June 2019 Groundwater Monitoring Event
250 Post Road
Anchorage, Alaska

July 2019

SHANNON & WILSON, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

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ACRONYMS AND ABBREVIATIONS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ARRC	Alaska Railroad Corporation
CCIC	Cleanup Complete with Institutional Controls
DQO	Data Quality Objective
EPA	Environmental Protection Agency
HVO	Halogenated Volatile Organic
IDW	Investigation Derived Waste
L/min	Liters per minute
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
LDRC	Laboratory Data Review Checklist
LRA	Limited Removal Action
µg/L	Micrograms per liter
MS/MSD	Matrix Spike/Matrix Spike Duplicate
mV	Millivolts
NRC	NRC Alaska, Inc. of Anchorage, Alaska
NTU	Nephelometric Turbidity Unit
ORP	Oxidation Reduction Potential
RPD	Relative Percent Difference
SGS	SGS North America Inc. of Anchorage, Alaska
TCE	Trichloroethylene
VOC	Volatile Organic Compound

JUNE 2019 GROUNDWATER MONITORING EVENT
250 POST ROAD
ANCHORAGE, ALASKA
FILE NUMBER 2100.38.036

1.0 INTRODUCTION

This report presents the results of Shannon & Wilson's June 2019 groundwater monitoring event for the parcel at 250 Post Road (also referenced as 250 North Post Road), Anchorage, Alaska (Site). The Alaska Department of Environmental Conservation's (ADEC) File Number is 2100.38.036. Written authorization to proceed with this project was received from Ms. Mary Logue of Kelly-Moore Paint Co., Inc., on February 12, 2019 in the form of a signed proposal.

2.0 SITE AND PROJECT DESCRIPTION

2.1 Site Location and Description

The project site is located at 250 Post Road, in the Northwest ¼ of the Northwest ¼ of Section 17, Township 13 North, Range 3 West, Seward Meridian, Alaska, according to the United States Geological Survey Anchorage A-8 quadrangle. The legal description of the Site is Alaska Railroad Reserve Lot 46A, Anchorage, Alaska. The Site is located north of Ship Creek, as shown in Figure 1. A site plan of the subject site is included as Figure 2.

The Site is owned by the Alaska Railroad Corporation (ARRC) and has been leased and sub-leased by multiple interests since the early 1970s. Tenants have included Northern Supply Incorporated, Westinghouse Electric Corporation, and Swalling Construction Company, Inc. (Swalling). Swalling used the Site as a warehouse and storage yard prior to moving their equipment and supplies off the Site in May 2018. The Site is currently occupied by Silver Mountain Construction.

2.2 Background

Previous investigations conducted by Shannon & Wilson indicated halogenated volatile organic (HVO)-impacted soil and groundwater were located southwest of the on-site warehouse. The primary HVO constituent of interest was trichloroethylene (TCE), although other chlorinated volatile compounds have been measured in soil and groundwater samples. A summary of the previous assessment and cleanup activities relevant to the TCE-impacted area is presented in the *2018 Additional Site Characterization* report dated November 2018.

The TCE concentrations in soil have decreased by an order of magnitude since the 2003 limited removal action (LRA). However, the results of additional site characterization activities conducted in 2018 indicated TCE concentrations in the subsurface soil continue to exceed the most stringent ADEC Method Two migration to groundwater cleanup level. Concentrations of TCE and two other VOCs (1,2,4-trichlorobenzene and 1,4-dichlorobenzene), also continue to

exceed the ADEC Table C cleanup level in groundwater samples, but only in the immediate vicinity of the 2003 LRA.

2.3 Project Purpose and Objectives

The project purpose is to progress towards a Cleanup Complete with Institutional Controls (CCIC) designation from the ADEC. The objective of this June 2019 groundwater monitoring event is monitor TCE concentration trends in the groundwater at the site. Specific tasks of the June 2019 groundwater monitoring event include:

1. Collect groundwater samples from Wells MW-1, MW-4, MW-5, MW-6, MW-8, and MW-9 and analyze for VOCs.
2. Manage investigative-derived waste (IDW).

3.0 FIELD ACTIVITIES

The field activities were conducted in material accordance with our February 20, 2019 work plan, approved by the ADEC in an email dated February 20, 2019.

Field work was conducted by an ADEC-qualified environmental professional, as defined by 18 Alaska Administrative Code (AAC) 75.333. Analytical testing of the project samples was conducted by SGS North America Inc. (SGS) of Anchorage, Alaska. NRC Alaska, Inc. (NRC) of Anchorage, Alaska disposed of the IDW. SGS and NRC were subcontracted to Shannon & Wilson. Field notes are provided in Appendix A.

3.1 Site Access and Preparation

Prior to initiating the June 2019 groundwater monitoring event, permission to access and collect groundwater samples from the on-site monitoring wells was requested. Shannon & Wilson first contacted the ARRC to verify the contact information of the current Site lessee, SAN, LLC and the Site sub-lessee and current tenant, Silver Mountain Construction. We then contacted SAN, LLC and Silver Mountain Construction to request and arrange site access. SAN, LLC and Silver Mountain Construction granted site access for the June 2019 groundwater monitoring event.

Monitoring Well MW-8 is positioned in the Ship Creek corridor south of the Site on a parcel owned by the ARRC. Access to the monitoring well required an ARRC Entry Permit. Access Notification approval for sampling of the monitoring well was provided by ARRC on November 8, 2017 under Shannon & Wilson Blanket Entry Permit 9194.

3.2 Groundwater Sampling

On June 11, 2019, analytical groundwater samples were collected from Wells MW-1, MW-4, MW-5, MW-6, MW-8, and MW-9. Sampling was initiated using a water level indicator to measure depth to water in the well casings. Low-flow purging was conducted to reduce the effects of stagnant well casing water on chemical concentrations, and to obtain a groundwater sample that was representative of the surrounding water-bearing formation. The wells were

purged and sampled using a submersible pump and dedicated tubing. The submersible pump was placed within the top foot of the groundwater column. The pump rate was adjusted with a goal of limiting the sustained water drawdown to a maximum of 0.3 foot (typical pump rate of 0.3 to 0.5 liters per minute [L/min]).

During the purging process, field personnel monitored water quality parameters (pH, temperature, turbidity, oxidation reduction potential [ORP], and specific conductance), drawdown, and purge volume. Purging was considered complete when at least one well volume was removed and four of the five water quality parameters stabilized. Water quality parameters were considered stabilized when three consecutive measurements collected 3 to 5 minutes apart indicated that parameters were within the following tolerance ranges: pH within 0.1 unit, temperature within 3 percent (minimum 0.2 degree Celsius), specific conductance within 3 percent, ORP within 10 millivolts (mV), and turbidity within 10 percent or less than 10 nephelometric turbidity units (NTU). The water quality parameters stabilized in each well during purging. The final water quality parameters are listed on Table 1.

4.0 LABORATORY ANALYSIS

The groundwater samples were delivered to SGS using chain-of-custody procedures. The samples were tested on a standard 10-day turnaround time. Each project sample, including a field duplicate sample from Well MW-6, was analyzed for VOCs by Environmental Protection Agency (EPA) Method 8260C. A water trip blank accompanying the groundwater samples was also analyzed for VOCs by EPA Method 8260C.

5.0 DISCUSSION OF ANALYTICAL RESULTS

The groundwater results were compared to applicable cleanup levels listed in the Oil and Other Hazardous Substances Pollution Control Regulations, 18 AAC 75 (October 27, 2018). Groundwater criteria are based on Table C, 18 AAC 75.345. The cleanup levels and analytical results for the groundwater samples are listed in Tables 2 and 3. A copy of the laboratory report for the groundwater results is in Appendix B. A summary of historical analytical results is listed in Table 3. Graphs illustrating the concentrations detected over time for selected constituents are presented in Appendix C.

5.1 Monitoring Well Samples

Six primary groundwater samples and one field duplicate sample were submitted for laboratory analysis. TCE was detected in the samples collected from Well MW-4 (1.46 micrograms per liter [µg/L]) and Well MW-6 (11.3 µg/L [higher of primary/duplicate pair sample]). The TCE concentrations reported in Samples MW-6 and MW-106 (duplicate of MW6) exceed the ADEC Table C cleanup level of 2.8 µg/L. Each groundwater sample collected from the six monitoring wells contained two or more other VOCs including 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and/or cis-1,2-dichloroethene. Of these detected VOCs, only the concentrations of 1,2,4-trichlorobenzene and 1,4-dichlorobenzene in Sample MW-4 and Samples

MW-6 and MW-106 (duplicate of MW6) exceed ADEC Table C cleanup levels of 4.0 µg/L and 4.8 µg/L, respectively. The remaining VOCs were reported at concentrations less than the ADEC Table C cleanup levels. Note 1,1-dichloroethane in each well (including upgradient well MW-1) were measured at relatively similar concentrations, although less than the ADEC Table C cleanup levels.

Concentrations of TCE, 1,2,4-trichlorobenzene, and 1,4-dichlorobenzene over time are illustrated in graphs included in Appendix C. As shown in the graphs, Wells MW-4 and MW-6 exhibit TCE, 1,2,4-trichlorobenzene, and 1,4-dichlorobenzene concentrations that exceed ADEC Table C cleanup levels, except for TCE concentrations in Well MW-4 which have been less than the ADEC Table C cleanup level since the August 6, 2018 sampling event.

The absence of detectable TCE in Well MW-8 positioned within the Ship Creek corridor indicates the leading edge of the TCE-impacted groundwater plume appears to be between Wells MW-6 and MW-8. The groundwater samples from Wells MW-1, MW-5, MW-8, and MW-9 did not contain VOC concentrations above the ADEC Table C cleanup levels. Based on these results, the lateral extent of the TCE-impacted groundwater plume is delineated.

5.2 Quality Assurance Summary

The project laboratory implements on-going quality assurance/quality control procedures to evaluate conformance to applicable ADEC data quality objectives (DQOs). Internal laboratory controls to assess data quality for this project include surrogates, method blanks, laboratory control sample/laboratory control sample duplicates (LCS/LCSD), and matrix spike/matrix spike duplicates (MS/MSD) to assess precision, accuracy, and matrix bias. If a DQO was not met, the project laboratory provides a report specific note identifying the problem in the Case Narrative section of the Laboratory Analysis Report (See Appendix B).

External quality controls include field records, a groundwater duplicate sample set, and a trip blank for the groundwater samples. The water trip blank did not contain detectable concentrations of volatile analytes.

Duplicate sample sets were collected to assess the sampling precision and calculate the relative percent difference (RPD). The RPD between the project sample and associated duplicate results is a measure of precision affected by matrix heterogeneity, sampling technique, and laboratory analyses. The ADEC recommends an RPD of less than 30 percent for groundwater field duplicates and 20 percent for laboratory control samples. The RPDs are within the ADEC recommended DQO of 30 percent for groundwater in the duplicate groundwater sample set (MW-6/MW-106).

Shannon & Wilson reviewed the SGS data deliverable and completed the ADEC's Laboratory Data Review Checklist (LDRC) for the data package, which is included in Appendix B. Quality control discrepancies and the impact to data quality/usability are described in further detail in the LDRC. In our opinion, no non-conformances that would adversely impact data usability for

project data objectives were noted, and we find the project data to be complete and useable to support the project purpose and objectives.

6.0 INVESTIGATION DERIVED WASTE DISPOSAL

The purge water from Wells MW-1, MW-4, MW-5, MW-6, MW-8, and MW-9 was stored in one, labeled 55-gallon drum. Groundwater samples from Wells MW-4 and MW-6 had VOC concentrations greater than the ADEC Table C cleanup levels. Shannon & Wilson coordinated with the ADEC to dispose of the purge water. The ADEC Contaminated Soil Transport and Treatment Approval form is provided in Appendix D. On June 21, 2019, NRC transported one drum of IDW to their Anchorage facility for processing and disposal. A copy of the waste manifest and disposal receipt is provided in Appendix D.

7.0 SUMMARY

The June 2019 groundwater monitoring activities at 250 Post Road consisted of collecting groundwater samples to monitor TCE concentration trends in the groundwater at the site.

Groundwater samples from Wells MW-4 and MW-6 contain VOC concentrations that exceed ADEC Table C cleanup levels. TCE was only detected above the ADEC Table C cleanup level in a single well (Well MW-6). The absence of detectable TCE in Well MW-8 positioned within the Ship Creek corridor indicates the leading edge of the TCE-impacted groundwater plume is between Wells MW-6 and MW-8. Further, the absence of detectable TCE in Well MW-8 indicates the TCE-impacted groundwater plume is not impacting Ship Creek. The groundwater samples from Wells MW-1, MW-5, MW-8, and MW-9 did not contain VOC concentrations above the ADEC Table C cleanup levels. Based on these results, the lateral extent of the TCE-impacted groundwater plume is delineated.

8.0 CLOSURE/LIMITATIONS

This report was prepared for the exclusive use of our clients and their representatives in the study of this site. The findings presented within this report are based on the limited sampling and analyses that we conducted. The findings should be construed in the context of the scope of sampling and not as definite conclusions regarding the Site's groundwater conditions. The sampling and analyses performed can only provide you with our professional judgment as to the environmental characteristics of this site, and in no way guarantees that an agency or its staff will reach the same conclusions as Shannon & Wilson, Inc. The data presented in this report should be considered representative of the time of our site assessment. Changes in site conditions can occur over time, due to natural forces or human activity. In addition, changes in government codes, regulations, or laws may occur. Because of such changes beyond our control, our observations and interpretations may need to be revised.

Shannon & Wilson has prepared the attachments in Appendix E, "Important Information About Your Geotechnical/Environmental Report," to clarify use and limitations of our report. You are advised that various state and federal agencies (ADEC, EPA, etc.) may require the reporting of

this information. Shannon & Wilson does not assume the responsibility for reporting these findings and therefore, has not, and will not, disclose the results of this study, except with your permission or as required by law.

We appreciate the opportunity to be of service. Please contact the undersigned at (907) 561-2120 with any questions or comments concerning the contents of this report.

SHANNON & WILSON, INC.

LeeAnne Osgood
for Trevor Crosby, C.P.G.
Senior Geologist

LeeAnne Osgood
LeeAnne Osgood, P.E.
Associate

TABLE 1
MONITORING WELL SAMPLING LOG

	Monitoring Well Number					
	MW-1	**MW-4**	**MW-5**	**MW-6**	**MW-8**	**MW-9**
Water Level Measurement Data						
Date Water Level Measured	6/11/19	6/11/19	6/11/19	6/11/19	6/11/19	6/11/19
Time Water Level Measured	9:13	9:16	9:11	9:18	9:05	9:09
Measured Depth to Water (ft below TOC)	5.81	13.02	6.46	13.38	4.56	14.32
Height of TOC bgs (ft)	-0.31	-0.36	-0.31	-0.32	3.30	-0.35
Measured Depth to Water (ft bgs)	6.12	13.38	6.77	13.70	1.26	14.67
Surveyed TOC Elevation (ft)	98.98	97.70	99.58	98.07	80.08	99.20
Water Level Elevation (ft)	93.17	84.68	93.12	84.69	75.52	84.88
Purging/Sampling Data						
Date Sampled	6/11/19	6/11/19	6/11/19	6/11/19	6/11/19	6/11/19
Time Sampled	11:58	12:38	11:12	13:17	9:45	10:33
Measured Depth to Water (ft below TOC)	5.81	13.02	6.46	13.38	4.56	14.32
Total Depth of Well (ft below TOC)	12.51	18.49	12.10	16.32	16.50	20.22
Water Column in Well (ft)	6.70	5.47	5.64	2.94	11.94	5.90
Gallons per Foot	0.16	0.16	0.16	0.16	0.16	0.16
Water Column Volume (gallons)	1.07	0.88	0.90	0.47	1.91	0.94
Total Volume Pumped (gallons)	2.0	2.3	1.4	1.9	2.6	2.6
Sampling Method	SP	SP	SP	SP	SP	SP
Diameter of Well Casing	2-inch	2-inch	2-inch	2-inch	2-inch	2-inch
Water Quality Data						
Temperature (^{o}C)	6.52	4.59	6.46	4.96	6.47	5.50
Specific Conductance (µS/cm)	599	605	500	625	558	556
pH (Standard Units)	6.09	6.08	5.88	5.99	6.09	5.95
Oxidation-Reduction Potential (mV)	31.7	36.8	73.3	58.1	91.6	64.5
Turbidity (NTU)	5.68	22.27	2.20	13.31	0	1.77
Remarks				Duplicate Sample "MW-106"		

Notes:
Water quality parameters were measured with a YSI Water Quality Instrument and Turbidimeter.
Level Loop Survey conducted by Shannon & Wilson, Inc. on June 26, 2018.

TOC = top of casing
^{o}C = degrees Celsius
ft = feet
bgs = below ground surface
µS/cm = microsiemens per centimeter
mV = millivolt
NTU = Nephelometric Turbidity Units
SP = Submersible pump

TABLE 2
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Parameter Tested	Units	Method*	Groundwater Cleanup Level**	Sample ID Number^ and Water Depth in Feet bgs (See Table 1, Figure 2, and Appendix B)							
				Monitoring Wells							Trip Blank
				MW-1 6.12	MW-4 13.38	MW-5 6.77	MW-6 13.70	MW-106~ 13.70	MW-8 1.26	MW-9 14.67	TB -
Volatile Organic Compounds (VOCs)											
Tetrachloroethene	µg/L	EPA 8260C	41	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethylene	µg/L	EPA 8260C	2.8	<0.500	**1.46**	<0.500	**10.9**	**11.3**	<0.500	<0.500	<0.500
cis-1,2-Dichloroethene	µg/L	EPA 8260C	36	<0.500	<0.500	<0.500	**0.880 J**	**0.860 J**	<0.500	<0.500	<0.500
Vinyl Chloride	µg/L	EPA 8260C	0.19	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750
Benzene	µg/L	EPA 8260C	4.6	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Ethylbenzene	µg/L	EPA 8260C	15	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Toluene	µg/L	EPA 8260C	1,100	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Xylenes	µg/L	EPA 8260C	190	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
Chlorobenzene	µg/L	EPA 8260C	78	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Chloromethane	µg/L	EPA 8260C	190	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,1,1-Trichloroethane	µg/L	EPA 8260C	8,000	**0.910 J**	<0.500	**1.26**	<0.500	<0.500	<0.500	<0.500	<0.500
1,1-Dichloroethane	µg/L	EPA 8260C	28	**1.21**	**1.36**	**0.649 J**	**0.940 J**	**0.890 J**	**0.550 J**	**1.66**	<0.500
1,2,3-Trichlorobenzene	µg/L	EPA 8260C	7.0	<0.500	<0.500	<0.500	**0.500 J**	**0.500 J**	<0.500	<0.500	<0.500
1,2,4-Trichlorobenzene	µg/L	EPA 8260C	4.0	<0.500	**9.83**	<0.500	**8.26**	**8.00**	**0.600 J**	**1.32**	<0.500
1,2-Dichlorobenzene	µg/L	EPA 8260C	300	<0.500	<0.500	<0.500	**0.920 J**	**0.870 J**	<0.500	<0.500	<0.500
1,3-Dichlorobenzene	µg/L	EPA 8260C	300	<0.500	**7.28**	<0.500	**6.68**	**6.43**	**0.400 J**	**1.38**	<0.500
1,4-Dichlorobenzene	µg/L	EPA 8260C	4.8	<0.250	**8.14**	<0.250	**7.90**	**7.53**	**0.480 J**	**1.41**	<0.250
Other VOCs	µg/L	EPA 8260C	Various	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

*	See Appendix B for compounds tested, methods, and laboratory reporting limits
**	Groundwater cleanup levels are listed in Table C, 18 AAC 75.345 (October 27, 2018)
^	= sample ID No. preceded by "17800" on the chain-of-custody form
µg/L	= micrograms per liter
1.21	= analyte detected
9.83	= reported concentration exceeds the ADEC Table C cleanup level
<0.500	= analyte not detected; laboratory limit of detection 0.500 µg/L
bgs	= below ground surface
~	= duplicate of preceding sample
J	= quantitation is an estimate less than the limit of quantitation (LOQ). See the SGS laboratory report for details.
ND	= analyte not detected

TABLE 3
SUMMARY OF HISTORICAL GROUNDWATER DATA

Parameter Tested	Units	Method*	Cleanup Level**	Monitoring Well Number, Date of Sample Collection, and Depth to Water in feet bgs												
				MW-1									MW-2		MW-3	
				5/7/2003 5.91	8/19/2003 5.73	7/29/2004 6.08	10/29/2004 5.70	5/19/2005 6.27	12/15/2016 5.96	6/22/2018 5.81	11/15/2018 5.80	6/11/2019 6.12	5/7/03 13.16	8/19/03 13.20	5/8/03 13.91	8/19/03~ 13.84
Tetrachloroethene	µg/L	EPA 8021B/8260C	41	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
Trichloroethylene	µg/L	EPA 8021B/8260C	2.8	<1.00	<1.00	<1.00	-	<1.00	**0.390 J**	<0.500	**0.370 J**	<0.500	<1.00	<1.00	**4.86**	**14.2**
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260C	36	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	**1.41**
Vinyl Chloride	µg/L	EPA 8021B/8260C	0.19	**<1.00**	**<1.00**	**<1.00**	-	**<1.00**	**<0.500**	<0.0750	<0.0750	<0.0750	**<1.00**	**<1.00**	**<1.00**	**<1.00**
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260C	8,000	**5.61**	**5.73**	**3.81**	-	**3.41**	**2.08**	**0.990 J**	**1.14**	**0.910 J**	**2.89**	<1.00	<1.00	**1.31**
1,1-Dichloroethane	µg/L	EPA 8021B/8260C	28	**1.19**	**2.13**	**1.45**	-	**1.06**	**1.88**	<0.500	**1.91**	**1.21**	**2.15**	**2.52**	**2.76**	**2.94**
1,2,3-Trichlorobenzene	µg/L	EPA 8021B/8260C	7.0	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	EPA 8021B/8260C	4.0	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	**26.4**	**18.1**
Dichlorodifluoromethane	µg/L	EPA 8260C	200	-	-	-	-	-	**0.630 J**	<0.500	<0.500	<0.500	-	-	-	-
1,2-Dichlorobenzene	µg/L	EPA 8021B/8260C	300	-	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	-	<1.00	-	**1.39**
1,3-Dichlorobenzene	µg/L	EPA 8021B/8260C	300	<1.00	<1.00	<1.00	-	<1.00	<0.250	<0.500	<0.500	<0.500	<1.00	<1.00	**11.8**	**7.18**
1,4-Dichlorobenzene	µg/L	EPA 8021B/8260C	4.8	<0.500	<0.500	<0.500	-	<0.500	<0.250	<0.250	<0.250	<0.250	<0.500	<0.500	**16.7**	**8.71**
Chlorobenzene	µg/L	EPA 8021B/8260C	78	<0.500	<0.500	<0.500	-	<0.500	<0.250	<0.250	<0.250	<0.250	<0.500	<0.500	**1.3**	<0.500
Toluene	µg/L	EPA 8021B/8260C	1,100	<1.00	<1.00	-	-	-	<0.500	<0.500	**0.380 J**	<0.500	<1.00	<1.00	<1.00	<1.00
Chloromethane	µg/L	EPA 8021B/8260C	190	<1.00	<1.00	<1.00	-	-	<0.500	<0.500	**0.650 J**	<0.500	<1.00	<1.00	<1.00	<1.00
Naphthalene	µg/L	EPA 8021B/8260C	1.7	-	**<2.00**	-	-	-	<0.500	<0.500	<0.500	<0.500	-	**5.59**	-	**<2.00**

Notes:

*	See Appendix B for compounds tested, methods, and laboratory reporting limits
**	Groundwater cleanup levels are listed in Table C, 18 AAC 75.345 (October 27, 2018)
µg/L	= micrograms per liter
5.59	= reported concentration exceeds the ADEC Table C cleanup level
5.61	= analyte detected
<1.00	= analyte not detected; laboratory limit of detection 1.00 µg/L
<1.00	= Laboratory limit of detection is greater than the ADEC Table C cleanup level
bgs	= below ground surface
-	= Not applicable or sample not analyzed for this parameter
~	= Analytical results for these samples reflect the higher concentrations for duplicate set
J	= quantitation is an estimate less than the limit of quantitation (LOQ). See the SGS laboratory report for details.

TABLE 3
SUMMARY OF HISTORICAL GROUNDWATER DATA

Parameter Tested	Units	Method*	Cleanup Level**	Monitoring Well Number, Date of Sample Collection, and Depth to Water in feet bgs														
				MW-4								MW-5						
				5/8/03	8/19/03	7/29/04~	5/19/05	12/15/16	6/22/18	11/15/18	6/11/19	5/8/03	8/19/03	7/29/04	12/15/16	6/22/18	11/15/18	6/11/19
				13.53	13.44	13.66	13.32	13.84	13.25	13.76	13.38	6.35	6.09	6.49	7.11	6.54	6.50	6.77
Tetrachloroethene	µg/L	EPA 8021B/8260C	41	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500
Trichloroethylene	µg/L	EPA 8021B/8260C	2.8	**1.23**	**1.83**	**2.51**	**3.39**	**3.15**	**2.41**	**1.70**	**1.46**	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260C	36	<1.00	<1.00	<1.00	<1.00	**0.440 J**	<0.500	**0.312 J**	<0.500	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500
Vinyl Chloride	µg/L	EPA 8021B/8260C	0.19	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<0.500**	<0.0750	<0.0750	<0.0750	**<1.00**	**<1.00**	**<1.00**	**<0.500**	<0.0750	<0.0750	<0.0750
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260C	8,000	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	**1.97**	**5.1**	**3.84**	**2.82**	**1.95**	**1.72**	**1.26**
1,1-Dichloroethane	µg/L	EPA 8021B/8260C	28	**2.97**	**3.62**	**2.70**	**1.99**	**2.23**	<0.500	**1.79**	**1.36**	**1.04**	**1.59**	**1.15**	**1.19**	**5.20 J**	**0.870 J**	**0.649 J**
1,2,3-Trichlorobenzene	µg/L	EPA 8021B/8260C	7.0	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500
1,2,4-Trichlorobenzene	µg/L	EPA 8021B/8260C	4.0	**42.5**	**44.8**	**33.9**	**13.50**	**16.7**	**9.28**	**6.95**	**9.83**	<1.00	<1.00	<1.00	**0.540 J**	<0.500	<0.500	<0.500
Dichlorodifluoromethane	µg/L	EPA 8260C	200	-	-	-	-	<0.500	<0.500	<0.500	<0.500	-	-	-	**0.670 J**	<0.500	<0.500	<0.500
1,2-Dichlorobenzene	µg/L	EPA 8021B/8260C	300	-	**4.08**	**2.54**	**1.61**	**1.57**	<0.500	<0.500	<0.500	-	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500
1,3-Dichlorobenzene	µg/L	EPA 8021B/8260C	300	**20.7**	**19.1**	**13.5**	**8.09**	**13.9**	**7.60**	**4.12**	**7.28**	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500
1,4-Dichlorobenzene	µg/L	EPA 8021B/8260C	4.8	**31.2**	**28.5**	**18.3**	**11.2**	**19.6**	**9.40**	**4.95**	**8.14**	<0.500	**<5.00**	**<5.00**	**0.170 J**	<0.250	<0.250	<0.250
Chlorobenzene	µg/L	EPA 8021B/8260C	78	2.30	1.88	**1.12**	**0.86**	**0.67**	<0.250	**0.208 J**	<0.250	<0.500	<0.500	<0.500	<0.250	<0.250	<0.250	<0.250
Toluene	µg/L	EPA 8021B/8260C	1,100	<1.00	<1.00	-	-	<0.500	<0.500	<0.500	<0.500	**7.60**	**1.77**	-	<0.500	<0.500	<0.500	<0.500
Chloromethane	µg/L	EPA 8021B/8260C	190	**1.48**	<1.00	<1.00	-	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	**6.07**	<0.500	<0.500	<0.500	<0.500
Naphthalene	µg/L	EPA 8021B/8260C	1.7	-	**<2.00**	-	-	<0.500	<0.500	<0.500	<0.500	-	**<2.00**	-	<0.500	<0.500	<0.500	<0.500

Notes:

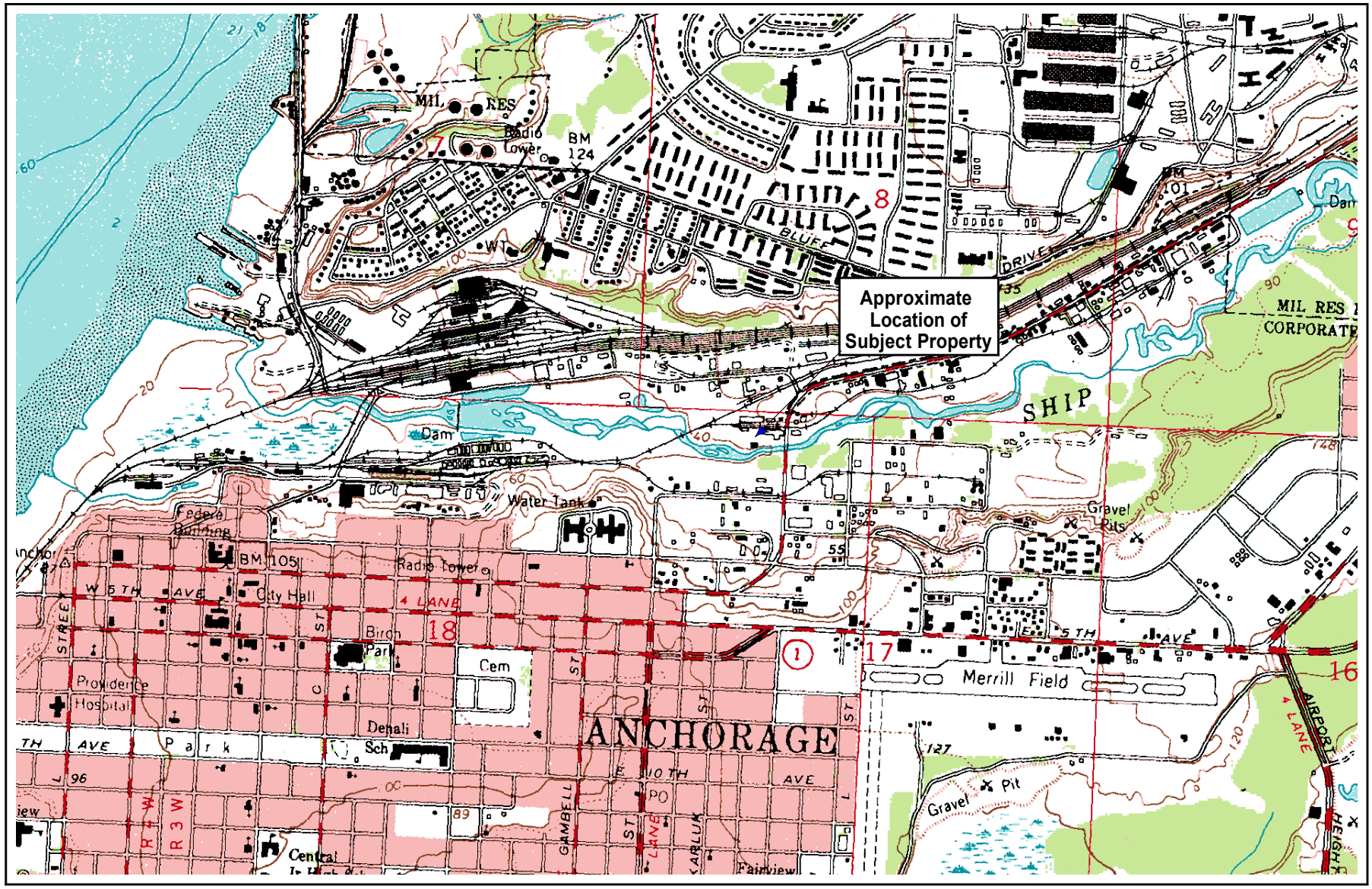
*	See Appendix B for compounds tested, methods, and laboratory reporting limits
**	Groundwater cleanup levels are listed in Table C, 18 AAC 75.345 (October 27, 2018)
µg/L	= micrograms per liter
42.5	= reported concentration exceeds the ADEC Table C cleanup level
1.23	= analyte detected
<1.00	= analyte not detected; laboratory limit of detection 1.00 µg/L
<1.00	= Laboratory limit of detection is greater than the ADEC Table C cleanup level
bgs	= below ground surface
-	= Not applicable or sample not analyzed for this parameter
~	= Analytical results for these samples reflect the higher concentrations for duplicate set
J	= quantitation is an estimate less than the limit of quantitation (LOQ). See the SGS laboratory report for details.

TABLE 3
SUMMARY OF HISTORICAL GROUNDWATER DATA

Parameter Tested	Units	Method*	Cleanup Level**	Monitoring Well Number, Date of Sample Collection, and Depth to Water in feet bgs														
				MW-6								MW-7	MW-8			MW-9		
				12/12/03	7/29/04	10/29/04	5/19/05	12/15/16~	6/22/18~	11/15/18~	6/11/2019~	12/12/03	6/22/18	11/15/18	6/11/2019	6/22/18	11/15/18	6/11/19
				13.90	13.87	13.82	13.52	14.00	13.55	14.07	13.70	13.93	1.15	1.56	1.26	14.61	15.20	14.67
Tetrachloroethene	µg/L	EPA 8021B/8260C	41	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethylene	µg/L	EPA 8021B/8260C	2.8	**6.31**	**10.6**	**13.9**	**16.9**	**18.3**	**18.7**	**21.7**	**11.3**	**1.29**	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260C	36	**2.64**	**1.42**	**1.72**	<1.00	**4.57**	**1.33**	**2.79**	**0.880 J**	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Vinyl Chloride	µg/L	EPA 8021B/8260C	0.19	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<0.500**	0.0750	<0.0750	<0.0750	**<1.00**	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260C	8,000	<1.00	<1.00	<1.00	<1.00	**0.320 J**	**0.520 J**	**0.849 J**	<0.500	<1.00	<0.500	**0.540 J**	<0.500	<0.500	<0.500	<0.500
1,1-Dichloroethane	µg/L	EPA 8021B/8260C	28	**2.69**	**1.90**	**1.48**	<1.00	**1.67**	<0.500	0.964 J	**0.940 J**	**3.13**	<0.500	**0.530 J**	**0.550 J**	<0.500	**2.40**	**1.66**
1,2,3-Trichlorobenzene	µg/L	EPA 8021B/8260C	7.0	**3.66**	**3.61**	**3.42**	**1.28**	**0.800 J**	**0.320 J**	**0.408 J**	**0.500 J**	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,2,4-Trichlorobenzene	µg/L	EPA 8021B/8260C	4.0	**24.1**	**12.0**	**13.4**	**5.53**	**4.51**	**1.86**	**1.65**	**8.26**	<1.00	**0.530 J**	<0.500	**0.600 J**	**3.59**	**0.730 J**	**1.32**
Dichlorodifluoromethane	µg/L	EPA 8260C	200	-	-	-	-	<0.500	<0.500	<0.500	<0.500	-	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,2-Dichlorobenzene	µg/L	EPA 8021B/8260C	300	**6.59**	**6.81**	**3.85**	**2.10**	**0.910 J**	<0.500	<0.500	**0.920 J**	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,3-Dichlorobenzene	µg/L	EPA 8021B/8260C	300	**19.7**	**13.7**	**10.1**	**5.09**	**3.84**	**1.57**	**0.988 J**	**6.68**	<1.00	**0.580 J**	<0.500	**0.400 J**	**3.52**	**0.543 J**	**1.38**
1,4-Dichlorobenzene	µg/L	EPA 8021B/8260C	4.8	**37.4**	**27.3**	**19.3**	**8.83**	**5.42**	**1.79**	**0.884**	**7.90**	<0.500	**0.520**	<0.250	**0.480 J**	**4.21**	**0.586**	**1.41**
Chlorobenzene	µg/L	EPA 8021B/8260C	78	<0.500	**1.49**	<0.500	**0.61**	**0.260 J**	<0.250	**0.159 J**	<0.250	<0.500	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Toluene	µg/L	EPA 8021B/8260C	1,100	-	-	-	-	<0.500	<0.500	<0.500	<0.500	-	<0.500	<0.500	<0.500	<0.500	**0.319 J**	<0.500
Chloromethane	µg/L	EPA 8021B/8260C	190	<1.00	<1.00	<1.00	-	<0.500	<0.500	**0.580 J**	<0.500	<1.00	<0.500	0.800 J	<0.500	<0.500	**0.886 J**	<0.500
Naphthalene	µg/L	EPA 8021B/8260C	1.7	-	-	-	-	<0.500	<0.500	<0.500	<0.500	-	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500

Notes:

*	See Appendix B for compounds tested, methods, and laboratory reporting limits
**	Groundwater cleanup levels are listed in Table C, 18 AAC 75.345 (October 27, 2018)
µg/L	= micrograms per liter
6.31	= reported concentration exceeds the ADEC Table C cleanup level
2.64	= analyte detected
<1.00	= analyte not detected; laboratory limit of detection 1.00 µg/L
<1.00	= Laboratory limit of detection is greater than the ADEC Table C cleanup level
bgs	= below ground surface
-	= Not applicable or sample not analyzed for this parameter
~	= Analytical results for these samples reflect the higher concentrations for duplicate set
J	= quantitation is an estimate less than the limit of quantitation (LOQ). See the SGS laboratory report for details.



Taken from the Anchorage A-8 NW United States Geological Society quadrangle.

Approximate scale 1":1,500'

N

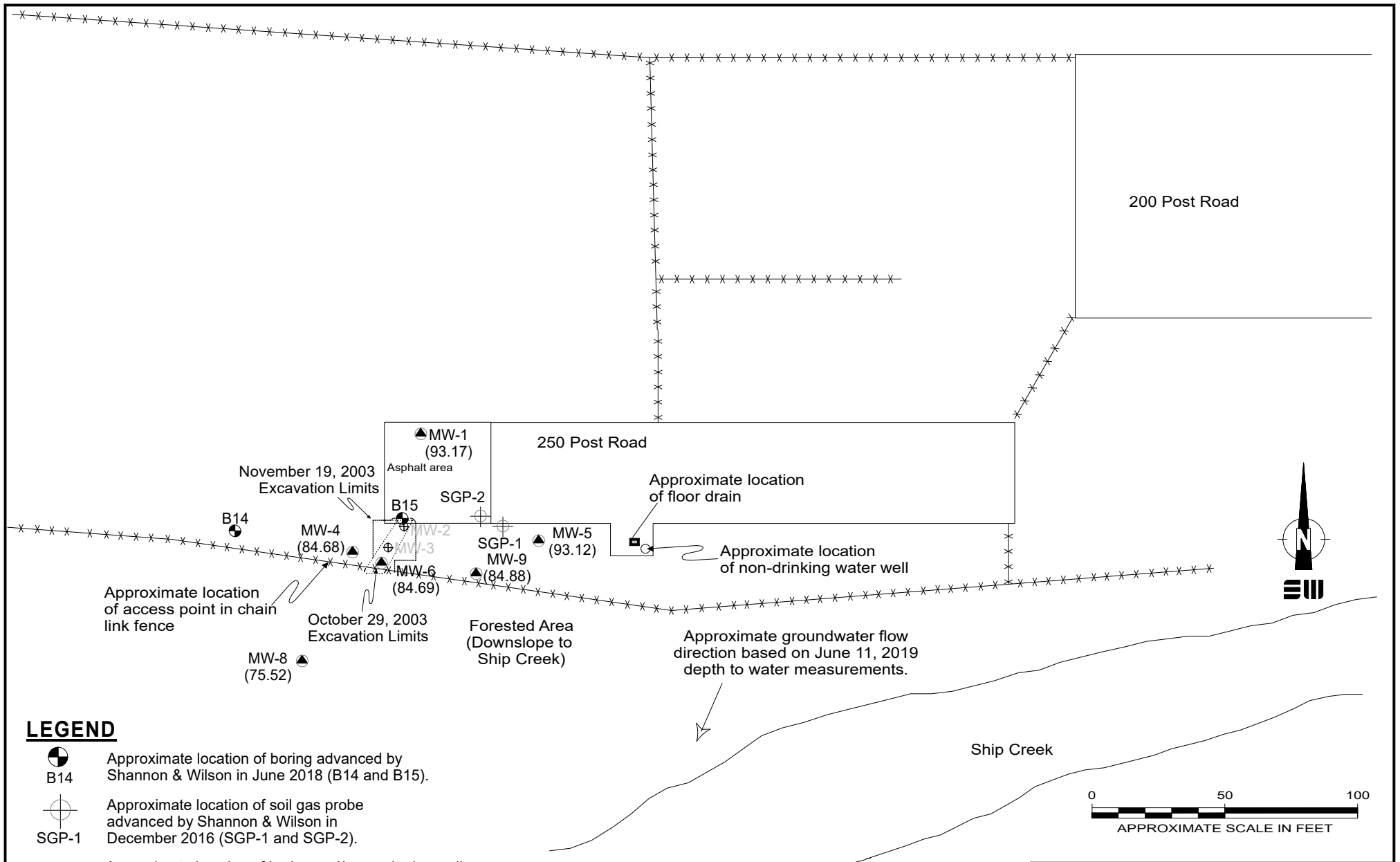
250 Post Road
Anchorage, Alaska

VICINITY MAP

July 2019 | 32-1-17800-004

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Fig. 1



LEGEND

B14 — Approximate location of boring advanced by Shannon & Wilson in June 2018 (B14 and B15).

SGP-1 — Approximate location of soil gas probe advanced by Shannon & Wilson in December 2016 (SGP-1 and SGP-2).

MW-1 (93.49) — Approximate location of boring and/or monitoring well well. Groundwater elevation based on June 11, 2019 water level measurements and June 2018 level-loop survey.

MW-2 — Approximate location of former Monitoring Well MW-2 removed during or following the October 2003 LRA.

X X — Approximate location of fence

250 Post Road
Anchorage, Alaska

SITE PLAN

July 2019 — 32-1-17800-004

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

Fig. 2

APPENDIX A

FIELD NOTES

LOW-FLOW WATER SAMPLING LOG

Shannon & Wilson, Inc.

Job No: 32-1-17800-004 Location: 250 Post Rd. Weather: 63°F Sunny

Well No.: MW-1

Date: 6/11/19 Time Started: 11:26 Time Completed: 12:10

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 9:13 Date of Depth Measurement: 6/11/19

Measuring Point (MP): Top ~~of PVC Casing~~ / Top of Steel Protective Casing / Other:

Diameter of Casing: 2" Well Screen Interval: —

Total Depth of Well Below MP: 12.51 Product Thickness, if noted: —

Depth-to-Water (DTW) Below MP: 5.81

Water Column in Well: 6.7 (Total Depth of Well Below MP - DTW Below MP)

Gallons per foot: 0.16

Gallons in Well: 1.07 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/11/19 Time Started: 11:34 Time Completed: 12:02

Three Well Volumes: 3.22 (Gallons)

Gallons Purged: 2.0 Depth of Pump (top 2 ft of water column, within screen interval): 7.8

Max. Drawdown (generally 0.3 ft): 0.02 Pump Rate: 0.3

Well Purged Dry: Yes ☐ No ■ (If yes, use Well Purged Dry Log)

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
11:38	0.4	0.3	5.84	0.03	7.64	662	6.00	36.5	36.51
11:41	0.6	0.3	5.83	0.02	7.28	660	6.01	35.4	37.27
11:44	0.9	0.3	5.83	0.02	6.84	646	6.02	34.1	36.08
11:47	1.2	0.3	5.83	0.02	6.67	631	6.04	33.4	24.13
11:50	1.5	0.3	5.83	0.02	6.60	617	6.06	32.9	8.95
11:53	1.7	0.3	5.83	0.02	6.55	606	6.08	32.6	8.01
11:56	2.0	0.3	5.83	0.02	6.52	~~6.09~~ 599	6.09	31.7	5.68

Sample 11:58

SAMPLING DATA

Odor: none Color: slight tan tint to clear

Sample Designation: 17800-MW-1 Time / Date: 6/11/19 11:58

QC Sample Designation: / Time / Date: /

QA Sample Designation: / Time / Date: /

Evacuation Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: mini

Sampling Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: mini

Water Quality Instruments Used/Manufacturer/Model Number YSI 556 & turb

Calibration Info (Time, Ranges, etc) 8:00 6/11/19

Remarks:

Sampling Personnel: SKH

WELL CASING VOLUMES (GAL/FT): 1" = 0.04 2" = 0.16 4" = 0.65 6" = 1.46

ANNULAR SPACE VOLUME (GAL/FT): 4" casing and 2" well = 0.23

Shannon & Wilson, Inc.

LOW-FLOW WATER SAMPLING LOG

Job No: 32-1-17800-004 Location: 250 Post Rd Weather: 60's sunny
Well No.: MW-4
Date: 6/11/19 Time Started: 12:11 Time Completed: 12:55

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 9:16 Date of Depth Measurement: 6/11/19
Measuring Point (MP): Top of PVC Casing / Top of Steel Protective Casing / Other:
Diameter of Casing: 2" Well Screen Interval: —
Total Depth of Well Below MP: 18.49 Product Thickness, if noted: —
Depth-to-Water (DTW) Below MP: 13.02
Water Column in Well: 5.47 (Total Depth of Well Below MP - DTW Below MP)
Gallons per foot: 0.16
Gallons in Well: 0.88 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/11/19 Time Started: 12:18 Time Completed: 12:40
Three Well Volumes: 2.63 (Gallons)
Gallons Purged: 2.3 Depth of Pump (top 2 ft of water column, within screen interval): 14 ft
Max. Drawdown (generally 0.3 ft): 0.03 Pump Rate: 0.5

Well Purged Dry: Yes ☐ No ■ (If yes, use Well Purged Dry Log)

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
12:21	0.3	0.5	13.05	0.03	5.25	535	6.06	41.9	309.2
12:24	0.8	0.5	13.05	0.03	4.71	534	5.96	47.0	188.8
12:27	1.2	0.5	13.05	0.03	4.62	605	6.04	41.1	109.5
12:30	1.6	0.5	13.05	0.03	4.55	606	6.05	39.8	71.53
12:33	2.0	0.5	13.05	0.03	4.57	605	6.07	37.7	38.71
12:36	2.3	0.5	13.05	0.03	4.59	605	6.08	36.8	22.27

sample 12:38

SAMPLING DATA

Odor: none Color: tan/yellow
Sample Designation: ~~1006~~ 17800-MW-4 Time / Date: 6/11/19 12:38
QC Sample Designation: / Time / Date: /
QA Sample Designation: / Time / Date: /

Evacuation Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: Mini
Sampling Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: Mini
Water Quality Instruments Used/Manufacturer/Model Number YSI 556 & turb
Calibration Info (Time, Ranges, etc) 8:00 6/11/19
Remarks:

Sampling Personnel: JKH

WELL CASING VOLUMES (GAL/FT): 1" = 0.04 2" = 0.16 4" = 0.65 6" = 1.46
ANNULAR SPACE VOLUME (GAL/FT): 4" casing and 2" well = 0.23

Shannon & Wilson, Inc.

LOW-FLOW WATER SAMPLING LOG

Job No: 32-1-17800-004 Location: 250 Post Rd Weather: 50's sunny
Well No.: MW-5
Date: 6/11/19 Time Started: 10:50 Time Completed: 11:25

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 9:11 Date of Depth Measurement: 6/11/19
Measuring Point (MP): (Top of PVC Casing) / Top of Steel Protective Casing / Other:
Diameter of Casing: 2" Well Screen Interval: —
Total Depth of Well Below MP: 12.10 Product Thickness, if noted: —
Depth-to-Water (DTW) Below MP: 6.46
Water Column in Well: 5.64 (Total Depth of Well Below MP - DTW Below MP)
Gallons per foot: 0.16
Gallons in Well: 0.90 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/11/19 Time Started: 10:54 Time Completed: 11:16
Three Well Volumes: 2.71 (Gallons)
Gallons Purged: 1.4 Depth of Pump (top 2 ft of water column, within screen interval): 8 ft
Max. Drawdown (generally 0.3 ft): 0.33 Pump Rate: 0.2

Well Purged Dry: Yes ☐ No ■ (If yes, use Well Purged Dry Log)

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
10:58	0.4	0.4	6.79	0.33	6.33	501	5.92	86.8	17.31
11:01	0.7	0.2	6.55	0.19	6.26	500	5.85	85.6	6.58
11:04	1.0	0.4	6.74	0.28	6.40	500	5.84	78.4	3.54
11:08	1.2	0.2	6.68	0.22	6.33	502	5.84	76.9	2.74
11:11	1.4	0.2	6.67	0.21	6.46	500	5.88	73.3	2.20
		sample	11:12						

SAMPLING DATA

Odor: none Color: clear
Sample Designation: 17800-MW-5 Time / Date: 6/11/19 11:12
QC Sample Designation: — Time / Date: —
QA Sample Designation: — Time / Date: —

Evacuation Method: Bladder Pump / (Submersible Pump) / Grundfos Pump / SS Geo Pump / Other: Mini
Sampling Method: Bladder Pump / (Submersible Pump) / Grundfos Pump / SS Geo Pump / Other: Mini
Water Quality Instruments Used/Manufacturer/Model Number YSI 556, turb
Calibration Info (Time, Ranges, etc) 8:00 6/11/19
Remarks:

Sampling Personnel: JKH

WELL CASING VOLUMES (GAL/FT): 1" = 0.04 2" = 0.16 4" = 0.65 6" = 1.46
ANNULAR SPACE VOLUME (GAL/FT): 4" casing and 2" well = 0.23

LOW-FLOW WATER SAMPLING LOG

Shannon & Wilson, Inc.

Job No: 32-1-17800-004 Location: 250 Post Rd Weather: 60's sunny

Well No.: MW-6

Date: 6/11/19 Time Started: 12:55 Time Completed: 13:30

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 9:18 Date of Depth Measurement: 6/11/19

Measuring Point (MP): Top of PVC Casing / Top of Steel Protective Casing / Other:

Diameter of Casing: ~~9:18~~ 2" Well Screen Interval: —

Total Depth of Well Below MP: 16.32 Product Thickness, if noted: —

Depth-to-Water (DTW) Below MP: 13.38

Water Column in Well: 2.94 (Total Depth of Well Below MP - DTW Below MP)

Gallons per foot: 0.16

Gallons in Well: 0.47 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/11/19 Time Started: 13:00 Time Completed: 13:23

Three Well Volumes: 1.41 (Gallons)

Gallons Purged: 1.9 Depth of Pump (top 2 ft of water column, within screen interval): ~~14~~ JKH 14 ft

Max. Drawdown (generally 0.3 ft): 0.06 Pump Rate: 0.4

Well Purged Dry: Yes ☐ No ■ (If yes, use Well Purged Dry Log)

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
13:03	0.4	0.5	13.44	0.06	4.92	622	5.89	54.0	188.2
13:06	0.9	0.4	13.42	0.04	4.92	619	5.89	58.3	90.99
13:09	1.1	0.4	13.43	0.05	5.03	621	5.92	58.8	48.59
13:12	1.5	0.4	13.43	0.05	4.95	622	5.95	58.7	21.80
13:15	1.9	0.4	13.43	0.05	4.96	625	5.99	58.1	13.31
	Sample		13:17						

SAMPLING DATA

Odor: none Color: tan tr clear

Sample Designation: 17800-MW-6 Time / Date: 6/11/18 13:17

QC Sample Designation: 17800-MW-106 Time / Date: 6/11/18 13:47

QA Sample Designation: — Time / Date:

Evacuation Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: mini

Sampling Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: mini

Water Quality Instruments Used/Manufacturer/Model Number YSI 556, turb

Calibration Info (Time, Ranges, etc) 8:00 6/11/19

Remarks:

Sampling Personnel: JKH

WELL CASING VOLUMES (GAL/FT): 1" = 0.04 2" = 0.16 4" = 0.65 6" = 1.46

ANNULAR SPACE VOLUME (GAL/FT): 4" casing and 2" well = 0.23

Shannon & Wilson, Inc.

LOW-FLOW WATER SAMPLING LOG

Job No: 32-1-17800-004 Location: 250 Post Rd. Weather: Sunny 55°F
Well No.: MW-8
Date: 6/11/19 Time Started: 9:20 Time Completed: 9:58

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 9:05 Date of Depth Measurement: 6/11/19
Measuring Point (MP): Top of PVC Casing / Top of Steel Protective Casing / Other:
Diameter of Casing: 2" Well Screen Interval: —
Total Depth of Well Below MP: 16.50 Product Thickness, if noted: —
Depth-to-Water (DTW) Below MP: 4.56
Water Column in Well: 11.94 (Total Depth of Well Below MP - DTW Below MP)
Gallons per foot: 0.16
Gallons in Well: 1.91 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/11/19 Time Started: 9:27 Time Completed: 9:46
Three Well Volumes: 5.73 (Gallons)
Gallons Purged: 2.6 Depth of Pump (top 2 ft of water column, within screen interval): 5.7'
Max. Drawdown (generally 0.3 ft): 0.04 Pump Rate: 0.5

Well Purged Dry: Yes ☐ No ■ (If yes, use Well Purged Dry Log)

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
9:31	0.6	0.5	4.60	0.04	7.01	555	6.09	112.1	0.93
9:34	1.1	0.5	4.60	0.04	6.70	554	6.07	108.1	0.42
9:37	1.6	0.5	4.60	0.04	6.57	557	6.07	103.0	0.01
9:40	2.0	0.5	4.60	0.04	6.50	558	6.08	97.4	0.02
9:43	2.6	0.5	4.60	0.04	6.47	558	6.09	91.6	0.00
		Sample		9:45					

SAMPLING DATA

Odor: none Color: clear
Sample Designation: 17800 – MW-8 Time / Date: 6/11/19 9:45
QC Sample Designation: / Time / Date: /
QA Sample Designation: / Time / Date: /

Evacuation Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: mini
Sampling Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: mini
Water Quality Instruments Used/Manufacturer/Model Number YSI #556, Turb
Calibration Info (Time, Ranges, etc) 8:00 6/11/19
Remarks:

Sampling Personnel: JCH

WELL CASING VOLUMES (GAL/FT): 1" = 0.04 2" = 0.16 4" = 0.65 6" = 1.46
ANNULAR SPACE VOLUME (GAL/FT): 4" casing and 2" well = 0.23

LOW-FLOW WATER SAMPLING LOG

Shannon & Wilson, Inc.

Job No: 32-1-17800-004 Location: 250 Post Rd, Weather: 50's Sunny

Well No.: MW-9

Date: 6/11/19 Time Started: 9:59 Time Completed: 10:45

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 9:09 Date of Depth Measurement: 6/11/19

Measuring Point (MP): Top of PVC Casing / Top of Steel Protective Casing / Other:

Diameter of Casing: 2" Well Screen Interval:

Total Depth of Well Below MP: 20.22 Product Thickness, if noted: —

Depth-to-Water (DTW) Below MP: 14.32

Water Column in Well: 5.90 (Total Depth of Well Below MP - DTW Below MP)

Gallons per foot: 0.16

Gallons in Well: 0.94 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/11/19 Time Started: 10:07 Time Completed: 10:35

Three Well Volumes: 2.83 (Gallons)

Gallons Purged: 2.6 Depth of Pump (top 2 ft of water column, within screen interval): 16 ft

Max. Drawdown (generally 0.3 ft): 0.20 Pump Rate: 0.5

Well Purged Dry: Yes ☐ No ■ (If yes, use Well Purged Dry Log)

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
10:11	0.5	0.5	14.50	0.18	5.72	560	5.81	87.2	178.7
10:14	0.9	0.5	14.48	0.16	5.48	559	5.82	84.4	83.55
10:17	1.1	0.5	14.47	0.15	5.64	558	5.84	81.3	37.92
10:20	1.4	0.5	14.52	0.20	5.78	556	5.87	78.6	16.35
10:25	2.0	0.4	14.50	0.18	5.48	556	5.91	70.4	5.18
10:28	2.3	0.4	14.50	0.18	5.52	556	5.92	68.5	3.07
10:31	2.6	0.4	14.49	0.17	5.50	556	5.95	64.5	1.77

sample 10:33

SAMPLING DATA

Odor: none Color: orange with particles to clear

Sample Designation: 17800-MW-9 Time / Date: 6/11/19 10:33

QC Sample Designation: / Time / Date: /

QA Sample Designation: / Time / Date: /

Evacuation Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: Mini

Sampling Method: Bladder Pump / Submersible Pump / Grundfos Pump / SS Geo Pump / Other: Mini

Water Quality Instruments Used/Manufacturer/Model Number YSI 556 & Turb

Calibration Info (Time, Ranges, etc) @ 8:00 6/11/19

Remarks: ~10:20 pump clog, adjust ~~rate~~ flow & clog cleared

Sampling Personnel: JKH

WELL CASING VOLUMES (GAL/FT): 1" = 0.04 2" = 0.16 4" = 0.65 6" = 1.46

ANNULAR SPACE VOLUME (GAL/FT): 4" casing and 2" well = 0.23

32-1-17800

6/11/19 250 Post Road

8:00 calibrate YSI 556 & turb
8:47 arrive site, meet TWC &

Well	dtw	time
MW-8	4.56	9:05
MW-9	14.32	9:09
MW-5	6.46	9:11
MW-1	5.81	9:13
MW-4	13.02	9:16
MW-6	13.38	9:18

Place all purge water & decon water in 55 gallon drum on site with previous development water from MW-9

13:54 leave site
Unload gear at SWI & drop off samples SGS @ 15:19

APPENDIX B

RESULTS OF ANALYTICAL TESTING BY SGS NORTH AMERICA INC. OF ANCHORAGE, ALASKA

AND

ADEC LABORATORY DATA REVIEW CHECKLIST

Laboratory Report of Analysis

To: Shannon & Wilson, Inc.
5430 Fairbanks Street, Suite 3
Anchorage, AK 99518

Report Number: **1192979**

Client Project: **250 Post Road 32-1-17800-004**

Dear LeeAnne Osgood,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Jillian at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Jillian Janssen
SGS North America, Inc.
Environmental Services - Alaska Division
Project Manager

Jillian Janssen
2019.06.17
12:07:29 -08'00'

Jillian Janssen
Project Manager
Jillian.Janssen@sgs.com

Date

Case Narrative

SGS Client: **Shannon & Wilson, Inc.**
SGS Project: **1192979**
Project Name/Site: **250 Post Road 32-1-17800-004**
Project Contact: **LeeAnne Osgood**

Refer to sample receipt form for information on sample condition.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Print Date: 06/14/2019 1:21:53PM

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
17800-MW-1	1192979001	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-MW-4	1192979002	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-MW-5	1192979003	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-MW-6	1192979004	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-MW-8	1192979005	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-MW-9	1192979006	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-MW-106	1192979007	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)
17800-TB	1192979008	06/11/2019	06/11/2019	Water (Surface, Eff., Ground)

Method	Method Description
SW8260C	Volatile Organic Compounds (W) FULL

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Detectable Results Summary

Client Sample ID: **17800-MW-1**
Lab Sample ID: 1192979001
Volatile GC/MS

Parameter	Result	Units
1,1,1-Trichloroethane	0.910J	ug/L
1,1-Dichloroethane	1.21	ug/L

Client Sample ID: **17800-MW-4**
Lab Sample ID: 1192979002
Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethane	1.36	ug/L
1,2,4-Trichlorobenzene	9.83	ug/L
1,3-Dichlorobenzene	7.28	ug/L
1,4-Dichlorobenzene	8.14	ug/L
Trichloroethene	1.46	ug/L

Client Sample ID: **17800-MW-5**
Lab Sample ID: 1192979003
Volatile GC/MS

Parameter	Result	Units
1,1,1-Trichloroethane	1.26	ug/L
1,1-Dichloroethane	0.649J	ug/L

Client Sample ID: **17800-MW-6**
Lab Sample ID: 1192979004
Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethane	0.940J	ug/L
1,2,3-Trichlorobenzene	0.500J	ug/L
1,2,4-Trichlorobenzene	8.26	ug/L
1,2-Dichlorobenzene	0.920J	ug/L
1,3-Dichlorobenzene	6.68	ug/L
1,4-Dichlorobenzene	7.90	ug/L
cis-1,2-Dichloroethene	0.880J	ug/L
Trichloroethene	10.9	ug/L

Client Sample ID: **17800-MW-8**
Lab Sample ID: 1192979005
Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethane	0.550J	ug/L
1,2,4-Trichlorobenzene	0.600J	ug/L
1,3-Dichlorobenzene	0.400J	ug/L
1,4-Dichlorobenzene	0.480J	ug/L

Client Sample ID: **17800-MW-9**
Lab Sample ID: 1192979006
Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethane	1.66	ug/L
1,2,4-Trichlorobenzene	1.32	ug/L
1,3-Dichlorobenzene	1.38	ug/L
1,4-Dichlorobenzene	1.41	ug/L

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Detectable Results Summary

Client Sample ID: **17800-MW-106**
Lab Sample ID: 1192979007

Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethane	0.890J	ug/L
1,2,3-Trichlorobenzene	0.500J	ug/L
1,2,4-Trichlorobenzene	8.00	ug/L
1,2-Dichlorobenzene	0.870J	ug/L
1,3-Dichlorobenzene	6.43	ug/L
1,4-Dichlorobenzene	7.53	ug/L
cis-1,2-Dichloroethene	0.860J	ug/L
Trichloroethene	11.3	ug/L

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Results of **17800-MW-1**

Client Sample ID: **17800-MW-1**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979001
Lab Project ID: 1192979

Collection Date: 06/11/19 11:58
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
1,1,1-Trichloroethane	0.910	J	1.00	0.310	ug/L	1		06/12/19 21:17
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/12/19 21:17
1,1-Dichloroethane	1.21		1.00	0.310	ug/L	1		06/12/19 21:17
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/12/19 21:17
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
Benzene	0.200	U	0.400	0.120	ug/L	1		06/12/19 21:17
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/12/19 21:17
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17

J flagging is activated

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Results of **17800-MW-1**

Client Sample ID: **17800-MW-1**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979001
Lab Project ID: 1192979

Collection Date: 06/11/19 11:58
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:17
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/12/19 21:17
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/12/19 21:17
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Styrene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Toluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:17
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:17
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/12/19 21:17
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/12/19 21:17
Surrogates								
1,2-Dichloroethane-D4 (surr)	106		81-118		%	1		06/12/19 21:17
4-Bromofluorobenzene (surr)	100		85-114		%	1		06/12/19 21:17
Toluene-d8 (surr)	100		89-112		%	1		06/12/19 21:17

Print Date: 06/14/2019 1:21:58PM

J flagging is activated

Results of **17800-MW-1**

Client Sample ID: **17800-MW-1**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979001
Lab Project ID: 1192979

Collection Date: 06/11/19 11:58
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/12/19 21:17
Container ID: 1192979001-A

Prep Batch: VXX34241
Prep Method: SW5030B
Prep Date/Time: 06/12/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **17800-MW-4**

Client Sample ID: **17800-MW-4**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979002
Lab Project ID: 1192979

Collection Date: 06/11/19 12:38
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/12/19 21:32
1,1-Dichloroethane	1.36		1.00	0.310	ug/L	1		06/12/19 21:32
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,2,4-Trichlorobenzene	9.83		1.00	0.310	ug/L	1		06/12/19 21:32
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/12/19 21:32
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
1,3-Dichlorobenzene	7.28		1.00	0.310	ug/L	1		06/12/19 21:32
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
1,4-Dichlorobenzene	8.14		0.500	0.150	ug/L	1		06/12/19 21:32
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
Benzene	0.200	U	0.400	0.120	ug/L	1		06/12/19 21:32
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/12/19 21:32
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32

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Results of **17800-MW-4**

Client Sample ID: **17800-MW-4**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979002
Lab Project ID: 1192979

Collection Date: 06/11/19 12:38
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:32
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/12/19 21:32
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/12/19 21:32
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Styrene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Toluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Trichloroethene	1.46		1.00	0.310	ug/L	1		06/12/19 21:32
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:32
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:32
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/12/19 21:32
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/12/19 21:32
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		06/12/19 21:32
4-Bromofluorobenzene (surr)	99.8		85-114		%	1		06/12/19 21:32
Toluene-d8 (surr)	99.6		89-112		%	1		06/12/19 21:32

J flagging is activated

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Results of **17800-MW-4**

Client Sample ID: **17800-MW-4**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979002
Lab Project ID: 1192979

Collection Date: 06/11/19 12:38
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/12/19 21:32
Container ID: 1192979002-A

Prep Batch: VXX34241
Prep Method: SW5030B
Prep Date/Time: 06/12/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **17800-MW-5**

Client Sample ID: **17800-MW-5**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979003
Lab Project ID: 1192979

Collection Date: 06/11/19 11:12
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
1,1,1-Trichloroethane	1.26		1.00	0.310	ug/L	1		06/12/19 21:48
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/12/19 21:48
1,1-Dichloroethane	0.649	J	1.00	0.310	ug/L	1		06/12/19 21:48
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/12/19 21:48
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
Benzene	0.200	U	0.400	0.120	ug/L	1		06/12/19 21:48
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/12/19 21:48
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48

Print Date: 06/14/2019 1:21:58PM

J flagging is activated

Results of **17800-MW-5**

Client Sample ID: **17800-MW-5**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979003
Lab Project ID: 1192979

Collection Date: 06/11/19 11:12
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 21:48
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/12/19 21:48
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/12/19 21:48
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Styrene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Toluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 21:48
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/12/19 21:48
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/12/19 21:48
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/12/19 21:48
Surrogates								
1,2-Dichloroethane-D4 (surr)	104		81-118		%	1		06/12/19 21:48
4-Bromofluorobenzene (surr)	100		85-114		%	1		06/12/19 21:48
Toluene-d8 (surr)	99.7		89-112		%	1		06/12/19 21:48

J flagging is activated

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Results of **17800-MW-5**

Client Sample ID: **17800-MW-5**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979003
Lab Project ID: 1192979

Collection Date: 06/11/19 11:12
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/12/19 21:48
Container ID: 1192979003-A

Prep Batch: VXX34241
Prep Method: SW5030B
Prep Date/Time: 06/12/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

SGS North America Inc.
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Results of **17800-MW-6**

Client Sample ID: **17800-MW-6**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979004
Lab Project ID: 1192979

Collection Date: 06/11/19 13:17
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/12/19 22:03
1,1-Dichloroethane	0.940	J	1.00	0.310	ug/L	1		06/12/19 22:03
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,2,3-Trichlorobenzene	0.500	J	1.00	0.310	ug/L	1		06/12/19 22:03
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,2,4-Trichlorobenzene	8.26		1.00	0.310	ug/L	1		06/12/19 22:03
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/12/19 22:03
1,2-Dichlorobenzene	0.920	J	1.00	0.310	ug/L	1		06/12/19 22:03
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
1,3-Dichlorobenzene	6.68		1.00	0.310	ug/L	1		06/12/19 22:03
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
1,4-Dichlorobenzene	7.90		0.500	0.150	ug/L	1		06/12/19 22:03
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
Benzene	0.200	U	0.400	0.120	ug/L	1		06/12/19 22:03
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/12/19 22:03
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03

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Results of **17800-MW-6**

Client Sample ID: **17800-MW-6**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979004
Lab Project ID: 1192979

Collection Date: 06/11/19 13:17
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
cis-1,2-Dichloroethene	0.880	J	1.00	0.310	ug/L	1		06/12/19 22:03
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:03
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/12/19 22:03
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/12/19 22:03
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Styrene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Toluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Trichloroethene	10.9		1.00	0.310	ug/L	1		06/12/19 22:03
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:03
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:03
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/12/19 22:03
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/12/19 22:03
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		06/12/19 22:03
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/12/19 22:03
Toluene-d8 (surr)	101		89-112		%	1		06/12/19 22:03

Print Date: 06/14/2019 1:21:58PM

J flagging is activated

Results of **17800-MW-6**

Client Sample ID: **17800-MW-6**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979004
Lab Project ID: 1192979

Collection Date: 06/11/19 13:17
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/12/19 22:03
Container ID: 1192979004-A

Prep Batch: VXX34241
Prep Method: SW5030B
Prep Date/Time: 06/12/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

J flagging is activated

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Results of **17800-MW-8**

Client Sample ID: **17800-MW-8**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979005
Lab Project ID: 1192979

Collection Date: 06/11/19 09:45
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/12/19 22:18
1,1-Dichloroethane	0.550	J	1.00	0.310	ug/L	1		06/12/19 22:18
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,2,4-Trichlorobenzene	0.600	J	1.00	0.310	ug/L	1		06/12/19 22:18
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/12/19 22:18
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
1,3-Dichlorobenzene	0.400	J	1.00	0.310	ug/L	1		06/12/19 22:18
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
1,4-Dichlorobenzene	0.480	J	0.500	0.150	ug/L	1		06/12/19 22:18
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
Benzene	0.200	U	0.400	0.120	ug/L	1		06/12/19 22:18
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/12/19 22:18
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18

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Results of **17800-MW-8**

Client Sample ID: **17800-MW-8**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979005
Lab Project ID: 1192979

Collection Date: 06/11/19 09:45
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/12/19 22:18
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/12/19 22:18
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/12/19 22:18
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Styrene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Toluene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/12/19 22:18
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/12/19 22:18
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/12/19 22:18
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/12/19 22:18
Surrogates								
1,2-Dichloroethane-D4 (surr)	105		81-118		%	1		06/12/19 22:18
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/12/19 22:18
Toluene-d8 (surr)	98.4		89-112		%	1		06/12/19 22:18

Print Date: 06/14/2019 1:21:58PM

J flagging is activated

Results of **17800-MW-8**

Client Sample ID: **17800-MW-8**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979005
Lab Project ID: 1192979

Collection Date: 06/11/19 09:45
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/12/19 22:18
Container ID: 1192979005-A

Prep Batch: VXX34241
Prep Method: SW5030B
Prep Date/Time: 06/12/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **17800-MW-9**

Client Sample ID: **17800-MW-9**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979006
Lab Project ID: 1192979

Collection Date: 06/11/19 10:33
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/13/19 15:59
1,1-Dichloroethane	1.66		1.00	0.310	ug/L	1		06/13/19 15:59
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,2,4-Trichlorobenzene	1.32		1.00	0.310	ug/L	1		06/13/19 15:59
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/13/19 15:59
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
1,3-Dichlorobenzene	1.38		1.00	0.310	ug/L	1		06/13/19 15:59
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
1,4-Dichlorobenzene	1.41		0.500	0.150	ug/L	1		06/13/19 15:59
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
Benzene	0.200	U	0.400	0.120	ug/L	1		06/13/19 15:59
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/13/19 15:59
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59

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Results of **17800-MW-9**

Client Sample ID: **17800-MW-9**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979006
Lab Project ID: 1192979

Collection Date: 06/11/19 10:33
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:59
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/13/19 15:59
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/13/19 15:59
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Styrene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Toluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:59
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:59
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/13/19 15:59
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/13/19 15:59
Surrogates								
1,2-Dichloroethane-D4 (surr)	107		81-118		%	1		06/13/19 15:59
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/13/19 15:59
Toluene-d8 (surr)	101		89-112		%	1		06/13/19 15:59

Print Date: 06/14/2019 1:21:58PM

J flagging is activated

Results of **17800-MW-9**

Client Sample ID: **17800-MW-9**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979006
Lab Project ID: 1192979

Collection Date: 06/11/19 10:33
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19039
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/13/19 15:59
Container ID: 1192979006-A

Prep Batch: VXX34252
Prep Method: SW5030B
Prep Date/Time: 06/13/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **17800-MW-106**

Client Sample ID: **17800-MW-106**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979007
Lab Project ID: 1192979

Collection Date: 06/11/19 13:47
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/13/19 16:15
1,1-Dichloroethane	0.890	J	1.00	0.310	ug/L	1		06/13/19 16:15
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,2,3-Trichlorobenzene	0.500	J	1.00	0.310	ug/L	1		06/13/19 16:15
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,2,4-Trichlorobenzene	8.00		1.00	0.310	ug/L	1		06/13/19 16:15
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/13/19 16:15
1,2-Dichlorobenzene	0.870	J	1.00	0.310	ug/L	1		06/13/19 16:15
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
1,3-Dichlorobenzene	6.43		1.00	0.310	ug/L	1		06/13/19 16:15
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
1,4-Dichlorobenzene	7.53		0.500	0.150	ug/L	1		06/13/19 16:15
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
Benzene	0.200	U	0.400	0.120	ug/L	1		06/13/19 16:15
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/13/19 16:15
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15

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Results of **17800-MW-106**

Client Sample ID: **17800-MW-106**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979007
Lab Project ID: 1192979

Collection Date: 06/11/19 13:47
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
cis-1,2-Dichloroethene	0.860	J	1.00	0.310	ug/L	1		06/13/19 16:15
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 16:15
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/13/19 16:15
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/13/19 16:15
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Styrene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Toluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Trichloroethene	11.3		1.00	0.310	ug/L	1		06/13/19 16:15
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 16:15
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/13/19 16:15
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/13/19 16:15
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/13/19 16:15
Surrogates								
1,2-Dichloroethane-D4 (surr)	103		81-118		%	1		06/13/19 16:15
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/13/19 16:15
Toluene-d8 (surr)	101		89-112		%	1		06/13/19 16:15

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Results of **17800-MW-106**

Client Sample ID: **17800-MW-106**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979007
Lab Project ID: 1192979

Collection Date: 06/11/19 13:47
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19039
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/13/19 16:15
Container ID: 1192979007-A

Prep Batch: VXX34252
Prep Method: SW5030B
Prep Date/Time: 06/13/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **17800-TB**

Client Sample ID: **17800-TB**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979008
Lab Project ID: 1192979

Collection Date: 06/11/19 09:00
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/13/19 15:14
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/13/19 15:14
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
Benzene	0.200	U	0.400	0.120	ug/L	1		06/13/19 15:14
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Bromomethane	2.50	U	5.00	1.50	ug/L	1		06/13/19 15:14
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14

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Results of **17800-TB**

Client Sample ID: **17800-TB**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979008
Lab Project ID: 1192979

Collection Date: 06/11/19 09:00
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/13/19 15:14
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		06/13/19 15:14
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/13/19 15:14
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Styrene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Toluene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/13/19 15:14
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/13/19 15:14
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/13/19 15:14
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/13/19 15:14
Surrogates								
1,2-Dichloroethane-D4 (surr)	106		81-118		%	1		06/13/19 15:14
4-Bromofluorobenzene (surr)	100		85-114		%	1		06/13/19 15:14
Toluene-d8 (surr)	100		89-112		%	1		06/13/19 15:14

Print Date: 06/14/2019 1:21:58PM

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Results of **17800-TB**

Client Sample ID: **17800-TB**
Client Project ID: **250 Post Road 32-1-17800-004**
Lab Sample ID: 1192979008
Lab Project ID: 1192979

Collection Date: 06/11/19 09:00
Received Date: 06/11/19 15:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS19039
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 06/13/19 15:14
Container ID: 1192979008-A

Prep Batch: VXX34252
Prep Method: SW5030B
Prep Date/Time: 06/13/19 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 06/14/2019 1:21:58PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1794926 [VXX/34241]
Blank Lab ID: 1512571

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.500U	1.00	0.310	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.200U	0.400	0.120	ug/L
1,1-Dichloroethane	0.500U	1.00	0.310	ug/L
1,1-Dichloroethene	0.500U	1.00	0.310	ug/L
1,1-Dichloropropene	0.500U	1.00	0.310	ug/L
1,2,3-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/L
1,2,4-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,4-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,2-Dibromo-3-chloropropane	5.00U	10.0	3.10	ug/L
1,2-Dibromoethane	0.0375U	0.0750	0.0180	ug/L
1,2-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.500U	1.00	0.310	ug/L
1,3,5-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,3-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.500U	1.00	0.310	ug/L
2-Butanone (MEK)	5.00U	10.0	3.10	ug/L
2-Chlorotoluene	0.500U	1.00	0.310	ug/L
2-Hexanone	5.00U	10.0	3.10	ug/L
4-Chlorotoluene	0.500U	1.00	0.310	ug/L
4-Isopropyltoluene	0.500U	1.00	0.310	ug/L
4-Methyl-2-pentanone (MIBK)	5.00U	10.0	3.10	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Bromobenzene	0.500U	1.00	0.310	ug/L
Bromochloromethane	0.500U	1.00	0.310	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.500U	1.00	0.310	ug/L
Bromomethane	2.50U	5.00	1.50	ug/L
Carbon disulfide	5.00U	10.0	3.10	ug/L
Carbon tetrachloride	0.500U	1.00	0.310	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.500U	1.00	0.310	ug/L

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Method Blank

Blank ID: MB for HBN 1794926 [VXX/34241]
Blank Lab ID: 1512571

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	0.500U	1.00	0.310	ug/L
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L
Dibromomethane	0.500U	1.00	0.310	ug/L
Dichlorodifluoromethane	0.500U	1.00	0.310	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
Freon-113	5.00U	10.0	3.10	ug/L
Hexachlorobutadiene	0.500U	1.00	0.310	ug/L
Isopropylbenzene (Cumene)	0.500U	1.00	0.310	ug/L
Methylene chloride	2.50U	5.00	1.00	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
Naphthalene	0.500U	1.00	0.310	ug/L
n-Butylbenzene	0.500U	1.00	0.310	ug/L
n-Propylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
sec-Butylbenzene	0.500U	1.00	0.310	ug/L
Styrene	0.500U	1.00	0.310	ug/L
tert-Butylbenzene	0.500U	1.00	0.310	ug/L
Tetrachloroethene	0.500U	1.00	0.310	ug/L
Toluene	0.500U	1.00	0.310	ug/L
trans-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
trans-1,3-Dichloropropene	0.500U	1.00	0.310	ug/L
Trichloroethene	0.500U	1.00	0.310	ug/L
Trichlorofluoromethane	0.500U	1.00	0.310	ug/L
Vinyl acetate	5.00U	10.0	3.10	ug/L
Vinyl chloride	0.0750U	0.150	0.0500	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	104	81-118		%
4-Bromofluorobenzene (surr)	98.9	85-114		%
Toluene-d8 (surr)	101	89-112		%

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Method Blank

Blank ID: MB for HBN 1794926 [VXX/34241]
Blank Lab ID: 1512571

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Instrument: Agilent 7890-75MS
Analyst: FDR
Analytical Date/Time: 6/12/2019 7:46:00PM

Prep Batch: VXX34241
Prep Method: SW5030B
Prep Date/Time: 6/12/2019 12:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 06/14/2019 1:21:59PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192979 [VXX34241]
Blank Spike Lab ID: 1512572
Date Analyzed: 06/12/2019 20:01

Spike Duplicate ID: LCSD for HBN 1192979 [VXX34241]
Spike Duplicate Lab ID: 1512573
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	30	32.8	109	30	32.1	107	(78-124)	2.40	(< 20)
1,1,1-Trichloroethane	30	31.9	106	30	31.7	106	(74-131)	0.41	(< 20)
1,1,2,2-Tetrachloroethane	30	30.2	101	30	30.5	102	(71-121)	1.10	(< 20)
1,1,2-Trichloroethane	30	31.9	106	30	31.1	104	(80-119)	2.70	(< 20)
1,1-Dichloroethane	30	31.0	103	30	30.6	102	(77-125)	1.20	(< 20)
1,1-Dichloroethene	30	30.4	101	30	30.2	101	(71-131)	0.53	(< 20)
1,1-Dichloropropene	30	32.0	107	30	31.7	106	(79-125)	0.91	(< 20)
1,2,3-Trichlorobenzene	30	25.8	86	30	26.8	89	(69-129)	3.80	(< 20)
1,2,3-Trichloropropane	30	29.8	99	30	30.7	102	(73-122)	3.30	(< 20)
1,2,4-Trichlorobenzene	30	29.3	98	30	30.0	100	(69-130)	2.30	(< 20)
1,2,4-Trimethylbenzene	30	32.7	109	30	32.4	108	(79-124)	0.92	(< 20)
1,2-Dibromo-3-chloropropane	30	28.8	96	30	29.6	99	(62-128)	2.70	(< 20)
1,2-Dibromoethane	30	31.7	106	30	31.2	104	(77-121)	1.60	(< 20)
1,2-Dichlorobenzene	30	31.0	103	30	31.0	103	(80-119)	0.00	(< 20)
1,2-Dichloroethane	30	31.2	104	30	30.9	103	(73-128)	0.87	(< 20)
1,2-Dichloropropane	30	31.6	105	30	31.5	105	(78-122)	0.35	(< 20)
1,3,5-Trimethylbenzene	30	32.5	108	30	33.0	110	(75-124)	1.50	(< 20)
1,3-Dichlorobenzene	30	31.9	106	30	32.6	109	(80-119)	2.20	(< 20)
1,3-Dichloropropane	30	31.4	105	30	30.9	103	(80-119)	1.60	(< 20)
1,4-Dichlorobenzene	30	31.5	105	30	32.6	109	(79-118)	3.50	(< 20)
2,2-Dichloropropane	30	31.7	106	30	31.9	106	(60-139)	0.38	(< 20)
2-Butanone (MEK)	90	90.0	100	90	89.1	99	(56-143)	1.10	(< 20)
2-Chlorotoluene	30	32.8	109	30	31.5	105	(79-122)	4.00	(< 20)
2-Hexanone	90	93.8	104	90	93.6	104	(57-139)	0.22	(< 20)
4-Chlorotoluene	30	32.1	107	30	32.1	107	(78-122)	0.22	(< 20)
4-Isopropyltoluene	30	32.7	109	30	32.9	110	(77-127)	0.64	(< 20)
4-Methyl-2-pentanone (MIBK)	90	93.5	104	90	91.6	102	(67-130)	2.00	(< 20)
Benzene	30	30.7	102	30	30.7	102	(79-120)	0.13	(< 20)
Bromobenzene	30	31.0	103	30	31.2	104	(80-120)	0.71	(< 20)
Bromochloromethane	30	31.2	104	30	31.1	104	(78-123)	0.13	(< 20)
Bromodichloromethane	30	32.0	107	30	31.5	105	(79-125)	1.30	(< 20)
Bromoform	30	32.1	107	30	31.5	105	(66-130)	1.90	(< 20)
Bromomethane	30	31.6	105	30	31.2	104	(53-141)	1.10	(< 20)
Carbon disulfide	45	44.8	100	45	44.0	98	(64-133)	1.80	(< 20)

Print Date: 06/14/2019 1:22:01PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192979 [VXX34241]
Blank Spike Lab ID: 1512572
Date Analyzed: 06/12/2019 20:01

Spike Duplicate ID: LCSD for HBN 1192979 [VXX34241]
Spike Duplicate Lab ID: 1512573
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	32.3	108	30	31.9	106	(72-136)	1.20	(< 20)
Chlorobenzene	30	30.4	101	30	29.8	99	(82-118)	2.20	(< 20)
Chloroethane	30	27.3	91	30	29.7	99	(60-138)	8.50	(< 20)
Chloroform	30	30.5	102	30	30.2	101	(79-124)	0.92	(< 20)
Chloromethane	30	31.2	104	30	30.6	102	(50-139)	1.90	(< 20)
cis-1,2-Dichloroethene	30	31.1	104	30	31.0	103	(78-123)	0.48	(< 20)
cis-1,3-Dichloropropene	30	32.3	108	30	31.9	106	(75-124)	1.20	(< 20)
Dibromochloromethane	30	32.5	108	30	31.6	105	(74-126)	2.80	(< 20)
Dibromomethane	30	31.3	104	30	31.2	104	(79-123)	0.38	(< 20)
Dichlorodifluoromethane	30	31.0	103	30	30.3	101	(32-152)	2.40	(< 20)
Ethylbenzene	30	32.4	108	30	31.9	106	(79-121)	1.50	(< 20)
Freon-113	45	45.3	101	45	44.7	99	(70-136)	1.50	(< 20)
Hexachlorobutadiene	30	30.3	101	30	31.1	104	(66-134)	2.60	(< 20)
Isopropylbenzene (Cumene)	30	32.9	110	30	32.8	109	(72-131)	0.30	(< 20)
Methylene chloride	30	32.0	107	30	31.6	105	(74-124)	1.30	(< 20)
Methyl-t-butyl ether	45	46.2	103	45	45.9	102	(71-124)	0.59	(< 20)
Naphthalene	30	27.7	92	30	29.0	97	(61-128)	4.90	(< 20)
n-Butylbenzene	30	32.3	108	30	32.6	109	(75-128)	0.92	(< 20)
n-Propylbenzene	30	32.5	108	30	33.0	110	(76-126)	1.60	(< 20)
o-Xylene	30	32.1	107	30	31.8	106	(78-122)	0.88	(< 20)
P & M -Xylene	60	63.6	106	60	63.4	106	(80-121)	0.38	(< 20)
sec-Butylbenzene	30	32.9	110	30	33.4	111	(77-126)	1.40	(< 20)
Styrene	30	31.7	106	30	32.3	108	(78-123)	1.90	(< 20)
tert-Butylbenzene	30	32.6	109	30	32.6	109	(78-124)	0.03	(< 20)
Tetrachloroethene	30	32.5	108	30	31.1	104	(74-129)	4.60	(< 20)
Toluene	30	29.7	99	30	28.7	96	(80-121)	3.40	(< 20)
trans-1,2-Dichloroethene	30	31.4	105	30	30.9	103	(75-124)	1.40	(< 20)
trans-1,3-Dichloropropene	30	30.5	102	30	30.0	100	(73-127)	1.60	(< 20)
Trichloroethene	30	31.7	106	30	31.2	104	(79-123)	1.40	(< 20)
Trichlorofluoromethane	30	29.6	99	30	29.9	100	(65-141)	0.91	(< 20)
Vinyl acetate	30	33.9	113	30	33.9	113	(54-146)	0.12	(< 20)
Vinyl chloride	30	29.6	99	30	28.8	96	(58-137)	2.70	(< 20)
Xylenes (total)	90	95.7	106	90	95.2	106	(79-121)	0.54	(< 20)

Print Date: 06/14/2019 1:22:01PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192979 [VXX34241]
Blank Spike Lab ID: 1512572
Date Analyzed: 06/12/2019 20:01

Spike Duplicate ID: LCSD for HBN 1192979 [VXX34241]
Spike Duplicate Lab ID: 1512573
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	98	98	30	98.8	99	(81-118)	0.81	
4-Bromofluorobenzene (surr)	30	99.9	100	30	101	101	(85-114)	1.00	
Toluene-d8 (surr)	30	101	101	30	101	101	(89-112)	0.63	

Batch Information

Analytical Batch: **VMS19029**
Analytical Method: **SW8260C**
Instrument: **Agilent 7890-75MS**
Analyst: **FDR**

Prep Batch: **VXX34241**
Prep Method: **SW5030B**
Prep Date/Time: **06/12/2019 00:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

Print Date: 06/14/2019 1:22:01PM

Matrix Spike Summary

Original Sample ID: 1512586
MS Sample ID: 1512587 MS
MSD Sample ID: 1512588 MSD

Analysis Date: 06/12/2019 21:02
Analysis Date: 06/13/2019 2:06
Analysis Date: 06/13/2019 2:21
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	0.250U	30.0	30.9	103	30.0	31.9	106	78-124	3.20	(< 20)
1,1,1-Trichloroethane	0.500U	30.0	32	107	30.0	32.0	107	74-131	0.09	(< 20)
1,1,2,2-Tetrachloroethane	0.250U	30.0	30.9	103	30.0	31.2	104	71-121	0.97	(< 20)
1,1,2-Trichloroethane	0.200U	30.0	30.9	103	30.0	31.2	104	80-119	0.90	(< 20)
1,1-Dichloroethane	0.500U	30.0	31.7	106	30.0	31.2	104	77-125	1.50	(< 20)
1,1-Dichloroethene	0.500U	30.0	30.9	103	30.0	30.1	100	71-131	2.70	(< 20)
1,1-Dichloropropene	0.500U	30.0	32	107	30.0	31.8	106	79-125	0.56	(< 20)
1,2,3-Trichlorobenzene	0.500U	30.0	27.5	92	30.0	27.7	92	69-129	0.58	(< 20)
1,2,3-Trichloropropane	0.500U	30.0	30.9	103	30.0	30.9	103	73-122	0.07	(< 20)
1,2,4-Trichlorobenzene	0.500U	30.0	30.3	101	30.0	30.2	101	69-130	0.23	(< 20)
1,2,4-Trimethylbenzene	0.500U	30.0	32.3	108	30.0	32.4	108	79-124	0.09	(< 20)
1,2-Dibromo-3-chloropropane	5.00U	30.0	30.2	101	30.0	31.1	104	62-128	3.00	(< 20)
1,2-Dibromoethane	0.0375U	30.0	30.7	102	30.0	31.5	105	77-121	2.40	(< 20)
1,2-Dichlorobenzene	0.500U	30.0	31	103	30.0	31.2	104	80-119	0.42	(< 20)
1,2-Dichloroethane	0.250U	30.0	31.5	105	30.0	31.5	105	73-128	0.03	(< 20)
1,2-Dichloropropane	0.500U	30.0	31.7	106	30.0	31.7	106	78-122	0.10	(< 20)
1,3,5-Trimethylbenzene	0.500U	30.0	32.7	109	30.0	32.6	109	75-124	0.34	(< 20)
1,3-Dichlorobenzene	0.500U	30.0	32	107	30.0	32.0	107	80-119	0.03	(< 20)
1,3-Dichloropropane	0.250U	30.0	31	103	30.0	31.4	105	80-119	1.40	(< 20)
1,4-Dichlorobenzene	0.250U	30.0	32.2	107	30.0	31.9	106	79-118	1.10	(< 20)
2,2-Dichloropropane	0.500U	30.0	29.2	97	30.0	29.7	99	60-139	1.50	(< 20)
2-Butanone (MEK)	5.00U	90.0	94.6	105	90.0	95.2	106	56-143	0.67	(< 20)
2-Chlorotoluene	0.500U	30.0	31.3	104	30.0	30.2	101	79-122	3.70	(< 20)
2-Hexanone	5.00U	90.0	98.3	109	90.0	98.6	110	57-139	0.22	(< 20)
4-Chlorotoluene	0.500U	30.0	32.2	107	30.0	32.2	107	78-122	0.12	(< 20)
4-Isopropyltoluene	0.500U	30.0	32.6	109	30.0	32.3	108	77-127	0.93	(< 20)
4-Methyl-2-pentanone (MIBK)	5.00U	90.0	95.9	107	90.0	96.0	107	67-130	0.15	(< 20)
Benzene	0.200U	30.0	30.8	103	30.0	31.7	106	79-120	2.80	(< 20)
Bromobenzene	0.500U	30.0	31.5	105	30.0	31.2	104	80-120	0.86	(< 20)
Bromochloromethane	0.500U	30.0	31.4	105	30.0	31.3	104	78-123	0.32	(< 20)
Bromodichloromethane	0.250U	30.0	31.6	105	30.0	31.7	106	79-125	0.28	(< 20)
Bromoform	0.500U	30.0	30.9	103	30.0	31.8	106	66-130	3.10	(< 20)
Bromomethane	2.50U	30.0	25.6	85	30.0	28.2	94	53-141	9.60	(< 20)
Carbon disulfide	5.00U	45.0	44.6	99	45.0	43.6	97	64-133	2.40	(< 20)
Carbon tetrachloride	0.500U	30.0	32	107	30.0	32.1	107	72-136	0.28	(< 20)
Chlorobenzene	0.250U	30.0	29.8	99	30.0	29.6	99	82-118	0.57	(< 20)
Chloroethane	0.500U	30.0	27.3	91	30.0	27.6	92	60-138	1.20	(< 20)

Print Date: 06/14/2019 1:22:02PM

Matrix Spike Summary

Original Sample ID: 1512586
MS Sample ID: 1512587 MS
MSD Sample ID: 1512588 MSD

Analysis Date: 06/12/2019 21:02
Analysis Date: 06/13/2019 2:06
Analysis Date: 06/13/2019 2:21
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Chloroform	0.500U	30.0	30.7	102	30.0	30.3	101	79-124	1.20	(< 20)
Chloromethane	0.500U	30.0	31.7	106	30.0	31.3	104	50-139	1.10	(< 20)
cis-1,2-Dichloroethene	0.500U	30.0	31.3	104	30.0	31.1	104	78-123	0.71	(< 20)
cis-1,3-Dichloropropene	0.250U	30.0	31.6	105	30.0	31.7	106	75-124	0.44	(< 20)
Dibromochloromethane	0.250U	30.0	31.5	105	30.0	31.9	106	74-126	1.20	(< 20)
Dibromomethane	0.500U	30.0	31.3	104	30.0	31.2	104	79-123	0.58	(< 20)
Dichlorodifluoromethane	0.500U	30.0	31.8	106	30.0	31.0	103	32-152	2.70	(< 20)
Ethylbenzene	0.500U	30.0	31.3	104	30.0	31.0	103	79-121	0.90	(< 20)
Freon-113	5.00U	45.0	45	100	45.0	44.1	98	70-136	1.80	(< 20)
Hexachlorobutadiene	0.500U	30.0	30.1	100	30.0	30.1	100	66-134	0.23	(< 20)
Isopropylbenzene (Cumene)	0.500U	30.0	32.6	109	30.0	32.6	109	72-131	0.03	(< 20)
Methylene chloride	2.50U	30.0	31.9	106	30.0	31.5	105	74-124	1.20	(< 20)
Methyl-t-butyl ether	5.00U	45.0	47.1	105	45.0	46.7	104	71-124	0.85	(< 20)
Naphthalene	0.500U	30.0	29.4	98	30.0	30.2	101	61-128	2.50	(< 20)
n-Butylbenzene	0.500U	30.0	32.2	107	30.0	32.6	109	75-128	1.10	(< 20)
n-Propylbenzene	0.500U	30.0	32.9	110	30.0	32.8	109	76-126	0.46	(< 20)
o-Xylene	0.500U	30.0	31.4	105	30.0	31.1	104	78-122	0.86	(< 20)
P & M -Xylene	1.00U	60.0	62.3	104	60.0	62.7	105	80-121	0.62	(< 20)
sec-Butylbenzene	0.500U	30.0	33.1	110	30.0	32.9	110	77-126	0.64	(< 20)
Styrene	0.500U	30.0	31.5	105	30.0	30.9	103	78-123	1.70	(< 20)
tert-Butylbenzene	0.500U	30.0	33	110	30.0	32.8	109	78-124	0.64	(< 20)
Tetrachloroethene	0.500U	30.0	30.4	101	30.0	31.0	103	74-129	2.00	(< 20)
Toluene	0.500U	30.0	29	97	30.0	28.5	95	80-121	1.80	(< 20)
trans-1,2-Dichloroethene	0.500U	30.0	31.5	105	30.0	31.2	104	75-124	0.99	(< 20)
trans-1,3-Dichloropropene	0.500U	30.0	29.2	97	30.0	29.6	99	73-127	1.60	(< 20)
Trichloroethene	0.500U	30.0	31.4	105	30.0	31.2	104	79-123	0.38	(< 20)
Trichlorofluoromethane	0.500U	30.0	29.4	98	30.0	29.0	97	65-141	1.30	(< 20)
Vinyl acetate	5.00U	30.0	26.5	88	30.0	26.7	89	54-146	0.75	(< 20)
Vinyl chloride	2.26	30.0	32.1	100	30.0	31.1	96	58-137	3.30	(< 20)
Xylenes (total)	1.50U	90.0	93.7	104	90.0	93.9	104	79-121	0.13	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		30.0	29.9	100	30.0	29.5	98	81-118	1.40	
4-Bromofluorobenzene (surr)		30.0	30	100	30.0	30.1	100	85-114	0.33	
Toluene-d8 (surr)		30.0	29.8	99	30.0	29.9	100	89-112	0.17	

Print Date: 06/14/2019 1:22:02PM

Matrix Spike Summary

Original Sample ID: 1512586
MS Sample ID: 1512587 MS
MSD Sample ID: 1512588 MSD

Analysis Date:
Analysis Date: 06/13/2019 2:06
Analysis Date: 06/13/2019 2:21
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979001, 1192979002, 1192979003, 1192979004, 1192979005

Results by **SW8260C**

		Matrix Spike (%)			Spike Duplicate (%)				
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: VMS19029
Analytical Method: SW8260C
Instrument: Agilent 7890-75MS
Analyst: FDR
Analytical Date/Time: 6/13/2019 2:06:00AM

Prep Batch: VXX34241
Prep Method: Volatiles Extraction 8240/8260 FULL
Prep Date/Time: 6/12/2019 12:00:00AM
Prep Initial Wt./Vol.: 5.00mL
Prep Extract Vol: 5.00mL

Print Date: 06/14/2019 1:22:02PM

Method Blank

Blank ID: MB for HBN 1794992 [VXX/34252]
Blank Lab ID: 1512893

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1192979006, 1192979007, 1192979008

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.500U	1.00	0.310	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.200U	0.400	0.120	ug/L
1,1-Dichloroethane	0.500U	1.00	0.310	ug/L
1,1-Dichloroethene	0.500U	1.00	0.310	ug/L
1,1-Dichloropropene	0.500U	1.00	0.310	ug/L
1,2,3-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/L
1,2,4-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,4-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,2-Dibromo-3-chloropropane	5.00U	10.0	3.10	ug/L
1,2-Dibromoethane	0.0375U	0.0750	0.0180	ug/L
1,2-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.500U	1.00	0.310	ug/L
1,3,5-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,3-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.500U	1.00	0.310	ug/L
2-Butanone (MEK)	5.00U	10.0	3.10	ug/L
2-Chlorotoluene	0.500U	1.00	0.310	ug/L
2-Hexanone	5.00U	10.0	3.10	ug/L
4-Chlorotoluene	0.500U	1.00	0.310	ug/L
4-Isopropyltoluene	0.500U	1.00	0.310	ug/L
4-Methyl-2-pentanone (MIBK)	5.00U	10.0	3.10	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Bromobenzene	0.500U	1.00	0.310	ug/L
Bromochloromethane	0.500U	1.00	0.310	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.500U	1.00	0.310	ug/L
Bromomethane	2.50U	5.00	1.50	ug/L
Carbon disulfide	5.00U	10.0	3.10	ug/L
Carbon tetrachloride	0.500U	1.00	0.310	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.500U	1.00	0.310	ug/L

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Method Blank

Blank ID: MB for HBN 1794992 [VXX/34252]
Blank Lab ID: 1512893

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1192979006, 1192979007, 1192979008

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	0.500U	1.00	0.310	ug/L
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L
Dibromomethane	0.500U	1.00	0.310	ug/L
Dichlorodifluoromethane	0.500U	1.00	0.310	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
Freon-113	5.00U	10.0	3.10	ug/L
Hexachlorobutadiene	0.500U	1.00	0.310	ug/L
Isopropylbenzene (Cumene)	0.500U	1.00	0.310	ug/L
Methylene chloride	2.50U	5.00	1.00	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
Naphthalene	0.500U	1.00	0.310	ug/L
n-Butylbenzene	0.500U	1.00	0.310	ug/L
n-Propylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
sec-Butylbenzene	0.500U	1.00	0.310	ug/L
Styrene	0.500U	1.00	0.310	ug/L
tert-Butylbenzene	0.500U	1.00	0.310	ug/L
Tetrachloroethene	0.500U	1.00	0.310	ug/L
Toluene	0.500U	1.00	0.310	ug/L
trans-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
trans-1,3-Dichloropropene	0.500U	1.00	0.310	ug/L
Trichloroethene	0.500U	1.00	0.310	ug/L
Trichlorofluoromethane	0.500U	1.00	0.310	ug/L
Vinyl acetate	5.00U	10.0	3.10	ug/L
Vinyl chloride	0.0750U	0.150	0.0500	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	105	81-118		%
4-Bromofluorobenzene (surr)	101	85-114		%
Toluene-d8 (surr)	98.9	89-112		%

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Method Blank

Blank ID: MB for HBN 1794992 [VXX/34252]
Blank Lab ID: 1512893

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1192979006, 1192979007, 1192979008

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS19039
Analytical Method: SW8260C
Instrument: Agilent 7890-75MS
Analyst: FDR
Analytical Date/Time: 6/13/2019 10:43:00AM

Prep Batch: VXX34252
Prep Method: SW5030B
Prep Date/Time: 6/13/2019 12:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 06/14/2019 1:22:03PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192979 [VXX34252]
Blank Spike Lab ID: 1512894
Date Analyzed: 06/13/2019 10:58

Spike Duplicate ID: LCSD for HBN 1192979 [VXX34252]
Spike Duplicate Lab ID: 1512895
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979006, 1192979007, 1192979008

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	30	29.7	99	30	30.2	101	(78-124)	1.70	(< 20)
1,1,1-Trichloroethane	30	29.2	97	30	29.6	99	(74-131)	1.20	(< 20)
1,1,2,2-Tetrachloroethane	30	29.0	97	30	29.0	97	(71-121)	0.28	(< 20)
1,1,2-Trichloroethane	30	29.4	98	30	29.8	99	(80-119)	1.50	(< 20)
1,1-Dichloroethane	30	28.5	95	30	28.7	96	(77-125)	1.00	(< 20)
1,1-Dichloroethene	30	27.6	92	30	27.6	92	(71-131)	0.00	(< 20)
1,1-Dichloropropene	30	29.6	99	30	29.7	99	(79-125)	0.34	(< 20)
1,2,3-Trichlorobenzene	30	24.8	83	30	26.0	87	(69-129)	4.90	(< 20)
1,2,3-Trichloropropane	30	28.7	96	30	28.5	95	(73-122)	0.66	(< 20)
1,2,4-Trichlorobenzene	30	28.4	95	30	28.8	96	(69-130)	1.60	(< 20)
1,2,4-Trimethylbenzene	30	31.4	105	30	31.7	106	(79-124)	0.92	(< 20)
1,2-Dibromo-3-chloropropane	30	28.2	94	30	28.6	95	(62-128)	1.50	(< 20)
1,2-Dibromoethane	30	29.0	97	30	29.7	99	(77-121)	2.50	(< 20)
1,2-Dichlorobenzene	30	29.2	97	30	29.5	98	(80-119)	0.92	(< 20)
1,2-Dichloroethane	30	28.7	96	30	29.3	98	(73-128)	1.80	(< 20)
1,2-Dichloropropane	30	29.2	97	30	29.5	98	(78-122)	0.95	(< 20)
1,3,5-Trimethylbenzene	30	31.4	105	30	31.3	104	(75-124)	0.35	(< 20)
1,3-Dichlorobenzene	30	30.7	102	30	31.0	103	(80-119)	1.00	(< 20)
1,3-Dichloropropane	30	29.1	97	30	29.6	99	(80-119)	1.60	(< 20)
1,4-Dichlorobenzene	30	30.2	101	30	31.0	103	(79-118)	2.80	(< 20)
2,2-Dichloropropane	30	32.1	107	30	32.7	109	(60-139)	1.90	(< 20)
2-Butanone (MEK)	90	81.0	90	90	82.0	91	(56-143)	1.20	(< 20)
2-Chlorotoluene	30	29.7	99	30	29.7	99	(79-122)	0.07	(< 20)
2-Hexanone	90	88.0	98	90	89.1	99	(57-139)	1.30	(< 20)
4-Chlorotoluene	30	30.6	102	30	31.0	103	(78-122)	1.40	(< 20)
4-Isopropyltoluene	30	31.9	106	30	31.7	106	(77-127)	0.41	(< 20)
4-Methyl-2-pentanone (MIBK)	90	84.6	94	90	86.2	96	(67-130)	1.90	(< 20)
Benzene	30	28.3	94	30	28.4	95	(79-120)	0.25	(< 20)
Bromobenzene	30	29.3	98	30	29.4	98	(80-120)	0.48	(< 20)
Bromochloromethane	30	28.2	94	30	28.5	95	(78-123)	1.20	(< 20)
Bromodichloromethane	30	29.3	98	30	29.7	99	(79-125)	1.40	(< 20)
Bromoform	30	30.2	101	30	30.7	102	(66-130)	1.50	(< 20)
Bromomethane	30	28.0	93	30	27.5	92	(53-141)	1.80	(< 20)
Carbon disulfide	45	41.0	91	45	41.2	91	(64-133)	0.41	(< 20)

Print Date: 06/14/2019 1:22:05PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192979 [VXX34252]
Blank Spike Lab ID: 1512894
Date Analyzed: 06/13/2019 10:58

Spike Duplicate ID: LCSD for HBN 1192979 [VXX34252]
Spike Duplicate Lab ID: 1512895
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979006, 1192979007, 1192979008

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	29.4	98	30	29.6	99	(72-136)	0.85	(< 20)
Chlorobenzene	30	27.5	92	30	28.2	94	(82-118)	2.50	(< 20)
Chloroethane	30	24.5	82	30	27.6	92	(60-138)	11.80	(< 20)
Chloroform	30	27.8	93	30	28.1	94	(79-124)	1.30	(< 20)
Chloromethane	30	27.8	93	30	28.0	93	(50-139)	0.72	(< 20)
cis-1,2-Dichloroethene	30	28.1	94	30	28.4	95	(78-123)	1.20	(< 20)
cis-1,3-Dichloropropene	30	30.5	102	30	30.9	103	(75-124)	1.40	(< 20)
Dibromochloromethane	30	30.1	100	30	30.6	102	(74-126)	1.70	(< 20)
Dibromomethane	30	28.5	95	30	28.8	96	(79-123)	1.20	(< 20)
Dichlorodifluoromethane	30	28.4	95	30	28.0	93	(32-152)	1.20	(< 20)
Ethylbenzene	30	29.6	99	30	30.4	101	(79-121)	2.80	(< 20)
Freon-113	45	41.4	92	45	41.8	93	(70-136)	0.96	(< 20)
Hexachlorobutadiene	30	30.5	102	30	30.9	103	(66-134)	1.30	(< 20)
Isopropylbenzene (Cumene)	30	30.6	102	30	31.1	104	(72-131)	1.40	(< 20)
Methylene chloride	30	29.0	97	30	29.3	98	(74-124)	1.10	(< 20)
Methyl-t-butyl ether	45	42.6	95	45	43.5	97	(71-124)	2.00	(< 20)
Naphthalene	30	26.1	87	30	27.5	92	(61-128)	5.30	(< 20)
n-Butylbenzene	30	31.8	106	30	32.0	107	(75-128)	0.50	(< 20)
n-Propylbenzene	30	31.6	105	30	31.6	105	(76-126)	0.10	(< 20)
o-Xylene	30	29.4	98	30	30.1	100	(78-122)	2.40	(< 20)
P & M -Xylene	60	59.1	99	60	60.1	100	(80-121)	1.60	(< 20)
sec-Butylbenzene	30	32.1	107	30	31.5	105	(77-126)	1.60	(< 20)
Styrene	30	29.2	97	30	30.1	100	(78-123)	2.90	(< 20)
tert-Butylbenzene	30	31.7	106	30	31.9	106	(78-124)	0.50	(< 20)
Tetrachloroethene	30	29.2	97	30	29.4	98	(74-129)	0.79	(< 20)
Toluene	30	26.5	88	30	27.6	92	(80-121)	4.00	(< 20)
trans-1,2-Dichloroethene	30	28.7	96	30	28.7	96	(75-124)	0.21	(< 20)
trans-1,3-Dichloropropene	30	29.4	98	30	29.7	99	(73-127)	1.10	(< 20)
Trichloroethene	30	28.8	96	30	29.1	97	(79-123)	1.30	(< 20)
Trichlorofluoromethane	30	26.5	88	30	28.0	94	(65-141)	5.60	(< 20)
Vinyl acetate	30	32.7	109	30	33.2	111	(54-146)	1.40	(< 20)
Vinyl chloride	30	26.9	90	30	26.6	89	(58-137)	0.97	(< 20)
Xylenes (total)	90	88.6	98	90	90.2	100	(79-121)	1.80	(< 20)

Print Date: 06/14/2019 1:22:05PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1192979 [VXX34252]
Blank Spike Lab ID: 1512894
Date Analyzed: 06/13/2019 10:58

Spike Duplicate ID: LCSD for HBN 1192979 [VXX34252]
Spike Duplicate Lab ID: 1512895
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1192979006, 1192979007, 1192979008

Results by **SW8260C**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	97.4	97	30	98.1	98	(81-118)	0.78	
4-Bromofluorobenzene (surr)	30	102	102	30	103	103	(85-114)	0.85	
Toluene-d8 (surr)	30	99.8	100	30	102	102	(89-112)	2.40	

Batch Information

Analytical Batch: **VMS19039**
Analytical Method: **SW8260C**
Instrument: **Agilent 7890-75MS**
Analyst: **FDR**

Prep Batch: **VXX34252**
Prep Method: **SW5030B**
Prep Date/Time: **06/13/2019 00:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

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1192979

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

CHAIN [illegible] RECORD

Page 1 of 1
Laboratory: KS
Attn: J Illen.

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2705 Saint Andrews Loo
Pasco, WA 99301-3378
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Analysis Parameters/Sample Container Description
(include preservative if used)

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	VOCs (8260C)						Total Number of Containers	Remarks/Matrix
17800 - MW-1	1A-C	11:58	6/11/19		X	X						3	groundwater
- MW-4	2A-C	12:38											
- MW-5	3A-C	11:12											
- MW-6	4A-C	13:17											
- MW-8	5A-C	9:45											
- MW-9	6A-C	10:33											
- MW-106	7A-C	13:47											
- TB	8A-C	9:00											trip Blank

Project Information	Sample Receipt	
Project Number: 32-1-17800-004	Total Number of Containers	1
Project Name: 250 Port Road	COC Seals/Intact? Y/N/NA	HD
Contact: DLO	Received Good Cond./Cold	
Ongoing Project? Yes ☑ No ☐	Delivery Method:	
Sampler: JKH	(attach shipping bill, if any) HD client	

Instructions

Requested Turnaround Time: Standard (10-day)

Special Instructions:

Level II Deliverables. Profile: 362285 JKJ

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.
Signature: [signature] Time: 15:19	Signature: Time:	Signature: Time:
Printed Name: Judy Hyner Date: 6/11/19	Printed Name: Date:	Printed Name: Date:
Company: SWI	Company:	Company:

Received By: 1.	Received By: 2.	Received By: 3.
Signature: Time:	Signature: Time:	Signature: [signature] Time: 15:19
Printed Name: Date:	Printed Name: Date:	Printed Name: AMG Date: 06/11/19
Company:	Company:	Company: SGS

Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report
Yellow - w/shipment - for consignee files
Pink - Shannon & Wilson - Job File

F-19-91/UR

1.1° DS2 Absent, HD

No. 35204

e-Sample Receipt Form

SGS Workorder #: **1192979**

1 1 9 2 9 7 9

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	No	HD
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
N/A **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1 @ 1.1 °C Therm. ID: D52
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.	N/A	Cooler ID: @ °C Therm. ID:
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	
**If >6°C, were samples collected <8 hours ago?*	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)? **Note: If times differ <1hr, record details & login per COC. ***Note: If sample information on containers differs from COC, SGS will default to COC information	Yes	
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
		N/A ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	N/A	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	Yes	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	Yes	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1192979001-A	HCL to pH < 2	OK			
1192979001-B	HCL to pH < 2	OK			
1192979001-C	HCL to pH < 2	OK			
1192979002-A	HCL to pH < 2	OK			
1192979002-B	HCL to pH < 2	OK			
1192979002-C	HCL to pH < 2	OK			
1192979003-A	HCL to pH < 2	OK			
1192979003-B	HCL to pH < 2	OK			
1192979003-C	HCL to pH < 2	OK			
1192979004-A	HCL to pH < 2	OK			
1192979004-B	HCL to pH < 2	OK			
1192979004-C	HCL to pH < 2	OK			
1192979005-A	HCL to pH < 2	OK			
1192979005-B	HCL to pH < 2	OK			
1192979005-C	HCL to pH < 2	OK			
1192979006-A	HCL to pH < 2	OK			
1192979006-B	HCL to pH < 2	OK			
1192979006-C	HCL to pH < 2	OK			
1192979007-A	HCL to pH < 2	OK			
1192979007-B	HCL to pH < 2	OK			
1192979007-C	HCL to pH < 2	OK			
1192979008-A	HCL to pH < 2	OK			
1192979008-B	HCL to pH < 2	OK			
1192979008-C	HCL to pH < 2	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

LABORATORY DATA REVIEW CHECKLIST

CS Report Name: June 2019 Groundwater Monitoring Event, 250 Post Road, Anchorage, Alaska

Date: July 2019

Laboratory Report Date: June 17, 2019

Consultant Firm: Shannon & Wilson, Inc.

Completed by: Trevor Crosby, CPG
Title: Senior Geologist
Laboratory Name: SGS North America Inc.
Work Order Number: 1192979
ADEC File Number: 2100.38.036

(**NOTE**: ***NA*** = not applicable; Text in *italics* added by Shannon & Wilson, Inc.)

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses? **Yes / No / NA (Please explain.)**
Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS-approved?
Yes / No / NA
Comments: *The samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory.*

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?
Yes / No / NA (Please explain.)
Comments**:**

b. Correct analyses requested? **Yes / No / *NA* (Please explain.)**
Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (0 to 6°C)?
Yes / No / NA (Please explain.)
Comments: *The temperature blank was documented as 1.1 ° C.*

b. Sample preservation acceptable - acidified waters, Methanol-preserved VOC soil (GRO, BTEX, VOCs, etc.)? **Yes / No / NA (Please explain.)**
Comments:

c. Sample condition documented - broken, leaking (soil MeOH), zero headspace (VOC vials)? **Yes / No / NA (Please explain.)**
Comments:

d. If there were any discrepancies, were they documented (e.g., incorrect sample containers/preservation, sample temperatures outside range, insufficient sample size, missing samples)? **Yes / No / NA (Please explain.)**
Comments: *Discrepancies were not noted by the laboratory*

e. Data quality or usability affected? **Yes / No (Please Explain.)**
Comments: *Data quality/usability is unaffected.*

4. Case Narrative

a. Present and understandable? **Yes / No / NA (Please explain.)**
Comments:

b. Discrepancies, errors or QC failures noted by the lab? **Yes / No / NA (Please explain.)**
Comments:

c. Were corrective actions documented? **Yes / No / NA (Please explain.)**
Comments: *The case narrative does not discuss corrective actions taken.*

d. What is the effect on data quality/usability, according to the case narrative?
Comments: *The case narrative does not discuss data quality/usability.*

5. Sample Results

a. Correct analyses performed/reported as requested on COC? **Yes / No / NA (Please explain.)**
Comments:

b. All applicable holding times met? **Yes / No / NA (Please explain.)**
Comments:

c. All soils reported on a dry-weight basis? **Yes / No / NA (Please explain.)**
Comments:

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project? **Yes / No / NA (Please explain.)**
Comments:

e. Data quality or usability affected? **(Please explain.)**
Comments: *Data quality/usability is unaffected.*

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis, and 20 samples?
Yes / No / NA (Please explain.)
Comments:

ii. All method blank results less than LOQ? **Yes / No / NA (Please explain.)**
Comments:

iii. If above LOQ, what samples are affected? ***NA***
Comments:

iv. Do the affected sample(s) have data flags? **Yes / No / NA**
Comments:
If so, are the data flags clearly defined? **Yes / No / NA**
Comments:

v. Data quality or usability affected? **(Please explain.)**
Comments: *The data is considered acceptable for the purposes of this project.*

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis, and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846) **Yes / No / *NA* (Please explain.)**
Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples? **Yes / No / NA (Please explain.)**
Comments: *Only organic analyses were requested with this work order.*

iii. Accuracy – All percent recoveries (%R) reported *and* within method or laboratory limits? And project specified DQOs, if applicable. (AK petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages) **Yes / No / NA (Please explain.)**
Comments:

iv. Precision – All relative percent differences (RPDs) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages) **Yes / No / NA (Please explain.)**
Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?
Comments:

vi. Do the affected samples(s) have data flags? **Yes / No / NA**
Comments:

If so, are the data flags clearly defined? **Yes / No / NA**
Comments:

vii. Data quality or usability affected? Explain.
Comments*: Data quality/usability are unaffected; see above.*

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses, field, QC, and laboratory samples? **Yes / No / NA (Please explain.)**
Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages) **Yes / No / NA (Please explain.)**
Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? **Yes / No / NA (Please explain.)**
Comments:

If so, are the data flags clearly defined? **Yes / No / NA**
Comments:

iv. Data quality or usability affected? Explain.
Comments: *Data quality/usability are unaffected.*

d. Trip Blank - Volatile analyses only (GRO, BTEX, VOCs, etc.)

i. One trip blank reported per matrix, analysis and cooler? **Yes / No / NA (Please explain.)**
Comments: *One water trip blank was submitted to the laboratory with the project samples.*

ii. Is the cooler used to transport the trip blank and volatile samples clearly indicated on the COC? **Yes / No / NA (Please explain if NA or no.)**
Comments: *All samples were transported in one cooler.*

iii. All results less than LOQ? **Yes / No / NA (Please explain.)**
Comments:

iv. If above LOQ, what samples are affected?
Comments**:**

v. Data quality or usability affected? Explain.
Comments: *Data quality/usability are unaffected.*

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?
Yes / No / NA (Please explain.)
Comments: *Sample MW-106 is the field duplicate of Sample MW-6.*

ii. Were the field duplicates submitted blind to the lab? **Yes / No / NA (Please explain.)**
Comments:

iii. Precision – All relative percent differences (RPDs) less than specified DQOs? (Recommended: 30% for water, 50% for soil) **Yes / No / NA (Please explain.)**
Comments: *The RPDs were within the specified DQOs.*

iv. Data quality or usability affected? Explain. ***NA***
Comments: *Data quality/usability is unaffected.*

f. Decontamination or Equipment Blank (if not applicable, a comment stating why must be entered below)
Yes / No / NA (Please explain.) *Decontamination and equipment blanks were not included in our ADEC-approved Work Plan.*

i. All results less than LOQ? **Yes / No / NA (Please explain.)**
Comments:

ii. If results are above LOQ, what samples are affected? ***NA***
Comments:

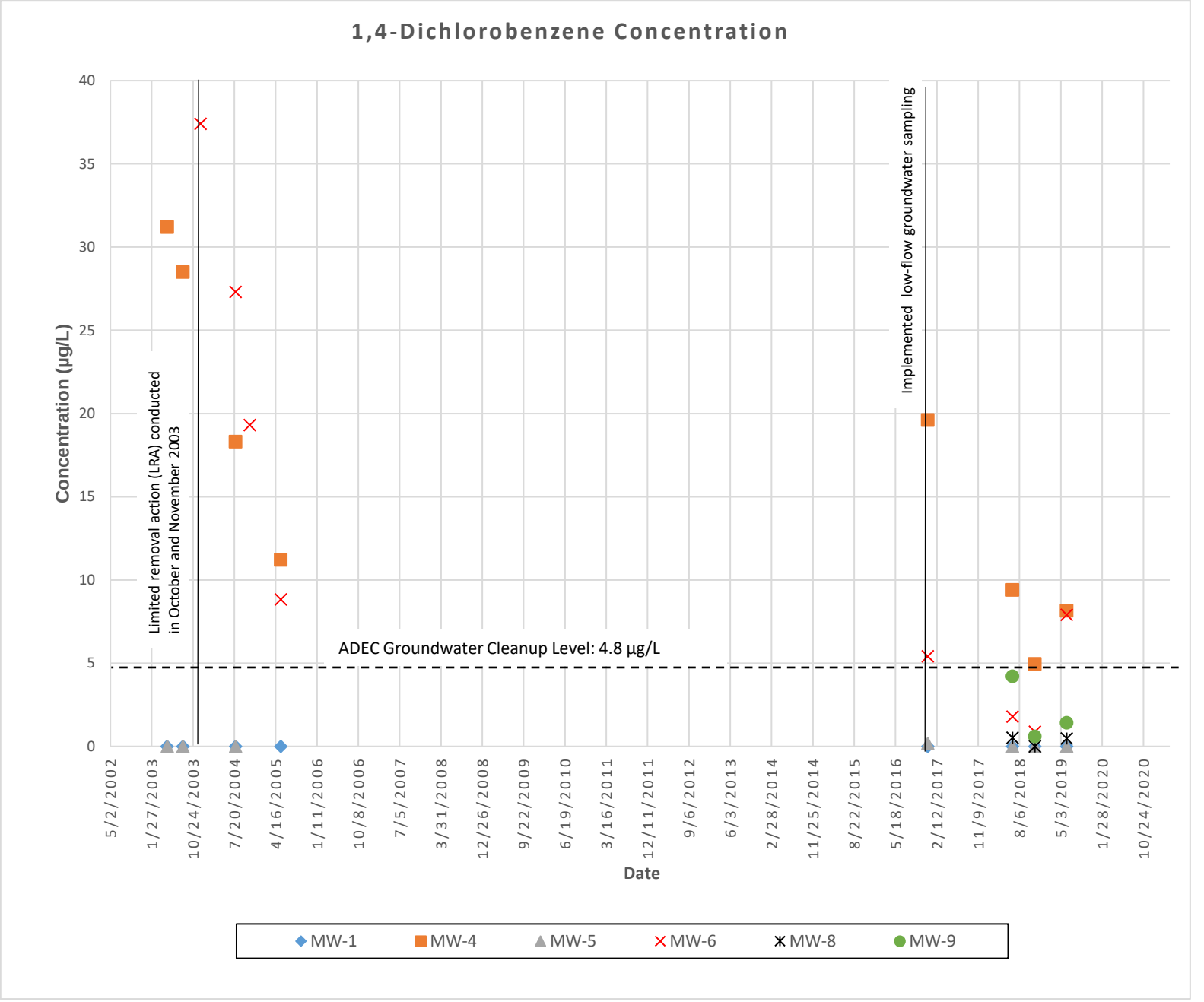
iii. Data quality or usability affected? Explain. ***NA***
Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-specific, etc.)

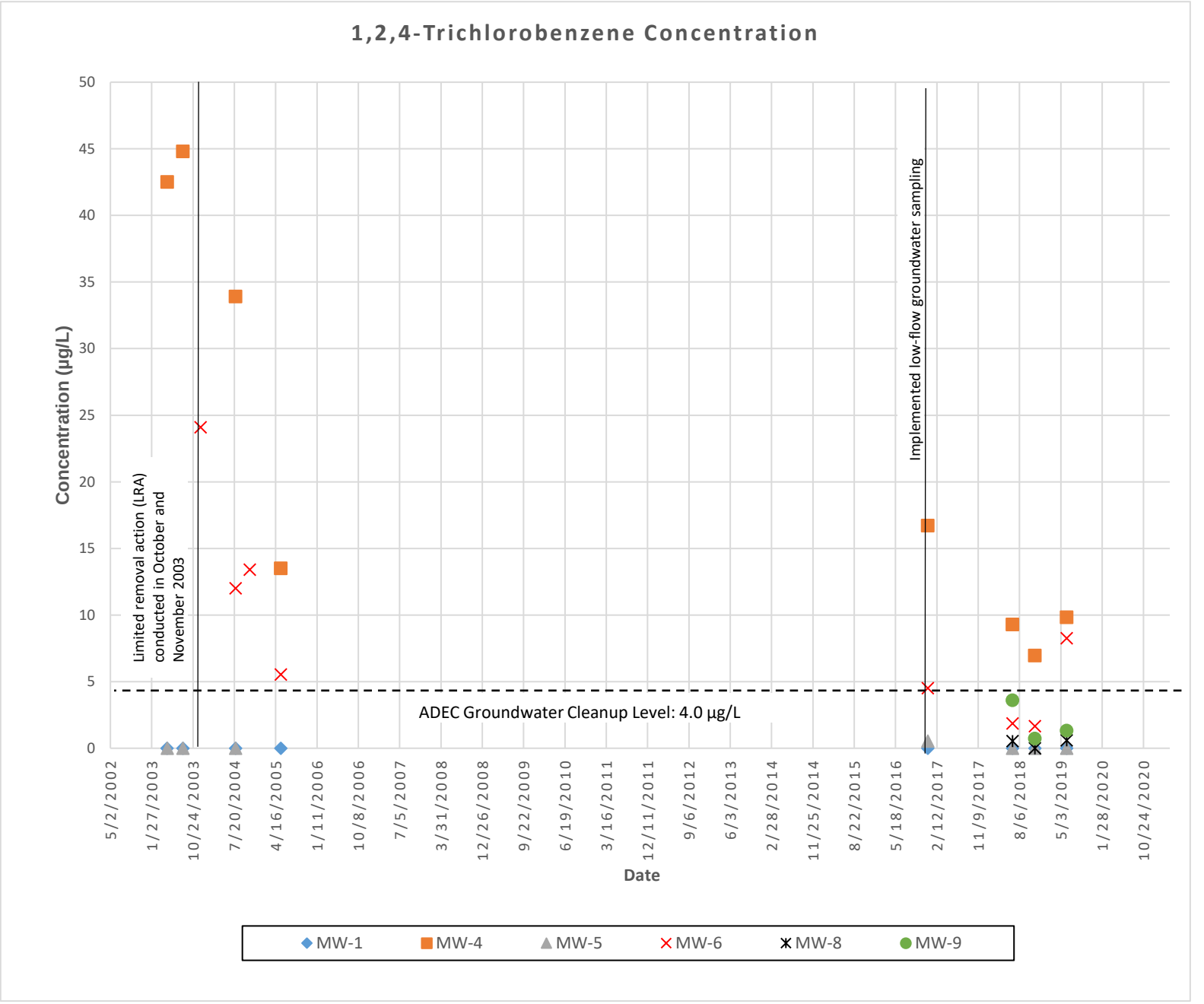
a. Are they defined and appropriate? **Yes / No / NA**
Comments: *Laboratory-specific flags are defined on page 3 of the SGS report.*

APPENDIX C

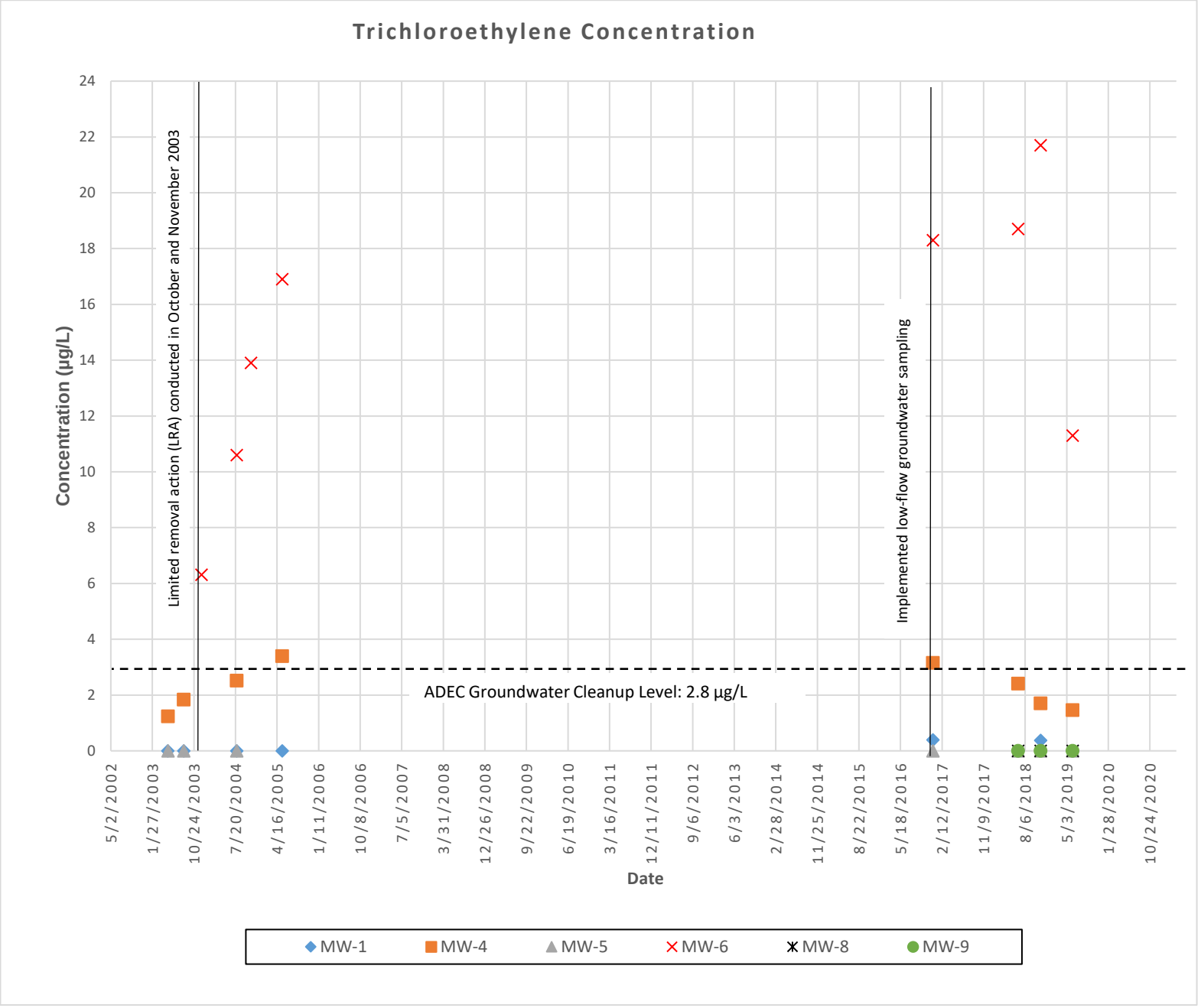
GRAPHS OF SELECTED CONSTITUENTS CONCENTRATIONS



Note: Non-detects (reported at the Limit of Detection [LOD]) are plotted as zero for graphical presentation. See Table 3 for LOD.



Note: Non-detects (reported at the Limit of Detection [LOD]) are plotted as zero for graphical presentation. See Table 3 for LOD.



Note: Non-detects (reported at the Limit of Detection [LOD]) are plotted as zero for graphical presentation. See Table 3 for LOD.

APPENDIX D

DISPOSAL RECEIPTS

*** IN CASE OF EMERGENCY CALL 800-899-4672 ***

140027-HALL 32

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CESQG

Manifest Document No: 140027A

2. Page 1 of 1

3. Generator's Name and Mailing Address
KELLY-MOORE PAINT STORE & WAREHOUSE
250 POST ROAD
ANCHORAGE, AK 99501

KELLY-MOORE PAINT STORE & WAREHOUS
250 POST ROAD
ANCHORAGE, AK 99501

4. Generator's Phone ( )

5. Transporter 1 Company Name: NRC ALASKA LLC

6. US EPA ID Number: AKR000004184

A. State Transporter's ID

B. Transporter 1 Phone: 907-258-1558

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
NRC ALASKA LLC
2020 VIKING DRIVE
ANCHORAGE, AK 99501

10. US EPA ID Number: AKR000004184

E. State Facility's ID

F. Facility's Phone: 907-258-1558

GENERATOR

HM	11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a.	MATERIAL NOT REGULATED BY D.O.T.	1	DM	250	P
b.					
c.					
d.					

G. Additional Descriptions of Materials Listed Above

1) EA0302 IDW DECON WATER / GROUNDWATER D23996

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Shipper's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Jake Kesler | Signature | Date: Month 06 Day 21 Year 19

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Brian Johnson | Signature | Date: Month 06 Day 21 Year 19

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Patricia L Beasley | Signature: Patricia L Beasley | Date: Month 06 Day 24 Year 19

NON-HAZARDOUS WASTE

Drum Tracking Log for Manifest Number 140027A

Manifest 140027A	Arrived 24-JUN-19	Gen KELLY-MOORE PAINT STORE & WAREHOUSE	Tsdf NRC ALASKA LLC

Document	Item	Line	Profile	Type	Size	Oil Fuel	Water	Antifreeze	Sludge	Solids	Location
D23996	1	1	EA0302	DM	55	0	45	0	0	0	PAD1: 250.00 P, 45.00 GAL
				Totals:		0	45	0	0	0	

PLB

CERTIFICATE OF DISPOSAL/RECYCLE

GENERATOR: KELLY-MOORE PAINT STORE & WAREHOUSE
250 POST ROAD
ANCHORAGE, AK 99501

DISPOSAL FACILITY: NRC ALASKA LLC
2020 VIKING DRIVE
ANCHORAGE, AK 99501

EPA ID NUMBER: CESQG
MANIFEST/DOCUMENT #: 140027A
DATE OF DISPOSAL/RECYCLE: JUN-24-2019

LINE	WASTE DESCRIPTION	CONTAINERS	TYPE	QUANTITY	UOM
1	IDW DECON WATER / GROUNDWATER	1	DM	250	P

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

PREPARED BY: PLB

SIGNATURE: Patricia L Beasley **DATE:** JUN 24 2019

425 Outer Springer Loop Road - Palmer, AK 99645 - (907) 258-1558 - Fax (907) 746-3651 - Toll Free (877) 375-5040

APPENDIX E

IMPORTANT INFORMATION ABOUT YOUR

GEOTECHNICAL/ENVIRONMENTAL REPORT

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland