Remedial Investigation

Former Precision Engineering Property
1231 South Director Street
Seattle, Washington

for
Dick Morgan

November 4, 2026

554 West Bakerview Road
Bellingham, Washington 98225
360.647.1510

GeoEngineers

Appendices

Appendix A
Historical Aerial Photographs


INQUIRY #: 7100075.1
YEAR: 2017
= 500'
N
EDR


INQUIRY #: 7100075.1
YEAR: 2013
= 500'
N
EDR


INQUIRY #: 7100075.1
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 7100075.1
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 7100075.1
YEAR: 1990
= 500'
N
EDR


INQUIRY #: 7100075.1
YEAR: 1985
= 500'
N
EDR


INQUIRY #: 7100075.1
YEAR: 1980
= 500'
N
EDR



INQUIRY #: 7100075.1

YEAR: 1977

= 500'

N

EDR


INQUIRY #: 7100075.1
YEAR: 1969
= 500'
N
EDR



INQUIRY #: 7100075.1

YEAR: 1965

= 500'

N

EDR


INQUIRY #: 7100075.1
YEAR: 1956
= 500'
N
EDR



INQUIRY #: 7100075.1

YEAR: 1953

= 500'

N

EDR


INQUIRY #: 7100075.1
YEAR: 1943
= 500'
N
EDR



INQUIRY #: 7100075.1

YEAR: 1936

= 500'

N

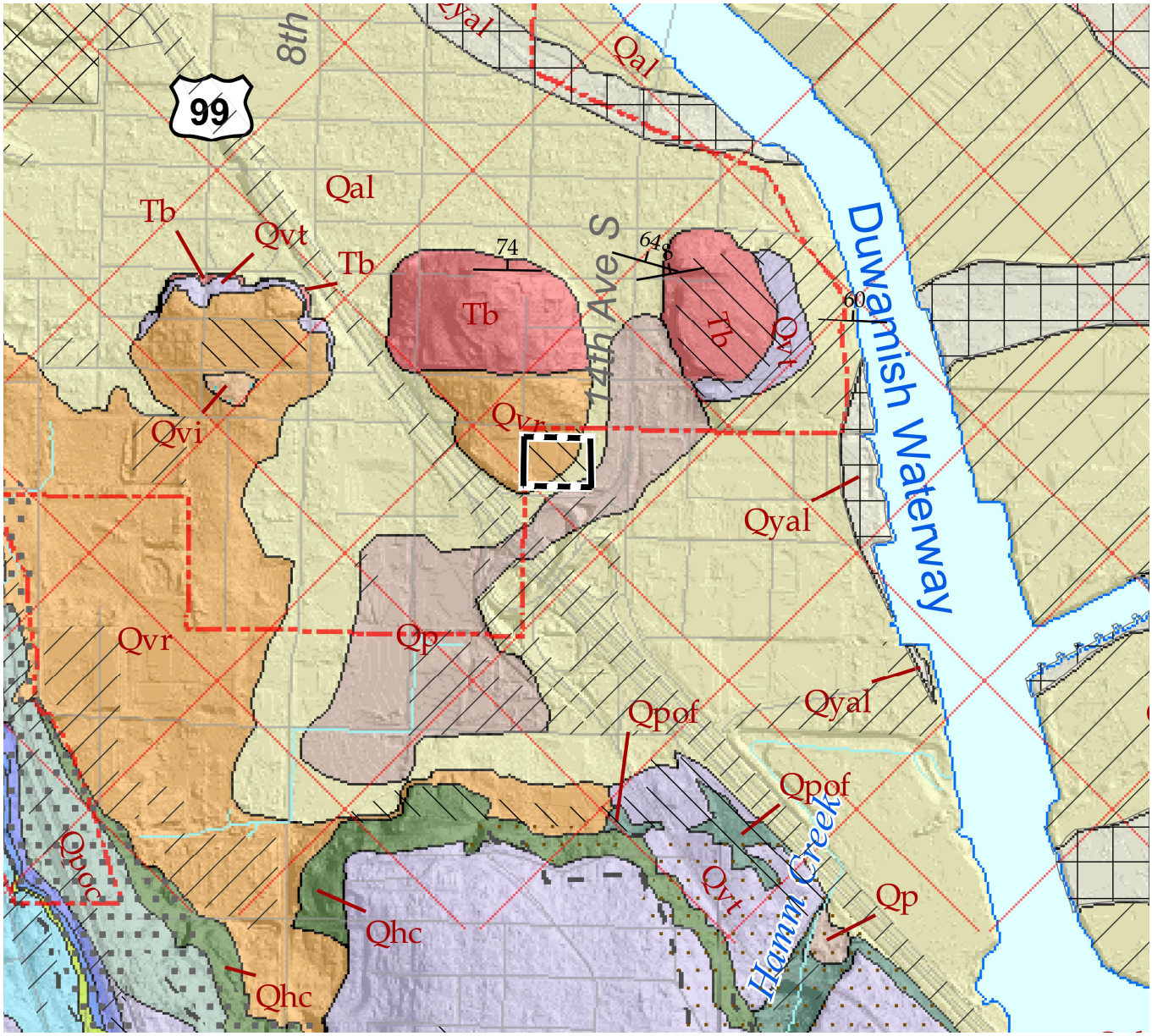
EDR

Appendix B
WSDOT Drainage Map



122.3232337°W 47.5184389°N

Appendix C
Geologic Map



Legend

- Property Boundary
- Qal (Alluvium)
- Qyal (Younger alluvium)
- Qvr (Vashon recessional outwash deposits)
- Tb (Blakely Formation: sandstone, conglomerate, siltstone, scattered marine shells)
- Qp (Peat)
- Qvt (Vashon subglacial till)
- Qhc (Hamm Creek formation)
- Artificial fill or modified land
- Filled river channels

0 1000 Feet

N

Notes:

Source(s):

- Geologic map from The Geologic Map of Seattle – a Progress Report, by Kathy Goetz Troost, Derek P. Booth, Aaron P. Wisher, and Scott A. Shimel, 2005. Symbology displayed on the map but not referenced in the legend can be found in the original map.

Coordinate System: XX State Plane, XX Zone, NAD83, US Foot

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

Geology Map

Precision Engineering, Inc.
Seattle, Washington

GeoEngineers

Figure C-1

\\geoengineers.com\WAN\Projects\25\25806001\CAD\02\RI Report\258060102_FC-1_Geology Map.dwg C-1 Date Exported:4/9/2024 2:09 PM - by Michael R. Woods

Appendix D
Boring and Monitoring Well Logs

1988 Investigation

LOG OF EXPLORATORY BORING

PROJECT NAME	Phase I Site Assessment	BORING NO.	MW-1
LOCATION	Precision Engineering	PAGE	1 OF 2
DRILLED BY	Tacoma Pump & Drill	REFERENCE ELEV.	99.87'
DRILL METHOD	H.S. Auger	TOTAL DEPTH	40.00'
LOGGED BY	Stu Ryman	DATE COMPLETED	6/16/88

SAMPLE NUMBER	SAMPLE TYPE	PENE-TRATION RATE/TIME	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
S-1	SS	50/2"		5				0 - 28 feet: GRAVELLY SANDY SILT (TILL); light grey; fine to coarse; dry to moist, very dense. (SM/ML)
S-2	SS	50/2"		10				
S-3	SS	50/2"		15				
								--- @ 18 feet: Ground water encountered.
S-4	SS	50/2"		20				
S-5	SS	50/0"		25				
								28 - 39 feet: SAND; grey; medium grained with some subrounded gravels; very dense. (SP)
S-6	SS	50/1"		30				
S-7	SS	50/4"		35				
				40				39 - 40 feet: GRAVELLY SANDY SILT; grey;

REMARKS

1) Dual completion monitoring well and piezometer. 2) See LITHLOGIC DESCRIPTION for Well and Piezometer Completion Details.

SWEET-EDWARDS/EMCON

S20-01.04.PENGR.CJE.09/06/8

LOG OF EXPLORATORY BORING

PROJECT NAME	Phase I Site Assessment	BORING NO.	MW-1
LOCATION	Precision Engineering	PAGE	2 OF 2
DRILLED BY	Tacoma Pump & Drill	REFERENCE ELEV.	99.87'
DRILL METHOD	H.S. Auger	TOTAL DEPTH	40.00'
LOGGED BY	Stu Ryman	DATE COMPLETED	6/16/88

SAMPLE NUMBER	SAMPLE TYPE	PENE-TRATION RATE/TIME	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				45				fine to coarse; dense. (GM)
				50				Bottom of boring at 40 feet. Well and Piezometer Completion Details: Monitoring well constructed of 2-inch Schedule 40 PVC with 10-foot, 0.010-inch slot screen. Piezometer constructed of 1-inch Schedule 80 PVC with 5-foot, 0.010-inch slot screen. Cement surface seal, 0-2 feet; bentonite chips, 2-13 feet and 20-28 feet; washed pea gravel, 13-20 feet and 28-40 feet.
				55				
				60				
				65				
				70				
				75				
				80				

REMARKS

1) Dual completion monitoring well and piezometer. 2) See LITHLOGIC DESCRIPTION for Well and Piezometer Completion Details.

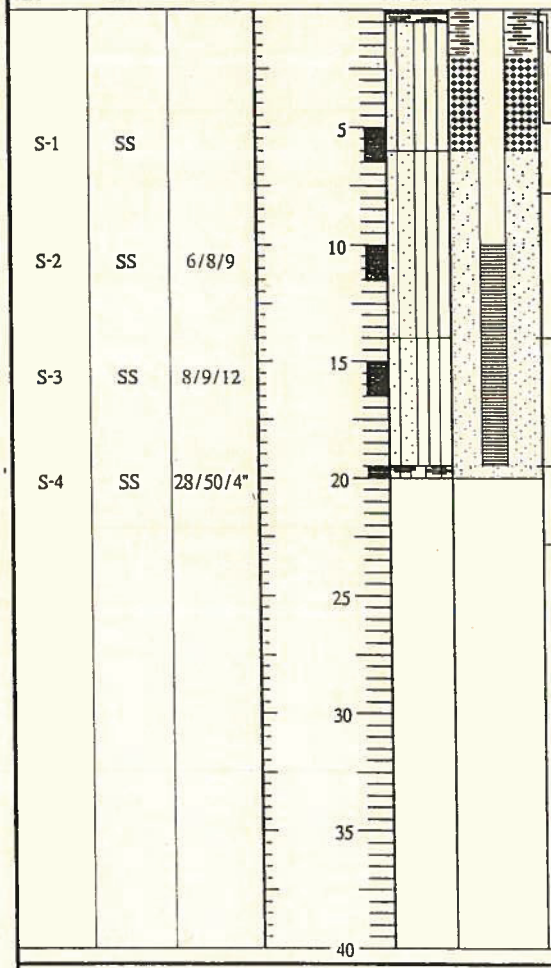
SWEET-EDWARDS/EMCON

S20-01.04.PENGR.CJF.02/06/

LOG OF EXPLORATORY BORING

PROJECT NAME	Phase I Site Assessment	BORING NO.	MW-2
LOCATION	Precision Engineering	PAGE	1 OF 1
DRILLED BY	Tacoma Pump & Drill	REFERENCE ELEV.	99.03'
DRILL METHOD	H.S. Auger	TOTAL DEPTH	20.00'
LOGGED BY	Stu Ryman	DATE COMPLETED	6/15/88

SAMPLE NUMBER	SAMPLE TYPE	PENE-TRATION RATE/TIME	LITHOLOGIC DESCRIPTION
			0 - 0.17 foot: ASPHALT. (AS.)
			0.17 - 0.5 foot: GRAVELLY SAND; grey; base coarse. (GP)
S-1	SS		0.5 - 6 feet: SILTY SAND; dark grey; fine to medium; wet; loose. (SM/ML)
S-2	SS	6/8/9	6 - 14 feet: SILTY SAND; black; fine; interbedded organic debris; loose. (SM/ML)
S-3	SS	8/9/12	14 - 19.5 feet: SILTY SAND; grey brown; fine; interbedded silts and sands; loose to medium dense. (SM/ML)
S-4	SS	28/50/4"	19.5 - 20 feet: GRAVELLY SANDY SILT (TILL); blue grey; dense. (GM)
			Bottom of boring at 20 feet.



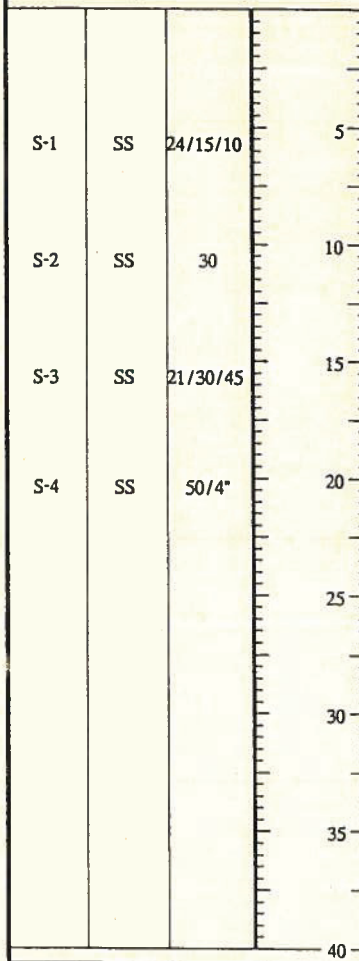
REMARKS

1) Monitoring well consturcted of 2" Schedule 40 PVC with 10', 0.01" slot screen. 2) Cement surface seal; 0-2'; bentonite chips, 2-6'; 8x12 Colorado Silica Sand, 6-20'.

LOG OF EXPLORATORY BORING

PROJECT NAME	Phase I Site Assessment	BORING NO.	MW-3
LOCATION	Precision Engineering	PAGE	1 OF 1
DRILLED BY	Tacoma Pump & Drill	REFERENCE ELEV.	99.74'
DRILL METHOD	H.S. Auger	TOTAL DEPTH	20.00'
LOGGED BY	Stu Ryman	DATE COMPLETED	6/15/88

SAMPLE NUMBER	SAMPLE TYPE	PENE-TRATION RATE/TIME	LITHOLOGIC DESCRIPTION
S-1	SS	24/15/10	0 - 14 feet: SILTY SAND; dark grey to black; fine, moist; medium dense. (SM/ML)
			--- Interbedded organics.
S-2	SS	30	
S-3	SS	21/30/45	14 - 19 feet: SILTY SAND; grey; fine; medium dense. (SM/L)
S-4	SS	50/4"	19 - 20 feet: SILTY GRAVELLY SAND (TILL); grey; brown weathered surface; fine to coarse; very dense. (SM/ML)
			Bottom of boring at 20 feet.



REMARKS

1) Monitoring well consturcted of 2" Schedule 40 PVC with 10', 0.010" slot screen. 2) Cement surface seal, 0-3'; bentonite chips, 3-6.5'; 8x12 Colorado Silica Sand, 6.5-19.5'.

LOG OF EXPLORATORY BORING

PROJECT NAME	Phase I Site Assessment	BORING NO.	MW-4
LOCATION	Precision Engineering	PAGE	1 OF 1
DRILLED BY	Tacoma Pump & Drill	REFERENCE ELEV.	101.47'
DRILL METHOD	H.S. Auger	TOTAL DEPTH	25.00'
LOGGED BY	Stu Ryman	DATE COMPLETED	6/16/88

SAMPLE NUMBER	SAMPLE TYPE	PENE-TRATION RATE/TIME	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5, 10, 15, 20, 25, 30, 35, 40				

0 - 0.17 foot: ASPHALT. (AS)

0.17 - 0.5 foot: GRAVELLY SAND; brown, base coarse. (GP)

0.5 - 25 feet: GRAVELLY SILTY SAND (TILL); grey; fine to very fine sand; dry to moist; very dense. (SM/ML)

--- @ 18 feet: increased moisture.

Bottom of boring at 25 feet.

Well Completion Details:

Monitoring well constucted of 2-inch Schedule 40 PVC with 10-foot, 0.010-inch slot screen.

Cement surface seal, 0-2 feet; bentonite chips, 2-14 feet; 8x12 Colorado silica sand, 14-25 feet.

REMARKS

1) Soil sample not attempted due to dense till. 2) See LITHLOGIC DESCRIPTION column for Well Completion Details.

SWEET-EDWARDS/EMCON

S20-01.04.PENGR.C.IF.09/05/8

2005 Investigation

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW5	1 of 2

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	
Start/End Date	12/15/05 to 12/15/05	Northing	
Driller/Equipment	Cascade Drilling/Hollow Stem Auger	Easting	
Geologist/Engineer	Merideth Gibson	Hole Depth	20.5-feet
Sample Method	Split Spoon	Outer Hole Diam	10.25-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1–9									0 to 10.0 feet: See boring log for GP19.
10–11			10%	SS			50/2"		10.0 to 20.5 feet: SANDY SILT with GRAVEL; grayish brown; 70% fines, low plasticity; 20% sand, fine to medium; 10% gravel, fine to medium; wet.
12–13			25%	SS			50/4"		
14–15			25%	SS			50/4"		@ 15.0 feet: Large Gravel, subrounded.
16–17			28%	SS			50/5"		@ 17.5 feet: Large Gravel approximately 3-inches in diameter; damp.
18–20									

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

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Maul Foster & Alongi, Inc.	Geologic Borehole Log/Well Construction		
	Project Number: 8006.08.04	Well Number: MW5	Sheet: 2 of 2

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	SS			50/6"		@ 20.0 feet: Dry.
									Total Depth: 20.5 feet bgs.

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW6	1 of 2

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	
Start/End Date	12/15/05 to 12/15/05	Northing	
Driller/Equipment	Cascade Drilling/Hollow Stem Auger	Easting	
Geologist/Engineer	Merideth Gibson	Hole Depth	20.8-feet
Sample Method	Split Spoon	Outer Hole Diam	10.25-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: ASPHALT.
3			56%	SS			19 50/6"		2.5 to 3.0 feet: SANDY GRAVEL (GW); dark brown with lenses of green and black; 40% sand, fine to medium; 60% gravel, fine to medium; damp.
5			100%	SS			11 12 13		3.0 to 6.0 feet: SILTY SAND (SM); dark gray; 35% fines, non plastic; 65% sand, fine, dense; moist.
6									6.0 to 8.0 feet: WOODY DEBRIS.
8			90%	SS			10 11 10		8.0 to 20.0 feet: SILT with SAND (ML); light grayish brown with spots of black; 90% fines, low plasticity; 10% sand, fine; trace organics; wet.
10			100%	SS			10 11 15		@ 10.0 feet: Color change to pinkish grayish brown.
13			100%	SS			24 20 19		@ 12.5 feet: Increase in stiffness.
15			90%	SS					@ 15.0 feet: Color change to grayish brown with spots of black.
16									@ 16.5 feet: Trace woody debris.
18			100%	SS			20 19 12		
20									

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW6	2 of 2

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	SS					20.0 to 20.75 feet: SILTY GRAVEL with SAND (GM); grayish brown; 20% fines, medium plasticity; 15% sand, fine to course; 65% gravels, fine to medium, approximately 3-inches in diamete; wet.

Total Depth: 20.75 feet bgs.

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW7	1 of 2

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	
Start/End Date	12/16/05 to 12/16/05	Northing	
Driller/Equipment	Cascade Drilling/Hollow Stem Auger	Easting	
Geologist/Engineer	Merideth Gibson	Hole Depth	35.5-feet
Sample Method	Split Spoon	Outer Hole Diam	10.25-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1									0 to 0.5 feet: ASPHALT.
2									
3			67%	SS			4 5 5		2.5 to 3.5 feet: GRAVELLY SAND (SW); dark brown; trace fines; 70% sand, fine to course; 30% gravels, fine; dry to damp.
4									3.5 to 5.0 feet: SILTY SAND (SM); dark grayish brown; 30% fines, low plasticity; 70% sand, fine; damp.
5			100%	SS			3 6 5		5.0 to 7.5 feet: SANDY SILT with GRAVEL (ML); light grayish brown; 70% fines, non plastic; 20% sand, fine; 10% gravels, fine to medium; trace organics; damp to moist.
6									
7									
8			100%	SS			1 2 4		7.5 to 13.5 feet: SANDY SILT (ML); light grayish brown; 70% fines, non plastic; 30% sand, fine, dense; trace organics; moist. @ 8.5 feet: Wet.
9									
10									
11			100%	SS			3 4 4		
12									@ 11.5 feet: Woody debris.
13			100%	SS			5 6 7		@ 12.5 feet: Color change to light pinkish grayish brown; increase in fines, some clay.
14									13.5 to 16.0 feet: SAND with SILT (SP-SM); dark brown; 15% fines, non plastic; 85% sand, fine; trace shells; wet.
15			100%	SS			3 3 3		
16									16.0 to 18.0 feet: SILT with SAND (ML); grayish brown; 85% fines, low to medium plasticity; 15% sand, fine; trace shells; wet.
17									
18			67%	SS			8 10 26		18.0 to 28.8 feet: GRAVELLY SAND with SILT (SW); greenish gray; 10% fines, non plastic; 50% sand, fine to course; 40% gravels, fine to medium, some approximately 3-inches in diameter, subrounded; dry to damp.
19									
20									

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

GBLWC W:\GINT\GINTWPROJECTS\8006.08\MW5 - MW8.GPJ 8/25/07

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW7	2 of 2

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
21									
22			50%	SS			50/6"		
23									@ 22.5 feet: Increase in sand, decrease in fines; dry to damp.
24			50%	SS			50/6"		
25									
26			50%	SS			50/5"		@ 25.5 feet: Color change to yellowish brown with iron staining; increase in fines to 15%; dry.
27									
28			50%	SS			50/5"		
29									28.8 to 29.0 feet: SAND with SILT (SP-SM); dark gray; 15% fines; 85% sand, fine; dry.
30			90%	SS			50/6"		29.0 to 32.5 feet: SAND with GRAVEL (SW); dark gray; trace fines; 85% sand, medium; 15% gravels, fine, subangular to subrounded; wet.
31									
32									
33			90%	SS			17 50/6"		32.5 to 33.5 feet: SAND (SP); dark gray; 100% sand, medium; trace gravels; wet.
34									33.5 to 35.5 feet: GRAVELLY SAND with SILT (SW); dark brown; 10% fines; 60% sand, fine; 30% gravels; dry.
35			100%	SS			50/6"		

Total Depth: 35.5 feet bgs.

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW8	1 of 2

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	
Start/End Date	12/15/05 to 12/15/05	Northing	
Driller/Equipment	Cascade Drilling/Hollow Stem Auger	Easting	
Geologist/Engineer	Merideth Gibson	Hole Depth	20.2-feet
Sample Method	Split Spoon	Outer Hole Diam	10.25-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1									0 to 0.5 feet: ASPHALT.
2									
3			75%	SS			14 23 13		2.5 to 3.5 feet: SAND with GRAVEL; greenish gray; trace fines; 85% sand, fine; 15% gravels, fine to medium; dry.
4									3.5 to 5.0 feet: SAND with SILT (SP-SM); gray with spots of black; 30% fines, non plastic; 70% sand, fine; trace hard substance with beads of white material in the center, strong odor; damp to moist.
5			100%	SS			2 6 9		5.0 to 8.0 feet: SANDY SILT (ML); dark blackish brown with lenses of greenish gray; 70% fines, non plastic; 30% sand; moist. @ 6.0 feet: Color change to dark brown.
6									
7									
8			100%	SS			5 8 8		8.0 to 11.0 feet: SILT with SAND (ML); light grayish brown; 85% fines, medium plasticity; 15% sand, fine; trace organics; wet.
9									
10									
11			100%	SS			7 8 14		11.0 to 15.0 feet: SILT (ML); grayish brown; 95% fines, low plasticity; 5% sand, fine; wet.
12									
13			67%	SS			17 50/6"		
14									
15									
16			67%	SS			22 50/6"		15.0 to 17.5 feet: GRAVELLY SAND with SILT NODULES(SW); dark brownish gray; 10% fines; 60% sand, medium; 30% gravels, fine to medium; wet.
17									
18			34%	SS			50/3"		17.5 to 20.2 feet: GRAVEL with SILT and SAND (GW-GM); dark brownish gray; 10% fines; low plasticity; 10% sand, fine to medium; 80% gravels, medium to course; wet.
19									
20									

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

GBLWC W:\GINT\GINTWPROJECTS\8006.08\MW5 - MW8.GPJ 8/25/07

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	MW8	2 of 2

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	SS			50/2"		Total Depth: 20.2 feet bgs.

NOTES: 1.) SS = 2.5-inch x 1.5-foot long steel split spoon sampler. 2.) bgs = below ground surface.

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-1	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/7/05 to 6/9/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	S. Mauldin	Hole Depth	15.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: CONCRETE.
1			100%	GP					0.5 to 13.0 feet: SANDY SILT with GRAVEL (SM); dark yellowish brown; 50% fines, nonplastic; 40% sand, fine to coarse; 10% gravel, fine, rounded to subrounded; micaceous; stiff; dry.
2						GP1-S-1.5			
3									
4			100%	GP					
5									
6			100%	GP					@ 5.5 to 6.0 feet: Reddish brown mottling.
			100%	GP		GP1-S-6.0			
7									
8			78%	GP					
9									
10						GP1-S-10.0			
11									
12									
13			100%	GP					13.0 to 15.0 feet: SILT (ML); dark gray; 100% fines, nonplastic; very stiff; dry.
14									
15									Total Depth : 15.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed.

GBLWC W:\GINT\GINTWPROJECTS\0053.01\GP1-GP11.GPJ 8/25/07

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-2	1 of 2

Project Name	Precision Engineering	TOC Elevation (feet)	–
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	–
Start/End Date	6/7/05 to 6/9/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	S. Mauldin	Hole Depth	30.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: CONCRETE.
1			69%	GP		GP2-S-1.0			0.5 to 7.0 feet: SANDY SILT with GRAVEL (SM); dark yellowish brown; 50% fines, nonplastic; 40% sand, fine to coarse; 10% gravel, fine, rounded to subrounded; micaceous; stiff; dry.
2									
3									
4			100%	GP					
5									
6			100%	GP					
7									7.0 to 30.0 feet: SILT with SAND (ML); gray; 85% fines, nonplastic; 15% sand, fine; trace medium to coarse gravel; very stiff; dry.
8									
9									
10			64%	GP		GP2-S-10.0			
11									
12									
13									
14									
15			76%	GP GW					@ 15.0 feet: Dark gray; low plasticity; percentages 95% fines and 5% sand.
16									
17									
18						GP2-W-17.5-recon			
19									
20									

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed.

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-2	2 of 2

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
21			78%	GP					
22									
23									
24									
25			100%	GP					
26									
27									
28									
29									
30									

Total Depth : 30.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed.

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-3	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/9/05 to 6/9/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	S. Mauldin	Hole Depth	15.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			70%	GP					0 to 0.5 feet: CONCRETE.
1									0.5 to 2.0 feet: SANDY SILT with GRAVEL (SM); dark yellowish brown; 50% fines, nonplastic; 40% sand, fine to coarse; 10% gravel, fine, angular; micaceous; stiff; dry.
2						GP3-S-2.0			2.0 to 5.0 feet: SILT (ML); gray; 100% fines, nonplastic; very stiff; dry.
3									
4									
5			95%	GP					5.0 to 8.0 feet: SANDY SILT with GRAVEL (SM); grayish brown with orangish mottling; 50% fines, nonplastic; 30% sand, fine to coarse; 20% gravel, fine, angular; micaceous; stiff; dry.
6						GP3-S-6.0			
7									
8			83%	GP					8.0 to 15.0 feet: SILT with GRAVELS (ML); dark gray; 100% fines, nonplastic; trace gravel; very stiff; dry.
9									
10									
11									
12			100%	GP					@ 12.0 feet: Damp.
13									
14						GP3-S-14.0			
15									

Total Depth : 15.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-4	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/16/05 to 6/16/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	10.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			68%	GP					0 to 0.5 feet: CONCRETE.
1									0.5 to 0.9 feet: GRAVELLY SAND (SW); dark yellowish brown; 10% fines; 70% sand, fine to medium; 20% gravel, fine, subround; micaceous; damp.
2						GP4-S-1.5			0.9 to 9.7 feet: SANDY SILT (ML); dark yellowish brown; 65% fines, non to low plasticity; 35% sand, fine; micaceous; damp to moist.
3									@ 1.2 feet: Dark gray to dark grayish brown.
4									
5			70%	GP					@ 5.0 feet: Wet; trace organics.
6	▽			GW					
7									
8						GP5-W-8.0			
9									
10									9.7 to 10.0 feet: SILT (ML); dark grayish brown with reddish brown mottling; 100% fines, nonplastic; firm; moist to wet.
									Total Depth : 10.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed. 4) DTW = depth to water in feet (ft) below ground surface (bgs). The water levels are approximate.

▽ **DTW = 6.2 feet bgs**

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-5	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/16/05 to 6/16/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	20.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			98%	GP					0 to 0.3 feet: ASPHALT.
1									0.3 to 2.5 feet: GRAVELLY SILT (ML): dark grayish brown; 80% fines, nonplastic; 20% gravel, fine to coarse, subangular; trace fine sand; damp.
2						GP5-S-1.5			
3									2.5 to 20.0 feet: SILT with GRAVEL (ML); dark grayish brown; 90 to 95% fines, nonplastic; 5 to 10% gravel, fine; trace fine sand; very stiff; dry to damp.
4									
5			98%	GP					
6									
7									
8						GP5-S-8.0			
9									
10			100%	GP					
11									
12									@ 11.2 to 12.0 feet: Percentages change to 80% fines and 20% gravels.
13									
14	▽		100%	GP		GP5-S-14.0			@ 14.0 feet: Moist to wet.
15									
16				GW					
17									
18			50%	GP		GP5-W-18.0			
19									
20									Total Depth : 20.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed. 4) DTW = depth to water in feet (ft) below ground surface (bgs). The water levels are approximate.

▽ **DTW = 14.0 feet bgs**

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-6	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/16/05 to 6/16/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	20.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	GP					0 to 0.5 feet: CONCRETE.
1						GP6-S-1.0			0.5 to 20.0 feet: SANDY SILT with GRAVEL (ML); dark yellowish brown; 65% fines, nonplastic; 20% sand, fine; 15% gravel, fine to coarse, subangular to angular; micaceous; very stiff; dry to damp.
2									@ 0.5 to 1.0 feet: Greenish yellow staining.
3									
4									
5			100%	GP					
6									
7									@ 7.0 feet: Dark gray to dark brownish gray.
8			100%	GP		GP6-S-8.0			@ 8.0 to 11.5 feet: Percentage change to 60% fines, 15% sand, and 25% gravel.
9									
10									
11									
12			100%	GP					
13									
14									
15			100%	GP		GP6-S-14.5			@ 14.5 to 20.0 feet: Sluff in samplers is moist to wet while soil is dry to damp.
16	▽			GW					
17									
18			100%	GP		GP6-W-18.0			
19									
20									Total Depth : 20.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed. 4) DTW = depth to water in feet (ft) below ground surface (bgs). The water levels are approximate.

▽ **DTW = 15.9 feet bgs**

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-7	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/16/05 to 6/16/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	16.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			25%	GP					0 to 0.5 feet: CONCRETE.
1									0.5 to 1.5 feet: Void below concrete.
2						GP7-S-2.0			1.5 to 16.0 feet: SILTY SAND (SM); dark yellowish brown; 20 to 25% fines, low plasticity; 70% sand, fine; 5 to 10% gravel, fine, subrounded; micaceous; damp.
3									
4									
5			50%	GP					@ 5.0 feet: Damp to moist.
6									
7									
8						GP7-S-8.0			
9									
10			40%	GP					@ 10.0 feet: Wet.
11									
12	▽			GW					
13									
14						GP7-W-14.0			
15									
16									Total Depth : 16.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed. 4) DTW = depth to water in feet (ft) below ground surface (bgs). The water levels are approximate. 5) Becuase of the large void below the concrete the borehole was only abandoned to the top of the soil.

▽ **DTW = 12.3 feet bgs**

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
0053.01.03	GP-8	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/16/05 to 6/16/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	12.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			60%	GP					0 to 0.5 feet: CONCRETE.
1									0.5 to 1.0 feet: GRAVELLY SAND (SW); dark yellowish brown; 10% fines; 60% sand, fine to coarse; 30% gravel, fine to medium, subangular; micaceous; damp.
2						GP8-S-1.5			0.9 to 9.7 feet: SANDY SILT (ML); dark brownish gray; 65% fines, non to low plasticity; 35% sand, fine; micaceous; damp to moist.
3									
4									
5			46%	GP					@ 5.0 feet: Trace organics and from approximately 9.6 feet to 9.8 feet below ground surface 100% organics.
6									
7									
8	▽			GW					
9									
10			100%	GP		GP8-W-10.0			9.8 to 11.6 feet: SILT (ML); dark grayish brown; 100% fines, nonplastic; trace fine sand; firm; moist to wet.
11									
12									11.6 to 12.0 feet: GRAVELLY SILT (ML); dark grayish brown; 70% fines, nonplastic; 10% sand, fine; 20% gravel, fine, subround; stiff; damp to moist.

Total Depth : 12.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed. 4) DTW = depth to water in feet (ft) below ground surface (bgs). The water levels are approximate.

▽ DTW = 7.7 feet bgs

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-9	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/17/05 to 6/17/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	10.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			28%	GP					0 to 0.5 feet: CONCRETE.
									0.5 to 1.5 feet: Void below concrete.
2						GP9-S-2.0			1.5 to 10.0 feet: SILTY SAND (SM); dark yellowish brown; 40% fines, low plasticity; 55% sand, fine; 5% gravel, medium, subangular; damp.
3									
4									
5			4%	GP					@ 4.9 feet: Wet.
6									
7									
8									
9									
10									Total Depth : 10.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed. 4) Becuase of the large void below the concrete the borehole was only abandoned to the top of the soil.

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-10	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	–
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	–
Start/End Date	6/17/05 to 6/17/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	15.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			75%	GP					0 to 0.4 feet: CONCRETE.
1									0.4 to 15.0 feet: SANDY SILT with GRAVEL (ML); dark yellowish brown; 60% fines, nonplastic; 25% sand, fine; 15% gravel, fine to coarse, subround to angular; micaceous; stiff; dry to damp.
2						GP10-S-1.5			@ 1.5 feet: Brownish gray.
3									
4			100%	GP					
5									
6									
7			100%	GP		GP10-S-7.0			@ 7.0 to 12.0 feet: Percentages 65% fines, 30% sand, and 5% gravel.
8									
9									
10			100%	GP					
11									
12									
13			100%	GP					
14						GP10-S-13.5			@ 14.0 feet: Moist to wet and percentages 65% fines, 30% sand, and 5% gravel.
15									Total Depth : 15.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed.

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Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0053.01.03	GP-11	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	--
Project Location	1231 S. Director Street, Seattle, WA 98108	Surface Elevation (feet)	--
Start/End Date	6/17/05 to 6/17/05	Northing	
Driller/Equipment	Boart Longyear/Geoprobe	Easting	
Geologist/Engineer	A. Hughes	Hole Depth	7.0-feet
Sample Method	Direct Push	Outer Hole Diam	2-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			95%	GP					0 to 0.4 feet: CONCRETE.
1									0.4 to 4.0 feet: SILTY SAND with GRAVEL (SM); dark yellowish brown; 30% fines, nonplastic; 55% sand, fine to coarse; 15% gravel, fine to coarse, subangular to angular; firm; dry.
2						GP11-S-2.0			
3									
4			100%	GP					4.0 to 7.0 feet: SANDY SILT (ML); dark yellowish brown with reddish brown mottling; 70% fines, nonplastic; 30% sand, fine; trace fine, subrounded gravel; damp to moist.
5									
6									
7			100%	GP		GP11-S-6.5			@ 6.5 feet: Moist to wet.
									Refusal at 7.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe. 3) Borings were not surveyed.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP12	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			50%	GP					0 to 0.5 feet: CONCRETE.
2									0.5 to 8.0 feet: GRAVELLY SAND with SILT (SW); 15% fines, nonplastic; 60% sand, fine to medium; 25% gravels, fine to medium, angular to subrounded; dry.
3						GP12-S-3.0			
4			100%	GP					@ 4.0 feet: Increase in courseness; sand, course; gravel, fine to medium.
5						GP12-S-5.0			@ 5.0 feet: Wet.
6									
7									
8									Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP13	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/14/05 to 12/14/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	10.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			75%	GP		GP13-S-1.0			0 to 0.5 feet: CONCRETE.
1									0.5 to 3.5 feet: SILTY SAND (SM); dark brown; 30% fines, nonplastic; 70% sand, fine, dense; damp.
2									
3									
4			75%	GP					3.5 to 4.5 feet: SILT with SAND (ML); dark brown; 85% fines, low plasticity; 15% sand, fine; moist.
5									4.5 to 8.0 feet: GRAVELLY SILT with SAND (ML); dark grayish brown; 70% fines, low to medium plasticity; 10% sand, fine; 20% gravels, fine to medium; moist.
6				GW		GP13-S-6.0			@ 6.0 feet: Wet.
7									
8						GP13-W-8.0			
9									
10									

Total Depth: 10.0 feet bgs

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP14	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: CONCRETE.
1			100%	GP					0.5 to 1.0 feet: SILTY SAND with GRAVEL (SM); brown; 30% fines, nonplastic; 60% sand, fine; 10% gravels, fine to medium, subangular; dry.
2									1.0 to 7.0 feet: SANDY SILT with GRAVEL (ML); yellowish brown; 70% fines, nonplastic; 20% sand, fine; 10% gravels, fine to medium, subangular; dry.
3						GP14-S-3.0			
4			100%	GP					
5									
6			100%	GP		GP14-S-6.0			
7									7.0 to 8.0 feet: SILTY SAND with GRAVEL (SM); light yellowish brown; 30% fines, nonplastic; 60% sand, fine to course; 10% gravels, fine to medium; wet.
8									Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP15	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	10.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			100%	GP					0 to 0.5 feet: CONCRETE.
2									0.5 to 8.0 feet: SILTY SAND (SM); dark gray; 20% fines, nonplastic; 80% sand, fine; trace gravels, fine; damp.
3						GP15-S-3.0			
4			100%	GP					
5									@ 5.0 feet: Organic debris; black; wet.
6				GW		GP15-S-6.0			
7									
8						GP15-W-8.0			
9									
10									

Total Depth: 10.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP16	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	10.5-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
									0 to 0.5 feet: CONCRETE.
1			100%	GP		GP16-S-1.0			0.5 to 8.0 feet: SILTY SAND with GRAVEL (SM); gray with iron staining; 20% fines, nonplastic; 65% sand, fine; 15% gravels, fine to medium, angular to subrounded; damp.
2									
3									@ 3.0 feet: Color change to yellowish brown; dry.
4			100%	GP					@ 4.0 feet: Water in the top of the sample.
5						GP16-S-5.0			
6									@ 6.0 feet: Dry.
7			100%	GP					@ 7.0 feet: Wet.
8									8.0 to 10.5 feet: SANDY SILT with GRAVEL (ML); light gray; 70% fines, nonplastic, stiff; 20% sand, fine; 10% gravels, fine to medium, subrounded; dry.
9									
10									@ 9.5 feet: Color change to yellowish brown.
									Total Depth: 10.5 feet bgs. Hit refusal.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP17	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	GP					0 to 0.5 feet: CONCRETE.
1						GP17-S-1.0			0.5 to 7.0 feet: SANDY SILT with GRAVEL(ML); dark brown; 70% fines, nonplastic; 20% sand, fine; 10% gravels, fine to medium; angular to subrounded; damp.
2									
3									
4									
			100%	GP					
5									
6						GP17-S-6.0			@ 6.0 feet: Color change to gray; wet.
7									7.0 to 8.0 feet: SANDY SILT (ML); yellowish brown with iron staining; 70% fines, nonplastic; 30% sand, fine to medium; damp.
8									Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP18	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	4.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			100%	GP		GP18-S-1.0			0 to 0.5 feet: CONCRETE.
2									0.5 to 4.0 feet: SILTY SAND with GRAVEL (SM); light gray; 20% fines, nonplastic; 70% sand, fine, dense; 10% gravels, fine to medium; odor; damp.
3			100%	GP					@ 2.0 feet: Color change to dark brown; dry.
4									@ 2.5 feet: Color change to yellowish brown.

Total Depth: 4.0 feet bgs. Hit refusal.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP19	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	9.5-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	GP					0 to 0.5 feet: CONCRETE.
1						GP19-S-1.0 GPDUP-S-1.0			0.5 to 2.0 feet: SILTY SAND with GRAVEL (SM); gray with brown mottling; 30% fines, nonplastic; 60% sand, fine; 10% gravels, fine to medium, angular to subrounded; damp.
2									2.0 to 8.0 feet: SANDY SILT (ML); dark brown; 60% fines, low plasticity, stiff; 40% sand, fine; damp to moist.
3									
4			100%	GP					
5									@ 5.0 feet: Trace gravels, fine to medium.
6									
7						GP19-S-7.0			@ 7.0 feet: Wet.
8			100%	GP					8.0 to 9.5 feet: SILTY SAND with GRAVEL (SM); yellowish brown; 30% fines, nonplastic; 60% sand, fine; 10% gravels, fine to medium; dry.
9									

Total Depth: 9.5 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP20	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/14/05 to 12/14/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			80%	GP					0 to 0.5 feet: CONCRETE.
1						GP20-S-1.0			0.5 to 1.5 feet: SILTY SAND with GRAVEL (SM); brownish gray; 20% fines, nonplastic; 70% sand, fine; 10% gravels, fine to medium, subrounded; slight odor; damp to moist.
2									1.5 to 8.0 feet: SILTY SAND (SM); dark blackish brown; 35% fines, nonplastic; 65% sand, fine; trace organics at top of sample; slight odor; moist
3									
4			100%	GP					
5									Grades to sandy silt.
6						GP20-S-6.0			
7									@ 7.0 feet: Wet.
8									Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP21	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/14/05 to 12/14/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			50%	GP					0 to 0.5 feet: CONCRETE.
1						GP21-S-1.0			0.5 to 4.0 feet: SILTY SAND with GRAVEL (SM); light yellowish brown; 20% fines, nonplastic; 70% sand, fine; 10% gravels, fine, subangular; dry to damp.
2									@ 2.0 feet: Color change to gray; damp.
3									
4									
			100%	GP					4.0 to 8.0 feet: SILTY SAND (SM); dark blackish brown; 35% fines, low to medium plasticity; 65% sand, fine; moist.
5									
6									
7						GP21-S-6.5			@ 7.0 feet: Wet.
8									

Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP22	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/13/05 to 12/13/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	12.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	GP					0 to 0.5 feet: CONCRETE.
1						GP22-S-1.0			0.5 to 12.0 feet: SILTY SAND with GRAVEL (SM); brown; 20% fines, nonplastic; 70% sand, fine; 10% gravels, fine to medium, angular to subrounded; dry.
2									
3									@ 3.0 feet: Color change to yellowish brown.
4			100%	GP					
5						GP22-S-5.0			@ 5.0 feet: Color change to gray; increase in density.
6			100%	GP					
7									
8			100%	GP					
9									
10			100%	GP		GP22-S-10.0			@ 10.0 feet: Color change to brown; wet.
11									@ 11.0 feet: Color change to yellowish brown; dry.
12									

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP23	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/14/05 to 12/14/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	11.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			100%	GP		GP23-S-1.0			0 to 0.5 feet: CONCRETE.
2									0.5 to 11.0 feet: SILTY SAND with GRAVEL (SM); light yellowish brown; 20% fines, nonplastic; 70% sand, fine, loose; 10% gravels; dry.
3									@ 2.0 feet: Color change to gray; dense.
4			100%	GP					
5									
6			100%	GP					
7						GP23-S-7.0			
8			100%	GP					
9									
10			100%	GP					
11						GP23-S-10.5			

Total Depth: 11.0 feet bgs. Hit refusal.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Geologic Borehole Log/Well Construction

Maul Foster & Alongi, Inc.

Project Number	Well Number	Sheet
8006.08.04	GP24	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/14/05 to 12/14/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	10.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: CONCRETE.
1			100%	GP					0.5 to 5.5 feet: SILTY SAND with GRAVEL (SM); gray; 20% fines, nonplastic; 70% sand, fine; 10% gravels, fine to medium, subangular to subrounded; dry.
2									
3						GP24-S-3.0 GPDUP-S-3.0			
4			100%	GP					
5									
6									5.5 to 6.5 feet: SANDY SILT (ML); gray; 70% fines, nonplastic, very stiff; 30% sand, fine; dry.
7			100%	GP		GP24-S-6.5			6.5 to 9.5 feet: SILTY SAND with GRAVEL (SM); gray; 20% fines, nonplastic; 70% sand, fine; 10% gravels, fine to medium, subangular to subrounded; dry.
8									
9						GP24-S-9.0			
10									9.5 to 10.0 feet: SANDY SILT (ML); gray; 70% fines, nonplastic, very stiff; 30% sand, fine; dry.
									Total Depth: 10.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP25	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	10.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			100%	GP					0 to 0.5 feet: ASPHALT.
1						GP25-S-1.0			0.5 to 7.0 feet: SAND with GRAVEL (SW); light gray; trace fines; 85% sand, fine, dense; 15% gravels, fine to medium, angular to subrounded; dry.
2									
3			100%	GP					
4									
5									
6									
7			100%	GP		GP25-S-7.0			7.0 to 10.0 feet: SANDY SILT (ML); brownish gray; 70% fines; 30% sand, fine to medium; wet.
8									
9									
10									

Total Depth: 10.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP26	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	9.5-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
									0 to 0.5 feet: ASPHALT.
1			100%	GP		GP26-S-1.0			0.5 to 9.5 feet: SAND with GRAVEL (SW); light gray with spots of brownish yellow; 85% sand, fine, dense; 15% gravel, fine to medium; dry.
2									
3									
4			100%	GP					
5									
6									@ 6.0 feet: Color change to spots of greenish yellow.
7			100%	GP		GP26-S-7.0			
8			100%	GP					
9									
						GP26-S-9.5			Total Depth: 9.5 feet bgs. Hit refusal.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP27	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	13.5-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0			100%	GP					0 to 0.5 feet: ASPHALT.
1						GP27-S-1.0			0.5 to 13.5 feet: SAND with GRAVEL (SW); light gray; trace fines; 85% sand, fine, dense; 15% gravels, fine to medium, angular to subrounded; dry.
2									
3									
4			100%	GP					
5									
6									@ 6.0 feet: Color change to slight pinkish color with spots of yellow.
7						GP27-S-6.5			
8			100%	GP					@ 8.0 feet: Decrease in courseness; gravels, fine.
9									
10									
11			100%	GP					
12									
13			100%	GP					
						GP27-S-13.0			

Total Depth: 13.5 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP28	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	9.5-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: ASPHALT
1			100%	GP		GP28-S-1.0			0.5 to 4.0 feet: SILTY SAND with GRAVEL (SM); light brownish gray; 30% fines, nonplastic; 60% sand, fine; 10% gravels, fine to medium, angular to subrounded; damp to moist.
2									
3			100%	GP					
4									
5									4.0 to 9.5 feet: SAND with GRAVEL (SW); light gray with spots of brown; trace fines; 85% sand, fine; 15% gravels, fine to medium, angular to subrounded; dry.
6									
7			100%	GP		GP28-S-7.0			
8									@ 7.5 feet: Moist to Wet.
9									

Total Depth: 9.5 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP29	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
0									0 to 0.5 feet: ASPHALT.
1			100%	GP		GP29-S-1.0			0.5 to 2.0 feet: GRAVELLY SAND with SILT (SW); greenish gray; 5% fines, nonplastic; 70% sand, fine; 25% gravels, fine to medium; damp.
2									
3									2.0 to 6.5 feet: SILTY SAND (SM); dark brown; 30% fines, nonplastic; 70% sand, fine; damp.
4			100%	GP					
5									
6						GP29-S-6.0			
7									6.5 to 8.0 feet: SANDY SILT with GRAVEL (ML); brown; 60% fines, medium plasticity; 30% sand, fine to medium; 10% gravels, fine; trace organics and woody debris; wet.
8									

Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP30	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			100%	GP					0 to 0.5 feet: ASPHALT.
1						GP30-S-1.0			0.5 to 8.0 feet: SILTY SAND (SM); greenish gray; 30% fines, nonplastic; 70% sand, fine; trace gravels, fine; damp.
2									
3									
4									@ 3.5 feet: Color change to dark brown; some organics.
			100%	GP					
5									
6						GP30-S-6.0			
7									@ 6.5 feet: Color change to blackish brown; wet.
8									Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP31	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/12/05 to 12/12/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	8.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
			50%	GP					0 to 0.5 feet: ASPHALT.
1						GP31-S-1.0			0.5 to 3.0 feet: SILTY SAND with GRAVEL (SM); greenish gray; 20% fines, nonplastic; 70% sand, fine; 10% gravels, fine; damp.
2									
3									3.0 to 8.0 feet: SILTY SAND (SM); dark brown; 20% fines, nonplastic; 80% sand, fine; damp to moist.
4			100%	GP					
5									
6						GP31-S-6.0			
7									@ 6.5 feet: Color change to blackish brown; wet.
8									7.5 to 8.0 feet: WOODY DEBRIS.
									Total Depth: 8.0 feet bgs.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

GBLWC W:\GINT\GINTWPROJECTS\8006.08\GP12-GP32.GPJ 8/25/07

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
8006.08.04	GP32	1 of 1

Project Name	Precision Engineering	TOC Elevation (feet)	
Project Location	1231 S. Director Street, Seattle, Washington 98108	Surface Elevation (feet)	
Start/End Date	12/14/05 to 12/14/05	Northing	
Driller/Equipment	Cascade Drilling/Geoprobe	Easting	
Geologist/Engineer	M. Gibson	Hole Depth	3.0-feet
Sample Method	Direct Push	Outer Hole Diam	3 1/4-inch

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			100%			GP32-S-1.0			0 to 0.5 feet: CONCRETE.
2									0.5 to 3.0 feet: SILTY SAND with GRAVEL (SM); orangish brown; 20 % fines, nonplastic; 70% sand, fine, dense; 10% gravels, fine to medium; odor; damp.
3									@ 1.0 feet: Color change to yellowish brown; dry.

Total Depth: 3.0 feet bgs. Hit refusal.

NOTES: 1) Abandon borehole with 3/8-inch bentonite chips hydrated with potable water. 2) GP = geoprobe.

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2014/2015 Investigation

Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION: Near SE corner of site		**Well Name**	MW9
DRILLING COMPANY: Holt	DRILLER	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Hollow Stem Auger	DRILL BIT(S) SIZE: 9-inch	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: ground surface	TOTAL DEPTH: 46.0 ft. bgs
BLANK CASING: 2" Schedule 40 PVC Pipe	FROM 0 TO 31 FT.	DATE STARTED: 8/16/14	DATE COMPLETED: 8/16/14
SLOTTED CASING: 2" Schedule 40 PVC Pipe 0.010" Slots	FROM 31 TO 36 FT.	INITIAL WATER DEPTH (FT): 7.0	
SIZE AND TYPE OF FILTER PACK: Colorado 10/20 Silica Sand	FROM 29 TO 38 FT.	LOGGED BY: DKM	
SEAL: 3/8" Bentonite Chips	FROM 1 TO 29 FT. 38 46	SAMPLING METHODS: Split spoon	WELL COMPLETION: ■ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: Concrete	FROM 0 TO 1 FT.		

SAMPLES TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"	DEPTH (FEET)	SAMPLE NUMBER	PID	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Asphalt and crushed rock base
							Silty SAND Medium brown with gray, fine sand with ~30% silt, trace gravel, sandier intervals below ~5' bgs, medium dense, moist, no odor, no sheen
SS	1	1 3 4			0.0	SM	
			5				
SS	1.3	0 1 1			0.3		
						ML/ CL	**Clayey SILT** Brown, clayey silt with trace sand, ~1" of peat at top of unit, medium stiff, medium plasticity, moist, no odor, no sheen
SS	1.3	1 3 2			0.3		**Silty SAND** Brown, fine sand with 30% silt, discrete thinly-bedded intervals with increased sand or silt content, medium dense, wet, no odor, no sheen
			10				
SS	1.5	1 1 2			0.2	SM	
SS	1.5	1 1 2			0.0		
			15				
SS	1.3	1 1 6			0.0	SP/ SM	**Poorly graded SAND with silt** Dark gray to brown, fine to medium sand with 15% silt, silt content decreases to 17.5 ft. bgs and becomes siltier below, medium dense, wet, no odor, no sheen
SS	1.3	0 1 12		MW9-18-19	0.0	SM	**Silty SAND with gravel** Dark gray, silty fine sand with abundant shell fragments, ~3-inch coarse gravel layer with grains over 1 in. diameter at ~19 feet bgs, medium dense, wet, "tideflats" odor, no sheen
			20				
SS	0.5	50-5			0.0	SP/ SM	**Poorly graded SAND with silt and gravel** Greenish gray transitioning to medium gray at 23 ft. bgs, silty fine sand with 5-15% gravel, 20-30% silt, glacial till, dense to very dense, moist, no odor, no sheen

KJ PNW PRECISION AUG 2014 WELLS.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring & Well Construction Log

Kennedy/Jenks Consultants

Project Name Ecology Precision Engineering **Project Number** 1396024.00 **Well Name** MW9

SAMPLES TYPE	SAMPLES RECOV. (FEET)	SAMPLES PENETR. RESIST. BLOWS/6"	DEPTH (FEET)	SAMPLE NUMBER	PID	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Poorly graded SAND with silt and gravel
SS	1	25 50			0.0		Greenish gray transitioning to medium gray at 23 ft. bgs, silty fine sand with 5-15% gravel, 20-30% silt, glacial till, dense to very dense, moist, no odor, no sheen ***(Continued)***
SS	0	50-3	25				
						SP/SM	
SS	0.8	35 50-5			0.0		brown, sandier than above and slighly less dense, faint odor, no sheen
SS	1	41 50-5	30		0.0		abrupt color change to gray, angular gravel below ~31' bgs, no odor, no sheen
						SW	**Well-graded SAND with gravel**
SS	1	45 50		MW9-32.5-33.5	0.0		Gray, medium to coarse sand with gravel, trace silt, medium dense, wet, no odor, no sheen
						SP/SM	**Poorly graded SAND with silt**
SS	1	50-5	35		0.0		Medium brown, medium to fine sand with up to 15% silt and 10% gravel (texture varies locally), medium dense, wet, no odor, no sheen
						SM	
							Silty SAND with gravel
							Brown, silty fine sand with gravel, glacial till, dense, moist, no odor, no sheen
						SP	**Poorly graded SAND**
SS	0.7	50		MW9-38-39	0.0		Gray, medium sand with trace silt and gravel, medium dense, wet, no odor, no sheen
							Poorly graded SAND with silt and gravel
SS	0.7	41 50-1	40		0.0		Gray to greenish gray, medium to fine sand with 20% silt and up 15% gravel, glacial till, dense, moist, no odor, no sheen
						SP/SM	
SS	0.4	50			0.0		
SS	1	25 50-3	45		0.0		

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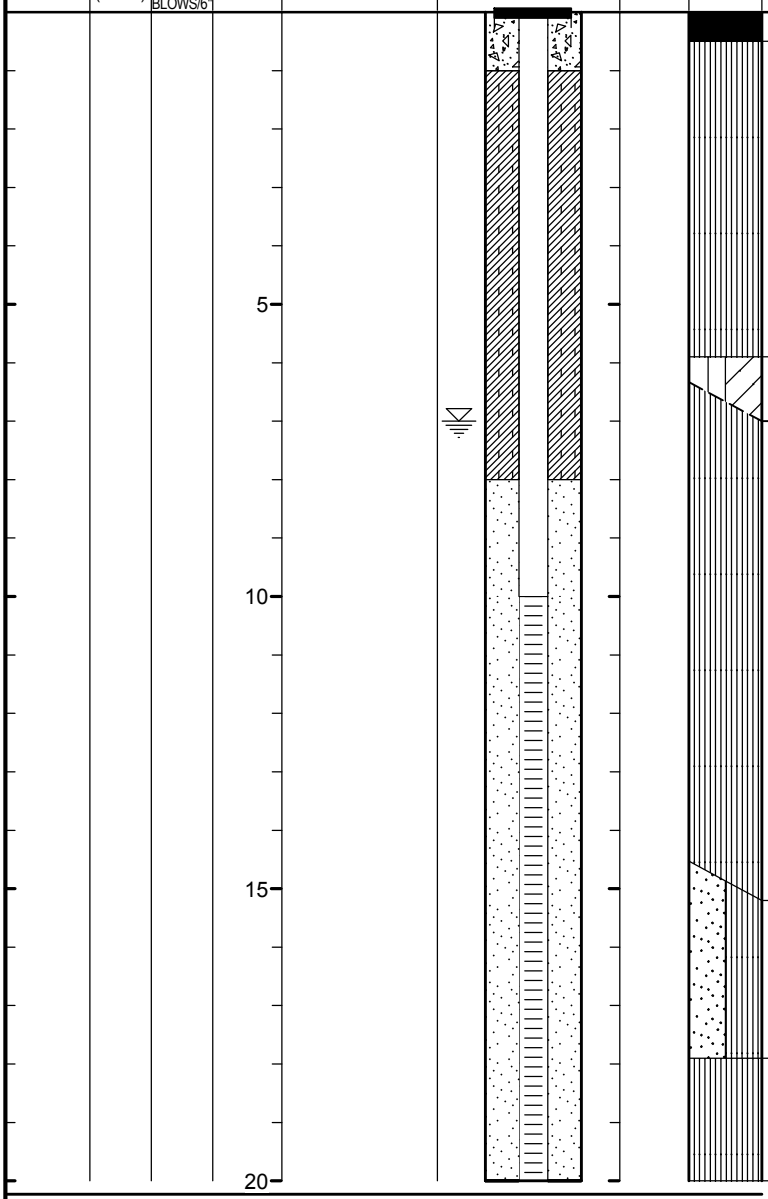
F-40.1
(6-87) (3-88) (8-90)

Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION: Near SE corner of site		**Well Name**	MW10
DRILLING COMPANY: Holt	DRILLER:	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Hollow Stem Auger	DRILL BIT(S) SIZE: 9-inch	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: ground surface	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: 2" Schedule 40 PVC Pipe	FROM 0 TO 10 FT.	DATE STARTED: 8/16/14	DATE COMPLETED: 8/16/14
SLOTTED CASING: 2" Schedule 40 PVC Pipe 0.010" Slots	FROM 10 TO 20 FT.	INITIAL WATER DEPTH (FT): 7.0	
SIZE AND TYPE OF FILTER PACK: Colorado 10/20 Silica Sand	FROM 8 TO 20 FT.	LOGGED BY: DKM	
SEAL: 3/8" Bentonite Chips	FROM 1 TO 8 FT.	SAMPLING METHODS: Split spoon	WELL COMPLETION: ■ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: Concrete	FROM 0 TO 1 FT.		



SAMPLES TYPE	SAMPLES RECOV. (FEET)	SAMPLES PENETR. RESIST. BLOWS/6"	DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	PID	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
									Asphalt and crushed rock base
								SM	**Silty SAND** Medium brown with gray, fine sand with ~30% silt, trace gravel, sandier intervals below ~5' bgs, medium dense, moist, no odor, no sheen
			5					ML/ CL	**Clayey SILT** Brown, clayey silt with trace sand, ~1" of peat at top of unit, medium stiff, medium plasticity, moist, no odor, no sheen
								SM	**Silty SAND** Brown, fine sand with 30% silt, discrete thinly-bedded intervals with increased sand or silt content, medium dense, wet, no odor, no sheen
			10						
			15					SP/ SM	**Poorly graded SAND with silt** Dark gray to brown, fine to medium sand with 15% silt, silt content decreases to 17.5 ft. bgs and becomes siltier below, medium dense, wet, no odor, no sheen
								SM	**Silty SAND with gravel** Dark gray, silty fine sand with abundant shell fragments, ~3-inch coarse gravel layer with grains over 1 in. diameter at ~19 feet bgs, medium dense, wet, "tideflats" odor, no sheen
			20						

NOTES

1. Lithology based on MW-9; MW-9 and MW-10 installed at same location as a shallow and deep well pair.
2. Top of glacial till at ~20 ft. bgs based on lithology from MW-9.

KJ PNW PRECISION AUG 2014 WELLS.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

SHEET 1 OF 1

Boring & Well Construction Log

Kennedy/Jenks Consultants

BORING LOCATION: NE part of site in driveway		**Well Name**	MW11
DRILLING COMPANY: Holt	DRILLER:	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Hollow Stem Auger	DRILL BIT(S) SIZE: 9-inch	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: ground surface	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: 2" Schedule 40 PVC Pipe	FROM 0 TO 10 FT.	DATE STARTED: 8/16/14	DATE COMPLETED: 8/16/14
SLOTTED CASING: 2" Schedule 40 PVC Pipe 0.010" Slots	FROM 10 TO 20 FT.	INITIAL WATER DEPTH (FT): 6.0	
SIZE AND TYPE OF FILTER PACK: Colorado 10/20 Silica Sand	FROM 8 TO 20 FT.	LOGGED BY: DKM	
SEAL: 3/8" Bentonite Chips	FROM 1 TO 8 FT.	SAMPLING METHODS: Split spoon	WELL COMPLETION: ■ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: Concrete	FROM 0 TO 1 FT.		

SAMPLES TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"	DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	PID	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
									Asphalt and crushed rock base
									Silty SAND Medium brown transitioning to dark gray at 3 ft. bgs, silty fine sand with up to 30% silt, "shiny" surface appearance to some grains below 3 ft. bgs, up to 40% silt locally below 5 ft. bgs, medium dense, moist, no odor, no sheen
SS	1	2 4 5				0.6		SM	
			5						
SS	1.5	2 1 4				0.0		Pt	**PEAT** Brown, woody material (2 in.), soft
						0.0		ML	**Sandy SILT** Medium gray, silt with 40% fine sand and some woody material, trace gravel, medium stiff, wet, no odor, no sheen
SS	1.5	1 1 1				0.0		Pt	**PEAT** Brown, woody material (1 in.), soft
			10					CL/ ML	**Silty CLAY** Medium to light gray transitioning to brownish gray below 9 ft. bgs, silty clay with some root-like woody material, medium stiff above 9 ft. bgs then moderately soft, medium to high plasticity, moist to wet, no odor, no sheen
SS	1.5	1 0 0				0.0			
SS	1.5	1 1 0				0.0		ML/ CL	**Clayey SILT** Medium brown, medium stiff, medium to high plasticity, moist to wet, no odor, no sheen
			15						
SS	1.5	1 3 4				0.0		ML	**SILT with sand** Medium brown, silt with some fine sand and clay, becomes sandier with depth, medium stiff, low plasticity, wet, no odor, no sheen
SS	1	7 27 36		MW11-18-19 DUP MW100		0.0		SP	**Poorly graded SAND** Gray, medium sand, medium dense, wet, no odor, no sheen
SS	1	34 42				0.0		SP	**Poorly graded SAND** Greenish gray, fine to medium sand with up to 10% silt and 10% gravel, weathered glacial till, medium dense, moist to wet, no odor, no sheen
			20					SP/ SM	**Poorly graded SAND with silt** Greenish gray, medium to fine sand with 15-20% silt and 5-10% gravel, glacial till, dense, moist, no odor, no sheen

KJ PNW PRECISION AUG 2014 WELLS.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South side of current facility building		**Boring Name**	SB1
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 7.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/8/14	DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 7 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	4.5							**Well-graded GRAVEL with silt and sand** Gray, glacial till, dry, no odor, no sheen
			5	SB1-5	0.0		GW/GM	moist at 5 ft. bgs
	1.5							Drilling refusal at 7 ft. bgs

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South side of current facility building		**Boring Name**	SB2
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 4.8 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/8/14	DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 4.8 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base** Asphalt, gravel, road grade material
	4.2				0.0		GW/GM	**Well-graded GRAVEL with silt and sand** Gray, glacial till, moist Run 1 refusal at 4.8 ft. bgs; Run 2 refusal at 3.5 ft bgs

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. No soil samples analyzed due to low recovery

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South East side of current facility building		**Boring Name**	SB3
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/8/14	DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 20 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
	4.5		0	SB3-2	91		Solid	**Asphalt and crushed rock base** odor, sheen at 2 ft. bgs
			5		1.0			**Sandy SILT** Brown to brown gray, 60 % silt, 40% sand, some clay lenses, stiff at top becoming soft towards bottom, moist, no odor, no sheen
	3			SB3-8			ML	
			10		0.0			
	4.8						CL/ML	**Silty CLAY** Brown to brown gray, firm, medium plasticity, no odor, no sheen
				SB3				
			15		0.1			**Silty SAND with gravel** Light gray to gray, unable to cut with a knife in places, very dense, moist, no odor, no sheen
	5						SM	wet from 15 ft. to 15.6 ft. bgs.
			20		0.2			

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South East side of current facility building		**Boring Name**	SB4
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/7/14	DATE COMPLETED: 8/7/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 20 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	4		5	SB4-5	0.0			**Well-graded SAND with silt** Brown to gray, very fine to fine sand, 20% silt, 20% clay, dense, dry to moist, no odor, no sheen
	3.8		10	SB4	0.0		SW/SM	Soft, wet at 10 ft. bgs
	5		15		0.0			
	5		20	SB4-20	0.0		SM	**Silty SAND** Red brown to brown mottled with gray, soft, wet, no odor, no sheen
							CL	**Lean CLAY** Brown mottled with gray, some shell fragments, stiff, medium, moist, no odor, no sheen
							SW	**Well-graded SAND with gravel** Gray, glacial till, moist to wet, no odor, no sheen

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: East side of current facility building	**Boring Name** SB5
DRILLING COMPANY: Cascade Drilling, L.P. / DRILLER: Kasey Goble	**Project Name** Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String / DRILL BIT(S) SIZE: 2.25	**Project Number** 1396024.00
ISOLATION CASING: N/A — FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs / TOTAL DEPTH: 23.5 ft. bgs
BLANK CASING: N/A — FROM N/A TO N/A FT.	DATE STARTED: 8/8/14 / DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A — FROM N/A TO N/A FT.	EASTING (FT): N/A / NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A — FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey
SEAL: 3/8" Bentonite chips (hydrated in place) — FROM 0 TO 23.5 FT.	SAMPLING METHODS: Continuous Core / WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A — FROM N/A TO N/A FT.	

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	3.5							**Silty SAND** Dark brown to dark gray, up to 35% silt, dense, moist, no odor, no sheen
			5		0.0		SM	
	4.5							Wood debris with clay at 7.5 ft. bgs (2 inches) Wood debris with clay at 8.0 ft. bgs (1 inch)
			10	SB5-11	0.0		GW/GM	**Well-graded GRAVEL with silt and sand** Brown, well graded gravel with silt and very fine to fine sand, wet, no odor, no sheen
	5			SB5				**Silty SAND** Reddish brown to reddish gray, silty sand with zones of sandy silt, medium stiff to stiff, moist, no odor, no sheen
			15		0.0		SM	
	5							
			20		0.0		SM	**Silty SAND with gravel** Light gray to green gray, abundant shell fragments, hard, dry, no odor, no sheen
	3.5						SW	**Well-graded SAND** Light gray to green gray, well graded fine sand, 5% to 10% silt, trace gravel, brittle, hard, dry, no odor, no sheen
					0.0		SP	**Poorly graded SAND** Light brown, poorly graded fine sand, very dense, dry, no odor, no sheen
								Drilling refusal @ 23.5' bgs

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: East side of current facility building	**Boring Name** SB6
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25
	Project Name Ecology Precision Engineering
	Project Number 1396024.00

	FROM	TO	FT.
ISOLATION CASING: N/A	N/A	N/A	
BLANK CASING: N/A	N/A	N/A	
SLOTTED CASING: N/A	N/A	N/A	
SIZE AND TYPE OF FILTER PACK: N/A	N/A	N/A	
SEAL: 3/8" Bentonite chips (hydrated in place)	0	20	
GROUT: N/A	N/A	N/A	

ELEVATION AND DATUM: bgs	TOTAL DEPTH: 20.0 ft. bgs
DATE STARTED: 8/8/14	DATE COMPLETED: 8/8/14
EASTING (FT): N/A	NORTHING (FT): N/A
LOGGED BY: J. Sawdey	
SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	4.0						SM	**Silty SAND** Brown to dark brown mottled with gray, poorly graded fine sand, up to 40% silt, dense, moist, no odor, no sheen
			5		0.6			**Sandy clayey SILT** Brown to dark brown mottled with gray, stiff, medium, moist, no odor, no sheen
	4.5						ML/CL	
			10		0.0			
	5			SB6				
			15	SB6-16	0.0			**Silty SAND** Brown, silty sand, soft, wet, no odor, no sheen
	5						SM	
							SM	**Silty SAND with gravel** Gray to green, well graded silty sand with gravel, abundant shells, hard, dry, no odor, no sheen
			20		0.0			

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: East side of current facility building	**Boring Name** SB7
DRILLING COMPANY: Cascade Drilling, L.P. / DRILLER: Kasey Goble	**Project Name** Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String / DRILL BIT(S) SIZE: 2.25	**Project Number** 1396024.00
ISOLATION CASING: N/A — FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs / TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: N/A — FROM N/A TO N/A FT.	DATE STARTED: 8/8/14 / DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A — FROM N/A TO N/A FT.	EASTING (FT): N/A / NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A — FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey
SEAL: 3/8" Bentonite chips (hydrated in place) — FROM 0 TO 20 FT.	SAMPLING METHODS: Continuous Core / WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A — FROM N/A TO N/A FT.	

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	3.5							**Silty SAND** Brown, gray brown, very fine to fine sand, silt, some clay, dense, moist, no odor, no sheen
			5		0.3		SM	
	4.5							Woody debris layer from 7.5 ft. to 7.8 ft. bgs Clay lens from 7.8 ft. to 8.0 ft. bgs
			10	SB7-11	0.0		SM	**Silty SAND with gravel** Light brown to brown with gray, silty sand with gravel, well graded, soft, wet, no odor, no sheen
	5						ML	**Sandy SILT** Brown, stiff, moist, no odor, no sheen
			15		0.0			
	5			SB7 SB7-19			SM	**Silty SAND with gravel** Brown to light brown with gray, sand with up to 30% silt, up to 15% gravel, gravel grains up to 0.25 in. diameter, moist to wet, no odor, no sheen
			20		0.0			Greenish gray, silty sand with abundant gravel and shells at 19 ft. bgs, hard, dry, no odor, no sheen

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: East side of current facility building		**Boring Name**	SB8
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/8/14	DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 20 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	4.5							**Silty SAND** Brown to brown with gray, silty clayey sand, trace gravel, dense, moist to wet, no odor, no sheen
			5		0.0		SM	
	5							Woody debris layer at 8 ft. bgs
								Clay lens
			10		0.0			**Silty CLAY** Brown, stiff, moist, wet in places, no odor, no sheen
	5							
			15	SB8-16	0.0		CL/ML	
	5							
			20		0.0		GW/GM	**Well-graded GRAVEL with silt and sand** Gray, well graded gravel with silt and fine sand, glacial till, hard, very dense, no odor, no sheen

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. Groundwater not sampled at this location

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

SB9 not drilled

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: North side of current facility building		**Boring Name**	SB10
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 14.5 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/8/14	DATE COMPLETED: 8/8/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 14.5 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	4.5						GW/GM	**Well-graded GRAVEL with silt and sand** Gray to blue gray, moist, no odor, no sheen
			5		0.0			
				SB10-7			SP	**Poorly graded SAND** Gray to dark gray, dense, wet, no odor, no sheen
	4.5							**Well-graded GRAVEL with silt and sand** Light gray to dark gray, wet, no odor, no sheen
				SB10				
			10		0.0		GW/GM	
	3.5							
					0.0			

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. Groundwater grab sample SB10 collected at 10 ft. bgs

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F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South-bound shoulder of 14th Avenue South		**Boring Name**	SB11
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 30.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/7/14	DATE COMPLETED: 8/7/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 30 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
			0				Solid	**Asphalt and crushed rock base**
	4						ML	**SILT** Dark red to brown transitioning to gray, silt with 10% sand and trace gravel, moist, no odor, no sheen Blue gray, clay lens
	4.8		5	SB11	0.0		SM	**Silty SAND** Light brown mottled with gray, up to 30% silt, trace gravel, wet, no odor, no sheen
			10	SB11-10	0.0		CL/ML	**Silty CLAY** Light brown mottled with gray, clay is lean in places, some organic material, medium plasticity, no odor, no sheen
	5						SM	**Silty SAND** Grades to silty sand with clay, dense, moist, no odor, no sheen
			15		0.0			Medium sand layer (2.5 in.), wet
	5						ML	**SILT** Light brown mottled with gray, Silt with up to 10% sand, trace clay, no odor, no sheen
	0		20		0.0			
			25		0.0			
	3.5						ML	**SILT with sand** Green mottled with gray, becomes sandier with depth, abundant shell fragments, wet, no odor, no sheen
			30	SB11-30	0.0			

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. Groundwater grab sample SB11 collected at 7 ft. bgs

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South-bound shoulder of 14th Avenue South		**Boring Name**	SB12
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/7/14	DATE COMPLETED: 8/7/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 20 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
							Solid	**Asphalt and crushed rock base**
	4						CL/ML	**Sandy silty CLAY** Gray to blue gray, dense, low, moist, no odor, no sheen
			5		0.4			**Sandy SILT** Brown to red brown mottled with gray, trace clay with thin clay stringers, local trace gravel, trace wood, medium dense, moist, no odor, no sheen
	4							Wet Clay lens from 8 ft. to 10 ft.
			10	SB12	0.0			
				SB12-12			ML	
	5							
			15		0.0			
	2.5							Less dense, soft
			20		0.0			

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South-bound shoulder of 14th Avenue South		**Boring Name**	SB13
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 20.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/7/14	DATE COMPLETED: 8/7/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 20 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
	4.5		0				Solid	**Asphalt and crushed rock base**
			5		0.0		SP	**Poorly graded SAND with gravel** Brown mottled with gray, moist, no odor, no sheen
	4			SB13 SB13-9			CL	**Lean CLAY** Brown to red brown mottled with gray, lean clay with trace sand, medium stiff, moist, no odor, no sheen
			10		0.0		SM	**Silty SAND** Dark gray to dark brown, coarser sand at base, wet, no odor, no sheen
	5							**Clayey SILT with sand** Dark gray to dark brown, up to 40% clay, up to 25% sand, medium stiff transitioning to stiff, moist to wet, no odor, no sheen
			15		0.0		ML/CL	
	4							
			20		0.0			

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: South-bound shoulder of 14th Avenue South		**Boring Name**	SB14
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Kasey Goble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Direct Push Geoprobe MC-5 Drill String	DRILL BIT(S) SIZE: 2.25	**Project Number**	1396024.00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 30.0 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 8/7/14	DATE COMPLETED: 8/7/14
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: 3/8" Bentonite chips (hydrated in place)	FROM 0 TO 30 FT.	SAMPLING METHODS: Continuous Core	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME	PID / ST	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
	2						Solid	**Asphalt and crushed rock base**
	4.5		5	SB14-6	44.5 53.1		SM	**Silty SAND** Brown gray to gray, very fine to medium sand, moist to wet
				SB14			CL/ML	**Sandy silty CLAY** Brown gray to gray, high organic (black) in part, stiff, medium plasticity, moist
	5		10		1.2		SP	**Poorly graded SAND** Brown to red brown, fine to medium sand, trace silt, wet
	2.5		15		0.0		ML	**SILT with sand** Brown, silt with 15% to 20% sand, trace clay, stiff, moist sand lens at 17 ft. bgs
	0		20		0.0			
	5		25		0.0			
			30		0.0		ML	**Sandy SILT** Olive green, sandy silt, abundant shells, moist to wet
							CL	**Lean CLAY** Blue green mottled with gray, abundant shells, hard, moist

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface

KJ PNW BORING N&E AUG 2014 DIRECT PUSH.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: West side of 14TH AVE S		**Boring Name**	SB15
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: James Gobble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Hollow-stem Auger	DRILL BIT(S) SIZE: 8-inch	**Project Number**	1396024*00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 50.5 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 4/15/15	DATE COMPLETED: 4/15/15
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J.Sawdey / J. Schwarz	
SEAL: N/A	FROM N/A TO N/A FT.	SAMPLING METHODS: Split spoon	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
			0					Air Vac clearance to 5-feet. Fill material with gravel, coarse sands, and concrete debris.
			5					
SS	1.5	8 10 10	10		0.4 / NS			**SILT with sand** Brown gray to dark brown gray, approximately 5-10% very fine to fine sand, dense, weak plasticity, damp, wet in sandier sections, no odor or sheen
SS	1.5	8 12 10	15		0.5 / NS		ML	Increased density and stiffness, no localized sandier sections, no odor or sheen
SS	1.5	6 4 6	20		0.4 / NS			Trace of shells, decrease in sand content, no odor or sheen
SS	1.5	15 11 10	25	SB15-26	0.5 / NS		SW/SM	**Well-graded SAND with silt** Gray, greenish gray, abundant shell matierial (up to 20%), fine to medium sand with silt, briney marine odor, low density, no plasticity, wet, no odor or sheen
			30					

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F-40.1
(6-87) (3-88) (8-90)

Project Name Ecology Precision Engineering **Project Number** 1396024*00 **Boring Name** SB15

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
SS	1.5	9 15 11			0.2 / NS		SW/SM	**Well-graded SAND with silt** Gray, greenish gray, abundant shell matierial (up to 20%), fine to medium sand with silt, briney marine odor, low density, no plasticity, wet, no odor or sheen ***(Continued)***
SS	0.1	15 21 22	35		0.3 / NS			**Well-graded GRAVEL with silt and sand** Gray, gray brown, tan, approximately 20% silt and 15% fine sand, subrounded gravel up to 1/2-inch diameter, wet, no odor or sheen
SS	1.5	~~19~~ ~~21~~ ~~31~~	40	SB15-41	0.4 / NS		GW/GM	
SS	0.5	~~50~~	45	SB15-45 SB15	0.3 / NS		ML	**Sandy SILT with gravel** Gray, slight blueish gray, glacial till, well rounded to rounded gravel up to 1.5-inch diameter, firm, hard, brittle, very dense, no plasticity, dry, no odor or sheen
			50					

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. ST = sheen test. NS = no sheen, WS = weak sheen, MS = moderate sheen, SS = strong sheen

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: West side of 14TH AVE S		**Boring Name**	SB16
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: James Gobble	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Hollow-stem Auger	DRILL BIT(S) SIZE: 8-inch	**Project Number**	1396024*00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 46.5 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 4/16/15	DATE COMPLETED: 4/16/15
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J.Sawdey / J. Schwarz	
SEAL: N/A	FROM N/A TO N/A FT.	SAMPLING METHODS	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
			0					Air Vac clearance to 5-feet. Fill material with gravel, coarse sands, and concrete debris.
			5					
SS	1.5	15 16 15	10		2.2 / NS		SP/SM	**Poorly graded SAND with silt** Gray to dark gray, higher silt content in upper 1-foot of sample (~50%), decreased silt content in lower 0.5-foot of sample (~10%), siltier zones are damp, sand zones are dry, some organic staining, no odor or sheen
SS	1.5	27 31 24	15		1.4 / NS		ML	**SILT** Brown gray to dark brown gray, traces of very fine sand (<5%), moderately dense, stiff, moderate plasticity, damp, no odor or sheen
SS	1.5	8 7 6	20		0.4 / NS			Sparse amounts of shells
SS	1.5	11 12 14	25	SB16-26	0.4 / NS		SP/SM	Decreasing density, more damp, increasing shells **Poorly graded SAND with silt** Gray to green gray, fine to coarse sand with approximately 10% silt, abundant shells, wet, briney odor, no sheen
			30					

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Project Name Ecology Precision Engineering **Project Number** 1396024*00 **Boring Name** SB16

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
SS	1.5	21 27 30			0.4 / NS		ML	**SILT with sand** Gray to blue gray, traces of very fine to fine sand (<5%), trace amount of shells, traces of sand pockets with pyrite, very dense and firm, moderate plasticity, damp, no odor or sheen
SS	1.5	18 21 30	35		0.2 / NS		ML	**Sandy SILT with gravel** Gray mottled with brown, some fine to medium sand (up to 30%), some gravel (up to 10%) up to 1/4-inch diameter, dense, low plasticity, damp, no odor or sheen
SS	0.5	60	40	SB16-40 SB16	0.3 / NS		GW/GM	**Well-graded GRAVEL with silt and sand** Gray to dark gray, gray brown, approximately 30% medium to very coarse sand, some silt, wet, no odor or sheen
SS	0.5	150	45	SB16-46	0.3 / NS		ML	**Sandy SILT with gravel** Gray to blue gray, glacial till, includes cobbles up to 3-inches in diameter, very hard, difficult to break by hand, damp to dry, no odor or sheen

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. ST = sheen test. NS = no sheen, WS = weak sheen, MS = moderate sheen, SS = strong sheen

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: West side of 14TH AVE S	**Boring Name** SB17
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: James Gobble
	Project Name Ecology Precision Engineering
DRILLING METHOD(S): Hollow-stem Auger	DRILL BIT(S) SIZE: 8-inch
	Project Number 1396024*00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.
BLANK CASING: N/A	FROM N/A TO N/A FT.
SLOTTED CASING: N/A	FROM N/A TO N/A FT.
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.
SEAL: N/A	FROM N/A TO N/A FT.
GROUT: N/A	FROM N/A TO N/A FT.

ELEVATION AND DATUM: bgs	TOTAL DEPTH: 44.0 ft. bgs
DATE STARTED: 4/16/15	DATE COMPLETED: 4/17/15
EASTING (FT): N/A	NORTHING (FT): N/A
LOGGED BY: J.Sawdey / J. Schwarz	
SAMPLING METHODS	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.

SAMPLES TYPE	RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
								Air Vac clearance to 5-feet. Fill material with gravel, coarse sands, and concrete debris.
			5					
SS	1.5	17 21 20	10		1.4 / NS		SP/SM	**Poorly graded SAND with silt** Brown gray to dark brown gray, traces of silt, soft, damp, no odor or sheen
SS	1.5	6 8 7	15		1.2 / NS			**SILT with sand** Brown gray, 10-15% sand, trace amount of shells, moderately firm, medium plasticity, damp, no odor or sheen
SS	1.5	12 15 13	20		0.9 / NS		ML	Less sand
SS	1.5	15 15 15	25	SB17-26	0.6 / NS		SP/SM	**Poorly graded SAND with silt** Brown gray mottled with greenish gray, moderate amount shells, soft to firm, damp, no odor or sheen
							ML	**SILT with sand** Brown gray, trace amounts of sand, moderate amount of shells, soft, medium plasticity, damp, no odor or sheen
			30					

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Project Name Ecology Precision Engineering **Project Number** 1396024*00 **Boring Name** SB17

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
SS	1.5	14 251 19			0.7 / NS		ML	**SILT with sand** Brown gray, trace amounts of sand, moderate amount of shells, soft, medium plasticity, damp, no odor or sheen ***(Continued)*** Color changes to gray to greenish gray, coarse sand, pockets of sand and pyrite, firm, trace of cobbles
			35		0.5 / NS			
SS	1.5	~~19~~ ~~23~~ 27		SB17			ML	**Sandy SILT with gravel** Light to dark gray, well graded, fine to coarse sand, subrounded to rounded gravel up to 1/2-inch diameter, damp to wet in more gravelly areas, no odor or sheen
			40		0.5 / NS			
SS	1.5	~~27~~ ~~18~~ 31		SB17-40				
SS	0.5	~~150~~		SB17-43.5	0.3 / NS		GW/GM	**Well-graded GRAVEL with silt and sand** Gray to tan gray, glacial till, very hard and dense, dry, no odor or sheen

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. ST = sheen test. NS = no sheen, WS = weak sheen, MS = moderate sheen, SS = strong sheen

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: West side of 14TH AVE S	**Boring Name** SB18
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: James Gobble
	Project Name Ecology Precision Engineering
DRILLING METHOD(S): Hollow-stem Auger	DRILL BIT(S) SIZE: 8-inch
	Project Number 1396024*00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.
BLANK CASING: N/A	FROM N/A TO N/A FT.
SLOTTED CASING: N/A	FROM N/A TO N/A FT.
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.
SEAL: N/A	FROM N/A TO N/A FT.
GROUT: N/A	FROM N/A TO N/A FT.

ELEVATION AND DATUM: bgs	TOTAL DEPTH: 39.5 ft. bgs
DATE STARTED: 4/17/15	DATE COMPLETED: 4/17/15
EASTING (FT): N/A	NORTHING (FT): N/A
LOGGED BY: J. Sawdey	
SAMPLING METHODS	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
								Air Vac clearance to 5-feet. Fill material with gravel, coarse sands, and concrete debris.
			5					
SS	1.5	10 12 12	10		0.3 / NS		SW/SM	**Well-graded SAND with silt and gravel** Light brown to brown, brown gray, some gravel, traces of silt, wet, no odor or sheen
								Wood layer
								SILT with sand Brown to maroonish brown, organic woody layers, decreasing very fine to fine sand with depth, moderately dense, firm, medium plasticity, damp, no odor or sheen
SS	1.5	7 8 8	15		0.5 / NS		ML	
SS	1.5	8 7 9	20		0.3 / NS			
SS	1.5	9 12 12	25	SB18-26	0.4 / NS		SW/SM	**Well-graded SAND with silt** Gray to greenish gray, abundant shells, soft, wet, briney odor, no sheen
			30	SB18				

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Project Name Ecology Precision Engineering **Project Number** 1396024*00 **Boring Name** SB18

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
SS	1.5	10 9 9			0.4 / NS		ML	**SILT with sand** Gray to greenish gray, sand occurs in lenses with pyrite, some organic material, very hard and dense, dry, no odor or sheen
			35	SB18	0.3 / NS			
SS	1.5	12 13 19		SB18-36.5			SW/SM	**Well-graded SAND with silt** White quartzitic sand with brown gray silt, medium to coarse sand with muscovite in part (beach sand), soft, damp, no odor or sheen
SS	0.5	200		SB18-39.5	0.1 / NS		GW/GM	**Well-graded GRAVEL with silt and sand** Glacial till, very hard, brittle, dry, no odor or sheen

NOTES

1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. ST = sheen test. NS = no sheen, WS = weak sheen, MS = moderate sheen, SS = strong sheen

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION: East side of 14TH AVE S		**Boring Name**	SB19
DRILLING COMPANY: Cascade Drilling, L.P.	DRILLER: Curtis	**Project Name**	Ecology Precision Engineering
DRILLING METHOD(S): Hollow-stem Auger	DRILL BIT(S) SIZE: 8-inch	**Project Number**	1396024*00
ISOLATION CASING: N/A	FROM N/A TO N/A FT.	ELEVATION AND DATUM: bgs	TOTAL DEPTH: 50.5 ft. bgs
BLANK CASING: N/A	FROM N/A TO N/A FT.	DATE STARTED: 4/20/15	DATE COMPLETED: 4/20/15
SLOTTED CASING: N/A	FROM N/A TO N/A FT.	EASTING (FT): N/A	NORTHING (FT): N/A
SIZE AND TYPE OF FILTER PACK: N/A	FROM N/A TO N/A FT.	LOGGED BY: J. Sawdey	
SEAL: N/A	FROM N/A TO N/A FT.	SAMPLING METHODS	WELL COMPLETION: ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.
GROUT: N/A	FROM N/A TO N/A FT.		

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
								Air Vac clearance to 5-feet.
			5					
SS	1.5	7 4 3	10		0.0 / NS		SP/SM	**Poorly graded SAND with silt** Brown to brownish gray, Approximately 15% silt, fine to medium sand, soft, wet, no odor or sheen
SS	1.5	3 3 3	15		0.0 / NS			
							ML	**SILT with sand** Brown, brownish gray to dark brownish gray, Approximately 10-15% fine sand, moderately firm and dense, medium plasticity, damp, no odor or sheen
SS	1.5	3 4 4	20		0.1 / NS			Silty sand lens at 20 bgs, wet Increased sand (20-25%), weak plasticity
SS	1.5	10 13 14	25		0.1 / NS		SP/SM	**Poorly graded SAND with silt** Brownish gray to dark brownish gray, very fine to fine sand with approximately 20% silt, abundant woody organic material, moderately dense, wet, no odor or sheen
			30					

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

F-40.1
(6-87) (3-88) (8-90)

Project Name Ecology Precision Engineering **Project Number** 1396024*00 **Boring Name** SB19

SAMPLES TYPE	SAMPLES RECOV. (FEET)	ANALYTICAL SAMPLE INTERVAL	DEPTH (FEET)	SAMPLE NAME		LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
SS	1.5	4 4 5			0.5 / NS		ML	**SILT with sand** Brown, brownish gray to dark brownish gray, Approximately 10-15% fine sand, moderately firm and dense, medium plasticity, damp, slight briney sulfur-like odor, no sheen
SS	1.5	5 7 7	35	SB19-35	0.4 / NS		SM	**Silty SAND** Gray to greenish gray, poor to moderately graded, abundant shells, soft, damp to wet, continued briney and sulfur like odor, no sheen
SS	1.5	8 7 9	40		0.5 / NS			Increased wood material, increasing silt content
SS	1.5	9 14 40	45	SB19 SB19-45	0.6 / NS		GW/GM	**Well-graded GRAVEL with silt and sand** Gray to blue gray, angular gravels up to 1/4-inch diameter, approximately 25% silt and 10% sand, soft, wet, no odor or sheen
							GW/GM	**Well-graded GRAVEL with silt and sand** Gray to dark gray, glacial till, very hard and firm, dry, no odor or sheen
SS	0.5	100+	50	SB19-50	0.3 / NS			

NOTES

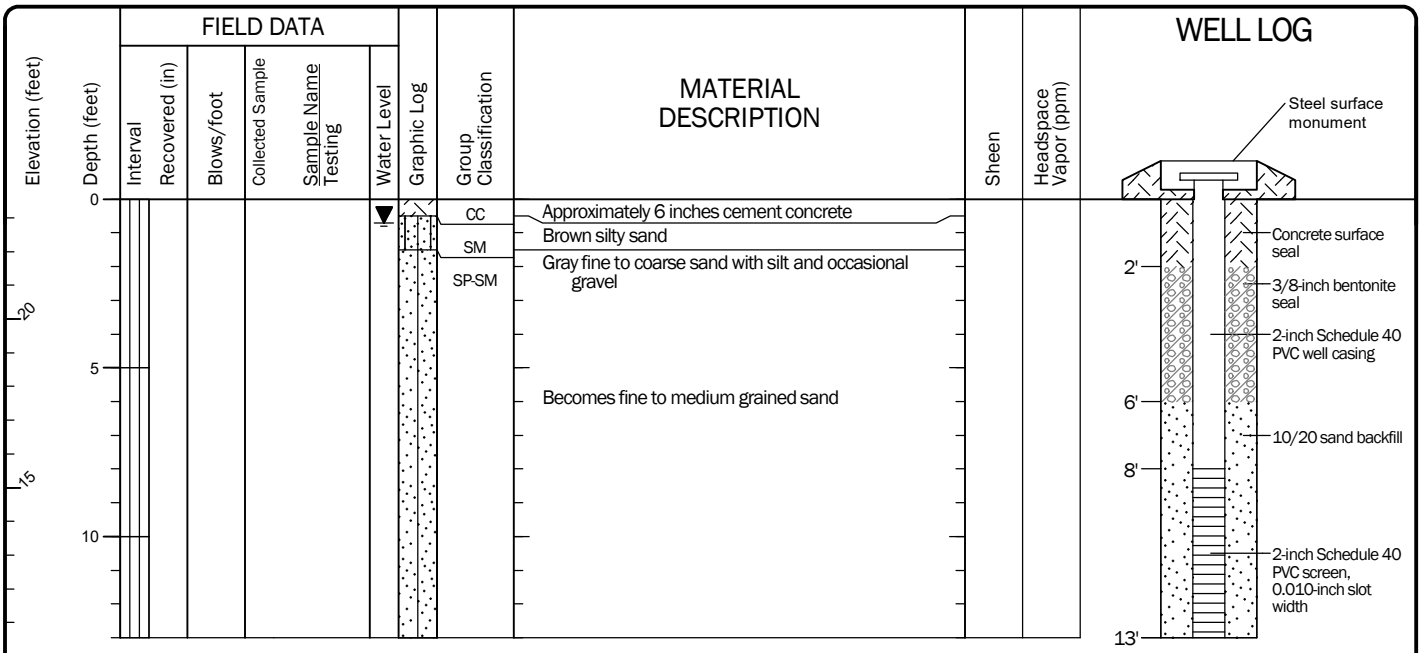
1. PID = Photoionization detector (reading in parts per million)
2. bgs = below ground surface
3. ST = sheen test. NS = no sheen, WS = weak sheen, MS = moderate sheen, SS = strong sheen

KJ PNW BORING N&E APRIL 2015 HSA.GPJ KJ PNW.GDT 6/25/15

2022/2023 Investigation

Drilled Start 3/29/2022 End 3/29/2022	Total Depth (ft) 13	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Sonic	
Hammer Data N/A		Drilling Equipment Terrasonic		DOE Well I.D.: BNY-884 A 2-in well was installed on 3/29/2022 to a depth of 13 ft.	
Surface Elevation (ft) Vertical Datum 23.554 NAVD88		Top of Casing Elevation (ft) 23.55		Groundwater Date Measured: 6/1/2022	Depth to Water (ft): 0.70 Elevation (ft): 22.85
Easting (X) 1273867.012 Northing (Y) 193812.6603		Horizontal Datum WA State Plane North NAD83 (feet)			

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Boring with Monitoring Well MW-12

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-16
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	3/29/2022	3/29/2022	35	PDR	GRL	Holt Services	Sonic

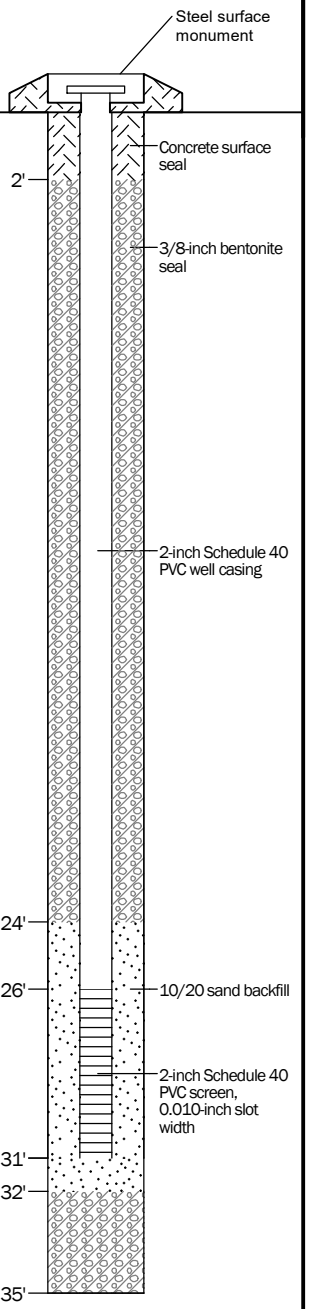
Hammer Data	N/A	Drilling Equipment	Terrasonic
Surface Elevation (ft) Vertical Datum	23.208 NAVD88	Top of Casing Elevation (ft)	23.21
Easting (X) Northing (Y)	1273768.709 193806.4166	Horizontal Datum	WA State Plane North NAD83 (feet)

DOE Well I.D.: BNY-883
A 2-in well was installed on 3/29/2022 to a depth of 31 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
6/1/2022	0.00	23.21

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0								AC	Approximately 2½ inches asphalt concrete pavement		
		0	60						GP-GM	Brown fine to coarse gravel with silt and sand (moist)	NS	1.7
									SM	Gray silty fine to coarse sand with gravel (moist)	NS	8.3
						MW-13-3-4			ML	Gray silt with sand (soft, moist)	NS	8.2
	5									Without sand, becomes hard		
		5	60						SM	Gray silty fine to coarse sand with gravel (moist)	NS	8.9
										With wood debris		
	10								SP-SM	Gray fine to coarse sand with silt and occasional gravel (moist)	NS	12
		10	60			MW-13-11-12-DUP2			SM	Gray silty fine to coarse sand with gravel (moist)	NS	12.2
	15										NS	<1
		15	60						SP-SM	Gray fine to coarse sand with silt and gravel (moist)	NS	6.9
	20								SM	Gray silty fine sand with occasional gravel (moist)	NS	11.6
		20	60							Increased gravel content		
	25					MW-13-24-25					NS	20.2
		25	24						SP	Gray fine to coarse sand with trace silt (wet)	NS	6.8
	30					MW-13-28-29						
		30	60						SM	Gray silty fine sand with occasional gravel (moist)	NS	7.1
	35										NS	6.9



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Boring with Monitoring Well MW-13

GeoEngineers

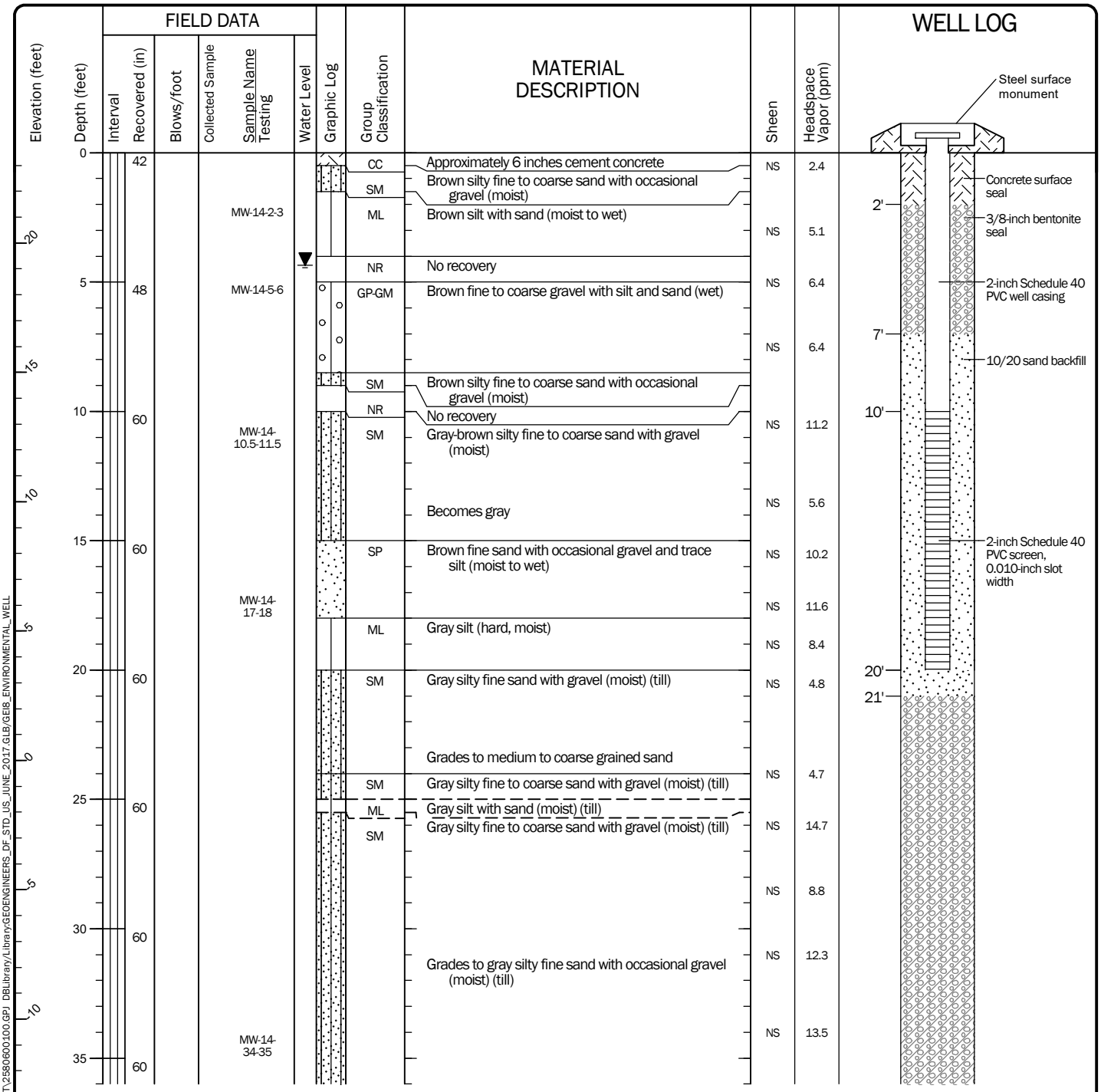
Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-17
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled Start 3/24/2022 End 3/24/2022	Total Depth (ft) 50	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Sonic	
Hammer Data N/A		Drilling Equipment Terrasonic		A 2-in well was installed on 3/24/2022 to a depth of 20 ft.	
Surface Elevation (ft) Vertical Datum 23.491 NAVD88		Top of Casing Elevation (ft) 23.49		Groundwater Date Measured: 6/1/2022	Depth to Water (ft): 4.34 — Elevation (ft): 19.15
Easting (X) 1274050.796 Northing (Y) 193875.2629		Horizontal Datum WA State Plane North NAD83 (feet)			

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

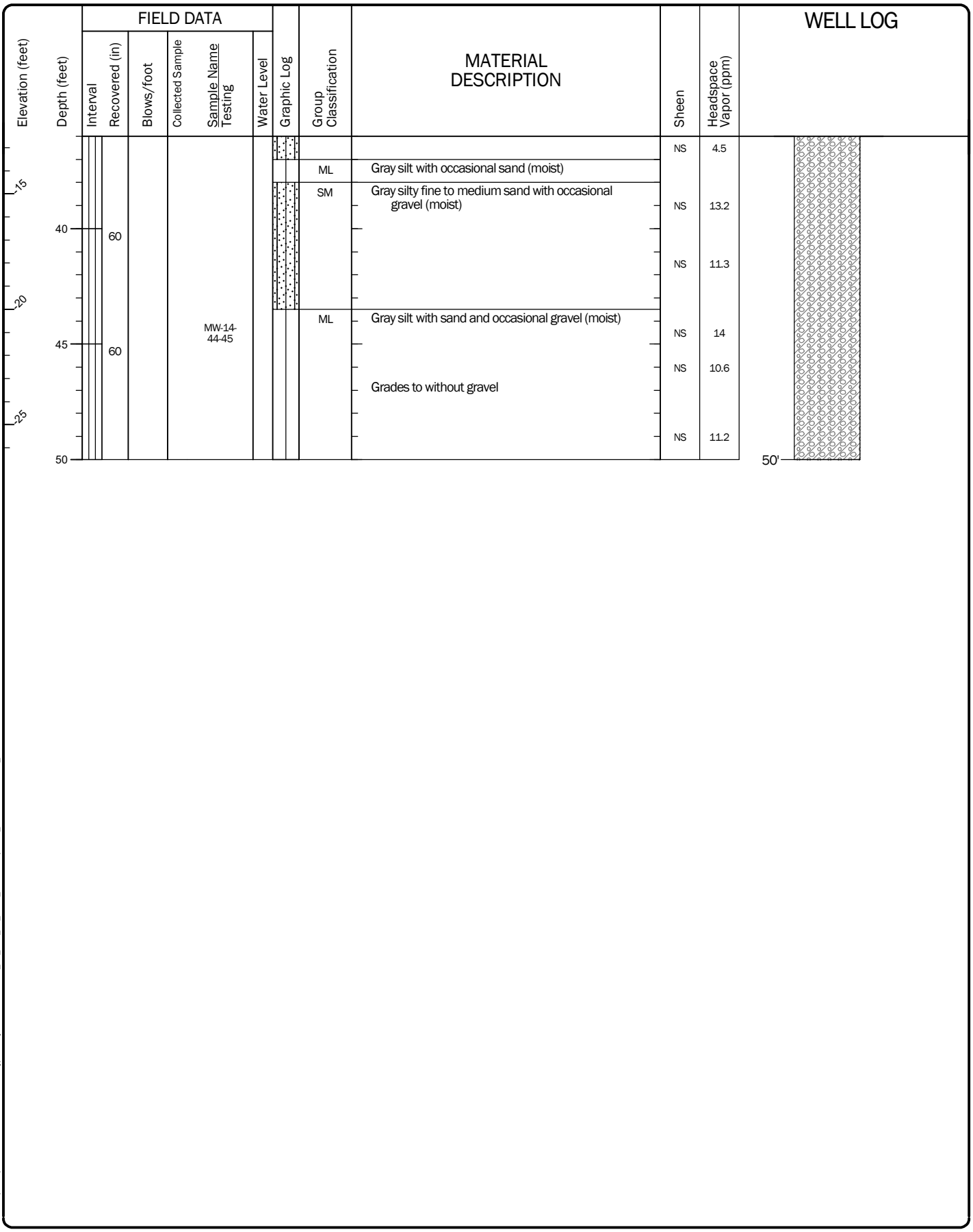
Log of Boring with Monitoring Well MW-14

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-18
Sheet 1 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL



Log of Boring with Monitoring Well MW-14 (continued)

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-18
Sheet 2 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	3/23/2022	3/23/2022	40	PDR	GRL	Holt Services	Sonic

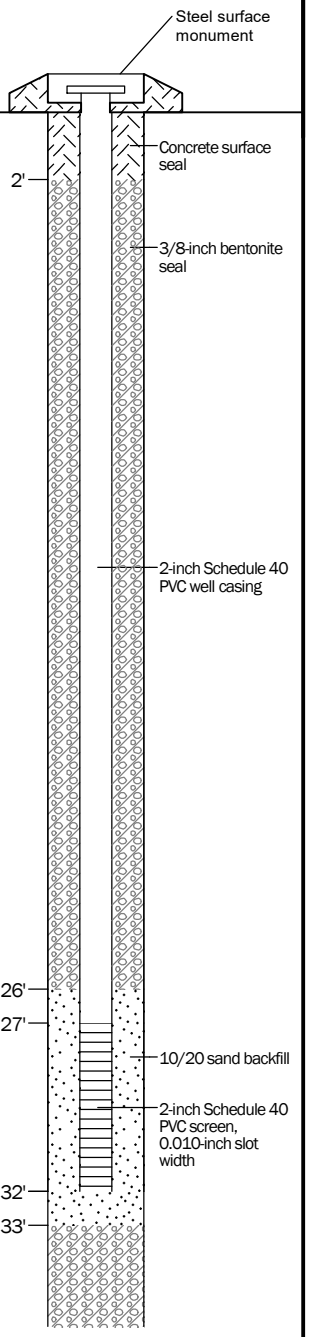
Hammer Data	N/A	Drilling Equipment	Terrasonic
Surface Elevation (ft) Vertical Datum	23.309 NAVD88	Top of Casing Elevation (ft)	23.31
Easting (X) Northing (Y)	1274032.721 193803.2159	Horizontal Datum	WA State Plane North NAD83 (feet)

A 2-in well was installed on 3/23/2022 to a depth of 32 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
6/1/2022	3.82	19.49

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0								CC	Approximately 5 inches cement concrete		
			54						SP-SM	Dark brown fine to medium sand with silt	NS	<1
									SM	Brown silty fine to medium sand with trace organics (moist to wet)		
20						MW-15-3-4	▼				NS	<1
	5		60							Without organics, becomes wet	NS	<1
						MW-15-6-7			SP-SM	Brown fine to coarse sand with silt gravel (wet)		
15										Increased silt content	NS	<1
	10		60								NS	<1
10										Becomes gray, moist	NS	<1
	15		60							With small cobbles	NS	<1
5											NS	<1
	20		60							Decreased gravel content	NS	<1
0											NS	<1
	25		60							Increased gravel content		
-5						MW-15-18-19			SP	Gray fine to coarse sand with trace silt, gravel and occasional shells (moist to wet)	NS	<1
	30		60							4-inch layer with silt Without shells	NS	<1
-10											NS	<1
	35		60			MW-15-35-36			ML	6-inch layer with silt	NS	<1
										Gray silt with sand (moist)		



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

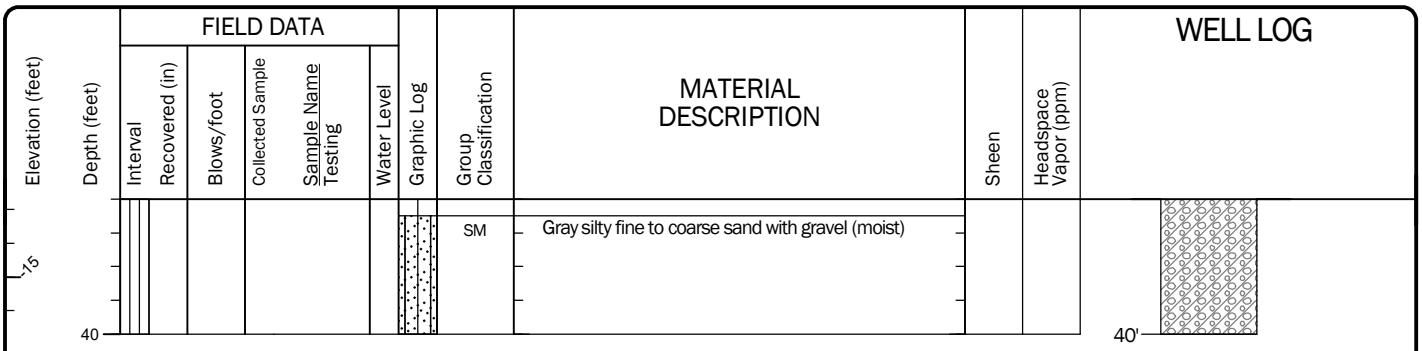
Log of Boring with Monitoring Well MW-15

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-19
Sheet 1 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL



Log of Boring with Monitoring Well MW-15 (continued)

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-19
Sheet 2 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	3/22/2022	3/22/2022	50	PDR	GRL	Holt Services	Sonic

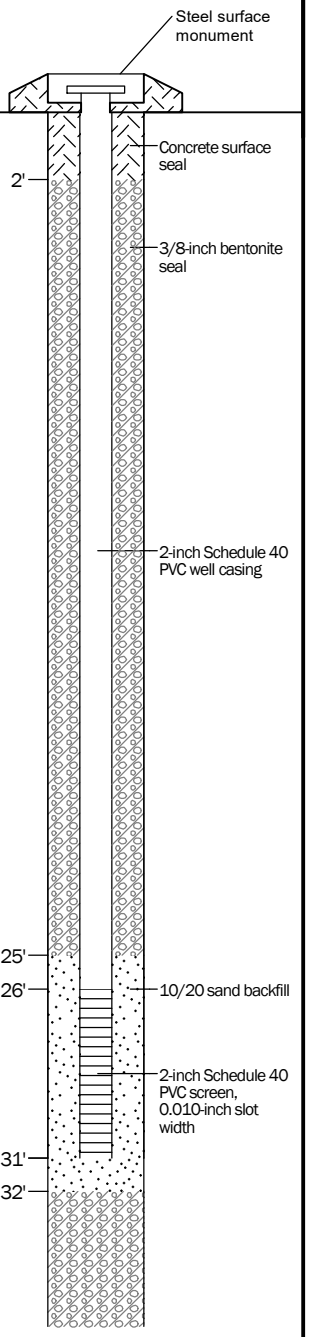
Hammer Data	N/A	Drilling Equipment	Terrasonic
Surface Elevation (ft) Vertical Datum	22.279 NAVD88	Top of Casing Elevation (ft)	22.28
Easting (X) Northing (Y)	1274106.085 193819.2448	Horizontal Datum	WA State Plane North NAD83 (feet)

A 2-in well was installed on 3/22/2022 to a depth of 31 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
6/1/2022	4.18	18.10

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0								AC	Approximately 2½ inches asphalt concrete pavement		
									SP-SM/ML	Dark gray fine to medium sand with silt to silt with sand (wet)		
			36			MW-16-3-4	▼					<1
	5		48									<1
									ML	Brown silt with sand and trace organics (wet)		
									NR	No recovery		
	10		60						ML	Brown silt with sand and trace organics (small roots) (wet)	NS	<1
						MW-16-12-13					NS	<1
	15		60							Without organics	NS	<1
									GP	Gray fine to coarse gravel with trace silt and sand (wet)		
						MW-16-17.5-18.5			SM	Gray silty fine to coarse sand with gravel, yellow color in fines (moist) (till)	NS	<1
	20		60						SM/ML	Gray silty fine to coarse sand with gravel to silt with sand and gravel (moist to wet)	NS	2
											NS	<1
	25		60						SM	Gray silty fine to coarse sand with gravel (moist)	NS	1.3
									ML	Gray silt with sand and occasional gravel (moist)	NS	4.5
	30		60						SM	Gray silty fine to coarse sand with gravel (Moist)		
	35		60								NS	3.6



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

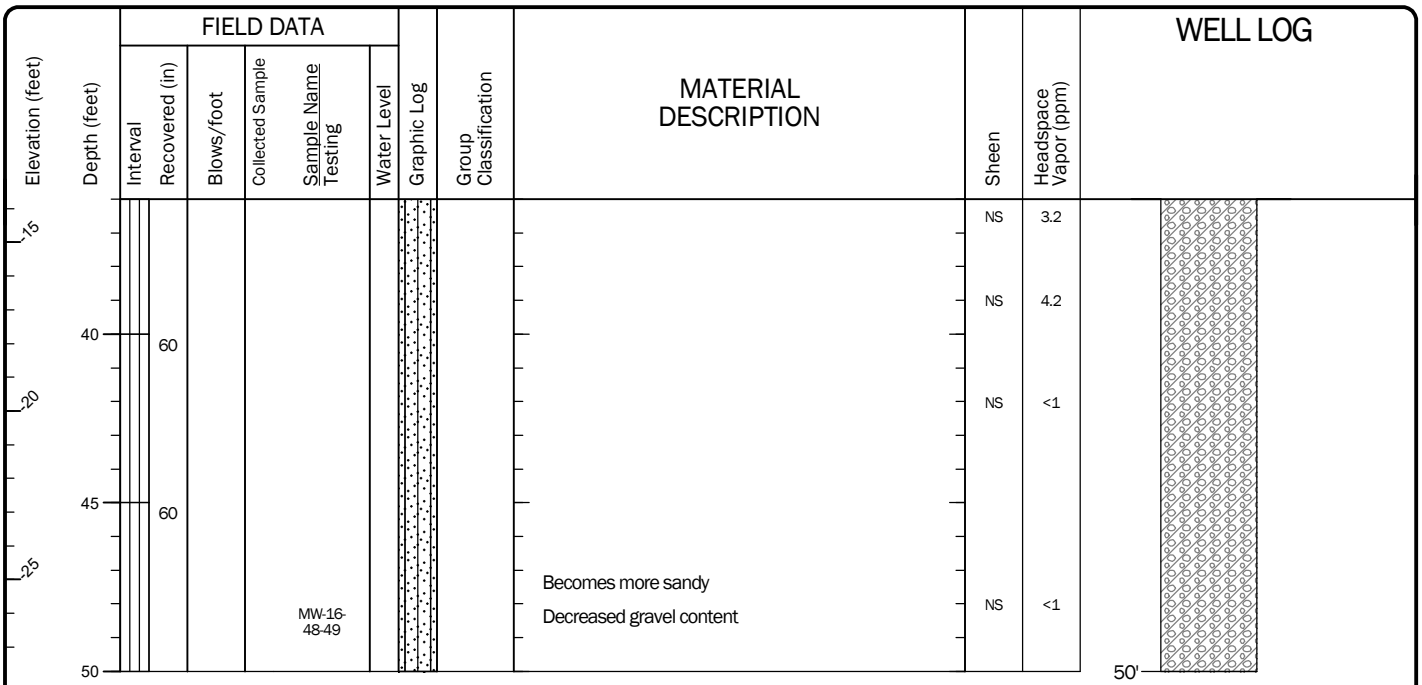
Log of Boring with Monitoring Well MW-16

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-20
Sheet 1 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL



Log of Boring with Monitoring Well MW-16 (continued)

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-20
Sheet 2 of 2

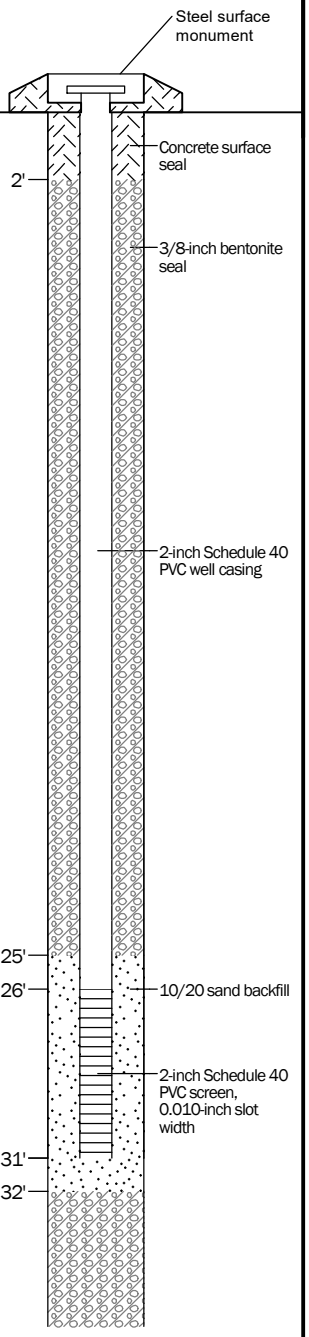
Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled Start 3/21/2022 End 3/21/2022	Total Depth (ft) 50	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Sonic	
Hammer Data N/A		Drilling Equipment Terrasonic		A 2-in well was installed on 3/21/2022 to a depth of 31 ft.	
Surface Elevation (ft) Vertical Datum 22.347 NAVD88		Top of Casing Elevation (ft) 22.35		Groundwater Date Measured: 6/1/2022	Depth to Water (ft): 4.16 — Elevation (ft): 18.19
Easting (X) 1274120.613 Northing (Y) 193889.1832		Horizontal Datum WA State Plane North NAD83 (feet)			

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0		54						AC	Approximately 7 inches asphalt concrete pavement		
									ML	Brown silt with sand and occasional gravel (moist to wet)		
20						MW-17-3-4	▼				NS	<1
	5		60							Becomes with occasional organics, without gravel	NS	<1
									PT	Brown fibrous peat with wood debris		
15						MW-17-7-8			ML	Brown silt with sand (wet)	NS	3.8
	10		60							Becomes brown-tan with sand and occasional organics (woody debris)	NS	2.9
10												
	15		60								NS	<1
5						MW-17-17-18				Treat branch encountered	NS	1.2
									SM	Gray silty fine to coarse sand with gravel (moist) (till)		
	20		60								NS	<1
0												
	25		60			MW-17-25-26					NS	<1
									SP	Gray fine to coarse sand with trace silt and gravel (wet)		
-5									SM	Gray silty fine to coarse sand with gravel (moist)	NS	<1
									ML/SM	Gray silt with sand and gravel to silty fine to coarse sand with gravel (moist)	NS	<1
	30		60									
-10											NS	<1
	35		60									

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

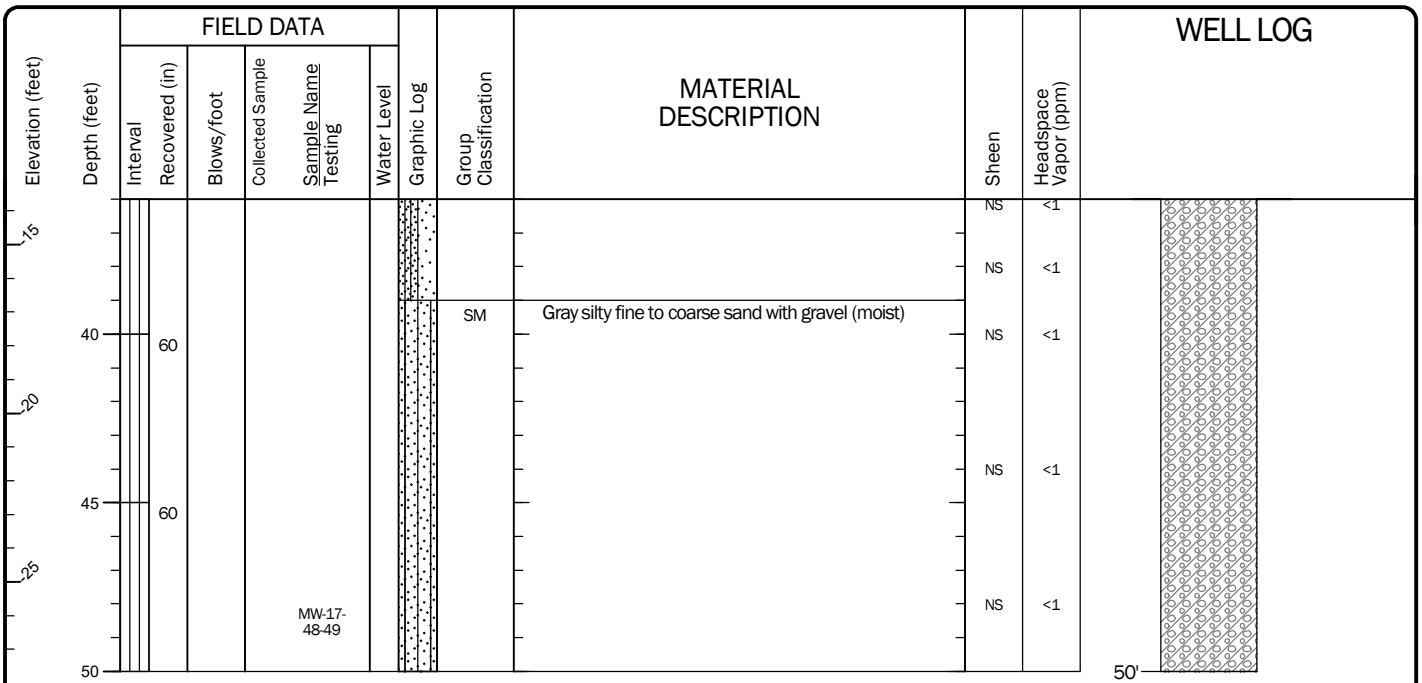
Log of Boring with Monitoring Well MW-17

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-21
Sheet 1 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL



Log of Boring with Monitoring Well MW-17 (continued)

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-21
Sheet 2 of 2

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	3/28/2022	3/28/2022	20	PDR	GRL	Holt Services	Sonic

Hammer Data	N/A	Drilling Equipment	Terrasonic
Surface Elevation (ft) Vertical Datum	22.507 NAVD88	Top of Casing Elevation (ft)	22.51
Easting (X) Northing (Y)	1274037.413 193650.0924	Horizontal Datum	WA State Plane North NAD83 (feet)

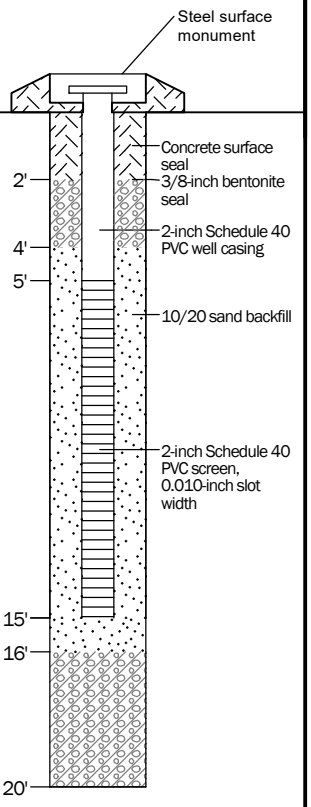
A 2-in well was installed on 3/28/2022 to a depth of ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
6/1/2022	4.45	18.06

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0								AC	Approximately 2½ inches asphalt concrete pavement		
									SP-SM	Brown fine to coarse sand with silt and occasional gravel (wet)	NS	10.6
20			60			MW-18-3-4			SM	Brown silty fine sand with occasional gravel (moist to wet)	NS	16.2
	5									Becomes gray, fine to coarse grained sand, moist to wet		
			60			MW-18-5.5-6.5					SS	<1
15									ML	Gray-brown silt (soft, moist to wet)	NS	<1
	10		60							Becomes wet	NS	<1
										With trace organics (root fibers) Becomes brown		
10						MW-18-12.5-13.5			SP-SM	Gray fine to coarse sand with silt and gravel (moist) (till)	NS	7
	15		48						NR	No recovery		
									SP-SM	Gray fine to coarse sand with silt and gravel (moist) (till)		
5						MW-18-18-19					NS	7.1
	20											

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Boring with Monitoring Well MW-18

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-22
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GB.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	5/26/2023	5/26/2023	15	PDR	GRL	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME Track-mounted Rig
Surface Elevation (ft) Vertical Datum	21.949 NAVD88	Top of Casing Elevation (ft)	24.52
Easting (X) Northing (Y)	1274047.162 193591.121	Horizontal Datum	WA State Plane North NAD83 (feet)

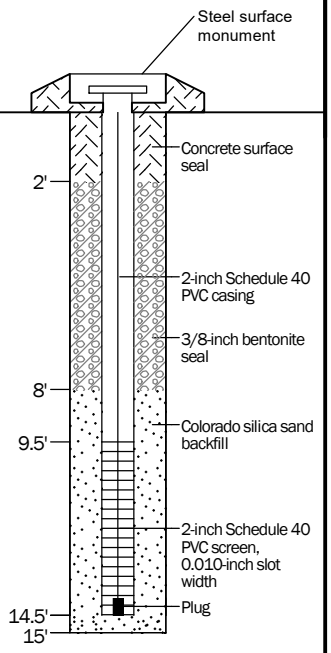
DOE Well I.D.: BPR-321
A 2-in well was installed on 5/26/2023 to a depth of 14.5 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
5/26/2023	9.00	15.52

Notes:

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
20	0						SM	Brown silty fine to coarse sand with organic matter and occasional gravel (loose, moist)		
		18	14						NS	<1
							ML	Gray silt with sand (stiff, moist)		
	5	18	26	MW-19-6-7.5					NS	<1
15								Decreased sand content, grades to very stiff		
		18	11	MW-19-9-10.5	▼			Increased sand content, becomes wet, grades to medium stiff	NS	<1
10	10									
		18	19					Grades to stiff	NS	<1
	15									

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on survey by True North Land Surveying, Inc.. Vertical approximated based on survey by True North Land Surveying, Inc..

