2022 ANNUAL GROUNDWATER REPORT

Lateral L-40 Line Drip
Incident Number: nAUTOfAB000335
Meter Code: LD174
T28N, R4W, Sec13, Unit H

REVIEWED
By Nelson Velez at 12:44 pm, May 22, 2023

Review of 2022 Annual Groundwater Report: **Content satisfactory**

1. Proceed with Planned Future Activities as stated in this report.
2. Submit next annual groundwater monitoring report no later than April 1, 2024.

SITE DETAILS

Site Location: Latitude: 36.659672 N, Longitude: -107.194520 W
Land Type: Federal
Operator: Enterprise (Pipeline)

SITE BACKGROUND

Environmental remediation activities at Lateral L-40 Line Drip (Site) are managed pursuant to the procedures set forth in the document entitled, "*Remediation Plan for Groundwater Encountered During Pit Closure Activities*" (Remediation Plan, El Paso Natural Gas Company / El Paso Field Services Company, 1995). This Remediation Plan was conditionally approved by the New Mexico Oil Conservation Division (NMOCD) in correspondence dated November 30, 1995; and the NMOCD approval conditions were adopted into El Paso CGP Company (EPCPG) program methods. The Site is crossed by a pipeline operated by Enterprise.

The Site is located on Federal land. An initial site assessment was completed in January 1995, and an excavation to approximately 12 feet below ground surface (bgs) was completed in January of 1995, removing approximately 60 cubic yards (cy) of soil. A monitoring well was installed in 1995 (MW-1), two soil borings were advanced in 1999, and one additional soil boring (SB-1) was advanced in 2016. Additional monitoring wells were installed in 2016 (MW-2, MW-3, MW-4, MW-5) and 2018 (MW-6, MW-7, MW-8, MW-9, MW-10). Soil vapor extraction (SVE) test wells were installed in 2018 (SVE-1, SVE-2, SVE-3). Five soil borings (SB-2 through SB-6) were installed in July 2019 to better characterize hydrocarbon impacts in soil. Currently, groundwater sampling is conducted on a semi-annual basis. Light non-aqueous phase liquid (LNAPL) is present at the Site, and manual recovery has been performed periodically since 2018. SVE feasibility testing was conducted in October 2018. The location of the Site is depicted on Figure 1. A Site Plan map depicting the locations of monitoring wells and current and historical site features is provided as Figure 2.

GROUNDWATER SAMPLING ACTIVITIES

Pursuant to the Remediation Plan, Stantec Consulting Services Inc. (Stantec) provided field work notifications via email to the NMOCD on May 12, 2022 and October 26, 2022, prior to initiating groundwater sampling activities at the Site. Copies of the 2022 NMOCD notifications are provided in Appendix A.

On May 18, 2022 and October 30, 2022, water levels were gauged at MW-1 through MW-10 and SVE-1 through SVE-3. Groundwater samples were collected from monitoring wells MW-1 through MW-4, MW-6, MW-9, and MW-10 during both sampling events in 2022. Groundwater samples were not collected from MW-5 in 2022 due to the presence of LNAPL during both sampling events. Groundwater samples were collected using HydraSleeve™ (HydraSleeve) no-purge groundwater sampling devices. The HydraSleeves were set during the previous sampling event, using a suspension tether and stainless-steel weights. The HydraSleeves were positioned to collect a sample from the screened interval by setting the bottom of the sleeve approximately 0.5 foot above the bottom of the monitoring well screen.

Groundwater samples were placed into laboratory-supplied sample containers, packed on ice, and shipped under standard chain-of-custody protocols to Eurofins Environment Testing Southeast, LLC (Eurofins) in Pensacola, Florida, for analysis of BTEX. One laboratory-supplied trip blank and one blind field

duplicate were collected during each groundwater sampling event. The groundwater samples, field duplicates, and trip blanks were analyzed for BTEX using EPA Method 8260.

Excess sample water was placed in a waste container and taken to Envirotech, Inc. (Envirotech) located south of Bloomfield, New Mexico for disposal. Wastewater disposal documentation is included as Appendix B.

LNAPL RECOVERY

As documented in EPCGP's letter dated January 5, 2021, EPCGP initiated quarterly LNAPL recovery activities in the second calendar quarter of 2020 and continued quarterly for 2022. Documentation of NMOCD notification of site LNAPL recovery activities in 2022 is provided in Appendix A.

The LNAPL recovery data is summarized on Table 1. LNAPL was observed and recovered from MW-5 quarterly in 2022, by hand-bailing in March, May, and October and by Mobile Dual-Phase Extraction (MDPE) in August 2022. During the LNAPL recovery event in March 2022, recovered LNAPL was transported for disposal at Basin Disposal, Inc. in Bloomfield, New Mexico (Appendix B). Recovered LNAPL in May, August, and October 2022 was transported for disposal at Envirotech (Appendix B).

An MDPE event was completed on August 31, 2022, by AcuVac Remediation, LLC (AcuVac). The NMOCD was notified on July 18, 2022 of the planned schedule for MDPE activities (Appendix A). The purpose of the MDPE event was to enhance LNAPL recovery from monitoring well MW-5.

MDPE is a process combining SVE with groundwater depression to enhance the removal of liquid and vapor phase hydrocarbons. A submersible pump is used to simultaneously remove groundwater, inducing a hydraulic gradient toward the extraction well, and creating groundwater depression to expose the hydrocarbon smear zone to SVE. Recovered liquids were transferred to a storage container for off-site disposal. Recovered vapors were used as fuel in the MDPE internal combustion engine (ICE) to generate power for the vacuum pump, resulting in little to no emissions.

On August 31, 2022 an 8-hour MDPE event was completed using MW-5 as an extraction well. Based on field data collected by AcuVac, approximately 6.5 gallons of LNAPL were recovered from MW-5. AcuVac's report summarizing the MDPE event at the Site is presented as Appendix C.

Recovered fluids from the MDPE event were transported to Envirotech for disposal. Waste disposal documentation is included as Appendix B.

SUMMARY TABLES

Historic groundwater analytical results and well gauging data are summarized in Tables 2 and 3, respectively. LNAPL recovery data is summarized on Table 1.

SITE MAPS

Groundwater analytical maps (Figures 3 and 5) and groundwater elevation contour maps (Figures 4 and 6) summarize results of the 2022 groundwater sampling and gauging events.

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ANALYTICAL LAB REPORTS

The groundwater analytical lab reports are included as Appendix D.

GROUNDWATER RESULTS

- Groundwater elevations indicate the groundwater flow direction at the Site was generally to the south-southwest in 2022 (see Figures 4 and 6).
- LNAPL was observed in MW-5 in 2022 during both sampling events; therefore, no groundwater samples were collected at this location.
- Both groundwater samples collected from MW-1 in 2022 exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard (10 micrograms per liter [µg/L]) for benzene in groundwater. Benzene concentrations were either not detected or were detected below the standard in the remaining collected groundwater samples.
- Concentrations of toluene were either below the NMWQCC standard (750 µg/L) or were not detected at the site monitoring wells sampled in 2022.
- Concentrations of ethylbenzene were either below the NMWQCC standard (750 µg/L) or were not detected at the site monitoring wells sampled in 2022.
- Both groundwater samples collected from MW-1 in 2022 exceeded the NMWQCC standard (620 µg/L) for total xylenes in groundwater. Total xylenes were either below the standard or were not detected at the remaining site monitoring wells sampled in 2022.
- A field duplicate was collected from MW-2 in May and October 2022. For each sampling event, no significant differences were noted between the primary and duplicate sample results.
- Detectable concentrations of BTEX constituents were not reported in the trip blanks collected and analyzed as part of the 2022 groundwater monitoring events.

PLANNED FUTURE ACTIVITIES

Semi-annual groundwater monitoring is to continue in 2023. Groundwater samples will be collected from key monitoring wells not containing LNAPL on a semi-annual basis and analyzed for BTEX constituents using EPA Method 8260. A field duplicate and trip blank will also be collected during each groundwater sampling event. Sampling of all site monitoring wells is conducted on a biennial basis, with the next site-wide sampling event planned for no later than the second calendar quarter of 2023.

Pursuant to EPCGP's January 5, 2021, letter, recovery of LNAPL will continue on a quarterly basis from monitoring well MW-5. EPCGP is planning to conduct an additional MDPE event in 2023 to enhance LNAPL recovery at the Site. A work plan for the MDPE activities will be submitted to NMOCD under separate cover.

The activities completed in 2023 and their results will be summarized in the 2023 Annual Report, to be submitted by April 1, 2024.

TABLES

TABLE 1
LIGHT NON-AQUEOUS PHASE LIQUID RECOVERY SUMMARY

Lat. L-40 Line Drip						
Well ID - MW-5	**Depth to LNAPL (Feet)**	**Depth to Water (Feet)**	**Measured Thickness (Feet)**	**LNAPL Recovered (gal)**	**Water Recovered (gal)**	**Recovery Type**
Date						
11/1/2018	41.53	41.53	<0.01	<0.01	0.1	manual
5/24/2019	41.62	41.86	0.24	0.02	0.1	manual
11/14/2019	41.39	42.11	0.72	0.26	0.13	manual
5/14/2020	40.55	41.34	0.79	0.34	0.17	manual
8/19/2020	41.55	42.20	0.65	0.18	0.50	manual
11/15/2020	41.54	42.50	0.96	0.15	0.22	manual
3/18/2021	41.45	42.90	1.45	0.34	0.49	manual
5/23/2021	41.63	42.51	0.88	0.16	0.08	manual
8/22/2021	41.63	42.50	0.87	0.18	0.62	manual
11/13/2021	41.73	42.43	0.70	0.14	0.40	manual
3/23/2022	41.74	42.62	0.88	0.19	0.17	manual
5/18/2022	41.87	42.28	0.41	0.11	0.26	manual
8/31/2022	40.75	41.10	0.35	6.5	15.0	Mobile DPE*
10/30/2022	41.97	42.15	0.18	0.01	0.32	manual
			Total:	8.58	18.56	

Notes:
gal = gallons
"LNAPL" = Light non-aqueous phase liquid
LNAPL recovery data for 2003 and previous years documented in previously-submitted reports.

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Lat. L-40 Line Drip					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	09/26/95	121	218	7.4	75.1
MW-1	11/11/96	12000	20400	612	6075
MW-1	03/31/97	11100	24700	702	7440
MW-1	05/09/97	12900	22900	761	7730
MW-1	11/06/00	8.2	<0.5	15	6.9
MW-1	01/02/01	NS	NS	NS	NS
MW-1	06/08/01	NS	NS	NS	NS
MW-1	07/02/01	NS	NS	NS	NS
MW-1	08/03/01	NS	NS	NS	NS
MW-1	09/12/01	NS	NS	NS	NS
MW-1	10/12/01	NS	NS	NS	NS
MW-1	12/13/01	NS	NS	NS	NS
MW-1	03/12/02	NS	NS	NS	NS
MW-1	04/03/02	NS	NS	NS	NS
MW-1	05/20/02	NS	NS	NS	NS
MW-1	06/10/02	NS	NS	NS	NS
MW-1	07/19/02	NS	NS	NS	NS
MW-1	10/11/02	NS	NS	NS	NS
MW-1	05/06/03	NS	NS	NS	NS
MW-1	07/17/03	NS	NS	NS	NS
MW-1	10/13/03	NS	NS	NS	NS
MW-1	04/20/04	NS	NS	NS	NS
MW-1	07/27/04	NS	NS	NS	NS
MW-1	10/26/04	NS	NS	NS	NS
MW-1	04/22/05	NS	NS	NS	NS
MW-1	07/19/05	NS	NS	NS	NS
MW-1	10/21/05	NS	NS	NS	NS
MW-1	01/24/06	NS	NS	NS	NS
MW-1	05/10/06	NS	NS	NS	NS
MW-1	07/26/06	NS	NS	NS	NS
MW-1	10/22/06	NS	NS	NS	NS
MW-1	04/29/07	NS	NS	NS	NS
MW-1	07/31/07	NS	NS	NS	NS
MW-1	10/30/07	NS	NS	NS	NS
MW-1	04/17/08	396	<50	484	2770
MW-1	07/23/08	NS	NS	NS	NS
MW-1	10/09/08	NS	NS	NS	NS
MW-1	04/08/09	387	7.9 J	466	2680
MW-1	06/03/10	272	<50	384	2240
MW-1	09/24/10	NS	NS	NS	NS
MW-1	11/02/10	NS	NS	NS	NS

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Lat. L-40 Line Drip					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-1	05/03/11	115	4.8	430	2160
MW-1	09/28/11	NS	NS	NS	NS
MW-1	11/02/11	NS	NS	NS	NS
MW-1	05/09/12	302	10.2	404	1830
MW-1	06/09/13	150	13	330	2800
MW-1	09/11/13	160	330	15 J	2600
MW-1	12/14/13	160	15	320	2500
MW-1	04/06/14	150	30 J	400	2900
MW-1	10/26/14	120	9.9 J	350	2000
MW-1	06/01/15	83	12 J	250	1500
MW-1	11/23/15	150	<100	360	2100
MW-1	04/19/16	100	<25	300	1900
MW-1	10/16/16	180	<50	410	2500
MW-1	06/11/17	120	<50	350	2000
MW-1	11/11/17	120	<10	370	2000
MW-1	05/18/18	120	<10	280	1500
MW-1	11/01/18	190	48	150	1200
MW-1	05/24/19	200	18	310	1700
MW-1	11/14/19	110	9.1	160	800
MW-1	05/14/20	110	6.9	130	560
DUP-01(MW-1)	05/14/20	110	6.4	120	520
MW-1	11/15/20	280	31	320	1400
MW-1	05/23/21	170	16	260	1200
MW-1	11/13/21	160	9.9	140	530
MW-1	05/18/22	180	14	230	990
MW-1	10/30/22	240	22	260	1100
MW-2	10/16/16	180	430	17	150
MW-2	06/11/17	2300	21	11	180
MW-2	11/11/17	1900	230	13	280
MW-2	05/18/18	1100	33	<10	<100
MW-2	11/01/18	130	25	<1.0	13
MW-2	05/24/19	<1.0	<1.0	<1.0	<10
MW-2	11/14/19	33	5.6	<1.0	<10
DUP-1(MW-2)*	11/14/19	37	7.1	<1.0	<10
MW-2	05/14/20	<1.0	<1.0	<1.0	<10
MW-2	11/15/20	7.4	<1.0	<1.0	<10
DUP-1(MW-2)*	11/15/20	7.1	<1.0	<1.0	<10
MW-2	05/23/21	<1.0	<1.0	<1.0	<10
DUP-1(MW-2)*	05/23/21	<1.0	<1.0	<1.0	<10
MW-2	11/13/21	<1.0	<1.0	<1.0	<10

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Lat. L-40 Line Drip					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
DUP-1(MW-2)*	11/13/21	<1.0	<1.0	<1.0	<10
MW-2	05/18/22	<1.0	<1.0	<1.0	<10
DUP-1(MW-2)*	05/18/22	<1.0	<1.0	<1.0	<10
MW-2	10/30/22	<1.0	<1.0	<1.0	<10
DUP-1(MW-2)*	10/30/22	<1.0	<1.0	<1.0	<10
MW-3	10/16/16	3.4	<5.0	<1.0	<5.0
MW-3	06/11/17	130	<5.0	<1.0	<5.0
MW-3	11/11/17	170	<1.0	<1.0	<10
MW-3	05/18/18	130	23	<1.0	<10
DP-01(MW-3)*	05/18/18	140	30	<1.0	<10
MW-3	11/01/18	<1.0	<1.0	<1.0	<10
MW-3	05/24/19	<1.0	<1.0	<1.0	<10
MW-3	11/14/19	9.3	<1.0	<1.0	<10
MW-3	05/14/20	4.2	<1.0	<1.0	<10
MW-3	11/15/20	2.0	<1.0	<1.0	<10
MW-3	05/23/21	33	<1.0	<1.0	<10
MW-3	11/13/21	<1.0	<1.0	<1.0	<10
MW-3	05/18/22	<1.0	<1.0	<1.0	<10
MW-3	10/30/22	<1.0	<1.0	<1.0	<10
MW-4	10/16/16	8.7	15	<1.0	6.1
MW-4	06/11/17	47	6.8	<1.0	<5.0
MW-4	11/11/17	26	<1.0	<1.0	<10
MW-4	05/18/18	11	<1.0	<1.0	<10
MW-4	11/01/18	<1.0	<1.0	<1.0	<10
MW-4	05/24/19	<1.0	<1.0	<1.0	<10
MW-4	11/14/19	8.8	<1.0	<1.0	<10
MW-4	05/14/20	26	<1.0	<1.0	<10
MW-4	11/15/20	<1.0	<1.0	<1.0	<10
MW-4	05/23/21	<1.0	<1.0	<1.0	<10
MW-4	11/13/21	<1.0	<1.0	<1.0	<10
MW-4	05/18/22	<1.0	<1.0	<1.0	<10
MW-4	10/30/22	<1.0	<1.0	<1.0	<10
MW-5	10/16/16	750	3000	190	1600
MW-5	06/11/17	2000	230	75	710
MW-5	11/11/17	1100	550	85	820
MW-5	05/18/18	550	53	42	<50
MW-5	11/01/18	1200	370	190	810
DP-01(MW-5)*	11/01/18	1200	270	120	550

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Lat. L-40 Line Drip					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-5	05/24/19	NS	NS	NS	NS
MW-5	11/14/19	NS	NS	NS	NS
MW-5	05/14/20	NS	NS	NS	NS
MW-5	08/19/20	NS	NS	NS	NS
MW-5	11/15/20	NS	NS	NS	NS
MW-5	03/18/21	NS	NS	NS	NS
MW-5	05/23/21	NS	NS	NS	NS
MW-5	08/22/21	NS	NS	NS	NS
MW-5	11/13/21	NS	NS	NS	NS
MW-5	05/18/22	NS	NS	NS	NS
MW-5	10/30/22	NS	NS	NS	NS
MW-6	11/01/18	NS	NS	NS	NS
MW-6	05/24/19	<1.0	<1.0	<1.0	<10
MW-6	11/14/19	<1.0	<1.0	<1.0	<10
MW-6	05/14/20	<1.0	<1.0	<1.0	<10
MW-6	11/15/20	<1.0	<1.0	<1.0	<10
MW-6	05/23/21	<1.0	<1.0	<1.0	<10
MW-6	11/13/21	<1.0	<1.0	<1.0	<10
MW-6	05/18/22	<1.0	<1.0	<1.0	<10
MW-6	10/30/22	<1.0	<1.0	<1.0	<10
MW-7	11/01/18	<1.0	<1.0	<1.0	<10
MW-7	05/24/19	<1.0	<1.0	<1.0	<10
MW-7	11/14/19	NS	NS	NS	NS
MW-7	05/14/20	NS	NS	NS	NS
MW-7	11/15/20	NS	NS	NS	NS
MW-7	05/23/21	<1.0	<1.0	<1.0	<10
MW-7	11/13/21	NS	NS	NS	NS
MW-7	05/18/22	NS	NS	NS	NS
MW-7	10/30/22	NS	NS	NS	NS
MW-8	11/01/18	<1.0	<1.0	<1.0	<10
MW-8	05/24/19	<1.0	<1.0	<1.0	<10
MW-8	11/14/19	NS	NS	NS	NS
MW-8	05/14/20	NS	NS	NS	NS
MW-8	11/15/20	NS	NS	NS	NS
MW-8	05/23/21	<1.0	<1.0	<1.0	<10
MW-8	11/13/21	NS	NS	NS	NS
MW-8	05/18/22	NS	NS	NS	NS
MW-8	10/30/22	NS	NS	NS	NS

TABLE 2 - GROUNDWATER ANALYTICAL RESULTS

Lat. L-40 Line Drip					
Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standards:		10	750	750	620
MW-9	11/01/18	5.6	5.5	<1.0	<10
MW-9	05/24/19	<1.0	<1.0	<1.0	<10
DUP-1(MW-9)*	05/24/19	<1.0	<1.0	<1.0	<10
MW-9	11/14/19	<1.0	<1.0	<1.0	<10
MW-9	05/14/20	<1.0	<1.0	<1.0	<10
MW-9	11/15/20	<1.0	<1.0	<1.0	<10
MW-9	05/23/21	<1.0	<1.0	<1.0	<10
MW-9	11/13/21	<1.0	<1.0	<1.0	<10
MW-9	05/18/22	<1.0	<1.0	<1.0	<10
MW-9	10/30/22	<1.0	<1.0	<1.0	<10
MW-10	11/01/18	<1.0	<1.0	<1.0	<10
MW-10	05/24/19	<1.0	<1.0	<1.0	<10
MW-10	11/14/19	<1.0	<1.0	<1.0	<10
MW-10	05/14/20	<1.0	<1.0	<1.0	<10
MW-10	11/15/20	<1.0	<1.0	<1.0	<10
MW-10	05/23/21	<1.0	<1.0	<1.0	<10
MW-10	11/13/21	<1.0	<1.0	<1.0	<10
MW-10	05/18/22	<1.0	<1.0	<1.0	<10
MW-10	10/30/22	<1.0	<1.0	<1.0	<10

Notes:
The monitoring dates where no groundwater samples were collected and analyzed have been omitted.
"µg/L" = micrograms per liter
Results highlighted yellow exceed their respective New Mexico Water Quality Control Commission (NMWQCC) standards.
"J" = Result is less than the reporting limit but greater than or equal to the method detection limit and the result in an approximate value.
"<" = analyte was not detected at the indicated reporting limit (some historic data were reported at the detection limit).
*Field Duplicate results presented immediately below primary sample results

TABLE 3 - GROUNDWATER ELEVATION TABLE

Lat. L-40 Line Drip						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	09/26/95	7259.57	NR	36.68		7222.89
MW-1	11/11/96	7259.57	36.16	36.62	0.46	7223.30
MW-1	03/31/97	7259.57	36.18	36.68	0.50	7223.27
MW-1	05/09/97	7259.57	36.45	36.57	0.12	7223.09
MW-1	11/06/00	7259.57	NR	35.06		7224.51
MW-1	01/02/01	7259.57	37.95	39.08	1.13	7221.34
MW-1	06/08/01	7259.57	37.89	39.00	1.11	7221.40
MW-1	07/02/01	7259.57	37.93	39.14	1.21	7221.34
MW-1	08/03/01	7259.57	37.83	39.10	1.27	7221.42
MW-1	09/12/01	7259.57	38.02	38.96	0.94	7221.32
MW-1	10/12/01	7259.57	38.19	38.43	0.24	7221.32
MW-1	12/13/01	7259.57	38.40	38.75	0.35	7221.08
MW-1	03/12/02	7259.57	38.42	38.76	0.34	7221.07
MW-1	04/03/02	7259.57	38.39	38.66	0.27	7221.11
MW-1	05/20/02	7259.57	38.46	38.56	0.10	7221.09
MW-1	06/10/02	7259.57	38.51	38.56	0.05	7221.05
MW-1	07/19/02	7259.57	NR	38.64		7220.93
MW-1	10/11/02	7259.57	38.84	38.87	0.03	7220.72
MW-1	05/06/03	7259.57	37.94	37.97	0.03	7221.62
MW-1	07/17/03	7259.57	ND	38.95		7220.62
MW-1	10/13/03	7259.57	ND	39.06		7220.51
MW-1	04/20/04	7259.57	ND	39.18		7220.39
MW-1	07/27/04	7259.57	ND	39.22		7220.35
MW-1	10/26/04	7259.57	ND	39.35		7220.22
MW-1	04/22/05	7259.57	ND	39.52		7220.05
MW-1	07/19/05	7259.57	ND	39.34		7220.23
MW-1	10/21/05	7259.57	ND	39.57		7220.00
MW-1	01/24/06	7259.57	ND	38.67		7220.90
MW-1	05/10/06	7259.57	ND	38.72		7220.85
MW-1	07/26/06	7259.57	ND	38.72		7220.85
MW-1	10/22/06	7259.57	ND	38.91		7220.66
MW-1	04/29/07	7259.57	ND	38.92		7220.65
MW-1	07/31/07	7259.57	ND	38.85		7220.72
MW-1	10/30/07	7259.57	ND	38.79		7220.78
MW-1	04/17/08	7259.57	ND	38.98		7220.59
MW-1	07/23/08	7259.57	ND	38.99		7220.58
MW-1	10/09/08	7259.57	ND	38.95		7220.62
MW-1	04/08/09	7259.57	ND	39.04		7220.53
MW-1	06/03/10	7259.57	ND	39.40		7220.17
MW-1	09/24/10	7259.57	ND	39.45		7220.12
MW-1	11/02/10	7259.57	ND	39.47		7220.10
MW-1	05/03/11	7259.57	ND	39.55		7220.02
MW-1	09/28/11	7259.57	ND	39.63		7219.94
MW-1	11/02/11	7259.57	ND	39.73		7219.84
MW-1	05/09/12	7259.57	ND	39.73		7219.84
MW-1	06/09/13	7259.57	ND	37.97		7221.60
MW-1	09/11/13	7259.57	ND	38.86		7220.71
MW-1	12/14/13	7259.57	ND	40.09		7219.48

TABLE 3 - GROUNDWATER ELEVATION TABLE

Lat. L-40 Line Drip						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-1	04/06/14	7259.57	ND	40.09		7219.48
MW-1	10/26/14	7259.57	ND	40.22		7219.35
MW-1	06/01/15	7259.57	ND	46.45		7213.12
MW-1	11/23/15	7259.57	ND	42.13		7217.44
MW-1	04/19/16	7259.57	ND	40.59		7218.98
MW-1	10/16/16	7259.57	ND	40.71		7218.86
MW-1	06/11/17	7259.57	ND	40.73		7218.84
MW-1	11/11/17	7259.57	ND	40.85		7218.72
MW-1	05/18/18	7259.57	ND	40.90		7218.67
MW-1	11/01/18	7259.57	ND	40.99		7218.58
MW-1	05/24/19	7259.57	ND	41.18		7218.39
MW-1	11/14/19	7259.57	ND	41.23		7218.34
MW-1	05/14/20	7259.57	ND	41.22		7218.35
MW-1	11/15/20	7259.57	ND	41.31		7218.26
MW-1	05/23/21	7259.57	ND	41.37		7218.20
MW-1	11/13/21	7259.57	ND	41.40		7218.17
MW-1	05/18/22	7259.57	ND	41.47		7218.10
MW-1	10/30/22	7259.57	ND	41.53		7218.04
MW-2	10/16/16	7259.65	ND	40.65		7219.00
MW-2	06/11/17	7259.65	ND	40.71		7218.94
MW-2	11/11/17	7259.65	ND	40.81		7218.84
MW-2	05/18/18	7259.65	ND	40.84		7218.81
MW-2	11/01/18	7259.65	ND	41.00		7218.65
MW-2	05/24/19	7259.65	ND	41.08		7218.57
MW-2	11/14/19	7259.65	ND	41.13		7218.52
MW-2	05/14/20	7259.65	NA	41.16		7218.49
MW-2	11/15/20	7259.65	NA	41.27		7218.38
MW-2	05/23/21	7259.65	NA	41.33		7218.32
MW-2	11/13/21	7259.65	NA	41.39		7218.26
MW-2	05/18/22	7259.65	NA	41.45		7218.20
MW-2	10/30/22	7259.65	NA	41.51		7218.14
MW-3	10/16/16	7259.10	ND	40.21		7218.89
MW-3	06/11/17	7259.10	ND	40.29		7218.81
MW-3	11/11/17	7259.10	ND	40.36		7218.74
MW-3	05/18/18	7259.10	ND	40.52		7218.58
MW-3	11/01/18	7259.10	ND	40.53		7218.57
MW-3	05/24/19	7259.10	ND	40.69		7218.41
MW-3	11/14/19	7259.10	ND	40.71		7218.39
MW-3	05/14/20	7259.10	ND	40.74		7218.36
MW-3	11/15/20	7259.10	ND	40.89		7218.21
MW-3	05/23/21	7259.10	ND	40.95		7218.15
MW-3	11/13/21	7259.10	ND	40.96		7218.14
MW-3	05/18/22	7259.10	ND	41.03		7218.07
MW-3	10/30/22	7259.10	ND	41.04		7218.06
MW-4	10/16/16	7261.59	ND	42.80		7218.79
MW-4	06/11/17	7261.59	ND	42.69		7218.90
MW-4	11/11/17	7261.59	ND	42.77		7218.82

TABLE 3 - GROUNDWATER ELEVATION TABLE

Lat. L-40 Line Drip						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-4	05/18/18	7261.59	ND	42.81		7218.78
MW-4	11/01/18	7261.59	ND	42.94		7218.65
MW-4	05/24/19	7261.59	ND	43.03		7218.56
MW-4	11/14/19	7261.59	ND	43.07		7218.52
MW-4	05/14/20	7261.59	ND	43.13		7218.46
MW-4	11/15/20	7261.59	ND	43.24		7218.35
MW-4	05/23/21	7261.59	ND	43.32		7218.27
MW-4	11/13/21	7261.59	ND	43.35		7218.24
MW-4	05/18/22	7261.59	ND	43.43		7218.16
MW-4	10/30/22	7261.59	ND	43.49		7218.10
MW-5	10/16/16	7260.08	ND	41.23		7218.85
MW-5	06/11/17	7260.08	ND	41.33		7218.75
MW-5	11/11/17	7260.08	ND	41.40		7218.68
MW-5	05/18/18	7260.08	ND	41.41		7218.67
MW-5	11/01/18	7260.08	ND	41.53		7218.55
MW-5	05/24/19	7260.08	41.62	41.86	0.24	7218.40
MW-5	11/14/19	7260.08	41.39	42.11	0.72	7218.51
MW-5	05/14/20	7260.08	40.55	41.34	0.79	7219.33
MW-5	08/19/20	7260.08	41.55	42.20	0.65	7218.36
MW-5	11/15/20	7260.08	41.54	42.50	0.96	7218.30
MW-5	03/18/21	7260.08	41.45	42.90	1.45	7218.26
MW-5	05/23/21	7260.08	41.63	42.51	0.88	7218.23
MW-5	08/22/21	7260.08	41.63	42.50	0.87	7218.23
MW-5	11/13/21	7260.08	41.73	42.43	0.70	7218.17
MW-5	03/23/22	7260.08	41.74	42.62	0.88	7218.12
MW-5	05/18/22	7260.08	41.87	42.28	0.41	7218.10
MW-5	08/31/22	7260.08	40.75	41.10	0.35	7219.24
MW-5	10/30/22	7260.08	41.97	42.15	0.18	7218.06
MW-6	11/01/18	7261.87	ND	Dry		Dry
MW-6	05/24/19	7261.87	ND	43.90		7217.97
MW-6	11/14/19	7261.87	ND	43.06		7218.81
MW-6	05/14/20	7261.87	ND	42.85		7219.02
MW-6	11/15/20	7261.87	ND	43.84		7218.03
MW-6	05/23/21	7261.87	ND	42.95		7218.92
MW-6	11/13/21	7261.87	ND	43.15		7218.72
MW-6	05/18/22	7261.87	ND	43.04		7218.83
MW-6	10/30/22	7261.87	ND	43.28		7218.59
MW-7	11/01/18	7259.41	ND	40.62		7218.79
MW-7	05/24/19	7259.41	ND	40.75		7218.66
MW-7	11/14/19	7259.41	ND	40.74		7218.67
MW-7	05/14/20	7259.41	ND	40.81		7218.60
MW-7	11/15/20	7259.41	ND	40.90		7218.51
MW-7	05/23/21	7259.41	ND	41.02		7218.39
MW-7	11/13/21	7259.41	ND	41.03		7218.38

TABLE 3 - GROUNDWATER ELEVATION TABLE

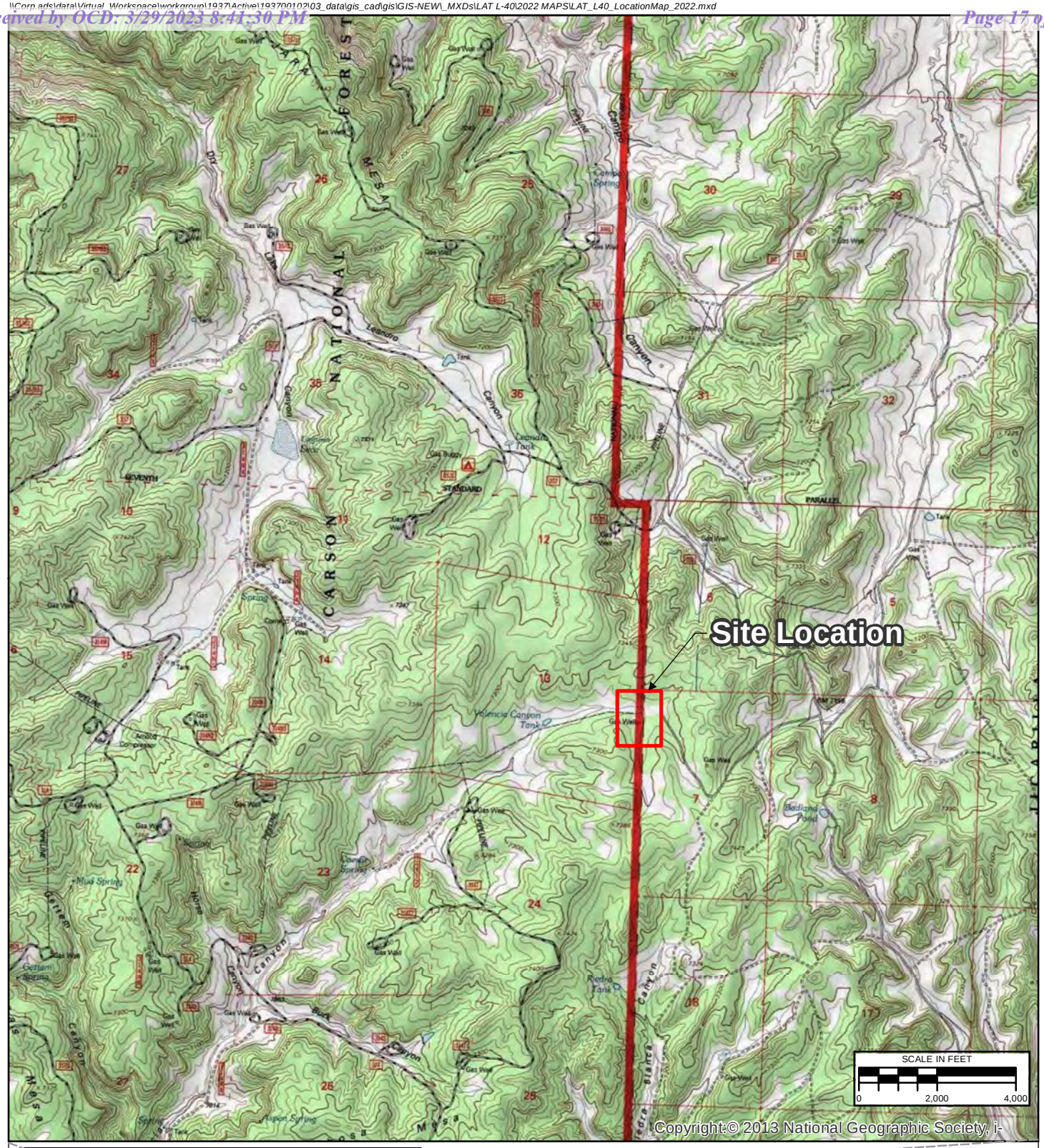
Lat. L-40 Line Drip						
Location	Date	TOC	Depth to LNAPL (ft.)	Depth to Water (ft.)	LNAPL Thickness (ft.)	GW Elevation (ft.)
MW-7	05/18/22	7259.41	ND	41.09		7218.32
MW-7	10/30/22	7259.41	ND	41.18		7218.23
MW-8	11/01/18	7258.82	ND	40.25		7218.57
MW-8	05/24/19	7258.82	ND	40.41		7218.41
MW-8	11/14/19	7258.82	ND	40.41		7218.41
MW-8	05/14/20	7258.82	ND	40.46		7218.36
MW-8	11/15/20	7258.82	ND	40.60		7218.22
MW-8	05/23/21	7258.82	ND	40.63		7218.19
MW-8	11/13/21	7258.82	ND	40.66		7218.16
MW-8	05/18/22	7258.82	ND	40.75		7218.07
MW-8	10/30/22	7258.82	ND	40.77		7218.05
MW-9	11/01/18	7258.82	ND	40.35		7218.47
MW-9	05/24/19	7258.82	ND	40.51		7218.31
MW-9	11/14/19	7258.82	ND	40.50		7218.32
MW-9	05/14/20	7258.82	ND	40.55		7218.27
MW-9	11/15/20	7258.82	ND	40.72		7218.10
MW-9	05/23/21	7258.82	ND	40.73		7218.09
MW-9	11/13/21	7258.82	ND	40.76		7218.06
MW-9	05/18/22	7258.82	ND	40.84		7217.98
MW-9	10/30/22	7258.82	ND	40.84		7217.98
MW-10	11/01/18	7260.89	ND	42.29		7218.60
MW-10	05/24/19	7260.89	ND	42.49		7218.40
MW-10	11/14/19	7260.89	ND	42.48		7218.41
MW-10	05/14/20	7260.89	ND	42.50		7218.39
MW-10	11/15/20	7260.89	ND	42.64		7218.25
MW-10	05/23/21	7260.89	ND	42.69		7218.20
MW-10	11/13/21	7260.89	ND	42.73		7218.16
MW-10	05/18/22	7260.89	ND	42.79		7218.10
MW-10	10/30/22	7260.89	ND	42.83		7218.06
SVE-1	11/14/19	7259.61	ND	32.02		7227.59
SVE-1	05/14/20	7259.61	ND	32.01		7227.60
SVE-1	11/15/20	7259.61	ND	32.01		7227.60
SVE-1	05/23/21	7259.61	ND	32.00		7227.61
SVE-1	11/13/21	7259.61	ND	31.98		7227.63
SVE-1	05/18/22	7259.61	ND	31.95		7227.66
SVE-1	10/30/22	7259.61	ND	31.95		7227.66
SVE-2	11/14/19	7259.82	ND	24.64		7235.18
SVE-2	05/14/20	7259.82	ND	24.61		7235.21
SVE-2	11/15/20	7259.82	ND	24.60		7235.22
SVE-2	05/23/21	7259.82	ND	24.59		7235.23
SVE-2	11/13/21	7259.82	ND	Dry		---
SVE-2	05/18/22	7259.82	ND	24.55		7235.27
SVE-2	10/30/22	7259.82	ND	24.57		7235.25
SVE-3	11/14/19	7259.89	ND	25.21		7234.68
SVE-3	05/14/20	7259.89	ND	25.15		7234.74
SVE-3	11/15/20	7259.89	ND	25.14		7234.75

TABLE 3 - GROUNDWATER ELEVATION TABLE

Lat. L-40 Line Drip						
Location	**Date**	**TOC**	**Depth to LNAPL (ft.)**	**Depth to Water (ft.)**	**LNAPL Thickness (ft.)**	**GW Elevation (ft.)**
SVE-3	05/23/21	7259.89	ND	25.11		7234.78
SVE-3	11/13/21	7259.89	ND	25.09		7234.80
SVE-3	05/18/22	7259.89	ND	25.03		7234.86
SVE-3	10/30/22	7259.89	ND	25.02		7234.87

Notes:
"ft" = feet
"TOC" = Top of casing
"LNAPL" = Light non-aqueous phase liquid
"ND" = LNAPL not detected
"NR" = LNAPL not recorded
Groundwater elevation = TOC elevation (ft) - (Depth to Water [ft] - [LNAPL thickness [ft} x 0.75]). A specific gravity of 0.75 is within the range of gas condensate (https://www.sciencedirect.com/topics/earth-and-planetary-sciences/gas-condensate)

FIGURES



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REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2022-03-22	SAH	SAH	SRV

TITLE

SITE LOCATION

Stantec

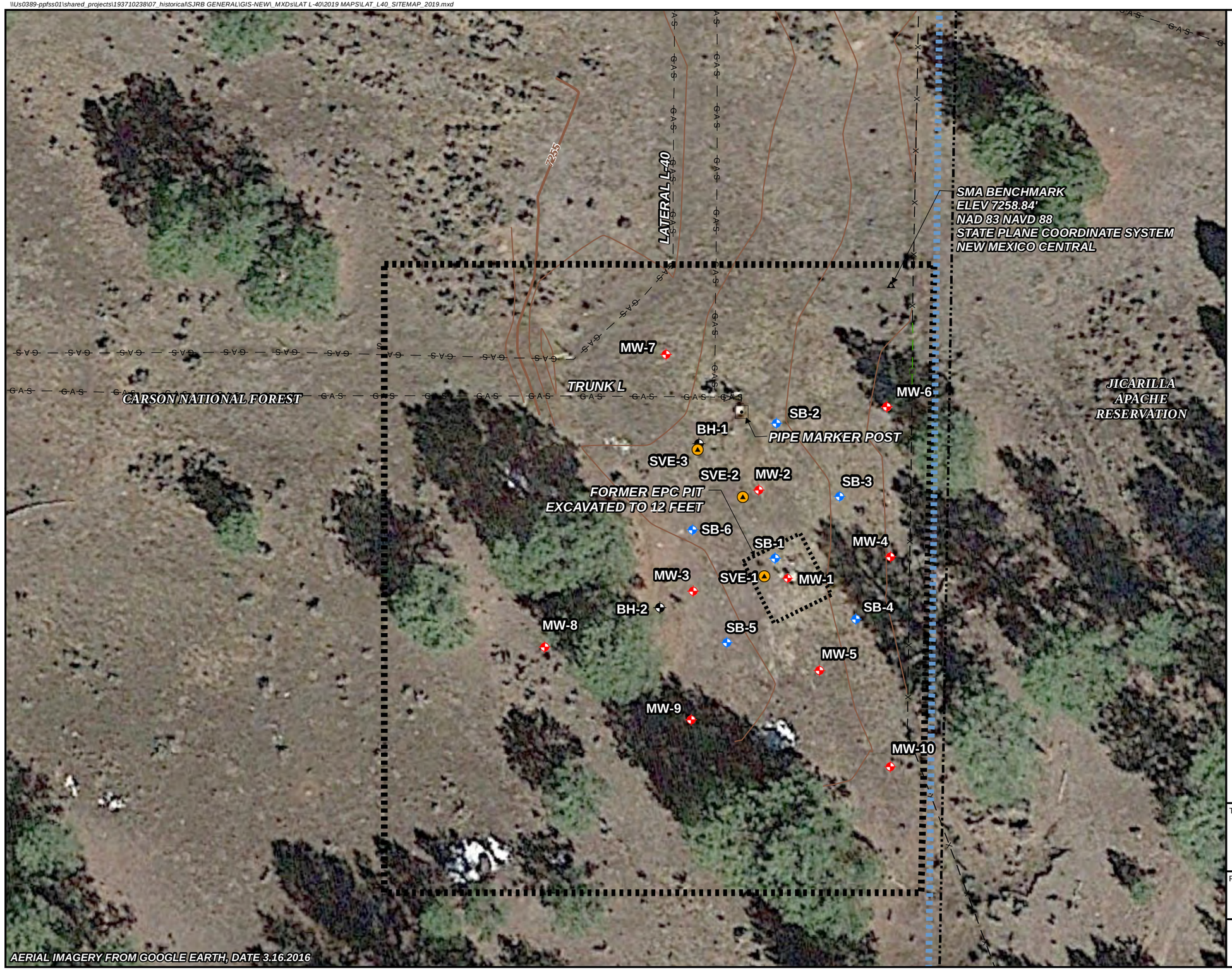
PROJECT

LAT L-40
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

FIGURE

1

\\Us0389-ppfss01\shared_projects\193710238\07_historical\SJRB GENERAL\GIS-NEW_MXDs\LAT L-40\2019 MAPS\LAT_L40_SITEMAP_2019.mxd



LEGEND:

