FINAL
Community Involvement Plan

700 South 1600 East PCE Plume Site
Salt Lake City, Utah

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U.S. Department of Veterans Affairs
VA Salt Lake City Health Care System

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List of Acronyms

ATSDR – Agency for Toxic Substances & Disease Registry

AOU1 – Accelerated Operable Unit 1

CAG – Community Advisory Group

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act of 1980

CIP – Community Involvement Plan

COVID-19 – Coronavirus Disease 2019

EPA – United States Environmental Protection Agency

FS – Feasibility Study

FFA – Federal Facilities Agreement

HRS – Hazard Ranking System

MCL – maximum contaminant level

NPL – National Priorities List

OU – Operable Unit

PAHs - polycyclic aromatic hydrocarbons

PCE – perchloroethylene or tetrachloroethylene

PA/SI – Preliminary Assessment/Site Investigation

ppm – parts per million

PRP – Potentially Responsible Party

RI – Remedial Investigation

RIWP – RI Work Plan

ROD – Record of Decision

site – 700 South 1600 East PCE Plume Superfund Site

TAG – Technical Assistance Grant

TASC – Technical Assistance Services for Communities

TCE – trichloroethylene

TCRA – time-critical removal action

UDEQ – Utah Department of Environmental Quality

UDOH – Utah Department of Health

VA – U.S. Department of Veterans Affairs

VAMC – VA Medical Center VHA – Veterans Health Administration

Section 1

Overview of Community Involvement Plan

The U.S. Department of Veterans Affairs (VA), in consultation with the U.S. Environmental Protection Agency (EPA) Region 8 and Utah Department of Environmental Quality (UDEQ), developed this revised Community Involvement Plan (CIP) for the 700 South 1600 East Perchloroethylene (PCE) Plume Superfund Site (site) in Salt Lake City, Utah, in general accordance with the EPA Community Involvement Handbook and Community Involvement Tool (https://semspub.epa.gov/work/HQ/100002210.pdf). The CIP provides a framework to facilitate communication among community members and the VA and its partner agencies to encourage community involvement in site activities. The VA will use the community involvement activities outlined in this plan to ensure that residents are continuously informed and provided ample opportunities to be involved. Acronyms used in this revised CIP can be found preceding this section.

The VA drew upon several information sources to develop this plan, including community interviews, site files, U.S. Census Bureau demographic information, background provided by the EPA, and informal meetings with stakeholders and information sessions.

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Section 2
Site Description

2.1 Site History

On May 24, 2013, the EPA added the 700 South 1600 East PCE Plume site to its National Priorities List (NPL) of Superfund Sites. The listing became final on June 24, 2013. A former dry-cleaning facility at the nearby Salt Lake City VA Medical Center (VAMC) is currently the only identified source in the area for groundwater beneath the site that is contaminated with PCE. PCE levels at the site are in excess of federal drinking water standards but drinking water for the community (which comes from the Salt Lake City public water supply, which routinely tests its drinking water pursuant to federal standards) is not impacted, although municipal drinking water well SLC-18 was taken offline in 2012 due to PCE detected below the National Drinking Water Standard maximum contaminant level (MCL)(0.005 parts per million [ppm]) in the well. In addition, the artesian fountains at Liberty Park and at 800 South and 500 East are routinely tested; no PCE has been detected.

As the only known PCE source, the VA is responsible for paying for and leading the cleanup under the Superfund program. Placement on the NPL guarantees the public the opportunity to participate in the cleanup process from its early stages, which includes a detailed site assessment and investigation. EPA and UDEQ provide advice and consent on the VA's response actions for cleanup of the Site to ensure that Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and National Contingency Plan requirements are met. In November 2013, the VA developed an investigation strategy and plan for fieldwork efforts. Upon completion of the investigation, the VA entered into an interagency Federal Facilities Agreement (FFA). The FFA is a legal agreement that defines the requirements for performance of site response activities and outlines how cleanup will proceed. The signatories to the FFA include the VA, EPA, and UDEQ.

2.2 Site Description and Location

The site is located in East Bench, Salt Lake City, Utah. The plume is located within the area bounded by 500 South and Michigan Avenue and between the VAMC campus and 1000 East. **Figure 1** in **Appendix A** depicts the area. Investigations are underway to better define the boundaries of the plume.

2.3 Site Investigation and Activities

PCE contamination was first identified in groundwater in 1990 at the nearby Mt. Olivet Cemetery irrigation well during routine monitoring by the Salt Lake City Department of Public Utilities. This detection led to the discovery and several subsequent investigations of the site, formerly known as the Mount Olivet Cemetery Plume, and led to EPA and UDEQ involvement at the site and the preliminary determination that the source of PCE in groundwater was the historic dry cleaning facility at the VAMC. The Veterans Health Administration (VHA) operated a part-time dry cleaning operation that used PCE over a 6-year period in the late 1970s and early 1980s. During this

period, dry cleaning residuals were disposed in the sanitary sewer. The EPA first became interested in the site for listing on the NPL in 2003–2004 when a site investigation detected PCE in a Salt Lake City municipal drinking water well at a concentration of 0.00223 ppm. The national drinking water standard for PCE is 0.005 ppm. But, as a precautionary measure, Salt Lake City Public Utilities removed the well from service even though the drinking water was defined as safe.

The EPA notified the VA in 2006 that it would defer listing the site on the NPL while local city officials sought money from Congress to address the issue. Previous UDEQ and EPA investigations indicated that, while PCE was found in deep groundwater, no PCE was detected in surface water springs in the city. At that time, there did not appear to be any means for people in the community to come in contact with PCE in the relatively deep groundwater.

In 2010, a Chevron pipeline near the mouth of Red Butte Canyon ruptured and subsequent sampling and analysis revealed the presence of PCE in several residential springs located downgradient from the plume along the Wasatch Fault. A Preliminary Assessment/Site Investigation (PA/SI) completed in 2011 by UDEQ confirmed the presence of PCE in the springs and shallow groundwater and concluded that the contamination is likely connected to the 700 South 1600 East PCE Plume.

The EPA and UDEQ concluded (from their 2011 preliminary investigation) that PCE from the VA potentially impacted the groundwater. The EPA and UDEQ were unable to identify other potentially responsible parties (PRPs) other than the VA that may have contributed to the contamination.

Preliminary groundwater computer modeling conducted by Salt Lake City Public Utilities and others indicated that the plume is approximately 300 acres in size, and studies are underway to better delineate the boundaries of the plume. **Figure 1** (**Appendix A**) depicts the general location of the plume.

On September 18, 2012, both the city and state supported the proposed listing of the site on the NPL because mitigation funding efforts failed locally and site conditions and PCE exposure pathways were better defined. Final listing of the site on the NPL occurred in May 2013.

2.4 Site Risk

PCE is a manufactured chemical that is widely used for dry cleaning of fabrics and for metal degreasing. Exposure to PCE could pose a threat to human health and the environment. The EPA determined that PCE may be reasonably anticipated to be a human carcinogen.

In addition to drinking water concerns at the site, PCE in groundwater evaporates easily, allowing vapors to move through the soil and into buildings through basement foundations. Because buildings are not airtight, vapors may enter through cracks in the foundation, gaps around pipes, and other openings. In extreme cases, the vapors may accumulate in homes and buildings to levels that may pose health effects.

Typically, chemical concentrations are low or, depending on site-specific conditions, vapors may not be present at detectable concentrations. In residences with low concentrations, chemical exposures over many years may raise the lifetime risk of cancer or chronic disease.

Symptoms of respiratory exposure to PCE include irritation, dizziness, headaches, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death. Initial symptoms of PCE exposure include respiratory irritation at or around an inhalation concentration of 200 ppm.

Trichloroethylene (TCE) was also detected in the groundwater during the investigation of the PCE plume. TCE is another widely used chemical used mainly as a solvent to remove grease from metal parts. The detected TCE may be a breakdown product of PCE or be the result of an unknown source of groundwater contamination. The EPA reasonably anticipates TCE to be a human carcinogen and has reported a wide range of human health effects from TCE exposure. The EPA's MCL for TCE in drinking water is 0.005 ppm.

The Agency for Toxic Substances and Disease Registry (ATSDR) and the Utah Department of Health (UDOH) are currently conducting a public health assessment of the site. The assessment will review available information about hazardous substances at the site and evaluate whether exposure to those substances may be hazardous to people.

Information about potential health impacts from exposure to environmental contaminants in the area was gained from the Red Butte Creek Oil Spill of June 2010. The UDOH's Environmental Epidemiology Program partnered with the Salt Lake County Health Department and Salt Lake City to determine possible health issues relating to crude oil exposure from the Red Butte Creek Chevron Oil Spill. While the chemicals from the Chevron oil spill are not the same as PCE, they are in the same family of chemicals and exposure pathways would be comparable.

Results were published in a previously-completed public health assessment and a subsequent health consultation, both produced through a cooperative agreement with the ATSDR. The public health assessment evaluated the potential for long-term health impacts in the community from exposure to components of crude oil. It also addressed the crude oil contaminants and the water and air that were impacted during the spill. Based on the review of available data, the oil spill is not associated with any immediate health hazards to the community.

A subsequent health consultation addressed specific community concerns regarding exposures to chemicals from the crude oil (called polycyclic aromatic hydrocarbons [PAHs]) that had affected the water and creek soil sediment. Based upon the available data regarding water and soil contamination of Red Butte Creek, the Environmental Epidemiology Program found no apparent health hazard to the community because of PAH exposure.

The studies found no incidence of cancer clusters.

Complete results of the Red Butte Creek health studies can be found on UDOH's website at: www.health.utah.gov/enviroepi/appletree/redbuttecreekoilspill/frontpage.htm

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Section 3
Regulatory Framework

3.1 CERCLA (Superfund) Process Overview

CERCLA or Superfund, provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the EPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The Superfund Amendments and Reauthorization Act of 1986 reauthorized CERCLA and provided additional opportunities for affected residents to participate in the decisions for cleanup.

The EPA obtains private party cleanup through orders, consent decrees, and other small-party settlements. The EPA also recovers costs from financially viable individuals and entities once a response action is completed. Its authority may be applied to government agencies in the same way through FFAs. UDEQ is the support agency for the site and provides input to EPA on investigation and cleanup activities, has the opportunity to comment on documents prior to release to the public, and participates in planning meetings. UDEQ also can conduct cleanup activities under its delegated authority.

The Superfund process involves:

1. PA/SI reports on the initial/current state of a site.
2. Hazard Ranking System (HRS) scoring determines if the site should be on the NPL. NPL Site Listing process prioritizes the most serious sites.
3. Remedial Investigation (RI)/Feasibility Study (FS) studies the nature and extent of contamination, evaluates potential remedies, and selects a preferred remedy.
4. Proposed Plan presents the preferred remedy in a plan to the public for comment.
5. Record of Decision (ROD) explains the final remedy or remedies that have been selected to clean up a Superfund Site. The ROD for sites listed on the NPL is created from information generated during the RI/FS.
6. Remedial Design/Remedial Action plans and implements the selected remedy.
7. Operation and Maintenance ensures that the remedy is functioning as intended, and also ensures the long-term protection for the community and the environment when construction is complete.
8. Deletion from the NPL when no further response is required to protect human health or the environment.

3.2 Status of Superfund Work at the 700 South 1600 East Plume Site

VA, which is currently the only known PRP, is developing and implementing the RI/FS. This is the third major step of Superfund cleanup, following the PA/SI that was conducted in 2011, and the listing of the site on the NPL of Superfund Sites in 2013.

In preparation for the RI/FS, VA developed numerous documents that outline how it will manage the site investigation (Site Management Plan), how the VA will inform the local community (this revised CIP), and a conceptual model of how the contamination is believed to have occurred and how it may be migrating in the subsurface. In addition, the VA developed a series of documents, collectively known as a RI Work Plan (RIWP). The RIWP defines the specific investigation plans for the site, including quality assurance requirements, health and safety requirements for investigators and the public, and field sampling methods required to characterize the site and determine the nature and extent of contamination in groundwater, surface water, soil, and air. Investigation of the site began in early 2015 after EPA and UDEQ approved these documents.

Originally, the VA identified two specific Operable Units (OUs) to focus on during the plume investigation. The AOU1 (the "A" designates the term "Accelerated") area consisted of the East Side Springs area (see **Figure 1** in **Appendix A**) where PCE is discharging to surface water via springs and seeps and has a higher potential to impact the public. Investigation of AOU1, particularly for potential human health impacts, began in 2014. The investigation in this area was accelerated to address the possibility of vapor intrusion into structures and was implemented in two phases.

The first phase of the field work at East Side Springs was conducted January–April of 2015 and included sampling indoor air, outdoor air, and near-slab soil gas (checking for vapors near building foundations) at 36 properties. Samples were analyzed for PCE as well as other constituents.

The second phase of work at the East Side Springs included limited indoor air sampling in selected houses, near-slab soil gas sampling, open-field soil gas sampling, and surface water and shallow groundwater sampling. The data were evaluated and presented in the AOU1 RI Report completed in 2019.

The VA identified one structure with the potential to be adversely affected by the PCE plume via vapor intrusion. Indoor air sampling was conducted March 2016 in the home's basement, kitchen, and upstairs bedroom to verify the previous results.

Evaluation of multiple lines of evidence suggested that vapor intrusion from PCE-impacted shallow groundwater and surface water and the structure's drainage construction was the probable cause of the PCE and TCE detected in the indoor air.

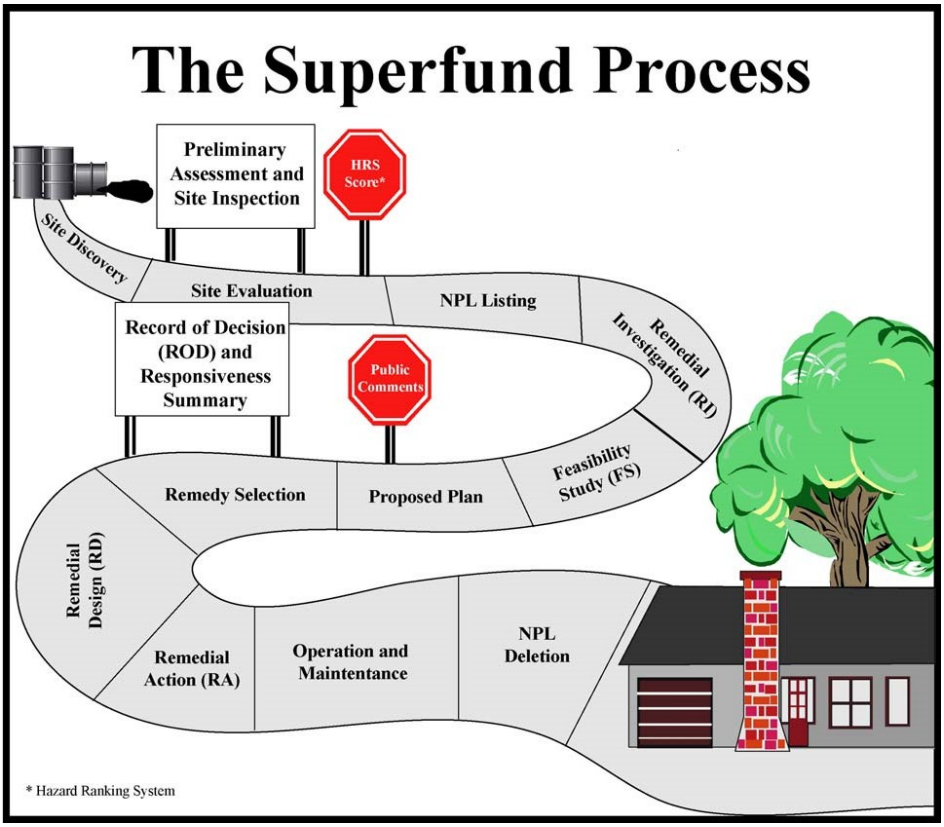
The VA determined, with EPA and UDEQ concurrence, that a time-critical removal action (TCRA) was necessary. The VA prepared an action memorandum dated October 20, 2016 and implemented the action in November 2016. These activities are documented in a TCRA

memorandum dated January 11, 2018, which includes a post-installation operation and monitoring plan for the whole-house air purifying system.

OU2 was originally designated as the area of the plume contained in deep groundwater beneath and near the VA property where the contamination may have migrated to affect water supply wells, and the potential exists for soil contamination on the VA property. The OU2 investigation was initiated in 2016 and field work is anticipated to be complete in 2021. The OU2 investigation was not accelerated because the deep location of the contaminants make them much more isolated from human contact.

In 2019, the VA determined that AOU1 and OU2 will be combined into a single OU, OU1. This determination was based on data indicating that the PCE plume identified in the East Side Springs originated from the VAMC campus, and that the risk evaluation for AOU1 indicates that vapor intrusion risk to the public in the area is not pervasive; therefore, an accelerated investigation is no longer warranted. The OU2 investigation activities and the continued vapor intrusion assessments in the East Side Springs will be completed under the new combined OU1. The VA's continued investigation of OU1 is highly visible to residents, and the VA will continue to communicate with residents regarding the processes, sampling, and progress of the investigation as it proceeds.

The illustration below shows the Superfund process from beginning to conclusion of a cleanup.



3.3 Government Agencies and Roles

The cleanup of the site will require collaboration among several federal, state, and local governments. A brief description of each, and its role in the process, follows.

3.3.1 U.S. Department of Veterans Affairs

VA provides health care and other benefits for many of the country's veterans. A former dry-cleaning operation at its George A. Wahlen VAMC in Salt Lake City was identified as the source of the PCE contamination at the 700 South 1600 East PCE Plume site. Therefore, the VA is responsible for leading and financing the cleanup.

3.3.2 U.S. Environmental Protection Agency

The EPA protects Americans from significant risks to human health and the environment. Superfund is the federal government's program to clean up the nation's uncontrolled hazardous waste sites. The EPA must enforce the Superfund laws upon government agencies just as it would upon any other entity. The EPA is overseeing the cleanup under the FFA; the final remedy must be approved by VA, EPA, and UDEQ.

3.3.3 Utah Department of Environmental Quality

UDEQ is charged with safeguarding public health and quality of life by protecting and enhancing the environment. It implements state and federal environmental laws and works with individuals, community groups, and businesses to protect the quality of air, land, and water throughout Utah. UDEQ also oversees the cleanup under the FFA; the final remedy must be approved by VA, EPA, and UDEQ.

3.3.4 Salt Lake City

Salt Lake City is the capital and largest city in Utah, with a population of approximately 190,000 in the city and 1.2 million in the metropolitan area. As a precautionary measure, Salt Lake City Public Utilities, as a result of the 700 South 1600 East PCE Plume, removed one well from service that was threatened by the suspected groundwater contamination.

Section 4
Community Background

4.1 Community Profile

The site is located near the George E. Wahlen VAMC on the east side of Salt Lake City. The preliminary area of investigation is bounded on the west side by 900 East, on the north by 500 South, on the east by 1600 East, and on the south by Yale Avenue. The investigation area is defined by the existing data collected over a number of years that includes results from groundwater sampling on and immediately adjacent to the VA property, and spring and groundwater sampling to the west-southwest of the VAMC at the East Side Springs. The plume area will be refined as more data are collected during the RI process.

The north and eastern portions of the site are mostly a mix of parkland (Sunnyside Park), public recreation, a large cemetery, schools and school athletic fields, and VA property, with a limited number of residences and businesses. The western and southern sides of the site are predominantly residential but include several businesses and schools, including East High. **Figure 1** in **Appendix A** contains a map depicting the locations of various buildings, streets, and residential areas relative to the site. According to U.S. Census Bureau data provided on EPA's EJSCREEN website, approximately 41,384 people live within a 1.5-mile radius of the site. Approximately 18 percent of the population is minority. Per capita income is $33,257 per year, and 31 percent of the households have incomes of more than $75,000 per year.

4.2 History of Community Involvement

A variety of activities took place prior to engaging the community in the cleanup process:

- In the 1990s, PCE was first detected in the Salt Lake City area during the city's routine monitoring of the Mount Olivet Cemetery irrigation well. The detection of PCE in the cemetery well led to the discovery of the site.
- Subsequent investigation of the site in 2004 detected PCE in a Salt Lake City municipal drinking water well at a concentration of 0.00223 ppm. The investigation was conducted jointly by the UDEQ and the EPA. As a precautionary measure, the Salt Lake City Public Utilities removed the well from service.
- Based on the 2004 investigation, the UDEQ and the EPA returned to the site in 2005 to collect groundwater samples to prepare a HRS package to propose the site to the NPL.
- In 2010, as part of a review to assess the impact of the Red Butte Creek Chevron Oil Spill, the Salt Lake City Department of Public Utilities detected PCE in multiple residential springs located downgradient of the plume in East Bench, Salt Lake City. This discovery led to the portion of the site referred to as East Side Springs.

- A Site Inspection Analytical Results Report was prepared in 2012 for East Side Springs by the UDEQ concerning the site's PCE soil exposure pathway, groundwater migration pathway, surface water migration pathway, and air migration pathway.
- EPA published a public notice inviting comments concerning its intent to list the site on the NPL in May 2012; a fact sheet and press release announcing its proposal were published in August 2012.
- EPA added the site to the NPL in May 2013.
- Beginning in December 2013 and continuing through February 2014, the VA, EPA, and UDEQ conducted approximately 20 community interviews. The interviewees included three elected city officials, five school staff, six local community council members, a Utah Department of Public Health member, and several area residents to determine citizen awareness and concerns about the site. The results of these interviews are summarized in Section 4.3. The interview questions can be found in Appendix B. Community council districts affected by the site can be found in Appendix C.
- VA, with support from the EPA, UDEQ, and East Central Community Council, held two open houses and public meetings at the McGillis School, and one meeting at the VA campus. These meetings were held March 13, 2014 (McGillis), September 4, 2014 (VA), and September 17, 2015 (McGillis).
- Approximately 75 community members attended the March 13, 2014 meeting and 45 people signed up to receive more information about having their properties tested for contaminants during the RI/FS. An additional request for testing was received by phone after the community meeting.
- Approximately 40 community members attended the September 4, 2014 meeting. D. Lynne Welsh gave an update on the RI and the methods that would be used to sample for vapor intrusion. Dr. Craig Dietrich with UDOH gave a public health assessment. Danny Wall, University of Utah Associate Director of Finance, and Program Director, Master of Real Estate Development, gave a presentation on real estate evaluation in the area. VA solicited additional volunteers for vapor intrusion sampling.
- Approximately 26 community members participated in the September 17, 2015 meeting and 12 people signed up to receive more information about having their properties tested, Nine indicated an interest in forming a Community Advisory Group (CAG), and an additional two residents were interested in CAG membership. During a January 21, 2016 meeting, members of the community decided to form the CAG. See Section 6 for more information on CAGs.
- VA conducted four briefings for Salt Lake City, Salt Lake County, and other local officials about the upcoming RI/FS and other site activities on February 28, 2014, March 13, 2014, September 28, 2014, and August 5, 2015.
- Local information repository containing site documents and public comments was established at the Anderson-Foothill Library located at 1135 South 2100 East, Salt Lake

City, UT. The EPA also maintains an information repository for this site at its Denver headquarters.

- In September 2015, VA established a website for the site (currently at pceplume.org). The website contains a variety of information including history and background, the status of current site investigations, frequently asked questions, upcoming activities, and contact information for VA staff.
- CAG meetings occurred almost monthly during 2016, and have since transitioned to quarterly. CAG meeting topics have included reviews of completed and upcoming work at the site. The October 2016 CAG included a presentation on the basics of the risk assessment process, and the March 2018 meeting included review of groundwater studies completed by the U.S. Geological Survey.
- The VA hosted a public information session at the McGillis School Library on January 22, 2020. The purpose of the session was to provide an opportunity for the public to ask questions of the VA project team in an informal setting. The VA developed a series of posters and brochures that were displayed and distributed during the session. Content included information on planned work, including drilling, groundwater sampling, and vapor intrusion sampling, as well as information on vapor intrusion. Several residents signed up for the indoor air sampling program as a direct result of the public information session.
- In February 2020, the VA distributed 150 door hangers at residences near the Alpine Place and Gilmer Drive neighborhood. The door hangers included information on the upcoming vapor intrusion sampling (March 2020 event) and requested additional voluntary participants.
- In March 2020, the VA contacted 23 residents to detail plans for collecting passive samplers from their homes during the Coronavirus Disease 2019 (COVID-19) outbreak.
- In May 2020, the VA sent letters that included a summary of the winter 2019/2020 vapor intrusion sampling effort and data to homeowners that participated in the event. A total of 30 residential letters were distributed with individual property reports.
- The 2020 CAG meetings, on May 14, 2020, September 10, 2020, and December 10, 2020, used Microsoft Teams for virtual participation because of the COVID-19 outbreak. The meetings included review of completed and upcoming field work and actions being taken by the VA to continue Site work during the COVID-19 outbreak. The September 2020 CAG included a review of the Phase 2 RIWP provided by the EPA's Technical Assistance Services for Communities (TASC) contractor.

4.3 Key Community Concerns

As stated, community interviews conducted from December 2013 through February 2014 included residents and representatives from community councils, school officials, and Salt Lake City Council. The results of these community interviews and feedback obtained from participants in the March 2013 open house and community meeting, the September 2014 community meeting,

and the September 2015 community meeting identified the following community members' concerns about groundwater contamination and the RI/FS:

Vapor intrusion – Public safety, especially for children who attend the McGillis School, Rowland Hall, and East High School, was a high priority for community members. Concerns were raised concerning previous testing and what kind of testing will be done for those schools in the future. Also, how much of the area will be tested and will the equipment be placed in locations children would be unable to access. Homeowners requesting testing on their property stated that they will need adequate prior notice.

Community members who participated in the interviews and the open house were concerned more about risks associated with potential vapor intrusion than with drinking water. Drinking water provided by Salt Lake City is not sourced from groundwater focused on in these studies.

To address concerns regarding vapor intrusion, the VA will conduct indoor air quality reviews of potentially affected residences and structures to determine if mitigation actions are necessary on a case-by-case basis.

Health impacts – Some concern exists that higher than normal incidences of cancer (cancer clusters) are occurring in the community. The public health assessment currently being conducted jointly by the ATSDR and UDOH will address this concern. In response to a concern from a participant at the September 2015 community meeting, a UDOH representative described how a previous cancer study was conducted and explained how the cancer risk from the PCE plume is low. Other health-related concerns voiced at the September 2015 meeting were how long-term exposure is determined from samples collected over a short period of time, and how the possible effect of PCE on pregnant women is evaluated.

Impacts to vegetable gardens – Gardening is popular in the area and a number of community members asked if groundwater contamination could affect homegrown vegetables. The McGillis School plans to plant various gardens on school property and staff members want to know how contamination, testing, and cleanup efforts might affect their gardens. The public health assessment currently being conducted jointly by the ATSDR and UDOH will address this concern.

Property values and Superfund status – Residents expressed concern that the Superfund designation might negatively affect property values, and they are uncertain if a property owner must disclose Superfund status when selling a home in the area. One resident asked if the site would no longer be a Superfund Site once cleanup is complete.

Water Quality – One interviewee for this plan asked whether the surface water at Miller Park is safe. Another was concerned about the springs along 1300 East and the status of the artesian well water at the park. Salt Lake City tests the public drinking water supplies, including Miller and Liberty Park, to ensure their safety. Participants at the September 2015 community meeting expressed concern about the potential for PCE in the runoff from the Mount Olivet irrigation well. VA and UDOH staff said that the high volatility of PCE makes that unlikely, and ambient gas sampling conducted in the area has not detected PCE.

Scope and duration of site investigations – Interviewees want the VA to establish official boundaries for the site and to evaluate if contamination is migrating. They also want to learn

about the investigation process and how long it will take. To address these concerns, the VA continues to investigate the site to clarify the boundaries of the plume.

Communication and agency cooperation – Interviewees expressed the hope that local, state, and federal agencies involved in the RI/FS are effectively collaborating and communicating. The VA is striving to ensure that all stakeholders are provided updates to the site investigation and outcomes of the review and will hold the necessary meetings to achieve this goal.

Impact on funding a Superfund project on VA's budget – Funding the CERCLA/Superfund project will have an impact on VHA's operating budget for several years, but the VA is continuously working with all parties to mitigate this impact and to ensure our Veterans continue to receive care second to none.

University of Utah secondary water – In the past, the University of Utah converted potable water wells to secondary use for irrigation. Some concern exists that increased pumping of these wells in the future could affect the movement of PCE in the groundwater and result in impact to the school's irrigation supply well. The VA will address this concern as part of its RI at the site.

4.4 Response to Community Concerns

In response to community concerns voiced during community interviews, open houses, and community meetings, and in briefings with local officials, the VA accelerated its RI plan for the AOU1 East Side Springs area. The VA, in cooperation with the EPA and UDEQ, will continue to conduct quarterly CAG meetings and briefings about site activities for residents, local officials, and other stakeholders. The VA developed a website to publish new information and alert the community about upcoming meetings. Additionally, the VA will provide opportunities for the public to review and comment on the Proposed Plan to address groundwater contamination and its impacts. Section 5 contains detailed information about the VA's community outreach and involvement program.

The ATSDR will help address community health concerns by conducting a public health assessment. The assessment will consider:

- What are the levels (i.e., concentrations) of hazardous substances
- Potential exposure pathways to PCE (e.g., inhalation, dermal contact)
- What harm, if any, the substances might cause to people and their pets (including the contaminants' toxicity).

More information on public health assessments can be found at the ATSDR's website https://www.atsdr.cdc.gov/hac/products/pha.html

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Section 5

Community Outreach and Involvement Program

The goal of the community involvement program for the 700 South 1600 East PCE Plume site is to promote effective communication between Salt Lake City residents and the VA, EPA, and UDEQ, and to provide opportunities for meaningful and active involvement for the community in the groundwater cleanup process.

Community involvement is encouraged and is legally required to fulfill the intent of the Superfund law. Involvement by the community supports the core values behind the legislation, including:

- People have a say in decisions that affect them
- Public participation includes the promise that input from the community will be thoughtfully considered
- Process should communicate the interests and meet the needs of all participants
- Agencies will seek and facilitate involvement from those affected by contaminants
- Citizens can define how they participate
- Citizens will be provided with the information they need to participate
- Communication to citizens will explain how their input was or was not used in the decision-making process

5.1 Communications Techniques

The VA, in conjunction with the EPA and UDEQ, will continue to employ the following diverse communication techniques to meet the VA's community involvement goal:

- VA will develop and arrange for publication of public notices in the *Salt Lake Tribune* and *Deseret News*, and other documents if needed, announcing the formal public comment period for the Proposed Plan. Public notices will be placed at least five days prior to any public meetings. Electronic and broadcast news outlets will also be engaged to help solicit public comments. The VA will provide local news media with press releases to announce important news about project activities. Appendix D contains a list of local news media and news media coverage about the site.
- News about site activities and progress will be posted regularly on appropriate websites, (e.g., websites hosted by the EPA, UDEQ, the city, public health agencies, and local community councils).
- VA developed and is maintaining a website that contains timely information about the status of project activities and also contains the site information repository. The website

can be found at: http://www.pceplume.org. This website was designed to complement other websites established to inform community members about the site (see Appendix E).

- VA will develop fact sheets, frequently asked questions forms, flyers, postcards, and other materials as needed, to keep the community informed about site activities.
- Public will be invited to public meetings, including a formal public meeting for the Proposed Plan and small-group meetings. Notification of public meetings and formal public comment periods associated with the cleanup will be published in the *Salt Lake City Tribune* and *Deseret News* and will be included on pertinent websites and Salt Lake City's community notice board.
- Periodic briefings will be held for federal, state, and local elected officials and other government agency staff.
- All public information will include contact information for key project team members (see Appendix F for contact information for the VA, EPA, and UDEQ).
- Email list will be maintained as part of this CIP by the VA. Persons requesting to be placed on the list will receive announcements of upcoming public meetings and the availability of new site-specific information.
- Local community councils, schools, businesses, and other community members who have a vested interest in the cleanup of the site will be engaged and encouraged to participate in community involvement activities (see Appendices G through I).
- VA developed, and will update as needed, a Project Communications Plan to help VA and its contractors, in conjunction with EPA and UDEQ, effectively communicate with residents, news media, and other stakeholders during the RI for the East Side Springs area (see Appendix J).

Section 6

EPA Technical Assistance for the Community

A CAG was formed for the site by members of the Salt Lake City community and serves as the focal point for the exchange of information among the local community with assistance from the VA, EPA, the state regulatory agency, and other pertinent federal agencies involved in cleanup of the Superfund Site. The CAG helps to keep the VA, EPA, and UDEQ informed about questions or concerns on behalf of the community and helps to disseminate information about site activities and progress.

The EPA serves the CAG or other community groups by providing direct resources and technical assistance to the community to better understand the science and regulation concerning the site investigation and cleanup. EPA offers this assistance in multiple ways, including the TASC program and Technical Assistance Grants (TAG).

The TASC program is a national initiative that seeks to improve community knowledge and participation in local environmental issues and EPA actions. Specific offerings that the TASC provides include:

- Community training
- Educational presentations
- Technical assistance needs assessments
- Reviewing and explaining technical information
- Facilitating community meetings
- Developing information materials for communities

TAG provides money to CAGs or other qualified community groups for technical advisors to interpret and explain technical reports, site conditions, VA's cleanup proposals and decisions, and to facilitate participation in decision-making at eligible Superfund Sites.

Both TASC and TAG have their own advantages and drawbacks. Additional information about each can be obtained by contacting the EPA Regional TASC Project Coordinator at (303) 312-6508 or guerra.jasmin@epa.gov.

6.1 Recent and Upcoming CAG Meetings and Other Community Involvement Activities

CAG meetings and other community involvement activities recently conducted or planned in upcoming years for the site include the following:

- **November 2019 CAG**. The November 2019 CAG meeting was held on November 13, 2019 at the VAMC campus. The meeting included review of completed and upcoming field work.
- **January 2020 Public Information Session**. The VA hosted a public information session at the McGillis School Library on January 22, 2020. The purpose of the session was to provide an opportunity for the public to ask questions of the VA project team in an informal setting. The VA developed a series of posters and brochures that were displayed and distributed during the session. Content included information on planned work, including drilling, groundwater sampling, and vapor intrusion sampling, as well as information on vapor intrusion. As a direct result of the session, several residents signed up for the indoor air sampling program.
- **February 2020 Door Hangers**. The VA distributed 150 door hangers at residences near the Alpine Place and Gilmer Drive neighborhoods. The door hangers included information on the upcoming vapor intrusion sampling (March 2020 event) and requested additional voluntary participants.
- **March 2020 COVID-19 Response**. The VA contacted 23 residents to detail plans for collecting passive samplers from their homes during the COVID-19 outbreak.
- **May 2020 Residential Vapor Intrusion Results Reporting**. The VA sent letters that included a summary of the winter 2019/2020 vapor intrusion sampling effort and data to homeowners that participated in the event. A total of 30 residential letters were distributed with individual property reports.
- **May 2020 CAG**. The May 2020 CAG meeting was held on May 14, 2020 and used Microsoft Teams for virtual participation because of the COVID-19 outbreak. The meeting included review of completed and upcoming field work and actions being taken by the VA to continue site work during the pandemic.
- **September 2020 CAG**. The September 2020 CAG meeting was held on September 10, 2020 and used Microsoft Teams for virtual participation because of the COVID-19 outbreak. The meeting included review of completed and upcoming field work. A summary of the indoor air sampling and June 2020 groundwater sampling event was also provided.
- **December 2020 CAG**. The December 2020 CAG meeting was held on December 10, 2020 and used Microsoft Teams for virtual participation because of the COVID-19 outbreak. The meeting included review of completed and upcoming field work. Quarterly CAG meetings are also anticipated in 2021, 2022, and out-years unless the group decides to adjust the frequency of their meetings.
- **Fall 2023 Proposed Plan Public Meeting**. The VA will present the preferred remedy for the site and solicit input from the public on the plan.

Appendix A

Site Location and Description

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Legend

- Monitoring Well
- Decommissioned Monitoring Well
- Drinking Water Supply Well
- Irrigation Well
- George E. Wahlen Veterans Affairs Medical Center Boundary
- Study Area Boundary
- East Side Springs

N

0 500 1,000 Feet

CDM Smith

FIGURE 1
SITE LOCATION MAP

Community Involvement Plan
700 South 1600 East PCE Plume
Salt Lake City, Utah

Appendix B

Community Interview Questions

Questions:

1. How long have you lived in the area?
2. What do you know about the PCE plume? When did you first become aware of the site?
3. Do you have any health/environmental concerns regarding the plume?
4. Do you have any questions or concerns regarding the RI and FS and/or the sampling and investigations that will start soon?
5. Have you ever used or do you plan to use the PCE plume information repository established at the main Salt Lake City Library?
6. What is the best way to get information to you and, in your opinion, to the community? For instance, *Salt Lake Tribune*, local radio stations, direct mailing, and/or public service announcements?
7. Are you interested in receiving specific information on a regular basis about the cleanup developments at the site? If so, would your preference be to receive information through the mail or email?
8. Are you familiar with EPA's website? If EPA were to establish a Facebook page or Twitter page to provide updates regarding the Site would you find this way of communicating more useful than the EPA website?
9. Now that you're aware of the PCE plume, are there other people, civic, or public groups that you recommend we contact for an interview?
10. Is there anything else you would like to add? Do you have any questions?

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Appendix C

Community Councils in the Affected Area of the 700 South 1600 East Plume

East Central Community Council
Esther Hunter, Chair
Nate Salazar, Co-Chair
606 Trolley Square
Salt Lake City, Utah 84102
Website: http://eastcentralcc.org/
Email: ecchair@live.com

East Liberty Park Community Organization
Jason Stevenson, Co-Chair
Darryl High, Co-Chair
P.O. Box 520123
Salt Lake City, Utah 84125
Phone: 801-521-9450
Fax: 801-770-2040
Email: elpcoslc@gmail.com

Yalecrest Neighborhood Council
Loree Hagen, Chair
1068 South 1700 East
Salt Lake City, Utah 84108
Phone: 801-582-0445
Website: www.yalecrestneighborhood.org
Email: hello@yalecrestneighborhood.org

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Appendix D

News Media Contacts and Historical Media Coverage

News Media Contacts

- KUTV (CBS Affiliate): newsdesk@kutv2.com: reporter varies
- KSL (NBC Affiliate) KSL Radio and *Deseret News*: news@ksl.com: reporter Jed Boal
- KTVX (ABC Affiliate): news@abc4news.com: reporter varies
- KSTU (FOX Affiliate): news@fox13now.com: reporter varies
- KUER (NPR): news@kuer.org: reporter varies
- *Salt Lake Tribune*: newsroom@sltrib.com: reporter Kristen Moulton
- *Deseret News*: news@deseretnews.com: reporter Amy Joi O'Donoghue
- KUED (local University of Utah Public Broadcast Channel) Community Outreach: 801- 587-2125 or main number: 801-581-7777

Historical Media Coverage

Salt Lake Tribune

"Investigators take on eastside Superfund Site groundwater cleanup;

Officials to address residents Thursday evening on mitigation effort"

By Christopher Smart

Published: March 12, 2014 12:09PM

Updated: March 11, 2014 10:27PM

Federal and state agencies are moving forward with the assessment and cleanup of a contaminated groundwater plume on Salt Lake City's east side that was added to the Superfund Site cleanup list last year.

Environmental officials will meet Thursday evening with residents concerned about groundwater contaminated by tetrachloroethylene (PCE), a man-made chemical commonly used in dry-cleaning.

The plume is believed to be approximately 300 acres in size and generally located between Guardsman Way and 1100 East downslope from the Veterans Administration Hospital. Concentrations of PCE were found to be 60 times the limit for drinking water. In high

concentrations, the chemical can cause dizziness and headaches, nausea, motor difficulties, and even death.

Investigators hired by the VA are beginning to formulate a "remedial investigation work plan" and will make a presentation and hold a question-and-answer session with residents Thursday at 6:30 p.m. at the McGillis School, 668 E. 1300 South.

The meeting is being hosted by the East Central Community Council, according to Chairwoman Esther Hunter. It is open to all Salt Lake City residents and property owners. "We're grateful the VA is taking responsibility and we're fortunate they are leading the cleanup," she said.

The work plan is the first step toward more accurately defining the plume and seeking ways to mitigate its impacts, said D. Lynne Welsh, the remedial manager for the Department of Veteran's Affairs in Salt Lake City. The VA has taken responsibility for the contamination and cleanup, she said. The chemical has "vapor intrusive impacts" and can seep into homes. "PCE is a volatile compound," Welsh said. "We want to make sure it doesn't get into people's basements." Investigators will inspect residential housing with the permission of owners or tenants, Welsh said.

Residents can sign up for inspections at Thursday's meeting.

The inquiry will look at various aspects of groundwater in the area and must also take into account housing foundations. Because foundations vary from structure-to-structure, it's important that investigators evaluate as many as possible, Welsh said.

The probe will be followed by a feasibility study that will eventually lead to a mitigation plan.

"The fact that the VA is moving forward is good news," said Tom Daniels, remedial project manager for the Utah Department of Environmental Quality. The state will provide support and oversight on the project, he said. "It's our job to look out for the concerns of the state and its residents," he said.

The EPA is also involved in the project.

The contamination was discovered in the 1990s near the irrigation well for Mount Olivet Cemetery. In 2004, Salt Lake City removed a drinking water well from service when trace amounts of PCE were discovered there.

Additional news coverage can be found at these sources:

- Salt Lake City Plume Now on Superfund List (*Salt Lake Tribune*) (5/22/13)
- EPA Places Salt Lake City Groundwater Plume on National Priority List (05/22/13)
- East-side Groundwater Contamination/Utah's Right to Know (KCPW) (09/24/12
- Dangerous Chemical Springing Up In Some SLC Backyards (KUTV) (09/18/12)
- Salt Lake City Toxic Plume May Get Superfund Status (KUER) (09/17/12)
- Salt Lake City Toxic Plume Proposed for Superfund (*Salt Lake Tribune*) (09/17/12)

Appendix E
Project Websites

VA Website
www.pceplume.org

U.S. EPA Website
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0800743

Utah Department of Environmental Quality Website
www.deq.utah.gov

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Appendix F

700 South 1600 East PCE Plume Project Contacts

VA Salt Lake City Health Care System

George E. Wahlen
Department of Veterans Affairs
Medical Center
500 Foothill Drive
Salt Lake City, UT 84148
801-582-1565

Tony Jarmusz
Department of Veterans Affairs, Public Affairs Specialist
801-582-1565 ext. 6606
anthony.jarmusz@va.gov

Shannon Smith
Department of Veterans Affairs CERCLA Program Manager/Remedial Project Manager
801-582-1565 ext. 2021
shannon.smith92@va.gov

Jill Attwood
Department of Veterans Affairs, Director of Communications, VISN 19
VA Rocky Mountain Network
801-584-2553
Cell: 801-330-1198
jill.attwood@va.gov

Environmental Protection Agency

U.S. EPA Region 8
1595 Wynkoop Street,
Denver, CO 80202-1129

Ryan Kloberdanz
Community Involvement Coordinator
303-312-6078
Kloberdanz.ryan@epa.gov

Rebecca Gerhart
Project Manager
303-312-6695
gerhart.rebecca@epa.gov

Utah Department of Environmental Quality

Division of Environmental Response & Remediation
195 North 1950
West Salt Lake City, UT 84114

Dave Allison
Community Involvement Coordinator
801-536-4479
dallison@utah.gov

Maureen Petit
CERCLA Project Manager
801-536-4172
mpetit@utah.gov

Hans Millican
CERCLA Branch Manager
801-53604115
hmillican@utah.gov

Katie Crane
CERCLA Section Manager
801-536-4169
kcrane@utah.gov

Appendix G

Local Contacts

Local Agencies Involved in Cleanup				
NAME	**TITLE, ORGANIZATION**	**PHONE**	**ADDRESS**	**E-MAIL**
Vicki Bennett	Sustainability Division Director of Salt Lake City Green	801-535-6470	P.O. Box 145467 Salt Lake City, UT 84114-5467	vickibennett@slcgov.com
Teresa Gray	Bureau Manager, Water Quality & Hazardous Waste, Salt Lake County Health Department	385-468-3862	788 East Woodoak Lane (5380 South) Murray, UT 84107	Tgray@slco.org
Ron Lund	Director, Environmental Health, Salt Lake County Health Department	385-468-4100	788 East Woodoak Ln. Murray, UT 84107	rlund@slco.org
Chris Parker	Director of Salt Lake City Department of Public Utilities	801-530-7622	P.O. Box 146751 Salt Lake City, UT 84115	chrisparker@utah.gov

Local Elected Officials and Community Leaders				
NAME	**TITLE, ORGANIZATION**	**PHONE**	**ADDRESS**	**E-MAIL**
Erin Mendenhall	Mayor, Salt Lake City	801-535-7704	451 S. State St, Rm 306 Salt Lake City, UT 84111	mayor@slcgov.com
Jenny Wilson	Mayor, Salt Lake County	385-468-7000	2001 S State St, Salt Lake City, UT 84114	mayor@slco.org
Dea Theodore	SL Council District 6 (primary councilperson)	385-468-7459	451 S. State Street, Salt Lake City, UT 84114	DHTheodore@slco.org
Ann Granato	SL Council District 4 (neighboring district)	385-468-7457	451 S. State Street, Salt Lake City, UT 84114	AGranato@slco.org
Steve DeBry	SL Council District 5 (neighboring district)	385-468-7458	451 S. State Street, Salt Lake City, UT 84114	SLDeBry2@slco.org
Laurie Stringham	SL County Council At Large "A"	385-468-7451	2001 South State Street N2200 Salt Lake City, UT 84114-4575	LLStringham@slco.org

Local Elected Officials and Community Leaders				
NAME	**TITLE, ORGANIZATION**	**PHONE**	**ADDRESS**	**E-MAIL**
Richard Snelgrove	SL County Council At Large "B"	385-468-7452	2001 South State Street N2200 Salt Lake City, UT 84114-4575	RSnelgrove@slco.org
Jim Bradley	SL County Council At Large "C"	385-468-7453	2001 South State Street N2200 Salt Lake City, UT 84114-4575	JBradley@slco.org

Appendix H
Utah Contacts

Utah Federal Contacts

NAME	TITLE, ORGANIZATION	PHONE	ADDRESS	E-MAIL
The Honorable Chris Stewart	United States Representative Congressional District 2	801-364-5550	420 East South Temple #390 SLC, UT 84111	Chris Stewart
Mitt Romney	U.S. Senator	801-524-4380	8402 Federal Bldg. 125 S State St. SLC, UT 84138	Mitt Romney
Mike Lee	U.S. Senator	801-524-5933	Wallace F. Bennet FB 125 S State St., Ste. 4225 SLC, UT 84138	Mike Lee

Utah State Contacts

NAME	TITLE, ORGANIZATION	PHONE	ADDRESS	E-MAIL
Spencer Cox	Governor	801-538-1000	350 North State Street, Ste. 200 SLC, UT 84114-2220	https://governor.utah.gov/contact/
Derek Kitchen	Utah State Senator	801-674-6141 (O)	1150 South 1400 East SLC, UT 84105	dkitchen@le.utah.gov
Brian King	Utah State Representative	801-583-5464 (H) 801-560-0769 (C)	1855 Michigan Ave. SLC, UT 84108	briansking@le.utah.gov

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Appendix I

Tribal Groups

Confederate Tribe of the Goshutes Madeline Greymountain PO Box 6104 195 Tribal Center Road Ibapah, UT 84034 P: (435) 234-1138 F: (435) 234-1162	Paiute Tribes of Utah Corrina Bow, Chairperson 440 North Paiute Dr. Cedar City, UT 84721 P: (435) 586-1112 F: (435) 867-2659 www.utahpaiutes.org	San Juan Southern Paiute Tribe May Preston, President PO Box 1989 Tuba City, AZ 86045 P: (928) 514-6261
Northwestern Band of Shoshone Nation Shane Warner, Chairman 707 North Main Street Brigham City, UT 84302 P: (435) 734-2286 F: (435) 734-0424 www.nwbshoshone.com	Skull Valley Band of Goshute Candace Bear, Chairwoman 1198 N. Main Street Grantsville, UT 84029 P: (435) 882-4872 F: (435) 882-4889	Ute Indian Tribe Shaun Chapoose, Chairman PO Box 190 Fort Duchesne, UT 84026-0190 P: (435)722-5141 F: (435)722-2374 www.utetribe.com
Ute Mountain Ute Tribe Manuel Heart, Chairman PO Box JJ Towaoc, CO 81334 P: (970) 564-5606 F: (970) 564-5709 www.utemountainutetribe.com	White Mesa Community Malcolm Lehi, Council Rep. PO Box 7096 White Mesa, UT 84511 P: (435) 678-3685	Navajo Nation Russel Begaye, President 100 Parkway PO Box 7440 Window Rock, AZ 86515 P: (928) 871-7000 F: (928) 871-4025 www.navajo-nsn.gov
Utah Division of Indian Affairs Shirlee Silversmith, Division Director 250 North 1950 West, Suite A Salt Lake City, UT 84116 P: (801) 715-6701 https://heritage.utah.gov/utah-division-of-indian-affairs		

Appendix J

Project Communications Plan Update for Contractor Field Staff

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Project Communications Plan Update for Contractor Field Staff
700 South 1600 East PCE Plume
AOU-1: East Side Springs
Salt Lake City, Utah

Contract No: GS-10F-0228J
Order No: VA259-15-F-3886

November 20, 2015

Update Revision 1

Prepared for: VA Salt Lake City Health Care System
500 Foothill Drive
Salt Lake City, Utah 84148

Prepared by: EA Engineering, Science, and Technology, Inc., PBC
2363 N. Hill Field Road, Suite 104
Layton, Utah 84041

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UPDATE

TABLE OF CONTENTS

UPDATE

ATTACHMENTS

UPDATE

1.0 Introduction

This Project Communications Plan (PCP) Revision #1 for 700 South 1600 East Tetrachloroethene (PCE) Plume Accelerated Operable Unit 1 (AOU-1), Salt Lake City, Utah is a tool to help Department of Veterans Affairs (VA) and its contractors, in conjunction with United States Environmental Protection Agency (EPA) and Utah Department of Environmental Quality (UDEQ), effectively communicate with residents, news media, and other stakeholders during the Remedial Investigation (RI) which includes groundwater and surface water evaluations and indoor air sampling. The PCP is an addendum to the Community Involvement Plan. Revision #0 of the PCP was prepared by First Environment under contract to VA and was reviewed and accepted by EPA in July 2015 (First Environment, 2015).

VA is conducting this RI in a densely populated urban area, and anticipates that community members will be concerned about potential noise, traffic, and safety issues – especially when this work is near schools and playgrounds. Community members who have agreed to have indoor air sampling conducted at their residences may have concerns about disruption to their personal schedules and their property, the storage of items that potentially contribute to the background levels of volatile organic compounds during sampling, and when and how they will receive sampling results. Team members must be aware of the public scrutiny of this project and the importance of good community relations and effective communication.

VA is maintaining ongoing communication with local residents, community groups, and local government officials. To date, the agency has held three community meetings. The local news media have done stories about the VA's work on site. We can expect that many residents will be at least partially informed about what we are doing.

For purposes of this PCP, community members may include:

- residents,
- neighborhood association members and other community group representatives,
- local elected officials, agency officials (Salt Lake County Health Department, for example), and news media.

UPDATE

2.0 Communication Process for the Remedial Investigation

2.1 Communication before Field Activities Begin

Continuous communication with stakeholders is a key factor in the successful completion of the RI. VA has been engaging community members early in the process and providing frequent opportunities for meaningful and active involvement in the groundwater cleanup process. Activities conducted by VA prior to the initiation of field work included the following:

- In November 2014, VA sent letters to residents and organizations, including commercial buildings and schools, that had agreed to participate in the sampling effort. The letters described the activities VA and its contractors will undertake to evaluate indoor air for potential vapor intrusion and soil and groundwater outside structures for the presence of the solvent PCE. The letters included a questionnaire residential and non-residential property owners were asked to complete to help identify potential sources of PCE in indoor air that may prove unrelated to groundwater contamination.
- Property owners received a second letter in December 2014 that authorized VA and its contractors to collect environmental samples on their properties. Attachments 1 through 5 contain the initial letters to property owners, questionnaires, and the sampling authorization letter.
- From December 8 to December 19, 2014, VA and contractors visited property owners to identify and address, if possible, any concerns they might have and answer their questions before work begins.
- On January 12, 2015, VA contractors conducted vapor intrusion (VI) surveys and inspections in preparation for sampling activities.
- Additional VI sampling will begin in January/February 2016. VA will mail out letters to residents that have agreed to continued participation in the sampling effort. These letters will mimic the previous letters and describe the activities VA and its contractors will undertake to evaluate indoor air for potential vapor intrusion and soil and groundwater outside structures for the presence of the solvent PCE. The letters included a questionnaire that property owners will be asked to complete to help identify potential sources of PCE in indoor air that may prove unrelated to groundwater contamination. Dates for these activities will be provided to EPA, UDEQ and local officials prior to their dissemination.

2.2 Communication during Remedial Investigation Field Activities

AOU-1 sampling began in January of 2015 and is anticipated to continue through the summer of 2016. During sampling activities, VA and its contractors will maintain high technical standards while being polite and courteous when working with members of the community. D. Lynne Welsh, VA Remedial Project Manager (RPM), and Jeremy Laird, VA Public Affairs Specialist, (PAS), are the key VA contacts for communicating with the public during all phases of the IRI. Their contact information, along with that of EPA and UDEQ staff involved in this project, can be found in Attachment 6.

UPDATE

2.2.1 Communications Guidelines for Contractors Working in the Field

At no time should contractors present themselves as employees of VA. If someone asks what you are doing, give a very basic response (examples below) and refer him/her to Jeremy Laird, VA Public Affairs Specialist or D. Lynne Welsh. Their contact information and the link to the VA's website (http://pceplume-700s1600e.net/) is provided on the business cards that accompany this PCP (Attachment 7).

A VA representative will be stationed in the investigation area to field questions from news media and stakeholders other than residents whose houses are being evaluated. When you receive questions from these stakeholders, provide their contact information to the VA representative for immediate follow up. Log all contacts with stakeholders in the field on the contact log provided in this PCP (Attachment 8). If the VA representative is unavailable, provide stakeholders with a comprehensive list of frequently asked questions (FAQs) to explain details about the entire project, the brochure on indoor air sampling, the most recent fact sheet, which contains website information, and/or the contact card, and have them call VA if they have additional questions. The PCP will be updated when VA issues new brochures or other outreach material. The FAQs and brochure and fact sheet are included in this PCP as Attachment 9 and Attachment 10, respectively.

As noted above, questions from non-residents or detailed technical or policy questions should be directed to VA. However, contractor field personnel are expected to be prepared to answer basic questions from residents that pertain to the field work. The following are examples of basic responses to questions or concerns that stakeholders might have once field activities are underway.

Question/Concern: What are you doing?

Response: We are drilling wells to learn more about groundwater in the area, which is contaminated with PCE. We are also studying indoor air to see if chemicals from the groundwater are present in indoor air.

Question/Concern: Why are you doing this work?

Response: In 2010, PCE was detected in seeps and springs located along the Wasatch fault and in this general area. These seeps and springs suggest groundwater is near the ground surface, and this has raised concerns about the potential of vapor intrusion of PCE into homes and businesses. The "East Side Springs" area includes numerous small springs and seeps located in proximity of the Wasatch Fault. Only a few of these springs have been identified to date as potentially containing low levels of PCE. The work we are doing is to support the first phase of a study called an RI that is required under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund. This work is the first phase of a site-wide investigation and evaluation program to learn more about groundwater contamination in the area and develop remedies to correct the problem.

Question/Concern: How long is this going to take?

Response: This phase of the project is expected to take two field seasons (February to May/June in 2015 and 2016). There may be follow-on work, but we do not know the schedule for that work yet.

UPDATE

Question/Concern: I'm concerned your drilling will tear up my yard.

Response: We will make every effort to disturb as little of your yard as possible, and we will repair your yard before we leave. We will replace, at no cost to you, any damaged sod with the same or similar grass, or fix any sprinkler lines that have been damaged.

Question/Concern: When will I get my indoor air sampling results? How will VA provide me with results?

Response: VA will send out preliminary results based on portable field instruments. VA will send letters with preliminary results to the owners of all surveyed structures. In addition, VA will initially communicate results verbally to owners if the results indicate a removal action is required and follow up with a letter. If VA collects a sample for laboratory analyses the results will need to go through a validation process which takes quite a bit longer.

Question/Concern: My neighbor had his indoor air sampled. How do I get my house sampled?

Response: We have one person coordinating all of the testing, Jeremy Laird. Here is Jeremy Laird's contact information (provide contact card). Please contact him to discuss indoor air sampling.

Question/Concern: I have an access agreement to allow groundwater testing, but I don't understand it. Who can I talk to?

Response: Please call the VA contact, Jeremy Laird or D. Lynne Welsh. Give them the contact card which also includes EPA and UDEQ contacts.

2.2.2 Questions from the News Media

If a news reporter asks you questions, you should

- Politely state that you are there as a contractor for VA working on an environmental investigation.
- If asked, say who you are and the name of your company.
- Give him/her a brochure, fact sheet, a copy of the FAQs, and the contact card. Contact the VA field representatives immediately by phone to report the contact by the reporter and document the encounter in the contact log (Attachment 8).

Beyond providing this basic information, do not answer questions from the news media. Do not give reporters on-the-record statements regarding the clean up or participate in on-camera interviews. Have them contact Jeremy Laird if they need information for official attribution or want to conduct an on-camera interview. Do not elaborate or speculate on future activities. Do NOT give any information on specific homes that are tested or any other information that may be considered confidential.

2.3 Dealing with Complaints During Field Activities

Receiving few complaints from the public is a critical success factor for this project. Complaints cannot be avoided completely, but community members can be satisfied by addressing their concerns quickly and efficiently. Use the contact log (Attachment 8) to record complaints from community members and track communication from receipt of the initial complaint through resolution of the issue.

UPDATE

2.3.1 Complaints about project-specific activities

Members of the field crew should refer stakeholders with complaints about project activities to the Field Team Leader if the field crew member first approached about the problem is not able or authorized to fix it. Complaints that cannot be successfully addressed in the field should be referred to an on-site VA representative, Jeremy Laird or D. Lynne Welsh for assistance in developing an approach to solve the problem. Problem resolution may involve a phone call, written response, and/or personal contact from a VA representative.

2.3.2 Complaints about issues unrelated to project activities

Instruct stakeholders who needs assistance with issues unrelated to the project (water quality issues, trash removal, traffic control issues not caused by field activities, etc.) that your company works for VA on this specific issue and they will have to contact the appropriate city organization. Log the contact and resolution.

2.4 Communication of Results and Path Forward

VA will share the field and laboratory results of indoor air testing with property owners.

Property owners will receive a letter containing the field results of sampling on their properties within approximately two weeks after field work is completed. Laboratory results will take longer; VA anticipates providing laboratory results within eight weeks of the testing so that the results can be validated. Sampling results will be communicated to property owners using the letter template included as Attachment 11. Based on sampling results, VA will recommend additional sampling or installation of an indoor air mitigation system as an interim measure to address vapor intrusion while long-term remedies are being evaluated. Laboratory results will be communicated to property owners using the letter template included as Attachment 11. These letter templates will be updated and new ones added as the RI progresses.

After the completion of all field work in the East Side Springs area: soil, surface and groundwater, and indoor air testing the results will be presented at a public meeting and then available once the draft remedial investigation report is submitted to EPA and UDEQ.

ATTACHMENT 1

GEORGE E. WAHLEN
DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
VA Salt Lake City Health Care System
500 Foothill Drive
Salt Lake City, UT 84148

September 14, 2015

Dear Resident:

Thank you for contacting Department of Veteran Affairs Salt Lake City Health Care System about the remedial investigation of the 700 South 1600 East PCE Plume Site. We understand your concerns and need for timely answers and that's why we are taking an expedited investigational approach in your area particularly focusing on vapor intrusion (VI).

Enclosed is a questionnaire that you may complete and return to us. The information you provide will help us plan a sampling approach for your residence. Our next sampling effort is expected to commence in the Spring of 2016, and we will retain your answers on the questionnaire for use at that time. The remainder of this letter provides information about the sampling process for your information.

Understanding citizens' concerns voiced at our informational meetings, VA will first address vapor intrusion in as many houses and structures as possible in the target area, then VA will proceed with an incremental sampling approach that will test properties where previous groundwater contamination was identified. After that, VA will test adjacent areas to define the limits of the groundwater contamination and if needed test additional properties' indoor air quality. Not all properties may require testing, if no groundwater contamination is found, your indoor air will not need to be tested. The investigation of the East Side Springs area is expected to start approximately February of 2016, and is expected to take 6 to 8 weeks.

A former dry cleaning facility at the nearby George E. Wahlen VA Medical Center has been identified as a likely source of the solvent tetrachloroethylene, commonly known as PCE, which has contaminated groundwater in the area. The Remedial Investigation (RI) is planned to begin in fall 2014 and will refine the limits of groundwater contamination identified by Salt Lake City, the state and EPA and evaluate the potential vapor issues associated with that contamination. The VI sampling is part of the RI that VA is undertaking in conjunction with the Utah

Department of Environmental Quality (UDEQ) and the US Environmental Protection Agency (EPA). After indoor air testing our next step is to evaluate the extent of the groundwater and soil-gas contamination in the East Side Springs area. If your property is tested, sampling will be conducted by VA contractors in two phases:

1. First, VA contractors will screen your property's indoor air for any item that may contain the same or similar chemicals. Once those items are temporarily removed, a small fan will be turned on to vent your structure so the contractors can characterized any vapors that may be intruding through foundation or wall openings. This will take approximately half a day per structure.
2. If the screening of a property indicates a potential of vapor intrusion during venting then VA will request you allow us to conduct a longer test using a Summa canister and pump. The canister collects periodic air samples over a 24-hr period of time during normal activities. This longer test will allow VA to better determine if vapors are entering the structure and what the concentration are of the vapors. We will need to visit your home twice within a twenty-four hour period, once to place the canister and once to pick it up.

VA contractors will also be conducting tests on soil and the groundwater in your yard during the spring/summer of 2016. These tests will consist of collecting air and water samples that are typically collected using a small tractor mounted 'GeoProbe' to insert a probe in the ground to the surface of the groundwater and sample using hand held sampling tools. Sampling could also require VA to drive metal probes deeper into the ground to extract groundwater.

Indoor air can contain contamination from other sources (for example, some cleaning products and pesticides) and can frequently result in inaccurate results. If we determine the need to test indoors, the VA contractors will work with you to identify any products that may affect our tests and help you temporarily relocate them. Your property may not require indoor air testing, but to be prepared in the event VA would like to test the air in your basement, please read and complete the enclosed residential air sampling questionnaire and return it in the postage-paid envelope. If indoor air sampling is needed, this information will help us better understand what activities might affect our sampling results of the air in your home.

VA will share the results of soil, groundwater and indoor air testing with you and anticipates having the results within six weeks after the completion of our field work in the East Side Springs area. These results will also be included in our report to the UDEQ and EPA. Additionally, in consultation with UDEQ and EPA, VA will follow up with you regarding our evaluation of your test results and discuss our recommendations. These recommendations may include additional sampling or indoor air mitigation.

We understand your frustrations with what seems like a lengthy process, but please understand the need to be thorough and systematic in defining and subsequently cleaning up the contamination.

If you have any questions or concerns about VA's planned sampling effort, please contact me at (801) 582-1565 ext. 1955 or by email at Jeremy.Laird@va.gov. Again, thank you very much for your time and understanding.

Sincerely,

Jeremy M. Laird
Public Affairs Specialist
Department of Veterans Affairs
VA Salt Lake City Health Care System

Enclosures: VI Questionnaire Form
Postage-Paid return envelope

ATTACHMENT 2

GEORGE E. WAHLEN
DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
VA Salt Lake City Health Care System
500 Foothill Drive
Salt Lake City, UT 84148

September 14, 2015

Dear Property Owner:

You are receiving this letter because you have either already communicated your organization's willingness to participate in the sampling program the Department of Veterans Affairs Salt Lake City Health Care System is planning for the 700 South 1600 East PCE Plume Site, or we have determined that your proximity to the area warrants this correspondence. We understand your concerns and need for timely answers and that's why we are taking an expedited investigational approach in your area particularly focusing on vapor intrusion (VI).

Understanding citizens' concerns voiced at our informational meetings, VA will first address vapor intrusion in as many houses and structures as possible in the target area, then VA will proceed with an incremental sampling approach that will test properties where previous groundwater contamination was identified. After that, VA will test adjacent areas to define the limits of the groundwater contamination and if needed test additional properties' indoor air quality. Not all properties may require testing, if no groundwater contamination is found, your indoor air will not need to be tested. The investigation of the East Side Springs is expected to start approximately February of 2016, and is expected to take 6 to 8 weeks.

A former dry cleaning facility at the nearby George E. Wahlen VA Medical Center has been identified as a likely source of the solvent tetrachloroethylene, commonly known as PCE, which has contaminated groundwater in the area. The Remedial Investigation (RI) is planned to begin in fall 2014 and will refine the limits of groundwater contamination identified by Salt Lake City, the state and EPA and evaluate the potential vapor issues associated with that contamination. The VI sampling is part of the RI that VA is undertaking in conjunction with the Utah Department of Environmental Quality (UDEQ) and the US Environmental Protection Agency (EPA). After indoor air testing our next step is to evaluate the extent of the groundwater and soil-gas contamination in the East Side Springs area. If your property is tested, sampling will be conducted by VA contractors in two phases:

1. First, VA contractors will screen your property's indoor air for any item that may contain the same or similar chemicals. Once those items are temporarily removed, a small fan will be turned on to vent your structure so the contractors can characterized any vapors that may be intruding through foundation or wall openings. This will take approximately half a day per structure.
2. If the screening of a property indicates a potential of vapor intrusion during venting then VA will request you allow us to conduct a longer test using a Summa canister and pump. The canister collects periodic air samples over a 24-hr period of time during normal activities. This longer test will allow VA to better determine if vapors are entering the structure and what the concentration are of the vapors. We will need to visit your property twice within a twenty-four hour period, once to place the canister and once to pick it up.

During the spring/summer of 2016, VA contractors will also be conducting tests on soil and the groundwater outside the structures on your organization's property . These tests will consist of collecting air and water samples that are typically collected using a small tractor mounted 'GeoProbe' to insert a probe in the ground to the surface of the groundwater and sample using hand held sampling tools. Sampling could also require VA to drive metal probes deeper into the ground to extract groundwater.

Indoor air can contain contamination from other sources (for example, some cleaning products and pesticides) and can frequently result in inaccurate results. If we determine the need to test indoors, the VA contractors will work with you to identify any products that may affect our tests and help you temporarily relocate them. Your property may not require indoor air testing, but to be prepared in the event VA would like to test the air in your basement, please read and complete the enclosed Commercial/Industrial Building Questionnaire and return it in the postage-paid envelope. If indoor air sampling is needed, this information will help us better understand what activities might affect our sampling results of the air in your building(s).

VA will share the results of soil, groundwater and indoor air testing with you and anticipates having the results within six weeks after the completion of our field work in the East Side Springs area. These results will also be included in our report to the UDEQ and EPA. Additionally, in consultation with UDEQ and EPA, VA will follow up with you regarding our evaluation of your test results and discuss our recommendations. These recommendations may include additional sampling or indoor air mitigation.

We understand your frustrations with what seems like a lengthy process, but please understand the need to be thorough and systematic in defining and subsequently cleaning up the contamination.

If you have any questions or concerns about VA's planned sampling effort, please contact me at (801) 582-1565 ext. 1955 or by email at Jeremy.Laird@va.gov. Again, thank you very much for your time and understanding.

Sincerely,

Jeremy Laird
Public Affairs Specialist
Department of Veterans Affairs
VA Salt Lake City Health Care System

Enclosures: VI Questionnaire Form
Postage-Paid return envelope

ATTACHMENT 3

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

OCCUPIED DWELLING QUESTIONAIRE

Indoor Air Assessment Survey

Date: _____

1. Name:_____
   Address:
   _____
   _____
   Home Phone:_____ Work Phone:_____
2. What is the best time to call to speak with you?_____At: Work ☐ or Home ☐ ?
3. Are you the Owner ☐, Renter ☐, Other ☐ (please specify)_____of this Home/Structure? If you are not the owner, please provide owner contact Information
   _____
   _____
4. Total number of occupants/persons at this location?_____
   Number of Children_____Ages_____
5. How long have you lived at this location?_____

General Home Description

6. Type of Home/Structure (check only one): Single Family Home ☐, Duplex ☐, Apartment ☐, Townhouse ☐ Other _____
7. Home/Structure Description:
   Number of floors:_____
   Basement ☐
   Crawlspace ☐
   Partial crawlspace/basement ☐ % of each _____
   Slab on grade ☐
   Other ☐_____
8. Age of Home/Structure:_____years, Not sure/Unknown ☐
9. General Above-Ground Home/Structure construction (check all that apply):
   Wood ☐, Brick ☐, Concrete ☐, Cement block ☐, Other ☐ _____
10. Foundation Construction (check all that apply):
    Concrete Slab ☐
    Fieldstone ☐
    Concrete block ☐
    Elevated above ground/grade ☐
    Other ☐ _____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

11. Do you have private well ☐ or cistern ☐ ?
If yes, please describe location, use and current condition_____
_____
_____

12. Do you have a septic system? Yes ☐ No ☐ Not used ☐ Unknown ☐
If yes, what is construction type?_____
Where is it located? _____
When was the last time it was serviced?_____
Do you (or have you ever) use (d) any degreaser for your septic system? Yes ☐ No ☐

13. Do you have standing water outside of your home? (pond, ditch, etc.) Yes ☐ No ☐

Basement Description (please check all boxes that apply):

14. Is the basement finished ☐ or unfinished ☐ ?

15. If finished, how many rooms are in the basement? _____
What are rooms used for? Bedrooms ☐ Family room ☐ Storage ☐
Other_____

16. If not finished, do you plan on finishing in the future? Yes ☐ No ☐

17. Is the basement floor (check all that apply) concrete ☐, tile ☐, carpeted ☐, dirt ☐,
other ☐ _____

18. Are the basement walls poured concrete ☐, cement block ☐ , stone ☐ , wood ☐ ,
Brick ☐ , other ☐ _____

19. Does the basement have a moisture problem?
Yes, frequently (3 or more times/year) ☐
Yes, occasionally (1-2 times/year) ☐
Yes, rarely (less that 1 time/year) ☐
No ☐

Describe the moisture problem_____
_____
_____

20. .Does the basement ever flood?
Yes, frequently (3 or more times/year) ☐
Yes, occasionally (1-2 times/year) ☐
Yes, rarely (less than 1 time/year) ☐
No ☐

21. Does the basement have any of the following? Floor cracks ☐ , Wall cracks ☐, Sump ☐ ,
Floor drain ☐, Other hole/opening in floor ☐
describe_____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

22. Are any of the following used or stored in the basement (check all that apply):
Paint ☐ Paint Stripper/remover ☐ Paint thinner ☐ Metal degreaser/cleaner ☐
Gasoline ☐ Diesel fuel ☐ Solvents ☐ Glue ☐ Laundry spot removers ☐ Drain cleaners
☐ Pesticides ☐ Other equipment with fuel tanks (chain saw, lawn mower, snow blower,etc.,)

23. Have you recently (within the last six months) done any painting or remodeling in your home?
Yes ☐ No ☐
If yes, specify what was done, where in the home, and what month:
_____
_____

24. Have you installed new carpeting in your home within the last year? Yes ☐ No ☐
If yes, when and where?_____

25. Do you regularly use or work in a dry cleaning service?
Yes, use dry-cleaning regularly (at least weekly) ☐
Yes, use dry-cleaning infrequently (monthly or less) ☐
Yes, work at a dry cleaning service ☐
No ☐

26. Does anyone in your home use solvents at work?
Yes ☐ If yes, how many persons?
No ☐ If no, go to question 28

27. If yes for question 26, are the work clothes washed at home? Yes ☐ No ☐

28. Where is the washer/dryer located?
Basement ☐
Upstairs utility room ☐
Kitchen ☐
Garage ☐
Use a Laundromat ☐
Other, please specify ☐ _____

29. If you have a dryer, is it vented to the outdoors? Yes ☐ No ☐

30. What type (s) of home heating do you have (check all that apply)
Fuel type: Gas ☐, Oil ☐, Electric ☐, Wood ☐, Coal ☐,
Other ☐_____

Heat conveyance system:
Forced hot air ☐
Forced hot water ☐
Steam ☐
Radiant floor heat ☐
Wood Stove ☐
Coal furnace ☐
Fireplace ☐
Other ☐ _____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

31. Does your home have (or had in the past) a storage tank for storage of: gasoline ☐ fuel oil ☐ propane ☐
If yes, where is/was it located? _____
_____
How is/was the tank filled? _____
_____
Is there staining near the tank? Yes ☐ No ☐

32. Do you have air conditioning? Yes ☐ No ☐
Central air conditioning ☐
Window air conditioning unit (s) ☐
Other (please specify) _____

33. Do you use any of the following? Room fans ☐, Ceiling fans ☐, Attic fan ☐

34. Do you ventilate using the fan-only mode of your central air conditioning or forced air heating system? Yes ☐ No ☐

35. Has your home had termite or other pesticide treatment? Yes ☐ No ☐ Unknown ☐
If yes, please specify type of pest controlled _____
And approximate date of service _____

36. Water heater type: Gas ☐, Electric ☐, by Furnace ☐,
Other (please describe) _____

37. Water heater location: Basement ☐, Upstairs utility room ☐, Garage ☐,
Other (please specify) _____

38. What type of cooking appliance do you have? Electric ☐, Gas ☐
Other (please describe) _____

39. Is there a stove exhaust hood present? Yes ☐ No ☐
Does it vent to the outdoors? Yes ☐ No ☐

40. Smoking in Home:
None ☐, Rare (only guests) ☐, Moderate (residents, light smokers) ☐,
Heavy (at least one heavy smoker in household) ☐

41. If yes to question 40, what do they smoke?
Cigarettes ☐ Cigars ☐
Pipe ☐ Other ☐

42. Do you regularly use air fresheners? Yes ☐ No ☐

43. Does anyone in the home have indoor home hobbies or crafts involving:
Heating ☐, soldering ☐, welding ☐, model glues ☐, paints ☐
Spray paint ☐, wood finishing ☐, Other ☐ _____
_____
_____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

44. General family/home use of consumer products (please circle appropriate).
Assume that: Never = never used, Hardly ever = less that once/month,
Occasionally = about once/month, Regularly = about once/week,
and Often = more that once/week.

Product	Frequency of Use				
Spray-on deodorant	Never	Hardly ever	Occasionally	Regularly	Often
Aerosol deodorizers	Never	Hardly ever	Occasionally	Regularly	Often
Insecticides	Never	Hardly ever	Occasionally	Regularly	Often
Disinfectants	Never	Hardly ever	Occasionally	Regularly	Often
Window cleaners	Never	Hardly ever	Occasionally	Regularly	Often
Nail polish remover	Never	Hardly ever	Occasionally	Regularly	Often
Hair sprays	Never	Hardly ever	Occasionally	Regularly	Often
Candles	Never	Hardly ever	Occasionally	Regularly	Often
Incense	Never	Hardly ever	Occasionally	Regularly	Often

45. Please check weekly household cleaning practices:

Dusting ☐
Dry sweeping ☐
Vacuuming ☐
Polishing (furniture, etc.) ☐
Washing/waxing floors ☐
Other (describe) ☐_____

46. Other comments:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

47. Chemical Inventory/Summary

Chemical/Chemical Product (consumer name)	**Amount present in home**
a)	
b)	
c)	
d)	
e)	
f)	
g)	
h)	
i)	
j)	
k)	
l)	
m)	
n)	
o)	

ATTACHMENT 4

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

ACADEMIC/COMMERCIAL/INDUSTRIAL BUILDING QUESTIONNAIRE

Indoor Air Assessment Survey

Date: _____ Survey / questionnaire completed by: _____

1. Contact Name: _____

_ Address: _____ City: _____ State: _____ Zip: _____

Phone 1: _____ Phone 2: _____ Cell Phone: _____

2. What is the best time to call to speak with you? _____

3. Are you the Owner ☐, Renter ☐, Other ☐ (please specify) _____ of this Building/Structure? If you are not the owner, please provide owner contact information

Owner Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone 1: _____ Phone 2: _____ Cell Phone: _____

4. Total number of occupants/persons at this location?

Number of Children _____ Ages _____

5. How long have you occupied this location? _____

How many days per week is building occupied? _____

How many hours per day is building occupied? _____

General Building / Structure Description

6. Type of Building/Structure (check only one): Single Business ☐, Multiple Businesses ☐

Other _____

7. Building/Structure Description:
Number of floors: _____ Area /square footage of main or ground floor: _____ square feet
Basement ☐ Area /square footage of Basement: _____ square feet
Crawlspace ☐ Area /square footage of Crawlspace: _____ square feet
Partial crawlspace/basement ☐ % of each _____
Slab on grade ☐ Area /square footage of Slab on grade: _____ square feet
Other ☐ _____

8. Age of Building/Structure: _____ years, Not sure/Unknown ☐

9. General Above-Ground Building/Structure construction (check all that apply):
Wood ☐, Brick ☐, Concrete ☐, Cement block ☐, Other ☐ _____

10. Foundation Construction (check all that apply):
Concrete Slab ☐
Fieldstone ☐
Concrete block ☐
Elevated above ground/grade ☐

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

Other ☐ _____

11. Do you have private well ☐ or cistern ☐ ?
If yes, please describe location, use and current condition_____
_____
_____

12. Do you have a septic system? Yes ☐ No ☐ Not used ☐ Unknown ☐
If yes, what is construction type?_____
Where is it located? _____
When was the last time it was serviced?_____
Do you (or have you ever) use(d) any degreaser for your septic system? Yes ☐ No ☐

13. Do you have standing water outside of your Building? (pond, ditch, etc.) Yes ☐ No ☐

Basement Description (please check all boxes that apply):

14. Is the basement finished ☐ or unfinished ☐ ?

15. If finished, how many rooms are in the basement? _____

What are rooms used for? Office ☐ Shop ☐ Storage ☐

Other_____

16. If not finished, do you plan on finishing in the future? Yes ☐ No ☐

17. Is the basement finished ☐ or unfinished ☐ ?

18. If finished, how many rooms are in the basement? _____

19. What are rooms used for? Office ☐ Shop ☐ Storage ☐

Other_____

20. If not finished, do you plan on finishing in the future? Yes ☐ No ☐

21. Is the basement floor (check all that apply) Concrete ☐ Tile ☐ Carpeted ☐ Dirt ☐

22. Other ☐ _____

23. Are the basement walls poured Concrete ☐ , Cement block ☐ , Stone ☐ , Wood ☐ ,
Brick ☐ , Other ☐ _____

24. Does the basement have a moisture problem?
Yes, frequently (3 or more times/year) ☐
Yes, occasionally (1-2 times/year) ☐
Yes, rarely (less than 1 time/year) ☐
No ☐
Describe the moisture problem_____
_____
_____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

25. Does the basement ever flood?
Yes, frequently (3 or more times/year) ☐
Yes, occasionally (1-2 times/year) ☐
Yes, rarely (less than 1 time/year) ☐
No ☐

26.

27. Does the basement have any of the following? Floor cracks ☐ Wall cracks ☐ Sump ☐
Floor drain ☐ Other hole/opening in floor ☐
describe_____

28. Are any of the following used or stored in the basement (check all that apply):
Paint ☐ Paint Stripper/remover ☐ Paint thinner ☐ Metal degreaser/cleaner ☐
Gasoline ☐ Diesel fuel ☐ Solvents ☐ Glue ☐ Laundry spot removers ☐
Drain cleaners ☐ Pesticides ☐ Other equipment with fuel tanks (chain saw, lawn mower, snow blower, etc.) ☐ Other products with/containing Volatile Organic Compounds, describe:
_____
_____

29. Has the Building / structure recently (within the last six months) had any painting or remodeling?
Yes ☐ No ☐
If yes, specify what was done, where in the Building, and what month:
_____
_____

30. Has new carpeting been installed in the Building / structure within the last year? Yes ☐ No ☐
If yes, when and where?_____

31. Do any occupants / employees regularly conduct or work in beauty / hair-dressing business?
Yes, work at a beauty / hair-dressing business ☐
Yes, store supplies for beauty / hair-dressing business ☐ Distance to sample point:_____
Yes, building contains beauty / hair-dressing business ☐ Distance to sample point: _____
Yes, building is near beauty / hair-dressing business ☐ Distance to sample point: _____
No ☐

32. Do any occupants / employees / anyone regularly use or work or conduct a dry cleaning service?
Yes, use dry-cleaning regularly (at least weekly) ☐
Yes, use dry-cleaning infrequently (monthly or less) ☐
Yes, work at a dry cleaning service ☐
Yes, building contains or is near dry cleaning service ☐ Distance to sample point: _____
No ☐

33. Do any occupants / employees / anyone in the Building / structure use solvents at work?
Yes ☐ If yes, how many persons?
No ☐ If no, go to question 28

34. If yes for question 26, are the work clothes washed at Building? Yes ☐ No ☐

35. Does Building / Structure contain a washer/dryer? Yes ☐ No ☐
Where are they located?
Basement ☐
Upstairs ☐
Ground floor ☐
Garage ☐
Other, please specify ☐ _____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

36. If Building / Structure contains a dryer, is it vented to the outdoors? Yes ☐ No ☐

37. What type (s) of Building heating do you have (check all that apply)
Fuel type: Gas ☐ Oil ☐ Electric ☐, Wood ☐ Coal ☐
Other ☐ _____

Heat conveyance system: Forced hot air ☐ Forced hot water ☐ Steam ☐
Radiant floor heat ☐ Wood Stove ☐ Coal furnace ☐ Fireplace ☐
Other ☐ _____

38. Does Building/Structure have (or had in the past) a storage tank for storage of gasoline ☐
fuel oil ☐, propane ☐

If yes, where is/was it located? _____
_____

How is/was the tank filled? _____

_____
Is there staining near the tank? Yes ☐ No ☐

39. Does Building/Structure have air conditioning? Yes ☐ No ☐
Central air conditioning ☐
Window air conditioning unit (s) ☐
Other (please specify) _____

40. Does Building / Structure have any: Room fans ☐ Ceiling fans ☐, Attic fan ☐

41. Does Building / Structure ventilate using the fan-only mode of your central air conditioning or forced air heating system? Yes ☐ No ☐

42. Has Building / Structure had termite or other pesticide treatment? Yes ☐ No ☐ Unknown ☐
If yes, please specify type of pest controlled _____
and approximate date of service_____

43. Water heater type: Gas ☐ Electric ☐ by Furnace ☐,
Other (please describe) _____

44. Water heater location: Basement ☐ Upstairs ☐ Ground Floor ☐ Attic ☐
Other _____

45. Does Building/Structure have any cooking appliances? Electric ☐ Gas ☐
Other _____

46. Is there a stove exhaust hood present? Yes ☐ No ☐
Does it vent to the outdoors? Yes ☐ No ☐

47. Smoking in Building/Structure:
None ☐ Rare (only guests) ☐ Moderate (occupants, light smokers) ☐
Heavy (at least one heavy smoker in Building/Structure) ☐

48. If yes to question 40, what do they smoke?
Cigarettes ☐ Cigars ☐ Pipe ☐ Other ☐

49. Does Building/Structure regularly contain/use air fresheners? Yes ☐ No ☐

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

50. Does anyone in the Building have indoor Building hobbies or crafts involving:
Heating ☐ soldering ☐, welding ☐ model glues ☐ paints ☐ spray paint ☐
wood finishing ☐ Other ☐_____

_____

_____

51. General Building / Structure use of industrial / office /consumer products (circle as appropriate).
Assume that: Never = never used, Hardly ever = less that once/month,
Occasionally = about once/month,
Regularly = about once/week, and
Often = more than once/week.

Product	**Frequency of Use**				
Solvents	Never	Hardly ever	Occasionally	Regularl	Often
Aerosol deodorizers	Never	Hardly ever	Occasionally	Regularl	Often
Insecticides	Never	Hardly ever	Occasionally	Regularly	Often
Disinfectants	Never	Hardly ever	Occasionally	Regularly	Often
Window cleaners	Never	Hardly ever	Occasionally	Regularly	Often
Ink / Toner Cartridge	Never	Hardly ever	Occasionally	Regularly	Often
Glue / Adhesives	Never	Hardly ever	Occasionally	Regularly	Often
Paint	Never	Hardly ever	Occasionally	Regularly	Often
Petroleum Fuel	Never	Hardly ever	Occasionally	Regularly	Often

52. Please check weekly Building/Structure maintenance, janitorial, and cleaning practices:

Dusting ☐
Dry Sweeping ☐
Vacuuming ☐
Polishing (furniture, etc.) ☐
Washing/waxing floors ☐
Other (describe) ☐

53. Other comments including items / subjects not covered in this questionnaire yet an issue or concern for the Building / Structure:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Return to: VASLCHCS (00PA)
500 Foothill Drive
Salt Lake City, UT 84148

54. **Chemical Inventory/Summary**

Chemical/Chemical Product (consumer name)	**Amount present in Building / Structure**

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

g) _____

h) _____

i) _____

j) _____

k) _____

l) _____

m) _____

n) _____

o) _____

ATTACHMENT 5

GEORGE E. WAHLEN
DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
VA Salt Lake City Health Care System
500 Foothill Drive
Salt Lake City, UT 84148

September 14, 2015

Re: Permission to Sample

Dear Property Owner:

The Department of Veterans Affairs Salt Lake City Medical Center (VA) is conducting initial CERCLA Remedial Investigation of the 700 South 1600 East PCE Plume, its' known location is centered to the southwest of the VA. The National Contingency Plan (NCP) requires that:

> *"The lead agency shall characterize the nature of and threat posed by the hazardous substances and hazardous materials and gather data necessary to assess the extent to which the release poses a threat to human health or the environment or to support the analysis and design of potential response actions by conducting, as appropriate, field investigations to assess* [among other things] *characteristics or classifications of air, surface water, and ground water"* (NCP: 40CFR 300.430(d)(2)(ii)).

As the lead agency, VA is requesting permission to take samples of air, water and soil on your property. this is a preliminary characterization, samples will be collected by field instruments and for laboratory for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total metals according to EPA SW-846 methods. In addition, water quality parameters (pH, DO, Temperature, Conductivity, and ORP) and VOCs in air (both indoors and out of doors) will be measured using field instrumentation.

You will be provided a copy of the field results after all sampling is completed and you will also receive laboratory results upon completion of data validation procedures. VA will use the field and laboratory data as part of reports to be submitted to the USEPA and the Utah Department of Environmental Quality.

Please sign at the location provided below if you authorize VA and its contractors to collect environmental samples at your property.

If you have any questions or require additional information, please contact me at (801) 582-1565 ext. 2021.

Best regards,

D. Lynne Welsh, Remedial Manager/CERCLA RPM
Department of Veteran's Affairs
VA Salt Lake City Health Care System

PERMISSION TO TAKE ENVIRONMENTAL SAMPLES OF IDENTIFIED PROPERTY:

Name/ address and date

ATTACHMENT 6

ATTACHMENT 6

700 South 1600 East Superfund Site
East Side Springs (AOU-1)

VA Salt Lake City Health Care System

George E. Wahlen Department of Veterans Affairs Medical Center
500 Foothill Drive
Salt Lake City, UT 84148
801-582-1565

Tony Jarmusz: Public Affairs Specialist; 801-582-1565 ext. 6606; Anthony.jarmusz@va.gov
Shannon Smith: Program Manager/ Remedial Project Manager; 801-582-1565, ext. 2021, shannon.smith92@va.gov

Environmental Protection Agency (EPA)
U.S. EPA Region 8

1595 Wynkoop Street, Denver, CO 80202-1129
Ryan Kloberdanz: Community Involvement Coordinator; 303-312-6078; Kloberdanz.ryan@epa.gov
Rebecca Gerhart: Project Manager; 303-312-6695; gerhart.rebecca@epa.gov

Utah Department of Environmental Quality (UDEQ)

Dave Allison, Community Involvement Coordinator, 801-536-4479, dallison@utah.gov
Maureen Petit: CERCLA Project Manager; 801-536-4172; mpetit@utah.gov

Salt Lake County Health Department

Teresa Gray, Bureau Manager, Water Quality and Hazardous Waste, 385-468-3903, tgray@slco.org

Utah Department of Health

Craig Dietrich, Toxicologist, 801-538-6832, dietrich@utah.gov

ATTACHMENT 7

ATTACHMENT 7

Contact Card for Distribution to Stakeholders in the Field

Salt Lake City Veterans Affairs Health Care System

700 South 1600 East Superfund Site
East Side Springs Site Investigations
Ground Water Study/Indoor Air Sampling

Shannon Smith, Remedial Project Manager
801. 582.1565 ext. 2021
shannon.smith92@va.gov
or
Tony Jarmusz, Public Affairs
Specialist 801. 582.1565 ext. 6606
anthony.jarmusz@va.gov

VA website: http://pceplume-700s1600e.net/

Additional Local and Federal Contacts:	
Rebecca Gerhart	**Maureen Petit**
Remedial Project Manager	Project Manager
U.S. Environmental Protection Agency, Region 8	Utah Department of Environmental Quality
303-312-6695	801-536-4172
gerhart.rebecca@epa.gov	mpetit@utah.gov
Ryan Kloberdanz	**Dave Allison**
Community Involvement Coordinator, R8	Community Involvement Coordinator
TAG/TASC Coordinator	Utah Department of Environmental Quality
U.S. Environmental Protection Agency, Region 8	801-536-4479
303-312-6078	dallison@utah.gov
Kloberdanz.ryan@epa.gov	**Craig Dietrich**
	Utah Department of Health
David Dorian	801-538-6832
Environmental Health Scientist	dietrich@utah.gov
U.S. Environmental Protection Agency (ATSDR)	
303-312-7011	**Teresa Gray**
dorian.david@epa.gov	Bureau Manager
	Salt Lake County Health Department
	385-468-3903
	tgray@slco.org

ATTACHMENT 8

ATTACHMENT 8

Stakeholder Contact Log
Date/Time:
Contact Name:
Organization:
Address #1
Address #2
City, State, Zip:
Phone:
Email
Location of Contact:
Concern/Question:
Resolution:
Field Team Member Name:

ATTACHMENT 9

Frequently Asked Questions 700 S 1600 E PCE Plume Superfund Site

1. How did this happen?

The exact source of the tetrachloroethylene (also known as perchloroethylene or perc, and abbreviated to PCE) contamination present in the groundwater at 700 South and 1600 East in Salt Lake City, Utah is unknown. EPA Region 8 has identified the Veterans Administration (VA) as a potentially responsible party (PRP), since VA operated a dry cleaning operation at its adjacent medical center in the late 1970s and early 1980s. Under CERCLA (the Comprehensive Environmental Response Compensation, and Liability Act, commonly called Superfund), any party identified as contributing to a Superfund National Priorities List (NPL) site can be held liable for the entire NPL site cleanup costs. The CERCLA remedial investigation (RI) that is being initiated by VA will help establish if other businesses operating in this area of Salt Lake City, Utah may have contributed to the groundwater contamination and will be sharing in the remedial investigation and cleanup costs for the PCE plume identified at 700 South and 1600 East.

2. How did the EPA learn about the PCE plumes in groundwater and seeps in residents' yards?

In the summer of 2010 in response to an oil spill in Red Butte Creek, sampling was conducted by Salt Lake City Public Utilities to find contamination related to the spill. While no crude oil was detected, PCE was detected. After performing some initial sampling, the Utah Department of Environmental Quality (UDEQ) requested the EPA's assistance with conducting a further investigation.

3. Why is the EPA getting involved now?

After receiving results of primary sampling efforts by Salt Lake City Public Utilities and new information about seeps in residential yards, UDEQ asked the EPA to support additional site investigation to determine the level and source of the PCE contamination, and to evaluate potential threats to human health and the environment.

4. What is PCE, the primary contaminant of concern?

Tetrachloroethylene (PCE) is a synthetic chemical that is widely used for dry cleaning fabrics and for metal-degreasing operations. It is also used as a starting material (building block) for making other chemicals and is used in some consumer products. PCE is a nonflammable, colorless liquid at room temperature and has a sharp, sweet odor. Other names for PCE include perchloroethylene, perc, tetrachloroethene, perclene and perchlor.

5. This problem was identified in the 1990s, why is it just now being addressed?

The EPA only recently discovered springs and shallow groundwater contamination further down on the hill. Prior to that, this was thought to be primarily a groundwater issue, and the city took measures to prevent exposures by removing drinking water wells from service. The discovery of the springs has changed conditions, creating new potential exposure pathways that are more difficult and costly to

evaluate and manage. For that reason a more rigorous remedial investigation is needed to characterize the extent and nature of the PCE contamination.

6. Is drinking water safe?

Yes. Salt Lake City routinely tests its drinking water as required by federal standards. The city identified and removed one affected drinking water well from service pending additional investigation and corrective action. In addition, the artesian fountains at Liberty Park and at 800 South and 500 East are routinely tested, and no PCE has been detected.

7. Is private well water safe to drink?

We are not aware of private wells in the area that are being used for drinking water. If you have a private well in the area that you are drinking from, it is recommended that you have your water tested for PCE and other organic compounds.

There are numerous independent laboratories that can analyze your water for a fee. Contact your local or state health department for referral to a certified laboratory in your area.

8. What happens to PCE when it gets into the environment?

Much of the PCE that gets into water and soil will evaporate into the air. However, because PCE can travel through soils quite easily, it can get into groundwater where it may persist without being broken down. If conditions are right, bacteria will break down some of it, and some of the chemicals formed may also be harmful. Under some conditions, PCE may stick to the soil and stay there. It does not seem to bioaccumulate in animals that live in water, such as fish, clams and oysters. We do not know if it builds up in plants grown on land.

9. How might I be exposed to PCE and how does it affect my health?

A very common example is when clothes are brought home from the dry cleaners. The sweet odor you smell is a small amount of PCE being released into the air. In addition to breathing contaminated air, PCE may be ingested by drinking contaminated water or it can be absorbed through skin while taking a shower.

Scientific studies are uncertain whether low level, long-term exposure to PCE can cause adverse health effects. The Agency for Toxic Substances and Disease Registry (ATSDR) has reported on the toxicological profile for PCE and states that while the more complete scientific studies suggest that the lowest-observed-adverse-effect-level for PCE is 1700 ppbv, there are a couple studies that indicate vision effects in children as low as 50 ppbv. With that in mind, VA, EPA and UDEQ have set the Removal Action Level at 5.97 ppbv, which is less than 1/8 of the lower level from all studies cited by ATSDR, allowing for any uncertainty in human variability and for scientific data deficiencies.

Exposure to very high concentrations of PCE can cause dizziness, headaches, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness and death. The Department of Health and Human Services (DHHS) has determined that PCE may reasonably be anticipated to be a carcinogen.

10. I'm concerned about the health risks to my family, what can I do now to make sure they are protected?

Public water supplies are safe and Salt Lake City routinely tests its drinking water following federal standards. If you have a natural spring or private water well on your property, it is recommended that you have your water tested for PCE and other organic compounds before drinking it.

Indoor air sampling to date confirms PCE in some homes, but all were below the Removal Action Level (RAL). The greatest PCE results have been found where there is shallow depth-to-groundwater, sometimes evidenced by water routinely coming into the basement.

There are numerous independent laboratories that can analyze your water or air for a fee. Contact your local or state health department for referral to a certified laboratory in your area. Many of these labs can also analyze indoor air samples; however, you would likely need to hire a contractor with vapor intrusion expertise to collect the sample(s) for you.

11. My kids and dogs play in the spring water, are they going to get sick?

There have been some findings of PCE in area springs, but until the investigation is completed we do not know the extent of the impacted area. This level of investigation takes place during the remedial investigation (RI). The long-term effects from inhalation (vapor intrusion) and ingestion (drinking water) at low levels are some of the most concerning issues at this site. Based on the PCE concentrations measured in the springs, dermal (skin) contact for humans and pets playing in the springs is not likely a serious health concern. Assuming some incidental ingestion, inhalation and dermal contact during play, concentrations are still within the EPA's acceptable limits.

12. I water my vegetable garden with spring water. Are my vegetables safe to eat?

Given the high volatility of PCE, its low potential for bioaccumulation, and the relatively low lipid content of most fruits and vegetables, it is unlikely that fruits and vegetables irrigated with PCE-contaminated spring water from the East Side Springs sites would harm people's health. Additionally, this is something that will be evaluated in the Remedial Investigation (RI). There are studies which have shown that plant uptake of PCE and other chlorinated solvents are negligible and do not pose a serious risk to human health. PCE is extremely volatile and much of the chemical that gets into the water or soil evaporates into the air before it has a chance to be absorbed by plant tissue.

13. Are there any indoor air concerns (vapor intrusion) at this site?

Indoor air may become a concern if vapors from volatile chemicals migrate into air spaces of overlying buildings. This phenomenon is generally referred to as "vapor intrusion." Vapor intrusion is typically influenced by factors such as contaminant concentration, depth of contamination, depth to groundwater, and building construction and condition. Based on several of these factors, the potential for vapor intrusion does exist at this site. Preliminary investigations show limited occurrences of vapor intrusion.

14. Can the contamination get inside the house (vapor intrusion)?

Volatile organic compounds (VOCs) in contaminated soils and/or contaminated groundwater can emit vapors that may migrate through the soil and other air spaces of overlying buildings. This phenomenon is generally referred to as "vapor intrusion." Contaminated vapors typically enter buildings through cracks in basements and foundations, sewer lines and other openings. Vapor intrusion becomes a concern because vapors may build up to a point where the health of residents or workers in those buildings could be at risk.

15. Is there a concern for the air quality in this area?

Thirty-four outdoor ambient air samples were taken during the spring of 2015, and indicated no ambient air issues. Additional air samples will be taken as remedial investigation continues, but much of the site is capped with concrete and asphalt; therefore, the threat of exposure from ambient outdoor air is anticipated to be relatively low.

16. Is there a medical test to show whether I have been exposed to PCE?

One way of testing for PCE exposure is to measure the amount of the chemical in the breath, much the same way breath-alcohol measurements are used. A simple blood test can be administered, but this is usually done at specialized laboratories. Contact your personal physician if you have questions or concerns about potential PCE Exposure.

17. What is the indoor air Screening Level for PCE?

The screening level indicates a reference point at which VA can use the data for the purposes of the study. When a result is below the screening level, it is so low that it cannot be considered significant, and is highly unlikely to have any effect on the well-being of occupants in your home. If there are any results found below the screening level, they could be easily attributed to cleaners, glues, cosmetics, other sources in the home, or unknown sources that are typical of background levels not attributed to the groundwater plume. The screening level for PCE is 1.60 ppbv (parts per billion by volume).

18. What is the indoor air Removal Action Level for PCE?

The Removal Action Level (RAL) for PCE in indoor air for this site is set at 5.97 ppbv (parts per billion by volume). This is 1/8 of the lowest-observed-adverse-effect-level (which was 50 ppbv) from all studies cited by the Agency for Toxic Substances and Disease Registry (or ATSDR, an agency within the U.S. Department of Health & Human Services Centers for Disease Control and Prevention). Placing the RAL at 5.97 ppbv allows for any uncertainty in human variability and for scientific data deficiencies.

If a result is confirmed at or above the RAL, VA will design and install a PCE mitigation system. Such mitigation system will divert or filter out PCE until the groundwater plume is shown to no longer have an effect on the air quality in the affected structure.

19. Does the sampling test for chemicals other than PCE?

As PCE breaks down chemically, other constituents may form, and the samples are also analyzed for these constituents. By evaluating concentration levels of these other constituents, if found, it can be determined whether their occurrence is the result of PCE breakdown, or whether they occur from unrelated environmental contamination. The other constituents sampled for are: trichloroethylene (TCE); cis 1,2 dichloroethene (cis1,2 DCE); trans 1,2 dichloroethene (trans1,2 DCE); 1,1 dichloroethene (1,1 DCE); and vinyl chloride.

20. How is PCE vapor in my home mitigated?

PCE, like radon, can enter a home as a gas through cracks or gaps in a home's foundation. Radon is a cancer-causing gas that comes from the radioactive decay of uranium and radium contained in granitic soil or rock. PCE is a man-made product and can volatilize from contaminated soil or water sources. Generally, PCE can be mitigated by radon-like systems that de-pressurize the area under the foundation floor to extract the gas, filter it through a carbon or other treatment media and then vent it to the outdoors.

21. Who is going to pay for the cleanup?

At this point the federal government (VA) will pay for the CERCLA (Superfund) groundwater investigations and cleanups at the PCE plume identified at 700 South and 1600 East in Salt Lake City, Utah. If other potentially responsible parties (PRPs) are discovered during the CERCLA process, their ability to financially contribute to the investigation and cleanup of the PCE plume will need to be evaluated and adjudicated by the U.S. Department of Justice, and also EPA Region 8 and Utah Department of Environmental Quality (UDEQ).

22. Have you determined who's responsible for the contamination?

The EPA has identified a potentially responsible party (PRP)—the former dry cleaning facility at the George E. Wahlen Department of Veterans Affairs Medical Center (VAMC) operated in the late 1970's

and early 1980's. There may be others, but as of now EPA has not identified additional PRPs. However, it's not uncommon to discover additional PRPs during the Remedial Investigation (RI) phase, when more resources are available to conduct a more thorough and comprehensive investigation.

23. What is the Department of Veterans Affairs (VA) position on this problem?

VA has taken the lead for response actions and is working with the EPA and Utah Department of Environmental Quality (UDEQ), as well as coordinating with the city and other stakeholders to address characterizing and remediating the PCE contamination. VA has hired a CERCLA project manager, contracted with qualified environmental remediation firms and provided community involvement support.

24. Could VA clean up the site without it being listed on the National Priorities List?

While the EPA initially identified this problem and potential risks, we do not know how widespread it is and what the actual risks are. We do know it is more extensive than previously thought. Listing the site on the National Priorities List makes needed resources available to better determine the nature and extent of the PCE contamination, and to address risks if and where they exist. The state and city do not have resources to investigate a problem of this scale.

25. What is the benefit of being listed on the National Priorities List (NPL)?

NPL placement ensures that a comprehensive remedial investigation will occur, that any identified health risks will be addressed and, if necessary, that the PCE groundwater contamination will be cleaned up. The NPL listing provides access to technical and financial resources that are otherwise unavailable. In addition to funds for investigation and cleanup, NPL listing unlocks resources for communities to help them better understand the technical issues and guarantees the citizens will have the opportunity to provide input in the process and comment on decisions before they are made. Community involvement is ongoing throughout the investigation and cleanup, and the EPA provides support programs such as the formation of a Community Advisory Group (CAG), the availability of Technical Assistance Grants (TAG) and the Technical Assistance Services for Communities (TASC) program.

26. Will National Priorities List (NPL) listing reduce my property values?

There are no easy answers with property value issues. People buy and sell homes for a variety of reasons: great school ratings, close to family, a popular location usually win out with real estate decisions.

Based on past cleanups, the EPA believes that Superfund cleanup has an overall beneficial impact on the community, because the listing of a site on the NPL triggers a federal commitment to do cleanup work. This step reduces uncertainty and may act as a signal to real estate markets that property improvements are imminent.

27. Do I have to disclose this cleanup information when I attempt to sell this property?

This is a legal question and should be discussed with your real estate or legal professional. For more information, please refer to web sites such as the following:

http://www.nolo.com/legal-encyclopedia/utah-home-sellers-disclosures-state-law.html

28. This sounds expensive, what impact will this have on care for Veterans or hospital jobs?

The VA CERCLA/Superfund Project will have fiscal impacts on the VA Rocky Mountain Network's operating budget for many years but we are continuously working with all parties to mitigate this impact and ensure our Veterans continue to receive care that is second to none.

29. Who decides how the site is cleaned up?

VA is the lead federal agency for the cleanup but EPA and UDEQ advise VA and give their approval and consent on each major action. However, the Superfund law also requires that the community be given every opportunity to have meaningful input on how the cleanup is completed. VA, EPA and UDEQ are committed to involving any interested citizens or groups along with local government throughout the decision process.

30. How quickly can you start, what has to happen next?

VA has conducted the first phase of field testing and is working with EPA and UDEQ to ensure that the next phase proceeds according to a remedial investigation work plan which develops the needed information to evaluate human health and the environment risk. The remedial investigation is a detailed investigation of the nature and extent of the site. Indoor air sampling and near-slab soil gas sampling has begun in the East Side Springs area. Further investigative steps are continually prioritized and investigation is then followed by cleanup as is necessary.

31. What voice does the community have in the process?

The community is invited to contact VA, UDEQ and EPA with their questions and to provide input throughout the remedial investigation and the entire Superfund process. Occasional open house meetings are held to inform the public and solicit public response (notices in local newspapers), an information repository is located in the Salt Lake City Public Library, briefings are provided to local public agencies and Community Councils, and updates can be found on the web at http://pceplume-700s1600e.net/, or at http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0800743.

Some communities choose to be very involved and form a Community Advisory Group, others do not. The EPA, UDEQ and VA welcome input and involvement from all stakeholders. Technical Assistance Grants and other financial resources are available to communities to encourage and facilitate

meaningful involvement. For more information about community involvement at Superfund sites, visit www2.epa.gov/superfund/superfund-community-involvement.

32. How were the site boundaries determined?

Superfund designation seeks to include the source of the contamination and wherever contamination may have spread and is a threat to human health and the environment. When the PCE Plume site was proposed, a basic area was described in the listing package, and a report prepared and sent to EPA headquarters supporting why the site qualifies for placement on the NPL. Boundaries may change and will not be fully defined until after the Remedial Investigations and Feasibility Studies (RI/FS) are complete.

33. Who do I contact to get more information or if I want to be involved somehow?

VA Salt Lake City HCS
Jeremy Laird, Public Affairs Specialist
500 Foothill Drive
Salt Lake City, UT 84148
(801) 582-1565, ext. 1955
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Environmental Protection Agency, Region 8
Jasmin Guerra, Community Involvement Coordinator, R8 TAG/TASC Coordinator
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Utah Department of Environmental Quality
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ATTACHMENT 10

Background Information

On May 24, 2013, EPA added the 700 South 1600 East PCE Plume site (the Site) to its National Priorities List (NPL) of Superfund sites. The listing became final on June 24, 2013. A former dry cleaning facility at the nearby Salt Lake City VA Medical Center (VAMC) currently is the only identified source in the area for groundwater beneath the site which is contaminated with tetrachloroethylene, commonly known as PCE. PCE levels at the site are above federal drinking water standards, but drinking water for the community, which comes from the Salt Lake City public water supply, is not impacted. Salt Lake City routinely tests its drinking water pursuant to federal standards. In addition, the artesian fountains at Liberty Park and at 800 South 500 East are routinely tested, and no PCE has been detected. As currently the only identified PCE source, VA is responsible for leading the cleanup under the Superfund program. The addition of the Site to the NPL requires VA to pay for and manage the cleanup. Placement on the NPL guarantees the public the opportunity to participate in the cleanup process from its early stages, which include a detailed site assessment and investigation.

What is PCE?

Tetrachloroethylene (PCE) is a synthetic chemical that is widely used for dry cleaning fabrics and for metal-degreasing operations. It is also used as a starting material (building block) for making other chemicals and is used in some consumer products. PCE is a nonflammable, colorless liquid at room temperature and has a sharp, sweet odor.

What is Vapor Intrusion?

When chemicals or petroleum products are spilled or leak from underground storage tanks, they can give off gases or vapors that can get inside buildings. Common products that can cause vapor intrusion are gasoline or diesel fuel, dry cleaning solvents and industrial degreasers. The vapors can move through the soil and seep through cracks in basements, foundations, sewer lines and other openings.

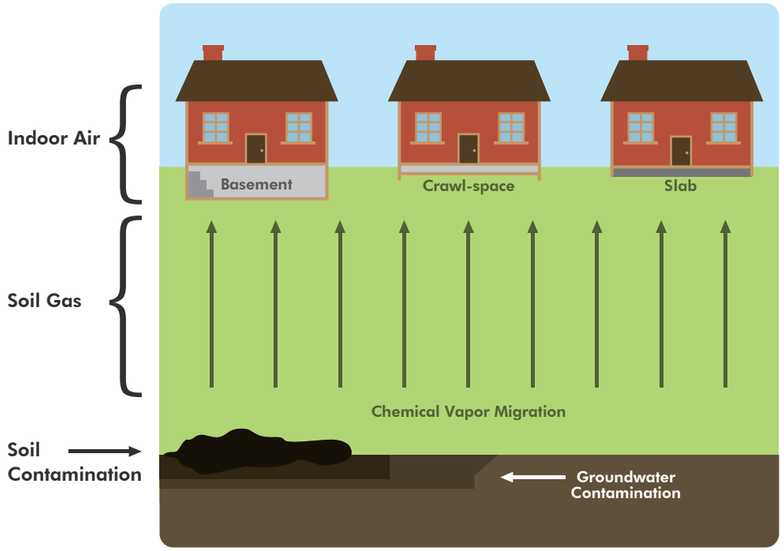


Illustration of how vapors can rise up through soil into your home.

Vapor intrusion is a concern because vapors can build up to a point where the health of residents or workers in those buildings could be at risk. Some vapors from petroleum products have a gasoline odor, others are odor-free.

Health Effects?

Health risks vary based on the type and amount of chemicals. How healthy you are and how long you are exposed are also factors. Some people may experience eye and respiratory irritation, headaches or nausea. These symptoms are temporary and should go away when the vapors are vented. Low-level chemical exposures over many years, however, may raise your lifetime risk of cancer or chronic disease.

Resident's Role

There are just a few things we ask of you to ensure the most accurate sampling possible.

WHAT WE NEED YOU TO DO

- ☐ Continue to live your life as normal. You can do most of the things you would do on a normal day. You don't have to leave the house and, for the most part, won't have to take any special precautions.
- ☐ Prior to the technicians arriving at your home, it would be helpful to make sure they have access to the first floor and the basement in order to screen with a portable gas chromatograph mass spectrometer (GC/MS).
- ☐ When technicians arrive, they will ask you questions about products you use, then screen your home. If needed, they will place a canister to check for longer term vapor presence.
- ☐ During the day of sampling you may stay in your home. Technicians will first look for indoor air sources, temporarily remove them and then conduct the tests.

WHAT **NOT** TO DO THE WEEK OF SAMPLING

- ☐ Avoid having freshly dry-cleaned clothing in the home, if at all possible. If you have dry cleaning ready to be picked up, please wait until after the canister has been collected to pick it up.
- ☐ Avoid using solvents or degreasers.
- ☐ Avoid working on hobby projects that would require the use of paint, glues or other chemicals.
- ☐ If you own guns, avoid cleaning them.
- ☐ Avoid contact with the canister.

Step-by-Step Air Sampling Process

1. Agree to have air sampling done in your home by mailing back the response postcard or by calling the VA's Communications Officer at: 801-584-1252
2. After October 2014 someone will call to schedule a sampling appointment that is convenient for you.
3. Approximately one week before the scheduled appointment, you will receive a reminder postcard in the mail. This will include instructions to prepare for the air sample.
4. Technicians will arrive at the scheduled time and ask you some questions about chemical products in your home. They will be in your home to screen for indoor sources and then characterize for possible vapors.
5. If needed, technicians will place a canister in your home and then 24 hours later, the technicians will return and pick up the canister. It will be sent to an off site laboratory to be analyzed.
6. Within approximately six to eight weeks you will receive a letter about your preliminary sampling results.
7. Further action will depend on your results.

Household Chemicals

Not all chemical vapors found in homes are coming from the groundwater. A number of commercially available products contain the same chemicals found in the contaminated groundwater. The use or storage of these products in homes or attached garages can cause chlorinated solvents to be found.

Please carefully read the labels of products inside your home to see if they contain ingredients with "chloro" in their name, such as tetrachloroethylene (PCE) or trichloroethylene (TCE). The products that most likely contain this chemical are typically found in metal tubes, aerosol cans, or glass containers.

The following are some examples of chemicals that could contain constituents of concern:

GUN CARE PRODUCTS

Many commercially available gun cleaners and other gun care products contain chlorinated solvents.

ELECTRICAL CLEANERS AND DEGREASERS

Many commercially available electrical cleaners and degreasers contain chlorinated solvents.

GLUES AND ADHESIVES

Some specialized glues contain chlorinated solvents. Check glues that are made to bond acrylics and other plastics.

AUTOMOTIVE DEGREASERS AND CLEANERS

Some common automotive products use chlorinated solvents. In particular, look at brake parts cleaners or "non-flammable" solvents.

Answers to Questions you may have:

Q: What if I don't want indoor air sampling?
A: Sampling is completely optional and you are not required to have your home tested.

Q. How do you know if vapors are coming from inside the home or from the groundwater?
A. The canister we use to take the initial sample only tells us if vapors are present in the air inside the home. It does not tell us the source of those vapors. If vapors are detected in the initial sample, we come back with a specialized instrument that we can use to narrow down the source to a specific room and even to a specific item. Once the source is identified, we ask the resident to remove the item and then we test again. If the follow-up sample still shows vapors, we repeat the process to ensure all inside sources are identified and removed. If we cannot identify an inside source, then we can conclude the source is likely to be the groundwater and we will offer to install a vapor removal system.

Q: How often do you test?
A: Homes with previous detections or systems installed are sampled more frequently.

Q: How much will testing cost me?
A: Nothing. VASLCHCS covers all costs associated with the testing.

Q: What if I don't have a basement?
A: We still recommend having your home tested. We will place the canister in the lowest livable space of your home.

Q: Is my drinking water safe?
A: You are most likely connected to city water. The city obtains its drinking water from deep aquifers or mountain reservoirs, not from the contaminated shallow aquifer. In addition, your city regularly tests its water to ensure it is safe. If you are drinking city water, you are not drinking contaminated water. For information about your drinking water, contact your city's public works office.

Q: What will happen if volatile organic compound vapor is found to be intruding into my house?
A: The investigation and cleanup of the PCE Plume will take a long time but in the meantime VA is committed to installing air remediation systems in those houses that need it while cleanup of the plume is on-going. These systems are similar to those installed to address radon issues. After a successful plume cleanup system is in place, the air remediation systems may no longer be needed and can be decommissioned. Periodic testing will determine when that may happen.

Contact Information

If you have questions or comments, please contact:
Jill Atwood, Chief Communications Officer, VASLCHCS
801-584-1252
jill.atwood@va.gov

VA SALT LAKE CITY HCS

VA HEALTH CARE | Defining EXCELLENCE in the 21st Century

1600 E. 700 S. SUPERFUND SITE

INDOOR AIR SAMPLING STUDY

What's Happening

The VA is currently conducting a Remedial Investigation and Feasibility Study (RI/FS) at the 700 South 1600 East PCE Plume site. This is the third major step of Superfund cleanup, following the Preliminary Assessment/Site Inspection that was conducted in 2011, and the NPL site listing in 2013.

The RI determines the nature and extent of contamination at the site, whether there are potential risks to human health and the environment from the site, and whether a remedial action is needed to address those risks. The FS presents administrative controls (e.g., groundwater use restrictions), tests whether certain technologies are capable of treating the contamination, presents the cost and performance of those technologies, develops and evaluates multiple alternatives for cleaning up the site that include one or more of those technologies, and presents a preferred alternative. Following the FS, the alternatives for cleaning up the site will be presented to the public for review and comment in a proposed plan of remedial action. In coordination with EPA and Utah Department of Environmental Quality (UDEQ), the VA began remedial investigation activities in 2013, starting with properties in the East Side Springs area. This includes properties roughly described as being near the intersection of 900 South and 1200 East, where groundwater seeps or springs are commonplace and there is shallow depth to groundwater. The investigation in this area is accelerated to address the possibility of vapor intrusion into structures and is being conducted in two phases.

September 2015.

For More Information

The VA has established a website dedicated to the 700 South 1600 East PCE Plume site. Visit *www.pceplume-700s1600e.net* for information about the site's history and background, current activities, and community involvement opportunities. You can also find answers to common questions about the site and the Superfund process, submit a question of your own, and download important site documents.

The following VA Staff also can provide information about the site:

Jeremy M. Laird, VA Public Affairs Specialist
Phone (801)582-1565 EXT. 1955
or email jeremy.laird@va.gov.

D. Lynne Welsh, CERCLA Program Manager
Phone (801) 582-1565, EXT. 2021
or email DLynne.Welsh@va.gov

VA HEALTH CARE Defining EXCELLENCE in the 21st Century

700 South 1600 East PCE Plume Site Salt Lake City, Utah

Project Update & Fact Sheet

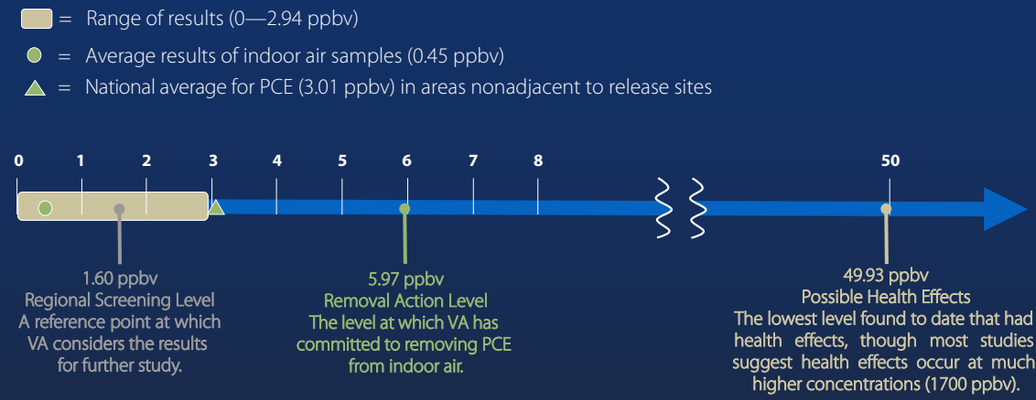
Contamination from tetrachloroethylene (also known as perchloroethylene and abbreviated to PCE) was first detected in groundwater in this area in the 1990s during routine sampling of the Mount Olivet Cemetery irrigation well.

Subsequent sampling found PCE in groundwater monitoring wells and in some surface springs where groundwater is very shallow. Your drinking water supply is not affected by the PCE plume. One drinking water supply well was taken out of service and the others are continually monitored. An exact location of the PCE has yet to be determined, but the VA was identified as a potentially responsible party because of their former use of PCE in a dry cleaning facility at the George E. Wahlen VA Medical Center in the 1970s. The site was added to the U.S. Environmental Protection Agency's (EPA) National Priorities List(NPL) of Superfund sites in 2013.

Phase 1 East Side Springs Activity

The first phase of the field work at East Side Springs was conducted January through April of 2015 and included sampling indoor air, outdoor air, and near-slab soil gas sampling (checking for vapors in the soil near building foundations) at 36 properties. Samples were analyzed for PCE, as well as other constituents. None of the samples were above the removal action level established by EPA. Indoor air PCE samples ranged from 0.10 to 2.94 ppbv (parts per billion by volume). Comparatively, data collected by the EPA shows that samples taken throughout the U.S. in areas unaffected by PCE contamination have an average background indoor air PCE concentration of 3.01 ppbv. Although no results exceeded the removal action level, they do confirm that PCE contamination exists in some areas. This information will help the VA focus future sampling efforts.

HAPSITE® PCE Sampling in East Side Springs Jan — Apr 2015



Results are shown in parts per billion by volume (ppbv).
Field results from the HAPSITE® portable sampler can vary from validated data, but are accurate enough to inform next - step decisions.

What's Next?

The next phase of work at the East Side Springs will include additional sampling of indoor air, soil gas, surface water and shallow groundwater. The data will be evaluated and a Remedial Investigation report prepared. This report will be followed by a Feasibility Study to complete the RI/FS process.

In addition to the accelerated investigation in the East Side Springs area, an RI/FS will be conducted for the remainder of the affected site, beginning in 2016. The RI/FS steps will be followed in later years by decisions on the appropriate actions to remediate the PCE plume. The VA will then implement and monitor until cleanup goals are achieved.

September 2015.

ATTACHMENT 11

GEORGE E. WAHLEN
DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
VA Salt Lake City Health Care System
500 Foothill Drive
Salt Lake City, UT 84148

September 14, 2015

US Environmental Protection Agency
Attn: 700 S 1600 E PCE Plume Remedial Project Managers
1595 Wynkoop Street
Denver, CO 80202

Utah Department of Environmental Quality
Division of Environmental Response and Remediation
Attn: 700 S 1600 E PCE Plume Project Manager
PO Box 144840
Salt Lake City, UT 84114-4840

Re: Communicating Field Results to Property Owners

The Department of Veteran's Affairs Superfund Program has made a commitment to property owners to share field results within a matter of weeks after performing sampling on their property. Many appreciated suggestions have been provided to VA during the development of draft language for the letter that will communicate these field results. Because of the great interest in this communication, you are receiving a courtesy copy of the letter outline that will be used to share these field results.

In addition to the following letter outline, you'll also find some explanation about the language selected for the letter. This summary is offered in response to the interest and comments VA has received from EPA, UDEQ and other parties.

Thank you for your support.

Best regards,

D. Lynne Welsh
VA RPM/Remedial Program Manager
George E. Wahlen
Department of Veteran Affairs
500 Foothill Drive
Salt Lake City, UT 84148

Enclosures:
Sample Field Results Letter Outline
Discussion of Field Results Letter Outline

Cc:
Warren E. Hill, VHASLCHCS, via electronic copy
Jill Atwood, VHASLCHCS, via electronic copy
George Setlock, VISN 19 GEMS, via electronic copy
Michelle DeGrandi, OGC, via electronic copy
David Allison, Utah DEQ, via electronic copy
Scott Everett, Utah DEQ, via electronic copy
Cynthia Peterson, EPA, via electronic copy
David Dorian, ATSDR, via electronic copy
Craig Dietrich, UT DOH, via electronic copy
Teresa Gray, Salt Lake County Health Dept, via electronic copy
Jesse Stewart, Salt Lake City Public Utilities, via electronic copy
Michael Brehm, University of Utah EHS, via electronic copy
Ed Reid, First Environment, via electronic copy
Devin DeMarco, First Environment, via electronic copy
Davide Waite, CH2M Hill, via electronic copy
Rosemary Beless, Fabian Law, via electronic copy

GEORGE E. WAHLEN
DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
VA Salt Lake City Health Care System
500 Foothill Drive
Salt Lake City, UT 84148

[DATE]

Dear [NAME]:

Thank you again for allowing us access to your home on [DATE]. Your cooperation is paramount in getting the information we need to properly address vapor intrusion, your questions and concerns and to further help us determine the distribution and extent of the tetrachloroethylene (PCE) plume. It is important to us that you are comfortable with the process and that we answer all of your questions.

The main chemical we are concerned about in this investigation, PCE, was [or was not] detected in the air in your home during the January/February/March/April 2015 sampling event.

[Below statements Individualized to each home.]

Examples:

1. All rooms tested below the screening level of 1.60 parts per billion by volume (ppbv). This means PCE levels are so low that they cannot be considered significant to the investigation and are highly unlikely to have any negative effect on your family. Any readings below the screening level are likely to come from cleaners, glues, cosmetics, or other sources that are typical of background levels not related to groundwater. No further action is warranted at this time in your home.

-or-

2. There are some readings in your home that merit further testing. While concentrations were below the levels that would require immediate action, they do exceed the screening level. VA would like to confirm field results by collecting additional indoor air samples for laboratory analysis. Any additional recommendations would be based on the laboratory results. We will contact you within the next 2 weeks to discuss follow-up sampling with you.

-or-

3. There are some areas in your home that are at or exceed the removal action level of 5.97 ppbv. The removal action level is well below levels that may cause health effects, however in order to take every precaution, we need to discuss continued monitoring along with the possibility of

installing a mitigation system to remove PCE from your home. We will contact you within the next two weeks to discuss additional actions proposed for your residence.

[If there are any data above screening levels for TCE, DCE, or VC, discuss here]

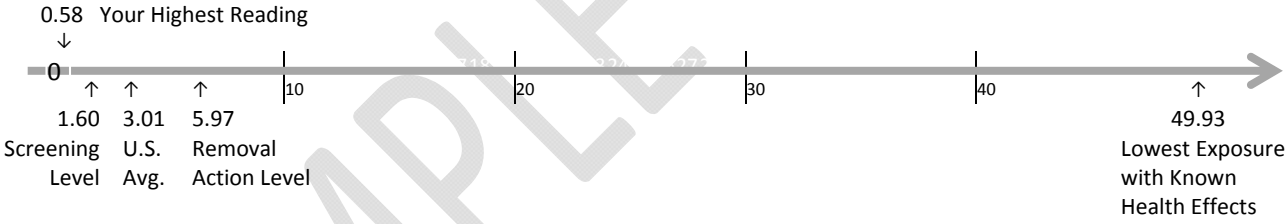
Your Results – Tetrachloroethylene (PCE)

Here is what the monitoring equipment reported about the air in your home in parts per billion by volume (ppbv).

Room	***Field Results – PCE in ppbv**

**Field results can vary from validated data, but are accurate enough to determine whether further sampling or monitoring is necessary.*

The graphic below represents your results compared to other points of interest; all units are in parts per billion by volume (ppbv).



What do the screening and action levels mean?

The screening level indicates a reference point at which VA can use the data for the purposes of the study. When a result is below the screening level, it is so low that it cannot be considered significant, and is highly unlikely to have any effect on the well-being of occupants in your home. If there are any results found below the screening level, they could be easily attributed to cleaners, glues, cosmetics, other sources in the home, or unknown sources that are typical of background levels not attributed to the groundwater plume. The screening level for PCE is 1.60 ppbv.

Comparatively, the average background indoor air PCE concentration in the U.S. is 3.01 ppbv. This U.S. average comes from an EPA database of 2,195 indoor air samples from non-exposed areas. "Non-exposed" means there was no reason to believe that the area had PCE exposure due to contamination (areas not located next to a PCE source, nor in an area with confirmed groundwater/soil contamination).

Medical studies have found that the lowest level of PCE to affect humans was 49.93 ppbv, which had an effect on children's vision. The lowest level found to cause human health effects beyond vision (e.g., neurobehavioral) was 199.84 ppbv. VA has set action levels below the indicators in these studies as follows:

Screening Level = 1.60 ppbv. If samples exceed this value, we will contact you to conduct additional testing. The samples collected will undergo certified laboratory analysis and we will continue to communicate with you about any further actions.

Removal Action Level = 5.97 ppbv. Although this level of PCE is still below those cited in medical studies, we believe this level merits certified laboratory analysis and continued monitoring. If these efforts confirm the presence of PCE above 5.97 ppbv, VA will design and install a PCE mitigation system for your home. Such mitigation system will divert or filter out PCE until the groundwater plume is shown to no longer have an effect on the air quality in your home.

The efforts and results discussed above are part of preliminary indoor air sampling, targeting the most likely neighborhoods based on proximity to areas impacted by PCE in shallow groundwater or area spring waters. VA will use this information as part of the overall remedial investigation of PCE in groundwater in your neighborhood.

If you would like to read more about PCE, the following resources provide substantial detail:

> Tetrachloroethylene Hazard Summary (US EPA), available at: http://www.epa.gov/ttn/atw/hlthef/tet-ethy.html
>
> Tetrachloroethylene Toxicological FAQs (US EPA's Agency for Toxic Substances & Disease Registry), available at: http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=264&tid=48

Please do not hesitate to call with further questions. Your family's health and safety is VA's top priority.

Sincerely,

Jeremy Laird
Public Affairs Specialist
Department of Veterans Affairs
VA Salt Lake City Health Care System
801-582-1565, ext. 1955

Encloslure: Contact Information Card

Discussion of Field Results Letter Outline

VA received a lot of interest and suggestions about what might be shared regarding field results. Below is a brief summary about some of the input received.

Why talk about the screening level?
The screening level is a reference point at which VA determines whether the data collected is useful in the study. While this term could be left out of letters for individuals who's results were below the screening level, any discussion that will take place with owners about results above that point will likely use the term. Further, this term may offer relief to those who's results are below the screening level. The text in the letter says that results below the screening level are "so low that it cannot be considered significant," and with that context, it is unlikely to cause alarm or be confused with the removal action level.

Why give the US Average?
It is human nature to compare our status to others'; in fact, residents in one neighborhood have reportedly already gathered for an informal meeting to discuss what they've learned about PCE and their results so far, even though VA hasn't yet communicated anything to owners in writing yet. The U.S. average concentration of PCE gives them a measuring stick to compare against; for some it will be relieving, though there may be some above the average.

Why give information about medical studies?
Many residents want to know if there is an impact to their health. While studies summarized by the EPA and ATSDR generally indicate that the majority of health effects have occured at levels much higher than the level cited in this letter, VA has cited the lowest observed effect level (LOEL) in order to take a conservative approach.

Why have the ppbv values changed since the last draft we saw?
The screening level and action level are established in ug/m^3, but the field instruments report data in ppbv. The equation used to convert from ug/m^3 to ppbv in draft copies of the letter utilized 25°C for the temperature input. After further consideration, 25°C is believed to be warmer than the air in most properties being sampled. The equation has been corrected to 21°C, which effects the ppbv value.

Is the line-graphic that represents results, screening level, action level, etc., to scale?
Yes, but with some margin of error due to the method used.

What contact information will be provided to property owners?
VA's Public Affairs Specialist's contact information is listed on the letter, and a contact card will be included with the letter. The contact card includes contacts at VA, DEQ, ATSDR, EPA, Salt Lake County Health, and Utah Dept of Health.