Received by OCD: 4/14/2022 4:15:59 PM

REVIEWED
By Nelson Velez at 12:50 pm, Apr 03, 2023

Review of 2021 Annual Groundwater Monitoring Report: **Content satisfactory**

1. OCD approves 2022 recommendations found under section 3.2 in this report.
2. Submit next annual groundwater monitor report no later than June 1, 2023.

2021 Annual Groundwater Monitoring Report

O-6-1 4”
Lea County, New Mexico
1RP-4643
Incident No. nOY1707428250

ETC Texas Pipeline, Ltd

April 12, 2022

→ The Power of Commitment

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1. Introduction

This report presents the results of the 2021 groundwater monitoring events performed quarterly at the ETC Texas Pipeline, Ltd. (ETC), O-6-1 4" pipeline release (Site). The Site is located within Unit J, Section 20, Township 20 South, Range 37 East, in Lea County, New Mexico (**Figure 1**). The property is owned by the New Mexico State Land Office (NMSLO). Site details can be seen on **Figure 2.**

1.1 Background

On March 13, 2017, a release of approximately 150 barrels (bbls) of natural gas liquids/oil was reported to the New Mexico Oil Conservation Division (NMOCD) via Form C-141. The NMOCD then notified the NMSLO. External corrosion caused an approximate 1-inch hole to develop on a section of the 0-6-1 pipeline and was the cause of the release. Approximately 50 bbls of the fluids were recovered. Impacted soil were excavated and stockpiled on-Site and the excavation backfilled. NMOCD release number 1RP-4643 was assigned.

The impacted area had been initially excavated to a depth of approximately 15 feet below ground surface (ft bgs) and soil samples were collected by ETC from two locations within the base of the excavation. Concentrations of total petroleum hydrocarbons (TPH) exceeded 100 milligrams per kilogram (mg/Kg), the Recommended Remedial Action Limit (RRAL) for the Site (based on interpreted depth to groundwater of less than 50 ft bgs) at the time of assessment.

Vertical and horizontal assessment at the Site was performed on August 29 and 30, 2017 and included the advancement of six soil borings and the installation of one groundwater monitoring well (MW). Soil samples collected at depth from the six soil borings near the release point were found to be at concentrations below laboratory reporting limits for benzene, toluene, ethylbenzene, xylenes (BTEX) and TPH. Concentrations of TPH above RRAL were recorded in borings at the following depths: MW-1 from 5-22 ft bgs, BN-1 from 10-15 ft bgs, and BE-1 and BE-2 at 10 ft bgs. Additionally, the sample collected from soil boring MW-1 from 15-17 ft bgs returned a chloride concentration of 1,100 mg/Kg, above the RRAL of 600 mg/kg for the Site.

One soil boring advanced near the release point was converted to a groundwater monitoring well, MW-1. A groundwater sample was collected from MW-1 on September 20, 2017 and analyzed for BTEX, TPH, chloride and total dissolved solids (TDS). Benzene, chloride, and TDS were detected at concentrations in excess of New Mexico Water Quality Control Commission (NMWQCC) standards. A second groundwater sample was collected from MW-1 on October 17, 2017 again with similar concentrations above standard for these constituents.

As a result, GHD installed four additional monitoring wells and two air sparge (AS) wells at the Site between December 18, 2017 and January 31, 2018. Well MW-2 was installed to the north, MW-3 to the southeast, MW-4 to the south, and MW-5 to the west of MW-1. The air sparge wells were installed north and south of the 0-6-1 line to the west of MW-1.

Soil vapor extraction (SVE) and AS pilot studies were performed at the Site on January 30 and 31, 2018. The data and observations from the pilot studies indicate that AS/SVE is capable of removing petroleum hydrocarbons from the impacted subsurface. Based on vapor concentrations extracted during the pilot test and using conservative operating parameters, it was estimated that 75 to 90 percent of the mass currently present would be removed in less than a year of operation. However, due to difficulties accessing electricity the system was not installed and no additional SVE or AS efforts were completed in 2018.

Throughout 2019 mobile dual phase extraction (MDPE) events were performed at the Site in place of SVE and AS. One event was performed on MW-1 and two events on MW-2. Each event consisted of 8 hours where vacuum was applied to the selected well and vapors and liquids were pulled from the subsurface. The MDPE events were conducted by Talon LPE (Talon) and overseen by GHD. The MDPE equipment destroyed approximately 1.97 equivalent gallons of hydrocarbons as vapors and removed 1,622 gallons of impacted groundwater. No liquid phase hydrocarbons were observed during the MDPE events. The extracted groundwater was disposed of at a permitted disposal facility and was overseen by ETC.

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A soil sampling event was completed on July 14, 2020 to assess if current Site soil concentrations at the point of release are below 100 mg/Kg TPH and 600 mg/Kg chloride, the Site specific clean-up standards as described in the New Mexico Administrative Code (NMAC), Title 19, Chapter 15, Part 29 (19.15.29). Discreet soil samples were collected during the one-day event via direct push technology. The majority of the soil samples were found to be below standard for both TPH and chloride with two exceptions. Boring DP-1 at 20 ft bgs was found to be above standard for chloride at a concentration of 750 mg/Kg and DP-5 at 5 and 10 ft bgs were found to be above standard for TPH at concentrations of 110 mg/Kg and 120 mg/Kg, respectively.

Quarterly groundwater monitoring has been performed at the Site since 2018.

2. Groundwater Monitoring Summary, Methodology, and Analytical Results

2.1 Groundwater Monitoring Summary

Quarterly groundwater monitoring events were performed in 2021 during April, June, September, and November. During each monitoring event, an oil/water interface probe was used to measure depth to groundwater and to check for the presence of LNAPL. Before and after each use, the oil/water interface probe was cleaned with an Alconox®/deionized water solution and rinsed with deionized water. Groundwater level gauging data and calculated groundwater elevations for the Site are presented in **Table 1**.

Groundwater flow direction during 2021 was towards the southeast, with a slightly more southerly flow in November. Groundwater gradient calculated for each monitoring period was approximately 0.0016 in April, 0.0020 in June, 0.0036 in September, and 0.0017 feet per foot (ft/ft) November 2021. A groundwater gradient map has been prepared for each groundwater monitoring event and are included as **Figures 3**, **4**, **5**, and **6**.

2.2 Groundwater Monitoring Methodology

During the 2021 quarterly groundwater monitoring events, monitoring wells were purged of at least three well casing volumes of water, or until dry, using a dedicated, polyethylene bailer prior to sampling. Groundwater quality parameters including pH, temperature, oxidation reduction potential, and conductivity were collected using a calibrated multi-parameter groundwater quality meter and were recorded on groundwater sampling field forms. A summary of field parameters is presented as **Table 2**.

Groundwater samples were placed in laboratory prepared bottles, packed on ice and shipped under chain-of-custody documentation to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. Groundwater samples were analyzed for BTEX by Environmental Protection Agency (EPA) Method 8260, chloride by EPA Method 300.0, and TDS by Standard Method 2540.

2.3 Groundwater Monitoring Analytical Results

Groundwater samples collected from Site wells were below the NMWQCC standard for BTEX constituents for all of the 2021 monitoring events. Groundwater samples collected from MW-1 through MW-5 have consistently exceeded the NMWQCC standard for chloride of 250 mg/L. During the most recent sampling event in November 2021, chloride concentrations in Site wells ranged between 540 mg/L (MW-4) and 810 mg/L (MW-2). Concentrations of TDS have also consistently been above the NMWQCC standard of 1,000 mg/L with most recent concentrations ranging from 1,690 mg/L (MW-4) to 2,41 mg/L (MW-4) in November 2020.

A summary of groundwater laboratory analytical results is presented in **Table 3** and shown on **Figure 7**. Corresponding laboratory analytical reports are included as **Appendix A**.

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3. Conclusions and 2022 Recommendations

3.1 Conclusions

Based on 2021 data, GHD makes the following conclusions:

– Groundwater sampled from MW-1 through MW-5, exceeds the NMWQCC standard for chlorides and TDS.

3.2 2022 Recommendations

Based on the above conclusions, GHD recommends:

– Install upgradient monitoring well (MW-6) to better determine background conditions at the site, as per NMOCD request.
– The continuation of quarterly groundwater monitoring and reporting.
– Request Site closure based on the following:
  - TPH in Site soils at a concentration of 110 to 120 mg/Kg, slightly above the Site closure standard of 100 mg/Kg are only present from 5 to 10 ft bgs at DP-5 with approximately 10 to 15 feet of separation from groundwater.
  - One soil sample collected from DP-1 at 20 ft bgs had a concentration of chloride of 750 mg/L slightly above the 600 mg/Kg Site standard.
  - Groundwater samples collected from Site wells have been below NMWQCC standards for BTEX constituents for eight consecutive quarters.
  - Although chloride and TDS concentrations in groundwater remain elevated above NMWQCC standards at the Site, concentration remain fairly low.
  - None of the above pose an immediate threat to human life or the environment.

All of Which is Respectfully Submitted,

GHD

Charles Neligh
Project Geologist

Christine Mathews
Project Manager

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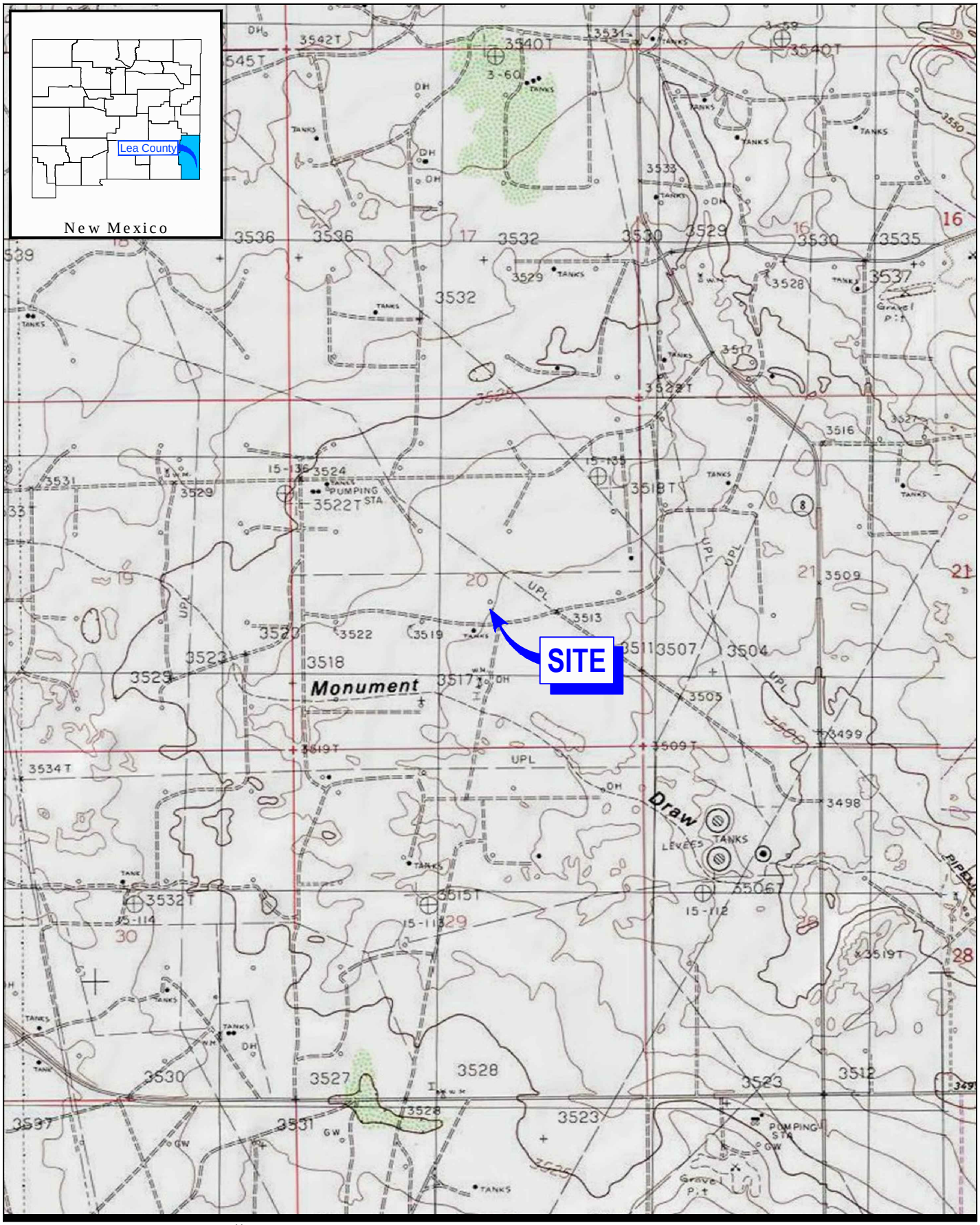
Figures



0 1000 2000 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD.
LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\56\12574711\Digital_Design\ACAD\Figures\RPT004\12574711-GHD-0000-RPT-EN-0101_DL-004.dwg

Data Source: USGS 7.5 Minute Quad "Monument South and Hobbs SW, New Mexico"
Lat/Long: 32.557054° North, 103.27255° West

0 15 30 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD.
LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

SITE DETAIL MAP

FIGURE 2

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\56\12574711\Digital_Design\ACAD\Figures\RPT004\12574711-GHD-0000-RPT-EN-0101_DL-004.dwg

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ETC TEXAS PIPELINE, LTD.
LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

APRIL 2021 GROUNDWATER POTENTIOMETRIC SURFACE MAP

FIGURE 3

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\56\12574711\Digital_Design\ACAD\Figures\RPT004\12574711-GHD-0000-RPT-EN-0101_DL-004.dwg

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LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

JUNE 2021 GROUNDWATER POTENTIOMETRIC SURFACE MAP

FIGURE 4

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\56\12574711\Digital_Design\ACAD\Figures\RPT004\12574711-GHD-0000-RPT-EN-0101_DL-004.dwg

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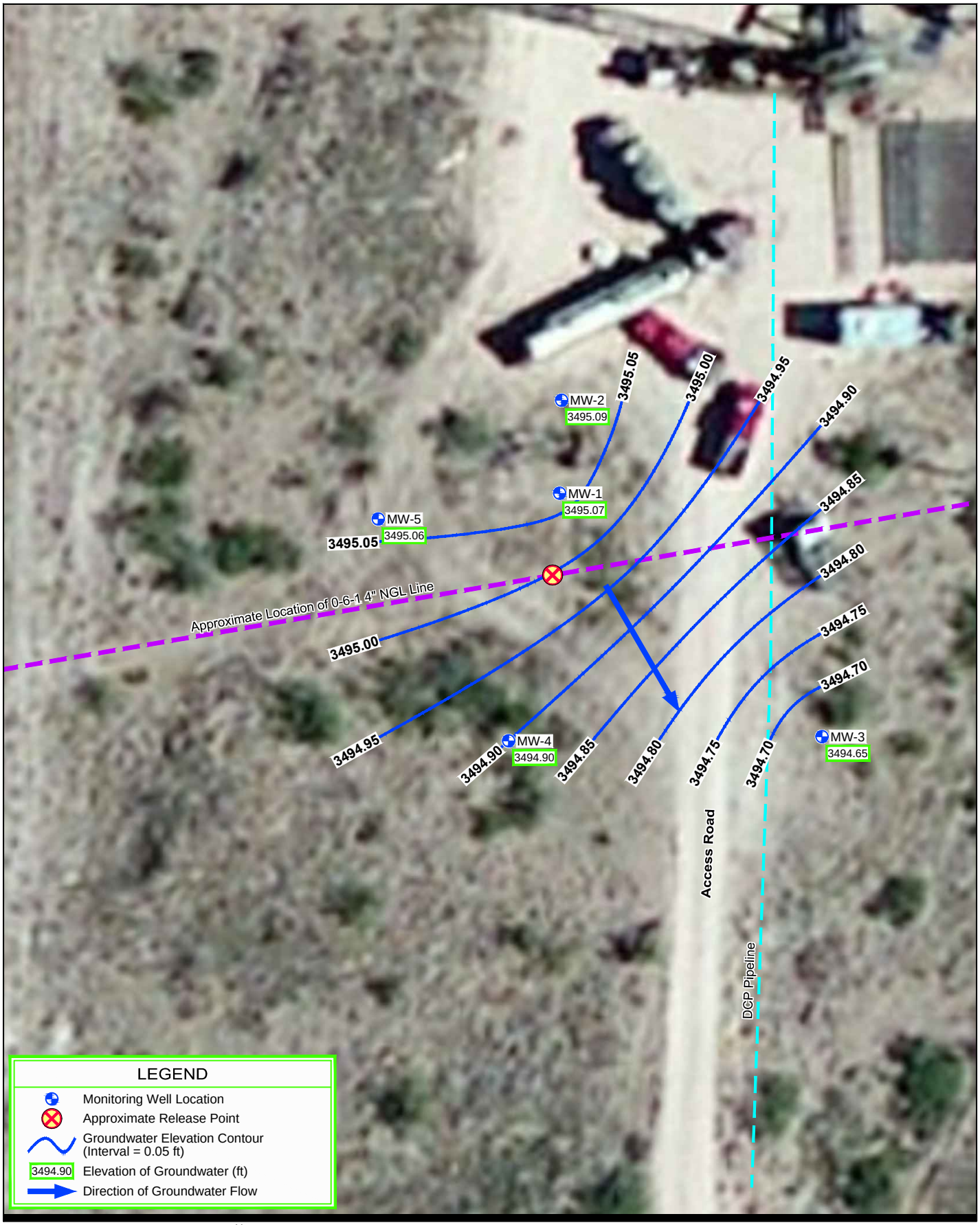
Lat/Long: 32.557054° North, 103.27255° West



0 15 30 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

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LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

SEPTEMBER 2021 GROUNDWATER POTENTIOMETRIC SURFACE MAP

FIGURE 5

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LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