- 7259 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- GAS — NATURAL GAS LINE
- FENCE
- GATE
- FORMER PIT
- MONITORING WELL
- SOIL BORING
- BOREHOLE (2000)
- SOIL VAPOR EXTRACTION WELL
- SMA BENCHMARK
- GAS LINE VALVE
- CARSON NATIONAL FOREST AND JICARILLA APACHE NATION LAND BOUNDARY
- FOREST SERVICE JIC25 PERMIT BOUNDARY (4.3 ACRES - EXPANDED PERMIT AREA)
- CARSON NATIONAL FOREST ACCESS BOUNDARY

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2/23/2021	SLG	SLG	SRV

TITLE:

SITE PLAN

PROJECT:

LAT L-40
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

Stantec

Figure No.:

2

\\Corp.ads\data\Virtual_Workspace\workgroup\1937\Active\193700102\03_data\gis_cad\gis\GIS-NEW_MXDs\LAT L-40\2022 MAPS\LAT_L40_GARM_1SA_2022.mxd

CARSON NATIONAL FOREST

LATERAL L-40

7255

TRUNK L

PIPE MARKER POST

FORMER EPC PIT
EXCAVATED TO 12 FEET

SMA BENCHMARK
ELEV 7258.84'
NAD 83 NAVD 88
STATE PLANE COORDINATE SYSTEM
NEW MEXICO CENTRAL

JICARILLA
APACHE
RESERVATION

MW-7	NS
MW-6	B: <1.0 T: <1.0 E: <1.0 X: <10
MW-2	B: <1.0 T: <1.0 E: <1.0 X: <10
DUP-1	B: <1.0 T: <1.0 E: <1.0 X: <10
MW-4	B: <1.0 T: <1.0 E: <1.0 X: <10
MW-1	B: 180 T: 14 E: 230 X: 990
MW-3	B: <1.0 T: <1.0 E: <1.0 X: <10
MW-8	NS
MW-5	NS
MW-9	B: <1.0 T: <1.0 E: <1.0 X: <10
MW-10	B: <1.0 T: <1.0 E: <1.0 X: <10

AERIAL IMAGERY FROM GOOGLE EARTH, DATE 3/16/2016

LEGEND:

- 7259 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- GAS — NATURAL GAS LINE
- FENCE
- GATE
- FORMER PIT
- CARSON NATIONAL FOREST AND JICARILLA APACHE NATION LAND BOUNDARY
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- SMA BENCHMARK
- GAS LINE VALVE

NOTES:
DUP = FIELD DUPLICATE SAMPLE
LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:
RESULTS IN **BOLDFACE/RED** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
µg/L = MICROGRAMS PER LITER
<10 = BELOW METHOD REPORTING LIMIT
NS = NOT SAMPLED

ANALYTE	NMWQCC STANDARDS
B = Benzene	10 µg/L
T = Toluene	750 µg/L
E = Ethylbenzene	750 µg/L
X = Total Xylenes	620 µg/L

N

SCALE IN FEET
0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2022-06-24	SAH	SAH	SRV

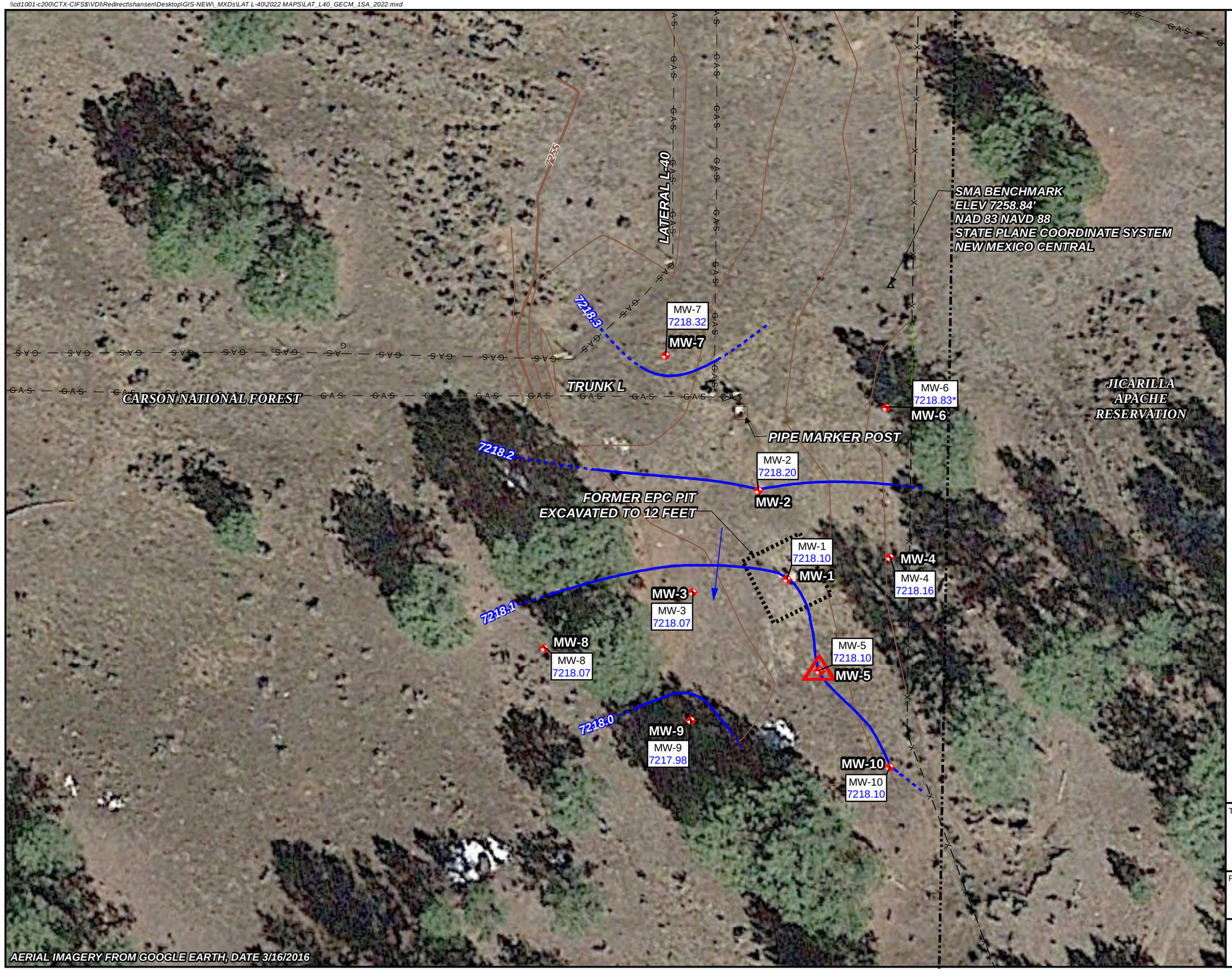
TITLE:
GROUNDWATER ANALYTICAL RESULTS
MAY 18, 2022

PROJECT:
LAT L-40
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

Stantec

Figure No.: 3

\\cd1001-c200\CTX-CIFS$\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\LAT L-40\2022 MAPS\LAT_L40_GECM_1SA_2022.mxd



LEGEND:

- 7259 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- GAS — NATURAL GAS LINE
- FENCE
- GATE
- FORMER PIT
- CARSON NATIONAL FOREST AND JICARILLA APACHE NATION LAND BOUNDARY
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- SMA BENCHMARK
- GAS LINE VALVE

NOTES:

- 7218.10 — GROUNDWATER ELEVATION (CORRECTED FOR LNAPL THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL
- 7218.9 — CORRECTED WATER ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL).
- DIRECTION OF APPARENT GROUNDWATER FLOW
- * — GROUNDWATER ELEVATION APPEARS ANOMALOUS AND WAS NOT USED TO PREPARE POTENTIOMETRIC CONTOURS.

LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2023-03-25	SAH	SAH	SRV

TITLE:

GROUNDWATER ELEVATION MAP
MAY 18, 2022

PROJECT:

LAT L-40
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

Stantec

Figure No.: 4

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LEGEND:

- 7259 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- GAS — NATURAL GAS LINE
- FENCE
- GATE
- FORMER PIT
- CARSON NATIONAL FOREST AND JICARILLA APACHE NATION LAND BOUNDARY
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- SMA BENCHMARK
- GAS LINE VALVE

NOTES:

DUP = FIELD DUPLICATE SAMPLE
LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

EXPLANATION OF ANALYTES AND APPLICABLE STANDARDS:

RESULTS IN **BOLDFACE/RED** TYPE INDICATE CONCENTRATION IN EXCESS OF THE STANDARD FOR THAT ANALYTE.
µg/L = MICROGRAMS PER LITER
<10 = BELOW METHOD REPORTING LIMIT
NS = NOT SAMPLED

ANALYTE	NMWQCC STANDARDS
B = Benzene	10 µg/L
T = Toluene	750 µg/L
E = Ethylbenzene	750 µg/L
X = Total Xylenes	620 µg/L

N

SCALE IN FEET
0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2023-01-04	SAH	SAH	SRV

TITLE:

GROUNDWATER ANALYTICAL RESULTS
OCTOBER 30, 2022

PROJECT:

LAT L-40
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

Stantec

Figure No.: **5**

\\cd1001-c200\CTX-CIFS$\VDI\Redirect\shansen\Desktop\GIS-NEW_MXDs\LAT L-40\2022 MAPS\LAT_L40_GECM_2SA_2022.mxd

LEGEND:

- 7259 — APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- GAS — NATURAL GAS LINE
- FENCE
- GATE
- FORMER PIT
- CARSON NATIONAL FOREST AND JICARILLA APACHE NATION LAND BOUNDARY
- MONITORING WELL
- MONITORING WELL WITH MEASURABLE LNAPL
- SMA BENCHMARK
- GAS LINE VALVE

NOTES:

- 7218.10 — GROUNDWATER ELEVATION (CORRECTED FOR LNAPL THICKNESS WHEN PRESENT) FEET ABOVE MEAN SEA LEVEL
- 7218.9 — CORRECTED WATER ELEVATION CONTOUR DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL).
- DIRECTION OF APPARENT GROUNDWATER FLOW
- * — GROUNDWATER ELEVATION APPEARS ANOMALOUS AND WAS NOT USED TO PREPARE CONTOURING GROUNDWATER ELEVATION.

LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2023-01-04	SAH	SAH	SRV

TITLE:

GROUNDWATER ELEVATION MAP
OCTOBER 30, 2022

PROJECT:

LAT L-40
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

Stantec

Figure No.: 6

APPENDICES

APPENDIX A – NMOCD NOTIFICATION OF SITE ACTIVITIES

APPENDIX B – WASTEWATER DISPOSAL DOCUMENTATION

APPENDIX C – ACUVAC MDPE REPORT

APPENDIX D – GROUNDWATER SAMPLING ANALYTICAL REPORTS

APPENDIX A

From: Varsa, Steve
To: Smith, Cory, EMNRD
Cc: Griswold, Jim, EMNRD; Wiley, Joe
Subject: El Paso CGP Company - Notice of upcoming product recovery activities
Date: Tuesday, March 15, 2022 5:10:25 PM

Hi Cory -

This correspondence is to provide notice to the NMOCD of upcoming quarterly product recovery activities at the following EPCGP project sites:

Site Name	Incident Number	Sample Date
Canada Mesa #2	nAUTOfAB000065	3/21/2022
Fields A#7A	nAUTOfAB000176	3/22/2022
Fogelson 4-1	nAUTOfAB000192	3/22/2022
Gallegos Canyon Unit #124E	nAUTOfAB000205	3/21/2022
James F. Bell #1E	nAUTOfAB000291	3/22/2022
Johnston Fed #4	nAUTOfAB000305	3/23/2022
Johnston Fed #6A	nAUTOfAB000309	3/23/2022
K27 LDO72	nAUTOfAB000316	3/21/2022
Knight #1	nAUTOfAB000324	3/22/2022
Lateral L 40 Line Drip	nAUTOfAB000335	3/23/2022
State Gas Com N #1	nAUTOfAB000668	3/22/2022

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Environmental Services
11313 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

From: Varsa, Steve
To: Nelson.Velez@state.nm.us
Cc: Bratcher, Mike, EMNRD; Wiley, Joe
Subject: FW: El Paso CGP Company - Notice of upcoming groundwater sampling activities
Date: Thursday, May 12, 2022 8:33:41 AM

Hi Nelson -

This correspondence is to provide notice to the NMOCD of upcoming semi-annual groundwater sampling and monitoring activities at the following EPCGP project sites:

Site Name	Incident Number	Sample Date
Canada Mesa #2	nAUTOfAB000065	5/21/2022
Fields A#7A	nAUTOfAB000176	5/22/2022
Fogelson 4-1	nAUTOfAB000192	5/22/2022
Gallegos Canyon Unit #124E	nAUTOfAB000205	5/19/2022
GCU Com A #142E	nAUTOfAB000219	5/19/2022
James F. Bell #1E	nAUTOfAB000291	5/18/2022
Johnston Fed #4	nAUTOfAB000305	5/20/2022
Johnston Fed #6A	nAUTOfAB000309	5/20/2022
K27 LDO72	nAUTOfAB000316	5/21/2022
Knight #1	nAUTOfAB000324	5/19/2022
Lateral L 40 Line Drip	nAUTOfAB000335	5/18/2022
Miles Fed #1A	nAUTOfAB000391	5/21/2022
Sandoval GC A #1A	nAUTOfAB000635	5/20/2022
Standard Oil Com #1	nAUTOfAB000666	5/21/2022
State Gas Com N #1	nAUTOfAB000668	5/22/2022

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Environmental Services
11153 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

From: Varsa, Steve
To: Nelson.Velez@state.nm.us
Cc: Bratcher, Mike, EMNRD; Wiley, Joe
Subject: Lateral L-40 site (nAUTOfAB000335) - notice of upcoming activities
Date: Monday, July 18, 2022 3:38:47 PM

Hi Nelson – on behalf of El Paso CGP Company, Stantec is planning to complete free product recovery activities using mobile dual-phase extraction methods at the subject site on August 5, 2022. A work plan with additional details regarding these activities has been submitted in the e-permitting portal.

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

From: Varsa, Steve
To: Nelson.Velez@state.nm.us
Cc: Bratcher, Mike, EMNRD; Wiley, Joe
Subject: El Paso CGP Company - Notice of upcoming groundwater sampling activities
Date: Wednesday, October 26, 2022 3:13:50 PM

Hi Nelson -

This correspondence is to provide notice to the NMOCD of upcoming semi-annual groundwater sampling and monitoring activities at the following EPCGP project sites:

Site Name	Incident Number	Sample Date
Canada Mesa #2	nAUTOfAB000065	11/6/2022
Fields A#7A	nAUTOfAB000176	10/31/2022
Fogelson 4-1	nAUTOfAB000192	10/30/2022
Gallegos Canyon Unit #124E	nAUTOfAB000205	11/3/2022
GCU Com A #142E	nAUTOfAB000219	11/2/2022
James F. Bell #1E	nAUTOfAB000291	11/4/2022
Johnston Fed #4	nAUTOfAB000305	11/5/2022
Johnston Fed #6A	nAUTOfAB000309	11/5/2022
K27 LDO72	nAUTOfAB000316	11/6/2022
Knight #1	nAUTOfAB000324	11/4/2022
Lateral L 40 Line Drip	nAUTOfAB000335	10/30/2022
Sandoval GC A #1A	nAUTOfAB000635	11/5/2022
Standard Oil Com #1	nAUTOfAB000666	11/6/2022
State Gas Com N #1	nAUTOfAB000668	11/1/2022

We also plan to conduct quarterly operation and maintenance activities on the Knight #1 air sparge/soil vapor extraction system (Incident number nAUTOAB000324) on Saturday, October 29, 2022.

