Supplemental Report for October 2022 GWM Event at

Former Tesoro Northstore (TNS) #112

ADEC Fac. ID 1116, ADEC File 100.26.159

November 28, 2022

Prepared For

7-ELEVEN

Stantec

AUTHORIZATION TO SUBMIT REPORT

Stantec has been authorized by the client, 7-Eleven (representative Paula Sime, PG, Manager – Environmental Services) to submit the enclosed report to the Alaska Department of Environmental Conservation. If you have any questions or need additional information concerning this groundwater monitoring report, please contact me at (907) 227-9883 or via email at bob.gilfilian@stantec.com.

Regards,

STANTEC CONSULTING SERVICES, INC.

Robert Gilfilian

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Project Technical Lead

Principal Senior Civil Engineer

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ACRONYMS AND ABBREVIATIONS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AK	Alaska Test Method
amsl	above mean sea level
B	the analyte was also detected in the associated method blank
BTEX	benzene, toluene, ethylbenzene, and xylenes
Chemox	chemical oxidation
DO	dissolved oxygen
DRO	diesel range organics
DUP	duplicate sample
EPA	U.S. Environmental Protection Agency
GCL	groundwater cleanup level
GRO	gasoline range organics
J	The identification of the analyte is acceptable; the reported value is an estimate.
Klozur® One	Trademarked chemical oxidizer developed by PeroxyChem
mg/L	milligrams per liter
MW	monitoring well
NA	not applicable
PAH	polycyclic aromatic hydrocarbon
ORP	oxidation-reduction potential
QA/ QC	quality assurance/ quality control
SC	specific conductance
SIM	selective ion monitoring
Speedway	Speedway, LLC
Stantec	Stantec Consulting Services, Inc.
Tesoro	Tesoro Refining and Marketing Company
TMB	trimethylbenzene
U	undetected above practical quantification limits shown in parentheses
UST	underground storage tank
VOC	volatile organic compounds

1.0 INTRODUCTION

This supplemental report for the October 2022 Groundwater Monitoring Event was prepared by Stantec Consulting Services, Inc. (Stantec) on behalf of 7-Eleven for former Tesoro Northstore (TNS) #112, located at 3392 Badger Road, North Pole, Alaska (**Figure 1**). The methods that were used for this monitoring event were conducted in accordance with the Alaska Department of Environmental Conservation (ADEC) approved 2022 Corrective Action Work Plan for this site (see **Appendix B**).

The groundwater monitoring event on October 26, 2022, was conducted by Stantec personnel Engineer-In-Training (EIT) Geoff Moorhead and EIT Leslie Petre. The Stantec field staff conducted the October analytical sampling event of a limited number of wells that included Monitoring Wells MW-03, MW-17-2, and MW-17-5. The purpose of the monitoring event was to assess the effectiveness of the injecting chemox solution into the groundwater table that are represented by the selected monitoring and remediation wells. In addition, the well samples were tested for lead and ethylene dibromide (EDB).

2.0 SITE BACKGROUND

Background information is summarized in **Appendix A**.

3.0 FIELD ACTIVITIES

The following field activities were conducted during this monitoring event:

- Measured depth to groundwater in Monitoring Wells MW-03, MW-17-2, and MW-17-5.
- Collected field measurements of the following intrinsic water quality parameters in Monitoring Wells MW-03, MW-17-2, and MW-17-5: temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and specific conductance (SC).
- Collected groundwater samples from Monitoring Wells MW-03, MW-17-2, and MW-17-5, and submitted them for laboratory analysis for the following tests: U.S. Environmental Protection Agency Test Method (EPA) 8260C for Volatile Organic Compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX); EPA 8270D-SIM for polycyclic aromatic hydrocarbons (PAHs) including naphthalene; Alaska Test Method (AK)101 for GRO; AK102 for DRO; EPA 8011 for ethylene dibromide (EDB), EPA Metals 6010D for sodium, and EPA 6020 for lead.

Field methods and procedures are provided in **Appendix B** and field measurements and notes are provided in **Appendix C**.

4.0 GROUNDWATER MONITORING RESULTS

4.1 FIELD PARAMETERS

The results of intrinsic water quality parameters (temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and specific conductance (SC)) measured during this monitoring event are presented in **Table 2**. The high SC level and low pH level measured in MW-

17-2 is consistent with previous events and may be an indication of impact from the chemox treatment process.

Table 1 Field Measured Intrinsic Water Quality Parameters
Measurements taken on October 26, 2022

Monitoring Well Identification	Purged Volume (gallons)	Temperature (ºC)	pH	DO (mg/L)	ORP (mV)	SC (µs/cm°C)
MW-03	9	2.4	6.55	1.19	199	920
MW-17-2	3	2.5	3.65	3.05	375	8500
MW-17-5	2	3.2	6.09	1.59	222.6	4280

Key:
ºC degrees Celsius
µs/cm°C microSiemens per centimeter degrees Celsius
mg/L milligrams per liter
mV millivolts
DO Dissolved Oxygen
NM Not measured
ORP oxidation-reduction potential
pH log [H^+]
SC specific conductance corrected to 25 ºC

4.2 WATER SAMPLE ANALYTICAL RESULTS

Laboratory analytical results for BTEX, naphthalene, GRO, DRO, EDB, lead, and sodium in the groundwater samples collected during this monitoring event are summarized in **Table 2.** The laboratory analytical report is provided in **Appendix E**. Historical monitoring data for this site are tabulated in **Appendix D**.

Sodium concentrations in wells MW-17-2 are relatively high compared to the other wells and are an indication of the chemox treatments with Klozur® One. MW-03 and the duplicate sample had analytes detected in excess of groundwater cleanup levels (GCLs), including benzene, ethylbenzene, total xylenes, GRO, and naphthalene. MW-17-2 was the only sample where lead was detected in excess of GCLs. In MW-17-5, benzene, ethylbenzene, total xylenes, and naphthalene were detected in excess of GCLs.

Table 2 Groundwater Analytical Results for BTEX, GRO, DRO, EDB, Lead, Naphthalene, and Sodium

Samples collected on October 26, 2022

ID	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES (TOTAL)	GRO	DRO	EDB	Lead	NAPH-THALENE[1]	SODIUM
UNITS	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-03	**0.00990 J (0.0200)**	0.220	**0.383**	**3.25**	**6.65**	1.18 B	U (0.0000204)	0.00545	**0.00988**	50.9
DUP1	**0.00540 J (0.0200)**	0.0606	**0.151**	**1.09**	**2.39**	0.824	U (0.0000216)	0.00673	**0.0158**	51.7
MW-17-2	0.000530 J (0.00100)	U (0.00100)	0.00127	0.000377 J (0.00300)	0.118	1.23	U (0.0000200)	**0.0940**	0.000327 J (0.000500)	1230
MW-17-5	**0.0267**	0.0814	**0.0968**	**0.276**	1.15	0.319 J (0.800)	U (0.0000204)	0.00456	**0.00399**	270
GCLS	**0.0046**	**1.1**	**0.015**	**0.19**	**2.2**	**1.5**	**0.000075**	**0.015**	**0.0017**	**NA**

Key:

1 Results from VOC Method 8260 D
B Analyte also detected in associated blank
Bold indicates the concentration exceeds the GCL or the estimated quantitation limit exceeds the GCL
J The identification of the analyte is acceptable; the reported value is an estimate.
DUP Duplicate sample of the preceding sample.
GCLs Groundwater cleanup levels, 18 AAC 75.345, Table C, (9/18/2019)
U ( ) Undetected above LOQs shown in parentheses.
GRO Gasoline range organics analyzed by AK101.
mg/L milligrams per liter
NA Not Applicable
DRO Diesel range organics analyzed by AK102.

4.3 QUALITY ASSURANCE (QA)/QUALITY CONTROL (QC) REVIEW

PACE Analytical did not meet all laboratory QA/QC criteria during the analysis of groundwater samples for this sampling event. **Table 4** provides a summary of the laboratory QC objectives and outcomes for this monitoring event. Laboratory QC data and the ADEC Laboratory Data Review Checklist are included with the laboratory report in **Appendix E**.

Sample DUP1 is a quality control duplicate of Sample MW-03. The duplicate sample set was collected to determine the precision of the field collection and laboratory analyses for this sampling event. Data presented in **Table 4** show that the precision for the duplicate sample set exceeded the established QA criteria tolerance for all samples for which it could be calculated, except lead and sodium. The holding times were within established criteria. DRO in sample MW-3 was extracted 14 days from sampling, which is the limit of laboratory QC tolerance.

Table 3 Laboratory Quality Control Objectives

Quality Control Designation	Tolerance	Results for this Event
Holding Times		
DRO/Water/to analyze	40 days	14 days[1]
DRO/Water/to extract	14 days	14 days[1]
GRO/Water/to analyze	14 days	12 days[1]
VOCs/Water/to analyze	14 days	9 days
PAHs/Water/to analyze	40 days	7 days[1]
PAHs/Water/to extract	7 days	6 days[1]
Field Duplicates – Precision		
Benzene	± 30%	**59%**
Toluene	± 30%	**113%**
Ethylbenzene	± 30%	**87%**
Xylenes	± 30%	**100%**
GRO	± 30%	**94%**
DRO	± 30%	**56%**
Naphthalene	± 30%	**46%**
EDB	± 30%	NC
Lead	± 30%	21%
Sodium	± 30%	1.6%

Key:

%	Absolute value percentage of variance	PAH	Polycyclic Aromatic Hydrocarbon
±	Absolute Value	VOC	Volatile organic compound
DRO	diesel range organics	**BOLD**	Exceeds precision tolerance
GRO	gasoline range organics	1	Maximum value; some samples analyzed/extracted earlier

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following summarizes laboratory test results that exceeded the GCLs for the October 2022 supplemental groundwater monitoring event:

- MW-03: Benzene, ethylbenzene, total xylenes, GRO, and naphthalene.
- MW-17-2: Lead.
- MW-17-5: Benzene, ethylbenzene, total xylenes, and naphthalene.

The groundwater gradient and direction of flow were not calculated for this monitoring event because of the limited number of wells sampled.

No anomalies were found during the October 2022 supplemental monitoring event that would require additional corrective action or changes to the approved year 2022 Corrective Action Work Plan for this site.

6.0 LIMITATIONS

Stantec conducted this monitoring event in accordance with the 2022 Corrective Action Work Plan approved by ADEC, and in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. All sampling activities were completed in accordance with the ADEC *Underground Storage Tanks Procedures Manual – Standard Sampling Procedures* (March 22, 2017). The conclusions in this report are Stantec's professional opinion, as of the time of the report, and concerning the scope described in the report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. This report relates solely to the specific project for which Stantec was retained and the stated purpose for which the report was prepared. The report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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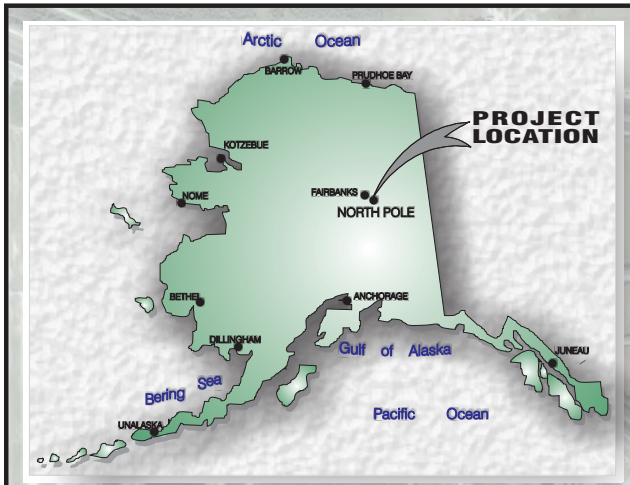
FIGURES

FILE: S:\CAD\Proj\Speedway5310_TesoroTGMart112\MonEvent\2021\4Q_October2021\Fig01 Location and Vicinity Map.cdr



STATE HWY 2

BADGER ROAD

HURST ROAD

5310

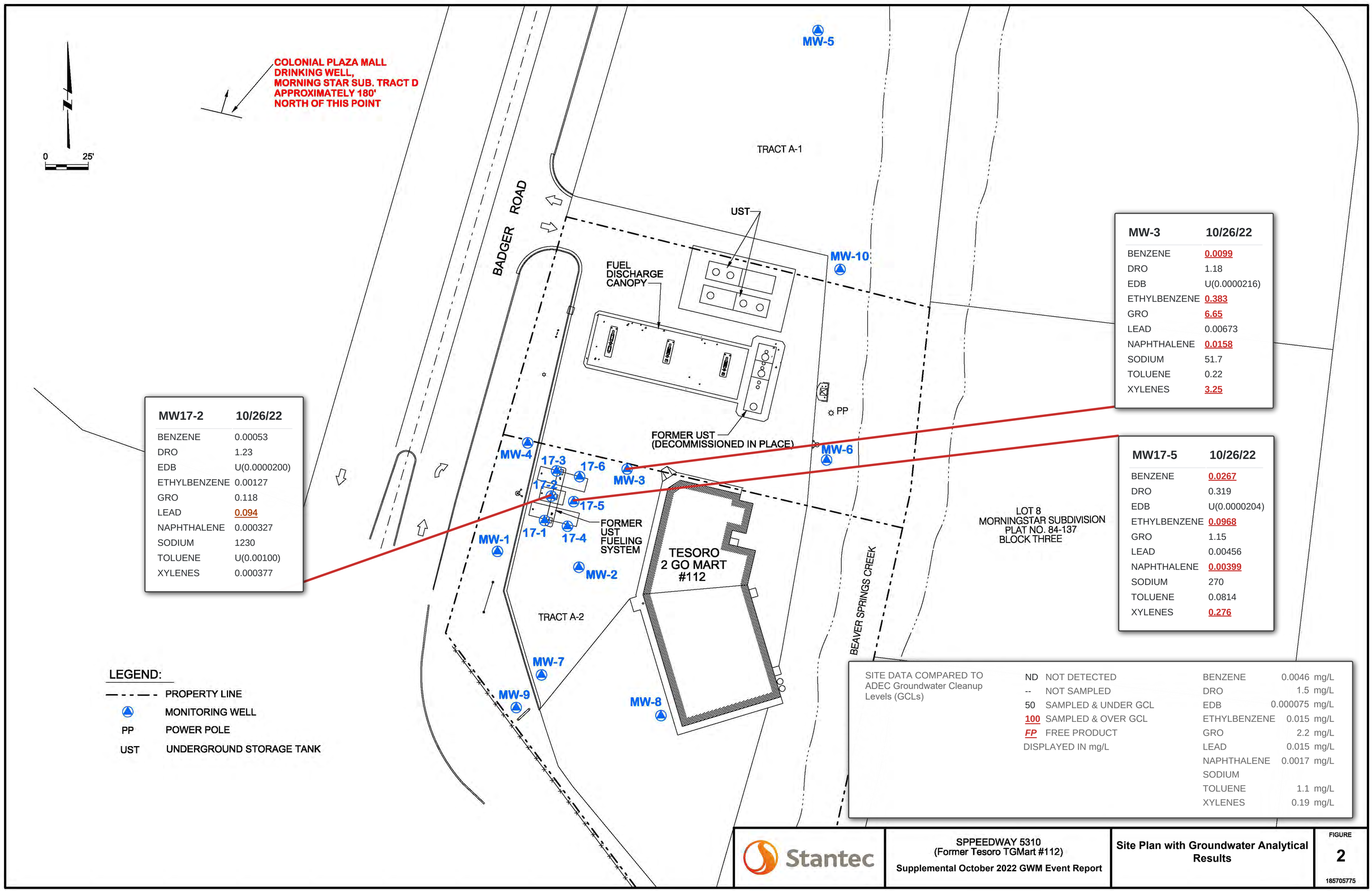
OLD RICHARDSON HWY

N SANTA CLAUS LN

N

0 500'