Log of Monitoring Well MW-19

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-2
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	5/25/2023	5/25/2023	24.5	PDR	GRL	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME Track-mounted Rig
Surface Elevation (ft) Vertical Datum	20.171 NAVD88	Top of Casing Elevation (ft)	22.28
Easting (X) Northing (Y)	1274171.456 193603.296	Horizontal Datum	WA State Plane North NAD83 (feet)

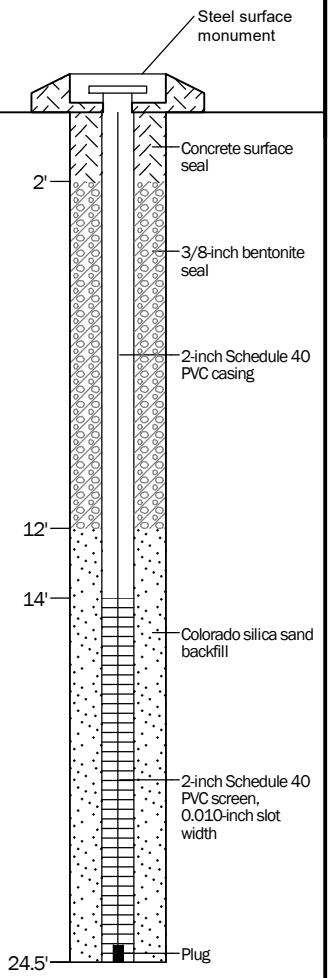
DOE Well I.D.: BPR-320
A 2-in well was installed on 5/25/2023 to a depth of 24.5 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
5/25/2023	8.00	14.28

Notes:

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
20	0							SM	Brown silty fine sand with organics (loose, moist)		
		18	20		MW-20-2.5-4					SS	1.2
								SP	Dark gray fine sand with trace silt (stiff, moist to wet)		
15	5		50/6"					SM	Gray-brown silty fine sand	SS	2.5
								WD	Wood, possible treated tie		
		18	6		MW-20-7.5-9	▼				NS	1.3
10	10							ML	Dark brown silt with trace sand (medium stiff, wet)		
		18	9						Becomes brown, reduced sand content	SS	<1
5	15										
		18	8						Becomes dark brown, increased sand content, with occasional shell fragments	SS	0.2
0	20										
		18	8		MW-20-23-24.5				Becomes brown	NS	<1

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on survey by True North Land Surveying, Inc.. Vertical approximated based on survey by True North Land Surveying, Inc..

Log of Monitoring Well MW-20

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-3
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

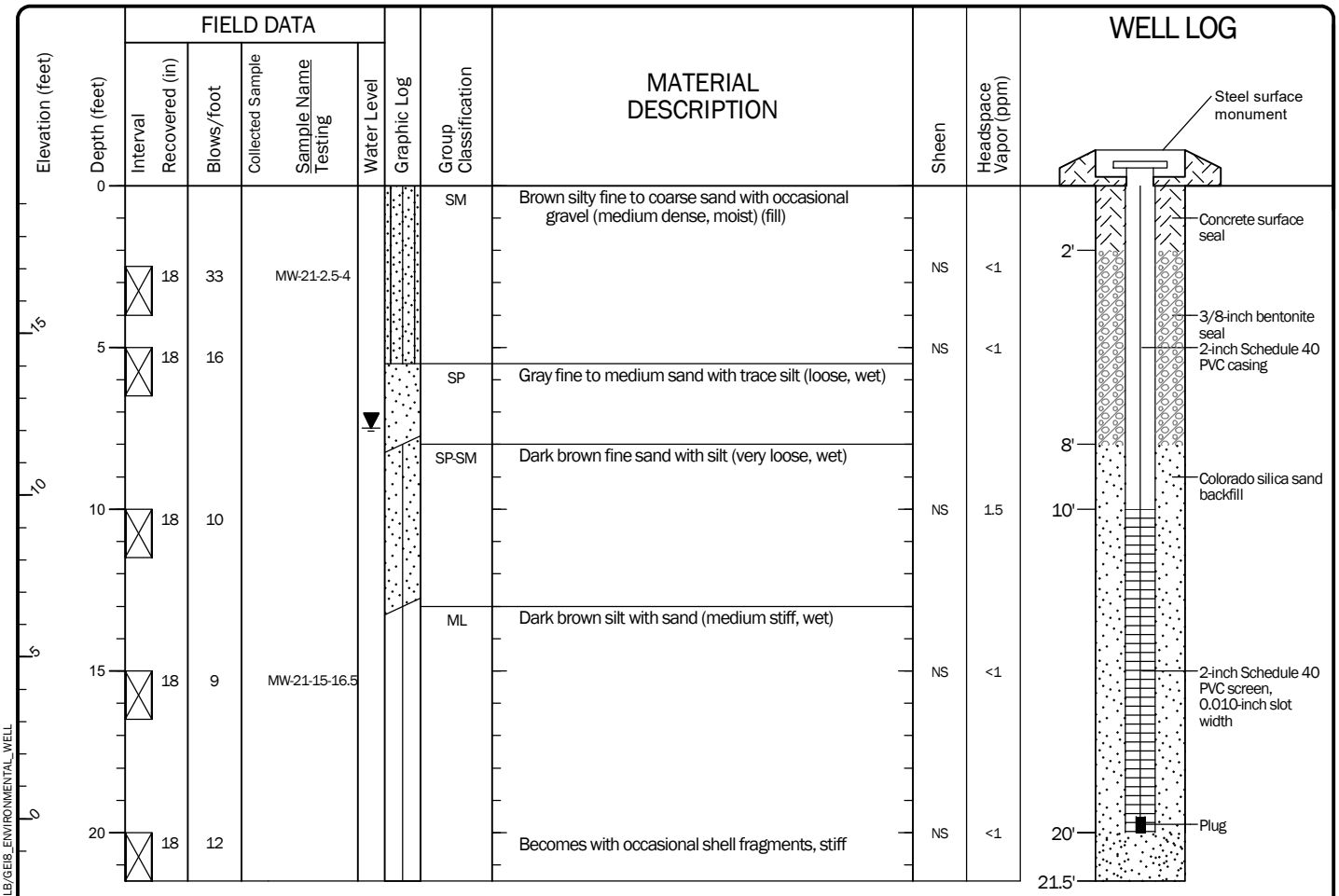
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	5/31/2023	5/31/2023	21.5	PDR	GRL	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME Track-mounted Rig
Surface Elevation (ft) Vertical Datum	19.567 NAVD88	Top of Casing Elevation (ft)	22.67
Easting (X) Northing (Y)	1274244.534 193708	Horizontal Datum	WA State Plane North NAD83 (feet)

DOE Well I.D.: BPR-323
A 2-in well was installed on 5/31/2023 to a depth of 20 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
5/31/2023	7.50	15.17

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on survey by True North Land Surveying, Inc.. Vertical approximated based on survey by True North Land Surveying, Inc..

Log of Monitoring Well MW-21

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-4
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	5/30/2023	5/30/2023	60	PDR	GRL	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	CME Track-mounted Rig
Surface Elevation (ft) Vertical Datum	19.824 NAVD88	Top of Casing Elevation (ft)	22.60
Easting (X) Northing (Y)	1274249.396 193725.059	Horizontal Datum	WA State Plane North NAD83 (feet)

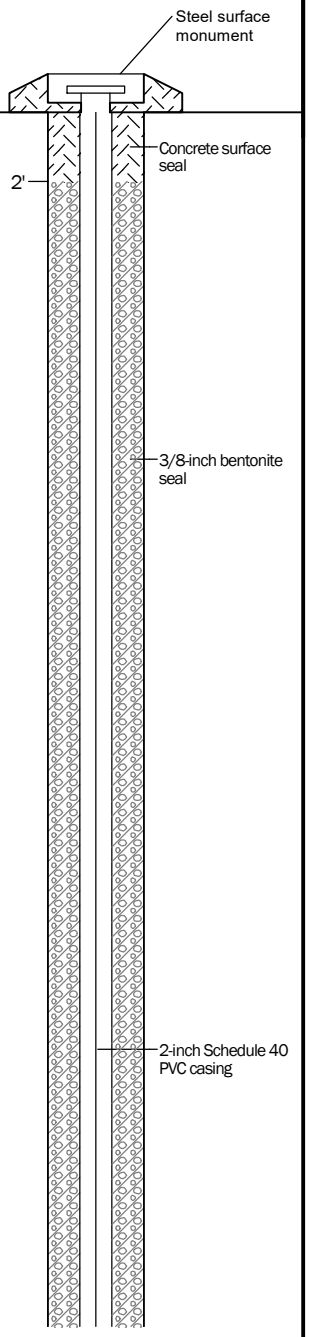
DOE Well I.D.: BPR-322
A 2-in well was installed on 5/30/2023 to a depth of 59 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
5/30/2023	8.00	14.60

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
15	0							SP	Brown fine to coarse sand with gravel and trace silt (medium dense, moist) (fill)		
		18	40		MW-22-2.5-4					NS	<1
5	5	18	20		MW-22-5-6			SP	Gray fine sand with trace silt (loose, moist)	NS	<1
								OL	Brown organic silt with wood debris (stiff, moist)		
						▼		ML	Brown silt with occasional organic matter (wood) and sand (stiff, wet)		
10	10	18	20		MW-22-10-11					NS	52.6
								SP-SM	Dark brown fine sand with silt (loose, wet)		
5	15	18	17		MW-22-15-16.5					NS	32.6
								ML	Gray silt with sand and occasional shell fragments (stiff, wet)		
0	20	18	19		MW-22-20-21.5				Becomes dark brown, decreased shell fragments	NS	<1
-5	25	18	11		MW-22-25-26.5				Increased shell fragments, grades to medium stiff	NS	<1
-10	30	6	50/6"		MW-22-30-31			SM	Dark gray silty sand (very dense, moist)	NS	3.5
								SP/SM	Dark gray fine to coarse rounded sand with silt (very dense, wet)		
-15	35										

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on survey by True North Land Surveying, Inc.. Vertical approximated based on survey by True North Land Surveying, Inc..

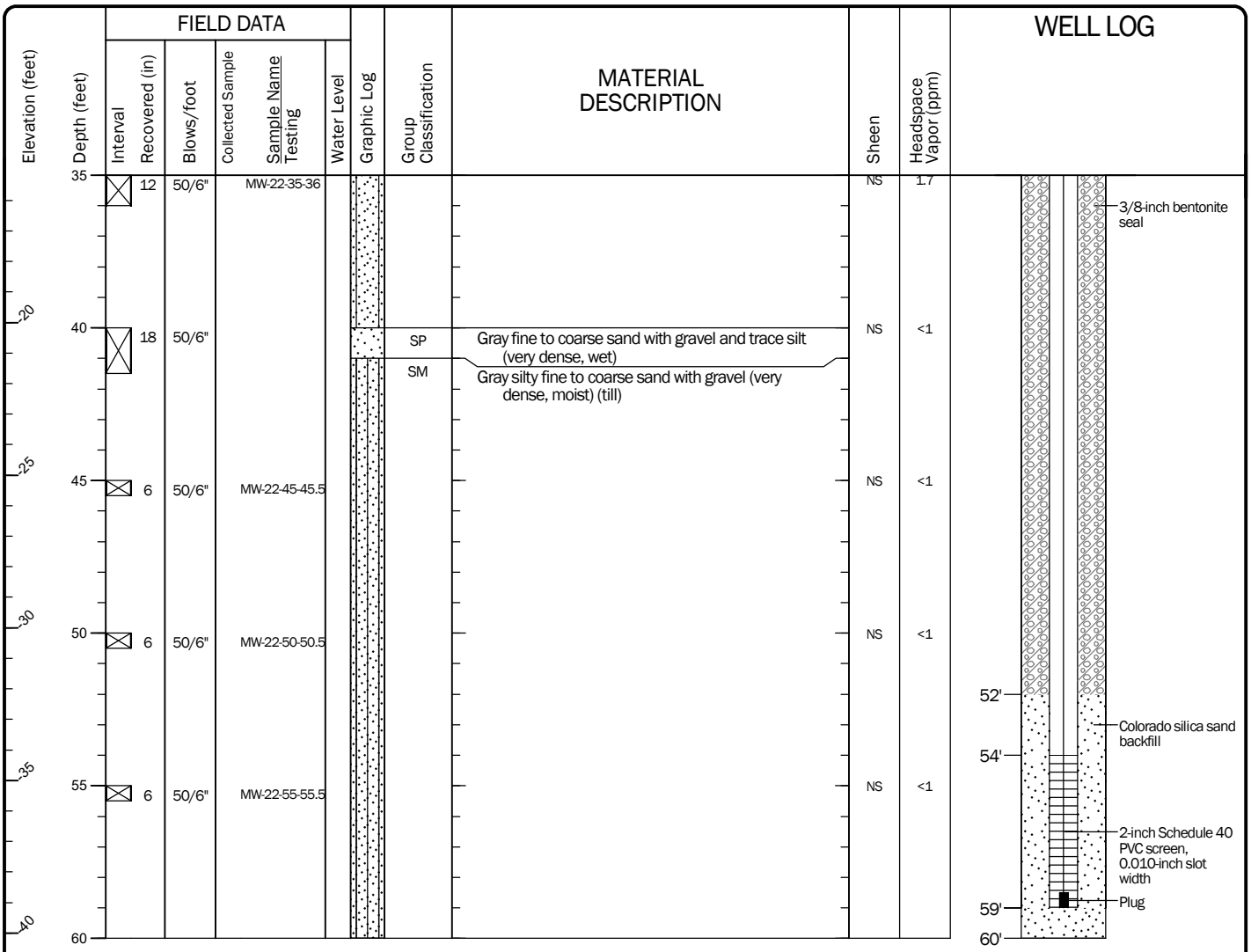
Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Log of Monitoring Well MW-22

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-5
Sheet 1 of 2



Log of Monitoring Well MW-22 (continued)

GeoEngineers

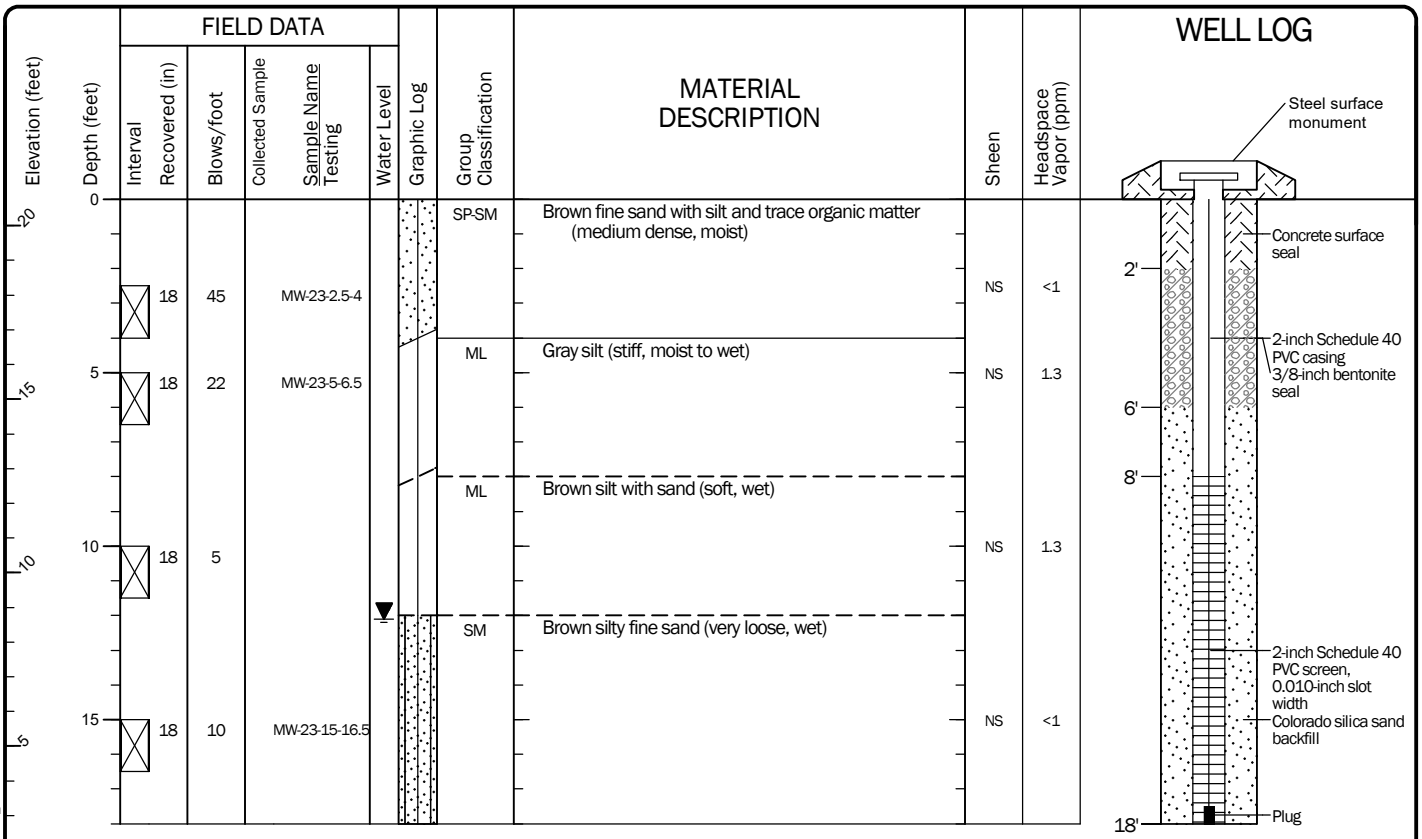
Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-5
Sheet 2 of 2

Date:7/24/23 Path:P:\25\25806001\GINT\25806001101.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled Start 5/24/2023 End 5/24/2023	Total Depth (ft) 18	Logged By PDR Checked By GRL	Driller Cascade Drilling	Drilling Method Hollow-stem Auger	
Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: CME Track-mounted Rig		DOE Well I.D.: BPR-319 A 2-in well was installed on 5/29/2023 to a depth of 18 ft.	
Surface Elevation (ft) Vertical Datum: 20.765 NAVD88		Top of Casing Elevation (ft): 23.09		Groundwater Date Measured: 5/24/2023	Depth to Water (ft): 12.10 / Elevation (ft): 10.99
Easting (X) 1274278.732 Northing (Y) 193850.798		Horizontal Datum: WA State Plane North NAD83 (feet)			

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on survey by True North Land Surveying, Inc.. Vertical approximated based on survey by True North Land Surveying, Inc..

Log of Monitoring Well MW-23

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-6
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Drilled	Start 3/8/2022	End 3/8/2022	Total Depth (ft)	15	Logged By / Checked By	PDR / GRL	Driller	Holt Services	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum	Undetermined		Hammer Data	N/A	Drilling Equipment	GeoProbe				
Easting (X) Northing (Y)	Undetermined		System Datum	WA State Plane North NAD83 (feet)	Groundwater not observed at time of exploration					

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		60					AC	Approximately 2 inches asphalt concrete pavement	NS	<1	
								GP	Dark brown to black asphalt and gravel (moist to wet)			
						SB-20-2-3		SP-SM	Gray fine to coarse sand with silt and occasional gravel (moist)	NS	<1	
										NS	<1	
	5					SB-20-5-6			2-inch-thick slight yellow color	NS	<1	
										NS	<1	
	10					SB-20-10-11		ML	Gray silt with trace sand (moist)	NS	<1	
								SM	Gray silty fine to coarse sand (moist)			
								SP-SM	Gray fine to coarse sand with silt occasional gravel (moist)			
						SB-20-14-15				NS	<1	
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-20

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-2
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/7/2022 End 3/7/2022	Total Depth (ft) 15	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		60					CC	Approximately 6 inches cement concrete	NS	<1	
								SP-SM	Gray fine to coarse sand with silt and occasional gravel (moist)			
						SB-21-3-4			Without occasional gravel	SS	<1	
										NS	<1	
	5		60					SM	Gray-brown silty fine to medium sand (moist to wet)			
										NS	<1	
									Becomes fine to coarse grained sand, with occasional gravel	NS	<1	
						SB-21-8-9						
									Becomes wet	NS	<1	Groundwater observed at approximately 9 feet during drilling
	10		60							NS	<1	
						SB-21-13-14		ML	Gray silt with sand and occasional gravel (moist)	NS	<1	
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-21

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-3
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/10/2022 End 3/10/2022	Total Depth (ft) 5	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30			SB-22-0.5-1.5		CC	Approximately 6 inches cement concrete	MS	<1	
								SP	Gray fine to coarse sand with trace silt (wet)	MS	<1	
								ML	Gray silt with sand (moist)			
								NR	No recovery			Groundwater observed at approximately 3½ feet during drilling
			12			SB-22-4-5		SP-SM	Gray fine sand with silt (wet)	MS	<1	
	5							ML	Gray silt (hard, moist) Refusal at 5 feet below ground surface			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-22

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-4
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/9/2022 End 3/9/2022	Total Depth (ft) 13	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					CC	Approximately 6 inches cement concrete pavement			
								SM	Brown silty fine to coarse sand (moist)			
						SB-23-1.5-2.5		SP	Gray very fine sand with trace silt (moist to wet)	NS	<1	
								NR	No recovery			
	5		42					ML	Gray silt (moist to wet)			
								PT/OH	Brown peat to organic silt (moist)	NS	<1	
						SB-23-6.5-7.5		OH	Gray organic silt with sand	NS	<1	
								SM	Gray silty fine to coarse sand with occasional gravel (wet)	NS	<1	Groundwater observed at approximately 8½ feet during drilling
								NR	No recovery			
	10		36			SB-23-10-11		SP	Gray fine to medium sand with trace silt (wet)			
								SM	Brown fine to coarse sand with gravel (very dense, moist)			

Refusal at 13 feet below ground surface

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

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Log of Boring SB-23

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Drilled Start 3/8/2022 End 3/8/2022	Total Depth (ft) 7.5	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		42					CC	Approximately 8 inches cement concrete			
								SP-SM	Brown fine to coarse sand with silt and occasional gravel (moist)	NS	5.9	
						SB-24-3-4			With small cobbles	NS	27.3	
			12							NS	20.3	
	5		30						Without cobbles			
										NS	11.8	
						SB-24-6.5-7.5			With cobbles	NS	14.6	

Refusal at 7½ feet below ground surface

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-24

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-6
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 3/8/2022	End 3/8/2022	Total Depth (ft)	8	Logged By	PDR	Driller	Holt Services	Drilling Method	Direct Push
					Checked By	GRL				

Surface Elevation (ft) Vertical Datum	Undetermined	Hammer Data	N/A	Drilling Equipment	GeoProbe
Easting (X) Northing (Y)	Undetermined	System Datum	WA State Plane North NAD83 (feet)	Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		54					CC	Approximately 6 inches cement concrete			
								SP-SM	Brown fine to coarse sand with silt and gravel (moist)	NS	15.4	
								SM	Brown silty fine to medium sand (moist to wet)	NS	62.8	
						SB-25-3.5-4.5		SP-SM	Brown fine to coarse sand with silt and occasional gravel (moist)	NS	69.3	
	5		36									
						SB-25-6-7				NS	7.7	
								SM	Brown silty fine to coarse sand with occasional gravel (moist) (till)			
									Refusal at 8 feet below ground surface on boulder			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-25

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-7
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/7/2022 End 3/7/2022	Total Depth (ft) 15	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0							CC	Approximately 6 inches cement concrete			
								SM	Brown silty fine to coarse sand with occasional gravel (moist)	NS	<1	
			60					SP-SM	Gray fine to coarse sand with silt and occasional gravel (moist)	NS	1.7	
						SB-26-3-4			Increased gravel content			
	5		36			SB-26-6-7				NS	<1	
								NR	No recovery			
	10		36					SP-SM	Gray fine to coarse sand with silt and occasional gravel (moist)	NS	1.4	
						SB-26-11-12		SM	Gray silty fine sand with occasional gravel (moist to wet)			
								ML	Gray silt with sand (moist)			
								NR	No recovery			
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-26

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-8
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 3/7/2022	End 3/7/2022	Total Depth (ft) 15	Logged By PDR / Checked By GRL	Driller Holt Services	Drilling Method Direct Push
Surface Elevation (ft) / Vertical Datum	Undetermined		Hammer Data	N/A	Drilling Equipment	GeoProbe
Easting (X) / Northing (Y)	Undetermined		System Datum	WA State Plane North NAD83 (feet)	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0					CC	Approximately 32 inches cement concrete			Groundwater observed at approximately 5 feet
		24		SB-27-3-4		SM	Geotextile fabric Gray silty fine to coarse sand with occasional gravel and pea gravel	NS	<1	
	5	60		SB-27-6-7		SP-SM	Without gravel, pea gravel, becomes wet Gray fine sand with silt and pea gravel (wet)	NS	3.1	
						ML	Gray silt with sand (moist)			
						SM	Gray silty fine sand with occasional sand (wet)			
						SP	Gray fine to medium sand with trace silt (wet)	NS	<1	
	10	36		SB-27-10-11		SP-SM	Gray fine to medium sand with silt (wet)	NS	<1	
						ML	Gray silt with sand and occasional gravel (moist)			
				SB-27-12.5-13		NR	No recovery	SS	<1	
	15									

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-27

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-9
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 3/7/2022	End 3/7/2022	Total Depth (ft)	15	Logged By	PDR	Driller	Holt Services	Drilling Method	Direct Push
					Checked By	GRL				

Surface Elevation (ft) Vertical Datum	Undetermined	Hammer Data	N/A	Drilling Equipment	GeoProbe
Easting (X) Northing (Y)	Undetermined	System Datum	WA State Plane North NAD83 (feet)	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48					AC	Approximately 2½ inches asphalt concrete pavement			
								GP	Gravel base course			
						SB-28-2.5-3		SM	Brown silty fine to coarse sand with occasional gravel (moist) Becomes gray with occasional organics	SS	<1	
								SM	With small wood chips	SS	<1	
	5		48						Brown silty fine sand (moist to wet)	SS	<1	
									With black organics (wood)			
								ML	Gray silt with occasional sand (wet)	SS	<1	Groundwater observed at approximately 7 feet during drilling
						SB-28-8.5-9						
	10		60					ML/CL	Brown silt to clay with occasional sand (wet)			
						SB-28-13.5-14				SS	<1	
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-28

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-10
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/10/2022 End 3/10/2022	Total Depth (ft) 3	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		24			SB-29-0-2		CC	Approximately 3 inches cement concrete	NS	<1	
								ML	Gray silt with sand (very hard, moist)			
								NR	No recovery			
								ML	Gray silt with sand (very hard, moist)			
									Refusal at 3 feet below ground surface			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-29

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-11
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001100.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/9/2022 End 3/9/2022	Total Depth (ft) 19	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum	Undetermined	Hammer Data	N/A	Drilling Equipment	GeoProbe
Easting (X) Northing (Y)	Undetermined	System Datum	WA State Plane North NAD83 (feet)	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		54					CC	Approximately 6 inches cement concrete			
								GP-GM	Brown fine to coarse gravel with silt and wood debris	NS	<1	
								SM	Gray silty fine sand with gravel (moist)			
						SB-30-3-4			Grades to dark gray	NS	<1	
	5		48						Without gravel, becomes moist to wet			
								OH	Black organic silt (moist to wet)			
						SB-30-7.5-8.5			Becomes wet	NS	<1	Groundwater observed at approximately 8 feet during drilling
			12									
	10		60			SB-30-10-11			Becomes dark brown	NS	<1	
								ML	Tan silt (moist)	NS	<1	
						SB-30-13.5-14.5				NS	<1	
	15		48					SP	Dark gray fine to coarse sand with trace silt and gravel (moist)	NS	<1	
									Becomes light brown	NS	<1	
						SB-30-17-18			Becomes gray	NS	<1	

Refusal at 19 feet below ground surface

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-30

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-12
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 3/9/2022	End 3/9/2022	Total Depth (ft)	15	Logged By	PDR	Driller	Holt Services	Drilling Method	Direct Push
					Checked By	GRL				

Surface Elevation (ft) Vertical Datum	Undetermined	Hammer Data	N/A	Drilling Equipment	GeoProbe
Easting (X) Northing (Y)	Undetermined	System Datum	WA State Plane North NAD83 (feet)	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		54					CC	Approximately 3 inches cement concrete	NS	<1	
								SM	Brown-gray silty fine to coarse sand with gravel (moist) (fill)	NS	<1	
						SB-31-2-3		SM/ML	Dark gray silty fine to medium sand to silt with sand (moist to wet)	NS	<1	
	5		48					ML	Gray-black silt with sand (moist)			
									Increased sand content			
								PT	Brown fibrous peat (moist)			
						SB-31-8-9		ML	Tan silt with sand (moist to wet)	NS	<1	
								NR	No recovery			
	10		60					SP-SM	Gray fine sand with silt (wet)			Groundwater observed at approximately 10½ feet during drilling
						SB-31-11.5-12.5				NS	<1	
						SB-31-14-15				NS	<1	
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-31

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-13
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 3/9/2022	End 3/9/2022	Total Depth (ft)	15	Logged By	PDR	Driller	Holt Services	Drilling Method	Direct Push
					Checked By	GRL				

Surface Elevation (ft) Vertical Datum	Undetermined	Hammer Data	N/A	Drilling Equipment	GeoProbe
Easting (X) Northing (Y)	Undetermined	System Datum	WA State Plane North NAD83 (feet)	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		54					AC	Approximately 3 inches asphalt concrete pavement			
								GM	Brown silty fine to coarse gravel (moist)			
						SB-32-2-3		ML	Gray silt (moist)	NS	<1	
								SP-SM	Dark brown fine sand with silt (moist)			
						SB-32-4-5				NS	<1	
	5		30					PT	Brown peat (moist)			
								ML	Gray silt with sand (wet)			Groundwater observed at approximately 6 feet during drilling
						SB-32-6.5-7.5				NS	<1	
								NR	No recovery			
	10		60					ML	Brown silt with sand and occasional peat interbedding (wet)	NS	<1	
						SB-32-13-14				NS	<1	
	15											

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-32

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-14
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 3/9/2022 End 3/9/2022	Total Depth (ft) 7	Logged By PDR Checked By GRL	Driller Holt Services	Drilling Method Direct Push	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment GeoProbe	
Easting (X) Northing (Y) Undetermined		System Datum WA State Plane North NAD83 (feet)		Groundwater not observed at time of exploration	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0	32					CC	Approximately 8 inches cement concrete			
							SP-SM	Brown fine sand with silt and occasional gravel (moist)	NS	<1	
					SB-33-2-3		CC	Approximately 1½-inch cement concrete layer	NS	<1	
		12					SM	Yellow silty fine to coarse sand with gravel and occasional cobbles (moist)	NS	<1	
		12			SB-33-4-5			Becomes light brown	NS	<1	
	5	24									
							SP-SM	Gray-brown fine to coarse sand with silt and occasional gravel (very dense, moist)	NS	<1	
								Refusal at 7 feet below ground surface			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal undetermined. Vertical undetermined.

Log of Boring SB-33

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-00

Figure A-15
Sheet 1 of 1

Date:11/8/22 Path:P:\25\25806001\GINT\25806001GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 6/2/2023 End 6/2/2023	Total Depth (ft) 15	Logged By PDR Checked By GRL	Driller Cascade Drilling	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined NAVD88		Hammer Data Pneumatic		Drilling Equipment Geoprobe Macrocore	
Easting (X) Northing (Y)		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		60			SB-34-2-3		SM	Brown silty fine to coarse sand with occasional gravel and trace organic matter (moist)			
								SP-SM	Brown fine to coarse sand with silt (moist)	NS	38.2	
									Gray silty fine to coarse sand with occasional gravel (very dense, moist) (till)			
	5		60			SB-34-9-10		SM	Gray silty fine to coarse sand with gravel (moist)	NS	<1	
										NS	1.6	
	10		60			SB-34-13-14				NS	<1	
									Fine sand seam (wet)			Groundwater observed at approximately 13½ feet bgs during drilling
								SM	Gray silty fine to coarse sand (moist)			
	15								Boring terminated at 15 feet bgs			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring SB-34

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-7
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 6/2/2023 End 6/2/2023	Total Depth (ft) 10	Logged By PDR Checked By GRL	Driller Cascade Drilling	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined NAVD88	Hammer Data Pneumatic	Drilling Equipment Geoprobe Macrocore			
Easting (X) Northing (Y)	System Datum WA State Plane North NAD83 (feet)	Groundwater not observed at time of exploration			
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		60			SB-35-3-4		SP-SM	Brown fine sand with silt and trace organic matter (moist)			
								SM	Gray silty fine to coarse sand with occasional gravel (moist)	NS	<1	
	5		60			SB-35-8-9			Increased gravel content (very dense, moist to wet)	NS	<1	
	10								Boring terminated at 10 feet bgs due to refusal			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring SB-35

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-8
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled	Start 6/2/2023	End 6/2/2023	Total Depth (ft)	13	Logged By	PDR	Driller	Cascade Drilling	Drilling Method	Direct-Push
					Checked By	GRL				

Surface Elevation (ft) Vertical Datum	Undetermined NAVD88	Hammer Data	Pneumatic	Drilling Equipment	Geoprobe Macrocore
Easting (X) Northing (Y)		System Datum	WA State Plane North NAD83 (feet)	Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		60			SB-36-2-3.5		SP-SM	Brown fine to coarse sand with silt, gravel and occasional organic matter (moist)	NS	<1	
								SM	Gray silty fine sand with occasional medium to coarse sand (moist)			
	5		60			SB-36-10-11.5				NS	<1	
								SM	Gray silty fine to coarse sand with gravel (moist)			
										NS	<1	
	10		36			SB-36-10-11.5			Becomes moist to wet	NS	<1	

Boring terminated at 13 feet bgs due to refusal

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring SB-36

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-9
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 6/2/2023 End 6/2/2023	Total Depth (ft) 15	Logged By PDR Checked By GRL	Driller Cascade Drilling	Drilling Method Direct-Push	
Surface Elevation (ft) Vertical Datum Undetermined NAVD88		Hammer Data Pneumatic		Drilling Equipment Geoprobe Macrocore	
Easting (X) Northing (Y)		System Datum WA State Plane North NAD83 (feet)		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		60			SB-37-2-3		SM	Brown silty fine to coarse sand with trace organic matter (topsoil/fill)			
								SP-SM	Gray fine to coarse sand with silt and gravel (moist)	NS	11.3	
								ML	Brown silt with sand (moist)			
	5		60							NS	<1	
	10		60			SB-37-12.5-13.5				NS	<1	
								SP	Brown fine to coarse sand with trace silt (wet)			Groundwater observed at approximately 12½ feet bgs during drilling
								SM	Gray silty fine to coarse sand with occasional gravel (moist)			
	15								Boring terminated at 15 feet bgs			

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on . Vertical approximated based on .

Log of Boring SB-37

GeoEngineers

Project: Dick Morgan - Precision Engineering Remedial Investigation
Project Location: Seattle, Washington
Project Number: 25806-001-01

Figure A-10
Sheet 1 of 1

Date:7/24/23 Path:P:\25\25806001\GINT\25806001.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_STANDARD_NO_GW

Appendix E
Monitoring Well Survey

True NORTH LAND SURVEYING, INC.
206.332.0800

JOB# 22-22.03
GEO ENGINEERS
Garrett R. Leque

1231 S. Director St. Seattle, WA

Survey Date: June 1, 2022

Monitoring Wells

MW	Northing	Easting	Rim Elev.	PVC Elev.	GND Elev.	Notes	Pt #
	193836.415	1274134.718	22.171			Set magnail and TNLS washer	1
	193651.079	1274077.915	21.635			Set magnail and TNLS washer	2
MW-1	193678.728	1273780.677	27.599	26.832	23.286	CL CASE LID	1023
MW-2	193769.708	1274101.530	22.774	22.567	N/A	CL CASE LID	1007
MW-3	193981.498	1274093.327	23.429	23.227	22.349	CL CASE LID	1001
MW-4	193714.921	1273974.274	24.526	24.278	23.410	CL CASE LID	1021
MW-5	193792.672	1274034.340	23.996	23.583	N/A	CL CASE LID	1015
MW-6	193824.237	1274124.118	22.228	21.658	N/A	CL CASE LID	1004
MW-7	193768.967	1274121.007	21.764	21.529	N/A	CL CASE LID	1006
MW-8	193673.292	1274082.905	21.419	21.056	N/A	CL CASE LID	1010
MW-9	193692.572	1274116.479	20.927	20.647	N/A	CL CASE LID	1009
MW-10	193696.368	1274117.517	20.966	20.503	N/A	CL CASE LID	1008
MW-11	193912.932	1274123.001	22.669	22.471	N/A	CL CASE LID	1002
MW-12	193812.660	1273867.012	24.154	23.554	N/A	CL CASE LID	1022
MW-13	193806.417	1273768.709	23.459	23.208	N/A	CL CASE LID	1026
MW-14	193875.263	1274050.796	23.895	23.491	N/A	CL CASE LID	1013
MW-15	193803.216	1274032.721	23.976	23.309	N/A	CL CASE LID	1014
MW-16	193819.245	1274106.085	22.767	22.279	N/A	CL CASE LID	1005
MW-17	193889.183	1274120.613	22.654	22.347	N/A	CL CASE LID	1003
MW-18	193650.092	1274037.413	23.002	22.507	N/A	CL CASE LID	1018

Notes:

1. Horizontal NAD 83/11. Used the WSDOT Mon "GP17005-175"
2. Vertical datum is NAVD 88. Used the WSDOT Mon "GP17005-176".
3. The elevations of the Rims, Ground and 2" PVC pipes are at the north edge.

   Except for MW-4 which is located on the SE Rim of PVC due to the condition of the pipe.
4. Differential levels were done using a Leica LS10 #2
5. Ground elevations are for stickup wells MW-1, MW-3, and MW-4 only.
6. "CL Case Lid" is for Horizontal reference only.

True NORTH LAND SURVEYING, INC.
206.332.0800

JOB# 22-22.05
GeoEngineers
Garrett Leque, LG

1231 S. Director St., Seattle, WA

Survey Date: June 29, 2023

Monitoring Wells

MW	Tag #	Northing	Easting	Rim Elev.	PVC Elev.	Gnd. Elev.	Notes	Pt #
		213181.339	1279130.175	53.499			Set Mag Nail and TNLS Washer	1
		213238.039	1278994.414	52.608			Set Mag Nail and TNLS Washer	2
MW19	BPR-321	193591.121	1274047.162	24.867	24.521	21.949	2" PVC	2032
MW20	BPR-320	193603.296	1274171.456	22.696	22.282	20.171	2" PVC	2031
MW21	BPR-323	193708.000	1274244.534	22.901	22.672	19.567	2" PVC	2030
MW22	BPR-322	193725.059	1274249.396	22.819	22.604	19.824	2" PVC	2029
MW23	BPR-319	193850.798	1274278.732	23.646	23.09	20.765	2" PVC	2028

Notes:

1. Horizontal NAD 83/11, Vertical NAVD 88. Used existing control from previous project J22-22.03
2. The elevations of the Lids and 2" PVC pipes are at the north edge.
4. Differential levels were done using a Leica LS10 #1
5. Ground elevations are for stickup wells MW19 through MW23.

Appendix F
Historical Data 1989 to 2005

Table A1: Historical Soil Investigation Analyses

Sample Location	Sample Depth (ft bgs)	Date	EP TOX Metals (mg/L)										DATA SOURCE
			Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Zinc	
HA-1	2.8-3.0	5/23/1988				29.7							Sweet-Edwards/EMCON 1988
HA-2	4.3-4.6	5/23/1988				12.0							Sweet-Edwards/EMCON 1988
HA-3	2.3-3.0	5/23/1988				99.5							Sweet-Edwards/EMCON 1988
HA-4	3.5-3.9	5/23/1988				43.6							Sweet-Edwards/EMCON 1988
HA-5	6.5-6.8	5/23/1988				84.4							Sweet-Edwards/EMCON 1988
HA-6	2.8-3.3	5/23/1988				184.0							Sweet-Edwards/EMCON 1988
B-1 (S-1)	2.5	3/7/1989	<0.03	0.018	<0.005	<0.005	<0.005	<0.03	<0.02	<0.03	<0.01	0.01	Sweet-Edwards/EMCON 1989a
B-1 (S-2)	5.0	3/7/1989	<0.03	0.024	<0.005	<0.005	<0.005	<0.03	0.02	<0.03	<0.01	0.01	Sweet-Edwards/EMCON 1989a
B-1 (S-3)	7.5	3/7/1989	<0.03	0.025	<0.005	<0.005	0.006	<0.03	0.02	<0.03	<0.01	0.02	Sweet-Edwards/EMCON 1989a
B-1 (S-4)	10.0	3/7/1989	<0.03	0.011	<0.005	<0.005	<0.005	<0.03	<0.02	<0.03	<0.01	0.01	Sweet-Edwards/EMCON 1989a
B-1 (S-5)	12.5	3/7/1989	<0.03	0.016	<0.005	<0.005	<0.005	<0.03	<0.02	<0.03	<0.01	<0.01	Sweet-Edwards/EMCON 1989a
B-1 (S-6)	15.0	3/7/1989	<0.03	<0.01	<0.005	<0.005	<0.005	<0.03	<0.02	<0.03	<0.01	0.01	Sweet-Edwards/EMCON 1989a
B-1 (S-7)	17.5	3/7/1989	<0.03	0.016	<0.005	<0.005	<0.005	<0.03	<0.02	<0.03	<0.01	<0.01	Sweet-Edwards/EMCON 1989a
B-1 (S-8)	20.0	3/7/1989	<0.03	0.016	<0.005	<0.005	<0.005	<0.03	0.04	<0.03	<0.01	0.015	Sweet-Edwards/EMCON 1989a
HA-7		9/30/1989				1.01							Sweet-Edwards/EMCON 1989d
HA-8		9/30/1989				1.01							Sweet-Edwards/EMCON 1989d
HA-9		9/30/1989				1.40							Sweet-Edwards/EMCON 1989d
HA-10		9/30/1989				<0.01							Sweet-Edwards/EMCON 1989d
HA-11		9/30/1989				0.02							Sweet-Edwards/EMCON 1989d
HA-12		9/30/1989				<0.01							Sweet-Edwards/EMCON 1989d
HA-13		9/30/1989				0.16							Sweet-Edwards/EMCON 1989d
B-1 (S-2)	9.5-10.5	11/29/1989				<0.01							Sweet-Edwards/EMCON 1990a
B-2 (S-2)	9.8-11.0	11/29/1989				0.03							Sweet-Edwards/EMCON 1990a
B-3 (S-1)	4.5-6.0	11/29/1989				0.44							Sweet-Edwards/EMCON 1990a
B-5 (S-4)	5.5-7.0	11/30/1989				68.9							Sweet-Edwards/EMCON 1990a
B-5 (S-5)	7.0-8.5	11/30/1989				61.9							Sweet-Edwards/EMCON 1990a
B-5 (S-6)	8.5-9.2	11/30/1989				4.12							Sweet-Edwards/EMCON 1990a

Notes:

"<" indicates analyte was not detected above the specified laboratory reporting limit.

Indicates analysis not performed/reported.

mg/L = milligrams per liter

ft bgs = feet below ground surface

Table A2: Historical Groundwater Investigation Analyses - Monitoring Wells and Reconnaissance Samples

Sample ID	Date	Hydrocarbons (µg/L)		Metals (µg/L)																			VOCs (µg/L)	
		Diesel-range	Oil-range	Antimony	Arsenic	Beryllium	Cadmium	Total Chromium	Dissolved Chromium	Hexavalent chromium	Copper	Dissolved Copper	Lead	Dissolved Lead	Mercury	Dissolved Mercury	Nickel	Dissolved Nickel	Selenium	Silver	Thallium	Zinc	Dissolved Zinc	Acetone	Benzene
Monitoring Wells																								
MW1	6/22/1988							40																
	3/8/1990							332	<5		240	<10	57	<2	0.5	<0.5	360	<20				620	<10	21	<1
	6/16/2005							<20		269														<5	<1
	12/27/2005	<248	<495	<3	32.3	<1	<1	<1		<6.25	1.01		<1		<0.2		<1.00		<1	<1	<1	<10			
	4/18/2006	<260	<520		33			<0.14		<20	<2		<0.016						<1.1						
	7/15/2010	<76	<380		28.1					<1.3	<0.2								<0.1						
MW2	6/22/1988							278																	
	5/5/1989							6																	
	3/8/1990	<50	<50					<5	<5		<10	<10	4	<2	<0.5	<0.5	<20	<20				30	<10	<10/ <10	<1/ <1
	6/17/2005	438	512					<20		<10														17.1	<1
	12/28/2005	1,190	1,040	<3	5.63	<1	<1	8.79		<6.25	1.17		<1		<0.2		2.51		6.28	<1	<1	<10			
	4/19/2006	410	<580		3.8			21		<20	2.5		<0.016												
	7/15/2010	280	<390		2.3			6.7		<6.5	<0.2								0.71						
MW3	6/22/1988							923																	
	5/5/1989							28																	
	3/8/1990							57	<5		40	<10	9	<2	<0.5	<0.5	50	<20				90	<10	<10	<1
	6/7/2005							<20		<10														<5	<1
	12/29/2005	312	<505	<3	15.3	<1	<1	2.15		<6.25	<1.00		<1		<0.2		1.7		<1	<1	<1	<10			
	4/17/2006	<280	<570		13			7.8		<20	<2		<0.016						<1.1						
	7/13/2010	<82	<410		14.5			2.1		<100	<0.2								<0.1						
MW4	3/8/1990							239	<5		150	<10	35	<2	<0.5	<0.5	260	<20				370	<10	<10	<1
	6/9/2005							<20/ <20		<10/ <10														<5/ <5	<1/ <1
	12/27/2005	<248	<495	<3	15.1	<1	<1	<1		<6.25	<1.00		<1		<0.2		1.33		<1	<1	<1	<10			
	4/18/2006	<270	<540		15			2		23	<2		<0.016						<1.1						
	7/15/2010	<78	<390		11.2					<1.3	<0.2								<0.1						
MW5	12/28/2005	831	<495	<3	4.59	<1	<1	497,000		450,000	3.67		<1		<0.2		32.2		<1000	<1	<1	14.0			
	4/19/2006	<260	<510		4.9			382,000		350,000	<2		<0.016						<1.1						
	7/16/2010	130	<390		<0.31			207,600		81,600	<1								<0.52						
MW6	12/29/2005	2,640	1,320	<3	11.9	<1	<1	18.7		<6.25	4.02		<1		<0.2		16.3		12.3	<1	<1	<10			
	4/19/2006	760	1200		24			47		<20	5.1		<0.016						19						
	7/16/2010	730	930		35.7			27.5		<1.3	0.54								2.9						
MW7	12/28/2005	<248	<495	<3	6.62	<1	<1	10.6		7.38	2.12		<1		<0.2		11.8		2.77	<1	<1	10.8			
	4/18/2006	<260/ <260	<510/ <510		7.1/ 7.3			13/ 13		<20 / <20	2.4/ 3.3		<0.016/ <0.016						5.0/ 4.6						
	7/13/2010	<80/ <77	<400/ <380		5.6/ 5.4			1.3/ 1.3		<1.3/ <1.3	2.9/ 2.9								<0.1/ <0.1						
MW8	12/28/2005	1,710/ 1,790	1,000/ 1,210	<3/ <3	6.41/ 7.85	<1 / <1	<1 / <1	7.55/ 8.49		<6.25/ <6.25	<1/ 1.03		<1/ <1		<0.2		2.91/ 3.14		4.11/ 4.27	<1 / <1	<1/ <1	<10 / <10			
	4/18/2006	450	<580		4.8			21		<20	<2		<0.016						3.6						
	7/15/2010	280	<390		6.3			8.4		<6.5	<0.2								<0.1						
Reconnaissance Groundwater Samples																									
GP2	6/9/2005							37,100		4,720			<15000											295	<5
GP4	6/16/2005	0.325	<0.478					267,000		236,000														40.5	<1
GP5	6/16/2005							<20		89.7														7.2	<1
GP6	6/16/2005							343,000		300,000														<100	<20
GP7	6/16/2005							<20		101														<5	<1
GP8	6/16/2005	0.814	<0.479					355,000		294,000														75.8	<1
GP-13	12/14/2005																								
GP-15	12/14/2005																								

Table A2: Historical Groundwater Investigation Analyses - Monitoring Wells and Reconnaissance Samples

Sample ID	Date	VOCs (µg/L)																										
		Bromobenzene	Bromodichloro-methane	Bromoform	Bromomethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	1,1,2-Trichloro-1,2,2,-trifluoroethane	Chlorobenzene	Chlorobromo-methane	Chloroethane	2-Chloroethylvinyl-ether	Chloroform	Chloromethane	1,2-Dibromo-3-chloropropane	2-Chlorotoluene	4-Chlorotoluene	Dibromochloro-methane	1,2-Dibromoethane	Dibromomethane	1,2-Dichlorobenzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	Dichlorodifluoro-methane
Monitoring Wells																												
MW1	6/22/1988																											
	3/8/1990		<1	<1	<1	<10				<1	<1	<10	<1		<1	<10	<1	<1				<1			<1	<1	<1	
	6/16/2005	<1	<1	<1	<1	<5	<1	<1	<1		<1		<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	12/27/2005					<2																						
	4/18/2006																											
	7/15/2010																											
MW2	6/22/1988																											
	5/5/1989																											
	3/8/1990		<1/ <1	<1/ <1	<1/ <1	<10/ <10				<1/ <1	<1/ <1	<10/ <10	<1/ <1		<1/ <1	<10/ <10	<1/ <1	<1/ <1				<1/ <1			<1/ <1	<1/ <1	<1/ <1	
	6/17/2005	<1	<1	<1	<1	5.43	<1	<1	<1		<1		<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<1	
	12/28/2005					<2																						
	4/19/2006																											
	7/15/2010																											
MW3	6/22/1988																											
	5/5/1989																											
	3/8/1990		<1	<1	<1	<10				<1	<1	<10	<1		<1	<10	<1	<1				<1			<1	<1	<1	
	6/7/2005	<1	<1	<1	<1	<5	<1	<1	<1		<1		<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	12/29/2005					<2																						
	4/17/2006																											
	7/13/2010																											
MW4	3/8/1990		<1	<1	<1	<10				<1	<1	<10	<1		<1	<10	<1	<1				<1			<1	<1	<1	
	6/9/2005	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<5/ <5	<1/ <1	<1/ <1	<1/ <1		<1/ <1		<1/ <1	<1/ <1	<1/ <1		<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1
	12/27/2005					<2																						
	4/18/2006																											
	7/15/2010																											
MW5	12/28/2005					34																						
	4/19/2006																											
	7/16/2010																											
MW6	12/29/2005					10.7																						
	4/19/2006																											
	7/16/2010																											
MW7	12/28/2005					<2																						
	4/18/2006																											
	7/13/2010																											
MW8	12/28/2005					17/ 15.5																						
	4/18/2006																											
	7/15/2010																											
Reconnaissance Groundwater																												
GP2	6/9/2005	<5	<5	<5	<5	729	<5	<5	<5		<5	<5					<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GP4	6/16/2005	<1	<1	<1	<1	<5	<1	<1	<1		<1	<1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP5	6/16/2005	<1	<1	<1	<1	<5	<1	<1	<1		<1	<1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP6	6/16/2005	<20	<20	<20	<20	<100	<20	<20	<20		<20	<20					<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
GP7	6/16/2005	<1	<1	<1	<1	<5	<1	<1	<1		<1	<1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP8	6/16/2005	<1	<1	<1	<1	10.3	<1	<1	<1		<1	<1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP-13	12/14/2005					<2																						
GP-15	12/14/2005					2.07																						

Table A2: Historical Groundwater Investigation Analyses - Monitoring Wells and Reconnaissance Samples

Sample ID	Date	VOCs (µg/L)																											
		1,1-Dichloroethene	1,2-Dichloroethane	1,1-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethylbenzene	Hexachloro-butadiene	2-Hexanone	Isopropylbenzene	4-Isopropyl-toluene	4-Methyl-2-pentanone	Methyl tert-butyl ether	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloro-ethane	1,1,2,2-Tetrachloro-ethane	Tetrachloroethene	Toluene	1,2,3-Trichloro-benzene
Monitoring Wells																													
MW1	6/22/1988																												
	3/8/1990	<1	<1	<1	<1	<1	<1				<1	<1	<1		<10			<10		12			<1	<1		<1	<1	
	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	12/27/2005				<0.200	<0.200																							
	4/18/2006				<0.062	<0.091																							
	7/15/2010																												
MW2	6/22/1988																												
	5/5/1989																												
	3/8/1990	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1				<1/ <1	<1/ <1	<1/ <1		<10/ <10			<10/ <10		<10/ <10			<1/ <1	<1/ <1		<1/ <1	<1/ <1	
	6/17/2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	12/28/2005				<0.200	<0.200																							
	4/19/2006				<0.062	<0.091																							
	7/15/2010																												
MW3	6/22/1988																												
	5/5/1989																												
	3/8/1990	<1	<1	<1	<1	<1	<1				<1	<1	<1		<10			<10		<10			<1	<1		<1	<1	
	6/7/2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	12/29/2005				<0.200	<0.200																							
	4/17/2006				<0.062	<0.091																							
	7/13/2010																												
MW4	3/8/1990	<1	<1	<1	<1	<1	<1				<1	<1	<1		<10			<10		<10			<1	<1		<1	<1	
	6/9/2005	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1		<1/ <1	<1/ <1	<5/ <5	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1
	12/27/2005				<0.200	<0.200																							
	4/18/2006				<0.062	>0.091																							
	7/15/2010																												
MW5	12/28/2005				2.42	0.260																							
	4/19/2006				1.1	<0.091																							
	7/16/2010																												
MW6	12/29/2005				<1.00	<1.00																							
	4/19/2006				<0.062	<0.091																							
	7/16/2010																												
MW7	12/28/2005				<0.200	<0.200																							
	4/18/2006				<0.062/ <0.062	<0.091/ <0.091																							
	7/13/2010																												
MW8	12/28/2005				1.03/ 0.920	<0.200/ <0.200																							
	4/18/2006				1.5	<0.091																							
	7/15/2010																												
Reconnaissance Groundwater																													
GP2	6/9/2005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
GP4	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP5	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP6	6/16/2005	<20	<20	<20	144	<20	<20	<20	<20	<20	<20	<20	<20	<20		<20	<20	<100	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
GP7	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP8	6/16/2005	<1	<1	<1	2.26	<1	<1	<1	<1	<1	<1	<1	<1	<1		<1	<1	<5	<1	<1	87	<1	<1	<1	<1	<1	<1	<1	<1
GP-13	12/14/2005				6.03	1.01																							
GP-15	12/14/2005				0.2	<0.2																							

Table A2: Historical Groundwater Investigation Analyses - Monitoring Wells and Reconnaissance Samples

Sample ID	Date	VOCs (µg/L)													PAHs (µg/L)											
		1,2,4-Trichloro-benzene	1,1,1-Trichloro-ethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoro-methane	1,2,3-Trichloro-propane	1,2,4-Trimethyl-benzene	1,3,5-Trimethyl-benzene	Vinyl Acetate	Vinyl chloride	m,p-Xylene	o-Xylene	Total Xylenes	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)-anthracene	Benzo(a)pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Benzo(b+k)-fluoranthene	Benzo(ghi)-perylene	2-Chloro-naphthalene	Chrysene	Dibenzo(a,h)-anthracene
Monitoring Wells																										
MW1	6/22/1988																									
	3/8/1990		<1	<1	<1	<1				<10	<1			<1	<1	<1	<1	<1	<1			<2	<1		<1	<2
	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1		<1	<2	<1													
	12/27/2005				<0.200						<0.200				<0.114	<0.114	<0.114	0.107	<0.0114	0.104	0.108		<0.114		0.132	<0.0114
	4/18/2006				<0.055						<0.14				0.0038 J	0.020 J	0.030 J	0.029 J	<0.057			<0.030	<0.017		0.014 J	<0.011
	7/15/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
MW2	6/22/1988																									
	5/5/1989																									
	3/8/1990		<1/ <1	<1/ <1	<1/ <1	<1/ <1				<10/ <10	<1/ <1			<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1			<2/ <2	<1/ <1		<1/ <1	<2/ <2
	6/17/2005	<1	<1	<1	<1	<1	<1	<1	<1		<1	<2	<1		<0.192	<0.192	<0.192	<0.192	<0.192			<0.962	<0.192	<0.192	<0.192	<0.192
	12/28/2005				<0.200						<0.200				<0.0990	<0.0990	<0.0990	<0.0990	<0.00990	<0.00990	<0.00990		<0.0990		<0.0990	<0.0990
	4/19/2006				<0.055						<0.14				0.015 J	<0.0044	0.035 J	0.031 J	<0.066			<0.034	<0.020		<0.0098	<0.013
	7/15/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
MW3	6/22/1988																									
	5/5/1989																									
	3/8/1990		<1	<1	<1	<1				<10	<1			<1	<1	<1	<1	<1	<1			<2	<1		<1	<2
	6/7/2005	<1	<1	<1	<1	<1	<1	<1	<1		<1	<2	<1													
	12/29/2005				<0.200						<0.200				<0.100	<0.100	<0.100	<0.100	<0.0100	<0.0100	<0.0100		<0.0100		<0.0100	<0.0100
	4/17/2006				<0.055						<0.14				<0.0032	<0.0042	<0.0084	<0.0095	<0.063			<0.033	<0.019		<0.0095	<0.013
	7/13/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
MW4	3/8/1990		<1	<1	<1	<1				<10	<1			<1	<1	<1	<1	<1	<1			<2	<1		<1	<2
	6/9/2005	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1	<1/ <1		<1/ <1	<2/ <2	<1/ <1													
	12/27/2005				<0.200						<0.200				<0.100	<0.100	<0.100	<0.100	<0.0100	<0.0100	<0.0100		<0.0100		<0.0100	<0.0100
	4/18/2006				<0.055						<0.14				0.019 J	0.019 J	<0.0082	<0.0092	<0.061			<0.032	<0.018		<0.0092	<0.012
	7/15/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
MW5	12/28/2005				22.1						<0.200				<0.0990	<0.0990	<0.0990	<0.0990	<0.00990	<0.00990	<0.00990		<0.00990		<0.00990	<0.00990
	4/19/2006				7.9						<0.14				0.0061 J	0.020 J	0.033 J	<0.0086	<0.057			<0.030	<0.017		<0.0086	<0.011
	7/16/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
MW6	12/29/2005				<1.00						<1.00				<0.0990	<0.0990	<0.0990	<0.0990	<0.00990	<0.00990	<0.00990		<0.00990		<0.00990	<0.00990
	4/19/2006				<0.055						<0.14				<0.0031	<0.0041	0.039 J	<0.0093	<0.062			<0.032	<0.019		<0.0093	<0.012
	7/16/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
MW7	12/28/2005				<0.200						<0.200				<0.0990	<0.0990	<0.0990	<0.0990	<0.00990	<0.00990	<0.00990		<0.00990		<0.00990	<0.00990
	4/18/2006				<0.055/ <0.055						<0.14/ <0.14				0.011 J/ 0.004 J	0.028 J/ <0.0041	0.037 J/ 0.029 J	0.035 J/ <0.0091	<0.061/ <0.061			<0.031/ <0.031	<0.018/ <0.0181		0.013 J/ <0.009	0.038 J/ <0.012
	7/13/2010				<0.50/ <0.50						<0.20/ <0.20							<0.015/ <0.015	<0.015/ <0.015	<0.015/ <0.015	<0.015/ <0.015				<0.015/ <0.015	<0.015/ <0.015
MW8	12/28/2005				<0.200/ <0.200						0.560/ 0.400				<0.100/ <0.0990	<0.100/ <0.0990	<0.100/ <0.0990	<0.100/ <0.0990	<0.0100/ <0.00990	<0.0100/ <0.00990	<0.0100/ <0.00990		<0.0100/ <0.00990		<0.0100/ <0.00990	<0.0100/ <0.00990
	4/18/2006				<0.055						0.80 J				<0.0038	<0.0050	<0.010	<0.011	<0.00990			<0.039	<0.023		<0.011	<0.015
	7/15/2010				<0.50						<0.20							<0.015	<0.015	<0.015	<0.015				<0.015	<0.015
Reconnaissance Groundwater																										
GP2	6/9/2005	<5	<5	<5	<5	<5	<5	<5	<5		<5	<1	<5													
GP4	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1		<1	<2	<1			<0.191	<0.191	<0.191	<0.191			<0.954	<0.191	<0.191	<0.191	<0.191
GP5	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1		<1	<2	<1													
GP6	6/16/2005	<20	<20	<20	1130	<20	<20	<20	<20		<20	<40	<20													
GP7	6/16/2005	<1	<1	<1	<1	<1	<1	<1	<1		<1	<2	<1													
GP8	6/16/2005	<1	<1	<1	16.8	<1	<1	<1	<1		<1	<2	<1			0.328	<0.194	<0.194	<0.194			<0.97	<0.194	<0.194	<0.194	<0.194
GP-13	12/14/2005				0.22						16.5															
GP-15	12/14/2005				<0.2																					

Table A2: Historical Groundwater Investigation Analyses - Monitoring Wells and Reconnaissance Samples

Sample ID	Date	PAHs (µg/L)							
		Fluoranthene	Fluorene	Indeno(1, 2, 3-cd)-pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	Naphthalene	Phenanthrene	Pyrene
Monitoring Wells									
MW1	6/22/1988								
	3/8/1990	<1	<1	<2			<1	<1	<1
	6/16/2005								
	12/27/2005	0.384	<0.114	<0.0114	<0.114	<0.114	<0.114	0.159	0.310
	4/18/2006	0.053 J	<0.0076	0.034 J	<0.030	<0.0086	0.011 J	0.024 J	<0.043
	7/15/2010			<0.015					
MW2	6/22/1988								
	5/5/1989								
	3/8/1990	<1/ <1	<1/ <1	<2/ <2			<1/ <1	<1/ <1	<1/ <1
	6/17/2005	<0.192	<0.192	<0.192		<0.481	0.854	<0.192	<0.192
	12/28/2005	<0.0990	<0.0990	<0.00990	<0.0990	<0.0990	0.271	<0.0990	<0.0990
	4/19/2006	0.032 J	<0.0087	<0.016	<0.035	<0.0096	0.93	<0.0052	<0.014
	7/15/2010			<0.015					
MW3	6/22/1988								
	5/5/1989								
	3/8/1990	<1	<1	<2			<1	<1	<1
	6/7/2005								
	12/29/2005	<0.100	<0.100	<0.0100	<0.100	<0.100	<0.100	<0.100	<0.100
	4/17/2006	<0.0095	<0.0084	<0.016	<0.034	<0.0095	<0.0063	<0.0032	<0.014
	7/13/2010			<0.015					
MW4	3/8/1990	<1	<1	<2			<1	<1	<1
	6/9/2005								
	12/27/2005	<0.100	<0.100	<0.0100	<0.100	<0.100	<0.100	<0.100	<0.100
	4/18/2006	0.029 J	<0.0082	<0.015	<0.033	<0.0092	0.011 J	<0.0064	<0.030
	7/15/2010			<0.015					
MW5	12/28/2005	<0.0990	<0.0990	<0.00990	<0.0990	<0.0990	0.457	<0.0990	<0.0990
	4/19/2006	0.032 J	<0.0076	<0.014	<0.033	0.017 J	0.13 J	<0.014	<0.032
	7/16/2010			<0.015					
MW6	12/29/2005	<0.0990	<0.0990	<0.00990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990
	4/19/2006	0.033 J	<0.0083	<0.016	<0.033	0.012 J	0.013 J	<0.011	<0.034
	7/16/2010			<0.015					
MW7	12/28/2005	<0.0990	<0.0990	<0.00990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990
	4/18/2006	0.036 J/ <0.0091	0.039 J/ <0.0081	0.039 J/ <0.015	<0.032/ <0.032	0.014 J/ <0.0091	0.023 J/ 0.019 J	0.022/ <0.0081	<0.037/ <0.013
	7/13/2010			<0.015/ <0.015					
MW8	12/28/2005	<0.100/ <0.0990	<0.100/ <0.0990	<0.0100/ <0.00990	<0.100	<0.100	<0.100/ <0.0990	<0.100/ <0.0990	<0.100/ <0.0990
	4/18/2006	<0.011	<0.010	<0.019	<0.040	<0.011	<0.0075	<0.0038	<0.016
	7/15/2010			<0.015					
Reconnaissance Groundwater									
GP2	6/9/2005								
GP4	6/16/2005	<0.191	<0.191	<0.191		<0.477	<0.477	<0.191	<0.191
GP5	6/16/2005								
GP6	6/16/2005								
GP7	6/16/2005								
GP8	6/16/2005	<0.194	0.298	<0.194		8.56	26.5	5.54	<0.194
GP-13	12/14/2005								
GP-15	12/14/2005								

Notes:
"<" indicates analyte was not detected above the specified laboratory reporting limit.
Indicates analysis not performed/reported.
J qualifier indicates an estimated concentration.
PAHs = polycyclic aromatic hydrocarbons
VOCs = volatile organic compounds
µg/L = micrograms per liter

Table A3: Historical Drainage Ditch Soil Analyses

Sample Location	Sample Depth (ft bgs)	Date	EP TOX Metals (mg/L)											DATA SOURCE
			Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	
PEI-S1	0-0.5	3/22/1989	<0.01	0.750	0.031	0.046	0.054	1.35	<0.0005	0.250	<0.03	<0.01	5.93	Sweet-Edwards/EMCON 1989b
PEI-S2	0-0.5	3/22/1989	0.067	0.087	0.006	0.010	0.041	<0.03	<0.0005	0.058	<0.03	<0.01	0.206	Sweet-Edwards/EMCON 1989b
PEI-S3	0-0.5	3/22/1989	0.078	0.081	0.008	0.055	0.217	0.466	<0.0005	0.272	<0.03	<0.01	4.81	Sweet-Edwards/EMCON 1989b
PEI-S4	0-0.5	3/22/1989	<0.1	0.350	0.020	0.025	0.247	1.22	<0.0005	0.091	<0.03	<0.01	1.65	Sweet-Edwards/EMCON 1989b
PEI-S5	0-0.5	3/22/1989	<0.1/<0.1	0.311/0.172	0.014/0.004	<0.005/<0.005	0.063/0.064	1.09/1.51	<0.0005/<0.0005	0.062/0.034	<0.03/<0.03	<0.01/<0.01	0.876/0.420	Sweet-Edwards/EMCON 1989b
PEI-S6	0-0.5	3/22/1989	<0.1	0.077	0.004	0.508	0.441	0.321	<0.0005	0.044	<0.03	<0.01	0.917	Sweet-Edwards/EMCON 1989b
PEI-B1	0-0.5	3/22/1989	<0.1	0.025	0.002	<0.005	0.064	0.061	<0.0005	0.031	<0.03	<0.01	0.564	Sweet-Edwards/EMCON 1989b
PEI-B2	0-0.5	3/22/1989	<0.1	0.02	<0.002	0.007	0.049	0.102	<0.0005	0.026	<0.03	<0.01	0.282	Sweet-Edwards/EMCON 1989b
PEI-B3	0-0.5	3/22/1989	0.031	0.372	0.013	0.017	0.123	0.218	<0.0005	0.068	<0.03	<0.01	1.10	Sweet-Edwards/EMCON 1989b
PEI-B4	0-0.5	3/22/1989	<0.1	0.142	0.008	0.010	0.056	0.298	<0.0005	0.039	<0.03	<0.01	16.0	Sweet-Edwards/EMCON 1989b
S-7	0-0.5	11/30/1989				0.02								Sweet-Edwards/EMCON 1990a
S-8	0-0.5	11/30/1989				0.26								Sweet-Edwards/EMCON 1990a
S-9	0.5-1.0	11/30/1989				0.05								Sweet-Edwards/EMCON 1990a
S-10	0.5-1.0	11/30/1989				0.09								Sweet-Edwards/EMCON 1990a
S-11	0-0.5	11/30/1989				0.33								Sweet-Edwards/EMCON 1990a

Notes:

"<" indicates substance was not detected above the specified laboratory reporting limit.

Indicates analysis not performed/reported.

mg/L = milligram per liter

ft bgs = feet below ground surface

Table A4: Historical Soil Analytical Results from Tank 1 and 2 Removal

Sample Location	Sample Depth (ft bgs)	Date	Sample Type	EP Toxicity Chromium (mg/L)	Hexavalent Chromium (mg/kg)	
Tanks 1 and 2						
NW-1	Composite	4/25/1990	Characterization		52	Precision Engineering 1993
WW-1	Composite	4/25/1990	Characterization	1.8	96	Precision Engineering 1993
EW-1	Composite	4/25/1990	Characterization		960	Precision Engineering 1993
BW-1	7-8	4/25/1990	Characterization		68	Precision Engineering 1993
PE-430B	11	4/30/1990	Characterization	30	190	Precision Engineering 1993
PE-430E	Composite	4/30/1990	Confirmation		<0.05	Precision Engineering 1993
PE-430S	Composite	4/30/1990	Confirmation	9.6	73	Precision Engineering 1993
PE-430W	Composite	4/30/1990	Confirmation		7.3	Precision Engineering 1993
PE-430N	Composite	4/30/1990	Confirmation		34	Precision Engineering 1993
BW-2	12	5/3/1990	Confirmation		41	Precision Engineering 1993

Notes:

"<" indicates analyte was not detected above the specified laboratory reporting limit.

Indicates analysis not performed/reported.

mg/kg = milligrams per kilogram

ft bgs = feet below ground surface

mg/L = milligrams per liter

Table A5: Historical Soil Analytical Results from Tanks 3, 4, 5, and 6 Removal

Sample Location	Sample Depth (ft bgs)	Date	Sample Type	EP Toxicity Chromium (mg/L)	Hexavalent Chromium (mg/kg)	
WP-1	Concrete floor	3/9/1993	**	34.7		Precision Engineering 1993
WP-2	Concrete floor	3/9/1993	**	4.20		Precision Engineering 1993
WP-3	Concrete floor	3/9/1993	**	3.51		Precision Engineering 1993
WP-4	Concrete floor	3/9/1993	**	17.5		Precision Engineering 1993
WP-5	0-0.5	3/9/1993	Characterization	37.3		Precision Engineering 1993
WP-6	0.5	3/9/1993	Characterization	89.0		Precision Engineering 1993
WP-7	Composite	3/11/1993	**	128	5,300	Precision Engineering 1993
WP-8	Composite	3/11/1993	**	159	7,470	Precision Engineering 1993
WP-9	Composite	3/12/1993	**	174	6,080	Precision Engineering 1993
WP-10	Composite	3/12/1993	Characterization	201	5,810	Precision Engineering 1993
WP-11	Composite	3/12/1993	Confirmation	91	5,760	Precision Engineering 1993
WP-12	Composite	3/12/1993	Confirmation	118	4,180	Precision Engineering 1993
WP-13	Composite	3/12/1993	Confirmation	259	6,650	Precision Engineering 1993
WP-14	Concrete floor	3/12/1993	Characterization	590	37,600	Precision Engineering 1993

Notes:

Indicates analysis not performed/reported.

** indicates a sample that may have been used as backfill within the excavation.

ft bgs = feet below ground surface
mg/L = milligrams per liter
mg/kg = milligrams per kilogram

Appendix G

Vapor Report, VI Assessment, Interim Remedial Actions, VI Priority Work Plan

Appendix G-1
Selected Pages from 2020 Vapor Report

VAPOR REPORT

VAPOR INTRUSION ASSESSMENT
INTERIM REMEDIAL ACTIONS
VAPOR INTRUSION PRIORITY WORK PLAN
PRECISION ENGINEERING, INC., SITE

Prepared for
DICK MORGAN
December 30, 2020
Project No. 1803.01.02

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MAUL
FOSTER
ALONGI

3.2 Fate and Transport

The primary mechanism likely to influence the fate and transport of volatile chemicals at the Site is volatilization of chemically impacted soil and/or shallow groundwater. Volatile contaminants may partition to the vapor phase, resulting in impacts to sub-slab soil gas. Soil gas may migrate via VI to air within the building and to ambient air. Vapor migration likely occurs along preferential pathways, including perforations (e.g., utility penetrations), cracks, and seams in the concrete building slab; and along utility corridors.

It is expected that once vapors have entered the building, attenuation will occur during the normal workday because of ventilation provided by multiple open bay doors (see Figure 2-1). The building's heating, ventilation, and air conditioning (HVAC) system was assessed as part of the response actions described in Section 5. HVAC system configuration and operation and their potential influence on indoor air quality are discussed in Section 5.2.4.

3.3 Potential Exposure Scenarios

Depending on the extent of impacts at the Site, the following are potentially current or future exposure pathways related to vapor:

- Inhalation of VOCs in indoor air impacted by VI from VOC-impacted soil and/or groundwater beneath the building
- Inhalation of VOCs in ambient air (i.e., outdoor air) impacted by vapors emanating from VOC-impacted soil and/or groundwater

These potential exposure pathways will be evaluated further in the RI.

3.4 Potential Receptors

The following current and future receptors who may potentially be exposed to chemicals in vapor at the Site:

- On-site occupational workers
- General public
- Construction and trench workers

4 INITIAL VAPOR ASSESSMENT

An initial vapor assessment was conducted at the Site from February 1, 2020, to February 13, 2020. The assessment included collection of indoor air, ambient air, sub-slab soil gas, and passive indoor air samples (see Table 4-1). Sampling was conducted in general accordance with the VI work plan;

changes in the VI assessment scope of work were made in coordination with Ecology (MFA, 2019). Initial vapor assessment and follow-up vapor assessment, response actions, and IRA activities are summarized in Table 4-1. Table 4-2 summarizes the vapor samples collected during those activities; Table 4-3 presents vapor analytes and associated screening criteria; analytical results are presented in Tables 4-4 to 4-7.

The indoor air, sub-slab soil gas, and ambient air samples were analyzed for TCE and its breakdown products. Passive indoor air samples were analyzed for TCE. Samples were screened to MTCA Method B indoor air CULs and VI screening levels for sub-slab soil gas, as well as the TCE short-term indoor air action level for workplace exposure provided in Ecology's Implementation Memo No. 22 (Ecology, 2019).

4.1 Field and Analytical Methods

4.1.1 Sub-Slab Soil Gas

On February 1, 2020, four sub-slab soil gas samples were collected, each from one of four locations (A8 to A11) inside the building (see Figure 4-1), using the Cox-Colvin & Associates, Inc. Vapor Pin™ system installed with a roto-hammer. To avoid air breakthrough, depressurized 1-liter Summa canisters were used in sample collection. As a quality assurance measure, to check for potential leaks in the sampling system, the sampling apparatus and vapor pin were contained in a helium shroud during sampling, and the samples were analyzed for helium. Field photographs of the sampling apparatus are provided in Appendix B. Additional sampling protocols are presented in the VI work plan (MFA, 2019). A sub-slab soil gas sample could not be collected from one of the planned sample locations in the northwest corner of Warehouse 1 because groundwater was in direct contact with the building slab.

Sub-slab soil gas samples were analyzed for helium by ASTM International Method D-1946, and for TCE and TCE breakdown products by U.S. Environmental Protection Agency (EPA) Method Toxic Organics (TO)-15. Additional sample information is presented in Table 4-2.

4.1.2 Indoor Air

Eight 24-hour indoor air samplers (i.e., 6-liter Summa canisters with 24-hour flow controllers) were deployed, each in one of eight locations (IA8 to IA15) inside the building, on February 1, 2020, and were collected on February 2, 2020 (see Figure 4-1). Field photographs of the sampling apparatus are provided in Appendix B. The Summa canisters were placed 3 to 5 feet above the floor, in the anticipated breathing zone. Twenty-four-hour indoor air samples were analyzed for TCE and TCE breakdown products by EPA Method TO-15. Additional sample information is presented in Table 4-2.

4.1.3 Ambient Air

Five 24-hour ambient air samplers (i.e., 6-liter Summa canisters with 24-hour flow controllers) were deployed, each in one of five locations (AA1 to AA5) around the perimeter of the Property, upwind

of the building, on February 1, 2020, and were collected on February 2, 2020 (see Figure 4-1). Twenty-four-hour ambient air samples were analyzed for TCE and TCE breakdown products by EPA Method TO-15. Additional sample information is presented in Table 4-2.

As discussed in the VI work plan (MFA, 2019), ambient air samples were collected to evaluate possible off-Property TCE vapor sources. To identify a potential source of TCE detected in the ambient air samples, wind speed and direction data were collected during the sampling event (see Section 4.1.5).

4.1.4 Passive Indoor Air

Three 12-day passive indoor air samplers (Radiello 130 passive samplers [RAD130s]) were deployed, each in one of three locations (RAD1 to RAD3), on February 1, 2020, and were collected on February 13, 2020 (see Figure 4-1). Field photographs of the sampling apparatus are provided in Appendix B. For comparison to the short-term TCE action level, passive samples were collected in areas where female occupational workers of childbearing age were known to work or were likely to spend time during the workday; these samples were collected in the office (RAD1), just inside the shipping and receiving bay door in Warehouse 3 (RAD2), and in Warehouse 1 near the front desk (RAD3). A trip blank sample was also collected and analyzed. Passive samples were analyzed for TCE by modified EPA Method TO-17.

RAD130s were placed 3 to 5 feet above the floor, in the anticipated breathing zone and consistent with 24-hour indoor air sample collection heights. Samplers were deployed in accordance with manufacturer instructions and sampling protocols as provided in the VI work plan (MFA, 2019).

4.1.5 Atmospheric Conditions

A Davis Instruments Vantage Pro2 weather station was placed on the roof of the building on January 31, 2020, to collect atmospheric readings during vapor sampling events (see Appendix C). Temperature, wind direction, wind speed, and barometric pressure readings were collected every 15 minutes. At times, the weather station had connectivity issues or was blown over by strong winds; during these periods, data from the nearest King County weather station supplemented weather station data.

4.2 Analytical Results

Laboratory analytical reports are provided in Appendix D. Analytical data and the laboratory's internal quality assurance and quality control data were reviewed to assess whether they met data quality objectives, consistent with EPA procedures for evaluating laboratory analytical data (EPA, 2014a,b). A memorandum summarizing data validation procedures, data usability, and deviations from specific field and/or laboratory methods is provided in Appendix E. All analytical results were deemed usable, with the assigned qualifiers, for their intended use.

4.2.1 Sub-Slab Soil Gas

Sub-slab soil gas analytical results are summarized in Table 4-4 and shown on Figure 4-2.

TCE was detected above the MTCA Method B screening level of 12 micrograms per cubic meter (ug/m^3) in all sub-slab soil gas samples. The highest TCE concentration, 1,100 ug/m^3, was detected at sample location A9, near the former TCE tank (see Figures 4-2). Other detections of TCE in sub-slab soil gas samples ranged from 29 to 160 ug/m^3.

Cis-1,2-dichlorethene was also detected in samples A9 and A10 at 21 and 40 ug/m^3, respectively. No other TCE breakdown products were detected in the sub-slab soil gas samples.

4.2.2 Indoor Air

Indoor air analytical results from the initial vapor assessment are summarized in Table 4-5 and shown on Figure 4-2.

In all indoor air samples, TCE was detected above the MTCA Method B indoor air CUL of 0.33 ug/m^3 and the TCE short-term action limit of 7.5 ug/m^3. TCE concentrations ranged from 110 to 340 ug/m^3. All indoor air samples from sample location IA11 showed concentrations of 1,2-dichloroethane above the MTCA Method B indoor air CUL of 0.096 ug/m^3. No other TCE breakdown products were detected in the indoor air samples.

4.2.3 Ambient Air

Ambient air analytical results are summarized in Table 4-6 and shown on Figure 4-2.

TCE was not detected in any ambient air samples. 1,2-Dichloroethane was detected in all samples at 0.065 ug/m^3, below the MTCA Method B indoor air CUL of 0.096 ug/m^3.

4.2.4 Passive Indoor Air

Passive indoor air analytical results from the initial vapor assessment are summarized in Table 4-7. Sample locations are shown on Figure 4-1.

All passive samples contained concentrations of TCE above the TCE short-term action limit of 7.5 ug/m^3. TCE detections ranged from 110 to 170 ug/m^3, which is within the range of concentrations observed in the 24-hour initial indoor air samples (see Section 4.2.2).

4.2.5 Atmospheric Conditions

Atmospheric data for all vapor sampling events are provided in Appendix C.

Atmospheric conditions were measured using the on-Property weather station during the 24-hour indoor and ambient air sampling event, as described in Section 4.1.5. Wind was predominantly from the south but varied from the northeast to the south (see the wind rose provided in Appendix C). Observed fluctuations in atmospheric conditions were up to 0.1 inches of mercury in barometric pressure, 12.1 degrees Fahrenheit in temperature, and 10 miles per hour in wind speed (see charts in Appendix C).

During indoor air sampling on May 2 and 3, barometric pressure steadily increased across the 24-hour sampling period. Generally, increases in barometric pressure may result in reduced vapor intrusion. The range of barometric pressure recorded during the sampling (29.38 to 29.81 inches of mercury) was comparable to pressure range recorded over the three-week sampling event from May 15 to June 5 (29.23 to 29.78 inches of mercury). Additionally, the passive samplers deployed over a three-week period captured fluctuations in pressure, and TCE results from passive samples were below action levels.

The on-Property weather station was not functioning properly during the 12-day passive indoor air sampling event. While it did record barometric pressure measurements, it did not record wind speed, wind direction, or temperature data. Supplemental temperature data were obtained from the King County Renton Road weather station. Observed fluctuations in atmospheric conditions were up to 0.8 inches of mercury in barometric pressure and 21.1 degrees Fahrenheit in temperature (see Appendix E).

4.3 Discussion

TCE results for sub-slab soil gas, indoor air, and ambient air samples collected during the initial vapor assessment are shown in Figure 4-2.

TCE and TCE breakdown products were not detected in ambient air samples. These data suggest that no significant sources of TCE vapors were present during the sampling period in upwind locations from the northeast to the south. While these results do not rule out potential off-Property sources, they indicate that an off-Property source was not present during the sampling period and therefore was not contributing to concentrations of TCE and TCE breakdown products detected in indoor air.

No TCE sources associated with current operations were identified during the preliminary site visit (MFA, 2019) or during any of the field activities described in Sections 4 through 6 of this report.

The ambient air results and lack of known, significant VOC sources associated with current operations on the Property, as discussed in the VI work plan (MFA, 2019), and the elevated TCE concentrations detected in sub-slab soil gas samples, suggest that soil and groundwater contamination beneath the building is the primary source of TCE vapor in indoor air.

Wind from the northwest was not measured to be blowing into the Property during the sampling period. Given the steep, approximately 30-foot-high slopes along the north and west boundaries of the Property, it is not likely that the Property typically receives wind from those directions. Therefore, the absence of wind blowing from that direction during the sampling event is not considered a data gap. If an outdoor air TCE source were present in that upwind direction, it would be considered unlikely to impact the Property as the Property is sheltered from receiving wind from that direction.

The highest TCE concentration detected in sub-slab soil gas was in sample location A9, near the former TCE tank (see Figures 4-2). This suggests that the TCE vapor source (i.e., sub-slab TCE-impacted soil and groundwater) is in that area. The extent of TCE in sub-slab soil gas, groundwater, and soil has not been fully delineated. Additional work will be proposed in the RI work plan to better characterize the release for remediation.

The highest indoor air TCE concentrations were observed not in the samples collected closest to sub-slab soil gas location A9, which was located in Warehouse 1, but in sample locations IA9 and IA10, which were located in Warehouse 2 (see Figure 4-2). Indoor air concentrations likely are influenced by indoor air movement and ventilation.

As discussed above, sources of TCE associated with current operations or off-Property activities were not identified during the initial vapor assessment. As noted in Section 3.1, KJC stated in their 2015 RI report that TCE in indoor air was more than twice the concentration of TCE sub-slab soil gas, indicative of a potential source of TCE other than VI. However, KJC formed this conclusion with very limited vapor data: one sub-slab soil gas sample and one indoor air sample. Both samples were collected in the north-central portion of Warehouse 1, approximately 100 feet northeast of the former TCE tank.

During MFA's initial vapor assessment, eight indoor air and four sub-slab soil gas samples were collected from locations throughout Warehouse 1 and 2. TCE was detected in MFA sub-slab soil gas sample A9, located near the former TCE tank, at a concentration of 1,100 ug/m^3. This TCE detection is higher than the concentration of TCE detected in the KJC sub-slab soil gas sample at 95 ug/m^3, and higher than the TCE concentrations detected in all indoor air samples collected during the initial vapor assessment.

Concentrations of TCE in indoor air exceeded sub-slab soil gas concentrations in several areas during MFA's initial vapor assessment, suggesting that sub-slab soil gas may be migrating below the slab before entering the building and/or VI may be occurring at locations with higher sub-slab soil gas concentrations and migrating in indoor air via the HVAC system and other indoor air currents. Vapor migration may have contributed to the elevated concentration of TCE in the KJC indoor air sample. It is also possible that there may have been cross-contamination between sub-slab soil gas and indoor air in KJC's sample. When indoor air and sub-slab soil vapor sample locations are co-located, sampling precautions should be taken to avoid cross-contamination. Ecology recommends installing sub-slab vapor points after indoor air sample collection or, if installed before, to allow sufficient time for indoor vapor concentrations to return to pre-installation levels (Ecology, 2018). KJC installed the co-located sub-slab vapor pin approximately two and a half hours before collection of the indoor air sample and collected their sub-slab soil gas sample approximately 30 minutes before (KJC, 2015). It is unclear if that was sufficient time for concentrations to return to pre-installation levels.

Additionally, TCE vapors volatilizing from chemically-impacted groundwater seeping into the evaporator pit may have contributed to elevated concentrations of TCE in the KJC indoor air sample. However, it is unknown if groundwater seepage was occurring in the pit during the KJC RI vapor assessment.

TCE concentrations detected in the 24-hour indoor air samples exceeded the TCE short-term action limit. As stated in Ecology's Implementation Memo No. 22, exceedances of the TCE short-term indoor air action level require prompt action to quickly reduce concentrations of TCE and protect building occupants. Based on that finding, prompt response actions were developed in coordination with Ecology to reduce TCE concentrations below the short-term indoor air action level, as discussed in Section 5. The 24-hour sampling period was conducted under "worst case" conditions, designed to promote maximum VI (i.e., doors and windows closed, outside working hours). Therefore, one of the

first response action steps was to resample TCE in indoor air during an eight-hour workday to better represent potential worker exposure. The second indoor air sampling event was conducted before the collection of the passive indoor air samples, as discussed below.

Based on the results of that event, air purification was identified as a prompt response action to reduce indoor air TCE concentrations for the protection of human health, as required by Ecology's Implementation Memo No. 22. The passive samplers, which were intended to be deployed for three weeks for comparison to the short-term action limit, which is based on an average three-week exposure duration, were collected before air purification started (12 days from their deployment). The passive air results indicate that TCE concentrations averaged over that 12-day period, which represent conditions during and outside a normal workday, were above the short-term action limit. These results suggest that average indoor air quality was adversely impacted by TCE.

VI is influenced by atmospheric conditions, most notably barometric pressure. Periods of rapidly falling barometric pressure can promote VI and, conversely, VI may be mitigated by rapidly rising barometric pressure. Whereas atmospheric conditions did fluctuate during the sampling events, the range of barometric pressures observed is consistent with typical daily fluctuations. Barometric pressure changes are often as much as 0.7 inches over a day (Electric Power Research Institute, Inc., 2005); 0.1- and 0.8-inch mercury changes in barometric pressure were observed during the 24-hour and three-week sampling periods, respectively. The atmospheric data indicate that while weather conditions did vary during the three-week sampling period, as indicated by periods of rising and falling barometric pressure, no highly variable weather patterns were observed that may have significantly impacted VI assessment results. As such, the three-week samples are considered sufficient to have captured conditions over typical weather variations and were not adversely impacted by extreme weather conditions.

5 RESPONSE ACTIONS

The exceedances of the short-term TCE action limit required urgent response per Ecology's Implementation Memo No. 22 (Ecology, 2019). After receiving analytical results from the initial assessment, MFA worked with the building owner, Ecology, and the Washington State Department of Health (DOH) to implement prompt response actions to reduce indoor air concentrations of TCE to below action levels while IRAs were developed and to better understand worker exposure through additional sampling. The response actions consisted of communication with the building owners and employees working in the building, additional vapor sampling, an HVAC system assessment, and installation of mobile air-purification units.

5.1 Building Owner and Occupant Outreach

After the VI assessment, MFA met with Lee Frazier, the building and Property owner and the owner and president of Pacific Industrial Supply, Inc., to discuss the results of the VI assessment, the installation of air-purifying units, and plans for IRAs. MFA staff also facilitated a meeting with Pacific Industrial Supply staff on February 10, 2020. During that meeting the results of the initial VI

assessment and next steps were explained and staff were provided with a TCE fact sheet from Ecology.

5.2 Additional Assessments

In response to TCE exceedances identified during the vapor assessment, MFA conducted additional screening for preferential pathways and TCE sources and assessed worker exposure and the former evaporator pit.

5.2.1 Site Visit and Screening

On February 11, 2020, MFA conducted a follow-up site visit to evaluate potential TCE sources and potential VI pathways and to identify sample locations for an assessment of TCE in indoor air during an eight-hour workday. The site visit included an interview of the building owner; field observations; and qualitative, real-time measurements of VOCs in indoor air, using a photoionization detector (PID).

Prior to the collection of the second round of indoor air samples, a Honeywell ppbRAE 3000 PID equipped with a 10.6-electron volt lamp was used to qualitatively screen the building for potential areas of increased VI. The PID readings are considered qualitative because the PID is not capable of measuring TCE concentrations alone but measures all VOCs present in air. The PID model and lamp combination was chosen for its ability to read low-level VOC concentrations. If only TCE were present, the PID would be capable of reading concentrations as low as 2 ug/m^3, below the short-term action limit of 7.5 ug/m^3.

Cracks, joints, pipes, and pins in the slab were screened with the PID and compared to ambient air readings in each room of the building. Peak readings were recorded for each general area of the three warehouses, and any sizeable spikes in readings were noted. Activities believed to be potential sources of observed VOC spikes at the time the of the PID screening include the use of gas-powered forklifts, spray painting, and chain degreasing. Locations with the highest observed PID spikes that did not appear to be attributable to work operations were selected as locations for additional indoor air sampling, as discussed in Section 5.2.3.

5.2.2 Evaporator Pit

The former evaporator pit was a 140-cubic-foot concrete pit that was left exposed after Precision ceased operations on the Site. Standing water observed in the pit was attributed to groundwater seepage, which was later confirmed by the presence of a crack in the concrete bottom of the pit observed during its decommissioning (see Section 6.1). A water sample was collected from the pit on February 11, 2020, using a disposable bailer, and was analyzed for total petroleum hydrocarbons (diesel- and residual-oil-range organics), arsenic, chromium, and TCE.

All chemicals for which analyses were conducted were detected in the grab sample from the evaporator pit. Detections included 1.4 micrograms per liter (ug/L) TCE; 3,900 ug/L diesel-range petroleum hydrocarbons; 2,500 ug/L residual-oil-range hydrocarbons; 994,000 ug/L total chromium; and 6.08

ug/L total arsenic. The analytical laboratory indicated that diesel-range hydrocarbons and oil-range hydrocarbons results had chromatographic patterns that most closely resemble a cutting oil, transformer oil, or a fuel metabolite (Erdahl, 2020). These fuel types will be further assessed in the RI. Table 5-1 shows analytical results and screening levels. The analytical lab report is included in Appendix D, and data are assessed in the data validation memorandum included as Appendix E. The results were consistent with chemical concentrations observed in previous shallow groundwater samples collected from monitoring wells on the Property, suggesting that the source of the water was groundwater seepage. Chromium concentrations in the sample qualified the water as hazardous waste for disposal purposes.

No VI screening level is available for TCE in indoor standing water. The TCE concentration was equal to, but did not exceed the VI Method B groundwater screening level. However, standing water in the evaporator pit was directly exposed to indoor air. The groundwater screening level assumes 1,000 times attenuation vapor between groundwater and indoor air. Therefore, the screening level applied, while not directly applicable to standing water in the evaporator pit, indicates the potential for TCE to volatilize to indoor air at unacceptable concentrations. Based on these results, water in the pit was identified as groundwater seepage and a source of TCE in indoor air. An interim action was conducted to remove water from the pit and to prevent future groundwater seepage (see Section 6.2). A location immediately adjacent to the pit was selected as a sample location for the additional round of eight-hour indoor air sampling to further evaluate the pit as a source of TCE in indoor air.

5.2.3 Worker Exposure Assessment

On February 11, 2020, as part of the worker exposure assessment, five indoor air samples were collected using 6-liter Summa canisters with eight-hour flow controllers. Sample canisters were deployed at the start of the workday and were collected after eight hours. During the collection period, the facility operated normally, including providing ventilation by open bay doors. No air purification took place during the sample collection.

Samples were collected in areas where women potentially of childbearing age were observed to be working (IA17 in the second-story sewing shop and IA16 in the office); near the evaporator pit (IA18); in the location where the highest sub-slab soil gas TCE concentration had been detected during the initial vapor assessment (IA19, near A9); and in the central portion of the building, in Warehouse 2 (IA20). Sample locations are shown in Figure 4-1. A sample collection summary is provided in Table 4-2. Analytical results are provided in Table 4-5. The laboratory analytical report and data validation results are provided in Appendices D and E, respectively. Time series plots for atmospheric conditions recorded during the sampling period are provided in Appendix C.

TCE concentrations exceeded MTCA Method B CULs in all five samples, and the short-term TCE action level of 7.5 ug/m^3 in all but one sample (IA16, located in the office). TCE detections ranged from 2.8 to 110 ug/m^3. The TCE exceedances of the short-term action limit demonstrated a need for prompt response actions to reduce indoor air concentrations. Based on these results and in consultation with Ecology, DOH, and the building owner, actions taken to reduce TCE concentrations included an evaluation of the HVAC system and air purification, as discussed in the following sections.

5.2.4 HVAC System

MFA contracted with the Welsh Commissioning Group, Inc., to assess the HVAC system to identify potential improvements that would increase building pressurization and/or ventilation to mitigate VI. A report summarizing the findings of that assessment is included as Appendix F. HVAC assessment findings relevant to the potential for mitigation of TCE in indoor air are described below.

During regular operations, the warehouse rollup doors are typically left open to increase air flow throughout the building and to provide access for forklift and truck traffic. This prevents steady pressurization of some areas of the warehouse would reduce the effectiveness if a new HVAC system were installed. The main administrative office is one of only a few areas in the building with a contained HVAC system. The assessment found that while certain components of the building's HVAC system were outdated, upgrading the system would not be the most efficient way to reduce vapor concentrations inside the building. Based on these findings, no HVAC system adjustments or modifications were recommended as response actions.

5.3 Air Purification

5.3.1 Air Purifier Installation, Operation, and Maintenance

On February 13, 2020, three HEPA-AIRE® PAS2400 air-purifying units with activated charcoal filters were installed at the Site to reduce indoor air TCE concentrations. The units were placed in areas where women potentially of childbearing age typically work for extended periods, including on the first floor of the main office and the second floor of the sewing room, as well as at the south end of the first warehouse to purify air in the space patronized by customers (see Figure 4-1). Each unit contained a prefilter to remove large dust or particulates, VL2002 high-capacity active carbon filter to remove TCE and other VOCs, and a high-efficiency particulate air (HEPA) filter for fine particulates. The internal carbon filter was delivered wrapped in plastic packaging. The packaging was removed and the filters installed on February 17, 2020. Detailed specifications and operating assumptions for the units are provided in Appendix G.

The units in the warehouse and the sewing room were operated on the "low" setting. Facility staff requested that the unit in the main office be operated on the "high" setting because it reportedly ran more quietly on that setting.

A conservative carbon filter change-out schedule of once per week was selected for each air-purifying unit, based on the calculated TCE removal capacity of the carbon filters (see Appendix G). During the weekly carbon filter replacement visits, other maintenance was conducted on the units, including collecting PID readings to qualitatively assess, in real time, the air purifiers' effectiveness in removing VOCs; to perform a visual check to evaluate the potential need to replace the prefilters and HEPA filters; and to ensure that the units were functioning properly.

Before replacement of the carbon filter, PID readings were collected from the inlet and outlet of each unit. For each reading, the PID was allowed to stabilize and the peak reading was recorded. This procedure was repeated after the carbon filter was replaced. PID readings were used as a qualitative

field check that air purifiers were functioning properly and reducing concentrations of VOCs in indoor air. VOC concentrations in indoor air were confirmed by post-air purification indoor air sampling. PID readings, unit maintenance activities, and observations are summarized in Table 5-2.

PID readings, although only a qualitative indicator of air purifier TCE removal, exhibited lower results at the filter outlets than at the inlets, both before and after replacement of the carbon filters (see Table 5-2); however, the difference in concentrations was generally greater in the postfilter replacement readings than in the prefilter replacement readings. These observations suggest that the carbon filters were still removing VOCs from air after approximately one week of continuous operation of the air purifiers, but that the replacement filters were more effective at removing VOCs.

Spent filters were placed in sealed 55-gallon drums awaiting waste characterization for disposal. On May 4, 2020, two composite filter samples were collected for analysis. Each sample consisted of filter fabric and the activated carbon material collected from several filters in different drums. Samples were analyzed for TCE, arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver, using the toxicity characteristic leaching procedure. Both samples were non-detect for all analytes (see lab report in Appendix H). Filters were disposed of in the on-Property dumpster, the contents of which are subsequently disposed of in a municipal subtitle D landfill.

On April 9, 2020, based on visual observations that the filters were becoming noticeably dirty, the HEPA filters were replaced in all three units and the prefilter was replaced in the unit located in the office (see Table 5-2). Photographs of the units are available in Appendix B.

The air purifiers were run continuously from February 13, 2020, until May 14, 2020, except for during a sampling event conducted from May 2, 2020 through May 3, 2020.

5.3.2 Performance Sampling

To ensure that the air-purifying units were reducing indoor air TCE concentrations to below the short-term action limit, indoor air sampling was conducted while the units were in operation. An eight-hour indoor air sampling event and a three-week passive indoor air sampling event were conducted. Sampling activities are summarized in Tables 4-1 and 4-2. Analytical results are summarized in Tables 4-5 and 4-7. Analytical laboratory reports and data validation results are provided in Appendices D and E, respectively. Time series plots for atmospheric conditions recorded during the sampling period are provided in Appendix C.

Three indoor air samples to be analyzed for TCE were collected on February 20, 2020, using 6-liter Summa canisters with eight-hour flow controllers. Each sample was taken from the vicinity of an air purifier unit to determine the effectiveness of the response action (sample locations IA16, IA17, and IA19; see Figure 5-1). In all three samples, TCE was detected above MTCA Method B indoor air CULs, but below the short-term action limit (see Table 4-5 and Figure 5-1).

Three RAD130s were deployed on February 20, 2020, and were collected for analysis after three weeks (sample locations RAD1, RAD4, and RAD5; see Figure 5-1). The RAD130s were collocated with the Summa canister samples described above. All three passive samples were analyzed for TCE;

concentrations were above MTCA Method B indoor air CULs but below the short-term action limit (see Table 4-5 and Figure 5-1).

The performance sampling results showed TCE reductions with air purification in all locations sampled (see Figure 5-1). Pre-IRA TCE concentrations in indoor air ranged from 110 to 340 ug/m^3, while post-IRA concentrations ranged from non-detect to 2.6 ug/m^3. These results suggest that air purification effectively reduced TCE to below concentrations that pose a short-term health threat, but also suggested that concentrations remained unacceptable for long-term, chronic exposure.

6 INTERIM REMEDIAL ACTIONS

Air purification was identified as a temporary, short-term TCE mitigation measure. IRAs that would provide long-lasting and more reliable TCE mitigation in indoor air were identified. The following two IRAs were selected in consultation with the building owner and Ecology:

- Sealing perforations in the concrete building slab that may be acting as preferential pathways for VI
- Decommissioning the evaporator pit that had been identified as a potential source of TCE vapors in indoor air because of groundwater seepage

Photodocumentation of the IRAs is provided in Appendix B.

6.1 Sealing Concrete Building Slab

Between April 14, 2020, and April 29, 2020 Advance Environmental, Inc. (Advance) made several trips to the Site to seal perforations in the building slab, including cracks, seams, and utility penetrations. Advance worked progressively through the three warehouses to seal all accessible perforations.

The first step in the sealing process was to use a shop vacuum to remove dirt and debris. If that was not successful, a wire brush was used to loosen material before vacuuming it out. After cleaning, sealant was applied to fill up to the existing slab surface. Two kinds of sealant with similar properties were used interchangeably: Sikaflex® 1C SL and Quikrete® concrete sealant.

Some cracks in the slab were wide and penetrated the full thickness of the slab. When product was placed in these cracks, it would sink down into the crack and fail to form a seal. In these cases, dry mix concrete was placed in the crack before applying sealant and/or the sealant was applied multiple times. The sealant was left to cure for 24 hours without foot or vehicle traffic. Photos of the sealant application process are provided in Appendix B.

6.2 Evaporator Pit Decommissioning

Decommissioning of the evaporator pit was conducted to remove TCE-containing water from the pit and stop future seepage of groundwater into the pit. Water present in the pit due to groundwater seepage was identified as a source of TCE in indoor air (see Section 5.2.2). Decommissioning of the evaporator pit involved removal and disposal of standing water and debris, sealing cracks in the walls, backfilling, and capping the pit with concrete. The decommissioning was conducted on April 13, 2020. MFA contracted Advance to lead decommissioning activities. MFA contracted Stericycle to pump water out of the pit for disposal using a vacuum truck. A total of 743 gallons of water was removed for off-site disposal (Appendix H). Based on the previous water sampling results, i.e., high chromium concentrations (see Section 5.2.2), the water was characterized as regulated hazardous waste for disposal purposes. It was assumed that any debris encountered and removed from the pit would be saturated with water with hazardous levels of chromium; therefore, debris was also treated as hazardous waste for disposal.

Solid waste removed from the pit included nine wooden pallets, a small motor, and other small debris such as plastic bottles and a tape measure. The materials were placed on a layer of visqueen sheeting for staging and then broken down and packaged into 1-cubic-yard CleanPak® waste totes for disposal. The totes were stored on site until pickup and transport to a hazardous waste landfill by Cascade Environmental (see Appendix H).

After the contents of the pit had been removed, the pit was sprayed down with potable water to rinse any remaining residue from the pit walls. Rinse water was removed by the vac truck and the pit was monitored for groundwater seepage infiltrating through cracks. Water was observed to infiltrate into the pit from the bottom of the northwest corner. This fluid was once again removed with the vac truck and the pit was rinsed a final time before Advance began to fill the pit.

Approximately 800 pounds of dry-mix concrete was added in the base of the pit and used to seal up cracks. After initial placement, the pit was observed for additional infiltration. Areas where water was still entering the pit were sealed with additional concrete until the seeping stopped. After concrete placement, 5.5 loose cubic yards of gravel was placed in the pit and compacted in 6-inch lifts, using hand tamping to a final volume of 4 cubic yards. The gravel surface was then leveled and 5 inches of mixed concrete was poured to match the existing grade of the building slab. Photodocumentation of the decommissioning is provided in Appendix B.

6.3 Confirmation Vapor Sampling

The following two indoor air monitoring events were conducted after completion of the IRAs to assess their effectiveness at reducing TCE concentrations:

- An initial 24-hour event to assess TCE under "worst-case conditions," without air purification and with no workers present
- Based on favorable results from the initial test, a three-week passive air monitoring period to assess whether favorable conditions were sustained without air purification

Sampling activities are summarized in Tables 4-1 and 4-2. Analytical results are summarized in Tables 4-5 and 4-7. Analytical laboratory reports and data validation results are provided in Appendices D and E, respectively.

Air purification, which had been operating continuously since February 13, 2020, and throughout implementation of the IRAs, was paused to allow the initial round of post-interim-action indoor air monitoring. The monitoring event was conducted over a weekend when workers were not present to avoid the potential for exposure to TCE in the absence of air purification.

Four indoor air samples were collected using 6-liter Summa canisters with 24-hour flow controllers. Sample canisters were deployed on May 2, 2020, after the air purifying units had been shut off and the building closed up for approximately 22 hours. Canisters were collected after 24 hours. Conditions were controlled during the sampling period to create worst-case conditions for TCE buildup in indoor air. Business and commercial operations were shut down and doors and windows were sealed to maximize the potential for VI. Air purification was immediately resumed following sample collection and before workers returned.

Samples were collected from the three air purifier locations (IA16, IA17, and IA19) and adjacent to the former evaporator pit (IA18) (see Figure 5-2). TCE was not detected in any of the samples (see Table 4-5 and Figure 6-1). Based on these results, a determination was made in consultation with Ecology to cease air purification and proceed with passive air sampling to assess whether reduced TCE concentrations would be sustained over a three-week sampling period.

On May 15, 2020, the air purifiers were turned off and removed and three RAD130s were deployed in the air purifier locations (RAD1, RAD4, and RAD5, colocated with the 24-hour sample locations; see Figure 5-2). The RAD130s were collected for analysis after three weeks, on June 5, 2020, and the samples analyzed for TCE. TCE concentrations in all passive samples were below the short-term action limit (see Table 4-7 and Figure 5-2).

Temperature and barometric data were collected from the nearby Renton Road and Salmon Creek weather stations, respectively, during the sampling periods. Time series plots are provided in Appendix C.

The confirmation monitoring results indicate that the IRAs successfully reduced indoor air TCE concentrations. A comparison of pre- and post-interim-action TCE concentrations in indoor air is shown in Figure 5-2. In the locations that were sampled both before and after the IRAs, TCE concentrations without air purification were reduced from a high of 110 ug/m^3 to non-detect in some samples. TCE concentrations in the passive air samples collected with no air purification were similar to those observed with air purification and up to two orders of magnitude below concentrations observed without air purification before the IRAs. However, the post-interim-action passive air sample results indicate that TCE concentrations in indoor air remain above MTCA Method B CULs.

7 VAPOR INTRUSION PRIORITY WORK PLAN

During the initial VI assessment, TCE was detected in indoor air samples above the short-term action levels included in Ecology's Implementation Memo No. 22 (Ecology, 2019), triggering prompt response actions for the protection of human health. The completed IRAs effectively reduced TCE concentrations in indoor air below short-term threat levels; however, the sub-slab source material remains and TCE concentrations in indoor air remain above MTCA Method B CULs. Therefore, additional IRAs will be required. Potential additional IRAs will be considered following completion of data gap sampling to be proposed in the RI work plan. In the meantime, although the completed IRAs have been proven effective, the potential exists for seals in the concrete slab to break down or for new cracks to form that could promote VI from the sub-slab contamination that remains, resulting in unfavorable air quality. Therefore, ongoing performance air monitoring and monitoring of the condition of the concrete slab are recommended until a more permanent remedy has been implemented. Ecology will require a VIP work plan in the agreed order for the Site.

7.1 Scope of Work

The proposed scope of work for VIP monitoring is as follows:

- Quarterly passive air monitoring will be conducted until a more permanent remedy is implemented.
- During each quarterly sampling event, passive air samples will be collected using RAD130s deployed for three weeks from the following three locations: RAD1, RAD4, and RAD5 (see Figure 4-1).
- Site reconnaissance will be conducted at the start of each quarterly air monitoring event to observe and record the condition of the concrete slab and slab seals, and to identify the potential formation of new cracks or perforations in the slab, or other conditions, that could promote VI.

Sampling activities will be conducted in general accordance with the procedures and methods used for the other passive air sampling events described in this report. Samples will be analyzed for TCE by modified EPA Method TO-17. A trip blank will be collected and analyzed for each event.

If TCE concentrations in any of the samples exceed the short-term action limit of 7.5 ug/m^3, Ecology and the building owner will be notified immediately, facility staff will be informed, and air purification activities will be resumed. Air purification, if required, will be conducted in accordance with the procedures developed for the response actions (see Section 5.3) and will continue until a more permanent remedy is implemented.

Data will be shared with Ecology, which will be notified of sampling activities and any TCE action limit exceedances in accordance with finalized agreed order requirements.

7.2 Project Management Plan

The following describes the roles of key personnel on the project.

7.2.1 Key Project Personnel

Jim Maul will be the project director for MFA. Mr. Maul will provide strategic technical project support and will assist with project communications.

Heather Good will be the project manager for MFA. Ms. Good will coordinate with project task leaders and will be the primary point of contact for the PLPs and Ecology. She will be responsible for allocating the resources necessary to ensure that the objectives of the VIP work plan are met. Ms. Good will also provide technical assistance to assigned staff, assist with resolution of technical or logistical challenges that may be encountered during sampling, and write and review reports.

Amanda Bixby will lead field activities and other project tasks and will write and review reports. She will be responsible for ensuring that sampling activities are conducted in accordance with the procedures outlined in this plan.

Seth Baker will assist in developing as-needed communications for Pacific Industrial Supply, Inc., employees.

Bill Beadie will provide as-needed technical support related to human health toxicity concerns, RA, risk communication, and air treatment and testing technologies.

Evelyn Lundeen will assist with field activities and report preparation.

7.3 Schedule

Sampling will begin within 30 days of Ecology's approval of the final VIP work plan and will continue until a more permanent remedy is implemented, unless a TCE short-term action limit exceedance is detected. In that case, sampling will be terminated, and air purification will resume and will continue until a more permanent remedy is implemented. The first two sampling events will be conducted consecutively, and the following events will be conducted on a quarterly basis.

8 CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical results from the confirmation sampling event, the IRAs successfully reduced TCE concentrations below Ecology's short-term action level. Air purification is no longer necessary on the Site, but additional air monitoring may be necessary to ensure the IRAs' continued effectiveness as the RI is completed and more permanent remedies are implemented.

Additional assessment of the sub-slab source material, further evaluation of the nature and extent of contamination, and additional sub-surface data are needed for remedy selection. MFA is preparing an RI work plan, which will provide a basis for additional data collection. Data from the RI will be used to select and implement a permanent remedy to address the sub-slab source material.

LIMITATIONS

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with the Client. This report is solely for the use and information of the Client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the Client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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TABLES



Table 4-1
Event Summary
Precision Engineering, Inc.
Seattle, Washington

Sample Media	Start Date	End Date	Sample Locations	Event Purpose	Sampling Notes
Initial VI Assessment					
SS	02/01/2020	02/01/2020	A8, A9, A10, A11	An initial VI assessment was conducted to evaluate the potential for short-term TCE exposure and potential sources contributing to TCE in indoor air. Work was conducted in general accordance with MFA's December 20, 2019, VI assessment work plan, with subsequent revisions based on Ecology feedback.	--
IA	02/01/2020	02/02/2020	IA8, IA9, IA10, IA11, IA12, IA13, IA14, IA15		24-hour collection period. Sampling was conducted outside normal working hours and without air purification to evaluate "worst-case" conditions.
AA			AA1, AA2, AA3, AA4, AA5		
RAD	02/01/2020	02/13/2020	RAD1, RAD2, RAD3		RAD samplers were collected 12 days after deployment because of the upcoming, scheduled installation of the air purifier units. Sampling was conducted without air purification.
Evaporator Pit Assessment					
W	02/11/2020	02/11/2020	Evap Pit	Standing water in the exposed evaporator pit was sampled to evaluate it as a potential source of TCE in indoor air.	One grab sample was collected from the evaporator pit.
Worker Exposure Assessment					
IA	02/11/2020	02/11/2020	IA16, IA17, IA18, IA19, IA20	Additional indoor air sampling was triggered by TCE concentrations above Ecology's short-term action levels detected in indoor air during the initial VI assessment .	Eight-hour collection period. Sampling was conducted during normal working hours, under normal working conditions, and without air purification.
Air Purification					
--	02/13/2020	05/15/2020	--	Air-purifying units were installed in the building to reduce indoor-air concentrations of TCE, which had been detected above Ecology's short-term action levels during the initial and eight-hour vapor assessments. Air purification ended after the interim action was completed.	Three air-purifying units were installed and were operated continuously, aside from a pause for an indoor air sampling event on May 2 and 3, 2020, in the following locations: the main office, the sewing room, and warehouse 1. The units were assessed and maintained on a weekly schedule.

Table 4-1
Event Summary
Precision Engineering, Inc.
Seattle, Washington

Sample Media	Start Date	End Date	Sample Locations	Event Purpose	Sampling Notes
Air Purification Performance Sampling					
IA	02/20/2020	02/20/2020	IA16, IA17, IA19	Indoor air sampling for TCE was conducted after installation of the air purifiers to evaluate their effectiveness in reducing concentrations of TCE in indoor air.	Eight-hour collection period. Sampling was conducted during normal working hours, under normal working conditions, and with air purification.
RAD	02/20/2020	03/12/2020	RAD1, RAD4, RAD5		Three-week collection period. Sampling was conducted with air purification.
Interim Actions					
--	04/13/2020	04/13/2020	--	Evaporator pit decommissioning.	--
--	04/14/2020	04/29/2020	--	Sealing concrete building slab.	--
Post-Interim Action Confirmation Sampling					
IA	05/02/2020	05/03/2020	IA16, IA17, IA18, IA19	To evaluate whether the interim actions effectively reduced TCE concentrations in indoor air to below Ecology's short-term action limit.	24-hour collection period. Sampling was conducted outside normal working hours and without air purification to evaluate "worst-case" conditions.
RAD	05/15/2020	06/05/2020	RAD1, RAD4, RAD5		Three-week collection period. Sampling was conducted without air purification.

NOTES:

Only sampling and air purification events are summarized. Other events are described in the report text.

Shading (color key below) indicates that the event was conducted under the following conditions:

Prior to air purification

During air purification

After implementation of the interim remedial actions, with no air purification

-- = none.

AA = ambient air.

Ecology = Washington State Department of Ecology.

IA = indoor air.

RAD = passive indoor air sample collected with Radiello 130.

SS = sub-slab soil gas.

TCE = trichloroethene.

VI = vapor intrusion.

W = water.

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Table 4-2
Vapor Sampling and Analysis Summary
Precision Engineering, Inc.
Seattle, Washington

Media Sampled	Location ID	Sample ID	Sample Type	Collection Period	Sample Collection Start			Sample Collection End			Analytical Suite[a]		
					Date	Time	Initial Vacuum ("Hg)	Date	Time	Final Vacuum ("Hg)	He	TCE	TCE Breakdown Products[b]
SS	A8	A8	1-L Summa Canister	5 min	02/01/2020	13:36	-30	02/01/2020	13:42	-5	X	X	X
	A9	A9				12:08	-30		12:14	-5	X	X	X
	A10	A10				11:28	-30		11:35	-5	X	X	X
	A11	A11				13:06	-30		13:12	-5	X	X	X
IA	IA8	IA8-020120	6-L Summa Canister	24 hr	02/01/2020	15:46	-30	02/02/2020	15:46	-6	--	X	X
	IA9	IA9				15:51	-30		15:51	-8	--	X	X
	IA10	IA10				15:48	-29		15:48	-8	--	X	X
	IA11	IA11				15:54	-29		15:47	0	--	X	X
	IA12	IA12				15:56	-29		15:56	-6	--	X	X
	IA13	IA13				15:57	-30		15:57	-7	--	X	X
	IA14	IA14				15:59	-30		15:59	-7	--	X	X
	IA15	IA15				16:05	-30		16:05	-9	--	X	X
	IA16	IA16		8 hr	02/11/2020	8:51	-30	02/11/2020	16:51	-7	--	X	--
		IA16-022020		8 hr	02/20/2020	7:55	-30	02/20/2020	15:55	-6	--	X	--
		IA16-050220		24 hr	05/02/2020	15:07	-29.5	05/03/2020	15:07	-8	--	X	--
	IA17	IA17		8 hr	02/11/2020	8:58	-30	02/11/2020	16:58	-9	--	X	--
		IA17-022020		8 hr	02/20/2020	8:03	-30	02/20/2020	16:03	-9	--	X	--
		IA17-050220		24 hr	05/02/2020	15:11	-29	05/03/2020	15:11	-6	--	X	--
	IA18	IA18		8 hr	02/11/2020	9:07	-30	02/11/2020	17:07	-6	--	X	--
		IA18-050220		24 hr	05/02/2020	15:15	-30	05/03/2020	15:15	-7	--	X	--
	IA19	IA19		8 hr	02/11/2020	9:15	-30	02/11/2020	17:10	-6	--	X	--
		IA19-022020		8 hr	02/20/2020	8:11	-30	02/20/2020	16:11	-6	--	X	--
		IA19-050220		24 hr	05/02/2020	15:19	-30	05/03/2020	15:19	-9	--	X	--
	IA20	IA20		8 hr	02/11/2020	9:30	-30	02/11/2020	17:30	-12	--	X	--
AA	AA1	AA1	6-L Summa Canister	24 hr	02/01/2020	16:30	-30	02/02/2020	16:30	-6	--	X	X
	AA2	AA2				16:41	-30		16:41	-5	--	X	X
	AA3	AA3				16:40	-30		16:40	-12	--	X	X
	AA4	AA4				16:37	-30		16:37	-7	--	X	X
	AA5	AA5				16:32	-30		16:32	-6	--	X	X
Passive IA	RAD1	RAD1	RAD	12 day	02/01/2020	16:55	--	02/13/2020	13:50	--	--	X	--
		RAD1-022020		21 day	02/20/2020	8:30	--	03/12/2020	12:24	--	--	X	--
		RAD1-051520		21 day	05/15/2020	15:13	--	06/05/2020	15:11	--	--	X	--
	RAD2	RAD2		12 day	02/01/2020	16:52	--	02/13/2020	14:12	--	--	X	--
	RAD3	RAD3		12 day	02/01/2020	16:58	--	02/13/2020	14:16	--	--	X	--
	RAD4	RAD4		21 day	02/20/2020	8:35	--	03/12/2020	12:30	--	--	X	--
		RAD4-051520		21 day	05/15/2020	15:20	--	06/05/2020	15:15	--	--	X	--
	RAD5	RAD5		21 day	02/20/2020	8:45	--	03/12/2020	12:21	--	--	X	--
		RAD5-051520		21 day	05/15/2020	15:24	--	06/05/2020	15:18	--	--	X	--

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Table 4-2
Vapor Sampling and Analysis Summary
Precision Engineering, Inc.
Seattle, Washington

NOTES:

Sample shading (color key below) indicates that the sample was collected under the following conditions:

Prior to air purification

During air purification

After implementation of the interim remedial actions, with no air purification

-- = not analyzed.

"Hg = inches of mercury.

AA = ambient air.

DCE = dichloroethene.

EPA = U.S. Environmental Protection Agency.

He = helium.

hr = hour.

IA = indoor air.

ID = identification.

L = liter.

min = minute.

RAD = passive indoor air sample collected with Radiello 130.

SS = sub-slab soil gas.

TCE = trichloroethene.

[a]All analyses performed by EPA Method TO-15.

[b]TCE anaerobic breakdown products include cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride.

Table 4-3
Vapor Analytes and Screening Levels
Precision Engineering, Inc.
Seattle, Washington

Analyte	Indoor Air Cleanup Level, MTCA Method B	TCE Indoor Air Short-Term Action Level, Workplace Scenario	Sub-Slab Soil Gas Screening Level, MTCA Method B
Modified EPA Method TO-15 SIM (ug/m^3)			
TCE	0.33	7.5	11
1,1-Dichloroethene	91	NA	3,000
1,2-Dichloroethane	0.096	NA	3.2
cis-1,2-Dichloroethene	NV	NA	NV
trans-1,2-Dichloroethene	NV	NA	NV
1,1-Dichloroethane	1.6	NA	52
Chloroethane	4,600	NA	150,000
Vinyl chloride	0.28	NA	9.5
Modified EPA Method TO-17 (ug/m^3)			
TCE	0.33	7.5	11
ASTM Method D-1946			
Helium	NV	NA	NV

NOTES:
Cleanup and screening levels obtained from Ecology, CLARC data tables, dated August 2020.
Short-term TCE action level obtained from Ecology, Toxics Cleanup Program Implementation Memo No. 22.
ASTM = ASTM International.
CLARC = Cleanup Levels and Risk Calculation.
Ecology = Washington State Department of Ecology.
EPA = U.S. Environmental Protection Agency.
MTCA = Model Toxics Control Act.
NA = not applicable.
NV = no value.
SIM = selected ion monitoring.
TCE = trichloroethene.
TO = toxic organics.
ug/m^3= micrograms per cubic meter.

Table 4-4
Sub-Slab Soil Gas Analytical Results
Precision Engineering, Inc.
Seattle, Washington

Location:	Sub-Slab Soil Gas Screening Level, MTCA Method B	A8	A9	A10	A11
Sample Name:		A8	A9	A10	A11
Collection Date:		02/01/2020	02/01/2020	02/01/2020	02/01/2020
VOCs (ug/m^3)					
1,1-Dichloroethane	52	3.3 U	6.5 U	18 U	14
1,1-Dichloroethene	3,000	3.3 U	6.3 U	17 U	3.3 U
1,2-Dichloroethane	3.2	0.33 U	0.65 U	1.8 U	0.33 U
Chloroethane	150,000	22 U	42 U	120 U	22 U
cis-1,2-Dichloroethene	NV	3.3 U	21	40	3.3 U
trans-1,2-Dichloroethene	NV	3.3 U	6.3 U	17 U	3.3 U
Trichloroethene	11	160	1100	29	82
Vinyl chloride	9.5	2.1 U	4.1 U	11 U	2.1 U

NOTES:

Result shading indicates an exceedance of the sub-slab soil gas screening level, MTCA Method B; non-detects ("U") were not compared with screening criteria.

Sample shading indicates that the sample was collected prior to air purification.

MTCA = Model Toxics Control Act.

NV = no value.

U = Result not detected at or above method reporting limit.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

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Table 4-5
Indoor Air Analytical Results
Precision Engineering, Inc.
Seattle, Washington

Location:	Indoor Air Cleanup Level, MTCA Method B	TCE Indoor Air Short-Term Action Level, Workplace Scenario[a]	IA8	IA9	IA10	IA11	IA12	IA13	IA14	IA15	IA16		
Sample Name:			IA8-020120[b]	IA9[b]	IA10[b]	IA11[b]	IA12[b]	IA13[b]	IA14[b]	IA15[b]	IA16[c]	IA16-022020	IA16050220
Collection Start Date:			02/01/2020	02/01/2020	02/01/2020	02/01/2020	02/01/2020	02/01/2020	02/01/2020	02/01/2020	02/11/2020	02/20/2020	05/02/2020
Collection End Date:			02/02/2020	02/02/2020	02/02/2020	02/02/2020	02/02/2020	02/02/2020	02/02/2020	02/02/2020	02/11/2020	02/20/2020	05/03/2020
VOCs (ug/m^3)													
1,1-Dichloroethane	1.6	NV	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	--	--	--
1,1-Dichloroethene	91	NV	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	--	--	--
1,2-Dichloroethane	0.096	NV	0.093	0.085	0.089	0.097	0.093	0.089	0.085	0.093	--	--	--
Chloroethane	4,600	NV	0.093 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	--	--	--
cis-1,2-Dichloroethene	NV	NV	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	--	--	--
trans-1,2-Dichloroethene	NV	NV	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	--	--	--
TCE	0.33	7.5	270	330	340	170	200	210	110	170	2.8	1.9	0.27 U
Vinyl chloride	0.28	NV	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	--	--	--

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Table 4-5
Indoor Air Analytical Results
Precision Engineering, Inc.
Seattle, Washington

Location:	Indoor Air Cleanup Level, MTCA Method B	TCE Indoor Air Short-Term Action Level, Workplace Scenario[a]	IA17			IA18		IA19			IA20
Sample Name:			IA17[c]	IA17-022020	IA17050220	IA18[c]	IA18050220	IA19[c]	IA19-022020	IA19050220	IA20[c]
Collection Start Date:			02/11/2020	02/20/2020	05/02/2020	02/11/2020	05/02/2020	02/11/2020	02/20/2020	05/02/2020	02/11/2020
Collection End Date:			02/11/2020	02/20/2020	05/03/2020	02/11/2020	05/03/2020	02/11/2020	02/20/2020	05/03/2020	02/11/2020
VOCs (ug/m^3)											
1,1-Dichloroethane	1.6	NV	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	91	NV	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	0.096	NV	--	--	--	--	--	--	--	--	--
Chloroethane	4,600	NV	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	NV	NV	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	NV	NV	--	--	--	--	--	--	--	--	--
TCE	0.33	7.5	93	4.5	0.27 U	45	0.27 U	110	2.3	0.27 U	73
Vinyl chloride	0.28	NV	--	--	--	--	--	--	--	--	--

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Table 4-5
Indoor Air Analytical Results
Precision Engineering, Inc.
Seattle, Washington

NOTES:

Result shading (color key below) indicates an exceedance of screening criteria; non-detects ("U") were not compared with screening criteria.

Indoor Air Cleanup Level, MTCA Method B

TCE Indoor Air Short-Term Action Level, Workplace Scenario

Sample shading (color key below) indicates that the sample was collected under the following conditions:

Prior to air purification

During air purification

After implementation of the interim remedial actions, with no air purification

-- = not analyzed.

MTCA = Model Toxics Control Act.

NV = no value.

TCE = trichloroethene.

U = Result is non-detect to method reporting limit.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

[(a)]TCE Indoor Air Action Level from Washington State Department of Ecology Implementation Memo No. 22.

[(b)]Twenty-four-hour indoor air sample collected with a 6-liter Summa canister outside normal working conditions.

[(c)]Eight-hour indoor air sample collected with a 6-liter Summa canister during normal working conditions.

Table 4-6
Ambient Air Analytical Results
Precision Engineering, Inc.
Seattle, Washington

Location:	Indoor Air Cleanup Level, MTCA Method B	TCE Indoor Air Short-Term Action Level, Workplace Scenario[(a)]	AA1	AA2	AA3	AA4	AA5
Sample Name:			AA1	AA2	AA3	AA4	AA5
Collection Start Date:			02/01/2020	02/01/2020	02/01/2020	02/01/2020	02/01/2020
Collection End Date:			02/02/2020	02/02/2020	02/02/2020	02/02/2020	02/02/2020
VOCs (ug/m^3)							
1,1-Dichloroethane	1.6	NV	0.40 U	0.40 U	0.65 U	0.40 U	0.40 U
1,1-Dichloroethene	91	NV	0.40 U	0.40 U	0.63 U	0.40 U	0.40 U
1,2-Dichloroethane	0.096	NV	0.07	0.07	0.07	0.07	0.07
Chloroethane	4,600	NV	2.60 U	2.60 U	4.20 U	2.60 U	2.60 U
cis-1,2-Dichloroethene	NV	NV	0.40 U	0.40 U	0.63 U	0.40 U	0.40 U
trans-1,2-Dichloroethene	NV	NV	0.40 U	0.40 U	0.63 U	0.40 U	0.40 U
TCE	0.33	7.50	0.16 U	0.16 U	0.27 U	0.16 U	0.16 U
Vinyl chloride	0.28	NV	0.26 U	0.26 U	0.41 U	0.26 U	0.26 U

NOTES:

Ambient air samples collected in 6-liter Summa canisters over a 24-hour period from February 1, 2020 to February 2, 2020 outside normal working conditions.

Sample shading indicates that the sample was collected prior to air purification.

MTCA = Model Toxics Control Act.

NV = no value.

TCE = trichloroethene.

U = Result is non-detect to method reporting limit.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

[(a)]TCE Indoor Air Short-Term Action Level from Washington State Department of Ecology Implementation Memo No. 22.

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Table 4-7
Passive Indoor Air Analytical Results
Precision Engineering, Inc.
Seattle, Washington

Location:	Indoor Air Cleanup Level, MTCA Method B	TCE Indoor Air Short-Term Action Level, Workplace Scenario[(a)]	RAD1			RAD2	RAD3	RAD4		RAD5	
Sample Name:			RAD1	RAD1-022020	RAD1-051520	RAD2	RAD3	RAD4	RAD4-051520	RAD5	RAD5-051520
Collection Start Date:			02/01/2020	02/20/2020	05/15/2020	02/01/2020	02/01/2020	02/20/2020	05/15/2020	02/20/2020	05/15/2020
Collection End Date:			02/13/2020	03/12/2020	06/05/2020	02/13/2020	02/13/2020	03/12/2020	06/05/2020	03/12/2020	06/05/2020
VOC (ug/m^3)											
TCE	0.33	7.5	110	1.3	1.4	110	170	2.6	2.6	2.3	1.7

NOTES:

Radiello 130 (R130) passive air samplers were used for all sampling events.

Result shading (color key below) indicates an exceedance of screening criteria.

Indoor Air Cleanup Level, MTCA Method B

TCE Indoor Air Short-Term Action Level, Workplace Scenario

Sample shading (color key below) indicates that the sample was collected under the following conditions:

Prior to air purification

During air purification

After implementation of the interim remedial actions, with no air purification

MTCA = Model Toxics Control Act.

RAD = passive indoor air sample collected with Radiello 130.

TCE = trichloroethene.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

[(a)]TCE Indoor Air Short-Term Action Level from Washington State Department of Ecology Implementation Memo No. 22.

Table 5-1
Evaporator Pit Water Analytical Results
Precision Engineering, Inc.
Seattle, Washington

Location:	MTCA Method A, Groundwater	MTCA Method B, Groundwater	Vapor Intrusion, Groundwater Screening Level, MTCA Method B	Evaporation Pit
Sample Name:				EVAPPIT
Collection Date:				02/11/2020
TPH (ug/L)				
Diesel-Range Organics	500	NV	NV	3,900
Residual-Oil-Range Organics	500	NV	NV	2,500
Diesel + Oil[(a)]	500	NV	NV	6,400
Total Metals (ug/L)				
Arsenic	5	0.058	NV	6.1 J
Chromium	50[(b)]	48[(c)]	NV	994,000
VOCs (ug/L)				
Trichloroethene	5	0.54	1.40	1.4

NOTES:

Result shading (color key below) indicates an exceedance of screening criteria.

MTCA Method A, Groundwater

MTCA Method B, Groundwater

Sample shading indicates that the sample was collected prior to air purification.

J = estimated.

MTCA Method A = Model Toxics Control Act Method A.

MTCA Method B = Model Toxics Control Act Method B, lower of carcinogen or noncarcinogen value.

NV = no value.

TPH = total petroleum hydrocarbons.

ug/L = micrograms per liter.

VOC = volatile organic compound.

[(a)]Diesel + Oil is the sum of the diesel-range organics and residual-oil-range organics.

[(b)]Value is for total chromium.

[(c)]Value is for hexavalent chromium, the more toxic species of chromium.

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Table 5-2
Air Purifier PID Readings
Precision Engineering, Inc.
Seattle, Washington

Air Purifier Location	Collection Date	Collection Time	PID Reading		Reading Collected Immediately Before Filter Replacement	Reading Collected Immediately After Filter Placement	Comments
			Air Purifier Inlet (ppb)	Air Purifier Outlet (ppb)			
Warehouse 1	02/17/2020	8:11	446	446	X	--	Air purifier was running, but internal carbon filter was still wrapped in plastic packaging. Packaging was removed and filter was reinstalled. Air purifier was set to low flow.
		14:30	357	146	--	X	
	02/20/2020	8:16	329	200	--	--	Reading collected near time of deployment of eight-hour Summa canister indoor air sample. Prefilter for air-purifying unit was a dark gray color. The change filter indicator light was not on.
		15:41	413	262	--	--	Reading collected near time of collection of eight-hour Summa canister indoor air sample.
	02/24/2020	14:25	200	167	X	--	Filter was changed after readings were collected; no post-replacement reading was recorded.
	03/02/2020	13:57	217	220	X	--	
		14:25	241	96	--	X	
	03/12/2020	12:50	211	170	X	--	
		13:04	197	66	--	X	
	03/19/2020	12:00	283	225	X	--	
		12:18	259	73	--	X	
	03/26/2020	12:36	270	165	X	--	
		13:01	363	140	--	X	
	04/02/2020	11:50	285	232	X	--	
		12:04	309	97	--	X	
	04/09/2020	11:37	254	177	X	--	HEPA and carbon filters were replaced and readings subsequently recorded.
		13:03	220	70	--	X	
	04/16/2020	12:01	722	613	X	--	
		12:16	463	159	--	X	
	04/23/2020	11:33	161	181	X	--	PID was restarted in a clean ambient air environment and the air purifier was retested to ensure that measured results were accurate.
		11:54	204	36	--	X	
	04/29/2020	10:50	86	74	X	--	
		11:07	133	28	--	X	

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Table 5-2
Air Purifier PID Readings
Precision Engineering, Inc.
Seattle, Washington

Air Purifier Location	Collection Date	Collection Time	PID Reading		Reading Collected Immediately Before Filter Replacement	Reading Collected Immediately After Filter Placement	Comments
			Air Purifier Inlet (ppb)	Air Purifier Outlet (ppb)			
Sewing Room	02/17/2020	8:03	378	380	X	--	Air purifier was running, but internal carbon filter was still wrapped in plastic packaging during PID reading. Packaging was removed and filter was reinstalled. Air purifier was set to low flow.
		14:30	446	210	--	X	
	02/20/2020	8:32	832	301	--	--	Reading collected near time of deployment of eight-hour Summa canister indoor air sampler.
		16:00	404	256	--	--	Reading collected near time of collection of eight-hour Summa canister indoor air sample.
	02/24/2020	14:35	9	0	X	--	Filter was changed after readings were collected; no post-replacement reading was recorded.
	03/02/2020	14:02	318	170	X	--	Prefilter had darkened to a gray color.
		14:10	313	87	--	X	
	03/12/2020	12:58	360	342	X	--	Air purifier had been moved to opposite side of room because of leaking roof near unit.
		13:08	315	50	--	X	
	03/19/2020	11:55	272	238	X	--	
		12:15	316	95	--	X	
	03/26/2020	12:50	268	252	X	--	
		13:11	230	67	--	X	
	04/02/2020	11:43	110	55	X	--	
		12:00	138	33	--	X	
	04/09/2020	11:31	332	226	X	--	HEPA and carbon filters were replaced and readings subsequently recorded.
		12:59	162	82	--	X	
	04/16/2020	11:55	272	225	X	--	
		12:12	276	108	--	X	
	04/23/2020	11:27	103	54	X	--	
		11:51	146	7	--	X	
	04/29/2020	10:43	80	40	X	--	
		11:03	206	44	--	X	

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Table 5-2
Air Purifier PID Readings
Precision Engineering, Inc.
Seattle, Washington

Air Purifier Location	Collection Date	Collection Time	PID Reading		Reading Collected Immediately Before Filter Replacement	Reading Collected Immediately After Filter Placement	Comments
			Air Purifier Inlet (ppb)	Air Purifier Outlet (ppb)			
Office	02/17/2020	7:40	15	10	X	--	Air purifier was running, but carbon filter was still wrapped in plastic packaging for PID reading. Packaging was removed and filter was reinstalled. At employees' request, air purifier is set to high and laid on its back to reduce operation noise. Confirmed that air purifier position did not compromise its operation.
		14:30	265	135	--	X	
	02/20/2020	8:22	822	297	--	--	Reading collected near time of deployment of eight-hour Summa canister indoor air sampler.
		15:53	204	152	--	--	Reading collected near time of collection of eight-hour Summa canister indoor air sample
	02/24/2020	14:20	0	0	X	--	Filter was changed after readings were collected; no post-replacement reading was recorded.
	03/02/2020	14:15	29	39	X	--	
		14:20	30	10	--	X	
	03/12/2020	12:41	63	50	X	--	
		13:03	12	0	--	X	
	03/19/2020	11:49	8	0	X	--	
		12:12	47	1	--	X	
	03/26/2020	12:25	0	0	X	--	Prefilter had darkened to a gray color.
		12:58	30	3	--	X	
	04/02/2020	11:38	0	0	X	--	
		11:57	12	0	--	X	
	04/09/2020	11:25	0	0	X	--	HEPA, prefilter, and carbon filters were replaced and readings subsequently recorded.
		12:56	0	0	--	X	
	04/16/2020	11:51	0	0	X	--	
		12:09	0	0	--	X	
	04/23/2020	11:23	0	0	X	--	
		11:48	0	0	--	X	
	04/29/2020	10:37	0	0	X	--	
		11:01	0	0	--	X	

NOTES:
A Honeywell ppbRAE 3000 PID equipped with a 10.6 electron volt lamp was used to collect ambient air readings during air-purifier operation.
Air-purifying units were HEPA-AIRE® PAS2400 portable air scrubbers equipped with a prefilter, a HEPA filter, and a VL2002 high-capacity carbon filter.
All PID readings are the observed peak value after the instrument had time to stabilize to the new location.
Shading (color key below) indicates that the event was conducted under the following conditions:

Prior to air purification
During air purification
After implementation of the interim remedial actions, with no air purification

-- = no reading collected.
X = reading collected.
HEPA = high-efficiency particulate air.
PID = photoionization detector.
ppb = parts per billion.

FIGURES



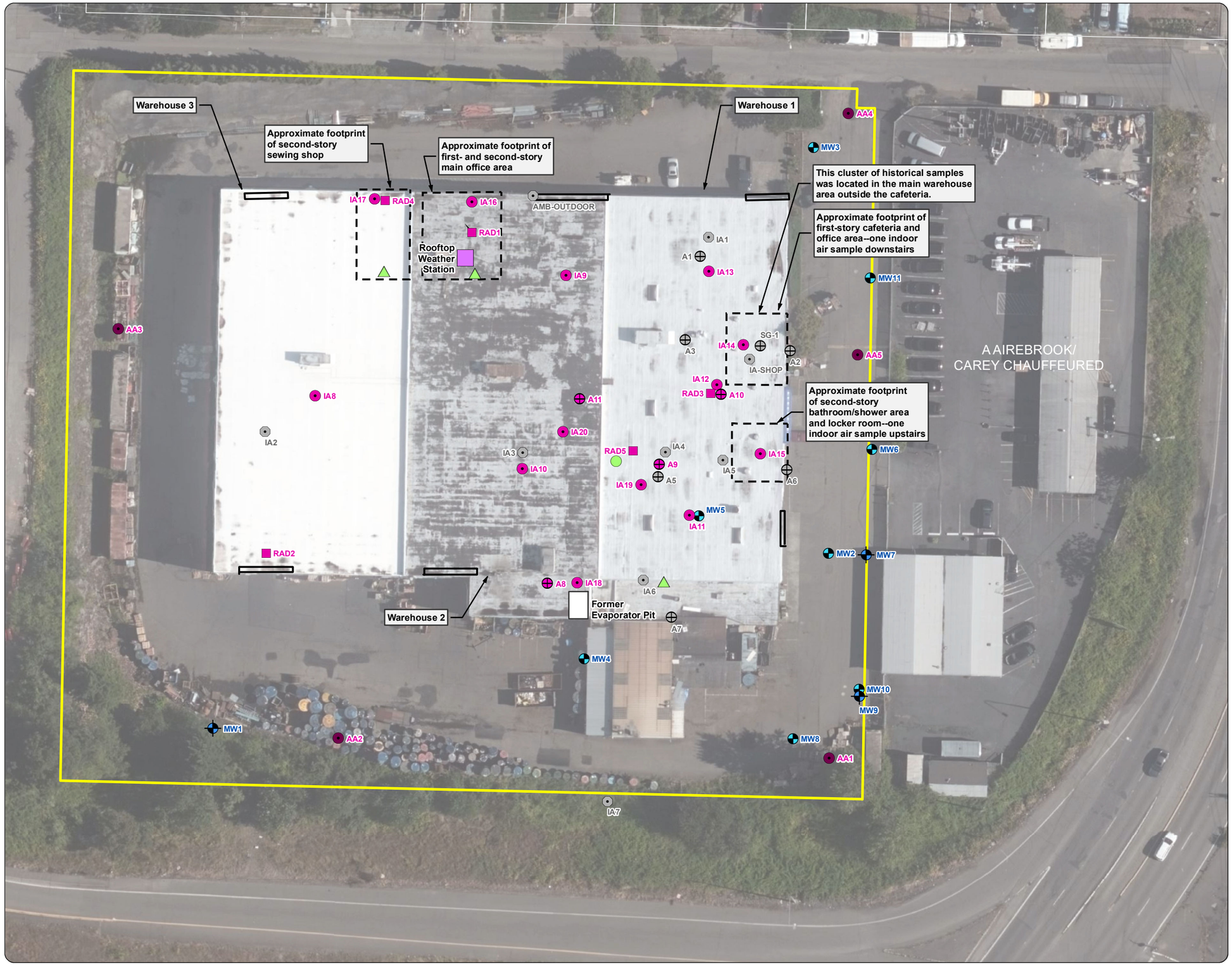

Figure 4-1
Vapor Sample Locations

Precision Engineering, Inc.
Seattle, Washington

Legend

Vapor Sample Locations

- Ambient Air
- Indoor Air
- Passive Sampler
- Sub-slab Soil Gas

Historical Vapor Sample Locations

- Indoor/Ambient Air
- Sub-slab Soil Gas

Property Features

- Air Purifier
- Former Trichloroethene Tank
- Shallow Monitoring Well
- Deep Monitoring Well
- Overhead Door (Approximate)
- Property Parcel
- King County Parcel

NOTES:
Air purifier units were installed on 2/13/2020.
The air purifier located in the sewing shop was originally located near IA17, but was moved on March 12, 2020.
Well locations for MW1 to MW8 were surveyed by Duncanson, Inc. All other feature locations are approximate.

0 25 50
Feet

Source:
Aerial photograph obtained from Mapbox.
Parcel data obtained from King County GIS.

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Figure 4-2
Pre-Air-Purification and -Interim-Action TCE Results
Precision Engineering, Inc.
Seattle, Washington

Location	IA 16
Sample Name	IA 16[d]
Collection Date	2/11/2020
TCE (ug/m3)	2.8

Location	IA 13
Sample Name	IA 13[a]
Collection Date	2/2/2020
TCE (ug/m3)	210

Location	AA 4
Sample Name	AA 4[c]
Collection Date	2/2/2020
TCE (ug/m3)	0.16 U

Location	IA 17
Sample Name	IA 17[d]
Collection Date	2/11/2020
TCE (ug/m3)	93

Location	RAD 1
Sample Name	RAD 1[e]
Collection Date	2/13/2020
TCE (ug/m3)	110

Location	AA 3
Sample Name	AA 3[c]
Collection Date	2/2/2020
TCE (ug/m3)	0.27 U

Location	IA 14
Sample Name	IA 14[a]
Collection Date	2/2/2020
TCE (ug/m3)	110

Location	AA 5
Sample Name	AA 5[c]
Collection Date	2/2/2020
TCE (ug/m3)	0.16 U

Location	A 11
Sample Name	A 11[b]
Collection Date	2/1/2020
TCE (ug/m3)	82

Location	IA 9
Sample Name	IA 9[a]
Collection Date	2/2/2020
TCE (ug/m3)	330

Location	IA 12
Sample Name	IA 12[a]
Collection Date	2/2/2020
TCE (ug/m3)	200

Location	IA 8
Sample Name	IA 8-020120[a]
Collection Date	2/2/2020
TCE (ug/m3)	270

Location	A 10
Sample Name	A 10[b]
Collection Date	2/2/2020
TCE (ug/m3)	29

Location	IA 20
Sample Name	IA 20[d]
Collection Date	2/11/2020
TCE (ug/m3)	73

Location	RAD 3
Sample Name	RAD 3[e]
Collection Date	2/13/2020
TCE (ug/m3)	170

Location	IA 10
Sample Name	IA 10[a]
Collection Date	2/2/2020
TCE (ug/m3)	340

Location	RAD 2
Sample Name	RAD 2[e]
Collection Date	2/13/2020
TCE (ug/m3)	110

Location	IA 15
Sample Name	IA 15[a]
Collection Date	2/2/2020
TCE (ug/m3)	170

Location	A 9
Sample Name	A 9[b]
Collection Date	2/1/2020
TCE (ug/m3)	1100

Location	A 8
Sample Name	A 8[b]
Collection Date	2/1/2020
TCE (ug/m3)	160

Location	IA 18
Sample Name	IA 18[d]
Collection Date	2/11/2020
TCE (ug/m3)	45

Location	IA 11
Sample Name	IA 11[a]
Collection Date	2/1/2020
TCE (ug/m3)	170

Location	IA 19
Sample Name	IA 19[d]
Collection Date	2/11/2020
TCE (ug/m3)	110

Location	AA 2
Sample Name	AA 2[c]
Collection Date	2/1/2020
TCE (ug/m3)	0.16 U

Location	AA 1
Sample Name	AA 1[c]
Collection Date	2/1/2020
TCE (ug/m3)	0.16 U

Approximate footprint of second-story sewing shop

Approximate footprint of first- and second-story main office area

This cluster of historical samples was located in the main warehouse area outside the cafeteria.

Approximate footprint of first-story cafeteria and office area--one indoor air sample downstairs

Approximate footprint of second-story bathroom/shower area and locker room--one indoor air sample upstairs

Rooftop Weather Station

Former Evaporator Pit

Warehouse 1

Warehouse 2

Warehouse 3

A AIREBROOK/
CAREY CHAUFFEURED

IA-SHOP

SG-1

AMB-OUTDOOR

Legend

Vapor Sample Locations
- Ambient Air
- Indoor Air
- Passive Sampler
- Sub-slab Soil Gas

Historical Vapor Sample Locations
- Indoor/Ambient Air
- Sub-slab Soil Gas

Property Features
- Shallow Monitoring Well
- Deep Monitoring Well
- Overhead Door (Approximate)
- Former TCE Tank
- Property Parcel
- King County Parcel

Sample Shading
- Sample collected prior to air purification

TCE Result Shading
- Exceedance of MTCA Method B indoor air CUL (0.33 ug/m3)
- Exceedance of short-term indoor air action level, workplace (7.5 ug/m3)
- Exceedance of MTCA Method B sub-slab soil gas screening level (11 ug/m3)

NOTES:
CUL = cleanup level.
MTCA = Model Toxics Control Act.
TCE = trichloroethene.
U = Result is non-detect to method reporting limit.
ug/m3 = micrograms per cubic meter.
(a) 24-hour indoor air sample collected with a 6-liter Summa canister under "worst case" conditions (i.e., doors and windows closed, outside working hours).
(b) Sub-slab soil gas sample collected with a 1-liter Summa canister.
(c) 24-hour ambient air sample collected with a 6-liter Summa canister.
(d) 8-hour indoor air sample collected with a 6 liter Summa canister.
(e) Radiello 130 passive indoor air sample collected from February 1 to February 13, 2020.

0 25 50
Feet

Source:
Aerial photograph obtained from Mapbox.
Parcel data obtained from King County GIS.

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Figure 5-1
Pre- and Post-Air-Purification Indoor Air TCE Results

Precision Engineering, Inc.
Seattle, Washington

Location	IA 17	
Sample Name	IA 17[a]	IA 17-022020[b]
Collection Date	2/11/2020	2/20/2020
TCE (ug/m3)	93	4.5

Location	RAD 4
Sample Name	RAD4[d]
Collection Date	3/12/2020
TCE (ug/m3)	2.6

Location	IA 16	
Sample Name	IA 16[a]	IA 16-022020[b]
Collection Date	2/11/2020	2/20/2020
TCE (ug/m3)	2.8	1.9

Location	RAD 1	
Sample Name	RAD1[c]	RAD1-022020[b]
Collection Date	2/13/2020	3/12/2020
TCE (ug/m3)	110	1.3

Location	RAD 3
Sample Name	RAD3[c]
Collection Date	2/13/2020
TCE (ug/m3)	170

Location	IA 20
Sample Name	IA20[a]
Collection Date	2/11/2020
TCE (ug/m3)	73

Location	RAD 2
Sample Name	RAD2[c]
Collection Date	2/13/2020
TCE (ug/m3)	110

Location	IA 18
Sample Name	IA 18[a]
Collection Date	2/11/2020
TCE (ug/m3)	45

Location	RAD 5
Sample Name	RAD5[d]
Collection Date	3/12/2020
TCE (ug/m3)	2.3

Location	IA 19	
Sample Name	IA 19[a]	IA 19-022020[b]
Collection Date	2/11/2020	2/20/2020
TCE (ug/m3)	110	2.3

IA17 RAD4 IA16 RAD1 AA4 IA9 IA13 Sewing Room Office Warehouse 3 Warehouse 2 Warehouse 1 AA3 IA14 Cafeteria and Office AA5 AIRE-BROOK/ CAREY CHAUFFEURED IA12 RAD3 A10 IA8 A11 IA20 Locker Room RAD5 IA15 A9 IA10 IA19 IA11 RAD2 IA18 A8 Former Evaporator Pit AA2

Legend

Pre- and Post-Air-Purification Indoor Air Sample Locations

- Indoor Air
- Passive Sampler

Other Sample Locations

- Ambient Air
- Indoor Air
- Sub-slab Soil Gas

Property Features

- Air Purifier
- Former TCE Tank
- Overhead Door (Approximate)
- Property Parcel

Sample Shading

- Sample collected prior to air purification
- Sample collected during air purification

TCE Result Shading

- Exceedance of MTCA Method B indoor air CUL (0.33 ug/m3)
- Exceedance of short-term indoor air action level, workplace (7.5 ug/m3)

NOTES:
All sample locations are approximate.
Indoor air samples were collected under normal working conditions.
CUL = cleanup level.
MTCA = Model Toxics Control Act.
TCE = trichloroethene.
ug/m3 = micrograms per cubic meter.
(a) 8-hour indoor air sample collected with a 6 liter Summa canister.
(b)8-hour indoor air sample collected with a 6 liter Summa canister.
(c) Radiello 130 passive indoor air sample collected from February 1 to February 13, 2020.
(d) Radiello 130 passive indoor air sample collected from February 20 to March 12, 2020.

0 20 40
Feet

Source:
Aerial photograph obtained from Mapbox.
Parcel data obtained from King County GIS.

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Produced By: abixby
Project: 1803.01

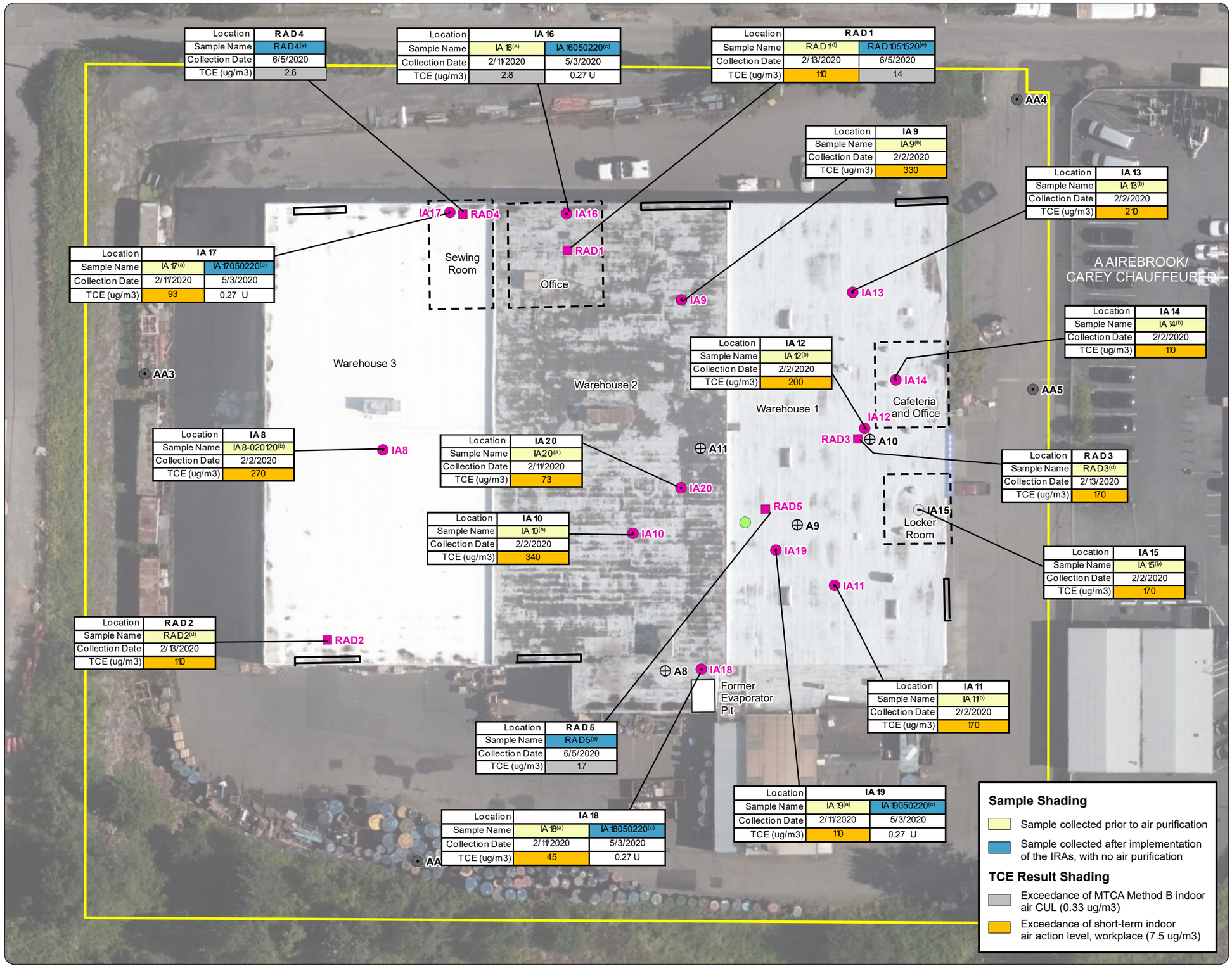

Figure 6-1
Pre- and Post-Interim-Action Indoor Air TCE Results

Precision Engineering, Inc.
Seattle, Washington

Legend

Pre- and Post-Interim-Action Indoor Air Sample Locations

- Indoor Air
- Passive Sampler

Other Sample Locations

- Ambient Air
- Indoor Air
- Sub-slab Soil Gas

Property Features

- Former TCE Tank
- Overhead Door (Approximate)
- Property Parcel

NOTES:
All sample locations are approximate.
Non-detects ("U") were not compared to screening critieria.
CUL = cleanup level.
IRAs = interim remedial actions.
MTCA = Model Toxics Control Act.
TCE = trichloroethene.
U = Result is non-detect to method reporting limit.
ug/m3 = micrograms per cubic meter.
(a) 8-hour indoor air sample collected with a 6-liter Summa canister during normal working conditions.
(b) 24-hour indoor air sample collected with a 6-liter Summa canister outside of normal working conditions.
(c) 24-hour indoor air, post-interim action performance sample collected with a 6-liter Summa canister outside of normal working conditions.
(d) Radiello 130 passive indoor air sampler collected from February 1 to February 13, 2020.
(e) Radiello 130 passive indoor air sampler collected from May 15 to June 5, 2020.

0 20 40
Feet

Source:
Aerial photograph obtained from Mapbox.
Parcel data obtained from King County GIS.

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This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Appendix G-2
Vapor Intrusion Priority Monitoring

GeoEngineers

1101 Fawcett Avenue, Suite 200, Tacoma, Washington 98402, Telephone: 253.383.4940, Fax: 253.383.4923 www.geoengineers.com

Memorandum

To:	Priscilla Tomlinson, Washington State Department of Ecology
From:	Garrett Leque, LG; Terry McPhetridge, LG, LHG
Date:	Revised May 25, 2023
File:	25806-001-00
Subject:	March 2023 Vapor Intrusion Priority Monitoring: Precision Engineering, Inc. Agreed Order No. DE 18079

GeoEngineers (GeoEngineers, Inc.) prepared this revised memorandum to summarize results from the sixth quarterly vapor intrusion priority (VIP) air monitoring event conducted at the Precision Engineering, Inc., site. Activities were conducted in accordance with the Washington State Department of Ecology (Ecology)-approved VIP work plan, included as Section 7 of the document titled "Vapor Report: Vapor Intrusion Assessment, Interim Remedial Actions, Vapor Intrusion Priority Work Plan, Precision Engineering, Inc., Site."

This memorandum has been revised to correct a typo regarding the sampler deployment dates.

AIR MONITORING

Radiello 130 passive vapor samplers were deployed in five locations over a three-week period from February 2 to February 23, 2023. The five locations include the office (RAD1), Warehouse 3 (RAD2), Warehouse 1 store front (RAD3), sewing room (RAD4), and near the former TCE tank (RAD5) per the VIP work plan (see attached Figure 1). The samples were analyzed for trichloroethene (TCE) by United States Environmental Protection Agency (EPA) Method TO-17. The laboratory analytical report is provided as Attachment A.

Analytical data and the laboratory's internal quality assurance and quality control data were reviewed to assess whether they met project-specific data quality objectives. A data validation memorandum summarizing data evaluation procedures, data usability, and deviations from specific field and/or laboratory methods is included as Attachment B. The data are considered acceptable for their intended use. TCE was detected in four samples at concentrations ranging from 0.089 to 0.059 micrograms per cubic meter (µg/m^3) which are less than the Model Toxics Control Act Method B indoor air cleanup level of 0.33 µg/m^3 and less than Ecology's workplace scenario short-term action limit of 7.5 µg/m^3. One sample was non-detect (RAD2). TCE concentrations at the five sampling locations were the lowest observed since corrective actions were implemented at the site in April 2020. See Table 1 for a summary of the sampling results to date.

DISCUSSION AND RECOMMENDATIONS

Indoor air TCE concentrations have declined since the April 2020 interim actions. Table 1 summarizes the six sampling events that have occurred since implementation of the interim actions. TCE concentrations in samples collected during the first three events were initially greater than the Model Toxics Control Act (MTCA) Method B cleanup level. TCE has been detected at concentrations less than the screening level

during the past three sampling events. Therefore, the minor slab issues observed in the fifth quarterly report do not appear to be a concern for indoor air TCE concentrations.

GeoEngineers requests to change from quarterly to semi-annual sampling (twice per year). One sampling event would be performed during the heating season (November through March) with the second event completed during the cooling season (April through October). The next sampling event would be performed in September 2023.

LIMITATIONS

We have prepared this report for the exclusive use of Dick Morgan for the Precision Engineering Site located at 1231 South Director Street, Seattle, Washington. Dick Morgan may distribute copies of this report to authorized agents and regulatory agencies as may be required for the Project.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty, express or implied, applies to this report.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Attachments:

Table 1. Indoor Air TCE Results

Figure 1. Passive Sampler Locations

Attachment A. Analytical Lab Report

Attachment B. Data Validation Memorandum

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Table 1

Indoor Air TCE Results

Precision Engineering, Inc.

Seattle, Washington

Location	Sample Identification	Sample Collection Start Date	Sample Collection End Date	Trichloroethene ($\mu g/m^3$)
RAD1	RAD1-121720	12/17/2020	1/7/2021	**0.54**
	RAD1-032221	3/22/2021	4/12/2021	**0.44**
	RAD1-062121	6/21/2021	7/12/2021	**0.42**
	RAD1-092021	9/20/2021	10/11/2021	**0.27**
	RAD1-091622	9/16/2022	10/7/2022	**0.19**
	RAD1-022323	2/23/2023	3/2/2023	**0.052**
RAD2	RAD2-022323	2/23/2023	3/2/2023	0.048 U
RAD3	RAD3-022323	2/23/2023	3/2/2023	**0.089**
RAD4	RAD4-121720	12/17/2020	1/7/2021	**0.87**
	RAD4-032221	3/22/2021	4/12/2021	**0.95**
	RAD4-062121	6/21/2021	7/12/2021	**0.76**
	RAD4-092021	9/20/2021	10/11/2021	**0.28**
	RAD4-091622	9/16/2022	10/7/2022	**0.27**
	RAD4-022323	2/23/2023	3/2/2023	**0.089**
RAD5	RAD5-121720	12/17/2020	1/7/2021	**0.77**
	RAD5-032221	3/22/2021	4/12/2021	**0.71**
	RAD5-062121	6/21/2021	7/12/2021	**0.38**
	RAD5-092021	9/20/2021	10/11/2021	**0.16**
	RAD5-091622	9/16/2022	10/7/2022	**0.14**
	RAD5-022323	2/23/2023	3/2/2023	**0.085**
MTCA Method B VI CUL[(1)]				0.33
Indoor Air Action Level, Workplace Scenario[(2)]				7.5

Notes:

Each sample was collected over a three-week period using a Radiello R130 passive indoor air sampler.

A **bolded** value indicates that the analyte was detected at the reported concentration.

A shaded cell indicated that the analyte was detected at a concentration greater than the MTCA Method B VI CUL

CUL = cleanup level

MTCA = Model Toxics Control Act

$\mu g/m^3$ = microgram per cubic meter

VI = vapor intrusion

U = analyte not detected above laboratory reporting limits

Reference:

[1] Ecology Cleanup level and risk calculation data tables. Washington State Department of Ecology, Lacey, Washington

[2] Ecology Implementation Memorandum No. 22 vapor intrusion investigations and short-term trichloroethene toxicity. Washington State Department of Ecology, Lacey, Washington.



Legend

- Shallow Monitoring Well
- Deep Monitoring Well
- Property Parcel
- Trichloroethene Tank
- Passive Sampler
- Indoor/Ambient Air
- Sub-slab Soil Gas

Slab Inspection Areas

- Unsealed Crack and Seams[(a)]
- Minor Sealant Wear
- Sealant Peeling from Seams[(a)]

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. The slab inspection was conducted by GeoEngineers on September 16, 2022. Monitoring well locations were surveyed by True North Surveying. All other locations are approximate.
4. (a) Seams are approximately 1-centimeter deep, linear depressions in the concrete slab with a visible bottom. Seams are not anticipated to contribute to vapor intrusion.

Data Source: 2021 image from King County GIS.
Site features from Figure 2-4 Previous Sample Locations, July 9, 2021, Maul Foster Alongi.
Projection: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet

N W E S

50 0 50

Feet

Passive Sampler Locations

Precision Engineering, Inc.
Seattle, Washington

GeoEngineers

Figure 1

P:\25\25806001\GIS\25806001_Project\25806001_Project.aprx\25806001_FOX_SlabInspection_Sept2022 Date Exported: 11/17/22 by ccabrera

ATTACHMENT A
Analytical Lab Report

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3/9/2023
Ms. Katy Atakturk
GeoEngineers, Inc.
2101 4th Ave Suite 950

Seattle WA 98121

Project Name: Precision Engines
Project #: 25806-001-00
Workorder #: 2302589

Dear Ms. Katy Atakturk

The following report includes the data for the above referenced project for sample(s) received on 2/27/2023 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Passive S.E. RAD130/SKC are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Monica Tran at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2302589

Work Order Summary

CLIENT:	Ms. Katy Atakturk GeoEngineers, Inc. 2101 4th Ave Suite 950 Seattle, WA 98121	**BILL TO:**	CORP Accounts Payables GeoEngineers, Inc. 8410 154th Avenue NE Redmond, WA 98052
PHONE:	206-728-2674	**P.O. #**	
FAX:	206-728-2732	**PROJECT #**	25806-001-00 Precision Engines
DATE RECEIVED:	02/27/2023	**CONTACT:**	Monica Tran
DATE COMPLETED:	03/09/2023		

FRACTION #	NAME	TEST
01A	RAD1-022323	Passive S.E. RAD130/SKC
02A	RAD2-022323	Passive S.E. RAD130/SKC
03A	RAD3-022323	Passive S.E. RAD130/SKC
04A	RAD4-022323	Passive S.E. RAD130/SKC
05A	RAD5-022323	Passive S.E. RAD130/SKC
06A	Lab Blank	Passive S.E. RAD130/SKC
07A	CCV	Passive S.E. RAD130/SKC
08A	LCS	Passive S.E. RAD130/SKC
08AA	LCSD	Passive S.E. RAD130/SKC

CERTIFIED BY: Heidi Hayes DATE: 03/09/23

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-017, Effective date: 10/18/2022, Expiration date: 10/17/2023.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
RAD130 Passive SE by Mod EPA TO-17
GeoEngineers, Inc.
Workorder# 2302589

Five Radiello 130 (Solvent) samples were received on February 27, 2023. The laboratory analyzed the charcoal sorbent bed of the passive sampler following modified method EPA TO-17. The VOCs were chemically extracted using carbon disulfide and an aliquot of the extract was injected into a GC/MS for identification and quantification of volatile organic compounds (VOCs).

The mass of each target compound adsorbed by the sampler was converted to units of concentration using the sample deployment time and the sampling rate for each VOC. If sampling rates were calculated by the lab or the manufacturer, the concentration result has been flagged as an estimated value. Results are not corrected for desorption efficiency.

The reference method used for this procedure is EPA TO-17, which describes the collection of VOCs in ambient air using sorbents and analysis by GC/MS. Because TO-17 describes active sample collection using a pump and thermal desorption as the preparation step, several modifications are required. Modifications to TO-17 are listed in the table below:

Requirement	***TO-17***	***ATL Modifications***
Sample Collection	Pump pulls measured air volume through sorbent tube	VOCs in air adsorbed onto sorbent bed passively through diffusion
Sample Preparation	Thermal extraction	Solvent extraction
Sorbent tube conditioning	Condition newly packed tubes prior to use	Charcoal-based sorbent is a single use media and conditioning is conducted by vendor.
Instrumentation	Thermal desorption introduction system	Liquid injection introduction system
Internal Standard	Gas-phase internal standard introduced on the tube or focusing trap during analysis	Liquid-phase internal standard introduced on the tube at the time of extraction
Media and sample storage	<4 deg C, 30 days	Media shelf life is determined by vendor; sample hold-time is 6 months for the RAD130 and WMS. Sample preservation requirements are storage in a cool, solvent-free refrigerator and optional use of ice during shipping.
Internal Standard Recovery	+/-40% of daily CCV area	-50% to +100% of daily CCV area

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The uptake rates were corrected based on average field temperatures if provided. In the absence of field temperatures, the uptake rates determined at 25 deg C were used.

To calculate ug/m3 concentrations in the Lab Blank, a sampling duration of 30240 minutes was applied. The assumed temperature used for the uptake rate is listed on the data page. If the field temperatures were provided, the rate was adjusted in the same manner as the field samples.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

C - Estimated concentration due to calculated sampling rate

CN - See case narrative explanation.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
VOCS BY PASSIVE SAMPLER - GC/MS

Client Sample ID: RAD1-022323

Lab ID#: 2302589-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.11	0.052

Client Sample ID: RAD2-022323

Lab ID#: 2302589-02A

No Detections Were Found.

Client Sample ID: RAD3-022323

Lab ID#: 2302589-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.18	0.089

Client Sample ID: RAD4-022323

Lab ID#: 2302589-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.18	0.089

Client Sample ID: RAD5-022323

Lab ID#: 2302589-05A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.18	0.085

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Client Sample ID: RAD1-022323

Lab ID#: 2302589-01A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030145sim**	**Date of Collection: 2/23/23 9:00:00 AM**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/2/23 04:23 AM**	
		Date of Extraction: 3/1/23	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.11	0.052

Temperature = 77.0F , duration time = 30240 minutes.
Container Type: Radiello 130 (Solvent)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: RAD2-022323

Lab ID#: 2302589-02A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030146sim**	**Date of Collection: 2/23/23 9:10:00 AM**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/2/23 04:50 AM**	
		Date of Extraction: 3/1/23	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	Not Detected	Not Detected

Temperature = 77.0F , duration time = 30230 minutes.

Container Type: Radiello 130 (Solvent)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130

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Client Sample ID: RAD3-022323

Lab ID#: 2302589-03A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030147sim**	**Date of Collection: 2/23/23 8:30:00 AM**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/2/23 05:16 AM**	
		Date of Extraction: 3/1/23	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.18	0.089

Temperature = 77.0F , duration time = 30170 minutes.
Container Type: Radiello 130 (Solvent)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: RAD4-022323

Lab ID#: 2302589-04A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030148sim**	**Date of Collection: 2/23/23 8:50:00 AM**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/2/23 05:43 AM**	
		Date of Extraction: 3/1/23	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.18	0.089

Temperature = 77.0F , duration time = 30170 minutes.
Container Type: Radiello 130 (Solvent)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

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Client Sample ID: RAD5-022323

Lab ID#: 2302589-05A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030149sim**	**Date of Collection: 2/23/23 8:40:00 AM**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/2/23 06:10 AM**	
		Date of Extraction: 3/1/23	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	0.18	0.085

Temperature = 77.0F , duration time = 30120 minutes.
Container Type: Radiello 130 (Solvent)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2302589-06A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030134sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/1/23 11:29 PM**	
		Date of Extraction: 3/1/23	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Trichloroethene	0.10	0.048	Not Detected	Not Detected

Temperature = 77.0F , duration time = 30240 minutes.
Container Type: Radiello 130 (Solvent)

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Client Sample ID: CCV

Lab ID#: 2302589-07A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030131sim**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 3/1/23 10:08 PM**
		Date of Extraction: NA

Compound	%Recovery
Trichloroethene	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130

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Client Sample ID: LCS

Lab ID#: 2302589-08A

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030132sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/1/23 10:35 PM**	
		Date of Extraction: 3/1/23	

Compound	%Recovery	Method Limits
Trichloroethene	102	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

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Client Sample ID: LCSD

Lab ID#: 2302589-08AA

VOCS BY PASSIVE SAMPLER - GC/MS

File Name:	**c030133sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/1/23 11:02 PM**	
		Date of Extraction: 3/1/23	

Compound	%Recovery	Method Limits
Trichloroethene	104	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130

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Passive Sorbent Chain of Custody

Page 1 of 1

WO# 2302589

Case Seal #: _____

Company: GeoEngineers Project #: 25806-001-00 P.O. #:

Project Manager: Garrett Leque Project Name: PrecisionEngines

Contact phone/email: Collected by: K. Ataktürk

Lab I.D.	Sample Identification	Sampler ID	Date of Deployment (mm/dd/yy)	Time of Deployment (hr:min)	Date of Retrieval (mm/dd/yy)	Time of Retrieval (hr:min)	Sample Matrix (check one): Indoor/Outdoor Air	Soil Gas	Workplace Monitoring	Other ( )	Analysis Requested	Sample Comments:
01A	RAD1-022323	QY244	02/02/23	~~02/23/23~~ 9:00	02/23/23	9:00			X		TCE by TO-17	
02A	RAD2-022323	QY245	↓	9:20	↓	9:10			X		↓	
03A	RAD3-022323	QY246		9:40		8:30			X			
04A	RAD4-022323	QY247		10:00		8:50			X			
05A	RAD5-022323	QY248	↓	10:40	↓	8:40			X		↓	
		NA										

Reporting Units (circle): ppbv, µg/m3, ppmv, mg/m3, µg, ng

Turn Around Time: ☒ Normal ☐ Rush _____ Specify

Relinquished by: (signature)	Date	Time	Received by: (signature)	Date	Time	Notes to Lab:
Katy	2/24/23	11:00AM	K. Mitchell EATL	2/27/23	0915	
Relinquished by: (signature)	Date	Time	Received by: (signature)	Date	Time	

Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples.

Lab Use Only

Shipper Name: Fedex Air Bill #:

Custody Seals Intact? Yes No (None) Temperature (°C) NA

Sample Condition Upon Receipt: (circle) (Good) SDR

ATTACHMENT B
Data Validation Memorandum

Data Validation Report

1101 Fawcett Avenue, Suite 200, Tacoma, Washington 98402, Telephone: 253.383.4940, Fax: 253.383.4923 www.geoengineers.com

Project: Dick Morgan – Precision Engineering Remedial Investigation
February 2023 Radiello Air Samples

GEI File No: 25806-001-00

Date: April 11, 2023

This report documents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2A data validation (USEPA Document 540-R-08-005; USEPA 2009) of analytical data from the analyses of air samples collected as part of the February 2023 sampling event, and the associated laboratory quality control (QC) samples. The samples were obtained from the Precision Engineering site located at 1231 S Director Street in Seattle, Washington.

OBJECTIVE AND QUALITY CONTROL ELEMENTS

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide detection and reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

The data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times
- Surrogate Recoveries
- Method Blanks
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Continuing Calibrations (CCALs)

VALIDATED SAMPLE DELIVERY GROUPS

This data validation summary included review of the sample delivery group (SDG) listed below in Table 1.

TABLE 1. SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
2302589	RAD1-022323, RAD2-022323, RAD3-022323, RAD4-022323, RAD5-022323

CHEMICAL ANALYSIS PERFORMED

Eurofins Air Toxics, Inc. (Eurofins) located in Folsom, California, performed laboratory analysis on the air samples using the following method:

- Volatile Organic Compounds (VOCs) by GC/MS collected on Charcoal-based Passive Samplers

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below.

DATA PACKAGE COMPLETENESS

Eurofins analyzed the air samples evaluated as part of this data validation. The laboratory provided the required deliverables for the data validation. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the case narrative.

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COC documentation parameters were met.

Holding Times

The holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection.

Established holding times were met for the requested analyses.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added at a known concentration and percent recoveries are calculated following analysis.

The surrogate recoveries for field samples were within the laboratory control limits.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. Method blanks were analyzed with each batch of

samples, at a frequency of 1 per 20 samples. None of the analytes of interest were detected above the reporting limits in the method blanks.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. As there is no actual sample matrix (such as soil or groundwater) in the analysis, the analytical expectations for accuracy and precision are usually more rigorous and qualification would apply to the samples in the batch, instead of the parent sample only.

Laboratory control sample analyses should be performed once per analytical batch or every 20 field samples, whichever is more frequent. The recovery criteria for laboratory control samples are specified in the laboratory documents, as are the relative percent difference (RPD) control limits for LCS/LCSD sample sets.

The frequency requirements were met for each analysis, and the percent recovery and RPD values were within the proper control limits.

Continuing Calibrations (CCALs)

The continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The percent difference (%D) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020).

OVERALL ASSESSMENT

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate and LCS/LCSD percent recovery values. Precision was acceptable, as demonstrated by the LCS/LCSD RPD values.

No analytical results were qualified. The data are acceptable for the intended use.

REFERENCES

U.S. Environmental Protection Agency (USEPA). 2009. "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

U.S. Environmental Protection Agency (USEPA). 2020. "Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review," EPA-540-R-201-005. November 2020.

Appendix H
Geophysics Report

Global Geophysics

P. O. Box 2229
Redmond, WA 98053
Tel: 425-890-4321
Fax: 360-805-0259

July 14, 2021 Our Ref.: 111-0520.000

Maul Foster & Alongi, Inc.
1329 N. State Street, Suite 301
Bellingham, WA 98225

Attention: Ms. Amanda Bixby

RE: REPORT ON THE GEOPHYSICAL SURVEY AT S. 1231 DIRECTOR ST., SEATTLE, WA

Dear Ms. Bixby:

Global Geophysics conducted geophysical surveys on June 17th, 18th and 19th, 2021 at S. 1231 Director St., Seattle, WA. The proposed objective of the geophysical investigation is to assist in locating potential buried UST in a boiler room, determining the concrete thickness, and mark rebar around proposed borings.

METHODOLOGY AND INSTRUMENTATION

GPR was used for this study. The following paragraphs describe the method and field procedure.

Ground Penetrating Radar

The GPR method uses electromagnetic pulses, emitted at regular intervals by an antenna to map subsurface features. The electromagnetic pulses are reflected where changes in electrical properties of materials occur such as changes in lithology or where underground utilities are present. The reflected electromagnetic energy is received by an antenna, converted into an electrical signal, and recorded on the GPR unit. The data is recorded and viewed in real time on a graphical display that depicts a continuous profile or cross-section image of the subsurface directly beneath the path of the antenna.

The depth of penetration of the GPR signal varies according to antenna frequency and the conductivity of the subsurface material. The depth of subsurface penetration with GPR decreases with an increase in the frequency of the antenna and an increase in soil conductivity. Low frequency antennas (50 to 500 MHz) provide the best compromise between obtaining good subsurface penetration and resolution.

The data were collected in the areas without shelves and mechanize on the floor using Geophysical Survey Systems, Inc. (GSSI) SIR 3000 GPR system with antennas having a center frequency of 400 MHz. The data was digitally recorded for post processing.

RESULTS

The site plan is shown in Figure 1. The photos of interpreted GPR rebar markings on floor are presented in Figures 2-10. The GPR profiles in the boiler room are presented in Figures 11-17.

- UST locate in the Boiler Room: As shown in the GPR profiles, there are some data gaps due to the presence of obstacles. No UST was located within the scanned areas. A potential excavated area is interpreted and shown in Figure 17.
- The interpreted concrete thickness is presented in Figure 18. The thickness of the concrete varies between 2.5 in to 11 in, but 5-6 inch for most of the areas.
- The spacing between the rebars is around 6” in original slabs, but 12” in new patches.

LIMITATIONS OF THE GEOPHYSICAL METHOD

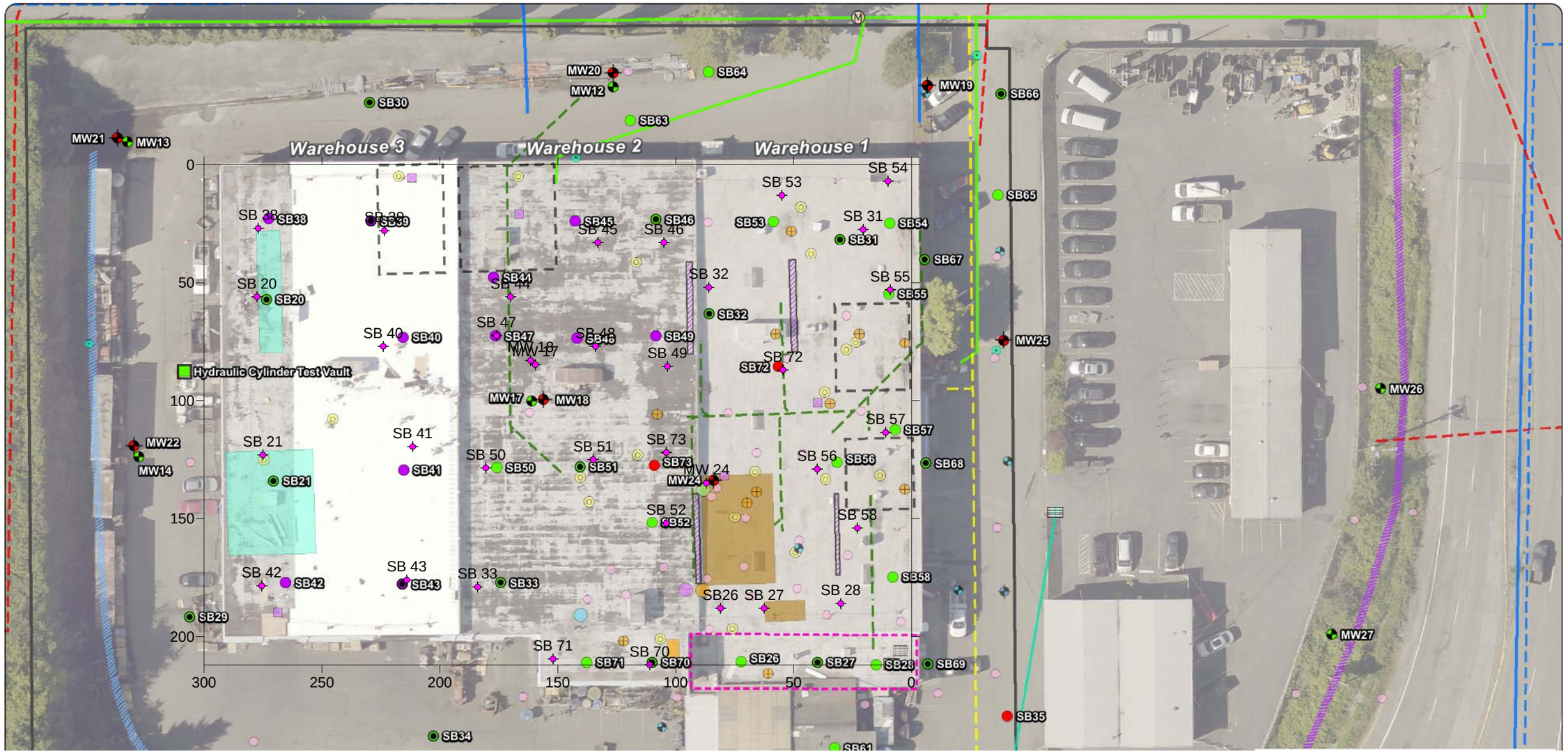
Global geophysics services are conducted in a manner consistent with the level of care and skill ordinarily exercised by other members of the geophysical community currently practicing under similar conditions subject to the time limits and financial and physical constraints applicable to the services. GPR is remote sensing geophysical method that may not detect all subsurface conditions due to the limitations of the methods, soil conditions, size of the features and their depths. The interpreted concrete thickness may deviate from the true thickness from the digitizing of the reflector and velocity assumptions.

Sincerely,

Global Geophysics

John Liu, Ph.D., R.G.
Principal Geophysicist

Path: X:\1803.01_01\Projects\Fig9_1 Proposed Sample Locations.mxd



GeoEngineers note about Figure 1: This figure shows the location of proposed investigation locations in a draft Work Plan that was not published. Actual investigation locations performed per the published final Work Plan are shown in report figures.

0 25 50

PROJECT
Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE
Site Plan

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 1**
CHECK	JL		
REVIEW	--		



(159.5, 84.75) MW 17

(161.5, -83) MW 18

(277.5, 56) SB 20





(87, 135) MW 24

(275, 123) SB 21



PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.	
DESIGN	--		SCALE AS SHOWN	REV.
CADD	EJ			
CHECK	JL		**FIGURE 2**	
REVIEW	--			



(81, 188) SB26

(30, 186) SB 28





(62.5, 188) SB 27

(20.5, 27.5) SB 31



PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

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Tel: 425-890-4321

Project #: 111-0520.000			FILE No.	
DESIGN	--		SCALE AS SHOWN	REV.
CADD	EJ			
CHECK	JL		**FIGURE 3**	
REVIEW	--			



(86, 52) SB 32

(277, 27) SB 38





(184, 179) SB 33

(223.5, 28) SB 39



PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

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Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 4**
CHECK	JL		
REVIEW	--		



(224, 77) SB 40



(275.5, 178.5) SB 42



(211.5, 119.5) SB 41



(214, 176) SB 43

PROJECT
Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE
Photos for proposed boreholes and surrounding rebar markings

Global Geophysics
P.O. Box 2229
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Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 5**
CHECK	JL		
REVIEW	--		









PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

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P.O. Box 2229
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Tel: 425-890-4321

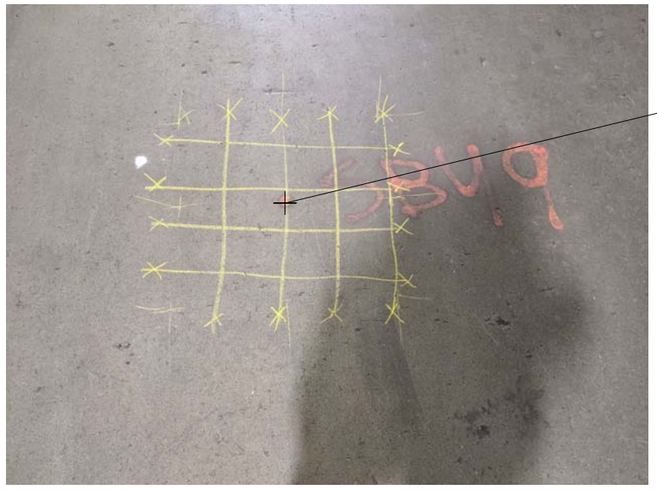
Project #: 111-0520.000			FILE No.	
DESIGN	--		SCALE AS SHOWN	REV.
CADD	EJ		**FIGURE 6**	
CHECK	JL			
REVIEW	--			



(134, 77) SB 48



(180.5, 128.5) SB 50



(103.5, 85.5) SB 49



(135, 125) SB 51

PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 7**
CHECK	JL		
REVIEW	--		



(104, 152) SB 52



(10, 7) SB 54



(55, 13) SB 53



(9, 53) SB 55

PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.	
DESIGN	--		SCALE AS SHOWN	REV.
CADD	EJ		**FIGURE 8**	
CHECK	JL			
REVIEW	--			



(40, 129) SB 56



(23, 154) SB 58



(11, 113.5) SB 57



(111, 212) SB 70

PROJECT
Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE
Photos for proposed boreholes and surrounding rebar markings

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

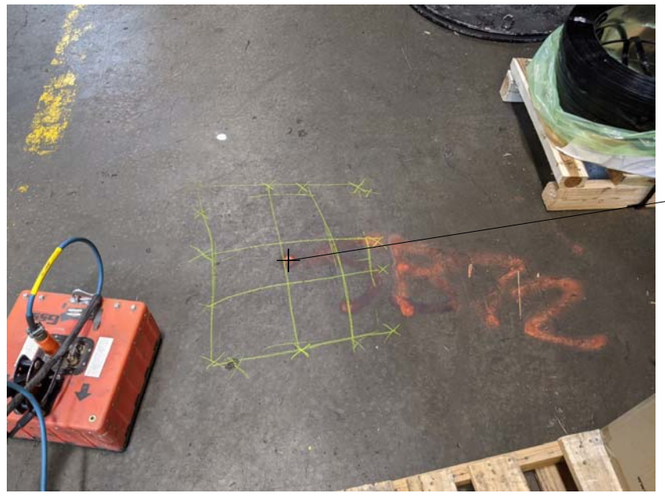
Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 9**
CHECK	JL		
REVIEW	--		



(152, 209.5) SB 71



(104, 122) SB 73



(54.5, 87) SB 72

PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Photos for proposed boreholes and surrounding rebar markings

Global Geophysics
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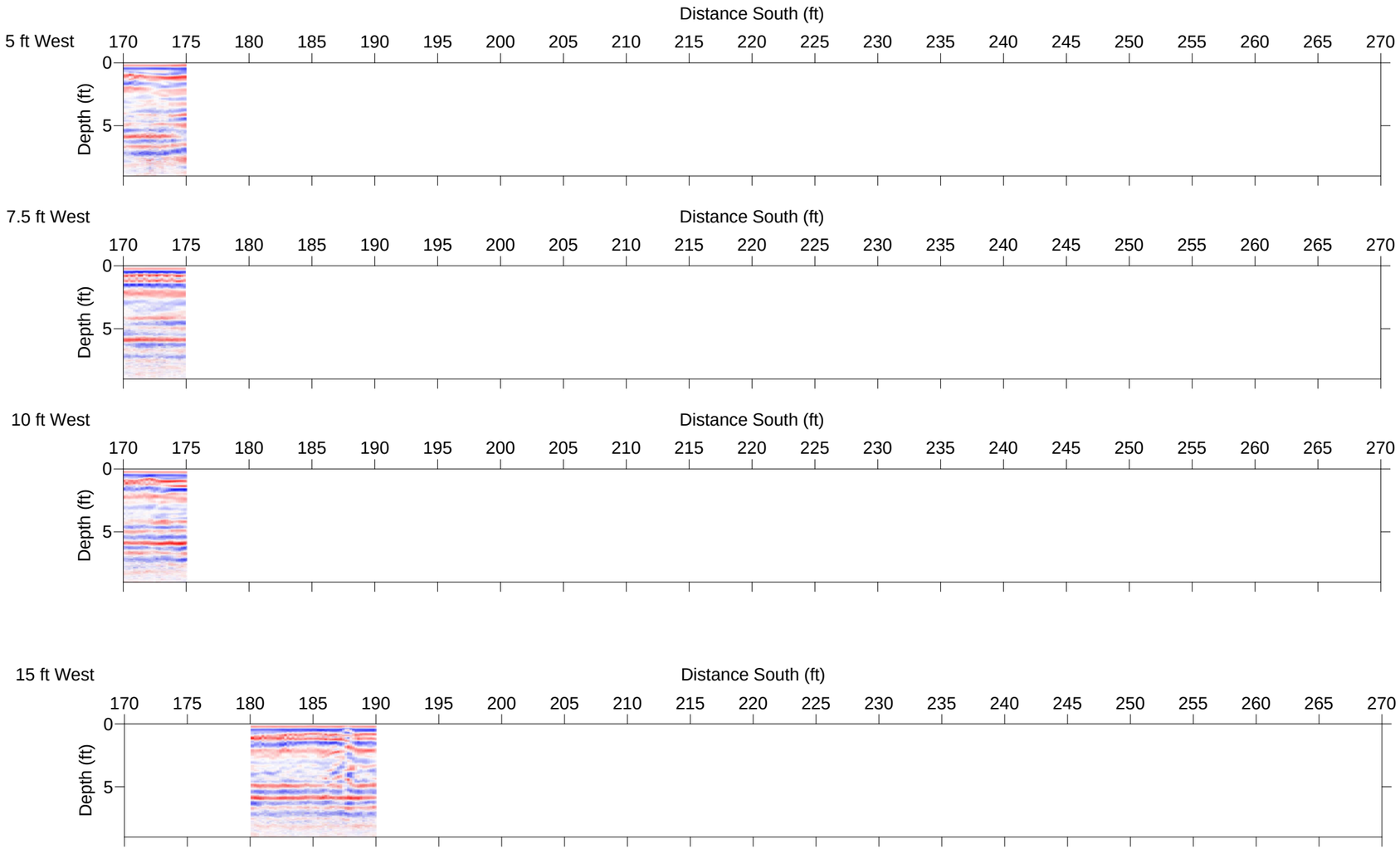
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.	
DESIGN	--		SCALE AS SHOWN	REV.
CADD	EJ		**FIGURE 10**	
CHECK	JL			
REVIEW	--			



0 ft 10 ft 20 ft

PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

GPR Profiles

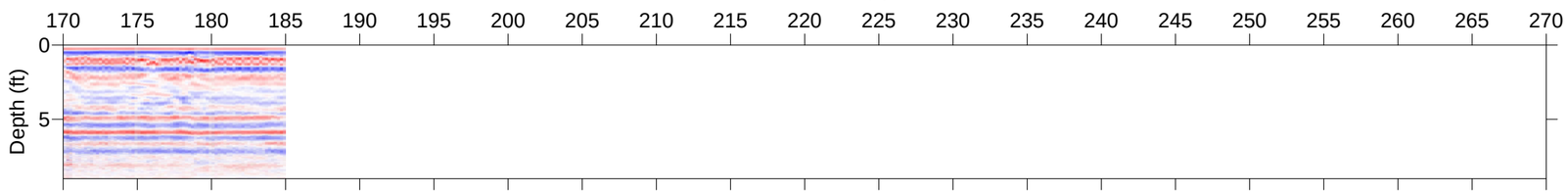
Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 11**
CHECK	JL		
REVIEW	--		

25 ft West



27.5 ft West



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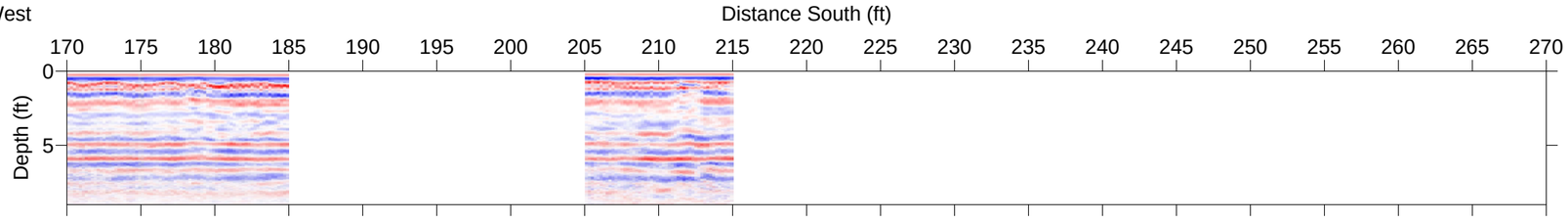
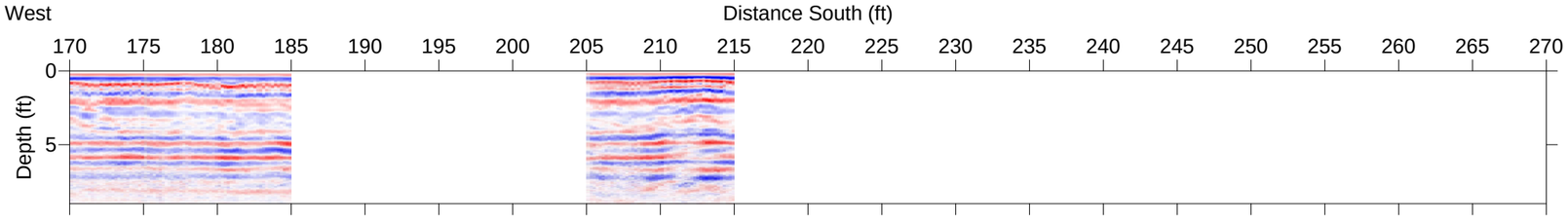
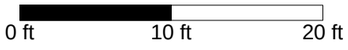


32.5 ft West





PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

GPR Profiles

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 12**
CHECK	JL		
REVIEW	--		

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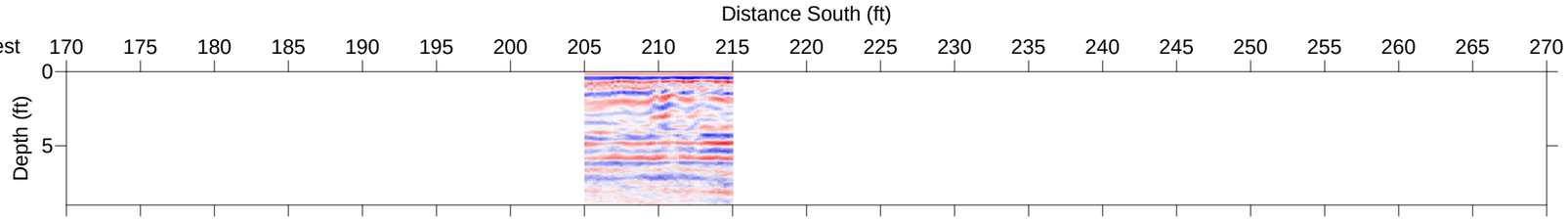

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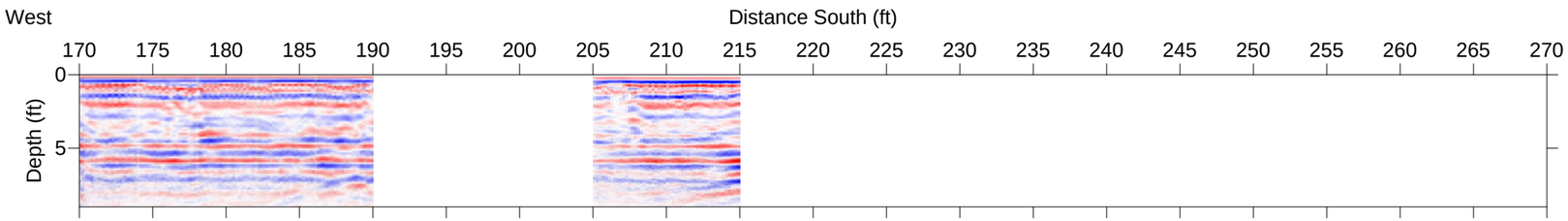

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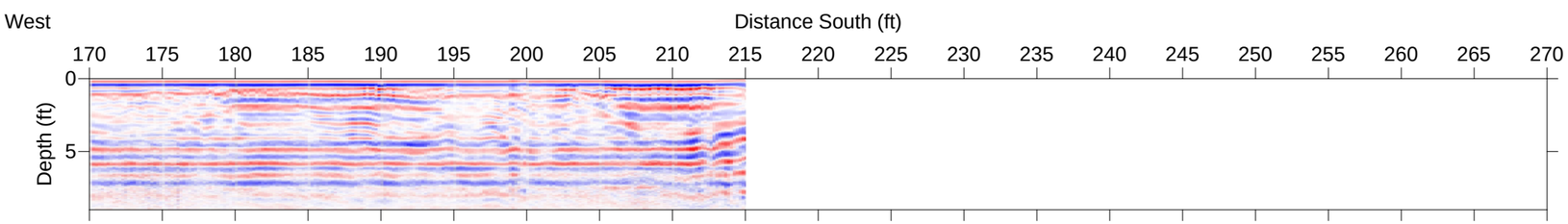
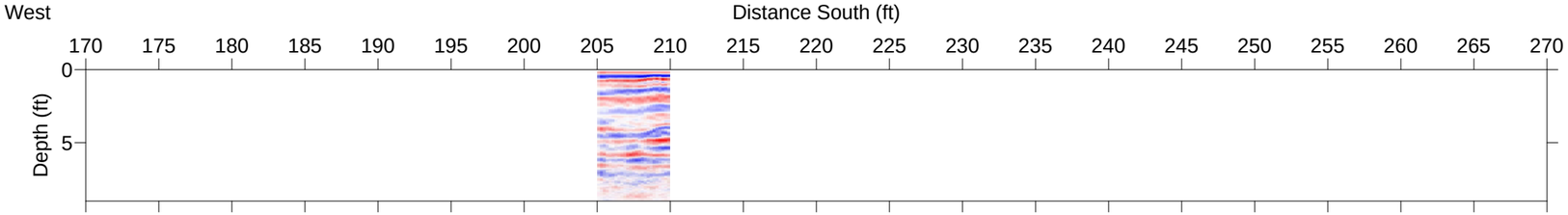


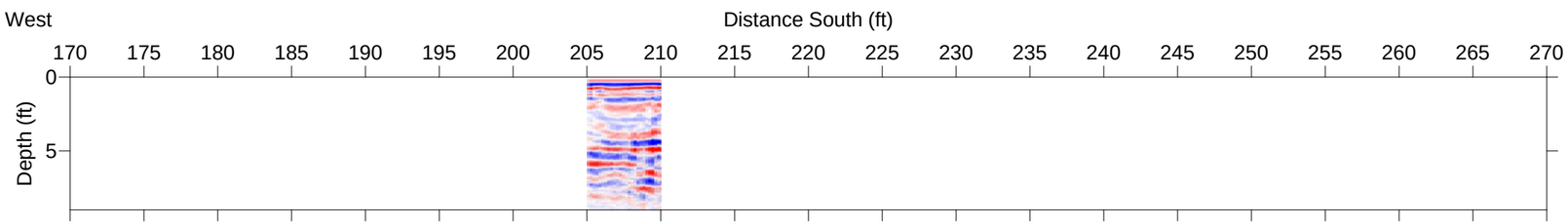
42.5 ft West

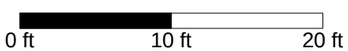


45 ft West



47.5 ft West





PROJECT

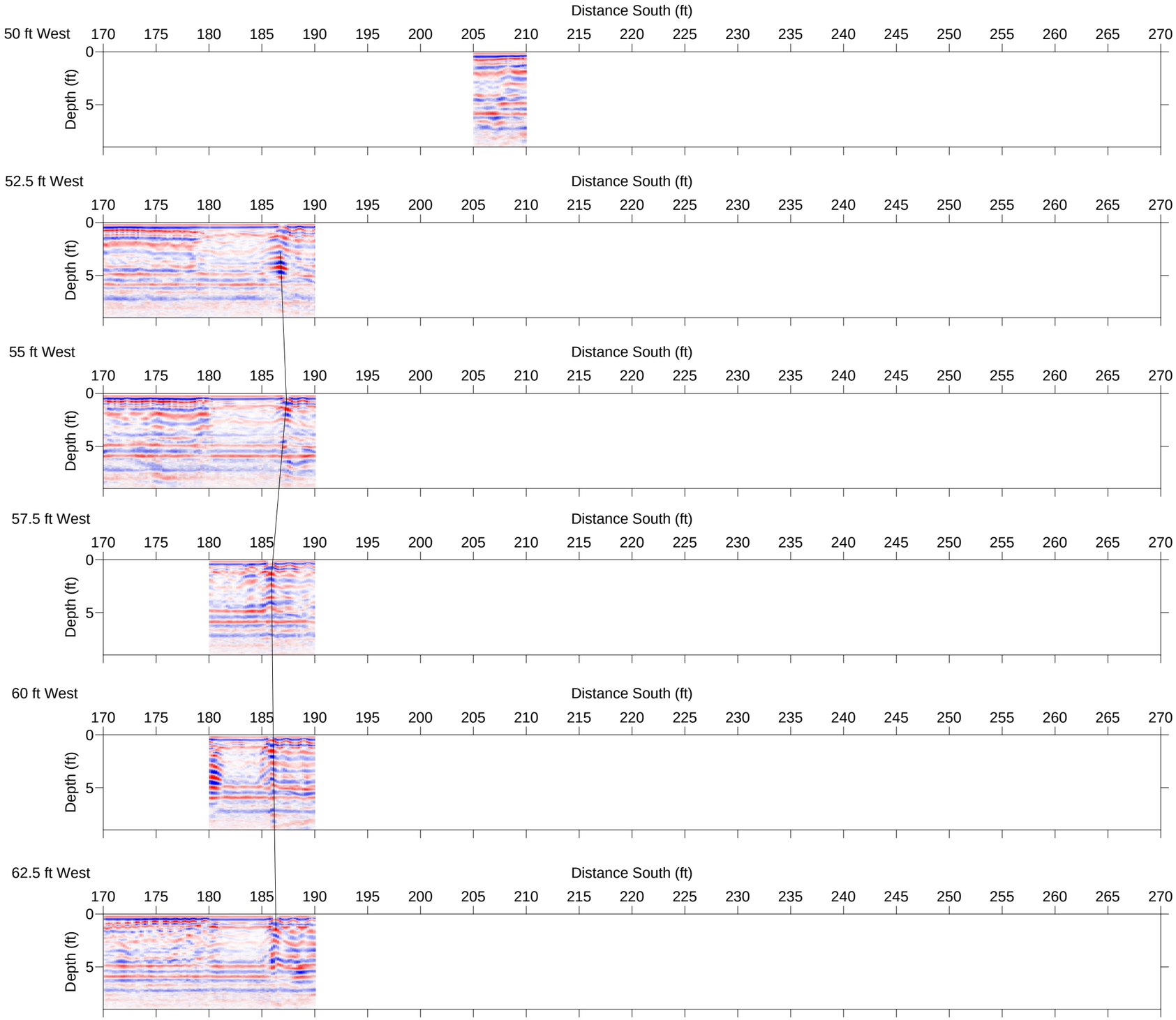
Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

GPR Profiles

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		
CHECK	JL		**FIGURE 13**
REVIEW	--		



0 ft 10 ft 20 ft

PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

GPR Profiles

Global Geophysics
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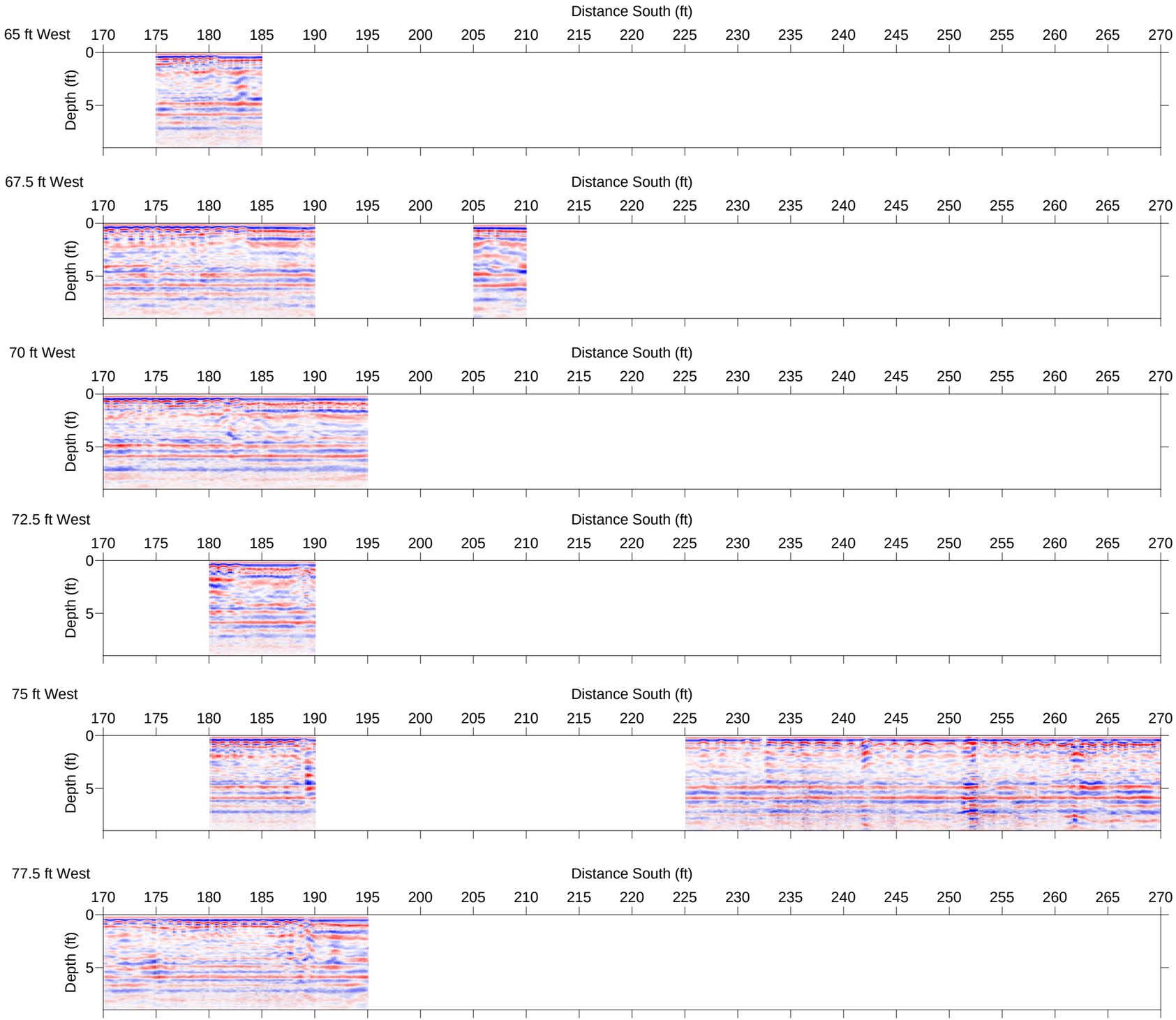
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #. 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 14**
CHECK	JL		
REVIEW	--		



0 ft 10 ft 20 ft

PROJECT

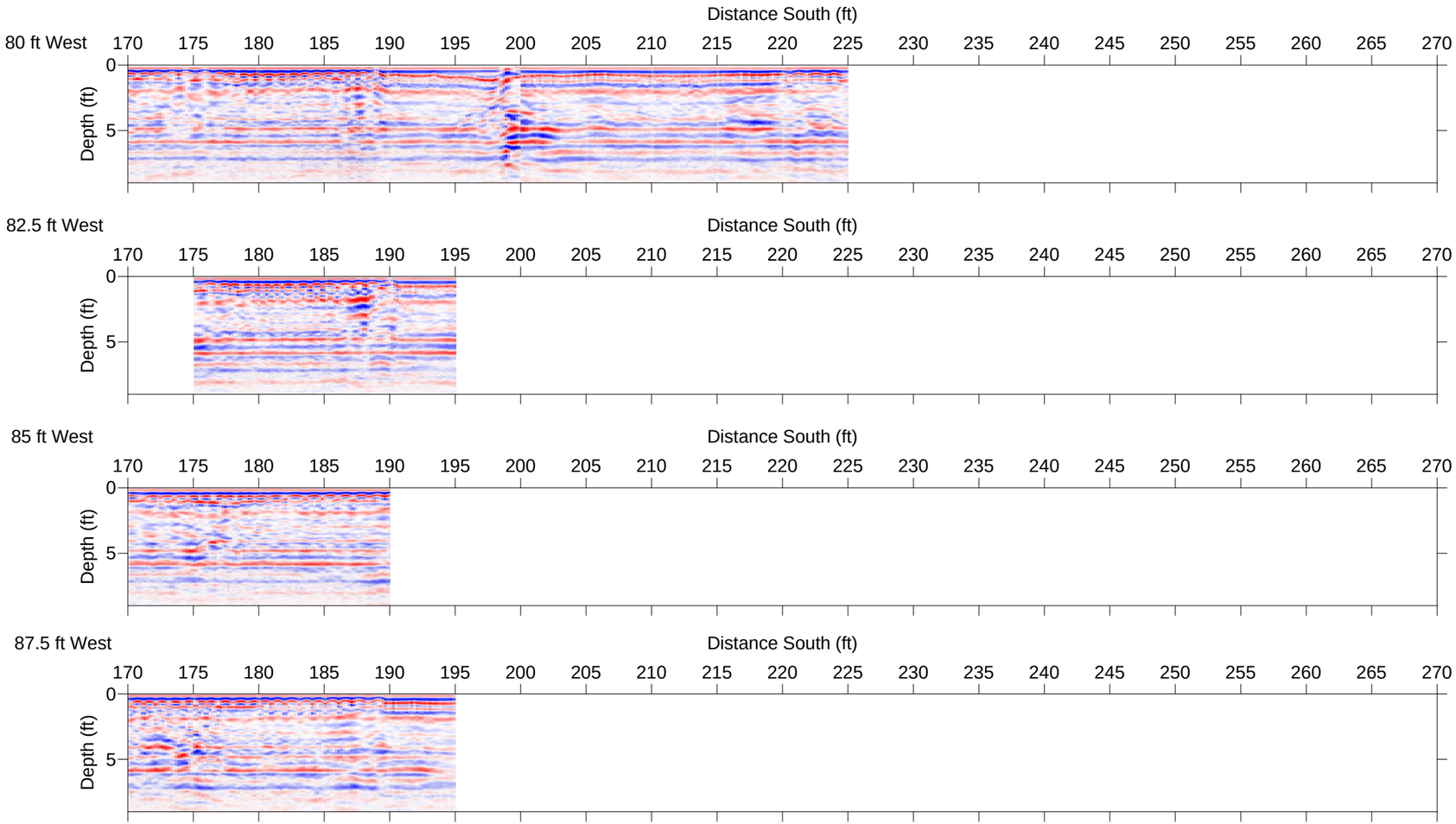
Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

GPR Profiles

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.	
DESIGN	--		SCALE AS SHOWN	REV.
CADD	EJ			
CHECK	JL		**FIGURE 15**	
REVIEW	--			



0 ft 10 ft 20 ft

PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

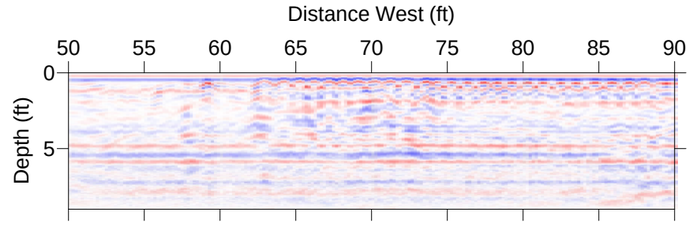
TITLE

GPR Profiles

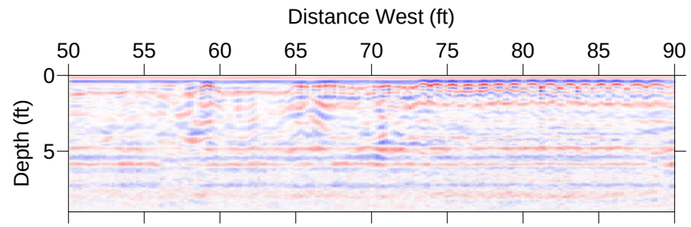
Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 16**
CHECK	JL		
REVIEW	--		

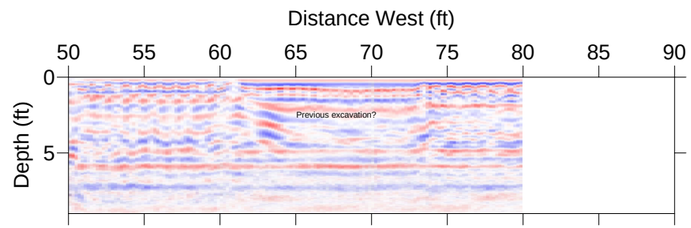
182.5 ft South



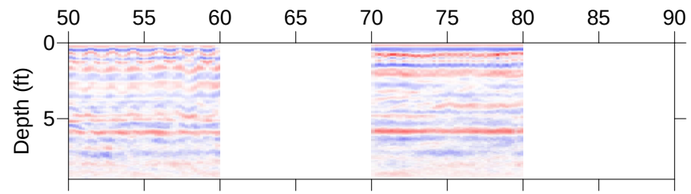
185 ft South



187.5 ft South



190 ft South



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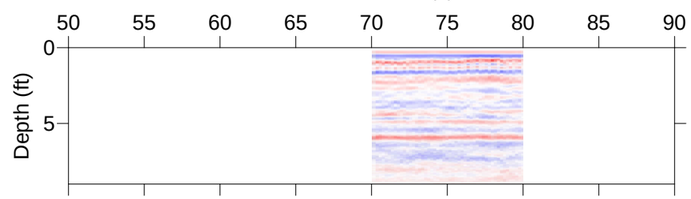
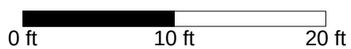




PROJECT

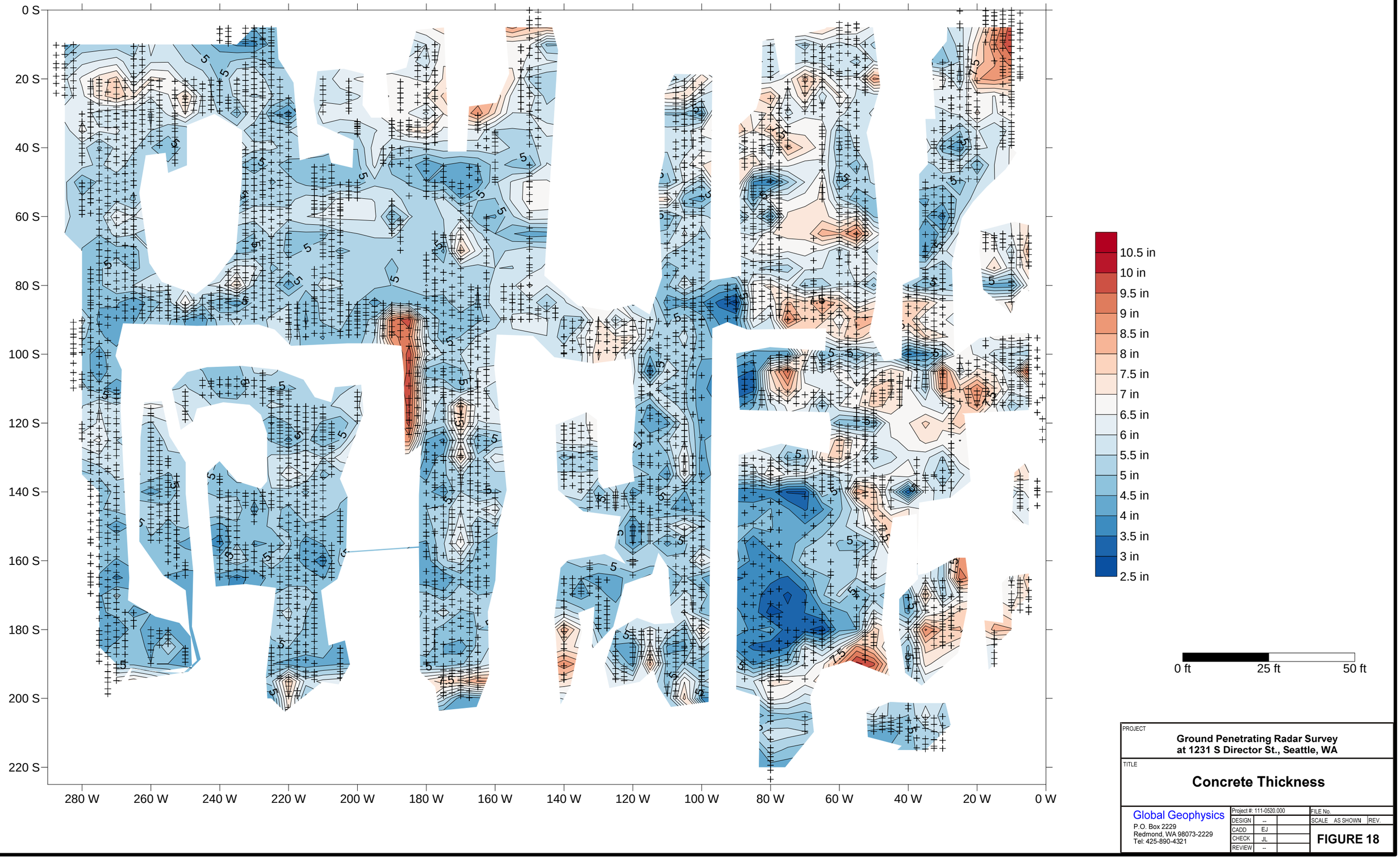
Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

GPR Profiles

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		**FIGURE 17**
CHECK	JL		
REVIEW	--		



PROJECT

Ground Penetrating Radar Survey at 1231 S Director St., Seattle, WA

TITLE

Concrete Thickness

Global Geophysics
P.O. Box 2229
Redmond, WA 98073-2229
Tel: 425-890-4321

Project #: 111-0520.000			FILE No.
DESIGN	--		SCALE AS SHOWN REV.
CADD	EJ		
CHECK	JL		**FIGURE 18**
REVIEW	--		

Appendix I
Kaspac Chiyoda Data



\\FWY01\data\Projects\2013\1396024.00 Ecology Precision Engineering\GIS\Events\RIReport\Fig8_SeattleLimo.mxd

Legend

- Seattle Limousine Monitoring Well
- Seattle Limousine Soil Boring
- Seattle Limousine Excavation Soil Sample
- Precision Engineering Deep Monitoring Well
- Precision Engineering Shallow Monitoring Well
- Seattle Limousine Excavations
- Parcel Boundary

Notes:

1. All locations are approximate.

Imagery Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.
Seattle Limousine Map Sources: EMCON, Independent Remedial Action Report, Chiyoda International Property. 14 November 1995. and EMCON, Addendum to Independent Remedial Action Report, Chiyoda International Corporation Property. 9 September 1996.

N

0 17.5 35
Feet

Kennedy/ Jenks Consultants

Former Precision Engineering Property
Seattle, Washington

Seattle Limousine Property Sampling Locations

Figure 8

K/J Project Number 1396024.00
August 2015

Table A9: Historical Offsite Soil Analytical Results

Sample Location	Sample Depth (ft bgs)	Date	Hydrocarbons (mg/kg)				Metals (mg/kg)											VOCs (mg/kg)						
			Diesel-range	Oil-range	Gasoline-range	Total Petroleum Hydrocarbons (undifferentiated)	Antimony	Arsenic	Beryllium	Cadmium	Total Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Acetone	Benzene	Bromo-dichloro-methane	Bromo-form	Bromo-methane	2-Butanone	Carbon Disulfide
1	6.0	9/19/1989	57		20														<0.025					
2	6.0	9/19/1989	<5		<5														0.079					
3	11.0	9/19/1989	26		<5														0.058					
4	6.0	9/19/1989	214		<5														<0.025					
5	5.0	9/19/1989	<5		<5														<0.025					
B10-2	4.0	12/6/1994				27	<4.78	<4.78	<2.39	<2.39	20.6	14.4	7.66	<1.0	25.4	<4.78	<0.96	29.7		<0.50					
B10-4	6.0	12/6/1994				60														<0.50					
B10-8	11.0	12/6/1994				19														<0.50					
B11-1	2.0	12/6/1994				77	<4.78	<4.32	<2.16	<2.16	37.2	28.5	7.35	<1.0	47.5	<4.32	<0.86	43.2		<0.50					
B11-2	5.0	12/6/1994				17														<0.50					
B11-5	12.0	12/6/1994				19														<0.50					
B12-1	2..0	12/7/1994				120	<4.88	<4.89	<2.44	<2.44	15.6	24.4	9.77	<1.0	14.7	<4.88	<0.98	45.9		<0.50					
B12-4	7.0	12/7/1994				65														<0.50					
B12-7	12.0	12/7/1994				48														<0.50					
B7	0.5	8/28/1990																	<100	<5.0	<5.0	<25	<50	<50	<5.0
	1.5	8/28/1990																	<100	<5.0	<5.0	<25	<50	<50	<5.0
B-7 COMP	NA	4/18/1991																		<0.036	<0.014	<0.014	<0.036		
B-8 COMP	NA	4/18/1991																		<0.036	<0.014	<0.014	<0.036		
B-9 COMP	NA	4/18/1991																		<0.025	<0.010	<0.010	<0.050		
GB-1	1.5	6/6/1996	130	420	<20														2.90	0.074				1.00	
	3.0	6/6/1996	30	<100	<5														0.74	<0.005				0.28	
GB-2	1.5	6/6/1996	50	200	<5														0.25	<0.005				<0.10	
	3.0	6/6/1996	26	<100	<5														<0.10	<0.005				<0.10	
GB-3	1.5	6/6/1996	50	160	<5														0.38	<0.005				<0.10	
	3.0	6/6/1996	<25	<100	<5														0.26	<0.005				<0.10	
GB-4	1.5	6/6/1996						3		<1	10	10	<20					72	<0.10	<0.005				<0.10	
	3.0	6/6/1996	60	140				2		<1	7	8	<20					32	<0.10	<0.005				<0.10	
GB-5	3.0	6/6/1996	60	140	<5								25							<0.05					
GB-6	4.0	6/6/1996	60	120	<5								26							<0.05					
GB-7	4.0	6/6/1996	<25	<100	<5								17							<0.05					
GB-8	4.0	6/6/1996	100	100	237								16							0.12					
GB-9	4.0	6/6/1996	50	180	<5								<10							<0.05					
LD-EW-1	1.0	8/22/1996	262	1,162																					
LD-EW-2	1.0	8/26/1996	152	850																					
LD-EW2-1	1.0	1/2/1997	107	207 [a]																<0.05					
LD-EW3-1	1.0	1/4/1997		179																					
LD-FS-2	2.0	8/22/1996	31	131																					
LD-NW-1	1.0	8/22/1996	103	631																					
LD-NW-2	1.0	8/26/1996	54	190																					
LD-SW-1	1.0	8/22/1996	230	1,046																					
LD-SW-2	1.0	8/26/1996	172	558																					
LD-SW2-1	1.0	1/2/1997	97	194 [a]																0.32					
LD-WW-1	1.0	8/22/1996	148	505																					
LD-WW-2	1.0	8/236/1996	40	178																					
MW-3	8.5	1/26/1990			12																				
SP1	NA	4/17/1991	9 [b]		12															<0.025					
SP2	NA	4/17/1991	8 [b]		5															<0.025					
T1	NA	8/27/1990	<5		10															<0.025					
T2	NA	8/27/1990	<5		<5															<0.025					
T3	NA	8/27/1990	<5		<5															0.036					
T-NW-3.5	3.5	8/22/1996			<5															<0.05					
T-WW-3.5	3.5	8/22/1996			<5															<0.05					
T-EW-3.5	3.5	8/22/1996			<5															<0.05					
T-SW-3.5	3.5	8/22/1996			<5															<0.05					
B1-S1-D9	9.0	1/26/1990	<5		<5																				
B2-S1-D6	6.0	1/26/1990	<5		<5																				
B2-S2-D9	9.0	1/26/1990	<5		<5																				
B3-S1-D8.5	8.5	1/26/1990	<5		12																<0.010	<0.010	<0.025		

Table A9: Historical Offsite Soil Analytical Results

Sample Location	Sample Depth (ft bgs)	Date	VOCs (mg/kg)																								
			Carbon Tetra Chloride	Chloro-benzene	Chloro-ethane	Chloro-form	Chloro-methane	Dibromo-chloro-methane	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	1,1-Dichloro-ethane	1,1-Dichloro-ethylene	trans-1,2-Dichloro-ethylene	cis-1,2-Dichloro-ethylene	1,2-Dichloro-ethane	1,2-Dichloro-propane	trans-1,3-Dichloro-propene	cis-1,3-Dichloro-propene	Ethyl-benzene	Methylene Chloride	4-Methyl-2-Pentanone	Naph-thalene	Styrene	Toluene	1,1,2,2-Tetra chloro-ethane	Tetra-chloro-ethylene	1,1,1-Trichloro-ethane
1	6.0	9/19/1989																		<0.025					<0.025			
2	6.0	9/19/1989																		0.072					<0.025			
3	11.0	9/19/1989																		0.094					0.12			
4	6.0	9/19/1989																		<0.025					<0.025			
5	5.0	9/19/1989																		<0.025					<0.025			
B10-2	4.0	12/6/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B10-4	6.0	12/6/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B10-8	11.0	12/6/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B11-1	2.0	12/6/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B11-2	5.0	12/6/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B11-5	12.0	12/6/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B12-1	2..0	12/7/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B12-4	7.0	12/7/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B12-7	12.0	12/7/1994		<0.50					<1.0	<1.0	<1.0									<0.50					<0.50			
B7	0.5	8/28/1990	<5.0	<5.0	<5.0	<5.0	<50	<5.0				<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<50		<5.0	4700 E	<5.0	<5.0	<5.0
	1.5	8/28/1990	<5.0	<5.0	<5.0	<5.0	<50	<5.0				<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<50	30 E	<5.0	820 E	<5.0	<5.0	<5.0
B-7 COMP	NA	4/18/1991	<0.014	<0.036	<0.036	<0.014	<0.14	<0.014	<0.036	<0.036	<0.036	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.036	<0.14				<0.036	<0.014	<0.014	<0.014
B-8 COMP	NA	4/18/1991	<0.014	<0.036	<0.036	<0.014	<0.14	<0.014	<0.036	<0.036	<0.036	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.036	<0.14				0.053	<0.014	<0.014	<0.014
B-9 COMP	NA	4/18/1991	<0.010	<0.025	<0.040	<0.010	<0.10	<0.010	<0.025	<0.025	<0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	<0.10				0.26	<0.010	<0.010	<0.010
GB-1	1.5	6/6/1996													0.074					1.40					980		1.90	
	3.0	6/6/1996													<0.005					0.031					9.20		0.017	
GB-2	1.5	6/6/1996													<0.005					<0.005					0.08		<0.005	
	3.0	6/6/1996													<0.005					<0.005					0.03		<0.005	
GB-3	1.5	6/6/1996													<0.005					<0.005					0.008		<0.005	
	3.0	6/6/1996													<0.005					<0.005					0.014		<0.005	
GB-4	1.5	6/6/1996													<0.005					<0.005					<0.005		<0.005	
	3.0	6/6/1996													<0.005					<0.005					<0.005		<0.005	
GB-5	3.0	6/6/1996																		<0.1					<0.1			
GB-6	4.0	6/6/1996																		<0.1					<0.1			
GB-7	4.0	6/6/1996																		<0.1					<0.1			
GB-8	4.0	6/6/1996																		0.2					0.3			
GB-9	4.0	6/6/1996																		<0.1					<0.1			
LD-EW-1	1.0	8/22/1996																										
LD-EW-2	1.0	8/26/1996																										
LD-EW2-1	1.0	1/2/1997																		<0.1					1.0			
LD-EW3-1	1.0	1/4/1997																										
LD-FS-2	2.0	8/22/1996																										
LD-NW-1	1.0	8/22/1996																										
LD-NW-2	1.0	8/26/1996																										
LD-SW-1	1.0	8/22/1996																										
LD-SW-2	1.0	8/26/1996																										
LD-SW2-1	1.0	1/2/1997																		3.2					6000			
LD-WW-1	1.0	8/22/1996																										
LD-WW-2	1.0	8/236/1996																										
MW-3	8.5	1/26/1990																										
SP1	NA	4/17/1991																		0.046					<0.025			
SP2	NA	4/17/1991																		0.046					<0.025			
T1	NA	8/27/1990		<0.025					<0.025	<0.025	<0.025									0.068					0.027			
T2	NA	8/27/1990		<0.025					<0.025	<0.025	<0.025									<0.025					0.13			
T3	NA	8/27/1990		<0.025					<0.025	<0.025	<0.025									1.1					0.35			
T-NW-3.5	3.5	8/22/1996																		<0.01					<0.01			
T-WW-3.5	3.5	8/22/1996																		<0.01					<0.01			
T-EW-3.5	3.5	8/22/1996																		<0.01					<0.01			
T-SW-3.5	3.5	8/22/1996																		<0.01					<0.01			
B1-S1-D9	9.0	1/26/1990																										
B2-S1-D6	6.0	1/26/1990																										
B2-S2-D9	9.0	1/26/1990																										
B3-S1-D8.5	8.5	1/26/1990	<0.010	<0.025	<0.025	<0.010	<0.10	<0.010				<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		<0.10					<0.010	<0.010	<0.010

Table A9: Historical Offsite Soil Analytical Results

Sample Location	Sample Depth (ft bgs)	Date	VOCs (mg/kg)						DATA SOURCE
			1,1,2-Trichloro-ethane	Trichloro-ethylene	Trichloro-fluoro-methane	Vinyl Acetate	Vinyl Chloride	Total Xylenes	
1	6.0	9/19/1989						0.10	GeoEngineers 1989b
2	6.0	9/19/1989						1.62	GeoEngineers 1989b
3	11.0	9/19/1989						0.57	GeoEngineers 1989b
4	6.0	9/19/1989						<0.025	GeoEngineers 1989b
5	5.0	9/19/1989						<0.025	GeoEngineers 1989b
B10-2	4.0	12/6/1994						<0.50	Pacific Testing Labs 1995
B10-4	6.0	12/6/1994						<0.50	Pacific Testing Labs 1995
B10-8	11.0	12/6/1994						<0.50	Pacific Testing Labs 1995
B11-1	2.0	12/6/1994						<0.50	Pacific Testing Labs 1995
B11-2	5.0	12/6/1994						<0.50	Pacific Testing Labs 1995
B11-5	12.0	12/6/1994						<0.50	Pacific Testing Labs 1995
B12-1	2..0	12/7/1994						<0.50	Pacific Testing Labs 1995
B12-4	7.0	12/7/1994						<0.50	Pacific Testing Labs 1995
B12-7	12.0	12/7/1994						<0.50	Pacific Testing Labs 1995
B7	0.5	8/28/1990	<5.0	<5.0		<50	<5.0	30	Applied Consultants 1990b
	1.5	8/28/1990	<5.0	<5.0		<50	<5.0	<5.0	Applied Consultants 1990b
B-7 COMP	NA	4/18/1991	<0.014	<0.014	<0.036		<0.036	<0.036	Applied Consultants 1991
B-8 COMP	NA	4/18/1991	<0.014	<0.014	<0.036		<0.036	<0.036	Applied Consultants 1991
B-9 COMP	NA	4/18/1991	<0.010	<0.010	<0.025		<0.050	0.49	Applied Consultants 1991
GB-1	1.5	6/6/1996						10.0	EMCON 1996
	3.0	6/6/1996						0.110	EMCON 1996
GB-2	1.5	6/6/1996						<0.005	EMCON 1996
	3.0	6/6/1996						0.017	EMCON 1996
GB-3	1.5	6/6/1996						0.014	EMCON 1996
	3.0	6/6/1996						0.006	EMCON 1996
GB-4	1.5	6/6/1996						<0.005	EMCON 1996
	3.0	6/6/1996						<0.005	EMCON 1996
GB-5	3.0	6/6/1996						<0.1	EMCON 1996
GB-6	4.0	6/6/1996						<0.1	EMCON 1996
GB-7	4.0	6/6/1996						<0.1	EMCON 1996
GB-8	4.0	6/6/1996						1.4	EMCON 1996
GB-9	4.0	6/6/1996						<0.1	EMCON 1996
LD-EW-1	1.0	8/22/1996							EMCON 1996
LD-EW-2	1.0	8/26/1996							EMCON 1996
LD-EW2-1	1.0	1/2/1997						0.1	EMCON 1997
LD-EW3-1	1.0	1/4/1997							EMCON 1997
LD-FS-2	2.0	8/22/1996							EMCON 1996
LD-NW-1	1.0	8/22/1996							EMCON 1996
LD-NW-2	1.0	8/26/1996							EMCON 1996
LD-SW-1	1.0	8/22/1996							EMCON 1996
LD-SW-2	1.0	8/26/1996							EMCON 1996
LD-SW2-1	1.0	1/2/1997						9.7	EMCON 1997
LD-WW-1	1.0	8/22/1996							EMCON 1996
LD-WW-2	1.0	8/236/1996							EMCON 1996
MW-3	8.5	1/26/1990							Applied Consultants 1990a
SP1	NA	4/17/1991						0.41	Applied Consultants 1991
SP2	NA	4/17/1991						0.12	Applied Consultants 1991
T1	NA	8/27/1990						1.5	Applied Consultants 1990b
T2	NA	8/27/1990						0.14	Applied Consultants 1990b
T3	NA	8/27/1990						3.3	Applied Consultants 1990b
T-NW-3.5	3.5	8/22/1996						<0.01	EMCON 1996
T-WW-3.5	3.5	8/22/1996						<0.01	EMCON 1996
T-EW-3.5	3.5	8/22/1996						<0.01	EMCON 1996
T-SW-3.5	3.5	8/22/1996						<0.01	EMCON 1996
B1-S1-D9	9.0	1/26/1990							Applied Consultants 1990a
B2-S1-D6	6.0	1/26/1990							Applied Consultants 1990a
B2-S2-D9	9.0	1/26/1990							Applied Consultants 1990a
B3-S1-D8.5	8.5	1/26/1990	<0.010	<0.010	<0.025		<0.025		Applied Consultants 1990a

Notes:

(a) Sample contained components that eluted in oil range, but the chromatogram did not match the typical oil fingerprint.

(b) Sample contained components that eluted in diesel range, but the chromatogram did not match the typical diesel fingerprint.

"<" indicates analyte was not detected above the specified laboratory reporting limit.

Q qualifier indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria.

B qualifier indicates analyte detected in an associated method blank at a concentration greater than 1/2 the laboratory reporting limit or 5 percent of either the regulatory limit or analyte concentration in the sample.

E qualifier indicates an estimated value.

Indicates analysis not performed/reported.

VOCs = volatile organic compounds

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

Table A10: Historical Offsite Groundwater Analytical Results

Sample ID	Date	Hydrocarbons (µg/L)				Total Metals (µg/L)										VOCs (µg/L)				
		Diesel-range	Oil-range	Gasoline-range	Total Petroleum Hydrocarbons (undifferentiated)	Arsenic	Beryllium	Cadmium	Total Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromo-methane
MW-1	1/31/1990																	<0.5	<0.2	<0.2	<0.5
MW-2	2/1/1990																	<0.5	<0.2	<0.2	<0.5
MW-3	2/1/1990																	46	<1.0	<1.0	<2.5
	3/29/1990																	75			
MW-4	8/28/1990	<1,000		<1,000														0.7	<0.2	<0.2	<0.5
	8/16/1995	280	<750	<50		22											<100	<0.5	<5	<5	<10
MW-5	8/28/1990	<1,000		<1,000														<0.5	<0.2	<0.2	<0.5
MW-6	8/28/1990	<1,000		26000 [a]														7.0	<1.0	<1.0	<2.5
	4/19/1991																	<2,500	<1,000	<1,000	<5,000
	12/2/1994	<250			6,900	41	4.5	5.0	118	280	126	<1.0	113	<2.5	9.5	450		9.0			
	12/15/1994																	8.1			
	5/9/1995	2080 [b]	1300 [c]			23		<3	24	40	20					116		13/<25			
	7/31/1995	890 [b]	<750	640		23											<100	20	<5	<5	<10
MW-7	4/19/1991																	<0.5	<0.2	<0.2	<1.0
	12/2/1994	<250			4,630	273	9.5	9.4	345	936	289	<1.0	165	<2.5	<2.5	10,000		<1.0			
	12/15/1994																	<0.5			
	5/9/1995	400 [b]	<750			104		<3	94	168	76					1,240		<5			
	7/31/1995	340 [b]	<750	<50		43											<100	<5	<5	<5	<10
	1/2/1997	360	<750	<50														<0.5			
MW-8	4/19/1991																	<0.5	<0.2	<0.2	<1.0
	12/2/1994	<250			3,180	50	5.7	5.6	257	574	128	<1.0	242	<2.5	51	602		<1.0			
	12/15/1994																	<0.5			
	5/9/1995	650 [b]	840 [a]			38		<3	62	86	14					99		<5			
	7/31/1995	<250	<750	<50		45											<100	<5	<5	<5	<10
	1/2/1997	340	<750	330														9.9			
MW-9	4/19/1991																	1.4	<0.2	<0.2	<1.0
	12/2/1994	<250			3,180	27	2.3	2.9	96	276	87	<1.0	100	28	4.7	350		<1.0			
	12/15/1994																	<0.5			
	5/9/1995	1470 [b]	980 [a]			9		<3	16	39	9					53		<5			
	7/31/1995	730 [b]	<750	<50		<5											<100	<5	<5	<5	<10
	1/2/1997	920	<750	3,930														1.8			
	4/8/1997																	1.8			
	6/23/1997																	1.0			
	9/30/1997																	8.9			
MW-10	12/15/1994																	<0.5			
	5/9/1995	850 [b]	940 [a]			22		<3	77	142	40					138		<5			
	7/31/1995	<250	<750	<50		6											<100	<5	<5	<5	<10
	1/2/1997	340	<750	<50														<0.5			
	4/8/1997																	<0.5			
	6/23/1997																	<0.5			
	9/30/1997																	<0.5			
MW-11	12/15/1994																	5.1			
	5/9/1995	700 [b]	<750			52		<3	70	85	32					108		<5			
	7/31/1995	430 [b]	<750	<50		50											<100	<5	<5	<5	<10
	4/14/1997																	6.0			
	6/23/1997																	4.3			
	9/30/1997																	<0.5			
MW-12	12/15/1994																	<0.5			
	5/9/1995	<250	<750			42		<3	27	47	8					55		<5			
	7/31/1995	310 [b]	<750	<50		29											<100	<5	<5	<5	<10
	1/2/1997	<250	<750	<50														<0.5			
GB-4-WS	6/6/1996	690	<750	<50		<5		<4	11	12	<2					23		<5			
GB-5-WS	6/6/1996	990	<750	70														<5			
OB-1	4/19/1991																	14	<0.2	<0.2	<1.0
RW-1	8/28/1990	<1,000		3,000														1.9	<0.2	<0.2	<0.5
	4/19/1991	<1,000		<1,000														4.8			

Table A10: Historical Offsite Groundwater Analytical Results

Sample ID	Date	VOCs (µg/L)																	
		2-Butanone	Carbon Disulfide	Carbon Tetrachloride	Chloro-benzene	Chloro-ethane	2-Chloroethyl Vinyl Ether	Chloroform	Chloro-methane	Dibromo-chloro-methane	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	1,1-Dichloro-ethane	1,2-Dichloro-ethane	1,1-Dichloro-ethene	cis-1,2-Dichloro-ethene	trans-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene
MW-1	1/31/1990			<0.2	<0.5	<0.5		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW-2	2/1/1990			<0.2	<0.5	<0.5		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW-3	2/1/1990			<1.0	<2.5	<2.5		<1.0	<10	<1.0	<2.5	<2.5	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/29/1990																		
MW-4	8/28/1990			<0.2	<0.5	<0.5		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	8/16/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-5	8/28/1990			<0.2	<0.5	<0.5		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW-6	8/28/1990			<1.0	<2.5	<2.5		<1.0	<10	<1.0	<2.5	<2.5	<2.5	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
	4/19/1991			<1,000	<2,500	<5,000		<1,000	<10,000	<1,000	<2,500	<2,500	<2,500	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
	12/2/1994																		
	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
MW-7	4/19/1991			<0.2	<0.5	<1.0		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	12/2/1994																		
	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	1/2/1997																		
MW-8	4/19/1991			<0.2	<0.5	<1.0		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	12/2/1994																		
	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	1/2/1997																		
MW-9	4/19/1991			<0.2	<0.5	<1.0		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	1.2	<0.2	<0.2
	12/2/1994																		
	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	1/2/1997																		
	4/8/1997																		
	6/23/1997																		
	9/30/1997																		
MW-10	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	1/2/1997																		
	4/8/1997																		
	6/23/1997																		
	9/30/1997																		
MW-11	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	4/14/1997																		
	6/23/1997																		
	9/30/1997																		
MW-12	12/15/1994																		
	5/9/1995																		
	7/31/1995	<100	<100	<5	<5	<10	<10	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	1/2/1997																		
GB-4-WS	6/6/1996																		
GB-5-WS	6/6/1996																		
OB-1	4/19/1991			<0.2	<0.5	<1.0		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
RW-1	8/28/1990			<0.2	<0.5	<0.5		<0.2	<2.0	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	4/19/1991																		

Table A10: Historical Offsite Groundwater Analytical Results

Sample ID	Date	VOCs (µg/L)													
		trans-1.3-Dichloro-propene	1,2-Dichloro-propane	Ethylbenzene	2-Hexanone	Methylene Chloride	4-Methyl-2-pentanone	Styrene	Tetrachloro-ethylene	1,1,2,2-Tetrochloro-ethane	Toluene	1,1,1-Trichloro-ethane	1,1,2-Trichloro-ethane	Trichloro-ethylene	Trichloro-fluoro-methane
MW-1	1/31/1990	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5
MW-2	2/1/1990	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5
MW-3	2/1/1990	<1.0	<1.0	11		<10			<1.0	<1.0	<2.5	<1.0	<1.0	6.2	<2.5
	3/29/1990			11							490				
MW-4	8/28/1990	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5
	8/16/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
MW-5	8/28/1990	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5
MW-6	8/28/1990	<1.0	<1.0	29		<10			10.0	<1.0	15,000	<1.0	<1.0	<1.0	<2.5
	4/19/1991	<1,000	1,200	<2,500		<10,000			<1,000	<1,000	430,000	<1,000	<1,000	<1,000	<2,500
	12/2/1994			<50							15,036				
	12/15/1994			57							10,000				
	5/9/1995			76/ 63							4,400/ 4,300				
	7/31/1995	<5	<5	22	<50	<5	<50	<5	<5	<5	630	<5	<5	<5	<10
MW-7	4/19/1991	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5
	12/2/1994			3.0							215				
	12/15/1994			<0.5							<0.5				
	5/9/1995			<5							<5				
	7/31/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
	1/2/1997			<1							<1				
MW-8	4/19/1991	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	0.9	<0.2	<0.2	<0.2	<0.5
	12/2/1994			<1.0							8.0				
	12/15/1994			<0.5							10				
	5/9/1995			<5							<5				
	7/31/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
	1/2/1997			4							36				
MW-9	4/19/1991	<0.2	<0.2	1.9		<2.0			1.6	<0.2	560	<0.2	<0.2	0.3	<0.5
	12/2/1994			<1.0							31				
	12/15/1994			<0.5							0.61				
	5/9/1995			<5							<5				
	7/31/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
	1/2/1997			240							14,000				
	4/8/1997			75							27,000				
	6/23/1997			25							3,950				
	9/30/1997			<1.0							3.0				
MW-10	12/15/1994			<0.5							1.4				
	5/9/1995			<5							<5				
	7/31/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
	1/2/1997			<1							<1				
	4/8/1997			<1.0							<1.0				
	6/23/1997			<1.0							<1.0				
	9/30/1997			<1.0							<1.0				
MW-11	12/15/1994			1.6							560				
	5/9/1995			<5							<5				
	7/31/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
	4/14/1997			1.0							121				
	6/23/1997			<1.0							<1.0				
	9/30/1997			1.0							53				
MW-12	12/15/1994			<0.5							<0.5				
	5/9/1995			<5							<5				
	7/31/1995	<5	<5	<5	<50	<5	<50	<5	<5	<5	<5	<5	<5	<5	<10
	1/2/1997			<1							<1				
GB-4-WS	6/6/1996			<5							<5				
GB-5-WS	6/6/1996			<5							<5				
OB-1	4/19/1991	<0.2	<0.2	45		<2.0			<0.2	<0.2	170	<0.2	<0.2	<0.2	<0.5
RW-1	8/28/1990	<0.2	<0.2	<0.5		<2.0			<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5
	4/19/1991			14							<0.5				

Table A10: Historical Offsite Groundwater Analytical Results

Sample ID	Date	VOCs (µg/L)			DATA SOURCE
		Total Xylenes	Vinyl Acetate	Vinyl Chloride	
MW-1	1/31/1990	<0.5		<0.5	Applied Consultants 1990a
MW-2	2/1/1990	<0.5		<0.5	Applied Consultants 1990a
MW-3	2/1/1990	390		<2.5	Applied Consultants 1990a
	3/29/1990	490			Chiyoda 1992b
MW-4	8/28/1990	<0.5		<0.5	Applied Consultants 1990b
	8/16/1995	<5	<50	<10	EMCON 1995b
MW-5	8/28/1990	<0.5		<0.5	Applied Consultants 1990b
MW-6	8/28/1990	130		<2.5	Applied Consultants 1990b
	4/19/1991	<2,500		<5,000	Applied Consultants 1991
	12/2/1994	<50			Pacific Testing Labs 1995
	12/15/1994	430			Pacific Testing Labs 1995
	5/9/1995	510/ 570			EMCON 1995a
	7/31/1995	160	<50	<10	EMCON 1995b
MW-7	4/19/1991	<0.5		<1.0	Pacific Testing Labs 1995
	12/2/1994	9.0			Pacific Testing Labs 1995
	12/15/1994	<1.0			Pacific Testing Labs 1995
	5/9/1995	<5			EMCON 1995a
	7/31/1995	<5	<50	<10	EMCON 1995b
	1/2/1997	<1			EMCON 1997
MW-8	4/19/1991	1.5		<1.0	Applied Consultants 1991
	12/2/1994	<1.0			Pacific Testing Labs 1995
	12/15/1994	<1.0			Pacific Testing Labs 1995
	5/9/1995	<5			EMCON 1995a
	7/31/1995	<5	<50	<10	EMCON 1995b
	1/2/1997	30			EMCON 1997
MW-9	4/19/1991	14		<1.0	Applied Consultants 1991
	12/2/1994	<1.0			Pacific Testing Labs 1995
	12/15/1994	<1.0			Pacific Testing Labs 1995
	5/9/1995	<5			EMCON 1995a
	7/31/1995	<5	<50	<10	EMCON 1995b
	1/2/1997	1,100			EMCON 1997
	4/8/1997	344			EMCON 1998
	6/23/1997	122			EMCON 1998
	9/30/1997	6.0			EMCON 1998
MW-10	12/15/1994	<0.5			Pacific Testing Labs 1995
	5/9/1995	<5			Pacific Testing Labs 1995
	7/31/1995	<5	<50	<10	EMCON 1995b
	1/2/1997	<1			EMCON 1997
	4/8/1997	<1.0			EMCON 1998
	6/23/1997	<1.0			EMCON 1998
	9/30/1997	<1.0			EMCON 1998
MW-11	12/15/1994	13			Pacific Testing Labs 1995
	5/9/1995	<5			Pacific Testing Labs 1995
	7/31/1995	<5	<50	<10	EMCON 1995b
	4/14/1997	9.0			EMCON 1998
	6/23/1997	3.0			EMCON 1998
	9/30/1997	5..0			EMCON 1998
MW-12	12/15/1994	<1.0			Pacific Testing Labs 1995
	5/9/1995	<5			Pacific Testing Labs 1995
	7/31/1995	<5	<50	<10	EMCON 1995b
	1/2/1997	<1			EMCON 1997
GB-4-WS	6/6/1996	<5			EMCON 1996
GB-5-WS	6/6/1996	9			EMCON 1996
OB-1	4/19/1991	330		<1.0	Applied Consultants 1991
RW-1	8/28/1990	180		<0.5	Applied Consultants 1990b
	4/19/1991	180			Applied Consultants 1991

Notes:
(a) Sample contained components that eluted in oil range, but the chromatogram did not match the typical oil fingerprint.
(b) Sample contained components that eluted in diesel range, but the chromatogram did not match the typical diesel fingerprint.
(c) Sample contained components that eluted in gasoline range, but the chromatogram did not match the typical gasoline fingerprint.
"<" indicates analyte was not detected above the specified laboratory reporting limit.
Indicates analysis not performed/reported.
VOCs = volatile organic compounds
µg/L = micrograms per liter

Appendix J
Ecology PCUL Tables

Table J-1

PCUL Workbook - Soil Summary

Precision Engineering, Inc.

Seattle, Washington

Chemical (all concentrations are in mg/kg)	Most Stringent Soil PCUL Vadose Zone Potable GW SL #s 1-4, 8-10	Most Stringent Soil PCUL Saturated Zone Potable GW SL #s 1, 5-10	SL-1 Direct Contact Unrestricted SL-Det	SL-2 Protect Drinking Water Vadose Zone Leach	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-5 Protect Drinking Water Saturated Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion Min. ROD CUL + SMS Lower Tier Sed	SL-9 Simplifed TEE Unrestricted SL-Det	SL-10 Natural Background Ecology (1994)	Basis - Vadose, Potable GW							Basis - Saturated, Potable GW						
													Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background	Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background
PCBs													***PCBs***													
Total PCB Aroclors	1.1E-05	5.5E-07	1.0E+00	3.4E-01	1.1E-05	1.4E-01	1.7E-02	5.5E-07	6.8E-03	1.3E-01	ended	na			X							X				
Total PCB congeners	1.1E-05	5.5E-07	1.0E+00	3.4E-01	1.1E-05	2.1E-03	1.7E-02	5.5E-07	1.1E-04	2.0E-03	ended	na			X							X				
Total PCB TEQ	6.9E-09	3.5E-10	1.3E-05	5.3E-07	6.9E-09	7.4E-07	2.6E-08	3.5E-10	3.7E-08	7.0E-07	ended	na			X							X				
Metals													***Metals***													
Aluminum	8.0E+04	3.3E+04	8.0E+04	4.8E+05	na	na	2.4E+04	na	na	2.4E+05	ended	3.3E+04	X													X
Antimony	5.4E+00	2.7E-01	3.2E+01	5.4E+00	8.1E+01	na	2.7E-01	4.1E+00	na	9.7E+01	ended	na		X							X					
Arsenic	7.3E+00	7.3E+00	6.7E-01	3.4E-01	8.2E-02	1.3E+02	1.7E-02	4.1E-03	6.5E+00	7.0E+00	ended	7.3E+00							X							X
Barium	1.6E+02	8.3E+00	1.6E+04	1.6E+03	1.6E+02	7.6E+05	8.3E+01	8.3E+00	3.8E+04	4.9E+04	ended	na			X							X				
Beryllium	6.3E+01	3.2E+00	1.6E+02	6.3E+01	1.2E+03	7.7E+01	3.2E+00	6.0E+01	3.8E+00	4.9E+02	ended	6.1E-01		X							X					
Cadmium	7.7E-01	7.7E-01	8.0E+01	6.9E-01	1.1E+00	1.6E-01	3.5E-02	5.5E-02	8.3E-03	5.1E+00	ended	7.7E-01							X							X
Chromium, total	2.6E+02	2.6E+02	na	na	na	na	na	na	na	2.6E+02	ended	4.8E+01					X							X		
Chromium, trivalent	5.5E+02	2.7E+01	1.2E+05	4.8E+05	5.5E+02	1.7E+03	2.4E+04	2.7E+01	8.5E+01	3.7E+05	ended	na			X							X				
Chromium, hexavalent	1.8E-02	8.9E-04	3.8E-01	1.8E-02	1.4E-01	3.0E+01	8.9E-04	6.9E-03	1.5E+00	1.1E+00	ended	na		X							X					
Cobalt	4.3E+00	2.2E-01	2.4E+01	4.3E+00	na	na	2.2E-01	na	na	7.3E+01	ended	na		X							X					
Copper	3.6E+01	3.6E+01	3.2E+03	2.8E+02	1.4E+00	6.1E+00	1.4E+01	6.9E-02	3.0E-01	3.9E+02	ended	3.6E+01							X							X
Iron	3.6E+04	3.6E+04	5.6E+04	1.5E+02	na	na	7.6E+00	na	na	1.7E+05	ended	3.6E+04							X							X
Lead	2.5E+02	5.6E+01	2.5E+02	3.0E+03	1.1E+03	3.9E+03	1.5E+02	5.6E+01	1.9E+02	4.5E+02	ended	2.4E+01	X									X				
Manganese	1.1E+03	1.1E+03	3.7E+03	6.5E+01	1.3E+02	na	3.3E+00	6.5E+00	na	1.1E+04	ended	1.1E+03							X							X
Mercury, inorganic	7.0E-02	7.0E-02	2.4E+01	2.1E+00	2.6E-02	2.1E+00	1.0E-01	1.3E-03	1.1E-01	4.1E-01	ended	7.0E-02							X							X
Methylmercury	8.0E+00	8.0E+00	8.0E+00	2.2E+02	na	na	1.1E+01	na	na	2.4E+01	ended	na	X							X						
Molybdenum	3.2E+01	1.6E+00	4.0E+02	3.2E+01	na	na	1.6E+00	na	na	1.2E+03	ended	na		X							X					
Nickel	4.8E+01	4.8E+01	1.6E+03	1.3E+02	1.1E+01	3.3E+03	6.5E+00	5.4E-01	1.7E+02	4.9E+03	ended	4.8E+01							X							X
Selenium	5.2E+00	2.6E-01	4.0E+02	5.2E+00	7.4E+00	4.5E+04	2.6E-01	3.8E-01	2.3E+03	1.2E+03	ended	na		X							X					
Silver	3.2E-01	1.6E-02	4.0E+02	1.4E+01	3.2E-01	9.4E+00	6.9E-01	1.6E-02	4.7E-01	6.1E+00	ended	na			X							X				
Thallium	8.8E-02	4.4E-03	8.0E-01	2.3E-01	8.8E-02	3.6E+01	1.1E-02	4.4E-03	1.8E+00	2.4E+00	ended	na			X							X				
Tin	4.8E+04	2.4E+03	4.8E+04	4.8E+04	na	na	2.4E+03	na	na	1.5E+05	ended	na	X								X					
Vanadium	7.2E+02	1.4E+02	7.2E+02	2.9E+03	na	na	1.4E+02	na	na	2.2E+03	ended	na	X								X					
Zinc	1.0E+02	8.5E+01	2.4E+04	6.0E+03	1.0E+02	9.6E+02	3.0E+02	5.0E+00	4.8E+01	4.1E+02	ended	8.5E+01			X											X
SVOCs - PAHs													***SVOCs - PAHs***													
Acenaphthene	5.0E-01	2.8E-02	4.8E+03	4.9E+01	3.1E+00	5.4E-01	2.5E+00	1.6E-01	2.8E-02	5.0E-01	ended	na					X						X			
Acenaphthylene	1.3E+00	1.3E+00	na	na	na	na	na	na	na	1.3E+00	ended	na					X							X		
Anthracene	9.6E-01	5.1E-02	2.4E+04	1.1E+03	4.7E+01	1.0E+00	5.7E+01	2.4E+00	5.1E-02	9.6E-01	ended	na					X						X			
Benzo(a)anthracene	na	na	na	na	na	na	na	na	na	na	ended	na														
Benzo(b)fluoranthene	na	na	na	na	na	na	na	na	na	na	ended	na														
Benzo(k)fluoranthene	na	na	na	na	na	na	na	na	na	na	ended	na														
Total benzofluoranthenes	3.2E+00	3.2E+00	na	na	na	na	na	na	na	3.2E+00	ended	na					X							X		
Benzo(g,h,i)perylene	6.7E-01	6.7E-01	na	na	na	na	na	na	na	6.7E-01	ended	na					X							X		
Benzo(a)pyrene	3.1E-04	1.6E-05	1.9E-01	3.9E+00	3.1E-04	1.7E+00	1.9E-01	1.6E-05	8.4E-02	1.6E+00	ended	na			X							X				
Chrysene	na	na	na	na	na	na	na	na	na	na	ended	na														
Dibenz(a,h)anthracene	na	na	na	na	na	na	na	na	na	na	ended	na														
Dibenzofuran	5.4E-01	2.9E-02	8.0E+01	1.5E+00	na	5.8E-01	7.6E-02	na	2.9E-02	5.4E-01	ended	na					X						X			
Fluoranthene	1.7E+00	9.0E-02	3.2E+03	6.3E+02	5.9E+00	1.8E+00	3.2E+01	3.0E-01	9.0E-02	1.7E+00	ended	na					X						X			
Fluorene	5.4E-01	2.9E-02	3.2E+03	5.1E+01	1.6E+00	5.8E-01	2.6E+00	8.0E-02	2.9E-02	5.4E-01	ended	na					X						X			
Indeno(1,2,3-cd)pyrene	na	na	na	na	na	na	na	na	na	na	ended	na														
Methyl isopropyl phenanthrene	na	na	na	na	na	na	na	na	na	na	ended	na														
1-Methylnaphthalene	8.2E-02	4.2E-03	3.4E+01	8.2E-02	na	4.4E+01	4.2E-03	na	2.3E+00	3.9E+01	ended	na		X							X					
2-Methylnaphthalene	6.7E-01	3.9E-02	3.2E+02	1.7E+00	na	7.5E-01	8.9E-02	na	3.9E-02	6.7E-01	ended	na					X						X			
Naphthalene	3.9E-02	2.1E-03	1.6E+03	4.5E+00	3.9E-02	2.5E+00	2.4E-01	2.1E-03	1.3E-01	2.1E+00	ended	na			X							X				
Phenanthrene	1.5E+00	1.5E+00	na	na	na	na	na	na	na	1.5E+00	ended	na					X							X		
Pyrene	2.6E+00	1.4E-01	2.4E+03	3.3E+02	1.1E+01	2.7E+00	1.6E+01	5.5E-01	1.4E-01	2.6E+00	ended	na					X						X			
Total LPAHs	5.2E+00	5.2E+00	na	na	na	na	na	na	na	5.2E+00	ended	na					X							X		
Total HPAHs	1.2E+01	1.2E+01	na	na	na	na	na	na	na	1.2E+01	ended	na					X							X		
Total PAHs	na	na	na	na	na	na	na	na	na	na	ended	na														
Total cPAH TEQ	3.1E-04	1.6E-05	1.9E-01	4.5E-01	3.1E-04	6.2E-01	2.2E-02	1.6E-05	3.1E-02	5.9E-01	ended	na			X							X				

Chemical (all concentrations are in mg/kg)	Most Stringent Soil PCUL Vadose Zone Potable GW SL #s 1-4, 8-10	Most Stringent Soil PCUL Saturated Zone Potable GW SL #s 1, 5-10	SL-1 Direct Contact Unrestricted SL-Det	SL-2 Protect Drinking Water Vadose Zone Leach	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-5 Protect Drinking Water Saturated Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion Min. ROD CUL + SMS Lower Tier Sed	SL-9 Simplifed TEE Unrestricted SL-Det	SL-10 Natural Background Ecology (1994)	Basis - Vadose, Potable GW							Basis - Saturated, Potable GW						
													Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background	Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background
Other SVOCs													***Other SVOCs***													
Aniline	8.3E-02	5.5E-03	1.8E+02	8.3E-02	na	6.5E+02	5.5E-03	na	4.3E+01	2.3E+02	ended	na		X							X					
Azobenzene	9.1E+00	9.1E+00	9.1E+00	na	na	na	na	na	na	1.2E+01	ended	na	X							X						
Benzidine	6.4E-07	3.4E-08	8.2E-04	2.8E-06	6.4E-07	2.4E-03	1.5E-07	3.4E-08	1.3E-04	2.0E-03	ended	na			X							X				
Benzoic acid	6.5E-01	1.7E-01	3.2E+05	2.6E+02	na	2.4E+00	1.8E+01	na	1.7E-01	6.5E-01	ended	na					X						X			
Benzyl alcohol	5.7E-02	1.7E-02	8.0E+03	7.1E+00	na	2.5E-01	4.9E-01	na	1.7E-02	5.7E-02	ended	na					X						X			
Bis(2-chloroethoxy)methane	na	na	na	na	na	na	na	na	na	na	ended	na														
Bis(2-chloroethyl)ether	2.2E-04	1.4E-05	9.1E-01	2.2E-04	3.3E-04	3.2E+00	1.4E-05	2.2E-05	2.1E-01	1.2E+00	ended	na		X							X					
Bis(chloromethyl)ether	4.5E-03	4.5E-03	4.5E-03	na	na	na	na	na	na	6.0E-03	ended	na	X							X						
Bis(2-chloro-1-methylethyl)ether	1.8E+00	1.2E-01	3.2E+03	1.8E+00	5.1E+00	2.1E+04	1.2E-01	3.3E-01	1.4E+03	8.0E+03	ended	na		X							X					
2,6-Bis(1,1-dimethylethyl) phenol	na	na	na	na	na	na	na	na	na	na	ended	na														
Bis(2-ethylhexyl) phthalate	1.0E-01	5.1E-03	7.1E+01	1.3E+01	1.0E-01	1.4E+00	6.7E-01	5.1E-03	6.9E-02	1.3E+00	ended	na			X							X				
4-Bromophenyl phenyl ether	na	na	na	na	na	na	na	na	na	na	ended	na														
Butyl benzyl phthalate	3.6E-03	1.8E-04	5.3E+02	1.3E+01	3.6E-03	6.7E-02	6.4E-01	1.8E-04	3.4E-03	6.3E-02	ended	na			X							X				
Butyl diphenyl phosphate	na	na	na	na	na	na	na	na	na	na	ended	na														
Carbazole	na	na	na	na	na	na	na	na	na	na	ended	na														
4-Chloroaniline	2.7E-03	1.7E-04	5.0E+00	2.7E-03	na	1.5E+01	1.7E-04	na	9.6E-01	6.6E+00	ended	na		X							X					
4-Chloro-3-methylphenol	5.0E-01	2.8E-02	na	na	5.0E-01	na	na	2.8E-02	na	na	ended	na			X							X				
2-Chloronaphthalene	5.4E+00	2.8E-01	6.4E+03	3.4E+01	5.4E+00	1.8E+04	1.8E+00	2.8E-01	9.3E+02	1.6E+04	ended	na			X							X				
2-Chlorophenol	2.0E-01	1.1E-02	4.0E+02	4.7E-01	2.0E-01	4.1E+01	2.7E-02	1.1E-02	2.3E+00	1.0E+03	ended	na			X							X				
4-Chlorophenyl phenyl ether	na	na	na	na	na	na	na	na	na	na	ended	na														
Dibutyl phthalate	2.8E-01	1.5E-02	8.0E+03	5.7E+01	2.8E-01	1.6E+00	3.0E+00	1.5E-02	8.5E-02	1.4E+00	ended	na			X							X				
Dibutyl phenyl phosphate	na	na	na	na	na	na	na	na	na	na	ended	na														
1,2-Dichlorobenzene	3.5E-02	3.0E-03	7.2E+03	7.0E+00	9.3E+00	5.2E-02	4.0E-01	5.3E-01	3.0E-03	3.5E-02	ended	na					X							X		
1,3-Dichlorobenzene	2.3E-02	1.3E-03	na	na	2.3E-02	na	na	1.3E-03	na	na	ended	na			X							X				
1,4-Dichlorobenzene	1.1E-01	8.1E-03	1.9E+02	1.2E+00	9.8E-01	1.5E-01	6.8E-02	5.4E-02	8.1E-03	1.1E-01	ended	na					X							X		
3,3'-Dichlorobenzidine	3.4E-05	2.0E-06	2.2E+00	2.0E-03	3.4E-05	4.6E+00	1.2E-04	2.0E-06	2.7E-01	2.9E+00	ended	na			X							X				
2,4-Dichlorophenol	6.9E-02	4.3E-03	2.4E+02	3.3E-01	6.9E-02	5.7E+01	2.1E-02	4.3E-03	3.6E+00	6.0E+02	ended	na			X							X				
Di(2-ethylhexyl)adipate	8.3E+02	8.3E+02	8.3E+02	na	na	na	na	na	na	1.1E+03	ended	na	X							X						
Diethyl phthalate	2.0E-01	3.4E-02	6.4E+04	7.2E+01	1.1E+00	5.2E-01	4.7E+00	7.4E-02	3.4E-02	2.0E-01	ended	na					X							X		
Dimethyl phthalate	7.1E-02	1.9E-02	na	na	2.8E+00	2.7E-01	na	1.9E-01	1.9E-02	7.1E-02	ended	na					X							X		
2,4-Dimethylphenol	2.9E-02	2.3E-03	1.6E+03	4.4E+00	1.3E+00	4.0E-02	2.5E-01	7.6E-02	2.3E-03	2.9E-02	ended	na					X							X		
1,2-Dinitrobenzene	8.0E+00	8.0E+00	8.0E+00	na	na	na	na	na	na	2.0E+01	ended	na	X							X						
1,3-Dinitrobenzene	8.0E+00	8.0E+00	8.0E+00	na	na	na	na	na	na	2.0E+01	ended	na	X							X						
1,4-Dinitrobenzene	8.0E+00	8.0E+00	8.0E+00	na	na	na	na	na	na	2.0E+01	ended	na	X							X						
4,6-Dinitro-2-methylphenol	1.3E-01	7.3E-03	na	na	1.3E-01	na	na	7.3E-03	na	na	ended	na			X							X				
2,4-Dinitrophenol	1.3E-01	9.2E-03	1.6E+02	1.3E-01	4.0E-01	2.6E+03	9.2E-03	2.9E-02	1.9E+02	4.0E+02	ended	na		X							X					
2,4-Dinitrotoluene	2.8E-03	1.6E-04	3.2E+00	4.4E-03	2.8E-03	5.7E+00	2.4E-04	1.6E-04	3.2E-01	4.3E+00	ended	na			X							X				
2,6-Dinitrotoluene	9.2E-04	5.1E-05	6.7E-01	9.2E-04	na	1.2E+00	5.1E-05	na	6.5E-02	8.8E-01	ended	na		X							X					
Di-n-octyl phthalate	6.2E+00	3.3E-01	8.0E+02	4.5E+02	na	6.5E+00	2.3E+01	na	3.3E-01	6.2E+00	ended	na					X							X		
1,4-Dioxane	1.8E-03	1.3E-04	1.0E+01	1.8E-03	na	8.2E+01	1.3E-04	na	5.9E+00	1.3E+01	ended	na		X							X					
1,2-Diphenylhydrazine	6.8E-04	3.6E-05	1.3E+00	3.7E-03	6.8E-04	1.9E+00	2.0E-04	3.6E-05	1.0E-01	1.7E+00	ended	na			X							X				
Hexachlorobenzene	8.0E-06	4.0E-07	6.3E-01	4.4E-01	8.0E-06	2.3E-02	2.2E-02	4.0E-07	1.2E-03	2.2E-02	ended	na			X							X				
Hexachlorobutadiene	2.1E-04	1.1E-05	1.3E+01	1.2E-02	2.1E-04	1.4E-02	6.3E-04	1.1E-05	7.5E-04	1.1E-02	ended	na			X							X				
Hexachlorocyclopentadiene	3.2E-02	1.7E-03	4.8E+02	1.5E+00	3.2E-02	1.4E+03	8.1E-02	1.7E-03	7.4E+01	1.2E+03	ended	na			X							X				
Hexachloroethane	1.6E-04	9.7E-06	2.5E+01	8.8E-03	1.6E-04	6.1E+01	5.3E-04	9.7E-06	3.7E+00	3.3E+01	ended	na			X							X				
Isophorone	4.9E-01	3.2E-02	1.1E+03	4.9E-01	5.8E-01	4.0E+03	3.2E-02	3.9E-02	2.7E+02	1.4E+03	ended	na		X							X					
2-Methoxynaphthalene	na	na	na	na	na	na	na	na	na	na	ended	na														
2-Methylphenol (o-cresol)	6.9E-02	6.4E-03	4.0E+03	8.1E+00	na	1.1E-01	4.7E-01	na	6.4E-03	6.9E-02	ended	na					X							X		
3-Methylphenol (m-cresol)	4.0E+03	4.0E+03	4.0E+03	na	na	na	na	na	na	1.0E+04	ended	na	X							X						
4-Methylphenol (p-cresol)	6.7E-01	6.2E-02	8.0E+03	1.6E+01	na	1.1E+00	9.4E-01	na	6.2E-02	6.7E-01	ended	na					X							X		
2-Nitroaniline	1.0E+00	6.4E-02	8.0E+02	1.0E+00	na	4.6E+03	6.4E-02	na	2.9E+02	2.0E+03	ended	na		X							X					
3-Nitroaniline	na	na	na	na	na	na	na	na	na	na	ended	na														
4-Nitroaniline	1.8E-02	1.3E-03	5.0E+01	1.8E-02	na	4.3E+02	1.3E-03	na	3.0E+01	6.6E+01	ended	na		X							X					
Nitrobenzene	1.0E-01	6.5E-03	1.6E+02	1.0E-01	6.4E-01	8.9E+02	6.5E-03	4.1E-02	5.7E+01	4.0E+02	ended	na		X							X					
2-Nitrophenol	na	na	na	na	na	na	na	na	na	na	ended	na														
4-Nitrophenol	na	na	na	na	na	na	na	na	na	na	ended	na														
n-Nitrosodimethylamine	1.0E-06	7.1E-08	3.7E-03	1.0E-06	1.5E-03	3.9E-02	7.1E-08	1.1E-04	2.7E-03	9.2E-03	ended	na		X							X					
n-Nitrosodiphenylamine	2.8E-02	1.6E-03	2.0E+02	1.0E+00	3.9E-02	3.1E-02	5.2E-02	2.0E-03	1.6E-03	2.8E-02	ended	na					X							X		
n-Nitrosodi-n-propylamine	1.2E-04	7.0E-06	1.4E-01	1.2E-04	5.5E-04	3.1E-01	7.0E-06	3.3E-05	1.8E-02	1.9E-01	ended	na		X							X					
Pentachlorophenol	3.2E-05	1.8E-06	2.5E+00	1.6E-02	3.2E-05	1.4E-02	8.8E-04	1.8E-06	7.7E-04	3.6E-01	ended	na			X							X				
Phenol	4.2E-01	4.8E-02	2.4E+04	3.7E+01	5.4E+02	7.8E-01	2.3E+00	3.3E+01	4.8E-02	4.2E-01	ended	na					X							X		

Chemical (all concentrations are in mg/kg)	Most Stringent Soil PCUL Vadose Zone Potable GW SL #s 1-4, 8-10	Most Stringent Soil PCUL Saturated Zone Potable GW SL #s 1, 5-10	SL-1 Direct Contact Unrestricted SL-Det	SL-2 Protect Drinking Water Vadose Zone Leach	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-5 Protect Drinking Water Saturated Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion Min. ROD CUL + SMS Lower Tier Sed	SL-9 Simplifed TEE Unrestricted SL-Det	SL-10 Natural Background Ecology (1994)	Basis - Vadose, Potable GW							Basis - Saturated, Potable GW						
													Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background	Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background
Pyridine	4.3E-02	2.9E-03	8.0E+01	4.3E-02	na	5.5E+02	2.9E-03	na	3.6E+01	2.0E+02	ended	na		X							X						
2,3,4,5-Tetrachlorophenol	na	na	na	na	na	na	na	na	na	na	ended	na															
2,3,4,6-Tetrachlorophenol	2.4E+03	2.4E+03	2.4E+03	na	na	na	na	na	na	6.0E+03	ended	na	X							X							
1,2,4-Trichlorobenzene	3.1E-02	1.9E-03	3.4E+01	5.6E-01	na	3.6E-02	2.9E-02	na	1.9E-03	3.1E-02	ended	na					X							X			
2,4,5-Trichlorophenol	1.3E-03	7.0E-05	8.0E+03	5.8E+01	1.3E-03	2.4E+03	3.0E+00	7.0E-05	1.3E+02	2.0E+04	ended	na			X							X					
2,4,6-Trichlorophenol	9.2E-02	5.3E-03	8.0E+01	9.2E-02	7.0E+00	1.1E+01	5.3E-03	4.0E-01	6.1E-01	1.2E+02	ended	na		X							X					
Volatile Organic Compounds																				***Volatile Organic Compounds***						
Acetone	2.9E+01	2.1E+00	7.2E+04	2.9E+01	na	1.4E+06	2.1E+00	na	9.8E+04	2.2E+05	ended	na		X							X					
Acrolein	4.4E-03	3.2E-04	4.0E+01	1.6E-02	4.4E-03	7.9E+02	1.2E-03	3.2E-04	5.6E+01	1.2E+02	ended	na			X							X				
Acrylonitrile	1.2E-04	8.3E-06	1.9E+00	3.4E-04	1.2E-04	2.9E+01	2.4E-05	8.3E-06	2.1E+00	5.4E+00	ended	na			X							X				
Benzaldehyde	4.6E-02	3.3E-03	2.5E+02	4.6E-02	na	3.8E+03	3.3E-03	na	2.7E+02	7.3E+02	ended	na		X							X					
Benzene	8.8E-03	5.6E-04	1.8E+01	2.7E-02	8.8E-03	1.6E+02	1.7E-03	5.6E-04	1.0E+01	5.3E+01	ended	na			X							X				
Bromobenzene	5.6E-01	3.3E-02	6.4E+02	5.6E-01	na	3.4E+03	3.3E-02	na	2.0E+02	1.9E+03	ended	na		X							X					
Bromochloromethane	na	na	na	na	na	na	na	na	na	na	ended	na															
Bromoethane	na	na	na	na	na	na	na	na	na	na	ended	na															
Bromoform	7.8E-02	5.0E-03	1.3E+02	3.6E-01	7.8E-02	8.1E+02	2.3E-02	5.0E-03	5.1E+01	3.7E+02	ended	na			X							X				
Bromomethane	5.1E-02	3.3E-03	1.1E+02	5.1E-02	1.2E+00	2.0E+03	3.3E-03	7.9E-02	1.3E+02	3.4E+02	ended	na		X							X					
2-Butoxyethanol	3.2E+00	2.3E-01	8.0E+03	3.2E+00	na	1.5E+05	2.3E-01	na	1.1E+04	2.4E+04	ended	na		X							X					
n-Butylbenzene	1.4E+01	7.1E-01	4.0E+03	1.4E+01	na	1.4E+04	7.1E-01	na	7.5E+02	1.2E+04	ended	na		X							X					
sec-Butylbenzene	2.5E+01	1.3E+00	8.0E+03	2.5E+01	na	2.9E+04	1.3E+00	na	1.5E+03	2.4E+04	ended	na		X							X					
tert-Butylbenzene	1.9E+01	1.0E+00	8.0E+03	1.9E+01	na	3.0E+04	1.0E+00	na	1.6E+03	2.4E+04	ended	na		X							X					
Carbon disulfide	4.1E+00	2.5E-01	8.0E+03	4.1E+00	na	1.2E+05	2.5E-01	na	7.4E+03	2.4E+04	ended	na		X							X					
Carbon tetrachloride	2.9E-03	1.5E-04	1.4E+01	4.1E-02	2.9E-03	9.8E+01	2.2E-03	1.5E-04	5.2E+00	4.2E+01	ended	na			X							X				
Chlorobenzene	8.6E-01	5.1E-02	1.6E+03	8.6E-01	1.7E+00	8.6E+03	5.1E-02	1.0E-01	5.1E+02	4.9E+03	ended	na		X							X					
Chloroethane	na	na	na	na	na	na	na	na	na	na	ended	na															
2-Chloroethyl vinyl ether	na	na	na	na	na	na	na	na	na	na	ended	na															
Chloroform	7.4E-02	4.8E-03	3.2E+01	7.4E-02	8.1E-01	3.0E+02	4.8E-03	5.2E-02	2.0E+01	9.4E+01	ended	na		X							X					
Chloromethane	na	na	na	na	na	na	na	na	na	na	ended	na															
3-Chloro-1-propene	1.1E-02	6.8E-04	4.8E+01	1.1E-02	na	5.4E+02	6.8E-04	na	3.3E+01	1.4E+02	ended	na		X							X					
2-Chlorotoluene	1.9E+00	1.1E-01	1.6E+03	1.9E+00	na	7.3E+03	1.1E-01	na	4.1E+02	4.9E+03	ended	na		X							X					
4-Chlorotoluene	na	na	na	na	na	na	na	na	na	na	ended	na															
Dibromochloromethane	1.0E-02	7.0E-04	1.2E+01	2.4E-02	1.0E-02	1.3E+02	1.7E-03	7.0E-04	9.2E+00	3.5E+01	ended	na			X							X				
1,2-Dibromo-3-chloropropane	8.9E-04	5.6E-05	2.3E-01	8.9E-04	na	1.6E+00	5.6E-05	na	1.0E-01	7.1E-01	ended	na		X							X					
Dibromomethane	4.2E-01	2.8E-02	8.0E+02	4.2E-01	na	7.2E+03	2.8E-02	na	4.7E+02	2.4E+03	ended	na		X							X					
Dichlorobromomethane	1.3E-02	8.9E-04	1.6E+01	3.3E-02	1.3E-02	1.8E+02	2.2E-03	8.9E-04	1.2E+01	4.7E+01	ended	na			X							X				
trans-1,4-Dichloro-2-butene	na	na	na	na	na	na	na	na	na	na	ended	na															
Dichlorodifluoromethane	3.8E+01	5.3E-01	1.6E+04	3.8E+01	na	8.0E+05	5.3E-01	na	1.1E+04	4.9E+04	ended	na		X							X					
1,1-Dichloroethane	4.1E-02	2.6E-03	1.8E+02	4.1E-02	na	1.7E+03	2.6E-03	na	1.1E+02	5.1E+02	ended	na		X							X					
1,2-Dichloroethane (EDC)	2.3E-02	1.6E-03	1.1E+01	2.3E-02	3.5E-01	1.2E+02	1.6E-03	2.4E-02	7.9E+00	3.2E+01	ended	na		X							X					
1,1-Dichloroethylene	4.6E-02	2.5E-03	4.0E+03	4.6E-02	2.6E+01	4.3E+04	2.5E-03	1.4E+00	2.3E+03	1.2E+04	ended	na		X							X					
cis-1,2-Dichloroethylene	7.9E-02	5.2E-03	1.6E+02	7.9E-02	na	1.8E+03	5.2E-03	na	1.2E+02	4.9E+02	ended	na		X							X					
trans-1,2-Dichloroethylene	5.2E-01	3.2E-02	1.6E+03	5.2E-01	5.2E+00	1.9E+04	3.2E-02	3.2E-01	1.2E+03	4.9E+03	ended	na		X							X					
1,2-Dichloroethylene (mixed isomers)	3.7E-01	2.3E-02	7.2E+02	3.7E-01	na	8.8E+03	2.3E-02	na	5.5E+02	2.2E+03	ended	na		X							X					
1,2-Dichloropropane	1.6E-02	1.0E-03	2.7E+01	2.5E-02	1.6E-02	2.7E+02	1.7E-03	1.0E-03	1.8E+01	7.9E+01	ended	na			X							X				
1,3-Dichloropropane	8.8E-01	5.7E-02	1.6E+03	8.8E-01	na	1.4E+04	5.7E-02	na	8.8E+02	4.9E+03	ended	na		X							X					
2,2-Dichloropropane	na	na	na	na	na	na	na	na	na	na	ended	na															
1,1-Dichloropropene	na	na	na	na	na	na	na	na	na	na	ended	na															
cis-1,3-Dichloropropene	2.3E-03	1.4E-04	1.0E+01	2.3E-03	6.3E-03	1.4E+02	1.4E-04	3.8E-04	8.2E+00	2.9E+01	ended	na		X							X					
trans-1,3-Dichloropropene	2.3E-03	1.4E-04	1.0E+01	2.3E-03	6.3E-03	1.4E+02	1.4E-04	3.8E-04	8.2E+00	2.9E+01	ended	na		X							X					
Diisopropyl ether	na	na	na	na	na	na	na	na	na	na	ended	na															
Ethane	na	na	na	na	na	na	na	na	na	na	ended	na															
Ethylbenzene	1.8E-01	1.0E-02	8.0E+03	5.9E+00	1.8E-01	4.5E+04	3.4E-01	1.0E-02	2.7E+03	2.4E+04	ended	na			X							X				
Ethylene oxide	1.5E-04	1.1E-05	6.0E-01	1.5E-04	na	1.1E+01	1.1E-05	na	8.0E-01	1.8E+00	ended	na		X							X					
Ethyl ether	6.8E+00	4.7E-01	1.6E+04	6.8E+00	na	2.6E+05	4.7E-01	na	1.8E+04	4.9E+04	ended	na		X							X					
Ethylene dibromide (EDB)	2.7E-04	1.8E-05	5.0E-01	2.7E-04	na	4.2E+00	1.8E-05	na	2.8E-01	1.5E+00	ended	na		X							X					
Formaldehyde	8.4E-03	6.0E-04	4.8E+01	8.4E-03	na	9.0E+02	6.0E-04	na	6.4E+01	1.4E+02	ended	na		X							X					
n-Hexane	7.2E+01	1.8E+00	4.8E+03	7.2E+01	na	3.3E+04	1.8E+00	na	8.3E+02	1.5E+04	ended	na		X							X					
2-Hexanone	1.7E-01	1.2E-02	4.0E+02	1.7E-01	na	8.4E+03	1.2E-02	na	5.9E+02	1.2E+03	ended	na		X							X					
Isopropylbenzene (cumene)	1.5E+01	7.9E-01	8.0E+03	1.5E+01	na	3.2E+04	7.9E-01	na	1.7E+03	2.4E+04	ended	na		X							X					
4-Isopropyltoluene	na	na	na	na	na	na	na	na	na	na	ended	na															
Methane	na	na	na	na	na	na	na	na	na	na	ended	na															
Methyl ethyl ketone (2-butanone)	2.0E+01	1.4E+00	4.8E+04	2.0E+01	na	8.7E+05	1.4E+00	na	6.2E+04	1.5E+05	ended	na		X							X					
Methyl iodide	na	na	na	na	na	na	na	na	na	na	ended	na															

Chemical (all concentrations are in mg/kg)	Most Stringent Soil PCUL Vadose Zone Potable GW SL #s 1-4, 8-10	Most Stringent Soil PCUL Saturated Zone Potable GW SL #s 1, 5-10	SL-1 Direct Contact Unrestricted SL-Det	SL-2 Protect Drinking Water Vadose Zone Leach	SL-3 Protect Surface Water via Ground Water Vadose Zone Leach	SL-4 Protect Sediment via Ground Water Vadose Zone Leach	SL-5 Protect Drinking Water Saturated Zone Leach	SL-6 Protect Surface Water via Ground Water Saturated Zone Leach	SL-7 Protect Sediment via Ground Water Saturated Zone Leach	SL-8 Protect Sediment via Erosion Min. ROD CUL + SMS Lower Tier Sed	SL-9 Simplifed TEE Unrestricted SL-Det	SL-10 Natural Background Ecology (1994)	Basis - Vadose, Potable GW						Basis - Saturated, Potable GW						
													Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background	Direct Contact	Drinking Water	SW via GW	Sediment via GW	Bank Erosion	TEE	Nat. Background
Methyl isobutyl ketone (4-methyl-2-pentanone)	2.7E+00	1.9E-01	6.4E+03	2.7E+00	na	9.8E+04	1.9E-01	na	6.9E+03	1.9E+04	ended	na		X							X					
Methyl tert-butyl ether	1.0E-01	7.2E-03	5.6E+02	1.0E-01	na	8.5E+03	7.2E-03	na	6.0E+02	1.6E+03	ended	na		X							X					
Methylene chloride	2.2E-02	1.5E-03	9.4E+01	2.2E-02	4.3E-01	1.6E+03	1.5E-03	3.0E-02	1.1E+02	2.9E+02	ended	na		X							X					
2-Pentanone	na	na	na	na	na	na	na	na	na	na	ended	na														
n-Propylbenzene	1.6E+01	8.8E-01	8.0E+03	1.6E+01	na	3.1E+04	8.8E-01	na	1.7E+03	2.4E+04	ended	na		X							X					
Styrene	2.2E+00	1.2E-01	1.6E+04	2.2E+00	na	6.1E+04	1.2E-01	na	3.3E+03	4.9E+04	ended	na		X							X					
1,1,1,2-Tetrachloroethane	9.8E-03	6.3E-04	3.8E+01	9.8E-03	na	2.9E+02	6.3E-04	na	1.9E+01	1.1E+02	ended	na		X							X					
1,1,2,2-Tetrachloroethane	1.2E-03	8.0E-05	5.0E+00	1.2E-03	1.7E-03	3.9E+01	8.0E-05	1.1E-04	2.5E+00	1.5E+01	ended	na		X							X					
Tetrachloroethylene (PCE)	2.9E-02	1.6E-03	4.8E+02	5.0E-02	2.9E-02	2.5E+03	2.8E-03	1.6E-03	1.4E+02	1.4E+03	ended	na			X							X				
Tetrahydrofuran	2.5E-02	1.8E-03	7.2E+04	2.5E-02	na	1.1E+06	1.8E-03	na	8.1E+04	2.2E+05	ended	na		X							X					
Toluene	7.2E-01	4.4E-02	6.4E+03	4.5E+00	7.2E-01	4.2E+04	2.7E-01	4.4E-02	2.5E+03	1.9E+04	ended	na			X							X				
1,2,3-Trichlorobenzene	2.0E-01	1.1E-02	6.4E+01	2.0E-01	na	2.3E+02	1.1E-02	na	1.2E+01	1.9E+02	ended	na		X							X					
1,1,1-Trichloroethane	1.5E+00	8.4E-02	1.6E+05	1.5E+00	3.7E+02	1.1E+06	8.4E-02	2.1E+01	6.5E+04	4.9E+05	ended	na		X							X					
1,1,2-Trichloroethane	5.0E-03	3.3E-04	1.8E+01	1.7E-02	5.0E-03	1.4E+02	1.1E-03	3.3E-04	9.1E+00	5.1E+01	ended	na			X							X				
Trichloroethylene (TCE)	4.4E-03	2.7E-04	1.2E+01	2.5E-02	4.4E-03	3.2E+01	1.5E-03	2.7E-04	2.0E+00	1.2E+01	ended	na			X							X				
Trichlorofluoroethane	na	na	na	na	na	na	na	na	na	na	ended	na														
Trichlorofluoromethane	2.3E+01	7.9E-01	2.4E+04	2.3E+01	na	4.8E+05	7.9E-01	na	1.7E+04	7.3E+04	ended	na		X							X					
1,2,3-Trichloropropane	2.4E-06	1.5E-07	6.3E-03	2.4E-06	na	4.3E-02	1.5E-07	na	2.7E-03	1.9E-02	ended	na		X							X					
Trichlorotrifluoroethane	7.6E+03	1.2E+02	2.4E+06	7.6E+03	na	5.3E+07	1.2E+02	na	8.1E+05	7.3E+06	ended	na		X							X					
1,2,3-Trimethylbenzene	1.3E+00	7.3E-02	8.0E+02	1.3E+00	na	3.2E+03	7.3E-02	na	1.8E+02	2.4E+03	ended	na		X							X					
1,2,4-Trimethylbenzene	1.3E+00	7.2E-02	8.0E+02	1.3E+00	na	3.3E+03	7.2E-02	na	1.8E+02	2.4E+03	ended	na		X							X					
1,3,5-Trimethylbenzene	1.3E+00	7.1E-02	8.0E+02	1.3E+00	na	3.3E+03	7.1E-02	na	1.8E+02	2.4E+03	ended	na		X							X					
Vinyl acetate	3.3E+01	2.3E+00	8.0E+04	3.3E+01	na	1.4E+06	2.3E+00	na	1.0E+05	2.4E+05	ended	na		X							X					
Vinyl chloride	1.1E-03	5.6E-05	6.7E-01	1.7E-03	1.1E-03	1.1E+01	9.0E-05	5.6E-05	5.9E-01	1.9E+00	ended	na			X							X				
Total xylenes	9.4E-01	5.5E-02	1.6E+04	1.4E+01	9.4E-01	8.6E+04	8.3E-01	5.5E-02	5.0E+03	4.9E+04	ended	na			X							X				
Petroleum Hydrocarbons													***Petroleum Hydrocarbons***													
Gasoline range hydrocarbons, fresh	3.0E+01	3.0E+01	1.5E+03	3.0E+01	3.0E+01	na	3.0E+01	3.0E+01	na	na	ended	na		X	X						X	X				
Gasoline range hydrocarbons, weathered	1.0E+02	1.0E+02	1.5E+03	1.0E+02	1.0E+02	na	1.0E+02	1.0E+02	na	na	ended	na		X	X						X	X				
Diesel range hydrocarbons, fresh	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	na	ended	na		X	X						X	X				
Diesel range hydrocarbons, weathered	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	na	ended	na		X	X						X	X				
Oil range hydrocarbons	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	na	ended	na		X	X						X	X				
Total diesel & oil range hydrocarbons	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	2.0E+03	2.0E+03	na	na	ended	na		X	X						X	X				

Table J-2

PCUL Workbook - Groundwater Summary

Precision Engineering, Inc.

Seattle, Washington

Chemical (all concentrations are in µg/L)	Most Stringent PCUL Potable Water GW #s 1-5	GW-1 Protect Drinking Water PW	GW-2 Protect Surface Water SW	GW-3 Protect Sediment Partit	GW-4 Screening Level Protect Indoor Air PW	GW-5 Natural Background	Basis - Potable GW: Drinking Water	Surface Water	Sediment	Indoor Air	Nat. Background
PCBs							***PCBs***				
Total PCB Aroclors	7.0E-06	2.2E-01	7.0E-06	8.6E-02	na	na		X			
Total PCB congeners	7.0E-06	2.2E-01	7.0E-06	1.3E-03	na	na		X			
Total PCB TEQ	4.4E-09	3.4E-07	4.4E-09	4.7E-07	na	na		X			
Metals							***Metals***				
Aluminum	1.6E+04	1.6E+04	na	na	na	na	X				
Antimony	6.0E+00	6.0E+00	9.0E+01	na	na	na	X				
Arsenic	8.0E+00	5.8E-01	1.4E-01	2.2E+02	na	8.0E+00					X
Barium	2.0E+02	2.0E+03	2.0E+02	9.3E+05	na	na		X			
Beryllium	4.0E+00	4.0E+00	7.6E+01	4.9E+00	na	na	X				
Cadmium	1.2E+00	5.0E+00	7.9E+00	1.2E+00	na	na			X		
Chromium, total	1.0E+02	1.0E+02	na	na	na	na	X				
Chromium, trivalent	2.7E+01	2.4E+04	2.7E+01	8.5E+01	na	na		X			
Chromium, hexavalent	4.6E-02	4.6E-02	3.6E-01	7.8E+01	na	na	X				
Cobalt	4.8E+00	4.8E+00	na	na	na	na	X				
Copper	3.1E+00	6.4E+02	3.1E+00	1.4E+01	na	na		X			
Iron	3.0E+02	3.0E+02	na	na	na	na	X				
Lead	5.6E+00	1.5E+01	5.6E+00	1.9E+01	na	na		X			
Manganese	5.0E+01	5.0E+01	1.0E+02	na	na	na	X				
Mercury, inorganic	2.5E-02	2.0E+00	2.5E-02	2.0E+00	1.1E+00	na		X			
Methylmercury	1.6E+00	1.6E+00	na	na	na	na	X				
Molybdenum	8.0E+01	8.0E+01	na	na	na	na	X				
Nickel	8.2E+00	1.0E+02	8.2E+00	2.6E+03	na	na		X			
Selenium	5.0E+01	5.0E+01	7.1E+01	4.3E+05	na	na	X				
Silver	1.9E+00	8.0E+01	1.9E+00	5.5E+01	na	na		X			
Thallium	6.2E-02	1.6E-01	6.2E-02	2.5E+01	na	na		X			
Tin	9.6E+03	9.6E+03	na	na	na	na	X				
Vanadium	1.4E+02	1.4E+02	na	na	na	na	X				
Zinc	8.1E+01	4.8E+03	8.1E+01	7.7E+02	na	na		X			
SVOCs - PAHs							***SVOCs - PAHs***				
Acenaphthene	5.3E+00	4.8E+02	3.0E+01	5.3E+00	na	na			X		
Acenaphthylene	na	na	na	na	na	na					
Anthracene	2.1E+00	2.4E+03	1.0E+02	2.1E+00	na	na			X		
Benzo(a)anthracene	1.6E-04	na	1.6E-04	1.9E-01	na	na		X			
Benzo(b)fluoranthene	1.6E-04	na	1.6E-04	na	na	na		X			
Benzo(k)fluoranthene	1.6E-03	na	1.6E-03	na	na	na		X			
Total benzofluoranthenes	na	na	na	na	na	na					
Benzo(g,h,i)perylene	na	na	na	na	na	na					
Benzo(a)pyrene	1.6E-05	2.0E-01	1.6E-05	8.7E-02	na	na		X			
Chrysene	1.6E-02	na	1.6E-02	4.0E-01	na	na		X			
Dibenz(a,h)anthracene	1.6E-05	na	1.6E-05	6.8E-03	na	na		X			
Dibenzofuran	3.1E+00	8.0E+00	na	3.1E+00	na	na			X		
Fluoranthene	1.8E+00	6.4E+02	6.0E+00	1.8E+00	na	na			X		
Fluorene	3.7E+00	3.2E+02	1.0E+01	3.7E+00	na	na			X		
Indeno(1,2,3-cd)pyrene	1.6E-04	na	1.6E-04	1.6E-02	na	na		X			
Methyl isopropyl phenanthrene	na	na	na	na	na	na					
1-Methylnaphthalene	1.5E+00	1.5E+00	na	8.0E+02	na	na	X				
2-Methylnaphthalene	1.4E+01	3.2E+01	na	1.4E+01	na	na			X		
Naphthalene	1.4E+00	1.6E+02	1.4E+00	9.0E+01	8.9E+00	na		X			
Phenanthrene	na	na	na	na	na	na					
Pyrene	2.0E+00	2.4E+02	8.0E+00	2.0E+00	na	na			X		
Total LPAHs	na	na	na	na	na	na					
Total HPAHs	na	na	na	na	na	na					
Total PAHs	na	na	na	na	na	na					
Total cPAH TEQ	9.7E-03	2.3E-02	9.7E-03	3.2E-02	na	na		X			
Other SVOCs							***Other SVOCs***				
Aniline	1.5E+01	1.5E+01	na	1.2E+05	na	na	X				
Azobenzene	4.0E-01	4.0E-01	na	na	na	na	X				
Benzidine	2.3E-05	1.0E-04	2.3E-05	8.8E-02	na	na		X			
Benzoic acid	5.9E+02	6.4E+04	na	5.9E+02	na	na			X		
Benzyl alcohol	5.6E+01	1.6E+03	na	5.6E+01	na	na			X		
Bis(2-chloroethoxy)methane	na	na	na	na	na	na					
Bis(2-chloroethyl)ether	4.0E-02	4.0E-02	6.0E-02	5.9E+02	na	na	X				
Bis(chloromethyl)ether	2.0E-04	2.0E-04	1.7E-02	7.6E+00	na	na	X				
Bis(2-chloro-1-methylethyl)ether	3.2E+02	3.2E+02	9.0E+02	3.7E+06	na	na	X				
2,6-Bis(1,1-dimethylethyl) phenol	na	na	na	na	na	na					
Bis(2-ethylhexyl) phthalate	4.6E-02	6.0E+00	4.6E-02	6.2E-01	na	na		X			
4-Bromophenyl phenyl ether	na	na	na	na	na	na					
Butyl benzyl phthalate	1.3E-02	4.6E+01	1.3E-02	2.4E-01	na	na		X			
Butyl diphenyl phosphate	na	na	na	na	na	na					
Carbazole	na	na	na	na	na	na					
4-Chloroaniline	4.4E-01	4.4E-01	na	2.4E+03	na	na	X				
4-Chloro-3-methylphenol	3.6E+01	na	3.6E+01	na	na	na		X			

Chemical (all concentrations are in µg/L)	Most Stringent PCUL Potable Water GW #s 1-5	GW-1 Protect Drinking Water PW	GW-2 Protect Surface Water SW	GW-3 Protect Sediment Partit	GW-4 Screening Level Protect Indoor Air PW	GW-5 Natural Background	Basis - Potable GW: Drinking Water	Surface Water	Sediment	Indoor Air	Nat. Background
2-Chloronaphthalene	1.0E+02	6.4E+02	1.0E+02	3.3E+05	na	na		X			
2-Chlorophenol	1.7E+01	4.0E+01	1.7E+01	3.5E+03	na	na		X			
4-Chlorophenyl phenyl ether	na	na	na	na	na	na					
Dibutyl phthalate	8.0E+00	1.6E+03	8.0E+00	4.6E+01	na	na		X			
Dibutyl phenyl phosphate	na	na	na	na	na	na					
1,2-Dichlorobenzene	4.5E+00	6.0E+02	8.0E+02	4.5E+00	2.5E+03	na			X		
1,3-Dichlorobenzene	2.0E+00	na	2.0E+00	na	na	na		X			
1,4-Dichlorobenzene	5.0E+00	7.5E+01	6.0E+01	8.9E+00	5.0E+00	na				X	
3,3'-Dichlorobenzidine	3.3E-03	1.9E-01	3.3E-03	4.4E+02	na	na		X			
2,4-Dichlorophenol	1.0E+01	4.8E+01	1.0E+01	8.2E+03	na	na		X			
Di(2-ethylhexyl)adipate	4.0E+02	4.0E+02	na	na	na	na	X				
Diethyl phthalate	9.3E+01	1.3E+04	2.0E+02	9.3E+01	na	na			X		
Dimethyl phthalate	5.9E+01	na	6.0E+02	5.9E+01	na	na			X		
2,4-Dimethylphenol	2.9E+00	3.2E+02	9.7E+01	2.9E+00	na	na			X		
1,2-Dinitrobenzene	1.6E+00	1.6E+00	na	na	na	na	X				
1,3-Dinitrobenzene	1.6E+00	1.6E+00	na	na	na	na	X				
1,4-Dinitrobenzene	1.6E+00	1.6E+00	na	na	na	na	X				
4,6-Dinitro-2-methylphenol	7.0E+00	na	7.0E+00	na	na	na		X			
2,4-Dinitrophenol	3.2E+01	3.2E+01	1.0E+02	6.5E+05	na	na	X				
2,4-Dinitrotoluene	1.8E-01	2.8E-01	1.8E-01	3.7E+02	na	na		X			
2,6-Dinitrotoluene	5.8E-02	5.8E-02	na	7.5E+01	na	na	X				
Di-n-octyl phthalate	2.3E+00	1.6E+02	na	2.3E+00	na	na			X		
1,4-Dioxane	4.4E-01	4.4E-01	na	2.0E+04	na	na	X				
1,2-Diphenylhydrazine	2.0E-02	1.1E-01	2.0E-02	5.6E+01	na	na		X			
Hexachlorobenzene	5.0E-06	2.7E-01	5.0E-06	1.4E-02	2.4E-01	na		X			
Hexachlorobutadiene	1.0E-02	5.6E-01	1.0E-02	6.6E-01	6.4E-01	na		X			
Hexachlorocyclopentadiene	1.0E+00	4.8E+01	1.0E+00	4.4E+04	4.2E+00	na		X			
Hexachloroethane	2.0E-02	1.1E+00	2.0E-02	7.6E+03	3.8E+00	na		X			
Isophorone	9.2E+01	9.2E+01	1.1E+02	7.5E+05	na	na	X				
2-Methoxynaphthalene	na	na	na	na	na	na					
2-Methylphenol (o-cresol)	1.1E+01	8.0E+02	na	1.1E+01	na	na			X		
3-Methylphenol (m-cresol)	8.0E+02	8.0E+02	na	na	na	na	X				
4-Methylphenol (p-cresol)	1.1E+02	1.6E+03	na	1.1E+02	na	na			X		
2-Nitroaniline	1.6E+02	1.6E+02	na	7.4E+05	na	na	X				
3-Nitroaniline	na	na	na	na	na	na					
4-Nitroaniline	4.4E+00	4.4E+00	na	1.1E+05	na	na	X				
Nitrobenzene	1.6E+01	1.6E+01	1.0E+02	1.4E+05	na	na	X				
2-Nitrophenol	na	na	na	na	na	na					
4-Nitrophenol	na	na	na	na	na	na					
n-Nitrosodimethylamine	2.3E-04	2.3E-04	3.4E-01	8.8E+00	na	na	X				
n-Nitrosodiphenylamine	5.5E-01	1.8E+01	6.9E-01	5.5E-01	na	na			X		
n-Nitrosodi-n-propylamine	1.3E-02	1.3E-02	5.8E-02	3.2E+01	na	na	X				
Pentachlorophenol	2.0E-03	1.0E+00	2.0E-03	8.8E-01	na	na		X			
Phenol	1.0E+02	4.8E+03	7.0E+04	1.0E+02	na	na			X		
Pyridine	8.0E+00	8.0E+00	na	1.0E+05	na	na	X				
2,3,4,5-Tetrachlorophenol	na	na	na	na	na	na					
2,3,4,6-Tetrachlorophenol	4.8E+02	4.8E+02	na	na	na	na	X				
1,2,4-Trichlorobenzene	9.6E-01	1.5E+01	na	9.6E-01	3.9E+01	na			X		
2,4,5-Trichlorophenol	3.7E-02	1.6E+03	3.7E-02	6.7E+04	na	na		X			
2,4,6-Trichlorophenol	8.0E+00	8.0E+00	6.0E+02	9.1E+02	na	na	X				
Volatile Organic Compounds							***Volatile Organic Compounds***				
Acetone	7.2E+03	7.2E+03	na	3.4E+08	na	na	X				
Acrolein	1.1E+00	4.0E+00	1.1E+00	2.0E+05	2.9E+00	na		X			
Acrylonitrile	2.8E-02	8.1E-02	2.8E-02	7.1E+03	1.2E+01	na		X			
Benzaldehyde	1.1E+01	1.1E+01	na	9.0E+05	na	na	X				
Benzene	1.6E+00	5.0E+00	1.6E+00	3.0E+04	2.4E+00	na		X			
Bromobenzene	6.4E+01	6.4E+01	na	3.9E+05	6.3E+02	na	X				
Bromochloromethane	na	na	na	na	na	na					
Bromoethane	na	na	na	na	na	na					
Bromoform	1.2E+01	5.5E+01	1.2E+01	1.2E+05	2.2E+02	na		X			
Bromomethane	1.1E+01	1.1E+01	2.7E+02	4.4E+05	1.1E+01	na				X	
2-Butoxyethanol	8.0E+02	8.0E+02	na	3.7E+07	na	na	X				
n-Butylbenzene	4.0E+02	4.0E+02	na	4.2E+05	na	na	X				
sec-Butylbenzene	8.0E+02	8.0E+02	na	9.4E+05	na	na	X				
tert-Butylbenzene	8.0E+02	8.0E+02	na	1.2E+06	na	na	X				
Carbon disulfide	8.0E+02	8.0E+02	na	2.4E+07	8.4E+02	na	X				
Carbon tetrachloride	3.5E-01	5.0E+00	3.5E-01	1.2E+04	6.2E-01	na		X			
Chlorobenzene	1.0E+02	1.0E+02	2.0E+02	1.0E+06	3.5E+02	na	X				
Chloroethane	1.5E+04	na	na	na	1.5E+04	na				X	
2-Chloroethyl vinyl ether	na	na	na	na	na	na					
Chloroform	1.2E+00	1.4E+01	1.5E+02	5.8E+04	1.2E+00	na				X	
Chloromethane	1.5E+02	na	na	na	1.5E+02	na				X	
3-Chloro-1-propene	2.1E+00	2.1E+00	na	1.0E+05	na	na	X				
2-Chlorotoluene	1.6E+02	1.6E+02	na	6.2E+05	na	na	X				
4-Chlorotoluene	na	na	na	na	na	na					
Dibromochloromethane	2.2E+00	5.2E+00	2.2E+00	2.9E+04	na	na		X			
1,2-Dibromo-3-chloropropane	4.2E-02	1.4E-01	na	2.5E+02	4.2E-02	na				X	
Dibromomethane	8.0E+01	8.0E+01	na	1.4E+06	8.6E+01	na	X				

Chemical (all concentrations are in µg/L)	Most Stringent PCUL Potable Water GW #s 1-5	GW-1 Protect Drinking Water PW	GW-2 Protect Surface Water SW	GW-3 Protect Sediment Partit	GW-4 Screening Level Protect Indoor Air PW	GW-5 Natural Background	Basis - Potable GW: Drinking Water	Surface Water	Sediment	Indoor Air	Nat. Background
Dichlorobromomethane	1.4E+00	7.1E+00	2.8E+00	3.9E+04	1.4E+00	na				X	
trans-1,4-Dichloro-2-butene	na	na	na	na	na	na					
Dichlorodifluoromethane	4.2E+00	1.6E+03	na	3.4E+07	4.2E+00	na				X	
1,1-Dichloroethane	7.7E+00	7.7E+00	na	3.2E+05	1.1E+01	na	X				
1,2-Dichloroethane (EDC)	3.5E+00	4.8E+00	7.3E+01	2.4E+04	3.5E+00	na				X	
1,1-Dichloroethylene	7.0E+00	7.0E+00	4.0E+03	6.6E+06	1.3E+02	na	X				
cis-1,2-Dichloroethylene	1.6E+01	1.6E+01	na	3.6E+05	na	na	X				
trans-1,2-Dichloroethylene	7.7E+01	1.0E+02	1.0E+03	3.7E+06	7.7E+01	na				X	
1,2-Dichloroethylene (mixed isomers)	7.2E+01	7.2E+01	na	1.7E+06	na	na	X				
1,2-Dichloropropane	3.1E+00	5.0E+00	3.1E+00	5.3E+04	1.0E+01	na		X			
1,3-Dichloropropane	1.6E+02	1.6E+02	na	2.5E+06	na	na	X				
2,2-Dichloropropane	na	na	na	na	na	na					
1,1-Dichloropropene	na	na	na	na	na	na					
cis-1,3-Dichloropropene	4.4E-01	4.4E-01	1.2E+00	2.6E+04	na	na	X				
trans-1,3-Dichloropropene	4.4E-01	4.4E-01	1.2E+00	2.6E+04	na	na	X				
Diisopropyl ether	na	na	na	na	na	na					
Ethane	na	na	na	na	na	na					
Ethylbenzene	2.1E+01	7.0E+02	2.1E+01	5.4E+06	2.8E+03	na		X			
Ethylene oxide	3.7E-02	3.7E-02	na	2.8E+03	5.4E-02	na	X				
Ethyl ether	1.6E+03	1.6E+03	na	6.2E+07	na	na	X				
Ethylene dibromide (EDB)	5.0E-02	5.0E-02	na	7.9E+02	3.0E-01	na	X				
Formaldehyde	2.1E+00	2.1E+00	na	2.2E+05	na	na	X				
n-Hexane	4.1E+00	4.8E+02	na	2.2E+05	4.1E+00	na				X	
2-Hexanone	4.0E+01	4.0E+01	na	2.0E+06	7.3E+03	na	X				
Isopropylbenzene (cumene)	8.0E+02	8.0E+02	na	1.8E+06	9.1E+02	na	X				
4-Isopropyltoluene	na	na	na	na	na	na					
Methane	na	na	na	na	na	na					
Methyl ethyl ketone (2-butanone)	4.8E+03	4.8E+03	na	2.1E+08	1.7E+06	na	X				
Methyl iodide	na	na	na	na	na	na					
Methyl isobutyl ketone (4-methyl-2-pentanone)	6.4E+02	6.4E+02	na	2.3E+07	4.7E+05	na	X				
Methyl tert-butyl ether	2.4E+01	2.4E+01	na	2.0E+06	8.0E+02	na	X				
Methylene chloride	5.0E+00	5.0E+00	1.0E+02	3.6E+05	7.8E+02	na	X				
2-Pentanone	na	na	na	na	na	na					
n-Propylbenzene	8.0E+02	8.0E+02	na	1.5E+06	2.3E+03	na	X				
Styrene	1.0E+02	1.0E+02	na	2.7E+06	8.2E+03	na	X				
1,1,1,2-Tetrachloroethane	1.7E+00	1.7E+00	na	5.0E+04	7.1E+00	na	X				
1,1,2,2-Tetrachloroethane	2.2E-01	2.2E-01	3.0E-01	6.9E+03	5.9E+00	na	X				
Tetrachloroethylene (PCE)	2.9E+00	5.0E+00	2.9E+00	2.5E+05	2.5E+01	na		X			
Tetrahydrofuran	6.0E+00	6.0E+00	na	2.7E+08	1.3E+06	na	X				
Toluene	1.0E+02	6.4E+02	1.0E+02	6.0E+06	1.5E+04	na		X			
1,2,3-Trichlorobenzene	6.4E+00	6.4E+00	na	7.3E+03	na	na	X				
1,1,1-Trichloroethane	2.0E+02	2.0E+02	5.0E+04	1.5E+08	5.4E+03	na	X				
1,1,2-Trichloroethane	9.0E-01	3.0E+00	9.0E-01	2.5E+04	5.1E+00	na		X			
Trichloroethylene (TCE)	7.0E-01	4.0E+00	7.0E-01	5.1E+03	1.4E+00	na		X			
Trichlorofluoroethane	na	na	na	na	na	na					
Trichlorofluoromethane	1.2E+02	2.4E+03	na	5.1E+07	1.2E+02	na				X	
1,2,3-Trichloropropane	3.8E-04	3.8E-04	na	6.8E+00	na	na	X				
Trichlorotrifluoroethane	1.7E+02	2.4E+05	na	1.7E+09	1.7E+02	na				X	
1,2,3-Trimethylbenzene	8.0E+01	8.0E+01	na	1.9E+05	4.1E+02	na	X				
1,2,4-Trimethylbenzene	8.0E+01	8.0E+01	na	2.0E+05	2.4E+02	na	X				
1,3,5-Trimethylbenzene	8.0E+01	8.0E+01	na	2.0E+05	1.7E+02	na	X				
Vinyl acetate	7.8E+03	8.0E+03	na	3.4E+08	7.8E+03	na				X	
Vinyl chloride	1.8E-01	2.9E-01	1.8E-01	1.9E+03	3.3E-01	na		X			
Total xylenes	1.1E+02	1.6E+03	1.1E+02	9.7E+06	3.2E+02	na		X			
Petroleum Hydrocarbons							***Petroleum Hydrocarbons***				
Gasoline range hydrocarbons, fresh	8.0E+02	8.0E+02	8.0E+02	na	na	na	X	X			
Gasoline range hydrocarbons, weathered	1.0E+03	1.0E+03	1.0E+03	na	na	na	X	X			
Diesel range hydrocarbons, fresh	5.0E+01	5.0E+02	5.0E+01	na	na	na		X			
Diesel range hydrocarbons, weathered	5.0E+02	5.0E+02	5.0E+02	na	na	na	X	X			
Oil range hydrocarbons	5.0E+02	5.0E+02	5.0E+02	na	na	na	X	X			
Total diesel & oil range hydrocarbons	5.0E+02	5.0E+02	5.0E+02	na	na	na	X	X			

Table J-3

PCUL Workbook - Soil Vapor and Air Summary

Precision Engineering, Inc.

Seattle, Washington

Chemical (All concentrations in ug/m^3)	**AR-1 Air PCUL Air-Det**	**SG-1 Sub-Slab Soil Gas Screening Level Protect Indoor Air Air-Det**
PCBs		
Total PCB Aroclors	4.4E-03	na
Total PCB congeners	4.4E-03	na
Total PCB TEQ	6.6E-08	na
Metals		
Aluminum	2.3E+00	na
Antimony	1.4E-01	na
Arsenic	5.8E-04	na
Barium	2.3E-01	na
Beryllium	1.0E-03	na
Cadmium	1.4E-03	na
Chromium, total	na	na
Chromium, trivalent	na	na
Chromium, hexavalent	7.8E-06	na
Cobalt	2.8E-04	na
Copper	na	na
Iron	na	na
Lead	na	na
Manganese	2.3E-02	na
Mercury, inorganic	1.4E-01	4.6E+00
Methylmercury	na	na
Molybdenum	9.1E-01	na
Nickel	9.6E-03	na
Selenium	9.1E+00	na
Silver	na	na
Thallium	na	na
Tin	na	na
Vanadium	3.2E-03	na
Zinc	na	na
Metals - Butyltins		
Monobutyltin	na	na
Dibutyltin	na	na
Tributyltin oxide	na	na
Tetrabutyltin	na	na
SVOCs - PAHs		
Acenaphthene	na	na
Acenaphthylene	na	na
Anthracene	na	na
Benzo(a)anthracene	na	na
Benzo(b)fluoranthene	na	na
Benzo(k)fluoranthene	na	na
Total benzofluoranthenes	na	na
Benzo(g,h,i)perylene	na	na
Benzo(a)pyrene	9.1E-04	na
Chrysene	na	na
Dibenz(a,h)anthracene	na	na
Dibenzofuran	na	na
Fluoranthene	na	na
Fluorene	na	na
Indeno(1,2,3-cd)pyrene	na	na
Methyl isopropyl phenanthrene	na	na
1-Methylnaphthalene	na	na
2-Methylnaphthalene	na	na
Naphthalene	7.4E-02	2.5E+00
Phenanthrene	na	na
Pyrene	na	na
Total LPAHs	na	na
Total HPAHs	na	na
Total PAHs	na	na
Total cPAH TEQ	1.1E-03	na
Other SVOCs		
Aniline	4.6E-01	na
Azobenzene	8.0E-02	na
Benzidine	9.8E-06	na
Benzoic acid	na	na
Benzyl alcohol	na	na
Bis(2-chloroethoxy)methane	na	na
Bis(2-chloroethyl)ether	7.5E-03	na
Bis(chloromethyl)ether	4.0E-05	na
Bis(2-chloro-1-methylethyl)ether	na	na
2,6-Bis(1,1-dimethylethyl) phenol	na	na
Bis(2-ethylhexyl) phthalate	1.0E+00	na
4-Bromophenyl phenyl ether	na	na
Butyl benzyl phthalate	na	na
Butyl diphenyl phosphate	na	na

PCUL Workbook - Soil Vapor and Air Summary

Precision Engineering, Inc.
Seattle, Washington

Chemical (All concentrations in ug/m^3)	**AR-1 Air PCUL Air-Det**	**SG-1 Sub-Slab Soil Gas Screening Level Protect Indoor Air Air-Det**
Carbazole	na	na
4-Chloroaniline	na	na
4-Chloro-3-methylphenol	na	na
2-Chloronaphthalene	na	na
2-Chlorophenol	na	na
4-Chlorophenyl phenyl ether	na	na
Dibutyl phthalate	na	na
Dibutyl phenyl phosphate	na	na
1,2-Dichlorobenzene	9.1E+01	3.0E+03
1,3-Dichlorobenzene	na	na
1,4-Dichlorobenzene	2.3E-01	7.6E+00
3,3'-Dichlorobenzidine	7.4E-03	na
2,4-Dichlorophenol	na	na
Di(2-ethylhexyl)adipate	na	na
Diethyl phthalate	na	na
Dimethyl phthalate	na	na
2,4-Dimethylphenol	na	na
1,2-Dinitrobenzene	na	na
1,3-Dinitrobenzene	na	na
1,4-Dinitrobenzene	na	na
4,6-Dinitro-2-methylphenol	na	na
2,4-Dinitrophenol	na	na
2,4-Dinitrotoluene	2.8E-02	na
2,6-Dinitrotoluene	na	na
Di-n-octyl phthalate	na	na
1,4-Dioxane	5.0E-01	na
1,2-Diphenylhydrazine	1.1E-02	na
Hexachlorobenzene	5.4E-03	1.8E-01
Hexachlorobutadiene	1.1E-01	3.8E+00
Hexachlorocyclopentadiene	9.1E-02	3.0E+00
Hexachloroethane	2.3E-01	7.6E+00
Isophorone	9.1E+02	na
2-Methoxynaphthalene	na	na
2-Methylphenol (o-cresol)	2.7E+02	na
3-Methylphenol (m-cresol)	2.7E+02	na
4-Methylphenol (p-cresol)	2.7E+02	na
2-Nitroaniline	2.3E-02	na
3-Nitroaniline	na	na
4-Nitroaniline	2.7E+00	na
Nitrobenzene	6.3E-02	na
2-Nitrophenol	na	na
4-Nitrophenol	na	na
n-Nitrosodimethylamine	4.7E-05	na
n-Nitrosodiphenylamine	9.6E-01	na
n-Nitrosodi-n-propylamine	1.3E-03	na
Pentachlorophenol	4.9E-01	na
Phenol	9.1E+01	na
Pyridine	na	na
2,3,4,5-Tetrachlorophenol	na	na
2,3,4,6-Tetrachlorophenol	na	na
1,2,4-Trichlorobenzene	9.1E-01	3.0E+01
2,4,5-Trichlorophenol	na	na
2,4,6-Trichlorophenol	8.0E-01	na
Volatile Organic Compounds		
Acetone	na	na
Acrolein	9.1E-03	3.0E-01
Acrylonitrile	3.7E-02	1.2E+00
Benzaldehyde	na	na
Benzene	3.2E-01	1.1E+01
Bromobenzene	2.7E+01	9.1E+02
Bromochloromethane	1.8E+01	na
Bromoethane	na	na
Bromoform	2.3E+00	7.6E+01
Bromomethane	2.3E+00	7.6E+01
2-Butoxyethanol	7.3E+02	na
n-Butylbenzene	na	na
sec-Butylbenzene	na	na
tert-Butylbenzene	na	na
Carbon disulfide	3.2E+02	1.1E+04
Carbon tetrachloride	4.2E-01	1.4E+01
Chlorobenzene	2.3E+01	7.6E+02
Chloroethane	4.6E+03	1.5E+05
2-Chloroethyl vinyl ether	na	na
Chloroform	1.1E-01	3.6E+00
Chloromethane	4.1E+01	1.4E+03
3-Chloro-1-propene	4.2E-01	na
2-Chlorotoluene	na	na

PCUL Workbook - Soil Vapor and Air Summary

Precision Engineering, Inc.

Seattle, Washington

Chemical (All concentrations in ug/m^3)	**AR-1 Air PCUL** Air-Det	**SG-1 Sub-Slab Soil Gas Screening Level Protect Indoor Air** Air-Det
4-Chlorotoluene	na	na
Dibromochloromethane	na	na
1,2-Dibromo-3-chloropropane	1.1E-04	3.7E-03
Dibromomethane	1.8E+00	6.1E+01
Dichlorobromomethane	6.7E-02	2.2E+00
trans-1,4-Dichloro-2-butene	6.0E-04	na
Dichlorodifluoromethane	4.6E+01	1.5E+03
1,1-Dichloroethane	1.6E+00	5.2E+01
1,2-Dichloroethane (EDC)	9.6E-02	3.2E+00
1,1-Dichloroethylene	9.1E+01	3.0E+03
cis-1,2-Dichloroethylene	na	na
trans-1,2-Dichloroethylene	1.8E+01	6.1E+02
1,2-Dichloroethylene (mixed isomers)	na	na
1,2-Dichloropropane	6.8E-01	2.3E+01
1,3-Dichloropropane	na	na
2,2-Dichloropropane	na	na
1,1-Dichloropropene	na	na
cis-1,3-Dichloropropene	na	na
trans-1,3-Dichloropropene	na	na
Diisopropyl ether	na	na
Ethane	na	na
Ethylbenzene	4.6E+02	1.5E+04
Ethylene oxide	2.2E-04	7.3E-03
Ethyl ether	na	na
Ethylene dibromide (EDB)	4.2E-03	1.4E-01
Formaldehyde	1.9E-01	na
n-Hexane	3.2E+02	1.1E+04
2-Hexanone	1.4E+01	4.6E+02
Isopropylbenzene (cumene)	1.8E+02	6.1E+03
4-Isopropyltoluene	na	na
Methane	na	na
Methyl ethyl ketone (2-butanone)	2.3E+03	7.6E+04
Methyl iodide	na	na
Methyl isobutyl ketone (4-methyl-2-pentanone)	1.4E+03	4.6E+04
Methyl tert-butyl ether	9.6E+00	3.2E+02
Methylene chloride	6.6E+01	2.2E+03
2-Pentanone	na	na
n-Propylbenzene	4.6E+02	1.5E+04
Styrene	4.6E+02	1.5E+04
1,1,1,2-Tetrachloroethane	3.4E-01	1.1E+01
1,1,2,2-Tetrachloroethane	4.3E-02	1.4E+00
Tetrachloroethylene (PCE)	9.6E+00	3.2E+02
Tetrahydrofuran	2.3E+03	7.6E+04
Toluene	2.3E+03	7.6E+04
1,2,3-Trichlorobenzene	na	na
1,1,1-Trichloroethane	2.3E+03	7.6E+04
1,1,2-Trichloroethane	9.1E-02	3.0E+00
Trichloroethylene (TCE)	3.3E-01	1.1E+01
Trichlorofluoroethane	na	na
Trichlorofluoromethane	3.2E+02	1.1E+04
1,2,3-Trichloropropane	1.4E-01	na
Trichlorotrifluoroethane	2.3E+03	7.6E+04
1,2,3-Trimethylbenzene	2.7E+01	9.1E+02
1,2,4-Trimethylbenzene	2.7E+01	9.1E+02
1,3,5-Trimethylbenzene	2.7E+01	9.1E+02
Vinyl acetate	9.1E+01	3.0E+03
Vinyl chloride	2.8E-01	9.4E+00
Total xylenes	4.6E+01	1.5E+03
Petroleum Hydrocarbons		
Gasoline range hydrocarbons, fresh	1.4E+02	4.7E+03
Gasoline range hydrocarbons, weathered	1.4E+02	4.7E+03
Diesel range hydrocarbons, fresh	1.4E+02	na
Diesel range hydrocarbons, weathered	1.4E+02	na
Oil range hydrocarbons	na	na
Total diesel & oil range hydrocarbons	na	na
Pesticides		
Aldrin	5.1E-04	1.7E-02
alpha-BHC	1.4E-03	na
beta-BHC	4.7E-03	na
delta-BHC	na	na
gamma-BHC	8.0E-03	na
cis-Chlordane	2.5E-02	na
trans-Chlordane	2.5E-02	na
Chlordane	2.5E-02	na
Chlorpyrifos	na	na
4,4'-DDD	3.6E-02	na
4,4'-DDE	2.6E-02	na

PCUL Workbook - Soil Vapor and Air Summary

Precision Engineering, Inc.
Seattle, Washington

Chemical (All concentrations in ug/m^3)	AR-1 **Air PCUL** Air-Det	SG-1 **Sub-Slab Soil Gas Screening Level Protect Indoor Air** Air-Det
4,4'-DDT	2.6E-02	na
Total DDD	3.6E-02	na
Total DDE	2.6E-02	na
Total DDT	2.6E-02	na
Diazinon	na	na
Dieldrin	5.4E-04	na
Endosulfan I	na	na
Endosulfan II	na	na
Endosulfan sulfate	na	na
Endrin	na	na
Endrin aldehyde	na	na
Endrin ketone	na	na
Heptachlor	1.9E-03	6.4E-02
Heptachlor epoxide	9.6E-04	na
Malathion	na	na
Methoxychlor	na	na
Mirex	4.9E-04	1.6E-02
Nonachlor	na	na
Toxaphene	7.8E-03	na
Herbicides		
2,4-D	na	na
2,4-DB	na	na
2,4,5-TP	na	na
2,4,5-T	na	na
Dalapon	na	na
Dicamba	na	na
Dichloroprop	na	na
Dinoseb	na	na
MCPA	na	na
MCPP	na	na

Appendix K
Data Tables

Table K-1

Vadose Soil Data

Former Precision Engineering Property

Seattle, Washington

Location ID		GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	GP9	GP10	GP11	GP12	GP12	GP13	GP14	GP15	GP16	GP16	GP17	GP18	GP19
Sample ID		GP1-S-1.5	GP2-S-1.0	GP3-S-2.0	GP4-S-1.5	GP5-S-1.5	GP6-S-1.0	GP7-S-2.0	GP8-S-1.5	GP9-S-2.0	GP10-S-1.5	GP11-S-2.0	GP12-S-3.0	GP12-S-5.0	GP13-S-1.0	GP14-S-3.0	GP15-S-3.0	GP16-S-1.0	GP16-S-5.0	GP17-S-1.0	GP18-S-1.0	GP19-S-1.0
Sample Date		6/7/05	6/7/05	6/9/05	6/16/05	6/16/05	6/16/05	6/16/05	6/16/05	6/17/05	6/17/05	6/17/05	12/13/05	12/13/05	12/14/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05
Start Depth (feet)		1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
End Depth (feet)		1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
Analyte	Soil PCUL - Vadose																					
Metals (mg/kg)																						
Antimony	5.4	–	–	–	–	–	–	–	–	–	–	–	1.77 U	–	1.78 U	1.83 U	1.59 U	–	–	–	1.84 U	–
Arsenic	7.3	–	**11.3**	–	–	–	–	–	–	–	–	–	**2.79**	–	**9.45**	**3**	**7.76**	–	–	–	**3.55**	–
Beryllium	63	–	–	–	–	–	–	–	–	–	–	–	0.591 U	–	0.593 U	0.609 U	0.529 U	–	–	–	0.615 U	–
Cadmium	0.77	–	0.542 U	–	–	–	–	–	–	–	–	–	0.591 U	–	**1.29**	0.609 U	**0.714**	–	–	–	0.615 U	–
Chromium	260	**205**	**2680**	**915**	**1230**	**18.9**	**584**	**23.6**	**22.2**	**43.3**	**21.8**	**21.7**	**24.3**	**25.2**	**26.6**	**24.8**	**24.7**	**30**	**26.2**	**254**	**4430**	**22**
Chromium, Hexavalent	0.018	**152**	**523**	**27.7**	**53.4**	0.111 U	**627**	**0.119**	**0.661**	**2.97**	**0.142**	**0.573**	1.1 U	1 U	1.4 U	2 U	1.2 U	2.1 U	2.1 U	1.7 U	**2300 J**	2.5 U
Chromium, Trivalent	548	**53**	**2157**	**887.3**	**1176.6**	**18.9**	ND	**23.481**	**21.539**	**40.33**	**21.658**	**21.127**	**24.3**	**25.2**	**26.6**	**24.8**	**24.7**	**30**	**26.2**	**254**	**2130 J**	**22**
Copper	36	–	–	–	–	–	–	–	–	–	–	–	**17.6**	–	**29**	**14.4**	**30.4**	–	–	–	**113**	–
Lead	250	–	**34.8**	–	–	–	–	–	–	–	–	–	**2.45**	–	**21.1**	**2.2**	**18.7**	–	–	–	**26.3**	–
Mercury	0.07	–	–	–	–	–	–	–	–	–	–	–	0.131 U	–	0.168 U	0.12 U	0.154 U	–	–	–	**1.1**	–
Nickel	48	–	–	–	–	–	–	–	–	–	–	–	**25.6**	–	**21.8**	**32.9**	**16.4**	–	–	–	**23.1**	–
Selenium	5.2	–	–	–	–	–	–	–	–	–	–	–	0.591 U	–	0.593 U	0.609 U	0.529 U	–	–	–	0.615 U	–
Silver	0.32	–	–	–	–	–	–	–	–	–	–	–	0.591 U	–	0.593 U	0.609 U	0.529 U	–	–	–	0.615 U	–
Thallium	0.088	–	–	–	–	–	–	–	–	–	–	–	0.591 U	–	0.593 U	0.609 U	0.529 U	–	–	–	0.615 U	–
Zinc	101	–	–	–	–	–	–	–	–	–	–	–	**32.9**	–	**84.9**	**38.4**	**71.6**	–	–	–	**40.9**	–
Total Petroleum Hydrocarbons (mg/kg)																						
Gasoline-range hydrocarbons - HCID	30	**20**	**21.3**	**19.5**	**24.2**	**19.4**	**21**	**19.7**	**20.8**	**20.6**	**21**	**21.1**	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons - HCID	2,000	**49.9**	**53.3**	**48.9**	**60.4**	**48.4**	**52.4**	**49.2**	**51.9**	**51.5**	**52.6**	**52.8**	–	–	–	–	–	–	–	–	–	–
Lube oil-range hydrocarbons - HCID	2,000	**99.8**	**107**	**97.7**	**121**	**96.9**	**105**	**98.5**	**104**	**103**	**105**	**106**	–	–	–	–	–	–	–	–	–	–
Total TPH - HCID	2,000	**149.7**	**160.3**	**146.6**	**181.4**	**145.3**	**157.4**	**147.7**	**155.9**	**154.5**	**157.6**	**158.8**	–	–	–	–	–	–	–	–	–	–
Gasoline-range hydrocarbons	30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	2,000	–	–	–	–	–	–	–	–	–	–	–	10.7 U	–	–	–	17.7	–	11.2 U	**11.6**	**156**	**52.8**
Lube oil-range hydrocarbons	2,000	–	–	–	–	–	–	–	–	–	–	–	26.6 U	–	–	–	59.1	–	28 U	**63.1**	**742**	**172**
Total TPH	2,000	–	–	–	–	–	–	–	–	–	–	–	ND	–	–	–	76.8	–	ND	**74.7**	**898**	**224.8**
Diesel-range hydrocarbons w/SGC	2,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lube oil-range hydrocarbons w/SGC	2,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total TPH w/SGC	2,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																						
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C8-C10 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C10-C12 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C10-C12 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C12-C16 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C12-C16 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C16-C21 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C16-C21 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C21-C34 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C21-C34 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Volatile Organic Compounds (VOCs) (mg/kg)																						
1,1,1,2-Tetrachloroethane	0.0098	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,1,1-Trichloroethane	1.5	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
1,1,2,2-Tetrachloroethane	0.0012	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	7600	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,1,2-Trichloroethane	0.005	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,1-Dichloroethane	0.041	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,1-Dichloroethylene	0.046	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	**0.0237**	0.00837 U	–	–	–	–	–	–	–	–	–	–
1,1-Dichloropropene	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,2,3-Trichlorobenzene	0.20	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,2,3-Trichloropropane	0.0000024	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
1,2,4-Trichlorobenzene	0.031	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,2,4-Trimethylbenzene	1.3	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,2-Dibromo-3-Chloropropane	0.00089	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,2-Dibromoethane	0.00027	0.000839 U	0.00096 U	0.00291 U	0.00189 U	0.0013 U	0.00156 U	0.00143 U	0.0018 U	0.00136 U	0.00204 U	0.00153 U	–	–	–	–	–	–	–	–	–	–
1,2-Dichlorobenzene	0.035	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,2-Dichloroethane	0.023	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–

Location ID		GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	GP9	GP10	GP11	GP12	GP12	GP13	GP14	GP15	GP16	GP16	GP17	GP18	GP19
Sample ID		GP1-S-1.5	GP2-S-1.0	GP3-S-2.0	GP4-S-1.5	GP5-S-1.5	GP6-S-1.0	GP7-S-2.0	GP8-S-1.5	GP9-S-2.0	GP10-S-1.5	GP11-S-2.0	GP12-S-3.0	GP12-S-5.0	GP13-S-1.0	GP14-S-3.0	GP15-S-3.0	GP16-S-1.0	GP16-S-5.0	GP17-S-1.0	GP18-S-1.0	GP19-S-1.0
Sample Date		6/7/05	6/7/05	6/9/05	6/16/05	6/16/05	6/16/05	6/16/05	6/16/05	6/17/05	6/17/05	6/17/05	12/13/05	12/13/05	12/14/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05
Start Depth (feet)		1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
End Depth (feet)		1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
Analyte	**Soil PCUL - Vadose**																					
1,2-Dichloropropane	0.016	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
1,3,5-Trichlorobenzene	NE	0.000839 U	0.00096 U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,3,5-Trimethylbenzene	1.3	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,3-Dichlorobenzene	0.023	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
1,3-Dichloropropane	0.88	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
1,4-Dichlorobenzene	0.11	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
2,2-Dichloropropane	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
2-Chloroethyl vinyl ether	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2-Chlorotoluene	1.9	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
2-Hexanone	0.17	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
4-Chlorotoluene	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
4-Isopropyltoluene	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Acetone	29	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Acrolein	0.0044	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Acrylonitrile	0.00012	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzene	0.0088	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
Bromobenzene	0.56	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Bromochloromethane	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Bromoform	0.078	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Bromomethane	0.051	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Carbon Disulfide	4.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Carbon Tetrachloride	0.0029	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
Chlorobenzene	0.86	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Chloroethane	NE	0.000839 U	0.00096 U	0.159 U	0.103 U	0.0712 U	0.085 U	0.0781 U	0.0986 U	0.0742 U	0.112 U	0.0837 U	–	–	–	–	–	–	–	–	–	–
Chloroform	0.074	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Chloromethane	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
cis-1,2-Dichloroethylene	0.079	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	0.00286 U	0.00273 U	0.0119 U	0.00293 U	0.00326 U	0.00222 U	0.00255 U	0.00251 U	0.00283 U	0.0032 U
cis-1,3-Dichloropropene	0.0023	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Dibromochloromethane	0.01	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Dibromomethane	0.42	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Dichlorobromomethane	0.013	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Dichlorodifluoromethane	38	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Ethylbenzene	0.18	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Hexachlorobutadiene	0.00021	0.000839 U	0.00096 U	–	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Isopropylbenzene	15	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Methyl ethyl ketone (MEK)	20	–	–	–	–	–	–	–	–	–	–	–	0.0143 U	0.0136 U	**0.215**	0.0147 U	**0.123**	0.0111 U	0.0127 U	**0.0295**	0.0142 U	**0.0601**
Methyl Iodide	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methyl isobutyl ketone	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methyl tert-butyl ether	0.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methylene Chloride	0.022	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	**0.0179**	0.00837 U	–	–	–	–	–	–	–	–	–	–
Naphthalene	0.039	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
n-Butylbenzene	14	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
n-Propylbenzene	16	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Sec-Butylbenzene	25	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Styrene	2.2	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Tert-Butylbenzene	19	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Tetrachloroethylene	0.029	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	–	–	–	–	–	–	–	–	–	–
Toluene	0.72	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
trans-1,2-Dichloroethylene	0.52	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	0.00239 U	0.00227 U	0.00989 U	0.00244 U	0.00272 U	0.00185 U	0.00212 U	0.00209 U	0.00236 U	0.00267 U
trans-1,3-Dichloropropene	0.0023	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
trans-1,4-Dichloro-2-butene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Trichloroethylene	0.0044	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	**0.0405**	0.00781 U	0.00986 U	0.00742 U	0.0112 U	**0.0872**	0.00239 U	0.00227 U	0.00989 U	**0.00449**	0.00272 U	**0.00363**	0.00212 U	0.00209 U	**0.00343**	0.00267 U
Trichlorofluoromethane	23	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Vinyl Acetate	33	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Vinyl Chloride	0.0011	0.000839 U	0.00096 U	0.0159 U	0.0103 U	0.00712 U	0.0085 U	0.00781 U	0.00986 U	0.00742 U	0.0112 U	0.00837 U	0.00239 U	0.00227 U	0.00989 U	0.00244 U	0.00272 U	0.00185 U	0.00212 U	0.00209 U	0.00236 U	0.00267 U
Xylene, m-,p-	NE	0.00168 U	0.00192 U	0.159 U	0.103 U	0.0712 U	0.085 U	0.0781 U	0.0986 U	0.0742 U	0.112 U	0.0837 U	–	–	–	–	–	–	–	–	–	–
Xylene, o-	NE	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	–	–	–	–	–	–	–	–	–	–
Total Xylenes	0.94	0.00168 U	0.00192 U	0.159 U	0.103 U	0.0712 U	0.085 U	0.0781 U	0.0986 U	0.0742 U	0.112 U	0.0837 U	–	–	–	–	–	–	–	–	–	–
Semivolatile Compounds (SVOCs) (mg/kg)																						
1,2,4-Trichlorobenzene	0.031	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2-Dichlorobenzene	0.035	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Location ID	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	GP9	GP10	GP11	GP12	GP12	GP13	GP14	GP15	GP16	GP16	GP17	GP18	GP19
	Sample ID	GP1-S-1.5	GP2-S-1.0	GP3-S-2.0	GP4-S-1.5	GP5-S-1.5	GP6-S-1.0	GP7-S-2.0	GP8-S-1.5	GP9-S-2.0	GP10-S-1.5	GP11-S-2.0	GP12-S-3.0	GP12-S-5.0	GP13-S-1.0	GP14-S-3.0	GP15-S-3.0	GP16-S-1.0	GP16-S-5.0	GP17-S-1.0	GP18-S-1.0	GP19-S-1.0
	Sample Date	6/7/05	6/7/05	6/9/05	6/16/05	6/16/05	6/16/05	6/16/05	6/16/05	6/17/05	6/17/05	6/17/05	12/13/05	12/13/05	12/14/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05
	Start Depth (feet)	1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
	End Depth (feet)	1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
Analyte	**Soil PCUL - Vadose**																					
1,3-Dichlorobenzene	0.023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.0018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-Oxybis[1-chloropropane]	1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.092	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.0028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.0009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000034	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.0027	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	0.018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.057	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.00022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.0036	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.071	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	6.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.00021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	0.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.000032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																						
1-Methylnaphthalene	0.082	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0167**	0.0124 U
2-Methylnaphthalene	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0202**	0.0124 U
Acenaphthene	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Acenaphthylene	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Anthracene	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Benzo(a)anthracene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0235**	0.0124 U
Benzo(a)pyrene	0.00031	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Benzo(b)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0746**	0.0124 U
Benzo(g,h,i)perylene	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.137**	0.0247 U
Benzo(j)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.056**	0.0124 U
Benzofluoranthenes (Total)	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Location ID		GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8	GP9	GP10	GP11	GP12	GP12	GP13	GP14	GP15	GP16	GP16	GP17	GP18	GP19
Sample ID		GP1-S-1.5	GP2-S-1.0	GP3-S-2.0	GP4-S-1.5	GP5-S-1.5	GP6-S-1.0	GP7-S-2.0	GP8-S-1.5	GP9-S-2.0	GP10-S-1.5	GP11-S-2.0	GP12-S-3.0	GP12-S-5.0	GP13-S-1.0	GP14-S-3.0	GP15-S-3.0	GP16-S-1.0	GP16-S-5.0	GP17-S-1.0	GP18-S-1.0	GP19-S-1.0
Sample Date		6/7/05	6/7/05	6/9/05	6/16/05	6/16/05	6/16/05	6/16/05	6/16/05	6/17/05	6/17/05	6/17/05	12/13/05	12/13/05	12/14/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05	12/13/05
Start Depth (feet)		1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
End Depth (feet)		1.5	1	2	1.5	1.5	1	2	1.5	2	1.5	2	3	5	1	3	3	1	5	1	1	1
Analyte	**Soil PCUL - Vadose**																					
Chrysene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0717**	**0.0127**
Dibenzo(a,h)anthracene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Dibenzofuran	0.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.195**	**0.0245**
Fluorene	0.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Indeno(1,2,3-c,d)pyrene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0111 U	0.0124 U
Naphthalene	0.039	0.000839 U	0.00096 U	0.0795 U	0.0517 U	0.0356 U	0.0425 U	0.039 U	0.0493 U	0.0371 U	0.0558 U	0.0419 U	--	--	--	--	--	--	--	--	**0.0179**	0.0124 U
Phenanthrene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.109**	**0.0161**
Pyrene	2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0884**	**0.0203**
Total cPAH TEQ (ND=0.5RL)	0.00031	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.03649**	**0.01066**
Polychlorinated Biphenyls (PCBs) (mg/kg)																						
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																						
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.0018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.00041	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0035	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.00008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000063	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Location ID		GP20		GP21		GP22		GP24		GP25		GP26		GP27		GP28		GP29		GP30		GP31		GP32		HA1		HA1		HA2		HA2		HA6		HA7		HA8		HA9		HA10	
Sample ID		GP20-S-1.0		GP21-S-1.0		GP22-S-1.0		GP24-S-3.0		GP25-S-1.0		GP26-S-1.0		GP27-S-1.0		GP28-S-1.0		GP29-S-1.0		GP30-S-1.0		GP31-S-1.0		GP32-S-1.0		HA1-0.5		HA1-1.5		HA2-0.5		HA2-1.5		HA6-0.5		HA7-0.5		HA8-0.5		HA9-0.5		HA10-0.5	
Sample Date		12/14/05		12/14/05		12/13/05		12/14/05		12/12/05		12/12/05		12/12/05		12/12/05		12/12/05		12/12/05		12/12/05		12/14/05		12/15/05		12/15/05		12/15/05		12/15/05		4/18/06		4/18/06		4/18/06		4/19/06		4/19/06	
Start Depth (feet)		1		1		1		3		1		1		1		1		1		1		1		1		0.5		1.5		0.5		1.5		0.5		0.5		0.5		0.5		0.5	
End Depth (feet)		1		1		1		3		1		1		1		1		1		1		1		1		0.5		1.5		0.5		1.5		0.5		0.5		0.5		0.5		0.5	
Analyte	**Soil PCUL - Vadose**																																								
Metals (mg/kg)																																									
Antimony	5.4	1.78	U	–		–		1.63	U	–		–		–		1.63	U	1.73	U	–		1.65	U	–		1.73	U	1.65	U	2.17	U	1.84	U	–		–		–		–		–	
Arsenic	7.3	**5.47**		–		–		**3.06**		–		–		–		**1.89**		**5.91**		–		**5.72**		–		**3.81**		**2.88**	J	**3.94**		**2.71**		–		–		–		–		–	
Beryllium	63	0.592	U	–		–		0.542	U	–		–		–		0.542	U	0.577	U	–		0.549	U	–		0.576	U	0.55	U	0.723	U	0.613	U	–		–		–		–		–	
Cadmium	0.77	0.592	U	–		–		0.542	U	–		–		–		0.542	U	0.577	U	–		0.549	U	–		0.576	U	0.55	U	**0.984**		0.613	U	–		–		–		–		–	
Chromium	260	**17.6**		**25.6**		**46.8**		**30.2**		**19.3**		**23.7**		**22**		**20.5**		**29.6**		**27.2**		**19.2**		**6750**		**34.3**		**110**		**206**		**215**		–		–		–		–		–	
Chromium, Hexavalent	0.018	1.1	U	1	U	**2.9**	J	1	U	1.8	U	2.2	U	2.2	U	2.2	U	2.4	U	2.1	U	2.1	U	**3500**	J	2.9	U	**6.5**	J	**89**	J	**3.2**	J	**3.33**		**0.22**		**0.26**		**3.4**		**0.074**	
Chromium, Trivalent	548	**17.6**		**25.6**		**43.9**	J	**30.2**		**19.3**		**23.7**		**22**		**20.5**		**29.6**		**27.2**		**19.2**		**3250**	J	**34.3**		**103.5**	J	**117**	J	**211.8**	J	–		–		–		–		–	
Copper	36	**29.4**		–		–		**16.5**		–		–		–		**12.6**		**15.6**		–		**40.2**		–		**32.8**		**16.2**	J	**70.9**		**28.2**		–		–		–		–		–	
Lead	250	**10.1**		–		–		**3.09**		–		–		–		**1.54**		**18**		–		**14.2**		–		**34.6**		**15.3**	J	**81.4**		**36.5**		–		–		–		–		–	
Mercury	0.07	0.152	U	–		–		0.115	U	–		–		–		0.144	U	**0.876**		–		0.131	U	–		0.132	U	**0.328**		0.142	U	**0.232**		–		–		–		–		–	
Nickel	48	**13**		–		–		**28.5**		–		–		–		**22.5**		**27**		–		**14.4**		–		**21.3**		**24.7**	J	**36**		**31**		–		–		–		–		–	
Selenium	5.2	0.592	U	–		–		0.542	U	–		–		–		0.542	U	0.577	U	–		0.549	U	–		0.576	U	0.55	U	0.723	U	0.613	U	–		–		–		–		–	
Silver	0.32	0.592	U	–		–		0.542	U	–		–		–		0.542	U	0.577	U	–		0.549	U	–		0.576	U	0.55	U	0.723	U	0.613	U	–		–		–		–		–	
Thallium	0.088	0.592	U	–		–		0.542	U	–		–		–		0.542	U	0.577	U	–		0.549	U	–		0.576	U	0.55	U	0.723	U	0.613	U	–		–		–		–		–	
Zinc	101	**49.3**		–		–		**44.3**		–		–		–		**24.9**		**36.9**		–		**46.1**		–		**140**		**70.8**	J	**341**		**134**		–		–		–		–		–	
Total Petroleum Hydrocarbons (mg/kg)																																									
Gasoline-range hydrocarbons - HCID	30	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Diesel-range hydrocarbons - HCID	2,000	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Lube oil-range hydrocarbons - HCID	2,000	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Total TPH - HCID	2,000	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Gasoline-range hydrocarbons	30	–		–		–		–		–		–		–		–		–		–		–		–		**11.4**		6.57	U	8.2	U	4.79	U	–		–		–		–		–	
Diesel-range hydrocarbons	2,000	**198**		11.2	U	–		11.1	U	–		**36.4**		–		10.8	U	**80.4**		**14.9**		**145**		11.3	U	**210**		**37.6**		**636**		**73.8**		–		–		–		–		–	
Lube oil-range hydrocarbons	2,000	**301**		28	U	–		27.8	U	–		**121**		–		27	U	**249**		**90.5**		**1300**		28.3	U	**1170**		**182**		**3170**		**409**		–		–		–		–		–	
Total TPH	2,000	**499**		ND		–		ND		–		**157.4**		–		ND		**329.4**		**105.4**		**1445**		ND		**1380**		**219.6**		**3806**		**482.8**		–		–		–		–	
Diesel-range hydrocarbons w/SGC	2,000	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Lube oil-range hydrocarbons w/SGC	2,000	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Total TPH w/SGC	2,000	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																																									
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C8-C10 Aromatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C10-C12 Aliphatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C10-C12 Aromatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C12-C16 Aliphatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C12-C16 Aromatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C16-C21 Aliphatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C16-C21 Aromatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C21-C34 Aliphatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Extractable Petroleum Hydrocarbons, C21-C34 Aromatics	NE	–		–		–		–		–		–		–		–		–		–		–		–		–		–		8.9	U	–		–		–		–		–		–	
Volatile Organic Compounds (VOCs) (mg/kg)																																									
1,1,1,2-Tetrachloroethane	0.0098	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,1,1-Trichloroethane	1.5	–		–		–		–		–		–		–		–		–		–		–		–		0.00287	U	0.00346	U	0.00365	U	0.0023	U	–		–		–		–		–	
1,1,2,2-Tetrachloroethane	0.0012	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	7600	–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–		–	
1,1,2-Trichloroethane	0.005	–		–		–		–		–		–		–		–		–		–		–		–		0.00143	U	0.00173	U	0.00183	U	0.00115	U	–		–		–		–		–	
1,1-Dichloroethane	0.041	–		–		–		–		–		–		–		–		–		–		–		–		0.00229	U	0.00277	U	0.00292	U	0.00184	U	–		–		–		–		–	
1,1-Dichloroethylene	0.046	–		–		–		–		–		–		–		–		–		–		–		–		0.00344	U	0.00415	U	0.00438	U	0.00277	U	–		–		–		–		–	
1,1-Dichloropropene	NE	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2,3-Trichlorobenzene	0.20	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2,3-Trichloropropane	0.0000024	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2,4-Trichlorobenzene	0.031	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2,4-Trimethylbenzene	1.3	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2-Dibromo-3-Chloropropane	0.00089	–		–		–		–		–		–		–		–		–		–		–		–		0.0115	U	0.0138	U	0.0146	U	0.00922	U	–		–		–		–		–	
1,2-Dibromoethane	0.00027	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2-Dichlorobenzene	0.035	–		–		–		–		–		–		–		–		–		–		–		–		0.00573	U	0.00691	U	0.0073	U	0.00461	U	–		–		–		–		–	
1,2-Dichloroethane	0.023	–		–		–		–		–		–		–		–		–		–		–		–		0.00143	U	0.00173	U	0.00183	U	0.00115	U	–		–		–		–		–	

Location ID		GP20	GP21	GP22	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	GP32	HA1	HA1	HA2	HA2	HA6	HA7	HA8	HA9	HA10
Sample ID		GP20-S-1.0	GP21-S-1.0	GP22-S-1.0	GP24-S-3.0	GP25-S-1.0	GP26-S-1.0	GP27-S-1.0	GP28-S-1.0	GP29-S-1.0	GP30-S-1.0	GP31-S-1.0	GP32-S-1.0	HA1-0.5	HA1-1.5	HA2-0.5	HA2-1.5	HA6-0.5	HA7-0.5	HA8-0.5	HA9-0.5	HA10-0.5
Sample Date		12/14/05	12/14/05	12/13/05	12/14/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/14/05	12/15/05	12/15/05	12/15/05	12/15/05	4/18/06	4/18/06	4/18/06	4/19/06	4/19/06
Start Depth (feet)		1	1	1	3	1	1	1	1	1	1	1	1	0.5	1.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5
End Depth (feet)		1	1	1	3	1	1	1	1	1	1	1	1	0.5	1.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5
Analyte	**Soil PCUL - Vadose**																					
1,2-Dichloropropane	0.016	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
1,3,5-Trichlorobenzene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,3,5-Trimethylbenzene	1.3	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
1,3-Dichlorobenzene	0.023	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
1,3-Dichloropropane	0.88	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
1,4-Dichlorobenzene	0.11	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
2,2-Dichloropropane	NE	–	–	–	–	–	–	–	–	–	–	–	–	0.0115 U	0.0138 U	0.0146 U	0.00922 U	–	–	–	–	–
2-Chloroethyl vinyl ether	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2-Chlorotoluene	1.9	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
2-Hexanone	0.17	–	–	–	–	–	–	–	–	–	–	–	–	0.0229 U	0.0277 U	0.0292 U	0.0184 U	–	–	–	–	–
4-Chlorotoluene	NE	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
4-Isopropyltoluene	NE	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Acetone	29	–	–	–	–	–	–	–	–	–	–	–	–	0.0344 U	0.0415 U	0.0438 U	0.0277 U	–	–	–	–	–
Acrolein	0.0044	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Acrylonitrile	0.00012	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Benzene	0.0088	–	–	–	–	–	–	–	–	–	–	–	–	0.00172 U	0.00207 U	0.00219 U	0.00138 U	–	–	–	–	–
Bromobenzene	0.56	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Bromochloromethane	NE	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Bromoform	0.078	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Bromomethane	0.051	–	–	–	–	–	–	–	–	–	–	–	–	0.0115 U	0.0138 U	0.0146 U	0.00922 U	–	–	–	–	–
Carbon Disulfide	4.1	–	–	–	–	–	–	–	–	–	–	–	–	0.00344 U	0.00415 U	0.00438 U	0.00277 U	–	–	–	–	–
Carbon Tetrachloride	0.0029	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Chlorobenzene	0.86	–	–	–	–	–	–	–	–	–	–	–	–	0.00229 U	0.00277 U	0.00292 U	0.00184 U	–	–	–	–	–
Chloroethane	NE	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Chloroform	0.074	–	–	–	–	–	–	–	–	–	–	–	–	0.00287 U	0.00346 U	0.00365 U	0.0023 U	–	–	–	–	–
Chloromethane	NE	–	–	–	–	–	–	–	–	–	–	–	–	0.0115 U	0.0138 U	0.0146 U	0.00922 U	–	–	–	–	–
cis-1,2-Dichloroethylene	0.079	0.00315 U	0.00261 U	0.00272 U	0.00309 U	0.00256 U	0.00241 U	0.00263 U	0.00224 U	**0.00494**	0.00287 U	0.00242 U	0.00284 U	0.00344 U	0.00415 U	0.00438 U	0.00277 U	–	–	–	–	–
cis-1,3-Dichloropropene	0.0023	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Dibromochloromethane	0.01	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Dibromomethane	0.42	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Dichlorobromomethane	0.013	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Dichlorodifluoromethane	38	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Ethylbenzene	0.18	–	–	–	–	–	–	–	–	–	–	–	–	0.00458 U	0.00553 U	0.00584 U	0.00369 U	–	–	–	–	–
Hexachlorobutadiene	0.00021	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Isopropylbenzene	15	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Methyl ethyl ketone (MEK)	20	**0.0217**	0.0131 U	0.0136 U	0.0155 U	0.0128 U	0.0121 U	0.0132 U	0.0112 U	0.0148 U	**0.0169**	0.0121 U	0.0142 U	0.0172 U	0.0207 U	0.0219 U	0.0138 U	–	–	–	–	–
Methyl Iodide	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methyl isobutyl ketone	2.7	–	–	–	–	–	–	–	–	–	–	–	–	0.0229 U	0.0277 U	0.0292 U	0.0184 U	–	–	–	–	–
Methyl tert-butyl ether	0.1	–	–	–	–	–	–	–	–	–	–	–	–	0.00115 U	0.00138 U	0.00146 U	0.000922 U	–	–	–	–	–
Methylene Chloride	0.022	–	–	–	–	–	–	–	–	–	–	–	–	0.00401 U	0.00484 U	0.00511 U	0.00323 U	–	–	–	–	–
Naphthalene	0.039	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
n-Butylbenzene	14	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
n-Propylbenzene	16	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Sec-Butylbenzene	25	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Styrene	2.2	–	–	–	–	–	–	–	–	–	–	–	–	0.00115 U	0.00138 U	0.00146 U	0.000922 U	–	–	–	–	–
Tert-Butylbenzene	19	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Tetrachloroethylene	0.029	–	–	–	–	–	–	–	–	–	–	–	–	0.00229 U	0.00277 U	0.00292 U	0.00184 U	–	–	–	–	–
Toluene	0.72	–	–	–	–	–	–	–	–	–	–	–	–	0.00172 U	0.00207 U	0.00219 U	0.00138 U	–	–	–	–	–
trans-1,2-Dichloroethylene	0.52	0.00262 U	0.00218 U	0.00226 U	0.00258 U	0.00213 U	0.00201 U	0.00219 U	0.00187 U	0.00247 U	0.00239 U	0.00202 U	0.00237 U	0.00287 U	0.00346 U	0.00365 U	0.0023 U	–	–	–	–	–
trans-1,3-Dichloropropene	0.0023	–	–	–	–	–	–	–	–	–	–	–	–	0.00143 U	0.00173 U	0.00183 U	0.00115 U	–	–	–	–	–
trans-1,4-Dichloro-2-butene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Trichloroethylene	0.0044	0.00262 U	0.00218 U	0.00226 U	0.00258 U	0.00213 U	0.00201 U	0.00219 U	0.00187 U	0.00247 U	0.00239 U	0.00202 U	0.00237 U	0.00287 U	0.00346 U	0.00365 U	0.0023 U	–	–	–	–	–
Trichlorofluoromethane	23	–	–	–	–	–	–	–	–	–	–	–	–	0.00573 U	0.00691 U	0.0073 U	0.00461 U	–	–	–	–	–
Vinyl Acetate	33	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Vinyl Chloride	0.0011	0.00262 U	0.00218 U	0.00226 U	0.00258 U	0.00213 U	0.00201 U	0.00219 U	0.00187 U	0.00247 U	0.00239 U	0.00202 U	0.00237 U	0.00287 U	0.00346 U	0.00365 U	0.0023 U	–	–	–	–	–
Xylene, m-,p-	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Xylene, o-	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total Xylenes	0.94	–	–	–	–	–	–	–	–	–	–	–	–	0.0115 U	0.0138 U	0.0146 U	0.00922 U	–	–	–	–	–
Semivolatile Compounds (SVOCs) (mg/kg)																						
1,2,4-Trichlorobenzene	0.031	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2-Dichlorobenzene	0.035	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Location ID	GP20	GP21	GP22	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	GP32	HA1	HA1	HA2	HA2	HA6	HA7	HA8	HA9	HA10
	Sample ID	GP20-S-1.0	GP21-S-1.0	GP22-S-1.0	GP24-S-3.0	GP25-S-1.0	GP26-S-1.0	GP27-S-1.0	GP28-S-1.0	GP29-S-1.0	GP30-S-1.0	GP31-S-1.0	GP32-S-1.0	HA1-0.5	HA1-1.5	HA2-0.5	HA2-1.5	HA6-0.5	HA7-0.5	HA8-0.5	HA9-0.5	HA10-0.5
	Sample Date	12/14/05	12/14/05	12/13/05	12/14/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/14/05	12/15/05	12/15/05	12/15/05	12/15/05	4/18/06	4/18/06	4/18/06	4/19/06	4/19/06
	Start Depth (feet)	1	1	1	3	1	1	1	1	1	1	1	1	0.5	1.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5
	End Depth (feet)	1	1	1	3	1	1	1	1	1	1	1	1	0.5	1.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5
Analyte	**Soil PCUL - Vadose**																					
1,3-Dichlorobenzene	0.023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.0018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-Oxybis[1-chloropropane]	1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.092	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.0028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.0009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000034	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.0027	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	0.018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.057	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.00022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.0036	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.071	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	6.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.00021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	0.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.000032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																						
1-Methylnaphthalene	0.082	0.012 U	--	--	--	--	--	--	--	0.0119 U	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
2-Methylnaphthalene	0.67	0.012 U	--	--	--	--	--	--	--	0.0119 U	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Acenaphthene	0.5	0.012 U	--	--	--	--	--	--	--	0.0119 U	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Acenaphthylene	1.3	0.012 U	--	--	--	--	--	--	--	0.0119 U	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Anthracene	0.96	0.012 U	--	--	--	--	--	--	--	**0.0137**	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Benzo(a)anthracene	NE	0.012 U	--	--	--	--	--	--	--	**0.075**	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Benzo(a)pyrene	0.00031	0.012 U	--	--	--	--	--	--	--	**0.0571**	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Benzo(b)fluoranthene	NE	0.012 U	--	--	--	--	--	--	--	**0.0611**	--	0.0117 U	--	0.0151 U	0.0129 U	**0.0222**	**0.0204**	--	--	--	--	--
Benzo(g,h,i)perylene	0.67	0.012 U	--	--	--	--	--	--	--	**0.0249**	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	**0.123**	--	0.0233 U	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	NE	0.012 U	--	--	--	--	--	--	--	**0.0703**	--	0.0117 U	--	0.0151 U	0.0129 U	**0.0205**	**0.0151**	--	--	--	--	--
Benzofluoranthenes (Total)	3.2	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--

Location ID		GP20	GP21	GP22	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	GP32	HA1	HA1	HA2	HA2	HA6	HA7	HA8	HA9	HA10
Sample ID		GP20-S-1.0	GP21-S-1.0	GP22-S-1.0	GP24-S-3.0	GP25-S-1.0	GP26-S-1.0	GP27-S-1.0	GP28-S-1.0	GP29-S-1.0	GP30-S-1.0	GP31-S-1.0	GP32-S-1.0	HA1-0.5	HA1-1.5	HA2-0.5	HA2-1.5	HA6-0.5	HA7-0.5	HA8-0.5	HA9-0.5	HA10-0.5
Sample Date		12/14/05	12/14/05	12/13/05	12/14/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/12/05	12/14/05	12/15/05	12/15/05	12/15/05	12/15/05	4/18/06	4/18/06	4/18/06	4/19/06	4/19/06
Start Depth (feet)		1	1	1	3	1	1	1	1	1	1	1	1	0.5	1.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5
End Depth (feet)		1	1	1	3	1	1	1	1	1	1	1	1	0.5	1.5	0.5	1.5	0.5	0.5	0.5	0.5	0.5
Analyte	**Soil PCUL - Vadose**																					
Chrysene	NE	0.012 U	--	--	--	--	--	--	--	**0.122**	--	**0.034**	--	0.0151 U	0.0129 U	**0.0276**	**0.0179**	--	--	--	--	--
Dibenzo(a,h)anthracene	NE	0.012 U	--	--	--	--	--	--	--	**0.0162**	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Dibenzofuran	0.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	1.7	0.012 U	--	--	--	--	--	--	--	**0.149**	--	**0.0253**	--	**0.0196**	0.0129 U	**0.0455**	**0.0329**	--	--	--	--	--
Fluorene	0.54	0.012 U	--	--	--	--	--	--	--	0.0119 U	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	NE	0.012 U	--	--	--	--	--	--	--	**0.026**	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Naphthalene	0.039	0.012 U	--	--	--	--	--	--	--	0.0119 U	--	0.0117 U	--	0.0151 U	0.0129 U	0.0176 U	0.0125 U	--	--	--	--	--
Phenanthrene	1.5	0.012 U	--	--	--	--	--	--	--	**0.0382**	--	**0.0153**	--	0.0151 U	0.0129 U	**0.018**	0.0125 U	--	--	--	--	--
Pyrene	2.6	0.012 U	--	--	--	--	--	--	--	**0.156**	--	**0.0254**	--	0.0151 U	0.0129 U	**0.0334**	**0.024**	--	--	--	--	--
Total cPAH TEQ (ND=0.5RL)	0.00031	0.00906 U	--	--	--	--	--	--	--	**0.09548**	--	**0.01028**	--	0.0114 U	0.00974 U	**0.01599**	**0.01185**	--	--	--	--	--
Polychlorinated Biphenyls (PCBs) (mg/kg)																						
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																						
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.0018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.00041	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0035	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.00008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000063	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Location ID		HA11	HA12	HA26	HA27	HA28	HA29	SB3	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-31	SB-33	SB-34
Sample ID		HA11-0.5	HA12-0.5	HA26-1	HA27-1	HA28-1	HA29-1	SB3-2	SB-20-2-3	SB-21-3-4	SB-22-0.5-1.5	SB-23-1.5-2.5	SB-24-3-4	SB-25-3.5-4.5	SB-26-3-4	SB-27-3-4	SB-28-2.5-3	SB-29-0-2	SB-30-3-4	SB-31-2-3	SB-33-2-3	SB34-2-3
Sample Date		4/19/06	4/19/06	9/22/23	9/22/23	9/22/23	9/22/23	8/8/14	3/8/22	3/7/22	3/10/22	3/9/22	3/8/22	3/8/22	3/7/22	3/7/22	3/7/22	3/10/22	3/9/22	3/9/22	3/9/22	6/2/23
Start Depth (feet)		0.5	0.5	1	0.5	0.5	1	2	2	3	0.5	1.5	3	3.5	3	3	2.5	0	3	2	2	2
End Depth (feet)		0.5	0.5	1.5	1	1	1.5	2	3	4	1.5	2.5	4	4.5	4	4	3	2	4	3	3	3
Analyte	**Soil PCUL - Vadose**																					
Metals (mg/kg)																						
Antimony	5.4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Arsenic	7.3	–	**9**	**9.38**	**7.27**	**9.87**	**3.93**	–	**2.59**	**2.9**	**3.04**	**9.93**	**2.88**	**3.64**	**2.91**	**3.35**	**8.5**	**1.86**	**8.08**	**9.51**	**5.96**	**2.5**
Beryllium	63	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cadmium	0.77	–	**0.48 JB**	**0.29**	**0.38**	**0.36**	**0.17**	–	**0.07 J**	**0.12**	**0.07 J**	**0.54**	**0.06 J**	**0.07 J**	**0.07 J**	**0.1 J**	**0.39**	**0.05 J**	**0.54**	**0.13**	**0.16**	**0.08 J**
Chromium	260	–	**46 B**	**24.6**	**24.5**	**30.2**	**20.4**	–	**21**	**39.2**	**23.5**	**20.3**	**23.4**	**20.2**	**22.6**	**23**	**23.8**	**22.3**	**18.5**	**20.7**	**465**	**21.2**
Chromium, Hexavalent	0.018	**0.45**	–	0.564 UJ	0.529 U	0.574 U	0.53 U	–	0.538 UJ	0.575 UJ	0.576 U	0.624 UJ	0.54 UJ	0.574 UJ	0.524 U	0.569 U	0.627 U	0.557 U	0.575 U	0.591 U	**83.6**	0.527 U
Chromium, Trivalent	548	–	–	**24.6**	**24.5**	**30.2**	**20.4**	–	**21**	**39.2**	**23.5**	**20.3**	**23.4**	**20.2**	**22.6**	**23**	**23.8**	**22.3**	**18.5**	**20.7**	**381.4**	**21.2**
Copper	36	–	**39 B**	**31.8**	**49.2**	**45.3**	**14.8**	–	**12.5**	**23.8**	**14.4**	**29.5**	**11.8**	**12.6**	**12.2**	**14**	**30**	**11.1**	**31.1**	**29.4**	**18.2**	**11.8**
Lead	250	–	**220 B**	**78.5**	**71.6**	**82.7**	**12**	–	**2.13**	**3.92**	**2.7**	**16.9**	**2.09**	**2.68**	**2.34**	**2.85**	**16.6**	**2.1**	**130**	**17.8**	**3.24**	**2.18**
Mercury	0.07	–	–	**0.222**	**0.0493**	**0.195**	**0.0855**	–	**0.0163 J**	**0.0292**	**0.0253**	**0.0781**	**0.0118 J**	**0.012 J**	**0.00649 J**	**0.0178 J**	**0.095**	**0.022**	**0.0848**	**0.114**	**0.047**	**0.0126 J**
Nickel	48	–	–	**27.5**	**25.3**	**35.3**	**26.1**	–	**26.7**	**46.8**	**32.1**	**18.2**	**31.9**	**32**	**29.5**	**28.3**	**20.4**	**26.2**	**19.6**	**17.6**	**37.7**	**27.3**
Selenium	5.2	–	–	**0.8**	**0.58**	**0.72**	**0.55**	–	**0.69**	**1.06**	**0.62**	**0.89**	**0.64**	**0.61**	**0.82**	**0.72**	**0.95**	**0.5 J**	**0.62**	**0.95**	**0.71**	**0.95**
Silver	0.32	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Thallium	0.088	–	–	–	–	–	–	–	**0.05 J**	**0.1 J**	**0.07 J**	**0.1 J**	**0.05 J**	**0.07 J**	**0.06 J**	**0.08 J**	**0.1 J**	**0.05 J**	**0.07 J**	**0.08 J**	**0.08 J**	–
Zinc	101	–	–	**105**	**109**	**111**	**58.3**	–	**32.3**	**60.6**	**37.9**	**60.7**	**33.2**	**37.3**	**34.8**	**43.1**	**61**	**32.4**	**83.8**	**53.7**	**41.2**	**31.2**
Total Petroleum Hydrocarbons (mg/kg)																						
Gasoline-range hydrocarbons - HCID	30	–	–	11 U	11 U	12 U	11 U	–	11 U	12 U	12 U	13 U	11 U	12 U	11 U	11 U	13 U	11 U	–	–	11 U	11 U
Diesel-range hydrocarbons - HCID	2,000	–	–	28 U	27 U	30 U	27 U	–	27 U	29 U	29 U	32 U	28 U	29 U	27 U	28 U	32 U	28 U	–	–	28 U	27 U
Lube oil-range hydrocarbons - HCID	2,000	–	–	56 U	54 U	61 U	54 U	–	54 U	58 U	58 U	63 U	56 U	58 U	54 U	57 U	**64**	56 U	–	–	55 U	54 U
Total TPH - HCID	2,000	–	–	ND	ND	ND	ND	–	ND	ND	ND	ND	ND	ND	ND	ND	**64**	ND	–	–	ND	ND
Gasoline-range hydrocarbons	30	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5.44 U	5.58 U	–	–
Diesel-range hydrocarbons	2,000	–	–	–	–	–	–	**10000**	–	–	–	–	–	–	–	–	**26**	–	**28.1**	**36.2**	–	–
Lube oil-range hydrocarbons	2,000	–	–	–	–	–	–	**12000**	–	–	–	–	–	–	–	–	**129**	–	**186**	**161**	–	–
Total TPH	2,000	–	–	–	–	–	–	**22000**	–	–	–	–	–	–	–	–	**155**	–	**214.1**	**197.2**	–	–
Diesel-range hydrocarbons w/SGC	2,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lube oil-range hydrocarbons w/SGC	2,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total TPH w/SGC	2,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																						
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C8-C10 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C10-C12 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C10-C12 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C12-C16 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C12-C16 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C16-C21 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C16-C21 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C21-C34 Aliphatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Extractable Petroleum Hydrocarbons, C21-C34 Aromatics	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Volatile Organic Compounds (VOCs) (mg/kg)																						
1,1,1,2-Tetrachloroethane	0.0098	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,1,1-Trichloroethane	1.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,1,2,2-Tetrachloroethane	0.0012	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	7600	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00112 U	–	–	0.00126 U	–
1,1,2-Trichloroethane	0.005	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,1-Dichloroethane	0.041	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,1-Dichloroethylene	0.046	–	–	0.00102 U	0.0008 U	0.00095 U	0.00074 U	–	0.00061 U	0.00095 U	0.001 U	0.00089 U	0.00092 U	0.00072 U	0.00066 U	0.00068 U	0.00092 U	0.00056 U	0.00079 U	0.00077 U	0.00063 U	0.00094 U
1,1-Dichloropropene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,2,3-Trichlorobenzene	0.20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
1,2,3-Trichloropropane	0.0000024	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00112 U	–	–	0.00126 U	–
1,2,4-Trichlorobenzene	0.031	–	–	–	–	–	–	–	0.00305 U	0.00474 U	0.00499 U	0.00446 U	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
1,2,4-Trimethylbenzene	1.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,2-Dibromo-3-Chloropropane	0.00089	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
1,2-Dibromoethane	0.00027	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,2-Dichlorobenzene	0.035	–	–	–	–	–	–	–	0.00061 U	0.00095 U	0.001 U	0.00089 U	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,2-Dichloroethane	0.023	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–

	Location ID	HA11	HA12	HA26	HA27	HA28	HA29	SB3	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-31	SB-33	SB-34
	Sample ID	HA11-0.5	HA12-0.5	HA26-1	HA27-1	HA28-1	HA29-1	SB3-2	SB-20-2-3	SB-21-3-4	SB-22-0.5-1.5	SB-23-1.5-2.5	SB-24-3-4	SB-25-3.5-4.5	SB-26-3-4	SB-27-3-4	SB-28-2.5-3	SB-29-0-2	SB-30-3-4	SB-31-2-3	SB-33-2-3	SB34-2-3
	Sample Date	4/19/06	4/19/06	9/22/23	9/22/23	9/22/23	9/22/23	8/8/14	3/8/22	3/7/22	3/10/22	3/9/22	3/8/22	3/8/22	3/7/22	3/7/22	3/7/22	3/10/22	3/9/22	3/9/22	3/9/22	6/2/23
	Start Depth (feet)	0.5	0.5	1	0.5	0.5	1	2	2	3	0.5	1.5	3	3.5	3	3	2.5	0	3	2	2	2
	End Depth (feet)	0.5	0.5	1.5	1	1	1.5	2	3	4	1.5	2.5	4	4.5	4	4	3	2	4	3	3	3
Analyte	**Soil PCUL - Vadose**																					
1,2-Dichloropropane	0.016	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,3,5-Trichlorobenzene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,3,5-Trimethylbenzene	1.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,3-Dichlorobenzene	0.023	–	–	–	–	–	–	–	0.00061 U	0.00095 U	**0.0004 J**	0.00089 U	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,3-Dichloropropane	0.88	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
1,4-Dichlorobenzene	0.11	–	–	–	–	–	–	–	0.00061 U	0.00095 U	**0.00182**	0.00089 U	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
2,2-Dichloropropane	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
2-Chloroethyl vinyl ether	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
2-Chlorotoluene	1.9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
2-Hexanone	0.17	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
4-Chlorotoluene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
4-Isopropyltoluene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Acetone	29	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.044**	–	–	**0.363**	–
Acrolein	0.0044	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
Acrylonitrile	0.00012	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
Benzene	0.0088	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	**0.00032 J**	–
Bromobenzene	0.56	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Bromochloromethane	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Bromoform	0.078	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Bromomethane	0.051	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Carbon Disulfide	4.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	**0.00113**	–	–	**0.00029 J**	–
Carbon Tetrachloride	0.0029	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Chlorobenzene	0.86	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Chloroethane	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00112 U	–	–	0.00126 U	–
Chloroform	0.074	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Chloromethane	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
cis-1,2-Dichloroethylene	0.079	–	–	0.00102 U	0.0008 U	0.00095 U	0.00074 U	–	0.00061 U	0.00095 U	0.001 U	0.00089 U	**0.00478**	**0.0278**	0.00066 U	0.00068 U	**0.00036 J**	0.00056 U	0.00079 U	0.00077 U	**0.00087**	0.00094 U
cis-1,3-Dichloropropene	0.0023	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Dibromochloromethane	0.01	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Dibromomethane	0.42	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Dichlorobromomethane	0.013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Dichlorodifluoromethane	38	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Ethylbenzene	0.18	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Hexachlorobutadiene	0.00021	–	–	–	–	–	–	–	0.00305 U	0.00474 U	0.00499 U	0.00446 U	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
Isopropylbenzene	15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Methyl ethyl ketone (MEK)	20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	**0.00848**	–
Methyl Iodide	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Methyl isobutyl ketone	2.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
Methyl tert-butyl ether	0.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Methylene Chloride	0.022	–	–	**0.00624**	**0.0436**	**0.00479**	**0.0801**	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	0.00472 U
Naphthalene	0.039	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
n-Butylbenzene	14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
n-Propylbenzene	16	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Sec-Butylbenzene	25	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Styrene	2.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Tert-Butylbenzene	19	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Tetrachloroethylene	0.029	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	**0.00019 J**	–
Toluene	0.72	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
trans-1,2-Dichloroethylene	0.52	–	–	0.00102 U	0.0008 U	0.00095 U	0.00074 U	–	0.00061 U	0.00095 U	0.001 U	0.00089 U	0.00092 U	0.00072 U	0.00066 U	0.00068 U	0.00092 U	0.00056 U	0.00079 U	0.00077 U	0.00063 U	0.00094 U
trans-1,3-Dichloropropene	0.0023	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
trans-1,4-Dichloro-2-butene	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
Trichloroethylene	0.0044	–	–	0.00102 U	0.0008 U	0.00095 U	0.00074 U	–	0.00061 U	0.00095 U	0.001 U	0.00089 U	**0.00914**	**0.0172**	0.00066 U	0.00068 U	0.00092 U	0.00056 U	0.00079 U	0.00077 U	**0.00973**	0.00094 U
Trichlorofluoromethane	23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00112 U	–	–	0.00126 U	–
Vinyl Acetate	33	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.0028 U	–	–	0.00316 U	–
Vinyl Chloride	0.0011	–	–	0.00102 U	0.0008 U	0.00095 U	0.00074 U	–	0.00061 U	0.00095 U	0.001 U	0.00089 U	0.00092 U	0.00072 U	0.00066 U	0.00068 U	0.00092 U	0.00056 U	0.00079 U	0.00077 U	0.00063 U	0.00094 U
Xylene, m-,p-	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00112 U	–	–	0.00126 U	–
Xylene, o-	NE	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00056 U	–	–	0.00063 U	–
Total Xylenes	0.94	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00112 U	–	–	0.00126 U	–
Semivolatile Compounds (SVOCs) (mg/kg)																						
1,2,4-Trichlorobenzene	0.031	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.02 U	–	–	0.0199 U	–
1,2-Dichlorobenzene	0.035	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.02 U	–	–	0.0199 U	–

	Location ID	HA11	HA12	HA26	HA27	HA28	HA29	SB3	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-31	SB-33	SB-34
	Sample ID	HA11-0.5	HA12-0.5	HA26-1	HA27-1	HA28-1	HA29-1	SB3-2	SB-20-2-3	SB-21-3-4	SB-22-0.5-1.5	SB-23-1.5-2.5	SB-24-3-4	SB-25-3.5-4.5	SB-26-3-4	SB-27-3-4	SB-28-2.5-3	SB-29-0-2	SB-30-3-4	SB-31-2-3	SB-33-2-3	SB34-2-3
	Sample Date	4/19/06	4/19/06	9/22/23	9/22/23	9/22/23	9/22/23	8/8/14	3/8/22	3/7/22	3/10/22	3/9/22	3/8/22	3/8/22	3/7/22	3/7/22	3/7/22	3/10/22	3/9/22	3/9/22	3/9/22	6/2/23
	Start Depth (feet)	0.5	0.5	1	0.5	0.5	1	2	2	3	0.5	1.5	3	3.5	3	3	2.5	0	3	2	2	2
	End Depth (feet)	0.5	0.5	1.5	1	1	1.5	2	3	4	1.5	2.5	4	4.5	4	4	3	2	4	3	3	3
Analyte	**Soil PCUL - Vadose**																					
1,3-Dichlorobenzene	0.023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
1,4-Dichlorobenzene	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
1,4-Dioxane	0.0018	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--	--	--	--	--	0.334 U	--	--	0.0199 U	0.335 U
2,2'-Oxybis[1-chloropropane]	1.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
2,4,5-Trichlorophenol	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2,4,6-Trichlorophenol	0.092	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2,4-Dichlorophenol	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2,4-Dimethylphenol	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2,4-Dinitrophenol	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	0.199 U	--
2,4-Dinitrotoluene	0.0028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2,6-Dinitrotoluene	0.0009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2-Chloronaphthalene	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
2-Chlorophenol	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
2-methylphenol	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
2-Nitroaniline	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
3,3'-Dichlorobenzidine	0.000034	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
4,6-Dinitro-2-Methylphenol	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	0.199 U	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
4-Chloro-3-Methylphenol	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
4-Chloroaniline	0.0027	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0499 U	--	--	0.0499 U	--
4-methylphenol	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
4-Nitroaniline	0.018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
Benzoic Acid	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	0.199 U	--
Benzyl Alcohol	0.057	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Bis(2-Chloroethyl)Ether	0.00022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0499 U	--	--	0.0499 U	--
Bis(2-Ethylhexyl) Phthalate	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0591**	--	--	0.0499 U	--
Butyl benzyl Phthalate	0.0036	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Dibutyl Phthalate	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Diethyl Phthalate	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0499 U	--	--	0.0499 U	--
Dimethyl Phthalate	0.071	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Di-N-Octyl Phthalate	6.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Hexachlorobenzene	0.000008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Hexachlorobutadiene	0.00021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Hexachlorocyclopentadiene	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
Hexachloroethane	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Isophorone	0.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Nitrobenzene	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
N-Nitrosodi-n-propylamine	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
N-Nitrosodiphenylamine	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Pentachlorophenol	0.000032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0998 U	--	--	0.0997 U	--
Phenol	0.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.013 J**	--	--	0.0199 U	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																						
1-Methylnaphthalene	0.082	--	--	**0.00915**	**0.0197**	**0.00809**	**0.00107 J**	--	--	--	--	**0.0205**	--	--	**0.0091**	--	--	**0.0012 J**	--	--	**0.00054 J**	**0.00052 J**
2-Methylnaphthalene	0.67	--	--	**0.00876**	**0.0186**	**0.00781**	0.005 U	--	--	--	--	**0.0258**	--	--	**0.0136**	--	--	**0.00166 J**	--	--	0.00499 U	0.00497 U
Acenaphthene	0.5	--	--	**0.00298 J**	**0.0041 J**	**0.00259 J**	0.005 U	--	--	--	--	**0.00881**	--	--	0.00499 U	--	--	**0.00119 J**	--	--	0.00499 U	0.00497 U
Acenaphthylene	1.3	--	--	**0.00335 J**	**0.00317 J**	**0.00289 J**	0.005 U	--	--	--	--	**0.00366 J**	--	--	0.00499 U	--	--	0.00499 U	--	--	0.00499 U	0.00497 U
Anthracene	0.96	--	--	**0.00491 J**	**0.00595**	**0.00348 J**	**0.00093 J**	--	--	--	--	**0.00994**	--	--	0.00499 U	--	--	**0.00175 J**	--	--	**0.00105 J**	0.00497 U
Benzo(a)anthracene	NE	--	--	**0.0185**	**0.0275**	**0.0195**	**0.00296 J**	--	--	--	--	**0.0147**	--	--	0.00499 U	--	--	**0.00244 J**	--	--	**0.00379 J**	0.00497 U
Benzo(a)pyrene	0.00031	--	--	**0.0273**	**0.0333**	**0.0224**	**0.00455 J**	--	--	--	--	**0.0109**	--	--	**0.00085 J**	--	--	**0.00245 J**	--	--	**0.00257 J**	0.00497 U
Benzo(b)fluoranthene	NE	--	--	**0.0298**	**0.0352**	**0.0282**	**0.00662**	--	--	--	--	**0.0141**	--	--	0.00499 U	--	--	**0.00349 J**	--	--	**0.00692**	0.00497 U
Benzo(g,h,i)perylene	0.67	--	--	**0.0338**	**0.0349**	**0.0293**	**0.0067**	--	--	--	--	**0.0126**	--	--	**0.00177 J**	--	--	**0.0028 J**	--	--	**0.0039 J**	0.00497 U
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	--	--	**0.017**	**0.0214**	**0.0143**	**0.00326 J**	--	--	--	--	**0.00649**	--	--	0.00499 U	--	--	**0.00161 J**	--	--	**0.00315 J**	0.00497 U
Benzo(k)fluoranthene	NE	--	--	**0.0141**	**0.0182**	**0.0147**	**0.00302 J**	--	--	--	--	**0.00715**	--	--	0.00499 U	--	--	**0.00176 J**	--	--	**0.00391 J**	0.00497 U
Benzofluoranthenes (Total)	3.2	--	--	**0.0638**	**0.0753**	**0.0627**	**0.0131**	--	--	--	--	**0.0278**	--	--	0.00998 U	--	--	**0.0069 J**	--	--	**0.0144**	0.00994 U

Location ID		HA11	HA12	HA26	HA27	HA28	HA29	SB3	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-31	SB-33	SB-34
Sample ID		HA11-0.5	HA12-0.5	HA26-1	HA27-1	HA28-1	HA29-1	SB3-2	SB-20-2-3	SB-21-3-4	SB-22-0.5-1.5	SB-23-1.5-2.5	SB-24-3-4	SB-25-3.5-4.5	SB-26-3-4	SB-27-3-4	SB-28-2.5-3	SB-29-0-2	SB-30-3-4	SB-31-2-3	SB-33-2-3	SB34-2-3
Sample Date		4/19/06	4/19/06	9/22/23	9/22/23	9/22/23	9/22/23	8/8/14	3/8/22	3/7/22	3/10/22	3/9/22	3/8/22	3/8/22	3/7/22	3/7/22	3/7/22	3/10/22	3/9/22	3/9/22	3/9/22	6/2/23
Start Depth (feet)		0.5	0.5	1	0.5	0.5	1	2	2	3	0.5	1.5	3	3.5	3	3	2.5	0	3	2	2	2
End Depth (feet)		0.5	0.5	1.5	1	1	1.5	2	3	4	1.5	2.5	4	4.5	4	4	3	2	4	3	3	3
Analyte	**Soil PCUL - Vadose**																					
Chrysene	NE	--	--	**0.0333**	**0.045**	**0.0298**	**0.0057**	--	--	--	--	**0.0231**	--	--	**0.0015 J**	--	--	**0.00476 J**	--	--	**0.00821**	0.00497 U
Dibenzo(a,h)anthracene	NE	--	--	**0.00753**	**0.00897**	**0.0074**	**0.00133 J**	--	--	--	--	**0.00251 J**	--	--	**0.0009 J**	--	--	**0.00112 J**	--	--	**0.00168 J**	0.00497 U
Dibenzofuran	0.54	--	--	**0.00332 J**	**0.00811**	**0.0026 J**	0.005 U	--	--	--	--	**0.0116**	--	--	0.00499 U	--	--	**0.00166 J**	--	--	0.00499 U	0.00497 U
Fluoranthene	1.7	--	--	**0.0446**	**0.051**	**0.0402**	**0.00759**	--	--	--	--	**0.0393**	--	--	0.00499 U	--	--	**0.00549**	--	--	**0.00725**	**0.00074 J**
Fluorene	0.54	--	--	**0.00106 J**	**0.00239 J**	**0.00096 J**	0.005 U	--	--	--	--	**0.00517**	--	--	0.00499 U	--	--	**0.00148 J**	--	--	0.00499 U	0.00497 U
Indeno(1,2,3-c,d)pyrene	NE	--	--	**0.0234**	**0.0267**	**0.0198**	**0.00427 J**	--	--	--	--	**0.0103**	--	--	0.00499 U	--	--	**0.00243 J**	--	--	**0.00439 J**	0.00497 U
Naphthalene	0.039	--	--	**0.00876**	**0.012**	**0.00567**	0.005 U	--	--	--	--	**0.0347**	--	--	**0.00503**	--	--	**0.00179 J**	--	--	0.00499 U	0.00497 U
Phenanthrene	1.5	--	--	**0.0224**	**0.0415**	**0.0199**	**0.00387 J**	--	--	--	--	**0.0439**	--	--	0.00499 U	--	--	**0.00564**	--	--	**0.00454 J**	**0.00115 J**
Pyrene	2.6	--	--	**0.0551**	**0.072**	**0.0511**	**0.00796**	--	--	--	--	**0.0474**	--	--	0.00499 U	--	--	**0.00576**	--	--	**0.00611**	0.00497 U
Total cPAH TEQ (ND=0.5RL)	0.00031	--	--	**0.04335**	**0.05294**	**0.03793**	**0.00774 J**	--	--	--	--	**0.01879**	--	--	**0.00245**	--	--	**0.00431**	--	--	**0.00616**	0.00425 U
Polychlorinated Biphenyls (PCBs) (mg/kg)																						
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0148 J**	--	--	0.0199 U	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 U	--	--	0.0199 U	--
Total PCB Aroclors	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0148 J**	--	--	0.0199 U	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																						
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.00019 J**	--	--	**0.00015 J**	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	**0.000083 J**	--
Perfluorobutanesulfonic acid (PFBS)	0.0018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorohexanesulfonic acid (PFHxS)	0.00041	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorohexanoic acid (PFHxA)	0.0035	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorononanoic acid (PFNA)	0.00008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorooctanesulfonic acid (PFOS)	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorooctanoic acid (PFOA)	0.000063	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011 U	--	--	0.001 U	--

Location ID		SB-35	SB-36	SB-37	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
Sample ID		SB35-3-4	SB36-2-3.5	SB37-2-3	MW-13-3-4	MW-14-2-3	MW-15-3-4	MW-16-3-4	MW-17-3-4	MW-18-3-4	MW19-6-7.5	MW20-2.5-4	MW21-2.5-4	MW22-2.5-4	MW23-2.5-4
Sample Date		6/2/23	6/2/23	6/2/23	3/29/22	3/24/22	3/23/22	3/22/22	3/21/22	3/28/22	5/26/23	5/25/23	5/31/23	5/30/23	5/24/23
Start Depth (feet)		3	2	2	3	2	3	3	3	3	6	2.5	2.5	2.5	2.5
End Depth (feet)		4	3.5	3	4	3	4	4	4	4	7.5	4	4	4	4
Analyte	**Soil PCUL - Vadose**														
Metals (mg/kg)															
Antimony	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7.3	**2.71**	**2.19**	**5.08**	**7.32**	**6.66**	**3.92**	**9.01 J**	**7.27**	**5.72**	**5.96**	**3.84**	**6.31**	**6.1**	**7.34**
Beryllium	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.77	**0.08 J**	**0.07 J**	**0.16**	0.309 U	**0.24**	**0.23**	**2.51 J**	**1.04**	0.251 U	**0.04 J**	**0.25**	**0.29**	**0.23**	**0.47**
Chromium	260	**20.4**	**20.9**	**30**	**40**	**36.1 J**	**27.2**	**18.1**	**28.7**	**31.8**	**18.2**	**27.2**	**25.4**	**31.9**	**23.5**
Chromium, Hexavalent	0.018	0.541 U	0.518 U	0.579 U	0.618 U	0.618 U	0.612 U	0.641 U	0.6 UJ	0.543 U	0.646 U	0.608 U	0.561 U	0.547 U	0.545 U
Chromium, Trivalent	548	**20.4**	**20.9**	**30**	**40**	**36.1 J**	**27.2**	**18.1**	**28.7**	**31.8**	**18.2**	**27.2**	**25.4**	**31.9**	**23.5**
Copper	36	**10.4**	**12.8**	**20.2**	**23.4**	**20.2**	**13.2**	**22.7 J**	**27**	**17.8**	**23.7**	**27.2**	**26.6**	**39.6**	**58.9**
Lead	250	**1.92**	**2.13**	**9.43**	**5.06**	**13.1**	**8.07**	**11.1 J**	**11**	**8.55**	**4.62**	**91.1**	**84.6**	**72**	**104**
Mercury	0.07	**0.0132 J**	**0.018 J**	**0.042**	**0.0336**	**0.0469**	**0.0263**	**0.0314**	**0.0974 J**	**0.0423**	**0.0308 J**	**0.0738**	**0.0501**	**0.0293**	**0.106**
Nickel	48	**26.8**	**31**	**35.3**	**36.5**	**38.8**	**39.8**	**18.9 J**	**30.1**	**28.7**	**12.3**	**35.1**	**26.6**	**30.3**	**22.6**
Selenium	5.2	**1.1**	**0.48 J**	**0.68**	**2.21**	**0.75**	**0.25 J**	**0.35 J**	**0.87**	**1.14**	**0.94**	**0.93**	**1.2**	**0.75**	**0.97**
Silver	0.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	0.088	--	--	--	**0.129**	**0.12 J**	**0.07 J**	**0.12 J**	**0.09 J**	**0.0589**	--	--	--	--	--
Zinc	101	**30.5**	**33.9**	**49.4**	**67**	**72**	**54**	**88 J**	**64.4**	**41**	**33.8**	**68**	**236**	**102**	**201**
Total Petroleum Hydrocarbons (mg/kg)															
Gasoline-range hydrocarbons - HCID	30	11 U	11 U	12 U	13 U	11 U	12 U	13 U	12 U	11 U	13 U	12 U	11 U	11 U	11 U
Diesel-range hydrocarbons - HCID	2,000	27 U	27 U	30 U	33 U	28 U	31 U	32 U	30 U	28 U	32 U	31 U	28 U	28 U	**27**
Lube oil-range hydrocarbons - HCID	2,000	54 U	54 U	59 U	65 U	57 U	61 U	64 U	59 U	55 U	65 U	61 U	**57**	55 U	**55**
Total TPH - HCID	2,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**57**	ND	**82**
Gasoline-range hydrocarbons	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-range hydrocarbons	2,000	--	--	--	--	--	--	--	--	--	--	--	**15.4**	--	**83.3**
Lube oil-range hydrocarbons	2,000	--	--	--	--	--	--	--	--	--	--	--	**88.7**	--	**491**
Total TPH	2,000	--	--	--	--	--	--	--	--	--	--	--	**104.1**	--	**574.3**
Diesel-range hydrocarbons w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	**6.82**	--	**32.3**
Lube oil-range hydrocarbons w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	**70.4**	--	**170**
Total TPH w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	**77.22**	--	**202.3**
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)															
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C12-C16 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C12-C16 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C16-C21 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C16-C21 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C21-C34 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C21-C34 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (mg/kg)															
1,1,1,2-Tetrachloroethane	0.0098	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	1.5	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.0012	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	7600	--	--	--	--	0.00144 U	0.00148 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.005	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.041	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,1-Dichloroethylene	0.046	0.00098 U	0.00112 U	0.00107 U	0.00072 U	0.00072 U	0.00074 U	0.00075 U	0.00073 U	0.00069 U	0.00114 U	0.00118 U	0.00111 U	0.00093 U	0.00128 U
1,1-Dichloropropene	NE	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	0.20	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.0000024	--	--	--	--	0.00144 U	0.00148 U	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	0.031	--	--	--	--	0.0036 U	0.00371 U	0.00375 U	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	1.3	--	--	--	--	0.00072 U	**0.00036 J**	--	--	--	--	--	--	--	--
1,2-Dibromo-3-Chloropropane	0.00089	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.00027	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.035	--	--	--	--	0.00072 U	0.00074 U	0.00075 U	--	--	--	--	--	--	--
1,2-Dichloroethane	0.023	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--

Location ID		SB-35	SB-36	SB-37	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
Sample ID		SB35-3-4	SB36-2-3.5	SB37-2-3	MW-13-3-4	MW-14-2-3	MW-15-3-4	MW-16-3-4	MW-17-3-4	MW-18-3-4	MW19-6-7.5	MW20-2.5-4	MW21-2.5-4	MW22-2.5-4	MW23-2.5-4
Sample Date		6/2/23	6/2/23	6/2/23	3/29/22	3/24/22	3/23/22	3/22/22	3/21/22	3/28/22	5/26/23	5/25/23	5/31/23	5/30/23	5/24/23
Start Depth (feet)		3	2	2	3	2	3	3	3	3	6	2.5	2.5	2.5	2.5
End Depth (feet)		4	3.5	3	4	3	4	4	4	4	7.5	4	4	4	4
Analyte	**Soil PCUL - Vadose**														
1,2-Dichloropropane	0.016	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,3,5-Trichlorobenzene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	1.3	--	--	--	--	0.00072 U	**0.00051 J**	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.023	--	--	--	--	0.00072 U	0.00074 U	0.00075 U	--	--	--	--	--	--	--
1,3-Dichloropropane	0.88	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.11	--	--	--	--	0.00072 U	0.00074 U	0.00075 U	--	--	--	--	--	--	--
2,2-Dichloropropane	NE	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	NE	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
2-Chlorotoluene	1.9	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
2-Hexanone	0.17	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
4-Chlorotoluene	NE	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NE	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Acetone	29	--	--	--	--	**0.0917 J**	**0.0666 J**	--	--	--	--	--	--	--	--
Acrolein	0.0044	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
Acrylonitrile	0.00012	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
Benzene	0.0088	--	--	--	--	0.00072 U	**0.00024 J**	--	--	--	--	--	--	--	--
Bromobenzene	0.56	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Bromochloromethane	NE	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Bromoform	0.078	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Bromomethane	0.051	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Carbon Disulfide	4.1	--	--	--	--	**0.00036 J**	**0.00062 J**	--	--	--	--	--	--	--	--
Carbon Tetrachloride	0.0029	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Chlorobenzene	0.86	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Chloroethane	NE	--	--	--	--	0.00144 U	0.00148 U	--	--	--	--	--	--	--	--
Chloroform	0.074	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Chloromethane	NE	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethylene	0.079	0.00098 U	0.00112 U	0.00107 U	0.00072 U	0.00072 U	**0.00051 J**	0.00075 U	0.00073 U	**0.00195**	0.00114 U	0.00118 U	0.00111 U	0.00093 U	0.00128 U
cis-1,3-Dichloropropene	0.0023	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Dibromochloromethane	0.01	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Dibromomethane	0.42	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Dichlorobromomethane	0.013	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	38	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Ethylbenzene	0.18	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.00021	--	--	--	--	0.0036 U	0.00371 U	0.00375 U	--	--	--	--	--	--	--
Isopropylbenzene	15	--	--	--	--	0.00072 U	**0.00022 J**	--	--	--	--	--	--	--	--
Methyl ethyl ketone (MEK)	20	--	--	--	--	**0.00217 J**	**0.0037 J**	--	--	--	--	--	--	--	--
Methyl Iodide	NE	--	--	--	--	**0.0009**	0.00074 U	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	2.7	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.1	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Methylene Chloride	0.022	0.00491 U	0.00561 U	0.00535 U	--	0.0036 U	0.00371 U	--	--	--	0.00571 U	0.00588 U	0.00557 U	0.00466 U	0.00642 U
Naphthalene	0.039	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
n-Butylbenzene	14	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
n-Propylbenzene	16	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Sec-Butylbenzene	25	--	--	--	--	0.00072 U	**0.0003 J**	--	--	--	--	--	--	--	--
Styrene	2.2	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Tert-Butylbenzene	19	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Tetrachloroethylene	0.029	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
Toluene	0.72	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	0.52	0.00098 U	0.00112 U	0.00107 U	0.00072 U	0.00072 U	0.00074 U	0.00075 U	0.00073 U	0.00069 U	0.00114 U	0.00118 U	0.00111 U	0.00093 U	0.00128 U
trans-1,3-Dichloropropene	0.0023	--	--	--	--	0.00072 U	0.00074 U	--	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
Trichloroethylene	0.0044	0.00098 U	0.00112 U	0.00107 U	0.00072 U	0.00072 U	0.00074 U	0.00075 U	0.00073 U	**0.00111**	0.00114 U	0.00118 U	0.00111 U	0.00093 U	0.00128 U
Trichlorofluoromethane	23	--	--	--	--	0.00144 U	0.00148 U	--	--	--	--	--	--	--	--
Vinyl Acetate	33	--	--	--	--	0.0036 U	0.00371 U	--	--	--	--	--	--	--	--
Vinyl Chloride	0.0011	0.00098 U	0.00112 U	0.00107 U	0.00072 U	0.00072 U	0.00074 U	0.00075 U	0.00073 U	0.00069 U	0.00114 U	0.00118 U	0.00111 U	0.00093 U	0.00128 U
Xylene, m-,p-	NE	--	--	--	--	**0.00041 J**	**0.00042 J**	--	--	--	--	--	--	--	--
Xylene, o-	NE	--	--	--	--	**0.00065 J**	**0.00057 J**	--	--	--	--	--	--	--	--
Total Xylenes	0.94	--	--	--	--	**0.00105 J**	**0.00099 J**	--	--	--	--	--	--	--	--
Semivolatile Compounds (SVOCs) (mg/kg)															
1,2,4-Trichlorobenzene	0.031	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.035	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--

	Location ID	SB-35	SB-36	SB-37	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
	Sample ID	SB35-3-4	SB36-2-3.5	SB37-2-3	MW-13-3-4	MW-14-2-3	MW-15-3-4	MW-16-3-4	MW-17-3-4	MW-18-3-4	MW19-6-7.5	MW20-2.5-4	MW21-2.5-4	MW22-2.5-4	MW23-2.5-4
	Sample Date	6/2/23	6/2/23	6/2/23	3/29/22	3/24/22	3/23/22	3/22/22	3/21/22	3/28/22	5/26/23	5/25/23	5/31/23	5/30/23	5/24/23
	Start Depth (feet)	3	2	2	3	2	3	3	3	3	6	2.5	2.5	2.5	2.5
	End Depth (feet)	4	3.5	3	4	3	4	4	4	4	7.5	4	4	4	4
Analyte	**Soil PCUL - Vadose**														
1,3-Dichlorobenzene	0.023	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.11	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
1,4-Dioxane	0.0018	0.335 U	0.335 U	1 U	--	0.335 U	0.334 U	--	--	--	0.335 U	1.67 U	1.67 U	1 U	10 U
2,2'-Oxybis[1-chloropropane]	1.8	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.0013	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.092	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.069	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.029	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.13	--	--	--	--	0.199 U	0.2 U	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.0028	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.0009	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2-Chloronaphthalene	5.4	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
2-Chlorophenol	0.2	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
2-methylphenol	0.069	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
2-Nitroaniline	1	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000034	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.13	--	--	--	--	0.199 U	0.2 U	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.5	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
4-Chloroaniline	0.0027	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	0.0499 U	0.0499 U	--	--	--	--	--	--	--	--
4-methylphenol	0.67	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
4-Nitroaniline	0.018	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
Benzoic Acid	0.65	--	--	--	--	0.199 U	0.2 U	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.057	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.00022	--	--	--	--	0.0499 U	0.0499 U	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.1	--	--	--	--	0.0499 U	0.0499 U	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.0036	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.28	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.2	--	--	--	--	0.0499 U	0.0499 U	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.071	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	6.2	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000008	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.00021	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.032	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
Hexachloroethane	0.00016	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Isophorone	0.49	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Nitrobenzene	0.1	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.00012	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.028	--	--	--	--	0.0199 UJ	0.02 UJ	--	--	--	--	--	--	--	--
Pentachlorophenol	0.000032	--	--	--	--	0.0997 U	0.0998 U	--	--	--	--	--	--	--	--
Phenol	0.42	--	--	--	--	0.0199 U	0.02 U	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)															
1-Methylnaphthalene	0.082	0.00498 U	0.00497 U	**0.0128**	--	0.005 U	0.005 U	--	--	--	**0.00142 J**	0.015 U	**0.00649**	**0.00173**	0.0748 U
2-Methylnaphthalene	0.67	0.00498 U	0.00497 U	**0.0229**	--	**0.0032 J**	**0.00651**	--	--	--	**0.00194 J**	0.015 U	**0.0119**	0.015 U	0.0748 U
Acenaphthene	0.5	0.00498 U	0.00497 U	**0.00369 J**	--	**0.0008 J**	**0.00137 J**	--	--	--	**0.00076 J**	0.015 U	**0.00487**	**0.00494**	0.0748 U
Acenaphthylene	1.3	0.00498 U	0.00497 U	**0.00164 J**	--	0.005 U	0.005 U	--	--	--	0.00497 U	0.015 U	0.015 U	0.015 U	0.0748 U
Anthracene	0.96	0.00498 U	0.00497 U	**0.0021 J**	--	**0.0009 J**	0.005 U	--	--	--	**0.00219 J**	**0.00823**	**0.0104**	**0.0167**	**0.0253**
Benzo(a)anthracene	NE	0.00498 U	0.00497 U	**0.00614**	--	**0.00184 J**	**0.00174 J**	--	--	--	**0.00173 J**	**0.0289**	**0.0387**	**0.104**	**0.107**
Benzo(a)pyrene	0.00031	0.00498 U	0.00497 U	**0.00451 J**	--	**0.00221 J**	**0.00176 J**	--	--	--	0.00497 U	**0.0431**	**0.0469**	**0.125**	**0.139**
Benzo(b)fluoranthene	NE	0.00498 U	0.00497 U	**0.00682**	--	**0.00433 J**	**0.0033 J**	--	--	--	**0.00258 J**	**0.0511**	**0.0542**	**0.138**	**0.157**
Benzo(g,h,i)perylene	0.67	0.00498 U	0.00497 U	**0.00658**	--	**0.00476 J**	**0.00407 J**	--	--	--	**0.0025 J**	**0.0631**	**0.0657**	**0.135**	**0.173**
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	0.00498 U	0.00497 U	**0.00375 J**	--	**0.00232 J**	**0.00198 J**	--	--	--	**0.00098 J**	**0.0275**	**0.0328**	**0.0815**	**0.0808**
Benzo(k)fluoranthene	NE	0.00498 U	0.00497 U	**0.00416 J**	--	**0.00172 J**	**0.00147 J**	--	--	--	**0.00096 J**	**0.0289**	**0.0307**	**0.0796**	**0.0781**
Benzofluoranthenes (Total)	3.2	0.00996 U	0.00993 U	**0.0148**	--	**0.00845 J**	**0.00688 J**	--	--	--	**0.00462 J**	**0.106**	**0.117**	**0.296**	**0.322**

	Location ID	SB-35	SB-36	SB-37	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
	Sample ID	SB35-3-4	SB36-2-3.5	SB37-2-3	MW-13-3-4	MW-14-2-3	MW-15-3-4	MW-16-3-4	MW-17-3-4	MW-18-3-4	MW19-6-7.5	MW20-2.5-4	MW21-2.5-4	MW22-2.5-4	MW23-2.5-4
	Sample Date	6/2/23	6/2/23	6/2/23	3/29/22	3/24/22	3/23/22	3/22/22	3/21/22	3/28/22	5/26/23	5/25/23	5/31/23	5/30/23	5/24/23
	Start Depth (feet)	3	2	2	3	2	3	3	3	3	6	2.5	2.5	2.5	2.5
	End Depth (feet)	4	3.5	3	4	3	4	4	4	4	7.5	4	4	4	4
Analyte	**Soil PCUL - Vadose**														
Chrysene	NE	0.00498 U	0.00497 U	**0.0102**	--	**0.00564**	**0.00513**	--	--	--	**0.00336 J**	**0.0484**	**0.0643**	**0.154**	**0.171**
Dibenzo(a,h)anthracene	NE	0.00498 U	0.00497 U	**0.00113 J**	--	**0.00091 J**	0.005 U	--	--	--	0.00497 U	**0.0129**	**0.0112**	**0.0271**	**0.0311**
Dibenzofuran	0.54	0.00498 U	0.00497 U	**0.00453 J**	--	**0.00364 J**	**0.0035 J**	--	--	--	0.00497 U	0.015 U	**0.00459**	0.015 U	0.0748 U
Fluoranthene	1.7	**0.00056 J**	**0.0005 J**	**0.0258**	--	**0.0084**	**0.00723**	--	--	--	**0.00607**	**0.0619**	**0.0923**	**0.264**	**0.236**
Fluorene	0.54	0.00498 U	0.00497 U	**0.004 J**	--	**0.00064 J**	**0.00427 J**	--	--	--	**0.00122 J**	0.015 U	**0.00505**	**0.00529**	0.0748 U
Indeno(1,2,3-c,d)pyrene	NE	0.00498 U	0.00497 U	**0.00487 J**	--	**0.0039 J**	**0.00317 J**	--	--	--	**0.00142 J**	**0.0441**	**0.0459**	**0.112**	**0.121**
Naphthalene	0.039	0.00498 U	0.00497 U	**0.0118**	--	**0.0135**	**0.0159**	--	--	--	**0.0955**	0.015 U	**0.0343**	0.015 U	0.0748 U
Phenanthrene	1.5	**0.0012 J**	0.00497 U	**0.0209**	--	**0.00855**	**0.00914**	--	--	--	**0.0122**	**0.032**	**0.0555**	**0.119**	**0.115**
Pyrene	2.6	0.00498 U	0.00497 U	**0.0269**	--	**0.00729**	**0.00652**	--	--	--	**0.00888**	**0.0793**	**0.128**	**0.295**	**0.273**
Total cPAH TEQ (ND=0.5RL)	0.00031	0.00426 U	0.00425 U	**0.0084 J**	--	**0.00438**	**0.00372**	--	--	--	**0.0039 J**	**0.07077**	**0.07731**	**0.20221**	**0.22233**
Polychlorinated Biphenyls (PCBs) (mg/kg)															
PCB-Aroclor 1016	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000011	--	--	--	--	0.02 U	0.02 U	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)															
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	0.0012 U	**0.00022 J**	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
6:2 FTS	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
8:2 FTS	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	**0.000094 J**	0.0012 U	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.0018	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.00041	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0035	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.00008	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.00017	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000063	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	0.0012 U	0.0012 U	--	--	--	--	--	--	--	--

Table K-2

Saturated Soil Data

Former Precision Engineering Property
Seattle, Washington

	Location ID	GP1	GP1	GP2	GP3	GP3	GP5	GP5	GP6	GP7	GP10	GP11	GP13	GP14	GP15	GP17	GP19	GP20	GP21
	Sample ID	GP1-S-6.0	GP1-S-10.0	GP2-S-10.0	GP3-S-6.0	GP3-S-14	GP5-S-8.0	GP5-S-14.0	GP6-S-14.5	GP7-S-8.0	GP10-S-13.5	GP11-S-6.5	GP13-S-6.0	GP14-S-6.0	GP15-S-6.0	GP17-S-6.0	GP19-S-7.0	GP20-S-6.0	GP21-S-6.5
	Sample Date	6/7/2005	6/9/2005	6/9/2005	6/9/2005	6/9/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/17/2005	6/17/2005	12/14/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005
	Start Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
	End Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
Analyte	**Soil PCUL - Saturated**																		
Metals (mg/kg)																			
Arsenic	7.3	4.99 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.77	0.499 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	260	**147**	**73.5**	**24.9**	**1100**	**941**	--	**20.1**	**259**	**21**	**24.1**	**17.3**	**46.6**	**31.4**	**20.2**	**1660**	**27.1**	**24.5**	**23**
Chromium, Hexavalent	0.00089	**31.8**	**14.4**	0.109 U	**49.8**	**34.4**	--	0.115 U	**0.181**	0.113 U	0.106 U	**0.37**	1.3 U	**1.2 J**	1.2 U	**60 J**	2.7 U	1.5 U	1.3 U
Chromium, Trivalent	27.4	**115.2**	**59.1**	**24.9**	**1050.2**	**906.6**	--	**20.1**	**258.819**	**21**	**24.1**	**16.93**	**46.6**	**30.2 J**	**20.2**	**1600 J**	**27.1**	**24.5**	**23**
Copper	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	56	2 U	--	2.11 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	0.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	0.0044	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/kg)																			
Gasoline-range hydrocarbons - HCID	30	**20.5**	**19.3**	**21**	**21.9**	**21**	--	**20.1**	**19.6**	**22.8**	**21.3**	**19.5**	--	--	--	--	--	--	--
Diesel-range hydrocarbons - HCID	2,000	**51.2**	**48.3**	**52.4**	**54.7**	**52.6**	--	**50.3**	**49**	**57**	**53.4**	**48.7**	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - HCID	2,000	**102**	**96.6**	**105**	**109**	**105**	--	**101**	**98**	**114**	**107**	**97.4**	--	--	--	--	--	--	--
Total TPH - HCID	2,000	**153.2**	**144.9**	**157.4**	**163.7**	**157.6**	--	**151.3**	**147**	**171**	**160.4**	**146.1**	--	--	--	--	--	--	--
Gasoline-range hydrocarbons	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-range hydrocarbons	2,000	--	--	--	--	--	--	--	--	--	--	--	12.8 U	10.8 U	--	--	14.5 U	**75.9**	**5270**
Lube oil-range hydrocarbons	2,000	--	--	--	--	--	--	--	--	--	--	--	**56.1**	26.9 U	--	--	**56.7**	**294**	**19900**
Total TPH	2,000	--	--	--	--	--	--	--	--	--	--	--	**56.1**	ND	--	--	**56.7**	**369.9**	**25170**
Diesel-range hydrocarbons - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																			
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatic	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	260 U
Extractable Petroleum Hydrocarbons, C8-C10 Aromatic	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13 U
Extractable Petroleum Hydrocarbons, C10-C12 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	260 U
Extractable Petroleum Hydrocarbons, C10-C12 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13 U
Extractable Petroleum Hydrocarbons, C12-C16 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	260 U
Extractable Petroleum Hydrocarbons, C12-C16 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13 U
Extractable Petroleum Hydrocarbons, C16-C21 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**411**
Extractable Petroleum Hydrocarbons, C16-C21 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**102**
Extractable Petroleum Hydrocarbons, C21-C34 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**6460**
Extractable Petroleum Hydrocarbons, C21-C34 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**576**
Volatile Organic Compounds (VOCs) (mg/kg)																			
1,1,1,2-Tetrachloroethane	0.00063	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,1,1-Trichloroethane	0.084	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.00008	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.00033	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,1-Dichloroethane	0.0026	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,1-Dichloroethylene	0.0025	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,1-Dichloropropene	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	0.011	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.00000015	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	0.0019	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.072	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,2-Dibromo-3-Chloropropane	0.000056	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,2-Dibromoethane	0.000018	0.00112 U	0.0014 U	0.00161 U	0.00164 U	0.00141 U	0.00129 U	0.00148 U	0.00151 U	0.00162 U	0.00146 U	0.00158 U	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.003	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,2-Dichloroethane	0.0016	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,2-Dichloropropane	0.001	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,3,5-Trichlorobenzene	NE	0.00112 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	GP1	GP1	GP2	GP3	GP3	GP5	GP5	GP6	GP7	GP10	GP11	GP13	GP14	GP15	GP17	GP19	GP20	GP21
	Sample ID	GP1-S-6.0	GP1-S-10.0	GP2-S-10.0	GP3-S-6.0	GP3-S-14	GP5-S-8.0	GP5-S-14.0	GP6-S-14.5	GP7-S-8.0	GP10-S-13.5	GP11-S-6.5	GP13-S-6.0	GP14-S-6.0	GP15-S-6.0	GP17-S-6.0	GP19-S-7.0	GP20-S-6.0	GP21-S-6.5
	Sample Date	6/7/2005	6/9/2005	6/9/2005	6/9/2005	6/9/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/17/2005	6/17/2005	12/14/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005
	Start Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
	End Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
Analyte	**Soil PCUL - Saturated**																		
1,3,5-Trimethylbenzene	0.071	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0013	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
1,3-Dichloropropane	0.057	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.0081	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
2,2-Dichloropropane	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	0.11	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
2-Hexanone	0.012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
4-Isopropyltoluene	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Acetone	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	0.00032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	0.0000083	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.00056	**0.00255**	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
Bromobenzene	0.033	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Bromochloromethane	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Bromoethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	0.005	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Bromomethane	0.0033	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Carbon Disulfide	0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	0.00015	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
Chlorobenzene	0.051	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Chloroethane	NE	0.00112 U	0.0765 U	0.0881 U	0.0896 U	0.0771 U	0.0703 U	0.081 U	0.0828 U	0.0884 U	0.0796 U	0.0861 U	--	--	--	--	--	--	--
Chloroform	0.0048	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Chloromethane	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
cis-1,2-Dichloroethylene	0.0052	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	**0.149**	0.0442 U	0.0398 U	**0.0788**	0.00347 U	0.00315 U	0.0126 U	0.00272 U	0.00326 U	0.00542 U	0.00335 U
cis-1,3-Dichloropropene	0.00014	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Dibromochloromethane	0.0007	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Dibromomethane	0.028	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Dichlorobromomethane	0.00089	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Dichlorodifluoromethane	0.53	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Ethylbenzene	0.01	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Hexachlorobutadiene	0.000011	0.00112 U	--	--	--	--	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Isopropylbenzene	0.79	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Methyl ethyl ketone (MEK)	1.4	--	--	--	--	--	--	--	--	--	--	--	**0.0476**	0.0157 U	0.063 U	**0.0223**	0.0163 U	**0.0663**	**0.0667**
Methyl Iodide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.0072	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.0015	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
Naphthalene	0.0021	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
n-Butylbenzene	0.71	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
n-Propylbenzene	0.88	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Sec-Butylbenzene	1.3	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Styrene	0.12	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Tert-Butylbenzene	1	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Tetrachloroethylene	0.0016	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	--	--	--	--	--	--	--
Toluene	0.044	**0.00162**	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	0.032	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	0.00289 U	0.00262 U	0.0105 U	0.00227 U	0.00272 U	0.00452 U	0.00279 U
trans-1,3-Dichloropropene	0.00014	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	0.00027	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	**1.16**	0.00884 U	0.00796 U	**0.281**	0.00289 U	0.00262 U	0.0105 U	0.00227 U	0.00272 U	0.00452 U	0.00279 U
Trichlorofluoromethane	0.79	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Vinyl Acetate	2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	0.000056	0.00112 U	0.00765 U	0.00881 U	0.00896 U	0.00771 U	0.00703 U	0.0081 U	0.00828 U	0.00884 U	0.00796 U	0.00861 U	0.00289 U	0.00262 U	0.0105 U	0.00227 U	0.00272 U	0.00452 U	0.00279 U
Xylene, m-,p-	NE	0.00224 U	0.0765 U	0.0881 U	0.0896 U	0.0771 U	0.0703 U	0.081 U	0.0828 U	0.0884 U	0.0796 U	0.0861 U	--	--	--	--	--	--	--
Xylene, o-	NE	0.00112 U	0.0382 U	0.044 U	0.0448 U	0.0385 U	0.0351 U	0.0405 U	0.0414 U	0.0442 U	0.0398 U	0.043 U	--	--	--	--	--	--	--
Total Xylenes	0.055	0.00224 U	0.0765 U	0.0881 U	0.0896 U	0.0771 U	0.0703 U	0.081 U	0.0828 U	0.0884 U	0.0796 U	0.0861 U	--	--	--	--	--	--	--
Semivolatile Compounds (SVOCs) (mg/kg)																			
1,2,4-Trichlorobenzene	0.0019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	GP1	GP1	GP2	GP3	GP3	GP5	GP5	GP6	GP7	GP10	GP11	GP13	GP14	GP15	GP17	GP19	GP20	GP21
	Sample ID	GP1-S-6.0	GP1-S-10.0	GP2-S-10.0	GP3-S-6.0	GP3-S-14	GP5-S-8.0	GP5-S-14.0	GP6-S-14.5	GP7-S-8.0	GP10-S-13.5	GP11-S-6.5	GP13-S-6.0	GP14-S-6.0	GP15-S-6.0	GP17-S-6.0	GP19-S-7.0	GP20-S-6.0	GP21-S-6.5
	Sample Date	6/7/2005	6/9/2005	6/9/2005	6/9/2005	6/9/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/17/2005	6/17/2005	12/14/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005
	Start Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
	End Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
Analyte	**Soil PCUL - Saturated**																		
1,4-Dichlorobenzene	0.0081	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.00013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-Oxybis[1-chloropropane]	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.00007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.0053	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.0043	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.0023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.0092	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.000051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	0.0064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	0.064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.0073	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	0.062	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.000014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.0051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.00018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.034	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.0000004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.0017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.0000097	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	0.0065	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.0016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.0000018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.048	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																			
1-Methylnaphthalene	0.0042	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
2-Methylnaphthalene	0.039	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Acenaphthene	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Acenaphthylene	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Anthracene	0.051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Benzo(a)anthracene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Benzo(a)pyrene	0.000016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Benzo(b)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Benzo(g,h,i)perylene	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Benzofluoranthenes (Total)	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	GP1	GP1	GP2	GP3	GP3	GP5	GP5	GP6	GP7	GP10	GP11	GP13	GP14	GP15	GP17	GP19	GP20	GP21
	Sample ID	GP1-S-6.0	GP1-S-10.0	GP2-S-10.0	GP3-S-6.0	GP3-S-14	GP5-S-8.0	GP5-S-14.0	GP6-S-14.5	GP7-S-8.0	GP10-S-13.5	GP11-S-6.5	GP13-S-6.0	GP14-S-6.0	GP15-S-6.0	GP17-S-6.0	GP19-S-7.0	GP20-S-6.0	GP21-S-6.5
	Sample Date	6/7/2005	6/9/2005	6/9/2005	6/9/2005	6/9/2005	6/16/2005	6/16/2005	6/16/2005	6/16/2005	6/17/2005	6/17/2005	12/14/2005	12/13/2005	12/13/2005	12/13/2005	12/13/2005	12/14/2005	12/14/2005
	Start Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
	End Depth (feet)	6	10	10	6	14	8	14	14.5	8	13.5	6.5	6	6	6	6	7	6	6.5
Analyte	**Soil PCUL - Saturated**																		
Chrysene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Dibenzo(a,h)anthracene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Dibenzofuran	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Fluorene	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Indeno(1,2,3-c,d)pyrene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Naphthalene	0.0021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Phenanthrene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Pyrene	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0139 U	0.0129 U
Total cPAH TEQ (ND=0.5RL)	0.000016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01049 U	0.00974 U
Polychlorinated Biphenyls (PCBs) (mg/kg)																			
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.00000055	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																			
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.000026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.0000048	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.0000099	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Soil PCUL - Saturated	Location ID	Sample ID	Sample Date	Start Depth (feet)	End Depth (feet)																
		GP22	GP23	GP23	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	MW9	MW9	MW9	MW11	MW11	MW-13	MW-13	MW-13
		GP22-S-10.0	GP23-S-7.0	GP23-S-10.5	GP24-S-6.5	GP25-S-7.0	GP26-S-9.5	GP27-S-13.0	GP28-S-7.0	GP29-S-6.0	GP30-S-6.0	GP31-S-6.0	MW9-18-19	MW9-32.5-33.5	MW9-38-39	MW11-18-19	MW100	MW-13-11-12	DUP-2-220329	MW-13-28-29
		12/13/2005	12/14/2005	12/14/2005	12/14/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	8/16/2014	8/16/2014	8/16/2014	8/16/2014	8/16/2014	3/29/2022	3/29/2022	3/29/2022
		10	7	10.5	6.5	7	9.5	13	7	6	6	6	18	32.5	38	18	18	11	11	28
		10	7	10.5	6.5	7	9.5	13	7	6	6	6	19	33.5	39	19	19	12	12	29
Metals (mg/kg)																				
Arsenic	7.3	--	--	--	--	--	--	--	--	--	--	--	**10**	5 U	5 U	6 U	5 U	**3.69**	**3.93**	**3.24**
Cadmium	0.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.250 U	0.240 U	0.300 U
Chromium	260	**32.1**	**23.3**	**979**	**29.3**	**19.8**	**24**	**18.6**	**22.4**	**31.9**	**32.7**	**23.6**	**19**	**17.8**	**32.3**	**38**	**37.8**	**19.4**	**25.9**	**40.1**
Chromium, Hexavalent	0.00089	1.3 U	1.1 U	1.2 U	2.4 U	1.7 U	2.1 U	2.1 U	1.8 U	2.6 U	2.4 U	3 U	0.492 U	0.448 U	0.471 U	0.455 U	0.448 U	0.532 U	0.521 U	0.612 U
Chromium, Trivalent	27.4	**32.1**	**23.3**	**979**	**29.3**	**19.8**	**24**	**18.6**	**22.4**	**31.9**	**32.7**	**23.6**	**19**	**17.8**	**32.3**	**38**	**37.8**	**19.4**	**25.9**	**40.1**
Copper	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.7**	**12.1**	**16.8**
Lead	56	--	--	--	--	--	--	--	--	--	--	--	6 U	2 U	2 U	**2**	2 U	**2.24**	**2.93**	**2.86**
Mercury	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0148 J**	**0.0202 J**	**0.0237 J**
Nickel	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**24.2**	**26.8**	**47.0**
Selenium	0.26	--	--	--	--	--	--	--	--	--	--	--	10 U	5 U	5 U	6 U	5 U	**1.46**	**1.20**	**1.16**
Thallium	0.0044	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0545**	**0.0670**	**0.0600**
Zinc	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**40.1**	**38.3**	**38.5**
Total Petroleum Hydrocarbons (mg/kg)																				
Gasoline-range hydrocarbons - HCID	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11 U	11 U	13 U
Diesel-range hydrocarbons - HCID	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27 U	27 U	32 U
Lube oil-range hydrocarbons - HCID	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54 U	54 U	63 U
Total TPH - HCID	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND
Gasoline-range hydrocarbons	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-range hydrocarbons	2,000	11.3 U	10.8 U	--	--	10.6 U	10.8 U	10.9 U	10.4 U	12.8 U	**39.6**	58.9	6.2 U	5.7 U	**9.3**	**6.2**	--	--	--	--
Lube oil-range hydrocarbons	2,000	28.2 U	26.9 U	--	--	26.6 U	27.1 U	27.2 U	26 U	32 U	**165**	157	**14**	11 U	**14**	11 U	--	--	--	--
Total TPH	2,000	ND	ND	--	--	ND	ND	ND	ND	ND	**204.6**	215.9	**14**	ND	**23.3**	**6.2**	--	--	--	--
Diesel-range hydrocarbons - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																				
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatic	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C8-C10 Aromatic	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C10-C12 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C10-C12 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C12-C16 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C12-C16 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C16-C21 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C16-C21 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C21-C34 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C21-C34 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (mg/kg)																				
1,1,1,2-Tetrachloroethane	0.00063	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,1,1-Trichloroethane	0.084	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,1,2,2-Tetrachloroethane	0.00008	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	120	--	--	--	--	--	--	--	--	--	--	--	0.0021 U	0.0019 U	0.0019 U	0.0018 U	0.0021 U	--	--	--
1,1,2-Trichloroethane	0.00033	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,1-Dichloroethane	0.0026	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,1-Dichloroethylene	0.0025	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	0.00065 U	0.00085 U	0.00090 U
1,1-Dichloropropene	NE	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,2,3-Trichlorobenzene	0.011	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
1,2,3-Trichloropropane	0.00000015	--	--	--	--	--	--	--	--	--	--	--	0.0021 U	0.0019 U	0.0019 U	0.0018 U	0.0021 U	--	--	--
1,2,4-Trichlorobenzene	0.0019	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
1,2,4-Trimethylbenzene	0.072	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,2-Dibromo-3-Chloropropane	0.000056	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
1,2-Dibromoethane	0.000018	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,2-Dichlorobenzene	0.003	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,2-Dichloroethane	0.0016	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,2-Dichloropropane	0.001	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,3,5-Trichlorobenzene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Soil PCUL - Saturated	Location ID	GP22	GP23	GP23	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	MW9	MW9	MW9	MW11	MW11	MW-13	MW-13	MW-13
		Sample ID	GP22-S-10.0	GP23-S-7.0	GP23-S-10.5	GP24-S-6.5	GP25-S-7.0	GP26-S-9.5	GP27-S-13.0	GP28-S-7.0	GP29-S-6.0	GP30-S-6.0	GP31-S-6.0	MW9-18-19	MW9-32.5-33.5	MW9-38-39	MW11-18-19	MW100	MW-13-11-12	DUP-2-220329	MW-13-28-29
		Sample Date	12/13/2005	12/14/2005	12/14/2005	12/14/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	8/16/2014	8/16/2014	8/16/2014	8/16/2014	8/16/2014	3/29/2022	3/29/2022	3/29/2022
		Start Depth (feet)	10	7	10.5	6.5	7	9.5	13	7	6	6	6	18	32.5	38	18	18	11	11	28
		End Depth (feet)	10	7	10.5	6.5	7	9.5	13	7	6	6	6	19	33.5	39	19	19	12	12	29
1,3,5-Trimethylbenzene	0.071	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,3-Dichlorobenzene	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,3-Dichloropropane	0.057	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
1,4-Dichlorobenzene	0.0081	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
2,2-Dichloropropane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
2-Chloroethyl vinyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
2-Chlorotoluene	0.11	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
2-Hexanone	0.012	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
4-Chlorotoluene	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
4-Isopropyltoluene	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Acetone	2.1	--	--	--	--	--	--	--	--	--	--	--	--	**0.028**	**0.0086**	**0.016**	**0.013**	**0.016**	--	--	--
Acrolein	0.00032	--	--	--	--	--	--	--	--	--	--	--	--	0.051 U	0.047 U	0.048 U	0.044 U	0.053 U	--	--	--
Acrylonitrile	0.0000083	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
Benzene	0.00056	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Bromobenzene	0.033	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Bromochloromethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Bromoethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0021 U	0.0019 U	0.0019 U	0.0018 U	0.0021 U	--	--	--
Bromoform	0.005	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Bromomethane	0.0033	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Carbon Disulfide	0.25	--	--	--	--	--	--	--	--	--	--	--	--	**0.0018 J**	0.0009 U	**0.0016 J**	**0.001 J**	0.0011 U	--	--	--
Carbon Tetrachloride	0.00015	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Chlorobenzene	0.051	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Chloroethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Chloroform	0.0048	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Chloromethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	**0.0015**	0.0009 U	**0.0018**	--	--	--
cis-1,2-Dichloroethylene	0.0052	0.00227 U	0.00216 U	0.00272 U	0.0034 U	0.00297 U	0.00318 U	0.00245 U	0.00261 U	**0.00996**	0.00399 U	0.00409 U	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	0.00065 U	0.00085 U	0.00090 U	
cis-1,3-Dichloropropene	0.00014	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Dibromochloromethane	0.0007	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Dibromomethane	0.028	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Dichlorobromomethane	0.00089	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Dichlorodifluoromethane	0.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	0.01	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Hexachlorobutadiene	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
Isopropylbenzene	0.79	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Methyl ethyl ketone (MEK)	1.4	**0.0128**	0.0108 U	0.0136 U	0.017 U	0.0148 U	0.0159 U	0.0123 U	0.013 U	0.0146 U	**0.0526**	**0.0568**	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--	
Methyl Iodide	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Methyl isobutyl ketone	0.19	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
Methyl tert-butyl ether	0.0072	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.0015	--	--	--	--	--	--	--	--	--	--	--	--	**0.0051**	**0.0055**	**0.0055**	**0.005**	**0.0041**	--	--	--
Naphthalene	0.0021	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
n-Butylbenzene	0.71	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
n-Propylbenzene	0.88	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Sec-Butylbenzene	1.3	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Styrene	0.12	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Tert-Butylbenzene	1	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Tetrachloroethylene	0.0016	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Toluene	0.044	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
trans-1,2-Dichloroethylene	0.032	0.00189 U	0.0018 U	0.00227 U	0.00283 U	0.00247 U	0.00265 U	0.00205 U	0.00217 U	0.00243 U	0.00332 U	0.00341 U	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	0.00065 U	0.00085 U	0.00090 U	
trans-1,3-Dichloropropene	0.00014	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
Trichloroethylene	0.00027	0.00189 U	0.0018 U	0.00227 U	0.00283 U	0.00247 U	0.00265 U	0.00205 U	0.00217 U	0.00243 U	0.00332 U	0.00341 U	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	0.00065 U	0.00085 U	0.00090 U	
Trichlorofluoromethane	0.79	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Vinyl Acetate	2.3	--	--	--	--	--	--	--	--	--	--	--	--	0.0051 U	0.0047 U	0.0048 U	0.0044 U	0.0053 U	--	--	--
Vinyl Chloride	0.000056	0.00189 U	0.0018 U	0.00227 U	0.00283 U	0.00247 U	0.00265 U	0.00205 U	0.00217 U	0.00243 U	0.00332 U	0.00341 U	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	0.00065 U	0.00085 U	0.00090 U	
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Total Xylenes	0.055	--	--	--	--	--	--	--	--	--	--	--	--	0.001 U	0.0009 U	0.001 U	0.0009 U	0.0011 U	--	--	--
Semivolatile Compounds (SVOCs) (mg/kg)																					
1,2,4-Trichlorobenzene	0.0019	--	--	--	--	--	--	--													
1,2-Dichlorobenzene	0.003	--	--	--	--	--	--	--													
1,3-Dichlorobenzene	0.0013	--	--	--	--	--	--	--													

	Location ID	GP22	GP23	GP23	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	MW9	MW9	MW9	MW11	MW11	MW-13	MW-13	MW-13
	Sample ID	GP22-S-10.0	GP23-S-7.0	GP23-S-10.5	GP24-S-6.5	GP25-S-7.0	GP26-S-9.5	GP27-S-13.0	GP28-S-7.0	GP29-S-6.0	GP30-S-6.0	GP31-S-6.0	MW9-18-19	MW9-32.5-33.5	MW9-38-39	MW11-18-19	MW100	MW-13-11-12	DUP-2-220329	MW-13-28-29
	Sample Date	12/13/2005	12/14/2005	12/14/2005	12/14/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	8/16/2014	8/16/2014	8/16/2014	8/16/2014	8/16/2014	3/29/2022	3/29/2022	3/29/2022
	Start Depth (feet)	10	7	10.5	6.5	7	9.5	13	7	6	6	6	18	32.5	38	18	18	11	11	28
	End Depth (feet)	10	7	10.5	6.5	7	9.5	13	7	6	6	6	19	33.5	39	19	19	12	12	29
Analyte	**Soil PCUL - Saturated**																			
1,4-Dichlorobenzene	0.0081	--	--	--	--	--	--	--												
1,4-Dioxane	0.00013	--	--	--	--	--	--	--												
2,2'-Oxybis[1-chloropropane]	0.12	--	--	--	--	--	--	--												
2,4,5-Trichlorophenol	0.00007	--	--	--	--	--	--	--												
2,4,6-Trichlorophenol	0.0053	--	--	--	--	--	--	--												
2,4-Dichlorophenol	0.0043	--	--	--	--	--	--	--												
2,4-Dimethylphenol	0.0023	--	--	--	--	--	--	--												
2,4-Dinitrophenol	0.0092	--	--	--	--	--	--	--												
2,4-Dinitrotoluene	0.00016	--	--	--	--	--	--	--												
2,6-Dinitrotoluene	0.000051	--	--	--	--	--	--	--												
2-Chloronaphthalene	0.28	--	--	--	--	--	--	--												
2-Chlorophenol	0.011	--	--	--	--	--	--	--												
2-methylphenol	0.0064	--	--	--	--	--	--	--												
2-Nitroaniline	0.064	--	--	--	--	--	--	--												
2-Nitrophenol	NE	--	--	--	--	--	--	--												
3,3'-Dichlorobenzidine	0.000002	--	--	--	--	--	--	--												
3-Nitroaniline	NE	--	--	--	--	--	--	--												
4,6-Dinitro-2-Methylphenol	0.0073	--	--	--	--	--	--	--												
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--												
4-Chloro-3-Methylphenol	0.028	--	--	--	--	--	--	--												
4-Chloroaniline	0.00017	--	--	--	--	--	--	--												
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--												
4-methylphenol	0.062	--	--	--	--	--	--	--												
4-Nitroaniline	0.0013	--	--	--	--	--	--	--												
4-Nitrophenol	NE	--	--	--	--	--	--	--												
Benzoic Acid	0.17	--	--	--	--	--	--	--												
Benzyl Alcohol	0.017	--	--	--	--	--	--	--												
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--												
Bis(2-Chloroethyl)Ether	0.000014	--	--	--	--	--	--	--												
Bis(2-Ethylhexyl) Phthalate	0.0051	--	--	--	--	--	--	--												
Butyl benzyl Phthalate	0.00018	--	--	--	--	--	--	--												
Carbazole	NE	--	--	--	--	--	--	--												
Dibutyl Phthalate	0.015	--	--	--	--	--	--	--												
Diethyl Phthalate	0.034	--	--	--	--	--	--	--												
Dimethyl Phthalate	0.019	--	--	--	--	--	--	--												
Di-N-Octyl Phthalate	0.33	--	--	--	--	--	--	--												
Hexachlorobenzene	0.0000004	--	--	--	--	--	--	--												
Hexachlorobutadiene	0.000011	--	--	--	--	--	--	--												
Hexachlorocyclopentadiene	0.0017	--	--	--	--	--	--	--												
Hexachloroethane	0.0000097	--	--	--	--	--	--	--												
Isophorone	0.032	--	--	--	--	--	--	--												
Nitrobenzene	0.0065	--	--	--	--	--	--	--												
N-Nitrosodi-n-propylamine	0.000007	--	--	--	--	--	--	--												
N-Nitrosodiphenylamine	0.0016	--	--	--	--	--	--	--												
Pentachlorophenol	0.0000018	--	--	--	--	--	--	--												
Phenol	0.048	--	--	--	--	--	--	--												
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																				
1-Methylnaphthalene	0.0042	--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
2-Methylnaphthalene	0.039	--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U								
Acenaphthene	0.028	--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Acenaphthylene	1.3	--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Anthracene	0.051	--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NE	--	--	--	--	--	--	--	--	--	**0.0154**	**0.0211**	--	--	--	--	--	--	--	--
Benzo(a)pyrene	0.000016	--	--	--	--	--	--	--	--	--	0.0146 U	**0.0176**	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	NE	--	--	--	--	--	--	--	--	--	0.0146 U	**0.0261**	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	0.67	--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	0.0291 U	**0.0432**	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	--	--	--	--	--	--	--	--	--			--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	0.0146 U	**0.0178**	--	--	--	--	--	--	--	--
Benzofluoranthenes (Total)	3.2	--	--	--	--	--	--	--	--	--			--	--	--	--	--	--	--	--

Analyte	Soil PCUL - Saturated	Location ID	GP22	GP23	GP23	GP24	GP25	GP26	GP27	GP28	GP29	GP30	GP31	MW9	MW9	MW9	MW11	MW11	MW-13	MW-13	MW-13
		Sample ID	GP22-S-10.0	GP23-S-7.0	GP23-S-10.5	GP24-S-6.5	GP25-S-7.0	GP26-S-9.5	GP27-S-13.0	GP28-S-7.0	GP29-S-6.0	GP30-S-6.0	GP31-S-6.0	MW9-18-19	MW9-32.5-33.5	MW9-38-39	MW11-18-19	MW100	MW-13-11-12	DUP-2-220329	MW-13-28-29
		Sample Date	12/13/2005	12/14/2005	12/14/2005	12/14/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	8/16/2014	8/16/2014	8/16/2014	8/16/2014	8/16/2014	3/29/2022	3/29/2022	3/29/2022
		Start Depth (feet)	10	7	10.5	6.5	7	9.5	13	7	6	6	6	18	32.5	38	18	18	11	11	28
		End Depth (feet)	10	7	10.5	6.5	7	9.5	13	7	6	6	6	19	33.5	39	19	19	12	12	29
Chrysene	NE		--	--	--	--	--	--	--	--	--	**0.0334**	**0.0449**	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NE		--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Dibenzofuran	0.029		--	--	--	--	--	--	--	--	--			--	--	--	--	--	--	--	--
Fluoranthene	0.09		--	--	--	--	--	--	--	--	--	**0.0467**	**0.0517**	--	--	--	--	--	--	--	--
Fluorene	0.029		--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	NE		--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Naphthalene	0.0021		--	--	--	--	--	--	--	--	--	0.0146 U	0.0134 U	--	--	--	--	--	--	--	--
Phenanthrene	1.5		--	--	--	--	--	--	--	--	--	**0.0258**	**0.0287**	--	--	--	--	--	--	--	--
Pyrene	0.14		--	--	--	--	--	--	--	--	--	**0.0531**	**0.05**	--	--	--	--	--	--	--	--
Total cPAH TEQ (ND=0.5RL)	0.000016		--	--	--	--	--	--	--	--	--	**0.01355**	**0.03021**	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs) (mg/kg)																					
PCB-Aroclor 1016	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.00000055		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																					
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
6:2 FTS	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
8:2 FTS	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
NEtFOSAA	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
N-ethylperfluoro-1-octanesulfonamide	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
NMeFOSAA	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
N-methylperfluoro-1-octanesulfonamide	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorobutanesulfonic acid (PFBS)	0.00012		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorodecanesulfonic acid (PFDS)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorodecanoic acid (PFDA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorododecanoic acid (PFDoA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluoroheptanoic acid (PFHpA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorohexanesulfonic acid (PFHxS)	0.000026		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorohexanoic acid (PFHxA)	0.0025		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorononanoic acid (PFNA)	0.0000048		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorooctanesulfonamide (PFOSA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorooctanesulfonic acid (PFOS)	0.0000099		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorooctanoic acid (PFOA)	0.000004		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluoropentanoic acid (PFPeA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorotetradecanoic acid (PFTeA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluorotridecanoic acid (PFTrDA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--
Perfluoroundecanoic acid (PFUnA)	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00082 U	0.00099 U	--

Location ID		MW-14	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22
Sample ID		MW-14-10.5-11.5	MW-14-17-18	MW-14-34-35	MW-14-44-45	MW-15-6-7	MW-15-28-29	MW-15-35-36	MW-16-12-13	MW-16-17.5-18.5	MW-16-48-49	MW-17-7-8	MW-17-25-26	MW-17-48-49	MW-18-5.5-6.5	MW19-9-10.5	MW20-23-24.5	MW21-15-16.5	MW22-10-11	MW22-30-31
Sample Date		3/24/2022	3/24/2022	3/24/2022	3/24/2022	3/23/2022	3/23/2022	3/23/2022	3/22/2022	3/22/2022	3/22/2022	3/21/2022	3/21/2022	3/21/2022	3/28/2022	5/26/2023	5/25/2023	5/31/2023	5/30/2023	5/30/2023
Start Depth (feet)		10.5	17	34	44	6	28	35	12	17.5	48	7	25	48	5.5	9	23	15	10	30
End Depth (feet)		11.5	18	35	45	7	29	36	13	18.5	49	8	26	49	6.5	10.5	24.5	16.5	11	31
Analyte	**Soil PCUL - Saturated**																			
Metals (mg/kg)																				
Arsenic	7.3	**3.20**	--	--	**3.54**	**1.54**	**1.95**	--	**4.13**	**2.59**	**3.11**	**4.09**	**1.71**	**3.16**	**8.36**	**3.85**	**6.64**	**3.27**	**3.18**	**5.71**
Cadmium	0.77	**0.05 J**	--	--	**0.11**	**0.05 J**	**0.08 J**	--	**0.08 J**	**0.07 J**	**0.08 J**	**0.07 J**	**0.07 J**	**0.08 J**	0.330 U	**0.07 J**	**0.52**	**0.11 J**	**0.04 J**	**0.25**
Chromium	260	**25.3 J**	--	--	**27.6 J**	**1870**	**27.2**	--	**15.8**	**20.3**	**22.2**	**15.5**	**19.9**	**22.5**	**27.2**	**17.2**	**17.2**	**11.2**	**13.7**	**36.1**
Chromium, Hexavalent	0.00089	0.517 U	--	--	0.537 U	**175**	0.532 U	--	0.664 U	0.534 U	0.539 U	0.709 UJ	0.551 UJ	0.523 UJ	0.791 U	0.660 U	0.798 U	0.667 U	0.631 U	0.612 U
Chromium, Trivalent	27.4	**25.3 J**	--	--	**27.6 J**	**1695**	**27.2**	--	**15.8**	**20.3**	**22.2**	**15.5**	**19.9**	**22.5**	**27.2**	**17.2**	**17.2**	**11.2**	**13.7**	**36.1**
Copper	36	**11.2**	--	--	**19.7**	**8.03**	**14.0**	--	**25.0**	**9.99**	**14.1**	**32.1**	**12.6**	**12.5**	**19.7**	**25.9**	**33.9**	**22.6**	**13.3**	**33.4**
Lead	56	**1.52**	--	--	**3.16**	**2.06**	**1.50**	--	**3.04**	**2.25**	**2.43**	**3.99**	**1.86**	**2.37**	**11.7**	**3.41**	**4.64**	**2.48**	**2.97**	**3.80**
Mercury	0.07	**0.00777 J**	--	--	**0.0317**	0.0289 U	0.0214 U	--	**0.0373**	**0.00879 J**	**0.0167 J**	**0.0529 J**	**0.0207 J**	**0.0318 J**	**0.0639**	**0.0359**	**0.0420**	**0.0396**	**0.0175 J**	**0.0553**
Nickel	48	**34.9**	--	--	**36.8**	**24.8**	**37.1**	--	**13.2**	**24.7**	**31.3**	**13.2**	**32.0**	**27.0**	**20.3**	**11.2**	**17.7**	**9.49**	**10.8**	**54.2**
Selenium	0.26	**0.37 J**	--	--	**0.70**	**0.25 J**	**0.51**	--	**0.62 J**	**0.35 J**	**0.32 J**	**0.97**	**0.42 J**	**0.57**	**1.31**	**0.86**	**1.70**	**0.83**	**0.42 J**	**0.66**
Thallium	0.0044	**0.04 J**	--	--	**0.07 J**	**0.05 J**	**0.03 J**	--	**0.08 J**	**0.04 J**	**0.08 J**	**0.09 J**	**0.04 J**	**0.06 J**	**0.0830**					
Zinc	85	**27.8**	--	--	**49.7**	**28.1**	**27.2**	--	**31.8 J**	**28.8 J**	**36.4 J**	**40.3**	**30.6**	**35.8**	**34.9**	**31.7**	**38.3**	**27.8**	**19.2**	**54.0**
Total Petroleum Hydrocarbons (mg/kg)																				
Gasoline-range hydrocarbons - HCID	30	11 U	--	--	11 U	12 U	11 U	--	14 U	10 U	11 U	14 U	11 U	11 U	14 U	14 U	16 U	14 U	13 U	12 U
Diesel-range hydrocarbons - HCID	2,000	27 U	--	--	28 U	29 U	27 U	--	34 U	25 U	27 U	34 U	28 U	27 U	34 U	34 U	40 U	34 U	32 U	31 U
Lube oil-range hydrocarbons - HCID	2,000	54 U	--	--	55 U	58 U	53 U	--	68 U	50 U	54 U	68 U	56 U	53 U	68 U	68 U	80 U	68 U	64 U	62 U
Total TPH - HCID	2,000	ND	--	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gasoline-range hydrocarbons	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-range hydrocarbons	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diesel-range hydrocarbons - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	2,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																				
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatic	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C8-C10 Aromatic	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C10-C12 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C10-C12 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C12-C16 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C12-C16 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C16-C21 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C16-C21 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C21-C34 Aliphati	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Extractable Petroleum Hydrocarbons, C21-C34 Aromat	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (mg/kg)																				
1,1,1,2-Tetrachloroethane	0.00063	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	0.084	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.00008	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	120	0.00099 U	--	--	0.00109 U	0.00123 U	0.00108 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.00033	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.0026	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethylene	0.0025	0.00050 U	0.00050 U	0.00121 U	0.00055 U	**0.00023 J**	0.00054 U	0.00063 U	0.00071 U	0.00065 U	0.00056 U	0.00091 U	0.00053 U	0.00084 U	0.00092 U	0.00130 U	0.00146 U	0.00122 U	0.00119 U	0.00123 U
1,1-Dichloropropene	NE	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	0.011	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.00000015	0.00099 U	--	--	0.00109 U	0.00123 U	0.00108 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	0.0019	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	0.00356 U	0.00325 U	0.00278 U	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	0.072	0.00050 U	--	--	0.00055 U	**0.0347**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-Chloropropane	0.000056	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	0.000018	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.003	0.00050 U	--	--	0.00055 U	**0.00125**	0.00054 U	--	0.00071 U	0.00065 U	0.00056 U	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	0.0016	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	0.001	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trichlorobenzene	NE	--	--	--	--			--	--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	MW-14	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22
	Sample ID	MW-14-10.5-11.5	MW-14-17-18	MW-14-34-35	MW-14-44-45	MW-15-6-7	MW-15-28-29	MW-15-35-36	MW-16-12-13	MW-16-17.5-18.5	MW-16-48-49	MW-17-7-8	MW-17-25-26	MW-17-48-49	MW-18-5.5-6.5	MW19-9-10.5	MW20-23-24.5	MW21-15-16.5	MW22-10-11	MW22-30-31
	Sample Date	3/24/2022	3/24/2022	3/24/2022	3/24/2022	3/23/2022	3/23/2022	3/23/2022	3/22/2022	3/22/2022	3/22/2022	3/21/2022	3/21/2022	3/21/2022	3/28/2022	5/26/2023	5/25/2023	5/31/2023	5/30/2023	5/30/2023
	Start Depth (feet)	10.5	17	34	44	6	28	35	12	17.5	48	7	25	48	5.5	9	23	15	10	30
	End Depth (feet)	11.5	18	35	45	7	29	36	13	18.5	49	8	26	49	6.5	10.5	24.5	16.5	11	31
Analyte	**Soil PCUL - Saturated**																			
1,3,5-Trimethylbenzene	0.071	0.00050 U	--	--	0.00055 U	**0.00868**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0013	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	0.00071 U	0.00065 U	0.00056 U	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	0.057	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.0081	0.00050 U	--	--	0.00055 U	**0.00073**	0.00054 U	--	0.00071 U	0.00065 U	0.00056 U	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NE	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	NE	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	0.11	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	0.012	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	NE	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NE	0.00050 U	--	--	0.00055 U	**0.00266**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	2.1	**0.0296 J**	--	--	**0.0347 J**	**0.0846 J**	**0.0286 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	0.00032	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	0.0000083	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.00056	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromobenzene	0.033	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochloromethane	NE	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	0.005	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	0.0033	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	0.25	0.00050 U	--	--	**0.00082**	**0.0209**	**0.00031 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	0.00015	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	0.051	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	NE	0.00099 U	--	--	0.00109 U	0.00123 U	0.00108 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	0.0048	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	NE	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethylene	0.0052	**0.00855**	**0.00170**	0.00121 U	0.00055 U	**0.00456**	0.00054 U	0.00063 U	0.00071 U	0.00065 U	0.00056 U	0.00091 U	0.00053 U	0.00084 U	0.00092 U	0.00130 U	0.00146 U	0.00122 U	0.00119 U	0.00123 U
cis-1,3-Dichloropropene	0.00014	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	0.0007	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	0.028	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobromomethane	0.00089	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	0.53	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	0.01	**0.00025 J**	--	--	0.00055 U	**0.00023 J**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.000011	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	0.00356 U	0.00325 U	0.00278 U	--	--	--	--	--	--	--	--	--
Isopropylbenzene	0.79	0.00050 U	--	--	0.00055 U	**0.00078**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone (MEK)	1.4	0.00249 U	--	--	0.00273 U	**0.00283 J**	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl Iodide	NE	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	0.19	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.0072	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.0015	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	0.00648 U	0.00730 U	0.00609 U	0.00595 U	0.00614 U
Naphthalene	0.0021	0.00249 U	--	--	0.00273 U	**0.00277 J**	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	0.71	0.00050 U	--	--	0.00055 U	**0.00508**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	0.88	0.00050 U	--	--	0.00055 U	**0.00273**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Sec-Butylbenzene	1.3	0.00050 U	--	--	0.00055 U	**0.00295**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	0.12	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Tert-Butylbenzene	1	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	0.0016	0.00050 U	--	--	0.00055 U	**0.00034 J**	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	0.044	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	0.032	0.00050 U	0.00050 U	0.00121 U	0.00055 U	0.00062 U	0.00054 U	0.00063 U	0.00071 U	0.00065 U	0.00056 U	0.00091 U	0.00053 U	0.00084 U	0.00092 U	0.00130 U	0.00146 U	0.00122 U	0.00119 U	0.00123 U
trans-1,3-Dichloropropene	0.00014	0.00050 U	--	--	0.00055 U	0.00062 U	0.00054 U	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	NE	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	0.00027	**0.0180**	**0.00398**	0.00121 U	0.00055 U	**0.0691**	0.00054 U	0.00063 U	0.00071 U	0.00065 U	0.00056 U	0.00091 U	0.00053 U	0.00084 U	0.00092 U	0.00130 U	0.00146 U	0.00122 U	0.00119 U	0.00123 U
Trichlorofluoromethane	0.79	0.00099 U	--	--	0.00109 U	0.00123 U	0.00108 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Acetate	2.3	0.00249 U	--	--	0.00273 U	0.00308 U	0.00270 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	0.000056	0.00050 U	0.00050 U	0.00121 U	0.00055 U	0.00062 U	0.00054 U	0.00063 U	0.00071 U	0.00065 U	0.00056 U	0.00091 U	0.00053 U	0.00084 U	0.00092 U	0.00130 U	0.00146 U	0.00122 U	0.00119 U	0.00123 U
Xylene, m-,p-	NE	**0.00098 J**	--	--	**0.00041 J**	**0.00076 J**	**0.00044 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, o-	NE	**0.00113**	--	--	**0.00055 J**	**0.00124**	**0.00051 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	0.055	**0.00210**	--	--	**0.00095 J**	**0.00200**	**0.00095 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Compounds (SVOCs) (mg/kg)																				
1,2,4-Trichlorobenzene	0.0019	0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	0.003	0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	0.0013	0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Soil PCUL - Saturated	Location ID	MW-14	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22
		Sample ID	MW-14-10.5-11.5	MW-14-17-18	MW-14-34-35	MW-14-44-45	MW-15-6-7	MW-15-28-29	MW-15-35-36	MW-16-12-13	MW-16-17.5-18.5	MW-16-48-49	MW-17-7-8	MW-17-25-26	MW-17-48-49	MW-18-5.5-6.5	MW19-9-10.5	MW20-23-24.5	MW21-15-16.5	MW22-10-11	MW22-30-31
		Sample Date	3/24/2022	3/24/2022	3/24/2022	3/24/2022	3/23/2022	3/23/2022	3/23/2022	3/22/2022	3/22/2022	3/22/2022	3/21/2022	3/21/2022	3/21/2022	3/28/2022	5/26/2023	5/25/2023	5/31/2023	5/30/2023	5/30/2023
		Start Depth (feet)	10.5	17	34	44	6	28	35	12	17.5	48	7	25	48	5.5	9	23	15	10	30
		End Depth (feet)	11.5	18	35	45	7	29	36	13	18.5	49	8	26	49	6.5	10.5	24.5	16.5	11	31
1,4-Dichlorobenzene	0.0081		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.00013		0.335 U			0.335 U	0.335 U	0.335 U	--	--	--	--	--	--	--	--	0.334 U	1.01 U	0.334 U	**0.601**	0.334 U
2,2'-Oxybis[1-chloropropane]	0.12		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.00007		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.0053		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.0043		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.0023		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.0092		0.2 U			0.2 U	0.2 U	0.199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.00016		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.000051		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	0.28		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.011		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	0.0064		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	0.064		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000002		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.0073		0.2 U			0.2 U	0.2 U	0.199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.028		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.00017		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE		0.0499 U			0.0499 U	0.0499 U	0.0498 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	0.062		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	0.0013		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	0.17		0.2 U			0.2 U	0.2 U	0.199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.017		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.000014		0.0499 U			0.0499 U	0.0499 U	0.0498 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.0051		0.0499 U			0.0499 U	0.0499 U	0.0498 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.00018		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.015		**0.0064 J**			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.034		0.0499 U			**0.345**	0.0499 U	0.0498 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.019		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	0.33		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.0000004		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.000011		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.0017		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.0000097		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	0.032		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	0.0065		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.000007		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.0016		0.0200 UJ			0.0200 UJ	0.0200 UJ	0.0199 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.0000018		0.0998 U			0.0999 U	0.0999 U	0.0997 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.048		0.0200 U			0.0200 U	0.0200 U	0.0199 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																					
1-Methylnaphthalene	0.0042		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00200 J**	**0.00137 J**	**0.00097 J**	**0.0166**	**0.00067 J**
2-Methylnaphthalene	0.039		0.00500 U			**0.00294 J**	**0.00298 J**	0.00499 U	--	--	--	--	--	--	--	--	**0.00285 J**	**0.00161 J**	**0.00128 J**	**0.00307 J**	0.00500 U
Acenaphthene	0.028		0.00500 U	--	--	**0.00113 J**	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00326 J**	**0.00103 J**	**0.00064 J**	**0.00142 J**	0.00500 U
Acenaphthylene	1.3		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Anthracene	0.051		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00370 J**	0.00500 U	**0.00137 J**	**0.00343 J**	**0.00103 J**
Benzo(a)anthracene	NE		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00107 J**	0.00500 U	**0.00261 J**	**0.00672**	**0.00291 J**
Benzo(a)pyrene	0.000016		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	**0.00568**	**0.00721**	**0.00547**
Benzo(b)fluoranthene	NE		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	**0.00148 J**	**0.00423 J**	**0.00874**	**0.00433 J**
Benzo(g,h,i)perylene	0.67		0.00500 U	--	--	**0.00211 J**	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	**0.00175 J**	**0.00925**	**0.00812**	**0.00842**
Benzo(j,k)fluoranthene	NE			--	--				--	--	--	--	--	--	--	--					
Benzo(j)fluoranthene	NE		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	**0.00237 J**	**0.00493 J**	**0.00269 J**
Benzo(k)fluoranthene	NE		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	**0.00253 J**	**0.00434 J**	**0.00259 J**
Benzofluoranthenes (Total)	3.2		0.0100 U	--	--	0.0100 U	0.00996 U	0.00997 U	--	--	--	--	--	--	--	--	0.00996 U	0.00999 U	**0.00926 J**	**0.0182**	**0.00980 J**

Analyte	Soil PCUL - Saturated	Location ID	MW-14	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22
		Sample ID	MW-14-10.5-11.5	MW-14-17-18	MW-14-34-35	MW-14-44-45	MW-15-6-7	MW-15-28-29	MW-15-35-36	MW-16-12-13	MW-16-17.5-18.5	MW-16-48-49	MW-17-7-8	MW-17-25-26	MW-17-48-49	MW-18-5.5-6.5	MW-19-9-10.5	MW-20-23-24.5	MW-21-15-16.5	MW-22-10-11	MW-22-30-31
		Sample Date	3/24/2022	3/24/2022	3/24/2022	3/24/2022	3/23/2022	3/23/2022	3/23/2022	3/22/2022	3/22/2022	3/22/2022	3/21/2022	3/21/2022	3/21/2022	3/28/2022	5/26/2023	5/25/2023	5/31/2023	5/30/2023	5/30/2023
		Start Depth (feet)	10.5	17	34	44	6	28	35	12	17.5	48	7	25	48	5.5	9	23	15	10	30
		End Depth (feet)	11.5	18	35	45	7	29	36	13	18.5	49	8	26	49	6.5	10.5	24.5	16.5	11	31
Chrysene	NE		0.00500 U	--	--	**0.00173 J**	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00221 J**	**0.00144 J**	**0.00513**	**0.0109**	**0.00530**
Dibenzo(a,h)anthracene	NE		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	0.00500 U	**0.00095 J**	0.00500 U
Dibenzofuran	0.029		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Fluoranthene	0.09		0.00500 U	--	--	**0.00181 J**	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00796**	**0.00222 J**	**0.00457 J**	**0.0205**	**0.00425 J**
Fluorene	0.029		0.00500 U	--	--	**0.00101 J**	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00246 J**	0.00500 U	**0.00064 J**	**0.00188 J**	0.00500 U
Indeno(1,2,3-c,d)pyrene	NE		0.00500 U	--	--	0.00500 U	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	0.00498 U	0.00500 U	**0.00527**	**0.00596**	**0.00531**
Naphthalene	0.0021		0.00500 U	--	--	**0.00128 J**	**0.00598**	0.00499 U	--	--	--	--	--	--	--	--	**0.00462 J**	**0.00232 J**	0.00500 U	**0.00405 J**	0.00500 U
Phenanthrene	1.5		0.00500 U	--	--	**0.00331 J**	**0.00110 J**	**0.00073 J**	--	--	--	--	--	--	--	--	**0.0205**	**0.00401 J**	**0.00579**	**0.0128**	**0.00450 J**
Pyrene	0.14		0.00500 U	--	--	**0.00219 J**	0.00498 U	0.00499 U	--	--	--	--	--	--	--	--	**0.00885**	**0.00268 J**	**0.00580**	**0.0206**	**0.00555**
Total cPAH TEQ (ND=0.5RL)	0.000016		0.00428 U	--	--	**0.00427**	0.00426 U	0.00427 U	--	--	--	--	--	--	--	--	**0.00411 J**	**0.00416 J**	**0.00837 J**	**0.01181 J**	**0.00827 J**
Polychlorinated Biphenyls (PCBs) (mg/kg)																					
PCB-Aroclor 1016	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.00000055		0.0200 U	--	--	0.0199 U	0.0199 U	0.0198 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																					
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
6:2 FTS	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
8:2 FTS	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
NEtFOSAA	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
NMeFOSAA	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE		**0.00014 J**	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.00012		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.000026		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0025		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.0000048		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE		0.0011 U	--	--	--	--	**0.000069 J**	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.0000099		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000004		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE		0.0011 U	--	--	--	--	0.0010 U	--	--	--	--	--	--	--	--	--	--	--	--	--

Location ID		MW-22	MW-23	MW-23	SB1	SB3	SB4	SB4	SB5	SB6	SB7	SB7	SB8	SB10	SB11	SB11	SB12	SB13	SB14	SB15
Sample ID		MW22-45-45.5	MW23-5-6.5	MW23-15-16.5	SB1-5	SB3-8	SB4-5	SB4-20	SB5-11	SB6-16	SB7-11	SB7-19	SB8-16	SB10-7	SB11-10	SB11-30	SB12-12	SB13-9	SB14-6	SB15-26
Sample Date		5/30/2023	5/24/2023	5/24/2023	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	4/15/2015
Start Depth (feet)		45	5	15	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
End Depth (feet)		45.5	6.5	16.5	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
Analyte	**Soil PCUL - Saturated**																			
Metals (mg/kg)																				
Arsenic	7.3	**2.49**	**5.48**	**3.03**	5 U	6 U	**7**	**6**	7 U	7 U	7 U	6 U	7 U	5 U	6 U	**6**	7 U	8 U	5 U	**5.6**
Cadmium	0.77	**0.10 J**	**0.28**	**0.04 J**																
Chromium	260	**40.0**	**14.9**	**9.78**	**48.7**	**67.3**	**22.7**	**14.9**	**15.7**	**10**	**17.7**	**24.8**	**23.7**	**30.3**	**11.7**	**20.9**	**17**	**16.8**	**27.6**	**17.9**
Chromium, Hexavalent	0.00089	0.553 U	0.657 U	0.632 U	0.44 U	0.452 U	0.572 U	0.482 U	0.552 U	0.571 U	0.554 U	0.462 U	0.544 U	0.445 U	0.472 U	0.484 U	0.516 U	0.534 U	0.425 U	0.519 U
Chromium, Trivalent	27.4	**40.0**	**14.9**	**9.78**	**48.7**	**67.3**	**22.7**	**14.9**	**15.7**	**10**	**17.7**	**24.8**	**23.7**	**30.3**	**11.7**	**20.9**	**17**	**16.8**	**27.6**	**17.9**
Copper	36	**14.9**	**27.8**	**18.8**																
Lead	56	**2.25**	**45.6**	**2.15**	2 U	2 U	**11**	2 U	3 U	3 U	**4**	2 U	**7**	**2**	**6**	2 U	3 U	3 U	**56**	**2.9**
Mercury	0.07	**0.0150 J**	**0.0382**	**0.0223 J**																
Nickel	48	**32.2**	**13.6**	**8.34**																
Selenium	0.26	**0.59**	**0.81**	**1.10**	5 U	6 U	6 U	6 U	7 U	7 U	7 U	6 U	7 U	5 U	6 U	6 U	7 U	8 U	5 U	**0.9**
Thallium	0.0044																			
Zinc	85	**32.8**	**63.1**	**23.0**																
Total Petroleum Hydrocarbons (mg/kg)																				
Gasoline-range hydrocarbons - HCID	30	11 U	13 U	13 U																
Diesel-range hydrocarbons - HCID	2,000	28 U	33 U	32 U																
Lube oil-range hydrocarbons - HCID	2,000	56 U	**67**	65 U																
Total TPH - HCID	2,000	ND	**67**	ND																
Gasoline-range hydrocarbons	30	--																		9.5 U
Diesel-range hydrocarbons	2,000	--	**14.7**		**7.5**	5.8 U	**65**	6.2 U	**420**	**15**	**38**	5.9 U	**74**	5.6 U	**9.7**		6.5 U	6.7 U	**74**	6.7 U
Lube oil-range hydrocarbons	2,000	--	**89.7**		**62**	**14**	**220**	12 U	**1900**	**49**	**440**	12 U	**560**	11 U	**30**		**19**	**18**	**730**	13 U
Total TPH	2,000	--	**104.4**		**69.5**	**14**	**285**	ND	**2320**	**64**	**478**	ND	**634**	ND	**39.7**		**19**	**18**	**804**	ND
Diesel-range hydrocarbons - w/SGC	2,000	--	6.37 U																	
Lube oil-range hydrocarbons - w/SGC	2,000	--	**49.4**																	
Total TPH - w/SGC	2,000	--	**49.4**																	
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																				
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatic	NE	--																		
Extractable Petroleum Hydrocarbons, C8-C10 Aromatic	NE	--																		
Extractable Petroleum Hydrocarbons, C10-C12 Aliphati	NE	--																		
Extractable Petroleum Hydrocarbons, C10-C12 Aromat	NE	--																		
Extractable Petroleum Hydrocarbons, C12-C16 Aliphati	NE	--																		
Extractable Petroleum Hydrocarbons, C12-C16 Aromat	NE	--																		
Extractable Petroleum Hydrocarbons, C16-C21 Aliphati	NE	--																		
Extractable Petroleum Hydrocarbons, C16-C21 Aromat	NE	--																		
Extractable Petroleum Hydrocarbons, C21-C34 Aliphati	NE	--																		
Extractable Petroleum Hydrocarbons, C21-C34 Aromat	NE	--																		
Volatile Organic Compounds (VOCs) (mg/kg)																				
1,1,1,2-Tetrachloroethane	0.00063	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U		0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,1,1-Trichloroethane	0.084	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U		0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,1,2,2-Tetrachloroethane	0.00008	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U		0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	120	--	--	--	0.002 U	0.0015 U	0.0035 U	0.0022 U	0.0027 U	0.0028 U	0.0031 U	0.0013 U	0.003 U	0.0022 U	0.0025 U	--	0.0024 U	0.0029 U	0.0041 U	0.0027 U
1,1,2-Trichloroethane	0.00033	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,1-Dichloroethane	0.0026	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,1-Dichloroethylene	0.0025	0.00079 U	0.00124 U	0.00141 U	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,1-Dichloropropene	NE	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,2,3-Trichlorobenzene	0.011	--	--	--	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	--	0.006 U	0.0072 U	0.01 U	0.0067 U
1,2,3-Trichloropropane	0.00000015	--	--	--	0.002 U	0.0015 U	0.0035 U	0.0022 U	0.0027 U	0.0028 U	0.0031 U	0.0013 U	0.003 U	0.0022 U	0.0025 U	--	0.0024 U	0.0029 U	0.0041 U	0.0027 U
1,2,4-Trichlorobenzene	0.0019	--	--	--	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	--	0.006 U	0.0072 U	0.01 U	0.0067 U
1,2,4-Trimethylbenzene	0.072	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	**0.008**	0.0013 U
1,2-Dibromo-3-Chloropropane	0.000056	--	--	--	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	--	0.006 U	0.0072 U	0.01 U	0.0067 U
1,2-Dibromoethane	0.000018	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,2-Dichlorobenzene	0.003	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,2-Dichloroethane	0.0016	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,2-Dichloropropane	0.001	--	--	--	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	--	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,3,5-Trichlorobenzene	NE	--	--	--					--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	MW-22	MW-23	MW-23	SB1	SB3	SB4	SB4	SB5	SB6	SB7	SB7	SB8	SB10	SB11	SB11	SB12	SB13	SB14	SB15
	Sample ID	MW22-45-45.5	MW23-5-6.5	MW23-15-16.5	SB1-5	SB3-8	SB4-5	SB4-20	SB5-11	SB6-16	SB7-11	SB7-19	SB8-16	SB10-7	SB11-10	SB11-30	SB12-12	SB13-9	SB14-6	SB15-26
	Sample Date	5/30/2023	5/24/2023	5/24/2023	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	4/15/2015
	Start Depth (feet)	45	5	15	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
	End Depth (feet)	45.5	6.5	16.5	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
Analyte	**Soil PCUL - Saturated**																			
1,3,5-Trimethylbenzene	0.071	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.016**	0.0013 U
1,3-Dichlorobenzene	0.0013	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,3-Dichloropropane	0.057	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
1,4-Dichlorobenzene	0.0081	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
2,2-Dichloropropane	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
2-Chloroethyl vinyl ether	NE	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
2-Chlorotoluene	0.11	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
2-Hexanone	0.012	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
4-Chlorotoluene	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
4-Isopropyltoluene	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.004**	0.0013 U
Acetone	2.1	–	–	–	**0.015 J**	**0.025 J**	**0.032 J**	**0.036 J**	**0.058 J**	**0.027 J**	**0.061 J**	**0.016 J**	**0.07 J**	**0.017 J**	**0.035 J**	–	**0.055 J**	**0.037 J**	0.01 U	0.0067 U
Acrolein	0.00032	–	–	–	0.049 U	0.037 U	0.088 U	0.055 U	0.068 U	0.07 U	0.077 U	0.032 U	0.076 U	0.055 U	0.064 U	–	0.06 U	0.072 U	0.1 U	0.067 U
Acrylonitrile	0.0000083	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
Benzene	0.00056	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.0021**	0.0013 U
Bromobenzene	0.033	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Bromochloromethane	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Bromoethane	NE	–	–	–	0.002 U	0.0015 U	0.0035 U	0.0022 U	0.0027 U	0.0028 U	0.0031 U	0.0013 U	0.003 U	0.0022 U	0.0025 U	–	0.0024 U	0.0029 U	0.0041 U	0.0027 U
Bromoform	0.005	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Bromomethane	0.0033	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Carbon Disulfide	0.25	–	–	–	0.001 U	**0.012 J**	**0.0045 J**	**0.0063 J**	**0.0056 J**	**0.0028 J**	**0.0091 J**	**0.0043 J**	**0.011 J**	**0.0017 J**	**0.0048 J**	–	**0.021 J**	**0.003 J**	**0.0067 J**	**0.0028**
Carbon Tetrachloride	0.00015	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Chlorobenzene	0.051	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Chloroethane	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Chloroform	0.0048	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Chloromethane	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
cis-1,2-Dichloroethylene	0.0052	0.00079 U	0.00124 U	0.00141 U	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
cis-1,3-Dichloropropene	0.00014	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Dibromochloromethane	0.0007	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Dibromomethane	0.028	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Dichlorobromomethane	0.00089	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Dichlorodifluoromethane	0.53	–	–	–					–	–	–	–	–	–	–	–	–	–	–	–
Ethylbenzene	0.01	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.056**	0.0013 U
Hexachlorobutadiene	0.000011	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
Isopropylbenzene	0.79	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.015**	0.0013 U
Methyl ethyl ketone (MEK)	1.4	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
Methyl Iodide	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Methyl isobutyl ketone	0.19	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
Methyl tert-butyl ether	0.0072	–	–	–					–	–	–	–	–	–	–	–	–	–	–	–
Methylene Chloride	0.0015	0.00397 U	0.00620 U	0.00703 U	0.002 U	**0.0024**	**0.0039**	**0.0028**	**0.0048**	**0.0048**	**0.0094**	**0.0024**	0.003 U	**0.0026**	**0.0083**	–	0.0024 U	**0.0035**	0.0041 U	0.0027 U
Naphthalene	0.0021	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	**0.028**	0.0067 U
n-Butylbenzene	0.71	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	**0.0045 J**	**0.011 J**	0.0013 U
n-Propylbenzene	0.88	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.046**	0.0013 U
Sec-Butylbenzene	1.3	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	**0.0081**	**0.0036**	0.0013 U
Styrene	0.12	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Tert-Butylbenzene	1	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Tetrachloroethylene	0.0016	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Toluene	0.044	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.0071**	0.0013 U
trans-1,2-Dichloroethylene	0.032	0.00079 U	0.00124 U	0.00141 U	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
trans-1,3-Dichloropropene	0.00014	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
trans-1,4-Dichloro-2-butene	NE	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
Trichloroethylene	0.00027	0.00079 U	0.00124 U	0.00141 U	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Trichlorofluoromethane	0.79	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Vinyl Acetate	2.3	–	–	–	0.0049 U	0.0037 U	0.0088 U	0.0055 U	0.0068 U	0.007 U	0.0077 U	0.0032 U	0.0076 U	0.0055 U	0.0064 U	–	0.006 U	0.0072 U	0.01 U	0.0067 U
Vinyl Chloride	0.000056	0.00079 U	0.00124 U	0.00141 U	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Xylene, m-,p-	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.029**	0.0013 U
Xylene, o-	NE	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	0.0021 U	0.0013 U
Total Xylenes	0.055	–	–	–	0.001 U	0.0007 U	0.0018 U	0.0011 U	0.0014 U	0.0014 U	0.0015 U	0.0006 U	0.0015 U	0.0011 U	0.0013 U	–	0.0012 U	0.0014 U	**0.029**	0.0013 U
Semivolatile Compounds (SVOCs) (mg/kg)																				
1,2,4-Trichlorobenzene	0.0019	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2-Dichlorobenzene	0.003	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,3-Dichlorobenzene	0.0013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Location ID	MW-22	MW-23	MW-23	SB1	SB3	SB4	SB4	SB5	SB6	SB7	SB7	SB8	SB10	SB11	SB11	SB12	SB13	SB14	SB15
	Sample ID	MW22-45-45.5	MW23-5-6.5	MW23-15-16.5	SB1-5	SB3-8	SB4-5	SB4-20	SB5-11	SB6-16	SB7-11	SB7-19	SB8-16	SB10-7	SB11-10	SB11-30	SB12-12	SB13-9	SB14-6	SB15-26
	Sample Date	5/30/2023	5/24/2023	5/24/2023	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	4/15/2015
	Start Depth (feet)	45	5	15	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
	End Depth (feet)	45.5	6.5	16.5	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
Analyte	**Soil PCUL - Saturated**																			
1,4-Dichlorobenzene	0.0081	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.00013	0.335 U	1 U	1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-Oxybis[1-chloropropane]	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.00007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.0053	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.0043	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.0023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.0092	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.000051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	0.0064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	0.064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.0073	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	0.062	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.000014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.0051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.00018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.034	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.0000004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.0017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.0000097	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	0.0065	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.0016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.0000018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.048	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																				
1-Methylnaphthalene	0.0042	**0.00064 J**	0.0150 U	**0.00098 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	0.039	**0.00114 J**	0.0150 U	0.00500 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	0.028	0.00500 U	0.0150 U	**0.00078 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	1.3	0.00500 U	0.0150 U	0.00500 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	0.051	0.00500 U	**0.00322**	**0.00111 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NE	0.00500 U	**0.00904**	**0.00159 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	0.000016	0.00500 U	**0.0113**	0.00500 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	NE	0.00500 U	**0.0209**	**0.00221 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	0.67	0.00500 U	**0.0130**	**0.00283 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j,k)fluoranthene	NE				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	**0.00098 J**	**0.0123**	**0.00134 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	NE	0.00500 U	**0.0114**	**0.00135 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzofluoranthenes (Total)	3.2	0.00999 U	**0.0444**	**0.00488 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	MW-22	MW-23	MW-23	SB1	SB3	SB4	SB4	SB5	SB6	SB7	SB7	SB8	SB10	SB11	SB11	SB12	SB13	SB14	SB15
	Sample ID	MW22-45-45.5	MW23-5-6.5	MW23-15-16.5	SB1-5	SB3-8	SB4-5	SB4-20	SB5-11	SB6-16	SB7-11	SB7-19	SB8-16	SB10-7	SB11-10	SB11-30	SB12-12	SB13-9	SB14-6	SB15-26
	Sample Date	5/30/2023	5/24/2023	5/24/2023	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/8/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	8/7/2014	4/15/2015
	Start Depth (feet)	45	5	15	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
	End Depth (feet)	45.5	6.5	16.5	5	8	5	20	11	16	11	19	16	7	10	30	12	9	6	26
Analyte	**Soil PCUL - Saturated**																			
Chrysene	NE	**0.00123 J**	**0.0173**	**0.00228 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NE	0.00500 U	**0.00963**	0.00500 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	0.029	0.00500 U	0.0150 U	0.00500 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	0.09	**0.00192 J**	**0.0169**	**0.00351 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	0.029	0.00500 U	0.0150 U	0.00500 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	NE	0.00500 U	**0.00934**	**0.00119 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	0.0021	**0.00146 J**	0.0150 U	**0.00134 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	1.5	**0.00272 J**	**0.00967**	**0.00399 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	0.14	**0.00179 J**	**0.0231**	**0.00416 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total cPAH TEQ (ND=0.5RL)	0.000016	**0.00426 J**	**0.02194**	**0.00390 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs) (mg/kg)																				
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.00000055	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																				
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.000026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.0000048	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.0000099	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Location ID		SB15		SB16		SB16		SB16		SB17		SB17		SB17		SB18		SB18		SB18		SB19		SB19		SB19		SB20		SB20		SB21		SB21	
Sample ID		SB15-41		SB16-26		SB16-40		SB16-46		SB17-26		SB17-40		SB17-43.5		SB18-26		SB18-36.5		SB18-39.5		SB19-35		SB19-45		SB19-50		SB20-5-6		SB20-10-11		SB21-8-9		SB21-13-14	
Sample Date		4/15/2015		4/16/2015		4/16/2015		4/16/2015		4/16/2015		4/17/2015		4/17/2015		4/17/2015		4/17/2015		4/17/2015		4/20/2015		4/20/2015		4/20/2015		3/8/2022		3/8/2022		3/7/2022		3/7/2022	
Start Depth (feet)		41		26		40		46		26		40		43.5		26		36.5		39.5		35		45		50		5		10		8		13	
End Depth (feet)		41		26		40		46		26		40		43.5		26		36.5		39.5		35		45		50		6		11		9		14	
Analyte	**Soil PCUL - Saturated**																																		
Metals (mg/kg)																																			
Arsenic	7.3	**4.9**		**5.6**		**3.1**		**2.9**		**4.8**		**2.5**		**2.8**		**6.4**		**2.3**		**2.1**		**8.5**		**6.2**		**3.7**		**3.12**		**2.79**		**4.20**		**4.05**	
Cadmium	0.77																											**0.10**	**J**	**0.07**	**J**	**0.12**	**J**	**0.08**	**J**
Chromium	260	**43.4**		**18.6**		**26.1**		**24.5**		**18.4**		**21.2**		**25.3**		**19.5**		**18.1**		**21.9**		**20.4**		**46**		**43.8**		**24.7**		**24.4**		**25**		**19.6**	**J**
Chromium, Hexavalent	0.00089	0.502	U	0.525	U	0.476	U	0.441	U	0.499	U	0.426	U	**1.78**		0.51	U	0.459	U	0.426	U	0.5	U	0.469	U	0.508	U	0.538	UJ	0.545	UJ	0.593	UJ	0.546	UJ
Chromium, Trivalent	27.4	**43.4**		**18.6**		**26.1**		**24.5**		**18.4**		**21.2**		**25.3**		**19.5**		**18.1**		**21.9**		**20.4**		**46**		**43.8**		**24.7**		**24.4**		**25**		**19.6**	**J**
Copper	36																											**13.4**		**11.0**		**17.9**		**16.3**	
Lead	56	**4**		**2.6**		**2.3**		**2.4**		**2.1**		**1.7**		**1.9**		**2.9**		**1.8**		**1.7**		**2.5**		**4.6**		**3.9**		**2.62**		**2.05**		**3.59**		**3.05**	
Mercury	0.07																											**0.0218**	**J**	**0.0185**	**J**	**0.0302**		**0.0108**	**J**
Nickel	48																											**30.4**		**29.9**		**30.1**		**24.4**	
Selenium	0.26	0.6	U	0.6	U	0.5	U	0.5	U	0.6	U	0.5	U	0.6	U	0.6	U	0.5	U	0.5	U	0.6	U	1	U	0.6	U	**0.74**		**0.73**		**0.93**		**0.96**	
Thallium	0.0044																											**0.10**	**J**	**0.06**	**J**	**0.10**	**J**	**0.09**	**J**
Zinc	85																											**37.2**		**30.6**		**48.3**		**41.2**	
Total Petroleum Hydrocarbons (mg/kg)																																			
Gasoline-range hydrocarbons - HCID	30																											11	U	11	U	11	U	11	U
Diesel-range hydrocarbons - HCID	2,000																											27	U	27	U	29	U	28	U
Lube oil-range hydrocarbons - HCID	2,000																											55	U	54	U	57	U	56	U
Total TPH - HCID	2,000																											ND		ND		ND		ND	
Gasoline-range hydrocarbons	30			8.8	U					8.6	U					7.8	U					7.7	U												
Diesel-range hydrocarbons	2,000	5.8	U	7.3	U					6.5	U	6.2	U			6.7	U	5.5	U			6.4	U	6	U	6.3	U								
Lube oil-range hydrocarbons	2,000	12	U	15	U					13	U	12	U			13	U	11	U			13	U	12	U	13	U								
Total TPH	2,000	ND		ND						ND		ND				ND		ND				ND		ND		ND									
Diesel-range hydrocarbons - w/SGC	2,000																																		
Lube oil-range hydrocarbons - w/SGC	2,000																																		
Total TPH - w/SGC	2,000																																		
Extractable Petroleum Hydrocarbons (EPH) (mg/kg)																																			
Extractable Petroleum Hydrocarbons, C8-C10 Aliphatic	NE																																		
Extractable Petroleum Hydrocarbons, C8-C10 Aromatic	NE																																		
Extractable Petroleum Hydrocarbons, C10-C12 Aliphati	NE																																		
Extractable Petroleum Hydrocarbons, C10-C12 Aromat	NE																																		
Extractable Petroleum Hydrocarbons, C12-C16 Aliphati	NE																																		
Extractable Petroleum Hydrocarbons, C12-C16 Aromat	NE																																		
Extractable Petroleum Hydrocarbons, C16-C21 Aliphati	NE																																		
Extractable Petroleum Hydrocarbons, C16-C21 Aromat	NE																																		
Extractable Petroleum Hydrocarbons, C21-C34 Aliphati	NE																																		
Extractable Petroleum Hydrocarbons, C21-C34 Aromat	NE																																		
Volatile Organic Compounds (VOCs) (mg/kg)																																			
1,1,1,2-Tetrachloroethane	0.00063	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,1,1-Trichloroethane	0.084	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,1,2,2-Tetrachloroethane	0.00008	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	120	0.0024	U	0.0029	U	--		--		0.003	U	0.002	U	0.0019	U	0.0028	U	0.0017	U	--		0.0031	U	0.0019	U	0.0022	U	--		--		--		--	
1,1,2-Trichloroethane	0.00033	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,1-Dichloroethane	0.0026	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,1-Dichloroethylene	0.0025	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	0.00090	U	0.00092	U	0.00068	U	0.00074	U
1,1-Dichloropropene	NE	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,2,3-Trichlorobenzene	0.011	0.006	U	0.0073	U	--		--		0.0075	U	0.0051	U	0.0047	U	0.0069	U	0.0041	U	--		0.0077	U	0.0048	U	0.0054	U	--		--		--		--	
1,2,3-Trichloropropane	0.00000015	0.0024	U	0.0029	U	--		--		0.003	U	0.002	U	0.0019	U	0.0028	U	0.0017	U	--		0.0031	U	0.0019	U	0.0022	U	--		--		--		--	
1,2,4-Trichlorobenzene	0.0019	0.006	U	0.0073	U	--		--		0.0075	U	0.0051	U	0.0047	U	0.0069	U	0.0041	U	--		0.0077	U	0.0048	U	0.0054	U	0.00450	U	0.00460	U	0.00338	U	0.00370	U
1,2,4-Trimethylbenzene	0.072	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,2-Dibromo-3-Chloropropane	0.000056	0.006	U	0.0073	U	--		--		0.0075	U	0.0051	U	0.0047	U	0.0069	U	0.0041	U	--		0.0077	U	0.0048	U	0.0054	U	--		--		--		--	
1,2-Dibromoethane	0.000018	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,2-Dichlorobenzene	0.003	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	0.00090	U	0.00092	U	0.00068	U	0.00074	U
1,2-Dichloroethane	0.0016	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,2-Dichloropropane	0.001	0.0012	U	0.0015	U	--		--		0.0015	U	0.001	U	0.0009	U	0.0014	U	0.0008	U	--		0.0015	U	0.001	U	0.0011	U	--		--		--		--	
1,3,5-Trichlorobenzene	NE	--		--		--		--		--		--		--		--		--		--		--		--		--		--		--		--		--	

Analyte	Soil PCUL - Saturated	Location ID	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18	SB19	SB19	SB19	SB-20	SB-20	SB-21	SB-21
		Sample ID	SB15-41	SB16-26	SB16-40	SB16-46	SB17-26	SB17-40	SB17-43.5	SB18-26	SB18-36.5	SB18-39.5	SB19-35	SB19-45	SB19-50	SB-20-5-6	SB-20-10-11	SB-21-8-9	SB-21-13-14
		Sample Date	4/15/2015	4/16/2015	4/16/2015	4/16/2015	4/16/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/20/2015	4/20/2015	4/20/2015	3/8/2022	3/8/2022	3/7/2022	3/7/2022
		Start Depth (feet)	41	26	40	46	26	40	43.5	26	36.5	39.5	35	45	50	5	10	8	13
		End Depth (feet)	41	26	40	46	26	40	43.5	26	36.5	39.5	35	45	50	6	11	9	14
1,3,5-Trimethylbenzene	0.071	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–
1,3-Dichlorobenzene	0.0013	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	0.00090 U	0.00092 U	0.00068 U	0.00074 U
1,3-Dichloropropane	0.057	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
1,4-Dichlorobenzene	0.0081	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	0.00090 U	0.00092 U	0.00068 U	0.00074 U
2,2-Dichloropropane	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
2-Chloroethyl vinyl ether	NE	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
2-Chlorotoluene	0.11	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
2-Hexanone	0.012	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
4-Chlorotoluene	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
4-Isopropyltoluene	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Acetone	2.1	0.006 U	**0.029**	–	–	**0.034**	0.0051 U	**0.0088**	**0.025**	0.0041 U	–	**0.034**	0.0048 U	0.0054 U	–	–	–	–	–
Acrolein	0.00032	0.06 U	0.073 U	–	–	0.075 U	0.051 U	0.047 U	0.069 U	0.041 U	–	0.077 U	0.048 U	0.054 U	–	–	–	–	–
Acrylonitrile	0.0000083	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
Benzene	0.00056	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Bromobenzene	0.033	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Bromochloromethane	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Bromoethane	NE	0.0024 U	0.0029 U	–	–	0.003 U	0.002 U	0.0019 U	0.0028 U	0.0017 U	–	0.0031 U	0.0019 U	0.0022 U	–	–	–	–	–
Bromoform	0.005	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Bromomethane	0.0033	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Carbon Disulfide	0.25	0.0012 U	**0.0069 J**	–	–	**0.0032 J**	**0.0016**	0.0009 U	**0.0034**	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Carbon Tetrachloride	0.00015	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Chlorobenzene	0.051	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Chloroethane	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Chloroform	0.0048	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Chloromethane	NE	0.0012 U	0.0015 U	–	–	0.0015 U	**0.0016 J**	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
cis-1,2-Dichloroethylene	0.0052	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	0.00090 U	0.00092 U	0.00068 U	0.00074 U
cis-1,3-Dichloropropene	0.00014	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Dibromochloromethane	0.0007	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Dibromomethane	0.028	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Dichlorobromomethane	0.00089	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Dichlorodifluoromethane	0.53	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ethylbenzene	0.01	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Hexachlorobutadiene	0.000011	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	0.00450 U	0.00460 U	0.00338 U	0.00370 U
Isopropylbenzene	0.79	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Methyl ethyl ketone (MEK)	1.4	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
Methyl Iodide	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Methyl isobutyl ketone	0.19	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
Methyl tert-butyl ether	0.0072	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Methylene Chloride	0.0015	0.0024 U	**0.0049**	–	–	**0.003**	**0.0028**	**0.0024**	**0.0031**	**0.0019**	–	0.0031 U	**0.0024**	**0.0026**	–	–	–	–	–
Naphthalene	0.0021	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
n-Butylbenzene	0.71	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
n-Propylbenzene	0.88	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Sec-Butylbenzene	1.3	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Styrene	0.12	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Tert-Butylbenzene	1	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Tetrachloroethylene	0.0016	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Toluene	0.044	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
trans-1,2-Dichloroethylene	0.032	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	0.00090 U	0.00092 U	0.00068 U	0.00074 U
trans-1,3-Dichloropropene	0.00014	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
trans-1,4-Dichloro-2-butene	NE	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
Trichloroethylene	0.00027	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	0.00090 U	0.00092 U	0.00068 U	0.00074 U
Trichlorofluoromethane	0.79	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Vinyl Acetate	2.3	0.006 U	0.0073 U	–	–	0.0075 U	0.0051 U	0.0047 U	0.0069 U	0.0041 U	–	0.0077 U	0.0048 U	0.0054 U	–	–	–	–	–
Vinyl Chloride	0.000056	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	0.00090 U	0.00092 U	0.00068 U	0.00074 U
Xylene, m-,p-	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Xylene, o-	NE	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Total Xylenes	0.055	0.0012 U	0.0015 U	–	–	0.0015 U	0.001 U	0.0009 U	0.0014 U	0.0008 U	–	0.0015 U	0.001 U	0.0011 U	–	–	–	–	–
Semivolatile Compounds (SVOCs) (mg/kg)																			
1,2,4-Trichlorobenzene	0.0019	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,2-Dichlorobenzene	0.003	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1,3-Dichlorobenzene	0.0013	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Location ID	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18	SB19	SB19	SB19	SB-20	SB-20	SB-21	SB-21
	Sample ID	SB15-41	SB16-26	SB16-40	SB16-46	SB17-26	SB17-40	SB17-43.5	SB18-26	SB18-36.5	SB18-39.5	SB19-35	SB19-45	SB19-50	SB-20-5-6	SB-20-10-11	SB-21-8-9	SB-21-13-14
	Sample Date	4/15/2015	4/16/2015	4/16/2015	4/16/2015	4/16/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/20/2015	4/20/2015	4/20/2015	3/8/2022	3/8/2022	3/7/2022	3/7/2022
	Start Depth (feet)	41	26	40	46	26	40	43.5	26	36.5	39.5	35	45	50	5	10	8	13
	End Depth (feet)	41	26	40	46	26	40	43.5	26	36.5	39.5	35	45	50	6	11	9	14
Analyte	**Soil PCUL - Saturated**																	
1,4-Dichlorobenzene	0.0081	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.00013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-Oxybis[1-chloropropane]	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.00007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	0.0053	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	0.0043	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	0.0023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	0.0092	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.000051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	0.011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	0.0064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	0.064	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.000002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.0073	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	0.062	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.000014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.0051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.00018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	0.034	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	0.019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.0000004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	0.0017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.0000097	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	0.0065	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.0016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	0.0000018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	0.048	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																		
1-Methylnaphthalene	0.0042	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	0.039	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	0.051	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	0.000016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzofluoranthenes (Total)	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

	Location ID	SB15	SB16	SB16	SB16	SB17	SB17	SB17	SB18	SB18	SB18	SB19	SB19	SB19	SB20	SB20	SB21	SB21
	Sample ID	SB15-41	SB16-26	SB16-40	SB16-46	SB17-26	SB17-40	SB17-43.5	SB18-26	SB18-36.5	SB18-39.5	SB19-35	SB19-45	SB19-50	SB-20-5-6	SB-20-10-11	SB-21-8-9	SB-21-13-14
	Sample Date	4/15/2015	4/16/2015	4/16/2015	4/16/2015	4/16/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/20/2015	4/20/2015	4/20/2015	3/8/2022	3/8/2022	3/7/2022	3/7/2022
	Start Depth (feet)	41	26	40	46	26	40	43.5	26	36.5	39.5	35	45	50	5	10	8	13
	End Depth (feet)	41	26	40	46	26	40	43.5	26	36.5	39.5	35	45	50	6	11	9	14
Analyte	**Soil PCUL - Saturated**																	
Chrysene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	0.0021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total cPAH TEQ (ND=0.5RL)	0.000016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (PCBs) (mg/kg)																		
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.00000055	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																		
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.000026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorononanoic acid (PFNA)	0.0000048	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.0000099	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

| Analyte | Soil PCUL - Saturated | | |

	Location ID	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-30	SB-30	SB-31	SB-32	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37
	Sample ID	SB-22-4-5	SB-23-10-11	SB-24-6.5-7.5	SB-25-6-7	SB-26-11-12	SB-27-10-11	SB-28-8.5-9	SB-30-7.5-8.5	SB-30-17-18	SB-31-8-9	SB-32-4-5	SB-32-13-14	SB-33-4-5	SB34-13-14	SB35-8-9	SB36-10-11.5	SB37-12.5-13.5
	Sample Date	3/10/2022	3/9/2022	3/8/2022	3/8/2022	3/7/2022	3/7/2022	3/7/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	6/2/2023	6/2/2023	6/2/2023	6/2/2023
	Start Depth (feet)	4	10	6.5	6	11	10	8.5	7.5	17	8	4	13	4	13	8	10	12.5
	End Depth (feet)	5	11	7.5	7	12	11	9	8.5	18	9	5	14	5	14	9	11.5	13.5
Analyte	**Soil PCUL - Saturated**																	
1,3,5-Trimethylbenzene	0.071	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
1,3-Dichlorobenzene	0.0013	0.00055 U	0.00079 U	--	--	--	--	--	--	--	--	--	--	0.00066 U				
1,3-Dichloropropane	0.057	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
1,4-Dichlorobenzene	0.0081	0.00055 U	0.00079 U	--	--	--	--	--	--	--	--	--	--	0.00066 U				
2,2-Dichloropropane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
2-Chloroethyl vinyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U				
2-Chlorotoluene	0.11	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
2-Hexanone	0.012	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U				
4-Chlorotoluene	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
4-Isopropyltoluene	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
Acetone	2.1	--	--	--	--	--	--	--	--	--	--	--	--	**0.0467**				
Acrolein	0.00032	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U				
Acrylonitrile	0.0000083	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U				
Benzene	0.00056	--	--	--	--	--	--	--	--	--	--	--	--	**0.00030 J**				
Bromobenzene	0.033	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
Bromochloromethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
Bromoethane	NE	--	--	--	--	--	--	--	--	--	--	--	--					
Bromoform	0.005	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
Bromomethane	0.0033	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
Carbon Disulfide	0.25	--	--	--	--	--	--	--	--	--	--	--	--	**0.00625**				
Carbon Tetrachloride	0.00015	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U				
Chlorobenzene	0.051	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Chloroethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00132 U	--	--	--	--
Chloroform	0.0048	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Chloromethane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
cis-1,2-Dichloroethylene	0.0052	0.00055 U	0.00079 U	**0.0547**	**0.00115**	0.00061 U	0.00062 U	0.00101 U	0.00130 U	0.00061 U	0.00089 U	**0.00032 J**	0.00090 U	**0.00240**	0.00096 U	0.00097 U	0.00111 U	0.00145 U
cis-1,3-Dichloropropene	0.00014	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Dibromochloromethane	0.0007	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Dibromomethane	0.028	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Dichlorobromomethane	0.00089	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Dichlorodifluoromethane	0.53	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Ethylbenzene	0.01	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Hexachlorobutadiene	0.000011	0.00273 U	0.00396 U	--	--	--	--	--	--	--	--	--	--	0.00330 U	--	--	--	--
Isopropylbenzene	0.79	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Methyl ethyl ketone (MEK)	1.4	--	--	--	--	--	--	--	--	--	--	--	--	**0.0207**	--	--	--	--
Methyl Iodide	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Methyl isobutyl ketone	0.19	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U	--	--	--	--
Methyl tert-butyl ether	0.0072	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Methylene Chloride	0.0015	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U	0.00479 U	0.00485 U	0.00553 U	0.00724 U
Naphthalene	0.0021	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U	--	--	--	--
n-Butylbenzene	0.71	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
n-Propylbenzene	0.88	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Sec-Butylbenzene	1.3	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Styrene	0.12	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Tert-Butylbenzene	1	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Tetrachloroethylene	0.0016	--	--	--	--	--	--	--	--	--	--	--	--	**0.00034 J**	--	--	--	--
Toluene	0.044	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
trans-1,2-Dichloroethylene	0.032	0.00055 U	0.00079 U	**0.00054 J**	0.00064 U	0.00061 U	0.00062 U	0.00101 U	0.00130 U	0.00061 U	0.00089 U	0.00085 U	0.00090 U	0.00066 U	0.00096 U	0.00097 U	0.00111 U	0.00145 U
trans-1,3-Dichloropropene	0.00014	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U	--	--	--	--
Trichloroethylene	0.00027	0.00055 U	0.00079 U	**0.0284**	**0.00311**	0.00061 U	0.00062 U	0.00101 U	0.00130 U	0.00061 U	0.00089 U	0.00085 U	0.00090 U	**0.0993**	0.00096 U	0.00097 U	0.00111 U	0.00145 U
Trichlorofluoromethane	0.79	--	--	--	--	--	--	--	--	--	--	--	--	0.00132 U	--	--	--	--
Vinyl Acetate	2.3	--	--	--	--	--	--	--	--	--	--	--	--	0.00330 U	--	--	--	--
Vinyl Chloride	0.000056	0.00055 U	0.00079 U	0.00078 U	0.00064 U	0.00061 U	0.00062 U	0.00101 U	0.00130 U	0.00061 U	0.00089 U	0.00085 U	0.00090 U	0.00066 U	0.00096 U	0.00097 U	0.00111 U	0.00145 U
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00132 U	--	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.00066 U	--	--	--	--
Total Xylenes	0.055	--	--	--	--	--	--	--	--	--	--	--	--	0.00132 U	--	--	--	--
Semivolatile Compounds (SVOCs) (mg/kg)																		
1,2,4-Trichlorobenzene	0.0019	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
1,2-Dichlorobenzene	0.003	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
1,3-Dichlorobenzene	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--

	Location ID	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-30	SB-30	SB-31	SB-32	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37
	Sample ID	SB-22-4-5	SB-23-10-11	SB-24-6.5-7.5	SB-25-6-7	SB-26-11-12	SB-27-10-11	SB-28-8.5-9	SB-30-7.5-8.5	SB-30-17-18	SB-31-8-9	SB-32-4-5	SB-32-13-14	SB-33-4-5	SB34-13-14	SB35-8-9	SB36-10-11.5	SB37-12.5-13.5
	Sample Date	3/10/2022	3/9/2022	3/8/2022	3/8/2022	3/7/2022	3/7/2022	3/7/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	6/2/2023	6/2/2023	6/2/2023	6/2/2023
	Start Depth (feet)	4	10	6.5	6	11	10	8.5	7.5	17	8	4	13	4	13	8	10	12.5
	End Depth (feet)	5	11	7.5	7	12	11	9	8.5	18	9	5	14	5	14	9	11.5	13.5
Analyte	**Soil PCUL - Saturated**																	
1,4-Dichlorobenzene	0.0081	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
1,4-Dioxane	0.00013	--	--	--	--	--	--	--	--	--	--	--	--	--	0.335 U	0.335 U	0.335 U	1 U
2,2'-Oxybis[1-chloropropane]	0.12	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
2,4,5-Trichlorophenol	0.00007	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2,4,6-Trichlorophenol	0.0053	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2,4-Dichlorophenol	0.0043	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2,4-Dimethylphenol	0.0023	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2,4-Dinitrophenol	0.0092	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--
2,4-Dinitrotoluene	0.00016	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2,6-Dinitrotoluene	0.000051	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2-Chloronaphthalene	0.28	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
2-Chlorophenol	0.011	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
2-methylphenol	0.0064	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
2-Nitroaniline	0.064	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
3,3'-Dichlorobenzidine	0.000002	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
4,6-Dinitro-2-Methylphenol	0.0073	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
4-Chloro-3-Methylphenol	0.028	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
4-Chloroaniline	0.00017	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0499 U	--	--	--	--
4-methylphenol	0.062	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
4-Nitroaniline	0.0013	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
Benzoic Acid	0.17	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--
Benzyl Alcohol	0.017	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Bis(2-Chloroethyl)Ether	0.000014	--	--	--	--	--	--	--	--	--	--	--	--	0.0499 U	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.0051	--	--	--	--	--	--	--	--	--	--	--	--	**0.0122 J**	--	--	--	--
Butyl benzyl Phthalate	0.00018	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Dibutyl Phthalate	0.015	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Diethyl Phthalate	0.034	--	--	--	--	--	--	--	--	--	--	--	--	0.0499 U	--	--	--	--
Dimethyl Phthalate	0.019	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Di-N-Octyl Phthalate	0.33	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Hexachlorobenzene	0.0000004	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Hexachlorobutadiene	0.000011	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Hexachlorocyclopentadiene	0.0017	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
Hexachloroethane	0.0000097	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Isophorone	0.032	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Nitrobenzene	0.0065	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
N-Nitrosodi-n-propylamine	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
N-Nitrosodiphenylamine	0.0016	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Pentachlorophenol	0.0000018	--	--	--	--	--	--	--	--	--	--	--	--	0.0999 U	--	--	--	--
Phenol	0.048	--	--	--	--	--	--	--	--	--	--	--	--	0.0200 U	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (mg/kg)																		
1-Methylnaphthalene	0.0042	--	**0.00463 J**	--	--	0.00499 U	--	--	--	--	--	--	--	**0.00068 J**	0.00500 U	0.00497 U	0.00497 U	0.00500 U
2-Methylnaphthalene	0.039	--	**0.00561**	--	--	**0.00523**	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	**0.00124 J**	0.00500 U
Acenaphthene	0.028	--	**0.00179 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	**0.00060 J**	0.00500 U
Acenaphthylene	1.3	--	0.00499 U	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Anthracene	0.051	--	**0.00215 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Benzo(a)anthracene	NE	--	**0.00370 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Benzo(a)pyrene	0.000016	--	**0.00300 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Benzo(b)fluoranthene	NE	--	**0.00427 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Benzo(g,h,i)perylene	0.67	--	**0.00385 J**	--	--	**0.00142 J**	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	**0.00340 J**
Benzo(j,k)fluoranthene	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(j)fluoranthene	NE	--	**0.00200 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Benzo(k)fluoranthene	NE	--	**0.00188 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Benzofluoranthenes (Total)	3.2	--	**0.00800 J**	--	--	0.00997 U	--	--	--	--	--	--	--	0.00999 U	0.0100 U	0.00994 U	0.00994 U	0.0100 U

	Location ID	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-30	SB-30	SB-31	SB-32	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37
	Sample ID	SB-22-4-5	SB-23-10-11	SB-24-6.5-7.5	SB-25-6-7	SB-26-11-12	SB-27-10-11	SB-28-8.5-9	SB-30-7.5-8.5	SB-30-17-18	SB-31-8-9	SB-32-4-5	SB-32-13-14	SB-33-4-5	SB34-13-14	SB35-8-9	SB36-10-11.5	SB37-12.5-13.5
	Sample Date	3/10/2022	3/9/2022	3/8/2022	3/8/2022	3/7/2022	3/7/2022	3/7/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	3/9/2022	6/2/2023	6/2/2023	6/2/2023	6/2/2023
	Start Depth (feet)	4	10	6.5	6	11	10	8.5	7.5	17	8	4	13	4	13	8	10	12.5
	End Depth (feet)	5	11	7.5	7	12	11	9	8.5	18	9	5	14	5	14	9	11.5	13.5
Analyte	**Soil PCUL - Saturated**																	
Chrysene	NE	--	**0.00589**	--	--	**0.00174 J**	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	**0.00210 J**
Dibenzo(a,h)anthracene	NE	--	0.00499 U	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Dibenzofuran	0.029	--	**0.00320 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Fluoranthene	0.09	--	**0.00929**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	**0.00057 J**	**0.00072 J**	**0.00240 J**
Fluorene	0.029	--	**0.00148 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Indeno(1,2,3-c,d)pyrene	NE	--	**0.00319 J**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	0.00497 U	0.00500 U
Naphthalene	0.0021	--	**0.00844**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	0.00497 U	**0.00318 J**	0.00500 U
Phenanthrene	1.5	--	**0.00995**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	**0.00107 J**	**0.00120 J**	**0.00177 J**	**0.00346 J**
Pyrene	0.14	--	**0.0106**	--	--	0.00499 U	--	--	--	--	--	--	--	0.00499 U	0.00500 U	**0.00064 J**	**0.00068 J**	**0.00458 J**
Total cPAH TEQ (ND=0.5RL)	0.000016	--	**0.00541**	--	--	**0.00426**	--	--	--	--	--	--	--	0.00427 U	0.004275 U	0.00425 U	0.00425 U	**0.00427 J**
Polychlorinated Biphenyls (PCBs) (mg/kg)																		
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
Total PCB Aroclors	0.00000055	--	--	--	--	--	--	--	--	--	--	--	--	0.0198 U	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (mg/kg)																		
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
6:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
8:2 FTS	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	--	--	--	--	--	--	**0.000089 J**	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	0.00012	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	0.000026	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorohexanoic acid (PFHxA)	0.0025	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorononanoic acid (PFNA)	0.0000048	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	0.0000099	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorooctanoic acid (PFOA)	0.000004	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	--	--	--	--	--	--	0.0010 U	--	--	--	--

Table K-3

Groundwater Data

Former Precision Engineering Property

Seattle, Washington

Analyte	Groundwater PCUL	MW1-W-35.0-20190	MW1-W-32.0	MW1-W-35.0-20200129	MW1-W-35.0-20200428	MW-1-220427	MW1-230713	MW1-20231205	MW2-W-19.0	MW2-W-15.0-20191216	MW2-W-15.0-20200129	MW2-W-15.0-20200427	MW-2-220422	MW2-230714	MW2-20231206	MW3-W-15.0-20190722	MW3-W-15.0-20191216	MW3-W-15.0-20200129
Location ID		MW1	MW1	MW1	MW1	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW2	MW2	MW2	MW3	MW3	MW3
Sample ID		1-W-35.0-20190	MW1-W-32.0	MW1-W-35.0-20200129	MW1-W-35.0-20200428	MW-1-220427	MW1-230713	MW1-20231205	MW2-W-19.0	MW2-W-15.0-20191216	MW2-W-15.0-20200129	MW2-W-15.0-20200427	MW-2-220422	MW2-230714	MW2-20231206	MW3-W-15.0-20190722	MW3-W-15.0-20191216	MW3-W-15.0-20200129
Sample Date		7/23/2019	12/18/2019	1/29/2020	4/28/2020	4/27/2022	7/13/2023	12/5/2023	7/24/2019	12/16/2019	1/29/2020	4/27/2020	4/22/2022	7/14/2023	12/6/2023	7/22/2019	12/16/2019	1/29/2020
Total Metals (µg/L)																		
Arsenic	8.0	**33.3**	**29.7**	**30.8**	**27.7**	**33.7**	**30.6**	**30.6**	**7.54**	**9.05**	**6.46**	**5.9**	**5.45**	**6.60**	**8.14**	**13.6**	**8.81**	**10.7**
Cadmium	1.2	--	--	--	--	0.1 U	0.100 U	0.200 U	--	--	--	--	0.2 U	1.00 U	**0.0380 J**	--	--	--
Chromium	100	1 U	1 U	1 U	1 U	0.5 U	1.00 U	1.00 U	**9.19**	**8.42**	**7.82**	**8.18**	**9.51**	**11.3**	5.00 U	10 U	1 U	**1.03**
Copper	3.1	5 U	5 U	5 U	5 U	0.5 U	0.500 U	1.00 U	10 U	5 U	5 U	5 U	**0.674 J**	5.00 U	**0.553**	50 U	5 U	5 U
Lead	5.6	--	--	--	--	0.1 U	0.100 U	0.200 U	--	--	--	--	**0.158 J**	1.00 U	**0.103**	--	--	--
Mercury	0.025	--	--	--	--	0.00041 U	**0.00034 J**	**0.00175**	--	--	--	--	**0.00371**	**0.00174**	**0.00368**	--	--	--
Nickel	8.2	--	--	--	--	**0.38 J**	**0.172 J**	**0.166 J**	--	--	--	--	**2.82**	**1.93 J**	**1.75**	--	--	--
Selenium	50	1 U	1 U	1 U	1 U	0.5 U	1.00 U	1.00 U	**9.02**	**10.8**	5 U	**3.53**	**1.06**	5.00 U	**1.46**	1 U	2 U	1 U
Thallium	0.062	--	--	--	--	0.2 U	0.400 U	0.400 U	--	--	--	--	0.4 U	2.00 U	0.400 U	--	--	--
Zinc	81	--	--	--	--	6 U	6.00 U	12.0 U	--	--	--	--	12 U	60.0 U	6.00 U	--	--	--
Dissolved Metals (µg/L)																		
Arsenic	8.0	--	--	--	--	**31.4**	**30.7**	**30.2**	--	--	--	--	**4.72**	**7.15**	**3.61**	--	--	--
Cadmium	1.2	--	--	--	--	0.1 U	0.100 U	0.100 U	--	--	--	--	0.2 U	1.00 U	0.200 U	--	--	--
Chromium	100	--	--	--	--	0.5 U	1.00 U	2.50 U	--	--	--	--	**8.92**	**11.2**	**8.18**	--	--	--
Chromium, Hexavalent	0.046	45 U	45 U	45 U	45 U	13 U	13 U	13 UJ	45 U	135 U	90 U	45 U	13 U	13 U	13 U	45 U	90 U	45 U
Chromium, Trivalent	27	1 U	1 U	1 U	1 U	0.5 U	1.00 U	1.00 U	--	--	--	--	--	--	5.00 U	10 U	1 U	--
Copper	3.1	--	--	--	--	0.5 U	0.500 U	**0.468 J**	--	--	--	--	**0.556 J**	5.00 U	1.00 U	--	--	--
Lead	5.6	--	--	--	--	0.1 U	0.100 U	0.100 U	--	--	--	--	0.2 U	1.00 U	0.100 U	--	--	--
Mercury	0.025	--	--	--	--	0.00041 U	**0.00015 J**	0.00041 U	--	--	--	--	**0.00051**	**0.00071**	--	--	--	--
Nickel	8.2	--	--	--	--	**0.15 J**	**0.135 J**	**0.250 J**	--	--	--	--	**2.61**	**2.25 J**	**1.64**	--	--	--
Selenium	50	--	--	--	--	--	0.500 U	1.00 U	--	--	--	--	--	**4.71 J**	**1.55**	--	--	--
Thallium	0.062	--	--	--	--	--	0.200 U	0.200 U	--	--	--	--	--	2.00 U	0.400 U	--	--	--
Zinc	81	--	--	--	--	--	6.00 U	12.0 U	--	--	--	--	--	60.0 U	12.0 U	--	--	--
Total Petroleum Hydrocarbons (µg/L)																		
Gasoline-range hydrocarbons - HCID	800	--	--	--	--	250 U	250 U	250 U	--	--	--	--	250 U	250 U	250 U	--	--	--
Diesel-range hydrocarbons - HCID	500	--	--	--	--	500 U	500 U	500 U	--	--	--	--	500 U	500 U	500 U	--	--	--
Lube oil-range hydrocarbons - HCID	500	--	--	--	--	1000 U	1000 U	1000 U	--	--	--	--	1000 U	1000 U	1000 U	--	--	--
Total TPH - HCID	500	--	--	--	--	ND	ND	ND	--	--	--	--	ND	ND	ND	--	--	--
Diesel-range hydrocarbons	500	50 U	50 U	50 U	50 U	100 U	--	--	**250**	**450**	**240**	**470**	**241**	--	**119**	**82**	**65**	50 U
Lube oil-range hydrocarbons	500	250 U	250 U	250 U	250 U	200 U	--	--	250 U	**790**	**460**	**660**	200 U	--	200 U	250 U	250 U	250 U
Total TPH	500	ND	ND	ND	ND	ND	--	--	**250**	**1240**	**700**	**1130**	**241**	--	**119**	**82**	**65**	ND
Diesel-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)																		
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Benzene	1.6	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
C12-C13 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
C5-C6 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
C6-C8 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--	--
Decane	NE	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Dodecane	NE	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Hexane	4.1	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Naphthalene	1.4	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Octane	NE	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Pentane	NE	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Toluene	102	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	10 U	--	--	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--	--
Total Xylenes	106	--	--	--	--	--	--	--	--	--	--	--	10 U	--	--	--	--	--

Location ID	MW1	MW1	MW1	MW1	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW2	MW2	MW2	MW3	MW3	MW3
Sample ID	1-W-35.0-20190	MW1-W-32.0	MW1-W-35.0-20200129	MW1-W-35.0-20200428	MW-1-220427	MW1-230713	MW1-20231205	MW2-W-19.0	MW2-W-15.0-20191216	MW2-W-15.0-20200129	MW2-W-15.0-20200427	MW-2-220422	MW2-230714	MW2-20231206	MW3-W-15.0-20190722	MW3-W-15.0-20191216	MW3-W-15.0-20200129
Sample Date	7/23/2019	12/18/2019	1/29/2020	4/28/2020	4/27/2022	7/13/2023	12/5/2023	7/24/2019	12/16/2019	1/29/2020	4/27/2020	4/22/2022	7/14/2023	12/6/2023	7/22/2019	12/16/2019	1/29/2020
Analyte	Groundwater PCUL																
Total Metals (µg/L)																	
Extractable Petroleum Hydrocarbons (EPH) (µg/L)																	
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	40 UJ	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	40 U	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	40 UJ	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	40 U	--	--	--	--	--
C12-C16 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	40 UJ	--	--	--	--	--
C12-C16 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	40 U	--	--	--	--	--
C16-C21 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	40 UJ	--	--	--	--	--
C16-C21 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	40 U	--	--	--	--	--
C21-C34 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	40 UJ	--	--	--	--	--
C21-C34 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	40 U	--	--	--	--	--
Volatile Organic Compounds (VOCs) (µg/L)																	
1,1,1,2-Tetrachloroethane	1.7	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.22	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NE					0.2 U	--	--	--	--	--	--	0.4 U	--	--	--	--	--
1,1,2-Trichloroethane	0.90	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,1-Dichloroethane	7.7	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,1-Dichloroethylene	7.0	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	10 U	10 U	10 U	0.4 U	1.00 U	2.00 U	1 U	1 U	1 U
1,1-Dichloropropene	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,2,3-Trichlorobenzene	6.4	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	10 U	10 U	10 U	1 U	--	--	1 U	1 U	1 U
1,2,3-Trichloropropane	0.00038	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	10 U	10 U	10 U	1 U	--	--	1 U	1 U	1 U
1,2,4-Trichlorobenzene	NE	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	10 U	10 U	10 U	1 U	--	--	1 U	1 U	1 U
1,2,4-Trimethylbenzene	80	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.042	10 U	10 U	10 U	10 U	0.5 U	--	--	100 U	100 U	100 U	100 U	1 U	--	--	10 U	10 U	10 U
1,2-Dibromoethane	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,2-Dichlorobenzene	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,2-Dichloroethane	3.5	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,2-Dichloropropane	3.1	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,3,5-Trimethylbenzene	80	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,3-Dichlorobenzene	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,3-Dichloropropane	160	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
1,4-Dichlorobenzene	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
2,2-Dichloropropane	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
2-Chloroethyl vinyl ether	NE	--	--	--	--	1 U	--	--	--	--	--	--	2 U	--	--	--	--	--
2-Chlorotoluene	160	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
2-Hexanone	40	10 U	10 U	10 U	10 U	5 U	--	--	100 U	100 U	100 U	100 U	10 U	--	--	10 U	10 U	10 U
4-Chlorotoluene	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
4-Isopropyltoluene	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Acetone	7200	50 U	50 U	50 U	50 U	5 U	--	--	500 U	500 U	500 U	500 U	10 U	--	--	50 U	50 U	50 U
Acrolein	1.1	--	--	--	--	5 U	--	--	--	--	--	--	10 U	--	--	--	--	--
Acrylonitrile	7200	--	--	--	--	1 U	--	--	--	--	--	--	2 U	--	--	--	--	--
Benzene	1.1	0.35 U	0.35 U	0.35 U	0.35 U	0.2 U	--	--	3.5 U	3.5 U	3.5 U	3.5 U	0.4 U	--	--	0.35 U	0.35 U	0.35 U
Bromobenzene	64	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Bromochloromethane	NE	--	--	--	--	0.2 U	--	--					0.4 U	--	--	--	--	--
Bromoform	12	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Bromomethane	11	1 U	1 U	1 U	1 U	1 U	--	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U
Carbon Disulfide	800	--	--	--	--	0.2 U	--	--					0.4 U	--	--	--	--	--
Carbon Tetrachloride	0.35	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Chlorobenzene	100	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Chloroethane	14667	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Chloroform	1.2	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Chloromethane	153	10 U	10 U	10 U	10 U	0.5 U	--	--	100 U	100 U	100 U	100 U	1 U	--	--	10 U	10 U	10 U
cis-1,2-Dichloroethylene	16	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	10 U	10 U	10 U	0.4 U	1.00 U	2.00 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.44	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Dibromochloromethane	2.2	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Dibromomethane	80	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Dichlorobromomethane	1.4	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Dichlorodifluoromethane	4.2	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Ethylbenzene	21	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Hexachlorobutadiene	NE	1 U	1 U	1 U	1 U	2 U	--	--	10 U	10 U	10 U	10 U	4 U	--	--	1 U	1 U	1 U
Hexane	NE	1 U	1 U	1 U	1 U		--	--	10 U	10 U	10 U	10 U	--	--	--	1 U	1 U	1 U
Isopropylbenzene	800	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Methyl ethyl ketone (MEK)	4800	10 U	10 U	10 U	10 U	5 U	--	--	100 U	100 U	100 U	100 U	10 U	--	--	10 U	10 U	10 U
Methyl Iodide	NE	--	--	--	--	1 U	--	--	--	--	--	--	2 U	--	--	--	--	--
Methyl isobutyl ketone	640	10 U	10 U	10 U	10 U	5 U	--	--	100 U	100 U	100 U	100 U	10 U	--	--	10 U	10 U	10 U
Methyl tert-butyl ether	24	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	10 U	10 U	10 U	1 U	--	--	1 U	1 U	1 U

Location ID		MW1	MW1	MW1	MW1	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW2	MW2	MW2	MW3	MW3	MW3
Sample ID		1-W-35.0-20190	MW1-W-32.0	MW1-W-35.0-20200129	MW1-W-35.0-20200428	MW1-1-220427	MW1-230713	MW1-20231205	MW2-W-19.0	MW2-W-15.0-20191216	MW2-W-15.0-20200129	MW2-W-15.0-20200427	MW2-2-220422	MW2-230714	MW2-20231206	MW3-W-15.0-20190722	MW3-W-15.0-20191216	MW3-W-15.0-20200129
Sample Date		7/23/2019	12/18/2019	1/29/2020	4/28/2020	4/27/2022	7/13/2023	12/5/2023	7/24/2019	12/16/2019	1/29/2020	4/27/2020	4/22/2022	7/14/2023	12/6/2023	7/22/2019	12/16/2019	1/29/2020
Analyte	Groundwater PCUL																	
Total Metals (µg/L)																		
Methylene Chloride	5.0	5 U	5 U	5 U	5 U	1 U	1.00 U	1.00 U	50 U	50 U	50 U	50 U	2 U	5.00 U	**5.80 J**	5 U	5 U	5 U
Naphthalene	1.4	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	10 U	10 U	10 U	1 U	--	--	1 U	1 U	1 U
n-Butylbenzene	400	--	--	--	--	0.2 U	--	--	--	--	--	--	0.4 U	--	--	--	--	--
n-Propylbenzene	800	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Sec-Butylbenzene	800	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Styrene	100	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Tert-Butylbenzene	800	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Tetrachloroethylene	2.9	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Toluene	102	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
trans-1,2-Dichloroethylene	77	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	10 U	10 U	10 U	0.4 U	1.00 U	2.00 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	0.44	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	1 U	--	--	--	--	--	--	2 U	--	--	--	--	--
Trichloroethylene	0.70	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	10 U	10 U	10 U	0.4 U	1.00 U	2.00 U	1 U	1 U	1 U
Trichlorofluoromethane	120	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Vinyl Acetate	7809	--	--	--	--	0.2 U	--	--	--	--	--	--	0.4 U	--	--	--	--	--
Vinyl Chloride	0.18	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	2 U	2 U	2 U	2 U	0.4 U	1.00 U	2.00 U	0.2 U	0.2 U	0.2 U
Xylene, m-,p-	NE	2 U	2 U	2 U	2 U	0.4 U	--	--	20 U	20 U	20 U	20 U	0.8 U	--	--	2 U	2 U	2 U
Xylene, o-	NE	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	10 U	10 U	10 U	0.4 U	--	--	1 U	1 U	1 U
Total Xylenes	106	2 U	2 U	2 U	2 U	0.6 U	--	--	20 U	20 U	20 U	20 U	1.2 U	--	--	2 U	2 U	2 U
Semivolatile Compounds (SVOCs) (µg/L)																		
1,2,4-Trichlorobenzene	0.96	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
1,2-Dichlorobenzene	4.5	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
1,3-Dichlorobenzene	2.0	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
1,4-Dichlorobenzene	5.0	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
1,4-Dioxane	0.44	--	--	--	--	0.2 U	0.2 U	0.2 UJ	--	--	--	--	**0.9**	**0.3**	**0.3 J**	--	--	--
2,2'-Oxybis[1-chloropropane]	NE	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
2,4,5-Trichlorophenol	0.037	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2,4,6-Trichlorophenol	8.0	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2,4-Dichlorophenol	10	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2,4-Dimethylphenol	2.9	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2,4-Dinitrophenol	32	--	--	--	--	--	--	--	--	--	--	--	2 U	--	--	--	--	--
2,4-Dinitrotoluene	0.18	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2-Chloronaphthalene	100	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
2-Chlorophenol	17	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
2-methylphenol	11	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
2-Nitroaniline	160	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
3,3'-Dichlorobenzidine	0.0033	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	7.0	--	--	--	--	--	--	--	--	--	--	--	2 U	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
4-Chloro-3-Methylphenol	36	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
4-Chloroaniline	0.44	--	--	--	--	--	--	--	--	--	--	--	1 UJ	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
4-methylphenol	106	--	--	--	--	--	--	--	--	--	--	--	**0.04 J**	--	--	--	--	--
4-Nitroaniline	4.4	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
Benzoic Acid	589	--	--	--	--	--	--	--	--	--	--	--	**0.4 J**	--	--	--	--	--
Benzyl Alcohol	56	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.040	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.046	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Butyl benzyl Phthalate	0.013	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Dibutyl Phthalate	8.0	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Diethyl Phthalate	93	--	--	--	--	--	--	--	--	--	--	--	**0.3**	--	--	--	--	--
Dimethyl Phthalate	59	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Di-N-Octyl Phthalate	2.3	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Hexachlorobenzene	0.000005	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Hexachlorobutadiene	0.010	--	--	--	--	--	--	--	--	--	--	--	0.2 UJ	--	--	--	--	--
Hexachlorocyclopentadiene	1.0	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
Hexachloroethane	0.020	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Isophorone	92	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Nitrobenzene	16	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.013	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
N-Nitrosodiphenylamine	0.55	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--

Analyte	Location ID / Sample ID / Sample Date	Groundwater PCUL	MW1 / MW1-W-35.0-20190 / 7/23/2019	MW1 / MW1-W-32.0 / 12/18/2019	MW1 / MW1-W-35.0-20200129 / 1/29/2020	MW1 / MW1-W-35.0-20200428 / 4/28/2020	MW1 / MW-1-220427 / 4/27/2022	MW1 / MW1-230713 / 7/13/2023	MW1 / MW1-20231205 / 12/5/2023	MW2 / MW2-W-19.0 / 7/24/2019	MW2 / MW2-W-15.0-20191216 / 12/16/2019	MW2 / MW2-W-15.0-20200129 / 1/29/2020	MW2 / MW2-W-15.0-20200427 / 4/27/2020	MW2 / MW-2-220422 / 4/22/2022	MW2 / MW2-230714 / 7/14/2023	MW2 / MW2-20231206 / 12/6/2023	MW3 / MW3-W-15.0-20190722 / 7/22/2019	MW3 / MW3-W-15.0-20191216 / 12/16/2019	MW3 / MW3-W-15.0-20200129 / 1/29/2020
Total Metals (µg/L)																			
Pentachlorophenol		0.0020	--	--	--	--	--	--	--	--	--	--	--	1 U	--	--	--	--	--
Phenol		101	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)																			
1-Methylnaphthalene		1.5	--	--	--	--	--	0.010 U	0.010 U	--	--	--	--	**0.014**	0.010 U	0.010 U	--	--	--
2-Methylnaphthalene		14	--	--	--	--	--	0.010 U	0.010 U	--	--	--	--	**0.01 J**	0.010 U	0.010 U	--	--	--
Acenaphthene		5.3	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	**0.05**	0.04 U	0.04 U	**0.057**	**0.073**	**0.056**	**0.036**	0.04 U	0.04 U	0.04 U
Acenaphthylene		NE	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.01**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Anthracene		2.1	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.009 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Benzo(a)anthracene		0.00016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.0009 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Benzo(a)pyrene		0.000016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Benzo(b)fluoranthene		0.00016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Benzo(g,h,i)perylene		NE	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Benzo(j)fluoranthene		NE	--	--	--	--	--	0.010 U	0.010 U			--	--	0.01 U	0.010 U	0.010 U	--	--	--
Benzo(k)fluoranthene		0.0016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Benzofluoranthenes (Total)		NE	--	--	--	--	--	0.020 U	0.020 U	--	--	--	--	0.01 U	0.020 U	0.020 U	--	--	--
Carbazole		NE	--	--	--	--	--	0.010 U	0.010 U	--	--	--	--	**0.034**	**0.012**	**0.010**	--	--	--
Chrysene		0.016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Dibenzo(a,h)anthracene		0.000016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Dibenzofuran		3.1	--	--	--	--	--	0.010 U	0.010 U	--	--			**0.005 J**	0.010 U	0.010 U	--	--	--
Fluoranthene		1.8	0.04 U	**0.04**	0.04 U	**0.061**	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.009 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Fluorene		3.7	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.017**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Indeno(1,2,3-c,d)pyrene		0.00016	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Naphthalene		1.4	0.4 U	0.4 U	0.4 U	0.4 U	--	0.010 U	0.010 U	0.4 U	0.4 U	0.4 U	0.4 U	**0.042**	0.010 U	**0.019**	0.4 U	0.4 U	0.4 U
Perylene		NE	--	--	--	--	--	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--
Phenanthrene		NE	0.04 U	0.04 U	0.04 U	0.04 U	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.046**	**0.007 J**	**0.006 J**	0.04 U	0.04 U	0.04 U
Pyrene		2.0	0.04 U	0.04 U	0.04 U	**0.041**	--	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.009 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U
Total cPAH TEQ (ND=0.5RL)		0.0097	0.0302 U	0.0302 U	0.0302 U	0.0302 U	--	0.00855 U	0.00855 U	0.0302 U	0.0302 U	0.0302 U	0.0302 U	**0.00761 J**	0.00855 U	0.00855 U	0.0302 U	0.0302 U	0.0302 U
Polychlorinated Biphenyls (PCBs) (µg/L)																			
PCB-Aroclor 1016		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1221		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1232		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1242		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1248		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1254		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1260		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1262		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
PCB-Aroclor 1268		NE	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
Total PCB Aroclors		0.000007	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)																			
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
6:2 FTS		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	**0.0017 J**	--	--	--
8:2 FTS		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
NEtFOSAA		NE	--	--	--	--	**0.0034 J**	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
N-ethylperfluoro-1-octanesulfonamide		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
NMeFOSAA		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
N-methylperfluoro-1-octanesulfonamide		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorobutanesulfonic acid (PFBS)		NE	--	--	--	--	**0.00051 J**	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorodecanesulfonic acid (PFDS)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorodecanoic acid (PFDA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorododecanoic acid (PFDoA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluoroheptanoic acid (PFHpA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	**0.0032 J**	--	--	--
Perfluorohexanesulfonic acid (PFHxS)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorohexanoic acid (PFHxA)		NE	--	--	--	--	0.0092 U	--	--	--	--	--	--	--	--	0.0098 U	--	--	--
Perfluorononanoic acid (PFNA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorooctanesulfonamide (PFOSA)		NE	--	--	--	--	**0.00074 J**	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorooctanesulfonic acid (PFOS)		NE	--	--	--	--	**0.00092 J**	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorooctanoic acid (PFOA)		NE	--	--	--	--	**0.00065 J**	--	--	--	--	--	--	--	--	**0.0045**	--	--	--
Perfluoropentanoic acid (PFPeA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	**0.023 J**	--	--	--
Perfluorotetradecanoic acid (PFTeA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluorotridecanoic acid (PFTrDA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--
Perfluoroundecanoic acid (PFUnA)		NE	--	--	--	--	0.004 U	--	--	--	--	--	--	--	--	0.0049 U	--	--	--

Analyte	Groundwater PCUL	Location ID	MW3	MW3	MW3	MW3	MW4	MW4	MW4	MW4	MW4	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW5
		Sample ID	MW3-W-15.0-20200427	MW3-220420	MW3-230713	MW3-20231205	MW4-W-20.0-20190723	MW4-W-20.0-20191217	MW4-W-50.0	MW4-W-20.0-20200428	MW-4-220422	MW4-230721	MW4-20231206	MW5-W-15.0-20190723	MW5-W-15.0-20191217	MW5-W-15.0-20200130	MW5-W-15.0-20200428	MW-5-220422	MW5-230720
		Sample Date	4/27/2020	4/20/2022	7/13/2023	12/5/2023	7/23/2019	12/17/2019	1/30/2020	4/28/2020	4/22/2022	7/21/2023	12/6/2023	7/23/2019	12/17/2019	1/30/2020	4/28/2020	4/22/2022	7/20/2023
Total Metals (µg/L)																			
Arsenic	8.0		**7.33**	**11.3**	**10.9**	**11.3**	**12.6**	**13.5**	**12**	**10.6**	**12.2**	**11.9**	**11.7**	10 U	**6.19**	10 U	**5.37**	**3.48**	**4.16**
Cadmium	1.2		--	0.1 U	0.500 U	**0.0640 J**	--	--	--	--	0.1 U	0.100 U	**0.0370 J**	--	--	--	--	100 U	0.100 U
Chromium	100		1 U	**1.09**	**1.14**	**0.862 J**	1 U	1 U	1 U	1 U	0.5 U	2.50 U	1.00 U	**132000**	**38900**	**42200**	**44600**	**133000**	**115000**
Copper	3.1		5 U	0.5 U	0.500 U	1.00 U	5 U	5 U	5 U	5 U	**0.707**	**0.295 J**	**0.340 J**	1000 U	5 U	50 U	25 U	**1.4**	**1.10**
Lead	5.6		--	0.1 U	0.100 U	0.200 U	--	--	--	--	0.1 U	0.100 U	**0.0720 J**	--	--	--	--	0.1 U	10.0 U
Mercury	0.025		--	0.00042 U	0.00042 U	**0.00024 J**	--	--	--	--	**0.00038 J**	0.00041 U	**0.00032 J**	--	--	--	--	**0.0283**	**0.0182**
Nickel	8.2		--	**3.55**	**2.53**	**3.38**	--	--	--	--	**1.26**	**0.647**	**0.497 J**	--	--	--	--	**12.5 J**	**7.46**
Selenium	50		1 U	0.5 U	1.00 U	1.00 U	1 U	2 U	1 U	1 U	0.5 U	**0.187 J**	0.500 U	200 U	1 U	10 U	5 U	0.5 U	0.500 U
Thallium	0.062		--	0.2 U	0.400 U	0.400 U	--	--	--	--	0.2 U	0.200 U	0.400 U	--	--	--	--	200 U	20.0 U
Zinc	81		--	6 U	6.00 U	**57.4**	--	--	--	--	6 U	6.00 U	6.00 U	--	--	--	--	6 U	6.00 U
Dissolved Metals (µg/L)																			
Arsenic	8.0		--	**10.7**	**11.7**	**10.3**	--	--	--	--	**11.8**	**11.2**	**11.7**	--	--	--	--	200 U	**4.90**
Cadmium	1.2		--	0.1 U	0.100 U	0.200 U	--	--	--	--	0.1 U	0.100 U	0.200 U	--	--	--	--	100 U	**0.0610 J**
Chromium	100		--	**1.24**	**1.81 J**	2.50 U	--	--	--	--	0.5 U	0.500 U	1.00 UJ	--	--	--	--	**134000**	**115000 J**
Chromium, Hexavalent	0.046		45 U	13 UJ	13 U	13 U	45 U	45 U	45 U	45 U	13 U	13 U	13 U	**117000 J**	**31600**	**36200**	**38500**	**136000**	**163000 J**
Chromium, Trivalent	27		1 U	--	--	--	1 U	1 U	1 U	1 U	0.5 U	2.50 U	1.00 U	--	--	--	--	ND	ND
Copper	3.1		--	0.5 U	0.500 U	**0.738 J**	--	--	--	--	**0.503**	**0.896**	**1.30**	--	--	--	--	500 U	**0.863**
Lead	5.6		--	0.1 U	0.100 U	0.500 U	--	--	--	--	0.1 U	0.100 U	0.200 U	--	--	--	--	100 U	10.0 U
Mercury	0.025		--	0.00041 U	0.00042 U	0.00105 U	--	--	--	--	0.00041 U	0.00041 U	**0.00018 J**	--	--	--	--	**0.0252**	**0.0127**
Nickel	8.2		--	**2.31**	**2.90**	**2.86**	--	--	--	--	**0.246 J**	**0.227 J**	**0.376 J**	--	--	--	--	500 U	**4.84**
Selenium	50		--	--	0.500 U	1.00 U	--	--	--	--	--	0.500 U	1.00 U	--	--	--	--	--	**0.642**
Thallium	0.062		--	--	0.200 U	1.00 U	--	--	--	--	--	0.200 U	0.400 U	--	--	--	--	--	20.0 U
Zinc	81		--	--	6.00 U	12.0 U	--	--	--	--	--	6.00 U	12.0 U	--	--	--	--	--	6.00 U
Total Petroleum Hydrocarbons (µg/L)																			
Gasoline-range hydrocarbons - HCID	800		--	250 U	250 U	250 U	--	--	--	--	250 U	250 U	250 U	--	--	--	--	250 U	250 U
Diesel-range hydrocarbons - HCID	500		--	500 U	500 U	500 U	--	--	--	--	500 U	500 U	500 U	--	--	--	--	500 U	500 U
Lube oil-range hydrocarbons - HCID	500		--	1000 U	1000 U	1000 U	--	--	--	--	1000 U	1000 U	1000 U	--	--	--	--	1000 U	1000 U
Total TPH - HCID	500		--	ND	ND	ND	--	--	--	--	ND	ND	ND	--	--	--	--	ND	ND
Diesel-range hydrocarbons	500		**92**	100 U	--	--	50 U	50 U	50 U	50 U	100 U	--	--	**93**	**58**	**94**	**130**	**101**	--
Lube oil-range hydrocarbons	500		250 U	200 U	--	--	250 U	250 U	200 U	250 U	200 U	--	--	250 U	250 U	250 U	250 U	200 U	--
Total TPH	500		**92**	ND	--	--	ND	ND	ND	ND	ND	--	--	**93**	**58**	**94**	**130**	**101**	--
Diesel-range hydrocarbons - w/SGC	500		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	500		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	500		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)																			
1-Methylnaphthalene	1.5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	1.6		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C13 Aromatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C5-C6 Aliphatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C6-C8 Aliphatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aliphatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decane	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dodecane	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	21		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	4.1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	24		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	1.4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octane	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentane	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	102		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, m-,p-	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, o-	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	106		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Location ID / Sample ID / Sample Date	Groundwater PCUL	MW3 MW3-W-15.0-20200427 4/27/2020	MW3 MW3-220420 4/20/2022	MW3 MW3-230713 7/13/2023	MW3 MW3-20231205 12/5/2023	MW4 MW4-W-20.0-20190723 7/23/2019	MW4 MW4-W-20.0-20191217 12/17/2019	MW4 MW4-W-50.0 1/30/2020	MW4 MW4-W-20.0-20200428 4/28/2020	MW4 MW-4-220422 4/22/2022	MW4 MW4-230721 7/21/2023	MW4 MW4-20231206 12/6/2023	MW5 MW5-W-15.0-20190723 7/23/2019	MW5 MW5-W-15.0-20191217 12/17/2019	MW5 MW5-W-15.0-20200130 1/30/2020	MW5 MW5-W-15.0-20200428 4/28/2020	MW5 MW-5-220422 4/22/2022	MW5 MW5-230720 7/20/2023
Total Metals (µg/L)																			
Extractable Petroleum Hydrocarbons (EPH) (µg/L)																			
C8-C10 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C8-C10 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C10-C12 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C10-C12 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C12-C16 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C12-C16 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C16-C21 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C16-C21 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C21-C34 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--						
C21-C34 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--						
Volatile Organic Compounds (VOCs) (µg/L)																			
1,1,1,2-Tetrachloroethane		1.7	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,1,1-Trichloroethane		200	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	**0.19 J**	
1,1,2,2-Tetrachloroethane		0.22	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)		NE	--	0.2 U	--	--	--	--	--	--	0.2 U	--	--					0.2 U	
1,1,2-Trichloroethane		0.90	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,1-Dichloroethane		7.7	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,1-Dichloroethylene		7.0	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	5 U	1 U	1 U	0.2 U	0.20 U
1,1-Dichloropropene		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,2,3-Trichlorobenzene		6.4	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	5 U	1 U	1 U	0.5 U	
1,2,3-Trichloropropane		0.00038	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	5 U	1 U	1 U	0.5 U	
1,2,4-Trichlorobenzene		NE	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	5 U	1 U	1 U	0.5 U	
1,2,4-Trimethylbenzene		80	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	**0.11 J**	
1,2-Dibromo-3-Chloropropane		0.042	10 U	0.5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	100 U	50 U	10 U	10 U	0.5 U	
1,2-Dibromoethane		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,2-Dichlorobenzene		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,2-Dichloroethane		3.5	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,2-Dichloropropane		3.1	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,3,5-Trimethylbenzene		80	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,3-Dichlorobenzene		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,3-Dichloropropane		160	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
1,4-Dichlorobenzene		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
2,2-Dichloropropane		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
2-Chloroethyl vinyl ether		NE	--	1 U	--	--	--	--	--	--	1 U	--	--					1 U	
2-Chlorotoluene		160	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
2-Hexanone		40	10 U	5 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	100 U	50 U	10 U	10 U	5 U	
4-Chlorotoluene		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
4-Isopropyltoluene		NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Acetone		7200	50 U	5 U	--	--	50 U	50 U	50 U	50 U	5 U	--	--	500 U	250 U	50 U	50 U	**7.84**	
Acrolein		1.1	--	5 U	--	--	--	--	--	--	5 U	--	--					5 U	
Acrylonitrile		7200	--	1 U	--	--	--	--	--	--	1 U	--	--					1 U	
Benzene		1.1	0.35 U	0.2 U	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.2 U	--	--	3.5 U	1.7 U	0.35 U	0.35 U	0.2 U	
Bromobenzene		64	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Bromochloromethane		NE	--	0.2 U	--	--					0.2 U	--	--					0.2 U	
Bromoform		12	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Bromomethane		11	1 U	1 U	--	--	1 U	1 U	1 U	1 U	1 U	--	--	10 U	5 U	1 U	1 U	1 U	
Carbon Disulfide		800	--	0.2 U	--	--	--	--	--	--	0.2 U	--	--					0.2 U	
Carbon Tetrachloride		0.35	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Chlorobenzene		100	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Chloroethane		14667	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Chloroform		1.2	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	**0.14 J**	
Chloromethane		153	10 U	0.5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	100 U	50 U	10 U	10 U	0.5 U	
cis-1,2-Dichloroethylene		16	1 U	0.2 U	**0.08 J**	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	5 U	1 U	1 U	**0.46**	**0.61**
cis-1,3-Dichloropropene		0.44	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Dibromochloromethane		2.2	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Dibromomethane		80	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Dichlorobromomethane		1.4	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Dichlorodifluoromethane		4.2	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Ethylbenzene		21	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Hexachlorobutadiene		NE	1 U	2 U	--	--	1 U	1 U	1 U	1 U	2 U	--	--	10 U	5 U	1 U	1 U	2 U	
Hexane		NE	1 U		--	--	1 U	1 U	1 U	1 U	--	--	--	10 U	5 U	1 U	1 U		
Isopropylbenzene		800	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	
Methyl ethyl ketone (MEK)		4800	10 U	5 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	100 U	50 U	10 U	10 U	5 U	
Methyl Iodide		NE	--	1 U	--	--	--	--	--	--	1 U	--	--	--	--	--	--	1 U	--
Methyl isobutyl ketone		640	10 U	5 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	100 U	50 U	10 U	10 U	5 U	--
Methyl tert-butyl ether		24	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	5 U	1 U	1 U	0.5 U	--

Analyte	Groundwater PCUL	MW3 MW3-W-15.0-20200427 4/27/2020	MW3 MW3-220420 4/20/2022	MW3 MW3-230713 7/13/2023	MW3 MW3-20231205 12/5/2023	MW4 MW4-W-20.0-20190723 7/23/2019	MW4 MW4-W-20.0-20191217 12/17/2019	MW4 MW4-W-50.0 1/30/2020	MW4 MW4-W-20.0-20200428 4/28/2020	MW4 MW4-220422 4/22/2022	MW4 MW4-230721 7/21/2023	MW4 MW4-20231206 12/6/2023	MW5 MW5-W-15.0-20190723 7/23/2019	MW5 MW5-W-15.0-20191217 12/17/2019	MW5 MW5-W-15.0-20200130 1/30/2020	MW5 MW5-W-15.0-20200428 4/28/2020	MW5 MW5-220422 4/22/2022	MW5 MW5-230720 7/20/2023
Total Metals (µg/L)																		
Methylene Chloride	5.0	5 U	1 U	1.00 U	1.00 U	5 U	5 U	5 U	5 U	1 U	1.00 U	1.00 U	50 U	25 U	5 U	5 U	1 U	1.00 U
Naphthalene	1.4	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	10 U	5 U	1 U	1 U	0.5 U	--
n-Butylbenzene	400	--	0.2 U	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--	0.2 U	--
n-Propylbenzene	800	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	--
Sec-Butylbenzene	800	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	**0.07 J**	--
Styrene	100	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	--
Tert-Butylbenzene	800	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	--
Tetrachloroethylene	2.9	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	**0.1 J**	--
Toluene	102	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	**0.06 J**	--
trans-1,2-Dichloroethylene	77	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	5 U	1 U	1 U	**0.08 J**	0.20 U
trans-1,3-Dichloropropene	0.44	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	--
trans-1,4-Dichloro-2-butene	NE	--	1 U	--	--	--	--	--	--	1 U	--	--	--	--	--	--	1 U	--
Trichloroethylene	0.70	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	10 U	5 U	**3.3**	**3.3**	**6.85**	**9.26**
Trichlorofluoromethane	120	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	--
Vinyl Acetate	7809	--	0.2 U	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--	0.2 U	--
Vinyl Chloride	0.18	0.2 U	0.2 U	0.20 U	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	2 U	1 U	0.2 U	0.2 U	0.2 U	0.20 U
Xylene, m-,p-	NE	2 U	0.4 U	--	--	2 U	2 U	2 U	2 U	0.4 U	--	--	20 U	10 U	2 U	2 U	0.4 U	--
Xylene, o-	NE	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	10 U	5 U	1 U	1 U	0.2 U	--
Total Xylenes	106	2 U	0.6 U	--	--	2 U	2 U	2 U	2 U	0.6 U	--	--	20 U	10 U	2 U	2 U	0.6 U	--
Semivolatile Compounds (SVOCs) (µg/L)																		
1,2,4-Trichlorobenzene	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
1,2-Dichlorobenzene	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
1,3-Dichlorobenzene	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
1,4-Dichlorobenzene	5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
1,4-Dioxane	0.44	--	**0.3**	**0.2**	**0.3**	--	--	--	--	**0.1 J**	0.2 U	0.2 UJ	--	--	--	--	**1.3**	**1.1**
2,2'-Oxybis[1-chloropropane]	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
2,4,5-Trichlorophenol	0.037	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2,4,6-Trichlorophenol	8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2,4-Dichlorophenol	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2,4-Dimethylphenol	2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2,4-Dinitrophenol	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2 U	--
2,4-Dinitrotoluene	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2-Chloronaphthalene	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
2-Chlorophenol	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
2-methylphenol	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
2-Nitroaniline	160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
3,3'-Dichlorobenzidine	0.0033	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
4,6-Dinitro-2-Methylphenol	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2 U	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
4-Chloro-3-Methylphenol	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
4-Chloroaniline	0.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 UJ	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
4-methylphenol	106	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
4-Nitroaniline	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
Benzoic Acid	589	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5 J**	--
Benzyl Alcohol	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.09 J**	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Bis(2-Chloroethyl)Ether	0.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Bis(2-Ethylhexyl) Phthalate	0.046	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Butyl benzyl Phthalate	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Dibutyl Phthalate	8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Diethyl Phthalate	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.3**	--
Dimethyl Phthalate	59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Di-N-Octyl Phthalate	2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Hexachlorobenzene	0.000005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Hexachlorobutadiene	0.010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Hexachlorocyclopentadiene	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 UJ	--
Hexachloroethane	0.020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Isophorone	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Nitrobenzene	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
N-Nitrosodi-n-propylamine	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
N-Nitrosodiphenylamine	0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--

Analyte	Location ID / Sample ID / Sample Date	Groundwater PCUL	MW3 MW3-W-15.0-20200427 4/27/2020	MW3 MW3-220420 4/20/2022	MW3 MW3-230713 7/13/2023	MW3 MW3-20231205 12/5/2023	MW4 MW4-W-20.0-20190723 7/23/2019	MW4 MW4-W-20.0-20191217 12/17/2019	MW4 MW4-W-50.0 1/30/2020	MW4 MW4-W-20.0-20200428 4/28/2020	MW4 MW-4-220422 4/22/2022	MW4 MW4-230721 7/21/2023	MW4 MW4-20231206 12/6/2023	MW5 MW5-W-15.0-20190723 7/23/2019	MW5 MW5-W-15.0-20191217 12/17/2019	MW5 MW5-W-15.0-20200130 1/30/2020	MW5 MW5-W-15.0-20200428 4/28/2020	MW5 MW5-W-5-220422 4/22/2022	MW5 MW5-230720 7/20/2023
Total Metals (µg/L)																			
Pentachlorophenol		0.0020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
Phenol		101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)																			
1-Methylnaphthalene		1.5	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--	**0.012**	**0.011**
2-Methylnaphthalene		14	--	**0.003 J**	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	**0.01 J**	**0.008 J**
Acenaphthene		5.3	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U
Acenaphthylene		NE	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U
Anthracene		2.1	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.003 J**	0.010 U
Benzo(a)anthracene		0.00016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.001 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Benzo(a)pyrene		0.000016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U
Benzo(b)fluoranthene		0.00016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.003 J**	0.010 U
Benzo(g,h,i)perylene		NE	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Benzo(j)fluoranthene		NE	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U
Benzo(k)fluoranthene		0.0016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U
Benzofluoranthenes (Total)		NE	--	0.01 U	0.020 U	0.020 U	--	--	--	--	**0.004 J**	0.020 U	0.020 U	--	--	--	--	**0.006 J**	0.020 U
Carbazole		NE	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	**0.003 J**	0.010 U
Chrysene		0.016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.001 J**	0.010 U
Dibenzo(a,h)anthracene		0.000016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Dibenzofuran		3.1	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	**0.002 J**	0.010 U
Fluoranthene		1.8	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	**0.042**	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Fluorene		3.7	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U
Indeno(1,2,3-c,d)pyrene		0.00016	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Naphthalene		1.4	0.4 U	**0.008 J**	0.010 U	0.010 U	0.4 U	0.4 U	0.4 U	0.4 U	0.01 U	0.010 U	0.010 U	0.4 U	0.4 U	0.4 U	0.4 U	**0.115**	**0.104**
Perylene		NE	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U
Phenanthrene		NE	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.003 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Pyrene		2.0	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U
Total cPAH TEQ (ND=0.5RL)		0.0097	0.0302 U	0.00805 U	0.00855 U	0.00855 U	0.0302 U	0.0302 U	0.0302 U	0.0302 U	**0.00692 J**	0.00855 U	0.00855 U	0.0302 U	0.0302 U	0.0302 U	0.0302 U	**0.00701 J**	0.00855 U
Polychlorinated Biphenyls (PCBs) (µg/L)																			
PCB-Aroclor 1016		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1221		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1232		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1242		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1248		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1254		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1260		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1262		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
PCB-Aroclor 1268		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
Total PCB Aroclors		0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1 U	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)																			
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	**0.00023 J**
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
6:2 FTS		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	**0.032**	**0.029 J**
8:2 FTS		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	**0.00041 J**	0.0048 UJ
NEtFOSAA		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
N-ethylperfluoro-1-octanesulfonamide		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
NMeFOSAA		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
N-methylperfluoro-1-octanesulfonamide		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluorobutanesulfonic acid (PFBS)		NE	--	--	**0.0012 J**	**0.0016 J**	--	--	--	--	--	--	--	--	--	--	--	**0.0005 J**	**0.00049 J**
Perfluorodecanesulfonic acid (PFDS)		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluorodecanoic acid (PFDA)		NE	--	--	**0.0015 J**	**0.0012 J**	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluorododecanoic acid (PFDoA)		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluoroheptanesulfonic Acid (PFHpS)		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	**0.0011 J**	**0.00048 J**
Perfluoroheptanoic acid (PFHpA)		NE	--	--	**0.0083**	**0.011**	--	--	--	--	--	--	--	--	--	--	--	**0.0077**	**0.0067**
Perfluorohexanesulfonic acid (PFHxS)		NE	--	--	**0.0022 J**	**0.0018 J**	--	--	--	--	--	--	--	--	--	--	--	**0.0037 J**	**0.004 J**
Perfluorohexanoic acid (PFHxA)		NE	--	--	0.0094 U	**0.0096**	--	--	--	--	--	--	--	--	--	--	--	**0.011**	**0.0091 J**
Perfluorononanoic acid (PFNA)		NE	--	--	**0.0014 J**	**0.0019 J**	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluorooctanesulfonamide (PFOSA)		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluorooctanesulfonic acid (PFOS)		NE	--	--	**0.008**	**0.0091**	--	--	--	--	--	--	--	--	--	--	--	**0.045**	**0.013**
Perfluorooctanoic acid (PFOA)		NE	--	--	**0.015**	**0.016**	--	--	--	--	--	--	--	--	--	--	--	**0.021**	**0.02**
Perfluoropentanoic acid (PFPeA)		NE	--	--	**0.015**	**0.017**	--	--	--	--	--	--	--	--	--	--	--	**0.022**	**0.016**
Perfluorotetradecanoic acid (PFTeA)		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluorotridecanoic acid (PFTrDA)		NE	--	--	**0.0022 J**	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U
Perfluoroundecanoic acid (PFUnA)		NE	--	--	0.0047 U	0.0047 U	--	--	--	--	--	--	--	--	--	--	--	0.004 U	0.0048 U

Location ID		MW5	MW6	MW6	MW6	MW6	MW6	MW6	MW6	MW7	MW7	MW7	MW7	MW7	MW7	MW7	MW8	MW8
Sample ID		MW5-20231205	MW-6-W-15.0	MW6-W-15.0-20191216	MW6-W-15.0-20200429	MW6-W-15.0-20200427	MW-6-042022	MW6-230721	MW6-20231207	MW7-W-20.0	MW7-W-27.5-20191217	MW7-W-27.5-20200427	MW7-W-28.5	MW-7-04202022	MW7-230724	MW7-20231207	MW-8-W-19.0	MW8-W-15.0-20191217
Sample Date		12/5/2023	7/23/2019	12/16/2019	1/29/2020	4/27/2020	4/20/2022	7/21/2023	12/7/2023	7/24/2019	12/17/2019	4/27/2020	1/29/2020	4/20/2022	7/24/2023	12/7/2023	7/23/2019	12/17/2019
Analyte	**Groundwater PCUL**																	
Total Metals (µg/L)																		
Arsenic	8.0	20.0 U	**42.8**	**46.4**	**48.7**	**48.1**	**42.3**	**38.5**	**45.9**	**8.59**	**9.03**	**8.62**	**8.51**	**7.82**	**8.22**	**8.65**	**20.4**	**22.2**
Cadmium	1.2	10.0 U	--	--	--	--	0.5 U	2.00 U	2.00 U	--	--	v	--	0.1 U	0.100 U	0.500 U		--
Chromium	100	**105000**	**34.5**	**17.4**	**20.3**	**25.9**	**38.5**	**20.2**	**23.4**	**3.01**	**1.75**	5 U	**1.73**	**0.976**	**1.07 J**	2.50 U	**8.82**	10 U
Copper	3.1	50.0 U	**210**	5 U	5 U	25 U	**3.4**	10.0 U	**4.38 J**	10 U	5 U	25 U	**5.87**	**5.06**	**4.35**	**4.83**	**44.7**	50 U
Lead	5.6	10.0 U	--	--	--	--	**0.645**	2.00 U	**1.12 J**	--	--	--	--	**0.067 J**	0.100 U	0.500 U	--	--
Mercury	0.025	**0.0173**	--	--	--	--	**0.00512**	**0.00674**	**0.0105**	--	--	--	--	**0.217**	**0.133**	**0.141**	--	--
Nickel	8.2	50.0 U	--	--	--	--	**31.3**	**3.16 J**	**3.24 J**	--	--	--	--	**11.7**	**11.0**	**10.8**	--	--
Selenium	50	**18.3 J**	**11.8**	**13.5**	**14.3**	**6.15**	**3.75**	**12.4**	**5.82 J**	**6.24**	**8.21**	5 U	5 U	**0.226 J**	1.00 U	**1.30 J**	**2.99**	**3.44**
Thallium	0.062	20.0 U	--	--	--	--	1 U	4.00 U	4.00 U	--	--	--	--	0.2 U	0.200 U	1.00 U	--	--
Zinc	81	600 U	--	--	--	--	30 U	120 U	120 U	--	--	--	--	6 U	12.0 U	30.0 U	--	--
Dissolved Metals (µg/L)																		
Arsenic	8.0	20.0 U	--	--	--	--	**36.5**	**41.0**	**41.2**	--	--	--	--	**7.79**	**8.32**	**7.93**	--	--
Cadmium	1.2	10.0 U	--	--	--	--	0.2 U	2.00 U	2.00 U	--	--	--	--	0.1 U	0.100 U	0.200 U	--	--
Chromium	100	**99900**	--	--	--	--	**22.6**	**20.2**	**21.2**	--	--	--	--	**0.943**	**1.09**	**0.694 J**	--	--
Chromium, Hexavalent	0.046	**89800 J**	45 U	450 U	45 U	225 U	13 UJ	13 U	13 U	45 U	45 U	45 U	45 U	13 UJ	13 U	13 U	45 U	135 U
Chromium, Trivalent	27	**10100 J**	--	--	--	--	--	--	--	--	--	5 U	--	--	--	2.50 U	--	10 U
Copper	3.1	50.0 U	--	--	--	--	1 U	10.0 U	10.0 U	--	--		--	**5.2**	**4.21**	**5.59**	--	--
Lead	5.6	10.0 U	--	--	--	--	0.2 U	2.00 U	2.00 U	--	--		--	0.1 U	0.100 U	0.200 U	--	--
Mercury	0.025	0.00105 U	--	--	--	--	**0.00235**		**0.00390**	--	--		--	**0.127**	**0.111**	**0.127**	--	--
Nickel	8.2	**13.9 J**	--	--	--	--	**11.3**	**2.24 J**	**2.10 J**	--	--		--	**11.8**	**11.2**	**11.2**	--	--
Selenium	50	50.0 U	--	--	--	--		**10.2**	**4.26 J**	--	--		--	--	**0.408 J**	**1.14**	--	--
Thallium	0.062	20.0 U	--	--	--	--		4.00 U	4.00 U	--	--		--	--	0.200 U	0.400 U	--	--
Zinc	81	600 U	--	--	--	--		120 U	120 U	--	--		--	--	6.00 U	12.0 U	--	--
Total Petroleum Hydrocarbons (µg/L)																		
Gasoline-range hydrocarbons - HCID	800	250 U	--	--	--	--	250 U	250 U	250 U	--	--	--	--	250 U	250 U	250 U	--	--
Diesel-range hydrocarbons - HCID	500	500 U	--	--	--	--	500 U	500 U	500 U	--	--	--	--	500 U	500 U	500 U	--	--
Lube oil-range hydrocarbons - HCID	500	1000 U	--	--	--	--	1000 U	1000 U	1000 U	--	--	--	--	1000 U	1000 U	1000 U	--	--
Total TPH - HCID	500	ND	--	--	--	--	ND	ND	ND	--	--	--	--	ND	ND	ND	--	--
Diesel-range hydrocarbons	500	--	**550**	**410**	**370**	**590**	**471**	--	**282**	**80**	**99**	**170**	**88**	100 U	--	--	**370**	**430**
Lube oil-range hydrocarbons	500	--	**580**	**700**	**810**	**550**	**256**	--	**241**	250 U	250 U	250 U	250 U	200 U	--	--	250 U	**260**
Total TPH	500	--	**1130**	**1110**	**1180**	**1140**	**727**	--	**523**	**80**	**99**	**170**	**88**	ND	--	--	**370**	**690**
Diesel-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)																		
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C13 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C5-C6 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C6-C8 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dodecane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	106	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Location ID / Sample ID / Sample Date	Groundwater PCUL	MW5 MW5-20231205 12/5/2023	MW6 MW-6-W-15.0 7/23/2019	MW6 MW6-W-15.0-20191216 12/16/2019	MW6 MW6-W-15.0-20200429 1/29/2020	MW6 MW6-W-15.0-20200427 4/27/2020	MW6 MW-6-042022 4/20/2022	MW6 MW6-230721 7/21/2023	MW6 MW6-20231207 12/7/2023	MW7 MW7-W-20.0 7/24/2019	MW7 MW7-W-27.5-20191217 12/17/2019	MW7 MW7-W-27.5-20200427 4/27/2020	MW7 MW7-W-28.5 1/29/2020	MW7 MW-7-04202022 4/20/2022	MW7 MW7-230724 7/24/2023	MW7 MW7-20231207 12/7/2023	MW8 MW-8-W-19.0 7/23/2019	MW8 MW8-W-15.0-20191217 12/17/2019
Total Metals (µg/L)																			
Extractable Petroleum Hydrocarbons (EPH) (µg/L)																			
C8-C10 Aliphatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aliphatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aromatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aliphatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aromatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aliphatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aromatics	NE			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (µg/L)																			
1,1,1,2-Tetrachloroethane	1.7			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,1,1-Trichloroethane	200			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,1,2,2-Tetrachloroethane	0.22			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NE			--	--	--	--	2 U	--	--					0.2 U	--	--		
1,1,2-Trichloroethane	0.90			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,1-Dichloroethane	7.7			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,1-Dichloroethylene	7.0		0.20 U	10 U	10 U	10 U	10 U	2 U	2.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U
1,1-Dichloropropene	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,2,3-Trichlorobenzene	6.4			10 U	10 U	10 U	10 U	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U
1,2,3-Trichloropropane	0.00038			10 U	10 U	10 U	10 U	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U
1,2,4-Trichlorobenzene	NE			10 U	10 U	10 U	10 U	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U
1,2,4-Trimethylbenzene	80			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,2-Dibromo-3-Chloropropane	0.042			100 U	100 U	100 U	100 U	5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	10 U	100 U
1,2-Dibromoethane	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,2-Dichlorobenzene	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,2-Dichloroethane	3.5			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,2-Dichloropropane	3.1			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,3,5-Trimethylbenzene	80			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,3-Dichlorobenzene	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,3-Dichloropropane	160			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
1,4-Dichlorobenzene	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
2,2-Dichloropropane	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
2-Chloroethyl vinyl ether	NE			--	--	--	--	10 U	--	--					1 U	--	--		--
2-Chlorotoluene	160			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
2-Hexanone	40			100 U	100 U	100 U	100 U	50 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	10 U	100 U
4-Chlorotoluene	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
4-Isopropyltoluene	NE			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Acetone	7200			500 U	500 U	500 U	500 U	50 U	--	--	50 U	50 U	50 U	50 U	5 U	--	--	50 U	500 U
Acrolein	1.1			--	--	--	--	50 U	--	--	--	--	--	--	5 U	--	--		--
Acrylonitrile	7200			--	--	--	--	10 U	--	--	--	--	--	--	1 U	--	--		--
Benzene	1.1			3.5 U	3.5 U	3.5 U	3.5 U	2 U	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.2 U	--	--	0.35 U	3.5 U
Bromobenzene	64			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Bromochloromethane	NE			--	--	--	--	2 U	--	--	--	--	--	--	0.2 U	--	--		--
Bromoform	12			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Bromomethane	11			10 U	10 U	10 U	10 U	10 U	--	--	1 U	1 U	1 U	1 U	1 U	--	--	1 U	10 U
Carbon Disulfide	800			--	--	--	--	2 U	--	--	--	--	--	--	0.2 U	--	--	--	--
Carbon Tetrachloride	0.35			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Chlorobenzene	100			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Chloroethane	14667			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Chloroform	1.2			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Chloromethane	153			100 U	100 U	100 U	100 U	5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	10 U	100 U
cis-1,2-Dichloroethylene	16	**0.68**		10 U	10 U	10 U	10 U	2 U	2.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U
cis-1,3-Dichloropropene	0.44			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Dibromochloromethane	2.2			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Dibromomethane	80			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Dichlorobromomethane	1.4			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Dichlorodifluoromethane	4.2			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Ethylbenzene	21			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Hexachlorobutadiene	NE			10 U	10 U	10 U	10 U	20 U	--	--	1 U	1 U	1 U	1 U	2 U	--	--	1 U	10 U
Hexane	NE			10 U	10 U	10 U	10 U	--	--	--	1 U	1 U	1 U	1 U		--	--	1 U	10 U
Isopropylbenzene	800			10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Methyl ethyl ketone (MEK)	4800			100 U	100 U	100 U	100 U	50 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	10 U	100 U
Methyl Iodide	NE	--	--	--	--	--	--	10 U	--	--	--	--	--	--	1 U	--	--	--	--
Methyl isobutyl ketone	640	--		100 U	100 U	100 U	100 U	50 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	10 U	100 U
Methyl tert-butyl ether	24	--		10 U	10 U	10 U	10 U	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U

Analyte	Groundwater PCUL	MW5 MW5-20231205 12/5/2023	MW6 MW-6-W-15.0 7/23/2019	MW6 MW6-W-15.0-20191216 12/16/2019	MW6 MW6-W-15.0-20200429 1/29/2020	MW6 MW6-W-15.0-20200427 4/27/2020	MW6 MW-6-042022 4/20/2022	MW6 MW6-230721 7/21/2023	MW6 MW6-20231207 12/7/2023	MW7 MW7-W-20.0 7/24/2019	MW7 MW7-W-27.5-20191217 12/17/2019	MW7 MW7-W-27.5-20200427 4/27/2020	MW7 MW7-W-28.5 1/29/2020	MW7 MW7-7-04202022 4/20/2022	MW7 MW7-230724 7/24/2023	MW7 MW7-20231207 12/7/2023	MW8 MW-8-W-19.0 7/23/2019	MW8 MW8-W-15.0-20191217 12/17/2019
Total Metals (µg/L)																		
Methylene Chloride	5.0	1.00 U	50 U	50 U	50 U	50 U	**27.7**	10.0 U	10.0 U	5 U	5 U	5 U	5 U	1 U	1.00 U	1.00 U	5 U	50 U
Naphthalene	1.4	--	10 U	10 U	10 U	10 U	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U
n-Butylbenzene	400	--	--	--	--	--	2 U	--	--	--	--	--	--	0.2 U	--	--	--	--
n-Propylbenzene	800	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Sec-Butylbenzene	800	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Styrene	100	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Tert-Butylbenzene	800	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Tetrachloroethylene	2.9	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Toluene	102	--	10 U	10 U	10 U	10 U	**0.56 J**	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
trans-1,2-Dichloroethylene	77	0.20 U	10 U	10 U	10 U	10 U	2 U	2.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U
trans-1,3-Dichloropropene	0.44	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	--	10 U	--	--	--	--	--	--	1 U	--	--		
Trichloroethylene	0.70	**14.1**	10 U	10 U	10 U	10 U	2 U	2.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U
Trichlorofluoromethane	120	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Vinyl Acetate	7809	--	--	--	--	--	2 U	--	--	--	--	--	--	0.2 U	--	--	--	--
Vinyl Chloride	0.18	0.20 U	2 U	2 U	2 U	2 U	2 U	2.00 U	2.00 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	0.2 U	2 U
Xylene, m-,p-	NE	--	20 U	20 U	20 U	20 U	4 U	--	--	2 U	2 U	2 U	2 U	0.4 U	--	--	2 U	20 U
Xylene, o-	NE	--	10 U	10 U	10 U	10 U	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U
Total Xylenes	106	--	20 U	20 U	20 U	20 U	6 U	--	--	2 U	2 U	2 U	2 U	0.6 U	--	--	2 U	20 U
Semivolatile Compounds (SVOCs) (µg/L)																		
1,2,4-Trichlorobenzene	0.96	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	4.5	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	2.0	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5.0	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.44	**1.1**	--	--	--	--	**0.2**	**0.2 J**	**0.2 J**	--	--	--	--	**0.5**	**0.4**	**0.3 J**	--	--
2,2'-Oxybis[1-chloropropane]	NE	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.037	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	8.0	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	10	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	2.9	--	--	--	--	--	1 UJ	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	32	--	--	--	--	--	2 U	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.18	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	100	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	17	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	11	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	160	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.0033	--	--	--	--	--	1 UJ	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	7.0	--	--	--	--	--	2 U	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	36	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.44	--	--	--	--	--	1 UJ	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	106	--	--	--	--	--	**0.06 J**	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	4.4	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	589	--	--	--	--	--	**0.7 J**	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	56	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.040	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.046	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.013	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	8.0	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	93	--	--	--	--	--	**0.3**	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	59	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	2.3	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000005	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.010	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	1.0	--	--	--	--	--	1 UJ	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.020	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
Isophorone	92	--	--	--	--	--	**0.06 J**	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	16	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.013	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.55	--	--	--	--	--	0.2 U	--	--	--	--	--	--	--	--	--	--	--

Analyte	Groundwater PCUL	MW5 MW5-20231205 12/5/2023	MW6 MW-6-W-15.0 7/23/2019	MW6 MW6-W-15.0-20191216 12/16/2019	MW6 MW6-W-15.0-20200429 1/29/2020	MW6 MW6-W-15.0-20200427 4/27/2020	MW6 MW-6-042022 4/20/2022	MW6 MW6-230721 7/21/2023	MW6 MW6-20231207 12/7/2023	MW7 MW7-W-20.0 7/24/2019	MW7 MW7-W-27.5-20191217 12/17/2019	MW7 MW7-W-27.5-20200427 4/27/2020	MW7 MW7-W-28.5 1/29/2020	MW7 MW7-7-04202022 4/20/2022	MW7 MW7-230724 7/24/2023	MW7 MW7-20231207 12/7/2023	MW8 MW-8-W-19.0 7/23/2019	MW8 MW8-W-15.0-20191217 12/17/2019
Total Metals (µg/L)																		
Pentachlorophenol	0.0020	--	--	--	--	--	1 U	--	--	--	--	--	--	--	--	--	--	--
Phenol	101	--	--	--	--	--	**0.07 J**	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)																		
1-Methylnaphthalene	1.5	**0.008 J**	--	--	--	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--	**0.001 J**	0.010 U	0.010 U	--	--
2-Methylnaphthalene	14	**0.007 J**	--	--	--	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--	**0.002 J**	0.010 U	0.010 U	--	--
Acenaphthene	5.3	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Acenaphthylene	NE	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Anthracene	2.1	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Benzo(a)anthracene	0.00016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Benzo(a)pyrene	0.000016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Benzo(b)fluoranthene	0.00016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	**0.007 J**	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Benzo(g,h,i)perylene	NE	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Benzo(j)fluoranthene	NE	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--
Benzo(k)fluoranthene	0.0016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Benzofluoranthenes (Total)	NE	0.020 U	--	--	--	--	0.01 U	0.020 U	0.020 U	--	--	--	--	0.01 U	0.020 U	0.020 U	--	--
Carbazole	NE	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--
Chrysene	0.016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Dibenzo(a,h)anthracene	0.000016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Dibenzofuran	3.1	0.010 U	--	--	--	--	**0.003 J**	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--
Fluoranthene	1.8	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	**0.013**	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Fluorene	3.7	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Indeno(1,2,3-c,d)pyrene	0.00016	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Naphthalene	1.4	**0.069**	0.4 U	0.4 U	0.4 U	0.4 U	**0.006 J**	0.010 U	**0.007 J**	0.4 U	0.4 U	0.4 U	0.4 U	**0.006 J**	0.010 U	0.010 U	0.4 U	0.4 U
Perylene	NE	0.010 U	--	--	--	--	**0.01 J**	**0.015**	**0.007 J**	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--
Phenanthrene	NE	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	**0.018**	**0.006 J**	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Pyrene	2.0	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	**0.013**	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U
Total cPAH TEQ (ND=0.5RL)	0.0097	0.00855 U	0.0302 U	0.0302 U	0.0302 U	0.0302 U	0.00805 U	0.00855 U	**0.00875 J**	0.0302 U	0.0302 U	0.0302 U	0.0302 U	0.00805 U	0.00855 U	0.00855 U	0.0302 U	0.0302 U
Polychlorinated Biphenyls (PCBs) (µg/L)																		
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)																		
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	**0.0018 J**	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	--	--	--	--	--	0.05 U	**0.00031 J**	--	--	--	--	--	0.0049 U	0.0045 U	--	--
6:2 FTS	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	**0.0036 J**	**0.0036 J**	--	--
8:2 FTS	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
NEtFOSAA	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
NMeFOSAA	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorobutanesulfonic acid (PFBS)	NE	--	--	--	--	--	--	0.05 U	**0.0082**	--	--	--	--	--	**0.00081 J**	0.0045 U	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorodecanoic acid (PFDA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	--	--	--	--	--	**0.022 J**	**0.011**	--	--	--	--	--	**0.0031 J**	0.0045 U	--	--
Perfluorohexanesulfonic acid (PFHxS)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorohexanoic acid (PFHxA)	NE	--	--	--	--	--	--	0.1 U	**0.016**	--	--	--	--	--	0.0098 U	0.0092 U	--	--
Perfluorononanoic acid (PFNA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorooctanesulfonic acid (PFOS)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorooctanoic acid (PFOA)	NE	--	--	--	--	--	--	**0.012 J**	**0.007**	--	--	--	--	--	**0.0019 J**	**0.0016 J**	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	--	--	--	--	--	**0.024 J**	**0.026 J**	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	--	--	--	--	--	0.05 U	0.0044 U	--	--	--	--	--	0.0049 U	0.0045 U	--	--

Analyte	Groundwater PCUL	MW8 MW8-W-15.0-20200129 1/29/2020	MW8 MW8-W-15.0-20200427 4/27/2020	MW8 MW-8-220421 4/21/2022	MW8 MW8-230714 7/14/2023	MW8 MW8-20231206 12/6/2023	MW9 MW-9-W-33.0 7/23/2019	MW9 MW9-W-33.5-20191216 12/16/2019	MW9 MW9-W-33.5-20200129 1/29/2020	MW9 MW9-W-32.5 4/28/2020	MW9 MW-9-04192022 4/19/2022	MW9 MW9-230714 7/14/2023	MW9 MW9-20231207 12/7/2023	MW10 MW-10-W-15.0 7/23/2019	MW10 MW10-W-15.0-20191217 12/17/2019	MW10 MW10-W-15.0-20200129 1/29/2020	MW10 MW10-W-15.0-20200427 4/27/2020
Total Metals (µg/L)																	
Arsenic	8.0	**18.6**	**6.38**	**11.2**	**6.54**	**10.2**	**9.26**	**11.5**	**10.9**	**8.24**	**10.8**	**10.3**	**10.3**	**16.2**	**13.2**	**25.5**	**14.9**
Cadmium	1.2	--	--	0.1 U	0.200 U	0.100 U	--	--	--		**0.058 J**	0.100 U	**0.100 J**				
Chromium	100	10 U	**6.3**	**9.98**	**8.50**	5.00 U	**1.56**	**21.6**	**2.2**	**2.02**	**1.4**	**1.57**	2.50 U	**7.96**	**7.67**	**10.5**	**11.5**
Copper	3.1	5 U	5 U	**0.206 J**	**2.37**	**0.234 J**	**5.87**	5 U	5 U	5 U	**2.86**	**1.62**	**2.53**	5 U	5 U	5 U	5 U
Lead	5.6	--	--	0.1 U	**0.536**	0.100 U	--	--	--	--	**0.113**	**0.110**	0.200 U	--	--	--	--
Mercury	0.025	--	--	**0.00239**	**0.00243**	**0.00313 J**	--	--	--	--	**0.0477**	**0.0189**	**0.0337**	--	--	--	--
Nickel	8.2	--	--	**5.46**	**6.75**	**4.99**	--	--	--	--	**58.5**	**46.2**	**46.9**	--	--	--	--
Selenium	50	5 U	1 U	**0.254 J**	**1.39**	**0.391 J**	**2.7**	**4.66**	5 U	1 U	**0.549**	**0.931**	**1.00**	**4.34**	**10.4**	5 U	**3.68**
Thallium	0.062	--	--	0.2 U	0.400 U	0.400 U	--	--	--	--	0.2 U	0.200 U	1.00 U	--	--	--	--
Zinc	81	--	--	6 U	**27.6**	6.00 U	--	--	--	--	6 U	6.00 U	12.0 U	--	--	--	--
Dissolved Metals (µg/L)																	
Arsenic	8.0	--	--	**10.9**	**6.05**	**11.4**	--	--	--	--	**9.92**	**10.2**	**9.64**	--	--	--	--
Cadmium	1.2	--	--	0.1 U	0.200 U	0.500 U	--	--	--	--	**0.042 J**	0.100 U	**0.0620 J**	--	--	--	--
Chromium	100	--	--	**7.67**	**7.91**	**7.43**	--	--	--	--	**1.32**	**1.44**	**0.934 J**	--	--	--	--
Chromium, Hexavalent	0.046	45 U	45 U	13 UJ	**16 J**	13 U	45 U	45 U	45 U	45 U	13 UJ	13 U	13 U	45 U	135 U	90 U	45 U
Chromium, Trivalent	27	10 U		--	--	5.00 U	--	--	--	--	--		2.50 U	--	--	--	--
Copper	3.1	--	--	0.5 U	1.00 U	2.50 U	--	--	--	--	**5.47**	**1.09**	**2.88**	--	--	--	--
Lead	5.6	--	--	0.1 U	0.200 U	0.500 U	--	--	--	--	**0.084 J**	0.100 U	0.200 U	--	--	--	--
Mercury	0.025	--	--	**0.00035 J**	**0.00126**	**0.00192**	--	--	--	--	**0.00303**	**0.00869**	**0.0199**	--	--	--	--
Nickel	8.2	--	--	**4.96**	**6.97**	**5.34**	--	--	--	--	**55.7**	**42.1**	**52.0**	--	--	--	--
Selenium	50	--	--	--	1.00 U	**1.08 J**	--	--	--	--	**0.697**	1.00 U	**0.808 J**	--	--	--	--
Thallium	0.062	--	--	--	0.400 U	1.00 U	--	--	--	--	0.2 U	0.200 U	0.400 U	--	--	--	--
Zinc	81	--	--	--	12.0 U	30.0 U	--	--	--	--	6 U	6.00 U	12.0 U	--	--	--	--
Total Petroleum Hydrocarbons (µg/L)																	
Gasoline-range hydrocarbons - HCID	800	--	--	250 U	250 U	250 U	--	--	--	--	250 U	250 U	250 U	--	--	--	--
Diesel-range hydrocarbons - HCID	500	--	--	500 U	500 U	500 U	--	--	--	--	500 U	500 U	500 U	--	--	--	--
Lube oil-range hydrocarbons - HCID	500	--	--	1000 U	1000 U	1000 U	--	--	--	--	1000 U	1000 U	1000 U	--	--	--	--
Total TPH - HCID	500	--	--	ND	ND	ND	--	--	--	--	ND	ND	ND	--	--	--	--
Diesel-range hydrocarbons	500	**300**	**340**	**210**	--	--	**110**	**200**	**100**	**140**	100 U	--	--	**370**	**440**	**410**	**650**
Lube oil-range hydrocarbons	500	250 U	250 U	200 U	--	--	250 U	**330**	250 U	250 U	200 U	--	--	250 U	**360**	**690**	**640**
Total TPH	500	**300**	**340**	**210**	--	--	**110**	**530**	**100**	**140**	ND	--	--	**370**	**800**	**1100**	**1290**
Diesel-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)																	
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C13 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C5-C6 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C6-C8 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dodecane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	106	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Location ID / Sample ID / Sample Date	Groundwater PCUL	MW8 MW8-W-15.0-20200129 1/29/2020	MW8 MW8-W-15.0-20200427 4/27/2020	MW8 MW-8-220421 4/21/2022	MW8 MW8-230714 7/14/2023	MW8 MW8-20231206 12/6/2023	MW9 MW-9-W-33.0 7/23/2019	MW9 MW9-W-33.5-20191216 12/16/2019	MW9 MW9-W-33.5-20200129 1/29/2020	MW9 MW9-W-32.5 4/28/2020	MW9 MW-9-04192022 4/19/2022	MW9 MW9-230714 7/14/2023	MW9 MW9-20231207 12/7/2023	MW10 MW-10-W-15.0 7/23/2019	MW10 MW10-W-15.0-20191217 12/17/2019	MW10 MW10-W-15.0-20200129 1/29/2020	MW10 MW10-W-15.0-20200427 4/27/2020
Total Metals (µg/L)																		
Extractable Petroleum Hydrocarbons (EPH) (µg/L)																		
C8-C10 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aliphatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aromatics		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (µg/L)																		
1,1,1,2-Tetrachloroethane		1.7	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,1,1-Trichloroethane		200	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane		0.22	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)		NE	--		0.2 U	--	--	--	--	--		0.2 U	--	--		--	--	--
1,1,2-Trichloroethane		0.90	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,1-Dichloroethane		7.7	1 U	1 U	**0.27**	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,1-Dichloroethylene		7.0	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U	10 U	10 U
1,1-Dichloropropene		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U			1 U	10 U	10 U	10 U
1,2,3-Trichlorobenzene		6.4	1 U	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U			1 U	10 U	10 U	10 U
1,2,3-Trichloropropane		0.00038	1 U	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U			1 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene		NE	1 U	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U			1 U	10 U	10 U	10 U
1,2,4-Trimethylbenzene		80	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U			1 U	10 U	10 U	10 U
1,2-Dibromo-3-Chloropropane		0.042	10 U	10 U	0.5 U	--	--	10 U	10 U	10 U	10 U	0.5 U			10 U	100 U	100 U	100 U
1,2-Dibromoethane		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U			1 U	10 U	10 U	10 U
1,2-Dichlorobenzene		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U			1 U	10 U	10 U	10 U
1,2-Dichloroethane		3.5	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U			1 U	10 U	10 U	10 U
1,2-Dichloropropane		3.1	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,3,5-Trimethylbenzene		80	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,3-Dichlorobenzene		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,3-Dichloropropane		160	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
1,4-Dichlorobenzene		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
2,2-Dichloropropane		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
2-Chloroethyl vinyl ether		NE	--	--	1 U	--	--					1 U	--	--	--	--	--	--
2-Chlorotoluene		160	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
2-Hexanone		40	10 U	10 U	5 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	10 U	100 U	100 U	100 U
4-Chlorotoluene		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
4-Isopropyltoluene		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Acetone		7200	50 U	50 U	5 U	--	--	50 U	50 U	50 U	50 U	5 U	--	--	50 U	500 U	500 U	500 U
Acrolein		1.1	--	--	5 U	--	--	--	--	--	--	5 U	--	--	--	--	--	--
Acrylonitrile		7200	--	--	1 U	--	--	--	--	--	--	1 U	--	--	--	--	--	--
Benzene		1.1	0.35 U	0.35 U	**0.05 J**	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.2 U	--	--	0.35 U	3.5 U	3.5 U	3.5 U
Bromobenzene		64	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Bromochloromethane		NE	--	--	0.2 U	--	--	--	--	--		0.2 U	--	--	--	--	--	--
Bromoform		12	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Bromomethane		11	1 U	1 U	1 U	--	--	1 U	1 U	1 U	1 U	1 U	--	--	1 U	10 U	10 U	10 U
Carbon Disulfide		800	--	--	0.2 U	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--
Carbon Tetrachloride		0.35	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Chlorobenzene		100	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Chloroethane		14667	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Chloroform		1.2	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Chloromethane		153	10 U	10 U	0.5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	10 U	100 U	100 U	100 U
cis-1,2-Dichloroethylene		16	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U	10 U	10 U
cis-1,3-Dichloropropene		0.44	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Dibromochloromethane		2.2	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Dibromomethane		80	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Dichlorobromomethane		1.4	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Dichlorodifluoromethane		4.2	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Ethylbenzene		21	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Hexachlorobutadiene		NE	1 U	1 U	2 U	--	--	1 U	1 U	1 U	1 U	2 U	--	--	1 U	10 U	10 U	10 U
Hexane		NE	1 U	1 U		--	--	1 U	1 U	1 U	1 U		--	--	1 U	10 U	10 U	10 U
Isopropylbenzene		800	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Methyl ethyl ketone (MEK)		4800	10 U	10 U	5 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	10 U	100 U	100 U	100 U
Methyl Iodide		NE	--		1 U	--	--	--	--	--	--	1 U	--	--	--	--	--	--
Methyl isobutyl ketone		640	10 U	10 U	5 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	10 U	100 U	100 U	100 U
Methyl tert-butyl ether		24	1 U	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U	10 U	10 U

Analyte	Location ID / Sample ID / Sample Date	Groundwater PCUL	MW8 MW8-W-15.0-20200129 1/29/2020	MW8 MW8-W-15.0-20200427 4/27/2020	MW8 MW-8-220421 4/21/2022	MW8 MW8-230714 7/14/2023	MW8 MW8-20231206 12/6/2023	MW9 MW-9-W-33.0 7/23/2019	MW9 MW9-W-33.5-20191216 12/16/2019	MW9 MW9-W-33.5-20200129 1/29/2020	MW9 MW9-W-32.5 4/28/2020	MW9 MW-9-04192022 4/19/2022	MW9 MW9-230714 7/14/2023	MW9 MW9-20231207 12/7/2023	MW10 MW-10-W-15.0 7/23/2019	MW10 MW10-W-15.0-20191217 12/17/2019	MW10 MW10-W-15.0-20200129 1/29/2020	MW10 MW10-W-15.0-20200427 4/27/2020
Total Metals (µg/L)																		
Methylene Chloride		5.0	5 U	5 U	1 U	1.00 U	1.00 U	5 U	5 U	5 U	5 U	1 U	1.00 U	1.00 U	5 U	50 U	50 U	50 U
Naphthalene		1.4	1 U	1 U	0.5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	1 U	10 U	10 U	10 U
n-Butylbenzene		400	--		0.2 U	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--
n-Propylbenzene		800	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Sec-Butylbenzene		800	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Styrene		100	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Tert-Butylbenzene		800	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Tetrachloroethylene		2.9	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Toluene		102	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
trans-1,2-Dichloroethylene		77	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U	10 U	10 U
trans-1,3-Dichloropropene		0.44	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
trans-1,4-Dichloro-2-butene		NE			1 U	--	--	--	--	--	--	1 U	--	--		--	--	--
Trichloroethylene		0.70	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	1 U	10 U	10 U	10 U
Trichlorofluoromethane		120	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Vinyl Acetate		7809	--		0.2 U	--	--	--	--	--	--	0.2 U	--	--	--	--	--	--
Vinyl Chloride		0.18	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	0.2 U	2 U	2 U	2 U
Xylene, m-,p-		NE	2 U	2 U	0.4 U	--	--	2 U	2 U	2 U	2 U	0.4 U	--	--	2 U	20 U	20 U	20 U
Xylene, o-		NE	1 U	1 U	0.2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	1 U	10 U	10 U	10 U
Total Xylenes		106	2 U	2 U	0.6 U	--	--	2 U	2 U	2 U	2 U	0.6 U	--	--	2 U	20 U	20 U	20 U
Semivolatile Complounds (SVOCs) (µg/L)																		
1,2,4-Trichlorobenzene		0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene		2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene		5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane		0.44	--	--	**13.3**	**20.4**	**6.0 J**	--	--	--	--	**2.7**	**2.4**	**1.9**	--	--	--	--
2,2'-Oxybis[1-chloropropane]		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol		0.037	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol		8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol		10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol		2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol		32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene		0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene		0.058	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene		100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol		17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol		11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline		160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine		0.0033	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol		7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol		36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline		0.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol		106	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline		4.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid		589	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol		56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether		0.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate		0.046	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate		0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole		NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate		8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate		93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate		59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate		2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene		0.000005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene		0.010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene		1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane		0.020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone		92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene		16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine		0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine		0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Groundwater PCUL	Location ID	MW8	MW8	MW8	MW8	MW8	MW9	MW9	MW9	MW9	MW9	MW9	MW9	MW10	MW10	MW10	MW10
		Sample ID	MW8-W-15.0-20200129	MW8-W-15.0-20200427	MW-8-220421	MW8-230714	MW8-20231206	MW-9-W-33.0	MW9-W-33.5-20191216	MW9-W-33.5-20200129	MW9-W-32.5	MW-9-04192022	MW9-230714	MW9-20231207	MW-10-W-15.0	MW10-W-15.0-20191217	MW10-W-15.0-20200129	MW10-W-15.0-20200427
		Sample Date	1/29/2020	4/27/2020	4/21/2022	7/14/2023	12/6/2023	7/23/2019	12/16/2019	1/29/2020	4/28/2020	4/19/2022	7/14/2023	12/7/2023	7/23/2019	12/17/2019	1/29/2020	4/27/2020
Total Metals (µg/L)																		
Pentachlorophenol	0.0020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	101		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)																		
1-Methylnaphthalene	1.5		--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	**0.002 J**	0.010 U	0.010 U				
2-Methylnaphthalene	14		--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U				
Acenaphthene	5.3		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Acenaphthylene	NE		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Anthracene	2.1		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.001 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzo(a)anthracene	0.00016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzo(a)pyrene	0.000016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzo(b)fluoranthene	0.00016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzo(g,h,i)perylene	NE		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzo(j)fluoranthene	NE		--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--
Benzo(k)fluoranthene	0.0016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Benzofluoranthenes (Total)	NE		--	--	0.01 U	0.020 U	0.020 U	--	--	--	--	0.01 U	0.020 U	0.020 U	--	--	--	--
Carbazole	NE		--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	**0.006 J**	**0.006 J**	0.010 U	--	--	--	--
Chrysene	0.016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Dibenzo(a,h)anthracene	0.000016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Dibenzofuran	3.1		--	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--	**0.002 J**	0.010 U	0.010 U	--	--	--	--
Fluoranthene	1.8		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Fluorene	3.7		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Indeno(1,2,3-c,d)pyrene	0.00016		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Naphthalene	1.4		0.4 U	0.4 U	0.01 U	0.010 U	0.010 U	0.4 U	0.4 U	0.4 U	0.4 U	0.01 U	0.010 U	0.010 U	0.4 U	0.4 U	0.4 U	0.4 U
Perylene	NE		--	--	0.01 U	0.010 U	0.010 U	--	--	--	--	0.01 U	0.010 U	0.010 U	--	--	--	--
Phenanthrene	NE		0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	**0.002 J**	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Pyrene	2.0		0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U	0.01 U	0.010 U	0.010 U	0.04 U	0.04 U	0.04 U	0.04 U
Total cPAH TEQ (ND=0.5RL)	0.0097		0.0302 U	0.0302 U	0.00805 U	0.00855 U	0.00855 U	0.0302 U	0.0302 U	0.0302 U	0.0302 U	0.00805 U	0.00855 U	0.00855 U	0.0302 U	0.0302 U	0.0302 U	0.0302 U
Polychlorinated Biphenyls (PCBs) (µg/L)																		
PCB-Aroclor 1016	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000007		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)																		
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE		--	--	--	**0.00036 J**	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
6:2 FTS	NE		--	--	--	**0.0075 J**	--	--	--	--	--	--	**0.0027 J**	**0.0031 J**	--	--	--	--
8:2 FTS	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
NEtFOSAA	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
NMeFOSAA	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	NE		--	--	--	**0.0045 J**	--	--	--	--	--	--	**0.0018 J**	0.0046 U	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE		--	--	--	**0.017 J**	--	--	--	--	--	--	**0.003 J**	0.0046 U	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	NE		--	--	--	**0.0095**	--	--	--	--	--	--	**0.0017 J**	**0.0016 J**	--	--	--	--
Perfluorohexanoic acid (PFHxA)	NE		--	--	--	**0.037**	--	--	--	--	--	--	0.0094 U	0.0092 U	--	--	--	--
Perfluorononanoic acid (PFNA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	NE		--	--	--	**0.0051 J**	--	--	--	--	--	--	**0.0014 J**	**0.0014 J**	--	--	--	--
Perfluorooctanoic acid (PFOA)	NE		--	--	--	**0.035**	--	--	--	--	--	--	**0.0049**	**0.0041**	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE		--	--	--	**0.045**	--	--	--	--	--	--	**0.004 J**	0.0046 U	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE		--	--	--	0.0051 U	--	--	--	--	--	--	0.0047 U	0.0046 U	--	--	--	--

Analyte	Groundwater PCUL	MW10 MW-10-04192022 4/19/2022	MW10 MW10-230714 7/14/2023	MW10 MW10-20231207 12/7/2023	MW11 MW11-W-15.0-20190722 7/22/2019	MW11 MW11-W-15.0-20191216 12/16/2019	MW11 MW11-W-15.0-20200129 1/29/2020	MW11 MW11-W-15.0-20200427 4/27/2020	MW11 MW-11-220421 4/21/2022	MW11 MW11-230720 7/20/2023	MW11 MW11-20231205 12/5/2023	MW-12 MW-12-220425 4/25/2022	MW-12 MW12-230724 7/24/2023	MW-12 MW12-20231204 12/4/2023	MW-13 MW-13-220427 4/27/2022	MW-13 MW13-230724 7/24/2023	MW-13 MW13-20231204 12/4/2023
Total Metals (µg/L)																	
Arsenic	8.0	**29.9**	**22.4**	**26.1**	10 U	**6.16**	**7.16**	**4.1**	**5.37**	**5.27**	**5.74**	**30.8**	**19.2**	**21.7**	**9.39**	**9.75**	**11.9**
Cadmium	1.2	0.2 U	**0.430 J**	0.500 U	--	--	--	--	0.1 U	**0.470 J**	0.200 U	0.1 U	0.100 U	0.100 U	0.1 U	0.100 U	0.100 U
Chromium	100	**15.7**	**12.1**	**10.2**	10 U	**2.48**	**3.42**	**3.1**	**14.4**	**3.22 J**	**2.98**	0.5 U	0.500 U	2.50 U	0.5 U	0.500 U	2.50 U
Copper	3.1	**0.794 J**	5.00 U	2.50 U	50 U	5 U	5 U	5 U	**0.354 J**	5.00 U	1.00 U	**1.36**	**0.187 J**	**0.378 J**	0.5 U	0.500 U	1.00 U
Lead	5.6	**0.278**	1.00 U	0.500 U	--	--	--	--	0.1 U	1.00 U	0.200 U	**0.073 J**	**0.0690 J**	**0.128**	0.1 U	0.100 U	0.100 U
Mercury	0.025	**0.00445**	**0.00127**	**0.00194**	--	--	--	--	0.00042 U	0.00042 U	**0.00228**	**0.00111**	**0.00055**	**0.00187**	0.00041 U	0.00041 U	**0.00015 J**
Nickel	8.2	**7.51**	**5.24**	**9.76**	--	--	--	--	**0.845**	5.00 U	**0.646 J**	**0.777**	**0.302 J**	**0.362 J**	**0.198 J**	**0.222 J**	**0.308 J**
Selenium	50	**1.26**	**2.94 J**	**2.63**	10 U	**2.66**	**1.76**	1 U	**0.378 J**	5.00 U	1.00 U	0.5 U	0.500 U	1.00 U	0.5 U	0.500 U	1.00 U
Thallium	0.062	0.4 U	2.00 U	1.00 U	--	--	--	--	0.2 U	2.00 U	1.00 U	0.2 U	0.200 U	0.200 U	0.2 U	0.200 U	0.200 U
Zinc	81	12 U	60.0 U	30.0 U	--	--	--	--	6 U	60.0 U	12.0 U	6 U	6.00 U	12.0 U	6 U	6.00 U	12.0 U
Dissolved Metals (µg/L)																	
Arsenic	8.0	**28.4**	**19.1**	**21.8**	--	--	--	--	**5.42**	**4.52**	**5.94**	**27.6**	**19.3**	**22.4**	**9.69**	**9.53**	**11.3**
Cadmium	1.2	0.2 U	**0.530 J**	0.100 U	--	--	--	--	0.1 U	1.00 U	0.200 U	0.1 U	0.100 U	0.200 U	0.1 U	0.100 U	0.200 U
Chromium	100	**14.3**	**11.0**	**10.2**	--	--	--	--	**3.2**	**3.15 J**	2.50 U	0.5 U	1.00 U	2.50 U	0.5 U	1.00 U	2.50 U
Chromium, Hexavalent	0.046	13 UJ	13 U	13 U	45 U	45 U	45 U	45 U	13 UJ	13 U	13 U	13 U	13 U	13 U	13 U	13 U	13 UJ
Chromium, Trivalent	27	--	--	--	10 U	--	--	--	--	--	--	0.5 U	0.500 U	2.50 U	0.5 U	0.500 U	2.50 U
Copper	3.1	1 U	5.00 U	1.00 U	--	--	--	--	**0.202 J**	5.00 U	1.00 U	**1.75**	0.500 U	**0.604 J**	0.5 U	0.500 U	**0.396 J**
Lead	5.6	0.2 U	1.00 U	0.100 U	--	--	--	--	0.1 U	1.00 U	0.200 U	0.1 U	0.100 U	0.100 U	0.1 U	0.100 U	0.100 U
Mercury	0.025	**0.001**	**0.00073**		--	--	--	--	0.00042 U	0.00042 U	0.00042 U	0.00041 U	**0.00024 J**	**0.00099**	0.00041 U	0.00041 U	**0.00115**
Nickel	8.2	**7.2**	**4.47 J**	**6.76**	--	--	--	--	**0.643**	5.00 U	**0.706 J**	**0.631**	**0.0960 J**	**0.356 J**	**0.159 J**	**0.192 J**	**0.302 J**
Selenium	50	**1.73**	5.00 U	**1.65**	--	--	--	--	--	5.00 U	1.00 U	--	0.500 U	1.00 U		0.500 U	1.00 U
Thallium	0.062	0.4 U	2.00 U	2.00 U	--	--	--	--	--	2.00 U	0.400 U	--	0.200 U	0.400 U		0.200 U	0.400 U
Zinc	81	12 U	60.0 U	12.0 U	--	--	--	--	--	60.0 U	12.0 U	--	6.00 U	12.0 U		6.00 U	12.0 U
Total Petroleum Hydrocarbons (µg/L)																	
Gasoline-range hydrocarbons - HCID	800	250 U	250 U	250 U	--	--	--	--	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Diesel-range hydrocarbons - HCID	500	500 U	500 U	500 U	--	--	--	--	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U
Lube oil-range hydrocarbons - HCID	500	1000 U	1000 U	1000 U	--	--	--	--	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Total TPH - HCID	500	ND	ND	ND	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diesel-range hydrocarbons	500	**335**	--	**108**	**200**	**250**	**150**	**260**	**136**	--	--	100 U	--	--	100 U	--	--
Lube oil-range hydrocarbons	500	200 U	--	200 U	250 U	**430**	250 U	250 U	200 U	--	--	200 U	--	--	200 U	--	--
Total TPH	500	**335**	--	**108**	**200**	**680**	**150**	**260**	**136**	--	--	ND	--	--	ND	--	--
Diesel-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TPH - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)																	
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C13 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C5-C6 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C6-C8 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Decane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dodecane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexane	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	106	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Groundwater PCUL	MW10 MW-10-04192022 4/19/2022	MW10 MW10-230714 7/14/2023	MW10 MW10-20231207 12/7/2023	MW11 MW11-W-15.0-20190722 7/22/2019	MW11 MW11-W-15.0-20191216 12/16/2019	MW11 MW11-W-15.0-20200129 1/29/2020	MW11 MW11-W-15.0-20200427 4/27/2020	MW11 MW-11-220421 4/21/2022	MW11 MW11-230720 7/20/2023	MW11 MW11-20231205 12/5/2023	MW-12 MW-12-220425 4/25/2022	MW-12 MW12-230724 7/24/2023	MW-12 MW12-20231204 12/4/2023	MW-13 MW-13-220427 4/27/2022	MW-13 MW13-230724 7/24/2023	MW-13 MW13-20231204 12/4/2023
Total Metals (µg/L)																	
Extractable Petroleum Hydrocarbons (EPH) (µg/L)																	
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C12-C16 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C16-C21 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C21-C34 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (µg/L)																	
1,1,1,2-Tetrachloroethane	1.7	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,1,1-Trichloroethane	200	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,1,2,2-Tetrachloroethane	0.22	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NE	2 U	--	--	--	--	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,1,2-Trichloroethane	0.90	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,1-Dichloroethane	7.7	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,1-Dichloroethylene	7.0	2 U	1.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U
1,1-Dichloropropene	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,2,3-Trichlorobenzene	6.4	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--
1,2,3-Trichloropropane	0.00038	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--
1,2,4-Trichlorobenzene	NE	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--
1,2,4-Trimethylbenzene	80	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,2-Dibromo-3-Chloropropane	0.042	5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--
1,2-Dibromoethane	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,2-Dichlorobenzene	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,2-Dichloroethane	3.5	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,2-Dichloropropane	3.1	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,3,5-Trimethylbenzene	80	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,3-Dichlorobenzene	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,3-Dichloropropane	160	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
1,4-Dichlorobenzene	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
2,2-Dichloropropane	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
2-Chloroethyl vinyl ether	NE	10 U	--	--	--	--	--	--	1 U	--	--	1 U	--	--	1 U	--	--
2-Chlorotoluene	160	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
2-Hexanone	40	50 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	5 U	--	--	5 U	--	--
4-Chlorotoluene	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
4-Isopropyltoluene	NE	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Acetone	7200	50 U	--	--	50 U	50 U	50 U	50 U	**4.86 J**	--	--	**19.8**	--	--	5 U	--	--
Acrolein	1.1	50 U	--	--	--	--	--	--	5 U	--	--	5 U	--	--	5 U	--	--
Acrylonitrile	7200	10 U	--	--	--	--	--	--	1 U	--	--	1 U	--	--	1 U	--	--
Benzene	1.1	2 U	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Bromobenzene	64	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Bromochloromethane	NE	2 U	--	--	--	--	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Bromoform	12	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Bromomethane	11	10 U	--	--	1 U	1 U	1 U	1 U	1 U	--	--	1 U	--	--	1 U	--	--
Carbon Disulfide	800	2 U	--	--	--	--	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Carbon Tetrachloride	0.35	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Chlorobenzene	100	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Chloroethane	14667	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Chloroform	1.2	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Chloromethane	153	5 U	--	--	10 U	10 U	10 U	10 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--
cis-1,2-Dichloroethylene	16	2 U	1.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U
cis-1,3-Dichloropropene	0.44	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Dibromochloromethane	2.2	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Dibromomethane	80	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Dichlorobromomethane	1.4	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Dichlorodifluoromethane	4.2	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Ethylbenzene	21	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Hexachlorobutadiene	NE	20 U	--	--	1 U	1 U	1 U	1 U	2 U	--	--	2 U	--	--	2 U	--	--
Hexane	NE	--	--	--	1 U	1 U	1 U	1 U	--	--	--	--	--	--	--	--	--
Isopropylbenzene	800	2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Methyl ethyl ketone (MEK)	4800	50 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	5 U	--	--	5 U	--	--
Methyl Iodide	NE	10 U	--	--	--	--	--	--	1 U	--	--	1 U	--	--	1 U	--	--
Methyl isobutyl ketone	640	50 U	--	--	10 U	10 U	10 U	10 U	5 U	--	--	5 U	--	--	5 U	--	--
Methyl tert-butyl ether	24	5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--

Analyte	Groundwater PCUL	Location ID	MW10	MW10	MW10	MW11	MW11	MW11	MW11	MW11	MW11	MW11	MW12	MW12	MW12	MW13	MW13	MW13
		Sample ID	MW-10-04192022	MW10-230714	MW10-20231207	MW11-W-15.0-20190722	MW11-W-15.0-20191216	MW11-W-15.0-20200129	MW11-W-15.0-20200427	MW-11-220421	MW11-230720	MW11-20231205	MW-12-220425	MW12-230724	MW12-20231204	MW-13-220427	MW13-230724	MW13-20231204
		Sample Date	4/19/2022	7/14/2023	12/7/2023	7/22/2019	12/16/2019	1/29/2020	4/27/2020	4/21/2022	7/20/2023	12/5/2023	4/25/2022	7/24/2023	12/4/2023	4/27/2022	7/24/2023	12/4/2023
Total Metals (µg/L)																		
Methylene Chloride	5.0		**26.2**	5.00 U	10.0 U	5 U	5 U	5 U	5 U	1 U	1.00 U	1.00 U	1 U	1.00 U	1.00 U	1 U	1.00 U	1.00 U
Naphthalene	1.4		5 U	--	--	1 U	1 U	1 U	1 U	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--
n-Butylbenzene	400		2 U	--	--	--	--	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
n-Propylbenzene	800		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Sec-Butylbenzene	800		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Styrene	100		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Tert-Butylbenzene	800		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Tetrachloroethylene	2.9		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Toluene	102		**0.53 J**	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
trans-1,2-Dichloroethylene	77		2 U	1.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.44		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U		
trans-1,4-Dichloro-2-butene	NE		10 U	--	--	--	--	--	--	1 U	--	--	1 U	--	--	1 U		
Trichloroethylene	0.70		2 U	1.00 U	2.00 U	1 U	1 U	1 U	1 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U
Trichlorofluoromethane	120		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U		
Vinyl Acetate	7809		2 U	--	--	--	--	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U		
Vinyl Chloride	0.18		2 U	1.00 U	2.00 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U
Xylene, m-,p-	NE		4 U	--	--	2 U	2 U	2 U	2 U	0.4 U	--	--	0.4 U	--	--	0.4 U	--	--
Xylene, o-	NE		2 U	--	--	1 U	1 U	1 U	1 U	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--
Total Xylenes	106		6 U	--	--	2 U	2 U	2 U	2 U	0.6 U	--	--	0.6 U	--	--	0.6 U	--	--
Semivolatile Compounds (SVOCs) (µg/L)																		
1,2,4-Trichlorobenzene	0.96		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	4.5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	2.0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5.0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.44		**2.7**	**1.3**	**2.0**	--	--	--	--	**0.9**	**0.6**	**0.6**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2,2'-Oxybis[1-chloropropane]	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.037		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	8.0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	10		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	2.9		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	32		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.18		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.058		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	100		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	17		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	11		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	160		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.0033		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	7.0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	36		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.44		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	106		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	4.4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	589		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	56		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.040		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.046		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.013		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	8.0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	93		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	59		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	2.3		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000005		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	1.0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.020		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	92		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	16		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.013		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.55		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Groundwater PCUL	MW10 MW-10-04192022 4/19/2022	MW10 MW10-230714 7/14/2023	MW10 MW10-20231207 12/7/2023	MW11 MW11-W-15.0-20190722 7/22/2019	MW11 MW11-W-15.0-20191216 12/16/2019	MW11 MW11-W-15.0-20200129 1/29/2020	MW11 MW11-W-15.0-20200427 4/27/2020	MW11 MW-11-220421 4/21/2022	MW11 MW11-230720 7/20/2023	MW11 MW11-20231205 12/5/2023	MW-12 MW-12-220425 4/25/2022	MW-12 MW12-230724 7/24/2023	MW-12 MW12-20231204 12/4/2023	MW-13 MW-13-220427 4/27/2022	MW-13 MW13-230724 7/24/2023	MW-13 MW13-20231204 12/4/2023
Total Metals (µg/L)																	
Pentachlorophenol	0.0020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)																	
1-Methylnaphthalene	1.5	**0.003 J**	0.010 U	0.010 UJ					**0.017**	0.100 U	**0.011**	**0.003 J**	0.010 U	0.005 U	**0.002 J**	0.010 U	0.005 U
2-Methylnaphthalene	14	0.01 U	0.010 U	0.010 UJ					0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	**0.006 J**	0.010 U	0.005 U
Acenaphthene	5.3	0.01 U	0.010 U	0.010 UJ	**1.9**	**1.7**	**2**	**1.3**	**1.7**	**1.85**	**1.98**	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Acenaphthylene	NE	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	**0.008 J**	0.100 U	**0.006 J**	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Anthracene	2.1	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	**0.003 J**	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzo(a)anthracene	0.00016	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzo(a)pyrene	0.000016	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzo(b)fluoranthene	0.00016	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzo(g,h,i)perylene	NE	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzo(j)fluoranthene	NE	0.01 U	0.010 U	0.010 UJ	--	--	--	--	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzo(k)fluoranthene	0.0016	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Benzofluoranthenes (Total)	NE	0.01 U	0.020 U	0.020 UJ	--	--	--	--	0.015 U	0.200 U	0.020 U	0.01 U	0.020 U	0.010 U	0.01 U	0.020 U	0.010 U
Carbazole	NE	**0.002 J**	0.010 U	0.010 UJ	--	--	--	--	**0.069**	0.100 U	**0.073**	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Chrysene	0.016	**0.002 J**	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	**0.001 J**	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Dibenzo(a,h)anthracene	0.000016	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Dibenzofuran	3.1	**0.002 J**	0.010 U	0.010 UJ	--	--	--	--	**0.003 J**	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Fluoranthene	1.8	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	**0.003 J**	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Fluorene	3.7	0.01 U	0.010 U	0.010 UJ	**0.23**	**0.15**	**0.23**	**0.1**	**0.106**	0.100 U	**0.080**	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Indeno(1,2,3-c,d)pyrene	0.00016	0.01 U	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Naphthalene	1.4	0.01 U	0.010 U	0.010 UJ	0.4 U	0.4 U	0.4 U	0.4 U	0.015 U	0.100 U	**0.027**	0.01 U	0.010 U	0.005 U	**0.03**	0.010 U	0.005 U
Perylene	NE	**0.009 J**	**0.007 J**	**0.007 J**	--	--	--	--	0.015 U	0.100 U	0.010 U	0.01 U	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Phenanthrene	NE	**0.003 J**	0.010 U	0.010 UJ	**0.1**	**0.061**	**0.079**	**0.048**	**0.046**	0.100 U	**0.028**	**0.003 J**	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Pyrene	2.0	**0.002 J**	0.010 U	0.010 UJ	0.04 U	0.04 U	0.04 U	0.04 U	0.015 U	0.100 U	0.010 U	**0.002 J**	0.010 U	0.005 U	0.01 U	0.010 U	0.005 U
Total cPAH TEQ (ND=0.5RL)	0.0097	**0.00802 J**	0.00855 U	0.00855 UJ	0.0302 U	0.0302 U	0.0302 U	0.0302 U	0.01208 U	0.0855 U	0.00855 U	**0.00801 J**	0.00855 U	0.00428 U	0.00805 U	0.00855 U	0.00428 U
Polychlorinated Biphenyls (PCBs) (µg/L)																	
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)																	
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
6:2 FTS	NE	--	**0.00097 J**	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
8:2 FTS	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
NEtFOSAA	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	**0.00096 J**	--	--	**0.00062 J**	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
NMeFOSAA	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
N-methylperfluoro-1-octanesulfonamide	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluorobutanesulfonic acid (PFBS)	NE	--	**0.0022 J**	**0.0074**	--	--	--	--	--	**0.0017 J**	--	**0.00068 J**	--	--	**0.00088 J**	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	**0.00052 J**	--	--	0.004 U	--	--
Perfluorodecanoic acid (PFDA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluorododecanoic acid (PFDoA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluoroheptanoic acid (PFHpA)	NE	--	**0.0045 J**	**0.0036 J**	--	--	--	--	--	**0.0066 J**	--	0.004 U	--	--	0.004 U	--	--
Perfluorohexanesulfonic acid (PFHxS)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluorohexanoic acid (PFHxA)	NE	--	0.0098 U	**0.011**	--	--	--	--	--	0.05 U	--	0.0092 U	--	--	0.0092 U	--	--
Perfluorononanoic acid (PFNA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluorooctanesulfonic acid (PFOS)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	**0.0042 J**	--	**0.00066 J**	--	--	**0.00077 J**	--	--
Perfluorooctanoic acid (PFOA)	NE	--	**0.011**	**0.015**	--	--	--	--	--	**0.01**	--	**0.00043 J**	--	--	**0.00092 J**	--	--
Perfluoropentanoic acid (PFPeA)	NE	--	**0.013**	**0.014**	--	--	--	--	--	**0.019 J**	--	0.004 U	--	--	0.004 U	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--
Perfluoroundecanoic acid (PFUnA)	NE	--	0.0049 U	0.0045 U	--	--	--	--	--	0.025 U	--	0.004 U	--	--	0.004 U	--	--

Analyte	Groundwater PCUL	MW-14 MW-14-220425 4/25/2022	MW-14 MW14-230724 7/24/2023	MW-14 MW14-20231204 12/4/2023	MW-15 MW-15-220422 4/22/2022	MW-15 MW15-230720 7/20/2023	MW-15 MW15-20231204 12/4/2023	MW-16 MW-16-04192022 4/19/2022	MW-16 MW16-230721 7/21/2023	MW-16 MW16-20231205 12/5/2023	MW-17 MW17-220420 4/20/2022	MW-17 MW17-230720 7/20/2023	MW-17 MW17-20231205 12/5/2023	MW-18 MW-18-220421 4/21/2022	MW-18 MW18-230713 7/13/2023	MW-18 MW18-20231205 12/5/2023	MW-19 MW19-230725 7/25/2023	MW-19 MW19-20231206 12/6/2023
Total Metals (µg/L)																		
Arsenic	8.0	**10.7**	**11.9**	**14.4**	**8.79**	**13.9**	**16.4**	**13.6**	**10.7**	**13.4**	**7.15**	**4.46**	**3.53**	**44.3**	**25.6**	**34.9**	**7.49**	**37.1**
Cadmium	1.2	0.1 U	0.100 U	0.100 U	0.1 U	0.100 U	0.100 U	0.1 U	0.100 U	0.200 U	0.1 U	0.100 U	0.200 U	**0.048 J**	1.00 U	0.200 U	**0.0990 J**	**0.0500 J**
Chromium	100	**0.89**	**0.897**	2.50 U	**0.306 J**	0.500 U	2.50 U	**1.09**	**0.955**	**0.946 J**	**0.352 J**	0.500 U	1.00 U	**36.5**	**70.1**	**24.2**	2.50 U	5.00 U
Copper	3.1	**0.336 J**	0.500 U	1.00 U	**0.484 J**	**0.261 J**	1.00 U	**0.235 J**	0.500 U	**0.470 J**	**0.278 J**	**0.276 J**	**0.728 J**	**27.8**	**29.6**	**1.22**	**1.28**	**0.740**
Lead	5.6	0.1 U	0.100 U	**0.101**	**0.155**	0.100 U	0.100 U	0.1 U	0.100 U	0.200 U	**0.155**	**0.0900 J**	**0.218**	**6.43**	**9.07**	**0.502**	**0.196**	**0.115**
Mercury	0.025	**0.00151**	**0.00056**	**0.00217**	**0.00031 J**	0.00041 U	**0.00119**	**0.00121**	**0.00046**	**0.00085**	**0.00137**	**0.00031 J**	**0.00045**	**0.801**	**0.147**	**0.0307**	**0.00293**	**0.00361**
Nickel	8.2	**1.32**	**0.662**	**0.898 J**	**0.527**	**0.471 J**	**0.300 J**	**2.24**	**1.34**	**1.76**	**1.39**	**0.818**	**0.846 J**	**65.6**	**66.2**	**46.7**	**5.92**	**4.05**
Selenium	50	0.5 U	0.500 U	1.00 U	0.5 U	0.500 U	1.00 U	**0.203 J**	**0.854**	1.00 U	0.5 U	0.500 U	1.00 U	**0.514**	5.00 U	1.00 U	**0.259 J**	**0.295 J**
Thallium	0.062	0.2 U	0.200 U	0.200 U	0.2 U	0.200 U	0.200 U	0.2 U	0.200 U	0.400 U	0.2 U	0.200 U	0.400 U	0.2 U	2.00 U	1.00 U	0.200 U	0.400 U
Zinc	81	**4.14 J**	6.00 U	12.0 U	6 U	**13.1**	12.0 U	6 U	6.00 U	**13.2**	6 U	**4.56 J**	**6.01 J**	**8.89**	60.0 U	**11.9 J**	6.00 U	**4.79 J**
Dissolved Metals (µg/L)																		
Arsenic	8.0	**7.94**	**12.1**	**13.5**	**9.23**	**13.6**	**16.4**	**13.7**	**6.66**	**16.0**	**7.28**	**3.39**	**6.85**	**48.8**	**37.6**	**30.7**	**16.6**	**35.4**
Cadmium	1.2	0.1 U	0.100 U	0.200 U	0.2 U	0.100 U	0.200 U	0.1 U	**0.0410 J**	0.200 U	0.1 U	0.100 U	0.200 U	0.1 U	0.100 U	0.200 U	**0.0770 J**	**0.185 J**
Chromium	100	**0.781**	**0.742 J**	**0.670 J**	1 U	0.500 U	1.00 U	**0.695**	**0.893**	2.50 U	0.5 U	0.500 U	2.50 U	**31.7**	**52.6**	**22.8**	**0.686 J**	2.50 U
Chromium, Hexavalent	0.046	13 U	13 U	13 U	13 U	13 U	13 U	13 UJ	13 U	13 U	13 UJ	13 U	13 U	**19**	13 U	13 UJ	13 UJ	13 U
Chromium, Trivalent	27	--	--	2.50 U	--	0.500 U	2.50 U	--	--	--	--	0.500 U	1.00 U	**12.7**			2.50 U	5.00 U
Copper	3.1	**0.377 J**	**0.342 J**	**0.670 J**	1 U	0.500 U	1.00 U	0.5 U	0.500 U	**0.544 J**	0.5 U	0.500 U	**0.556 J**	**0.249 J**	0.500 U	**0.564 J**	**0.505**	**1.06 J**
Lead	5.6	**0.071 J**	0.100 U	0.100 U	0.2 U	0.100 U	0.100 U	0.1 U	0.100 U	0.500 U	0.1 U	0.100 U	0.500 U	0.1 U	**0.0920 J**	0.200 U	0.100 U	0.500 U
Mercury	0.025	**0.0004 J**	**0.00029 J**	**0.00060**	0.00041 U	0.00041 U	**0.00155**	0.00041 U	**0.00035 J**	0.00105 U	0.00041 U	0.00041 U	0.00042 U	**0.00792**	**0.00247**	0.00105 U	**0.00039 J**	**0.00169**
Nickel	8.2	**1.24**	**0.637**	**0.804 J**	**0.192 J**	**0.156 J**	**0.220 J**	**1.72**	**1.12**	**1.40**	**0.487 J**	**0.561**	**0.676 J**	**60.2**	**55.9**	**48.4**	**6.38**	**3.92**
Selenium	50	--	0.500 U	1.00 U	--	0.500 U	1.00 U	**0.272 J**	**0.616**	1.00 U	--	**0.239 J**	1.00 U	--	0.500 U	1.00 U	**0.193 J**	2.50 U
Thallium	0.062	--	0.200 U	0.400 U	--	0.200 U	0.400 U	0.2 U	0.200 U	1.00 U	--	0.200 U	1.00 U	--	0.200 U	0.400 U	0.200 U	1.00 U
Zinc	81	--	6.00 U	12.0 U	--	6.00 U	12.0 U	6 U	6.00 U	12.0 U	--	6.00 U	12.0 U	--	6.00 U	12.0 U	**3.05 J**	30.0 U
Total Petroleum Hydrocarbons (µg/L)																		
Gasoline-range hydrocarbons - HCID	800	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Diesel-range hydrocarbons - HCID	500	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	500 U	**500**	**500**	500 U	500 U	500 U
Lube oil-range hydrocarbons - HCID	500	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Total TPH - HCID	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**500**	**500**	ND	ND	ND
Diesel-range hydrocarbons	500	100 U	--	--	100 U	--	--	100 U	--	--	100 U	--	--	**754**	**876**	**338**	--	--
Lube oil-range hydrocarbons	500	200 U	--	--	200 U	--	--	200 U	--	--	200 U	--	--	200 U	**234**	200 U	--	--
Total TPH	500	ND	--	--	ND	--	--	ND	--	--	ND	--	--	**754**	**1110**	**338**	--	--
Diesel-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	**169 J**	--	--	--
Lube oil-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	200 UJ	--	--	--
Total TPH - w/SGC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	**169 J**	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)																		
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Benzene	1.6	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
C12-C13 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
C5-C6 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
C6-C8 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	50 U	--	--	--	--
Decane	NE	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Dodecane	NE	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Hexane	4.1	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--	--
Naphthalene	1.4	--	--	--	--	--	--	--	--	--	--	--	--	5 U				
Octane	NE	--	--	--	--	--	--	--	--	--	--	--	--	5 U				
Pentane	NE	--	--	--	--	--	--	--	--	--	--	--	--	5 U				
Toluene	102	--	--	--	--	--	--	--	--	--	--	--	--	5 U				
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--	--	--	--	--	10 U				
Xylene, o-	NE	--	--	--	--	--	--	--	--	--	--	--	--	5 U				
Total Xylenes	106	--	--	--	--	--	--	--	--	--	--	--	--	10 U				

Analyte	Groundwater PCUL	MW-14 MW-14-220425 4/25/2022	MW-14 MW14-230724 7/24/2023	MW-14 MW14-20231204 12/4/2023	MW-15 MW-15-220422 4/22/2022	MW-15 MW15-230720 7/20/2023	MW-15 MW15-20231204 12/4/2023	MW-16 MW-16-04192022 4/19/2022	MW-16 MW16-230721 7/21/2023	MW-16 MW16-20231205 12/5/2023	MW-17 MW17-220420 4/20/2022	MW-17 MW17-230720 7/20/2023	MW-17 MW17-20231205 12/5/2023	MW-18 MW-18-220421 4/21/2022	MW-18 MW18-230713 7/13/2023	MW-18 MW18-20231205 12/5/2023	MW-19 MW19-230725 7/25/2023	MW-19 MW19-20231206 12/6/2023
Total Metals (µg/L)																		
Extractable Petroleum Hydrocarbons (EPH) (µg/L)																		
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 UJ	40 UJ	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 U	40 UJ	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 UJ	40 UJ	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 U	40 UJ	--	--	--
C12-C16 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 UJ	40 UJ	--	--	--
C12-C16 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 U	40 UJ	--	--	--
C16-C21 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 UJ	40 UJ	--	--	--
C16-C21 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 U	40 UJ	--	--	--
C21-C34 Aliphatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 UJ	40 UJ	--	--	--
C21-C34 Aromatics	NE	--	--	--	--	--	--	--	--	--	--	--	--	40 U	40 UJ	--	--	--
Volatile Organic Compounds (VOCs) (µg/L)																		
1,1,1,2-Tetrachloroethane	1.7	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,1,1-Trichloroethane	200	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,1,2,2-Tetrachloroethane	0.22	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,1,2-Trichloroethane	0.90	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,1-Dichloroethane	7.7	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	**0.32**	--	--	--	--
1,1-Dichloroethylene	7.0	**0.38**	**0.27**	**0.29**	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloropropene	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,2,3-Trichlorobenzene	6.4	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	--	--
1,2,3-Trichloropropane	0.00038	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	--	--
1,2,4-Trichlorobenzene	NE	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	--	--
1,2,4-Trimethylbenzene	80	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,2-Dibromo-3-Chloropropane	0.042	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	--	--
1,2-Dibromoethane	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,2-Dichlorobenzene	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,2-Dichloroethane	3.5	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,2-Dichloropropane	3.1	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,3,5-Trimethylbenzene	80	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,3-Dichlorobenzene	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,3-Dichloropropane	160	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
1,4-Dichlorobenzene	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
2,2-Dichloropropane	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
2-Chloroethyl vinyl ether	NE	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	--	--
2-Chlorotoluene	160	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
2-Hexanone	40	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	--	--
4-Chlorotoluene	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
4-Isopropyltoluene	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Acetone	7200	5 U	--	--	5 U	--	--	**8.37**	--	--	5 U	--	--	**4.99 J**	--	--	--	--
Acrolein	1.1	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	--	--
Acrylonitrile	7200	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	--	--
Benzene	1.1	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	**0.06 J**	--	--	--	--
Bromobenzene	64	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Bromochloromethane	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Bromoform	12	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Bromomethane	11	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	--	--
Carbon Disulfide	800	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Carbon Tetrachloride	0.35	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Chlorobenzene	100	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Chloroethane	14667	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Chloroform	1.2	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Chloromethane	153	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	--	--
cis-1,2-Dichloroethylene	16	**26.3**	**24.8**	**22.6**	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	**0.36**	**0.33**	**0.29**	**0.14 J**	**0.14 J**
cis-1,3-Dichloropropene	0.44	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Dibromochloromethane	2.2	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Dibromomethane	80	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Dichlorobromomethane	1.4	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Dichlorodifluoromethane	4.2	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Ethylbenzene	21	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Hexachlorobutadiene	NE	2 U	--	--	2 U	--	--	2 U	--	--	2 U	--	--	2 U	--	--	--	--
Hexane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	800	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Methyl ethyl ketone (MEK)	4800	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	--	--
Methyl Iodide	NE	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	--	--
Methyl isobutyl ketone	640	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	5 U	--	--	--	--
Methyl tert-butyl ether	24	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	--	--

Analyte	Groundwater PCUL	MW-14 MW-14-220425 4/25/2022	MW-14 MW14-230724 7/24/2023	MW-14 MW14-20231204 12/4/2023	MW-15 MW-15-220422 4/22/2022	MW-15 MW15-230720 7/20/2023	MW-15 MW15-20231204 12/4/2023	MW-16 MW-16-04192022 4/19/2022	MW-16 MW16-230721 7/21/2023	MW-16 MW16-20231205 12/5/2023	MW-17 MW17-220420 4/20/2022	MW-17 MW17-230720 7/20/2023	MW-17 MW17-20231205 12/5/2023	MW-18 MW-18-220421 4/21/2022	MW-18 MW18-230713 7/13/2023	MW-18 MW18-20231205 12/5/2023	MW-19 MW19-230725 7/25/2023	MW-19 MW19-20231206 12/6/2023
Total Metals (µg/L)																		
Methylene Chloride	5.0	1 U	1.00 U	1.00 U	1 U	1.00 U	1.00 U	1 U	1.00 U	1.00 U	1 U	1.00 U	1.00 U	1 U	1.00 U	1.00 U	1.00 U	**0.58 J**
Naphthalene	1.4	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	0.5 U	--	--	**3.28**				
n-Butylbenzene	400	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U				
n-Propylbenzene	800	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U				
Sec-Butylbenzene	800	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Styrene	100	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Tert-Butylbenzene	800	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Tetrachloroethylene	2.9	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Toluene	102	0.2 U	--	--	0.2 U	--	--	**0.05 J**	--	--	0.2 U	--	--	0.2 U	--	--	--	--
trans-1,2-Dichloroethylene	77	**0.14 J**	**0.19 J**	**0.15 J**	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.44	0.2 U			0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
trans-1,4-Dichloro-2-butene	NE	1 U			1 U	--	--	1 U	--	--	1 U	--	--	1 U	--	--	--	--
Trichloroethylene	0.70	**40.3**	**23.2**	**24.3**	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.20 U	0.20 U
Trichlorofluoromethane	120	0.2 U			0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Vinyl Acetate	7809	0.2 U			0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Vinyl Chloride	0.18	**0.32**	**1.56**	**0.96**	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	0.2 U	0.20 U	0.20 U	**0.22**	0.20 U	**0.15 J**	0.20 U	0.20 U
Xylene, m-,p-	NE	0.4 U	--	--	0.4 U	--	--	0.4 U	--	--	0.4 U	--	--	0.4 U	--	--	--	--
Xylene, o-	NE	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	0.2 U	--	--	--	--
Total Xylenes	106	0.6 U	--	--	0.6 U	--	--	0.6 U	--	--	0.6 U	--	--	0.6 U	--	--	--	--
Semivolatile Compounds (SVOCs) (µg/L)																		
1,2,4-Trichlorobenzene	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	0.44	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.3**	**0.2**	**0.3**	0.2 U	0.2 U	0.2 U	**0.4**	**0.4**	**0.3**	0.2 U	0.2 UJ
2,2'-Oxybis[1-chloropropane]	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.037	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	2.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-methylphenol	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.0033	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	0.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-methylphenol	106	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	589	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.046	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibutyl Phthalate	8.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl Phthalate	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl Phthalate	59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	0.020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	Groundwater PCUL	MW-14 MW-14-220425 4/25/2022	MW-14 MW14-230724 7/24/2023	MW-14 MW14-20231204 12/4/2023	MW-15 MW-15-220422 4/22/2022	MW-15 MW15-230720 7/20/2023	MW-15 MW15-20231204 12/4/2023	MW-16 MW-16-04192022 4/19/2022	MW-16 MW16-230721 7/21/2023	MW-16 MW16-20231205 12/5/2023	MW-17 MW17-220420 4/20/2022	MW-17 MW17-230720 7/20/2023	MW-17 MW17-20231205 12/5/2023	MW-18 MW-18-220421 4/21/2022	MW-18 MW18-230713 7/13/2023	MW-18 MW18-20231205 12/5/2023	MW-19 MW19-230725 7/25/2023	MW-19 MW19-20231206 12/6/2023
Total Metals (µg/L)																		
Pentachlorophenol	0.0020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)																		
1-Methylnaphthalene	1.5	**0.003 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.006 J**	0.010 U	0.010 U	**0.005 J**	0.010 U	0.010 U	**0.333**	**0.292**	**0.072**	0.010 UJ	0.010 U
2-Methylnaphthalene	14	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.006 J**	0.010 U	0.010 U	**0.39**	**0.239**	**0.037**	0.010 UJ	0.010 U
Acenaphthene	5.3	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.628**	**0.848**	**0.377**	0.010 UJ	0.010 U
Acenaphthylene	NE	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.006 J**	0.050 U	0.010 U	0.010 UJ	0.010 U
Anthracene	2.1	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.055**	0.050 U	**0.047**	0.010 UJ	0.010 U
Benzo(a)anthracene	0.00016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.013**	0.050 U	0.010 U	0.010 UJ	0.010 U
Benzo(a)pyrene	0.000016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.009 J**	0.050 U	0.010 U	0.010 UJ	0.010 U
Benzo(b)fluoranthene	0.00016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.011**	0.050 U	0.010 U	0.010 UJ	0.010 U
Benzo(g,h,i)perylene	NE	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.004 J**	0.050 U	0.010 U	0.010 UJ	0.010 U
Benzo(j)fluoranthene	NE	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.006 J**	0.050 U	0.010 U	0.010 UJ	0.010 U
Benzo(k)fluoranthene	0.0016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.007 J**	0.050 U	0.010 U	0.010 UJ	0.010 U
Benzofluoranthenes (Total)	NE	0.01 U	0.020 U	0.020 U	0.01 U	0.020 U	0.020 U	0.01 U	0.020 U	0.020 U	0.01 U	0.020 U	0.020 U	**0.024**	0.100 U	0.020 U	0.020 UJ	0.020 U
Carbazole	NE	**0.001 J**	0.010 U	0.010 U	**0.001 J**	0.010 U	0.010 U	**0.003 J**	0.010 U	0.010 U	**0.001 J**	0.010 U	0.010 U	**0.067**	**0.129**	**0.234**	0.010 UJ	0.010 U
Chrysene	0.016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.023**	0.050 U	0.010 U	0.010 UJ	0.010 U
Dibenzo(a,h)anthracene	0.000016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.050 U	0.010 U	0.010 UJ	0.010 U
Dibenzofuran	3.1	**0.002 J**	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.169**	**0.137**	**0.215**	0.010 UJ	0.010 U
Fluoranthene	1.8	**0.004 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.005 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.113**	0.050 U	**0.054**	0.010 UJ	0.010 U
Fluorene	3.7	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.003 J**	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.267**	**0.247**	**0.332**	0.010 UJ	0.010 U
Indeno(1,2,3-c,d)pyrene	0.00016	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.004 J**	0.050 U	0.010 U	0.010 UJ	0.010 U
Naphthalene	1.4	**0.012**	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	**0.006 J**	**0.013**	0.010 U	0.010 U	**1.11**	**1.06**	**0.239**	**0.058 J**	**0.040**
Perylene	NE	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	0.01 U	0.010 U	0.010 U	**0.043**	0.050 U	0.010 U	0.010 UJ	0.010 U
Phenanthrene	NE	**0.003 J**	0.010 U	0.010 U	**0.005 J**	0.010 U	0.010 U	**0.009 J**	0.010 U	0.010 U	**0.006 J**	0.010 U	0.010 U	**0.317**	**0.165**	**0.303**	0.010 UJ	0.010 U
Pyrene	2.0	**0.002 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.003 J**	0.010 U	0.010 U	**0.002 J**	0.010 U	0.010 U	**0.078**	0.050 U	**0.042**	0.010 UJ	0.010 U
Total cPAH TEQ (ND=0.5RL)	0.0097	0.00805 U	0.00855 U	0.00855 U	0.00805 U	0.00855 U	0.00855 U	0.00805 U	0.00855 U	0.00855 U	0.00805 U	0.00855 U	0.00855 U	**0.01563 J**	0.04275 U	0.00855 U	0.00855 UJ	0.00855 U
Polychlorinated Biphenyls (PCBs) (µg/L)																		
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)																		
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	**0.00013 J**	--	--	**0.00023 J**	--	0.0049 U	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
6:2 FTS	NE	0.0042 U	--	--	0.004 U	--	--	--	**0.0032 J**	--	--	0.0049 U	--	--	**0.077 J**	--	**0.00069 J**	--
8:2 FTS	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	**0.00035 J**	--	0.0049 U	--
NEtFOSAA	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
NMeFOSAA	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
Perfluorobutanesulfonic acid (PFBS)	NE	**0.00052 J**	--	--	0.004 U	--	--	--	0.0049 U	--	--	**0.00089 J**	--	--	**0.034**	--	**0.0030 J**	--
Perfluorodecanesulfonic acid (PFDS)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
Perfluorodecanoic acid (PFDA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
Perfluorododecanoic acid (PFDoA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	**0.006**	--	0.0049 U	--
Perfluoroheptanoic acid (PFHpA)	NE	**0.0007 J**	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	**0.14**	--	**0.0043 J**	--
Perfluorohexanesulfonic acid (PFHxS)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	**0.0019 J**	--	--	**0.24**	--	**0.0034 J**	--
Perfluorohexanoic acid (PFHxA)	NE	0.0092 U	--	--	0.0092 U	--	--	--	0.0098 U	--	--	0.0098 U	--	--	**0.21**	--	0.0098 U	--
Perfluorononanoic acid (PFNA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	**0.0016 J**	--	0.0049 U	--
Perfluorooctanesulfonamide (PFOSA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
Perfluorooctanesulfonic acid (PFOS)	NE	**0.002 J**	--	--	0.004 U	--	--	--	0.0049 U	--	--	**0.0018 J**	--	--	**0.07**	--	**0.0019 J**	--
Perfluorooctanoic acid (PFOA)	NE	**0.0019**	--	--	0.0016 U	--	--	--	**0.002**	--	--	0.002 U	--	--	**0.75**	--	**0.0095**	--
Perfluoropentanoic acid (PFPeA)	NE	0.0042 U	--	--	0.004 U	--	--	--	**0.0059**	--	--	0.0049 U	--	--	**0.099**	--	**0.01**	--
Perfluorotetradecanoic acid (PFTeA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--
Perfluorotridecanoic acid (PFTrDA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	**0.0013 J**	--	0.0049 U	--
Perfluoroundecanoic acid (PFUnA)	NE	0.0042 U	--	--	0.004 U	--	--	--	0.0049 U	--	--	0.0049 U	--	--	0.0048 U	--	0.0049 U	--

Analyte	Groundwater PCUL	Location ID: MW-20 Sample ID: MW20-230725 Sample Date: 7/25/2023	MW-20 MW20-20231206 12/6/2023	MW-21 MW21-230725 7/25/2023	MW-21 MW21-20231207 12/6/2023	MW-22 MW22-230725 7/25/2023	MW-22 MW22-20231206 12/6/2023	MW-23 MW23-230724 7/24/2023	MW-23 MW23-20231206 12/6/2023
Total Metals (µg/L)									
Arsenic	8.0	**1.90**	**5.16**	**6.10**	**9.36**	**6.07**	**4.54**	**72.5**	**98.6**
Cadmium	1.2	**0.202**	**0.0650 J**	0.200 U	0.500 U	**0.0310 J**	**0.186**	0.500 U	0.100 U
Chromium	100	**1.11**	5.00 U	**0.764 J**	2.50 U	**1.61**	1.00 U	**3.51**	5.00 U
Copper	3.1	**2.10**	**0.375 J**	1.00 U	2.50 U	**0.471 J**	**0.311 J**	**1.85 J**	**0.191 J**
Lead	5.6	**0.200**	**0.0560 J**	**0.198 J**	0.500 U	**0.126**	**0.145**	**0.300 J**	**0.0600 J**
Mercury	0.025	**0.00411**	**0.00267**	0.00042 U	**0.00026 J**	**0.00153**	**0.00118**	**0.00078**	**0.00234**
Nickel	8.2	**8.89**	**5.30**	**1.27**	**0.810 J**	**0.779**	**0.766**	**2.71**	**1.97**
Selenium	50	**0.486 J**	**0.392 J**	1.00 U	2.50 U	**0.355 J**	**0.272 J**	**1.29 J**	**0.566**
Thallium	0.062	0.400 U	0.400 U	0.400 U	1.00 U	0.200 U	0.400 U	1.00 U	0.400 U
Zinc	81	12.0 U	**3.74 J**	12.0 U	30.0 U	6.00 U	**3.09 J**	30.0 U	**3.41 J**
Dissolved Metals (µg/L)									
Arsenic	8.0	**1.54**	**5.94**	**6.38**	**8.10**	**5.96**	**4.46**	**72.0**	**92.8**
Cadmium	1.2	**0.153**	0.500 U	0.100 U	0.500 U	0.100 U	0.200 U	0.200 U	**0.165 J**
Chromium	100	**1.10**	2.50 U	**0.958 J**	2.50 U	1.00 U	**0.610 J**	**2.27 J**	**1.76 J**
Chromium, Hexavalent	0.046	13 U	13 U	13 U	13 U	13 U	13 U	**13**	13 U
Chromium, Trivalent	27		5.00 U		2.50 U		1.00 U	ND	5.00 U
Copper	3.1	**1.77**	2.50 U	0.500 U	**1.37 J**	**0.378 J**	**0.400 J**	1.00 U	**1.49 J**
Lead	5.6	**0.101**	0.500 U	0.100 U	0.500 U	0.100 U	0.200 U	0.200 U	0.500 U
Mercury	0.025	**0.00305**	**0.00363**	0.00042 U	0.00042 U	**0.00076**	**0.00065**	**0.00026 J**	**0.00261**
Nickel	8.2	**9.69**	**6.11**	**1.16**	**0.735 J**	**0.485 J**	**1.29**	**2.47**	**1.82 J**
Selenium	50	**0.328 J**	2.50 U	0.500 U	2.50 U	**0.247 J**	**1.46**	**0.500 J**	2.50 U
Thallium	0.062	0.200 U	1.00 U	0.200 U	1.00 U	0.200 U	0.400 U	0.400 U	1.00 U
Zinc	81	6.00 U	**17.2 J**	6.00 U	30.0 U	6.00 U	12.0 U	12.0 U	30.0 U
Total Petroleum Hydrocarbons (µg/L)									
Gasoline-range hydrocarbons - HCID	800	250 U	250 U	250 U	250 U	--	250 U	250 U	250 U
Diesel-range hydrocarbons - HCID	500	500 U	500 U	500 U	500 U	--	500 U	500 U	500 U
Lube oil-range hydrocarbons - HCID	500	1000 U	1000 U	1000 U	1000 U	--	1000 U	1000 U	1000 U
Total TPH - HCID	500	ND	ND	ND	ND	--	ND	ND	ND
Diesel-range hydrocarbons	500	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons	500	--	--	--	--	--	--	--	--
Total TPH	500	--	--	--	--	--	--	--	--
Diesel-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--
Lube oil-range hydrocarbons - w/SGC	500	--	--	--	--	--	--	--	--
Total TPH - w/SGC	500	--	--	--	--	--	--	--	--
Volatile Petroleum Hydrocarbons (VPH) (µg/L)									
1-Methylnaphthalene	1.5	--	--	--	--	--	--	--	--
Benzene	1.6	--	--	--	--	--	--	--	--
Benzene, 1,2,3-Trimethyl-	80	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--
C12-C13 Aromatics	NE	--	--	--	--	--	--	--	--
C5-C6 Aliphatics	NE	--	--	--	--	--	--	--	--
C6-C8 Aliphatics	NE	--	--	--	--	--	--	--	--
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--
Decane	NE	--	--	--	--	--	--	--	--
Dodecane	NE	--	--	--	--	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--
Hexane	4.1	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--
Naphthalene	1.4								
Octane	NE								
Pentane	NE								
Toluene	102								
Xylene, m-,p-	NE								
Xylene, o-	NE								
Total Xylenes	106								

Analyte	Groundwater PCUL	MW-20 MW20-230725 7/25/2023	MW-20 MW20-20231206 12/6/2023	MW-21 MW21-230725 7/25/2023	MW-21 MW21-20231207 12/6/2023	MW-22 MW22-230725 7/25/2023	MW-22 MW22-20231206 12/6/2023	MW-23 MW23-230724 7/24/2023	MW-23 MW23-20231206 12/6/2023
Location ID									
Sample ID									
Sample Date									
Total Metals (µg/L)									
Extractable Petroleum Hydrocarbons (EPH) (µg/L)									
C8-C10 Aliphatics	NE	--	--	--	--	--	--	--	--
C8-C10 Aromatics	NE	--	--	--	--	--	--	--	--
C10-C12 Aliphatics	NE	--	--	--	--	--	--	--	--
C10-C12 Aromatics	NE	--	--	--	--	--	--	--	--
C12-C16 Aliphatics	NE	--	--	--	--	--	--	--	--
C12-C16 Aromatics	NE	--	--	--	--	--	--	--	--
C16-C21 Aliphatics	NE	--	--	--	--	--	--	--	--
C16-C21 Aromatics	NE	--	--	--	--	--	--	--	--
C21-C34 Aliphatics	NE	--	--	--	--	--	--	--	--
C21-C34 Aromatics	NE	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs) (µg/L)									
1,1,1,2-Tetrachloroethane	1.7	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	200	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.22	--	--	--	--	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NE	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.90	--	--	--	--	--	--	--	--
1,1-Dichloroethane	7.7	--	--	--	--	--	--	--	--
1,1-Dichloroethylene	7.0	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloropropene	NE	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene	6.4	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane	0.00038	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	NE	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	80	--	--	--	--	--	--	--	--
1,2-Dibromo-3-Chloropropane	0.042	--	--	--	--	--	--	--	--
1,2-Dibromoethane	NE	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	NE	--	--	--	--	--	--	--	--
1,2-Dichloroethane	3.5	--	--	--	--	--	--	--	--
1,2-Dichloropropane	3.1	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	80	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NE	--	--	--	--	--	--	--	--
1,3-Dichloropropane	160	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	NE	--	--	--	--	--	--	--	--
2,2-Dichloropropane	NE	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	NE	--	--	--	--	--	--	--	--
2-Chlorotoluene	160	--	--	--	--	--	--	--	--
2-Hexanone	40	--	--	--	--	--	--	--	--
4-Chlorotoluene	NE	--	--	--	--	--	--	--	--
4-Isopropyltoluene	NE	--	--	--	--	--	--	--	--
Acetone	7200	--	--	--	--	--	--	--	--
Acrolein	1.1	--	--	--	--	--	--	--	--
Acrylonitrile	7200	--	--	--	--	--	--	--	--
Benzene	1.1	--	--	--	--	--	--	--	--
Bromobenzene	64	--	--	--	--	--	--	--	--
Bromochloromethane	NE	--	--	--	--	--	--	--	--
Bromoform	12	--	--	--	--	--	--	--	--
Bromomethane	11	--	--	--	--	--	--	--	--
Carbon Disulfide	800	--	--	--	--	--	--	--	--
Carbon Tetrachloride	0.35	--	--	--	--	--	--	--	--
Chlorobenzene	100	--	--	--	--	--	--	--	--
Chloroethane	14667	--	--	--	--	--	--	--	--
Chloroform	1.2	--	--	--	--	--	--	--	--
Chloromethane	153	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethylene	16	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,3-Dichloropropene	0.44	--	--	--	--	--	--	--	--
Dibromochloromethane	2.2	--	--	--	--	--	--	--	--
Dibromomethane	80	--	--	--	--	--	--	--	--
Dichlorobromomethane	1.4	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	4.2	--	--	--	--	--	--	--	--
Ethylbenzene	21	--	--	--	--	--	--	--	--
Hexachlorobutadiene	NE	--	--	--	--	--	--	--	--
Hexane	NE	--	--	--	--	--	--	--	--
Isopropylbenzene	800	--	--	--	--	--	--	--	--
Methyl ethyl ketone (MEK)	4800	--	--	--	--	--	--	--	--
Methyl Iodide	NE	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	640	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	24	--	--	--	--	--	--	--	--

	Location ID	MW-20	MW-20	MW-21	MW-21	MW-22	MW-22	MW-23	MW-23
	Sample ID	MW20-230725	MW20-20231206	MW21-230725	MW21-20231207	MW22-230725	MW22-20231206	MW23-230724	MW23-20231206
	Sample Date	7/25/2023	12/6/2023	7/25/2023	12/6/2023	7/25/2023	12/6/2023	7/24/2023	12/6/2023
Analyte	**Groundwater PCUL**								
Total Metals (µg/L)									
Methylene Chloride	5.0	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Naphthalene	1.4								
n-Butylbenzene	400								
n-Propylbenzene	800								
Sec-Butylbenzene	800	--	--	--	--	--	--	--	--
Styrene	100	--	--	--	--	--	--	--	--
Tert-Butylbenzene	800	--	--	--	--	--	--	--	--
Tetrachloroethylene	2.9	--	--	--	--	--	--	--	--
Toluene	102	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	77	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.44	--	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	NE	--	--	--	--	--	--	--	--
Trichloroethylene	0.70	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Trichlorofluoromethane	120	--	--	--	--	--	--	--	--
Vinyl Acetate	7809	--	--	--	--	--	--	--	--
Vinyl Chloride	0.18	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Xylene, m-,p-	NE	--	--	--	--	--	--	--	--
Xylene, o-	NE	--	--	--	--	--	--	--	--
Total Xylenes	106	--	--	--	--	--	--	--	--
Semivolatile Compounds (SVOCs) (µg/L)									
1,2,4-Trichlorobenzene	0.96	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	4.5	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	2.0	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	5.0	--	--	--	--	--	--	--	--
1,4-Dioxane	0.44	**0.2**	**0.2 J**	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U	**0.2 J**
2,2'-Oxybis[1-chloropropane]	NE	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	0.037	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	8.0	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	10	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	2.9	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	32	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	0.18	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	0.058	--	--	--	--	--	--	--	--
2-Chloronaphthalene	100	--	--	--	--	--	--	--	--
2-Chlorophenol	17	--	--	--	--	--	--	--	--
2-methylphenol	11	--	--	--	--	--	--	--	--
2-Nitroaniline	160	--	--	--	--	--	--	--	--
2-Nitrophenol	NE	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	0.0033	--	--	--	--	--	--	--	--
3-Nitroaniline	NE	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	7.0	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	NE	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol	36	--	--	--	--	--	--	--	--
4-Chloroaniline	0.44	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	NE	--	--	--	--	--	--	--	--
4-methylphenol	106	--	--	--	--	--	--	--	--
4-Nitroaniline	4.4	--	--	--	--	--	--	--	--
4-Nitrophenol	NE	--	--	--	--	--	--	--	--
Benzoic Acid	589	--	--	--	--	--	--	--	--
Benzyl Alcohol	56	--	--	--	--	--	--	--	--
Bis(2-Chloroethoxy)Methane	NE	--	--	--	--	--	--	--	--
Bis(2-Chloroethyl)Ether	0.040	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	0.046	--	--	--	--	--	--	--	--
Butyl benzyl Phthalate	0.013	--	--	--	--	--	--	--	--
Carbazole	NE	--	--	--	--	--	--	--	--
Dibutyl Phthalate	8.0	--	--	--	--	--	--	--	--
Diethyl Phthalate	93	--	--	--	--	--	--	--	--
Dimethyl Phthalate	59	--	--	--	--	--	--	--	--
Di-N-Octyl Phthalate	2.3	--	--	--	--	--	--	--	--
Hexachlorobenzene	0.000005	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.010	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	1.0	--	--	--	--	--	--	--	--
Hexachloroethane	0.020	--	--	--	--	--	--	--	--
Isophorone	92	--	--	--	--	--	--	--	--
Nitrobenzene	16	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	0.013	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	0.55	--	--	--	--	--	--	--	--

Location ID		MW-20	MW-20	MW-21	MW-21	MW-22	MW-22	MW-23	MW-23
Sample ID		MW20-230725	MW20-20231206	MW21-230725	MW21-20231207	MW22-230725	MW22-20231206	MW23-230724	MW23-20231206
Sample Date		7/25/2023	12/6/2023	7/25/2023	12/6/2023	7/25/2023	12/6/2023	7/24/2023	12/6/2023
Analyte	**Groundwater PCUL**								
Total Metals (µg/L)									
Pentachlorophenol	0.0020	--	--	--	--	--	--	--	--
Phenol	101	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)									
1-Methylnaphthalene	1.5	0.010 U	0.010 U	**0.104**	**0.110**	--	0.010 U	**0.014**	0.010 U
2-Methylnaphthalene	14	0.010 U	0.010 U	**0.007 J**	**0.007 J**	--	0.010 U	**0.021**	0.010 U
Acenaphthene	5.3	0.010 U	0.010 U	**0.007 J**	**0.007 J**	--	0.010 U	0.010 U	0.010 U
Acenaphthylene	NE	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Anthracene	2.1	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzo(a)anthracene	0.00016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzo(a)pyrene	0.000016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzo(b)fluoranthene	0.00016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzo(g,h,i)perylene	NE	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzo(j)fluoranthene	NE	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzo(k)fluoranthene	0.0016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Benzofluoranthenes (Total)	NE	0.020 U	0.020 U	0.020 U	0.020 U	--	0.020 U	0.020 U	0.020 U
Carbazole	NE	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	**0.011**
Chrysene	0.016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Dibenzo(a,h)anthracene	0.000016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Dibenzofuran	3.1	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Fluoranthene	1.8	0.010 U	0.010 U	0.010 U	**0.009 J**	--	0.010 U	0.010 U	0.010 U
Fluorene	3.7	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Indeno(1,2,3-c,d)pyrene	0.00016	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Naphthalene	1.4	**0.009 J**	0.010 U	**0.015 J**	0.010 U	--	0.010 U	0.010 U	0.010 U
Perylene	NE	0.010 U	0.010 U	0.010 U	0.010 U	--	0.010 U	0.010 U	0.010 U
Phenanthrene	NE	0.010 U	0.010 U	0.010 U	**0.008 J**	--	0.010 U	0.010 U	0.010 U
Pyrene	2.0	0.010 U	0.010 U	0.010 U	**0.010 J**	--	0.010 U	0.010 U	0.010 U
Total cPAH TEQ (ND=0.5RL)	0.0097	0.00855 U	0.00855 U	0.00855 U	0.00855 U	--	0.00855 U	0.00855 U	0.00855 U
Polychlorinated Biphenyls (PCBs) (µg/L)									
PCB-Aroclor 1016	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1221	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1232	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1242	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1248	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1254	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1260	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1262	NE	--	--	--	--	--	--	--	--
PCB-Aroclor 1268	NE	--	--	--	--	--	--	--	--
Total PCB Aroclors	0.000007	--	--	--	--	--	--	--	--
Per- and Polyfluoroalkyl Substances (PFAS) (µg/L)									
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	NE	**0.00029 J**	--	**0.00023 J**	--	--	--	--	--
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
6:2 FTS	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
8:2 FTS	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
NEtFOSAA	NE	--	--	--	--	--	--	--	--
N-ethylperfluoro-1-octanesulfonamide	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
NMeFOSAA	NE	--	--	--	--	--	--	--	--
N-methylperfluoro-1-octanesulfonamide	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
Perfluorobutanesulfonic acid (PFBS)	NE	**0.0039 J**	--	**0.0026 J**	--	--	--	--	--
Perfluorodecanesulfonic acid (PFDS)	NE	0.0049 U	--	**0.00037 J**	--	--	--	--	--
Perfluorodecanoic acid (PFDA)	NE	**0.0012 J**	--	0.0050 U	--	--	--	--	--
Perfluorododecanoic acid (PFDoA)	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
Perfluoroheptanesulfonic Acid (PFHpS)	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
Perfluoroheptanoic acid (PFHpA)	NE	**0.01**	--	**0.0038 J**	--	--	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	NE	**0.0051**	--	**0.0019 J**	--	--	--	--	--
Perfluorohexanoic acid (PFHxA)	NE	**0.011**	--	0.01 U	--	--	--	--	--
Perfluorononanoic acid (PFNA)	NE	**0.0014 J**	--	0.0050 U	--	--	--	--	--
Perfluorooctanesulfonamide (PFOSA)	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
Perfluorooctanesulfonic acid (PFOS)	NE	**0.017**	--	**0.012**	--	--	--	--	--
Perfluorooctanoic acid (PFOA)	NE	**0.014**	--	**0.0073**	--	--	--	--	--
Perfluoropentanoic acid (PFPeA)	NE	**0.011**	--	**0.0046 J**	--	--	--	--	--
Perfluorotetradecanoic acid (PFTeA)	NE	0.0049 U	--	0.0050 U	--	--	--	--	--
Perfluorotridecanoic acid (PFTrDA)	NE	**0.0014 J**	--	0.0050 U	--	--	--	--	--
Perfluoroundecanoic acid (PFUnA)	NE	0.0049 U	--	0.0050 U	--	--	--	--	--

Table K-4

Ditch Water Sample Data

Former Precision Engineering Property

Seattle, Washington

	Location ID	SW1	SW1	SW2
	Sample ID	SW1-230328	SW1-20231204	SW2-20231204
	Sample Date	3/28/2023	12/4/2023	12/4/2023
Analyte	**Water PCUL[1]**			
Total Metals (µg/L)				
Arsenic	8.0	**4.33**	**0.342 J**	**0.286 J**
Cadmium	1.2	**0.824**	**0.158 J**	**0.222**
Chromium	100	**47.1**	**2.22**	**0.610 J**
Copper	3.1	**142**	**7.67**	**6.80**
Lead	5.6	**60.3**	**0.974**	**0.782**
Mercury	0.025	**0.118**	**0.00841**	**0.00795**
Nickel	8.2	**18.7**	**3.38**	**7.52**
Selenium	50	1.00 U	1.00 U	1.00 U
Thallium	0.062	0.400 U	0.400 U	0.200 U
Zinc	81	**274**	**134**	**301**
Dissolved Metals (µg/L)				
Arsenic	8.0	**0.536**	**0.396 J**	**0.354 J**
Cadmium	1.2	**0.189**	**0.112 J**	**0.242**
Chromium	100	**5.35**	**2.28**	**0.850 J**
Chromium, Hexavalent	0.046	13 U	13 U	13 U
Copper	3.1	**14.4**	**8.30**	**7.38**
Lead	5.6	**0.976**	**0.598**	**0.442**
Mercury	0.025	**0.026 J**	**0.00668**	**0.00681**
Nickel	8.2	**7.40**	**3.50**	**6.95**
Selenium	50	0.500 U	1.00 U	1.00 U
Thallium	0.062	0.200 U	0.400 U	0.400 U
Zinc	81	**143**	**132**	**289**
Total Petroleum Hydrocarbons (µg/L)				
Gasoline-range hydrocarbons - HCID	800	250 U	250 U	250 U
Diesel-range hydrocarbons - HCID	500	500 U	500 U	500 U
Lube oil-range hydrocarbons - HCID	500	1,000 U	1,000 U	1,000 U
Total TPH - HCID	500	ND	ND	ND
Gasoline-range hydrocarbons	800	100 U		
Volatile Organic Compounds (VOCs) (µg/L)				
1,1-Dichloroethylene	7.0	**0.11 J**	0.20 U	0.20 U
cis-1,2-Dichloroethylene	16	**8.97**	0.20 U	0.20 U
Methylene Chloride	5.0	1.00 U	1.00 U	1.00 U
trans-1,2-Dichloroethylene	77	**0.08 J**	0.20 U	0.20 U
Trichloroethylene	0.70	**0.20 J**	0.20 U	0.20 U
Vinyl Chloride	0.18	0.20 U	0.20 U	0.20 U
Semivolatile Complounds (SVOCs) (µg/L)				
1,4-Dioxane	0.44	**0.2 J**	0.2 U	0.2 U
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/L)				
1-Methylnaphthalene	1.5	**0.003 J**	**0.013**	0.010 U
2-Methylnaphthalene	14	**0.004 J**	**0.013**	0.010 U
Acenaphthene	5.3	0.010 U	0.010 U	0.010 U
Acenaphthylene	NE	0.010 U	0.010 U	0.010 U
Anthracene	2.1	**0.002 J**	0.010 U	0.010 U
Benzo(a)anthracene	0.00016	**0.012**	0.010 U	0.010 U
Benzo(a)pyrene	0.000016	**0.015**	0.010 U	0.010 U
Benzo(b)fluoranthene	0.00016	**0.017**	0.010 U	0.010 U
Benzo(g,h,i)perylene	NE	**0.019**	0.010 U	0.010 U
Benzo(j)fluoranthene	NE	**0.007 J**	0.010 U	0.010 U
Benzo(k)fluoranthene	0.0016	**0.009 J**	0.010 U	0.010 U
Benzofluoranthenes (Total)	NE	**0.033**	0.020 U	0.020 U
Carbazole	NE	**0.002 J**	0.010 U	0.010 U
Chrysene	0.016	**0.018**	0.010 U	0.010 U
Dibenzo(a,h)anthracene	0.000016	**0.003 J**	0.010 U	0.010 U
Dibenzofuran	3.1	**0.002 J**	0.010 U	0.010 U
Fluoranthene	1.8	**0.030**	0.010 U	0.010 U
Fluorene	3.7	0.010 U	**0.005 J**	0.010 U
Indeno(1,2,3-c,d)pyrene	0.00016	**0.012**	0.010 U	0.010 U
Naphthalene	1.4	**0.044**	**0.006 J**	0.010 U
Perylene	NE	0.010 U	0.010 U	0.010 U
Phenanthrene	NE	**0.017**	**0.009 J**	0.010 U
Pyrene	2.0	**0.035**	0.010 U	0.010 U
Total cPAH TEQ (ND=0.5RL)	0.0097	**0.02378 J**	0.00855 U	0.00855 U

Table K-5

Soil Gas, Indoor Air, and Ambient Air Data - TCE and Breakdown Products

Former Precision Engineering Property

Seattle, Washington

			Analyte	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	VC
			Air SL	0.33	91	NA	18	0.28
			Sub slab SL	11	300	NA	610	9.4
Location	**Sample**	**Date**	**Type**					
A1	A1-042806	4/28/06	Soil gas	4 U	--	3 U	3 U	1.9 U
A2	A2-042806	4/28/06	Soil gas	4.9 U	--	3.6 U	3.6 U	2.3 U
A3	A3B-042806	4/28/06	Soil gas	**6100**	--	**470**	13 U	8.4 U
A5	A5B-042806	4/28/06	Soil gas	**37000**	--	**1700**	100 U	**420**
A6	A6-042806	4/28/06	Soil gas	3.5 U	--	2.6 U	2.6 U	1.7 U
A7	A7-042806	4/28/06	Soil gas	3.5 U	--	2.6 U	2.6 U	1.7 U
IA1	IA1	6/13/06	Indoor Air	**0.2**	0.063 U	0.12 U	0.63 U	0.04 U
IA2	IA2	6/13/06	Indoor Air	**0.083**	0.065 U	0.13 U	0.65 U	0.042 U
IA3	IA3	6/13/06	Indoor Air	**0.11**	0.074 U	0.15 U	0.74 U	0.048 U
IA4	IA4	6/13/06	Indoor Air	**0.14**	0.069 U	0.14 U	0.69 U	0.045 U
IA5	IA5	6/13/06	Indoor Air	**0.16**	0.08 U	0.16 U	0.8 U	0.051 U
IA6	IA6	6/13/06	Indoor Air	**0.15**	0.06 U	0.12 U	0.6 U	0.039 U
IA7	IA7	6/13/06	Ambient Air	**0.046**	0.065 U	0.13 U	0.65 U	0.042 U
IA8	IA8	6/13/06	Indoor Air	**0.15**	0.065 U	0.13 U	0.65 U	0.042 U
SS1	SS-1-020715	2/7/15	Soil Gas	**95**	1.6 U	1.6 U	1.6 U	0.5 U
IA-SHOP	IA-SHOP-020715	2/7/15	Indoor Air	**240**	0.4 U	0.4 U	0.4 U	0.25
AMB-OUTDOOR	AMB-OUTDOOR-020715	2/7/15	Ambient Air	**0.96**	0.4 U	0.4 U	0.4 U	0.13 U
A8	A8	2/1/20	Soil gas	**160**	3.3 U	3.3 U	3.3 U	2.1 U
A9	A9	2/1/20	Soil gas	**1100**	6.3 U	**21**	6.3 U	4.1 U
A10	A10	2/1/20	Soil gas	**29**	17 U	**40**	17 U	11 U
A11	A11	2/1/20	Soil gas	**82**	3.3 U	3.3 U	3.3 U	2.1 U
AA1	AA1	2/1/20	Ambient Air	0.16 U	0.4 U	0.4 U	0.4 U	0.26 U
AA2	AA2	2/1/20	Ambient Air	0.16 U	0.4 U	0.4 U	0.4 U	0.26 U
AA3	AA3	2/1/20	Ambient Air	0.27 U	0.63 U	0.63 U	0.63 U	0.41 U
AA4	AA4	2/1/20	Ambient Air	0.16 U	0.4 U	0.4 U	0.4 U	0.26 U
AA5	AA5	2/1/20	Ambient Air	0.16 U	0.4 U	0.4 U	0.4 U	0.26 U
IA8	IA8-020120	2/1/20	Indoor Air	**270**	0.4 U	0.4 U	0.4 U	0.26 U
IA9	IA9	2/1/20	Indoor Air	**330**	0.4 U	0.4 U	0.4 U	0.26 U
IA10	IA10	2/1/20	Indoor Air	**340**	0.4 U	0.4 U	0.4 U	0.26 U
IA11	IA11	2/1/20	Indoor Air	**170**	0.4 U	0.4 U	0.4 U	0.26 U
IA12	IA12	2/1/20	Indoor Air	**200**	0.4 U	0.4 U	0.4 U	0.26 U
IA13	IA13	2/1/20	Indoor Air	**210**	0.4 U	0.4 U	0.4 U	0.26 U
IA14	IA14	2/1/20	Indoor Air	**110**	0.4 U	0.4 U	0.4 U	0.26 U
IA15	IA15	2/1/20	Indoor Air	**170**	0.4 U	0.4 U	0.4 U	0.26 U
IA16	IA16	2/11/20	Indoor Air	**2.8**	--	--	--	--
IA16	IA16-022020	2/20/20	Indoor Air	**1.9**	--	--	--	--
IA16	IA16050220	5/2/20	Indoor Air	0.27 U	--	--	--	--
IA17	IA17	2/11/20	Indoor Air	**93**	--	--	--	--
IA17	IA17-022020	2/20/20	Indoor Air	**4.5**	--	--	--	--
IA17	IA17050220	5/2/20	Indoor Air	0.27 U	--	--	--	--
IA18	IA18	2/11/20	Indoor Air	**45**	--	--	--	--
IA18	IA18050220	5/2/20	Indoor Air	0.27 U	--	--	--	--
IA19	IA19	2/11/20	Indoor Air	**110**	--	--	--	--
IA19	IA19-022020	2/20/20	Indoor Air	**2.3**	--	--	--	--
IA19	IA19050220	5/2/20	Indoor Air	0.27 U	--	--	--	--
IA20	IA20	2/11/20	Indoor Air	**73**	--	--	--	--
RAD1	RAD1	2/1/20	Indoor Air	**110**	--	--	--	--
RAD1	RAD1-022020	2/20/20	Indoor Air	**1.3**	--	--	--	--
RAD1	RAD1-051520	5/15/20	Indoor Air	**1.4**	--	--	--	--
RAD1	RAD1-121720	12/17/20	Indoor Air	**0.54**	--	--	--	--
RAD1	RAD1-032221	3/22/21	Indoor Air	**0.44**	--	--	--	--
RAD1	RAD1-100722	10/7/22	Indoor Air	**0.19**	--	--	--	--
RAD1	RAD1-022323	2/23/23	Indoor Air	**0.052**	--	--	--	--
RAD1	RAD1-110723	11/28/23	Indoor Air	**0.080**	--	--	--	--
RAD2	RAD2	2/1/20	Indoor Air	**110**	--	--	--	--
RAD2	RAD2-022323	2/23/23	Indoor Air	0.048 U	--	--	--	--
RAD2	RAD2-110723	11/28/23	Indoor Air	0.048 U	--	--	--	--
RAD3	RAD3	2/1/20	Indoor Air	**170**	--	--	--	--
RAD3	RAD3-022323	2/23/23	Indoor Air	**0.089**	--	--	--	--
RAD3	RAD3-110723	11/28/23	Indoor Air	**0.082**	--	--	--	--
RAD4	RAD4	2/20/20	Indoor Air	**2.6**	--	--	--	--
RAD4	RAD4-051520	5/15/20	Indoor Air	**2.6**	--	--	--	--
RAD4	RAD4-121720	12/17/20	Indoor Air	**0.87**	--	--	--	--
RAD4	RAD4-032221	3/22/21	Indoor Air	**0.95**	--	--	--	--
RAD4	RAD4-100722	10/7/22	Indoor Air	**0.27**	--	--	--	--
RAD4	RAD4-022323	2/23/23	Indoor Air	**0.089**	--	--	--	--
RAD4	RAD4-110723	11/28/23	Indoor Air	**0.080**	--	--	--	--
RAD5	RAD5	2/20/20	Indoor Air	**2.3**	--	--	--	--
RAD5	RAD5-051520	5/15/20	Indoor Air	**1.7**	--	--	--	--
RAD5	RAD5-121720	12/17/20	Indoor Air	**0.77**	--	--	--	--
RAD5	RAD5-032221	3/22/21	Indoor Air	**0.71**	--	--	--	--
RAD5	RAD5-100722	10/7/22	Indoor Air	**0.14**	--	--	--	--
RAD5	RAD5-022323	2/23/23	Indoor Air	**0.085**	--	--	--	--
RAD5	RAD5-110723	11/28/23	Indoor Air	**0.063**	--	--	--	--

Table K-6

Soil Gas, Indoor Air, and Ambient Air Data - Non-TCE and Breakdown Products

Former Precision Engineering Property

Seattle, Washington

		Location ID	A1	A2	A3	A5	A6	A7	IA1	IA2	IA3	IA4	IA5	IA6	IA7	IA8	SS1	IA-SHOP	AMB-OUTDOOR	A8
		Sample ID	A1-042806	A2-042806	A3B-042806	A5B-042806	A6-042806	A7-042806	IA1	IA2	IA3	IA4	IA5	IA6	IA7	IA8	SS-1-020715	IA-SHOP-020715	MB-OUTDOOR-02071	A8
		Sample Date	4/28/2006	4/28/2006	4/28/2006	4/28/2006	4/28/2006	4/28/2006	6/13/2006	6/13/2006	6/13/2006	6/13/2006	6/13/2006	6/13/2006	6/13/2006	6/13/2006	2/7/2015	2/7/2015	2/7/2015	2/1/2020
		Matrix	Soil gas	Soil gas	Soil gas	Soil gas	Soil gas	Soil gas	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Ambient Air	Indoor Air	Soil Gas	Indoor Air	Ambient Air	Soil gas
Analyte (µg/m^3)	**Air CUL**	**Sub Slab SL**																		
1,1,1,2-Tetrachloroethane	0.34	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8 U	0.7 U	0.7 U	--
1,1,1-Trichloroethane	2300	76000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	0.55 U	0.55 U	--
1,1,2,2-Tetrachloroethane	0.043	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8 U	0.7 U	0.7 U	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.1 U	0.77 U	0.77 U	--
1,1,2-Trichloroethane	0.091	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.2 U	0.55 U	0.55 U	--
1,1-Dichloroethane	1.6	52	--	--	--	--	--	--	0.13 U	0.13 U	0.15 U	0.14 U	0.16 U	0.12 U	0.13 U	0.13 U	1.6 U	0.41 U	0.41 U	3.3 U
1,2,4-Trichlorobenzene	0.91	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.5 U	1.9 U	1.9 U	--
1,2,4-Trimethylbenzene	27	910	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.7**	**12**	0.5 U	--
1,2-Dibromoethane (EDB)	0.0042	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.1 U	0.78 U	0.78 U	--
1,2-Dichlorobenzene	91	3000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4 U	0.61 U	0.61 U	--
1,2-Dichloroethane	0.096	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6 U	0.41 U	0.41 U	0.33 U
1,2-Dichloropropane	0.68	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9 U	0.47 U	0.47 U	--
1,3,5-Trimethylbenzene	27	910	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2 U	**5**	0.5 U	--
1,3-Dichlorobenzene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4 U	0.61 U	0.61 U	--
1,4-Dichlorobenzene	0.23	7.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4 U	0.61 U	0.61 U	--
2-Hexanone	14	460	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.3 U	0.83 U	0.83 U	--
Acetone	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**320**	**33**	**4.6**	--
Benzene	0.32	10.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**7**	**2.6**	**0.67**	--
Benzene, 1-Ethyl-4-Methyl-	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2 U	**2.2**	0.5 U	--
Bromoform	2.3	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2 U	1 U	1 U	--
Bromomethane	2.3	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6 U	**0.75**	0.39 U	--
Butane	NA	NA	**73**	**160**	31 U	250 U	**350**	**330**	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	320	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	**0.64**	0.32 U	--
Carbon Tetrachloride	0.42	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	**0.45**	**0.4**	--
CFC-114	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8 U	0.71 U	0.71 U	--
Chlorobenzene	23	760	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9 U	0.47 U	0.47 U	--
Chloroethane	4600	15000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1 U	0.27 U	0.27 U	22 U
Chloroform	0.11	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	0.25 U	0.25 U	--
Chloromethane	41	1400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.8 U	**1.4**	**1.1**	--
cis-1,3-Dichloropropene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8 U	0.46 U	0.46 U	--
Dibromochloromethane	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.5 U	0.86 U	0.86 U	--
Dichlorobromomethane	0.067	2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.7 U	0.68 U	0.68 U	--
Dichlorodifluoromethane	46	1500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4 U	**2.9**	**2.3**	--
Ethylbenzene	460	15000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**	**5.9**	0.44 U	--
Hexachlorobutadiene	0.11	3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11 U	2.7 U	2.7 U	--
Isobutane	NA	NA	**5800 J**	**5500 J**	**2600 J**	620 U	**11000 J**	**13000 J**	--	--	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone (MEK)	2300	76000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**18**	**3.3**	**0.79**	--
Methyl isobutyl ketone	1400	46000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**12**	**2.3**	0.83 U	--
Methylene Chloride	66	2200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	**0.66**	0.35 U	--
Styrene	460	1500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	**0.66**	0.43 U	--
Tetrachloroethylene	9.6	320	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**11**	**1.6**	0.69 U	--
Toluene	2300	76000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**32**	**45**	**2.2**	--
trans-1,3-Dichloropropene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8 U	0.46 U	0.46 U	--
Trichlorofluoromethane	320	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3 U	**1.2**	**1.2**	--
Xylene, m-,p-	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**11**	**12**	**1.1**	--
Xylene, o-	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.1**	**5.1**	0.44 U	--
Total xylenes	46	1525	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**15.1**	**17.1**	**1.1**	--

		Location ID	A9	A10	A11	AA1	AA2	AA3	AA4	AA5	IA8	IA9	IA10	IA11	IA12	IA13	IA14	IA15
		Sample ID	A9	A10	A11	AA1	AA2	AA3	AA4	AA5	IA8-020120	IA9	IA10	IA11	IA12	IA13	IA14	IA15
		Sample Date	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020	2/1/2020
		Matrix	Soil gas	Soil gas	Soil gas	Ambient Air	Ambient Air	Ambient Air	Ambient Air	Ambient Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air
Analyte (µg/m^3)	**Air CUL**	**Sub Slab SL**																
1,1,1,2-Tetrachloroethane	0.34	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	2300	76000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.043	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.091	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	1.6	52	6.5 U	18 U	**14**	0.4 U	0.4 U	0.65 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	0.91	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	27	910	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (EDB)	0.0042	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	91	3000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	0.096	3.2	0.65 U	1.8 U	0.33 U	**0.065**	**0.065**	**0.065**	**0.065**	**0.065**	**0.093**	**0.085**	**0.089**	**0.097**	**0.093**	**0.089**	**0.085**	**0.093**
1,2-Dichloropropane	0.68	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	27	910	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	0.23	7.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	14	460	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	0.32	10.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene, 1-Ethyl-4-Methyl-	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	2.3	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	2.3	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butane	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	320	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	0.42	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CFC-114	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	23	760	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	4600	15000	42 U	120 U	22 U	2.6 U	2.6 U	4.2 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Chloroform	0.11	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	41	1400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobromomethane	0.067	2.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	46	1500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	460	15000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	0.11	3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isobutane	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone (MEK)	2300	76000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	1400	46000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	66	2200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	460	1500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	9.6	320	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	2300	76000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	320	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, m-,p-	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylene, o-	NA	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total xylenes	46	1525	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Appendix M
Groundwater Modeling

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MEMORANDUM

TO: Mark Adams, Ecology

DATE: February 25, 2008

FROM: Matthew Hickey and James Peale

PROJECT: No. 8006.08.04

RE: Groundwater Cleanup Levels for the Protection of Surface Water and Groundwater Fate and Transport Modeling for the Former Precision Engineering Site, VCP ID Number NW 1511

Maul Foster & Alongi, Inc. (MFA) has prepared this memorandum to describe groundwater fate and transport modeling for the Precision Engineering, Inc. (Precision) site located at 1231 S Director Street in Seattle, Washington. This memorandum also addresses a request by the Washington State Department of Ecology (Ecology) to develop groundwater cleanup levels (CULs) for the protection of surface water. Because the modeling shows that indicator hazardous substances (IHSs) present at the site will not reach the Duwamish River, groundwater CULs that exceed surface-water CULs can be established consistent with WAC 173-340-720(6)(c)(i)(E).

MFA used the groundwater model to derive groundwater CULs for site IHSs that, if exceeded at the eastern property boundary, are predicted to result in exceedances of surface-water criteria at the point where groundwater discharges to the Duwamish River. The following discussion includes a description of the groundwater model used, model inputs, assumptions, and results.

Model Description

MFA performed the groundwater modeling using U.S. Environmental Protection Agency's (USEPA's) BIOCHLOR model (USEPA, 2002). BIOCHLOR is based on the Domenico analytical solute transport model and has the ability to simulate 1-D advection, 3-D dispersion, linear adsorption, and biotransformation or degradation. BIOCHLOR includes three different model types:

- Type I: Solute transport without decay
- Type II: Solute transport with biotransformation or degradation modeled as a sequential first-order decay process
- Type III: Solute transport with biotransformation or degradation modeled as a sequential first-order decay process with two different reaction zones (i.e., each zone has a different set of rate coefficient values)

All compounds were modeled using the Type I or II models Type II was used for all compounds except metals. Type I was used for metals, which do not decay. Type I and Type II were used for trichloroethene (TCE) and vinyl chloride, to accommodate a request by Ecology, as explained further below.

Model Inputs, Assumptions, and Output

The model required the following data inputs:

- Source concentrations
- Source dimensions (lateral and vertical)
- Groundwater velocity (either entered directly or calculated using gradient, hydraulic conductivity, and porosity)
- Retardation factors (either entered directly or calculated using default partition coefficients and organic carbon data for soil)
- Degradation rates based on half-life data (a half-life x factor of 2 was used for TCE and VC)
- Model domain size and duration

These parameters are summarized on Table A1 and discussed further (along with the assumptions) in the following sections. The output of the model is the concentration at a designated distance downgradient of the source.

Compounds Modeled

MFA modeled the fate and transport of the following IHSs:

- Copper
- Trivalent and hexavalent chromium
- Trichloroethene (TCE)
- Vinyl chloride

Diesel- and oil-range organics are also IHSs in site groundwater, but the chemical properties necessary to run the model are not available for diesel or oil. Instead, selected polycyclic aromatic hydrocarbons (PAHs) (which are constituents of diesel- and oil-range organics) that were detected in site groundwater at a concentration above the Ecology or USEPA surface-water criteria were modeled. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were modeled as surrogates.

Arsenic and selenium, which are IHSs at the site, were not modeled because based on the data collected, Precision does not appear to be a source of these IHSs. The spatial distribution of arsenic concentrations in groundwater is not consistent with what would be expected if the former Precision site was the source. The arsenic detections are representative of naturally occurring background concentrations. For example, the highest concentration of arsenic detected at the site (32.3 µg/L) was in a sample from monitoring well MW1, located upgradient of the facility. Arsenic is ubiquitous in groundwater throughout the site at concentrations that appear to be consistent with naturally occurring background levels and there is no indication that Precision is a source of the arsenic in groundwater. Selenium is detected in some of the downgradient

monitoring wells at the site; however, selenium was not detected in soil and is no link between selenium and Precision.

It was not necessary to model benzo(b)fluoranthene and benzo(k)fluoranthene to demonstrate that these constituents would not reach the river reach the Duwamish River as it was already shown that they were not detected in monitoring locations at or near the property boundary nor in borings where IHSs may not be detected in downgradient locations.

Source Concentrations, Downgradient Concentrations, and Surface-Water Criteria

The maximum detected concentrations in groundwater samples collected from monitoring wells at the eastern property boundary were used as the source concentration to demonstrate that constituents at the site will not reach the river (see Table A1). Although TCE and vinyl chloride were not detected in property boundary monitoring wells, concentrations from geoprobe groundwater reconnaissance sample GP-13, located approximately 75 feet upgradient of the property boundary were used. Data from GP-13 was used as the boring was in a location where Ecology had expressed concern that IHSs may not show up in downgradient wells.

To calculate the groundwater CUL, an iterative process was used whereby assumed source concentrations were input into the model until the calculated downgradient concentration matched the most conservative applicable surface-water criteria. The groundwater CUL for a given IHS is the source concentration that predicts groundwater concentrations equal to the surface-water criteria (see Table A2). Groundwater CULs for the volatile organic compounds (VOCs) TCE and vinyl chloride were calculated in three ways: using a degradation rate based on reference values (Howard, et. El., 1991), using the same reference value multiplied by a factor of two, and with no degradation occurring (i.e., Type I model).

Table A3 summarizes applicable surface-water criteria. The most conservative (lowest) criteria from Table A3 were used for the model. Water-quality criteria were obtained from the Cleanup Levels and Risk Calculations (CLARC) Web page (Ecology, 2007). Applicable surface-water criteria included Model Toxics Control Act (MTCA) Method B and Method C CULs for surface water, and Ecology and USEPA surface-water criteria for aquatic life and for human health in both freshwater and marine environments. Criteria for both freshwater and marine environments were used based on reports that the base of the Duwamish is saline, while approximately the top 10 feet is freshwater (Duwamish Coalition, 1998). Use of water-quality criteria for the consumption of organisms and water is overly conservative, as water in the Duwamish is brackish and is not used for drinking water.

Source Area Dimensions

Source dimensions were based on the areal extent of IHS detections at the site. The extent of the contaminants was estimated to be equal to the distance between a sample location in which the constituent was detected in groundwater and the nearest sample location in which the constituent was not detected. Data from both monitoring wells and reconnaissance borings were considered in estimating the source-area widths.

The source width for trivalent chromium, and all of the PAHs was 300 feet (based on detections near the north and south property boundaries). The source width for hexavalent chromium was 50 feet (based on detections in GP6 and MW4). Copper source width was 225 feet, based on detections in MW6, MW2, and MW8. The source width for vinyl chloride was 200 feet (based on the detection of vinyl chloride in GP-13 and MW-8). The source width for TCE was 40 feet (based on the detections of TCE in GP6, GP8, and GP-13). It is important to note that hexavalent chromium, TCE, and vinyl chloride were not detected at the property boundary (i.e., applying these concentrations at the property boundary is an overly conservative case).

The source-area thickness for all IHSs was estimated as 15 feet (based on the difference in elevation between the top of the water table and the top of the aquitard).

BIOCHLOR allows the user to specify either a constant concentration source or a variety of source decay scenarios. Using a decay scenario requires an estimate of the mass contained in the original release. MFA conservatively assumed a constant, nondegrading source. This assumption significantly overestimates the amount of mass in the subsurface, considering that TCE use at the property ended in the mid-1980s, that the outside steam-cleaning area was relocated before 1986, that the boiler UST was abandoned in place and filled with a slurry in 1992, that chrome-plating operations ceased in 2005, and the evidence that the organic compounds are degrading (the presence, for example, of the TCE degradation product vinyl chloride).

Groundwater Velocity

Groundwater models are typically sensitive to variations in groundwater velocity, which is dependent on the hydraulic conductivity (K) of the water-bearing zone (as well as the porosity [n] and the gradient [i]). A gradient of 0.003 was calculated using site groundwater-elevation data collected from MW6 (located at the property boundary) on April 17, 2006, and an average daily staff-gauge elevation for the Duwamish on the same day (USGS, 2007). A porosity of 0.3 was assumed based on typical estimates for the soil types at the site.

Values of K can range over orders of magnitude. The estimate of K from the document titled Development of a Three-Dimensional Numerical Groundwater Flow Model for the Duwamish River Basin (Duwamish Coalition, 1998) is 0.001 centimeters per second for the area near the former Precision site. MFA modeled the groundwater flow using a K value five times the Duwamish Coalition estimate (i.e. 0.005 centimeters per second). Applying this value to Darcy's law results in a linear velocity of 52 feet per year. The assumed K value is conservative compared to the value used by the Duwamish Coalition (i.e., overestimates groundwater velocity and consequently potential contaminant migration).

Retardation Factor

The velocity of organic constituents in the dissolved phase is usually less than (i.e., retarded relative to) the groundwater velocity due to sorption effects. Sorption of organic constituents occurs as dissolved-phase organic constituents partition to the organic carbon in soil. The rate of sorption depends on the amount of organic carbon in the soil and the distribution coefficients (K_{oc} values). The K_{oc} values for TCE, benzo(a)anthracene, benzo(b)fluoranthene,

benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were obtained from Ecology's CLARC Web page (Ecology, 2007). The CLARC Web page listed distribution coefficients for volatile organic compounds (VOCs) of 94 L/kg for TCE and 19 L/kg for vinyl chloride, indicating low tendency for sorption (and thus retardation). Distribution coefficients for PAHs were significantly larger (i.e., $3.6x10^5$ L/kg for benzo(a)anthracene, $1.2x10^6$ L/kg for benzo(b)fluoranthene and benzo(k)fluoranthene, $4.0x10^5$ L/kg for chrysene, $1.8x10^6$ L/kg for dibenzo(a,h)anthracene, and $3.5x10^6$ L/kg for indeno(1,2,3-cd)pyrene).

Sorption of dissolved inorganic constituents occurs primarily due to cation- or anion-exchange processes. The amount of solute that is adsorbed to the aquifer matrix is also described by a distribution coefficient (K_d). Distribution coefficients for arsenic, copper, trivalent chromium, hexavalent chromium, and selenium were also obtained from the CLARC Web page. The CLARC Web page listed distribution coefficients for metals of 29 L/kg for arsenic, 22 L/kg for copper, 1,000 L/kg for trivalent chromium, 19 L/kg for hexavalent chromium, and 5 L/kg for selenium.

No organic carbon data are available for the former Precision site. MFA used the default value (0.0018) supplied by the BIOCHLOR model and the distribution coefficients to calculate retardation factors. Resulting retardation factors for the metals and VOCs were calculated and are shown on Tables A1 and A2.

Because of the high propensity of PAHs to adhere to soil, (reflected in the high partitioning coefficients for the PAHs), calculated retardation factors for PAHs were also high. Solutions to the advection-dispersion equations using the superposition approach used by BIOCHLOR for solving the Domenico analytical model are known to diverge from solutions obtained by more robust numerical models for contaminants with large retardation factors. MFA confirmed this when attempting to model the PAH contaminants; high retardation factors caused the model to produce unrealistic results. In order to make the model function correctly, while still maintaining a high level of model conservatism, MFA set the retardation factors for all PAHs to a value of 10. This is a highly conservative approach, and resulted in migration of these contaminants being overestimated. Therefore, the CULs for the PAHs developed using these lower retardation factors are much lower than CULs that would have been calculated had the model been able to use the higher retardation factors.

Degradation Rates and Dispersion

BIOCHLOR allows the application of half-life data for calculating a first-order decay scenario. Literature values for half-lives of the VOCs and PAHs are appropriate to use. At the request of Ecology, MFA modeled a range of degradation rates for both TCE and vinyl chloride. CULs were calculated for all IHS's using the average of literature values for the degradation rates. Additionally, CULS for TCE and VC were calculated based on half lives that are two times longer than the literature values as well as with no degradation. Degradation of TCE at the site has been confirmed by the presence of vinyl chloride (a degradation product); however, to be conservative, the final groundwater CULs for TCE and vinyl chloride are assumed to be those calculated using the half lives increased by a factor of two. Degradation of total petroleum

hydrocarbon constituents in the subsurface has been widely documented and can be inferred at this site.

Dispersion occurs when groundwater encounters soil grains and the contaminant molecules are deflected or dispersed away from each other. Dispersion occurs in the longitudinal direction (i.e., along the groundwater plume axis in the direction of groundwater flow) and in the transverse planes (i.e., lateral or crossgradient to groundwater flow, in two dimensions). The amount of longitudinal and lateral dispersion is typically considered to be a function of plume length. For the purposes of this model, dispersion was calculated (using the internal BIOCHLOR algorithm) to be 180 feet, based on a hypothetical plume length of 1,800 feet.

Model Domain Size and Duration

The model domain was set at 800 feet wide and 3,600 feet long, well in excess of the width of the property and the distance to the Duwamish River. The models were run assuming a 35-year period, which is the estimated approximate length of time that it would take groundwater to travel 1,800 feet (i.e., the distance from the eastern property boundary to the Duwamish River), based on estimated groundwater seepage velocity at the site. Given that the primary sources of the contamination are no longer present, it is unlikely that impacts will continue for this length of time.

It is important to note that the assumptions of constant contaminant sources at maximum detected concentrations assumed at the eastern property edge are very conservative. Mass loading to the system is in fact finite due to the UST decommissioning and soil excavation conducted in the 1980's, and maximum concentrations in several cases were located an additional 50 to 130 feet west of the eastern property edge. The model was also set up to assume maximum concentrations throughout the source area. In reality, this would not be the case due to dispersive effects.

Results

Table A1 presents a summary of modeling results indicating that none of the IHSs at the site will reach the Duwamish River at concentrations at or above method detection limits. Figures A1 through A9 show concentration vs. distance with the assumed source area concentration at the eastern property boundary and the corresponding concentration at the river.[1]

Table A2 provides the modeling results to determine site specific CULs for the protection of surface water. Concentration vs. distance graphs showing the most stringent surface water CUL concentration at the Duwamish (i.e, at 1,800 feet, and the site specific CUL at the property boundary (0 feet), are included as Figures A10 through A20.

Table A4 compares the calculated CULs to concentrations of IHSs and PAHs detected in site groundwater samples. On-site groundwater concentrations of hexavalent chromium exceeded their respective CULs. All other IHSs and the modeled PAHs in groundwater are below their

[1] Note that the modeled concentrations shown on the graphs are expressed in milligrams per liter. Some modeled concentrations were converted to micrograms per liter (µg/L) in the tables for the ease of comparison, as site data and criteria are presented in µg/L for the constituents modeled.

respective CULs. Hexavalent chromium concentrations that exceeded CULs were detected in groundwater samples collected from borings and MW5, located within the building footprint, and from one sample collected from MW1, located upgradient of the building. Concentrations of hexavalent chromium in wells located near the eastern property line were not detected above their method reporting limits and did not exceed CULs.

Attachments

References
Tables A1 through A4
Figures A1 through A20

References

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TABLES

Appendix A Table Notes
Precision Engineering, Inc.
Seattle, Washington

Bold font indicates an exceedance of the CUL.

ARAR = applicable or relevant and appropriate requirement.
AWQC = ambient water quality criteria.
CUL = cleanup level.
J = estimated.
mg/L = milligrams per liter.
MTCA = Washington State Department of Ecology's Model Toxics Control Act.
µg/L = micrograms per liter.
NA = not analyzed.
NC = not calculated.
NR = not researched.
NV = no value.
U = not detected at or above the method reporting limit.

[a] Surface water of the Duwamish is brackish and is not used for drinking.
[b] Based on literature estimates from *Development of a Three-Dimensional Numerical Groundwater Flow Model for the Duwamish River Basin* ; University of Washington; August, 1998.
[c] Based on field data.
[d] Standard assumption.
[e] Calculated (v=(k*i)/n).
[f] Due to sorption; calculated (R=1+(rho/n)*Koc*foc).
[g] Actual calculated retardation factor or more conservative.
[h] Based on distance between sample locations with detections.
[i] Based on screen intervals/recon intervals.
[j] Groundwater Chemicals Desk Reference; Montgomery ed.; CRC Press, 1996.
[k] Concentration at a distance of 1,800 ft from eastern property boundary (distance to Duwamish River) was set equal to the surface-water criteria.

Table A1
Fate and Transport Model Inputs and Results Showing no Discharge of IHSs to the Duwamish
Precision Engineering, Inc.
Seattle, Washington

Model Parameters	Chromium, Trivalent	Chromium, Hexavalent	Copper	Trichloro-ethene	Vinyl Chloride
Hydraulic Conductivity (k, cm/sec)[b]	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03
Gradient (i)[c]	0.003	0.003	0.003	0.003	0.003
Porosity (n)[d]	0.3	0.3	0.3	0.3	0.3
Groundwater Velocity (v, ft/yr)[e]	52	52	52	52	52
Retardation Factor[f]	5334	102	118	1.90	1.18
Modeled Retardation[g]	10	10	10	1.90	1.18
Simulation Time (yrs)	35	35	35	35	35
Source Concentration (µg/L)	47	7.38	4.02	0.220	16.5
Source Width (ft)[h]	300	50	225	40	200
Source Thickness (ft)[i]	15	15	15	15	15
Modeled Half-life (days)[j]	NV	NV	NV	1751	832
Results					
Detection Limits (µg/L)	10	10	1	0.2	0.2
Concentration at Duwamish (ug/L)	<10	<10	<1	<0.01	<0.1

Table A1
Fate and Transport Model Inputs and Results Showing no Discharge of IHSs to the Duwamish
Precision Engineering, Inc.
Seattle, Washington

Model Parameters	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Indeno(1,2,3-cd)pyrene
Hydraulic Conductivity (k, cm/sec)[b]	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03
Gradient (i)[c]	0.003	0.003	0.003	0.003	0.003	0.003
Porosity (n)[d]	0.3	0.3	0.3	0.3	0.3	0.3
Groundwater Velocity (v, ft/yr)[e]	52	52	52	52	52	52
Retardation Factor[f]	3,433	11,809	11,809	3,822	17,176	33,313
Modeled Retardation[g]	10	10	10	10	10	10
Simulation Time (yrs)	35	35	35	35	35	35
Source Concentration (µg/L)	0.035	ND	ND	0.013	0.038	0.039
Source Width (ft)[h]	300	300	300	300	300	300
Source Thickness (ft)[i]	15	15	15	15	15	15
Modeled Half-life (days)[j]	782	970	3,029	1,371	1,301	1,330
Results						
Detection Limits (µg/L)	0.01	0.01	0.01	0.01	0.01	0.01
Concentration at Duwamish (ug/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table A2
Development of Site Specific Groundwater Clean-up Levels
Precision Engineering, Inc.
Seattle, Washington

Model Parameters	Chromium, Trivalent	Chromium, Hexavalent	Copper	Trichloro-ethene	Vinyl Chloride
Hydraulic Conductivity (k, cm/sec)[b]	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03
Gradient (i)[c]	0.003	0.003	0.003	0.003	0.003
Porosity (n)[d]	0.3	0.3	0.3	0.3	0.3
Groundwater Velocity (v, ft/yr)[e]	52	52	52	52	52
Retardation Factor[f]	5334	102	118	1.9	1.18
Modeled Retardation[g]	10	10	10	1.9	1.18
Simulation Time (yrs)	35	35	35	35	35
Source Width (ft)[h]	300	50	225	40	200
Source Thickness (ft)[i]	15	15	15	15	15
Half-life (days)[j]	NV	NV	NV	876	416
Concentration of groundwater discharge to surface water = Surface Water Criteria value (µg/L)[k]	74	11	3.1	1.5	0.025
Results (Source Area Concentration)					
Type I	3,600,000,000,000	160	22	188	18.70
Type II	NC	NC	NC	128,800	2,640
Type II with Half-life x factor of 2 for TCE and VC (µg/L)	NC	NC	NC	1,630	52

Table A2
Development of Site Specific Groundwater Clean-up Levels
Precision Engineering, Inc.
Seattle, Washington

Model Parameters	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Indeno(1,2,3-cd)pyrene
Hydraulic Conductivity (k, cm/sec)[b]	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03	5.00E-03
Gradient (i)[c]	0.003	0.003	0.003	0.003	0.003	0.003
Porosity (n)[d]	0.3	0.3	0.3	0.3	0.3	0.3
Groundwater Velocity (v, ft/yr)[e]	52	52	52	52	52	52
Retardation Factor[f]	3,433	11,809	11,809	3,822	17,176	33,313
Modeled Retardation[g]	10	10	10	10	10	10
Simulation Time (yrs)	35	35	35	35	35	35
Source Width (ft)[h]	300	300	300	300	300	300
Source Thickness (ft)[i]	15	15	15	15	15	15
Half-life (days)[j]	782	970	3,029	1,371	1,301	1,330
Concentration of groundwater discharge to surface water = Surface Water Criteria value (µg/L)[k]	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038
Results (Source Area Concentration)						
Type I	NC	NC	NC	NC	NC	NC
Type II	200,000,000	165,000,000	55,000,000	130,000,000	135,000,000	132,000,000
Type II with Half-life x factor of 2 for TCE and VC (µg/L)	NC	NC	NC	NC	NC	NC

Table A3
Applicable Surface-Water Criteria
Precision Engineering, Inc.
Seattle, Washington

Surface-Water Criteria	Hexavalent Chromium (mg/L)	Dissolved Trivalent Chromium[a] (mg/L)	Copper (µg/L)	Trichloro-ethene (µg/L)	Vinyl chloride (µg/L)	Benzo(a) anthracene (µg/L)	Benzo(b) fluoranthene (µg/L)
MTCA Method B Surface Water CULs, carcinogen or non-carcinogen	0.490	240	2700	**1.5**	3.7	0.0300	0.0300
MTCA Method C Surface Water CULs, carcinogen or non-carcinogen	1.20	610	6,700	37	92	0.74	0.74
AWQC—Human Health	NR	NR	1,300	2.5	**0.025**	**0.0038**	**0.0038**
Surface Water ARAR—Aquatic Life—Freshwater/Acute	0.15	1.8	4.6	NR	NR	NR	NR
AWQC—Aquatic Life—Chronic	**0.011**	**0.074**	**3.1**	NR	NR	NR	NR

*Lowest CUL bolded

Table A3
Applicable Surface-Water Criteria
Precision Engineering, Inc.
Seattle, Washington

Surface-Water Criteria	Benzo(k) fluoranthene (µg/L)	Benzo(b+k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenzo(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	Diesel-Range Organics (mg/L)	Oil-Range Organics (mg/L)
MTCA Method B Surface Water CULs, carcinogen or non-carcinogen	0.0300	0.0300	0.0300	0.0300	0.0300	NV	NV
MTCA Method C Surface Water CULs, carcinogen or non-carcinogen	0.74	0.74	0.74	0.74	0.74	NV	NV
AWQC—Human Health	**0.0038**	NR	**0.0038**	**0.0038**	**0.0038**	NV	NV
Surface Water ARAR—Aquatic Life—Freshwater/Acute	NR	NR	NR	NR	NR	NV	NV
AWQC—Aquatic Life—Chronic	NR	NR	NR	NR	NR	NV	NV

*Lowest CUL bolded

Table A4
Risk Screening
Groundwater Protection of Surface Water
Precision Engineering, Inc.
Seattle, Washington

Location	Date	Dissolved Chromium (Trivalent)	Chromium (Hexavalent)	Copper	Selenium	Trichloro-ethene	Vinyl chloride	Diesel-Range Organics	Oil-Range Organics
		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Site-Specific Groundwater CUL for the Protection of Surface Water		2,800,000,000	0.15	22	25	1,630	52	NV	NV
Monitoring Well Groundwater Data									
MW1	6/16/2005	NC	**0.269**	NA	NA	1 U	1 U	NA	NA
	12/27/2005	NC	0.00625 U	1.01	1.00 U	0.200 U	0.200 U	0.248 U	0.495 U
	04/18/2006	NC	0.02 U	2.0 U	2.0 U	1 U	1 U	0.26 U	0.52 U
MW2	6/17/2005	NC	0.01 U	NA	NA	1 U	1 U	0.438	0.512
	12/28/2005	0.00879	0.00625 U	1.17	6.28	0.200 U	0.200 U	1.19	1.04
	04/19/2006	0.021	0.02 U	2.5	10	1 U	1 U	0.41	0.58 U
MW3	6/7/2005	NC	0.01 U	NA	NA	1 U	1 U	NA	NA
	12/29/2005	0.00215	0.00625 U	1.00 U	1.00 U	0.200 U	0.200 U	0.312	0.505 U
	04/17/2006	0.0078	0.02 U	2.0 U	2.0 U	1 U	1 U	0.28 U	0.57 U
MW4	6/9/2005	NC	0.01 U	NA	NA	1 U	1 U	NA	NA
	6/9/2005	NC	0.01 U	NA	NA	1 U	1 U	NA	NA
	12/27/2005	NC	0.00625 U	1.00 U	1.00 U	0.200 U	0.200 U	0.248 U	0.495 U
	04/18/2006	NC	0.023	2.0 U	2.0 U	1 U	1 U	0.27 U	0.54 U
MW5	12/28/2005	47	**450**	3.67	1000 U	22.1	0.200 U	0.831	0.495 U
	04/19/2006	NC	**350**	2.0 U	2.0 U	7.9	0.14 U	0.26 U	0.51 U
MW6	12/29/2005	0.0187	0.00625 U	4.02	12.3	1 U	1 U	2.64	1.32
	04/19/2006	0.047	0.02 U	5.1	19	1 U	1 U	0.76	1.2
MW7	12/28/2005	0.0106	0.00738	2.12	2.77	0.200 U	0.200 U	0.248 U	0.495 U
	04/18/2006	0.013	0.02U	2.4	5	1 U	1 U	0.26 U	0.51 U
	04/18/2006	NC	0.02 U	NA	NA	1 U	1 U	0.26 U	0.51 U
MW8	12/28/2005	0.00755	0.00625 U	1.00 U	4.11	0.200 U	0.560	1.71	1.00
	12/28/2005	0.00849	0.02 U	1.03	4.27	0.200 U	0.400	1.79	1.21
	04/18/2006	0.021	0.02 UJ	2.0 U	3.6	1 U	0.80 J	0.45	0.58 U

Table A4
Risk Screening
Groundwater Protection of Surface Water
Precision Engineering, Inc.
Seattle, Washington

Location	Date	Dissolved Chromium (Trivalent)	Chromium (Hexavalent)	Copper	Selenium	Trichloro-ethene	Vinyl chloride	Diesel-Range Organics	Oil-Range Organics
		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Site-Specific Groundwater CUL for the Protection of Surface Water		2,800,000,000	0.15	22	25	1,630	52	NV	NV
Reconnaissance Groundwater Data									
GP2	6/9/2005	32.38	**4.72**	NA	NA	5 U	5 U	NA	NA
GP4	6/16/2005	31	**236**	NA	NA	1 U	1 U	0.325	0.478 U
GP5	6/16/2005	NC	0.0897	NA	NA	1 U	1 U	NA	NA
GP6	6/16/2005	43	**300**	NA	NA	1,130	20 U	NA	NA
GP7	6/16/2005	NC	0.101	NA	NA	1 U	1 U	NA	NA
GP8	6/16/2005	61	**294**	NA	NA	16.8	1 U	0.814	0.479 U
GP-13	12/14/2005	NC	NA	NA	NA	0.220	16.5	NA	NA
GP-15	12/14/2005	NC	NA	NA	NA	0.2 U	0.2 U	NA	NA

Table A4
Risk Screening
Groundwater Protection of Surface Water
Precision Engineering, Inc.
Seattle, Washington

Location	Date	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(b+k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Indeno(1,2,3-cd) pyrene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater CUL for the Protection of Surface Water		145,000,000	108,000,000	38,000,000	NV	95,000,000	100,000,000	97,000,000
Monitoring Well Groundwater Data								
MW1	6/16/2005	NA	NA	NA	NA	NA	NA	NA
	12/27/2005	0.107	0.104	0.108	NA	0.132	0.0114 U	0.0114 U
	04/18/2006	0.029 J	NA	NA	0.030 U	0.014 J	0.095 U	0.034 J
MW2	6/17/2005	0.192 U	NA	NA	0.962 U	0.192 U	0.192 U	0.192 U
	12/28/2005	0.00990 U	0.00990 U	0.00990 U	NA	0.00990 U	0.00990 U	0.00990 U
	04/19/2006	0.031 J	NA	NA	0.034 U	0.11 U	0.11 U	0.11 U
MW3	6/7/2005	NA	NA	NA	NA	NA	NA	NA
	12/29/2005	0.0100 U	0.0100 U	0.0100 U	NA	0.0100 U	0.0100 U	0.0100 U
	04/17/2006	0.11 U	NA	NA	0.033 U	0.11 U	0.11 U	0.11 U
MW4	6/9/2005	NA	NA	NA	NA	NA	NA	NA
	6/9/2005	NA	NA	NA	NA	NA	NA	NA
	12/27/2005	0.0100 U	0.0100 U	0.0100 U	NA	0.0100 U	0.0100 U	0.0100 U
	04/18/2006	0.10 U	NA	NA	0.032 U	0.10 U	0.10 U	0.10 U
MW5	12/28/2005	0.00990 U	0.00990 U	0.00990 U	NA	0.00990 U	0.00990 U	0.00990 U
	04/19/2006	0.095 U	NA	NA	0.030 U	0.095 U	0.095 U	0.095 U
MW6	12/29/2005	0.00990 U	0.00990 U	0.00990 U	NA	0.00990 U	0.00990 U	0.00990 U
	04/19/2006	0.10 U	NA	NA	0.032 U	0.10 U	0.10 U	0.10 U
MW7	12/28/2005	0.00990 U	0.00990 U	0.00990 U	NA	0.00990 U	0.00990 U	0.00990 U
	04/18/2006	0.035 J	NA	NA	0.031 U	0.013 J	0.038 J	0.039 J
	04/18/2006	0.10 U	NA	NA	0.031 U	0.10 U	0.10 U	0.10 U
MW8	12/28/2005	0.0100 U	0.0100 U	0.0100 U	NA	0.0100 U	0.0100 U	0.0100 U
	12/28/2005	0.0990 U	0.00990 U	0.00990 U	NA	0.00990 U	0.00990 U	0.00990 U
	04/18/2006	0.13 U	NA	NA	0.039 U	0.13 U	0.13U	0.13 U

Table A4
Risk Screening
Groundwater Protection of Surface Water
Precision Engineering, Inc.
Seattle, Washington

Location	Date	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(b+k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Indeno(1,2,3-cd) pyrene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater CUL for the Protection of Surface Water		145,000,000	108,000,000	38,000,000	NV	95,000,000	100,000,000	97,000,000
Reconnaissance Groundwater Data								
GP2	6/9/2005	NA	NA	NA	NA	NA	NA	NA
GP4	6/16/2005	0.191 U	0.954 U	NA	NA	0.191 U	0.191 U	0.191 U
GP5	6/16/2005	NA	NA	NA	NA	NA	NA	NA
GP6	6/16/2005	NA	NA	NA	NA	NA	NA	NA
GP7	6/16/2005	NA	NA	NA	NA	NA	NA	NA
GP8	6/16/2005	0.194 U	0.97 U	NA	NA	0.194 U	0.194 U	0.194 U
GP-13	12/14/2005	NA	NA	NA	NA	NA	NA	NA
GP-15	12/14/2005	NA	NA	NA	NA	NA	NA	NA

FIGURES

Figure A1
Fate and Transport Modeling
Trivalent Chromium
Precision Engineering, Inc.
Seattle, Washington

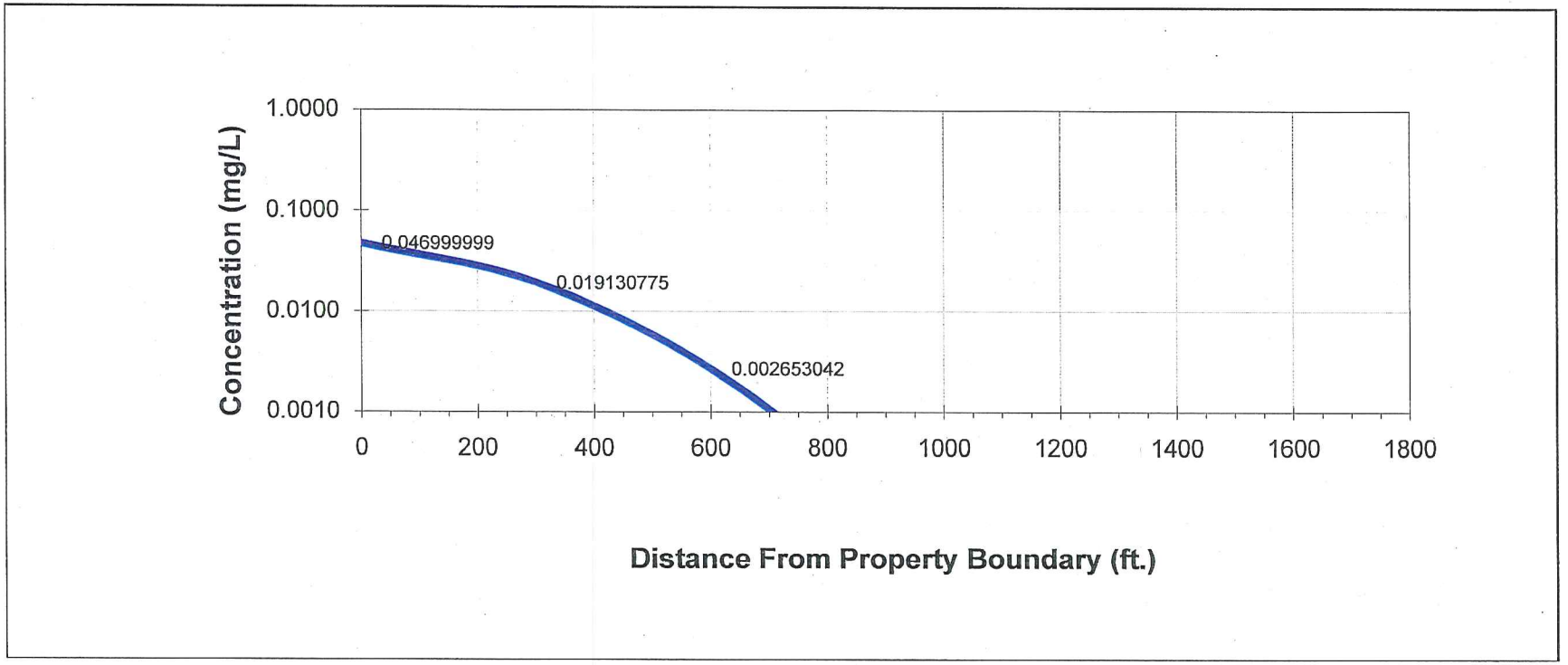


Figure A2
Fate and Transport Modeling
Hexavalent Chromium
Precision Engineering, Inc.
Seattle, Washington

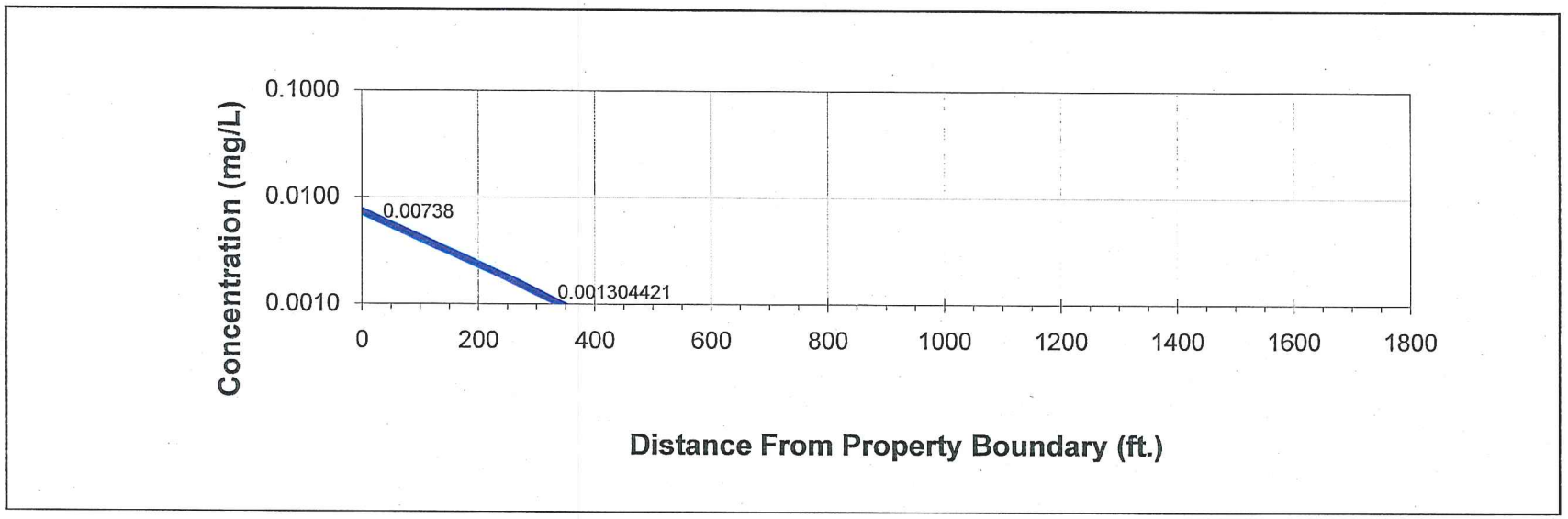


Figure A3
Fate and Transport Modeling
Copper
Precision Engineering, Inc.
Seattle, Washington

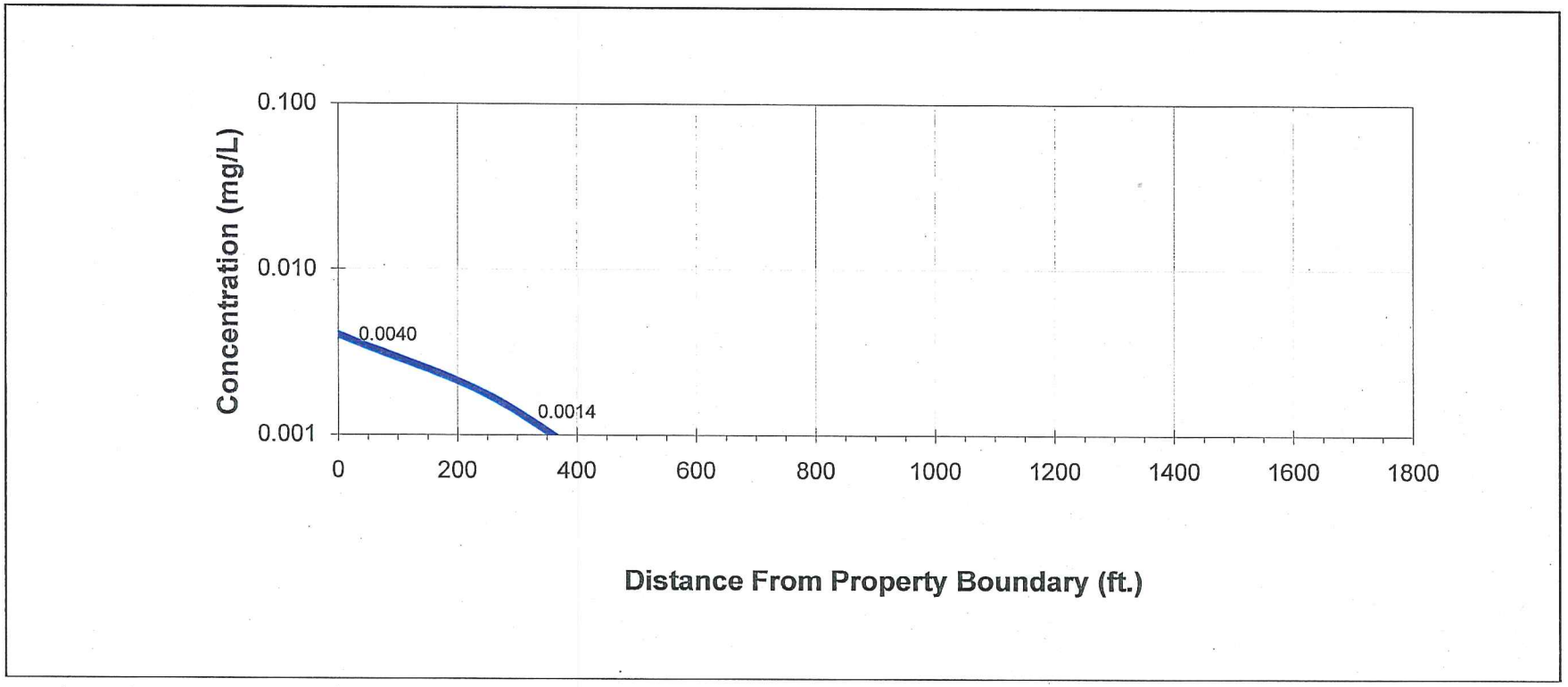


Figure A4
Fate and Transport Modeling
Trichloroethene
Precision Engineering, Inc.
Seattle, Washington

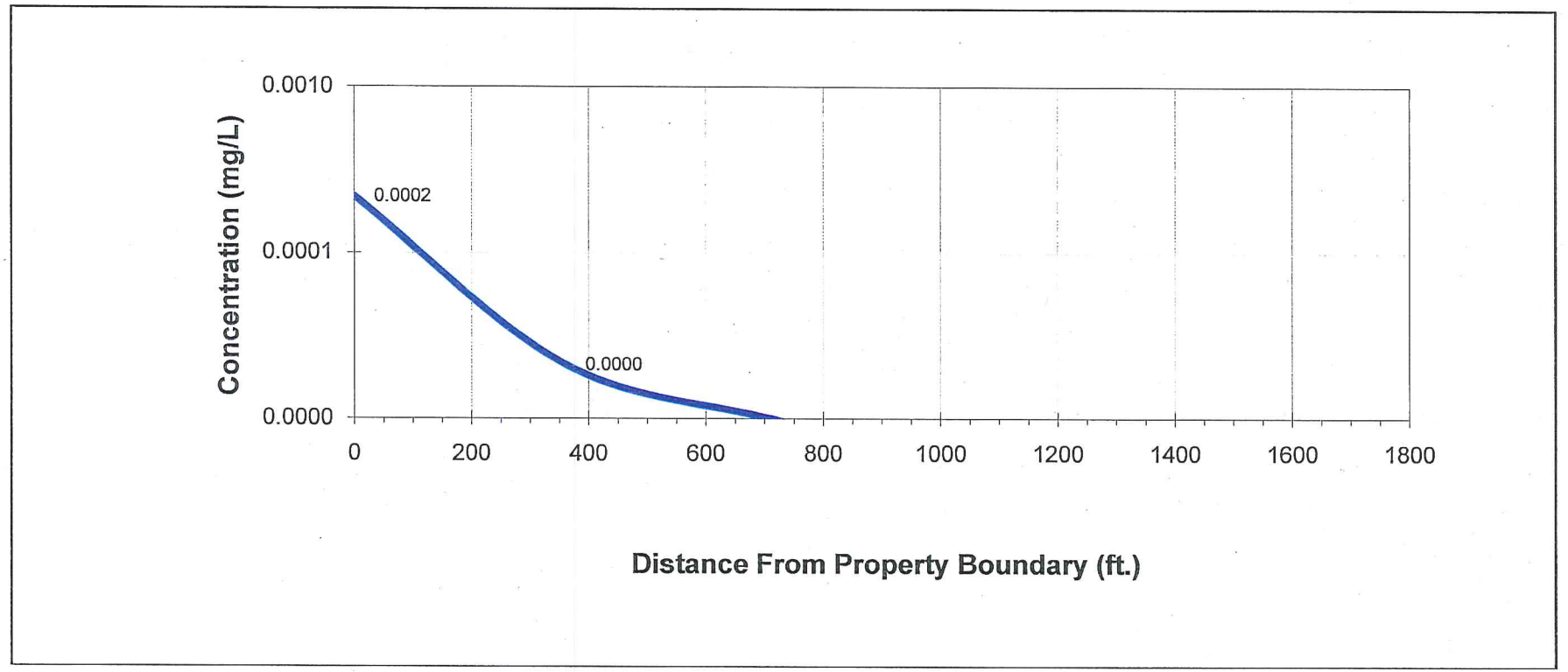


Figure A5
Fate and Transport Modeling
Vinyl Chloride
Precision Engineering, Inc.
Seattle, Washington

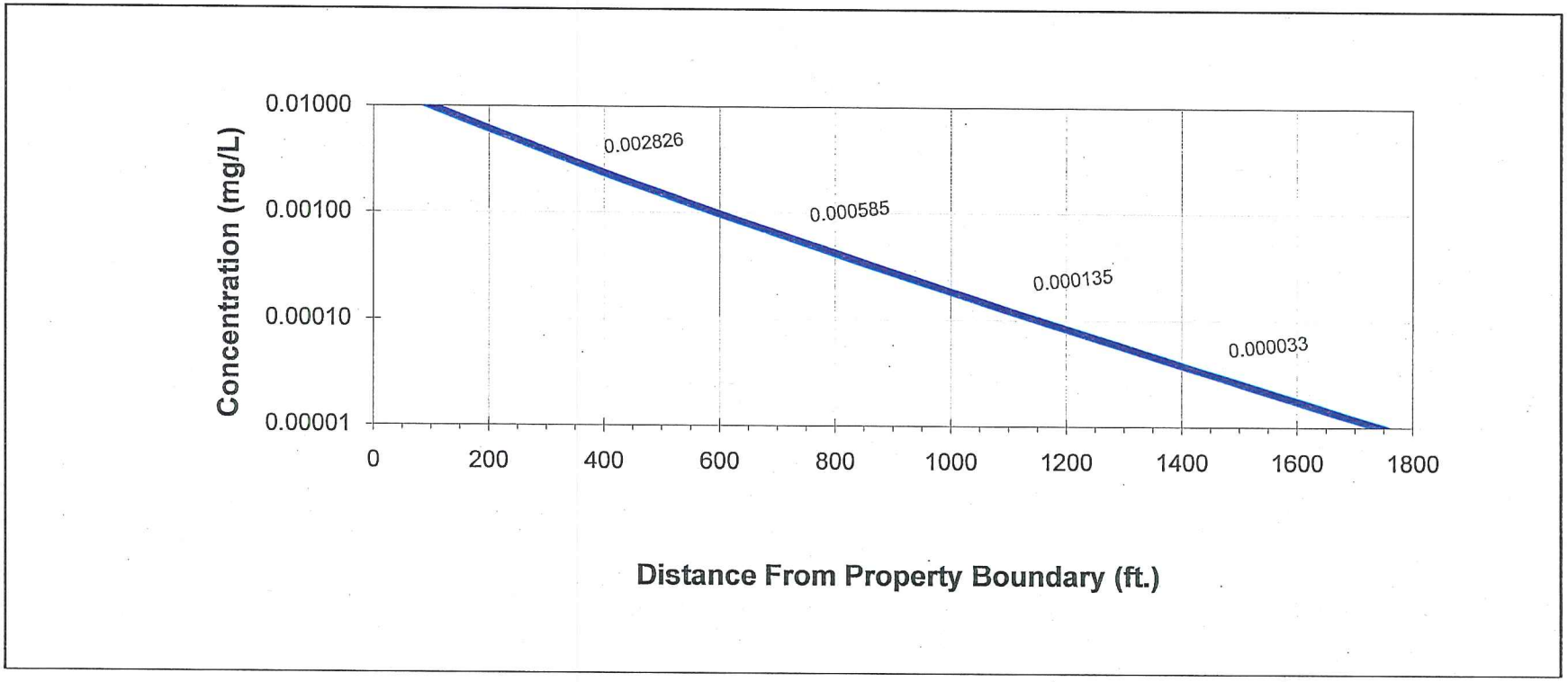


Figure A6
Fate and Transport Modeling
Benzo(a)anthracene
Precision Engineering, Inc.
Seattle, Washington

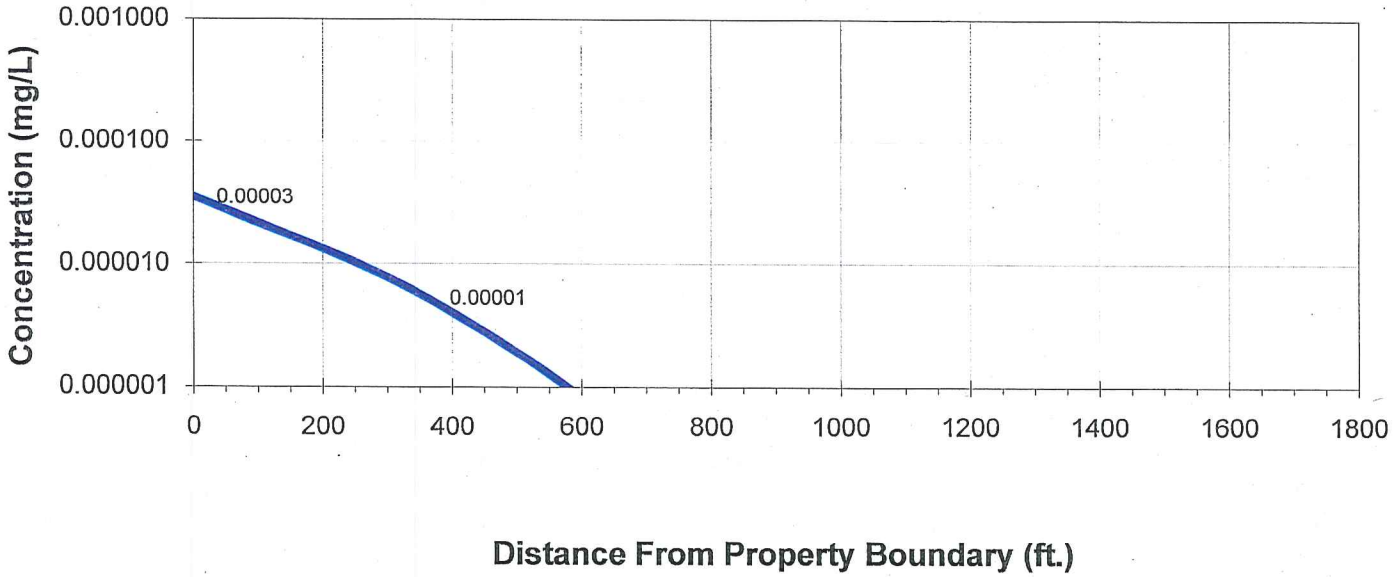


Figure A7
Fate and Transport Modeling
Chrysene
Precision Engineering, Inc.
Seattle, Washington

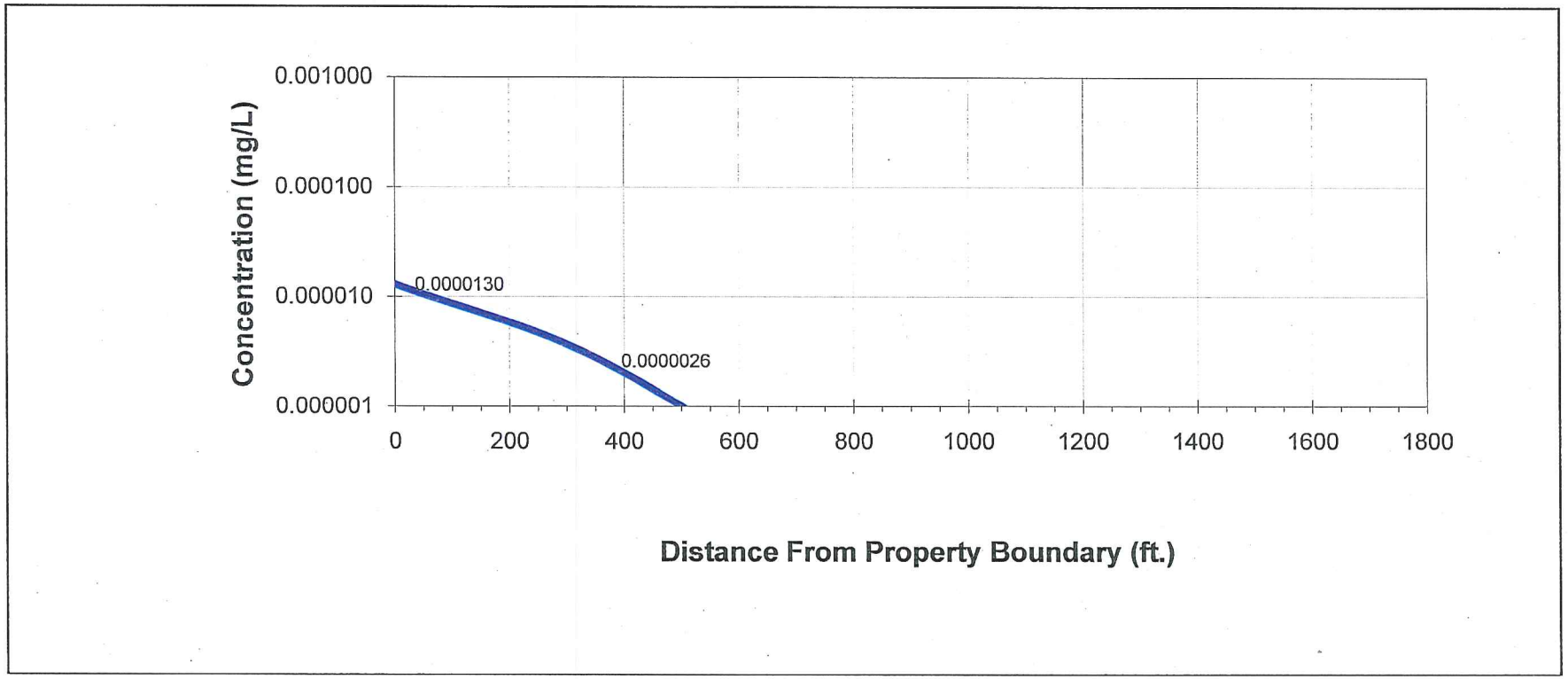


Figure A8
Fate and Transport Modeling
Dibenzo(a,h)anthracene
Precision Engineering, Inc.
Seattle, Washington

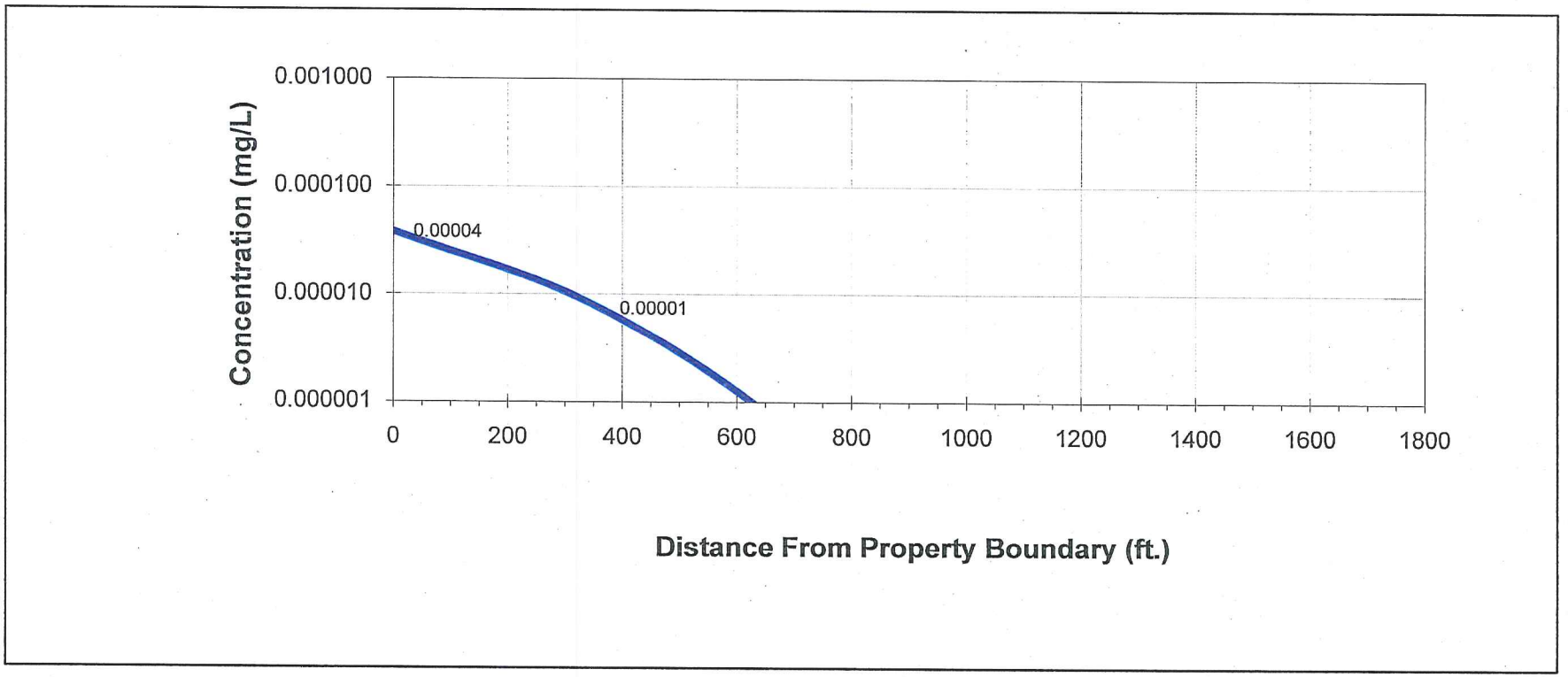


Figure A9
Fate and Transport Modeling
Indeno(1,2,3,-cd)pyrene
Precision Engineering, Inc.
Seattle, Washington

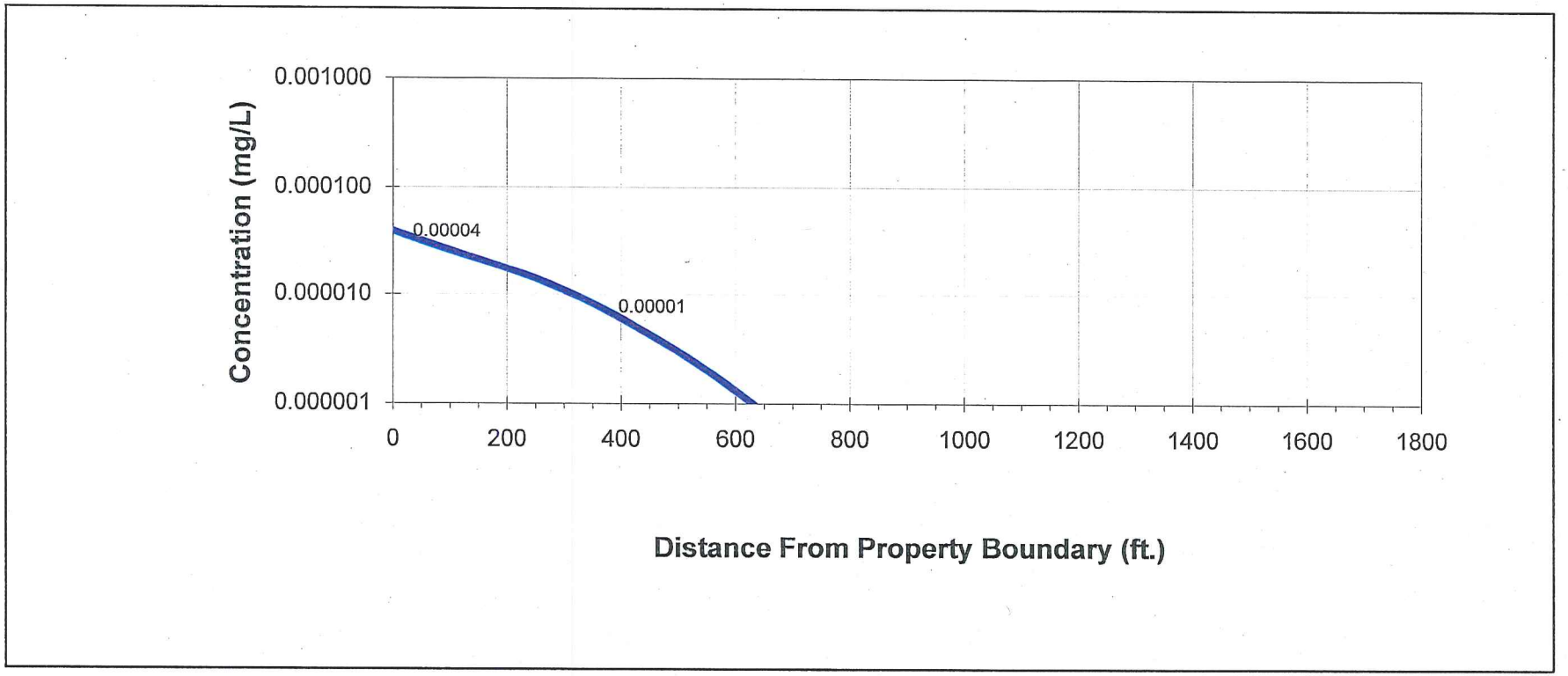


Figure A10
Fate and Transport Modeling for Site Specific CULs
Trivalent Chromium
Precision Engineering, Inc.
Seattle, Washington

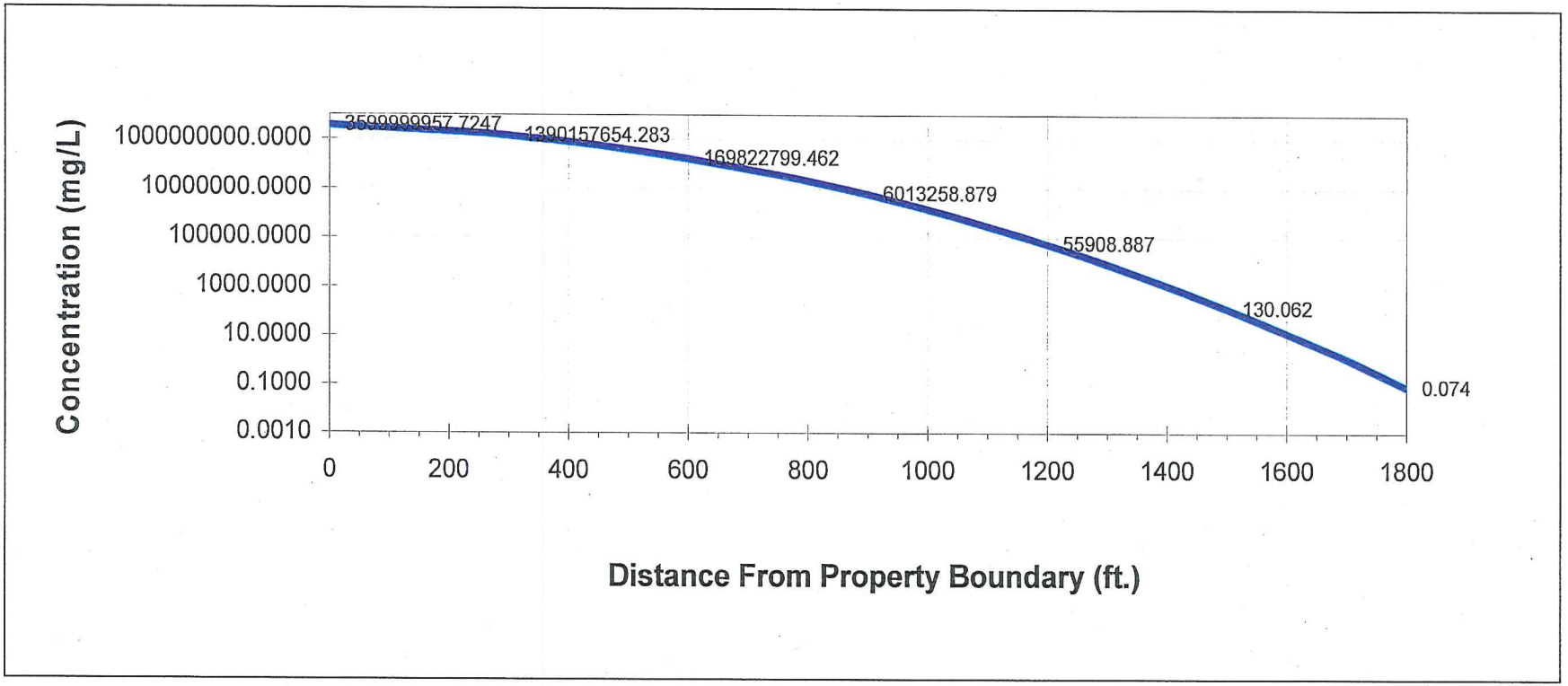


Figure A11
Fate and Transport Modeling for Site Specific CULs
Hexavalent Chromium
Precision Engineering, Inc.
Seattle, Washington

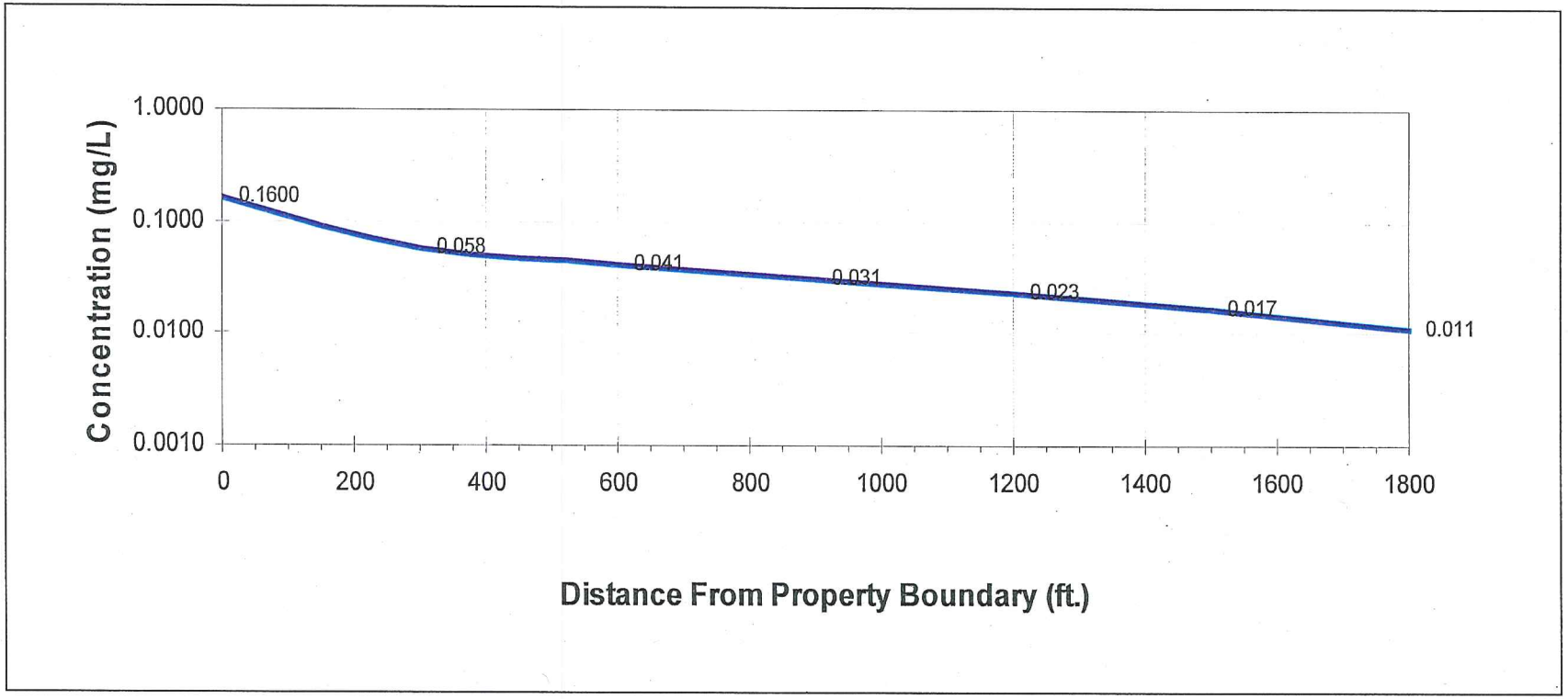


Figure A12
Fate and Transport Modeling for Site Specific CULs
Copper
Precision Engineering, Inc.
Seattle, Washington

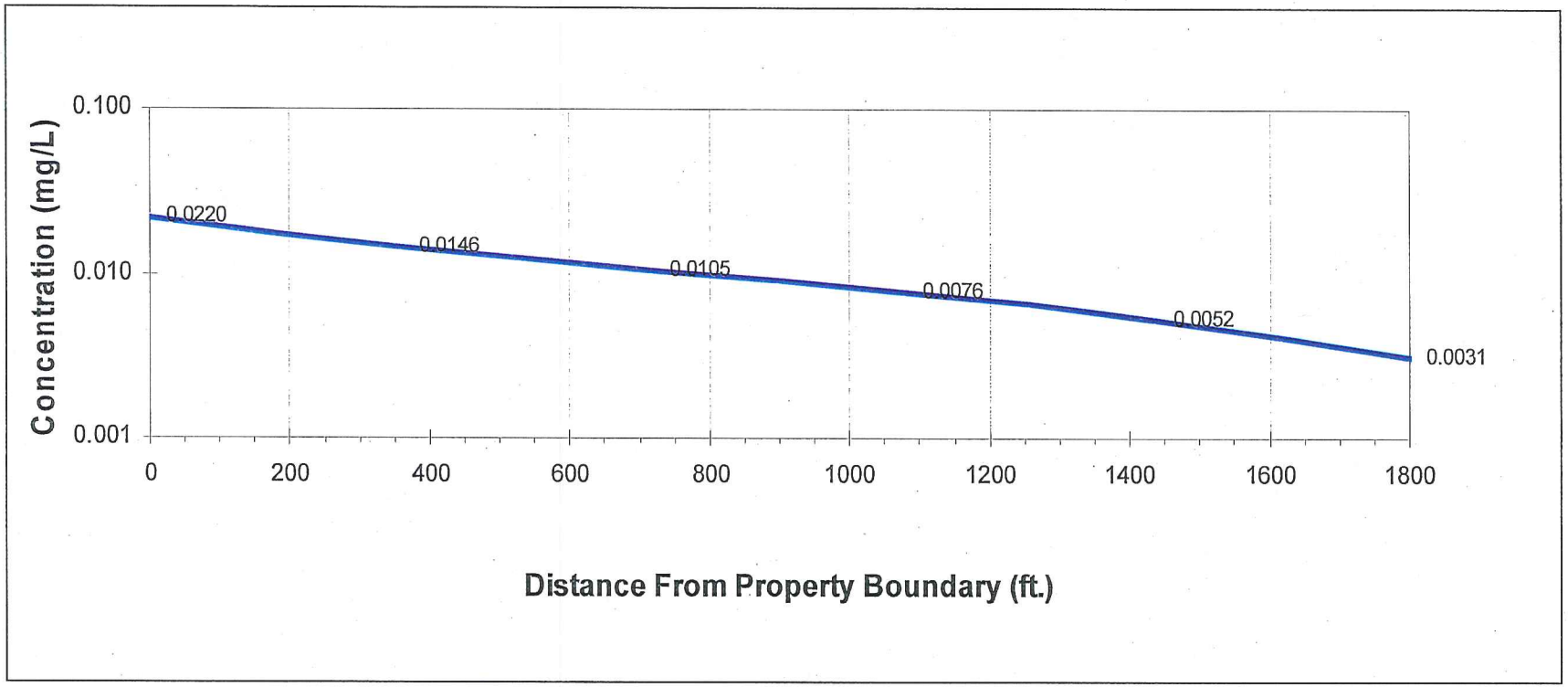


Figure A13
Fate and Transport Modeling for Site Specific CULs
TCE
Precision Engineering, Inc.
Seattle, Washington

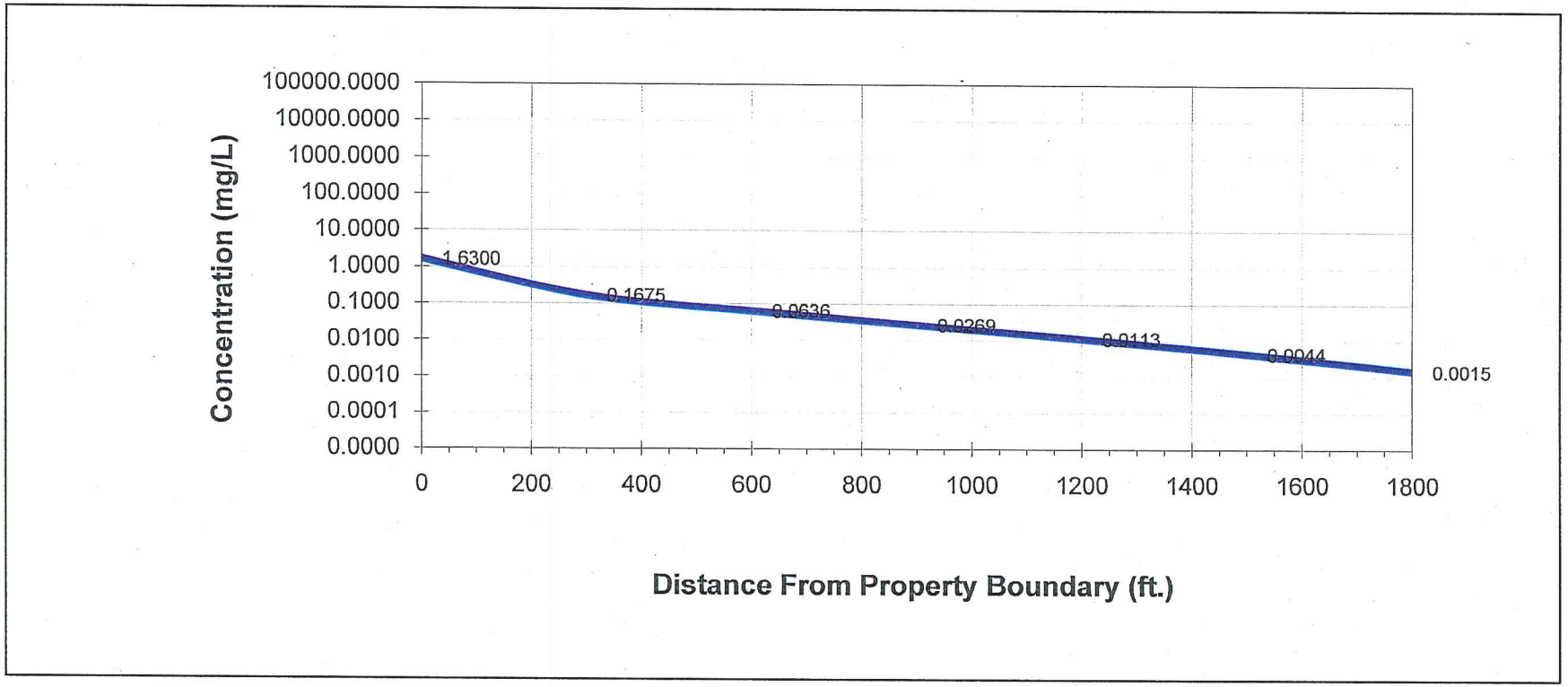


Figure A14
Fate and Transport Modeling for Site Specific CULs
Vinyl Chloride
Precision Engineering, Inc.
Seattle, Washington

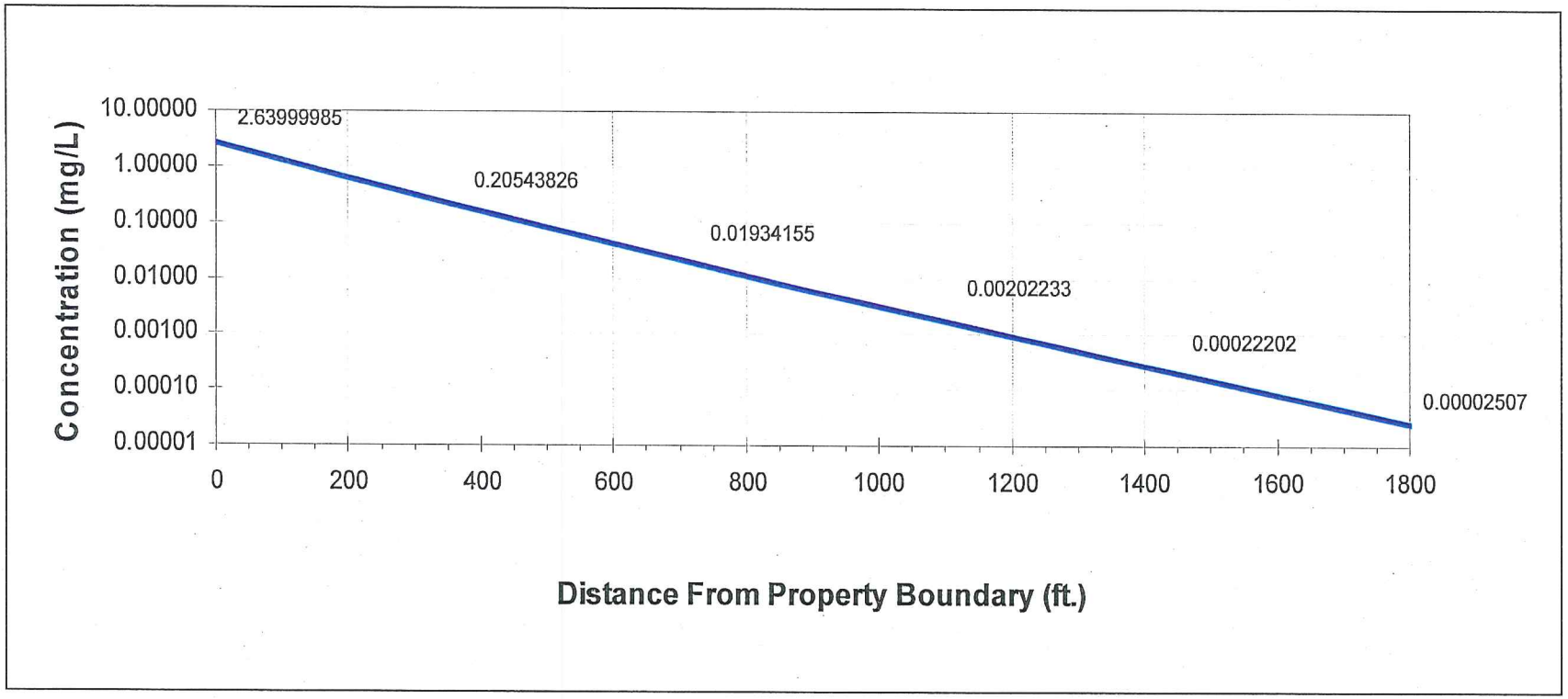


Figure A15
Fate and Transport Modeling for Site Specific CULs
Benzo(a)anthracene
Precision Engineering, Inc.
Seattle, Washington

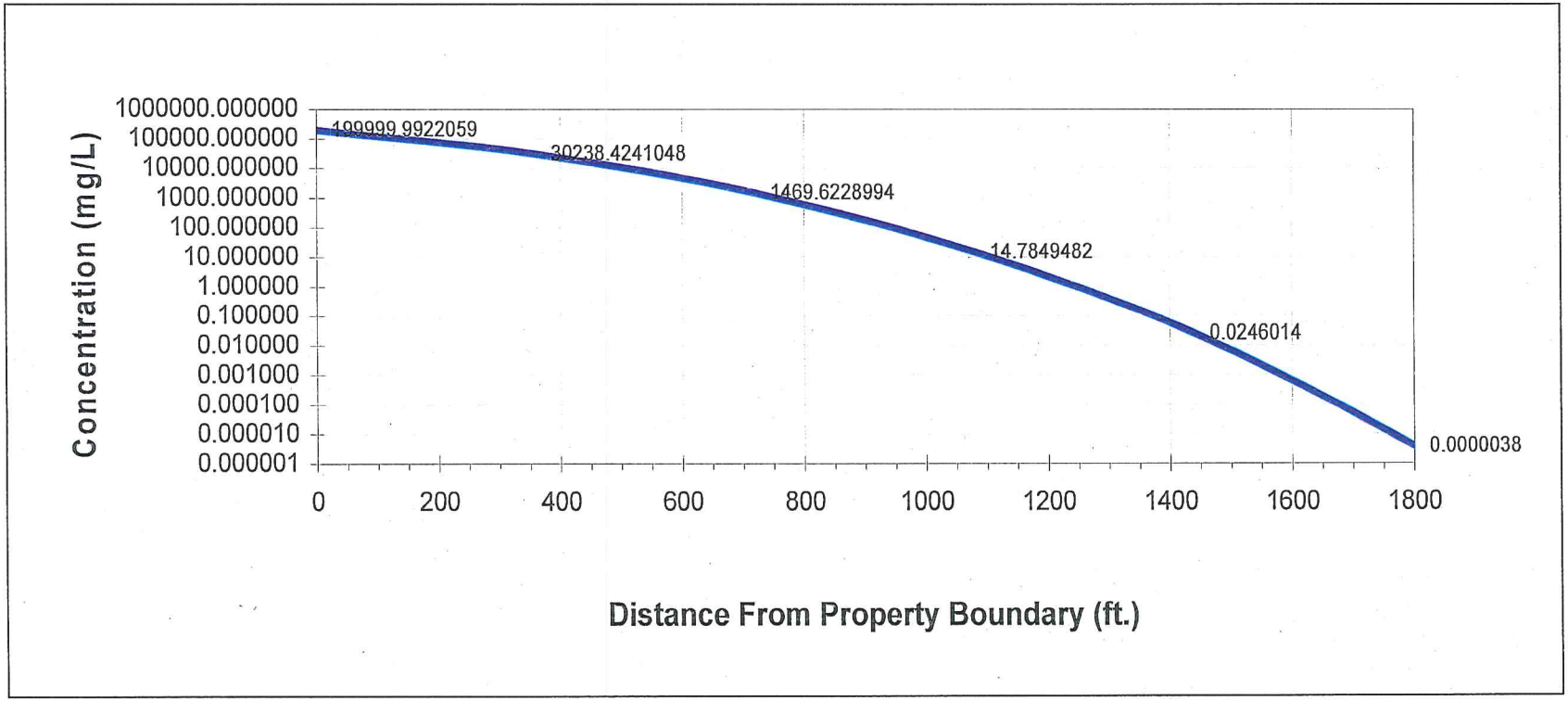


Figure A16
Fate and Transport Modeling for Site Specific CULs
Benzo(b)fluoranthene
Precision Engineering, Inc.
Seattle, Washington

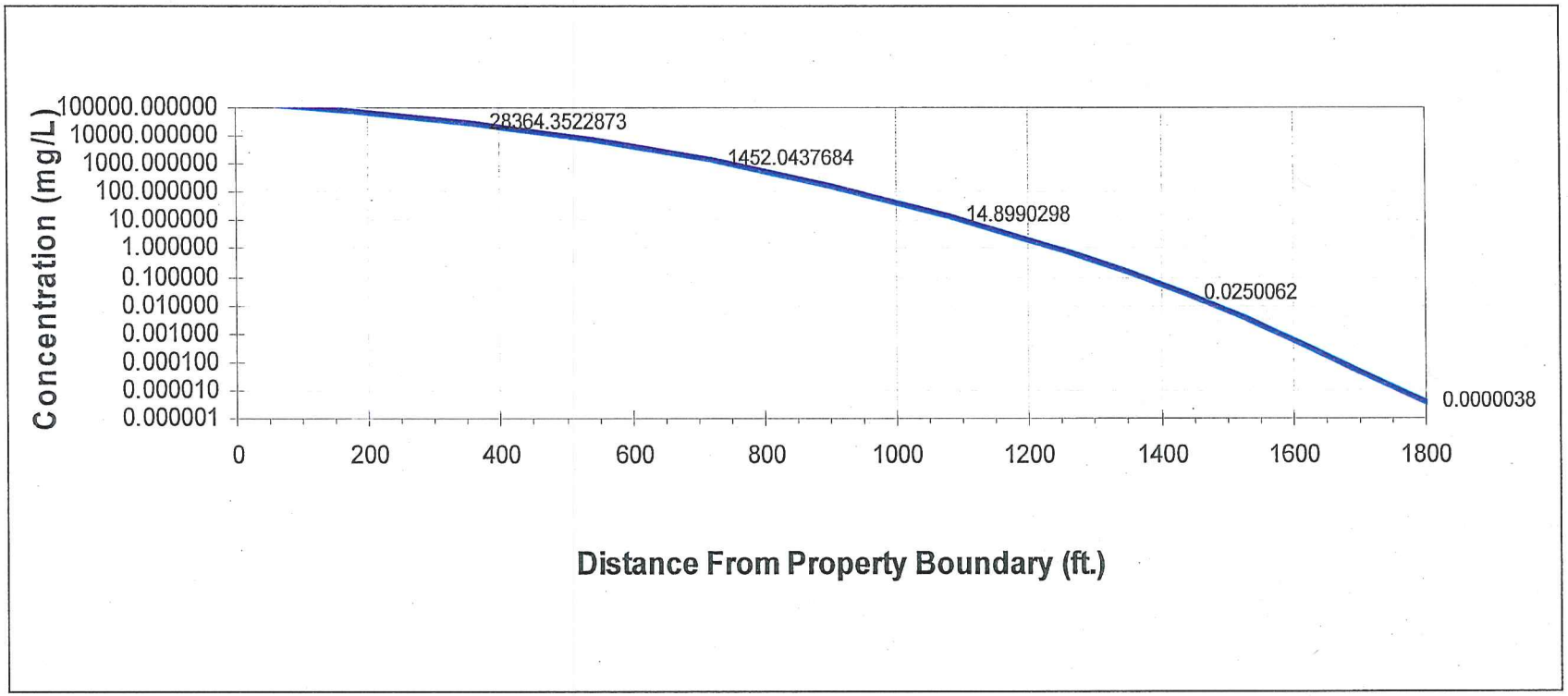


Figure A17
Fate and Transport Modeling for Site Specific CULs
Benzo(k)fluoranthene
Precision Engineering, Inc.
Seattle, Washington

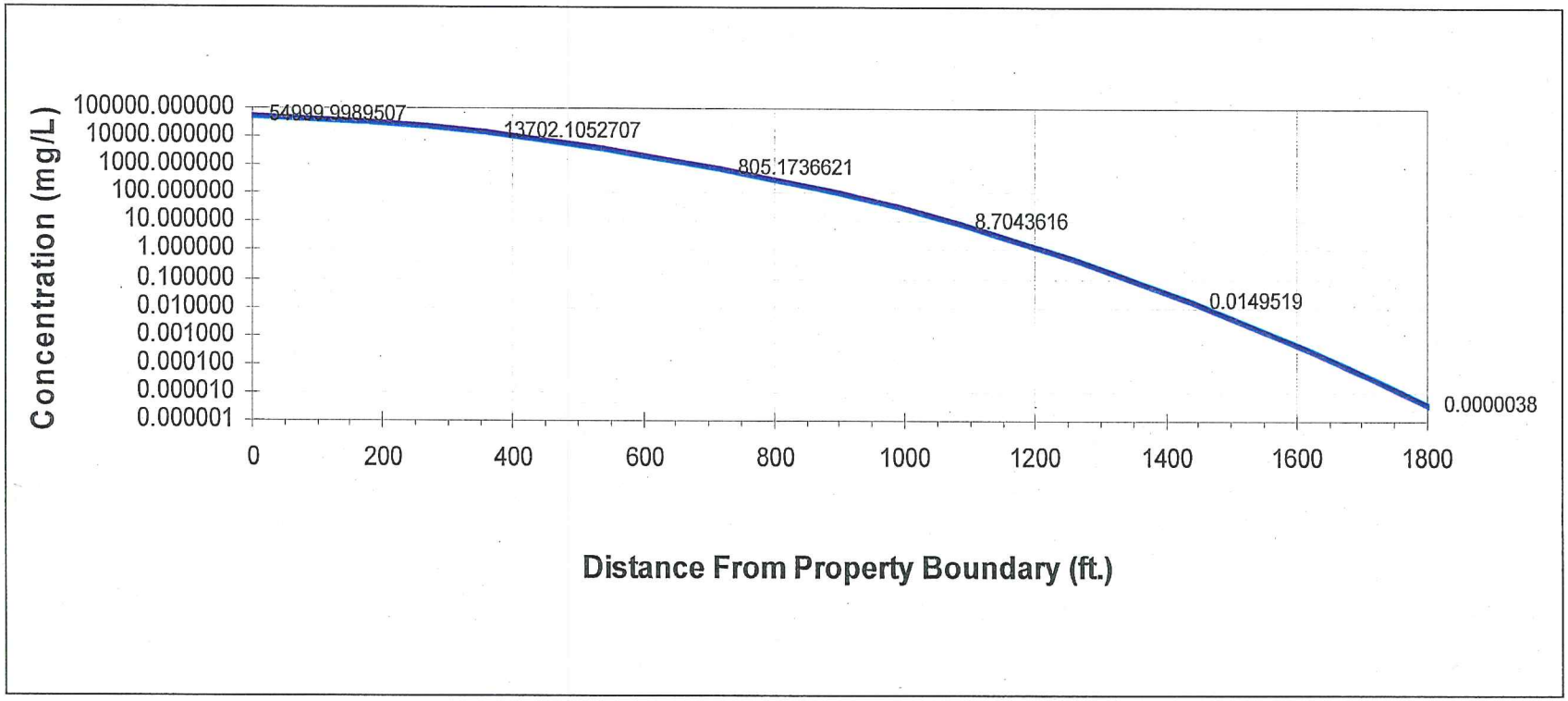


Figure A18
Fate and Transport Modeling for Site Specific CULs
Chrysene
Precision Engineering, Inc.
Seattle, Washington

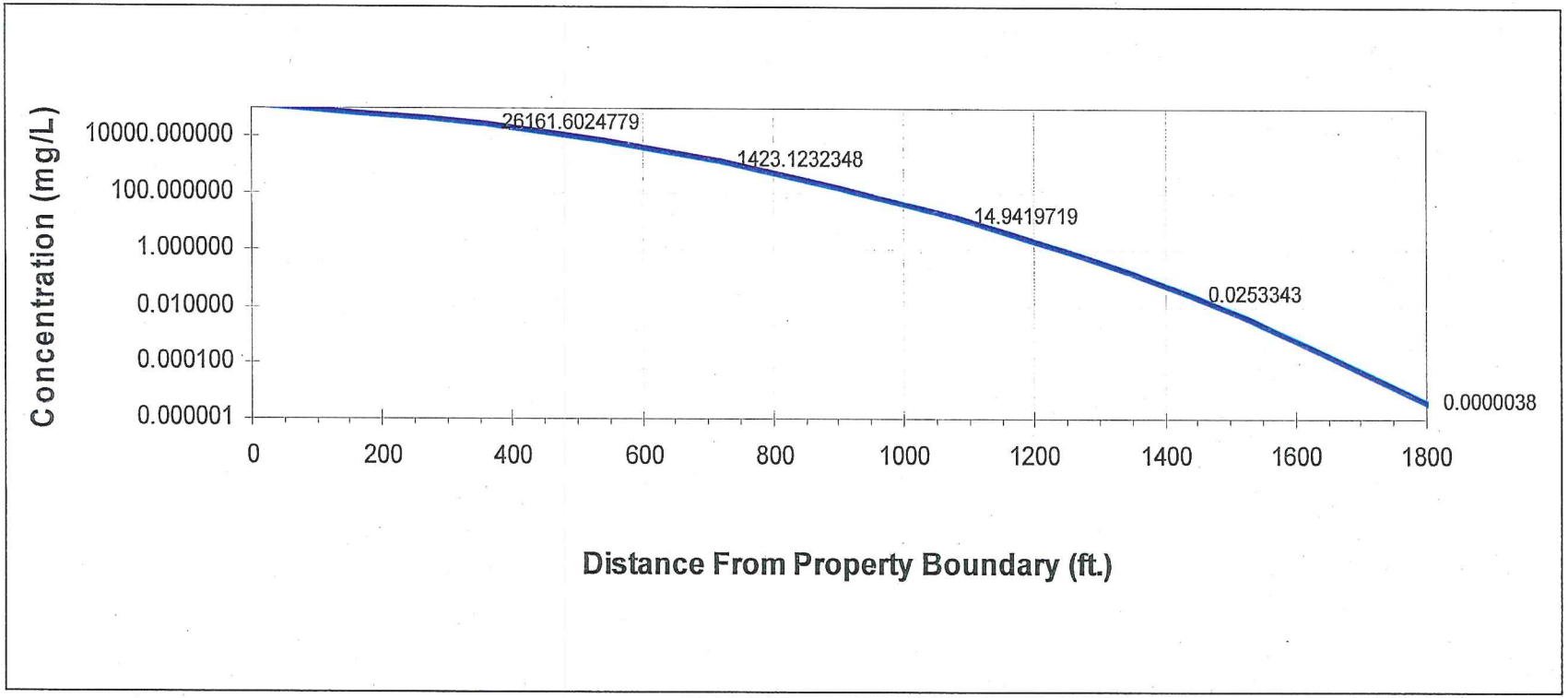


Figure A19
Fate and Transport Modeling for Site Specific CULs
Dibenzo(a,h)anthracene
Precision Engineering, Inc.
Seattle, Washington

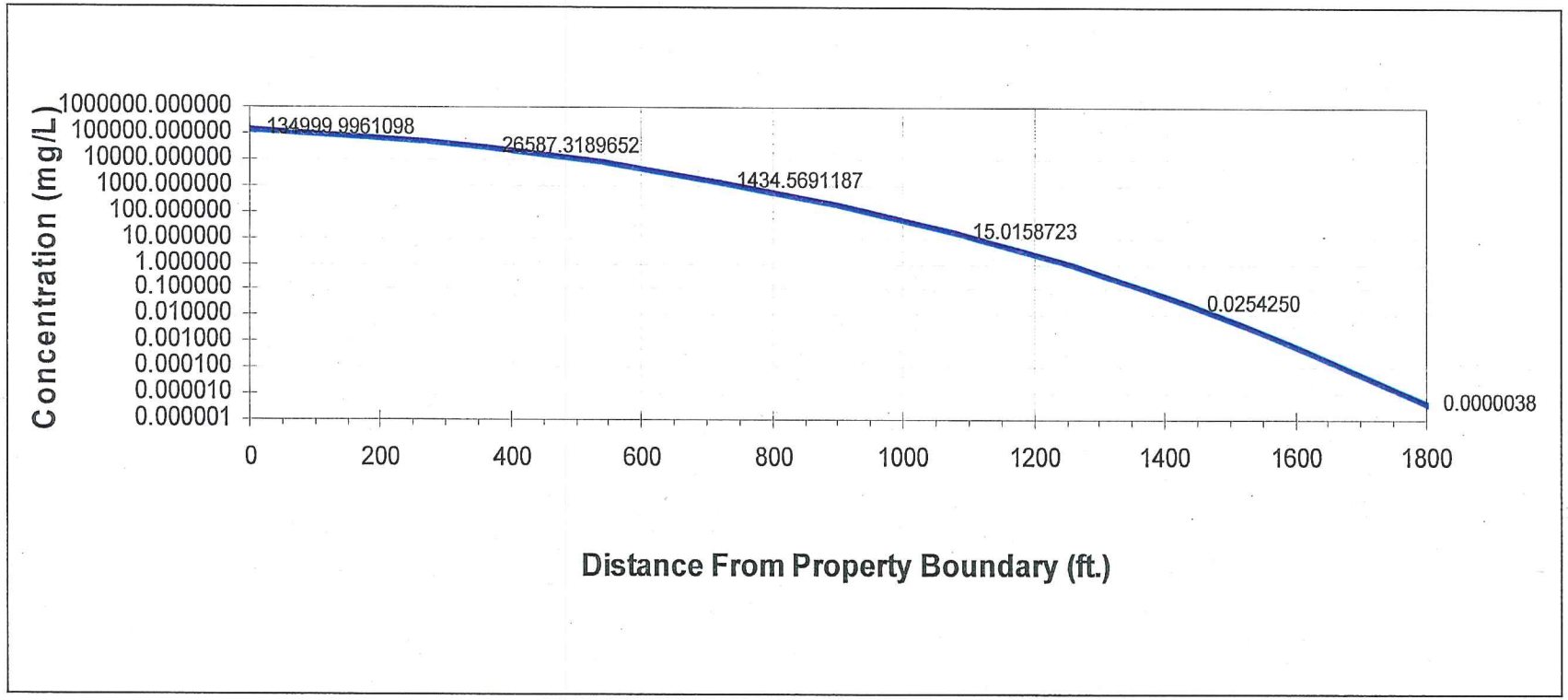
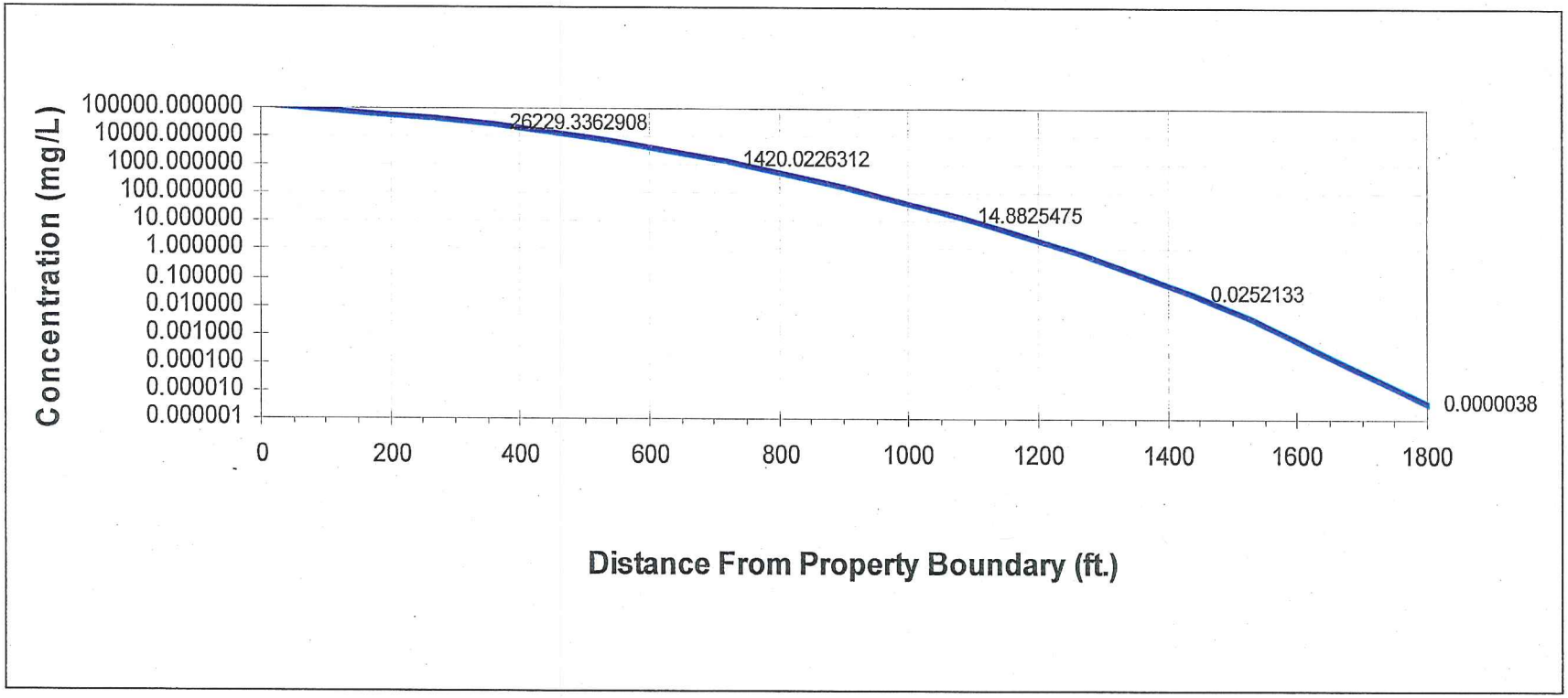


Figure A20
Fate and Transport Modeling for Site Specific CULs
Indeno(1,2,3-cd)pyrene
Precision Engineering, Inc.
Seattle, Washington



Appendix N

Terrestrial Ecological Evaluation Table and Form

Table N-1
Simplified Terrestrial Ecological Evaluation Scoresheet
Precision Engineering, Inc.
Seattle, Washington

Line Number	Scoring Parameters	Score	Rationale
1	Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre). From the table below, find the number of points corresponding to the area and enter this number in the field to the right. Area (acres) — Points 0.25 or less — 4 0.5 — 5 1.0 — 6 1.5 — 7 2.0 — 8 2.5 — 9 3.0 — 10 3.5 — 11 4.0 or more — 12	7	The approximately 3.5-acre Property associated with the Site is entirely developed (i.e., paved and/or covered by buildings). Approximately 1.5 acres of grassy land is present along the eastern, southern, and western borders of the Site.
2	Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1.	3	The Property is zoned for industrial use and is currently an active industrial supply store.
3	Enter a score in the box to the right for the habitat quality of the site, using the following rating system: High=1, Intermediate=2, Low=3.	3	The Site is entirely paved and/or covered by buildings and is located in industrial south Seattle, near the Highway 99 on-ramp.
4	Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.	1	It is possible the ditch could be considered a “habitat island.” Therefore, an ecologically conservative score of 1 is used.
5	Are any of the following soil contaminants present: chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4	None of the listed soil contaminants have been detected at the Site.
6	Add the numbers in the boxes on lines 2 through 5 and enter this number to the right. If this number is larger than the number in the box on line 1, the simplified TEE may be ended under WAC 173-340-7292(2) (a) (ii).	11	11 is larger than 7, so the TEE process is ended.

Terrestrial Ecological Evaluation Form

Washington State Department of Ecology – Toxics Cleanup Program

Under the Model Toxics Control Act[1] (MTCA), the Department of Ecology (Ecology) requires a terrestrial ecological evaluation (TEE) if hazardous substances are released to the soil at a site. In this case, you must take one of these three actions as part of your site investigation and cleanup.

1. Document an exclusion from further evaluation under WAC 173-340-7491.[2]
2. Conduct a simplified evaluation under WAC 173-340-7492.[3]
3. Conduct a site-specific evaluation under WAC 173-340-7493.[4]

This form documents the TEE type and results for your Site. You must fill out and submit this form to Ecology to complete your remedial investigation. Completing this form alone isn't enough to document your evaluation. You still need to document your analysis and the basis for your conclusion in a cleanup plan or report. For more information, contact the Ecology cleanup project manager assigned to your Site, visit our Terrestrial Ecological Evaluations[5] webpage, or see our draft TEE guidance.[6]

Part 1 Site name and identifying information

Identify the Site being documented for an evaluation.

Site name: **Precision Engineering, Inc.**

Site address: **1231 South Director Street, Seattle, Washington 98108**

FSID:[a] **2056** VCP ID:[b] **Agreed Order**

Part 2 Evaluator name and contact information

Provide the name and contact information for the person who conducted the evaluation.

Name: **Garrett Leque, LG**

Title: **Senior Environmental Geologist**

Organization: **GeoEngineers**

Mailing address: **554 West Bakerview Road**

City: **Bellingham** State: **WA** Zip: **98226**

Email: **gleque@geoengineers.com** Phone: **253.312.7958**

[a] Facility/Site ID (FSID) assigned by Ecology

[b] Voluntary Cleanup Program (VCP) project ID assigned by Ecology

Part 3 Document evaluation type and results

3A Exclusion from further evaluation

3A-1 Does the Site qualify for an exclusion from further evaluation? (✓ one)

Yes (go to next question).

No or Unknown (go to Section 3B).

3A-2 What is the basis for the exclusion? (✓ all that apply, then skip to Part 4)

Point of compliance: WAC 173-340-7491(1)(a)

All soil contamination is, or will be, deeper than at least:*

☐ 15 feet below ground surface.

☐ 6 feet below ground surface or other Ecology-approved depth, and institutional controls are used to manage remaining contamination.

Barriers to exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil is, or will be, covered by physical barriers (e.g., buildings or pavement) that prevent exposure to plants and wildlife, and institutional controls are used to manage the remaining contamination.*

Undeveloped land: WAC 173-340-7491(1)(c)

Less than 0.25 acres of contiguous# undeveloped land± are located on or within 500 feet of any area of the Site, and any of the following chemicals is present:

chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

For sites not impacted by any of these chemicals, less than 1.5 acres of contiguous undeveloped land exists on or within 500 feet of any area of the Site.

Background concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels defined in WAC 173-340-200[7] and WAC 173-340-709.[8]

* An exclusion based on future land use must have an Ecology-acceptable completion date for any future development.

\# Contiguous undeveloped land is not fragmented into smaller areas by highways, extensive paving, or similar structures that could hinder wildlife access to such areas.

± Undeveloped land is not covered by buildings, roads, pavement, or other barriers that would prevent wildlife from feeding on plants and other food sources in or on the soil.

3B Simplified evaluation

3B-1 Does the Site qualify for a simplified evaluation? (✓ one)

Yes (go to next question).

No or Unknown (skip to Section 3C).

3B-2 Did you conduct a simplified evaluation? (✓ one)

Yes (go to next question).

No (skip to Section 3C).

3B-3 Was further evaluation necessary? (✓ one)

Yes (go to next question).

No (go to Question 3B-5).

3B-4 If further evaluation was necessary, what did you do? (✓ one)

Used the MTCA Table 749-2[9] concentrations as cleanup levels (skip to Part 4).

Conducted a site-specific evaluation (skip to Section 3C).

3B-5 If no further evaluation was necessary, what was the reason? (✓ all that apply, then skip to Part 4).

Exposure analysis: WAC 173-340-7492(2)(a)

☐ The total area of Site soil contamination is not more than 350 square feet.

☑ The current or planned land use makes wildlife exposure unlikely, based on MTCA Table 749-1.[10]

Pathway analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors are complete.

Contaminant analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in MTCA Table 749-2 is, or will be, present from ground surface to 15 feet deep at concentrations that exceed the values listed in MTCA Table 749-2.

☑ No contaminant listed in MTCA Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth, if approved by Ecology) at concentrations that exceed the values listed in MTCA Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in MTCA Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate, as determined using Ecology-approved bioassay results.

☐ No contaminant listed in MTCA Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth, if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate, as determined using Ecology-approved bioassay results, and institutional controls are used to manage remaining contamination.

3C Site-specific evaluation

A site-specific evaluation process consists of: 1) formulating the problem, and 2) selecting the methods for addressing the identified problem. Both parts require Ecology consultation and approval – see WAC 173-340-7493(1)(c). For more information, see our draft TEE guidance.

3C-1 Was there a problem? – see WAC 173-340-7493(2)? (✓ one)

Yes (go to next question)

No (select the reason here, then go to 3C-5):

No issues were identified during the problem formulation step.

Issues were identified and resolved by cleanup actions for protecting human health.

3C-2 What did you do to resolve the problem? – see WAC 173-340-7493(3)? (✓ one)

Used concentrations listed in MTCA Table 749-3 as cleanup levels (go to Question 3C-5).

Used one or more methods listed in WAC 173-340-7493(3) to evaluate and resolve the identified problem (go to next question).

3C-3 If you conducted further site-specific evaluations, what methods did you use – see WAC 173-340-7493(3)? (✓ all that apply)

- ☐ Literature surveys.
- ☐ Biomarkers.
- ☐ Site-specific field studies
- ☐ Soil bioassays.
- ☐ Weight of evidence.
- ☐ Wildlife exposure model

Other Ecology-approved methods – please specify:

3C-4 What was the result of those evaluations? (✓ one)

No problems were identified.

Identified a problem and established site-specific cleanup levels.

3C-5 Has Ecology approved both your problem formulation and problem resolution steps? (✓ one)

Yes Identify the Ecology staff who approved those steps:

No (go to Part 4).

Part 4 Submit to Ecology

Email this completed form to the cleanup site manager assigned to your site.

ADA Accessibility

Ecology is committed to providing people with disabilities access to our information and services by meeting or exceeding the requirements of state and federal laws.

To request an ADA accommodation, email ecyadacoordinator@ecy.wa.gov, call (360) 407-7170, or call Ecology through the Washington Telecommunication Relay for services including text telephone (TTY) at 711 or through your preferred relay service provider. Visit Ecology's Accessibility & the Americans with Disabilities Act[15] webpage for more accessibility information.

[1] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true
[2] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-7491
[3] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-7492
[4] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-7493
[5] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/terrestrial-ecological-evaluation
[6] https://apps.ecology.wa.gov/publications/SummaryPages/1909051.html
[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-200
[8] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-709
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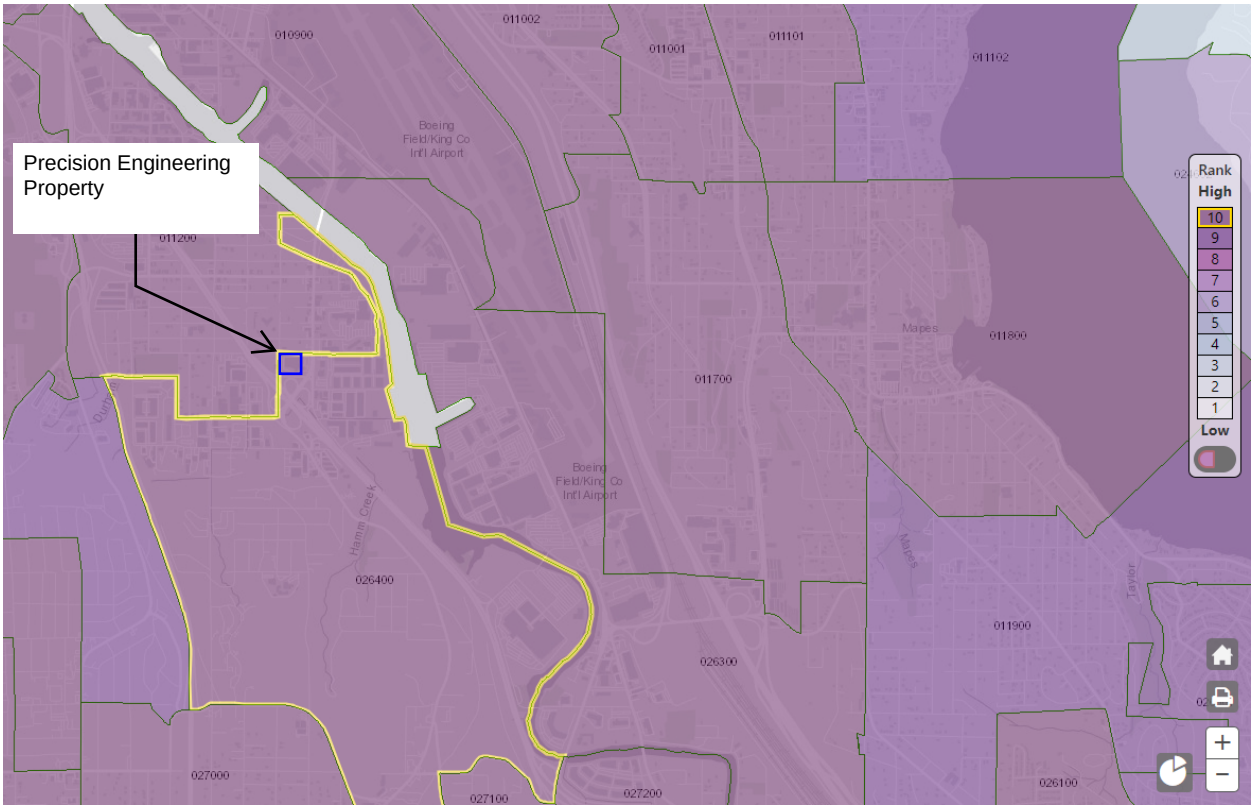
[11] mailto:VCP-NWRO@ecy.wa.gov
[12] mailto:VCP-SWRO@ecy.wa.gov
[13] mailto:VCP-CRO@ecy.wa.gov
[14] mailto:VCP-ERO@ecy.wa.gov
[15] https://ecology.wa.gov/about-us/accessibility-equity/accessibility

Appendix O
Environmental Health Disparities Map



May 2024 snapshot of WA DOH Environmental Health Disparities Map. The site and surroundings have a ranking of 10.

Appendix P
Arsenic Evaluation

Appendix P

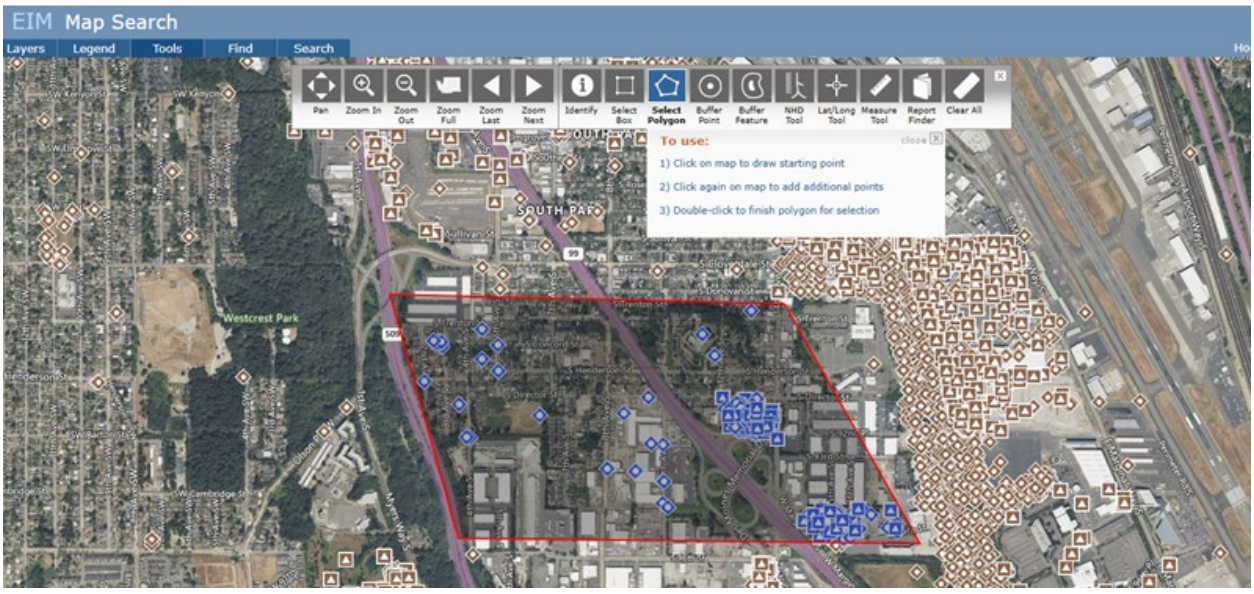
Arsenic Evaluation

This appendix contains two tables. Table P1 includes a background soil evaluation at the request of Ecology. 204 arsenic results from the general vicinity of Precision Engineering were queried using Ecology's EIM tool. A screenshot of the sample locations is shown below. The 90th percentile, and 4 times the 50th percentile of the arsenic soil concentrations were calculated. Table P1 indicates the lowest of these values is 14.3 mg/kg arsenic. This is the background concentration.

Table P2 assesses whether arsenic is a COC at the site based on the MTCA 3-part rule. The conclusion is that arsenic is not a COC because:

1. The 95 percent upper confidence level (UCL) on the mean arsenic is 5.71 mg/kg, which is less than 14.3 mg/kg.
2. No site soil arsenic concentrations are greater than 2 times the background concentration. The background concentration (Table P1) is 14.3 mg/kg. Therefore two times the background concentration is 28.6 mg/kg. The maximum onsite arsenic concentration is 19.9 mg/kg (Table P2).
3. Less than 10% of the site arsenic samples exceed the background concentration of 14.3 mg/kg. The exceedance percentage is 3%.

Conclusion: Arsenic is not a site COC.



EIM screenshot of area of soil samples providing 204 arsenic background samples.

Table P1
Background Arsenic Soil Samples (mg/kg)

Study ID	Sample Date	Sample Location	Result (mg/kg) (ND = 1/2 PQL)
AODE18079	6/7/2005	GP1-S-6.0	2.5 U
AODE18079	6/7/2005	GP2-S-1.0	11.3
AODE18079	12/12/2005	GP28-S-1.0	1.89
AODE18079	12/12/2005	GP31-S-1.0	5.72
AODE18079	12/12/2005	GP29-S-1.0	5.91
AODE18079	12/13/2005	GP12-S-3.0	2.79
AODE18079	12/13/2005	GP14-S-3.0	3
AODE18079	12/13/2005	GP18-S-1.0	3.55
AODE18079	12/13/2005	GP15-S-3.0	7.76
AODE18079	12/14/2005	GP24-S-3.0	3.06
AODE18079	12/14/2005	GP20-S-1.0	5.47
AODE18079	12/14/2005	GP13-S-1.0	9.45
AODE18079	12/15/2005	HA2-1.5	2.71
AODE18079	12/15/2005	HA1-1.5	2.88
AODE18079	12/15/2005	HA1-0.5	3.81
AODE18079	12/15/2005	HA2-0.5	3.94
AODE18079	12/15/2005	HA4-1.5	5.25
AODE18079	12/15/2005	HA3-1.5	6.96
AODE18079	12/15/2005	HA5-1.5	12.5
AODE18079	12/15/2005	HA5-0.5	35.9
AODE18079	12/15/2005	HA4-0.5	44.3
AODE18079	12/15/2005	HA3-0.5	53.9
AODE18079	4/19/2006	HA12-.05	9
AODE18079	1/9/2007	HA20-S-1.5	0.905 U
AODE18079	1/9/2007	HA20-S-0.5	1.01 U
AODE18079	1/9/2007	HA18-S-1.5	2.06 U
AODE18079	1/9/2007	HA19-S-1.5	4.02
AODE18079	1/9/2007	HA18-S-0.5	5.03
AODE18079	1/9/2007	HA17-S-1.5	5.3
AODE18079	1/9/2007	HA17-S-0.5	6.61
AODE18079	1/9/2007	HA19-S-0.5	12.7
AODE18079	1/10/2007	HA23-S-0.5	4.44
AODE18079	1/10/2007	HA24-S-0.5	4.9
AODE18079	1/10/2007	HA23-S-1.5	4.91
AODE18079	1/10/2007	HA24-S-1.5	5.23
AODE18079	1/10/2007	HA21-S-0.5	5.72
AODE18079	1/10/2007	HA21-S-1.5	5.83
AODE18079	1/10/2007	HA22-S-1.5	10.3
AODE18079	1/10/2007	HA25-S-0.5	11.6
AODE18079	1/10/2007	HA25-S-1.5	11.8

AODE18079	1/10/2007	HA22-S-0.5	53.5
AODE18079	10/24/2007	B6	2.76
AODE18079	10/24/2007	B5	3.07
AODE18079	10/24/2007	B4	3.79
AODE18079	10/24/2007	B7	7.21
AODE18079	10/24/2007	B9	8
AODE18079	10/24/2007	B11	8.26
AODE18079	10/24/2007	P6	9.05
AODE18079	10/24/2007	P5	9.54
AODE18079	10/24/2007	B8	10
AODE18079	10/24/2007	B3	10.7
AODE18079	10/24/2007	B12	11.3
AODE18079	10/24/2007	P4	11.6
AODE18079	10/24/2007	P3	13.3
AODE18079	10/24/2007	P8	13.8
AODE18079	10/24/2007	B2	13.9
AODE18079	10/24/2007	P2	15.7
AODE18079	10/24/2007	B10	16.1
AODE18079	10/24/2007	B1	16.2
AODE18079	10/24/2007	P7	19.9
AODE18079	10/24/2007	P1	22
AODE18079	10/24/2007	B13	26.3
AODE18079	10/25/2007	P10	15.6
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AODE18079	11/19/2007	SS4-6	3.58
AODE18079	11/19/2007	SS5-6	4.43
AODE18079	11/19/2007	SS2-6	4.82
AODE18079	11/19/2007	SS3-18	6.79
AODE18079	11/19/2007	SS6-6	16.8
AODE18079	11/19/2007	SS6-18	23.7
AODE18079	11/19/2007	SS3-6	37
AODE18079	3/27/2008	C-1	9.91
AODE18079	3/27/2008	C-3	13.2
AODE18079	3/27/2008	C-2	21.6
AODE18079	8/7/2014	SB14-6	2.5 U
AODE18079	8/7/2014	SB11-10	3 U
AODE18079	8/7/2014	SB12-12	3.5 U
AODE18079	8/7/2014	SB13-9	4 U
AODE18079	8/7/2014	SB11-30	6
AODE18079	8/7/2014	SB4-20	6
AODE18079	8/7/2014	SB4-5	7
AODE18079	8/8/2014	SB1-5	2.5 U
AODE18079	8/8/2014	SB10-7	2.5 U
AODE18079	8/8/2014	SB7-19	3 U

AODE18079	8/8/2014	SB3-8	3 U
AODE18079	8/8/2014	SB5-11	3.5 U
AODE18079	8/8/2014	SB6-16	3.5 U
AODE18079	8/8/2014	SB7-11	3.5 U
AODE18079	8/8/2014	SB8-16	3.5 U
AODE18079	8/16/2014	MW9-32.5-33.5	2.5 U
AODE18079	8/16/2014	MW9-38-39	2.5 U
AODE18079	8/16/2014	MW100	2.5 U
AODE18079	8/16/2014	MW11-18-19	3 U
AODE18079	8/16/2014	MW9-18-19	10
AODE18079	4/15/2015	SB15-41	4.9
AODE18079	4/15/2015	SB15-26	5.6
AODE18079	4/16/2015	SB16-46	2.9
AODE18079	4/16/2015	SB16-40	3.1
AODE18079	4/16/2015	SB17-26	4.8
AODE18079	4/16/2015	SB16-26	5.6
AODE18079	4/17/2015	SB18-39.5	2.1
AODE18079	4/17/2015	SB18-36.5	2.3
AODE18079	4/17/2015	SB17-40	2.5
AODE18079	4/17/2015	SB17-43.5	2.8
AODE18079	4/17/2015	SB18-26	6.4
AODE18079	4/20/2015	SB19-50	3.7
AODE18079	4/20/2015	SB19-45	6.2
AODE18079	4/20/2015	SB19-35	8.5
AODE18079	3/7/2022	SB-26-11-12	2.79
AODE18079	3/7/2022	SB-21-3-4	2.9
AODE18079	3/7/2022	SB-26-3-4	2.91
AODE18079	3/7/2022	SB-27-3-4	3.35
AODE18079	3/7/2022	SB-27-10-11	3.62
AODE18079	3/7/2022	SB-21-13-14	4.05
AODE18079	3/7/2022	SB-21-8-9	4.2
AODE18079	3/7/2022	SB-28-8.5-9	4.62
AODE18079	3/7/2022	SB-28-2.5-3	8.5
AODE18079	3/8/2022	SB-20-2-3	2.59
AODE18079	3/8/2022	SB-20-10-11	2.79
AODE18079	3/8/2022	SB-25-6-7	2.84
AODE18079	3/8/2022	SB-24-3-4	2.88
AODE18079	3/8/2022	SB-20-5-6	3.12
AODE18079	3/8/2022	SB-25-3.5-4.5	3.64
AODE18079	3/8/2022	SB-24-6.5-7.5	3.92
AODE18079	3/9/2022	SB-23-10-11	2.62
AODE18079	3/9/2022	SB-33-4-5	2.89
AODE18079	3/9/2022	SB-30-17-18	3.02
AODE18079	3/9/2022	SB-32-13-14	3.73

AODE18079	3/9/2022	SB-30-7.5-8.5	5.16
AODE18079	3/9/2022	SB-33-2-3	5.96
AODE18079	3/9/2022	SB-31-8-9	6.61
AODE18079	3/9/2022	SB-30-3-4	8.08
AODE18079	3/9/2022	DUP-220309	8.65
AODE18079	3/9/2022	SB-31-2-3	9.51
AODE18079	3/9/2022	SB-23-1.5-2.5	9.93
AODE18079	3/9/2022	SB-32-4-5	14.7
AODE18079	3/10/2022	SB-29-0-2	1.86
AODE18079	3/10/2022	SB-22-4-5	2.71
AODE18079	3/10/2022	SB-22-0.5-1.5	3.04
AODE18079	3/21/2022	MW-17-25-26	1.71
AODE18079	3/21/2022	MW-17-48-49	3.16
AODE18079	3/21/2022	MW-17-7-8	4.09
AODE18079	3/21/2022	MW-17-3-4	7.27
AODE18079	3/22/2022	MW-16-3-4	9.01 J
AODE18079	3/22/2022	MW-16-17.5-18.5	2.59
AODE18079	3/22/2022	MW-16-48-49	3.11
AODE18079	3/22/2022	MW-16-12-13	4.13
AODE18079	3/23/2022	MW-15-6-7	1.54
AODE18079	3/23/2022	MW-15-28-29	1.95
AODE18079	3/23/2022	MW-15-3-4	3.92
AODE18079	3/24/2022	MW-14-10.5-11.5	3.2
AODE18079	3/24/2022	MW-14-44-45	3.54
AODE18079	3/24/2022	MW-14-2-3	6.66
AODE18079	3/28/2022	MW-18-3-4	5.72
AODE18079	3/28/2022	MW-18-5.5-6.5	8.36
AODE18079	3/29/2022	MW-13-28-29	3.24
AODE18079	3/29/2022	MW-13-11-12	3.69
AODE18079	3/29/2022	DUP-2-220329	3.93
AODE18079	3/29/2022	MW-13-3-4	7.32
AODE3599	9/19/2011	091911-MW-44B-SB-7.5	1.9
AODE3599	9/19/2011	091911-MW-44B-SB-10	2.5
AODE3599	9/28/2011	092811-MW-44A-SB-10	1.9
AODE3599	9/28/2011	092811-MW-44A-SB-3	2.2
AODE7088	10/28/2011	TU48J	4.2
AODE7088	10/31/2011	TU65E	1.6
AODE7088	10/31/2011	TU65P	2.5
AODE7088	10/31/2011	TU65D	4.6
AODE7088	10/31/2011	TU65A	5.6
AODE7088	10/31/2011	TU65C	6.2
AODE7088	10/31/2011	TU65B	24.5
AODE7088	11/4/2011	TV85B	0.9
AODE7088	11/4/2011	TV85D	2.5

AODE7088	11/4/2011	TV85A	3
AODE7088	11/4/2011	TV85C	11.1
AODE7088	11/7/2011	TV99G	2.2
AODE7088	3/12/2012	UM06B	5.5
AODE7088	3/12/2012	UM06A	5.6
AODE7088	3/12/2012	UM06C	7.6
FS22978975	11/3/2020	SB07-4.5-20201103	4.76
FS22978975	11/3/2020	SB11-3-20201103	8.49
FS22978975	11/3/2020	SB08-8.5-20201103	10.6
FS22978975	11/3/2020	SB08-4.5-20201103	10.9
FS22978975	11/3/2020	SB07-7-20201103	21.3
FS22978975	11/4/2020	SB06-5.0	4.18
FS22978975	11/4/2020	SB0105-3.5-20201104	5.12
FS22978975	11/4/2020	SB03-5.5-20201104	7.58
FS22978975	11/4/2020	SB12-4-20201104	7.66
FS22978975	11/4/2020	SB05-3.5-20201104	10.9
FS22978975	11/4/2020	SB02-5-20201104	12.2
FS22978975	11/4/2020	SB04-3-20201104	20.8
LDWBS	5/10/2011	SKI-BS-1	2.5 U
LDWBS	5/10/2011	SKI-BS-6	8.7
LDWBS	5/10/2011	SKI-BS-3	12.7
LDWBS	5/10/2011	SKI-BS-5	13
LDWBS	5/10/2011	SKI-BS-2	14.4
LDWBS	5/10/2011	SKI-BS-4	19.7
TSPKCSSP	4/28/2008	17-1292-1-1-1-4	3.8
TSPKCSSP	4/28/2008	17-1292-1-8-1-4	3.8
TSPKCSSP	4/28/2008	17-1292-1-7-1-4	4.9
TSPKCSSP	4/28/2008	17-1292-1-6-1-4	5
TSPKCSSP	4/28/2008	17-1292-1-5-1-4	5.1
TSPKCSSP	4/28/2008	17-1292-1-2-1-4	5.5
TSPKCSSP	4/28/2008	17-1292-1-3-1-4	6.3
TSPKCSSP	4/28/2008	17-1292-1-4-1-4	7.2
		90th percentile	14.3
		4 x 50th percentile	19.6

Table P2
Precision Engineering Soil Arsenic Concentrations
Precision Engineering
Seattle, Washington

Sample ID	Location ID	Depth (feet bgs)	Date/Time Collected	Result	Result (ND = 1/2)
C-3	C3	1.5	3/27/2008 11:15	13.2	13.2
GP12-S-3.0	GP12	3	12/13/2005 15:00	2.79	2.79
GP13-S-1.0	GP13	1	12/14/2005 8:15	9.45	9.45
GP14-S-3.0	GP14	3	12/13/2005 12:20	3	3
GP15-S-3.0	GP15	3	12/13/2005 15:34	7.76	7.76
GP18-S-1.0	GP18	1	12/13/2005 13:35	3.55	3.55
GP1-S-6.0	GP1	6	6/7/2005 10:15	4.99 U	2.495
GP20-S-1.0	GP20	1	12/14/2005 9:15	5.47	5.47
GP24-S-3.0	GP24	3	12/14/2005 13:30	3.06	3.06
GP28-S-1.0	GP28	1	12/12/2005 12:30	1.89	1.89
GP29-S-1.0	GP29	1	12/12/2005 13:45	5.91	5.91
GP2-S-1.0	GP2	1	6/7/2005 11:00	11.3	11.3
GP31-S-1.0	GP31	1	12/12/2005 14:42	5.72	5.72
HA1-0.5	HA1	0.5	12/15/2005 11:15	3.81	3.81
HA1-1.5	HA1	1.5	12/15/2005 11:45	2.88	2.88
HA12-.05	HA12	0.5	4/19/2006 11:30	9	9
HA17-S-0.5	HA17	0.5	1/9/2007 13:04	6.61	6.61
HA17-S-1.5	HA17	1.5	1/9/2007 13:21	5.3	5.3
HA18-S-0.5	HA18	0.5	1/9/2007 13:52	5.03	5.03
HA18-S-1.5	HA18	1.5	1/9/2007 14:19	2.12 U	1.06
HA19-S-0.5	HA19	0.5	1/9/2007 14:51	12.7	12.7
HA19-S-1.5	HA19	1.5	1/9/2007 15:09	4.02	4.02
HA2-0.5	HA2	0.5	12/15/2005 12:45	3.94	3.94
HA20-S-0.5	HA20	0.5	1/9/2007 15:23	2.02 U	1.01
HA20-S-1.5	HA20	1.5	1/9/2007 15:51	1.81 U	0.905
HA2-1.5	HA2	1.5	12/15/2005 13:00	2.71	2.71
HA21-S-0.5	HA21	0.5	1/10/2007 8:08	5.72	5.72
HA21-S-1.5	HA21	1.5	1/10/2007 8:21	5.83	5.83
HA22-S-1.5	HA22	1.5	1/10/2007 9:21	10.3	10.3
HA23-S-0.5	HA23	0.5	1/10/2007 9:42	4.44	4.44
HA23-S-1.5	HA23	1.5	1/10/2007 10:08	4.91	4.91
HA24-S-0.5	HA24	0.5	1/10/2007 10:29	4.9	4.9
HA24-S-1.5	HA24	1.5	1/10/2007 10:47	5.23	5.23
HA25-S-0.5	HA25	0.5	1/10/2007 11:09	11.6	11.6
HA25-S-1.5	HA25	1.5	1/10/2007 11:31	11.8	11.8
HA4-1.5	HA4	1.5	12/15/2005 14:30	5.25	5.25
HA5-1.5	HA5	1.5	12/15/2005 15:10	12.5	12.5
MW100	MW11	18	8/16/2014 16:00	5 U	2.5
MW11-18-19	MW11	18	8/16/2014 15:35	6 U	3
MW-13-11-12	MW-13	11	3/29/2022 9:30	3.69	3.69
MW-13-28-29	MW-13	28	3/29/2022 10:25	3.24	3.24
MW-13-3-4	MW-13	3	3/29/2022 9:05	7.32	7.32
MW-14-10.5-11.5	MW-14	10.5	3/24/2022 18:10	3.2	3.2

MW-14-2-3	MW-14	2	3/24/2022 17:40	6.66	6.66
MW-14-44-45	MW-14	44	3/24/2022 20:25	3.54	3.54
MW-15-28-29	MW-15	28	3/23/2022 19:45	1.95	1.95
MW-15-3-4	MW-15	3	3/23/2022 17:15	3.92	3.92
MW-15-6-7	MW-15	6	3/23/2022 17:30	1.54	1.54
MW-16-12-13	MW-16	12	3/22/2022 9:25	4.13	4.13
MW-16-17.5-18.5	MW-16	17.5	3/22/2022 9:35	2.59	2.59
MW-16-3-4	MW-16	3	3/22/2022 9:10	9.01	9.01
MW-16-48-49	MW-16	48	3/22/2022 15:00	3.11	3.11
MW-17-25-26	MW-17	25	3/21/2022 12:15	1.71	1.71
MW-17-3-4	MW-17	3	3/21/2022 10:10	7.27	7.27
MW-17-48-49	MW-17	48	3/21/2022 13:40	3.16	3.16
MW-17-7-8	MW-17	7	3/21/2022 10:30	4.09	4.09
MW-18-3-4	MW-18	3	3/28/2022 9:05	5.72	5.72
MW-18-5.5-6.5	MW-18	5.5	3/28/2022 9:45	8.36	8.36
MW19-6-7.5	MW-19	6	5/26/2023 9:10	5.96	5.96
MW19-9-10.5	MW-19	9	5/26/2023 9:20	3.85	3.85
MW20-2.5-4	MW-20	2.5	5/25/2023 10:25	3.84	3.84
MW20-23-24.5	MW-20	23	5/25/2023 11:20	6.64	6.64
MW21-15-16.5	MW-21	15	5/31/2023 8:25	3.27	3.27
MW21-2.5-4	MW-21	2.5	5/31/2023 8:25	6.31	6.31
MW22-10-11	MW-22	10	5/30/2023 9:40	3.18	3.18
MW22-2.5-4	MW-22	2.5	5/30/2023 9:15	6.1	6.1
MW22-30-31	MW-22	30	5/30/2023 10:25	5.71	5.71
MW22-45-45.5	MW-22	45	5/30/2023 11:40	2.49	2.49
MW23-15-16.5	MW-23	15	5/24/2023 10:50	3.03	3.03
MW23-2.5-4	MW-23	2.5	5/24/2023 10:33	7.34	7.34
MW23-5-6.5	MW-23	5	5/24/2023 10:40	5.48	5.48
MW9-18-19	MW9	18	8/16/2014 8:45	10	10
MW9-32.5-33.5	MW9	32.5	8/16/2014 9:40	5 U	2.5
MW9-38-39	MW9	38	8/16/2014 10:20	5 U	2.5
P10	P10	0.5	10/25/2007 7:35	15.6	15.6
P2	P2	0.5	10/24/2007 11:05	15.7	15.7
P3	P3	0.5	10/24/2007 11:08	13.3	13.3
P4	P4	0.5	10/24/2007 11:10	11.6	11.6
P5	P5	0.5	10/24/2007 11:15	9.54	9.54
P6	P6	0.5	10/24/2007 12:30	9.05	9.05
P7	P7	0.5	10/24/2007 12:35	19.9	19.9
P8	P8	0.5	10/24/2007 12:40	13.8	13.8
SB10-7	SB10	7	8/8/2014 15:40	5 U	2.5
SB11-10	SB11	10	8/7/2014 9:10	6 U	3
SB11-30	SB11	30	8/7/2014 9:15	6	6
SB12-12	SB12	12	8/7/2014 10:20	7 U	3.5
SB13-9	SB13	9	8/7/2014 12:15	8 U	4
SB14-6	SB14	6	8/7/2014 14:20	5 U	2.5
SB1-5	SB1	5	8/8/2014 14:40	5 U	2.5
SB15-26	SB15	26	4/15/2015 12:10	5.6	5.6
SB15-41	SB15	41	4/15/2015 13:00	4.9	4.9
SB16-26	SB16	26	4/16/2015 10:00	5.6	5.6

SB16-40	SB16	40	4/16/2015 10:40	3.1	3.1
SB16-46	SB16	46	4/16/2015 11:10	2.9	2.9
SB17-26	SB17	26	4/16/2015 14:30	4.8	4.8
SB17-40	SB17	40	4/17/2015 9:20	2.5	2.5
SB17-43.5	SB17	43.5	4/17/2015 9:40	2.8	2.8
SB18-26	SB18	26	4/17/2015 11:50	6.4	6.4
SB18-36.5	SB18	36.5	4/17/2015 12:20	2.3	2.3
SB18-39.5	SB18	39.5	4/17/2015 12:45	2.1	2.1
SB19-35	SB19	35	4/20/2015 11:15	8.5	8.5
SB19-45	SB19	45	4/20/2015 11:50	6.2	6.2
SB19-50	SB19	50	4/20/2015 12:00	3.7	3.7
SB-20-10-11	SB-20	10	3/8/2022 12:55	2.79	2.79
SB-20-2-3	SB-20	2	3/8/2022 12:35	2.59	2.59
SB-20-5-6	SB-20	5	3/8/2022 12:45	3.12	3.12
SB-21-13-14	SB-21	13	3/7/2022 11:20	4.05	4.05
SB-21-3-4	SB-21	3	3/7/2022 10:40	2.9	2.9
SB-21-8-9	SB-21	8	3/7/2022 11:00	4.2	4.2
SB-22-0.5-1.5	SB-22	0.5	3/10/2022 9:05	3.04	3.04
SB-22-4-5	SB-22	4	3/10/2022 9:10	2.71	2.71
SB-23-1.5-2.5	SB-23	1.5	3/9/2022 9:30	9.93	9.93
SB-23-10-11	SB-23	10	3/9/2022 10:00	2.62	2.62
SB-24-3-4	SB-24	3	3/8/2022 10:55	2.88	2.88
SB-24-6.5-7.5	SB-24	6.5	3/8/2022 11:10	3.92	3.92
SB-25-3.5-4.5	SB-25	3.5	3/8/2022 9:35	3.64	3.64
SB-25-6-7	SB-25	6	3/8/2022 9:45	2.84	2.84
SB-26-11-12	SB-26	11	3/7/2022 14:05	2.79	2.79
SB-26-3-4	SB-26	3	3/7/2022 13:50	2.91	2.91
SB-27-10-11	SB-27	10	3/7/2022 13:15	3.62	3.62
SB-27-3-4	SB-27	3	3/7/2022 12:50	3.35	3.35
SB-28-2.5-3	SB-28	2.5	3/7/2022 9:35	8.5	8.5
SB-28-8.5-9	SB-28	8.5	3/7/2022 9:45	4.62	4.62
SB-29-0-2	SB-29	0	3/10/2022 10:00	1.86	1.86
SB-30-17-18	SB-30	17	3/9/2022 13:25	3.02	3.02
SB-30-3-4	SB-30	3	3/9/2022 12:50	8.08	8.08
SB-30-7.5-8.5	SB-30	7.5	3/9/2022 12:55	5.16	5.16
SB-31-2-3	SB-31	2	3/9/2022 14:00	9.51	9.51
SB-31-8-9	SB-31	8	3/9/2022 14:10	6.61	6.61
SB-32-13-14	SB-32	13	3/9/2022 15:30	3.73	3.73
SB-32-4-5	SB-32	4	3/9/2022 15:10	14.7	14.7
SB-33-2-3	SB-33	2	3/9/2022 10:50	5.96	5.96
SB-33-4-5	SB-33	4	3/9/2022 11:05	2.89	2.89
SB34-13-14	SB-34	13	6/2/2023 10:45	3.62	3.62
SB34-2-3	SB-34	2	6/2/2023 10:15	2.5	2.5
SB35-3-4	SB-35	3	6/2/2023 9:40	2.71	2.71
SB35-8-9	SB-35	8	6/2/2023 10:00	2.35	2.35
SB36-10-11.5	SB-36	10	6/2/2023 9:25	2.27	2.27
SB36-2-3.5	SB-36	2	6/2/2023 8:45	2.19	2.19
SB37-12.5-13.5	SB-37	12.5	6/2/2023 8:35	5.48	5.48
SB37-2-3	SB-37	2	6/2/2023 8:25	5.08	5.08

SB3-8	SB3	8	8/8/2014 13:30	6 U	3
SB4-20	SB4	20	8/7/2014 16:45	6	6
SB4-5	SB4	5	8/7/2014 16:00	7	7
SB5-11	SB5	11	8/8/2014 8:10	7 U	3.5
SB6-16	SB6	16	8/8/2014 9:30	7 U	3.5
SB7-11	SB7	11	8/8/2014 11:05	7 U	3.5
SB7-19	SB7	19	8/8/2014 11:00	6 U	3
SB8-16	SB8	16	8/8/2014 16:45	7 U	3.5
SS1-6	SS1	6	11/19/2007 13:32	2.64	2.64
SS2-6	SS2	6	11/19/2007 13:20	4.82	4.82
SS3-18	SS3	18	11/19/2007 13:15	6.79	6.79
SS3-6	SS3	6	11/19/2007 13:05	3.7	3.7
SS4-6	SS4	6	11/19/2007 13:52	3.58	3.58
SS5-6	SS5	6	11/19/2007 14:20	4.43	4.43
				Margin of error	0.53
				Average	5.18
				Lower CI	4.65
				Upper CI	5.71
				Maximum	19.9
				Number of samples >14.3	4
				Percent of samples >14.3	3%

All values mg/kg

Appendix Q
Ecology PCUL Memorandum

Memorandum

To: Garrett Leque, LG, Senior Environmental Geologist
Terry McPhetridge, LG, LHG, Principal Environmental Geologist
GeoEngineers, Inc.

From: Arthur Buchan, Toxicologist
Toxics Cleanup Program – Central Region Office

Date: April 2, 2026

RE: Precision Engineering Cleanup Project, Development of Preliminary Cleanup Levels (PCULs).

Background and Scope

This memorandum represents comments from the Washington State Department of Ecology, Toxics Cleanup Program (TCP) regarding the development of Preliminary Cleanup Levels (PCULs) for the Precision Engineers MTCA cleanup site:

Precision Engineering (Site)[1]
Facility site identification (FSID): 2056
Cleanup site identification (CSID): 4532

The comments provided are in effort to help complete the Remedial Investigation (RI) limited to the Precision Engineering Site, which is intended to investigate the nature and extent of any contamination found at the site. Note: This document is to be included as an attachment to the November 11, 2024, Public Review Draft Remedial Investigation as a summary of Washington State Department of Ecology (Ecology) comments used for reference for the Disproportionate Cost Analysis (DCA) and Feasibility Study (FS), as required for this site cleanup. Literature reviewed for this memorandum includes:

1) Ecology. (2001). Model Toxics Control Act. MTCA Cleanup Regulation Chapter 173-340. Washington State Department of Ecology. Revision January 2024. Publication No. 94-06.

[1] The Precision Engineering Site Address: 1231 South Director Street, Seattle, WA 98108 – King County

2) Ecology. (2016). Guidance for Evaluating Vapor Intrusion in Washington State. Washington State Department of Ecology. Revision November 2021. Publication No. 09-09-047.
3) GeoEngineers. (2024). Public Review Draft Remedial Investigation: Former Precision Engineering Property, 1231 South Director Street, Seattle, Washington. November 11, 2024.
4) GeoEngineers. (2025). Agency Review Draft Feasibility Study: Former Precision Engineering Property, 1231 South Director Street, Seattle, Washington. April 17, 2025.
5) MFA. (2008). Final Remedial Investigation and Risk Assessment Report> Former Precision Engineering, Inc., 1231 S. Director Street, Seattle, Washington. VCP ID Number NW1511. Prepared for Stoel Rives. July 21, 2008.

Brief History of Site Operations:

Precision Engineering operated an industrial manufacturing business on the Property from 1968 to March 1, 2005 (MFA 2008). The operation included manufacturing and repair of hydraulic cylinders, metal rolls used in the manufacturing of paper and sheet metal products, and other equipment. Services included grinding and polishing, honing, hard-chrome plating, milling, welding, and application of flame- and arc-applied metal coating, much of which involved the use of chromic acid. From 1985 to 2003, approximately 10,000 square feet of the west side of the building (i.e., Warehouse 3) was leased to Baszile Metals Service, an aluminum distributorship.

Important considerations, assumptions, and limitations to note on this memorandum:

Empirical demonstrations and highest detected values (provided by the PLP/Consultant) may change the PCULs listed.

Ecology Method Reporting Limits (MRLs)/Practical Quantitation Limits (PQLs) are draft subject to revision based on information from Ecology Manchester Laboratory.

MTCA Methods for Establishing Cleanup Levels at sites:

Method A, Method B, and Method C may be used for establishing cleanup levels at sites as summarized as follows:

- Specifically, Ecology uses the following general guidelines for mixing methods:
    - When using Method A, the site must be considered a simple site or routine cleanup and there must not be multiple chemicals without Method A table values.
    - When using Method B, Method A cleanup levels may be used but not Method C cleanup levels.
    - Method B is intended for all other sites.

- While each medium must be evaluated separately using criteria applicable to that medium, it has not been established that any medium within any of the sites qualifies to use Method C.

Establishing Site Specific Preliminary Cleanup Levels - MTCA Method B

Method B was used to establish preliminary cleanup levels for the Precision Engineering Site because:

- Numerous individual contaminants and mixtures have been investigated at the Site.
- Pathways potentially exist for soil, groundwater, air, surface water, and sediments.

Groundwater Preliminary Cleanup Levels

In general, WAC 173-340-720 requires setting groundwater cleanup levels at concentrations protective for drinking water beneficial uses, unless the groundwater qualifies as nonpotable. A determination of whether the groundwater qualifies as nonpotable must be made on a site-specific basis, based on the criteria in WAC 173-340-720(2). For this Site, it is assumed that the groundwater shall be protected for drinking water beneficial use.

WAC 173-340-720 also requires groundwater cleanup levels to be protective of surface water beneficial uses unless it can be demonstrated that the hazardous substances in the groundwater are not likely to reach surface water. The exposure pathway of concern is the discharge of contaminated groundwater into the surface water and for the protection of drinking water purposes, aquatic organisms living in that surface water and sediment, and persons that consume those organisms. A discharge of contaminated groundwater can occur directly through current or future excavations (i.e. construction activities), migration and seepage of the groundwater into the surface water and sorption onto the sediments. An indirect discharge can also occur through groundwater intercepted by ditches, foundation drains, utility corridors, and stormwater systems (including pipes, which typically are not water-tight), that then drain to surface water. It can also occur through temporary construction of dewatering systems that discharge to storm drains that then discharge either directly or indirectly to surface water.

For the groundwater to surface water exposure pathway, WAC 173-340-720 requires that the methods specified in WAC 173-340-730 for establishing surface water cleanup levels be used to develop groundwater cleanup levels protective of surface water.

Surface Water Preliminary Cleanup Levels

In general, WAC 173-340-730 requires surface water cleanup levels to be protective based on estimates of highest beneficial use and reasonable maximum exposure expected to occur under both current and potential future site use. This includes protection of aquatic organisms, and persons that consume these organisms (Ecology, 2005). More specifically, the WAC requires surface water cleanup levels to be at least as stringent as:

- Applicable state and federal laws.

- Concentrations protective of wildlife, fish, and other aquatic life.
- Concentrations protective of human health (such as through consumption of fish).
- Drinking water, for surface waters classified as suitable for domestic water supply under water quality law.

In addition, both WAC 173-340-720(1)(c) and 730(1)(d) require cleanup levels that do not directly or indirectly cause violations of cleanup standards in other media, including the sediment cleanup standards (Chapter 173-204 WAC). In the case when a conditional point of compliance is used, WAC 173-340-720(8)(d) requires groundwater discharges not result in violations of sediment cleanup levels published in Chapter 173-204 WAC.

For sites where multiple chemicals with similar toxic effects on human health are present, the respective concentrations may need to be further adjusted so that the additive risk does not exceed the acceptable thresholds in the rule (hazard index < 1 and cancer risk < 1X10-5). These adjustments will need to be made on a site-specific basis. This adjustment for additive risk does not need to be made for contaminants with cleanup levels controlled by protection of the environment (wildlife, fish, and other aquatic life). Rather, if multiple chemicals are present, it may be appropriate to otherwise account for additive risk by other methods (e.g., conducting bioassays with the groundwater) to determine if the combined effect is an environmental concern.

<u>Point of Compliance (Groundwater and Surface Water)</u>

The Point of Compliance in groundwater is:

- Throughout the Site:
    - The Site includes the Precision Engineering MTCA cleanup site – FSID # 2056, CSID # 4532) from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.
- The Standard Point of Compliance is:
    - The point or points where the groundwater cleanup levels must be attained at the site to be in compliance with groundwater cleanup standards. Groundwater cleanup levels shall be attained in all groundwaters from the point of compliance to the outer boundary of the hazardous substance plume. This means that the Point of Compliance for groundwater is all wells within the characterized area.
- Note: Ecology can approve a conditional point of compliance during the DCA/FS.

The Point of Compliance for surface water is:

- The point or points at which hazardous substances are released to the surface waters of the state.
- At the point at which hazardous substances are released to the surface water as a result of groundwater flows, no mixing zone shall be allowed to demonstrate compliance with surface water cleanup levels. The point of compliance is the point

at which there is a discharge to the surface water at the nearest groundwater well (or soil erosion) to the surface water.

- Note: Ecology can approve a conditional point of compliance during the DCA/FS.

There are two possible results if surface water is located on or directly adjacent to the site[2]:

- Result (1): There is no contamination reaching the surface water (check wells, soil, and ditch/outfalls with a connection to the surface water):
  - Eliminate the surface water pathway in the remedial investigation. Use your groundwater cleanup level (i.e., drinking water) throughout the site.
- Result (2): There is contamination reaching the surface water (check wells, soil, and ditch/outfalls with a connection to the surface water):
  - Retain the surface water pathway in the remedial investigation. Use the more stringent cleanup level (groundwater vs. surface water) throughout the site.

Well construction and placement considerations: Groundwater flow directions are to the east with occasional flow directions to the east-northeast or east-southeast in both the shallow and deep WBZs. As a result, Surface Water and Sediment Standards were applied to Monitoring wells MW-19, 20, 21, 22, and 23 to determine an incomplete pathway from groundwater to surface water and sediments (See Appendix A: Figure 1).

Establishing Contaminants of Potential Concern (COPCs) and Preliminary Cleanup Levels for Groundwater

Table 1 (below) summarizes the COPCs and PCULs for Groundwater Protective of Drinking Water.

Table 1: COPCs and PCULs in Groundwater – Protective of Drinking Water (ug/L).

Hazardous Substance	Preliminary Cleanup Level (ug/L)	Highest Value Detected (ug/L)
Chromium, total	1.00E+02	1.33E+05
Chromium, trivalent	2.40E+04	1.10E+04
Chromium, hexavalent	1.40E+00	8.98E+04
DRO + HO	5.00E+02	1.29E+03
Trichloroethylene (TCE)	4.00E+00	4.03E+01
Vinyl Chloride	2.90E-01	1.56E+00
1,4-Dioxane	4.40E-01	2.04E+01

[2] At the time of this memo, enough information about the fate and transport of contamination has been collected to determine that the only probable contamination reaching the surface water is through a ditch/outfall which is proposed for soil cleanup. Note – There does not appear to be a pathway from GW to SW and/or sediments.

Under Method B, WAC 173-340-720(4) (b) requires that groundwater cleanup levels to be at least as stringent as all of the following four standards:

- Maximum contaminant levels established under the Safe Drinking Water Act and published in 40 C.F.R. 141.
- Maximum contaminant level goals for noncarcinogens established under the Safe Drinking Water Act and published in 40 C.F.R. 141.
- Maximum contaminant levels established by the state board of health and published in chapter 246-290 WAC.
- Concentrations in groundwater must be protective of surface water beneficial use unless it can be demonstrated that the hazardous substances are not likely to reach surface water. This demonstration must be based on factors other than implementation of a cleanup action at the site.

In addition to meeting the above four standards, under WAC 173-340-720(7)(b), when a cleanup level is based on the applicable state or federal law and the level of risk upon which the standard is based exceeds an excess cancer risk of one in one hundred thousand (1×10^{-5}) or a hazard index of one (1), the cleanup level shall be adjusted downward so that the total excess cancer risk does not exceed one in one hundred thousand (1×10^{-5}) or a hazard index of one (1) at the site. See Appendix A: Figure 2 for COPCs and PCULs for groundwater – protective of drinking water.

Establishing Contaminants of Potential Concern (COPCs) and Preliminary Cleanup Levels for Surface Water/Sediments

Table 2 (below) summarizes the COPCs and PCULs for Groundwater Protective of Surface Water and Sediments.

Table 2: COPCs in Groundwater and Ditch Surface Water – Protective of Surface Water and Sediments (ug/L).

Hazardous Substance	Preliminary Cleanup Level (ug/L)	Highest Value Detected in Ditch Surface Water (ug/L)	Notes
Chromium, total	2.70E+01	4.71E+01	Ditch Cleanup/ Property Controls
Chromium, trivalent	2.70E+01	5.35E+00	N/A
Chromium, hexavalent	1.10E-01	13U	Ditch Cleanup/ Property Controls
Copper	3.10E+00	1.42E+02	Ditch Cleanup/ Property Controls
Lead	8.10E+00	6.03E+01	Ditch Cleanup/ Property Controls

Mercury	2.50E-02	1.18E-01	Ditch Cleanup/ Property Controls
Zinc	8.10E+01	3.01E+02	Ditch Cleanup/ Property Controls
Benzo(a)anthracene	1.60E-04	1.20E-02	Ditch Cleanup/ Property Controls
Benzo(a)pyrene	1.60E-05	1.50E-02	Ditch Cleanup/ Property Controls
Benzo(b)fluoranthene	1.60E-04	1.70E-02	Ditch Cleanup/ Property Controls
Benzo(k)fluoranthene	1.60E-03	9.00E-03	Ditch Cleanup/ Property Controls
Chrysene	1.60E-02	1.80E-02	Ditch Cleanup/ Property Controls
Dibenzo(a,h)anthracene	1.60E-05	3.00E-03	Ditch Cleanup/ Property Controls
Indeno(1,2,3-c,d)pyrene	1.60E-04	1.20E-02	Ditch Cleanup/ Property Controls
Total cPAH TEQ	1.60E-05	2.05E-02	Ditch Cleanup/ Property Controls

Under Method B, WAC 173-340-730(3) (b) requires surface water cleanup levels to be at least as stringent as all of the following:

- Concentrations established under applicable state and federal laws (ARARs) including:
    - Water quality criteria published in the water quality standards for surface waters of the state of Washington, chapter 173-201A WAC.
    - Water quality criteria based on the protection of aquatic organisms (acute and chronic criteria) and human health published under section 304 of the Clean Water Act *unless it can be demonstrated that such criteria are not relevant and appropriate for a specific surface water body or hazardous substance*.
    - National Toxics Rule (40 C.F.R. Part 131).
- For substances for which environmental effects-based concentrations have not been established under applicable state or federal laws, concentrations that are estimated to result in no adverse effects on the protection and propagation of wildlife, fish, and other aquatic life.
- For substances for which sufficiently protective, health-based criteria or standards have not been established under state and federal laws, concentrations that protect human health as determined using the formulae in the rule. Note: For the

purposes of this cleanup site (located near the Duwamish), a Fish Consumption Rate of 97.5 grams/day was proposed by Ecology and was used in MTCA Equations 730-1 (non-carcinogens) and 730-2 (carcinogens).

- Potable water cleanup levels, for surface waters classified as suitable for use as a domestic water supply under chapter 173-201A WAC.

In addition, under WAC 173-340-730(5)(b), when a cleanup level is based on the applicable state or federal law and the level of risk upon which the standard is based exceeds an excess cancer risk of one in one hundred thousand (1 x 10-5) or a hazard index of one (1), the cleanup level shall be adjusted downward so that the total excess cancer risk does not exceed one in one hundred thousand (1 x 10-5) or a hazard index of one (1) at the site. See Appendix A: Figure 3 for COPCs and PCULs for groundwater – protective of surface water and sediments.

Vapor Intrusion and Air Cleanup Levels

In general, WAC 173-340-750(7)(D) requires an evaluation of air quality impacts as it applies to ambient (outdoor) air and air within any building, utility vault, manhole or other structure large enough for a person to fit into. Guidance for Evaluating Vapor Intrusion in Washington State (Ecology 2021) provides methods for evaluating air and associated cleanup levels.

A Tier 1 evaluation is completed during the site investigation to evaluate whether the concentrations of volatile contaminants in the subsurface are high enough to potentially result in unacceptable indoor air levels. Tier 1 evaluations can be conducted for existing buildings or buildings that could be constructed in the future. This evaluation typically uses generic soil gas and/or groundwater screening levels found in Ecology's Cleanup Levels and Risk Based Calculator (CLARC) Data Tables. If the Tier 1 evaluation concludes that subsurface contamination is significant enough to pose a threat to the indoor air quality of one or more occupied buildings, the next step is typically a Tier 2 evaluation.

The goal of a Tier 2 evaluation is to determine whether concentrations of VOCs in indoor air from VI are at unacceptable levels. Tier 2 evaluations also typically include measurements of ambient air and sub-slab soil gas or crawl space air. If the measured indoor air concentrations exceed the applicable cleanup levels and are not due to ambient air or indoor air sources such as household cleaners, paints, gasoline or other VOCs, quickly implement VI mitigation and/or other measures to protect indoor receptors.

Establishing Contaminants of Potential Concern (COPCs) and Preliminary Cleanup Levels for Vapor Intrusion and Air Quality

Table 3 (below) summarizes the COPCs and PCULs for Vapor Intrusion and Air Quality.

Table 3: COPCs in Air – Screening based on VI in Groundwater.

Hazardous Substance	Preliminary Cleanup Level (ug/L)	Highest Value Detected (ug/L)
Trichloroethylene (TCE)	1.40E+00	4.03E+01

Vinyl Chloride	3.30E-01	1.56E+00
1-Methylnaphthalene	1.70E-01	3.33E-01

Under Method B, WAC 173-340-750(3)(b) requires air cleanup levels to be at least as stringent as all of the following:

- Concentrations established under applicable state and federal laws (ARARs); and
- Human Health Protection: For hazardous substances for which sufficiently protective health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods[3]:
    - Non-carcinogens.
    - Carcinogens.
    - Petroleum mixtures.

See Appendix A: Figure 4 for COPCs and PCULs for air quality based on VI.

Soil Preliminary Cleanup Levels

In general, WAC 173-340-740 requires that soil cleanup levels be set at concentrations that:

- Eliminate or substantially reduce the potential for food chain contamination.
- Eliminate or substantially reduce the potential for damage to soils or biota in the soils which could impair the use of soils for agriculture or silviculture purposes.
- Protect the potential health risk posed by dust at a site.
- Protect the groundwater at a site.
- Protect nearby surface waters from the site.
- Eliminate or minimize the potential for vapors in building or structures.

To meet these requirements for soil, preliminary concentrations have been established based on the protection of:

- Human health (direct contact).
- Terrestrial Ecological Receptors.
- Soil protective of groundwater (highest beneficial use).
- Soil protective of groundwater with transport to surface water (highest beneficial use).

[3] Groundwater screening levels for VI were derived from Ecology's Cleanup Levels and Risk Based Calculator (CLARC) Data tables for the Tier I evaluation.

Note that protective values have been adjusted for the practical quantitation limits and natural background concentrations for soil as required by WAC 173-340-740(5) (c) when establishing cleanup standards.

In addition, if multiple chemicals with similar toxic effects on human health are present at a site, these concentrations may need to be further adjusted so that the additive risk does not exceed the acceptable thresholds in the rule (hazard index $\leq$ 1 and cancer risk $\leq$ $1X10^{-5}$). These adjustments will need to be made on a site-specific basis. This adjustment for additive risk does not need to be made for contaminants with cleanup levels controlled by protection of the environment (terrestrial ecological receptors). Rather, if multiple chemicals are present, it may be appropriate to otherwise account for additive risk by, for example, conducting bioassays with the soil, to determine if the combined effect is an environmental concern.

Point of Compliance (Soil)

The Point of Compliance for soil is:

- For soil cleanup levels based on the protection of groundwater, the point of compliance shall be established in the soils throughout the site.
- For soil cleanup levels based on protection from vapors, the point of compliance shall be established in the soils throughout the site from the ground surface to the uppermost ground water saturated zone (e.g., from the ground surface to the uppermost water table).
- For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance shall be established in the soils throughout the site from the ground surface to fifteen feet below the ground surface. This represents a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface as a result of site development activities.
- For soil cleanup levels based on ecological receptors, the standard point of compliance is set from the ground surface to fifteen feet below the ground surface. The department may approve a conditional point of compliance set at the biologically active zone with placement of an institutional control to prevent excavation of deeper soil.

Terrestrial Ecological Receptors

Protective values for terrestrial ecological receptors should be established under the assumption that a Simplified Terrestrial Ecological Evaluation (TEE) would meet the requirements at this site. The Exposure Analysis Procedure under WAC 173-340-7492(2)(a)(ii) was used to indicate that land use at the site and surrounding area makes substantial wildlife exposure unlikely. Table 749-1 of MTCA was used to make this evaluation.

See Appendix A: Figure 5 for the Simplified Terrestrial Ecological Evaluation Scoresheet.

Soil Protective of Groundwater and Soil Protective of Groundwater with Transport to Surface Water – Assumed Saturated Conditions for this Environmental Assessment

Soil values that are protective of groundwater, and soil protective of groundwater with transport to surface water should be calculated using the fixed parameter three-phase partitioning model found in WAC 173-340-747. Saturated conditions were used in the calculations for this Preliminary Cleanup Level Development Memorandum.

PCULs established should be based on protection of the highest beneficial use with and upward adjustment to take into account natural background or practical quantitation limits, where applicable.

The Cleanup Levels and Risk Calculation (CLARC)4 Tool was used to derive the following chemical specific parameters:

- Hcc = Henry's Law Constant @ 13º C (dimensionless).
- Kd = Distribution Coefficient (L/kg).
- Koc = Soil organic carbon-water partitioning coefficient (ml/g).

Equation 747-1 was used to derive the following default parameters:

- UCF = Unit conversion factor (1 mg/1,000 ug).
- DF = Dilution faction (dimensionless – 1 for saturated).
- Θw = Water-filled soil porosity (ml water/ml soil – 0.43 for saturated).
- Θa = Air-filled soil porosity (ml air/ml soil – 0.0 for saturated).
- *Pb* = Dry soil bulk density (1.5 kg/L).

Note: Soil protective of groundwater values were derived directly from CLARC. Soil protective of groundwater, and soil protective of groundwater with transport to surface water calculated using the three-phase model.

See Appendix A: Figure 6 for soil protective of groundwater.

See Appendix A: Figure 7 for soil protective of groundwater with transport to surface water.

Soil Protective of Direct Contact

Soil that is considered protective of direct contact is based on concentrations that are estimated to result in no acute or chronic noncarcinogenic toxic effects on human health using a hazard quotient of one (1) and concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to one in one million (1 x 10-6). Equations 740-1 and 740-2 (MTCA) and the associated default assumptions shall be used to calculate the concentration for direct contact with contaminated soil.

Establishing Preliminary Cleanup Levels for Soil

Table 4 (below) summarizes the COPCs and PCULs for soil.

[4] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/contamination-cleanup-tools/clarc

Table 4: COPCs and PCULs in Soil.

Hazardous Substance	Preliminary Cleanup Level (mg/kg)	Highest Value Detected in Soil (mg/kg)	Highest Concentration Location/Notes
Arsenic	7.00E+00	1.47E+01	SB-32
Chromium, total	1.00E+02	6.75E+03	GP-32 and Ditch Cleanup/Property Controls
Chromium, trivalent	1.00E+02	3.25E+03	GP-32 and Ditch Cleanup/Property Controls
Chromium, hexavalent	2.70E-02	3.50E+00	GP-32 and Ditch Cleanup/Property Controls
Copper	3.20E+03	1.13E+02	Ditch Cleanup/ Property Controls
Lead	2.50E+02	1.30E+02	Ditch Cleanup/ Property Controls
Mercury	7.00E-02	1.10E+00	GP-18 and Ditch Cleanup/Property Controls
Zinc	2.40E+04	3.41E+02	Ditch Cleanup/ Property Controls
DRO + HO	2.00E+03	2.52E+04	GP-21
Trichloroethylene (TCE)	2.00E-03	1.16E+00	GP-6
1,4-Dioxane	5.00E-02	6.01E-01	MW-22
Benzo(a)anthracene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls
Benzo(a)pyrene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls
Benzo(b)fluoranthene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls
Benzo(k)fluoranthene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls
Chrysene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls
Dibenzo(a,h)anthracene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls
Indeno(1,2,3-c,d)pyrene	N/A – Based on pathway to SW	N/A – Based on pathway to SW	Ditch Cleanup/ Property Controls

Table 4: COPCs and PCULs in Soil.

Hazardous Substance	Preliminary Cleanup Level (mg/kg)	Highest Value Detected in Soil (mg/kg)	Highest Concentration Location/Notes
Total cPAH TEQ	1.90E-01	2.22E-01	MW-23 and Ditch Cleanup/Property Controls

In general, standard Method B soil cleanup levels shall be at least as stringent as the following:

- Concentrations established under applicable state and federal laws.
- Concentrations that result in no significant adverse effects on the protection and propagation of terrestrial ecological receptors using the procedures specified in WAC 173-340-7490 through 7494.
- For hazardous substances for which sufficiently protective, health-based criteria or standards have not been established under applicable state and federal laws, those concentrations that protect human health as determined by evaluating the following exposure pathways:
    - Ground water protection.
    - Soil direct contact.
    - Soil vapors.

It is assumed that soil vapors are not a pathway at this site.

See Appendix A: Figure 8 for COPCs and PCULs for soil.

Establishing Preliminary Cleanup Levels for Sediments

Table 5 (below) summarizes the COPCs and PCULs for groundwater protective of surface water and sediments.

Table 5: COPCs in Groundwater and Ditch Surface Water – Protective of Surface Water and Sediments (ug/L).

Hazardous Substance	Preliminary Cleanup Level (ug/L)	Highest Value Detected in Ditch Surface Water (ug/L)	Notes
Chromium	2.70E+01	4.71E+01	Ditch Cleanup/ Property Controls
Copper	3.10E+00	1.42E+02	Ditch Cleanup/ Property Controls
Lead	8.10E+00	6.03E+01	Ditch Cleanup/ Property Controls

Mercury	2.50E-02	1.18E-01	Ditch Cleanup/ Property Controls
Zinc	8.10E+01	3.01E+02	Ditch Cleanup/ Property Controls
Benzo(a)anthracene	1.60E-04	1.20E-02	Ditch Cleanup/ Property Controls
Benzo(a)pyrene	1.60E-05	1.50E-02	Ditch Cleanup/ Property Controls
Benzo(b)fluoranthene	1.60E-04	1.70E-02	Ditch Cleanup/ Property Controls
Benzo(k)fluoranthene	1.60E-03	9.00E-03	Ditch Cleanup/ Property Controls
Chrysene	1.60E-02	1.80E-02	Ditch Cleanup/ Property Controls
Dibenzo(a,h)anthracene	1.60E-05	3.00E-03	Ditch Cleanup/ Property Controls
Indeno(1,2,3-c,d)pyrene	1.60E-04	1.20E-02	Ditch Cleanup/ Property Controls
Total cPAH TEQ	1.60E-05	2.05E-02	Ditch Cleanup/ Property Controls

The establishment of Preliminary Cleanup Levels for Sediment must comply with the requirements of chapter 173-204 WAC. In general, the sediment cleanup standards require the Sediment Cleanup Objective (SCO) risk-based concentration (for this project) to be the lowest of the following criteria:

- Freshwater Benthic SCO (WAC 173-204-563).
- Human Risk 10^{-6}, HQ ≤ 1 (WAC 173-204-561).
- Higher Trophic Level Risk (WAC 173-204-564).
- Applicable Laws under WAC 173-204-560(3) and WAC 173-204-505(2).

Then, the risk-based SCO is upward adjusted to be the highest of the following criteria:

- Natural Background.
- Risk Based Concentration.
- Practical Quantitation Limit.

In order to meet these site-specific requirements, the PCUL was based on the lowest of these criteria:

- Freshwater Benthic Criteria found in WAC 173-204-563 (Table VI)
- The SMS Lower Tier Human Health Direct Contact SCO:

- Sediment Ingestion/Direct Contact, Cancer.

SMS SCUM II, Equation 9-1 (sediment ingestion / direct contact, cancer)

$$RBC{-}SED{-}C = \frac{ACR\ x\ BW\ x\ ATc}{EF\ x\ ED\ x\ \left[\left(\frac{IR\ x\ AB\ x\ CPFo}{UCF}\right) + \left(\frac{SA\ x\ AF\ x\ ABS\ x\ CPFd}{UCF}\right)\right]}$$

General Parameters		
RBC-SED-C	Risk-based concentration, sediment, cancer	mg/kg
ACR	Acceptable cancer risk level	unitless
AB	Gastrointestinal absorption fraction	unitless
CPFo	Oral cancer potency factor	$(mg/kg\text{-}day)^{-1}$
UCF	Unit conversion factor	mg/kg
ABS	Dermal absorption factor	unitless
CPFd	Dermal cancer potency factor	$(mg/kg\text{-}day)^{-1}$

Scenario-Specific Parameters		
BW	Average body weight over exposure duration	kg
ATc	Averaging time (cancer)	days
EF	Exposure frequency	days/year
ED	Exposure duration	years
IR	Sediment ingestion rate	mg/day
SA	Skin surface area	cm^2/day
AF	Sediment-to-skin adherence factor	mg/cm^2-day
Intermediate Calculations		
ISDIF1c	Intermediate sediment intake factor 1, cancer	mg
ISDIF2	Intermediate sediment intake factor 2	mg/day

- Sediment Ingestion/Direct Contact, Non-Cancer.

SMS SCUM II, Equation 9-2 (sediment ingestion / direct contact, noncancer)

$$RBC{-}SED{-}N = \frac{HQ \ x \ BW \ x \ ATn}{EF \ x \ ED \ x \ \left[\left(\frac{IR \ x \ AB}{RfDo \ x \ UCF}\right) + \left(\frac{SA \ x \ AF \ x \ ABS}{RfDd \ x \ UCF}\right)\right]}$$

General Parameters		
RBC-SED-N	Risk-based concentration, sediment, noncancer	mg/kg
HQ	Hazard quotient	unitless
AB	Gastrointestinal absorption fraction	unitless
RfDo	Oral reference dose	mg/kg-day
UCF	Unit conversion factor	mg/kg
ABS	Dermal absorption factor	unitless
RfDd	Dermal reference dose	mg/kg-day

Scenario-Specific Parameters		
BW	Average body weight over exposure duration	kg
ATn	Averaging time (noncancer)	days
EF	Exposure frequency	days/year
ED	Exposure duration	years
IR	Sediment ingestion rate	mg/day
SA	Skin surface area	cm^2/day
AF	Sediment-to-skin adherence factor	mg/cm^2-day
Intermediate Calculations		
ISDIF1n	Intermediate sediment intake factor 1, noncancer	mg
ISDIF2	Intermediate sediment intake factor 2	mg/day

The Risk-Based Values were then upward adjusted to either a Duwamish Natural Background or PQL (based on SCUM II – Ecology Pub # 12-09-057).

Please Note: Seafood Consumption for Sediments was not evaluated due to lack of site-specific BSAF.

<u>See Appendix A: Figure 8 for COPCs and PCULs for groundwater based on protection surface water and sediments.</u>

Appendix A: Figures

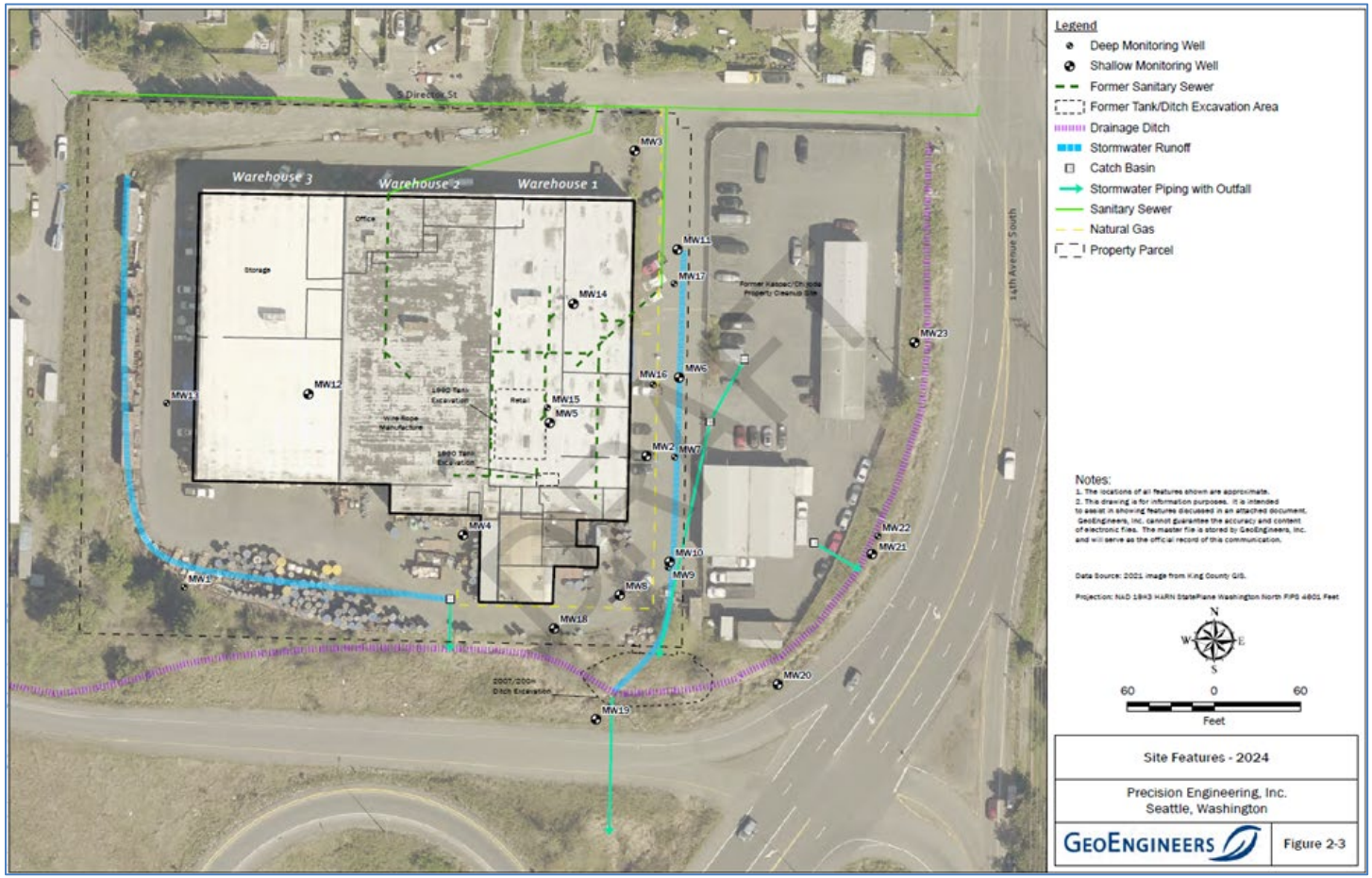

Figure 1: Figure depicting GW direction flow and MW19, 20, 21, 22, and 23 used to demonstrate an incomplete pathway to SW and Sediments.

Precision Engineering
FSID #: 2056
CSID #: 4532

Contaminant	CAS #	Proposed Water PCUL	Ecology GW PCUL	Highest Detected Value in MW's	GW/Drinking COPC?	Notes	Consultant Notes	Ecology Response	Consultant Notes
Metals (ug/L)									
Arsenic	7440-38-2	8.00E+00	8.00E+00	9.86E+01	N	See Notes	Arsenic is not a contaminant of concern for the Site because arsenic is not associated with Site activities or releases. Rather, arsenic is elevated in groundwater in the general vicinity where the Site is situated (i.e. South Park vicinity). Only 17 out of 126 soil samples collected at the Site exceed the arsenic soil PCUL (i.e. only 13% of soil samples). A single soil sample (SB32-4-5), located southeast of the building where chromium plating occurred, contained arsenic at a concentration of 14.7 mg/kg, which is approximately 2 times the PCUL of 7.3 mg/kg. The remaining 16 samples contained arsenic at concentrations less than than 2 times the PCUL. Furthermore, arsenic in groundwater is elevated in most Site wells, including upgradient deep wells MW1 and MW13 and upgradient shallow well MW12, suggesting an upgradient source. Monitoring well MW5, which is typically the "most contaminated" well located due to it's location in the chromium vault operation area, contains the lowest groundwater arsenic concentration (generally 3 ug/L to 6 ug/L, which is below the screening level of 8 ug/L). Meanwhile, the highest arsenic concentration in groundwater is located at MW23 that is distant from the property and not in a direct downgradient groundwater direction from the source area (see RI figures that show shallow groundwater flow is to the east-southeast; MW23 is east-northeast of the source area). These data indicate arsenic is generally elevated as a "background" condition and is not elevated due to Precision Engineering operations.	Provide Ecology with an area background value for Arsenic (at least 20 samples - calculate a 90th and 4 x 50th %- whichever is lower) and show that value of 9.86 was off-site and likely due to another source. You can use your samples and other previous samples (no need to re-sample).	Justification provided by the consultant
Cadmium	7440-43-9	1.20E+00	5.00E+00	4.70E-01					
Chromium	7440-47-3	1.00E+02	1.00E+02	1.33E+05	Y	GW-DW Must be addressed in DCA/FS			
Copper	7440-50-8	3.10E+00	6.40E+02	2.10E+02					
Lead	7439-92-1	5.60E+00	1.50E+01	9.07E+00					
Mercury	7439-97-6	2.50E-02	2.00E+00	8.01E-01					
Nickel	7440-02-0	8.20E+00	3.20E+02	6.62E+01					
Selenium	7782-49-2	5.00E+01	5.00E+01	1.83E+01					
Thallium	7440-28-0	6.20E-02	1.60E-01	N/D					
Zinc	7440-66-6	8.10E+01	4.80E+03	5.74E+01					
TPH (ug/L)									
GRO	X		1.00E+03	3.00E+02	N				
DRO+HO	X	5.00E+02	5.00E+02	1.29E+03	Y	GW-DW Must be addressed in DCA/FS			
VOCs (ug/L)									
Benzene	71-43-2	1.10E+00	5.00E+00	6.00E-02					
cis-1,2-Dichloroethylene	156-59-2	1.60E+01	1.60E+01	5.40E-01	N				
1,1-Dichloroethylene	75-35-4	x	7.00E+00	3.80E-01					
Methylene Chloride	75-09-2	5.00E+00	5.00E+00	2.77E+01	N	See Notes	Methylene chloride is not a contaminant of concern for the Site. Methylene chloride only exceeded the soil PCUL in 1 vadose soil sample. Methylene chloride did not exceed PCUL in any vadose or saturated soil samples inside the Precision Engineering building. Methylene chloride is a common laboratory contaminant and was present in numerous soil samples at very low concentrations in samples submitted on two days during the 2014/2015 investigation, all from borings outside the building. Method blank contamination was reported for numerous soil samples during the 2014 investigation. Methylene chloride was only detected in 3 out of 108 groundwater samples. The exceedances occurred in different wells during one sampling event only and methylene chloride did not exceed PCUL in those wells during any other sampling events.	Verify that the 3 exceedances (out of 108 samples) were outliers and the exceedances were due to sampling or laboratory error.	Justification provided by the consultant
Trans-1,2-Dichloroethylene	156-60-5	?	1.00E+02						
Trichloroethylene (TCE)	79-01-6	7.00E-01	4.00E+00	4.03E+01	Y	GW-DW Must be addressed in DCA/FS			
Vinyl Chloride	75-01-4	1.80E-01	2.90E-01	1.56E+00	Y	GW-DW Must be addressed in DCA/FS			
SVOCs (ug/L)									
1,4-Dioxane	123-91-1	4.40E-01	4.40E-01	2.04E+01	Y	GW-DW Must be addressed in DCA/FS			
Bis(2-Ethylhexyl) Phthalate	117-81-7	4.60E-02	6.00E+00	N/D					
Diethyl Phthalate	84-66-2	9.30E+01	1.30E+04	3.00E-01					
PAHs (ug/L)									
1-Methylnaphthalene	90-12-0	1.50E+00	8.60E-01	3.33E-01					
Benzo(a)anthracene	56-55-3	1.60E-04	N/A	1.30E-02					
Benzo(a)pyrene	50-32-8	1.60E-05	2.00E-01	9.00E-03					
Benzo(b)fluoranthene	205-99-2	1.60E-04	N/A	1.10E-02					
Benzo(k)fluoranthene	207-08-9	1.60E-03	N/A	7.00E-03					
Chrysene	218-01-9	1.60E-02	N/A	2.30E-02					
Dibenzo(a,h)anthracene	53-70-3	1.60E-05	N/A	2.00E-03					
Indeno(1,2,3-c,d)pyrene	193-39-5	1.60E-04	N/A	2.00E-03					
Napththalene	91-20-3	1.40E+00	1.60E+02	1.11E+00					
Total cPAH TEQ	X	9.70E-03	2.00E-01	1.32E-02					
Polychlorinated Biphenyls (PCBs) (ug/L)									
Total PCB Aroclors	1336-36-3	7.00E-06	2.20E-01	N/D					
Per-and Polyfluoroakkyl Substances (PFAS) (ug/L)									
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	6.50E-02	6.40E-06	2.40E-01	N	See Notes	There were no soil exceedances of PFHxS. There was only 1 groundwater exceedance of PFHxS out of 26 groundwater samples. The exceedance was in MW18 which is not near Precision Engineering's former operational areas, suggesting an off site / background source. If PFAS were used it would have been added to the chromium plating vaults inside the building, and PFAS concentrations would be expected to be very high in soil or groundwater in MW5 and/or downgradient wells.	Agreed (switch to "N")	
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	1.50E-02	4.00E-03	7.00E-02	N	See Notes	There were no soil exceedances of PFOS. There were only 3 groundwater exceedance out of 26 groundwater samples. Two of the exceedances were in MW18 and MW20 which are not near Precision Engineering's former operational areas, suggesting an off site / background source. (See comments above for PFHxS).	Agreed (switch to "N")	
Perfluorooctanoic Acid (PFOA)	335-67-1	1.00E-02	4.00E-03	7.50E-01	N	See Notes	There were no soil exceedances of PFOA. In groundwater, the highest concentration (0.75 ug/L) is in MW18, away from Precision's operational areas. All other groundwater exceedances were only several times higher than the PCUL. See comments above for PFHxS.	Agreed (switch to "N")	

Figure 2: COPCs and PCULs for Groundwater Protective of Drinking Water.

Precision Engineering
FSID #: 2056
CSID #: 4532

Contaminant	CAS #	Proposed Water PCUL	Lowest of Ecology SW/Sed PCUL	Highest Detected Value in MW 19, 20,21, 22,23	Highest Detected Value in Ditch?	SW/Sediment COPC?	Notes	Consultant Notes	Ecology Response	Consultant Notes
Metals (ug/L)										
Arsenic	7440-38-2	8.00E+00	8.00E+00	9.86E+01	4.33E+00	N	See Notes	Arsenic is not a contaminant of concern for the Site because arsenic is not associated with Site activities or releases. Rather, arsenic is elevated in groundwater in the general vicinity where the Site is situated (i.e. South Park vicinity). Only 17 out of 126 soil samples collected at the Site exceed the arsenic soil PCUL (i.e. only 13% of soil samples). A single soil sample (SB32-4-5), located southeast of the building where chromium plating occurred, contained arsenic at a concentration of 14.7 mg/kg, which is approximately 2 times the PCUL of 7.3 mg/kg. The remaining 16 samples contained arsenic at concentrations less than than 2 times the PCUL. Furthermore, arsenic in groundwater is elevated in most Site wells, including upgradient deep wells MW1 and MW13 and upgradient shallow well MW12, suggesting an upgradient source. Monitoring well MW5, which is typically the "most contaminated" well located due to it's location in the chromium vault operation area, contains the lowest groundwater arsenic concentration (generally 3 ug/L to 6 ug/L, which is below the screening level of 8 ug/L). Meanwhile, the highest arsenic concentration in groundwater is located at MW23 that is distant from the property and not in a direct downgradient groundwater direction from the source area (see RI figures that show shallow groundwater flow is to the east-southeast; MW23 is east-northeast of the source area). These data indicate arsenic is generally elevated as a "background" condition and is not elevated due to Precision Engineering operations.	Provide Ecology with an area background value for Arsenic (at least 20 samples - calculate a 90th and 4 x 50th % - whichever is lower) and show that value of 9.86 was off-site and likely due to another source. You can use your samples and other previous samples (no need to re-sample).	Justification provided by the consultant
Cadmium	7440-43-9	1.20E+00	1.20E+00	2.02E-01	8.24E-01	N				
Chromium	7440-47-3	1.00E+02	2.70E+01	3.51E+00	4.71E+01	Y	Ditch Cleanup/Property Controls			
Copper	7440-50-8	3.10E+00	3.10E+00	2.10E+00	1.42E+02	Y	Ditch Cleanup/Property Controls			
Lead	7439-92-1	5.60E+00	8.10E+00	2.00E-01	6.03E+01	Y	Ditch Cleanup/Property Controls			
Mercury	7439-97-6	2.50E-02	2.50E-02	4.11E-03	1.18E-01	Y	Ditch Cleanup/Property Controls			
Nickel	7440-02-0	8.20E+00	8.20E+00	8.89E+00	1.87E+01	N	SW/Sed must be addressed in DCA/FS and Ditch Cleanup/Property Controls	Nickel is not a contaminant of concern for the Site. Of the downgradient wells MW20, MW21, MW22, MW23, only one sample on one date slightly exceeded the groundwater PCUL. The one exceedance was in MW20 on 7/25/23 with a nickel concentration of 8.89 ug/L which only slightly exceeded the PCUL of 8.2 ug/L. The nickel concentration in MW20 was 5.3 ug/L below the PCUL during a follow up sampling on 12/6/23. Finally, 0 out of 89 soil samples analyzed from the Site for nickel exceeded the soil PCUL of 48 mg/kg.	Agreed (switch to "N")	
Selenium	7782-49-2	5.00E+01	7.10E+01	1.29E+00	ND	N				
Thallium	7440-28-0	6.20E-02	6.20E-02	ND	ND	N				
Zinc	7440-66-6	8.10E+01	8.10E+01	4.79E+00	3.01E+02	Y	Ditch Cleanup/Property Controls			
TPH (ug/L)										
GRO	X		1.00E+03	?	ND	?				
DRO+HO	X	5.00E+02	5.00E+02	ND	ND	N				
VOCs (ug/L)										
Benzene	71-43-2	1.10E+00	1.60E+00	?	?	N				
cis-1,2-Dichloroethylene	156-59-2	1.60E+01	N/A	1.40E-01	8.97E+00	N				
1,1-Dichloroethylene	75-35-4	?	N/A	?	1.10E-01	N				
Methylene Chloride	75-09-2	5.00E+00	1.00E+02	5.80E-01	ND	N				
Trans-1,2-Dichloroethylene	156-60-5	?	1.00E+03	?	?	N				
Trichloroethylene (TCE)	79-01-6	7.00E-01	7.00E-01	ND	2.00E-01	N				
Vinyl Chloride	75-01-4	1.80E-01	1.80E-01	ND	ND	N				
SVOCs (ug/L)										
1,4-Dioxane	123-91-1	4.40E-01	N/A	2.00E-01	2.00E-01	N				
Bis(2-Ethylhexyl) Phthalate	117-81-7	4.60E-02	4.60E-02	?	?	N				
Diethyl Phthalate	84-66-2	9.30E+01	9.30E+01	?	?	N				
PAHs (ug/L)										
1-Methylnaphthalene	90-12-0	1.50E+00	N/A	1.10E-01	1.30E-02	N				
Benzo(a)anthracene	56-55-3	1.60E-04	1.60E-04	ND	1.20E-02	Y	Ditch Cleanup/Property Controls			
Benzo(a)pyrene	50-32-8	1.60E-05	1.60E-05	ND	1.50E-02	Y	Ditch Cleanup/Property Controls			
Benzo(b)fluoranthene	205-99-2	1.60E-04	1.60E-04	ND	1.70E-02	Y	Ditch Cleanup/Property Controls			
Benzo(k)fluoranthene	207-08-9	1.60E-03	1.60E-03	ND	9.00E-03	Y	Ditch Cleanup/Property Controls			
Chrysene	218-01-9	1.60E-02	1.60E-02	ND	1.80E-02	Y	Ditch Cleanup/Property Controls			
Dibenzo(a,h)anthracene	53-70-3	1.60E-05	1.50E-05	ND	3.00E-03	Y	Ditch Cleanup/Property Controls			
Indeno(1,2,3-c,d)pyrene	193-39-5	1.60E-04	1.60E-04	ND	1.20E-02	Y	Ditch Cleanup/Property Controls			
Napththalene	91-20-3	1.40E+00	1.40E+00	4.00E-02	4.40E-02	N				
Total cPAH TEQ	X	9.70E-03	1.60E-05	ND	2.05E-02	Y	Ditch Cleanup/Property Controls			
Polychlorinated Biphenyls (PCBs) (ug/L)										
Total PCB Aroclors	1336-36-3	7.00E-06	7.00E-06	?	?	N				
Per-and Polyfluoroakkyl Substances (PFAS) (ug/L)										
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	6.50E-02	N/A	5.10E-03	?	N				
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	1.50E-02	1.10E+00	1.70E-02	?	N				
Perfluorooctanoic Acid (PFOA)	335-67-1	1.00E-02	1.20E+02	1.40E-02	?	N				

Figure 3: COPCs and PCULs for Groundwater Protective of Surface Water and Sediments.

Precision Engineering						
FSID #: 2056						
CSID #: 4532						
Contaminant	**CAS #**	**Proposed Water PCUL**	**Ecology VI Screening**	**Highest Detected Value in MW's**	**GW/Drinking COPC?**	**Notes**
Metals (ug/L)						
Arsenic	7440-38-2	8.00E+00	N/A	9.86E+01		
Cadmium	7440-43-9	1.20E+00	N/A	4.70E-01		
Chromium	7440-47-3	1.00E+02	N/A	1.33E+05		
Copper	7440-50-8	3.10E+00	N/A	2.10E+02		
Lead	7439-92-1	5.60E+00	N/A	9.07E+00		
Mercury	7439-97-6	2.50E-02	8.30E-01	8.01E-01		
Nickel	7440-02-0	8.20E+00	N/A	6.62E+01		
Selenium	7782-49-2	5.00E+01	N/A	1.83E+01		
Thallium	7440-28-0	6.20E-02	N/A	N/D		
Zinc	7440-66-6	8.10E+01	N/A	5.74E+01		
TPH (ug/L)						
GRO	X		N/A	?		
DRO+HO	X	5.00E+02	N/A	1.29E+03		
VOCs (ug/L)						
Benzene	71-43-2	1.10E+00	2.40E+00	6.00E-02		
cis-1,2-Dichloroethylene	156-59-2	1.60E+01	1.80E+02	2.63E+01		
1,1-Dichloroethylene	75-35-4	?	1.30E+02			
Methylene Chloride	75-09-2	5.00E+00	7.80E+02	2.77E+01		
Trans-1,2-Dichloroethylene	156-60-5	?	7.70E+01			
Trichloroethylene (TCE)	79-01-6	7.00E-01	1.40E+00	4.03E+01	Y	Tier II Must Empirically Eliminate or include in DCA/FS
Vinyl Chloride	75-01-4	1.80E-01	3.30E-01	1.56E+00	Y	Tier II Must Empirically Eliminate or include in DCA/FS
SVOCs (ug/L)						
1,4-Dioxane	123-91-1	4.40E-01	4.70E+03	2.04E+01		
Bis(2-Ethylhexyl) Phthalate	117-81-7	4.60E-02	N/A	N/D		
Diethyl Phthalate	84-66-2	9.30E+01	N/A	3.00E-01		
PAHs (ug/L)						
1-Methylnaphthalene	90-12-0	1.50E+00	1.70E-01	3.33E-01	Y	Tier II Must Empirically Eliminate or include in DCA/FS
Benzo(a)anthracene	56-55-3	1.60E-04	N/A	1.30E-02		
Benzo(a)pyrene	50-32-8	1.60E-05	N/A	9.00E-03		
Benzo(b)fluoranthene	205-99-2	1.60E-04	N/A	1.10E-02		
Benzo(k)fluoranthene	207-08-9	1.60E-03	N/A	7.00E-03		
Chrysene	218-01-9	1.60E-02	N/A	2.30E-02		
Dibenzo(a,h)anthracene	53-70-3	1.60E-05	N/A	2.00E-03		
Indeno(1,2,3-c,d)pyrene	193-39-5	1.60E-04	N/A	2.00E-03		
Napththalene	91-20-3	1.40E+00	8.80E+00	1.11E+00		
Total cPAH TEQ	X	9.70E-03	N/A	1.32E-02		
Polychlorinated Biphenyls (PCBs) (ug/L)						
Total PCB Aroclors	1336-36-3	7.00E-06	N/A	N/D		
Per-and Polyfluoroakkyl Substances (PFAS) (ug/L)						
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	6.50E-02	N/A	2.40E-01		
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	1.50E-02	N/A	7.00E-02		
Perfluoroctanoic Acid (PFOA)	335-67-1	1.00E-02	N/A	7.50E-01		

Figure 4: COPCs and PCULs for Air Based on Groundwater Screening for Vapor Intrusion.

Table N-1
Simplified Terrestrial Ecological Evaluation Scoresheet
Precision Engineering, Inc.
Seattle, Washington

Line Number	Scoring Parameters	Score	Rationale
1	Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre). From the table below, find the number of points corresponding to the area and enter this number in the field to the right. Area (acres) — Points 0.25 or less — 4 0.5 — 5 1.0 — 6 1.5 — 7 2.0 — 8 2.5 — 9 3.0 — 10 3.5 — 11 4.0 or more — 12	7	The approximately 3.5-acre Property associated with the Site is entirely developed (i.e., paved and/or covered by buildings). Approximately 1.5 acres of grassy land is present along the eastern, southern, and western borders of the Site.
2	Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1.	3	The Property is zoned for industrial use and is currently an active industrial supply store.
3	Enter a score in the box to the right for the habitat quality of the site, using the following rating system: High=1, Intermediate=2, Low=3.	3	The Site is entirely paved and/or covered by buildings and is located in industrial south Seattle, near the Highway 99 on-ramp.
4	Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.	1	It is possible the ditch could be considered a "habitat island." Therefore, an ecologically conservative score of 1 is used.
5	Are any of the following soil contaminants present: chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4	None of the listed soil contaminants have been detected at the Site.
6	Add the numbers in the boxes on lines 2 through 5 and enter this number to the right. If this number is larger than the number in the box on line 1, the simplified TEE may be ended under WAC 173-340-7292(2) (a) (ii).	11	11 is larger than 7, so the TEE process is ended.

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Figure 5: Simplified Terrestrial Ecological Evaluation Scoresheet.

Precision Engineering							
FSID #: 2056							
CSID #: 4532							
3-Phase Model - Soil protective of groundwater		**Analyte**	**CAS**	**GW Protection (ug/L)**	**Hcc @ 13°**	**Kd**	**Soil Protective of GW (mg/kg)**
		Metals (ug/L)					
GW Protection (µg/Liter)	1.00E+02	Arsenic	7440-38-2	8.00E+00	x	x	Empirical Demonstration
Units Conversion (1 mg/1000 µg)	0.001	Cadmium	7440-43-9	5.00E+00	x	x	Empirical Demonstration
Dilution Factor - Saturated Zone (1)	1	Chromium	7440-47-3	1.00E+02	0.00E+00	1.00E+03	1.00E+02
Distribution Coefficient Kd (Liters/kg)	1.00E+03	Copper	7440-50-8	6.40E+02	x	x	Empirical Demonstration
Water-filled Soil Porosity - Saturated (0.43 ml water/ml soil)	0.43	Lead	7439-92-1	1.50E+01	x	x	Empirical Demonstration
Air-filled Soil Porosity Saturated (0 ml air/ml soil)	0	Mercury	7439-97-6	2.00E+00	x	x	Empirical Demonstration
Henry's Law Constant - Hcc - dimensionless	0.00E+00	Nickel	7440-02-0	3.20E+02	x	x	Empirical Demonstration
Dry Soil Bulk Density (1.5 kg/Liter)	1.5	Selenium	7782-49-2	5.00E+01	x	x	Empirical Demonstration
		Thallium	7440-28-0	1.60E-01	x	x	Empirical Demonstration
Soil Cleanup Level Protective of Groundwater - Saturated (mg/kg)	1.00E+02	Zinc	7440-66-6	4.80E+03	x	x	Empirical Demonstration
		TPH (ug/L)					
		GRO	X	1.00E+03	x	x	Empirical Demonstration
Saturated Conditions		DRO+HO	X	5.00E+02			2.00E+03
		VOCs (ug/L)					
		Benzene	71-43-2	5.00E+00	x	x	Empirical Demonstration
		cis-1,2-Dichloroethylene	156-59-2	1.60E+01	1.00E-01	3.96E-02	5.22E-03
		1,1-Dichloroethylene	75-35-4	7.00E+00	x	x	Empirical Demonstration
		Methylene Chloride	75-09-2	5.00E+00	x	x	Empirical Demonstration
		Trans-1,2-Dichloroethylene	156-60-5	1.00E+02	x	x	Empirical Demonstration
		Trichloroethylene (TCE)	79-01-6	4.00E+00	2.32E-01	9.40E-02	1.52E-03
		Vinyl Chloride	75-01-4	2.90E-01	8.50E-01	2.17E-02	8.94E-05
		SVOCs (ug/L)					
		1,4-Dioxane	123-91-1	4.40E-01	1.06E-04	2.63E-03	1.27E-04
		Bis(2-Ethylhexyl) Phthalate	117-81-7	6.00E+00	x	x	Empirical Demonstration
		Diethyl Phthalate	84-66-2	1.30E+04	x	x	Empirical Demonstration
		PAHs (ug/L)					
		1-Methylnaphthalene	90-12-0	8.60E-01	x	x	Empirical Demonstration
		Benzo(a)anthracene	56-55-3	N/A	x	x	Empirical Demonstration
		Benzo(a)pyrene	50-32-8	2.00E-01	x	x	Empirical Demonstration
		Benzo(b)fluoranthene	205-99-2	N/A	x	x	Empirical Demonstration
		Benzo(k)fluoranthene	207-08-9	N/A	x	x	Empirical Demonstration
		Chrysene	218-01-9	N/A	x	x	Empirical Demonstration
		Dibenzo(a,h)anthracene	53-70-3	N/A	x	x	Empirical Demonstration
		Indeno(1,2,3-c,d)pyrene	193-39-5	N/A	x	x	Empirical Demonstration
		Napththalene	91-20-3	1.60E+02	x	x	Empirical Demonstration
		Total cPAH TEQ	X	2.00E-01	x	x	Empirical Demonstration
		Polychlorinated Biphenyls (PCBs) (ug/L)					
		Total PCB Aroclors	1336-36-3	2.20E-01	x	x	Empirical Demonstration
		Per-and Polyfluoroakkyl Substances (PFAS) (ug/L)					
		Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	6.40E-06	x	x	Empirical Demonstration
		Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	4.00E-03	x	x	Empirical Demonstration
		Perfluoroctanoic Acid (PFOA)	335-67-1	4.00E-03	x	x	Empirical Demonstration

Figure 5: Three phase Model for Soil Protective of Groundwater.

Precision Engineering							
FSID #: 2056							
CSID #: 4532							
3-Phase Model - Soil protective of surface water		**Analyte**	**CAS**	**S.W. Protection (ug/L)**	**Hcc @ 13°**	**Kd**	**Soil Protective of S.W. (mg/kg)**
		Metals (ug/L)					
SW Protection (µg/Liter)	5.70E+01	Arsenic	7440-38-2	8.00E+00	x	x	Empirical Demonstration
Units Conversion (1 mg/1000 µg)	0.001	Cadmium	7440-43-9	1.20E+00	x	x	Empirical Demonstration
Dilution Factor - Saturated Zone (1)	1	Chromium	7440-47-3	2.70E+01	x	x	Empirical Demonstration
Distribution Coefficient Kd (Liters/kg)	2.33E-01	Copper	7440-50-8	3.10E+00	x	x	Empirical Demonstration
Water-filled Soil Porosity - Saturated (0.43 ml water/ml soil)	0.43	Lead	7439-92-1	8.10E+00	x	x	Empirical Demonstration
Air-filled Soil Porosity Saturated (0 ml air/ml soil)	0	Mercury	7439-97-6	2.50E-02	x	x	Empirical Demonstration
Henry's Law Constant - Hcc - dimensionless	1.41E-01	Nickel	7440-02-0	8.20E+00	x	x	Empirical Demonstration
Dry Soil Bulk Density (1.5 kg/Liter)	1.5	Selenium	7782-49-2	7.10E+01	x	x	Empirical Demonstration
		Thallium	7440-28-0	6.20E-02	x	x	Empirical Demonstration
Soil Cleanup Level Protective of Groundwater - Saturated (mg/kg)	2.96E-02	Zinc	7440-66-6	8.10E+01	x	x	Empirical Demonstration
		TPH (ug/L)					
		GRO	X	1.00E+03	x	x	Empirical Demonstration
Saturated Conditions		DRO+HO	X	5.00E+02	x	x	Empirical Demonstration
		VOCs (ug/L)					
		Benzene	71-43-2	1.60E+00	x	x	Empirical Demonstration
		cis-1,2-Dichloroethylene	156-59-2	N/A	x	x	Empirical Demonstration
		1,1-Dichloroethylene	75-35-4	N/A	x	x	Empirical Demonstration
		Methylene Chloride	75-09-2	1.00E+02	x	x	Empirical Demonstration
		Trans-1,2-Dichloroethylene	156-60-5	1.00E+03	x	x	Empirical Demonstration
		Trichloroethylene (TCE)	79-01-6	7.00E-01	x	x	Empirical Demonstration
		Vinyl Chloride	75-01-4	1.80E-01	x	x	Empirical Demonstration
		SVOCs (ug/L)					
		1,4-Dioxane	123-91-1	N/A	x	x	Empirical Demonstration
		Bis(2-Ethylhexyl) Phthalate	117-81-7	4.60E-02	x	x	Empirical Demonstration
		Diethyl Phthalate	84-66-2	9.30E+01	x	x	Empirical Demonstration
		PAHs (ug/L)					
		1-Methylnaphthalene	90-12-0	N/A	x	x	Empirical Demonstration
		Benzo(a)anthracene	56-55-3	1.60E-04	x	x	Empirical Demonstration
		Benzo(a)pyrene	50-32-8	1.60E-05	x	x	Empirical Demonstration
		Benzo(b)fluoranthene	205-99-2	1.60E-04	x	x	Empirical Demonstration
		Benzo(k)fluoranthene	207-08-9	1.60E-03	x	x	Empirical Demonstration
		Chrysene	218-01-9	1.60E-02	x	x	Empirical Demonstration
		Dibenzo(a,h)anthracene	53-70-3	1.50E-05	x	x	Empirical Demonstration
		Indeno(1,2,3-c,d)pyrene	193-39-5	1.60E-04	x	x	Empirical Demonstration
		Napththalene	91-20-3	1.40E+00	x	x	Empirical Demonstration
		Total cPAH TEQ	X	1.60E-05	x	x	Empirical Demonstration
		Polychlorinated Biphenyls (PCBs) (ug/L)					
		Total PCB Aroclors	1336-36-3	7.00E-06	x	x	Empirical Demonstration
		Per-and Polyfluoroakkyl Substances (PFAS) (ug/L)					
		Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	N/A	x	x	Empirical Demonstration
		Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	1.10E+00	x	x	Empirical Demonstration
		Perfluorooctanoic Acid (PFOA)	335-67-1	1.20E+02	x	x	Empirical Demonstration

Figure 6: Three phase Model for Soil Protective of Groundwater with Transport to Surface Water and Sediments.

Precision Engineering														
FSID #: 2056														
CSID #: 4532														
Soil Regulation														
Soil Guidance														
Analyte	CAS	Soil Method B Direct Contact (mg/kg)	Soil Method B Protection of Groundwater (mg/kg) - Sat	Soil Method B Protection of SW (mg/kg) - Sat	Final Protective H.H. Value (mg/kg)	Consultant MRL (mg/kg)	Ecology MRL (mg/kg)	Final PQL (mg/kg)	Natural Background	PCUL (mg/kg)	Highest Recorded Value (mg/kg)	Location	COPC?	Ecology Comments
Master CLARC Spreadsheet Column	A	R and S	X				Guidance for TPH		Natural Background Metals				Based on Complete Leaching Pathways	
MTCA Table 830-1														
Metals (mg/kg)														
Arsenic	7440-38-2	3.10E-02	Empirical Demonstration	Empirical Demonstration	3.10E-02		4.50E+00	4.50E+00	7.00E+00	7.00E+00	1.47E+01	SB-32	Y	
Cadmium	7440-43-9	8.00E+01	Empirical Demonstration	Empirical Demonstration	8.00E+01		2.00E-01	2.00E-01	1.00E+00	8.00E+01	2.51E+00	MW-16	N	
Chromium	7440-47-3	x	1.00E+02	Empirical Demonstration	1.00E+02		5.00E-01	5.00E-01	4.80E+01	1.00E+02	6.75E+03	GP-32	Y	Ditch Cleanup/Property Controls
Copper	7440-50-8	3.20E+03	Empirical Demonstration	Empirical Demonstration	3.20E+03		2.00E-01	2.00E-01	3.60E+01	3.20E+03	1.13E+02	GP-18	Y	Ditch Cleanup/Property Controls
Lead	7439-92-1	2.50E+02	Empirical Demonstration	Empirical Demonstration	2.50E+02		2.00E+00	2.00E+00	2.40E+01	2.50E+02	1.30E+02	SB-30	Y	Ditch Cleanup/Property Controls
Mercury	7439-97-6	na	Empirical Demonstration	Empirical Demonstration	na		x	x	7.00E-02	7.00E-02	1.10E+00	GP-18	Y	Ditch Cleanup/Property Controls
Nickel	7440-02-0	1.60E+03	Empirical Demonstration	Empirical Demonstration	1.60E+03		9.00E-01	9.00E-01	4.80E+01	1.60E+03	4.70E+01	MW-13	N	
Selenium	7782-49-2	4.00E+02	Empirical Demonstration	Empirical Demonstration	4.00E+02		3.00E+00	3.00E+00	7.80E-01	4.00E+02	2.21E+00	MW-13	N	
Thallium	7440-28-0	8.00E-01	Empirical Demonstration	Empirical Demonstration	8.00E-01		2.00E+00	2.00E+00	5.00E+00	5.00E+00	1.29E-01	MW-13	N	
Zinc	7440-66-6	2.40E+04	Empirical Demonstration	Empirical Demonstration	2.40E+04		1.00E+00	1.00E+00	8.60E+01	2.40E+04	3.41E+02	HA-2	Y	Ditch Cleanup/Property Controls
TPH (ug/L)														
GRO	X	1.00E+02	Empirical Demonstration	Empirical Demonstration	1.00E+02		5.00E+00	5.00E+00	x	1.00E+02	2.42E+01	GP-4	Y	
DRO+HO	X	2.00E+03	2.00E+03	Empirical Demonstration	2.00E+03		2.50E+01	2.50E+01	x	2.00E+03	2.52E+04	GP-21	Y	
VOCs (ug/L)														
Benzene	71-43-2	1.80E+01	Empirical Demonstration	Empirical Demonstration	1.80E+01		5.00E-03	5.00E-03	x	1.80E+01	2.55E-03	GP-1	N	
cis-1,2-Dichloroethylene	156-59-2	1.60E+02	Empirical Demonstration	Empirical Demonstration	5.22E-03		2.00E-03	2.00E-03	x	1.60E+02	5.40E-04	SB-24	N	
1,1-Dichloroethylene	75-35-4	4.00E+03	Empirical Demonstration	Empirical Demonstration	4.00E+03		5.00E-03	5.00E-03	x	4.00E+03	2.37E-02	GP-10	N	
Methylene Chloride	75-09-2	9.40E+01	Empirical Demonstration	Empirical Demonstration	9.40E+01		1.00E-02	1.00E-02	x	9.40E+01	1.79E-02	GP-10	N	
Trans-1,2-Dichloroethylene	156-60-5	1.60E+03	Empirical Demonstration	Empirical Demonstration	1.60E+03		2.00E-03	2.00E-03	x	1.60E+03	5.40E-04	SB-24	Y	
Trichloroethylene (TCE)	79-01-6	1.20E+01	1.52E-03	Empirical Demonstration	1.52E-03		2.00E-03	2.00E-03	x	2.00E-03	1.16E+00	GP-6	Y	
Vinyl Chloride	75-01-4	6.70E-01	8.94E-05	Empirical Demonstration	8.94E-05		2.00E-03	2.00E-03	x	2.00E-03	ND	ND	N	
SVOCs (mg/kg)														
1,4-Dioxane	123-91-1	1.00E+01	1.27E-04	Empirical Demonstration	1.27E-04		5.00E-02	5.00E-02	x	5.00E-02	6.01E-01	MW-22	Y	
Bis(2-Ethylhexyl) Phthalate	117-81-7	7.10E+01	Empirical Demonstration	Empirical Demonstration	7.10E+01		1.19E-01	1.19E-01	x	7.10E+01	6.91E-02	SB-29	N	
Diethyl Phthalate	84-66-2	6.40E+04	Empirical Demonstration	Empirical Demonstration	6.40E+04		1.19E-01	1.19E-01	x	6.40E+04	3.45E-01	MW-14	N	
PAHs (mg/kg)														
1-Methylnaphthalene	90-12-0	2.00E+01	Empirical Demonstration	Empirical Demonstration	2.00E+01		5.00E-02	5.00E-02	x	2.00E+01	2.05E-02	SB-23	N	
Benzo(a)anthracene	56-55-3	x	Empirical Demonstration	Empirical Demonstration	x		5.00E-02	5.00E-02	x	x		x	Y	Ditch Cleanup/Property Controls
Benzo(a)pyrene	50-32-8	1.90E-01	Empirical Demonstration	Empirical Demonstration	1.90E-01		5.00E-02	5.00E-02	x	1.90E-01	1.39E-01	MW-23	Y	Ditch Cleanup/Property Controls
Benzo(b)fluoranthene	205-99-2	x	Empirical Demonstration	Empirical Demonstration	x		5.00E-02	5.00E-02	x	x		x	Y	Ditch Cleanup/Property Controls
Benzo(k)fluoranthene	207-08-9	x	Empirical Demonstration	Empirical Demonstration	x		5.00E-02	5.00E-02	x	x		x	Y	Ditch Cleanup/Property Controls
Chrysene	218-01-9	x	Empirical Demonstration	Empirical Demonstration	x		5.00E-02	5.00E-02	x	x		x	Y	Ditch Cleanup/Property Controls
Dibenzo(a,h)anthracene	53-70-3	x	Empirical Demonstration	Empirical Demonstration	x		5.00E-02	5.00E-02	x	x		x	Y	Ditch Cleanup/Property Controls
Indeno(1,2,3-c,d)pyrene	193-39-5	x	Empirical Demonstration	Empirical Demonstration	x		5.00E-02	5.00E-02	x	x		x	Y	Ditch Cleanup/Property Controls
Napththalene	91-20-3	1.60E+03	Empirical Demonstration	Empirical Demonstration	1.60E+03		5.00E-01	5.00E-01	x	1.60E+03	9.55E-02	MW-19	N	
Total cPAH TEQ	X	1.90E-01	Empirical Demonstration	Empirical Demonstration	1.90E-01		5.00E-02	5.00E-02	x	1.90E-01	2.22E-01	MW-23	Y	Ditch Cleanup/Property Controls
Polychlorinated Biphenyls (PCBs) (mg/kg)														
Total PCB Aroclors	1336-36-3	1.00E+00	Empirical Demonstration	Empirical Demonstration	1.00E+00		4.00E-02	4.00E-02	x	1.00E+00	1.48E-02	SB-29	N	
Per-and Polyfluoroakyl Substances (PFAS) (mg/kg)														
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	3.20E-05	Empirical Demonstration	Empirical Demonstration	3.20E-05		x	x	x	3.20E-05	ND	x	N	
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	8.00E-03	Empirical Demonstration	Empirical Demonstration	8.00E-03		x	x	x	8.00E-03	ND	x	N	
Perfluorooctanoic Acid (PFOA)	335-67-1	3.40E-05	Empirical Demonstration	Empirical Demonstration	3.40E-05		x	x	x	3.40E-05	ND	x	N	

Figure 7: COPCs and PCULs for Soil.

Precision Engineering										
FSID #: 2096										
CSID #: 4532										
Contaminant	CAS #	Proposed Water PCUL	Lowest of Ecology SW/Sed PCUL	Highest Detected Value in MW 19, 20, 21, 22, 23	Highest Detected Value in Ditch?	SW/Sediment COPC?	Notes	Consultant Notes	Ecology Response	Consultant Notes
Metals (ug/L)										
Arsenic	7440-38-2	8.00E+00	8.00E+00	9.86E+01	4.33E+00	N	See Notes	Arsenic is not a contaminant of concern for the Site because arsenic is not associated with Site activities or releases. Rather, arsenic is elevated in groundwater in the general vicinity where the Site is situated (ie. South Park vicinity). Only 17 out of 126 soil samples collected at the Site exceed the arsenic soil PCUL (i.e. only 13% of soil samples). A single soil sample (SB22-4.5), located southwest of the building where chemium plating occurred, contained arsenic at a concentration of 14.7 mg/kg, which is approximately 2 times the PCUL of 7.3 mg/kg. The remaining 16 samples contained arsenic at concentrations less than then 2 times the PCUL. Furthermore, arsenic in groundwater is elevated in most Site wells, including upgradient deep wells MW5 and MW13 and upgradient shallow well MW12, suggesting an upgradient source. Monitoring well MW5, which is typically the "most contaminated" well located due to its location in the chromium vault operation area, contained the lowest ground water arsenic concentration (generally 3 ug/L to 5 ug/L, which is below the screening level of 8 ug/L). Meanwhile, the highest arsenic concentration in groundwater is located at MW23 that is distant from the property and not in a direct downgradient groundwater direction from the source area (see FF figures that show shallow groundwater flow is to the east southeast; MW23 is east-northeast of the source area). These data indicate arsenic is generally elevated as a "background" condition and is not elevated due to Precision Engineering operations.	Provide Ecology with an area background value for Arsenic (at least 20 samples - calculate a 90th and 4 x 10th % - whichever is lower) and show that value of 8.86 was off site and likely due to another source. You can use your samples and other previous samples (no need to re-sample).	Justification provided by the consultant
Cadmium	7440-43-9	1.20E+00	1.20E+00	2.02E-01	8.24E-01	N				
Chromium	7440-47-3	1.00E+02	2.70E+01	3.51E+00	4.71E+01	Y	Ditch Cleanup/Property Contains			
Copper	7440-50-8	3.10E+00	3.10E+00	2.10E+00	1.42E+02	Y	Ditch Cleanup/Property Contains			
Lead	7439-92-1	5.60E+00	8.10E+00	2.00E-01	6.03E+01	Y	Ditch Cleanup/Property Contains			
Mercury	7439-97-6	2.50E-02	2.50E-02	4.11E-03	1.18E-01	Y	Ditch Cleanup/Property Contains			
Nickel	7440-02-0	8.20E+00	8.20E+00	8.89E+00	1.87E+01	N	SW/Sed must be addressed in DCA/FS and Ditch Cleanup/Property Contains	Nickel is not a contaminant of concern for the Site. Of the downgradient wells MW20, MW21, MW22, MW23, only one sample on one date slightly exceeded the groundwater PCUL. The one exceedance was in MW20 on 7/25/23 with a nickel concentration of 8.89 ug/L, which only slightly exceeded the PCUL of 8.2 ug/L. The nickel concentration in MW20 was 5.3 ug/L below the PCUL during a follow up sampling on 12/6/23. Finally, 0 out of 88 soil samples analyzed from the Site for nickel exceeded the soil PCUL of 48 mg/kg.	Agreed (set tch to "N")	
Selenium	7782-49-2	5.00E+01	7.10E+01	1.29E+00	ND	N				
Thallium	7440-28-0	6.20E-02	6.20E-02	ND	ND	N				
Zinc	7440-66-6	8.10E+01	8.10E+01	4.79E+00	3.01E+02	Y	Ditch Cleanup/Property Contains			
TPH (ug/L)										
DRO	X	1.00E+03	?	ND	?					
DRO+HO	X	5.00E+02	5.00E+02	ND	ND	N				
VOCs (ug/L)										
Benzene	71-43-2	1.10E+00	1.60E+00	?	?	N				
cis-1,2-Dichloroethylene	156-59-2	1.60E+01	N/A	1.40E-01	8.97E+00	N				
1,1-Dichloroethylene	75-35-4	?	N/A	?	1.10E-01	N				
Methylene Chloride	75-09-2	5.00E+00	1.00E+02	5.80E-01	ND	N				
Trans-1,2-Dichloroethylene	156-60-5	?	1.00E+03	?	?	N				
Trichloroethylene (TCE)	79-01-6	7.00E-01	7.00E-01	ND	2.00E-01	N				
Vinyl Chloride	75-01-4	1.80E-01	1.80E-01	ND	ND	N				
SVOCs (ug/L)										
1,4-Dioxane	123-91-1	4.40E-01	N/A	2.00E-01	2.00E-01	N				
Bis(2-Ethylhexyl) Phthalate	117-81-7	4.60E-02	4.60E-02	?	?	N				
Diethyl Phthalate	84-66-2	9.30E+01	9.30E+01	?	?	N				
PAHs (ug/L)										
1-Methylnaphthalene	90-12-0	1.50E+00	N/A	1.10E-01	1.30E-02	N				
Benzo(a)anthracene	56-55-3	1.60E-04	1.60E-04	ND	1.20E-02	Y	Ditch Cleanup/Property Contains			
Benzo(a)pyrene	50-32-8	1.60E-05	1.60E-05	ND	1.50E-02	Y	Ditch Cleanup/Property Contains			
Benzo(b)fluoranthene	205-99-2	1.60E-04	1.60E-04	ND	1.70E-02	Y	Ditch Cleanup/Property Contains			
Benzo(k)fluoranthene	207-08-9	1.60E-03	1.60E-03	ND	9.00E-03	Y	Ditch Cleanup/Property Contains			
Chrysene	218-01-9	1.60E-02	1.60E-02	ND	1.80E-02	Y	Ditch Cleanup/Property Contains			
Dibenzo(a,h)anthracene	53-70-3	1.60E-05	1.50E-05	ND	3.00E-03	Y	Ditch Cleanup/Property Contains			
Indeno(1,2,3-c,d)pyrene	193-39-5	1.60E-04	1.60E-04	ND	1.20E-02	Y	Ditch Cleanup/Property Contains			
Naphthalene	91-20-3	1.40E+00	1.40E+00	4.00E-02	4.40E-02	N				
Total cPAH TEQ	X	9.70E-03	1.60E-05	ND	2.05E-02	Y	Ditch Cleanup/Property Contains			
Polychlorinated Biphenyls (PCBs) (ug/L)										
Total PCB Aroclors	1336-36-3	7.00E-06	7.00E-06	?	?	N				
Per- and Polyfluoroalkyl Substances (PFAS) (ug/L)										
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	6.50E-02	N/A	5.10E-03	?	N				
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	1.50E-02	1.10E+00	1.70E-02	?	N				
Perfluorooctanoic Acid (PFOA)	335-67-1	1.00E-02	1.20E+02	1.40E-02	?	N				

Figure 8: COPCs and PCULs for Groundwater Protective of Surface Water and Sediments.