REVIEWED
By Mike Buchanan at 9:46 am, May 29, 2024

ENSOLUM

March 22, 2024

Review of the 2023 Annual Groundwater Monitoring Report for Salty Dog Water Gathering System: Content Satisfactory
1. Proceed with continuing delineation efforts to further characterize the edge of the plume
2. Keep OCD abreast of efforts to gain permission from landowner in order for access and work
3. Continue to sample on a quarterly basis as planned, in report.
4. Submit next annual gw report to OCD by April 2025.

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2023 Annual Groundwater Monitoring Report
Salty Dog Water Gathering System
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident No: nCS1916853082
Abatement Plan No: AP-139

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *2023 Annual Groundwater Monitoring Report* detailing groundwater sampling activities performed in 2023 associated with the Salty Dog Water Gathering System (Site) pipeline release. The Site is located approximately 1,146 feet south of the San Juan River on private land in Unit N of Section 18, Township 29 North, Range 13 West, in San Juan County, New Mexico (Figure 1).

SITE BACKGROUND

A complete history of Site activities and information pertaining to the release are included in the *Stage 1 Abatement Plan,* submitted to the New Mexico Oil Conservation Division (NMOCD) on December 20, 2019, and the *Executive Summary – November 2022* report, dated November 20, 2022. The initial release was assigned incident number nCS1916853082 and the *Stage 1 Abatement Plan* has been assigned AP-139. Additional drilling and soil sampling activities were also performed in April 2023 with results summarized in the *Additional Delineation Summary Report* dated November 1, 2023.

SITEWIDE GROUNDWATER MONITORING

As proposed in the *Stage 1 Abatement Plan*, quarterly groundwater monitoring and sampling has been conducted beginning in the fourth quarter of 2019. Static groundwater levels are measured quarterly in all permanent monitoring wells (MW03, MW05, MW06, MW08 through MW10, MW12 through MW18, MW20 through MW24, and MW27 through MW31) at the Site using an oil/water interface probe. The interface probe is decontaminated with Alconox™ soap and rinsed with distilled water prior to each measurement. Groundwater elevations at the Site are summarized on Table 1. In general, groundwater typically flows to the west/northwest at the Site. Figures 2 through 5 depict groundwater elevations, inferred potentiometric contours, and estimated flow direction from the four most recent quarters of groundwater monitoring.

Of note, groundwater elevations in all Site wells have decreased since sampling began in 2019 and several wells are continually dry or do not contain sufficient volumes of water to collect groundwater samples. Historically, many of the Site wells are dry and/or contain insufficient

volumes of water to sample during the winter months as the groundwater table fluctuates with seasonal variations; however, as seen across much of the region, this trend has extended into spring and summer months as well, likely in response to the ongoing drought conditions present in the area.

Groundwater Sampling and Results

Groundwater monitoring wells were sampled by purging a minimum of three casing volumes or purging until the well bails dry. Water quality parameters are collected during the purging process from each well. Once purging is complete, groundwater samples are collected directly into laboratory provided containers. Samples are labeled with the date and time of collection, sample name, sampler's name, and parameters to be analyzed. Strict chain-of-custody procedures are documented and include the date and time sampled, sample number, type of sample, sampler's name and signature, preservative used, and analysis required. Groundwater samples were analyzed for volatile organic compounds (VOCs) following United States Environmental Protection Agency (EPA) Method 8260B, general water chemistry (GWC) parameters including total dissolved solids (TDS) following EPA Standard Method (SM) 2540C, pH following EPA SM4500-H+B/9040C, anions (bromide, chloride, sulfate, fluoride, nitrite-nitrate, and phosphorus) following EPA Method 300.0, and cations (calcium, magnesium, potassium, and sodium) following EPA Method 200.7.

Based on historical results, all concentrations of analyzed VOCs have been in compliance with the New Mexico Water Quality Control Commission (NMWQCC) standards since the first quarter of 2020. Of the general water chemistry parameters sampled during quarterly events, concentrations of chloride, sulfate, and TDS are the only constituents with exceedances of the NMWQCC standards at the Site. In general, most water chemistry parameters have been stable over time. Chloride concentrations have decreased in many of the Site wells since sampling began in 2019. Additionally, groundwater samples collected from MW21 through MW24 indicate elevated background concentrations of chloride, sulfate, and TDS are also present exceeding NMWQCC standards at the Site. All groundwater analytical results received for the Site, including background sampling results from temporary wells MW21 through MW24, are summarized in Tables 2 and 3. Groundwater analytical results for chloride and TDS from the previous four quarterly sampling events are presented on Figure 7. Complete groundwater laboratory analytical reports are included as Appendix A.

RECOMMENDATIONS

Based on previous soil and groundwater sampling conducted at the Site, Hilcorp and Ensolum performed additional drilling activities in April 2023 in attempts to fully delineate the groundwater impacts related to the produced water release. Wells MW28 and MW29 were installed in 2023 at distances of 150 feet and 270 feet, respectively, downgradient from MW18; however, analytical results and geochemical analysis results indicate these wells have also been impacted by the Site release. As such, additional delineation efforts will be required in order to continue assessing the downgradient edge of the plume.

Hilcorp and Ensolum will continue to sample Site wells on a quarterly basis while drilling and delineation efforts are being coordinated. Based on driller availability, weather conditions, and landowner approval, additional drilling activities are anticipated to be conducted in the summer of 2024.

Ensolum appreciates the opportunity to provide this report to the NMOCD. Please direct any questions to the undersigned.

Sincerely,

Ensolum, LLC

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Senior Managing Geologist
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dmoir@ensolum.com

Attachments:

Figure 1: Site Location Map
Figure 2: Groundwater Elevation Contours – Q1 2023
Figure 3: Groundwater Elevation Contours – Q2 2023
Figure 4: Groundwater Elevation Contours – Q3 2023
Figure 5: Groundwater Elevation Contours – Q4 2023
Figure 6: 2023 Groundwater Analytical Results

Table 1: Groundwater Elevations
Table 2: Groundwater Analytical Results – Volatile Organic Compounds
Table 3: Groundwater Analytical Results – Inorganics and General Chemistry

Appendix A: Laboratory Analytical Reports

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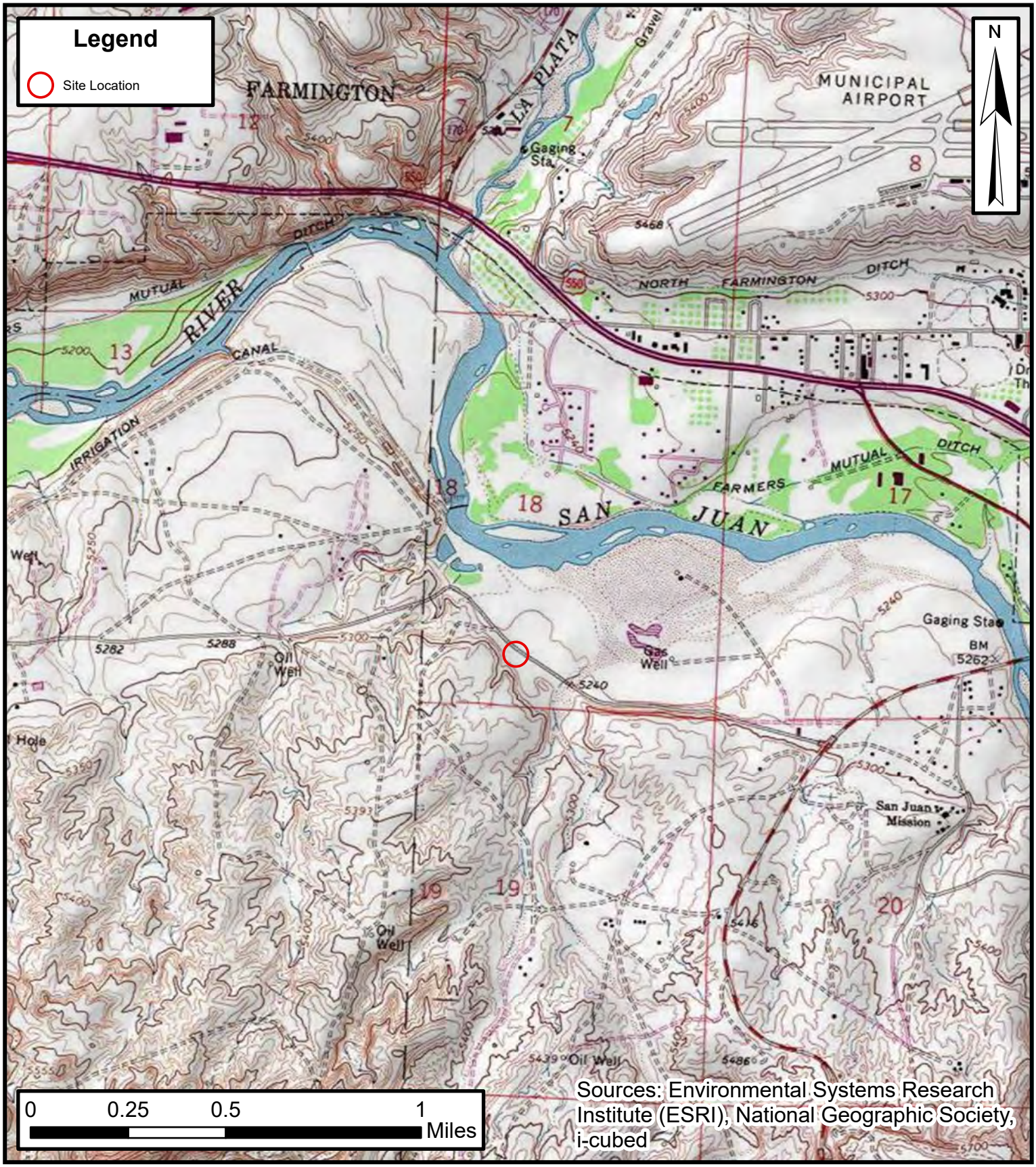
FIGURES



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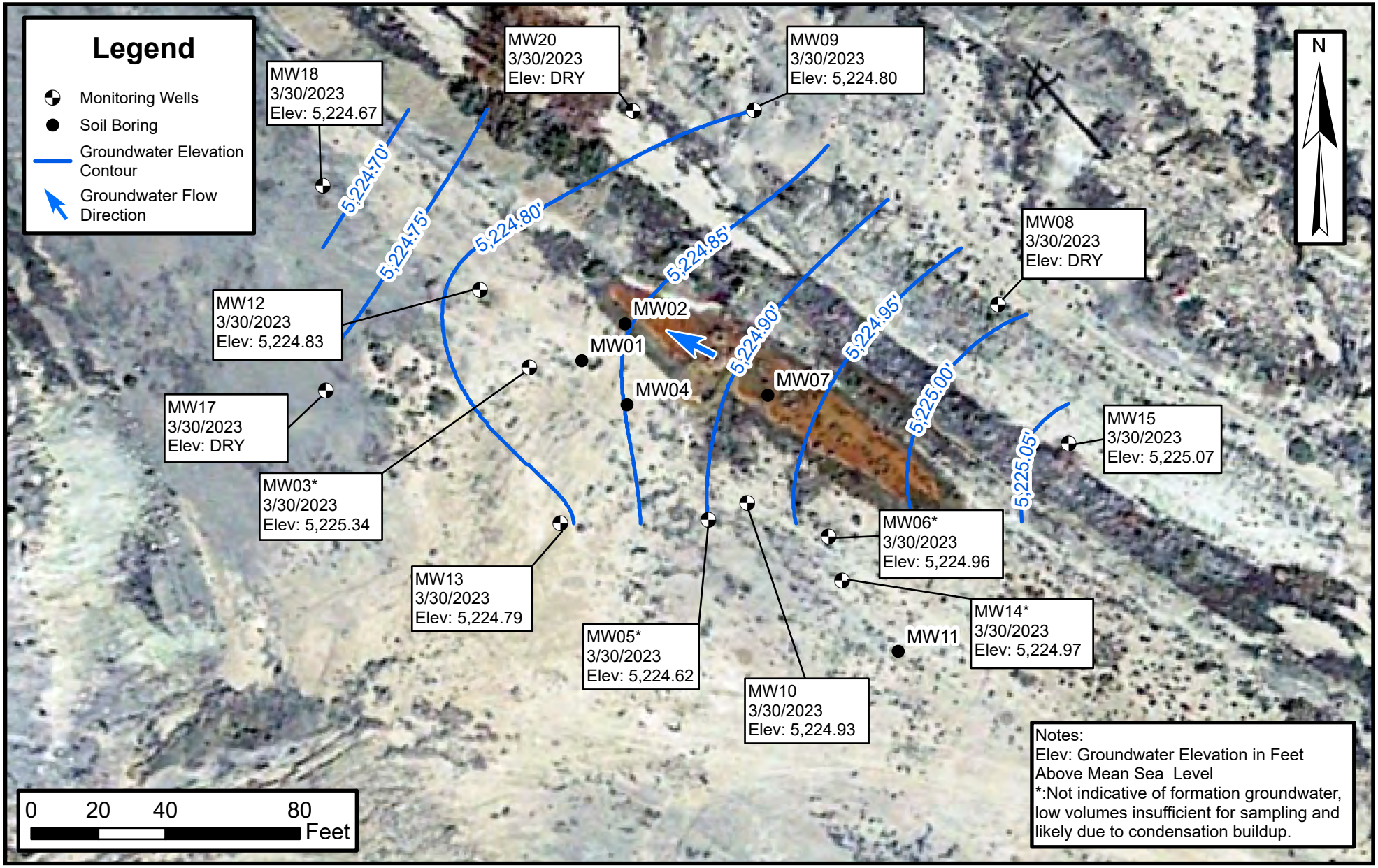
Site Location Map

Salty Dog Water Gathering System
Hilcorp Energy Company

NMOCD Incident No: nCS1916853082
SEC 18-T29N-R13W
San Juan County, New Mexico

FIGURE

1



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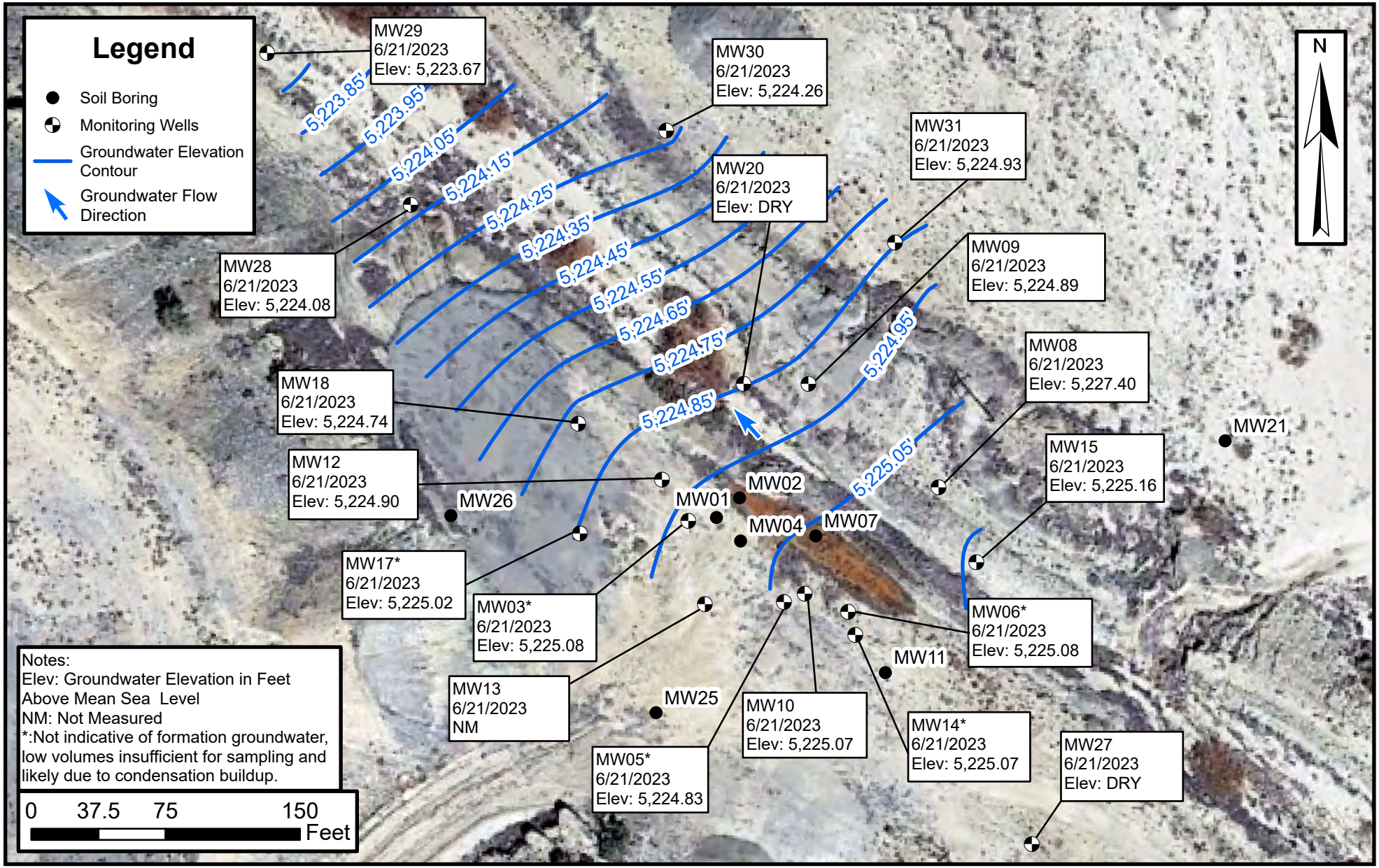
Groundwater Elevation Contours - Q1 2023

Salty Dog Water Gathering System
Hilcorp Energy Company

NMOCD Incident No: nCS1916853082
SEC 18-T29N-R13W
San Juan County, New Mexico

FIGURE
2

Sources: Google Earth



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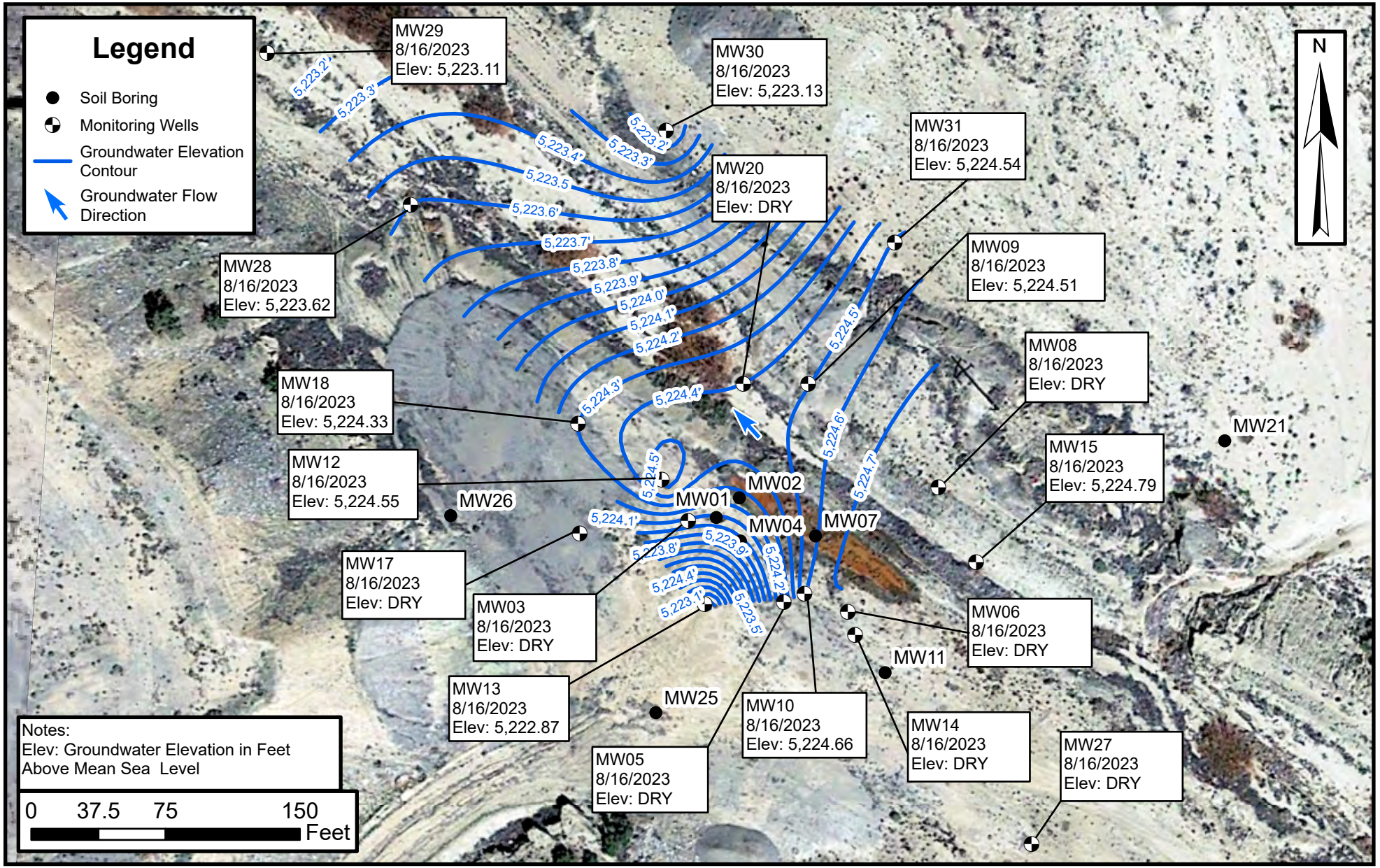
Groundwater Elevation Contours - Q2 2023

Salty Dog Water Gathering System
Hilcorp Energy Company

NMOCD Incident No: nCS1916853082
SEC 18-T29N-R13W
San Juan County, New Mexico

FIGURE
3

Sources: Google Earth



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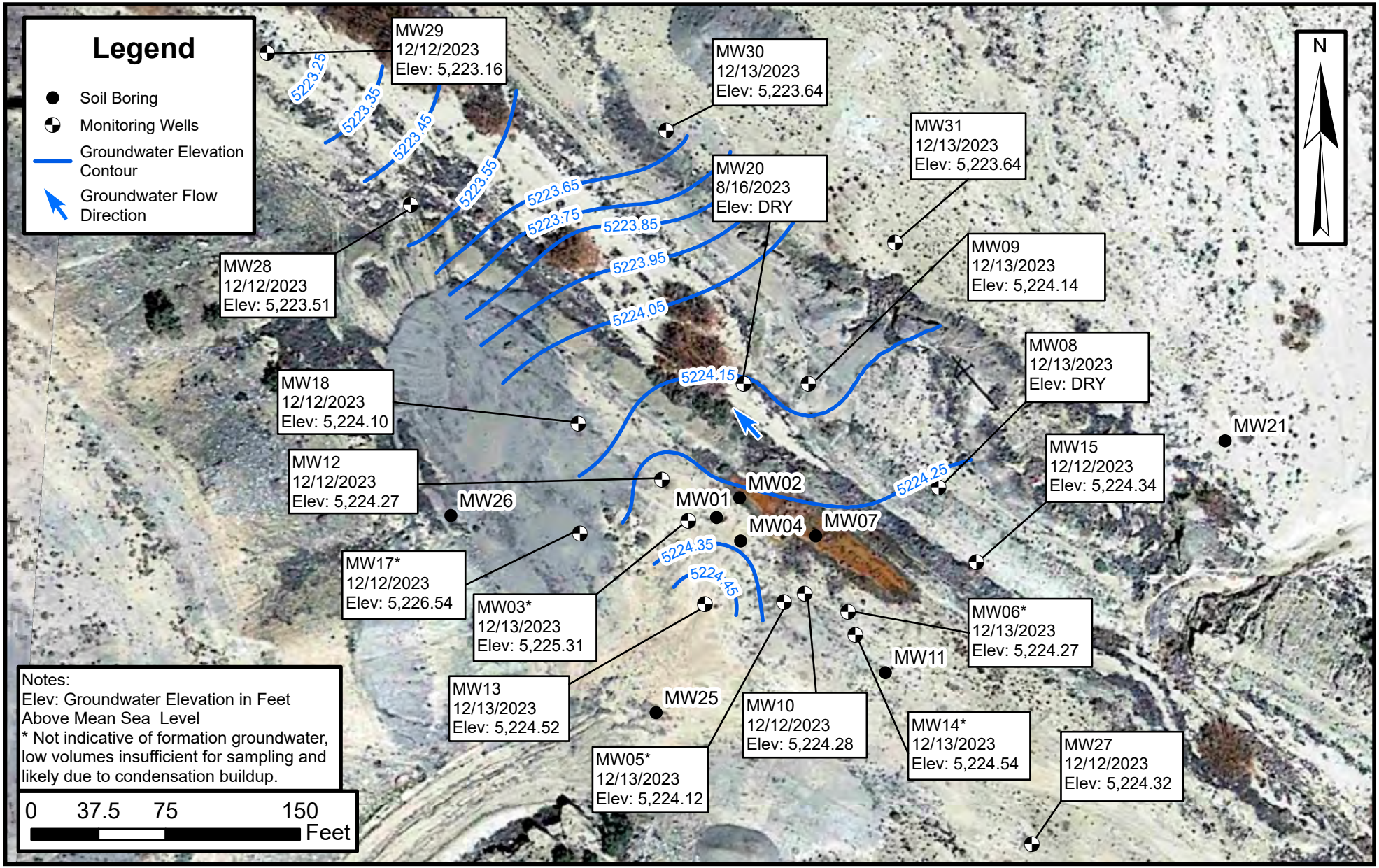
Groundwater Elevation Contours - Q3 2023

Salty Dog Water Gathering System
Hilcorp Energy Company

NMOCD Incident No: nCS1916853082
SEC 18-T29N-R13W
San Juan County, New Mexico

FIGURE
4

Sources: Google Earth



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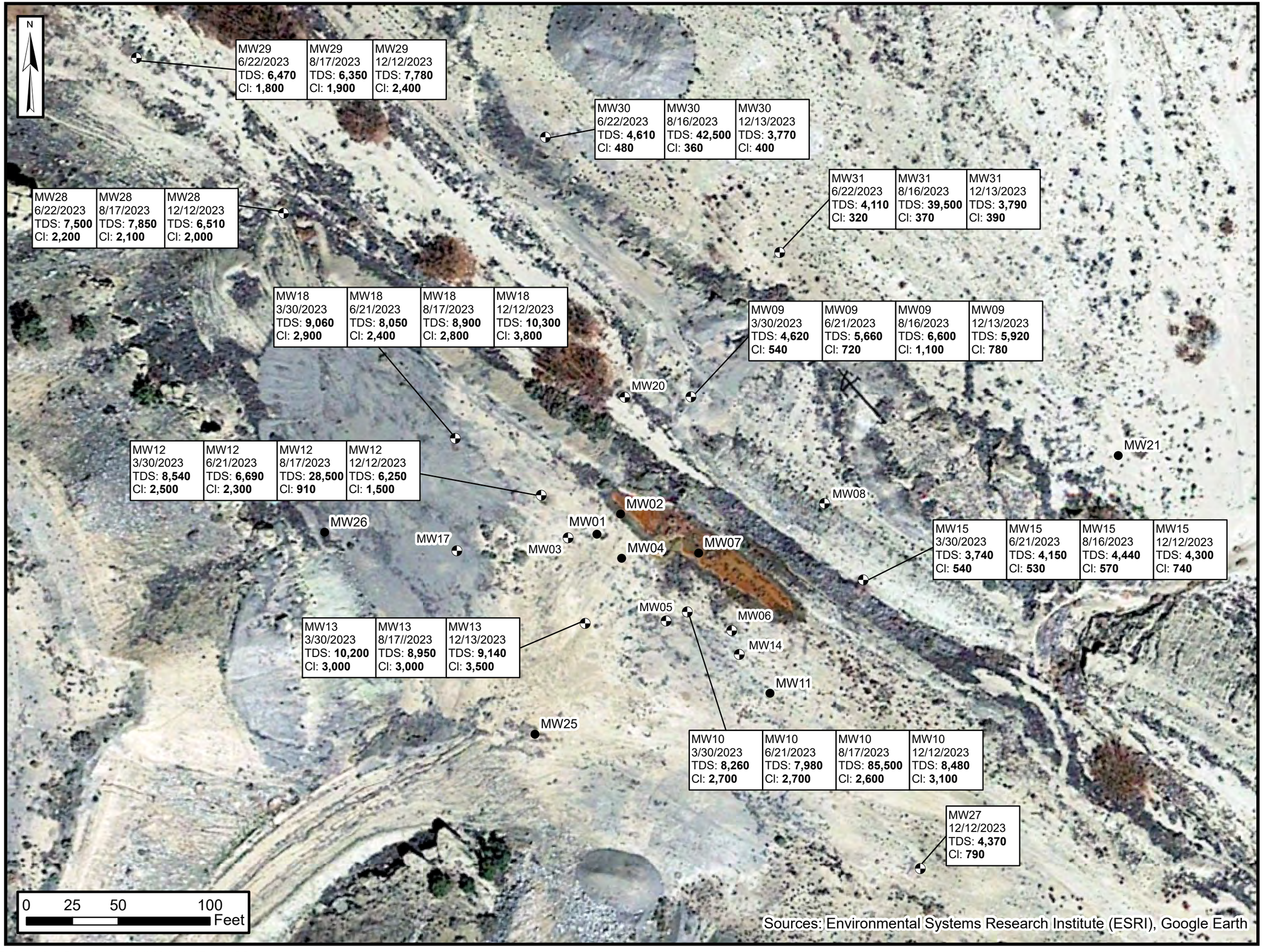
Groundwater Elevation Contours - Q4 2023