NOVEMBER 2021 GROUNDWATER POTENTIOMETRIC SURFACE MAP

FIGURE 6

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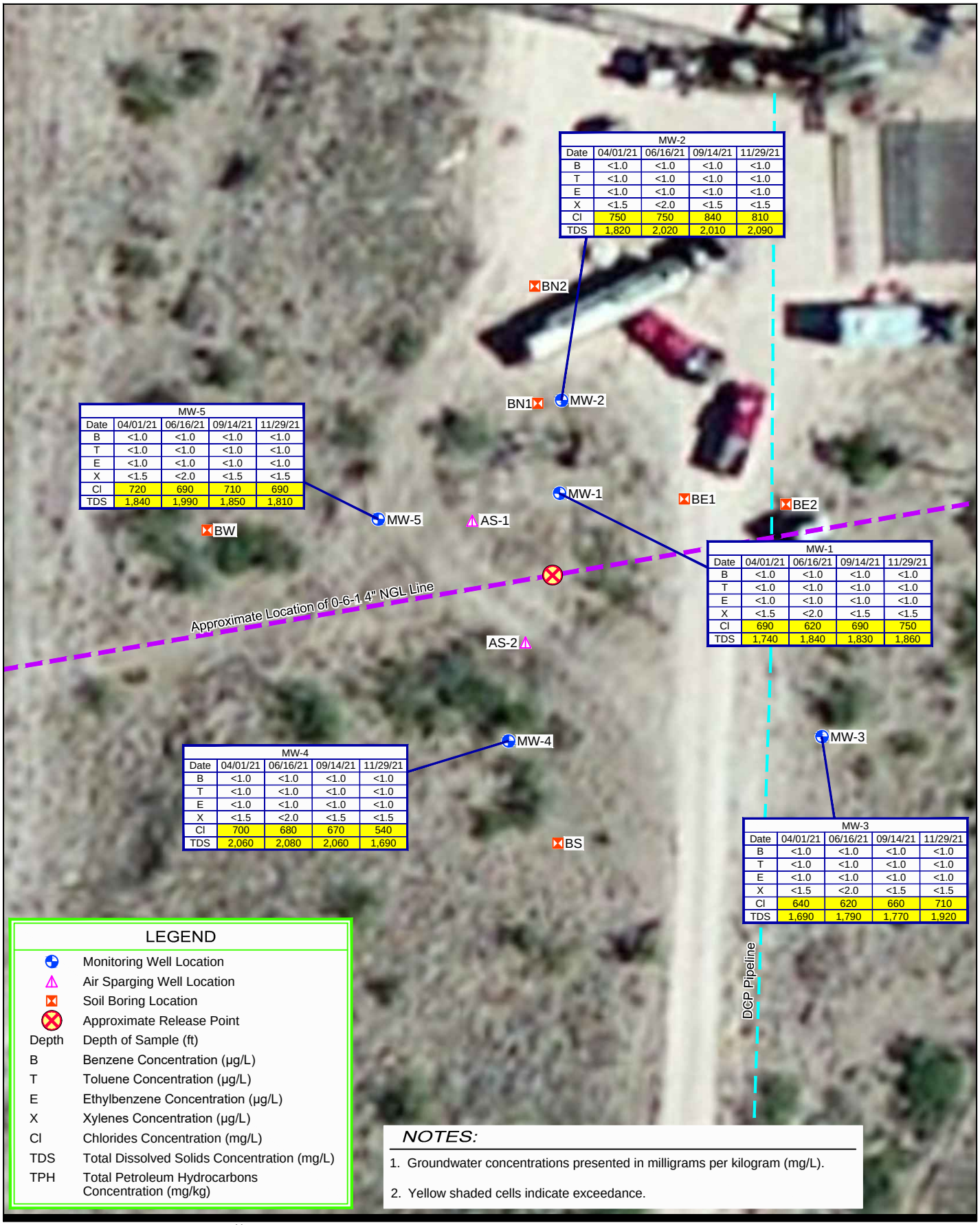

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Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD.
LEA COUNTY, NEW MEXICO
0-6-1 4" LINE RELEASE

Project No. **12574712**
Date **February 2022**

2021 CONCENTRATION MAP

FIGURE 7

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Lat/Long: 32.557054° North, 103.27255° West

Tables

Table 1
Monitoring Well Specifications and Groundwater Elevations
O-6-1 4”
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Well	TOC Elevation (ft AMSL)	Date	Depth to Water (ft below TOC)	GW Elevation (ft AMSL)
MW-1	3520.293	9/20/2017	24.70	3495.59
		10/17/2017	24.60	3495.69
		1/4/2018	24.43	3495.86
		4/2/2018	24.34	3495.95
		4/12/2018	24.33	3495.96
		4/26/2018	24.64	3495.65
		7/24/2018	24.96	3495.33
		10/1/2018	25.03	3495.26
		3/28/2019	24.37	3495.92
		6/27/2019	24.63	3495.66
		9/25/2019	25.02	3495.27
		12/4/2019	24.82	3495.47
		2/25/2020	24.51	3495.78
		5/12/2020	24.27	3496.02
		8/19/2020	24.95	3495.34
		11/16/2020	25.15	3495.14
		4/1/2021	25.03	3495.26
		6/16/2021	25.09	3495.20
		9/14/2021	25.22	3495.07
		11/29/2021	25.3	3494.99
MW-2	3520.422	1/4/2018	24.53	3495.76
		4/2/2018	24.41	3495.88
		4/12/2018	24.40	3496.02
		4/26/2018	24.53	3495.89
		7/24/2018	24.86	3495.56
		10/1/2018	25.13	3495.29
		3/28/2019	24.49	3495.93
		6/27/2019	24.71	3495.71
		9/25/2019	25.10	3495.32
		12/4/2019	24.96	3495.46
		2/25/2020	24.62	3495.80
		5/12/2020	24.35	3496.07
		8/19/2020	25.05	3495.37
		11/16/2020	25.25	3495.17
		4/1/2021	25.13	3495.29
		6/16/2021	25.20	3495.22
		9/14/2021	25.33	3495.09
		11/29/2021	25.31	3495.11
MW-3	3520.451	1/4/2018	24.79	3495.66
		4/2/2018	24.34	3496.11
		4/12/2018	24.34	3496.11
		4/26/2018	24.77	3495.68
		7/24/2018	25.24	3495.21
		10/1/2018	25.40	3495.05
		3/28/2019	24.74	3495.71
		6/27/2019	24.96	3495.49
		9/25/2019	25.35	3495.10
		12/4/2019	25.12	3495.33
		2/25/2020	24.86	3495.59
		5/12/2020	24.61	3495.84
		8/19/2020	25.32	3495.13
		11/16/2020	25.50	3494.95
		4/1/2021	25.36	3495.09
		6/16/2021	25.46	3494.99
		9/14/2021	25.80	3494.65
		11/29/2021	25.65	3494.80

Table 1
Monitoring Well Specifications and Groundwater Elevations
O-6-1 4”
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Well	TOC Elevation (ft AMSL)	Date	Depth to Water (ft below TOC)	GW Elevation (ft AMSL)
MW-4	3520.350	1/4/2018	24.65	3495.70
		4/2/2018	24.54	3495.81
		4/12/2018	24.50	3495.85
		4/26/2018	24.42	3495.93
		7/24/2018	25.09	3495.26
		10/1/2018	25.25	3495.10
		3/28/2019	24.60	3495.75
		6/27/2019	24.83	3495.52
		9/25/2019	25.41	3494.94
		12/4/2019	24.98	3495.37
		2/25/2020	24.72	3495.63
		5/12/2020	24.45	3495.90
		8/19/2020	25.17	3495.18
		11/16/2020	25.35	3495.00
		4/1/2021	25.03	3495.32
		6/16/2021	25.32	3495.03
		9/14/2021	25.45	3494.90
		11/29/2021	25.52	3494.83
MW-5	3520.572	1/4/2018	24.70	3495.87
		4/2/2018	24.58	3495.99
		4/12/2018	24.56	3496.01
		4/26/2018	24.68	3495.89
		7/24/2018	25.13	3495.44
		10/1/2018	25.31	3495.26
		3/28/2019	24.63	3495.94
		6/27/2019	24.87	3495.70
		9/25/2019	25.29	3495.28
		12/4/2019	25.04	3495.53
		2/25/2020	24.76	3495.81
		5/12/2020	24.54	3496.03
		8/19/2020	25.19	3495.38
		11/16/2020	24.43	3496.14
		4/1/2021	25.30	3495.27
		6/16/2021	25.36	3495.21
		9/14/2021	25.51	3495.06
		11/29/2021	25.58	3494.99

Notes:
ft AMSL=feet above mean sea level
TOC=Top of Casing

Table 2
Field Parameters Summary
O-6-1 4”
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Well ID	Sample Date	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)
MW-1	9/20/2017	19.79	6.83	2302	0.42	-151.5
	10/17/2017	19.66	7.11	2587	1.88	-192.3
	1/4/2018	19.11	6.75	2605	2.59	-241.3
	4/12/2018	18.8	7.32	2841	9.37	15.8
	4/26/2018	17.86	7.18	3639	--	--
	7/24/2018	17.62	7.06	2594	2.95	--
	10/1/2018	22.01	7.51	2336	0.86	11.4
	3/28/2019	17.27	7.03	5152	1.84	-48.3
	6/27/2019	19.4	7.14	2801	--	--
	9/25/2019	17.36	7.23	--	--	-73
	12/4/2019	18.71	7.03	2901	1.93	-260.3
	2/25/2020	18.5	7.41	2710	2.15	61.2
	5/12/2020	18.5	10.89	3250	1.2	-213
	8/19/2020	20.6	6.77	2840	1.98	76.8
	11/16/2020	20.46	7.44	3091	2.27	115.4
	4/1/2021	18.79	7.49	2322	1.45	33.6
	6/16/2021	22.70	7.46	1803	1.56	106.2
	9/14/2021	20.79	7.48	1733	1.42	76.8
	11/29/2021	20.44	7.37	2932	1.51	61
MW-2	1/4/2018	19.07	7.08	2627	2.9	-191.8
	4/12/2018	18.08	7.34	2955	6.98	-50.6
	4/26/2018	17.58	7.27	3729	--	--
	7/24/2018	18.15	6.63	2560	3.13	--
	10/1/2018	23.29	7.68	2328	1.32	59.8
	3/28/2019	16.89	7	5066	2.54	-29.9
	6/27/2019	19	7.09	2715	--	66
	9/25/2019	17.93	7.24	--	--	-40.6
	12/4/2019	--	--	--	--	--
	2/25/2020	19.1	7.42	2900	2.76	73.4
	5/12/2020	18.2	7.33	3250	1.95	-10.2
	8/19/2020	20.1	6.81	3190	1.97	12
	11/16/2020	20.03	7.33	3397	1.63	127.1
	4/1/2021	19.24	7.48	2447	2.57	38.8
	6/16/2021	19.58	7.44	2008	2.64	93.3
	9/14/2021	20.12	7.25	2033	2.4	73.2
	11/29/2021	19.73	7.35	3367	2.97	60.2
MW-3	1/4/2018	19.2	7.23	2638	3.67	-138
	4/12/2018	18.36	7.31	2979	10.99	-61.6
	4/26/2018	18	7.26	3880	--	--
	7/24/2018	17.9	7.12	2745	2.22	--
	10/1/2018	21..82	7.66	2572	1.85	54.5
	3/28/2019	17.6	7.03	5489	2.26	37.4
	6/27/2019	19.8	7.13	2922	--	310
	9/25/2019	17.17	6.99	--	--	-96
	12/4/2019	18.95	6.91	3214	1.52	-220.1
	2/25/2020	19.6	7.35	2880	2.19	102.5
	5/12/2020	18.9	7.63	2800	1.95	-17.2
	8/19/2020	20.2	6.92	2700	1.69	10.5
	11/16/2020	20.03	7.34	3070	1.44	44.2
	4/1/2021	19.46	7.48	2237	1.53	35.7
	6/16/2021	20.07	7.41	1727	1.68	-6.7
	9/14/2021	20.39	7.51	1690	1.96	-7.0
	11/29/2021	19.6	7.34	2821	2.04	-24.1

Table 2
Field Parameters Summary
O-6-1 4”
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Well ID	Sample Date	Temperature (°C)	pH	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)
MW-4	1/4/2018	19.75	7.04	3081	2.15	-277.2
	4/12/2018	18.37	7.16	3688	3.78	-219.5
	4/26/2018	18.2	7.06	4750	--	--
	7/24/2018	18.6	7.01	3632	2.55	--
	10/1/2018	22.68	7.42	3213	1.09	-183.4
	3/28/2019	7.85	7	5537	2.71	-99.6
	6/27/2019	20.02	7	3376	--	345
	9/25/2019	18.17	6.71	--	--	-122.1
	12/4/2019	19.81	7.01	3151	1.45	-261.5
	2/25/2020	20	7.42	2720	1.64	-48.6
	5/12/2020	18.8	10.7	3070	1.03	-190.1
	8/19/2020	20.4	6.89	3250	1.27	-165.7
	11/16/2020	20.86	7.18	3680	1.23	-136.2
	4/1/2021	19.53	7.3	2734	0.83	-108.0
	6/16/2021	20.02	7.17	2119	0.59	-108.4
	9/14/2021	20.83	7.29	2018	0.50	-121.7
	11/29/2021	20.33	7.22	2774	1.15	-134.6
MW-5	1/4/2018	19.45	7.04	2955	2.06	-275.2
	4/12/2018	18.31	7.29	3131	8.93	-161.1
	4/26/2018	17.99	7.29	4024	--	--
	7/24/2018	18.31	7.06	2953	6.17	--
	10/1/2018	21.59	7.39	2636	1.35	-60.4
	3/28/2019	17.3	6.7	5726	2.49	-85.5
	6/27/2019	19.4	6.96	3060	--	379
	9/25/2019	17.51	6.8	--	--	-121.2
	12/4/2019	19.15	6.96	3027	1.42	-271.3
	2/25/2020	19.1	7.25	3010	1.68	0.5
	5/12/2020	18.3	9.03	2800	1.09	-115.7
	8/19/2020	20.1	6.89	2760	1.31	-65
	11/16/2020	20.55	7.24	3010	1.3	-55.4
	4/1/2021	19.28	7.42	2467	1.2	-33.7
	6/16/2021	19.45	7.37	1917	1.47	6.0
	9/14/2021	20.3	7.45	1825	1.00	-21.9
	11/29/2021	19.99	7.33	3005	2.11	-42.2

Notes:
ºC = degress celcius
uS/cm = microsiemens per centimeter
mg/L = milligrams per liter
mV = millivolts
DO = dissolved oxygen
ORP = oxitation reduction potential

Table 3
Groundwater Analytical Results Summary
O-6-1 4”
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chlorides (mg/L)	TDS (mg/L)
NMWQCC Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**	**1000**
MW-1	9/20/2017	**0.2**	0.08	0.087	0.087	**580**	**2010**
	10/17/2017	**0.15**	0.05	0.062	0.068	**560**	**1620**
	1/4/2018	**0.13**	<0.005	0.056	0.03	**620**	**1720**
	4/26/2018	**0.023**	<0.001	0.0069	0.0016	**560**	NA
	7/24/2018	<0.001	<0.001	<0.001	<0.0015	**580**	**1770**
	10/1/2018	<0.001	<0.001	<0.001	<0.0020	**630**	**1640**
	3/28/2019	<0.001	<0.001	<0.001	<0.0015	**630**	**1730**
	6/27/2019	<0.001	<0.001	<0.001	<0.0020	**640**	**1670**
	9/25/2019	<0.001	<0.001	<0.001	<0.0015	**590**	**1800**
	12/13/2019	<0.001	<0.001	<0.001	<0.0015	**570**	**1700**
	2/26/2020	<0.001	<0.001	<0.001	<0.0015	**690**	**1720**
	5/12/2020	<0.001	<0.001	<0.001	<0.0015	**690**	**1920**
	8/19/2020	<0.001	<0.001	<0.001	<0.0015	**640**	**1970**
	11/16/2020	<0.001	<0.001	<0.001	<0.0015	**730**	**1940**
	4/1/2021	<0.001	<0.001	<0.001	<0.0015	**690**	**1740**
	6/16/2021	<0.001	<0.001	<0.001	<0.0015	**620**	**1840**
	9/14/2021	<0.001	<0.001	<0.001	<0.0015	**690**	**1830**
	11/29/2021	<0.001	<0.001	<0.001	<0.0015	**750**	**1860**
MW-2	1/4/2018	<0.001	<0.001	<0.001	<0.0015	**710**	**1840**
	4/26/2018	<0.001	<0.001	<0.001	<0.0015	**590**	**NA**
	7/24/2018	**0.0067**	<0.001	<0.001	<0.0015	**540**	**1770**
	10/1/2018	<0.001	<0.001	<0.001	<0.0020	**630**	**1690**
	3/28/2019	<0.001	<0.001	<0.001	<0.0020	**630**	**1730**
	6/27/2019	<0.001	<0.001	<0.001	<0.0020	**640**	**1900**
	9/25/2019	<0.001	<0.001	<0.001	<0.0015	**640**	**1980**
	12/4/2019	<0.001	<0.001	<0.001	<0.0015	**600**	**1760**
	2/26/2020	<0.001	<0.001	<0.001	<0.0015	**780**	**1780**
	5/12/2020	<0.001	<0.001	<0.001	<0.0015	**770**	**2030**
	8/19/2020	<0.001	<0.001	<0.001	<0.0015	**760**	**2220**
	11/16/2020	<0.001	<0.001	<0.001	<0.0015	**760**	**2100**
	4/1/2021	<0.001	<0.001	<0.001	<0.0015	**750**	**1820**
	6/16/2021	<0.001	<0.001	<0.001	<0.0015	**750**	**2020**
	9/14/2021	<0.001	<0.001	<0.001	<0.0015	**840**	**2010**
	11/29/2021	<0.001	<0.001	<0.001	<0.0015	**810**	**2090**
MW-3	1/4/2018	<0.001	<0.001	<0.001	<0.0015	**670**	**1930**
	4/26/2018	<0.001	<0.001	<0.001	<0.0015	**280**	NA
	7/24/2018	<0.001	<0.001	<0.001	<0.0015	**640**	**1980**
	10/1/2018	<0.001	<0.001	<0.001	<0.0020	**740**	**1880**
	3/28/2019	0.0015	<0.001	0.0045	<0.0015	**580**	**1790**
	6/27/2019	<0.001	<0.001	<0.001	<0.0020	**670**	**1810**
	9/25/2019	<0.001	<0.001	<0.001	<0.0015	**650**	**2050**
	12/4/2019	<0.001	<0.001	<0.001	<0.0015	**630**	**1910**
	2/26/2020	<0.001	<0.001	<0.001	<0.0015	**720**	**1800**
	5/12/2020	<0.001	<0.001	<0.001	<0.0015	**630**	**1720**
	8/19/2020	<0.001	<0.001	<0.001	<0.0015	**590**	**1810**
	11/16/2020	<0.001	<0.001	<0.001	<0.0015	**690**	**1930**
	4/1/2021	<0.001	<0.001	<0.001	<0.0015	**640**	**1690**
	6/16/2021	<0.001	<0.001	<0.001	<0.0015	**620**	**1790**
	9/14/2021	<0.001	<0.001	<0.001	<0.0015	**660**	**1770**
	11/29/2021	<0.001	<0.001	<0.001	<0.0015	**710**	**1920**

Table 3
Groundwater Analytical Results Summary
O-6-1 4”
Lea County, New Mexico
ETC Texas Pipeline, Ltd.

Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chlorides (mg/L)	TDS (mg/L)
NMWQCC Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**	**1000**
MW-4	1/4/2018	**0.32**	<0.001	0.14	0.0089	**670**	**2010**
	4/26/2018	**0.17**	<0.001	0.16	<0.0015	**600**	NA
	7/24/2018	**0.13**	<0.001	0.13	<0.0015	**670**	**2430**
	10/1/2018	**0.04**	<0.001	0.049	<0.0020	**750**	**2430**
	3/28/2019	0.0015	<0.001	0.0045	<0.0015	**580**	**1790**
	6/27/2019	<0.001	<0.001	0.0036	<0.0020	**670**	**2200**
	9/25/2019	<0.001	<0.001	0.0016	<0.0015	**550**	**2000**
	12/4/2019	<0.001	<0.001	<0.001	<0.0015	**530**	**2000**
	2/26/2020	<0.001	<0.001	<0.001	<0.0015	**580**	**1680**
	5/12/2020	<0.001	<0.001	<0.001	<0.0015	**570**	**1780**
	8/19/2020	<0.001	<0.001	<0.001	<0.0015	**650**	**2180**
	11/16/2020	<0.001	<0.001	<0.001	<0.0015	**730**	**2410**
	4/1/2021	<0.001	<0.001	<0.001	<0.0015	**700**	**2060**
	6/16/2021	<0.001	<0.001	<0.001	<0.0015	**680**	**2080**
	9/14/2021	<0.001	<0.001	<0.001	<0.0015	**670**	**2060**
	11/29/2021	<0.001	<0.001	<0.001	<0.0015	**540**	**1690**
MW-5	1/4/2018	**0.13**	0.015	0.077	0.047	**690**	**1920**
	4/26/2018	**0.028**	<0.001	0.026	0.02	**590**	NA
	7/24/2018	**0.006**	<0.001	0.0055	<0.0015	**610**	**2080**
	10/1/2018	0.0012	<0.001	0.0014	<0.0020	**680**	**1950**
	3/28/2019	0.0015	<0.001	0.0043	<0.0015	**570**	**1780**
	6/27/2019	<0.001	<0.001	<0.001	<0.0020	**640**	**1900**
	9/25/2019	<0.001	<0.001	<0.001	<0.0015	**640**	**2030**
	12/4/2019	<0.001	<0.001	<0.001	<0.0015	**570**	**1820**
	2/26/2020	<0.001	<0.001	<0.001	<0.0015	**740**	**1870**
	5/12/2020	<0.001	<0.001	<0.001	<0.0015	**620**	**1800**
	8/19/2020	<0.001	<0.001	<0.001	<0.0015	**620**	**1980**
	11/16/2020	<0.001	<0.001	<0.001	<0.0015	**700**	**1910**
	4/1/2021	<0.001	<0.001	<0.001	<0.0015	**720**	**1840**
	6/16/2021	<0.001	<0.001	<0.001	<0.0015	**690**	**1990**
	9/14/2021	<0.001	<0.001	<0.001	<0.0015	**710**	**1850**
	11/29/2021	<0.001	<0.001	<0.001	<0.0015	**690**	**1810**

Notes:
TDS = Total dissolved solids
NE = Not established
NMWQCC = New Mexico Water Quality Control Commission
NA = Not analyzed
BOLD = Concentrations that exceed the NMWQCC groundwater quality standard
mg/L = Milligrams per liter (parts per million)
ug/L = Micrograms per liter (parts per billion)

Appendices

Appendix A

Groundwater Laboratory Analytical Report

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

April 12, 2021

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX:

RE: 0 6 1 OrderNo.: 2104079

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/2/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2104079**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2104079
Project: 0 6 1

Lab ID: 2104079-001 **Collection Date:** 4/1/2021 11:00:00 AM
Client Sample ID: GW-11209235-040121-CN-MW-1 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	690	50	*	mg/L	100	4/6/2021 2:58:22 PM	R76493
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MH**	
Total Dissolved Solids	1740	20.0	*	mg/L	1	4/8/2021 3:11:00 PM	59279
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	4/8/2021 5:47:15 AM	A76538
Toluene	ND	1.0		µg/L	1	4/8/2021 5:47:15 AM	A76538
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 5:47:15 AM	A76538
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 5:47:15 AM	A76538
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%Rec	1	4/8/2021 5:47:15 AM	A76538
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	4/8/2021 5:47:15 AM	A76538
Surr: Dibromofluoromethane	106	70-130		%Rec	1	4/8/2021 5:47:15 AM	A76538
Surr: Toluene-d8	106	70-130		%Rec	1	4/8/2021 5:47:15 AM	A76538

Lab ID: 2104079-002 **Collection Date:** 4/1/2021 11:30:00 AM
Client Sample ID: GW-11209235-040121-CN-MW-2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	750	50	*	mg/L	100	4/6/2021 3:47:45 PM	R76493
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MH**	
Total Dissolved Solids	1820	20.0	*	mg/L	1	4/8/2021 3:11:00 PM	59279
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	4/8/2021 6:15:54 AM	A76538
Toluene	ND	1.0		µg/L	1	4/8/2021 6:15:54 AM	A76538
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 6:15:54 AM	A76538
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 6:15:54 AM	A76538
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	4/8/2021 6:15:54 AM	A76538
Surr: 4-Bromofluorobenzene	93.8	70-130		%Rec	1	4/8/2021 6:15:54 AM	A76538
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/8/2021 6:15:54 AM	A76538
Surr: Toluene-d8	109	70-130		%Rec	1	4/8/2021 6:15:54 AM	A76538

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2104079**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2104079
Project: 0 6 1

Lab ID: 2104079-003 **Collection Date:** 4/1/2021 12:00:00 PM
Client Sample ID: GW-11209235-040121-CN-MW-3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	640	50	*	mg/L	100	4/6/2021 4:12:26 PM	R76493
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MH**	
Total Dissolved Solids	1690	40.0	*D	mg/L	1	4/8/2021 3:11:00 PM	59279
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	4/8/2021 6:44:31 AM	A76538
Toluene	ND	1.0		µg/L	1	4/8/2021 6:44:31 AM	A76538
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 6:44:31 AM	A76538
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 6:44:31 AM	A76538
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/8/2021 6:44:31 AM	A76538
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	4/8/2021 6:44:31 AM	A76538
Surr: Dibromofluoromethane	107	70-130		%Rec	1	4/8/2021 6:44:31 AM	A76538
Surr: Toluene-d8	107	70-130		%Rec	1	4/8/2021 6:44:31 AM	A76538

Lab ID: 2104079-004 **Collection Date:** 4/1/2021 12:30:00 PM
Client Sample ID: GW-11209235-040121-CN-MW-4 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	700	50	*	mg/L	100	4/6/2021 4:37:08 PM	R76493
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MH**	
Total Dissolved Solids	2060	20.0	*	mg/L	1	4/8/2021 3:11:00 PM	59279
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	4/8/2021 7:13:10 AM	A76538
Toluene	ND	1.0		µg/L	1	4/8/2021 7:13:10 AM	A76538
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 7:13:10 AM	A76538
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 7:13:10 AM	A76538
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/8/2021 7:13:10 AM	A76538
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	4/8/2021 7:13:10 AM	A76538
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/8/2021 7:13:10 AM	A76538
Surr: Toluene-d8	107	70-130		%Rec	1	4/8/2021 7:13:10 AM	A76538

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2104079**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2104079
Project: 0 6 1

Lab ID: 2104079-005 **Collection Date:** 4/1/2021 1:00:00 PM
Client Sample ID: GW-11209235-040121-CN-MW-5 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	720	50	*	mg/L	100	4/6/2021 5:01:51 PM	R76493
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MH**	
Total Dissolved Solids	1840	20.0	*	mg/L	1	4/8/2021 3:11:00 PM	59279
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	4/8/2021 7:41:48 AM	A76538
Toluene	ND	1.0		µg/L	1	4/8/2021 7:41:48 AM	A76538
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 7:41:48 AM	A76538
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 7:41:48 AM	A76538
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	4/8/2021 7:41:48 AM	A76538
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	4/8/2021 7:41:48 AM	A76538
Surr: Dibromofluoromethane	104	70-130		%Rec	1	4/8/2021 7:41:48 AM	A76538
Surr: Toluene-d8	106	70-130		%Rec	1	4/8/2021 7:41:48 AM	A76538

Lab ID: 2104079-006 **Collection Date:** 4/1/2021
Client Sample ID: GW-11209235-040121-CN-DUP **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	670	50	*	mg/L	100	4/8/2021 12:35:52 AM	R76540
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MH**	
Total Dissolved Solids	2090	20.0	*	mg/L	1	4/8/2021 3:11:00 PM	59279
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	1.0		µg/L	1	4/8/2021 8:10:28 AM	A76538
Toluene	ND	1.0		µg/L	1	4/8/2021 8:10:28 AM	A76538
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 8:10:28 AM	A76538
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 8:10:28 AM	A76538
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%Rec	1	4/8/2021 8:10:28 AM	A76538
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	4/8/2021 8:10:28 AM	A76538
Surr: Dibromofluoromethane	104	70-130		%Rec	1	4/8/2021 8:10:28 AM	A76538
Surr: Toluene-d8	107	70-130		%Rec	1	4/8/2021 8:10:28 AM	A76538

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order: **2104079**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2104079
Project: 0 6 1

Lab ID: 2104079-007 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/8/2021 11:43:55 AM	R76562
Toluene	ND	1.0		µg/L	1	4/8/2021 11:43:55 AM	R76562
Ethylbenzene	ND	1.0		µg/L	1	4/8/2021 11:43:55 AM	R76562
Xylenes, Total	ND	1.5		µg/L	1	4/8/2021 11:43:55 AM	R76562
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	4/8/2021 11:43:55 AM	R76562
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	4/8/2021 11:43:55 AM	R76562
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/8/2021 11:43:55 AM	R76562
Surr: Toluene-d8	100	70-130		%Rec	1	4/8/2021 11:43:55 AM	R76562

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2104079**

12-Apr-21

Client: GHD

Project: 0 6 1

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R76493**	RunNo: **76493**
Prep Date:	Analysis Date: **4/6/2021**	SeqNo: **2710054** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R76493**	RunNo: **76493**
Prep Date:	Analysis Date: **4/6/2021**	SeqNo: **2710055** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.0	90	110			

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R76540**	RunNo: **76540**
Prep Date:	Analysis Date: **4/7/2021**	SeqNo: **2711706** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R76540**	RunNo: **76540**
Prep Date:	Analysis Date: **4/7/2021**	SeqNo: **2711707** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2104079**
12-Apr-21

Client: GHD
Project: 0 6 1

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **A76538**	RunNo: **76538**
Prep Date:	Analysis Date: **4/8/2021**	SeqNo: **2711601** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.1	70	130			
Toluene	18	1.0	20.00	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.3	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **A76538**	RunNo: **76538**
Prep Date:	Analysis Date: **4/8/2021**	SeqNo: **2711602** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R76562**	RunNo: **76562**
Prep Date:	Analysis Date: **4/8/2021**	SeqNo: **2712446** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.5		10.00		95.5	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R76562**	RunNo: **76562**
Prep Date:	Analysis Date: **4/8/2021**	SeqNo: **2712477** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2104079**
12-Apr-21

Client: GHD
Project: 0 6 1

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **R76562** RunNo: **76562**
Prep Date: Analysis Date: **4/8/2021** SeqNo: **2712477** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2104079**

12-Apr-21

Client: GHD

Project: 0 6 1

Sample ID: **MB-59279** SampType: **MBLK** TestCode: **SM2540C MOD: Total Dissolved Solids**

Client ID: **PBW** Batch ID: **59279** RunNo: **76551**

Prep Date: **4/7/2021** Analysis Date: **4/8/2021** SeqNo: **2712112** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-59279** SampType: **LCS** TestCode: **SM2540C MOD: Total Dissolved Solids**

Client ID: **LCSW** Batch ID: **59279** RunNo: **76551**

Prep Date: **4/7/2021** Analysis Date: **4/8/2021** SeqNo: **2712113** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Sample ID: **2104079-001BDUP** SampType: **DUP** TestCode: **SM2540C MOD: Total Dissolved Solids**

Client ID: **GW-11209235-04012** Batch ID: **59279** RunNo: **76551**

Prep Date: **4/7/2021** Analysis Date: **4/8/2021** SeqNo: **2712116** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1670	20.0						4.34	10	*

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **GHD** Work Order Number: **2104079** RcptNo: **1**

Received By: **Juan Rojas** **4/2/2021 7:35:00 AM**

Completed By: **Desiree Dominguez** **4/2/2021 8:54:20 AM**

Reviewed By: SGC 4/2/21

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: JR 4/2/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good				

Released to Imaging: 4/3/2023 2:49:31 PM

Received by OCD: 4/14/2022 4:15:59 PM

Chain-of-Custody Record

Client: GHD

Mailing Address:

Phone #: 505 769 0085

email or Fax#: Christine.Mathews@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Days
☑ Standard ☐ Rush

Project Name: 0-6-1

Project #: 1120 9235

Project Manager: Christine Mathews

Sampler: CN

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 6.4 -0.1 = 6.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2104079	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX 8260	Chloride 300.0	TDS 2540			
4-1-21	1100	W	GW-1120 9235-040121-CN-MW-1	various	4oC	-001											X	X	X			
	1130		GW-1120 9235-040121-CN-MW-2			-002											X	X	X			
	1200		GW-1120 9235-040121-CN-MW-3			-003											X	X	X			
	1230		GW-1120 9235-040121-CN-MW-4			-004											X	X	X			
	1300		GW-1120 9235-040121-CN-MW-5			-005											X	X	X			
	-		GW-1120 9235-040121-CN-DUP			-006											X	X	X			
			TRIP Blank per sample bottle JR 4/2/21			007																

Remarks:

Date	Time	Relinquished by	Received by	Via	Date	Time
4-1-21	1600				4/1/21	1600
4/1/21	1900			courier	4/2/21	7:35

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

June 25, 2021

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: 0-6-1 OrderNo.: 2106914

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 7 sample(s) on 6/17/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2106914**
Date Reported: **6/25/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2106914
Project: 0-6-1

Lab ID: 2106914-001 **Collection Date:** 6/16/2021 1:00:00 PM
Client Sample ID: GW-11209235-061621-CN-MW-1 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	620	50	*	mg/L	100	6/18/2021 10:20:43 AM	R79219
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1840	40.0	*D	mg/L	1	6/22/2021 3:19:00 PM	60781
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 6:58:53 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 6:58:53 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 6:58:53 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 6:58:53 PM	SL7924
Surr: 1,2-Dichloroethane-d4	116	70-130		%Rec	1	6/21/2021 6:58:53 PM	SL7924
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/21/2021 6:58:53 PM	SL7924
Surr: Toluene-d8	107	70-130		%Rec	1	6/21/2021 6:58:53 PM	SL7924

Lab ID: 2106914-002 **Collection Date:** 6/16/2021 1:30:00 PM
Client Sample ID: GW-11209235-061621-CN-MW-2 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	750	50	*	mg/L	100	6/18/2021 10:46:27 AM	R79219
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2020	40.0	*D	mg/L	1	6/22/2021 3:19:00 PM	60781
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 7:26:19 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 7:26:19 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 7:26:19 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 7:26:19 PM	SL7924
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	6/21/2021 7:26:19 PM	SL7924
Surr: Dibromofluoromethane	127	70-130		%Rec	1	6/21/2021 7:26:19 PM	SL7924
Surr: Toluene-d8	103	70-130		%Rec	1	6/21/2021 7:26:19 PM	SL7924

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2106914**
Date Reported: **6/25/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2106914
Project: 0-6-1

Lab ID: 2106914-003 **Collection Date:** 6/16/2021 2:00:00 PM
Client Sample ID: GW-11209235-061621-CN-MW-3 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	620	50	*	mg/L	100	6/18/2021 11:12:10 AM	R79219
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1790	40.0	*D	mg/L	1	6/22/2021 3:19:00 PM	60781
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 7:53:37 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 7:53:37 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 7:53:37 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 7:53:37 PM	SL7924
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	6/21/2021 7:53:37 PM	SL7924
Surr: Dibromofluoromethane	108	70-130		%Rec	1	6/21/2021 7:53:37 PM	SL7924
Surr: Toluene-d8	105	70-130		%Rec	1	6/21/2021 7:53:37 PM	SL7924

Lab ID: 2106914-004 **Collection Date:** 6/16/2021 2:30:00 PM
Client Sample ID: GW-11209235-061621-CN-MW-4 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	680	50	*	mg/L	100	6/18/2021 12:03:39 PM	R79219
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2080	40.0	*D	mg/L	1	6/22/2021 3:19:00 PM	60781
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 8:21:06 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 8:21:06 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 8:21:06 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 8:21:06 PM	SL7924
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	6/21/2021 8:21:06 PM	SL7924
Surr: Dibromofluoromethane	105	70-130		%Rec	1	6/21/2021 8:21:06 PM	SL7924
Surr: Toluene-d8	101	70-130		%Rec	1	6/21/2021 8:21:06 PM	SL7924

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2106914**
Date Reported: **6/25/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2106914
Project: 0-6-1

Lab ID: 2106914-005 **Collection Date:** 6/16/2021 3:00:00 PM
Client Sample ID: GW-11209235-061621-CN-MW-5 **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	690	50	*	mg/L	100	6/18/2021 12:29:23 PM	R79219
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1990	40.0	*D	mg/L	1	6/22/2021 3:19:00 PM	60781
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 8:48:28 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 8:48:28 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 8:48:28 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 8:48:28 PM	SL7924
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	6/21/2021 8:48:28 PM	SL7924
Surr: Dibromofluoromethane	117	70-130		%Rec	1	6/21/2021 8:48:28 PM	SL7924
Surr: Toluene-d8	106	70-130		%Rec	1	6/21/2021 8:48:28 PM	SL7924

Lab ID: 2106914-006 **Collection Date:** 6/16/2021
Client Sample ID: GW-11209235-061621-CN-DUP **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	710	50	*	mg/L	100	6/18/2021 1:20:53 PM	R79219
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2130	100	*D	mg/L	1	6/22/2021 3:19:00 PM	60781
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 9:15:52 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 9:15:52 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 9:15:52 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 9:15:52 PM	SL7924
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	6/21/2021 9:15:52 PM	SL7924
Surr: Dibromofluoromethane	112	70-130		%Rec	1	6/21/2021 9:15:52 PM	SL7924
Surr: Toluene-d8	104	70-130		%Rec	1	6/21/2021 9:15:52 PM	SL7924

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2106914**
Date Reported: **6/25/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2106914
Project: 0-6-1

Lab ID: 2106914-007 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/21/2021 9:43:07 PM	SL7924
Toluene	ND	1.0		µg/L	1	6/21/2021 9:43:07 PM	SL7924
Ethylbenzene	ND	1.0		µg/L	1	6/21/2021 9:43:07 PM	SL7924
Xylenes, Total	ND	1.5		µg/L	1	6/21/2021 9:43:07 PM	SL7924
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	6/21/2021 9:43:07 PM	SL7924
Surr: Dibromofluoromethane	109	70-130		%Rec	1	6/21/2021 9:43:07 PM	SL7924
Surr: Toluene-d8	99.3	70-130		%Rec	1	6/21/2021 9:43:07 PM	SL7924

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2106914**

25-Jun-21

Client: GHD

Project: 0-6-1

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R79219**	RunNo: **79219**							
Prep Date:	Analysis Date: **6/18/2021**	SeqNo: **2781323**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R79219**	RunNo: **79219**							
Prep Date:	Analysis Date: **6/18/2021**	SeqNo: **2781325**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2106914**
25-Jun-21

Client: GHD
Project: 0-6-1

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW** Batch ID: **SL79245** RunNo: **79245**
Prep Date: Analysis Date: **6/21/2021** SeqNo: **2782990** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.3	70	130			
Toluene	19	1.0	20.00	0	94.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.7	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **SL79245** RunNo: **79245**
Prep Date: Analysis Date: **6/21/2021** SeqNo: **2782999** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2106914**

25-Jun-21

Client: GHD

Project: 0-6-1

Sample ID: **MB-60781**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **60781**	RunNo: **79264**
Prep Date: **6/21/2021**	Analysis Date: **6/22/2021**	SeqNo: **2783642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-60781**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **60781**	RunNo: **79264**
Prep Date: **6/21/2021**	Analysis Date: **6/22/2021**	SeqNo: **2783643** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **GHD** Work Order Number: **2106914** RcptNo: 1

Received By: **Juan Rojas** **6/17/2021 7:35:00 AM**

Completed By: **Cheyenne Cason** **6/17/2021 9:55:59 AM**

Reviewed By: DAD 6.17.21

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: MRG 6/17/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good				

Released to Imaging: 4/3/2023 2:49:31 PM
Received by OCD: 4/14/2022 4:15:59 PM

Chain-of-Custody Record

Client: GHD

Mailing Address:

Phone #: 505 269 0088

email or Fax#: Christine.Mathews@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush

Project Name: 0-6-1

Project #: 11209235

Project Manager: Christine Mathews

Sampler: CM

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp (including CF): 2.4-0=2.4 (°C) 6.3-0=6.3

HEAL No. 2106914

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX	Chloride	TDS			
6-16-21	1300	W	GW-11209235-061621-CN-MW-1	3VOA, 6VOA	HCl	001											X	X	X			
	1330		GW-11209235-061621-CN-MW-2			002											X	X	X			
	1400		GW-11209235-061621-CN-MW-3			003											X	X	X			
	1430		GW-11209235-061621-CN-MW-4			004											X	X	X			
	1500		GW-11209235-061621-CN-MW-5			005											X	X	X			
↓	-	↓	GW-11209235-061621-CN-DUP	↓	↓	006											X	X	X			
			Trip Blank			007											X					
			KPG 6/17/21																			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
6-16-21	1700				6/16/21	1700
6/16/21	1900			Courier	6/17/21	7:35

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

September 24, 2021

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: 0 6 1 OrderNo.: 2109737

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/15/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2109737**
Date Reported: **9/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-091421-CN-MW
Project: 0 6 1 **Collection Date:** 9/14/2021 10:30:00 AM
Lab ID: 2109737-001 **Matrix:** GROUNDWA **Received Date:** 9/15/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	690	50	*	mg/L	100	9/15/2021 3:15:04 PM	R81311
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1830	20.0	*	mg/L	1	9/20/2021 5:26:00 PM	62650
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **mb**	
Benzene	ND	1.0		µg/L	1	9/18/2021 1:48:23 AM	R81384
Toluene	ND	1.0		µg/L	1	9/18/2021 1:48:23 AM	R81384
Ethylbenzene	ND	1.0		µg/L	1	9/18/2021 1:48:23 AM	R81384
Xylenes, Total	ND	1.5		µg/L	1	9/18/2021 1:48:23 AM	R81384
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	9/18/2021 1:48:23 AM	R81384
Surr: Dibromofluoromethane	101	70-130		%Rec	1	9/18/2021 1:48:23 AM	R81384
Surr: Toluene-d8	101	70-130		%Rec	1	9/18/2021 1:48:23 AM	R81384

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109737**
Date Reported: **9/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-091421-CN-MW
Project: 0 6 1 **Collection Date:** 9/14/2021 11:30:00 AM
Lab ID: 2109737-002 **Matrix:** GROUNDWA **Received Date:** 9/15/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	840	50	*	mg/L	100	9/15/2021 3:39:53 PM	R81311
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2010	40.0	*D	mg/L	1	9/20/2021 5:26:00 PM	62650
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **mb**	
Benzene	ND	1.0		µg/L	1	9/18/2021 2:16:56 AM	R81384
Toluene	ND	1.0		µg/L	1	9/18/2021 2:16:56 AM	R81384
Ethylbenzene	ND	1.0		µg/L	1	9/18/2021 2:16:56 AM	R81384
Xylenes, Total	ND	1.5		µg/L	1	9/18/2021 2:16:56 AM	R81384
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	9/18/2021 2:16:56 AM	R81384
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/18/2021 2:16:56 AM	R81384
Surr: Toluene-d8	103	70-130		%Rec	1	9/18/2021 2:16:56 AM	R81384

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109737**
Date Reported: **9/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-091421-CN-MW
Project: 0 6 1 **Collection Date:** 9/14/2021 12:30:00 PM
Lab ID: 2109737-003 **Matrix:** GROUNDWA **Received Date:** 9/15/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	660	50	*	mg/L	100	9/15/2021 4:04:42 PM	R81311
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1770	40.0	*D	mg/L	1	9/20/2021 5:26:00 PM	62650
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **mb**	
Benzene	ND	1.0		µg/L	1	9/18/2021 3:42:41 AM	R81384
Toluene	ND	1.0		µg/L	1	9/18/2021 3:42:41 AM	R81384
Ethylbenzene	ND	1.0		µg/L	1	9/18/2021 3:42:41 AM	R81384
Xylenes, Total	ND	1.5		µg/L	1	9/18/2021 3:42:41 AM	R81384
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	9/18/2021 3:42:41 AM	R81384
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/18/2021 3:42:41 AM	R81384
Surr: Toluene-d8	101	70-130		%Rec	1	9/18/2021 3:42:41 AM	R81384

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109737**
Date Reported: **9/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-091421-CN-MW
Project: 0 6 1 **Collection Date:** 9/14/2021 1:30:00 PM
Lab ID: 2109737-004 **Matrix:** GROUNDWA **Received Date:** 9/15/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	670	50	*	mg/L	100	9/15/2021 4:54:21 PM	R81311
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2060	100	*D	mg/L	1	9/20/2021 5:26:00 PM	62650
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **mb**	
Benzene	ND	1.0		µg/L	1	9/18/2021 4:11:13 AM	R81384
Toluene	ND	1.0		µg/L	1	9/18/2021 4:11:13 AM	R81384
Ethylbenzene	ND	1.0		µg/L	1	9/18/2021 4:11:13 AM	R81384
Xylenes, Total	ND	1.5		µg/L	1	9/18/2021 4:11:13 AM	R81384
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	9/18/2021 4:11:13 AM	R81384
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/18/2021 4:11:13 AM	R81384
Surr: Toluene-d8	100	70-130		%Rec	1	9/18/2021 4:11:13 AM	R81384

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109737**
Date Reported: **9/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-091421-CN-MW
Project: 0 6 1 **Collection Date:** 9/14/2021 2:30:00 PM
Lab ID: 2109737-005 **Matrix:** GROUNDWA **Received Date:** 9/15/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	710	50	*	mg/L	100	9/15/2021 5:19:10 PM	R81311
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1850	40.0	*D	mg/L	1	9/20/2021 5:26:00 PM	62650
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **mb**	
Benzene	ND	1.0		µg/L	1	9/18/2021 4:39:47 AM	R81384
Toluene	ND	1.0		µg/L	1	9/18/2021 4:39:47 AM	R81384
Ethylbenzene	ND	1.0		µg/L	1	9/18/2021 4:39:47 AM	R81384
Xylenes, Total	ND	1.5		µg/L	1	9/18/2021 4:39:47 AM	R81384
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%Rec	1	9/18/2021 4:39:47 AM	R81384
Surr: Dibromofluoromethane	99.4	70-130		%Rec	1	9/18/2021 4:39:47 AM	R81384
Surr: Toluene-d8	97.4	70-130		%Rec	1	9/18/2021 4:39:47 AM	R81384

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109737**
Date Reported: **9/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-091421-CN-MW
Project: 0 6 1 **Collection Date:** 9/14/2021
Lab ID: 2109737-006 **Matrix:** GROUNDWA **Received Date:** 9/15/2021 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	680	50	*	mg/L	100	9/15/2021 5:43:59 PM	R81311
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	**KS**
Total Dissolved Solids	1990	100	*D	mg/L	1	9/20/2021 5:26:00 PM	62650
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst:	**mb**
Benzene	ND	1.0		µg/L	1	9/18/2021 5:08:27 AM	R81384
Toluene	ND	1.0		µg/L	1	9/18/2021 5:08:27 AM	R81384
Ethylbenzene	ND	1.0		µg/L	1	9/18/2021 5:08:27 AM	R81384
Xylenes, Total	ND	1.5		µg/L	1	9/18/2021 5:08:27 AM	R81384
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	9/18/2021 5:08:27 AM	R81384
Surr: Dibromofluoromethane	98.5	70-130		%Rec	1	9/18/2021 5:08:27 AM	R81384
Surr: Toluene-d8	105	70-130		%Rec	1	9/18/2021 5:08:27 AM	R81384

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109737**

24-Sep-21

Client: GHD

Project: 0 6 1

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R81311**	RunNo: **81311**
Prep Date:	Analysis Date: **9/15/2021**	SeqNo: **2871708** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R81311**	RunNo: **81311**
Prep Date:	Analysis Date: **9/15/2021**	SeqNo: **2871716** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109737**

24-Sep-21

Client: GHD

Project: 0 6 1

Sample ID: **MB-62650**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **62650**	RunNo: **81408**
Prep Date: **9/17/2021**	Analysis Date: **9/20/2021**	SeqNo: **2875570** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-62650**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **62650**	RunNo: **81408**
Prep Date: **9/17/2021**	Analysis Date: **9/20/2021**	SeqNo: **2875571** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Sample ID: **2109737-001BDUP**	SampType: **DUP**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **GW-11209235-09142**	Batch ID: **62650**	RunNo: **81408**
Prep Date: **9/17/2021**	Analysis Date: **9/20/2021**	SeqNo: **2875573** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1820	20.0						0.878	10	*

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD | Work Order Number: 2109737 | RcptNo: 1

Received By: Cheyenne Cason 9/15/2021 7:30:00 AM

Completed By: Isaiah Ortiz 9/15/2021 9:33:48 AM

Reviewed By: DAD 9/15/21

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: SPA 9.15.21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Not Present			

Released to Imaging: 4/3/2023 2:49:31 PM

Received by OCD: 4/14/2022 4:15:59 PM

Chain-of-Custody Record

Client: GHD

Mailing Address:

Phone #: 505 269 0088

email or Fax#: christine.Mathews@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5 Day

Project Name: 0-6-1

Project #: 11209235

Project Manager: Christine Mathews

Sampler: CN

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 4.4-0.1=4.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109737
9-14-21	1030	GW	GW-11209235-091421-CN-MW-1	VOA:003	HCl	001
	1130		GW-11209235-091421-CN-MW-2			002
	1230		GW-11209235-091421-CN-MW-3			003
	1330		GW-11209235-091421-CN-MW-4			004
	1430		GW-11209235-091421-CN-MW-5			005
	-		GW-11209235-091421-CN-DUP			006

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX	Chloride	TDS			
										✓	✓	✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9-14-21	1230				9/14/21	1230
9/14/21	1900		Courier		9/15/21	0730

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

December 13, 2021

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX:

RE: 0 6 1 OrderNo.: 2112012

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/1/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2112012**
Date Reported: **12/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-112921-CN-MW
Project: 0 6 1 **Collection Date:** 11/29/2021 3:45:00 PM
Lab ID: 2112012-001 **Matrix:** GROUNDWA **Received Date:** 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	750	50	*	mg/L	100	12/2/2021 3:11:43 PM	R83274
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1860	20.0	*	mg/L	1	12/2/2021 3:07:00 PM	64244
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	12/3/2021 10:02:42 PM	R84295
Toluene	ND	1.0		µg/L	1	12/3/2021 10:02:42 PM	R84295
Ethylbenzene	ND	1.0		µg/L	1	12/3/2021 10:02:42 PM	R84295
Xylenes, Total	ND	1.5		µg/L	1	12/3/2021 10:02:42 PM	R84295
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	12/3/2021 10:02:42 PM	R84295
Surr: 4-Bromofluorobenzene	99.9	70-130		%Rec	1	12/3/2021 10:02:42 PM	R84295
Surr: Dibromofluoromethane	98.5	70-130		%Rec	1	12/3/2021 10:02:42 PM	R84295
Surr: Toluene-d8	101	70-130		%Rec	1	12/3/2021 10:02:42 PM	R84295

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2112012**
Date Reported: **12/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-112921-CN-MW
Project: 0 6 1 **Collection Date:** 11/29/2021 4:00:00 PM
Lab ID: 2112012-002 **Matrix:** GROUNDWA **Received Date:** 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	810	50	*	mg/L	100	12/2/2021 4:01:21 PM	R83274
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	2090	20.0	*	mg/L	1	12/2/2021 3:07:00 PM	64244
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	12/3/2021 10:31:18 PM	R84295
Toluene	ND	1.0		µg/L	1	12/3/2021 10:31:18 PM	R84295
Ethylbenzene	ND	1.0		µg/L	1	12/3/2021 10:31:18 PM	R84295
Xylenes, Total	ND	1.5		µg/L	1	12/3/2021 10:31:18 PM	R84295
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	12/3/2021 10:31:18 PM	R84295
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	1	12/3/2021 10:31:18 PM	R84295
Surr: Dibromofluoromethane	99.8	70-130		%Rec	1	12/3/2021 10:31:18 PM	R84295
Surr: Toluene-d8	97.0	70-130		%Rec	1	12/3/2021 10:31:18 PM	R84295

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2112012**
Date Reported: **12/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-112921-CN-MW
Project: 0 6 1 **Collection Date:** 11/29/2021 4:20:00 PM
Lab ID: 2112012-003 **Matrix:** GROUNDWA **Received Date:** 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	710	50	*	mg/L	100	12/2/2021 4:26:09 PM	R83274
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1920	40.0	*D	mg/L	1	12/2/2021 3:07:00 PM	64244
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	12/3/2021 10:59:50 PM	R84295
Toluene	ND	1.0		µg/L	1	12/3/2021 10:59:50 PM	R84295
Ethylbenzene	ND	1.0		µg/L	1	12/3/2021 10:59:50 PM	R84295
Xylenes, Total	ND	1.5		µg/L	1	12/3/2021 10:59:50 PM	R84295
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	12/3/2021 10:59:50 PM	R84295
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	12/3/2021 10:59:50 PM	R84295
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	12/3/2021 10:59:50 PM	R84295
Surr: Toluene-d8	97.6	70-130		%Rec	1	12/3/2021 10:59:50 PM	R84295

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2112012**
Date Reported: **12/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-112921-CN-MW
Project: 0 6 1 **Collection Date:** 11/29/2021 5:00:00 PM
Lab ID: 2112012-004 **Matrix:** GROUNDWA **Received Date:** 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	540	50	*	mg/L	100	12/2/2021 4:50:58 PM	R83274
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1690	40.0	*D	mg/L	1	12/2/2021 3:07:00 PM	64244
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	12/3/2021 11:28:25 PM	R84295
Toluene	ND	1.0		µg/L	1	12/3/2021 11:28:25 PM	R84295
Ethylbenzene	ND	1.0		µg/L	1	12/3/2021 11:28:25 PM	R84295
Xylenes, Total	ND	1.5		µg/L	1	12/3/2021 11:28:25 PM	R84295
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	12/3/2021 11:28:25 PM	R84295
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	12/3/2021 11:28:25 PM	R84295
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	12/3/2021 11:28:25 PM	R84295
Surr: Toluene-d8	98.6	70-130		%Rec	1	12/3/2021 11:28:25 PM	R84295

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2112012**
Date Reported: **12/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209235-112921-CN-MW
Project: 0 6 1 **Collection Date:** 11/29/2021 4:40:00 PM
Lab ID: 2112012-005 **Matrix:** GROUNDWA **Received Date:** 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	690	50	*	mg/L	100	12/2/2021 5:15:47 PM	R83274
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1810	40.0	*D	mg/L	1	12/2/2021 3:07:00 PM	64244
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	12/3/2021 11:57:04 PM	R84295
Toluene	ND	1.0		µg/L	1	12/3/2021 11:57:04 PM	R84295
Ethylbenzene	ND	1.0		µg/L	1	12/3/2021 11:57:04 PM	R84295
Xylenes, Total	ND	1.5		µg/L	1	12/3/2021 11:57:04 PM	R84295
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	12/3/2021 11:57:04 PM	R84295
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	12/3/2021 11:57:04 PM	R84295
Surr: Dibromofluoromethane	99.6	70-130		%Rec	1	12/3/2021 11:57:04 PM	R84295
Surr: Toluene-d8	97.0	70-130		%Rec	1	12/3/2021 11:57:04 PM	R84295

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2112012**
Date Reported: **12/13/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** Trip Blank
Project: 0 6 1 **Collection Date:**
Lab ID: 2112012-006 **Matrix:** TRIP BLANK **Received Date:** 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	12/4/2021 12:25:40 AM	R84295
Toluene	ND	1.0		µg/L	1	12/4/2021 12:25:40 AM	R84295
Ethylbenzene	ND	1.0		µg/L	1	12/4/2021 12:25:40 AM	R84295
Xylenes, Total	ND	1.5		µg/L	1	12/4/2021 12:25:40 AM	R84295
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%Rec	1	12/4/2021 12:25:40 AM	R84295
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	12/4/2021 12:25:40 AM	R84295
Surr: Dibromofluoromethane	94.6	70-130		%Rec	1	12/4/2021 12:25:40 AM	R84295
Surr: Toluene-d8	96.7	70-130		%Rec	1	12/4/2021 12:25:40 AM	R84295

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112012**
13-Dec-21

Client: GHD
Project: 0 6 1

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R83274**	RunNo: **83274**							
Prep Date:	Analysis Date: **12/2/2021**	SeqNo: **2958927**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R83274**	RunNo: **83274**							
Prep Date:	Analysis Date: **12/2/2021**	SeqNo: **2958928**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112012**
13-Dec-21

Client: GHD
Project: 0 6 1

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R84295**	RunNo: **84295**
Prep Date:	Analysis Date: **12/3/2021**	SeqNo: **2960578** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	22	1.0	20.00	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R84295**	RunNo: **84295**
Prep Date:	Analysis Date: **12/3/2021**	SeqNo: **2960590** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130			
Surr: Toluene-d8	9.5		10.00		95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2112012**
13-Dec-21

Client: GHD
Project: 0 6 1

Sample ID: **MB-64244**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**							
Client ID: **PBW**	Batch ID: **64244**	RunNo: **83248**							
Prep Date: **12/1/2021**	Analysis Date: **12/2/2021**	SeqNo: **2957843**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-64244**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**							
Client ID: **LCSW**	Batch ID: **64244**	RunNo: **83248**							
Prep Date: **12/1/2021**	Analysis Date: **12/2/2021**	SeqNo: **2957844**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	996	20.0	1000	0	99.6	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD | Work Order Number: 2112012 | RcptNo: 1

Received By: **Sean Livingston** 12/1/2021 8:00:00 AM Sean Livingston

Completed By: **Tracy Casarrubias** 12/1/2021 9:11:20 AM

Reviewed By: CM 12/1/21

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: JR 12/1/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.2	Good	Yes			
2	2.8	Good	Yes			

Released to Imaging: 4/3/2023 2:49:31 PM
Received by OCD: 4/14/2022 4:15:59 PM

Chain-of-Custody Record

Client: GHD

Mailing Address:

Phone #: 505 269 0088

email or Fax#: Christine.Mathews@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: 0-6-1

Project #: 112092345

Project Manager: Christine Mathews

Sampler: CM

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 0.2±0=0.2°C (°C)

2.6±0=2.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2112012
11-29-21	1545	W	GHD-112092345-112921-CM-MW-1	various	HCl	001
	1600		GHD-112092345-112921-CM-MW-2			002
	1620		GHD-112092345-112921-CM-MW-3			003
	1~~6~~50		GHD-112092345-112921-CM-MW-4			004
↓	1640	↓	GHD-112092345-112921-CM-MW-5	↓	↓	005
			Trip Blank per sample bottle	SM 12/1/21		006

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	8260 BTEX	300 Anions	2540 TDS			
										↓	↓	↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
11-29-21	1700				11/29/21	1700
11/30/21	1900		SUE CARTER		12/1/21	8:00

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

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

CONDITIONS

Action 98789

CONDITIONS

Operator: ETC Texas Pipeline, Ltd. 8111 Westchester Drive Dallas, TX 75225	OGRID: 371183
	Action Number: 98789
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2021 Annual Groundwater Monitoring Report: Content satisfactory 1. OCD approves 2022 recommendations found under section 3.2 in this report. 2. Submit next annual groundwater monitor report no later than June 1, 2023.	4/3/2023