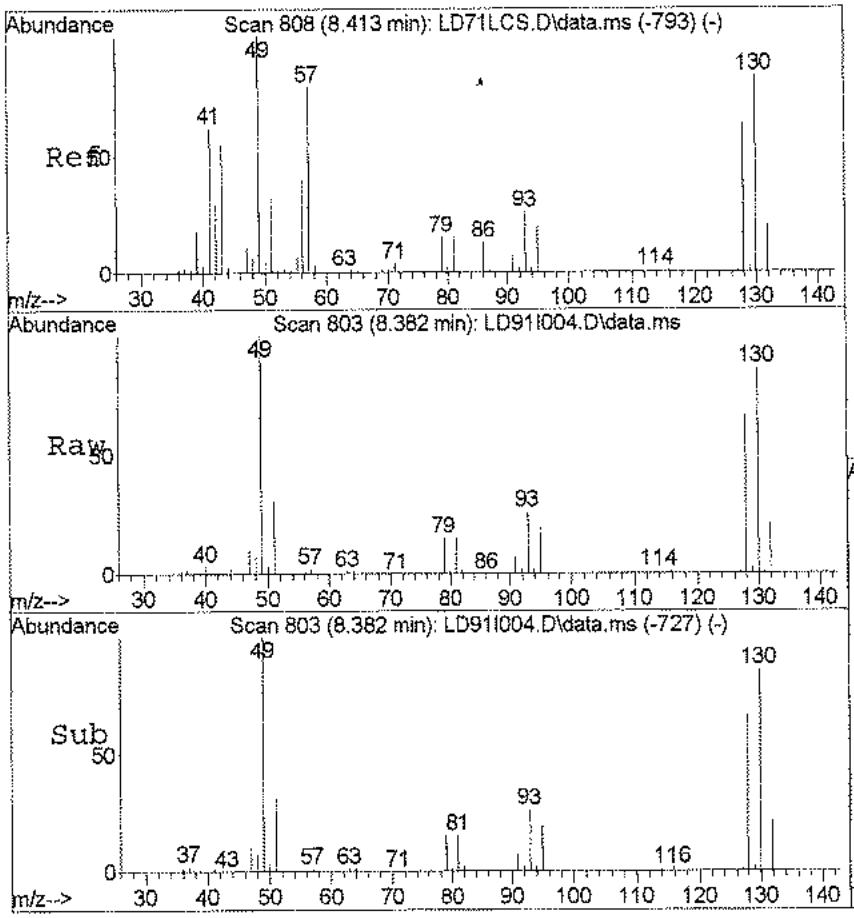


#26
Ethyl Acetate
Concen: 0.72 ppb
RT: 8.46 min Scan# 815
Delta R.T. -0.01 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:61 Resp: 7513

Ion	Ratio	Lower	Upper
61	100		
43	863.4	144.0	216.0#
70	72.6	13.6	20.4#
0	0.0	0.0	0.0

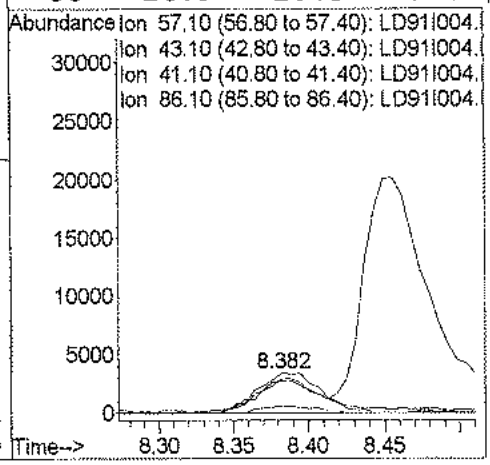


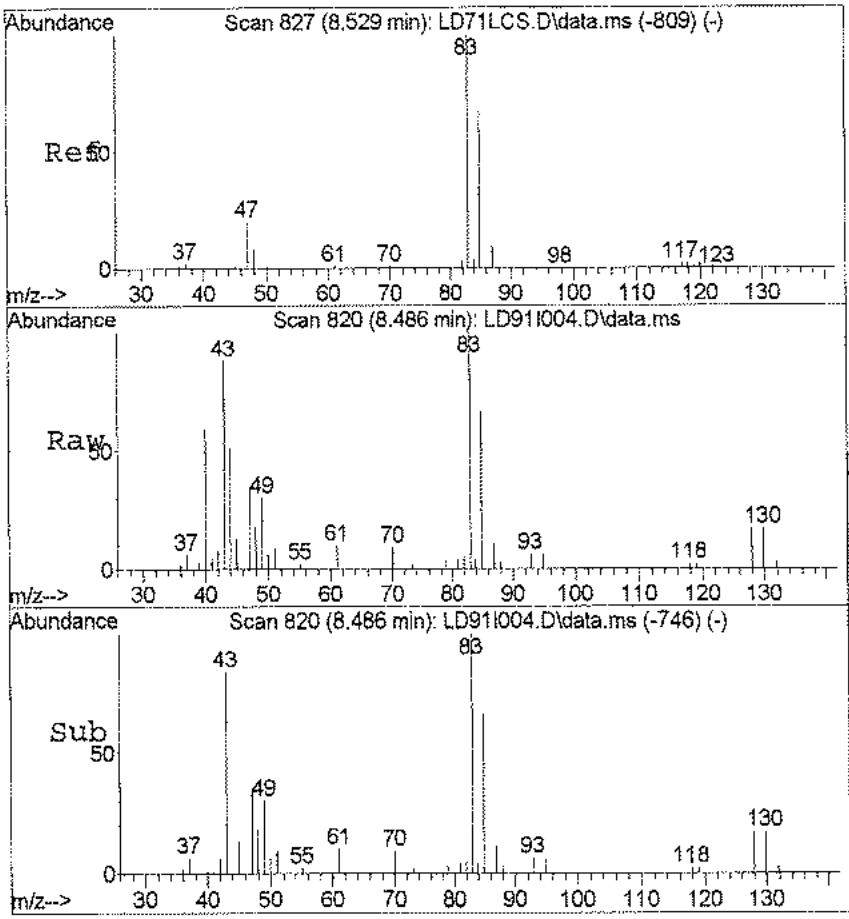


#27
Hexane
Concen: 0.18 ppb
RT: 8.38 min Scan# 803
Delta R.T. -0.04 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:57.1 Resp: 9745

Ion	Ratio	Lower	Upper
57	100		
43	78.2	57.3	85.9
41	90.2	47.0	70.4#
86	14.9	20.9	31.3#

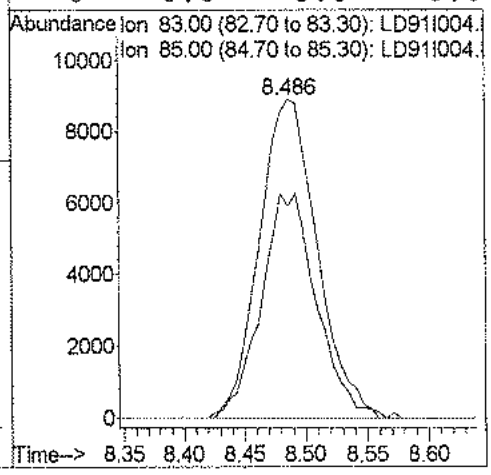


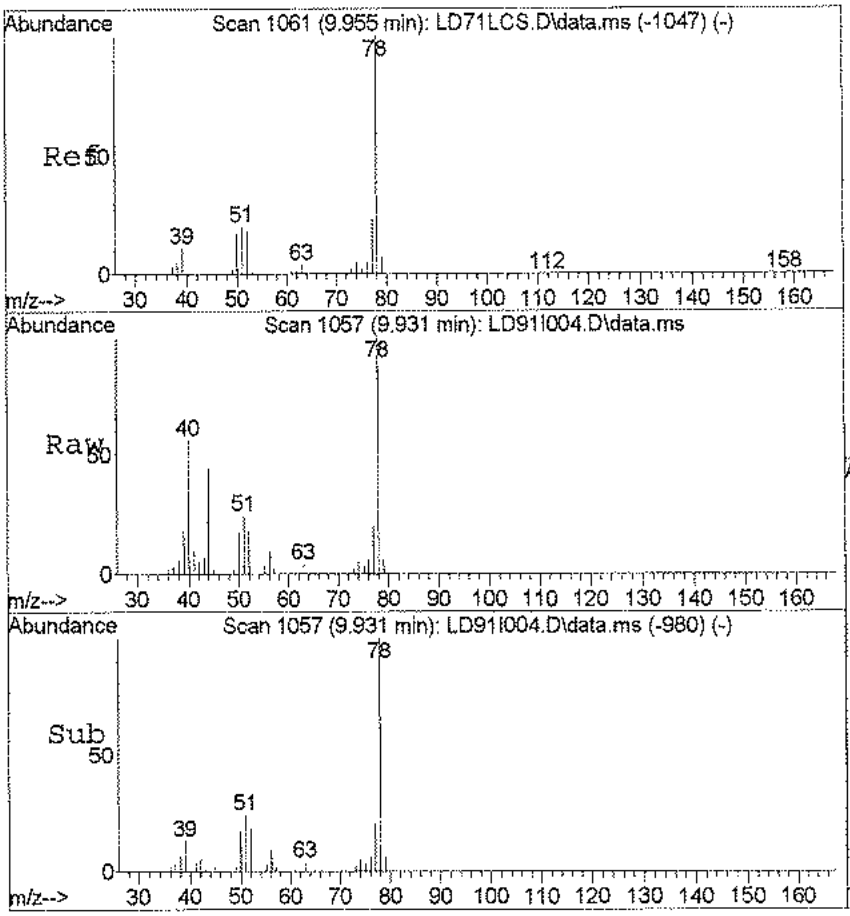


#28
Chloroform
Concen: 0.37 ppb
RT: 8.49 min Scan# 820
Delta R.T. -0.05 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:83 Resp: 29223

Ion	Ratio	Lower	Upper
83	100		
85	67.5	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

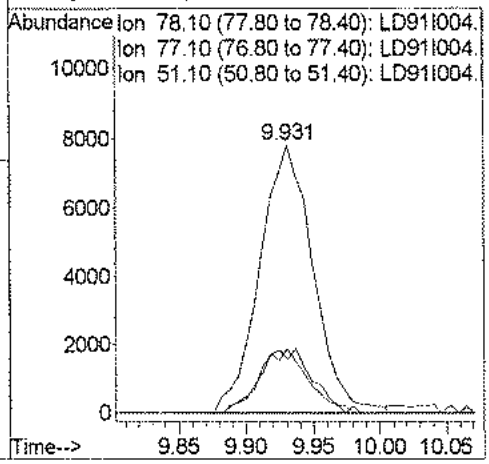


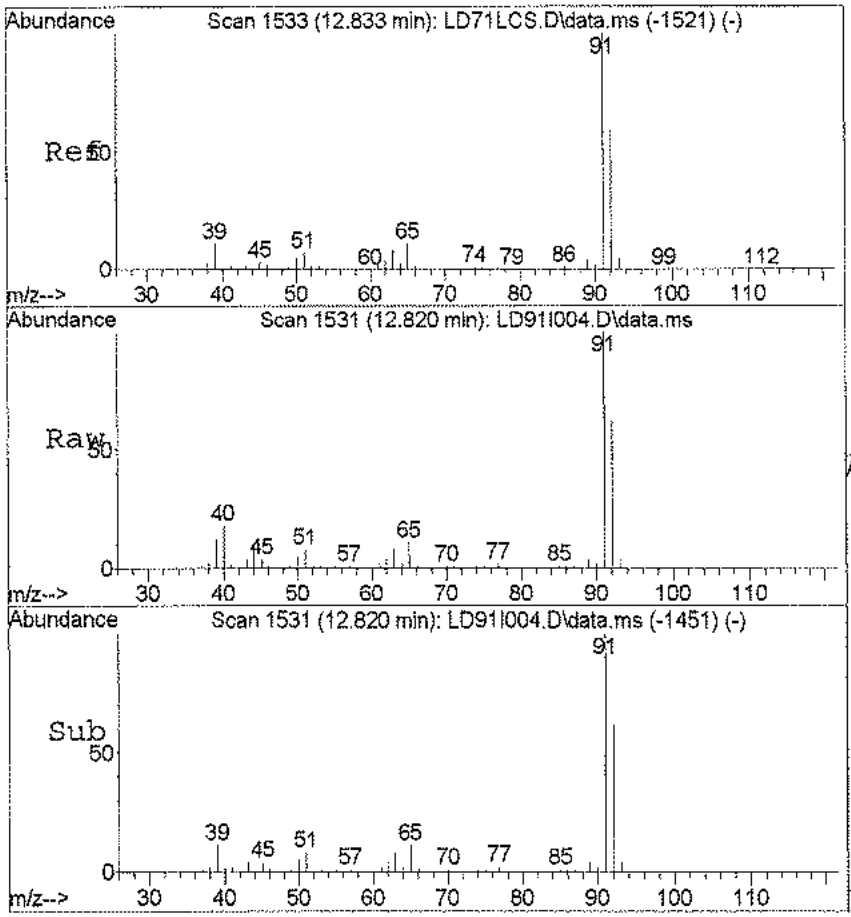


#32
Benzene
Concen: 0.22 ppb
RT: 9.93 min Scan# 1057
Delta R.T. -0.03 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:78.1 Resp: 21585

Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.2	27.4
51	21.7	9.5	14.3#
0	0.0	0.0	0.0

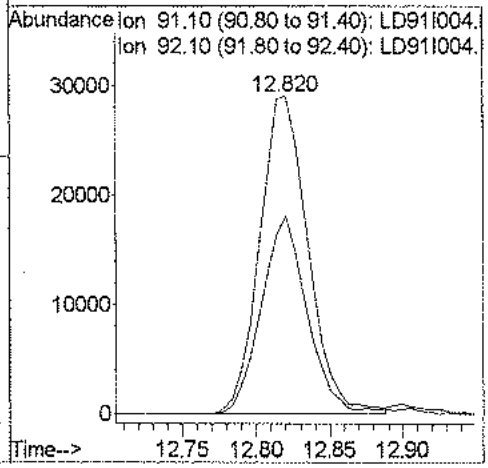


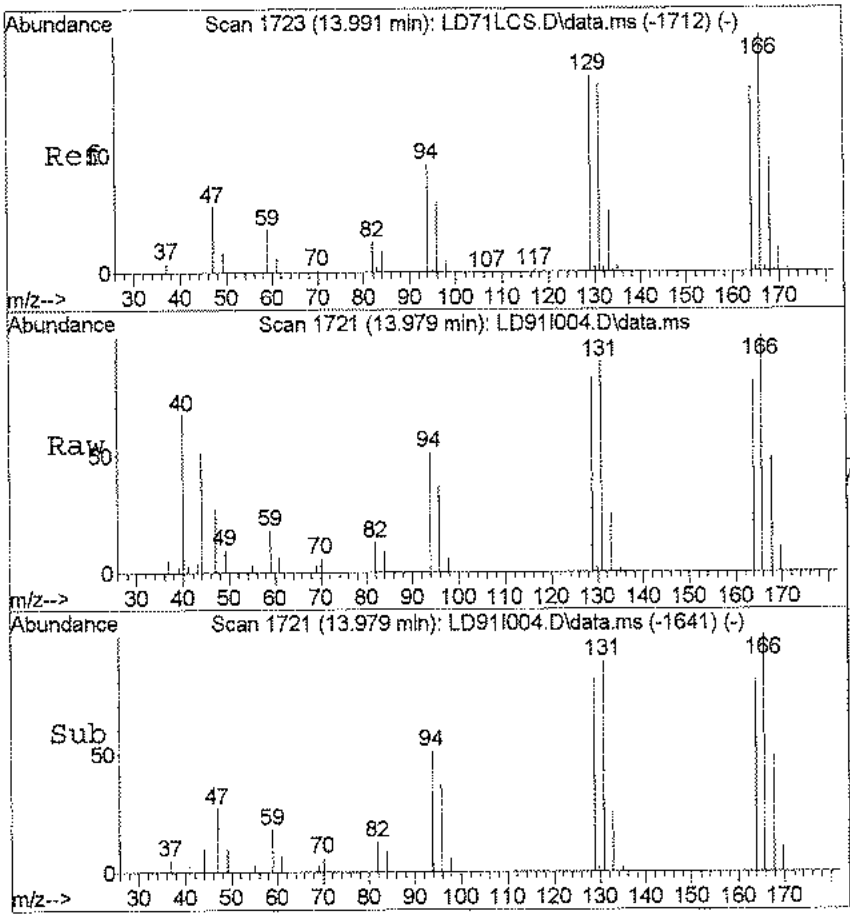


#45
Toluene
Concen: 0.53 ppb
RT: 12.82 min Scan# 1531
Delta R.T. -0.01 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:91.1 Resp: 65693

Ion	Ratio	Lower	Upper
91	100		
92	58.8	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

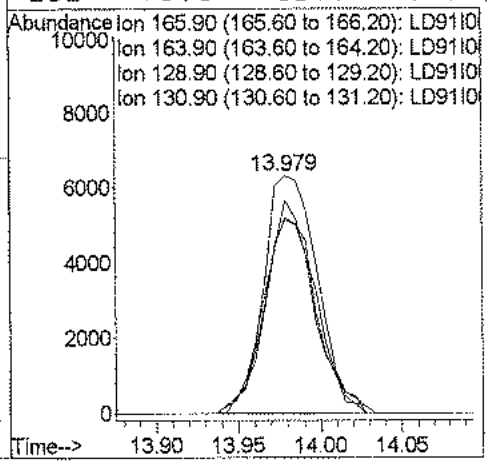


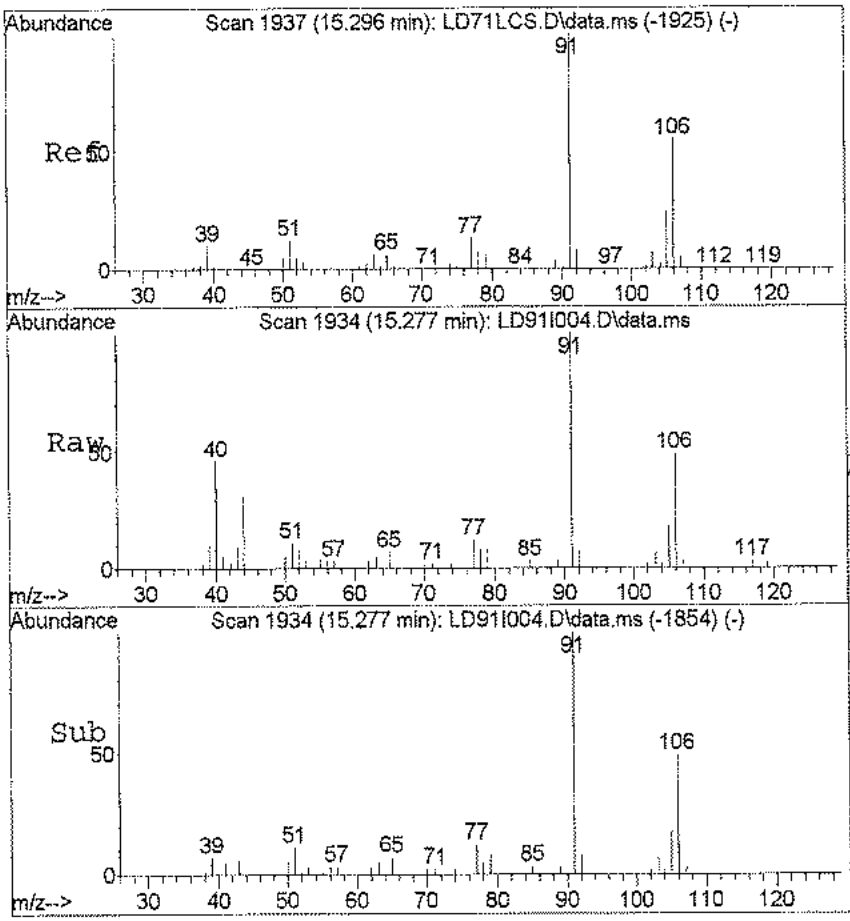


#49
Tetrachloroethene
Concen: 0.21 ppb
RT: 13.98 min Scan# 1721
Delta R.T. -0.01 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:165.9 Resp: 14447

Ion	Ratio	Lower	Upper
166	100		
164	79.1	61.0	91.4
129	80.9	45.9	68.9#
131	78.0	45.5	68.3#

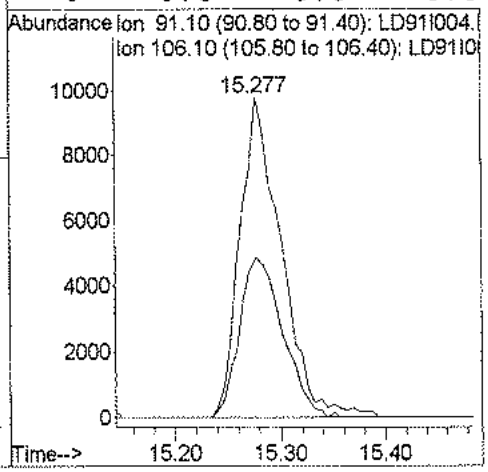




#53
m,p-Xylene
Concen: 0.20 ppb
RT: 15.28 min Scan# 1934
Delta R.T. -0.01 min
Lab File: LD91I004.D
Acq: 04/02/2016 11:42

Tgt Ion:91.1 Resp: 26188

Ion	Ratio	Lower	Upper
91	100		
106	52.5	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

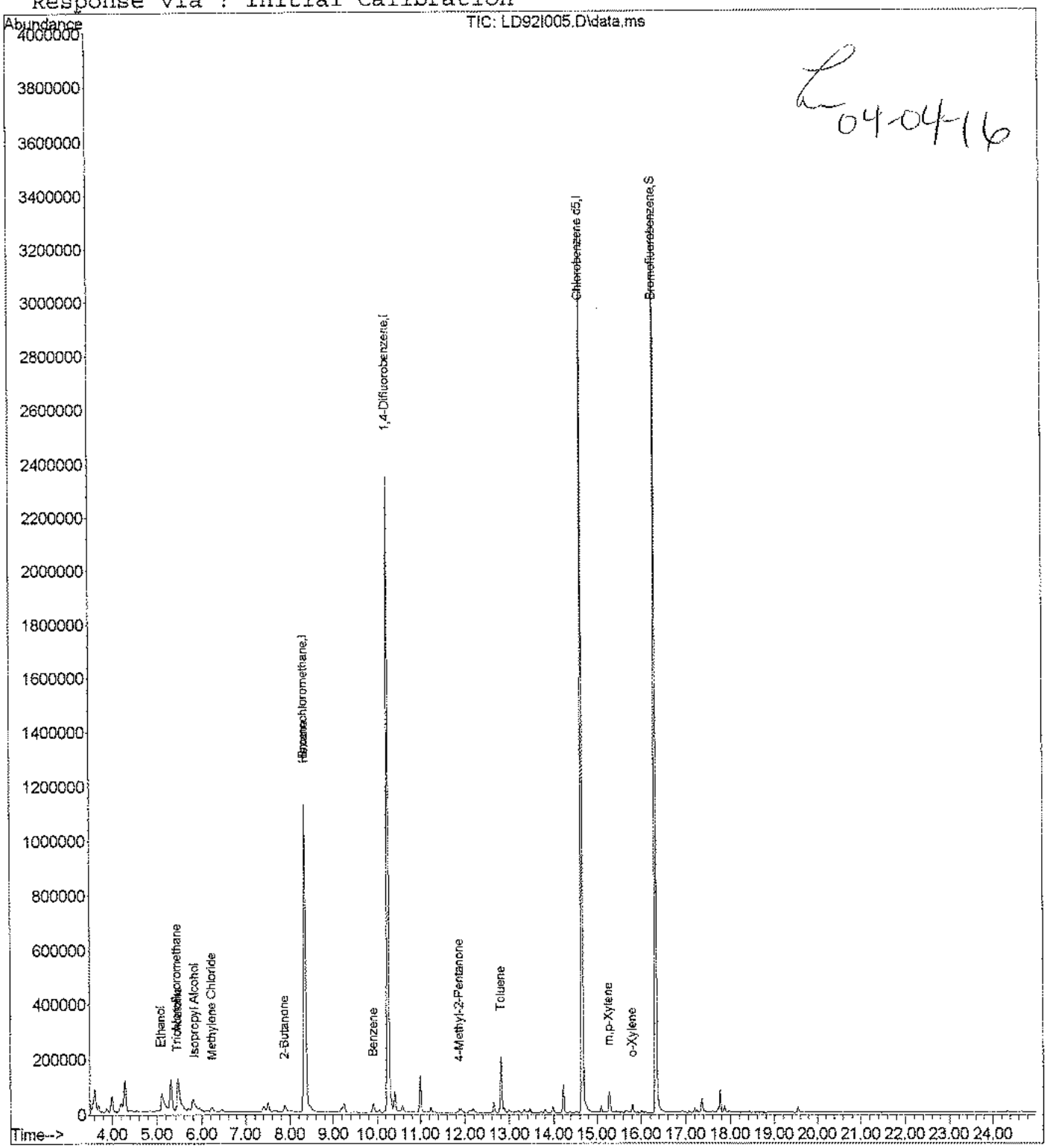


Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD92I005.D Vial: 9
Acq Time : 04/02/2016 12:34 Operator: TJM
Sample : 1608222005 Inst : 5975-L
Misc : 0371 A-0023-031616-IA-BA1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:12:21 2016 Results File: TO15LI16.RES

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response via : Initial Calibration



04-04-16

Quantitation Report

Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD92I005.D Vial: 9
Acq Time : 04/02/2016 12:34 Operator: TJM
Sample : 1608222005 Inst : 5975-L
Misc : 0371 A-0023-031616-IA-BA1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:12:21 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.35	130	214656	20.0000 ppb	66.72
25) 1,4-Difluorobenzene	10.25	114	2773266	20.0000 ppb	69.72
50) Chlorobenzene d5	14.66	117	2534720	20.0000 ppb	69.28
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	1455901	19.1239 ppb	95.62%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.46	43	290427	5.9058 ppb #	86
12) Trichlorofluoromethane	5.43	101	23332	0.2446 ppb	98
13) Ethanol	5.10	45	176988	13.7023 ppb #	TC 78
14) Isopropyl Alcohol	5.84	45	63949	1.1806 ppb #	TC 64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.23	84	5549	0.1847 ppb #	59
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.88	43	23026	0.3640 ppb #	48
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.36	57	13599	0.2606 ppb #	69
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	9.92	78	40186	0.4239 ppb #	91
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

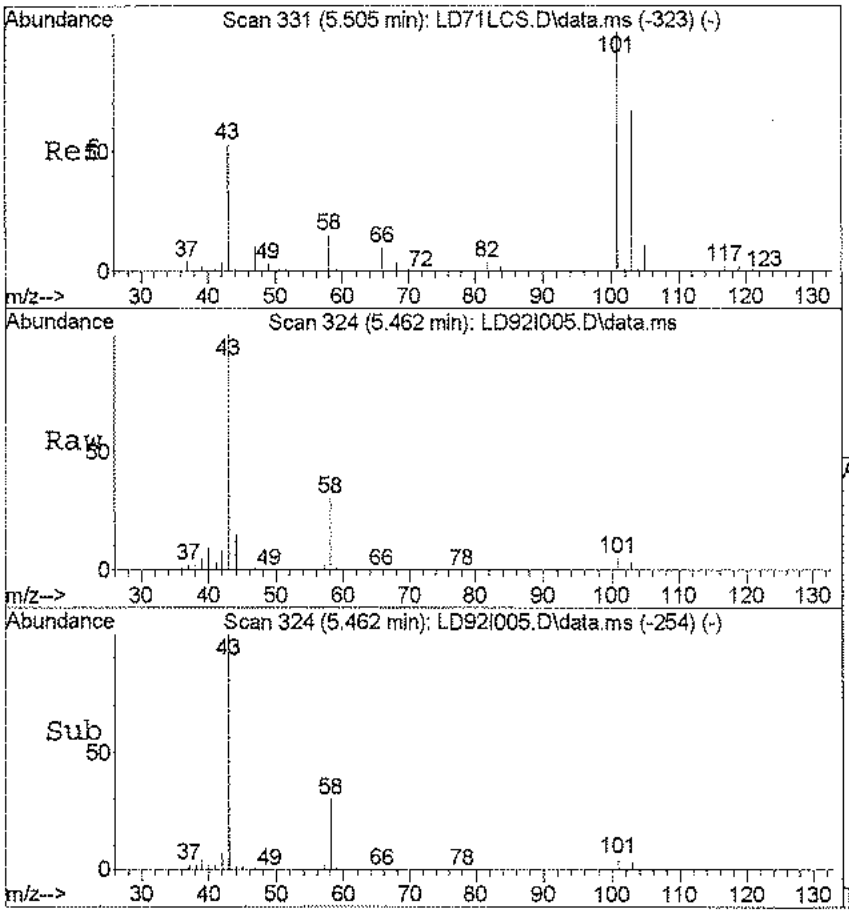
Data File : I:\L - 5975-L\2016\A...L\01APR16K\LD92I005.D Vial: 9
Acq Time : 04/02/2016 12:34 Operator: TJM
Sample : 1608222005 Inst : 5975-L
Misc : 0371 A-0023-031616-IA-BA1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 04 15:12:21 2016 Results File: TO15LI16.RES

Quant Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 01 16:15:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	11.88	43	13409	0.1555 ppb #	62
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.81	91	169429	1.4337 ppb	97
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	15.28	91	67025	0.5329 ppb	99
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	20415	0.1557 ppb	100
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

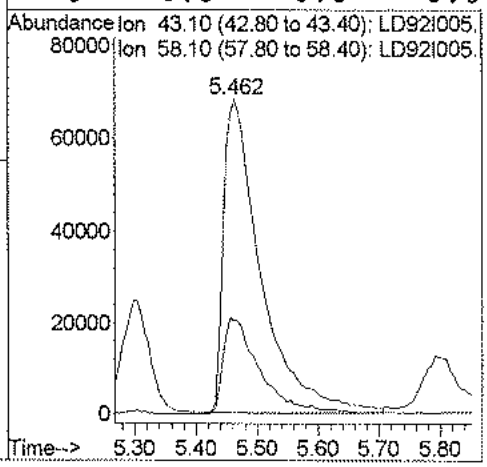
(#) = qualifier out of range (m) = manual integration

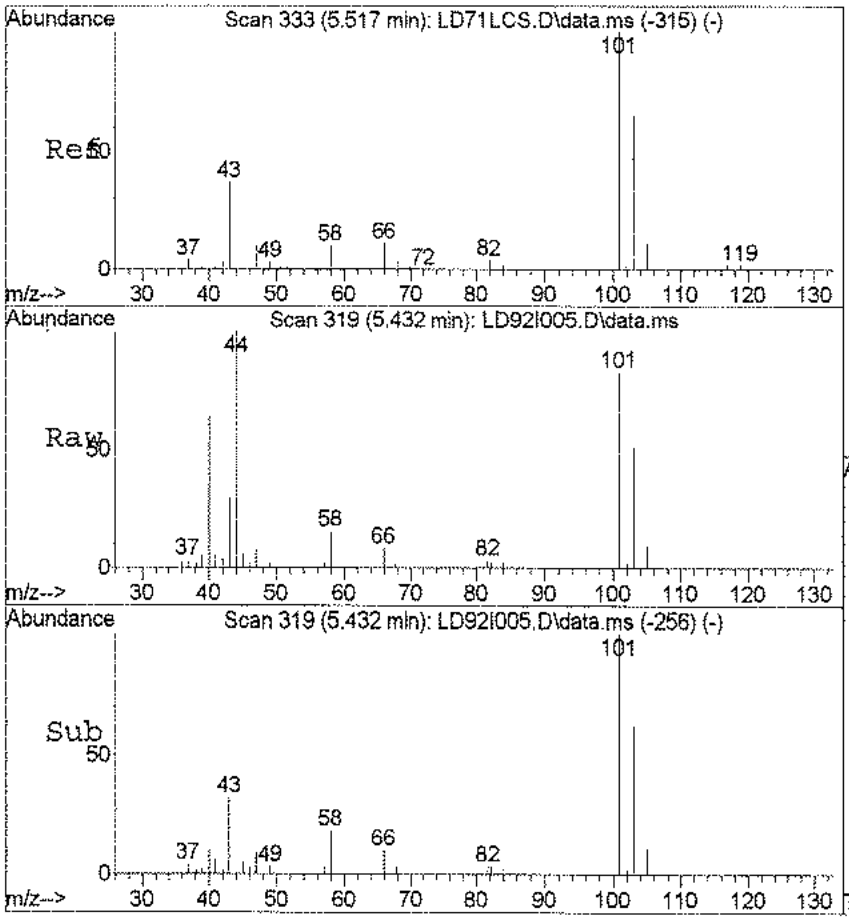


#11
Acetone
Concen: 5.91 ppb
RT: 5.46 min Scan# 324
Delta R.T. -0.07 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:43.1 Resp: 290427

Ion	Ratio	Lower	Upper
43	100		
58	29.8	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

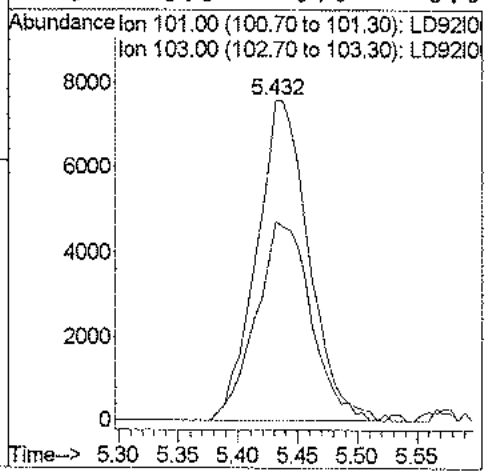


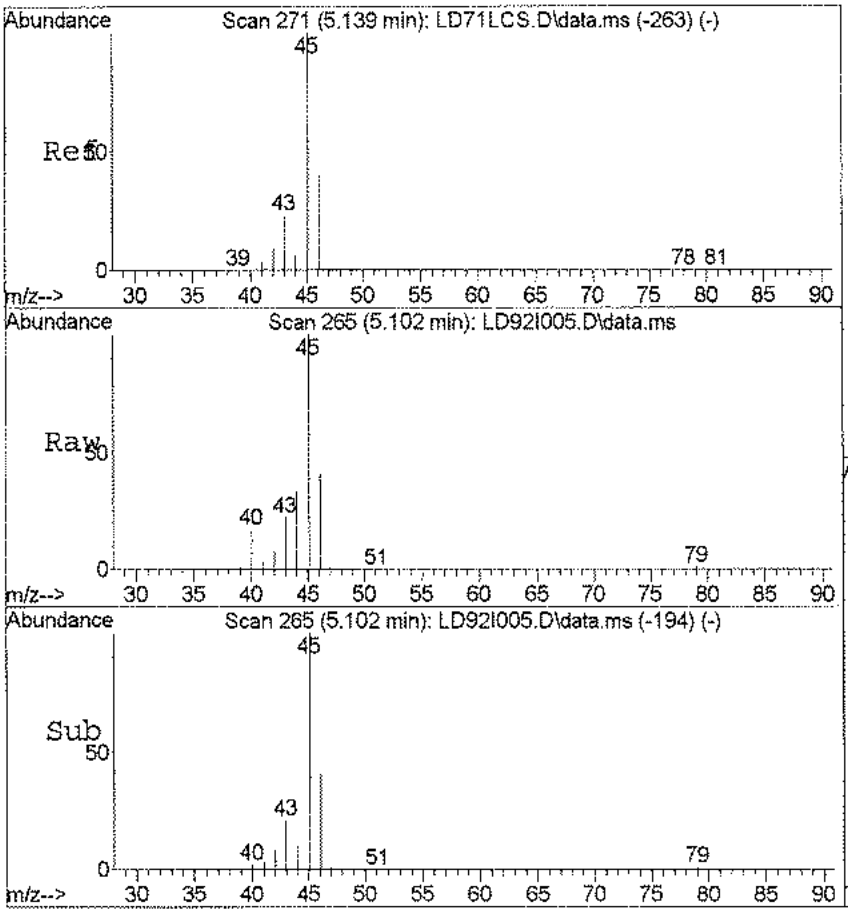


#12
Trichlorofluoromethane
Concen: 0.24 ppb
RT: 5.43 min Scan# 319
Delta R.T. -0.12 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:101 Resp: 23332

Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

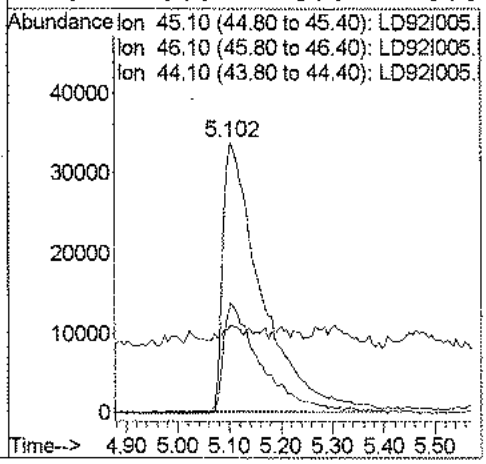


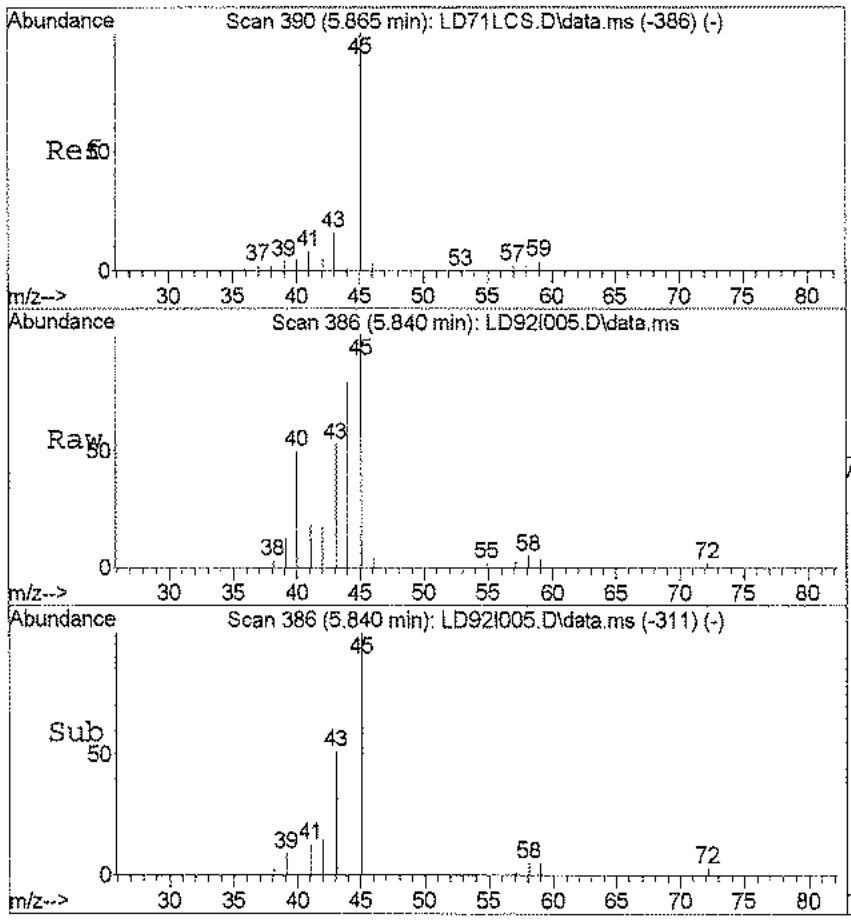


#13
Ethanol
Concen: 13.70 ppb
RT: 5.10 min Scan# 265
Delta R.T. -0.07 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:45.1 Resp: 176988

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	2.5	23.4	35.2#
0	0.0	0.0	0.0

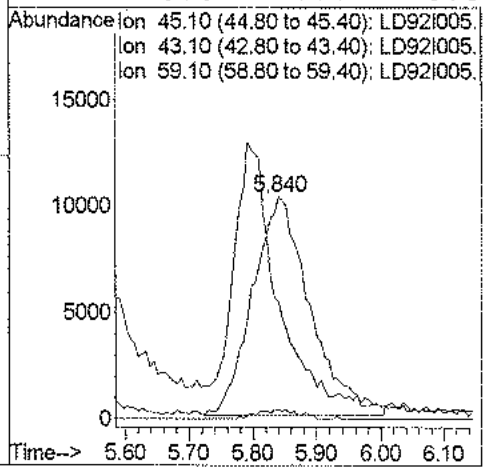


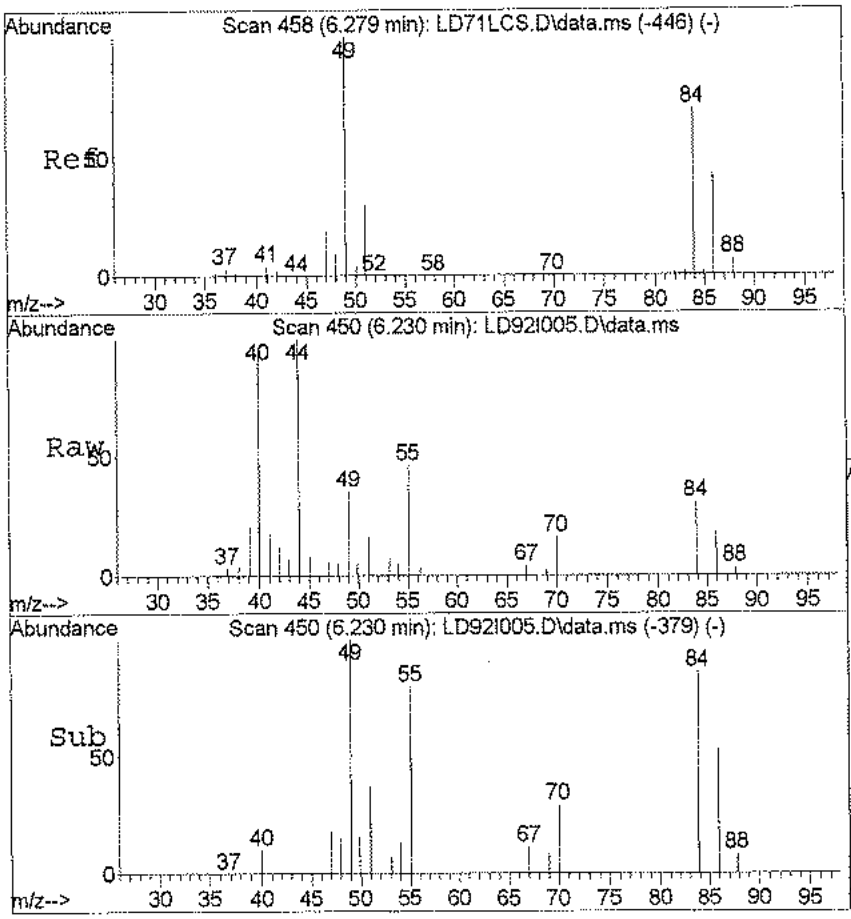


#14
Isopropyl Alcohol
Concen: 1.18 ppb
RT: 5.84 min Scan# 386
Delta R.T. -0.04 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:45.1 Resp: 63949

Ion	Ratio	Lower	Upper
45	100		
43	0.0	15.8	23.6#
59	2.9	3.2	4.8#
0	0.0	0.0	0.0

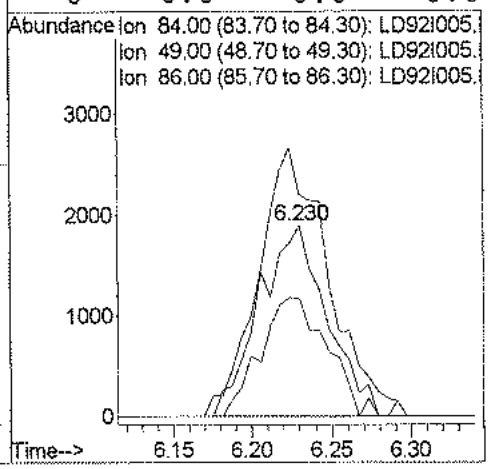


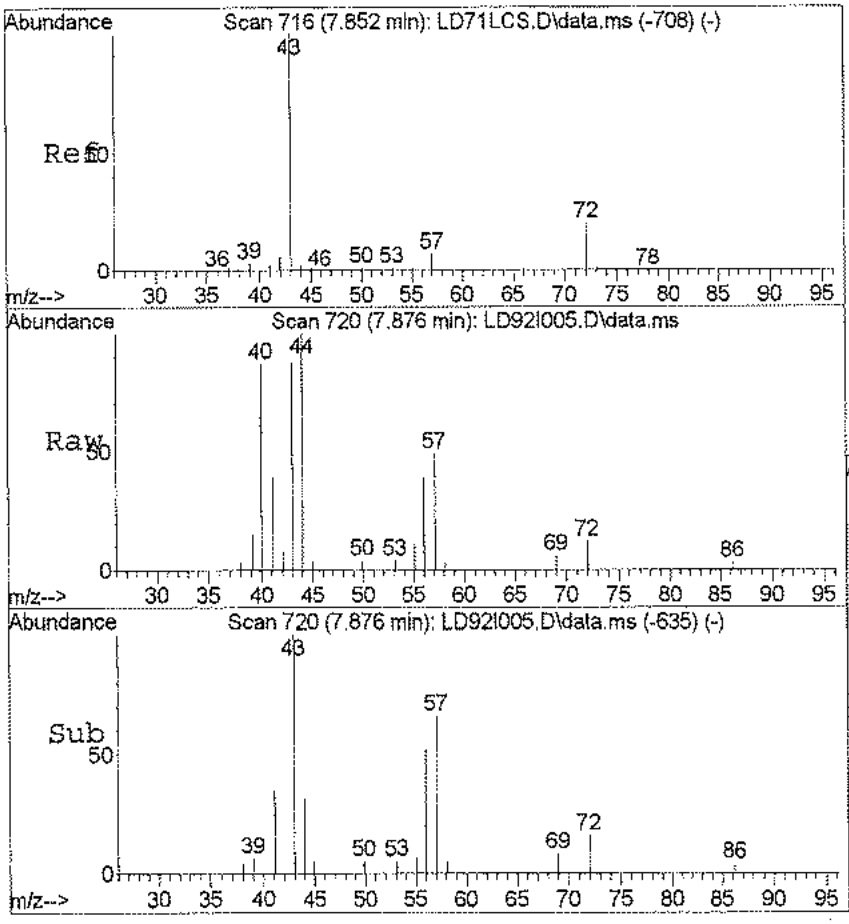


#16
Methylene Chloride
Concen: 0.18 ppb
RT: 6.23 min Scan# 450
Delta R.T. -0.07 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:84 Resp: 5549

Ion	Ratio	Lower	Upper
84	100		
49	145.9	66.6	100.0#
86	61.3	51.6	77.4
0	0.0	0.0	0.0

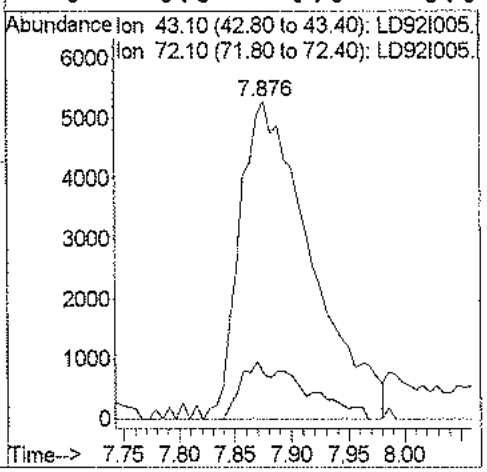


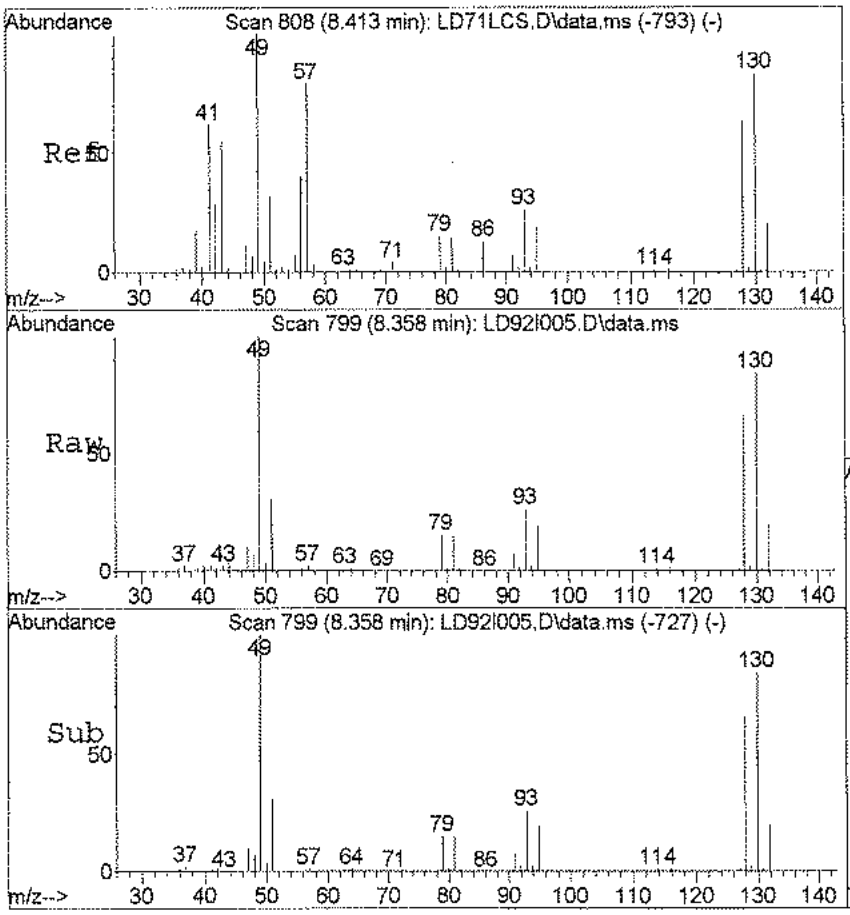


#23
2-Butanone
Concen: 0.36 ppb
RT: 7.88 min Scan# 720
Delta R.T. 0.02 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:43.1 Resp: 23026

Ion	Ratio	Lower	Upper
43	100		
72	7.3	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

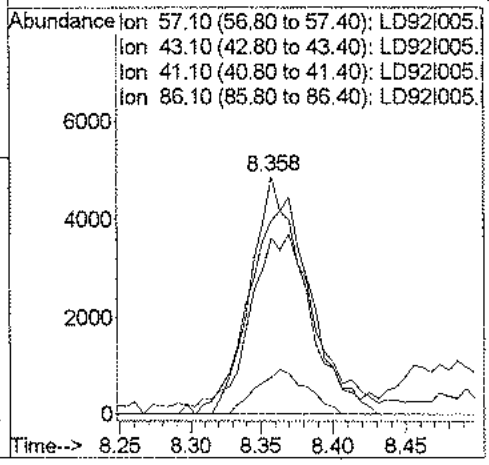


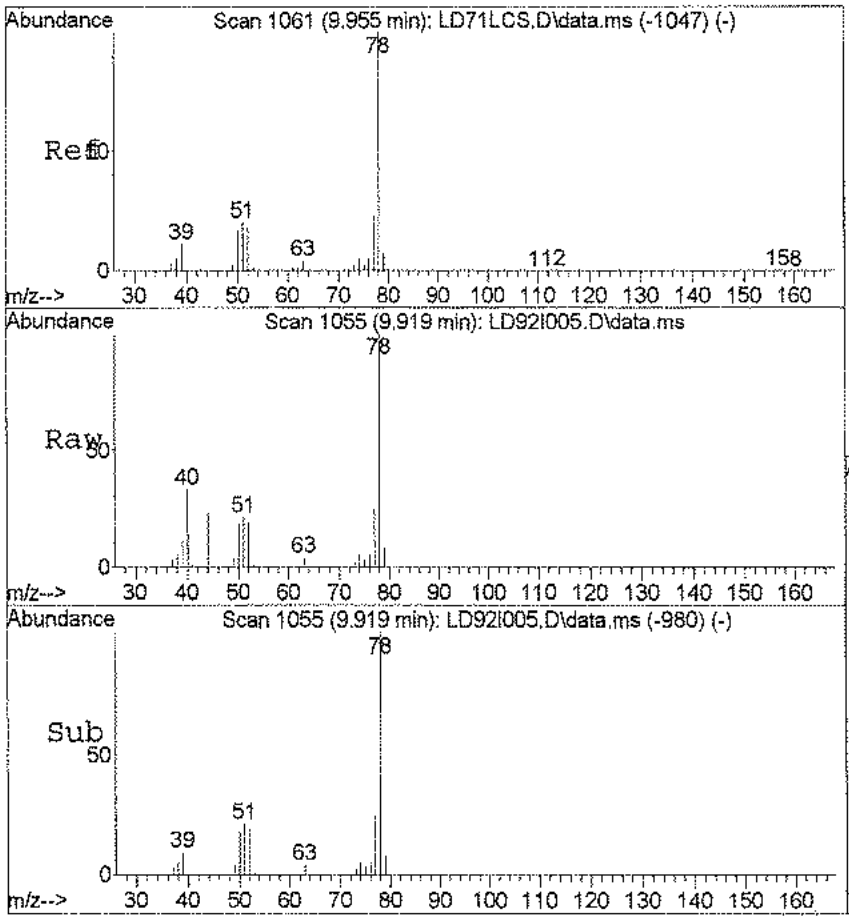


#27
Hexane
Concen: 0.26 ppb
RT: 8.36 min Scan# 799
Delta R.T. -0.06 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:57.1 Resp: 13599

Ion	Ratio	Lower	Upper
57	100		
43	86.6	57.3	85.9#
41	98.9	47.0	70.4#
86	16.9	20.9	31.3#

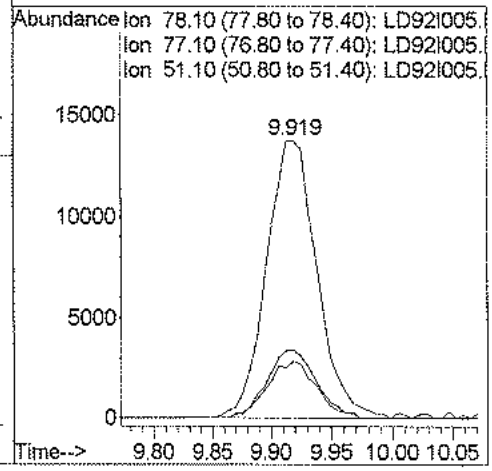


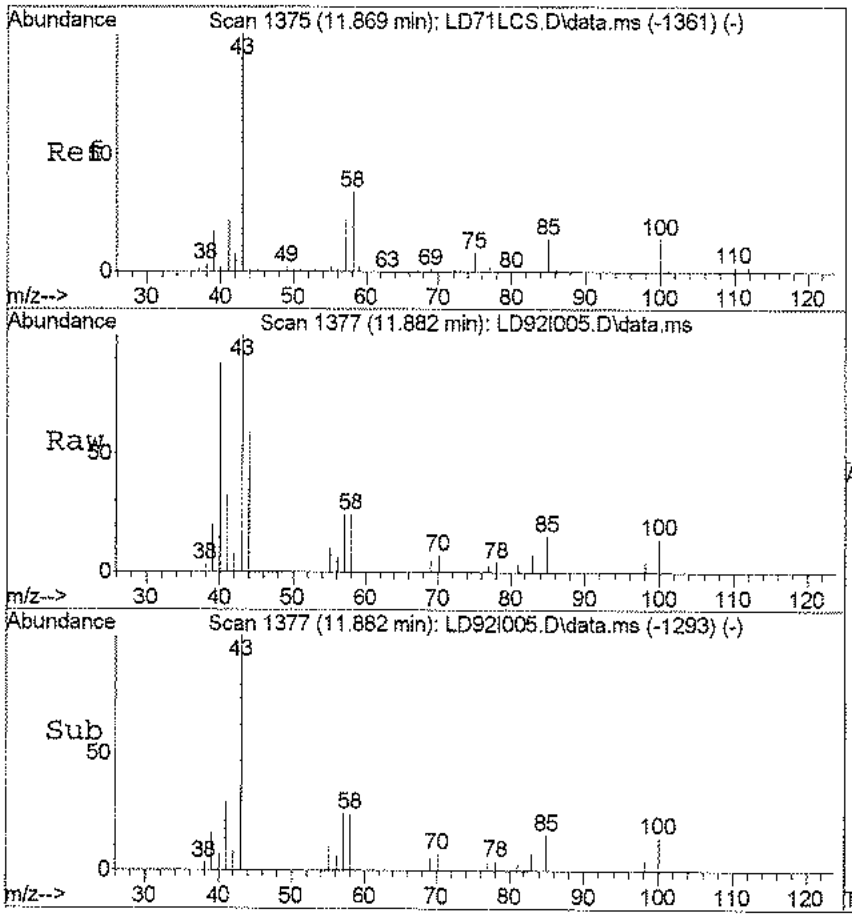


#32
Benzene
Concen: 0.42 ppb
RT: 9.92 min Scan# 1055
Delta R.T. -0.04 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:78.1 Resp: 40186

Ion	Ratio	Lower	Upper
78	100		
77	24.2	18.2	27.4
51	20.2	9.5	14.3#
0	0.0	0.0	0.0

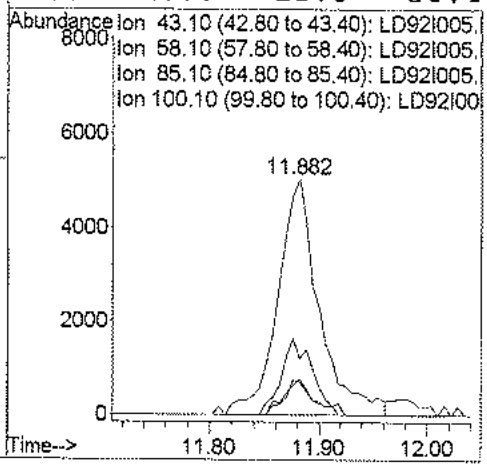


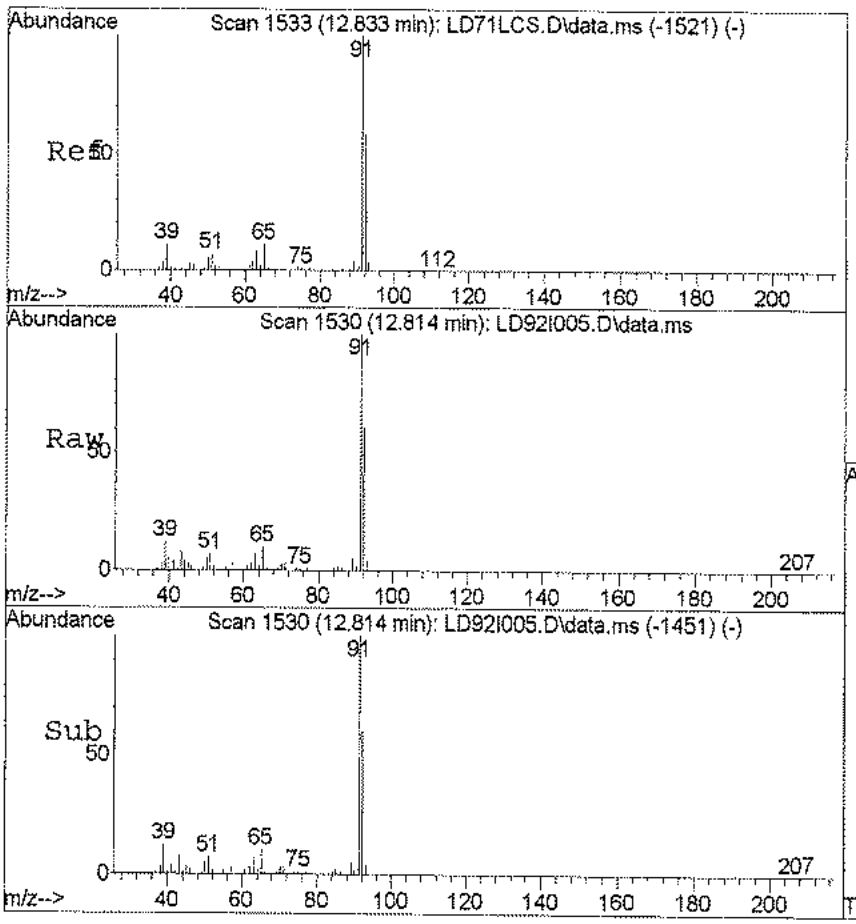


#42
4-Methyl-2-Pentanone
Concen: 0.16 ppb
RT: 11.88 min Scan# 1377
Delta R.T. 0.01 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:43.1 Resp: 13409

Ion	Ratio	Lower	Upper
43	100		
58	24.6	39.5	59.3#
85	10.5	25.1	37.7#
100	10.0	25.6	38.4#

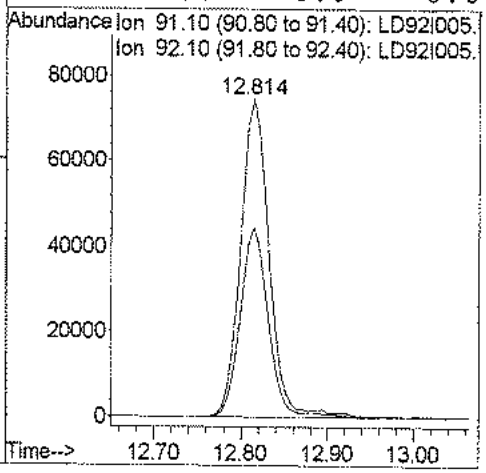


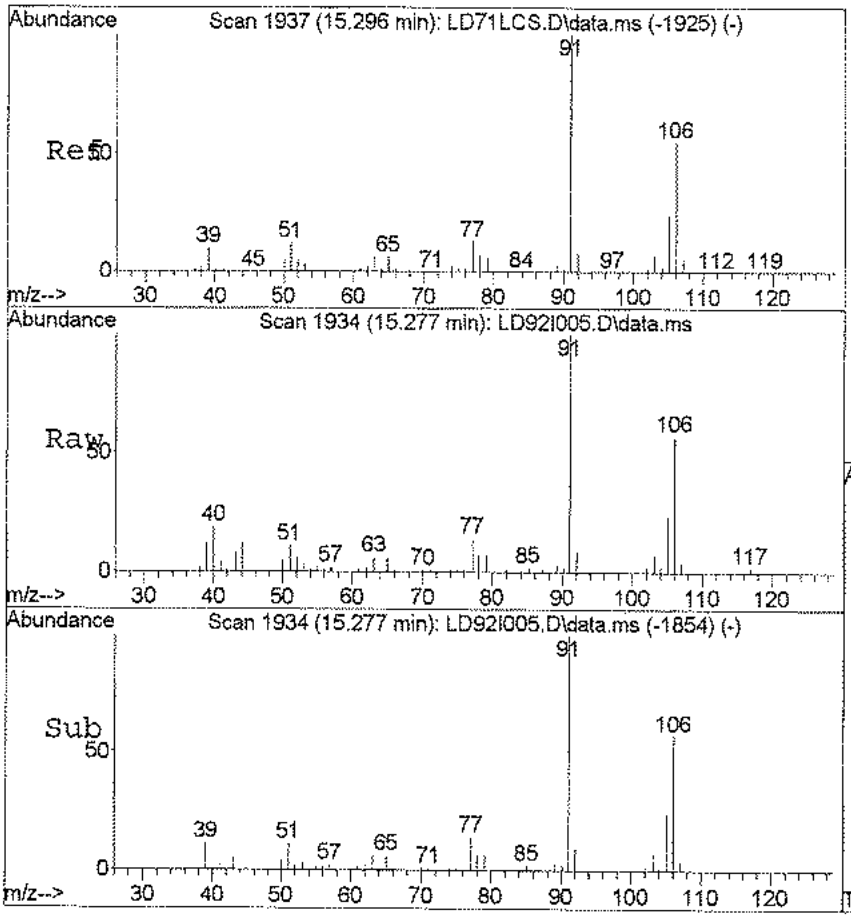


#45
Toluene
Concen: 1.43 ppb
RT: 12.81 min Scan# 1530
Delta R.T. -0.02 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:91.1 Resp: 169429

Ion	Ratio	Lower	Upper
91	100		
92	57.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

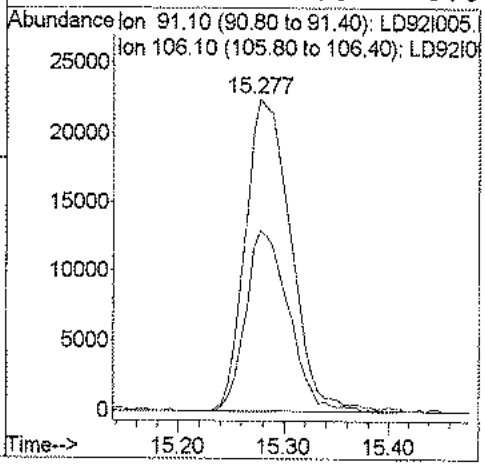


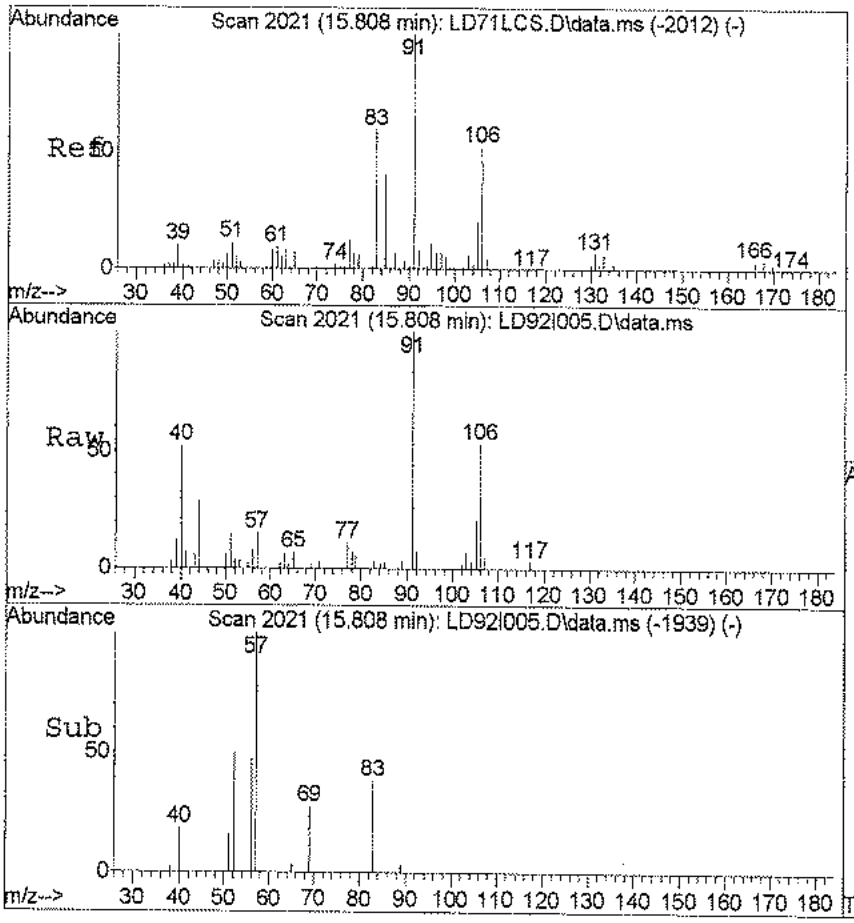


#53
m,p-Xylene
Concen: 0.53 ppb
RT: 15.28 min Scan# 1934
Delta R.T. -0.01 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:91.1 Resp: 67025

Ion	Ratio	Lower	Upper
91	100		
106	54.7	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

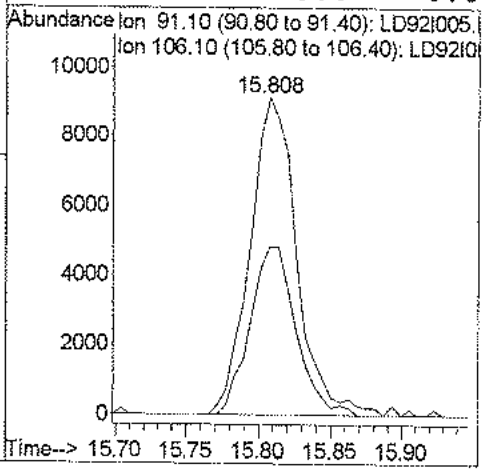




#57
o-Xylene
Concen: 0.16 ppb
RT: 15.81 min Scan# 2021
Delta R.T. -0.00 min
Lab File: LD92I005.D
Acq: 04/02/2016 12:34

Tgt Ion:91.1 Resp: 20415

Ion	Ratio	Lower	Upper
91	100		
106	52.2	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Batch Worklist

Batch: IVOA/3213
Rule: EPA TO-15, Air

Created: 4/4/2016 15:28
Analyst: L. Reid

Instrument: 5975-L
Status: WP

HBN: 166946

Workorder: 1608222

Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	494865	MB for HBN 166946 [IVOA/3213]				MB	1		ETO15...1Q	5320		4/5/2016	4/1/2016
2	494866	LCS for HBN 166946 [IVOA/3213]				LCS	1		ETO15...1Q	5320		4/5/2016	4/1/2016
3	494867	LCSD for HBN 166946 [IVOA/3213				LCSD	1		ETO15...1Q	5320		4/5/2016	4/1/2016
4	494868	RLVS for HBN 166946 [IVOA/3213				RLVS	1		ETO15...1Q	5320		4/5/2016	4/2/2016
5	1608222001	A-0017H-031616-IA-BAS				SAMPLE	1	1608222001-A	ETO15....1	5480		4/5/2016	4/2/2016
6	1608222002	A-0018H-031616-IA-BAS				SAMPLE	1	1608222002-A	ETO15....1	5480		4/5/2016	4/2/2016
7	1608222003	A-0051-031616-IA-BAS				SAMPLE	1	1608222003-A	ETO15....1	5480		4/5/2016	4/2/2016
8	1608222004	A-0051-031616-IA-BAS-D				SAMPLE	1	1608222004-A	ETO15....1	5480		4/5/2016	4/2/2016
9	1608222005	A-0023-031616-IA-BA1				SAMPLE	1	1608222005-A	ETO15....1	5480		4/5/2016	4/2/2016

1608222

15837/#173

1608222

CoC #: 003

Page 1 of 1

nental -Custody Record

Client Name & Address: Chem Hill, 4246 S. Riverboat Rd. Suite 200, Taylorsville, UT 84123	Project Name & No.: 665353.77.01.04
	ALS Quote No: 10006-7-104589
	Report to: Mark Ladd
Phone: 385-474-8525	Report to e-mail: mark.ladd@chem.com
e-mail: Quin.bingham@chem.com	Bill to: 665353.77.01.04

Analyses Requested: 1,4-D

Matrix Codes: (W) Water, (B) Bulk, (L) Liquid, (F) Filter, (S) Soil, (G) Wipe, (C) Solid, (M) Media, (A) Air
Preservation Codes: 1) Cool to 4°C, 2) HCl to pH<2, 4°C, 3) H_2SO_4 to pH<2, 4°C, 4) HNO3 to pH<2, 4°C, 5) NaOH to pH>12, 4°C, 6) ZnOAc/NaOH to pH>9, 4°C

Field Sample Number	Date	Time	Depth	ALS Sample Number	No. of Containers	Sample Is Matrix QC	Preservation Code	Sample Matrix Code	Remarks
A-0017R-031616-IA-BAS	3/16/16	1554		Canister 0228	1		1	A	Final P= -3.52 inHg
A-0018R-031616-IA-BAS	3/16/16	1559		Canister 0196	1		1	A	Final P= 0 inHg
A-0057-031616-IA-BAS	3/16/16	1300		Canister 0309	1		1	A	Final P= -6.9 inHg
A-0051-031616-IA-BAS-D	3/16/16	~~1300~~ 1300		Canister 0163	1		1	A	Final P= -4.3 inHg
A-0023-031616-IA-BA1	3/16/16	1759		Canister 0371	1		1	A	

Possible Hazard Identification
☑ Non-Hazard ☐ Skin Irritant ☐ Rad ☐ Flammable ☐ Poison ☐ Unknown

Sample Disposal
☐ Return to Client ☐ Archive ____ Months ☑ Disposal by Lab
(fees assessed for samples retained > 3 months)

Data Deliverable:
☐ Level 1 ☐ Level 3 ☐ Level 2 ☑ Level 4
EDD Type: Lab Spec 7

Requested Turn Around Time
☐ 2 Days (Rush) ☐ 7 Days (Rush) ☐ 3 Days (Rush) ☑ 14 Days
(Rush = email data by COB on day due. Surcharges assessed.)

Carrier/Airbill #:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/21/16	1718		03-21-16	17:16
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Shipped to:
ALS Environmental
960 West LeVoy Drive
Salt Lake City, UT 84123
Phone: (800) 356-9135
Phone: (801) 266-7700
FAX: (801) 268-9992
WEB: www.alsglobal.com

White - Laboratory Copy Yellow - Client Copy

ALSCoC 121013

* 1,4-Dioxane, VC, ~~1,2-DCA~~ CO2/DCE, TCE, PCE by TO-15 SIM; SCAN for all the VOCs

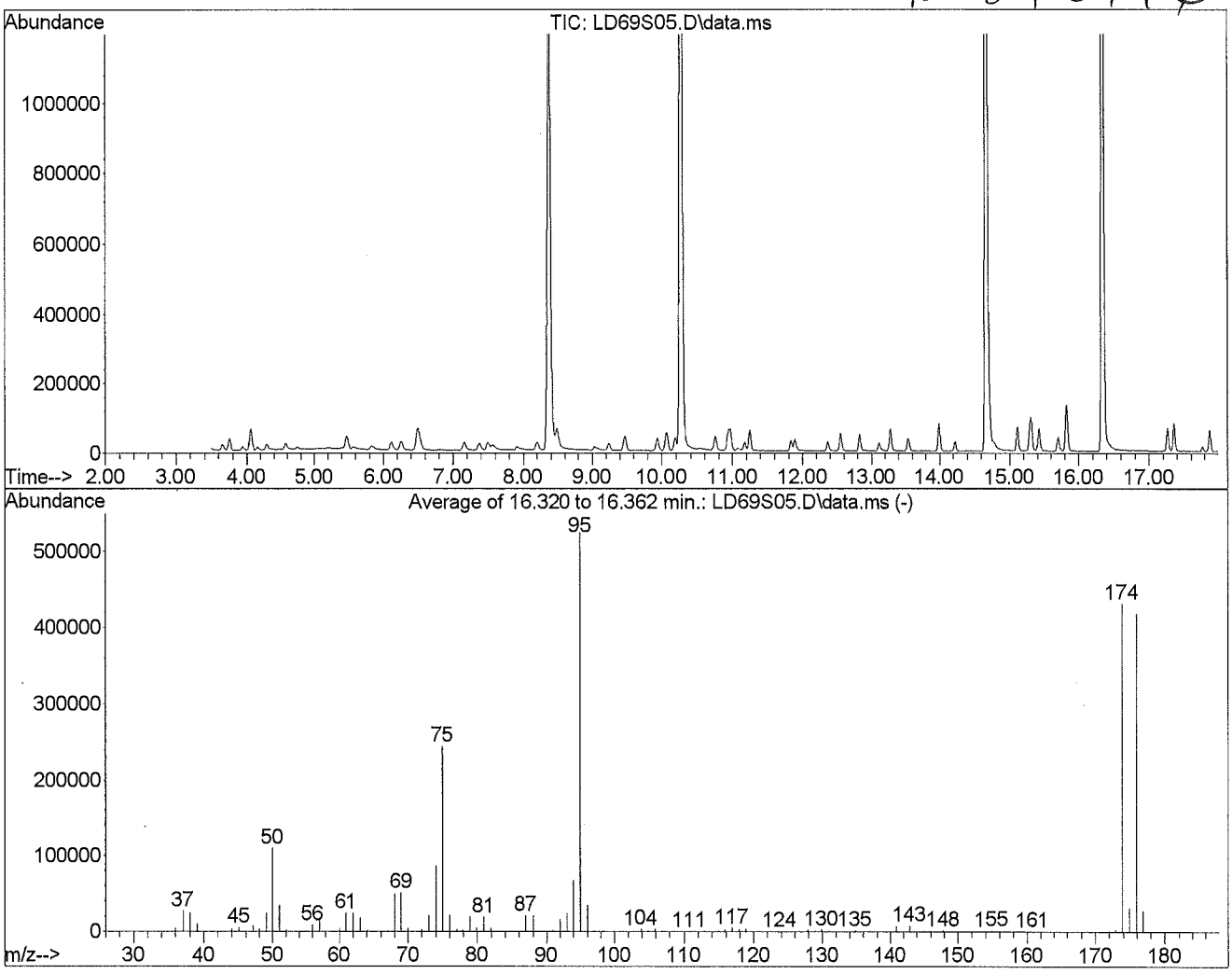
See attached analysis table 12/22/2013

BFB

Data File : I:\L - 5975-L\2016\APR16L\01APR16K\LD69S05.D Vial: 1
Acq Time : 04/01/2016 15:48 Operator: TJM
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31343 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LI16.m (RTE Integrator)
Title : TO-15

L 04-04-16



Peak Apex is scan: Average of 16.320 to 16.362 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	20.84	109237	PASS
75	95	30	66	46.66	244570	PASS
95	95	100	100	100.00	524176	PASS
96	95	5	9	6.65	34866	PASS
173	174	0.00	2	0.68	2920	PASS
174	95	50	120	82.26	431208	PASS
175	174	5	9	7.22	31135	PASS
176	174	93	101	96.97	418144	PASS
177	176	5	9	6.44	26912	PASS

Average of 16.320 to 16.362 min.: LD69S05.D\data.ms
0.5 PPB STD
Modified:subtracted

m/z	Abundance
36.00	4670.0
37.05	26738.0
38.00	24159.0
39.05	9551.0
40.00	456.0
43.00	248.0
44.00	3277.0
45.00	5014.0
46.10	428.0
47.05	7086.0
48.00	3064.0
49.00	23566.0
50.00	109237.0
51.00	33985.0
52.00	1535.0
53.10	20.0
55.00	1331.0
56.00	8474.0
57.00	15844.0
58.05	554.0
58.90	21.0
60.00	4238.0
61.00	23812.0
62.00	23218.0
63.00	17776.0
64.05	1672.0
65.00	429.0
65.80	25.0
66.95	1252.0
68.00	49245.0
69.00	50714.0
70.00	3908.0
71.05	85.0
72.00	2349.0
73.00	20889.0
74.00	85632.0
75.00	244570.0
76.00	21001.0
77.00	2594.0
77.90	1785.0
78.90	18859.0
79.90	5009.0
80.90	18748.0
81.95	4025.0
82.95	451.0
85.90	166.0
86.05	296.0
86.95	20584.0
88.00	20392.0
90.90	2201.0
92.00	15540.0
93.00	23940.0
94.00	67302.0
95.00	524176.0
96.00	34866.0
97.00	1065.0
102.95	285.0
103.90	3107.0
104.90	889.0
105.90	3009.0
106.95	658.0
109.90	437.0
110.85	696.0
111.85	571.0
112.85	727.0
114.95	692.0
115.90	2436.0
116.90	4369.0
117.90	2602.0
118.90	3701.0
119.95	84.0
121.85	131.0
122.95	163.0
123.85	404.0
124.85	197.0
125.85	296.0
126.70	61.0
126.90	42.0
127.90	2357.0
128.90	1144.0
129.90	2367.0
130.90	979.0
132.00	28.0
133.90	164.0
134.85	1395.0
135.85	200.0
136.90	1257.0

137.90	20.0
138.70	69.0
138.80	59.0
138.95	99.0
139.90	406.0
140.90	7422.0
141.90	861.0
142.90	7724.0
143.90	488.0
144.90	658.0
145.85	852.0
146.85	390.0
147.85	1445.0
148.85	376.0
149.90	588.0
151.90	292.0
152.85	372.0
153.90	297.0
154.90	1430.0
155.80	41.0
155.95	228.0
156.95	1068.0
157.90	130.0
158.90	704.0
160.85	685.0
171.00	77.0
171.40	28.0
171.95	640.0
172.95	2920.0
173.90	431208.0
174.90	31135.0
175.90	418144.0
176.90	26912.0
177.95	788.0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LI16.m
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response Via : Initial Calibration

Calibration Files
.5 =LD69S05.D 1 =LD67S1.D 2 =LD66S2.D 5 =LD65S5.D 10 =LD64S10.D 20 =LD63S20.D

		Compound	.5	1	2	5	10	20	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	2.192	2.233	2.504	2.421	2.543	2.490	2.397	6.22
3)		Dichlorodifluo...	7.437	7.528	8.378	7.844	7.393	8.070	7.775	5.07
4)		Chloromethane	2.603	2.631	2.908	2.794	2.496	2.854	2.714	5.95
5)		Freon 114	6.112	6.210	6.883	6.452	6.441	6.541	6.440	4.21
6)		Vinyl Chloride	2.305	2.472	2.862	2.803	2.703	2.907	2.675	8.91
7)		1,3-Butadiene	1.735	1.990	2.328	2.306	2.267	2.389	2.169	11.71
8)		Bromomethane	2.810	2.850	3.147	2.998	3.036	3.095	2.989	4.49
9)		Chloroethane	1.417	1.446	1.604	1.487	1.552	1.537	1.507	4.64
10)		Acrolein	0.738	0.943	1.062	1.141	1.242	1.212	1.056	17.98
11)		Acetone	3.641	4.264	4.827	4.687	5.105	4.967	4.582	11.88
12)		Trichlorofluor...	8.636	8.595	9.216	8.701	9.117	9.071	8.889	3.09
13)		Ethanol	1.301	1.113	1.194	1.180	1.261	1.172	1.203	5.58
14)		Isopropyl Alcohol	3.824	4.471	5.305	5.276	5.808	5.599	5.047	14.91
15)		1,1-Dichloroet...	3.873	4.276	4.827	4.652	5.030	5.015	4.612	9.91
16)		Methylene Chlo...	2.813	2.720	2.874	2.693	2.872	2.819	2.799	2.72
17)		Freon 113	5.392	5.591	6.054	5.800	6.114	5.915	5.811	4.78
18)		Carbon Disulfide	7.932	7.773	8.530	7.940	8.429	8.321	8.154	3.82
19)		trans-1,2-Dich...	2.578	2.688	3.075	2.990	3.259	3.236	2.971	9.50
20)		1,1-Dichloroet...	4.907	5.034	5.472	5.215	5.594	5.459	5.280	5.16
21)		methyl t-butyl...	4.367	5.445	6.680	6.890	7.645	7.530	6.426	19.91
22)		Vinyl Acetate	0.398	0.541	0.732	0.762	0.860	0.860	0.692	26.82
23)		2-Butanone	4.316	4.797	6.004	6.239	7.028	6.979	5.894	19.03
24)		cis-1,2-Dichlo...	2.575	2.828	3.281	3.185	3.536	3.530	3.156	12.24
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.053	0.065	0.074	0.078	0.078	0.081	0.071	15.09
27)		Hexane	0.287	0.345	0.399	0.410	0.407	0.409	0.376	13.29
28)		Chloroform	0.497	0.506	0.554	0.552	0.547	0.547	0.534	4.72
29)		Tetrahydrofuran	0.153	0.226	0.279	0.316	0.328	0.333	0.273	25.97
30)		1,2-Dichloroet...	0.290	0.316	0.349	0.347	0.349	0.349	0.333	7.47

Method Path : J:\L\METHODS\methods\
Method File : TO15LI16.m

31)		1,1,1-Trichlor...	0.509	0.542	0.597	0.598	0.596	0.604	0.574	6.84	
32)		Benzene	0.573	0.638	0.712	0.722	0.726	0.731	0.684	9.41	
33)		Carbon Tetrach...	0.633	0.687	0.747	0.747	0.751	0.763	0.721	7.02	
34)		Cyclohexane	0.192	0.265	0.331	0.345	0.347	0.350	0.305	20.91	
35)		1,2-Dichloropr...	0.244	0.262	0.286	0.290	0.290	0.294	0.278	7.19	
36)		Bromodichlorom...	0.508	0.537	0.593	0.587	0.600	0.611	0.573	7.10	
37)		1,4-Dioxane	0.094	0.122	0.166	0.173	0.180	0.183	0.153	23.72	TC
38)		Trichloroethene	0.330	0.376	0.430	0.436	0.445	0.449	0.411	11.61	
39)		Methyl Methacr...	0.135	0.179	0.225	0.246	0.258	0.265	0.218	23.38	TC
40)		Heptane	0.171	0.212	0.258	0.265	0.265	0.267	0.240	16.51	
41)		cis-1,3-Dichlo...	0.268	0.322	0.397	0.433	0.451	0.468	0.390	20.23	
42)		4-Methyl-2-Pen...	0.381	0.517	0.660	0.702	0.727	0.744	0.622	23.07	
43)		trans-1,3-Dich...	0.249	0.290	0.360	0.391	0.416	0.438	0.357	20.67	
44)		1,1,2-Trichlor...	0.286	0.309	0.350	0.347	0.353	0.363	0.334	9.01	
45)		Toluene	0.557	0.716	0.898	0.945	0.981	1.016	0.852	20.96	
46)		2-Hexanone	0.310	0.436	0.582	0.637	0.674	0.706	0.558	27.67	
47)		Dibromochlorom...	0.628	0.678	0.778	0.785	0.820	0.866	0.759	11.77	
48)		1,2-Dibromoethane	0.433	0.482	0.555	0.574	0.598	0.625	0.545	13.40	
49)		Tetrachloroethene	0.367	0.416	0.488	0.504	0.521	0.544	0.473	14.39	
50)	I	Chlorobenzene d5	----------ISTD----------								
51)		Chlorobenzene	0.856	0.886	0.998	0.986	0.991	0.990	0.951	6.63	
52)		Ethylbenzene	0.858	1.052	1.324	1.392	1.417	1.443	1.248	19.08	
53)		m,p-Xylene	0.695	0.873	1.055	1.087	1.111	1.133	0.992	17.42	
54)		Bromoform	0.588	0.655	0.749	0.770	0.783	0.813	0.726	11.91	
55)		Styrene	0.434	0.591	0.786	0.869	0.899	0.926	0.751	26.21	
56)		1,1,2,2-Tetrac...	0.723	0.759	0.847	0.841	0.839	0.846	0.809	6.68	
57)		o-Xylene	0.696	0.903	1.093	1.131	1.167	1.217	1.035	19.10	
58)	S	Bromofluoroben...	0.596	0.592	0.594	0.602	0.605	0.616	0.601	1.47	
59)		4-Ethyl Toluene	0.746	1.065	1.440	1.588	1.646	1.729	1.369	28.09	
60)		1,3,5-Trimethy...	0.803	1.107	1.331	1.402	1.434	1.502	1.263	20.83	
61)		1,2,4-Trimethy...	0.631	0.953	1.234	1.349	1.401	1.497	1.177	27.73	
62)		Benzyl Chloride	0.661	0.825	1.075	1.168	1.253	1.365	1.058	25.23	qst
63)		m-Dichlorobenzene	0.717	0.850	0.973	1.008	1.028	1.086	0.944	14.39	
64)		p-Dichlorobenzene	0.665	0.836	0.961	0.998	1.015	1.068	0.924	16.10	
65)		o-Dichlorobenzene	0.634	0.762	0.903	0.946	0.977	1.024	0.874	16.93	
66)		1,2,4-Trichlor...	0.252	0.319	0.427	0.501	0.543	0.591	0.439	30.10	qst
67)		Naphthalene	0.545	0.864	1.230	1.468	1.561	1.661	1.221	35.77	TC
68)		Hexachloro-1,3...	0.318	0.367	0.417	0.438	0.453	0.499	0.415	15.54	qst

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LI16.m
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response Via : Initial Calibration

CC Data File: LD71LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
1	I	Bromochloromethane	1.000	1.000	0.0	86	TC
2		Propene	2.397	2.833	-18.2	96	TC
3		Dichlorodifluoromethane	7.775	9.180	-18.1	107	
4		Chloromethane	2.714	3.241	-19.4	111	
5		Freon 114	6.440	7.366	-14.4	98	
6		Vinyl Chloride	2.675	3.270	-22.2	104	
7		1,3-Butadiene	2.169	2.668	-23.0	101	
8		Bromomethane	2.989	3.480	-16.4	98	
9		Chloroethane	1.507	1.709	-13.4	95	
10		Acrolein	1.056	1.326	-25.5	92	
11		Acetone	4.582	5.491	-19.8	92	
12		Trichlorofluoromethane	8.889	10.067	-13.3	95	
13		Ethanol	1.203	1.344	-11.7	92	TC
14		Isopropyl Alcohol	5.047	2.579	48.9#	38#	TC
15		1,1-Dichloroethene	4.612	5.495	-19.1	94	
16		Methylene Chloride	2.799	3.117	-11.4	93	
17		Freon 113	5.811	6.560	-12.9	92	
18		Carbon Disulfide	8.154	9.260	-13.6	94	
19		trans-1,2-Dichloroethene	2.971	3.530	-18.8	93	
20		1,1-Dichloroethane	5.280	5.981	-13.3	92	
21		methyl t-butyl ether	6.426	8.055	-25.3	90	
22		Vinyl Acetate	0.692	0.906	-30.8#	90	
23		2-Butanone	5.894	7.363	-24.9	90	
24		cis-1,2-Dichloroethene	3.156	3.820	-21.0	93	
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	
26		Ethyl Acetate	0.071	0.082	-14.9	95	
27		Hexane	0.376	0.416	-10.7	92	
28		Chloroform	0.534	0.564	-5.7	93	
29		Tetrahydrofuran	0.273	0.331	-21.4	91	
30		1,2-Dichloroethane	0.333	0.355	-6.4	91	
31		1,1,1-Trichloroethane	0.574	0.611	-6.5	92	
32		Benzene	0.684	0.744	-8.8	92	
33		Carbon Tetrachloride	0.721	0.765	-6.1	92	
34		Cyclohexane	0.305	0.358	-17.5	93	
35		1,2-Dichloropropane	0.278	0.299	-7.6	93	
36		Bromodichloromethane	0.573	0.611	-6.7	92	
37		1,4-Dioxane	0.153	0.183	-19.5	91	TC
38		Trichloroethene	0.411	0.453	-10.3	92	
39		Methyl Methacrylate	0.218	0.264	-20.9	92	TC
40		Heptane	0.240	0.275	-14.8	94	
41		cis-1,3-Dichloropropene	0.390	0.466	-19.5	93	
42		4-Methyl-2-Pentanone	0.622	0.744	-19.6	92	
43		trans-1,3-Dichloropropene	0.357	0.427	-19.6	93	
44		1,1,2-Trichloroethane	0.334	0.365	-9.1	93	

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LI16.m
Title : TO-15
Last Update : Mon Apr 04 11:29:02 2016
Response Via : Initial Calibration

CC Data File: LD71LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	
45		Toluene	0.852	1.011	-18.6	93	
46		2-Hexanone	0.558	0.697	-24.9	93	
47		Dibromochloromethane	0.759	0.839	-10.5	92	
48		1,2-Dibromoethane	0.545	0.615	-13.0	93	
49		Tetrachloroethene	0.473	0.528	-11.5	91	
50	I	Chlorobenzene d5	1.000	1.000	0.0	90	
51		Chlorobenzene	0.951	1.022	-7.4	93	
52		Ethylbenzene	1.248	1.477	-18.4	94	
53		m,p-Xylene	0.992	1.140	-14.9	92	
54		Bromoform	0.726	0.804	-10.7	92	
55		Styrene	0.751	0.936	-24.7	94	
56		1,1,2,2-Tetrachloroethane	0.809	0.881	-8.8	94	
57		o-Xylene	1.035	1.214	-17.3	94	
58	S	Bromofluorobenzene	0.601	0.616	-2.5	92	
59		4-Ethyl Toluene	1.369	1.717	-25.4	94	
60		1,3,5-Trimethylbenzene	1.263	1.498	-18.6	94	
61		1,2,4-Trimethylbenzene	1.177	1.468	-24.7	94	
62		Benzyl Chloride	1.058	1.313	-24.1	94	& ST
63		m-Dichlorobenzene	0.944	1.070	-13.3	94	
64		p-Dichlorobenzene	0.924	1.065	-15.3	94	
65		o-Dichlorobenzene	0.874	1.029	-17.7	95	
66		1,2,4-Trichlorobenzene	0.439	0.560	-27.6	93	& ST
67		Naphthalene	1.221	1.627	-33.2#	94	TR
68		Hexachloro-1,3-butadiene	0.415	0.475	-14.4	95	& ST

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M Hill
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014**	**Matrix:**	**Air**
Work Order:	**1614564**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received four summa canisters for VOA analysis. The samples were analyzed within thirty days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and µg/m³.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 100 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: The GC/MS was hardware tuned to meet the criteria for 4-Bromofluorobenzene as specified in the SOP. This tune check is valid for 24 hours.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 100 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: A "J" qualifier indicates that the result is greater than the MDL but less than the PQL. Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The “E” qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: 1614564001 and 1614564002 were analyzed 1:10 for tetrachloroethene.

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The “E” qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard **,** $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\,(I_s)\,(Df)}}{\mathbf{(A_{is})\,(RRF)}}\right]$$

Concentration in ug/m^3: $C =$ **ppb v/v (MW/24.45)**

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES
Environmental Division

Case Narrative

Method:	**TO15**	**Client:**	CH2M
Analysis:	**VOA**		
Preparation SOP #:	**IH-AN-014 (SIM)**	**Matrix:**	**Air**
Work Order:	**1614564 (SIM)**		

Analysis / Method: Method TO15 is an EPA method used in the analysis of air samples for volatile organics by GC/MS, which have been sampled in a silonized canister.

General Set Information: ALS received two summa canisters for VOA analysis. The samples were analyzed within thirty days of sampling. Recoveries of target analytes are reported on the Sample Analysis Data Sheet in units of ppb v/v and μg/m³.

Sample Preparation: This method has no extraction procedure for air samples. The sample preparation date is the same as the date of analysis. Two hundred milliliters of air sample and 50 milliliters of Internal Standard were trapped using an Entech 7100 microscale purge and trap concentrator.

Instrument Calibration: 4-Bromofluorobenzene calibration is not required for SIM analysis.

Initial and Continuing Calibration Verification: The initial calibration curve, which was analyzed prior to sample analysis, met the specified criteria of the SOP. For the initial calibration curve, the %RSD of the response factors for the TO-15 analytes were checked.

A continuing calibration standard (CCS) was analyzed prior to sample analysis. The CCS met the criteria as specified in the SOP.

Method Blank Analysis: A laboratory method blank was prepared using 200 milliliters of humidified ultra high purity nitrogen and 50 milliliters of Internal Standards and analyzed prior to sample analysis. The blank was free of volatile organic contaminants.

Data Qualifier Codes: Analytes found in field samples, which also appear in the method blank above the PQL are reported with a "B" qualifier in the flag column. The "E" qualifier indicates a reported value above the analytical linear range.

LCS/LCSD: An LCS and LCSD pair was analyzed for the analytical batch.

Dilutions: None

NC/CAR: None.

Miscellaneous Comments: Instrument designation is HP5972-L. Field samples were analyzed using auto sampler positions that were free from volatile contaminants. The "E" qualifier indicates a reported value above the analytical linear range.

Sample Calculations: Target Compounds

Relative Response Factor: $$\mathbf{RRF} = \left[\frac{\mathbf{A_x}}{\mathbf{A_{is}}}\right]\left[\frac{\mathbf{C_{is}}}{\mathbf{C_x}}\right]$$

Where $\mathbf{A_x}$ is the area of the characteristic ion for the compound to be measured, $\mathbf{A_{is}}$ is the area of the characteristic ion for the internal standard , $\mathbf{C_{is}}$ is the concentration of the internal standard, and $\mathbf{C_x}$ is the concentration of the compound to be measured.

Concentration in ppb v/v: $$C = \left[\frac{\mathbf{(A_x)\ (I_s)\ (Df)}}{\mathbf{(A_{is})\ (RRF)}}\right]$$

Concentration in ug/m^3 : $$C = \mathbf{ppb\ v/v\ (MW/24.45)}$$

Where $\mathbf{I_s}$ is the amount of internal standard spiked in ppb, **Df** is a dilution factor (1 if no dilutions are made), **RRF** is the relative response factor (assumed to be 1 for non target analytes) and **MW** is the molecular weight of the compound of interest.

ANALYTICAL REPORT

Report Date: May 26, 2016

CH2MHill Deliverables
CH2MHill
4246 South Riverboat Road
Suite 210
Salt Lake City, UT 84123

Phone: (385) 474-8553
Fax: (385) 474-8653
E-mail: edata@ch2m.com

Workorder: **34-1614564**
Project ID: 6655353.ZZ.01.04/AOU1 052416
Purchase Order: 6655353.ZZ.01.04
Project Manager Kevin W. Griffiths

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
A-0053H-052316-SG-001-6'(0037)	1614564001	05/23/16	05/24/16	AOU1
A-0053H-052316-SG-001-6'(0050)	1614564002	05/23/16	05/24/16	AOU1
A-0053H-052416-IA-BAS	1614564003	05/23/16	05/24/16	AOU1
A-0053H-052416-IA-BAS-D	1614564004	05/23/16	05/24/16	AOU1

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052316-SG-001-6'(0037)
Lab ID: 1614564001
Matrix: Air
Sampling Site: AOU1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 05/23/2016
Received: 05/24/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3262 (HBN: 169861)
Analyzed: 05/24/2016 18:24
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.66**	**3.3**	0.15	0.50	1	
Chloromethane	**0.64**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	**1.2**	**6.7**	0.15	0.50	1	
Freon 113	0.18	1.4	0.15	0.50	1	J
1,1-Dichloroethene	0.23	0.89	0.15	0.50	1	J
Acetone	**8.2**	**20**	0.30	1.0	1	
Carbon disulfide	**1.2**	**3.8**	0.15	0.50	1	
Methylene chloride	0.24	0.85	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	**2.5**	**8.9**	0.15	0.50	1	
Chloroform	**2.4**	**12**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	**7.3**	**40**	0.15	0.50	1	
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	0.31	0.98	0.15	0.50	1	J
Cyclohexane	**2.1**	**7.4**	0.15	0.50	1	
Trichloroethene	**3.3**	**18**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**4.7**	**19**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052316-SG-001-6'(0037) | Sampling Site: AOU1 | Collected: 05/23/2016
Lab ID: 1614564001 | Media: Summa 6 Liter Canister | Received: 05/24/2016
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3262 (HBN: 169861) | **Percent Solid:** NA
Analyzed: 05/24/2016 18:24 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.1**	**4.1**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.22	0.95	0.15	0.50	1	J
m,p-Xylene	**0.63**	**2.8**	0.15	0.50	1	
o-Xylene	0.3	1.3	0.15	0.50	1	J
Styrene	0.23	0.97	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.28	1.4	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,4-Dioxane	ND	<7.2	2.0	2.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3262 (HBN: 169861) | **Percent Solid:** NA
Analyzed: 05/24/2016 19:12 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Tetrachloroethene	**290**	**2000**	1.5	5.0	10	E

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052316-SG-001-6'(0050)
Lab ID: 1614564002
Matrix: Air
Sampling Site: AOU1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 05/23/2016
Received: 05/24/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3262 (HBN: 169861)
Analyzed: 05/24/2016 20:07
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.69**	**3.4**	0.15	0.50	1	
Chloromethane	**0.63**	**1.3**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
Vinyl chloride	ND	<0.38	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	**0.97**	**5.5**	0.15	0.50	1	
Freon 113	0.16	1.2	0.15	0.50	1	J
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**12**	**28**	0.30	1.0	1	
Carbon disulfide	**1.6**	**5.1**	0.15	0.50	1	
Methylene chloride	0.36	1.3	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	ND	<0.44	0.15	0.50	1	U
cis-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	ND	<0.54	0.15	1.0	1	U
Hexane	**4.6**	**16**	0.15	0.50	1	
Chloroform	**1.8**	**8.9**	0.15	0.50	1	
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	**5.7**	**31**	0.15	0.50	1	
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	**0.66**	**2.1**	0.15	0.50	1	
Cyclohexane	**3.9**	**13**	0.15	0.50	1	
Trichloroethene	**4.0**	**21**	0.15	0.50	1	
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	**8.2**	**33**	0.15	0.50	1	
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052316-SG-001-6'(0050) | Sampling Site: AOU1 | Collected: 05/23/2016
Lab ID: 1614564002 | Media: Summa 6 Liter Canister | Received: 05/24/2016
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3262 (HBN: 169861) | **Percent Solid:** NA
Analyzed: 05/24/2016 20:07 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**1.7**	**6.3**	0.15	0.50	1	
2-Hexanone	ND	<1.2	0.30	1.0	1	U
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	0.37	1.6	0.15	0.50	1	J
m,p-Xylene	**0.88**	**3.8**	0.15	0.50	1	
o-Xylene	0.45	1.9	0.15	0.50	1	J
Styrene	0.36	1.5	0.15	0.50	1	J
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.36	1.8	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U
1,4-Dioxane	ND	<7.2	2.0	2.0	1	U

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3262 (HBN: 169861) | **Percent Solid:** NA
Analyzed: 05/24/2016 20:55 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Tetrachloroethene	**220**	**1500**	1.5	5.0	10	E

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052416-IA-BAS
Lab ID: 1614564003
Matrix: Air
Sampling Site: AOU1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 05/23/2016
Received: 05/24/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3262 (HBN: 169861)
Analyzed: 05/24/2016 21:47
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.57**	**2.8**	0.15	0.50	1	
Chloromethane	**0.50**	**1.0**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.31	1.8	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**7.9**	**19**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.24	0.82	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.59**	**1.7**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.87	3.1	0.15	1.0	1	J
Hexane	0.23	0.80	0.15	0.50	1	J
Chloroform	0.18	0.86	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**0.68**	**2.6**	0.15	0.50	1	
2-Hexanone	0.41	1.7	0.30	1.0	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052416-IA-BAS
Lab ID: 1614564003
Matrix: Air
Sampling Site: AOU1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 05/23/2016
Received: 05/24/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3262 (HBN: 169861)
Analyzed: 05/24/2016 21:47
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.76**	**3.3**	0.15	0.50	1	
m,p-Xylene	**0.53**	**2.3**	0.15	0.50	1	
o-Xylene	0.19	0.81	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air
Batch: IVOA/3263 (HBN: 169913)
Analyzed: 05/25/2016 14:47
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**2.0**	**13**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052416-IA-BAS-D
Lab ID: 1614564004
Matrix: Air
Sampling Site: AOU1
Media: Summa 6 Liter Canister
Sampling Parameter: Air Volume 6 L
Collected: 05/23/2016
Received: 05/24/2016

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air
Batch: IVOA/3262 (HBN: 169861)
Analyzed: 05/24/2016 23:26
Instrument ID: 5975-L
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dichlorodifluoromethane	**0.58**	**2.9**	0.15	0.50	1	
Chloromethane	**0.51**	**1.0**	0.15	0.50	1	
Freon 114	ND	<1.0	0.15	0.50	1	U
1,3-Butadiene	ND	<0.33	0.15	0.50	1	U
Bromomethane	ND	<0.58	0.15	0.50	1	U
Chloroethane	ND	<0.40	0.15	0.50	1	U
Freon 11	0.32	1.8	0.15	0.50	1	J
Freon 113	ND	<1.1	0.15	0.50	1	U
1,1-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Acetone	**7.8**	**18**	0.30	1.0	1	
Carbon disulfide	ND	<0.47	0.15	0.50	1	U
Methylene chloride	0.19	0.66	0.15	0.50	1	J
trans-1,2-Dichloroethene	ND	<0.59	0.15	0.50	1	U
Methyl t-butyl ether	ND	<0.54	0.15	0.50	1	U
Vinyl acetate	ND	<0.53	0.15	0.50	1	U
2-Butanone	**0.51**	**1.5**	0.15	0.50	1	
1,1-Dichloroethane	ND	<0.61	0.15	0.50	1	U
Ethyl acetate	0.82	3.0	0.15	1.0	1	J
Hexane	0.24	0.86	0.15	0.50	1	J
Chloroform	0.18	0.90	0.15	0.50	1	J
Tetrahydrofuran	ND	<0.44	0.15	0.50	1	U
1,2-Dichloroethane	ND	<0.61	0.15	0.50	1	U
1,1,1-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Carbon tetrachloride	ND	<0.94	0.15	0.50	1	U
Benzene	ND	<0.48	0.15	0.50	1	U
Cyclohexane	ND	<0.52	0.15	0.50	1	U
1,2-Dichloropropane	ND	<0.73	0.15	0.50	1	U
Bromodichloromethane	ND	<1.0	0.15	0.50	1	U
Heptane	ND	<0.61	0.15	0.50	1	U
cis-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
4-Methyl-2-pentanone	ND	<0.61	0.15	0.50	1	U
trans-1,3-Dichloropropene	ND	<0.68	0.15	0.50	1	U
1,1,2-Trichloroethane	ND	<0.82	0.15	0.50	1	U
Toluene	**0.62**	**2.3**	0.15	0.50	1	
2-Hexanone	0.41	1.7	0.30	1.0	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Analytical Results

Sample ID: A-0053H-052416-IA-BAS-D | Sampling Site: AOU1 | Collected: 05/23/2016
Lab ID: 1614564004 | Media: Summa 6 Liter Canister | Received: 05/24/2016
Matrix: Air | Sampling Parameter: Air Volume 6 L

Analysis Method - EPA TO-15

Preparation: Not Applicable
Analysis: EPA TO-15, Air | **Instrument ID:** 5975-L
Batch: IVOA/3262 (HBN: 169861) | **Percent Solid:** NA
Analyzed: 05/24/2016 23:26 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	MDL (ppb)	RL (ppb)	Dilution	Qual
Dibromochloromethane	ND	<1.3	0.15	0.50	1	U
1,2-Dibromoethane	ND	<1.2	0.15	0.50	1	U
Chlorobenzene	ND	<0.69	0.15	0.50	1	U
Ethyl benzene	**0.74**	**3.2**	0.15	0.50	1	
m,p-Xylene	**0.55**	**2.4**	0.15	0.50	1	
o-Xylene	0.2	0.85	0.15	0.50	1	J
Styrene	ND	<0.64	0.15	0.50	1	U
Bromoform	ND	<1.6	0.15	0.50	1	U
1,1,2,2-Tetrachloroethane	ND	<1.0	0.15	0.50	1	U
4-Ethyl toluene	ND	<0.74	0.15	1.0	1	U
1,3,5-Trimethylbenzene	ND	<0.74	0.15	0.50	1	U
1,2,4-Trimethylbenzene	0.17	0.85	0.15	0.50	1	J
1,3-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,4-Dichlorobenzene	ND	<0.90	0.15	0.50	1	U
1,2-Dichlorobenzene	ND	<1.8	0.30	1.0	1	U

Analysis Method - EPA TO-15 SIM

Preparation: Not Applicable
Analysis: EPA TO-15 SIM, Air | **Instrument ID:** 5975-L
Batch: IVOA/3263 (HBN: 169913) | **Percent Solid:** NA
Analyzed: 05/25/2016 15:37 | **Report Basis:** Wet

Analyte	Result (ppb)	Result (ug/m³)	RL (ppb)	Dilution	Qual
Vinyl chloride	ND	<0.13	0.050	1	
cis-1,2-Dichloroethene	ND	<0.20	0.050	1	
Trichloroethene	ND	<0.27	0.050	1	
Tetrachloroethene	**1.9**	**13**	0.050	1	E
1,4-Dioxane	ND	<0.18	0.050	1	

Comments

Quality Control: EPA TO-15 - (HBN: 169861)

QC limits for 1,4-dioxane have not been established.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15	/S/ Lisa M. Reid 05/25/2016 15:18	/S/ Thomas J. Masoian 05/26/2016 11:53

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-15 SIM	/S/ Lisa M. Reid 05/26/2016 09:49	/S/ Joseph Gress 05/26/2016 18:02

Laboratory Contact Information

ALS Environmental
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Phone: (801) 266-7700
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General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ACLASS (DoD ELAP)	ADE-1420	http://www.aclasscorp.com
	Utah (NELAC)	DATA1	http://health.utah.gov/lab/labimp/
	Nevada	UT00009	http://ndep.nv.gov/bsdw/labservice.htm
	Oklahoma	UT00009	http://www.deq.state.ok.us/CSDnew/
	Iowa	IA# 376	http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx
	Florida (TNI)	E871067	http://www.dep.state.fl.us/labs/bars/sas/qa/
	Texas (TNI)	T104704456-11-1	http://www.tceq.texas.gov/field/qa/lab_accred_certif.html
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP/ELLAP)	101574	http://www.aihaaccreditedlabs.org
Lead Testing:			
CPSC	ACLASS (ISO 17025, CPSC)	ADE-1420	http://www.aclasscorp.com
Soil, Dust, Paint ,Air	AIHA (ISO 17025, AIHA ELLAP and NLLAP)	101574	http://www.aihaaccreditedlabs.org
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	http://www.aclasscorp.com

ANALYTICAL REPORT

Workorder: 34-1614564
Client: CH2M
Project Manager: Kevin W. Griffiths

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1614564

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3262 (HBN: 169861)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 501656
Analyzed: 05/24/2016 13:28

Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	0.15	0.500
Dichlorodifluoromethane	ND	0.15	0.500
Chloromethane	ND	0.15	0.500
Freon 114	ND	0.15	0.500
1,3-Butadiene	ND	0.15	0.500
Bromomethane	ND	0.15	0.500
Chloroethane	ND	0.15	0.500
Freon 11	ND	0.15	0.500
Freon 113	ND	0.15	0.500
1,1-Dichloroethene	ND	0.15	0.500
Acetone	ND	0.3	1.00
Carbon disulfide	ND	0.15	0.500
Methylene chloride	ND	0.15	0.500
cis-1,2-Dichloroethene	ND	0.15	0.500
trans-1,2-Dichloroethene	ND	0.15	0.500
Methyl t-butyl ether	ND	0.15	0.500
Vinyl acetate	ND	0.15	0.500
2-Butanone	ND	0.15	0.500
1,1-Dichloroethane	ND	0.15	0.500
Ethyl acetate	ND	0.15	1.00
Hexane	ND	0.15	0.500
Chloroform	ND	0.15	0.500
Tetrahydrofuran	ND	0.15	0.500
1,2-Dichloroethane	ND	0.15	0.500
1,1,1-Trichloroethane	ND	0.15	0.500
Trichloroethene	ND	0.15	0.500
Carbon tetrachloride	ND	0.15	0.500
Benzene	ND	0.15	0.500
Cyclohexane	ND	0.15	0.500
1,2-Dichloropropane	ND	0.15	0.500
Bromodichloromethane	ND	0.15	0.500
Heptane	ND	0.15	0.500
cis-1,3-Dichloropropene	ND	0.15	0.500
4-Methyl-2-pentanone	ND	0.15	0.500
trans-1,3-Dichloropropene	ND	0.15	0.500
1,1,2-Trichloroethane	ND	0.15	0.500
Tetrachloroethene	ND	0.15	0.500

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1614564

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3262 (HBN: 169861)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 501656
Analyzed: 05/24/2016 13:28
Units: ppb

Analyte	Result	MDL	RL
Toluene	ND	0.15	0.500
2-Hexanone	0.312	0.3	1.00
Dibromochloromethane	ND	0.15	0.500
1,2-Dibromoethane	ND	0.15	0.500
Chlorobenzene	ND	0.15	0.500
Ethyl benzene	ND	0.15	0.500
m,p-Xylene	ND	0.15	0.500
o-Xylene	ND	0.15	0.500
Styrene	ND	0.15	0.500
Bromoform	ND	0.15	0.500
1,1,2,2-Tetrachloroethane	ND	0.15	0.500
4-Ethyl toluene	ND	0.15	1.00
1,3,5-Trimethylbenzene	ND	0.15	0.500
1,2,4-Trimethylbenzene	ND	0.15	0.500
1,3-Dichlorobenzene	ND	0.15	0.500
1,4-Dichlorobenzene	ND	0.15	0.500
1,4-Dioxane	ND	NA	2.00
1,2-Dichlorobenzene	ND	0.3	1.00

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 501657
Analyzed: 05/24/2016 11:01
Dilution: 1
Units: ppb

LCSD: 501658
Analyzed: 05/24/2016 11:52
Dilution: 1
Units: ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
Dichlorodifluoromethane	12.0	10.0	120	44.8	152.0	11.8	118	1.63	0.0	25.0
Chloromethane	11.0	10.0	110	37.3	153.2	10.8	108	1.54	0.0	25.0
Freon 114	11.1	10.0	111	54.2	145.9	11.2	112	0.760	0.0	25.0
Vinyl chloride	11.3	10.0	113	51.9	146.1	11.3	113	0.240	0.0	25.0
1,3-Butadiene	11.0	10.0	110	49.0	147.5	10.9	109	0.501	0.0	25.0
Bromomethane	11.3	10.0	113	51.7	149.4	11.1	111	2.36	0.0	25.0
Chloroethane	11.1	10.0	111	51.1	144.9	11.0	110	0.370	0.0	25.0
Freon 11	12.1	10.0	121	47.8	148.9	12.0	120	1.28	0.0	25.0
Freon 113	11.2	10.0	112	69.0	133.4	11.2	112	0.322	0.0	25.0
1,1-Dichloroethene	11.8	10.0	118	53.6	144.6	11.8	118	0.0425	0.0	25.0
Acetone	12.4	10.0	124	30.7	150.8	12.4	124	0.564	0.0	25.0
Carbon disulfide	11.6	10.0	116	60.9	136.3	11.6	116	0.302	0.0	25.0
Methylene chloride	11.0	10.0	110	59.2	132.9	10.9	109	0.830	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1614564

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3262 (HBN: 169861)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 501657	LCSD: 501658
Analyzed:	05/24/2016 11:01	05/24/2016 11:52
Dilution:	1	1
Units:	ppb	ppb

Analyte	Result	Target	% Rec	QC Limits		Result	% Rec	RPD	QC Limits	
trans-1,2-Dichloroethene	11.2	10.0	112	62.5	139.3	11.2	112	0.393	0.0	25.0
Methyl t-butyl ether	11.7	10.0	117	66.1	138.6	11.7	117	0.0771	0.0	25.0
Vinyl acetate	11.6	10.0	116	53.4	155.7	11.6	116	0.189	0.0	25.0
2-Butanone	12.1	10.0	121	57.2	147.8	12.3	123	0.934	0.0	25.0
cis-1,2-Dichloroethene	11.3	10.0	113	63.7	141.6	11.3	113	0.0619	0.0	25.0
1,1-Dichloroethane	11.6	10.0	116	62.2	134.2	11.6	116	0.250	0.0	25.0
Ethyl acetate	11.1	10.0	111	54.4	150.1	11.0	110	0.983	0.0	25.0
Hexane	10.8	10.0	108	60.2	142.1	10.9	109	1.12	0.0	25.0
Chloroform	11.7	10.0	117	64.6	131.2	11.7	117	0.0685	0.0	25.0
Tetrahydrofuran	11.2	10.0	112	64.2	147.0	11.2	112	0.107	0.0	25.0
1,2-Dichloroethane	12.0	10.0	120	52.7	143.7	12.1	121	0.116	0.0	25.0
1,1,1-Trichloroethane	11.8	10.0	118	61.5	137.3	11.9	119	0.0084	0.0	25.0
Carbon tetrachloride	12.0	10.0	120	57.9	143.2	12.0	120	0.00	0.0	25.0
Benzene	10.9	10.0	109	56.5	143.5	11.0	110	0.648	0.0	25.0
Cyclohexane	10.9	10.0	109	61.8	131.9	11.0	110	0.983	0.0	25.0
Trichloroethene	11.0	10.0	110	70.9	137.0	11.1	111	0.578	0.0	25.0
1,2-Dichloropropane	10.9	10.0	109	59.7	139.7	10.9	109	0.174	0.0	25.0
Bromodichloromethane	11.9	10.0	119	63.3	136.4	11.9	119	0.0251	0.0	25.0
Heptane	11.0	10.0	110	59.0	148.1	10.9	109	0.320	0.0	25.0
cis-1,3-Dichloropropene	11.5	10.0	115	65.9	142.6	11.5	115	0.374	0.0	25.0
4-Methyl-2-pentanone	11.5	10.0	115	62.1	149.0	11.5	115	0.844	0.0	25.0
trans-1,3-Dichloropropene	11.7	10.0	117	64.7	145.3	11.9	119	1.86	0.0	25.0
1,1,2-Trichloroethane	11.3	10.0	113	68.3	134.4	11.4	114	0.661	0.0	25.0
Toluene	11.2	10.0	112	66.1	146.5	11.3	113	1.05	0.0	25.0
2-Hexanone	12.1	10.0	121	58.5	162.0	12.2	122	0.755	0.0	25.0
Tetrachloroethene	11.0	10.0	110	60.0	146.0	11.2	112	1.03	0.0	25.0
Dibromochloromethane	11.9	10.0	119	68.0	141.8	12.0	120	0.351	0.0	25.0
1,2-Dibromoethane	11.6	10.0	116	72.6	136.7	11.7	117	0.995	0.0	25.0
Chlorobenzene	10.7	10.0	107	67.4	134.7	10.8	108	1.45	0.0	25.0
Ethyl benzene	11.0	10.0	110	64.2	147.4	11.1	111	1.66	0.0	25.0
m,p-Xylene	21.7	20.0	108	62.3	145.6	22.0	110	1.57	0.0	25.0
o-Xylene	10.9	10.0	109	60.8	147.6	11.1	111	1.62	0.0	25.0
Styrene	10.9	10.0	109	60.9	160.8	11.0	110	1.53	0.0	25.0
Bromoform	11.5	10.0	115	50.0	155.2	11.6	116	1.58	0.0	25.0
1,1,2,2-Tetrachloroethane	10.8	10.0	108	49.5	150.8	11.0	110	1.88	0.0	25.0
4-Ethyl toluene	11.3	10.0	113	57.1	161.2	11.4	114	0.888	0.0	25.0
1,3,5-Trimethylbenzene	11.1	10.0	111	54.1	155.1	11.2	112	1.01	0.0	25.0

Quality Control Sample
Batch Report

Analysis Information

Workorder: **1614564**

Limits:	Historical/Performance	**Preparation:**	NA
Basis:	ALS Laboratory Group	**Batch:**	NA
		Prepared By:	NA
Analysis:	EPA TO-15		
Batch:	IVOA/3262 (HBN: 169861)		
Analyzed By:	Lisa M. Reid		

Laboratory Control Sample - Laboratory Control Sample Duplicate

	LCS: 501657					LCSD: 501658				
	Analyzed: 05/24/2016 11:01					Analyzed: 05/24/2016 11:52				
	Dilution: 1					Dilution: 1				
	Units: ppb					Units: ppb				
Analyte	**Result**	**Target**	**% Rec**	**QC Limits**		**Result**	**% Rec**	**RPD**	**QC Limits**	
1,2,4-Trimethylbenzene	11.3	10.0	113	50.4	163.6	11.4	114	1.12	0.0	25.0
1,3-Dichlorobenzene	11.0	10.0	110	53.9	158.0	11.2	112	0.964	0.0	25.0
1,4-Dichlorobenzene	11.0	10.0	110	52.0	161.4	11.3	113	2.07	0.0	25.0
1,2-Dichlorobenzene	11.2	10.0	112	49.3	164.0	11.4	114	1.55	0.0	25.0
1,4-Dioxane	10.6	10.0	106	70.0	130.0	10.8	108	1.08	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	67.7	129.9
Units	ppb	

Lab ID	**Result**	**Target**	**% Recovery**
501657-LCS	19.5	20.0	97.4
501658-LCSD	19.5	20.0	97.5
501656-MB	18.9	20.0	94.3
1614564001	19.2	20.0	96.1
1614564001	19.3	20.0	96.5
1614564002	19.5	20.0	97.3
1614564002	19.2	20.0	95.9
1614564003	19.1	20.0	95.3
1614564004	19.1	20.0	95.4

Comments

QC limits for 1,4-dioxane have not been established.