Stantec	Tesoro Northstore #112 Supplemental October 2022 GWM EVENT REPORT	LOCATION AND VICINITY MAP	FIGURE 1 185705374. 300.100


N
0
25'
COLONIAL PLAZA MALL
DRINKING WELL,
MORNING STAR SUB. TRACT D
APPROXIMATELY 180'
NORTH OF THIS POINT
MW-5
TRACT A-1
BADGER ROAD
UST
FUEL
DISCHARGE
CANOPY
MW-10
PP
FORMER UST
(DECOMMISSIONED IN PLACE)
MW-6
MW-4
17-3
17-6
MW-3
17-2
17-5
FORMER
UST
FUELING
SYSTEM
MW-1
17-1
17-4
MW-2
TESORO
2 GO MART
#112
TRACT A-2
MW-7
MW-9
MW-8
LOT 8
MORNINGSTAR SUBDIVISION
PLAT NO. 84-137
BLOCK THREE
BEAVER SPRINGS CREEK
MW17-2 10/26/22
BENZENE 0.00053
DRO 1.23
EDB U(0.0000200)
ETHYLBENZENE 0.00127
GRO 0.118
LEAD 0.094
NAPHTHALENE 0.000327
SODIUM 1230
TOLUENE U(0.00100)
XYLENES 0.000377
MW-3 10/26/22
BENZENE 0.0099
DRO 1.18
EDB U(0.0000216)
ETHYLBENZENE 0.383
GRO 6.65
LEAD 0.00673
NAPHTHALENE 0.0158
SODIUM 51.7
TOLUENE 0.22
XYLENES 3.25
MW17-5 10/26/22
BENZENE 0.0267
DRO 0.319
EDB U(0.0000204)
ETHYLBENZENE 0.0968
GRO 1.15
LEAD 0.00456
NAPHTHALENE 0.00399
SODIUM 270
TOLUENE 0.0814
XYLENES 0.276
LEGEND:
PROPERTY LINE
MONITORING WELL
PP POWER POLE
UST UNDERGROUND STORAGE TANK
SITE DATA COMPARED TO ADEC Groundwater Cleanup Levels (GCLs)
ND NOT DETECTED
-- NOT SAMPLED
50 SAMPLED & UNDER GCL
100 SAMPLED & OVER GCL
FP FREE PRODUCT
DISPLAYED IN mg/L
BENZENE 0.0046 mg/L
DRO 1.5 mg/L
EDB 0.000075 mg/L
ETHYLBENZENE 0.015 mg/L
GRO 2.2 mg/L
LEAD 0.015 mg/L
NAPHTHALENE 0.0017 mg/L
SODIUM
TOLUENE 1.1 mg/L
XYLENES 0.19 mg/L
Stantec
SPPEEDWAY 5310
(Former Tesoro TGMart #112)
Supplemental October 2022 GWM Event Report
Site Plan with Groundwater Analytical Results
FIGURE
2
185705775

APPENDIX A

Site Background

APPENDIX A – SITE BACKGROUND

Speedway Store 5310 (former Tesoro 2 Go Mart #112) 3392 Badger Road, North Pole, Alaska)
ADEC Facility ID #1116; ADEC File #100.26.159

Tesoro 2 Go Mart #112 is a retail fuel service/convenience store located northeast of the Richardson Highway overpass on Badger Road in North Pole, Alaska. The property is approximately 1.9 acres in size and the legal description is Tract A-2, Morningstar Subdivision. The store is in the north end of a small strip mall. Beaver Springs Creek flows to the north immediately behind the strip mall. Three underground storage tanks (USTs) were initially installed to serve the original convenience store in December 1984.

November 1996. During field installation of a cathodic protection system on the USTs, a petroleum hydrocarbon release was discovered in several subsurface boreholes drilled around the perimeter of the USTs.

May 1997. Gilfilian Engineering and Environmental Testing, Inc. (GE^2T) completed a Phase 1 Release Investigation (RI) at the site and installed four groundwater monitoring wells. In addition, representative water samples were collected from the mall drinking water system (served by an on-site water well) and from Beaver Springs Creek. Petroleum contaminants were detected above Alaska Department of Environmental Conservation (ADEC) cleanup levels in samples collected from all four soil borings/monitoring wells. Petroleum contaminants were detected at very low concentrations in the creek water samples, and none in the drinking water sample.

September 1997. Free phase petroleum was discovered in two of the four groundwater monitoring wells at the site, and dissolved petroleum contaminants was detected above ADEC groundwater cleanup levels (GCLs) in the other two monitoring wells.

March 1998. A well search was conducted within a ¼-mile radius of the site. The findings of the well search noted there were approximately 24 domestic water supply wells within the search radius.

August/September 1998. GE^2T conducted a UST Closure Site Assessment (SA) at the site. Three USTs and associated piping and dispensers were removed from the site and a new UST system was installed on an adjacent downgradient lot (to the north) of the site on Tract A-1 Morning Star Subdivision. Petroleum hydrocarbon contamination was found in the monitoring wells constructed in the area of the former and new UST systems. Seven soil vapor extraction (SVE) wells and sixteen air sparge (AS) wells systems were installed at the site for remediation of contamination found in the vadose soil zone and groundwater table beneath the site. Additional AS and SVE wells were installed at a later date

September 1999. An SA was completed for the removal of the new UST that were installed in September 1998 and replace with a new UST. Soil contamination was discovered in the area of

the replacement UST system. Contaminated soil was removed and transported off-site for thermal treatment.

June 2000. GE^{2}T conducted a RI for installation of an additional monitoring well (MW-6) at the site. No contaminants were detected in soil samples from the boring.

March 2001. A Falco 300 Cat-Ox unit was installed as part of the remediation system to treat vapors captured in the SVE system.

September/October 2003. MWH Americas, Inc. (MWH) completed a RI that included the installation of additional AS and groundwater monitoring wells. The RI involved drilling five soil borings, of which four were completed as AS wells (AS-20, AS-21, AS-22, and AS-23) and one monitoring well (MW-7). Contaminants were detected in soil from borings MW-7, AS-20, and AS-21 and the water sample from MW-7.

March 2004. MWH completed a RI that involved the drilling two soil borings. These borings were completed as 2-inch diameter monitoring wells (MW-8 and MW-9). Laboratory results indicate that no contaminants were detected in the soil or groundwater samples collected.

September 2004. MWH completed a RI that involved the drilling of one soil boring. The boring that was completed as 2-inch diameter monitoring well (MW-10). Laboratory results indicate that no contaminants were detected in the soil samples collected. Benzene was detected above the GCL water sample collected from MW-10.

May 2005. Benzene, toluene, ethylbenzene, GRO, and DRO were detected above the ADEC GCLs in Monitoring Well MW-3. Benzene, GRO, and DRO were also detected above the GCLs in Monitoring Well MW-2. No analytes of concern were detected above the GCLs in any of the other tested wells. The AS and SVE systems remained in operation.

September 2005. Benzene, GRO, and DRO were detected above the ADEC GCLs in Monitoring Wells MW-2 and MW-3. Toluene was also detected above the GCL in Monitoring Well MW-3. No analytes of concern were detected above the GCLs in Monitoring Well MW-10. The AS and SVE systems remained in operation. The SVE exhaust vapor concentrations had decreased to a relatively low level that no longer necessitated the use of the catalytic oxidizer unit. Therefore, the catalytic oxidizer was disconnected from the SVE system in summer 2005.

May 2006. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above the ADEC GCLs in Monitoring Well MW-3. GRO and DRO were also detected above the GCLs in Monitoring Well MW-2. No analytes of concern were detected above the GCLs in Monitoring Wells MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10. The AS and SVE system were shut down until system maintenance could be performed.

November 2006. Benzene, toluene, ethylbenzene, and gasoline range organics were detected above the ADEC GCLs in Monitoring Wells MW-2 and MW-3. Xylenes and diesel range organics

were also detected above the GCLs in Monitoring Well MW-3. No analytes of concern were detected above the GCLs in Monitoring Well MW-10. AS and SVE system were brought back online after system repair was performed.

May 2007. GRO and DRO were detected above the ADEC GCLs in Monitoring Wells MW-2 and MW-3. Benzene, toluene, ethylbenzene, and xylenes were detected above the practical quantitation limits (PQLs) in Monitoring Wells MW-2 and MW-3, but only benzene was above the GCL. DRO was detected above the PQL, but below the GCL, in Monitoring Wells MW-4 and MW-5. No analytes of concern were detected above the PQLs in Monitoring Wells MW-1, MW-6, MW-8, MW-9, and MW-10. AS and SVE system remain in operation.

April 2008. DRO was detected above the ADEC GCLs in Monitoring Wells MW-2, MW-3, and MW-4. GRO were detected above the ADEC GCLs in Monitoring Wells MW-3 and MW-4. Benzene was also detected above the GCLs in Monitoring Well MW-3. DRO in Monitoring Well MW-1; ethylbenzene, xylenes, and GRO in MW-2; toluene, ethylbenzene, and xylenes in Monitoring Well MW-3; and benzene, toluene, ethylbenzene, and xylenes in Monitoring Well MW-4 were detected above the PQLs, but below the GCLs. No analytes were detected above the PQLs in Monitoring Wells MW-5 through MW-10. AS and SVE system remain in operation.

October 2008. DRO were detected above the ADEC GCL in Monitoring Well MW-3. GRO were detected above the GCL in Monitoring Wells MW-2 and MW-3. All other analytes were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-2 and MW-3. No analytes were detected above the PQLs in Monitoring Well MW-10. AS and SVE system remain in operation.

May 2009. Diesel range organics were detected above the ADEC GCLs in Monitoring Wells MW-1, MW-2, and MW-3. GRO were detected above the GCL in Monitoring Wells MW-2 and MW-3. Benzene was detected above the GCL in Monitoring Well MW-3. All other analytes were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-2 and MW-3. Toluene in Monitoring Wells MW-1 through MW-4, and MW-8; ethylbenzene in Monitoring Wells MW-1 through MW-3, MW-7, and MW-8; xylenes in Monitoring Wells MW-1 through MW-4 and MW-7 through MW-9; and GRO in Monitoring Well MW-7 were detected above PQLs but below GCLs. All other analytes in the above wells sampled were not detected above the PQLs. No analytes were detected above the PQLs in Monitoring Wells MW-5, MW-6, and MW-10. AS and SVE system remain in operation.

October 2009. All analytes tested were detected above the ADEC GCLs in Monitoring Well MW-3. Ethylbenzene and gasoline range organics were detected above the GCLs in Monitoring Well MW-2. Benzene, toluene, xylenes, and diesel range organics were detected above the practical quantitation limits, but below the GCLs, in Monitoring Well MW-2. No analytes of concern were detected above the practical quantitation limits in Monitoring Well MW-10. AS and SVE system remain in operation.

June 2010. Benzene, GRO, and DRO were detected above the ADEC groundwater cleanup levels GCLs in Monitoring Well MW-3. Toluene, ethylbenzene, and xylenes were detected above the

PQLs, but below the GCLs, in Monitoring Well MW-3. Benzene, toluene, ethylbenzene, xylenes, and GRO were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-1 and MW-2. DRO was also detected above the PQL, but below the GCL, in Monitoring Well MW-2. No analytes of concern were detected above the PQLs in Monitoring Wells MW-4, MW-6, or MW-10. AS and SVE system remain in operation. Measurements of the SVE exhaust with a PID indicated low amounts of volatile petroleum hydrocarbons are being removed from the vadose soil zone.

October 2010. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above the ADEC GCLs in Monitoring Well MW-3. GRO was detected above the GCL in Monitoring Well MW-2. Benzene, toluene, ethylbenzene, xylenes, and DRO were detected above the PQLs, but below the GCLs, in Monitoring Well MW-2. No analytes of concern were detected above the PQLs in Monitoring Well MW-10. AS and SVE system remain in operation.

May 2011. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above the ADEC GCLs in Monitoring Well MW-3. GRO and DRO were detected above the GCL in Monitoring Well MW-2. Benzene, toluene, ethylbenzene, and xylenes were detected above the PQLs, but below the GCLs, in Monitoring Well MW-2. Toluene, ethylbenzene, xylenes, GRO, and DRO were also detected above the PQLs, but below the GCLs, in Monitoring Well MW-1. Benzene was not detected above the PQL in Monitoring Well MW-1. No analytes of concern were detected above the PQLs in Monitoring Wells M-4, MW-6, and MW-10. AS and SVE system remain in operation.

October 2011. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above the ADEC GCLs in Monitoring Well MW-3. GRO was detected above the GCL in Monitoring Well MW-2. Ethylbenzene, xylenes, and DRO were detected above the PQLs, but below the GCLs, in Monitoring Well MW-2. Benzene and toluene were not detected above the PQLs in MW-2; however, the PQL for benzene is above the GCL and the result might exceed the GCL. No analytes of concern were detected above the PQLs in Monitoring Wells MW-6 and MW-10. The AS and SVE systems remain in operation on a full-time basis.

May 2012. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. Benzene and GRO were detected above GCLs in Monitoring Well MW-2. Benzene, toluene, ethylbenzene, xylenes, and GRO were detected above PQLs and below GCLs in Monitoring Well MW-1. Toluene, ethylbenzene, and xylenes were detected above PQLs and below GCLs in Monitoring Well MW-2. No other analytes were detected above the PQLs in any of the samples collected during this monitoring event. The AS and SVE systems remained in operation on a full-time basis.

October 2012. Benzene and GRO were detected above GCLs in Monitoring Well MW-3. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above PQLs and below GCLs in Monitoring Well MW-2. Toluene, ethylbenzene, xylenes, and DRO were detected above PQLs and below GCLs in Monitoring Well MW-3. The AS and SVE systems were taken offline pending repairs and improvements. A total of 130 gallons of Klozur CR® was applied at the site

over two events. Approximately 10 gallons of Klozur CR was poured into SVE-7, and approximately 55 gallons into SVE-9 on August 29, 2012. Additionally, 65 gallons of Klozur CR were injected into Well SVE-9 on October 9, 2012.

May 2013. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. Benzene, ethylbenzene, xylenes, GRO, and DRO were detected above PQLs but below GCLs in Monitoring Well MW-1. Benzene, toluene, ethylbenzene, xylenes, and GRO were detected above PQLs but below GCLs in Monitoring Well MW-2. The AS and SVE systems remain offline pending repairs and improvements.

September 2013. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. GRO was detected above GCL in Monitoring Well MW-2. Benzene, toluene, ethylbenzene, xylenes, and DRO were detected above PQLs but below GCLs in Monitoring Well MW-2. The AS and SVE systems remain offline pending repairs and improvements.

May 2014. Benzene, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. Ethylbenzene, xylenes, and DRO were detected above PQL and below GCLs in Monitoring Well MW-1. Benzene, ethylbenzene, xylenes, GRO, and DRO were detected above PQLs but below GCLs in Monitoring Well MW-2. Toluene, ethylbenzene, and xylenes were detected above PQLs and below GCLs in Monitoring Well MW-3. Xylenes were detected above PQLs but below GCLs in Monitoring Well MW-10. The AS and SVE systems remain offline pending repairs and improvements.

September 2014. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. Benzene, toluene, ethylbenzene, xylenes, and GRO were detected above PQLs and below GCLs in Monitoring Well MW-2. The AS and SVE systems remain offline pending repairs and improvements.

May 2015. Benzene, toluene, ethylbenzene, xylenes, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. DRO was detected above GCL in Monitoring Wells MW-1 and MW-2. Toluene, ethylbenzene, xylenes, and GRO were detected above PQLs but below GCLs in Monitoring Well MW-1. Benzene, ethylbenzene, xylenes, and GRO were detected above PQLs but below GCLs in Monitoring Well MW-2. DRO was detected above PQL but below GCL in Monitoring Well MW-4. The AS and SVE systems remain offline pending repairs and improvements.

