June 23,

2022

1RP-389
2022 Semi-Annual (January-June) Groundwater Monitoring Report
Apache Corporation, State C Tract 13
Lea County, New Mexico

Prepared for:

Apache

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1.0 EXECUTIVE SUMMARY

Larson & Associates, Inc. (LAI) has prepared this report on behalf of the Apache Corporation (Apache) for submittal to the New Mexico Oil Conservation Division (NMOCD) District I in Hobbs and Santa Fe, New Mexico. This report presents 2022 semi-annual (January-June) groundwater monitoring results for the State C Tract 13 (Site) located in Section 36, Range 37 East, Township 21 South, in Lea County, New Mexico. The geodetic position is North 32.43830° and West -103.12155°.

The following activities occurred on March 3, 2022, and May 26, 2022:

- Gauge six (6) monitoring wells (MW-1 through MW-6) and a recovery well (RW-1) for depth to groundwater.
- Purged and sample groundwater from six (6) monitoring wells (MW-1 through MW-6) and a recovery well (RW-1).
- Analyzed groundwater samples BTEX, nitrate, chloride, and total dissolved solids (TDS).

The following observations are documented in this report for March 3, 2022:

- Depth to groundwater ranged from 39.11 (MW-5) to 40.87 (MW-1) feet bgs.
- The groundwater elevation ranged between 3,320.24 feet above mean sea level (MSL) at MW-2 (upgradient) to 3,319.39 feet above MSL at MW-6 (downgradient).
- Groundwater flows northeast towards MW-1, east towards MW-3 and RW-1, and southeast towards MW-4 through MW-6 at gradients between 0.0004 feet per foot (ft/ft) and 0.0017 ft/ft.
- BTEX concentrations were reported below the analytical method reporting limit (RL) and NMWQCC human health standards in all groundwater samples collected on March 3, 2022.
- Nitrate concentrations were reported below the NMWQCC human health standard of 10 mg/L in all groundwater samples collected on March 3, 2022.
- Chloride concentrations were reported above the NMWQCC domestic water quality standard (250 mg/L) in MW-1 (426 mg/L), MW-2 (3,540 mg/L), MW-3 (6,100 mg/L), MW-4 (472 mg/L), and RW-1 (931 mg/L).
- TDS concentrations were reported above the NMWQCC domestic water quality standard (1,000 mg/L) in MW-1 (1,290 mg/L), MW-2 (6,140 mg/L), MW-3 (10,100 mg/L), MW-4 (1,510 mg/L), MW-5 (1,020 mg/L), MW-6 (1,050 mg/L), RW-1 (1,970 mg/L).
- No significant changes in depth to groundwater, groundwater flow conditions and analyte concentrations were observed during the first 2022 quarterly monitoring event on March 3, 2022.

The following observations are documented in this report for May 26, 2022:

- Depth to groundwater ranged from 39.15 feet bgs (MW-5) to 40.87 feet bgs (MW-1).
- Groundwater elevation ranged between 3,320.24 feet above MSL at MW-2 (upgradient) to 3,319.35 feet above MSL at MW-6 (downgradient).
- Groundwater flows northeast towards MW-1, east towards MW-3 and RW-1, and southeast towards MW-4 through MW-6 at gradients between 0.0003 feet per foot (ft/ft) and 0.0017 ft/ft.
- BTEX concentrations were reported below analytical method RL and NMWQCC human health standards in all groundwater samples collected on May 26, 2022.

- Nitrate concentrations were reported below the NMWQCC human health standard of 10 mg/L in all groundwater samples collected on May 26, 2022.
- Chloride concentrations were reported above the NMWQCC domestic water quality standard (250 mg/L) in groundwater samples from MW-1 (403 mg/L), MW-2 (3,520 mg/L), MW-3 (6,830 mg/L), MW-4 (510 mg/L), and RW-1 (931 mg/L) May 26, 2022.
- TDS concentrations were reported above the NMWQCC domestic water quality standard (1,000 mg/L) in groundwater samples from monitoring wells MW-1 (1,370 mg/L), MW-2 (7,850 mg/L), MW-3 (11,900 mg/L), MW-4 (1,510 mg/L), and RW-1 (2,020 mg/L) May 26, 2022.
- No significant changes in depth to groundwater, groundwater flow conditions and analyte concentrations were observed during the second 2022 quarterly monitoring event on May 26, 2022.
-

Apache will continue to notify NMOCD at seven (7) working in days in advance of each quarterly groundwater monitoring event and immediately for any significant changes in analyte concentrations in groundwater samples.

2.0 INTRODUCTION

Larson & Associates, Inc. (LAI) has prepared this report on behalf of the Apache Corporation (Apache) to be submitted to the New Mexico Oil Conservation Division (NMOCD) District I in Hobbs and Santa Fe, New Mexico. This report presents 2022 semiannual (January-June) groundwater monitoring results for the State C Tract 13 (Site) located in Section 36, Range 37 East, Township 21 South, in Lea County, New Mexico. The geodetic position is North 32.43830° and West -103.12155°. The Site is the former location of an unlined disposal pit located approximately 215 feet south from the State C Tract 13 tank battery. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

2.1 Background

Between November 19, 2002, and September 10, 2004, Eco Drilling Services, under supervision from Safety & Environmental Solutions, Inc. (SESI), drilled and installed six (6) monitoring wells (MW-1 through MW-6) at the Site. The wells were drilled to 72.21 feet below ground surface (bgs) at MW-1, 57.47 feet bgs (MW-2), 54.71 feet bgs (MW-3), and 55.00 feet bgs (MW-4, MW-5, and MW-6). The wells were completed with 2-inch schedule 40 PVC casing and 0.020-inch slotted screen. Depth to groundwater was gauged between 43.52 feet bgs at MW-4 and 46.33 feet bgs at MW-1. SESI personnel collected groundwater samples from the wells which were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), cations (sodium, calcium, magnesium, and potassium), anions (chloride, sulfate, carbonate, calcium carbonate) and total dissolved solids (TDS). SESI documented the investigation and remediation in the report titled, "*Apache Corporation State C. Tract 13 Site Investigation, Section 36, Township 21S, Range 37E, Lea County, New Mexico, March 10, 2003".*

On July 21, 2021, Scarborough Drilling Inc. (SDI), under LAI supervision, installed a recovery well (RW-1) southeast (downgradient) from the pit excavation where SESI excavated approximately 1,104 cubic yards of soil to a depth of about fourteen feet bgs. A 40-mil thickness liner was placed in the bottom of the excavation and covered with soil to ground surface. The recovery/test well was drilled to approximately 69.25 feet bgs and completed with five (5) inch non-threaded schedule 40 PVC casing and about 29.55 feet of 0.02-inch factory slotted screen. The screen was positioned above and below the groundwater level observed during drilling. Graded silica sand was placed around the screen to about two (2) feet above the screen. The remaining annulus above the screen was filled to about 1-foot bgs with bentonite chips and hydrated with potable water. Depth to groundwater was gauged at about 40.09 feet bgs. West Companies, Midland, Texas, a State of New Mexico Licensed Profession Land Surveyor (LPS Number 23263) surveyed the monitoring and recovery wells for geodetic position, and ground and top of casing (TOC) elevation. Table 1 presents the monitoring and recovery well completion details. Figure 2 presents an aerial map showing the monitoring and recovery well locations.

3.0 GROUNDWATER MONITORING

3.1 Depth to Groundwater and Groundwater Potentiometric Surface Elevation

On March 3, 2022, LAI personnel gauged depth to groundwater in monitoring wells MW-1 through MW-6 and recovery well RW-1. Groundwater was measured at 40.87 (MW-1), 39.93 (MW-2), 40.16 (MW-3),

39.70 (MW-4), 39.11 (MW-5), 40.23 (MW-6), and 39.75 (RW-1) feet bgs. The groundwater potentiometric surface elevation ranged from 3,320.27 at MW-2 (upgradient) to 3,319.39 at MW-6 (downgradient).. An apparent groundwater divide occurs in the area of monitoring well MW-2 that causes groundwater to flow northeast towards MW-1, east towards MW-3 and RW-1, and southeast towards MW-4 through MW-6 at gradients between 0.0004 ft/ft and 0.0017 ft/ft. Table 1 presents the groundwater gauging summary. Figure 3a presents the groundwater potentiometric map for March 3, 2022.

On May 26, 2022, LAI personnel gauged depth to groundwater in monitoring wells MW-1 through MW-6 and recovery well RW-1. Groundwater was measured at 40.87 (MW-1), 39.96 (MW-2), 40.16 (MW-3), 39.75 (MW-4), 39.15 (MW-5), 42.27 (MW-6), and 39.75 (RW-1) feet bgs. The groundwater potentiometric surface elevation ranged between 3,320.09 feet above MSL at MW-2 (upgradient) and 3,319.36 feet above MSL at MW-6 (downgradient). An apparent groundwater divide occurs in the area of monitoring well MW-2 that causes groundwater to flow northeast towards MW-1, east towards MW-3 and RW-1, and southeast towards MW-4 through MW-6 at gradients between 0.0003 ft/ft and 0.0017 ft/ft. Table 1 presents the groundwater gauging summary. Figure 3b presents the groundwater potentiometric map for May 26, 2022.

No significant changes were observed in groundwater depths, potentiometric surface elevations, groundwater flow directions, or groundwater gradients between March 3, 2022, and May 26, 2022.

3.2 Groundwater Samples and Analysis

On March 3, 2022, and May 26, 2022, LAI personnel collected groundwater samples from monitoring wells MW-1 through MW-2 and recovery well RW-1. Notification of the groundwater sampling events was submitted to the NMOCD. During both groundwater monitoring events, groundwater samples from MW-1 and RW-1, were collected using the low stress or low flow method following EPA protocol (EQASOP-GW4, Revision 4, September 19, 2017) where an environmental pump is submerged near the middle of the water column and the well is pumped at a low flow rate until environmental parameters stabilize. The samples were collected from discharge through dedicated disposable Tygon tubing. The tubing was discarded after each use and the pump was thoroughly cleaned with a solution of potable water and laboratory grade detergent (Alconox®) and rinsed with distilled water. Groundwater samples from MW-2 through MW-6 were collected using dedicated disposable polyethylene bailers during both groundwater monitoring events.

The groundwater samples were transferred to labeled laboratory containers, packed in an ice chest filled with ice, and delivered under chain of custody to Eurofins-Xenco Laboratories (Xenco), a National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory, located in Midland, Texas. A duplicate sample was collected from MW-1 on March 3, 2022, and from RW-1 on May 26, 2021, for laboratory quality assurance and quality control (QA/QC). Xenco analyzed the samples for BTEX by EPA SW-846 Method SW-8021D, chloride and nitrate by EPA Method 300, and TDS by Method SM 2540C. Table 3 presents the laboratory analytical summary. Appendix A presents the NMOCD communications. Appendix B presents the laboratory reports.

3.2.1 Organic Analysis

Xenco reported BTEX concentrations below the laboratory analytical reporting limit (RL) and New Mexico Water Quality Control Commission (NMWQCC) human health standards in groundwater samples collected from monitoring wells MW-1 through MW-6 and recovery well RW-1 on March 3, 2022, and May 26, 2022.

3.2.2 Inorganic Analysis

Chloride concentrations in groundwater samples collected on March 3, 2022, were 426 mg/L (MW-1), 3,540 mg/L(MW-2), 6,100 mg/L (MW-3), 472 mg/L (MW-4), and 979 mg/L (RW-1) and exceeded the NMWQCC domestic water quality control standard (250 mg/L). Chloride concentrations in groundwater samples collected from MW-5 (100 mg/L) and MW-6 (117mg/L) were below the NMWQCC domestic water quality control standard.

Chloride concentrations in groundwater samples collected on May 26, 2022, were 403 mg/L (MW-1), 3,520 mg/L (MW-2), 6,830 mg/L, (MW-3), 510 mg/L (MW-4) and 931 mg/L (RW-1) and exceeded the NMWQCC domestic water quality standard (250 mg/L). Chloride concentrations in groundwater samples collected from MW-5 (101 mg/L) and MW-6 (105 mg/L) remained below the NMWQCC domestic water quality standard for chloride. Chloride concentrations in samples collected on May 26, 2022, are consistent with chloride concentrations observed in samples collected on March 3, 2022. Figure 4a presents the chloride concentration map on March 3, 2022. Figure 4b presents the chloride concentration map on May 26, 2022.

TDS concentrations in groundwater samples collected on March 3, 2022, were 1,290 mg/L (MW-1), 6,140 mg/L (MW-2), 10,100 mg/L (MW-3), 1,340 mg/L (MW-4), 1,020 mg/L (MW-5), 1,050 mg/L (MW-6), and 1,970 mg/L (RW-1) and were above the NMWQCC water quality standard for TDS (1,000 mg/L). TDS concentrations in groundwater samples collected on May 26, 2022, were 1,370 mg/L(MW-1), 7,850 mg/L (MW-2), 11,900 mg/L (MW-3), 1,510 mg/L (MW-4), and 2,020 m/L (RW-1). TDS concentrations decreased slightly in samples from MW-5 (968 mg/L) and MW-6 (967 mg/L), on March 3, 2022, and were below the NMWQCC domestic water quality standard in monitoring wells. No significant changes in TDS concentrations were observed in samples collected from MW-1 through MW-4 and RW-1. Figure 5a presents the TDS concentration map on March 3, 2022. Figure 5b presents the TDS concentration map on May 26, 2022.

Xenco reported nitrate concentrations below the NMWQCC human health standard of 10 mg/L in all groundwater samples collected on March 3, 2022, and May 26, 2022.

4.0 CONCLUSIONS

The following observations are made in this report:

- No significant changes were observed in potentiometric surface elevation, flow direction, or gradient between March 3, 2022, and May 26, 2022.

- BTEX compounds were reported below the analytical method RL and NMWQCC human health standards in samples collected from MW-1 through MW-6 and RW-1 on March 3, 2022, and May 26, 2022.
- Chloride concentrations were reported above NMWQCC domestic water quality standard (250 mg/L) in groundwater samples collected from MW-1 through MW-4 and RW-1 on March 3, 2022, and May 26, 2022.
- Chloride concentrations were reported below the NMWQCC domestic water quality standard for chloride in monitoring wells MW-5 and MW-6 on March 3, 2022, and May 26, 2022.
- TDS concentrations on in all groundwater samples collected on March 3, 2022, were above NMWQCC domestic water quality control standard for TDS (1,000 mg/L).
- TDS concentrations in samples collected from MW-5 and MW-5 on May 26, 2022, decreased slightly and were below the NMWQCC domestic water quality standard for TDS.
- Nitrate concentrations were below analytical RL and NMWQCC human health standards on March 3, 2022, and May 26, 2022.

Apache will continue quarterly monitoring of groundwater in wells MW-1 through MW-6 and RW-1 during 2022 with laboratory analysis of groundwater samples for BTEX, chloride, nitrate, and TDS. Apache will provide the NMOCD with a semiannual and annual groundwater monitoring report.

Notice will be provided to NMOCD in Hobbs and Santa Fe, New Mexico at least 7 working days prior to each groundwater monitoring event. The NMOCD will be notified immediately upon receipt of laboratory analysis with significant increase of analyte concentrations.

Tables

Table 1
1RP-389
Groundwater Gauging Table
Apache State C Tract 13
Lea County, New Mexico

Well Information						Groundwater Data			
Boring ID	Well Depth (Feet TOC)	Well Diameter (Inches)	Surface Elevation (Feet AMSL)	TOC Elevation (Feet AMSL)	Casing Stickup (Feet)	Date Gauged	Depth to Water (Feet TOC)	Depth to Water (Feet BGS)	Groundwater Elevation (Feet AMSL)
MW-1	72.45	2	3,363.03	3,365.00	2.50	06/05/2019	43.52	41.02	3,321.48
						07/21/2020	43.60	41.10	3,321.40
						07/30/2021	43.70	41.20	3,321.30
						08/10/2021	43.66	41.16	3,321.34
						08/11/2021	43.69	41.19	3,321.31
						03/03/2022	43.37	40.87	3,321.63
						05/06/2022	43.37	40.87	3,321.63
MW-2	45.78	2	3,361.86	3,364.58	2.60	06/5/2019	42.71	40.11	3,321.87
						07/21/2020	42.70	40.10	3,321.88
						07/30/2021	DRY	--	--
						08/10/2021	DRY	--	--
						08/11/2021	DRY	--	--
						03/03/2022	42.53	39.93	3,322.05
						05/26/2022	42.56	39.96	3,322.02
MW-3	45.74	2	3,361.86	3,364.72	2.75	06/05/2019	43.00	40.25	3,321.72
						07/21/2020	43.00	40.25	3,321.72
						07/30/2021	DRY	--	--
						08/10/2021	DRY	--	--
						08/11/2021	DRY	--	--
						03/03/2022	42.91	40.16	3,321.81
						05/26/2022	42.91	40.16	3,321.81
MW-4	46.42	2	3,361.49	3,364.00	2.62	06/05/2019	42.41	39.79	3,321.59
						07/21/2020	42.10	39.48	3,321.90
						07/30/2021	DRY	--	--

Table 1
1RP-389
Groundwater Gauging Table
Apache State C Tract 13
Lea County, New Mexico

Well Information						Groundwater Data			
Boring ID	Well Depth (Feet TOC)	Well Diameter (Inches)	Surface Elevation (Feet AMSL)	TOC Elevation (Feet AMSL)	Casing Stickup (Feet)	Date Gauged	Depth to Water (Feet TOC)	Depth to Water (Feet BGS)	Groundwater Elevation (Feet AMSL)
						08/10/2021	DRY	--	--
						08/11/2021	DRY	--	--
						03/03/2022	42.32	39.70	3,321.68
						05/26/2022	42.37	39.75	3,321.63
MW-5	46.19	2	3,361.73	3,364.77	3.85	06/05/2019	42.98	39.13	3,321.79
						07/20/2020	43.00	39.15	3,321.77
						07/30/2021	43.25	39.40	3,321.52
						08/10/2021	43.20	39.35	3,321.57
						08/11/2021	43.21	39.36	3,321.56
						03/03/2022	42.96	39.11	3,321.81
						05/26/2022	43.00	39.15	3,321.77
MW-6	46.91	2	3,361.42	3,364.32	2.62	06/05/2019	42.88	40.26	3,321.44
						07/20/2020	42.95	40.33	3,321.37
						07/30/2021	43.12	40.50	3,321.20
						08/10/2021	43.06	40.44	3,321.26
						08/11/2021	43.08	40.46	3,321.24
						03/03/2022	42.85	40.23	3,321.47
						05/26/2022	42.89	40.27	3,321.43
RW-1	65.67	8.5	3,361.66	3,364.60	3.00	08/10/2021	43.00	40.00	3,321.60
						08/11/2021	43.09	40.09	3,321.51
						08/19/2021	43.08	40.08	3,321.52
						03/03/2022	42.75	39.75	3,321.85
						05/26/2022	42.75	39.75	3,321.85

Table 1
1RP-389
Groundwater Gauging Table
Apache State C Tract 13
Lea County, New Mexico

Well Information						Groundwater Data			
Boring ID	**Well Depth** (Feet TOC)	**Well Diameter** (Inches)	**Surface Elevation** (Feet AMSL)	**TOC Elevation** (Feet AMSL)	**Casing Stickup** (Feet)	**Date Gauged**	**Depth to Water** (Feet TOC)	**Depth to Water** (Feet BGS)	**Groundwater Elevation** (Feet AMSL)

Notes:
TOC: top of casing
AMSL: above mean sea level

Table 2
1RP-389
Groundwater Analytical Data Summary
Apache Corp, State C Tract #13
Lea County, New Mexico
19-0112-38

Sample	Collection Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)
RRAL		**0.005**	**0.7**	**1**	**0.62**	**10**	**600**	**250**	**1,000**
MW-1	06/05/2019 [1]	<0.00100	<0.00100	<0.00100	<0.003	1.41	--	**540**	--
	07/30/2021 [2]	--	--	--	--	--	242	**352**	**1,200**
	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	3.28	--	**426**	**1,290**
	05/26/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	**403**	**1,370**
MW-2	06/05/2019 [1]	<0.00100	<0.00100	<0.00100	<0.003	0.314	--	**5,330**	--
	07/30/2021 [2]	--	--	--	--	--	DRY	DRY	DRY
	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<5.00	--	**3,540**	**6,140**
	05/26/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	**3,520**	**7,850**
MW-3	06/05/2019 [1]	<0.00100	<0.00100	<0.00100	<0.003	0.0890	--	**4,330**	--
	07/30/2021 [2]	--	--	--	--	--	DRY	DRY	DRY
	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<5.00	--	**6,100**	**10,100**
	05/26/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	**6,830**	**11,900**
MW-4	06/05/2019 [1]	<0.00100	<0.00100	<0.00100	<0.003	0.3030	--	**776**	--
	07/30/2021 [2]	--	--	--	--	--	DRY	DRY	DRY
	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	3.03	--	**472**	**1,340**
	05/26/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	**510**	**1,510**
MW-5	06/05/2019 [1]	<0.00100	<0.00100	<0.00100	<0.003	<0.0800	--	67.5	--
	07/30/2021 [2]	--	--	--	--	-	419	144	**1,340**
	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<1.00	--	100	**1,020**
	05/26/2022 [2]	<0.00400	<0.00400	<0.00400	<0.00800	<0.100	--	101	968
MW-6	06/05/2019 [1]	<0.00100	<0.00100	<0.00100	<0.003	1.42	--	**274**	--

Table 2
1RP-389
Groundwater Analytical Data Summary
Apache Corp, State C Tract #13
Lea County, New Mexico
19-0112-38

Sample	Collection Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)
RRAL		**0.005**	**0.7**	**1**	**0.62**	**10**	**600**	**250**	**1,000**
	07/30/2021 [2]	--	--	--	--	--	438	126	**2,330**
	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	1.66	--	117	**1,050**
	05/26/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	105	967
RW-1	03/03/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	6.19	--	**979**	**1,970**
	05/26/2022 [2]	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	**931**	**2,020**
QA/QC									
DUP-1 (MW-1)	06/05/2019 [1]	--				--	--	--	--
DUP-1 (MW-1)	07/30/2021	--				--	224	**325**	**1190**
DUP-1 (MW-1)	03/03/2022	<0.00200	<0.00200	<0.00200	<0.00400	2.78	--	**407**	**1330**
DUP-1 (RW-1)	05/26/2022	<0.00200	<0.00200	<0.00200	<0.00400	<0.100	--	**966**	**2,040**

Notes:

[1]: analysis performed by Permian Basin Environmental Lab, Midland, Texas by EPA SW-846 Method 6020B (BTEX) and Method 300

[2]: analysis performed by Eurofins Xenco Laboratories, Midland, Texas by EPA SW-846 Method 6020B (BTEX) and Method 300

<: concentration below analytical reporting limit

--: no data availible

Values reported in milligrams per liter (mg/L)

Exceeds New Mexico Water Domestic Water Quality Standard

Figures

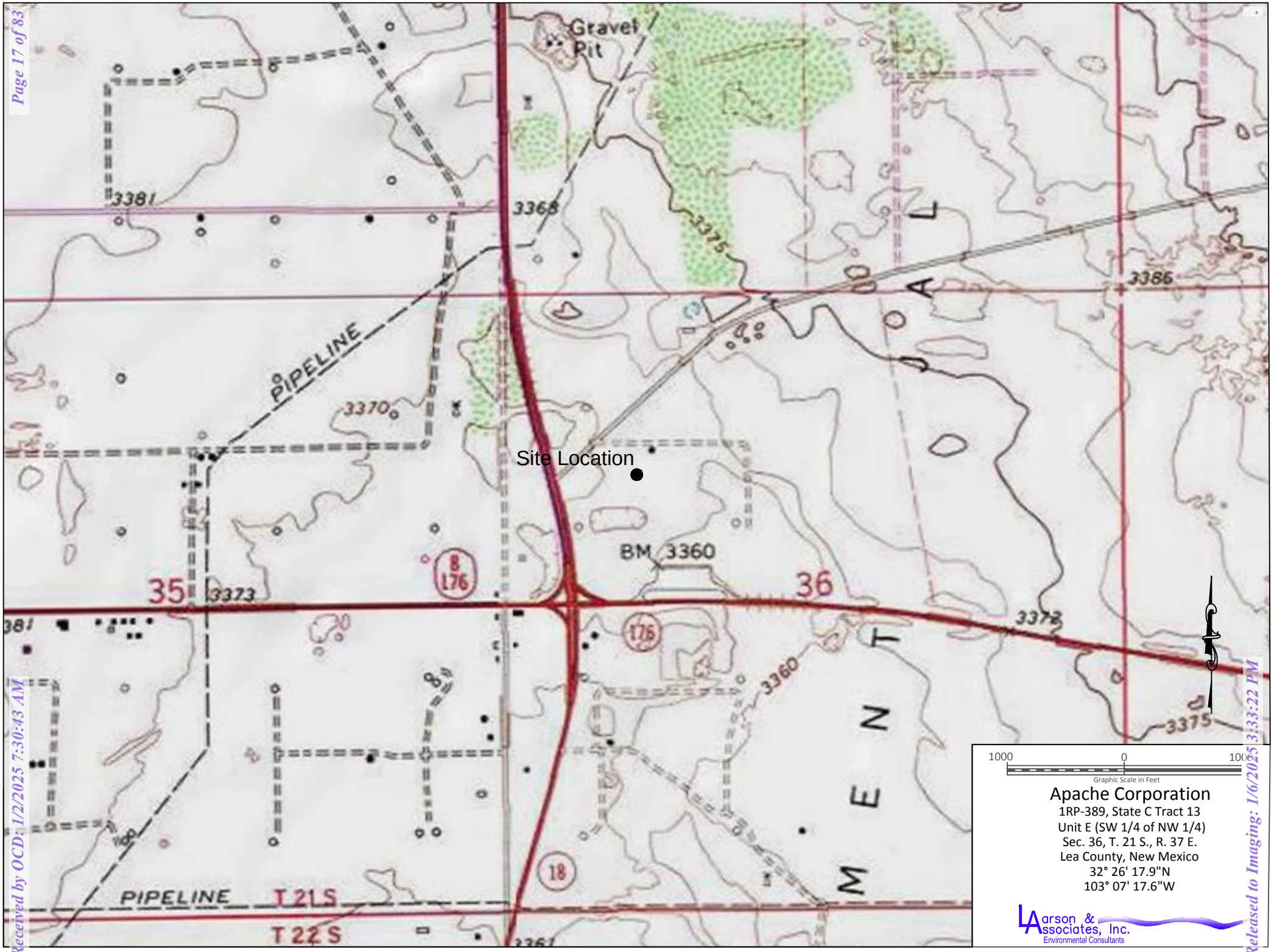
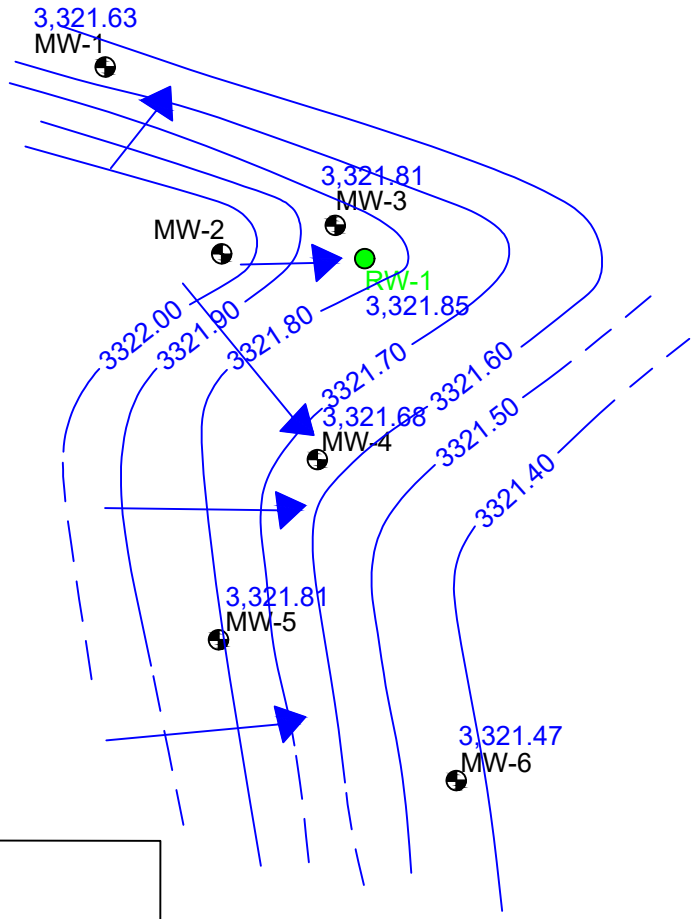


Figure 1 - Topographic Map

Figure 2 - Aerial Map Showing Monitoring Wells and Recovery Well



Legend

- 3,321.68 MW-4 - Monitoring Well Location and Groundwater Potentiometeric Surface Elevation on March 3, 2022
- 3,321.85 RW-1 - Recovery Well Location and Groundwater Potentiometeric Surface Elevation on March 3, 2022
- 3322.00 - Contour of Groundwater Potentiometric Water Elevation, Feet AMSL, March 3, 2022
- Groundwater Flow Direction

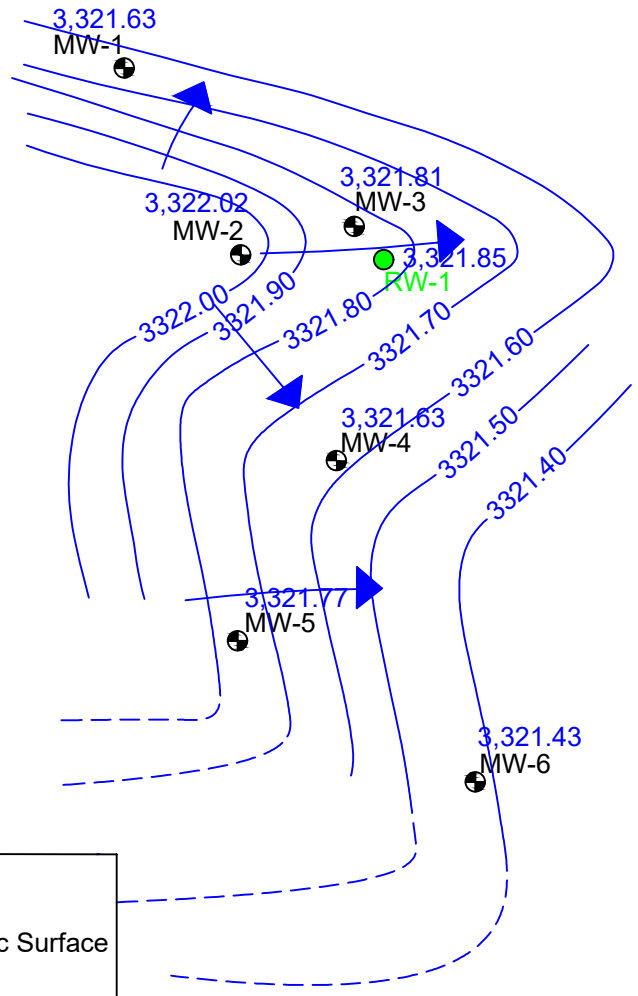
100 0 100
Graphic Scale in Feet

Apache Corporation
1RP-389, State C Tract 13
Unit E (SW 1/4 of NW 1/4)
Sec. 36, T. 21 S., R. 37 E.
Lea County, New Mexico
32° 26' 17.9"N
103° 07' 17.6"W

Larson & Associates, Inc.
Environmental Consultants

Figure 3a - Groundwater Potentiometric Map, March 3, 2022

Elevations		
Description	*Top of Casing*	*Natural Ground*
MW-1	3365.00	3363.03
MW-2	3364.58	3361.86
MW-3	3364.72	3361.86
MW-4	3364.00	3361.49
MW-5	3364.77	3361.73
MW-6	3364.32	3361.42
RW-1	3364.60	3361.66



Legend

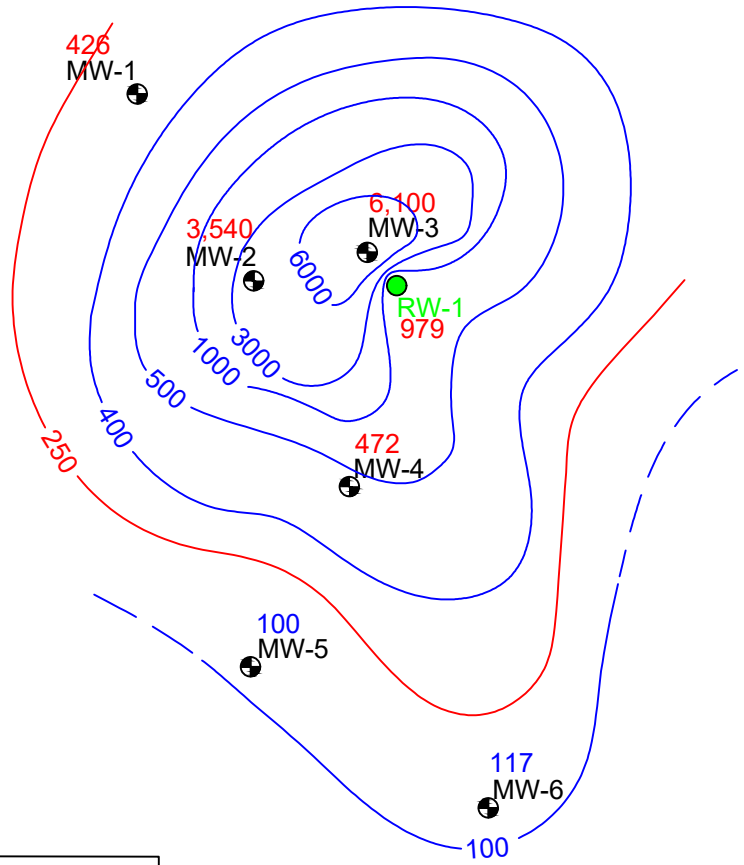
- 319.59 MW-4 - Monitoring Well Location and Potentiometeric Surface Elevation on May 26, 2022
- 321.85 RW-1 - Recovery Well Location and Potentiometeric Surface Elevation on May 26, 2022
- 3321.40 - Contour of Groundwater Potentiometric Water Elevation, Feet AMSL, May 26, 2022
- Groundwater Flow Direction

100 0 100
Graphic Scale in Feet

Apache Corporation
1RP-389, State C Tract 13
Unit E (SW 1/4 of NW 1/4)
Sec. 36, T. 21 S., R. 37 E.
Lea County, New Mexico
32° 26' 17.9"N
103° 07' 17.6"W

Larson & Associates, Inc.
Environmental Consultants

Figure 3b - Groundwater Potentiometric Map, May 26, 2022



Legend

472 MW-4 - Monitoring Well Location and Chloride Concentration in Groundwater, mg/L, March 3, 2022

979 RW-4 - Recovery Well Location and Chloride Concentration in Groundwater, mg/L, March 3, 2022

500 - Contour of Groundwater Chloride Concentration

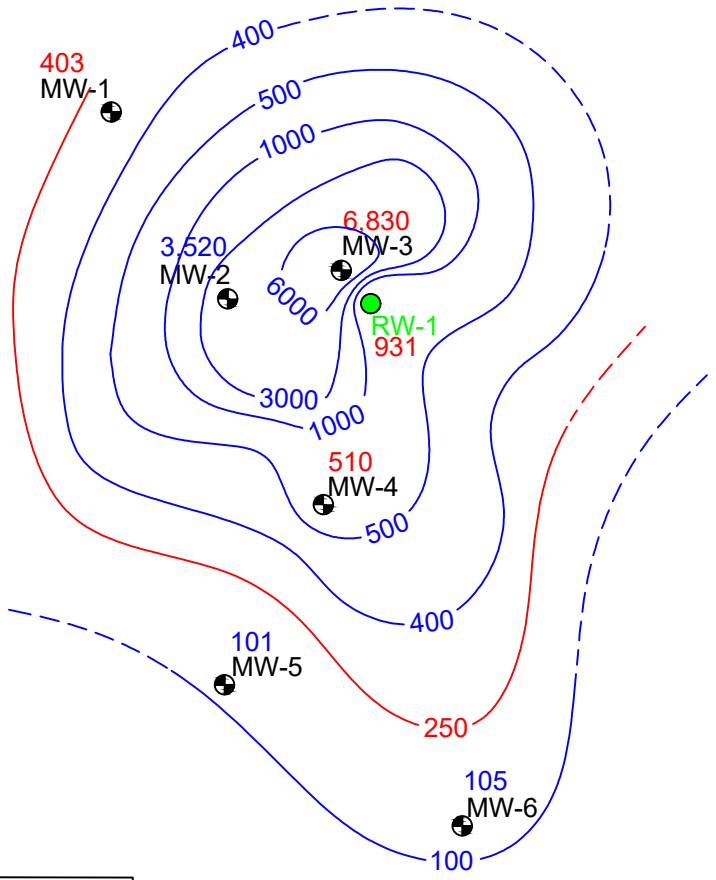
250 mg/L - Concentration NMWQCC Domestic Water Quality Standard

100 0 100
Graphic Scale in Feet

Apache Corporation
1RP-389, State C Tract 13
Unit E (SW 1/4 of NW 1/4)
Sec. 36, T. 21 S., R. 37 E.
Lea County, New Mexico
32° 26' 17.9"N
103° 07' 17.6"W

Larson & Associates, Inc.
Environmental Consultants

Figure 4a - Chloride Concentration in Groundwater Map, March 3, 2022



Legend

510 MW-4 - Monitoring Well Location and Chloride Concentration in Groundwater, mg/L, May 26, 2022

931 RW-4 - Recovery Well Location and Chloride Concentration in Groundwater, mg/L, May 26, 2022

-500- - Contour of Groundwater Chloride Concentration

250 mg/L - Concentration NMWQCC Domestic Water Quality Standard

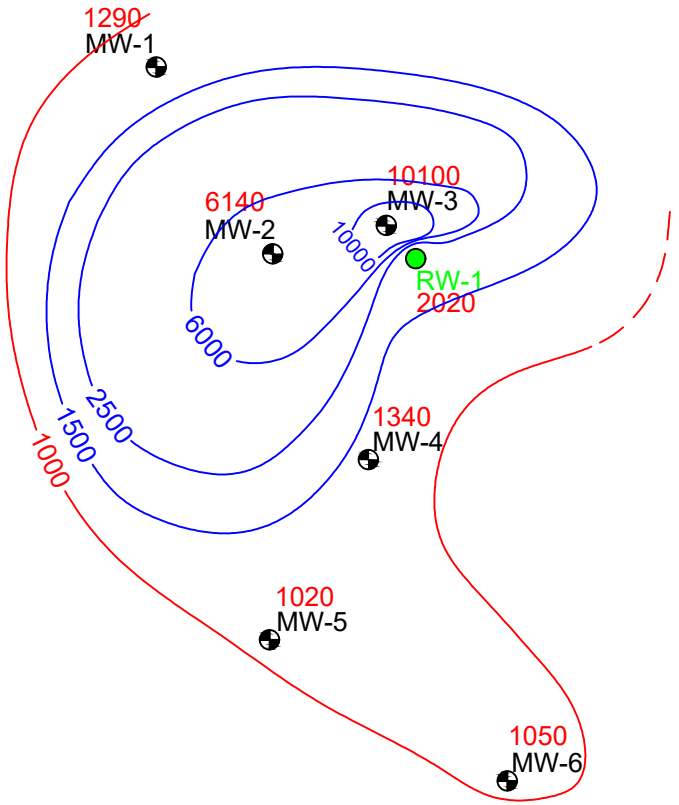
100 0 100

Graphic Scale in Feet

Apache Corporation
1RP-389, State C Tract 13
Unit E (SW 1/4 of NW 1/4)
Sec. 36, T. 21 S., R. 37 E.
Lea County, New Mexico
32° 26' 17.9"N
103° 07' 17.6"W

Larson & Associates, Inc.
Environmental Consultants

Figure 4b - Chloride Concentration in Groundwater Map, May 26, 2022



Legend

1020 MW-4 - Monitoring Well Location and TDS Concentration in Groundwater, mg/L, March 3, 2022

2020 RW-1 - Recovery Well Location and TDS Concentration in Groundwater, mg/L, March 3, 2022

1500 - Contour of TDS Groundwater Concentration

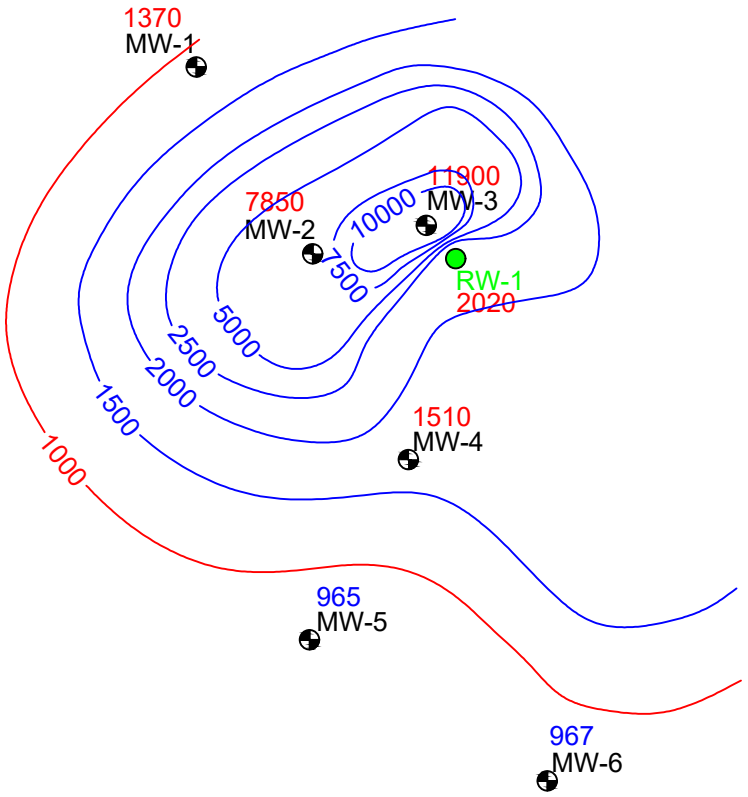
1000 mg/L - NMWQCC Domestic Water Quality Standard

100 0 100
Graphic Scale in Feet

Apache Corporation
1RP-389, State C Tract 13
Unit E (SW 1/4 of NW 1/4)
Sec. 36, T. 21 S., R. 37 E.
Lea County, New Mexico
32° 26' 17.9"N
103° 07' 17.6"W

Larson & Associates, Inc.
Environmental Consultants

Figure 5a - TDS Concentration in Groundwater, March 3, 2022



Legend

1510 MW-4 - Monitoring Well Location and TDS Concentration in Groundwater, mg/L, May 26, 2022

2020 RW-1 - Recovery Well Location and TDS Concentration in Groundwater, mg/L, May 26, 2022

1500 - Contour of TDS Groundwater Concentration

1000 mg/L - NMWQCC Domestic Water Quality Standard

100 0 100

Graphic Scale in Feet

Apache Corporation
1RP-389, State C Tract 13
Unit E (SW 1/4 of NW 1/4)
Sec. 36, T. 21 S., R. 37 E.
Lea County, New Mexico
32° 26' 17.9"N
103° 07' 17.6"W

Larson & Associates, Inc.
Environmental Consultants

Figure 5b - TDS Concentration in Groundwater, May 26, 2022

Appendix A

NMOCD Communications

From: Billings, Bradford, EMNRD
To: Robert Nelson; Bratcher, Mike, EMNRD
Cc: "Larry.Baker@apachecorp.com"; Mark Larson
Subject: RE: [EXTERNAL] Apache Corp. State C Tract #13 (1RP-389 / App #pEJH1214461703) Groundwater Sampling Notice
Date: Tuesday, March 1, 2022 9:04:17 AM
Attachments: image001.png

Hi,

Thank you for the notice. Please keep this communication and include it in future reporting for the incident.

Bradford Billings
EMNRD/OCD

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Tuesday, March 1, 2022 6:56 AM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Cc: 'Larry.Baker@apachecorp.com' <Larry.Baker@apachecorp.com>; Mark Larson <Mark@laenvironmental.com>
Subject: [EXTERNAL] Apache Corp. State C Tract #13 (1RP-389 / App #pEJH1214461703) Groundwater Sampling Notice

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello Mr. Billings and Mr. Bratcher,

This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Apache Corporation to provide notice that personnel from Larson & Associates, Inc. (LAI) will be at the State C Tract #13 (1RP-389 / App # pEJH1214461703) on March 3, 2022, at approximately 9:00 mst for the purpose of collecting groundwater samples from monitoring wells per the OCD approved plan. Please feel free to contact Bruce Baker with Apache at (432) 215-2284 or Larry.Baker@apache.com, Mark Larson at (432) 687-0901 or mark@laenvironmental.com or me if you have any questions.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

Daniel St. Germain

From: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Sent: Monday, May 23, 2022 4:21 PM
To: Robert Nelson
Subject: RE: [EXTERNAL] Apache Corp. State C Tract #13 (1RP-389 / App #pEJH1214461703) Groundwater Sampling Notice

Hello,

Thank you for the notice. Please keep tis communication and include it with associated report(s).

Bradford Billings
EMNRD/OCD

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Monday, May 23, 2022 3:15 PM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Cc: 'Larry.Baker@apachecorp.com' <Larry.Baker@apachecorp.com>; Bole, Barrett <Barrett.Bole@apachecorp.com>; Mark Larson <Mark@laenvironmental.com>
Subject: [EXTERNAL] Apache Corp. State C Tract #13 (1RP-389 / App #pEJH1214461703) Groundwater Sampling Notice

Hello Mr. Billings and Mr. Bratcher,

This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Apache Corporation to provide notice that personnel from Larson & Associates, Inc. (LAI) will be at the State C Tract #13 (1RP-389 / App # pEJH1214461703) on May 26, 2022, at approximately 9:00 mst for the purpose of collecting groundwater samples from monitoring wells per the OCD approved plan. Please feel free to contact Bruce Baker with Apache at (432) 215-2284 or Larry.Baker@apache.com, Mark Larson at (432) 687-0901 or mark@laenvironmental.com or me if you have any questions.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

Appendix B

Laboratory Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-12042-1
Laboratory Sample Delivery Group: 19-0112-38
Client Project/Site: State C Tract 13

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
3/14/2022 5:16:13 PM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Laboratory Job ID: 880-12042-1
SDG: 19-0112-38

Table of Contents

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-12042-1
Project/Site: State C Tract 13 SDG: 19-0112-38

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Job ID: 880-12042-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12042-1

Receipt
The samples were received on 3/4/2022 8:46 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 time was 5.5°C

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with analytical batch 880-21209 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) and LCSD were within acceptance limits and therefore, the data has been reported.

Method 8021B: The laboratory control sample (LCS) associated with analytical batch 880-21209 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-21149/5-A) and (MB 880-21209/39). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 880-21326 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: MW-5
Date Collected: 03/03/22 10:40
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-1
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/08/22 20:19	1
Toluene	<0.00200	U	0.00200		mg/L			03/08/22 20:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/08/22 20:19	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/08/22 20:19	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/08/22 20:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/08/22 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*03/08/22 20:19*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*		*03/08/22 20:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		5.00		mg/L			03/04/22 15:32	10
Nitrate as N	**1.63**		1.00		mg/L			03/04/22 15:32	10
Nitrite as N	<1.00	U	1.00		mg/L			03/04/22 15:32	10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1020**		50.0		mg/L			03/08/22 16:00	1

Client Sample ID: MW-6
Date Collected: 03/03/22 11:00
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/08/22 20:47	1
Toluene	<0.00200	U	0.00200		mg/L			03/08/22 20:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/08/22 20:47	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/08/22 20:47	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/08/22 20:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/08/22 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*03/08/22 20:47*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*		*03/08/22 20:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**117**		5.00		mg/L			03/04/22 16:39	10
Nitrate as N	**1.66**		1.00		mg/L			03/04/22 16:39	10
Nitrite as N	<1.00	U	1.00		mg/L			03/04/22 16:39	10

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: MW-6
Date Collected: 03/03/22 11:00
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1050**		50.0		mg/L			03/08/22 16:00	1

Client Sample ID: MW-1
Date Collected: 03/03/22 11:30
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/08/22 21:14	1
Toluene	<0.00200	U	0.00200		mg/L			03/08/22 21:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/08/22 21:14	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/08/22 21:14	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/08/22 21:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/08/22 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*03/08/22 21:14*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*		*03/08/22 21:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**426**		5.00		mg/L			03/04/22 17:01	10
Nitrate as N	**3.28**		1.00		mg/L			03/04/22 17:01	10
Nitrite as N	<1.00	U	1.00		mg/L			03/04/22 17:01	10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1290**		100		mg/L			03/08/22 16:00	1

Client Sample ID: MW-4
Date Collected: 03/03/22 12:05
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-4
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/09/22 07:32	1
Toluene	<0.00200	U	0.00200		mg/L			03/09/22 07:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/09/22 07:32	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/09/22 07:32	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/09/22 07:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/09/22 07:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*		*03/09/22 07:32*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*		*03/09/22 07:32*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: MW-4
Date Collected: 03/03/22 12:05
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-4
Matrix: Water

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**472**		5.00		mg/L			03/04/22 18:02	10
Nitrate as N	**3.03**		1.00		mg/L			03/04/22 18:02	10
Nitrite as N	<1.00	U	1.00		mg/L			03/04/22 18:02	10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1340**		100		mg/L			03/08/22 16:00	1

Client Sample ID: MW-3
Date Collected: 03/03/22 12:30
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-5
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/12/22 03:46	1
Toluene	<0.00200	U	0.00200		mg/L			03/12/22 03:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/12/22 03:46	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/12/22 03:46	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/12/22 03:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/12/22 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*03/12/22 03:46*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*03/12/22 03:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6100**		25.0		mg/L			03/04/22 18:24	50
Nitrate as N	<5.00	U	5.00		mg/L			03/04/22 18:24	50
Nitrite as N	<5.00	U	5.00		mg/L			03/04/22 18:24	50

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10100**		500		mg/L			03/08/22 16:00	1

Client Sample ID: MW-2
Date Collected: 03/03/22 12:45
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-6
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/09/22 10:22	1
Toluene	<0.00200	U	0.00200		mg/L			03/09/22 10:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/09/22 10:22	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: MW-2

Lab Sample ID: 880-12042-6
Matrix: Water
Date Collected: 03/03/22 12:45
Date Received: 03/04/22 08:46

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/09/22 10:22	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/09/22 10:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/09/22 10:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*03/09/22 10:22*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*		*03/09/22 10:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3540**		25.0		mg/L			03/04/22 19:31	50
Nitrate as N	<5.00	U	5.00		mg/L			03/04/22 19:31	50
Nitrite as N	<5.00	U	5.00		mg/L			03/04/22 19:31	50

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**6140**		500		mg/L			03/08/22 16:00	1

Client Sample ID: RW-7

Lab Sample ID: 880-12042-7
Matrix: Water
Date Collected: 03/03/22 13:00
Date Received: 03/04/22 08:46

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 07:57	1
Toluene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 07:57	1
Ethylbenzene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 07:57	1
m,p-Xylenes	<0.00400	U *1 *-	0.00400		mg/L			03/10/22 07:57	1
o-Xylene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 07:57	1
Xylenes, Total	<0.00400	U *1 *-	0.00400		mg/L			03/10/22 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*03/10/22 07:57*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*		*03/10/22 07:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**979**		10.0		mg/L			03/04/22 19:53	20
Nitrate as N	**6.19**		2.00		mg/L			03/04/22 19:53	20
Nitrite as N	<2.00	U	2.00		mg/L			03/04/22 19:53	20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1970**		200		mg/L			03/08/22 16:00	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: Dup-1

Date Collected: 03/03/22 00:00
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-8

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 08:24	1
Toluene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 08:24	1
Ethylbenzene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 08:24	1
m,p-Xylenes	<0.00400	U *1 *-	0.00400		mg/L			03/10/22 08:24	1
o-Xylene	<0.00200	U *1 *-	0.00200		mg/L			03/10/22 08:24	1
Xylenes, Total	<0.00400	U *1 *-	0.00400		mg/L			03/10/22 08:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*03/10/22 08:24*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*		*03/10/22 08:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/09/22 20:12	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**407**		5.00		mg/L			03/04/22 20:16	10
Nitrate as N	**2.78**		1.00		mg/L			03/04/22 20:16	10
Nitrite as N	<1.00	U	1.00		mg/L			03/04/22 20:16	10

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1330**		100		mg/L			03/08/22 16:00	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11992-A-2 MS	Matrix Spike	80	131 S1+
880-11992-A-2 MSD	Matrix Spike Duplicate	79	118
880-12042-1	MW-5	85	115
880-12042-2	MW-6	85	117
880-12042-3	MW-1	89	120
880-12042-4	MW-4	114	78
880-12042-5	MW-3	92	100
880-12042-6	MW-2	90	113
880-12042-7	RW-7	88	102
880-12042-8	Dup-1	86	111
880-12317-A-1 MS	Matrix Spike	86	111
880-12317-A-1 MSD	Matrix Spike Duplicate	29 S1-	123
890-2039-A-1 MS	Matrix Spike	77	122
890-2039-A-1 MSD	Matrix Spike Duplicate	80	98
LCS 880-21108/3	Lab Control Sample	75	120
LCS 880-21209/34	Lab Control Sample	72	114
LCS 880-21326/34	Lab Control Sample	85	126
LCSD 880-21108/4	Lab Control Sample Dup	69 S1-	130
LCSD 880-21209/35	Lab Control Sample Dup	87	125
LCSD 880-21326/35	Lab Control Sample Dup	93	106
MB 880-21108/8	Method Blank	50 S1-	107
MB 880-21145/5-A	Method Blank	53 S1-	112
MB 880-21149/5-A	Method Blank	46 S1-	100
MB 880-21209/39	Method Blank	51 S1-	108
MB 880-21326/39	Method Blank	55 S1-	109

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21108/8
Matrix: Water
Analysis Batch: 21108

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/08/22 12:17	1
Toluene	<0.00200	U	0.00200		mg/L			03/08/22 12:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/08/22 12:17	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/08/22 12:17	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/08/22 12:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/08/22 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*50*	*S1-*	*70 - 130*		*03/08/22 12:17*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*		*03/08/22 12:17*	*1*

Lab Sample ID: LCS 880-21108/3
Matrix: Water
Analysis Batch: 21108

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09727		mg/L		97	70 - 130		
Toluene			0.100	0.07916		mg/L		79	70 - 130		
Ethylbenzene			0.100	0.08586		mg/L		86	70 - 130		
m,p-Xylenes			0.200	0.1748		mg/L		87	70 - 130		
o-Xylene			0.100	0.08623		mg/L		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: LCSD 880-21108/4
Matrix: Water
Analysis Batch: 21108

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09853		mg/L		99	70 - 130	1	20
Toluene			0.100	0.07709		mg/L		77	70 - 130	3	20
Ethylbenzene			0.100	0.09049		mg/L		90	70 - 130	5	20
m,p-Xylenes			0.200	0.1832		mg/L		92	70 - 130	5	20
o-Xylene			0.100	0.08930		mg/L		89	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*130*		*70 - 130*

Lab Sample ID: 880-11992-A-2 MS
Matrix: Water
Analysis Batch: 21108

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	<0.00200	U	0.100	0.1083		mg/L		108	70 - 130		
Toluene	<0.00200	U	0.100	0.08896		mg/L		89	70 - 130		

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-11992-A-2 MS
Matrix: Water
Analysis Batch: 21108

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
Ethylbenzene	<0.00200	U	0.100	0.09693		mg/L		97	70 - 130
m,p-Xylenes	<0.00400	U	0.200	0.1977		mg/L		99	70 - 130
o-Xylene	<0.00200	U	0.100	0.09580		mg/L		96	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*
1,4-Difluorobenzene (Surr)	*131*	*S1+*	*70 - 130*

Lab Sample ID: 880-11992-A-2 MSD
Matrix: Water
Analysis Batch: 21108

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	<0.00200	U	0.100	0.08841		mg/L		88	70 - 130	20	25
Toluene	<0.00200	U	0.100	0.08291		mg/L		83	70 - 130	7	25
Ethylbenzene	<0.00200	U	0.100	0.09142		mg/L		91	70 - 130	6	25
m,p-Xylenes	<0.00400	U	0.200	0.1859		mg/L		93	70 - 130	6	25
o-Xylene	<0.00200	U	0.100	0.09071		mg/L		91	70 - 130	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: MB 880-21145/5-A
Matrix: Water
Analysis Batch: 21326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21145

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L		03/10/22 12:54	03/11/22 12:51	1
Toluene	<0.00200	U	0.00200		mg/L		03/10/22 12:54	03/11/22 12:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/L		03/10/22 12:54	03/11/22 12:51	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L		03/10/22 12:54	03/11/22 12:51	1
o-Xylene	<0.00200	U	0.00200		mg/L		03/10/22 12:54	03/11/22 12:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/L		03/10/22 12:54	03/11/22 12:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*53*	*S1-*	*70 - 130*	*03/10/22 12:54*	*03/11/22 12:51*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/10/22 12:54*	*03/11/22 12:51*	*1*

Lab Sample ID: MB 880-21149/5-A
Matrix: Water
Analysis Batch: 21209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21149

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L		03/09/22 08:30	03/09/22 15:28	1
Toluene	<0.00200	U	0.00200		mg/L		03/09/22 08:30	03/09/22 15:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/L		03/09/22 08:30	03/09/22 15:28	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L		03/09/22 08:30	03/09/22 15:28	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-21149/5-A
Matrix: Water
Analysis Batch: 21209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21149

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/L		03/09/22 08:30	03/09/22 15:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/L		03/09/22 08:30	03/09/22 15:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*46*	*S1-*	*70 - 130*	*03/09/22 08:30*	*03/09/22 15:28*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/09/22 08:30*	*03/09/22 15:28*	*1*

Lab Sample ID: MB 880-21209/39
Matrix: Water
Analysis Batch: 21209

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/10/22 05:16	1
Toluene	<0.00200	U	0.00200		mg/L			03/10/22 05:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/10/22 05:16	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/10/22 05:16	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/10/22 05:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/10/22 05:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*51*	*S1-*	*70 - 130*		*03/10/22 05:16*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*		*03/10/22 05:16*	*1*

Lab Sample ID: LCS 880-21209/34
Matrix: Water
Analysis Batch: 21209

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.05586	*-	mg/L		56	70 - 130		
Toluene			0.100	0.05103	*-	mg/L		51	70 - 130		
Ethylbenzene			0.100	0.05596	*-	mg/L		56	70 - 130		
m,p-Xylenes			0.200	0.1148	*-	mg/L		57	70 - 130		
o-Xylene			0.100	0.05962	*-	mg/L		60	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-21209/35
Matrix: Water
Analysis Batch: 21209

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09619	*1	mg/L		96	70 - 130	53	20
Toluene			0.100	0.08756	*1	mg/L		88	70 - 130	53	20
Ethylbenzene			0.100	0.09130	*1	mg/L		91	70 - 130	48	20
m,p-Xylenes			0.200	0.1871	*1	mg/L		94	70 - 130	48	20
o-Xylene			0.100	0.09391	*1	mg/L		94	70 - 130	45	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

Lab Sample ID: 890-2039-A-1 MS
Matrix: Water
Analysis Batch: 21209

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	<0.00200	U *1 *-	0.100	0.1066		mg/L		107	70 - 130
Toluene	<0.00200	U *1 *-	0.100	0.08202		mg/L		82	70 - 130
Ethylbenzene	<0.00200	U *1 *-	0.100	0.08373		mg/L		84	70 - 130
m,p-Xylenes	<0.00400	U *1 *-	0.200	0.1700		mg/L		85	70 - 130
o-Xylene	<0.00200	U *1 *-	0.100	0.08653		mg/L		87	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	77		70 - 130
1,4-Difluorobenzene (Surr)	122		70 - 130

Lab Sample ID: 890-2039-A-1 MSD
Matrix: Water
Analysis Batch: 21209

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	<0.00200	U *1 *-	0.100	0.08971		mg/L		90	70 - 130	17	25
Toluene	<0.00200	U *1 *-	0.100	0.08082		mg/L		81	70 - 130	1	25
Ethylbenzene	<0.00200	U *1 *-	0.100	0.08336		mg/L		83	70 - 130	0	25
m,p-Xylenes	<0.00400	U *1 *-	0.200	0.1706		mg/L		85	70 - 130	0	25
o-Xylene	<0.00200	U *1 *-	0.100	0.08689		mg/L		87	70 - 130	0	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	80		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-21326/39
Matrix: Water
Analysis Batch: 21326

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/12/22 02:52	1
Toluene	<0.00200	U	0.00200		mg/L			03/12/22 02:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/12/22 02:52	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			03/12/22 02:52	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/12/22 02:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/12/22 02:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55	S1-	70 - 130		03/12/22 02:52	1
1,4-Difluorobenzene (Surr)	109		70 - 130		03/12/22 02:52	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-21326/34
Matrix: Water
Analysis Batch: 21326

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09331		mg/L		93	70 - 130		
Toluene			0.100	0.07824		mg/L		78	70 - 130		
Ethylbenzene			0.100	0.08422		mg/L		84	70 - 130		
m,p-Xylenes			0.200	0.1721		mg/L		86	70 - 130		
o-Xylene			0.100	0.08781		mg/L		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*

Lab Sample ID: LCSD 880-21326/35
Matrix: Water
Analysis Batch: 21326

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08664		mg/L		87	70 - 130	7	20
Toluene			0.100	0.08284		mg/L		83	70 - 130	6	20
Ethylbenzene			0.100	0.08893		mg/L		89	70 - 130	5	20
m,p-Xylenes			0.200	0.1823		mg/L		91	70 - 130	6	20
o-Xylene			0.100	0.09321		mg/L		93	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-12317-A-1 MS
Matrix: Water
Analysis Batch: 21326

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	0.00629	F1	0.100	0.09463		mg/L		88	70 - 130		
Toluene	<0.00200	U F1 F2	0.100	0.08026		mg/L		80	70 - 130		
Ethylbenzene	<0.00200	U F1 F2	0.100	0.08808		mg/L		88	70 - 130		
m,p-Xylenes	<0.00400	U F1 F2	0.200	0.1783		mg/L		89	70 - 130		
o-Xylene	<0.00200	U F1 F2	0.100	0.09119		mg/L		91	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-12317-A-1 MSD
Matrix: Water
Analysis Batch: 21326

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	0.00629	F1	0.100	0.07369	F1	mg/L		67	70 - 130	25	25
Toluene	<0.00200	U F1 F2	0.100	0.05130	F1 F2	mg/L		51	70 - 130	44	25
Ethylbenzene	<0.00200	U F1 F2	0.100	0.06071	F1 F2	mg/L		61	70 - 130	37	25

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-12317-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 21326

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m,p-Xylenes	<0.00400	U F1 F2	0.200	0.1230	F1 F2	mg/L		61	70 - 130	37	25
o-Xylene	<0.00200	U F1 F2	0.100	0.06326	F1 F2	mg/L		63	70 - 130	36	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*29*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-20891/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 20891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			03/04/22 14:25	1

Lab Sample ID: LCS 880-20891/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 20891

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			25.0	25.67		mg/L		103	90 - 110		

Lab Sample ID: LCSD 880-20891/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 20891

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			25.0	25.82		mg/L		103	90 - 110	1	20

Lab Sample ID: 880-12042-1 MS — **Client Sample ID: MW-5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 20891

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	100		250	358.6		mg/L		103	90 - 110		

Lab Sample ID: 880-12042-1 MSD — **Client Sample ID: MW-5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 20891

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		250	374.2		mg/L		110	90 - 110	4	20

Lab Sample ID: MB 880-20892/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 20892

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100	U	0.100		mg/L			03/04/22 14:25	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-20892/3
Matrix: Water
Analysis Batch: 20892

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.100	U	0.100		mg/L			03/04/22 14:25	1

Lab Sample ID: LCS 880-20892/4
Matrix: Water
Analysis Batch: 20892

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			5.00	5.328		mg/L		107	90 - 110		
Nitrite as N			5.00	5.377		mg/L		108	90 - 110		

Lab Sample ID: LCSD 880-20892/5
Matrix: Water
Analysis Batch: 20892

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N			5.00	5.359		mg/L		107	90 - 110	1	20
Nitrite as N			5.00	5.421		mg/L		108	90 - 110	1	20

Lab Sample ID: 880-12042-1 MS
Matrix: Water
Analysis Batch: 20892

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	1.63		50.0	50.68		mg/L		98	90 - 110		
Nitrite as N	<1.00	U	50.0	52.79		mg/L		106	90 - 110		

Lab Sample ID: 880-12042-1 MSD
Matrix: Water
Analysis Batch: 20892

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.63		50.0	54.21		mg/L		105	90 - 110	7	20
Nitrite as N	<1.00	U	50.0	54.51		mg/L		109	90 - 110	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 830-788/1
Matrix: Water
Analysis Batch: 788

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<25.0	U	25.0		mg/L			03/08/22 16:00	1

Lab Sample ID: LCS 830-788/2
Matrix: Water
Analysis Batch: 788

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1009		mg/L		101	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 830-788/3
Matrix: Water
Analysis Batch: 788

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1010		mg/L		101	90 - 110	0	10

Lab Sample ID: 880-12042-7 DU
Matrix: Water
Analysis Batch: 788

Client Sample ID: RW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1970			1908		mg/L				3	10

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

GC VOA

Analysis Batch: 21108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-1	MW-5	Total/NA	Water	8021B	
880-12042-2	MW-6	Total/NA	Water	8021B	
880-12042-3	MW-1	Total/NA	Water	8021B	
880-12042-4	MW-4	Total/NA	Water	8021B	
880-12042-6	MW-2	Total/NA	Water	8021B	
MB 880-21108/8	Method Blank	Total/NA	Water	8021B	
LCS 880-21108/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-21108/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-11992-A-2 MS	Matrix Spike	Total/NA	Water	8021B	
880-11992-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Prep Batch: 21145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21145/5-A	Method Blank	Total/NA	Water	5035	

Prep Batch: 21149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21149/5-A	Method Blank	Total/NA	Water	5035	

Analysis Batch: 21209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-7	RW-7	Total/NA	Water	8021B	
880-12042-8	Dup-1	Total/NA	Water	8021B	
MB 880-21149/5-A	Method Blank	Total/NA	Water	8021B	21149
MB 880-21209/39	Method Blank	Total/NA	Water	8021B	
LCS 880-21209/34	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-21209/35	Lab Control Sample Dup	Total/NA	Water	8021B	
890-2039-A-1 MS	Matrix Spike	Total/NA	Water	8021B	
890-2039-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 21270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-1	MW-5	Total/NA	Water	Total BTEX	
880-12042-2	MW-6	Total/NA	Water	Total BTEX	
880-12042-3	MW-1	Total/NA	Water	Total BTEX	
880-12042-4	MW-4	Total/NA	Water	Total BTEX	
880-12042-5	MW-3	Total/NA	Water	Total BTEX	
880-12042-6	MW-2	Total/NA	Water	Total BTEX	
880-12042-7	RW-7	Total/NA	Water	Total BTEX	
880-12042-8	Dup-1	Total/NA	Water	Total BTEX	

Analysis Batch: 21326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-5	MW-3	Total/NA	Water	8021B	
MB 880-21145/5-A	Method Blank	Total/NA	Water	8021B	21145
MB 880-21326/39	Method Blank	Total/NA	Water	8021B	
LCS 880-21326/34	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-21326/35	Lab Control Sample Dup	Total/NA	Water	8021B	
880-12317-A-1 MS	Matrix Spike	Total/NA	Water	8021B	
880-12317-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

HPLC/IC

Analysis Batch: 20891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-1	MW-5	Total/NA	Water	300.0	
880-12042-2	MW-6	Total/NA	Water	300.0	
880-12042-3	MW-1	Total/NA	Water	300.0	
880-12042-4	MW-4	Total/NA	Water	300.0	
880-12042-5	MW-3	Total/NA	Water	300.0	
880-12042-6	MW-2	Total/NA	Water	300.0	
880-12042-7	RW-7	Total/NA	Water	300.0	
880-12042-8	Dup-1	Total/NA	Water	300.0	
MB 880-20891/3	Method Blank	Total/NA	Water	300.0	
LCS 880-20891/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-20891/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-12042-1 MS	MW-5	Total/NA	Water	300.0	
880-12042-1 MSD	MW-5	Total/NA	Water	300.0	

Analysis Batch: 20892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-1	MW-5	Total/NA	Water	300.0	
880-12042-2	MW-6	Total/NA	Water	300.0	
880-12042-3	MW-1	Total/NA	Water	300.0	
880-12042-4	MW-4	Total/NA	Water	300.0	
880-12042-5	MW-3	Total/NA	Water	300.0	
880-12042-6	MW-2	Total/NA	Water	300.0	
880-12042-7	RW-7	Total/NA	Water	300.0	
880-12042-8	Dup-1	Total/NA	Water	300.0	
MB 880-20892/3	Method Blank	Total/NA	Water	300.0	
LCS 880-20892/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-20892/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-12042-1 MS	MW-5	Total/NA	Water	300.0	
880-12042-1 MSD	MW-5	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12042-1	MW-5	Total/NA	Water	SM 2540C	
880-12042-2	MW-6	Total/NA	Water	SM 2540C	
880-12042-3	MW-1	Total/NA	Water	SM 2540C	
880-12042-4	MW-4	Total/NA	Water	SM 2540C	
880-12042-5	MW-3	Total/NA	Water	SM 2540C	
880-12042-6	MW-2	Total/NA	Water	SM 2540C	
880-12042-7	RW-7	Total/NA	Water	SM 2540C	
880-12042-8	Dup-1	Total/NA	Water	SM 2540C	
MB 830-788/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 830-788/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 830-788/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-12042-7 DU	RW-7	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: MW-5
Date Collected: 03/03/22 10:40
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-1
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	8021B		1	5 mL	5 mL	21108	03/08/22 20:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		10			20891	03/04/22 15:32	CH	XEN MID
Total/NA	Analysis	300.0		10			20892	03/04/22 15:32	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Client Sample ID: MW-6
Date Collected: 03/03/22 11:00
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-2
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	8021B		1	5 mL	5 mL	21108	03/08/22 20:47	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		10			20891	03/04/22 16:39	CH	XEN MID
Total/NA	Analysis	300.0		10			20892	03/04/22 16:39	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	100 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Client Sample ID: MW-1
Date Collected: 03/03/22 11:30
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-3
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	8021B		1	5 mL	5 mL	21108	03/08/22 21:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		10			20891	03/04/22 17:01	CH	XEN MID
Total/NA	Analysis	300.0		10			20892	03/04/22 17:01	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Client Sample ID: MW-4
Date Collected: 03/03/22 12:05
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-4
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	8021B		1	5 mL	5 mL	21108	03/09/22 07:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		10			20891	03/04/22 18:02	CH	XEN MID
Total/NA	Analysis	300.0		10			20892	03/04/22 18:02	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Client Sample ID: MW-3
Date Collected: 03/03/22 12:30
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-5
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	8021B		1	5 mL	5 mL	21326	03/12/22 03:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		50			20891	03/04/22 18:24	CH	XEN MID
Total/NA	Analysis	300.0		50			20892	03/04/22 18:24	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	10 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Client Sample ID: MW-2
Date Collected: 03/03/22 12:45
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-6
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	8021B		1	5 mL	5 mL	21108	03/09/22 10:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		50			20891	03/04/22 19:31	CH	XEN MID
Total/NA	Analysis	300.0		50			20892	03/04/22 19:31	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	10 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Client Sample ID: RW-7
Date Collected: 03/03/22 13:00
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-7
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	8021B		1	5 mL	5 mL	21209	03/10/22 07:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		20			20891	03/04/22 19:53	CH	XEN MID
Total/NA	Analysis	300.0		20			20892	03/04/22 19:53	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	25 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Client Sample ID: Dup-1
Date Collected: 03/03/22 00:00
Date Received: 03/04/22 08:46

Lab Sample ID: 880-12042-8
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	8021B		1	5 mL	5 mL	21209	03/10/22 08:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21270	03/09/22 20:12	AJ	XEN MID
Total/NA	Analysis	300.0		10			20891	03/04/22 20:16	CH	XEN MID
Total/NA	Analysis	300.0		10			20892	03/04/22 20:16	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	1000 mL	788	03/08/22 16:00	LR	XEN EP

Laboratory References:
XEN EP = Eurofins El Paso, 200 East Sunset Rd., Suite E, El Paso, TX 79922, TEL (915)585-3443
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-12042-1
Project/Site: State C Tract 13 SDG: 19-0112-38

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Total BTEX		Water	Total BTEX

Laboratory: Eurofins El Paso

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704221-21-19	04-30-22

Method Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN EP
5030B	Purge and Trap	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN EP = Eurofins El Paso, 200 East Sunset Rd., Suite E, El Paso, TX 79922, TEL (915)585-3443
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract 13

Job ID: 880-12042-1
SDG: 19-0112-38

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-12042-1	MW-5	Water	03/03/22 10:40	03/04/22 08:46
880-12042-2	MW-6	Water	03/03/22 11:00	03/04/22 08:46
880-12042-3	MW-1	Water	03/03/22 11:30	03/04/22 08:46
880-12042-4	MW-4	Water	03/03/22 12:05	03/04/22 08:46
880-12042-5	MW-3	Water	03/03/22 12:30	03/04/22 08:46
880-12042-6	MW-2	Water	03/03/22 12:45	03/04/22 08:46
880-12042-7	RW-7	Water	03/03/22 13:00	03/04/22 08:46
880-12042-8	Dup-1	Water	03/03/22 00:00	03/04/22 08:46

12042

No. 2510

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld, Ste 202
Midland, TX 79701
432-687-0901

Data Reported to

DATE: 3-4-22 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: State C ~~Tank~~ Tract 13

LAI PROJECT #: 19-0112-38 COLLECTOR: TP + JR

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State: MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl 3x	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE 2x	UNPRESSERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ DW 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ~~TSS~~ ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ~~F~~ ANIONS ☐ ALKALINITY ☐	Nitrates E300	FIELD NOTES
MW-5		3-3-22	1040	W	5	X			X		X																	X			X	X	Bill Direct to Apache
MW-6e		"	1100	"	"	"			"		"																	"			"	"	
MW-1		"	1130	"	"	"			"		"																	"			"	"	
MW-4		"	1205	"	"	"			"		"																	"			"	"	
MW-3		"	1230	"	"	"			"		"																	"			"	"	
MW-2		"	1245	"	"	"			"		"																	"			"	"	
RW-7		"	1300	"	"	"			"		"																	"			"	"	
Dup-1		"		"	"	"			"		"																	"			"	"	

TOTAL 8

RELINQUISHED BY (Signature) DATE/TIME 3/4/22 8:40 RECEIVED BY (Signature)

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature)

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 5.6/5.5 THERM# -1 IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

880-12042 Chain of Custody

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Taylor, Holly	Carrier Tracking No(s):	COC No: 880-3943.1
Client Contact: Shipping/Receiving	Phone	E-Mail: holly.taylor@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 880-12042-1
Address: 200 East Sunset Rd., Suite E,	Due Date Requested: 3/8/2022			
City: El Paso	TAT Requested (days):			
State, Zip: TX, 79922				
Phone: 915-585-3443(Tel)	PO #:			
Email:	WO #:			
Project Name: state c tract 13	Project #: 88000515			
Site:	SSOW#:			

Analysis Requested

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, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	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)	2540C_Calcd	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-5 (880-12042-1)	3/3/22	10:40 Mountain		Water			X	1	
MW-6 (880-12042-2)	3/3/22	11:00 Mountain		Water			X	1	
MW-1 (880-12042-3)	3/3/22	11:30 Mountain		Water			X	1	
MW-4 (880-12042-4)	3/3/22	12:05 Mountain		Water			X	1	
MW-3 (880-12042-5)	3/3/22	12:30 Mountain		Water			X	1	
MW-2 (880-12042-6)	3/3/22	12:45 Mountain		Water			X	1	
RW-7 (880-12042-7)	3/3/22	13:00 Mountain		Water			X	1	
Dup-1 (880-12042-8)	3/3/22	Mountain		Water			X	1	

Note: Since laboratory accreditations are subject to change. Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification: Unconfirmed	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) N/A — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	3-8			3-8-22 1026	ESPG
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR2 0.0 1.3 1.3

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12042-1
SDG Number: 19-0112-38

Login Number: 12042
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
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	
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.	True	
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	

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12042-1
SDG Number: 19-0112-38

Login Number: 12042
List Number: 2
Creator: Aparicio, Niria

List Source: Eurofins El Paso
List Creation: 03/08/22 10:37 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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.	True	
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").	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-15252-1
Laboratory Sample Delivery Group: 19-0112-38
Client Project/Site: State C Tract #13

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
6/3/2022 2:44:44 PM

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Laboratory Job ID: 880-15252-1
SDG: 19-0112-38

Table of Contents

Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-15252-1
Project/Site: State C Tract #13 SDG: 19-0112-38

Qualifiers

GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Job ID: 880-15252-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-15252-1

Comments
No additional comments.

Receipt
The samples were received on 5/27/2022 8:54 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 0.1º C.

GC VOA
Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 880-26646 recovered outside control limits for the following analytes: MTBE.

Method 8021B: The matrix spike duplicate (MSD) recoveries for analytical batch 880-26723 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: MW-2 (880-15252-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 880-26723 recovered outside control limits for the following analytes: m,p-Xylenes, o-Xylene and Xylenes, Total.

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

General Chemistry
Method 300.0: The following sample was analyzed outside of analytical holding time due to no sampling time listed to indicate holding time.: Dup-1 (880-15252-7).

Method 300.0: Reanalysis of the following samples were performed outside of the analytical holding time due to additional ordered analytes requiring dilution.: MW-5 (880-15252-1), MW-6 (880-15252-2), MW-1 (880-15252-3), MW-4 (880-15252-4), MW-3 (880-15252-5), RW-1 (880-15252-6), Dup-1 (880-15252-7) and MW-2 (880-15252-8).

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.

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: MW-5
Date Collected: 05/26/22 10:05
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-1
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400		mg/L			06/02/22 22:42	20
Toluene	<0.0400	U	0.0400		mg/L			06/02/22 22:42	20
Ethylbenzene	<0.0400	U	0.0400		mg/L			06/02/22 22:42	20
m,p-Xylenes	<0.0800	U *1	0.0800		mg/L			06/02/22 22:42	20
o-Xylene	<0.0400	U *1	0.0400		mg/L			06/02/22 22:42	20
Xylenes, Total	<0.0800	U *1	0.0800		mg/L			06/02/22 22:42	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*06/02/22 22:42*	*20*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*		*06/02/22 22:42*	*20*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0800	U	0.0800		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**101**		0.500		mg/L			05/28/22 03:41	1
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 03:41	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 03:41	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**968**		50.0		mg/L			05/30/22 10:03	1

Client Sample ID: MW-6
Date Collected: 05/26/22 10:20
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			06/02/22 08:54	1
Toluene	<0.00200	U	0.00200		mg/L			06/02/22 08:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/02/22 08:54	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			06/02/22 08:54	1
o-Xylene	<0.00200	U	0.00200		mg/L			06/02/22 08:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/02/22 08:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*06/02/22 08:54*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*		*06/02/22 08:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**105**		0.500		mg/L			05/28/22 03:52	1
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 03:52	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 03:52	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: MW-6
Date Collected: 05/26/22 10:20
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**976**		50.0		mg/L			05/30/22 10:03	1

Client Sample ID: MW-1
Date Collected: 05/26/22 11:00
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			06/02/22 09:14	1
Toluene	<0.00200	U	0.00200		mg/L			06/02/22 09:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/02/22 09:14	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			06/02/22 09:14	1
o-Xylene	<0.00200	U	0.00200		mg/L			06/02/22 09:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/02/22 09:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*		*06/02/22 09:14*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*		*06/02/22 09:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**403**		2.50		mg/L			05/28/22 17:32	5
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 04:03	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 04:03	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1370**		100		mg/L			05/30/22 10:03	1

Client Sample ID: MW-4
Date Collected: 05/26/22 11:40
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-4
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200		mg/L			06/02/22 19:56	1
Toluene	<0.00200	U F2 F1	0.00200		mg/L			06/02/22 19:56	1
Ethylbenzene	<0.00200	U F1	0.00200		mg/L			06/02/22 19:56	1
m,p-Xylenes	<0.00400	U F2 F1 *1	0.00400		mg/L			06/02/22 19:56	1
o-Xylene	<0.00200	U F1 *1	0.00200		mg/L			06/02/22 19:56	1
Xylenes, Total	<0.00400	U F1 *1	0.00400		mg/L			06/02/22 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*06/02/22 19:56*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*		*06/02/22 19:56*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: MW-4

Lab Sample ID: 880-15252-4
Matrix: Water
Date Collected: 05/26/22 11:40
Date Received: 05/27/22 08:54

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**510**		5.00		mg/L			05/28/22 17:43	10
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 04:45	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 04:45	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1510**		100		mg/L			05/30/22 10:03	1

Client Sample ID: MW-3

Lab Sample ID: 880-15252-5
Matrix: Water
Date Collected: 05/26/22 12:05
Date Received: 05/27/22 08:54

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200		mg/L			06/02/22 22:00	10
Toluene	<0.0200	U	0.0200		mg/L			06/02/22 22:00	10
Ethylbenzene	<0.0200	U	0.0200		mg/L			06/02/22 22:00	10
m,p-Xylenes	<0.0400	U *1	0.0400		mg/L			06/02/22 22:00	10
o-Xylene	<0.0200	U *1	0.0200		mg/L			06/02/22 22:00	10
Xylenes, Total	<0.0400	U *1	0.0400		mg/L			06/02/22 22:00	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*		*06/02/22 22:00*	*10*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*		*06/02/22 22:00*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0400	U	0.0400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6830**		25.0		mg/L			05/28/22 16:49	50
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 05:07	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 05:07	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**11900**		500		mg/L			05/30/22 10:03	1

Client Sample ID: RW-1

Lab Sample ID: 880-15252-6
Matrix: Water
Date Collected: 05/26/22 12:30
Date Received: 05/27/22 08:54

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200		mg/L			06/02/22 22:21	10
Toluene	<0.0200	U	0.0200		mg/L			06/02/22 22:21	10
Ethylbenzene	<0.0200	U	0.0200		mg/L			06/02/22 22:21	10

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: RW-1

Date Collected: 05/26/22 12:30
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-6
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.0400	U *1	0.0400		mg/L			06/02/22 22:21	10
o-Xylene	<0.0200	U *1	0.0200		mg/L			06/02/22 22:21	10
Xylenes, Total	<0.0400	U *1	0.0400		mg/L			06/02/22 22:21	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*06/02/22 22:21*	*10*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*		*06/02/22 22:21*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0400	U	0.0400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**931**		5.00		mg/L			05/28/22 17:54	10
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 05:29	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 05:29	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2020**		100		mg/L			05/30/22 10:03	1

Client Sample ID: Dup-1

Date Collected: 05/26/22 00:00
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-7
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			06/02/22 20:17	1
Toluene	<0.00200	U	0.00200		mg/L			06/02/22 20:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/02/22 20:17	1
m,p-Xylenes	<0.00400	U *1	0.00400		mg/L			06/02/22 20:17	1
o-Xylene	<0.00200	U *1	0.00200		mg/L			06/02/22 20:17	1
Xylenes, Total	<0.00400	U *1	0.00400		mg/L			06/02/22 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*06/02/22 20:17*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*		*06/02/22 20:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**966**		5.00		mg/L			05/28/22 18:05	10
Nitrate as N	<0.100	U H	0.100		mg/L			05/28/22 05:50	1
Nitrite as N	<0.100	U H	0.100		mg/L			05/28/22 05:50	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2040**		100		mg/L			05/30/22 10:03	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: MW-2

Date Collected: 05/26/22 13:00
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-8

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200		mg/L			06/02/22 21:40	10
Toluene	<0.0200	U	0.0200		mg/L			06/02/22 21:40	10
Ethylbenzene	<0.0200	U	0.0200		mg/L			06/02/22 21:40	10
m,p-Xylenes	<0.0400	U *1	0.0400		mg/L			06/02/22 21:40	10
o-Xylene	<0.0200	U *1	0.0200		mg/L			06/02/22 21:40	10
Xylenes, Total	<0.0400	U *1	0.0400		mg/L			06/02/22 21:40	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*		*06/02/22 21:40*	*10*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*		*06/02/22 21:40*	*10*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0400	U	0.0400		mg/L			06/02/22 12:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3520**		25.0		mg/L			05/28/22 17:00	50
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 06:12	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 06:12	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**7850**		500		mg/L			05/30/22 10:03	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-15197-A-10 MS	Matrix Spike	112	91
880-15197-A-10 MSD	Matrix Spike Duplicate	100	96
880-15252-1	MW-5	107	98
880-15252-2	MW-6	107	97
880-15252-3	MW-1	116	94
880-15252-4	MW-4	110	94
880-15252-4 MS	MW-4	115	97
880-15252-4 MSD	MW-4	104	104
880-15252-5	MW-3	123	92
880-15252-6	RW-1	105	95
880-15252-7	Dup-1	109	96
880-15252-8	MW-2	143 S1+	87
LCS 880-26646/108	Lab Control Sample	116	91
LCS 880-26723/3	Lab Control Sample	98	97
LCSD 880-26646/109	Lab Control Sample Dup	112	98
LCSD 880-26723/4	Lab Control Sample Dup	114	94
MB 880-26646/113	Method Blank	109	94
MB 880-26646/82	Method Blank	97	103
MB 880-26723/8	Method Blank	107	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26646/113
Matrix: Water
Analysis Batch: 26646

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			06/02/22 03:23	1
Toluene	<0.00200	U	0.00200		mg/L			06/02/22 03:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/02/22 03:23	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			06/02/22 03:23	1
o-Xylene	<0.00200	U	0.00200		mg/L			06/02/22 03:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/02/22 03:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*06/02/22 03:23*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*		*06/02/22 03:23*	*1*

Lab Sample ID: MB 880-26646/82
Matrix: Water
Analysis Batch: 26646

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			06/01/22 16:41	1
Toluene	<0.00200	U	0.00200		mg/L			06/01/22 16:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/01/22 16:41	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			06/01/22 16:41	1
o-Xylene	<0.00200	U	0.00200		mg/L			06/01/22 16:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/01/22 16:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*06/01/22 16:41*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*		*06/01/22 16:41*	*1*

Lab Sample ID: LCS 880-26646/108
Matrix: Water
Analysis Batch: 26646

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08700		mg/L		87	70 - 130		
Toluene			0.100	0.09403		mg/L		94	70 - 130		
Ethylbenzene			0.100	0.1089		mg/L		109	70 - 130		
m,p-Xylenes			0.200	0.2238		mg/L		112	70 - 130		
o-Xylene			0.100	0.1040		mg/L		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: LCSD 880-26646/109
Matrix: Water
Analysis Batch: 26646

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1043		mg/L		104	70 - 130	18	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-26646/109
Matrix: Water
Analysis Batch: 26646

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1018		mg/L		102	70 - 130	8	20
Ethylbenzene			0.100	0.1117		mg/L		112	70 - 130	3	20
m,p-Xylenes			0.200	0.2232		mg/L		112	70 - 130	0	20
o-Xylene			0.100	0.1037		mg/L		104	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-15197-A-10 MS
Matrix: Water
Analysis Batch: 26646

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	<0.00200	U	0.100	0.08661		mg/L		85	70 - 130
Toluene	<0.00200	U	0.100	0.09196		mg/L		92	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1056		mg/L		106	70 - 130
m,p-Xylenes	<0.00400	U	0.200	0.2139		mg/L		107	70 - 130
o-Xylene	<0.00200	U	0.100	0.09945		mg/L		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 880-15197-A-10 MSD
Matrix: Water
Analysis Batch: 26646

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	<0.00200	U	0.100	0.09192		mg/L		90	70 - 130	6	25
Toluene	<0.00200	U	0.100	0.08853		mg/L		89	70 - 130	4	25
Ethylbenzene	<0.00200	U	0.100	0.09554		mg/L		96	70 - 130	10	25
m,p-Xylenes	<0.00400	U	0.200	0.1874		mg/L		94	70 - 130	13	25
o-Xylene	<0.00200	U	0.100	0.08709		mg/L		87	70 - 130	13	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 880-26723/8
Matrix: Water
Analysis Batch: 26723

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			06/02/22 19:35	1
Toluene	<0.00200	U	0.00200		mg/L			06/02/22 19:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/02/22 19:35	1
m,p-Xylenes	<0.00400	U	0.00400		mg/L			06/02/22 19:35	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-26723/8
Matrix: Water
Analysis Batch: 26723

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/L			06/02/22 19:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/02/22 19:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*06/02/22 19:35*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*06/02/22 19:35*	*1*

Lab Sample ID: LCS 880-26723/3
Matrix: Water
Analysis Batch: 26723

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09952		mg/L		100	70 - 130		
Toluene			0.100	0.09677		mg/L		97	70 - 130		
Ethylbenzene			0.100	0.1048		mg/L		105	70 - 130		
m,p-Xylenes			0.200	0.2023		mg/L		101	70 - 130		
o-Xylene			0.100	0.09314		mg/L		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-26723/4
Matrix: Water
Analysis Batch: 26723

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1035		mg/L		103	70 - 130	4	20
Toluene			0.100	0.1107		mg/L		111	70 - 130	13	20
Ethylbenzene			0.100	0.1275		mg/L		127	70 - 130	20	20
m,p-Xylenes			0.200	0.2600	*1	mg/L		130	70 - 130	25	20
o-Xylene			0.100	0.1169	*1	mg/L		117	70 - 130	23	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-15252-4 MS
Matrix: Water
Analysis Batch: 26723

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U F2 F1	0.100	0.1081		mg/L		108	70 - 130		
Toluene	<0.00200	U F2 F1	0.100	0.1118		mg/L		111	70 - 130		
Ethylbenzene	<0.00200	U F1	0.100	0.1263		mg/L		126	70 - 130		
m,p-Xylenes	<0.00400	U F2 F1 *1	0.200	0.2553		mg/L		128	70 - 130		
o-Xylene	<0.00200	U F1 *1	0.100	0.1154		mg/L		115	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-15252-4 MS
Matrix: Water
Analysis Batch: 26723

Client Sample ID: MW-4
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-15252-4 MSD
Matrix: Water
Analysis Batch: 26723

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.100	<0.00200	U F2 F1	mg/L		1	70 - 130	194	25
Toluene	<0.00200	U F2 F1	0.100	<0.00200	U F2 F1	mg/L		0.5	70 - 130	197	25
Ethylbenzene	<0.00200	U F1	0.100	<0.00200	U F1	mg/L		0	70 - 130	NC	25
m,p-Xylenes	<0.00400	U F2 F1 *1	0.200	<0.00400	U F2 F1	mg/L		0.5	70 - 130	198	25
o-Xylene	<0.00200	U F1 *1	0.100	<0.00200	U F1	mg/L		0	70 - 130	NC	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26475/3
Matrix: Water
Analysis Batch: 26475

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			05/28/22 02:26	1

Lab Sample ID: LCS 880-26475/4
Matrix: Water
Analysis Batch: 26475

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			25.0	25.55		mg/L		102	90 - 110		

Lab Sample ID: LCSD 880-26475/5
Matrix: Water
Analysis Batch: 26475

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			25.0	25.11		mg/L		100	90 - 110	2	20

Lab Sample ID: 880-15267-A-1 MS
Matrix: Water
Analysis Batch: 26475

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		
Chloride	19.2		25.0	42.92		mg/L		95	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-15267-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19.2		25.0	43.61		mg/L		98	90 - 110	2	20

Lab Sample ID: MB 880-26476/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26476

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100	U	0.100		mg/L			05/28/22 02:26	1
Nitrite as N	<0.100	U	0.100		mg/L			05/28/22 02:26	1

Lab Sample ID: LCS 880-26476/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26476

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.939		mg/L		99	90 - 110		
Nitrite as N			5.00	5.340		mg/L		107	90 - 110		

Lab Sample ID: LCSD 880-26476/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26476

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.922		mg/L		98	90 - 110	0	20
Nitrite as N			5.00	5.381		mg/L		108	90 - 110	1	20

Lab Sample ID: 880-15267-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26476

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	<0.100	U	5.00	5.172		mg/L		103	90 - 110		
Nitrite as N	<0.100	U	5.00	4.854		mg/L		97	90 - 110		

Lab Sample ID: 880-15267-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26476

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	<0.100	U	5.00	4.928		mg/L		99	90 - 110	5	20
Nitrite as N	<0.100	U	5.00	4.894		mg/L		98	90 - 110	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 880-26517/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 26517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<25.0	U	25.0		mg/L			05/30/22 10:03	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 880-26517/2
Matrix: Water
Analysis Batch: 26517

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1000		mg/L		100	80 - 120		

Lab Sample ID: LCSD 880-26517/3
Matrix: Water
Analysis Batch: 26517

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids			1000	1024		mg/L		102	80 - 120	2	10

Lab Sample ID: 880-15252-1 DU
Matrix: Water
Analysis Batch: 26517

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	968			972.0		mg/L				0.4	10

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

GC VOA

Analysis Batch: 26646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15252-2	MW-6	Total/NA	Water	8021B	
880-15252-3	MW-1	Total/NA	Water	8021B	
MB 880-26646/113	Method Blank	Total/NA	Water	8021B	
MB 880-26646/82	Method Blank	Total/NA	Water	8021B	
LCS 880-26646/108	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-26646/109	Lab Control Sample Dup	Total/NA	Water	8021B	
880-15197-A-10 MS	Matrix Spike	Total/NA	Water	8021B	
880-15197-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 26723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15252-1	MW-5	Total/NA	Water	8021B	
880-15252-4	MW-4	Total/NA	Water	8021B	
880-15252-5	MW-3	Total/NA	Water	8021B	
880-15252-6	RW-1	Total/NA	Water	8021B	
880-15252-7	Dup-1	Total/NA	Water	8021B	
880-15252-8	MW-2	Total/NA	Water	8021B	
MB 880-26723/8	Method Blank	Total/NA	Water	8021B	
LCS 880-26723/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-26723/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-15252-4 MS	MW-4	Total/NA	Water	8021B	
880-15252-4 MSD	MW-4	Total/NA	Water	8021B	

Analysis Batch: 26739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15252-1	MW-5	Total/NA	Water	Total BTEX	
880-15252-2	MW-6	Total/NA	Water	Total BTEX	
880-15252-3	MW-1	Total/NA	Water	Total BTEX	
880-15252-4	MW-4	Total/NA	Water	Total BTEX	
880-15252-5	MW-3	Total/NA	Water	Total BTEX	
880-15252-6	RW-1	Total/NA	Water	Total BTEX	
880-15252-7	Dup-1	Total/NA	Water	Total BTEX	
880-15252-8	MW-2	Total/NA	Water	Total BTEX	

HPLC/IC

Analysis Batch: 26475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15252-1	MW-5	Total/NA	Water	300.0	
880-15252-2	MW-6	Total/NA	Water	300.0	
880-15252-3	MW-1	Total/NA	Water	300.0	
880-15252-4	MW-4	Total/NA	Water	300.0	
880-15252-5	MW-3	Total/NA	Water	300.0	
880-15252-6	RW-1	Total/NA	Water	300.0	
880-15252-7	Dup-1	Total/NA	Water	300.0	
880-15252-8	MW-2	Total/NA	Water	300.0	
MB 880-26475/3	Method Blank	Total/NA	Water	300.0	
LCS 880-26475/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-26475/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-15267-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-15267-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

HPLC/IC

Analysis Batch: 26476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15252-1	MW-5	Total/NA	Water	300.0	
880-15252-2	MW-6	Total/NA	Water	300.0	
880-15252-3	MW-1	Total/NA	Water	300.0	
880-15252-4	MW-4	Total/NA	Water	300.0	
880-15252-5	MW-3	Total/NA	Water	300.0	
880-15252-6	RW-1	Total/NA	Water	300.0	
880-15252-7	Dup-1	Total/NA	Water	300.0	
880-15252-8	MW-2	Total/NA	Water	300.0	
MB 880-26476/3	Method Blank	Total/NA	Water	300.0	
LCS 880-26476/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-26476/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-15267-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-15267-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 26517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-15252-1	MW-5	Total/NA	Water	SM 2540C	
880-15252-2	MW-6	Total/NA	Water	SM 2540C	
880-15252-3	MW-1	Total/NA	Water	SM 2540C	
880-15252-4	MW-4	Total/NA	Water	SM 2540C	
880-15252-5	MW-3	Total/NA	Water	SM 2540C	
880-15252-6	RW-1	Total/NA	Water	SM 2540C	
880-15252-7	Dup-1	Total/NA	Water	SM 2540C	
880-15252-8	MW-2	Total/NA	Water	SM 2540C	
MB 880-26517/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 880-26517/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 880-26517/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-15252-1 DU	MW-5	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: MW-5
Date Collected: 05/26/22 10:05
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-1
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	8021B		20	5 mL	5 mL	26723	06/02/22 22:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26475	05/28/22 03:41	SC	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 03:41	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Client Sample ID: MW-6
Date Collected: 05/26/22 10:20
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-2
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	8021B		1	5 mL	5 mL	26646	06/02/22 08:54	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26475	05/28/22 03:52	SC	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 03:52	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Client Sample ID: MW-1
Date Collected: 05/26/22 11:00
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-3
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	8021B		1	5 mL	5 mL	26646	06/02/22 09:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 04:03	SC	XEN MID
Total/NA	Analysis	300.0		5			26475	05/28/22 17:32	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Client Sample ID: MW-4
Date Collected: 05/26/22 11:40
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-4
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	8021B		1	5 mL	5 mL	26723	06/02/22 19:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 04:45	SC	XEN MID
Total/NA	Analysis	300.0		10			26475	05/28/22 17:43	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Client Sample ID: MW-3
Date Collected: 05/26/22 12:05
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-5
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	8021B		10	5 mL	5 mL	26723	06/02/22 22:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 05:07	SC	XEN MID
Total/NA	Analysis	300.0		50			26475	05/28/22 16:49	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Client Sample ID: RW-1
Date Collected: 05/26/22 12:30
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-6
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	8021B		10	5 mL	5 mL	26723	06/02/22 22:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 05:29	SC	XEN MID
Total/NA	Analysis	300.0		10			26475	05/28/22 17:54	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Client Sample ID: Dup-1
Date Collected: 05/26/22 00:00
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-7
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	8021B		1	5 mL	5 mL	26723	06/02/22 20:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 05:50	SC	XEN MID
Total/NA	Analysis	300.0		10			26475	05/28/22 18:05	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Client Sample ID: MW-2
Date Collected: 05/26/22 13:00
Date Received: 05/27/22 08:54

Lab Sample ID: 880-15252-8
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	8021B		10	5 mL	5 mL	26723	06/02/22 21:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26739	06/02/22 12:45	MR	XEN MID
Total/NA	Analysis	300.0		1			26476	05/28/22 06:12	SC	XEN MID
Total/NA	Analysis	300.0		50			26475	05/28/22 17:00	SC	XEN MID
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	26517	05/30/22 10:03	SC	XEN MID

Laboratory References:
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-15252-1
Project/Site: State C Tract #13 SDG: 19-0112-38

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Total BTEX		Water	Total BTEX

Method Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN MID
5030B	Purge and Trap	SW846	XEN MID

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: State C Tract #13

Job ID: 880-15252-1
SDG: 19-0112-38

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-15252-1	MW-5	Water	05/26/22 10:05	05/27/22 08:54
880-15252-2	MW-6	Water	05/26/22 10:20	05/27/22 08:54
880-15252-3	MW-1	Water	05/26/22 11:00	05/27/22 08:54
880-15252-4	MW-4	Water	05/26/22 11:40	05/27/22 08:54
880-15252-5	MW-3	Water	05/26/22 12:05	05/27/22 08:54
880-15252-6	RW-1	Water	05/26/22 12:30	05/27/22 08:54
880-15252-7	Dup-1	Water	05/26/22 00:00	05/27/22 08:54
880-15252-8	MW-2	Water	05/26/22 13:00	05/27/22 08:54

No. 2474

15252 CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N Marienfeld, Ste 202
Midland, TX 79701
432-687-0901

Data Reported to

DATE: 5/27/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: State C Tract #13

LAI PROJECT #: 19-0112-38 COLLECTOR: DSC & RW

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State: MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl x3	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE x2	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	FIELD NOTES
MW-5		5/26/22	1005	W	5	X			X		X	
MW-6			1020									
MW 1			1100									
MW-4			1140									
MW-3			1205									
RW-1			1230									
Dup-1			-									
MW-2			1300									

ANALYSES: TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ OIL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☒ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ Nitrates E300

TOTAL

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	5/27/22 0854	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 3.1 THERM# ID8 = 2
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

880-15252 Chain of Custody

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-15252-1
SDG Number: 19-0112-38

Login Number: 15252
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
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	
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.	True	
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	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	873
	Action Number: 416262
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	2022 Semi Annual (January - June) Groundwater Monitoring Report for Apache Corporation, State C Tract 13 has been accepted for the record. App ID: 416262. This report was not received by Apache until 01.02.2025.	1/6/2025