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	**Peer Review**
/S/ Lisa M. Reid	/S/ Thomas J. Masoian
05/25/2016 15:18	05/26/2016 11:53

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

Quality Control Sample
Batch Report

Analysis Information

Workorder: 1614564

Limits:	Historical/Performance	**Preparation:**	NA	**Analysis:**	EPA TO-15 SIM
Basis:	ALS Laboratory Group	**Batch:**	NA	**Batch:**	IVOA/3263 (HBN: 169913)
		Prepared By:	NA	**Analyzed By:**	Lisa M. Reid

Blank

MB: 501738
Analyzed: 05/25/2016 13:56
Units: ppb

Analyte	Result	MDL	RL
Vinyl chloride	ND	NA	0.0500
cis-1,2-Dichloroethene	ND	NA	0.0500
Trichloroethene	ND	NA	0.0500
Tetrachloroethene	ND	NA	0.0500
1,4-Dioxane	ND	NA	0.0500

Laboratory Control Sample - Laboratory Control Sample Duplicate

LCS: 501739
Analyzed: 05/25/2016 11:33
Dilution: 1
Units: ppb

LCSD: 501740
Analyzed: 05/25/2016 12:21
Dilution: 1
Units: ppb

Analyte	LCS Result	Target	% Rec	QC Limits		LCSD Result	% Rec	RPD	QC Limits	
Vinyl chloride	0.542	0.500	108	66.9	144.4	0.576	115	6.08	0.0	25.0
cis-1,2-Dichloroethene	0.509	0.500	102	52.2	167.4	0.544	109	6.73	0.0	25.0
Trichloroethene	0.575	0.500	115	33.8	166.6	0.597	119	3.71	0.0	25.0
Tetrachloroethene	0.614	0.500	123	63.6	150.7	0.627	125	2.06	0.0	25.0
1,4-Dioxane	0.461	0.500	92.3	70.0	130.0	0.471	94.2	2.09	0.0	25.0

Surrogate Recoveries

Surrogate	4-Bromofluorobenzene	
QC Limits	48.8	151.8
Units	ppb	

Lab ID	Result	Target	% Recovery
501739-LCS	0.937	1.00	93.7
501740-LCSD	0.939	1.00	93.9
501738-MB	0.896	1.00	89.6
1614564003	0.938	1.00	93.8
1614564004	0.940	1.00	94.0

QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Lisa M. Reid 05/26/2016 09:52	/S/ Joseph Gress 05/26/2016 18:02

Symbols and Definitions

- * - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- ◓ - Sample and Matrix Duplicate less than 5 times the reporting limit
- ● - Result is above the calibration range

RPD - Relative % Difference (Spike / Spike Duplicate)
ND - Not Detected (U - Qualifier also flags analyte as not detected)
NA - Not Applicable
QC results are not adjusted for moisture correction, where applicable

1614564

Air Analysis Chain of Custody Record

15837/# X 5

1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330
(541) 768-3120

1614564

AN AGREEMENT TO PERFORM SERVICES

Client Contact: Dawn Buffington / Mark Cichy
Project Name: AOC 1
Project # or PO #: 665353.ZZ.01.04
Company Name: CH2M
Address: 4246 S. Riverboat Rd Suite 210
City/State/Zip: Taylorsville, UT 84123
Project Manager: David Wolfe
Phone #: 385-474-8505
Report to email: mark.cichy@ch2m

Analysis Turnaround Time
TAT is Calendar days
TAT if different from below
☐ 21 days (STD)
☐ 14 days *
☐ 7 days *
☐ 5 days *
☐ 3 day *
☑ 2 days *
☐ 1 day *
* (Surcharges may apply)

Analysis Requested
TO-15 (*) Full Scan only As per Mark Cichy
5-24-16

For Lab Use Only:
SDG:
Custody Seals Intact? ☐ Yes ☐ No
Hand delivered? ☐ Yes ☐ No
Sample Temp: ____ °C
Therm ID No.: ____ Therm Exp. ____
Packing Material: Circle Below
Box Bubble Wrap Other
Radiological Screen? ☐ Yes ☐ No

Lab ID	Sample Identification (20 character limit)	Sample Start Date	Sample Start Time	Sample End Date	Sample End Time	Sample Type (*)	Matrix	Grab/ Comp	TO-15 (*)							Canister Start Pressure (inches in Hg/psig)	Canister Final Pressure (inches in Hg/psig)	Canister ID	Flow Controller
	A-0053H-052316-SG-001-6'	5/23	12:10	5/23	12:10	SV	AIR	G	✓							-25	-5	0037	N/A
	A-0053H-052316-SG-001-6'	5/23	12:15	5/23	12:15	SV	AIR	G	✓							-25	-5	0050	N/A
	A-0053H-052416-IA-BAS	5/23	11:04	5/24	08:30	A	AIR	G	✓							-24	-3.6	0376	0466
	A-0053H-052416-IA-BAS-D	5/23	11:04	5/24	08:30	A	AIR	G	✓							-24	-0.1	0357	0152
							AIR												
							AIR												
							AIR												
							AIR												
							AIR												
							AIR												
							AIR												
							AIR												
							AIR												
							AIR												

* Sample Type (A) Ambient (SV) Soil Vapor (SS) Subslab (P) Process (O) Other

Sampled By: [signature] Date/Time: 5/23/16 1210
Received by: [signature] Date/Time: 05-24-16 09:50
Received in Laboratory by: Date/Time:

Relinquished by: [signature] Date/Time: 5/24/16
Relinquished by: Date/Time:
Shipped Via: N/A ☐ UPS ☐ Fed-Ex ☐ USPS ☐ Other Tracking #:

Special Instructions/QC Requirements
(*) 1,4-Dioxane, VC, cis12DCE, TCE, PCE by TO-15 SIM, other VOCs by SCAN; See attached table
Data Deliverable: Level 4 Lab spec 7

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value (µg/m³) [a]	RL [c] (µg/m³)	Soil Gas Method	Screening Level[b]	Lowest Screening Level Value (µg/m³) [b]	RL [c] (µg/m³)
1,1,1-Trichloroethane	71-55-6	TO-15	EPA RSL	520	2.7	TO-15	VISL	520	2.7
1,1,2,2-Tetrachloroethane	79-34-5	TO-15	EPA RSL	0.042	3.4	TO-15	VISL	0.42	3.4
1,1,2-Trichloroethane	79-00-5	TO-15	EPA RSL	0.15	2.7	TO-15	VISL	0.21	2.7
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	TO-15	EPA RSL	3,100	3.8	TO-15	VISL	34,000	3.8
1,1-Dichloroethane	75-34-3	TO-15	EPA RSL	1.5	2.0	TO-15	VISL	15	2.0
1,1-Dichloroethene	75-35-4	TO-15	EPA RSL	21	2.0	TO-15	VISL	210	2.0
1,2,4-Trimethylbenzene	95-63-6	TO-15	EPA RSL	0.73	2.5	TO-15	VISL	7.3	2.5
1,2-Dibromoethane (EDB)	106-93-4	TO-15	EPA RSL	0.0041	3.8	TO-15	VISL	0.041	3.8
1,2-Dichlorobenzene	95-50-1	TO-15	EPA RSL	21	6.0	TO-15	VISL	210	6.0
1,2-Dichloroethane	107-06-2	TO-15	EPA RSL	0.094	2.0	TO-15	VISL	0.94	2.0
1,2-Dichloropropane	78-87-5	TO-15	EPA RSL	0.24	2.3	TO-15	VISL	2.4	2.3
1,2-Dichlorotetrafluoethane (Freon 114)	76-14-2	TO-15	EPA RSL	3,100	3.5	TO-15	VISL	31,000	3.5
1,3,5-Trimethylbenzene	108-67-8	TO-15	EPA RSL	0.73	2.5	TO-15	VISL	7.3	2.5
1,3-Butadiene	106-99-0	TO-15	EPA RSL	0.081	1.1	TO-15	VISL	0.81	1.1
1,3-Dichlorobenzene	541-73-1	TO-15	EPA RSL	21	3.0	TO-15	VISL	210	3.0
1,4-Dichlorobenzene	106-46-7	TO-15	EPA RSL	0.22	3.0	TO-15	VISL	2.2	3.0
1,4-Dioxane	123-91-1	TO-15 SIM	EPA RSL	0.49	0.72	TO-15	VISL	4.9	7.2
2-Butanone (Methyl Ethyl Ketone)	78-93-3	TO-15	EPA RSL	520	0.15	TO-15	VISL	5,200	0.15
2-Hexanone	591-78-6	TO-15	EPA RSL	3.1	4.0	TO-15	VISL	31	4.0
4-Ethyltoluene	622-96-8	TO-15	--	--	2.5	TO-15	VISL	--	2.5
4-Methyl-2-pentanone	108-10-1	TO-15	EPA RSL	310	2.0	TO-15	VISL	3,100	2.0
Acetone	67-64-1	TO-15	EPA RSL	3,200	1.2	TO-15	VISL	32,000	1.2
Benzene	71-43-2	TO-15	EPA RSL	0.31	1.6	TO-15	VISL	3.1	1.6
Bromodichloromethane	75-27-4	TO-15	EPA RSL	0.066	3.4	TO-15	VISL	0.66	3.4

TABLE 7: Project Laboratory – Target Analytes and Quantitation Limits
Volatile Organic Compounds in Indoor Air and Soil Gas
AOU-1 - 700 South 1600 East PCE Plume, Salt Lake City, Utah

Analyte	CAS Number	Indoor Air Method	Screening Level[a]	Lowest Screening Level Value ($\mu g/m^3$) [a]	RL [(c)] ($\mu g/m^3$)	Soil Gas Method	Screening Level[b]	Lowest Screening Level Value ($\mu g/m^3$) [b]	RL [(c)] ($\mu g/m^3$)
trans-1,3-Dichloropropene	542-75-6	TO-15	EPA RSL	0.61	2.3	TO-15	VISL	6.1	2.3
Trichloroethene	79-01-6	TO-15 SIM	EPA RSL	0.21	0.27	TO-15	VISL	0.42	2.7
Trichlorofluoromethane (Freon 11)	75-69-4	TO-15	EPA RSL	73	2.8	TO-15	VISL	730	2.8
Vinyl Acetate	108-05-4	TO-15	EPA RSL	21	1.8	TO-15	VISL	210	1.8
Vinyl Chloride	75-01-4	TO-15 SIM	EPA RSL	0.16	0.13	TO-15	VISL	1.6	1.3

[a] RSLs for residential exposure. RSLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[b] Residential VISLs using an attenuation factor (AF) of 0.1. VISLs corresponding to an ELCR of 1E-06 and an HQ of 0.1 were used.
[c] RLs are from ALS Global – Salt Lake City
Notes:
$\mu g/m^3$ = micrograms per cubic meter.
RL= Reporting limit.

Batch Worklist

Batch: IVOA/3262 Created: 5/25/2016 12:33 Instrument: 5975-L HBN: 169861

Rule: EPA TO-15, Air Analyst: L. Reid Status: WP

Workorder: 1614564

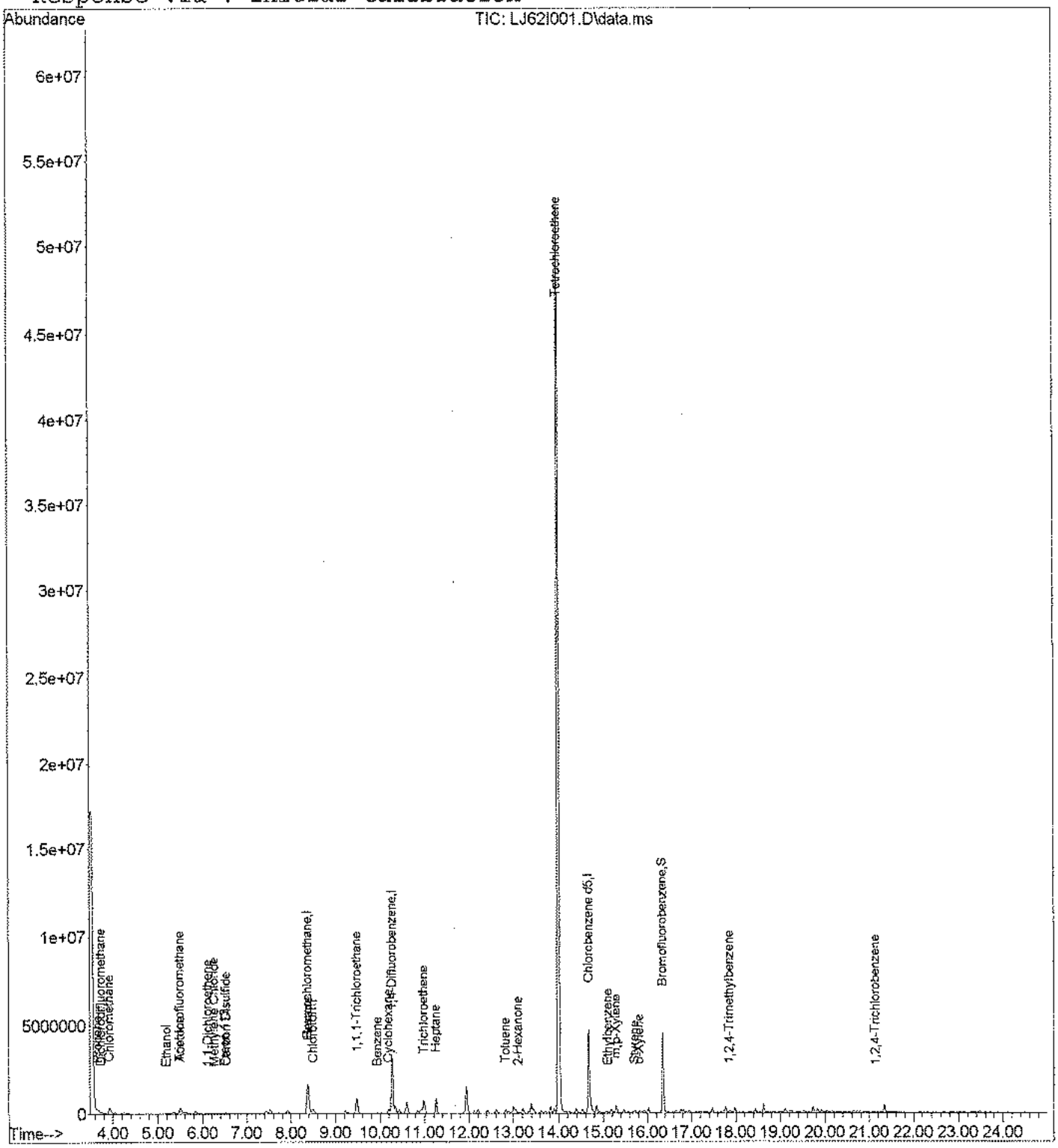
Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	501656	MB for HBN 169861 [IVOA/3262]				MB	1		ETO15...1Q	5320		5/26/2016	5/24/2016
2	501657	LCS for HBN 169861 [IVOA/3262]				LCS	1		ETO15...1Q	5320		5/26/2016	5/24/2016
3	501658	LCSD for HBN 169861 [IVOA/3262				LCSD	1		ETO15...1Q	5320		5/26/2016	5/24/2016
4	501659	RLVS for HBN 169861 [IVOA/3262				RLVS	1		ETO15...1Q	5320		5/26/2016	5/24/2016
5	1614564001	A-0053H-052316-SG-001-6'(0037)				SAMPLE	1	1614564001-A	ETO15....1	5480		5/26/2016	5/24/2016
6	1614564001 *RERUN[5320,CF]	A-0053H-052316-SG-001-6'(0037)				SAMPLE	1	1614564001-A	ETO15....1	5480		5/26/2016	5/24/2016
7	1614564002	A-0053H-052316-SG-001-6'(0050)				SAMPLE	1	1614564002-A	ETO15....1	5480		5/26/2016	5/24/2016
8	1614564002 *RERUN[5320,CF]	A-0053H-052316-SG-001-6'(0050)				SAMPLE	1	1614564002-A	ETO15....1	5480		5/26/2016	5/24/2016
9	1614564003	A-0053H-052416-IA-BAS				SAMPLE	1	1614564003-A	ETO15....1	5480		5/26/2016	5/24/2016
10	1614564004	A-0053H-052416-IA-BAS-D				SAMPLE	1	1614564004-A	ETO15....1	5480		5/26/2016	5/24/2016

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ62I001.D Vial: 11
Acq Time : 05/24/2016 18:24 Operator: TJM
Sample : 1614564001 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:28:00 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ62I001.D Vial: 11
Acq Time : 05/24/2016 18:24 Operator: TJM
Sample : 1614564001 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:28:00 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.38	130	314304	20.0000 ppb		83.08
25) 1,4-Difluorobenzene	10.27	114	4139740	20.0000 ppb		84.53
50) Chlorobenzene d5	14.68	117	3870141	20.0000 ppb		88.91
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.34	95	2000020	19.2101 ppb		96.05%
Target Compounds						Qvalue
2) Propene	3.68	41	34342	1.0966 ppb	#	76
3) Dichlorodifluoromethane	3.76	85	77748	0.6643 ppb		98
4) Chloromethane	3.93	50	22712	0.6401 ppb	#	74
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.49	43	553831	8.2472 ppb		90
12) Trichlorofluoromethane	5.48	101	170711	1.1924 ppb		96
13) Ethanol	5.19	45	33903	2.4853 ppb	m	1
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	6.11	61	16415	0.2252 ppb	#	73
16) Methylene Chloride	6.27	84	10493	0.2449 ppb	#	65
17) Freon 113	6.50	151	20054	0.1818 ppb	#	78
18) Carbon Disulfide	6.54	76	145742	1.2119 ppb	#	63
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	8.39	57	184669	2.5307 ppb	#	84
28) Chloroform	8.49	83	254716	2.3792 ppb		97
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	9.48	97	916540	7.3209 ppb	#	93
32) Benzene	9.94	78	43197	0.3067 ppb	#	90
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	10.20	84	146772	2.1382 ppb	#	66
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ62I001.D Vial: 11
Acq Time : 05/24/2016 18:24 Operator: TJM
Sample : 1614564001 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:28:00 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	10.97	130	337195	3.3211 ppb	98
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.25	71	231618	4.6920 ppb #	52
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	206027	1.0784 ppb	99
46)	2-Hexanone	13.11	43	16693	0.1539 ppb m	73
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.00	166	24826058	202.5135 ppb #	77
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	58778	0.2187 ppb	97
53)	m,p-Xylene	15.30	91	131009	0.6345 ppb	98
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.70	104	39658	0.2279 ppb	97
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	62425	0.2953 ppb	99
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	73654	0.2833 ppb	99
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	24839	0.2256 ppb #	96
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

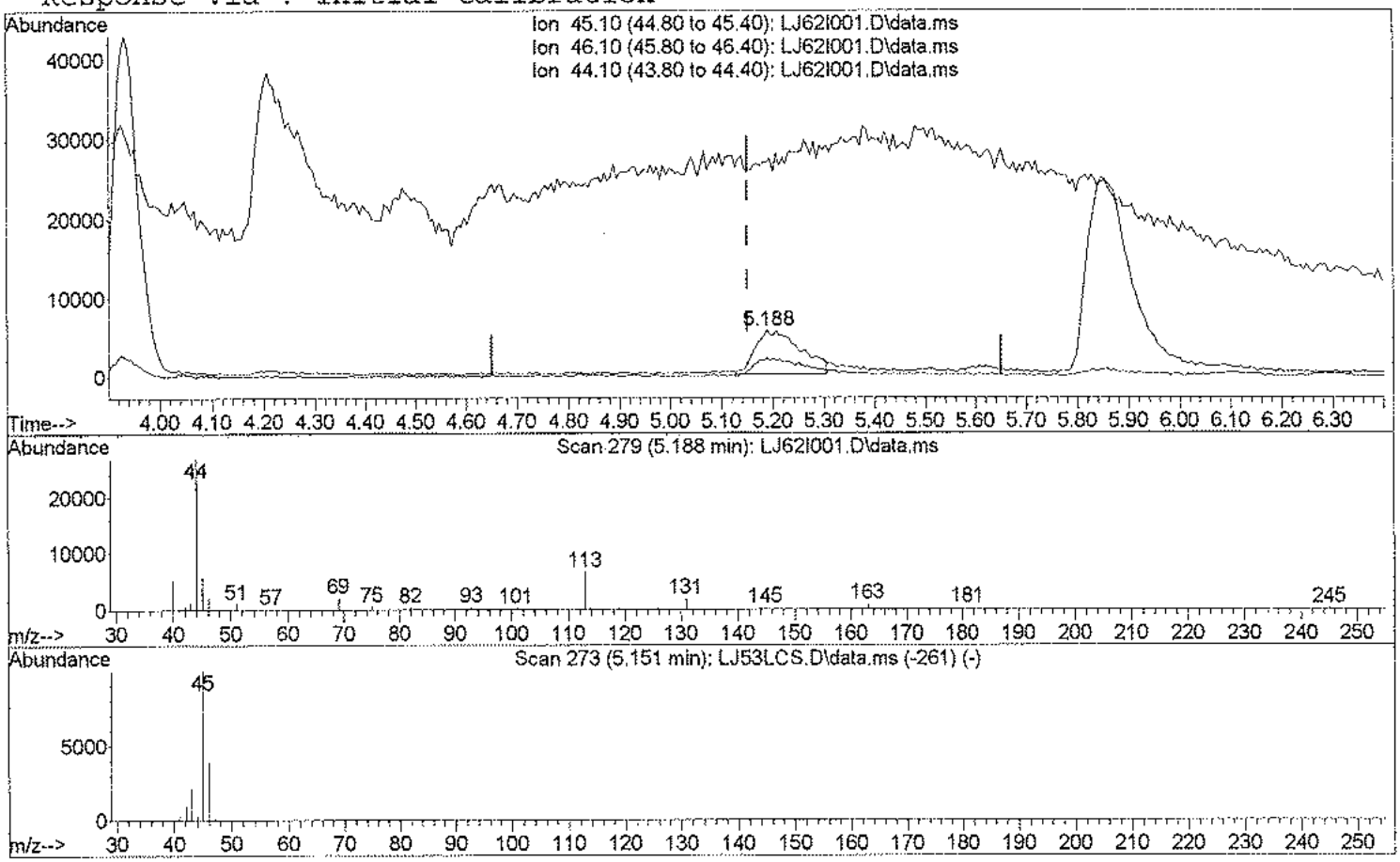
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ62I001.D
Acq On : 05/24/2016 18:24
Operator : TJM
Sample : 1614564001
Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:40:50 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☑ under-integrated peak's area
- ☐ other _____

initials L *date* 05-25-16



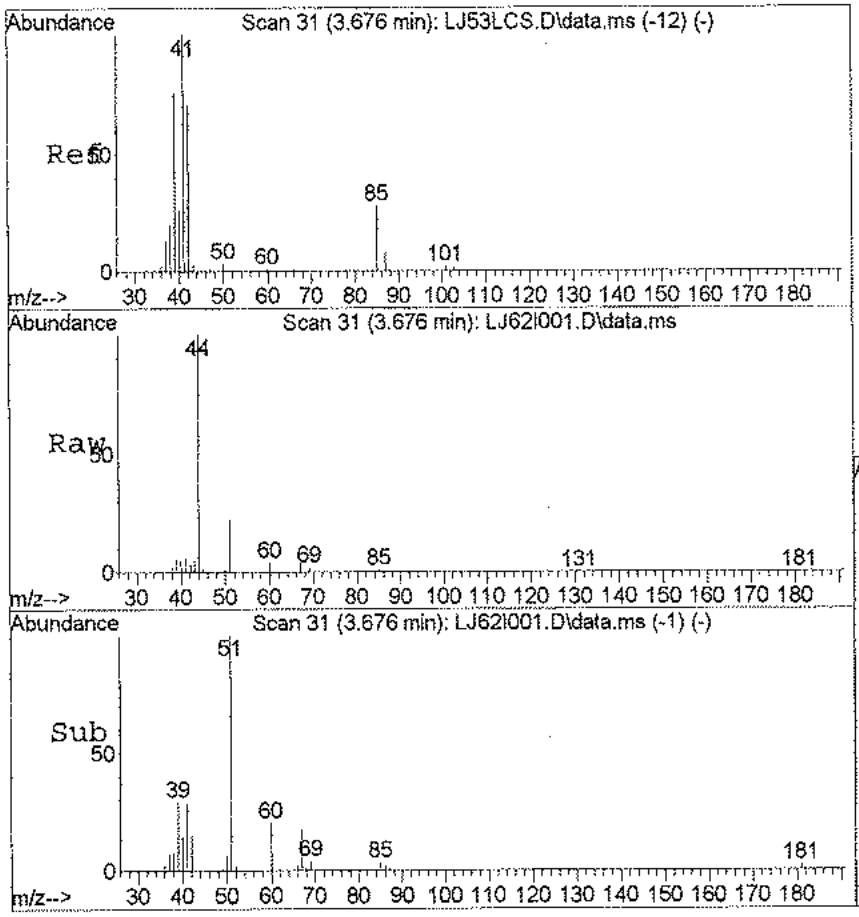
TIC: LJ62I001.D\data.ms

(13) Ethanol

5.188min (+ 0.037) 2.49 ppb m

response 33903

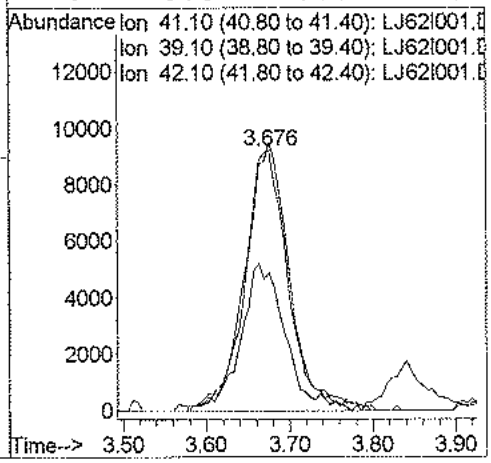
Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	47.58
44.10	29.30	0.00#
0.00	0.00	0.00

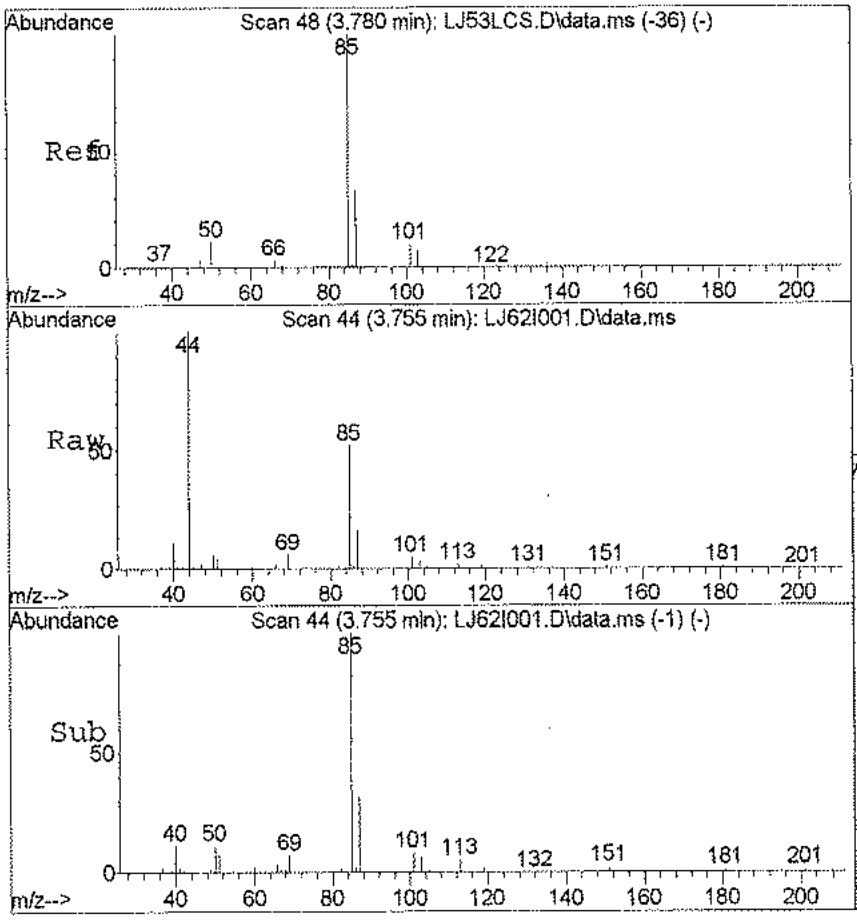


#2
Propene
Concen: 1.10 ppb
RT: 3.68 min Scan# 31
Delta R.T. 0.00 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:41.1 Resp: 34342

Ion	Ratio	Lower	Upper
41	100		
39	98.3	56.2	84.4#
42	56.3	53.8	80.6
0	0.0	0.0	0.0

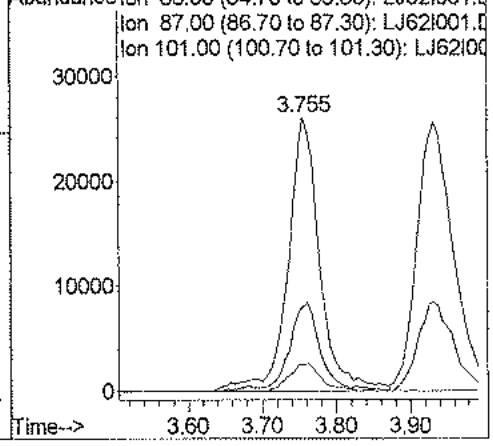


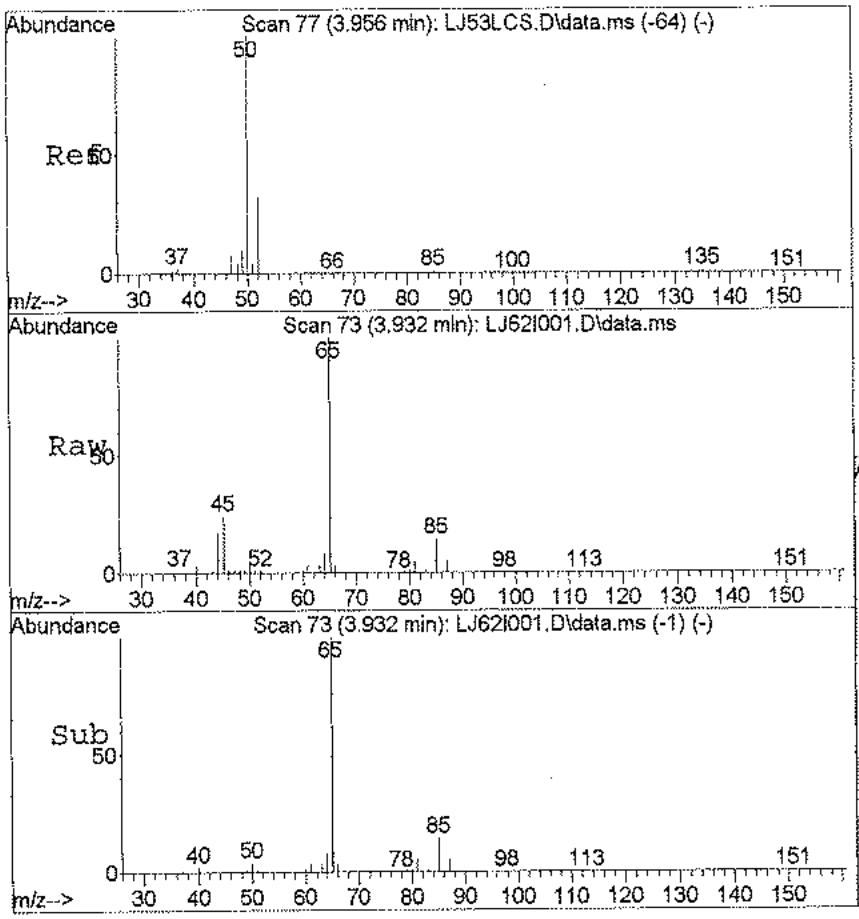


#3
Dichlorodifluoromethane
Concen: 0.66 ppb
RT: 3.76 min Scan# 44
Delta R.T. -0.02 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:85 Resp: 77748

Ion	Ratio	Lower	Upper
85	100		
87	31.2	26.1	39.1
101	10.1	8.0	12.0
0	0.0	0.0	0.0

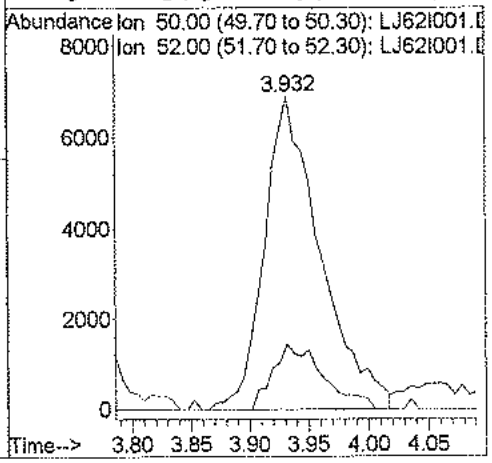


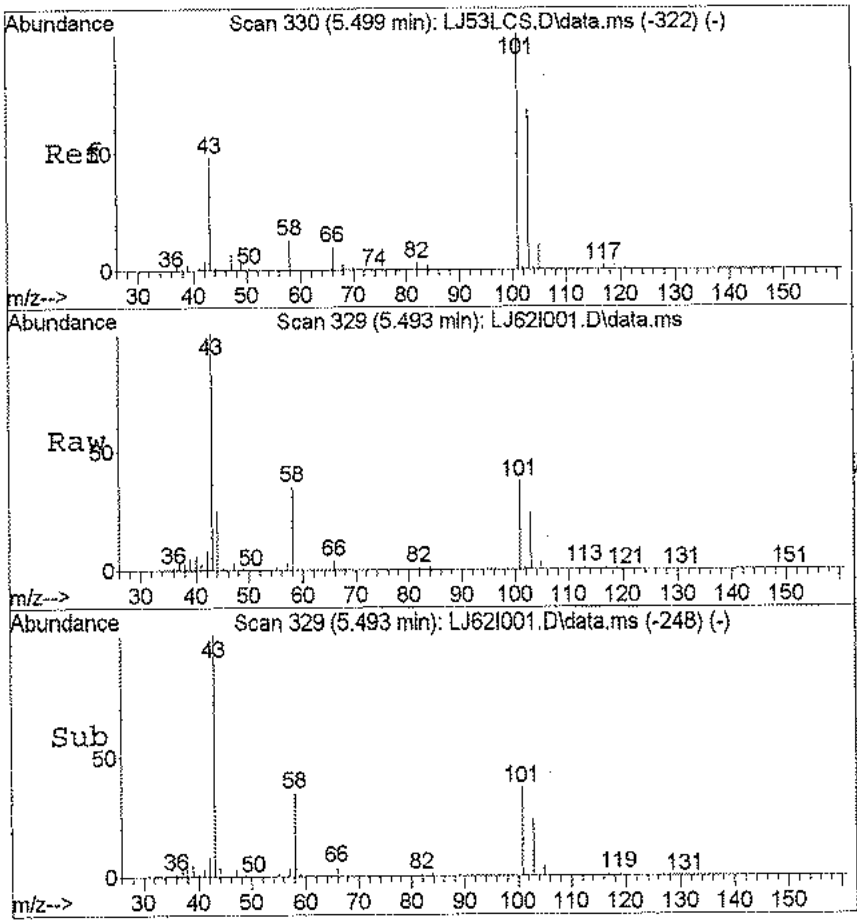


#4
Chloromethane
Concen: 0.64 ppb
RT: 3.93 min Scan# 73
Delta R.T. -0.02 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:50 Resp: 22712

Ion	Ratio	Lower	Upper
50	100		
52	18.8	26.6	40.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

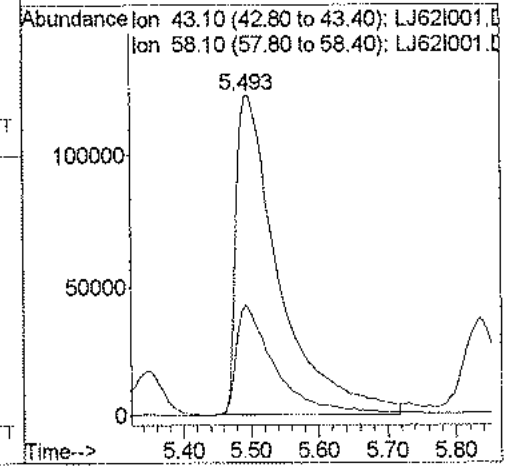


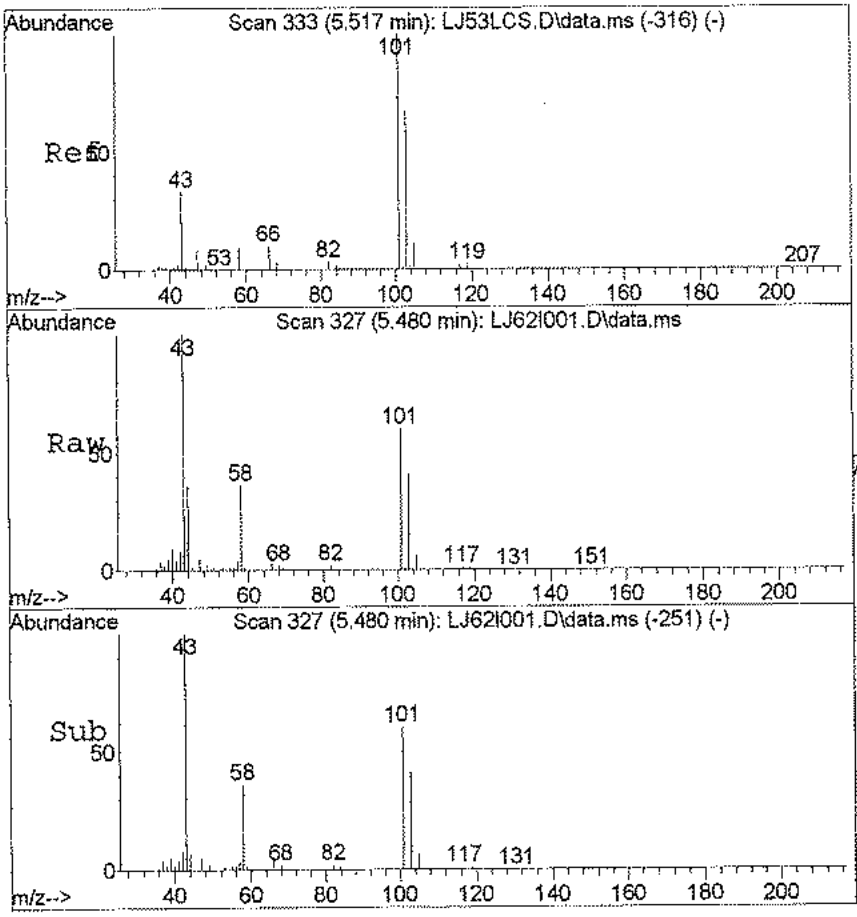


#11
Acetone
Concen: 8.25 ppb
RT: 5.49 min Scan# 329
Delta R.T. -0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:43.1 Resp: 553831

Ion	Ratio	Lower	Upper
43	100		
58	32.0	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

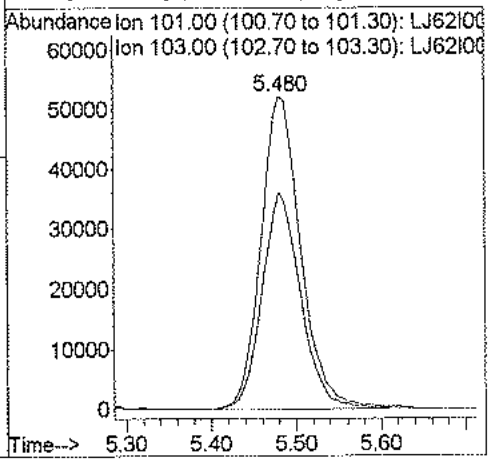


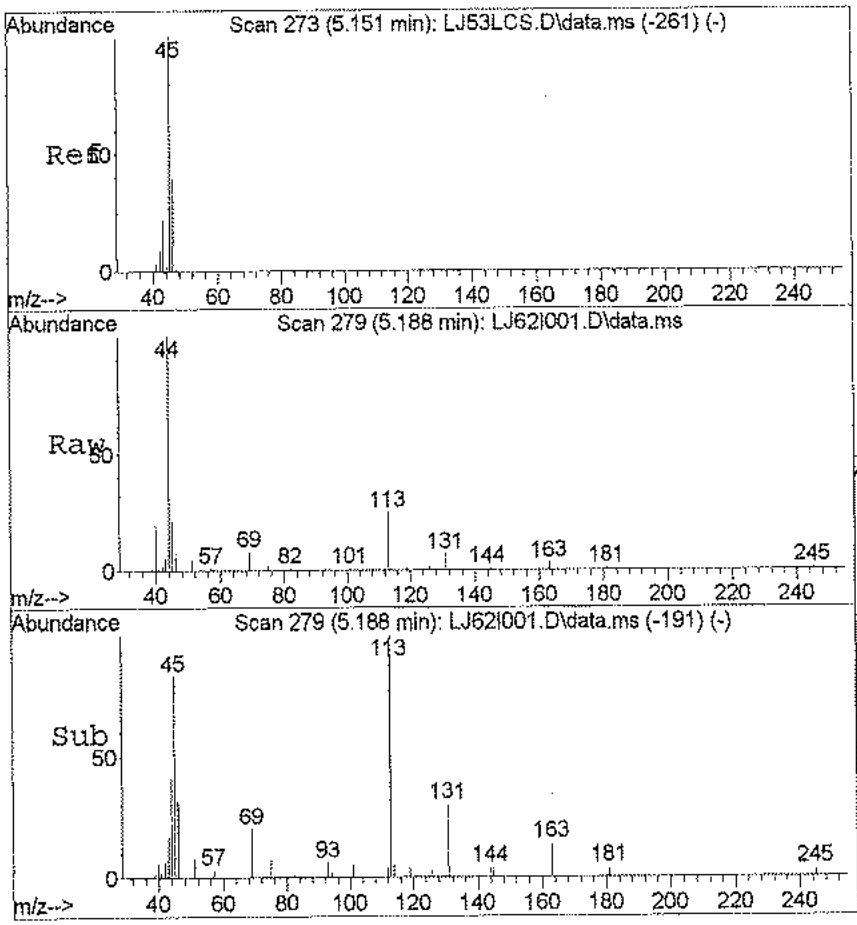


#12
Trichlorofluoromethane
Concen: 1.19 ppb
RT: 5.48 min Scan# 327
Delta R.T. -0.04 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:101 Resp: 170711

Ion	Ratio	Lower	Upper
101	100		
103	67.1	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

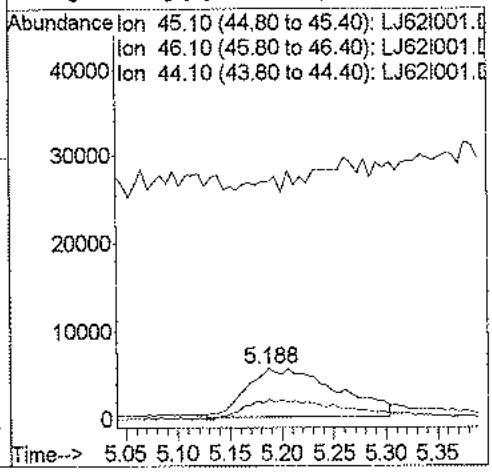


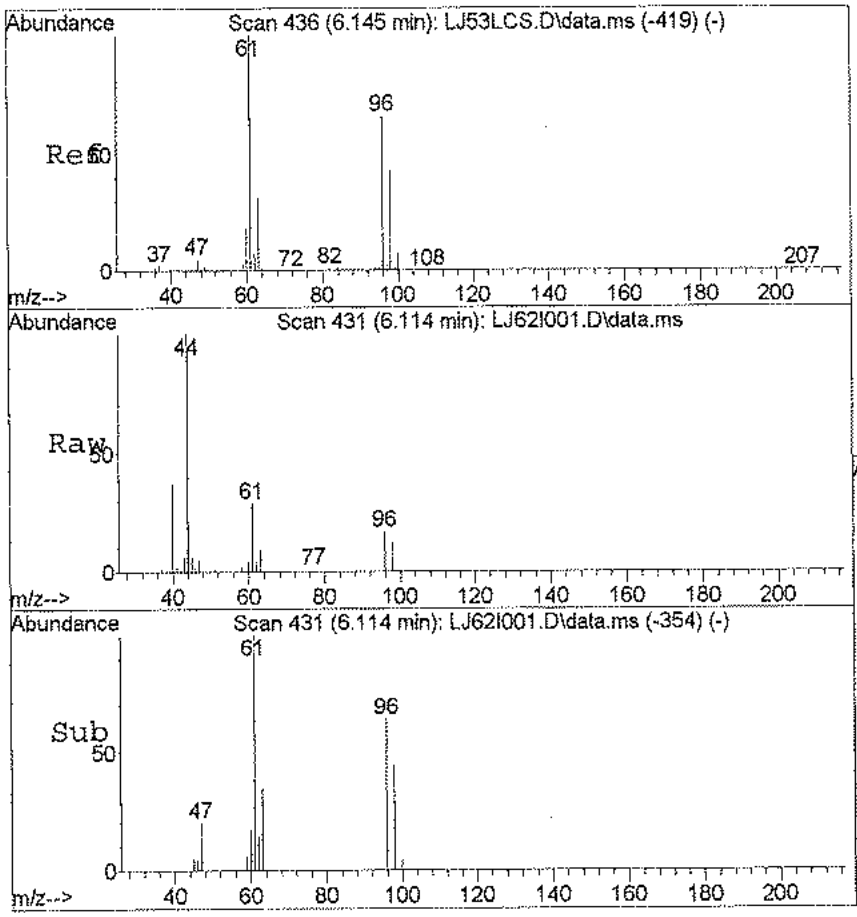


#13
Ethanol
Concen: 2.49 ppb m
RT: 5.19 min Scan# 279
Delta R.T. 0.04 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:45.1 Resp: 33903

Ion	Ratio	Lower	Upper
45	100		
46	47.6	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

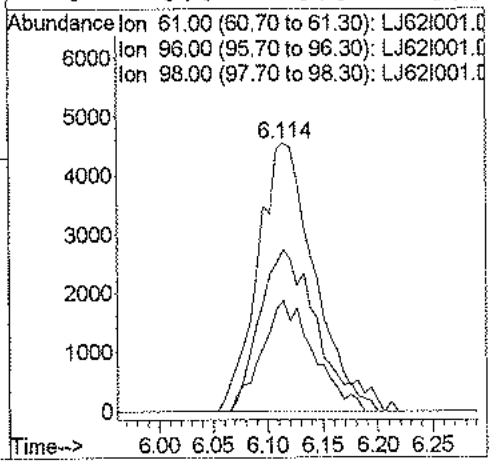


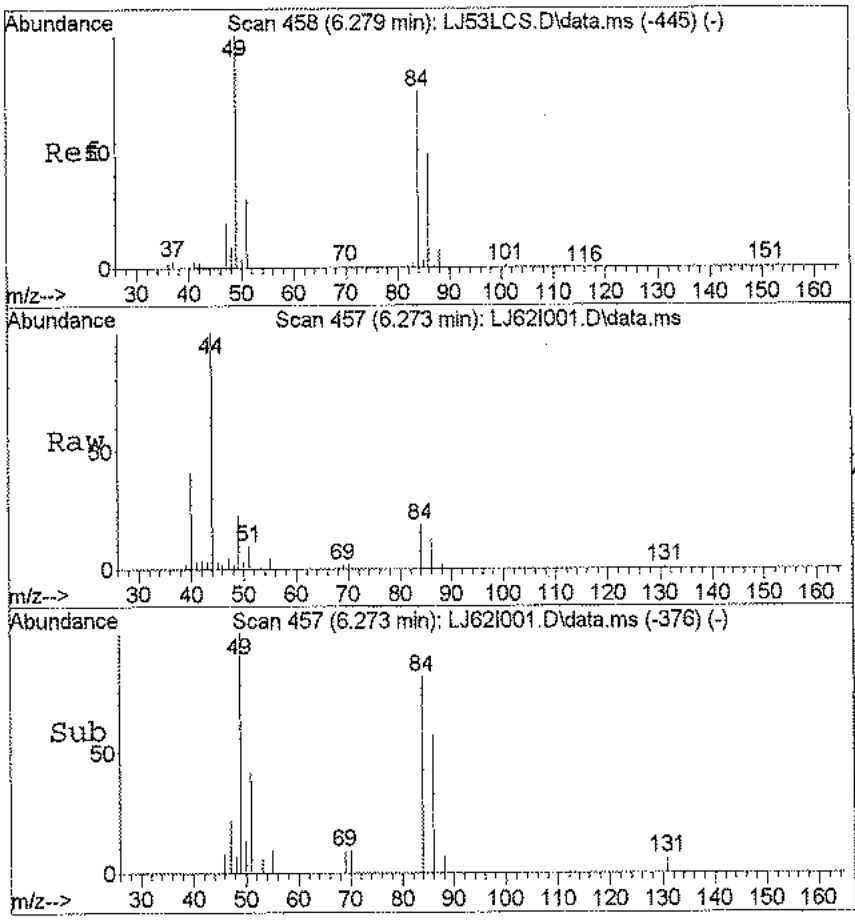


#15
1,1-Dichloroethene
Concen: 0.23 ppb
RT: 6.11 min Scan# 431
Delta R.T. -0.03 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:61 Resp: 16415

Ion	Ratio	Lower	Upper
61	100		
96	59.6	69.1	103.7#
98	37.5	44.1	66.1#
0	0.0	0.0	0.0

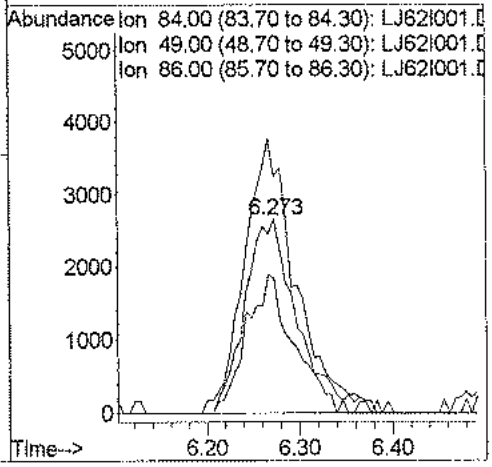


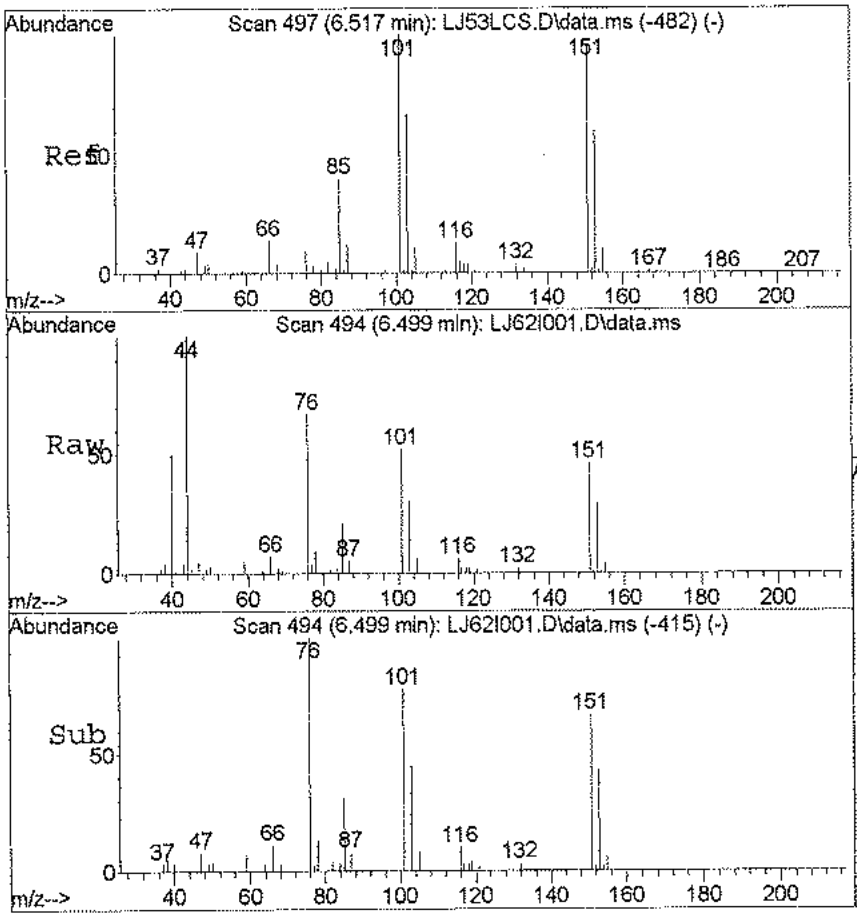


#16
Methylene Chloride
Concen: 0.24 ppb
RT: 6.27 min Scan# 457
Delta R.T. -0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:84 Resp: 10493

Ion	Ratio	Lower	Upper
84	100		
49	138.6	66.6	100.0#
86	64.7	51.6	77.4
0	0.0	0.0	0.0

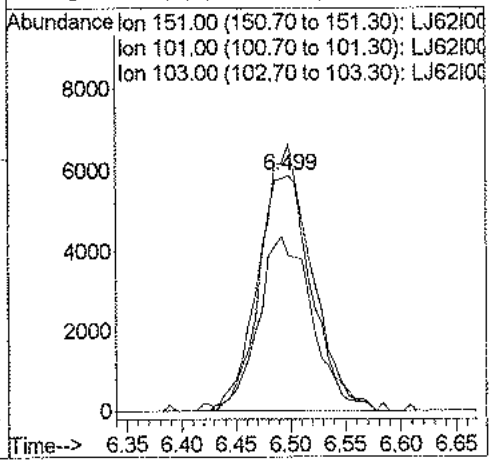


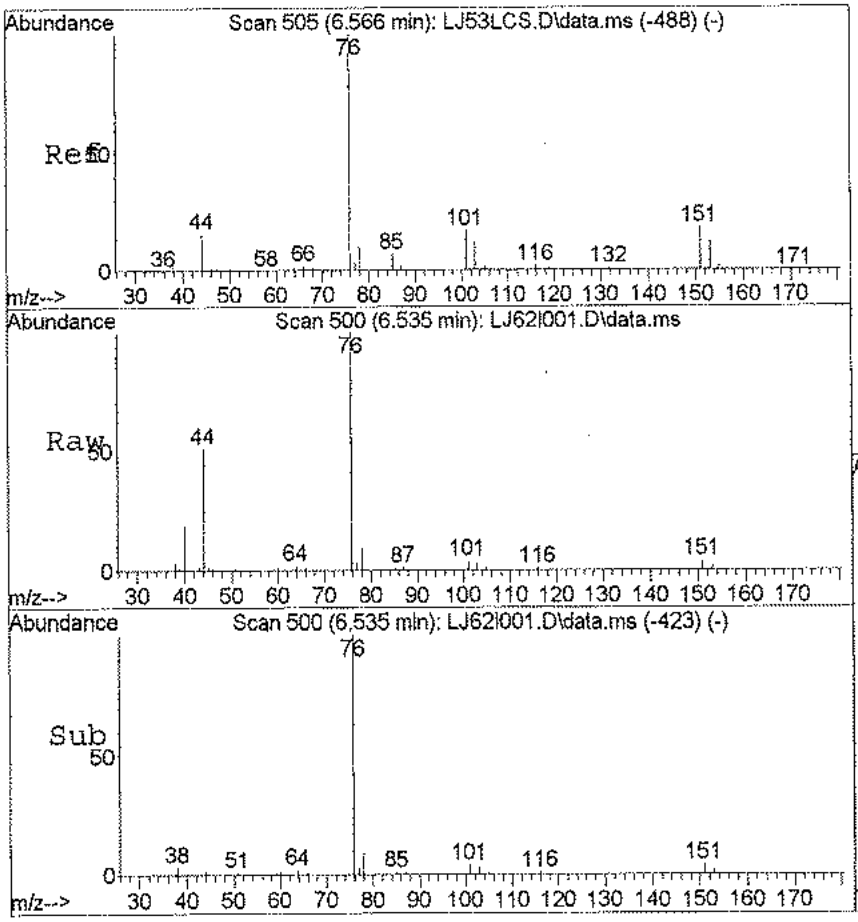


#17
Freon 113
Concen: 0.18 ppb
RT: 6.50 min Scan# 494
Delta R.T. -0.02 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:151 Resp: 20054

Ion	Ratio	Lower	Upper
151	100		
101	111.4	72.7	109.1#
103	74.9	47.0	70.6#
0	0.0	0.0	0.0

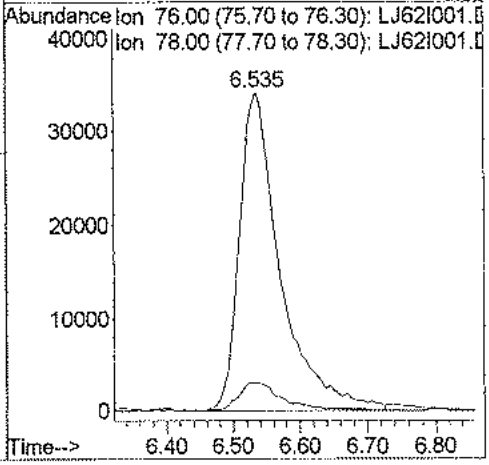


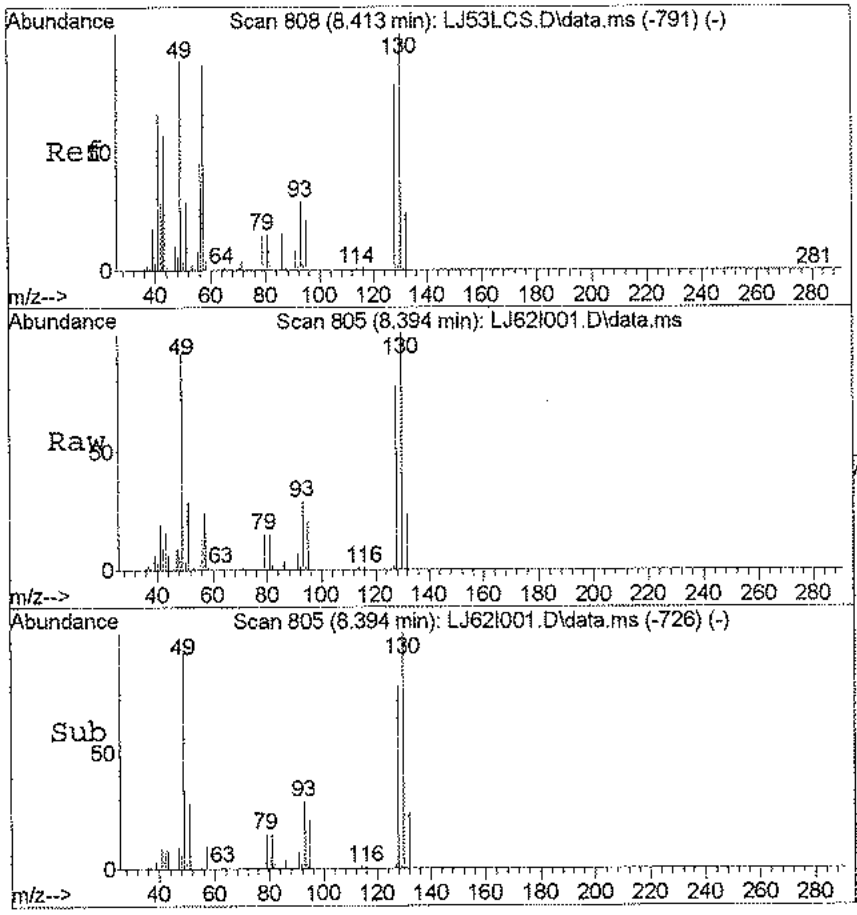


#18
Carbon Disulfide
Concen: 1.21 ppb
RT: 6.54 min Scan# 500
Delta R.T. -0.03 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:76 Resp: 145742

Ion	Ratio	Lower	Upper
76	100		
78	9.8	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

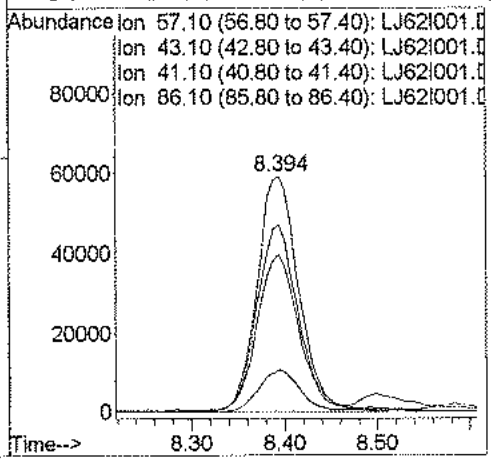


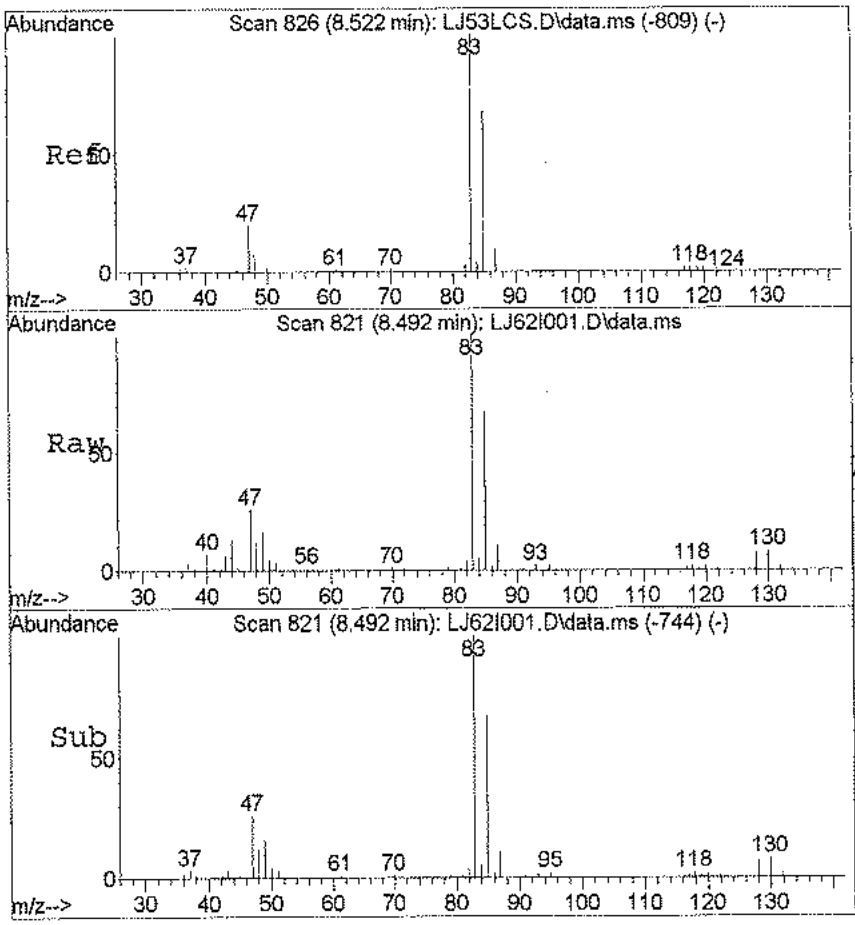


#27
Hexane
Concen: 2.53 ppb
RT: 8.39 min Scan# 805
Delta R.T. -0.02 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:57.1 Resp: 184669

Ion	Ratio	Lower	Upper
57	100		
43	66.3	57.3	85.9
41	80.1	47.0	70.4#
86	17.6	20.9	31.3#

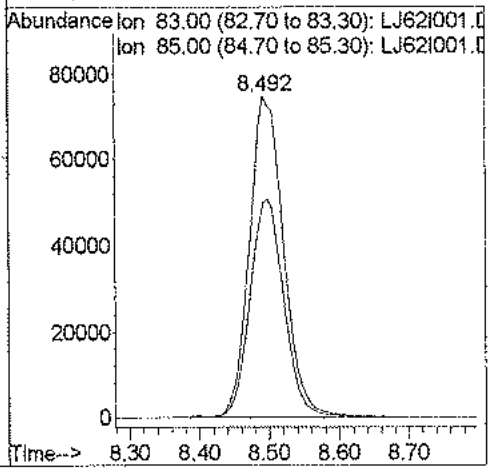


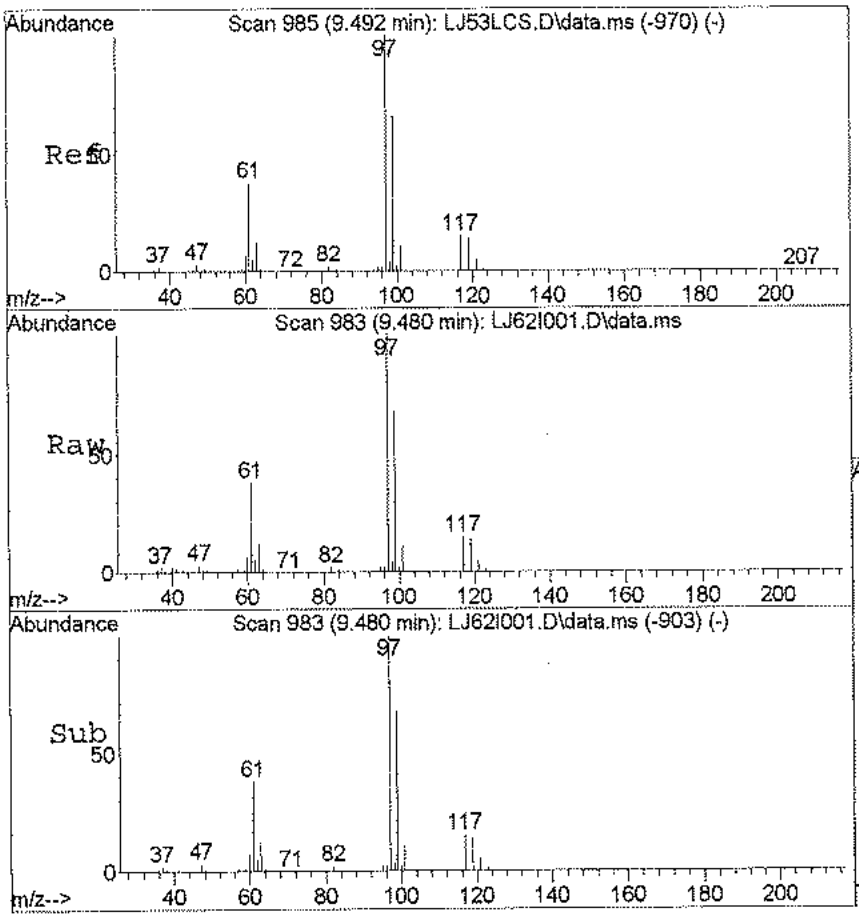


#28
Chloroform
Concen: 2.38 ppb
RT: 8.49 min Scan# 821
Delta R.T. -0.03 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:83 Resp: 254716

Ion	Ratio	Lower	Upper
83	100		
85	67.5	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

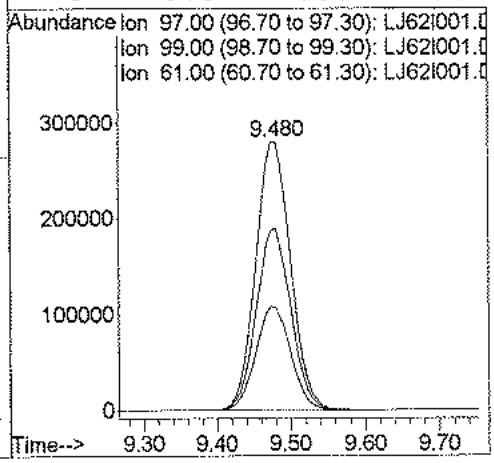


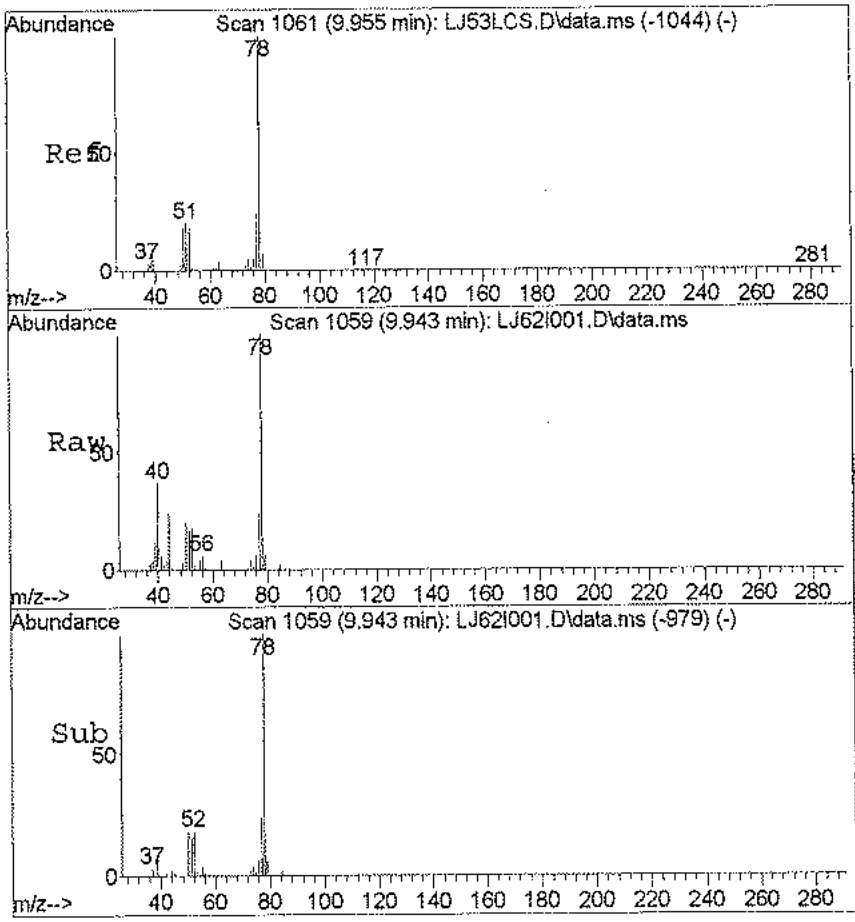


#31
1,1,1-Trichloroethane
Concen: 7.32 ppb
RT: 9.48 min Scan# 983
Delta R.T. -0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:97 Resp: 916540

Ion	Ratio	Lower	Upper
97	100		
99	67.0	51.6	77.4
61	38.7	24.2	36.2#
0	0.0	0.0	0.0

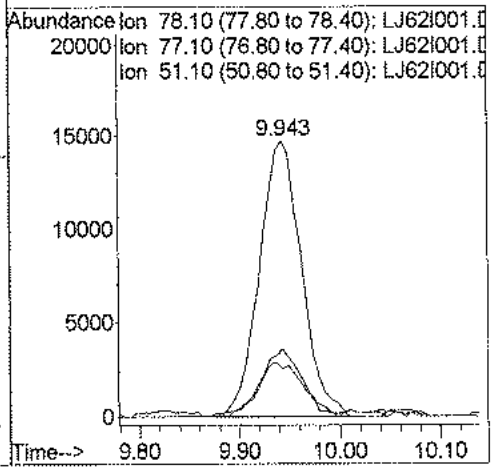


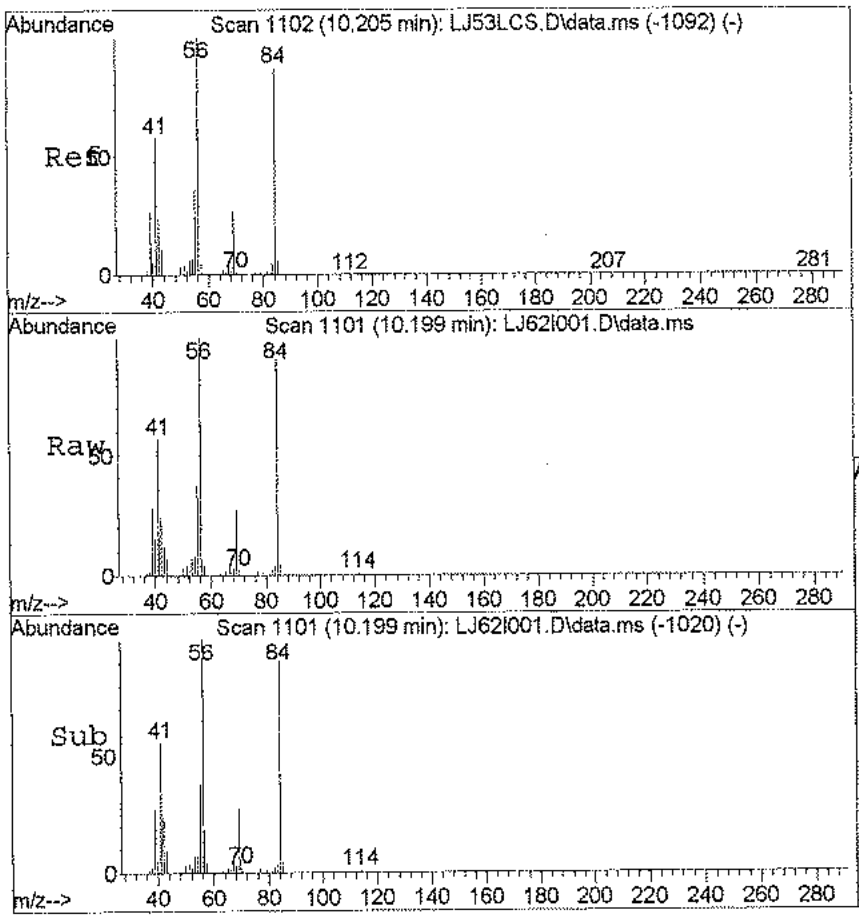


#32
Benzene
Concen: 0.31 ppb
RT: 9.94 min Scan# 1059
Delta R.T. -0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:78.1 Resp: 43197

Ion	Ratio	Lower	Upper
78	100		
77	24.1	18.2	27.4
51	21.0	9.5	14.3#
0	0.0	0.0	0.0

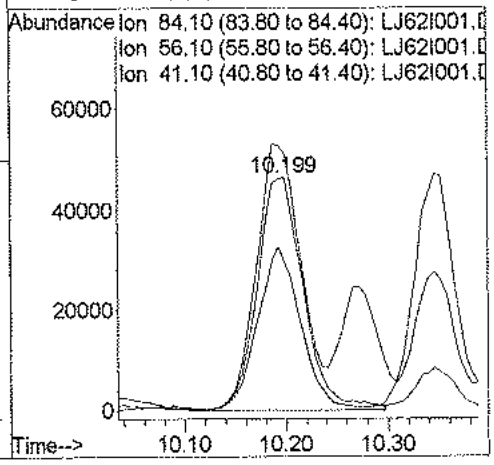


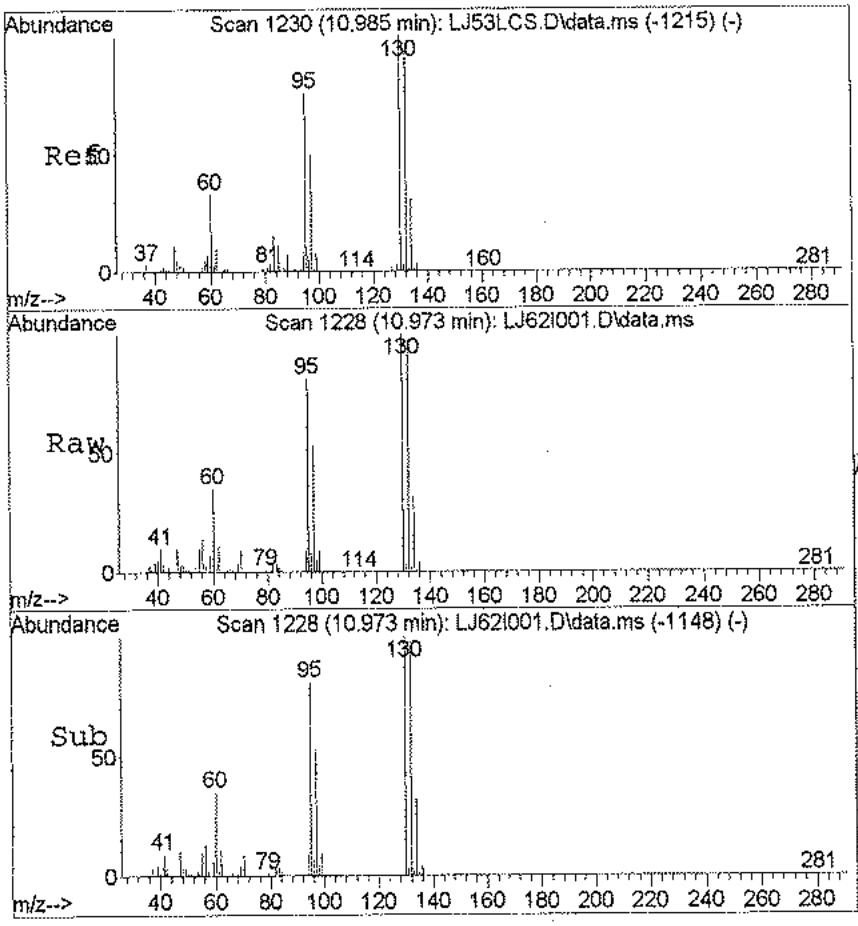


#34
Cyclohexane
Concen: 2.14 ppb
RT: 10.20 min Scan# 1101
Delta R.T. -0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:84.1 Resp: 146772

Ion	Ratio	Lower	Upper
84	100		
56	111.1	67.3	100.9#
41	64.1	30.2	45.4#
0	0.0	0.0	0.0

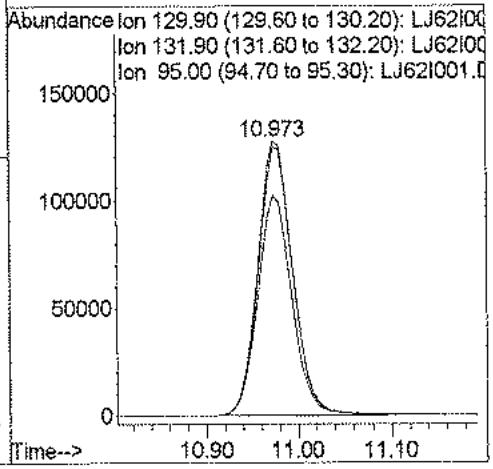


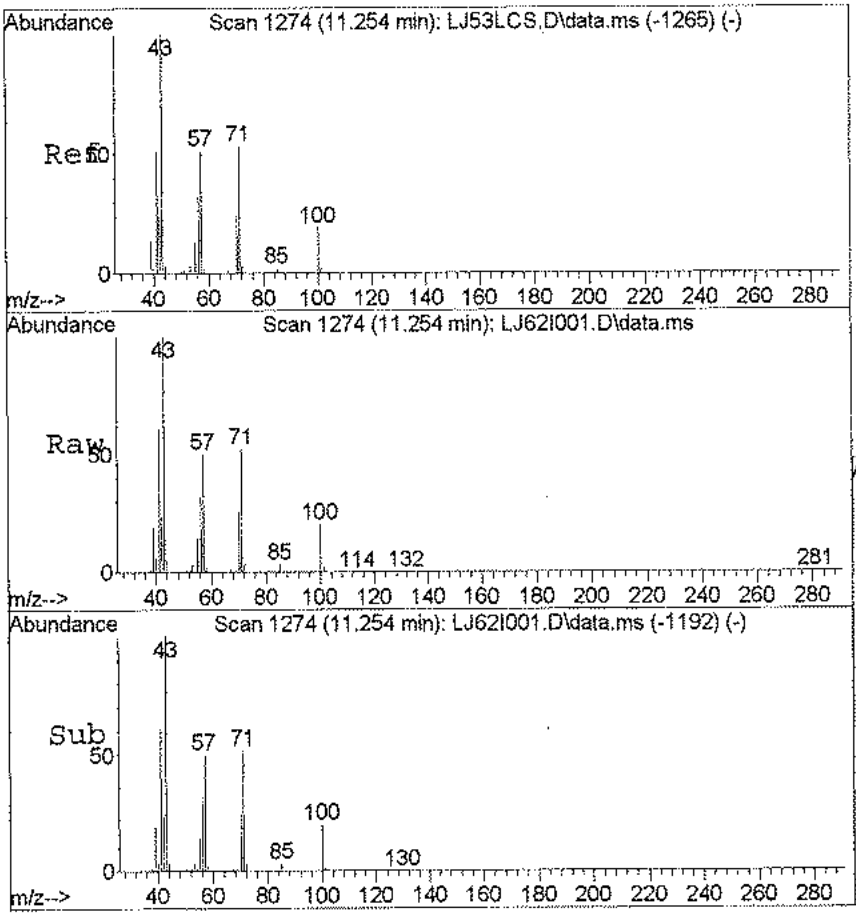


#38
Trichloroethene
Concen: 3.32 ppb
RT: 10.97 min Scan# 1228
Delta R.T. -0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:129.9 Resp: 337195

Ion	Ratio	Lower	Upper
130	100		
132	97.4	77.1	115.7
95	79.7	61.7	92.5
0	0.0	0.0	0.0

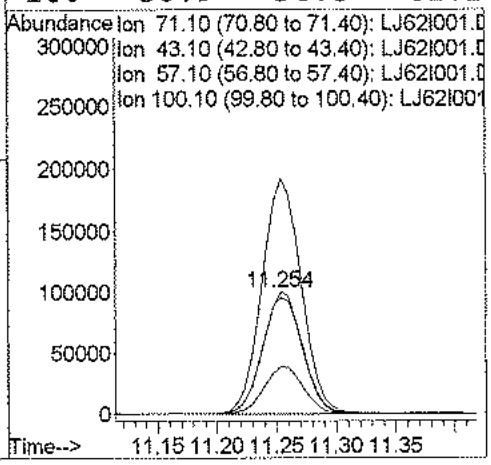


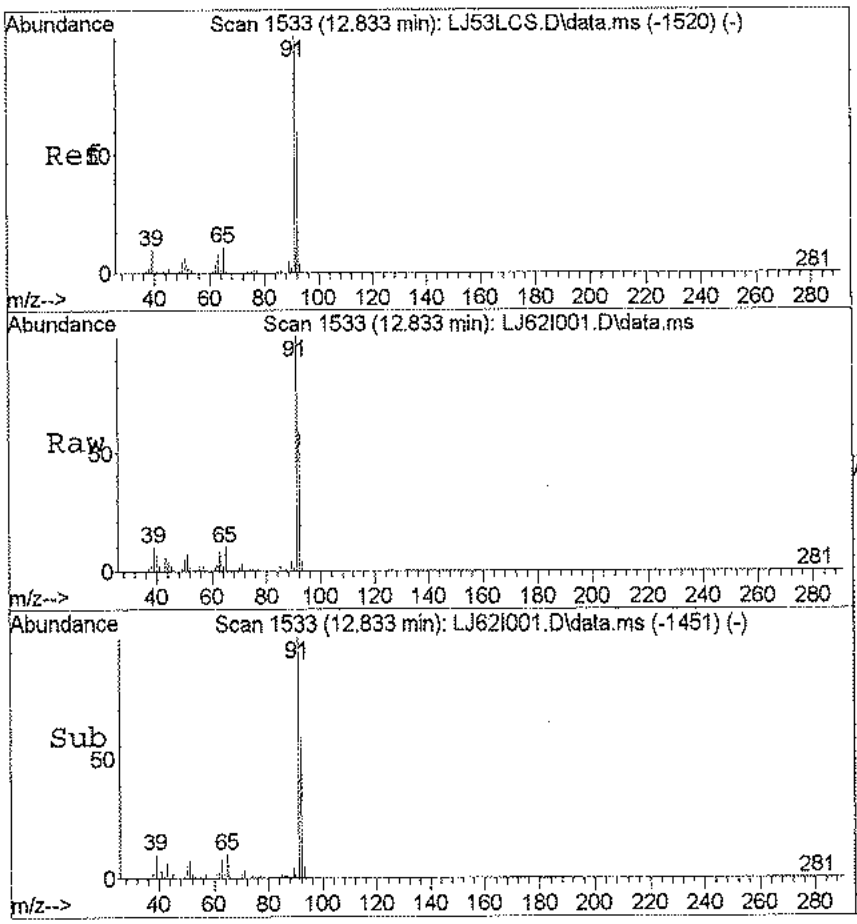


#40
Heptane
Concen: 4.69 ppb
RT: 11.25 min Scan# 1274
Delta R.T. 0.00 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:71.1 Resp: 231618

Ion	Ratio	Lower	Upper
71	100		
43	189.7	87.3	130.9#
57	97.0	57.8	86.6#
100	38.9	34.8	52.2

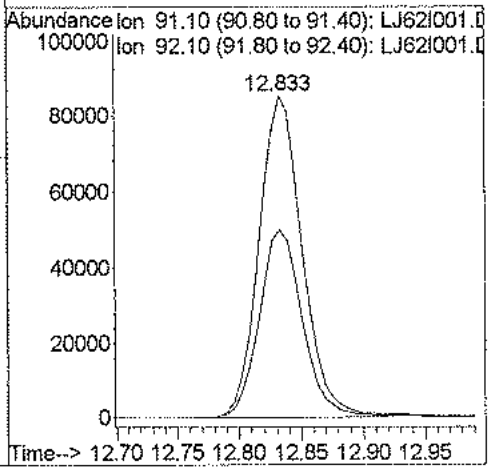


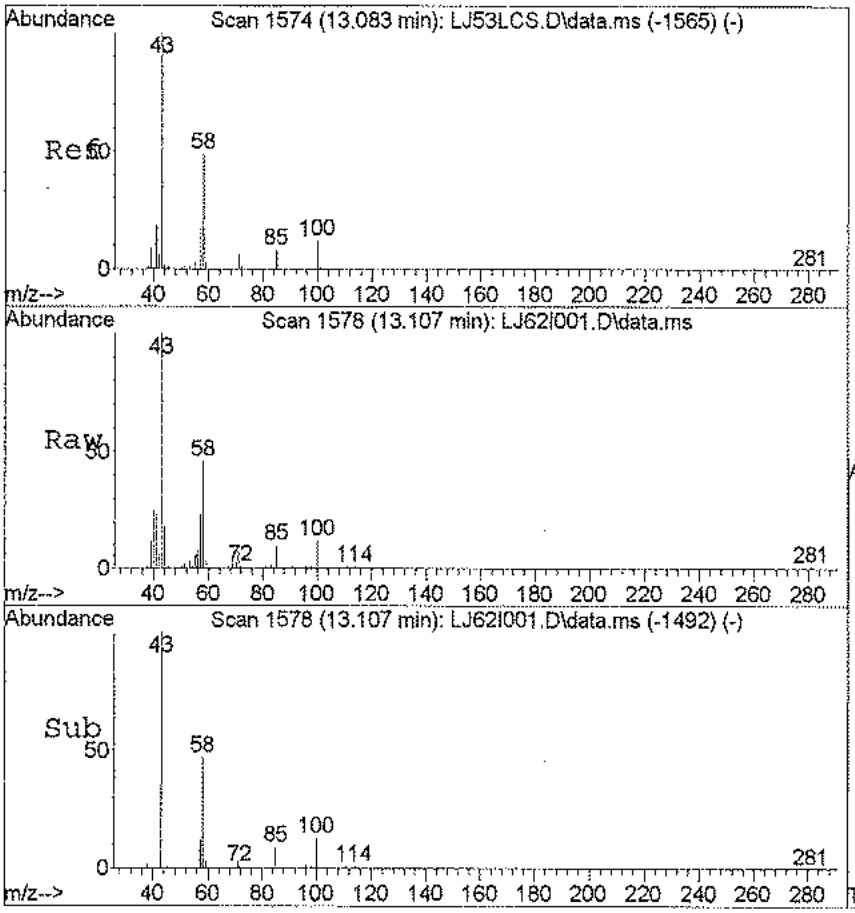


#45
Toluene
Concen: 1.08 ppb
RT: 12.83 min Scan# 1533
Delta R.T. 0.00 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:91.1 Resp: 206027

Ion	Ratio	Lower	Upper
91	100		
92	58.9	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

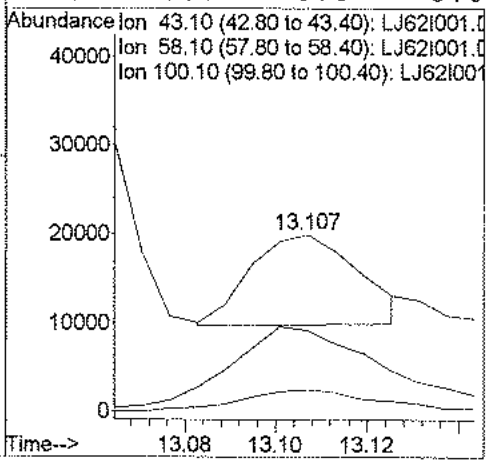


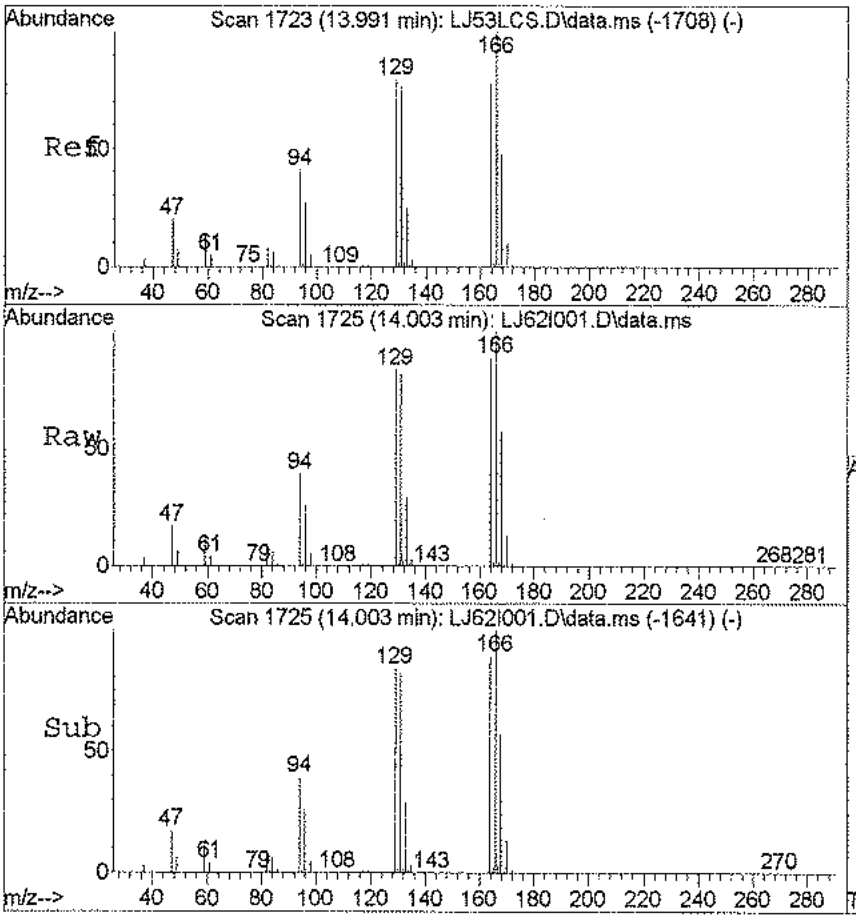


#46
2-Hexanone
Concen: 0.15 ppb m
RT: 13.11 min Scan# 1578
Delta R.T. 0.02 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:43.1 Resp: 16693

Ion	Ratio	Lower	Upper
43	100		
58	140.0	54.7	82.1#
100	33.3	19.6	29.4#
0	0.0	0.0	0.0

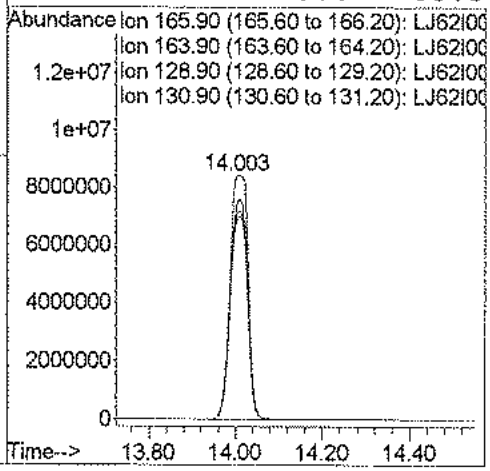


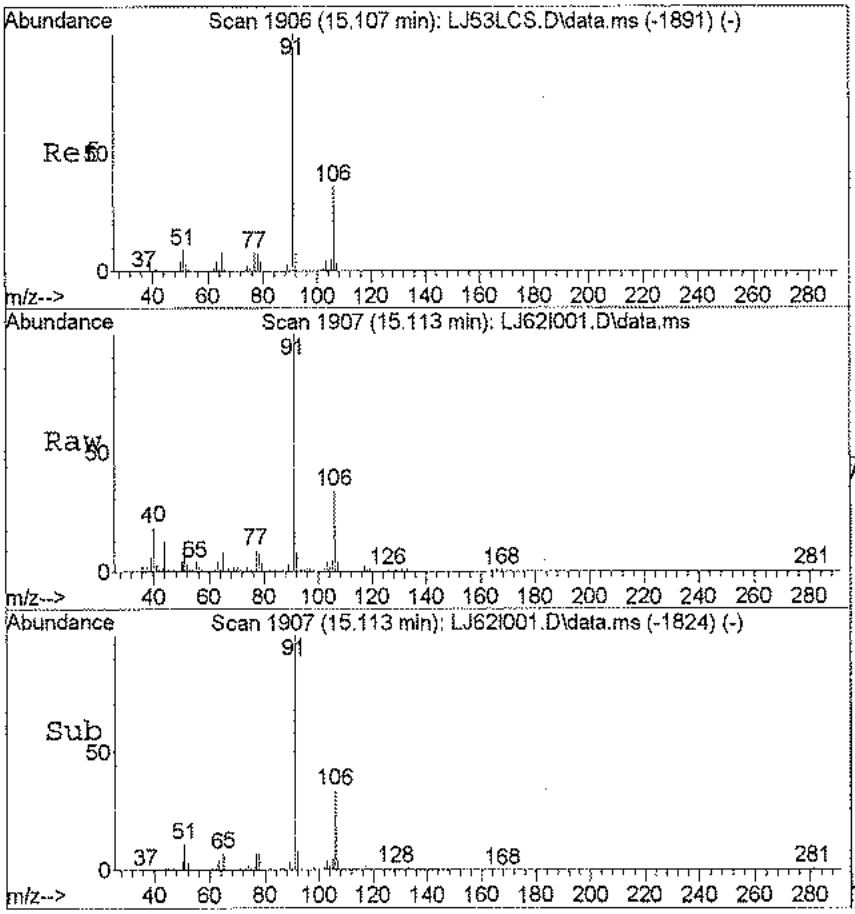


#49
Tetrachloroethene
Concen: 202.51 ppb
RT: 14.00 min Scan# 1725
Delta R.T. 0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:165.9 Resp:24826058

Ion	Ratio	Lower	Upper
166	100		
164	84.1	61.0	91.4
129	82.3	45.9	68.9#
131	79.9	45.5	68.3#

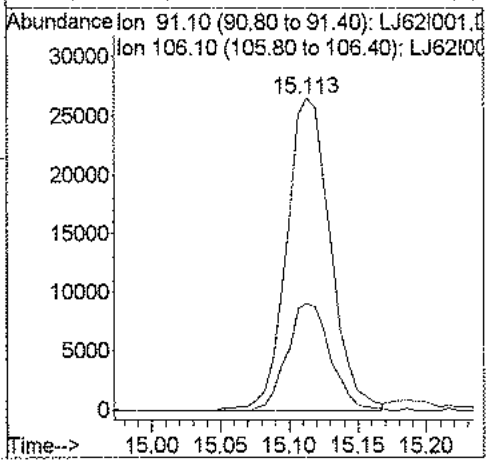


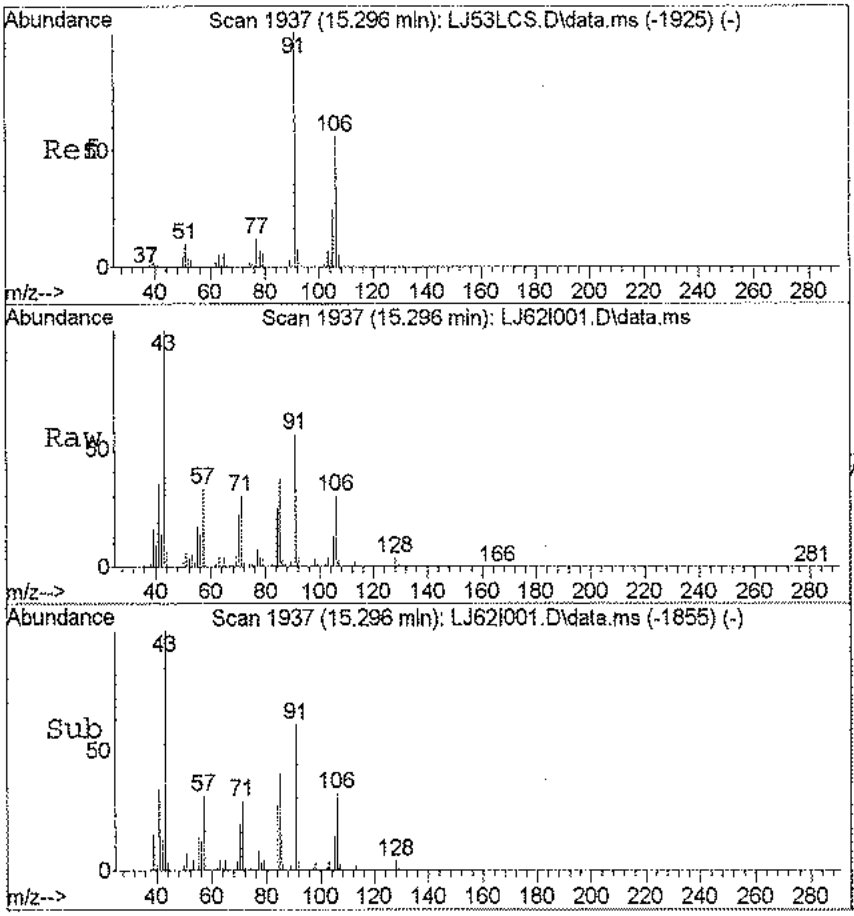


#52
Ethylbenzene
Concen: 0.22 ppb
RT: 15.11 min Scan# 1907
Delta R.T. 0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:91.1 Resp: 58778

Ion	Ratio	Lower	Upper
91	100		
106	33.5	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

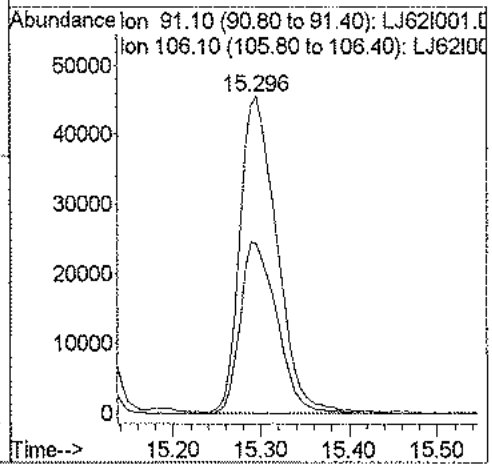


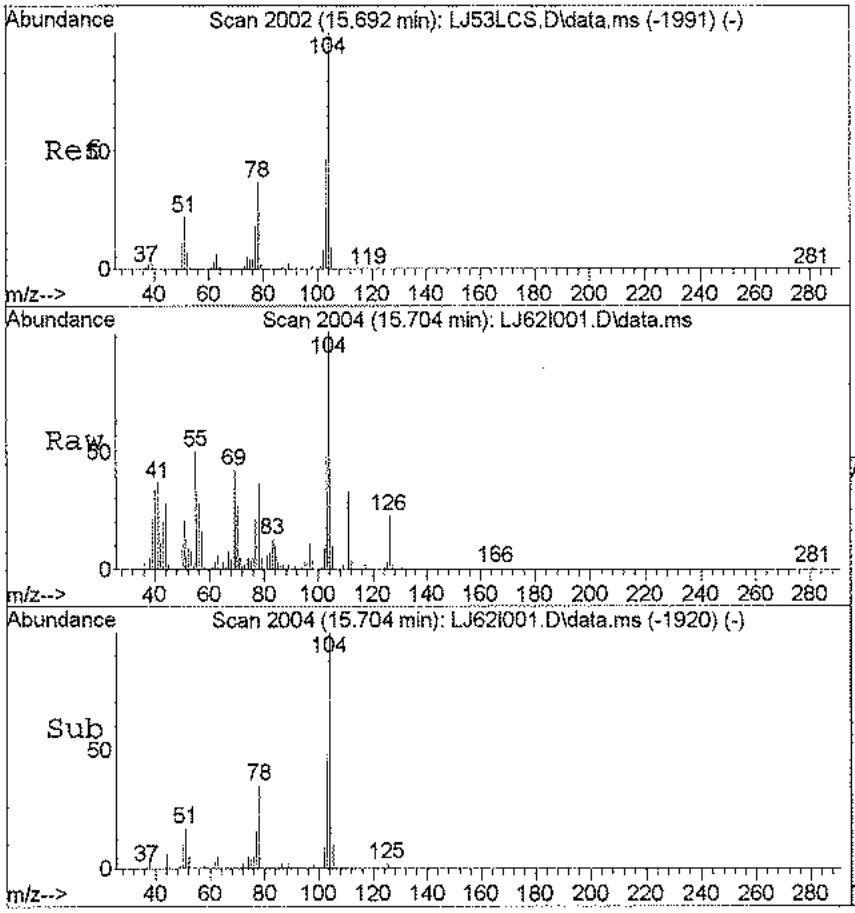


#53
m,p-Xylene
Concen: 0.63 ppb
RT: 15.30 min Scan# 1937
Delta R.T. 0.00 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:91.1 Resp: 131009

Ion	Ratio	Lower	Upper
91	100		
106	54.5	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

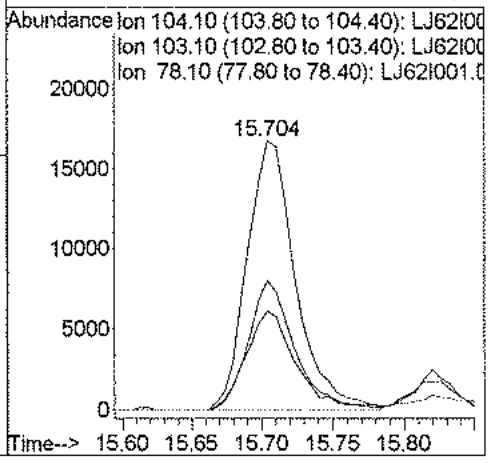


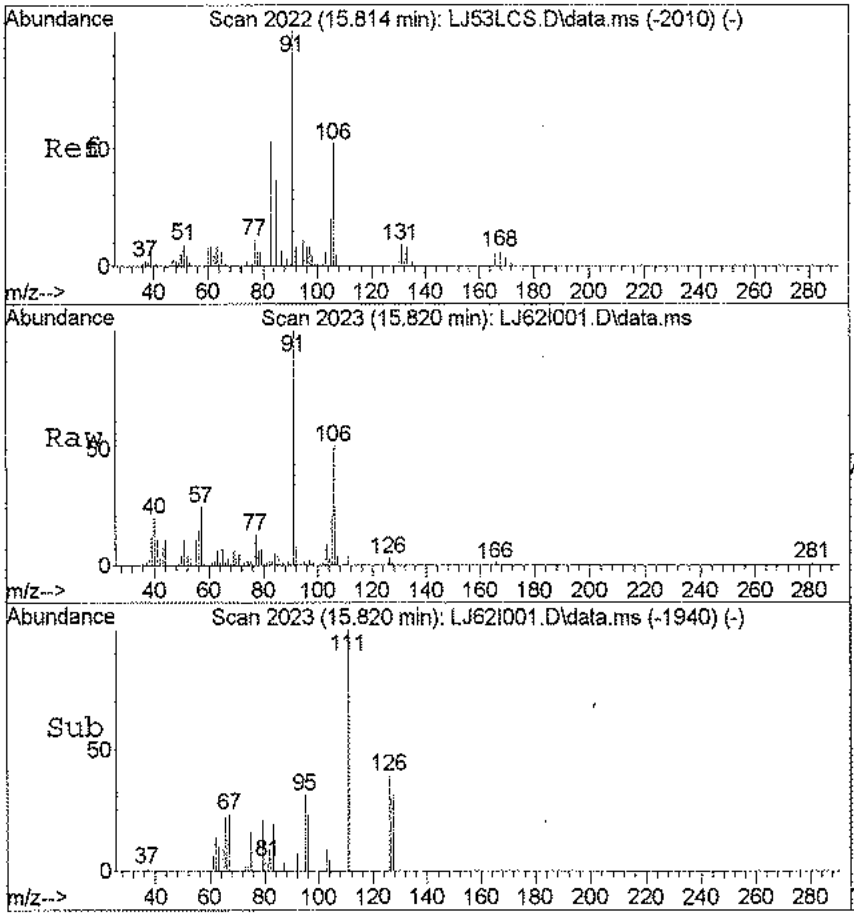


#55
Styrene
Concen: 0.23 ppb
RT: 15.70 min Scan# 2004
Delta R.T. 0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:104.1 Resp: 39658

Ion	Ratio	Lower	Upper
104	100		
103	45.4	36.6	54.8
78	37.9	27.7	41.5
0	0.0	0.0	0.0

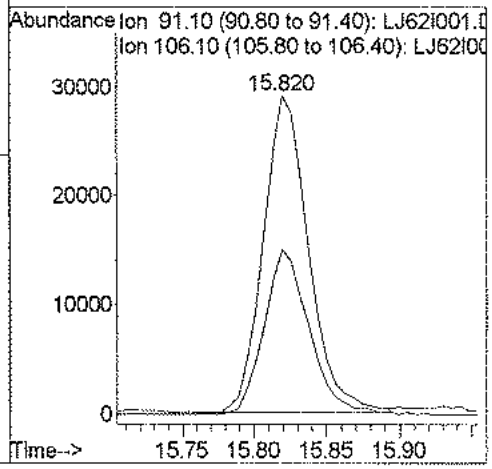


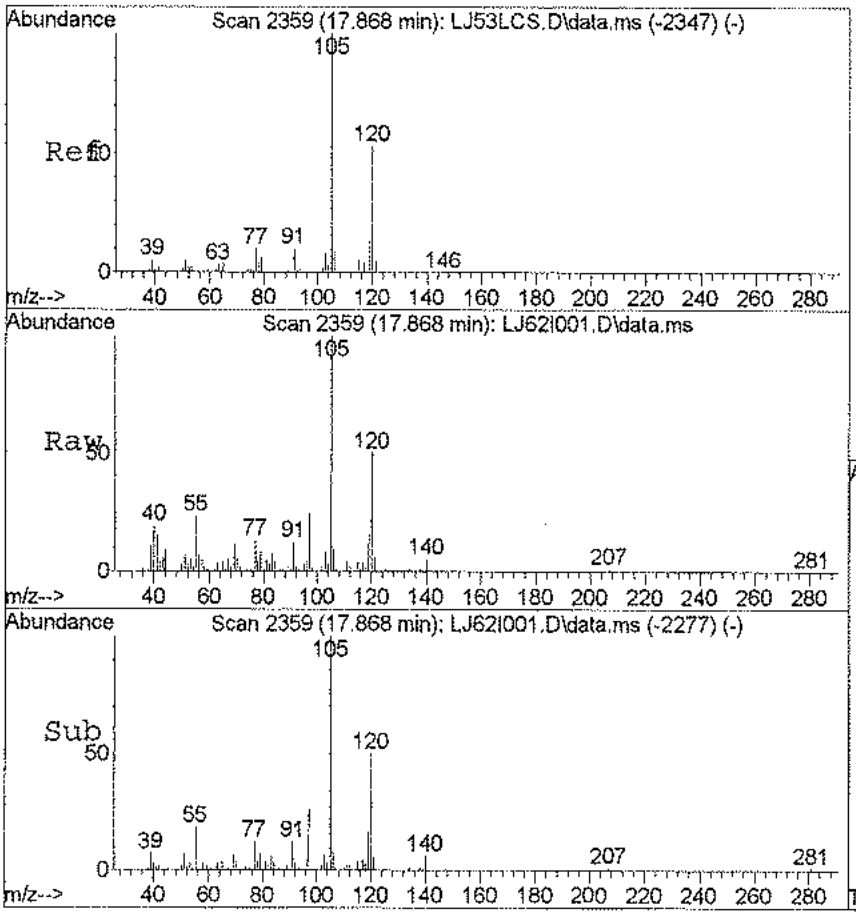


#57
o-Xylene
Concen: 0.30 ppb
RT: 15.82 min Scan# 2023
Delta R.T. 0.01 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:91.1 Resp: 62425

Ion	Ratio	Lower	Upper
91	100		
106	52.0	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

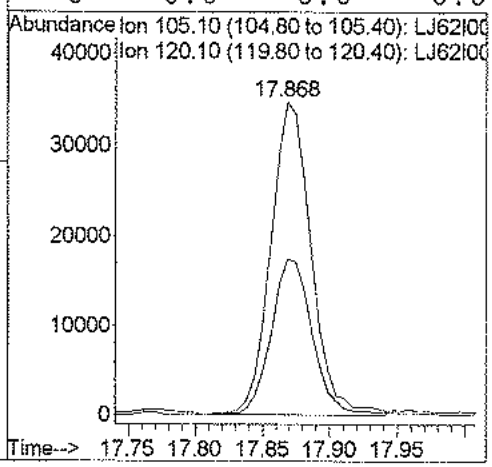


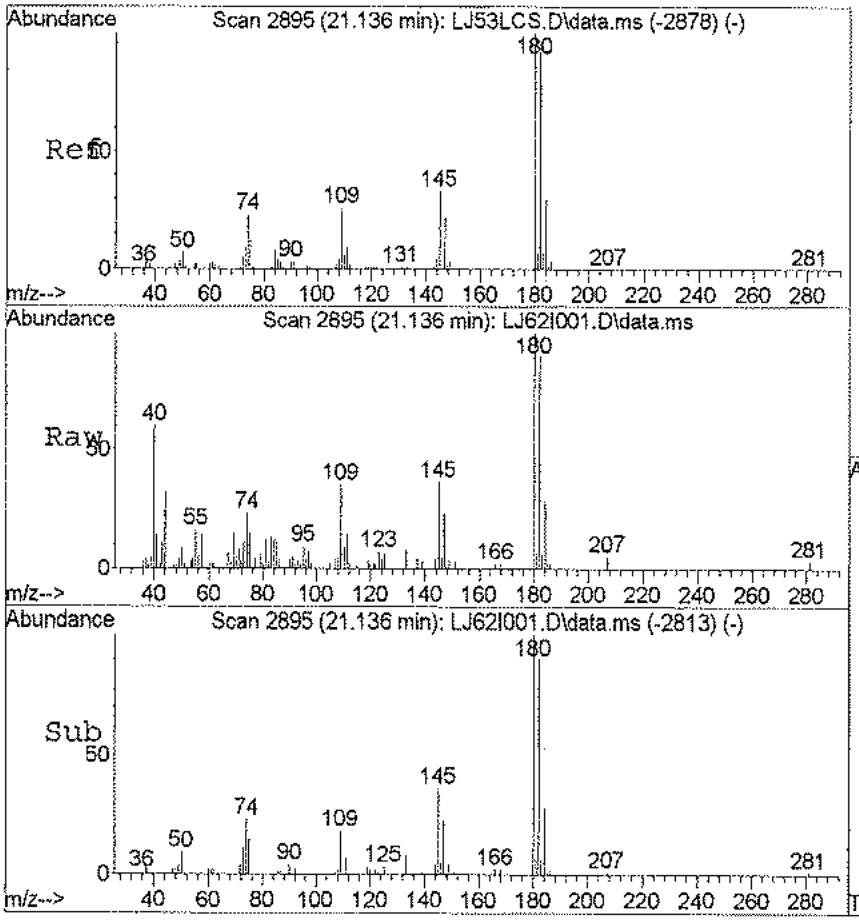


#61
1,2,4-Trimethylbenzene
Concen: 0.28 ppb
RT: 17.87 min Scan# 2359
Delta R.T. 0.00 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:105.1 Resp: 73654

Ion	Ratio	Lower	Upper
105	100		
120	51.3	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

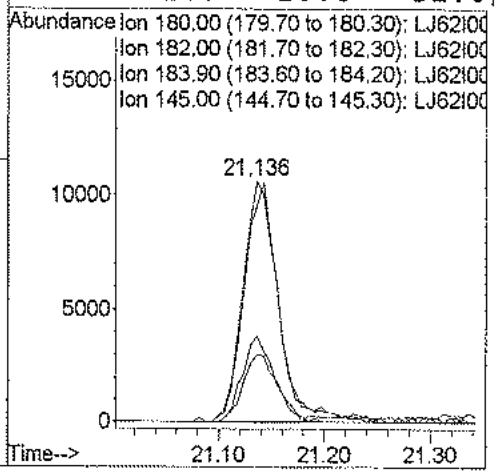




#66
1,2,4-Trichlorobenzene
Concen: 0.23 ppb
RT: 21.14 min Scan# 2895
Delta R.T. 0.00 min
Lab File: LJ62I001.D
Acq: 05/24/2016 18:24

Tgt Ion:180 Resp: 24839

Ion	Ratio	Lower	Upper
180	100		
182	96.7	76.6	115.0
184	27.3	24.3	36.5
145	32.0	20.6	31.0#

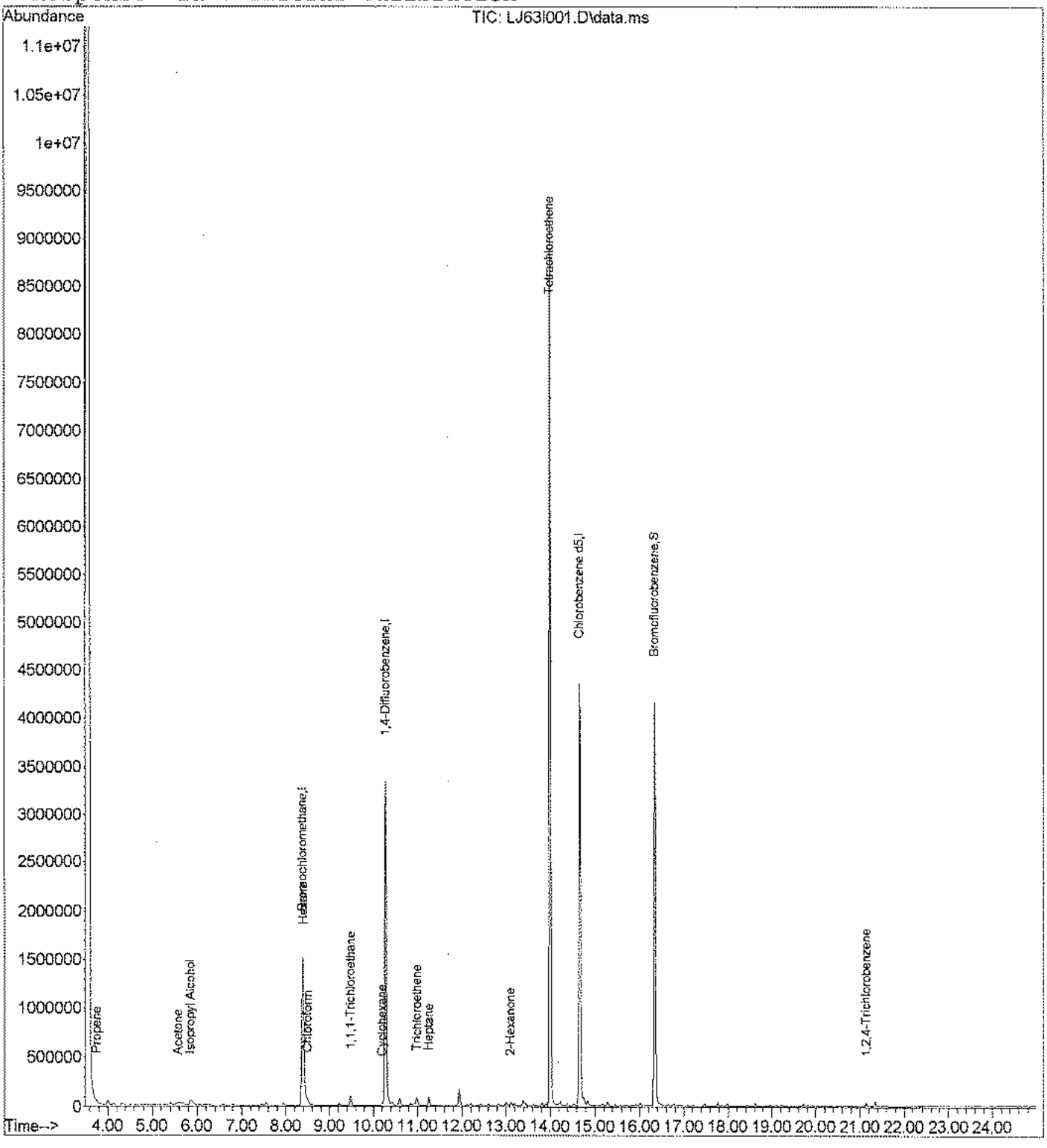


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ63I001.D Vial: 11
Acq Time : 05/24/2016 19:12 Operator: TJM
Sample : 1614564001 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:40:59 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 12:08:09 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ63I001.D Vial: 11
Acq Time : 05/24/2016 19:12 Operator: TJM
Sample : 1614564001 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:40:59 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.38	130	329152	20.0000 ppb	87.01
25) 1,4-Difluorobenzene	10.27	114	4172033	20.0000 ppb	85.19
50) Chlorobenzene d5	14.67	117	3650168	20.0000 ppb	83.86
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.34	95	1895985	19.3083 ppb	96.54%
Target Compounds					Qvalue
2) Propene	3.76	41	5690	0.1735 ppb #	74
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.58	43	84555	1.2023 ppb	88
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	5.85	45	131565	1.5197 ppb #	64
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.40	57	19906	0.2707 ppb #	86
28) Chloroform	8.50	83	27098	0.2512 ppb	97
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.48	97	98483	0.7806 ppb #	94
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.20	84	13849	0.2002 ppb #	61
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ63I001.D Vial: 11
Acq Time : 05/24/2016 19:12 Operator: TJM
Sample : 1614564001 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:40:59 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

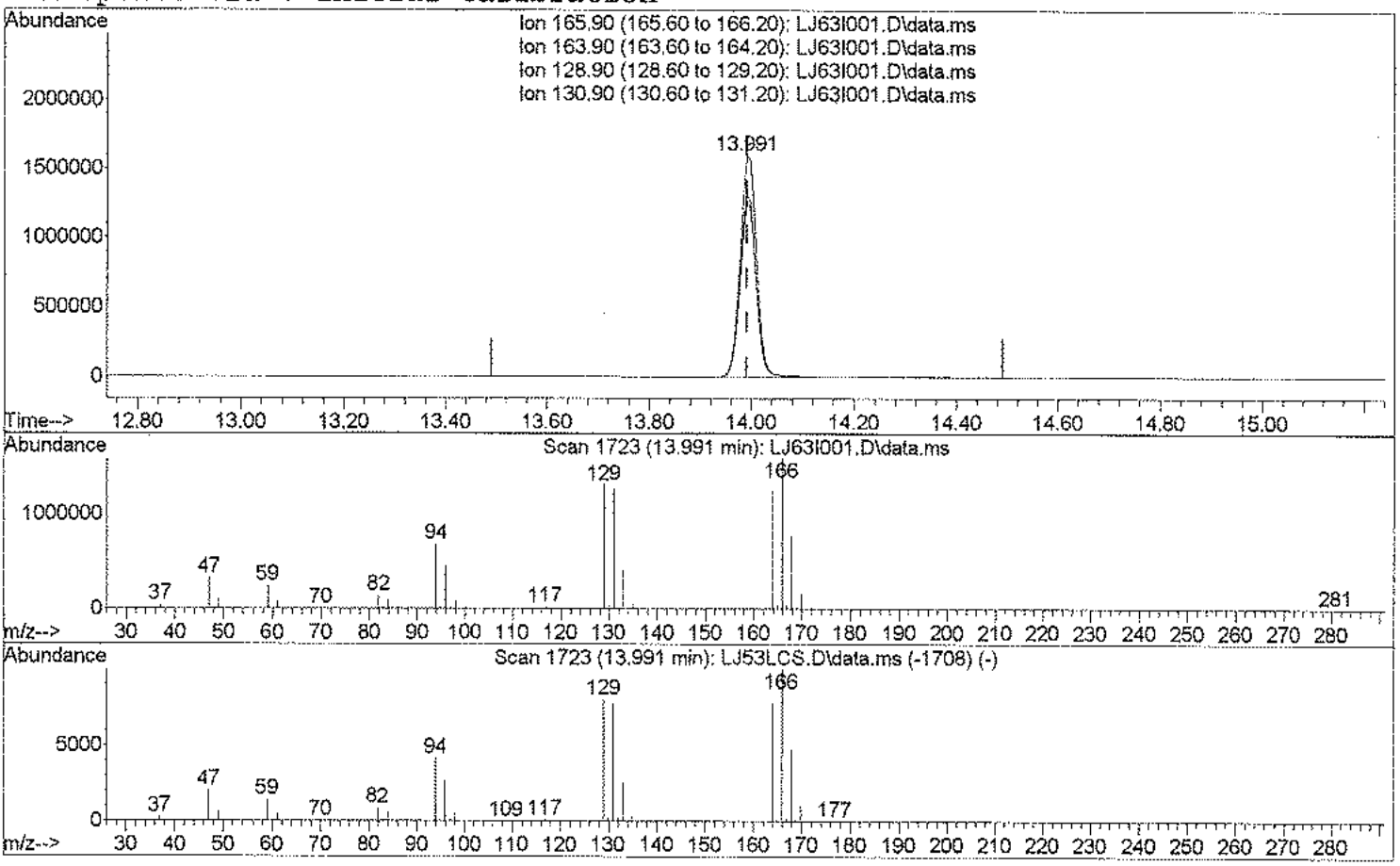
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	10.97	130	35711	0.3490 ppb	98
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.25	71	23500	0.4724 ppb #	51
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	13.11	43	38594	0.3531 ppb #	79
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.99	166	3554577	28.7713 ppb #	80
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.15	180	17293	0.1665 ppb	95
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ63I001.D
Acq On : 05/24/2016 19:12
Operator : TJM
Sample : 1614564001
Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0037) 1:10DIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:40:59 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



TIC: LJ63I001.D\data.ms

(49) Tetrachloroethene

13.991min (-0.000) 28.77 ppb

response 3554577

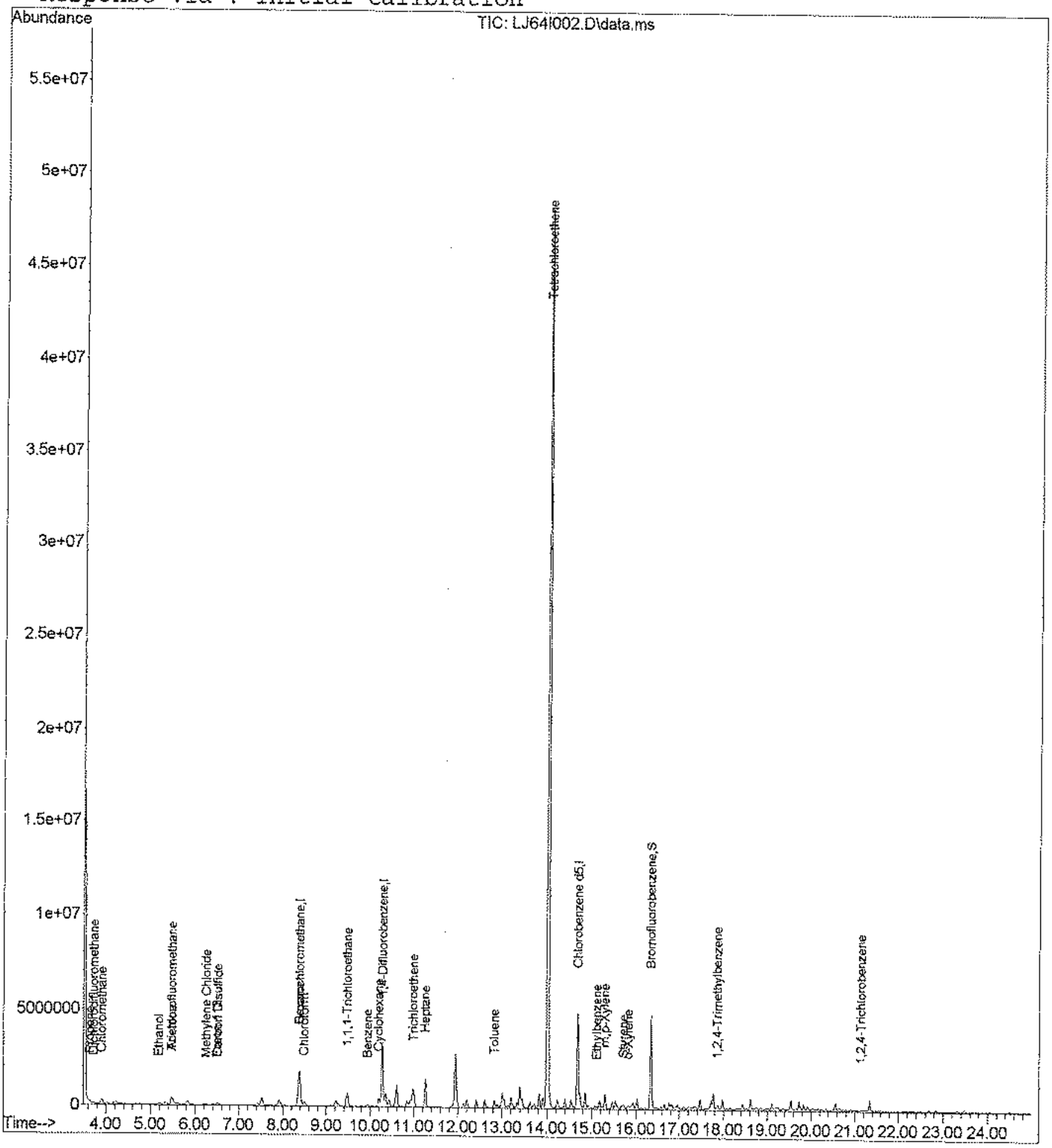
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.67
128.90	57.40	81.23#
130.90	56.90	78.30#

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ64I002.D Vial: 12
Acq Time : 05/24/2016 20:07 Operator: TJM
Sample : 1614564002 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:29:50 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ64I002.D Vial: 12
Acq Time : 05/24/2016 20:07 Operator: TJM
Sample : 1614564002 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:29:50 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.37	130	325674	20.0000 ppb		86.09
25) 1,4-Difluorobenzene	10.27	114	4321996	20.0000 ppb		88.25
50) Chlorobenzene d5	14.68	117	4078061	20.0000 ppb		93.69
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.34	95	2134759	19.4589 ppb		97.29%
Target Compounds						Qvalue
2) Propene	3.63	41	32809	1.0110 ppb	#	75
3) Dichlorodifluoromethane	3.73	85	83207	0.6861 ppb		99
4) Chloromethane	3.91	50	23160	0.6299 ppb	#	83
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	5.47	43	826980	11.8847 ppb		91
12) Trichlorofluoromethane	5.46	101	144512	0.9742 ppb		97
13) Ethanol	5.18	45	47928	3.3907 ppb	#	74
14) Isopropyl Alcohol	0.00	45		Not Detected		
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	6.25	84	16085	0.3623 ppb	#	67
17) Freon 113	6.48	151	18330	0.1604 ppb	#	80
18) Carbon Disulfide	6.52	76	205410	1.6484 ppb	#	61
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	0.00	86		Not Detected		
23) 2-Butanone	0.00	43		Not Detected		
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	0.00	61		Not Detected		
27) Hexane	8.39	57	353976	4.6463 ppb	#	85
28) Chloroform	8.49	83	204074	1.8258 ppb		97
29) Tetrahydrofuran	0.00	42		Not Detected		
30) 1,2-Dichloroethane	0.00	62		Not Detected		
31) 1,1,1-Trichloroethane	9.47	97	750256	5.7400 ppb	#	92
32) Benzene	9.94	78	97302	0.6617 ppb	#	90
33) Carbon Tetrachloride	0.00	117		Not Detected		
34) Cyclohexane	10.19	84	276181	3.8538 ppb	#	65
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ64I002.D Vial: 12
Acq Time : 05/24/2016 20:07 Operator: TJM
Sample : 1614564002 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:29:50 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	10.97	130	422540	3.9862 ppb	99
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.26	71	420262	8.1544 ppb #	52
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	333630	1.6726 ppb	99
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	14.01	166	22056553	172.3346 ppb # DL	79
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	104714	0.3698 ppb	100
53)	m,p-Xylene	15.29	91	190597	0.8760 ppb	99
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	15.70	104	66353	0.3619 ppb	98
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.82	91	99737	0.4478 ppb	98
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	99944	0.3648 ppb	99
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	27364	0.2359 ppb	97
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

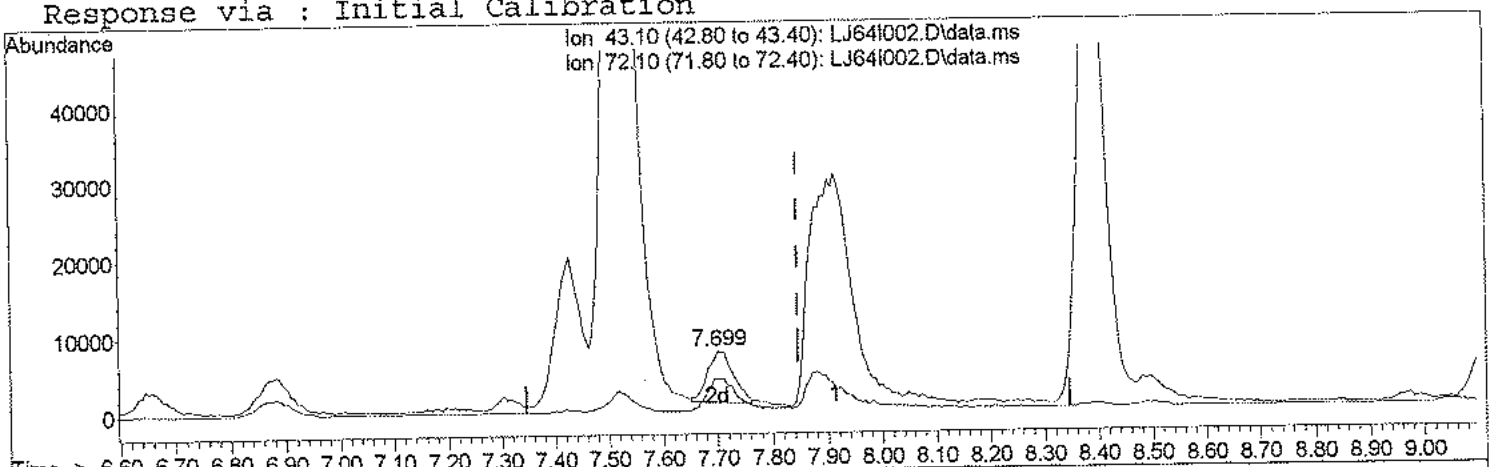
Quantitation Report (Qedit)

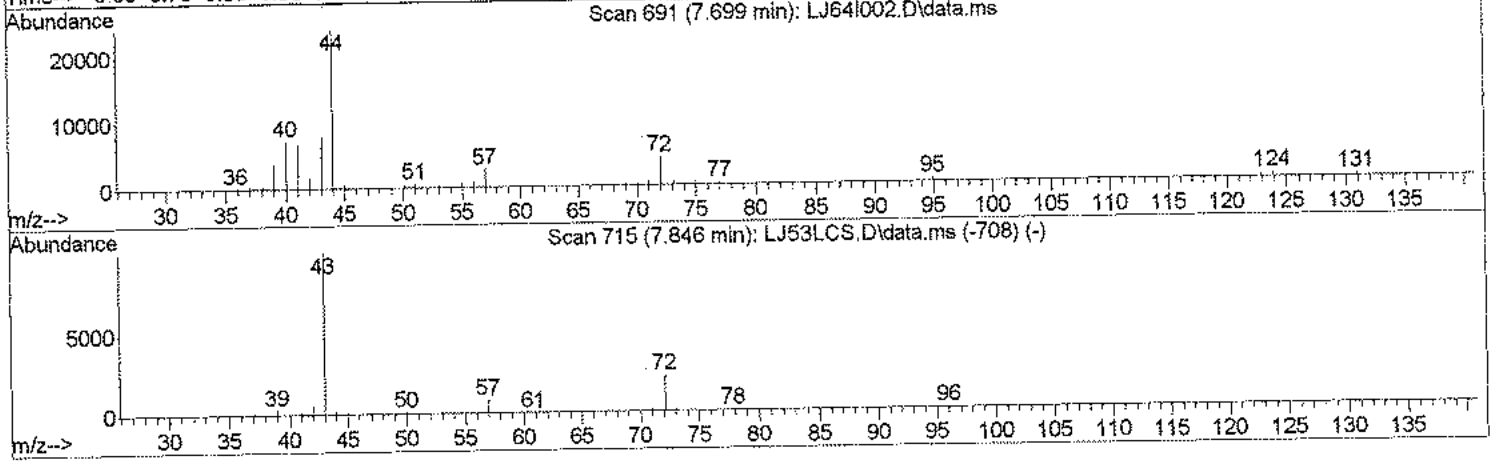
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ64I002.D
Acq On : 05/24/2016 20:07
Operator : TJM
Sample : 1614564002
Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:41:17 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials Z *date* 05-25-16





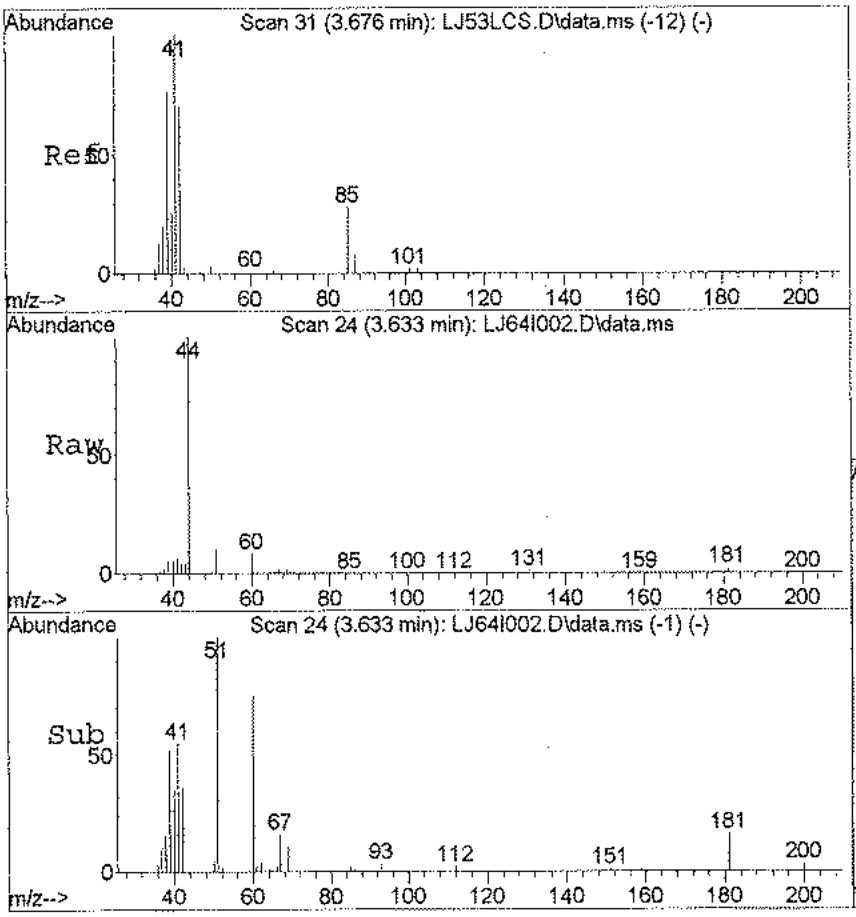
TIC: LJ64I002.D\data.ms

(23) 2-Butanone

7.699min (-0.146) 0.24 ppb m

response 21661

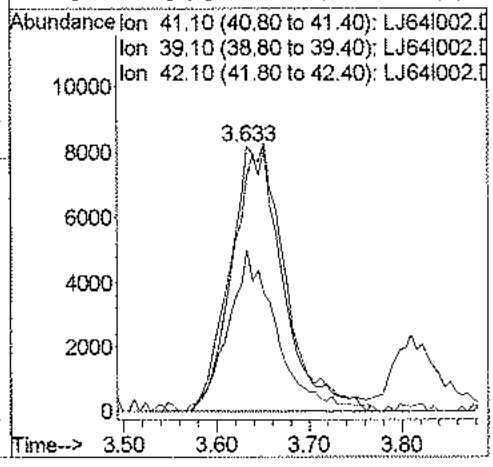
Ion	Exp%	Act%
43.10	100.00	100.00
72.10	38.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

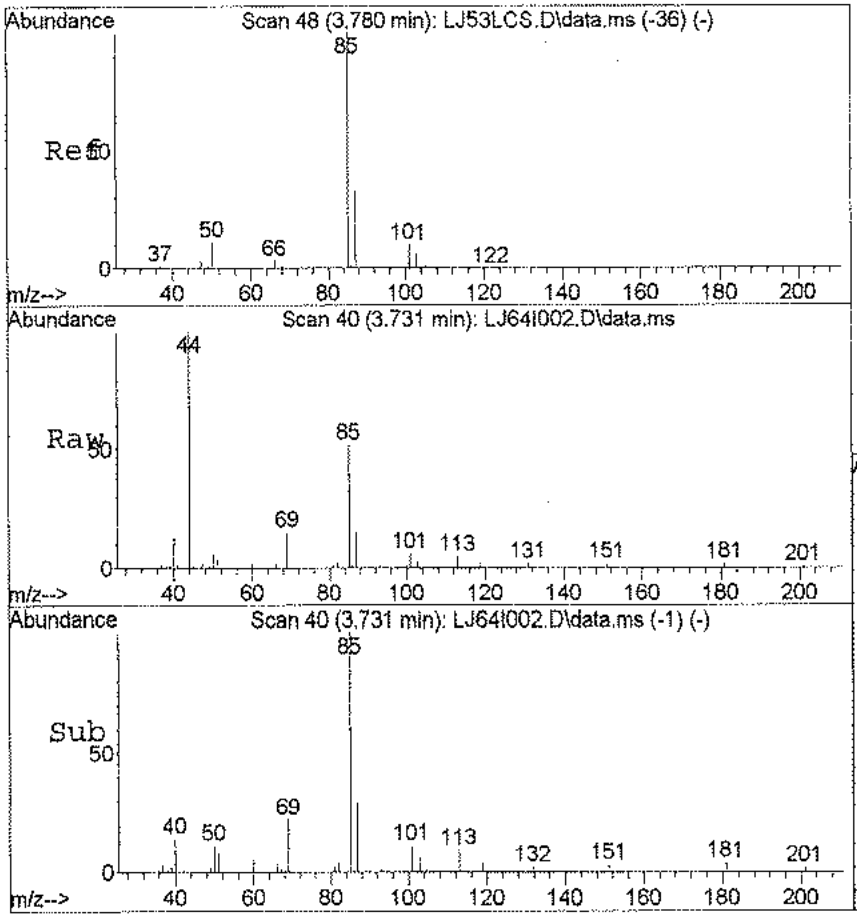


#2
Propene
Concen: 1.01 ppb
RT: 3.63 min Scan# 24
Delta R.T. -0.04 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:41.1 Resp: 32809

Ion	Ratio	Lower	Upper
41	100		
39	99.6	56.2	84.4#
42	55.7	53.8	80.6
0	0.0	0.0	0.0

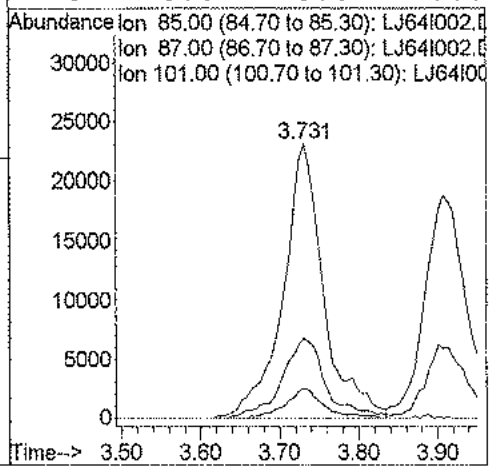


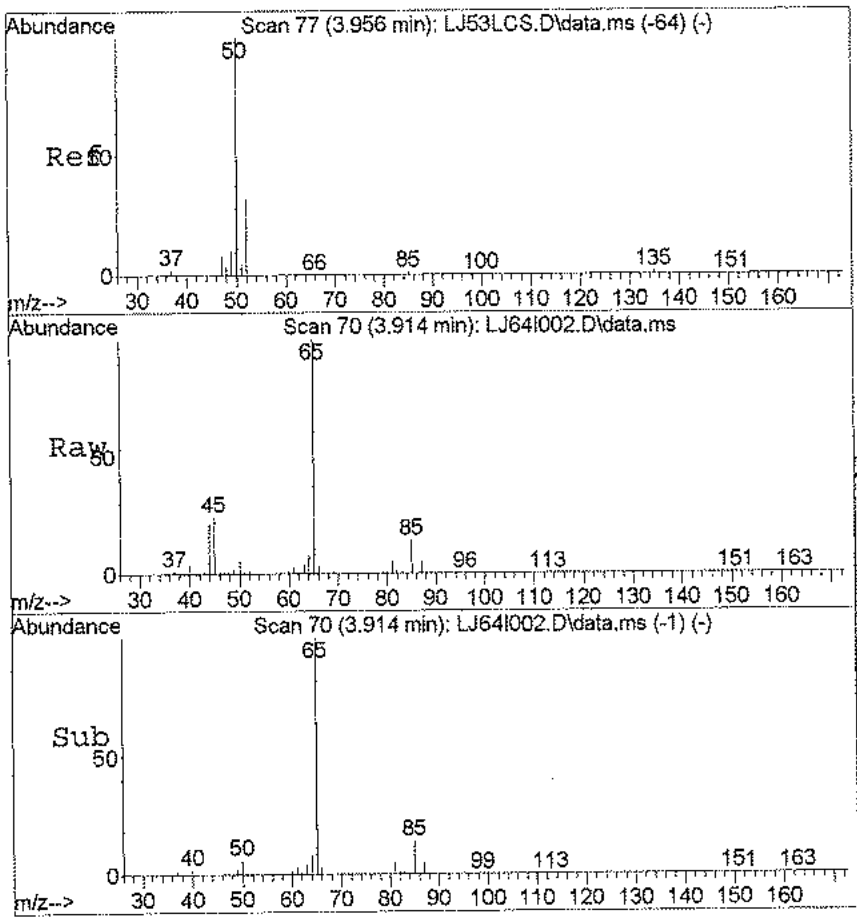


#3
Dichlorodifluoromethane
Concen: 0.69 ppb
RT: 3.73 min Scan# 40
Delta R.T. -0.05 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:85 Resp: 83207

Ion	Ratio	Lower	Upper
85	100		
87	31.8	26.1	39.1
101	10.3	8.0	12.0
0	0.0	0.0	0.0

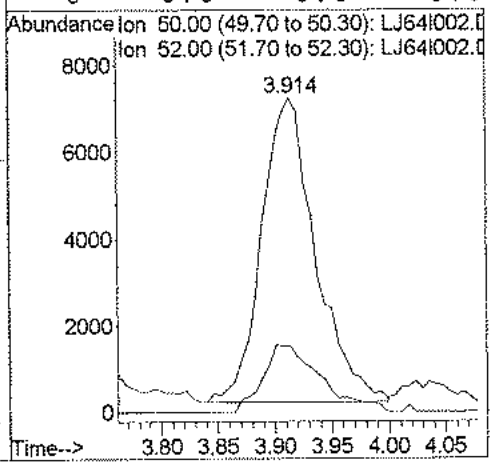


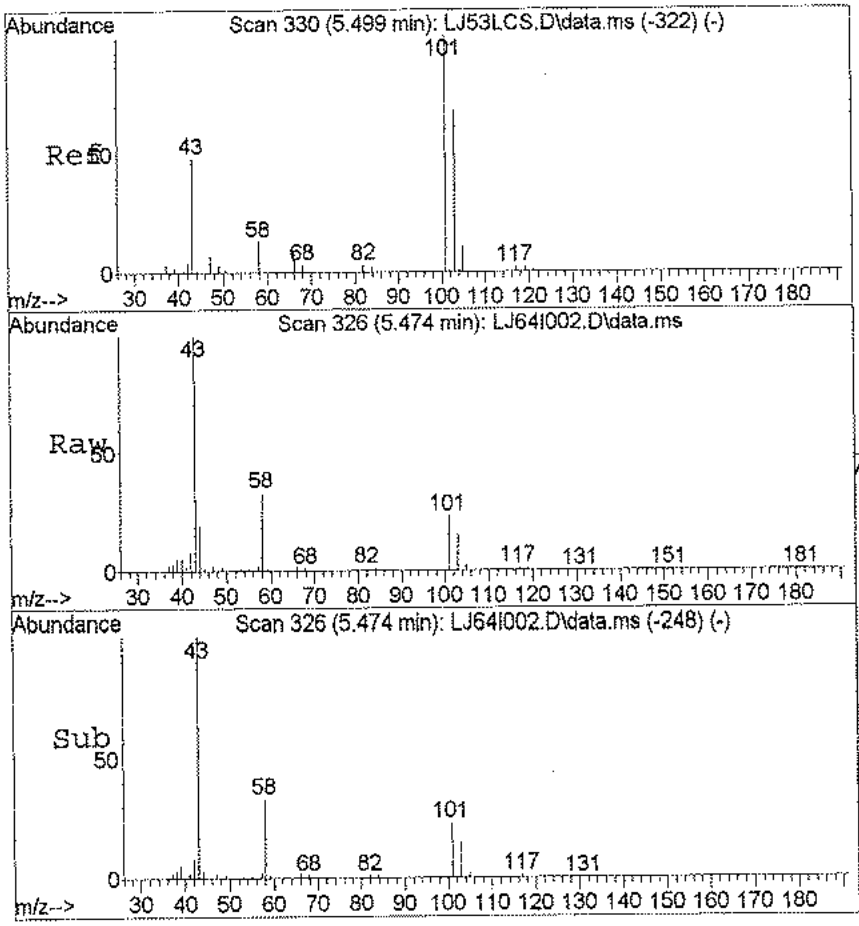


#4
Chloromethane
Concen: 0.63 ppb
RT: 3.91 min Scan# 70
Delta R.T. -0.04 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:50 Resp: 23160

Ion	Ratio	Lower	Upper
50	100		
52	23.7	26.6	40.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

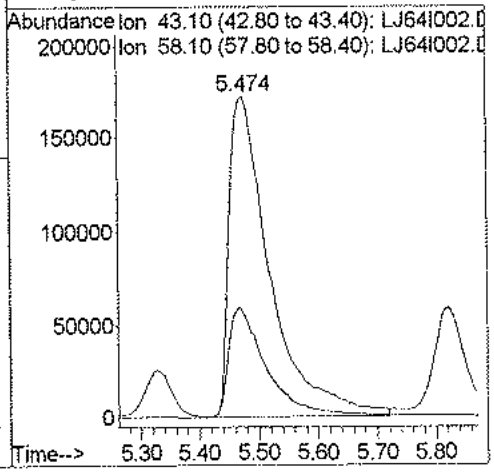


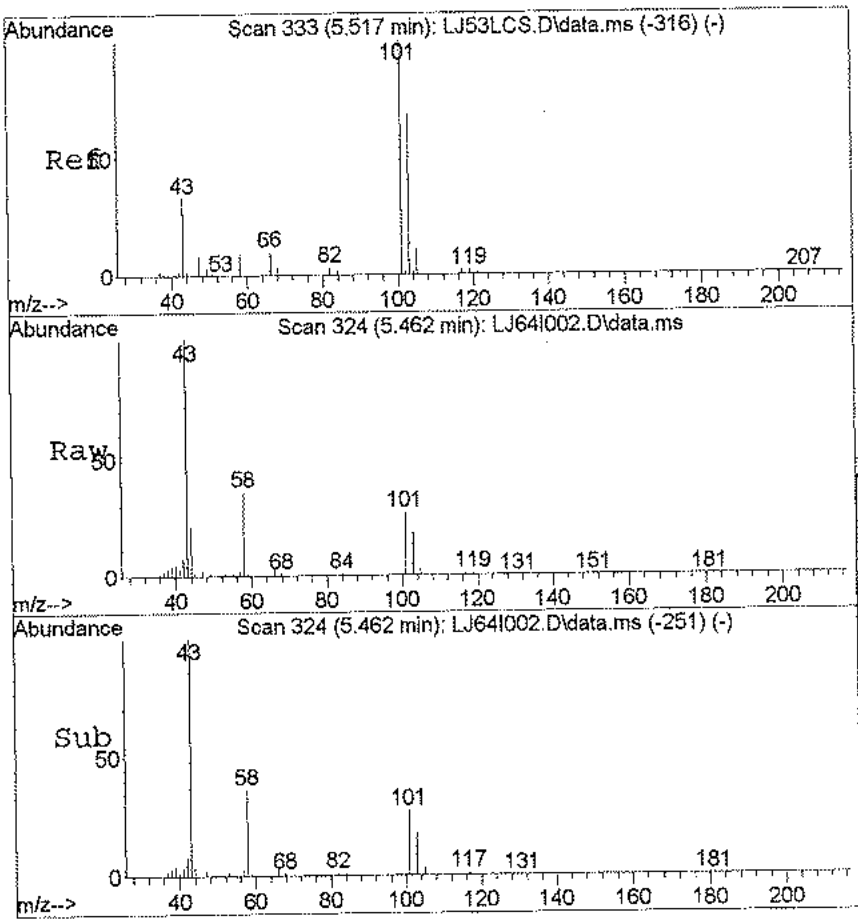


#11
Acetone
Concen: 11.88 ppb
RT: 5.47 min Scan# 326
Delta R.T. -0.02 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:43.1 Resp: 826980

Ion	Ratio	Lower	Upper
43	100		
58	32.8	30.7	46.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

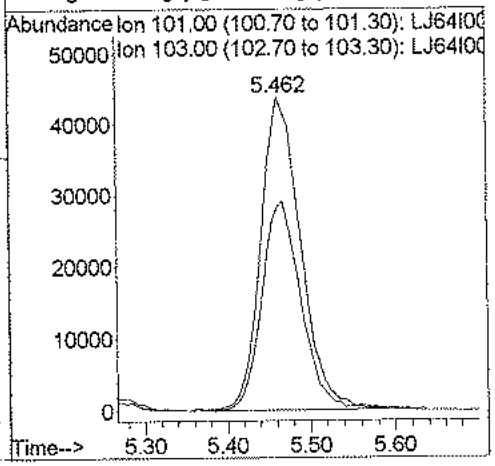


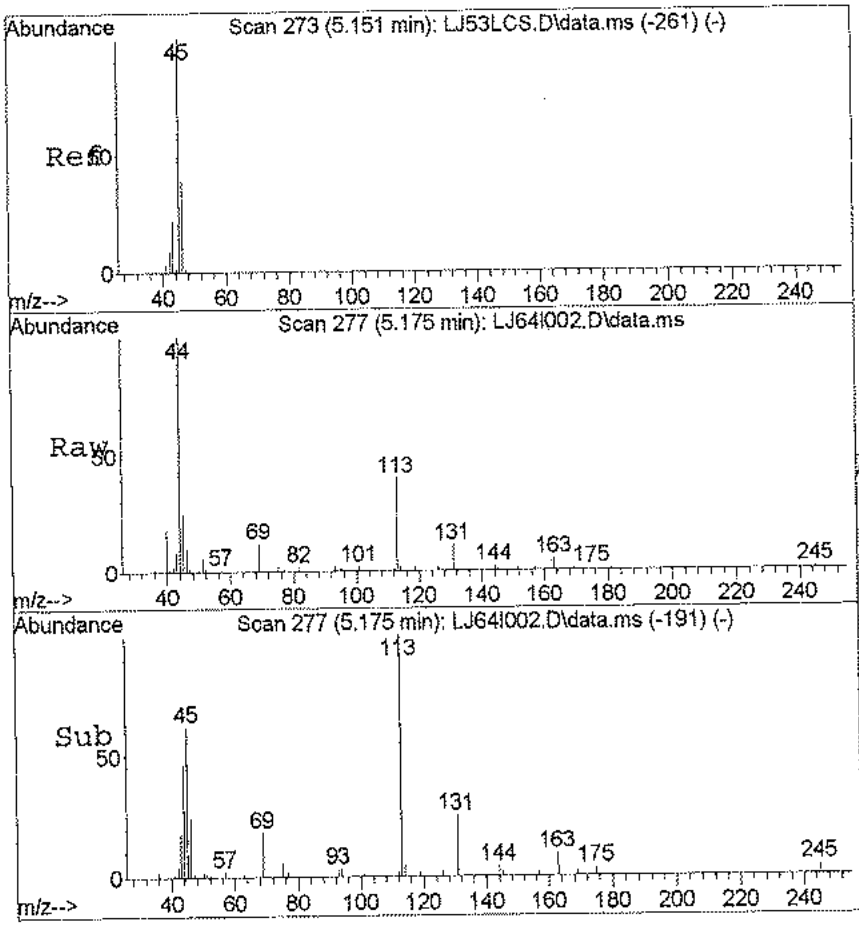


#12
Trichlorofluoromethane
Concen: 0.97 ppb
RT: 5.46 min Scan# 324
Delta R.T. -0.05 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:101 Resp: 144512

Ion	Ratio	Lower	Upper
101	100		
103	66.7	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

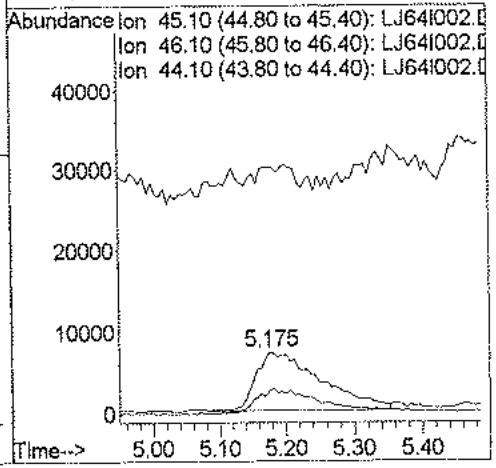


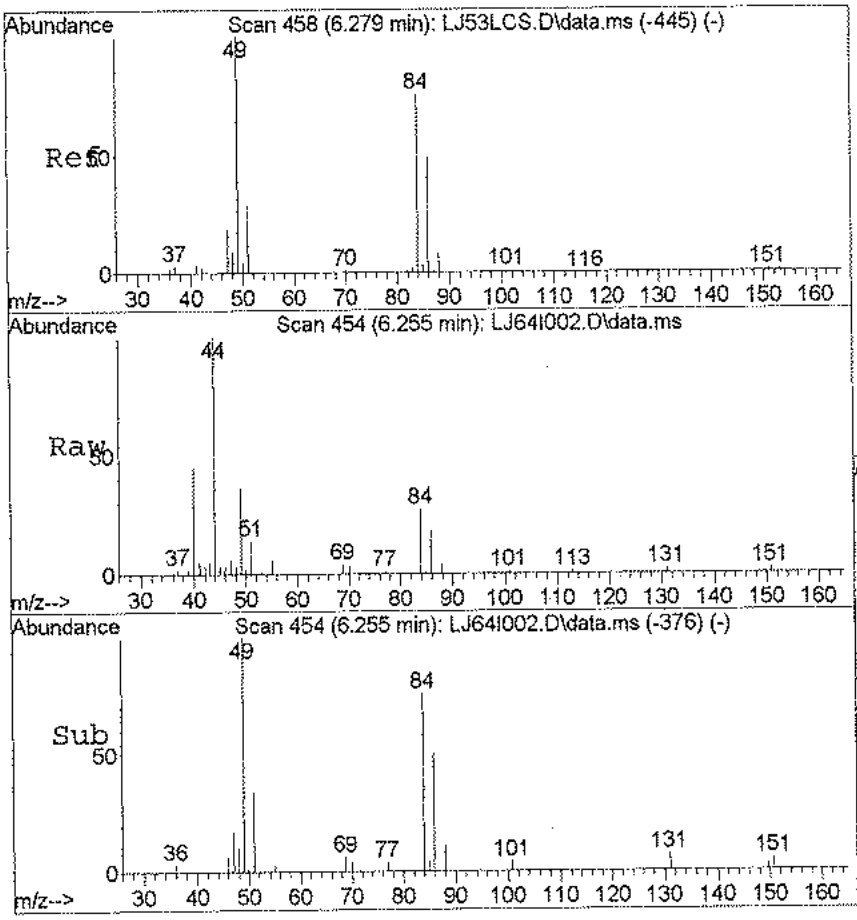


#13
Ethanol
Concen: 3.39 ppb
RT: 5.18 min Scan# 277
Delta R.T. 0.02 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:45.1 Resp: 47928

Ion	Ratio	Lower	Upper
45	100		
46	43.5	32.4	48.6
44	0.0	23.4	35.2#
0	0.0	0.0	0.0

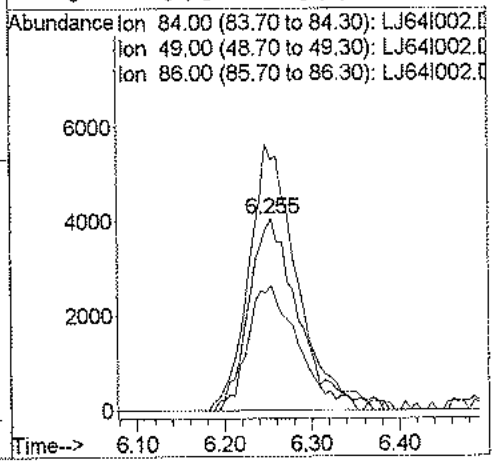


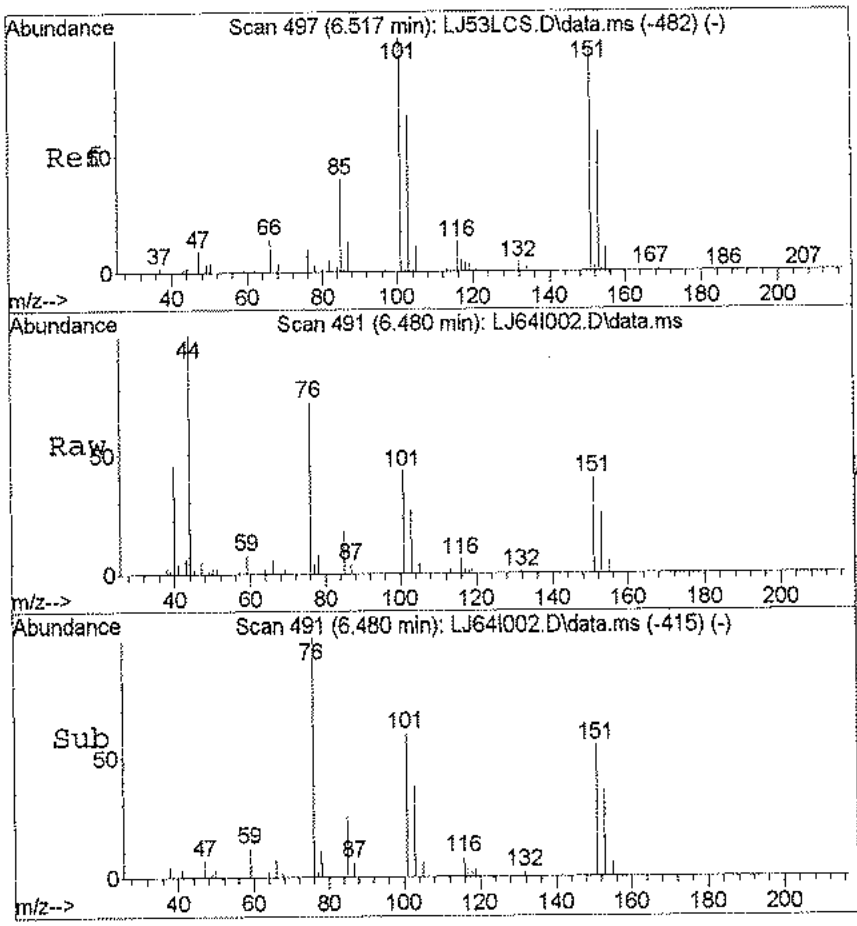


#16
Methylene Chloride
Concen: 0.36 ppb
RT: 6.25 min Scan# 454
Delta R.T. -0.02 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:84 Resp: 16085

Ion	Ratio	Lower	Upper
84	100		
49	135.0	66.6	100.0#
86	65.5	51.6	77.4
0	0.0	0.0	0.0

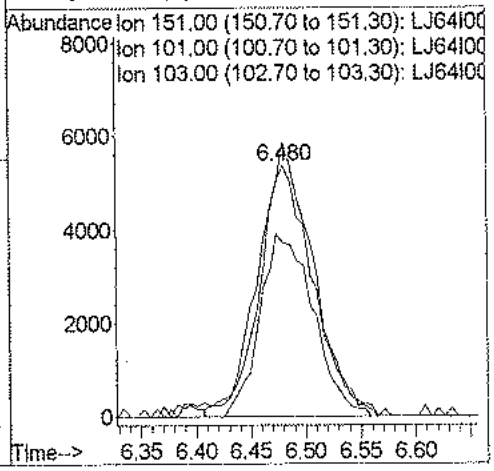


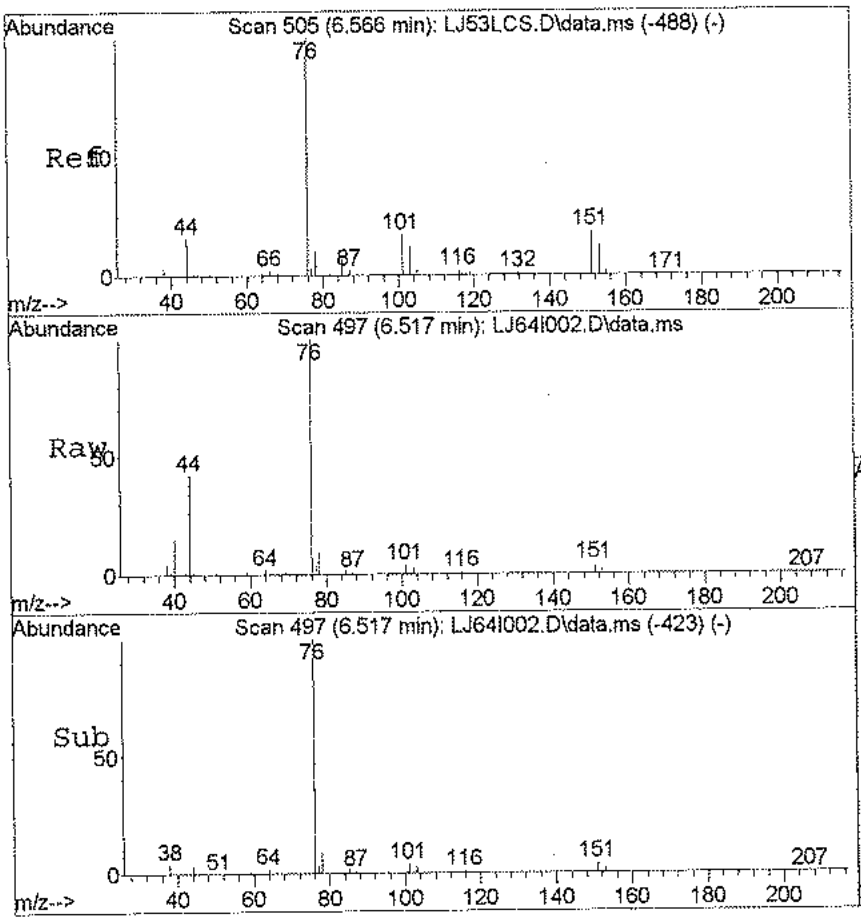


#17
Freon 113
Concen: 0.16 ppb
RT: 6.48 min Scan# 491
Delta R.T. -0.04 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:151 Resp: 18330

Ion	Ratio	Lower	Upper
151	100		
101	110.5	72.7	109.1#
103	72.3	47.0	70.6#
0	0.0	0.0	0.0

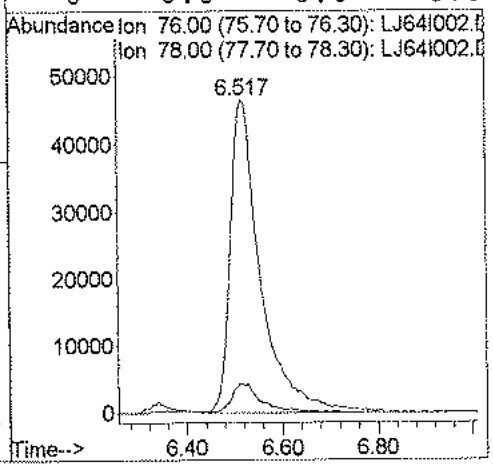


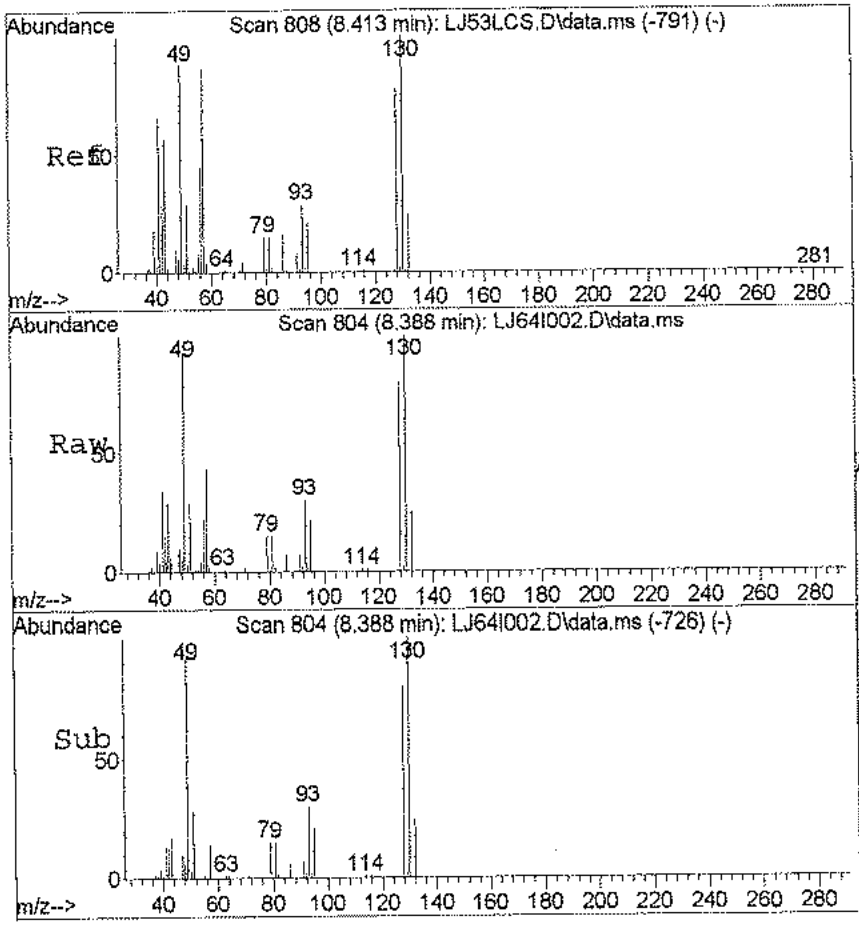


#18
Carbon Disulfide
Concen: 1.65 ppb
RT: 6.52 min Scan# 497
Delta R.T. -0.05 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:76 Resp: 205410

Ion	Ratio	Lower	Upper
76	100		
78	8.7	24.0	36.0#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

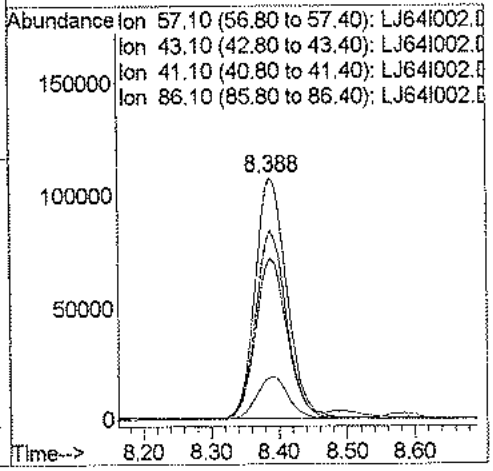


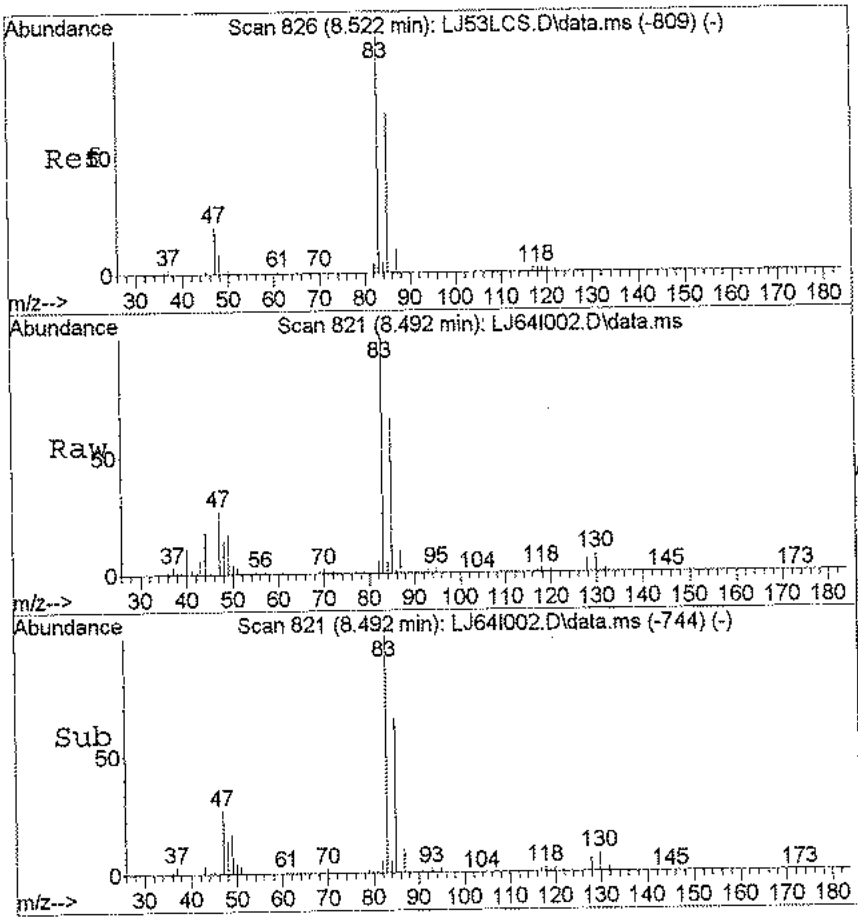


#27
Hexane
Concen: 4.65 ppb
RT: 8.39 min Scan# 804
Delta R.T. -0.02 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:57.1 Resp: 353976

Ion	Ratio	Lower	Upper
57	100		
43	65.8	57.3	85.9
41	76.6	47.0	70.4#
86	17.7	20.9	31.3#

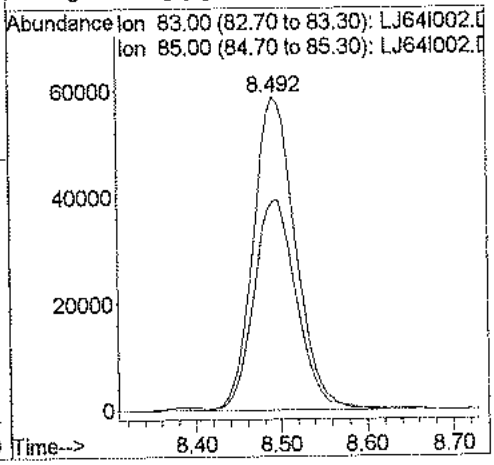


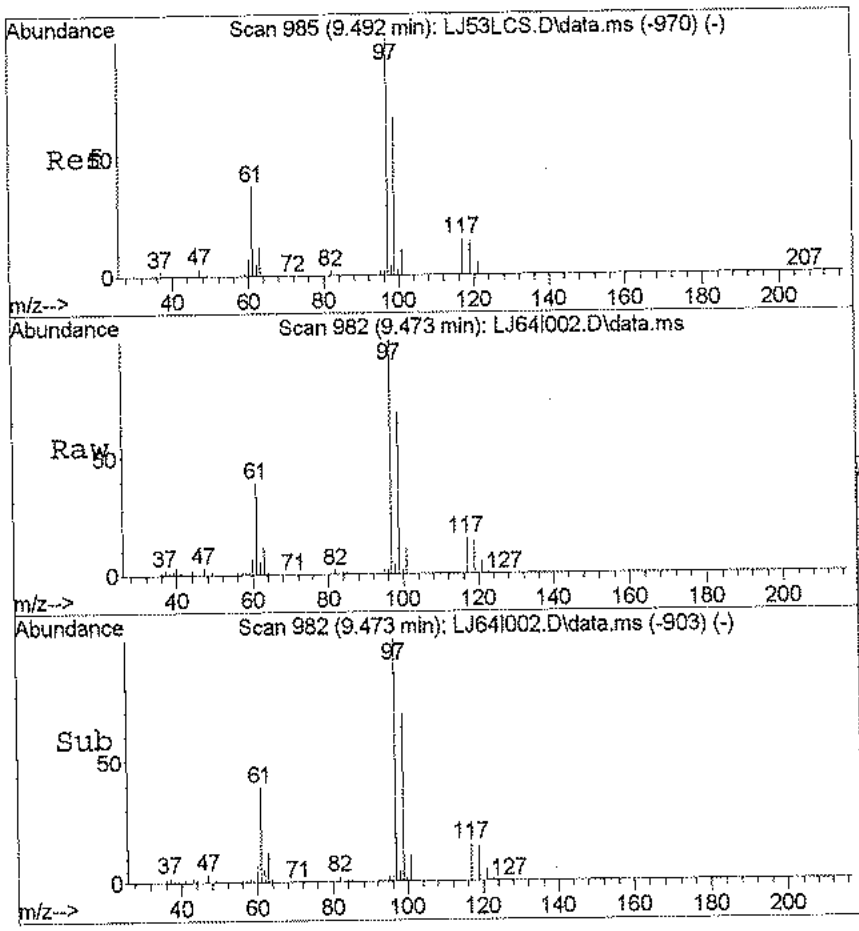


#28
Chloroform
Concen: 1.83 ppb
RT: 8.49 min Scan# 821
Delta R.T. -0.03 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:83 Resp: 204074

Ion	Ratio	Lower	Upper
83	100		
85	68.1	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

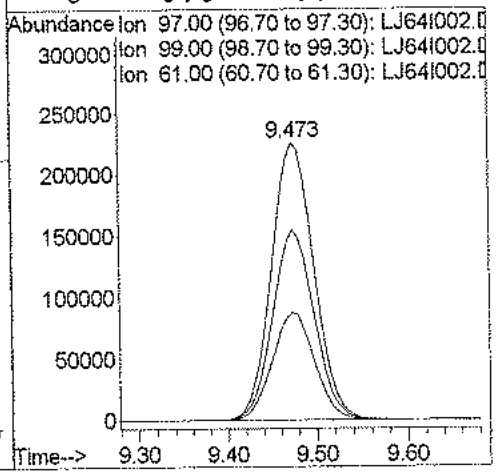


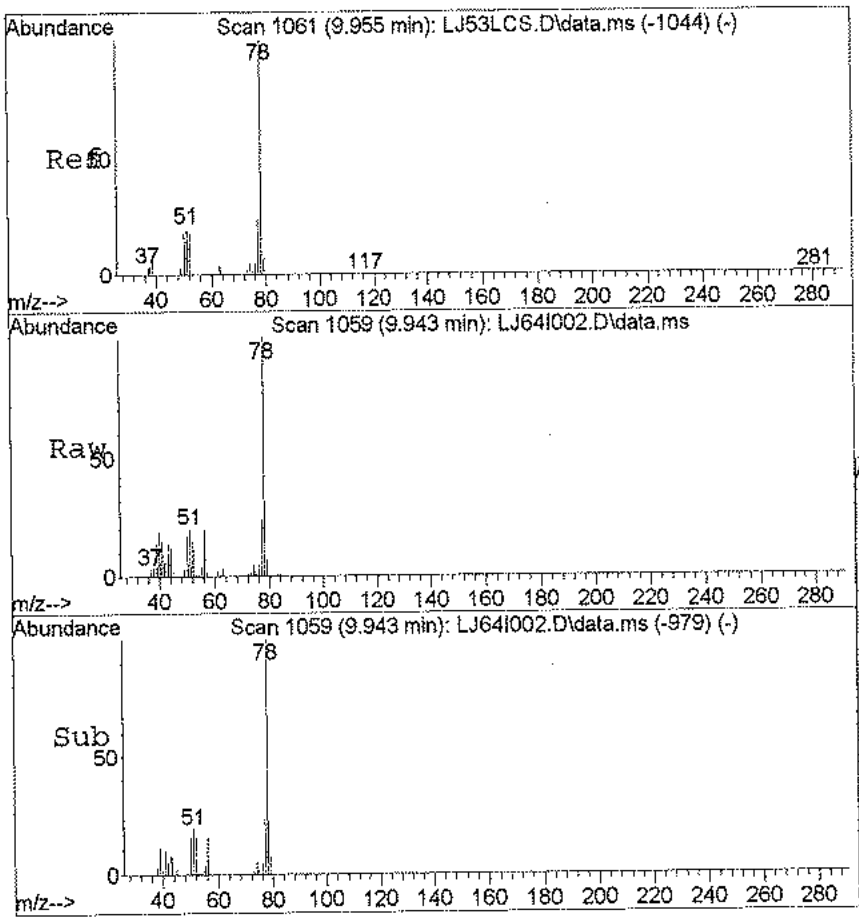


#31
1,1,1-Trichloroethane
Concen: 5.74 ppb
RT: 9.47 min Scan# 982
Delta R.T. -0.02 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:97 Resp: 750256

Ion	Ratio	Lower	Upper
97	100		
99	67.5	51.6	77.4
61	39.0	24.2	36.2#
0	0.0	0.0	0.0

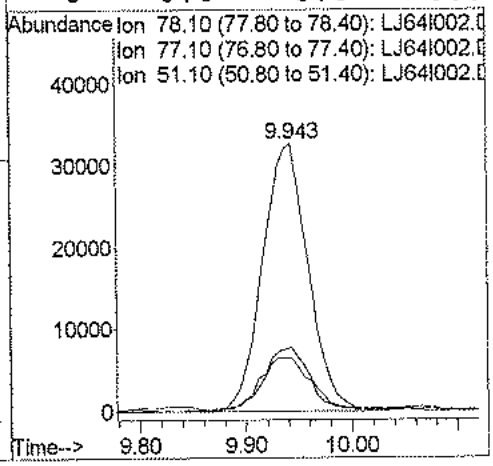


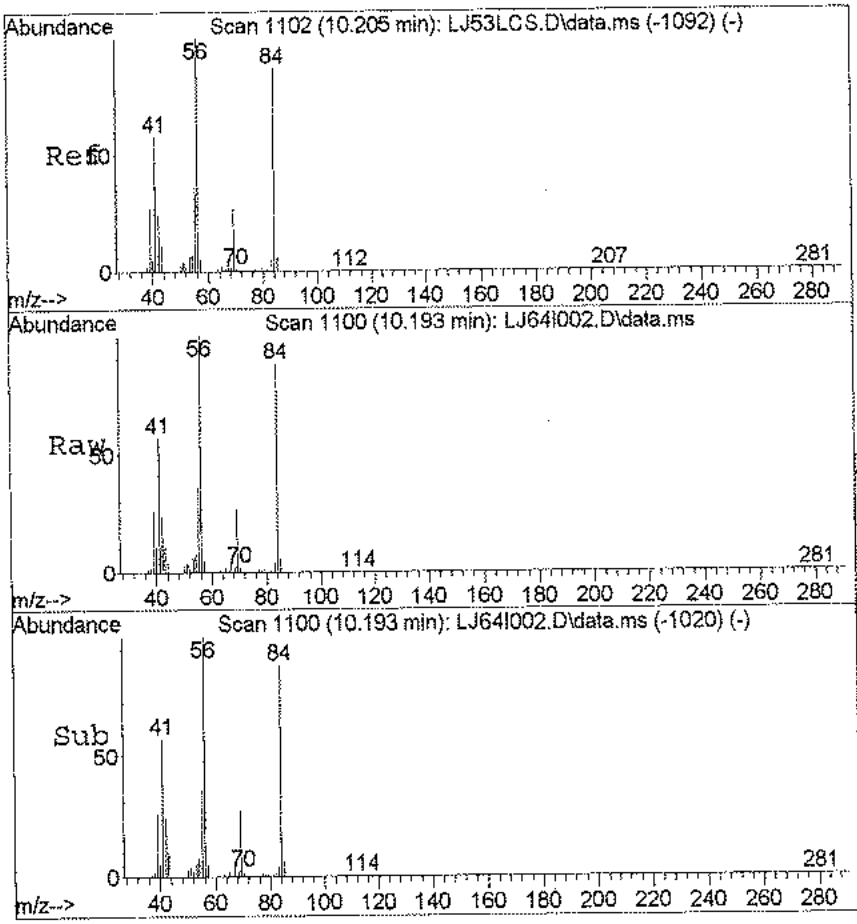


#32
Benzene
Concen: 0.66 ppb
RT: 9.94 min Scan# 1059
Delta R.T. -0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:78.1 Resp: 97302

Ion	Ratio	Lower	Upper
78	100		
77	25.4	18.2	27.4
51	19.3	9.5	14.3#
0	0.0	0.0	0.0

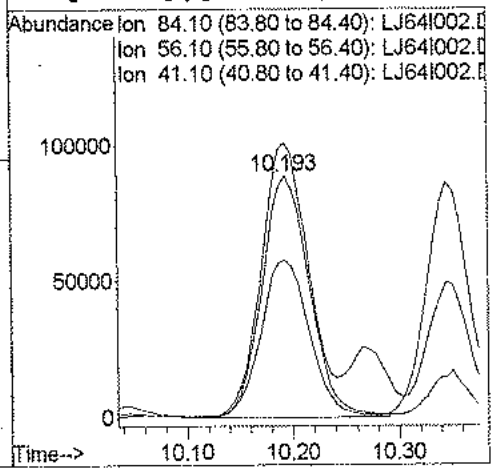


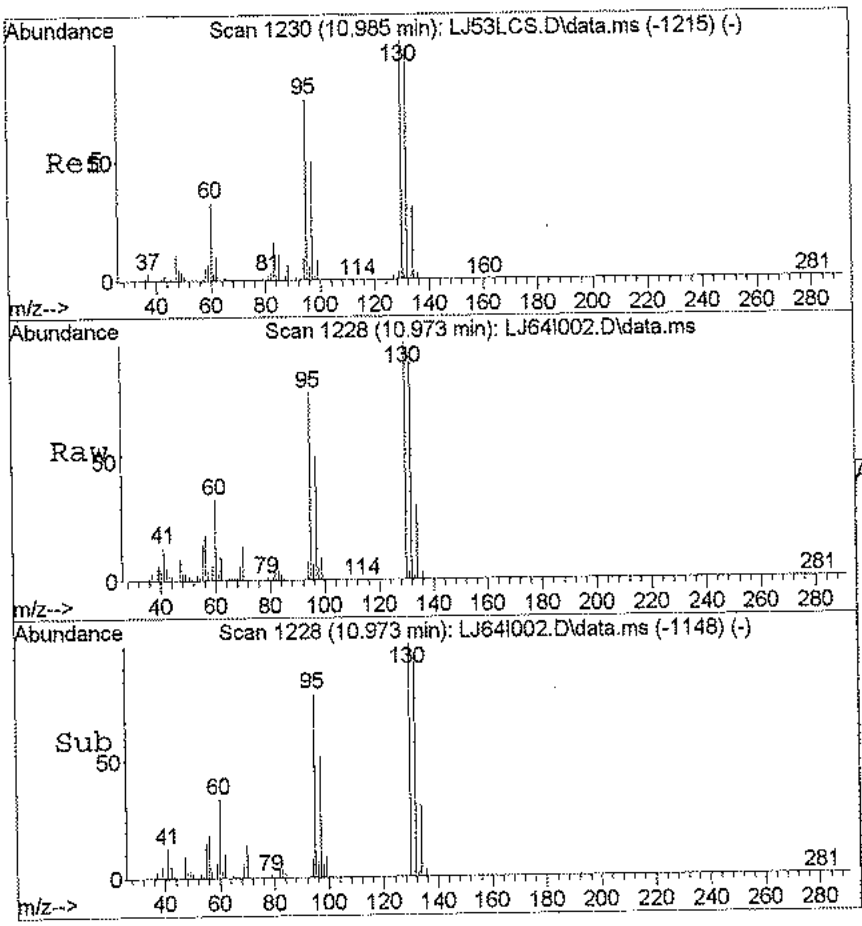


#34
Cyclohexane
Concen: 3.85 ppb
RT: 10.19 min Scan# 1100
Delta R.T. -0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:84.1 Resp: 276181

Ion	Ratio	Lower	Upper
84	100		
56	112.0	67.3	100.9#
41	64.9	30.2	45.4#
0	0.0	0.0	0.0

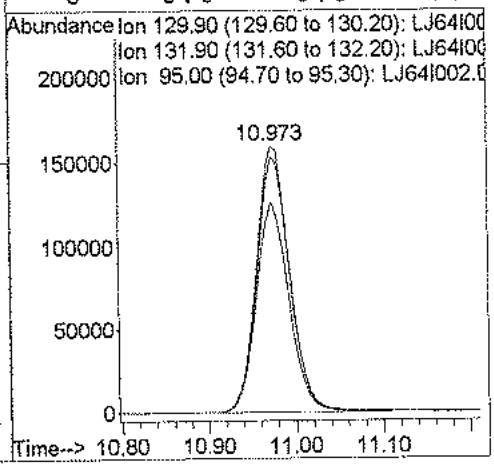


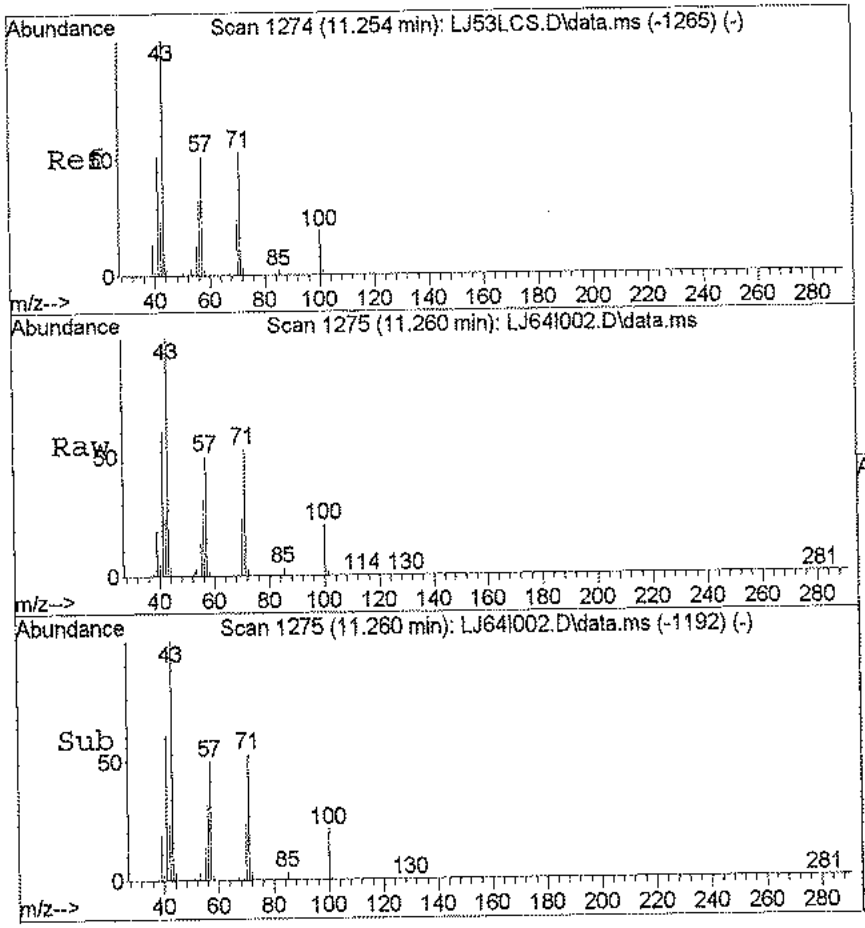


#38
Trichloroethene
Concen: 3.99 ppb
RT: 10.97 min Scan# 1228
Delta R.T. -0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:129.9 Resp: 422540

Ion	Ratio	Lower	Upper
130	100		
132	95.3	77.1	115.7
95	78.0	61.7	92.5
0	0.0	0.0	0.0

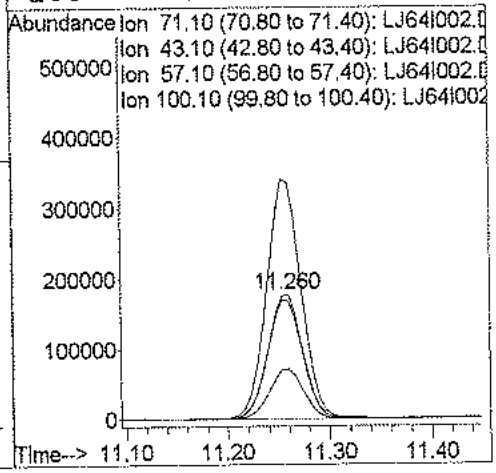


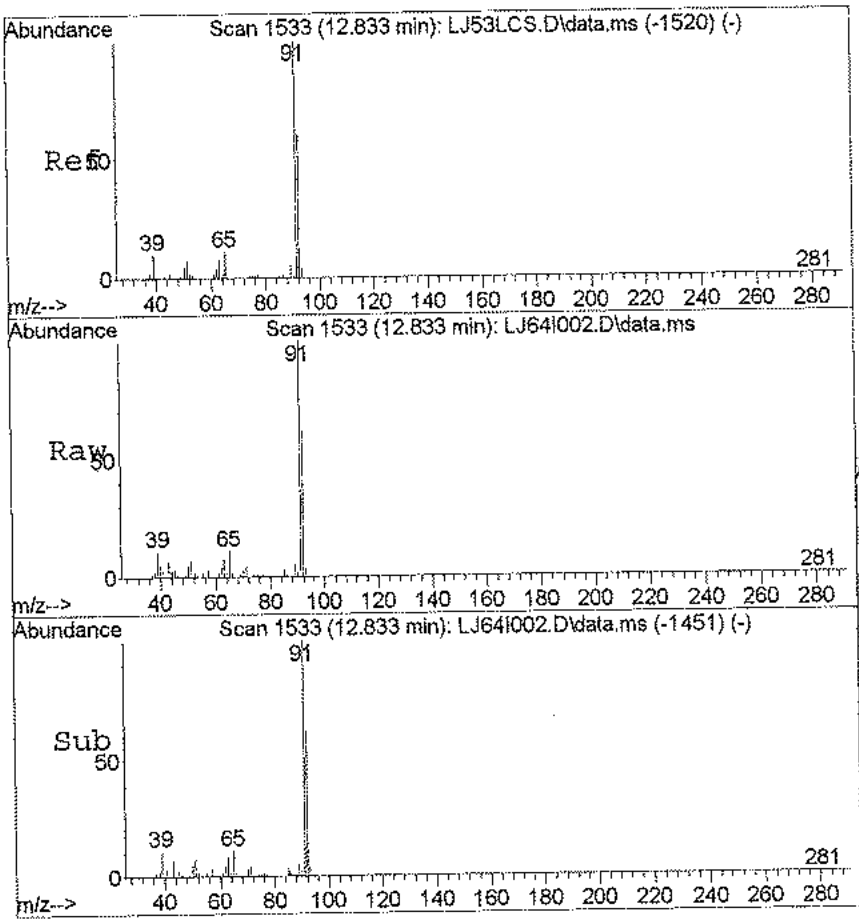


#40
Heptane
Concen: 8.15 ppb
RT: 11.26 min Scan# 1275
Delta R.T. 0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:71.1 Resp: 420262

Ion	Ratio	Lower	Upper
71	100		
43	189.9	87.3	130.9#
57	96.3	57.8	86.6#
100	39.3	34.8	52.2

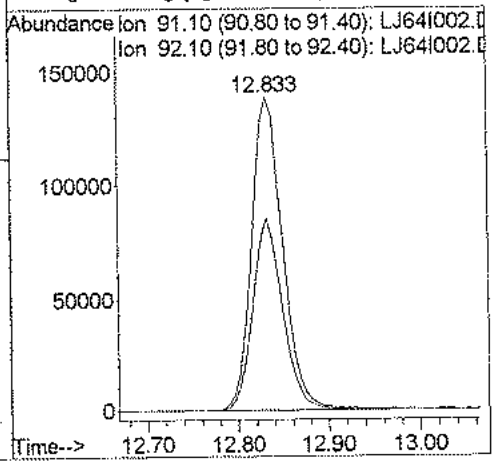


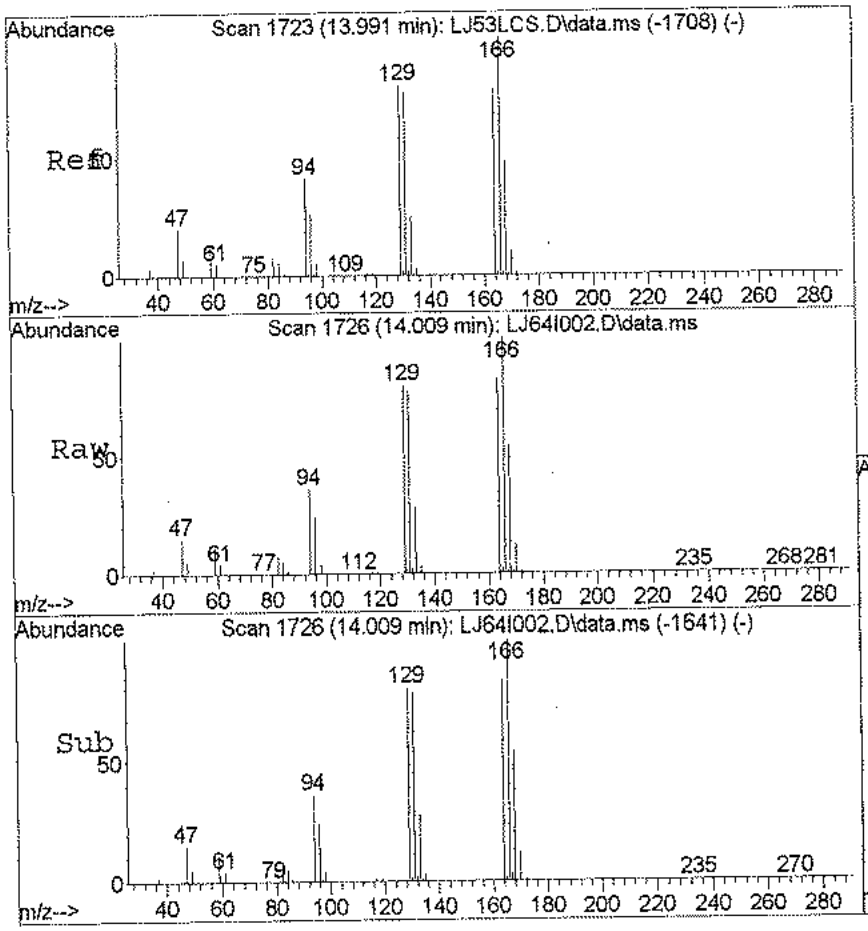


#45
Toluene
Concen: 1.67 ppb
RT: 12.83 min Scan# 1533
Delta R.T. -0.00 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:91.1 Resp: 333630

Ion	Ratio	Lower	Upper
91	100		
92	59.5	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

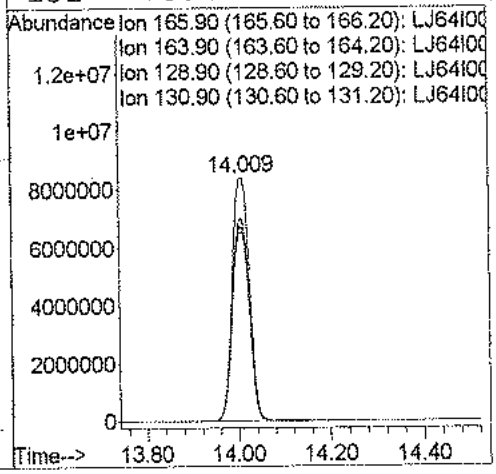


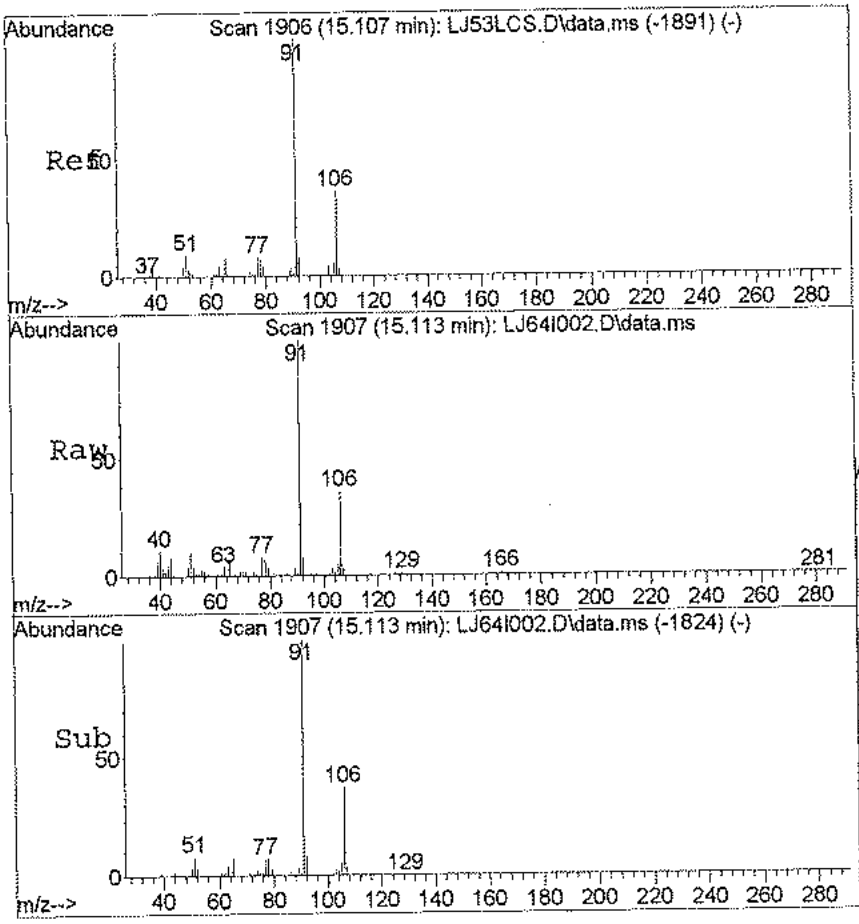


#49
Tetrachloroethene
Concen: 172.33 ppb
RT: 14.01 min Scan# 1726
Delta R.T. 0.02 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:165.9 Resp:22056553

Ion	Ratio	Lower	Upper
166	100		
164	81.3	61.0	91.4
129	80.7	45.9	68.9#
131	78.4	45.5	68.3#

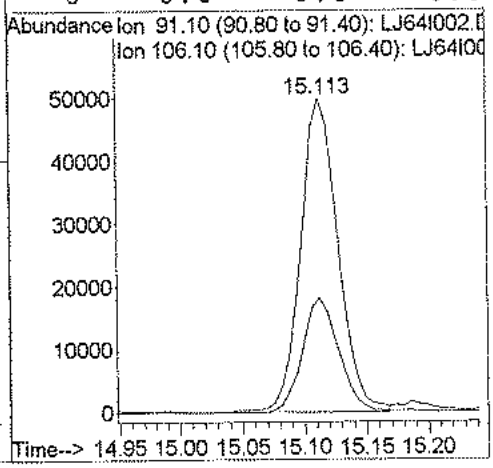


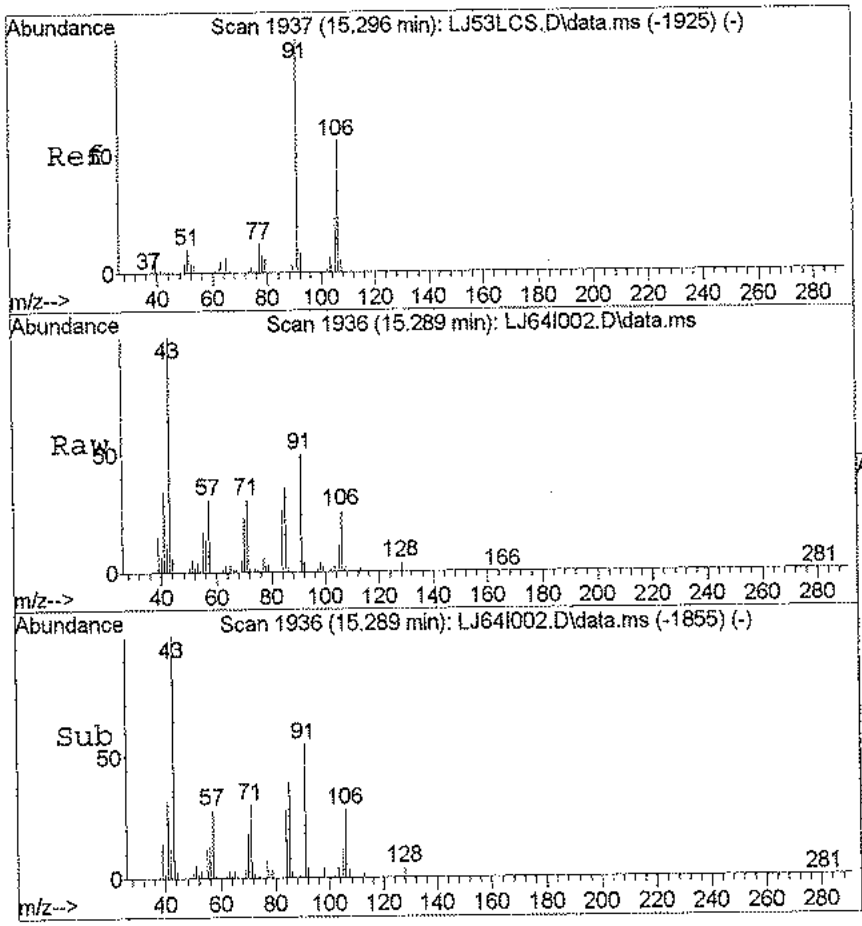


#52
Ethylbenzene
Concen: 0.37 ppb
RT: 15.11 min Scan# 1907
Delta R.T. 0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:91.1 Resp: 104714

Ion	Ratio	Lower	Upper
91	100		
106	35.4	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

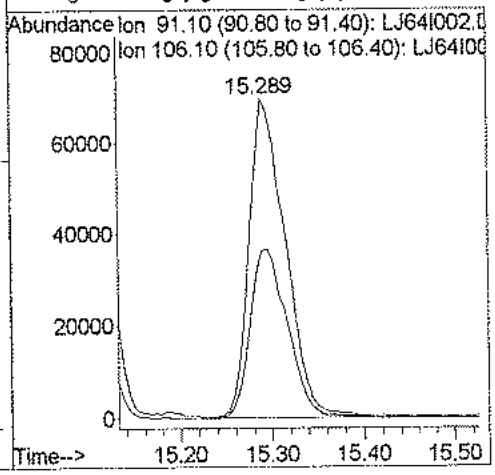


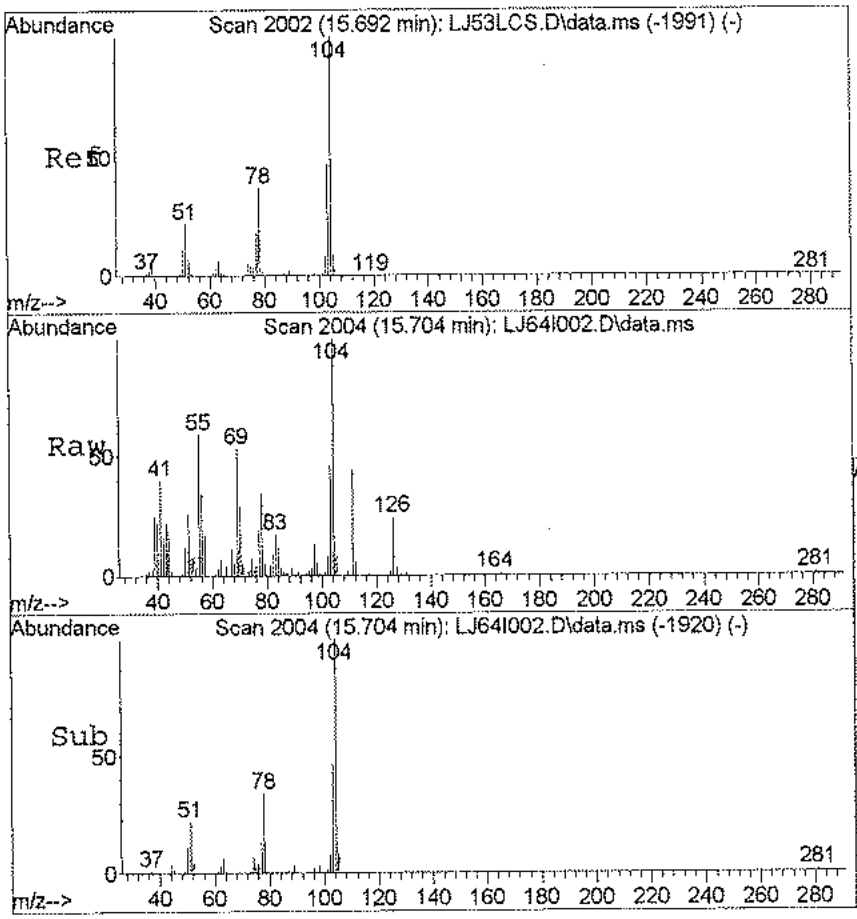


#53
m,p-Xylene
Concen: 0.88 ppb
RT: 15.29 min Scan# 1936
Delta R.T. -0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:91.1 Resp: 190597

Ion	Ratio	Lower	Upper
91	100		
106	55.0	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

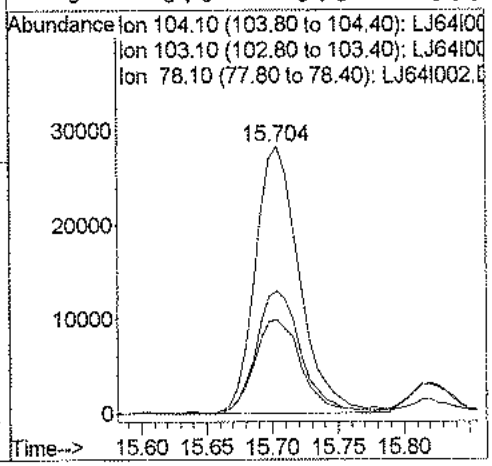


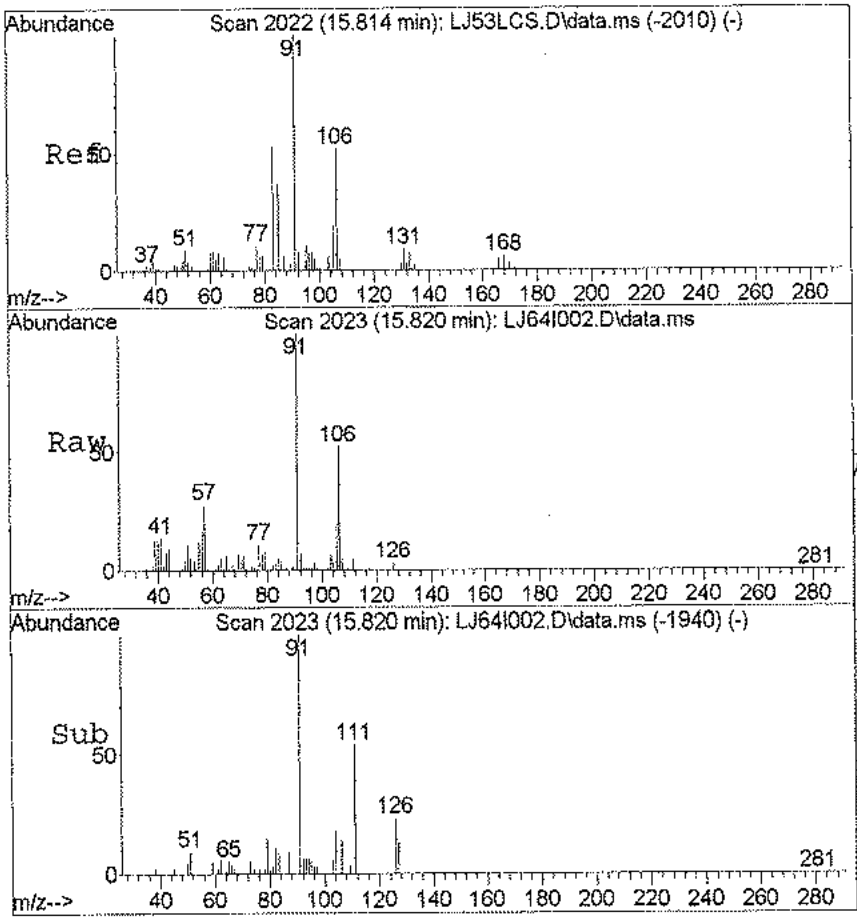


#55
Styrene
Concen: 0.36 ppb
RT: 15.70 min Scan# 2004
Delta R.T. 0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:104.1 Resp: 66353

Ion	Ratio	Lower	Upper
104	100		
103	46.3	36.6	54.8
78	37.2	27.7	41.5
0	0.0	0.0	0.0

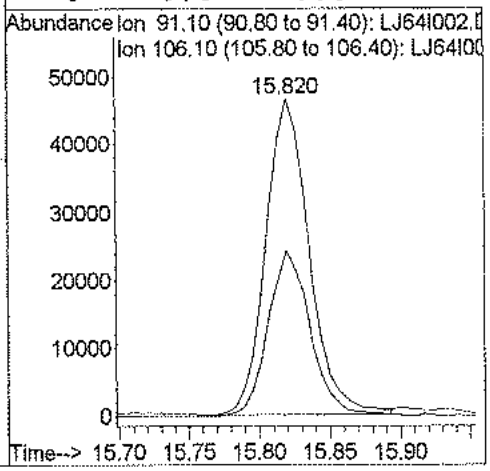


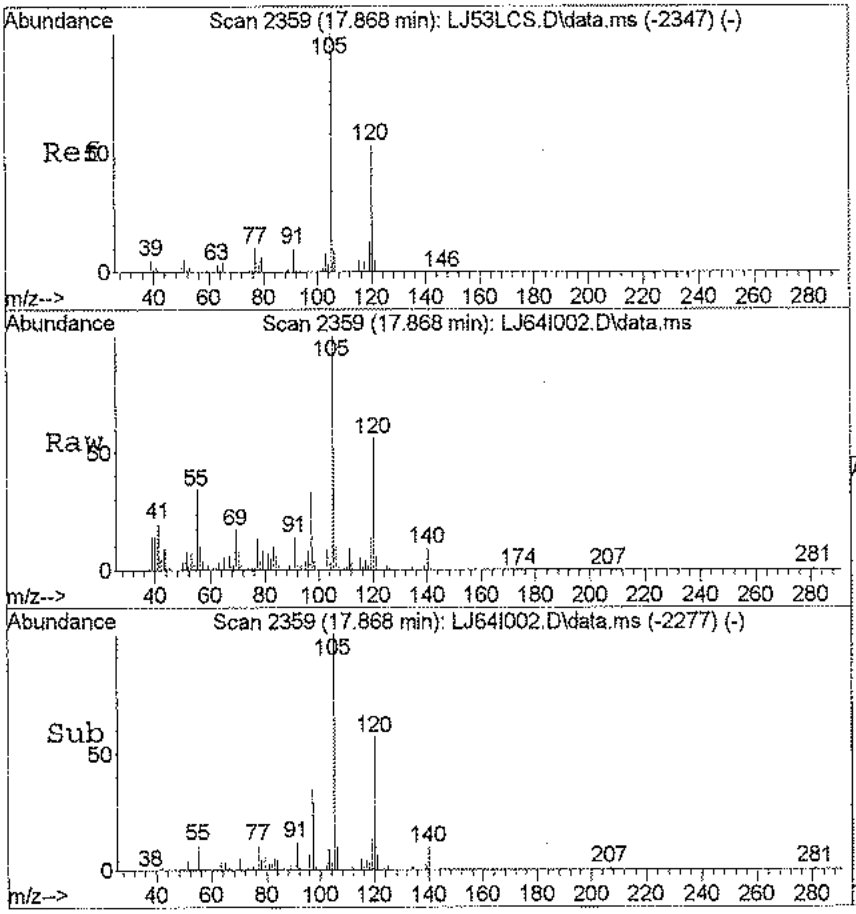


#57
o-Xylene
Concen: 0.45 ppb
RT: 15.82 min Scan# 2023
Delta R.T. 0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:91.1 Resp: 99737

Ion	Ratio	Lower	Upper
91	100		
106	51.1	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

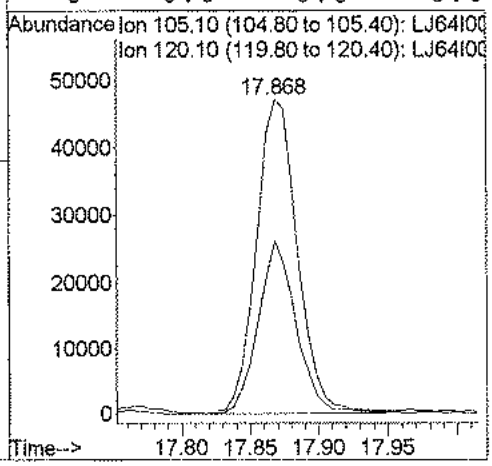


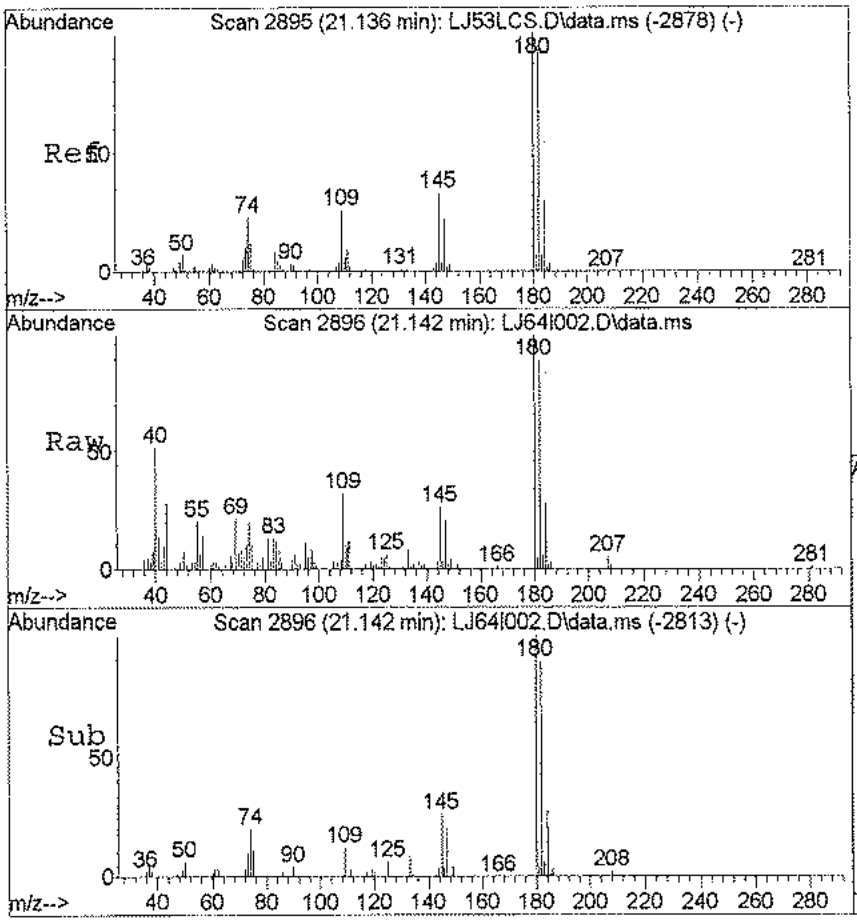


#61
1,2,4-Trimethylbenzene
Concen: 0.36 ppb
RT: 17.87 min Scan# 2359
Delta R.T. -0.00 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:105.1 Resp: 99944

Ion	Ratio	Lower	Upper
105	100		
120	51.5	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

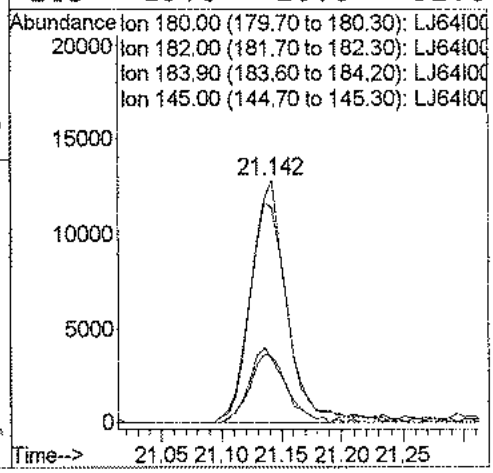




#66
1,2,4-Trichlorobenzene
Concen: 0.24 ppb
RT: 21.14 min Scan# 2896
Delta R.T. 0.01 min
Lab File: LJ64I002.D
Acq: 05/24/2016 20:07

Tgt Ion:180 Resp: 27364

Ion	Ratio	Lower	Upper
180	100		
182	94.0	76.6	115.0
184	29.3	24.3	36.5
145	29.8	20.6	31.0

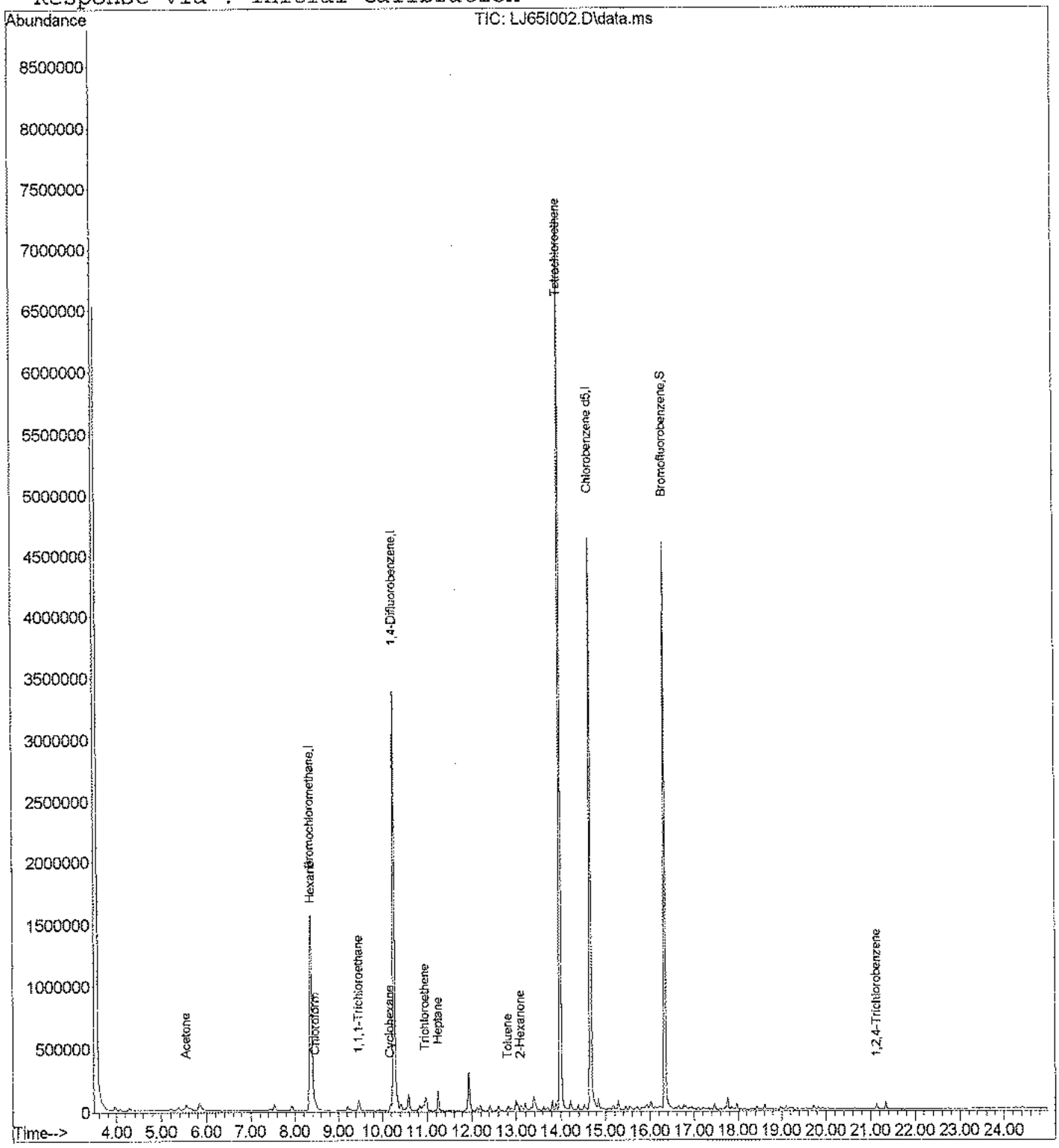


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ65I002.D Vial: 12
Acq Time : 05/24/2016 20:55 Operator: TJM
Sample : 1614564002 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:03:25 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 12:08:09 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ65I002.D Vial: 12
Acq Time : 05/24/2016 20:55 Operator: TJM
Sample : 1614564002 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:03:25 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.37	130	343616	20.0000 ppb	90.83
25) 1,4-Difluorobenzene	10.26	114	4425515	20.0000 ppb	90.36
50) Chlorobenzene d5	14.66	117	3967744	20.0000 ppb	91.15
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	2047963	19.1867 ppb	95.93%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.55	43	112987	1.5390 ppb #	85
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	0.00	45		Not Detected	
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	8.39	57	36699	0.4704 ppb #	86
28) Chloroform	8.48	83	22553	0.1971 ppb	98
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	9.47	97	79758	0.5959 ppb #	93
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	10.19	84	31271	0.4261 ppb #	74
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ65I002.D Vial: 12
Acq Time : 05/24/2016 20:55 Operator: TJM
Sample : 1614564002 Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) 1:10DIL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:03:25 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

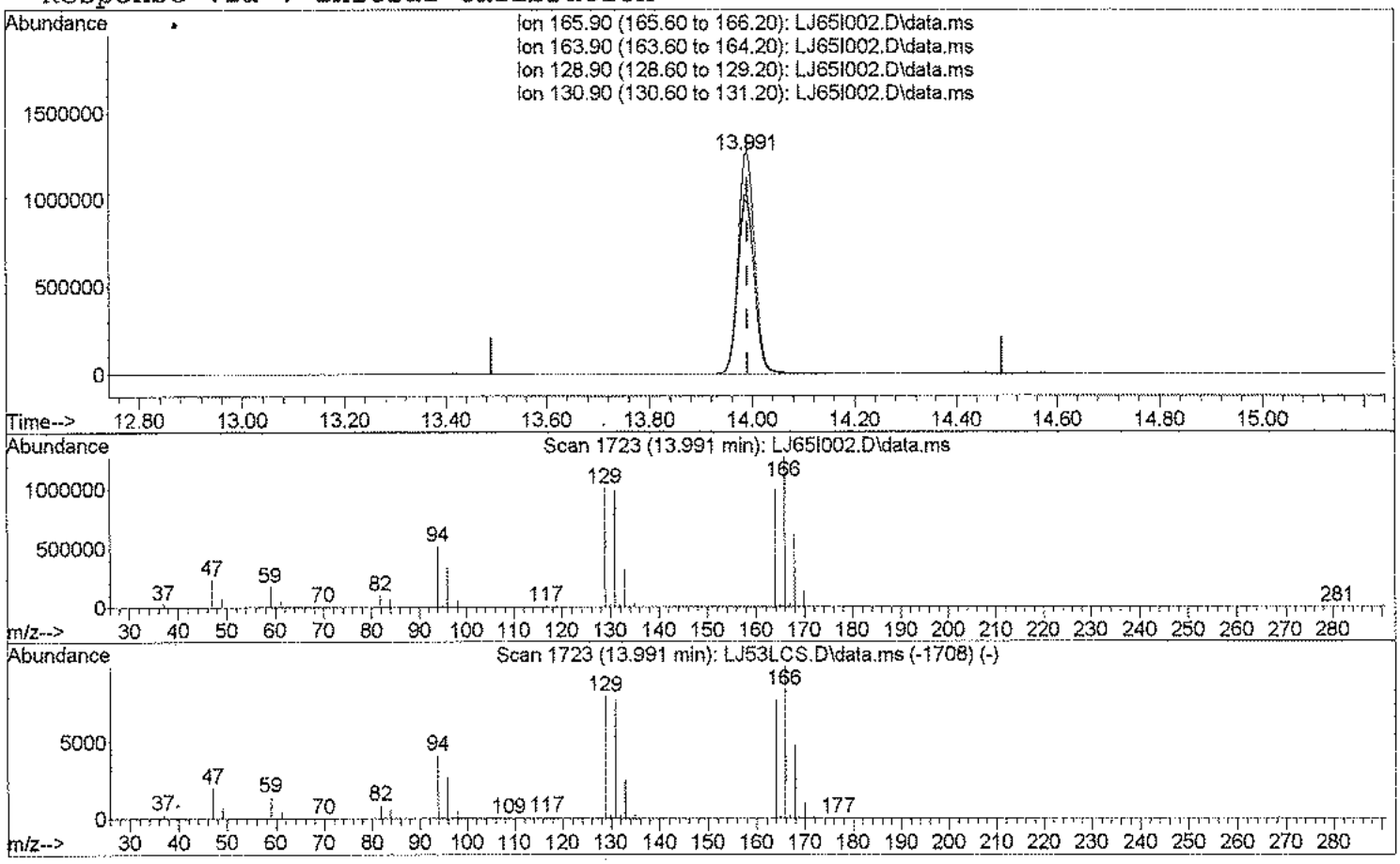
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	10.96	130	45530	0.4195 ppb	98
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	11.25	71	43605	0.8263 ppb #	54
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.82	91	34775	0.1703 ppb	99
46)	2-Hexanone	13.10	43	42759	0.3688 ppb #	76
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.99	166	2871801	21.9134 ppb #	81
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	19202	0.1701 ppb #	96
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ65I002.D
Acq On : 05/24/2016 20:55
Operator : TJM
Sample : 1614564002
Inst : 5975-L
Misc : A-0053H-052316-SG-001-6(0050) 1:10DIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 11:03:25 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



TIC: LJ65I002.D\data.ms

(49) Tetrachloroethene

13.991min (+ 0.000) 21.91 ppb

response 2871801

Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.81
128.90	57.40	80.00#
130.90	56.90	77.24#

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ66I003.D Vial: 13
Acq Time : 05/24/2016 21:47 Operator: TJM
Sample : 1614564003 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:09:25 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	377472	20.0000 ppb	99.78
25) 1,4-Difluorobenzene	10.28	114	4543530	20.0000 ppb	92.77
50) Chlorobenzene d5	14.67	117	4075426	20.0000 ppb	93.63
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	2089962	19.0629 ppb	95.31%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.83	85	80681	0.5740 ppb	99
4) Chloromethane	4.02	50	21474	0.5039 ppb	98
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.52	43	636966	7.8978 ppb #	87
12) Trichlorofluoromethane	5.54	101	54131	0.3148 ppb	96
13) Ethanol	5.14	45	504409	30.7882 ppb #NC	78
14) Isopropyl Alcohol	5.82	45	365955	3.6859 ppb #NC	86
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.32	84	12207	0.2372 ppb #	70
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.88	43	61400	0.5863 ppb #	70
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.47	61	13750	0.8698 ppb #	1
27) Hexane	8.41	57	18219	0.2275 ppb #	78
28) Chloroform	8.51	83	20651	0.1757 ppb	96
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ66I003.D Vial: 13
Acq Time : 05/24/2016 21:47 Operator: TJM
Sample : 1614564003 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:09:25 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36) Bromodichloromethane	0.00	83		Not Detected	
37) 1,4-Dioxane	0.00	88		Not Detected	
38) Trichloroethene	0.00	130		Not Detected	
39) Methyl Methacrylate	0.00	69		Not Detected	
40) Heptane	0.00	71		Not Detected	
41) cis-1,3-Dichloropropene	0.00	75		Not Detected	
42) 4-Methyl-2-Pentanone	0.00	43		Not Detected	
43) trans-1,3-Dichloropropene	0.00	75		Not Detected	
44) 1,1,2-Trichloroethane	0.00	97		Not Detected	
45) Toluene	12.83	91	142746	0.6807 ppb	100
46) 2-Hexanone	13.09	43	48857	0.4105 ppb #	81
47) Dibromochloromethane	0.00	129		Not Detected	
48) 1,2-Dibromoethane	0.00	107		Not Detected	
49) Tetrachloroethene	13.99	166	198168	1.4729 ppb #	82
51) Chlorobenzene	0.00	112		Not Detected	
52) Ethylbenzene	15.10	91	214900	0.7594 ppb	99
53) m,p-Xylene	15.28	91	115176	0.5297 ppb	99
54) Bromoform	0.00	173		Not Detected	
55) Styrene	0.00	104		Not Detected	
56) 1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57) o-Xylene	15.81	91	41427	0.1861 ppb	96
59) 4-Ethyl Toluene	0.00	105		Not Detected	
60) 1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61) 1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62) Benzyl Chloride	0.00	91		Not Detected	
63) m-Dichlorobenzene	0.00	146		Not Detected	
64) p-Dichlorobenzene	0.00	146		Not Detected	
65) o-Dichlorobenzene	0.00	146		Not Detected	
66) 1,2,4-Trichlorobenzene	21.14	180	23062	0.1989 ppb #	96
67) Naphthalene	0.00	128		Not Detected	
68) Hexachloro-1,3-butadiene	0.00	225		Not Detected	

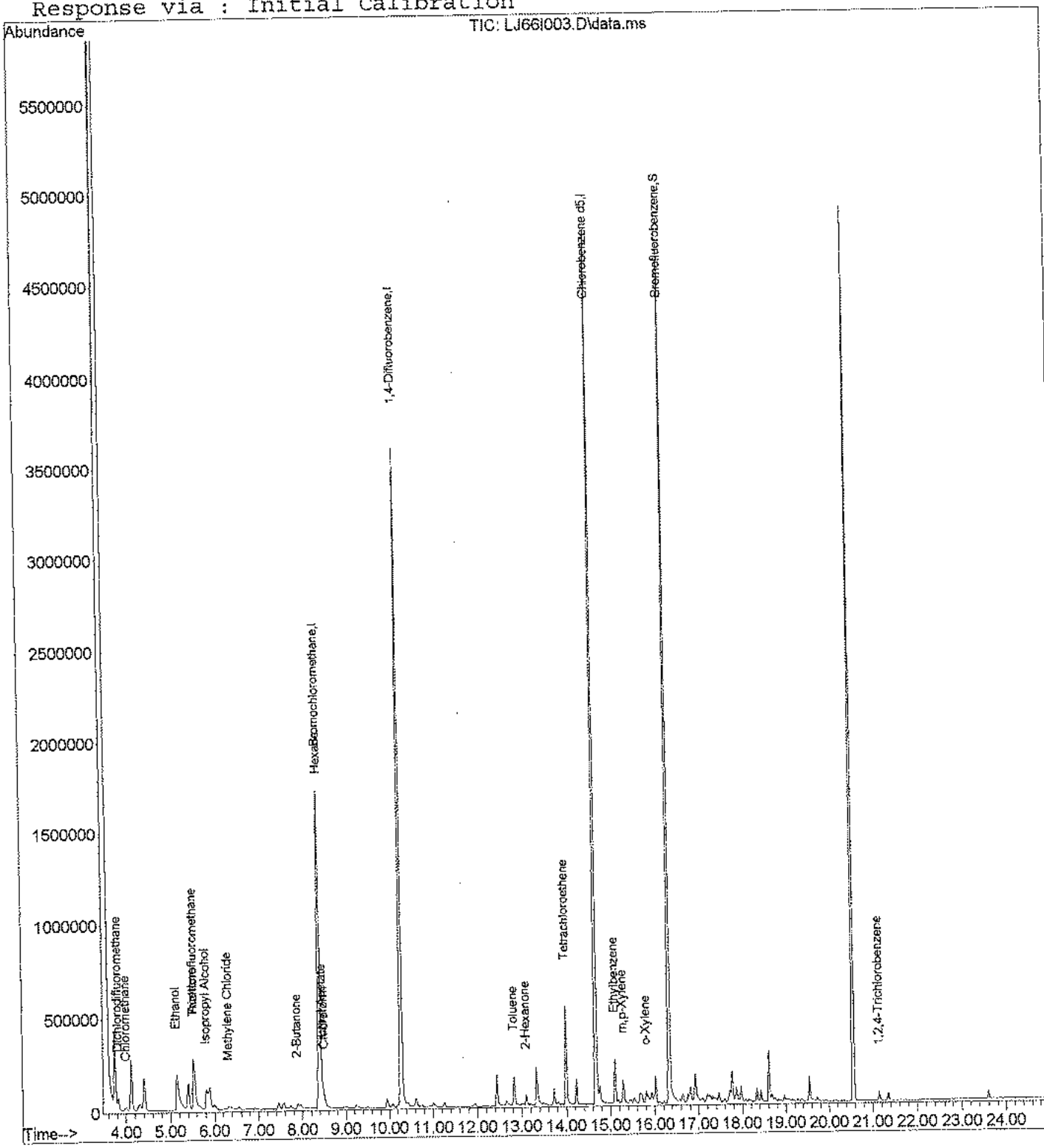
(#) = qualifier out of range (m) = manual integration

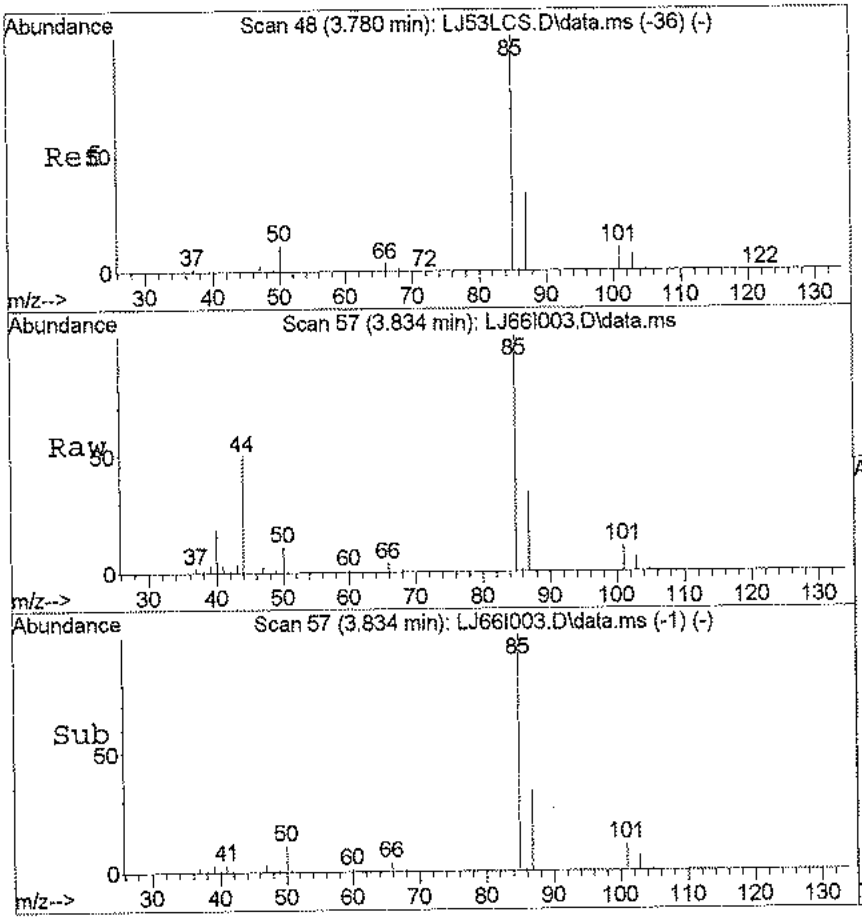
Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ66I003.D Vial: 13
Acq Time : 05/24/2016 21:47 Operator: TJM
Sample : 1614564003 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:09:25 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration

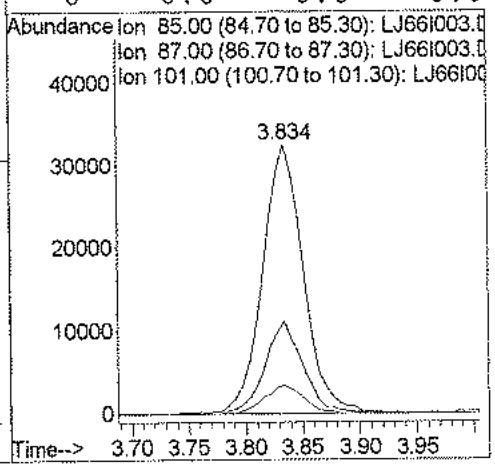


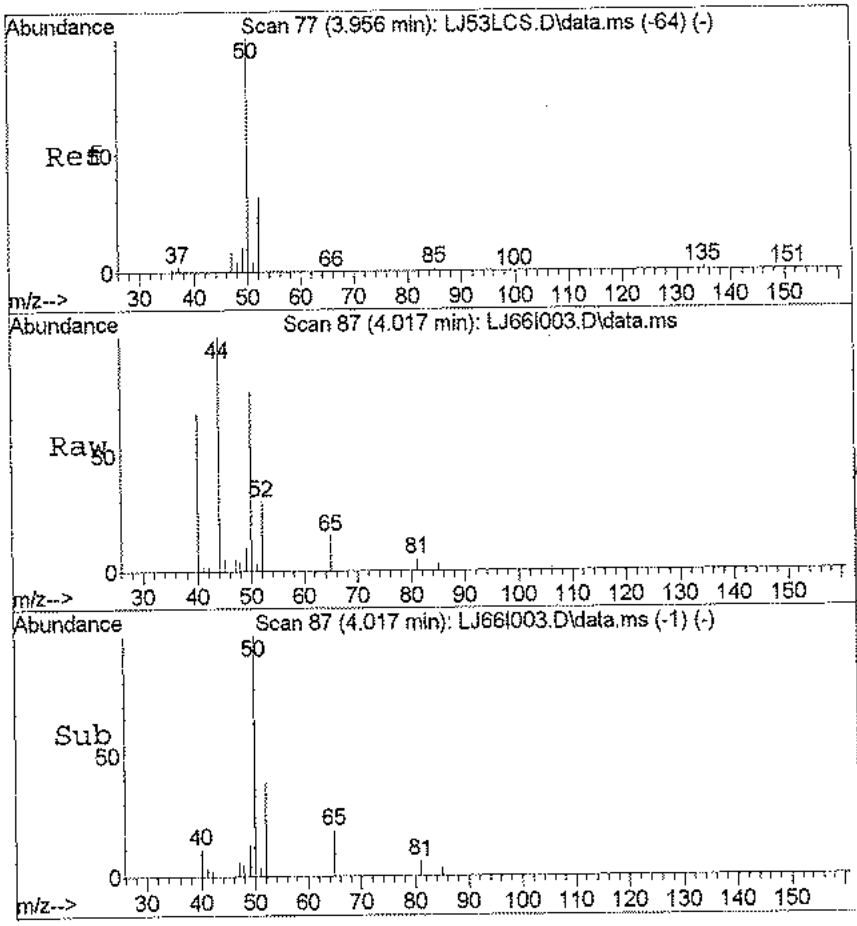


#3
Dichlorodifluoromethane
Concen: 0.57 ppb
RT: 3.83 min Scan# 57
Delta R.T. 0.05 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:85 Resp: 80681

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.1	39.1
101	10.2	8.0	12.0
0	0.0	0.0	0.0

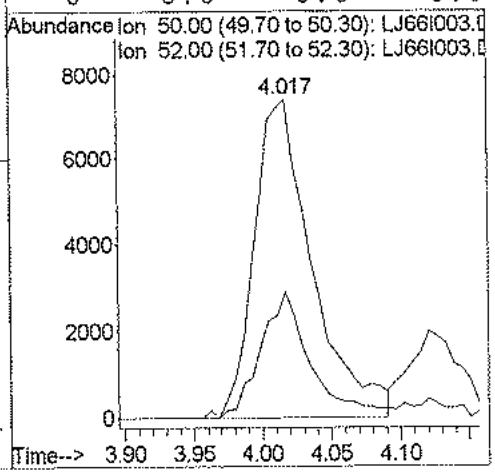


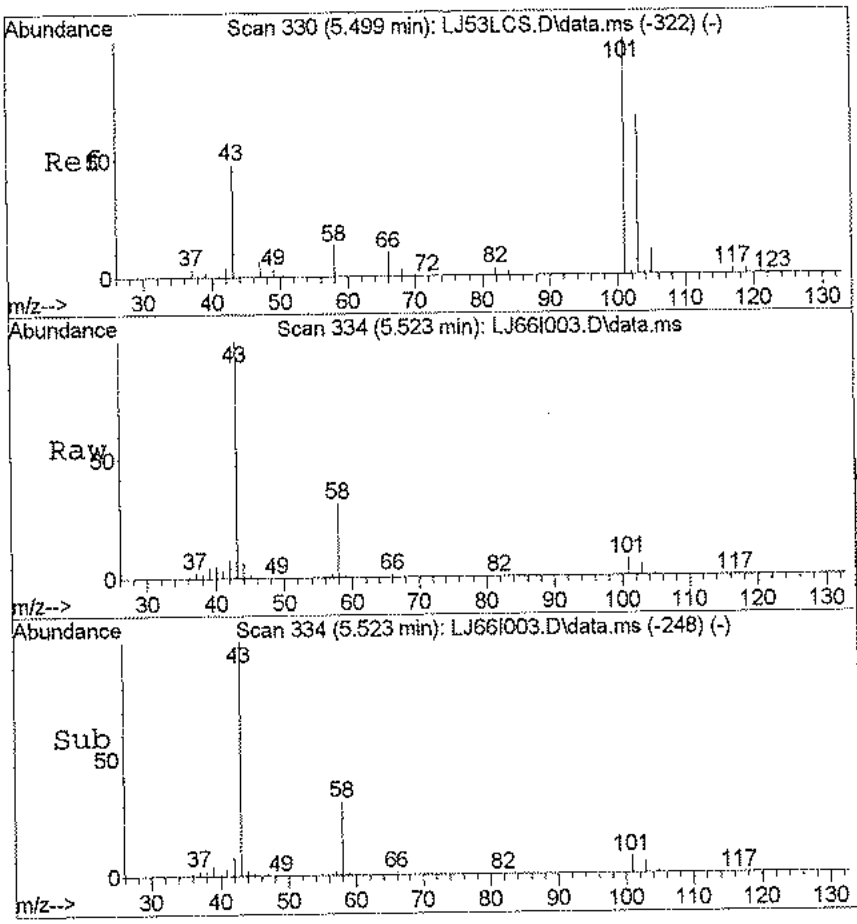


#4
Chloromethane
Concen: 0.50 ppb
RT: 4.02 min Scan# 87
Delta R.T. 0.06 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:50 Resp: 21474

Ion	Ratio	Lower	Upper
50	100		
52	34.7	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

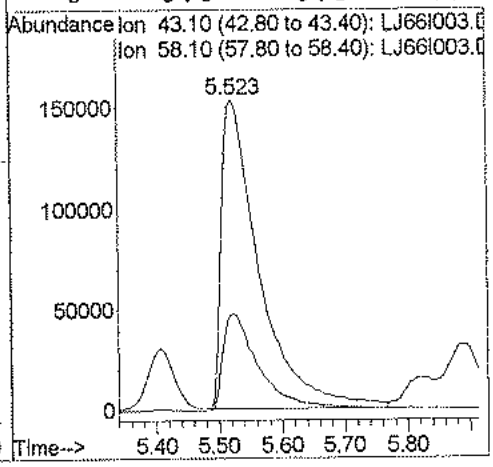


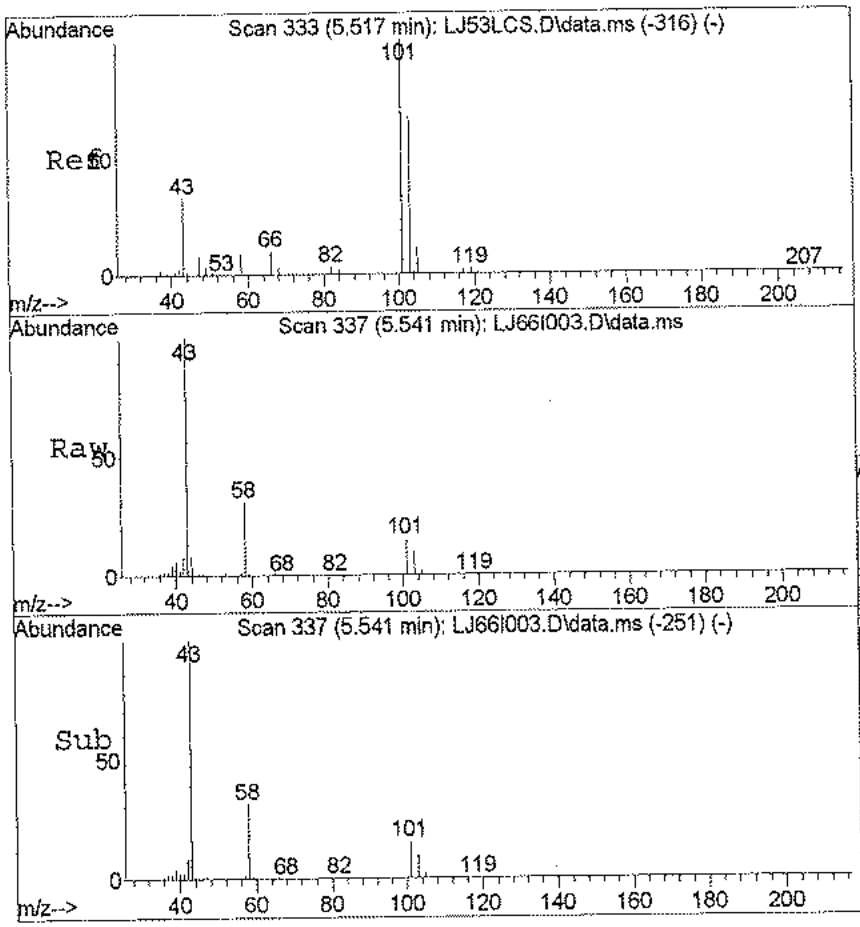


#11
Acetone
Concen: 7.90 ppb
RT: 5.52 min Scan# 334
Delta R.T. 0.02 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:43.1 Resp: 636966

Ion	Ratio	Lower	Upper
43	100		
58	30.6	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

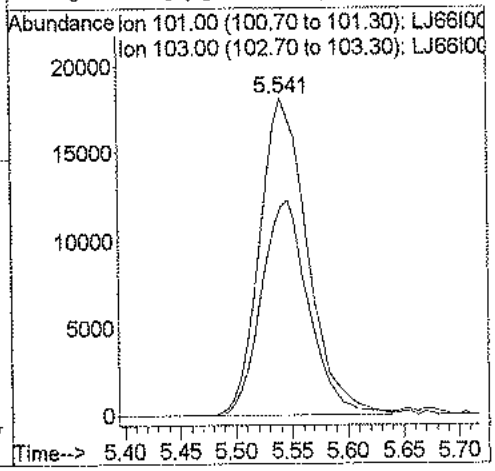


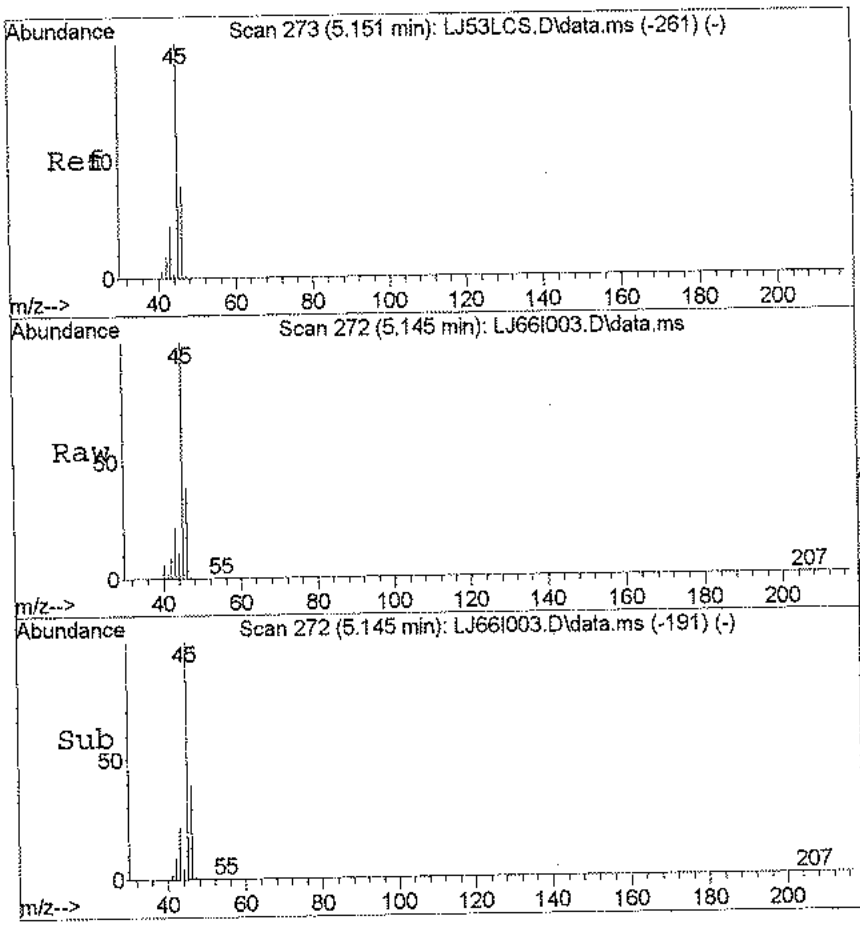


#12
Trichlorofluoromethane
Concen: 0.31 ppb
RT: 5.54 min Scan# 337
Delta R.T. 0.02 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:101 Resp: 54131

Ion	Ratio	Lower	Upper
101	100		
103	67.3	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

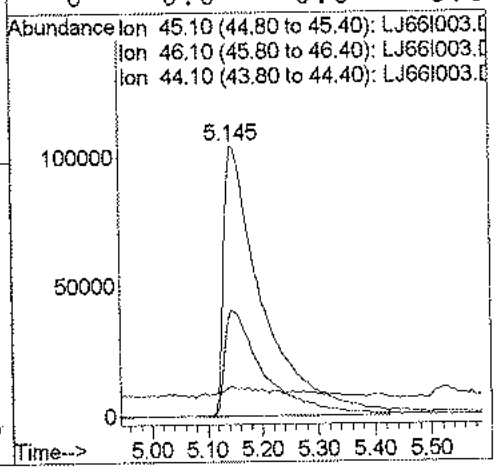


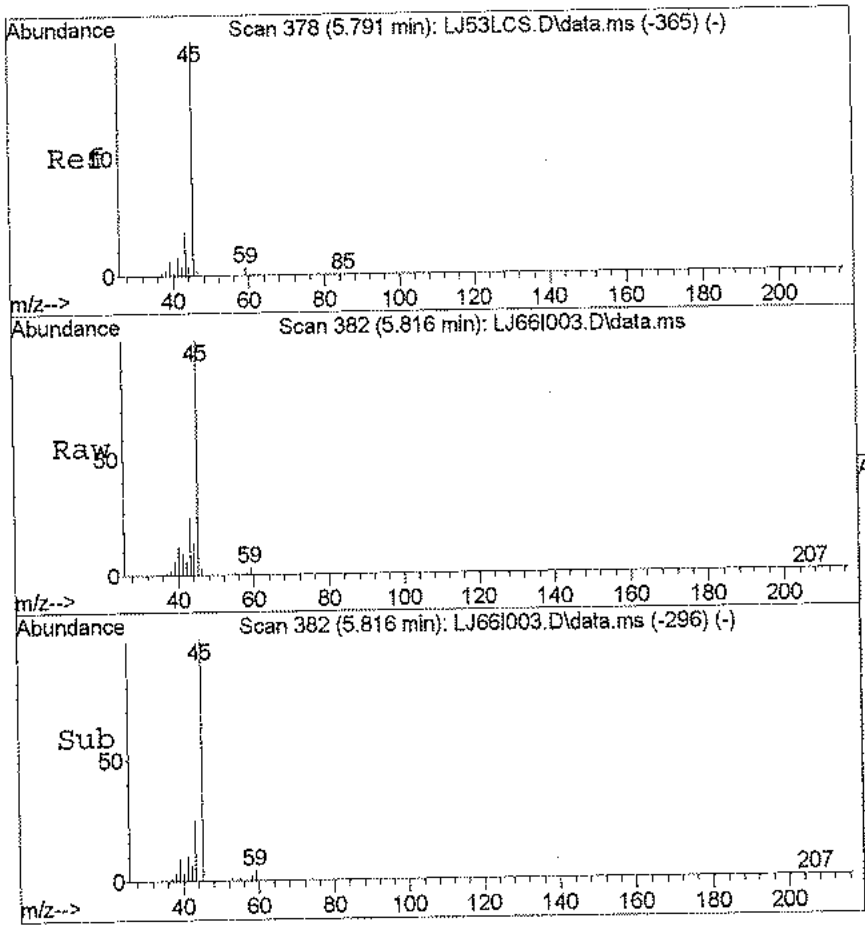


#13
Ethanol
Concen: 30.79 ppb
RT: 5.14 min Scan# 272
Delta R.T. -0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:45.1 Resp: 504409

Ion	Ratio	Lower	Upper
45	100		
46	39.7	32.4	48.6
44	2.0	23.4	35.2#
0	0.0	0.0	0.0

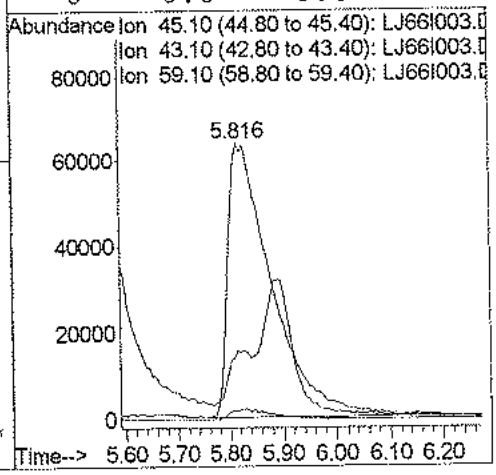


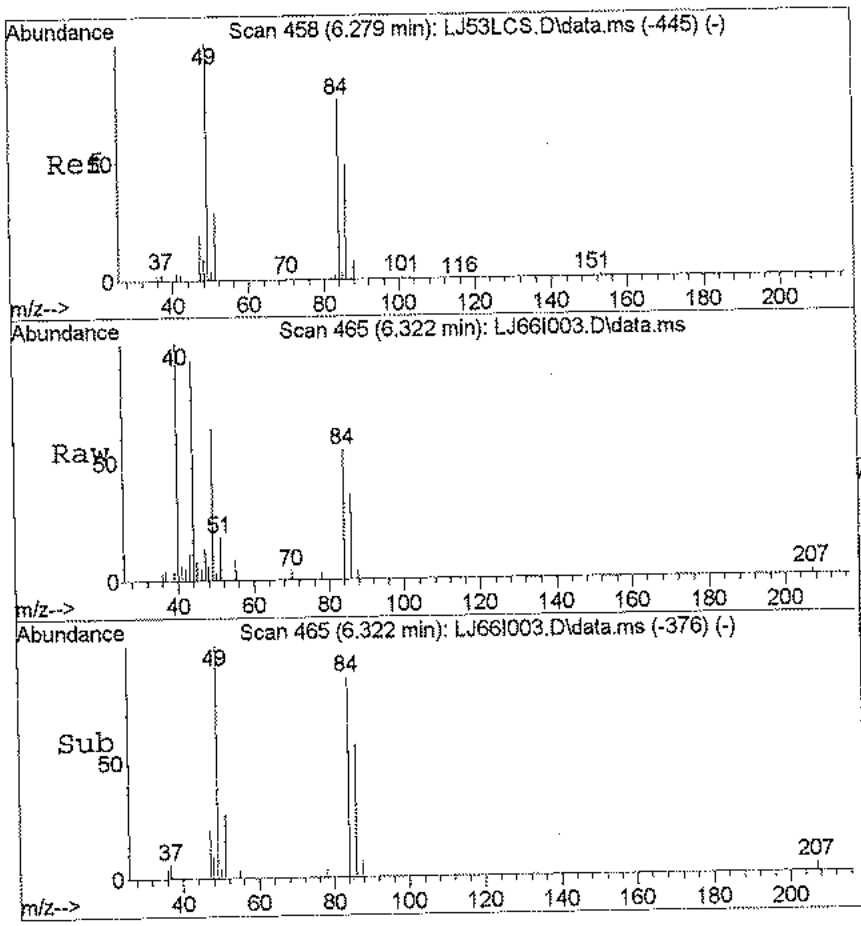


#14
Isopropyl Alcohol
Concen: 3.69 ppb
RT: 5.82 min Scan# 382
Delta R.T. 0.02 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:45.1 Resp: 365955

Ion	Ratio	Lower	Upper
45	100		
43	12.2	15.8	23.6#
59	3.5	3.2	4.8
0	0.0	0.0	0.0

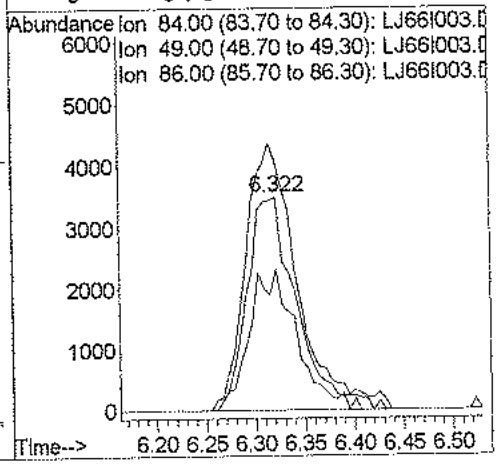


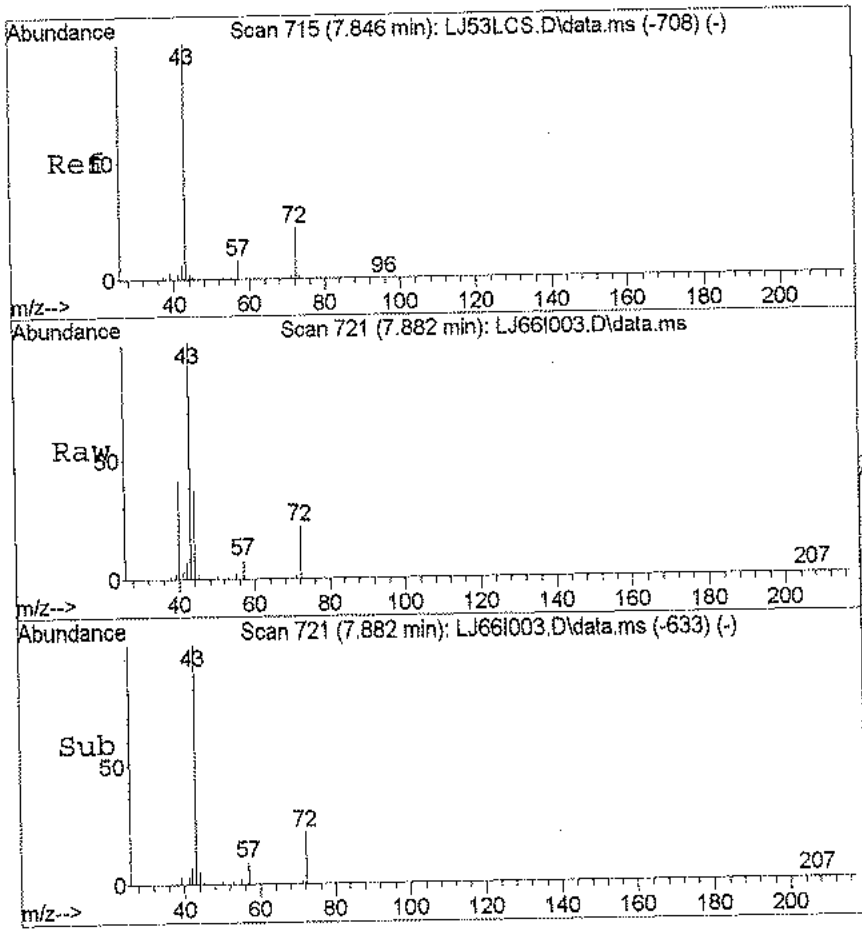


#16
Methylene Chloride
Concen: 0.24 ppb
RT: 6.32 min Scan# 465
Delta R.T. 0.04 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:84 Resp: 12207

Ion	Ratio	Lower	Upper
84	100		
49	131.1	66.6	100.0#
86	63.4	51.6	77.4
0	0.0	0.0	0.0

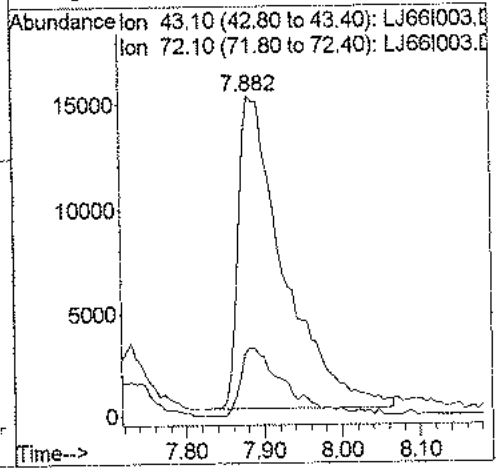


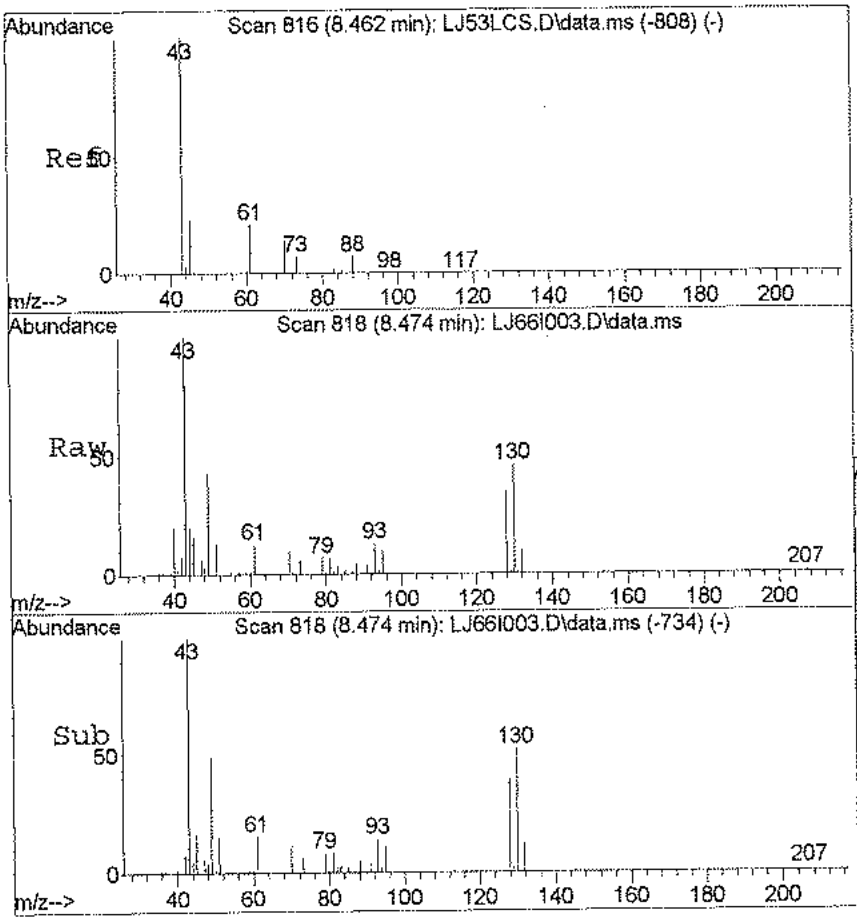


#23
2-Butanone
Concen: 0.59 ppb
RT: 7.88 min Scan# 721
Delta R.T. 0.04 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:43.1 Resp: 61400

Ion	Ratio	Lower	Upper
43	100		
72	20.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

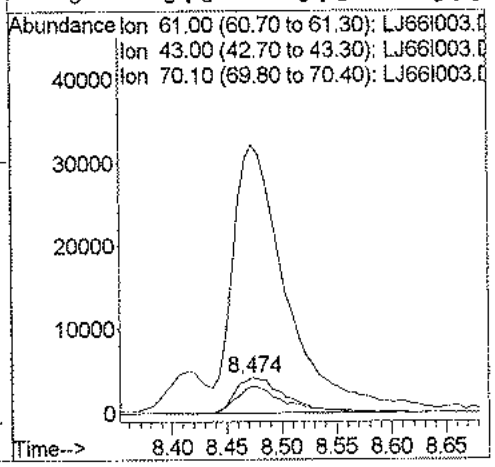


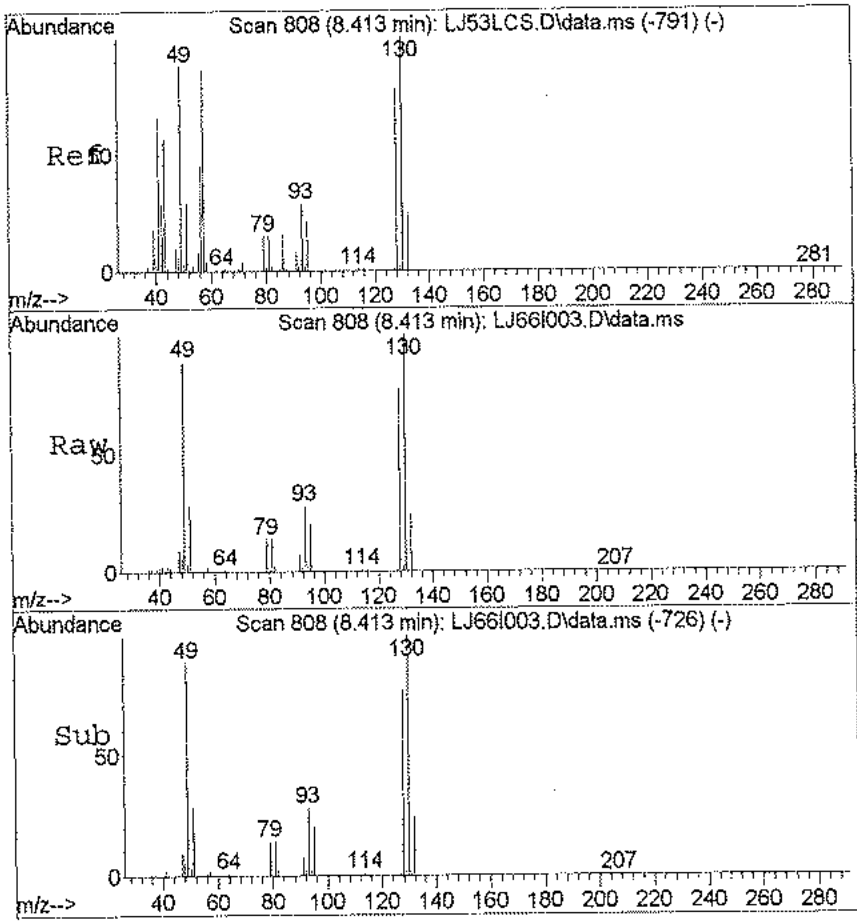


#26
Ethyl Acetate
Concen: 0.87 ppb
RT: 8.47 min Scan# 818
Delta R.T. 0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:61 Resp: 13750

Ion	Ratio	Lower	Upper
61	100		
43	759.4	144.0	216.0#
70	69.6	13.6	20.4#
0	0.0	0.0	0.0

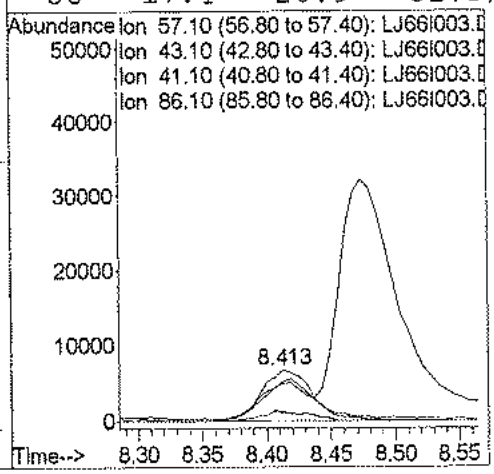


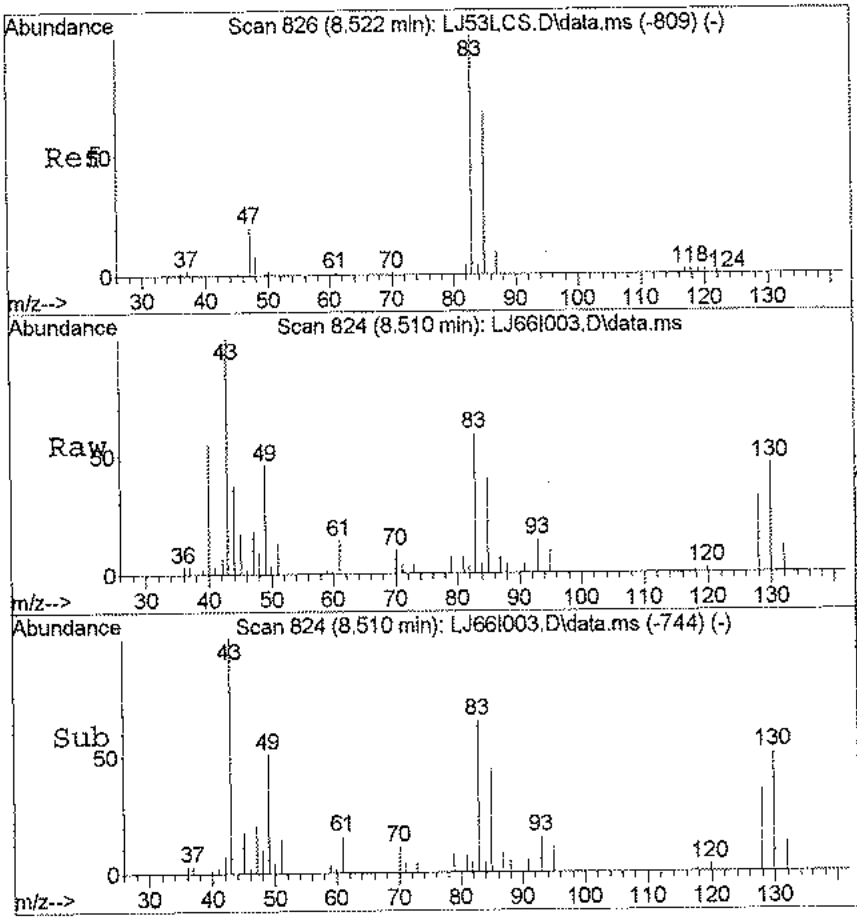


#27
Hexane
Concen: 0.23 ppb
RT: 8.41 min Scan# 808
Delta R.T. -0.00 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:57.1 Resp: 18219

Ion	Ratio	Lower	Upper
57	100		
43	63.6	57.3	85.9
41	88.7	47.0	70.4#
86	17.4	20.9	31.3#

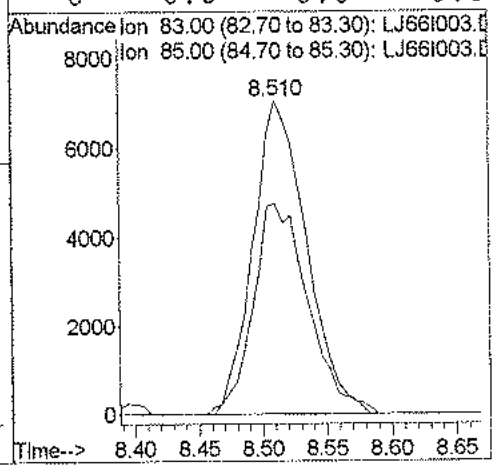


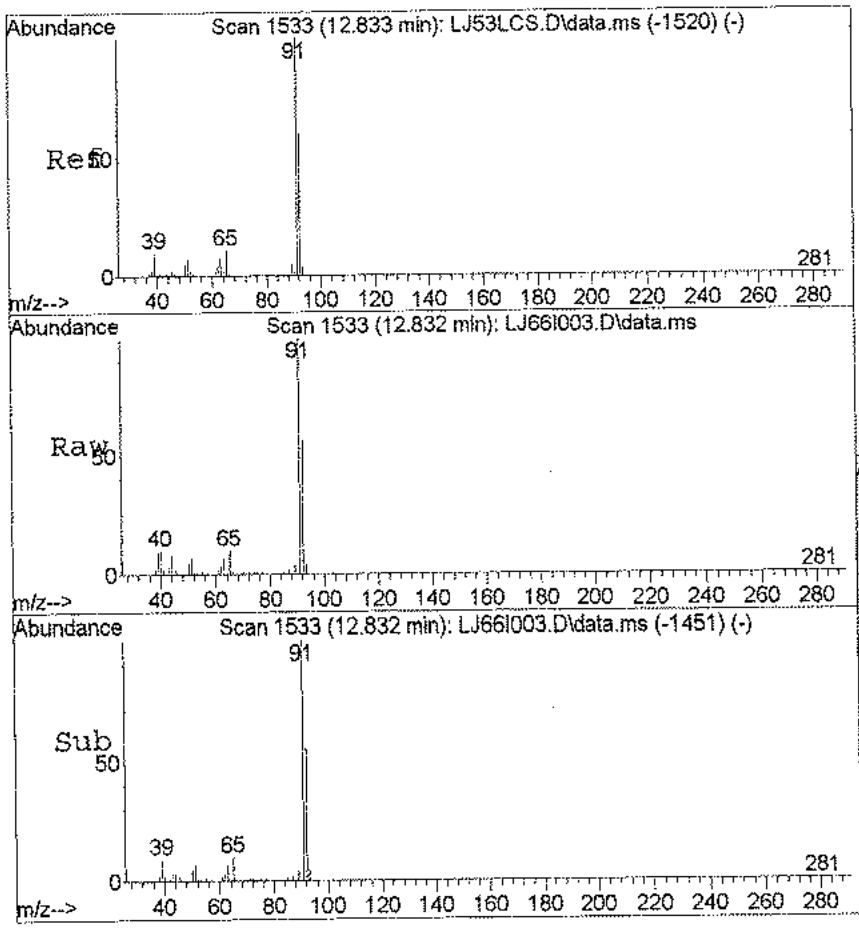


#28
Chloroform
Concen: 0.18 ppb
RT: 8.51 min Scan# 824
Delta R.T. -0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:83 Resp: 20651

Ion	Ratio	Lower	Upper
83	100		
85	68.7	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

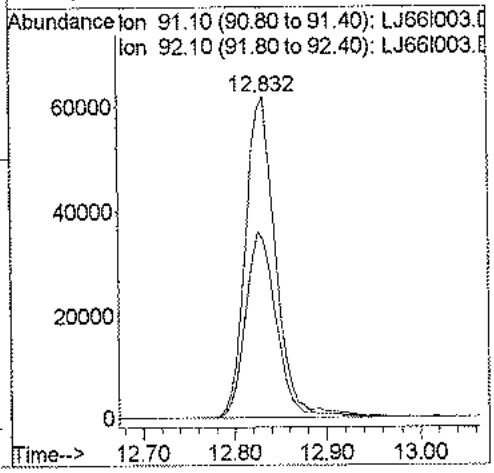


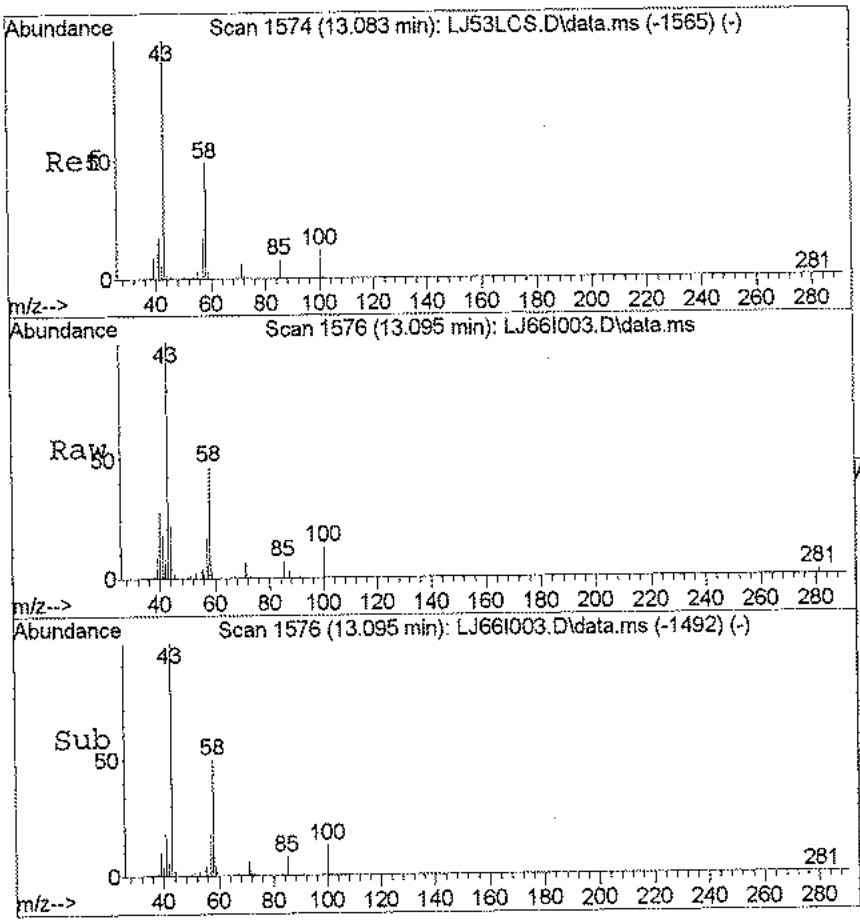


#45
Toluene
Concen: 0.68 ppb
RT: 12.83 min Scan# 1533
Delta R.T. -0.00 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:91.1 Resp: 142746

Ion	Ratio	Lower	Upper
91	100		
92	59.7	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

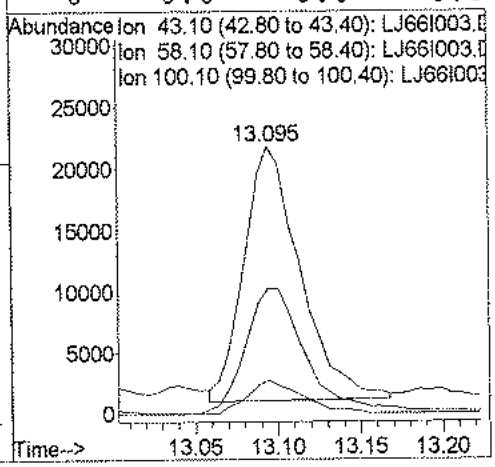


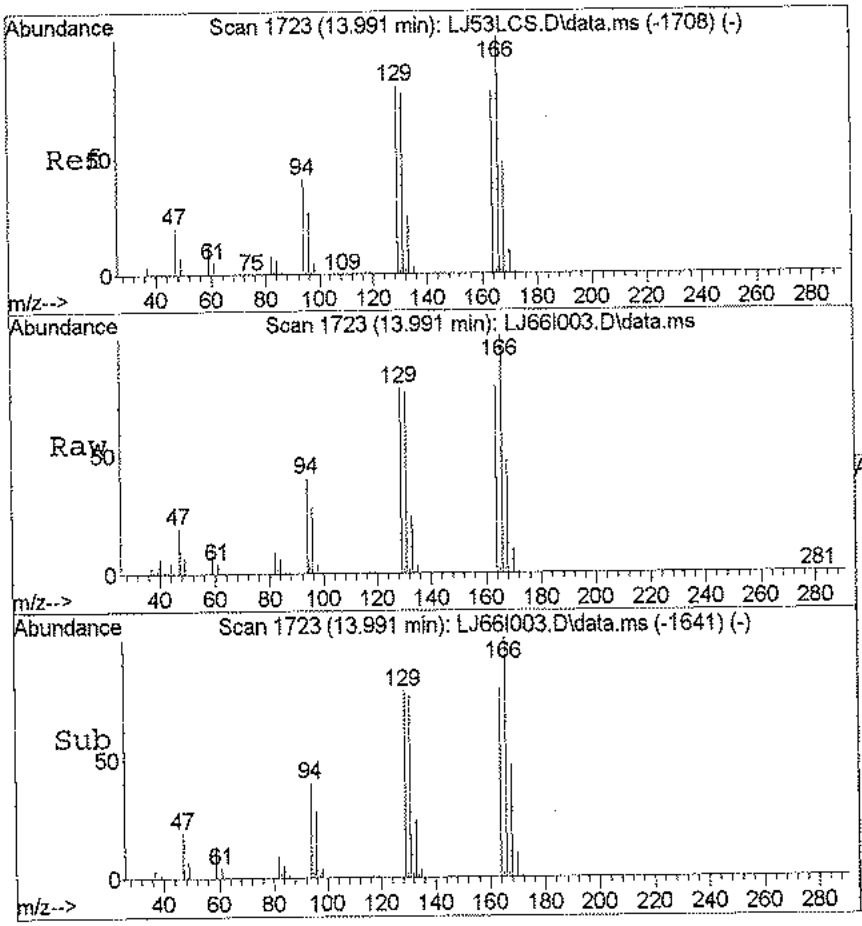


#46
2-Hexanone
Concen: 0.41 ppb
RT: 13.09 min Scan# 1576
Delta R.T. 0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:43.1 Resp: 48857

Ion	Ratio	Lower	Upper
43	100		
58	54.2	54.7	82.1#
100	12.8	19.6	29.4#
0	0.0	0.0	0.0

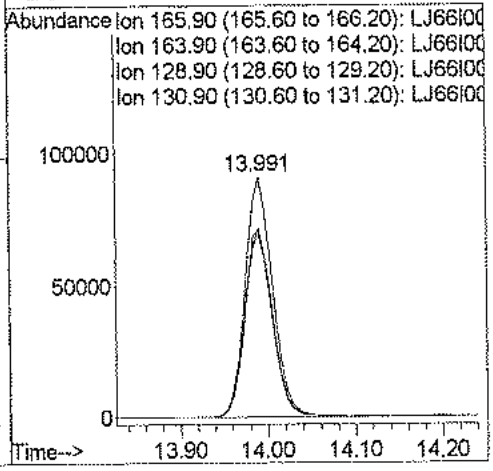


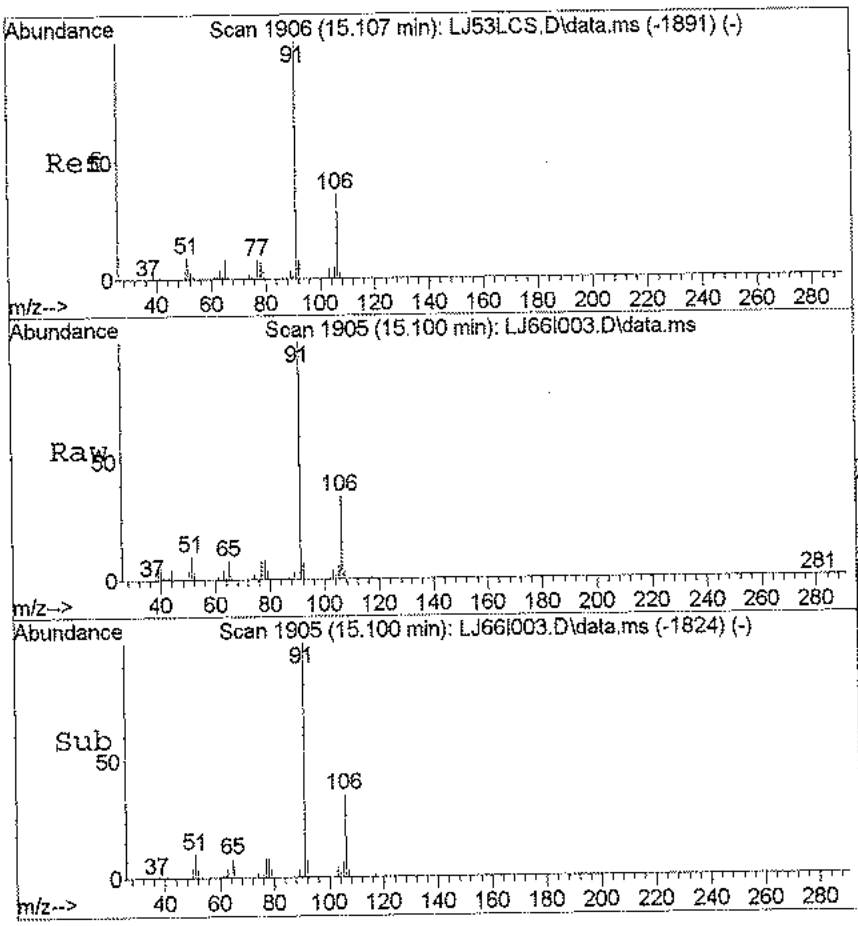


#49
Tetrachloroethene
Concen: 1.47 ppb
RT: 13.99 min Scan# 1723
Delta R.T. -0.00 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:165.9 Resp: 198168

Ion	Ratio	Lower	Upper
166	100		
164	78.7	61.0	91.4
129	78.9	45.9	68.9#
131	76.8	45.5	68.3#

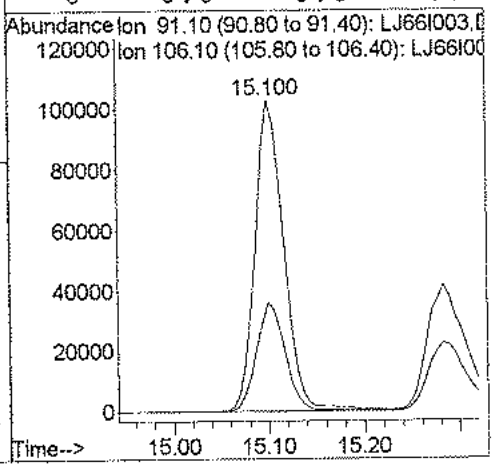


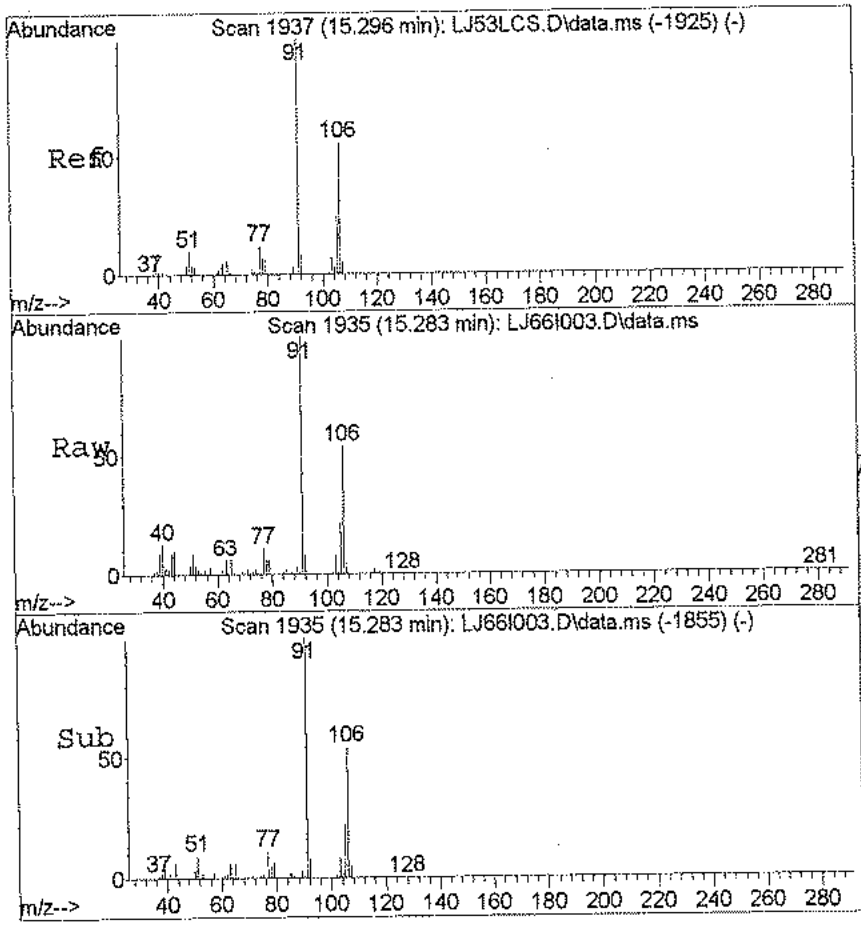


#52
Ethylbenzene
Concen: 0.76 ppb
RT: 15.10 min Scan# 1905
Delta R.T. -0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:91.1 Resp: 214900

Ion	Ratio	Lower	Upper
91	100		
106	34.9	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

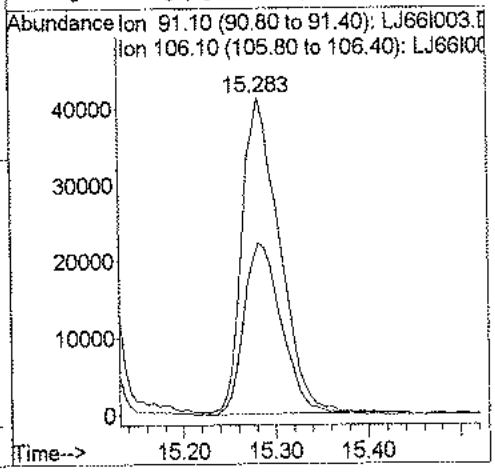


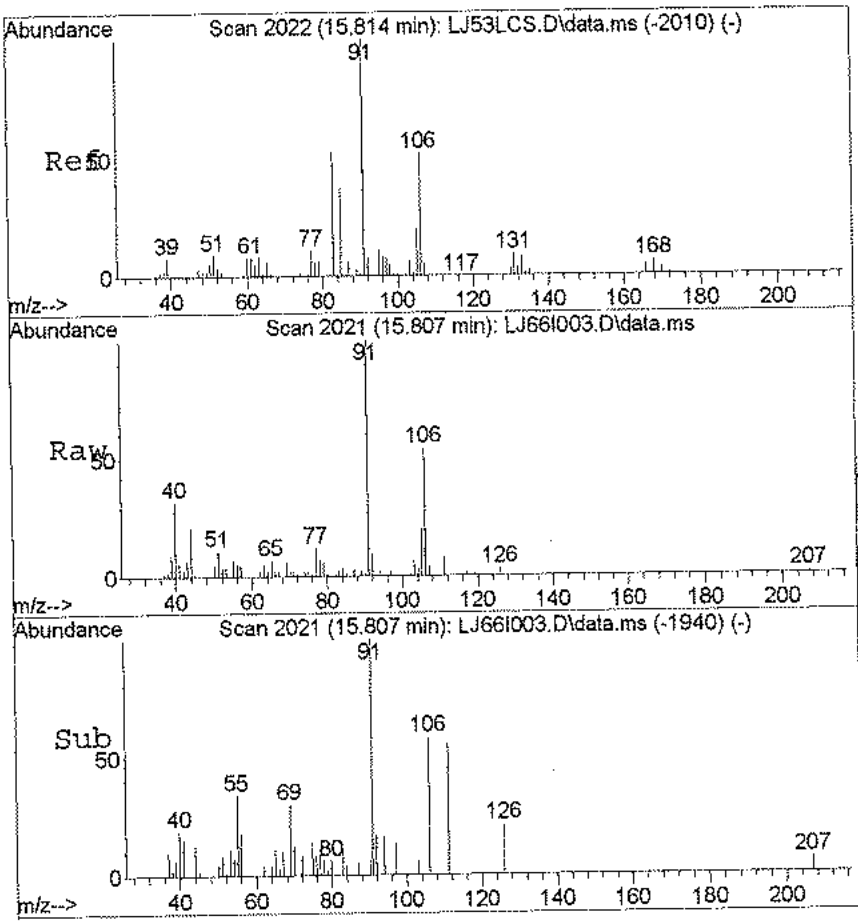


#53
m,p-Xylene
Concen: 0.53 ppb
RT: 15.28 min Scan# 1935
Delta R.T. -0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:91.1 Resp: 115176

Ion	Ratio	Lower	Upper
91	100		
106	55.2	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

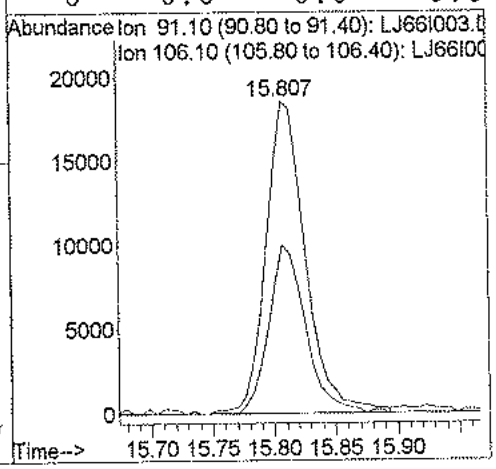


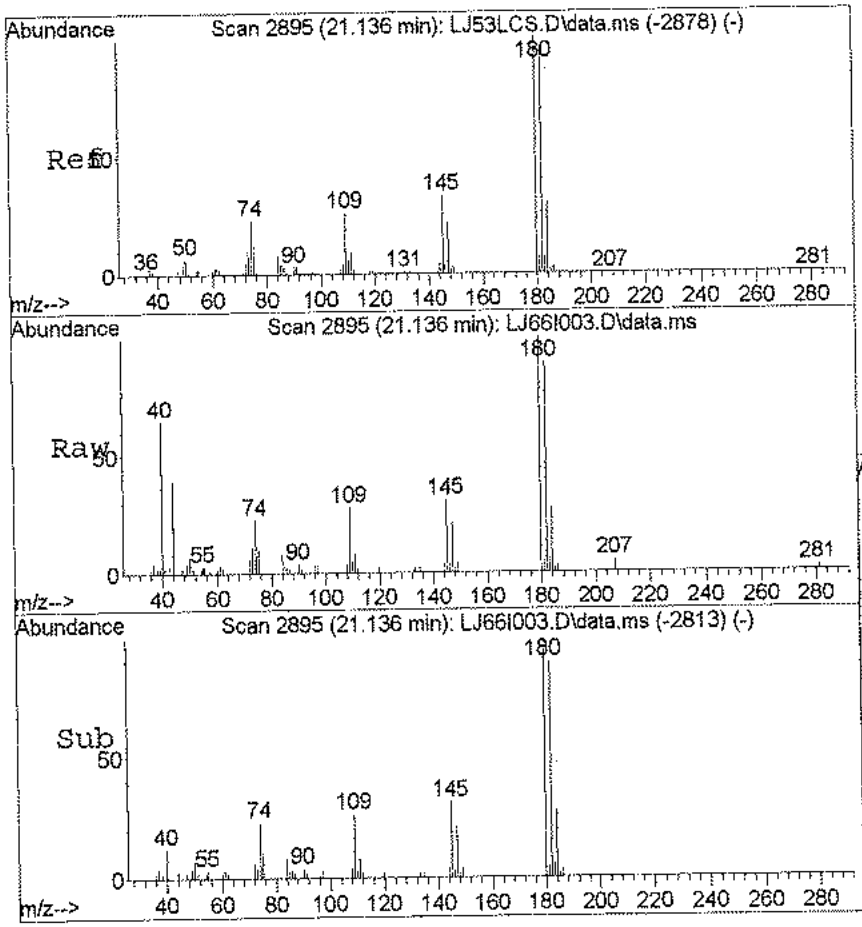


#57
o-Xylene
Concen: 0.19 ppb
RT: 15.81 min Scan# 2021
Delta R.T. -0.01 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:91.1 Resp: 41427

Ion	Ratio	Lower	Upper
91	100		
106	49.9	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

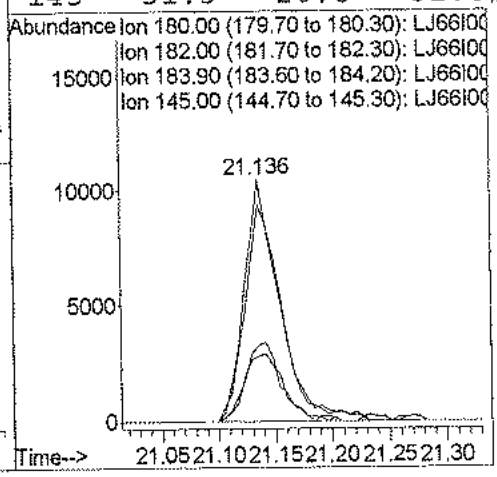




#66
1,2,4-Trichlorobenzene
Concen: 0.20 ppb
RT: 21.14 min Scan# 2895
Delta R.T. -0.00 min
Lab File: LJ66I003.D
Acq: 05/24/2016 21:47

Tgt Ion:180 Resp: 23062

Ion	Ratio	Lower	Upper
180	100		
182	92.4	76.6	115.0
184	30.4	24.3	36.5
145	31.5	20.6	31.0#

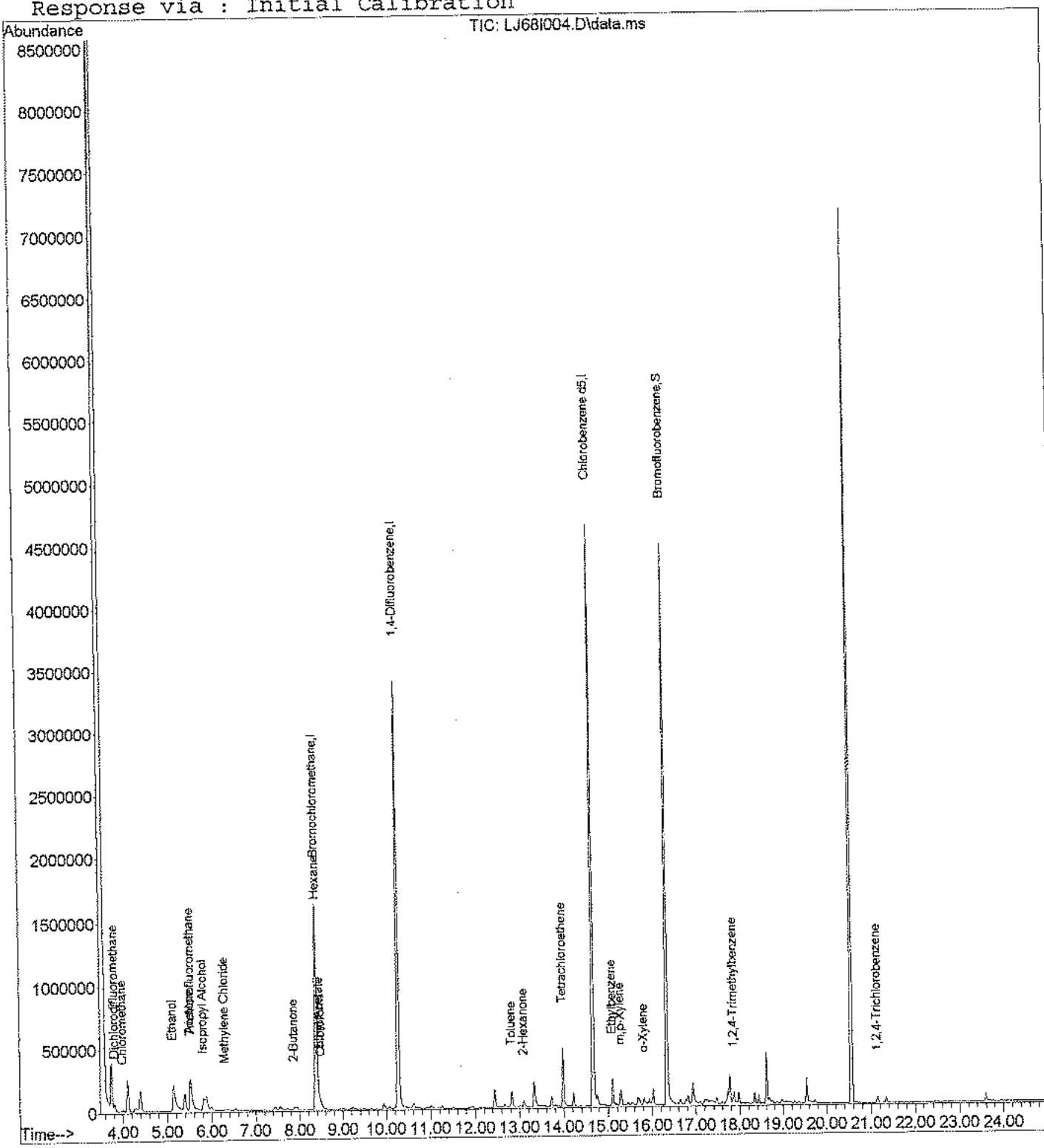


Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ68I004.D Vial: 14
Acq Time : 05/24/2016 23:26 Operator: TJM
Sample : 1614564004 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:20:41 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ68I004.D Vial: 14
Acq Time : 05/24/2016 23:26 Operator: TJM
Sample : 1614564004 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:20:41 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	354432	20.0000 ppb	93.69
25) 1,4-Difluorobenzene	10.27	114	4277957	20.0000 ppb	87.35
50) Chlorobenzene d5	14.67	117	3889657	20.0000 ppb	89.36
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	1995986	19.0752 ppb	95.38%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	3.82	85	76751	0.5815 ppb	100
4) Chloromethane	3.99	50	20240	0.5058 ppb	97
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	5.51	43	588774	7.7749 ppb #	87
12) Trichlorofluoromethane	5.53	101	51441	0.3186 ppb	94
13) Ethanol	5.14	45	525848	34.1833 ppb # nc	77
14) Isopropyl Alcohol	5.81	45	336314	3.6076 ppb # nc	85
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	6.31	84	9196	0.1903 ppb #	51
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	7.88	43	50570	0.5143 ppb #	68
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	8.47	61	12271	0.8244 ppb #	1
27) Hexane	8.41	57	18456	0.2447 ppb #	78
28) Chloroform	8.50	83	20416	0.1845 ppb	96
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ68I004.D Vial: 14
Acq Time : 05/24/2016 23:26 Operator: TJM
Sample : 1614564004 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 11:20:41 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	12.83	91	122648	0.6212 ppb	99
46)	2-Hexanone	13.10	43	46263	0.4128 ppb #	80
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	13.99	166	178720	1.4108 ppb #	81
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	15.11	91	199431	0.7384 ppb	97
53)	m,p-Xylene	15.29	91	113432	0.5466 ppb	98
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	15.81	91	41645	0.1960 ppb	97
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	17.87	105	45445	0.1739 ppb	98
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	22340	0.2019 ppb #	96
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

(#) = qualifier out of range (m) = manual integration

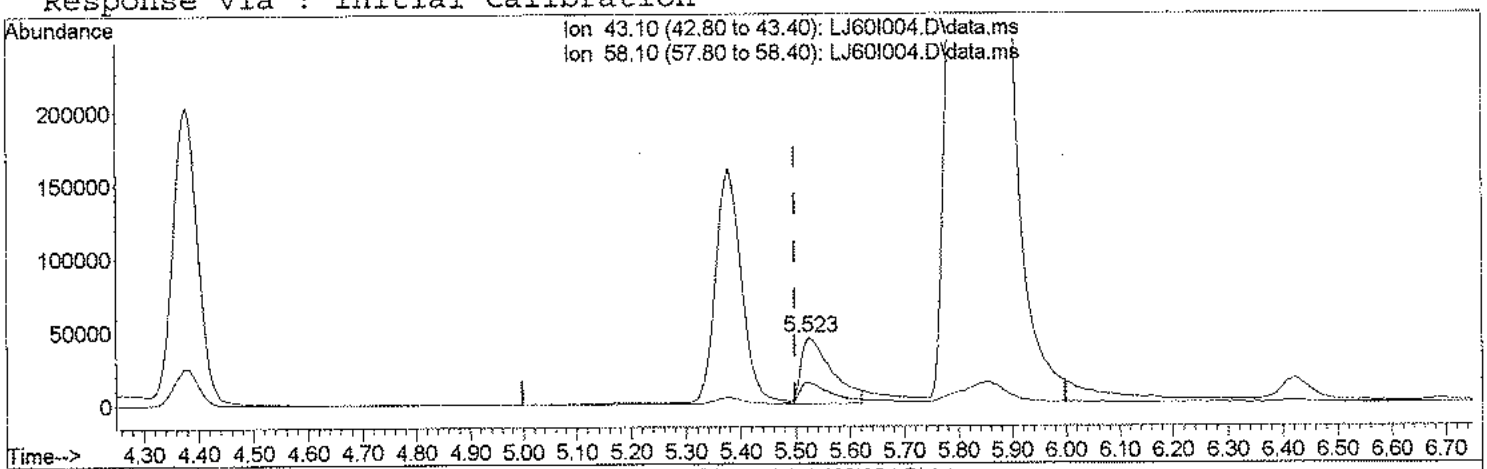
Quantitation Report (Qedit)

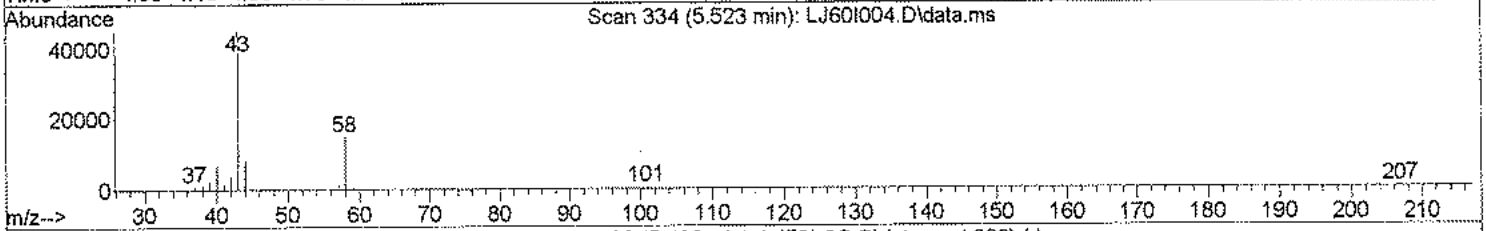
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ60I004.D
Acq On : 05/24/2016 16:40
Operator : TJM
Sample : 1614193004
Inst : 5975-L
Misc : 5-19-16-P-W SN#8001662 HDS 1:10DIL
ALS Vial : 9 Sample Multiplier: 1

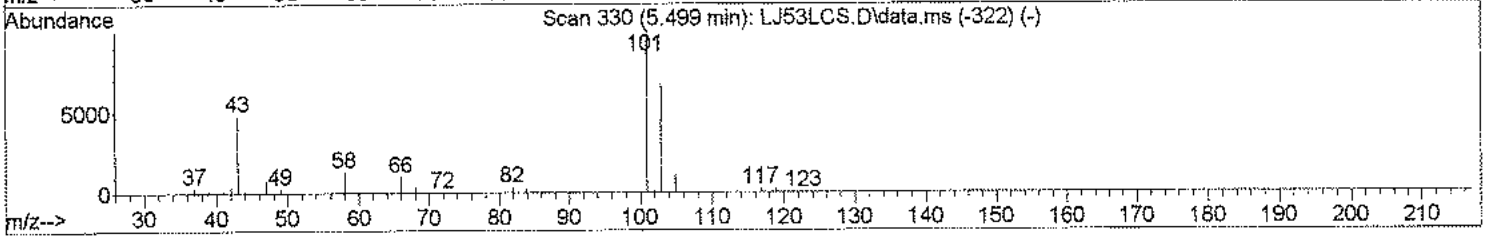
Quant Time: May 25 08:40:20 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials _____ *date* 05-25-16







TIC: LJ60I004.D\data.ms

(11) Acetone

5.523min (+ 0.024) 3.25 ppb m

response 179088

Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	8.23#
0.00	0.00	0.00
0.00	0.00	0.00

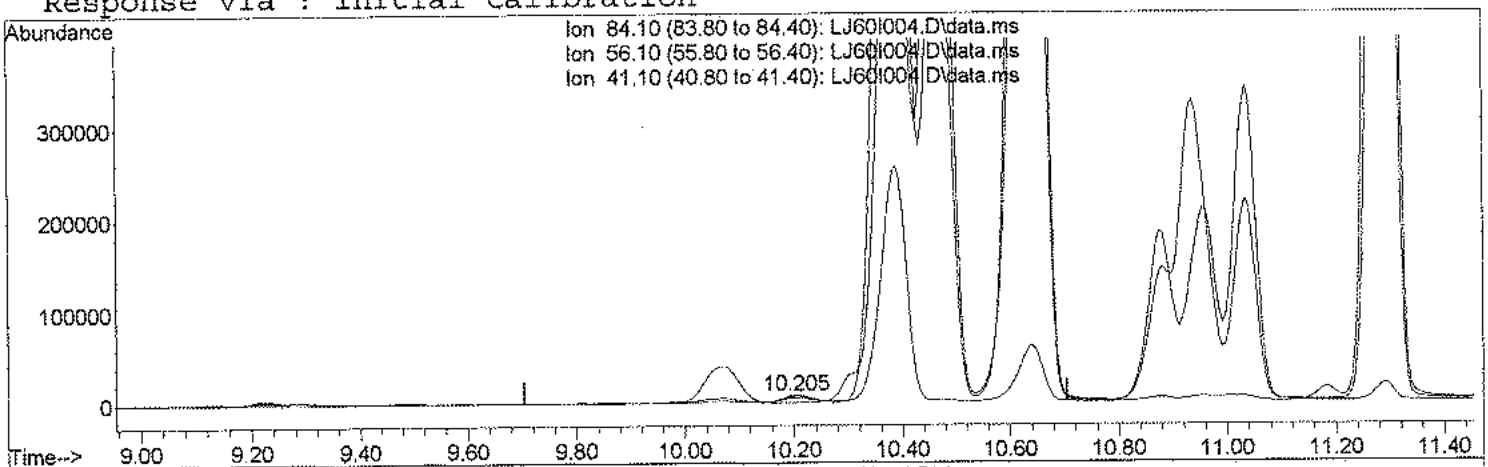
Quantitation Report (Qedit)

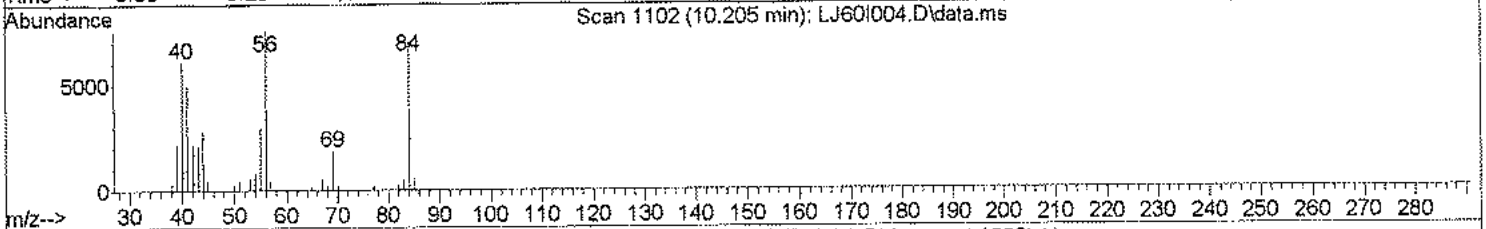
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ60I004.D
Acq On : 05/24/2016 16:40
Operator : TJM
Sample : 1614193004
Inst : 5975-L
Misc : 5-19-16-P-W SN#8001662 HDS 1:10DIL
ALS Vial : 9 Sample Multiplier: 1

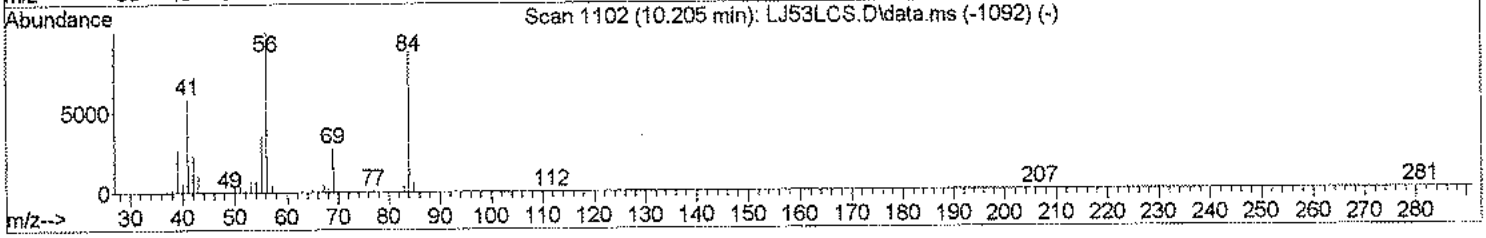
Quant Time: May 25 08:40:20 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- ☑ missed peak assignment
- ☐ assigned incorrect name to peak
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials _____ *date* 05-25-16







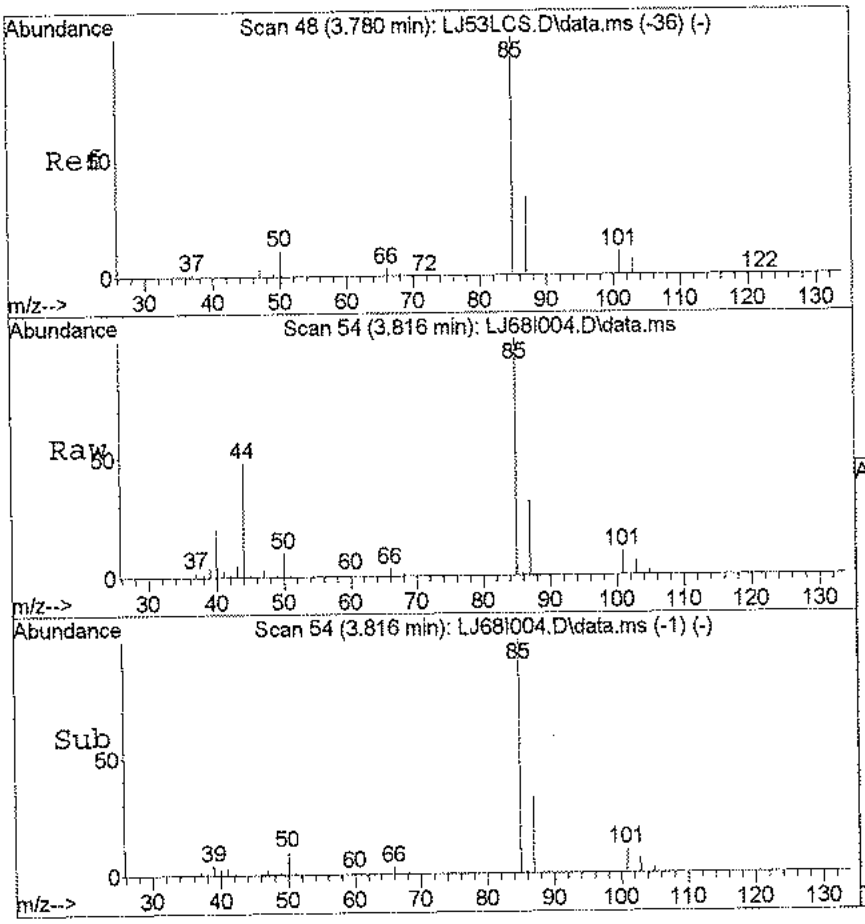
TIC: LJ60I004.D\data.ms

(34) Cyclohexane

10.205min (-0.000) 0.32 ppb m

response 23524

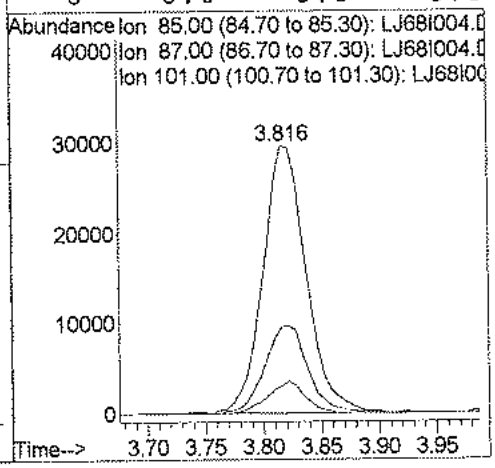
Ion	Exp%	Act%
84.10	100.00	100.00
56.10	84.10	0.00#
41.10	37.80	0.00#
0.00	0.00	0.00

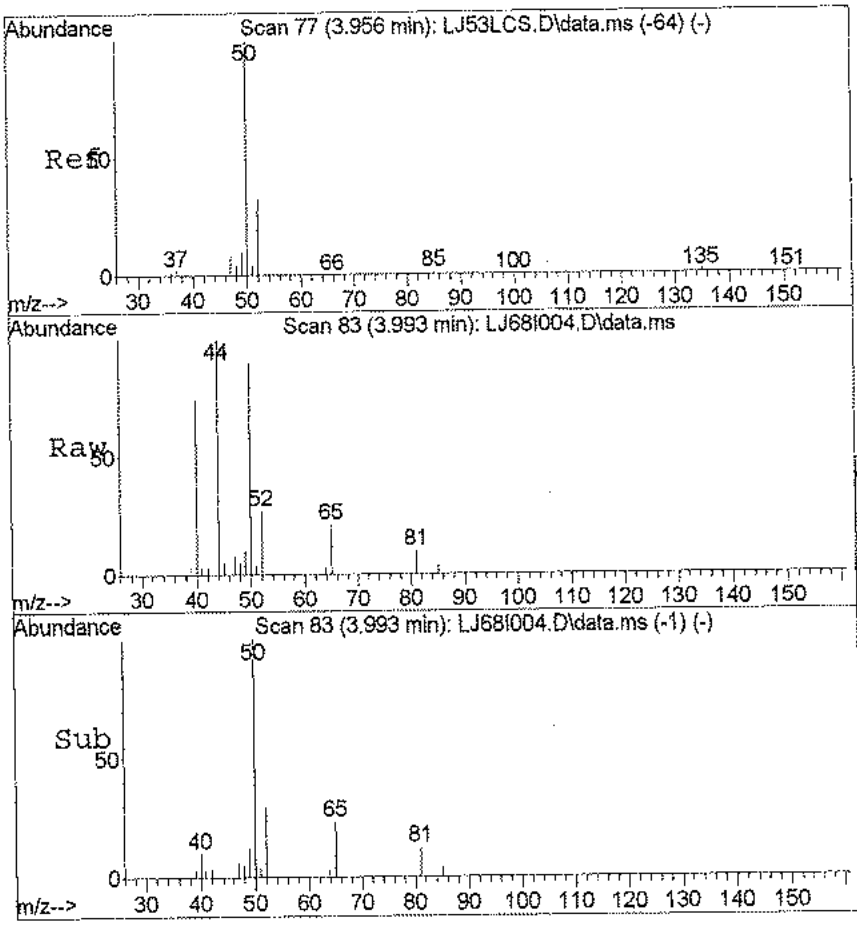


#3
Dichlorodifluoromethane
Concen: 0.58 ppb
RT: 3.82 min Scan# 54
Delta R.T. 0.04 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:85 Resp: 76751

Ion	Ratio	Lower	Upper
85	100		
87	32.6	26.1	39.1
101	10.2	8.0	12.0
0	0.0	0.0	0.0

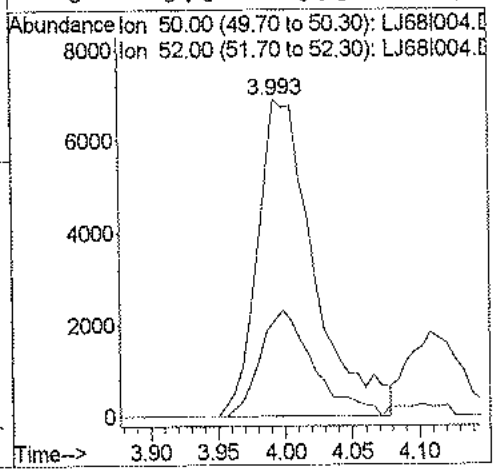


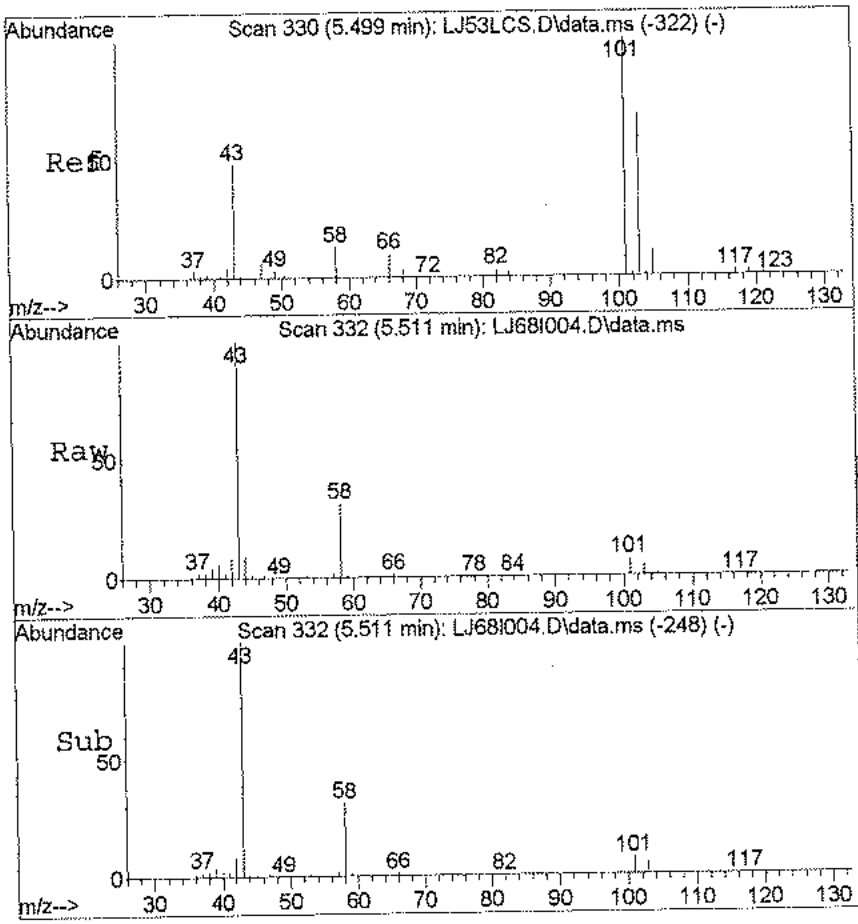


#4
Chloromethane
Concen: 0.51 ppb
RT: 3.99 min Scan# 83
Delta R.T. 0.04 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:50 Resp: 20240

Ion	Ratio	Lower	Upper
50	100		
52	31.6	26.6	40.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

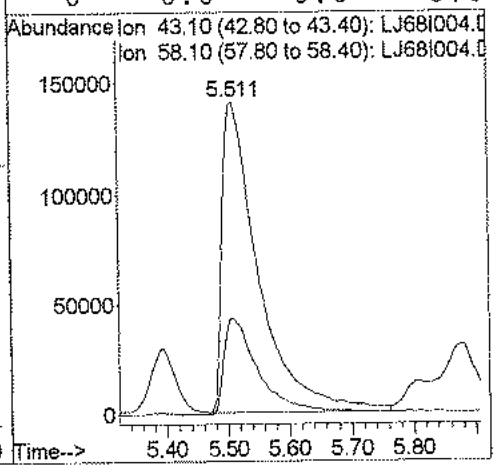


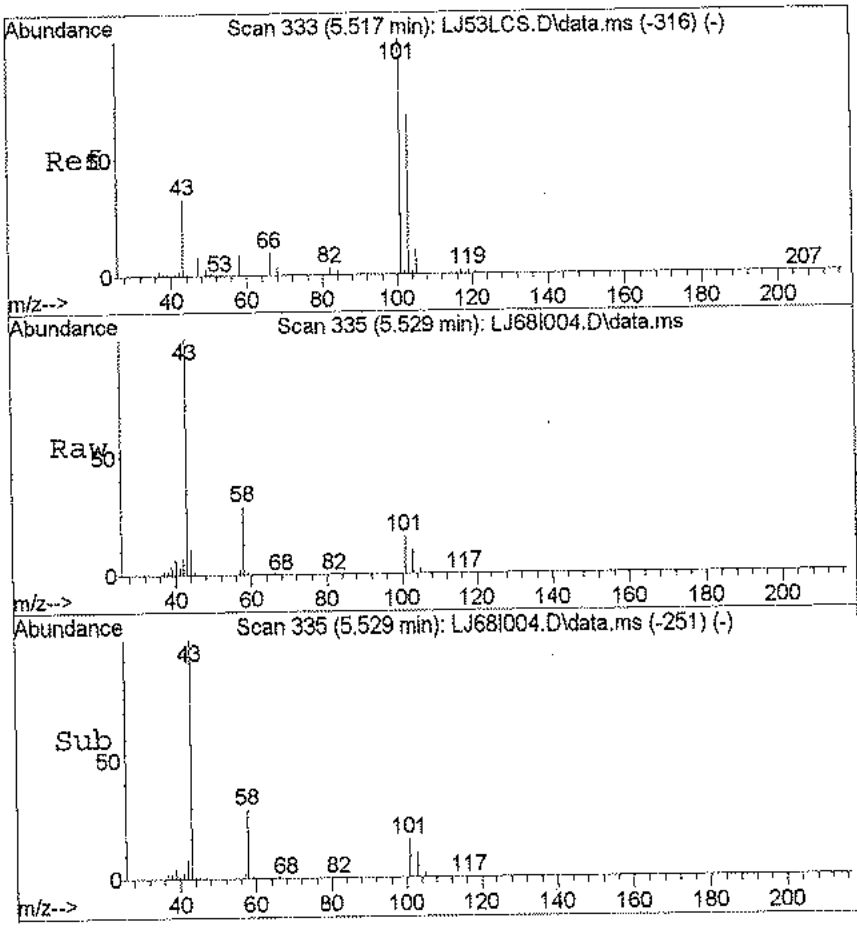


#11
Acetone
Concen: 7.77 ppb
RT: 5.51 min Scan# 332
Delta R.T. 0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:43.1 Resp: 588774

Ion	Ratio	Lower	Upper
43	100		
58	30.5	30.7	46.1#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

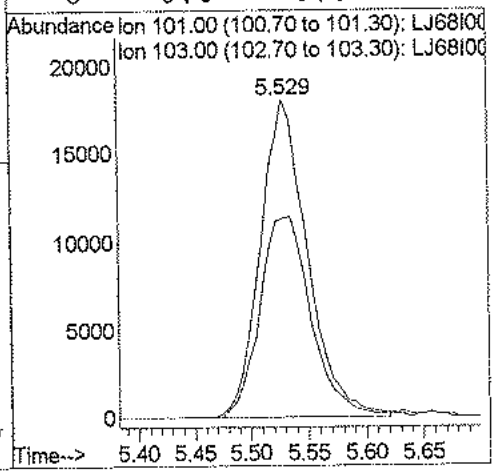


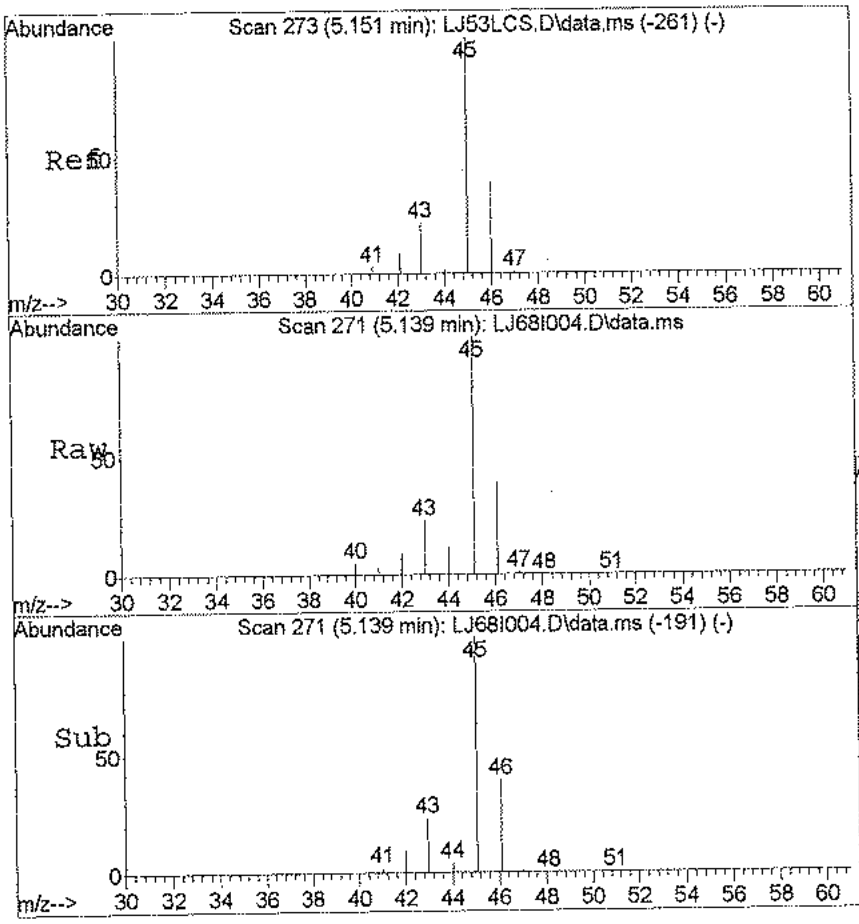


#12
Trichlorofluoromethane
Concen: 0.32 ppb
RT: 5.53 min Scan# 335
Delta R.T. 0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:101 Resp: 51441

Ion	Ratio	Lower	Upper
101	100		
103	68.8	51.4	77.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

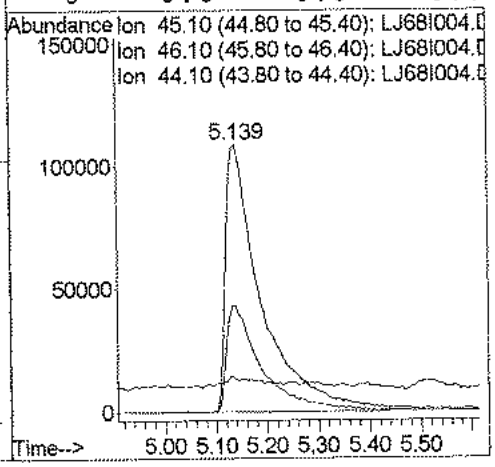


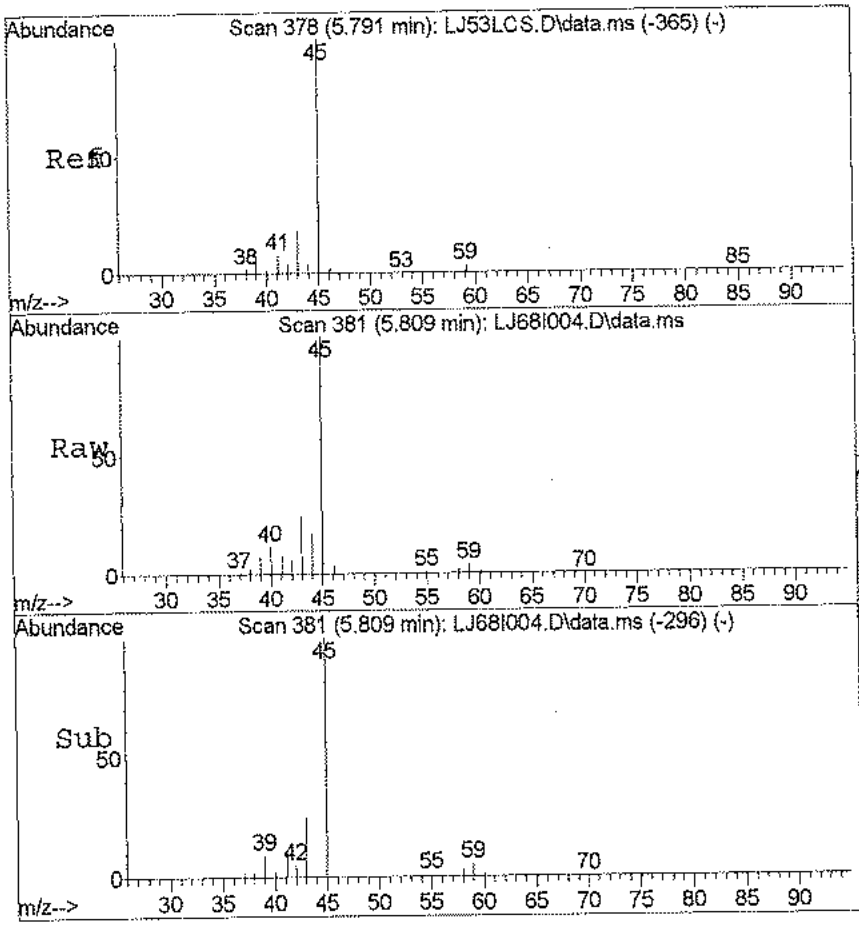


#13
Ethanol
Concen: 34.18 ppb
RT: 5.14 min Scan# 271
Delta R.T. -0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:45.1 Resp: 525848

Ion	Ratio	Lower	Upper
45	100		
46	38.7	32.4	48.6
44	1.9	23.4	35.2#
0	0.0	0.0	0.0

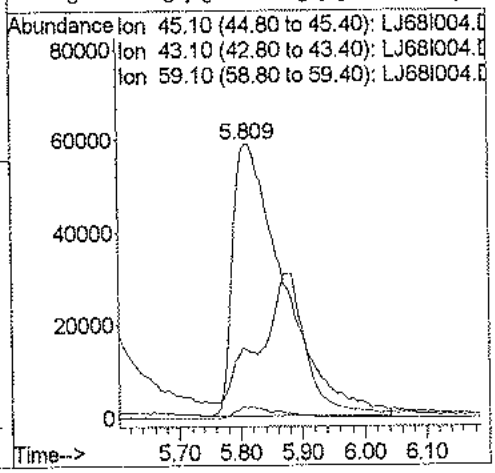


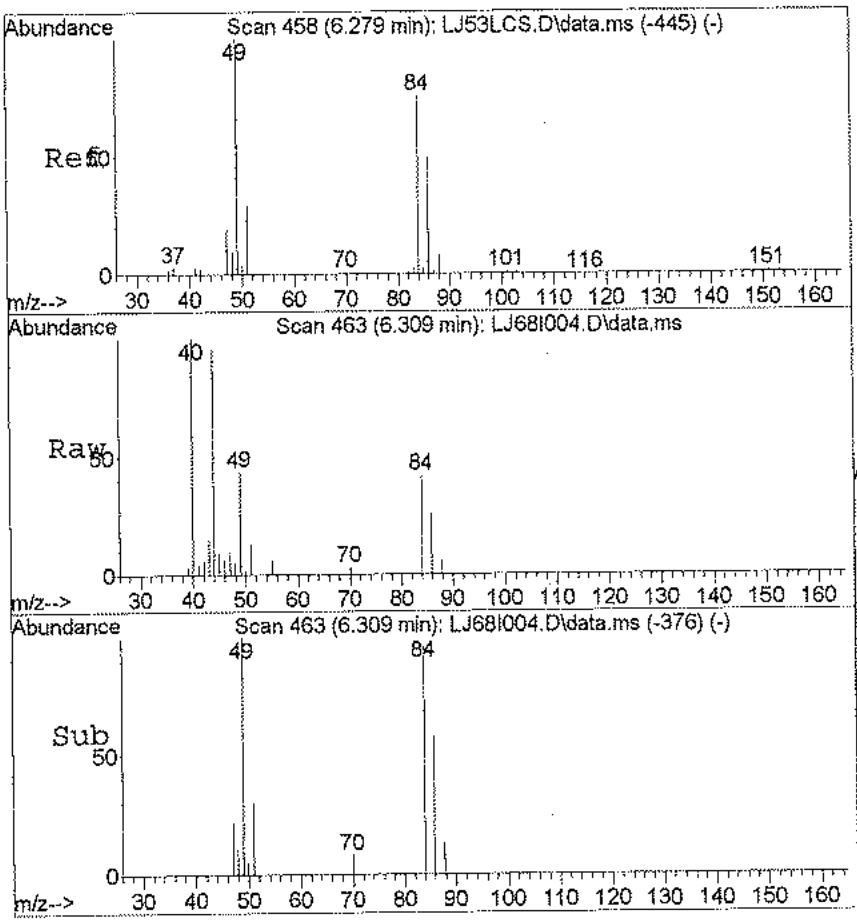


#14
Isopropyl Alcohol
Concen: 3.61 ppb
RT: 5.81 min Scan# 381
Delta R.T. 0.02 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:45.1 Resp: 336314

Ion	Ratio	Lower	Upper
45	100		
43	11.8	15.8	23.6#
59	2.5	3.2	4.8#
0	0.0	0.0	0.0

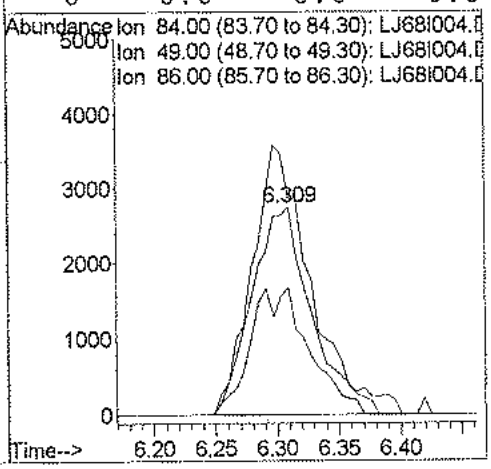


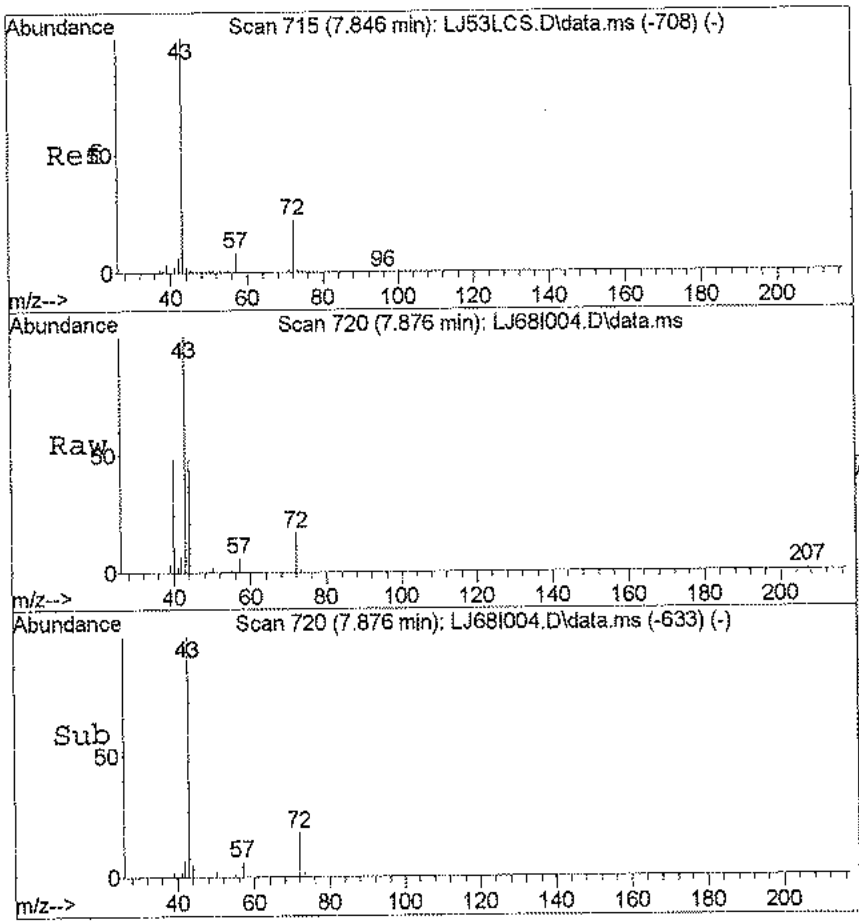


#16
Methylene Chloride
Concen: 0.19 ppb
RT: 6.31 min Scan# 463
Delta R.T. 0.03 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:84 Resp: 9196

Ion	Ratio	Lower	Upper
84	100		
49	128.0	66.6	100.0#
86	26.9	51.6	77.4#
0	0.0	0.0	0.0

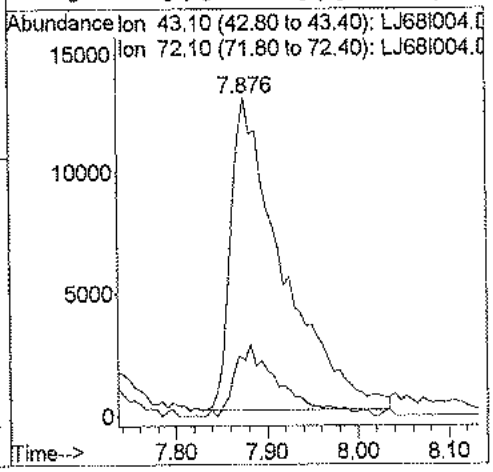


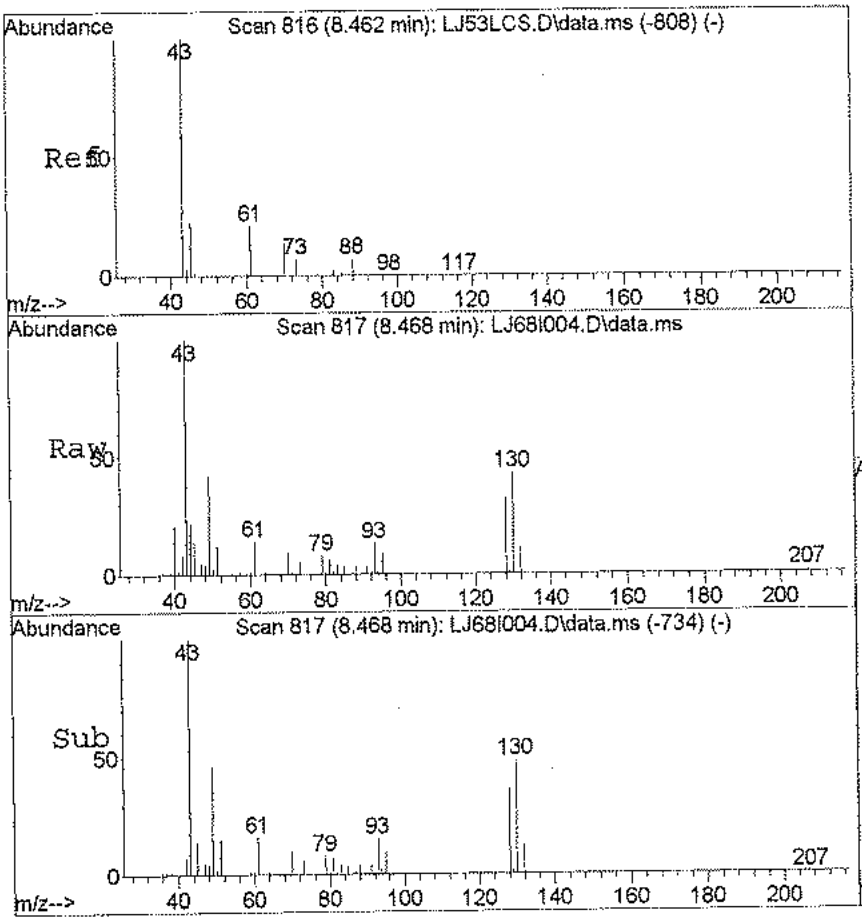


#23
2-Butanone
Concen: 0.51 ppb
RT: 7.88 min Scan# 720
Delta R.T. 0.03 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:43.1 Resp: 50570

Ion	Ratio	Lower	Upper
43	100		
72	19.7	31.1	46.7#
0	0.0	0.0	0.0
0	0.0	0.0	0.0

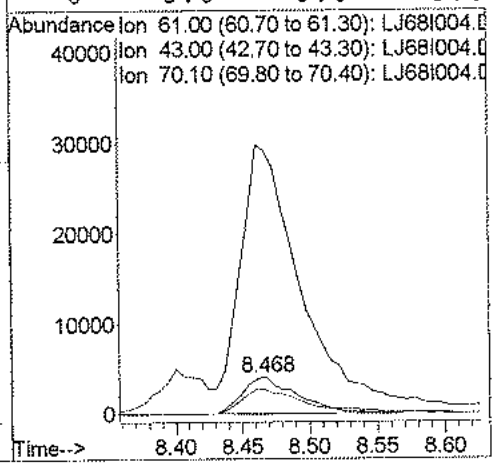


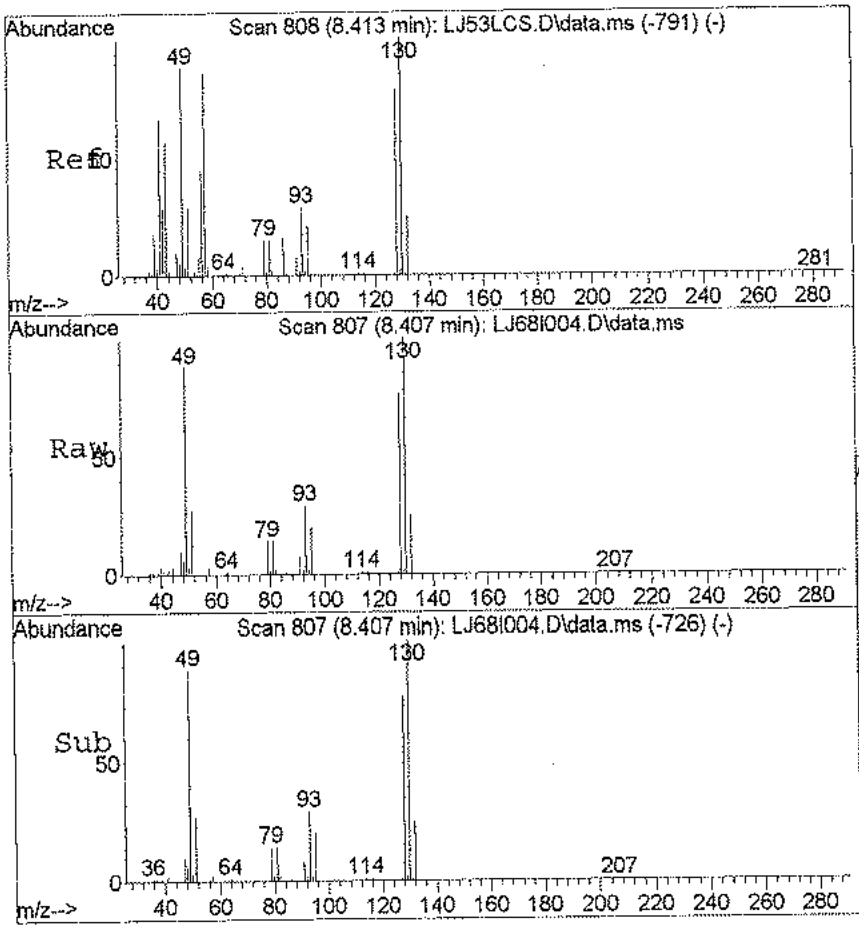


#26
Ethyl Acetate
Concen: 0.82 ppb
RT: 8.47 min Scan# 817
Delta R.T. 0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:61 Resp: 12271

Ion	Ratio	Lower	Upper
61	100		
43	744.9	144.0	216.0#
70	69.7	13.6	20.4#
0	0.0	0.0	0.0

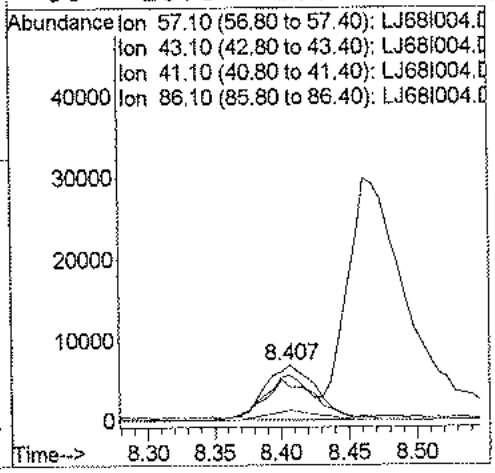


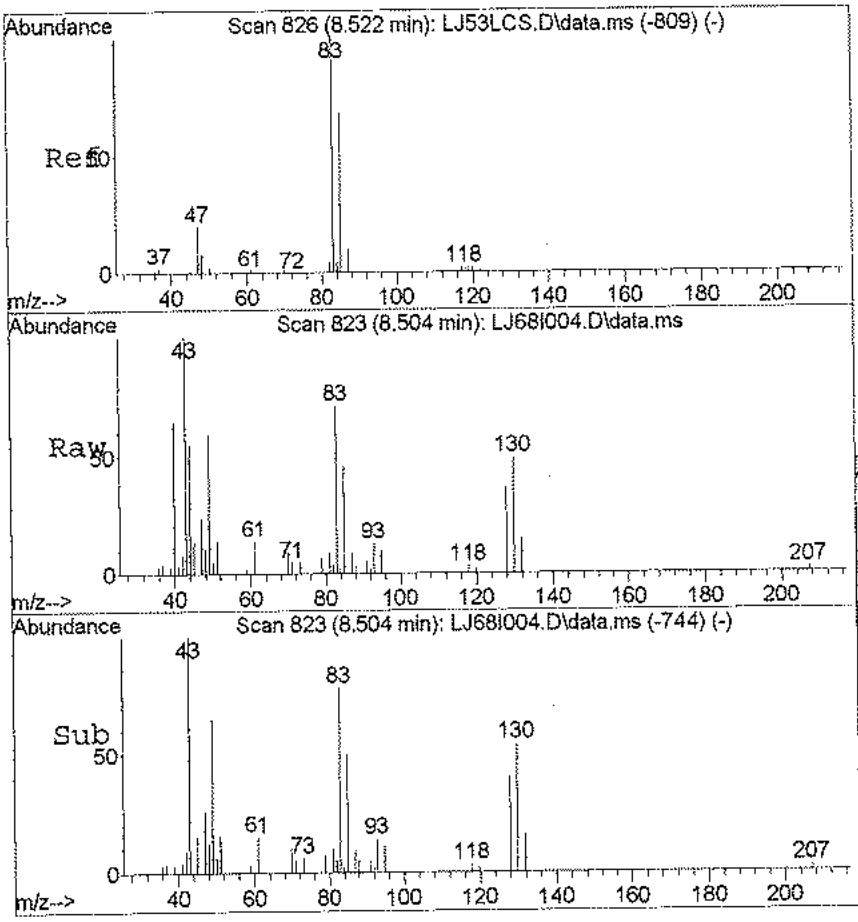


#27
Hexane
Concen: 0.24 ppb
RT: 8.41 min Scan# 807
Delta R.T. -0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:57.1 Resp: 18456

Ion	Ratio	Lower	Upper
57	100		
43	57.1	57.3	85.9#
41	80.7	47.0	70.4#
86	16.4	20.9	31.3#

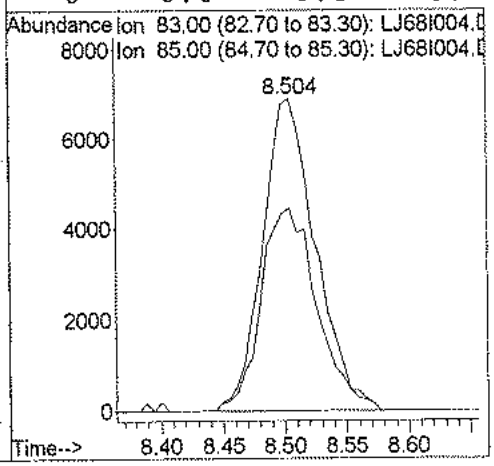


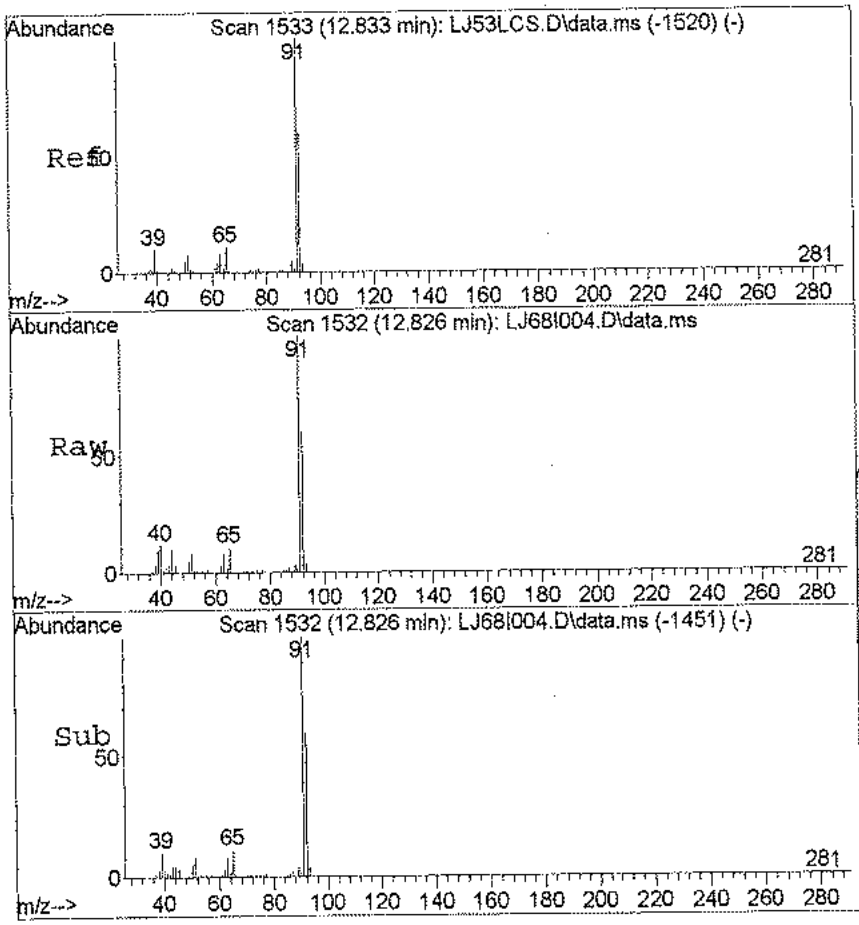


#28
Chloroform
Concen: 0.18 ppb
RT: 8.50 min Scan# 823
Delta R.T. -0.02 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:83 Resp: 20416

Ion	Ratio	Lower	Upper
83	100		
85	68.5	52.3	78.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

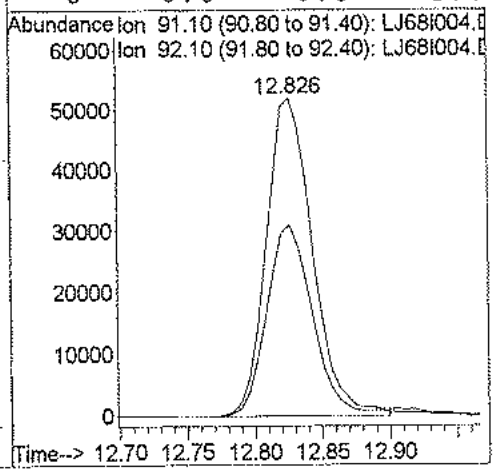


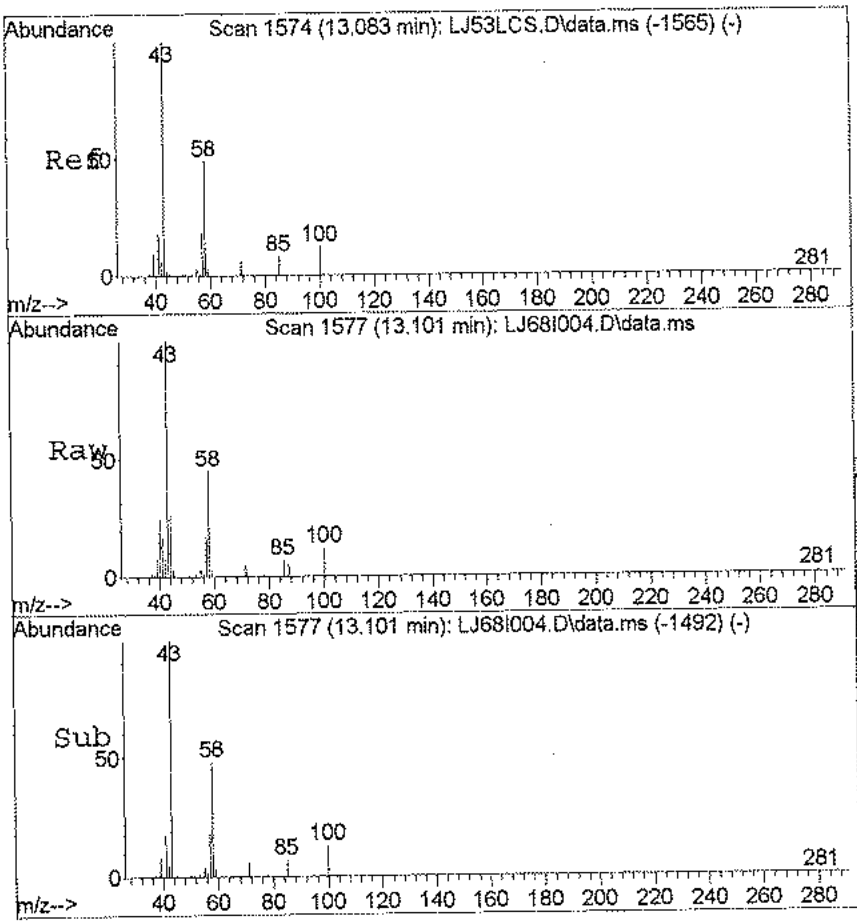


#45
Toluene
Concen: 0.62 ppb
RT: 12.83 min Scan# 1532
Delta R.T. -0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:91.1 Resp: 122648

Ion	Ratio	Lower	Upper
91	100		
92	60.6	48.0	72.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

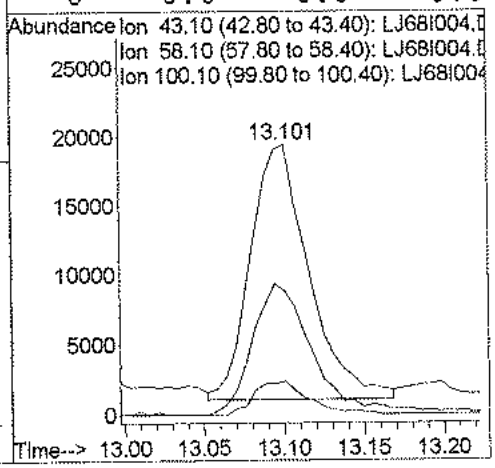


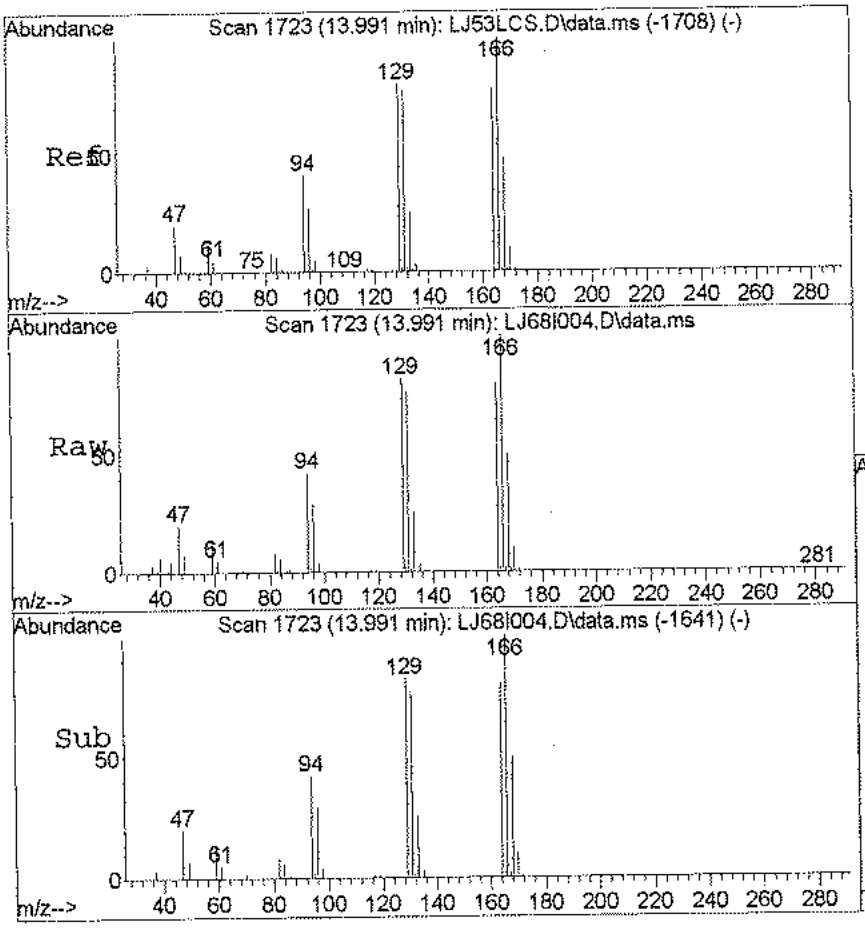


#46
2-Hexanone
Concen: 0.41 ppb
RT: 13.10 min Scan# 1577
Delta R.T. 0.02 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:43.1 Resp: 46263

Ion	Ratio	Lower	Upper
43	100		
58	53.8	54.7	82.1#
100	12.1	19.6	29.4#
0	0.0	0.0	0.0

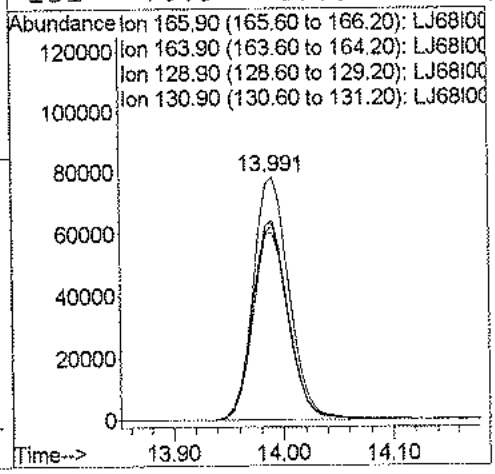


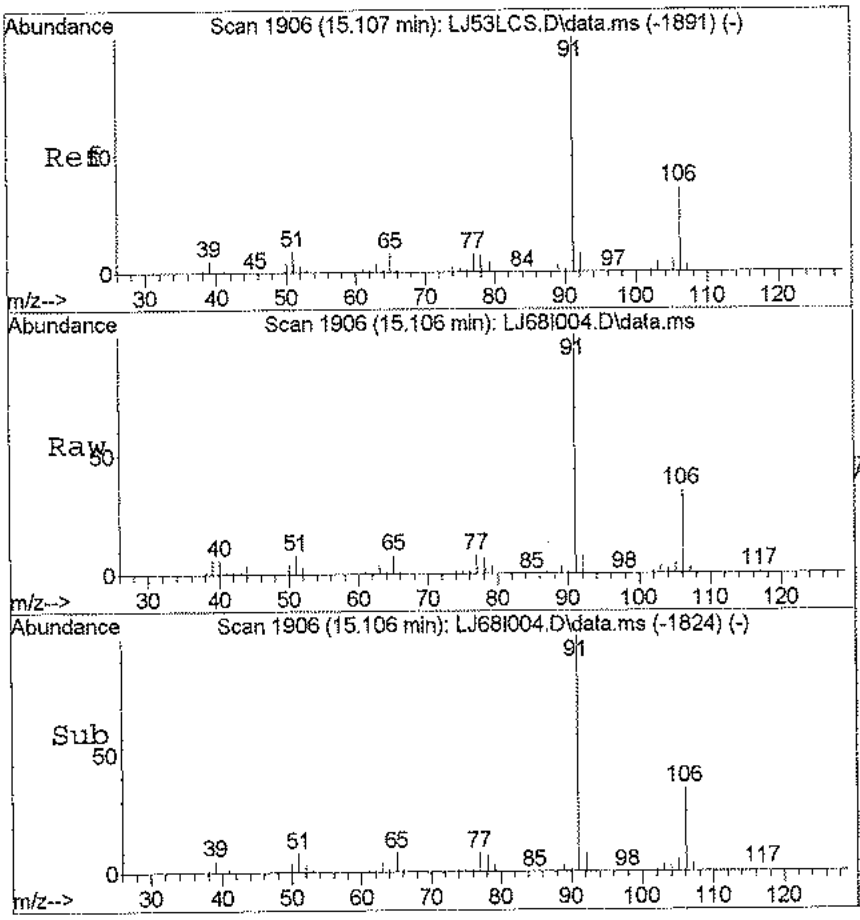


#49
Tetrachloroethene
Concen: 1.41 ppb
RT: 13.99 min Scan# 1723
Delta R.T. -0.00 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:165.9 Resp: 178720

Ion	Ratio	Lower	Upper
166	100		
164	78.9	61.0	91.4
129	81.1	45.9	68.9#
131	76.9	45.5	68.3#

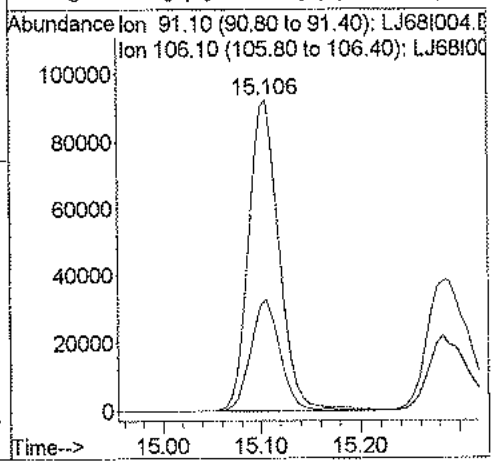


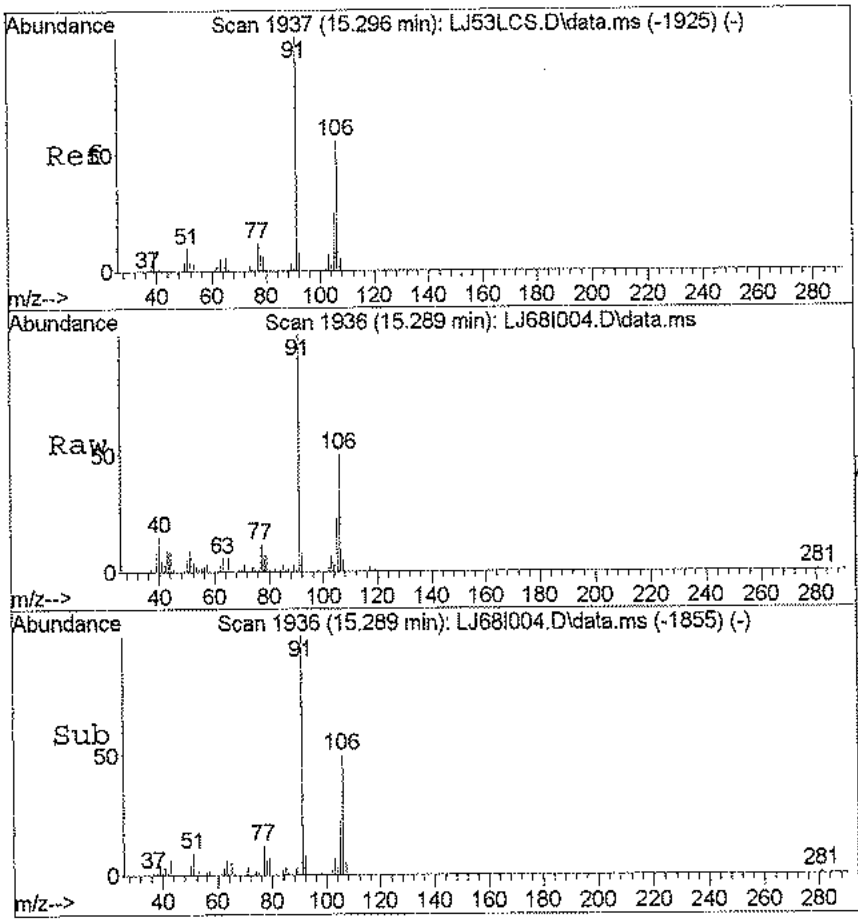


#52
Ethylbenzene
Concen: 0.74 ppb
RT: 15.11 min Scan# 1906
Delta R.T. -0.00 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:91.1 Resp: 199431

Ion	Ratio	Lower	Upper
91	100		
106	33.9	28.4	42.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

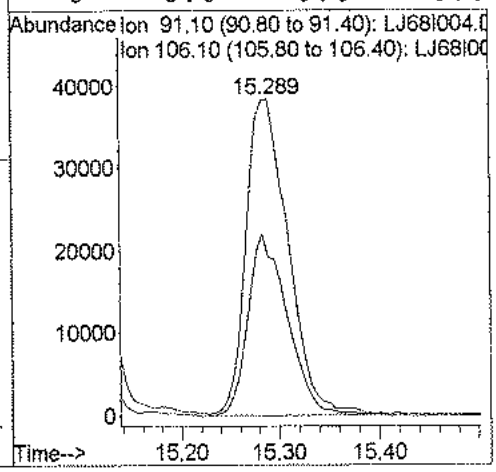


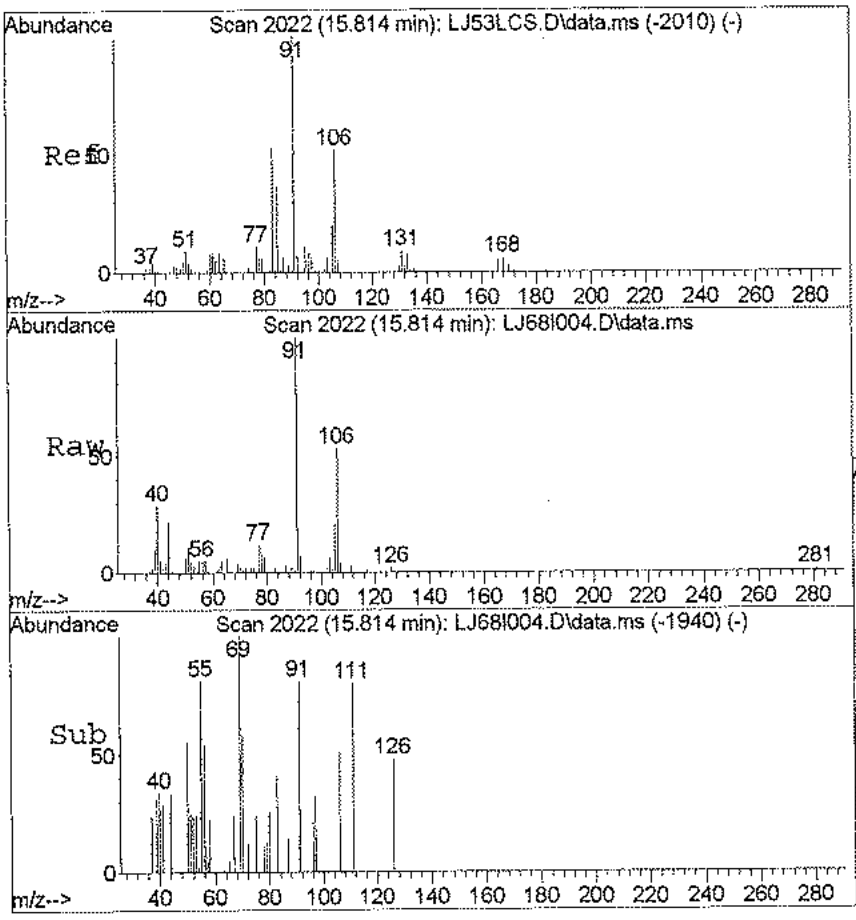


#53
m,p-Xylene
Concen: 0.55 ppb
RT: 15.29 min Scan# 1936
Delta R.T. -0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:91.1 Resp: 113432

Ion	Ratio	Lower	Upper
91	100		
106	54.6	44.6	66.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

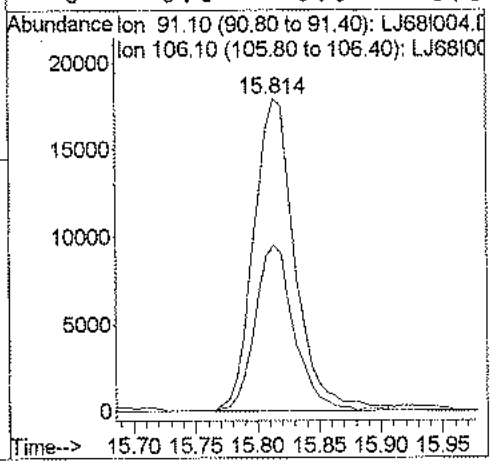


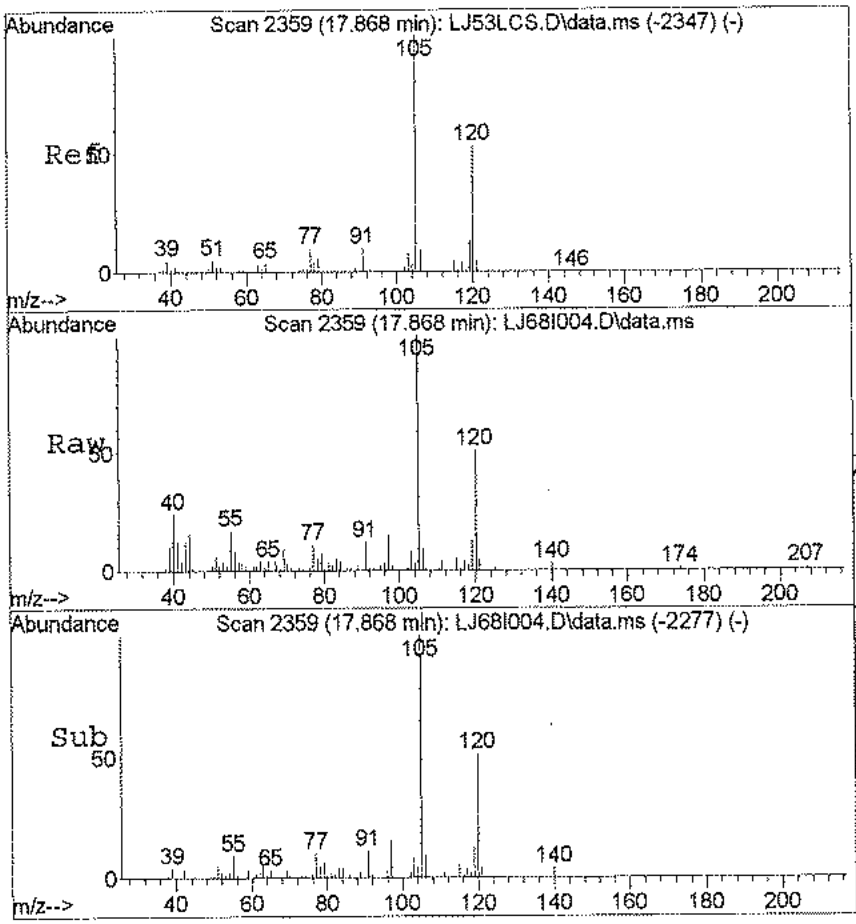


#57
o-Xylene
Concen: 0.20 ppb
RT: 15.81 min Scan# 2022
Delta R.T. -0.00 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:91.1 Resp: 41645

Ion	Ratio	Lower	Upper
91	100		
106	50.1	41.9	62.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

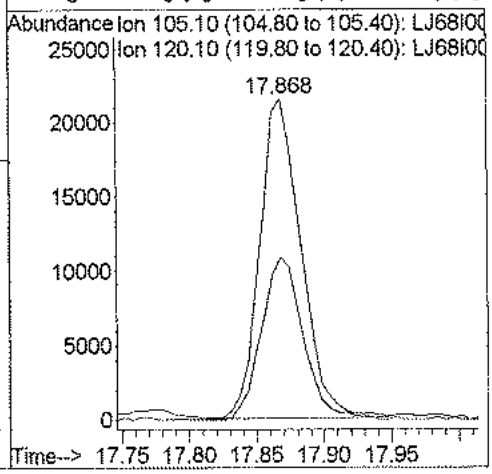


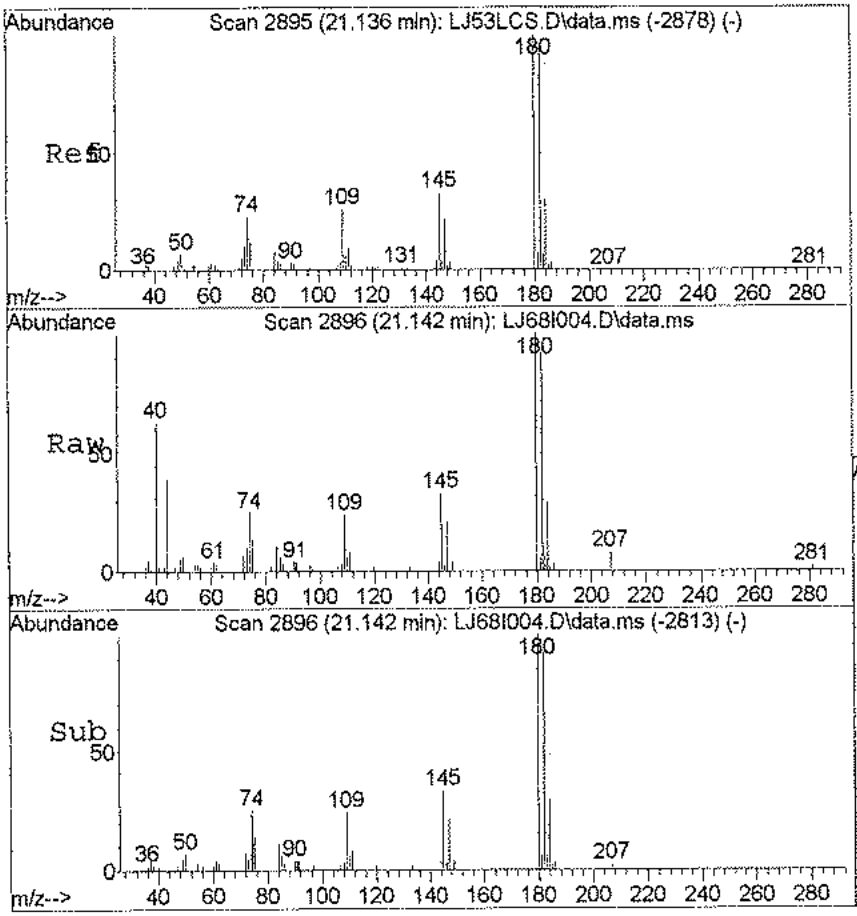


#61
1,2,4-Trimethylbenzene
Concen: 0.17 ppb
RT: 17.87 min Scan# 2359
Delta R.T. -0.00 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:105.1 Resp: 45445

Ion	Ratio	Lower	Upper
105	100		
120	52.1	40.7	61.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

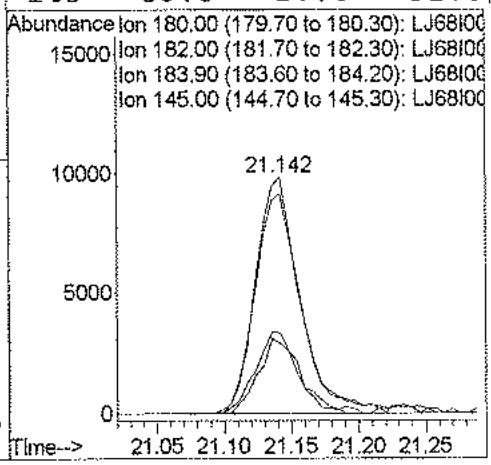




#66
1,2,4-Trichlorobenzene
Concen: 0.20 ppb
RT: 21.14 min Scan# 2896
Delta R.T. 0.01 min
Lab File: LJ68I004.D
Acq: 05/24/2016 23:26

Tgt Ion:180 Resp: 22340

Ion	Ratio	Lower	Upper
180	100		
182	96.5	76.6	115.0
184	28.6	24.3	36.5
145	33.5	20.6	31.0#



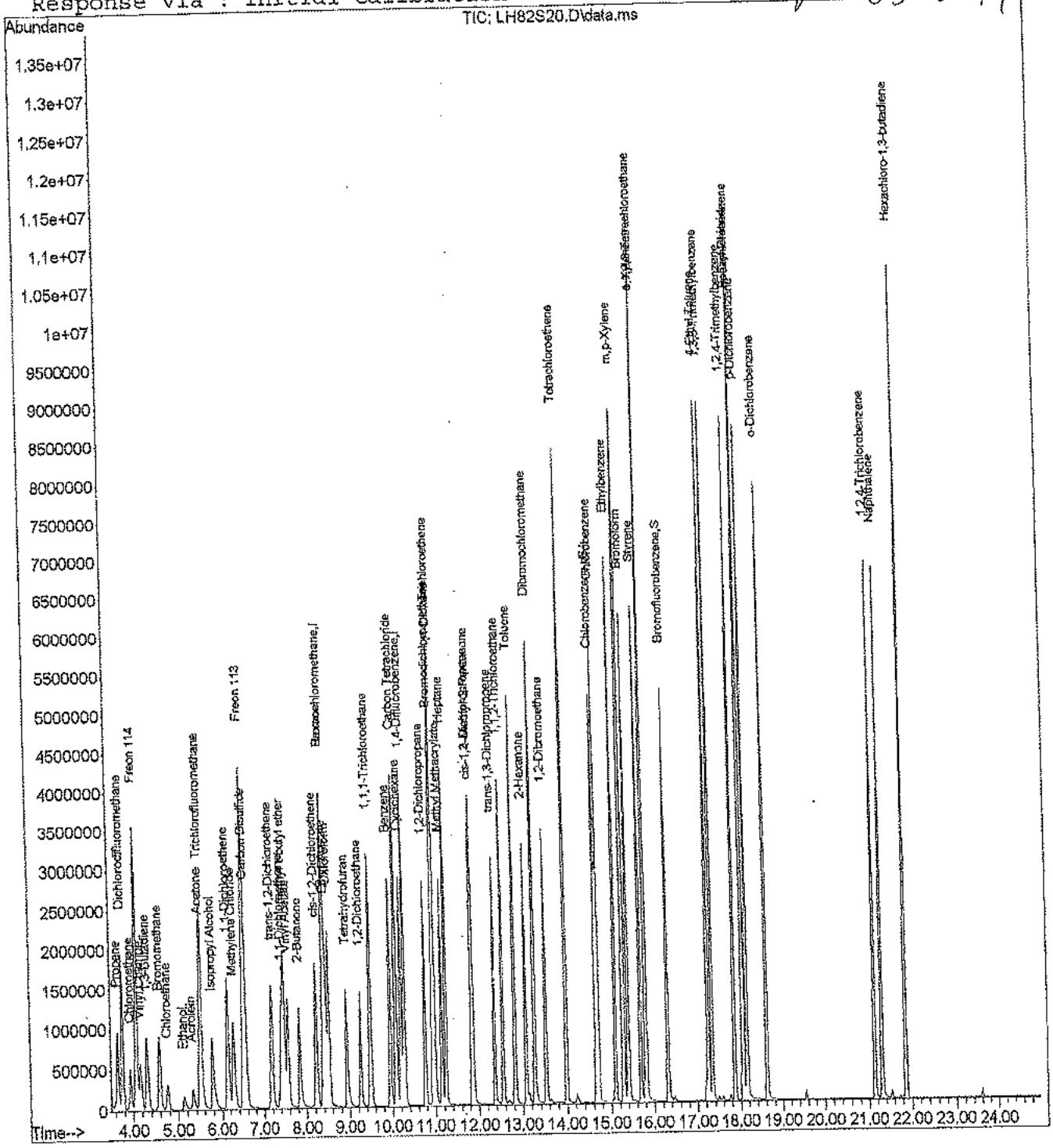
Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH82S20.D Vial: 1
Acq Time : 04/29/2016 10:27 Operator: LMR
Sample : 20 PPB STD Inst : 5975-L
Misc : 31586 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:42:31 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration

05-02-16



Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH82S20.D Vial: 1
Acq Time : 04/29/2016 10:27 Operator: LMR
Sample : 20 PPB STD Inst : 5975-L
Misc : 31586 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:42:31 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 09:21:52 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	408064	20.0000	ppb		114.39
25) 1,4-Difluorobenzene	10.28	114	4972155	20.0000	ppb		107.60
50) Chlorobenzene d5	14.66	117	4382819	20.0000	ppb		105.73
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.32	95	2370632	19.9576	ppb		99.79%
Target Compounds							Qvalue
2) Propene	3.65	41	869918	27.4013	ppb		97
3) Dichlorodifluoromethane	3.76	85	3252349	26.6560	ppb		100
4) Chloromethane	3.93	50	1004672	27.3116	ppb		99
5) Freon 114	4.08	135	3201383	26.4872	ppb		92
6) Vinyl Chloride	4.17	62	1122500	27.8054	ppb		98
7) 1,3-Butadiene	4.32	54	840755	26.8984	ppb	#	66
8) Bromomethane	4.59	94	1216251	27.2614	ppb		99
9) Chloroethane	4.77	64	550804	27.6806	ppb	#	90
10) Acrolein	5.32	56	471506	45.8503	ppb		96
11) Acetone	5.47	43	1869599	26.7142	ppb	#	85
12) Trichlorofluoromethane	5.50	101	3963340	26.0447	ppb		96
13) Ethanol	5.13	45	402429	40.4886	ppb	#	78
14) Isopropyl Alcohol	5.77	45	2236286	29.8893	ppb		98
15) 1,1-Dichloroethene	6.14	61	2040952	27.0706	ppb		84
16) Methylene Chloride	6.27	84	1167809	25.9841	ppb	#	72
17) Freon 113	6.52	151	3079801	26.1387	ppb		89
18) Carbon Disulfide	6.56	76	3305469	26.6468	ppb	#	65
19) trans-1,2-Dichloroethene	7.19	96	1453861	26.5533	ppb	#	85
20) 1,1-Dichloroethane	7.41	63	2205181	26.2443	ppb		98
21) methyl t-butyl ether	7.47	73	3421673	26.2387	ppb	#	86
22) Vinyl Acetate	7.57	86	379960	42.7451	ppb	#	1
23) 2-Butanone	7.83	43	2607361	29.1435	ppb	#	74
24) cis-1,2-Dichloroethene	8.22	96	1540205	26.6023	ppb	#	85
26) Ethyl Acetate	8.45	61	386476	22.8085	ppb	#	1
27) Hexane	8.40	57	1851136	27.4413	ppb	#	50
28) Chloroform	8.52	83	2761828	26.7098	ppb		96
29) Tetrahydrofuran	8.93	42	1477422	30.1333	ppb	#	68
30) 1,2-Dichloroethane	9.26	62	1789425	26.7949	ppb	#	95
31) 1,1,1-Trichloroethane	9.49	97	3271035	26.1867	ppb	#	94
32) Benzene	9.95	78	3598117	26.5870	ppb	#	94
33) Carbon Tetrachloride	10.08	117	4166491	26.5901	ppb		100
34) Cyclohexane	10.20	84	1783729	26.5673	ppb	#	67
35) 1,2-Dichloropropane	10.76	63	1357996	27.3386	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH82S20.D Vial: 1
Acq Time : 04/29/2016 10:27 Operator: LMR
Sample : 20 PPB STD Inst : 5975-L
Misc : 31586 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:42:31 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 09:21:52 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.94	83	2949975	26.1404	ppb		95
37) 1,4-Dioxane	10.99	88	917882	27.2057	ppb		98
38) Trichloroethene	10.98	130	2658473	26.7275	ppb		97
39) Methyl Methacrylate	11.16	69	1290920	27.9664	ppb	#	84
40) Heptane	11.25	71	1229779	26.2741	ppb	#	56
41) cis-1,3-Dichloropropene	11.83	75	2254483	27.2744	ppb		99
42) 4-Methyl-2-Pentanone	11.86	43	3046781	27.8162	ppb	#	79
43) trans-1,3-Dichloropropene	12.36	75	2189796	27.8791	ppb		99
44) 1,1,2-Trichloroethane	12.55	97	1810685	26.8461	ppb	#	95
45) Toluene	12.83	91	4942679	26.5880	ppb		99
46) 2-Hexanone	13.08	43	2909495	26.7328	ppb	#	79
47) Dibromochloromethane	13.27	129	4600811	27.0983	ppb		99
48) 1,2-Dibromoethane	13.53	107	3152410	27.0537	ppb		98
49) Tetrachloroethene	13.98	166	3209939	26.3539	ppb	#	83
51) Chlorobenzene	14.70	112	4895079	26.2262	ppb		98
52) Ethylbenzene	15.10	91	6474555	26.2646	ppb		97
53) m,p-Xylene	15.29	91	9732115	50.8226	ppb		96
54) Bromoform	15.41	173	4203464	27.3504	ppb		98
55) Styrene	15.69	104	4450312	28.2414	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.81	83	3155870	25.5492	ppb		95
57) o-Xylene	15.81	91	4944128	25.5667	ppb		97
59) 4-Ethyl Toluene	17.25	105	7819216	26.9925	ppb		95
60) 1,3,5-Trimethylbenzene	17.34	105	6641126	26.1897	ppb		97
61) 1,2,4-Trimethylbenzene	17.86	105	6538378	26.8839	ppb		96
62) Benzyl Chloride	18.05	91	5418002	24.1739	ppb		93
63) m-Dichlorobenzene	18.07	146	5218529	26.3916	ppb		98
64) p-Dichlorobenzene	18.16	146	5274845	26.2658	ppb		98
65) o-Dichlorobenzene	18.62	146	5030496	26.6839	ppb		98
66) 1,2,4-Trichlorobenzene	21.14	180	3034257	22.1162	ppb	#	97
67) Naphthalene	21.31	128	7824611	22.3119	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	2486712	20.8751	ppb		99

(#) = qualifier out of range (m) = manual integration

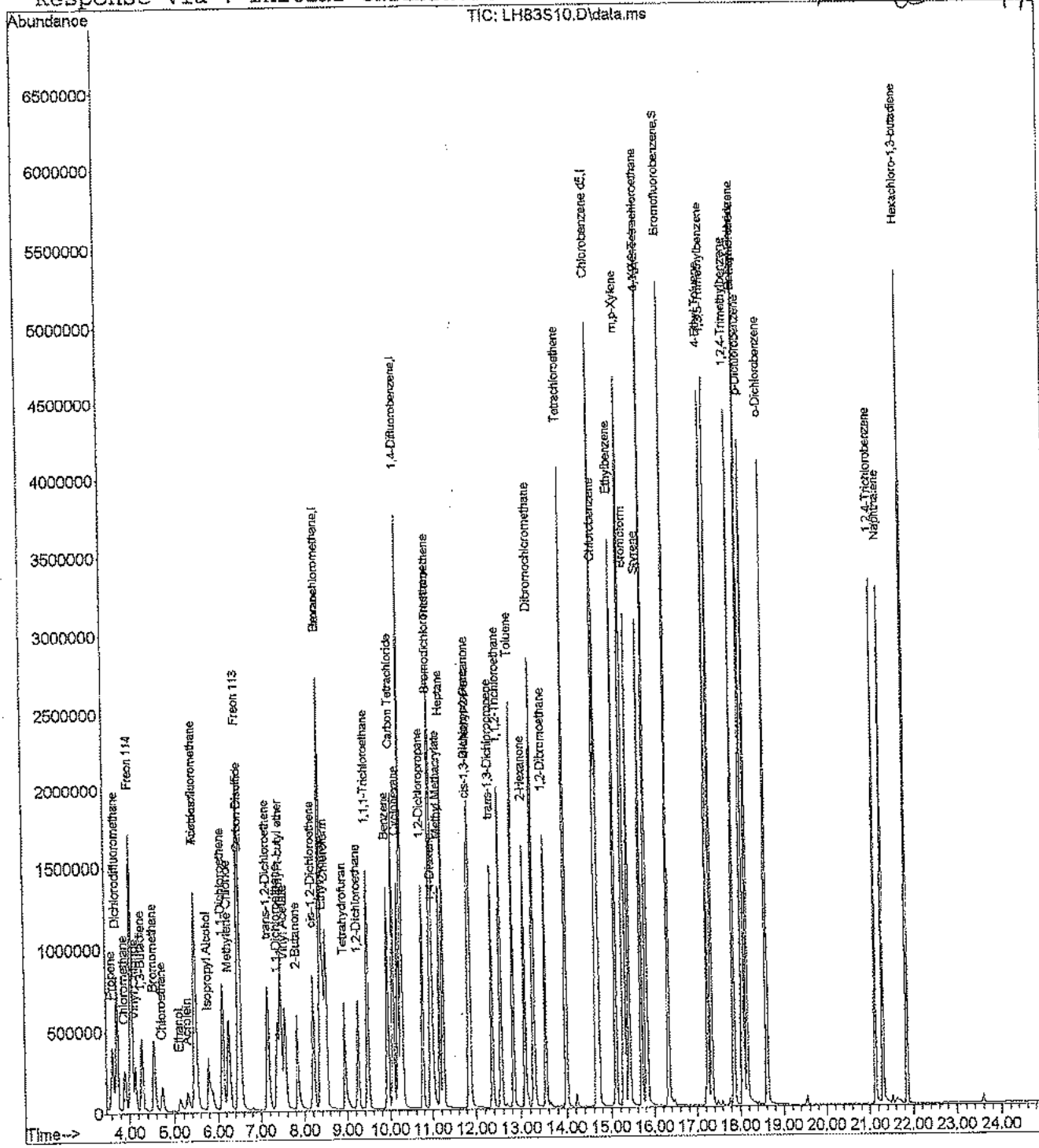
Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH83S10.D Vial: 1
Acq Time : 04/29/2016 11:16 Operator: LMR
Sample : 10 PPB STD Inst : 5975-L
Misc : 31586 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:00 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration

05-02-16



Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH83S10.D Vial: 1
Acq Time : 04/29/2016 11:16 Operator: LMR
Sample : 10 PPB STD Inst : 5975-L
Misc : 31586 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:00 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:42:51 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.38	130	378304	20.0000	ppb		106.05
25) 1,4-Difluorobenzene	10.28	114	4897408	20.0000	ppb		105.98
50) Chlorobenzene d5	14.67	117	4352806	20.0000	ppb		105.00
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2334102	19.7798	ppb		98.90%
Target Compounds							Qvalue
2) Propene	3.62	41	395946	12.8502	ppb		97
3) Dichlorodifluoromethane	3.72	85	1405927	11.8146	ppb		100
4) Chloromethane	3.90	50	454268	12.6865	ppb		99
5) Freon 114	4.05	135	1498137	12.8736	ppb		92
6) Vinyl Chloride	4.14	62	507142	12.9058	ppb		98
7) 1,3-Butadiene	4.28	54	401688	13.2311	ppb	#	67
8) Bromomethane	4.55	94	575428	13.3366	ppb		98
9) Chloroethane	4.73	64	259212	13.3551	ppb	#	90
10) Acrolein	5.30	56	217269	19.1687	ppb		94
11) Acetone	5.47	43	897084	13.3736	ppb	#	84
12) Trichlorofluoromethane	5.47	101	1892252	12.9690	ppb		96
13) Ethanol	5.12	45	194912	18.2614	ppb	#	78
14) Isopropyl Alcohol	5.77	45	1109389	15.0114	ppb	#	99
15) 1,1-Dichloroethene	6.11	61	974569	13.3894	ppb		84
16) Methylene Chloride	6.25	84	563479	13.0181	ppb	#	72
17) Freon 113	6.49	151	1485924	13.1778	ppb		88
18) Carbon Disulfide	6.53	76	1605032	13.3936	ppb	#	66
19) trans-1,2-Dichloroethene	7.16	96	704072	13.3950	ppb	#	84
20) 1,1-Dichloroethane	7.39	63	1082376	13.4157	ppb		98
21) methyl t-butyl ether	7.46	73	1679106	13.4856	ppb	#	86
22) Vinyl Acetate	7.55	86	183582	19.2875	ppb	#	1
23) 2-Butanone	7.83	43	1242885	14.3125	ppb	#	74
24) cis-1,2-Dichloroethene	8.21	96	747057	13.4446	ppb	#	85
26) Ethyl Acetate	8.44	61	186539	11.1235	ppb	#	1
27) Hexane	8.39	57	919482	13.2031	ppb	#	83
28) Chloroform	8.50	83	1359210	12.8383	ppb		96
29) Tetrahydrofuran	8.94	42	721242	14.1162	ppb	#	68
30) 1,2-Dichloroethane	9.25	62	879935	12.8908	ppb	#	95
31) 1,1,1-Trichloroethane	9.48	97	1606989	12.6557	ppb	#	94
32) Benzene	9.94	78	1786373	12.8756	ppb	#	94
33) Carbon Tetrachloride	10.08	117	2039322	12.7783	ppb		99
34) Cyclohexane	10.19	84	882788	12.8530	ppb	#	68
35) 1,2-Dichloropropane	10.76	63	679925	13.2713	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH83S10.D Vial: 1
Acq Time : 04/29/2016 11:16 Operator: LMR
Sample : 10 PPB STD Inst : 5975-L
Misc : 31586 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:00 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:42:51 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.94	83	1485705	12.9263	ppb		96
37) 1,4-Dioxane	11.01	88	467239	13.6641	ppb		97
38) Trichloroethene	10.98	130	1318950	12.9966	ppb		98
39) Methyl Methacrylate	11.16	69	640362	13.4916	ppb		86
40) Heptane	11.25	71	626902	13.0759	ppb	#	56
41) cis-1,3-Dichloropropene	11.84	75	1134599	13.4207	ppb		99
42) 4-Methyl-2-Pentanone	11.87	43	1555476	13.8253	ppb	#	79
43) trans-1,3-Dichloropropene	12.36	75	1075096	13.3982	ppb		99
44) 1,1,2-Trichloroethane	12.55	97	906725	13.1710	ppb	#	96
45) Toluene	12.83	91	2507420	13.2081	ppb		99
46) 2-Hexanone	13.08	43	1459200	12.9512	ppb	#	79
47) Dibromochloromethane	13.28	129	2293403	13.2896	ppb		99
48) 1,2-Dibromoethane	13.54	107	1579878	13.3129	ppb		99
49) Tetrachloroethene	13.99	166	1610128	13.0217	ppb	#	84
51) Chlorobenzene	14.72	112	2476284	12.9036	ppb		99
52) Ethylbenzene	15.11	91	3323695	13.1069	ppb		98
53) m,p-Xylene	15.30	91	5020197	25.5601	ppb		97
54) Bromoform	15.42	173	2077193	13.1726	ppb		99
55) Styrene	15.70	104	2208475	13.5456	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.83	83	1655239	13.0288	ppb		95
57) o-Xylene	15.81	91	2572443	12.9512	ppb		98
59) 4-Ethyl Toluene	17.25	105	3935930	13.2731	ppb		96
60) 1,3,5-Trimethylbenzene	17.34	105	3363713	12.9685	ppb		98
61) 1,2,4-Trimethylbenzene	17.86	105	3287091	13.2111	ppb		97
62) Benzyl Chloride	18.06	91	2754637	12.0640	ppb		95
63) m-Dichlorobenzene	18.08	146	2611325	12.9418	ppb		98
64) p-Dichlorobenzene	18.16	146	2627498	12.8393	ppb		98
65) o-Dichlorobenzene	18.62	146	2490745	12.9725	ppb		98
66) 1,2,4-Trichlorobenzene	21.13	180	1453276	10.8019	ppb	#	98
67) Naphthalene	21.31	128	3775168	10.9178	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	1240647	10.5290	ppb		99

(#) = qualifier out of range (m) = manual integration

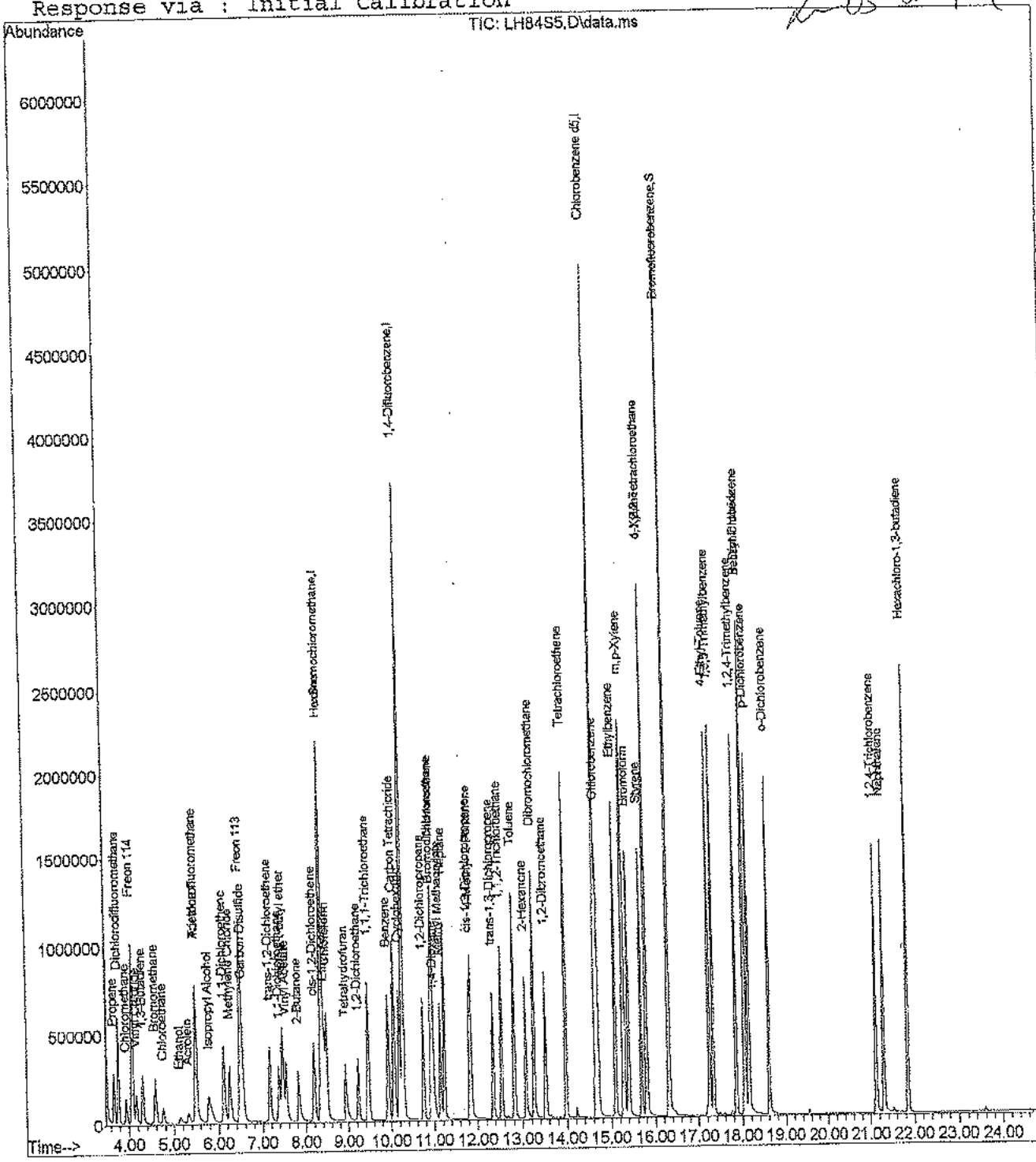
Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH84S5.D Vial: 2
Acq Time : 04/29/2016 12:04 Operator: LMR
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 31586 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:23 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration

5-02-16



Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH84S5.D Vial: 2
Acq Time : 04/29/2016 12:04 Operator: LMR
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 31586 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:23 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:43:15 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	8.37	130	405632	20.0000 ppb		107.22
25) 1,4-Difluorobenzene	10.27	114	4792649	20.0000 ppb		97.86
50) Chlorobenzene d5	14.66	117	4233916	20.0000 ppb		97.27
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	16.32	95	2298025	20.1015 ppb		100.51%
Target Compounds						Qvalue
2) Propene	3.67	41	208013	6.1531 ppb		97
3) Dichlorodifluoromethane	3.77	85	804610	6.1508 ppb		100
4) Chloromethane	3.94	50	241688	6.1404 ppb		100
5) Freon 114	4.08	135	765267	5.9262 ppb		91
6) Vinyl Chloride	4.16	62	268721	6.2050 ppb		100
7) 1,3-Butadiene	4.30	54	204851	6.0945 ppb	#	67
8) Bromomethane	4.58	94	292172	6.1020 ppb		99
9) Chloroethane	4.75	64	132360	6.1374 ppb	#	90
10) Acrolein	5.32	56	106891	7.6822 ppb		99
11) Acetone	5.49	43	443294	6.0345 ppb	#	85
12) Trichlorofluoromethane	5.49	101	952065	5.8930 ppb		96
13) Ethanol	5.13	45	97215	7.4989 ppb	#	77
14) Isopropyl Alcohol	5.78	45	541662	6.4496 ppb		100
15) 1,1-Dichloroethene	6.12	61	485898	6.0287 ppb		84
16) Methylene Chloride	6.25	84	281304	5.8657 ppb	#	72
17) Freon 113	6.50	151	737745	5.8895 ppb		88
18) Carbon Disulfide	6.54	76	807817	6.0739 ppb	#	65
19) trans-1,2-Dichloroethene	7.16	96	344316	5.9077 ppb	#	84
20) 1,1-Dichloroethane	7.38	63	535817	6.0064 ppb		97
21) methyl t-butyl ether	7.46	73	816058	5.9401 ppb	#	85
22) Vinyl Acetate	7.54	86	87179	7.4824 ppb	#	1
23) 2-Butanone	7.82	43	607947	6.3116 ppb	#	73
24) cis-1,2-Dichloroethene	8.19	96	364277	5.9159 ppb	#	85
26) Ethyl Acetate	8.44	61	91387	5.6792 ppb	#	1
27) Hexane	8.39	57	457862	6.5234 ppb	#	82
28) Chloroform	8.49	83	671065	6.3019 ppb		98
29) Tetrahydrofuran	8.94	42	352904	6.8306 ppb	#	67
30) 1,2-Dichloroethane	9.24	62	429421	6.2631 ppb	#	95
31) 1,1,1-Trichloroethane	9.47	97	786491	6.1705 ppb	#	94
32) Benzene	9.93	78	881109	6.3233 ppb	#	94
33) Carbon Tetrachloride	10.06	117	993008	6.1859 ppb		99
34) Cyclohexane	10.19	84	432983	6.2725 ppb	#	67
35) 1,2-Dichloropropane	10.74	63	336013	6.4958 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH84S5.D Vial: 2
Acq Time : 04/29/2016 12:04 Operator: LMR
Sample : 5.0 PPB STD Inst : 5975-L
Misc : 31586 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:23 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:43:15 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.93	83	728082	6.3107	ppb		96
37) 1,4-Dioxane	11.00	88	231801	6.7547	ppb		98
38) Trichloroethene	10.96	130	644836	6.2951	ppb		98
39) Methyl Methacrylate	11.15	69	309936	6.4881	ppb		86
40) Heptane	11.24	71	313835	6.5154	ppb	#	56
41) cis-1,3-Dichloropropene	11.82	75	550210	6.4634	ppb		100
42) 4-Methyl-2-Pentanone	11.86	43	763893	6.7548	ppb	#	78
43) trans-1,3-Dichloropropene	12.34	75	516557	6.4098	ppb		99
44) 1,1,2-Trichloroethane	12.54	97	439234	6.3327	ppb	#	95
45) Toluene	12.81	91	1221164	6.3747	ppb		100
46) 2-Hexanone	13.07	43	702312	6.1667	ppb	#	79
47) Dibromochloromethane	13.26	129	1088798	6.2574	ppb		99
48) 1,2-Dibromoethane	13.52	107	761636	6.3720	ppb		98
49) Tetrachloroethene	13.98	166	777657	6.2341	ppb	#	84
51) Chlorobenzene	14.70	112	1211550	6.3056	ppb		100
52) Ethylbenzene	15.09	91	1626236	6.4068	ppb		99
53) m,p-Xylene	15.28	91	2502369	12.7666	ppb		98
54) Bromoform	15.40	173	1004800	6.3766	ppb		99
55) Styrene	15.68	104	1073103	6.5623	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.80	83	837172	6.6200	ppb		96
57) o-Xylene	15.80	91	1282329	6.4606	ppb		98
59) 4-Ethyl Toluene	17.24	105	1929249	6.5461	ppb		97
60) 1,3,5-Trimethylbenzene	17.34	105	1663126	6.4544	ppb		98
61) 1,2,4-Trimethylbenzene	17.86	105	1602017	6.4828	ppb		97
62) Benzyl Chloride	18.05	91	1328399	5.8802	ppb		96
63) m-Dichlorobenzene	18.06	146	1266979	6.3237	ppb		98
64) p-Dichlorobenzene	18.15	146	1271963	6.2626	ppb		98
65) o-Dichlorobenzene	18.61	146	1196894	6.2828	ppb		98
66) 1,2,4-Trichlorobenzene	21.13	180	675682	5.2661	ppb	#	98
67) Naphthalene	21.31	128	1796896	5.4377	ppb		99
68) Hexachloro-1,3-butadiene	21.86	225	605020	5.3368	ppb		98

(#) = qualifier out of range (m) = manual integration

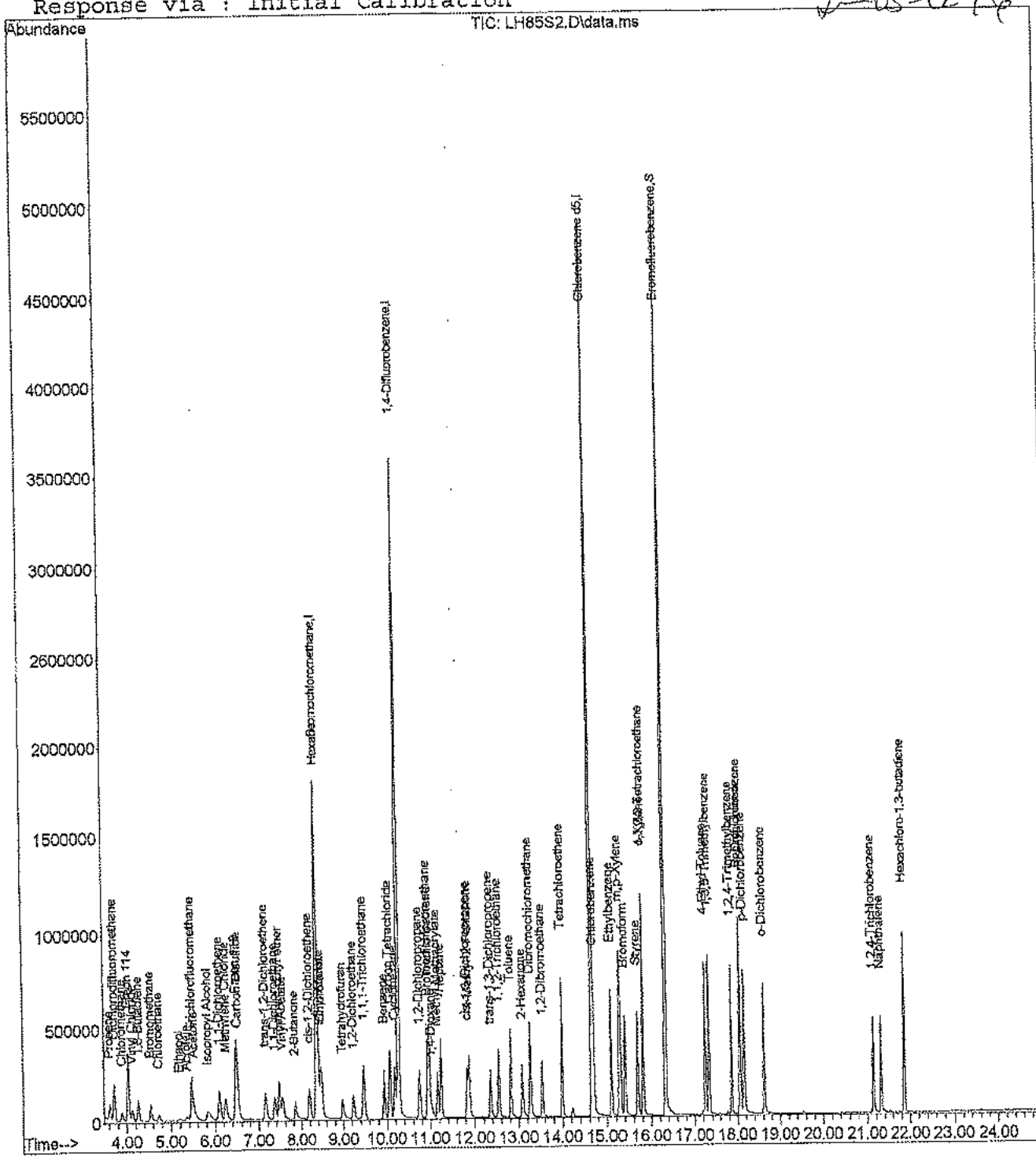
Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH85S2.D Vial: 2
Acq Time : 04/29/2016 12:51 Operator: LMR
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 31586 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:44 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration

05-02-16



Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH85S2.D Vial: 2
Acq Time : 04/29/2016 12:51 Operator: LMR
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 31586 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:44 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:43:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.36	130	370560	20.0000	ppb		97.95
25) 1,4-Difluorobenzene	10.27	114	4727038	20.0000	ppb		96.52
50) Chlorobenzene d5	14.66	117	4154068	20.0000	ppb		95.43
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.32	95	2236350	19.9135	ppb		99.57%
Target Compounds							Qvalue
2) Propene	3.62	41	77464	2.4121	ppb		96
3) Dichlorodifluoromethane	3.72	85	305108	2.4903	ppb		99
4) Chloromethane	3.90	50	91631	2.4654	ppb		99
5) Freon 114	4.04	135	292642	2.4240	ppb		91
6) Vinyl Chloride	4.13	62	99838	2.4415	ppb		99
7) 1,3-Butadiene	4.26	54	78767	2.4913	ppb	#	66
8) Bromomethane	4.54	94	111705	2.4823	ppb		100
9) Chloroethane	4.72	64	52236	2.5659	ppb	#	89
10) Acrolein	5.35	56	42777	3.0006	ppb	#	97
11) Acetone	5.51	43	166039	2.4274	ppb	#	86
12) Trichlorofluoromethane	5.46	101	367198	2.4370	ppb		96
13) Ethanol	5.18	45	38828	2.9590	ppb	#	76
14) Isopropyl Alcohol	5.83	45	210013	2.6060	ppb	#	76
15) 1,1-Dichloroethene	6.10	61	186375	2.4645	ppb	#	84
16) Methylene Chloride	6.24	84	109514	2.4351	ppb	#	72
17) Freon 113	6.47	151	280854	2.4068	ppb		87
18) Carbon Disulfide	6.52	76	313571	2.5046	ppb	#	66
19) trans-1,2-Dichloroethene	7.15	96	131668	2.4223	ppb	#	85
20) 1,1-Dichloroethane	7.36	63	204168	2.4412	ppb		98
21) methyl t-butyl ether	7.46	73	310429	2.4313	ppb	#	85
22) Vinyl Acetate	7.54	86	32125	2.7430	ppb	#	1
23) 2-Butanone	7.85	43	222843	2.4508	ppb	#	73
24) cis-1,2-Dichloroethene	8.19	96	138598	2.4137	ppb	#	84
26) Ethyl Acetate	8.45	61	33681	2.1139	ppb	#	1
27) Hexane	8.38	57	177983	2.4541	ppb	#	85
28) Chloroform	8.49	83	257957	2.3628	ppb		98
29) Tetrahydrofuran	8.97	42	133477	2.4831	ppb	#	67
30) 1,2-Dichloroethane	9.24	62	163912	2.3351	ppb	#	95
31) 1,1,1-Trichloroethane	9.47	97	301338	2.3242	ppb	#	94
32) Benzene	9.93	78	340560	2.3828	ppb	#	94
33) Carbon Tetrachloride	10.06	117	380148	2.3257	ppb		98
34) Cyclohexane	10.18	84	166082	2.3552	ppb	#	66
35) 1,2-Dichloropropane	10.75	63	128838	2.4156	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH85S2.D Vial: 2
Acq Time : 04/29/2016 12:51 Operator: LMR
Sample : 2.0 PPB STD Inst : 5975-L
Misc : 31586 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:43:44 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:43:36 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.93	83	277701	2.3581	ppb		96
37) 1,4-Dioxane	11.02	88	86042	2.4486	ppb		97
38) Trichloroethene	10.97	130	242359	2.3177	ppb		99
39) Methyl Methacrylate	11.16	69	115175	2.3452	ppb		86
40) Heptane	11.24	71	121587	2.4483	ppb	#	55
41) cis-1,3-Dichloropropene	11.83	75	207414	2.3768	ppb		99
42) 4-Methyl-2-Pentanone	11.87	43	292821	2.5065	ppb	#	77
43) trans-1,3-Dichloropropene	12.36	75	194835	2.3658	ppb		97
44) 1,1,2-Trichloroethane	12.55	97	167033	2.3551	ppb	#	94
45) Toluene	12.82	91	466978	2.3810	ppb		100
46) 2-Hexanone	13.08	43	265361	2.2447	ppb	#	77
47) Dibromochloromethane	13.27	129	406542	2.2974	ppb		99
48) 1,2-Dibromoethane	13.53	107	285093	2.3333	ppb		98
49) Tetrachloroethene	13.98	166	292729	2.3066	ppb	#	83
51) Chlorobenzene	14.71	112	461462	2.3672	ppb		96
52) Ethylbenzene	15.10	91	617497	2.3911	ppb		99
53) m,p-Xylene	15.29	91	955123	4.8009	ppb		99
54) Bromoform	15.41	173	364939	2.2829	ppb		99
55) Styrene	15.69	104	395026	2.3684	ppb		99
56) 1,1,2,2-Tetrachloroethane	15.81	83	322966	2.5006	ppb		96
57) o-Xylene	15.81	91	487887	2.4153	ppb		98
59) 4-Ethyl Toluene	17.25	105	715877	2.3970	ppb		97
60) 1,3,5-Trimethylbenzene	17.34	105	623221	2.3893	ppb		99
61) 1,2,4-Trimethylbenzene	17.86	105	593321	2.3764	ppb		98
62) Benzyl Chloride	18.05	91	478107	2.0982	ppb		97
63) m-Dichlorobenzene	18.06	146	470871	2.3345	ppb		98
64) p-Dichlorobenzene	18.15	146	473365	2.3202	ppb		98
65) o-Dichlorobenzene	18.61	146	444976	2.3280	ppb		98
66) 1,2,4-Trichlorobenzene	21.13	180	235035	1.8857	ppb	#	97
67) Naphthalene	21.31	128	631114	1.9503	ppb		98
68) Hexachloro-1,3-butadiene	21.86	225	223790	2.0229	ppb		99

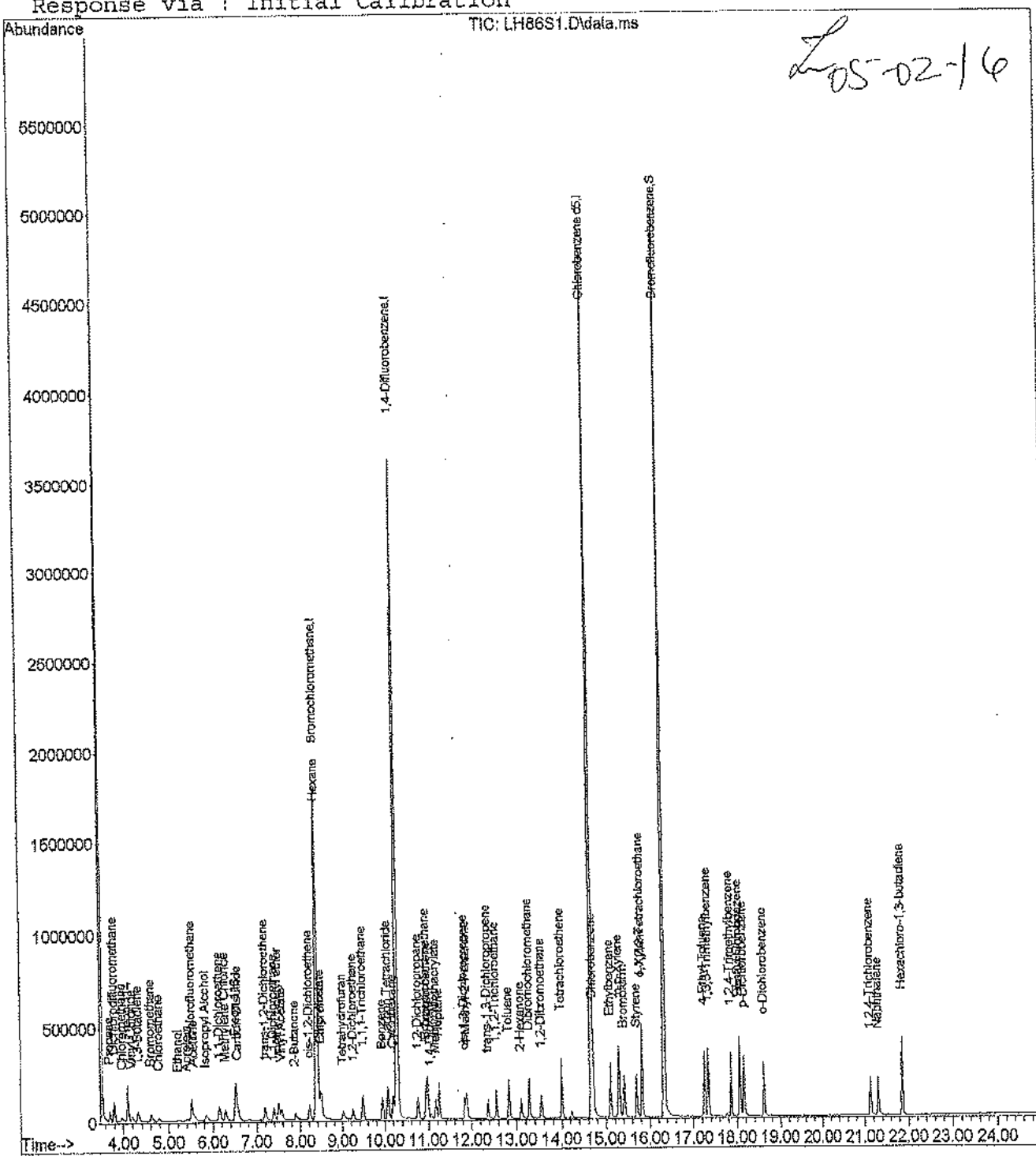
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH86S1.D Vial: 2
Acq Time : 04/29/2016 13:38 Operator: LMR
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 31586 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:44:51 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration



05-02-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH86S1.D Vial: 2
Acq Time : 04/29/2016 13:38 Operator: LMR
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 31586 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:44:51 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:44:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.39	130	392064	20.0000	ppb		103.64
25) 1,4-Difluorobenzene	10.28	114	4643419	20.0000	ppb		94.81
50) Chlorobenzene d5	14.67	117	4089118	20.0000	ppb		93.94
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2179283	19.7245	ppb		98.62%
Target Compounds							Qvalue
2) Propene	3.71	41	37400	1.0467	ppb	m	0
3) Dichlorodifluoromethane	3.80	85	136471	1.0098	ppb	m	0
4) Chloromethane	3.98	50	39949	0.9713	ppb	m	41
5) Freon 114	4.10	135	128350	0.9663	ppb		89
6) Vinyl Chloride	4.20	62	43449	0.9603	ppb	m	0
7) 1,3-Butadiene	4.33	54	34363	0.9793	ppb	#	65
8) Bromomethane	4.62	94	48228	0.9660	ppb		99
9) Chloroethane	4.79	64	22284	0.9776	ppb	#	91
10) Acrolein	5.40	56	18283	1.0659	ppb		96
11) Acetone	5.57	43	75263	0.9967	ppb	#	83
12) Trichlorofluoromethane	5.52	101	162038	0.9773	ppb		96
13) Ethanol	5.20	45	15636	0.9930	ppb	#	75
14) Isopropyl Alcohol	5.84	45	93668	1.0240	ppb		99
15) 1,1-Dichloroethene	6.15	61	81720	0.9762	ppb	#	82
16) Methylene Chloride	6.29	84	48351	0.9736	ppb	#	69
17) Freon 113	6.52	151	123054	0.9598	ppb		88
18) Carbon Disulfide	6.57	76	135602	0.9742	ppb	#	67
19) trans-1,2-Dichloroethene	7.19	96	57089	0.9517	ppb	#	85
20) 1,1-Dichloroethane	7.39	63	91507	0.9893	ppb		96
21) methyl t-butyl ether	7.49	73	133495	0.9503	ppb	#	86
22) Vinyl Acetate	7.57	86	13832	1.0063	ppb	#	1
23) 2-Butanone	7.89	43	91050	0.8995	ppb	#	73
24) cis-1,2-Dichloroethene	8.22	96	59878	0.9476	ppb	#	83
26) Ethyl Acetate	8.48	61	15492	0.9970	ppb	#	1
27) Hexane	8.41	57	76753	1.0300	ppb	#	85
28) Chloroform	8.50	83	112730	1.0140	ppb		98
29) Tetrahydrofuran	9.02	42	55741	1.0001	ppb	#	65
30) 1,2-Dichloroethane	9.25	62	70611	0.9894	ppb	#	95
31) 1,1,1-Trichloroethane	9.49	97	129872	0.9889	ppb	#	94
32) Benzene	9.94	78	148336	1.0170	ppb	#	94
33) Carbon Tetrachloride	10.08	117	164066	0.9904	ppb		98
34) Cyclohexane	10.20	84	72620	1.0131	ppb	#	69
35) 1,2-Dichloropropane	10.76	63	56861	1.0398	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH86S1.D Vial: 2
Acq Time : 04/29/2016 13:38 Operator: LMR
Sample : 1.0 PPB STD Inst : 5975-L
Misc : 31586 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Apr 29 14:44:51 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:44:00 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36) Bromodichloromethane	10.94	83	118964	0.9939 ppb		95
37) 1,4-Dioxane	11.06	88	35498	0.9913 ppb		91
38) Trichloroethene	10.98	130	104118	0.9822 ppb		99
39) Methyl Methacrylate	11.17	69	50413	1.0039 ppb		93
40) Heptane	11.25	71	52661	1.0344 ppb	#	54
41) cis-1,3-Dichloropropene	11.84	75	87537	0.9813 ppb		99
42) 4-Methyl-2-Pentanone	11.89	43	123691	1.0270 ppb	#	76
43) trans-1,3-Dichloropropene	12.37	75	77714	0.9232 ppb		98
44) 1,1,2-Trichloroethane	12.55	97	71471	0.9891 ppb	#	95
45) Toluene	12.83	91	193702	0.9686 ppb		99
46) 2-Hexanone	13.09	43	108424	0.8799 ppb	#	77
47) Dibromochloromethane	13.28	129	172929	0.9658 ppb		99
48) 1,2-Dibromoethane	13.55	107	119339	0.9612 ppb		99
49) Tetrachloroethene	13.99	166	125571	0.9776 ppb	#	84
51) Chlorobenzene	14.72	112	198526	0.9997 ppb		99
52) Ethylbenzene	15.11	91	262043	0.9937 ppb		99
53) m,p-Xylene	15.30	91	411198	2.0274 ppb		99
54) Bromoform	15.42	173	150405	0.9295 ppb		100
55) Styrene	15.70	104	162879	0.9550 ppb		98
56) 1,1,2,2-Tetrachloroethane	15.82	83	137852	1.0394 ppb		96
57) o-Xylene	15.81	91	209301	1.0165 ppb		99
59) 4-Ethyl Toluene	17.25	105	289938	0.9544 ppb		97
60) 1,3,5-Trimethylbenzene	17.34	105	260006	0.9821 ppb		99
61) 1,2,4-Trimethylbenzene	17.86	105	245307	0.9685 ppb		99
62) Benzyl Chloride	18.05	91	180298	0.7818 ppb		96
63) m-Dichlorobenzene	18.07	146	199742	0.9778 ppb		97
64) p-Dichlorobenzene	18.16	146	203904	0.9905 ppb		96
65) o-Dichlorobenzene	18.62	146	186293	0.9635 ppb		97
66) 1,2,4-Trichlorobenzene	21.13	180	94874	0.7748 ppb	#	98
67) Naphthalene	21.31	128	250991	0.7864 ppb		98
68) Hexachloro-1,3-butadiene	21.86	225	95764	0.8782 ppb		99

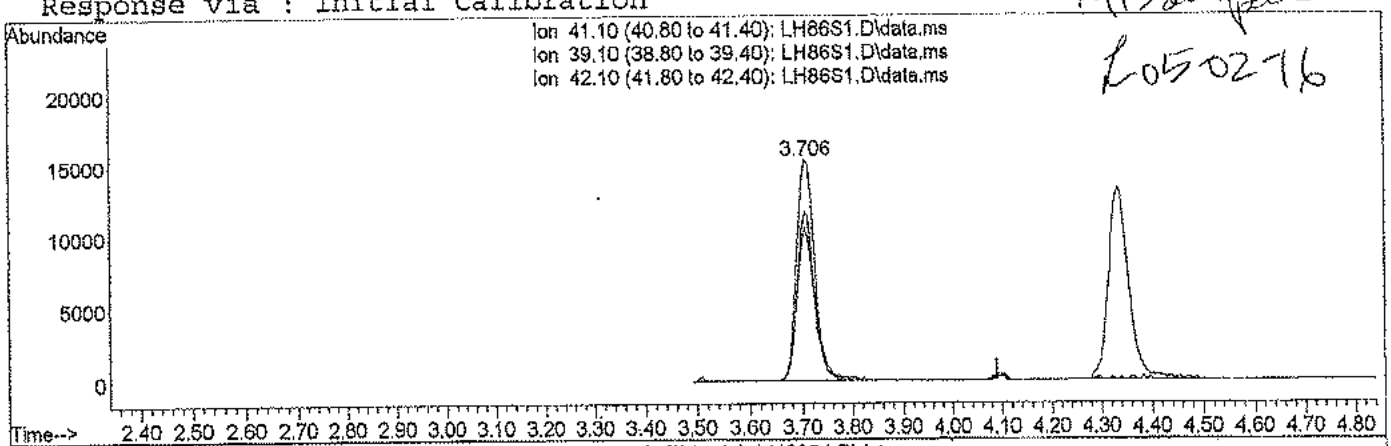
(#) = qualifier out of range (m) = manual integration

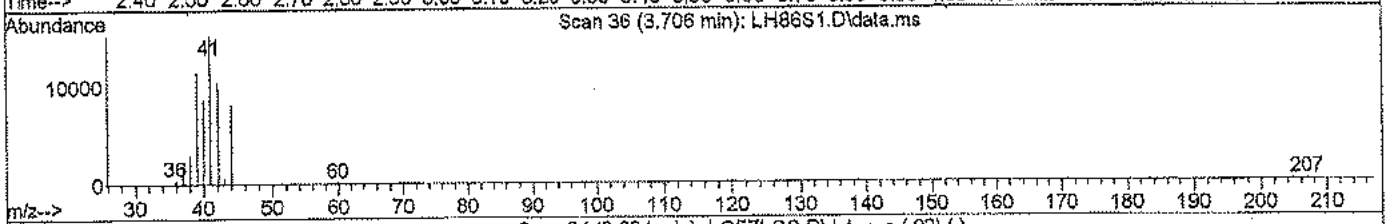
Quantitation Report (Qedit)

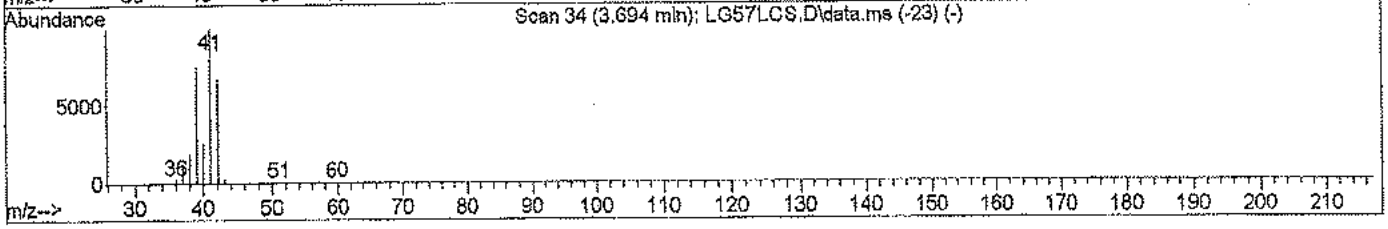
Data Path : I:\L - 5975-L\2016\APR16L\29APR16L\
Data File : LH86S1.D
Acq On : 04/29/2016 13:38
Operator : LMR
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 31586 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 14:44:08 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Fri Apr 29 14:44:00 2016
Response via : Initial Calibration

MissedPeak
L050276







TIC: LH86S1.D\data.ms

(2) Propene

3.706min (+ 0.116) 1.05 ppb m

response 37400

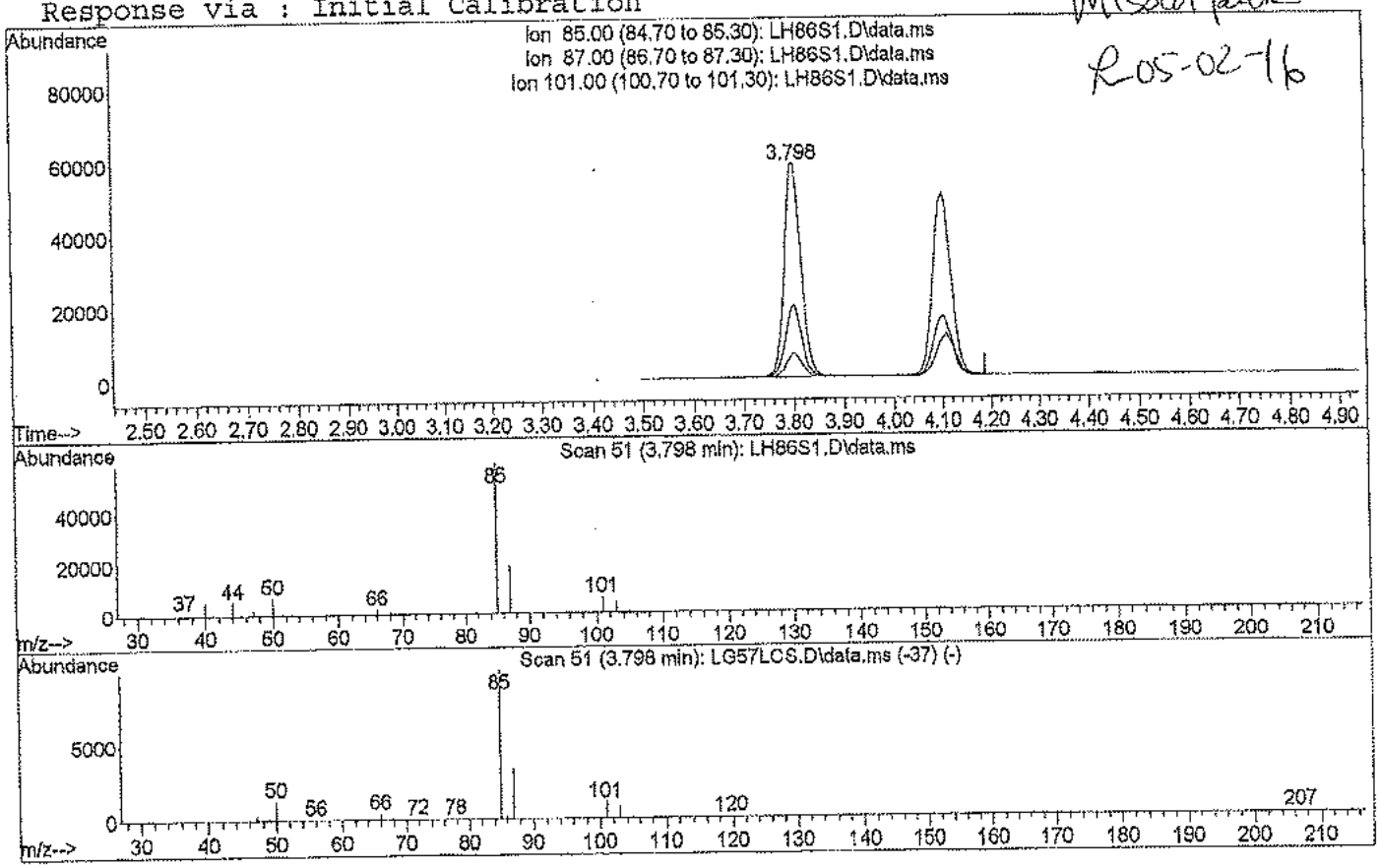
Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\29APR16L\
Data File : LH86S1.D
Acq On : 04/29/2016 13:38
Operator : LMR
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 31586 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 14:44:08 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Fri Apr 29 14:44:00 2016
Response via : Initial Calibration

Missed peak
R05-02-16



TIC: LH86S1.D\data.ms

(3) Dichlorodifluoromethane

3.798min (+ 0.110) 1.01 ppb m

response 136471

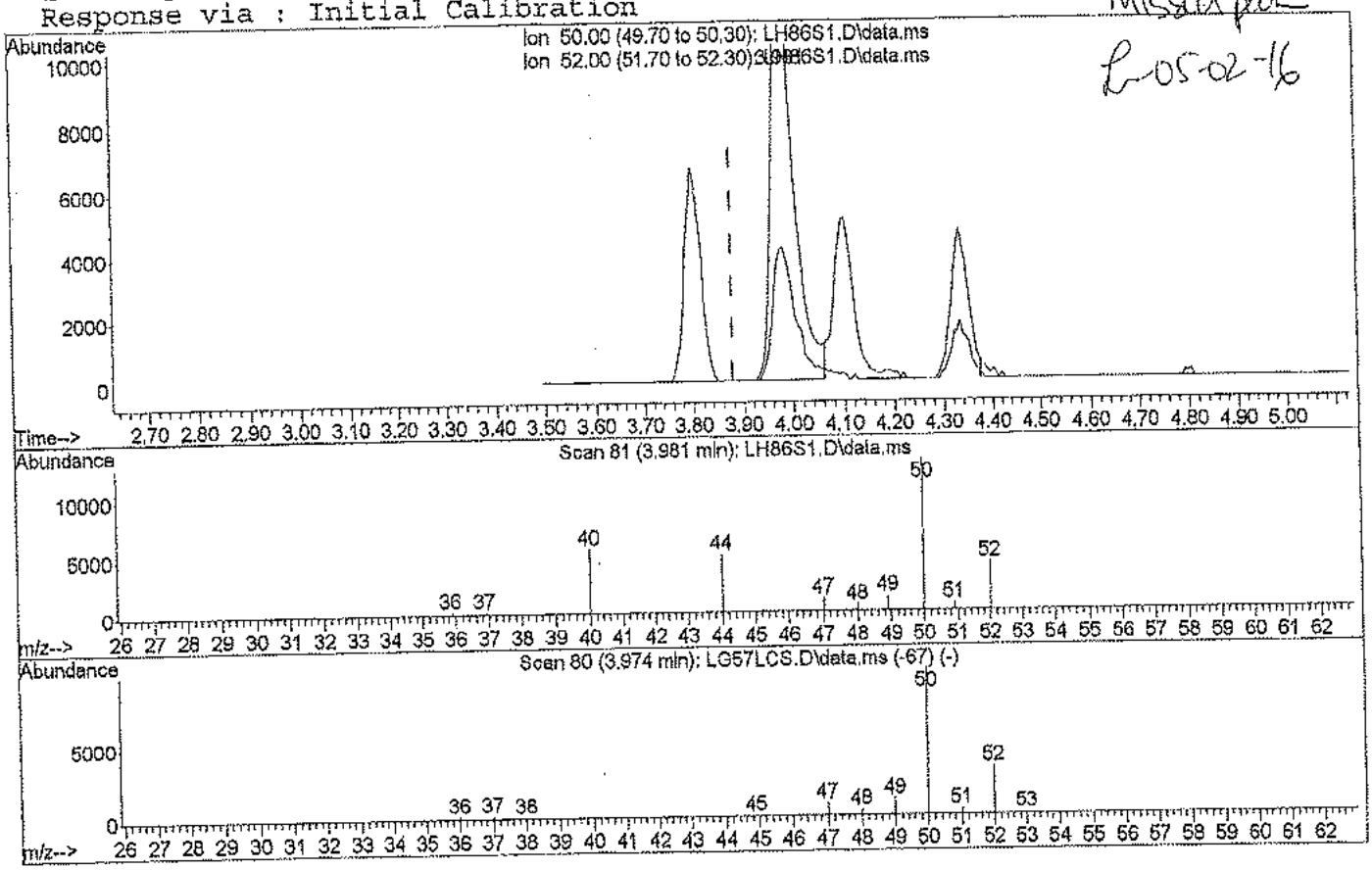
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\29APR16L\
Data File : LH86S1.D
Acq On : 04/29/2016 13:38
Operator : LMR
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 31586 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 14:44:08 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Fri Apr 29 14:44:00 2016
Response via : Initial Calibration

Missed pk
L-05-02-16



TIC: LH86S1.D\data.ms

(4) Chloromethane

3.981min (+ 0.104) 0.97 ppb m

response 39949

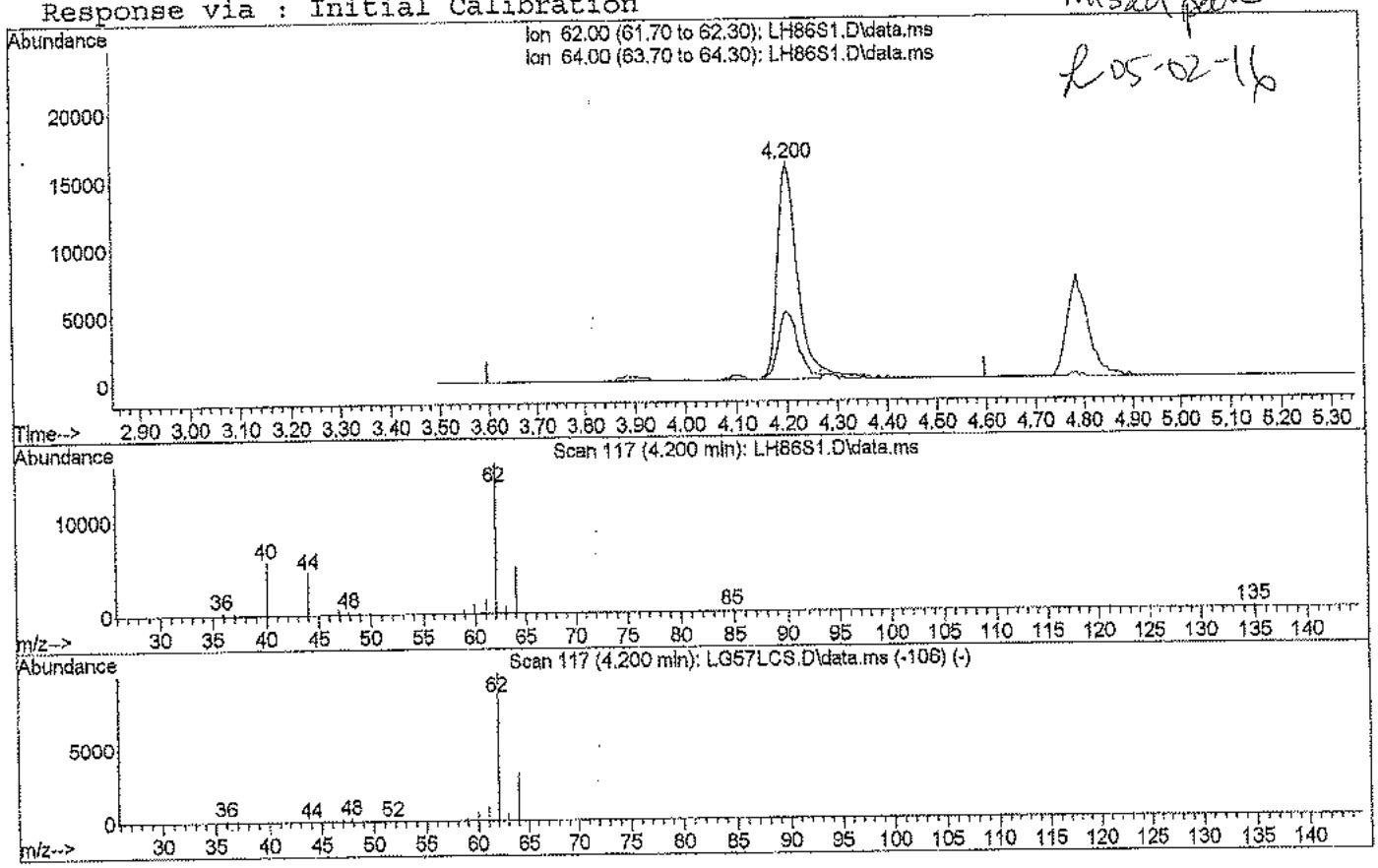
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\APR16L\29APR16L\
Data File : LH86S1.D
Acq On : 04/29/2016 13:38
Operator : LMR
Sample : 1.0 PPB STD
Inst : 5975-L
Misc : 31586 (20mL)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 29 14:44:08 2016
Quant Method : J:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Fri Apr 29 14:44:00 2016
Response via : Initial Calibration

missed peak
5-02-16



TIC: LH86S1.D\data.ms

(6) Vinyl Chloride

4.200min (+ 0.104) 0.96 ppb m

response 43449

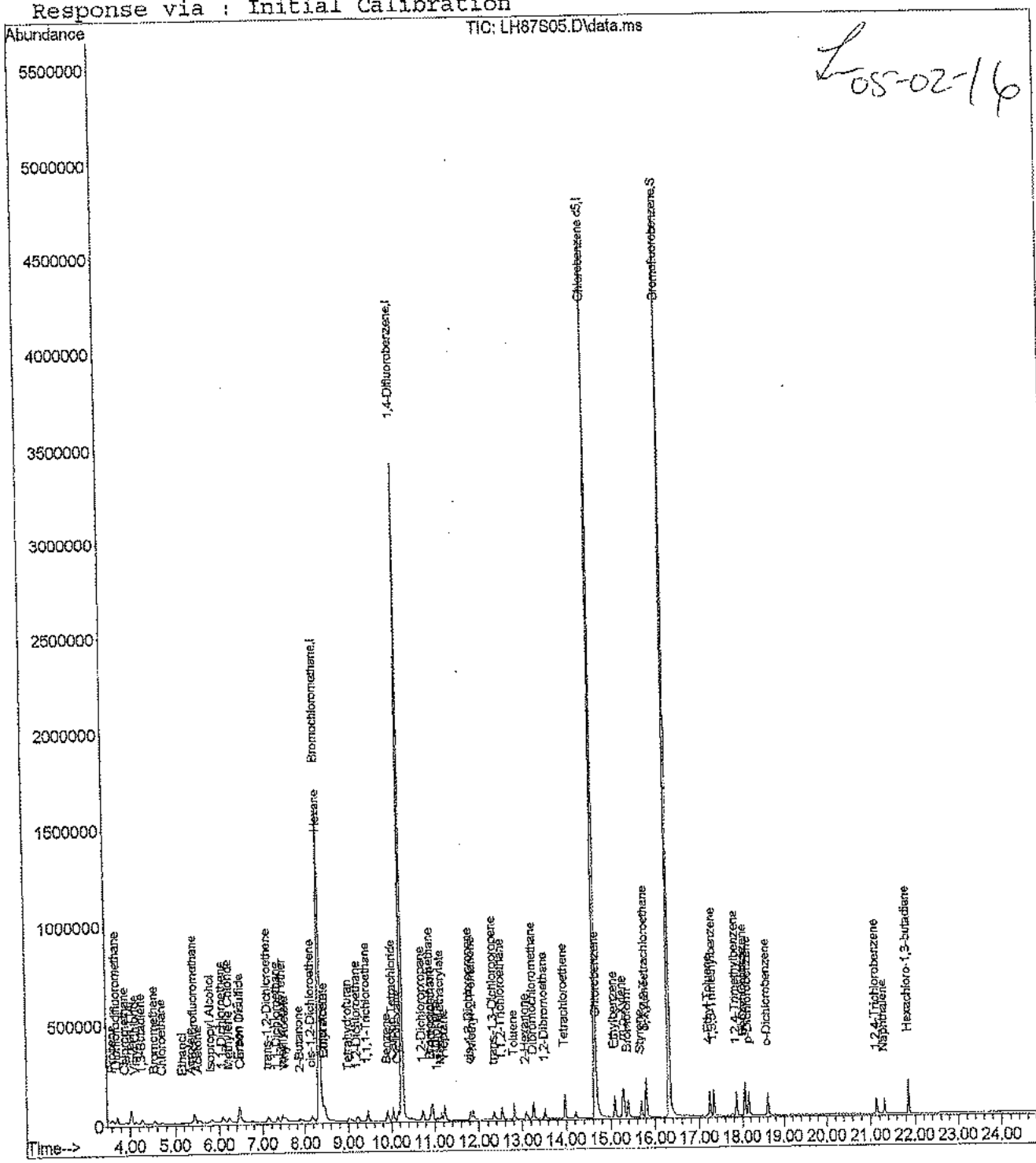
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH87S05.D Vial: 2
Acq Time : 04/29/2016 14:25 Operator: LMR
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31586 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 02 08:27:59 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration



05-02-16

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH87S05.D Vial: 2
Acq Time : 04/29/2016 14:25 Operator: LMR
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31586 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 02 08:27:59 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.34	130	353920	20.0000	ppb		93.55
25) 1,4-Difluorobenzene	10.25	114	4509475	20.0000	ppb		92.08
50) Chlorobenzene d5	14.66	117	3957212	20.0000	ppb		90.91
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.31	95	2125024	19.9617	ppb		99.81%
Target Compounds							Qvalue
2) Propene	3.61	41	14887	0.4221	ppb		98
3) Dichlorodifluoromethane	3.72	85	54436	0.4130	ppb		100
4) Chloromethane	3.91	50	15832	0.3963	ppb		98
5) Freon 114	4.03	135	52377	0.4066	ppb		89
6) Vinyl Chloride	4.13	62	17956	0.4053	ppb		98
7) 1,3-Butadiene	4.26	54	13887	0.4041	ppb	#	66
8) Bromomethane	4.55	94	19020	0.3902	ppb		97
9) Chloroethane	4.72	64	8650	0.3885	ppb	#	89
10) Acrolein	5.38	56	6913	0.3764	ppb	#	95
11) Acetone	5.54	43	32060	0.4240	ppb	#	76
12) Trichlorofluoromethane	5.44	101	65288	0.4050	ppb		97
13) Ethanol	5.19	45	3429	0.2232	ppb	#	58
14) Isopropyl Alcohol	5.82	45	39202	0.4211	ppb	#	91
15) 1,1-Dichloroethene	6.08	61	32602	0.3972	ppb	#	83
16) Methylene Chloride	6.24	84	20531	0.4256	ppb	#	67
17) Freon 113	6.46	151	49310	0.3971	ppb		86
18) Carbon Disulfide	6.51	76	52943	0.3910	ppb	#	69
19) trans-1,2-Dichloroethene	7.14	96	22254	0.3838	ppb	#	81
20) 1,1-Dichloroethane	7.35	63	36465	0.4026	ppb		98
21) methyl t-butyl ether	7.47	73	51421	0.3765	ppb	#	86
22) Vinyl Acetate	7.54	86	4791	0.3332	ppb	#	1
23) 2-Butanone	7.88	43	32542	0.3314	ppb	#	70
24) cis-1,2-Dichloroethene	8.17	96	23749	0.3872	ppb	#	84
26) Ethyl Acetate	8.47	61	5566	0.3547	ppb	#	1
27) Hexane	8.36	57	31365	0.3946	ppb	#	85
28) Chloroform	8.46	83	45267	0.3882	ppb		97
29) Tetrahydrofuran	9.01	42	23094	0.3809	ppb	#	56
30) 1,2-Dichloroethane	9.21	62	28611	0.3841	ppb	#	91
31) 1,1,1-Trichloroethane	9.45	97	52044	0.3816	ppb	#	94
32) Benzene	9.91	78	60305	0.3930	ppb	#	94
33) Carbon Tetrachloride	10.05	117	66077	0.3825	ppb		99
34) Cyclohexane	10.16	84	27622	0.3694	ppb	#	68
35) 1,2-Dichloropropane	10.73	63	23982	0.4087	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH87S05.D Vial: 2
Acq Time : 04/29/2016 14:25 Operator: LMR
Sample : 0.5 PPB STD Inst : 5975-L
Misc : 31586 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 02 08:27:59 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.91	83	47388	0.3789	ppb		95
37) 1,4-Dioxane	11.05	88	13107	0.3419	ppb		96
38) Trichloroethene	10.95	130	41766	0.3776	ppb		99
39) Methyl Methacrylate	11.16	69	19702	0.3704	ppb		93
40) Heptane	11.23	71	20478	0.3808	ppb	#	51
41) cis-1,3-Dichloropropene	11.81	75	33779	0.3608	ppb		98
42) 4-Methyl-2-Pentanone	11.88	43	46456	0.3583	ppb	#	75
43) trans-1,3-Dichloropropene	12.34	75	30530	0.3489	ppb		97
44) 1,1,2-Trichloroethane	12.53	97	28380	0.3750	ppb	#	95
45) Toluene	12.81	91	76522	0.3677	ppb		99
46) 2-Hexanone	13.09	43	39243	0.3322	ppb	#	75
47) Dibromochloromethane	13.25	129	66817	0.3579	ppb		98
48) 1,2-Dibromoethane	13.52	107	46702	0.3606	ppb		99
49) Tetrachloroethene	13.97	166	49746	0.3725	ppb	#	85
51) Chlorobenzene	14.70	112	79308	0.3828	ppb		99
52) Ethylbenzene	15.09	91	101233	0.3684	ppb		99
53) m,p-Xylene	15.28	91	158529	0.7509	ppb		98
54) Bromoform	15.39	173	57780	0.3462	ppb		97
55) Styrene	15.69	104	59755	0.3358	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.80	83	52915	0.3768	ppb	#	90
57) o-Xylene	15.80	91	82493	0.3817	ppb		100
59) 4-Ethyl Toluene	17.24	105	105937	0.3337	ppb		97
60) 1,3,5-Trimethylbenzene	17.34	105	100657	0.3625	ppb		100
61) 1,2,4-Trimethylbenzene	17.86	105	90755	0.3414	ppb		100
62) Benzyl Chloride	18.05	91	68067	0.3186	ppb		99
63) m-Dichlorobenzene	18.07	146	76233	0.3574	ppb		97
64) p-Dichlorobenzene	18.15	146	73532	0.3434	ppb		97
65) o-Dichlorobenzene	18.61	146	72937	0.3601	ppb		98
66) 1,2,4-Trichlorobenzene	21.14	180	38123	0.3387	ppb	#	98
67) Naphthalene	21.31	128	91932	0.3135	ppb	#	98
68) Hexachloro-1,3-butadiene	21.86	225	38487	0.3759	ppb		98

(#) = qualifier out of range (m) = manual integration

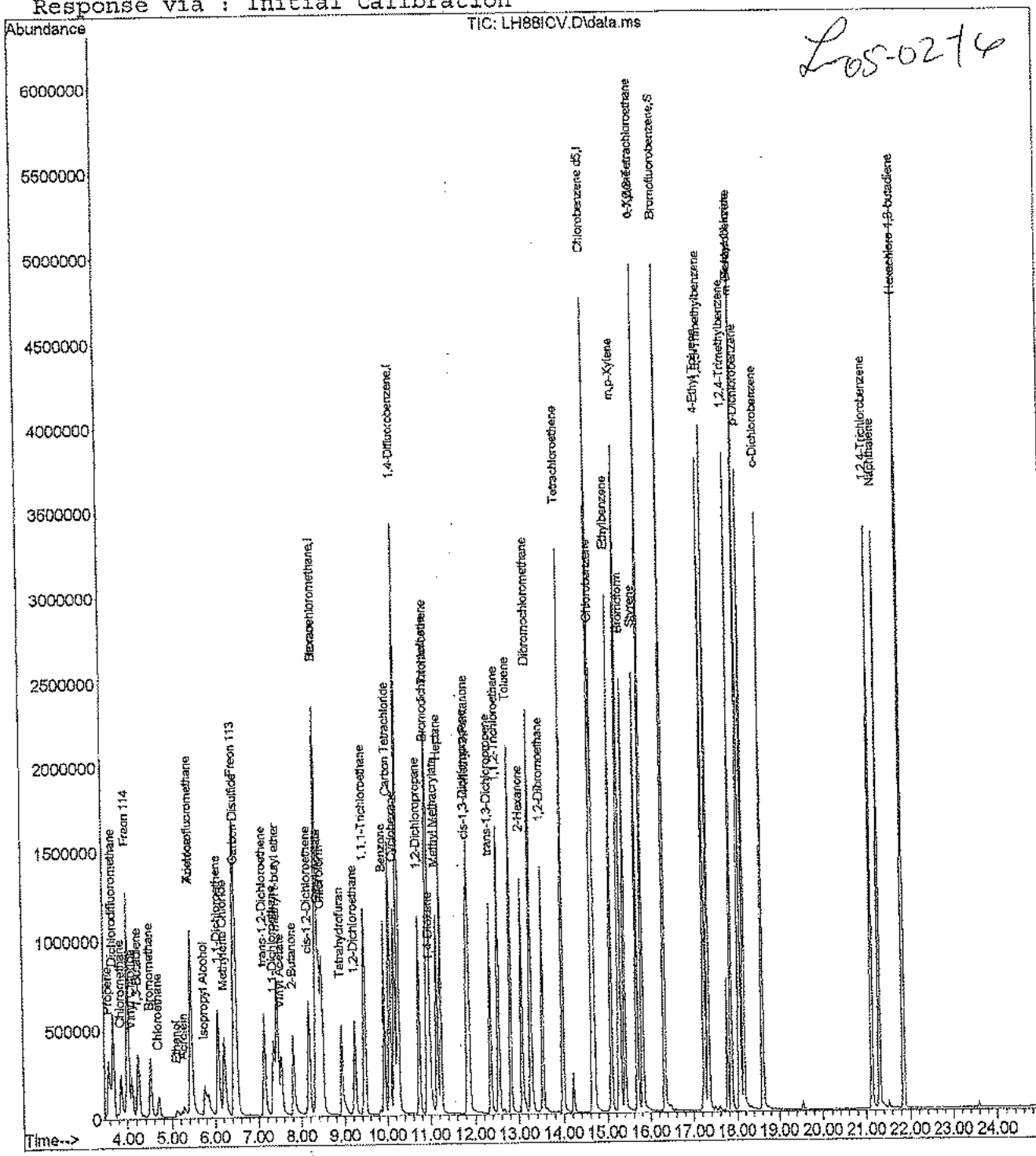
Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH88ICV.D Vial: 1
Acq Time : 04/29/2016 15:14 Operator: LMR
Sample : 10.0 ICV Inst : 5975-L
Misc : 31585 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 02 08:27:06 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration

L05-0214



Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH88ICV.D Vial: 1
Acq Time : 04/29/2016 15:14 Operator: LMR
Sample : 10.0 ICV Inst : 5975-L
Misc : 31585 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 02 08:27:06 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.36	130	334272	20.0000	ppb		88.36
25) 1,4-Difluorobenzene	10.27	114	4513399	20.0000	ppb		92.16
50) Chlorobenzene d5	14.66	117	4036258	20.0000	ppb		92.73
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2183472	20.1090	ppb		100.55%
Target Compounds							Qvalue
2) Propene	3.58	41	313648	9.4166	ppb		97
3) Dichlorodifluoromethane	3.69	85	1197883	9.6235	ppb		99
4) Chloromethane	3.86	50	358559	9.5017	ppb		99
5) Freon 114	4.01	135	1136788	9.3436	ppb	#	86
6) Vinyl Chloride	4.10	62	409601	9.7885	ppb		97
7) 1,3-Butadiene	4.24	54	320377	9.8705	ppb	#	66
8) Bromomethane	4.52	94	434713	9.4419	ppb		100
9) Chloroethane	4.70	64	197290	9.3815	ppb	#	89
10) Acrolein	5.28	56	106838	6.1597	ppb		99
11) Acetone	5.45	43	767062	10.7401	ppb	#	87
12) Trichlorofluoromethane	5.44	101	1464342	9.6175	ppb		96
13) Ethanol	5.11	45	98338	6.7781	ppb	#	76
14) Isopropyl Alcohol	5.76	45	420279	4.7801	ppb		96
15) 1,1-Dichloroethene	6.08	61	774480	9.9909	ppb	#	83
16) Methylene Chloride	6.22	84	443996	9.7444	ppb	#	70
17) Freon 113	6.46	151	1144905	9.7609	ppb		87
18) Carbon Disulfide	6.50	76	1259067	9.8441	ppb	#	66
19) trans-1,2-Dichloroethene	7.14	96	554464	10.1239	ppb	#	84
20) 1,1-Dichloroethane	7.36	63	868701	10.1551	ppb		97
21) methyl t-butyl ether	7.44	73	1347213	10.4438	ppb	#	85
22) Vinyl Acetate	7.53	86	96767	7.1253	ppb	#	1
23) 2-Butanone	7.82	43	1007215	10.8609	ppb	#	73
24) cis-1,2-Dichloroethene	8.19	96	583069	10.0657	ppb	#	83
26) Ethyl Acetate	8.42	61	192167	12.2368	ppb	#	1
27) Hexane	8.37	57	747528	9.3960	ppb	#	82
28) Chloroform	8.49	83	1089244	9.3318	ppb		97
29) Tetrahydrofuran	8.92	42	592942	9.7705	ppb	#	67
30) 1,2-Dichloroethane	9.24	62	713178	9.5654	ppb	#	94
31) 1,1,1-Trichloroethane	9.47	97	1288020	9.4364	ppb	#	93
32) Benzene	9.93	78	1446803	9.4216	ppb	#	93
33) Carbon Tetrachloride	10.06	117	1617505	9.3561	ppb		99
34) Cyclohexane	10.18	84	719843	9.6186	ppb	#	65
35) 1,2-Dichloropropane	10.75	63	548552	9.3406	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH88ICV.D Vial: 1
Acq Time : 04/29/2016 15:14 Operator: LMR
Sample : 10.0 ICV Inst : 5975-L
Misc : 31585 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 02 08:27:06 2016 Results File: TO15LK16.RES

Quant Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Fri Apr 29 14:55:01 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.93	83	1209380	9.6620	ppb		96
37)	1,4-Dioxane	11.00	88	383966	10.0080	ppb		95
38)	Trichloroethene	10.97	130	1054343	9.5247	ppb		98
39)	Methyl Methacrylate	11.15	69	520952	9.7860	ppb	#	84
40)	Heptane	11.24	71	511541	9.5045	ppb	#	52
41)	cis-1,3-Dichloropropene	11.83	75	914849	9.7629	ppb		99
42)	4-Methyl-2-Pentanone	11.86	43	1311559	10.1080	ppb	#	78
43)	trans-1,3-Dichloropropene	12.36	75	872407	9.9623	ppb		98
44)	1,1,2-Trichloroethane	12.55	97	730243	9.6403	ppb	#	95
45)	Toluene	12.82	91	2015551	9.6761	ppb		100
46)	2-Hexanone	13.08	43	1220478	10.3221	ppb	#	78
47)	Dibromochloromethane	13.27	129	1825327	9.7684	ppb		99
48)	1,2-Dibromoethane	13.53	107	1264335	9.7542	ppb		98
49)	Tetrachloroethene	13.98	166	1276544	9.5511	ppb	#	83
51)	Chlorobenzene	14.71	112	2009658	9.5098	ppb		100
52)	Ethylbenzene	15.10	91	2702847	9.6441	ppb		99
53)	m,p-Xylene	15.30	91	4147522	19.2606	ppb		98
54)	Bromoform	15.41	173	1681773	9.8795	ppb		99
55)	Styrene	15.69	104	1782147	9.8200	ppb		99
56)	1,1,2,2-Tetrachloroethane	15.81	83	1405273	9.8118	ppb		96
57)	o-Xylene	15.81	91	2110866	9.5760	ppb		98
59)	4-Ethyl Toluene	17.25	105	3311872	10.2274	ppb		96
60)	1,3,5-Trimethylbenzene	17.34	105	2822376	9.9639	ppb		98
61)	1,2,4-Trimethylbenzene	17.86	105	2777111	10.2424	ppb		97
62)	Benzyl Chloride	18.05	91	2395841	10.9961	ppb		96
63)	m-Dichlorobenzene	18.07	146	2200812	10.1153	ppb		98
64)	p-Dichlorobenzene	18.16	146	2209661	10.1184	ppb		98
65)	o-Dichlorobenzene	18.62	146	2117728	10.2500	ppb		98
66)	1,2,4-Trichlorobenzene	21.13	180	1465549	12.7642	ppb	#	97
67)	Naphthalene	21.31	128	3789464	12.6678	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1205817	11.5452	ppb		99

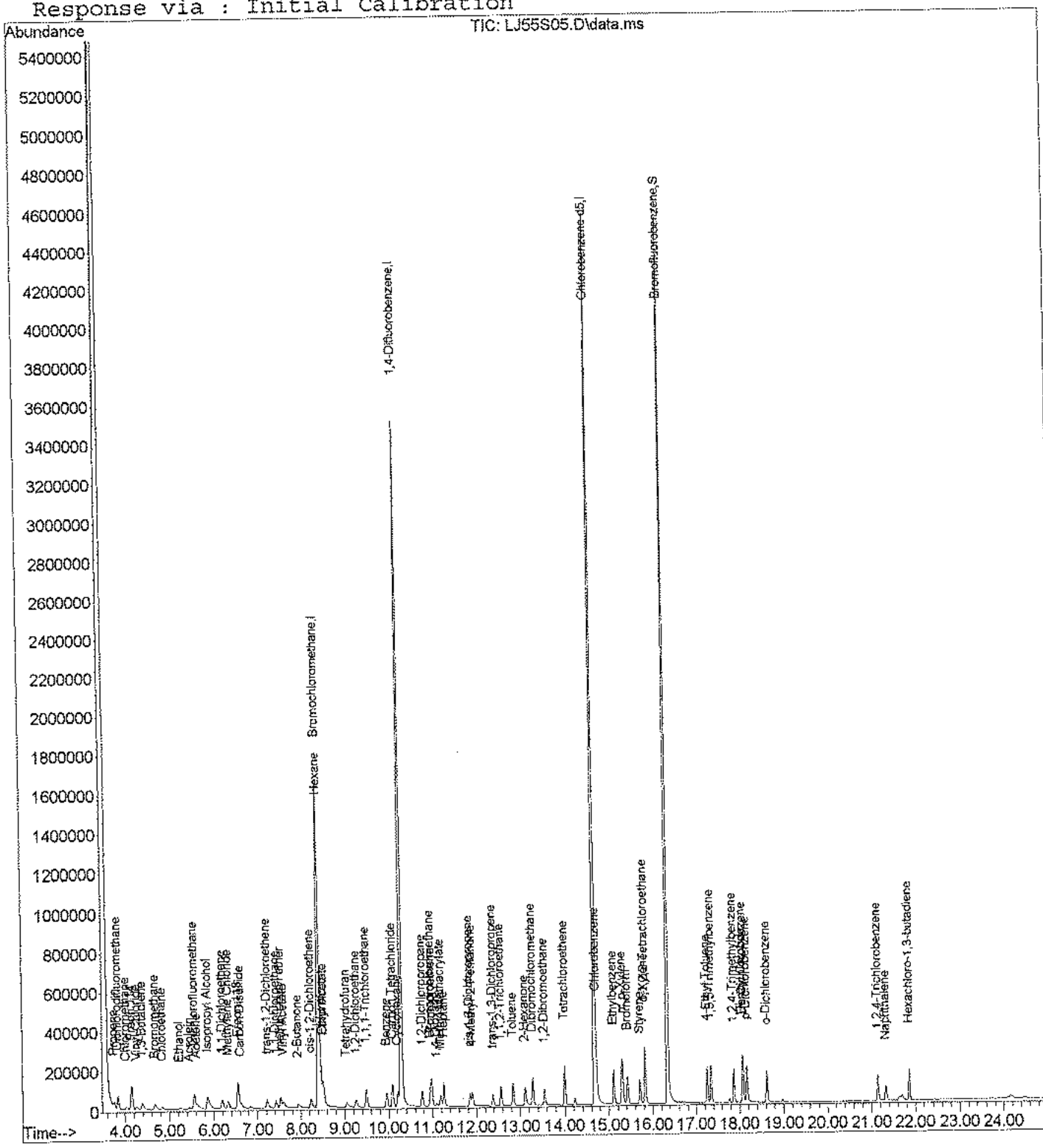
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ55S05.D Vial: 1
Acq Time : 05/24/2016 12:39 Operator: TJM
Sample : 0.5 PPB Inst : 5975-L
Misc : 31586 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:35:59 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ55S05.D Vial: 1
Acq Time : 05/24/2016 12:39 Operator: TJM
Sample : 0.5 PPB Inst : 5975-L
Misc : 31586 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:35:59 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.41	130	355584	20.0000	ppb		93.99
25) 1,4-Difluorobenzene	10.28	114	4486565	20.0000	ppb		91.61
50) Chlorobenzene d5	14.67	117	3936750	20.0000	ppb		90.44
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2003152	18.9147	ppb		94.57%
Target Compounds							Qvalue
2) Propene	3.76	41	23860	0.6734	ppb	m	0
3) Dichlorodifluoromethane	3.85	85	96642	0.7299	ppb	m	0
4) Chloromethane	4.03	50	25170	0.6270	ppb	m	41
5) Freon 114	4.15	135	84485	0.6528	ppb	m	0
6) Vinyl Chloride	4.25	62	27803	0.6246	ppb	m	0
7) 1,3-Butadiene	4.39	54	21046	0.6095	ppb	m	0
8) Bromomethane	4.67	94	30834	0.6296	ppb	m	0
9) Chloroethane	4.85	64	13954	0.6238	ppb	m	0
10) Acrolein	5.45	56	10452	0.5665	ppb	#	94
11) Acetone	5.62	43	75970	0.9999	ppb	#	72
12) Trichlorofluoromethane	5.56	101	110649	0.6832	ppb		97
13) Ethanol	5.22	45	11713	0.7589	ppb	m	68
14) Isopropyl Alcohol	5.86	45	173380	1.8538	ppb	m	95
15) 1,1-Dichloroethene	6.19	61	50990	0.6184	ppb	#	81
16) Methylene Chloride	6.33	84	31951	0.6592	ppb	#	68
17) Freon 113	6.55	151	76858	0.6160	ppb	#	84
18) Carbon Disulfide	6.61	76	88173	0.6481	ppb	#	66
19) trans-1,2-Dichloroethene	7.22	96	35089	0.6023	ppb	#	83
20) 1,1-Dichloroethane	7.42	63	57376	0.6305	ppb		97
21) methyl t-butyl ether	7.53	73	79046	0.5761	ppb	#	84
22) Vinyl Acetate	7.60	86	7417	0.5134	ppb	#	1
23) 2-Butanone	7.93	43	56238	0.5701	ppb	#	63
24) cis-1,2-Dichloroethene	8.23	96	35483	0.5758	ppb	#	79
26) Ethyl Acetate	8.52	61	8120	0.5202	ppb	#	1
27) Hexane	8.42	57	45291	0.5727	ppb	#	83
28) Chloroform	8.52	83	73140	0.6304	ppb		97
29) Tetrahydrofuran	9.05	42	32739	0.5427	ppb	#	62
30) 1,2-Dichloroethane	9.27	62	46580	0.6285	ppb	#	93
31) 1,1,1-Trichloroethane	9.50	97	86658	0.6387	ppb	#	95
32) Benzene	9.95	78	91805	0.6014	ppb	#	93
33) Carbon Tetrachloride	10.09	117	108313	0.6303	ppb		99
34) Cyclohexane	10.21	84	41673	0.5602	ppb	#	69
35) 1,2-Dichloropropane	10.77	63	35127	0.6017	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ55S05.D Vial: 1
Acq Time : 05/24/2016 12:39 Operator: TJM
Sample : 0.5 PPB Inst : 5975-L
Misc : 31586 (10mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:35:59 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36) Bromodichloromethane	10.95	83	78158	0.6282	ppb		97
37) 1,4-Dioxane	11.09	88	17936	0.4703	ppb		95
38) Trichloroethene	10.99	130	64573	0.5868	ppb		98
39) Methyl Methacrylate	11.19	69	28390	0.5365	ppb		89
40) Heptane	11.26	71	29048	0.5429	ppb	#	47
41) cis-1,3-Dichloropropene	11.84	75	51744	0.5555	ppb		98
42) 4-Methyl-2-Pentanone	11.90	43	69374	0.5379	ppb	#	74
43) trans-1,3-Dichloropropene	12.38	75	46645	0.5358	ppb		98
44) 1,1,2-Trichloroethane	12.56	97	44157	0.5864	ppb	#	92
45) Toluene	12.83	91	118289	0.5713	ppb		97
46) 2-Hexanone	13.11	43	101579	0.8642	ppb	#	76
47) Dibromochloromethane	13.28	129	109620	0.5901	ppb		99
48) 1,2-Dibromoethane	13.55	107	75063	0.5826	ppb		98
49) Tetrachloroethene	14.00	166	76752	0.5777	ppb	#	83
51) Chlorobenzene	14.72	112	124576	0.6044	ppb		97
52) Ethylbenzene	15.11	91	156773	0.5735	ppb		99
53) m,p-Xylene	15.30	91	243829	1.1609	ppb		99
54) Bromoform	15.42	173	95975	0.5781	ppb		99
55) Styrene	15.70	104	91789	0.5186	ppb		97
56) 1,1,2,2-Tetrachloroethane	15.82	83	83497	0.5977	ppb		97
57) o-Xylene	15.81	91	126125	0.5866	ppb		99
59) 4-Ethyl Toluene	17.25	105	159758	0.5058	ppb		98
60) 1,3,5-Trimethylbenzene	17.34	105	145187	0.5255	ppb		99
61) 1,2,4-Trimethylbenzene	17.86	105	132932	0.5027	ppb		100
62) Benzyl Chloride	18.06	91	83918	0.3949	ppb		99
63) m-Dichlorobenzene	18.08	146	115338	0.5435	ppb		97
64) p-Dichlorobenzene	18.16	146	123062	0.5778	ppb		96
65) o-Dichlorobenzene	18.62	146	104136	0.5168	ppb		98
66) 1,2,4-Trichlorobenzene	21.14	180	61144	0.5460	ppb	#	96
67) Naphthalene	21.32	128	94661	0.3244	ppb		98
68) Hexachloro-1,3-butadiene	21.86	225	35614	0.3496	ppb		97

(#) = qualifier out of range (m) = manual integration

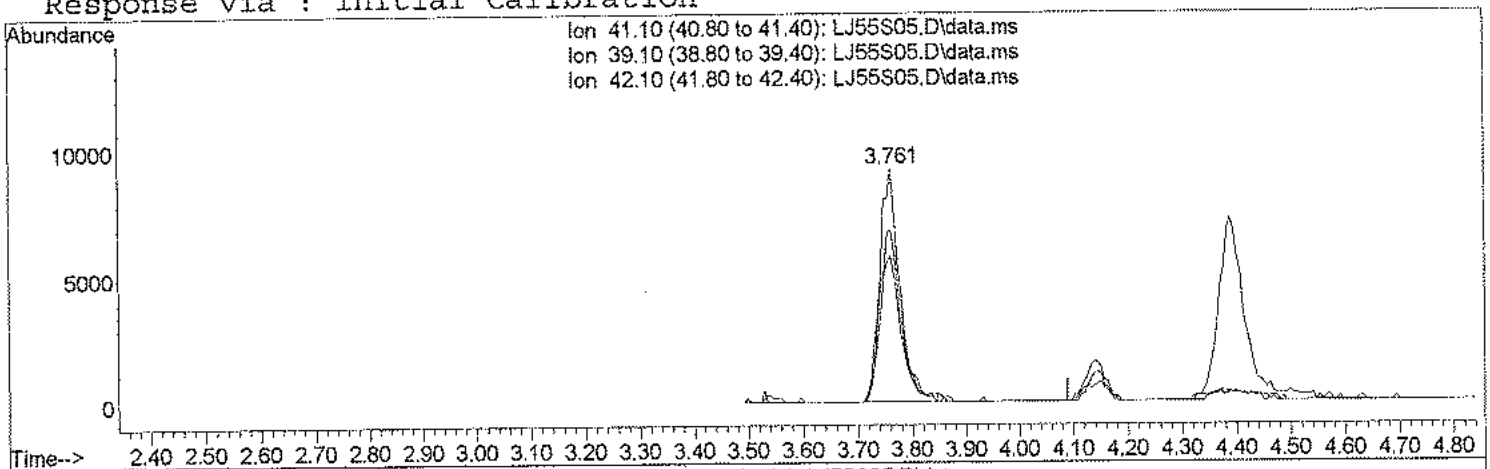
Quantitation Report (Qedit)

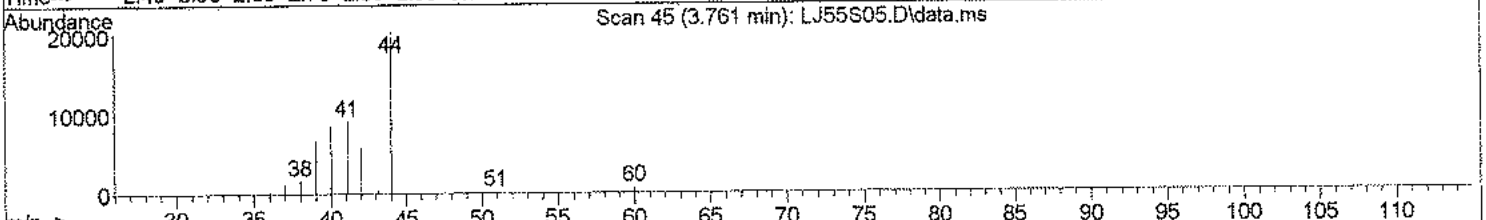
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

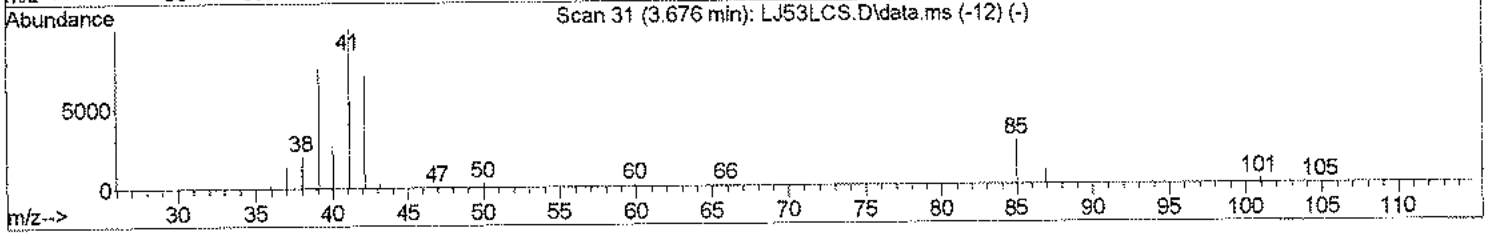
Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 05-25-16







TIC: LJ55S05.D\data.ms

(2) Propene

3.761min (+ 0.171) 0.67 ppb m

response 23860

Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
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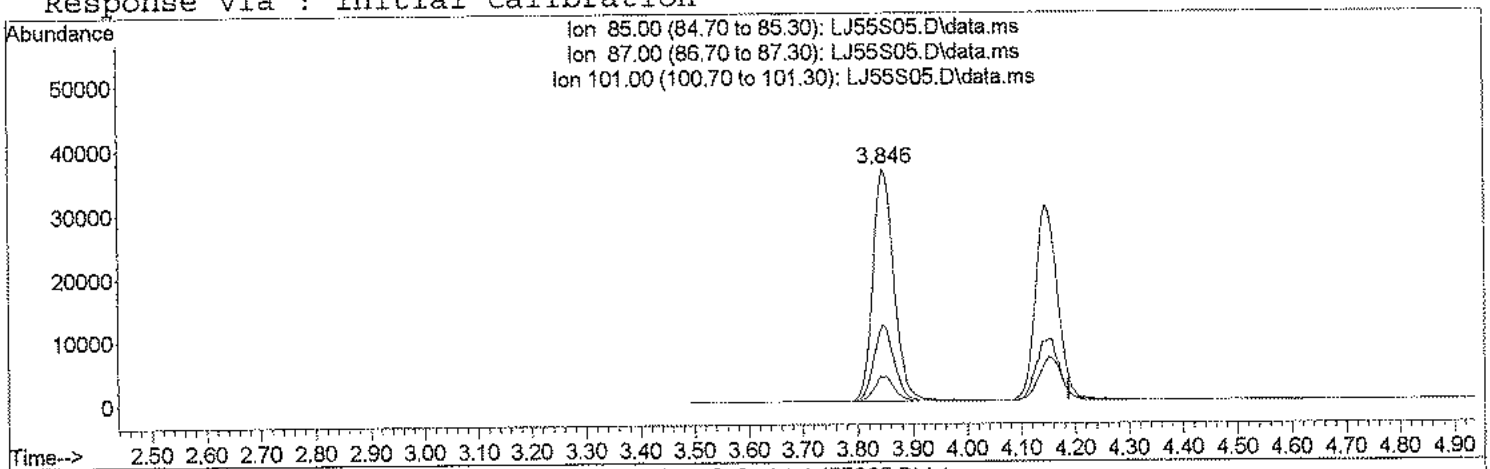
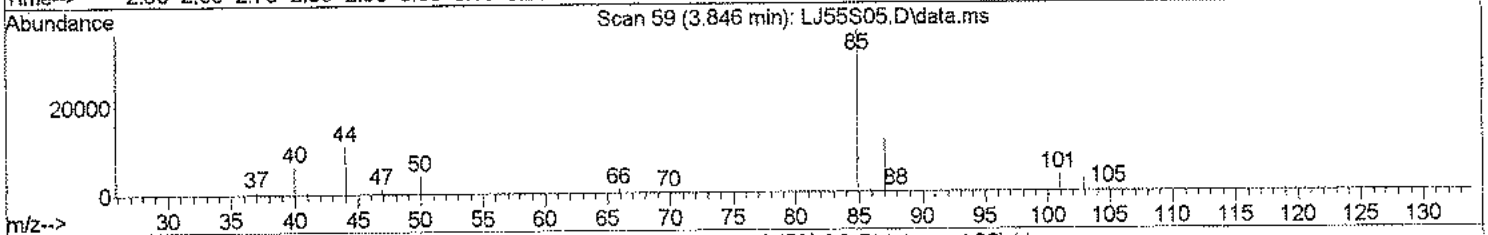
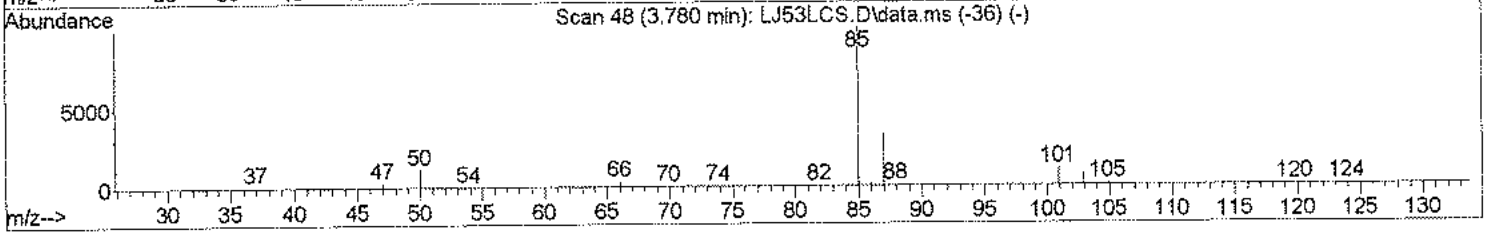
☐ under-integrated peak's area
☐ other _____

initials _____ *date* 05-25-16







TIC: LJ55S05.D\data.ms

(3) Dichlorodifluoromethane

3.846min (+ 0.158) 0.73 ppb m

response 96642

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	0.00#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

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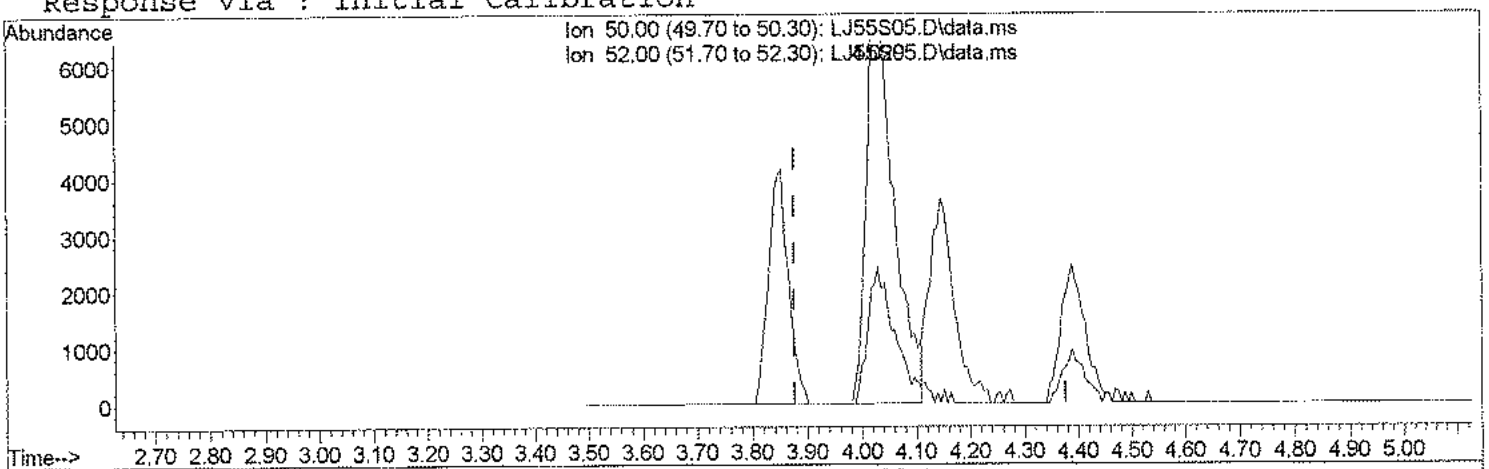
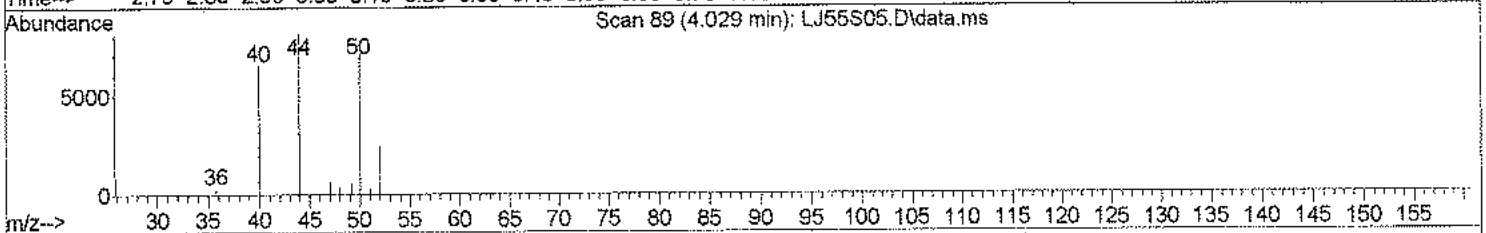
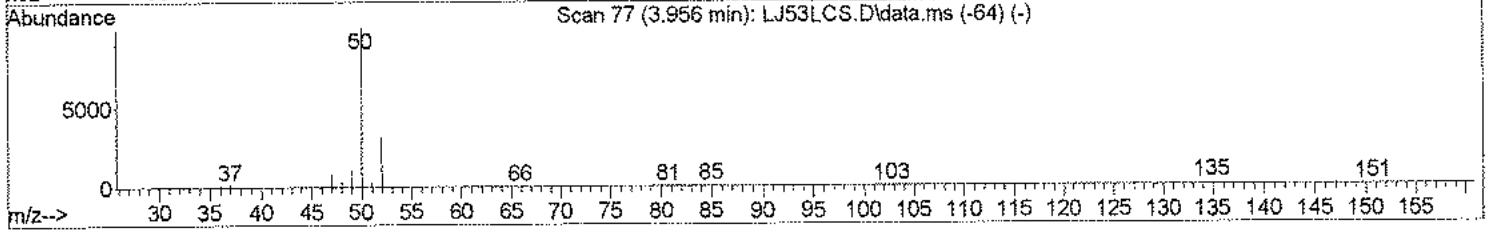
- ☐ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials _____ *date* 05-25-16







TIC: LJ55S05.D\data.ms

(4) Chloromethane

4.029min (+ 0.152) 0.63 ppb m

response 25170

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
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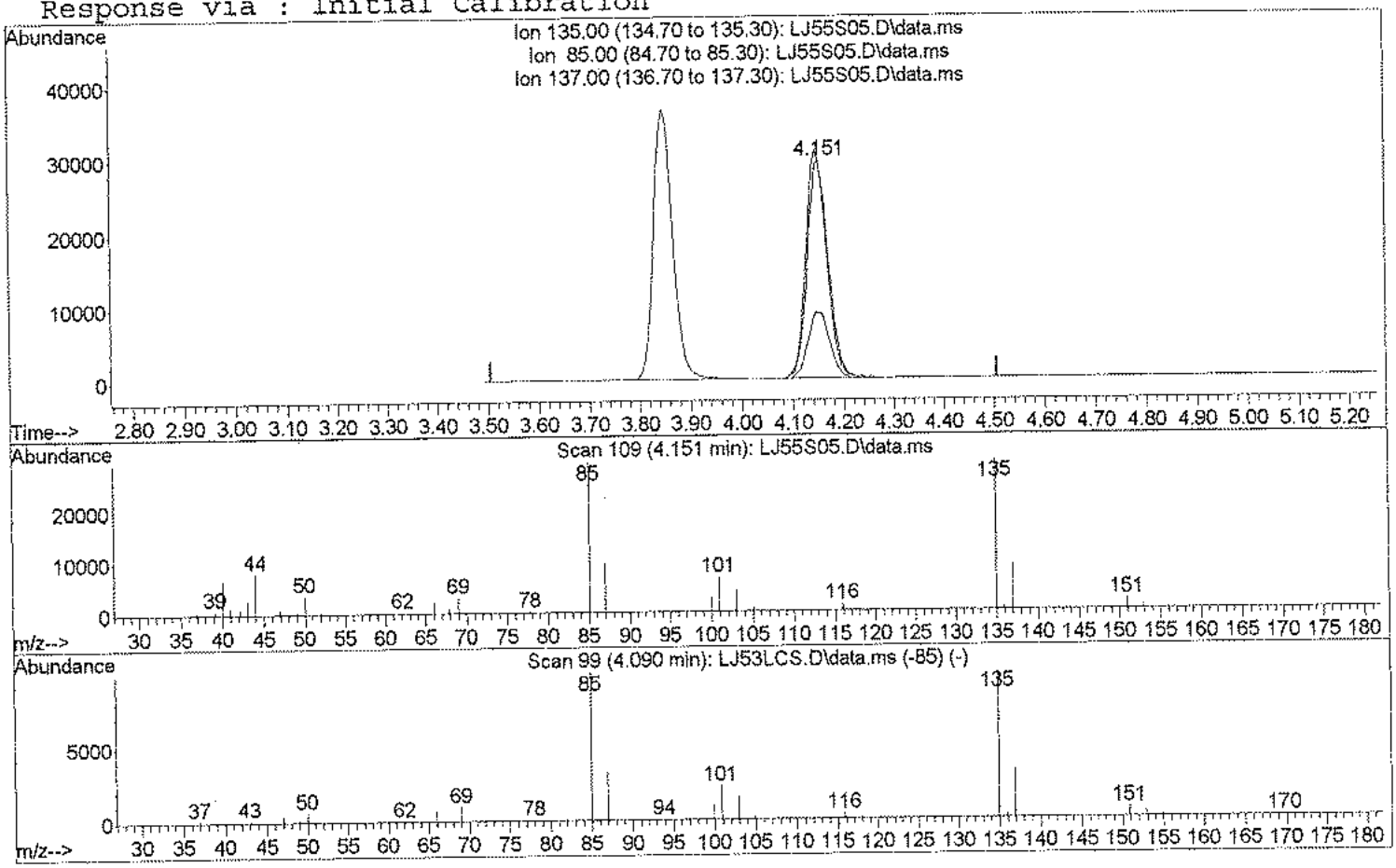
☐ under-integrated peak's area
☐ other _____

initials Z *date* 05-25-16



TIC: LJ55S05.D\data.ms

(5) Freon 114

4.151min (+ 0.146) 0.65 ppb m

response 84485

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	0.00#
137.00	32.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
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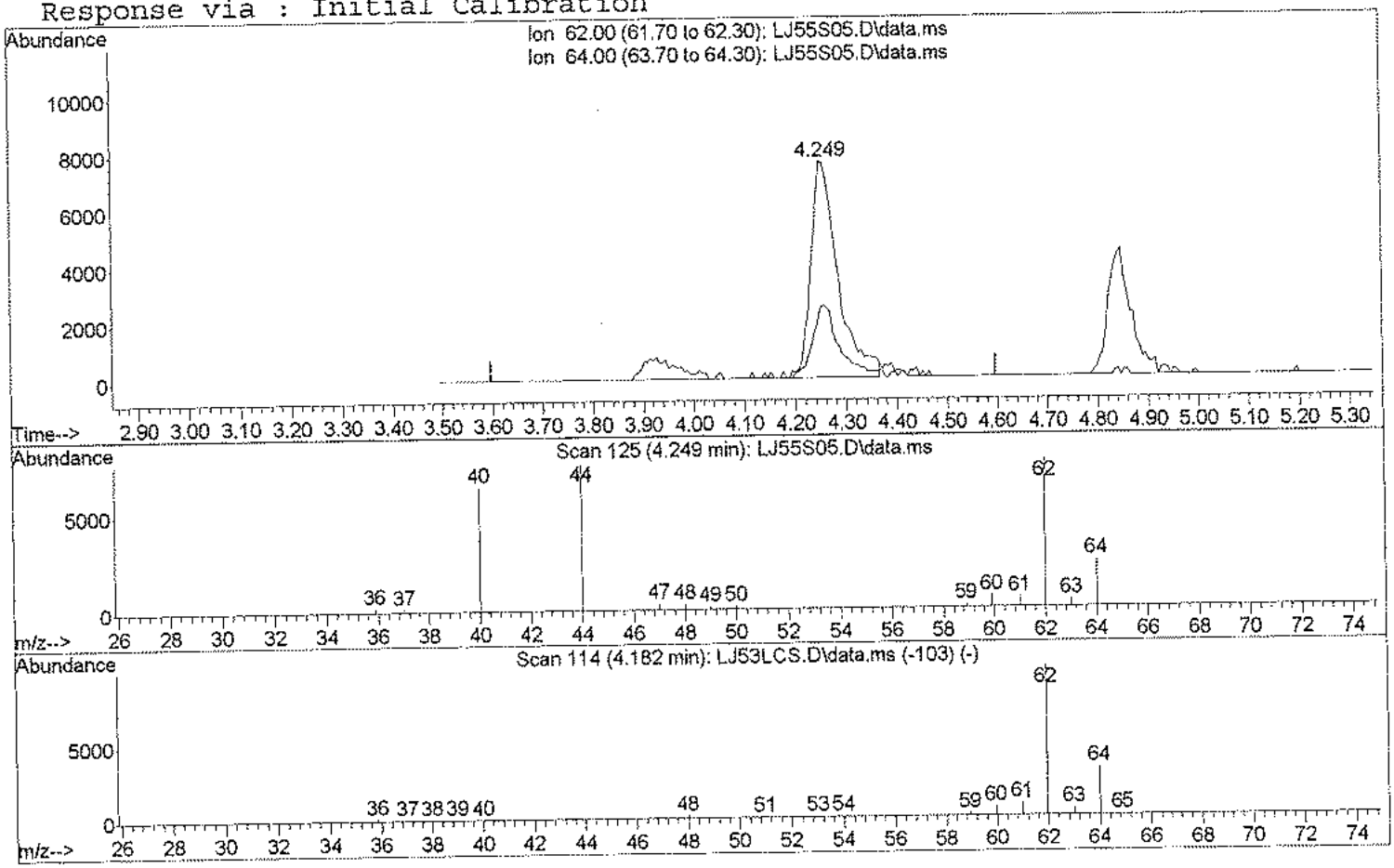
☐ other _____

initials _____ *date* 05-25-16



TIC: LJ55S05.D\data.ms

(6) Vinyl Chloride

4.249min (+ 0.152) 0.62 ppb m

response 27803

Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
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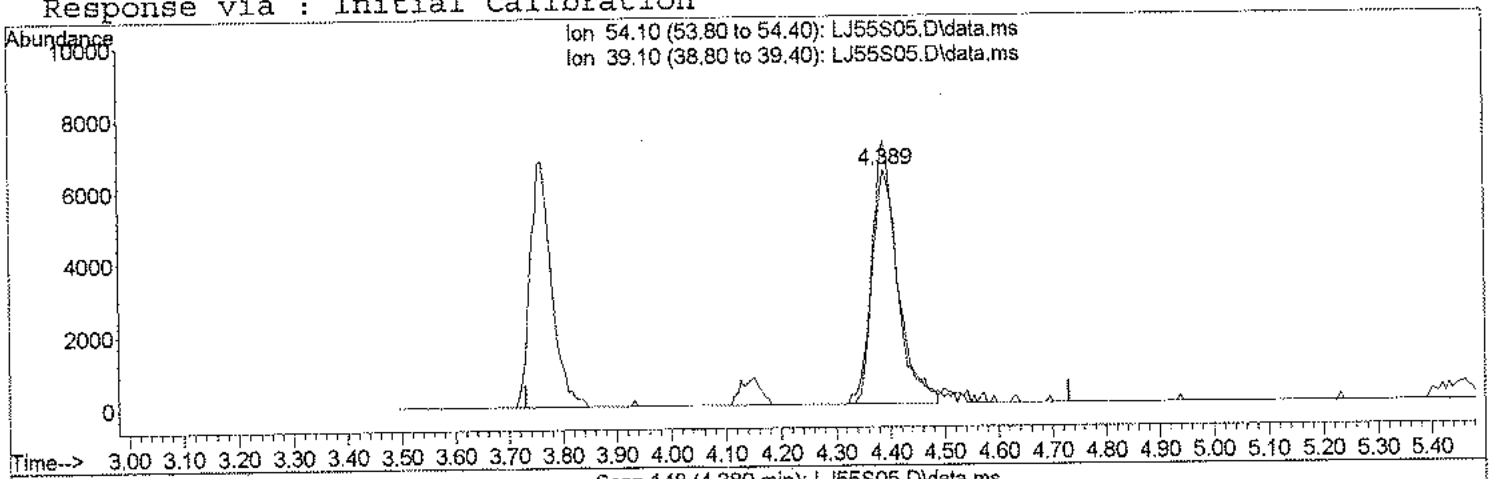
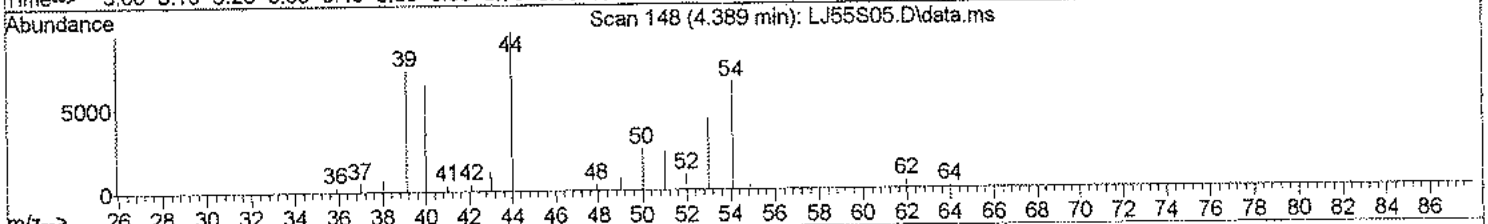
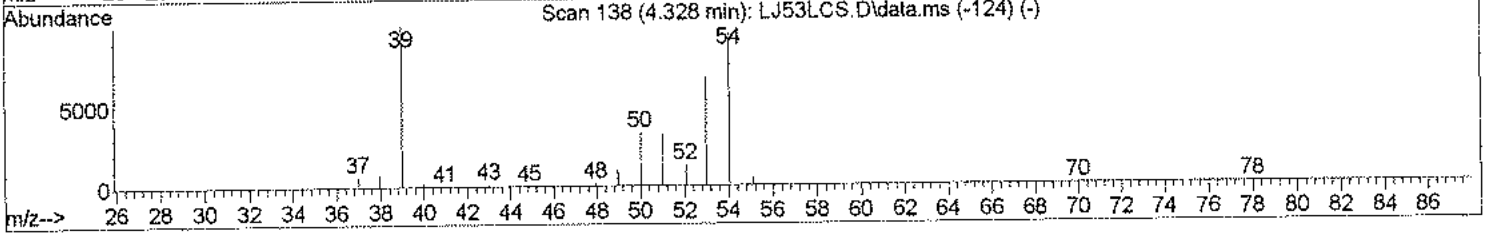
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials L *date* 05-25-16







TIC: LJ55S05.D\data.ms

(7) 1,3-Butadiene

4.389min (+ 0.158) 0.61 ppb m

response 21046

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

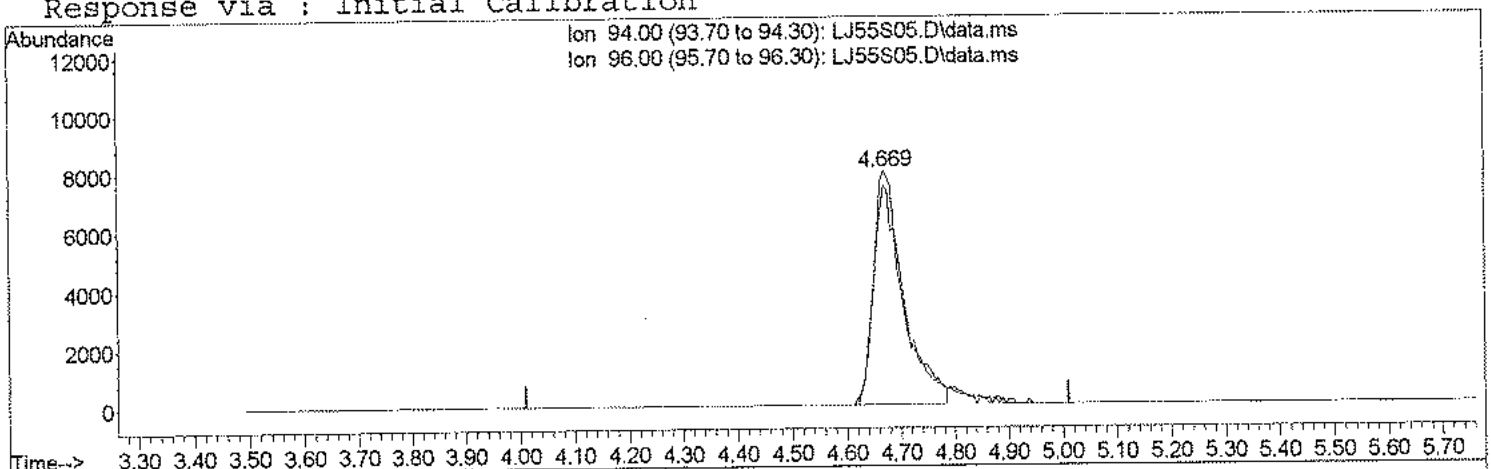
Quantitation Report (Qedit)

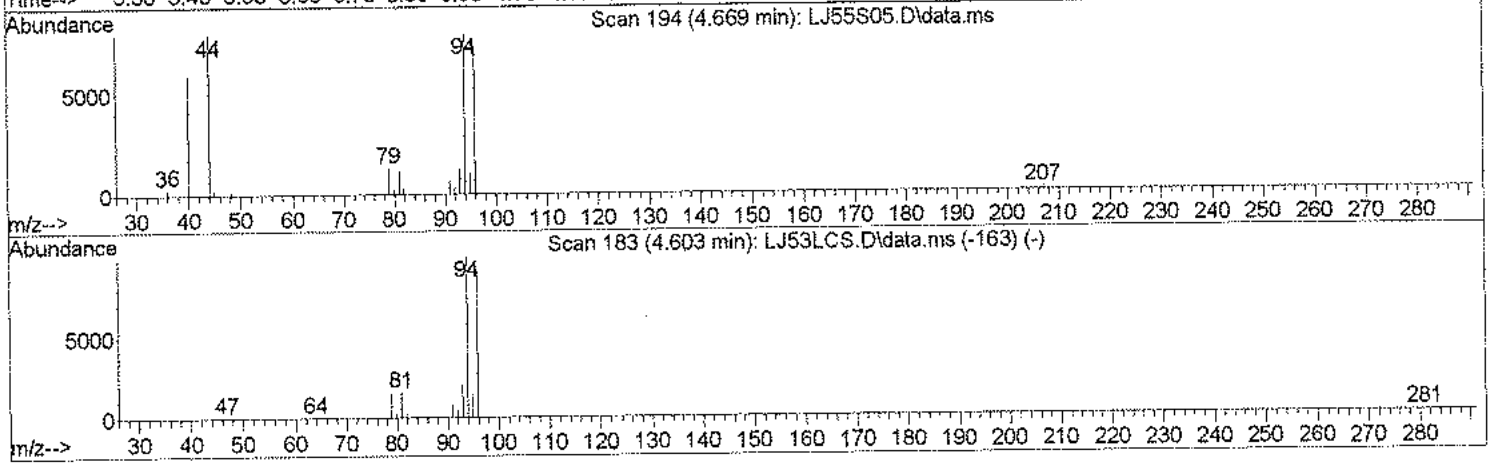
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials R date 05-25-16





TIC: LJ55S05.D\data.ms

(8) Bromomethane

4.669min (+ 0.158) 0.63 ppb m

response 30834

Ion	Exp%	Act%
94.00	100.00	100.00
96.00	95.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION

- [x] missed peak assignment
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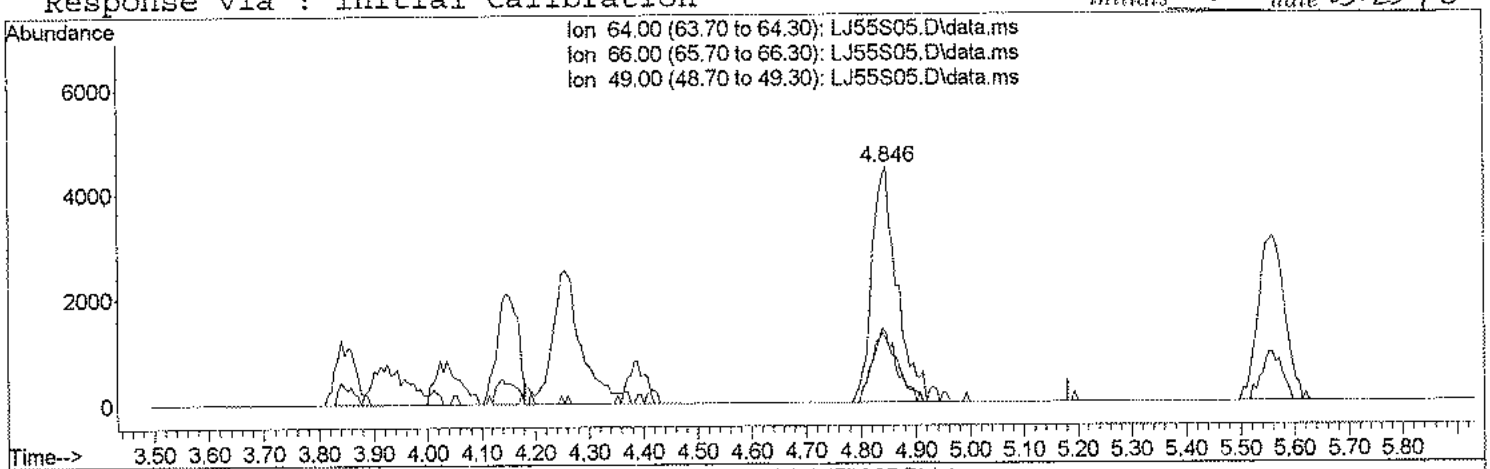
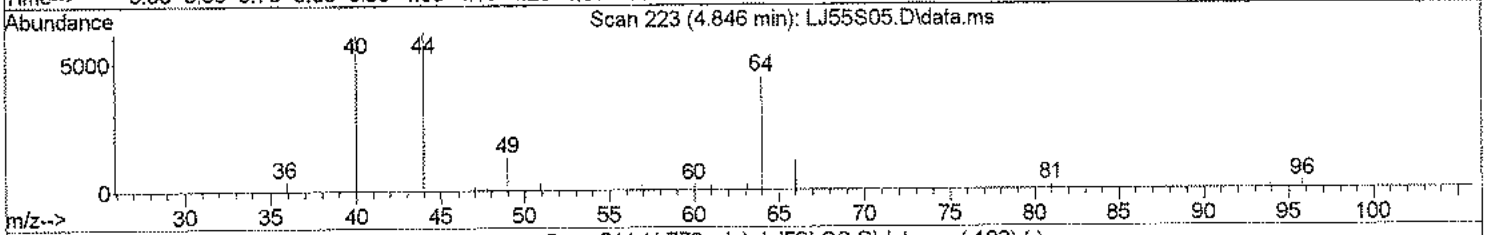
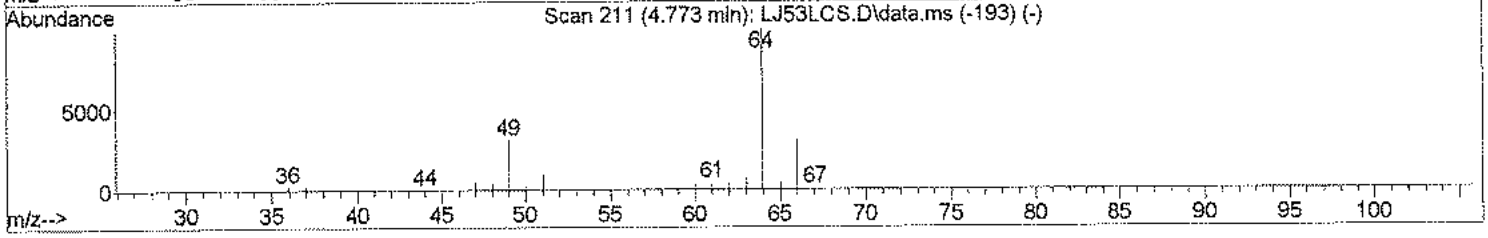
- [ ] under-integrated peak's area
- [ ] other _____

initials K *date* 05-25-16







TIC: LJ55S05.D\data.ms

(9) Chloroethane

4.846min (+ 0.164) 0.62 ppb m

response 13954

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
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Response via : Initial Calibration

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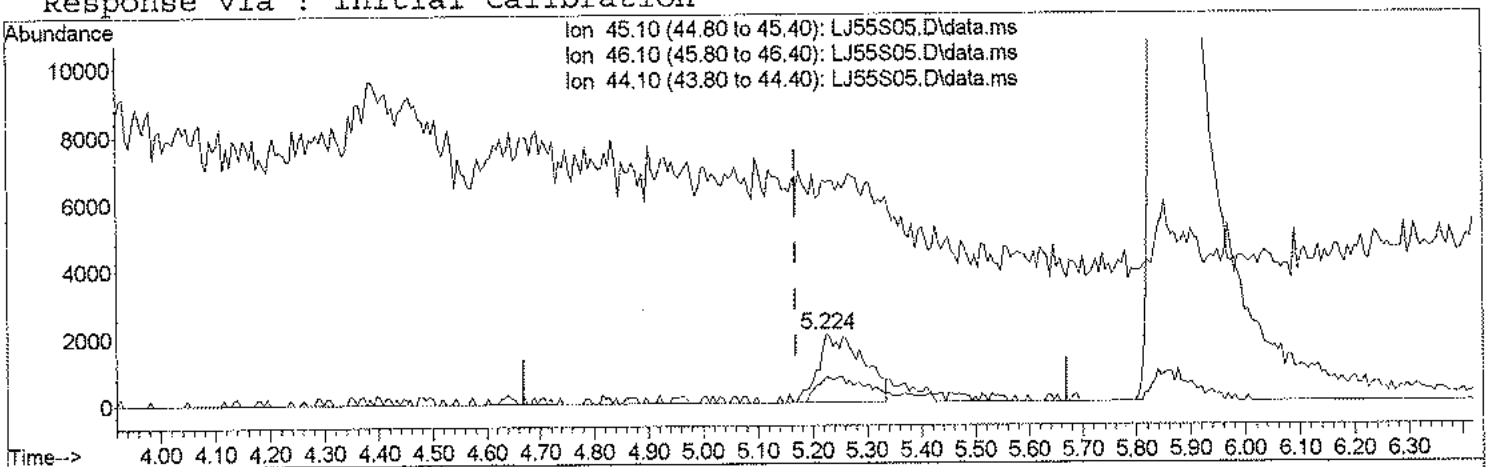
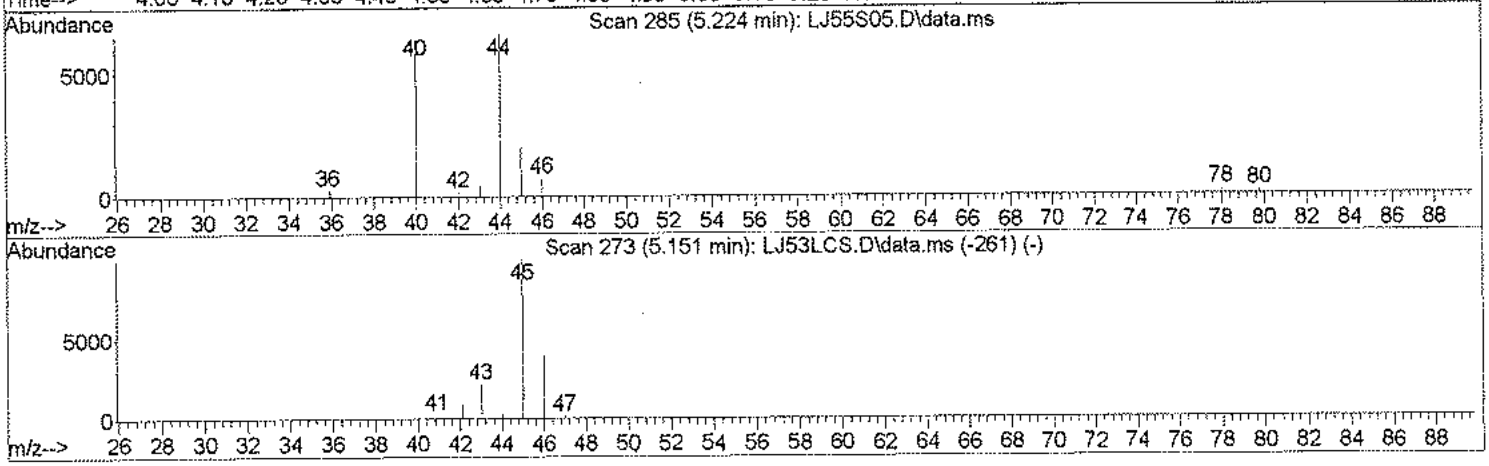
initials K *date* 05-25-16





TIC: LJ55S05.D\data.ms

(13) Ethanol

5.224min (+ 0.055) 0.76 ppb m

response 11713

Ion	Exp%	Act%
45.10	100.00	100.00
46.10	40.50	13.90#
44.10	29.30	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ55S05.D
Acq On : 05/24/2016 12:39
Operator : TJM
Sample : 0.5 PPB
Inst : 5975-L
Misc : 31586 (10mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 13:12:08 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
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QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

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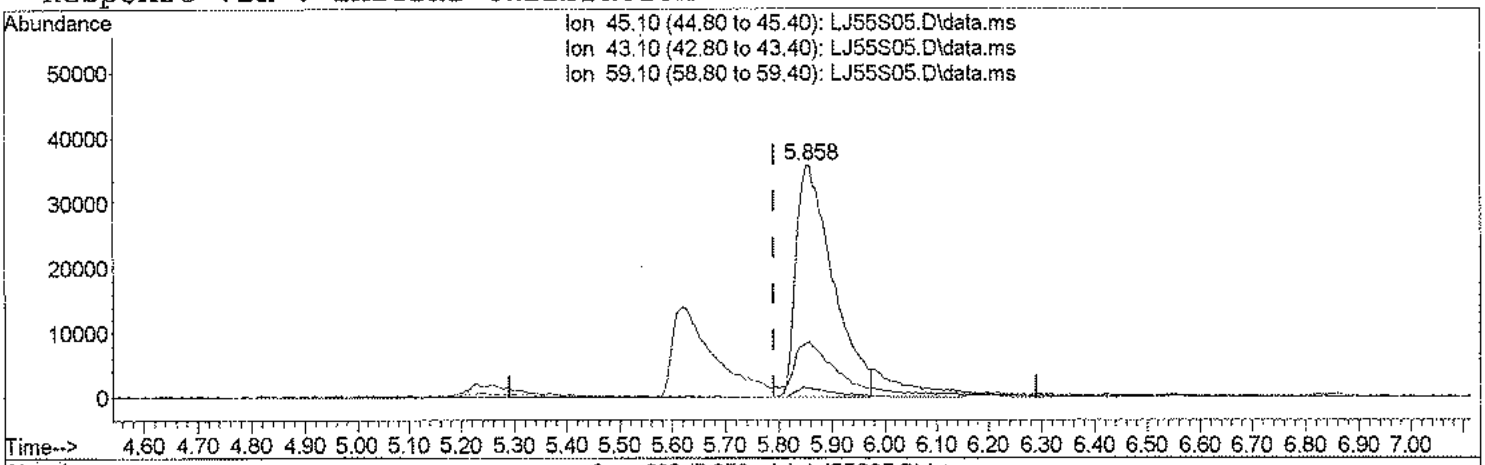
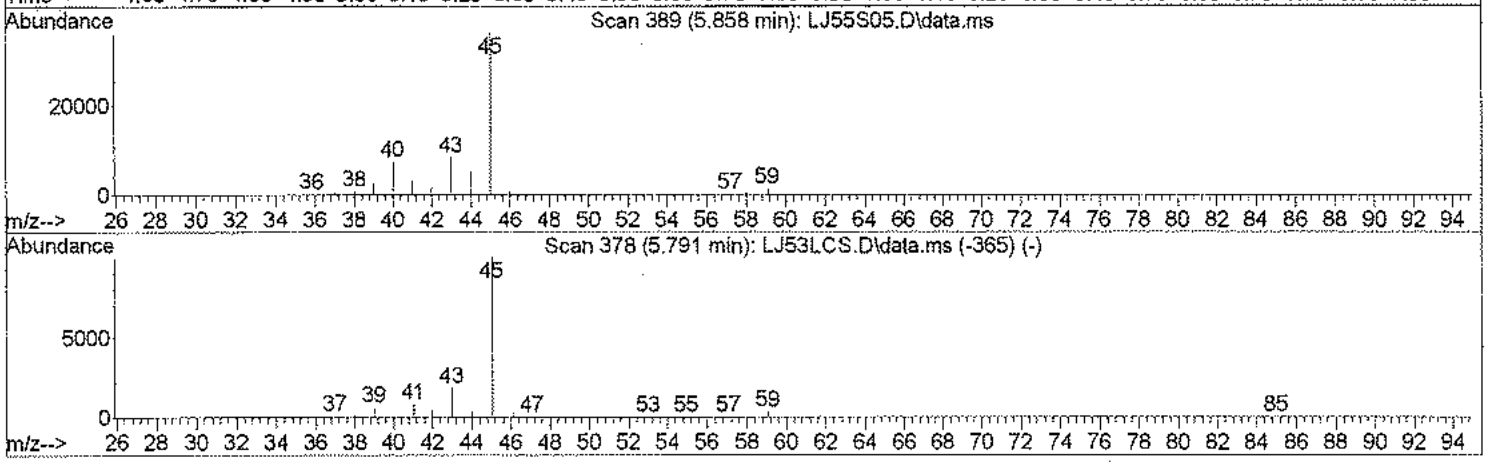
☐ other _____

initials K *date* 05-25-16





TIC: LJ55S05.D\data.ms

(14) Isopropyl Alcohol

5.858min (+ 0.067) 1.85 ppb m

response 173380

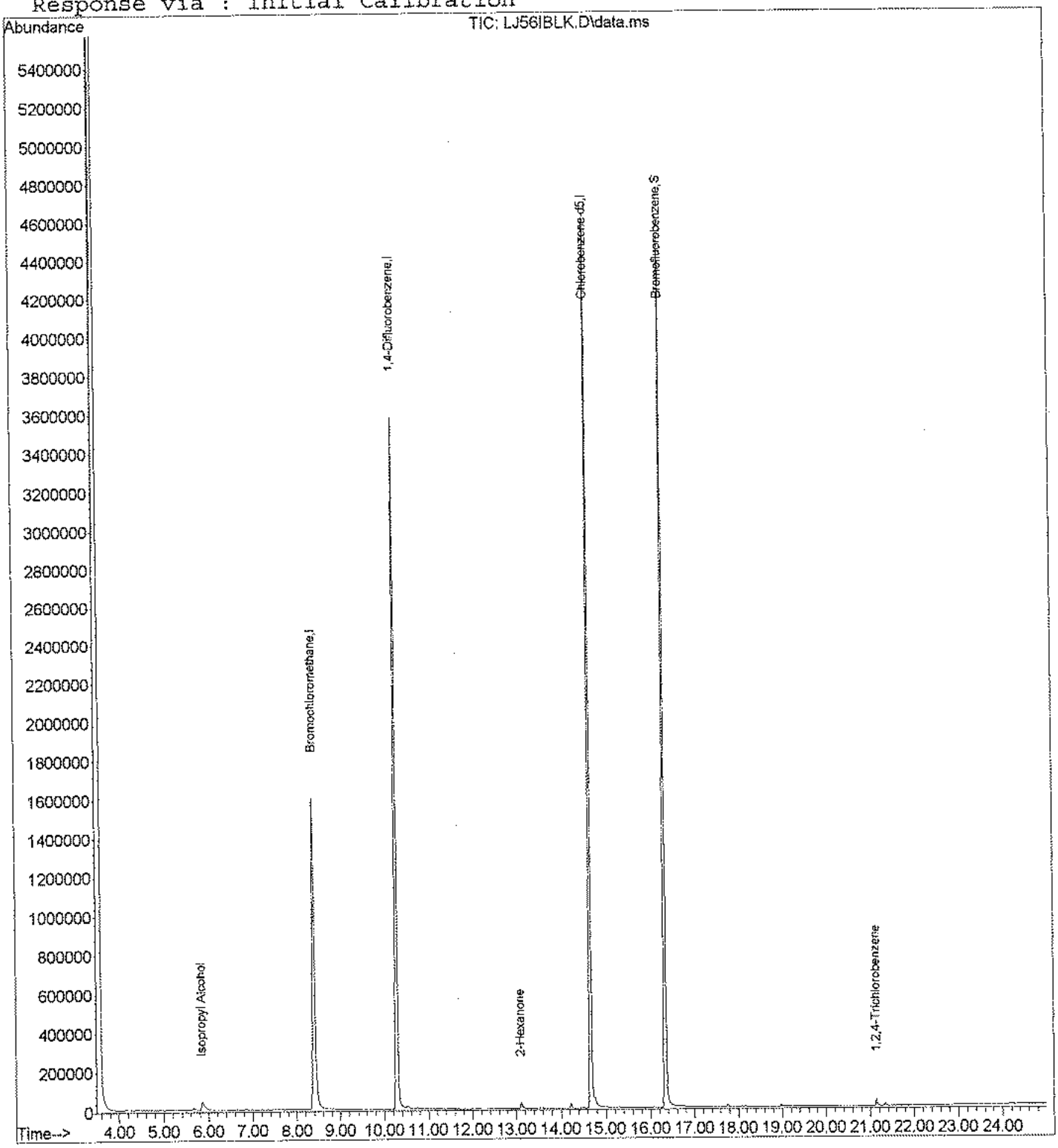
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	19.70	24.15#
59.10	4.00	3.39
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ56IBLK.D Vial: 1
Acq Time : 05/24/2016 13:28 Operator: TJM
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 24 15:09:41 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ56IBLK.D Vial: 1
Acq Time : 05/24/2016 13:28 Operator: TJM
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 24 15:09:41 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc Units	Area%
1) Bromochloromethane	8.39	130	353728	20.0000 ppb	93.50
25) 1,4-Difluorobenzene	10.27	114	4583522	20.0000 ppb	93.59
50) Chlorobenzene d5	14.67	117	4067966	20.0000 ppb	93.46
System Monitoring Compounds					%Recovery
58) Bromofluorobenzene	16.33	95	2064697	18.8669 ppb	94.33%
Target Compounds					Qvalue
2) Propene	0.00	41		Not Detected	
3) Dichlorodifluoromethane	0.00	85		Not Detected	
4) Chloromethane	0.00	50		Not Detected	
5) Freon 114	0.00	135		Not Detected	
6) Vinyl Chloride	0.00	62		Not Detected	
7) 1,3-Butadiene	0.00	54		Not Detected	
8) Bromomethane	0.00	94		Not Detected	
9) Chloroethane	0.00	64		Not Detected	
10) Acrolein	0.00	56		Not Detected	
11) Acetone	0.00	43		Not Detected	
12) Trichlorofluoromethane	0.00	101		Not Detected	
13) Ethanol	0.00	45		Not Detected	
14) Isopropyl Alcohol	5.85	45	130940	1.4074 ppb #	94
15) 1,1-Dichloroethene	0.00	61		Not Detected	
16) Methylene Chloride	0.00	84		Not Detected	
17) Freon 113	0.00	151		Not Detected	
18) Carbon Disulfide	0.00	76		Not Detected	
19) trans-1,2-Dichloroethene	0.00	96		Not Detected	
20) 1,1-Dichloroethane	0.00	63		Not Detected	
21) methyl t-butyl ether	0.00	73		Not Detected	
22) Vinyl Acetate	0.00	86		Not Detected	
23) 2-Butanone	0.00	43		Not Detected	
24) cis-1,2-Dichloroethene	0.00	96		Not Detected	
26) Ethyl Acetate	0.00	61		Not Detected	
27) Hexane	0.00	57		Not Detected	
28) Chloroform	0.00	83		Not Detected	
29) Tetrahydrofuran	0.00	42		Not Detected	
30) 1,2-Dichloroethane	0.00	62		Not Detected	
31) 1,1,1-Trichloroethane	0.00	97		Not Detected	
32) Benzene	0.00	78		Not Detected	
33) Carbon Tetrachloride	0.00	117		Not Detected	
34) Cyclohexane	0.00	84		Not Detected	
35) 1,2-Dichloropropane	0.00	63		Not Detected	

TIC <10%

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ56IBLK.D Vial: 1
Acq Time : 05/24/2016 13:28 Operator: TJM
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 24 15:09:41 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

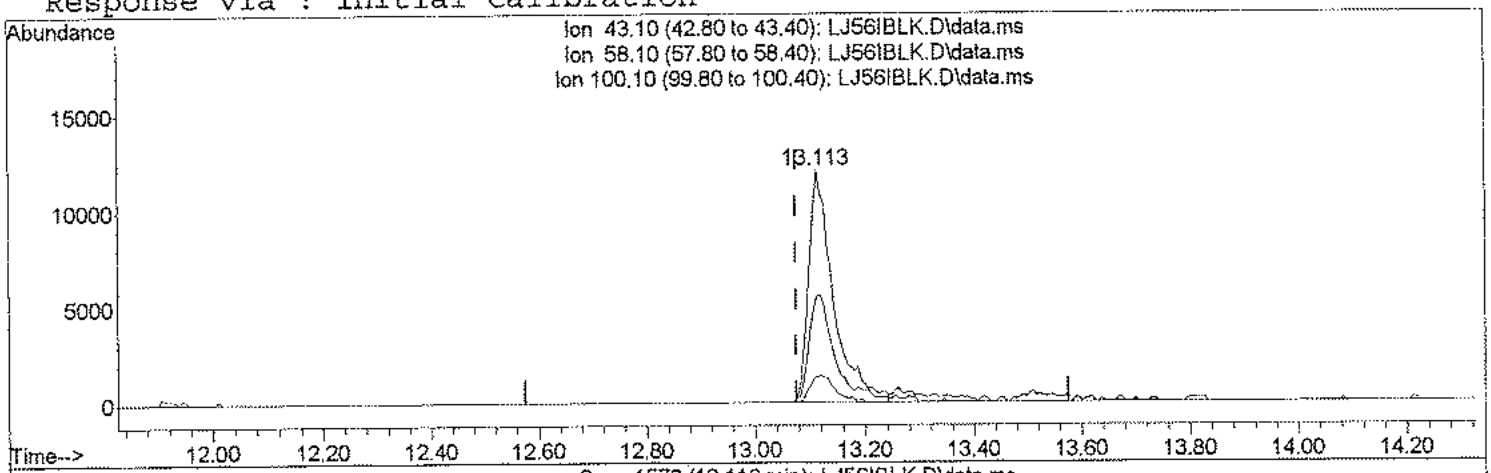
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	13.11	43	37436	0.3118 ppb #	71
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	21.14	180	17863	0.1544 ppb #	96
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

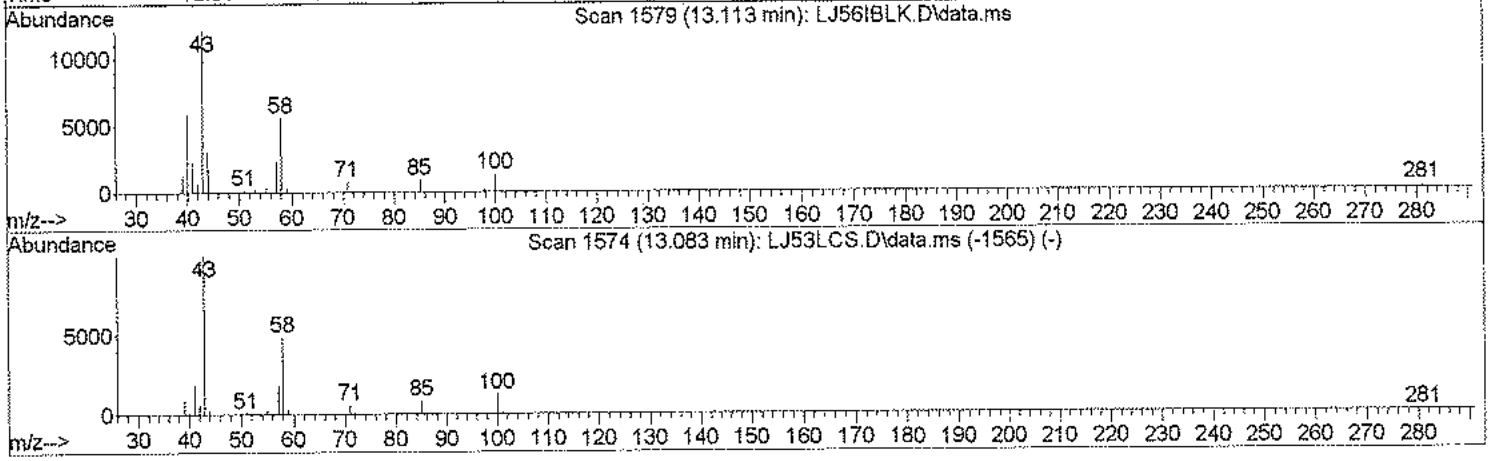
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ56IBLK.D
Acq On : 05/24/2016 13:28
Operator : TJM
Sample : BL-
Inst : 5975-L
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 15:09:41 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration





TIC: LJ56IBLK.D\data.ms

(46) 2-Hexanone

13.113min (+ 0.037) 0.31 ppb

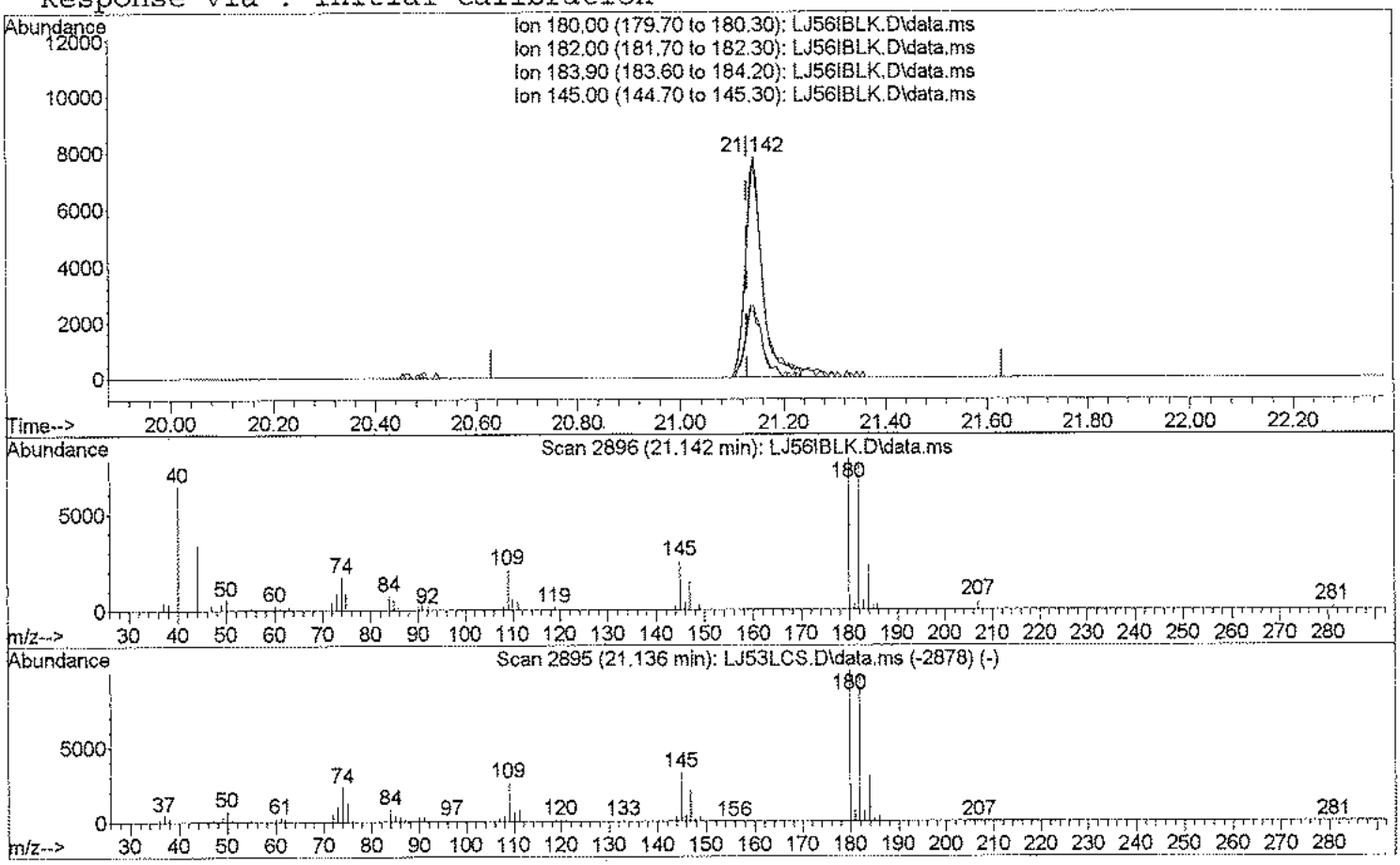
response 37436

Ion	Exp%	Act%
43.10	100.00	100.00
58.10	68.40	44.18#
100.10	24.50	11.25#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ56IBLK.D
Acq On : 05/24/2016 13:28
Operator : TJM
Sample : BL-
Inst : 5975-L
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 15:09:41 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration



TIC: LJ56IBLK.D\data.ms

(66) 1,2,4-Trichlorobenzene

21.142min (+ 0.012) 0.15 ppb

response 17863

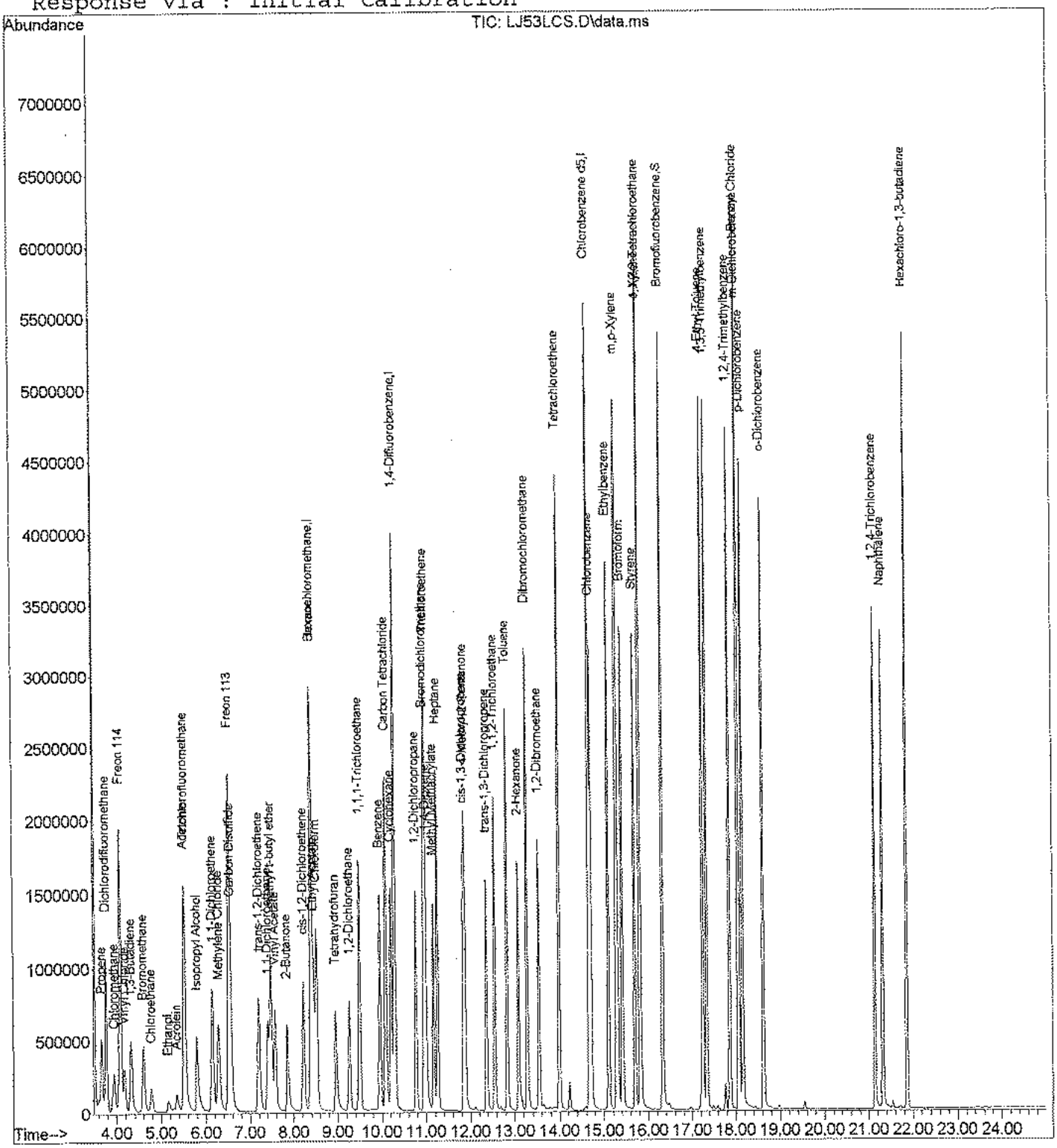
Ion	Exp%	Act%
180.00	100.00	100.00
182.00	95.80	98.52
183.90	30.40	31.04
145.00	25.80	32.74#

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ53LCS.D Vial: 1
Acq Time : 05/24/2016 11:01 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 31586 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:31:48 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ53LCS.D Vial: 1
Acq Time : 05/24/2016 11:01 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 31586 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:31:48 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	391360	20.0000	ppb		103.45
25) 1,4-Difluorobenzene	10.28	114	4972933	20.0000	ppb		101.54
50) Chlorobenzene d5	14.67	117	4574900	20.0000	ppb		105.10
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.33	95	2398461	19.4883	ppb		97.44%
Target Compounds							Qvalue
2) Propene	3.68	41	443314	11.3681	ppb		96
3) Dichlorodifluoromethane	3.78	85	1752851	12.0278	ppb	m	89
4) Chloromethane	3.96	50	484166	10.9587	ppb		100
5) Freon 114	4.09	135	1586389	11.1370	ppb		88
6) Vinyl Chloride	4.18	62	551654	11.2602	ppb		97
7) 1,3-Butadiene	4.33	54	418048	11.0009	ppb	m	71
8) Bromomethane	4.60	94	611379	11.3420	ppb		96
9) Chloroethane	4.77	64	273000	11.0880	ppb	#	89
10) Acrolein	5.35	56	223015	10.9823	ppb		94
11) Acetone	5.50	43	1040026	12.4378	ppb	#	82
12) Trichlorofluoromethane	5.52	101	2162967	12.1337	ppb		96
13) Ethanol	5.15	45	207500	12.2160	ppb	#	78
14) Isopropyl Alcohol	5.79	45	1338083	12.9990	ppb		98
15) 1,1-Dichloroethene	6.14	61	1066882	11.7553	ppb	#	80
16) Methylene Chloride	6.28	84	587313	11.0095	ppb	#	68
17) Freon 113	6.52	151	1539548	11.2108	ppb		85
18) Carbon Disulfide	6.57	76	1739366	11.6156	ppb	#	66
19) trans-1,2-Dichloroethene	7.19	96	717312	11.1868	ppb	#	81
20) 1,1-Dichloroethane	7.41	63	1160936	11.5917	ppb		98
21) methyl t-butyl ether	7.48	73	1762115	11.6676	ppb	#	86
22) Vinyl Acetate	7.58	86	184692	11.6157	ppb	#	1
23) 2-Butanone	7.85	43	1318745	12.1459	ppb	#	72
24) cis-1,2-Dichloroethene	8.23	96	766635	11.3041	ppb	#	81
26) Ethyl Acetate	8.46	61	192879	11.1472	ppb	#	1
27) Hexane	8.41	57	945841	10.7900	ppb	#	78
28) Chloroform	8.52	83	1502793	11.6851	ppb		98
29) Tetrahydrofuran	8.95	42	749956	11.2158	ppb	#	67
30) 1,2-Dichloroethane	9.27	62	988969	12.0387	ppb	#	95
31) 1,1,1-Trichloroethane	9.49	97	1782013	11.8491	ppb	#	94
32) Benzene	9.96	78	1847463	10.9190	ppb	#	92
33) Carbon Tetrachloride	10.09	117	2285974	12.0008	ppb		100
34) Cyclohexane	10.21	84	901394	10.9315	ppb	#	65
35) 1,2-Dichloropropane	10.77	63	706841	10.9237	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ53LCS.D Vial: 1
Acq Time : 05/24/2016 11:01 Operator: TJM
Sample : QC- Inst : 5975-L
Misc : 31586 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:31:48 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	1647056	11.9428	ppb		96
37)	1,4-Dioxane	11.01	88	450118	10.6481	ppb	#	93
38)	Trichloroethene	10.99	130	1346007	11.0359	ppb		99
39)	Methyl Methacrylate	11.16	69	648842	11.0621	ppb	#	81
40)	Heptane	11.25	71	649777	10.9574	ppb	#	53
41)	cis-1,3-Dichloropropene	11.84	75	1184357	11.4711	ppb		99
42)	4-Methyl-2-Pentanone	11.88	43	1637117	11.4512	ppb	#	77
43)	trans-1,3-Dichloropropene	12.36	75	1128834	11.6993	ppb		97
44)	1,1,2-Trichloroethane	12.55	97	943347	11.3028	ppb	#	94
45)	Toluene	12.83	91	2576566	11.2264	ppb		100
46)	2-Hexanone	13.08	43	1581422	12.1388	ppb	#	76
47)	Dibromochloromethane	13.28	129	2458732	11.9422	ppb		99
48)	1,2-Dibromoethane	13.54	107	1656307	11.5974	ppb		98
49)	Tetrachloroethene	13.99	166	1626010	11.0415	ppb	#	81
51)	Chlorobenzene	14.72	112	2554493	10.6648	ppb		100
52)	Ethylbenzene	15.11	91	3481519	10.9599	ppb		100
53)	m,p-Xylene	15.30	91	5290364	21.6753	ppb		100
54)	Bromoform	15.41	173	2210639	11.4573	ppb		99
55)	Styrene	15.69	104	2236197	10.8711	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.82	83	1758074	10.8298	ppb	#	95
57)	o-Xylene	15.81	91	2732192	10.9354	ppb		100
59)	4-Ethyl Toluene	17.25	105	4155806	11.3226	ppb		97
60)	1,3,5-Trimethylbenzene	17.34	105	3549911	11.0568	ppb		100
61)	1,2,4-Trimethylbenzene	17.87	105	3469596	11.2897	ppb		98
62)	Benzyl Chloride	18.06	91	2520400	10.2058	ppb		97
63)	m-Dichlorobenzene	18.08	146	2723764	11.0449	ppb		97
64)	p-Dichlorobenzene	18.17	146	2727618	11.0196	ppb		97
65)	o-Dichlorobenzene	18.62	146	2618935	11.1834	ppb		97
66)	1,2,4-Trichlorobenzene	21.14	180	1467898	11.2794	ppb	#	97
67)	Naphthalene	21.31	128	3714145	10.9542	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1163595	9.8292	ppb		98

(#) = qualifier out of range (m) = manual integration

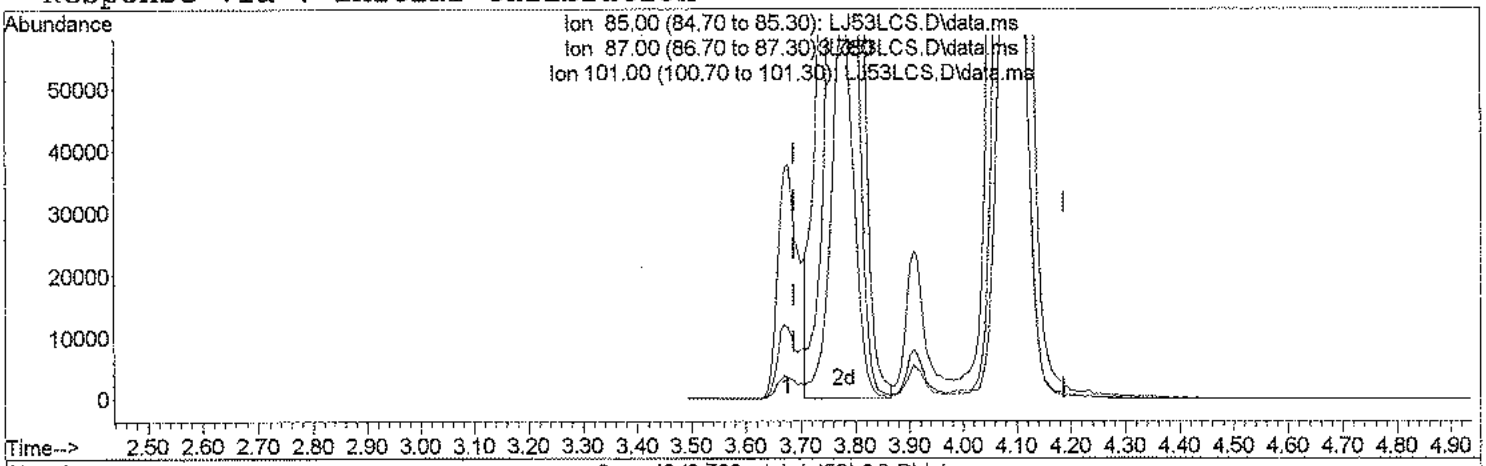
Quantitation Report (Qedit)

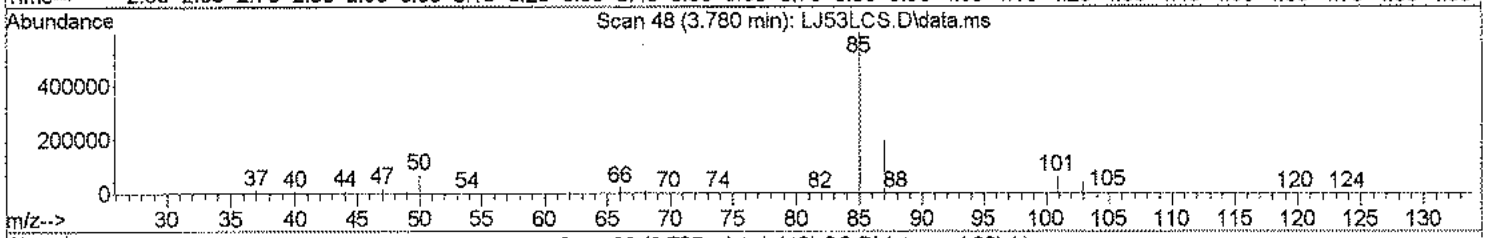
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ53LCS.D
Acq On : 05/24/2016 11:01
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

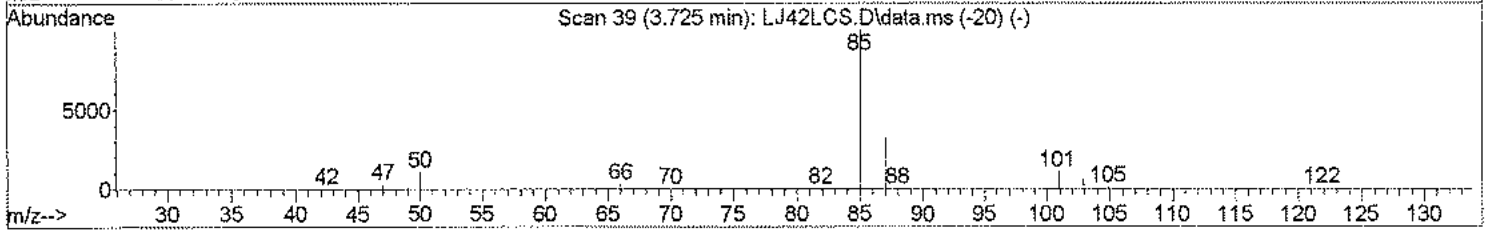
Quant Time: May 24 11:47:50 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

5-25-16
initials date

MANUAL RE-INTEGRATION
☒ missed peak assignment
☐ assigned incorrect name to pea
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other







TIC: LJ53LCS.D\data.ms

(3) Dichlorodifluoromethane

3.780min (+ 0.091) 12.03 ppb m

response 1752851

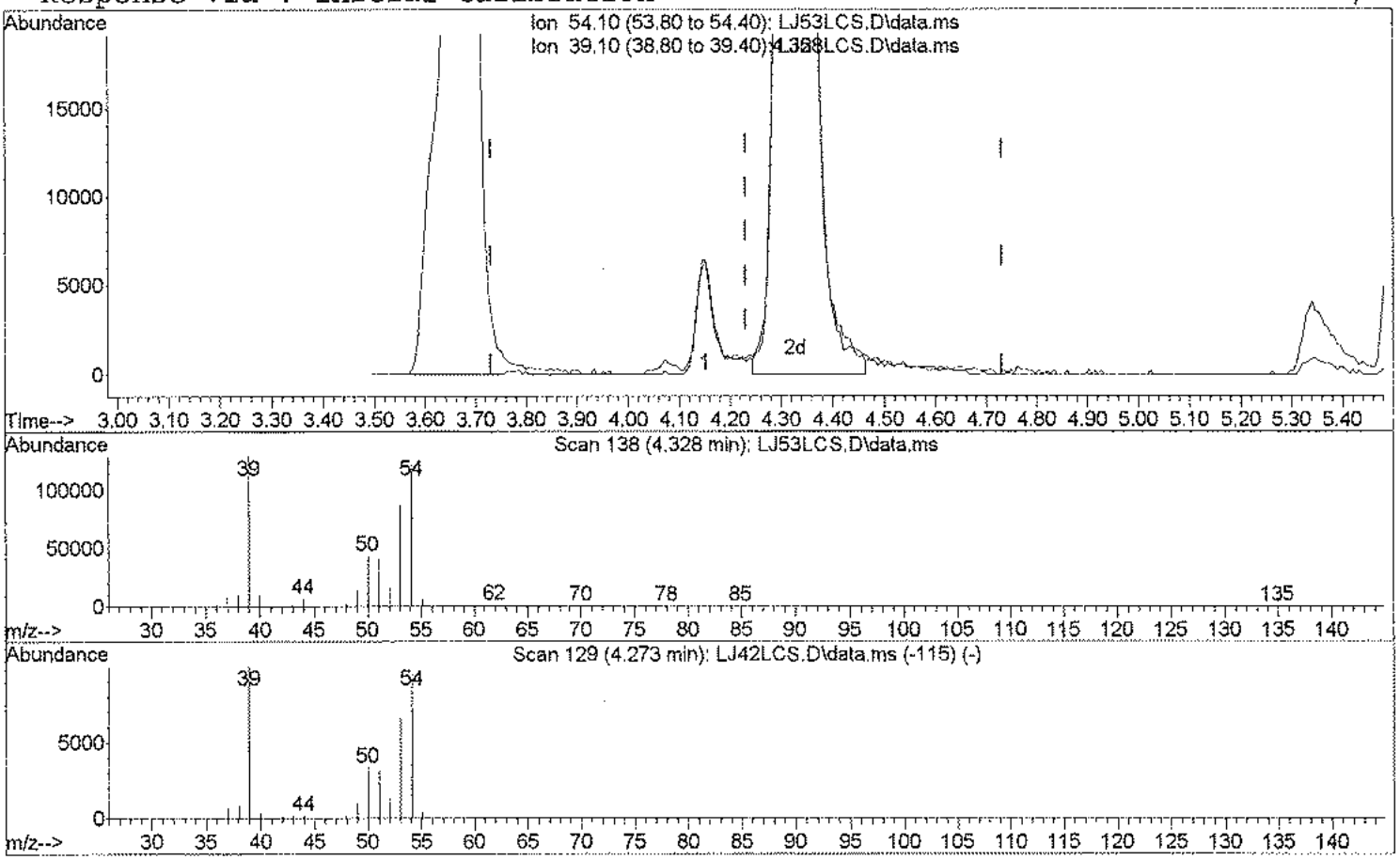
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	1.51#
101.00	10.00	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ53LCS.D
Acq On : 05/24/2016 11:01
Operator : TJM
Sample : QC-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 11:47:50 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 05-25-16



TIC: LJ53LCS.D\data.ms

(7) 1,3-Butadiene

4.328min (+ 0.098) 11.00 ppb m

response 418048

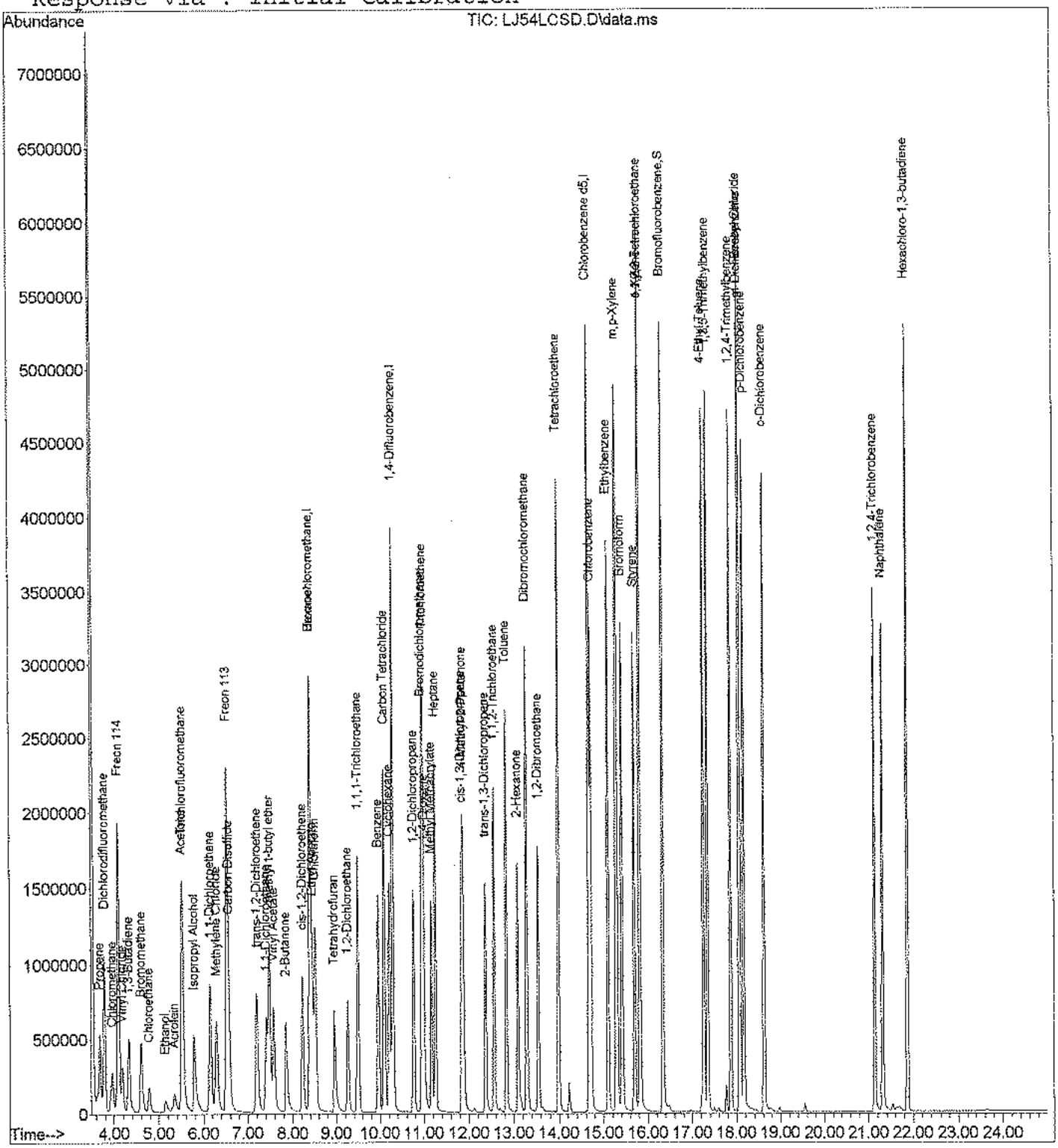
Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	3.42#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ54LCSD.D Vial: 1
Acq Time : 05/24/2016 11:52 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 31586 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:34:19 2016 Results File: TO15LK16.RES

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Wed May 25 08:32:26 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ54LCSD.D Vial: 1
Acq Time : 05/24/2016 11:52 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 31586 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:34:19 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	8.40	130	389120	20.0000	ppb		102.86
25) 1,4-Difluorobenzene	10.28	114	4905411	20.0000	ppb		100.16
50) Chlorobenzene d5	14.67	117	4478164	20.0000	ppb		102.88
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	16.34	95	2349462	19.5025	ppb		97.51%
Target Compounds							Qvalue
2) Propene	3.68	41	444610	11.4670	ppb	m	0
3) Dichlorodifluoromethane	3.79	85	1714670	11.8336	ppb	m	99
4) Chloromethane	3.96	50	474025	10.7909	ppb		98
5) Freon 114	4.10	135	1589319	11.2218	ppb	m	83
6) Vinyl Chloride	4.19	62	549779	11.2866	ppb	m	96
7) 1,3-Butadiene	4.33	54	413598	10.9464	ppb	m	68
8) Bromomethane	4.60	94	593726	11.0779	ppb		100
9) Chloroethane	4.78	64	270442	11.0473	ppb	#	89
10) Acrolein	5.34	56	228800	11.3320	ppb		98
11) Acetone	5.50	43	1028304	12.3684	ppb	#	82
12) Trichlorofluoromethane	5.52	101	2123373	11.9802	ppb		96
13) Ethanol	5.14	45	206779	12.2436	ppb	#	78
14) Isopropyl Alcohol	5.78	45	1346092	13.1521	ppb		99
15) 1,1-Dichloroethene	6.14	61	1060262	11.7496	ppb	#	80
16) Methylene Chloride	6.29	84	579153	10.9191	ppb	#	67
17) Freon 113	6.52	151	1525779	11.1745	ppb		85
18) Carbon Disulfide	6.57	76	1724237	11.5809	ppb	#	65
19) trans-1,2-Dichloroethene	7.19	96	715996	11.2306	ppb	#	82
20) 1,1-Dichloroethane	7.41	63	1151393	11.5626	ppb		98
21) methyl t-butyl ether	7.47	73	1753428	11.6769	ppb	#	86
22) Vinyl Acetate	7.57	86	183984	11.6378	ppb	#	1
23) 2-Butanone	7.85	43	1323465	12.2595	ppb	#	72
24) cis-1,2-Dichloroethene	8.22	96	762734	11.3113	ppb	#	82
26) Ethyl Acetate	8.46	61	188389	11.0376	ppb	#	1
27) Hexane	8.41	57	943449	10.9109	ppb	#	78
28) Chloroform	8.52	83	1481420	11.6774	ppb		97
29) Tetrahydrofuran	8.94	42	740548	11.2275	ppb	#	67
30) 1,2-Dichloroethane	9.26	62	976659	12.0525	ppb	#	96
31) 1,1,1-Trichloroethane	9.49	97	1757906	11.8497	ppb	#	94
32) Benzene	9.96	78	1834304	10.9905	ppb	#	93
33) Carbon Tetrachloride	10.09	117	2254899	12.0006	ppb		99
34) Cyclohexane	10.21	84	897998	11.0402	ppb	#	65
35) 1,2-Dichloropropane	10.77	63	698493	10.9433	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\24MAY16L\LJ54LCSD.D Vial: 1
Acq Time : 05/24/2016 11:52 Operator: TJM
Sample : QD- Inst : 5975-L
Misc : 31586 200mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 08:34:19 2016 Results File: TO15LK16.RES

Quant Method : Z:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15
Last Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15A.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	10.95	83	1625193	11.9465	ppb		96
37)	1,4-Dioxane	11.01	88	448861	10.7645	ppb	#	94
38)	Trichloroethene	10.99	130	1335477	11.1003	ppb		99
39)	Methyl Methacrylate	11.16	69	651745	11.2646	ppb	#	82
40)	Heptane	11.25	71	638910	10.9224	ppb	#	53
41)	cis-1,3-Dichloropropene	11.84	75	1172644	11.5139	ppb		99
42)	4-Methyl-2-Pentanone	11.88	43	1628543	11.5480	ppb	#	77
43)	trans-1,3-Dichloropropene	12.37	75	1134395	11.9188	ppb		97
44)	1,1,2-Trichloroethane	12.56	97	936733	11.3781	ppb	#	94
45)	Toluene	12.83	91	2568361	11.3447	ppb		99
46)	2-Hexanone	13.09	43	1571832	12.2313	ppb	#	76
47)	Dibromochloromethane	13.28	129	2433894	11.9843	ppb		99
48)	1,2-Dibromoethane	13.55	107	1650070	11.7128	ppb		99
49)	Tetrachloroethene	13.99	166	1620516	11.1557	ppb	#	82
51)	Chlorobenzene	14.72	112	2537021	10.8206	ppb		100
52)	Ethylbenzene	15.11	91	3464771	11.1428	ppb		100
53)	m,p-Xylene	15.30	91	5260567	22.0188	ppb		100
54)	Bromoform	15.42	173	2198392	11.6400	ppb		99
55)	Styrene	15.70	104	2222716	11.0390	ppb		97
56)	1,1,2,2-Tetrachloroethane	15.83	83	1753579	11.0355	ppb	#	95
57)	o-Xylene	15.81	91	2718219	11.1145	ppb		100
59)	4-Ethyl Toluene	17.25	105	4104380	11.4240	ppb		97
60)	1,3,5-Trimethylbenzene	17.35	105	3510044	11.1688	ppb		100
61)	1,2,4-Trimethylbenzene	17.87	105	3434627	11.4174	ppb		99
62)	Benzyl Chloride	18.06	91	2517388	10.4138	ppb		96
63)	m-Dichlorobenzene	18.08	146	2692070	11.1522	ppb		97
64)	p-Dichlorobenzene	18.17	146	2726040	11.2511	ppb		97
65)	o-Dichlorobenzene	18.62	146	2603550	11.3579	ppb		98
66)	1,2,4-Trichlorobenzene	21.14	180	1498947	11.7668	ppb	#	97
67)	Naphthalene	21.31	128	3751714	11.3040	ppb		99
68)	Hexachloro-1,3-butadiene	21.86	225	1160534	10.0151	ppb		99

(#) = qualifier out of range (m) = manual integration

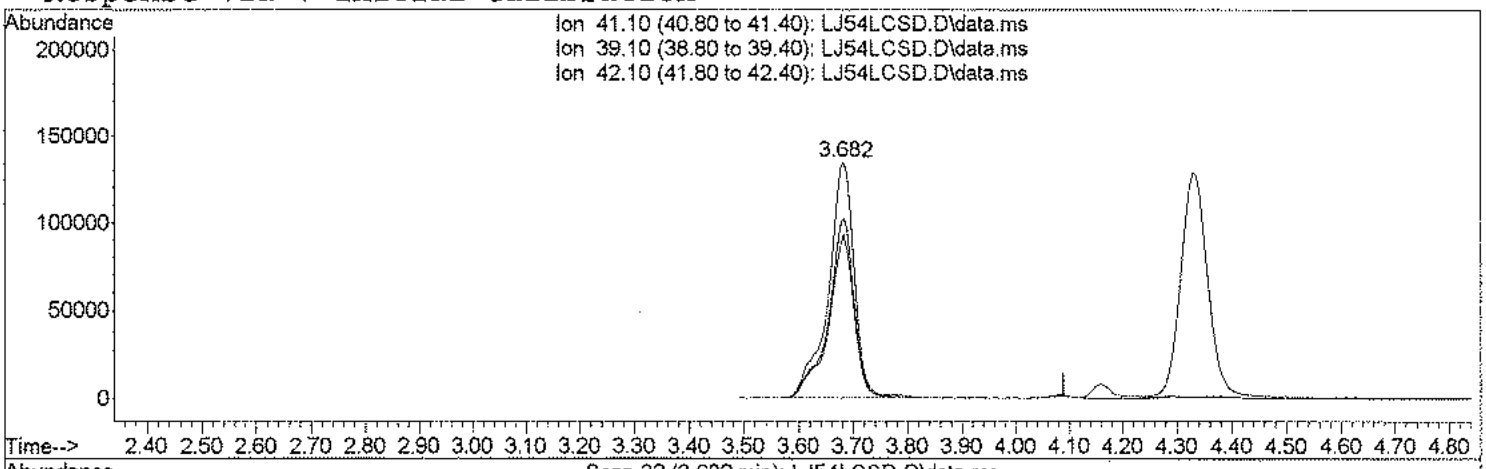
Quantitation Report (Qedit)

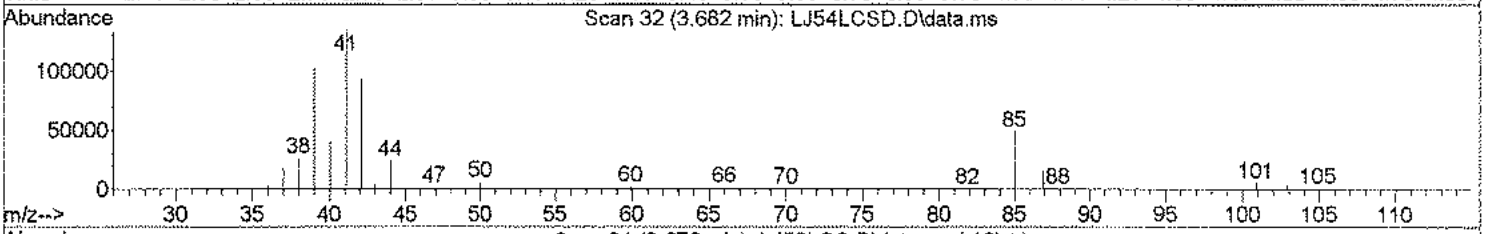
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ54LCSD.D
Acq On : 05/24/2016 11:52
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

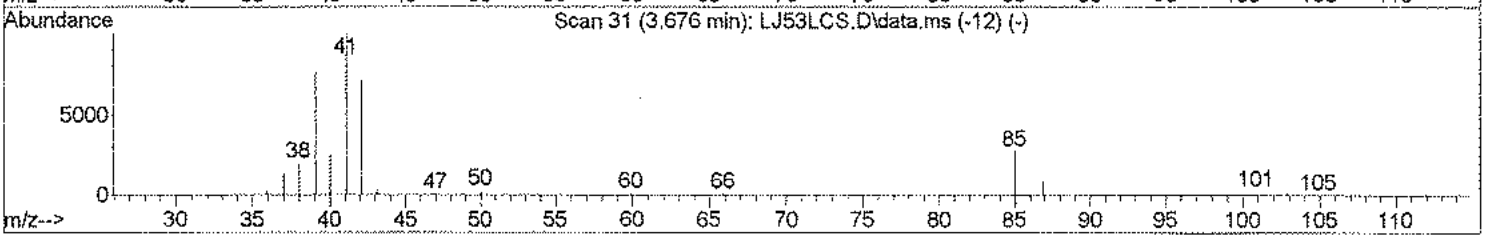
Quant Time: May 24 12:48:21 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☒ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials _____ *date* 05-25-16







TIC: LJ54LCSD.D\data.ms

(2) Propene

3.682min (+ 0.092) 11.47 ppb m

response 444610

Ion	Exp%	Act%
41.10	100.00	100.00
39.10	70.30	0.00#
42.10	67.20	0.00#
0.00	0.00	0.00

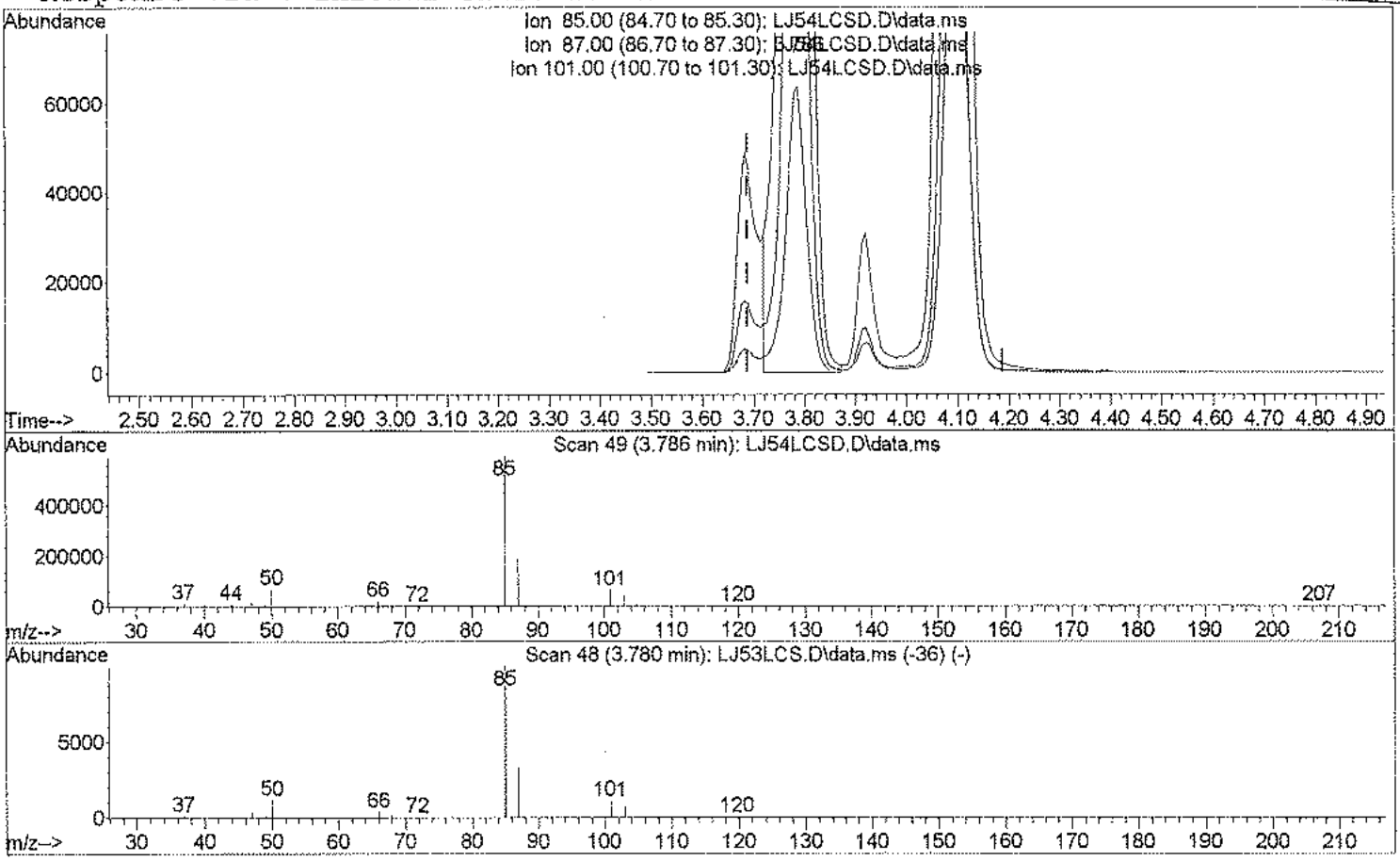
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ54LCSD.D
Acq On : 05/24/2016 11:52
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 12:48:21 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
- [x] missed peak assignment
- [ ] assigned incorrect name to peak
- [ ] over-integrated peak's area
- [ ] under-integrated peak's area
- [ ] other _____

initials K *date* 05-25-16



TIC: LJ54LCSD.D\data.ms

(3) Dichlorodifluoromethane

3.786min (+ 0.098) 11.83 ppb m

response 1714670

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	32.60	2.33#
101.00	10.00	0.72#
0.00	0.00	0.00

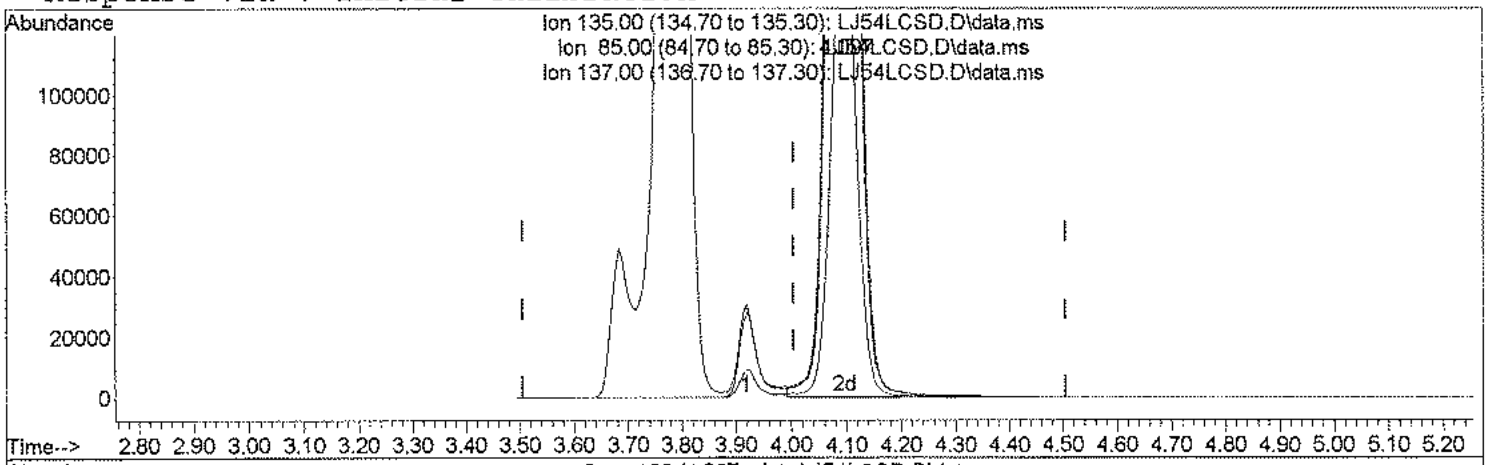
Quantitation Report (Qedit)

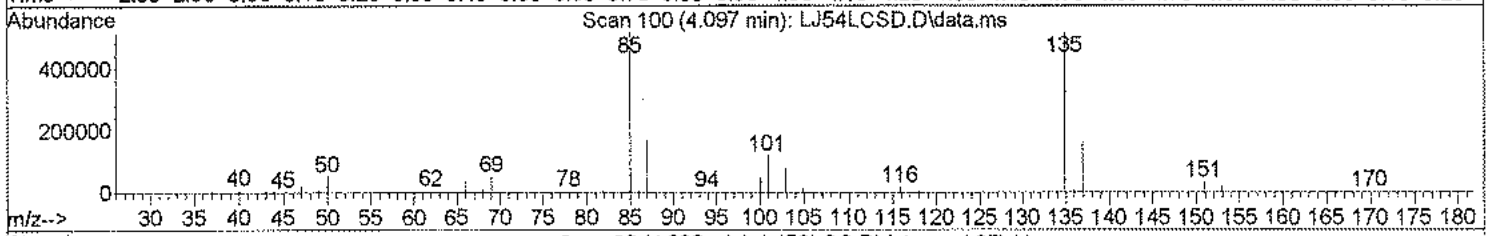
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ54LCSD.D
Acq On : 05/24/2016 11:52
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

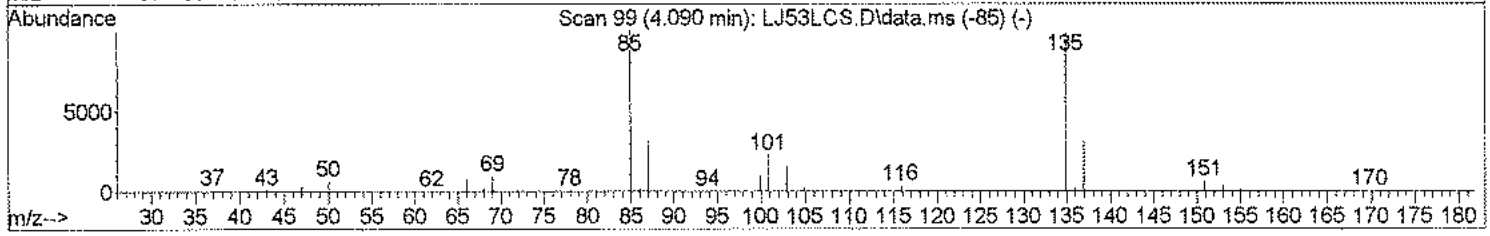
Quant Time: May 24 12:48:21 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials L *date* 05-25-16







TIC: LJ54LCSD.D\data.ms

(5) Freon 114

4.097min (+ 0.092) 11.22 ppb m

response 1589319

Ion	Exp%	Act%
135.00	100.00	100.00
85.00	88.10	4.45#
137.00	32.70	1.28#
0.00	0.00	0.00

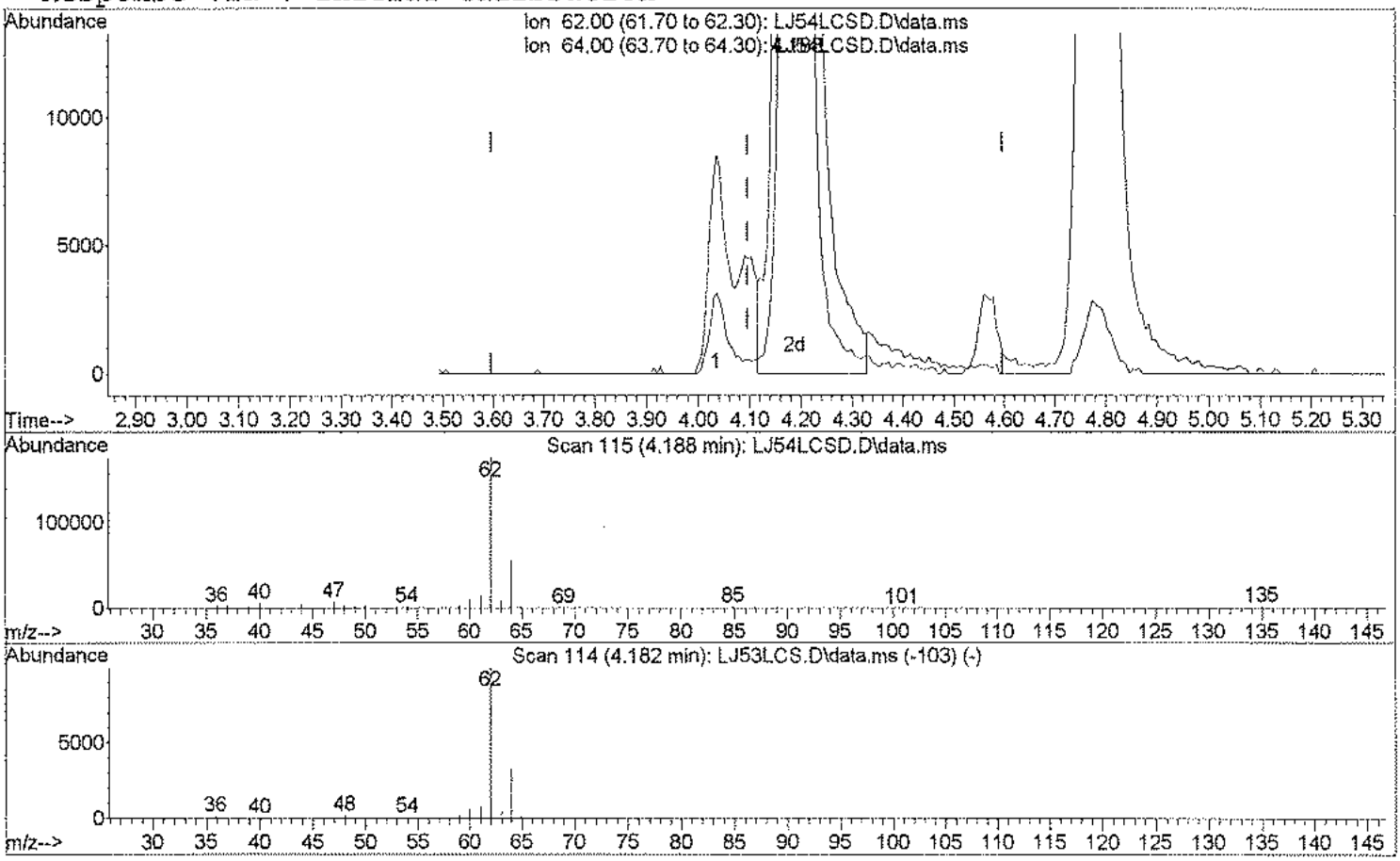
Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ54LCSD.D
Acq On : 05/24/2016 11:52
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 12:48:21 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____

initials R *date* 05-25-16



TIC: LJ54LCSD.D\data.ms

(6) Vinyl Chloride

4.188min (+ 0.092) 11.29 ppb m

response 549779

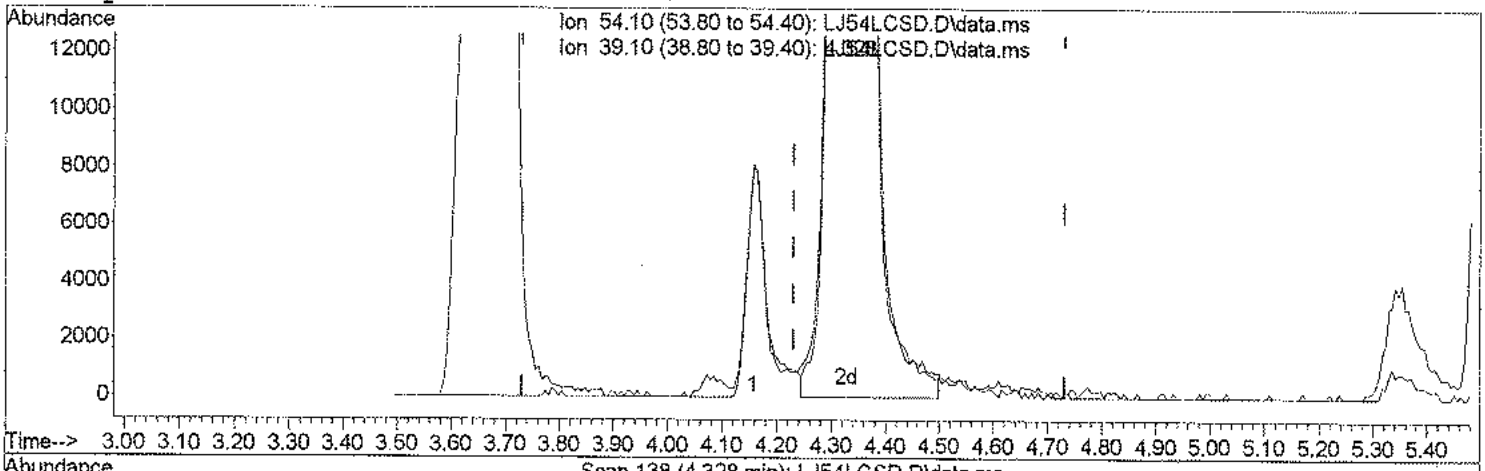
Ion	Exp%	Act%
62.00	100.00	100.00
64.00	33.00	1.37#
0.00	0.00	0.00
0.00	0.00	0.00

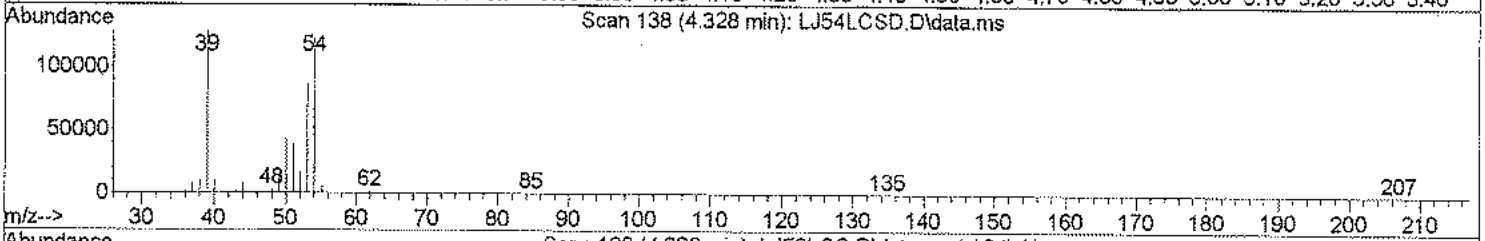
Quantitation Report (Qedit)

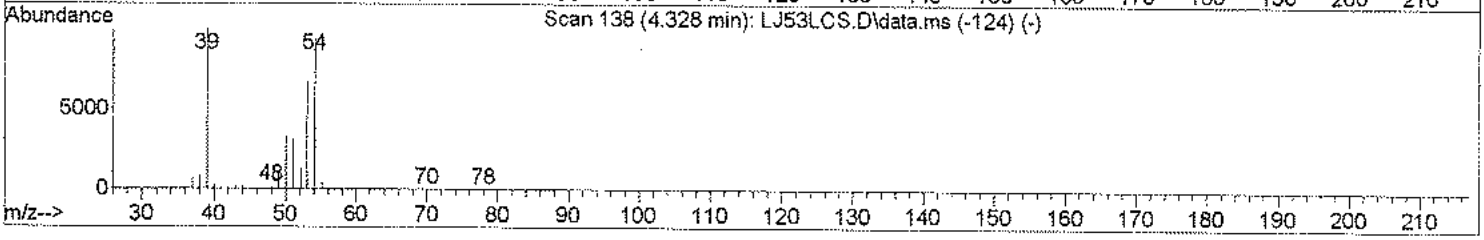
Data Path : I:\L - 5975-L\2016\MAY16L\24MAY16L\
Data File : LJ54LCSD.D
Acq On : 05/24/2016 11:52
Operator : TJM
Sample : QD-
Inst : 5975-L
Misc : 31586 200mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 24 12:48:21 2016
Quant Method : Z:\L\METHODS\methods\TO15LK16.m
Quant Title : TO-15
QLast Update : Mon May 23 13:27:25 2016
Response via : Initial Calibration

MANUAL RE-INTEGRATION
☑ missed peak assignment
☐ assigned incorrect name to peak
☐ over-integrated peak's area
☐ under-integrated peak's area
☐ other _____
initials L date 05-25-16







TIC: LJ54LCSD.D\data.ms

(7) 1,3-Butadiene

4.328min (+ 0.098) 10.95 ppb m

response 413598

Ion	Exp%	Act%
54.10	100.00	100.00
39.10	74.80	4.60#
0.00	0.00	0.00
0.00	0.00	0.00

Analyst Notebook

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LK16.M (HBN 168554)

The following compounds in the CCS were outside of +-30%: NA

Dilutions: 1614564001, 002 were also analyzed 1:10 for PCE.

1614564003, 004 also analyzed SIM

Analyst Signature: 05-25-16

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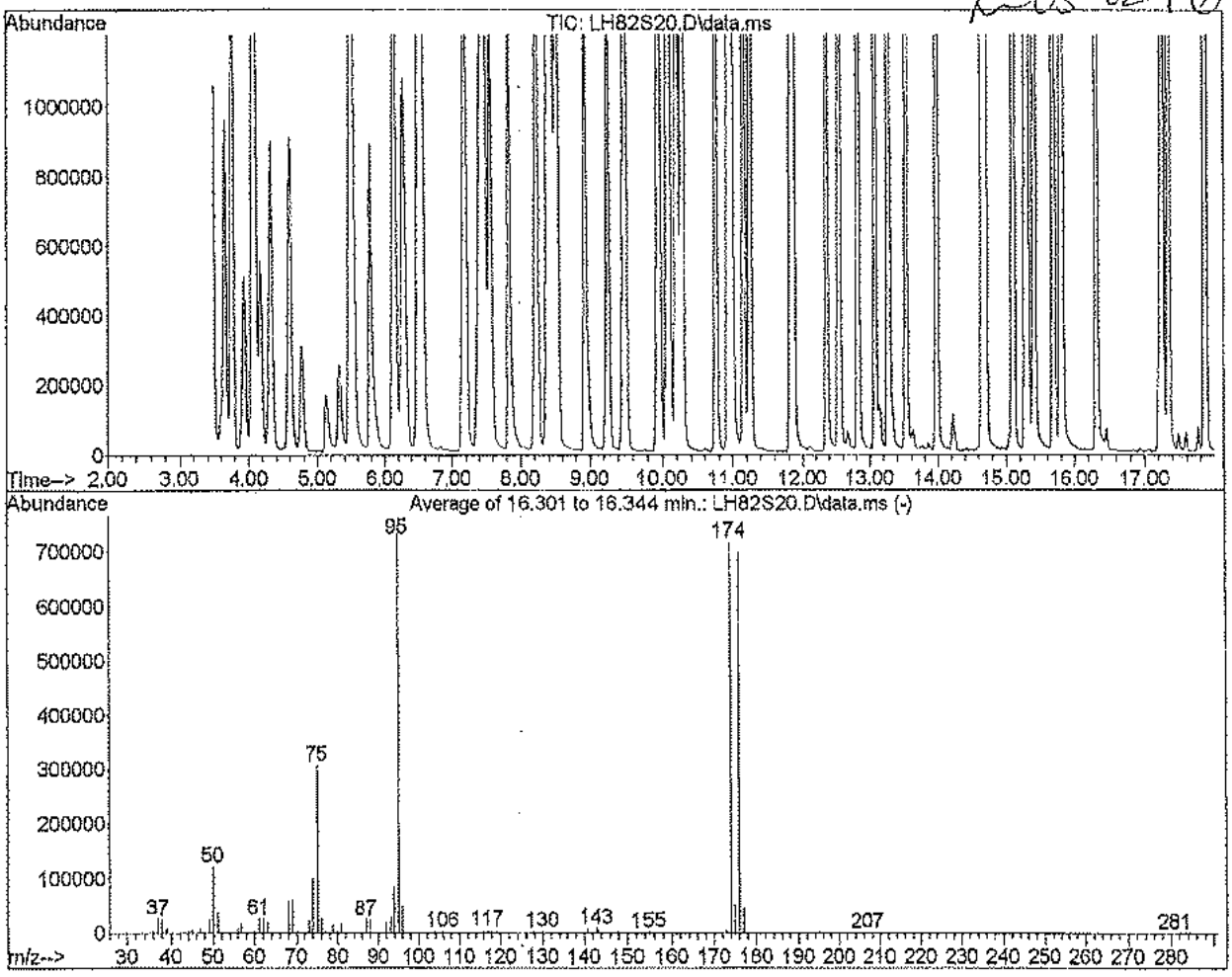
BFB

Data File : I:\L - 5975-L\2016\APR16L\29APR16L\LH82S20.D Vial: 1
Acq Time : 04/29/2016 10:27 Operator: LMR
Sample : 20 PPB STD Inst : 5975-L
Misc : 31586 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15

L05-0276



Peak Apex is scan: Average of 16.301 to 16.344 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	16.58	121126	PASS
75	95	30	66	41.92	306256	PASS
95	95	100	100	100.00	730624	PASS
96	95	5	9	6.69	48881	PASS
173	174	0.00	2	0.60	4285	PASS
174	95	50	120	98.13	716928	PASS
175	174	5	9	7.19	51581	PASS
176	174	93	101	97.31	697616	PASS
177	176	5	9	6.59	45949	PASS

LH82S20.D TO15LK16.m Mon May 02 10:34:43 2016

Average of 16.301 to 16.344 min.: LH82S20.D\data.ms
20 PPB STD
Modified:subtracted

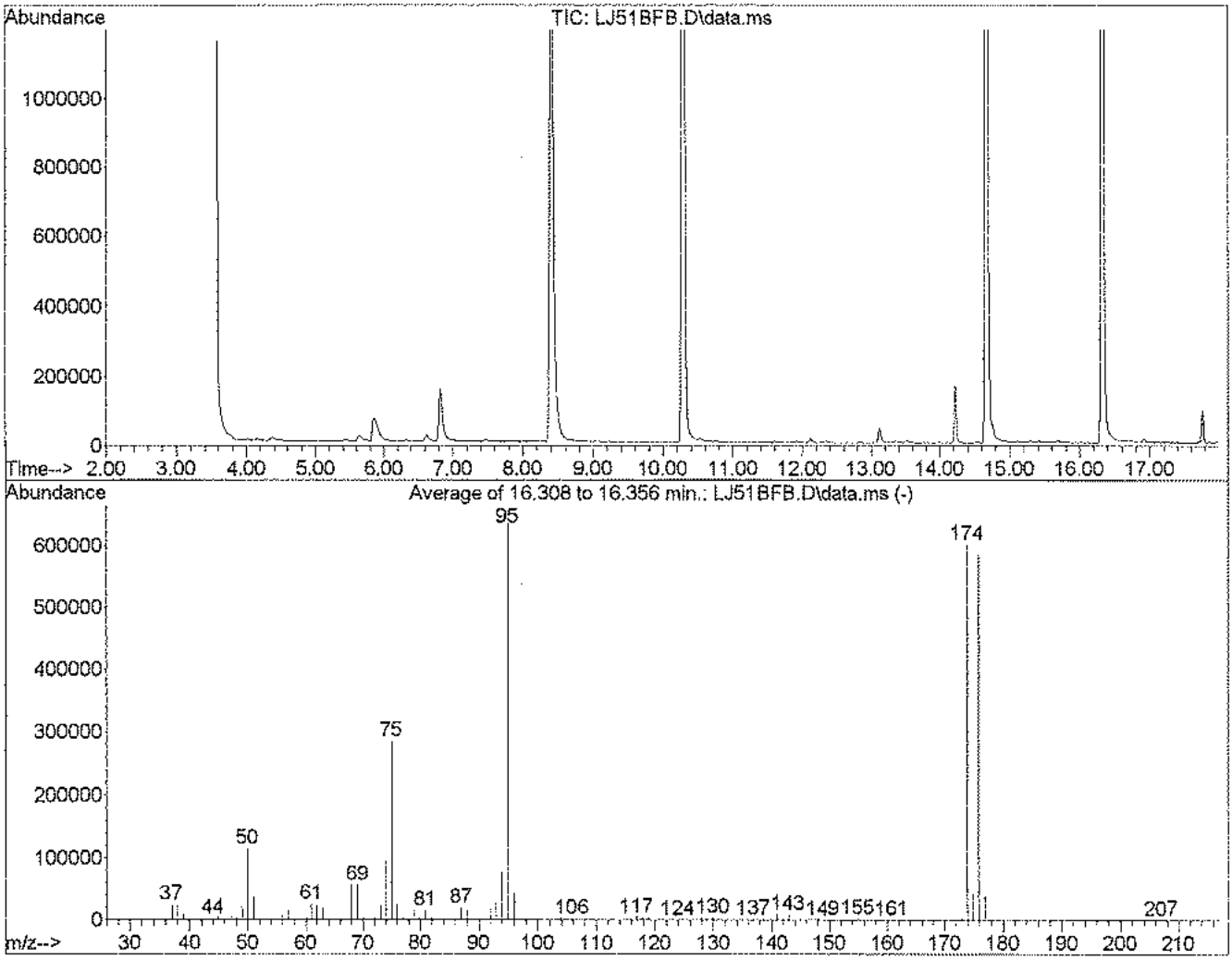
m/z	Abundance
36.00	4396.0
37.00	25382.0
37.95	22996.0
39.00	9409.0
40.00	105.0
41.05	272.0
43.00	244.0
44.00	2290.0
45.00	5035.0
46.05	345.0
47.00	6815.0
48.00	3227.0
49.00	24041.0
50.00	121126.0
51.00	37073.0
52.00	1703.0
52.90	24.0
55.00	1481.0
56.00	8239.0
57.00	16171.0
58.05	664.0
60.00	4896.0
61.00	25735.0
62.00	25358.0
63.00	19226.0
64.00	1788.0
65.00	297.0
65.90	22.0
67.00	1380.0
68.00	59763.0
69.00	59799.0
70.00	4237.0
71.00	152.0
72.00	2875.0
73.00	23544.0
74.00	99455.0
75.00	306256.0
76.00	26439.0
76.95	3017.0
77.95	1898.0
78.90	14413.0
79.95	4376.0
80.90	14892.0
81.90	3240.0
82.90	302.0
84.85	40.0
86.00	547.0
87.00	23988.0
88.00	23550.0
91.00	2073.0
92.00	19187.0
93.00	29948.0
93.95	83116.0
95.00	730624.0
96.00	48881.0
97.00	1534.0
102.90	176.0
103.90	2793.0
104.90	937.0
105.90	2963.0
106.90	802.0
109.90	377.0
110.95	597.0
111.90	448.0
112.80	101.0
112.95	405.0
114.95	769.0
115.90	2672.0
116.90	5012.0
117.90	2837.0
118.90	4034.0
119.95	80.0
121.85	123.0
122.90	222.0
123.85	498.0
124.85	196.0
125.90	309.0
126.85	241.0
127.90	3034.0
128.90	1540.0
129.90	3193.0
130.90	1334.0
131.85	95.0
132.90	19.0
133.85	186.0
134.90	1460.0
135.85	222.0

136.90	1468.0
138.95	254.0
139.95	491.0
140.90	8199.0
141.80	41.0
141.95	872.0
142.90	8485.0
143.90	473.0
144.95	687.0
145.85	1260.0
146.90	551.0
147.90	2148.0
148.85	580.0
149.90	863.0
151.90	434.0
152.95	617.0
153.90	556.0
154.90	2162.0
155.95	261.0
156.95	1502.0
157.95	112.0
158.90	1062.0
159.90	19.0
160.70	39.0
160.90	888.0
169.90	21.0
170.80	45.0
171.00	25.0
172.00	521.0
172.90	4285.0
174.00	716928.0
174.95	51581.0
176.00	697616.0
176.95	45949.0
177.90	1309.0
207.00	62.0
281.00	22.0

BFB

Data File : I:\L - 5975-L\2016\MAY16L\24MAY16L\LJ51BFB.D Vial: 1
Acq Time : 05/24/2016 09:14 Operator: TJM
Sample : BFB Inst : 5975-L
Misc : 107IS31322 Multiplr: 1.00
MS Integration Params: rteint.p

Method : J:\L\METHODS\methods\TO15LK16.m (RTE Integrator)
Title : TO-15



Peak Apex is scan: Average of 16.308 to 16.356 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	30	18.04	114565	PASS
75	95	30	66	44.74	284156	PASS
95	95	100	100	100.00	635143	PASS
96	95	5	9	6.62	42043	PASS
173	174	0.00	2	0.65	3931	PASS
174	95	50	120	94.77	601913	PASS
175	174	5	9	7.24	43574	PASS
176	174	93	101	97.32	585778	PASS
177	176	5	9	6.65	38937	PASS

LJ51BFB.D TO15LK16.m Wed May 25 10:28:33 2016

Average of 16.308 to 16.356 min.: LJ51BFB.D\data.ms
BFB
Modified:subtracted

m/z	Abundance
36.00	4271.0
37.00	24385.0
38.00	22220.0
39.05	9160.0
41.00	57.0
43.00	146.0
44.00	2382.0
45.00	5186.0
46.05	352.0
47.05	6030.0
47.95	3081.0
49.00	23457.0
50.00	114565.0
51.00	35169.0
52.05	1521.0
54.95	1445.0
56.00	7922.0
57.00	15596.0
57.95	579.0
60.00	4562.0
61.00	25104.0
62.00	24526.0
63.00	18852.0
64.00	1825.0
65.00	293.0
66.90	319.0
67.05	930.0
68.00	56372.0
69.00	56607.0
70.05	3893.0
71.05	113.0
72.05	2439.0
73.00	22855.0
74.00	95405.0
75.00	284156.0
76.00	24378.0
77.00	2814.0
78.00	1658.0
78.90	14810.0
79.95	4154.0
80.90	15628.0
81.90	3029.0
83.05	336.0
85.95	487.0
87.00	19913.0
88.00	19481.0
90.95	1999.0
92.00	17827.0
93.00	27640.0
94.00	76277.0
95.00	635143.0
96.00	42043.0
97.00	1224.0
102.90	345.0
103.90	2806.0
104.90	984.0
105.90	2873.0
106.90	692.0
109.70	55.0
109.95	315.0
110.90	606.0
111.85	394.0
112.95	603.0
114.90	731.0
115.90	2473.0
116.90	4687.0
117.90	2778.0
118.90	3900.0
119.95	142.0
121.85	180.0
122.70	37.0
122.80	22.0
122.95	176.0
123.90	471.0
124.90	249.0
125.95	320.0
126.85	236.0
127.90	2988.0
128.85	1370.0
129.90	3105.0
130.85	1123.0
131.90	142.0
133.80	135.0
134.95	1489.0
135.90	224.0
136.90	1417.0
138.70	38.0

138.95	169.0
139.85	528.0
140.90	8606.0
141.95	988.0
142.90	8757.0
143.95	537.0
144.95	703.0
145.90	1075.0
146.85	565.0
147.85	1991.0
148.90	509.0
149.95	823.0
151.85	401.0
152.95	590.0
153.85	477.0
154.95	1995.0
155.85	278.0
156.95	1364.0
157.90	153.0
158.80	104.0
158.90	853.0
160.85	911.0
170.80	23.0
171.10	20.0
171.60	18.0
171.95	512.0
172.95	3931.0
173.95	601913.0
174.90	43574.0
175.90	585778.0
176.90	38937.0
177.90	1040.0
207.00	59.0

Response Factor Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LK16.m
Title : TO-15
Last Update : Mon May 02 11:14:54 2016
Response Via : Initial Calibration

Calibration Files
.5 =LH87S05.D 1 =LH86S1.D 2 =LH85S2.D 5 =LH84S5.D 10 =LH83S10.D 20 =LH82S20.D

		Compound	.5	1	2	5	10	20	Avg		%RSD	
1)	I	Bromochloromethane	ISTD									
2)		Propene	1.683	1.908	2.090	2.051	2.093	2.132	1.993		8.57	NC
3)		Dichlorodifluo...	6.152	6.962	8.234	7.934	7.433	7.970	7.448		10.47	
4)		Chloromethane	1.789	2.038	2.473	2.383	2.402	2.462	2.258		12.40	
5)		Freon 114	5.920	6.547	7.897	7.546	7.920	7.845	7.279		11.61	
6)		Vinyl Chloride	2.029	2.216	2.694	2.650	2.681	2.751	2.504		12.08	
7)		1,3-Butadiene	1.570	1.753	2.126	2.020	2.124	2.060	1.942		11.77	
8)		Bromomethane	2.150	2.460	3.014	2.881	3.042	2.981	2.755		13.29	
9)		Chloroethane	0.978	1.137	1.410	1.305	1.370	1.350	1.258		13.28	
10)		Acrolein	0.781	0.933	1.154	1.054	1.149	1.155	1.038		14.73	NC
11)		Acetone	3.623	3.839	4.481	4.371	4.743	4.582	4.273		10.35	
12)		Trichlorofluor...	0.738	0.827	0.991	0.939	1.000	0.971	0.911	E1	11.60	
13)		Ethanol	0.388	0.798	1.048	0.959	1.030	0.986	0.868		28.99	NC
14)		Isopropyl Alcohol	4.431	4.778	5.667	5.341	5.865	5.480	5.260		10.44	NC
15)		1,1-Dichloroet...	3.685	4.169	5.030	4.792	5.152	5.002	4.638		12.58	
16)		Methylene Chlo...	2.320	2.466	2.955	2.774	2.979	2.862	2.726		9.97	
17)		Freon 113	5.573	6.277	7.579	7.275	7.856	7.547	7.018		12.74	
18)		Carbon Disulfide	5.984	6.917	8.462	7.966	8.485	8.100	7.652		13.03	
19)		trans-1,2-Dich...	2.515	2.912	3.553	3.395	3.722	3.563	3.277		14.21	
20)		1,1-Dichloroet...	4.121	4.668	5.510	5.284	5.722	5.404	5.118		11.80	
21)		methyl t-butyl...	5.812	6.810	8.377	8.047	8.877	8.385	7.718		15.10	
22)		Vinyl Acetate	0.541	0.706	0.867	0.860	0.971	0.931	0.813		19.78	
23)		2-Butanone	3.678	4.645	6.014	5.995	6.571	6.390	5.549		20.52	
24)		cis-1,2-Dichlo...	2.684	3.055	3.740	3.592	3.950	3.774	3.466		14.14	
25)	I	1,4-Difluorobenzene	ISTD									
26)		Ethyl Acetate	0.049	0.067	0.071	0.076	0.076	0.078	0.070		15.40	
27)		Hexane	0.278	0.331	0.377	0.382	0.375	0.372	0.353		11.61	
28)		Chloroform	0.402	0.486	0.546	0.560	0.555	0.555	0.517		12.21	
29)		Tetrahydrofuran	0.205	0.240	0.282	0.295	0.295	0.297	0.269		14.14	
30)		1,2-Dichloroet...	0.254	0.304	0.347	0.358	0.359	0.360	0.330		13.07	

Method Path : J:\L\METHODS\methods\
Method File : TO15LK16.m

31)		1,1,1-Trichlor...	0.462	0.559	0.637	0.656	0.656	0.658	0.605	13.18
32)		Benzene	0.535	0.639	0.720	0.735	0.730	0.724	0.680	11.72
33)		Carbon Tetrach...	0.586	0.707	0.804	0.829	0.833	0.838	0.766	13.17
34)		Cyclohexane	0.245	0.313	0.351	0.361	0.361	0.359	0.332	13.95
35)		1,2-Dichloropr...	0.213	0.245	0.273	0.280	0.278	0.273	0.260	10.20
36)		Bromodichlorom...	0.420	0.512	0.587	0.608	0.607	0.593	0.555	13.47
37)		1,4-Dioxane	0.116	0.153	0.182	0.193	0.191	0.185	0.170	17.69 TC
38)		Trichloroethene	0.370	0.448	0.513	0.538	0.539	0.535	0.491	13.89
39)		Methyl Methacr...	0.175	0.217	0.244	0.259	0.262	0.260	0.236	14.55 TC
40)		Heptane	0.182	0.227	0.257	0.262	0.256	0.247	0.238	12.79
41)		cis-1,3-Dichlo...	0.300	0.377	0.439	0.459	0.463	0.453	0.415	15.64
42)		4-Methyl-2-Pen...	0.412	0.533	0.619	0.638	0.635	0.613	0.575	15.41
43)		trans-1,3-Dich...	0.271	0.335	0.412	0.431	0.439	0.440	0.388	17.99
44)		1,1,2-Trichlor...	0.252	0.308	0.353	0.367	0.370	0.364	0.336	14.04
45)		Toluene	0.679	0.834	0.988	1.019	1.024	0.994	0.923	15.03
46)		2-Hexanone	0.348	0.467	0.561	0.586	0.596	0.585	0.524	18.77
47)		Dibromochlorom...	0.593	0.745	0.860	0.909	0.937	0.925	0.828	16.30
48)		1,2-Dibromoethane	0.414	0.514	0.603	0.636	0.645	0.634	0.574	16.04
49)		Tetrachloroethene	0.441	0.541	0.619	0.649	0.658	0.646	0.592	14.43
50)	I	Chlorobenzene d5	----------ISTD----------							
51)		Chlorobenzene	0.802	0.971	1.111	1.145	1.138	1.117	1.047	13.00
52)		Ethylbenzene	1.023	1.282	1.486	1.536	1.527	1.477	1.389	14.52
53)		m,p-Xylene	0.801	1.006	1.150	1.182	1.153	1.110	1.067	13.50
54)		Bromoform	0.584	0.736	0.879	0.949	0.954	0.959	0.843	18.14
55)		Styrene	0.604	0.797	0.951	1.014	1.015	1.015	0.899	18.63
56)		1,1,2,2-Tetrac...	0.535	0.674	0.777	0.791	0.761	0.720	0.710	13.47
57)		o-Xylene	0.834	1.024	1.174	1.211	1.182	1.128	1.092	13.06
58)	S	Bromofluoroben...	0.537	0.533	0.538	0.543	0.536	0.541	0.538	0.65
59)		4-Ethyl Toluene	1.071	1.418	1.723	1.823	1.808	1.784	1.605	18.80
60)		1,3,5-Trimethy...	1.017	1.272	1.500	1.571	1.546	1.515	1.404	15.50
61)		1,2,4-Trimethy...	0.917	1.200	1.428	1.514	1.510	1.492	1.344	17.87
62)		Benzyl Chloride	0.688	0.882	1.151	1.255	1.266	1.236	1.080	22.21 45T
63)		m-Dichlorobenzene	0.771	0.977	1.134	1.197	1.200	1.191	1.078	16.04
64)		p-Dichlorobenzene	0.743	0.997	1.140	1.202	1.207	1.204	1.082	17.04
65)		o-Dichlorobenzene	0.737	0.911	1.071	1.131	1.144	1.148	1.024	16.25
66)		1,2,4-Trichlor...	0.385	0.464	0.566	0.638	0.668	0.692	0.569	21.46 45T
67)		Naphthalene	0.929	1.228	1.519	1.698	1.735	1.785	1.482	22.86 TC
68)		Hexachloro-1,3...	0.389	0.468	0.539	0.572	0.570	0.567	0.518	14.34 45T

(#) = Out of Range

Continuing Calibration Report 5975-L

Method Path : J:\L\METHODS\methods\
Method File : TO15LK16.m
Title : TO-15
Last Update : Wed May 25 12:08:09 2016
Response Via : Initial Calibration

CC Data File: LJ53LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
1	I	Bromochloromethane	1.000	1.000	0.0	103
2		Propene	1.993	2.266	-13.7	112
3		Dichlorodifluoromethane	7.448	8.958	-20.3	125
4		Chloromethane	2.258	2.474	-9.6	107
5		Freon 114	7.279	8.107	-11.4	106
6		Vinyl Chloride	2.504	2.819	-12.6	109
7		1,3-Butadiene	1.942	2.136	-10.0	104
8		Bromomethane	2.755	3.124	-13.4	106
9		Chloroethane	1.258	1.395	-10.9	105
10		Acrolein	1.038	1.140	-9.8	103
11		Acetone	4.273	5.315	-24.4	116
12		Trichlorofluoromethane	9.110	11.054	-21.3	114
13		Ethanol	0.868	1.060	-22.2	106
14		Isopropyl Alcohol	5.260	6.838	-30.0	121
15		1,1-Dichloroethene	4.638	5.452	-17.6	109
16		Methylene Chloride	2.726	3.001	-10.1	104
17		Freon 113	7.018	7.868	-12.1	104
18		Carbon Disulfide	7.652	8.889	-16.2	108
19		trans-1,2-Dichloroethene	3.277	3.666	-11.9	102
20		1,1-Dichloroethane	5.118	5.933	-15.9	107
21		methyl t-butyl ether	7.718	9.005	-16.7	105
22		Vinyl Acetate	0.813	0.944	-16.2	101
23		2-Butanone	5.549	6.739	-21.5	106
24		cis-1,2-Dichloroethene	3.466	3.918	-13.0	103
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	102
26		Ethyl Acetate	0.070	0.078	-11.5	103
27		Hexane	0.353	0.380	-7.9	103
28		Chloroform	0.517	0.604	-16.9	111
29		Tetrahydrofuran	0.269	0.302	-12.2	104
30		1,2-Dichloroethane	0.330	0.398	-20.4	112
31		1,1,1-Trichloroethane	0.605	0.717	-18.5	111
32		Benzene	0.680	0.743	-9.2	103
33		Carbon Tetrachloride	0.766	0.919	-20.0	112
34		Cyclohexane	0.332	0.363	-9.3	102
35		1,2-Dichloropropane	0.260	0.284	-9.2	104
36		Bromodichloromethane	0.555	0.662	-19.4	111
37		1,4-Dioxane	0.170	0.181	-6.5	96
38		Trichloroethene	0.491	0.541	-10.4	102
39		Methyl Methacrylate	0.236	0.261	-10.6	101
40		Heptane	0.238	0.261	-9.6	104
41		cis-1,3-Dichloropropene	0.415	0.476	-14.7	104
42		4-Methyl-2-Pentanone	0.575	0.658	-14.5	105
43		trans-1,3-Dichloropropene	0.388	0.454	-17.0	105
44		1,1,2-Trichloroethane	0.336	0.379	-13.0	104

Method Path : J:\L\METHODS\methods\
Method File : TO15LK16.m
Title : TO-15
Last Update : Wed May 25 12:08:09 2016
Response Via : Initial Calibration

CC Data File: LJ53LCS.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
45		Toluene	0.923	1.036	-12.3	103
46		2-Hexanone	0.524	0.636	-21.4	108
47		Dibromochloromethane	0.828	0.989	-19.4	107
48		1,2-Dibromoethane	0.574	0.666	-16.0	105
49		Tetrachloroethene	0.592	0.654	-10.4	101
50	I	Chlorobenzene d5	1.000	1.000	0.0	105
51		Chlorobenzene	1.047	1.117	-6.6	103
52		Ethylbenzene	1.389	1.522	-9.6	105
53		m,p-Xylene	1.067	1.156	-8.4	105
54		Bromoform	0.843	0.966	-14.6	106
55		Styrene	0.899	0.978	-8.7	101
56		1,1,2,2-Tetrachloroethane	0.710	0.769	-8.3	106
57		o-Xylene	1.092	1.194	-9.4	106
58	S	Bromofluorobenzene	0.538	0.524	2.6	103
59		4-Ethyl Toluene	1.605	1.817	-13.2	106
60		1,3,5-Trimethylbenzene	1.404	1.552	-10.6	106
61		1,2,4-Trimethylbenzene	1.344	1.517	-12.9	106
62		Benzyl Chloride	1.080	1.102	-2.1	91
63		m-Dichlorobenzene	1.078	1.191	-10.4	104
64		p-Dichlorobenzene	1.082	1.192	-10.2	104
65		o-Dichlorobenzene	1.024	1.145	-11.8	105
66		1,2,4-Trichlorobenzene	0.569	0.642	-12.8	101
67		Naphthalene	1.482	1.624	-9.5	98
68		Hexachloro-1,3-butadiene	0.518	0.509	1.7	94

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	LJ53SLCS	Area BCM	Area 1,4DFB	Area CB-d5
10 ppb v/v Continuing Cal Std		391360	4972933	4574900
	Upper Limit	547904	6962106	6404860
	Lower limit	234816	2983760	2744940

CLIENT Sample No.	DCL Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
501656 BL-	501656 BL-	353728	4583522	4067966
501657 QC-	501657 QC-	391360	4972933	4574900
501658 QD-	501658 QD-	389120	4905411	4478164
A-0053H-052316-SG-001-6 (0037)	1614564001	314304	4139740	3870141
A-0053H-052316-SG-001-6 (0050)	1614564002	325674	4321996	4078061
A-0053H-052416-IA-BAS	1614564003	377472	4543530	4075426
A-0053H-052416-IA-BAS-D	1614564004	354432	4277957	3889657

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	LJ53SLCS	RT BCM	RT 1,4DFB	RT CB-d5
10 ppb v/v Continuing Cal Std		8.40	10.28	14.67
	Upper Limit	8.90	10.78	15.17
	Lower limit	7.90	9.78	14.17

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
501656 BL-	501656 BL-	8.39	10.27	14.67
501657 QC-	501657 QC-	8.40	10.28	14.67
501658 QD-	501658 QD-	8.40	10.28	14.67
A-0053H-052316-SG-001-6 (0037)	1614564001	8.38	10.27	14.68
A-0053H-052316-SG-001-6 (0050)	1614564002	8.37	10.27	14.68
A-0053H-052416-IA-BAS	1614564003	8.39	10.28	14.67
A-0053H-052416-IA-BAS-D	1614564004	8.39	10.27	14.67

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

Batch Worklist

Batch: IVOA/ 3263 Created: 5/26/2016 09:31 Instrument: 5975-L HBN: 169913

Rule: EPA TO-15 SIM, Air Analyst: L. Reid Status: WP

Workorder: 1614564

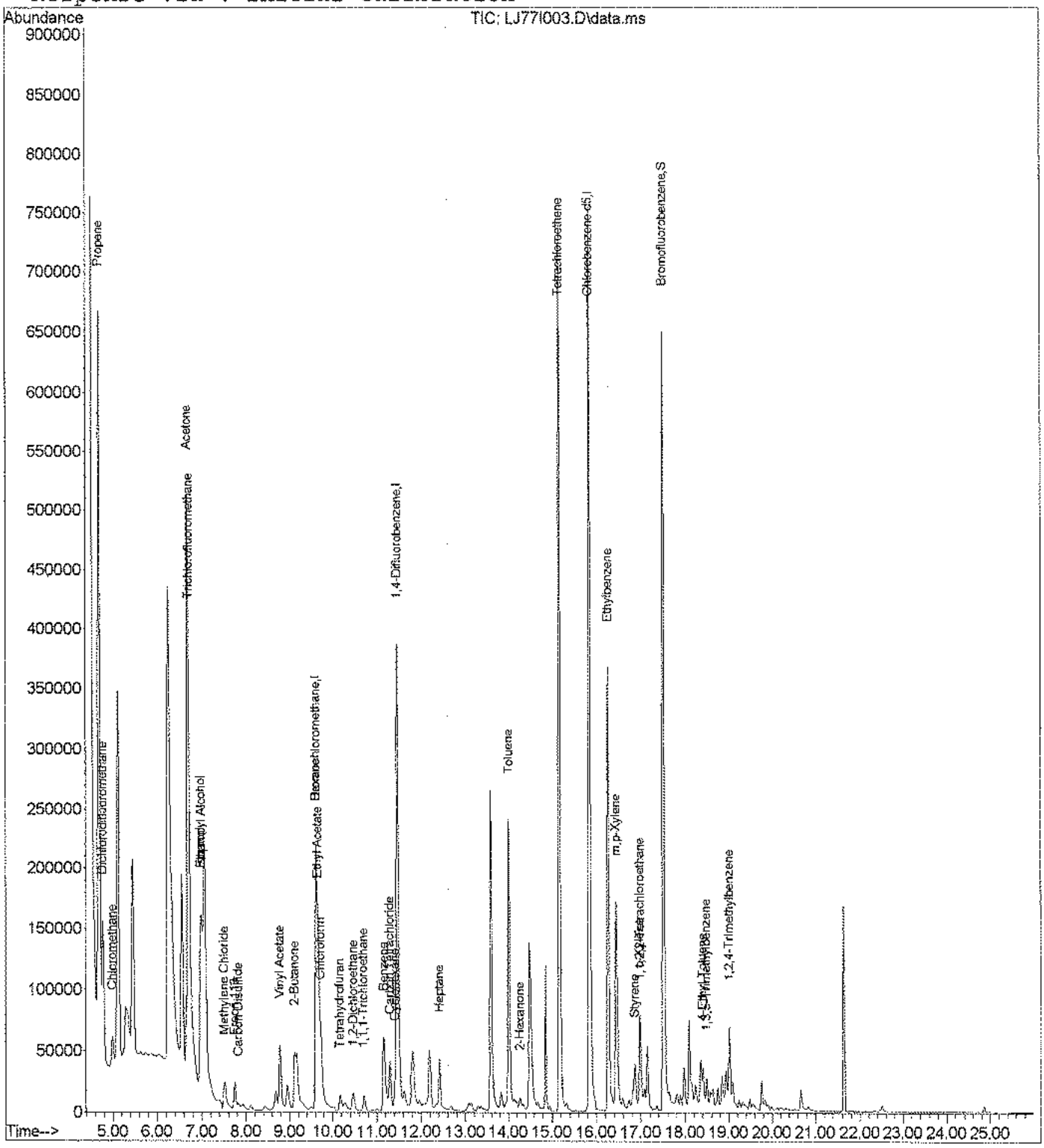
Pos	Lab ID	Sample ID	Prep Initial	Prep Final	Dust Weight	Type	Mx	Container	Procedure	Mgr	Expire Date	Due Date	Run Date
1	501738	MB for HBN 169913 [IVOA/3263]				MB	1		ETO15SIM1Q	5320		5/26/2016	5/25/2016
2	501739	LCS for HBN 169913 [IVOA/3263]				LCS	1		ETO15SIM1Q	5320		5/26/2016	5/25/2016
3	501740	LCSD for HBN 169913 [IVOA/3263				LCSD	1		ETO15SIM1Q	5320		5/26/2016	5/25/2016
4	1614564003	A-0053H-052416-IA-BAS				SAMPLE	1	1614564003-A	ETO15SIM.1	5480		5/26/2016	5/25/2016
	*E|Result exceeds calibration range												
5	1614564004	A-0053H-052416-IA-BAS-D				SAMPLE	1	1614564004-A	ETO15SIM.1	5480		5/26/2016	5/25/2016
	*E|Result exceeds calibration range												

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ77I003.D Vial: 13
Acq Time : 05/25/2016 14:47 Operator: LMR
Sample : 1614564003 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 15:27:43 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ77I003.D Vial: 13
Acq Time : 05/25/2016 14:47 Operator: LMR
Sample : 1614564003 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 15:27:43 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc Units		Area%
1) Bromochloromethane	9.63	130	58587	1000.0000 ppt		62.42
25) 1,4-Difluorobenzene	11.47	114	952844	1000.0000 ppt		50.42
50) Chlorobenzene d5	15.85	117	1510165	1000.0000 ppt		51.44
System Monitoring Compounds						%Recovery
58) Bromofluorobenzene	17.50	95	883445	937.8364 ppt		93.78%
Target Compounds						Qvalue
2) Propene	4.69	41	427743	3441.9937 ppt	#	47
3) Dichlorodifluoromethane	4.77	85	210142	550.4718 ppt		99
4) Chloromethane	4.98	50	62549	585.5208 ppt		97
5) Freon 114	0.00	135		Not Detected		
6) Vinyl Chloride	0.00	62		Not Detected		
7) 1,3-Butadiene	0.00	54		Not Detected		
8) Bromomethane	0.00	94		Not Detected		
9) Chloroethane	0.00	64		Not Detected		
10) Acrolein	0.00	56		Not Detected		
11) Acetone	6.68	43	1352067	4305.3071 ppt	#	87
12) Trichlorofluoromethane	6.71	101	173039	340.9693 ppt		97
13) Ethanol	6.99	45	795766	1910.9228 ppt	#	39
14) Isopropyl Alcohol	6.99	45	795766	1910.9228 ppt	#	91
15) 1,1-Dichloroethene	0.00	61		Not Detected		
16) Methylene Chloride	7.52	84	31036	206.2286 ppt	#	65
17) Freon 113	7.75	151	27195	70.3568 ppt		85
18) Carbon Disulfide	7.84	76	26110	53.1779 ppt	#	57
19) trans-1,2-Dichloroethene	0.00	96		Not Detected		
20) 1,1-Dichloroethane	0.00	63		Not Detected		
21) methyl t-butyl ether	0.00	73		Not Detected		
22) Vinyl Acetate	8.78	86	8586	292.4609 ppt	#	1
23) 2-Butanone	9.11	43	207101	615.0431 ppt	#	71
24) cis-1,2-Dichloroethene	0.00	96		Not Detected		
26) Ethyl Acetate	9.67	61	43507	876.1637 ppt	#	1
27) Hexane	9.62	57	55925	275.1400 ppt	#	44
28) Chloroform	9.73	83	63821	214.5985 ppt		99
29) Tetrahydrofuran	10.17	42	20023	120.7118 ppt	#	23
30) 1,2-Dichloroethane	10.47	62	13117	74.2980 ppt	#	91
31) 1,1,1-Trichloroethane	10.71	97	14966	43.9351 ppt	#	93
32) Benzene	11.16	78	62968	148.4923 ppt	#	90
33) Carbon Tetrachloride	11.30	117	48106	120.7873 ppt		100
34) Cyclohexane	11.42	84	25242	128.2087 ppt	#	72
35) 1,2-Dichloropropane	0.00	63		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ77I003.D Vial: 13
Acq Time : 05/25/2016 14:47 Operator: LMR
Sample : 1614564003 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 15:27:43 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

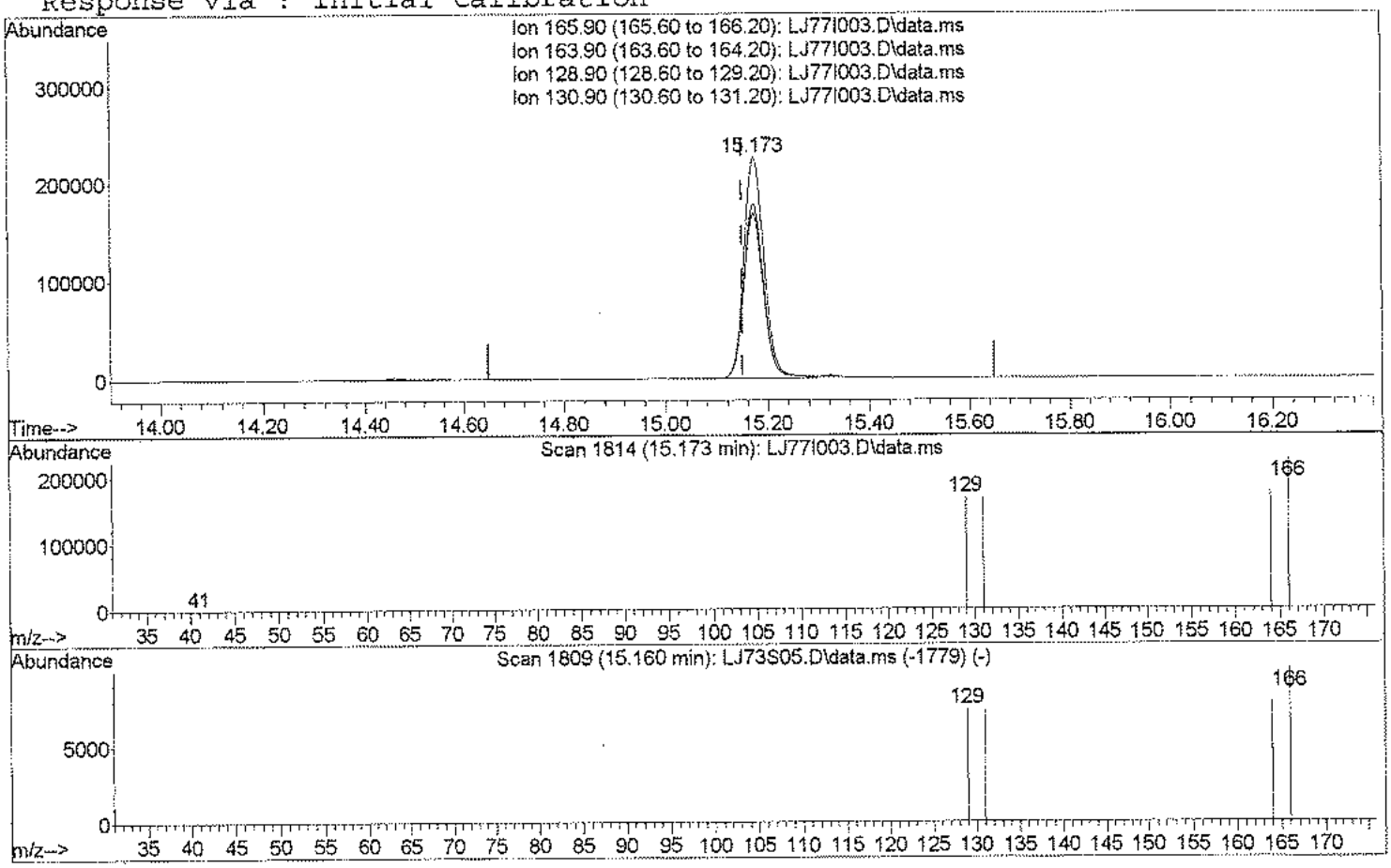
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected			
37)	1,4-Dioxane	0.00	88		Not Detected			
38)	Trichloroethene	0.00	130		Not Detected			
39)	Methyl Methacrylate	0.00	69		Not Detected			
40)	Heptane	12.42	71	16289	122.2254	ppt	#	21
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected			
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected			
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected			
44)	1,1,2-Trichloroethane	0.00	97		Not Detected			
45)	Toluene	14.01	91	432366	843.2048	ppt		98
46)	2-Hexanone	14.27	43	12232	48.1175	ppt	#	85
47)	Dibromochloromethane	0.00	129		Not Detected			
48)	1,2-Dibromoethane	0.00	107		Not Detected			
49)	Tetrachloroethene	15.17	166	620009	1981.3154	ppt	#	85
51)	Chlorobenzene	0.00	112		Not Detected			
52)	Ethylbenzene	16.27	91	633038	976.9241	ppt		99
53)	m,p-Xylene	16.45	91	334480	680.0657	ppt		98
54)	Bromoform	0.00	173		Not Detected			
55)	Styrene	16.87	104	44574	122.9839	ppt		99
56)	1,1,2,2-Tetrachloroethane	17.00	83	27002	93.4898	ppt	#	30
57)	o-Xylene	16.98	91	110552	234.2555	ppt		96
59)	4-Ethyl Toluene	18.41	105	37984	64.4663	ppt		98
60)	1,3,5-Trimethylbenzene	18.49	105	33005	58.1451	ppt		87
61)	1,2,4-Trimethylbenzene	19.02	105	97724	194.8462	ppt		99
62)	Benzyl Chloride	0.00	91		Not Detected			
63)	m-Dichlorobenzene	0.00	146		Not Detected			
64)	p-Dichlorobenzene	0.00	146		Not Detected			
65)	o-Dichlorobenzene	0.00	146		Not Detected			
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected			
67)	Naphthalene	0.00	128		Not Detected			
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\25MAY16L\
Data File : LJ77I003.D
Acq On : 05/25/2016 14:47
Operator : LMR
Sample : 1614564003
Inst : 5975-L
Misc : A-0053H-052416-IA-BAS
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 25 15:27:43 2016
Quant Method : Z:\L\METHODS\TO15LSIMA11.m
Quant Title : TO-15 SIM
QLast Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



TIC: LJ77I003.D\data.ms

(49) Tetrachloroethene

15.173min (+ 0.022) 1981.32 ppt

response 620009

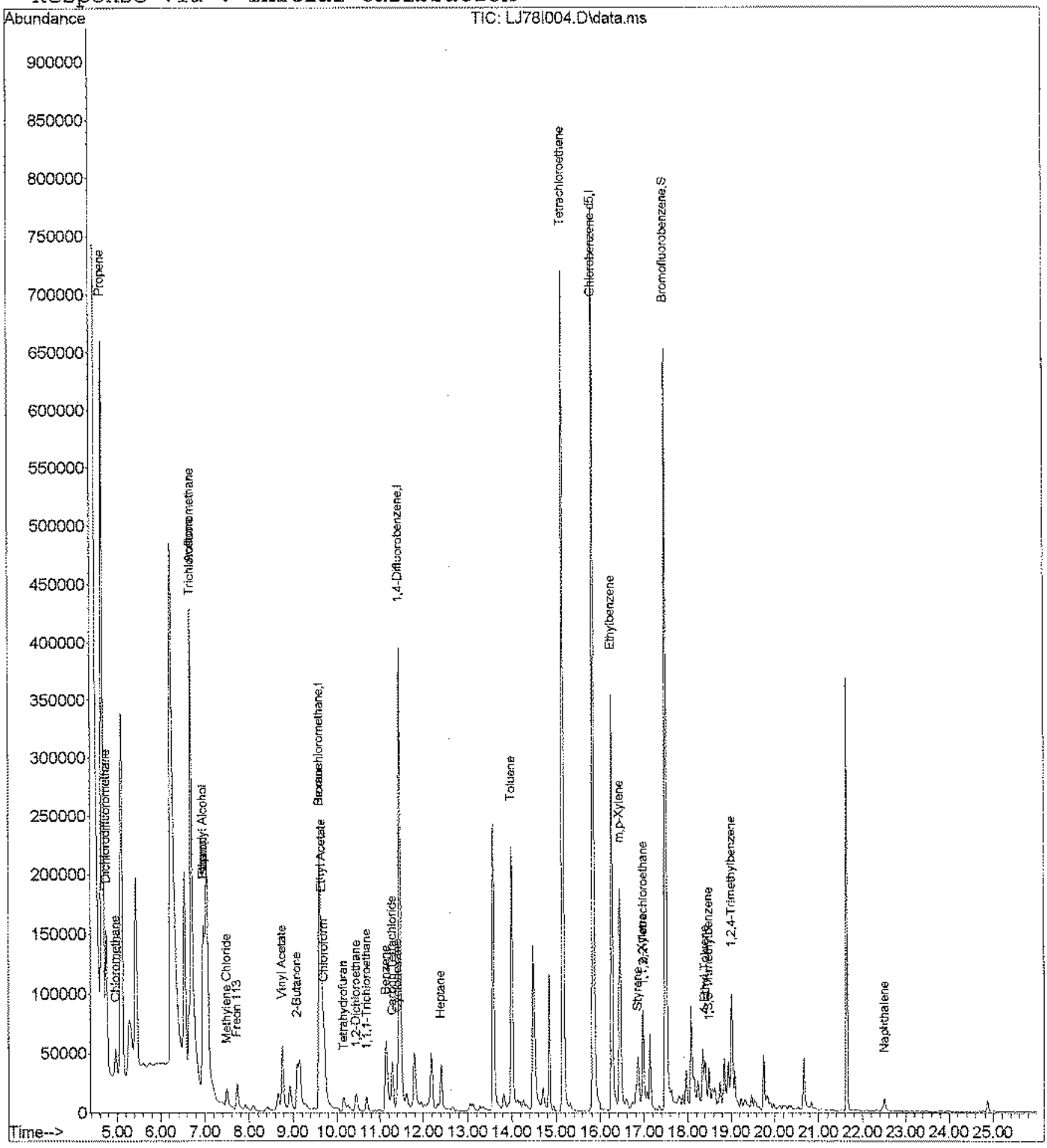
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.40
128.90	57.40	74.56#
130.90	56.90	73.78#

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ78I004.D Vial: 14
Acq Time : 05/25/2016 15:37 Operator: LMR
Sample : 1614564004 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 26 09:17:17 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ78I004.D Vial: 14
Acq Time : 05/25/2016 15:37 Operator: LMR
Sample : 1614564004 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 26 09:17:17 2016 Results File: TO15LSIMA11.RES

Quant Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	58531	1000.0000	ppt		62.36
25) 1,4-Difluorobenzene	11.46	114	957117	1000.0000	ppt		50.65
50) Chlorobenzene d5	15.84	117	1541108	1000.0000	ppt		52.49
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	903884	940.2678	ppt		94.03%
Target Compounds							Qvalue
2) Propene	4.66	41	434328	3498.3262	ppt	#	47
3) Dichlorodifluoromethane	4.74	85	212347	556.7801	ppt		99
4) Chloromethane	4.96	50	62483	585.4626	ppt		97
5) Freon 114	0.00	135		Not Detected			
6) Vinyl Chloride	0.00	62		Not Detected			
7) 1,3-Butadiene	0.00	54		Not Detected			
8) Bromomethane	0.00	94		Not Detected			
9) Chloroethane	0.00	64		Not Detected			
10) Acrolein	0.00	56		Not Detected			
11) Acetone	6.68	43	955332	3044.9178	ppt	#	87
12) Trichlorofluoromethane	6.69	101	165296	326.0236	ppt		86
13) Ethanol	6.98	45	779550	1873.7733	ppt	#	39
14) Isopropyl Alcohol	6.98	45	779550	1873.7733	ppt	#	90
15) 1,1-Dichloroethene	0.00	61		Not Detected			
16) Methylene Chloride	7.49	84	23530	156.5022	ppt	#	65
17) Freon 113	7.73	151	27361	70.8540	ppt		85
18) Carbon Disulfide	0.00	76		Not Detected			
19) trans-1,2-Dichloroethene	0.00	96		Not Detected			
20) 1,1-Dichloroethane	0.00	63		Not Detected			
21) methyl t-butyl ether	0.00	73		Not Detected			
22) Vinyl Acetate	8.77	86	9459	322.5057	ppt	#	1
23) 2-Butanone	9.10	43	177689	528.2010	ppt	#	70
24) cis-1,2-Dichloroethene	0.00	96		Not Detected			
26) Ethyl Acetate	9.65	61	41201	826.0202	ppt	#	1
27) Hexane	9.61	57	56904	278.7067	ppt	#	44
28) Chloroform	9.71	83	65995	220.9179	ppt		98
29) Tetrahydrofuran	10.16	42	19645	117.9042	ppt	#	23
30) 1,2-Dichloroethane	10.46	62	13242	74.6712	ppt	#	92
31) 1,1,1-Trichloroethane	10.69	97	14287	41.7545	ppt	#	91
32) Benzene	11.15	78	66758	156.7271	ppt	#	92
33) Carbon Tetrachloride	11.29	117	48596	121.4728	ppt		100
34) Cyclohexane	11.41	84	25418	128.5263	ppt	#	36
35) 1,2-Dichloropropane	0.00	63		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ78I004.D Vial: 14
Acq Time : 05/25/2016 15:37 Operator: LMR
Sample : 1614564004 Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 26 09:17:17 2016 Results File: TO15LSIMA11.RES

Quant Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

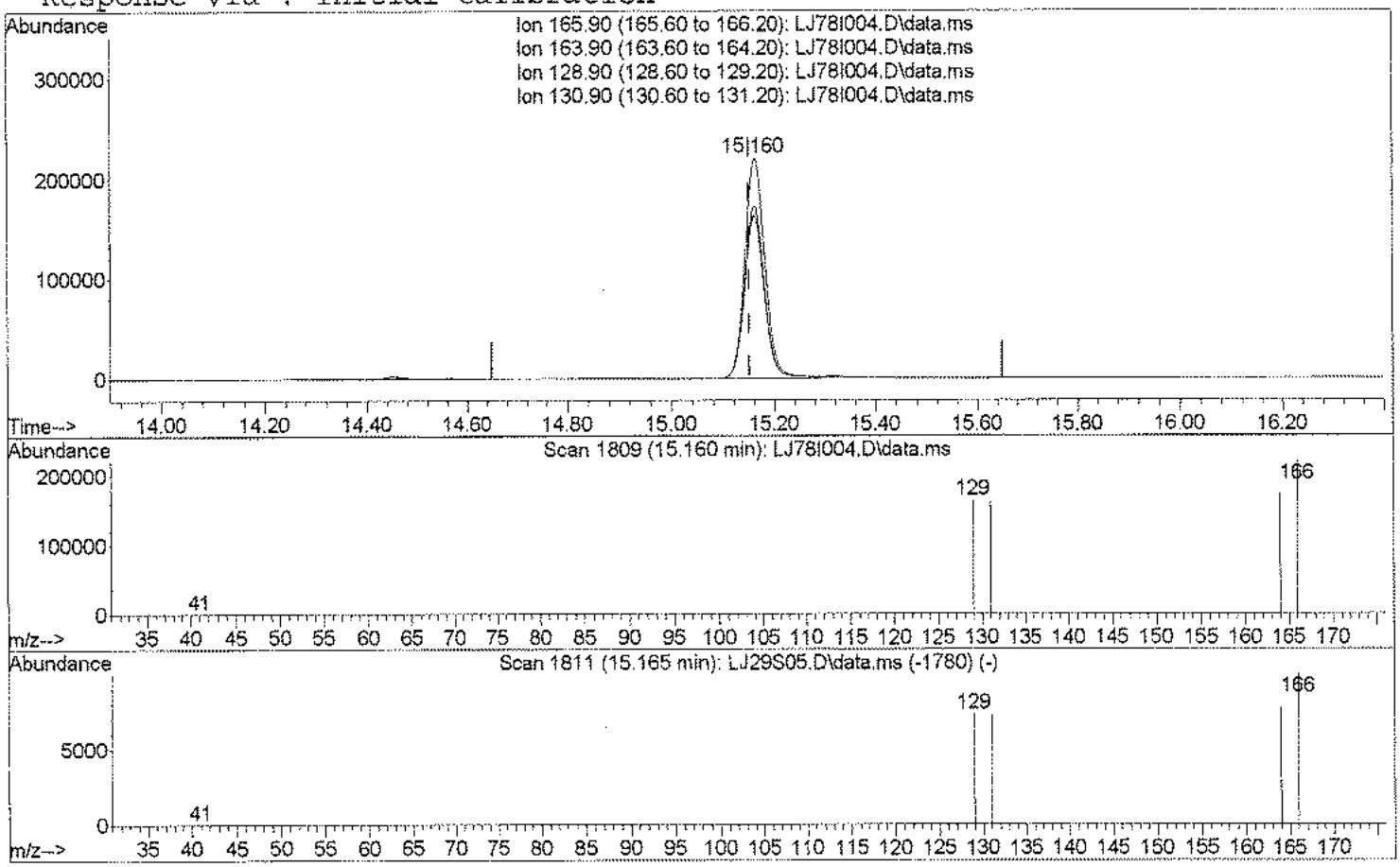
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected		
37)	1,4-Dioxane	0.00	88		Not Detected		
38)	Trichloroethene	0.00	130		Not Detected		
39)	Methyl Methacrylate	0.00	69		Not Detected		
40)	Heptane	12.41	71	15430	115.2630 ppt	#	23
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected		
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected		
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected		
44)	1,1,2-Trichloroethane	0.00	97		Not Detected		
45)	Toluene	14.00	91	396433	769.6763 ppt		98
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	0.00	129		Not Detected		
48)	1,2-Dibromoethane	0.00	107		Not Detected		
49)	Tetrachloroethene	15.16	166	601699	1914.2192 ppt	#	85
51)	Chlorobenzene	0.00	112		Not Detected		
52)	Ethylbenzene	16.26	91	621443	939.7746 ppt		99
53)	m,p-Xylene	16.44	91	362927	723.0883 ppt		96
54)	Bromoform	0.00	173		Not Detected		
55)	Styrene	16.86	104	57930	156.6252 ppt		99
56)	1,1,2,2-Tetrachloroethane	16.99	83	23021	78.1059 ppt	#	27
57)	o-Xylene	16.97	91	125954	261.5330 ppt		99
59)	4-Ethyl Toluene	18.40	105	49301	81.9934 ppt		93
60)	1,3,5-Trimethylbenzene	18.49	105	40543	69.9907 ppt		94
61)	1,2,4-Trimethylbenzene	19.02	105	142363	278.1501 ppt		99
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	0.00	146		Not Detected		
64)	p-Dichlorobenzene	0.00	146		Not Detected		
65)	o-Dichlorobenzene	0.00	146		Not Detected		
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected		
67)	Naphthalene	22.51	128	27204	68.3147 ppt	#	97
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\25MAY16L\
Data File : LJ78I004.D
Acq On : 05/25/2016 15:37
Operator : LMR
Sample : 1614564004
Inst : 5975-L
Misc : A-0053H-052416-IA-BAS-D
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 26 09:17:17 2016
Quant Method : J:\L\METHODS\TO15LSIMA11.m
Quant Title : TO-15 SIM
QLast Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



TIC: LJ78I004.D\data.ms

(49) Tetrachloroethene

15.160min (+ 0.010) 1914.22 ppt

response 601699

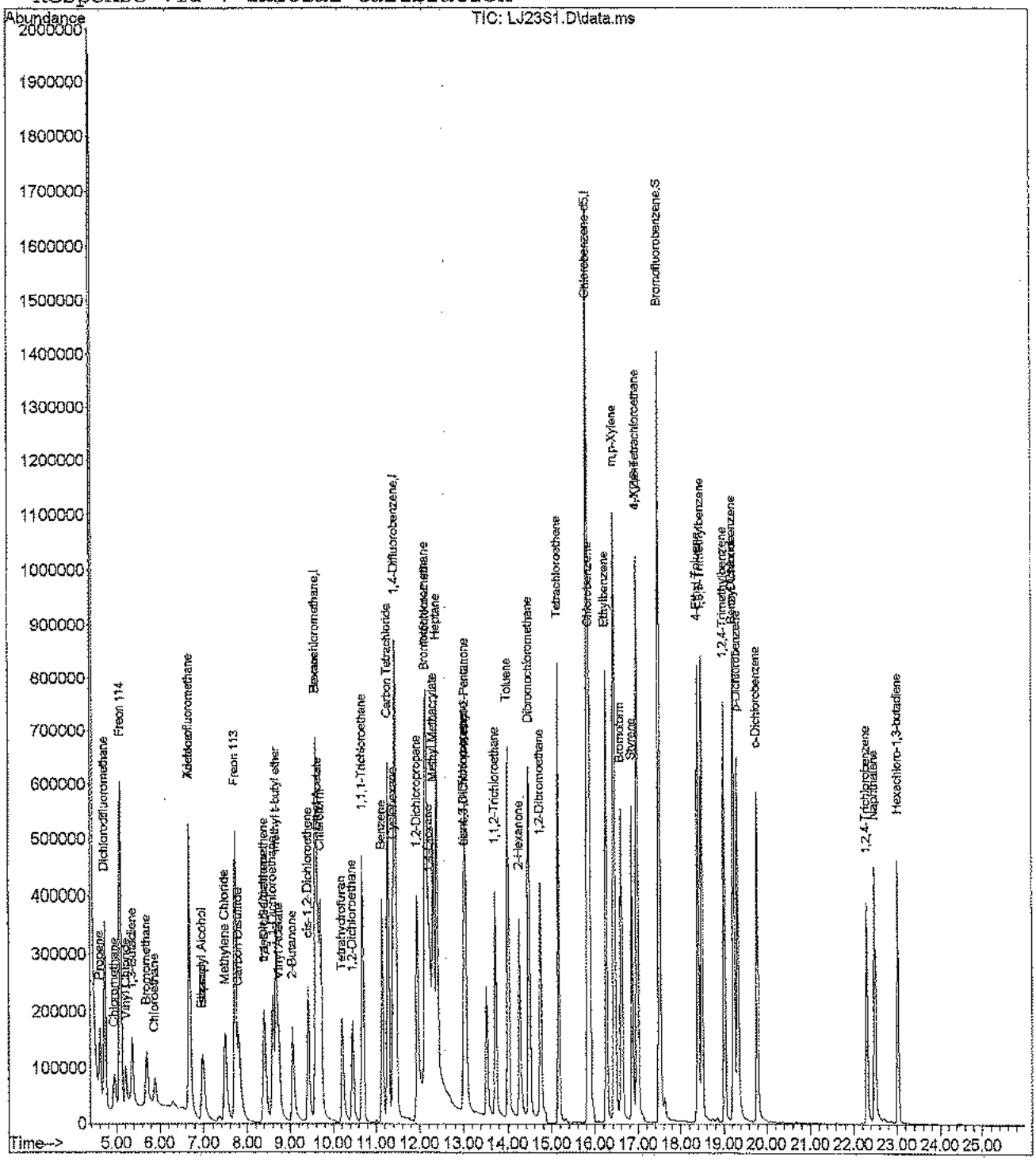
Ion	Exp%	Act%
165.90	100.00	100.00
163.90	76.20	78.21
128.90	57.40	74.33#
130.90	56.90	73.63#

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ23S1.D Vial: 1
Acq Time : 05/11/2016 14:49 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31755 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:49:24 2016 Results File: TO15LSIMA10.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ23S1.D Vial: 1
Acq Time : 05/11/2016 14:49 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31755 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:49:24 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 11 10:44:03 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.60	130	105021	1000.0000	ppt		368.29#
25) 1,4-Difluorobenzene	11.46	114	2106819	1000.0000	ppt		575.33#
50) Chlorobenzene d5	15.84	117	3266677	1000.0000	ppt		617.39#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	2061029	1010.1583	ppt		101.02%
Target Compounds							Qvalue
2) Propene	4.61	41	181213	414.0933	ppt		97
3) Dichlorodifluoromethane	4.72	85	646967	493.2513	ppt		100
4) Chloromethane	4.94	50	184672	383.5781	ppt		95
5) Freon 114	5.08	135	587207	568.2808	ppt	#	83
6) Vinyl Chloride	5.21	62	224650	503.4442	ppt		99
7) 1,3-Butadiene	5.36	54	176261	488.3288	ppt	#	58
8) Bromomethane	5.70	94	243207	418.1296	ppt		98
9) Chloroethane	5.89	64	115006	382.1442	ppt	#	92
10) Acrolein	0.00	56	Not Detected				
11) Acetone	6.68	43	386123	465.4004	ppt		89
12) Trichlorofluoromethane	6.68	101	771987	517.8911	ppt	#	70
13) Ethanol	6.98	45	489098	543.8484	ppt	#	39
14) Isopropyl Alcohol	6.98	45	489098	543.8484	ppt		93
15) 1,1-Dichloroethene	8.40	61	386741	626.5278	ppt		94
16) Methylene Chloride	7.48	84	247768	459.4837	ppt	#	70
17) Freon 113	7.71	151	639808	590.7745	ppt		87
18) Carbon Disulfide	7.80	76	780192	467.3945	ppt	#	58
19) trans-1,2-Dichloroethene	8.40	96	309553	678.2025	ppt	#	84
20) 1,1-Dichloroethane	8.60	63	511469	503.4202	ppt		97
21) methyl t-butyl ether	8.68	73	794084	1073.9084	ppt	#	85
22) Vinyl Acetate	8.75	86	50917	688.8215	ppt	#	1
23) 2-Butanone	9.06	43	598881	701.3159	ppt	#	72
24) cis-1,2-Dichloroethene	9.43	96	333814	764.9187	ppt	#	85
26) Ethyl Acetate	9.65	61	123614	519.6031	ppt	#	1
27) Hexane	9.60	57	454374	516.4367	ppt	#	49
28) Chloroform	9.71	83	643115	259.2064	ppt		99
29) Tetrahydrofuran	10.21	42	346170	555.4645	ppt	#	67
30) 1,2-Dichloroethane	10.45	62	384680	317.6215	ppt	#	93
31) 1,1,1-Trichloroethane	10.68	97	735488	325.1119	ppt	#	94
32) Benzene	11.14	78	881284	378.0394	ppt	#	93
33) Carbon Tetrachloride	11.28	117	860614	316.5184	ppt		100
34) Cyclohexane	11.40	84	420590	534.2321	ppt	#	56
35) 1,2-Dichloropropane	11.94	63	322321	332.8235	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ23S1.D Vial: 1
Acq Time : 05/11/2016 14:49 Operator: LMR
Sample : 1.0 PPB Inst : 5975-L
Misc : 31755 (400mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:49:24 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Mon Apr 11 10:44:03 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.14	83	683513	310.0848	ppt		98
37)	1,4-Dioxane	12.24	88	332948	1118.8565	ppt	#	78
38)	Trichloroethene	12.16	130	566723	491.9340	ppt		99
39)	Methyl Methacrylate	12.32	69	317024	1892.0248	ppt	#	86
40)	Heptane	12.40	71	308208	602.4137	ppt	#	1
41)	cis-1,3-Dichloropropene	13.01	75	610909	667.8974	ppt		90
42)	4-Methyl-2-Pentanone	13.05	43	1129991	706.7812	ppt	#	66
43)	trans-1,3-Dichloropropene	13.01	75	610909	667.8974	ppt	#	87
44)	1,1,2-Trichloroethane	13.73	97	412248	340.0149	ppt	#	96
45)	Toluene	14.00	91	1186758	642.2475	ppt		99
46)	2-Hexanone	14.25	43	624431	631.4186	ppt	#	79
47)	Dibromochloromethane	14.47	129	906100	387.2083	ppt		99
48)	1,2-Dibromoethane	14.73	107	631586	431.7863	ppt		99
49)	Tetrachloroethene	15.16	166	698693	520.9561	ppt	#	86
51)	Chlorobenzene	15.89	112	1044809	468.9298	ppt		97
52)	Ethylbenzene	16.26	91	1454993	745.9748	ppt		99
53)	m,p-Xylene	16.45	91	2221783	1558.2782	ppt		99
54)	Bromoform	16.61	173	765115	415.8532	ppt		99
55)	Styrene	16.86	104	849431	925.2945	ppt		98
56)	1,1,2,2-Tetrachloroethane	16.99	83	651752	270.0747	ppt		97
57)	o-Xylene	16.98	91	1042926	688.3591	ppt		96
59)	4-Ethyl Toluene	18.41	105	1425256	939.6903	ppt		98
60)	1,3,5-Trimethylbenzene	18.49	105	1295792	729.1270	ppt		98
61)	1,2,4-Trimethylbenzene	19.01	105	1180643	816.8854	ppt		100
62)	Benzyl Chloride	19.22	91	852033	560.0345	ppt		99
63)	m-Dichlorobenzene	19.25	146	848178	532.3088	ppt		97
64)	p-Dichlorobenzene	19.33	146	1136208	608.3726	ppt		97
65)	o-Dichlorobenzene	19.79	146	815652	546.4887	ppt		97
66)	1,2,4-Trichlorobenzene	22.31	180	406889	774.4246	ppt	#	98
67)	Naphthalene	22.49	128	1030511	957.0203	ppt		98
68)	Hexachloro-1,3-butadiene	23.02	225	467191	456.6828	ppt		99

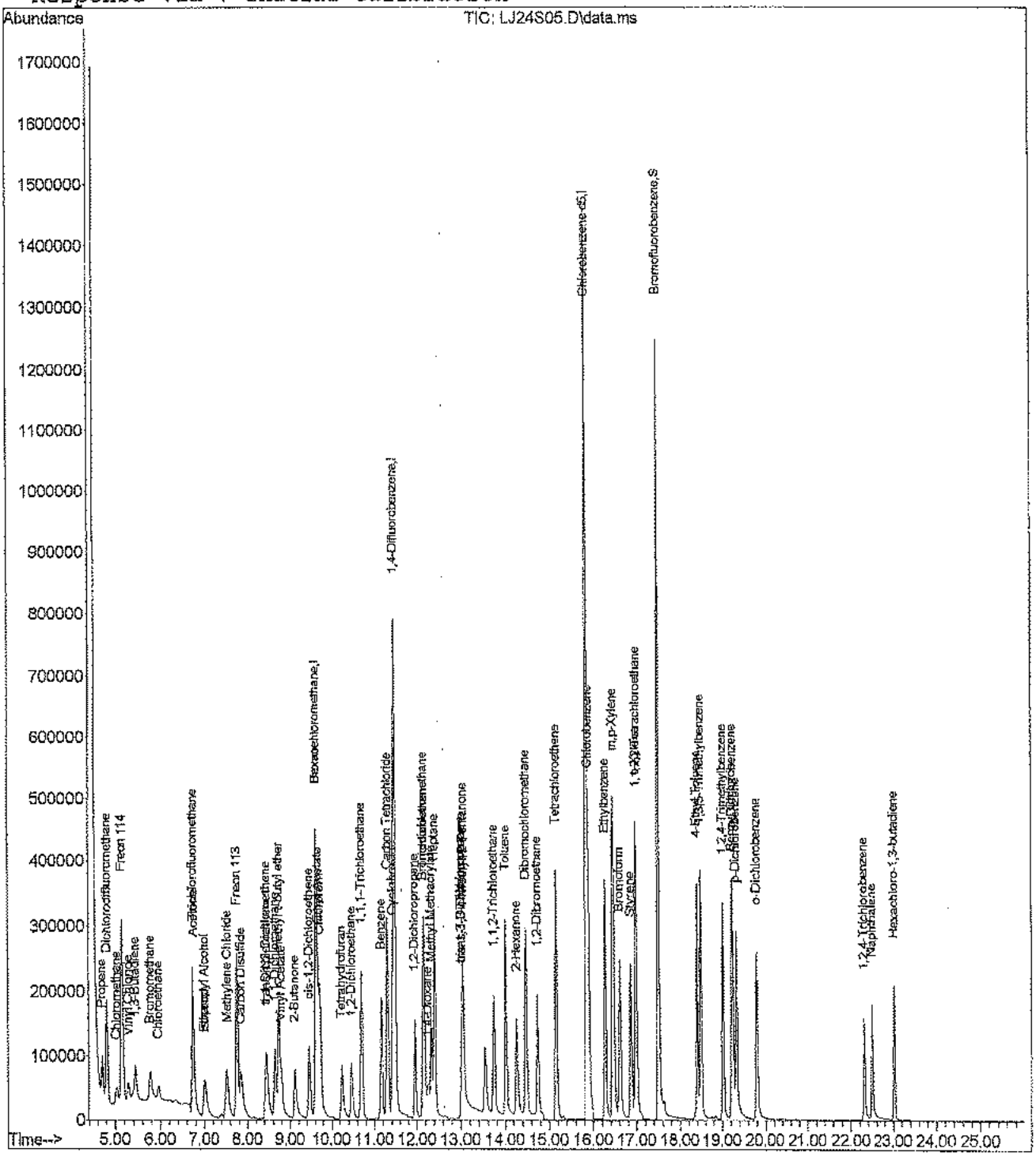
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ24S05.D Vial: 1
Acq Time : 05/11/2016 15:38 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31755 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:05 2016 Results File: TO15LSIMA10.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ24S05.D Vial: 1
Acq Time : 05/11/2016 15:38 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31755 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:05 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:49:54 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.63	130	93858	1000.0000	ppt		329.14#
25) 1,4-Difluorobenzene	11.47	114	1889713	1000.0000	ppt		516.05#
50) Chlorobenzene d5	15.85	117	2935783	1000.0000	ppt		554.85#
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	1837378	1039.6313	ppt		103.96%
Target Compounds							Qvalue
2) Propene	4.70	41	86992	241.0828	ppt		96
3) Dichlorodifluoromethane	4.81	85	304252	279.6640	ppt		100
4) Chloromethane	5.03	50	86457	198.0831	ppt		94
5) Freon 114	5.15	135	279716	321.9047	ppt	#	84
6) Vinyl Chloride	5.29	62	105166	284.7647	ppt		99
7) 1,3-Butadiene	5.44	54	83328	282.2599	ppt	#	57
8) Bromomethane	5.77	94	115450	243.4079	ppt		99
9) Chloroethane	5.95	64	54537	222.8237	ppt	#	91
10) Acrolein	0.00	56		Not Detected			
11) Acetone	6.75	43	228351	330.3934	ppt		88
12) Trichlorofluoromethane	6.73	101	403258	317.2015	ppt		98
13) Ethanol	7.00	45	248494	329.0168	ppt	#	39
14) Isopropyl Alcohol	7.00	45	248494	329.0168	ppt	#	92
15) 1,1-Dichloroethene	8.44	61	192129	372.5334	ppt		93
16) Methylene Chloride	7.52	84	118915	268.4268	ppt	#	70
17) Freon 113	7.75	151	304898	333.0508	ppt		87
18) Carbon Disulfide	7.85	76	370996	269.7495	ppt	#	57
19) trans-1,2-Dichloroethene	8.44	96	152561	395.7367	ppt	#	84
20) 1,1-Dichloroethane	8.64	63	241346	288.2757	ppt		97
21) methyl t-butyl ether	8.72	73	370074	571.1834	ppt	#	85
22) Vinyl Acetate	8.79	86	23642	400.2487	ppt	#	1
23) 2-Butanone	9.10	43	285421	402.8258	ppt	#	72
24) cis-1,2-Dichloroethene	9.45	96	156242	423.0463	ppt	#	85
26) Ethyl Acetate	9.68	61	54335	276.6316	ppt	#	1
27) Hexane	9.63	57	213455	294.7151	ppt	#	48
28) Chloroform	9.73	83	304806	148.6203	ppt		99
29) Tetrahydrofuran	10.24	42	163070	314.0176	ppt	#	66
30) 1,2-Dichloroethane	10.47	62	181243	180.5821	ppt	#	94
31) 1,1,1-Trichloroethane	10.70	97	348090	184.1423	ppt	#	94
32) Benzene	11.16	78	425829	220.3137	ppt	#	94
33) Carbon Tetrachloride	11.30	117	407792	179.1936	ppt		99
34) Cyclohexane	11.42	84	198238	298.6658	ppt	#	52
35) 1,2-Dichloropropane	11.96	63	149718	186.5225	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ24S05.D Vial: 1
Acq Time : 05/11/2016 15:38 Operator: LMR
Sample : 0.5 PPB Inst : 5975-L
Misc : 31755 (200mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:05 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:49:54 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.15	83	318805	173.7440	ppt		99
37)	1,4-Dioxane	12.26	88	95465	350.7946	ppt	#	93
38)	Trichloroethene	12.17	130	264982	271.6550	ppt		99
39)	Methyl Methacrylate	12.33	69	144255	796.1119	ppt		95
40)	Heptane	12.42	71	139933	335.9802	ppt	#	50
41)	cis-1,3-Dichloropropene	13.02	75	239921	306.0293	ppt		96
42)	4-Methyl-2-Pentanone	13.06	43	830383	619.5457	ppt	#	53
43)	trans-1,3-Dichloropropene	13.02	75	239921	306.0293	ppt		94
44)	1,1,2-Trichloroethane	13.73	97	191307	189.7291	ppt	#	95
45)	Toluene	14.01	91	551884	352.5860	ppt		99
46)	2-Hexanone	14.26	43	280372	341.7837	ppt	#	79
47)	Dibromochloromethane	14.47	129	419634	214.5449	ppt		99
48)	1,2-Dibromoethane	14.73	107	290609	237.6537	ppt		98
49)	Tetrachloroethene	15.17	166	329027	288.3573	ppt	#	86
51)	Chlorobenzene	15.89	112	490063	267.0707	ppt		95
52)	Ethylbenzene	16.27	91	672697	409.6384	ppt		99
53)	m,p-Xylene	16.46	91	1027300	932.3810	ppt		98
54)	Bromoform	16.61	173	349130	231.7281	ppt		99
55)	Styrene	16.86	104	383106	488.1410	ppt		98
56)	1,1,2,2-Tetrachloroethane	16.99	83	299066	155.8286	ppt		98
57)	o-Xylene	16.98	91	486301	422.0213	ppt		96
59)	4-Ethyl Toluene	18.41	105	640981	491.7591	ppt		99
60)	1,3,5-Trimethylbenzene	18.49	105	594882	421.7764	ppt		98
61)	1,2,4-Trimethylbenzene	19.02	105	535745	450.7069	ppt		100
62)	Benzyl Chloride	19.22	91	353506	293.5432	ppt		100
63)	m-Dichlorobenzene	19.25	146	389453	307.9354	ppt		97
64)	p-Dichlorobenzene	19.33	146	539270	362.3406	ppt		98
65)	o-Dichlorobenzene	19.80	146	377071	313.5784	ppt		97
66)	1,2,4-Trichlorobenzene	22.31	180	172681	404.7193	ppt	#	97
67)	Naphthalene	22.50	128	430667	496.3195	ppt		98
68)	Hexachloro-1,3-butadiene	23.02	225	211817	261.3288	ppt		99

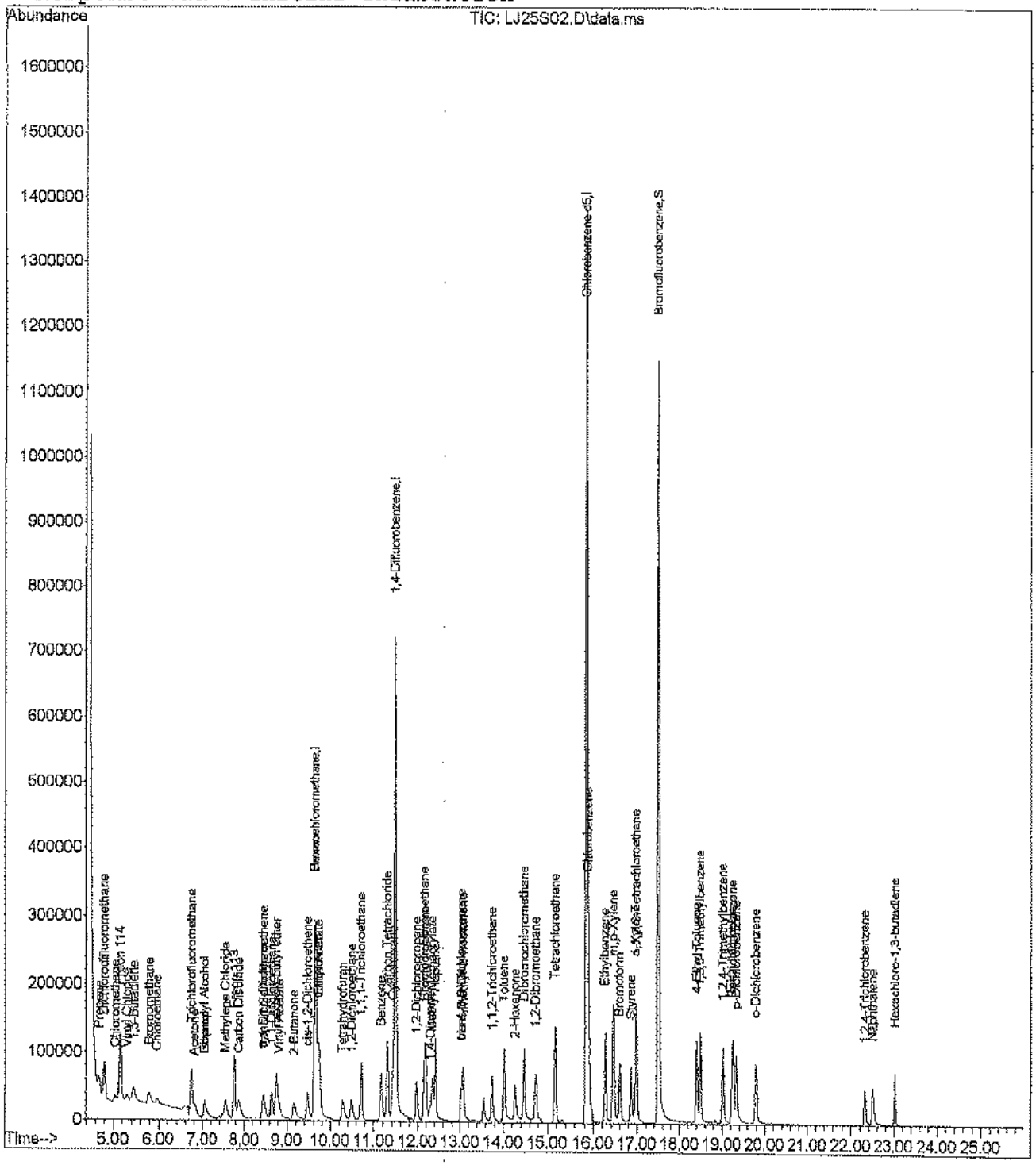
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ25S02.D Vial: 1
Acq Time : 05/11/2016 16:24 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31755 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:24 2016 Results File: TO15LSIMA10.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ25S02.D Vial: 1
Acq Time : 05/11/2016 16:24 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31755 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:24 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:50:12 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.64	130	83358	1000.0000	ppt		88.81
25) 1,4-Difluorobenzene	11.48	114	1782879	1000.0000	ppt		94.35
50) Chlorobenzene d5	15.84	117	2723259	1000.0000	ppt		92.76
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	1708014	1070.9111	ppt		107.09%
Target Compounds							Qvalue
2) Propene	4.69	41	35251	119.4726	ppt		96
3) Dichlorodifluoromethane	4.79	85	114733	128.9212	ppt		99
4) Chloromethane	5.04	50	31154	89.9034	ppt		92
5) Freon 114	5.15	135	105623	145.5935	ppt	#	84
6) Vinyl Chloride	5.30	62	40305	134.2473	ppt		99
7) 1,3-Butadiene	5.45	54	31841	132.6149	ppt	#	54
8) Bromomethane	5.78	94	43756	114.5554	ppt		100
9) Chloroethane	5.97	64	21018	106.5550	ppt	#	92
10) Acrolein	0.00	56		Not Detected			
11) Acetone	6.81	43	85664	160.2963	ppt		90
12) Trichlorofluoromethane	6.74	101	155778	148.4790	ppt		99
13) Ethanol	7.05	45	109055	172.6295	ppt	#	39
14) Isopropyl Alcohol	7.05	45	109055	172.6295	ppt	#	85
15) 1,1-Dichloroethene	8.45	61	71953	165.9272	ppt		93
16) Methylene Chloride	7.54	84	44742	123.6594	ppt	#	69
17) Freon 113	7.76	151	115872	150.7433	ppt		86
18) Carbon Disulfide	7.86	76	143357	127.9668	ppt	#	57
19) trans-1,2-Dichloroethene	8.45	96	57410	175.5772	ppt	#	85
20) 1,1-Dichloroethane	8.65	63	91435	133.5193	ppt		96
21) methyl t-butyl ether	8.76	73	137040	234.2030	ppt	#	85
22) Vinyl Acetate	8.83	86	8501	175.2178	ppt	#	1
23) 2-Butanone	9.15	43	99845	167.0042	ppt	#	70
24) cis-1,2-Dichloroethene	9.47	96	59021	186.2784	ppt	#	85
26) Ethyl Acetate	9.71	61	18830	111.5258	ppt	#	1
27) Hexane	9.63	57	78235	123.4967	ppt	#	83
28) Chloroform	9.74	83	114397	65.8110	ppt		99
29) Tetrahydrofuran	10.28	42	62258	135.2440	ppt	#	65
30) 1,2-Dichloroethane	10.49	62	67919	79.3298	ppt	#	94
31) 1,1,1-Trichloroethane	10.71	97	131577	80.9114	ppt	#	95
32) Benzene	11.16	78	165482	99.7903	ppt	#	94
33) Carbon Tetrachloride	11.30	117	153306	78.2806	ppt		100
34) Cyclohexane	11.42	84	74314	125.1370	ppt	#	34
35) 1,2-Dichloropropane	11.97	63	55774	81.3398	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ25S02.D Vial: 1
Acq Time : 05/11/2016 16:24 Operator: LMR
Sample : 0.2 PPB Inst : 5975-L
Misc : 31755 (80mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:24 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:50:12 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.15	83	116412	74.0953	ppt		98
37)	1,4-Dioxane	12.29	88	35039	142.9104	ppt		95
38)	Trichloroethene	12.19	130	98721	114.7001	ppt		99
39)	Methyl Methacrylate	12.35	69	51735	261.8512	ppt		96
40)	Heptane	12.42	71	51843	142.9523	ppt	#	49
41)	cis-1,3-Dichloropropene	13.03	75	92442	132.9199	ppt		92
42)	4-Methyl-2-Pentanone	13.07	43	135006	103.4027	ppt	#	74
43)	trans-1,3-Dichloropropene	13.03	75	92442	132.9199	ppt	#	89
44)	1,1,2-Trichloroethane	13.74	97	68423	79.1112	ppt	#	95
45)	Toluene	14.01	91	195685	138.8532	ppt		98
46)	2-Hexanone	14.27	43	104110	142.2289	ppt	#	74
47)	Dibromochloromethane	14.47	129	150082	88.8487	ppt		99
48)	1,2-Dibromoethane	14.73	107	103831	97.6902	ppt		98
49)	Tetrachloroethene	15.17	166	120855	119.3921	ppt	#	86
51)	Chlorobenzene	15.89	112	180257	116.0050	ppt	#	89
52)	Ethylbenzene	16.26	91	241612	163.2976	ppt		98
53)	m,p-Xylene	16.45	91	366995	387.0776	ppt		98
54)	Bromoform	16.60	173	122671	97.3427	ppt		99
55)	Styrene	16.86	104	134302	184.6184	ppt		99
56)	1,1,2,2-Tetrachloroethane	16.98	83	106778	68.7864	ppt	#	96
57)	o-Xylene	16.97	91	175092	181.0684	ppt		96
59)	4-Ethyl Toluene	18.40	105	218634	178.2760	ppt		99
60)	1,3,5-Trimethylbenzene	18.48	105	213140	169.2319	ppt		97
61)	1,2,4-Trimethylbenzene	19.01	105	187090	172.0750	ppt		99
62)	Benzyl Chloride	19.22	91	114794	113.3352	ppt		97
63)	m-Dichlorobenzene	19.25	146	132225	124.7886	ppt		97
64)	p-Dichlorobenzene	19.33	146	196373	155.6164	ppt		98
65)	o-Dichlorobenzene	19.79	146	136881	134.0355	ppt		97
66)	1,2,4-Trichlorobenzene	22.32	180	58982	158.3144	ppt	#	98
67)	Naphthalene	22.50	128	137558	174.6462	ppt		98
68)	Hexachloro-1,3-butadiene	23.02	225	76398	116.2173	ppt		99

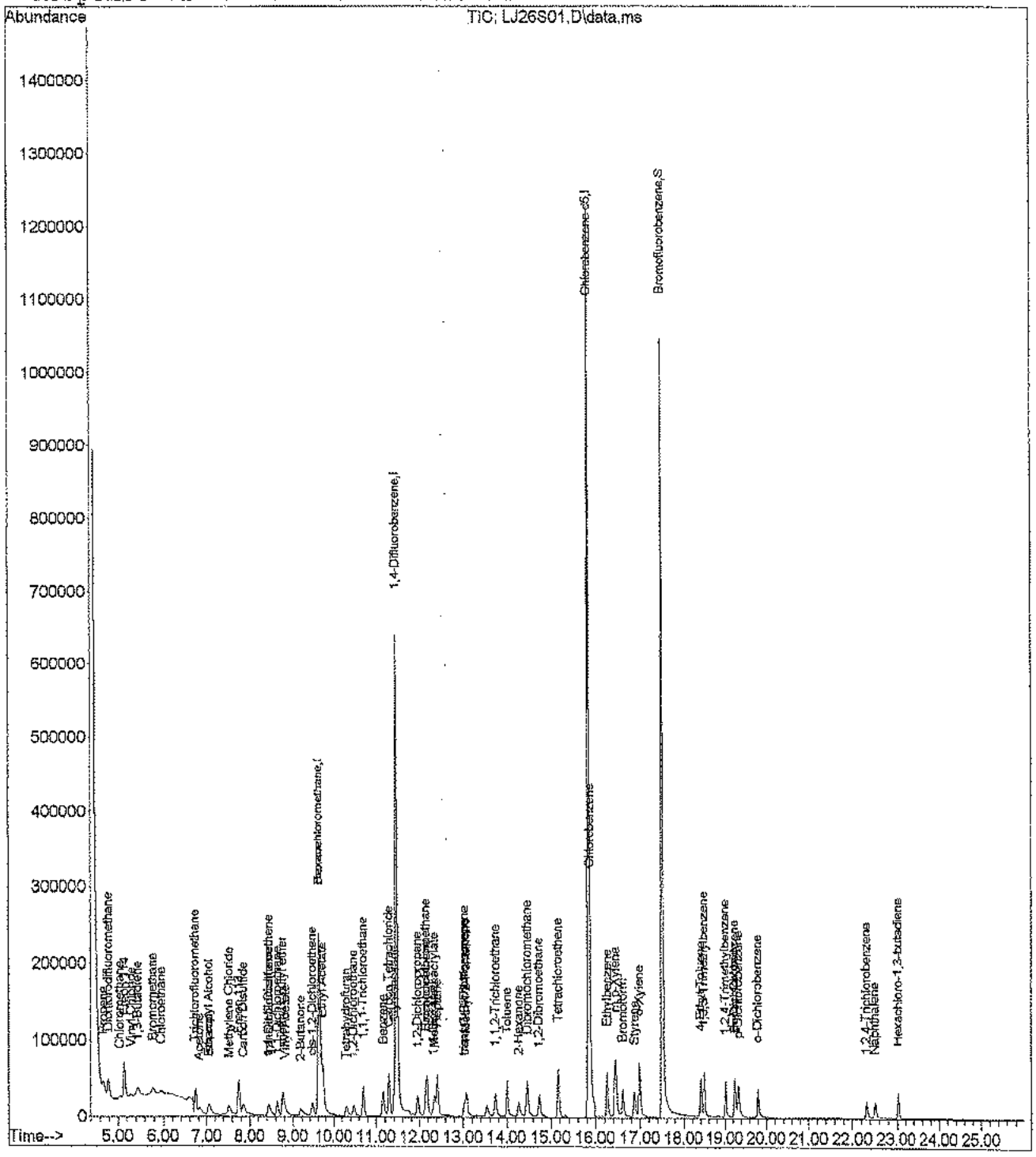
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ26S01.D Vial: 1
Acq Time : 05/11/2016 17:10 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31755 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:52 2016 Results File: TO15LSIMA10.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ26S01.D Vial: 1
Acq Time : 05/11/2016 17:10 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31755 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:52 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:50:39 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.63	130	75474	1000.0000	ppt		80.41
25) 1,4-Difluorobenzene	11.47	114	1642398	1000.0000	ppt		86.91
50) Chlorobenzene d5	15.85	117	2522609	1000.0000	ppt		85.93
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.51	95	1557613	1066.6907	ppt		106.67%
Target Compounds							Qvalue
2) Propene	4.68	41	18019	74.3160	ppt		95
3) Dichlorodifluoromethane	4.78	85	53062	72.4701	ppt		99
4) Chloromethane	5.04	50	14552	53.4152	ppt		90
5) Freon 114	5.14	135	49220	80.5392	ppt	#	84
6) Vinyl Chloride	5.30	62	18508	74.2167	ppt		99
7) 1,3-Butadiene	5.45	54	14722	74.0681	ppt	#	48
8) Bromomethane	5.78	94	20049	65.1154	ppt		99
9) Chloroethane	5.96	64	9600	60.7141	ppt	#	88
10) Acrolein	0.00	56		Not Detected			
11) Acetone	6.83	43	44476	111.6872	ppt		94
12) Trichlorofluoromethane	6.73	101	71879	81.0056	ppt		97
13) Ethanol	7.05	45	63162	115.3602	ppt	#	39
14) Isopropyl Alcohol	7.05	45	63162	115.3602	ppt	#	89
15) 1,1-Dichloroethene	8.45	61	33193	88.8579	ppt		93
16) Methylene Chloride	7.53	84	21007	70.9546	ppt	#	69
17) Freon 113	7.75	151	53630	82.3451	ppt		86
18) Carbon Disulfide	7.86	76	68994	75.0048	ppt	#	55
19) trans-1,2-Dichloroethene	8.45	96	26180	91.8413	ppt	#	83
20) 1,1-Dichloroethane	8.64	63	42322	74.8320	ppt		96
21) methyl t-butyl ether	8.76	73	62120	112.3342	ppt	#	85
22) Vinyl Acetate	8.83	86	4058	97.1851	ppt	#	1
23) 2-Butanone	9.17	43	45099	87.2604	ppt	#	74
24) cis-1,2-Dichloroethene	9.45	96	26359	93.9513	ppt	#	81
26) Ethyl Acetate	9.72	61	8190	58.0447	ppt	#	1
27) Hexane	9.62	57	35470	66.1094	ppt	#	83
28) Chloroform	0.00	83		Not Detected			
29) Tetrahydrofuran	10.30	42	29635	74.9874	ppt	#	65
30) 1,2-Dichloroethane	10.47	62	31116	46.0255	ppt	#	94
31) 1,1,1-Trichloroethane	10.70	97	60291	46.6103	ppt	#	94
32) Benzene	11.16	78	73701	54.3155	ppt	#	94
33) Carbon Tetrachloride	11.29	117	70418	45.2935	ppt		100
34) Cyclohexane	11.41	84	34957	68.2908	ppt	#	13
35) 1,2-Dichloropropane	11.96	63	25488	46.7767	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\11MAY16L\LJ26S01.D Vial: 1
Acq Time : 05/11/2016 17:10 Operator: LMR
Sample : 0.1 PPB Inst : 5975-L
Misc : 31755 (40mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 07:50:52 2016 Results File: TO15LSIMA10.RES

Quant Method : J:\L\METHODS\TO15LSIMA10.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:50:39 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.15	83	53570	43.1698	ppt		98
37)	1,4-Dioxane	12.32	88	15776	72.7064	ppt		96
38)	Trichloroethene	12.17	130	45092	62.8335	ppt		99
39)	Methyl Methacrylate	12.35	69	22987	113.2172	ppt		94
40)	Heptane	12.41	71	22981	72.4475	ppt	#	48
41)	cis-1,3-Dichloropropene	13.03	75	36921	61.9791	ppt		96
42)	4-Methyl-2-Pentanone	13.07	43	61089	54.0673	ppt	#	71
43)	trans-1,3-Dichloropropene	13.03	75	36921	61.9791	ppt		94
44)	1,1,2-Trichloroethane	13.73	97	31045	45.1218	ppt	#	94
45)	Toluene	14.01	91	86908	70.8898	ppt		99
46)	2-Hexanone	14.27	43	39902	61.6037	ppt	#	75
47)	Dibromochloromethane	14.47	129	67071	49.1619	ppt		98
48)	1,2-Dibromoethane	14.73	107	46564	53.3847	ppt		99
49)	Tetrachloroethene	15.17	166	54642	64.3043	ppt	#	86
51)	Chlorobenzene	15.89	112	82160	63.5254	ppt	#	82
52)	Ethylbenzene	16.27	91	107758	79.9498	ppt		99
53)	m,p-Xylene	16.46	91	162409	187.6541	ppt		98
54)	Bromoform	16.62	173	54021	52.5204	ppt		100
55)	Styrene	16.87	104	58364	84.4472	ppt		99
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected			
57)	o-Xylene	16.98	91	79248	91.5944	ppt		98
59)	4-Ethyl Toluene	18.41	105	92138	79.1290	ppt		99
60)	1,3,5-Trimethylbenzene	18.49	105	93117	78.7395	ppt		95
61)	1,2,4-Trimethylbenzene	19.02	105	80192	77.9815	ppt		100
62)	Benzyl Chloride	19.23	91	43995	49.9553	ppt		98
63)	m-Dichlorobenzene	19.25	146	56479	62.0944	ppt		97
64)	p-Dichlorobenzene	19.34	146	86608	76.2474	ppt		98
65)	o-Dichlorobenzene	19.80	146	58950	66.2507	ppt		97
66)	1,2,4-Trichlorobenzene	22.32	180	25814	66.0879	ppt	#	97
67)	Naphthalene	22.50	128	58013	83.3258	ppt		98
68)	Hexachloro-1,3-butadiene	23.02	225	34182	51.1820	ppt		99

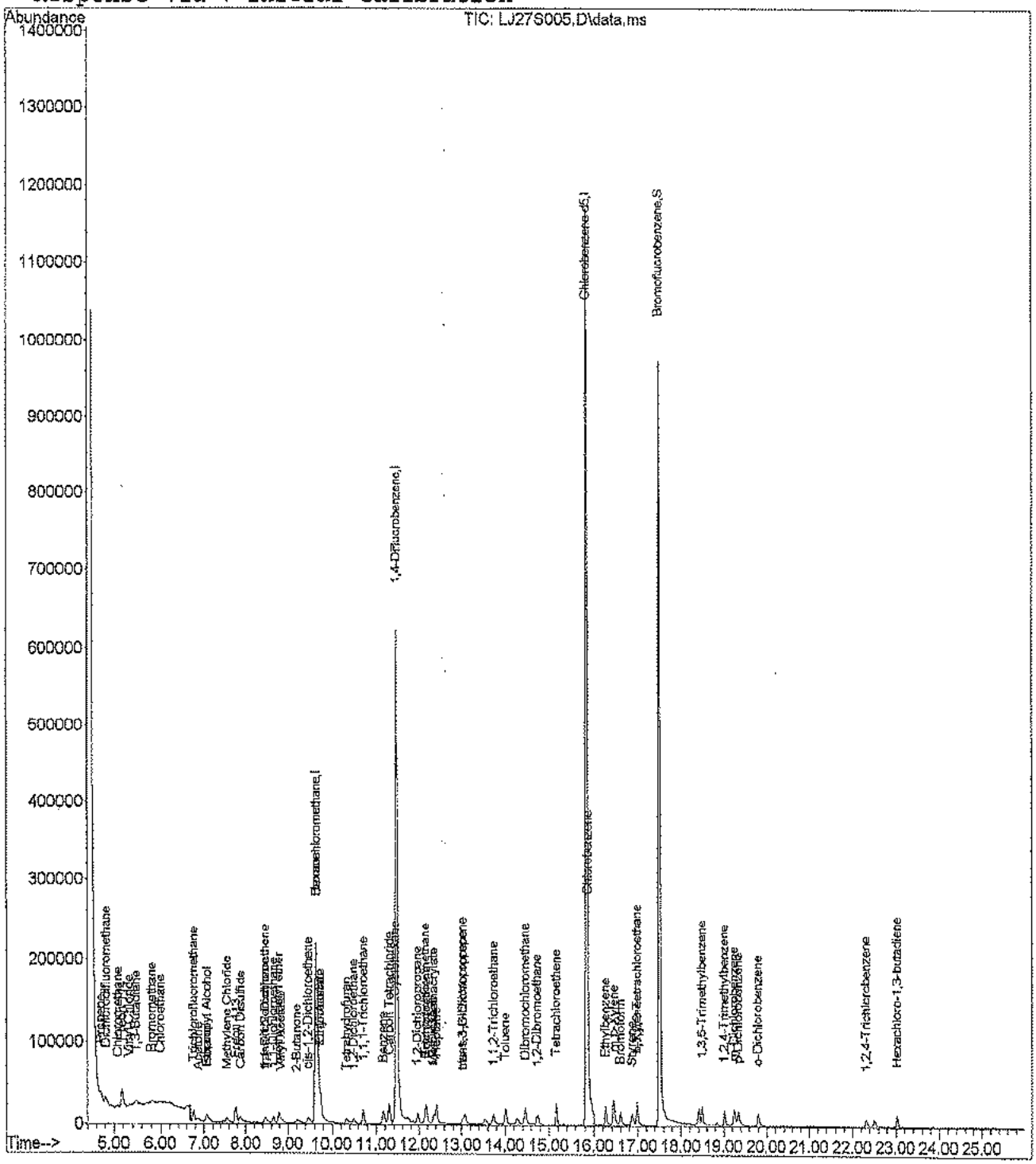
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\11MAY16L\LJ27S005.D Vial: 1
Acq Time : 05/11/2016 17:57 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31755 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 12:30:19 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\11MAY16L\LJ27S005.D Vial: 1
Acq Time : 05/11/2016 17:57 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31755 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 12:30:19 2016 Results File: TO15LSIMA11.RES

Quant Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.64	130	73514	1000.0000	ppt		78.32
25) 1,4-Difluorobenzene	11.47	114	1557224	1000.0000	ppt		82.41
50) Chlorobenzene d5	15.84	117	2393315	1000.0000	ppt		81.52
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	1477724	989.8410	ppt		98.98%
Target Compounds							Qvalue
2) Propene	4.71	41	9280	59.5122	ppt		92
3) Dichlorodifluoromethane	4.81	85	22141	46.2222	ppt		100
4) Chloromethane	5.08	50	6320	47.1488	ppt		94
5) Freon 114	5.17	135	21161	47.7115	ppt	#	83
6) Vinyl Chloride	5.33	62	7728	46.3001	ppt		99
7) 1,3-Butadiene	5.47	54	6428	48.2383	ppt	#	50
8) Bromomethane	5.81	94	8256	45.6414	ppt		99
9) Chloroethane	5.99	64	5280	61.0261	ppt	m	47
10) Acrolein	0.00	56		Not Detected			
11) Acetone	6.86	43	26432	67.0760	ppt	m	0
12) Trichlorofluoromethane	6.75	101	31242	49.0616	ppt		95
13) Ethanol	7.07	45	39246	75.1077	ppt	#	39
14) Isopropyl Alcohol	7.07	45	39246	75.1077	ppt	#	86
15) 1,1-Dichloroethene	8.46	61	14268	47.6351	ppt		94
16) Methylene Chloride	7.55	84	9128	48.3382	ppt	#	67
17) Freon 113	7.77	151	23313	48.0669	ppt		86
18) Carbon Disulfide	7.88	76	32450	52.6708	ppt	#	48
19) trans-1,2-Dichloroethene	8.46	96	11248	47.3089	ppt	#	82
20) 1,1-Dichloroethane	8.65	63	18264	47.6422	ppt		96
21) methyl t-butyl ether	8.78	73	26627	46.2682	ppt	#	85
22) Vinyl Acetate	8.84	86	1725	46.8271	ppt	#	1
23) 2-Butanone	9.20	43	18336	43.3969	ppt	#	70
24) cis-1,2-Dichloroethene	9.47	96	11338	46.3843	ppt	#	82
26) Ethyl Acetate	9.74	61	3248	40.0233	ppt	#	1
27) Hexane	9.63	57	14766	44.4510	ppt	#	84
28) Chloroform	9.73	83	22620	46.5400	ppt		98
29) Tetrahydrofuran	10.31	42	13897	51.2640	ppt	#	64
30) 1,2-Dichloroethane	10.48	62	13398	46.4359	ppt	#	93
31) 1,1,1-Trichloroethane	10.70	97	25997	46.6981	ppt	#	94
32) Benzene	11.16	78	34521	49.8125	ppt	#	93
33) Carbon Tetrachloride	11.30	117	30454	46.7883	ppt		99
34) Cyclohexane	11.42	84	15762	48.9864	ppt	#	24
35) 1,2-Dichloropropane	11.96	63	11268	47.1233	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\11MAY16L\LJ27S005.D Vial: 1
Acq Time : 05/11/2016 17:57 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31755 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 12:30:19 2016 Results File: TO15LSIMA11.RES

Quant Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Bromodichloromethane	12.15	83	22773	45.5023 ppt		97
37)	1,4-Dioxane	12.33	88	7337	43.0187 ppt	#	79
38)	Trichloroethene	12.18	130	19294	45.9348 ppt		99
39)	Methyl Methacrylate	12.35	69	9658	43.5392 ppt		92
40)	Heptane	12.42	71	9314	42.7636 ppt	#	42
41)	cis-1,3-Dichloropropene	13.03	75	15424	40.3936 ppt		98
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected		
43)	trans-1,3-Dichloropropene	13.03	75	15424	40.3936 ppt		96
44)	1,1,2-Trichloroethane	13.73	97	13064	44.3014 ppt	#	94
45)	Toluene	14.01	91	36235	43.2395 ppt		98
46)	2-Hexanone	0.00	43		Not Detected		
47)	Dibromochloromethane	14.46	129	27344	42.7307 ppt	#	95
48)	1,2-Dibromoethane	14.73	107	19595	43.8834 ppt		98
49)	Tetrachloroethene	15.16	166	22625	44.2400 ppt	#	85
51)	Chlorobenzene	15.89	112	33746	44.2746 ppt	#	58
52)	Ethylbenzene	16.26	91	44393	43.2285 ppt		100
53)	m,p-Xylene	16.45	91	66919	85.8529 ppt		98
54)	Bromoform	16.60	173	22195	42.2720 ppt		99
55)	Styrene	16.86	104	24056	41.8808 ppt		99
56)	1,1,2,2-Tetrachloroethane	16.99	83	20354	44.4675 ppt	#	91
57)	o-Xylene	16.97	91	33067	44.2122 ppt		98
59)	4-Ethyl Toluene	0.00	105		Not Detected		
60)	1,3,5-Trimethylbenzene	18.49	105	37931	42.1650 ppt		98
61)	1,2,4-Trimethylbenzene	19.02	105	32641	41.0657 ppt		100
62)	Benzyl Chloride	0.00	91		Not Detected		
63)	m-Dichlorobenzene	19.25	146	22716	40.1686 ppt		97
64)	p-Dichlorobenzene	19.34	146	38129	45.8407 ppt		93
65)	o-Dichlorobenzene	19.80	146	24871	43.3207 ppt		96
66)	1,2,4-Trichlorobenzene	22.32	180	11164	42.7078 ppt	#	97
67)	Naphthalene	0.00	128		Not Detected		
68)	Hexachloro-1,3-butadiene	23.02	225	14767	44.9394 ppt		97

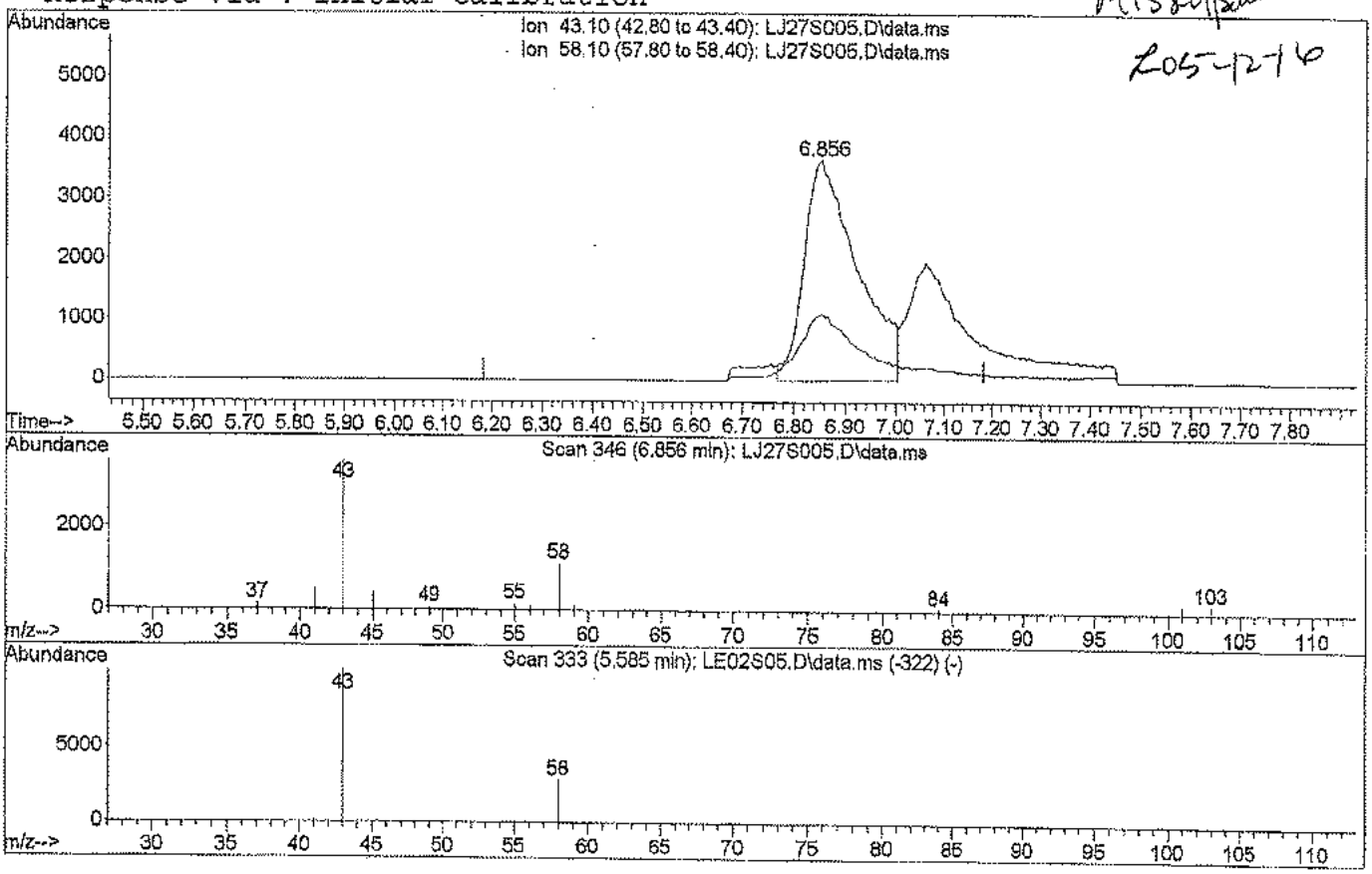
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\11MAY16L\
Data File : LJ27S005.D
Acq On : 05/11/2016 17:57
Operator : LMR
Sample : 0.05 PPB
Inst : 5975-L
Misc : 31755 (20mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 12 08:05:19 2016
Quant Method : J:\L\METHODS\TO15LSIMA11.m
Quant Title : TO-15 SIM
QLast Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration

MISSed peak
2.05-2.16



TIC: LJ27S005.D\data.ms

(11) Acetone

6.856min (+ 0.172) 67.08 ppt m

response 26432

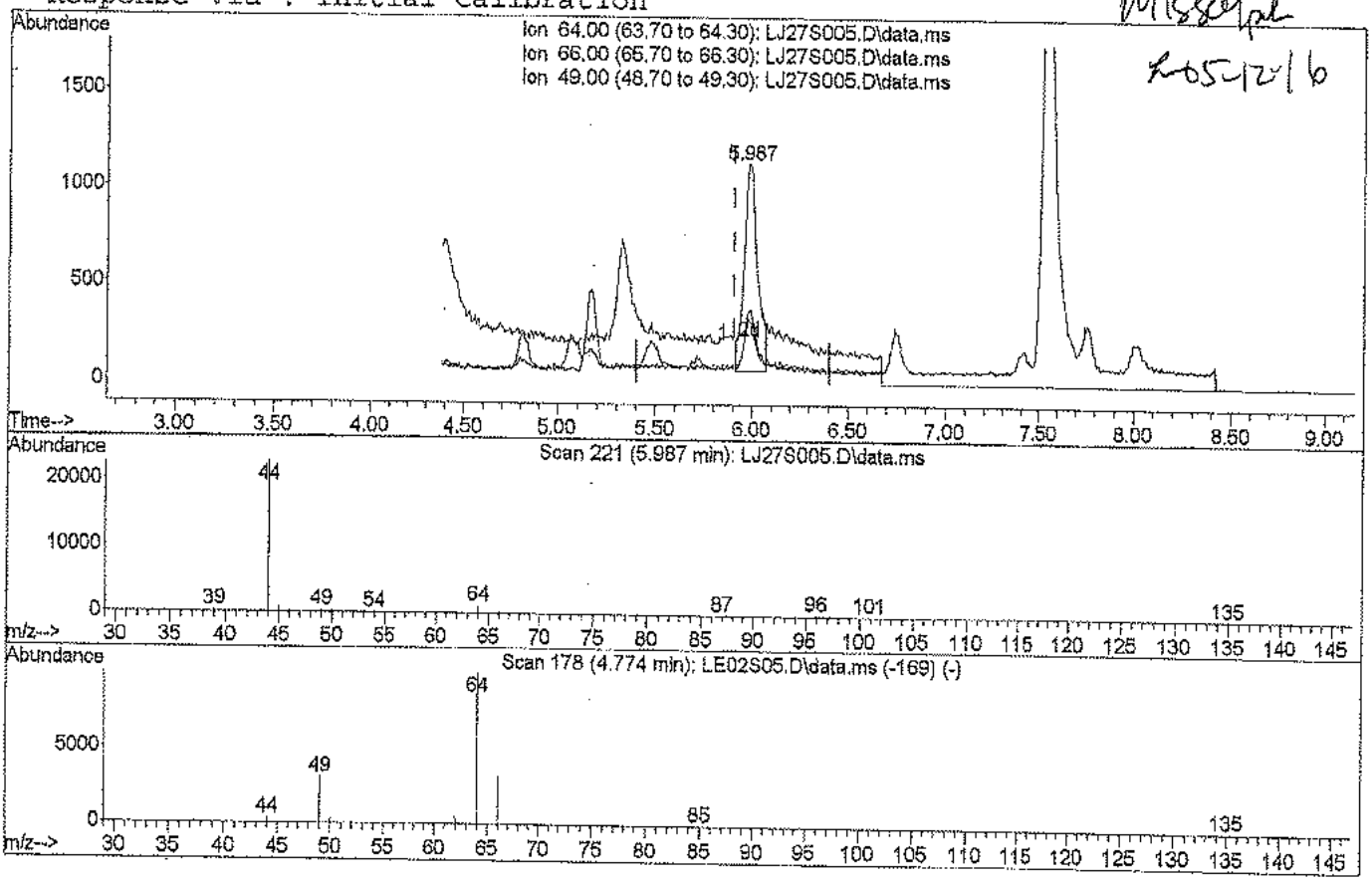
Ion	Exp%	Act%
43.10	100.00	100.00
58.10	38.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\L - 5975-L\2016\MAY16L\11MAY16L\
Data File : LJ27S005.D
Acq On : 05/11/2016 17:57
Operator : LMR
Sample : 0.05 PPB
Inst : 5975-L
Misc : 31755 (20mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 12 08:05:19 2016
Quant Method : J:\L\METHODS\TO15LSIMA11.m
Quant Title : TO-15 SIM
QLast Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration

Missed pk
5/12/16



TIC: LJ27S005.D\data.ms

(9) Chloroethane

5.987min (+ 0.080) 61.03 ppt m

response 5280

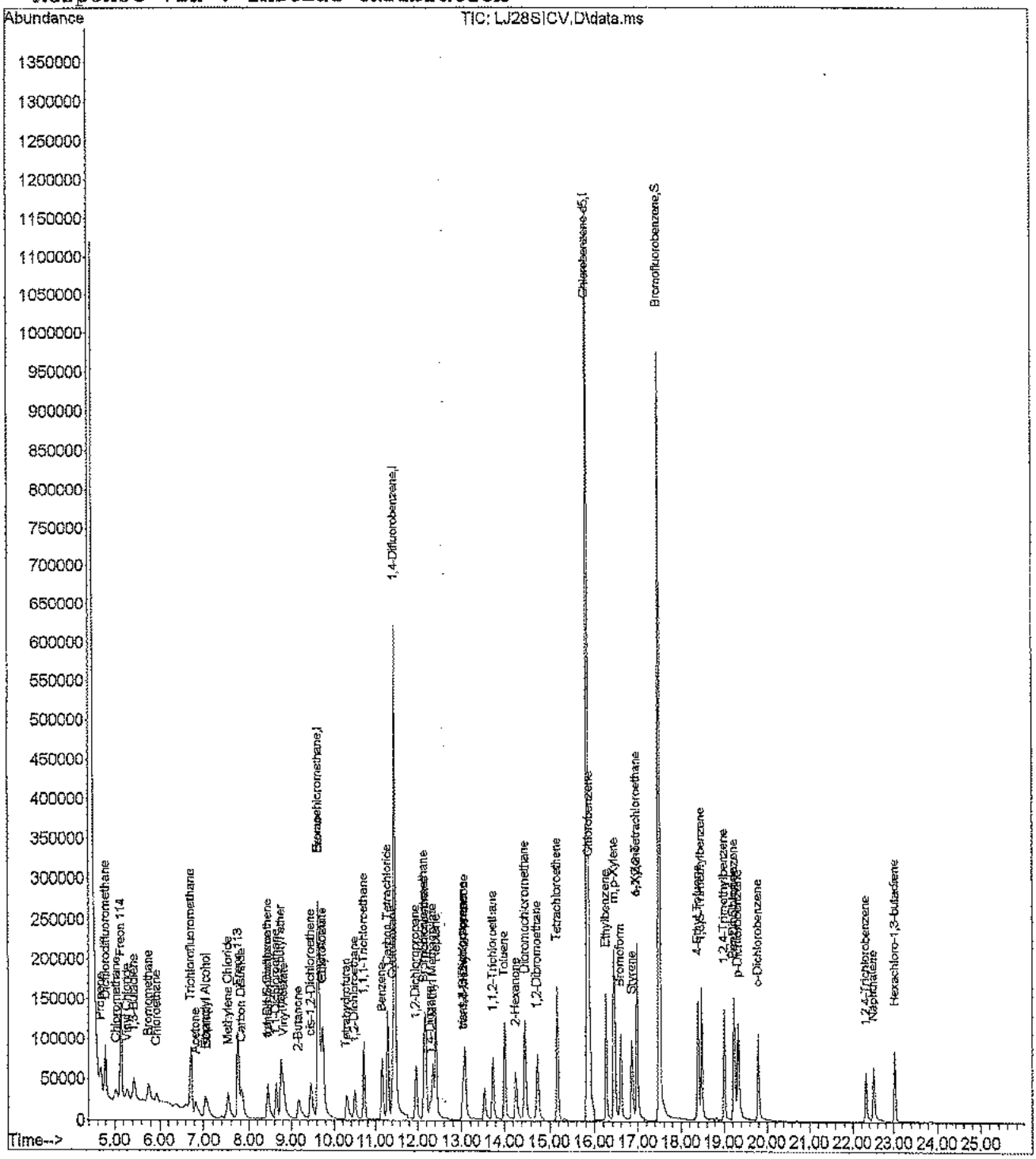
Ion	Exp%	Act%
64.00	100.00	100.00
66.00	32.90	0.00#
49.00	19.80	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\11MAY16L\LJ28SICV.D Vial: 2
Acq Time : 05/11/2016 18:44 Operator: LMR
Sample : ICV 0.25 PPB Inst : 5975-L
Misc : 31756 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 12:22:22 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\11MAY16L\LJ28SICV.D Vial: 2
Acq Time : 05/11/2016 18:44 Operator: LMR
Sample : ICV 0.25 PPB Inst : 5975-L
Misc : 31756 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 12:22:22 2016 Results File: TO15LSIMA11.RES

Quant Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.64	130	72096	1000.0000	ppt		76.81
25) 1,4-Difluorobenzene	11.47	114	1526274	1000.0000	ppt		80.77
50) Chlorobenzene d5	15.84	117	2316171	1000.0000	ppt		78.89
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.49	95	1441870	997.9929	ppt		99.80%
Target Compounds							Qvalue
2) Propene	4.68	41	37482	245.0981	ppt		96
3) Dichlorodifluoromethane	4.79	85	129691	276.0719	ppt		100
4) Chloromethane	5.03	50	37061	281.9221	ppt		95
5) Freon 114	5.14	135	121649	279.6753	ppt		87
6) Vinyl Chloride	5.28	62	45265	276.5262	ppt		99
7) 1,3-Butadiene	5.43	54	36439	278.8314	ppt	#	64
8) Bromomethane	5.75	94	50624	285.3676	ppt		99
9) Chloroethane	5.94	64	24061	283.5660	ppt	#	92
10) Acrolein	0.00	56	Not Detected				
11) Acetone	6.83	43	87008	225.1413	ppt		89
12) Trichlorofluoromethane	6.72	101	181158	290.0808	ppt		100
13) Ethanol	7.05	45	117241	228.7849	ppt	#	39
14) Isopropyl Alcohol	7.05	45	117241	228.7849	ppt	#	86
15) 1,1-Dichloroethene	8.44	61	81355	276.9538	ppt		94
16) Methylene Chloride	7.53	84	51276	276.8774	ppt	#	69
17) Freon 113	7.75	151	132730	279.0462	ppt		86
18) Carbon Disulfide	7.84	76	162937	269.6709	ppt	#	58
19) trans-1,2-Dichloroethene	8.44	96	65217	279.6964	ppt	#	85
20) 1,1-Dichloroethane	8.64	63	101831	270.8539	ppt		98
21) methyl t-butyl ether	8.76	73	151301	268.0779	ppt	#	85
22) Vinyl Acetate	8.83	86	15372	425.4979	ppt	#	1
23) 2-Butanone	9.17	43	114044	275.2237	ppt	#	71
24) cis-1,2-Dichloroethene	9.46	96	66898	279.0660	ppt	#	85
26) Ethyl Acetate	9.73	61	16643	209.2411	ppt	#	1
27) Hexane	9.63	57	87643	269.1872	ppt	#	83
28) Chloroform	9.74	83	126370	265.2750	ppt		99
29) Tetrahydrofuran	10.28	42	70910	266.8808	ppt	#	65
30) 1,2-Dichloroethane	10.48	62	77099	272.6346	ppt	#	93
31) 1,1,1-Trichloroethane	10.71	97	148476	272.1142	ppt	#	94
32) Benzene	11.16	78	174529	256.9455	ppt	#	94
33) Carbon Tetrachloride	11.30	117	176467	276.6144	ppt		99
34) Cyclohexane	11.42	84	82078	260.2614	ppt	#	39
35) 1,2-Dichloropropane	11.96	63	63620	271.4572	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\11MAY16L\LJ28SICV.D Vial: 2
Acq Time : 05/11/2016 18:44 Operator: LMR
Sample : ICV 0.25 PPB Inst : 5975-L
Misc : 31756 (100mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 12 12:22:22 2016 Results File: TO15LSIMA11.RES

Quant Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 07:55:21 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.15	83	133276	271.6961	ppt		98
37)	1,4-Dioxane	12.29	88	42374	253.4874	ppt		99
38)	Trichloroethene	12.18	130	112657	273.6507	ppt		98
39)	Methyl Methacrylate	12.35	69	64817	298.1267	ppt		88
40)	Heptane	12.42	71	58032	271.8466	ppt	#	48
41)	cis-1,3-Dichloropropene	13.03	75	93898	250.8943	ppt		98
42)	4-Methyl-2-Pentanone	13.07	43	159612	213.5060	ppt	#	71
43)	trans-1,3-Dichloropropene	13.03	75	93898	250.8943	ppt		96
44)	1,1,2-Trichloroethane	13.74	97	79369	274.6064	ppt	#	94
45)	Toluene	14.01	91	221050	269.1295	ppt		98
46)	2-Hexanone	14.27	43	116679	286.5415	ppt	#	77
47)	Dibromochloromethane	14.47	129	175703	280.1405	ppt		99
48)	1,2-Dibromoethane	14.73	107	119514	273.0816	ppt		99
49)	Tetrachloroethene	15.17	166	140195	279.6903	ppt	#	86
51)	Chlorobenzene	15.89	112	213429	289.3441	ppt		92
52)	Ethylbenzene	16.26	91	283843	285.6032	ppt		98
53)	m,p-Xylene	16.45	91	433972	575.3025	ppt		99
54)	Bromoform	16.60	173	150687	296.5534	ppt		100
55)	Styrene	16.86	104	159276	286.5305	ppt		99
56)	1,1,2,2-Tetrachloroethane	16.98	83	138664	313.0300	ppt	#	96
57)	o-Xylene	16.97	91	223041	308.1497	ppt		100
59)	4-Ethyl Toluene	18.40	105	262746	290.7513	ppt		99
60)	1,3,5-Trimethylbenzene	18.48	105	264665	304.0071	ppt		97
61)	1,2,4-Trimethylbenzene	19.01	105	228591	297.1691	ppt		99
62)	Benzyl Chloride	19.22	91	141790	296.0424	ppt		97
63)	m-Dichlorobenzene	19.24	146	164433	300.4506	ppt		97
64)	p-Dichlorobenzene	19.33	146	239794	297.8950	ppt		97
65)	o-Dichlorobenzene	19.79	146	170305	306.5202	ppt		98
66)	1,2,4-Trichlorobenzene	22.32	180	69027	272.8575	ppt	#	97
67)	Naphthalene	22.50	128	163904	273.8631	ppt		99
68)	Hexachloro-1,3-butadiene	23.02	225	88699	278.9221	ppt		99

(#) = qualifier out of range (m) = manual integration

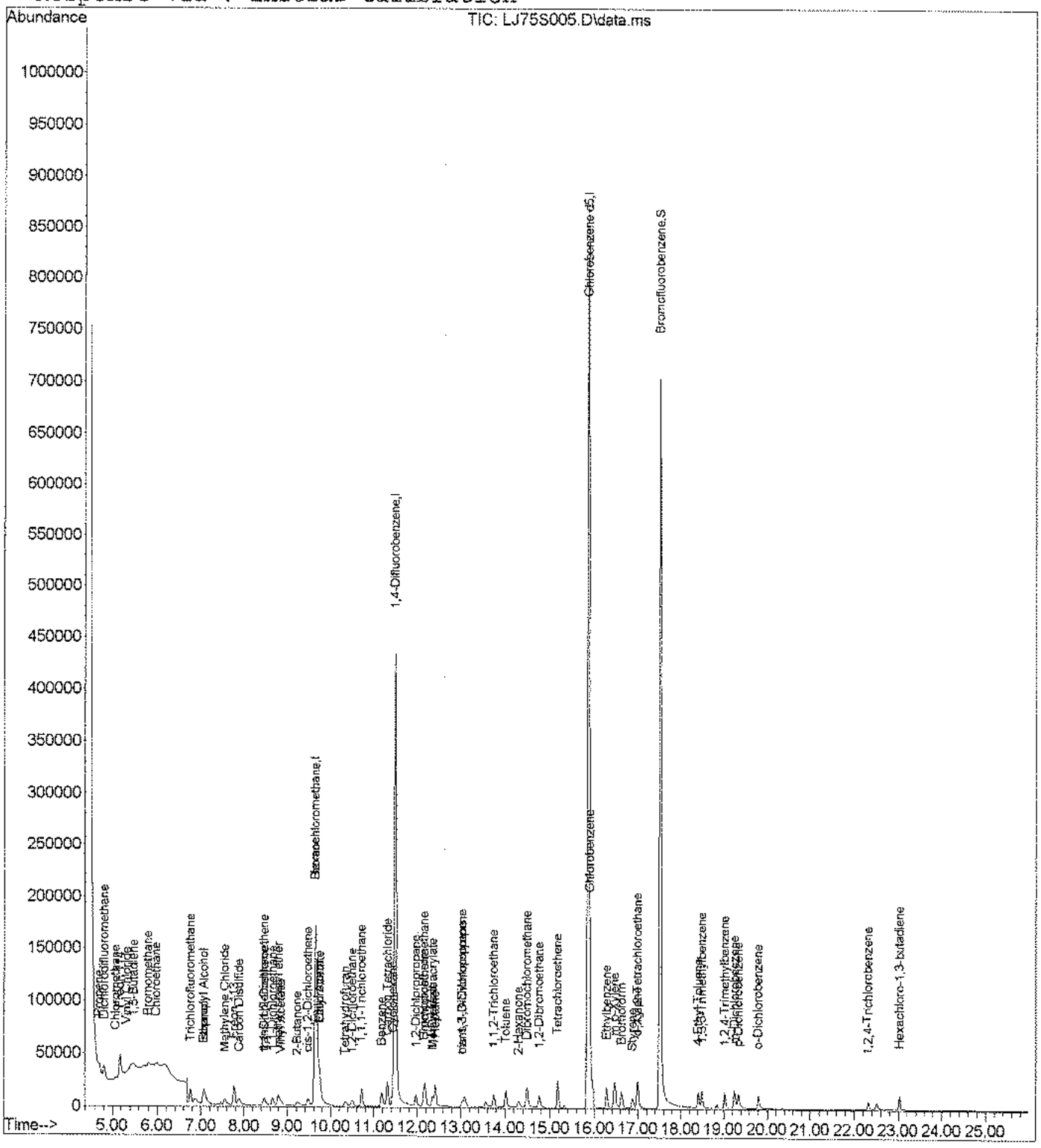
Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ75S005.D Vial: 1
Acq Time : 05/25/2016 13:08 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31755 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

RLVS

Quant Time: May 25 13:38:00 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ75S005.D Vial: 1
Acq Time : 05/25/2016 13:08 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31755 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 13:38:00 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.65	130	56588	1000.0000	ppt		60.29
25) 1,4-Difluorobenzene	11.48	114	1100282	1000.0000	ppt		58.22
50) Chlorobenzene d5	15.86	117	1779380	1000.0000	ppt		60.61
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.51	95	1002968	903.6293	ppt		90.36%
Target Compounds							Qvalue
2) Propene	4.71	41	9160	76.3132	ppt		95
3) Dichlorodifluoromethane	4.81	85	23867	64.7287	ppt		100
4) Chloromethane	5.07	50	7314	70.8849	ppt		98
5) Freon 114	5.17	135	20695	60.6175	ppt	#	81
6) Vinyl Chloride	5.33	62	7951	61.8846	ppt		100
7) 1,3-Butadiene	5.48	54	6065	59.1280	ppt	#	75
8) Bromomethane	5.80	94	8677	62.3167	ppt		98
9) Chloroethane	5.99	64	4249	63.7990	ppt	#	90
10) Acrolein	0.00	56		Not Detected			
11) Acetone	0.00	43		Not Detected			
12) Trichlorofluoromethane	6.76	101	30392	62.0023	ppt		95
13) Ethanol	7.07	45	57454	142.8417	ppt	#	39
14) Isopropyl Alcohol	7.07	45	57454	142.8417	ppt	#	77
15) 1,1-Dichloroethene	8.46	61	12793	55.4859	ppt		95
16) Methylene Chloride	7.55	84	9094	62.5626	ppt	#	65
17) Freon 113	7.77	151	21909	58.6836	ppt	#	84
18) Carbon Disulfide	7.88	76	29997	63.2527	ppt	#	58
19) trans-1,2-Dichloroethene	8.46	96	10438	57.0335	ppt	#	86
20) 1,1-Dichloroethane	8.66	63	16461	55.7825	ppt		98
21) methyl t-butyl ether	8.79	73	20853	47.0733	ppt	#	84
22) Vinyl Acetate	8.85	86	1649	58.1533	ppt	#	1
23) 2-Butanone	9.22	43	15027	46.2033	ppt	#	47
24) cis-1,2-Dichloroethene	9.47	96	10232	54.3802	ppt	#	84
26) Ethyl Acetate	9.75	61	2984	52.0407	ppt	#	1
27) Hexane	9.64	57	12010	51.1692	ppt	#	82
28) Chloroform	9.74	83	28863	84.0470	ppt		97
29) Tetrahydrofuran	10.33	42	10577	55.2206	ppt	#	61
30) 1,2-Dichloroethane	10.49	62	12336	60.5111	ppt	#	90
31) 1,1,1-Trichloroethane	10.71	97	24487	62.2528	ppt	#	94
32) Benzene	11.17	78	28477	58.1562	ppt	#	92
33) Carbon Tetrachloride	11.31	117	29474	64.0883	ppt		100
34) Cyclohexane	11.42	84	15076	66.3128	ppt	#	79
35) 1,2-Dichloropropane	11.97	63	9987	59.1114	ppt		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ75S005.D Vial: 1
Acq Time : 05/25/2016 13:08 Operator: LMR
Sample : 0.05 PPB Inst : 5975-L
Misc : 31755 (20mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 13:38:00 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.15	83	22288	63.0277	ppt		98
37)	1,4-Dioxane	12.36	88	5348	44.3789	ppt	#	83
38)	Trichloroethene	12.19	130	17652	59.4786	ppt		99
39)	Methyl Methacrylate	12.37	69	7925	50.5638	ppt	#	87
40)	Heptane	12.42	71	7535	48.9630	ppt	#	37
41)	cis-1,3-Dichloropropene	13.04	75	13047	48.3586	ppt		94
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected			
43)	trans-1,3-Dichloropropene	13.04	75	13047	48.3586	ppt		92
44)	1,1,2-Trichloroethane	13.75	97	12537	60.1703	ppt	#	93
45)	Toluene	14.02	91	30839	52.0834	ppt		97
46)	2-Hexanone	14.30	43	12194	41.5403	ppt	#	73
47)	Dibromochloromethane	14.48	129	28095	62.1376	ppt	#	96
48)	1,2-Dibromoethane	14.75	107	18330	58.0985	ppt		99
49)	Tetrachloroethene	15.17	166	22097	61.1514	ppt	#	85
51)	Chlorobenzene	15.90	112	34476	60.8387	ppt	#	59
52)	Ethylbenzene	16.28	91	36848	48.2615	ppt		99
53)	m,p-Xylene	16.47	91	52356	90.3447	ppt		100
54)	Bromoform	16.62	173	22838	58.5042	ppt		100
55)	Styrene	16.88	104	17421	40.7939	ppt		97
56)	1,1,2,2-Tetrachloroethane	17.00	83	18728	55.0320	ppt	#	95
57)	o-Xylene	16.98	91	25642	46.1138	ppt		99
59)	4-Ethyl Toluene	18.41	105	27866	40.1386	ppt		98
60)	1,3,5-Trimethylbenzene	18.50	105	27584	41.2426	ppt		95
61)	1,2,4-Trimethylbenzene	19.02	105	25674	43.4450	ppt		98
62)	Benzyl Chloride	0.00	91		Not Detected			
63)	m-Dichlorobenzene	19.26	146	20289	48.2555	ppt		97
64)	p-Dichlorobenzene	19.34	146	30777	49.7683	ppt		98
65)	o-Dichlorobenzene	19.80	146	21166	49.5875	ppt		97
66)	1,2,4-Trichlorobenzene	22.32	180	9563	49.2054	ppt		98
67)	Naphthalene	0.00	128		Not Detected			
68)	Hexachloro-1,3-butadiene	23.02	225	13617	55.7375	ppt		99

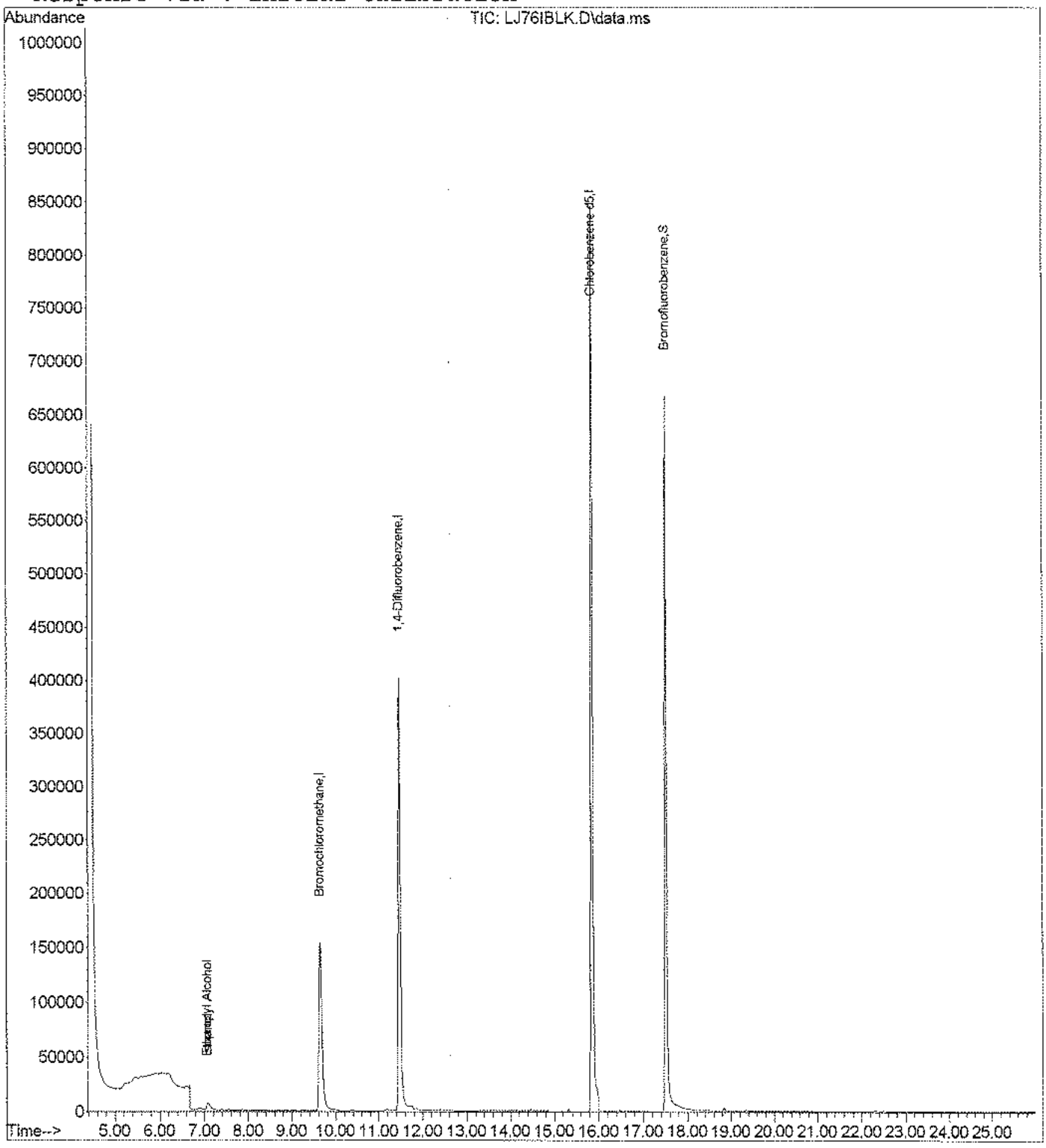
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ76IBLK.D Vial: 1
Acq Time : 05/25/2016 13:56 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 15:27:31 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ76IBLK.D Vial: 1
Acq Time : 05/25/2016 13:56 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 15:27:31 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.64	130	53881	1000.0000	ppt		57.41
25) 1,4-Difluorobenzene	11.47	114	1037519	1000.0000	ppt		54.90
50) Chlorobenzene d5	15.85	117	1726823	1000.0000	ppt		58.82
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	965530	896.3753	ppt		89.64%
Target Compounds							Qvalue
2) Propene	0.00	41		Not Detected			
3) Dichlorodifluoromethane	0.00	85		Not Detected			
4) Chloromethane	0.00	50		Not Detected			
5) Freon 114	0.00	135		Not Detected			
6) Vinyl Chloride	0.00	62		Not Detected			
7) 1,3-Butadiene	0.00	54		Not Detected			
8) Bromomethane	0.00	94		Not Detected			
9) Chloroethane	0.00	64		Not Detected			
10) Acrolein	0.00	56		Not Detected			
11) Acetone	0.00	43		Not Detected			
12) Trichlorofluoromethane	0.00	101		Not Detected			
13) Ethanol	7.07	45	28583	74.6330	ppt	#	39
14) Isopropyl Alcohol	7.07	45	28583	74.6330	ppt	#	84
15) 1,1-Dichloroethene	0.00	61		Not Detected			
16) Methylene Chloride	0.00	84		Not Detected			
17) Freon 113	0.00	151		Not Detected			
18) Carbon Disulfide	0.00	76		Not Detected			
19) trans-1,2-Dichloroethene	0.00	96		Not Detected			
20) 1,1-Dichloroethane	0.00	63		Not Detected			
21) methyl t-butyl ether	0.00	73		Not Detected			
22) Vinyl Acetate	0.00	86		Not Detected			
23) 2-Butanone	0.00	43		Not Detected			
24) cis-1,2-Dichloroethene	0.00	96		Not Detected			
26) Ethyl Acetate	0.00	61		Not Detected			
27) Hexane	0.00	57		Not Detected			
28) Chloroform	0.00	83		Not Detected			
29) Tetrahydrofuran	0.00	42		Not Detected			
30) 1,2-Dichloroethane	0.00	62		Not Detected			
31) 1,1,1-Trichloroethane	0.00	97		Not Detected			
32) Benzene	0.00	78		Not Detected			
33) Carbon Tetrachloride	0.00	117		Not Detected			
34) Cyclohexane	0.00	84		Not Detected			
35) 1,2-Dichloropropane	0.00	63		Not Detected			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\M...L\25MAY16L\LJ76IBLK.D Vial: 1
Acq Time : 05/25/2016 13:56 Operator: LMR
Sample : BL- Inst : 5975-L
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 15:27:31 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Bromodichloromethane	0.00	83		Not Detected	
37)	1,4-Dioxane	0.00	88		Not Detected	
38)	Trichloroethene	0.00	130		Not Detected	
39)	Methyl Methacrylate	0.00	69		Not Detected	
40)	Heptane	0.00	71		Not Detected	
41)	cis-1,3-Dichloropropene	0.00	75		Not Detected	
42)	4-Methyl-2-Pentanone	0.00	43		Not Detected	
43)	trans-1,3-Dichloropropene	0.00	75		Not Detected	
44)	1,1,2-Trichloroethane	0.00	97		Not Detected	
45)	Toluene	0.00	91		Not Detected	
46)	2-Hexanone	0.00	43		Not Detected	
47)	Dibromochloromethane	0.00	129		Not Detected	
48)	1,2-Dibromoethane	0.00	107		Not Detected	
49)	Tetrachloroethene	0.00	166		Not Detected	
51)	Chlorobenzene	0.00	112		Not Detected	
52)	Ethylbenzene	0.00	91		Not Detected	
53)	m,p-Xylene	0.00	91		Not Detected	
54)	Bromoform	0.00	173		Not Detected	
55)	Styrene	0.00	104		Not Detected	
56)	1,1,2,2-Tetrachloroethane	0.00	83		Not Detected	
57)	o-Xylene	0.00	91		Not Detected	
59)	4-Ethyl Toluene	0.00	105		Not Detected	
60)	1,3,5-Trimethylbenzene	0.00	105		Not Detected	
61)	1,2,4-Trimethylbenzene	0.00	105		Not Detected	
62)	Benzyl Chloride	0.00	91		Not Detected	
63)	m-Dichlorobenzene	0.00	146		Not Detected	
64)	p-Dichlorobenzene	0.00	146		Not Detected	
65)	o-Dichlorobenzene	0.00	146		Not Detected	
66)	1,2,4-Trichlorobenzene	0.00	180		Not Detected	
67)	Naphthalene	0.00	128		Not Detected	
68)	Hexachloro-1,3-butadiene	0.00	225		Not Detected	

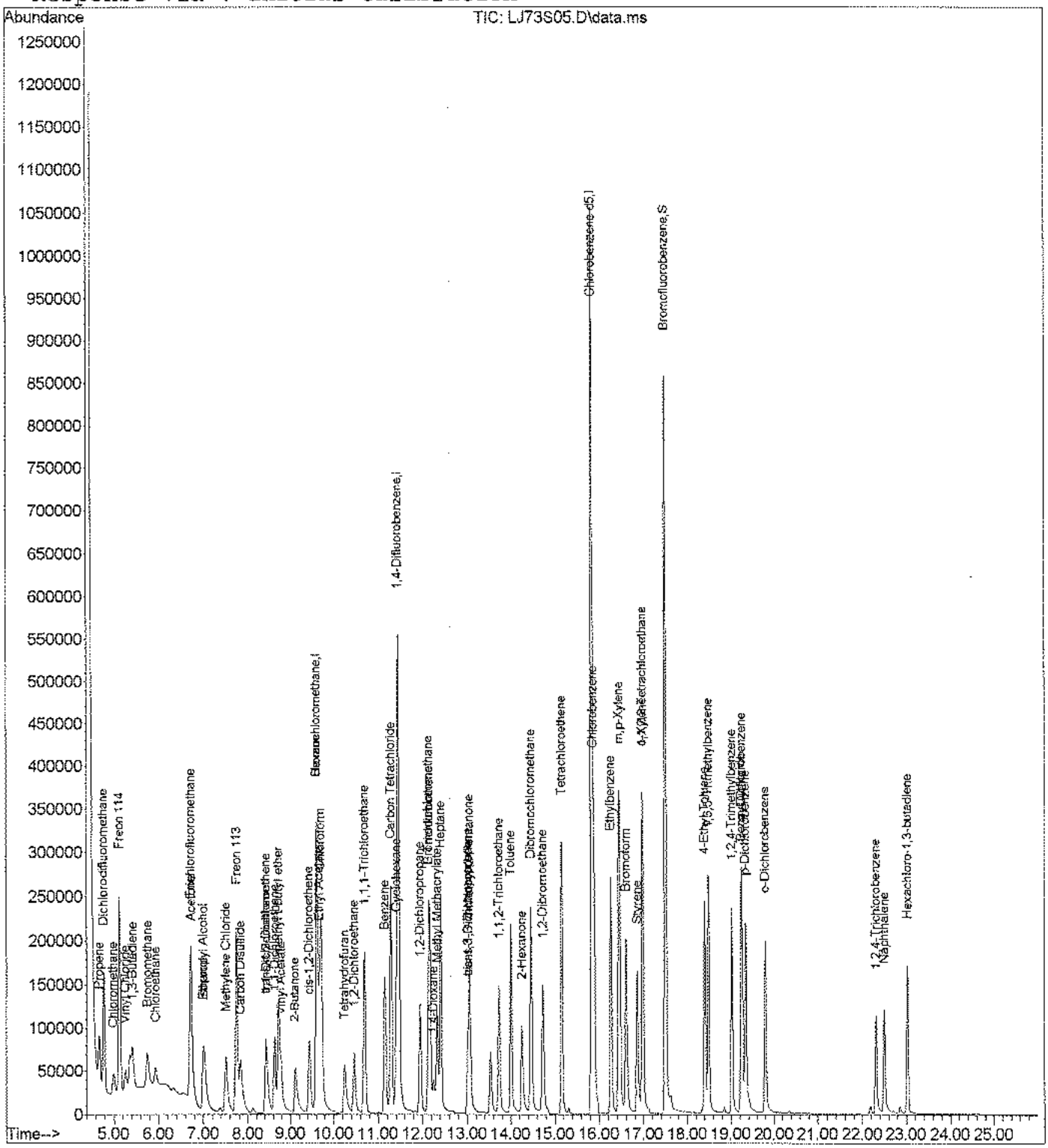
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\25MAY16L\LJ73S05.D Vial: 1
Acq Time : 05/25/2016 11:33 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31755 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 12:49:11 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\25MAY16L\LJ73S05.D Vial: 1
Acq Time : 05/25/2016 11:33 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31755 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 12:49:11 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.61	130	69886	1000.0000	ppt		74.46
25) 1,4-Difluorobenzene	11.46	114	1310451	1000.0000	ppt		69.35
50) Chlorobenzene d5	15.84	117	2090907	1000.0000	ppt		71.22
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	1222370	937.2165	ppt		93.72%
Target Compounds							Qvalue
2) Propene	4.67	41	75074	506.4398	ppt		97
3) Dichlorodifluoromethane	4.77	85	261282	573.7766	ppt		99
4) Chloromethane	4.99	50	76597	601.0973	ppt		96
5) Freon 114	5.13	135	231825	549.8279	ppt	#	82
6) Vinyl Chloride	5.26	62	86062	542.3831	ppt		99
7) 1,3-Butadiene	5.41	54	67259	530.9415	ppt	#	63
8) Bromomethane	5.74	94	95974	558.1137	ppt		99
9) Chloroethane	5.93	64	46516	565.5407	ppt	#	90
10) Acrolein	0.00	56	Not Detected				
11) Acetone	6.74	43	247003	659.3549	ppt	#	85
12) Trichlorofluoromethane	6.71	101	340777	562.9278	ppt		98
13) Ethanol	7.01	45	318043	640.2575	ppt	#	39
14) Isopropyl Alcohol	7.01	45	318043	640.2575	ppt	#	83
15) 1,1-Dichloroethene	8.42	61	143105	502.5727	ppt		95
16) Methylene Chloride	7.50	84	95883	534.1164	ppt	#	66
17) Freon 113	7.74	151	248748	539.4952	ppt		85
18) Carbon Disulfide	7.83	76	303397	518.0201	ppt	#	58
19) trans-1,2-Dichloroethene	8.43	96	115374	510.4521	ppt	#	85
20) 1,1-Dichloroethane	8.62	63	192790	529.0059	ppt		97
21) methyl t-butyl ether	8.71	73	257002	469.7607	ppt	#	83
22) Vinyl Acetate	8.78	86	19962	570.0225	ppt	#	1
23) 2-Butanone	9.11	43	208245	518.4525	ppt	#	71
24) cis-1,2-Dichloroethene	9.44	96	118251	508.8850	ppt	#	85
26) Ethyl Acetate	9.67	61	40177	588.3079	ppt	#	1
27) Hexane	9.61	57	149824	535.9573	ppt	#	79
28) Chloroform	9.71	83	335011	819.0740	ppt		99
29) Tetrahydrofuran	10.24	42	111051	486.7926	ppt	#	64
30) 1,2-Dichloroethane	10.46	62	144500	595.1298	ppt	#	92
31) 1,1,1-Trichloroethane	10.69	97	280492	598.7246	ppt	#	93
32) Benzene	11.15	78	317573	544.5387	ppt	#	93
33) Carbon Tetrachloride	11.29	117	340025	620.7744	ppt		99
34) Cyclohexane	11.41	84	142648	526.8178	ppt	#	48
35) 1,2-Dichloropropane	11.95	63	116947	581.1772	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\25MAY16L\LJ73S05.D Vial: 1
Acq Time : 05/25/2016 11:33 Operator: LMR
Sample : LCS 0.5 PPB Inst : 5975-L
Misc : 31755 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 12:49:11 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.14	83	255652	607.0053	ppt		97
37)	1,4-Dioxane	12.25	88	66214	461.3371	ppt		96
38)	Trichloroethene	12.16	130	203328	575.2376	ppt		99
39)	Methyl Methacrylate	12.33	69	100939	540.7327	ppt		90
40)	Heptane	12.41	71	100321	547.3435	ppt	#	41
41)	cis-1,3-Dichloropropene	13.01	75	173507	539.9620	ppt		95
42)	4-Methyl-2-Pentanone	13.05	43	298700	465.3626	ppt	#	68
43)	trans-1,3-Dichloropropene	13.01	75	173507	539.9620	ppt		93
44)	1,1,2-Trichloroethane	13.72	97	149514	602.4949	ppt	#	94
45)	Toluene	14.00	91	385474	546.6101	ppt		98
46)	2-Hexanone	14.25	43	195143	558.1610	ppt	#	74
47)	Dibromochloromethane	14.46	129	344213	639.1985	ppt		99
48)	1,2-Dibromoethane	14.73	107	223437	594.6213	ppt		98
49)	Tetrachloroethene	15.16	166	264366	614.2741	ppt	#	86
51)	Chlorobenzene	15.89	112	391947	588.6058	ppt		97
52)	Ethylbenzene	16.26	91	481555	536.7433	ppt		99
53)	m,p-Xylene	16.45	91	751497	1103.5644	ppt		100
54)	Bromoform	16.60	173	285390	622.1595	ppt		99
55)	Styrene	16.86	104	261581	521.2699	ppt		99
56)	1,1,2,2-Tetrachloroethane	16.98	83	246739	617.0154	ppt		97
57)	o-Xylene	16.97	91	364266	557.4829	ppt		96
59)	4-Ethyl Toluene	18.40	105	433921	531.9027	ppt		98
60)	1,3,5-Trimethylbenzene	18.49	105	432697	550.5629	ppt		97
61)	1,2,4-Trimethylbenzene	19.01	105	377896	544.1927	ppt		100
62)	Benzyl Chloride	19.22	91	237752	549.8807	ppt		99
63)	m-Dichlorobenzene	19.25	146	302318	611.9050	ppt		97
64)	p-Dichlorobenzene	19.33	146	415160	571.3158	ppt		97
65)	o-Dichlorobenzene	19.79	146	298353	594.8370	ppt		97
66)	1,2,4-Trichlorobenzene	22.31	180	126005	551.7477	ppt	#	97
67)	Naphthalene	22.50	128	290460	537.6086	ppt		98
68)	Hexachloro-1,3-butadiene	23.02	225	171657	597.9456	ppt		99

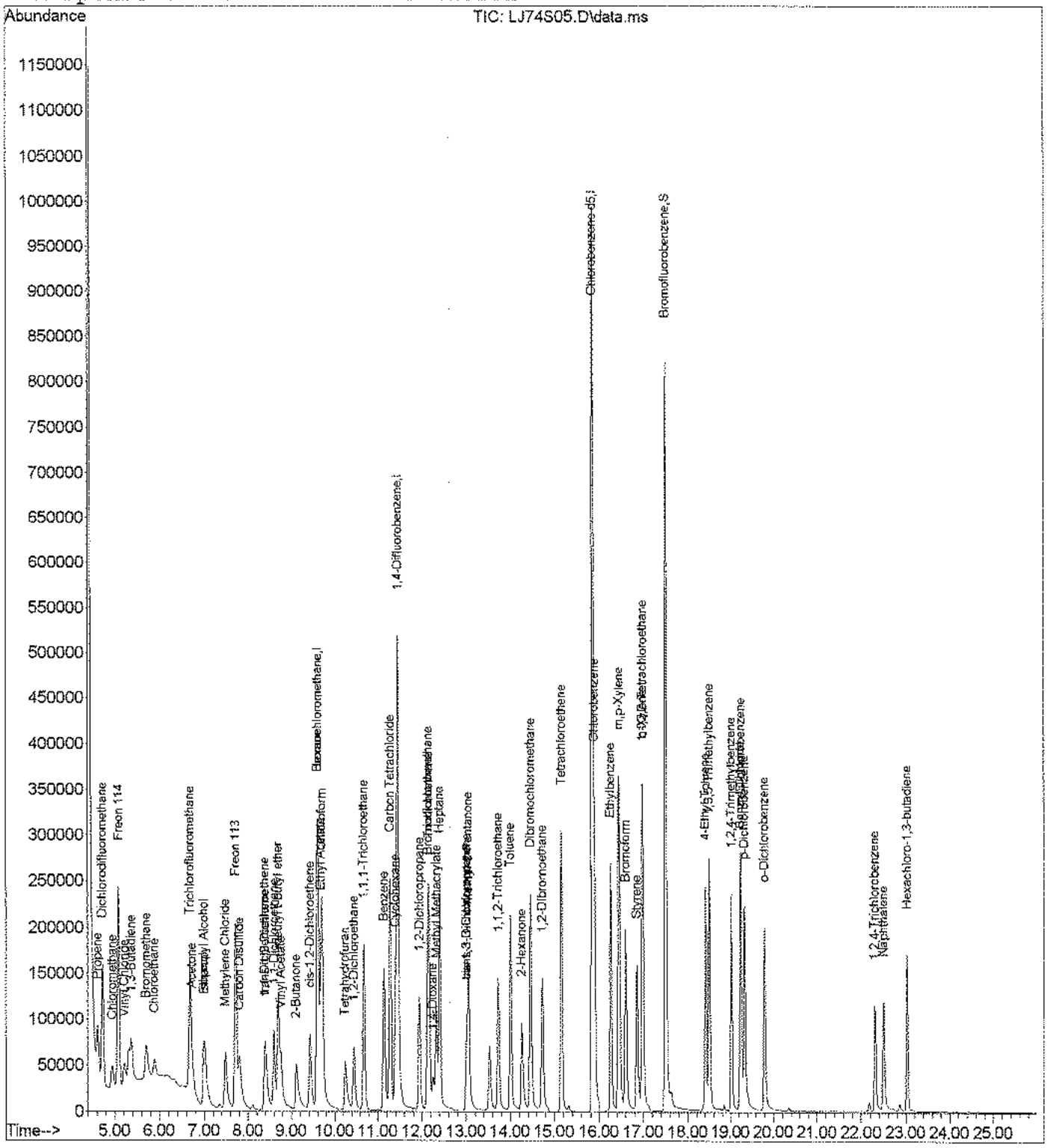
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\25MAY16L\LJ74S05.D Vial: 1
Acq Time : 05/25/2016 12:21 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31755 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 12:48:28 2016 Results File: TO15LSIMA11.RES

Method : J:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration



Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\25MAY16L\LJ74S05.D Vial: 1
Acq Time : 05/25/2016 12:21 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31755 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 12:48:28 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Area%
1) Bromochloromethane	9.60	130	64571	1000.0000	ppt		68.80
25) 1,4-Difluorobenzene	11.45	114	1259565	1000.0000	ppt		66.65
50) Chlorobenzene d5	15.84	117	1996885	1000.0000	ppt		68.02
System Monitoring Compounds							%Recovery
58) Bromofluorobenzene	17.50	95	1169411	938.8281	ppt		93.88%
Target Compounds							Qvalue
2) Propene	4.61	41	75621	552.1198	ppt		96
3) Dichlorodifluoromethane	4.72	85	259117	615.8598	ppt		100
4) Chloromethane	4.94	50	76620	650.7705	ppt		96
5) Freon 114	5.08	135	230391	591.4046	ppt	#	82
6) Vinyl Chloride	5.21	62	84500	576.3736	ppt		99
7) 1,3-Butadiene	5.37	54	66613	569.1253	ppt	#	1
8) Bromomethane	5.70	94	95541	601.3282	ppt		99
9) Chloroethane	5.89	64	45997	605.2623	ppt	#	89
10) Acrolein	0.00	56	Not Detected				
11) Acetone	6.73	43	244303	705.8273	ppt	#	85
12) Trichlorofluoromethane	6.67	101	303084	541.8737	ppt	#	67
13) Ethanol	6.99	45	318770	694.5427	ppt	#	39
14) Isopropyl Alcohol	6.99	45	318770	694.5427	ppt	#	83
15) 1,1-Dichloroethene	8.40	61	137571	522.9060	ppt		95
16) Methylene Chloride	7.48	84	94378	569.0072	ppt	#	65
17) Freon 113	7.71	151	245168	575.4988	ppt		85
18) Carbon Disulfide	7.80	76	303714	561.2454	ppt	#	58
19) trans-1,2-Dichloroethene	8.40	96	111678	534.7704	ppt	#	86
20) 1,1-Dichloroethane	8.60	63	192621	572.0478	ppt		97
21) methyl t-butyl ether	8.70	73	254164	502.8134	ppt	#	83
22) Vinyl Acetate	8.77	86	19434	600.6242	ppt	#	1
23) 2-Butanone	9.11	43	210776	567.9476	ppt	#	70
24) cis-1,2-Dichloroethene	9.42	96	116869	544.3357	ppt	#	85
26) Ethyl Acetate	9.67	61	39992	609.2569	ppt	#	1
27) Hexane	9.60	57	150340	559.5302	ppt	#	82
28) Chloroform	9.70	83	331654	843.6251	ppt		99
29) Tetrahydrofuran	10.24	42	116390	530.8079	ppt	#	62
30) 1,2-Dichloroethane	10.45	62	143041	612.9212	ppt	#	92
31) 1,1,1-Trichloroethane	10.68	97	277067	615.3067	ppt	#	93
32) Benzene	11.14	78	313661	559.5590	ppt	#	93
33) Carbon Tetrachloride	11.27	117	336720	639.5758	ppt		99
34) Cyclohexane	11.40	84	141023	541.8573	ppt	#	48
35) 1,2-Dichloropropane	11.94	63	116020	599.8636	ppt		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : I:\L - 5975-L\2016\MAY16L\25MAY16L\LJ74S05.D Vial: 1
Acq Time : 05/25/2016 12:21 Operator: LMR
Sample : LCSD 0.5 PPB Inst : 5975-L
Misc : 31755 (200 mL) Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 12:48:28 2016 Results File: TO15LSIMA11.RES

Quant Method : Z:\L\METHODS\TO15LSIMA11.m (RTE Integrator)
Title : TO-15 SIM
Last Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration
DataAcq Meth : TO-15SIM.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Bromodichloromethane	12.13	83	253168	625.3919	ppt		97
37)	1,4-Dioxane	12.26	88	64990	471.1024	ppt	#	93
38)	Trichloroethene	12.16	130	202818	596.9759	ppt		99
39)	Methyl Methacrylate	12.33	69	100018	557.4449	ppt		94
40)	Heptane	12.40	71	101155	574.1901	ppt	#	43
41)	cis-1,3-Dichloropropene	13.01	75	164419	532.3514	ppt		98
42)	4-Methyl-2-Pentanone	13.05	43	292955	474.8510	ppt	#	70
43)	trans-1,3-Dichloropropene	13.01	75	164419	532.3514	ppt		95
44)	1,1,2-Trichloroethane	13.72	97	148469	622.4543	ppt	#	94
45)	Toluene	14.00	91	383517	565.8058	ppt		98
46)	2-Hexanone	14.26	43	188948	562.2753	ppt	#	74
47)	Dibromochloromethane	14.46	129	340588	658.0184	ppt		99
48)	1,2-Dibromoethane	14.73	107	221354	612.8764	ppt		99
49)	Tetrachloroethene	15.16	166	259397	627.0783	ppt	#	86
51)	Chlorobenzene	15.89	112	386824	608.2642	ppt		97
52)	Ethylbenzene	16.26	91	471590	550.3855	ppt		99
53)	m,p-Xylene	16.45	91	739866	1137.6408	ppt		100
54)	Bromoform	16.60	173	281270	642.0488	ppt		100
55)	Styrene	16.86	104	255004	532.0901	ppt		99
56)	1,1,2,2-Tetrachloroethane	16.99	83	244262	639.5813	ppt		97
57)	o-Xylene	16.97	91	353914	567.1427	ppt		95
59)	4-Ethyl Toluene	18.41	105	426292	547.1550	ppt		98
60)	1,3,5-Trimethylbenzene	18.49	105	428213	570.5118	ppt		97
61)	1,2,4-Trimethylbenzene	19.02	105	372947	562.3532	ppt		100
62)	Benzyl Chloride	19.22	91	225223	545.4296	ppt		99
63)	m-Dichlorobenzene	19.25	146	298371	632.3511	ppt		98
64)	p-Dichlorobenzene	19.34	146	418295	602.7331	ppt		98
65)	o-Dichlorobenzene	19.80	146	289427	604.2105	ppt		98
66)	1,2,4-Trichlorobenzene	22.31	180	127137	582.9165	ppt		98
67)	Naphthalene	22.50	128	285954	554.1888	ppt		98
68)	Hexachloro-1,3-butadiene	23.02	225	169646	618.7646	ppt		99

(#) = qualifier out of range (m) = manual integration

Analyst Notebook

T015
Instrument : See Batch Worklist
HBN: See Batch Worklist
Column: DB-1
Inst. Program: Initial 40 degrees C for 4 min; 10 degrees C/min to 220 degrees C hold 3 min.
Run time: 26 min for 5975-K, 25 min for 5975-L
Carrier Gas: Helium
Cold Trap Dehydration
Initial Calibration Curve is T015LSIM11.M (HBN 149177)

The following compounds in the CCS were outside of +-30%: NA

SIM = VC, CIS-DCE, TCE, 1,4-Dioxane, PCE

Dilutions: NA

Analyst Signature: [signature] 05-26-16

Response Factor Report 5975-L

Method Path : J:\L\METHODS\
Method File : TO15LSIMA11.m
Title : TO-15 SIM
Last Update : Thu May 26 10:28:33 2016
Response Via : Initial Calibration

Calibration Files
50 =LJ27S005.D 100 =LJ26S01.D 200 =LJ25S02.D 500 =LJ24S05.D
1000=LJ23S1.D

		Compound	50	100	200	500	1000	Avg		%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)		Propene	2.525	2.387	2.114	1.854	1.725	2.121		16.02
3)		Dichlorodifluoro...	6.024	7.031	6.882	6.483	6.160	6.516		6.73
4)		Chloromethane	1.719	1.928	1.869	1.842	1.758	1.823		4.62
5)		Freon 114	5.757	6.521	6.336	5.960	5.591	6.033		6.45
6)		Vinyl Chloride	2.102	2.452	2.418	2.241	2.139	2.270		7.00
7)		1,3-Butadiene	1.749	1.951	1.910	1.776	1.678	1.813		6.29
8)		Bromomethane	2.246	2.656	2.625	2.460	2.316	2.461		7.39
9)		Chloroethane	1.095	1.272	1.261	1.162	1.095	1.177		7.32
10)		Acrolein	0.036	0.036	0.065	0.079	0.118	0.067		51.09
11)		Acetone	7.228	5.893	5.138	4.866	3.677	5.360		24.50
12)		Trichlorofluorom...	8.500	9.524	9.344	8.593	7.351	8.662		9.93
13)		Ethanol	1.068	0.837	0.654	0.530	0.466	0.711	E1	34.42
14)		Isopropyl Alcohol	1.068	0.837	0.654	0.530	0.466	0.711	E1	34.42
15)		1,1-Dichloroethene	3.882	4.398	4.316	4.094	3.683	4.074		7.30
16)		Methylene Chloride	2.483	2.783	2.684	2.534	2.359	2.569		6.50
17)		Freon 113	6.342	7.106	6.950	6.497	6.092	6.598		6.40
18)		Carbon Disulfide	8.828	9.141	8.599	7.905	7.429	8.381		8.35
19)		trans-1,2-Dichlo...	3.060	3.469	3.444	3.251	2.948	3.234		7.11
20)		1,1-Dichloroethane	4.969	5.607	5.484	5.143	4.870	5.215		6.15
21)		methyl t-butyl e...	7.244	8.231	8.220	7.886	7.561	7.828		5.46
22)		Vinyl Acetate	0.469	0.538	0.510	0.504	0.485	0.501		5.18
23)		2-Butanone	4.988	5.975	5.989	6.082	5.702	5.747		7.78
24)		cis-1,2-Dichloro...	3.085	3.492	3.540	3.329	3.179	3.325		5.89
25)	I	1,4-Difluorobenzene	----------ISTD----------							
26)		Ethyl Acetate	0.042	0.050	0.053	0.058	0.059	0.052		13.08
27)		Hexane	0.190	0.216	0.219	0.226	0.216	0.213		6.50
28)		Chloroform	0.291	0.321	0.321	0.323	0.305	0.312		4.49
29)		Tetrahydrofuran	0.178	0.180	0.175	0.173	0.164	0.174		3.61
30)		1,2-Dichloroethane	0.172	0.189	0.190	0.192	0.183	0.185		4.42
31)		1,1,1-Trichloroe...	0.334	0.367	0.369	0.368	0.349	0.357		4.36
32)		Benzene	0.443	0.449	0.464	0.451	0.418	0.445		3.77
33)		Carbon Tetrachlo...	0.391	0.429	0.430	0.432	0.408	0.418		4.24
34)		Cyclohexane	0.202	0.213	0.208	0.210	0.200	0.207		2.63
35)		1,2-Dichloropropane	0.145	0.155	0.156	0.158	0.153	0.154		3.47
36)		Bromodichloromet...	0.292	0.326	0.326	0.337	0.324	0.321		5.28
37)		1,4-Dioxane	0.094	0.096	0.098	0.101	0.158	0.110		24.87
38)		Trichloroethene	0.248	0.275	0.277	0.280	0.269	0.270		4.80
39)		Methyl Methacrylate	0.124	0.140	0.145	0.153	0.150	0.142		8.01
40)		Heptane	0.120	0.140	0.145	0.148	0.146	0.140		8.38
41)		cis-1,3-Dichloro...	0.198	0.225	0.259	0.254	0.290	0.245		14.29
42)		4-Methyl-2-Penta...	0.283	0.372	0.379	0.879	0.536	0.490		48.14
43)		trans-1,3-Dichlo...	0.198	0.225	0.259	0.254	0.290	0.245		14.29
44)		1,1,2-Trichloroe...	0.168	0.189	0.192	0.202	0.196	0.189		6.90

Method Path : J:\L\METHODS\
Method File : TO15LSIMA11.m
Title : TO-15 SIM

45)		Toluene	0.465	0.529	0.549	0.584	0.563	0.538	8.43
46)		2-Hexanone	0.206	0.243	0.292	0.297	0.296	0.267	15.32
47)		Dibromochloromet...	0.351	0.408	0.421	0.444	0.430	0.411	8.73
48)		1,2-Dibromoethane	0.252	0.284	0.291	0.308	0.300	0.287	7.53
49)		Tetrachloroethene	0.291	0.333	0.339	0.348	0.332	0.328	6.75
50)	I	Chlorobenzene d5	----------ISTD----------						
51)		Chlorobenzene	0.282	0.326	0.331	0.334	0.320	0.318	6.62
52)		Ethylbenzene	0.371	0.427	0.444	0.458	0.445	0.429	8.00
53)		m,p-Xylene	0.280	0.322	0.337	0.350	0.340	0.326	8.49
54)		Bromoform	0.185	0.214	0.225	0.238	0.234	0.219	9.59
55)		Styrene	0.201	0.231	0.247	0.261	0.260	0.240	10.37
56)		1,1,2,2-Tetrachl...	0.170	0.187	0.196	0.204	0.200	0.191	6.99
57)		o-Xylene	0.276	0.314	0.321	0.331	0.319	0.313	6.77
58)	S	Bromofluorobenzene	0.617	0.617	0.627	0.626	0.631	0.624	0.97
59)		4-Ethyl Toluene	0.311	0.365	0.401	0.437	0.436	0.390	13.61
60)		1,3,5-Trimethylb...	0.317	0.369	0.391	0.405	0.397	0.376	9.45
61)		1,2,4-Trimethylb...	0.273	0.318	0.344	0.365	0.361	0.332	11.46
62)		Benzyl Chloride	0.147	0.174	0.211	0.241	0.261	0.207	22.56
63)		m-Dichlorobenzene	0.190	0.224	0.243	0.265	0.260	0.236	12.94
64)		p-Dichlorobenzene	0.319	0.343	0.361	0.367	0.348	0.348	5.41
65)		o-Dichlorobenzene	0.208	0.234	0.251	0.257	0.250	0.240	8.29
66)		1,2,4-Trichlorob...	0.093	0.102	0.108	0.118	0.125	0.109	11.29
67)		Naphthalene	0.201	0.230	0.253	0.293	0.315	0.258	18.01
68)		Hexachloro-1,3-b...	0.123	0.136	0.140	0.144	0.143	0.137	6.17

(#) = Out of Range

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2016\MAY16L\25MAY16L\
Data File : LJ73S05.D
Acq On : 05/25/2016 11:33
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31755 (200 mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 25 12:49:11 2016
Quant Method : Z:\L\METHODS\TO15LSIMA11.m
Quant Title : TO-15 SIM
QLast Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	74	0.02
2		Propene	2.121	2.148	-1.3	86	0.01
3		Dichlorodifluoromethane	6.516	7.477	-14.7	86	0.00
4		Chloromethane	1.823	2.192	-20.2	89	0.01
5		Freon 114	6.033	6.634	-10.0	83	0.02
6		Vinyl Chloride	2.270	2.463	-8.5	82	0.03
7		1,3-Butadiene	1.813	1.925	-6.2	81	0.02
8		Bromomethane	2.461	2.747	-11.6	83	0.03
9		Chloroethane	1.177	1.331	-13.1	85	0.02
10		Acrolein	0.067	0.000	100.0#	0#	-5.41#
11		Acetone	5.360	7.069	-31.9#	108	0.05
12		Trichlorofluoromethane	8.662	9.752	-12.6	85	0.02
13		Ethanol	7.108	9.102	-28.1	128	0.05
14		Isopropyl Alcohol	7.108	9.102	-28.1	128	0.05
15		1,1-Dichloroethene	4.074	4.095	-0.5	74	0.03
16		Methylene Chloride	2.569	2.744	-6.8	81	0.03
17		Freon 113	6.598	7.119	-7.9	82	0.02
18		Carbon Disulfide	8.381	8.683	-3.6	82	0.03
19		trans-1,2-Dichloroethene	3.234	3.302	-2.1	76	0.02
20		1,1-Dichloroethane	5.215	5.517	-5.8	80	0.02
21		methyl t-butyl ether	7.828	7.355	6.0	69	0.03
22		Vinyl Acetate	0.501	0.571	-14.0	84	0.04
23		2-Butanone	5.747	5.960	-3.7	73	0.04
24		cis-1,2-Dichloroethene	3.325	3.384	-1.8	76	0.01
25	I	1,4-Difluorobenzene	1.000	1.000	0.0	69	0.01
26		Ethyl Acetate	0.052	0.061	-17.3	74	0.03
27		Hexane	0.213	0.229	-7.5	70	0.00
28		Chloroform	0.312	0.511	-63.8#	110	0.01
29		Tetrahydrofuran	0.174	0.169	2.9	68	0.04
30		1,2-Dichloroethane	0.185	0.221	-19.5	80	0.02
31		1,1,1-Trichloroethane	0.357	0.428	-19.9	81	0.00
32		Benzene	0.445	0.485	-9.0	75	0.02
33		Carbon Tetrachloride	0.418	0.519	-24.2	83	0.00
34		Cyclohexane	0.207	0.218	-5.3	72	0.00
35		1,2-Dichloropropane	0.154	0.178	-15.6	78	0.02
36		Bromodichloromethane	0.321	0.390	-21.5	80	0.02

Evaluate Continuing Calibration Report

Data Path : I:\L - 5975-L\2016\MAY16L\25MAY16L\
Data File : LJ73S05.D
Acq On : 05/25/2016 11:33
Operator : LMR
Sample : LCS 0.5 PPB
Inst : 5975-L
Misc : 31755 (200 mL)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 25 12:49:11 2016
Quant Method : Z:\L\METHODS\TO15LSIMA11.m
Quant Title : TO-15 SIM
QLast Update : Thu May 12 12:34:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37		1,4-Dioxane	0.110	0.101	8.2	69	0.03
38		Trichloroethene	0.270	0.310	-14.8	77	0.00
39		Methyl Methacrylate	0.142	0.154	-8.5	70	-0.07
40		Heptane	0.140	0.153	-9.3	72	0.00
41		cis-1,3-Dichloropropene	0.245	0.265	-8.2	72	0.02
42		4-Methyl-2-Pentanone	0.490	0.456	6.9	36#	0.02
43		trans-1,3-Dichloropropene	0.245	0.265	-8.2	72	0.02
44		1,1,2-Trichloroethane	0.189	0.228	-20.6	78	0.02
45		Toluene	0.538	0.588	-9.3	70	0.00
46		2-Hexanone	0.267	0.298	-11.6	70	0.02
47		Dibromochloromethane	0.411	0.525	-27.7	82	0.02
48		1,2-Dibromoethane	0.287	0.341	-18.8	77	0.02
49		Tetrachloroethene	0.328	0.403	-22.9	80	0.00
50	I	Chlorobenzene d5	1.000	1.000	0.0	71	0.00
51		Chlorobenzene	0.318	0.375	-17.9	80	0.00
52		Ethylbenzene	0.429	0.461	-7.5	72	0.01
53		m,p-Xylene	0.326	0.359	-10.1	73	0.01
54		Bromoform	0.219	0.273	-24.7	82	0.02
55		Styrene	0.240	0.250	-4.2	68	0.01
56		1,1,2,2-Tetrachloroethane	0.191	0.236	-23.6	83	0.01
57		o-Xylene	0.313	0.348	-11.2	75	0.01
58	S	Bromofluorobenzene	0.624	0.585	6.3	67	0.00
59		4-Ethyl Toluene	0.390	0.415	-6.4	68	0.00
60		1,3,5-Trimethylbenzene	0.376	0.414	-10.1	73	0.00
61		1,2,4-Trimethylbenzene	0.332	0.361	-8.7	71	0.00
62		Benzyl Chloride	0.207	0.227	-9.7	67	0.00
63		m-Dichlorobenzene	0.236	0.289	-22.5	78	0.00
64		p-Dichlorobenzene	0.348	0.397	-14.1	77	0.00
65		o-Dichlorobenzene	0.240	0.285	-18.7	79	0.00
66		1,2,4-Trichlorobenzene	0.109	0.121	-11.0	73	0.00
67		Naphthalene	0.258	0.278	-7.8	67	0.00
68		Hexachloro-1,3-butadiene	0.137	0.164	-19.7	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Form 8 Equivalent

INTERNAL STANDARD AREA SUMMARY

Continuing Standard Filename	LJ73S05	Area BCM	Area 1,4DFB	Area CB-d5
0.5 ppb v/v Continuing Cal Std		69886	1310451	2090907
	Upper Limit	97840	1834631	2927270
	Lower limit	41932	786271	1254544

CLIENT Sample No.	DCL Sample No.	Area BCM	Area 1,4DFB	Area CB-d5
501738 BL-	501738 BL-	53881	1037519	1726823
501739 QC-	501739 QC-	69886	1310451	2090907
501740 QD-	501740 QD-	64571	1259565	1996885
A-0053H-052416-IA-BAS	1614564003	58587	952844	1510165
A-0053H-052416-IA-BAS-D	1614564004	58531	957117	1541108

LIMITS: Areas should be within 60% to 140% of the corresponding area in the calibration std.

Form 8 Equivalent

INTERNAL STANDARD RETENTION-TIME SUMMARY

Continuing Standard Filename	LJ73S05	RT BCM	RT 1,4DFB	RT CB-d5
0.5 ppb v/v Continuing Cal Std		9.61	11.46	15.84
	Upper Limit	10.11	11.96	16.34
	Lower limit	9.11	10.96	15.34

CLIENT Sample No.	DCL Sample No.	RT BCM	RT 1,4DFB	RT CB-d5
501738 BL-	501738 BL-	9.64	11.47	15.85
501739 QC-	501739 QC-	9.61	11.46	15.84
501740 QD-	501740 QD-	9.60	11.45	15.84
A-0053H-052416-IA-BAS	1614564003	9.63	11.47	15.85
A-0053H-052416-IA-BAS-D	1614564004	9.61	11.46	15.84

LIMITS: RTs should be within 30 seconds of the corresponding RT in the calibration std.

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Appendix K
Project Analytical and HAPSITE® Database Files
(Available by Request)

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