SUBMITTED TO:
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JUNE 2022 GROUNDWATER MONITORING EVENT

250 Post Road

ANCHORAGE, ALASKA; ADEC FILE NO. 2100.38.036

SHANNON & WILSON

August 2022

Shannon & Wilson No: 107454-002

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Submitted To: Kelly-Moore Paint Co., Inc.
301 West Hurst Drive
Hurst, Texas 76053
Attn: Mary Logue

Subject: JUNE 2022 GROUNDWATER MONITORING EVENT, 250 POST ROAD, ANCHORAGE, ALASKA; ADEC FILE NO. 2100.38.036

Shannon & Wilson prepared this report and participated in this project as a consultant for Kelly-Moore Paint Co., Inc. Our scope of services was specified in our proposal dated March 8, 2022. Written authorization to proceed with this project was received from Ms. Mary Logue of Kelly-Moore Paint Co., Inc. on April 10, 2022 in the form of a signed proposal. This report presents the results of our 2022 annual groundwater monitoring and was prepared by the undersigned.

We appreciate the opportunity to be of service to you on this project. If you have questions concerning this report, or we may be of further service, please contact us.

Sincerely,

SHANNON & WILSON, INC.

Digitally signed by Judith Hepner
DN: cn=Judith Hepner, o=Shannon & Wilson, Inc., ou=Anchorage, email=judy.hepner@shanwil.com, c=US
Date: 2022.08.22 11:50:41 -08'00'

Judy Hepner
Environmental Staff

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LeeAnne Osgood, PE
Associate

JKH:DLO/DXM

EXECUTIVE SUMMARY

The June 2022 monitoring activities at 250 Post Road consisted of collecting groundwater samples to monitor volatile organic compound (VOC) concentration trends in the groundwater plume at the site. Nine VOCs (1,1-dichloroethane, 1,1,1-trichloroethane, 1,2,3-trichlorobenzene [1,2,3-TCB], 1,2,4-trichlorobenzene [1,2,4-TCB], trichloroethylene [TCE], 1,2-dichlorobenzene [1,2-DCB], 1,3-dichlorobenzene [1,3-DCB], 1,4-dichlorobenzene [1,4-DCB], and/or cis-1,2-dichloroethene) were detected in one or more project samples. Concentrations exceeding the Alaska Department of Environmental Conservation (ADEC) Table C Cleanup Levels include:

- TCE in Samples MW-6 and MW-106 (duplicate of MW-6);
- 1,2,4-TCB in Samples MW-4, MW-6, and MW-106 (duplicate of MW-6); and,
- 1,4-DCB in Samples MW-4.

The Well MW-4 groundwater sample continues to exhibit TCE concentrations less than the ADEC Table C cleanup level.

The Mann-Kendall test was used to evaluate for the presence or absence of statistically significant trends for TCE, 1,2,4-TCB, and 1,4-DCB in Wells MW-4 and MW-6. The data collected since implementation of low-flow sampling in December 2016 indicate the following at a greater than 90 percent confidence level:

- TCE – decreasing trend in Wells MW-4 and MW-6;
- 1,2,4-TCB – no trend in Well MW-4 and increasing trend in Well MW-6; and,
- 1,4-DCB – no trend in Wells MW-4 and MW-6.

Although a statistically increasing trend is demonstrated by the Mann-Kendall test since implementation of low-flow sampling, the 1,2,4-TCB concentrations in Well MW-6 are approximately one third of the initial December 2003 concentration and a visual qualitative review of the time series plot demonstrates no apparent trend.

CONTENTS

Tables

Figures

CONTENTS

Appendices

ACRONYMS

ACRONYMS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ARRC	Alaska Railroad Corporation
CCIC	Cleanup Complete with Institutional Controls
1,2-DCB	1,2-Dichlorobenzene
1,3-DCB	1,3-Dichlorobenzene
1,4-DCB	1,4-Dichlorobenzene
DO	Dissolved Oxygen
DQOs	Data Quality Objectives
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 Duplicates
LDRC	Laboratory Data Review Checklist
LRA	Limited Removal Action
µg/L	Micrograms per liter
mV	Millivolts
NTU	Nephelometric Turbidity Units
ORP	Oxidation Reduction Potential
RPD	Relative Percent Difference
SGS	SGS North America Inc.
Site	250 Post Road, Anchorage, Alaska
1,2,3-TCB	1,2,3-Trichlorobenzene
1,2,4-TCB	1,2,4-Trichlorobenzene
TCE	Trichloroethylene
TTD	Contaminated Media Transport, Treatment, & Disposal
US Ecology	US Ecology Alaska, LLC
VOCs	Volatile Organic Compounds

1 INTRODUCTION

This report presents the results of Shannon & Wilson's June 2022 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's) File Number is 2100.38.036.

2 SITE AND PROJECT DESCRIPTION

2.1 Site Location and Description

The 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, Swalling Construction Company, Inc., and 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 prepared by Shannon & Wilson.

The TCE concentrations in soil have decreased by an order of magnitude since the 2003 limited removal action (LRA) which removed approximately 85 cubic yards of soil from the site. 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. Based on June and October 2019 groundwater monitoring event results, concentrations of TCE and two other volatile

organic compounds (VOCs), 1,2,4-trichlorobenzene (1,2,4-TCB) and 1,4-dichlorobenzene (1,4-DCB), also continue to exceed the ADEC Table C cleanup levels in groundwater samples, but only in the immediate vicinity of the 2003 LRA.

In their December 16, 2019 letter, the ADEC indicated the extent of groundwater and soil contamination appeared fairly well defined. However, the TCE concentrations in Well MW-6 needed further evaluation to verify the contaminant concentrations are stable or decreasing. ADEC requested an additional monitoring event.

Additional groundwater monitoring events were conducted in June and October 2020. Results of the June and October 2020 groundwater monitoring events indicated concentrations of TCE, 1,2,4-TCB, and 1,4-DCB continue to exceed the ADEC Table C cleanup levels. A qualitative review of the historical data suggested the concentrations of TCE, 1,2,4-TCB, and 1,4-DCB appear to be stable or decreasing. Mann-Kendall test results indicate either a statistically decreasing or no trend for TCE, 1,2,4-TCB, and 1,4-DCB except for 1,2,4-TCB in Well MW-6 which exhibits a statistically increasing trend since implementation of low-flow sampling.

In their May 26, 2021 letter, the ADEC indicated the Site is not eligible for closure and recommended continuing annual groundwater monitoring to demonstrate decreasing contaminant concentrations of VOCs at Wells MW-4 and MW-6.

Results of the June 2021 annual groundwater monitoring events indicated that while continuing to exceed the ADEC Table C cleanup levels, concentrations of TCE appear to be decreasing in the groundwater plume and no trend was qualitatively apparent for concentrations of 1,2,4-TCB, and 1,4-DCB. Mann-Kendall test results indicated either a statistically decreasing or no trend for TCE, 1,2,4-TCB, and 1,4-DCB except for 1,2,4-TCB in Well MW-6. Although a statistically increasing trend by the Mann-Kendall test since implementation of low-flow sampling, the 1,2,4-TCB concentrations in Well MW-6 were approximately one third of the initial December 2003 concentrations.

In their September 2, 2021 letter, the ADEC agreed with the recommendation to continue annual groundwater monitoring to demonstrate decreasing contaminant concentrations of VOCs at Wells MW-4 and MW-6.

2.3 Project Purpose and Objectives

The project purpose is to continue progress towards a Cleanup Complete with Institutional Controls (CCIC) designation from the ADEC. The objective of this June 2022 groundwater monitoring event is to monitor TCE concentration trends in the groundwater at the Site per

the February 20, 2019 ADEC-approved work plan. Specific tasks of the June 2022 groundwater monitoring event include:

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

3 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. The approval for the June 2022 groundwater sampling event was provided by ADEC in an email dated May 19, 2022.

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. US Ecology Alaska, LLC (US Ecology) of Anchorage, Alaska disposed of the IDW. SGS and US Ecology were subcontracted to Shannon & Wilson. Field notes are provided in Appendix A.

3.1 Site Access and Preparation

Prior to initiating the June 2022 groundwater monitoring event, permission to access and collect groundwater samples from the on-site monitoring wells was requested. Shannon & Wilson contacted the Site leaseholder (SAN, LLC) property management company, Chambers Commercial Real Estate, to request and arrange site access. Missy Knier of Chambers Commercial Real Estate granted site access for the June 2022 groundwater monitoring event in an email dated June 8, 2022.

3.2 Groundwater Sampling

On June 16, 2022, analytical groundwater samples were collected from Wells MW-4 and MW-6. 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 0.2 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 standard units, 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 did not stabilize in Well MW-4 during purging; therefore, a sample was collected after 1 hour of purging and 3 well volumes were purged. The water quality parameters stabilized in Well MW-6 during purging. While not required by the work plan, dissolved oxygen (DO) was also recorded during the purging process. The final water quality parameters are listed on Table 1.

4 LABORATORY ANALYSIS

The groundwater samples were delivered to SGS using chain-of-custody procedures. The samples were tested on a standard 14-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 8260D. A water trip blank accompanying the groundwater samples was also analyzed for VOCs by EPA Method 8260D.

5 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 (November 18, 2021). Groundwater criteria are based on Table C, 18 AAC 75.345. The cleanup levels and analytical results for the groundwater samples are listed in Table 2. 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.

5.1 Monitoring Well Samples

Two primary groundwater samples and one field duplicate sample were submitted for laboratory analysis. Nine VOCs (1,1-dichloroethane, 1,1,1-trichloroethane, 1,2,3-trichlorobenzene [1,2,3-TCB], 1,2,4- TCB, TCE, 1,2-dichlorobenzene [1,2-DCB], 1,3-dichlorobenzene [1,3-DCB], 1,4-DCB, and/or cis-1,2-dichloroethene) were detected in one or more project samples. TCE was detected in the samples collected from Well MW-4 (1.32 micrograms per liter [µg/L]) and Well MW-6 (10.0 µg/L [higher of primary/duplicate pair sample]). Concentrations exceeding the ADEC Table C Cleanup Levels include:

- TCE in Samples MW-6 and MW-106 (duplicate of MW-6) exceed the ADEC Table C cleanup level of 2.8 µg/L;
- 1,2,4-TCB in Samples MW-4, MW-6, and MW-106 (duplicate of MW-6) exceed ADEC Table C cleanup levels of 4.0 µg/L; and,
- 1,4-DCB in Samples MW-4 exceeds ADEC Table C cleanup levels of 4.8 µg/L.

The remaining VOCs were reported at concentrations less than the ADEC Table C cleanup levels.

Concentrations of TCE, 1,4-DCB, and 1,2,4-TCB over time are illustrated in Figures 3, 4, and 5, respectively. As shown in the figures, Wells MW-4 and MW-6 exhibit TCE, 1,2,4-TCB, and 1,4-DCB 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 June 22, 2018 sampling event, and 1,4-DCB concentrations in Well MW-6 which dropped to less than the ADEC Table C cleanup level this monitoring event. Based on a qualitative review of the graphs, the concentrations of TCE detected since implementing low flow groundwater sampling in December 2016, appear to be stable or decreasing. No visual trend is apparent for concentrations of 1,2,4-TCB and 1,4-DCB based on the graphs.

The Mann-Kendall test was used to evaluate for the presence or absence of statistically significant trends for TCE, 1,2,4-TCB, and 1,4-DCB in Wells MW-4 and MW-6. Table 4 provides a summary of the Mann-Kendall test results using data collected since implementation of low-flow sampling in December 2016. The Mann-Kendall test indicates the following at a greater than 90 percent confidence level:

- TCE – decreasing trend in Wells MW-4 and MW-6;
- 1,2,4-TCB – no trend in Well MW-4 and increasing trend in Well MW-6; and,
- 1,4-DCB – no trend in Wells MW-4 and MW-6.

The visually qualitative review of the time series plot and statistical Mann-Kendall test results indicate the TCE concentrations in the groundwater plume are decreasing in Wells MW-4 and MW-6 since implementation of low-flow sampling.

The chlorinated benzenes, 1,2,4-TCB and 1,4-DCB, exhibit no concentration trends based on the visual time series plot evaluation and Mann-Kendall test results except for 1,2,4-TCB in Well MW-6. Although a statistically increasing trend is demonstrated by the Mann-Kendall test since implementation of low-flow sampling, the 1,2,4-TCB concentrations in Well MW-6 are approximately one third of the initial December 2003 concentration, as shown on Figure 5 and summarized in Table 3.

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, and laboratory control sample/laboratory control sample duplicates (LCS/LCSD) 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.

A duplicate sample set was 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. 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, non-conformances that would adversely impact data usability for project data objectives were not noted, and we find the project data to be complete and useable to support the project purpose and objectives.