October 2015. Benzene and GRO were detected above GCLs in Monitoring Well MW-2. Benzene, toluene, ethylbenzene, total xylenes, GRO, and DRO were detected above GCLs in Monitoring Well MW-3. One or more analytes were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-2 (all analytes), MW-6 (DRO), and MW-10 (DRO). The AS and SVE systems remain offline pending repairs and improvements. Chemical oxidation of the groundwater at the site was conducted on October 6, 2015, with the injection of Klozur CR® into

Injection Well SVE-6 and well clusters SVE-7 and SVE-9 located at the footprint of the former underground storage tanks (USTs – Figure 3). Follow-up intrinsic measurements indicated negligible influence of the injection on groundwater at Monitoring Well MW-3.

May 2017. Results of analytical sampling showed concentrations exceeding the GCLs for:

- Monitoring Well MW-1: ethylbenzene, xylenes, 1,2,4-trimethylbenzene, and DRO.
- Monitoring Well MW-2: ethylbenzene, xylenes, 1,2,4-trimethylbenzene, naphthalene, and GRO.
- Monitoring Well MW-3: benzene, ethylbenzene, xylenes, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, GRO, and DRO.

One or more analytes were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-1, MW-2, MW-3, MW-4, and MW-10.

September 2017: Results of the semi-annual groundwater monitoring event conducted in September 2017 showed concentrations exceeding the GCLs for ethylbenzene in Monitoring Well MW-2; and benzene, ethylbenzene, xylenes, GRO, and DRO in MW-3. Monitoring Wells MW-6 and MW-10 were found to be absent of contaminants of concern. These findings are similar to results found in previous monitoring events

June 2018. Results of analytical sampling showed concentrations exceeding the GCLs for:

- Monitoring Well MW-1: 1,2,4-trimethylbenzene.
- Monitoring Well MW-2: ethylbenzene, 1,2,4-trimethylbenzene, benzopyrene, and indenopyrene.
- Monitoring Well MW-3: benzene, ethylbenzene, xylenes, GRO, DRO, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene.
- Monitoring Well MW 17-5: benzene, ethylbenzene, xylenes, and 1,2,4-trimethylbenzene.

One or more analytes were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-1, MW-2, MW-3, MW-4, and MW-17-5.

October 2018. The following summarizes results exceeding the GCLs for the October 2018 semi-annual groundwater monitoring event:

- Monitoring Well MW-2: ethylbenzene and DRO.
- Monitoring Well MW-3: benzene, ethylbenzene, xylenes, GRO, DRO, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene.
- Monitoring Well MW 17-2: ethylbenzene, xylenes, GRO, DRO and 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene.
- Monitoring Well MW 17-5: benzene, ethylbenzene, xylenes, GRO, 1,2,4-trimethylbenzene,1,3,5-trimethylbenzene, and naphthalene

One or more analytes were detected above the PQLs, but below the GCLs, in Monitoring Wells MW-2, MW-3, MW-6, and MW-17-5.

In addition, several volatile organic compounds (VOCs) were reported by the laboratory as undetected but had laboratory reporting limits that equaled or exceeded their corresponding GCLs.

The chemical oxidation (chemox) treatment process was delayed until the third quarter of 2018 due to replacement of the chemical oxidant. In September 2018, Stantec completed an injection of the replacement chemox product, Klozur One®, into the four remediation wells. Klozur One® is a granular product manufactured by PeroxyChem that consists primarily of sodium persulfate and patented activator reagents. A total of 220 pounds of Klozur One® product was mixed with clean water and then manually injected as a solution into the contaminated source area via Remediation Wells RM17-1, RM17-3, RM17-4, and RM17-6. Each of the four remediation wells received 55 pounds of Klozur One® that was prepared as a solution with 50 gallons of clean water. Following the injection of the chemox solution, a combined total of 550 gallons of clean water was injected in all the wells. It was noted that each of the remediation wells had different acceptance rates for delivery of the clean water that ranged from 55 to 210 gallons each.

May 2019. This May 2019 semi-annual groundwater monitoring event included measuring the depth to groundwater, measuring water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-10, MW 17-2, and MW 17-5. The methods that were used for this monitoring event were conducted in accordance with the Alaska Department of Environmental Conservation (ADEC) approved 2019 Corrective Action Work Plan for this site.

Results from the groundwater depth measurements indicate the average hydraulic gradient was approximately 0.003 feet per foot with flow tending toward the northeast at 55 degrees. The flow direction and gradient for this monitoring event were consistent with the historical values for this site.

Results of the analytical sampling showed concentrations exceeding the ADEC groundwater cleanup levels (GCLs) for the following monitoring wells:

- Monitoring Well MW-2: ethylbenzene.
- Monitoring Well MW-3: benzene, ethylbenzene, xylenes, gasoline range organics (GRO), and naphthalene.
- Monitoring Well MW 17-5: ethylbenzene.

October 2019. This October 2019 semi-annual groundwater monitoring event included measuring the depth to groundwater, measuring water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-10, MW 17-2, and MW 17-5. The methods that were used for this monitoring event were conducted in accordance with the ADEC approved 2020 Corrective Action Work Plan for this site.

Results from the groundwater depth measurements indicate the average hydraulic gradient was approximately 0.005 feet per foot with flow tending toward the northeast at 64 degrees. The flow direction and gradient for this monitoring event were consistent with the historical values for this site.

Results of the analytical sampling showed concentrations exceeding the ADEC GCLs for the following monitoring wells:

- Monitoring Well MW-2: ethylbenzene.
- Monitoring Well MW-3: benzene, ethylbenzene, xylenes, GRO, and DRO.
- Monitoring Well MW 17-2: ethylbenzene, xylenes, and GRO.
- Monitoring Well MW 17-5: benzene, ethylbenzene, xylenes, and GRO.

Stantec completed an injection of 220 pounds of the chemox product, Klozur One®, into the four remediation wells (RW17-1, RW17-3, RW17-4, and RW17-6).

August 2020. The semi-annual groundwater monitoring event included measuring the depth to groundwater, measuring water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells MW-2, MW-3, MW-6, MW-10, MW17-2, and MW17-5. The methods that were used for this monitoring event were conducted in accordance with the Alaska Department of Environmental Conservation (ADEC) approved 2020 Corrective Action Work Plan for this site.

Results from the groundwater depth measurements indicate the average hydraulic gradient was approximately 0.005 feet per foot with flow tending toward the northeast at 67 degrees. The flow direction and gradient for this monitoring event were consistent with the historical values for this site.

The following summarizes laboratory test results that exceeded the GCLs for the August 2020 semi-annual groundwater monitoring event:

- Monitoring Well MW-3: Benzene, Ethylbenzene, Total Xylenes, 1-2-4 Trimethylbenzene, 1-3-5 Trimethylbenzene, Naphthalene, GRO, and DRO.
- Monitoring Well MW 17-2: Ethylbenzene, Total Xylenes, 1-2-4 Trimethylbenzene, 1-3-5 Trimethylbenzene, Naphthalene, and DRO.
- Monitoring Well MW 17-5: Benzene, Ethylbenzene, Total Xylenes, 1-2-4 Trimethylbenzene, 1-3-5 Trimethylbenzene, Naphthalene, and GRO.

Stantec completed an injection of 440 pounds of the chemox product, Klozur One®, into the four remediation wells (RW17-1, RW17-3, RW17-4, and RW17-6).

October 2020. This October 2020 semi-annual groundwater monitoring event included measuring the depth to groundwater, measuring water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells MW-2, MW-3, MW-6, MW-10, MW 17-2, and MW 17-5. The methods that were used for this monitoring event were conducted in accordance with the ADEC approved 2020 Corrective Action Work Plan for this site.

Analytes in exceedance included: benzene, ethylbenzene, and xylenes (BTEX); gasoline range organics (GRO); diesel range organics (DRO), and naphthalene.

- MW-3: Benzene, Ethylbenzene, Total Xylenes, Naphthalene, GRO, and DRO.
- MW 17-2: Ethylbenzene, Total Xylenes, DRO, and Naphthalene.
- MW 17-5: Benzene, Ethylbenzene, Total Xylenes, and Naphthalene.

Results from the groundwater depth measurements indicate the average hydraulic gradient was approximately 0.0045 feet per foot with flow tending toward the northeast at 57 degrees. The flow direction and gradient for this monitoring event were consistent with the historical values for this site.

Stantec completed an injection of 440 pounds of the chemox product, Klozur One®, into the four remediation wells (RW17-1, RW17-3, RW17-4, and RW17-6).

October 2021. This October 2021 semi-annual groundwater monitoring event included measuring the depth to groundwater, measuring water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells MW-01, MW-02, MW-03, MW-04, MW-06, MW-10, MW-17-2, and MW-17-5. The methods that were used for this monitoring event were conducted in accordance with the ADEC approved 2021 Corrective Action Work Plan for this site.

The following summarizes laboratory test results that exceeded the GCLs for the October 2021 semi-annual groundwater monitoring event:

- MW-02: Naphthalene
- MW-03: Benzene, ethylbenzene, total xylenes, GRO, DRO, 1,2,4-trimethylbenzene (1,2,4-TMB), 1,3,5-trimethylbenzene (1,3,5-TMB), and naphthalene.
- MW-04: DRO
- MW-17-2: Ethylbenzene, total xylenes, DRO, 1,2,4-TMB, 1,3,5-TMB, and naphthalene.
- MW-17-5: Benzene, ethylbenzene, total xylenes, 1,2,4-TMB, 1,3,5-TMB and naphthalene.

Based on the Surfer® software program, the average groundwater hydraulic gradient across the site was approximately 0.0055 feet per foot with flow tending toward the northeast at 50 degrees. The flow direction and gradient for this monitoring event were consistent with the historical values for this site.

The remediation event on October 15, 2021, consisted of a chemical oxidation (chemox) injection of Klozur® One product combined with potable water from the convenience store into four remediation wells (RW-17-1, RW-17-3, RW-17-4 and RW-17-6). Klozur® One is a granular product manufactured by PeroxyChem that consists primarily of sodium persulfate and patented activator reagents. The solution was hydraulically "pushed" into the subsurface formation with the injection of additional potable water into each well. In summary, a total of 385 pounds of Klozur® One product mixed with 1,070 gallons of water was injected into the subsurface via the remediation wells during the chemox injection process.

May 2022. The May 2022 semi-annual groundwater monitoring event was conducted by Stantec Staff on May 17, 2022. Monitoring wells and the respective analytes in exceedance of ADEC GCLs included:

- MW-03: Benzene, ethylbenzene, total xylenes, GRO, 1,2,4-TMB, 1,3,5-TMB, and naphthalene.
- MW-17-2: Ethylbenzene and 1,2,4-TMB.
- MW-17-5: Benzene, toluene, ethylbenzene, total xylenes, GRO, 1,2,4-TMB, and 1,3,5-TMB.
- MW-10: Benzene.

The benzene detected in MW-10 will be further evaluated during the next monitoring event to determine the source of contamination, if possible.

The groundwater levels were measured in all of the above monitoring wells. The well casings in monitoring wells MW-6 and MW-10 were noted to be frost-jacked; consequently the groundwater elevations for this monitoring event were not computed to determine the groundwater flow direction and gradient across the site. Stantec plans to resurvey all of the monitoring wells later this summer to recompute the groundwater flow characteristics.

An injection of Klozur® One product (chemox) was not completed during the 1st quarter due to the severe winter conditions but is planned for the 2nd quarter in the month of June 2022.

September 2022: The groundwater monitoring event on September 26, 2022 was conducted by Stantec personnel Engineer-In-Training Geoff Moorhead and Engineer-in-Training Leslie Petre. The following summarizes laboratory test results that exceeded the GCLs for the May 2022 semi-annual groundwater monitoring event:

- MW-03: Benzene, ethylbenzene, total xylenes, GRO, 1,2,4-TMB, 1,3,5-TMB, and naphthalene.
- MW-04: DRO.
- MW-17-2: Ethylbenzene and 1,2,4-TMB.
- MW-17-5: Benzene, toluene, ethylbenzene, total xylenes, GRO, 1,2,4-TMB, 1,3,5-TMB, and naphthalene.

The groundwater levels were measured in all monitoring wells. The groundwater direction of flow was found to be 40° to the northeast with a gradient of 0.094 feet per foot. This is generally consistent with previous monitoring events. Well casing elevations were re-surveyed July 5, 2022.

Injections of Klozur® One product (chemical oxidizer) were completed at regular intervals during the summer of 2022. In addition, on October 5 and 6 Stantec staff installed four new 4-inch injection wells to replace the existing 2-inch wells.

October 2022: The supplemental groundwater monitoring event on October 26, 2022 was conducted by Stantec personnel Engineer-In-Training (EIT) Geoff Moorhead and EIT Leslie Petre. The following summarizes laboratory test results that exceeded the GCLs for the October 2022 supplemental groundwater monitoring event:

- MW-03: Benzene, ethylbenzene, total xylenes, GRO, and naphthalene.
- MW-17-2: Lead.
- MW-17-5: Benzene, ethylbenzene, total xylenes, and naphthalene.

The groundwater gradient and direction of flow were not calculated for this monitoring event because of the limited number of wells sampled.

APPENDIX B

Field Methods and Procedures

ADEC Approved Work Plan Tasks for 2022

- Task 1 –Groundwater Monitoring

  Quarterly monitoring of the groundwater wells and annual monitoring of several existing drinking water wells will be conducted. Sampling locations and analyses for the monitoring and drinking water wells are listed on the 2022 Work Plan Schedule below.

Work Plan Task		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Task 1	Monitoring Wells: MW-2, MW-3, MW-6, MW-10, MW-17-2 and MW-17-5.		V, G, D, P, I & S		V, G, D, P, I, & S
	Monitoring Wells MW-1 and MW-4				V, G, D, P, I, & S
	Monitoring Wells MW-3, MW 17-2 and MW 17-5	V, G, D, P, I & S		V, G, D, P, I & S	
Task 2	Chemical Oxidation Treatment	✓	✓	✓	✓
Task 3	Decommission Former Remediation System (23 AS Wells, 9 SVE Wells and Remediation Shed) and 3 MWs		✓	✓	

  Key:

  AK – Alaska Test Method
  D – Diesel range organics by AK102.
  E – Drinking water parameters by EPA Method 524.1.
  G – Gasoline range organics by AK101.
  I – Intrinsic indicators include: dissolved oxygen, specific conductance, oxygen-reduction potential, pH, and temperature.
  O&M – Operation and Maintenance
  V – Volatile organic compounds by EPA Test Method 8260C.
  S – Sodium analyzed by Metals (ICP) Method 6010C.
  P – Polynuclear aromatic hydrocarbons (PAHs), i.e., semi-volatile organic compounds associated with petroleum fuel, by EPA Test Method 8270D Selective Ion Monitoring (SIM).

- *Task 2 – Chemical Oxidation Treatment*

  Stantec proposes to provide chemical oxidation treatment of the petroleum contaminated soil and groundwater located in the source area of the former underground storage tank (UST) system. The chemox injection will occur in all four quarters of the year into the following injection wells: RM17-1, RM17-3, RM17-4, and RM17-6. Approximately 100 gallons of a prepared solution of clean water and 110 pounds of Klozur One® will be

manually injected via gravity and/or a low pressure booster pump into each of the four remediation wells. Following the injection of the chemox solution, a minimum of 100 gallons of clear water will be injected into each injection well to provide a means of "hydraulically pushing" the chemox solution into the subsurface formation. In addition, the groundwater monitoring wells will be sampled for sodium to check on the distribution/migration of the oxidant.

- *Task 3 – Decommission Former Remediation System (23 AS Wells, 9 SVE Wells and Remediation Shed) and 3 MWs*

  The purpose of this task is to decommission the former on-site remediation system that consisted of air sparge (AS) wells and soil vapor extraction (SVE) wells. The layout of the former on-site AS/SVE remediation system is shown on Figure 3. The proposed scope of work for this task will include the removal/decommissioning of 23 AS wells and 9 SVE wells. The underground piping system that was used for the injection of air into the AS wells and extraction of soil vapor from the SVE wells will be filled with grout.

  In addition, the equipment used for the former remediation system located in the remediation shed will also be decommissioned, i. e., equipment will be removed and salvaged and/or disposed of as appropriate.

  Also, 3 existing groundwater monitoring wells show on Figure 2 will be decommissioned as part of this scope of work. The wells proposed for decommissioning includes the following: MW-7, MW-8 and MW-9. These wells are no longer used for the assessment of treatment/cleanup of this site.

  A detailed work plan for the implementation of the above tasks will be prepared by Stantec during the first quarter of 2022. The work plan will be submitted to the ADEC for approval prior to the execution of work on this task.

The Corrective Action Work Plan for the year 2022 will be implemented by Stantec on behalf of 7-Eleven. Groundwater monitoring will be conducted to track migration and trends of contaminants that are present at the site. All sampling activities will be completed in accordance with ADEC's *Underground Storage Tanks Procedures Manual– Standard Sampling Procedures* (March 22, 2017). The methods that will be used for conducting a monitoring event, unless otherwise noted in the monitoring report, will include:

- The static water levels in the monitoring wells will be measured with respect to the top of each well casing. The elevation of the static water level will be based on an arbitrary datum established on-site during a vertical control survey that will be completed by Stantec on an annual basis. The survey will be performed during the summer after the seasonal frost layer thaws.
- The monitoring wells will be purged of a minimum of three well bore volumes prior to collecting the water samples. A new, disposable, Teflon® bailer will be used to sample each well. The first bail of water removed from each well will be examined for petroleum odor, sheen, and any other unique physical features.
- Water samples will be collected in laboratory-supplied sample containers. The samples will be delivered to an ADEC-approved laboratory in accordance with standard chain-of-custody procedures.

- Additional water samples will be collected from the monitoring wells after the well has been purged, as described above, and tested in the field for chemical and physical intrinsic parameters listed in the 2022 Work Plan Schedule shown above.

APPENDIX C

Field Measurements and Notes

Speedway5310/ Date: 10/26/2022 Name(s): _____

Site Name: TNS112

Well ID	Time of Day	Depth to Product	Depth to Water	Depth to Bottom	Product Thickness	Well Diameter	Well Material	Comment(s) on Condition of Well
MW17-2	11:13		8.97	14.8		2.0	PVC	
MW17-5	11:16		9.3	13.76		2.0		
MW-3	12:59		9.61	13.88		4.0	other	

Site Name: Speedway5310/ TNS112 Date: 10/26/2022, 11:42 AM Name(s): Leslie Petre

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
MW17-2	N/A	8.97	14.8
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
390.01	2.0		PVC
Latitude (decimal)		Longitude (decimal)	Weather
64.7592772		-147.3502246	15°F 5 mph

Type/Model Meter Used: YSI 556
Calibrated: (date) _____ (time) _____
Cell Vol: None
Type/Model Pump Used: Bailer
Pump Intake? None ft
Above / ✓ Below Bottom / ✓ TOC

Analytical Parameters	Bottles to be filled
BTEX	3 X 40 mL Amber VOAs ✓
DRO	2 X 100 mL Amber Glass ✓
Sodium	1 X 250 mL Poly ✓
PAH	2 X 40 mL Amber VOAs ✓
EDB & EDC-EPA 8011	3 X 40 mL Amber VOAs ✓
GRO	3 X 40 mL Amber VOAs ✓

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
11:13	8.97		Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 11:42 Total Pumped from Well? 3.5 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

Site Name: Speedway5310/ TNS112 Date: 10/26/2022, 12:16 PM Name(s): Leslie Petre

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
MW17-5	N/A	9.3	13.76
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
398.62	2.0		
Latitude (decimal)		Longitude (decimal)	Weather
64.7592988		-147.3501863	15°F 5 mph

Type/Model Meter Used: _____

Calibrated: (date) _____ (time) _____

Cell Vol: _____

Type/Model Pump Used: _____

Pump Intake? _____ ft

Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✓
EDB & EDC-EPA 8011	3 X 40 mL Amber VOAs ✓
GRO	3 X 40 mL Amber VOAs ✓
BTEX	3 X 40 mL Amber VOAs ✓
Sodium	1 X 250 mL Poly ✓
DRO	2 X 100 mL Amber Glass ✓

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
11:16	9.3		Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 12:16 Total Pumped from Well? 2.5 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

Site Name: Speedway5310/ TNS112 Date: 10/26/2022, 1:24 PM Name(s): Leslie Petre

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
MW-3	N/A	9.61	13.88
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
398.87	4.0		other
Latitude (decimal)		Longitude (decimal)	Weather
64.7593249		-147.3500197	15°F 5 mph

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____
Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
DRO	2 X 100 mL Amber Glass ✓
EDB & EDC-EPA 8011	3 X 40 mL Amber VOAs ✓
PAH	2 X 40 mL Amber VOAs ✓
GRO	3 X 40 mL Amber VOAs ✓
BTEX	3 X 40 mL Amber VOAs ✓
Sodium	1 X 250 mL Poly ✓

QA/QC: Duplicate #1

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
12:59	9.61		Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 13:24 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

Speedway5310/ Date: 10/26/2022, 11:42 AM Name(s): Leslie Petre

Site Name: TNS112

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
MW17-2	64.7592772	-147.3502246

Field Data	
Sampler Names: Leslie	Sheen/Odor?: N/y
pH: 3.65	Specific Conductance: 8.5
DO: 3.05	Temperature (C): 2.5
ORP: 375	Purge Volume (gal): 2.85
Notes:	

Speedway5310/
Site Name: TNS112

Date: 10/26/2022, 12:16 PM

Name(s): Leslie Petre

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
MW17-5	64.7592988	-147.3501863

Field Data	
Sampler Names: Geoff	Sheen/Odor?: N/y
pH: 6.09	Specific Conductance: 4.28
DO: 1.59	Temperature (C): 3.2
ORP: 222.6	Purge Volume (gal): 2.19
Notes:	

Speedway5310/
Site Name: TNS112

Date: 10/26/2022, 1:24 PM

Name(s): Leslie Petre

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
MW-3	64.7593249	-147.3500197

Field Data	
Sampler Names: Geoff	Sheen/Odor?: Odor
pH: 6.55	Specific Conductance: 0.92
DO: 1.19	Temperature (C): 2.4
ORP: 199	Purge Volume (gal): 8.67
Notes:	

APPENDIX D

Tables of Historical Groundwater Monitoring Data

Analytical Data Results Table

Speedway 5310/TNS112
7-Eleven - Paula Sime
3392 Badger Rd
North Pole, Alaska 99705

Unit	Well Screen Interval ft	Ground Water Elevation ft	124-TMB ppm	135-TMB ppm	Benzene ppm	DRO ppm	Ethylbenzene ppm	GRO ppm	Naphthalene ppm	Sodium ppm	Toluene ppm	Xylenes ppm
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
MW17-2												
07/19/2017	--	--	NT	NT	—	—	—	—	U(0.039)	—	—	—
10/30/2018	--	--	—	—	U (0.003)	2.5	**0.18**	**3.9**	—	—	U (0.002)	**0.9**
05/10/2019	--	--	NT	NT	U (0.003)	0.91	0.0051	U (0.25)	U(0.00011)	—	U (0.002)	0.012
10/22/2019	--	--	—	—	U (0.003)	1.4 H	**0.21**	**3.5**	—	—	U (0.002)	**0.79**
08/18/2020	--	381.54	**0.457**	**0.088**	0.0017 J	1.96	**0.0837**	1.76	**0.00805**	—	0.00186 J	**0.32**
10/06/2020	--	381.12	NT	NT	0.00132 J	2.43	**0.113**	2.08	**0.00614**	—	U (0.001)	**0.591**
06/24/2021	--	381.59	**0.389**	0.0569	0.00163 J	1.58	**0.0727**	1.36	0.0164 B,J	—	U (0.01)	0.173
10/13/2021	--	--	**0.315**	**0.0692**	0.00125 J	1.77	**0.0506**	1.51	**0.00493**	—	0.00253 J	**0.197**
05/16/2022	--	382.45	**0.247**	0.0374	0.000632	1.15	**0.0333**	0.573	0.000423	37.5	0.00165	0.0968
09/26/2022	--	381.46	**0.192**	0.0251	0.000713	1.35	**0.0176**	0.557	0.00127	207	0.00195	0.0418
10/26/2022	--	381.04	—	—	0.00053	1.23	0.00127	0.118	0.000327	1230	U(0.00100)	0.000377
MW17-5												
07/19/2017	--	--	**0.86**	NT	—	—	—	—	**0.027**	—	—	—
06/14/2018	--	--	0.044	**0.063**	**0.025**	0.17	**0.064**	1.7	0.0011	—	0.52	**0.548**
10/30/2018	--	--	—	—	**0.055**	0.26	**0.15**	**3.7**	—	—	0.21	**0.505**
05/09/2019	--	--	—	—	0.0032	0.92	**0.016**	0.31	—	—	0.0026	0.048
05/10/2019	--	--	NT	NT	—	—	—	—	0.00014	—	—	—
10/22/2019	--	--	—	—	**0.022**	0.47 H	**0.23**	**3.7**	—	—	0.36	**0.721**
08/18/2020	--	389.82	**0.19**	**0.117**	**0.0308**	0.825	**0.151**	**2.68**	**0.00729**	—	0.386	**0.896**
10/06/2020	--	389.43	NT	NT	**0.0314**	J 0.569	**0.158**	1.68	**0.00475**	—	0.144	**0.401**
10/13/2021	--	--	**0.186**	**0.0964**	**0.0387**	0.800 J	**0.14**	2.18	**0.0021**	—	0.265	**0.469**
05/16/2022	--	390.7	**0.38**	**0.114**	**0.196**	1.13	**0.276**	**4.07**	U(0.000250)	15.4	**1.45**	**1.13**
09/26/2022	--	389.74	**0.33**	**0.181**	**0.151**	0.4	**0.336**	**4.16**	**0.00264**	23.8	**1.18**	**1.37**
10/26/2022	--	389.32	—	—	**0.0267**	0.319	**0.0968**	1.15	**0.00399**	270	0.0814	**0.276**
MW-1												
05/30/1997	--	380.52	—	—	**0.31**	8.5	**2.3**	**42**	—	—	**9**	**10**
09/11/1997	--	380.9	—	—	**0.571**	6.05	**2**	**55**	—	—	**12.6**	**9.37**
03/12/1998	--	380.56	—	—	**0.22**	5.1	**1.3**	**37**	—	—	**4.9**	**6**
07/21/1998	--	381.15	—	—	**0.143**	7.59	**0.84**	**22**	—	—	**4.29**	**3.92**
10/12/1998	--	379.42	—	—	**0.277**	5.98	**0.458**	**16**	—	—	**4.36**	**1.929**
01/21/1999	--	380.44	—	—	**0.036**	2.46	**0.24**	**6.8**	—	—	1.08	**1.208**
03/31/1999	--	379.92	—	—	**0.015**	0.686	**0.151**	**3.3**	—	—	0.297	**0.703**
07/28/1999	--	380.78	—	—	**0.087**	3.89	**1.96**	**46**	—	—	**10.8**	**9.38**
10/15/1999	--	380.55	—	—	**0.174**	3.74	**0.503**	**15**	—	—	**2.97**	**2.334**
03/10/2000	--	380.16	—	—	**0.0216**	0.81	**0.161**	**4.7**	—	—	0.718	**0.783**
06/21/2000	--	380.96	—	—	**0.022**	1.03	**0.284**	**7.6**	—	—	0.931	**1.321**
09/21/2000	--	380.9	—	—	**0.0329**	1.61	**0.16**	**5**	—	—	0.471	**0.736**
01/25/2001	--	380.54	—	—	**0.017**	0.644	**0.11**	**3.69**	—	—	0.322	**0.523**
04/19/2001	--	380.51	—	—	**0.0123**	0.92	**0.046**	1.48	—	—	0.097	**0.221**

Analytical Data Results Table

Speedway 5310/TNS112
7-Eleven - Paula Sime
3392 Badger Rd
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Unit	Well Screen Interval ft	Ground Water Elevation ft	124-TMB ppm	135-TMB ppm	Benzene ppm	DRO ppm	Ethylbenzene ppm	GRO ppm	Naphthalene ppm	Sodium ppm	Toluene ppm	Xylenes ppm
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
07/24/2001	--	380.89	—	—	**0.0119**	0.628	**0.104**	2.07	—	—	0.209	**0.409**
01/28/2002	--	380.8	—	—	**0.12**	0.778	**0.604**	**10.8**	—	—	**2.07**	**2.841**
04/30/2002	--	381.29	—	—	**5.02**	2.1	**0.284**	**32.2**	—	—	**9.48**	**3.47**
09/30/2002	--	381.36	—	—	**0.659**	1.11	**0.0551**	**3.87**	—	—	0.209	**0.736**
05/12/2003	--	381.34	—	—	**0.538**	4.84	**0.814**	**44.5**	—	—	**3.14**	**20.42**
10/09/2003	--	380.72	—	—	0.00437	U (0.32)	0.00189	0.697	—	—	0.00571	0.0998
04/21/2004	--	380.39	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	0.000709	0.00984
10/21/2004	--	379.96	—	—	**0.00544**	2.41	0.00585	**3.52**	—	—	0.00284	**1.46**
05/19/2005	--	380.9	—	—	0.000943	0.48	0.00272	0.0709	—	—	0.00248	0.0211
05/15/2007	--	380.09	—	—	U (0.0005)	U (0.413)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/29/2008	--	380.16	—	—	U (0.0005)	0.862	U (0.0005)	U (0.05)	—	—	0.00088	U (0.0015)
05/12/2009	--	380.84	—	—	U (0.0005)	1.77	0.00077	U (0.05)	—	—	0.00427	0.00586
06/15/2010	--	380.64	—	—	0.00134	U (0.420)	**0.0357**	0.849	—	—	0.0297	**0.249**
05/24/2011	--	380.75	—	—	U (0.0005)	0.652	0.00479	0.0857	—	—	0.00056	0.0377
05/22/2012	--	380.53	—	—	0.000701	U (0.410)	**0.0765**	1.41	—	—	0.00284	**0.407**
05/21/2013	--	380.84	—	—	0.000845	0.587	**0.125**	1.21	—	—	U (0.0005)	**0.455**
05/06/2014	--	380.98	—	—	U (0.0005)	0.64	0.0021	U (0.05)	—	—	U (0.0005)	0.011
05/26/2015	--	381.36	—	—	U (0.001)	2.3	0.0045	0.21	—	—	0.0044	0.031
05/11/2016	--	380.82	—	—	0.00055	U (0.40)	0.0053	U (0.1)	—	—	0.0026	0.029
05/08/2017	--	381.1	—	—	U (0.002)	1.5	**0.034**	U (10)	—	—	U (0.002)	**0.285**
06/14/2018	--	381.2	—	—	U (0.003)	0.43	0.0086	0.028	—	—	0.0021	0.071
05/09/2019	--	380.58	—	—	U (0.003)	0.42	U (0.003)	U (0.25)	—	—	U (0.002)	0.0034
10/06/2020	--	381.1	—	—	0.000373 J	1.27	0.00419	0.153	—	—	0.0428	0.0374
10/13/2021	--	--	—	—	0.000246 J	1.33	0.0031	0.315	—	—	0.0883	0.0332
09/26/2022	--	381.43	0.00844	0.00194	0.00019	1.32	0.00251	0.318	0.000112	26.8	0.184	0.0405
MW-2												
05/30/1997	--	388.86	—	—	**92**	8.2	**7.1**	**170**	—	—	**64**	**33**
03/12/1998	--	388.9	—	—	**2.8**	21	**13**	**420**	—	—	**44**	**62**
04/19/2001	--	388.85	—	—	**2.93**	27.4	**9.9**	**216**	—	—	**52.9**	**44.5**
07/24/2001	--	389.24	—	—	**1.95**	18.5	**5.3**	**136**	—	—	**30.5**	**33.9**
01/28/2002	--	389.14	—	—	**1.23**	10.5	**7.38**	**156**	—	—	**33.4**	**39.8**
04/30/2002	--	389.66	—	—	**0.116**	6.9	**2.6**	**51.4**	—	—	**10.2**	**17.43**
09/30/2002	--	389.29	—	—	**0.656**	6.93	**2.92**	**118**	—	—	**17.9**	**26.61**
05/12/2003	--	389.74	—	—	**0.569**	5.68	**4.15**	**90.8**	—	—	**19.7**	**25.43**
10/09/2003	--	389.0	—	—	**0.25**	U (0.32)	**2.88**	**64.9**	—	—	**6.21**	**14.2**
04/21/2004	--	388.73	—	—	U (0.005)	7	**0.114**	**5.42**	—	—	0.116	**1.21**
10/21/2004	--	388.03	—	—	**0.00518**	1.74	**0.109**	**3.2**	—	—	0.0824	**0.699**
05/19/2005	--	389.21	—	—	**0.00681**	5.49	**0.376**	**7.88**	—	—	0.513	**1.61**
09/26/2005	--	388.93	—	—	**0.0125**	3.15	**0.422**	**9.6**	—	—	0.58	**1.78**
05/15/2006	--	388.8	—	—	0.00058	1.87	**0.0533**	1.5	—	—	0.0273	**0.223**

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GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
11/07/2006	--	388.64	—	—	**0.0102**	1.35	**0.906**	**17**	—	—	**1.11**	**3.24**
05/15/2007	--	388.15	—	—	0.00279	1.9	**0.0356**	1.99	—	—	0.0199	0.173
10/16/2007	--	388.15	—	—	0.0032	1.55	**0.412**	**7.61**	—	—	0.173	**1.03**
04/29/2008	--	388.82	—	—	U (0.0005)	2.09	0.0043	0.453	—	—	U (0.0005)	0.0131
10/01/2008	--	389.24	—	—	0.00114	1.38	**0.228**	**3.12**	—	—	0.0194	**0.739**
05/12/2009	--	389.14	—	—	0.00385	8.79	**0.308**	**4**	—	—	0.0114	**0.537**
10/26/2009	--	388.76	—	—	0.00138	0.738	**0.717**	**4.25**	—	—	0.0108	**1.48**
06/15/2010	--	388.99	—	—	0.00143	0.51	**0.0205**	1.32	—	—	0.00135	0.0729
10/14/2010	--	388.66	—	—	0.00192	1.49	**0.127**	**4.45**	—	—	0.0136	**0.7**
05/24/2011	--	388.96	—	—	0.00232	3.04	**0.798**	**6.24**	—	—	0.0313	**1.32**
10/26/2011	--	388.59	—	—	U (0.010)	0.744	**0.345**	**6.53**	—	—	U (0.010)	**1.11**
05/22/2012	--	388.88	—	—	**0.00566**	NR	**0.179**	**5.17**	—	—	0.00275	**0.503**
10/11/2012	--	389.13	—	—	0.00075	0.655	0.00707	0.687	—	—	0.0197	0.0614
05/21/2013	--	389.2	—	—	0.00173	U (0.397)	**0.019**	0.388	—	—	0.000638	0.0325
09/25/2013	--	389.27	—	—	0.0013	0.573	**0.269**	**2.61**	—	—	0.00104	**0.481**
05/06/2014	--	389.28	—	—	0.0038	0.67	**0.15**	1.8	—	—	U (0.0005)	**0.21**
09/17/2014	--	388.88	—	—	0.00072	U (0.38)	**0.096**	1.3	—	—	0.00068	0.15
05/26/2015	--	389.53	—	—	0.0018	2.5	**0.092**	1.6	—	—	U (0.003)	**0.21**
10/06/2015	--	389.86	—	—	**0.036**	0.76	**0.29**	**4.7**	—	—	0.0039	**0.64**
05/11/2016	--	389.13	—	—	0.0023	0.73	**0.1**	1.2	—	—	U (0.001)	0.14
10/05/2016	--	389.51	—	—	U (0.020)	1.4	**0.15**	1.7	—	—	U (0.020)	**0.22**
05/08/2017	--	389.42	—	—	U (0.002)	0.68	**0.23**	**2.8**	—	—	U (0.002)	**0.639**
09/05/2017	--	389.34	—	—	0.0014	0.9	**0.041**	1	—	—	U (0.001)	0.081
06/14/2018	--	389.52	—	—	U (0.003)	0.3	**0.077**	1.1	—	—	U (0.002)	0.1128
10/30/2018	--	389.22	—	—	U (0.003)	2.4	**0.042**	0.69	—	—	U (0.002)	0.062
05/09/2019	--	388.88	—	—	U (0.003)	0.26	**0.023**	0.41	—	—	U (0.002)	0.051
10/22/2019	--	389.44	—	—	U (0.003)	0.72	**0.017**	0.36	—	—	U (0.002)	0.029
08/18/2020	--	389.8	—	—	0.00074	0.632	0.00728	0.203	—	—	0.000886 J	0.0156
10/06/2020	--	389.4	—	—	0.00121	0.38 J	0.0104	0.277	—	—	0.000531 J	0.0245
06/24/2021	--	389.94	—	—	0.00062 J	0.95	0.00673	0.85	—	—	0.000453 J	0.0121
10/13/2021	--	--	—	—	0.000702 J	1.49	0.00768	0.21	—	—	U (0.001)	0.013
05/16/2022	--	390.75	0.0114	0.00461	0.000328	0.38	0.00468	0.126	U(0.000250)	11.5	U(0.00100)	0.00768
09/26/2022	--	389.76	0.0125	0.00627	0.000558	0.772	0.0046	0.174	0.000397	15.4	0.000511	0.00856
MW-3												
05/30/1997	--	388.79	—	—	**23**	54	**12**	**380**	—	—	**69**	**54**
09/30/2002	--	389.15	—	—	**36.6**	7.38	**3.87**	**337**	—	—	**75.3**	**40.3**
05/12/2003	--	389.68	—	—	**5.41**	2.37	**1.44**	**36.6**	—	—	**6.45**	**7.86**
10/09/2003	--	388.92	—	—	**13.6**	U (0.32)	**5.31**	**392**	—	—	**52.3**	**49.9**
04/21/2004	--	389.34	—	—	**0.617**	1.9	**0.722**	**20.2**	—	—	**1.47**	**5.69**
10/21/2004	--	388.26	—	—	**9.38**	4.96	**3.68**	**157**	—	—	**29.5**	**24.3**

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GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
05/19/2005	--	389.41	—	—	0.846	2.03	1.04	37.3	—	—	5.38	8.9
09/26/2005	--	389.12	—	—	0.0496	3.15	0.261	14.6	—	—	1.27	4.24
05/15/2006	--	388.9	—	—	0.833	4.44	1.63	44.3	—	—	5.05	12.5
11/07/2006	--	388.87	—	—	1.74	4.68	3.74	174	—	—	26.4	31.4
05/15/2007	--	388.37	—	—	0.0124	2.49	0.0942	3.93	—	—	0.136	0.948
10/16/2007	--	387.31	—	—	0.126	7.82	0.272	55.3	—	—	2.3	17.5
04/29/2008	--	388.74	—	—	0.0063	4.71	0.0197	1.44	—	—	0.143	0.321
10/01/2008	--	389.36	—	—	0.00305	3.2	0.0572	2.4	—	—	0.0238	0.913
05/12/2009	--	389.26	—	—	0.056	5.95	0.624	17.2	—	—	0.833	5.7
10/26/2009	--	388.7	—	—	0.0903	3.41	0.935	51.5	—	—	2.25	13.6
06/15/2010	--	388.9	—	—	0.0428	2.86	0.449	12.8	—	—	0.377	4.2
10/14/2010	--	388.28	—	—	0.113	7.56	2.48	137	—	—	9.24	25.6
05/24/2011	--	388.85	—	—	0.205	7.72	1.31	62.4	—	—	2.53	20.9
10/26/2011	--	388.56	—	—	0.104	12	1.39	47	—	—	2.09	20.7
05/22/2012	--	388.82	—	—	0.131	5.22	0.751	41.3	—	—	1.99	12.9
10/11/2012	--	389.05	—	—	0.0102	1.35	0.271	23.2	—	—	0.373	3.83
05/21/2013	--	389.13	—	—	1.5	20.3	2.39	70	—	—	11.2	15.9
09/25/2013	--	389.18	—	—	0.102	7.15	1.93	47.9	—	—	4.01	23.9
05/06/2014	--	389.1	—	—	0.037	4.7	0.42	12	—	—	0.47	3.8
09/17/2014	--	388.75	—	—	0.047	2.7	1.2	26	—	—	1.5	14
05/26/2015	--	389.5	—	—	0.057	4.6	1.6	79	—	—	2	13
10/06/2015	--	389.77	—	—	0.1	2.2	1.5	57	—	—	2.1	16
05/11/2016	--	389.07	—	—	0.00093	1.6	0.034	1.1	—	—	0.024	0.34
10/05/2016	--	389.44	—	—	0.054	2.5	0.92	21	—	—	0.61	7.9
05/08/2017	--	389.37	—	—	0.021	4.4	0.63	19	—	—	0.32	6.6
09/05/2017	--	389.25	—	—	0.04	2	1	30	—	—	0.75	12
06/14/2018	--	389.44	—	—	0.027	2.8	1.1	U (25)	—	—	0.67	11.6
10/30/2018	--	389.14	—	—	0.036	5.7	1.2	39	—	—	0.37	12
05/10/2019	--	388.84	—	—	0.029	0.66	0.38	10	—	—	0.2	4.02
10/22/2019	--	389.42	—	—	0.028	3.7 H	0.75	17	—	—	0.15	5.5
08/18/2020	--	389.75	—	—	0.0244	2.84	0.637	12.6	—	—	0.194	6.86
10/06/2020	--	389.35	—	—	0.0446	3.64	0.473	10.7	—	—	0.187	4.59
06/24/2021	--	389.8	—	—	0.0292	2.03	0.598	16	—	—	0.278	6.45
10/13/2021	--	--	—	—	0.0186 J	2.16	0.248	7.35	—	—	0.0856	1.8
05/16/2022	--	390.69	0.322	0.134	0.0132	1.49	0.187	2.38	0.00354	42	0.131	1.71
09/26/2022	--	389.68	0.473	0.166	0.0168	1.3	0.354	4.78	0.0148	45.4	0.33	2.77
10/26/2022	--	389.26	—	—	0.0099	1.18	0.383	6.65	0.0158	51.7	0.22	3.25
MW-4												
05/30/1997	--	380.39	—	—	0.85	0.55	0.16	3.8	—	—	0.71	0.64
09/11/1997	--	380.8	—	—	8.41	1.71	1.15	64	—	—	14.5	5.57

Analytical Data Results Table

Speedway 5310/TNS112
7-Eleven - Paula Sime
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Unit	Well Screen Interval ft	Ground Water Elevation ft	124-TMB ppm	135-TMB ppm	Benzene ppm	DRO ppm	Ethylbenzene ppm	GRO ppm	Naphthalene ppm	Sodium ppm	Toluene ppm	Xylenes ppm
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
03/12/1998	--	380.44	—	—	**2.3**	0.68	**0.42**	**15**	—	—	**3.3**	**1.8**
07/21/1998	--	381.01	—	—	**3.71**	0.7	**0.485**	**21**	—	—	**3.69**	**2.09**
10/12/1998	--	380.33	—	—	**1.95**	1.29	**0.36**	**12**	—	—	**1.99**	**1.58**
01/21/1999	--	380.35	—	—	**0.94**	0.7	**0.127**	**4.3**	—	—	0.483	**0.579**
07/28/1999	--	380.63	—	—	**3.48**	2.65	**0.39**	**21**	—	—	**5.6**	**1.86**
10/15/1999	--	380.41	—	—	**3.3**	3.84	**0.422**	**26**	—	—	**5.4**	**1.962**
03/10/2000	--	380.05	—	—	**1.88**	1.91	**0.466**	**14**	—	—	**2.52**	**2.03**
06/21/2000	--	380.84	—	—	**1.44**	0.66	**0.201**	**10**	—	—	**1.78**	**0.923**
09/21/2000	--	380.78	—	—	U (0.0005)	0.838	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
01/25/2001	--	380.42	—	—	**0.533**	1.71	**0.397**	**7.27**	—	—	0.602	**1.464**
04/19/2001	--	380.38	—	—	U (0.0005)	U(0.8)	0.011	0.225	—	—	0.015	0.066
07/24/2001	--	380.77	—	—	0.001	0.869	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
01/28/2002	--	380.66	—	—	**0.271**	0.708	**0.631**	**9.58**	—	—	0.802	**2.646**
04/30/2002	--	381.26	—	—	**0.0644**	U (0.495)	**0.509**	0.623	—	—	U (0.002)	0.128
09/30/2002	--	380.82	—	—	**0.0157**	U (0.5)	0.00523	0.0943	—	—	U (0.002)	0.0114
05/12/2003	--	381.29	—	—	**0.0138**	U (0.3)	0.00595	0.167	—	—	0.00268	0.05252
10/09/2003	--	380.52	—	—	**0.0311**	2.95	0.00555	0.266	—	—	U (0.0005)	0.0657
04/21/2004	--	380.25	—	—	0.00295	U (0.5)	0.00506	0.311	—	—	U (0.0005)	0.113
10/21/2004	--	379.42	—	—	**0.0121**	0.455	U (0.0005)	0.0646	—	—	U (0.0005)	0.00791
05/19/2005	--	380.76	—	—	0.00295	U (0.391)	U (0.0005)	0.067	—	—	U (0.0005)	0.0167
05/15/2006	--	380.23	—	—	0.000635	U (0.403)	U (0.0005)	0.051	—	—	U (0.0005)	0.00919
05/15/2007	--	379.57	—	—	U (0.0005)	0.782	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/29/2008	--	380.48	—	—	0.00175	3.78	0.00097	1.75	—	—	0.00338	**1.2**
05/12/2009	--	380.58	—	—	U (0.0005)	U (0.427)	U (0.0005)	U (0.05)	—	—	0.00121	0.00189
06/15/2010	--	380.53	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.00976)
05/24/2011	--	380.47	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/22/2012	--	380.42	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/06/2013	--	380.83	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/21/2013	--	380.73	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/26/2015	--	381.1	—	—	U (0.001)	0.23	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.001)
05/11/2016	--	380.69	—	—	U (0.0020)	U (0.40)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
05/08/2017	--	381.01	—	—	U (0.002)	0.14	U (0.003)	U (1)	—	—	U (0.002)	U (0.002)
06/14/2018	--	381.09	—	—	U (0.003)	U (0.25)	U (0.003)	U (0.000054)	—	—	U (0.002)	U (0.002)
05/09/2019	--	385.47	—	—	U (0.003)	0.51	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/06/2020	--	380.98	—	—	U (0.001)	0.574	U (0.001)	0.0144	—	—	U (0.001)	U (0.003)
10/13/2021	--	--	—	—	U (0.001)	2.84	U (0.001)	U (0.100)	—	—	U (0.001)	0.000454 J
09/26/2022	--	381.31	0.000362	U(0.00100)	U(0.00100)	2.68	U(0.00100)	0.0332	U(0.000250)	13.1	U(0.00100)	0.000534
MW-5												
10/12/1998	--	--	—	—	**0.019**	0.11	U	0.045	—	—	U	0.002
01/21/1999	--	--	—	—	**0.051**	0.127	U	0.11	—	—	U	U

Analytical Data Results Table

Speedway 5310/TNS112
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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylenes
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
03/31/1999	--	--	—	—	**0.023**	U (0.297)	U (0.001)	U (0.09)	—	—	U (0.001)	0.0013
07/28/1999	--	--	—	—	**0.008**	U (0.300)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
10/15/1999	--	--	—	—	**0.04**	U (0.297)	U (0.002)	0.11	—	—	U (0.002)	U (0.002)
03/10/2000	--	--	—	—	**0.104**	U (0.297)	U (0.002)	0.22	—	—	0.003	0.005
06/21/2000	--	--	—	—	**0.025**	U (0.297)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
09/21/2000	--	--	—	—	**0.025**	U (0.303)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
01/25/2001	--	--	—	—	**0.066**	U (0.300)	0.002	0.19	—	—	0.003	0.007
04/19/2001	--	--	—	—	U(0.0005)	U(0.816)	0.003	U (0.09)	—	—	0.002	0.003
07/24/2001	--	--	—	—	U(0.0005)	U (0.495)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
01/28/2002	--	--	—	—	0.0029	U (0.521)	U (0.002)	U (0.09)	—	—	U (0.002)	0.002
04/30/2002	--	--	—	—	U(0.0005)	U (0.500)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
09/30/2002	--	--	—	—	U (0.0005)	U (0.5)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
05/12/2003	--	--	—	—	U (0.0005)	U (0.3)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
10/09/2003	--	--	—	—	U (0.0005)	U (0.32)	U (0.0005)	U (0.08)	—	—	U (0.0005)	U (0.001)
04/21/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2004	--	--	—	—	U (0.0002)	U (0.4)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
05/19/2005	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2006	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2007	--	--	—	—	U (0.0005)	0.522	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.00154
04/29/2008	--	--	—	—	U (0.0005)	U (0.435)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/12/2009	--	--	—	—	U (0.0005)	U (0.450)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
MW-6												
06/21/2000	--	376.32	—	—	0.0012	U (0.3)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
09/21/2000	--	376.28	—	—	U (0.0005)	U (0.297)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
01/25/2001	--	376.03	—	—	0.00051	U (0.3)	U (0.002)	U (0.09)	—	—	0.0026	0.003
04/19/2001	--	375.98	—	—	U (0.0005)	U(0.808)	U (0.002)	U (0.09)	—	—	U (0.002)	0.003
07/24/2001	--	376.29	—	—	U (0.0005)	U (0.495)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
01/28/2002	--	376.24	—	—	U (0.0005)	U (0.500)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
04/30/2002	--	376.58	—	—	0.000565	U (0.500)	0.00203	U (0.09)	—	—	0.00411	0.01081
09/30/2002	--	376.21	—	—	U (0.0005)	U (0.495)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
05/12/2003	--	375.94	—	—	U (0.0005)	U (0.3)	U (0.002)	U (0.09)	—	—	U (0.002)	U (0.002)
10/09/2003	--	376.11	—	—	U (0.0005)	U (0.32)	U (0.0005)	U (0.08)	—	—	U (0.0005)	U (0.001)
04/21/2004	--	375.8	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2004	--	375.02	—	—	U (0.0002)	U (0.4)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
05/19/2005	--	376.05	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2006	--	375.77	—	—	U (0.0005)	U (0.397)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2007	--	375.25	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/29/2008	--	376.04	—	—	U (0.0005)	U (0.481)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/12/2009	--	376.33	—	—	U (0.0005)	U (0.400)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
06/15/2010	--	--	—	—	U (0.0005)	U (0.431)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.00976)

Analytical Data Results Table

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylenes
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
05/24/2011	--	376.07	—	—	U (0.0005)	U (0.385)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/26/2011	--	375.93	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/22/2012	--	376.07	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/11/2012	--	376.25	—	—	U (0.0005)	U (0.403)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
05/21/2013	--	376.29	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
09/25/2013	--	376.44	—	—	U (0.0005)	U (0.385)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/06/2014	--	376.4	—	—	U (0.0005)	U (0.42)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
09/17/2014	--	377.27	—	—	U (0.0005)	U (0.39)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0005)
05/26/2015	--	377.01	—	—	U (0.001)	U (0.21)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.001)
10/06/2015	--	376.8	—	—	U (0.001)	0.84	U (0.001)	U (0.01)	—	—	U (0.001)	U (0.003)
05/11/2016	--	376.22	—	—	U (0.0020)	U (0.0020)	U (0.0020)	U (0.0020)	—	—	U (0.0020)	U (0.0020)
10/05/2016	--	376.51	—	—	U (0.0020)	U (0.12)	U (0.0030)	U (0.05)	—	—	U (0.0020)	U (0.0020)
05/08/2017	--	376.51	—	—	U (0.002)	U (0.11)	U (0.003)	U (1)	—	—	U (0.002)	U (0.002)
09/05/2017	--	376.45	—	—	U (0004)	U (0.290)	U (0.001)	U (0.150)	—	—	U (0.001)	U (0.003)
06/14/2018	--	376.58	—	—	U (0.003)	U (0.12)	U (0.003)	U (025)	—	—	U (0.002)	U (0.002)
10/30/2018	--	376.34	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	0.0084
05/09/2019	--	376.11	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/22/2019	--	376.53	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
08/18/2020	--	376.86	—	—	U (0.200)	J (0.210)	U (0.500)	U (0.0500)	—	—	U (0.500)	U (1.500)
10/06/2020	--	376.5	—	—	U (0.001)	U (0.800)	U (0.001)	U (0.0100)	—	—	U (0.001)	U (0.003)
06/24/2021	--	376.77	—	—	U (0.001)	U (0.800)	U (0.001)	J 0.0384	—	—	U (0.001)	U (0.003)
10/13/2021	--	--	—	—	U (0.001)	0.376 J	U (0.001)	U (0.1)	—	—	U (0.001)	0.000221
05/16/2022	--	377.55	U(0.00100)	0.000565	U(0.00100)	U(0.840)	0.000372	0.085	U(0.000250)	8.98	U(0.00100)	U(0.00300)
09/26/2022	--	376.78	U(0.00100)	U(0.00100)	U(0.00100)	U(0.832)	U(0.00100)	0.0465	U(0.000250)	10.1	U(0.00100)	U(0.00300)
MW-7												
10/09/2003	--	--	—	—	**0.0237**	U (0.32)	0.014	**2.36**	—	—	0.00185	0.0877
04/21/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2004	--	--	—	—	0.00325	0.508	0.000934	0.298	—	—	U (0.0005)	0.00498
05/19/2005	--	--	—	—	0.000909	U (0.391)	0.000527	0.275	—	—	U (0.0005)	U (0.0015)
05/15/2006	--	--	—	—	U (0.0005)	0.412	U (0.0005)	0.109	—	—	U (0.0005)	U (0.0015)
04/29/2008	--	--	—	—	U (0.0005)	U (0.413)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/12/2009	--	--	—	—	U (0.0005)	U (0.442)	0.00063	1.16	—	—	U (0.0005)	0.00231
MW-8												
03/16/2004	--	--	—	—	U (0.0005)	U (0.37)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
04/21/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2004	--	--	—	—	0.000298	U (0.4)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
05/19/2005	--	--	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2006	--	--	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2007	--	--	—	—	U (0.0005)	U (0.394)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/29/2008	--	--	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)

Analytical Data Results Table

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylenes
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
05/12/2009	--	--	—	—	U (0.0005)	U (0.413)	0.00067	U (0.05)	—	—	0.00062	0.00199
MW-9												
03/16/2004	--	--	—	—	U (0.0005)	U (0.37)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
04/21/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2004	--	--	—	—	U (0.0002)	U (0.4)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
05/19/2005	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2006	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2007	--	--	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/29/2008	--	--	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/12/2009	--	--	—	—	U (0.0005)	U (0.400)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.00182
MW-10												
09/17/2004	--	--	—	—	0.0103	U (0.385)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2004	--	373.28	—	—	U (0.0002)	2.19	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.001)
05/19/2005	--	374.19	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
09/26/2005	--	374.14	—	—	U (0.0005)	U (0.397)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2006	--	373.96	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
11/07/2006	--	373.99	—	—	U (0.0005)	U (0.442)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2007	--	373.58	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/16/2007	--	373.58	—	—	U (0.0005)	U (0.427)	U (0.0005)	U (0.05)	—	—	0.000745	0.00843
04/29/2008	--	374.06	—	—	U (0.0005)	U (0.424)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/01/2008	--	374.39	—	—	U (0.0005)	U (0.49)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/12/2009	--	374.31	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/26/2009	--	374.04	—	—	U (0.0005)	U (0.417)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
06/15/2010	--	374.22	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.00976)
10/14/2010	--	374.09	—	—	U (0.0005)	U (0.397)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
05/24/2011	--	374.19	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/26/2011	--	374.06	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/22/2012	--	374.14	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/11/2012	--	374.3	—	—	U (0.0005)	U (0.413)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
05/21/2013	--	374.36	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
09/25/2013	--	374.48	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/06/2014	--	374.46	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.0027
09/17/2014	--	375.48	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/26/2015	--	375.22	—	—	U (0.001)	U (0.22)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.001)
10/06/2015	--	374.86	—	—	U (0.001)	0.41	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
05/11/2016	--	374.34	—	—	U (0.0020)	U (0.42)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
10/05/2016	--	374.69	—	—	U (0.0020)	2.6	U (0.003)	U (0.05)	—	—	U (0.002)	U (0.002)
05/08/2017	--	374.59	—	—	U (0.002)	U (0.11)	U (0.003)	U (1)	—	—	U (0.002)	0.0056
09/05/2017	--	374.55	—	—	U (.0004)	U (0.280)	U (0.001)	U (0.150)	—	—	U (0.001)	U (0.003)
06/14/2018	--	374.64	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.002)

Analytical Data Results Table

Speedway 5310/TNS112
7-Eleven - Paula Sime
3392 Badger Rd
North Pole, Alaska 99705

	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylenes
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046		0.015	2.2	0.0017		1.1	0.19
10/30/2018	--	374.46	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
05/09/2019	--	374.28	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/22/2019	--	374.64	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
08/18/2020	--	374.92	—	—	U (0.0002)	J (0.283)	U (0.0005)	U (0.050)	—	—	U (0.0005)	U (0.0015)
10/06/2020	--	374.59	—	—	U (0.001)	U (0.800)	U (0.001)	U (0.0100)	—	—	U (0.001)	U (0.003)
06/24/2021	--	374.81	—	—	U (0.001)	U (0.800)	U (0.001)	U (0.0100)	—	—	U (0.001)	U (0.003)
10/13/2021	--	--	—	—	0.00247	0.403 J	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
05/16/2022	--	387.58	U(0.00100)	U(0.00100)	**0.00974**	U(0.800)	U(0.00100)	0.033	U(0.000250)	6.53	0.00387	0.000289
09/26/2022	--	374.87	U(0.00100)	U(0.00100)	U(0.00100)	U(0.872)	U(0.00100)	0.0294	U(0.000250)	7.56	U(0.00100)	U(0.00300)

APPENDIX E

Laboratory Analytical Report and ADEC Laboratory Data Review Checklist

ANALYTICAL REPORT

November 14, 2022

Stantec - Anchorage, AK

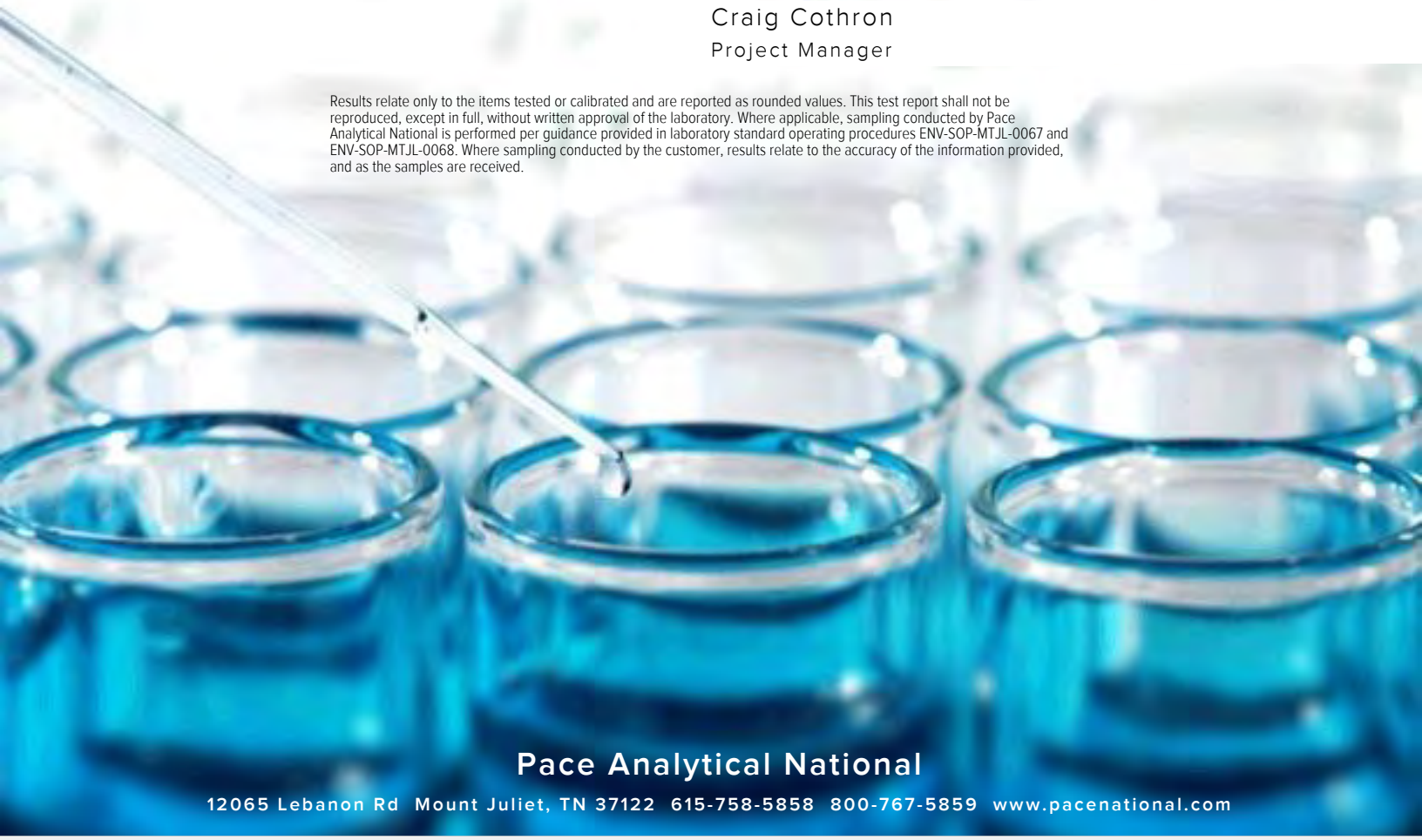
Sample Delivery Group:	L1551718
Samples Received:	10/28/2022
Project Number:	
Description:	Speedway 5310 - North Pole, AK

Report To:

Ms. Leslie Petre
725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Entire Report Reviewed By:

Craig Cothron
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW 17-2 L1551718-01 GW

Collected by: Geoff Moorhead | Collected date/time: 10/26/22 11:42 | Received date/time: 10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1955988	5	11/08/22 13:31	11/09/22 02:41	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1957855	1	11/11/22 14:50	11/12/22 00:39	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG1954190	1	11/06/22 19:31	11/06/22 19:31	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1954107	1	11/04/22 08:39	11/04/22 08:39	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1952817	1	11/02/22 07:08	11/02/22 17:37	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1952582	1	11/02/22 17:02	11/03/22 14:54	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1951399	2	10/31/22 10:12	10/31/22 22:40	JMB	Mt. Juliet, TN

MW 17-5 L1551718-02 GW

Collected by: Geoff Moorhead | Collected date/time: 10/26/22 12:16 | Received date/time: 10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1955988	1	11/08/22 13:31	11/08/22 18:27	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1957855	1	11/11/22 14:50	11/12/22 00:42	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG1954190	1	11/06/22 19:58	11/06/22 19:58	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1954107	20	11/04/22 10:52	11/04/22 10:52	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1952817	1.02	11/02/22 07:08	11/02/22 17:49	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1952582	1	11/02/22 17:02	11/03/22 15:17	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1951399	1	10/31/22 10:12	10/31/22 20:56	JMB	Mt. Juliet, TN

MW 3 L1551718-03 GW

Collected by: Geoff Moorhead | Collected date/time: 10/26/22 13:24 | Received date/time: 10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1955988	1	11/08/22 13:31	11/08/22 18:30	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1957855	1	11/11/22 14:50	11/12/22 00:46	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG1954943	1	11/06/22 23:56	11/06/22 23:56	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1954107	20	11/04/22 11:11	11/04/22 11:11	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1952817	1.02	11/02/22 07:08	11/02/22 18:01	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1955908	1	11/09/22 00:13	11/09/22 06:11	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1951881	1	11/01/22 11:15	11/02/22 13:48	JMB	Mt. Juliet, TN

DUPLICATE L1551718-04 GW

Collected by: Geoff Moorhead | Collected date/time: 10/26/22 13:24 | Received date/time: 10/28/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1955988	1	11/08/22 13:31	11/08/22 18:39	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1957855	1	11/11/22 14:50	11/12/22 00:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG1954943	1	11/07/22 00:22	11/07/22 00:22	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1954107	20	11/04/22 11:30	11/04/22 11:30	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1952817	1.08	11/02/22 07:08	11/02/22 18:13	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1952930	1	11/04/22 05:37	11/04/22 20:34	HLJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1951881	1	11/01/22 11:15	11/02/22 19:26	JMB	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Project Manager

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	1230		2.52	15.0	5	11/09/2022 02:41	WG1955988

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	0.0940		0.000849	0.00200	1	11/12/2022 00:39	WG1957855

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.118		0.0287	0.100	1	11/06/2022 19:31	WG1954190
(S) a,a,a-Trifluorotoluene(FID)	*91.4*			*50.0-150*		*11/06/2022 19:31*	WG1954190
(S) a,a,a-Trifluorotoluene(PID)	*101*			*79.0-125*		*11/06/2022 19:31*	WG1954190

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000530	J	0.0000941	0.00100	1	11/04/2022 08:39	WG1954107
Toluene	U		0.000278	0.00100	1	11/04/2022 08:39	WG1954107
Ethylbenzene	0.00127		0.000137	0.00100	1	11/04/2022 08:39	WG1954107
Total Xylenes	0.000377	J	0.000174	0.00300	1	11/04/2022 08:39	WG1954107
(S) Toluene-d8	*99.7*			*80.0-120*		*11/04/2022 08:39*	WG1954107
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*11/04/2022 08:39*	WG1954107
(S) 1,2-Dichloroethane-d4	*79.0*			*70.0-130*		*11/04/2022 08:39*	WG1954107

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00000536	0.0000200	1	11/02/2022 17:37	WG1952817

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1.23		0.170	0.800	1	11/03/2022 14:54	WG1952582
(S) o-Terphenyl	*51.4*			*50.0-150*		*11/03/2022 14:54*	WG1952582

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000380	0.000100	2	10/31/2022 22:40	WG1951399
Acenaphthene	U		0.0000380	0.000100	2	10/31/2022 22:40	WG1951399
Acenaphthylene	U		0.0000342	0.000100	2	10/31/2022 22:40	WG1951399
Benzo(a)anthracene	U		0.0000406	0.000100	2	10/31/2022 22:40	WG1951399
Benzo(a)pyrene	0.0000397	J	0.0000368	0.000100	2	10/31/2022 22:40	WG1951399
Benzo(b)fluoranthene	0.0000952	J	0.0000336	0.000100	2	10/31/2022 22:40	WG1951399
Benzo(g,h,i)perylene	0.0000863	J	0.0000368	0.000100	2	10/31/2022 22:40	WG1951399
Benzo(k)fluoranthene	U		0.0000404	0.000100	2	10/31/2022 22:40	WG1951399
Chrysene	U		0.0000358	0.000100	2	10/31/2022 22:40	WG1951399
Dibenz(a,h)anthracene	U		0.0000320	0.000100	2	10/31/2022 22:40	WG1951399
Fluoranthene	0.0000723	J	0.0000540	0.000200	2	10/31/2022 22:40	WG1951399
Fluorene	0.0000900	J	0.0000338	0.000100	2	10/31/2022 22:40	WG1951399
Indeno(1,2,3-cd)pyrene	0.0000652	J	0.0000316	0.000100	2	10/31/2022 22:40	WG1951399

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Naphthalene	0.000327	J	0.000183	0.000500	2	10/31/2022 22:40	WG1951399
Phenanthrene	0.0000670	J	0.0000360	0.000100	2	10/31/2022 22:40	WG1951399
Pyrene	0.000175		0.0000338	0.000100	2	10/31/2022 22:40	WG1951399
1-Methylnaphthalene	0.000845		0.000137	0.000500	2	10/31/2022 22:40	WG1951399
2-Methylnaphthalene	0.000636		0.000135	0.000500	2	10/31/2022 22:40	WG1951399
(S) Nitrobenzene-d5	*115*			*31.0-160*		*10/31/2022 22:40*	WG1951399
(S) 2-Fluorobiphenyl	*85.3*			*48.0-148*		*10/31/2022 22:40*	WG1951399
(S) p-Terphenyl-d14	*61.6*			*37.0-146*		*10/31/2022 22:40*	WG1951399

Sample Narrative:

L1551718-01 WG1951399: Dilution due to matrix impact during extraction procedure

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	270		0.504	3.00	1	11/08/2022 18:27	WG1955988

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	0.00456		0.000849	0.00200	1	11/12/2022 00:42	WG1957855

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	1.15		0.0287	0.100	1	11/06/2022 19:58	WG1954190
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*50.0-150*		*11/06/2022 19:58*	WG1954190
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*		*11/06/2022 19:58*	WG1954190

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0267		0.00188	0.0200	20	11/04/2022 10:52	WG1954107
Toluene	0.0814		0.00556	0.0200	20	11/04/2022 10:52	WG1954107
Ethylbenzene	0.0968		0.00274	0.0200	20	11/04/2022 10:52	WG1954107
Total Xylenes	0.276		0.00348	0.0600	20	11/04/2022 10:52	WG1954107
(S) Toluene-d8	*99.3*			*80.0-120*		*11/04/2022 10:52*	WG1954107
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*11/04/2022 10:52*	WG1954107
(S) 1,2-Dichloroethane-d4	*87.8*			*70.0-130*		*11/04/2022 10:52*	WG1954107

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00000547	0.0000204	1.02	11/02/2022 17:49	WG1952817

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.319	J	0.170	0.800	1	11/03/2022 15:17	WG1952582
(S) o-Terphenyl	*88.9*			*50.0-150*		*11/03/2022 15:17*	WG1952582

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	10/31/2022 20:56	WG1951399
Acenaphthene	0.000106		0.0000190	0.0000500	1	10/31/2022 20:56	WG1951399
Acenaphthylene	U		0.0000171	0.0000500	1	10/31/2022 20:56	WG1951399
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/31/2022 20:56	WG1951399
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/31/2022 20:56	WG1951399
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/31/2022 20:56	WG1951399
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/31/2022 20:56	WG1951399
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/31/2022 20:56	WG1951399
Chrysene	U		0.0000179	0.0000500	1	10/31/2022 20:56	WG1951399
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/31/2022 20:56	WG1951399
Fluoranthene	U		0.0000270	0.000100	1	10/31/2022 20:56	WG1951399
Fluorene	0.000130		0.0000169	0.0000500	1	10/31/2022 20:56	WG1951399
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/31/2022 20:56	WG1951399

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Naphthalene	0.00399		0.0000917	0.000250	1	10/31/2022 20:56	WG1951399
Phenanthrene	0.0000726		0.0000180	0.0000500	1	10/31/2022 20:56	WG1951399
Pyrene	U		0.0000169	0.0000500	1	10/31/2022 20:56	WG1951399
1-Methylnaphthalene	0.00149		0.0000687	0.000250	1	10/31/2022 20:56	WG1951399
2-Methylnaphthalene	0.00185		0.0000674	0.000250	1	10/31/2022 20:56	WG1951399
(S) Nitrobenzene-d5	*97.4*			*31.0-160*		*10/31/2022 20:56*	WG1951399
(S) 2-Fluorobiphenyl	*103*			*48.0-148*		*10/31/2022 20:56*	WG1951399
(S) p-Terphenyl-d14	*109*			*37.0-146*		*10/31/2022 20:56*	WG1951399

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	50.9		0.504	3.00	1	11/08/2022 18:30	WG1955988

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	0.00545		0.000849	0.00200	1	11/12/2022 00:46	WG1957855

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	6.65		0.0287	0.100	1	11/06/2022 23:56	WG1954943
(S) a,a,a-Trifluorotoluene(FID)	*102*			*50.0-150*		*11/06/2022 23:56*	WG1954943
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*		*11/06/2022 23:56*	WG1954943

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00990	J	0.00188	0.0200	20	11/04/2022 11:11	WG1954107
Toluene	0.220		0.00556	0.0200	20	11/04/2022 11:11	WG1954107
Ethylbenzene	0.383		0.00274	0.0200	20	11/04/2022 11:11	WG1954107
Total Xylenes	3.25		0.00348	0.0600	20	11/04/2022 11:11	WG1954107
(S) Toluene-d8	*99.6*			*80.0-120*		*11/04/2022 11:11*	WG1954107
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*11/04/2022 11:11*	WG1954107
(S) 1,2-Dichloroethane-d4	*87.8*			*70.0-130*		*11/04/2022 11:11*	WG1954107

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00000547	0.0000204	1.02	11/02/2022 18:01	WG1952817

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1.18	B	0.170	0.800	1	11/09/2022 06:11	WG1955908
(S) o-Terphenyl	*71.4*			*50.0-150*		*11/09/2022 06:11*	WG1955908

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	11/02/2022 13:48	WG1951881
Acenaphthene	0.000118		0.0000190	0.0000500	1	11/02/2022 13:48	WG1951881
Acenaphthylene	U		0.0000171	0.0000500	1	11/02/2022 13:48	WG1951881
Benzo(a)anthracene	U		0.0000203	0.0000500	1	11/02/2022 13:48	WG1951881
Benzo(a)pyrene	U		0.0000184	0.0000500	1	11/02/2022 13:48	WG1951881
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	11/02/2022 13:48	WG1951881
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	11/02/2022 13:48	WG1951881
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	11/02/2022 13:48	WG1951881
Chrysene	U		0.0000179	0.0000500	1	11/02/2022 13:48	WG1951881
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	11/02/2022 13:48	WG1951881
Fluoranthene	U		0.0000270	0.000100	1	11/02/2022 13:48	WG1951881
Fluorene	0.000214		0.0000169	0.0000500	1	11/02/2022 13:48	WG1951881
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	11/02/2022 13:48	WG1951881

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Naphthalene	0.00988		0.0000917	0.000250	1	11/02/2022 13:48	WG1951881
Phenanthrene	0.0000607		0.0000180	0.0000500	1	11/02/2022 13:48	WG1951881
Pyrene	U		0.0000169	0.0000500	1	11/02/2022 13:48	WG1951881
1-Methylnaphthalene	0.00217		0.0000687	0.000250	1	11/02/2022 13:48	WG1951881
2-Methylnaphthalene	0.00263		0.0000674	0.000250	1	11/02/2022 13:48	WG1951881
(S) Nitrobenzene-d5	*113*			*31.0-160*		*11/02/2022 13:48*	WG1951881
(S) 2-Fluorobiphenyl	*104*			*48.0-148*		*11/02/2022 13:48*	WG1951881
(S) p-Terphenyl-d14	*93.7*			*37.0-146*		*11/02/2022 13:48*	WG1951881

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	51.7		0.504	3.00	1	11/08/2022 18:39	WG1955988

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	0.00673		0.000849	0.00200	1	11/12/2022 00:49	WG1957855

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	2.39		0.0287	0.100	1	11/07/2022 00:22	WG1954943
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*50.0-150*		*11/07/2022 00:22*	WG1954943
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*		*11/07/2022 00:22*	WG1954943

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00540	J	0.00188	0.0200	20	11/04/2022 11:30	WG1954107
Toluene	0.0606		0.00556	0.0200	20	11/04/2022 11:30	WG1954107
Ethylbenzene	0.151		0.00274	0.0200	20	11/04/2022 11:30	WG1954107
Total Xylenes	1.09		0.00348	0.0600	20	11/04/2022 11:30	WG1954107
(S) Toluene-d8	*99.4*			*80.0-120*		*11/04/2022 11:30*	WG1954107
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*11/04/2022 11:30*	WG1954107
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*11/04/2022 11:30*	WG1954107

EDB / DBCP by Method 8011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	U		0.00000579	0.0000216	1.08	11/02/2022 18:13	WG1952817

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.824		0.170	0.800	1	11/04/2022 20:34	WG1952930
(S) o-Terphenyl	*64.5*			*50.0-150*		*11/04/2022 20:34*	WG1952930

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	11/02/2022 19:26	WG1951881
Acenaphthene	0.000129		0.0000190	0.0000500	1	11/02/2022 19:26	WG1951881
Acenaphthylene	U		0.0000171	0.0000500	1	11/02/2022 19:26	WG1951881
Benzo(a)anthracene	U		0.0000203	0.0000500	1	11/02/2022 19:26	WG1951881
Benzo(a)pyrene	U		0.0000184	0.0000500	1	11/02/2022 19:26	WG1951881
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	11/02/2022 19:26	WG1951881
Benzo(g,h,i)perylene	0.0000208	J	0.0000184	0.0000500	1	11/02/2022 19:26	WG1951881
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	11/02/2022 19:26	WG1951881
Chrysene	U		0.0000179	0.0000500	1	11/02/2022 19:26	WG1951881
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	11/02/2022 19:26	WG1951881
Fluoranthene	U		0.0000270	0.000100	1	11/02/2022 19:26	WG1951881
Fluorene	0.000272		0.0000169	0.0000500	1	11/02/2022 19:26	WG1951881
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	11/02/2022 19:26	WG1951881

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Naphthalene	0.0158		0.0000917	0.000250	1	11/02/2022 19:26	WG1951881
Phenanthrene	0.0000995		0.0000180	0.0000500	1	11/02/2022 19:26	WG1951881
Pyrene	0.0000286	J	0.0000169	0.0000500	1	11/02/2022 19:26	WG1951881
1-Methylnaphthalene	0.00261		0.0000687	0.000250	1	11/02/2022 19:26	WG1951881
2-Methylnaphthalene	0.00319		0.0000674	0.000250	1	11/02/2022 19:26	WG1951881
(S) Nitrobenzene-d5	*118*			*31.0-160*		*11/02/2022 19:26*	WG1951881
(S) 2-Fluorobiphenyl	*102*			*48.0-148*		*11/02/2022 19:26*	WG1951881
(S) p-Terphenyl-d14	*94.2*			*37.0-146*		*11/02/2022 19:26*	WG1951881

Method Blank (MB)

(MB) R3858621-4 11/09/22 02:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R3858621-5 11/09/22 02:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	10.0	11.0	110	80.0-120	