Salty Dog Water Gathering System
Hilcorp Energy Company

NMOCD Incident No: nCS1916853082
SEC 18-T29N-R13W
San Juan County, New Mexico

FIGURE
5

Sources: Google Earth



Legend

- Soil Boring
- Monitoring Wells

Notes:
TDS: Total Dissolved Solids
Cl: Chloride in Milligrams per Liter (mg/L)
Bold: Indicates Result Exceeds NMWQCC Standard
NMWQCC: New Mexico Water Quality Conservation Commission

2023 Groundwater Analytical Results

Salty Dog Water Gathering System
Hilcorp Energy Company

NMOCD Incident No: nCS1916853082
SEC 18-T29N-R13W
San Juan County, New Mexico

Figure 6

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TABLES

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TABLE 1
GROUNDWATER ELEVATIONS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW03	5,262.40	9/12/2019	33.62	5,228.78
		10/22/2019	33.92	5,228.48
		10/24/2019	33.98	5,228.42
		2/11/2020	33.66	5,228.74
		3/12/2020	33.52	5,228.88
		6/22/2020	33.83	5,228.57
		9/10/2020	34.60	5,227.80
		12/1/2020	35.22	5,227.18
		2/22/2021	35.43	5,226.97
		6/24/2021	35.60	5,226.80
		9/28/2021*	36.23	5,226.17
		12/7/2021*	37.12	5,225.28
		3/15/2022*	36.65	5,225.75
		6/27/2022*	36.90	5,225.50
		9/23/2022*	37.04	5,225.36
		12/31/2022*	37.07	5,225.33
		3/30/2023*	37.06	5,225.34
		6/21/2023*	37.32	5,225.08
		8/16/2023	DRY	DRY
		12/13/2023*	37.09	5,225.31
MW05	5,262.11	9/12/2019	33.36	5,228.75
		10/22/2019	33.70	5,228.41
		10/24/2019	33.70	5,228.41
		2/11/2020	33.48	5,228.63
		3/12/2020	33.35	5,228.76
		6/22/2020	33.65	5,228.46
		9/10/2020	34.43	5,227.68
		11/30/2020	35.10	5,227.01
		2/19/2021	35.32	5,226.79
		6/24/2021	35.48	5,226.63
		9/28/2021	36.09	5,226.02
		12/7/2021	36.42	5,225.69
		3/15/2022	36.54	5,225.57
		6/27/2022	36.92	5,225.19
		9/23/2022*	37.12	5,224.99
		12/31/2022*	37.53	5,224.58
		3/30/2023*	37.49	5,224.62
		6/21/2023*	37.28	5,224.83
		8/16/2023	DRY	DRY
		12/13/2023*	37.99	5,224.12

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Salty Dog Water Gathering System
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San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW06	5,261.78	9/12/2019	32.74	5,229.04
		10/22/2019	33.05	5,228.73
		10/24/2019	33.08	5,228.70
		2/11/2020	32.87	5,228.91
		3/12/2020	32.76	5,229.02
		6/22/2020	33.00	5,228.78
		9/9/2020	33.73	5,228.05
		11/30/2020	34.42	5,227.36
		2/18/2021	34.64	5,227.14
		6/24/2021	34.81	5,226.97
		9/27/2021	35.47	5,226.31
		12/7/2021	35.79	5,225.99
		3/16/2022	35.88	5,225.90
		6/27/2022	35.97	5,225.81
		9/23/2022*	36.53	5,225.25
		12/31/2022*	36.93	5,224.85
		3/30/2023*	36.82	5,224.96
		6/21/2023*	36.70	5,225.08
		8/16/2023	DRY	DRY
		12/13/2023*	37.51	5,224.27
MW08	5,252.50	10/22/2019	23.80	5,228.70
		10/24/2019	23.81	5,228.69
		2/11/200	23.98	5,228.52
		3/12/2020	23.50	5,229.00
		6/23/2020	23.76	5,228.74
		9/14/2020	24.50	5,228.00
		12/2/2020	25.03	5,227.47
		2/23/2021	25.18	5,227.32
		6/24/2021	25.21	5,227.29
		9/27/2021	25.21	5,227.29
		12/7/2021	DRY	DRY
		3/16/2022	DRY	DRY
		6/27/2022	DRY	DRY
		9/23/2022	DRY	DRY
		12/31/2022	DRY	DRY
		3/30/2023	DRY	DRY
		6/21/2023*	25.10	5,227.40
		8/16/2023	DRY	DRY
		12/13/2023	DRY	DRY

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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW09	5,252.38	10/22/2019	23.94	5,228.44
		10/24/2019	23.93	5,228.45
		2/11/2020	23.70	5,228.68
		3/12/2020	23.53	5,228.85
		6/23/2020	23.86	5,228.52
		9/15/2020	24.62	5,227.76
		12/2/2020	25.21	5,227.17
		2/23/2021	25.39	5,226.99
		6/24/2021	25.60	5,226.78
		9/28/2021	26.22	5,226.16
		12/7/2021	36.58	5,215.80
		3/16/2022	26.66	5,225.72
		6/27/2022	26.77	5,225.61
		9/23/2022	27.28	5,225.10
		12/31/2022	27.68	5,224.70
		3/30/2023	27.58	5,224.80
		6/21/2023	27.49	5,224.89
		8/16/2023	27.87	5,224.51
		12/13/2023	28.24	5,224.14
MW10	5,259.28	10/22/2019	30.59	5,228.69
		10/24/2019	30.60	5,228.68
		2/11/2020	30.35	5,228.93
		3/12/2020	30.25	5,229.03
		6/22/2020	30.52	5,228.76
		9/9/2020	31.26	5,228.02
		11/30/2020	31.93	5,227.35
		2/18/2021	32.16	5,227.12
		6/24/2021	32.32	5,226.96
		9/27/2021	33.00	5,226.28
		12/7/2021	33.34	5,225.94
		3/15/2022	33.43	5,225.85
		6/27/2022	34.53	5,224.75
		9/23/2022	34.06	5,225.22
		12/31/2022	34.45	5,224.83
		3/30/2023	34.35	5,224.93
		6/21/2023	34.21	5,225.07
		8/17/2023	34.62	5,224.66
		12/12/2023	35.00	5,224.28

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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW12	5,259.25	10/22/2019	30.85	5,228.40
		10/24/2019	30.83	5,228.42
		2/11/2020	30.55	5,228.70
		3/12/2020	30.41	5,228.84
		6/23/2020	30.72	5,228.53
		9/11/2020	31.49	5,227.76
		12/1/2020	32.11	5,227.14
		2/22/2021	32.33	5,226.92
		6/24/2021	32.57	5,226.68
		9/28/2021	32.12	5,227.13
		12/7/2021	33.45	5,225.80
		3/15/2022	33.54	5,225.71
		6/27/2022	33.65	5,225.60
		9/23/2022	34.15	5,225.10
		12/31/2022	34.96	5,224.29
		3/30/2023	34.42	5,224.83
		6/21/2023	34.35	5,224.90
		8/17/2023	34.70	5,224.55
		12/12/2023	34.98	5,224.27
MW13	5,260.32	10/22/2019	31.81	5,228.51
		10/24/2019	31.83	5,228.49
		2/11/2020	31.55	5,228.77
		3/12/2020	31.43	5,228.89
		6/22/2020	31.73	5,228.59
		9/10/2020	32.51	5,227.81
		12/1/2020	33.16	5,227.16
		2/19/2021	33.37	5,226.95
		6/24/2021	33.75	5,226.57
		9/28/2021	34.14	5,226.18
		12/7/2021	34.46	5,225.86
		3/15/2022	34.53	5,225.79
		6/27/2022	34.63	5,225.69
		9/23/2022	35.11	5,225.21
		12/31/2022	35.53	5,224.79
		3/30/2023	35.53	5,224.79
		6/21/2023	NM	NM
		8/17/2023	37.45	5,222.87
		12/13/2023	35.80	5,224.52

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San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW14	5,259.67	10/22/2019	30.92	5,228.75
		10/24/2019	30.92	5,228.75
		2/11/2020	30.74	5,228.93
		3/12/2020	30.63	5,229.04
		6/23/2020	30.91	5,228.76
		9/9/2020	31.62	5,228.05
		11/30/2020	32.30	5,227.37
		2/18/2021	32.52	5,227.15
		6/24/2021	32.70	5,226.97
		9/27/2021	33.34	5,226.33
		12/7/2021	33.68	5,225.99
		3/15/2022	33.74	5,225.93
		6/27/2022	33.87	5,225.80
		9/23/2022*	34.40	5,225.27
		12/31/2022*	34.82	5,224.85
		3/30/2023*	34.70	5,224.97
		6/21/2023*	34.60	5,225.07
		8/17/2023	DRY	DRY
		12/13/2023*	35.13	5,224.54
MW15	5,256.00	10/22/2019	27.20	5,228.80
		10/24/2019	27.15	5,228.85
		2/11/2020	26.96	5,229.04
		3/12/2020	26.84	5,229.16
		6/23/2020	27.12	5,228.88
		9/14/2020	27.91	5,228.09
		12/2/2020	28.55	5,227.45
		2/23/2021	28.76	5,227.24
		6/24/2021	28.92	5,227.08
		9/27/2021	29.59	5,226.41
		12/7/2021	29.92	5,226.08
		3/16/2022	29.97	5,226.03
		6/27/2022	30.12	5,225.88
		9/23/2022	30.63	5,225.37
		12/31/2022	31.05	5,224.95
		3/30/2023	30.93	5,225.07
		6/21/2023	30.84	5,225.16
		8/16/2023	31.21	5,224.79
		12/12/2023	31.66	5,224.34

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GROUNDWATER ELEVATIONS
Salty Dog Water Gathering System
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San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW17	5,260.27	2/11/2020	31.60	5,228.67
		3/12/2020	31.47	5,228.80
		6/22/2020	31.87	5,228.40
		9/11/2020	32.69	5,227.58
		12/2/2020	33.32	5,226.95
		2/22/2021	33.54	5,226.73
		6/24/2021	--	--
		9/28/2021*	34.32	5,225.95
		12/6/2021*	34.61	5,225.66
		3/16/2022*	34.66	5,225.61
		6/27/2022*	35.18	5,225.09
		9/23/2022*	35.09	5,225.18
		12/31/2022	DRY	DRY
		3/30/2023	DRY	DRY
		6/21/2023*	35.25	5,225.02
		8/17/2023	DRY	DRY
		12/12/2023*	33.73	5,226.54
MW18	5,259.64	2/11/2020	31.07	5,228.57
		3/12/2020	30.92	5,228.72
		6/22/2020	31.33	5,228.31
		9/11/2020	32.08	5,227.56
		12/1/2020	32.67	5,226.97
		2/22/2021	32.86	5,226.78
		6/24/2021	38.09	5,221.55
		9/28/2021	38.74	5,220.90
		12/6/2021	34.06	5,225.58
		3/14/2022	34.11	5,225.53
		6/27/2022	34.24	5,225.40
		9/23/2022	34.76	5,224.88
		12/31/2022	35.12	5,224.52
		3/30/2023	34.97	5,224.67
		6/21/2023	34.90	5,224.74
		8/17/2023	35.31	5,224.33
		12/12/2023	35.54	5,224.10

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GROUNDWATER ELEVATIONS
Salty Dog Water Gathering System
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San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW20	5,252.11	2/11/2020	23.41	5,228.70
		3/12/2020	23.24	5,228.87
		6/23/2020	23.58	5,228.53
		9/15/2020	24.36	5,227.75
		12/2/2020	24.94	5,227.17
		2/23/2021	25.11	5,227.00
		6/24/2021	25.32	5,226.79
		9/28/2021	DRY	DRY
		12/7/2021	26.26	5,225.85
		3/16/2022	26.33	5,225.78
		6/27/2022	DRY	DRY
		9/23/2022	DRY	DRY
		12/31/2022	DRY	DRY
		3/30/2023	DRY	DRY
		6/21/2023	DRY	DRY
		8/17/2023	DRY	DRY
		12/12/2023	DRY	DRY
MW27	5,262.41	6/21/2023	DRY	DRY
		8/17/2023	DRY	DRY
		12/12/2023	38.09	5,224.32
MW28	5,252.68	6/21/2023	28.60	5,224.08
		8/17/2023	29.06	5,223.62
		12/12/2023	29.17	5,223.51
MW29	5,251.76	6/21/2023	28.09	5,223.67
		8/17/2023	28.65	5,223.11
		12/12/2023	28.60	5,223.16
MW30	5,243.58	6/21/2023	19.32	5,224.26
		8/17/2023	20.45	5,223.13
		12/13/2023	19.94	5,223.64
MW31	5,244.32	6/21/2023	19.39	5,224.93
		8/17/2023	19.78	5,224.54
		12/13/2023	20.17	5,224.15

Notes:

**: not indicative of formation groundwater, low volumes insufficient for sampling and likely due to condensation buildup*

AMSL: above mean sea level

BTOC: below top of casing

NM: Not Measured

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		5	1,000	700	620	NA
MW03	9/12/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/1/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	<1.0	<1.0	<1.0	<3.0	ND
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/28/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/16/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/27/2022	Insufficient Water Volumes to Collect Sample				
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/16/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	Insufficient Water Volumes to Collect Sample				
MW05	9/12/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	11/30/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	Insufficient Water Volumes to Collect Sample				
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/28/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/17/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/27/2022	Insufficient Water Volumes to Collect Sample				
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/16/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	Insufficient Water Volumes to Collect Sample				
MW06	9/12/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	11/30/2020	<1.0	<1.0	<1.0	<3.0	ND

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		**5**	**1,000**	**700**	**620**	NA
MW06	2/22/2021	Insufficient Water Volumes to Collect Sample				
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/28/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/16/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/28/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/16/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	Insufficient Water Volumes to Collect Sample				
MW08	10/24/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/23/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	Insufficient Water Volumes to Collect Sample				
	11/30/2020	Insufficient Water Volumes to Collect Sample				
	2/22/2021	Insufficient Water Volumes to Collect Sample				
	6/24/2021	Insufficient Water Volumes to Collect Sample				
	9/28/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/16/2022	Insufficient Water Volumes to Collect Sample				
	6/28/2022	Insufficient Water Volumes to Collect Sample				
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/16/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	Insufficient Water Volumes to Collect Sample				
MW09	10/24/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/13/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/23/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/2/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	<1.0	<1.0	<1.0	<3.0	ND
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/27/2021	<1.0	<1.0	<1.0	<1.5	ND
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/16/2022	<1.0	<1.0	<1.0	<1.5	ND

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		5	1,000	700	620	NA
MW09	6/28/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	<1.0	<1.0	<1.0	<1.5	ND
	12/31/2022	<1.0	<1.0	<1.0	<1.5	ND
	3/30/2023	<2.0	<2.0	<2.0	<3.0	ND
	6/21/2023	<1.0	<1.0	<1.0	<1.5	ND
	8/16/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/13/2023	<1.0	<1.0	<1.0	<1.0	ND
MW10	10/24/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	11/30/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	Insufficient Water Volumes to Collect Sample				
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/27/2021	<1.0	<1.0	<1.0	<1.5	ND
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/15/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/27/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	<1.0	<1.0	<1.0	<1.5	ND
	12/31/2022	<1.0	<1.0	<1.0	<1.5	ND
	3/30/2023	<1.0	<1.0	<1.0	<1.5	ND
	6/21/2023	<2.0	<2.0	<2.0	<3.0	ND
	8/17/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/12/2023	<1.0	<1.0	<1.0	<1.0	ND
MW12	10/24/2019	**26**	12	2.6	22	ND
	3/12/2020	2.0	<1.0	<1.0	<1.5	ND
	6/23/2020	<1.0	<1.0	<1.0	1.9	ND
	9/9/2020	2.32	<1.0	<1.0	4.14	ND
	12/1/2020	1.77	<1.0	<1.0	4.52	ND
	2/22/2021	1.20	<1.0	<1.0	4.42	ND
	6/28/2021	<2.0	<2.0	<2.0	<3.0	ND
	9/28/2021	<1.0	<1.0	<1.0	<1.5	ND
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/15/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/27/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	<1.0	<1.0	<1.0	<1.5	ND
	12/31/2022	<1.0	<1.0	<1.0	<1.5	ND
	3/30/2023	<1.0	<1.0	<1.0	<1.5	ND
	6/21/2023	<1.0	<1.0	<1.0	<1.5	ND
	8/17/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/12/2023	<1.0	<1.0	<1.0	<1.0	ND

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		**5**	**1,000**	**700**	**620**	NA
MW13	10/24/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/1/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	Insufficient Water Volumes to Collect Sample				
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/28/2021	<1.0	<1.0	<1.0	<1.5	ND
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/15/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/27/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	<1.0	<1.0	<1.0	<1.5	ND
	12/31/2022	<1.0	<1.0	<1.0	<1.5	ND
	3/30/2023	<1.0	<1.0	<1.0	<1.5	ND
	6/21/2023	Not Sampled				
	8/17/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/13/2023	<1.0	<1.0	<1.0	<1.0	ND
MW14	10/24/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/23/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	11/30/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	Insufficient Water Volumes to Collect Sample				
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/28/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/17/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/28/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/17/2023	Insufficient Water Volumes to Collect Sample				
	12/13/2023	Insufficient Water Volumes to Collect Sample				
MW15	10/24/2019	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/23/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/2/2020	<1.0	<1.0	<1.0	<3.0	ND

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		5	1,000	700	620	NA
MW15	2/22/2021	<1.0	<1.0	<1.0	<3.0	ND
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/27/2021	<1.0	<1.0	<1.0	<1.5	ND
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/16/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/28/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	<1.0	<1.0	<1.0	<1.5	ND
	12/31/2022	<2.0	<2.0	<2.0	<3.0	ND
	3/30/2023	<1.0	<1.0	<1.0	<1.5	ND
	6/21/2023	<1.0	<1.0	<1.0	<1.5	ND
	8/16/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/12/2023	<1.0	<1.0	<1.0	<1.0	ND
MW17	2/11/2020	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/1/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	<1.0	<1.0	<1.0	<3.0	ND
	6/24/2021	Insufficient Water Volumes to Collect Sample				
	9/27/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/14/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/28/2022	Insufficient Water Volumes to Collect Sample				
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/17/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	Insufficient Water Volumes to Collect Sample				
MW18	2/11/2020	<1.0	<1.0	<1.0	<1.5	ND
	3/12/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/22/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/1/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	<1.0	<1.0	<1.0	<3.0	ND
	6/28/2021	<2.0	<2.0	<2.0	--	ND
	9/27/2021	<1.0	<1.0	<1.0	<1.5	ND
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/14/2022	<1.0	<1.0	<1.0	<1.5	ND

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		5	1,000	700	620	NA
MW18	6/27/2022	<1.0	<1.0	<1.0	<1.5	ND
	9/23/2022	<1.0	<1.0	<1.0	<1.5	ND
	12/31/2022	<1.0	<1.0	<1.0	<1.5	ND
	3/30/2023	<1.0	<1.0	<1.0	<1.5	ND
	6/21/2023	<2.0	<2.0	<2.0	<3.0	ND
	8/17/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/12/2023	<1.0	<1.0	<1.0	<1.0	ND
MW20	2/11/2020	<1.0	<1.0	<1.0	<1.5	ND
	3/13/2020	<1.0	<1.0	<1.0	<1.5	ND
	6/23/2020	<1.0	<1.0	<1.0	<1.5	ND
	9/9/2020	<1.0	<1.0	<1.0	<3.0	ND
	12/2/2020	<1.0	<1.0	<1.0	<3.0	ND
	2/22/2021	<1.0	<1.0	<1.0	<3.0	ND
	6/24/2021	<1.0	<1.0	<1.0	<1.5	ND
	9/27/2021	Insufficient Water Volumes to Collect Sample				
	12/7/2021	Insufficient Water Volumes to Collect Sample				
	3/16/2022	<1.0	<1.0	<1.0	<1.5	ND
	6/27/2022	Insufficient Water Volumes to Collect Sample				
	9/23/2022	Insufficient Water Volumes to Collect Sample				
	12/31/2022	Insufficient Water Volumes to Collect Sample				
	3/30/2023	Insufficient Water Volumes to Collect Sample				
	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/17/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	Insufficient Water Volumes to Collect Sample				
MW21 (2)	2/6/2020	<5.0	<5.0	<5.0	<7.5	ND
MW22 (2)	2/7/2020	<1.0	<1.0	<1.0	<1.5	ND
MW23 (2)	2/7/2020	<5.0	<5.0	<5.0	<7.5	ND
MW24 (2)	2/15/2020	<1.0	<1.0	<1.0	<1.5	ND
MW27	6/21/2023	Insufficient Water Volumes to Collect Sample				
	8/17/2023	Insufficient Water Volumes to Collect Sample				
	12/12/2023	<1.0	<1.0	<1.0	<1.0	ND
MW28	6/22/2023	<2.0	<2.0	<2.0	<3.0	ND
	8/17/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/12/2023	<1.0	<1.0	<1.0	<1.0	ND

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other VOCs (1)
NMWQCC Standard		**5**	**1,000**	**700**	**620**	NA
MW29	6/22/2023	<2.0	<2.0	<2.0	<3.0	ND
	8/17/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/12/2023	<0.500	<0.500	<0.500	<0.500	ND
MW30	6/22/2023	<2.0	<2.0	<2.0	<3.0	ND
	8/16/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/13/2023	<1.0	<1.0	<1.0	<1.0	ND
MW31	6/22/2023	<2.0	<2.0	<2.0	<3.0	ND
	8/16/2023	<1.0	<1.0	<1.0	<1.5	ND
	12/13/2023	<1.0	<1.0	<1.0	<1.0	ND

Notes:

(1): Volatile organic compounds (VOCs) not detected above laboratory reporting limits were not included in this table. See Laboratory Analyitcal Reports for complete results.

(2): Groundwater samples collected from a temporary well screen placed in the open boring.

µg/L: micrograms per liter

NMWQCC: New Mexico Water Quality Control Commission

ND: not detected above laboratory reporting limit

<: indicates result less than the stated laboratory reporting limit (RL)

ENSOLUM

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - INORGANICS AND GENERAL CHEMISTRY
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	USEPA Method 300.0: Anions								USEPA Method 200.7: Dissolved Metals				Standard Method 2320B: Alkalinity			General Chemistry		
		Bromide (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Nitrogen, Nitrite as N (mg/L)	Nitrogen, Nitrate as N (mg/L)	Nitrate-Nitrite as N (mg/L)	Phosphorus, Orthophosphate (As P, mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Bicarbonate (As CaCO3) (mg/L)	Carbonate (As CaCO3) (mg/L)	Total Alkalinity (mg/L)	Conductivity (µmhos/cm)	Total Dissolved Solids	pH
NMWQCC Standard		NE	250	600	1.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,000	6-9
MW03	9/12/2019	13	13,000	1,600	<10	19	<10	--	<50	2,500	390	27	6,600	137.8	<2.000	137.8	45,000	30,000	7.41
	3/12/2020	19	15,000	1,700	<1.0	<10	<10	--	<5.0	2,500	410	25	6,500	--	--	--	--	26,700	7.38
	6/22/2020	16	12,000	1,800	<1.0	<10	<10	--	<5.0	1,900	350	25	5,500	131.1	<2.000	131.1	46,000	22,000	7.48
	9/9/2020	<500	14,900	2,830	<1.50	--	--	0.152	--	--	--	--	--	--	--	--	--	32,600	7.36
	12/1/2020	15.6	11,300	1,770	<1.50	--	--	0.233	--	--	--	--	--	--	--	--	--	25,700	7.31
	2/22/2021	<100	12,200	1,930	<1.50	--	--	0.359	--	--	--	--	--	--	--	--	--	29,200	7.25
	6/24/2021	15	11,000	1,900	<1.0	--	--	<10	<5.0	2,000	310	28	5,900	--	--	--	--	23,600	--
	9/28/2021	Insufficient Water Volumes to Collect Sample																	
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/16/2022	Insufficient Water Volumes to Collect Sample																	
	6/27/2022	Insufficient Water Volumes to Collect Sample																	
	9/23/2022	Insufficient Water Volumes to Collect Sample																	
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	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/16/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW05	9/12/2019	15	15,000	2,300	<1.0	20	21	--	<5.0	2,100	750	25	7,800	153.9	<2.000	153.9	54,000	34,000	7.25
	3/12/2020	4.3	3,400	2,600	<1.0	<4.0	<4.0	--	<5.0	760	110	12	2,300	--	--	--	--	8,420	7.57
	6/22/2020	5.8	4,500	2,100	<1.0	<4.0	<4.0	--	<5.0	1,000	150	16	2,500	199.6	<2.000	199.6	19,000	12,000	7.66
	9/9/2020	<100	1,780	3,000	0.761	--	--	1.83	--	--	--	--	--	--	--	--	--	6,720	7.46
	11/30/2020	<100	1,660	2,510	0.751	--	--	0.294	--	--	--	--	--	--	--	--	--	6,600	7.52
	2/22/2021	Insufficient Water Volumes to Collect Sample																	
	6/24/2021	2.5	1,900	2,300	<1.0	--	--	<1.0	<5.0	540	80	10	1300	--	--	--	--	6,420	--
	9/28/2021	Insufficient Water Volumes to Collect Sample																	
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/17/2022	4.9	3,300	4,700	<1.0	--	--	<2.0	<5.0	820	98	13	1,500	271.4	<2.000	271.4	22,000	13,100	7.68
	6/27/2022	Insufficient Water Volumes to Collect Sample																	
	9/23/2022	Insufficient Water Volumes to Collect Sample																	
	12/31/2022	Insufficient Water Volumes to Collect Sample																	
	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/16/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW06	9/12/2019	5.5	5,300	2,300	<1.0	<10	1.0	--	<5.0	1,100	170	16	3,500	200.8	<2.000	200.8	22,000	13,600	7.49
	3/12/2020	12	9,600	3,900	<1.0	<10	18	--	<5.0	1,100	450	18	5,400	--	--	--	--	19,800	7.50
	6/22/2020	9.8	7,200	3,800	<1.0	<10	13	--	<5.0	870	350	17	4,800	226.3	<2.000	226.3	31,000	18,200	7.69
	9/9/2020	<100	8,610	4,330	<1.50	--	--	13.4	--	--	--	--	--	--	--	--	--	18,400	7.35
	11/30/2020	13.5	9,100	3,700	<1.50	--	--	15.3	--	--	--	--	--	--	--	--	--	19,600	7.53
	2/22/2021	Insufficient Water Volumes to Collect Sample																	
	6/24/2021	7.3	4,900	4,700	1.2	--	--	9.6	<5.0	730	290	15	4,800	--	--	--	--	15,200	--
	9/28/2021	Insufficient Water Volumes to Collect Sample																	
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/16/2022	5	3,400	4,700	<1.0	--	--	5.0	<5.0	610	230	17	3,500	269.8	<2.000	269.8	23,000	13,300	7.73
	6/28/2022	3.9	2,300	4,000	0.86	--	--	2.3	<2.5	560	220	18	3,300	276.0	<2.000	276.0	20,000	11,800	--
	9/23/2022	Insufficient Water Volumes to Collect Sample																	
	12/31/2022	Insufficient Water Volumes to Collect Sample																	
	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/16/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW08	10/24/2019	2.4	1,500	3,100	2.8	<0.50	3.0	--	<10	580	200	9.0	1,800	--	--	--	--	7,700	7.76
	3/12/2020	1.4	670	4,400	2.8	<2.0	<2.0	--	<5.0	470	180	6.1	1,700	--	--	--	--	6,950	7.63
	6/23/2020	1.4	550	4,700	2.6	<1.0	<1.0	--	<5.0	450	190	6.2	1,800	232.2	<2.000	232.2	9,100	8,050	7.60
	9/9/2020	Insufficient Water Volumes to Collect Sample																	
	11/30/2020	Insufficient Water Volumes to Collect Sample																	
	2/22/2021	Insufficient Water Volumes to Collect Sample																	
	6/24/2021	Insufficient Water Volumes to Collect Sample																	
	9/28/2021	Insufficient Water Volumes to Collect Sample																	
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		Bromide (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Nitrogen, Nitrite as N (mg/L)	Nitrogen, Nitrate as N (mg/L)	Nitrate-Nitrite as N (mg/L)	Phosphorus, Orthophosphate (As P, mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Bicarbonate (As CaCO3) (mg/L)	Carbonate (As CaCO3) (mg/L)	Total Alkalinity (mg/L)	Conductivity (µmhos/cm)	Total Dissolved Solids	pH
NMWQCC Standard		NE	250	600	1.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,000	6-9
MW08	12/31/2022	Insufficient Water Volumes to Collect Sample																	
	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/16/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW09	10/24/2019	3.9	3,300	1,900	<0.50	<2.0	3.1	--	<2.5	1,100	190	14	1,600	--	--	--	--	8,410	7.35
	3/13/2020	4.5	3,400	2,200	<1.0	<2.0	3.5	--	<5.0	1,000	180	11	1,700	--	--	--	--	8,980	7.24
	6/23/2020	4.3	3,200	2,300	<1.0	<1.0	3.0	--	<5.0	870	170	11	1,900	236.1	<2.000	236.1	15,000	10,400	7.58
	9/9/2020	<100	1,720	2,870	<1.50	--	--	2.34	--	--	--	--	--	--	--	--	--	6,400	7.18
	12/2/2020	<10.0	1,410	2,380	<1.50	--	--	2.38	--	--	--	--	--	--	--	--	--	6,100	7.21
	2/22/2021	<100	1,240	2,580	<1.50	--	--	2.14	--	--	--	--	--	--	--	--	--	4,980	7.27
	6/24/2021	1.5	740	2,500	<1.0	--	--	<1.0	<5.0	530	94	12	860	--	--	--	--	5,100	--
	9/27/2021	2	1,200	2,600	<1.0	<1.0	1.1	--	<5.0	690	120	14	1,000	236.8	<2.000	236.8	7,300	5,560	7.19
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/16/2022	2.5	1,700	2,300	<1.0	--	--	<1.0	<5.0	710	130	15	1,200	229.8	<2.000	229.8	8,900	6,560	7.31
	6/28/2022	1.8	970	2,200	1.0	--	--	<1.0	<2.5	990	190	52	1,100	242.5	<2.000	242.5	7,200	5,370	--
	9/23/2022	4.5	3,500	2,200	0.62	--	--	<2.0	<2.5	1200	220	21	1,900	263.2	<2.000	263.2	15,000	8,750	7.36
	12/31/2022	2.0	1,300	2,400	<1.0	--	--	<1.0	<5.0	620	110	12	1,200	--	--	--	--	6,110	7.38
	3/30/2023	<0.50	540	2,100	<0.50	<0.50	<0.50	<0.50	<2.5	510	83	8.1	890	244.3	<2.000	244.3	6,000	4,620	7.22
	6/21/2023	1.6	720	2,800	<1.0	<1.0	<1.0	<1.0	<5.0	660	110	8.7	1,000	305.0	<2.000	305.0	7,200	5,660	7.42
	8/16/2023	2.3	1,100	3,600	0.94	<0.50	<0.50	--	<10	740	160	6.4	1,600	462.7	<2.000	462.7	9,600	6,600	7.72
	12/13/2023	1.4	780	2,600	0.69	<0.50	<0.50	--	<2.5	620	130	12	980	313.3	<2.000	313.3	7,000	5,920	7.56
MW10	10/24/2019	3.4	2,700	2,200	<0.50	<2.0	3.5	--	<10	600	82	9.1	2,300	--	--	--	--	8,040	7.24
	3/12/2020	2.9	2,200	2,200	<1.0	<2.0	2.2	--	<5.0	640	85	8.7	1,600	--	--	--	--	6,660	7.36
	6/22/2020	3.1	2,100	2,000	<1.0	<2.0	<2.0	--	<5.0	710	94	8.8	1,500	218.7	<2.000	218.7	9,900	7,200	7.65
	9/9/2020	<100	1,540	2,640	<1.50	--	--	1.78	--	--	--	--	--	--	--	--	--	5,370	7.45
	11/30/2020	<10.0	1,210	2,160	<1.50	--	--	1.67	--	--	--	--	--	--	--	--	--	5,950	7.42
	2/22/2021	Insufficient Water Volumes to Collect Sample																	
	6/24/2021	1.8	1,200	2,200	<1.0	--	--	<1.0	<5.0	510	77	9.5	1,200	--	--	--	--	5,690	--
	9/27/2021	5.3	3,600	1,900	<1.0	--	--	<4.0	<5.0	1,300	180	26	1,800	185.4	<2.000	185.4	16,000	9,510	7.34
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/15/2022	3.9	2,900	2,000	<1.0	--	--	<2.0	<5.0	1,100	120	18	1,700	198.5	<2.000	198.5	14,000	7,340	7.70
	6/27/2022	5.2	3,500	1,600	<0.50	--	--	<4.0	<2.5	1,500	200	39	2,000	170.8	<2.000	<170.8	18,000	10,100	--
	9/23/2022	4.5	3,300	1,600	0.71	--	--	<4.0	<2.5	920	120	18	1,800	180.7	<2.000	180.7	15,000	9,200	7.51
	12/31/2022	3.8	3,100	2,100	<1.0	--	--	<2.0	<5.0	910	120	16	1,800	--	--	--	--	7,670	7.66
	3/30/2023	2.5	2,700	1,800	<0.50	<2.0	<2.0	<2.0	<2.5	860	98	9.2	1,800	173.2	<2.000	173.2	13,000	8,260	7.62
	6/21/2023	<10	2,700	1,900	<10	<10	<10	<10	<50	880	98	11	1,800	194.2	<2.000	194.2	15,000	7,980	7.51
	8/17/2023	3.3	2,600	2,000	<0.50	<2.0	0.52	--	<10	830	87	10	1,700	207.9	<2.000	207.9	13,000	85,500*	7.73
	12/12/2023	3.6	3,100	2,100	<0.50	<0.50	<0.50	--	<2.5	1,000	120	16	1,700	178.8	<2.000	178.8	15,000	8,480	7.88
MW12	10/24/2019	35	27,000	2,400	<0.50	<20	<20	--	<2.5	2,800	400	75	18,000	--	--	--	--	57,000	7.34
	3/12/2020	33	28,000	2,400	<1.0	<20	<20	--	<5.0	2,400	370	67	13,000	--	--	--	--	42,900	7.20
	6/23/2020	32	25,000	2,400	<1.0	<10	2.5	--	<5.0	2,300	370	73	15,000	256.2	<2.000	256.2	91,000	52,000	7.45
	9/9/2020	<500	21,900	3,230	<1.5	--	--	2.24	--	--	--	--	--	--	--	--	--	41,600	7.07
	12/1/2020	22.4	18,600	<2500	<1.50	--	--	3.45	--	--	--	--	--	--	--	--	--	31,100	7.17
	2/22/2021	<100	14,400	2,860	<1.50	--	--	3.90	--	--	--	--	--	--	--	--	--	27,100	7.38
	6/28/2021	5.2	3,400	1,800	<1.0	--	--	<4.0	<5.0	1,100	150	12	1,800	--	--	--	--	10,500	--
	9/28/2021	11	8,300	2,900	<1.0	<1.0	4.9	4.90	<5.0	910	140	36	4,800	256.8	<2.000	256.6	36,000	18,900	7.39
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/15/2022	8.7	6,500	2,700	<1.0	--	--	6.90	<5.0	730	110	34	4,600	248.4	<2.000	248.6	30,000	15,200	7.48
	6/27/2022	7.7	5,900	2,400	<0.50	--	--	7.40	<2.5	670	110	27	4,100	245.6	<2.000	245.6	26,000	13,900	--
	9/23/2022	4.3	3,700	2,600	0.64	--	--	5.20	<2.5	490	73	20	3,200	226.6	<2.000	226.6	16,000	8,900	7.45
	12/31/2022	3.2	2,700	2,800	<1.0	--	--	5.50	<5.0	380	63	20	2,300	--	--	--	--	7,940	7.73
	3/30/2023	2.4	2,500	2,400	<0.50	<2.0	4.6	4.6	<2.5	360	55	15	2,600	254.6	<2.000	254.6	14,000	8,540	7.69
	6/21/2023	3.3	2,300	1,900	<2.0	<2.0	<2.0	<2.0	<10	260	42	14	2,000	252.0	<2.000	252.0	13,000	6,690	7.58
	8/17/2023	1.3	910	760	0.60	<0.50	<0.50	--	<2.5	120	23	17	780	171.5	<2.000	171.5	4,500	28,500*	7.65
	12/12/2023	1.9	1,500	3,300	0.65	<0.50	4.1	--	<2.5	330	68	19	2,000	263.8	<2.000	263.8	13,000	6,250	7.93
MW13	10/24/2019	24	19,000	1,600	4.4	<20	<20	--	<2.5	3,400	440	37	11,000	--	--	--	--	40,400	7.17
	3/12/2020	19	16,000	2,200	<1.0	<10	<10	--	<5.0	2,500	320	26	7,500	--	--	--	--	30,000	7.06
	6/22/2020	17	14,000	1,800	<1.0	<10	<10	--	<5.0	2,400	340	26	6,100	182.5	<2.000	182.5	47,000	29,200	7.36
	9/9/2020	<100	7,380	3,160	<1.50	--	--	4.76	--	--	--	--	--	--	--	--	--	15,900	7.25
	12/1/2020	12.3	8,030	2,420	<1.50	--	--	1.18	--	--	--	--	--	--	--	--	--	21,000	7.32
	2/22/2021	Insufficient Water Volumes to Collect Sample																	
	6/24/2021	9.8	6,900	1,900	<1.0	--	--	<10	<5.0	1,700	250	20	3,400	--	--	--	--	16,900	--
	9/28/2021	11	8,600	2,000	<1.0	<10	<1.0	--	<5.0	2,000	280	32	4,000	198.9	<2.000	198.9	33,000	17,200	7.29
	12/7/2021	Insufficient Water Volumes to Collect Sample																	

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NMWQCC Standard		NE	250	600	1.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1,000	6-9
MW13	3/15/2022	5.3	3,800	2,500	<1.0	--	--	<4.0	<5.0	780	100	16	2,800	249.3	<2.000	249.3	20,000	11,300	7.55
	6/27/2022	5.5	3,500	2,000	0.54	--	--	<2.0	<2.5	630	75	<10	2,600	231.1	<2.000	231.1	20,000	11,000	--
	9/23/2022	3.6	2,800	2,500	0.7	--	--	<2.0	<2.5	710	86	12	2,800	271.9	<2.000	271.9	16,000	8,950	7.55
	12/31/2022	3.8	3,300	2,600	<1.0	--	--	<2.0	<5.0	760	93	12	2,400	--	--	--	--	9,270	7.71
	3/30/2023	2.7	3,000	2,400	<0.50	<2.0	1.8	1.8	<2.5	780	96	11	2,600	240.6	<2.000	240.6	16,000	10,200	7.65
	6/21/2023	Not Sampled																	
	8/17/2023	3.7	3,000	2,600	<0.50	<2.0	2.1	--	<10	730	87	12	2,400	258.2	<2.000	258.2	16,000	8,950	7.72
	12/13/2023	4.0	3,500	2,500	<0.50	<0.50	1.3	--	<2.5	810	120	13	2,300	218.9	<2.000	218.9	17,000	9,140	7.74
MW14	10/24/2019	3.9	2,900	1,900	<0.50	<2.0	5.8	--	<2.5	960	160	12	1,900	--	--	--	--	8,860	7.29
	3/12/2020	3.9	3,000	2,200	<1.0	<2.0	4.5	--	<5.0	930	140	9.2	1,600	--	--	--	--	7,600	7.29
	6/23/2020	4.5	3,400	2,000	<1.0	<1.0	5.1	--	<5.0	940	150	10	1,800	223.0	<2.000	223.00	15,000	8,450	7.56
	9/9/2020	<100	3,640	2,430	<1.50	--	--	6.66	--	--	--	--	--	--	--	--	--	9,050	7.21
	11/30/2020	<10.0	2,700	2,180	<1.50	--	--	4.25	--	--	--	--	--	--	--	--	--	7,860	7.36
	2/22/2021	Insufficient Water Volumes to Collect Sample																	
	6/24/2021	4.0	2,900	2,400	<1.0	--	--	<1.0	<5.0	910	130	14	2,200	--	--	--	--	7,810	--
	9/28/2021	Insufficient Water Volumes to Collect Sample																	
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/17/2022	2.8	1,900	2,800	<1.0	--	--	<2.0	<5.0	760	95	12	1,900	225.6	<2.000	225.6	13,000	7,580	7.83
	6/28/2022	3.1	2,200	2,300	0.78	--	--	<2.0	<2.5	810	99	12	2,000	216.5	<2.000	216.5	14,000	8,060	--
	9/23/2022	Insufficient Water Volumes to Collect Sample																	
	12/31/2022	Insufficient Water Volumes to Collect Sample																	
	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/17/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW15	10/24/2019	2.7	1,600	1,700	<0.50	<0.50	2.1	--	<2.5	720	130	9.5	1,400	--	--	--	--	6,370	7.45
	3/12/2020	1.3	730	2,200	<1.0	<2.0	<2.0	--	<5.0	590	91	6.7	720	--	--	--	--	4,300	7.27
	6/23/2020	1.3	560	2,000	<1.0	<1.0	1.7	--	<5.0	520	89	6.7	670	232.8	<2.000	232.8	5,400	4,500	7.70
	9/9/2020	<100	650	2,750	0.810	--	--	1.72	--	--	--	--	--	--	--	--	--	3,790	7.14
	12/2/2020	<100	758	2,060	0.822	--	--	2.24	--	--	--	--	--	--	--	--	--	4,670	7.29
	2/22/2021	<100	630	2,390	<1.50	--	--	2.03	--	--	--	--	--	--	--	--	--	4,170	7.21
	6/24/2021	1.2	490	2,200	<1.0	--	--	1.1	<5.0	520	88	10.0	690	--	--	--	--	3,850	--
	9/27/2021	1.3	430	2,500	<1.0	--	--	1.8	<5.0	530	85	13.0	560	219.4	<2.000	219.4	4,900	3,990	7.29
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/16/2022	1.1	360	2,000	<1.0	--	--	1.2	<5.0	550	80	11.0	550	216.8	<2.000	216.8	5,000	4,180	7.63
	6/28/2022	0.98	430	2,200	1.2	--	--	<1.0	<2.5	570	83	13.0	580	215.0	<2.000	215.0	4,900	4,030	--
	9/23/2022	1.0	480	2,100	1.2	--	--	<1.0	<2.5	600	82	14.0	610	221.8	<2.000	221.8	5,000	3,820	7.43
	12/31/2022	<1.0	500	2,100	<1.0	--	--	<1.0	<5.0	590	80	12.0	630	--	--	--	--	4,050	7.49
	3/30/2023	0.84	540	2,100	<0.50	<0.50	0.69	0.69	<2.5	580	75	7.8	630	212.7	<2.000	212.7	5,200	3,740	7.50
	6/21/2023	1.2	530	2,000	<1.0	<1.0	<1.0	<1.0	<5.0	610	77	8.2	640	220.8	<2.000	220.8	5,400	4,150	7.28
	8/16/2023	1.1	570	2,000	<0.50	<0.50	<0.50	--	<10	600	77	7.7	650	222.4	<2.000	222.4	5,500	4,440	7.56
	12/12/2023	1.1	740	2,200	0.57	<0.50	0.63	--	<2.5	590	80	11	660	213.9	<2.000	213.9	5,600	4,300	7.65
MW17	2/11/2020	2.5	1,900	2,300	<1.0	<1.0	2.7	--	<5.0	590	87	7.6	1,500	--	--	--	9,000	6,860	7.40
	3/12/2020	2.3	1,700	2,500	<1.0	<2.0	2.6	--	<5.0	590	87	6.7	1,400	--	--	--	--	6,570	7.41
	6/22/2020	2.2	1,500	2,400	<1.0	2.1	2.1	--	<5.0	550	82	7.0	1,300	242.0	<2.000	242.0	8,200	5,900	7.59
	9/9/2020	<100	2,650	3,170	0.862	--	--	1.93	--	--	--	--	--	--	--	--	--	7,650	7.41
	12/1/2020	<100	6,320	2,280	0.603	--	--	0.472	--	--	--	--	--	--	--	--	--	10,100	7.36
	2/22/2021	<100	7,210	2,130	<1.50	--	--	0.221	--	--	--	--	--	--	--	--	--	17,900	7.37
	6/24/2021	Insufficient Water Volumes to Collect Sample																	
	9/27/2021	Insufficient Water Volumes to Collect Sample																	
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/14/2022	Insufficient Water Volumes to Collect Sample																	
	6/28/2022	Insufficient Water Volumes to Collect Sample																	
	9/23/2022	Insufficient Water Volumes to Collect Sample																	
	12/31/2022	Insufficient Water Volumes to Collect Sample																	
	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/17/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW18	2/11/2020	11	8,200	2,300	<1.0	<10	1.6	--	<5.0	1,400	230	25	5,000	--	--	--	32,000	18,600	7.45
	3/12/2020	22	18,000	2,200	<1.0	<20	<20	--	<5.0	2,200	320	33	9,200	--	--	--	--	7,600	7.29
	6/22/2020	16	10,000	2,300	<1.0	<10	<10	--	<5.0	1,600	260	29	6,700	229.6	<2.000	229.6	47,000	21,800	7.33
	9/9/2020	<100	8,400	2,670	<1.50	--	--	2.97	--	--	--	--	--	--	--	--	--	17,600	7.04
	12/1/2020	<10	5,730	2,360	<1.50	--	--	3.28	--	--	--	--	--	--	--	--	--	12,700	7.26
	2/22/2021	<100	5,300	2,640	<1.50	--	--	3.32	--	--	--	--	--	--	--	--	--	12,400	7.25

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - INORGANICS AND GENERAL CHEMISTRY
Salty Dog Water Gathering System
Hilcorp Energy Company
San Juan County, New Mexico

Well Identification	Sample Date	USEPA Method 300.0: Anions								USEPA Method 200.7: Dissolved Metals				Standard Method 2320B: Alkalinity			General Chemistry		
		Bromide (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Nitrogen, Nitrite as N (mg/L)	Nitrogen, Nitrate as N (mg/L)	Nitrate-Nitrite as N (mg/L)	Phosphorus, Orthophosphate (As P, mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Bicarbonate (As CaCO3) (mg/L)	Carbonate (As CaCO3) (mg/L)	Total Alkalinity (mg/L)	Conductivity (µmhos/cm)	Total Dissolved Solids	pH
NMWQCC Standard		NE	**250**	**600**	**1.6**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**1,000**	**6-9**
MW18	6/28/2021	3	**1,900**	**2,200**	<1.0	--	--	2.50	<5.0	600	87	7	1,400	--	--	--	--	**6,750**	--
	9/27/2021	4.3	**3,300**	**2,600**	<1.0	<1.0	2.6	--	<5.0	920	150	21	2,000	216.6	<2.000	216.6	15,000	**7,890**	7.25
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/14/2022	6.2	**4,700**	**2,500**	<1.0	--	--	5.0	<5.0	870	130	21	3,200	235.7	<2.000	235.7	23,000	**10,500**	7.64
	6/27/2022	5.8	**3,700**	**2,200**	<0.50	--	--	4.9	<2.5	800	120	18	3,100	235.8	<2.000	235.8	20,000	**11,000**	--
	9/23/2022	4.3	**3,100**	**2,000**	0.88	--	--	3.3	<2.5	870	130	20	2,800	222.6	<2.000	222.6	16,000	**8,630**	7.34
	12/31/2022	4.2	**3,400**	**2,200**	<1.0	--	--	3.4	<5.0	860	130	14	2,000	--	--	--	--	**8,760**	7.57
	3/30/2023	2.9	**2,900**	**2,100**	<0.50	<2.0	3.3	3.3	<2.5	820	120	10	2,000	221.9	<2.000	221.9	15,000	**9,060**	7.52
	6/21/2023	<10	**2,400**	**2,800**	<10	<10	<10	<10	<50	680	88	12	2,400	255.3	<2.000	255.3	16,000	**8,050**	7.47
	8/17/2023	3.6	**2,800**	**2,600**	<0.50	<2.0	4.0	--	<10	630	85	11	2,400	249.7	<2.000	249.7	16,000	**8,900**	7.67
	12/12/2023	4.5	**3,800**	**2,500**	<0.50	<0.50	4.1	--	<2.5	770	140	22	2,700	205.9	<2.000	205.9	19,000	**10,300**	7.82
MW20	2/11/2020	12	**8,300**	**2,500**	<1.0	<10	1.9	--	<5.0	970	190	23	5,800	--	--	--	32,000	**19,300**	7.26
	3/13/2020	9.2	**7,300**	**2,500**	<1.0	<10	<10	--	<5.0	880	180	17	4,600	--	--	--	--	**13,800**	7.30
	6/23/2020	4.9	**3,400**	**2,300**	<1.0	<10	2.0	--	<5.0	550	120	12	2,600	248.1	<2.000	248.1	16,000	**10,200**	7.69
	9/9/2020	<100	**3,120**	**2,860**	<1.50	--	--	1.61	--	--	--	--	--	--	--	--	--	**8,650**	7.30
	12/2/2020	<10.0	**3,100**	**2,420**	<1.50	--	--	1.76	--	--	--	--	--	--	--	--	--	**8,480**	7.35
	2/22/2021	<100	**2,730**	**2,530**	<1.50	--	--	1.67	--	--	--	--	--	--	--	--	--	**8,020**	7.24
	6/24/2021	2.8	**1,700**	**2,300**	<1.0	--	--	<1.0	<5.0	500	110	13.0	1600	--	--	--	--	**7,010**	--
	9/27/2021	Insufficient Water Volumes to Collect Sample																	
	12/7/2021	Insufficient Water Volumes to Collect Sample																	
	3/16/2022	1.7	**920**	**2,100**	<1.0	--	--	1.3	<5.0	500	93	14.0	980	228.8	<2.000	228.8	7,000	**5,030**	7.53
	6/27/2022	Insufficient Water Volumes to Collect Sample																	
	9/23/2022	Insufficient Water Volumes to Collect Sample																	
	12/31/2022	Insufficient Water Volumes to Collect Sample																	
	3/30/2023	Insufficient Water Volumes to Collect Sample																	
	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/17/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	Insufficient Water Volumes to Collect Sample																	
MW21 (1)	2/6/2020	1.1	360	**2,200**	<1.0	<1.0	<1.0	--	<5.0	540	76	<10.0	650	--	--	--	5,100	**4,150**	7.15
MW22 (1)	2/7/2020	<1.0	310	**2,100**	<1.0	<1.0	<1.0	--	<5.0	650	94	23	540	--	--	--	4,900	**4,490**	7.62
MW23 (1)	2/7/2020	<1.0	410	**1,900**	<1.0	<1.0	<1.0	--	<5.0	680	110	19	460	--	--	--	5,000	**5,200**	6.85
MW24 (1)	2/15/2020	<1.0	240	**2,100**	<1.0	<1.0	<1.0	--	<5.0	510	66	<10.0	530	--	--	--	4,400	**3,860**	7.24
MW27	6/21/2023	Insufficient Water Volumes to Collect Sample																	
	8/17/2023	Insufficient Water Volumes to Collect Sample																	
	12/12/2023	1.1	**790**	**2,200**	0.53	<0.50	0.50	--	<2.5	620	91	17	690	224.6	<2.000	224.6	5,800	**4,370**	7.78
MW28	6/22/2023	2.9	**2,200**	**2,500**	<1.0	<1.0	1.4	1.4	<5.0	670	95	13	1,800	242.7	<2.000	242.7	13,000	**7,500**	7.43
	8/17/2023	3.0	**2,100**	**2,300**	<0.50	<2.0	1.5	--	<10	620	87	13	1,900	251.5	<2.000	251.5	13,000	**7,850**	7.69
	12/12/2023	2.4	**2,000**	**2,400**	0.65	<0.50	1.4	--	<2.5	590	92	15	1,700	233.9	<2.000	233.9	12,000	**6,510**	7.84
MW29	6/22/2023	2.6	**1,800**	**2,200**	<1.0	<1.0	<1.0	<1.0	<5.0	490	71	9.5	1,700	251.1	<2.000	251.1	9,300	**6,470**	7.25
	8/17/2023	2.8	**1,900**	**2,200**	0.55	<2.0	<0.50	--	<10	530	69	11	1,800	254.0	<2.000	254.0	12,000	**6,350**	7.70
	12/12/2023	2.8	**2,400**	**2,500**	0.71	<0.50	<0.50	--	<2.5	590	88	12	1,900	245.6	<2.000	245.6	14,000	**7,780**	7.76
MW30	6/22/2023	1.1	**480**	**2,000**	<1.0	<1.0	<1.0	<1.0	<5.0	540	74	9.3	700	286.1	<2.000	286.1	5,400	**4,610**	7.61
	8/16/2023	1.0	**360**	**2,100**	<0.50	<0.50	<0.50	--	<10	600	84	10	720	277.5	<2.000	277.5	5,200	**42,500***	7.81
	12/13/2023	0.93	**400**	**2,400**	0.66	<0.50	<0.50	--	<2.5	540	78	9.4	690	254.7	<2.000	254.7	5,100	**3,770**	7.83
MW31	6/22/2023	<1.0	**320**	**2,000**	<1.0	<1.0	<1.0	<1.0	<5.0	530	74	7.9	600	216.3	<2.000	216.3	4,900	**4,110**	7.42
	8/16/2023	0.99	**370**	**2,100**	0.69	<0.50	0.91	--	<10	570	82	8.5	670	217.6	<2.000	217.6	5,000	**39,500***	7.79
	12/13/2023	0.89	**390**	**2,300**	0.59	<0.50	0.51	--	<2.5	570	85	15	580	205.5	<2.000	205.5	4,900	**3,790**	7.81

Notes:

(1): Groundwater samples collected from a temporary well screen placed in the open boring.

mg/L: milligrams per liter

µmhos/cm: micromhos per centimeter

NMWQCC: New Mexico Water Quality Control Commission

--: not analyzed

<: indicates result less than the stated laboratory reporting limit (RL)

**: anomalous data*

*Concentrations in **bold** and shaded exceed the New Mexico Water Quality Control Commission Standards, 20.6.2 of the New Mexico Administrative Code*

ENSOLUM

APPENDIX A

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 13, 2023

Kate Kaufman
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX

RE: Salty Dog Pipeline OrderNo.: 2303F39

Dear Kate Kaufman:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/31/2023 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 **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-9
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 1:25:00 PM
Lab ID: 2303F39-001 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	3/31/2023 1:38:47 PM
Chloride	540	50	*	mg/L	100	4/4/2023 12:39:54 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/31/2023 1:38:47 PM
Bromide	ND	0.50		mg/L	5	3/31/2023 1:38:47 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2023 1:38:47 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/31/2023 1:38:47 PM
Sulfate	2100	50	*	mg/L	100	4/4/2023 12:39:54 PM
EPA METHOD 200.7: METALS						Analyst: **VP**
Calcium	510	10		mg/L	10	4/5/2023 3:16:05 PM
Magnesium	83	1.0		mg/L	1	4/4/2023 1:03:48 PM
Potassium	8.1	1.0		mg/L	1	4/4/2023 1:03:48 PM
Sodium	890	10		mg/L	10	4/5/2023 3:16:05 PM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Toluene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Ethylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Naphthalene	ND	4.0	D	µg/L	2	4/7/2023 6:49:00 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	4/7/2023 6:49:00 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	4/7/2023 6:49:00 PM
Acetone	ND	20	D	µg/L	2	4/7/2023 6:49:00 PM
Bromobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Bromoform	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Bromomethane	ND	6.0	D	µg/L	2	4/7/2023 6:49:00 PM
2-Butanone	ND	20	D	µg/L	2	4/7/2023 6:49:00 PM
Carbon disulfide	ND	20	D	µg/L	2	4/7/2023 6:49:00 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Chlorobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Chloroethane	ND	4.0	D	µg/L	2	4/7/2023 6:49:00 PM
Chloroform	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Chloromethane	ND	6.0	D	µg/L	2	4/7/2023 6:49:00 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 1:25:00 PM
Lab ID: 2303F39-001 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	4/7/2023 6:49:00 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Dibromomethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
2-Hexanone	ND	20	D	µg/L	2	4/7/2023 6:49:00 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	4/7/2023 6:49:00 PM
Methylene Chloride	ND	6.0	D	µg/L	2	4/7/2023 6:49:00 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	4/7/2023 6:49:00 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Styrene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	4/7/2023 6:49:00 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	4/7/2023 6:49:00 PM
Vinyl chloride	ND	2.0	D	µg/L	2	4/7/2023 6:49:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-9
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 1:25:00 PM
Lab ID: 2303F39-001 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	3.0	D	µg/L	2	4/7/2023 6:49:00 PM
Surr: 1,2-Dichloroethane-d4	91.0	70-130	D	%Rec	2	4/7/2023 6:49:00 PM
Surr: 4-Bromofluorobenzene	98.5	70-130	D	%Rec	2	4/7/2023 6:49:00 PM
Surr: Dibromofluoromethane	92.2	70-130	D	%Rec	2	4/7/2023 6:49:00 PM
Surr: Toluene-d8	98.4	70-130	D	%Rec	2	4/7/2023 6:49:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **NAI**
Conductivity	6000	10		µmhos/c	1	4/3/2023 2:44:35 PM
SM4500-H+B / 9040C: PH						Analyst: **NAI**
pH	7.22		H	pH units	1	4/10/2023 11:22:21 PM
SM2320B: ALKALINITY						Analyst: **NAI**
Bicarbonate (As CaCO3)	244.3	20.00		mg/L Ca	1	4/3/2023 2:44:35 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/3/2023 2:44:35 PM
Total Alkalinity (as CaCO3)	244.3	20.00		mg/L Ca	1	4/3/2023 2:44:35 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**
Total Dissolved Solids	4620	500	*D	mg/L	1	4/5/2023 2:52:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 12:10:00 PM
Lab ID: 2303F39-002 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	3/31/2023 2:28:20 PM
Chloride	2700	250	*	mg/L	500	4/4/2023 1:31:21 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	3/31/2023 2:40:43 PM
Bromide	2.5	2.0		mg/L	20	3/31/2023 2:40:43 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/31/2023 2:28:20 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/31/2023 2:28:20 PM
Sulfate	1800	250	*	mg/L	500	4/4/2023 1:31:21 PM
EPA METHOD 200.7: METALS						Analyst: **VP**
Calcium	860	10		mg/L	10	4/5/2023 3:18:40 PM
Magnesium	98	5.0		mg/L	5	4/4/2023 1:17:11 PM
Potassium	9.2	1.0		mg/L	1	4/4/2023 1:07:08 PM
Sodium	1800	20		mg/L	20	4/5/2023 3:25:10 PM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Toluene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Naphthalene	ND	2.0		µg/L	1	4/7/2023 7:14:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 7:14:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 7:14:00 PM
Acetone	ND	10		µg/L	1	4/7/2023 7:14:00 PM
Bromobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Bromoform	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Bromomethane	ND	3.0		µg/L	1	4/7/2023 7:14:00 PM
2-Butanone	ND	10		µg/L	1	4/7/2023 7:14:00 PM
Carbon disulfide	ND	10		µg/L	1	4/7/2023 7:14:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Chlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Chloroethane	ND	2.0		µg/L	1	4/7/2023 7:14:00 PM
Chloroform	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Chloromethane	ND	3.0		µg/L	1	4/7/2023 7:14:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 12:10:00 PM
Lab ID: 2303F39-002 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2023 7:14:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Dibromomethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2023 7:14:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
2-Hexanone	ND	10		µg/L	1	4/7/2023 7:14:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2023 7:14:00 PM
Methylene Chloride	ND	3.0		µg/L	1	4/7/2023 7:14:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2023 7:14:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Styrene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2023 7:14:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2023 7:14:00 PM
Vinyl chloride	ND	1.0		µg/L	1	4/7/2023 7:14:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-10
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 12:10:00 PM
Lab ID: 2303F39-002 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	4/7/2023 7:14:00 PM
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%Rec	1	4/7/2023 7:14:00 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	4/7/2023 7:14:00 PM
Surr: Dibromofluoromethane	93.8	70-130		%Rec	1	4/7/2023 7:14:00 PM
Surr: Toluene-d8	98.5	70-130		%Rec	1	4/7/2023 7:14:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **DML**
Conductivity	13000	100		µmhos/c	10	4/5/2023 4:13:12 PM
SM4500-H+B / 9040C: PH						Analyst: **NAI**
pH	7.62		H	pH units	1	4/3/2023 3:11:05 PM
SM2320B: ALKALINITY						Analyst: **NAI**
Bicarbonate (As CaCO3)	173.2	20.00		mg/L Ca	1	4/3/2023 3:11:05 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/3/2023 3:11:05 PM
Total Alkalinity (as CaCO3)	173.2	20.00		mg/L Ca	1	4/3/2023 3:11:05 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**
Total Dissolved Solids	8260	1000	*D	mg/L	1	4/5/2023 2:52:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 11:30:00 AM
Lab ID: 2303F39-003 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	3/31/2023 2:53:06 PM
Chloride	2500	100	*	mg/L	200	4/4/2023 1:44:13 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	3/31/2023 3:05:30 PM
Bromide	2.4	2.0		mg/L	20	3/31/2023 3:05:30 PM
Nitrogen, Nitrate (As N)	4.6	0.50		mg/L	5	3/31/2023 2:53:06 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/31/2023 2:53:06 PM
Sulfate	2400	100	*	mg/L	200	4/4/2023 1:44:13 PM
EPA METHOD 200.7: METALS						Analyst: **VP**
Calcium	360	5.0		mg/L	5	4/4/2023 1:23:47 PM
Magnesium	55	1.0		mg/L	1	4/4/2023 1:22:05 PM
Potassium	15	1.0		mg/L	1	4/4/2023 1:22:05 PM
Sodium	2600	50		mg/L	50	4/5/2023 3:26:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Toluene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Naphthalene	ND	2.0		µg/L	1	4/7/2023 7:38:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 7:38:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 7:38:00 PM
Acetone	ND	10		µg/L	1	4/7/2023 7:38:00 PM
Bromobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Bromoform	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Bromomethane	ND	3.0		µg/L	1	4/7/2023 7:38:00 PM
2-Butanone	ND	10		µg/L	1	4/7/2023 7:38:00 PM
Carbon disulfide	ND	10		µg/L	1	4/7/2023 7:38:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Chlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Chloroethane	ND	2.0		µg/L	1	4/7/2023 7:38:00 PM
Chloroform	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Chloromethane	ND	3.0		µg/L	1	4/7/2023 7:38:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 11:30:00 AM
Lab ID: 2303F39-003 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2023 7:38:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Dibromomethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2023 7:38:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
2-Hexanone	ND	10		µg/L	1	4/7/2023 7:38:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2023 7:38:00 PM
Methylene Chloride	ND	3.0		µg/L	1	4/7/2023 7:38:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2023 7:38:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Styrene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2023 7:38:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2023 7:38:00 PM
Vinyl chloride	ND	1.0		µg/L	1	4/7/2023 7:38:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-12
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 11:30:00 AM
Lab ID: 2303F39-003 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	4/7/2023 7:38:00 PM
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%Rec	1	4/7/2023 7:38:00 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	1	4/7/2023 7:38:00 PM
Surr: Dibromofluoromethane	92.4	70-130		%Rec	1	4/7/2023 7:38:00 PM
Surr: Toluene-d8	99.1	70-130		%Rec	1	4/7/2023 7:38:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **DML**
Conductivity	14000	100		µmhos/c	10	4/5/2023 4:15:59 PM
SM4500-H+B / 9040C: PH						Analyst: **NAI**
pH	7.69		H	pH units	1	4/3/2023 3:21:48 PM
SM2320B: ALKALINITY						Analyst: **NAI**
Bicarbonate (As CaCO3)	254.6	20.00		mg/L Ca	1	4/3/2023 3:21:48 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/3/2023 3:21:48 PM
Total Alkalinity (as CaCO3)	254.6	20.00		mg/L Ca	1	4/3/2023 3:21:48 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**
Total Dissolved Solids	8540	1000	*D	mg/L	1	4/5/2023 2:52:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-13
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 1:50:00 PM
Lab ID: 2303F39-004 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	3/31/2023 3:17:53 PM
Chloride	3000	250	*	mg/L	500	4/4/2023 1:57:05 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	3/31/2023 3:30:15 PM
Bromide	2.7	2.0		mg/L	20	3/31/2023 3:30:15 PM
Nitrogen, Nitrate (As N)	1.8	0.50		mg/L	5	3/31/2023 3:17:53 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/31/2023 3:17:53 PM
Sulfate	2400	250	*	mg/L	500	4/4/2023 1:57:05 PM
EPA METHOD 200.7: METALS						Analyst: **VP**
Calcium	780	10		mg/L	10	4/5/2023 3:21:16 PM
Magnesium	96	5.0		mg/L	5	4/4/2023 1:36:02 PM
Potassium	11	1.0		mg/L	1	4/4/2023 1:25:24 PM
Sodium	2600	50		mg/L	50	4/5/2023 3:27:47 PM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Toluene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Naphthalene	ND	2.0		µg/L	1	4/7/2023 8:02:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 8:02:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 8:02:00 PM
Acetone	ND	10		µg/L	1	4/7/2023 8:02:00 PM
Bromobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Bromoform	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Bromomethane	ND	3.0		µg/L	1	4/7/2023 8:02:00 PM
2-Butanone	ND	10		µg/L	1	4/7/2023 8:02:00 PM
Carbon disulfide	ND	10		µg/L	1	4/7/2023 8:02:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Chlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Chloroethane	ND	2.0		µg/L	1	4/7/2023 8:02:00 PM
Chloroform	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Chloromethane	ND	3.0		µg/L	1	4/7/2023 8:02:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-13
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 1:50:00 PM
Lab ID: 2303F39-004 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2023 8:02:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Dibromomethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2023 8:02:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
2-Hexanone	ND	10		µg/L	1	4/7/2023 8:02:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2023 8:02:00 PM
Methylene Chloride	ND	3.0		µg/L	1	4/7/2023 8:02:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2023 8:02:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Styrene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2023 8:02:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2023 8:02:00 PM
Vinyl chloride	ND	1.0		µg/L	1	4/7/2023 8:02:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-13
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 1:50:00 PM
Lab ID: 2303F39-004 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	4/7/2023 8:02:00 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	1	4/7/2023 8:02:00 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	4/7/2023 8:02:00 PM
Surr: Dibromofluoromethane	90.7	70-130		%Rec	1	4/7/2023 8:02:00 PM
Surr: Toluene-d8	98.1	70-130		%Rec	1	4/7/2023 8:02:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **DML**
Conductivity	16000	100		µmhos/c	10	4/5/2023 4:18:47 PM
SM4500-H+B / 9040C: PH						Analyst: **NAI**
pH	7.65		H	pH units	1	4/3/2023 3:34:58 PM
SM2320B: ALKALINITY						Analyst: **NAI**
Bicarbonate (As CaCO3)	240.6	20.00		mg/L Ca	1	4/3/2023 3:34:58 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/3/2023 3:34:58 PM
Total Alkalinity (as CaCO3)	240.6	20.00		mg/L Ca	1	4/3/2023 3:34:58 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**
Total Dissolved Solids	10200	500	*D	mg/L	1	4/5/2023 2:52:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 1:00:00 PM
Lab ID: 2303F39-005 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	3/31/2023 3:42:38 PM
Chloride	540	50	*	mg/L	100	4/4/2023 2:09:58 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/31/2023 3:42:38 PM
Bromide	0.84	0.50		mg/L	5	3/31/2023 3:42:38 PM
Nitrogen, Nitrate (As N)	0.69	0.50		mg/L	5	3/31/2023 3:42:38 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/31/2023 3:42:38 PM
Sulfate	2100	50	*	mg/L	100	4/4/2023 2:09:58 PM
EPA METHOD 200.7: METALS						Analyst: **VP**
Calcium	580	10		mg/L	10	4/5/2023 3:22:34 PM
Magnesium	75	1.0		mg/L	1	4/4/2023 1:40:53 PM
Potassium	7.8	1.0		mg/L	1	4/4/2023 1:40:53 PM
Sodium	630	10		mg/L	10	4/5/2023 3:22:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Toluene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Naphthalene	ND	2.0		µg/L	1	4/7/2023 8:26:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 8:26:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 8:26:00 PM
Acetone	ND	10		µg/L	1	4/7/2023 8:26:00 PM
Bromobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Bromoform	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Bromomethane	ND	3.0		µg/L	1	4/7/2023 8:26:00 PM
2-Butanone	ND	10		µg/L	1	4/7/2023 8:26:00 PM
Carbon disulfide	ND	10		µg/L	1	4/7/2023 8:26:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Chlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Chloroethane	ND	2.0		µg/L	1	4/7/2023 8:26:00 PM
Chloroform	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Chloromethane	ND	3.0		µg/L	1	4/7/2023 8:26:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 1:00:00 PM
Lab ID: 2303F39-005 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2023 8:26:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Dibromomethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2023 8:26:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
2-Hexanone	ND	10		µg/L	1	4/7/2023 8:26:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2023 8:26:00 PM
Methylene Chloride	ND	3.0		µg/L	1	4/7/2023 8:26:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2023 8:26:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Styrene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2023 8:26:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2023 8:26:00 PM
Vinyl chloride	ND	1.0		µg/L	1	4/7/2023 8:26:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-15
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 1:00:00 PM
Lab ID: 2303F39-005 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	4/7/2023 8:26:00 PM
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%Rec	1	4/7/2023 8:26:00 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	4/7/2023 8:26:00 PM
Surr: Dibromofluoromethane	91.8	70-130		%Rec	1	4/7/2023 8:26:00 PM
Surr: Toluene-d8	97.3	70-130		%Rec	1	4/7/2023 8:26:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **NAI**
Conductivity	5200	10		µmhos/c	1	4/3/2023 3:47:47 PM
SM4500-H+B / 9040C: PH						Analyst: **NAI**
pH	7.50		H	pH units	1	4/3/2023 3:47:47 PM
SM2320B: ALKALINITY						Analyst: **NAI**
Bicarbonate (As CaCO3)	212.7	20.00		mg/L Ca	1	4/3/2023 3:47:47 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/3/2023 3:47:47 PM
Total Alkalinity (as CaCO3)	212.7	20.00		mg/L Ca	1	4/3/2023 3:47:47 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**
Total Dissolved Solids	3740	1000	*D	mg/L	1	4/5/2023 2:52:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 11:10:00 AM
Lab ID: 2303F39-006 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	3/31/2023 4:07:25 PM
Chloride	2900	250	*	mg/L	500	4/4/2023 2:22:50 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	3/31/2023 4:19:48 PM
Bromide	2.9	2.0		mg/L	20	3/31/2023 4:19:48 PM
Nitrogen, Nitrate (As N)	3.3	0.50		mg/L	5	3/31/2023 4:07:25 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/31/2023 4:07:25 PM
Sulfate	2100	250	*	mg/L	500	4/4/2023 2:22:50 PM
EPA METHOD 200.7: METALS						Analyst: **VP**
Calcium	820	10		mg/L	10	4/5/2023 3:23:53 PM
Magnesium	120	5.0		mg/L	5	4/4/2023 1:45:45 PM
Potassium	10	1.0		mg/L	1	4/4/2023 1:44:09 PM
Sodium	2000	50		mg/L	50	4/5/2023 3:33:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Toluene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Ethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Naphthalene	ND	2.0		µg/L	1	4/7/2023 8:51:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 8:51:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/7/2023 8:51:00 PM
Acetone	ND	10		µg/L	1	4/7/2023 8:51:00 PM
Bromobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Bromoform	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Bromomethane	ND	3.0		µg/L	1	4/7/2023 8:51:00 PM
2-Butanone	ND	10		µg/L	1	4/7/2023 8:51:00 PM
Carbon disulfide	ND	10		µg/L	1	4/7/2023 8:51:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Chlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Chloroethane	ND	2.0		µg/L	1	4/7/2023 8:51:00 PM
Chloroform	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Chloromethane	ND	3.0		µg/L	1	4/7/2023 8:51:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 3/30/2023 11:10:00 AM
Lab ID: 2303F39-006 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/7/2023 8:51:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Dibromomethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/7/2023 8:51:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
2-Hexanone	ND	10		µg/L	1	4/7/2023 8:51:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/7/2023 8:51:00 PM
Methylene Chloride	ND	3.0		µg/L	1	4/7/2023 8:51:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	4/7/2023 8:51:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Styrene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/7/2023 8:51:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/7/2023 8:51:00 PM
Vinyl chloride	ND	1.0		µg/L	1	4/7/2023 8:51:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303F39**
Date Reported: **4/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-18
Project: Salty Dog Pipeline **Collection Date:** 3/30/2023 11:10:00 AM
Lab ID: 2303F39-006 **Matrix:** AQUEOUS **Received Date:** 3/31/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	4/7/2023 8:51:00 PM
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%Rec	1	4/7/2023 8:51:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/7/2023 8:51:00 PM
Surr: Dibromofluoromethane	91.6	70-130		%Rec	1	4/7/2023 8:51:00 PM
Surr: Toluene-d8	99.2	70-130		%Rec	1	4/7/2023 8:51:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **DML**
Conductivity	15000	100		µmhos/c	10	4/5/2023 4:21:35 PM
SM4500-H+B / 9040C: PH						Analyst: **NAI**
pH	7.52		H	pH units	1	4/3/2023 4:08:25 PM
SM2320B: ALKALINITY						Analyst: **NAI**
Bicarbonate (As CaCO3)	221.9	20.00		mg/L Ca	1	4/3/2023 4:08:25 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	4/3/2023 4:08:25 PM
Total Alkalinity (as CaCO3)	221.9	20.00		mg/L Ca	1	4/3/2023 4:08:25 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **RBC**
Total Dissolved Solids	9060	500	*D	mg/L	1	4/5/2023 2:52:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **MB-74087** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466750** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: **LCSLL-74087** SampType: **LCSLL** TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466751** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	101	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Potassium	ND	1.0	0.5000	0	60.6	50	150			
Sodium	ND	1.0	0.5000	0	93.7	50	150			

Sample ID: **LCS-74087** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466752** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.3	85	115			
Magnesium	50	1.0	50.00	0	99.5	85	115			
Potassium	49	1.0	50.00	0	97.9	85	115			
Sodium	49	1.0	50.00	0	98.8	85	115			

Sample ID: **2303F39-002CMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-10** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466811** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	61	1.0	50.00	9.240	104	70	130			

Sample ID: **2303F39-002CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-10** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	62	1.0	50.00	9.240	106	70	130	1.90	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **2303F39-002CMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-10** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466814** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	150	5.0	50.00	97.84	107	70	130			

Sample ID: **2303F39-002CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-10** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466815** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	150	5.0	50.00	97.84	113	70	130	1.82	20	

Sample ID: **2303F39-004CMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-13** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466819** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	64	1.0	50.00	10.74	107	70	130			

Sample ID: **2303F39-004CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-13** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	64	1.0	50.00	10.74	106	70	130	0.350	20	

Sample ID: **2303F39-004CMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-13** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466825** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	150	5.0	50.00	96.35	114	70	130			

Sample ID: **2303F39-004CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-13** Batch ID: **74087** RunNo: **95780**
Prep Date: **4/3/2023** Analysis Date: **4/4/2023** SeqNo: **3466827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	160	5.0	50.00	96.35	126	70	130	3.75	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R95725**	RunNo: **95725**							
Prep Date:	Analysis Date: **3/31/2023**	SeqNo: **3464452**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R95725**	RunNo: **95725**							
Prep Date:	Analysis Date: **3/31/2023**	SeqNo: **3464453**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.9	90	110			
Bromide	2.4	0.10	2.500	0	96.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.2	90	110			

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R95796**	RunNo: **95796**							
Prep Date:	Analysis Date: **4/4/2023**	SeqNo: **3467491**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R95796**	RunNo: **95796**							
Prep Date:	Analysis Date: **4/4/2023**	SeqNo: **3467492**	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	92.0	90	110			
Sulfate	9.3	0.50	10.00	0	93.2	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW** Batch ID: **R95868** RunNo: **95868**
Prep Date: Analysis Date: **4/7/2023** SeqNo: **3471906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.2	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.6	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **R95868** RunNo: **95868**
Prep Date: Analysis Date: **4/7/2023** SeqNo: **3471907** 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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R95868**	RunNo: **95868**
Prep Date:	Analysis Date: **4/7/2023**	SeqNo: **3471907** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R95868**	RunNo: **95868**
Prep Date:	Analysis Date: **4/7/2023**	SeqNo: **3471907** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.5	70	130			
Surr: Toluene-d8	9.9		10.00		98.5	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **lcs-1 99.4uS eC**	SampType: **lcs**	TestCode: **SM2510B: Specific Conductance**							
Client ID: **LCSW**	Batch ID: **R95754**	RunNo: **95754**							
Prep Date:	Analysis Date: **4/3/2023**	SeqNo: **3465838**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	99	10	99.40	0	99.6	101	101			S

Sample ID: **2303F39-001B DUP**	SampType: **dup**	TestCode: **SM2510B: Specific Conductance**							
Client ID: **MW-9**	Batch ID: **R95754**	RunNo: **95754**							
Prep Date:	Analysis Date: **4/3/2023**	SeqNo: **3465846**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	6000	10						0.0582	20	

Sample ID: **lcs-1 99.4uS eC**	SampType: **LCS**	TestCode: **SM2510B: Specific Conductance**							
Client ID: **LCSW**	Batch ID: **R95829**	RunNo: **95829**							
Prep Date:	Analysis Date: **4/5/2023**	SeqNo: **3469081**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	99.40	0	100	85	115			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **2303F39-001BDUP**	SampType: **DUP**	TestCode: **SM4500-H+B / 9040C: pH**							
Client ID: **MW-9**	Batch ID: **R95829**	RunNo: **95829**							
Prep Date:	Analysis Date: **4/5/2023**	SeqNo: **3469097**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.40									H

Sample ID: **2303F39-001B DUP**	SampType: **dup**	TestCode: **SM4500-H+B / 9040C: pH**							
Client ID: **MW-9**	Batch ID: **R95912**	RunNo: **95912**							
Prep Date:	Analysis Date: **4/10/2023**	SeqNo: **3473362**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.00									H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **mb-1 alk**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R95754**	RunNo: **95754**							
Prep Date:	Analysis Date: **4/3/2023**	SeqNo: **3465812**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **lcs-1 alk**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R95754**	RunNo: **95754**							
Prep Date:	Analysis Date: **4/3/2023**	SeqNo: **3465813**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.28	20.00	80.00	0	99.1	94.8	102			

Sample ID: **2303F39-001B DUP**	SampType: **DUP**	TestCode: **SM2320B: Alkalinity**							
Client ID: **MW-9**	Batch ID: **R95754**	RunNo: **95754**							
Prep Date:	Analysis Date: **4/3/2023**	SeqNo: **3465826**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	239.2	20.00						2.10	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2303F39**
13-Apr-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **MB-74104**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **74104**	RunNo: **95805**
Prep Date: **4/4/2023**	Analysis Date: **4/5/2023**	SeqNo: **3467962** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-74104**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **74104**	RunNo: **95805**
Prep Date: **4/4/2023**	Analysis Date: **4/5/2023**	SeqNo: **3467963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	980	50.0	1000	0	98.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2303F39 RcptNo: 1

Received By: Tracy Casarrubias 3/31/2023 7:10:00 AM

Completed By: Tracy Casarrubias 3/31/2023 9:01:27 AM

Reviewed By: KRC 3.31.23

Chain of Custody

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

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: 12
(<2 or >12 unless noted)
Adjusted? Yes
Checked by: MB 3/31/23

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:

Poured off 125mL from original volume provided for 001B - 006B to create samples 2 of 2 for 001B-006B. Proceeded to add 04 mL of H2SO4 for pH. (CHEM#6893). Poured off 250mL from original volume provided for 001B - 006B to create samples 001C-006C. Proceeded to add 05 mL of HNO3 for pH. (CHEM#7162). - MB 3/31/23

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes	Morty		

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

Salty Dog Pipeline

Project #:

Project Manager:

Kate Kaufman

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No marty

# of Coolers: 1

Cooler Temp(Including CF): 2.1 - 0 = 2.1 °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. 2303F39	Cations/Anions/TDS/pH 500ml, 250ml HNO3, 125ml H2SO4	Volatiles 8260 40ml VOA HCl														
3-30	1325	Water	MW-9	Various	Various	001	X	X														
	1210	Water	MW-10	Various	Various	002	X	X														
	1130	Water	MW-12	Various	Various	003	X	X														
	1350	Water	MW-13	Various	Various	004	X	X														
	1300	Water	MW-15	Various	Various	005	X	X														
	1110	Water	MW-18	Various	Various	006	X	X														
		~~Water~~		~~Various~~	~~Various~~		X	X														
		~~Water~~		~~Various~~	~~Various~~		X	X														
		~~Water~~		~~Various~~	~~Various~~		X	X														
		~~Water~~		~~Various~~	~~Various~~		X	X														
		~~Water~~		~~Various~~	~~Various~~		X	X														

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
3-30	1710				3/30/23	1710
3/30/23	1819			courier	3/31/23	7:10

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: www.hallenvironmental.com

July 18, 2023

Mitch Killough
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX:

RE: Salty Dog Pipeline OrderNo.: 2306C82

Dear Mitch Killough:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/24/2023 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 **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-28
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 1:00:00 PM
Lab ID: 2306C82-001 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Fluoride	ND	1.0		mg/L	10	6/27/2023 11:55:51 AM
Chloride	2200	100	*	mg/L	200	6/27/2023 11:43:00 AM
Nitrogen, Nitrite (As N)	ND	1.0	H	mg/L	10	6/27/2023 11:55:51 AM
Bromide	2.9	1.0		mg/L	10	6/27/2023 11:55:51 AM
Nitrogen, Nitrate (As N)	1.4	1.0	H	mg/L	10	6/27/2023 11:55:51 AM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/27/2023 11:55:51 AM
Sulfate	2500	50	*	mg/L	100	6/26/2023 8:11:41 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	670	20		mg/L	20	6/30/2023 3:40:35 PM
Magnesium	95	5.0		mg/L	5	6/27/2023 4:21:37 PM
Potassium	13	5.0		mg/L	5	6/27/2023 4:21:37 PM
Sodium	1800	20		mg/L	20	6/30/2023 3:40:35 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Toluene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Ethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Naphthalene	ND	4.0	D	µg/L	2	6/29/2023 3:24:00 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 3:24:00 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 3:24:00 PM
Acetone	ND	20	D	µg/L	2	6/29/2023 3:24:00 PM
Bromobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Bromoform	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Bromomethane	ND	6.0	D	µg/L	2	6/29/2023 3:24:00 PM
2-Butanone	ND	20	D	µg/L	2	6/29/2023 3:24:00 PM
Carbon disulfide	ND	20	D	µg/L	2	6/29/2023 3:24:00 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Chlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Chloroethane	ND	4.0	D	µg/L	2	6/29/2023 3:24:00 PM
Chloroform	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Chloromethane	ND	6.0	D	µg/L	2	6/29/2023 3:24:00 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-28
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 1:00:00 PM
Lab ID: 2306C82-001 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	6/29/2023 3:24:00 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Dibromomethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
2-Hexanone	ND	20	D	µg/L	2	6/29/2023 3:24:00 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	6/29/2023 3:24:00 PM
Methylene Chloride	ND	6.0	D	µg/L	2	6/29/2023 3:24:00 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	6/29/2023 3:24:00 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Styrene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	6/29/2023 3:24:00 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	6/29/2023 3:24:00 PM
Vinyl chloride	ND	2.0	D	µg/L	2	6/29/2023 3:24:00 PM

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

Qualifiers:

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PQL	Practical Quanitative Limit	RL	Reporting Limit
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Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH-28
Project: Salty Dog Pipeline **Collection Date:** 6/22/2023 1:00:00 PM
Lab ID: 2306C82-001 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	3.0	D	µg/L	2	6/29/2023 3:24:00 PM
Surr: 1,2-Dichloroethane-d4	102	70-130	D	%Rec	2	6/29/2023 3:24:00 PM
Surr: 4-Bromofluorobenzene	92.8	70-130	D	%Rec	2	6/29/2023 3:24:00 PM
Surr: Dibromofluoromethane	112	70-130	D	%Rec	2	6/29/2023 3:24:00 PM
Surr: Toluene-d8	103	70-130	D	%Rec	2	6/29/2023 3:24:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	13000	100		µmhos/c	10	6/26/2023 5:07:07 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.43		H	pH units	1	6/26/2023 1:30:11 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	242.7	20.00		mg/L Ca	1	6/26/2023 1:30:11 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 1:30:11 PM
Total Alkalinity (as CaCO3)	242.7	20.00		mg/L Ca	1	6/26/2023 1:30:11 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MRA**
Total Dissolved Solids	7500	500	*D	mg/L	1	7/3/2023 9:50:00 AM

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH-29
Project: Salty Dog Pipeline **Collection Date:** 6/22/2023 1:18:00 PM
Lab ID: 2306C82-002 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Fluoride	ND	1.0		mg/L	10	6/27/2023 12:08:42 PM
Chloride	1800	50	*	mg/L	100	6/26/2023 8:24:02 PM
Nitrogen, Nitrite (As N)	ND	1.0	H	mg/L	10	6/27/2023 12:08:42 PM
Bromide	2.6	1.0		mg/L	10	6/27/2023 12:08:42 PM
Nitrogen, Nitrate (As N)	ND	1.0	H	mg/L	10	6/27/2023 12:08:42 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/27/2023 12:08:42 PM
Sulfate	2200	50	*	mg/L	100	6/26/2023 8:24:02 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	490	5.0		mg/L	5	6/27/2023 4:38:05 PM
Magnesium	71	5.0		mg/L	5	6/27/2023 4:38:05 PM
Potassium	9.5	1.0		mg/L	1	6/27/2023 4:33:31 PM
Sodium	1700	20		mg/L	20	6/30/2023 3:42:26 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Toluene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Ethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Naphthalene	ND	4.0	D	µg/L	2	6/29/2023 4:58:04 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 4:58:04 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 4:58:04 PM
Acetone	ND	20	D	µg/L	2	6/29/2023 4:58:04 PM
Bromobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Bromoform	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Bromomethane	ND	6.0	D	µg/L	2	6/29/2023 4:58:04 PM
2-Butanone	ND	20	D	µg/L	2	6/29/2023 4:58:04 PM
Carbon disulfide	ND	20	D	µg/L	2	6/29/2023 4:58:04 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Chlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Chloroethane	ND	4.0	D	µg/L	2	6/29/2023 4:58:04 PM
Chloroform	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Chloromethane	ND	6.0	D	µg/L	2	6/29/2023 4:58:04 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM

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

Qualifiers:

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S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-29
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 1:18:00 PM
Lab ID: 2306C82-002 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	6/29/2023 4:58:04 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Dibromomethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
2-Hexanone	ND	20	D	µg/L	2	6/29/2023 4:58:04 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	6/29/2023 4:58:04 PM
Methylene Chloride	ND	6.0	D	µg/L	2	6/29/2023 4:58:04 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	6/29/2023 4:58:04 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Styrene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	6/29/2023 4:58:04 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	6/29/2023 4:58:04 PM
Vinyl chloride	ND	2.0	D	µg/L	2	6/29/2023 4:58:04 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-29
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 1:18:00 PM
Lab ID: 2306C82-002 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	3.0	D	µg/L	2	6/29/2023 4:58:04 PM
Surr: 1,2-Dichloroethane-d4	98.7	70-130	D	%Rec	2	6/29/2023 4:58:04 PM
Surr: 4-Bromofluorobenzene	100	70-130	D	%Rec	2	6/29/2023 4:58:04 PM
Surr: Dibromofluoromethane	111	70-130	D	%Rec	2	6/29/2023 4:58:04 PM
Surr: Toluene-d8	101	70-130	D	%Rec	2	6/29/2023 4:58:04 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	9300	10		µmhos/c	1	6/26/2023 1:43:09 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.25		H	pH units	1	6/26/2023 1:43:09 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	251.1	20.00		mg/L Ca	1	6/26/2023 1:43:09 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 1:43:09 PM
Total Alkalinity (as CaCO3)	251.1	20.00		mg/L Ca	1	6/26/2023 1:43:09 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MRA**
Total Dissolved Solids	6470	250	*D	mg/L	1	7/3/2023 9:50:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-30
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 12:05:00 PM
Lab ID: 2306C82-003 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Fluoride	ND	1.0		mg/L	10	6/27/2023 12:21:33 PM
Chloride	480	50	*	mg/L	100	6/26/2023 8:36:22 PM
Nitrogen, Nitrite (As N)	ND	1.0	H	mg/L	10	6/27/2023 12:21:33 PM
Bromide	1.1	1.0		mg/L	10	6/27/2023 12:21:33 PM
Nitrogen, Nitrate (As N)	ND	1.0	H	mg/L	10	6/27/2023 12:21:33 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/27/2023 12:21:33 PM
Sulfate	2000	50	*	mg/L	100	6/26/2023 8:36:22 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Calcium	540	10		mg/L	10	7/8/2023 9:56:59 AM
Magnesium	74	1.0		mg/L	1	6/27/2023 4:43:21 PM
Potassium	9.3	1.0		mg/L	1	6/27/2023 4:43:21 PM
Sodium	700	10		mg/L	10	6/30/2023 3:44:17 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Toluene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Ethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Naphthalene	ND	4.0	D	µg/L	2	6/29/2023 5:29:16 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 5:29:16 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 5:29:16 PM
Acetone	ND	20	D	µg/L	2	6/29/2023 5:29:16 PM
Bromobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Bromoform	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Bromomethane	ND	6.0	D	µg/L	2	6/29/2023 5:29:16 PM
2-Butanone	ND	20	D	µg/L	2	6/29/2023 5:29:16 PM
Carbon disulfide	ND	20	D	µg/L	2	6/29/2023 5:29:16 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Chlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Chloroethane	ND	4.0	D	µg/L	2	6/29/2023 5:29:16 PM
Chloroform	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Chloromethane	ND	6.0	D	µg/L	2	6/29/2023 5:29:16 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-30
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 12:05:00 PM
Lab ID: 2306C82-003 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	6/29/2023 5:29:16 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Dibromomethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
2-Hexanone	ND	20	D	µg/L	2	6/29/2023 5:29:16 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	6/29/2023 5:29:16 PM
Methylene Chloride	ND	6.0	D	µg/L	2	6/29/2023 5:29:16 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	6/29/2023 5:29:16 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Styrene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	6/29/2023 5:29:16 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	6/29/2023 5:29:16 PM
Vinyl chloride	ND	2.0	D	µg/L	2	6/29/2023 5:29:16 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-30
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 12:05:00 PM
Lab ID: 2306C82-003 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	3.0	D	µg/L	2	6/29/2023 5:29:16 PM
Surr: 1,2-Dichloroethane-d4	101	70-130	D	%Rec	2	6/29/2023 5:29:16 PM
Surr: 4-Bromofluorobenzene	98.5	70-130	D	%Rec	2	6/29/2023 5:29:16 PM
Surr: Dibromofluoromethane	108	70-130	D	%Rec	2	6/29/2023 5:29:16 PM
Surr: Toluene-d8	102	70-130	D	%Rec	2	6/29/2023 5:29:16 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5400	10		µmhos/c	1	6/26/2023 1:56:23 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.61		H	pH units	1	6/26/2023 1:56:23 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	286.1	20.00		mg/L Ca	1	6/26/2023 1:56:23 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 1:56:23 PM
Total Alkalinity (as CaCO3)	286.1	20.00		mg/L Ca	1	6/26/2023 1:56:23 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MRA**
Total Dissolved Solids	4610	500	*D	mg/L	1	7/3/2023 9:50:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-31
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 12:30:00 PM
Lab ID: 2306C82-004 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Fluoride	ND	1.0		mg/L	10	6/27/2023 12:34:25 PM
Chloride	320	50	*	mg/L	100	6/26/2023 8:48:43 PM
Nitrogen, Nitrite (As N)	ND	1.0	H	mg/L	10	6/27/2023 12:34:25 PM
Bromide	ND	1.0		mg/L	10	6/27/2023 12:34:25 PM
Nitrogen, Nitrate (As N)	ND	1.0	H	mg/L	10	6/27/2023 12:34:25 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/27/2023 12:34:25 PM
Sulfate	2000	50	*	mg/L	100	6/26/2023 8:48:43 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	530	10		mg/L	10	6/30/2023 3:45:59 PM
Magnesium	74	1.0		mg/L	1	6/27/2023 4:46:50 PM
Potassium	7.9	1.0		mg/L	1	6/27/2023 4:46:50 PM
Sodium	600	10		mg/L	10	6/30/2023 3:45:59 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Toluene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Ethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Naphthalene	ND	4.0	D	µg/L	2	6/29/2023 6:00:21 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 6:00:21 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 6:00:21 PM
Acetone	ND	20	D	µg/L	2	6/29/2023 6:00:21 PM
Bromobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Bromoform	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Bromomethane	ND	6.0	D	µg/L	2	6/29/2023 6:00:21 PM
2-Butanone	ND	20	D	µg/L	2	6/29/2023 6:00:21 PM
Carbon disulfide	ND	20	D	µg/L	2	6/29/2023 6:00:21 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Chlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Chloroethane	ND	4.0	D	µg/L	2	6/29/2023 6:00:21 PM
Chloroform	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Chloromethane	ND	6.0	D	µg/L	2	6/29/2023 6:00:21 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-31
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 12:30:00 PM
Lab ID: 2306C82-004 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	6/29/2023 6:00:21 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Dibromomethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
2-Hexanone	ND	20	D	µg/L	2	6/29/2023 6:00:21 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	6/29/2023 6:00:21 PM
Methylene Chloride	ND	6.0	D	µg/L	2	6/29/2023 6:00:21 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	6/29/2023 6:00:21 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Styrene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	6/29/2023 6:00:21 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	6/29/2023 6:00:21 PM
Vinyl chloride	ND	2.0	D	µg/L	2	6/29/2023 6:00:21 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH-31
Project: Salty Dog Pipeline
Collection Date: 6/22/2023 12:30:00 PM
Lab ID: 2306C82-004 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	3.0	D	µg/L	2	6/29/2023 6:00:21 PM
Surr: 1,2-Dichloroethane-d4	98.2	70-130	D	%Rec	2	6/29/2023 6:00:21 PM
Surr: 4-Bromofluorobenzene	90.8	70-130	D	%Rec	2	6/29/2023 6:00:21 PM
Surr: Dibromofluoromethane	113	70-130	D	%Rec	2	6/29/2023 6:00:21 PM
Surr: Toluene-d8	99.0	70-130	D	%Rec	2	6/29/2023 6:00:21 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	4900	10		µmhos/c	1	6/26/2023 2:10:10 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.42		H	pH units	1	6/26/2023 2:10:10 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	216.3	20.00		mg/L Ca	1	6/26/2023 2:10:10 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 2:10:10 PM
Total Alkalinity (as CaCO3)	216.3	20.00		mg/L Ca	1	6/26/2023 2:10:10 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MRA**
Total Dissolved Solids	4110	250	*D	mg/L	1	7/3/2023 9:50:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 1:50:00 PM
Lab ID: 2306C82-005 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Fluoride	ND	1.0		mg/L	10	6/26/2023 9:01:04 PM
Chloride	720	50	*	mg/L	100	6/26/2023 9:13:24 PM
Nitrogen, Nitrite (As N)	ND	1.0	H	mg/L	10	6/26/2023 9:01:04 PM
Bromide	1.6	1.0		mg/L	10	6/26/2023 9:01:04 PM
Nitrogen, Nitrate (As N)	ND	1.0	H	mg/L	10	6/26/2023 9:01:04 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/26/2023 9:01:04 PM
Sulfate	2800	50	*	mg/L	100	6/26/2023 9:13:24 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	660	20		mg/L	20	6/30/2023 3:47:53 PM
Magnesium	110	5.0		mg/L	5	6/27/2023 4:59:36 PM
Potassium	8.7	1.0		mg/L	1	6/27/2023 4:58:00 PM
Sodium	1000	20		mg/L	20	6/30/2023 3:47:53 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Toluene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Ethylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Naphthalene	ND	2.0		µg/L	1	6/29/2023 6:31:33 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/29/2023 6:31:33 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/29/2023 6:31:33 PM
Acetone	ND	10		µg/L	1	6/29/2023 6:31:33 PM
Bromobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Bromoform	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Bromomethane	ND	3.0		µg/L	1	6/29/2023 6:31:33 PM
2-Butanone	ND	10		µg/L	1	6/29/2023 6:31:33 PM
Carbon disulfide	ND	10		µg/L	1	6/29/2023 6:31:33 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Chlorobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Chloroethane	ND	2.0		µg/L	1	6/29/2023 6:31:33 PM
Chloroform	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Chloromethane	ND	3.0		µg/L	1	6/29/2023 6:31:33 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 1:50:00 PM
Lab ID: 2306C82-005 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/29/2023 6:31:33 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Dibromomethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/29/2023 6:31:33 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
2-Hexanone	ND	10		µg/L	1	6/29/2023 6:31:33 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2023 6:31:33 PM
Methylene Chloride	ND	3.0		µg/L	1	6/29/2023 6:31:33 PM
n-Butylbenzene	ND	3.0		µg/L	1	6/29/2023 6:31:33 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Styrene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/29/2023 6:31:33 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/29/2023 6:31:33 PM
Vinyl chloride	ND	1.0		µg/L	1	6/29/2023 6:31:33 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-9
Project: Salty Dog Pipeline **Collection Date:** 6/21/2023 1:50:00 PM
Lab ID: 2306C82-005 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	1.5		µg/L	1	6/29/2023 6:31:33 PM
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%Rec	1	6/29/2023 6:31:33 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	6/29/2023 6:31:33 PM
Surr: Dibromofluoromethane	113	70-130		%Rec	1	6/29/2023 6:31:33 PM
Surr: Toluene-d8	102	70-130		%Rec	1	6/29/2023 6:31:33 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	7200	10		µmhos/c	1	6/26/2023 2:22:00 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.42		H	pH units	1	6/26/2023 2:22:00 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	305.0	20.00		mg/L Ca	1	6/26/2023 2:22:00 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 2:22:00 PM
Total Alkalinity (as CaCO3)	305.0	20.00		mg/L Ca	1	6/26/2023 2:22:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**
Total Dissolved Solids	5660	100	*D	mg/L	1	6/29/2023 3:10:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 12:08:00 PM
Lab ID: 2306C82-006 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Fluoride	ND	10		mg/L	100	6/26/2023 9:25:45 PM
Chloride	2400	500	*	mg/L	1000	6/26/2023 9:38:05 PM
Nitrogen, Nitrite (As N)	ND	10	H	mg/L	100	6/26/2023 9:25:45 PM
Bromide	ND	10		mg/L	100	6/26/2023 9:25:45 PM
Nitrogen, Nitrate (As N)	ND	10	H	mg/L	100	6/26/2023 9:25:45 PM
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	6/26/2023 9:25:45 PM
Sulfate	2800	50	*	mg/L	100	6/26/2023 9:25:45 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	680	50		mg/L	50	6/30/2023 3:56:40 PM
Magnesium	88	1.0		mg/L	1	6/27/2023 5:01:21 PM
Potassium	12	1.0		mg/L	1	6/27/2023 5:01:21 PM
Sodium	2400	50		mg/L	50	6/30/2023 3:56:40 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Toluene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Ethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Naphthalene	ND	4.0	D	µg/L	2	6/29/2023 7:02:32 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 7:02:32 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 7:02:32 PM
Acetone	ND	20	D	µg/L	2	6/29/2023 7:02:32 PM
Bromobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Bromoform	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Bromomethane	ND	6.0	D	µg/L	2	6/29/2023 7:02:32 PM
2-Butanone	ND	20	D	µg/L	2	6/29/2023 7:02:32 PM
Carbon disulfide	ND	20	D	µg/L	2	6/29/2023 7:02:32 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Chlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Chloroethane	ND	4.0	D	µg/L	2	6/29/2023 7:02:32 PM
Chloroform	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Chloromethane	ND	6.0	D	µg/L	2	6/29/2023 7:02:32 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 12:08:00 PM
Lab ID: 2306C82-006 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	6/29/2023 7:02:32 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Dibromomethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
2-Hexanone	ND	20	D	µg/L	2	6/29/2023 7:02:32 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	6/29/2023 7:02:32 PM
Methylene Chloride	ND	6.0	D	µg/L	2	6/29/2023 7:02:32 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	6/29/2023 7:02:32 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Styrene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	6/29/2023 7:02:32 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	6/29/2023 7:02:32 PM
Vinyl chloride	ND	2.0	D	µg/L	2	6/29/2023 7:02:32 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-18
Project: Salty Dog Pipeline **Collection Date:** 6/21/2023 12:08:00 PM
Lab ID: 2306C82-006 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	3.0	D	µg/L	2	6/29/2023 7:02:32 PM
Surr: 1,2-Dichloroethane-d4	100	70-130	D	%Rec	2	6/29/2023 7:02:32 PM
Surr: 4-Bromofluorobenzene	98.7	70-130	D	%Rec	2	6/29/2023 7:02:32 PM
Surr: Dibromofluoromethane	112	70-130	D	%Rec	2	6/29/2023 7:02:32 PM
Surr: Toluene-d8	104	70-130	D	%Rec	2	6/29/2023 7:02:32 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	16000	100		µmhos/c	10	6/26/2023 5:10:05 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.47		H	pH units	1	6/26/2023 2:36:37 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	255.3	20.00		mg/L Ca	1	6/26/2023 2:36:37 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 2:36:37 PM
Total Alkalinity (as CaCO3)	255.3	20.00		mg/L Ca	1	6/26/2023 2:36:37 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**
Total Dissolved Solids	8050	500	*D	mg/L	1	6/29/2023 3:10:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 2:00:00 PM
Lab ID: 2306C82-007 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Fluoride	ND	1.0		mg/L	10	6/26/2023 10:15:09 PM
Chloride	530	50	*	mg/L	100	6/26/2023 10:27:29 PM
Nitrogen, Nitrite (As N)	ND	1.0	H	mg/L	10	6/26/2023 10:15:09 PM
Bromide	1.2	1.0		mg/L	10	6/26/2023 10:15:09 PM
Nitrogen, Nitrate (As N)	ND	1.0	H	mg/L	10	6/26/2023 10:15:09 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	6/26/2023 10:15:09 PM
Sulfate	2000	50	*	mg/L	100	6/26/2023 10:27:29 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	610	20		mg/L	20	6/30/2023 3:58:35 PM
Magnesium	77	1.0		mg/L	1	6/27/2023 5:04:18 PM
Potassium	8.2	1.0		mg/L	1	6/27/2023 5:04:18 PM
Sodium	640	20		mg/L	20	6/30/2023 3:58:35 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Toluene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Ethylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Naphthalene	ND	2.0		µg/L	1	6/29/2023 7:33:32 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/29/2023 7:33:32 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/29/2023 7:33:32 PM
Acetone	ND	10		µg/L	1	6/29/2023 7:33:32 PM
Bromobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Bromoform	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Bromomethane	ND	3.0		µg/L	1	6/29/2023 7:33:32 PM
2-Butanone	ND	10		µg/L	1	6/29/2023 7:33:32 PM
Carbon disulfide	ND	10		µg/L	1	6/29/2023 7:33:32 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Chlorobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Chloroethane	ND	2.0		µg/L	1	6/29/2023 7:33:32 PM
Chloroform	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Chloromethane	ND	3.0		µg/L	1	6/29/2023 7:33:32 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 2:00:00 PM
Lab ID: 2306C82-007 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/29/2023 7:33:32 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Dibromomethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/29/2023 7:33:32 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
2-Hexanone	ND	10		µg/L	1	6/29/2023 7:33:32 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2023 7:33:32 PM
Methylene Chloride	ND	3.0		µg/L	1	6/29/2023 7:33:32 PM
n-Butylbenzene	ND	3.0		µg/L	1	6/29/2023 7:33:32 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Styrene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/29/2023 7:33:32 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/29/2023 7:33:32 PM
Vinyl chloride	ND	1.0		µg/L	1	6/29/2023 7:33:32 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-15
Project: Salty Dog Pipeline **Collection Date:** 6/21/2023 2:00:00 PM
Lab ID: 2306C82-007 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	1.5		µg/L	1	6/29/2023 7:33:32 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	6/29/2023 7:33:32 PM
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	6/29/2023 7:33:32 PM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	6/29/2023 7:33:32 PM
Surr: Toluene-d8	102	70-130		%Rec	1	6/29/2023 7:33:32 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5400	10		µmhos/c	1	6/26/2023 2:49:50 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.28		H	pH units	1	6/26/2023 2:49:50 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	220.8	20.00		mg/L Ca	1	6/26/2023 2:49:50 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 2:49:50 PM
Total Alkalinity (as CaCO3)	220.8	20.00		mg/L Ca	1	6/26/2023 2:49:50 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**
Total Dissolved Solids	4150	500	*D	mg/L	1	6/29/2023 3:10:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 1:15:00 PM
Lab ID: 2306C82-008 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Fluoride	ND	2.0		mg/L	20	6/26/2023 10:39:51 PM
Chloride	2300	100	*	mg/L	200	6/26/2023 10:52:11 PM
Nitrogen, Nitrite (As N)	ND	2.0	H	mg/L	20	6/26/2023 10:39:51 PM
Bromide	3.3	2.0		mg/L	20	6/26/2023 10:39:51 PM
Nitrogen, Nitrate (As N)	ND	2.0	H	mg/L	20	6/26/2023 10:39:51 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	6/26/2023 10:39:51 PM
Sulfate	1900	100	*	mg/L	200	6/26/2023 10:52:11 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	260	5.0		mg/L	5	6/27/2023 5:09:01 PM
Magnesium	42	1.0		mg/L	1	6/27/2023 5:07:31 PM
Potassium	14	1.0		mg/L	1	6/27/2023 5:07:31 PM
Sodium	2000	50		mg/L	50	6/30/2023 4:00:26 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Toluene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Ethylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Naphthalene	ND	2.0		µg/L	1	6/29/2023 8:04:29 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/29/2023 8:04:29 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/29/2023 8:04:29 PM
Acetone	ND	10		µg/L	1	6/29/2023 8:04:29 PM
Bromobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Bromoform	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Bromomethane	ND	3.0		µg/L	1	6/29/2023 8:04:29 PM
2-Butanone	ND	10		µg/L	1	6/29/2023 8:04:29 PM
Carbon disulfide	ND	10		µg/L	1	6/29/2023 8:04:29 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Chlorobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Chloroethane	ND	2.0		µg/L	1	6/29/2023 8:04:29 PM
Chloroform	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Chloromethane	ND	3.0		µg/L	1	6/29/2023 8:04:29 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 1:15:00 PM
Lab ID: 2306C82-008 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/29/2023 8:04:29 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Dibromomethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/29/2023 8:04:29 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
2-Hexanone	ND	10		µg/L	1	6/29/2023 8:04:29 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2023 8:04:29 PM
Methylene Chloride	ND	3.0		µg/L	1	6/29/2023 8:04:29 PM
n-Butylbenzene	ND	3.0		µg/L	1	6/29/2023 8:04:29 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Styrene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/29/2023 8:04:29 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/29/2023 8:04:29 PM
Vinyl chloride	ND	1.0		µg/L	1	6/29/2023 8:04:29 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-12
Project: Salty Dog Pipeline **Collection Date:** 6/21/2023 1:15:00 PM
Lab ID: 2306C82-008 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	1.5		µg/L	1	6/29/2023 8:04:29 PM
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%Rec	1	6/29/2023 8:04:29 PM
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	6/29/2023 8:04:29 PM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	6/29/2023 8:04:29 PM
Surr: Toluene-d8	97.9	70-130		%Rec	1	6/29/2023 8:04:29 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	13000	100		µmhos/c	10	6/26/2023 5:13:02 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.58		H	pH units	1	6/26/2023 3:06:07 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	252.0	20.00		mg/L Ca	1	6/26/2023 3:06:07 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 3:06:07 PM
Total Alkalinity (as CaCO3)	252.0	20.00		mg/L Ca	1	6/26/2023 3:06:07 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**
Total Dissolved Solids	6690	500	*D	mg/L	1	6/29/2023 3:10:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 12:45:00 PM
Lab ID: 2306C82-009 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Fluoride	ND	10		mg/L	100	6/26/2023 11:04:32 PM
Chloride	2700	500	*	mg/L	1000	6/26/2023 11:16:52 PM
Nitrogen, Nitrite (As N)	ND	10	H	mg/L	100	6/26/2023 11:04:32 PM
Bromide	ND	10		mg/L	100	6/26/2023 11:04:32 PM
Nitrogen, Nitrate (As N)	ND	10	H	mg/L	100	6/26/2023 11:04:32 PM
Phosphorus, Orthophosphate (As P)	ND	50	H	mg/L	100	6/26/2023 11:04:32 PM
Sulfate	1900	50	*	mg/L	100	6/26/2023 11:04:32 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Calcium	880	10		mg/L	10	7/8/2023 9:58:45 AM
Magnesium	98	5.0		mg/L	5	6/27/2023 5:12:18 PM
Potassium	11	5.0		mg/L	5	6/27/2023 5:12:18 PM
Sodium	1800	50		mg/L	50	6/30/2023 4:02:17 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Benzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Toluene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Ethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Naphthalene	ND	4.0	D	µg/L	2	6/29/2023 8:35:05 PM
1-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 8:35:05 PM
2-Methylnaphthalene	ND	8.0	D	µg/L	2	6/29/2023 8:35:05 PM
Acetone	ND	20	D	µg/L	2	6/29/2023 8:35:05 PM
Bromobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Bromodichloromethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Bromoform	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Bromomethane	ND	6.0	D	µg/L	2	6/29/2023 8:35:05 PM
2-Butanone	ND	20	D	µg/L	2	6/29/2023 8:35:05 PM
Carbon disulfide	ND	20	D	µg/L	2	6/29/2023 8:35:05 PM
Carbon Tetrachloride	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Chlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Chloroethane	ND	4.0	D	µg/L	2	6/29/2023 8:35:05 PM
Chloroform	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Chloromethane	ND	6.0	D	µg/L	2	6/29/2023 8:35:05 PM
2-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
4-Chlorotoluene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 12:45:00 PM
Lab ID: 2306C82-009 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
cis-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	6/29/2023 8:35:05 PM
Dibromochloromethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Dibromomethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1-Dichloroethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1-Dichloroethene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,3-Dichloropropane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
2,2-Dichloropropane	ND	4.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Hexachlorobutadiene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
2-Hexanone	ND	20	D	µg/L	2	6/29/2023 8:35:05 PM
Isopropylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
4-Isopropyltoluene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
4-Methyl-2-pentanone	ND	20	D	µg/L	2	6/29/2023 8:35:05 PM
Methylene Chloride	ND	6.0	D	µg/L	2	6/29/2023 8:35:05 PM
n-Butylbenzene	ND	6.0	D	µg/L	2	6/29/2023 8:35:05 PM
n-Propylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
sec-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Styrene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
tert-Butylbenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	6/29/2023 8:35:05 PM
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
trans-1,2-DCE	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
Trichlorofluoromethane	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	6/29/2023 8:35:05 PM
Vinyl chloride	ND	2.0	D	µg/L	2	6/29/2023 8:35:05 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2306C82**
Date Reported: **7/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 6/21/2023 12:45:00 PM
Lab ID: 2306C82-009 **Matrix:** AQUEOUS **Received Date:** 6/24/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JR**
Xylenes, Total	ND	3.0	D	µg/L	2	6/29/2023 8:35:05 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130	D	%Rec	2	6/29/2023 8:35:05 PM
Surr: 4-Bromofluorobenzene	95.6	70-130	D	%Rec	2	6/29/2023 8:35:05 PM
Surr: Dibromofluoromethane	112	70-130	D	%Rec	2	6/29/2023 8:35:05 PM
Surr: Toluene-d8	98.7	70-130	D	%Rec	2	6/29/2023 8:35:05 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	15000	100		µmhos/c	10	6/26/2023 5:15:57 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.51		H	pH units	1	6/26/2023 3:19:08 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	194.2	20.00		mg/L Ca	1	6/26/2023 3:19:08 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/26/2023 3:19:08 PM
Total Alkalinity (as CaCO3)	194.2	20.00		mg/L Ca	1	6/26/2023 3:19:08 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**
Total Dissolved Solids	7980	500	*D	mg/L	1	6/29/2023 3:10:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-75851**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556213** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: **LCSLL-75851**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556214** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	102	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Potassium	ND	1.0	0.5000	0	109	50	150			
Sodium	ND	1.0	0.5000	0	109	50	150			

Sample ID: **LCS-75851**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556215** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.3	85	115			
Magnesium	50	1.0	50.00	0	99.5	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			

Sample ID: **2306C82-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BH-28**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556297** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	140	5.0	50.00	94.92	94.4	70	130			
Potassium	63	5.0	50.00	13.13	98.8	70	130			

Sample ID: **2306C82-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BH-28**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556298** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	150	5.0	50.00	94.92	102	70	130	2.60	20	
Potassium	65	5.0	50.00	13.13	103	70	130	3.29	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **2306C82-002CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BH-29**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556305** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	62	1.0	50.00	9.512	106	70	130			

Sample ID: **2306C82-002CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BH-29**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556306** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	63	1.0	50.00	9.512	107	70	130	0.875	20	

Sample ID: **2306C82-002CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BH-29**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556308** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	120	5.0	50.00	71.35	101	70	130			

Sample ID: **2306C82-002CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BH-29**	Batch ID: **75851**	RunNo: **97775**
Prep Date: **6/27/2023**	Analysis Date: **6/27/2023**	SeqNo: **3556309** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	120	5.0	50.00	71.35	95.8	70	130	2.21	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R97730**	RunNo: **97730**							
Prep Date:	Analysis Date: **6/26/2023**	SeqNo: **3554267**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R97730**	RunNo: **97730**							
Prep Date:	Analysis Date: **6/26/2023**	SeqNo: **3554268**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.7	0.50	5.000	0	93.8	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.5	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.9	90	110			
Phosphorus, Orthophosphate (As P)	4.6	0.50	5.000	0	91.2	90	110			
Sulfate	9.5	0.50	10.00	0	94.9	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R97744**	RunNo: **97744**							
Prep Date:	Analysis Date: **6/27/2023**	SeqNo: **3555497**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R97744**	RunNo: **97744**							
Prep Date:	Analysis Date: **6/27/2023**	SeqNo: **3555498**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.5	90	110			
Chloride	4.7	0.50	5.000	0	93.8	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R97744**	RunNo: **97744**
Prep Date:	Analysis Date: **6/27/2023**	SeqNo: **3555498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.6	90	110			
Bromide	2.4	0.10	2.500	0	95.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	90.8	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R97836**	RunNo: **97836**
Prep Date:	Analysis Date: **6/29/2023**	SeqNo: **3558478** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	97.9	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.4	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.7		10.00		96.5	70	130			

Sample ID: **2306c82-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BH-28**	Batch ID: **R97836**	RunNo: **97836**
Prep Date:	Analysis Date: **6/29/2023**	SeqNo: **3558482** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	45	2.0	40.00	0	112	70	130			D
Toluene	41	2.0	40.00	0	102	70	130			D
Chlorobenzene	45	2.0	40.00	0	113	70	130			D
1,1-Dichloroethene	41	2.0	40.00	0.5036	101	70	130			D
Trichloroethene (TCE)	42	2.0	40.00	0	105	70	130			D
Surr: 1,2-Dichloroethane-d4	21		20.00		104	70	130			D
Surr: 4-Bromofluorobenzene	19		20.00		96.6	70	130			D
Surr: Dibromofluoromethane	23		20.00		114	70	130			D
Surr: Toluene-d8	20		20.00		101	70	130			D

Sample ID: **2306c82-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BH-28**	Batch ID: **R97836**	RunNo: **97836**
Prep Date:	Analysis Date: **6/29/2023**	SeqNo: **3558483** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	44	2.0	40.00	0	110	70	130	1.50	20	D
Toluene	40	2.0	40.00	0	99.7	70	130	2.65	20	D
Chlorobenzene	44	2.0	40.00	0	109	70	130	3.27	20	D
1,1-Dichloroethene	41	2.0	40.00	0.5036	100	70	130	0.837	20	D
Trichloroethene (TCE)	40	2.0	40.00	0	99.1	70	130	5.55	20	D
Surr: 1,2-Dichloroethane-d4	20		20.00		101	70	130	0	0	D
Surr: 4-Bromofluorobenzene	20		20.00		98.6	70	130	0	0	D
Surr: Dibromofluoromethane	22		20.00		112	70	130	0	0	D
Surr: Toluene-d8	20		20.00		99.8	70	130	0	0	D

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R97836**	RunNo: **97836**
Prep Date:	Analysis Date: **6/29/2023**	SeqNo: **3558503** 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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R97836**	RunNo: **97836**
Prep Date:	Analysis Date: **6/29/2023**	SeqNo: **3558503** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.6	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID:	**lcs-1 99.3uS eC**	SampType:	**LCS**	TestCode:	**SM2510B: Specific Conductance**					
Client ID:	**LCSW**	Batch ID:	**R97724**	RunNo:	**97724**					
Prep Date:		Analysis Date:	**6/26/2023**	SeqNo:	**3553990**	Units:	**µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	99.30	0	103	85	115			

Sample ID:	**lcs-2 99.3uS eC**	SampType:	**LCS**	TestCode:	**SM2510B: Specific Conductance**					
Client ID:	**LCSW**	Batch ID:	**R97724**	RunNo:	**97724**					
Prep Date:		Analysis Date:	**6/26/2023**	SeqNo:	**3554014**	Units:	**µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	99.30	0	105	85	115			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **mb-1 alk**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R97724**	RunNo: **97724**							
Prep Date:	Analysis Date: **6/26/2023**	SeqNo: **3553968**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **lcs-1 alk**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R97724**	RunNo: **97724**							
Prep Date:	Analysis Date: **6/26/2023**	SeqNo: **3553969**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.80	20.00	80.00	0	98.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306C82**

18-Jul-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-75880**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **75880**	RunNo: **97827**
Prep Date: **6/28/2023**	Analysis Date: **6/29/2023**	SeqNo: **3558237** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-75880**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **75880**	RunNo: **97827**
Prep Date: **6/28/2023**	Analysis Date: **6/29/2023**	SeqNo: **3558238** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	50.0	1000	0	101	80	120			

Sample ID: **MB-75912**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **75912**	RunNo: **97883**
Prep Date: **6/29/2023**	Analysis Date: **7/3/2023**	SeqNo: **3560684** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-75912**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **75912**	RunNo: **97883**
Prep Date: **6/29/2023**	Analysis Date: **7/3/2023**	SeqNo: **3560685** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	50.0	1000	0	102	80	120			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
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: www.hallenvironmental.com

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2306C82 RcptNo: 1

Received By: Tracy Casarrubias 6/24/2023 7:45:00 AM

Completed By: Tracy Casarrubias 6/24/2023 10:13:31 AM

Reviewed By: MB 6/26/23

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 ☐	JM 6/26/23
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: 9 (<2 or >12 unless noted)

Adjusted? YES

Checked by: JM 6/26/23

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:

~~Poured off 125mL from original volume provided for 001B - 009B to create samples 2 of 2 for 001B-009B. Proceeded to add ____ mL of H2SO4 for pH. (CHEM# ____).~~ Poured off 250mL from original volume provided for 001B - 009B to create samples 001C-009C. Proceeded to add 0.5 mL of HNO3 for pH. (CHEM# 7162). - JM 6/26/23

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes	Morty		

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name: Salty Dog Pipeline

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: X Yes ☐ No yes.

# of Coolers: 1

Cooler Temp(including CF): 3.0 + 0.1 = 3.1 ~

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. 2306C92	Analysis Request: Cations/Anions/TDS/pH (1) Liter Plastic	Analysis Request: Volatiles 8260 40ml VOA HCl
6-22	1300	Water	BH-28	Various	Various	001	X	X
6-22	1318	Water	BH-29	Various	Various	002	X	X
6-22	1205	Water	BH-30	Various	Various	003	X	X
6-22	1230	Water	BH-31	Various	Various	004	X	X
6-21	1350	Water	MW-9	Various	Various	005	X	X
6-21	1208	Water	MW-18	Various	Various	006	X	X
6-21	1400	Water	MW-15	Various	Various	007	X	X
6-21	1315	Water	MW-12	Various	Various	008	X	X
6-21	1245	Water	MW-10	Various	Various	009	X	X
		Water		Various	Various	~~010~~	X	X

Date	Time	Relinquished by	Received by	Via	Date	Time
6-23				Courier		7:45
					6/24/23	

Preserve the Cation/Anions in the lab

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 07, 2023

Mitch Killough
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX:

RE: Salty Dog Pipeline OrderNo.: 2308A74

Dear Mitch Killough:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/18/2023 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 **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 1:30:00 PM
Lab ID: 2308A74-001 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	0.94	0.50		mg/L	5	8/18/2023 4:43:52 PM
Chloride	1100	50	*	mg/L	100	8/22/2023 10:24:08 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/18/2023 4:43:52 PM
Bromide	2.3	0.50		mg/L	5	8/18/2023 4:43:52 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/18/2023 4:43:52 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 4:56:13 PM
Sulfate	3600	50	*	mg/L	100	8/22/2023 10:24:08 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	740	50		mg/L	50	8/28/2023 10:44:41 AM
Magnesium	160	5.0		mg/L	5	8/25/2023 1:13:24 PM
Potassium	6.4	1.0		mg/L	1	8/25/2023 1:03:46 PM
Sodium	1600	50		mg/L	50	8/28/2023 10:44:41 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 6:27:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 6:27:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 6:27:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 6:27:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 6:27:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 6:27:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 6:27:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 6:27:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 6:27:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 1:30:00 PM
Lab ID: 2308A74-001 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 6:27:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 6:27:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 6:27:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 6:27:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 6:27:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 6:27:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 6:27:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 6:27:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 6:27:00 PM

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	Above Quantitation Range/Estimated Value
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
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Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 1:30:00 PM
Lab ID: 2308A74-001 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 6:27:00 PM
Surr: 1,2-Dichloroethane-d4	115	70-130		%Rec	1	8/28/2023 6:27:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	1	8/28/2023 6:27:00 PM
Surr: Dibromofluoromethane	121	70-130		%Rec	1	8/28/2023 6:27:00 PM
Surr: Toluene-d8	101	70-130		%Rec	1	8/28/2023 6:27:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	9600	10		µmhos/c	1	8/22/2023 6:29:58 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.72		H	pH units	1	8/22/2023 6:29:58 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	462.7	20.00		mg/L Ca	1	8/22/2023 6:29:58 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 6:29:58 PM
Total Alkalinity (as CaCO3)	462.7	20.00		mg/L Ca	1	8/22/2023 6:29:58 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	6600	5000	*D	mg/L	1	8/23/2023 4:15:00 PM

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

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 10:35:00 AM
Lab ID: 2308A74-002 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	8/18/2023 5:08:34 PM
Chloride	2600	100	*	mg/L	200	8/22/2023 10:36:59 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/18/2023 5:20:55 PM
Bromide	3.3	0.50		mg/L	5	8/18/2023 5:08:34 PM
Nitrogen, Nitrate (As N)	0.52	0.50		mg/L	5	8/18/2023 5:08:34 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 5:20:55 PM
Sulfate	2000	100	*	mg/L	200	8/22/2023 10:36:59 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	830	50		mg/L	50	8/28/2023 10:46:21 AM
Magnesium	87	1.0		mg/L	1	8/29/2023 12:29:46 PM
Potassium	10	1.0		mg/L	1	8/29/2023 12:29:46 PM
Sodium	1700	50		mg/L	50	8/28/2023 10:46:21 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 6:52:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 6:52:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 6:52:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 6:52:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 6:52:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 6:52:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 6:52:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 6:52:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 6:52:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
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Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 10:35:00 AM
Lab ID: 2308A74-002 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 6:52:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 6:52:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 6:52:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 6:52:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 6:52:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 6:52:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 6:52:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 6:52:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 6:52:00 PM

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

Qualifiers:

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Date Reported: **9/7/2023**

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CLIENT: HILCORP ENERGY
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Project: Salty Dog Pipeline
Collection Date: 8/17/2023 10:35:00 AM
Lab ID: 2308A74-002 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 6:52:00 PM
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	8/28/2023 6:52:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	1	8/28/2023 6:52:00 PM
Surr: Dibromofluoromethane	122	70-130		%Rec	1	8/28/2023 6:52:00 PM
Surr: Toluene-d8	102	70-130		%Rec	1	8/28/2023 6:52:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	13000	100		µmhos/c	10	8/24/2023 3:09:17 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.73		H	pH units	1	8/22/2023 7:08:55 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	207.9	20.00		mg/L Ca	1	8/22/2023 7:08:55 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 7:08:55 PM
Total Alkalinity (as CaCO3)	207.9	20.00		mg/L Ca	1	8/22/2023 7:08:55 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	85500	25000	*D	mg/L	1	8/23/2023 4:15:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 12:00:00 PM
Lab ID: 2308A74-003 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	0.60	0.50		mg/L	5	8/18/2023 5:33:15 PM
Chloride	910	25	*	mg/L	50	8/22/2023 10:49:51 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/18/2023 5:33:15 PM
Bromide	1.3	0.50		mg/L	5	8/18/2023 5:33:15 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/18/2023 5:33:15 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/18/2023 5:33:15 PM
Sulfate	760	10	*	mg/L	20	8/18/2023 5:45:36 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	120	10		mg/L	10	8/28/2023 10:47:57 AM
Magnesium	23	1.0		mg/L	1	8/29/2023 12:31:13 PM
Potassium	17	1.0		mg/L	1	8/29/2023 12:31:13 PM
Sodium	780	10		mg/L	10	8/28/2023 10:47:57 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 7:16:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 7:16:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 7:16:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 7:16:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 7:16:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 7:16:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 7:16:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 7:16:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 7:16:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 12:00:00 PM
Lab ID: 2308A74-003 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 7:16:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 7:16:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 7:16:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 7:16:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 7:16:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 7:16:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 7:16:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 7:16:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 7:16:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 12:00:00 PM
Lab ID: 2308A74-003 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 7:16:00 PM
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	8/28/2023 7:16:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%Rec	1	8/28/2023 7:16:00 PM
Surr: Dibromofluoromethane	122	70-130		%Rec	1	8/28/2023 7:16:00 PM
Surr: Toluene-d8	102	70-130		%Rec	1	8/28/2023 7:16:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	4500	10		µmhos/c	1	8/22/2023 7:20:25 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.65		H	pH units	1	8/22/2023 7:20:25 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	171.5	20.00		mg/L Ca	1	8/22/2023 7:20:25 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 7:20:25 PM
Total Alkalinity (as CaCO3)	171.5	20.00		mg/L Ca	1	8/22/2023 7:20:25 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	28500	25000	*D	mg/L	1	8/23/2023 4:15:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-13
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 11:15:00 AM
Lab ID: 2308A74-004 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	8/18/2023 6:22:39 PM
Chloride	3000	100	*	mg/L	200	8/22/2023 11:02:43 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/18/2023 6:35:00 PM
Bromide	3.7	0.50		mg/L	5	8/18/2023 6:22:39 PM
Nitrogen, Nitrate (As N)	2.1	0.50		mg/L	5	8/18/2023 6:22:39 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 6:35:00 PM
Sulfate	2600	100	*	mg/L	200	8/22/2023 11:02:43 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	730	50		mg/L	50	8/28/2023 10:49:41 AM
Magnesium	87	1.0		mg/L	1	8/29/2023 12:32:41 PM
Potassium	12	1.0		mg/L	1	8/29/2023 12:32:41 PM
Sodium	2400	50		mg/L	50	8/28/2023 10:49:41 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 7:41:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 7:41:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 7:41:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 7:41:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 7:41:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 7:41:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 7:41:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 7:41:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 7:41:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-13
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 11:15:00 AM
Lab ID: 2308A74-004 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 7:41:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 7:41:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 7:41:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 7:41:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 7:41:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 7:41:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 7:41:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 7:41:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 7:41:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-13
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 11:15:00 AM
Lab ID: 2308A74-004 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 7:41:00 PM
Surr: 1,2-Dichloroethane-d4	116	70-130		%Rec	1	8/28/2023 7:41:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	8/28/2023 7:41:00 PM
Surr: Dibromofluoromethane	123	70-130		%Rec	1	8/28/2023 7:41:00 PM
Surr: Toluene-d8	101	70-130		%Rec	1	8/28/2023 7:41:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	16000	100		µmhos/c	10	8/24/2023 3:12:11 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.72		H	pH units	1	8/22/2023 7:30:39 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	258.2	20.00		mg/L Ca	1	8/22/2023 7:30:39 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 7:30:39 PM
Total Alkalinity (as CaCO3)	258.2	20.00		mg/L Ca	1	8/22/2023 7:30:39 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	8950	250	*D	mg/L	1	8/23/2023 4:15:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 2:00:00 PM
Lab ID: 2308A74-005 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	8/18/2023 6:47:20 PM
Chloride	570	50	*	mg/L	100	8/22/2023 11:15:34 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/18/2023 6:47:20 PM
Bromide	1.1	0.50		mg/L	5	8/18/2023 6:47:20 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/18/2023 6:47:20 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 6:59:41 PM
Sulfate	2000	50	*	mg/L	100	8/22/2023 11:15:34 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	600	10		mg/L	10	8/28/2023 10:56:38 AM
Magnesium	77	1.0		mg/L	1	8/29/2023 12:34:02 PM
Potassium	7.7	1.0		mg/L	1	8/29/2023 12:34:02 PM
Sodium	650	10		mg/L	10	8/28/2023 10:56:38 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 8:05:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 8:05:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 8:05:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 8:05:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 8:05:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 8:05:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 8:05:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 8:05:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 8:05:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 2:00:00 PM
Lab ID: 2308A74-005 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 8:05:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 8:05:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 8:05:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 8:05:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 8:05:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 8:05:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 8:05:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 8:05:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 8:05:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 2:00:00 PM
Lab ID: 2308A74-005 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 8:05:00 PM
Surr: 1,2-Dichloroethane-d4	115	70-130		%Rec	1	8/28/2023 8:05:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	8/28/2023 8:05:00 PM
Surr: Dibromofluoromethane	121	70-130		%Rec	1	8/28/2023 8:05:00 PM
Surr: Toluene-d8	101	70-130		%Rec	1	8/28/2023 8:05:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5500	10		µmhos/c	1	8/22/2023 7:43:47 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.56		H	pH units	1	8/22/2023 7:43:47 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	222.4	20.00		mg/L Ca	1	8/22/2023 7:43:47 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 7:43:47 PM
Total Alkalinity (as CaCO3)	222.4	20.00		mg/L Ca	1	8/22/2023 7:43:47 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	4440	250	*D	mg/L	1	8/23/2023 4:15:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 12:45:00 PM
Lab ID: 2308A74-006 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	8/18/2023 7:12:01 PM
Chloride	2800	100	*	mg/L	200	8/22/2023 11:28:27 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/18/2023 7:24:22 PM
Bromide	3.6	0.50		mg/L	5	8/18/2023 7:12:01 PM
Nitrogen, Nitrate (As N)	4.0	0.50		mg/L	5	8/18/2023 7:12:01 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 7:24:22 PM
Sulfate	2600	100	*	mg/L	200	8/22/2023 11:28:27 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	630	50		mg/L	50	8/28/2023 10:58:27 AM
Magnesium	85	1.0		mg/L	1	8/29/2023 12:41:38 PM
Potassium	11	1.0		mg/L	1	8/29/2023 12:41:38 PM
Sodium	2400	50		mg/L	50	8/28/2023 10:58:27 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 8:30:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 8:30:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 8:30:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 8:30:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 8:30:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 8:30:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 8:30:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 8:30:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 8:30:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 12:45:00 PM
Lab ID: 2308A74-006 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 8:30:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 8:30:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 8:30:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 8:30:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 8:30:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 8:30:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 8:30:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 8:30:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 8:30:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 12:45:00 PM
Lab ID: 2308A74-006 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 8:30:00 PM
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	1	8/28/2023 8:30:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	8/28/2023 8:30:00 PM
Surr: Dibromofluoromethane	123	70-130		%Rec	1	8/28/2023 8:30:00 PM
Surr: Toluene-d8	100	70-130		%Rec	1	8/28/2023 8:30:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	16000	100		µmhos/c	10	8/24/2023 3:15:05 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.67		H	pH units	1	8/22/2023 7:55:43 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	249.7	20.00		mg/L Ca	1	8/22/2023 7:55:43 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 7:55:43 PM
Total Alkalinity (as CaCO3)	249.7	20.00		mg/L Ca	1	8/22/2023 7:55:43 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	8900	2500	*D	mg/L	1	8/24/2023 3:17:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-28
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 1:15:00 PM
Lab ID: 2308A74-007 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	8/18/2023 7:36:43 PM
Chloride	2100	100	*	mg/L	200	8/23/2023 12:07:41 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/18/2023 7:49:03 PM
Bromide	3.0	0.50		mg/L	5	8/18/2023 7:36:43 PM
Nitrogen, Nitrate (As N)	1.5	0.50		mg/L	5	8/18/2023 7:36:43 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 7:49:03 PM
Sulfate	2300	100	*	mg/L	200	8/23/2023 12:07:41 AM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	620	50		mg/L	50	8/28/2023 11:00:09 AM
Magnesium	87	1.0		mg/L	1	8/29/2023 12:43:11 PM
Potassium	13	1.0		mg/L	1	8/29/2023 12:43:11 PM
Sodium	1900	50		mg/L	50	8/28/2023 11:00:09 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 8:54:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 8:54:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 8:54:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 8:54:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 8:54:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 8:54:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 8:54:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 8:54:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 8:54:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-28
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 1:15:00 PM
Lab ID: 2308A74-007 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 8:54:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 8:54:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 8:54:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 8:54:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 8:54:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 8:54:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 8:54:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 8:54:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 8:54:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-28
Project: Salty Dog Pipeline **Collection Date:** 8/17/2023 1:15:00 PM
Lab ID: 2308A74-007 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 8:54:00 PM
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	8/28/2023 8:54:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	8/28/2023 8:54:00 PM
Surr: Dibromofluoromethane	124	70-130		%Rec	1	8/28/2023 8:54:00 PM
Surr: Toluene-d8	101	70-130		%Rec	1	8/28/2023 8:54:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	13000	100		µmhos/c	10	8/24/2023 3:17:57 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.69		H	pH units	1	8/22/2023 8:08:38 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	251.5	20.00		mg/L Ca	1	8/22/2023 8:08:38 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 8:08:38 PM
Total Alkalinity (as CaCO3)	251.5	20.00		mg/L Ca	1	8/22/2023 8:08:38 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	7850	2500	*D	mg/L	1	8/24/2023 3:17:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-29
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 1:40:00 PM
Lab ID: 2308A74-008 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	0.55	0.50		mg/L	5	8/18/2023 8:01:24 PM
Chloride	1900	100	*	mg/L	200	8/23/2023 12:20:01 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	8/18/2023 8:13:45 PM
Bromide	2.8	0.50		mg/L	5	8/18/2023 8:01:24 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/18/2023 8:01:24 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 8:13:45 PM
Sulfate	2200	100	*	mg/L	200	8/23/2023 12:20:01 AM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	530	10		mg/L	10	8/28/2023 11:03:23 AM
Magnesium	69	1.0		mg/L	1	8/28/2023 11:01:55 AM
Potassium	11	1.0		mg/L	1	8/28/2023 11:01:55 AM
Sodium	1800	50		mg/L	50	8/28/2023 11:05:08 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 9:19:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 9:19:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 9:19:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 9:19:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 9:19:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 9:19:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 9:19:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 9:19:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 9:19:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-29
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 1:40:00 PM
Lab ID: 2308A74-008 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 9:19:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 9:19:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 9:19:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 9:19:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 9:19:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 9:19:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 9:19:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 9:19:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 9:19:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-29
Project: Salty Dog Pipeline
Collection Date: 8/17/2023 1:40:00 PM
Lab ID: 2308A74-008 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 9:19:00 PM
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	8/28/2023 9:19:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	8/28/2023 9:19:00 PM
Surr: Dibromofluoromethane	124	70-130		%Rec	1	8/28/2023 9:19:00 PM
Surr: Toluene-d8	100	70-130		%Rec	1	8/28/2023 9:19:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	12000	100		µmhos/c	10	8/24/2023 3:20:49 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.70		H	pH units	1	8/22/2023 8:21:31 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	254.0	20.00		mg/L Ca	1	8/22/2023 8:21:31 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 8:21:31 PM
Total Alkalinity (as CaCO3)	254.0	20.00		mg/L Ca	1	8/22/2023 8:21:31 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	6350	2500	*D	mg/L	1	8/24/2023 3:17:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-30
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 12:55:00 PM
Lab ID: 2308A74-009 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	ND	0.50		mg/L	5	8/18/2023 8:50:47 PM
Chloride	360	50	*	mg/L	100	8/23/2023 12:32:53 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/18/2023 8:50:47 PM
Bromide	1.0	0.50		mg/L	5	8/18/2023 8:50:47 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/18/2023 8:50:47 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 9:03:08 PM
Sulfate	2100	50	*	mg/L	100	8/23/2023 12:32:53 AM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	600	10		mg/L	10	8/28/2023 11:08:09 AM
Magnesium	84	1.0		mg/L	1	8/28/2023 11:06:51 AM
Potassium	10	1.0		mg/L	1	8/28/2023 11:06:51 AM
Sodium	720	10		mg/L	10	8/28/2023 11:08:09 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 9:43:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 9:43:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 9:43:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 9:43:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 9:43:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 9:43:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 9:43:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 9:43:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 9:43:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-30
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 12:55:00 PM
Lab ID: 2308A74-009 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 9:43:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 9:43:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 9:43:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 9:43:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 9:43:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 9:43:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 9:43:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 9:43:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 9:43:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-30
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 12:55:00 PM
Lab ID: 2308A74-009 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 9:43:00 PM
Surr: 1,2-Dichloroethane-d4	120	70-130		%Rec	1	8/28/2023 9:43:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	8/28/2023 9:43:00 PM
Surr: Dibromofluoromethane	125	70-130		%Rec	1	8/28/2023 9:43:00 PM
Surr: Toluene-d8	98.2	70-130		%Rec	1	8/28/2023 9:43:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5200	10		µmhos/c	1	8/22/2023 8:34:30 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.81		H	pH units	1	8/22/2023 8:34:30 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	277.5	20.00		mg/L Ca	1	8/22/2023 8:34:30 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 8:34:30 PM
Total Alkalinity (as CaCO3)	277.5	20.00		mg/L Ca	1	8/22/2023 8:34:30 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	42500	25000	*D	mg/L	1	8/23/2023 4:15:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-31
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 12:30:00 PM
Lab ID: 2308A74-010 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Fluoride	0.69	0.50		mg/L	5	8/18/2023 9:52:32 PM
Chloride	370	10	*	mg/L	20	8/18/2023 10:29:34 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/18/2023 9:52:32 PM
Bromide	0.99	0.50		mg/L	5	8/18/2023 9:52:32 PM
Nitrogen, Nitrate (As N)	0.91	0.50		mg/L	5	8/18/2023 9:52:32 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/18/2023 10:29:34 PM
Sulfate	2100	50	*	mg/L	100	8/23/2023 12:45:44 AM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	570	10		mg/L	10	8/28/2023 11:11:04 AM
Magnesium	82	1.0		mg/L	1	8/28/2023 11:09:38 AM
Potassium	8.5	1.0		mg/L	1	8/28/2023 11:09:38 AM
Sodium	670	10		mg/L	10	8/28/2023 11:11:04 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Toluene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Naphthalene	ND	2.0		µg/L	1	8/28/2023 10:07:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 10:07:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/28/2023 10:07:00 PM
Acetone	ND	10		µg/L	1	8/28/2023 10:07:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Bromoform	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Bromomethane	ND	3.0		µg/L	1	8/28/2023 10:07:00 PM
2-Butanone	ND	10		µg/L	1	8/28/2023 10:07:00 PM
Carbon disulfide	ND	10		µg/L	1	8/28/2023 10:07:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Chloroethane	ND	2.0		µg/L	1	8/28/2023 10:07:00 PM
Chloroform	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Chloromethane	ND	3.0		µg/L	1	8/28/2023 10:07:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-31
Project: Salty Dog Pipeline
Collection Date: 8/16/2023 12:30:00 PM
Lab ID: 2308A74-010 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
cis-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/28/2023 10:07:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/28/2023 10:07:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
2-Hexanone	ND	10		µg/L	1	8/28/2023 10:07:00 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/28/2023 10:07:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/28/2023 10:07:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/28/2023 10:07:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Styrene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/28/2023 10:07:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/28/2023 10:07:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/28/2023 10:07:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308A74**
Date Reported: **9/7/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** MW-31
Project: Salty Dog Pipeline **Collection Date:** 8/16/2023 12:30:00 PM
Lab ID: 2308A74-010 **Matrix:** AQUEOUS **Received Date:** 8/18/2023 6:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Xylenes, Total	ND	1.5		µg/L	1	8/28/2023 10:07:00 PM
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	8/28/2023 10:07:00 PM
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	8/28/2023 10:07:00 PM
Surr: Dibromofluoromethane	123	70-130		%Rec	1	8/28/2023 10:07:00 PM
Surr: Toluene-d8	101	70-130		%Rec	1	8/28/2023 10:07:00 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5000	10		µmhos/c	1	8/22/2023 8:47:55 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.79		H	pH units	1	8/22/2023 8:47:55 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	217.6	20.00		mg/L Ca	1	8/22/2023 8:47:55 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/22/2023 8:47:55 PM
Total Alkalinity (as CaCO3)	217.6	20.00		mg/L Ca	1	8/22/2023 8:47:55 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MCA**
Total Dissolved Solids	39500	25000	*D	mg/L	1	8/23/2023 4:15:00 PM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-77014**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **77014**	RunNo: **99256**
Prep Date: **8/22/2023**	Analysis Date: **8/25/2023**	SeqNo: **3620029** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: **LCS-77014**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **77014**	RunNo: **99256**
Prep Date: **8/22/2023**	Analysis Date: **8/25/2023**	SeqNo: **3620033** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	98.6	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Sodium	50	1.0	50.00	0	101	85	115			

Sample ID: **LCSLL-77014**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **77014**	RunNo: **99256**
Prep Date: **8/22/2023**	Analysis Date: **8/25/2023**	SeqNo: **3620045** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	106	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Potassium	ND	1.0	0.5000	0	89.5	50	150			
Sodium	ND	1.0	0.5000	0	103	50	150			

Sample ID: **2308A74-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-9**	Batch ID: **77014**	RunNo: **99256**
Prep Date: **8/22/2023**	Analysis Date: **8/25/2023**	SeqNo: **3620141** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	61	1.0	50.00	6.438	109	70	130			

Sample ID: **2308A74-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-9**	Batch ID: **77014**	RunNo: **99256**
Prep Date: **8/22/2023**	Analysis Date: **8/25/2023**	SeqNo: **3620142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	62	1.0	50.00	6.438	112	70	130	2.24	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **2308A74-001CMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-9** Batch ID: **77014** RunNo: **99256**
Prep Date: **8/22/2023** Analysis Date: **8/25/2023** SeqNo: **3620144** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	220	5.0	50.00	163.6	111	70	130			

Sample ID: **2308A74-001CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-9** Batch ID: **77014** RunNo: **99256**
Prep Date: **8/22/2023** Analysis Date: **8/25/2023** SeqNo: **3620145** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	210	5.0	50.00	163.6	102	70	130	2.12	20	

Sample ID: **2308A74-002CMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-10** Batch ID: **77014** RunNo: **99325**
Prep Date: **8/22/2023** Analysis Date: **8/29/2023** SeqNo: **3624056** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	130	1.0	50.00	87.50	81.6	70	130			E
Potassium	63	1.0	50.00	10.32	104	70	130			

Sample ID: **2308A74-002CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-10** Batch ID: **77014** RunNo: **99325**
Prep Date: **8/22/2023** Analysis Date: **8/29/2023** SeqNo: **3624057** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	140	1.0	50.00	87.50	97.0	70	130	5.82	20	E
Potassium	65	1.0	50.00	10.32	110	70	130	4.64	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R99081**	RunNo: **99081**
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611508** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.2	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.6	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	90.6	90	110			
Sulfate	9.4	0.50	10.00	0	94.0	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R99081**	RunNo: **99081**
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611515** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A99081**	RunNo: **99081**
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611568** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A99081**	RunNo: **99081**
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611569** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.6	0.50	5.000	0	92.2	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.5	90	110			
Bromide	2.4	0.10	2.500	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A99081**	RunNo: **99081**							
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611569**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.7	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	97.9	90	110			

Sample ID: **2308A74-010BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **MW-31**	Batch ID: **A99081**	RunNo: **99081**							
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611571**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.5	0.50	2.500	0.6870	72.4	70	130			
Nitrogen, Nitrite (As N)	4.5	0.50	5.000	0	90.6	80	120			
Bromide	13	0.50	12.50	0.9865	94.4	80	120			
Nitrogen, Nitrate (As N)	13	0.50	12.50	0.9095	99.6	80	120			

Sample ID: **2308A74-010BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **MW-31**	Batch ID: **A99081**	RunNo: **99081**							
Prep Date:	Analysis Date: **8/18/2023**	SeqNo: **3611572**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.6	0.50	2.500	0.6870	78.0	70	130	5.41	20	
Nitrogen, Nitrite (As N)	4.5	0.50	5.000	0	90.9	80	120	0.276	20	
Bromide	13	0.50	12.50	0.9865	94.8	80	120	0.386	20	
Nitrogen, Nitrate (As N)	13	0.50	12.50	0.9095	99.5	80	120	0.0487	20	

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A99147**	RunNo: **99147**							
Prep Date:	Analysis Date: **8/22/2023**	SeqNo: **3614073**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A99147**	RunNo: **99147**							
Prep Date:	Analysis Date: **8/22/2023**	SeqNo: **3614074**	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	92.4	90	110			
Sulfate	9.5	0.50	10.00	0	95.3	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R99312**	RunNo: **99312**
Prep Date:	Analysis Date: **8/28/2023**	SeqNo: **3623131** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	20	1.0	20.00	0	99.6	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	112	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		113	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R99312**	RunNo: **99312**
Prep Date:	Analysis Date: **8/28/2023**	SeqNo: **3623132** 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								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**
07-Sep-23

Client: HILCORP ENERGY
Project: Salty Dog Pipeline

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R99312**	RunNo: **99312**
Prep Date:	Analysis Date: **8/28/2023**	SeqNo: **3623132** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R99312**	RunNo: **99312**
Prep Date:	Analysis Date: **8/28/2023**	SeqNo: **3623132** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	12		10.00		116	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	12		10.00		118	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: **2308A74-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-9**	Batch ID: **R99312**	RunNo: **99312**
Prep Date:	Analysis Date: **8/28/2023**	SeqNo: **3623148** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	25	1.0	20.00	0	124	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	24	1.0	20.00	0	121	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	114	70	130			
Surr: 1,2-Dichloroethane-d4	12		10.00		116	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130			
Surr: Dibromofluoromethane	12		10.00		122	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID: **2308A74-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MW-9**	Batch ID: **R99312**	RunNo: **99312**
Prep Date:	Analysis Date: **8/28/2023**	SeqNo: **3623149** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	0	121	70	130	2.73	20	
Toluene	20	1.0	20.00	0	98.7	70	130	2.70	20	
Chlorobenzene	20	1.0	20.00	0	100	70	130	2.74	20	
1,1-Dichloroethene	23	1.0	20.00	0	115	70	130	4.76	20	
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130	3.29	20	
Surr: 1,2-Dichloroethane-d4	12		10.00		119	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		125	70	130	0	0	
Surr: Toluene-d8	10		10.00		100	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS-1 98.7uS eC**	SampType: **LCS**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R99149**	RunNo: **99149**
Prep Date:	Analysis Date: **8/22/2023**	SeqNo: **3614379** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	98.70	0	103	85	115			

Sample ID: **LCS-1 98.7uS eC**	SampType: **LCS**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R99239**	RunNo: **99239**
Prep Date:	Analysis Date: **8/24/2023**	SeqNo: **3619253** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	98.70	0	101	85	115			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-2 Alk**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **A99149**	RunNo: **99149**							
Prep Date:	Analysis Date: **8/22/2023**	SeqNo: **3614364**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **LCS-2 Alk**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **A99149**	RunNo: **99149**							
Prep Date:	Analysis Date: **8/22/2023**	SeqNo: **3614365**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	80.72	20.00	80.00	0	101	90	110			

Sample ID: **2308A74-001B DUP**	SampType: **DUP**	TestCode: **SM2320B: Alkalinity**							
Client ID: **MW-9**	Batch ID: **A99149**	RunNo: **99149**							
Prep Date:	Analysis Date: **8/22/2023**	SeqNo: **3614367**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	465.0	20.00						0.509	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308A74**

07-Sep-23

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-76996**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **76996**	RunNo: **99181**
Prep Date: **8/22/2023**	Analysis Date: **8/23/2023**	SeqNo: **3616618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-76996**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **76996**	RunNo: **99181**
Prep Date: **8/22/2023**	Analysis Date: **8/23/2023**	SeqNo: **3616619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	991	50.0	1000	0	99.1	80	120			

Sample ID: **MB-77018**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **77018**	RunNo: **99214**
Prep Date: **8/23/2023**	Analysis Date: **8/24/2023**	SeqNo: **3617678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-77018**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **77018**	RunNo: **99214**
Prep Date: **8/23/2023**	Analysis Date: **8/24/2023**	SeqNo: **3617679** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	989	50.0	1000	0	98.9	80	120			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
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: www.hallenvironmental.com

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2308A74 RcptNo: 1

Received By: Tracy Casarrubias 8/18/2023 6:25:00 AM
Completed By: Cheyenne Cason 8/18/2023 12:30:16 PM
Reviewed By: mnb 8/18/23

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 ☐ mnb 8/18/23
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: 10 (2 or >12 unless noted)
Adjusted? YES
Checked by: mnb 8/18/23

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:

Poured off 250mL from original volume provided for 001B - ~~009B~~ 010B to create samples 001C-009C. Proceeded to add ~0.5mls HNO3 (Chem # 7115) to 001C-009C for metals analysis - mnb 8/18/23.

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.9	Good	Yes	Morty		

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name: Salty Dog Pipeline

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☐ Yes ☐ No morty

# of Coolers: 1

Cooler Temp(including CF): 5.9 - 0 = 5.9 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. 2308A74	Cations/Anions/TDS/pH (1) Liter Plastic	Volatiles 8260 40ml VOA HCl
8-16	1330	Water	MW-9	Various	Various	001	X	X
8-17	1035	Water	MW-10	Various	Various	002	X	X
8-17	1200	Water	MW-12	Various	Various	003	X	X
8-17	1115	Water	MW-13	Various	Various	004	X	X
8-16	1400	Water	MW-15	Various	Various	005	X	X
8-17	1245	Water	MW-18	Various	Various	006	X	X
8-17	1315	Water	MW-28	Various	Various	007	X	X
8-17	1340	Water	MW-29	Various	Various	008	X	X
8-16	1255	Water	MW-30	Various	Various	009	X	X
8-16	1230	Water	MW-31	Various	Various	010	X	X
		Water	~~Trip Blank~~ 1u 8/18/23	Various	Various	~~011~~	X	X
		Water		Various	Various		X	X
		Water		Various	Various		X	X

Preserve the Cation/Anions in the lab

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
8-17	1505		Chantez Walker		8/17/23	1505
8/17/23	1804	Chantez Walker		courier	8/18/23	6:25

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.

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 15, 2024

Mitch Killough
HILCORP ENERGY
PO Box 4700
Farmington, NM 87499
TEL: (505) 564-0733
FAX:

RE: Salty Dog Pipeline OrderNo.: 2312858

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 11 sample(s) on 12/14/2023 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 do not hesitate to contact Eurofins Albuquerque 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 **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-9
Project: Salty Dog Pipeline
Collection Date: 12/13/2023 10:30:00 AM
Lab ID: 2312858-001 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.69	0.50		mg/L	5	12/14/2023 5:38:11 PM
Chloride	780	50	*	mg/L	100	1/5/2024 7:02:08 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	12/14/2023 5:38:11 PM
Bromide	1.4	0.50		mg/L	5	12/14/2023 5:38:11 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	12/14/2023 5:38:11 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	12/14/2023 5:38:11 PM
Sulfate	2600	50	*	mg/L	100	1/5/2024 7:02:08 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	620	10		mg/L	10	1/3/2024 5:16:27 PM
Magnesium	130	5.0		mg/L	5	1/3/2024 5:06:23 PM
Potassium	12	5.0		mg/L	5	1/3/2024 5:06:23 PM
Sodium	980	20		mg/L	20	1/8/2024 4:44:48 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	7000	10		µmhos/c	1	12/28/2023 12:36:13 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.56		H	pH units	1	12/22/2023 3:26:12 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	313.3	20.00		mg/L Ca	1	12/22/2023 3:26:12 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 3:26:12 PM
Total Alkalinity (as CaCO3)	313.3	20.00		mg/L Ca	1	12/22/2023 3:26:12 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	5920	250	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-10
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 2:30:00 PM
Lab ID: 2312858-002 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	ND	0.50		mg/L	5	12/14/2023 6:03:00 PM
Chloride	3100	250	*	mg/L	500	1/5/2024 7:32:29 PM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/14/2023 6:03:00 PM
Bromide	3.6	0.50		mg/L	5	12/14/2023 6:03:00 PM
Nitrogen, Nitrate (As N)	ND	0.50	H	mg/L	5	12/14/2023 6:03:00 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/14/2023 6:03:00 PM
Sulfate	2100	25	*	mg/L	50	1/5/2024 7:17:19 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	1000	50		mg/L	50	1/8/2024 4:46:29 PM
Magnesium	120	5.0		mg/L	5	1/3/2024 5:17:59 PM
Potassium	16	5.0		mg/L	5	1/3/2024 5:17:59 PM
Sodium	1700	50		mg/L	50	1/8/2024 4:46:29 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	15000	100		µmhos/c	10	12/28/2023 12:39:12 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.88		H	pH units	1	12/22/2023 8:04:59 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	178.8	20.00		mg/L Ca	1	12/22/2023 8:04:59 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 8:04:59 PM
Total Alkalinity (as CaCO3)	178.8	20.00		mg/L Ca	1	12/22/2023 8:04:59 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	8480	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-12
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 2:00:00 PM
Lab ID: 2312858-003 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.65	0.50		mg/L	5	12/14/2023 6:27:49 PM
Chloride	1500	50	*	mg/L	100	1/5/2024 7:47:38 PM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/14/2023 6:27:49 PM
Bromide	1.9	0.50		mg/L	5	12/14/2023 6:27:49 PM
Nitrogen, Nitrate (As N)	4.1	0.50	H	mg/L	5	12/14/2023 6:27:49 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/14/2023 6:27:49 PM
Sulfate	3300	50	*	mg/L	100	1/5/2024 7:47:38 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	330	5.0		mg/L	5	1/3/2024 5:24:08 PM
Magnesium	68	5.0		mg/L	5	1/3/2024 5:24:08 PM
Potassium	19	5.0		mg/L	5	1/3/2024 5:24:08 PM
Sodium	2000	50		mg/L	50	1/8/2024 4:48:10 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	13000	100		µmhos/c	10	12/28/2023 12:42:10 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.93		H	pH units	1	12/22/2023 8:26:23 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	263.8	20.00		mg/L Ca	1	12/22/2023 8:26:23 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 8:26:23 PM
Total Alkalinity (as CaCO3)	263.8	20.00		mg/L Ca	1	12/22/2023 8:26:23 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	6250	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-13
Project: Salty Dog Pipeline
Collection Date: 12/13/2023 12:40:00 PM
Lab ID: 2312858-004 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	ND	0.50		mg/L	5	12/14/2023 6:52:38 PM
Chloride	3500	250	*	mg/L	500	1/5/2024 8:17:58 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	12/14/2023 6:52:38 PM
Bromide	4.0	0.50		mg/L	5	12/14/2023 6:52:38 PM
Nitrogen, Nitrate (As N)	1.3	0.50		mg/L	5	12/14/2023 6:52:38 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	12/14/2023 6:52:38 PM
Sulfate	2500	50	*	mg/L	100	1/5/2024 8:02:48 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	810	10		mg/L	10	1/3/2024 5:28:44 PM
Magnesium	120	5.0		mg/L	5	1/3/2024 5:27:13 PM
Potassium	13	5.0		mg/L	5	1/3/2024 5:27:13 PM
Sodium	2300	50		mg/L	50	1/8/2024 4:49:50 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	17000	100		µmhos/c	10	12/28/2023 12:45:07 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.74		H	pH units	1	12/22/2023 8:43:31 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	218.9	20.00		mg/L Ca	1	12/22/2023 8:43:31 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 8:43:31 PM
Total Alkalinity (as CaCO3)	218.9	20.00		mg/L Ca	1	12/22/2023 8:43:31 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	9140	250	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-15
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 4:10:00 PM
Lab ID: 2312858-005 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.57	0.50		mg/L	5	12/14/2023 7:42:15 PM
Chloride	740	25	*	mg/L	50	1/5/2024 11:19:56 PM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/14/2023 7:42:15 PM
Bromide	1.1	0.50		mg/L	5	12/14/2023 7:42:15 PM
Nitrogen, Nitrate (As N)	0.63	0.50	H	mg/L	5	12/14/2023 7:42:15 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/14/2023 7:42:15 PM
Sulfate	2200	25	*	mg/L	50	1/8/2024 6:37:36 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	590	10		mg/L	10	1/3/2024 5:38:39 PM
Magnesium	80	5.0		mg/L	5	1/3/2024 5:37:04 PM
Potassium	11	5.0		mg/L	5	1/3/2024 5:37:04 PM
Sodium	660	10		mg/L	10	1/3/2024 5:38:39 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5600	10		µmhos/c	1	12/28/2023 12:48:02 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.65		H	pH units	1	12/22/2023 8:55:44 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	213.9	20.00		mg/L Ca	1	12/22/2023 8:55:44 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 8:55:44 PM
Total Alkalinity (as CaCO3)	213.9	20.00		mg/L Ca	1	12/22/2023 8:55:44 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	4300	250	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-18
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 1:35:00 PM
Lab ID: 2312858-006 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	ND	0.50		mg/L	5	12/14/2023 8:07:04 PM
Chloride	3800	250	*	mg/L	500	1/5/2024 11:50:15 PM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/14/2023 8:07:04 PM
Bromide	4.5	0.50		mg/L	5	12/14/2023 8:07:04 PM
Nitrogen, Nitrate (As N)	4.1	0.50	H	mg/L	5	12/14/2023 8:07:04 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/14/2023 8:07:04 PM
Sulfate	2500	50	*	mg/L	100	1/8/2024 6:50:27 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	770	10		mg/L	10	1/3/2024 5:41:42 PM
Magnesium	140	5.0		mg/L	5	1/3/2024 5:40:10 PM
Potassium	22	5.0		mg/L	5	1/3/2024 5:40:10 PM
Sodium	2700	50		mg/L	50	1/8/2024 4:51:30 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	19000	100		µmhos/c	10	12/28/2023 12:50:55 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.82		H	pH units	1	12/22/2023 9:07:18 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	205.9	20.00		mg/L Ca	1	12/22/2023 9:07:18 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 9:07:18 PM
Total Alkalinity (as CaCO3)	205.9	20.00		mg/L Ca	1	12/22/2023 9:07:18 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	10300	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-27
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 3:35:00 PM
Lab ID: 2312858-007 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.53	0.50		mg/L	5	12/14/2023 8:31:54 PM
Chloride	790	25	*	mg/L	50	1/6/2024 12:05:25 AM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/14/2023 8:31:54 PM
Bromide	1.1	0.50		mg/L	5	12/14/2023 8:31:54 PM
Nitrogen, Nitrate (As N)	0.50	0.50	H	mg/L	5	12/14/2023 8:31:54 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/14/2023 8:31:54 PM
Sulfate	2200	25	*	mg/L	50	1/8/2024 7:29:02 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	620	10		mg/L	10	1/3/2024 5:44:45 PM
Magnesium	91	5.0		mg/L	5	1/3/2024 5:43:14 PM
Potassium	17	5.0		mg/L	5	1/3/2024 5:43:14 PM
Sodium	690	10		mg/L	10	1/3/2024 5:44:45 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5800	10		µmhos/c	1	12/28/2023 12:53:48 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.78		H	pH units	1	12/22/2023 9:18:41 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	224.6	20.00		mg/L Ca	1	12/22/2023 9:18:41 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 9:18:41 PM
Total Alkalinity (as CaCO3)	224.6	20.00		mg/L Ca	1	12/22/2023 9:18:41 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	4370	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-28
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 1:10:00 PM
Lab ID: 2312858-008 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.65	0.50		mg/L	5	12/14/2023 8:56:43 PM
Chloride	2000	100	*	mg/L	200	1/6/2024 1:06:03 AM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/14/2023 8:56:43 PM
Bromide	2.4	0.50		mg/L	5	12/14/2023 8:56:43 PM
Nitrogen, Nitrate (As N)	1.4	0.50	H	mg/L	5	12/14/2023 8:56:43 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/14/2023 8:56:43 PM
Sulfate	2400	50	*	mg/L	100	1/8/2024 7:41:54 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	590	10		mg/L	10	1/3/2024 5:47:49 PM
Magnesium	92	5.0		mg/L	5	1/3/2024 5:46:17 PM
Potassium	15	5.0		mg/L	5	1/3/2024 5:46:17 PM
Sodium	1700	50		mg/L	50	1/8/2024 4:53:11 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	12000	100		µmhos/c	10	12/28/2023 1:02:19 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.84		H	pH units	1	12/22/2023 9:30:25 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	233.9	20.00		mg/L Ca	1	12/22/2023 9:30:25 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 9:30:25 PM
Total Alkalinity (as CaCO3)	233.9	20.00		mg/L Ca	1	12/22/2023 9:30:25 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	6510	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-29
Project: Salty Dog Pipeline
Collection Date: 12/12/2023 12:30:00 PM
Lab ID: 2312858-009 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.71	0.50		mg/L	5	12/15/2023 12:40:07 AM
Chloride	2400	100	*	mg/L	200	1/6/2024 1:36:21 AM
Nitrogen, Nitrite (As N)	ND	0.50	H	mg/L	5	12/15/2023 12:40:07 AM
Bromide	2.8	0.50		mg/L	5	12/15/2023 12:40:07 AM
Nitrogen, Nitrate (As N)	ND	0.50	H	mg/L	5	12/15/2023 12:40:07 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	12/15/2023 12:40:07 AM
Sulfate	2500	50	*	mg/L	100	1/8/2024 7:54:45 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	590	10		mg/L	10	1/3/2024 5:50:53 PM
Magnesium	88	5.0		mg/L	5	1/3/2024 5:49:20 PM
Potassium	12	5.0		mg/L	5	1/3/2024 5:49:20 PM
Sodium	1900	50		mg/L	50	1/8/2024 4:54:51 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	14000	100		µmhos/c	10	12/28/2023 1:05:07 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.76		H	pH units	1	12/22/2023 9:42:31 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	245.6	20.00		mg/L Ca	1	12/22/2023 9:42:31 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 9:42:31 PM
Total Alkalinity (as CaCO3)	245.6	20.00		mg/L Ca	1	12/22/2023 9:42:31 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	7780	250	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-30
Project: Salty Dog Pipeline
Collection Date: 12/13/2023 11:55:00 AM
Lab ID: 2312858-010 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.66	0.50		mg/L	5	12/15/2023 1:04:56 AM
Chloride	400	25	*	mg/L	50	1/6/2024 1:51:30 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	12/15/2023 1:04:56 AM
Bromide	0.93	0.50		mg/L	5	12/15/2023 1:04:56 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	12/15/2023 1:04:56 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	12/15/2023 1:04:56 AM
Sulfate	2400	25	*	mg/L	50	1/8/2024 8:07:37 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	540	10		mg/L	10	1/3/2024 6:00:52 PM
Magnesium	78	5.0		mg/L	5	1/3/2024 5:59:18 PM
Potassium	9.4	5.0		mg/L	5	1/3/2024 5:59:18 PM
Sodium	690	10		mg/L	10	1/3/2024 6:00:52 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	5100	10		µmhos/c	1	12/28/2023 1:07:54 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.83		H	pH units	1	12/22/2023 9:55:10 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	254.7	20.00		mg/L Ca	1	12/22/2023 9:55:10 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 9:55:10 PM
Total Alkalinity (as CaCO3)	254.7	20.00		mg/L Ca	1	12/22/2023 9:55:10 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	3770	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312858**
Date Reported: **1/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: MW-31
Project: Salty Dog Pipeline
Collection Date: 12/13/2023 11:30:00 AM
Lab ID: 2312858-011 **Matrix:** AQUEOUS **Received Date:** 12/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Fluoride	0.59	0.50		mg/L	5	12/15/2023 1:29:45 AM
Chloride	390	10	*	mg/L	20	12/15/2023 2:06:57 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	12/15/2023 1:29:45 AM
Bromide	0.89	0.50		mg/L	5	12/15/2023 1:29:45 AM
Nitrogen, Nitrate (As N)	0.51	0.50		mg/L	5	12/15/2023 1:29:45 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	12/15/2023 1:29:45 AM
Sulfate	2300	25	*	mg/L	50	1/8/2024 8:20:28 PM
EPA METHOD 200.7: METALS						Analyst: **JRR**
Calcium	570	10		mg/L	10	1/8/2024 4:58:34 PM
Magnesium	85	5.0		mg/L	5	1/8/2024 4:56:53 PM
Potassium	15	5.0		mg/L	5	1/8/2024 4:56:53 PM
Sodium	580	10		mg/L	10	1/8/2024 4:58:34 PM
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **RBC**
Conductivity	4900	10		µmhos/c	1	12/28/2023 1:10:42 PM
SM4500-H+B / 9040C: PH						Analyst: **RBC**
pH	7.81		H	pH units	1	12/22/2023 10:07:45 PM
SM2320B: ALKALINITY						Analyst: **RBC**
Bicarbonate (As CaCO3)	205.5	20.00		mg/L Ca	1	12/22/2023 10:07:45 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	12/22/2023 10:07:45 PM
Total Alkalinity (as CaCO3)	205.5	20.00		mg/L Ca	1	12/22/2023 10:07:45 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	3790	500	*D	mg/L	1	12/21/2023 11:30:00 AM

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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - email spokane@anateklabs.com

Client:	Hall Environmental Analysis Lab	Work Order:	MDL0689
Address:	4901 Hawkins NE Suite D	Project:	2312858
	Albuquerque, NM 87109	Reported:	1/5/2024 09:10
Attn:	Andy Freeman		

Analytical Results Report

Sample Location:	2312858-001A (MW-9)		
Lab/Sample Number:	MDL0689-01	Collect Date:	12/13/23 10:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 7:39	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 7:39	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	

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Sample Location:	2312858-001A (MW-9)		
Lab/Sample Number:	MDL0689-01	Collect Date:	12/13/23 10:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 7:39	BKP	EPA 8260D	
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 7:39	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 7:39	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 7:39	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 7:39*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*96.0%*		*70-130*	*12/22/23 7:39*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.4%*		*70-130*	*12/22/23 7:39*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-002A (MW-10)		
Lab/Sample Number:	MDL0689-02	Collect Date:	12/12/23 14:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 8:11	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 8:11	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 8:11	BKP	EPA 8260D	

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Sample Location:	2312858-002A (MW-10)		
Lab/Sample Number:	MDL0689-02	Collect Date:	12/12/23 14:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 8:11	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 8:11	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 8:11	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 8:11*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*95.6%*		*70-130*	*12/22/23 8:11*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.3%*		*70-130*	*12/22/23 8:11*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-003A (MW-12)		
Lab/Sample Number:	MDL0689-03	Collect Date:	12/12/23 14:00
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 8:44	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 8:44	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 8:44	BKP	EPA 8260D	

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Sample Location:	2312858-003A (MW-12)		
Lab/Sample Number:	MDL0689-03	Collect Date:	12/12/23 14:00
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 8:44	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 8:44	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 8:44	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 8:44*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*96.0%*		*70-130*	*12/22/23 8:44*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.7%*		*70-130*	*12/22/23 8:44*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-004A (MW-13)		
Lab/Sample Number:	MDL0689-04	Collect Date:	12/13/23 12:40
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 9:16	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 9:16	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 9:16	BKP	EPA 8260D	

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Sample Location:	2312858-004A (MW-13)		
Lab/Sample Number:	MDL0689-04	Collect Date:	12/13/23 12:40
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 9:16	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 9:16	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 9:16	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 9:16*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*95.5%*		*70-130*	*12/22/23 9:16*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.8%*		*70-130*	*12/22/23 9:16*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-005A (MW-15)		
Lab/Sample Number:	MDL0689-05	Collect Date:	12/12/23 16:10
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 9:48	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 9:48	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 9:48	BKP	EPA 8260D	

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Sample Location:	2312858-005A (MW-15)		
Lab/Sample Number:	MDL0689-05	Collect Date:	12/12/23 16:10
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 9:48	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 9:48	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 9:48	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 9:48*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*95.4%*		*70-130*	*12/22/23 9:48*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.2%*		*70-130*	*12/22/23 9:48*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-006A (MW-18)		
Lab/Sample Number:	MDL0689-06	Collect Date:	12/12/23 13:35
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 10:20	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 10:20	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 10:20	BKP	EPA 8260D	

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Sample Location:	2312858-006A (MW-18)		
Lab/Sample Number:	MDL0689-06	Collect Date:	12/12/23 13:35
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 10:20	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 10:20	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 10:20	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 10:20*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*95.3%*		*70-130*	*12/22/23 10:20*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.8%*		*70-130*	*12/22/23 10:20*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-007A (MW-27)		
Lab/Sample Number:	MDL0689-07	Collect Date:	12/12/23 15:35
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 10:53	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 10:53	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 10:53	BKP	EPA 8260D	

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Sample Location:	2312858-007A (MW-27)		
Lab/Sample Number:	MDL0689-07	Collect Date:	12/12/23 15:35
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 10:53	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 10:53	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 10:53	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 10:53*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*95.0%*		*70-130*	*12/22/23 10:53*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*98.1%*		*70-130*	*12/22/23 10:53*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-008A (MW-28)		
Lab/Sample Number:	MDL0689-08	Collect Date:	12/12/23 13:10
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 11:25	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 11:25	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 11:25	BKP	EPA 8260D	

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Sample Location:	2312858-008A (MW-28)		
Lab/Sample Number:	MDL0689-08	Collect Date:	12/12/23 13:10
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 11:25	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 11:25	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 11:25	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 11:25*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*95.6%*		*70-130*	*12/22/23 11:25*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.0%*		*70-130*	*12/22/23 11:25*	*BKP*	*EPA 8260D*	

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Sample Location: 2312858-009A (MW-29)
Lab/Sample Number: MDL0689-09 Collect Date: 12/12/23 12:30
Date Received: 12/20/23 12:57 Collected By:
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
2-hexanone	ND	ug/L	2.50	12/22/23 11:58	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Acetone	ND	ug/L	2.50	12/22/23 11:58	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Benzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Bromoform	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Bromomethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Chloroethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Chloroform	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Chloromethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	2.50	12/22/23 11:58	BKP	EPA 8260D	

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Sample Location:	2312858-009A (MW-29)		
Lab/Sample Number:	MDL0689-09	Collect Date:	12/12/23 12:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	2.50	12/22/23 11:58	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	2.50	12/22/23 11:58	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Naphthalene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
o-Xylene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Styrene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Toluene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	0.500	12/22/23 11:58	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 11:58*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*94.9%*		*70-130*	*12/22/23 11:58*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.1%*		*70-130*	*12/22/23 11:58*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-010A (MW-30)		
Lab/Sample Number:	MDL0689-10	Collect Date:	12/13/23 11:55
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 12:30	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 12:30	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 12:30	BKP	EPA 8260D	

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Sample Location:	2312858-010A (MW-30)		
Lab/Sample Number:	MDL0689-10	Collect Date:	12/13/23 11:55
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 12:30	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 12:30	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 12:30	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 12:30*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*94.9%*		*70-130*	*12/22/23 12:30*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.6%*		*70-130*	*12/22/23 12:30*	*BKP*	*EPA 8260D*	

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Sample Location:	2312858-011A (MW-31)		
Lab/Sample Number:	MDL0689-11	Collect Date:	12/13/23 11:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,1,1-Trichloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,1,2-Trichloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,1-Dichloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,1-Dichloroethene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,1-dichloropropene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2,3-Trichlorobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2,3-Trichloropropane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2,4-Trichlorobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2,4-Trimethylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2-Dichlorobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2-Dichloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,2-Dichloropropane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,3,5-Trimethylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,3-Dichlorobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,3-Dichloropropane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
1,4-Dichlorobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
2,2-Dichloropropane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
2-Chlorotoluene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
2-hexanone	ND	ug/L	5.00	12/22/23 13:02	BKP	EPA 8260D	
4-Chlorotoluene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Acetone	ND	ug/L	5.00	12/22/23 13:02	BKP	EPA 8260D	
Acrylonitrile	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Benzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Bromobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Bromochloromethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Bromodichloromethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Bromoform	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Bromomethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Carbon disulfide	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Carbon Tetrachloride	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Chlorobenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Chloroethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Chloroform	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Chloromethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
cis-1,2-dichloroethene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
cis-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Dibromochloromethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Dibromomethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Dichlorodifluoromethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Ethylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Hexachlorobutadiene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Isopropylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
m+p-Xylene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Methyl ethyl ketone (MEK)	ND	ug/L	5.00	12/22/23 13:02	BKP	EPA 8260D	

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Sample Location:	2312858-011A (MW-31)		
Lab/Sample Number:	MDL0689-11	Collect Date:	12/13/23 11:30
Date Received:	12/20/23 12:57	Collected By:	
Matrix:	Water		

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles (Continued)							
Methyl isobutyl ketone (MIBK)	ND	ug/L	5.00	12/22/23 13:02	BKP	EPA 8260D	
Methylene chloride	ND	ug/L	5.00	12/22/23 13:02	BKP	EPA 8260D	
methyl-t-butyl ether (MTBE)	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Naphthalene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
n-Butylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
n-Propylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
o-Xylene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
p-isopropyltoluene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
sec-Butylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Styrene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
tert-Butylbenzene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Tetrachloroethene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Toluene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
trans-1,2-Dichloroethene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
trans-1,3-Dichloropropene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Trichloroethene	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Trichlorofluoromethane	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Vinyl Chloride	ND	ug/L	1.00	12/22/23 13:02	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	*100%*		*70-130*	*12/22/23 13:02*	*BKP*	*EPA 8260D*	
Surrogate: 4-Bromofluorobenzene	*94.1%*		*70-130*	*12/22/23 13:02*	*BKP*	*EPA 8260D*	
Surrogate: Toluene-d8	*97.9%*		*70-130*	*12/22/23 13:02*	*BKP*	*EPA 8260D*	

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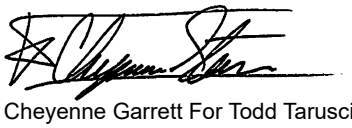
Authorized Signature,



Cheyenne Garrett For Todd Taruscio, Laboratory Manager

L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample
PQL	Practical Quantitation Limit
ND	Not Detected
MCL	EPA's Maximum Contaminant Level
Dry	Sample results reported on a dry weight basis
*	Not a state-certified analyte

RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was spiked or duplicated.

Anatek Labs, Inc.
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Quality Control Data

Volatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BDL0893 - VOC										
Blank (BDL0893-BLK1)					Prepared & Analyzed: 12/21/2023					
cis-1,3-Dichloropropene	ND		0.500	ug/L						
m/p Xylenes (MCL for total)	ND		0.500	ug/L						
Isopropylbenzene	ND		0.500	ug/L						
Hexachlorobutadiene	ND		0.500	ug/L						
Ethylbenzene	ND		0.500	ug/L						
Dichlorodifluoromethane	ND		0.500	ug/L						
Trichloroethene	ND		0.500	ug/L						
Dibromochloromethane	ND		0.500	ug/L						
Methylene Chloride (Dichloromethane)	ND		2.50	ug/L						
cis-1,2-Dichloroethylene	ND		0.500	ug/L						
Chloromethane	ND		0.500	ug/L						
Chloroform	ND		0.500	ug/L						
Chloroethane	ND		0.500	ug/L						
Chlorobenzene (Monochlorobenzene)	ND		0.500	ug/L						
Carbon Tetrachloride	ND		0.500	ug/L						
Dibromomethane	ND		0.500	ug/L						
p-isopropyltoluene	ND		0.500	ug/L						
1,1,1,2-Tetrachloroethane	ND		0.500	ug/L						
trans-1,2 Dichloroethylene	ND		0.500	ug/L						
Toluene	ND		0.500	ug/L						
Tetrachloroethylene	ND		0.500	ug/L						
tert-Butylbenzene	ND		0.500	ug/L						
Methyl ethyl ketone (MEK)	ND		2.50	ug/L						
sec-Butylbenzene	ND		0.500	ug/L						
Methyl isobutyl ketone (MIBK)	ND		2.50	ug/L						
o-Xylene (MCL for total)	ND		0.500	ug/L						
n-Propylbenzene	ND		0.500	ug/L						
n-Butylbenzene	ND		0.500	ug/L						
Naphthalene	ND		0.500	ug/L						
methyl-t-butyl ether (MTBE)	ND		0.500	ug/L						
Bromoform	ND		0.500	ug/L						
Styrene	ND		0.500	ug/L						
1,2,3-Trichlorobenzene	ND		0.500	ug/L						
Carbon disulfide	ND		0.500	ug/L						
1,2-Dichlorobenzene (ortho-Dichlorobenzene)	ND		0.500	ug/L						
EDB (screening)	ND		0.500	ug/L						
DBCP (screening)	ND		0.500	ug/L						
1,2,4-Trimethylbenzene	ND		0.500	ug/L						
1,2-Dichloropropane	ND		0.500	ug/L						
1,2,3-Trichloropropane	ND		0.500	ug/L						
1,3,5-Trimethylbenzene	ND		0.500	ug/L						
1,1-Dichloropropene	ND		0.500	ug/L						
1,1-Dichloroethylene	ND		0.500	ug/L						
1,1-Dichloroethane	ND		0.500	ug/L						
1,1,2-Trichlorethane	ND		0.500	ug/L						
1,1,2,2-Tetrachloroethane	ND		0.500	ug/L						
1,1,1-Trichloroethane	ND		0.500	ug/L						
1,2,4-Trichlorobenzene	ND		0.500	ug/L						
Trichloroflouromethane	ND		0.500	ug/L						
Bromodichloromethane	ND		0.500	ug/L						

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Quality Control Data
(Continued)

Volatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BDL0893 - VOC (Continued)										
Blank (BDL0893-BLK1)					Prepared & Analyzed: 12/21/2023					
Bromochloromethane	ND		0.500	ug/L						
Bromobenzene	ND		0.500	ug/L						
Benzene	ND		0.500	ug/L						
Acrylonitrile	ND		0.500	ug/L						
1,2-Dichloroethane	ND		0.500	ug/L						
p-Chlorotoluene	ND		0.500	ug/L						
Bromomethane	ND		0.500	ug/L						
2-hexanone	ND		2.50	ug/L						
o-Chlorotoluene	ND		0.500	ug/L						
2,2-Dichloropropane	ND		0.500	ug/L						
1,4-Dichlorobenzene (para-Dichlorobenzene)	ND		0.500	ug/L						
1,3-Dichloropropane	ND		0.500	ug/L						
m-Dichlorobenzene	ND		0.500	ug/L						
Acetone	ND		2.50	ug/L						
Vinyl Chloride	ND		0.500	ug/L						
trans-1,3-Dichloropropene	ND		0.500	ug/L						
Surrogate: Toluene-d8			*19.5*	*ug/L*	*20.0*		*97.7*	*70-130*		
Surrogate: 4-Bromofluorobenzene			*19.1*	*ug/L*	*20.0*		*95.4*	*70-130*		
Surrogate: 1,2-Dichlorobenzene-d4			*20.0*	*ug/L*	*20.0*		*100*	*70-130*		
LCS (BDL0893-BS1)					Prepared & Analyzed: 12/22/2023					
cis-1,3-Dichloropropene	10.2		0.500	ug/L	10.0		102	79-123		
Methyl ethyl ketone (MEK)	10.3		2.50	ug/L	10.0		103	55-154		
m/p Xylenes (MCL for total)	23.5		0.500	ug/L	20.0		117	80-120		
Isopropylbenzene	11.8		0.500	ug/L	10.0		118	80-120		
Hexachlorobutadiene	10.7		0.500	ug/L	10.0		107	80-120		
Ethylbenzene	11.1		0.500	ug/L	10.0		111	80-120		
Dichlorodifluoromethane	9.76		0.500	ug/L	10.0		97.6	57-130		
Dibromochloromethane	10.2		0.500	ug/L	10.0		102	80-121		
Naphthalene	10.9		0.500	ug/L	10.0		109	66-133		
cis-1,2-Dichloroethylene	10.9		0.500	ug/L	10.0		109	80-120		
Chloroform	10.2		0.500	ug/L	10.0		102	80-120		
Chloroethane	10.7		0.500	ug/L	10.0		107	78-120		
Chlorobenzene (Monochlorobenzene)	10.2		0.500	ug/L	10.0		102	80-120		
Carbon Tetrachloride	9.99		0.500	ug/L	10.0		99.9	80-120		
Dibromomethane	10.4		0.500	ug/L	10.0		104	80-120		
Styrene	15.9	L5	0.500	ug/L	10.0		159	80-120		
Trichloroflouromethane	10.4		0.500	ug/L	10.0		104	61-140		
Trichloroethene	10.6		0.500	ug/L	10.0		106	80-120		
trans-1,3-Dichloropropene	10.4		0.500	ug/L	10.0		104	69-130		
trans-1,2 Dichloroethylene	10.6		0.500	ug/L	10.0		106	80-120		
Toluene	10.5		0.500	ug/L	10.0		105	80-120		
Methyl isobutyl ketone (MIBK)	10.1		2.50	ug/L	10.0		101	70-136		
tert-Butylbenzene	11.7		0.500	ug/L	10.0		117	80-120		
methyl-t-butyl ether (MTBE)	10.7		0.500	ug/L	10.0		107	71-130		
sec-Butylbenzene	11.6		0.500	ug/L	10.0		116	80-120		
p-isopropyltoluene	11.1		0.500	ug/L	10.0		111	80-120		
o-Xylene (MCL for total)	11.7		0.500	ug/L	10.0		117	80-120		
n-Propylbenzene	11.2		0.500	ug/L	10.0		112	80-120		
n-Butylbenzene	10.9		0.500	ug/L	10.0		109	74-122		

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Quality Control Data
(Continued)

Volatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BDL0893 - VOC (Continued)										
LCS (BDL0893-BS1)					Prepared & Analyzed: 12/22/2023					
Bromodichloromethane	9.84		0.500	ug/L	10.0		98.4	80-120		
Tetrachloroethylene	10.5		0.500	ug/L	10.0		105	80-120		
1,1-Dichloropropene	10.9		0.500	ug/L	10.0		109	80-120		
1,2-Dichlorobenzene (ortho-Dichlorobenzene)	10.3		0.500	ug/L	10.0		103	80-120		
EDB (screening)	10.8		0.500	ug/L	10.0		108	70-130		
DBCP (screening)	10.0		0.500	ug/L	10.0		100	71-128		
1,2,4-Trimethylbenzene	11.6		0.500	ug/L	10.0		116	80-120		
1,2,4-Trichlorobenzene	11.6		0.500	ug/L	10.0		116	80-120		
Carbon disulfide	10.3		0.500	ug/L	10.0		103	80-120		
1,2,3-Trichlorobenzene	11.7		0.500	ug/L	10.0		117	78-120		
1,2-Dichloropropane	10.7		0.500	ug/L	10.0		107	80-120		
1,1-Dichloroethylene	10.4		0.500	ug/L	10.0		104	70-129		
1,1-Dichloroethane	10.4		0.500	ug/L	10.0		104	80-120		
1,1,2-Trichlorethane	10.5		0.500	ug/L	10.0		105	80-120		
1,1,2,2-Tetrachloroethane	10.3		0.500	ug/L	10.0		103	77-123		
1,1,1-Trichloroethane	10.6		0.500	ug/L	10.0		106	80-120		
1,1,1,2-Tetrachloroethane	10.4		0.500	ug/L	10.0		104	80-120		
1,2,3-Trichloropropane	10.1		0.500	ug/L	10.0		101	80-120		
o-Chlorotoluene	10.9		0.500	ug/L	10.0		109	80-120		
Vinyl Chloride	10.1		0.500	ug/L	10.0		101	75-120		
Bromochloromethane	10.6		0.500	ug/L	10.0		106	80-120		
Bromobenzene	10.5		0.500	ug/L	10.0		105	80-120		
Benzene	10.4		0.500	ug/L	10.0		104	80-120		
Acrylonitrile	9.88		0.500	ug/L	10.0		98.8	73-131		
p-Chlorotoluene	11.2		0.500	ug/L	10.0		112	80-124		
2-hexanone	9.65		2.50	ug/L	10.0		96.5	65-140		
1,2-Dichloroethane	10.0		0.500	ug/L	10.0		100	80-120		
2,2-Dichloropropane	10.4		0.500	ug/L	10.0		104	80-120		
1,4-Dichlorobenzene (para-Dichlorobenzene)	10.4		0.500	ug/L	10.0		104	80-120		
1,3-Dichloropropane	10.8		0.500	ug/L	10.0		108	80-120		
m-Dichlorobenzene	10.9		0.500	ug/L	10.0		109	80-120		
1,3,5-Trimethylbenzene	11.6		0.500	ug/L	10.0		116	80-121		
Bromoform	10.1		0.500	ug/L	10.0		101	68-133		
Surrogate: Toluene-d8			*20.0*	*ug/L*	*20.0*		*99.8*	*70-130*		
Surrogate: 4-Bromofluorobenzene			*20.0*	*ug/L*	*20.0*		*100*	*70-130*		
Surrogate: 1,2-Dichlorobenzene-d4			*20.0*	*ug/L*	*20.0*		*100*	*70-130*		

eurofins | Environment Testing

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Eurofins

MDL0689

Due: 01/04/24

SUB CONTRATOR:	Anatek ID	COMPANY:	Anatek Labs, Inc.	PHONE: (208) 883-2839	FAX: (208) 882-9246
ADDRESS:	1282 Alturas Dr			ACCOUNT #:	EMAIL:
CITY, STATE, ZIP:	Moscow, ID 83843				

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2312858-001A	MW-9	VOAHCL	Aqueous	12/13/2023 10:30:00 AM	3	EPA Method 8260B
2	2312858-002A	MW-10	VOAHCL	Aqueous	12/12/2023 2:30:00 PM	3	EPA Method 8260B
3	2312858-003A	MW-12	VOAHCL	Aqueous	12/12/2023 2:00:00 PM	3	EPA Method 8260B
4	2312858-004A	MW-13	VOAHCL	Aqueous	12/13/2023 12:40:00 PM	3	EPA Method 8260B
5	2312858-005A	MW-15	VOAHCL	Aqueous	12/12/2023 4:10:00 PM	3	EPA Method 8260B
6	2312858-006A	MW-18	VOAHCL	Aqueous	12/12/2023 1:35:00 PM	3	EPA Method 8260B
7	2312858-007A	MW-27	VOAHCL	Aqueous	12/12/2023 3:35:00 PM	3	EPA Method 8260B
8	2312858-008A	MW-28	VOAHCL	Aqueous	12/12/2023 1:10:00 PM	3	EPA Method 8260B
9	2312858-009A	MW-29	VOAHCL	Aqueous	12/12/2023 12:30:00 PM	3	EPA Method 8260B
10	2312858-010A	MW-30	VOAHCL	Aqueous	12/13/2023 11:55:00 AM	3	EPA Method 8260B
11	2312858-011A	MW-31	VOAHCL	Aqueous	12/13/2023 11:30:00 AM	3	EPA Method 8260B

SPECIAL INSTRUCTIONS / COMMENTS:

Include the LAB ID and CLIENT SAMPLE ID on final reports. Email results to Hall.Lab@et.eurofinsus.com. For Questions email Hall.samplecontrol@et.eurofinsus.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 12/19/2023	Time: 2:39 PM	Received By: SM	Date: 12-20-23	Time: 12:57
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☑ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED:

☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY

Temp of samples _____ °C Attempt to Cool ? _____

Comments: _____

Anatek Labs, Inc.

Sample Receipt and Preservation Form

Client Name: Hall

TAT: (Normal) RUSH: _____ days

Samples Received From: (FedEx) UPS USPS Client Courier Other: —

Custody Seal on Cooler/Box: (Yes) No Custody Seals Intact: (Yes) No N/A

Number of Coolers/Boxes: 1 Type of Ice: Wet Ice (Ice Packs) Dry Ice None

Packing Material: Bubble Wrap Bags Foam/Peanuts Paper None Other: _____

Cooler Temp As Read (°C): 2.5 Cooler Temp Corrected (°C): — Thermometer Used: IR 5

				Comments:
Samples Received Intact?	(Yes)	No	N/A	
Chain of Custody Present/Complete?	(Yes)	No	N/A	
Labels and Chains Agree?	(Yes)	No	N/A	
Samples Received Within Hold Time?	(Yes)	No	N/A	
Correct Containers Received?	(Yes)	No	N/A	
Anatek Bottles Used?	Yes	(No)	Unknown	
Total Number of Sample Bottles Received: 33				

				Initial pH:	pH Paper ID:
Samples Properly Preserved?	(Yes)	No	N/A	<2 or	
If No, record preservation and pH-after details					
VOC Vials Free of Headspace (<6mm)?	(Yes)	No	N/A		
VOC Trip Blanks Present?	Yes	(No)	N/A		

Record preservatives (and lot numbers, if known) for containers below:

G4A- HCl - 8260 X 33

Notes, comments, etc. (also use this space if contacting the client - record names and date/time)

Received/Inspected By: SM Date/Time: 12/20/23 12:57

Form F19.01 - Eff 1 Dec 2022

Page 1 of 1

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-79508**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **79508**	RunNo: **102210**
Prep Date: **12/19/2023**	Analysis Date: **1/2/2024**	SeqNo: **3773160** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Sodium	ND	1.0								

Sample ID: **LCSLL-79508**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **79508**	RunNo: **102210**
Prep Date: **12/19/2023**	Analysis Date: **1/2/2024**	SeqNo: **3773161** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	110	50	150			
Magnesium	ND	1.0	0.5000	0	107	50	150			
Sodium	ND	1.0	0.5000	0	131	50	150			

Sample ID: **LCS-79508**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **79508**	RunNo: **102210**
Prep Date: **12/19/2023**	Analysis Date: **1/2/2024**	SeqNo: **3773162** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	54	1.0	50.00	0	109	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Sodium	50	1.0	50.00	0	101	85	115			

Sample ID: **2312858-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-9**	Batch ID: **79508**	RunNo: **102265**
Prep Date: **12/19/2023**	Analysis Date: **1/3/2024**	SeqNo: **3775546** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	180	5.0	50.00	125.0	105	70	130			
Potassium	64	5.0	50.00	12.03	104	70	130			

Sample ID: **2312858-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-9**	Batch ID: **79508**	RunNo: **102265**
Prep Date: **12/19/2023**	Analysis Date: **1/3/2024**	SeqNo: **3775550** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	180	5.0	50.00	125.0	116	70	130	3.24	20	
Potassium	63	5.0	50.00	12.03	101	70	130	2.24	20	

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R101863**	RunNo: **101863**							
Prep Date:	Analysis Date: **12/14/2023**	SeqNo: **3755860**	Units: **mg/L**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R101863**	RunNo: **101863**							
Prep Date:	Analysis Date: **12/14/2023**	SeqNo: **3755861**	Units: **mg/L**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.5	90	110			
Chloride	4.6	0.50	5.000	0	92.6	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.2	90	110			
Bromide	2.3	0.10	2.500	0	93.2	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	95.5	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	90.5	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R101863**	RunNo: **101863**							
Prep Date:	Analysis Date: **12/14/2023**	SeqNo: **3755926**	Units: **mg/L**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R101863**	RunNo: **101863**							
Prep Date:	Analysis Date: **12/15/2023**	SeqNo: **3755927**	Units: **mg/L**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.7	0.50	5.000	0	93.5	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	95.2	90	110			
Bromide	2.3	0.10	2.500	0	93.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R101863** RunNo: **101863**
Prep Date: Analysis Date: **12/15/2023** SeqNo: **3755927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.0	90	110			

Sample ID: **2312858-011BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **MW-31** Batch ID: **R101863** RunNo: **101863**
Prep Date: Analysis Date: **12/15/2023** SeqNo: **3755935** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.8	0.50	2.500	0.5903	88.3	70	130			
Nitrogen, Nitrite (As N)	4.4	0.50	5.000	0	87.8	80	120			
Bromide	12	0.50	12.50	0.8851	92.3	80	120			
Nitrogen, Nitrate (As N)	12	0.50	12.50	0.5086	95.2	80	120			
Phosphorus, Orthophosphate (As P)	23	2.5	25.00	0	93.1	80	120			

Sample ID: **2312858-011BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **MW-31** Batch ID: **R101863** RunNo: **101863**
Prep Date: Analysis Date: **12/15/2023** SeqNo: **3755936** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.8	0.50	2.500	0.5903	88.7	70	130	0.368	20	
Nitrogen, Nitrite (As N)	4.4	0.50	5.000	0	87.8	80	120	0.0247	20	
Bromide	12	0.50	12.50	0.8851	92.4	80	120	0.0516	20	
Nitrogen, Nitrate (As N)	12	0.50	12.50	0.5086	95.2	80	120	0.0621	20	
Phosphorus, Orthophosphate (As P)	24	2.5	25.00	0	94.0	80	120	1.02	20	

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R102274** RunNo: **102274**
Prep Date: Analysis Date: **1/5/2024** SeqNo: **3776083** Units: **mg/L**

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

Sample ID: **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R102274** RunNo: **102274**
Prep Date: Analysis Date: **1/5/2024** SeqNo: **3776084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.9	90	110			
Sulfate	10	0.50	10.00	0	102	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R102274** RunNo: **102274**
Prep Date: Analysis Date: **1/5/2024** SeqNo: **3776132** 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: **R102274** RunNo: **102274**
Prep Date: Analysis Date: **1/5/2024** SeqNo: **3776133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	100	90	110			

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R102312** RunNo: **102312**
Prep Date: Analysis Date: **1/8/2024** SeqNo: **3778112** Units: **mg/L**

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

Sample ID: **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R102312** RunNo: **102312**
Prep Date: Analysis Date: **1/8/2024** SeqNo: **3778113** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.4	0.50	10.00	0	94.3	90	110			

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R102312** RunNo: **102312**
Prep Date: Analysis Date: **1/8/2024** SeqNo: **3778166** Units: **mg/L**

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

Sample ID: **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R102312** RunNo: **102312**
Prep Date: Analysis Date: **1/8/2024** SeqNo: **3778167** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.4	0.50	10.00	0	94.2	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS-1 98.8uS eC**	SampType: **LCS**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R102142**	RunNo: **102142**
Prep Date:	Analysis Date: **12/28/2023**	SeqNo: **3769973** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	98.80	0	104	85	115			

Sample ID: **LCS-2 99.8uS eC**	SampType: **LCS**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R102142**	RunNo: **102142**
Prep Date:	Analysis Date: **12/28/2023**	SeqNo: **3770000** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	99.80	0	102	85	115			

Sample ID: **LCS-3 99.8uS eC**	SampType: **LCS**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R102142**	RunNo: **102142**
Prep Date:	Analysis Date: **12/28/2023**	SeqNo: **3770027** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	110	10	99.80	0	108	85	115			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **2312858-002BDUP**	SampType: **DUP**	TestCode: **SM4500-H+B / 9040C: pH**							
Client ID: **MW-10**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767468**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.87									H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-1 Alk**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767348**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **LCS-1 Alk**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767349**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	76.64	20.00	80.00	0	95.8	90	110			

Sample ID: **MB-2 alk**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767372**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **LCS-2 alk**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767373**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.12	20.00	80.00	0	98.9	90	110			

Sample ID: **2312858-002BDUP**	SampType: **DUP**	TestCode: **SM2320B: Alkalinity**							
Client ID: **MW-10**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767383**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	175.8	20.00						1.69	20	

Sample ID: **MB-3 alk**	SampType: **MBLK**	TestCode: **SM2320B: Alkalinity**							
Client ID: **PBW**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767398**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **LCS-3 alk**	SampType: **LCS**	TestCode: **SM2320B: Alkalinity**							
Client ID: **LCSW**	Batch ID: **R102082**	RunNo: **102082**							
Prep Date:	Analysis Date: **12/22/2023**	SeqNo: **3767399**	Units: **mg/L CaCO3**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.92	20.00	80.00	0	98.6	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312858**

15-Jan-24

Client: HILCORP ENERGY

Project: Salty Dog Pipeline

Sample ID: **MB-79510**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **79510**	RunNo: **102010**
Prep Date: **12/19/2023**	Analysis Date: **12/21/2023**	SeqNo: **3764123** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-79510**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **79510**	RunNo: **102010**
Prep Date: **12/19/2023**	Analysis Date: **12/21/2023**	SeqNo: **3764124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	50.0	1000	0	102	80	120			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2312858 RcptNo: 1

Received By: Tracy Casarrubias 12/14/2023 6:30:00 AM

Completed By: Tracy Casarrubias 12/14/2023 11:22:48 AM

Reviewed By: JM 12/14/23

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 ☐	

HNO3

# of preserved bottles checked for pH: 11 (<2 or >12 unless noted)

Adjusted? Yes

Checked by: JM 12/14/23

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:

Poured off 250mL from original volume provided for 001B - 011B to create samples 001C-011C. Proceeded to add ~0.5mls HNO3 (Chem # 7342) to 001C-011C for metals analysis - JM 12/14/23

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes	Yogi		
2	1.3	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

email or Fax#: Brandon.Sinclair@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

Salty Dog Pipeline

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): See checklist

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. 2312858	Cations/Anions/TDS/pH/Alkalinity (1) Liter Plastic	Volatiles 8260 40ml VOA HCl
12-13	1030	Water	MW-9	Various	Various	001	X	X
12-12	1430	Water	MW-10	Various	Various	002	X	X
12-12	1400	Water	MW-12	Various	Various	003	X	X
12-13	1240	Water	MW-13	Various	Various	004	X	X
12-12	1610	Water	MW-15	Various	Various	005	X	X
12-12	1335	Water	MW-18	Various	Various	006	X	X
12-12	1535	Water	MW-27	Various	Various	007	X	X
12-12	1310	Water	MW-28	Various	Various	008	X	X
12-12	1230	Water	MW-29	Various	Various	009	X	X
12-13	1155	Water	MW-30	Various	Various	010	X	X
12-13	1130	Water	MW-31	Various	Various	011	X	X
		~~Water~~		~~Various~~	~~Various~~		~~X~~	~~X~~
		~~Water~~		~~Various~~	~~Various~~		~~X~~	~~X~~

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
12/13/23	1540				12/13/23	1540
12/13/23	1747			courier	12/14/23	0630

Preserve the Cation/Anions in the lab. Cations: Calcium, Magnesium, Potassium and Sodium, Anions:Bromide, Chloride, Sulfate, Fluoride, Nitrate+Nitrite and Phosphorous.

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 325864

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 325864
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2023 Annual Groundwater Monitoring Report for Salty Dog Water Gathering System: Content Satisfactory 1. Proceed with continuing delineation efforts to further characterize the edge of the plume 2. Keep OCD abreast of efforts to gain permission from landowner in order for access and work complete. 3. Continue to sample on a quarterly basis as planned. in report. 4. Submit next annual gw report to OCD by April 2025.	5/29/2024