2023 Annual Report

Fox Avenue Site

Seattle, Washington

Prepared for:
Fox Avenue Building LLC
6900 Fox Avenue S.
Seattle, Washington 98108

Prepared by:
CALIBRE Systems, Inc.
16935 SE 39th St.
Bellevue, Washington 98008

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List of Acronyms and Abbreviations

Acronym/ Abbreviation	Definition
bgs	Below ground surface
CAP	Cleanup Action Plan
cis 1,2-DCE	cis 1,2-Dichloroethene
CUL	Cleanup level
CCD	Cascade Columbia Distribution
CVOC	Chlorinated volatile organic compound
DCE	Dichloroethene
Ecology	Washington State Department of Ecology
ERD	Enhanced reductive dechlorination
Loading Dock	Loading Dock Source Area
µg/L	Micrograms per liter
NW Corner	Northwest Corner Area
PCE	Tetrachloroethene
RL	Remediation Level
SBW	Seattle Boiler Works
Site	Fox Avenue Site
TCE	Trichloroethene
TOC	Total organic carbon
VOC	Volatile organic compound
WBZ	Water Bearing Zone

1.0 Introduction

1.1 PURPOSE OF REPORT

The purpose of this report, prepared by CALIBRE Systems, Inc. (CALIBRE), is to document the cleanup activities and monitoring that occurred in 2023 at the Fox Avenue Site (Site) see Figure 1.1. The work described in this report was performed in accordance with Agreed Order No. 8985 between Fox Ave LLC and the Washington State Department of Ecology (Ecology 2012). Per the Cleanup Action Plan (CAP) for the Site, bio-polishing is to be performed following thermal treatment of the chlorinated volatile organic compounds (CVOCs) until the groundwater remediation level (RL) is met.

The Main Source Area was thermally treated as well as the Loading Dock Source Area (Loading Dock). One source area, the Northwest Corner Area (NW Corner), was not thermally treated; instead, this area underwent soil vapor extraction. Thermal treatment occurred from January to May of 2013 and achieved its goal of reducing source area soil contaminant concentrations to the RL of an average of 10 milligrams per kilogram (mg/kg) or less for the sum of tetrachloroethene (PCE) and trichloroethene (TCE) concentrations. Following thermal treatment, aquifer temperatures in the Main Source Area were too elevated to implement bio-polishing until mid-2014 (Floyd-Snider 2015).

1.2 GROUNDWATER PERFORMANCE CRITERIA FROM CLEANUP ACTION PLAN

Three environmental media at the Site were historically impacted from releases of solvents: soil, groundwater, and indoor air. RLs were established in the CAP for soil and groundwater that were technology-based.

The groundwater RL was set at a total CVOC concentration of 250 micrograms per liter (µg/L) as measured in wells located downgradient of Fox Avenue S., the conditional point of compliance (CPOC) for groundwater. Per the requirements of the CAP, the groundwater RL must be met within 10 years following thermal remediation. Therefore, 2023 represents the tenth year toward this goal.

In addition to the RL for groundwater, cleanup levels (CULs) were established for the individual constituents found in groundwater. These CULs must be met at the seeps along the Myrtle Street Embayment within 15 years following thermal treatment (i.e., end of 2028). CULs must also be met throughout the plume upgradient of the seeps to the CPOC along Fox Avenue S. within 50 years (the end of 2063). The final Site-wide CULs for groundwater, as documented in the CAP, are presented in Table 1.1.

The RLs for Site soil were achieved in 2013 as documented in the *Construction Completion Report* (Floyd|Snider 2013). Documentation of the achievement of indoor air CULs, both on- and offsite, is contained in the *Construction Completion Report* as well.

Table 1.1 Site-Wide Cleanup Levels for Groundwater

Chemical of Concern	Seep or Groundwater Cleanup Level (µg/L)
Benzene	51
1,1-DCE	3.2
Pentachlorophenol	3.0
PCE	3.3
TCE	30
TPH (Mineral Spirits- to Heavy Oil-Range)	500
Vinyl Chloride	2.4

Abbreviations:
DCE Dichloroethene
TPH Total petroleum hydrocarbons

1.3 INDOOR AIR PERFORMANCE CRITERIA FROM CLEANUP ACTION PLAN

The CAP indicates that MTCA Method C levels for indoor air are applicable on the Fox Ave Building property (the warehouse that CCD operates within) based upon the commercial/industrial use of the property.

For SBW, the CAP presents modified MTCA Method B levels (as described under WAC 173-340-705 (2)) applicable considering the current industrial use of the SBW property. The modified MTCA Method B levels are described as "trigger levels" in the CAP and, in the future, standard MTCA Method B levels for indoor air are necessary to free the property of any future development restrictions. The CAP defines the following exposure/frequency adjustments to MTCA Equation 750-2 to set the trigger levels for SBW property:

1. Reduce worker exposure from the standard 30 years to 15 years (based in the restoration time frame to achieve standard MTCA Method B cleanup levels in 15 years in SBW) and
2. Reduce the exposure frequency to reflect worker exposure (i.e., 8 hours per day, for 5 days per week, for 49 weeks per year).
3. If the SBW site use is converted to residential use, the contingency trigger will be revised downward to the standard MTCA Method B cleanup level.

Table 1.2 Site Cleanup Levels for Indoor Air

Chemical of Concern	Indoor Air Cleanup Level	
	SBW MTCA Method B ($\mu g/m^3$)	CCD MTCA Method C ($\mu g/m^3$)
PCE	9.6	40
TCE	0.37	2
VC	0.28	2.8

Abbreviations:
SBW = Seattle Boiler Works property
CCD = Cascade Columbia Distribution

2.0 Remedial Actions Undertaken

Bio-polishing actions implemented in 2023 included injection of soluble substrate in selected wells, bio-augmentation, buffer water injections, and performance monitoring of groundwater. The following sections summarize the work completed in 2023. The basic ERD degradation processes are shown in Figure 2.1. All work was completed in accordance with previously submitted project work plans.

2.1 PERFORMANCE MONITORING

Performance monitoring included the collection of Site-wide groundwater samples in August 2023. Results from those monitoring events are discussed in Sections 3.0 and 4.0.

2.2 SUBSTRATE INJECTION

Soluble substrate and buffering water were injected in August 2023. Table 2.1 provides a summary of the substrate injections. The August 2023 substrate injection focused on the NW Corner and south end of Fox Avenue areas and the buffering water was injected into some source area wells.

Table 2.1 Substrate Injection Summary

Well ID	Area	Gallons Injected	Pounds of Buffer Injected
August 2023 Buffer Water Injections			
R0-IW2D	Source Area	250	10
R0-IW3D	Source Area	250	10
R0-IW7D	Source Area	250	10
	Total	**750**	**30**
Well ID	**Area**	**Gallons Injected**	**Pounds of Substrate Injected**
August 2023 Substrate Injections			
R1-IW8	Northwest Corner	500	490
R1-IW9	Northwest Corner	250	652
R1-IW10	Northwest Corner	500	535
R1-IW11	Northwest Corner	500	676
R1-IW12	Northwest Corner	500	521
R1-IW13	Northwest Corner	500	558
R1-IW14	Northwest Corner	500	699
R1-IW15	Northwest Corner	500	606
B-54	Northwest Corner	500	556
B-66	Northwest Corner	500	544
R1-IW20	Fox Avenue	500	726
	Total	**5,250**	**6,563**

2.3 INDOOR AIR MONITORING

Indoor air and sub-slab air samples were collected at the CCD Buildings on March 1, 2023 following the indoor air sampling work plan submitted and approved by Ecology in February 2023 (CALIBRE 2023a). The results were submitted to Ecology in a Tech Memo on March 22, 2023 (CALIBRE 2023b).

Indoor air and sub-slab air samples were collected at the SBW Buildings in December 2023 following the indoor air sampling work plan. The results were submitted to Ecology in a Tech Memo on February 27, 2024 (CALIBRE 2024).

The vapor sampling events are discussed in 5.0.

3.0 Groundwater Monitoring Data

3.1 SAMPLING PROCEDURES

Groundwater samples were collected from 28 wells and three seeps in August 2023 prior to the substrate injection event completed in August 2023. Samples from selected wells were collected using low-flow sampling procedures in accordance with the project work plans. In addition, three seeps in the Myrtle Street Embayment were sampled for volatile organic compounds (VOCs) during a minus low tide on August 1, 2023. All samples were analyzed for the targeted list of Site VOCs and selected wells were additionally analyzed for total organic carbon (TOC) as an indicator of remaining substrate availability. Field sample data sheets are included in Appendix A.

All samples were delivered under chain-of-custody to Fremont Analytical for analysis. The laboratory data packages are included in Appendix B. All investigation-derived waste from sampling was containerized and managed in accordance with the project work plans.

3.2 QUALITY ASSURANCE REVIEW AND ENVIRONMENTAL INFORMATION MANAGEMENT LOADING

A quality assurance (QA) review was performed by CALIBRE on all of the analytical laboratory reports received. The QA reviews concluded that all of the laboratory data were deemed acceptable for use. All data were subsequently uploaded to Ecology's Environmental Information Management database.

3.3 SUMMARY OF DATA FROM GROUNDWATER SAMPLING

The 2023 CVOC data are presented in Table 3.1. Recent benzene data collected from wells throughout the Site are presented in Table 3.2

4.0 Groundwater Monitoring Data Discussion

Performance monitoring data that were collected in 2023 are discussed in this section by treatment area. The 2023 data included 35 samples (including duplicates) collected from wells in both Water Bearing Zones (WBZs) along with three seeps at the Myrtle St. embayment. Appendix C presents time series graphs for four areas; NW Corner Area, Fox Avenue center of the plume, SBW and the seeps.

The 2023 data show that COC concentrations at the seeps are below the cleanup level (CULs) for all COCs. Site-wide, the 2023 data show that all wells downgradient of the CPOC along Fox Ave are below the RL.

These performance data demonstrate that the remediation is progressing and on-track with the projected timelines in the CAP. These sampling results from 2023 are consistent with prior results

and trends over the last several years which are presented in the time series graphs in Appendix C:

- In 2019, all samples downgradient of the Fox Avenue CPOC were below the RL and the seep samples were approaching, but still slightly above the CULs with consistent downward trends (CALIBRE 2021a).
- The 2020 sampling demonstrated all samples downgradient of the CPOC were below the RL, all seeps were also below the CULs, with one location on Fox Ave above the RL (CALIBRE 2021a).
- The 2021 and 2022 sampling demonstrated all samples downgradient of the CPOC were below the RL and all seeps were below the CULs (CALIBRE 2021b).
- The 2023 site-wide data indicate all samples downgradient of the CPOC are below the RL and all seeps were below the CULs; additionally six out of the seven locations sampled downgradient of the CPOC are also below the CULs.

Figure 4.1 presents the sum of all four key CVOCs (PCE, TCE, cis-1,2-DCE, and VC) in the 1st and 2nd WBZ wells Site-wide from 2023. The sum of CVOCs is the specific performance criterion for comparison with the RL of 250 µg/L. Figure 4.2 presents the same data from 2022 (sum of all CVOCs in wells Site-wide, and previously submitted), the 2022 sampling included additional sampling locations within the SBW area demonstrating more wells meeting the CULs.

4.1 MAIN SOURCE AREA AND DOWNGRADIENT TO FOX AVENUE S.

Aquifer conditions for both the 1st and 2nd WBZs were evaluated by comparing groundwater data collected from injection and monitoring wells to baseline data. Baseline data were collected prior to the July 2014 injection of substrate into the 2nd WBZ and the January 2015 injection into the 1st WBZ. These bioremediation activities in the Main Source Area followed thermal treatment that ended in May 2013.

Data through 2023 continues to indicate effective bioremediation in the Main Source Area, former Whitehead Property and Fox Avenue S. Of the 14 wells sampled in the 1st and 2nd WBZs, only MW-9 located on the Whitehead property (south of the source area) had a total CVOC concentrations greater than the Site RL of 250 µg/L, the other 13 wells are below the RL (at and around the source area) and two are also below CULs. Two other wells, MW-18S at the southern edge of the source area and B-18 on the eastern side of Fox Avenue, increased in total CVOCs to 228.8 and 205.15, respectively. In both wells the increase was primarily driven by increased cis-1,2-DCE. Total CVOCs for the remaining wells sampled in these areas range from 0.23 to 97.6 µg/L with CVOC reductions ranging from 84% to 99.99+% from historical results. The source area wells R0-IW2D, R0-IW3D, and R0-IW7D were injected with buffer water in August 2023 to control the low pH observed in the August 2023 sampling event. The TOC results from both source area and the Whitehead property, showed concentrations around 100 mg/L in the three injection wells sampled.

4.2 NW CORNER AREA

In the NW Corner Area, CVOCs are only found in 1st WBZ groundwater based on data in the RI, and re-confirmed in the sampling of NW2-1 in this event (NW2-1 is in the 2nd WBZ).

Additional substrate injections were completed in August 2022 in this area following review of the July/August 2022 performance monitoring results. Two wells sampled in the 1st WBZ in 2023 showed total CVOC concentrations above the RL of 250 µg/L in wells, B-54 at 320.9 µg/L, and B-66 at 523.3 µg/L; all other wells sampled in this area were below the RL.

Both wells showed a significant decrease in PCE in 2023 along with increases in daughter product cis-1,2-DCE. The increase in cis-1,2-DCE is an indicator of PCE dechlorination however VC was either non detect or <1 µg/L.

4.2.1 OTHER RELEVANT MONITORING DATA

A RI is being conducted on the nearby property on the west side of Fox Ave. The site is identified as;

Dawn Foods Site
Ecology Facility Site ID No. 3505
Ecology Cleanup Site ID No. 16678

Two wells on the Dawn Foods property are relevant to the cleanup actions at the Fox Ave Site because MW-8 (Dawn) and MW-9 (Dawn) are downgradient of the NW Corner Area. MW-9 (Dawn) is located on the west side of Fox Ave and well MW-8 (Dawn) is located approximately 90 ft further downgradient in the truck access/parking area of Dawn Foods. These two wells have been sampled by other parties in 2023 (Crete 2024) and the data are summarized below:

		PCE	TCE	cis 1,2-DCE	VC
Date 3/25/2023:	MW-8 (Dawn)	2.6 µg/L	0.98 µg/L	9 µg/L	1.5 µg/L
Date 3/28/2023:	MW-9 (Dawn)	< 1 µg/L	<0.5 µg/L	6.1 µg/L	12 µg/L

These 2023 sampling data are below the Fox Ave Site RL and demonstrate continued degradation of the Site CVOCs in an area downgradient of the CPOC.

4.2.2 HISTORICAL DATA FROM UPGRADIENT AREA

The RI workplan for the Dawn Foods Site also includes historical data from the property located upgradient of the NW Corner Area; recently it was Schultz Distributing and prior to that it was Emerson Diesel Repair. The historical data includes sampling on the upgradient property for PCE in soil and groundwater. The data from the Dawns Foods RI work plan are included in Appendix D, all of the data are from Ecology files (Ecology 2008).

The historical data included in Appendix D indicate the following:

1. The local gradient shows groundwater flows from the Emerson/Schultz property into the NW Corner Area.
2. Early PCE plume maps from the Fox Ave NW Corner Area indicate that a PCE source in groundwater is located upgradient of the Fox Ave property and the plume maps align with the groundwater flow direction measured on the Emerson/Schultz property.
3. PCE is detected in both soil and water samples collected on the Emerson/Schultz property.
4. One area of the property is identified as "engine dip tanks" and the existing sampling data, as presented in the noted reference, do not appear to have investigated that area.

4.3 AREAS DOWNGRADIENT OF FOX AVENUE

Wells downgradient of Fox Avenue are located in the Seattle Boiler Works property and in Myrtle Street. Results from all seven samples in these areas show that they are in compliance with the Site RL, and have been below the RL in these two areas since May 2018 as presented in the graphs in Appendix C. In addition, 6 of the 7 samples are also below the Site CULs, MW-06 is the only well in this area that has been above the Site CUL since 2021. CVOC reductions range from 96% to 99.99+% at the wells sampled in these areas.

4.4 SEEPS

The CVOCs at the three embayment seeps met the CULs in 2023. This is the fourth consecutive monitoring event where the CULs have been met at the seeps, this includes the additional sampling of S-2 in 2022 and S-4 in 2023. The vinyl chloride concentrations in the seeps continue to show an overall decline over time as shown in Table 4.1. The sampling data from the seeps S-3 and S-3b over the last several years is presented in Figures 4.3 and 4.4.

Table 4.1 Post-Thermal Vinyl Chloride Concentrations in the Seeps

Seep	2014 (µg/L)	2015 (µg/L)	2016 (µg/L)	2017 (µg/L)	2018 (µg/L)	2019 (µg/L)	2020 (µg/L)	2021 (µg/L)	2022 (µg/L)	2023 (µg/L)
S-2	ND	30.9	7.4	4.4	ND	--	--	--	(< 0.2)	--
S-3	372	7.5	27.1	13.3	11.7	2.9	1.3	0.42	(< 0.2)	(< 0.2)
S-3b	136	72.8	46.4	10.9	39.8	3.9	2.3	ND	(< 0.2)	0.285
S-4	ND	ND	ND	--	--	--	--	--	--	(< 0.2)

Abbreviations:
ND Non-detect
-- Not sampled
Cleanup level (CUL) for VC is 2.4 µg/L

5.0 Indoor Air Monitoring Data

An Indoor Air sampling work plan was submitted and approved by Ecology in February 2023 (CALIBRE 2023a). Indoor air vapor sampling was completed in 2023 at both the CCD and SBW areas.

5.1 SAMPLING IN CCD BUILDING

On March 1, 2023, three indoor air samples and one outdoor ambient air sample were collected at CCD. The ambient air sample was collected from the planter box near the front door to the CCD office while IA-1 was collected within the first-floor office space, IA-2 was collected from inside the men's restroom, and IA-3 was collected from the breakroom inside the CCD warehouse. On March 2, 2023, sub-slab vapor samples were collected from within the first-floor office space (SV-1), the men's restroom (SV-2), and from the breakroom inside the CCD warehouse (SV-3).

The results for PCE, TCE, cis-1,2 DCE and VC are presented in Table 5.1. The Indoor Air monitoring results demonstrate all detections of COCs are below the MTCA Method C Indoor Air cleanup levels at CCD.

Table 5.1 Vapor Sampling Summary at CCD

Indoor Air					
Sample Date	Sample ID	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	cis-1,2-DCE ($\mu g/m^3$)	VC ($\mu g/m^3$)
MTCA Method C IA CULs		***40***	***2.0***	***40***	***2.8***
3/1/2023	CCD AA-1	0.26	<0.15	<0.11	<0.036
3/1/2023	CCD IA-1	2.8	0.14	<0.10	<0.032
3/1/2023	CCD IA-2	2.0	<0.14	<0.10	<0.032
3/1/2023	CCD IA-3	2.9	0.30	<0.097	<0.031
Sub Slab					
Sample Date	Sample ID	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	cis-1,2-DCE ($\mu g/m^3$)	VC ($\mu g/m^3$)
3/2/2023	CCD SV-1	16,000	620	<42	<27
3/2/2023	CCD SV-2	8,500	180	<22	<14
3/2/2023	DUP (CCD SV-2)	8,400	180	<24	<15
3/2/2023	CCD SV-3	26,000	2,300	530	<36

MTCA Method C Indoor Air CULs are applied to the CCD
The IA levels listed above are NOT corrected for ambient background (all are below CULs)
µg/m3 = micrograms per cubic meter
CUL = cleanup level
CCD = Cascade Columbia Distribution
PCE = tetrachloroethene TCE = trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene VC = vinyl chloride

5.2 SAMPLING IN SBW BUILDING

Indoor Air monitoring of specific buildings on the SBW property was completed in December 2023. All sampling was completed in accordance with the approved work plan. The results for PCE, TCE, cis-1,2 DCE and VC are presented in Table 5.2. The Indoor Air monitoring results demonstrate all detections of COCs are below the MTCA Method B Indoor Air cleanup levels at SBW.

Table 5.2 Vapor Sampling Summary at SBW

Indoor Air						
Sample Date	Sample ID	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	cis-1,2-DCE ($\mu g/m^3$)	VC ($\mu g/m^3$)	Notes
MTCA Method B IA CULs		***9.6***	***0.33***	***18***	***0.28***	
12/12/2023	SBW AA-1	<0.15	<0.12	<0.086	<0.028	Ambient Air
12/12/2023	SBW PS-1	0.53	<0.12	<0.088	<0.028	Pipe Shop
12/12/2023	SBW PO-1	0.28	<0.12	<0.093	<0.030	Pipe Shop Office
12/12/2023	SBW L-1	1.2	<0.12	<0.092	<0.030	Lunch Room
Sub Slab						
Sample Date	Sample ID	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	cis-1,2-DCE ($\mu g/m^3$)	VC ($\mu g/m^3$)	
12/13/2023	SBW SV-2	1,700	69	<4.2	<2.7	Pipe Shop
12/13/2023	DUP (SBW SV-2)	1,600	69	<3.8	<2.4	Pipe Shop duplicate
12/13/2023	SBW SV-3	500	7.9	<3.6	<2.3	Lunch Room

MTCA Method B Indoor Air CULs are applied to the Seattle Boiler Works.
The IA levels listed above are NOT corrected for ambient background (all are below CULs)
$\mu g/m^3$ = micrograms per cubic meter
CUL = cleanup level
SBW = Seattle Boiler Works
PCE = tetrachloroethene TCE = trichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene VC = vinyl chloride

6.0 Recommendations

The performance data presented in this report demonstrate that the remedial actions implemented are meeting the goals in the CAP. The concentration of COCs at the seeps meet the CULs. All areas downgradient of the CPOC meet the RL and most wells also meet the CULs.

A limited sampling program is recommended to determine if added substrate injections/remedial optimization is needed in 2024. Selected wells in the NW Corner Area and on the south end of Fox Ave will be sampled in March 2024 and recommendations will be developed based on those data (combined with the sampling data in this report).

7.0 References

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Tables

Table 3.1 - 2023 Summary of Volatile Organic Compound Data in Groundwater

	WBZ	Sample Depth	Analyte	PCE		TCE		cis-1,2-DCE		trans-1,2-DCE		Vinyl chloride		Total CVOCs	TOC	
Current CUL				***3.3***		***30***		**--**		**--**		***2.4***				
AWQC from WAC 173-201a-240				***7.1***		***0.86***		**--**		**--**		***0.26***				
Location		**ft bgs**	**Sample Date**	**µg/L**		**µg/L**		**µg/L**		**µg/L**		**µg/L**		**µg/L**	**mg/L**	
Source Area																
R0-IW02D	2nd	62	8/2/2023	1.23		1.73		29.3		<0.35	U	6.60		**38.9**	--	
R0-IW3D	2nd	63	8/2/2023	2.94		4.13		52.3		0.561		37.7		**97.6**		
R0-IW7D	2nd	63	8/2/2023	10.00		6.27		50.1		1.08		11.4		**78.9**		
R0-IW7D (DUP-03)	2nd	63	8/2/2023	10.20		7.31		50		1.17		12.1		**80.8**		
MW-18S	1st	18	8/1/2023	2.44		2.48		127		1.44		95.4		**229**	--	
Whitehead																
MW-9	1st	11	8/1/2023	<0.35	U	<0.4	U	213.0		2.48		177		**392**		
MW-7	1st	12	8/1/2023	<0.35	U	<0.4	U	0.688		0.381		2.30		**3.37**	--	
B-49	1st	13.5	8/1/2023	5.91		0.964		0.716		<0.35	U	5.99		**13.6**	--	
Northwest Corner																
NW1-1	1st	11	8/1/2023	<0.35	U	<0.4	U	14.6		<0.35	U	55.1		**69.7**	--	
NW2-1	2nd	28	8/1/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	<0.2	U	**0**	--	
B-22	1st	10	8/1/2023	112		17.9		60.7		0.697		17		**208**	--	
R1-IW9	1st	11	8/1/2023	<0.35	U	<0.4	U	111		1.53		18.9		**131**		
R1-IW12	1st	11	8/1/2023	<0.35	U	<0.4	U	17.5		<0.35	U	30.3		**47.8**		
B-54	1st	12	8/1/2023	200		11.5		109		0.38		<0.2	U	**321**	--	
B-66	1st	14	8/2/2023	58.4		8.99		454		1.27		0.60		**523**	--	
Fox Avenue Row 1 Injection Transect																
R1-IW3a	1st	10	8/1/2023	<0.35	U	<0.4	U	22.6		0.355		15.3		**38.3**	--	
B-20a	1st	14	8/1/2023	<0.35	U	<0.4	U	1.9		<0.35	U	4.95		**6.85**	--	
B-19	2nd	45	8/1/2023	<0.35	U	<0.4	U	13.1		<0.35	U	27.4		**40.5**	--	
B-18	1st	14	8/1/2023	0.46		<0.4	U	189		0.697		15		**205**	--	
R1-IW20	1st	13	8/1/2023	<0.35	U	<0.4	U	0.962		<0.35	U	25.5		**26.5**		
R1-IW20 (DUP-02)	1st	13	8/1/2023	<0.35	U	<0.4	U	0.988		<0.35	U	26.3		**27.3**		
R1-IW20	1st	43	8/1/2023	<0.35	U	<0.4	U	0.814		<0.35	U	39.8		**40.6**		
Fox Avenue Row 1 Monitoring Transect																
B-58	1st	11	8/1/2023	16.1		5.2		26.1		<0.35	U	2.96		**50.4**	--	
B-58 (DUP-01)	1st	11	8/1/2023	17.3		5.02		26.1		<0.35	U	2.84		**51.3**	--	
B-61	2nd	42	8/1/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	0.225		**0.23**	--	
Seattle Boiler Works																
R2-IW1	1st	17	8/1/2023	<0.35	U	<0.4	U	1.59		<0.35	U	<0.2	U	**1.59**		
R2-IW1	2nd	45	8/1/2023	<0.35	U	<0.4	U	1.47		<0.35	U	0.638		**2.11**		
MW-6	2nd	40	8/1/2023	7.79		4.6		27.1		<0.35	U	0.232		**39.8**	--	
Myrtle St																
B-35	2nd	27	8/1/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	0.48		**0.48**	--	
B-64	1st	10	8/2/2023	<0.35	U	<0.4	U	1.67		<0.35	U	0.49		**2.16**	--	
B-65	2nd	30	8/2/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	0.25		**0.25**	--	
B-33a	2nd	30	8/1/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	0.42		**0.42**	--	

Table 3.1 - 2023 Summary of Volatile Organic Compound Data in Groundwater

	WBZ	Sample Depth	Analyte	PCE		TCE		cis-1,2-DCE		trans-1,2-DCE		Vinyl chloride		Total CVOCs	TOC	
Current CUL				***3.3***		***30***		**--**		**--**		***2.4***				
AWQC from WAC 173-201a-240				***7.1***		***0.86***		**--**		**--**		***0.26***				
Location		**ft bgs**	**Sample Date**	**µg/L**		**µg/L**		**µg/L**		**µg/L**		**µg/L**		**µg/L**	**mg/L**	
Embayment Seeps																
SP-03	--	--	8/1/2023	<0.35	U	<0.4	U	1.74		<0.35	U	<0.2	U	**1.74**	--	
SP-03b	--	--	8/1/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	0.29		**0.29**	--	
SP-04	--	--	8/1/2023	<0.35	U	<0.4	U	<0.5	U	<0.35	U	<0.2	U	**0**	--	

Abbreviations:

--	Not analyzed or not established
DCE	Dichloroethene
PCE	Tetrachloroethene
TCE	Trichloroethene
TOC	Total Organic Carbon
µg/L	Micrograms per liter
ft bgs	feet below ground surface
WBZ	water bearing zone
CUL	Cleanup Level
AWQC	Ambient Water Quality Criteria

Qualifiers:

U	Non-detect

Table 3.2 - Summary of Recent Benzene Data in Groundwater

Location	WBZ	Sample Depth ft bgs	2018 Benzene µg/L		2019 Benzene µg/L		2020 Benzene µg/L		2021 Benzene µg/L		2022 Benzene µg/L		2023 Benzene µg/L	
Source Area														
R0-IW02D	2nd	62	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
R0-IW3D	2nd	63	--		--		--		<0.44	U	<0.44	U	<0.44	U
R0-IW4D	2nd	63	--		--		1.86		--		--		--	
R0-IW4S	1st	17	--		--		<1.00	U	--		--		--	
R0-IW6D	2nd	63	<1.00	U	--		--		--		--		--	
R0-IW7D	2nd	63	--		--		<10.0	U	<0.44	U	<0.44	U	<0.44	U
R0-IW9S	1st	18	<1.00	U	--		--		--		--		--	
MW-15D	2nd	63	<1.00	U	--		--		--		--		--	
MW-16D	2nd	63	<1.00	U	--		--		--		<0.44	U	--	
MW-17D	2nd	63	5.87		--		--		--		--		--	
MW-18S	1st	18	<1.00	U	<1.00	U	<1.00	U	0.81		<0.44	U	0.81	
Whitehead														
MW-9	1st	11	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
MW-10	2nd	28	<1.00	U	--		--		--		<0.44	U	--	
MW-7	1st	12	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
MW-8	2nd	28	<1.00	U	--		--		--		--		--	
B-49	1st	13.5	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	0.46	
B-45	2nd	45	<1.00	U	--		--		--		--		--	
Northwest Corner														
B-54	1st	12	--		--		--		--		<0.44	U	<0.44	U
B-66	1st	14	--		--		--		--		<0.44	U	<0.44	U
NW1-1	1st	11	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
NW2-1	2nd	28											<0.44	U
B-22	1st	10	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
B-57	1st	13	--		--		--		<0.44	U	--		--	
R1-IW9	1st	11	--		--		--		<0.44	U	<0.44	U	<0.44	U
R1-IW12	1st	11	--		--		--		--		<0.44	U	<0.44	U
Fox Avenue Row 1 Injection Transect														
R1-IW3a	1st	10									<0.44	U	<0.44	U
R1-IW4a	1st	11	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	--	
R1-IW4b	2nd	50	<1.00	U	--		--		--		--		--	
R1-IW7	2nd	41	<1.00	U	--		--		--		--		--	
B-20a	1st	14	<1.00	U	<1.00	U	9.22		<0.44	U	<0.44	U	<0.44	U
B-18	1st	14	1.39		--		--		--		1.51		1.08	
B-19	2nd	45	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
R1-IW15	2nd	55	<1.00	U	--		--		--		--		--	
R1-IW17	1st	12	<1.00	U	--		--		--		--		--	
R1-IW17	2nd	55	<1.00	U	--		--		--		--		--	
R1-IW20	1st	13	--		--		--		--		--		0.65	
R1-IW20	2nd	43	--		--		--		--		--		0.82	

Table 3.2 - Summary of Recent Benzene Data in Groundwater

	WBZ	Sample Depth	2018 Benzene		2019 Benzene		2020 Benzene		2021 Benzene		2022 Benzene		2023 Benzene	
Location		**ft bgs**	**µg/L**		**µg/L**		**µg/L**		**µg/L**		**µg/L**		**µg/L**	
Fox Avenue Row 1 Monitoring Transect														
B-58	1st	11	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
B-59	2nd	27	<1.00	U	--		--		--		--		--	
B-60	1st	11	<1.00	U	--		--		--		<0.44	U	--	
B-61	2nd	42	1.59		--		--		--		0.58		0.62	
B-62	1st	11	--		--		--		--		<0.44	U	--	
B-63	2nd	42	3.73		--		--		--		0.60		--	
In SBW														
R2-IW1	1st	17	1.29		<1.00	U	<1.00	U	0.55		0.52		0.87	
R2-IW1	2nd	45	1.43		<1.00	U	4.67		0.65		0.56		0.79	
R2-IW2	1st	17	--		--		--		--		<0.44	U	--	
R2-IW2	2nd	45	--		--		--		--		<0.44	U	--	
R2-IW8	2nd	63	1.17		--		--		--				--	
R2-IW9	1st	12	--		--		--		--		<0.44	U	--	
R2-IW10	2nd	37	--		--		--		--		<0.44	U	--	
MW-3	1st	10	--		--		--		--		<0.44	U	--	
MW-4	2nd	40	--		--		--		--		<0.44	U	--	
MW-5	1st	10	<1.00	U	--		--		--		<0.44	U	--	
MW-6	2nd	40	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
Myrtle St														
B-35	2nd	27	2.51		1.84		<1.00	U	0.45		<0.44	U	<0.44	U
R2-IW6	2nd	45	--		--		--		--		1.24		--	
B-64	1st	10	<1.00	U	<1.00	U	<1.00	U	<0.44	U	<0.44	U	<0.44	U
B-65	2nd	30	2.20		<1.00	U	<1.00	U	<0.44	U	--		2.99	
B-33a	2nd	30	9.77		7.09		4.89		3.78		4.4		7.64	
Embayment Seeps														
SP-02	--	--	<1.00	U	--		--		--		<0.44	U	--	
SP-03	--	--	7.34		3.96		2.94		2.34		1.35		<0.44	U
SP-03b	--	--	1.27		<1.00	U	<1.00	U	0.68		0.59		0.68	
SP-04	--	--	--		--		--		--		--		<0.44	U

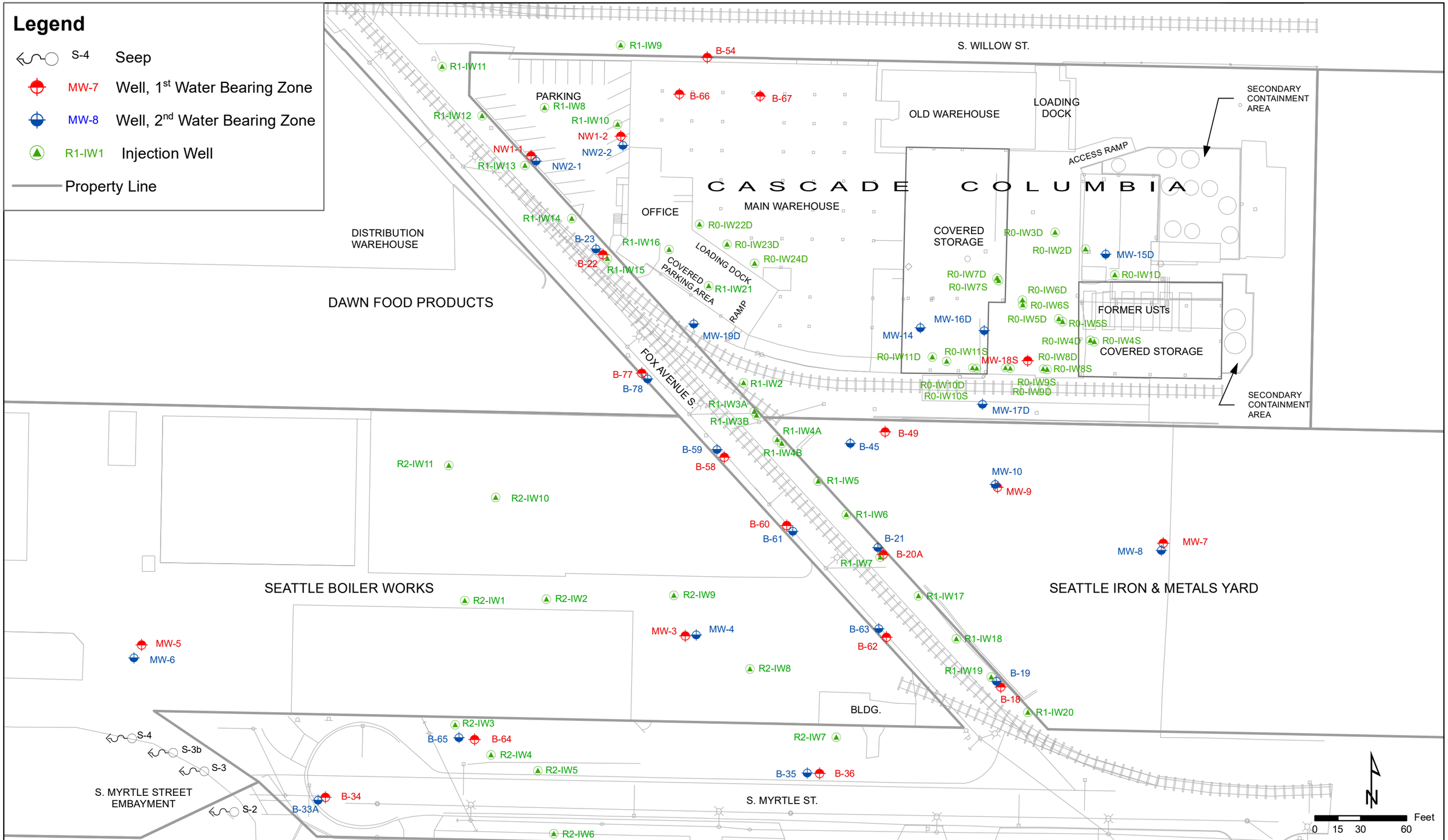
Abbreviations:

--	Not analyzed
µg/L	Micrograms per liter
ft bgs	feet below ground surface
WBZ	water bearing zone

Qualifiers:

U	Non-detect

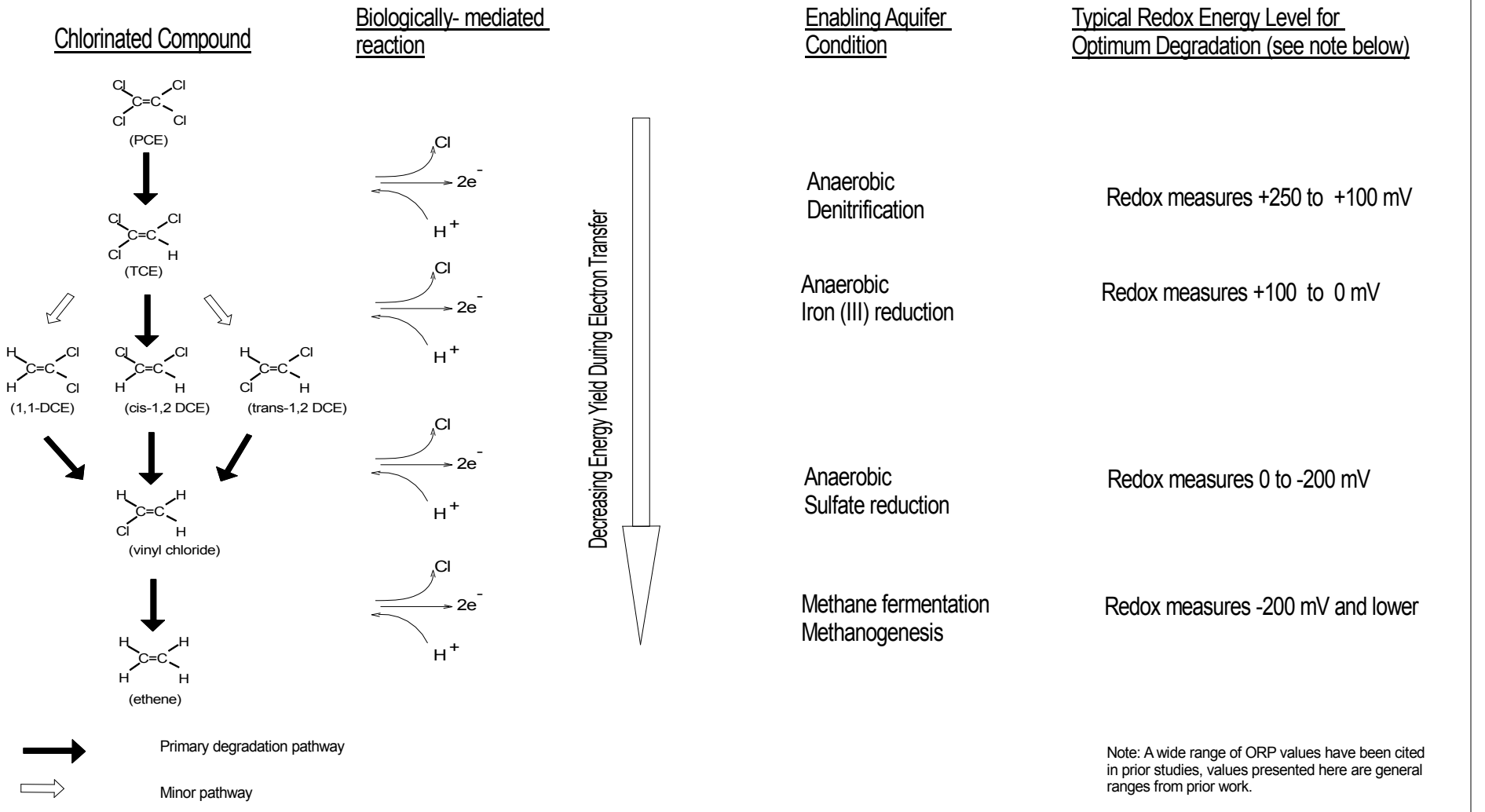
Figures



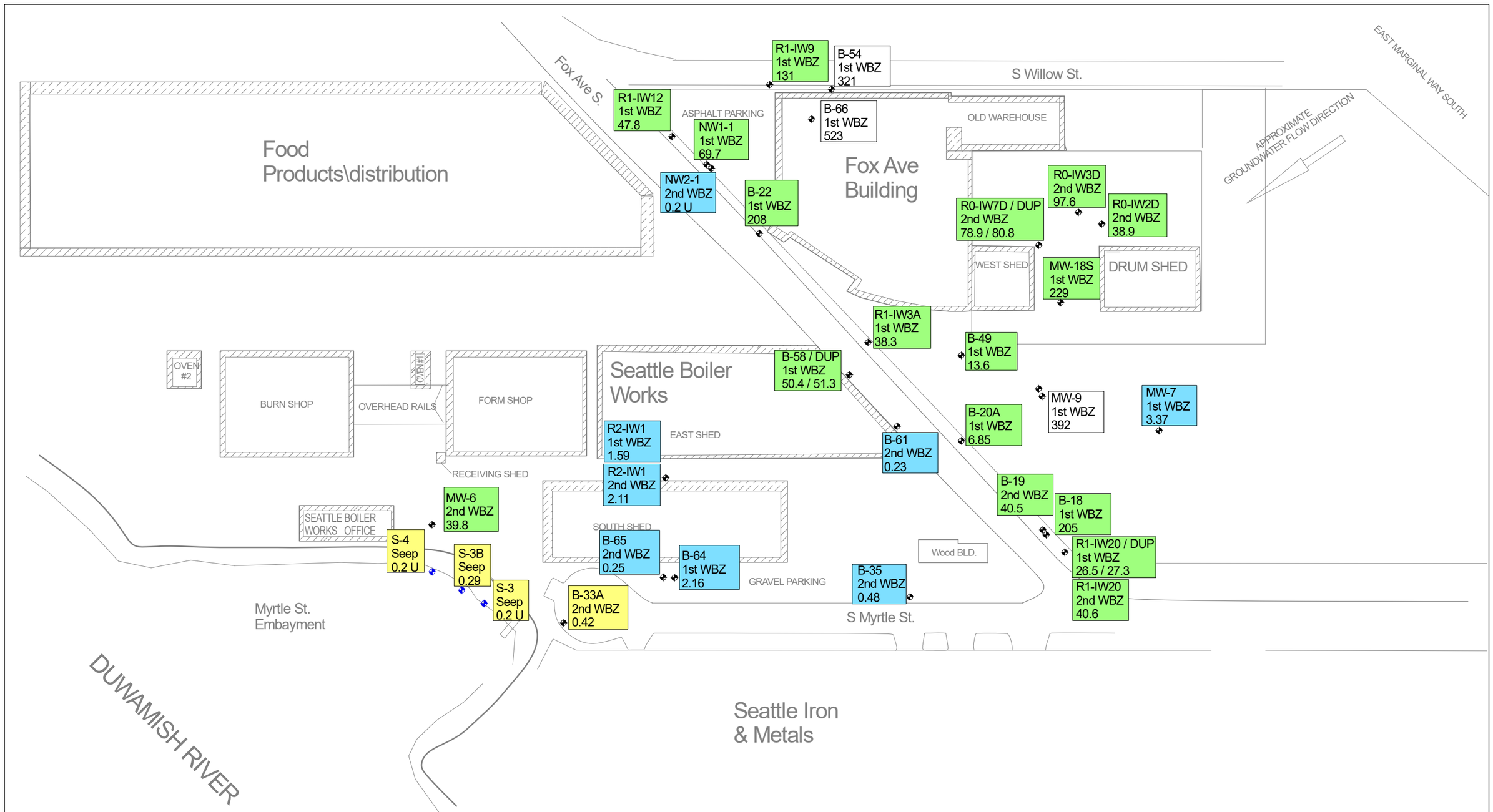
CALIBRE

2023 Monitoring Summary
Fox Avenue Site
Seattle, Washington

Figure 1.1
Site Plan



CALIBRE Systems Inc.	ERD Degradation Processes Fox Avenue Site Seattle, Washington	Figure 2.1 Primary Degradation Pathways of Chlorinated Ethenes by Reductive Dechlorination



CALIBRE

Text in green box represents CVOCs below Remediation Level of 250 ug/L.