Please feel free to contact Joe Wiley, Project Manager at EPCGP, or me, if you need further information.

Thank you,
Steve

Stephen Varsa, P.G., R.G.
Principal Hydrogeologist
Stantec Environmental Services
11311 Aurora Avenue
Des Moines, Iowa 50322
Direct: (515) 251-1020
Cell: (515) 710-7523
Office: (515) 253-0830
steve.varsa@stantec.com

APPENDIX B

824194

30 Years of Environmental Health and Safety Excellence

BASIN DISPOSAL

200 Montana, Bloomfield, NM 87413
505-632-8936 or 505-334-3013
OPEN 24 Hours per Day

NO.
NMOCD PERMIT: NM -001-0005
Oil Field Waste Document, Form C138
INVOICE:

DATE 3-23-22
DEL. TKT#.
GENERATOR: Elpaso CGP
BILL TO: Elpaso CGP
HAULING CO. Stan Tech
DRIVER: Sean C.
(Print Full Name)
ORDERED BY: Joe W.
CODES:

WASTE DESCRIPTION: ☒ Exempt Oilfield Waste ☐ Produced Water ☐ Drilling/Completion Fluids

STATE: ☒ NM ☐ CO ☐ AZ ☐ UT

TREATMENT/DISPOSAL METHODS: ☒ EVAPORATION ☒ INJECTION ☒ TREATING PLANT

NO.	TRUCK	LOCATION(S)	VOLUME	COST	H2S	COST	TOTAL	TIME
1		Johnston Fed #4	1	70			70	
2		Jonston Fed #64						
3		Lat L 30						
4								
5								

22 MAR 23 4:56PM

I, Sean N Clary, representative or authorized agent for _____ do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non -exempt waste.

☒ Approved ☐ Denied ATTENDANT SIGNATURE _____

SAN JUAN PRINTING 2020 1973-1

envirotech

Bill of Lading

MANIFEST # 73058
GENERATOR El Paso
POINT OF ORIGIN Rio Vista Comp Station
TRANSPORTER Envirotech
DATE 05-24-22 JOB # See Below

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLS	DRUMS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	BF	liquid			3.			938	1445	
					3					
					14073-0060		1 Drum	San Juan River Plant		
							1 Drum	Blanco North Flare		
					14073-0060		1 Drum	NM GW Pits (15 sites)		

RESULTS		
315	CHLORIDE TEST	1
	CHLORIDE TEST	
	CHLORIDE TEST	
PASS	PAINT FILTER TEST	1

LANDFARM EMPLOYEE Cory Robinson BLM

☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out

NOTES

SCANNED

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.

Generator Onsite Contact _____ Phone _____

Signatures required prior to distribution of the legal document. DISTRIBUTION: **White** - Company Records / Billing **Yellow** - Customer **Pink** - LF Copy

SAN JUAN PRINTING 2021 407-3

envirotech

SPECIAL WASTE MANIFEST		Manifest Document No. SW - 01140	Page 1 of

Generator's Name	Generator's Address	Generator's Telephone No.
EIPASO CGP	1001 Louisiana St. Houston, Tx 77002	

Origin of Special Waste (Project or Spill Location):
Canada Mesa #2, Miles Fed #1A, Knight #1 Fields A #7A, Fogelson 4-1 GCU #124E, State Gas com H #1, Johnston Fed #4, Johnston Fed #6A

Transporter #1 Company Name	Address	Telephone No.
Envirotech	5796 US Hwy 64 Farmington, NM 87401	505-632-0615
Transporter #2 Company Name	Address	Telephone No.

Destination Facility Name/Site Address	Facility ID (Permit) Number	Telephone No.
Envirotech LF #2 43 Road 7175 Bloomfield NM 87413	NM01-0011	505-632-0615

GENERATOR

Type and Proper Name of Special Waste	Container(s) No.	Container(s) Type	Total Quantity	Unit Wt/Vol	
Petroleum Contaminated liquid	1	B	~~100~~ 55	gal	

Additional Descriptions for Special Waste Listed Above:

Special Handling Instructions:

GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described above by type and proper name of the special waste, and that such waste has been managed, packaged, containerized and labeled in accordance with the requirements of 20.9.8 NMAC (Special Waste Requirements) in addition to any other applicable federal, state or local regulations.

Printed/Typed Name:	Signature:	Date:
Greg Crabtree AS Agent		8/3/22

TRANSPORTER

Transporter 1 Acknowledgement of Receipt of Special Waste		
Printed/Typed Name: Colton Tohn	Signature:	Date: 8/3/22
Transporter 2 Acknowledgement of Receipt of Special Waste		
Printed/Typed Name:	Signature:	Date:

FACILITY

Discrepancy Indication Space:

Facility Owner or Operator: ***I hereby acknowledge receipt of the special waste as indicated upon this manifest, except as noted above in the Discrepancy Indication Space.***

Printed/Typed Name:	Signature:	Date:
Cory Robinson		08.03.22

envirotech

Bill of Lading

MANIFEST # 76385
GENERATOR El Paso
POINT OF ORIGIN See notes
TRANSPORTER Envirotech
DATE 11-07-22 JOB # 14073-0060

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLS	DRUMS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	BF	Cont Liquid				1	01154	937	0845	Andrew Mass
						1				
									SCANNED	

RESULTS			LANDFARM EMPLOYEE	NOTES
-291	CHLORIDE TEST	1		See Attachment
	CHLORIDE TEST		☐ Soil w/ Debris ☐ After Hours/Weekend Receival ☐ Scrape Out ☐ Wash Out	C-138 Pit Sites
	CHLORIDE TEST			
Pass	PAINT FILTER TEST	1		

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.

Generator Onsite Contact _____ Phone _____

Signatures required prior to distribution of the legal document. DISTRIBUTION: White - Company Records / Billing Yellow - Customer Pink - LF Copy

SAN JUAN PRINTING 2021 407-3

envirotech

BOL# 76385

CHLORIDE TESTING / PAINT FILTER TESTING

DATE 11-7-22 TIME 8:45 Am

CUSTOMER Kinder Morgan

SITE Pit Sites

DRIVER A. Musso

SAMPLE Soil Straight ✓ With Dirt _____

CHLORIDE TEST -291 mg/Kg

ACCEPTED YES ✓ NO _____

PAINT FILTER TEST Time started 8:47 Time completed _____

PASS YES _____ NO _____

SAMPLER/ANALYST CR

Attach test strip here

5796 US Hwy 64, Farmington, NM 87401 || Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 || info@envirotech-inc.com envirotech-inc.com

envirotech

SPECIAL WASTE MANIFEST		Manifest Document No. SW - 01154	Page 1 of

GENERATOR

Generator's Name	Generator's Address	Generator's Telephone No.
KINDER MORGAN	1001 LOUISIANA ~~BLVD~~ STREET, ROOM 9561, HOUSTON, TX	~~505~~ 713-420-3475

Origin of Special Waste (Project or Spill Location): SJRB PIT & PLANT SITES

Transporter #1 Company Name	Address	Telephone No.
ENVIROTECH	5796 US HWY 64, FARMINGTON, NM	505-632-0615
Transporter #2 Company Name	Address	Telephone No.

Destination Facility Name/Site Address	Facility ID (Permit) Number	Telephone No.
ENVIROTECH LANDFARM 2	NM01-0011	505-632-0615

Type and Proper Name of Special Waste	Container(s) No.	Container(s) Type	Total Quantity	Unit Wt/Vol	
WATER AND DRIP	1	L	4	70GAL	

Additional Descriptions for Special Waste Listed Above:

Special Handling Instructions:

GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described above by type and proper name of the special waste, and that such waste has been managed, packaged, containerized and labeled in accordance with the requirements of 20.9.8 NMAC (Special Waste Requirements) in addition to any other applicable federal, state or local regulations.

Printed/Typed Name:	Signature:	Date:
Sean R Clary	Sean R Clary	11/7/2022

TRANSPORTER

Transporter 1 Acknowledgement of Receipt of Special Waste

Printed/Typed Name:	Signature:	Date:
MATTHEW MUSSO	MATTHEW MUSSO	11/7/2022

Transporter 2 Acknowledgement of Receipt of Special Waste

Printed/Typed Name:	Signature:	Date:

FACILITY

Discrepancy Indication Space:

Facility Owner or Operator: ***I hereby acknowledge receipt of the special waste as indicated upon this manifest, except as noted above in the Discrepancy Indication Space.***

Printed/Typed Name:	Signature:	Date:
Gary Robinson	Gary Robinson	11.07.22

APPENDIX C

AcuVac Remediation

September 15, 2022

Mr. Stephen Varsa, P.G.
Senior Hydrogeologist
Stantec Consulting Services, Inc.
11153 Aurora Avenue
Des Moines, IA 50322

Dear Steve:

Re: Lateral L-40 Site, Rio Arriba County, NM (Event #1, Site Event #2)

At your request, AcuVac Remediation, LLC (AcuVac) performed one 8.0-hour Mobile Dual Phase Extraction (MDPE) Event at the above referenced site (Site) on well MW-5 on August 31, 2022. The following is the Report and a copy of the Operating Data collected during Event #1. Additionally, the attached Table #1A contains the Summary Well Data for well MW-5. Table #1B contains the Summary Recovery Data for well MW-5.

The purpose of the MDPE event was to enhance recovery of petroleum hydrocarbons impacts present at the Site through the removal of both Phase Separated Hydrocarbons (PSH) and vapor phase petroleum hydrocarbons. PSH is referred to as Light Non-Aqueous Phase Liquids (LNAPL). The source of the petroleum hydrocarbon impacts is a historical release of natural gas condensate.

OBJECTIVES

The objectives of the MDPE events were to:

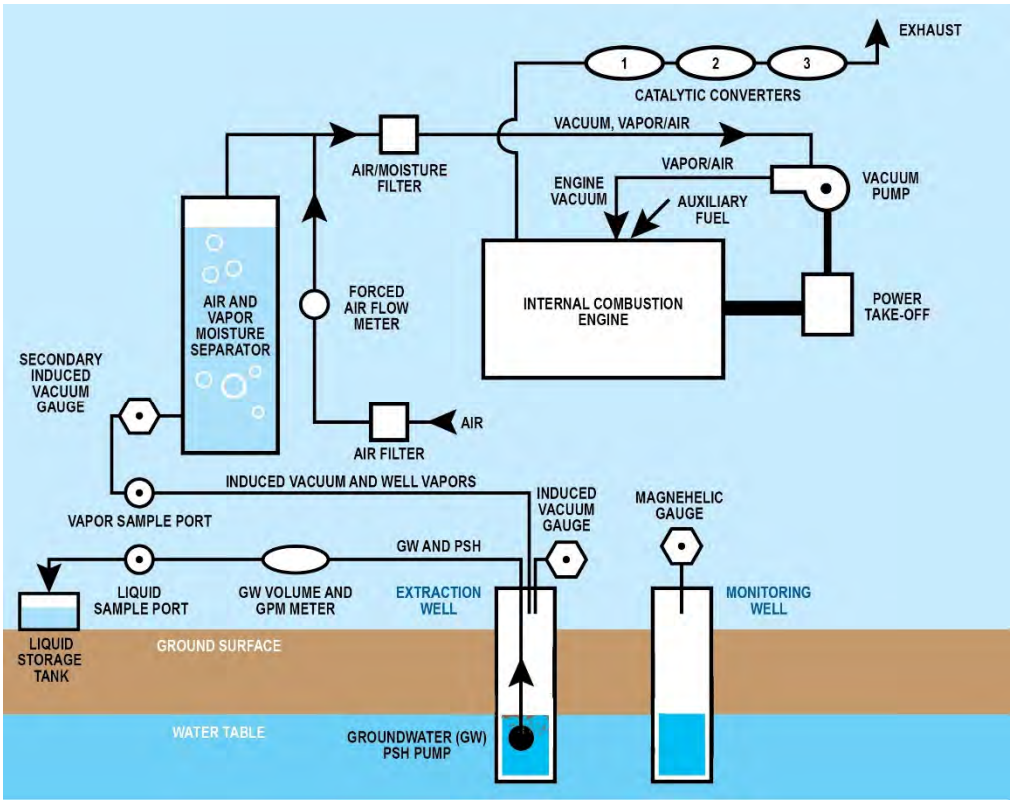
- Maximize the removal of liquid and vapor phase petroleum hydrocarbons from the groundwater and soils in the subsurface formations within the influence of the extraction well.
- Expose the capillary fringe area to an induced vacuum.
- Increase the liquid and vapor phase petroleum hydrocarbon specific yields with high induced vacuums.
- Create an induced vacuum in well MW-5 and monitor vacuum influence in nearby monitoring points.
- Select and monitor the groundwater depression and pump rates to accomplish the above objectives.

METHODS AND EQUIPMENT

AcuVac owns and maintains an inventory of equipment to perform MDPE events. No third-party equipment was utilized. The events at the Site were conducted using the AcuVac I-6 System (System) with a Roots RAI-33 blower used as a vacuum pump and a Roots RAI-22 positive displacement blower. The following table lists equipment and instrumentation employed during Event #1, and the data element captured by each.

Equipment and Instrumentation Employed by AcuVac	
Measurement Equipment	**Data Element**
Extraction Well Induced Vacuum and Flow	
Dwyer Magnehelic Gauges	Extraction Well Vacuum
Dwyer Averaging Pitot Tubes / Magnehelic Gauges	Extraction Well Vapor Flow
Observation Wells	
Dwyer Digital Manometer	Vacuum / Pressure Influence
Extraction Well Vapor Monitoring	
V-1 Vacuum Box	Extraction Well Non-Diluted Vapor Sample Collection
HORIBA® Analyzer	Extraction Well Vapor TPH Concentration
RKI 1200 O_2, H_2S Monitor	Extraction Well Vapor Oxygen Content
LNAPL Thickness (if present)	
Solinst Interface Probes Model 122	Depth to LNAPL and Depth to Groundwater
Liquid Recovery	
Totalizer Flow Meter	Liquid Flow and Total Volume
QED AP 2+ Pneumatic Pump	In-Well Pumping
Air Compressor	Pump Speed and Other Diagnostics
Groundwater Depression / Upwelling	
In-Situ Level Troll 700 Data Logger	Liquid Column in Extraction and Observation Wells
In-Situ Vented Cable with Chamber	Equalize Well Vacuum/Pressure
In-Situ Rugged Reader Data Logger Interface	Capture Readings from Data Logger Trolls
Atmospheric Conditions	
Testo Model 511	Relative and Absolute Barometric Pressure

THE ACUVAC MOBILE DUAL PHASE EXTRACTION SYSTEM



The vacuum extraction portion of the System consists of a vacuum pump driven by an internal combustion (IC) engine. The vacuum pump was connected to the extraction well, and the vacuum created on the extraction well caused light hydrocarbons in the soil and on the groundwater to volatilize and flow through a moisture knockout tank to the vacuum pump and the IC Engine where they were burned as part of the normal combustion process. Propane was used as auxiliary fuel to help power the engine if the well vapors did not provide the required energy.

The IC engine provided the power necessary to achieve and maintain high induced vacuums and/or high well vapor flows required to maximize the vacuum radius of influence for pilot tests and short-term event remediation.

Emissions from the engine were passed through three catalytic converters to maximize destruction of removed hydrocarbon vapors. The engine's fuel-to-air ratio was adjusted to maintain efficient combustion. Because the engine is the power source for the equipment, the System stops when the engine stops. This prevents an uncontrolled release of hydrocarbons. Since the System is held entirely under vacuum, any leaks in the seals or connections are leaked into the System and not emitted into the atmosphere. The engine is automatically shut down by vacuum loss, low oil pressure, over speed, or overheating.

Groundwater extraction was provided by an in-well, QED AP2+ bottom fill pneumatic pump that discharged through a total flow meter. The discharge line from the volume meter was then connected to the stand-by tank. A data logger (pressure transducer) was used to monitor the groundwater level relative to the in-well pump inlet. This enabled the AcuVac team to upwell the groundwater and then pump the well to achieve a targeted drawdown to maximize any LNAPL and vapor-phase hydrocarbons recovery from the smear zone. The compressed air for the groundwater pump was supplied from an air compressor. The groundwater flow rate was adjusted to maintain a target level. An interface meter was used to collect depth to groundwater and depth to LNAPL measurements. Groundwater samples were taken periodically in a graduated cylinder to determine the average LNAPL percentage being recovered.

The design of the AcuVac System enabled independent control of both the induced well vacuum and the groundwater pumping functions such that the AcuVac team controlled the induced hydraulic gradient to increase exposure of the formation to soil vapor extraction (SVE). The ability to separate the vapor and liquid flows within the extraction well improved the hydrocarbon recovery rates and enabled the AcuVac team to record data specific to each media.

SUMMARY OF WELL MW-5 EVENT #1

The Petroleum Hydrocarbon Recovery Summary Table below summarizes the groundwater and LNAPL recovery data for well MW-5 for Event #1.

Petroleum Hydrocarbon Recovery Summary		
Site Event Number		**Event #1**
Well Number		**MW-5**
Event Date		**08/31/2022**
Event Hours		**8.0**
Recovery		
Groundwater Recovery	gals	16
Petroleum Hydrocarbon Recovery		
Liquid	gals	1.6
Vapor	gals	4.9
Total	gals	6.5
Gallons/Hour	gals	**0.8**

- Total vapor hydrocarbons burned as IC engine fuel in the Petroleum Hydrocarbon Recovery Summary Table above are based on the HORIBA analytical data from the influent vapor samples for Event #1.

Influent Vapor Data Well MW-5		
Site Event Number		**Event #1**
Well Number		**MW-5**
Event Date		**08/31/2022**
Event Hours		**8.0**
Data Element		
TPH- Maximum	ppmv	20,390
TPH- Average	ppmv	19,159
TPH- Minimum	ppmv	14,490
TPH- Initial	ppmv	14,490
TPH- Ending	ppmv	20,390
CO_2- Average	%	5.66
O_2- Average	%	13.0
H_2S- Average	ppm	NM

- The Event #1 extraction well induced vacuum and well vapor flow is shown in the following table.

Well Vacuum and Well Vapor Flow Well MW-5		
Site Event Number		**Event #1**
Well Number		**MW-5**
Event Date		**08/31/2022**
Event Hours		**8.0**
Data Element		
Well Vacuum- Maximum	InH_2O	150.00
Well Vacuum- Average	InH_2O	145.29
Well Vacuum- Minimum	InH_2O	110.00
Well Vapor Flow- Maximum	scfm	15.18
Well Vapor Flow- Average	scfm	14.80
Well Vapor Flow- Minimum	scfm	12.70

- For Event #1 the groundwater pump inlet was set at approximately 0.5 ft above the well bottom.

- Depth to groundwater, depth to LNAPL, and LNAPL thickness at the start and end of Event #1 are presented in the table below.

LNAPL Thickness Well MW-5		
Site Event Number		**Event #1**
Well Number		**MW-5**
Event Date		**08/31/2022**
Event Hours		**8.0**
Data Element		
Start of Event		
Depth to LNAPL	ft BTOC	40.75
Depth to Groundwater	ft BTOC	40.10
LNAPL Thickness	ft	0.65
End of Event		
Depth to LNAPL	ft BTOC	40.08
Depth to Groundwater	ft BTOC	40.11
LNAPL Thickness	ft	0.03

- Outer wells MW-1 (31.25 ft) and SVE-1 (34.5 ft) were monitored for vacuum influence from the extraction well MW-5.

Outer Well Vacuum Influence Well MW-5		
Site Event Number		**Event #1**
Event Date		**08/31/2022**
Event Hours		**8.0**
Extraction Well		
Average Extraction Well Vacuum	InH_2O	145.29
Average Vacuum Influence- Outer Wells (distance from extraction well)		
MW- 1 (31.25 ft)	InH_2O	5.06
SVE-1 (34.5 ft)	InH_2O	1.67

- All wells were gauged prior to and after the conclusion of Event #1 to determine the hydraulic influence of the extraction well groundwater pumping on the outer wells. The gauging data is shown in the following Gauging Data table.

Gauging Data Event #1 Outer Observation Wells			
Well Number		**MW-1**	**SVE-1**
Event Date		**08/31/2022**	**08/31/2022**
Distance from Extraction Well	ft	**31.25**	**34.5**
Event Start			
Depth to LNAPL	Ft BTOC	ND	ND
Depth to Groundwater	Ft BTOC	41.55	32.01
LNAPL Thickness	ft	ND	ND
Hydro Equivalent	Ft BTOC	41.55	32.01
Event Conclusion			
Depth to LNAPL	Ft BTOC	ND	ND
Depth to Groundwater	Ft BTOC	41.53	31.99
LNAPL Thickness	ft	ND	ND
Hydro Equivalent	Ft BTOC	41.53	31.99

ND- Not Detected

METHOD OF CALIBRATION AND CALCULATIONS

The HORIBA® Analytical instrument is calibrated with hexane, carbon monoxide and carbon dioxide. The formula used to calculate the emission rate (ER) is:

$$ER = TPH\ (ppmv) \times MW\ (hexane) \times Flow\ Rate\ (scfm) \times 1.58E^{-7} \frac{(min)(lb\ mole)}{(hr)(ppmv)(ft^3)} = lbs/hr$$

INFORMATION INCLUDED WITH REPORT

- Table #1A Summary Data Well MW-5
- Table #1B Summary Recovery Data Well MW-5
- Recorded Data

After you have reviewed the report and if you have any questions, please contact me. We appreciate you selecting AcuVac to provide this service.

Sincerely,
ACUVAC REMEDIATION, LLC

Paul D. Faucher
President

Summary Well Data
Table #1A

Event Number		1
Well Number		**MW-5**
Event Date		08/31/2022
Current Event Hours		8.0
Total Event Hours		8.0
Total Depth	ft BGS	49.7
Well Screen	ft BGS	29.7 – 49.7
Well Size	in	2.0
Well Data		
Depth To Groundwater - Static - Start Event	ft BTOC	40.75
Depth To LNAPL - Static - Start Event	ft BTOC	41.10
LNAPL Thickness	ft	0.65
Hydro-Equivalent- Beginning	ft BTOC	40.58
Depth To Groundwater - End Event	ft BTOC	40.08
Depth To LNAPL - End Event	ft BTOC	40.11
LNAPL Thickness	ft	0.03
Hydro-Equivalent- Ending	ft BTOC	40.09
Extraction Data		
Maximum Extraction Well Vacuum	"H_2O	150.00
Average Extraction Well Vacuum	"H_2O	145.29
Minimum Extraction Well Vacuum	"H_2O	110.00
Maximum Extraction Well Vapor Flow	scfm	15.18
Average Extraction Well Vapor Flow	scfm	14.80
Minimum Extraction Well Vapor Flow	scfm	12.70
Maximum GW / LNAPL Pump Rate	gpm	0.07
Average GW / LNAPL Pump Rate	gpm	0.03
Influent Data		
Maximum TPH	ppmv	20,390
Average TPH	ppmv	19,159
Minimum TPH	ppmv	14,490
Initial TPH	ppmv	14,490
Final TPH	ppmv	20,390
Average CO_2	%	5.66
Average O_2	%	13.0
Average H_2S	ppm	NM

Summary Recovery Data
Table #1B

Event Number		1
Well Number		**MW-5**
Recovery Data- Current Event		
Total Liquid Volume Recovered	gals	16
Total Liquid LNAPL Recovered	gals	1.60
Total Liquid LNAPL Recovered / Total Liquid	%	10.00
Total Liquid LNAPL Recovered / Total LNAPL	%	24.60
Total Vapor LNAPL Recovered	gals	4.90
Total Vapor LNAPL Recovered / Total LNAPL	%	75.40
Total Vapor and Liquid LNAPL Recovered	gals	6.50
Average LNAPL Recovery	gals/hr	0.81
Total LNAPL Recovered	lbs	46
Total Volume of Well Vapors	cu. ft	7,104
Recovery Data- Cumulative		
Total Liquid Volume Recovered	gals	16
Total Liquid LNAPL Recovered	gals	1.6
Total Vapor LNAPL Recovered	gals	4.90
Total Vapor and Liquid LNAPL Recovered	gals	6.50
Average LNAPL Recovery	gals/hr	0.81
Total LNAPL Recovered	lbs	46
Total Volume of Well Vapors	cu. ft	7,104

AcuVac Remediation

OPERATING DATA – EVENT # 2A PAGE # 1 ACUVAC MDP SYSTEM

Location: Lat L-40, Rio Arriba County, NM Project Manager: Hendley / George

Well # MW-5

	Date		8-31-22					
	Time		0830	0900	0930	1000	1030	1100
	Hr Meter							
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	1800
	Oil Pressure	psi	55	55	55	55	55	55
	Water Temp	°F	130	130	130	135	135	135
	Alternator	Volts	14	14	14	14	14	14
	Intake Vacuum	"Hg	18	18	18	18	18	18
	Gas Flow Fuel/Propane	cfh	80	80	60	60	60	60
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	110	110	150	150	150	150
	Extraction Well Flow	scfm	12.70	12.70	15.18	15.16	15.13	15.13
	Well Flow Raw Number		18	18	24	24	24	24
	Influent Vapor Temp.	°F	62	62	62	64	66	66
	Air Temp	°F	50	52	56	58	60	61
	Barometric Pressure	"Hg	30,56	30,56	30,56	30,56	30,55	30,55
	Absolute Pressure	"Hg	23,35	23,35	23,35	23,35	23,35	23,35
VAPOR / INFLUENT	TPH	ppmv	—	14490	—	19360	—	20160
	CO_2	%	—	4,02	—	5,24	—	5,74
	O_2	%	—	13,3	—	13,0	—	12,8
	H_2S	ppm	—	—	—	—	—	—
NOTES	Arrive @ site 0800. Tailgate safety meeting. Totes not present. Eval SLA 0830, SVE only. Started pump and pumped into gas cans. Max well vacuum @ 150 H_2O.							
RECOVERY	Totalizer 31826	gals	31826	31828	31828	31830	31830	31832
	Pump Rate	gals/min	.07	—	.07	—	.07	—
	Total Volume	gals	0	2	2	4	4	6
	NAPL	% Vol	10%	10%	10%	10%	10%	10%
	NAPL	Gals	0	,2	—	.2	—	.2
EW	Data Logger Head 8,30	ft	8,31	5,19	2,40	1,30	1,30	1,32
	GW Depression	ft	(.01)	3,11	5,90	7,00	7,00	6,98
	Extraction Well	DTNAPL	41,93					
	Extraction Well	DTGW	42,37					

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AcuVac Remediation

OPERATING DATA – EVENT # 2A PAGE # 2 ACUVAC MDP SYSTEM

Location: Lat L-40, Rio Arriba County, NM Project Manager: Hendley / George

Well # MW-5

	Date		8-31-22					
	Time		1130	1200	1230	1300	1330	1400
	Hr Meter							
ENGINE / BLOWER	Engine Speed	RPM	1800	1800	1800	1800	1800	1800
	Oil Pressure	psi	55	55	55	55	55	55
	Water Temp	°F	140	140	145	145	150	150
	Alternator	Volts	14	14	14	14	14	14
	Intake Vacuum	"Hg	18	18	18	18	18	18
	Gas Flow Fuel/Propane	cfh	60	60	60	60	60	60
ATMOSPHERE VACUUM / AIR	Extraction Well Vac.	"H_2O	150	150	150	150	150	150
	Extraction Well Flow	scfm	15.10	15.10	15.07	15.07	15.06	15.06
	Well Flow Raw Number		24	24	24	24	24	24
	Influent Vapor Temp.	°F	68	68	70	70	71	71
	Air Temp	°F	63	65	68	70	72	76
	Barometric Pressure	"Hg	30.54	30.54	30.52	30.51	30.50	30.48
	Absolute Pressure	"Hg	23.34	23.34	25.32	23.31	23.30	23.29
VAPOR / INFLUENT	TPH	ppmv	—	20,270	—	19690	—	19740
	CO_2	%	—	5.88	—	5.86	—	6.04
	O_2	%	—	12.7	—	12.9	—	12.8
	H_2S	ppm	—	—	—	—	—	—
NOTES								
RECOVERY	Totalizer	gals	31832	31834	31834	31836	31836	31838
	Pump Rate	gals/min	.07	—	.07	—	.07	—
	Total Volume	gals	6	8	8	10	10	12
	NAPL	% Vol	10%	10%	10%	10%	10%	10%
	NAPL	Gals	—	.2	0	.2	0	.2
EW	Data Logger Head 8.30	ft	1.10	1.12	1.14	1.11	1.10	1.10
	GW Depression	ft	7.20	7.18	7.16	7.19	7.20	7.20
	Extraction Well	DTNAPL						
	Extraction Well	DTGW						

AcuVac Remediation

OPERATING DATA – EVENT # 2A PAGE # 3

ACUVAC MDP SYSTEM

Location: Lat L-40, Rio Arriba County, NM

Project Manager: Hendley / George

Well # MW-5

	Date	8.31-22						
	Time	1430	1500	1530	1600	1630		
	Hr Meter							
ENGINE / BLOWER	Engine Speed RPM	1900	1900	1900	1900	1900		
	Oil Pressure psi	55	55	55	55	55		
	Water Temp °F	150	150	150	150	150		
	Alternator Volts	14	14	14	14	14		
	Intake Vacuum "Hg	18	18	18	18	18		
	Gas Flow Fuel/Propane cfh	60	60	60	60	60		
ATMOSPHERE VACUUM / AIR	Extraction Well Vac. "H_2O	150	150	150	150	150		
	Extraction Well Flow scfm	15.04	15.03	15.03	15.01	15.01		
	Well Flow Raw Number	24	24	24	24	24		
	Influent Vapor Temp. °F	72	73	73	74	74		
	Air Temp °F	79	81	83	85	87		
	Barometric Pressure "Hg	30,46	30,44	30,43	30,42	30,42		
	Absolute Pressure "Hg	23.28	23.27	23,26	23,25	23,25		
VAPOR / INFLUENT	TPH ppmv	–	19170	–	20390	–		
	CO_2 %	–	6.02	–	6.46	–		
	O_2 %	–	13.2	–	13.0	–		
	H_2S ppm	–	–	–	–	–		
NOTES	Event end @ 1630. Moved and depot site.							
RECOVERY	Totalizer gals	31838	31840	31840	31842	31842		
	Pump Rate gals/min	.07	–	.07	–	–		
	Total Volume gals	12	14	14	16	16		
	NAPL % Vol	10%	10%	10%	10%	10%		
	NAPL Gals	–	.2	–	.2	–		
EW	Data Logger Head 8.30 ft	1.08	1.06	1.00	1.02	1.02		
	GW Depression ft	7.28	7.24	7.30	8.28	8.20		
	Extraction Well DTNAPL					40.08		
	Extraction Well DTGW					40.11		

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APPENDIX D

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-220163-1
Client Project/Site: Lat L 40

For:
Stantec Consulting Services Inc
11311 Aurora Avenue
Des Moines, Iowa 50322-7904

Attn: Steve Varsa

Authorized for release by:
6/20/2022 11:51:38 AM
Isabel Enfinger, Project Manager I
(850)471-6237
isabel.enfinger@et.eurofinsus.com

Designee for

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@et.eurofinsus.com

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Laboratory Job ID: 400-220163-1

Table of Contents

Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Job ID: 400-220163-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-220163-1

Receipt
The samples were received on 5/19/2022 8:59 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-1 (400-220163-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: TB-01 — Lab Sample ID: 400-220163-1

No Detections.

Client Sample ID: MW-1 — Lab Sample ID: 400-220163-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzene	180		5.0		ug/L	5		8260C	Total/NA
Toluene	14		5.0		ug/L	5		8260C	Total/NA
Ethylbenzene	230		5.0		ug/L	5		8260C	Total/NA
Xylenes, Total	990		50		ug/L	5		8260C	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 400-220163-3

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 400-220163-4

No Detections.

Client Sample ID: MW-4 — Lab Sample ID: 400-220163-5

No Detections.

Client Sample ID: MW-6 — Lab Sample ID: 400-220163-6

No Detections.

Client Sample ID: MW-9 — Lab Sample ID: 400-220163-7

No Detections.

Client Sample ID: MW-10 — Lab Sample ID: 400-220163-8

No Detections.

Client Sample ID: DUP-01 — Lab Sample ID: 400-220163-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-220163-1	TB-01	Water	05/18/22 09:00	05/19/22 08:59
400-220163-2	MW-1	Water	05/18/22 10:00	05/19/22 08:59
400-220163-3	MW-2	Water	05/18/22 09:50	05/19/22 08:59
400-220163-4	MW-3	Water	05/18/22 09:45	05/19/22 08:59
400-220163-5	MW-4	Water	05/18/22 09:35	05/19/22 08:59
400-220163-6	MW-6	Water	05/18/22 09:30	05/19/22 08:59
400-220163-7	MW-9	Water	05/18/22 09:25	05/19/22 08:59
400-220163-8	MW-10	Water	05/18/22 09:20	05/19/22 08:59
400-220163-9	DUP-01	Water	05/18/22 10:50	05/19/22 08:59

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: TB-01

Date Collected: 05/18/22 09:00
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 16:57	1
Toluene	<1.0		1.0		ug/L			05/24/22 16:57	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 16:57	1
Xylenes, Total	<10		10		ug/L			05/24/22 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*05/24/22 16:57*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*05/24/22 16:57*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*05/24/22 16:57*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-1
Date Collected: 05/18/22 10:00
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	180		5.0		ug/L			05/25/22 12:53	5
Toluene	14		5.0		ug/L			05/25/22 12:53	5
Ethylbenzene	230		5.0		ug/L			05/25/22 12:53	5
Xylenes, Total	990		50		ug/L			05/25/22 12:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*05/25/22 12:53*	*5*
Dibromofluoromethane	*96*		*75 - 126*		*05/25/22 12:53*	*5*
Toluene-d8 (Surr)	*106*		*64 - 132*		*05/25/22 12:53*	*5*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-2

Date Collected: 05/18/22 09:50
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 18:38	1
Toluene	<1.0		1.0		ug/L			05/24/22 18:38	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 18:38	1
Xylenes, Total	<10		10		ug/L			05/24/22 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*05/24/22 18:38*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*05/24/22 18:38*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*05/24/22 18:38*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-3

Date Collected: 05/18/22 09:45
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 19:03	1
Toluene	<1.0		1.0		ug/L			05/24/22 19:03	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 19:03	1
Xylenes, Total	<10		10		ug/L			05/24/22 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 119*		*05/24/22 19:03*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*05/24/22 19:03*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*05/24/22 19:03*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-4

Date Collected: 05/18/22 09:35
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 19:28	1
Toluene	<1.0		1.0		ug/L			05/24/22 19:28	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 19:28	1
Xylenes, Total	<10		10		ug/L			05/24/22 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*05/24/22 19:28*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*05/24/22 19:28*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*05/24/22 19:28*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-6

Date Collected: 05/18/22 09:30
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 19:53	1
Toluene	<1.0		1.0		ug/L			05/24/22 19:53	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 19:53	1
Xylenes, Total	<10		10		ug/L			05/24/22 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*05/24/22 19:53*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*05/24/22 19:53*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*05/24/22 19:53*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-9

Date Collected: 05/18/22 09:25
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 20:18	1
Toluene	<1.0		1.0		ug/L			05/24/22 20:18	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 20:18	1
Xylenes, Total	<10		10		ug/L			05/24/22 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*05/24/22 20:18*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*05/24/22 20:18*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*05/24/22 20:18*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-10

Date Collected: 05/18/22 09:20
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 20:43	1
Toluene	<1.0		1.0		ug/L			05/24/22 20:43	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 20:43	1
Xylenes, Total	<10		10		ug/L			05/24/22 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*05/24/22 20:43*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*05/24/22 20:43*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*05/24/22 20:43*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: DUP-01
Date Collected: 05/18/22 10:50
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 21:08	1
Toluene	<1.0		1.0		ug/L			05/24/22 21:08	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 21:08	1
Xylenes, Total	<10		10		ug/L			05/24/22 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*05/24/22 21:08*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*05/24/22 21:08*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*05/24/22 21:08*	*1*

Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: TB-01
Date Collected: 05/18/22 09:00
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 16:57	AGW	TAL PEN
	Instrument ID: CH_LARS									

Client Sample ID: MW-1
Date Collected: 05/18/22 10:00
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	578832	05/25/22 12:53	AGW	TAL PEN
	Instrument ID: Darwin									

Client Sample ID: MW-2
Date Collected: 05/18/22 09:50
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 18:38	AGW	TAL PEN
	Instrument ID: CH_LARS									

Client Sample ID: MW-3
Date Collected: 05/18/22 09:45
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 19:03	AGW	TAL PEN
	Instrument ID: CH_LARS									

Client Sample ID: MW-4
Date Collected: 05/18/22 09:35
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 19:28	AGW	TAL PEN
	Instrument ID: CH_LARS									

Client Sample ID: MW-6
Date Collected: 05/18/22 09:30
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 19:53	AGW	TAL PEN
	Instrument ID: CH_LARS									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Client Sample ID: MW-9
Date Collected: 05/18/22 09:25
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 20:18	AGW	TAL PEN
	Instrument ID: CH_LARS									

Client Sample ID: MW-10
Date Collected: 05/18/22 09:20
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 20:43	AGW	TAL PEN
	Instrument ID: CH_LARS									

Client Sample ID: DUP-01
Date Collected: 05/18/22 10:50
Date Received: 05/19/22 08:59

Lab Sample ID: 400-220163-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	578711	05/24/22 21:08	AGW	TAL PEN
	Instrument ID: CH_LARS									

Laboratory References:
TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

GC/MS VOA

Analysis Batch: 578711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-220163-1	TB-01	Total/NA	Water	8260C	
400-220163-3	MW-2	Total/NA	Water	8260C	
400-220163-4	MW-3	Total/NA	Water	8260C	
400-220163-5	MW-4	Total/NA	Water	8260C	
400-220163-6	MW-6	Total/NA	Water	8260C	
400-220163-7	MW-9	Total/NA	Water	8260C	
400-220163-8	MW-10	Total/NA	Water	8260C	
400-220163-9	DUP-01	Total/NA	Water	8260C	
MB 400-578711/4	Method Blank	Total/NA	Water	8260C	
LCS 400-578711/1002	Lab Control Sample	Total/NA	Water	8260C	
400-220024-B-9 MS	Matrix Spike	Total/NA	Water	8260C	
400-220024-B-9 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 578832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-220163-2	MW-1	Total/NA	Water	8260C	
MB 400-578832/5	Method Blank	Total/NA	Water	8260C	
LCS 400-578832/1003	Lab Control Sample	Total/NA	Water	8260C	
400-220142-A-9 MS	Matrix Spike	Total/NA	Water	8260C	
400-220142-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-578711/4
Matrix: Water
Analysis Batch: 578711

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/24/22 11:29	1
Toluene	<1.0		1.0		ug/L			05/24/22 11:29	1
Ethylbenzene	<1.0		1.0		ug/L			05/24/22 11:29	1
Xylenes, Total	<10		10		ug/L			05/24/22 11:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*05/24/22 11:29*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*05/24/22 11:29*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*05/24/22 11:29*	*1*

Lab Sample ID: LCS 400-578711/1002
Matrix: Water
Analysis Batch: 578711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			50.0	49.1		ug/L		98	70 - 130		
Toluene			50.0	50.6		ug/L		101	70 - 130		
Ethylbenzene			50.0	54.9		ug/L		110	70 - 130		
Xylenes, Total			100	110		ug/L		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-220024-B-9 MS
Matrix: Water
Analysis Batch: 578711

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<1.0		50.0	45.8		ug/L		92	56 - 142		
Toluene	<1.0		50.0	43.1		ug/L		85	65 - 130		
Ethylbenzene	<1.0		50.0	39.6		ug/L		79	58 - 131		
Xylenes, Total	<10		100	78.0		ug/L		78	59 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: 400-220024-B-9 MSD
Matrix: Water
Analysis Batch: 578711

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<1.0		50.0	47.9		ug/L		96	56 - 142	4	30
Toluene	<1.0		50.0	45.9		ug/L		91	65 - 130	6	30
Ethylbenzene	<1.0		50.0	44.6		ug/L		89	58 - 131	12	30

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-220024-B-9 MSD
Matrix: Water
Analysis Batch: 578711

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Xylenes, Total	<10		100	87.8		ug/L		88	59 - 130	12	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: MB 400-578832/5
Matrix: Water
Analysis Batch: 578832

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			05/25/22 09:24	1
Toluene	<1.0		1.0		ug/L			05/25/22 09:24	1
Ethylbenzene	<1.0		1.0		ug/L			05/25/22 09:24	1
Xylenes, Total	<10		10		ug/L			05/25/22 09:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 119*		*05/25/22 09:24*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*05/25/22 09:24*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*05/25/22 09:24*	*1*

Lab Sample ID: LCS 400-578832/1003
Matrix: Water
Analysis Batch: 578832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			50.0	52.1		ug/L		104	70 - 130		
Toluene			50.0	54.2		ug/L		108	70 - 130		
Ethylbenzene			50.0	53.8		ug/L		108	70 - 130		
Xylenes, Total			100	107		ug/L		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-220142-A-9 MS
Matrix: Water
Analysis Batch: 578832

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<1.0		50.0	51.0		ug/L		101	56 - 142		
Toluene	<1.0		50.0	50.7		ug/L		101	65 - 130		
Ethylbenzene	<1.0		50.0	50.3		ug/L		101	58 - 131		
Xylenes, Total	<10		100	102		ug/L		102	59 - 130		

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40

Job ID: 400-220163-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-220142-A-9 MS
Matrix: Water
Analysis Batch: 578832

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Lab Sample ID: 400-220142-A-9 MSD
Matrix: Water
Analysis Batch: 578832

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<1.0		50.0	52.2		ug/L		104	56 - 142	2	30
Toluene	<1.0		50.0	50.0		ug/L		100	65 - 130	1	30
Ethylbenzene	<1.0		50.0	46.3		ug/L		93	58 - 131	8	30
Xylenes, Total	<10		100	90.7		ug/L		91	59 - 130	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

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Client Information	Sampler: Sean Clary / Sarah Gardner	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-111390-37679.1
Client Contact: Steve Varsa	Phone: 303 291 2239	E-Mail: Cheyenne.Whitmire@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Stantec Consulting Services Inc	PWSID:			Job #:
Address: 11311 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days): See ARF ERG-STN-05-06-22-SAH			
State, Zip: IA, 50322-7904	Compliance Project: Δ Yes Δ No			
Phone:	PO #: WD1040027			
Email: steve.varsa@stantec.com	WO #: ERG-STN-05-06-22-SAH-11			
Project Name: Lat L 40.00	Project #: 40005479			
Site: Lat L-40	SSOW#:			

Analysis Requested

400-220163 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - BTEX 8260	8260C - BTEX 8260 (unpreserved)	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N		
TB-01	5/18/2022	900	G	Water				2	2	
MW-1	5/18/2022	1000	G	Water				3	3	
MW-2	5/18/2022	950	G	Water				3	3	
MW-3	5/18/2022	945	G	Water				3	3	
MW-4	5/18/2022	935	G	Water				3	3	
MW-6	5/18/2022	930	G	Water				3	3	
MW-9	5/18/2022	925	G	Water				3	3	
MW-10	5/18/2022	920	G	Water				3	3	
DUP-01	5/18/2022	1050	G	Water				3	3	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		5/18/2022 1130	Stantec		5/19/22 859	EETS
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2°C IR10

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc Job Number: 400-220163-1

Login Number: 220163 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Perez, Trina M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR-10
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc Job ID: 400-220163-1
Project/Site: Lat L 40

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-228137-1
Client Project/Site: Lat L 40.00

For:
Stantec Consulting Services Inc
11311 Aurora Avenue
Des Moines, Iowa 50322-7904

Attn: Steve Varsa

Authorized for release by:
11/7/2022 2:01:31 PM
Isabel Enfinger, Project Manager I
(850)471-6237
isabel.enfinger@et.eurofinsus.com

Designee for

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@et.eurofinsus.com

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Laboratory Job ID: 400-228137-1

Table of Contents

Case Narrative

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Job ID: 400-228137-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228137-1

Comments
No additional comments.

Receipt
The samples were received on 11/1/2022 9:09 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.4º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-1 (400-228137-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: TB-01 Lab Sample ID: 400-228137-1

No Detections.

Client Sample ID: DUP-01 Lab Sample ID: 400-228137-2

No Detections.

Client Sample ID: MW-1 Lab Sample ID: 400-228137-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzene	240		5.0		ug/L	5		8260C	Total/NA
Toluene	22		5.0		ug/L	5		8260C	Total/NA
Ethylbenzene	260		5.0		ug/L	5		8260C	Total/NA
Xylenes, Total	1100		50		ug/L	5		8260C	Total/NA

Client Sample ID: MW-2 Lab Sample ID: 400-228137-4

No Detections.

Client Sample ID: MW-3 Lab Sample ID: 400-228137-5

No Detections.

Client Sample ID: MW-4 Lab Sample ID: 400-228137-6

No Detections.

Client Sample ID: MW-6 Lab Sample ID: 400-228137-7

No Detections.

Client Sample ID: MW-9 Lab Sample ID: 400-228137-8

No Detections.

Client Sample ID: MW-10 Lab Sample ID: 400-228137-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
5030C	Purge and Trap	SW846	EET PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228137-1	TB-01	Water	10/30/22 07:00	11/01/22 09:09
400-228137-2	DUP-01	Water	10/30/22 10:28	11/01/22 09:09
400-228137-3	MW-1	Water	10/30/22 09:40	11/01/22 09:09
400-228137-4	MW-2	Water	10/30/22 09:28	11/01/22 09:09
400-228137-5	MW-3	Water	10/30/22 09:50	11/01/22 09:09
400-228137-6	MW-4	Water	10/30/22 09:56	11/01/22 09:09
400-228137-7	MW-6	Water	10/30/22 10:02	11/01/22 09:09
400-228137-8	MW-9	Water	10/30/22 10:11	11/01/22 09:09
400-228137-9	MW-10	Water	10/30/22 10:08	11/01/22 09:09

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: TB-01

Date Collected: 10/30/22 07:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/04/22 21:30	1
Toluene	<1.0		1.0		ug/L			11/04/22 21:30	1
Ethylbenzene	<1.0		1.0		ug/L			11/04/22 21:30	1
Xylenes, Total	<10		10		ug/L			11/04/22 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/04/22 21:30*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*11/04/22 21:30*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/04/22 21:30*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: DUP-01
Date Collected: 10/30/22 10:28
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/04/22 23:10	1
Toluene	<1.0		1.0		ug/L			11/04/22 23:10	1
Ethylbenzene	<1.0		1.0		ug/L			11/04/22 23:10	1
Xylenes, Total	<10		10		ug/L			11/04/22 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/04/22 23:10*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*11/04/22 23:10*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/04/22 23:10*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-1

Date Collected: 10/30/22 09:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**240**		5.0		ug/L			11/06/22 11:45	5
Toluene	**22**		5.0		ug/L			11/06/22 11:45	5
Ethylbenzene	**260**		5.0		ug/L			11/06/22 11:45	5
Xylenes, Total	**1100**		50		ug/L			11/06/22 11:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/06/22 11:45*	*5*
Dibromofluoromethane	*100*		*75 - 126*		*11/06/22 11:45*	*5*
Toluene-d8 (Surr)	*105*		*64 - 132*		*11/06/22 11:45*	*5*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-2

Date Collected: 10/30/22 09:28
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/04/22 23:35	1
Toluene	<1.0		1.0		ug/L			11/04/22 23:35	1
Ethylbenzene	<1.0		1.0		ug/L			11/04/22 23:35	1
Xylenes, Total	<10		10		ug/L			11/04/22 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/04/22 23:35*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*11/04/22 23:35*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*11/04/22 23:35*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-3
Date Collected: 10/30/22 09:50
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-5
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/05/22 00:00	1
Toluene	<1.0		1.0		ug/L			11/05/22 00:00	1
Ethylbenzene	<1.0		1.0		ug/L			11/05/22 00:00	1
Xylenes, Total	<10		10		ug/L			11/05/22 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/05/22 00:00*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*11/05/22 00:00*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*11/05/22 00:00*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-4

Date Collected: 10/30/22 09:56
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-6

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/05/22 00:25	1
Toluene	<1.0		1.0		ug/L			11/05/22 00:25	1
Ethylbenzene	<1.0		1.0		ug/L			11/05/22 00:25	1
Xylenes, Total	<10		10		ug/L			11/05/22 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/05/22 00:25*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*11/05/22 00:25*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/05/22 00:25*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-6

Date Collected: 10/30/22 10:02
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-7

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/05/22 00:50	1
Toluene	<1.0		1.0		ug/L			11/05/22 00:50	1
Ethylbenzene	<1.0		1.0		ug/L			11/05/22 00:50	1
Xylenes, Total	<10		10		ug/L			11/05/22 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/05/22 00:50*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*11/05/22 00:50*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/05/22 00:50*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-9

Date Collected: 10/30/22 10:11
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-8

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/05/22 01:15	1
Toluene	<1.0		1.0		ug/L			11/05/22 01:15	1
Ethylbenzene	<1.0		1.0		ug/L			11/05/22 01:15	1
Xylenes, Total	<10		10		ug/L			11/05/22 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 119*		*11/05/22 01:15*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*11/05/22 01:15*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*11/05/22 01:15*	*1*

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-10

Date Collected: 10/30/22 10:08
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-9

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/05/22 01:40	1
Toluene	<1.0		1.0		ug/L			11/05/22 01:40	1
Ethylbenzene	<1.0		1.0		ug/L			11/05/22 01:40	1
Xylenes, Total	<10		10		ug/L			11/05/22 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*11/05/22 01:40*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*11/05/22 01:40*	*1*
Toluene-d8 (Surr)	*109*		*64 - 132*		*11/05/22 01:40*	*1*

Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: TB-01
Date Collected: 10/30/22 07:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/04/22 21:30	WPD	EET PEN
	Instrument ID: Argo									

Client Sample ID: DUP-01
Date Collected: 10/30/22 10:28
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/04/22 23:10	WPD	EET PEN
	Instrument ID: Argo									

Client Sample ID: MW-1
Date Collected: 10/30/22 09:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	599420	11/06/22 11:45	WPD	EET PEN
	Instrument ID: CH_CONAN									

Client Sample ID: MW-2
Date Collected: 10/30/22 09:28
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/04/22 23:35	WPD	EET PEN
	Instrument ID: Argo									

Client Sample ID: MW-3
Date Collected: 10/30/22 09:50
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/05/22 00:00	WPD	EET PEN
	Instrument ID: Argo									

Client Sample ID: MW-4
Date Collected: 10/30/22 09:56
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/05/22 00:25	WPD	EET PEN
	Instrument ID: Argo									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Client Sample ID: MW-6
Date Collected: 10/30/22 10:02
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/05/22 00:50	WPD	EET PEN
	Instrument ID: Argo									

Client Sample ID: MW-9
Date Collected: 10/30/22 10:11
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/05/22 01:15	WPD	EET PEN
	Instrument ID: Argo									

Client Sample ID: MW-10
Date Collected: 10/30/22 10:08
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228137-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	599216	11/05/22 01:40	WPD	EET PEN
	Instrument ID: Argo									

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

GC/MS VOA

Analysis Batch: 599216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228137-1	TB-01	Total/NA	Water	8260C	
400-228137-2	DUP-01	Total/NA	Water	8260C	
400-228137-4	MW-2	Total/NA	Water	8260C	
400-228137-5	MW-3	Total/NA	Water	8260C	
400-228137-6	MW-4	Total/NA	Water	8260C	
400-228137-7	MW-6	Total/NA	Water	8260C	
400-228137-8	MW-9	Total/NA	Water	8260C	
400-228137-9	MW-10	Total/NA	Water	8260C	
MB 400-599216/4	Method Blank	Total/NA	Water	8260C	
LCS 400-599216/1002	Lab Control Sample	Total/NA	Water	8260C	
400-227944-A-1 MS	Matrix Spike	Total/NA	Water	8260C	
400-227944-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 599420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228137-3	MW-1	Total/NA	Water	8260C	
MB 400-599420/5	Method Blank	Total/NA	Water	8260C	
LCS 400-599420/1003	Lab Control Sample	Total/NA	Water	8260C	
400-227894-A-7 MS	Matrix Spike	Total/NA	Water	8260C	
400-227894-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-599216/4
Matrix: Water
Analysis Batch: 599216

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/04/22 18:10	1
Toluene	<1.0		1.0		ug/L			11/04/22 18:10	1
Ethylbenzene	<1.0		1.0		ug/L			11/04/22 18:10	1
Xylenes, Total	<10		10		ug/L			11/04/22 18:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/04/22 18:10*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*11/04/22 18:10*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/04/22 18:10*	*1*

Lab Sample ID: LCS 400-599216/1002
Matrix: Water
Analysis Batch: 599216

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			50.0	51.6		ug/L		103	70 - 130		
Toluene			50.0	48.8		ug/L		98	70 - 130		
Ethylbenzene			50.0	52.1		ug/L		104	70 - 130		
Xylenes, Total			100	97.5		ug/L		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*72 - 119*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*93*		*64 - 132*

Lab Sample ID: 400-227944-A-1 MS
Matrix: Water
Analysis Batch: 599216

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<1.0		50.0	48.3		ug/L		97	56 - 142		
Toluene	<1.0		50.0	43.7		ug/L		87	65 - 130		
Ethylbenzene	<1.0		50.0	42.5		ug/L		85	58 - 131		
Xylenes, Total	<10		100	79.4		ug/L		79	59 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*72 - 119*
Dibromofluoromethane	*91*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-227944-A-1 MSD
Matrix: Water
Analysis Batch: 599216

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<1.0		50.0	48.5		ug/L		97	56 - 142	0	30
Toluene	<1.0		50.0	46.0		ug/L		92	65 - 130	5	30
Ethylbenzene	<1.0		50.0	45.2		ug/L		90	58 - 131	6	30

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-227944-A-1 MSD
Matrix: Water
Analysis Batch: 599216

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Xylenes, Total	<10		100	84.7		ug/L		85	59 - 130	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*72 - 119*
Dibromofluoromethane	*91*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: MB 400-599420/5
Matrix: Water
Analysis Batch: 599420

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0		ug/L			11/06/22 08:25	1
Toluene	<1.0		1.0		ug/L			11/06/22 08:25	1
Ethylbenzene	<1.0		1.0		ug/L			11/06/22 08:25	1
Xylenes, Total	<10		10		ug/L			11/06/22 08:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/06/22 08:25*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*11/06/22 08:25*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/06/22 08:25*	*1*

Lab Sample ID: LCS 400-599420/1003
Matrix: Water
Analysis Batch: 599420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			50.0	45.5		ug/L		91	70 - 130		
Toluene			50.0	46.9		ug/L		94	70 - 130		
Ethylbenzene			50.0	47.5		ug/L		95	70 - 130		
Xylenes, Total			100	93.2		ug/L		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: 400-227894-A-7 MS
Matrix: Water
Analysis Batch: 599420

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<1.0		50.0	43.2		ug/L		86	56 - 142		
Toluene	<1.0		50.0	41.2		ug/L		82	65 - 130		
Ethylbenzene	<1.0		50.0	41.9		ug/L		84	58 - 131		
Xylenes, Total	<10		100	81.5		ug/L		81	59 - 130		

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: Lat L 40.00

Job ID: 400-228137-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-227894-A-7 MS
Matrix: Water
Analysis Batch: 599420

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	95		72 - 119
Dibromofluoromethane	96		75 - 126
Toluene-d8 (Surr)	95		64 - 132

Lab Sample ID: 400-227894-A-7 MSD
Matrix: Water
Analysis Batch: 599420

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<1.0		50.0	46.9		ug/L		94	56 - 142	8	30
Toluene	<1.0		50.0	46.1		ug/L		92	65 - 130	11	30
Ethylbenzene	<1.0		50.0	47.5		ug/L		95	58 - 131	13	30
Xylenes, Total	<10		100	91.9		ug/L		92	59 - 130	12	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	97		72 - 119
Dibromofluoromethane	99		75 - 126
Toluene-d8 (Surr)	99		64 - 132

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins

Client Information	Sampler: SLC	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-114521-37679.1
Client Contact: Steve Varsa	Phone: 913 980 0281	E-Mail: Cheyenne.Whitmire@et.eurofinsus.com	State of Origin: NM	Page: Page 1 of 1
Company: Stantec Consulting Services Inc	PWSID:			Job #:
Address: 11311 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days): STD			
State, Zip: IA, 50322-7904	Compliance Project: Δ Yes Δ No			
Phone:	PO #: WD1040027			
Email: steve.varsa@stantec.com	WO #: ERG-STN-10-07-22-SAH-11			
Project Name: Lat L 40.00 SemiAnnual	Project #: 40005479			
Site: Lat L 40	SSOW#:			

Analysis Requested

400-228137 COC

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

STN - 11

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - BTEX 8260	8260C - BTEX 8260 (unpreserved)	8260C - BTEX - 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	A		
TB-01	10/30/22	0700	G	Water			X		2	2	Trip Blank
DUP-01	10/30/22	1026	G	Water				3		3	
MW-1	10/30/22	0940	G	Water				3		3	
MW-2	10/30/22	0928	G	Water				3		3	
MW-3	10/30/22	0950	G	Water				3		3	
MW-4	10/30/22	0956	G	Water				3		3	
MW-6	10/30/22	1002	G	Water					3	3	
MW-9	10/30/22	1011	G	Water				3		3	
MW-10	10/30/22	1008	G	Water				3		3	
				Water							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/31/22 1100	ST		11-1-22 709	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.4°C IR8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc Job Number: 400-228137-1

Login Number: 228137 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc Job ID: 400-228137-1
Project/Site: Lat L 40.00

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 202113

CONDITIONS

Operator:	OGRID:
El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	7046
	Action Number: 202113
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2022 Annual Groundwater Report: Content satisfactory 1. Proceed with Planned Future Activities as stated in this report. 2. Submit next annual groundwater monitoring report no later than April 1, 2024.	5/22/2023