6 INVESTIGATION-DERIVED WASTE DISPOSAL

The purge water from Wells MW-4 and MW-6 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; therefore, Shannon & Wilson coordinated with US Ecology to dispose of the purge water. The ADEC Contaminated Media Transport, Treatment, & Disposal (TTD) approval was received prior to transporting the IDW off site on July 25, 2022 for processing and disposal by US Ecology. Copies of the TTD form and waste manifest are provided in Appendix C.

It is noted that changes in the site use or other site conditions may affect the viability of potential exposure pathways. In particular, the CSM will need to be re-evaluated and

revised as necessary if construction occurs at the site, a change in land use occurs, or additional information is obtained regarding either the previously-documented contaminated media and/or potential on-site sources.

7 SUMMARY

The June 2022 monitoring activities at 250 Post Road consisted of collecting groundwater samples to monitor TCE concentration trends in the groundwater plume at the site. Nine VOCs (1,1-dichloroethane, 1,1,1-trichloroethane, 1,2,3-TCB, 1,2,4- TCB, TCE, 1,2-DCB, 1,3-DCB, 1,4-DCB, and/or cis-1,2-dichloroethene) were detected in one or more project samples. The groundwater samples from Well MW-6 (primary and duplicate) contain TCE concentrations that exceed the ADEC Table C cleanup level. The Well MW-4 groundwater sample continues to exhibit TCE concentrations less than the ADEC Table C cleanup level.

Chlorinated benzene concentrations (1,2,4-TCB and 1,4-DCB) exceed the ADEC Table C cleanup levels in the groundwater samples from Wells MW-4 and/or MW-6 (primary and duplicate).

A qualitative review of the historical data collected since implementing low flow groundwater sampling suggests the concentrations of TCE appear to be decreasing in the groundwater plume. No trend is qualitatively apparent for concentrations of 1,2,4-TCB and 1,4-DCB. The Mann-Kendall test results indicate either a statistically decreasing or no trend for TCE, 1,2,4-TCB and 1,4-DCB except for 1,2,4-TCB in Well MW-6. Although a statistically increasing trend is demonstrated by the Mann-Kendall test since implementation of low-flow sampling, the 1,2,4-TCB concentrations in Well MW-6 are approximately one third of the initial December 2003 concentration.

8 CLOSURE/LIMITATIONS

This report was prepared for the exclusive use of our client and their representatives. The findings we have presented within this report are based on limited sampling and analyses. As a result, the assessment performed can only provide you with our professional judgment as to the environmental characteristics of this site, and in no way guarantee that an agency or its staff will reach the same conclusions as Shannon & Wilson. In addition, the tests were intended to detect only those parameters for which analyses were performed. The conclusions presented in this report should be considered representative of the time of the sample collection date. Changes due to natural forces or human activity can occur over time. 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 attachment "Important Information About Your Geotechnical/Environmental Report," to assist you in understanding the use and limitations of our reports.

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 upon your authorization or as required by law.

9 REFERENCES

Shannon & Wilson, Inc., August 2021, "June 2021 Groundwater Monitoring Event."

Shannon & Wilson, Inc., December 2020, "October 2020 Groundwater Monitoring Event."

Shannon & Wilson, Inc., August 2020, "June 2020 Groundwater Monitoring Event."

Shannon & Wilson, Inc., December 2019, "October 2019 Groundwater Monitoring Event."

Shannon & Wilson, Inc., July 2019, "June 2019 Groundwater Monitoring Event."

Shannon & Wilson, Inc., February 20, 2019, "Work Plan for 2019 Semi-Annual Groundwater Monitoring, 250 Post Road, Anchorage, Alaska (ADEC File No. 2100.38.036)."

Shannon & Wilson, Inc., November 2018, "2018 Additional Site Characterization."

State of Alaska Department of Environmental Conservation, November 18, 2021, 18 AAC 75, Articles 3 and 9, Oil and Other Hazardous Substances Pollution Control.

State of Alaska Department of Environmental Conservation, September 2, 2021, letter, "June 2021 Groundwater Monitoring Event 250 Post Road Anchorage, Alaska Report; ADEC Approval Letter."

State of Alaska Department of Environmental Conservation, May 26, 2021, letter, "October 2020 Groundwater Monitoring Event 250 Post Road Anchorage, Alaska Report; ADEC Comments."

State of Alaska Department of Environmental Conservation, December 16, 2019, letter, "Kelly-Moore Paint Store and Warehouse."

Table 1 - Water Sampling Log

	Monitoring Well Number	
	MW-4	MW-6
Water Level Measurement Data		
Date Water Level Measured	6/16/22	6/16/22
Time Water Level Measured	9:35	9:30
Measured Depth to Water (ft below TOC)	12.98	13.29
Height of TOC bgs (ft)	-0.36	-0.32
Measured Depth to Water (ft bgs)	13.34	13.61
Surveyed TOC Elevation (ft)	97.70	98.07
Water Level Elevation (ft)	84.72	84.78
Purging/Sampling Data		
Date Sampled	6/16/22	6/16/22
Time Sampled	10:55	11:45
Measured Depth to Water (ft below TOC)	12.98	13.29
Total Depth of Well (ft below TOC)	18.59	16.34
Water Column in Well (ft)	5.61	3.05
Gallons per Foot	0.16	0.16
Water Column Volume (gallons)	0.90	0.49
Total Volume Pumped (gallons)	3.5	3.2
Sampling Method	SP	SP
Diameter of Well Casing	2-inch	2-inch
Water Quality Data		
Temperature (^{o}C)	7.30	6.16
Specific Conductance (µS/cm)	563	631
Dissolved Oxygen (mg/L)	0.65	1.4
pH (Standard Units)	6.37	6.27
Oxidation-Reduction Potential (mV)	-3	61
Turbidity (NTU)	11.03	8.75
Remarks	Field parameters did not stablize. Sampled after 1 hour and 3 well volumes purged.	Duplicate Sample "MW-106"

Notes:
Water quality parameters were measured with a Horiba and MicroTPW Turbidimeter instruments.
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
mg/L = millograms per Liter
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-4 13.34	MW-6 13.61	MW-106~ 13.61	WTB -
Volatile Organic Compounds (VOCs)							
Tetrachloroethene	µg/L	EPA 8260D	41	<0.500	<0.500	<0.500	<0.500
Trichloroethylene (TCE)	µg/L	EPA 8260D	2.8	**1.32**	**9.85**	**10.0**	<0.500
cis-1,2-Dichloroethene	µg/L	EPA 8260D	36	<0.500	**0.846 J**	**0.889 J**	<0.500
Vinyl Chloride	µg/L	EPA 8260D	0.19	<0.0750	<0.0750	<0.0750	<0.0750
Benzene	µg/L	EPA 8260D	4.6	<0.200	<0.200	<0.200	<0.200
Ethylbenzene	µg/L	EPA 8260D	15	<0.500	<0.500	<0.500	<0.500
Toluene	µg/L	EPA 8260D	1,100	<0.500	<0.500	<0.500	<0.500
Xylenes	µg/L	EPA 8260D	190	<1.50	<1.50	<1.50	<1.50
Chlorobenzene	µg/L	EPA 8260D	78	<0.250	<0.250	<0.250	<0.250
Chloromethane	µg/L	EPA 8260D	190	<0.500	<0.500	<0.500	<0.500
1,1,1-Trichloroethane	µg/L	EPA 8260D	8,000	<0.500	**0.462 J**	<0.500	<0.500
1,1-Dichloroethane	µg/L	EPA 8260D	28	**0.681 J**	<0.500	<0.500	<0.500
1,2-Dichloroethane	µg/L	EPA 8260D	1.7	<0.250	<0.250	<0.250	<0.250
1,2,3-Trichlorobenzene (1,2,3-TCB)	µg/L	EPA 8260D	7.0	<0.500	**0.624 J**	**0.621 J**	<0.500
1,2,4-Trichlorobenzene (1,2,4-TCB)	µg/L	EPA 8260D	4.0	**15.9**	**6.54**	**6.24**	<0.500
1,2-Dichlorobenzene (1,2-DCB)	µg/L	EPA 8260D	300	**0.700 J**	**0.537 J**	**0.537 J**	<0.500
1,3-Dichlorobenzene (1,3-DCB)	µg/L	EPA 8260D	300	**7.85**	**4.00**	**4.01**	<0.500
1,4-Dichlorobenzene (1,4-DCB)	µg/L	EPA 8260D	4.8	**7.58**	**3.92**	**3.91**	<0.250
Other VOCs	µg/L	EPA 8260D	Various	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 (November 18, 2021)
^	= sample ID No. preceded by "107454-" on the chain-of-custody form
µg/L	= micrograms per liter
1.32	= analyte detected
15.9	= 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	= concentration 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	
				5/7/03 5.91	8/19/03 5.73	7/29/04 6.08	10/29/04 5.70	5/19/05 6.27	12/15/16 5.96	6/22/18 5.81	11/15/18 5.80	6/11/19 6.12	10/29/19 5.93	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/8260B/C/D	41	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
Trichloroethylene (TCE)	µg/L	EPA 8021B/8260B/C/D	2.8	<1.00	<1.00	<1.00	-	<1.00	**0.390 J**	<0.500	**0.370 J**	**<0.500**	**0.329 J**	<1.00	<1.00	**4.86**	**14.2**
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260B/C/D	36	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	**1.41**
Vinyl Chloride	µg/L	EPA 8021B/8260B/C/D	0.19	**<1.00**	**<1.00**	**<1.00**	-	**<1.00**	**<0.500**	<0.0750	<0.0750	<0.0750	<0.0750	**<1.00**	**<1.00**	**<1.00**	**<1.00**
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260B/C/D	8,000	**5.61**	**5.73**	**3.81**	-	**3.41**	**2.08**	**0.990 J**	**1.14**	**0.910 J**	**0.501 J**	**2.89**	<1.00	<1.00	**1.31**
1,1-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	28	**1.19**	**2.13**	**1.45**	-	**1.06**	**1.88**	<0.500	**1.91**	**1.21**	**2.08**	**2.15**	**2.52**	**2.76**	**2.94**
1,2-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	1.7	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene (1,2,3-TCB)	µg/L	EPA 8021B/8260B/C/D	7.0	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene (1,2,4-TCB)	µg/L	EPA 8021B/8260B/C/D	4.0	<1.00	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	**26.4**	**18.1**
Dichlorodifluoromethane	µg/L	EPA 8260B/C/D	200	<1.00	-	-	-	<1.00	**0.630 J**	<0.500	<0.500	<0.500	<0.500	<1.00	-	<1.00	-
1,2-Dichlorobenzene (1,2-DCB)	µg/L	EPA 8021B/8260B/C/D	300	-	<1.00	<1.00	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	-	<1.00	-	**1.39**
1,3-Dichlorobenzene (1,3-DCB)	µg/L	EPA 8021B/8260B/C/D	300	<1.00	<1.00	<1.00	-	<1.00	<0.250	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	**11.8**	**7.18**
1,4-Dichlorobenzene (1,4-DCB)	µg/L	EPA 8021B/8260B/C/D	4.8	<0.500	<0.500	<0.500	-	<0.500	<0.250	<0.250	<0.250	<0.250	<0.250	<0.500	<0.500	**16.7**	**8.71**
Benzene	µg/L	EPA 8021B/8260B/C/D	4.6	<0.400	-	-	-	-	<0.200	<0.200	<0.200	<0.200	**0.181 J**	<0.400	-	<0.400	-
Chlorobenzene	µg/L	EPA 8021B/8260B/C/D	78	<0.500	<0.500	<0.500	-	<0.500	<0.250	<0.250	<0.250	<0.250	<0.250	<0.500	<0.500	**1.3**	<0.500
Toluene	µg/L	EPA 8021B/8260B/C/D	1,100	<1.00	<1.00	-	-	-	<0.500	<0.500	**0.380 J**	**<0.500**	**0.621 J**	<1.00	<1.00	<1.00	<1.00
Chloromethane	µg/L	EPA 8021B/8260B/C/D	190	<1.00	<1.00	<1.00	-	-	<0.500	<0.500	**0.650 J**	**<0.500**	**0.327 J**	<1.00	<1.00	<1.00	<1.00
Naphthalene	µg/L	EPA 8021B/8260B/C/D	1.7	-	**<2.00**	-	-	-	<0.500	<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 (November 18, 2021)
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	= Estimated concentration less than the limit of quantitation. See the SGS laboratory report for more 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 13.53	8/19/03 13.44	7/29/04~ 13.66	5/19/05 13.32	12/15/16 13.84	6/22/18 13.25	11/15/18 13.76	6/11/19 13.38	10/29/19 14.01	6/18/20 13.49	10/7/20 13.69	6/23/21 13.64	6/16/22 13.34	5/8/03 6.35	8/19/03 6.09	7/29/04 6.49	12/15/16 7.11
Tetrachloroethene	µg/L	EPA 8021B/8260B/C/D	41	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<0.500
Trichloroethylene (TCE)	µg/L	EPA 8021B/8260B/C/D	2.8	**1.23**	**1.83**	**2.51**	**3.39**	**3.15**	**2.41**	**1.70**	**1.46**	**1.26**	**1.06**	**1.48**	**0.834 J**	**1.32**	<1.00	<1.00	<1.00	<0.500
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260B/C/D	36	<1.00	<1.00	<1.00	<1.00	**0.440 J**	<0.500	**0.312 J**	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<0.500
Vinyl Chloride	µg/L	EPA 8021B/8260B/C/D	0.19	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<0.500**	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	**<1.00**	**<1.00**	**<1.00**	**<0.500**
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260B/C/D	8,000	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	**1.97**	**5.1**	**3.84**	**2.82**
1,1-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	28	**2.97**	**3.62**	**2.70**	**1.99**	**2.23**	<0.500	**1.79**	**1.36**	**1.96**	**1.38**	**1.66**	**1.25**	**0.681 J**	**1.04**	**1.59**	**1.15**	**1.19**
1,2-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	1.7	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	**0.156 J**	**0.184 J**	<0.250	<0.250	<1.00	<1.00	<1.00	<0.500
1,2,3-Trichlorobenzene (1,2,3-TCB)	µg/L	EPA 8021B/8260B/C/D	7.0	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<0.500
1,2,4-Trichlorobenzene (1,2,4-TCB)	µg/L	EPA 8021B/8260B/C/D	4.0	**42.5**	**44.8**	**33.9**	**13.50**	**16.7**	**9.28**	**6.95**	**9.83**	**4.58**	**15.9**	**8.43**	**14.2**	**15.9**	<1.00	<1.00	<1.00	**0.540 J**
Dichlorodifluoromethane	µg/L	EPA 8260B/C/D	200	<1.00	-	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	-	-	**0.670 J**
1,2-Dichlorobenzene (1,2-DCB)	µg/L	EPA 8021B/8260B/C/D	300	-	**4.08**	**2.54**	**1.61**	**1.57**	<0.500	<0.500	<0.500	<0.500	**0.937 J**	**0.440 J**	**0.656 J**	**0.700 J**	-	<1.00	<1.00	<0.500
1,3-Dichlorobenzene (1,3-DCB)	µg/L	EPA 8021B/8260B/C/D	300	**20.7**	**19.1**	**13.5**	**8.09**	**13.9**	**7.60**	**4.12**	**7.28**	**2.20**	**9.87**	**4.50**	**6.98**	**7.85**	<1.00	<1.00	<1.00	<0.500
1,4-Dichlorobenzene (1,4-DCB)	µg/L	EPA 8021B/8260B/C/D	4.8	**31.2**	**28.5**	**18.3**	**11.2**	**19.6**	**9.40**	**4.95**	**8.14**	**2.54**	**10.9**	**4.70**	**7.10**	**7.58**	<0.500	**<5.00**	**<5.00**	**0.170 J**
Benzene	µg/L	EPA 8021B/8260B/C/D	4.6	<0.400	-	-	-	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.400	-	-	<0.200
Chlorobenzene	µg/L	EPA 8021B/8260B/C/D	78	2.30	1.88	**1.12**	**0.86**	**0.67**	<0.250	**0.208 J**	<0.250	<0.250	**0.229 J**	<0.250	<0.250	<0.250	<0.500	<0.500	<0.500	<0.250
Toluene	µg/L	EPA 8021B/8260B/C/D	1,100	<1.00	<1.00	-	-	<0.500	<0.500	<0.500	<0.500	**0.467 J**	<0.500	<0.500	<0.500	<0.500	**7.60**	**1.77**	-	<0.500
Chloromethane	µg/L	EPA 8021B/8260B/C/D	190	**1.48**	<1.00	<1.00	-	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	**6.07**	<0.500
Naphthalene	µg/L	EPA 8021B/8260B/C/D	1.7	-	**<2.00**	-	-	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	-	**<2.00**	-	<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 (November 18, 2021)
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	= Estimated concentration less than the limit of quantitation. See the SGS laboratory report for more 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-5				MW-6											
				6/22/18	11/15/18	6/11/19	10/29/19	12/12/03	7/29/04	10/29/04	5/19/05	12/15/16~	6/22/18~	11/15/18~	6/11/19~	10/29/19~	6/18/20~	10/7/20~	6/23/21~	6/16/22~
				6.54	6.50	6.77	6.59	13.90	13.87	13.82	13.52	14.00	13.55	14.07	13.70	14.35	13.78	14.03	13.94	13.61
Tetrachloroethene	µg/L	EPA 8021B/8260B/C/D	41	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethylene (TCE)	µg/L	EPA 8021B/8260B/C/D	2.8	<0.500	<0.500	<0.500	<0.500	**6.31**	**10.6**	**13.9**	**16.9**	**18.3**	**18.7**	**21.7**	**11.3**	**13.9**	**12.4**	**12.8**	**9.65**	**10.0**
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260B/C/D	36	<0.500	<0.500	<0.500	<0.500	**2.64**	**1.42**	**1.72**	<1.00	**4.57**	**1.33**	**2.79**	**0.880 J**	**1.30**	**0.882 J**	**1.41**	**0.718 J**	**0.889 J**
Vinyl Chloride	µg/L	EPA 8021B/8260B/C/D	0.19	<0.0750	<0.0750	<0.0750	<0.0750	**<1.00**	**<1.00**	**<1.00**	**<1.00**	**<0.500**	0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260B/C/D	8,000	**1.95**	**1.72**	**1.26**	**2.66**	<1.00	<1.00	<1.00	<1.00	**0.320 J**	**0.520 J**	**0.849 J**	<0.500	**0.492 J**	<0.500	**0.754 J**	<0.500	**0.462 J**
1,1-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	28	**5.20 J**	**0.870 J**	**0.649 J**	**0.899 J**	**2.69**	**1.90**	**1.48**	<1.00	**1.67**	<0.500	0.964 J	**0.940 J**	**1.11**	**0.815 J**	**1.18**	**0.689 J**	<0.500
1,2-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	1.7	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.250	<0.250	<0.250
1,2,3-Trichlorobenzene (1,2,3-TCB)	µg/L	EPA 8021B/8260B/C/D	7.0	<0.500	<0.500	<0.500	<0.500	**3.66**	**3.61**	**3.42**	**1.28**	**0.800 J**	**0.320 J**	**0.408 J**	**0.500 J**	**0.659 J**	**0.448 J**	**0.722 J**	**0.531 J**	**0.624 J**
1,2,4-Trichlorobenzene (1,2,4-TCB)	µg/L	EPA 8021B/8260B/C/D	4.0	<0.500	<0.500	<0.500	<0.500	**24.1**	**12.0**	**13.4**	**5.53**	**4.51**	**1.86**	**1.65**	**8.26**	**5.73**	**9.43**	**9.48**	**8.35**	**6.54**
Dichlorodifluoromethane	µg/L	EPA 8260B/C/D	200	<0.500	<0.500	<0.500	**0.325 J**	-	-	-	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,2-Dichlorobenzene (1,2-DCB)	µg/L	EPA 8021B/8260B/C/D	300	<0.500	<0.500	<0.500	<0.500	**6.59**	**6.81**	**3.85**	**2.10**	**0.910 J**	<0.500	<0.500	**0.920 J**	**0.629 J**	**0.815 J**	**0.780 J**	**0.687 J**	**0.537 J**
1,3-Dichlorobenzene (1,3-DCB)	µg/L	EPA 8021B/8260B/C/D	300	<0.500	<0.500	<0.500	<0.500	**19.7**	**13.7**	**10.1**	**5.09**	**3.84**	**1.57**	**0.988 J**	**6.68**	**3.52**	**6.42**	**5.41**	**5.06**	**4.01**
1,4-Dichlorobenzene (1,4-DCB)	µg/L	EPA 8021B/8260B/C/D	4.8	<0.250	<0.250	<0.250	<0.250	**37.4**	**27.3**	**19.3**	**8.83**	**5.42**	**1.79**	**0.884**	**7.90**	**4.29**	**7.24**	**6.38**	**5.17**	**3.92**
Benzene	µg/L	EPA 8021B/8260B/C/D	4.6	<0.200	<0.200	<0.200	**0.161 J**	**-**	**-**	**-**	**-**	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Chlorobenzene	µg/L	EPA 8021B/8260B/C/D	78	<0.250	<0.250	<0.250	<0.250	<0.500	**1.49**	<0.500	**0.61**	**0.260 J**	<0.250	**0.159 J**	<0.250	**0.216 J**	**0.208 J**	<0.250	<0.250	<0.250
Toluene	µg/L	EPA 8021B/8260B/C/D	1,100	<0.500	<0.500	<0.500	**0.666 J**	-	-	-	-	<0.500	<0.500	<0.500	<0.500	**0.521 J**	<0.500	<0.500	<0.500	<0.500
Chloromethane	µg/L	EPA 8021B/8260B/C/D	190	<0.500	<0.500	<0.500	**0.411 J**	<1.00	<1.00	<1.00	-	<0.500	<0.500	**0.580 J**	<0.500	**0.459 J**	<0.500	<0.500	<0.500	<0.500
Naphthalene	µg/L	EPA 8021B/8260B/C/D	1.7	<0.500	<0.500	<0.500	<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 (November 18, 2021)
µg/L	= micrograms per liter
6.31	= reported concentration exceeds the ADEC Table C cleanup level
1.95	= 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	= Estimated concentration less than the limit of quantitation. See the SGS laboratory report for more details.

Table 3 - Summary of Historical Groundwater Data

Parameter Tested	Units	Method*	Cleanup Level**	Monitoring Well Number, Date of Sample Collection, and DTW in feet bgs								
				MW-7	MW-8				MW-9			
				12/12/03	6/22/18	11/15/18	6/11/19	10/29/19	6/22/18	11/15/18	6/11/19	10/29/19
				13.93	1.15	1.56	1.26	1.85	14.61	15.20	14.67	15.44
Tetrachloroethene	µg/L	EPA 8021B/8260B/C/D	41	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethylene (TCE)	µg/L	EPA 8021B/8260B/C/D	2.8	**1.29**	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
cis-1,2-Dichloroethene	µg/L	EPA 8021B/8260B/C/D	36	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Vinyl Chloride	µg/L	EPA 8021B/8260B/C/D	0.19	**<1.00**	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750	<0.0750
1,1,1-Trichloroethane	µg/L	EPA 8021B/8260B/C/D	8,000	<1.00	<0.500	**0.540 J**	<0.500	**0.558 J**	<0.500	<0.500	<0.500	<0.500
1,1-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	28	**3.13**	<0.500	**0.530 J**	**0.550 J**	**0.646 J**	<0.500	**2.40**	**1.66**	**2.25**
1,2-Dichloroethane	µg/L	EPA 8021B/8260B/C/D	1.7	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,2,3-Trichlorobenzene (1,2,3-TCB)	µg/L	EPA 8021B/8260B/C/D	7.0	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,2,4-Trichlorobenzene (1,2,4-TCB)	µg/L	EPA 8021B/8260B/C/D	4.0	<1.00	**0.530 J**	<0.500	**0.600 J**	<0.500	**3.59**	**0.730 J**	**1.32**	**0.368 J**
Dichlorodifluoromethane	µg/L	EPA 8260B/C/D	200	-	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,2-Dichlorobenzene (1,2-DCB)	µg/L	EPA 8021B/8260B/C/D	300	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,3-Dichlorobenzene (1,3-DCB)	µg/L	EPA 8021B/8260B/C/D	300	<1.00	**0.580 J**	<0.500	**0.400 J**	<0.500	**3.52**	**0.543 J**	**1.38**	<0.500
1,4-Dichlorobenzene (1,4-DCB)	µg/L	EPA 8021B/8260B/C/D	4.8	<0.500	**0.520**	<0.250	**0.480 J**	<0.250	**4.21**	**0.586**	**1.41**	**0.259 J**
Benzene	µg/L	EPA 8021B/8260B/C/D	4.6	-	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	**0.136 J**
Chlorobenzene	µg/L	EPA 8021B/8260B/C/D	78	<0.500	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250
Toluene	µg/L	EPA 8021B/8260B/C/D	1,100	-	<0.500	<0.500	<0.500	<0.500	<0.500	**0.319 J**	<0.500	**0.524 J**
Chloromethane	µg/L	EPA 8021B/8260B/C/D	190	<1.00	<0.500	0.800 J	<0.500	**0.311 J**	<0.500	**0.886 J**	<0.500	**0.432 J**
Naphthalene	µg/L	EPA 8021B/8260B/C/D	1.7	-	<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 (November 18, 2021)
µg/L	= micrograms per liter
1.29	= 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
DTW	Depth to Water
-	= Not applicable or sample not analyzed for this parameter
~	= Analytical results for these samples reflect the higher concentrations for duplicate set
J	= Estimated concentration less than the limit of quantitation. See the SGS laboratory report for more details.

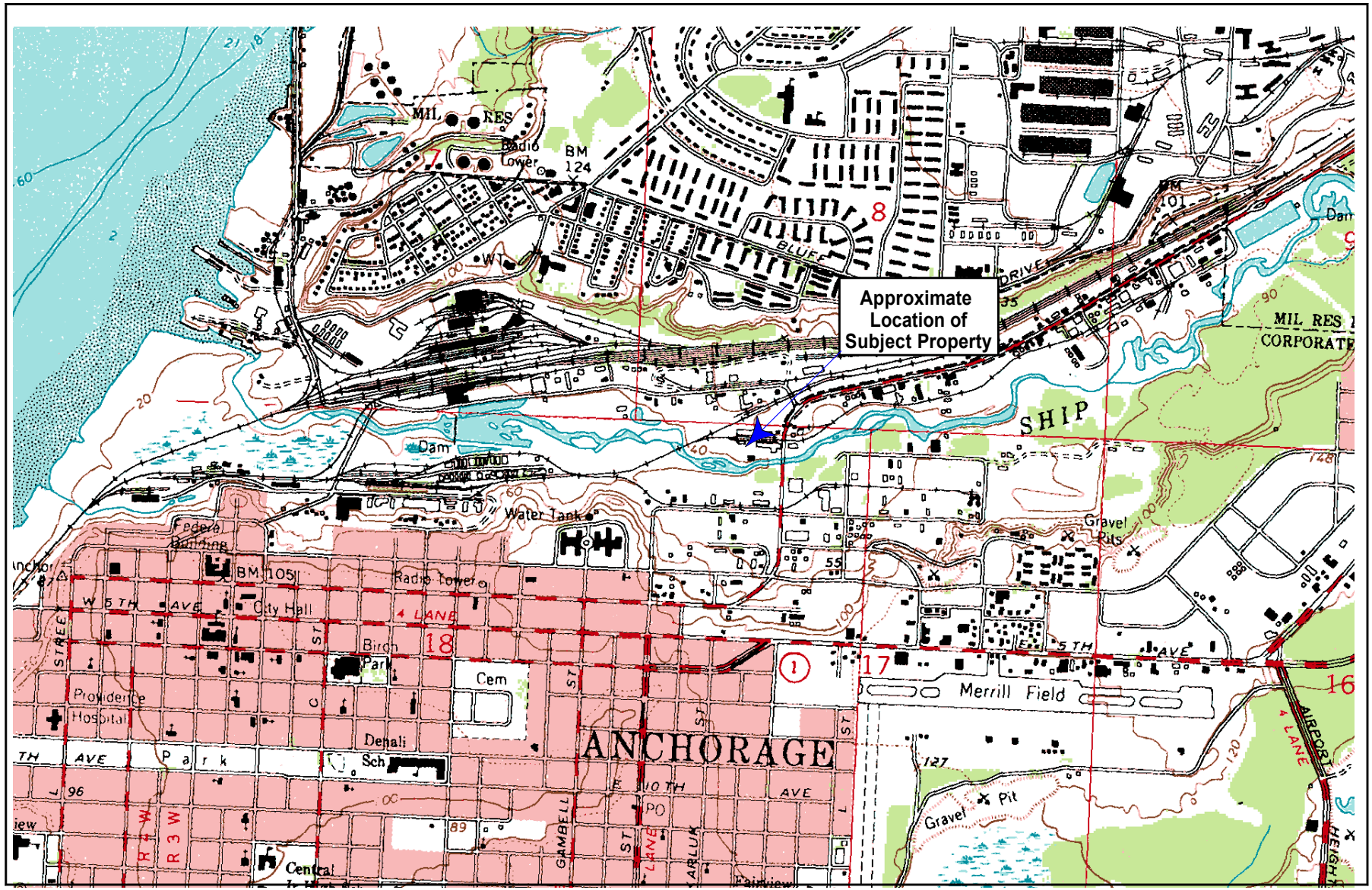
Table 4 - Mann-Kendall Statistical Test Results

Event Number	Sampling Date	Monitoring Well Number and Concentration in µg/L*					
		MW-4			MW-6		
		TCE	1,2,4-TCB	1,4-DCB	TCE	1,2,4-TCB	1,4-DCB
1	15-Dec-16	3.15	16.7	19.6	18.3	4.51	5.42
2	22-Jun-18	2.41	9.28	9.4	18.7	1.86	1.79
3	15-Nov-18	1.7	6.95	4.95	21.7	1.65	0.884
4	11-Jun-19	1.46	9.83	8.14	11.3	8.26	7.9
5	29-Oct-19	1.26	4.58	2.54	13.9	5.73	4.29
6	18-Jun-20	1.06	15.9	10.9	12.4	9.43	7.24
7	7-Oct-20	1.48	8.43	4.7	12.8	9.48	6.38
8	23-Jun-21	0.834	14.2	7.1	9.65	8.35	5.17
9	16-Jun-22	1.32	15.9	7.58	10.0	6.54	3.92
	Mann Kendall Statistic S=	-24	3	-10	-20	16	0
	Number of Rounds n=	9	9	9	9	9	9
	Average =	1.63	11.31	8.32	14.31	6.20	4.78
	Standard Deviation =	0.72	4.45	4.94	4.26	3.02	2.35
	Coefficient of Variation (CV) =	0.44	0.39	0.59	0.30	0.49	0.49
	Trend ≥ 80% Confidence Level	Decreasing	No Trend	Decreasing	Decreasing	Increasing	No Trend
	Trend ≥ 90% Confidence Level	Decreasing	No Trend	NoTrend	Decreasing	Increasing	No Trend
	Stability Test, if No Trend exists at 80% Confidence Level	NA	CV≤1 Stable	NA	NA	NA	CV≤1 Stable

Notes:

* See Table 3 and Figures 3 through 5 for historical sample results

µg/L = micrograms per liter



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

Approximate scale 1":1,500'

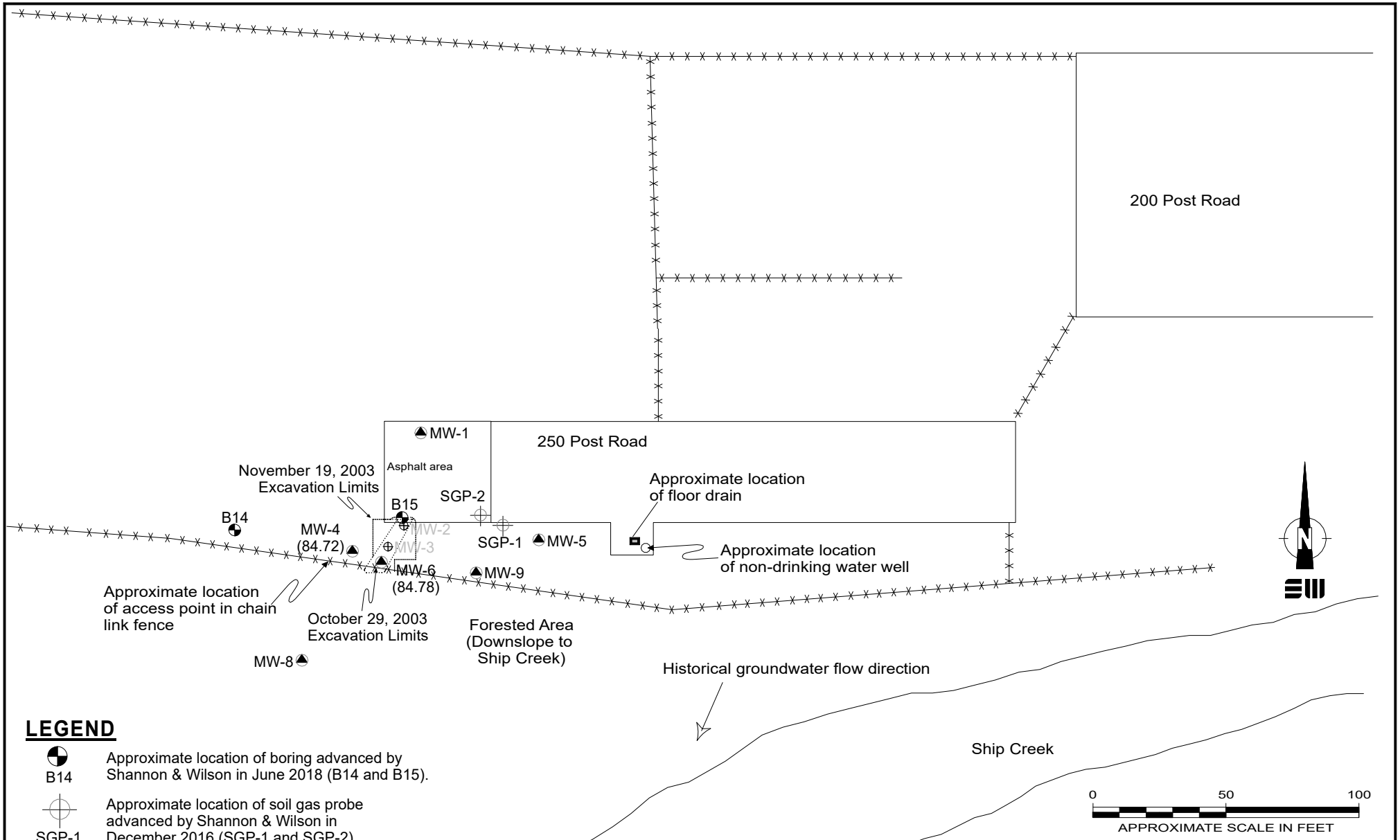
250 Post Road
Anchorage, Alaska

VICINITY MAP

August 2022 107454-002

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-4 (84.72) — Approximate location of monitoring well installed by Shannon & Wilson. Groundwater elevation based on June 16, 2022 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

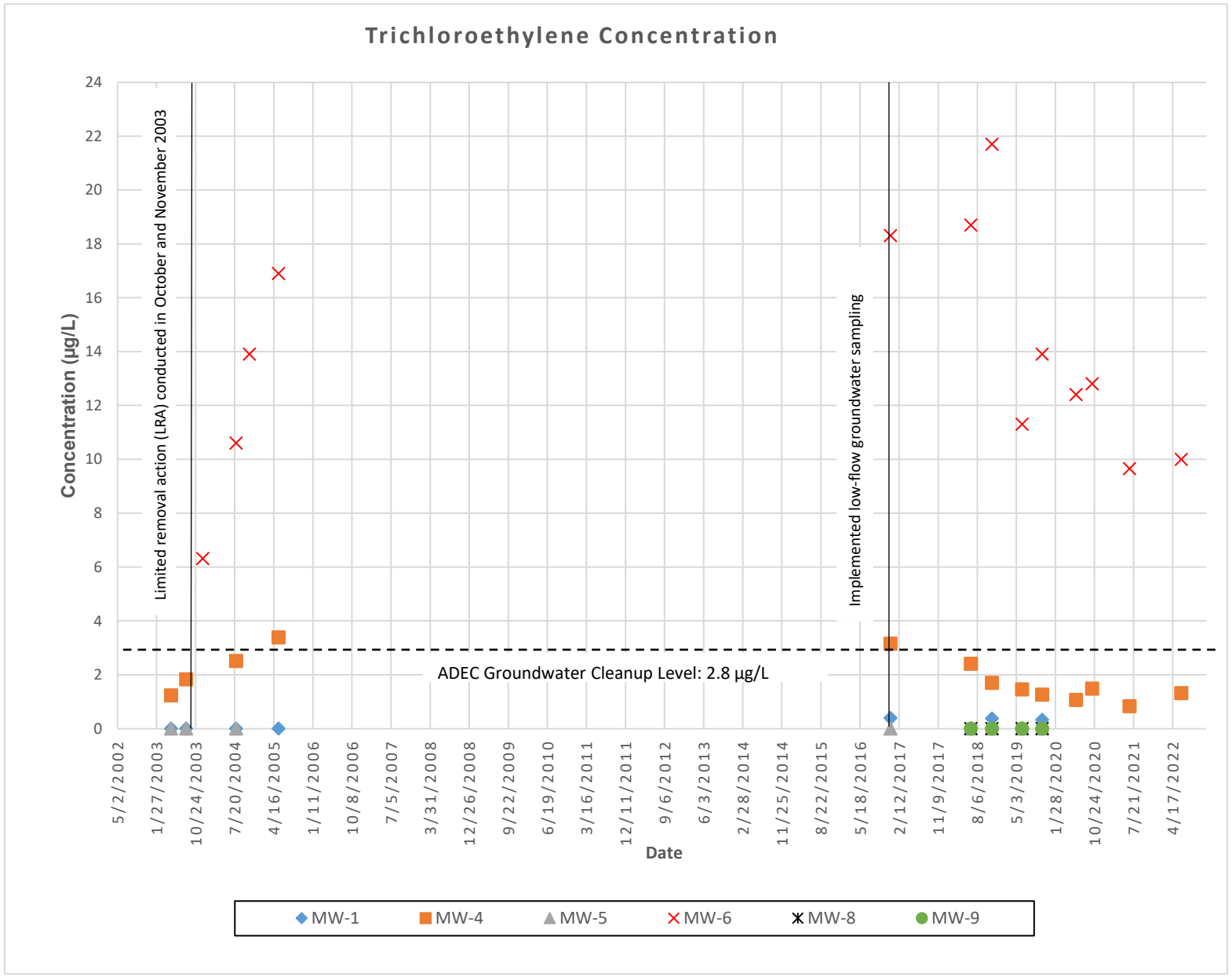
August 2022

107454-002

SHANNON & WILSON, INC.
Geotechnical & Environmental Consultants

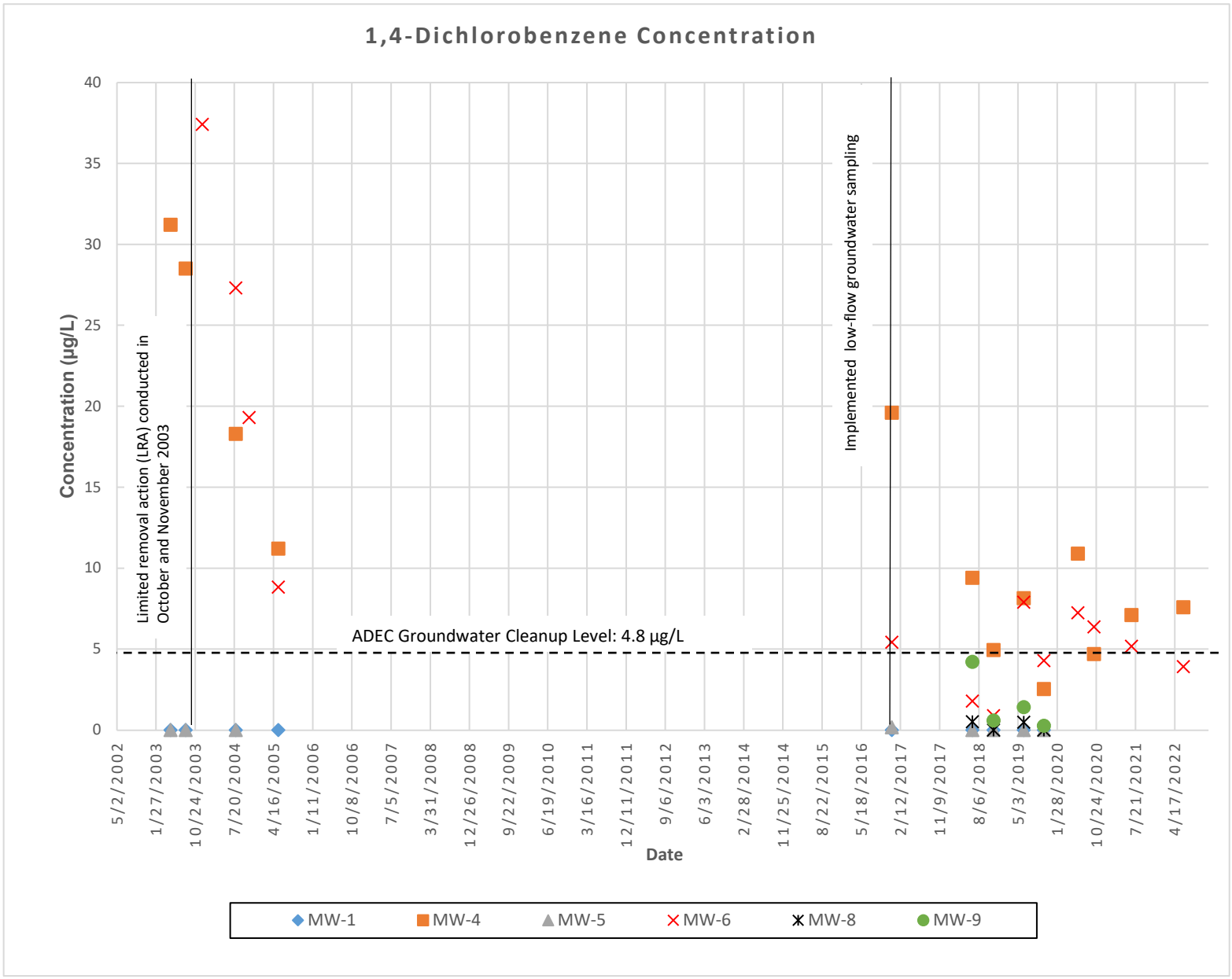
Fig. 2

Figure 3: Trichloroethylene (TCE) Concentration Time Series Graph



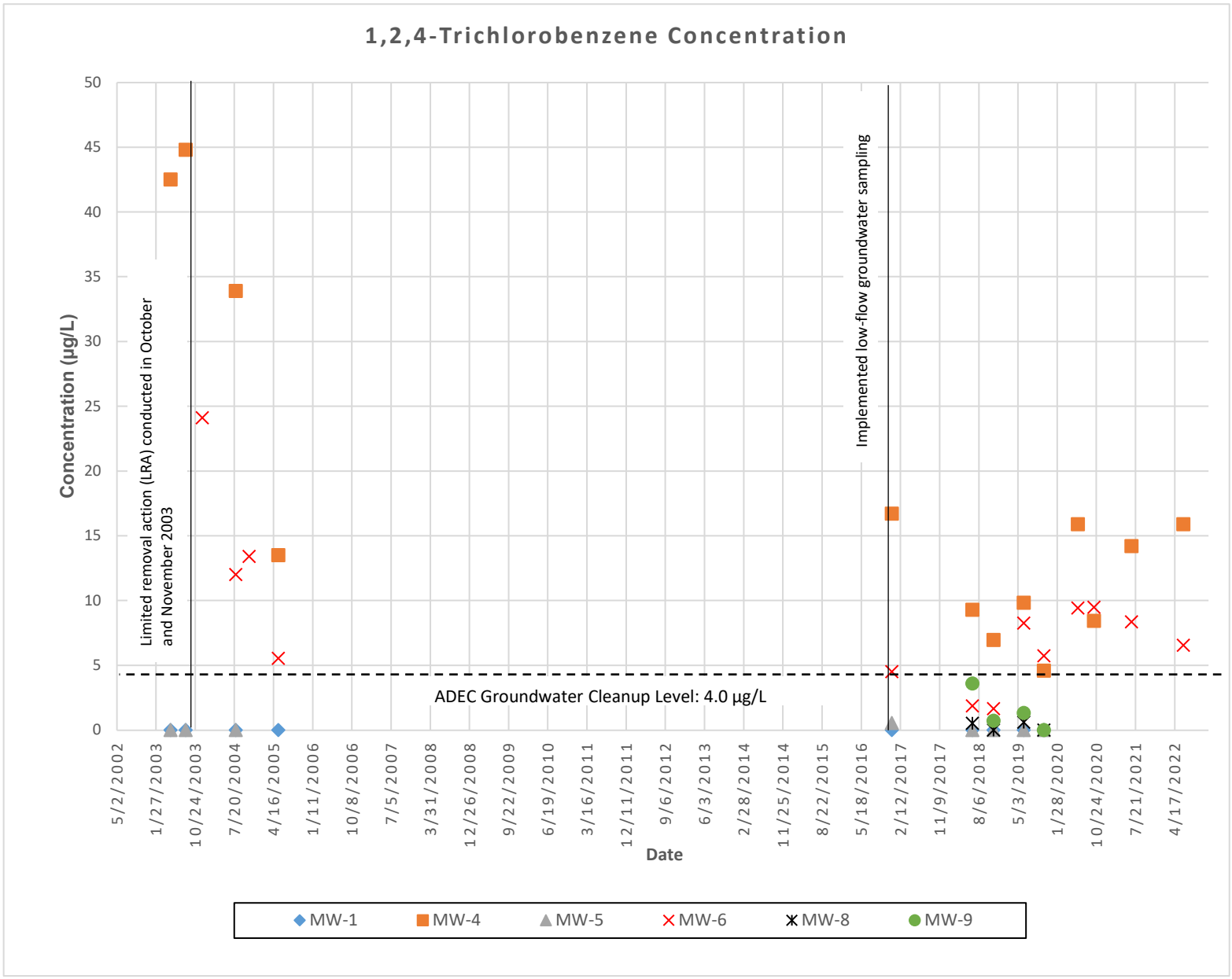
Note: Non-detects (reported at the Limit of Detection [LOD]) are plotted as zero for graphical presentation. See Table 3 for LOD.

Figure 4: 1,4-Dichlorobenzene (1,4-DCB) Concentration Time Series Graph



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

Figure 5: 1,2,4-Trichlorobenzene (1,2,4-TCB) Concentration Time Series Graph



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

APPENDIX A: FIELD NOTES

Appendix A

Field Notes

Shannon & Wilson, Inc.

LOW-FLOW WATER SAMPLING LOG

Job No: 107454 Location: 250 Post Road Weather: 60° Sunny

Well No.: MW4

Date: 6/16/22 Time Started: 0945 Time Completed: ~~AR~~ 1105

Develop Date: — Develop End Time: — (24 hour break)

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 0935 Date of Depth Measurement: 6/16/22

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: 18.59 Product Thickness, if noted: —

Depth-to-Water (DTW) Below MP: 12.98

Water Column in Well: 5.61 (Total Depth of Well Below MP - DTW Below MP)

Gallons per foot: 0.16

Gallons in Well: ~~AR 0.8~~ 0.90 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/16/22 Time Started: 953 Time Completed: 1100

Three Well Volumes: 2.70 (Gallons in Well x 3)

Gallons Purged: 3.5 Depth of Pump (generally 2 ft from bottom): 213.5

Max. Drawdown (generally 0.3 ft): 0.00 Pump Rate: 0.2-0.4

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.: ~~mS/cm~~ (uS/cm) AR	DO: (mg/L)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
1003	1.0	0.4	12.98	0.00	6.75	0.564	0.96	6.10	58	71.70
1008	1.25	0.2	12.98	0.00	7.15	0.562	0.88	6.20	42	52.84
1013	1.50	0.2	12.98	0.00	7.42	0.561	0.84	6.21	38	39.69
1018	1.75	0.2	12.98	0.00	7.45	0.562	0.79	6.24	26	31.38
1023	2.00	0.2	12.98	0.00	7.74	0.562	0.75	6.39	17	26.06
1028	2.25	0.2	12.98	0.00	7.72	0.561	0.78	6.33	15	22.00

SAMPLING DATA

Odor: None Color: Clear

Sample Designation: 107454-MW-4 Time / Date: 1055 6/16/22

QC Sample Designation: ~~10 AR~~ — Time / Date: —

QA Sample Designation: — Time / Date: —

Evacuation Method: Submersible Pump / Other: Double whale

Sampling Method: Submersible Pump / Other: Double whale

Water Quality Instruments Used/Manufacturer/Model Number Horiba + Micro TPW

Calibration Info (Time, Ranges, etc) @ 900 on 6/16/22

Remarks: Parameters did not stabilize within 1 hr. Collected sample after purging for 1 hr + 3 well volumes.

Sampling Personnel: AJR

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

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

Shannon & Wilson, Inc.

LOW-FLOW WATER SAMPLING LOG

Continued from previous page

Job No: 107454 Location: 250 Post Rd. Site: 250 Post Rd.
Well No.: MW-4
Date: 6/16/22

Time:	Gallons:	Pump Rate (L/min):	DTW (ft BMP):	Drawdown (ft):	Temp: (°C)	Sp. Cond (uS/cm)	DO (mg/L)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
1033	2.50	0.2	12.48	0.00	7.92	0.561	0.72	6.31	9	16.59
1038	2.75	0.2	12.48	0.00	7.63	0.563	0.74	6.36	3	15.88
1043	3.00	0.2	12.48	0.00	6.67	0.564	0.66	6.34	2	14.12
1048	3.25	0.2	12.48	0.00	7.12	0.563	0.66	6.34	-1	12.33
1053	3.50	0.2	12.98	0.00	7.30	0.563	0.65	6.37	-3	11.03

	Interval (minutes)	Pump Rate (mL/min):	Drawdown (ft):	Temp: (°C)	Sp. Cond.: (uS/cm)	DO (mg/L)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
ADEC May 2010)	3 to 5	100 to 150	<0.0328	±3% or ±0.2	±3%	±10%	±0.1	±10	±10%
EPA Jan. 2010)	5	50	<0.3	±3%	±3%	±10%	±0.1	±10	±10% or <5 NTU

EPA guidance requires all parameters to stabilize for 3 consecutive readings before sampling. If not stable within 2 hours, collect sample.
ADEC guidance requires 3 parameters (4 if using temperature) to stabilize for 3 consecutive readings before sampling.

LOW-FLOW WATER SAMPLING LOG

Shannon & Wilson, Inc.

Job No: 107454 Location: 250 Post Rd. Weather: 60° Sunny

Well No.: MW6

Date: 6/16/22 Time Started: 1110 Time Completed: 1200

Develop Date: — Develop End Time: — (24 hour break)

INITIAL GROUNDWATER LEVEL DATA

Time of Depth Measurement: 930 Date of Depth Measurement: 6/16/22

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: 16.34 Product Thickness, if noted: —

Depth-to-Water (DTW) Below MP: 13.29

Water Column in Well: 3.05 (Total Depth of Well Below MP - DTW Below MP)

Gallons per foot: ~~0.49~~ 0.16

Gallons in Well: 0.49 (Water Column in Well x Gallons per foot)

PURGING DATA

Date Purged: 6/16/22 Time Started: 1113 Time Completed: 1152

Three Well Volumes: 1.47 (Gallons in Well x 3)

Gallons Purged: 3.2 Depth of Pump (generally 2 ft from bottom): ~14.00

Max. Drawdown (generally 0.3 ft): 0.02 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.: ~~mS/cm~~ ~~(uS/cm)~~ AR	DO: (mg/L)	pH: (S.U.)	ORP: (mV)	Turb: (NTU)
1123	1.3	0.5	13.31	0.02	5.56	0.626	1.45	6.17	54	14.91
1128	1.9	0.5	13.31	0.02	6.10	0.624	1.40	6.23	55	15.71
1133	2.4	0.5	13.31	0.02	6.10	0.626	1.40	6.26	56	11.06
1138	2.9	0.5	13.31	0.02	6.16	0.629	1.39	6.27	59	9.05
1141	3.2	0.5	13.31	0.02	6.16	0.631	1.40	6.27	61	8.75

SAMPLING DATA

Odor: None Color: Clear

Sample Designation: 107454-MW-6 Time / Date: 1145 AR ~~6/22/22~~ 6/16/22

QC Sample Designation: 107454-MW-106 Time / Date: 1215 GT 6/16/22

QA Sample Designation: — Time / Date: —

Evacuation Method: Submersible Pump / Other: Double Wheel

Sampling Method: Submersible Pump / Other: Double Wheel

Water Quality Instruments Used/Manufacturer/Model Number Horiba + MicroTPW

Calibration Info (Time, Ranges, etc) @ 900 on 6/16/22

Remarks: _____

Sampling Personnel: AJR

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

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

APPENDIX B: RESULTS OF ANALYTICAL TESTING

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
(907)433-3228

Report Number: **1223164**

Client Project: **107454 250 Post Road**

Dear Alec Rizzo,

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 Justin 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.

Stephen C. Ede
2022.06.27
16:48:15 -08'00'

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

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

Case Narrative

SGS Client: **Shannon & Wilson, Inc.**
SGS Project: **1223164**
Project Name/Site: **107454 250 Post Road**
Project Contact: **Alec Rizzo**

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.

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

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 (Provisionally Certified as of 05/31/2022 for Nitrate as N by SM 4500NO3-F) & Microbiology & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. 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
TNTC	Too Numerous To Count
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
107454-MW-4	1223164001	06/16/2022	06/16/2022	Water (Surface, Eff., Ground)
107454-MW-6	1223164002	06/16/2022	06/16/2022	Water (Surface, Eff., Ground)
107454-MW-106	1223164003	06/16/2022	06/16/2022	Water (Surface, Eff., Ground)
107454-WTB	1223164004	06/16/2022	06/16/2022	Water (Surface, Eff., Ground)

Method	Method Description
SW8260D	Volatile Organic Compounds (W) FULL

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200 West Potter Drive, Anchorage, AK 99518
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Detectable Results Summary

Client Sample ID: **107454-MW-4**
Lab Sample ID: 1223164001
Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethane	0.681J	ug/L
1,2,4-Trichlorobenzene	15.9	ug/L
1,2-Dichlorobenzene	0.700J	ug/L
1,3-Dichlorobenzene	7.85	ug/L
1,4-Dichlorobenzene	7.58	ug/L
Trichloroethene	1.32	ug/L

Client Sample ID: **107454-MW-6**
Lab Sample ID: 1223164002
Volatile GC/MS

Parameter	Result	Units
1,1,1-Trichloroethane	0.462J	ug/L
1,2,3-Trichlorobenzene	0.624J	ug/L
1,2,4-Trichlorobenzene	6.54	ug/L
1,2-Dichlorobenzene	0.537J	ug/L
1,3-Dichlorobenzene	4.00	ug/L
1,4-Dichlorobenzene	3.92	ug/L
cis-1,2-Dichloroethene	0.846J	ug/L
Trichloroethene	9.85	ug/L

Client Sample ID: **107454-MW-106**
Lab Sample ID: 1223164003
Volatile GC/MS

Parameter	Result	Units
1,2,3-Trichlorobenzene	0.621J	ug/L
1,2,4-Trichlorobenzene	6.42	ug/L
1,2-Dichlorobenzene	0.537J	ug/L
1,3-Dichlorobenzene	4.01	ug/L
1,4-Dichlorobenzene	3.91	ug/L
cis-1,2-Dichloroethene	0.889J	ug/L
Trichloroethene	10.0	ug/L

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

Results of **107454-MW-4**

Client Sample ID: **107454-MW-4**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164001
Lab Project ID: 1223164

Collection Date: 06/16/22 10:55
Received Date: 06/16/22 13:35
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		06/21/22 21:38
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:38
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/21/22 21:38
1,1-Dichloroethane	0.681	J	1.00	0.310	ug/L	1		06/21/22 21:38
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,2,4-Trichlorobenzene	15.9		1.00	0.310	ug/L	1		06/21/22 21:38
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/21/22 21:38
1,2-Dichlorobenzene	0.700	J	1.00	0.310	ug/L	1		06/21/22 21:38
1,2-Dichloroethane	0.250	U	0.500	0.200	ug/L	1		06/21/22 21:38
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
1,3-Dichlorobenzene	7.85		1.00	0.310	ug/L	1		06/21/22 21:38
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:38
1,4-Dichlorobenzene	7.58		0.500	0.150	ug/L	1		06/21/22 21:38
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
Benzene	0.200	U	0.400	0.120	ug/L	1		06/21/22 21:38
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:38
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Bromomethane	3.00	U	6.00	3.00	ug/L	1		06/21/22 21:38
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:38
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38

Print Date: 06/27/2022 4:44:51PM

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Results of **107454-MW-4**

Client Sample ID: **107454-MW-4**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164001
Lab Project ID: 1223164

Collection Date: 06/16/22 10:55
Received Date: 06/16/22 13:35
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		06/21/22 21:38
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:38
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:38
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Methylene chloride	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/21/22 21:38
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Styrene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Toluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Trichloroethene	1.32		1.00	0.310	ug/L	1		06/21/22 21:38
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:38
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:38
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/21/22 21:38
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/21/22 21:38
Surrogates								
1,2-Dichloroethane-D4 (surr)	106		81-118		%	1		06/21/22 21:38
4-Bromofluorobenzene (surr)	100		85-114		%	1		06/21/22 21:38
Toluene-d8 (surr)	99.6		89-112		%	1		06/21/22 21:38

Print Date: 06/27/2022 4:44:51PM

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Results of **107454-MW-4**

Client Sample ID: **107454-MW-4**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164001
Lab Project ID: 1223164

Collection Date: 06/16/22 10:55
Received Date: 06/16/22 13:35
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21716
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 06/21/22 21:38
Container ID: 1223164001-A

Prep Batch: VXX38730
Prep Method: SW5030B
Prep Date/Time: 06/21/22 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Results of **107454-MW-6**

Client Sample ID: **107454-MW-6**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164002
Lab Project ID: 1223164

Collection Date: 06/16/22 11:45
Received Date: 06/16/22 13:35
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		06/21/22 21:53
1,1,1-Trichloroethane	0.462	J	1.00	0.310	ug/L	1		06/21/22 21:53
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:53
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/21/22 21:53
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,2,3-Trichlorobenzene	0.624	J	1.00	0.310	ug/L	1		06/21/22 21:53
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,2,4-Trichlorobenzene	6.54		1.00	0.310	ug/L	1		06/21/22 21:53
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/21/22 21:53
1,2-Dichlorobenzene	0.537	J	1.00	0.310	ug/L	1		06/21/22 21:53
1,2-Dichloroethane	0.250	U	0.500	0.200	ug/L	1		06/21/22 21:53
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
1,3-Dichlorobenzene	4.00		1.00	0.310	ug/L	1		06/21/22 21:53
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:53
1,4-Dichlorobenzene	3.92		0.500	0.150	ug/L	1		06/21/22 21:53
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
Benzene	0.200	U	0.400	0.120	ug/L	1		06/21/22 21:53
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:53
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Bromomethane	3.00	U	6.00	3.00	ug/L	1		06/21/22 21:53
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:53
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53

Print Date: 06/27/2022 4:44:51PM

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Results of **107454-MW-6**

Client Sample ID: **107454-MW-6**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164002
Lab Project ID: 1223164

Collection Date: 06/16/22 11:45
Received Date: 06/16/22 13:35
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		06/21/22 21:53
Chloromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
cis-1,2-Dichloroethene	0.846	J	1.00	0.310	ug/L	1		06/21/22 21:53
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:53
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 21:53
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Freon-113	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Methylene chloride	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
Naphthalene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
o-Xylene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		06/21/22 21:53
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Styrene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Toluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Trichloroethene	9.85		1.00	0.310	ug/L	1		06/21/22 21:53
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 21:53
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		06/21/22 21:53
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		06/21/22 21:53
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		06/21/22 21:53
Surrogates								
1,2-Dichloroethane-D4 (surr)	105		81-118		%	1		06/21/22 21:53
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/21/22 21:53
Toluene-d8 (surr)	98.8		89-112		%	1		06/21/22 21:53

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Results of **107454-MW-6**

Client Sample ID: **107454-MW-6**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164002
Lab Project ID: 1223164

Collection Date: 06/16/22 11:45
Received Date: 06/16/22 13:35
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21716
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 06/21/22 21:53
Container ID: 1223164002-A

Prep Batch: VXX38730
Prep Method: SW5030B
Prep Date/Time: 06/21/22 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **107454-MW-106**

Client Sample ID: **107454-MW-106**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164003
Lab Project ID: 1223164

Collection Date: 06/16/22 12:15
Received Date: 06/16/22 13:35
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		06/21/22 22:08
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 22:08
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/21/22 22:08
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,2,3-Trichlorobenzene	0.621	J	1.00	0.310	ug/L	1		06/21/22 22:08
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,2,4-Trichlorobenzene	6.42		1.00	0.310	ug/L	1		06/21/22 22:08
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/21/22 22:08
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/21/22 22:08
1,2-Dichlorobenzene	0.537	J	1.00	0.310	ug/L	1		06/21/22 22:08
1,2-Dichloroethane	0.250	U	0.500	0.200	ug/L	1		06/21/22 22:08
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
1,3-Dichlorobenzene	4.01		1.00	0.310	ug/L	1		06/21/22 22:08
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/21/22 22:08
1,4-Dichlorobenzene	3.91		0.500	0.150	ug/L	1		06/21/22 22:08
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 22:08
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/21/22 22:08
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 22:08
Benzene	0.200	U	0.400	0.120	ug/L	1		06/21/22 22:08
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 22:08
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
Bromomethane	3.00	U	6.00	3.00	ug/L	1		06/21/22 22:08
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/21/22 22:08
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/21/22 22:08
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 22:08

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Results of **107454-MW-106**

Client Sample ID: **107454-MW-106**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164003
Lab Project ID: 1223164

Collection Date: 06/16/22 12:15
Received Date: 06/16/22 13:35
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		06/21/22 22:08
Chloromethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
cis-1,2-Dichloroethene	0.889 J		1.00	0.310	ug/L	1		06/21/22 22:08
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		06/21/22 22:08
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		06/21/22 22:08
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Dichlorodifluoromethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Freon-113	5.00 U		10.0	3.10	ug/L	1		06/21/22 22:08
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Isopropylbenzene (Cumene)	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		06/21/22 22:08
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		06/21/22 22:08
Naphthalene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
n-Propylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
o-Xylene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		06/21/22 22:08
sec-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Styrene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Toluene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Trichloroethene	10.0		1.00	0.310	ug/L	1		06/21/22 22:08
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 22:08
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		06/21/22 22:08
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		06/21/22 22:08
Xylenes (total)	1.50 U		3.00	1.00	ug/L	1		06/21/22 22:08
Surrogates								
1,2-Dichloroethane-D4 (surr)	101		81-118		%	1		06/21/22 22:08
4-Bromofluorobenzene (surr)	102		85-114		%	1		06/21/22 22:08
Toluene-d8 (surr)	99.1		89-112		%	1		06/21/22 22:08

