



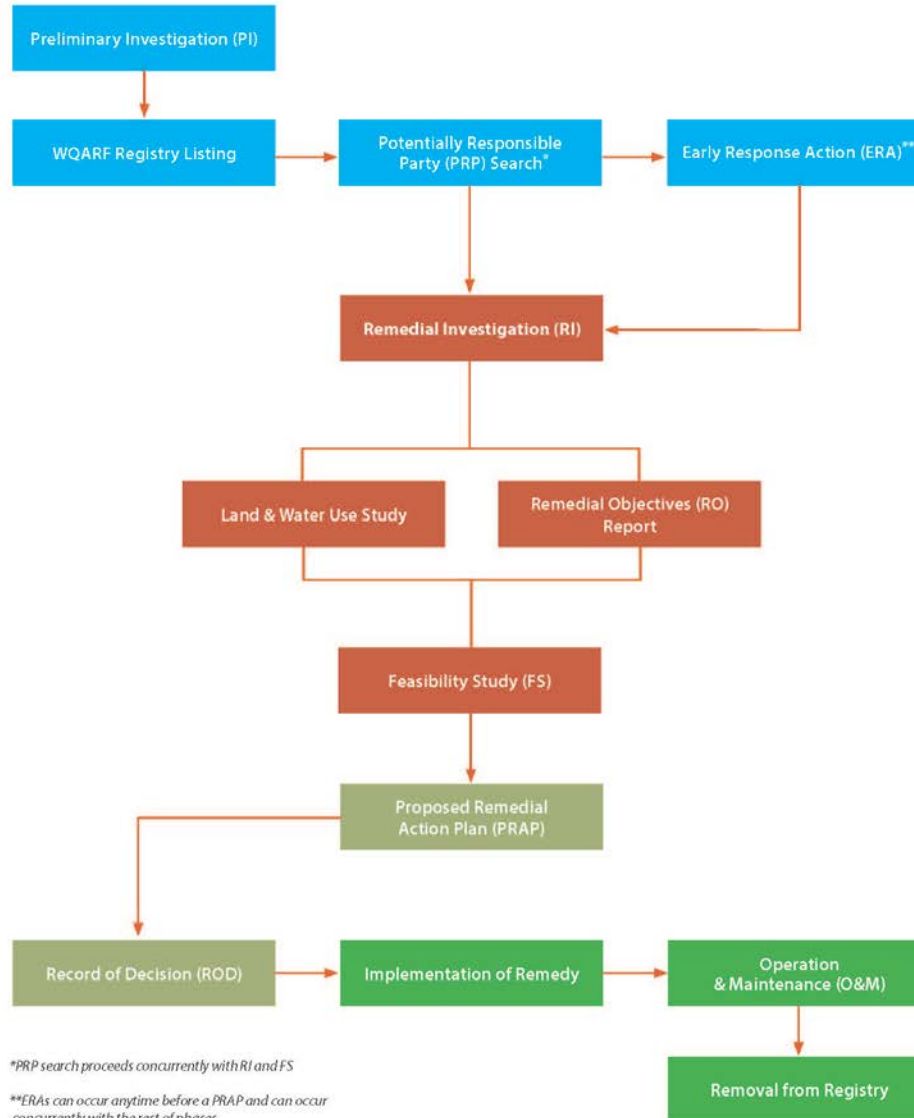
Central and Camelback WQARF Site

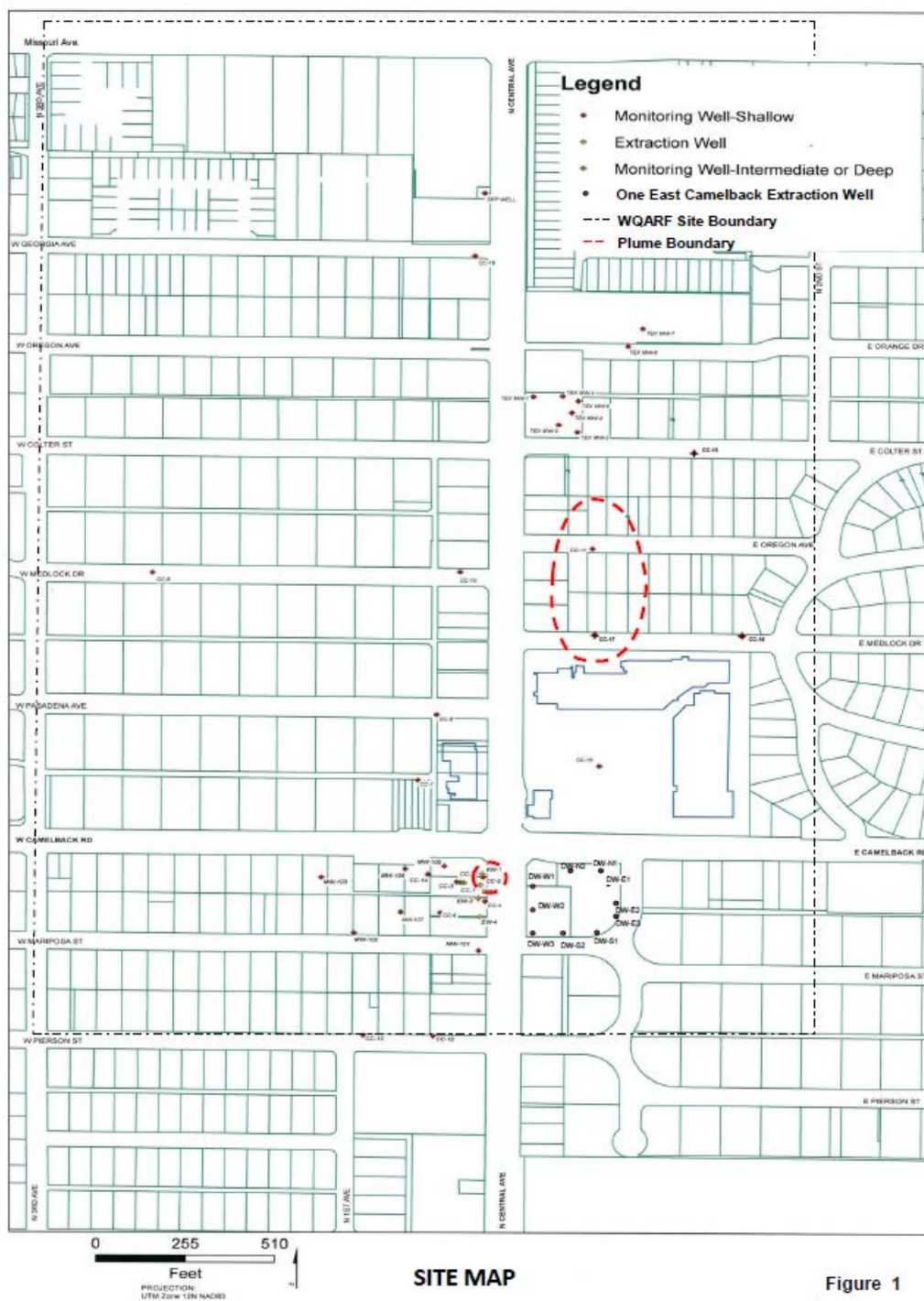
Kevin Snyder, Project Manager

Wendy Flood, Community Involvement Coordinator

June 17, 2015 5:30 pm

WQARF PHASES





Groundwater Treatment Compound



EW-1

CC-5

EW-2

EW-3

SVE Compound

SVE-1

SVE-FC

SVE-MP1

SVE-2S
SVE-2D

EW-4

SVE-MP2

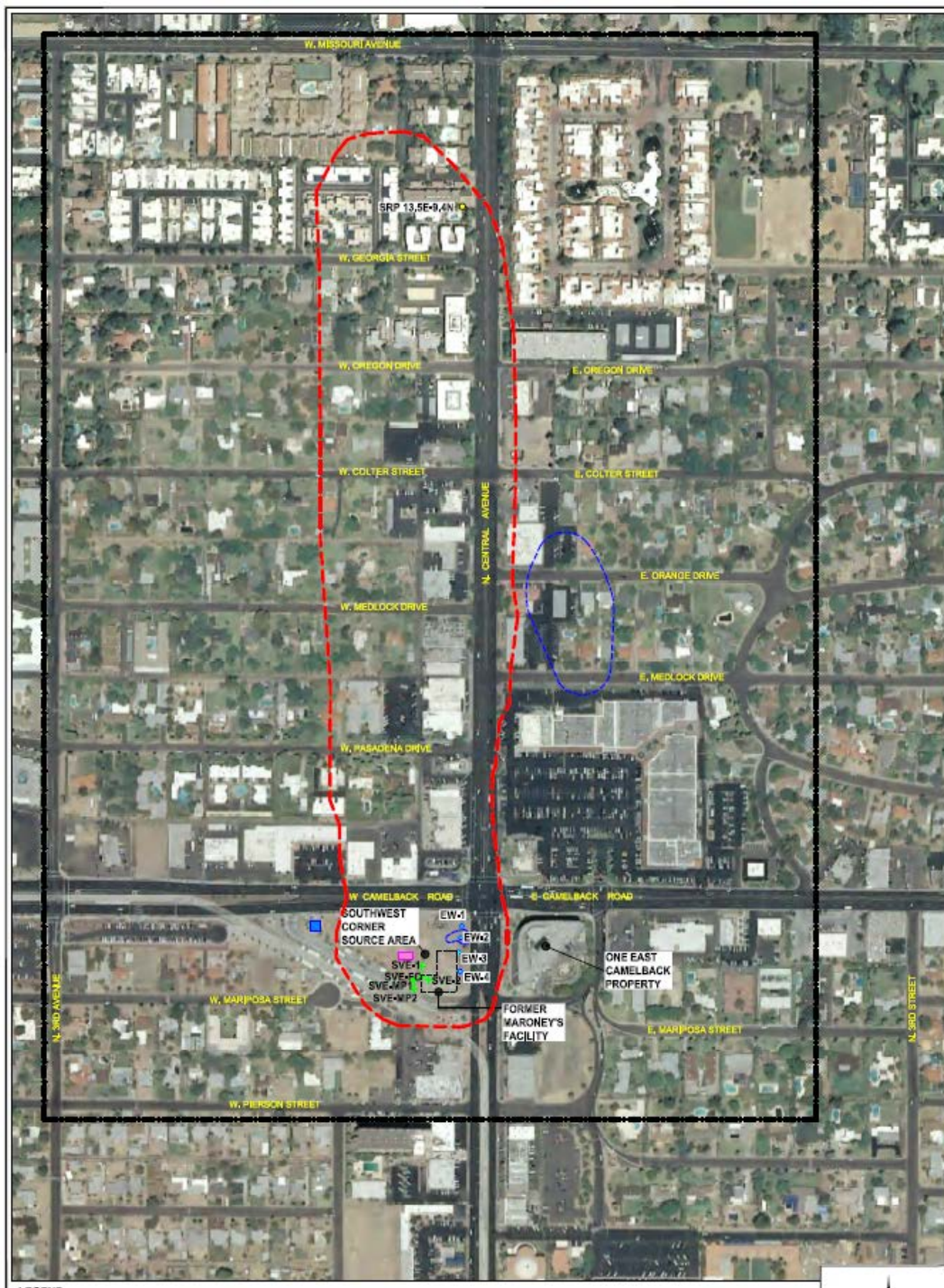


Events Since March 2015

CAB Meeting

- Completed the Remedial Investigation (RI) Report and the Feasibility Study (FS) Report.
- The groundwater system has removed 291.3 lbs. of PCE from water as of March 2015.
- The Soil Vapor Extraction (SVE) system has removed 6,545 lbs. of PCE from soil as of March 2015.
- Because of budget constraints groundwater samples were not collected from the groundwater monitor wells during April 2015.

Historic plume
shape in red
current plume
shape in blue.



Events Since March 2015

CAB Meeting (continued)

- Groundwater samples were collected from the extraction wells and groundwater treatment system quarterly and monthly, respectively. Vapor samples were collected from the SVE system monthly.
- The groundwater system has been fully operational but having problems with one of the well pumps.
- The SVE system has been fully operational.
- Groundwater treatment system and SVE system will continue to operate as presently funded.

Events Since March 2015

CAB Meeting (continued)

- ADEQ finalized the FS Report.
- Propose to continue to operate existing remediation systems.
- May add groundwater wells to site depending on migration of northern plume to the south.
- May take over One East Camelback (OEC) northern extraction wells if northern plume extends to extraction wells.
- As soil gas concentrations decline, will alter SVE system operation to maximize efficiency.
- Will conduct additional passive soil gas survey to compare with original survey and may add SVE extraction well pending results.



Analytical Results From Groundwater Treatment System Extraction Wells

- Currently only extraction wells CC-5 and EW-2 are operating and are sampled
 - Extraction Well EW-4 was shutdown on January 20, 2009
 - Extraction Well EW-3 was shutdown on May 6, 2009
 - Extraction Well EW-2 was shutdown on May 20, 2009 and restarted on October 29, 2009
 - Extraction Well EW-1 was shutdown on March 13, 2013

PCE Concentrations in Extraction Well Samples

Well Number	June 2014	September 2014	December 2014	February 2015	June 2015
CC-5	32	28	23	4.7	NS
EW-1	NS	NS	NS	NS	NS
EW-2	11	11	9.3	3.7	17
EW-3	NS	NS	NS	NS	NS
EW-4	NS	NS	NS	NS	NS



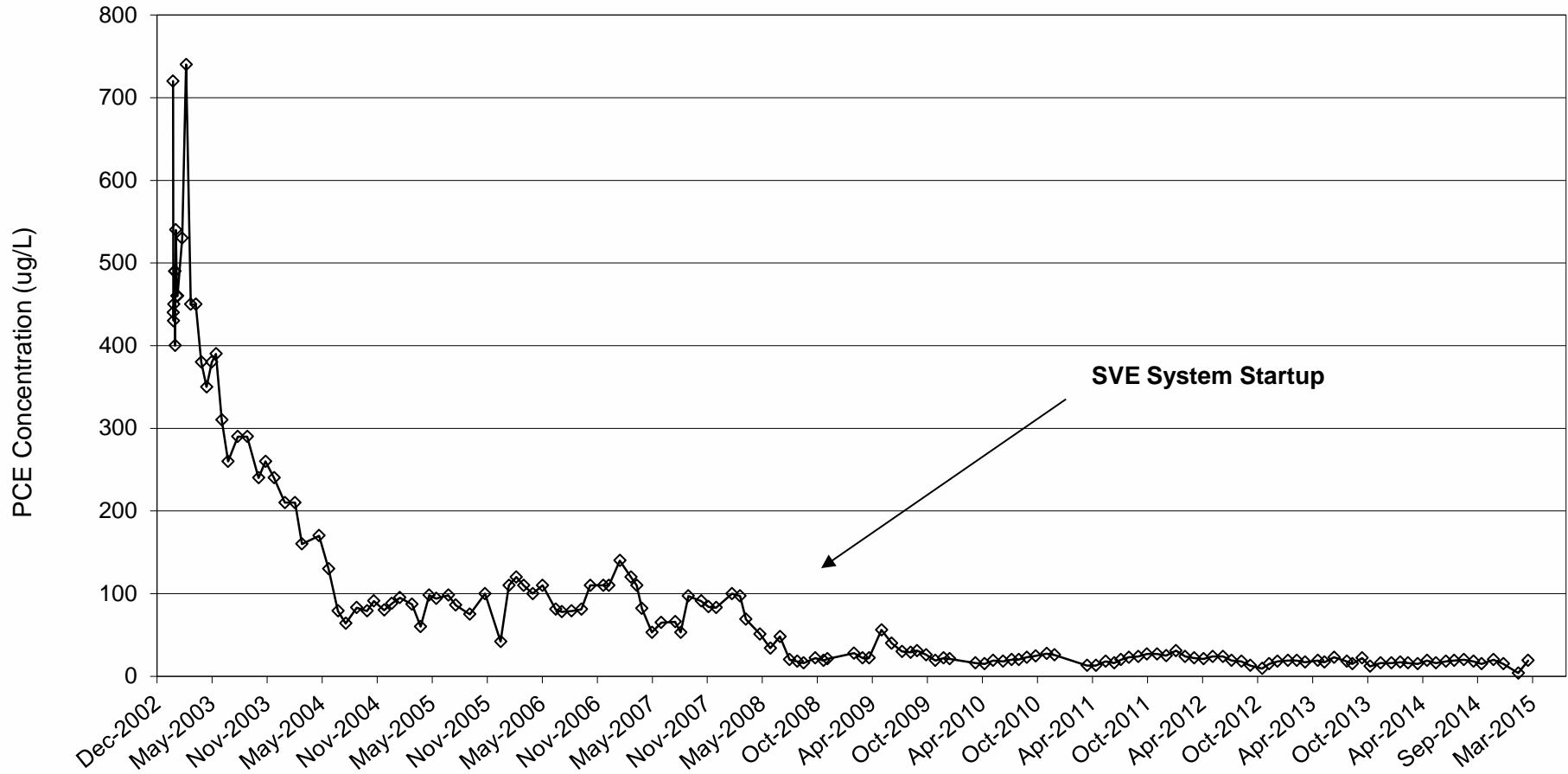
Operation & Maintenance Statistics for the GW Treatment System

Quarter	Gallons Treated	Percent Operational	VOC/PCE Removed (Lbs.)
2 nd Qtr 2014	5,836,010	100%	1.15/0.85
3 rd Qtr 2014	5,343,700	99.9%	1.16/0.89
4 th Qtr 2014	5,055,900	96.1%	0.98/0.70
1 st Qtr 2015	3,092,280	56.7%	0.49/0.34

Analyte	Range 1 st & 2 nd Quarter 2003	February 2015	March 2015	AWQS
Benzene	<0.50 – 0.54	<0.50	<0.50	5
Chloroform	1.8 – 2.8	3.5	3.1	100
PCE	350 - 740	3.8	19	5
TCE	9.7 – 16	0.42	1.9	5
Cis-1,2-DCE	8.5 - 20	<0.50	0.36	70

Concentrations in micrograms per liter (ug/L)





PCE Influent Concentration Changes With Time



Notes:
AWQS = 5 ug/L



Plume
shape/location
changes over time.

-  Mid 1990s
-  Mid 2000s
-  Current
-  Future

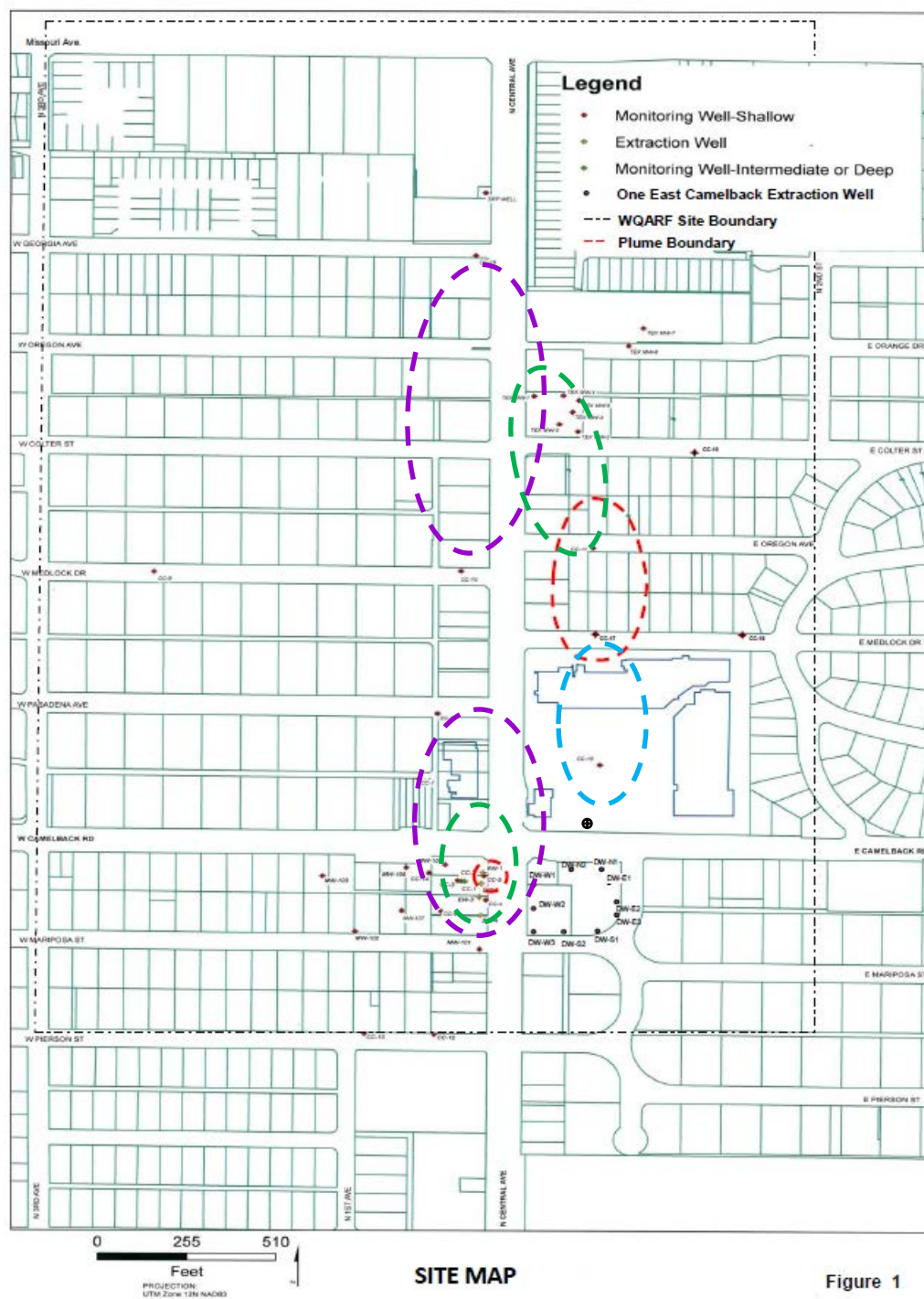


Figure 1

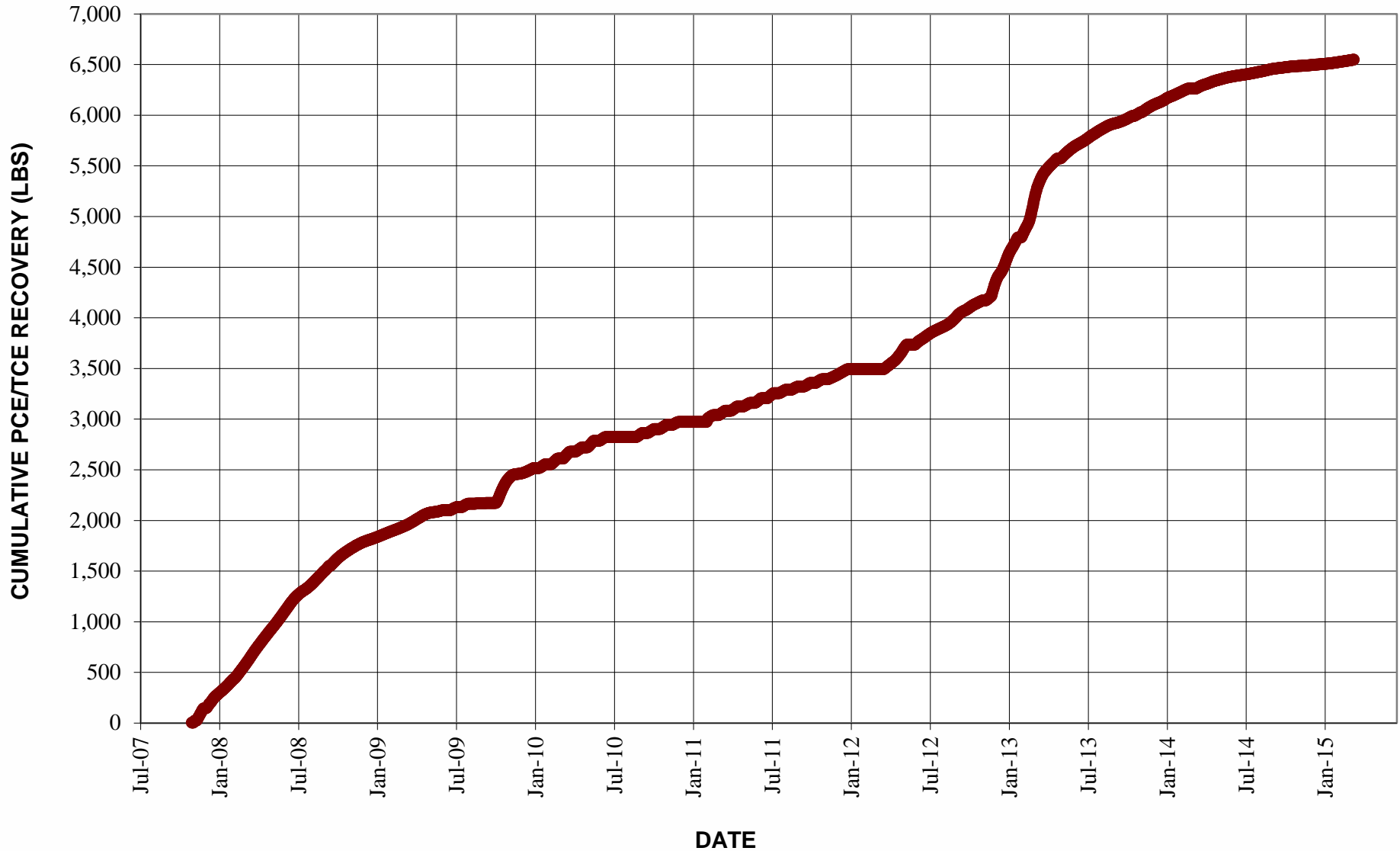
- During 1st Quarter 2015, the SVE system removed approximately 50.3 pounds of VOCS.
- Since SVE system startup in November 2007 to the end of March 2015 approximately 6,545 lbs. of VOCs.
- Quarterly performance tests continue to show that the system meets specifications as required by the air quality permit.

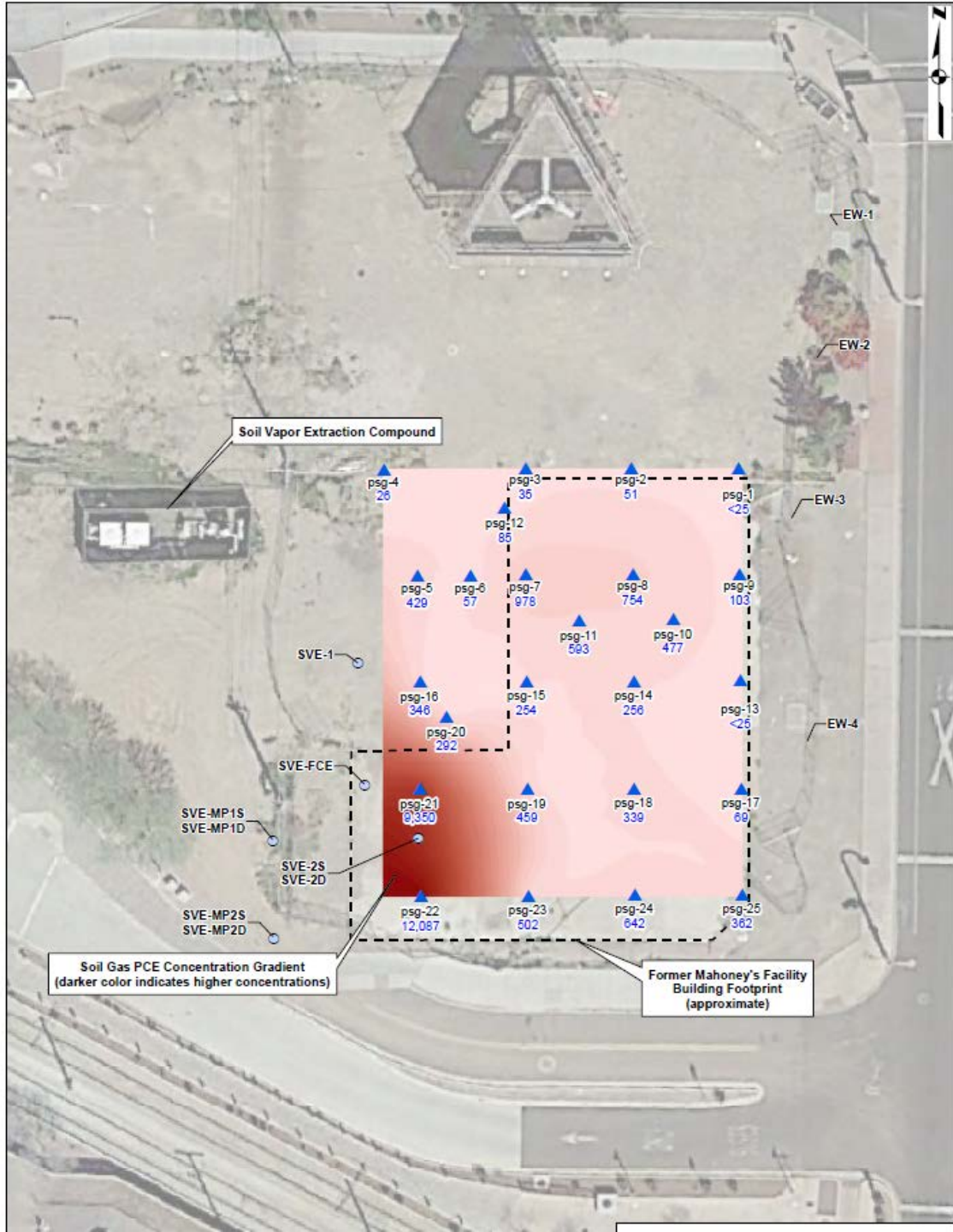


Operation & Maintenance Statistics for the (SVE) system

Quarter	Percent Operational	PCE/TCE Removed (Lbs.)
2 nd Qtr 2014	99.9%	125.7
3 rd Qtr 2014	100%	73.0
4 th Qtr 2014	100%	37.7
1 st Qtr 2015	100%	50.3

PCE Influent Concentration Changes With Time





- Prepare the Proposed Remedial Action Plan (PRAP) for the Site.
- Continue O&M activities for both SVE and GW systems.
- Monitor water levels quarterly and collect groundwater samples semiannually.



Contacts

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