L1548460-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1548460-01 11/08/22 17:34 • (MS) R3858621-2 11/08/22 17:40 • (MSD) R3858621-3 11/08/22 17:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	10.0	59.7	67.8	68.0	80.4	83.0	1	75.0-125			0.388	20

Method Blank (MB)

(MB) R3860279-1 11/11/22 23:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead	U		0.000849	0.00200

Laboratory Control Sample (LCS)

(LCS) R3860279-2 11/11/22 23:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	0.0500	0.0492	98.4	80.0-120	

L1551629-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1551629-08 11/11/22 23:28 • (MS) R3860279-4 11/11/22 23:35 • (MSD) R3860279-5 11/11/22 23:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	0.0500	U	0.0499	0.0480	99.8	95.9	1	75.0-125			3.99	20

Method Blank (MB)

(MB) R3857615-3 11/05/22 19:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	U		0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*60.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3857615-2 11/05/22 17:36 • (LCSD) R3857615-5 11/06/22 12:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	4.71	4.61	94.2	92.2	60.0-120			2.15	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*102*	*60.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*118*	*119*	*79.0-125*				

L1551673-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1551673-02 11/05/22 21:14 • (MS) R3857615-6 11/06/22 20:50 • (MSD) R3857615-7 11/06/22 21:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	U	4.33	4.40	86.6	88.0	1	70.0-130			1.60	20
(S) a,a,a-Trifluorotoluene(FID)					*109*	*101*		*50.0-150*				
(S) a,a,a-Trifluorotoluene(PID)					*113*	*115*		*79.0-125*				

Method Blank (MB)

(MB) R3857622-2 11/06/22 23:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	U		0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	*92.4*			*60.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3857622-1 11/06/22 22:36 • (LCSD) R3857622-3 11/07/22 03:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	4.29	3.61	85.8	72.2	60.0-120			17.2	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*104*	*60.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*118*	*115*	*79.0-125*				

Method Blank (MB)

(MB) R3858721-3 11/04/22 06:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*99.2*			*80.0-120*
(S) 4-Bromofluorobenzene	*110*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3858721-1 11/04/22 05:10 • (LCSD) R3858721-2 11/04/22 05:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00551	0.00477	110	95.4	70.0-123			14.4	20
Toluene	0.00500	0.00521	0.00489	104	97.8	79.0-120			6.34	20
Ethylbenzene	0.00500	0.00543	0.00495	109	99.0	79.0-123			9.25	20
Xylenes, Total	0.0150	0.0173	0.0153	115	102	79.0-123			12.3	20
(S) Toluene-d8				*98.0*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*114*	*106*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*92.9*	*88.8*	*70.0-130*				

Method Blank (MB)

(MB) R3856508-1 11/02/22 14:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylene Dibromide	U		0.00000536	0.0000200

L1551642-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1551642-01 11/02/22 14:52 • (DUP) R3856508-3 11/02/22 14:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	U	1.1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3856508-4 11/02/22 16:50 • (LCSD) R3856508-5 11/02/22 19:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.000250	0.000303	0.000298	121	119	60.0-140			1.66	20

L1551642-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1551642-02 11/02/22 14:28 • (MS) R3856508-2 11/02/22 14:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.000105	U	0.000109	104	1.06	64.0-159	

Method Blank (MB)

(MB) R3856351-1 11/03/22 03:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
AK102 DRO C10-C25	U		0.170	0.800
(S) o-Terphenyl	*89.1*			*60.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3856351-2 11/03/22 03:37 • (LCSD) R3856351-3 11/03/22 04:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
AK102 DRO C10-C25	6.00	6.42	6.96	107	116	75.0-125			8.07	20
(S) o-Terphenyl				*82.9*	*83.1*	*60.0-120*				

L1551673-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1551673-02 11/03/22 15:40 • (MS) R3856351-6 11/03/22 16:03 • (MSD) R3856351-7 11/03/22 16:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
AK102 DRO C10-C25	6.00	0.757	6.48	6.86	95.4	102	1	75.0-125			5.70	20
(S) o-Terphenyl					*81.6*	*82.8*		*50.0-150*				

Method Blank (MB)

(MB) R3857374-1 11/04/22 10:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
AK102 DRO C10-C25	U		0.170	0.800
(S) o-Terphenyl	*66.0*			*60.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3857374-2 11/04/22 11:13 • (LCSD) R3857374-3 11/04/22 11:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
AK102 DRO C10-C25	6.00	5.10	5.37	85.0	89.5	75.0-125			5.16	20
(S) o-Terphenyl				*68.3*	*70.5*	*60.0-120*				

Method Blank (MB)

(MB) R3858689-1 11/09/22 05:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
AK102 DRO C10-C25	0.201	J	0.170	0.800
(S) o-Terphenyl	*69.9*			*60.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3858689-2 11/09/22 05:25 • (LCSD) R3858689-3 11/09/22 05:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
AK102 DRO C10-C25	6.00	5.91	5.96	98.5	99.3	75.0-125			0.842	20
(S) o-Terphenyl				*78.8*	*72.9*	*60.0-120*				

Method Blank (MB)

(MB) R3855647-3 10/31/22 16:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
(S) Nitrobenzene-d5	*119*			*31.0-160*
(S) 2-Fluorobiphenyl	*108*			*48.0-148*
(S) p-Terphenyl-d14	*112*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3855647-1 10/31/22 16:18 • (LCSD) R3855647-2 10/31/22 16:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00208	0.00206	104	103	67.0-150			0.966	20
Acenaphthene	0.00200	0.00219	0.00217	109	108	65.0-138			0.917	20
Acenaphthylene	0.00200	0.00210	0.00209	105	104	66.0-140			0.477	20
Benzo(a)anthracene	0.00200	0.00217	0.00219	108	109	61.0-140			0.917	20
Benzo(a)pyrene	0.00200	0.00234	0.00237	117	118	60.0-143			1.27	20
Benzo(b)fluoranthene	0.00200	0.00229	0.00234	115	117	58.0-141			2.16	20
Benzo(g,h,i)perylene	0.00200	0.00250	0.00252	125	126	52.0-153			0.797	20
Benzo(k)fluoranthene	0.00200	0.00226	0.00226	113	113	58.0-148			0.000	20
Chrysene	0.00200	0.00232	0.00235	116	117	64.0-144			1.28	20
Dibenz(a,h)anthracene	0.00200	0.00248	0.00259	124	130	52.0-155			4.34	20
Fluoranthene	0.00200	0.00229	0.00228	115	114	69.0-153			0.438	20
Fluorene	0.00200	0.00225	0.00226	112	113	64.0-136			0.443	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3855647-1 10/31/22 16:18 • (LCSD) R3855647-2 10/31/22 16:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Indeno(1,2,3-cd)pyrene	0.00200	0.00246	0.00261	123	131	54.0-153			5.92	20
Naphthalene	0.00200	0.00213	0.00214	106	107	61.0-137			0.468	20
Phenanthrene	0.00200	0.00222	0.00220	111	110	62.0-137			0.905	20
Pyrene	0.00200	0.00234	0.00232	117	116	60.0-142			0.858	20
1-Methylnaphthalene	0.00200	0.00217	0.00216	108	108	66.0-142			0.462	20
2-Methylnaphthalene	0.00200	0.00226	0.00226	113	113	62.0-136			0.000	20
(S) Nitrobenzene-d5				*119*	*118*	*31.0-160*				
(S) 2-Fluorobiphenyl				*106*	*107*	*48.0-148*				
(S) p-Terphenyl-d14				*108*	*108*	*37.0-146*				

Method Blank (MB)

(MB) R3856405-3 11/02/22 13:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
(S) Nitrobenzene-d5	*118*			*31.0-160*
(S) 2-Fluorobiphenyl	*102*			*48.0-148*
(S) p-Terphenyl-d14	*105*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3856405-1 11/02/22 12:49 • (LCSD) R3856405-2 11/02/22 13:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00212	0.00206	106	103	67.0-150			2.87	20
Acenaphthene	0.00200	0.00213	0.00214	106	107	65.0-138			0.468	20
Acenaphthylene	0.00200	0.00199	0.00196	99.5	98.0	66.0-140			1.52	20
Benzo(a)anthracene	0.00200	0.00189	0.00185	94.5	92.5	61.0-140			2.14	20
Benzo(a)pyrene	0.00200	0.00210	0.00204	105	102	60.0-143			2.90	20
Benzo(b)fluoranthene	0.00200	0.00211	0.00210	105	105	58.0-141			0.475	20
Benzo(g,h,i)perylene	0.00200	0.00188	0.00191	94.0	95.5	52.0-153			1.58	20
Benzo(k)fluoranthene	0.00200	0.00215	0.00215	108	108	58.0-148			0.000	20
Chrysene	0.00200	0.00212	0.00212	106	106	64.0-144			0.000	20
Dibenz(a,h)anthracene	0.00200	0.00186	0.00189	93.0	94.5	52.0-155			1.60	20
Fluoranthene	0.00200	0.00228	0.00224	114	112	69.0-153			1.77	20
Fluorene	0.00200	0.00214	0.00220	107	110	64.0-136			2.76	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3856405-1 11/02/22 12:49 • (LCSD) R3856405-2 11/02/22 13:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Indeno(1,2,3-cd)pyrene	0.00200	0.00185	0.00185	92.5	92.5	54.0-153			0.000	20
Naphthalene	0.00200	0.00228	0.00228	114	114	61.0-137			0.000	20
Phenanthrene	0.00200	0.00213	0.00207	106	103	62.0-137			2.86	20
Pyrene	0.00200	0.00203	0.00200	102	100	60.0-142			1.49	20
1-Methylnaphthalene	0.00200	0.00224	0.00225	112	112	66.0-142			0.445	20
2-Methylnaphthalene	0.00200	0.00226	0.00231	113	115	62.0-136			2.19	20
(S) Nitrobenzene-d5				*117*	*117*	*31.0-160*				
(S) 2-Fluorobiphenyl				*102*	*101*	*48.0-148*				
(S) p-Terphenyl-d14				*103*	*103*	*37.0-146*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Stantec - Anchorage, AK

725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Billing Information:
Attn: 5030 ETS Group
PO Box 7601
Springfield, OH 45501

Report to:
Ms. Leslie Petre

Email To: craig.cothron@pacelabs.com

Project Description:
SPEEDWAY 5310

City/State Collected: North Pole, AK

Please Circle: Alaska

Phone: **907-343-5108**

Client Project #

Lab Project #
STAAAKSSA-SPEEDWAY5310

Collected by (print):
Geoff Moorhead

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately
Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	AK101 40mlAmb HCl	AK102 100ml Amb HCl	PAHSIMLVID 40mlAmb-NoPres-WT	PBG 250mlHDPE-HNO3	SV8011 40mlClr-NaThio	V8260BTEX 40mlAmb-HCl	NAICP 250mlHDPE-HNO3			Remarks	Sample # (lab only)
										L2							
MW 17-2		GW		10/26/2022	11:42	14	X	X	X	X	X	X	X				01
MW 17-5		GW		10/26/2022	12:16	14	X	X	X	X	X	X	X				02
MW 3		GW		10/26/2022	13:24	14	X	X	X	X	X	X	X				03
Duplicate		GW		~~10/6/2022~~ 10/26/2022	13:24	14	X	X	X	X	X	X	X				04

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 159718
1035

Acctnum: STAAAKSSA
Template: T216964
Prelogin: P952841
PM: 034 - Craig Cothron
PB: 09/23/22

Shipped Via: FedEx 2nd Day

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 0221 6053 3806 5410

Sample Receipt Checklist
COC Seal Present/Intact: NP X Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
	10/27/2022	11:30		1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 1.5+0=1.5 Bottles Received: 56
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/28/22 Time: 0900
				Hold: Condition: NCF / OK

Laboratory Data Review Checklist

Completed By:

Jeremiah Malenfant

Title:

Geologist in Training

Date:

11/15/2022

Consultant Firm:

Stantec Consulting Services, Inc.

Laboratory Name:

Pace Analytical

Laboratory Report Number:

L1551718

Laboratory Report Date:

11/14/2022

CS Site Name:

Speedway Store #5310 (Former TNS 112)

ADEC File Number:

100.26.159

Hazard Identification Number:

24476

L1551718

Laboratory Report Date:

11/14/2022

CS Site Name:

Speedway Store #5310 (Former TNS 112)

Note: Any N/A or No box checked must have an explanation in the comments box.

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   Yes☒ No☐ N/A☐ 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☐ N/A☒ Comments:

   Samples not transferred.

2. Chain of Custody (CoC)

   a. CoC information completed, signed, and dated (including released/received by)?

   Yes☒ No☐ N/A☐ Comments:

   b. Correct analyses requested?

   Yes☒ No☐ N/A☐ Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   Yes☒ No☐ N/A☐ Comments:

   1.5 °C

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

   Yes☒ No☐ N/A☐ Comments:

L1551718

Laboratory Report Date:

11/14/2022

CS Site Name:

Speedway Store #5310 (Former TNS 112)

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes☒ No☐ N/A☐ 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☐ N/A☐ Comments:

e. Data quality or usability affected?

Comments:

No.

4. Case Narrative

a. Present and understandable?

Yes☒ No☐ N/A☐ Comments:

b. Discrepancies, errors, or QC failures identified by the lab?

Yes☐ No☐ N/A☒ Comments:

No discrepancies, errors or QC failures identified by lab.

c. Were all corrective actions documented?

Yes☐ No☐ N/A☒ Comments:

No corrective actions taken.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect on data quality/usability.

L1551718

Laboratory Report Date:

11/14/2022

CS Site Name:

Speedway Store #5310 (Former TNS 112)

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes☒ No☐ N/A☐ Comments:

b. All applicable holding times met?

Yes☒ No☐ N/A☐ Comments:

c. All soils reported on a dry weight basis?

Yes☐ No☐ N/A☒ Comments:

No soil samples submitted to lab.

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes☒ No☐ N/A☐ Comments:

e. Data quality or usability affected?

No.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes☐ No☒ N/A☐ Comments:

DRO detected below LOQ

L1551718

Laboratory Report Date:

11/14/2022

CS Site Name:

Speedway Store #5310 (Former TNS 112)

iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

MW-3

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☒ No☐ N/A☐ Comments:

v. Data quality or usability affected?

Comments:

No; well below GCL

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☐ N/A☐ Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes☒ No☐ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) 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☐ N/A☐ Comments:

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

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

No affected samples.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

No.

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☐ N/A☐ Comments:

ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?

Yes☒ No☐ N/A☐ Comments:

iv. Precision – All relative percent differences (RPD) 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☐ N/A☐ Comments:

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

Comments:

None.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

No affected samples.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

No.

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☐ N/A☒ Comments:

Not included.

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 for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)

Yes☐ No☐ N/A☒ Comments:

Not included.

iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

Not included.

iv. Data quality or usability affected?

Comments:

No.

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e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes☐ No☒ N/A☐ Comments:

Trip blank not submitted to lab.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes☐ No☒ N/A☐ Comments:

Trip blank not submitted to lab.

iii. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

Trip blank not submitted to lab.

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

No affected samples.

v. Data quality or usability affected?

Comments:

No.

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes☒ No☐ N/A☐ Comments:

ii. Submitted blind to lab?

Yes☒ No☐ N/A☐ Comments:

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iii. Precision – All relative percent differences (RPD) less than specified project objectives? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

Yes☐ No☒ N/A☐ Comments:

Benzene 59%, toluene 113%, ethylbenzene 87%, xylenes 100%, GRO 94%, DRO 56%, naphthalene 46%

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

All exceedances agree between DUP1 and MW-3, but difficult to explain why precision has been out in several recent events.

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

Yes☐ No☐ N/A☒ Comments:

No reusable equipment used during sampling.

i. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

No decontamination or equipment blank analyzed.

ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

No affected samples.

iii. Data quality or usability affected?

Comments:

No.

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

   a. Defined and appropriate?

      Yes☒ No☐ N/A☐ Comments: