



Advocates for VHA Groundwater Plume Resolution 700 South 1600 East PCE Plume

Community Advisory Group Update

14 May 2020

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700 South 1600 East PCE Plume Site History

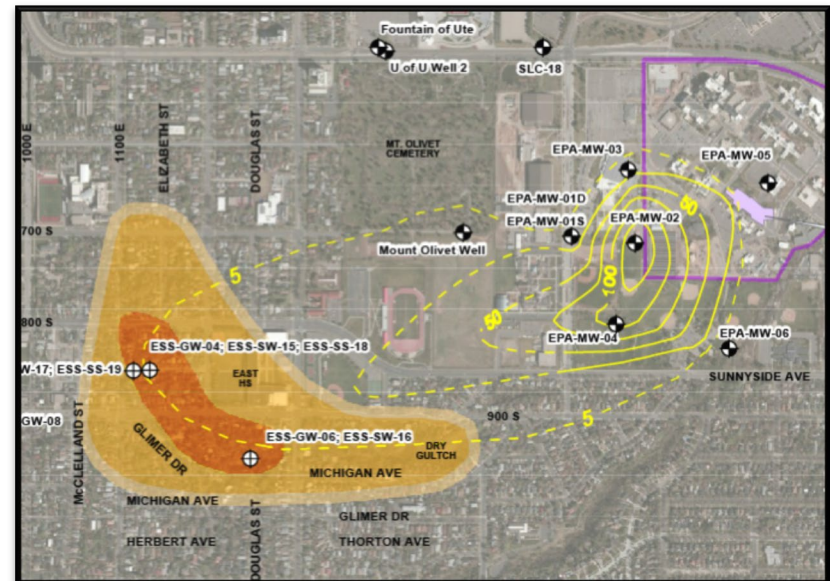
- VHA operated dry cleaning facility on-site in late 1970s
 - Tetrachloroethylene (PCE), sometimes called Perc, used as dry cleaning agent or metal degreaser
- PCE was first detected at Mount Olivet irrigation well in 1990s
- SLC municipal drinking well was taken off line as a precaution after low levels of PCE were found in 2004
- Site added to the National Priorities List in 2013

700 South 1600 East PCE Plume Site History – AOU-1 Indoor Air

Field work conducted from 2015 – 2018

- 64 structures surveyed for vapor intrusion
- Groundwater sampled at 42 locations
- Surface water sampled at 50 locations
- One removal action conducted

Remedial Investigation Report was finalized in Feb 2019, report focused on the potential for vapor intrusion from groundwater contamination.



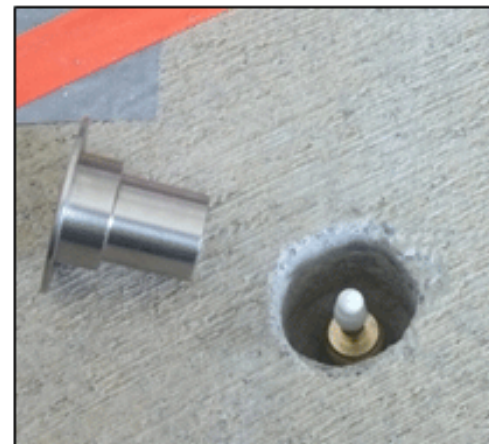
700 South 1600 East PCE Plume Site History – OU2 Groundwater Investigation

Fieldwork conducted from 2018-2020

- Completed soil gas survey near suspected source areas
 - Evidence of PCE release on campus and near sewer line in park
 - Concentrations in soil gas could result in vapor intrusion risk
 - Sampled indoor air in nearby buildings – no risks identified
 - Very few detections; all below established removal action levels
- Construction of 20 MWs
 - Deep and Shallow wells
 - Located on VA campus and off-campus
- Groundwater Sampling at 28 monitoring wells
 - Data provides baseline conditions pre-remedial activities
 - Identify data trends

700 South 1600 East PCE Plume Soil Gas Sampling

Sub-Slab Soil Gas “pin”



Soil Gas Probe Sample
Collection

700 South 1600 East PCE Plume

Since the Last CAG: Dec 2019 – May 2020

Indoor Air Sampling – *Evaluated 30 structures for vapor intrusion*

- **Dec 2019-Jan 2020:** Re-sampled 6 homes with historical detections of PCE above screening levels; sampled 1 new home without historic data
No detections of PCE or TCE above removal action levels

- **Mar 2020:** 23 new homes sampled
 - Sampling included both 24-hr and 3-week passive samplers
 - **COVID-19 Impact:** SLC's Stay Home Directive issued March 27th
 - VA developed “no-contact” method to collect sampling devices
 - Homeowners were provided with materials/instructions to collect sample devices – *100% participation*

No detections of PCE or TCE above removal action levels

700 South 1600 East PCE Plume

Since the Last CAG: Dec 2019 – May 2020

Groundwater Investigation

- **Dec 2019:** Groundwater Sampling at 28 monitoring wells
- **March-May 2020:** Monitoring well construction (*in progress*)
 - Drilling an additional 7 deep wells (350 ft) on VA campus
 - ***No COVID-19 Impact*** – Drilling continues without delays
 - Using PPE (masks) and social distancing as much as possible

700 South 1600 East PCE Plume Well Drilling Locations – VA Campus



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

- PCE Soil Vapor Concentrations < 10% Screening Level
- PCE Soil Vapor Concentrations between 10% of Screening Level and Screening Level
- PCE Soil Vapor Concentrations > Screening Level
- PCE Soil Vapor Concentrations > 10 times Screening Level
- Proposed Investigation Locations
- Underground Storage Tank or Foundation
- Perimeter of Building 7 in 1981

- | | |
|--|---|
| Utilities | Utilities (GPRS Files, May 2017) |
| --- Electric | --- Electric |
| --- Gas/Oil | --- Gas/Oil |
| --- Water | --- Water |
| --- Sanitary Sewer | --- Sanitary |
| --- Stormwater | --- Sanitary |
| --- Communication | --- Communication |

Notes:
 SG = soil gas probe
 VP = vapor pin. Locations for vapor pins are approximate.
 -Color coding based on the maximum of the December 2018 or March 2019 TO-15 / HAPSITE data and July 2019 HAPSITE data for each location.
 The screening level for PCE in soil gas is 600 µg/m³.



FIGURE 1
 PROPOSED PHASE I INVESTIGATION
 LOCATIONS ON VA CAMPUS

OU-2 REMEDIAL INVESTIGATION
 700 SOUTH 1600 EAST PCE PLUME
 SALT LAKE CITY, UTAH

700 South 1600 East PCE Plume

What's next? June 2020 – Dec 2020

Monitoring well installation continues

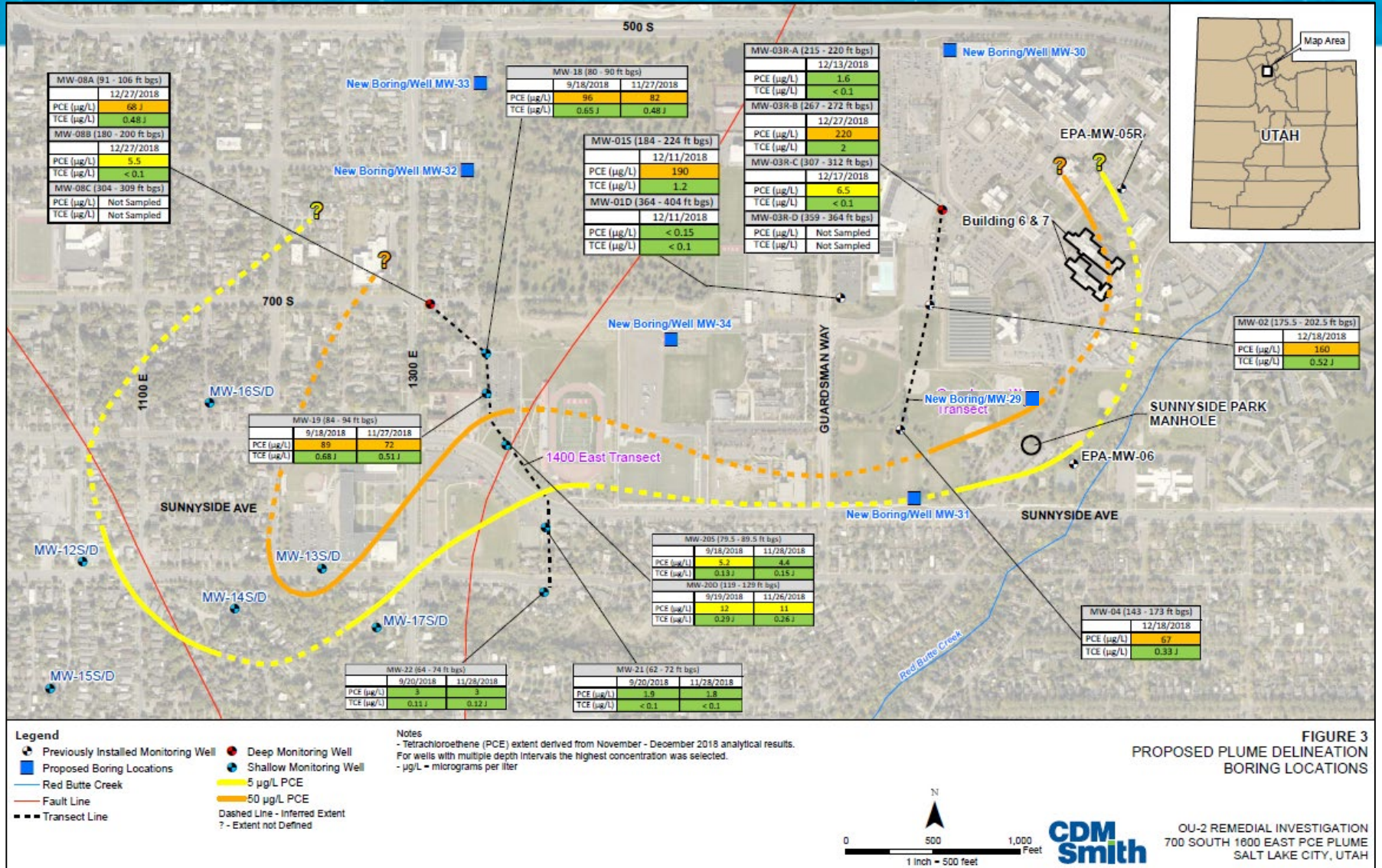
- **June 2020** – Construct 4 deep wells off VA Campus
- **Oct/Nov 2020** – Construct 6 shallow wells East Side Springs area

Groundwater sampling continues

- **June 2020** – Groundwater sampling of all wells
- **September 2020** – Groundwater sampling of all wells
- **December 2020** – Groundwater sampling of all wells

Use of PPE (masks) and social distancing will continue during fieldwork operations

700 South 1600 East PCE Plume Well Drilling Locations – Off-Campus



700 South 1600 East PCE Plume “Mini” Drill Rig



700 South 1600 East PCE Plume Monitoring well completion



700 South 1600 East PCE Plume

What's next? June 2020 – Dec 2020

Indoor Air Program / Vapor Intrusion Assessment

COVID-19 Impact: risk of catching/spreading virus much greater than potential risk with vapor intrusion

Need to make adjustments to “new normal”

- No indoor air sampling – Winter 20/21 heating season
- Evaluating “no-contact” sampling effort
- Focus on other data collection efforts outside of home
 - Collecting shallow groundwater and soil gas data
 - Use predictive model to evaluate VI

Available Documents to Review Technical Assistance Services for Communities (TASC) program

- ***AOU-1 Remedial Investigation Report (Feb 2019)***; report focused on the potential for vapor intrusion from groundwater contamination
- AOU-1 Data Summary Report
 - ***Indoor Air Sampling Dec19-Mar20 (Jun 2020)***; data not included in RI report, collected after publication
- OU2 Data Summary Reports
 - ***2018 OU-2 Data Summary report (Jun 2019)***; monitoring well installation and soil gas survey of source area(s)
 - ***2019 Expanded Source Area Investigation (Oct 2019)***; installation of soil gas probes and vapor pins at source areas
 - ***Fall 2019 Indoor Air Investigation (Nov 2019)***; indoor air sampling in VA buildings
 - ***2019 Q4 Data Summary Report (Jun 2020)***; groundwater sampling event

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Next Meeting and Questions

- Next Meeting:
 - When: 10 Sep 2020 @ 6:30pm
 - Where/How: TBD – Most likely a virtual meeting
- What content would the CAG like presented?