Print Date: 06/27/2022 4:44:51PM

J flagging is activated

Results of **107454-MW-106**

Client Sample ID: **107454-MW-106**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164003
Lab Project ID: 1223164

Collection Date: 06/16/22 12:15
Received Date: 06/16/22 13:35
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21716
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 06/21/22 22:08
Container ID: 1223164003-A

Prep Batch: VXX38730
Prep Method: SW5030B
Prep Date/Time: 06/21/22 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **107454-WTB**

Client Sample ID: **107454-WTB**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164004
Lab Project ID: 1223164

Collection Date: 06/16/22 09:00
Received Date: 06/16/22 13:35
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		06/21/22 19:11
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 19:11
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		06/21/22 19:11
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		06/21/22 19:11
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		06/21/22 19:11
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,2-Dichloroethane	0.250	U	0.500	0.200	ug/L	1		06/21/22 19:11
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		06/21/22 19:11
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/21/22 19:11
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 19:11
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		06/21/22 19:11
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		06/21/22 19:11
Benzene	0.200	U	0.400	0.120	ug/L	1		06/21/22 19:11
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		06/21/22 19:11
Bromoform	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
Bromomethane	3.00	U	6.00	3.00	ug/L	1		06/21/22 19:11
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		06/21/22 19:11
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		06/21/22 19:11
Chloroethane	0.500	U	1.00	0.310	ug/L	1		06/21/22 19:11

Results of **107454-WTB**

Client Sample ID: **107454-WTB**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164004
Lab Project ID: 1223164

Collection Date: 06/16/22 09:00
Received Date: 06/16/22 13:35
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		06/21/22 19:11
Chloromethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		06/21/22 19:11
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		06/21/22 19:11
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Dichlorodifluoromethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Freon-113	5.00 U		10.0	3.10	ug/L	1		06/21/22 19:11
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Isopropylbenzene (Cumene)	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Methylene chloride	5.00 U		10.0	3.10	ug/L	1		06/21/22 19:11
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		06/21/22 19:11
Naphthalene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
n-Propylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
o-Xylene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		06/21/22 19:11
sec-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Styrene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Tetrachloroethene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Toluene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Trichloroethene	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Trichlorofluoromethane	0.500 U		1.00	0.310	ug/L	1		06/21/22 19:11
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		06/21/22 19:11
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		06/21/22 19:11
Xylenes (total)	1.50 U		3.00	1.00	ug/L	1		06/21/22 19:11
Surrogates								
1,2-Dichloroethane-D4 (surr)	108		81-118		%	1		06/21/22 19:11
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/21/22 19:11
Toluene-d8 (surr)	98.7		89-112		%	1		06/21/22 19:11

Print Date: 06/27/2022 4:44:51PM

J flagging is activated

Results of **107454-WTB**

Client Sample ID: **107454-WTB**
Client Project ID: **107454 250 Post Road**
Lab Sample ID: 1223164004
Lab Project ID: 1223164

Collection Date: 06/16/22 09:00
Received Date: 06/16/22 13:35
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS21716
Analytical Method: SW8260D
Analyst: JMG
Analytical Date/Time: 06/21/22 19:11
Container ID: 1223164004-A

Prep Batch: VXX38730
Prep Method: SW5030B
Prep Date/Time: 06/21/22 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Method Blank

Blank ID: MB for HBN 1838344 [VXX/38730]
Blank Lab ID: 1669212

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1223164001, 1223164002, 1223164003, 1223164004

Results by **SW8260D**

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	0.200	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	3.00U	6.00	3.00	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

Method Blank

Blank ID: MB for HBN 1838344 [VXX/38730]
Blank Lab ID: 1669212

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1223164001, 1223164002, 1223164003, 1223164004

Results by **SW8260D**

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	5.00U	10.0	3.10	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)	103	81-118		%
4-Bromofluorobenzene (surr)	102	85-114		%
Toluene-d8 (surr)	98.8	89-112		%

Method Blank

Blank ID: MB for HBN 1838344 [VXX/38730]
Blank Lab ID: 1669212

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1223164001, 1223164002, 1223164003, 1223164004

Results by **SW8260D**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS21716
Analytical Method: SW8260D
Instrument: VPA 780/5975 GC/MS
Analyst: JMG
Analytical Date/Time: 6/21/2022 3:07:00PM

Prep Batch: VXX38730
Prep Method: SW5030B
Prep Date/Time: 6/21/2022 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Blank Spike Summary

Blank Spike ID: LCS for HBN 1223164 [VXX38730]
Blank Spike Lab ID: 1669213
Date Analyzed: 06/21/2022 15:21

Spike Duplicate ID: LCSD for HBN 1223164 [VXX38730]
Spike Duplicate Lab ID: 1669214
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1223164001, 1223164002, 1223164003, 1223164004

Results by **SW8260D**

	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	29.0	97	30	28.2	94	(78-124)	2.90	(< 20)
1,1,1-Trichloroethane	30	28.9	96	30	27.8	93	(74-131)	4.00	(< 20)
1,1,2,2-Tetrachloroethane	30	29.3	98	30	28.2	94	(71-121)	4.10	(< 20)
1,1,2-Trichloroethane	30	29.5	98	30	28.5	95	(80-119)	3.40	(< 20)
1,1-Dichloroethane	30	30.4	101	30	28.8	96	(77-125)	5.20	(< 20)
1,1-Dichloroethene	30	29.2	98	30	27.9	93	(71-131)	4.60	(< 20)
1,1-Dichloropropene	30	28.0	93	30	27.0	90	(79-125)	3.60	(< 20)
1,2,3-Trichlorobenzene	30	28.3	94	30	27.2	91	(69-129)	4.00	(< 20)
1,2,3-Trichloropropane	30	30.2	101	30	28.7	96	(73-122)	4.90	(< 20)
1,2,4-Trichlorobenzene	30	27.9	93	30	26.9	90	(69-130)	3.90	(< 20)
1,2,4-Trimethylbenzene	30	28.4	95	30	27.3	91	(79-124)	4.00	(< 20)
1,2-Dibromo-3-chloropropane	30	28.9	97	30	27.5	92	(62-128)	5.00	(< 20)
1,2-Dibromoethane	30	29.1	97	30	28.5	95	(77-121)	1.90	(< 20)
1,2-Dichlorobenzene	30	30.7	102	30	29.7	99	(80-119)	3.40	(< 20)
1,2-Dichloroethane	30	32.0	107	30	30.7	102	(73-128)	4.10	(< 20)
1,2-Dichloropropane	30	30.5	102	30	28.6	95	(78-122)	6.60	(< 20)
1,3,5-Trimethylbenzene	30	29.7	99	30	28.6	95	(75-124)	3.90	(< 20)
1,3-Dichlorobenzene	30	31.2	104	30	29.7	99	(80-119)	5.00	(< 20)
1,3-Dichloropropane	30	29.2	97	30	28.2	94	(80-119)	3.50	(< 20)
1,4-Dichlorobenzene	30	30.9	103	30	29.5	99	(79-118)	4.40	(< 20)
2,2-Dichloropropane	30	28.4	95	30	27.4	91	(60-139)	3.50	(< 20)
2-Butanone (MEK)	90	100	111	90	95.8	106	(56-143)	4.60	(< 20)
2-Chlorotoluene	30	30.2	101	30	28.7	96	(79-122)	5.30	(< 20)
2-Hexanone	90	105	117	90	101	112	(57-139)	4.20	(< 20)
4-Chlorotoluene	30	29.9	100	30	28.7	96	(78-122)	4.40	(< 20)
4-Isopropyltoluene	30	28.0	93	30	26.7	89	(77-127)	4.70	(< 20)
4-Methyl-2-pentanone (MIBK)	90	105	117	90	99.7	111	(67-130)	5.60	(< 20)
Benzene	30	31.0	103	30	29.7	99	(79-120)	4.50	(< 20)
Bromobenzene	30	28.3	94	30	27.2	91	(80-120)	3.90	(< 20)
Bromochloromethane	30	29.9	100	30	28.6	95	(78-123)	4.40	(< 20)
Bromodichloromethane	30	32.0	107	30	30.7	102	(79-125)	4.10	(< 20)
Bromoform	30	28.4	95	30	27.6	92	(66-130)	3.00	(< 20)
Bromomethane	30	28.0	93	30	26.2	87	(53-141)	6.70	(< 20)
Carbon disulfide	45	44.9	100	45	42.6	95	(64-133)	5.20	(< 20)

Print Date: 06/27/2022 4:44:56PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1223164 [VXX38730]
Blank Spike Lab ID: 1669213
Date Analyzed: 06/21/2022 15:21

Spike Duplicate ID: LCSD for HBN 1223164 [VXX38730]
Spike Duplicate Lab ID: 1669214
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1223164001, 1223164002, 1223164003, 1223164004

Results by **SW8260D**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	28.2	94	30	27.0	90	(72-136)	4.10	(< 20)
Chlorobenzene	30	30.9	103	30	30.0	100	(82-118)	3.00	(< 20)
Chloroethane	30	30.2	101	30	28.1	94	(60-138)	7.10	(< 20)
Chloroform	30	30.9	103	30	29.6	99	(79-124)	4.40	(< 20)
Chloromethane	30	28.3	94	30	26.6	89	(50-139)	6.20	(< 20)
cis-1,2-Dichloroethene	30	29.8	99	30	28.8	96	(78-123)	3.30	(< 20)
cis-1,3-Dichloropropene	30	29.2	97	30	28.0	93	(75-124)	4.10	(< 20)
Dibromochloromethane	30	28.3	95	30	27.5	92	(74-126)	3.00	(< 20)
Dibromomethane	30	31.8	106	30	30.2	101	(79-123)	5.30	(< 20)
Dichlorodifluoromethane	30	25.5	85	30	24.4	81	(32-152)	4.80	(< 20)
Ethylbenzene	30	30.0	100	30	29.1	97	(79-121)	3.10	(< 20)
Freon-113	45	43.7	97	45	41.8	93	(70-136)	4.30	(< 20)
Hexachlorobutadiene	30	27.6	92	30	26.1	87	(66-134)	5.20	(< 20)
Isopropylbenzene (Cumene)	30	30.0	100	30	28.8	96	(72-131)	4.40	(< 20)
Methylene chloride	30	30.9	103	30	29.5	98	(74-124)	4.80	(< 20)
Methyl-t-butyl ether	45	47.0	105	45	45.0	100	(71-124)	4.40	(< 20)
Naphthalene	30	28.9	96	30	27.7	92	(61-128)	4.30	(< 20)
n-Butylbenzene	30	27.8	93	30	26.7	89	(75-128)	4.10	(< 20)
n-Propylbenzene	30	30.0	100	30	28.4	95	(76-126)	5.70	(< 20)
o-Xylene	30	30.8	103	30	29.7	99	(78-122)	3.80	(< 20)
P & M -Xylene	60	62.2	104	60	60.2	100	(80-121)	3.30	(< 20)
sec-Butylbenzene	30	28.3	94	30	26.9	90	(77-126)	5.10	(< 20)
Styrene	30	30.2	101	30	28.9	96	(78-123)	4.40	(< 20)
tert-Butylbenzene	30	29.1	97	30	27.8	93	(78-124)	4.80	(< 20)
Tetrachloroethene	30	27.5	92	30	26.8	90	(74-129)	2.50	(< 20)
Toluene	30	31.0	103	30	30.0	100	(80-121)	3.40	(< 20)
trans-1,2-Dichloroethene	30	31.0	103	30	29.6	99	(75-124)	4.40	(< 20)
trans-1,3-Dichloropropene	30	28.1	94	30	27.5	92	(73-127)	2.40	(< 20)
Trichloroethene	30	28.5	95	30	27.1	90	(79-123)	4.80	(< 20)
Trichlorofluoromethane	30	29.1	97	30	26.0	87	(65-141)	11.10	(< 20)
Vinyl acetate	30	30.1	100	30	29.1	97	(54-146)	3.50	(< 20)
Vinyl chloride	30	28.0	93	30	26.3	88	(58-137)	6.40	(< 20)
Xylenes (total)	90	93.1	103	90	89.9	100	(79-121)	3.50	(< 20)

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Blank Spike Summary

Blank Spike ID: LCS for HBN 1223164 [VXX38730]
Blank Spike Lab ID: 1669213
Date Analyzed: 06/21/2022 15:21

Spike Duplicate ID: LCSD for HBN 1223164 [VXX38730]
Spike Duplicate Lab ID: 1669214
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1223164001, 1223164002, 1223164003, 1223164004

Results by **SW8260D**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30		104	30		103	(81-118)	1.00	
4-Bromofluorobenzene (surr)	30		100	30		99	(85-114)	1.70	
Toluene-d8 (surr)	30		101	30		101	(89-112)	0.46	

Batch Information

Analytical Batch: **VMS21716**
Analytical Method: **SW8260D**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **JMG**

Prep Batch: **VXX38730**
Prep Method: **SW5030B**
Prep Date/Time: **06/21/2022 06:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

1223164

Profile #305427 Qt.

Shannon & Wilson, Inc.
5430 Fairbanks Street, Suite 3
Anchorage, Alaska 99518
(907) 561-2120
Fax (206) 695-6777

SGS North America Inc.

Date	Time	Sample ID	Total Containers	VOCs - EPA Method 8260D							
				HCL							
6/16/22	1055	107454-MW-4	3	X							(1) AC
6/16/22	1145	107454-MW-6	3	X							(2) AC
6/16/22	1215	107454-MW-106	3	X							(3) AC
6/16/22	900	107454-WTB	1 set	X							(4) AC

Relinquished By:	Relinquished By:	Project Information
Signature:	Signature:	Project Number: 107454
Print Name: Alec Rizzo	Print Name:	Project Name: 250 Post Road
Company: Shannon & Wilson, Inc.	Company:	Contact: DLO/AJR
Date: 6/16/22	Date:	Sampler: AJR
Time: 1300	Time:	Special Instructions:
Received By:	**Received By:**	**Sample Receipt**
Signature:	Signature:	Shipped Via: Hand Delivered
Print Name:	Print Name: Daniel Bar	
Company:	Company: SGS	Cooler Temperature Upon Arrival: 4.7 D59
Date:	Date: 6/16/22	Sample Matrix: Groundwater
Time:	Time: 13:25	10 Working DAY TAT

Intact - 1F HC

e-Sample Receipt Form

SGS Workorder #:	1223164	1223164

Review Criteria	Condition (Yes, No, N/A	Exceptions Noted below
Chain of Custody / Temperature Requirements	*Note:* Temperature and COC seal information is found on the chain of custody form	
DOD only: Did all sample coolers have a corresponding COC?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note containers received with ice:		
Identify any 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 and sample containers.	
Were samples received within analytical holding time?	Yes	
Do sample labels match COC? Record discrepancies.	Yes	
Note: *If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.*		
Were analytical requests clear? *(i.e. method is specified for analyses with multiple option for method (Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)*	Yes	
Were proper containers (type/mass/volume/preservative)used? Note: Exemption for metals analysis by 200.8/6020 in water.	Yes	
Volatile Analysis Requirements (VOC, GRO, LL-Hg, etc.)		
Were all soil VOAs received with a corresponding % solids container?	N/A	
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samples?	Yes	
Were all water VOA vials free of headspace (e.g., bubbles ≤ 6mm)?	Yes	
Were all soil VOAs field extracted with Methanol+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
1223164001-A	HCL to pH < 2	OK			
1223164001-B	HCL to pH < 2	OK			
1223164001-C	HCL to pH < 2	OK			
1223164002-A	HCL to pH < 2	OK			
1223164002-B	HCL to pH < 2	OK			
1223164002-C	HCL to pH < 2	OK			
1223164003-A	HCL to pH < 2	OK			
1223164003-B	HCL to pH < 2	OK			
1223164003-C	HCL to pH < 2	OK			
1223164004-A	HCL to pH < 2	OK			
1223164004-B	HCL to pH < 2	OK			
1223164004-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.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
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.
QN - Insufficient sample quantity provided.

LABORATORY DATA REVIEW CHECKLIST

Completed by: Judy Hepner
Title: June 2022 Groundwater Monitoring Event, 250 Post Road, Anchorage, Alaska
Date: August 2022

Consultant Firm: Shannon & Wilson, Inc.

Laboratory Name: SGS North America Inc.
Laboratory Report Number: 1223164
Laboratory Report Date: June 27, 2022

Contaminated Site Name: Kelly-Moore Paint Store & Warehouse
ADEC File Number: 2100.38.036
Hazard Identification Number: 3168

(**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**
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
Comments**:**

b. Correct analyses requested? **Yes / No / NA**
Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?
Yes / No / NA
Comments: *The cooler temperature blank was 4.7° Celsius.*

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

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

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.? **Yes / No / NA**
Comments: *No discrepancies were noted.*

e. Data quality or usability affected?
Comments: *See above.*

4. Case Narrative

a. Present and understandable? **Yes / No / NA**
Comments:

b. Discrepancies, errors or QC failures noted by the lab? **Yes / No / NA**
Comments: *No discrepancies, error, or QC failures were noted by the laboratory in the case narrative.*

c. Were all corrective actions documented? **Yes / No / NA**
Comments:

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

5. Sample Results

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

b. All applicable holding times met? **Yes / No / NA**
Comments:

c. All soils reported on a dry weight basis? **Yes / No / NA**
Comments: *Soil samples were not submitted as part of this work order.*

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project? **Yes / No / NA**
Comments*: The LOQ for 1,2,3-trichloropropane is greater than its respective ADEC Table C cleanup level.*

e. Data quality or usability affected?
Comments: *The data cannot be used to determine whether or not a concentration of 1,2,3-trichloropropane is present at a concentration greater than its respective ADEC cleanup level, but less than the LOQ.*

6. QC Samples

a. Method Blank

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

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?
Yes / No / NA
Comments:

iii. If above LOQ or project specified objectives, what samples are affected?
Comments: *NA*

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

v. Data quality or usability affected?
Comments: *No, see above.*

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**
Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples? **Yes / No / NA**
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 objectives, if applicable. (AK petroleum methods: AK 101 60%-120%, AK 102 75%-125%, AK 103 60%-120%; all other analyses see the laboratory QC pages) **Yes / No / NA**
Comments:

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

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

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

vii. Data quality or usability affected?
Comments*: No, see above.*

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)
Note: Leave blank if not required for project

i. Organics - One MS/MSD reported per matrix, analysis, and 20 samples?
Yes / No / NA
Comments:

ii. Metals/Inorganics - One MS and one MSD reported per matrix, analysis and 20 samples? **Yes / No / NA**
Comments:

iii. Accuracy – All percent recoveries (%R) reported and *w*ithin method or laboratory limits and project specified objectives, if applicable. **Yes / No / NA**
Comments:

iv. Precision – All relative percent differences (RPDs) reported and less than method or laboratory limits and project specified objectives, if applicable. RPD reported from MS/MSD, and/or sample/sample duplicate. **Yes / No / NA**
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? If so, are the data flags clearly defined?
Yes / No / NA
Comments:

vii. Data quality or usability affected?
Comments*:*

d. Surrogates - Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

i. Are surrogate/IDA recoveries reported for organic analyses - field, QC, and laboratory samples? **Yes / No / NA**
Comments:

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

iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined? **Yes / No / NA**
Comments:

iv. Data quality or usability affected?
Comments: *See above.*

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

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.) **Yes / No / NA**
Comments:

ii. Is the cooler used to transport the trip blank and volatile samples clearly indicated on the COC? (If not, a comment explaining why must be entered below.) **Yes / No / NA**
Comments: *Only one cooler was used to transport the samples.*

iii. All results less than LOQ and project specified objectives? **Yes / No / NA**
Comments:

iv. If above LOQ or project specified DQOs, what samples are affected?
Comments: *NA*

v. Data quality or usability affected?
Comments: *See above.*

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples? **Yes / No / NA**
Comments: *Sample 107454-MW-106 is a field duplicate of Sample 107454-MW-6.*

ii. Were the field duplicates submitted blind to the lab? **Yes / No / NA**

Comments:

iii. Precision – All relative percent differences (RPDs) less than specified project objectives? (Recommended: 30% for water, 50% for soil) **Yes / No / NA**
Comments:

iv. Data quality or usability affected?
Comments: *See above.*

g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below).

Yes / No / NA
Comments: *A decontamination or equipment blank was not included in our ADEC-approved work plan.*

i. All results less than LOQ and project specified objectives?
Yes / No / NA
Comments:

ii. If above LOQ or project specified objectives, what samples are affected?
Comments: *NA*

iii. Data quality or usability affected?
Comments: *See above.*

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

a. Defined and appropriate? **Yes / No / NA**
Comments: *A key is provided on Page 3 of the SGS Laboratory Report.*

APPENDIX C: INVESTIGATION-DERIVED WASTE DOCUMENTATION

Appendix C

Investigation-Derived Waste Documentation

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites and Prevention Preparedness and Response Programs

Contaminated Media Transport and Treatment or Disposal Approval Form

DEC HAZARD/SPILL ID #	NAME OF CONTAMINATED SITE OR SPILL	
3168	Kelly-Moore Paint Store & Warehouse	
CONTAMINATED SITE OR SPILL LOCATION – ADDRESS OR OTHER APPROPRIATE DESCRIPTION		
250 Post Road; South of Railroad Tracks		
CURRENT PHYSICAL LOCATION OF MEDIA	**SOURCE OF THE CONTAMINATION (DAY TANK, WASH BAY, FIRE TRAINING PIT, LUST, ETC.)**	
250 Post Road	Historical Impacted Soil and Groundwater	
CONTAMINANTS OF CONCERN	**ESTIMATED VOLUME**	**DATE(S) GENERATED**
VOCs	~10 gallons in one 55-gal drum	6/16/2022
POST TREATMENT ANALYSIS REQUIRED *(such as GRO, DRO, RRO, VOCs, metals, PFAS, and/or Chlorinated Solvents)*		
N/A		
COMMENTS OR OTHER IMPORTANT INFORMATION		
Impacted purge and decontamination water generated from Wells MW4 and MW6 during the October 2020 groundwater sampling event.		

TREATMENT FACILITY, LANDFILL, AND/OR FINAL DESTINATION OF MEDIA	PHYSICAL ADDRESS/PHONE NUMBER
US Ecology	2020 Viking Drive, Anchorage, Alaska 99501 (907) 258-1558
RESPONSIBLE PARTY	**ADDRESS/PHONE NUMBER**
Kelly-Moore Paint Co., Inc.	301 West Hurst Drive
WASTE MANAGEMENT CO. / ORGANIZER	**ADDRESS/PHONE NUMBER**
Mary Logue	817-799-3157

***Note, disposal of polluted soil in a landfill requires prior approval from the landfill operator and ADEC Solid Waste Program.**

Alec Rizzo
Name of the Person Requesting Approval (printed)

Environmental Staff/ Shannon & Wilson, Inc.
Title/Association

Alec Rizzo Digitally signed by Alec Rizzo Date: 2022.07.18 15:40:21 -08'00'
Signature

7/18/2022
Date

907-561-2120
Phone Number

----------DEC USE ONLY----------

Based on the information provided, ADEC approves transport of the above mentioned material. The Responsible Party or their consultant must submit to the DEC Project Manager a copy of weight receipts of the loads transported and a post treatment analytical report, if disposed of at an approved treatment facility. The contaminated soil shall be transported as a covered load in compliance with 18 AAC 60.015.

Brandi Tolsma
DEC Project Manager Name (printed)

Environmental Program Specialist
Project Manager Title

Brandi Tolsma Digitally signed by Brandi Tolsma Date: 2022.07.18 15:59:38 -08'00'
Signature

07/18/2022
Date

907-465-5378
Phone Number

NON-HAZARDOUS WASTE MANIFEST

PO#181186-6-3408MA 6066

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

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. VSQG

Manifest Document No. 181186A

2. Page 1 of 2

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

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

4. Generator's Phone ( )

IN CASE OF EMERGENCY CALL
800-898-4672

5. Transporter 1 Company Name: US ECOLOGY
6. US EPA ID Number: MIK593743838

A. State Transporter's ID
B. Transporter 1 Phone

7. Transporter 2 Company Name: WEAVER BROTHERS
8. US EPA ID Number: AKD002848372

C. State Transporter's ID
D. Transporter 2 Phone 907-278-4526

9. Designated Facility Name and Site Address
US ECOLOGY IDAHO, INC.
20400 LEMLEY RD
GRAND VIEW, ID 83624

10. US EPA ID Number: IDD073114654

E. State Facility's ID
F. Facility's Phone (208) 834-2275

11. WASTE DESCRIPTION	HM	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Material Not Regulated by DOT		1	DM	120	P
b.					
c.					
d.					

G. Additional Descriptions for Materials Listed Above
I) 52142-0 IDW WATER (DM55)

H. Handling Codes for Wastes Listed Above
D43636

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

GENERATOR

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	Signature	Date: Month	Day	Year
(W) Alec Rizzo	(W)	7	25	22

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date: Month	Day	Year
Brock Nelson (US ECO)	(US ECO)	7	25	22

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	Signature	Date: Month	Day	Year

NON-HAZARDOUS WASTE

IMPORTANT INFORMATION

Important Information

About Your Geotechnical/Environmental Report

IMPORTANT INFORMATION

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 that 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

IMPORTANT INFORMATION

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