Text in blue box represents CVOCs below Remediation Level and Cleanup Levels.

Text in yellow box represents VC below Cleanup Levels, data in boxes are VC levels.

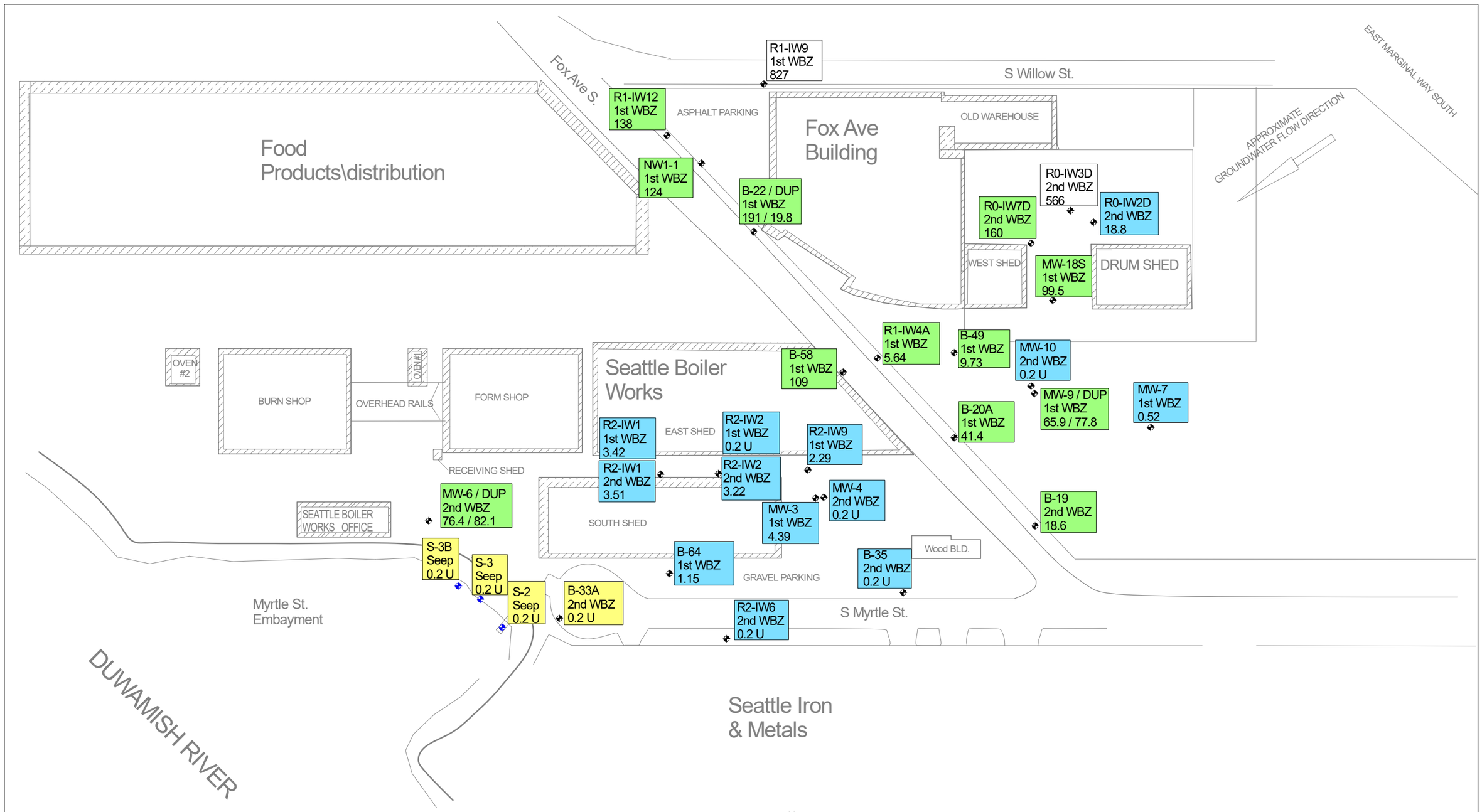
Legend

Notes:
- Thermal treatment period from January–May 2013.
- Total CVOCs include tetrachlorethene (PCE), trichloroethene (TCE), vinyl chloride (VC), and cis-1,2-dichloroethene (cis-DCE).
- Data shown are from the August 2023 sampling event.
- All data in ug/L.

0 30' 60' 120'
SCALE IN FEET

N

Figure 4.1
Total CVOCs Concentrations in Groundwater
1st and 2nd Water Bearing Zones
August 2023



CALIBRE

Legend

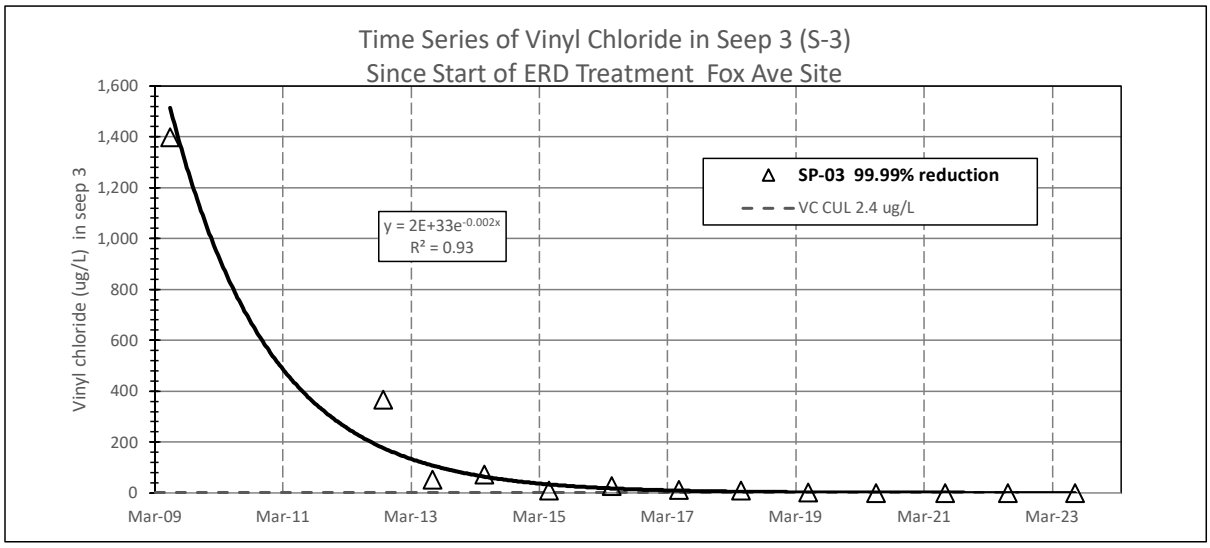
- Text in green box represents CVOCs below Remediation Level of 250 ug/L.
- Text in blue box represents CVOCs below Remediation Level and Cleanup Levels.
- Text in yellow box represents VC below Cleanup Levels, data in boxes are VC levels.

0 30' 60' 120'
SCALE IN FEET

Notes:
- Thermal treatment period from January–May 2013.
- Total CVOCs include tetrachlorethene (PCE), trichloroethene (TCE), vinyl chloride (VC), and cis-1,2-dichloroethene (cis-DCE).
- Data shown are from the July 2022 sampling event.
- All data in ug/L.

Figure 4.2
Total CVOCs Concentrations in Groundwater
1st and 2nd Water Bearing Zones
July 2022

Figure 4.3 Time Series of Vinyl Chloride in Seep S-3



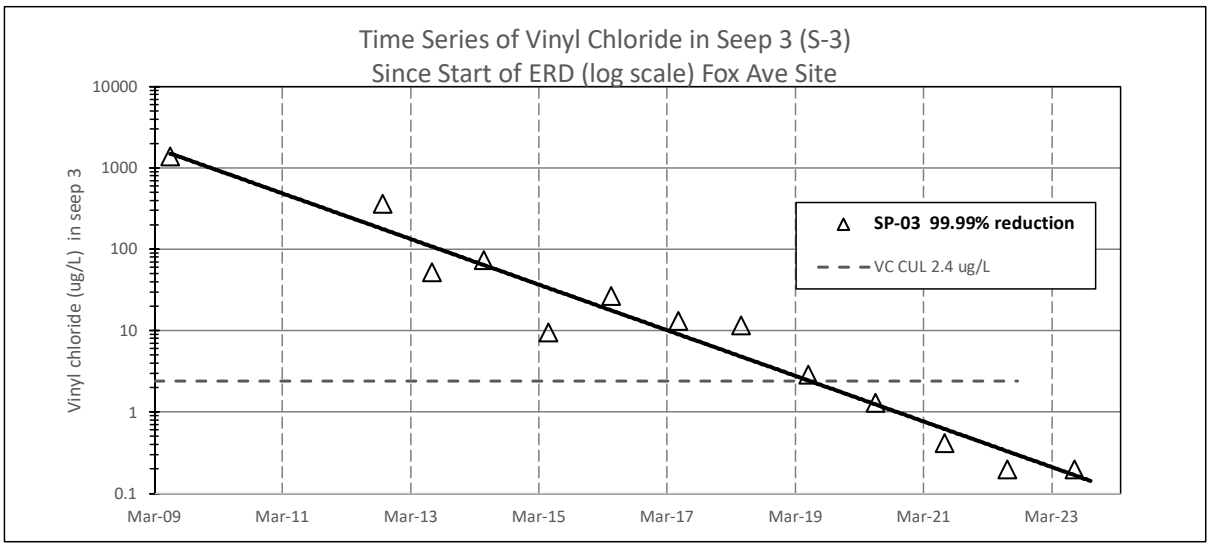
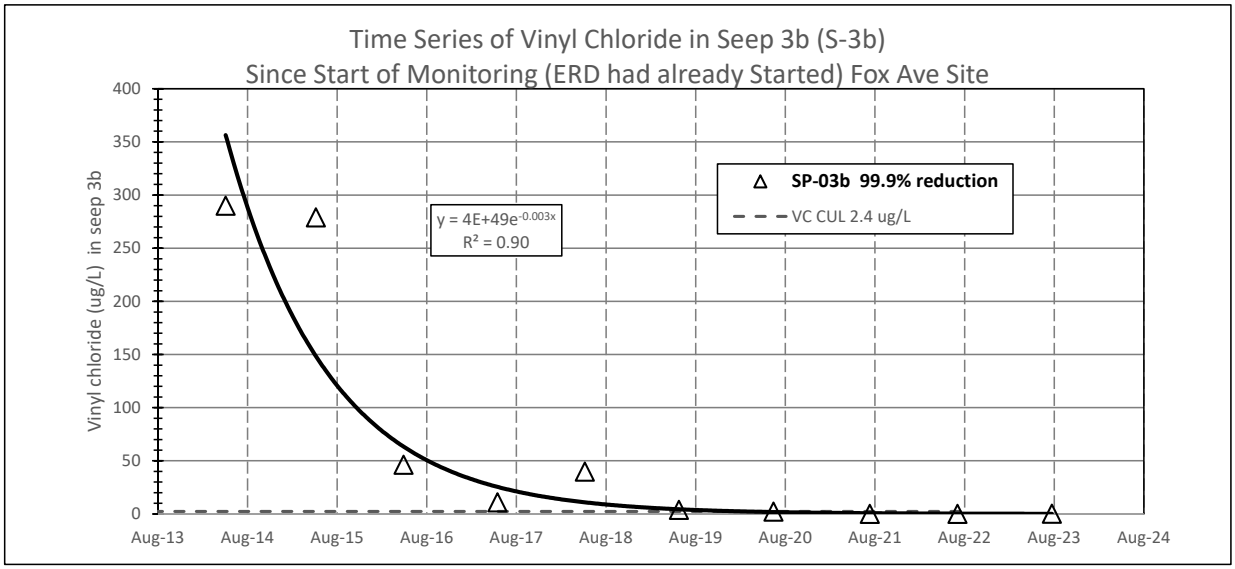
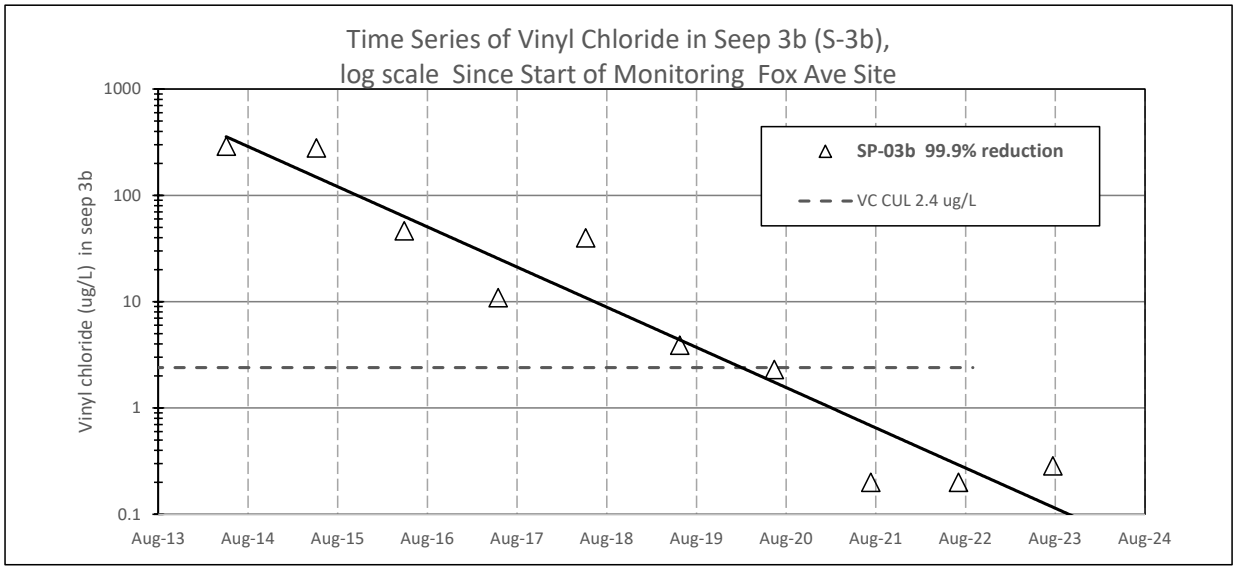


Figure 4.4 Time Series of Vinyl Chloride in Seep S-3b





Appendix A

Field Sampling Data Sheets

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox
Samplers	RL JN	Well ID	MW-06
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0700	Depth Measured From:	
Depth to Water	10.15		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		✓	Peristaltic
Bailer:		PVC		Stainless Steel			Other:
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0707	-	13.82	12.62	2.61	6.39	242.0	—
0712	1.0	13.20	13.90	0.78	6.32	234.0	—
0716	1.5	13.15	13.93	0.73	6.33	232.9	—
0718	2.0	13.15	13.92	0.42	6.33	232.0	—

Sampling Data:

Time	0720	Sample ID	MW-06-080123
Vol. Purged (gal)	2.85	Duplicates	
Temperature (°C)	13.15	QA/QC Volumes	
Conductivity (mS/cm)	13.92		
D.O. (mg/L)	0.39		
pH	6.33		
ORP (mV)	231.9		
Turbidity (NTU)	—		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
light Salty / Ocean odor
Clear

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fox 4a SSW
Samplers	JN	Well ID	R2-IW1 17' & 45'
Casing Material	PVC	Constructed Depth	70'
Casing Diameter	4"	Condition of Well	ok

Field Measurements:

Time	0710	Depth Measured From:	
Depth to Water	9.70		Top of access port
			Mark on PVC casing
			Mark of protective casing
		Ngl of casl	Other

Purging Information: waterra

Pump:		Dedicated	x	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0714	0	15.04	1.27	3.80	5.87	165	3.5
0719	0.5	14.30	1.18	1.09	6.03	103	3.9
0724	1.0	14.28	1.17	0.59	6.00	71	5.4
0729	2.0	14.26	1.17	0.43	6.02	56	3.8

Sampling Data:

Time	0734	Sample ID	R2-IW1-17-080123
Vol. Purged (gal)	3.0	Duplicates	
Temperature (°C)	14.23	QA/QC Volumes	
Conductivity (mS/cm)	1.17		
D.O. (mg/L)	0.23		
pH	6.08		
ORP (mV)	35		
Turbidity (NTU)	7.7		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:
17' Sample
Strong reducing odor, clear, effervescing

VOCs HCl preserved, TOC H2SO4 preserved

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers		Well ID	B-33A-
Casing Material	Steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0742	Depth Measured From:	
Depth to Water	7.67		Top of access port
		x	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	x	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0747	-	14.33	2.600	2.41	6.56	48.1	-
0752	1.0	13.85	1.949	0.42	6.50	3.3	-
0755	1.5	13.89	2.018	0.32	6.49	-6.0	-
0757	2.0	13.90	2.025	0.35	6.49	-8.7	-

Sampling Data:

Time	0759	Sample ID	B-33A-080123
Vol. Purged (gal)	2.5	Duplicates	
Temperature (°C)	13.92	QA/QC Volumes	
Conductivity (mS/cm)	2.030		
D.O. (mg/L)	0.3		
pH	6.49		
ORP (mV)	-11.9		
Turbidity (NTU)			

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	x	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
Brackish odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fox Ave
Samplers	JN	Well ID	R2-IW1 45'
Casing Material	PVC	Constructed Depth	70'
Casing Diameter	4"	Condition of Well	OK

Field Measurements:

Time	0710	Depth Measured From:	
Depth to Water	9.70		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of cast	Other

Purging Information: natural

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0743	0	14.76	1.20	0.51	6.12	-18	3.2
0748	0.5	14.67	1.20	0.13	6.10	-21	5.7
0753	1.0	14.68	1.20	0.07	6.17	-32	4.7
0758	2.0	14.68	1.20	0.04	6.28	-43	5.5

Sampling Data:

Time	0803	Sample ID	R2-IW1-45-080123
Vol. Purged (gal)	3.0	Duplicates	
Temperature (°C)	14.68	QA/QC Volumes	
Conductivity (mS/cm)	1.20		
D.O. (mg/L)	0.01		
pH	6.35		
ORP (mV)	-51		
Turbidity (NTU)	9.9		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	<	Other		

Sampling Notes:

45' sample
Strong reducing odor, clear, effervescing

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers	PL JN	Well ID	B-58
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0838	Depth Measured From:	
Depth to Water	9.65		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	✓	Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0844	–	14.09	1.321	0.33	6.58	-20.0	–
0849	1.0	13.25	0.774	0.20	6.57	-21.0	–
0853	2.0	13.25	0.719	0.14	6.60	-23.9	–
0856	2.75	13.21	0.719	0.12	6.72	-26.3	
0859	4.00	13.22	0.719	0.14	6.65	-27.8	–

Sampling Data:

Time	0900	Sample ID	B-58-080123
Vol. Purged (gal)	4.25	Duplicates	DUP01-080123
Temperature (°C)	13.22	QA/QC Volumes	
Conductivity (mS/cm)	0.719		
D.O. (mg/L)	0.13		
pH	6.64		
ORP (mV)	-28.1		
Turbidity (NTU)	–		

0800

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics		VOCs 8260		SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants		SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals				Total Organic Carbon 415.1		Other	

Sampling Notes:
clear, very mild odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fox Ave
Samplers	JN	Well ID	B-35
Casing Material	PVC	Constructed Depth	29'
Casing Diameter	2"	Condition of Well	ok

Field Measurements:

Time	0850	Depth Measured From:	
Depth to Water	8.150		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of casing	Other

Purging Information: Watera

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0853	0	15.39	0.246	2.00	6.60	-3	287
0858	0.5	13.88	0.224	0.40	6.47	-27	275
0903	1.5	13.68	0.161	0.18	5.96	-16	79.9
0909	2.5	13.36	0.153	0.05	5.78	-15	39.8

Sampling Data:

Time	0913	Sample ID	B-35-080123
Vol. Purged (gal)	3.5	Duplicates	
Temperature (°C)	13.42	QA/QC Volumes	
Conductivity (mS/cm)	0.152		
D.O. (mg/L)	0.03		
pH	5.75		
ORP (mV)	-15		
Turbidity (NTU)	33.3		

Sampling Device: Watera

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
Slight reducing odor, clear w/ small black flecks

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fort Ike
Samplers	RE JN	Well ID	MW-7
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

		Depth Measured From:	
Time	0924		Top of access port
Depth to Water	10.78	x	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	x	Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0926	–	15.10	0.961	0.40	6.54	-34.9	–
0930	1.00	14.40	1.248	0.12	6.60	-45.0	–
0934	1.75	14.42	1.291	0.09	6.61	-51.1	–
0938	2.25	14.43	1.300	0.11	6.60	-53.5	–
0941	3.25	14.42	1.304	0.09	6.60	-53.9	–

Sampling Data:

Time	0944	Sample ID	MW-7-080123
Vol. Purged (gal)	3.75	Duplicates	
Temperature (°C)	14.43	QA/QC Volumes	
Conductivity (mS/cm)	1.305		
D.O. (mg/L)	0.10		
pH	6.60		
ORP (mV)	-53.2		
Turbidity (NTU)	–		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	x	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
Clear, no odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers	RE JN	Well ID	MW-9
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	0937	Depth Measured From:	
Depth to Water	11.22		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	✓	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0954	—	16.00	1.248	1.92	6.60	-50.8	—
0959	1.00	13.24	0.944	0.18	6.55	-53.2	—
1003	2.00	13.25	0.940	0.15	6.56	-57.0	—
1007	3.0	13.26	0.938	0.12	6.57	-58.9	—

Sampling Data:

Time	1010	Sample ID	MW-9-080123
Vol. Purged (gal)	3.5	Duplicates	
Temperature (°C)	13.25	QA/QC Volumes	
Conductivity (mS/cm)	0.938		
D.O. (mg/L)	0.14		
pH	6.57		
ORP (mV)	-59.7		
Turbidity (NTU)	—		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	✓	Other		

Sampling Notes:

Clear, no odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fox Ave
Samplers	JW	Well ID	B-19
Casing Material	PVC	Constructed Depth	47'
Casing Diameter	2"	Condition of Well	ok

Field Measurements:

Time		Depth Measured From:	
Depth to Water	9.74		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: waterra

Pump:		Dedicated	x	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0950	1.0	14.92	0.544	0.24	6.01	20	15.7
0955	2.0	15.44	0.541	0.24	5.99	15	13.1
1000	3.0	15.46	0.587	0.19	5.97	3	6.1
1005	4.0	15.36	0.603	0.14	5.97	1	5.6

Sampling Data:

Time	1010	Sample ID	B-19-080123
Vol. Purged (gal)	5.0	Duplicates	
Temperature (°C)	15.37	QA/QC Volumes	
Conductivity (mS/cm)	0.620		
D.O. (mg/L)	0.10		
pH	5.96		
ORP (mV)	-1		
Turbidity (NTU)	4.7		

Sampling Device: waterra

PVC Bailer		SS Bailer		Dedicated Pump	x	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Clear, no odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

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Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers	RL JW	Well ID	B-49
Casing Material	Steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1022	Depth Measured From:	
Depth to Water	10.34		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	X	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1027	–	13.30	1.369	0.78	6.69	-50.5	–
1032	1.0	13.34	1.356	0.12	6.66	-51.9	–
1036	2.0	13.31	1.337	0.13	6.65	-52.0	–
1039	2.75	13.32	1.315	0.12	6.64	-50.4	–

Sampling Data:

Time	1042	Sample ID	B-49-080123
Vol. Purged (gal)	3.5	Duplicates	
Temperature (°C)	13.32	QA/QC Volumes	
Conductivity (mS/cm)	1.300		
D.O. (mg/L)	0.14		
pH	6.63		
ORP (mV)	-49.2		
Turbidity (NTU)	–		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
Clear - Mild reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Foxtail
Samplers	JN	Well ID	B-18
Casing Material	SS	Constructed Depth	16'
Casing Diameter	2"	Condition of Well	OK

Field Measurements:

Time	1021	Depth Measured From:	
Depth to Water	9.68		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: watera

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1023	0	18.03	0.715	2.84	5.93	3	225
1028	1.0	16.43	0.689	1.51	5.96	3	229
1033	2.0	15.82	0.693	1.09	5.98	0	178
1038	~~3.5~~ 2.5	15.80	0.749	0.27	6.02	-14	98.6
1043	3.0	15.87	0.760	0.15	5.94	-14	76.8

Sampling Data:

Time	1048	Sample ID	B-18-080123
Vol. Purged (gal)	3.5	Duplicates	
Temperature (°C)	15.86	QA/QC Volumes	
Conductivity (mS/cm)	0.766		
D.O. (mg/L)	0.09		
pH	5.91		
ORP (mV)	-17		
Turbidity (NTU)	63.1		

Sampling Device: watera

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

clear, no odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox
Samplers	RC BN	Well ID	B-61
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1219	Depth Measured From:	
Depth to Water	9.91		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	X	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1222	—	16.01	1.183	2.23	6.58	-29.1	—
1226	1.0	15.24	1.184	0.48	6.54	-26.5	—
1230	2.0	15.25	1.229	0.24	6.56	-27.6	—
1235	3.0	15.26	1.247	0.20	6.58	-28.0	—
1238	4.0	15.28	1252	0.17	6.58	-31.1	—

Sampling Data:

Time	1240	Sample ID	B-61-080123
Vol. Purged (gal)	4.5	Duplicates	
Temperature (°C)	15.28	QA/QC Volumes	
Conductivity (mS/cm)	1.253		
D.O. (mg/L)	0.16		
pH	6.58		
ORP (mV)	-31.6		
Turbidity (NTU)	—		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8 / 1 / 23	Site Location	Fox Ave
Samplers	JN	Well ID	RI-IW3A
Casing Material	PVC	Constructed Depth	12'
Casing Diameter	4"	Condition of Well	ok

Field Measurements:

Time	1222	Depth Measured From:	
Depth to Water	9.34		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of casing	Other

Purging Information: waterra

Pump:		Dedicated	x	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		Purge End Time				
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1227	0	21.22	1.95	0.87	5.79	40	82.6
1232	0.5	18.34	1.99	0.40	5.82	19	66.1
1237	1.5	17.83	1.93	0.18	5.76	-7	54.2
1242	2.5	18.13	1.83	0.07	5.77	-20	50.5
1247	3.5	17.88	1.80	0.05	5.78	-26	44.6

Sampling Data:

Time	1247	Sample ID	RI-IW3A-080123
Vol. Purged (gal)		Duplicates	
Temperature (°C)		QA/QC Volumes	
Conductivity (mS/cm)			
D.O. (mg/L)			
pH			
ORP (mV)			
Turbidity (NTU)			

Sampling Device: waterra

PVC Bailer		SS Bailer		Dedicated Pump	x	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1	X	Other	

Sampling Notes:

Reducing odor, effervescent

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408
= 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers		Well ID	RI-IW9
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1302	Depth Measured From:	
Depth to Water	9.62		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1308	–	15.41	1.033	0.52	6.68	-19.9	–
1314	1.00	19.62	0.411	0.51	6.24	-4.5	–
1319	2.00	17.71	0.488	0.55	6.15	-0.5	–
1328	3.50	14.89	0.621	0.31	6.08	-3.5	

Sampling Data:

Time	1330	Sample ID	RI-IW9-080123
Vol. Purged (gal)	3.75	Duplicates	
Temperature (°C)	14.32	QA/QC Volumes	
Conductivity (mS/cm)	0.632		
D.O. (mg/L)	0.3		
pH	5.89		
ORP (mV)	-1.5		
Turbidity (NTU)			

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	✓	Other		

Sampling Notes:
reducing odor
grey/milky color

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fox Ave
Samplers	JN	Well ID	B-20A
Casing Material	PVC	Constructed Depth	16'
Casing Diameter	2"	Condition of Well	OK

Field Measurements:

Time	1315	Depth Measured From:	
Depth to Water	9.25		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: Waterra

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1318	0	21.73	0.442	1.43	6.04	-56	186
1323	0.5	18.11	0.417	0.10	5.74	-23	15.2
1328	1.5	17.86	0.432	0.02	6.13	-39	4.4
1333	2.5	17.52	0.436	0.04	6.18	-39	4.2

Sampling Data:

Time	1338	Sample ID	B-20A-080123
Vol. Purged (gal)	3.5	Duplicates	
Temperature (°C)	17.34	QA/QC Volumes	
Conductivity (mS/cm)	0.440		
D.O. (mg/L)	0.04		
pH	6.18		
ORP (mV)	-39		
Turbidity (NTU)	1.6		

Sampling Device: Waterra

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other		

Sampling Notes:

Slight reducing odor, clear

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Former
Samplers	JN	Well ID	B-54
Casing Material	PVC	Constructed Depth	14'
Casing Diameter	2"	Condition of Well	Ok

Field Measurements:

Time	1411	Depth Measured From:	
Depth to Water	10.57		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: Waterra

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1418	0	20.78	1.13	2.17	4.89	62	219
1423	0.5	18.27	0.783	1.16	5.65	15	83.4
1428	1.0	16.49	0.665	0.71	5.92	3	40.9
1433	1.5	16.12	0.623	0.36	5.84	5	23.1
1438	2.0	15.72	0.611	0.12	5.90	0	12.9

Sampling Data:

Time	1443	Sample ID	B-54-080123
Vol. Purged (gal)	2.5	Duplicates	
Temperature (°C)	15.60	QA/QC Volumes	
Conductivity (mS/cm)	0.611		
D.O. (mg/L)	0.11		
pH	5.95		
ORP (mV)	-4		
Turbidity (NTU)	14.2		

Sampling Device: Waterra

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other		

Sampling Notes:
Reducing odor, slight effervescence

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers	RL YV	Well ID	B-22
Casing Material	Steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1415	Depth Measured From:	
Depth to Water	9.28		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	X	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1423	-	18.04	0.645	1.8	6.29	-16.6	-
1428	1.0	16.77	0.679	0.93	6.32	-2.9	-
1433	2.0	16.77	0.678	0.61	6.30	2.2	-
1439	3.0	16.76	0.671	0.33	6.28	7.4	-
1442	3.5	16.74	0.667	0.29	6.30	9.5	

Sampling Data:

Time	1445	Sample ID	~~B22~~ B22-080123
Vol. Purged (gal)	4.0	Duplicates	
Temperature (°C)	16.73	QA/QC Volumes	
Conductivity (mS/cm)	0.666		
D.O. (mg/L)	0.25		
pH	6.31		
ORP (mV)	10.5		
Turbidity (NTU)	-		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
mildodor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fox Ave
Samplers	JN	Well ID	RI-IW12
Casing Material	PVC	Constructed Depth	15'
Casing Diameter	4"	Condition of Well	OK

Field Measurements:

Time	1459	Depth Measured From:	
Depth to Water	9.04		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1504	0	18.81	0.716	1.19	5.66	0	62.1
1509	0.5	17.21	0.722	0.47	5.88	-15	22.2
1514	1.0	17.16	0.730	0.29	5.92	-19	20.7
1519	1.5	17.06	0.733	0.14	5.94	-23	19.3
1524	2.0	17.16	0.732	0.04	5.94	-27	17.8

Sampling Data:

Time	1529	Sample ID	RI-IW12-080123
Vol. Purged (gal)	2.5	Duplicates	
Temperature (°C)	17.08	QA/QC Volumes	
Conductivity (mS/cm)	0.733		
D.O. (mg/L)	0.02		
pH	5.92		
ORP (mV)	-24		
Turbidity (NTU)	17.7		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1	X	Other		

Sampling Notes:

reducing odor, effervescing

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers	RC JV	Well ID	MW-1-
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time		Depth Measured From:	
Depth to Water	9.59		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		X	Peristaltic
Bailer:		PVC		Stainless Steel			Other:
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1510	-	15.45	0.949	0.83	6.36	-11.2	-
1518	1.25	15.28	0.962	0.19	6.33	-40.3	-
1523	2.00	15.24	0.964	0.14	6.30	-44.1	-
1528	3.00	15.23	0.963	0.15	6.30	-46.2	-

Sampling Data:

Time	1540	Sample ID	MW1-1-080123
Vol. Purged (gal)	3.75	Duplicates	
Temperature (°C)	15.23	QA/QC Volumes	
Conductivity (mS/cm)	0.965		
D.O. (mg/L)	0.13		
pH	6.28		
ORP (mV)	-46.5		
Turbidity (NTU)	-		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
Clear, mild odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fox Ave
Samplers	PLW	Well ID	NW2-1
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1520	Depth Measured From:	
Depth to Water	9.78		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		X	Peristaltic
Bailer:		PVC		Stainless Steel			Other:
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1535	-	14.70	0.712	0.5	6.67	-72.6	-
1542	1.0	13.92	0.458	0.12	7.28	-94.0	-
1549	2.0	13.92	0.452	0.08	7.28	-89.4	-
1557	3.0	13.88	0.451	0.06	7.30	-86.6	-
1601	3.5	14.01	0.451	0.06	7.34	-86.1	-

Sampling Data:

Time	1610	Sample ID	NW2-1-080123
Vol. Purged (gal)	4.0	Duplicates	
Temperature (°C)	14.01	QA/QC Volumes	
Conductivity (mS/cm)	0.451		
D.O. (mg/L)	0.06		
pH	7.35		
ORP (mV)	-84.1		
Turbidity (NTU)	-		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics		VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/1/23	Site Location	Fort Ann
Samplers	JW	Well ID	RI-IW20 - 13'
Casing Material	PVC	Constructed Depth	65'
Casing Diameter	4"	Condition of Well	ok

Field Measurements:

Time	1611	Depth Measured From:	
Depth to Water	9.46		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1618	0	19.73	0.581	1.12	5.95	-22	142
1623	0.5	16.70	0.554	0.28	5.98	-26	132
1628	1.0	16.54	0.556	0.03	6.05	-38	118
1633	1.5	16.50	0.557	0.00	6.12	-49	92.3

Sampling Data:

Time	1638	Sample ID	RI-IW20-13-080123
Vol. Purged (gal)	2.0	Duplicates	DUP 02-080123 @ 0800
Temperature (°C)	16.41	QA/QC Volumes	
Conductivity (mS/cm)	0.557		
D.O. (mg/L)	0.00		
pH	6.13		
ORP (mV)	-52		
Turbidity (NTU)	82.9		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

13' sample

Reducing odor, cloudy

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

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Well Sampling Data Sheet

Date	8/1/23	Site Location	Former Ann
Samplers	JN	Well ID	RI-IW20 43'
Casing Material	PVC	Constructed Depth	65'
Casing Diameter	4"	Condition of Well	ok

Field Measurements:

Time	1611	Depth Measured From:	
Depth to Water	9.46		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: Naturra

Pump:		Dedicated	x	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1647	0	15.36	0.581	0.00	6.30	-64	106
1652	1.0	16.55	0.583	0.00	6.03	-56	108
1657	2.0	15.66	0.586	0.00	6.09	-62	61.4
1702	3.0	15.36	0.588	0.00	6.20	-70	45.9
17							

Sampling Data:

Time	1707	Sample ID	RI-IW20-43-080123
Vol. Purged (gal)	4.0	Duplicates	
Temperature (°C)	15.26	QA/QC Volumes	
Conductivity (mS/cm)	0.592		
D.O. (mg/L)	0.00		
pH	6.13		
ORP (mV)	-69		
Turbidity (NTU)	54.7		

Sampling Device: Naturra

PVC Bailer		SS Bailer		Dedicated Pump	x	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	x	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

43'

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/01/2023	Site Location	Fort
Samplers	RL JN	Well ID	MW-185
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time		Depth Measured From:	
Depth to Water	14.19		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		X	Peristaltic
Bailer:		PVC		Stainless Steel			Other:
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1643	–	14.13	1.843	2.02	6.9	25.2	–
1647	1.0	13.60	1.700	0.70	6.87	6.4	–
1651	2.0	13.56	1.943	0.29	7.01	-8.4	–
1653	2.5	13.89	2.011	5.11	6.89	-13.1	–
Pumped dry							

Sampling Data:

Time	1708	Sample ID	MW-185-080123
Vol. Purged (gal)	3.0	Duplicates	
Temperature (°C)	14.01	QA/QC Volumes	
Conductivity (mS/cm)	2.077		
D.O. (mg/L)	0.52		
pH	7.03		
ORP (mV)	-17.9		
Turbidity (NTU)			

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8 / 2 / 23	Site Location	Fox Ave
Samplers	JN	Well ID	RO-IW2D
Casing Material	PVC	Constructed Depth	64'
Casing Diameter	2"	Condition of Well	OK

Field Measurements:

Time	0720	Depth Measured From:	
Depth to Water	17.16		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: waterra

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0727	0	15.82	2.92	1.76	4.77	145	184
0732	1.0	14.43	2.95	0.13	4.82	92	117
0737	2.0	14.41	2.92	0.00	4.87	64	95.7
0742	3.0	14.46	2.86	0.00	4.94	36	75.7
0749	4.0	14.48	2.84	0.00	4.97	30	66.7

Sampling Data:

Time	0752	Sample ID	RO-IW2D-080223
Vol. Purged (gal)	5.0	Duplicates	
Temperature (°C)	14.50	QA/QC Volumes	
Conductivity (mS/cm)	2.82		
D.O. (mg/L)	0.00		
pH	4.93		
ORP (mV)	25		
Turbidity (NTU)	64.6		

Sampling Device: waterra

PVC Bailer		SS Bailer		Dedicated Pump	Y	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Strong reducing odor, small chunks of yellowish grease (last oil)

very effervescent.

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/02/2023	Site Location	Fox Ave
Samplers	RL JV	Well ID	B-66
Casing Material	PVC	Constructed Depth	
Casing Diameter		Condition of Well	

Field Measurements:

Time		Depth Measured From:	
Depth to Water			Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	X	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0813	-	13.38	0.825	0.36	6.7	-38.9	-
0820	1.25	12.95	0.724	0.12	7.10	-57.3	-
0824	2.00	12.92	0.733	0.07	7.09	-58.8	-
Pumped dry							

Sampling Data:

Time	0840	Sample ID	B-66-080223
Vol. Purged (gal)	2.75	Duplicates	
Temperature (°C)	12.95	QA/QC Volumes	
Conductivity (mS/cm)	0.734		
D.O. (mg/L)	0.14		
pH	7.07		
ORP (mV)	-58.8		
Turbidity (NTU)	-		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
mild reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/02/2023	Site Location	For Am
Samplers	RL JN	Well ID	RO-IW7D
Casing Material	PVC	Constructed Depth	65'
Casing Diameter	2"	Condition of Well	OK

Field Measurements:

Time	0736	Depth Measured From:	
Depth to Water	17.5		Top of access port
		x	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information: waterra

Pump:		Dedicated	+	Non-dedicated		x	Peristaltic
Bailer:		PVC		Stainless Steel			Other:
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0740	–	16.20	1.304	2.39	6.39	33.8	–
0754	1.0	14.43	1.022	0.64	6.09	9.2	–
0804	1.5	14.21	0.962	0.52	6.31	-3.1	–
0820	2.5	14.41	1.18	0.48	5.67	-10	718
0825	3.5	14.43	1.02	0.03	4.77	-15	692
0830	4.5	14.35	0.660	0.00	4.82	-22	824
0835	5.5	14.50	0.469	0.00	4.87	-28	639
0840	6.5	14.41	0.364	0.00	4.81	-25	485

Sampling Data:

Time	0845	Sample ID	RO-IW7D-080223
Vol. Purged (gal)	7.6	Duplicates	DUP03-080223 -0800
Temperature (°C)	14.37	QA/QC Volumes	
Conductivity (mS/cm)	0.352		
D.O. (mg/L)	0.00		
pH	4.80		
ORP (mV)	-25		
Turbidity (NTU)	425		

Sampling Device: waterra

PVC Bailer		SS Bailer		Dedicated Pump	x	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	x	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1	☑	Other		

Sampling Notes:
Strong reducing odor, slightly effervescent
cloudy

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/02/2023	Site Location	Fox
Samplers	RL GN	Well ID	B-64
Casing Material	Steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0925	Depth Measured From:	
Depth to Water	9.79		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		X	Peristaltic
Bailer:		PVC		Stainless Steel			Other:
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0929	-	13.38	0.376	0.97	6.36	41.9	-
0937	1.5	13.17	0.365	0.22	6.35	-2.6	-
0943	3.0	13.13	0.366	0.16	6.35	-16.4	
0948	4.0	13.15	0.373	0.14	6.15	-24.1	

Sampling Data:

Time	0955	Sample ID	B-64-080223
Vol. Purged (gal)	4.50	Duplicates	
Temperature (°C)	13.16	QA/QC Volumes	
Conductivity (mS/cm)	0.370		
D.O. (mg/L)	0.12		
pH	6.09		
ORP (mV)	-26.9		
Turbidity (NTU)	-		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
Mild odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/2/23	Site Location	FORAN
Samplers	JN	Well ID	RD-IW3D
Casing Material	PVC	Constructed Depth	65'
Casing Diameter	2"	Condition of Well	OK

Field Measurements:

Time	0936	Depth Measured From:	
Depth to Water	9.18		Top of access port
			Mark on PVC casing
			Mark of protective casing
		N side of case	Other

Purging Information: Waterra

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0937	0	15.26	0.037	0.02	4.33	37	71.7
0942	1.0	14.29	0.036	0.00	4.37	35	35.1
0947	2.0	14.15	0.028	0.00	4.40	29	37.8
0952	3.0	14.11	0.029	0.00	4.45	24	39.6
0957	4.0	14.01	0.030	0.00	4.45	20	36.3

Sampling Data:

Time	1002	Sample ID	RD-IW3D-080223
Vol. Purged (gal)	5.0	Duplicates	
Temperature (°C)	13.95	QA/QC Volumes	
Conductivity (mS/cm)	0.029		
D.O. (mg/L)	0.00		
pH	4.43		
ORP (mV)	17		
Turbidity (NTU)	45.4		

Sampling Device: Waterra

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1	X	Other		

Sampling Notes:
Strong reducing odor, effervescing
Small yellow oil chunks initially

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/02/2023	Site Location	Fox
Samplers	RL JN	Well ID	B-65
Casing Material	Steel	Constructed Depth	35
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	0945	Depth Measured From:	
Depth to Water	8.6		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated	X	Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged (gal)	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0958	-	15.15	0.750	0.73	5.84	1.7	-
1003	1.0	15.01	0.800	0.28	5.79	-2.8	-
1009	2.0	15.21	0.804	0.25	5.76	-7.5	-
1013	2.5	15.17	0.803	0.19	5.79	-9.6	-
1020	3.5	15.18	0.802	0.17	5.82	-11.1	-

Sampling Data:

Time	1030	Sample ID	B-65-080223
Vol. Purged (gal)	4.0	Duplicates	
Temperature (°C)	15.26	QA/QC Volumes	
Conductivity (mS/cm)	0.801		
D.O. (mg/L)	0.17		
pH	5.85		
ORP (mV)	-12.1		
Turbidity (NTU)	-		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other		

Sampling Notes:
Brown, no odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Appendix B

Laboratory Data Package

Data Validation Summary, Fox Ave Building Site, Sampling in August 2023

1 sample delivery group (SDG or Work Order): 2308042
36 samples to lab (total, including duplicate and trip blank)
32sample locations
3 field duplicates

dupe/parent pair names
Dup-01-080223/B-58-080223
Dup-02-080223/R1-IW20-080223
Dup-03-080223/R0-IW7D-080223

1 trip blank

36 samples for volatile organic compounds (VOCs) by EPA Method 8260D

All analyses were conducted in accordance with the project Quality Assurance Project Plan. The samples were analyzed in accordance with procedures described in Test Methods for Evaluating Solid Waste, Physical and Chemical Methods (EPA SW-846 3rd Edition). The certified analytical laboratory, Fremont Analytical, is responsible for the initial data review and internal quality control (QC) prior to reporting analytical results; any results that do not meet the laboratory QC acceptance criteria are identified, or the analysis repeated, validated, and, if acceptance criteria are met, reported. The laboratory follows method-specific QC procedures to evaluate performance and compare results with precision and accuracy criteria (from SW-846) as minimum guidelines for data validation.

All analyses were performed consistent with the Quality Assurance Program of Fremont Analytical, Inc. Freemont reviewed all analytical results against the laboratory QC acceptance criteria and no deficiencies were identified.

List of sample identifiers (IDs) collected:

Work Order: 2308042

Lab sample ID	Sample ID	Date collected
2308042-001	R2-IW1-17-080123	8/1/2023
2308042-002	R2-IW1-45-080123	8/1/2023
2308042-003	B-58-080123	8/1/2023
2308042-004	B-35-080123	8/1/2023
2308042-005	DUP01-080123	8/1/2023
2308042-006	B-19-080123	8/1/2023
2308042-007	B-18-080123	8/1/2023
2308042-008	R1-IW34-080123	8/1/2023
2308042-009	B-20A-080123	8/1/2023
2308042-010	B-54-080123	8/1/2023
2308042-011	R1-IW12-080123	8/1/2023
2308042-012	R1-IW20-13-080123	8/1/2023
2308042-013	DUP02-080123	8/1/2023
2308042-014	R1-IW20-43-080123	8/1/2023
2308042-015	RO-IW2D-080223	8/2/2023
2308042-016	RO-IW7D-080223	8/2/2023
2308042-017	DUP03-080223	8/2/2023
2308042-018	RO-IW3D-080223	8/2/2023
2308042-019	MW-06-080123	8/1/2023
2308042-020	B-33A-080123	8/1/2023
2308042-021	MW-7-080123	8/1/2023
2308042-022	MW-9-080123	8/1/2023
2308042-023	B-49-080123	8/1/2023
2308042-024	SP-03-080123	8/1/2023
2308042-025	SP-03B-080123	8/1/2023
2308042-026	SP-04-080123	8/1/2023
2308042-027	B-61-080123	8/1/2023
2308042-028	R1-IW9-080123	8/1/2023
2308042-029	B22-080123	8/1/2023
2308042-030	MW1-1-080123	8/1/2023
2308042-031	MW2-1-080123	8/1/2023
2308042-032	MW-18S-080123	8/1/2023
2308042-033	B-66-080223	8/2/2023
2308042-034	B-64-080223	8/2/2023
2308042-035	B-65-080223	8/2/2023
2308042-036	Trip Blank	7/28/2023

Data Validation Checklist for 2308042
Fox Ave Building Data Package
Report Dated 8/14/2022

Reviewed by Rune Lassen 8/25/2023

Criteria	Notes	Result
COC complete	Check COC, plus any other notes	COCs complete (with other emails notes/clarification, as necessary)
Holding times	Check case narrative	Samples collected on 8/01&02/2023 and , delivered to lab on 8/03/2022.
Temperature	Check case narrative	Samples received at 5.1 degrees C and were within the range of 2.0 degrees C to 6 degrees C.
Blanks	Check case narrative, review blanks data	No detections in method blanks
Field duplicate sample analysis	Calculate relative percent difference for all field dupes (FD).	3 FD collected, RPDs met the QAPP goals.
Calibration	Check case narrative, review calibration data.	All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc.
Surrogate recovery	Check case narrative, review surrogate data	Surrogates met criteria.
Matrix spike and matrix spike duplicate recovery	Check case narrative, review MS/MSDs	MS/MSDs performed, no outliers noted
Laboratory control sample or blank spike	Check case narrative, review LCS and or blank spikes	The LCS/LCSD and method blanks are reported. Relevant criteria met
Internal standard performance	Check case narrative	Internal standards met criteria.
Overall assessment of data for this SDG	Any reason to reject data or perform full validation?	The data are acceptable for site characterization purposes and remedial performance evaluation, with the data qualifiers as noted.

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Calibre Systems
Tom McKeon
16935 SE 39th St.
Bellevue, WA 98008

RE: Fox Avenue
Work Order Number: 2308042

August 14, 2023

Attention Tom McKeon:

Fremont Analytical, Inc. received 36 sample(s) on 8/3/2023 for the analyses presented in the following report.

Total Organic Carbon by SM 5310C
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CC:
Justin Neste

Date: *08/14/2023*

CLIENT: Calibre Systems
Project: Fox Avenue
Work Order: 2308042

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308042-001	R2-IW1-17-080123	08/01/2023 7:34 AM	08/03/2023 10:00 AM
2308042-002	R2-IW1-45-080123	08/01/2023 8:03 AM	08/03/2023 10:00 AM
2308042-003	B-58-080123	08/01/2023 9:00 AM	08/03/2023 10:00 AM
2308042-004	B-35-080123	08/01/2023 9:13 AM	08/03/2023 10:00 AM
2308042-005	DUP01-080123	08/01/2023 8:00 AM	08/03/2023 10:00 AM
2308042-006	B-19-080123	08/01/2023 10:10 AM	08/03/2023 10:00 AM
2308042-007	B-18-080123	08/01/2023 10:48 AM	08/03/2023 10:00 AM
2308042-008	R1-IW34-080123	08/01/2023 12:47 PM	08/03/2023 10:00 AM
2308042-009	B-20A-080123	08/01/2023 1:38 PM	08/03/2023 10:00 AM
2308042-010	B-54-080123	08/01/2023 2:43 PM	08/03/2023 10:00 AM
2308042-011	R1-IW12-080123	08/01/2023 3:29 PM	08/03/2023 10:00 AM
2308042-012	R1-IW20-13-080123	08/01/2023 4:38 PM	08/03/2023 10:00 AM
2308042-013	DUP02-080123	08/01/2023 8:00 AM	08/03/2023 10:00 AM
2308042-014	R1-IW20-43-080123	08/01/2023 5:07 PM	08/03/2023 10:00 AM
2308042-015	RO-IW2D-080223	08/02/2023 7:52 AM	08/03/2023 10:00 AM
2308042-016	RO-IW7D-080223	08/02/2023 8:45 AM	08/03/2023 10:00 AM
2308042-017	DUP03-080223	08/02/2023 8:00 AM	08/03/2023 10:00 AM
2308042-018	RO-IW3D-080223	08/02/2023 10:02 AM	08/03/2023 10:00 AM
2308042-019	MW-06-080123	08/01/2023 7:20 AM	08/03/2023 10:00 AM
2308042-020	B-33A-080123	08/01/2023 7:59 AM	08/03/2023 10:00 AM
2308042-021	MW-7-080123	08/01/2023 9:44 AM	08/03/2023 10:00 AM
2308042-022	MW-9-080123	08/01/2023 10:10 AM	08/03/2023 10:00 AM
2308042-023	B-49-080123	08/01/2023 10:42 AM	08/03/2023 10:00 AM
2308042-024	SP-03-080123	08/01/2023 11:05 AM	08/03/2023 10:00 AM
2308042-025	SP-03B-080123	08/01/2023 11:07 AM	08/03/2023 10:00 AM
2308042-026	SP-04-080123	08/01/2023 11:10 AM	08/03/2023 10:00 AM
2308042-027	B-61-080123	08/01/2023 12:40 PM	08/03/2023 10:00 AM
2308042-028	R1-IW9-080123	08/01/2023 1:30 PM	08/03/2023 10:00 AM
2308042-029	B22-080123	08/01/2023 2:45 PM	08/03/2023 10:00 AM
2308042-030	MW1-1-080123	08/01/2023 3:40 PM	08/03/2023 10:00 AM
2308042-031	MW2-1-080123	08/01/2023 4:10 PM	08/03/2023 10:00 AM
2308042-032	MW-18S-080123	08/01/2023 5:08 PM	08/03/2023 10:00 AM
2308042-033	B-66-080223	08/02/2023 8:40 AM	08/03/2023 10:00 AM
2308042-034	B-64-080223	08/02/2023 9:35 AM	08/03/2023 10:00 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original

CLIENT:	Calibre Systems
Project:	Fox Avenue
Work Order:	2308042

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308042-035	B-65-080223	08/02/2023 10:30 AM	08/03/2023 10:00 AM
2308042-036	Trip Blank	07/28/2023 4:12 PM	08/03/2023 10:00 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2308042**
Date: **8/14/2023**

CLIENT: Calibre Systems
Project: Fox Avenue

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Client: Calibre Systems
Collection Date: 8/1/2023 7:34:00 AM
Project: Fox Avenue
Lab ID: 2308042-001
Matrix: Groundwater
Client Sample ID: **R2-IW1-17-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	ND	0.200		µg/L	1	8/5/2023 12:29:17 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 12:29:17 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 12:29:17 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 12:29:17 PM
1,1-Dichloroethane	0.674	0.500		µg/L	1	8/5/2023 12:29:17 PM
cis-1,2-Dichloroethene	1.59	0.500		µg/L	1	8/5/2023 12:29:17 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 12:29:17 PM
Benzene	0.872	0.440		µg/L	1	8/5/2023 12:29:17 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 12:29:17 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 12:29:17 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 12:29:17 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 12:29:17 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 12:29:17 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 12:29:17 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 12:29:17 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 12:29:17 PM
Surr: Dibromofluoromethane	110	80 - 120		%Rec	1	8/5/2023 12:29:17 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/5/2023 12:29:17 PM
Surr: 1-Bromo-4-fluorobenzene	94.2	80 - 120		%Rec	1	8/5/2023 12:29:17 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	7.20	0.700		mg/L	1	8/7/2023 11:02:00 PM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 8:03:00 AM
Project: Fox Avenue
Lab ID: 2308042-002
Matrix: Groundwater
Client Sample ID: **R2-IW1-45-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	0.638	0.200		µg/L	1	8/5/2023 12:59:29 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 12:59:29 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 12:59:29 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 12:59:29 PM
1,1-Dichloroethane	0.672	0.500		µg/L	1	8/5/2023 12:59:29 PM
cis-1,2-Dichloroethene	1.47	0.500		µg/L	1	8/5/2023 12:59:29 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 12:59:29 PM
Benzene	0.790	0.440		µg/L	1	8/5/2023 12:59:29 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 12:59:29 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 12:59:29 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 12:59:29 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 12:59:29 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 12:59:29 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 12:59:29 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 12:59:29 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 12:59:29 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/5/2023 12:59:29 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/5/2023 12:59:29 PM
Surr: 1-Bromo-4-fluorobenzene	95.9	80 - 120		%Rec	1	8/5/2023 12:59:29 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	7.26	0.700		mg/L	1	8/7/2023 11:35:00 PM

Client: Calibre Systems
Collection Date: 8/1/2023 9:00:00 AM
Project: Fox Avenue
Lab ID: 2308042-003
Matrix: Groundwater
Client Sample ID: B-58-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41103 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	2.96	0.200		µg/L	1	8/5/2023 1:29:38 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 1:29:38 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 1:29:38 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 1:29:38 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 1:29:38 PM
cis-1,2-Dichloroethene	26.1	0.500		µg/L	1	8/5/2023 1:29:38 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 1:29:38 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 1:29:38 PM
Trichloroethene (TCE)	5.20	0.400		µg/L	1	8/9/2023 12:19:07 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 1:29:38 PM
Tetrachloroethene (PCE)	16.1	0.350		µg/L	1	8/5/2023 1:29:38 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 1:29:38 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 1:29:38 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 1:29:38 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 1:29:38 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 1:29:38 PM
Surr: Dibromofluoromethane	107	80 - 120		%Rec	1	8/5/2023 1:29:38 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 1:29:38 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	80 - 120		%Rec	1	8/5/2023 1:29:38 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Client: Calibre Systems
Collection Date: 8/1/2023 9:13:00 AM
Project: Fox Avenue
Lab ID: 2308042-004
Matrix: Groundwater
Client Sample ID: B-35-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41103 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	0.480	0.200		µg/L	1	8/5/2023 1:59:49 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 1:59:49 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 1:59:49 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 1:59:49 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 1:59:49 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 1:59:49 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 1:59:49 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 1:59:49 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 1:59:49 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 1:59:49 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 1:59:49 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 1:59:49 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 1:59:49 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 1:59:49 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 1:59:49 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 1:59:49 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/5/2023 1:59:49 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/5/2023 1:59:49 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	80 - 120		%Rec	1	8/5/2023 1:59:49 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Client: Calibre Systems
Collection Date: 8/1/2023 8:00:00 AM
Project: Fox Avenue
Lab ID: 2308042-005
Matrix: Groundwater
Client Sample ID: DUP01-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41103 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	2.84	0.200		µg/L	1	8/5/2023 2:29:56 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 2:29:56 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 2:29:56 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 2:29:56 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 2:29:56 PM
cis-1,2-Dichloroethene	26.1	0.500		µg/L	1	8/5/2023 2:29:56 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 2:29:56 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 2:29:56 PM
Trichloroethene (TCE)	5.02	0.400		µg/L	1	8/9/2023 12:49:17 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 2:29:56 PM
Tetrachloroethene (PCE)	17.3	0.350		µg/L	1	8/5/2023 2:29:56 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 2:29:56 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 2:29:56 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 2:29:56 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 2:29:56 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 2:29:56 PM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/5/2023 2:29:56 PM
Surr: Toluene-d8	100	80 - 120		%Rec	1	8/5/2023 2:29:56 PM
Surr: 1-Bromo-4-fluorobenzene	96.0	80 - 120		%Rec	1	8/5/2023 2:29:56 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 10:10:00 AM
Project: Fox Avenue
Lab ID: 2308042-006
Matrix: Groundwater
Client Sample ID: **B-19-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	27.4	0.200		µg/L	1	8/5/2023 3:00:02 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 3:00:02 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 3:00:02 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 3:00:02 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 3:00:02 PM
cis-1,2-Dichloroethene	13.1	0.500		µg/L	1	8/5/2023 3:00:02 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 3:00:02 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 3:00:02 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 3:00:02 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 3:00:02 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 3:00:02 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 3:00:02 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 3:00:02 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 3:00:02 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 3:00:02 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 3:00:02 PM
Surr: Dibromofluoromethane	109	80 - 120		%Rec	1	8/5/2023 3:00:02 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/5/2023 3:00:02 PM
Surr: 1-Bromo-4-fluorobenzene	93.1	80 - 120		%Rec	1	8/5/2023 3:00:02 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Client: Calibre Systems
Collection Date: 8/1/2023 10:48:00 AM
Project: Fox Avenue
Lab ID: 2308042-007
Matrix: Groundwater
Client Sample ID: B-18-080123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	15.0	0.200		µg/L	1	8/5/2023 4:00:19 PM
1,1-Dichloroethene	2.87	0.500		µg/L	1	8/5/2023 4:00:19 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 4:00:19 PM
trans-1,2-Dichloroethene	0.697	0.350		µg/L	1	8/5/2023 4:00:19 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 4:00:19 PM
cis-1,2-Dichloroethene	189	5.00	D	µg/L	10	8/9/2023 6:57:35 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 4:00:19 PM
Benzene	1.08	0.440		µg/L	1	8/5/2023 4:00:19 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 4:00:19 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 4:00:19 PM
Tetrachloroethene (PCE)	0.456	0.350		µg/L	1	8/5/2023 4:00:19 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 4:00:19 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 4:00:19 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 4:00:19 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 4:00:19 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 4:00:19 PM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/5/2023 4:00:19 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 4:00:19 PM
Surr: 1-Bromo-4-fluorobenzene	95.9	80 - 120		%Rec	1	8/5/2023 4:00:19 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Client: Calibre Systems
Collection Date: 8/1/2023 12:47:00 PM
Project: Fox Avenue
Lab ID: 2308042-008
Matrix: Groundwater
Client Sample ID: **R1-IW34-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	15.3	0.200		µg/L	1	8/5/2023 4:30:25 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 4:30:25 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 4:30:25 PM
trans-1,2-Dichloroethene	0.355	0.350		µg/L	1	8/5/2023 4:30:25 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 4:30:25 PM
cis-1,2-Dichloroethene	22.6	0.500		µg/L	1	8/5/2023 4:30:25 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 4:30:25 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 4:30:25 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 4:30:25 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 4:30:25 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 4:30:25 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 4:30:25 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 4:30:25 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 4:30:25 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 4:30:25 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 4:30:25 PM
Surr: Dibromofluoromethane	108	80 - 120		%Rec	1	8/5/2023 4:30:25 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/5/2023 4:30:25 PM
Surr: 1-Bromo-4-fluorobenzene	95.1	80 - 120		%Rec	1	8/5/2023 4:30:25 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	8.29	0.700		mg/L	1	8/8/2023 12:06:00 AM

Client: Calibre Systems
Collection Date: 8/1/2023 1:38:00 PM
Project: Fox Avenue
Lab ID: 2308042-009
Matrix: Groundwater
Client Sample ID: **B-20A-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	4.95	0.200		µg/L	1	8/5/2023 5:00:33 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 5:00:33 PM
Acetone	ND	5.00	Q	µg/L	1	8/5/2023 5:00:33 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 5:00:33 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 5:00:33 PM
cis-1,2-Dichloroethene	1.90	0.500		µg/L	1	8/5/2023 5:00:33 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 5:00:33 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 5:00:33 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 5:00:33 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 5:00:33 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 5:00:33 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 5:00:33 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 5:00:33 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 5:00:33 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 5:00:33 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 5:00:33 PM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/5/2023 5:00:33 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 5:00:33 PM
Surr: 1-Bromo-4-fluorobenzene	94.5	80 - 120		%Rec	1	8/5/2023 5:00:33 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Client: Calibre Systems
Collection Date: 8/1/2023 2:43:00 PM
Project: Fox Avenue
Lab ID: 2308042-010
Matrix: Groundwater
Client Sample ID: B-54-080123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	ND	0.200		µg/L	1	8/5/2023 5:30:41 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 5:30:41 PM
Acetone	21.3	5.00	Q	µg/L	1	8/5/2023 5:30:41 PM
trans-1,2-Dichloroethene	0.380	0.350		µg/L	1	8/5/2023 5:30:41 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 5:30:41 PM
cis-1,2-Dichloroethene	109	5.00	D	µg/L	10	8/9/2023 7:27:44 PM
(MEK) 2-Butanone	23.7	1.50		µg/L	1	8/5/2023 5:30:41 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 5:30:41 PM
Trichloroethene (TCE)	11.5	0.400		µg/L	1	8/9/2023 1:19:28 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 5:30:41 PM
Tetrachloroethene (PCE)	200	3.50	D	µg/L	10	8/9/2023 7:27:44 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 5:30:41 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 5:30:41 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 5:30:41 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 5:30:41 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 5:30:41 PM
Surr: Dibromofluoromethane	104	80 - 120		%Rec	1	8/5/2023 5:30:41 PM
Surr: Toluene-d8	100	80 - 120		%Rec	1	8/5/2023 5:30:41 PM
Surr: 1-Bromo-4-fluorobenzene	95.1	80 - 120		%Rec	1	8/5/2023 5:30:41 PM

NOTES:
Q - Associated calibration verification is below acceptance criteria (72.9%, nominal 80-100). Result may be low-biased.

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 3:29:00 PM
Project: Fox Avenue
Lab ID: 2308042-011
Matrix: Groundwater
Client Sample ID: **R1-IW12-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	30.3	0.200		µg/L	1	8/5/2023 11:27:37 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 11:27:37 PM
Acetone	9.41	5.00		µg/L	1	8/5/2023 11:27:37 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 11:27:37 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 11:27:37 PM
cis-1,2-Dichloroethene	17.5	0.500		µg/L	1	8/5/2023 11:27:37 PM
(MEK) 2-Butanone	33.9	1.50		µg/L	1	8/5/2023 11:27:37 PM
Benzene	ND	0.440		µg/L	1	8/5/2023 11:27:37 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 11:27:37 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 11:27:37 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 11:27:37 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 11:27:37 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 11:27:37 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 11:27:37 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 11:27:37 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 11:27:37 PM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/5/2023 11:27:37 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 11:27:37 PM
Surr: 1-Bromo-4-fluorobenzene	95.7	80 - 120		%Rec	1	8/5/2023 11:27:37 PM
Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	22.5	0.700		mg/L	1	8/8/2023 12:27:00 AM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 4:38:00 PM
Project: Fox Avenue
Lab ID: 2308042-012
Matrix: Groundwater
Client Sample ID: **R1-IW20-13-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	25.5	0.200		µg/L	1	8/5/2023 10:27:21 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 10:27:21 PM
Acetone	ND	5.00		µg/L	1	8/5/2023 10:27:21 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 10:27:21 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 10:27:21 PM
cis-1,2-Dichloroethene	0.962	0.500		µg/L	1	8/5/2023 10:27:21 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 10:27:21 PM
Benzene	0.650	0.440		µg/L	1	8/5/2023 10:27:21 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 10:27:21 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 10:27:21 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 10:27:21 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 10:27:21 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 10:27:21 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 10:27:21 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 10:27:21 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 10:27:21 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/5/2023 10:27:21 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/5/2023 10:27:21 PM
Surr: 1-Bromo-4-fluorobenzene	94.6	80 - 120		%Rec	1	8/5/2023 10:27:21 PM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Project: Fox Avenue
Lab ID: 2308042-013
Client Sample ID: **DUP02-080123**

Collection Date: 8/1/2023 8:00:00 AM
Matrix: Groundwater

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41103		Analyst: CC
Vinyl chloride	26.3	0.200		µg/L	1	8/5/2023 10:57:30 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 10:57:30 PM
Acetone	ND	5.00		µg/L	1	8/5/2023 10:57:30 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 10:57:30 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 10:57:30 PM
cis-1,2-Dichloroethene	0.988	0.500		µg/L	1	8/5/2023 10:57:30 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 10:57:30 PM
Benzene	0.676	0.440		µg/L	1	8/5/2023 10:57:30 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 10:57:30 PM
Toluene	ND	1.00		µg/L	1	8/5/2023 10:57:30 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 10:57:30 PM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 10:57:30 PM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 10:57:30 PM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 10:57:30 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 10:57:30 PM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 10:57:30 PM
Surr: Dibromofluoromethane	108	80 - 120		%Rec	1	8/5/2023 10:57:30 PM
Surr: Toluene-d8	104	80 - 120		%Rec	1	8/5/2023 10:57:30 PM
Surr: 1-Bromo-4-fluorobenzene	94.1	80 - 120		%Rec	1	8/5/2023 10:57:30 PM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 5:07:00 PM
Project: Fox Avenue
Lab ID: 2308042-014
Matrix: Groundwater
Client Sample ID: **R1-IW20-43-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	39.8	0.200		µg/L	1	8/4/2023 9:26:47 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/4/2023 9:26:47 PM
Acetone	ND	5.00		µg/L	1	8/4/2023 9:26:47 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/4/2023 9:26:47 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/4/2023 9:26:47 PM
cis-1,2-Dichloroethene	0.814	0.500		µg/L	1	8/4/2023 9:26:47 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/4/2023 9:26:47 PM
Benzene	0.823	0.440		µg/L	1	8/4/2023 9:26:47 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/4/2023 9:26:47 PM
Toluene	ND	1.00		µg/L	1	8/4/2023 9:26:47 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/4/2023 9:26:47 PM
Ethylbenzene	ND	0.400		µg/L	1	8/4/2023 9:26:47 PM
m,p-Xylene	ND	1.00		µg/L	1	8/4/2023 9:26:47 PM
o-Xylene	ND	0.500		µg/L	1	8/4/2023 9:26:47 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/4/2023 9:26:47 PM
Naphthalene	ND	1.25		µg/L	1	8/4/2023 9:26:47 PM
Surr: Dibromofluoromethane	108	80 - 120		%Rec	1	8/4/2023 9:26:47 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/4/2023 9:26:47 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	80 - 120		%Rec	1	8/4/2023 9:26:47 PM

Client: Calibre Systems
Collection Date: 8/2/2023 7:52:00 AM
Project: Fox Avenue
Lab ID: 2308042-015
Matrix: Groundwater
Client Sample ID: **RO-IW2D-080223**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	6.60	0.200		µg/L	1	8/4/2023 9:56:56 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/4/2023 9:56:56 PM
Acetone	176	50.0	D	µg/L	10	8/10/2023 5:46:00 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/4/2023 9:56:56 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/4/2023 9:56:56 PM
cis-1,2-Dichloroethene	29.3	0.500		µg/L	1	8/4/2023 9:56:56 PM
(MEK) 2-Butanone	235	15.0	D	µg/L	10	8/10/2023 5:46:00 PM
Benzene	ND	0.440		µg/L	1	8/4/2023 9:56:56 PM
Trichloroethene (TCE)	1.73	0.400		µg/L	1	8/4/2023 9:56:56 PM
Toluene	ND	1.00		µg/L	1	8/4/2023 9:56:56 PM
Tetrachloroethene (PCE)	1.23	0.350		µg/L	1	8/4/2023 9:56:56 PM
Ethylbenzene	ND	0.400		µg/L	1	8/4/2023 9:56:56 PM
m,p-Xylene	ND	1.00		µg/L	1	8/4/2023 9:56:56 PM
o-Xylene	ND	0.500		µg/L	1	8/4/2023 9:56:56 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/4/2023 9:56:56 PM
Naphthalene	ND	1.25		µg/L	1	8/4/2023 9:56:56 PM
Surr: Dibromofluoromethane	102	80 - 120		%Rec	1	8/4/2023 9:56:56 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/4/2023 9:56:56 PM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	8/4/2023 9:56:56 PM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/2/2023 8:45:00 AM
Project: Fox Avenue
Lab ID: 2308042-016
Matrix: Groundwater
Client Sample ID: **RO-IW7D-080223**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	11.4	0.200		µg/L	1	8/6/2023 12:26:51 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/6/2023 12:26:51 AM
Acetone	24.2	5.00		µg/L	1	8/6/2023 12:26:51 AM
trans-1,2-Dichloroethene	1.08	0.350		µg/L	1	8/6/2023 12:26:51 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/6/2023 12:26:51 AM
cis-1,2-Dichloroethene	50.1	5.00	D	µg/L	10	8/9/2023 7:57:52 PM
(MEK) 2-Butanone	28.4	1.50		µg/L	1	8/6/2023 12:26:51 AM
Benzene	ND	0.440		µg/L	1	8/6/2023 12:26:51 AM
Trichloroethene (TCE)	6.27	0.400		µg/L	1	8/9/2023 10:58:37 PM
Toluene	ND	1.00		µg/L	1	8/6/2023 12:26:51 AM
Tetrachloroethene (PCE)	10.0	0.350		µg/L	1	8/6/2023 12:26:51 AM
Ethylbenzene	0.505	0.400		µg/L	1	8/6/2023 12:26:51 AM
m,p-Xylene	ND	1.00		µg/L	1	8/6/2023 12:26:51 AM
o-Xylene	ND	0.500		µg/L	1	8/6/2023 12:26:51 AM
1,2,4-Trimethylbenzene	1.20	0.500		µg/L	1	8/6/2023 12:26:51 AM
Naphthalene	ND	1.25		µg/L	1	8/6/2023 12:26:51 AM
Surr: Dibromofluoromethane	107	80 - 120		%Rec	1	8/6/2023 12:26:51 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/6/2023 12:26:51 AM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	8/6/2023 12:26:51 AM
Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	101	0.700		mg/L	1	8/8/2023 12:50:00 AM

Client: Calibre Systems
Collection Date: 8/2/2023 8:00:00 AM
Project: Fox Avenue
Lab ID: 2308042-017
Matrix: Groundwater
Client Sample ID: DUP03-080223

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	12.1	0.200		µg/L	1	8/4/2023 10:57:16 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/4/2023 10:57:16 PM
Acetone	23.3	5.00		µg/L	1	8/4/2023 10:57:16 PM
trans-1,2-Dichloroethene	1.17	0.350		µg/L	1	8/4/2023 10:57:16 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/4/2023 10:57:16 PM
cis-1,2-Dichloroethene	50.0	5.00	D	µg/L	10	8/9/2023 8:28:00 PM
(MEK) 2-Butanone	30.0	1.50		µg/L	1	8/4/2023 10:57:16 PM
Benzene	ND	0.440		µg/L	1	8/4/2023 10:57:16 PM
Trichloroethene (TCE)	7.31	0.400		µg/L	1	8/4/2023 10:57:16 PM
Toluene	ND	1.00		µg/L	1	8/4/2023 10:57:16 PM
Tetrachloroethene (PCE)	10.2	0.350		µg/L	1	8/4/2023 10:57:16 PM
Ethylbenzene	0.518	0.400		µg/L	1	8/4/2023 10:57:16 PM
m,p-Xylene	ND	1.00		µg/L	1	8/4/2023 10:57:16 PM
o-Xylene	ND	0.500		µg/L	1	8/4/2023 10:57:16 PM
1,2,4-Trimethylbenzene	1.33	0.500		µg/L	1	8/4/2023 10:57:16 PM
Naphthalene	ND	1.25		µg/L	1	8/4/2023 10:57:16 PM
Surr: Dibromofluoromethane	103	80 - 120		%Rec	1	8/4/2023 10:57:16 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/4/2023 10:57:16 PM
Surr: 1-Bromo-4-fluorobenzene	100	80 - 120		%Rec	1	8/4/2023 10:57:16 PM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/2/2023 10:02:00 AM
Project: Fox Avenue
Lab ID: 2308042-018
Matrix: Groundwater
Client Sample ID: **RO-IW3D-080223**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	37.7	0.200		µg/L	1	8/6/2023 1:26:09 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/6/2023 1:26:09 AM
Acetone	181	50.0	D	µg/L	10	8/10/2023 6:44:59 PM
trans-1,2-Dichloroethene	0.561	0.350		µg/L	1	8/6/2023 1:26:09 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/6/2023 1:26:09 AM
cis-1,2-Dichloroethene	52.3	5.00	D	µg/L	10	8/10/2023 6:44:59 PM
(MEK) 2-Butanone	237	15.0	D	µg/L	10	8/10/2023 6:44:59 PM
Benzene	ND	0.440		µg/L	1	8/6/2023 1:26:09 AM
Trichloroethene (TCE)	4.13	0.400		µg/L	1	8/10/2023 12:26:49 AM
Toluene	ND	1.00		µg/L	1	8/6/2023 1:26:09 AM
Tetrachloroethene (PCE)	2.94	0.350		µg/L	1	8/6/2023 1:26:09 AM
Ethylbenzene	ND	0.400		µg/L	1	8/6/2023 1:26:09 AM
m,p-Xylene	ND	1.00		µg/L	1	8/6/2023 1:26:09 AM
o-Xylene	ND	0.500		µg/L	1	8/6/2023 1:26:09 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/6/2023 1:26:09 AM
Naphthalene	ND	1.25		µg/L	1	8/6/2023 1:26:09 AM
Surr: Dibromofluoromethane	102	80 - 120		%Rec	1	8/6/2023 1:26:09 AM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/6/2023 1:26:09 AM
Surr: 1-Bromo-4-fluorobenzene	103	80 - 120		%Rec	1	8/6/2023 1:26:09 AM
Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	121	0.700		mg/L	1	8/8/2023 1:24:00 AM

Client: Calibre Systems
Collection Date: 8/1/2023 7:20:00 AM
Project: Fox Avenue
Lab ID: 2308042-019
Matrix: Groundwater
Client Sample ID: MW-06-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41107 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	0.232	0.200		µg/L	1	8/4/2023 11:27:24 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/4/2023 11:27:24 PM
Acetone	ND	5.00		µg/L	1	8/4/2023 11:27:24 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/4/2023 11:27:24 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/4/2023 11:27:24 PM
cis-1,2-Dichloroethene	27.1	0.500		µg/L	1	8/4/2023 11:27:24 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/4/2023 11:27:24 PM
Benzene	ND	0.440		µg/L	1	8/4/2023 11:27:24 PM
Trichloroethene (TCE)	4.64	0.400		µg/L	1	8/4/2023 11:27:24 PM
Toluene	ND	1.00		µg/L	1	8/4/2023 11:27:24 PM
Tetrachloroethene (PCE)	7.79	0.350		µg/L	1	8/4/2023 11:27:24 PM
Ethylbenzene	ND	0.400		µg/L	1	8/4/2023 11:27:24 PM
m,p-Xylene	ND	1.00		µg/L	1	8/4/2023 11:27:24 PM
o-Xylene	ND	0.500		µg/L	1	8/4/2023 11:27:24 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/4/2023 11:27:24 PM
Naphthalene	ND	1.25		µg/L	1	8/4/2023 11:27:24 PM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/4/2023 11:27:24 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/4/2023 11:27:24 PM
Surr: 1-Bromo-4-fluorobenzene	96.3	80 - 120		%Rec	1	8/4/2023 11:27:24 PM

Client: Calibre Systems
Collection Date: 8/1/2023 7:59:00 AM
Project: Fox Avenue
Lab ID: 2308042-020
Matrix: Groundwater
Client Sample ID: **B-33A-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	0.417	0.200		µg/L	1	8/4/2023 11:57:34 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/4/2023 11:57:34 PM
Acetone	ND	5.00		µg/L	1	8/4/2023 11:57:34 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/4/2023 11:57:34 PM
1,1-Dichloroethane	1.26	0.500		µg/L	1	8/4/2023 11:57:34 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/4/2023 11:57:34 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/4/2023 11:57:34 PM
Benzene	7.64	0.440		µg/L	1	8/4/2023 11:57:34 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/4/2023 11:57:34 PM
Toluene	ND	1.00		µg/L	1	8/4/2023 11:57:34 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/4/2023 11:57:34 PM
Ethylbenzene	ND	0.400		µg/L	1	8/4/2023 11:57:34 PM
m,p-Xylene	ND	1.00		µg/L	1	8/4/2023 11:57:34 PM
o-Xylene	ND	0.500		µg/L	1	8/4/2023 11:57:34 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/4/2023 11:57:34 PM
Naphthalene	ND	1.25		µg/L	1	8/4/2023 11:57:34 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/4/2023 11:57:34 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/4/2023 11:57:34 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	80 - 120		%Rec	1	8/4/2023 11:57:34 PM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 9:44:00 AM
Project: Fox Avenue
Lab ID: 2308042-021
Matrix: Groundwater
Client Sample ID: **MW-7-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	2.30	0.200		µg/L	1	8/5/2023 12:27:43 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 12:27:43 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 12:27:43 AM
trans-1,2-Dichloroethene	0.381	0.350		µg/L	1	8/5/2023 12:27:43 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 12:27:43 AM
cis-1,2-Dichloroethene	0.688	0.500		µg/L	1	8/5/2023 12:27:43 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 12:27:43 AM
Benzene	ND	0.440		µg/L	1	8/5/2023 12:27:43 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 12:27:43 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 12:27:43 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 12:27:43 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 12:27:43 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 12:27:43 AM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 12:27:43 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 12:27:43 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 12:27:43 AM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/5/2023 12:27:43 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 12:27:43 AM
Surr: 1-Bromo-4-fluorobenzene	97.8	80 - 120		%Rec	1	8/5/2023 12:27:43 AM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 10:10:00 AM
Project: Fox Avenue
Lab ID: 2308042-022
Matrix: Groundwater
Client Sample ID: **MW-9-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	177	2.00	D	µg/L	10	8/9/2023 8:58:09 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 12:57:52 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 12:57:52 AM
trans-1,2-Dichloroethene	2.48	0.350		µg/L	1	8/5/2023 12:57:52 AM
1,1-Dichloroethane	1.26	0.500		µg/L	1	8/5/2023 12:57:52 AM
cis-1,2-Dichloroethene	213	5.00	D	µg/L	10	8/9/2023 8:58:09 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 12:57:52 AM
Benzene	ND	0.440		µg/L	1	8/5/2023 12:57:52 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 12:57:52 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 12:57:52 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 12:57:52 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 12:57:52 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 12:57:52 AM
o-Xylene	1.28	0.500		µg/L	1	8/5/2023 12:57:52 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 12:57:52 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 12:57:52 AM
Surr: Dibromofluoromethane	104	80 - 120		%Rec	1	8/5/2023 12:57:52 AM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/5/2023 12:57:52 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	80 - 120		%Rec	1	8/5/2023 12:57:52 AM
Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	87.4	0.700		mg/L	1	8/8/2023 1:56:00 AM

Client: Calibre Systems
Collection Date: 8/1/2023 10:42:00 AM
Project: Fox Avenue
Lab ID: 2308042-023
Matrix: Groundwater
Client Sample ID: B-49-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41107 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	5.99	0.200		µg/L	1	8/5/2023 1:28:04 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 1:28:04 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 1:28:04 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 1:28:04 AM
1,1-Dichloroethane	0.969	0.500		µg/L	1	8/5/2023 1:28:04 AM
cis-1,2-Dichloroethene	0.716	0.500		µg/L	1	8/5/2023 1:28:04 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 1:28:04 AM
Benzene	0.461	0.440		µg/L	1	8/5/2023 1:28:04 AM
Trichloroethene (TCE)	0.964	0.400		µg/L	1	8/5/2023 1:28:04 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 1:28:04 AM
Tetrachloroethene (PCE)	5.91	0.350		µg/L	1	8/5/2023 1:28:04 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 1:28:04 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 1:28:04 AM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 1:28:04 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 1:28:04 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 1:28:04 AM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/5/2023 1:28:04 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 1:28:04 AM
Surr: 1-Bromo-4-fluorobenzene	97.5	80 - 120		%Rec	1	8/5/2023 1:28:04 AM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 11:05:00 AM
Project: Fox Avenue
Lab ID: 2308042-024
Matrix: Groundwater
Client Sample ID: SP-03-080123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	ND	0.200		µg/L	1	8/5/2023 1:58:14 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 1:58:14 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 1:58:14 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 1:58:14 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 1:58:14 AM
cis-1,2-Dichloroethene	1.74	0.500		µg/L	1	8/5/2023 1:58:14 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 1:58:14 AM
Benzene	ND	0.440		µg/L	1	8/5/2023 1:58:14 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 1:58:14 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 1:58:14 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 1:58:14 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 1:58:14 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 1:58:14 AM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 1:58:14 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 1:58:14 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 1:58:14 AM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/5/2023 1:58:14 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 1:58:14 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	80 - 120		%Rec	1	8/5/2023 1:58:14 AM

Client: Calibre Systems
Collection Date: 8/1/2023 11:07:00 AM
Project: Fox Avenue
Lab ID: 2308042-025
Matrix: Groundwater
Client Sample ID: SP-03B-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41107 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	0.285	0.200		µg/L	1	8/5/2023 2:28:22 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 2:28:22 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 2:28:22 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 2:28:22 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 2:28:22 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 2:28:22 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 2:28:22 AM
Benzene	0.680	0.440		µg/L	1	8/5/2023 2:28:22 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 2:28:22 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 2:28:22 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 2:28:22 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 2:28:22 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 2:28:22 AM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 2:28:22 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 2:28:22 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 2:28:22 AM
Surr: Dibromofluoromethane	107	80 - 120		%Rec	1	8/5/2023 2:28:22 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 2:28:22 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	80 - 120		%Rec	1	8/5/2023 2:28:22 AM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 11:10:00 AM
Project: Fox Avenue
Lab ID: 2308042-026
Matrix: Groundwater
Client Sample ID: **SP-04-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41107		Analyst: CC
Vinyl chloride	ND	0.200		µg/L	1	8/5/2023 2:58:33 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 2:58:33 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 2:58:33 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 2:58:33 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 2:58:33 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 2:58:33 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 2:58:33 AM
Benzene	ND	0.440		µg/L	1	8/5/2023 2:58:33 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 2:58:33 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 2:58:33 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 2:58:33 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 2:58:33 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 2:58:33 AM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 2:58:33 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 2:58:33 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 2:58:33 AM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/5/2023 2:58:33 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	8/5/2023 2:58:33 AM
Surr: 1-Bromo-4-fluorobenzene	95.1	80 - 120		%Rec	1	8/5/2023 2:58:33 AM

Client: Calibre Systems
Collection Date: 8/1/2023 12:40:00 PM
Project: Fox Avenue
Lab ID: 2308042-027
Matrix: Groundwater
Client Sample ID: **B-61-080123**

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41107 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	0.225	0.200		µg/L	1	8/5/2023 3:28:44 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 3:28:44 AM
Acetone	ND	5.00		µg/L	1	8/5/2023 3:28:44 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/5/2023 3:28:44 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/5/2023 3:28:44 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/5/2023 3:28:44 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/5/2023 3:28:44 AM
Benzene	0.615	0.440		µg/L	1	8/5/2023 3:28:44 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/5/2023 3:28:44 AM
Toluene	ND	1.00		µg/L	1	8/5/2023 3:28:44 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/5/2023 3:28:44 AM
Ethylbenzene	ND	0.400		µg/L	1	8/5/2023 3:28:44 AM
m,p-Xylene	ND	1.00		µg/L	1	8/5/2023 3:28:44 AM
o-Xylene	ND	0.500		µg/L	1	8/5/2023 3:28:44 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/5/2023 3:28:44 AM
Naphthalene	ND	1.25		µg/L	1	8/5/2023 3:28:44 AM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/5/2023 3:28:44 AM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/5/2023 3:28:44 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	80 - 120		%Rec	1	8/5/2023 3:28:44 AM

Analytical Report

Work Order: **2308042**
Date Reported: **8/14/2023**

Client: Calibre Systems
Collection Date: 8/1/2023 1:30:00 PM
Project: Fox Avenue
Lab ID: 2308042-028
Matrix: Groundwater
Client Sample ID: **R1-IW9-080123**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41122		Analyst: CC
Vinyl chloride	18.9	0.200		µg/L	1	8/8/2023 5:56:47 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 5:56:47 AM
Acetone	49.2	5.00		µg/L	1	8/8/2023 5:56:47 AM
trans-1,2-Dichloroethene	1.53	0.350		µg/L	1	8/8/2023 5:56:47 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/8/2023 5:56:47 AM
cis-1,2-Dichloroethene	111	5.00	D	µg/L	10	8/10/2023 4:46:58 PM
(MEK) 2-Butanone	119	15.0	D	µg/L	10	8/10/2023 4:46:58 PM
Benzene	ND	0.440		µg/L	1	8/8/2023 5:56:47 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/8/2023 5:56:47 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 5:56:47 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/8/2023 5:56:47 AM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 5:56:47 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 5:56:47 AM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 5:56:47 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 5:56:47 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 5:56:47 AM
Surr: Dibromofluoromethane	107	80 - 120		%Rec	1	8/8/2023 5:56:47 AM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/8/2023 5:56:47 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	80 - 120		%Rec	1	8/8/2023 5:56:47 AM
Total Organic Carbon by SM 5310C				Batch ID: R85767		Analyst: SS
Total Organic Carbon	16.8	0.700		mg/L	1	8/8/2023 2:26:00 AM

Client: Calibre Systems
Collection Date: 8/1/2023 2:45:00 PM
Project: Fox Avenue
Lab ID: 2308042-029
Matrix: Groundwater
Client Sample ID: B22-080123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41122		Analyst: CC
Vinyl chloride	17.0	0.200		µg/L	1	8/8/2023 6:26:54 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 6:26:54 AM
Acetone	ND	5.00		µg/L	1	8/8/2023 6:26:54 AM
trans-1,2-Dichloroethene	0.697	0.350		µg/L	1	8/8/2023 6:26:54 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/8/2023 6:26:54 AM
cis-1,2-Dichloroethene	60.7	5.00	D	µg/L	10	8/9/2023 9:28:17 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/8/2023 6:26:54 AM
Benzene	ND	0.440		µg/L	1	8/8/2023 6:26:54 AM
Trichloroethene (TCE)	17.9	0.400		µg/L	1	8/8/2023 6:26:54 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 6:26:54 AM
Tetrachloroethene (PCE)	112	3.50	D	µg/L	10	8/9/2023 9:28:17 PM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 6:26:54 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 6:26:54 AM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 6:26:54 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 6:26:54 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 6:26:54 AM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/8/2023 6:26:54 AM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/8/2023 6:26:54 AM
Surr: 1-Bromo-4-fluorobenzene	95.3	80 - 120		%Rec	1	8/8/2023 6:26:54 AM

Client: Calibre Systems
Collection Date: 8/1/2023 3:40:00 PM
Project: Fox Avenue
Lab ID: 2308042-030
Matrix: Groundwater
Client Sample ID: MW1-1-080123

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41122 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	55.1	0.200		µg/L	1	8/8/2023 6:57:02 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 6:57:02 AM
Acetone	ND	5.00		µg/L	1	8/8/2023 6:57:02 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/8/2023 6:57:02 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/8/2023 6:57:02 AM
cis-1,2-Dichloroethene	14.6	0.500		µg/L	1	8/8/2023 6:57:02 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/8/2023 6:57:02 AM
Benzene	ND	0.440		µg/L	1	8/8/2023 6:57:02 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/8/2023 6:57:02 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 6:57:02 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/8/2023 6:57:02 AM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 6:57:02 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 6:57:02 AM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 6:57:02 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 6:57:02 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 6:57:02 AM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	8/8/2023 6:57:02 AM
Surr: Toluene-d8	104	80 - 120		%Rec	1	8/8/2023 6:57:02 AM
Surr: 1-Bromo-4-fluorobenzene	95.5	80 - 120		%Rec	1	8/8/2023 6:57:02 AM

Client: Calibre Systems
Collection Date: 8/1/2023 4:10:00 PM
Project: Fox Avenue
Lab ID: 2308042-031
Matrix: Groundwater
Client Sample ID: MW2-1-080123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D			Batch ID: 41122			Analyst: CC
Vinyl chloride	ND	0.200		µg/L	1	8/8/2023 7:27:09 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 7:27:09 AM
Acetone	ND	5.00		µg/L	1	8/8/2023 7:27:09 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/8/2023 7:27:09 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/8/2023 7:27:09 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 7:27:09 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/8/2023 7:27:09 AM
Benzene	ND	0.440		µg/L	1	8/8/2023 7:27:09 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/8/2023 7:27:09 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 7:27:09 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/8/2023 7:27:09 AM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 7:27:09 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 7:27:09 AM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 7:27:09 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 7:27:09 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 7:27:09 AM
Surr: Dibromofluoromethane	108	80 - 120		%Rec	1	8/8/2023 7:27:09 AM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/8/2023 7:27:09 AM
Surr: 1-Bromo-4-fluorobenzene	96.3	80 - 120		%Rec	1	8/8/2023 7:27:09 AM

Client: Calibre Systems
Collection Date: 8/1/2023 5:08:00 PM
Project: Fox Avenue
Lab ID: 2308042-032
Matrix: Groundwater
Client Sample ID: **MW-18S-080123**

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 41122 Analyst: CC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Vinyl chloride	95.4	2.00	D	µg/L	10	8/9/2023 10:28:30 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 7:57:19 AM
Acetone	ND	5.00		µg/L	1	8/8/2023 7:57:19 AM
trans-1,2-Dichloroethene	1.44	0.350		µg/L	1	8/8/2023 7:57:19 AM
1,1-Dichloroethane	5.06	0.500		µg/L	1	8/8/2023 7:57:19 AM
cis-1,2-Dichloroethene	127	5.00	D	µg/L	10	8/9/2023 10:28:30 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/8/2023 7:57:19 AM
Benzene	0.805	0.440		µg/L	1	8/8/2023 7:57:19 AM
Trichloroethene (TCE)	2.48	0.400		µg/L	1	8/8/2023 7:57:19 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 7:57:19 AM
Tetrachloroethene (PCE)	2.44	0.350		µg/L	1	8/8/2023 7:57:19 AM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 7:57:19 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 7:57:19 AM
o-Xylene	0.997	0.500		µg/L	1	8/8/2023 7:57:19 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 7:57:19 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 7:57:19 AM
Surr: Dibromofluoromethane	103	80 - 120		%Rec	1	8/8/2023 7:57:19 AM
Surr: Toluene-d8	104	80 - 120		%Rec	1	8/8/2023 7:57:19 AM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	8/8/2023 7:57:19 AM

Client: Calibre Systems
Collection Date: 8/2/2023 8:40:00 AM
Project: Fox Avenue
Lab ID: 2308042-033
Matrix: Groundwater
Client Sample ID: B-66-080223

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41122		Analyst: CC
Vinyl chloride	0.601	0.200		µg/L	1	8/8/2023 8:27:30 AM
1,1-Dichloroethene	0.680	0.500		µg/L	1	8/8/2023 8:27:30 AM
Acetone	68.3	5.00		µg/L	1	8/8/2023 8:27:30 AM
trans-1,2-Dichloroethene	1.27	0.350		µg/L	1	8/8/2023 8:27:30 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/8/2023 8:27:30 AM
cis-1,2-Dichloroethene	454	50.0	D	µg/L	100	8/11/2023 1:02:03 PM
(MEK) 2-Butanone	163	15.0	D	µg/L	10	8/10/2023 4:16:51 PM
Benzene	ND	0.440		µg/L	1	8/8/2023 8:27:30 AM
Trichloroethene (TCE)	8.99	0.400		µg/L	1	8/8/2023 8:27:30 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 8:27:30 AM
Tetrachloroethene (PCE)	58.4	3.50	D	µg/L	10	8/10/2023 4:16:51 PM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 8:27:30 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 8:27:30 AM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 8:27:30 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 8:27:30 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 8:27:30 AM
Surr: Dibromofluoromethane	104	80 - 120		%Rec	1	8/8/2023 8:27:30 AM
Surr: Toluene-d8	99.7	80 - 120		%Rec	1	8/8/2023 8:27:30 AM
Surr: 1-Bromo-4-fluorobenzene	97.6	80 - 120		%Rec	1	8/8/2023 8:27:30 AM

Client: Calibre Systems
Collection Date: 8/2/2023 9:35:00 AM
Project: Fox Avenue
Lab ID: 2308042-034
Matrix: Groundwater
Client Sample ID: **B-64-080223**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41122		Analyst: CC
Vinyl chloride	0.487	0.200		µg/L	1	8/8/2023 8:57:38 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 8:57:38 AM
Acetone	ND	5.00		µg/L	1	8/8/2023 8:57:38 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/8/2023 8:57:38 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/8/2023 8:57:38 AM
cis-1,2-Dichloroethene	1.67	0.500		µg/L	1	8/8/2023 8:57:38 AM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/8/2023 8:57:38 AM
Benzene	ND	0.440		µg/L	1	8/8/2023 8:57:38 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/8/2023 8:57:38 AM
Toluene	ND	1.00		µg/L	1	8/8/2023 8:57:38 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/8/2023 8:57:38 AM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 8:57:38 AM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 8:57:38 AM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 8:57:38 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 8:57:38 AM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 8:57:38 AM
Surr: Dibromofluoromethane	110	80 - 120		%Rec	1	8/8/2023 8:57:38 AM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/8/2023 8:57:38 AM
Surr: 1-Bromo-4-fluorobenzene	96.1	80 - 120		%Rec	1	8/8/2023 8:57:38 AM

Client: Calibre Systems
Collection Date: 8/2/2023 10:30:00 AM
Project: Fox Avenue
Lab ID: 2308042-035
Matrix: Groundwater
Client Sample ID: **B-65-080223**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41122		Analyst: CC
Vinyl chloride	0.248	0.200		µg/L	1	8/8/2023 2:25:29 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 2:25:29 PM
Acetone	ND	5.00		µg/L	1	8/8/2023 2:25:29 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/8/2023 2:25:29 PM
1,1-Dichloroethane	1.18	0.500		µg/L	1	8/8/2023 2:25:29 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/8/2023 2:25:29 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/8/2023 2:25:29 PM
Benzene	2.99	0.440		µg/L	1	8/8/2023 2:25:29 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/8/2023 2:25:29 PM
Toluene	ND	1.00		µg/L	1	8/8/2023 2:25:29 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/8/2023 2:25:29 PM
Ethylbenzene	ND	0.400		µg/L	1	8/8/2023 2:25:29 PM
m,p-Xylene	ND	1.00		µg/L	1	8/8/2023 2:25:29 PM
o-Xylene	ND	0.500		µg/L	1	8/8/2023 2:25:29 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/8/2023 2:25:29 PM
Naphthalene	ND	1.25		µg/L	1	8/8/2023 2:25:29 PM
Surr: Dibromofluoromethane	105	80 - 120		%Rec	1	8/8/2023 2:25:29 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	8/8/2023 2:25:29 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	80 - 120		%Rec	1	8/8/2023 2:25:29 PM

Client: Calibre Systems
Collection Date: 7/28/2023 4:12:00 PM
Project: Fox Avenue
Lab ID: 2308042-036
Matrix: Groundwater
Client Sample ID: **Trip Blank**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 41122		Analyst: CC
Vinyl chloride	ND	0.200		µg/L	1	8/7/2023 9:58:17 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	8/7/2023 9:58:17 PM
Acetone	ND	5.00		µg/L	1	8/7/2023 9:58:17 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	8/7/2023 9:58:17 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	8/7/2023 9:58:17 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	8/7/2023 9:58:17 PM
(MEK) 2-Butanone	ND	1.50		µg/L	1	8/7/2023 9:58:17 PM
Benzene	ND	0.440		µg/L	1	8/7/2023 9:58:17 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	8/7/2023 9:58:17 PM
Toluene	ND	1.00		µg/L	1	8/7/2023 9:58:17 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	8/7/2023 9:58:17 PM
Ethylbenzene	ND	0.400		µg/L	1	8/7/2023 9:58:17 PM
m,p-Xylene	ND	1.00		µg/L	1	8/7/2023 9:58:17 PM
o-Xylene	ND	0.500		µg/L	1	8/7/2023 9:58:17 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	8/7/2023 9:58:17 PM
Naphthalene	ND	1.25		µg/L	1	8/7/2023 9:58:17 PM
Surr: Dibromofluoromethane	103	80 - 120		%Rec	1	8/7/2023 9:58:17 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	8/7/2023 9:58:17 PM
Surr: 1-Bromo-4-fluorobenzene	93.9	80 - 120		%Rec	1	8/7/2023 9:58:17 PM

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **MB-R85767**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **8/7/2023**		RunNo: **85767**		
Client ID: **MBLKW**	Batch ID: **R85767**					Analysis Date: **8/7/2023**		SeqNo: **1789693**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.700									

Sample ID: **LCS-R85767**	SampType: **LCS**			Units: **mg/L**		Prep Date: **8/7/2023**		RunNo: **85767**		
Client ID: **LCSW**	Batch ID: **R85767**					Analysis Date: **8/7/2023**		SeqNo: **1789694**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.36	0.700	5.000	0	107	88.1	112				

Sample ID: **2307332-002ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **8/7/2023**		RunNo: **85767**		
Client ID: **BATCH**	Batch ID: **R85767**					Analysis Date: **8/7/2023**		SeqNo: **1789696**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.700						0		20	

Sample ID: **2307332-002AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **8/7/2023**		RunNo: **85767**		
Client ID: **BATCH**	Batch ID: **R85767**					Analysis Date: **8/7/2023**		SeqNo: **1789697**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.95	0.700	5.000	0.6420	106	75.2	115				

Sample ID: **2307332-002AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **8/7/2023**		RunNo: **85767**		
Client ID: **BATCH**	Batch ID: **R85767**					Analysis Date: **8/7/2023**		SeqNo: **1789698**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.81	0.700	5.000	0.6420	103	75.2	115	5.954	2.41	30	

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **2308023-002ADUP** SampType: **DUP** Units: **mg/L** Prep Date: **8/7/2023** RunNo: **85767**
Client ID: **BATCH** Batch ID: **R85767** Analysis Date: **8/7/2023** SeqNo: **1789848**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.792	0.700						0.8570	7.88	20	

Sample ID: **2308023-002AMS** SampType: **MS** Units: **mg/L** Prep Date: **8/7/2023** RunNo: **85767**
Client ID: **BATCH** Batch ID: **R85767** Analysis Date: **8/7/2023** SeqNo: **1789849**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.81	0.700	5.000	0.8570	99.1	75.2	115				

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-41107** SampType: **LCS** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85742**
Client ID: **LCSW** Batch ID: **41107** Analysis Date: **8/4/2023** SeqNo: **1789139**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	20.3	0.200	20.00	0	102	80	120				
1,1-Dichloroethene	20.0	0.500	20.00	0	100	80	120				
Acetone	47.0	5.00	50.00	0	94.0	80	120				
trans-1,2-Dichloroethene	20.5	0.350	20.00	0	102	80	120				
1,1-Dichloroethane	20.9	0.500	20.00	0	104	80	120				
cis-1,2-Dichloroethene	20.2	0.500	20.00	0	101	80	120				
(MEK) 2-Butanone	46.3	1.50	50.00	0	92.5	80	120				
Benzene	20.8	0.440	20.00	0	104	80	120				
Trichloroethene (TCE)	20.3	0.400	20.00	0	102	80	120				
Toluene	20.8	1.00	20.00	0	104	80	120				
Tetrachloroethene (PCE)	21.5	0.350	20.00	0	108	80	120				
Ethylbenzene	20.3	0.400	20.00	0	101	80	120				
m,p-Xylene	40.9	1.00	40.00	0	102	80	120				
o-Xylene	20.0	0.500	20.00	0	99.9	80	120				
1,2,4-Trimethylbenzene	20.4	0.500	20.00	0	102	80	120				
Naphthalene	19.9	1.25	20.00	0	99.4	80	120				
Surr: Dibromofluoromethane	25.2		25.00		101	80	120				
Surr: Toluene-d8	25.6		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	80	120				

Sample ID: **2308042-015ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85742**
Client ID: **RO-IW2D-080223** Batch ID: **41107** Analysis Date: **8/4/2023** SeqNo: **1789120**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	6.27	0.200						6.605	5.12	30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	188	5.00						185.3	1.40	30	E
trans-1,2-Dichloroethene	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	28.3	0.500						29.26	3.37	30	
(MEK) 2-Butanone	302	1.50						296.9	1.62	30	E

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2308042-015ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85742**
Client ID: **RO-IW2D-080223** Batch ID: **41107** Analysis Date: **8/4/2023** SeqNo: **1789120**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	1.62	0.400						1.731	6.49	30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	1.22	0.350						1.231	0.994	30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
Surr: Dibromofluoromethane	25.9		25.00		104	80	120		0		
Surr: Toluene-d8	25.7		25.00		103	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	80	120		0		

Sample ID: **2308067-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85742**
Client ID: **BATCH** Batch ID: **41107** Analysis Date: **8/5/2023** SeqNo: **1789132**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.213	0.200						0.2102	1.35	30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	84.5	5.00						81.45	3.64	30	
trans-1,2-Dichloroethene	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	1.12	0.500						1.049	6.26	30	
(MEK) 2-Butanone	2.19	1.50						1.817	18.7	30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2308067-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85742**
Client ID: **BATCH** Batch ID: **41107** Analysis Date: **8/5/2023** SeqNo: **1789132**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
Surr: Dibromofluoromethane	27.0		25.00		108	80	120		0		
Surr: Toluene-d8	25.9		25.00		104	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.3		25.00		93.2	80	120		0		

Sample ID: **2308042-014AMS** SampType: **MS** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85742**
Client ID: **R1-IW20-43-080123** Batch ID: **41107** Analysis Date: **8/5/2023** SeqNo: **1789118**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	61.0	0.200	20.00	39.77	106	52.2	160				
1,1-Dichloroethene	20.2	0.500	20.00	0	101	41.2	160				
Acetone	30.2	5.00	50.00	0	60.5	34.1	147				
trans-1,2-Dichloroethene	20.5	0.350	20.00	0	103	59	155				
1,1-Dichloroethane	20.2	0.500	20.00	0	101	50.1	157				
cis-1,2-Dichloroethene	20.1	0.500	20.00	0.8140	96.2	55.1	155				
(MEK) 2-Butanone	36.4	1.50	50.00	0	72.7	43.8	150				
Benzene	19.9	0.440	20.00	0.8228	95.6	56.4	150				
Trichloroethene (TCE)	18.5	0.400	20.00	0	92.5	51.5	150				
Toluene	19.8	1.00	20.00	0	99.0	57.2	148				
Tetrachloroethene (PCE)	20.6	0.350	20.00	0	103	46.3	160				
Ethylbenzene	18.2	0.400	20.00	0	91.0	57.7	146				
m,p-Xylene	37.9	1.00	40.00	0	94.7	57.1	147				
o-Xylene	18.2	0.500	20.00	0	91.0	58.6	146				
1,2,4-Trimethylbenzene	18.3	0.500	20.00	0	91.6	58.9	146				
Naphthalene	17.5	1.25	20.00	0	87.4	59.7	136				
Surr: Dibromofluoromethane	25.8		25.00		103	51.6	145				
Surr: Toluene-d8	26.2		25.00		105	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	80	120				

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-41103** SampType: **LCS** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85771**
Client ID: **LCSW** Batch ID: **41103** Analysis Date: **8/5/2023** SeqNo: **1789773**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	22.0	0.200	20.00	0	110	80	120				
1,1-Dichloroethene	22.3	0.500	20.00	0	112	80	120				
Acetone	36.5	5.00	50.00	0	72.9	80	120				S
trans-1,2-Dichloroethene	22.5	0.350	20.00	0	113	80	120				
1,1-Dichloroethane	22.4	0.500	20.00	0	112	80	120				
cis-1,2-Dichloroethene	20.8	0.500	20.00	0	104	80	120				
(MEK) 2-Butanone	41.9	1.50	50.00	0	83.8	80	120				
Benzene	21.9	0.440	20.00	0	109	80	120				
Toluene	21.6	1.00	20.00	0	108	80	120				
Tetrachloroethene (PCE)	22.7	0.350	20.00	0	113	80	120				
Ethylbenzene	20.4	0.400	20.00	0	102	80	120				
m,p-Xylene	40.9	1.00	40.00	0	102	80	120				
o-Xylene	20.3	0.500	20.00	0	102	80	120				
1,2,4-Trimethylbenzene	19.8	0.500	20.00	0	99.1	80	120				
Naphthalene	18.6	1.25	20.00	0	93.0	80	120				
Surr: Dibromofluoromethane	26.0		25.00		104	80	120				
Surr: Toluene-d8	26.6		25.00		106	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	80	120				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a Q.

Sample ID: **2308042-006ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85771**
Client ID: **B-19-080123** Batch ID: **41103** Analysis Date: **8/5/2023** SeqNo: **1789761**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	26.4	0.200						27.39	3.66	30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	ND	5.00						0		30	Q
trans-1,2-Dichloroethene	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	12.5	0.500						13.06	4.08	30	
(MEK) 2-Butanone	ND	1.50						0		30	

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2308042-006ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85771**
Client ID: **B-19-080123** Batch ID: **41103** Analysis Date: **8/5/2023** SeqNo: **1789761**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
Surr: Dibromofluoromethane	26.3		25.00		105	80	120		0		
Surr: Toluene-d8	25.6		25.00		102	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.8		25.00		95.3	80	120		0		

NOTES:
Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: **2308042-007AMS** SampType: **MS** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85771**
Client ID: **B-18-080123** Batch ID: **41103** Analysis Date: **8/5/2023** SeqNo: **1789763**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	36.5	0.200	20.00	15.05	107	52.2	160				
1,1-Dichloroethene	24.4	0.500	20.00	2.866	108	41.2	160				
Acetone	35.2	5.00	50.00	0	70.4	34.1	147				
trans-1,2-Dichloroethene	22.8	0.350	20.00	0.6970	110	59	155				
1,1-Dichloroethane	22.5	0.500	20.00	0	112	50.1	157				
cis-1,2-Dichloroethene	258	0.500	20.00	236.1	111	55.1	155				
(MEK) 2-Butanone	40.8	1.50	50.00	0	81.5	43.8	150				
Benzene	23.1	0.440	20.00	1.076	110	56.4	150				
Trichloroethene (TCE)	20.7	0.400	20.00	0.2088	102	51.5	150				
Toluene	21.6	1.00	20.00	0	108	57.2	148				
Tetrachloroethene (PCE)	23.5	0.350	20.00	0.4565	115	46.3	160				
Ethylbenzene	21.8	0.400	20.00	0	109	57.7	146				
m,p-Xylene	42.8	1.00	40.00	0	107	57.1	147				

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2308042-007AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **8/4/2023**	RunNo: **85771**
Client ID: **B-18-080123**	Batch ID: **41103**		Analysis Date: **8/5/2023**	SeqNo: **1789763**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	20.3	0.500	20.00	0	101	58.6	146				
1,2,4-Trimethylbenzene	20.7	0.500	20.00	0	104	58.9	146				
Naphthalene	20.5	1.25	20.00	0	102	59.7	136				
Surr: Dibromofluoromethane	26.4		25.00		106	51.6	145				
Surr: Toluene-d8	25.6		25.00		103	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		99.9	80	120				

Sample ID: **MB-41103**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **8/4/2023**	RunNo: **85771**
Client ID: **MBLKW**	Batch ID: **41103**		Analysis Date: **8/5/2023**	SeqNo: **1789770**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	0.500									
Acetone	ND	5.00									
trans-1,2-Dichloroethene	ND	0.350									
1,1-Dichloroethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
(MEK) 2-Butanone	ND	1.50									
Benzene	ND	0.440									
Trichloroethene (TCE)	ND	0.400									
Toluene	ND	1.00									
Tetrachloroethene (PCE)	ND	0.350									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.500									
Naphthalene	ND	1.25									
Surr: Dibromofluoromethane	26.6		25.00		106	80	120				
Surr: Toluene-d8	25.6		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.5		25.00		98.1	80	120				

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-41107**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **8/4/2023**	RunNo: **85742**
Client ID: **MBLKW**	Batch ID: **41107**		Analysis Date: **8/5/2023**	SeqNo: **1789135**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	0.500									
Acetone	ND	5.00									
trans-1,2-Dichloroethene	ND	0.350									
1,1-Dichloroethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
(MEK) 2-Butanone	ND	1.50									
Benzene	ND	0.440									
Trichloroethene (TCE)	ND	0.400									
Toluene	ND	1.00									
Tetrachloroethene (PCE)	ND	0.350									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.500									
Naphthalene	ND	1.25									
Surr: Dibromofluoromethane	26.6		25.00		106	80	120				
Surr: Toluene-d8	25.6		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.5		25.00		98.1	80	120				

Sample ID: **LCS-41122**	SampType: **LCS**	Units: **µg/L**	Prep Date: **8/7/2023**	RunNo: **85785**
Client ID: **LCSW**	Batch ID: **41122**		Analysis Date: **8/7/2023**	SeqNo: **1790167**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	20.8	0.200	20.00	0	104	80	120				
1,1-Dichloroethene	20.8	0.500	20.00	0	104	80	120				
Acetone	54.3	5.00	50.00	0	109	80	120				
trans-1,2-Dichloroethene	20.9	0.350	20.00	0	105	80	120				
1,1-Dichloroethane	21.1	0.500	20.00	0	106	80	120				
cis-1,2-Dichloroethene	20.8	0.500	20.00	0	104	80	120				
(MEK) 2-Butanone	56.2	1.50	50.00	0	112	80	120				

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-41122** SampType: **LCS** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **LCSW** Batch ID: **41122** Analysis Date: **8/7/2023** SeqNo: **1790167**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.3	0.440	20.00	0	106	80	120				
Trichloroethene (TCE)	20.2	0.400	20.00	0	101	80	120				
Toluene	21.0	1.00	20.00	0	105	80	120				
Tetrachloroethene (PCE)	21.7	0.350	20.00	0	108	80	120				
Ethylbenzene	20.5	0.400	20.00	0	103	80	120				
m,p-Xylene	41.4	1.00	40.00	0	104	80	120				
o-Xylene	20.2	0.500	20.00	0	101	80	120				
1,2,4-Trimethylbenzene	20.4	0.500	20.00	0	102	80	120				
Naphthalene	20.4	1.25	20.00	0	102	80	120				
Surr: Dibromofluoromethane	25.1		25.00		100	80	120				
Surr: Toluene-d8	25.5		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	80	120				

Sample ID: **MB-41122** SampType: **MBLK** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **MBLKW** Batch ID: **41122** Analysis Date: **8/7/2023** SeqNo: **1790351**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200									
1,1-Dichloroethene	ND	0.500									
Acetone	ND	5.00									
trans-1,2-Dichloroethene	ND	0.350									
1,1-Dichloroethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
(MEK) 2-Butanone	ND	1.50									
Benzene	ND	0.440									
Trichloroethene (TCE)	ND	0.400									
Toluene	ND	1.00									
Tetrachloroethene (PCE)	ND	0.350									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-41122** SampType: **MBLK** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **MBLKW** Batch ID: **41122** Analysis Date: **8/7/2023** SeqNo: **1790351**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.500									
Naphthalene	ND	1.25									
Surr: Dibromofluoromethane	25.6		25.00		102	80	120				
Surr: Toluene-d8	25.1		25.00		100	80	120				
Surr: 1-Bromo-4-fluorobenzene	23.8		25.00		95.1	80	120				

Sample ID: **2308086-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **BATCH** Batch ID: **41122** Analysis Date: **8/7/2023** SeqNo: **1790289**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	569	0.200						558.7	1.79	30	E
1,1-Dichloroethene	3.85	0.500						3.891	1.09	30	
Acetone	ND	5.00						0		30	
trans-1,2-Dichloroethene	15.2	0.350						15.22	0.0618	30	
1,1-Dichloroethane	2.18	0.500						2.190	0.398	30	
cis-1,2-Dichloroethene	749	0.500						751.4	0.259	30	E
(MEK) 2-Butanone	ND	1.50						0		30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	0.499	0.400						0.5757	14.2	30	
Toluene	1.12	1.00						1.115	0.608	30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	1.31	0.500						1.345	2.66	30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Naphthalene	4.77	1.25						4.791	0.442	30	
Surr: Dibromofluoromethane	25.3		25.00		101	80	120		0		
Surr: Toluene-d8	24.8		25.00		99.2	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.7	80	120		0		

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2308088-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **BATCH** Batch ID: **41122** Analysis Date: **8/8/2023** SeqNo: **1790294**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.371	0.200						0.5464	38.1	30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	16.8	5.00						16.49	2.04	30	
trans-1,2-Dichloroethene	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	1.26	0.500						1.761	33.4	30	R
(MEK) 2-Butanone	ND	1.50						0		30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	
Toluene	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
Surr: Dibromofluoromethane	24.1		25.00		96.4	80	120		0		
Surr: Toluene-d8	25.2		25.00		101	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	23.2		25.00		93.0	80	120		0		

NOTES:
R - High RPD due to low analyte concentration.

Sample ID: **2308086-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **BATCH** Batch ID: **41122** Analysis Date: **8/8/2023** SeqNo: **1790292**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	19.2	0.200	20.00	0	96.0	52.2	160				
1,1-Dichloroethene	19.1	0.500	20.00	0	95.3	41.2	160				
Acetone	34.3	5.00	50.00	3.562	61.5	34.1	147				
trans-1,2-Dichloroethene	19.5	0.350	20.00	0	97.5	59	155				
1,1-Dichloroethane	19.5	0.500	20.00	0	97.5	50.1	157				
cis-1,2-Dichloroethene	20.9	0.500	20.00	1.270	98.3	55.1	155				

Work Order: 2308042
CLIENT: Calibre Systems
Project: Fox Avenue

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2308086-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **8/7/2023** RunNo: **85785**
Client ID: **BATCH** Batch ID: **41122** Analysis Date: **8/8/2023** SeqNo: **1790292**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
(MEK) 2-Butanone	41.5	1.50	50.00	0	82.9	43.8	150				
Benzene	19.6	0.440	20.00	0	98.0	56.4	150				
Trichloroethene (TCE)	18.6	0.400	20.00	0	93.1	51.5	150				
Toluene	20.2	1.00	20.00	0	101	57.2	148				
Tetrachloroethene (PCE)	20.9	0.350	20.00	0	105	46.3	160				
Ethylbenzene	20.2	0.400	20.00	0	101	57.7	146				
m,p-Xylene	40.4	1.00	40.00	0	101	57.1	147				
o-Xylene	19.6	0.500	20.00	0	97.9	58.6	146				
1,2,4-Trimethylbenzene	20.6	0.500	20.00	0	103	58.9	146				
Naphthalene	22.6	1.25	20.00	0	113	59.7	136				
Surr: Dibromofluoromethane	25.5		25.00		102	51.6	145				
Surr: Toluene-d8	25.4		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.4		25.00		102	80	120				

Sample ID: **LCS-41103** SampType: **LCS** Units: **µg/L** Prep Date: **8/4/2023** RunNo: **85771**
Client ID: **LCSW** Batch ID: **41103** Analysis Date: **8/9/2023** SeqNo: **1791655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	17.8	0.400	20.00	0	89.1	80	120				
Surr: Dibromofluoromethane	24.5		25.00		98.0	80	120				
Surr: Toluene-d8	24.8		25.00		99.3	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.9		25.00		104	80	120				

Fremont Analytical
An Alliance Technical Group Company

Sample Log-In Check List

Client Name:	CLBRE	Work Order Number:	2308042
Logged by:	Clare Griggs	Date Received:	8/3/2023 10:00:00 AM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:	Justin Neste	Date:	8/3/2023
By Whom:	Clare Griggs	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Confirming COC/samples to be analyzed.		
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp ºC
Sample	5.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8/1/23 Page: 1 of: 4

Laboratory Project No (internal): 2308042

Special Remarks:

Project Name: Fox Avenue

Project No:

Client: CALIBRE

Address: 6361 Walker ln Ste 1100

City, State, Zip: Alexandria, VA 22310

Telephone: 425 241 8449

Collected by: RLassen + JNeste

Location: Fox Avenue

Report To (PM): Tom Mckeon, Justin Neste

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Email(s): Tom.Mckeon@calibresys.com, justin.neste@calibresys.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	TOC				Comments
~~1 MW-6-080123~~	~~8/1/23~~		GW	~~3~~	~~X~~															
2 R2-IW1-17-080123	8/1/23	0734	GW	4	X											X				
3 R2-IW1-45-080123	8/1/23	0803	GW	4	X											X				
~~4 B-33a-080123~~				~~3~~	~~X~~															
5 B-58-080123	8/1/23	0900	GW	3	X															
6 B-35-080123	8/1/23	0913	GW	3	X															
7 DUP01-080123	8/1/23	0800	GW	3	X															
8 B-19-080123	8/1/23	1010	GW	3	X															
9 B-18-080123	8/1/23	1048	GW	3	X															
10 R1-IW3A-080123	8/1/23	1247	GW	4	X											X				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Rlene Lassen	8/2/23 1840	x	Nate Mis	8/3/23 10:00
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8/1/23 Page: 2 of: 4

Laboratory Project No (internal): 2308042

Project Name: Fox Ave

Special Remarks:

Client: CALIBRE

Project No:

Address: 6361 Walker Ln Ste 1100

Collected by: R Lassen JNesh

City, State, Zip: Alexandria, VA 22310

Location: Fox Ave

Telephone: 425 241 8449

Report To (PM): Tom McKeon, Justin Nesh

Disposal: Samples will be disposed in 30 days unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

Email(s): Tom.mckeon@calibresys.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	TOC	Comments
1	B-20A-080123	8/1/23	1338	GW	3	X												
2	B-54-080123		1443		3	X												
3	R1-IW12-080123		1529		4	X										X		
4	R1-IW20-13-080123		1638		3	X												
5	DUP02-080123		0800		3	X												
6	R1-IW20-43-080123		1707		3	X												
7	RO-IW2D-080223	8/2/23	0752		3	X												
8	RO-IW7D-080223		0845		4	X										X		
9	DUP03-080223		0800		3	X												
10	RO-IW3D-080223		1002		4	X										X		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ (specify)

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Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Rune Lassa	8/2/23 1840	x	Nate Rizs	8/3/23 10:00
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8/1/23 Page: 3 of: 4

Laboratory Project No (internal): 2308042

Project Name: Fox Ave

Special Remarks:

Client: Calibre

Project No:

Address: 6361 Walker Ln #1100

Collected by: R Lassen & J Neste

City, State, Zip: Alexandria, VA, 22310

Location: Fox Ave

Telephone: 425 241 8449

Report To (PM): Tom Mckeon, Justin Neste

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Email(s): Tom.Mckeon@Calibresys.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total/~~Dissolved~~ (circle)	Anions (IC)***	EDB (8011)	TOC	Comments
1	MW-86-080123	8/1/23	0720	GW	3	X												
2	B-33A-080123		0759		3	X												
3	MW-7-080123		0944		3	X												
4	MW-9-080123		1010		4	X								X		X		
5	B-49-080123		1042		3	X												
6	~~SP-02-080123~~		~~1100~~		~~3~~	~~X~~												
7	SP-03-080123		1105		3	X												
8	SP-03B-080123		1107		3	X												
9	SP-04-080123		1110		3	X												
10	B-61-080123		1240															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ____ (specify)

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x	Rune Lassen	8/2/23 1840	x	Nate Rizs	8/3/23 10:00
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8/2/2023 Page: 4 of: 4

Laboratory Project No (internal): 2308042

Project Name: Fox Ave

Special Remarks:

Client: Calibre

Project No:

Address: 6361 Walker Ln #1100

Collected by: R Lassen & J Neste

City, State, Zip: Alexandria, VA 22310

Location: Fox Ave

Telephone: 425-241-8449

Report To (PM): Tom Mckeon Josh Neste

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Email(s): Tom.Mckeon@calibresys.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total ~~/ Dissolved~~ (circle)	Anions (IC)***	EDB (8011)	TOC				Comments
1	RI-IW4-080123	8/1/23	1330	GW	4	X								X			X				
2	B22-080123		1445		3	X															
3	MW1-I-080123		1540		3	X															
4	MW2-I-080123		1610		3	X															
5	MW-18S-080123		1708		3	X															
6	B-66-080223	8/2/23	0840		3	X															
7	B-64-080223		0935		3	X															
8	B-65-080223		1030		3	X															
9	TRIP BLANK					X															
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☐ Standard ☐ Next Day
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Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Rune Lassen	8/4/23 1840	x	Nate Ries	8/3/23 10:00
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Appendix C

Time Series Graphs

Appendix C – Summary and Time Series of Recent Sampling Data

Center of the plume wells are highlighted in Site Map Figure 1. The wells are linked by transect lines related to their respective areas (i.e. Northwest Corner area, Fox Avenue, Seattle Boiler Works area). Time series trend figures in both linear and logarithmic scale are presented for the wells highlighted on Figure 1.

At the Myrtle St. Embayment Seeps all recent sampling results are below the site cleanup levels (CULs). In addition, each Seep location has been below CULs for a number of years as presented on the time series trend figures. Seep SP-02 has been below CULs since 2018, SP-03 and SP-03B have been below CULs since 2020 and SP-04 has been below CULs since 2014.

Transect line C-C' which runs perpendicular to the plume flow path and is located from Seattle Boiler Works property to Myrtle St. All wells within this transect are below the remediation level of 250 ug/L and many have been since 2010 to 2015. In addition, as of 2022, all wells within this transect are below the CULs. The trend figures show CVOCs consistently decreasing in this downgradient area of the plume.

Transect B-B' on Fox Avenue, is the Conditional Point of Compliance (CPOC) for the Site and includes wells within the transects A-A' and B-B', see Figure 1. All wells located on transect B-B' (center of the plume area) have been below the RL since 2016 and 8 of the 13 wells in this area are below CULs. All wells in this area show CVOCs consistently decreasing over time similar to wells in transect C-C'.

Transect A-A' includes wells along the CPOC within the northwest corner area of the site. As of 2021, all wells within this transect have been below the RL and, with Ecology approval, many of the wells have been dropped from regular monitoring as initial baseline sampling results were already below the RL.

Legend

- S-4 — Seep
- MW-7 — Well, 1st Water Bearing Zone
- MW-8 — Well, 2nd Water Bearing Zone
- R1-IW1 — Injection Well
- Property Line

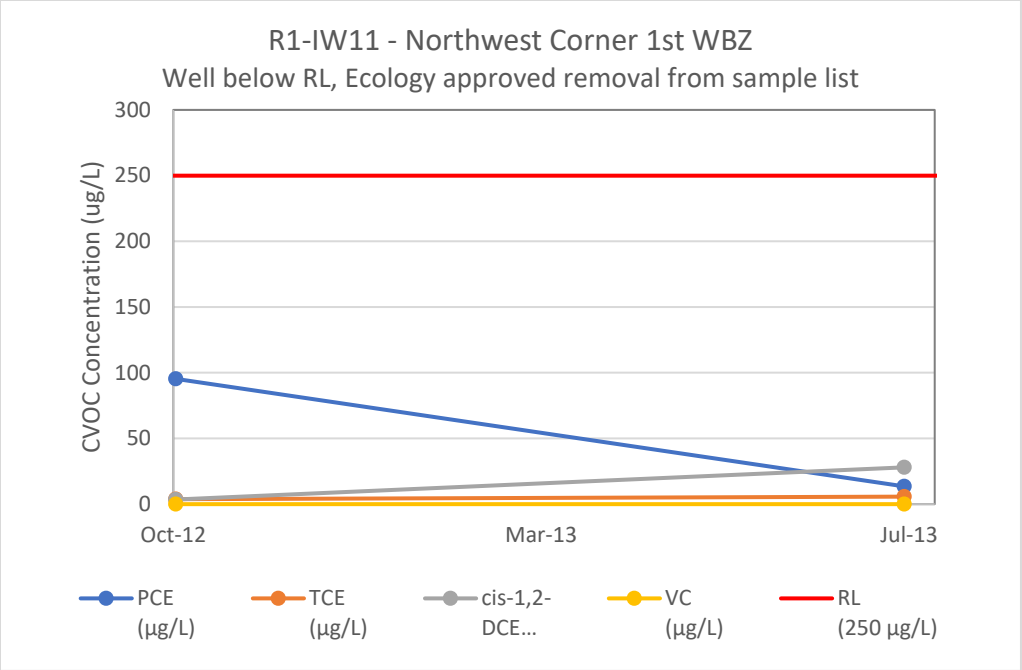
A
A'
B
B'
C
C'
R1-IW9
B-54
S. WILLOW ST.
R1-IW11
PARKING
R1-IW8
B-66
B-67
OLD WAREHOUSE
LOADING DOCK
SECONDARY CONTAINMENT AREA
R1-IW12
R1-IW10
NW1-1
NW1-2
NW2-2
NW2-1
ACCESS RAMP
R1-IW13
C A S C A D E C O L U M B I A
OFFICE
MAIN WAREHOUSE
R1-IW14
R0-IW22D
DISTRIBUTION WAREHOUSE
B-23
R1-IW16
R0-IW23D
COVERED STORAGE
R0-IW3D
R0-IW2D
MW-15D
B-22
R1-IW15
COVERED PARKING AREA
LOADING DOCK
R0-IW24D
R0-IW7D
R0-IW1D
R0-IW7S
R0-IW6D
R1-IW21
RAMP
R0-IW6S
FORMER USTs
DAWN FOOD PRODUCTS
MW-16D
R0-IW5D
R0-IW5S
MW-19D
MW-14
R0-IW4D
R0-IW4S
R0-IW11D
R0-IW11S
MW-18S
R0-IW8D
COVERED STORAGE
R0-IW8S
FOX AVENUE S.
B-77
B-78
R1-IW2
R0-IW10D
R0-IW9S
R0-IW10S
R0-IW9D
R1-IW3A
R1-IW3B
MW-17D
SECONDARY CONTAINMENT AREA
R1-IW4A
B-49
B-59
B-58
R1-IW4B
B-45
R1-IW5
MW-10
MW-9
R2-IW11
R2-IW10
B-60
B-61
R1-IW6
B-21
B-20A
R1-IW7
MW-8
MW-7
SEATTLE BOILER WORKS
R2-IW1
R2-IW2
R2-IW9
R1-IW17
SEATTLE IRON & METALS YARD
MW-5
MW-6
MW-3
MW-4
B-63
B-62
R1-IW18
R2-IW8
R1-IW19
B-19
B-18
R1-IW20
S-4 - Below CULs since 2014 (4 sample events)
S-3b - Below CULs since 2020 (4 sample events)
S-3 - Below CULs since 2020 (4 sample events)
S-2 - Below CULs since 2018 (2 sample events)
S-4
S-3b
S-3
S-2
R2-IW3
B-65
B-64
R2-IW4
R2-IW5
R2-IW7
B-35
B-36
S. MYRTLE STREET EMBAYMENT
B-34
B-33A
S. MYRTLE ST.
BLDG.
R2-IW6
N
0 15 30 60 Feet

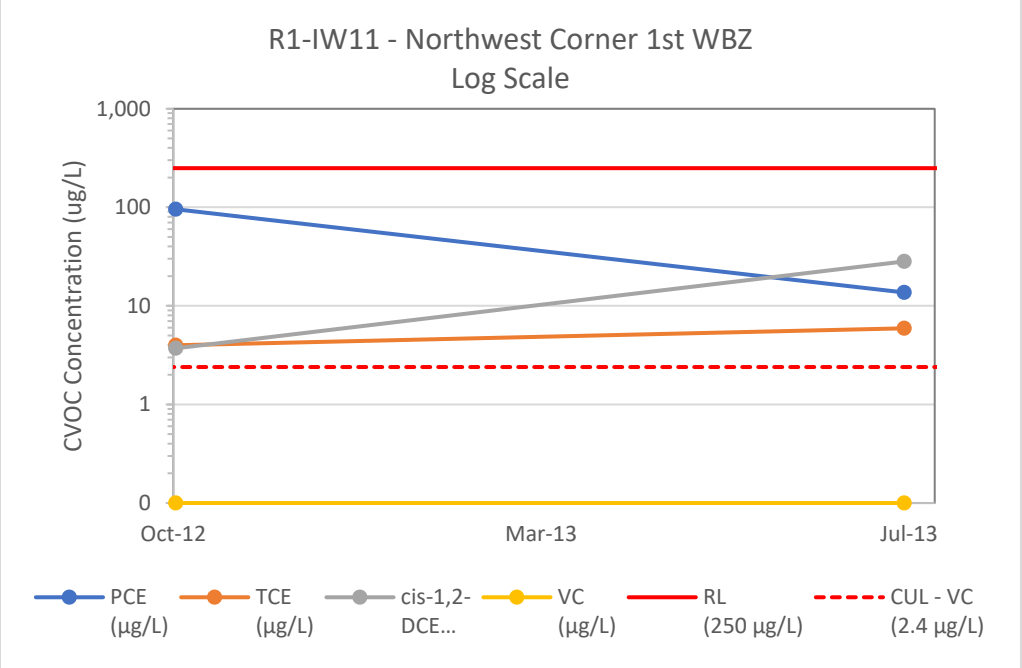
Fox Avenue Site
Seattle, Washington

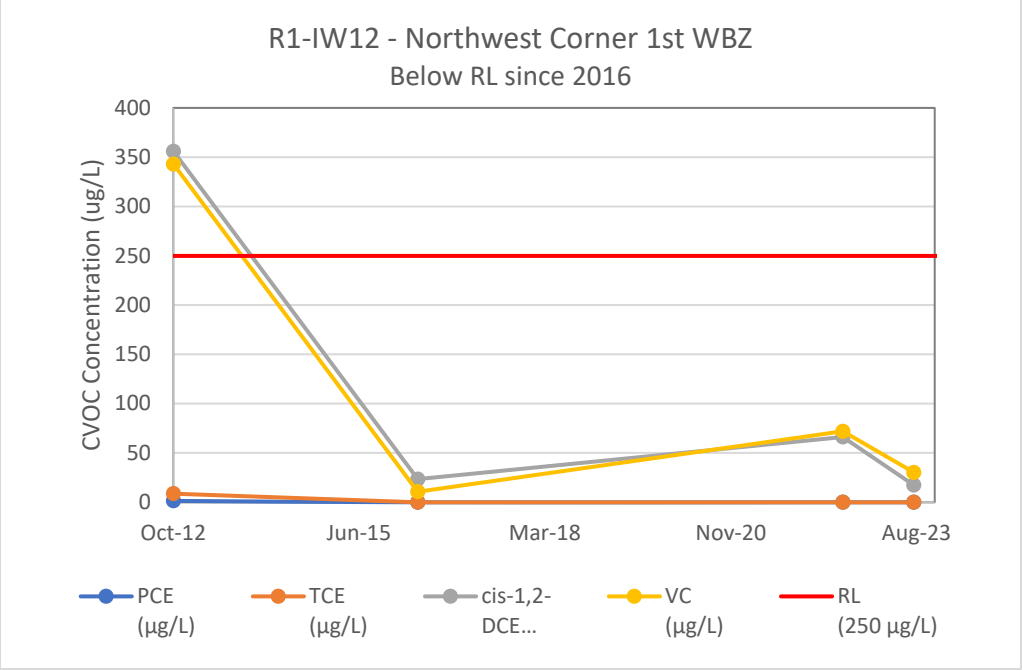
Figure 1
Site Plan

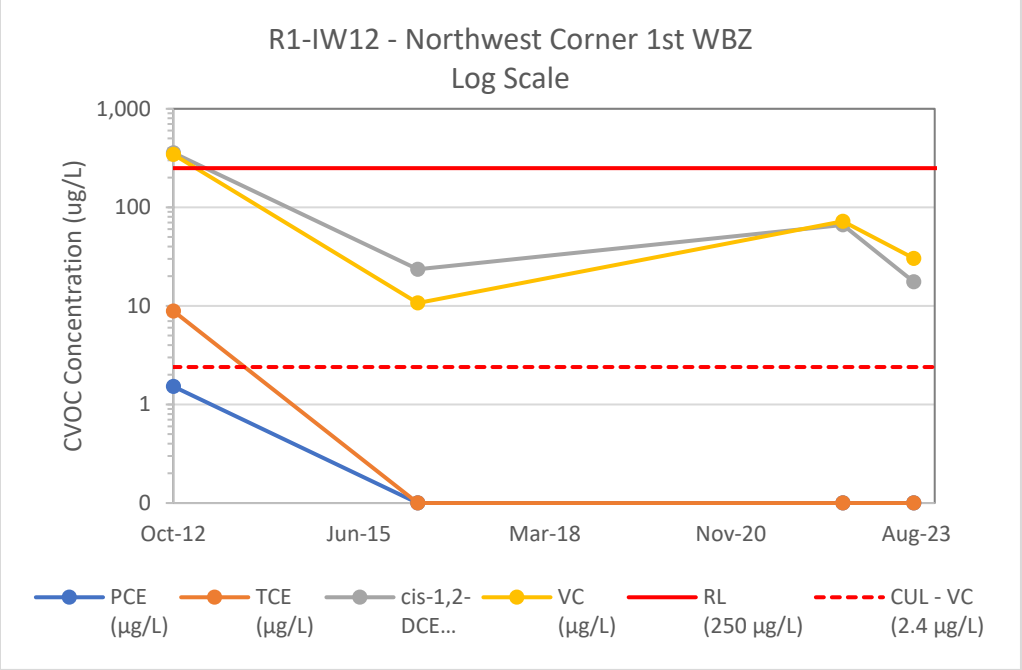
A – A' Transect

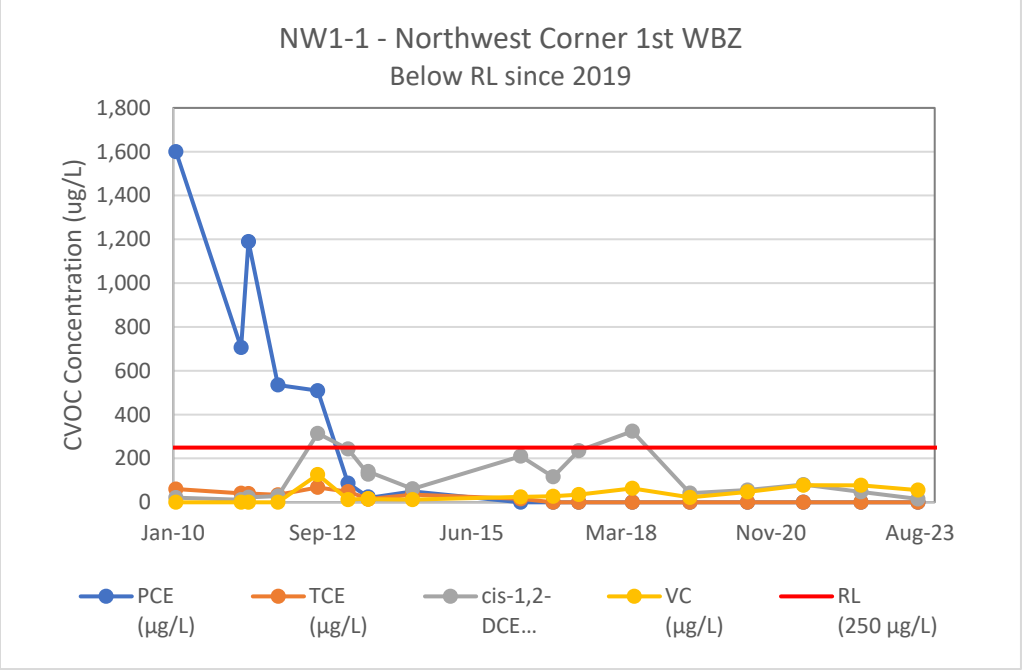
Northwest Corner Area

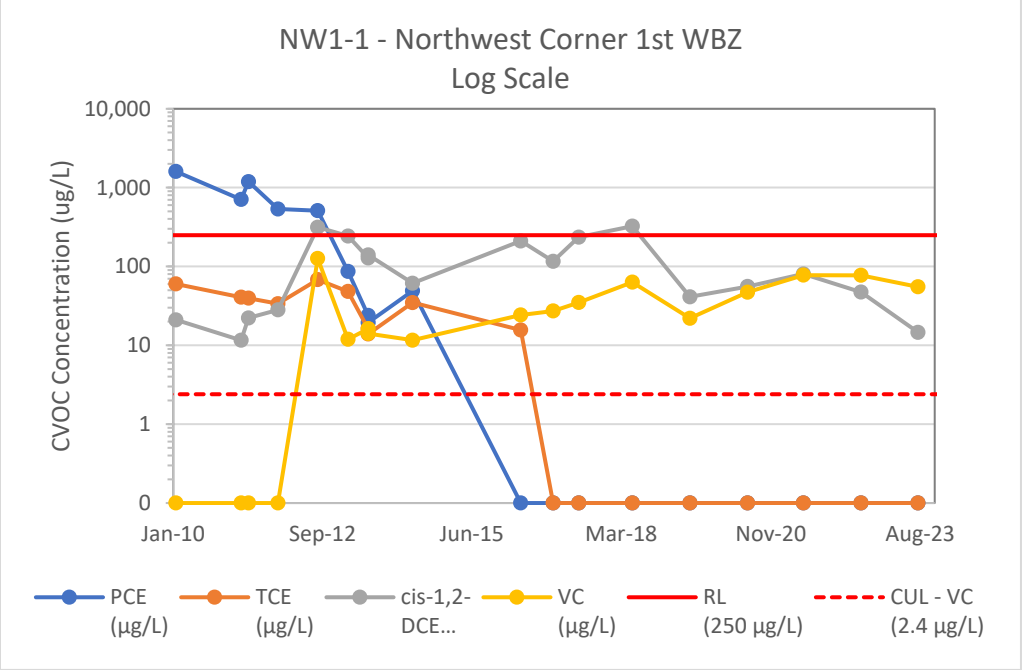


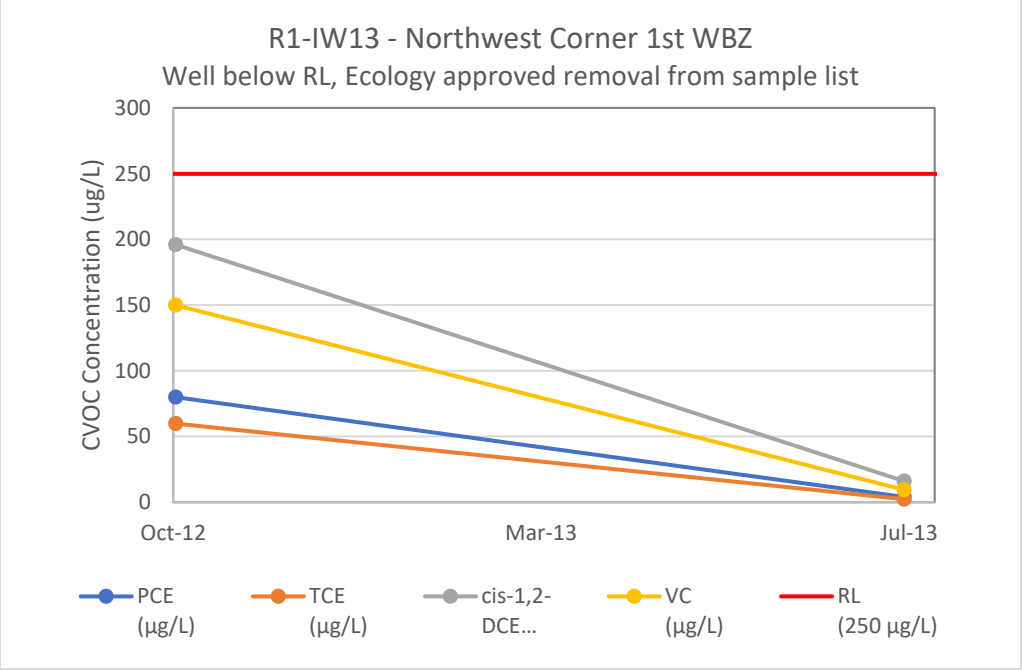


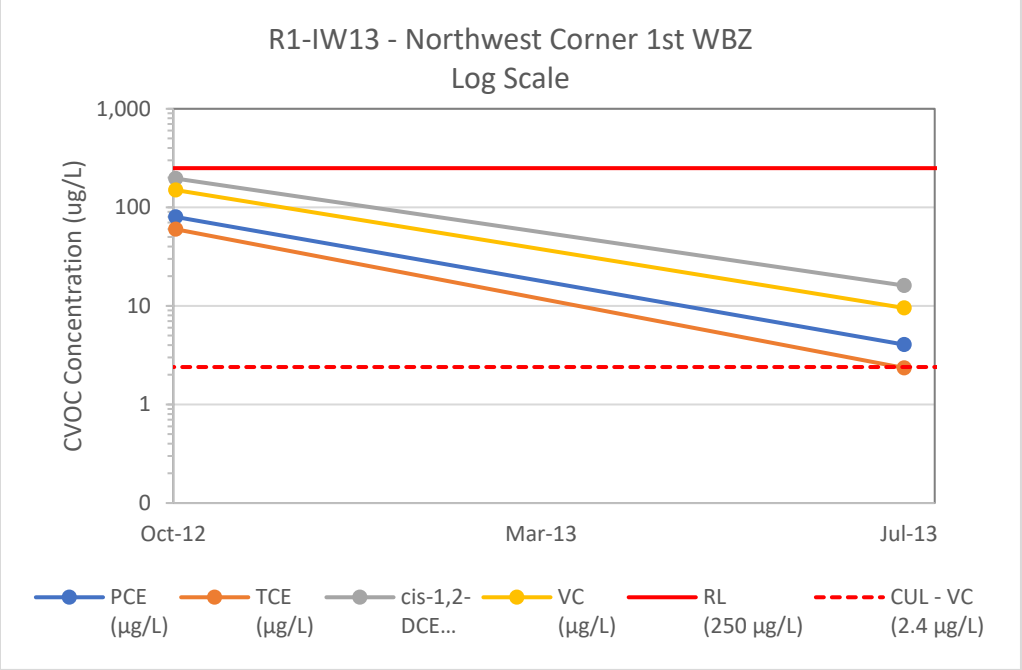

R1-IW12 - Northwest Corner 1st WBZ
Below RL since 2016
CVOC Concentration (ug/L)
400
350
300
250
200
150
100
50
0
Oct-12
Jun-15
Mar-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)

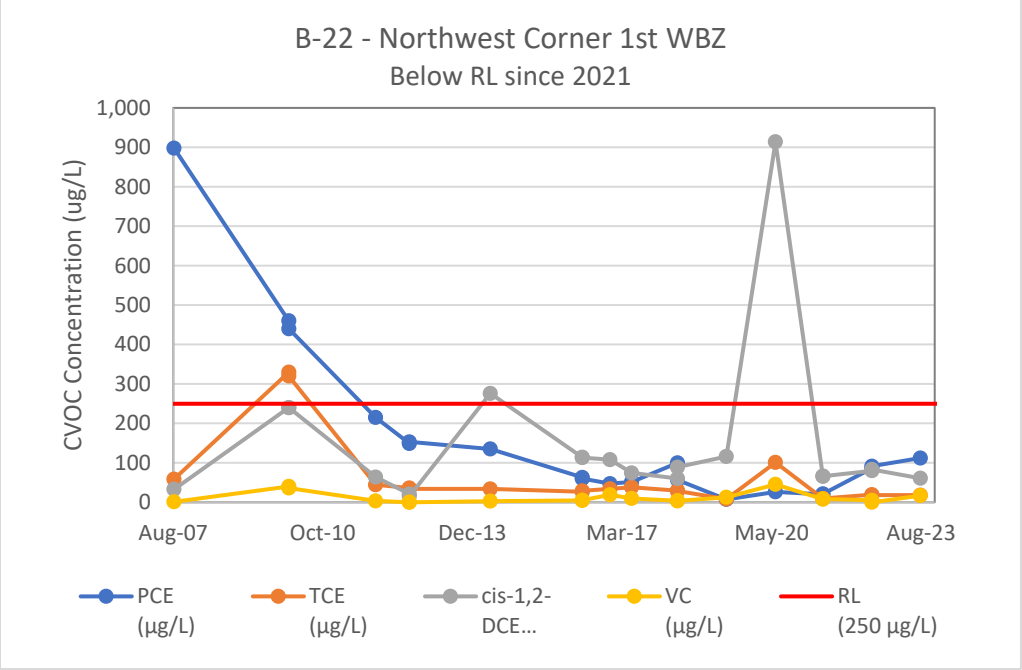

R1-IW12 - Northwest Corner 1st WBZ
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
Oct-12
Jun-15
Mar-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

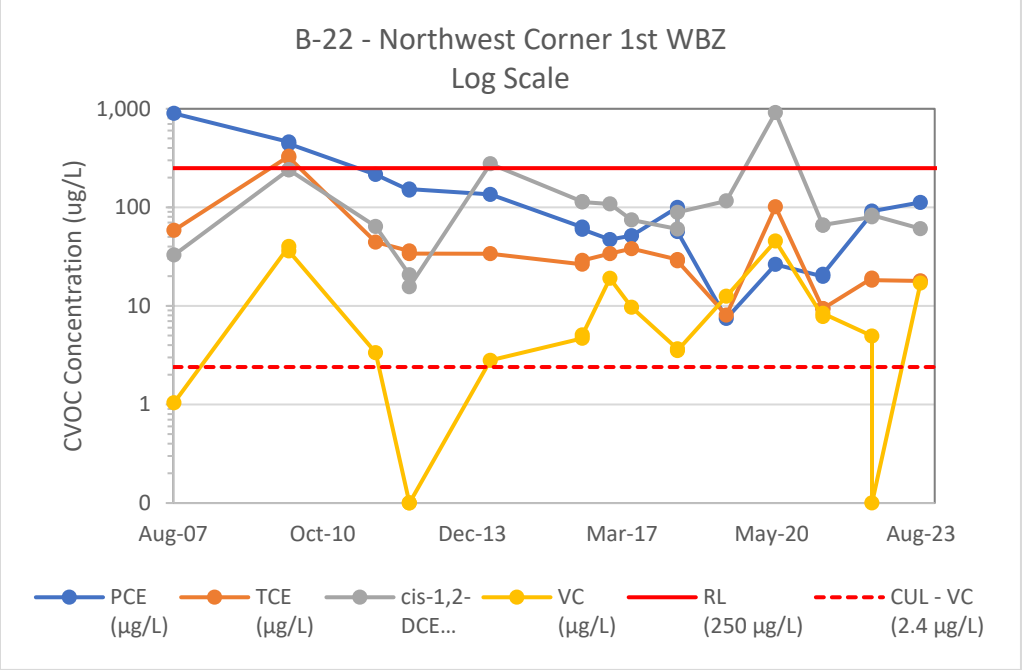

NW1-1 - Northwest Corner 1st WBZ
Below RL since 2019
CVOC Concentration (ug/L)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Jan-10
Sep-12
Jun-15
Mar-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE...
VC (µg/L)
RL (250 µg/L)

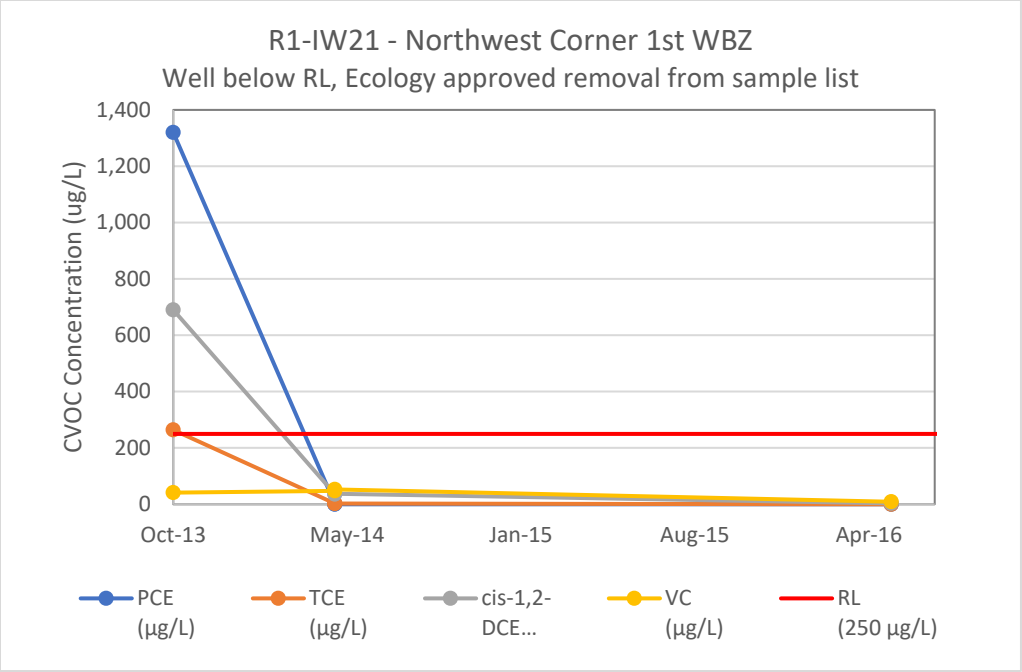

NW1-1 - Northwest Corner 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jan-10
Sep-12
Jun-15
Mar-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE...
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

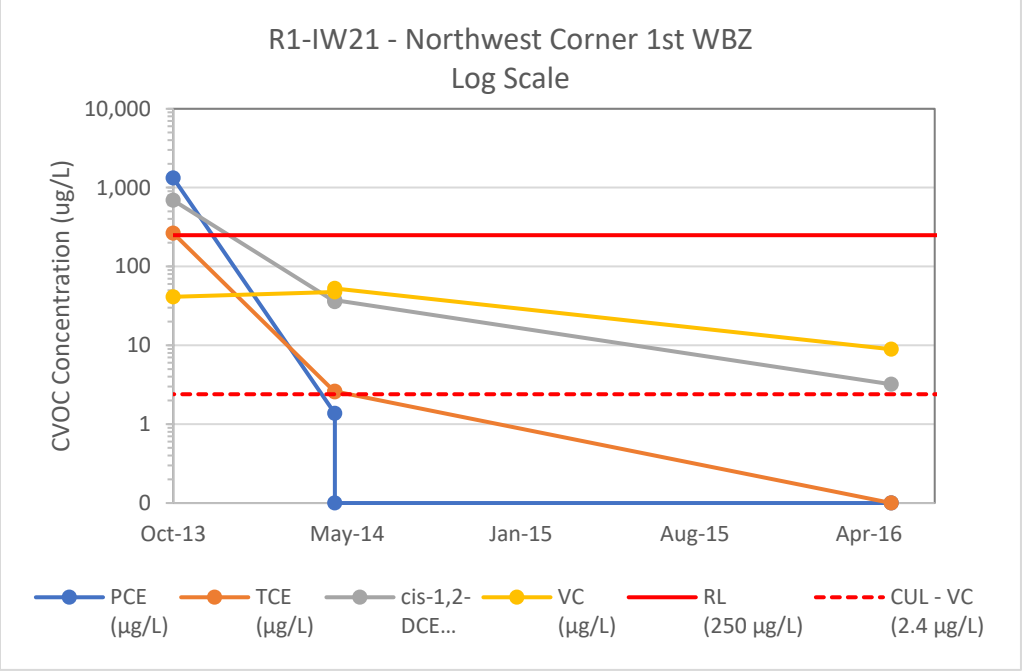

R1-IW13 - Northwest Corner 1st WBZ
Well below RL, Ecology approved removal from sample list
CVOC Concentration (ug/L)
300
250
200
150
100
50
0
Oct-12
Mar-13
Jul-13
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)


R1-IW13 - Northwest Corner 1st WBZ
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
Oct-12
Mar-13
Jul-13
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)


B-22 - Northwest Corner 1st WBZ
Below RL since 2021
CVOC Concentration (ug/L)
1,000
900
800
700
600
500
400
300
200
100
0
Aug-07
Oct-10
Dec-13
Mar-17
May-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)

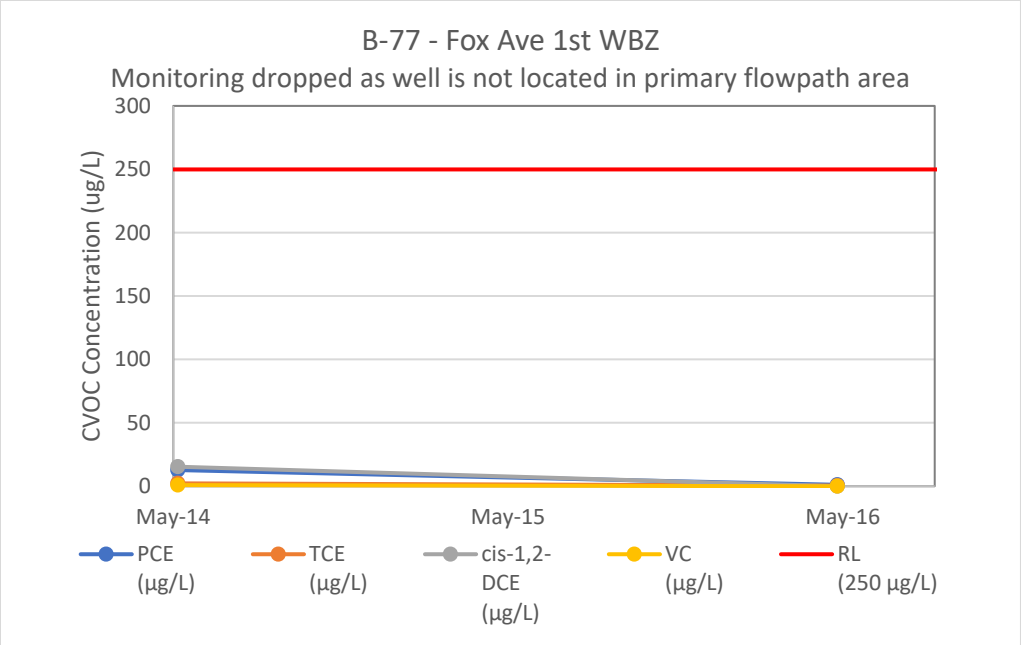

B-22 - Northwest Corner 1st WBZ
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
Aug-07
Oct-10
Dec-13
Mar-17
May-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

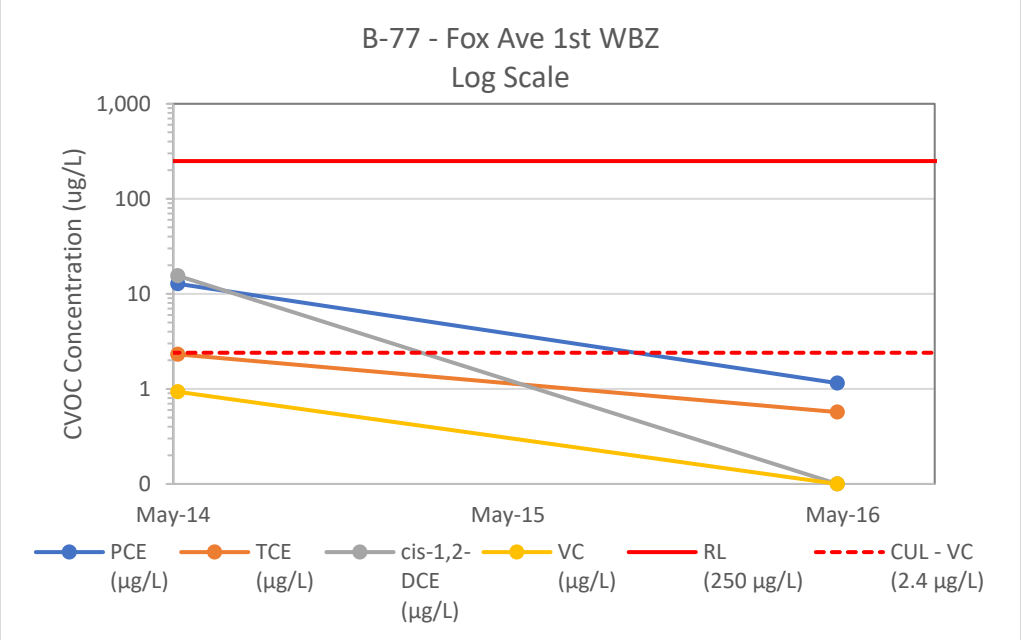

R1-IW21 - Northwest Corner 1st WBZ
Well below RL, Ecology approved removal from sample list
CVOC Concentration (ug/L)
1,400
1,200
1,000
800
600
400
200
0
Oct-13
May-14
Jan-15
Aug-15
Apr-16
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)

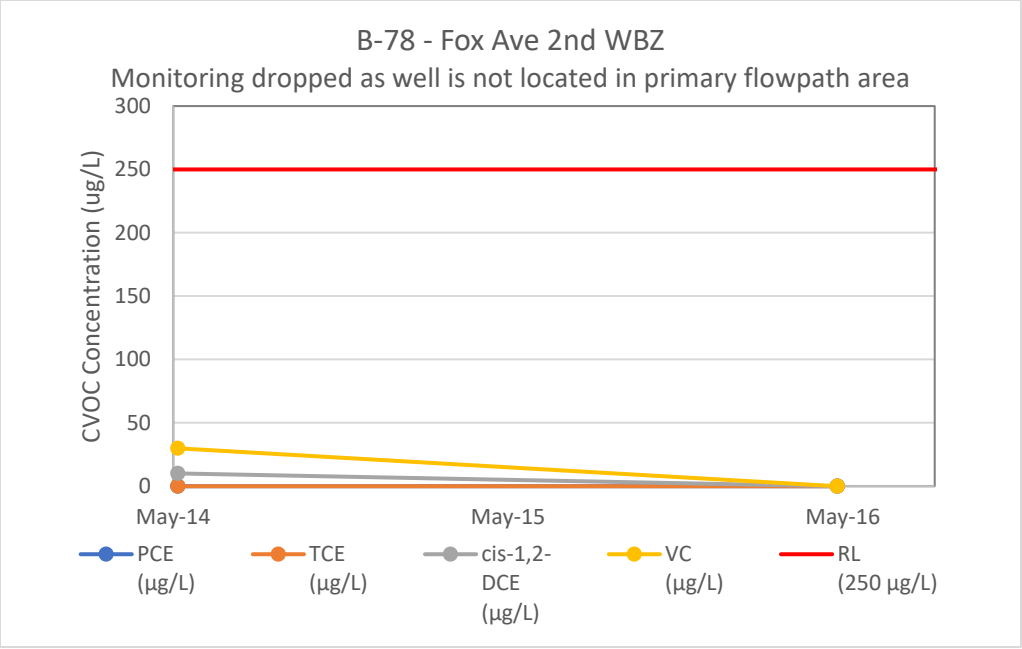

R1-IW21 - Northwest Corner 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Oct-13
May-14
Jan-15
Aug-15
Apr-16
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

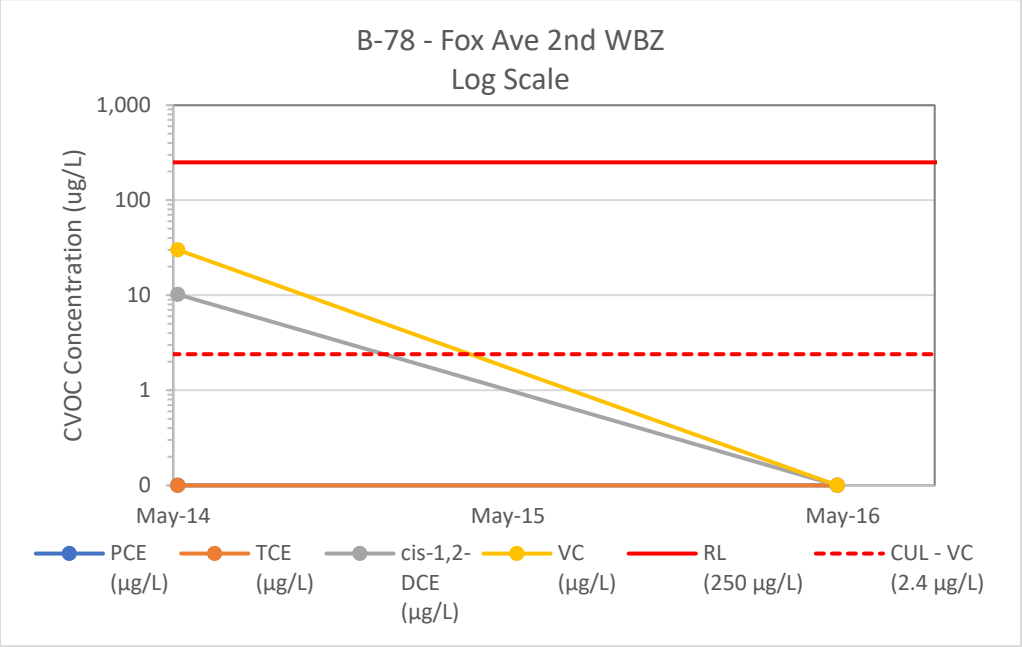
B to B' Transect

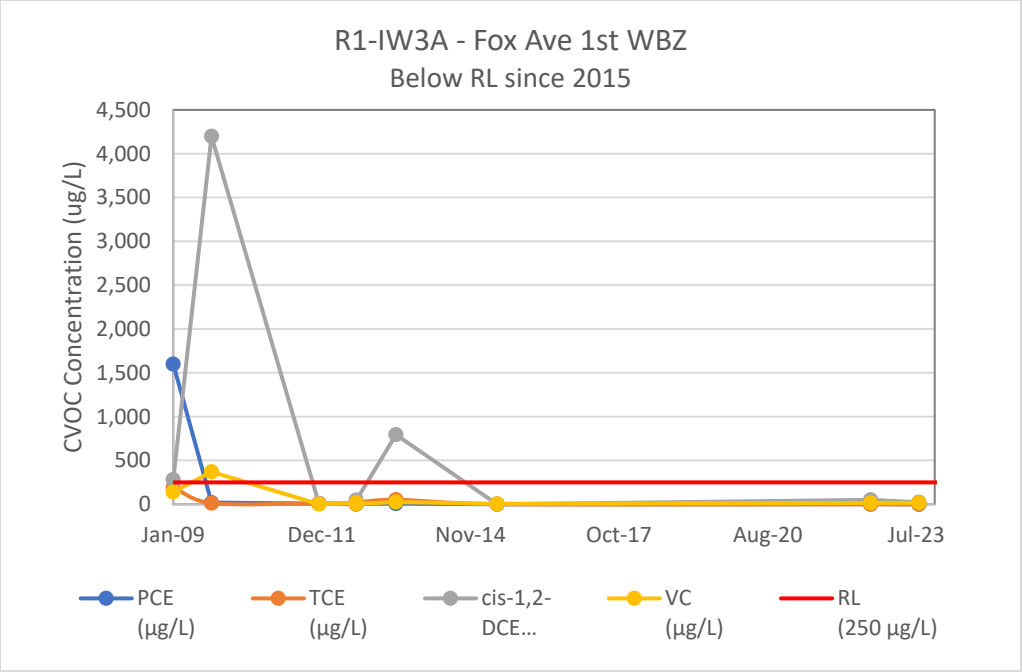
Fox Avenue – Center of the plume –

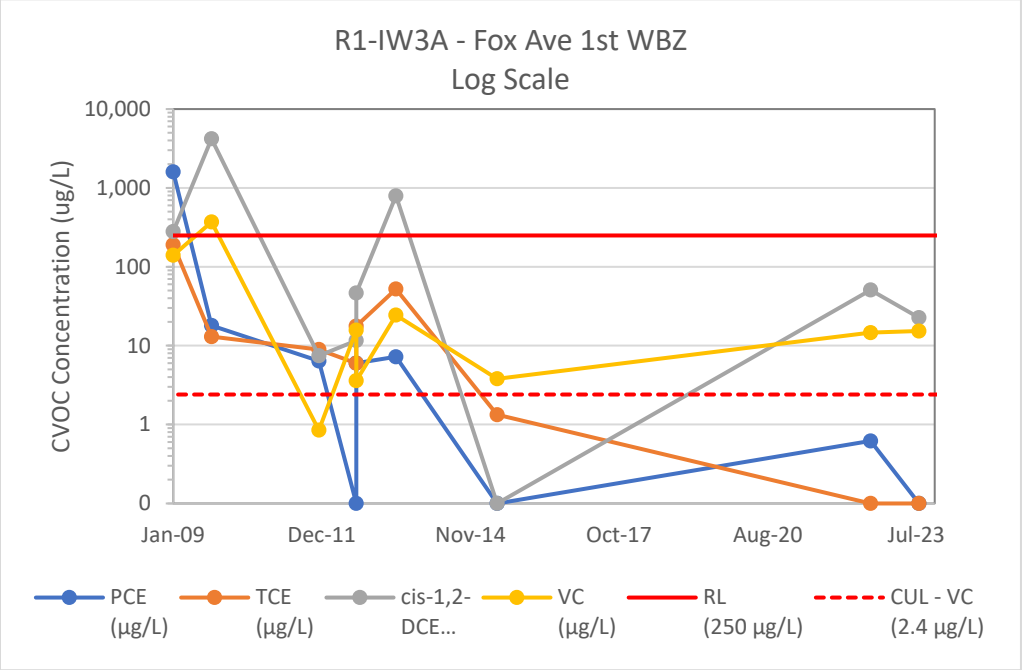


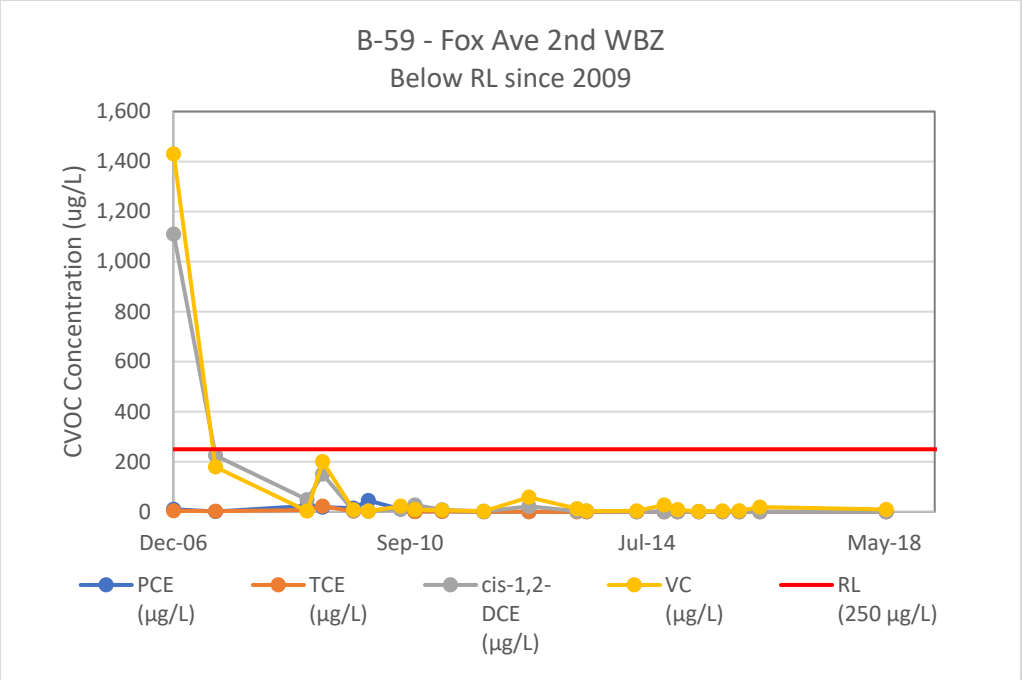


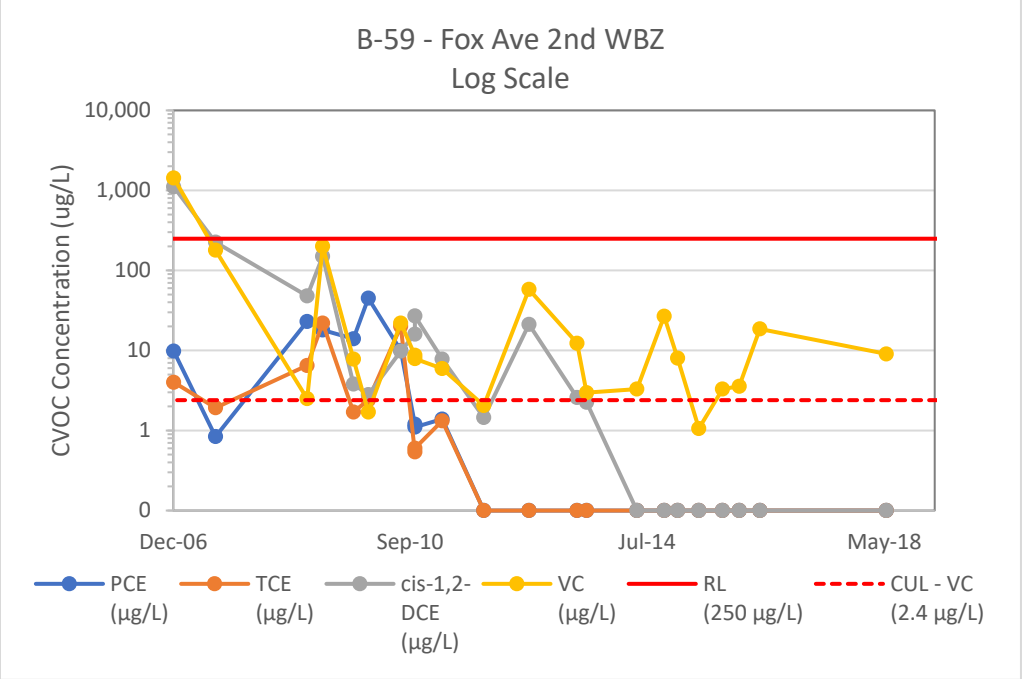

B-78 - Fox Ave 2nd WBZ
Monitoring dropped as well is not located in primary flowpath area
CVOC Concentration (ug/L)
300
250
200
150
100
50
0
May-14
May-15
May-16
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

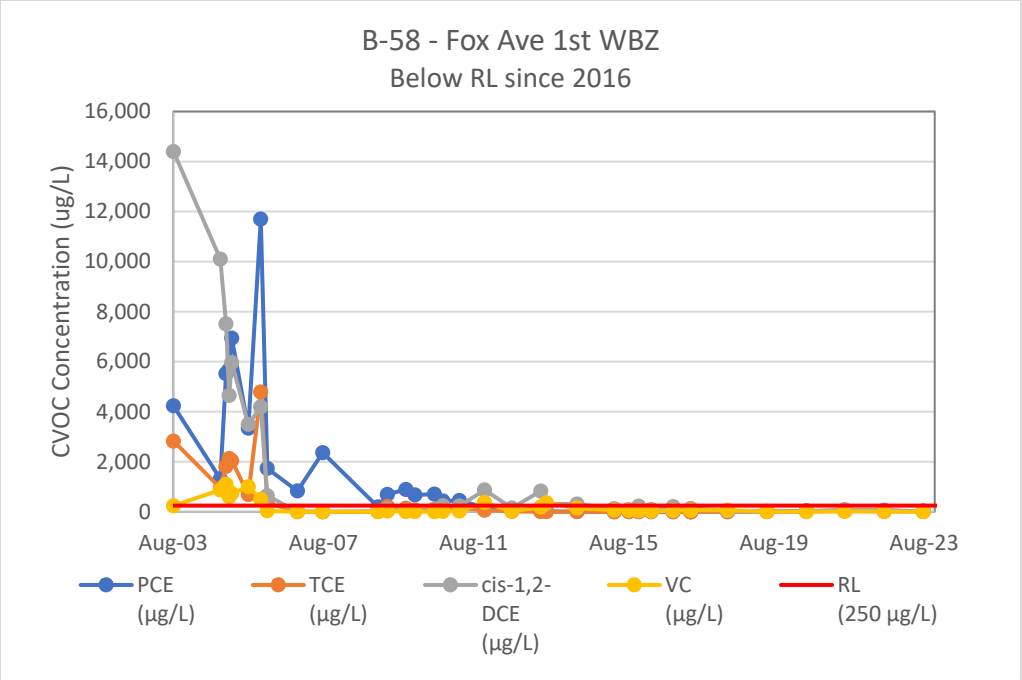

B-78 - Fox Ave 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
May-14
May-15
May-16
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

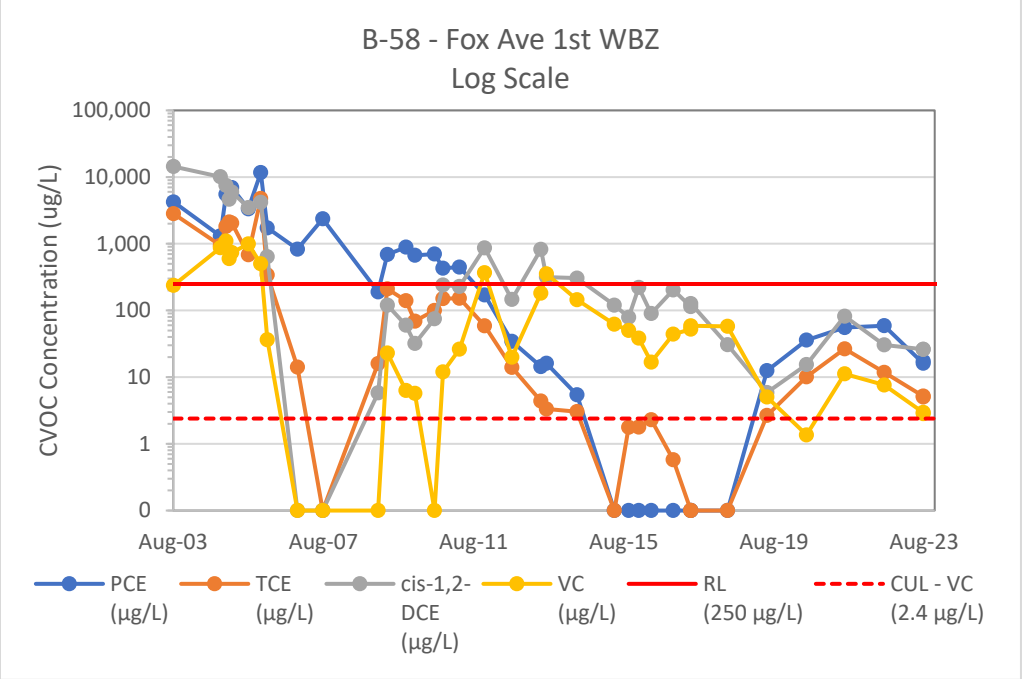

R1-IW3A - Fox Ave 1st WBZ
Below RL since 2015
CVOC Concentration (ug/L)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Jan-09
Dec-11
Nov-14
Oct-17
Aug-20
Jul-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)

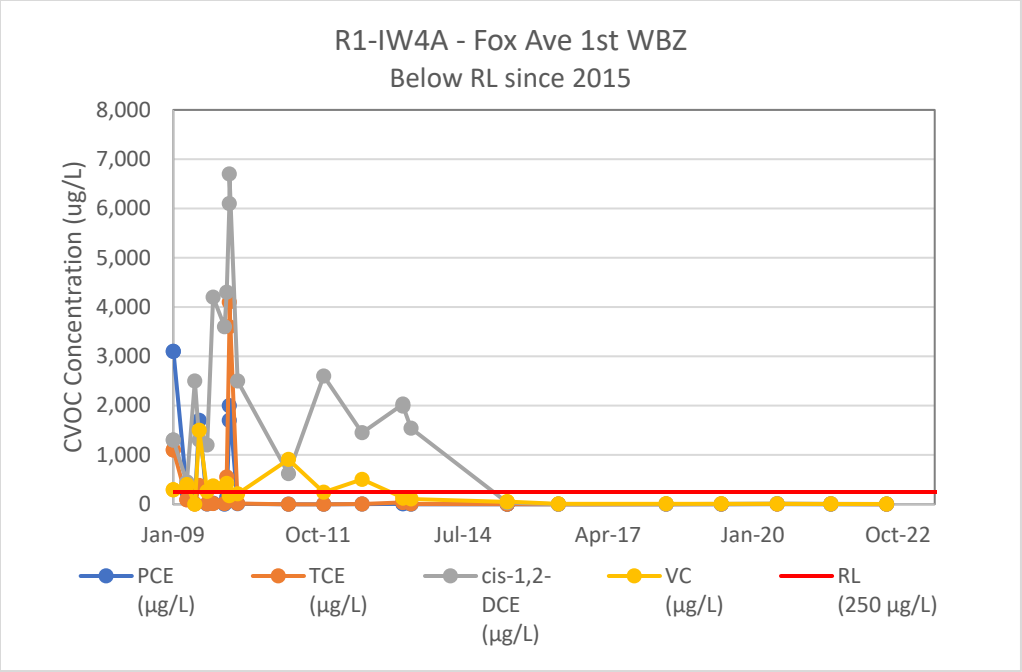

R1-IW3A - Fox Ave 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jan-09
Dec-11
Nov-14
Oct-17
Aug-20
Jul-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE…
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

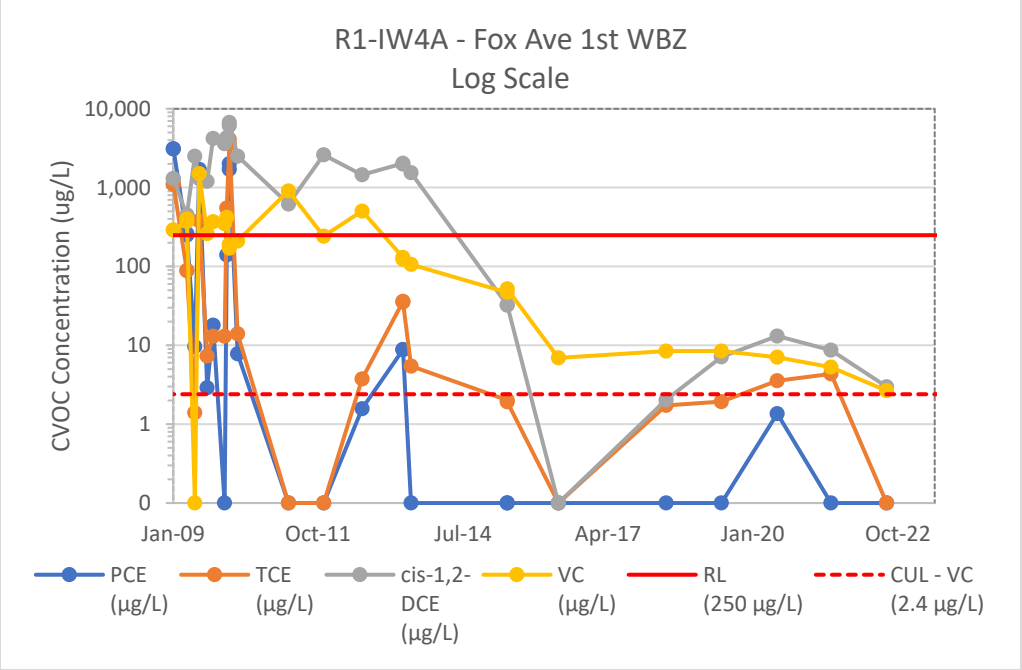

B-59 - Fox Ave 2nd WBZ
Below RL since 2009
CVOC Concentration (ug/L)
1,600
1,400
1,200
1,000
800
600
400
200
0
Dec-06
Sep-10
Jul-14
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

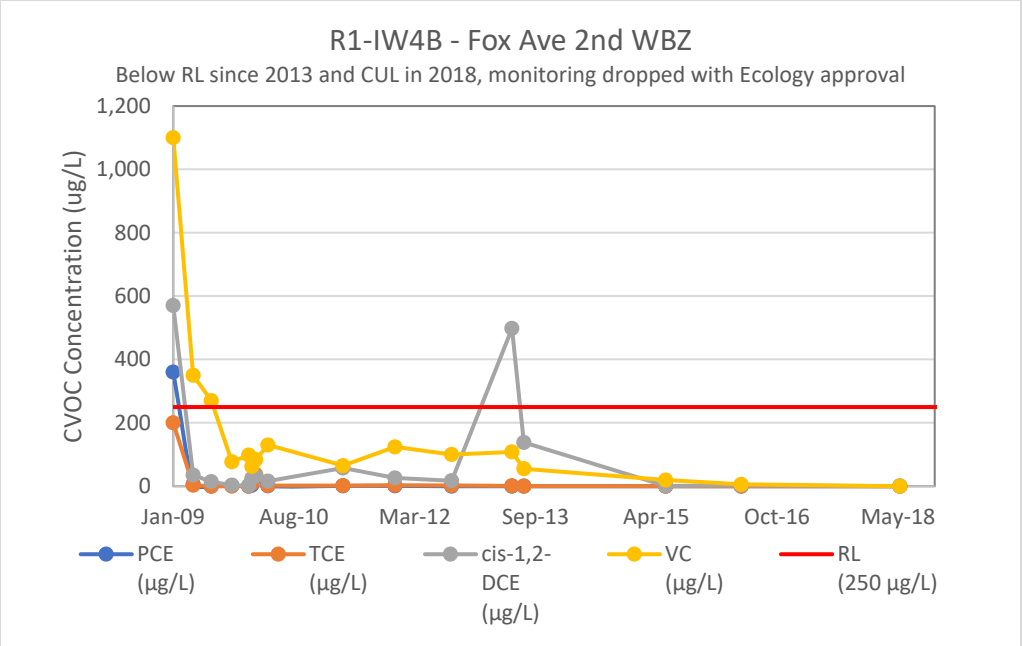

B-59 - Fox Ave 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Dec-06
Sep-10
Jul-14
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

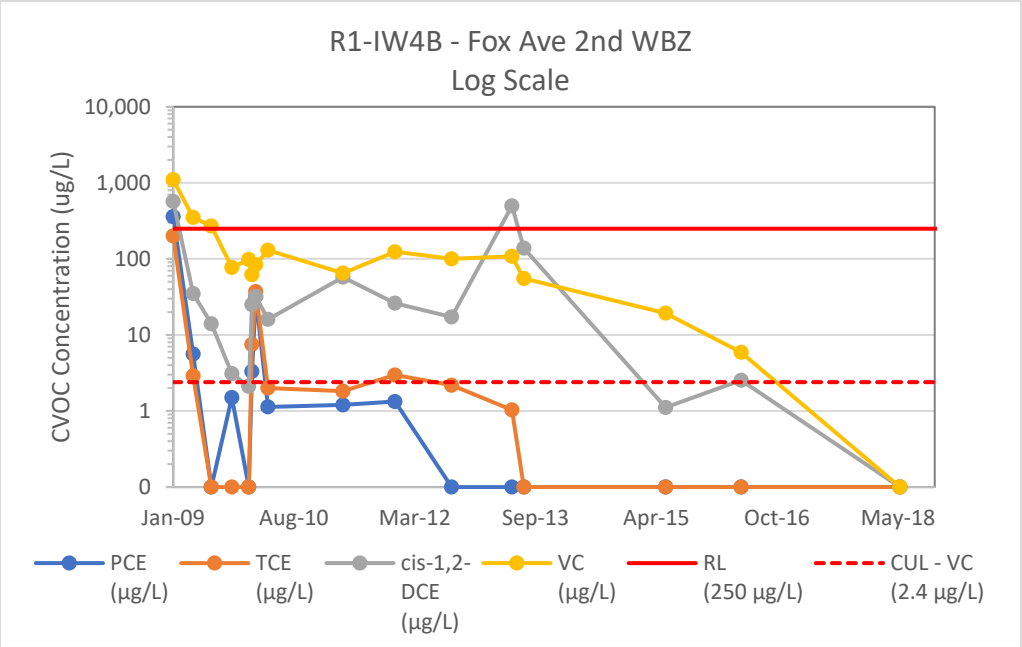

B-58 - Fox Ave 1st WBZ
Below RL since 2016
CVOC Concentration (ug/L)
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Aug-03
Aug-07
Aug-11
Aug-15
Aug-19
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

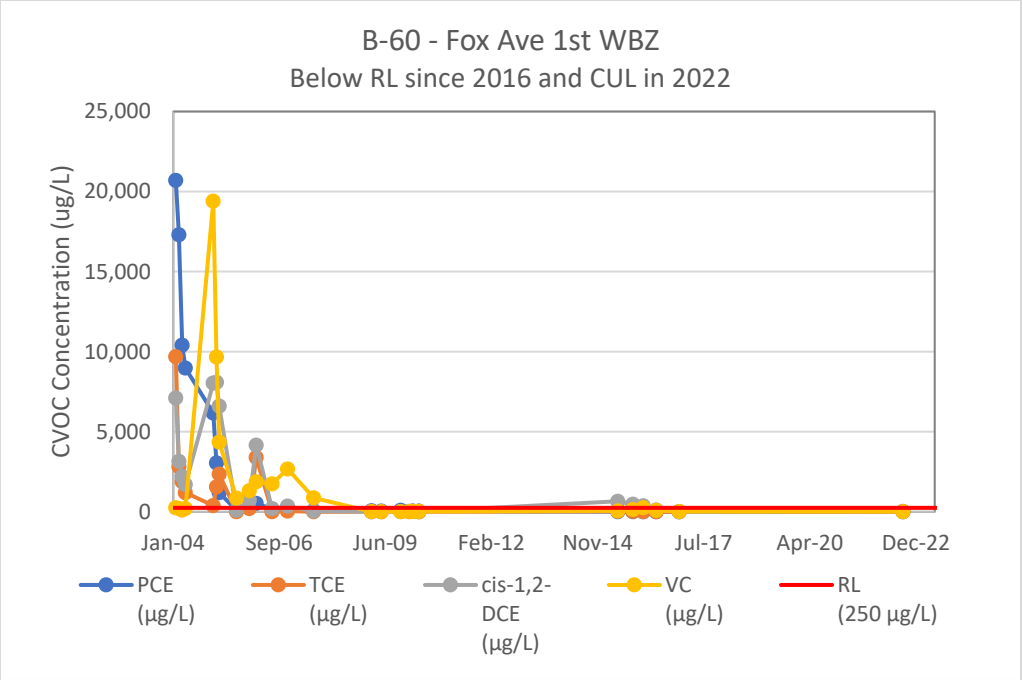

B-58 - Fox Ave 1st WBZ
Log Scale
CVOC Concentration (ug/L)
100,000
10,000
1,000
100
10
1
0
Aug-03
Aug-07
Aug-11
Aug-15
Aug-19
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

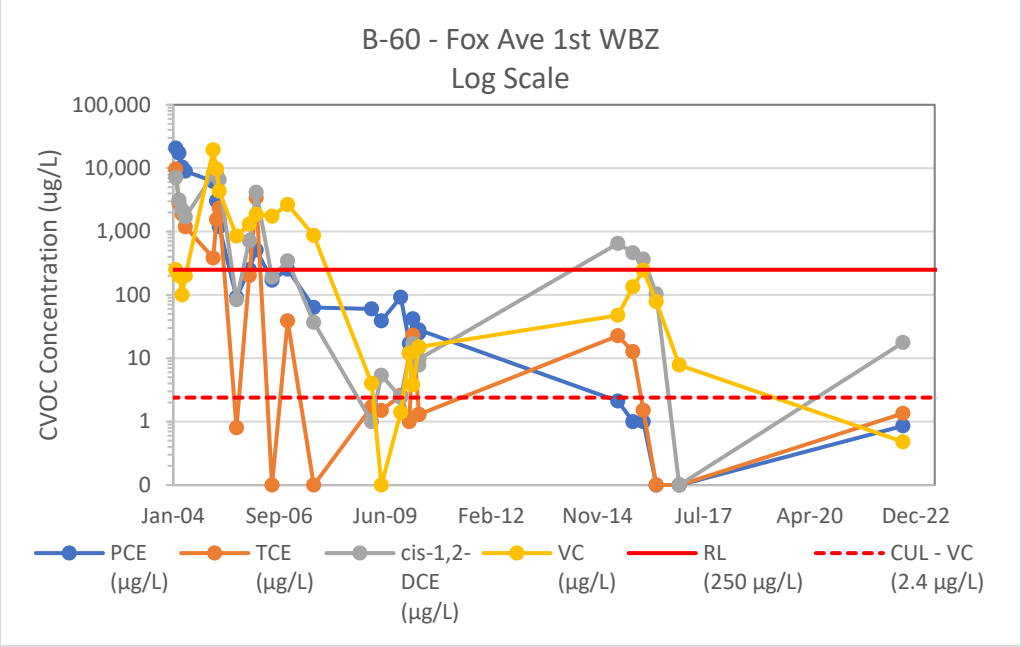

R1-IW4A - Fox Ave 1st WBZ
Below RL since 2015
CVOC Concentration (ug/L)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Jan-09
Oct-11
Jul-14
Apr-17
Jan-20
Oct-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

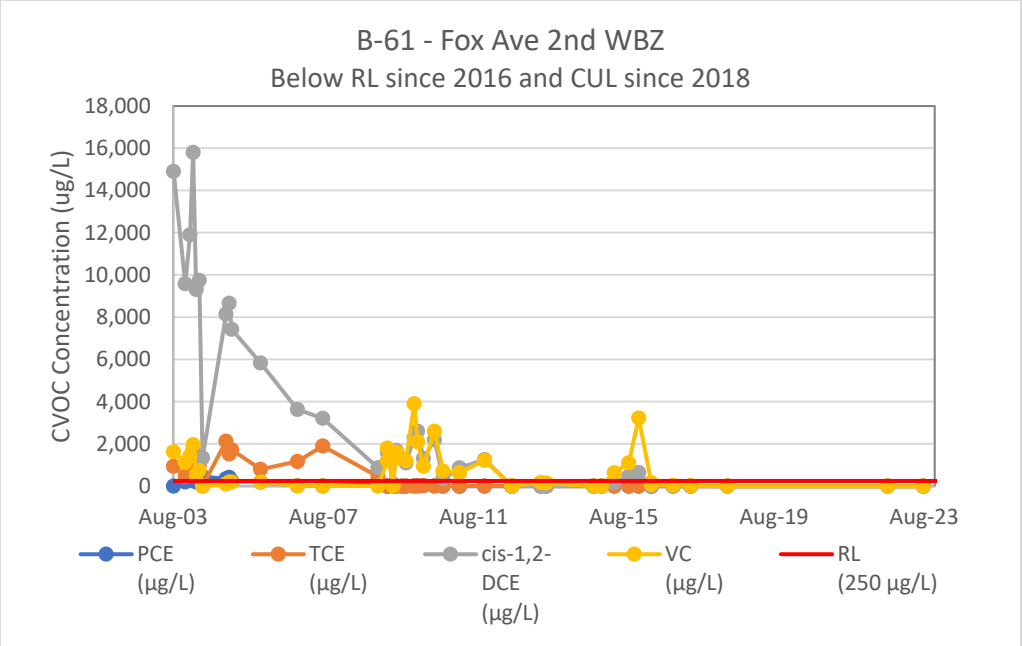

R1-IW4A - Fox Ave 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jan-09
Oct-11
Jul-14
Apr-17
Jan-20
Oct-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

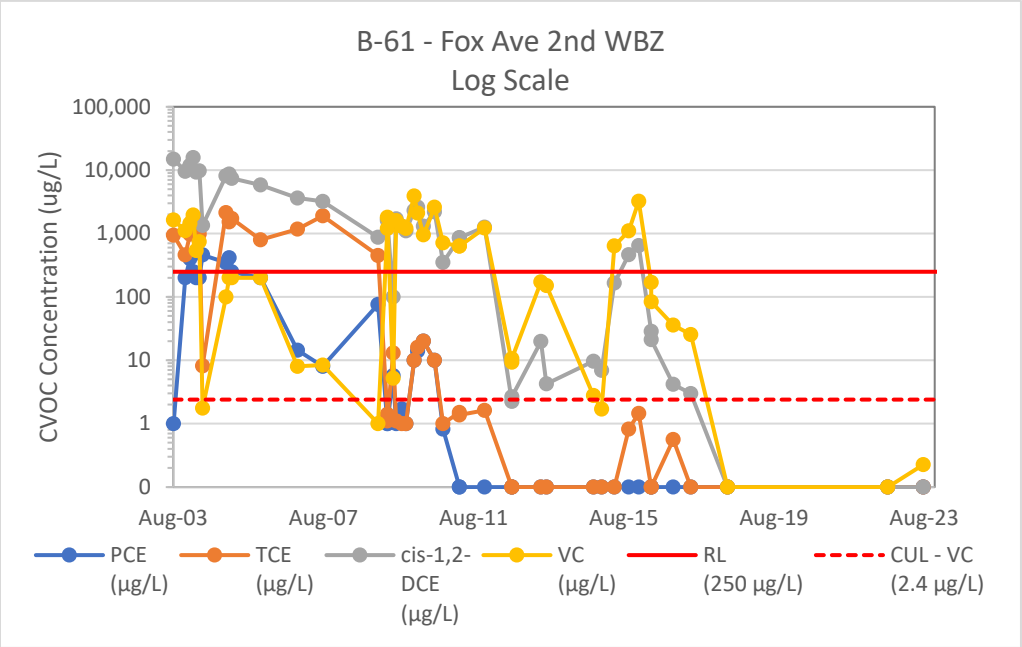

R1-IW4B - Fox Ave 2nd WBZ
Below RL since 2013 and CUL in 2018, monitoring dropped with Ecology approval
CVOC Concentration (ug/L)
1,200
1,000
800
600
400
200
0
Jan-09
Aug-10
Mar-12
Sep-13
Apr-15
Oct-16
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

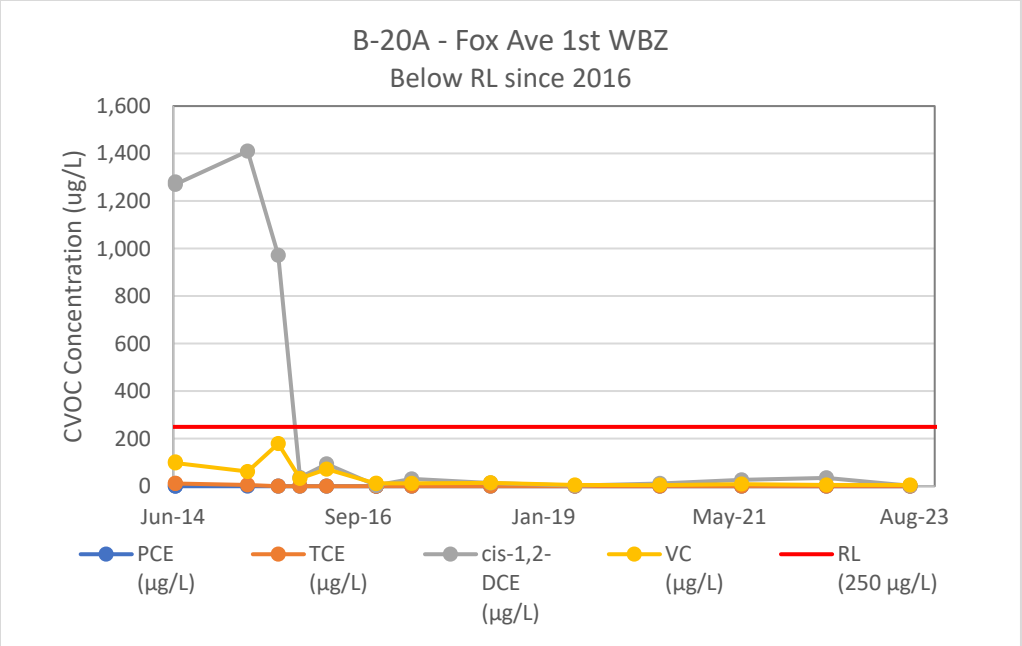

R1-IW4B - Fox Ave 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jan-09
Aug-10
Mar-12
Sep-13
Apr-15
Oct-16
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

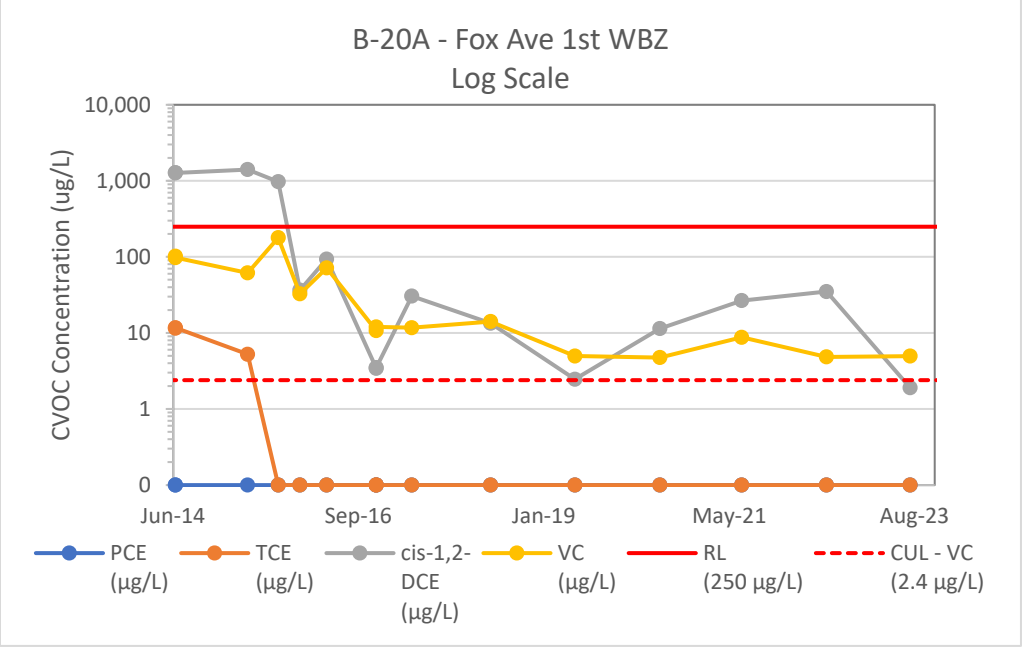

B-60 - Fox Ave 1st WBZ
Below RL since 2016 and CUL in 2022
CVOC Concentration (ug/L)
25,000
20,000
15,000
10,000
5,000
0
Jan-04
Sep-06
Jun-09
Feb-12
Nov-14
Jul-17
Apr-20
Dec-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

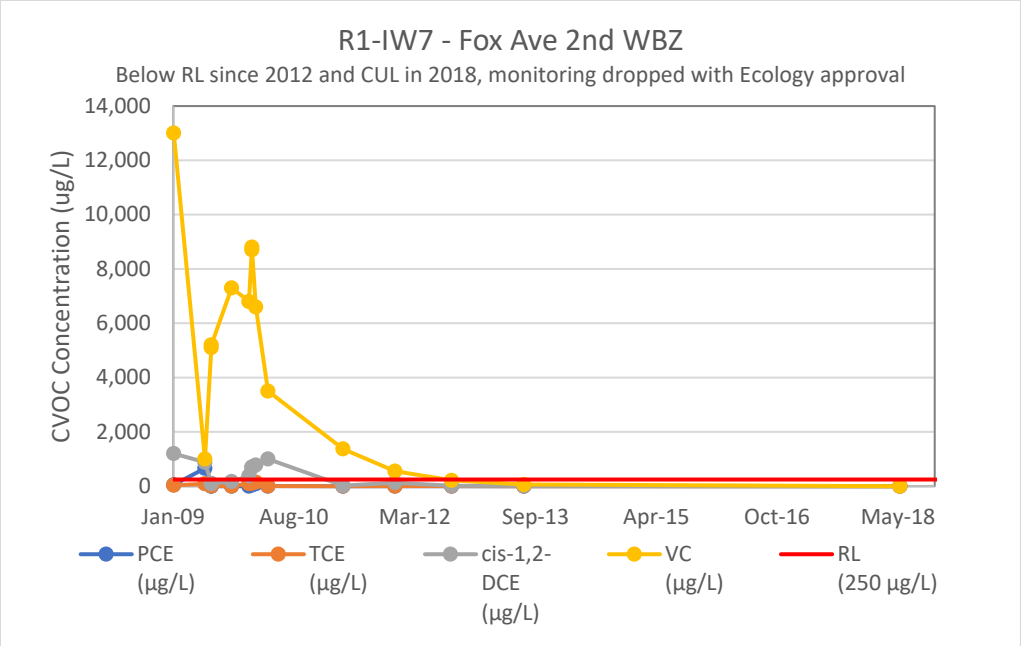

B-60 - Fox Ave 1st WBZ
Log Scale
CVOC Concentration (ug/L)
100,000
10,000
1,000
100
10
1
0
Jan-04
Sep-06
Jun-09
Feb-12
Nov-14
Jul-17
Apr-20
Dec-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

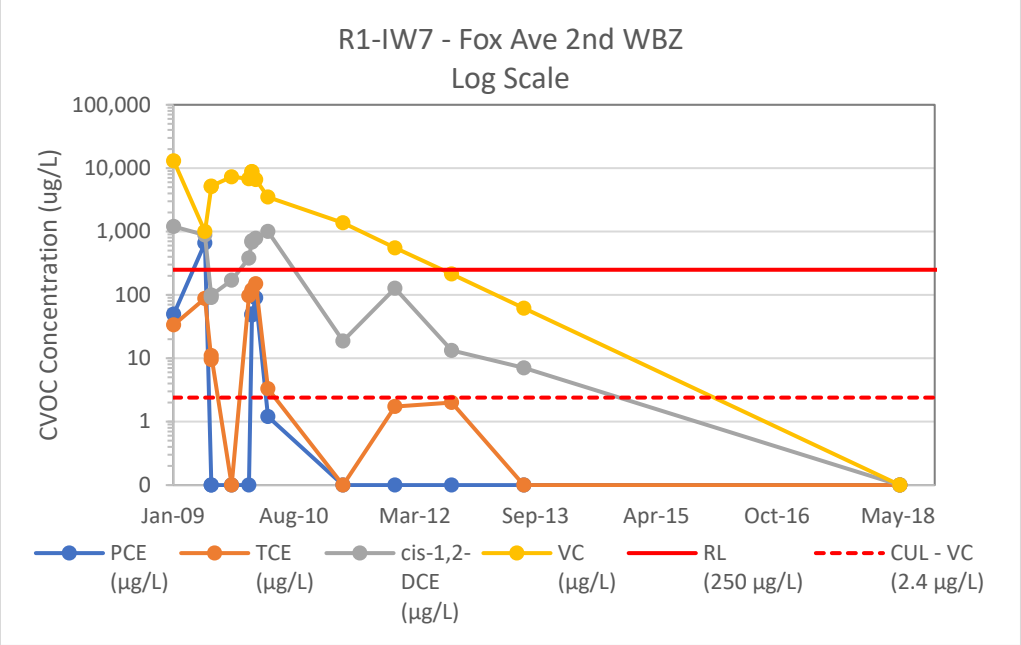

B-61 - Fox Ave 2nd WBZ
Below RL since 2016 and CUL since 2018
CVOC Concentration (ug/L)
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Aug-03
Aug-07
Aug-11
Aug-15
Aug-19
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

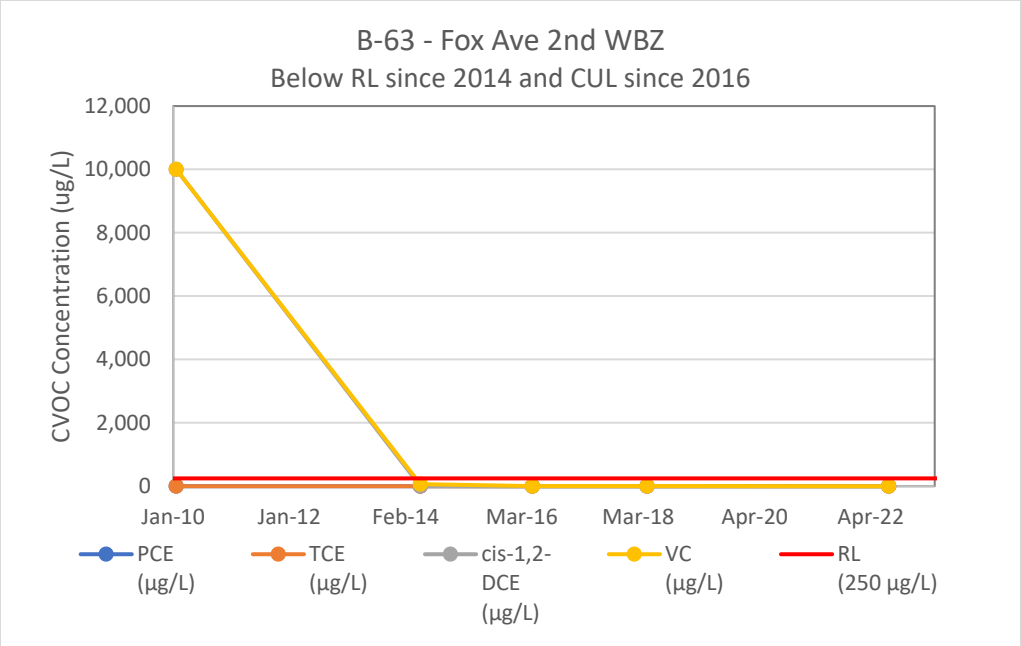

B-61 - Fox Ave 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
100,000
10,000
1,000
100
10
1
0
Aug-03
Aug-07
Aug-11
Aug-15
Aug-19
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

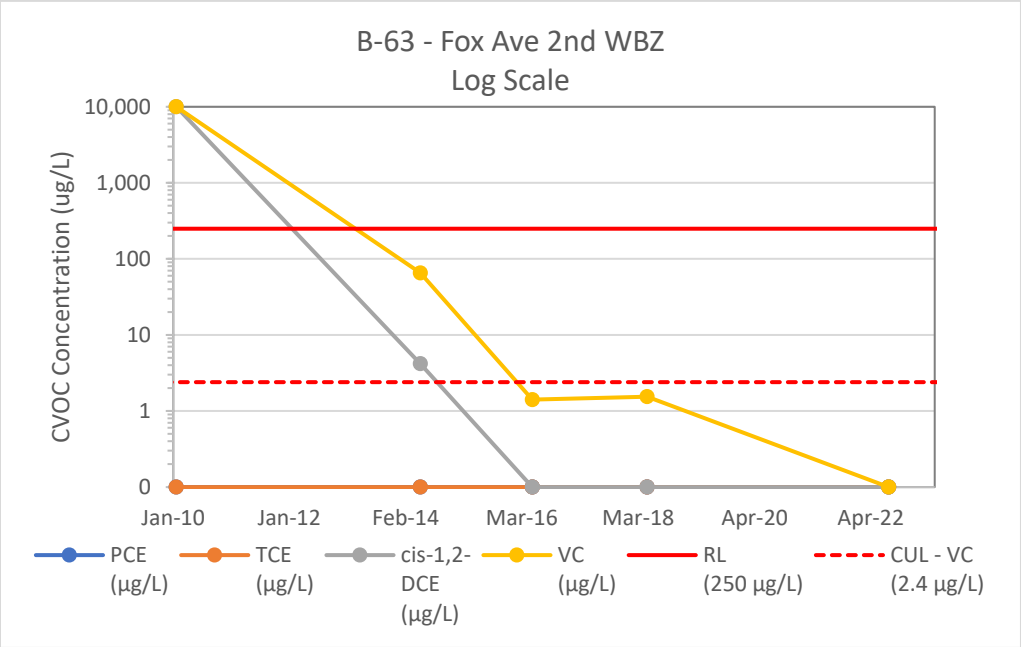

B-20A - Fox Ave 1st WBZ
Below RL since 2016
CVOC Concentration (ug/L)
1,600
1,400
1,200
1,000
800
600
400
200
0
Jun-14
Sep-16
Jan-19
May-21
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

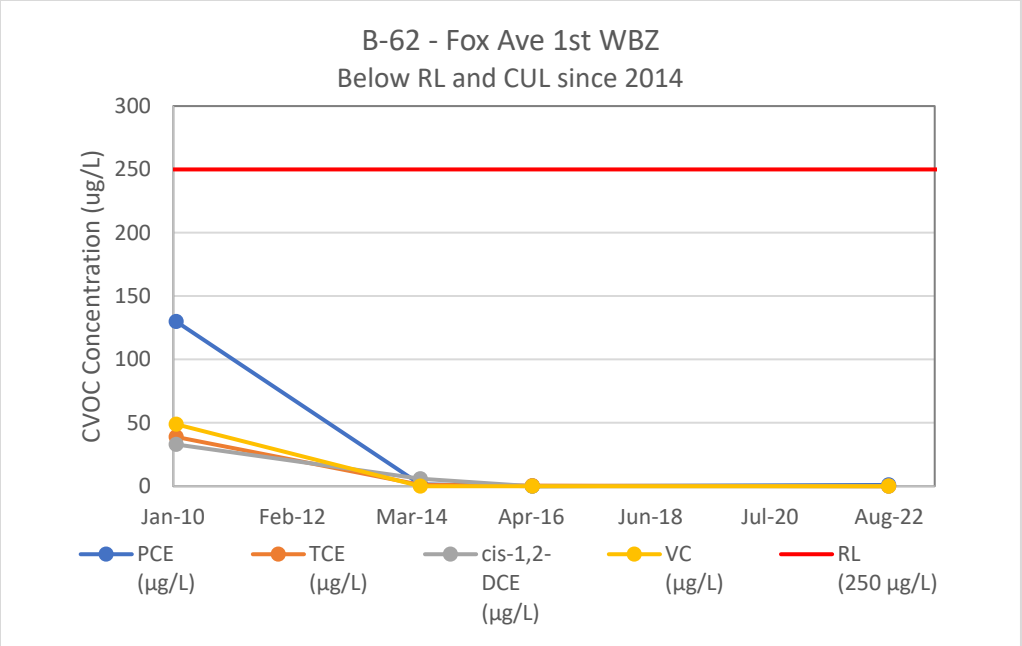

B-20A - Fox Ave 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jun-14
Sep-16
Jan-19
May-21
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

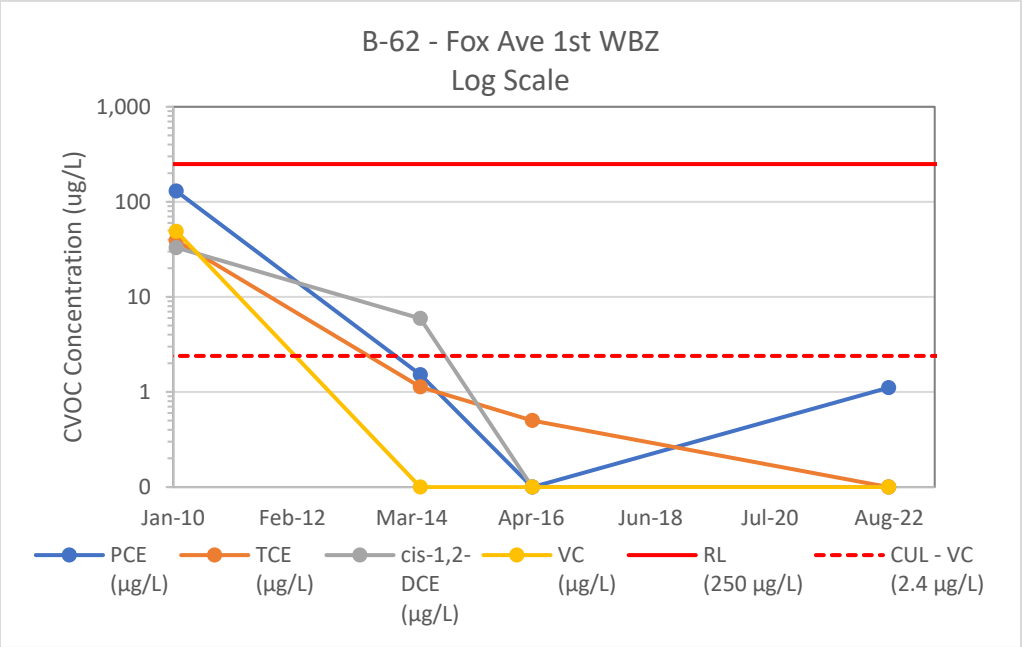

R1-IW7 - Fox Ave 2nd WBZ
Below RL since 2012 and CUL in 2018, monitoring dropped with Ecology approval
CVOC Concentration (ug/L)
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Jan-09
Aug-10
Mar-12
Sep-13
Apr-15
Oct-16
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)


R1-IW7 - Fox Ave 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
100,000
10,000
1,000
100
10
1
0
Jan-09
Aug-10
Mar-12
Sep-13
Apr-15
Oct-16
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)


B-63 - Fox Ave 2nd WBZ
Below RL since 2014 and CUL since 2016
CVOC Concentration (ug/L)
12,000
10,000
8,000
6,000
4,000
2,000
0
Jan-10
Jan-12
Feb-14
Mar-16
Mar-18
Apr-20
Apr-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

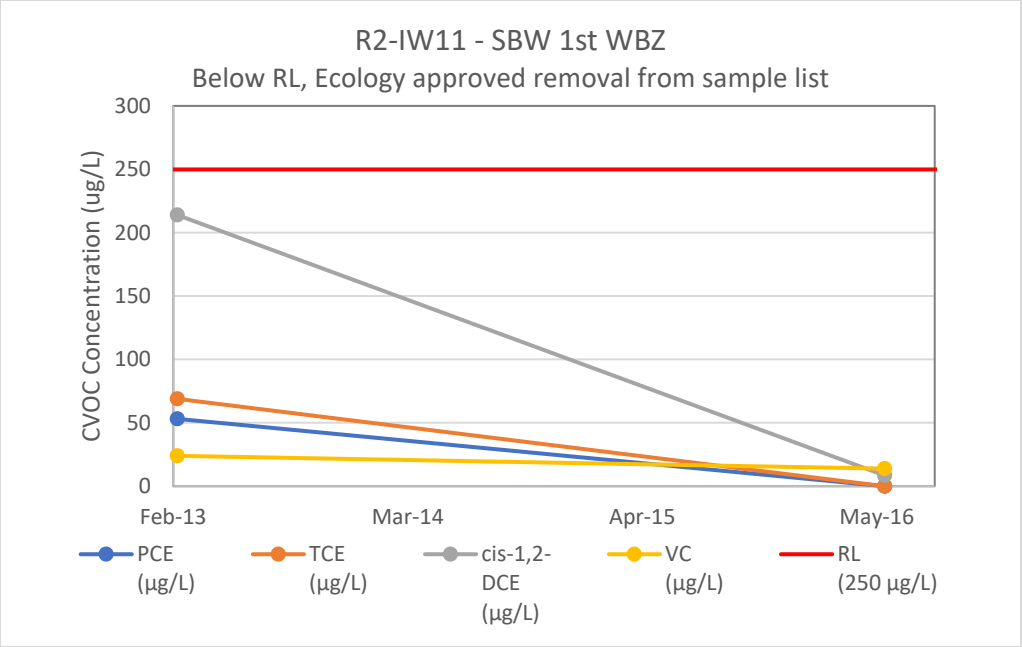

B-63 - Fox Ave 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jan-10
Jan-12
Feb-14
Mar-16
Mar-18
Apr-20
Apr-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

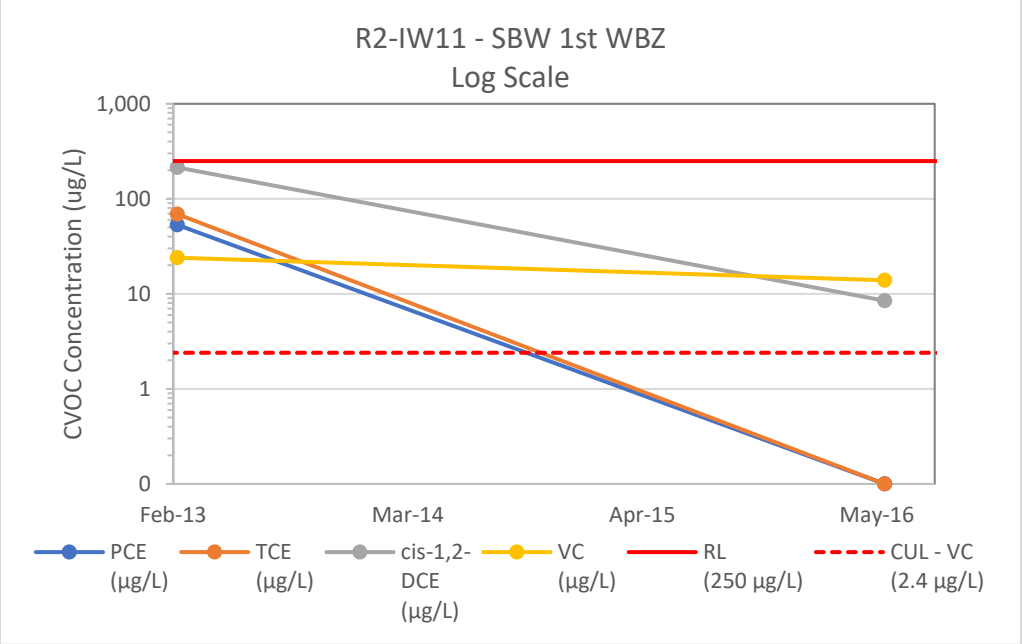

B-62 - Fox Ave 1st WBZ
Below RL and CUL since 2014
CVOC Concentration (ug/L)
300
250
200
150
100
50
0
Jan-10
Feb-12
Mar-14
Apr-16
Jun-18
Jul-20
Aug-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

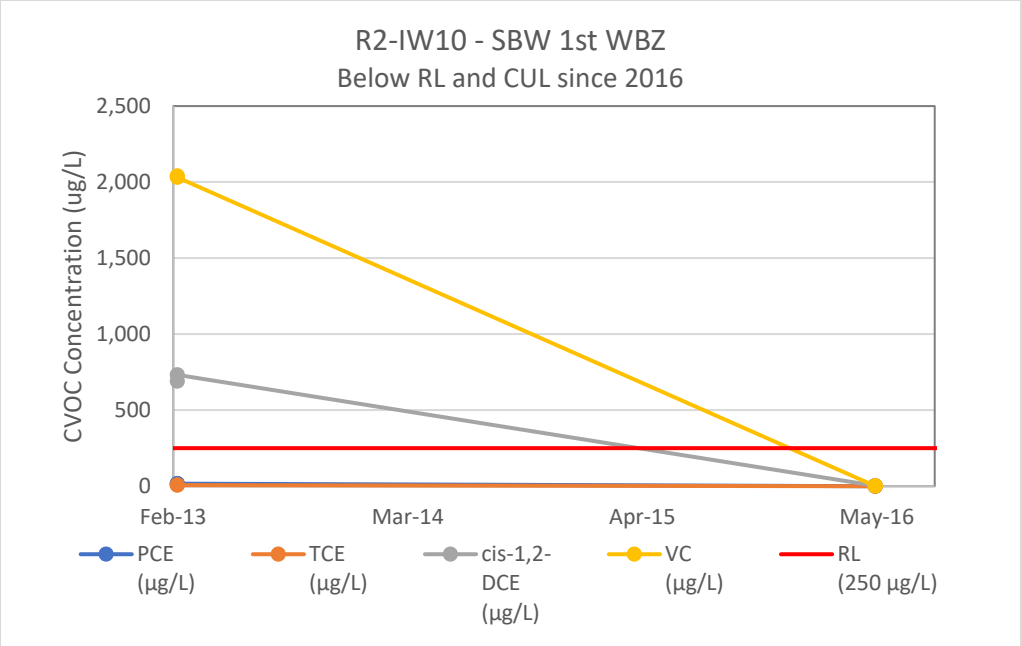

B-62 - Fox Ave 1st WBZ
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
Jan-10
Feb-12
Mar-14
Apr-16
Jun-18
Jul-20
Aug-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

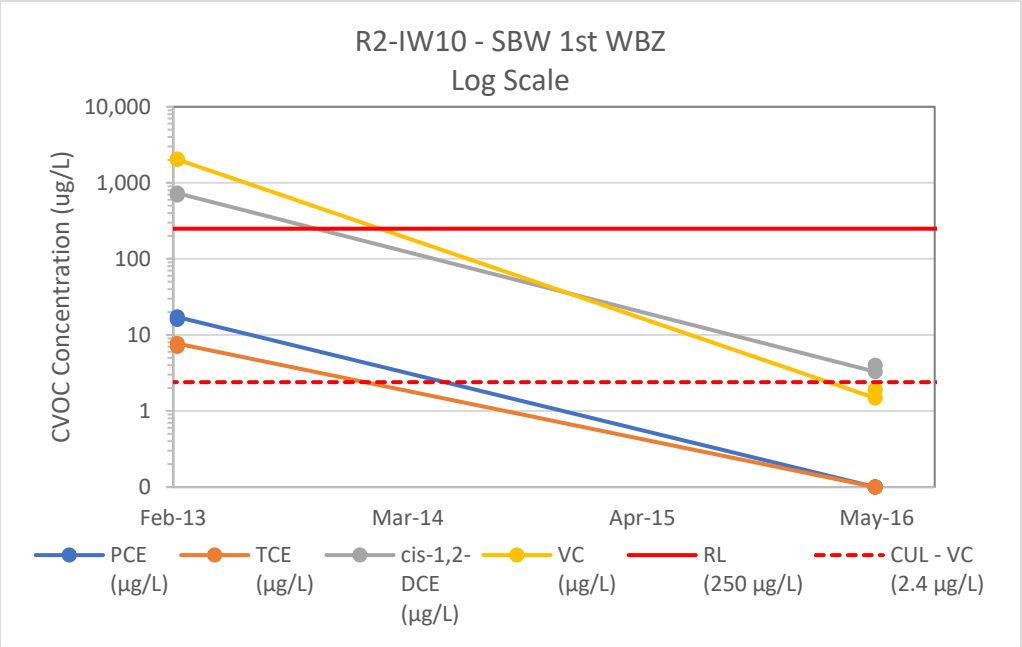
C-C' Transect

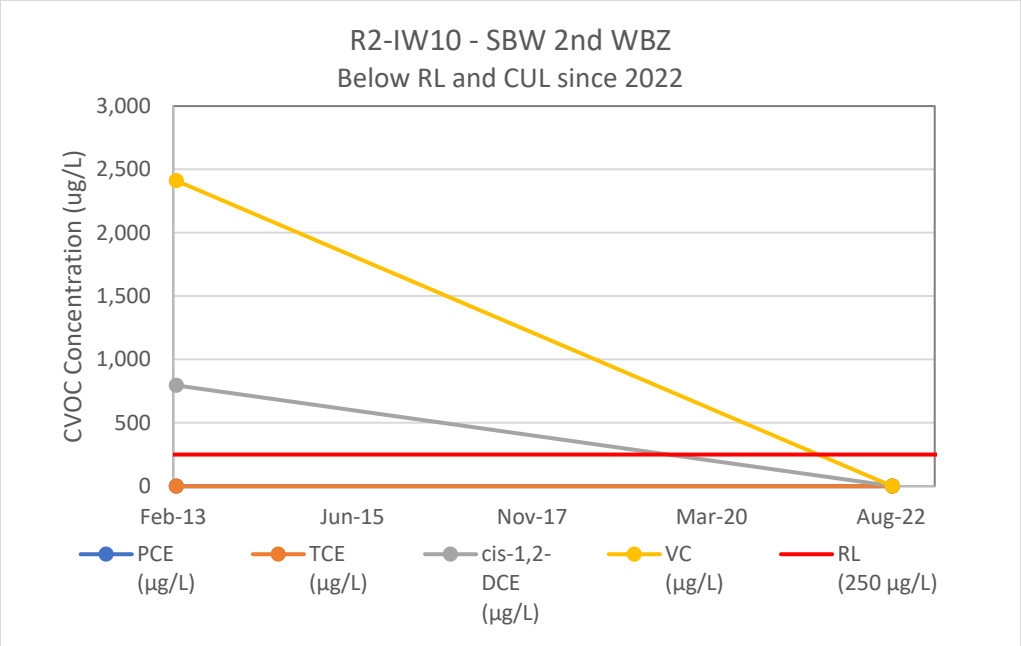
Seattle Boiler Works (SBW) – Center of the plume

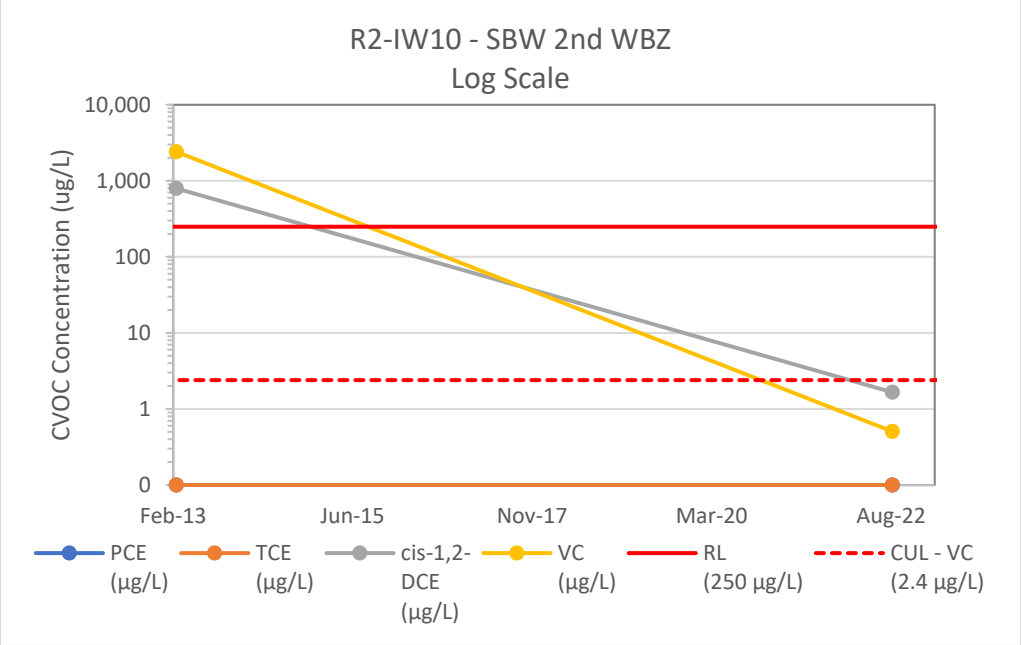


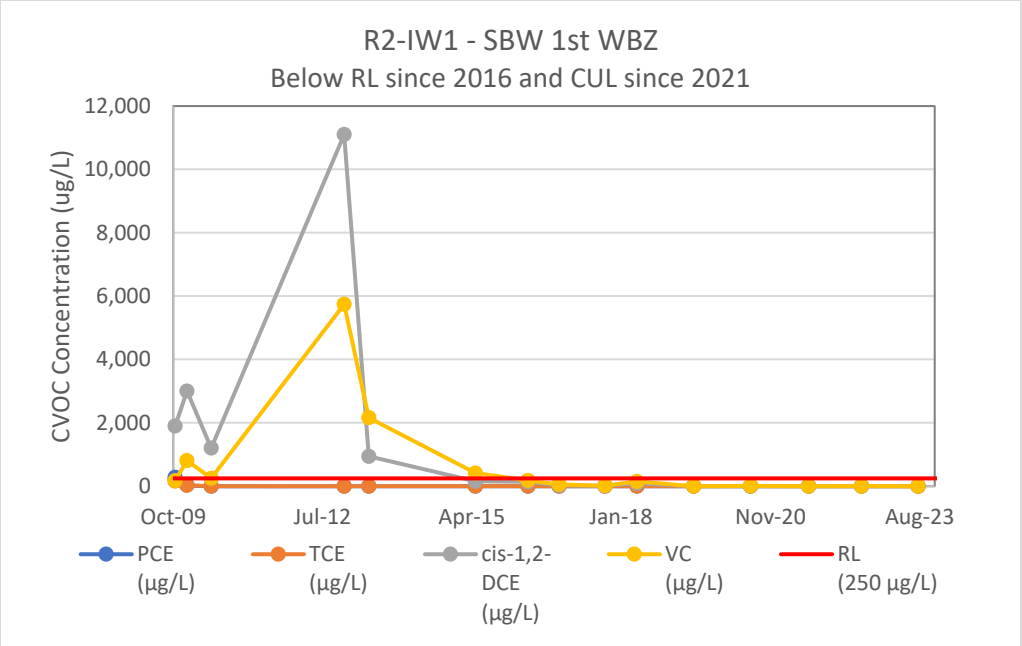


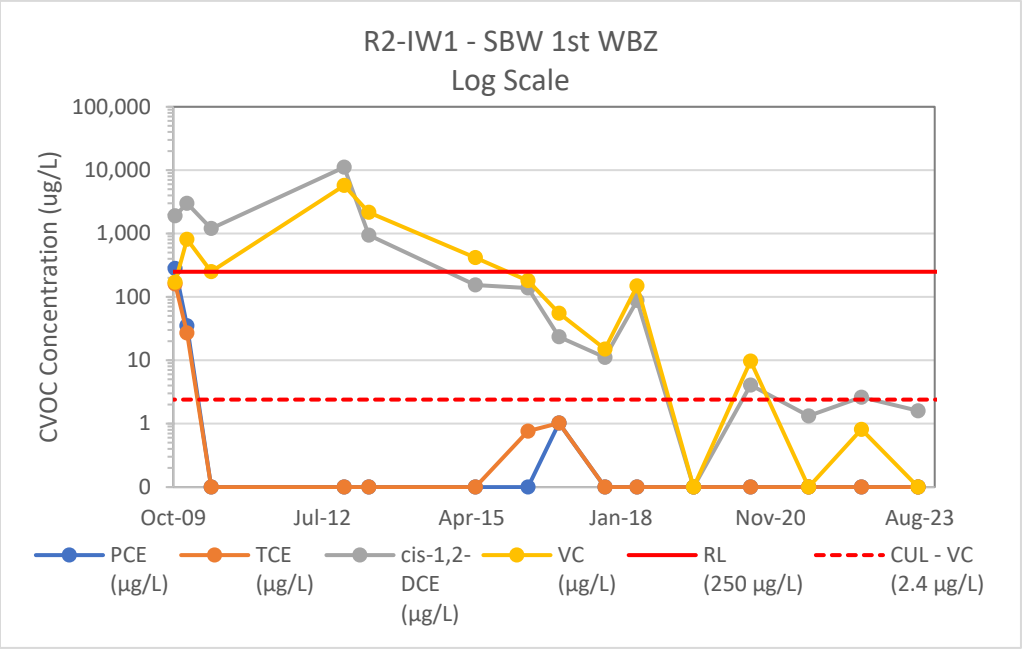

R2-IW10 - SBW 1st WBZ
Below RL and CUL since 2016
CVOC Concentration (ug/L)
2,500
2,000
1,500
1,000
500
0
Feb-13
Mar-14
Apr-15
May-16
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

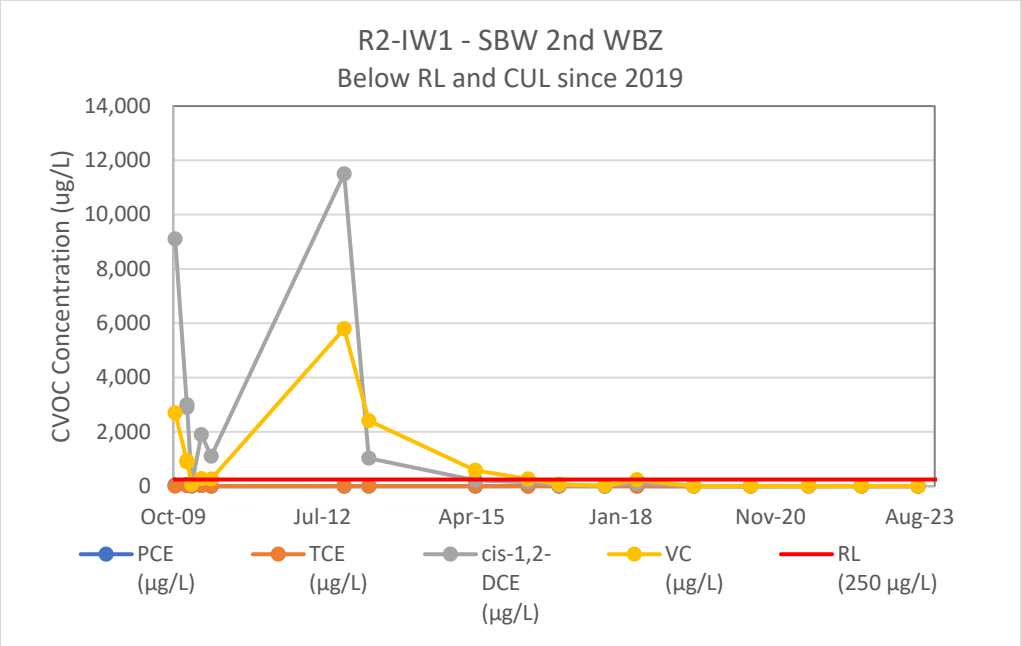

R2-IW10 - SBW 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Feb-13
Mar-14
Apr-15
May-16
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

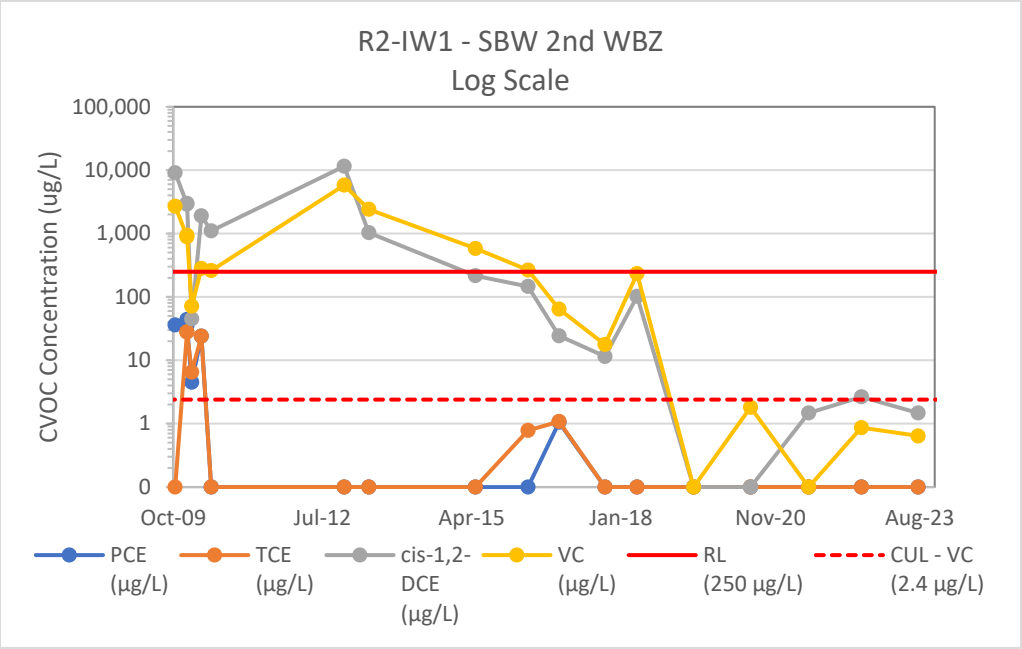

R2-IW10 - SBW 2nd WBZ
Below RL and CUL since 2022
CVOC Concentration (ug/L)
3,000
2,500
2,000
1,500
1,000
500
0
Feb-13
Jun-15
Nov-17
Mar-20
Aug-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

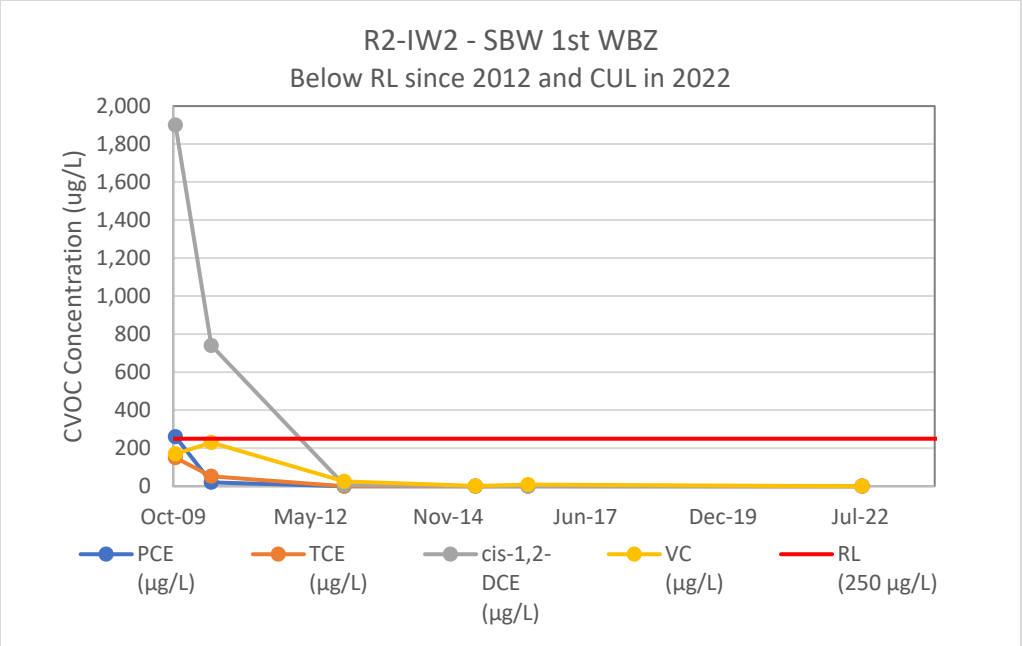

R2-IW10 - SBW 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Feb-13
Jun-15
Nov-17
Mar-20
Aug-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

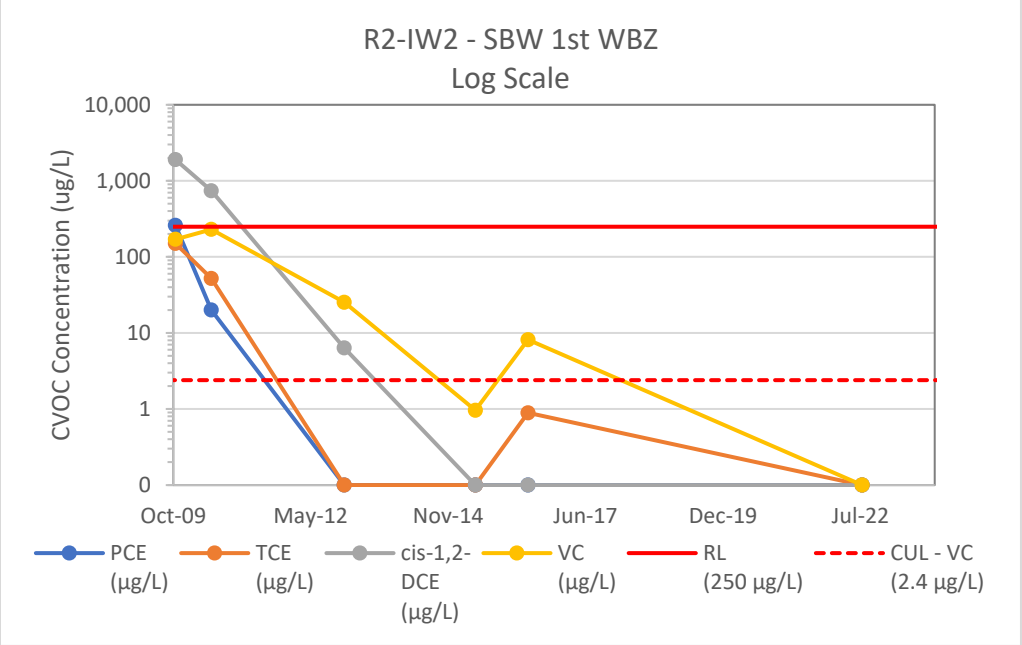

R2-IW1 - SBW 1st WBZ
Below RL since 2016 and CUL since 2021
CVOC Concentration (ug/L)
12,000
10,000
8,000
6,000
4,000
2,000
0
Oct-09
Jul-12
Apr-15
Jan-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

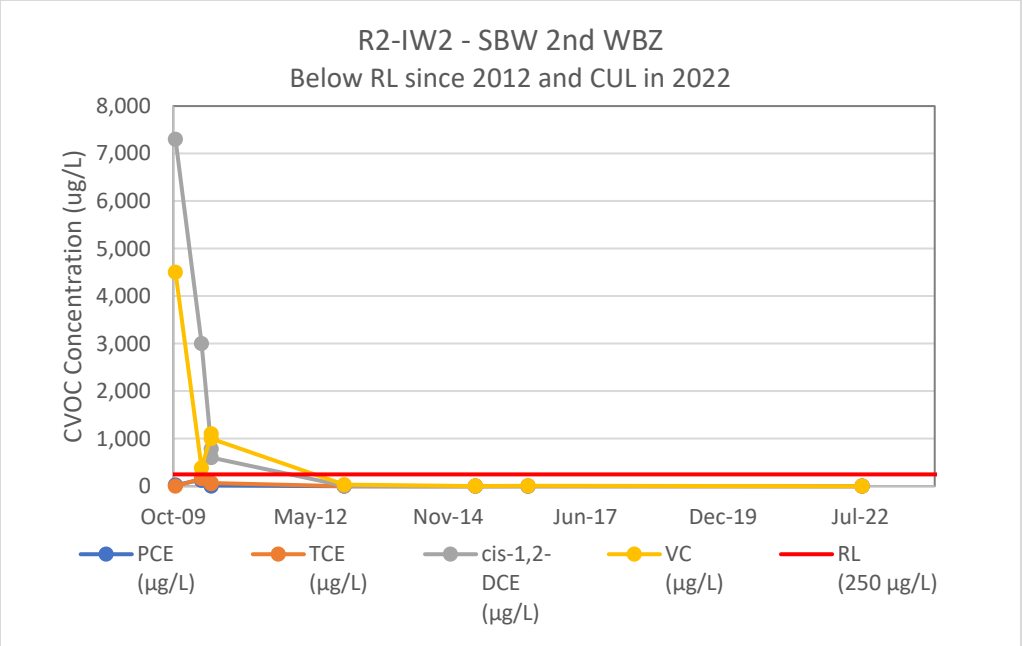

R2-IW1 - SBW 1st WBZ
Log Scale
CVOC Concentration (ug/L)
100,000
10,000
1,000
100
10
1
0
Oct-09
Jul-12
Apr-15
Jan-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

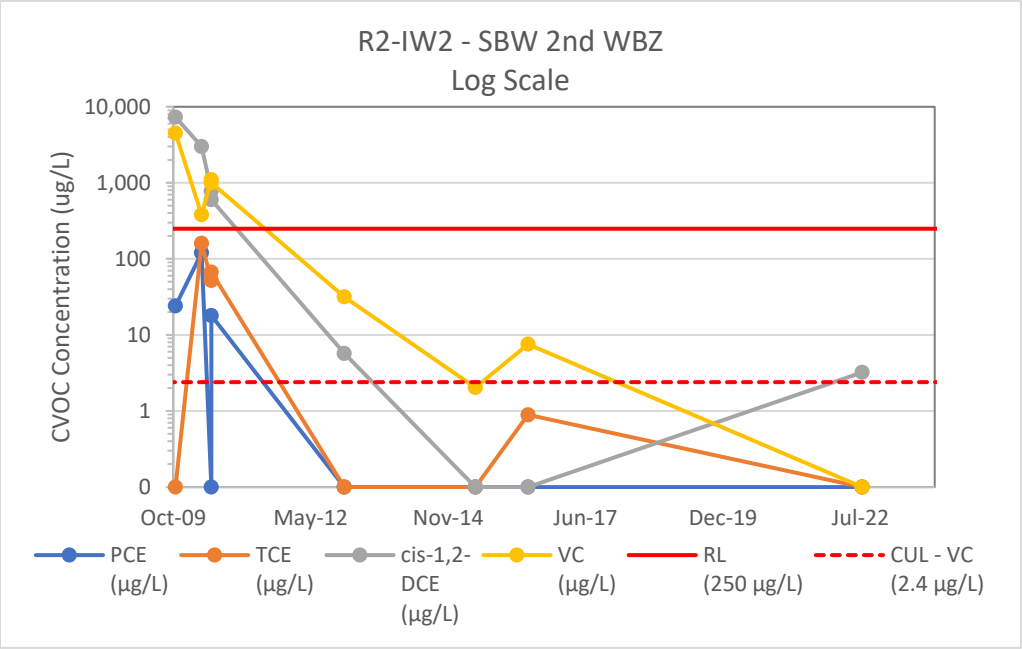

R2-IW1 - SBW 2nd WBZ
Below RL and CUL since 2019
CVOC Concentration (ug/L)
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Oct-09
Jul-12
Apr-15
Jan-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

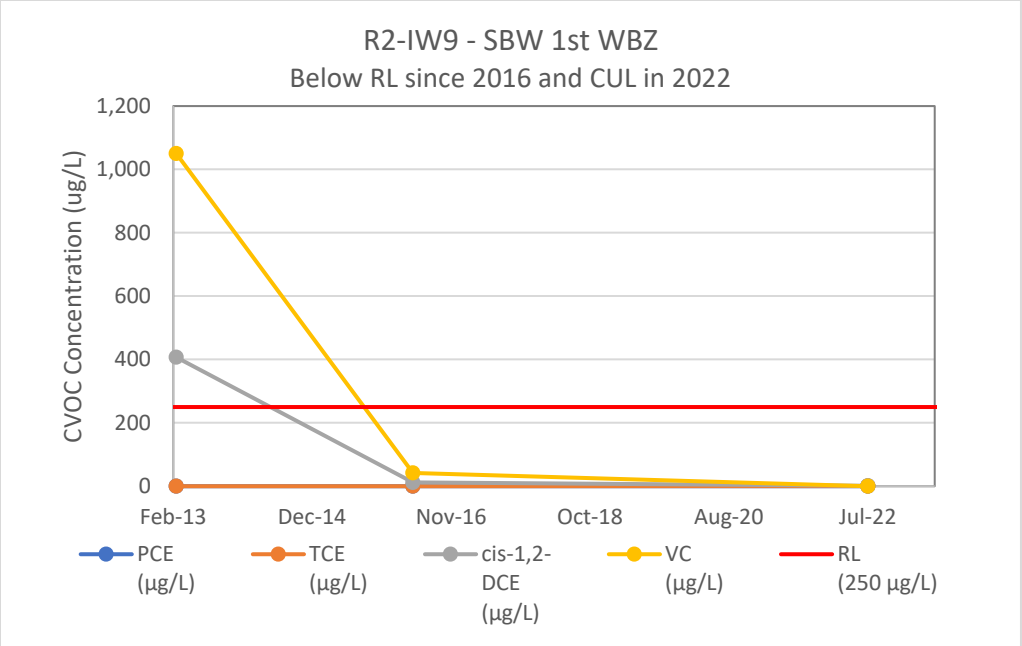

R2-IW1 - SBW 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
100,000
10,000
1,000
100
10
1
0
Oct-09
Jul-12
Apr-15
Jan-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

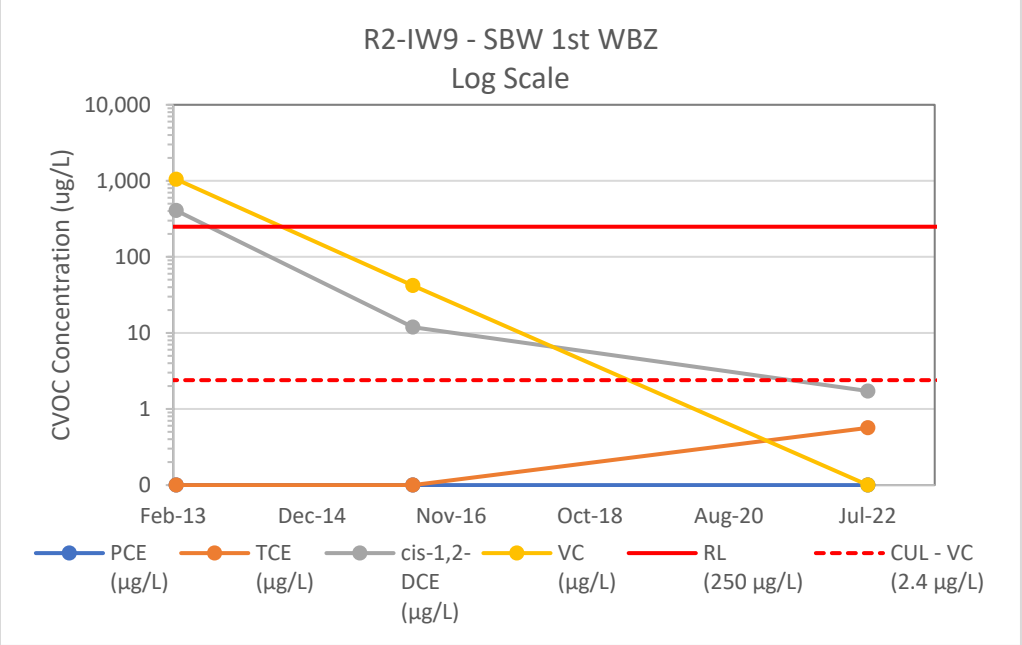

R2-IW2 - SBW 1st WBZ
Below RL since 2012 and CUL in 2022
CVOC Concentration (ug/L)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Oct-09
May-12
Nov-14
Jun-17
Dec-19
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

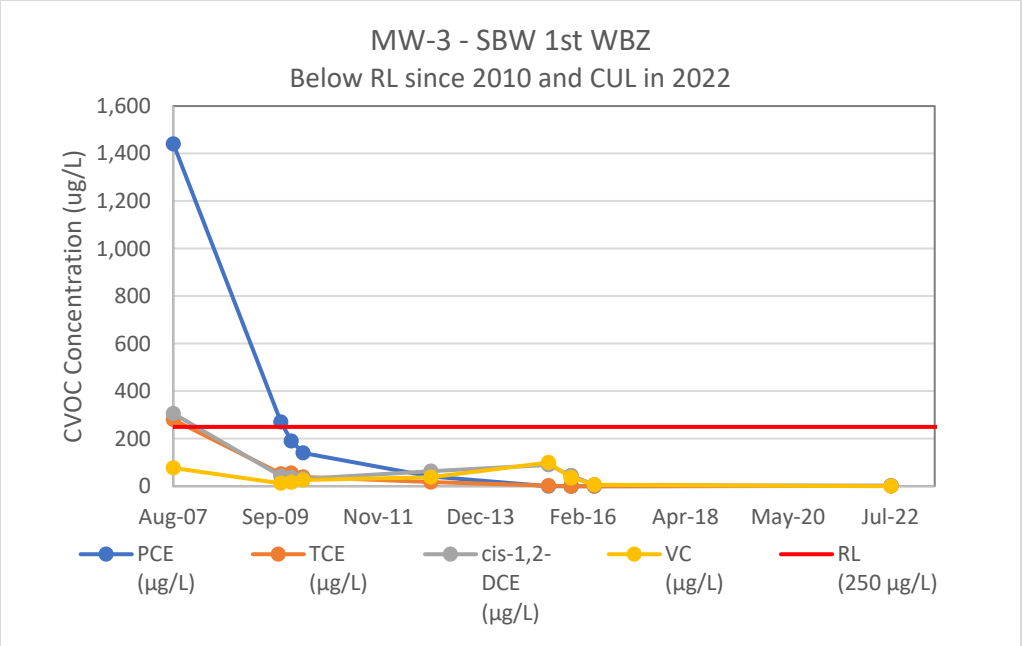

R2-IW2 - SBW 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Oct-09
May-12
Nov-14
Jun-17
Dec-19
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

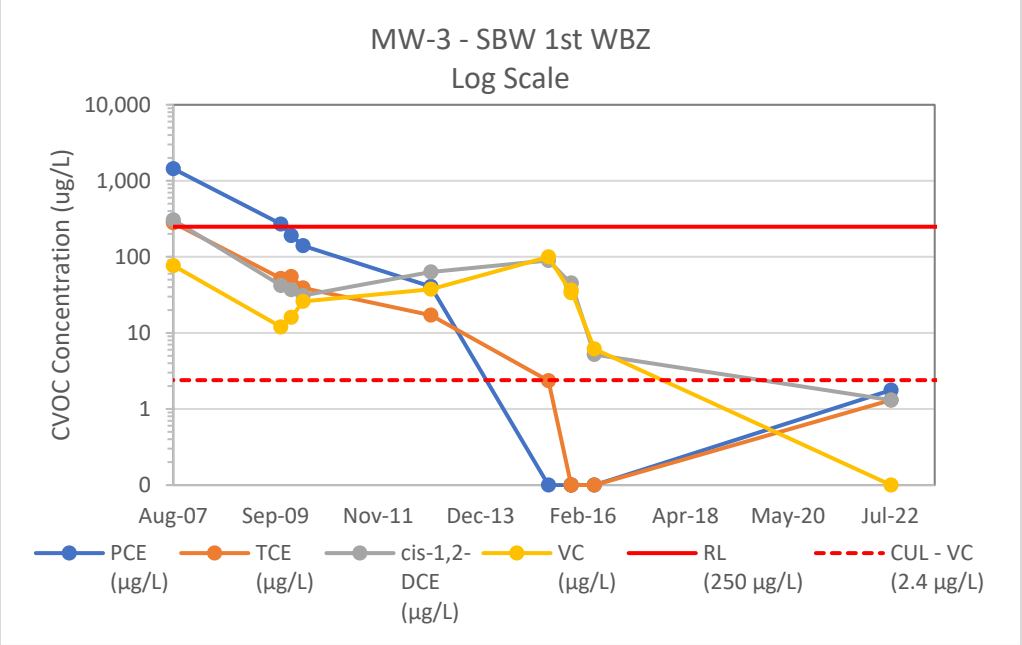

R2-IW2 - SBW 2nd WBZ
Below RL since 2012 and CUL in 2022
CVOC Concentration (ug/L)
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Oct-09
May-12
Nov-14
Jun-17
Dec-19
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

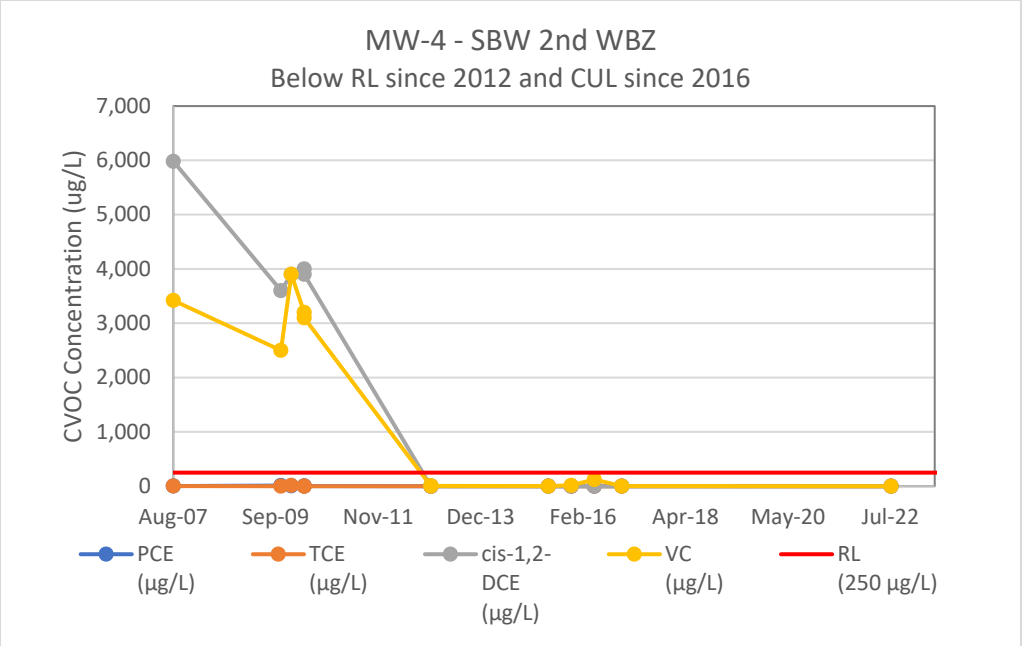

R2-IW2 - SBW 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Oct-09
May-12
Nov-14
Jun-17
Dec-19
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

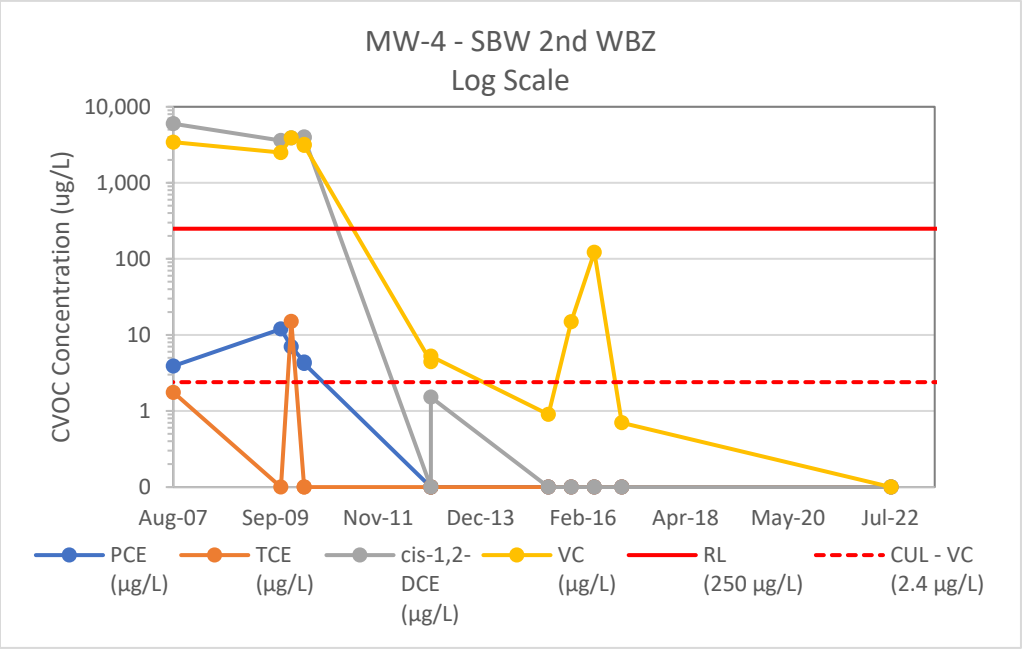

R2-IW9 - SBW 1st WBZ
Below RL since 2016 and CUL in 2022
CVOC Concentration (ug/L)
1,200
1,000
800
600
400
200
0
Feb-13
Dec-14
Nov-16
Oct-18
Aug-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

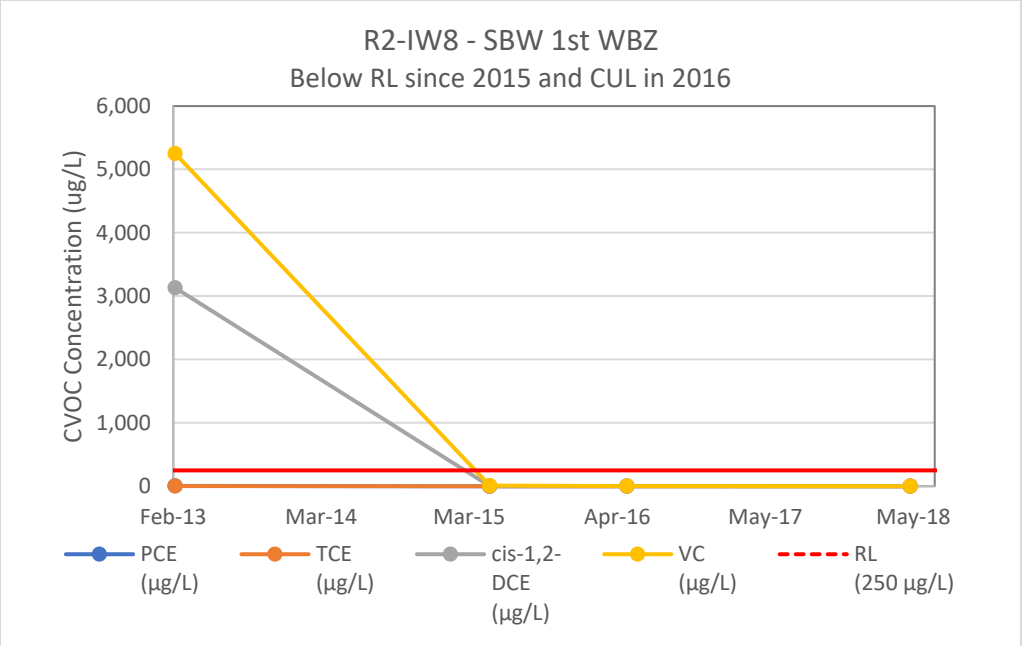

R2-IW9 - SBW 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Feb-13
Dec-14
Nov-16
Oct-18
Aug-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

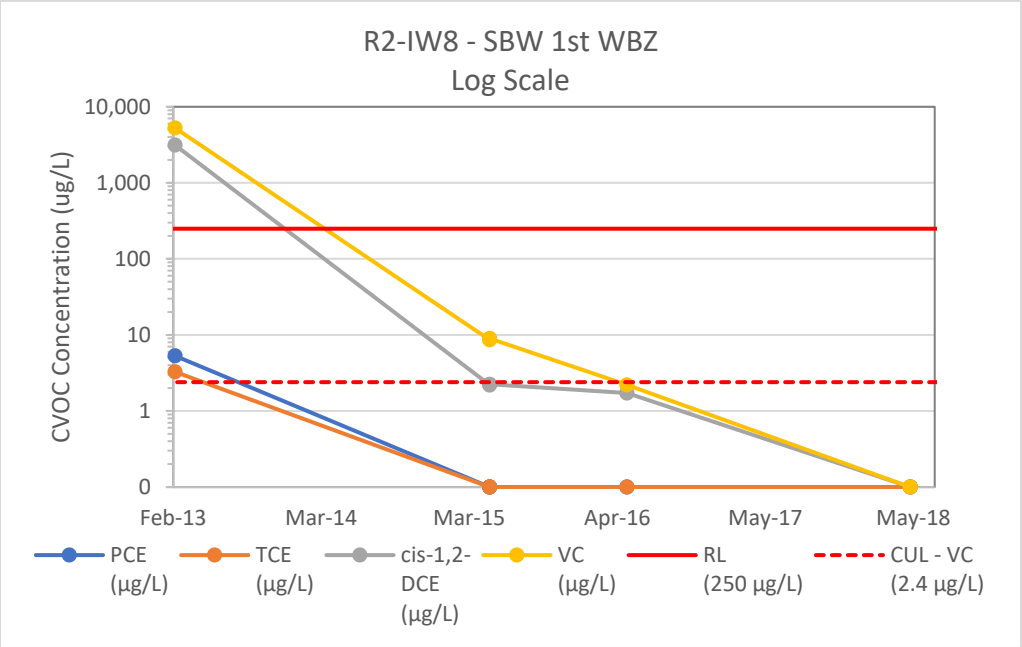

MW-3 - SBW 1st WBZ
Below RL since 2010 and CUL in 2022
CVOC Concentration (ug/L)
1,600
1,400
1,200
1,000
800
600
400
200
0
Aug-07
Sep-09
Nov-11
Dec-13
Feb-16
Apr-18
May-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

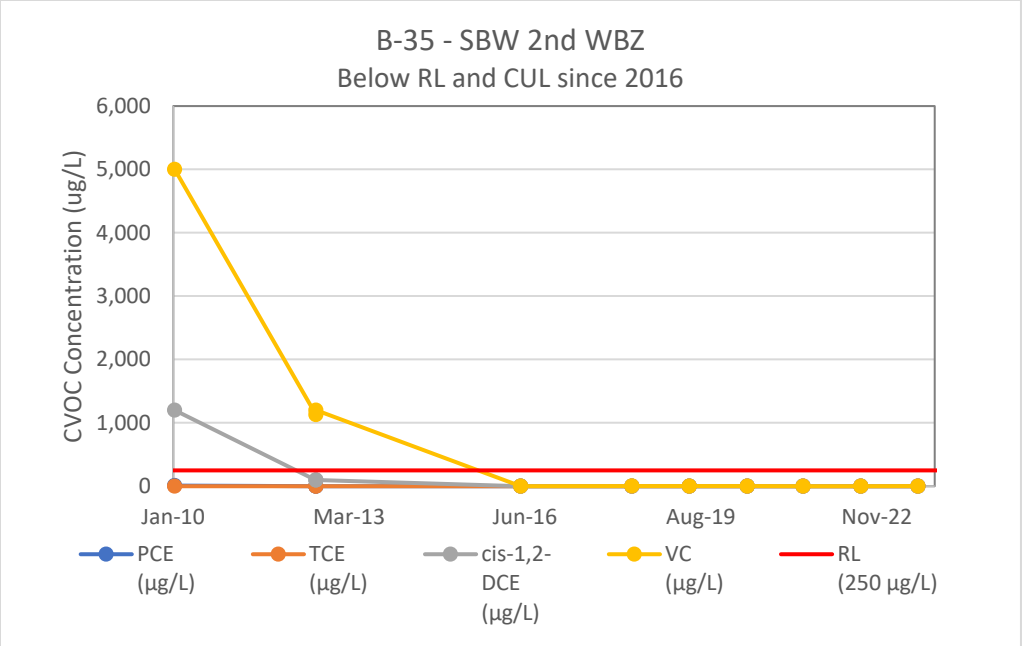

MW-3 - SBW 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Aug-07
Sep-09
Nov-11
Dec-13
Feb-16
Apr-18
May-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

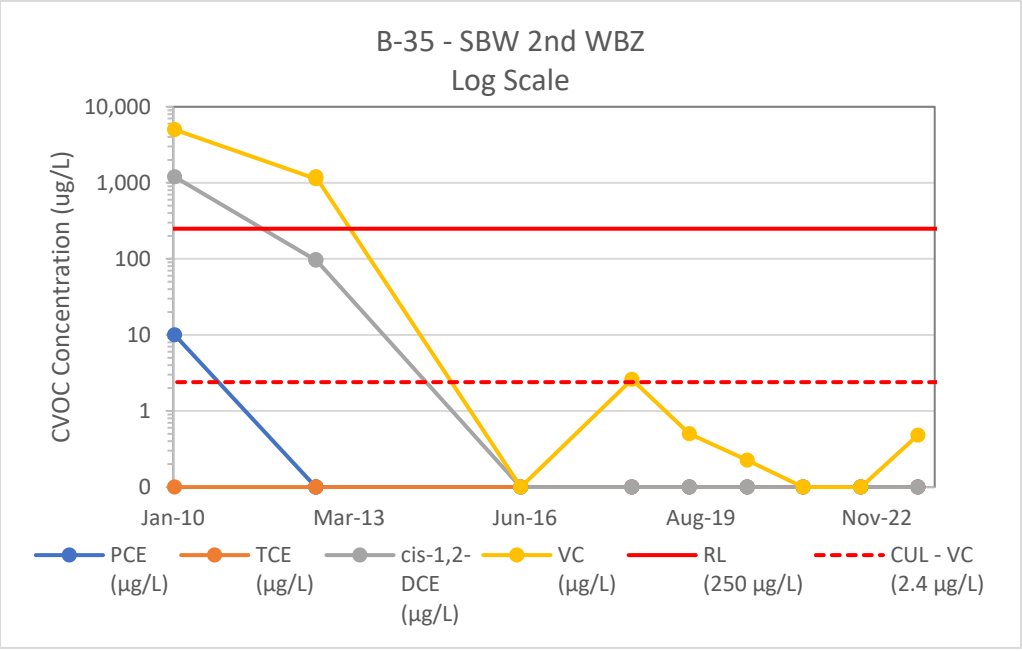

MW-4 - SBW 2nd WBZ
Below RL since 2012 and CUL since 2016
CVOC Concentration (ug/L)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Aug-07
Sep-09
Nov-11
Dec-13
Feb-16
Apr-18
May-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)


MW-4 - SBW 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Aug-07
Sep-09
Nov-11
Dec-13
Feb-16
Apr-18
May-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

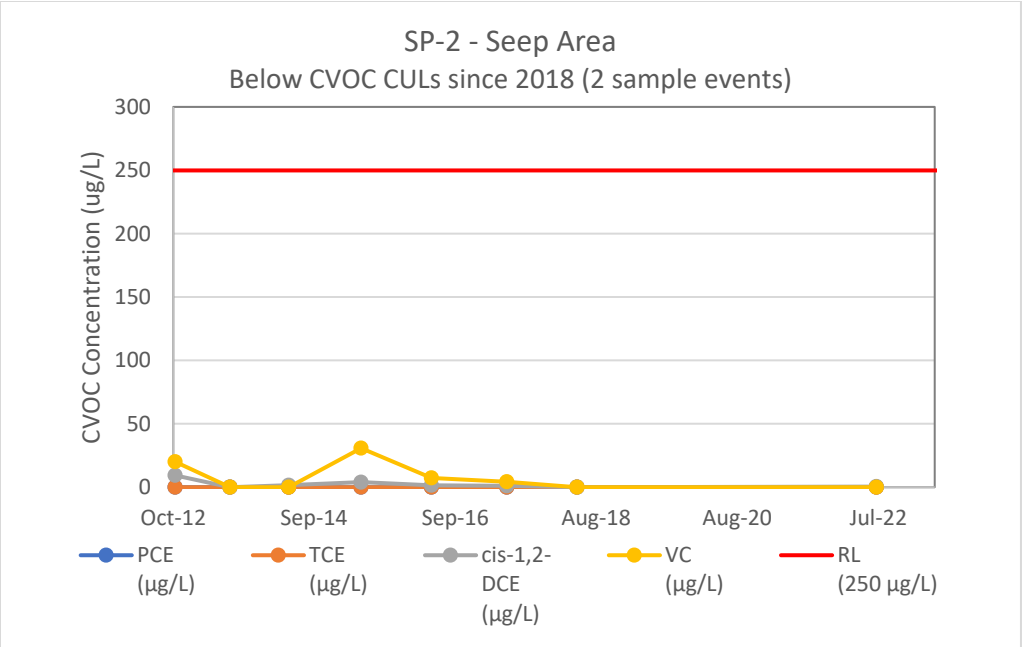

R2-IW8 - SBW 1st WBZ
Below RL since 2015 and CUL in 2016
CVOC Concentration (ug/L)
6,000
5,000
4,000
3,000
2,000
1,000
0
Feb-13
Mar-14
Mar-15
Apr-16
May-17
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

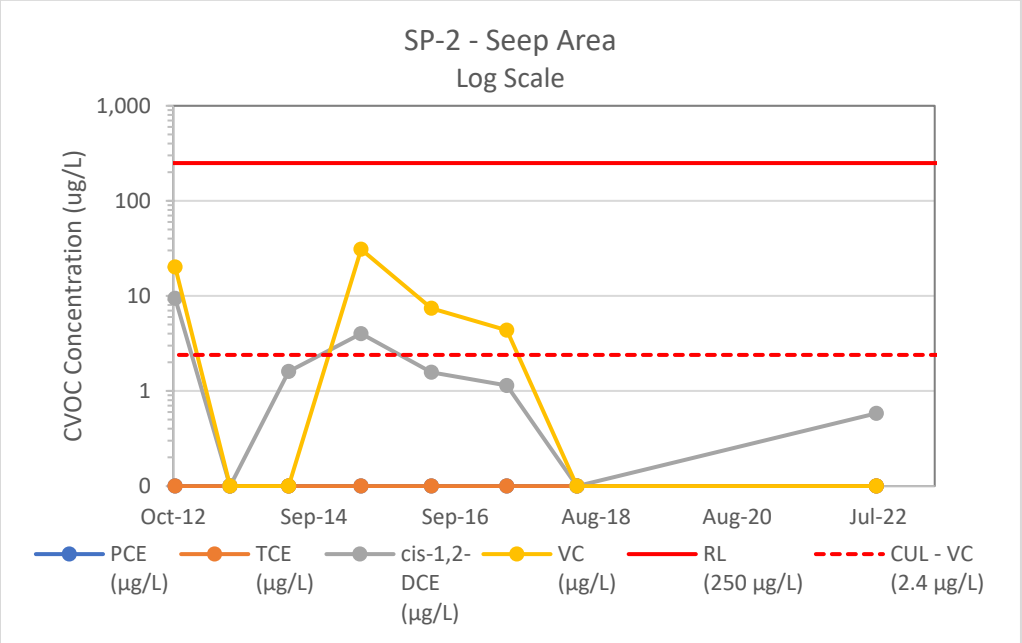

R2-IW8 - SBW 1st WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Feb-13
Mar-14
Mar-15
Apr-16
May-17
May-18
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

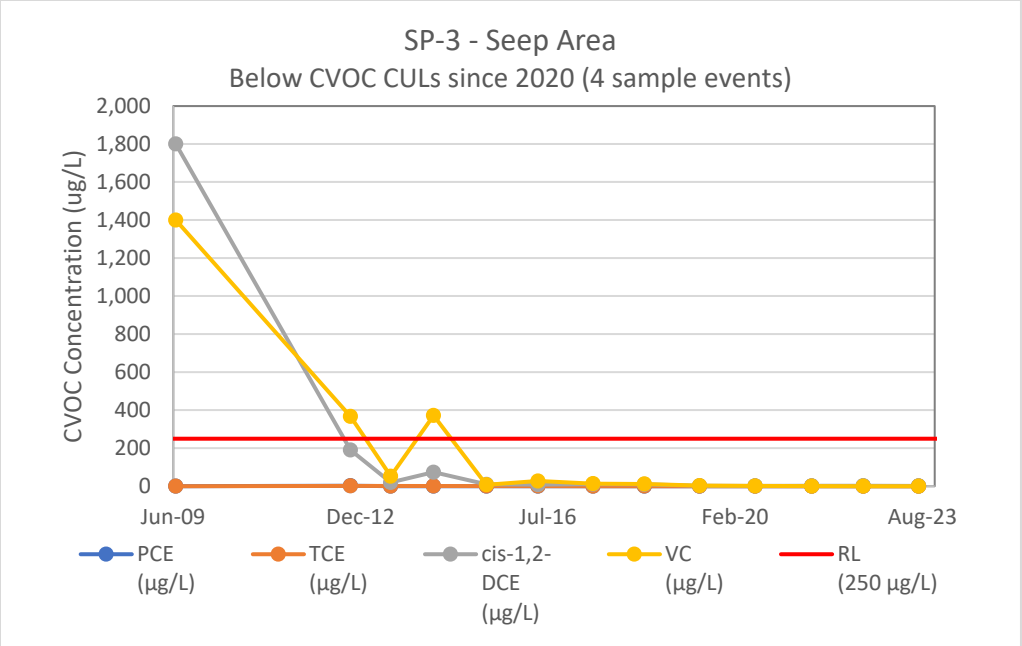

B-35 - SBW 2nd WBZ
Below RL and CUL since 2016
CVOC Concentration (ug/L)
6,000
5,000
4,000
3,000
2,000
1,000
0
Jan-10
Mar-13
Jun-16
Aug-19
Nov-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

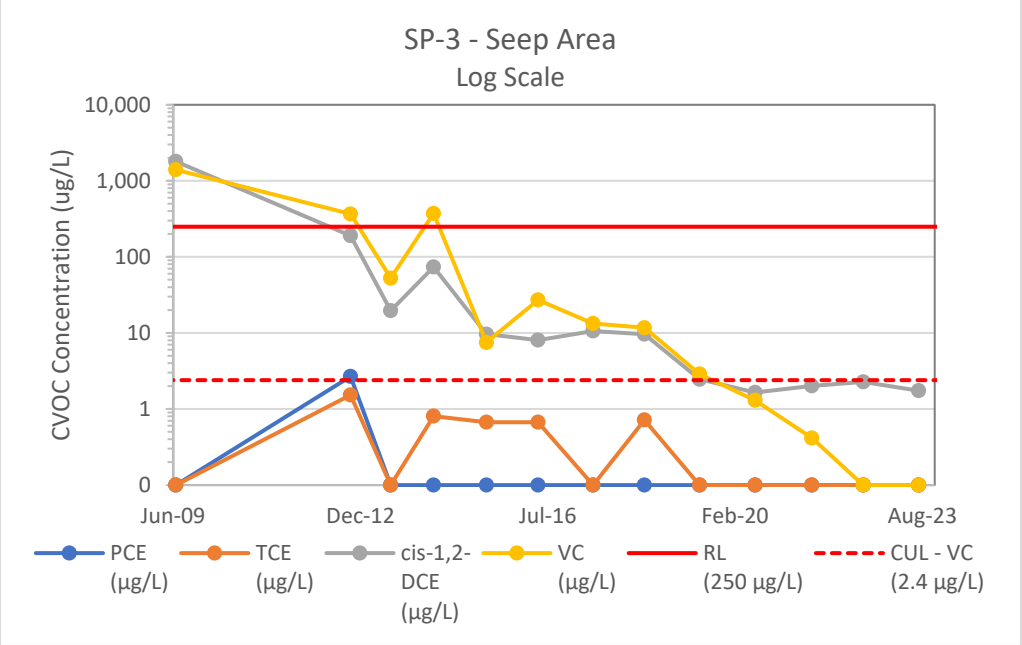

B-35 - SBW 2nd WBZ
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jan-10
Mar-13
Jun-16
Aug-19
Nov-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

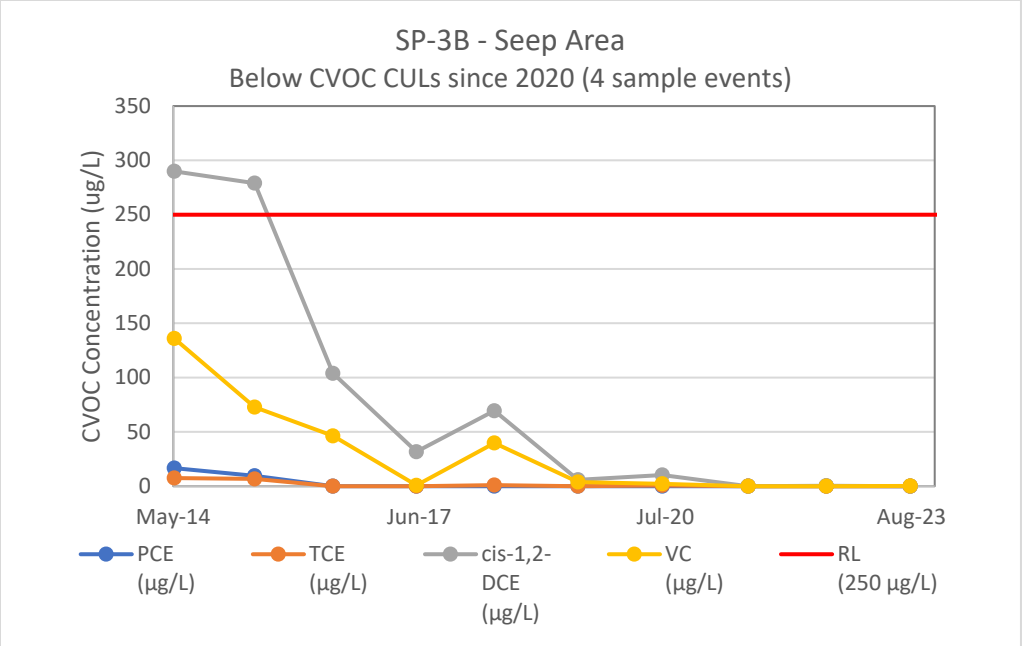
Seep Area

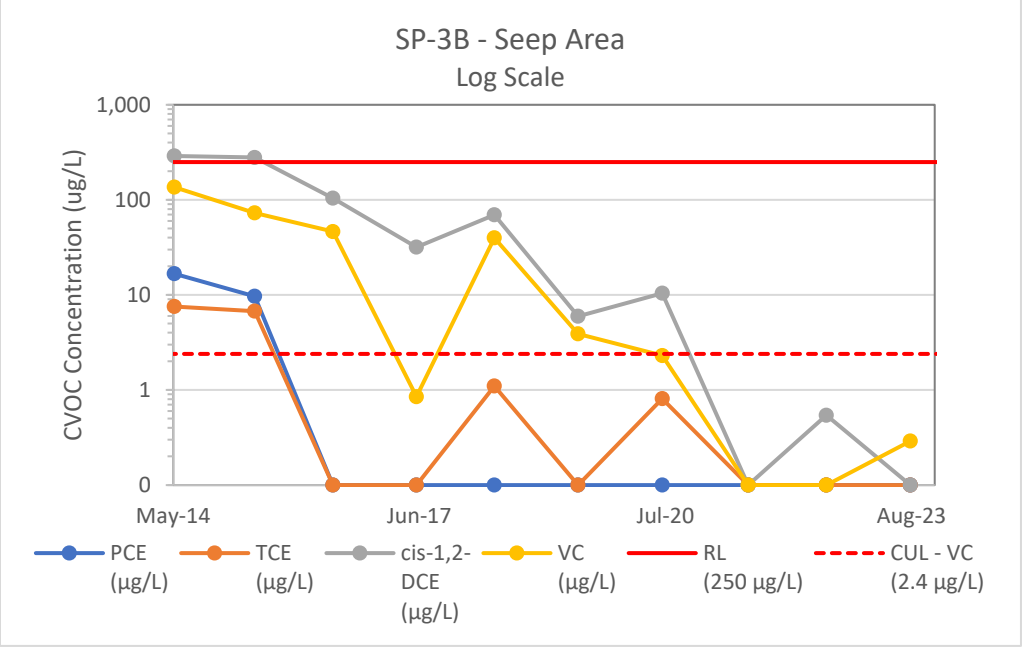

SP-2 - Seep Area
Below CVOC CULs since 2018 (2 sample events)
CVOC Concentration (ug/L)
300
250
200
150
100
50
0
Oct-12
Sep-14
Sep-16
Aug-18
Aug-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

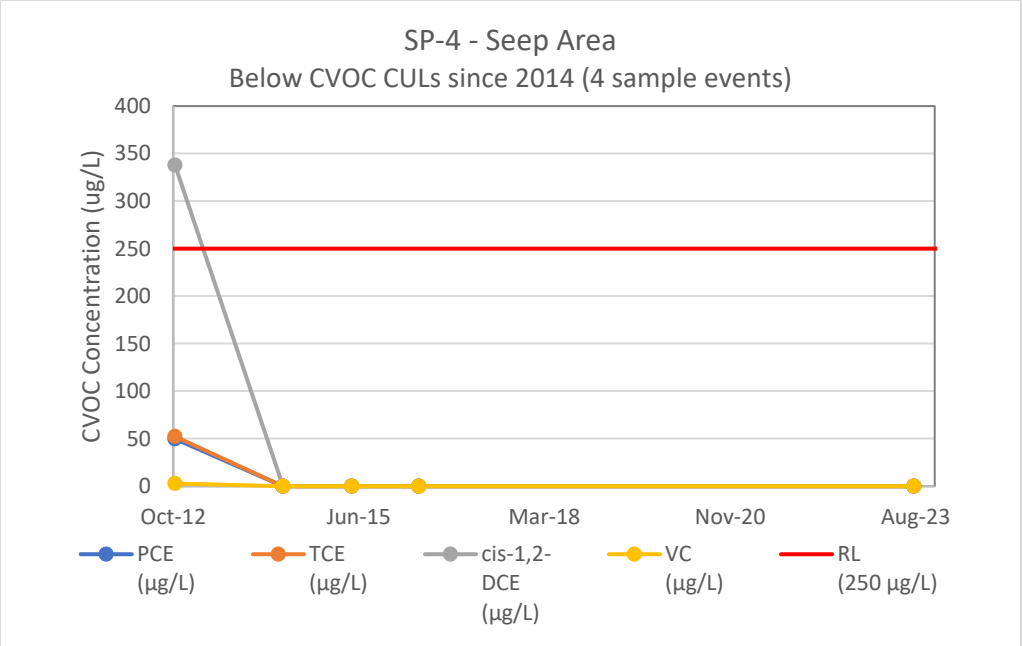

SP-2 - Seep Area
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
Oct-12
Sep-14
Sep-16
Aug-18
Aug-20
Jul-22
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

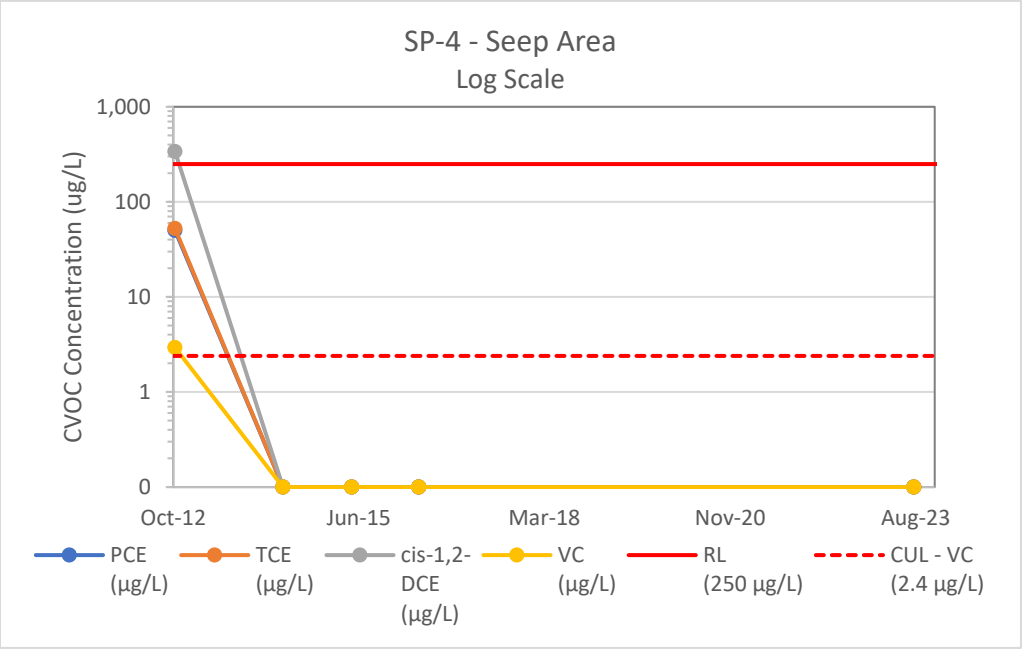

SP-3 - Seep Area
Below CVOC CULs since 2020 (4 sample events)
CVOC Concentration (ug/L)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Jun-09
Dec-12
Jul-16
Feb-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)


SP-3 - Seep Area
Log Scale
CVOC Concentration (ug/L)
10,000
1,000
100
10
1
0
Jun-09
Dec-12
Jul-16
Feb-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)


SP-3B - Seep Area
Below CVOC CULs since 2020 (4 sample events)
CVOC Concentration (ug/L)
350
300
250
200
150
100
50
0
May-14
Jun-17
Jul-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)

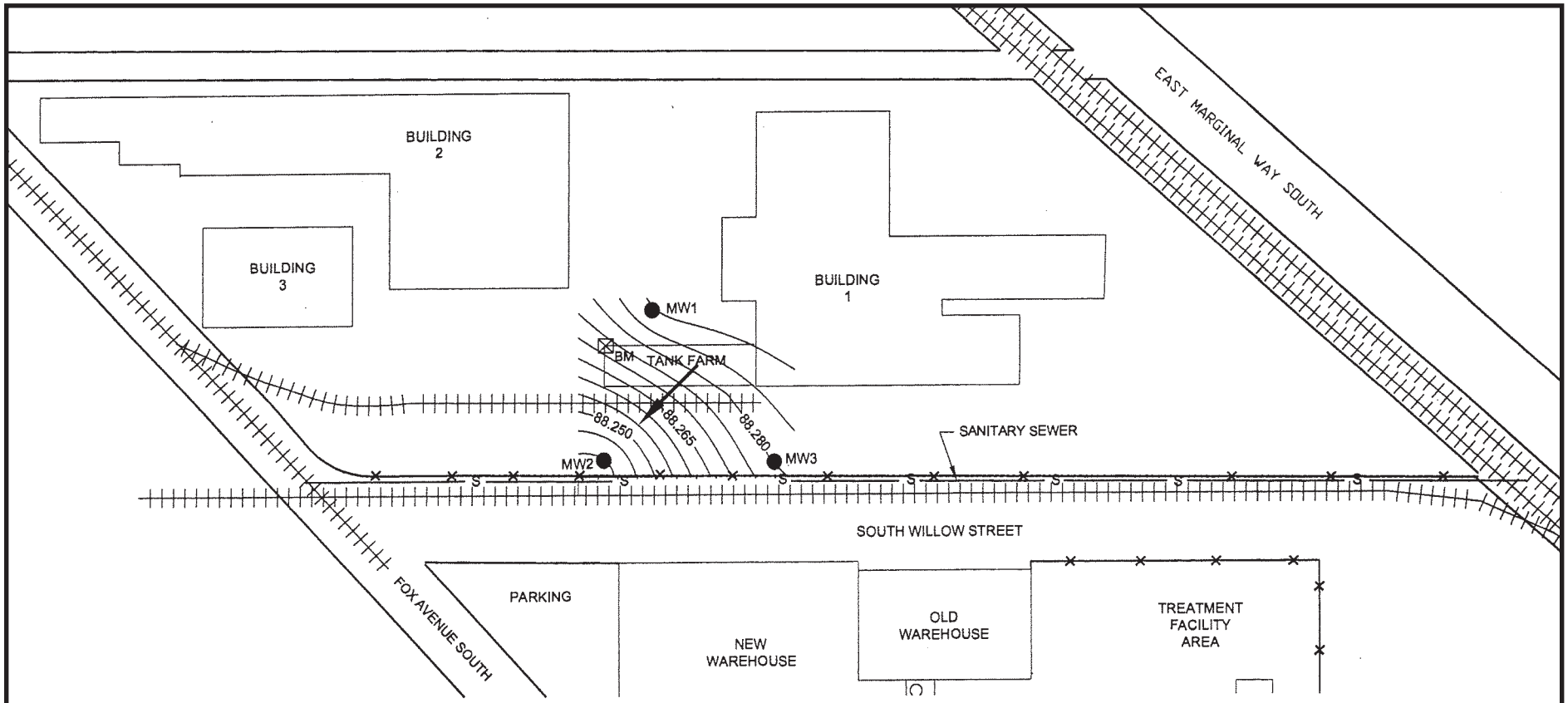

SP-3B - Seep Area
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
May-14
Jun-17
Jul-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)


SP-4 - Seep Area
Below CVOC CULs since 2014 (4 sample events)
CVOC Concentration (ug/L)
400
350
300
250
200
150
100
50
0
Oct-12
Jun-15
Mar-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)


SP-4 - Seep Area
Log Scale
CVOC Concentration (ug/L)
1,000
100
10
1
0
Oct-12
Jun-15
Mar-18
Nov-20
Aug-23
PCE (µg/L)
TCE (µg/L)
cis-1,2-DCE (µg/L)
VC (µg/L)
RL (250 µg/L)
CUL - VC (2.4 µg/L)

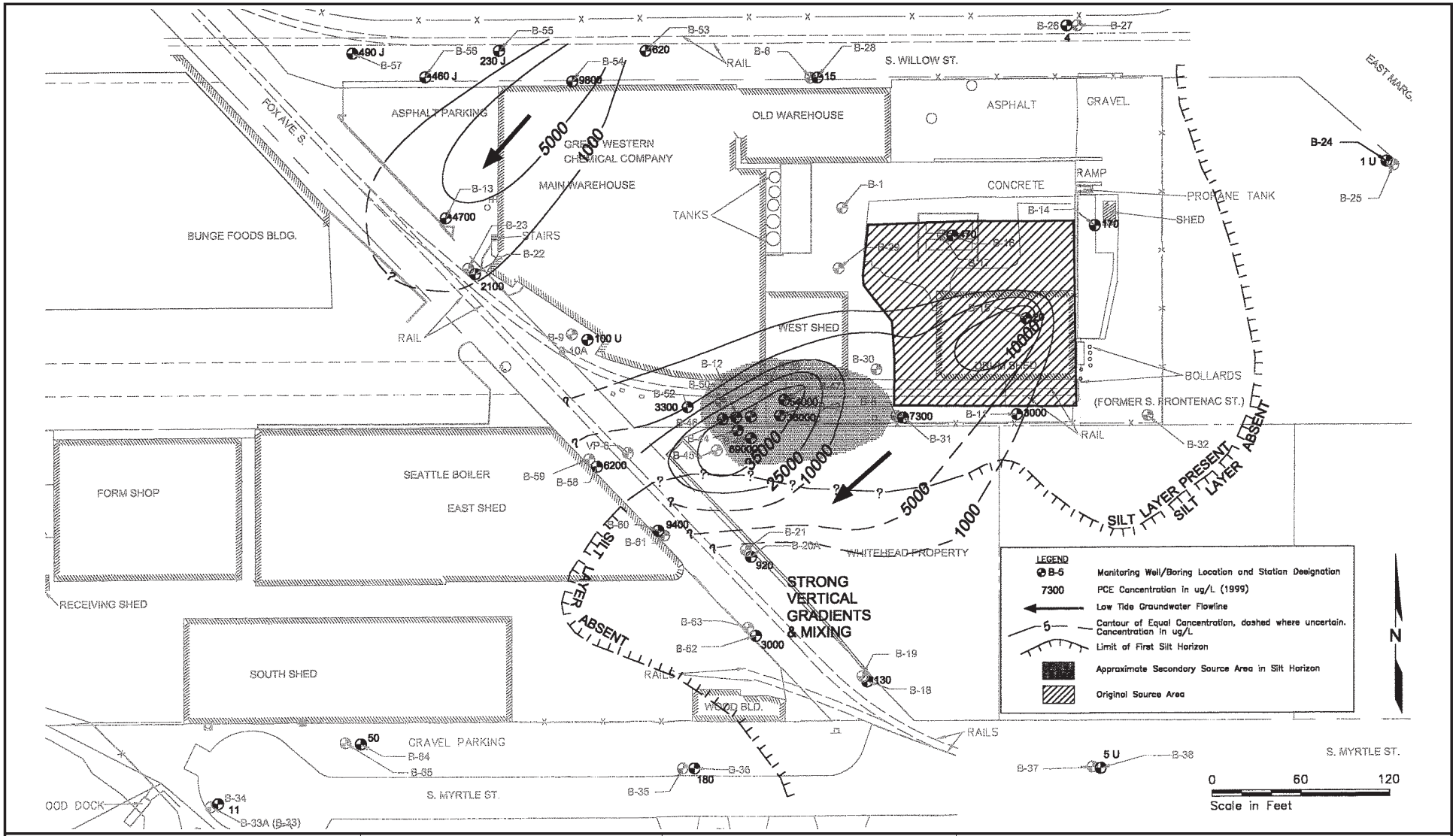
Appendix D

Other Historical Data from Adjacent Property



Note:
Contour map generated using Surfer (Win 3.2) version 6.04.

ecology and environment, inc. International Specialists in the Environment Seattle, Washington	LOWER DUWAMISH WATERWAY RM 2.0-2.3 EAST Seattle, Washington	Figure 26 GROUNDWATER ELEVATION CONTOUR MAP (DECEMBER 1999) - SHULTZ DISTRIBUTING		
	Base Map Reference: AGI Technologies, 1999.	Date: 5/21/08	Drawn by: AES	10:002330WD1403\fig26



ecology and environment, inc.
International Specialists in the Environment
Seattle, Washington

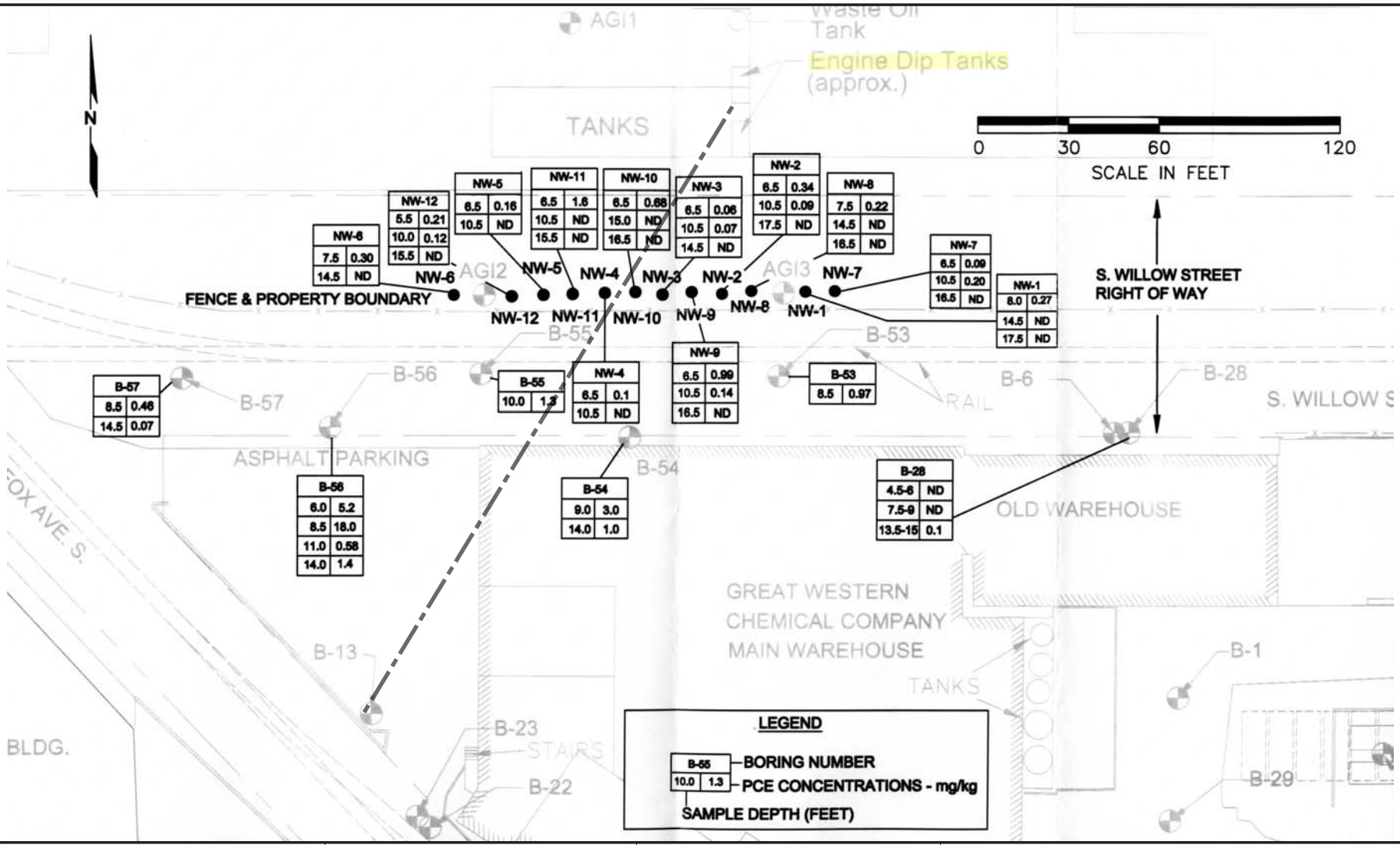
Base Map Reference: Floyd & Snider Inc. 2000.

LOWER DUWAMISH WATERWAY
RM 2.0-2.3 EAST
Seattle, Washington

Figure 37

PCE IN 1st WBZ (1999 SAMPLING EVENT) - CASCADE COLUMBIA DISTRIBUTION
(IN OPERATION AS GREAT WESTERN CHEMICAL)

Date:	Drawn by:	
5/21/08	AES	10:002330WD1403\fig37



ecology and environment, inc.
International Specialists in the Environment
Seattle, Washington

Base Map Reference: Floyd & Snider Inc. 2000.

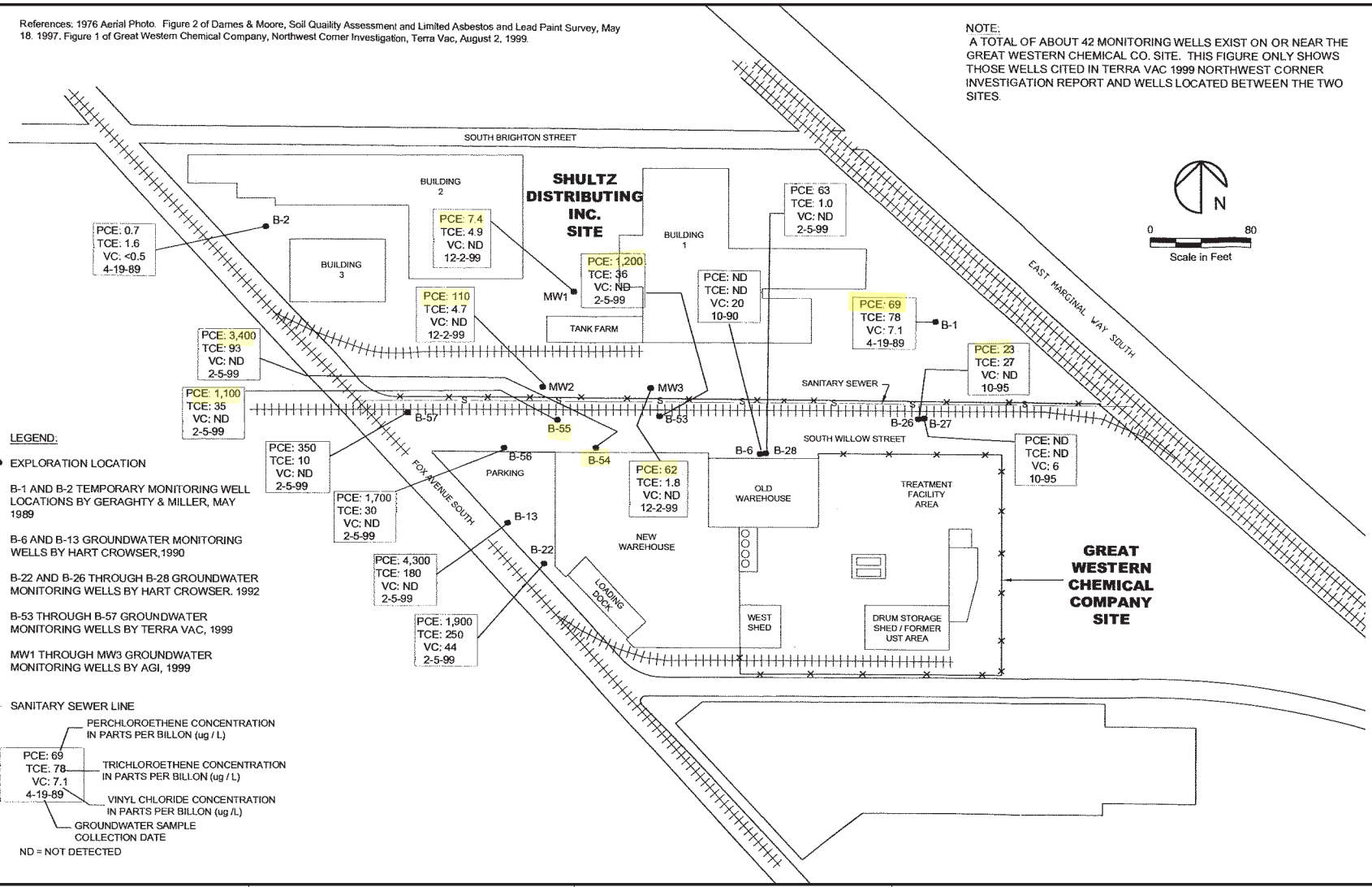
LOWER DUWAMISH WATERWAY
RM 2.0-2.3 EAST
Seattle, Washington

Figure 48
PCE IN SOIL IN SOUTH WILLOW STREET ROW - CASCADE COLUMBIA DISTRIBUTION
(IN OPERATION AS GREAT WESTERN CHEMICAL)

Date:	Drawn by:	
5/21/08	AES	10:002330WD1403\fig48

References: 1976 Aerial Photo. Figure 2 of Dames & Moore, Soil Quaility Assessment and Limited Asbestos and Lead Paint Survey, May 18. 1997. Figure 1 of Great Western Chemical Company, Northwest Corner Investigation, Terra Vac, August 2, 1999.

NOTE:
A TOTAL OF ABOUT 42 MONITORING WELLS EXIST ON OR NEAR THE GREAT WESTERN CHEMICAL CO. SITE. THIS FIGURE ONLY SHOWS THOSE WELLS CITED IN TERRA VAC 1999 NORTHWEST CORNER INVESTIGATION REPORT AND WELLS LOCATED BETWEEN THE TWO SITES.



LEGEND:

- EXPLORATION LOCATION

B-1 AND B-2 TEMPORARY MONITORING WELL LOCATIONS BY GERAGHTY & MILLER, MAY 1989

B-6 AND B-13 GROUNDWATER MONITORING WELLS BY HART CROWSER,1990

B-22 AND B-26 THROUGH B-28 GROUNDWATER MONITORING WELLS BY HART CROWSER. 1992

B-53 THROUGH B-57 GROUNDWATER MONITORING WELLS BY TERRA VAC, 1999

MW1 THROUGH MW3 GROUNDWATER MONITORING WELLS BY AGI, 1999

S — SANITARY SEWER LINE

B-1 WATER SAMPLE LOCATION

PCE: 69 TCE: 78 VC: 7.1 4-19-89

- PERCHLOROETHENE CONCENTRATION IN PARTS PER BILLON (ug / L)
- TRICHLOROETHENE CONCENTRATION IN PARTS PER BILLON (ug / L)
- VINYL CHLORIDE CONCENTRATION IN PARTS PER BILLON (ug /L)
- GROUNDWATER SAMPLE COLLECTION DATE

ND = NOT DETECTED

ecology and environment, inc. International Specialists in the Environment Seattle, Washington	**Base Map Reference:** AGI Technologies, 1999.	LOWER DUWAMISH WATERWAY RM 2.0-2.3 EAST Seattle, Washington	Figure 25 GROUNDWATER CHEMICAL CONCENTRATION MAP - SHULTZ DISTRIBUTING Date: 5/21/08 | Drawn by: AES | 10:002330WD1403\fig25