



1. Continue O&M schedule as stated in report.
2. Submit next quarterly report by October 15, 2024.

July 11, 2024

New Mexico Oil Conservation Division

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

**Re: Second Quarter 2024 – Remediation System Operation and Monitoring Report
Standard #1
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident Number: NCS1735235018
Abatement Plan Number: AP-126**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Second Quarter 2024 - Remediation System Operation and Monitoring Report* summarizing remediation system performance during the second quarter of 2024 at the Standard #1 (Site, Figure 1). The duration of operation and monitoring activities included in this report is for the period from March 21, 2024, through June 27, 2024.

This report was prepared following the approval from the New Mexico Oil Conservation Division (NMOCD) regarding the dual-phase extraction (DPE) remediation system described in the *Stage 2 Abatement Plan* submitted by LT Environmental, Inc. in September 2019. Although no formal conditions of approval (COAs) have been provided in response to the aforementioned report, this report includes the following information based on COAs issued for similar Sites:

- A summary of remediation activities during the quarter;
- The system run time summary (90 percent (%) run time typically required);
- Total system flow and vacuum measurements;
- Individual well flow rates, photoionization detector (PID) measurements of volatile organic compounds (VOCs), vacuum measurements, and oxygen/carbon dioxide measurements via hand-held analyzers;
- The petroleum mass removal and fluid product recovery from the remediation system.

Per correspondence with the NMOCD in April 2024, the quarterly remediation summary reports also include data and summaries from groundwater sampling events conducted at the Site during each reporting period. This report summarizes groundwater data gathered during the second quarter of 2024.

REMEDIATION SYSTEM DESCRIPTION

The remediation system at the Site includes a DPE system which uses a high vacuum rotary claw blower to apply vacuum to remediation wells (MW01, MW02, MW03, MW06, MW10, and MW15) that are connected to the blower via subsurface piping (Figure 2). The extracted air, petroleum vapors, and fluids enter a vapor/liquid separator or “knock out” tank. Air and petroleum vapors are

passed through the high vacuum extraction blower and discharged to the atmosphere via an exhaust stack. Separated liquid, which includes light non-aqueous phase liquids (LNAPL) and potentially impacted groundwater, is pumped to an aboveground storage tank for storage and off-site disposal. The system layout is depicted on Figure 3.

SECOND QUARTER 2024 OPERATION AND MAINTENANCE

Since startup on January 2, 2024, all Site DPE wells were operated in order to recover LNAPL, draw down the groundwater table, and induce air flow in impacted soil zones. Field visits were conducted bi-weekly throughout the second quarter of 2024. Field forms completed during operations and maintenance (O&M) visits are presented in Appendix A.

Between March 21, 2024, and June 27, 2024, the DPE system operated for 2,291 hours for a runtime efficiency of 97 %. Appendix B presents photographs of the runtime meter for calculating the second quarter 2024 runtime efficiency. Table 1 presents the DPE system operational hours and calculated percent runtime.

Vapor Recovery

Influent vapor samples from the DPE system are collected every other month during the second through fourth quarters of system operation. An influent vapor sample was collected on May 7, 2024. The sample was collected into two 1-Liter Tedlar® bags and submitted to Eurofins Environment Testing (Eurofins) in Albuquerque, New Mexico for analysis of VOCs following United States Environmental Protection Agency (EPA) EPA Method 8260B, total petroleum hydrocarbons (TPH) following EPA Method 8015D, and fixed gas analysis of oxygen and carbon dioxide following Gas Processors Association (GPA) Method 2261. A summary of field measurements and analytical results are presented in Tables 2 and 3, respectively. The full laboratory analytical report is attached as Appendix C. Graphs 1 and 2 also present oxygen and carbon dioxide levels over time, respectively.

Vapor sample data and measured influent flow rates are used to estimate total mass recovered and total emissions generated by the DPE system (Table 4). Based on these estimates, 8,085 pounds (4.0 tons) of TPH in the vapor phase have been removed by the system to date.

Liquid Recovery

Total liquid recovery volumes are measured using a totalizing flow metering device. Since startup of the system on January 2, 2024, through June 27, 2024, approximately 81,691 gallons of liquid have been recovered. The impacted groundwater and recovered LNAPL are emulsified and homogenously commingled enough during extraction that product thickness is unmeasurable in the liquid recovery tank. Therefore, the estimated volume of LNAPL recovered is not measurable and not reported. Liquid recovery is summarized in Table 5.

GROUNDWATER MONITORING

Since October 2018, groundwater gauging and sampling activities have been conducted at the Site. Groundwater gauging and sampling at the Site was completed on June 3 and 4, 2024, as part of the second quarter 2024 system activities.

Fluid Level Measurements

Prior to purging and sampling, static depth to groundwater and total depth of each monitoring well was measured using an oil/water interface probe. Depth to phase-separated hydrocarbons (PSH, synonymous with LNAPL) was also recorded when present and a correction factor of 0.8 was

applied to the calculated groundwater elevation to account for the depression of the water column caused by the presence of overlying PSH. The interface probe was decontaminated with Alconox® soap and rinsed with distilled water prior to each measurement to prevent cross contamination. Depth to groundwater, depth to PSH, and calculated groundwater elevations are summarized in Table 6. Potentiometric surface maps were drafted with groundwater elevations and PSH thickness measured during the second quarter 2024 quarterly monitoring event (Figure 4).

During the second quarter of 2024 gauging event, a trace (less than 0.01 feet) of PSH was observed in monitoring wells MW01, MW02, MW05, MW06, and MW14.

In general, the presence of groundwater at the Site is highly variable and no apparent continuous groundwater aquifer has been observed during drilling and/or groundwater monitoring activities. Groundwater flow direction and gradient is generally difficult to interpret, as dry wells often exist around the perimeter of the Site, as well as between wells containing groundwater. Based on historical measurements, groundwater flow direction is variable across the Site, but is generally to the west-northwest.

Groundwater Sampling Activities and Analytical Results

Groundwater samples were collected for laboratory analysis from monitoring wells containing sufficient water to sample and those that did not contain measurable PSH. Disposable polyvinyl chloride (PVC) bailers were used to collect groundwater samples due to limited water volume within several of the monitoring wells. Prior to collecting groundwater samples, Hilcorp purged a minimum of three casing volumes or until the well was bailed dry to ensure water from the adjacent formation, representative of actual aquifer conditions, was sampled. If a well was purged dry, the well was allowed to recharge before samples were collected. Water quality parameters including pH, electrical conductivity, and temperature were measured in each well using a multi-probe water quality field meter during purging.

Groundwater samples were collected into laboratory provided sample bottles and immediately placed on ice for preservation. Samples were submitted to Hall Environmental Analysis Laboratory (Hall) and/or Eurofins (formerly Hall) for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX). Of the wells sampled, one or more BTEX constituent exceeded the New Mexico Water Quality Conservation Commission (NMWQCC) standards at monitoring wells MW03, MW04, MW12, MW15, MW16, MW18, and MW19. A summary of groundwater analytical results is presented in Table 7 and on Figure 5, with complete laboratory analytical reports attached as Appendix D.

DISCUSSIONS AND RECOMMENDATIONS

Bi-weekly (every other week) to monthly O&M visits and bi-monthly (every other month) sampling events will be performed by Ensolum and/or Hilcorp personnel to ensure the DPE system is operating within normal working ranges (i.e., temperature, pressure, and vacuum). Deviations from regular operations will be noted on field logs and included in the following quarterly report.

Reporting

Updated remediation reports will be prepared and submitted to the NMOCD on a quarterly basis within 15 days following the end of the quarter and will contain the following:

- A summary of remediation and monitoring activities during the period;
- System run-time summary;
- Petroleum hydrocarbon mass removal and fluid recovery from the remediation system;

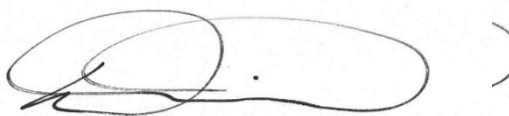
- DPE volume liquid removal; and
- Groundwater monitoring results, when applicable.

We appreciate the opportunity to provide this report to the NMOCD. If you should have any questions or comments regarding this report, please contact the undersigned.

Sincerely,
Ensolum, LLC



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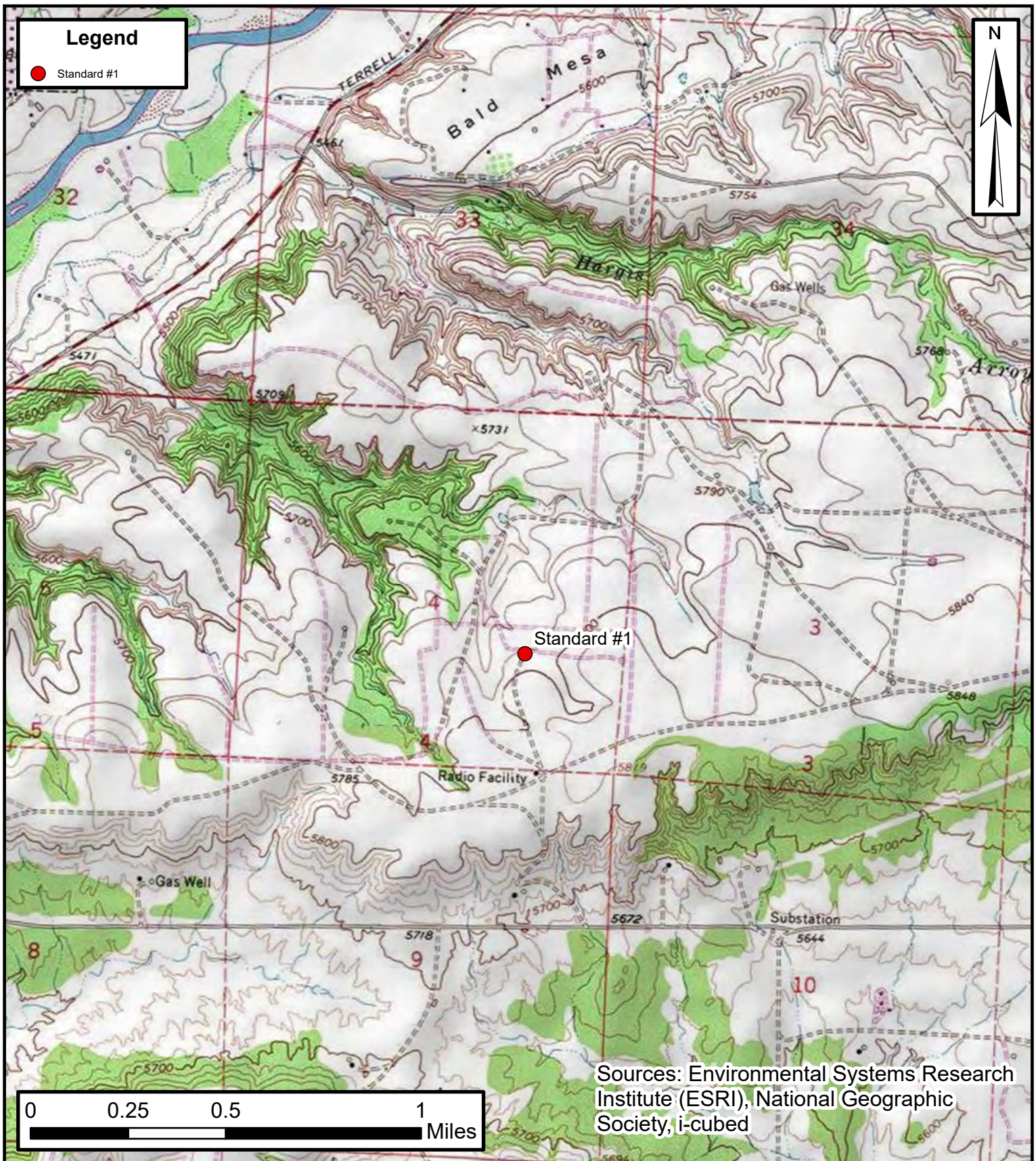
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Attachments:

Figure 1	Site Location Map
Figure 2	Site Features
Figure 3	Dual Phase Extraction System Layout
Figure 4	Groundwater Elevation Map – Q2 2024
Figure 5	June 2024 Groundwater Analytical Results
Table 1	Dual Phase Extraction System Runtime Calculations
Table 2	Dual Phase Extraction System Field Measurements
Table 3	Dual Phase Extraction System Air Analytical Results
Table 4	Dual Phase Extraction System Mass Removal and Emissions
Table 5	Dual Phase Extraction System Liquid Recovery
Table 6	Groundwater Elevation
Table 7	Groundwater Analytical Results
Graph 1	Oxygen vs Time
Graph 2	Carbon Dioxide vs Time
Appendix A	Field Notes
Appendix B	Project Photographs
Appendix C	Vapor Laboratory Analytical Report
Appendix D	Groundwater Laboratory Analytical Report



Figures



Site Location Map

Standard #1

Hilcorp Energy Company

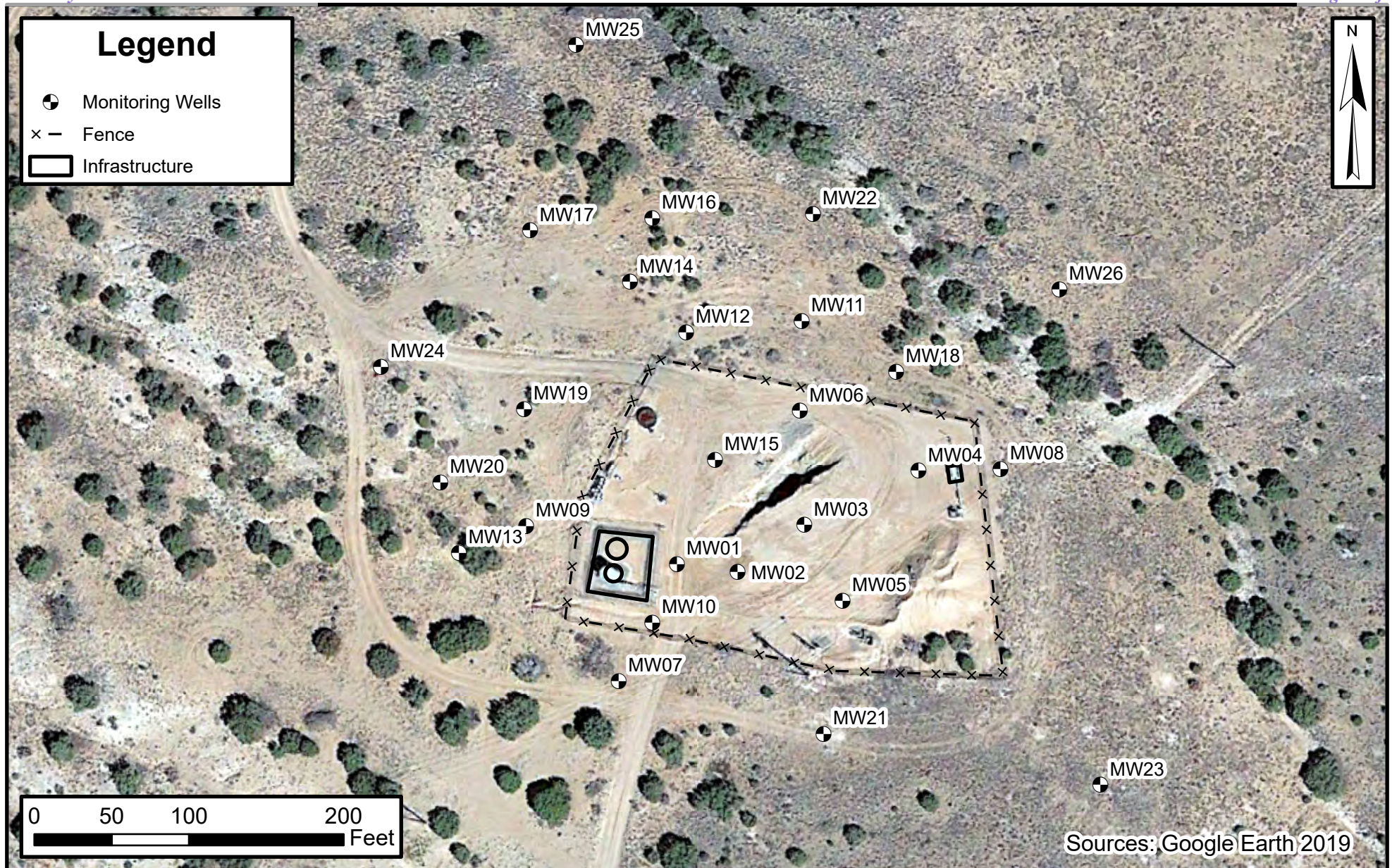
36.75285, -108.099744
San Juan County, New Mexico

FIGURE

1



ENSOLUM
Environmental, Engineering and
Hydrogeologic Consultants

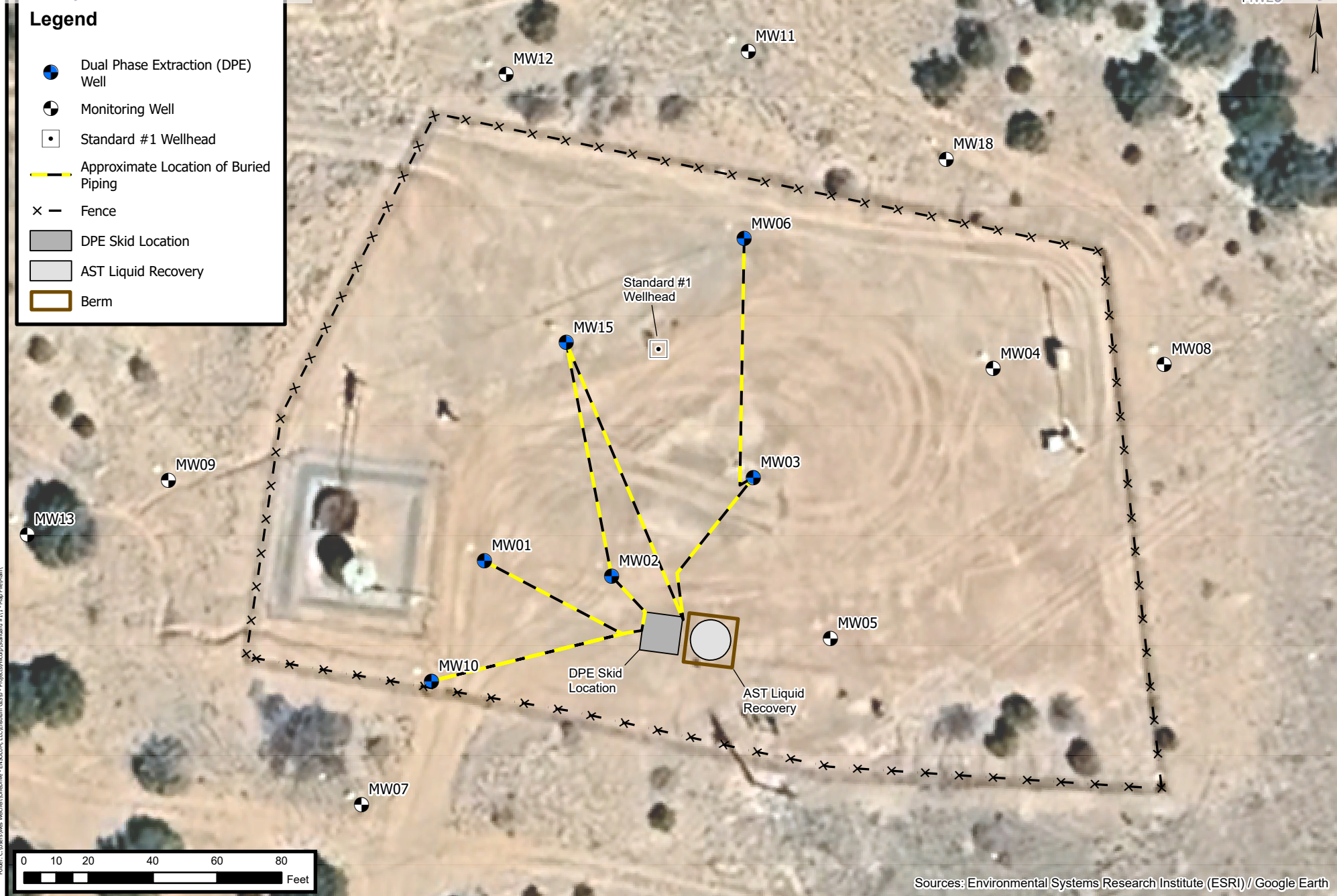


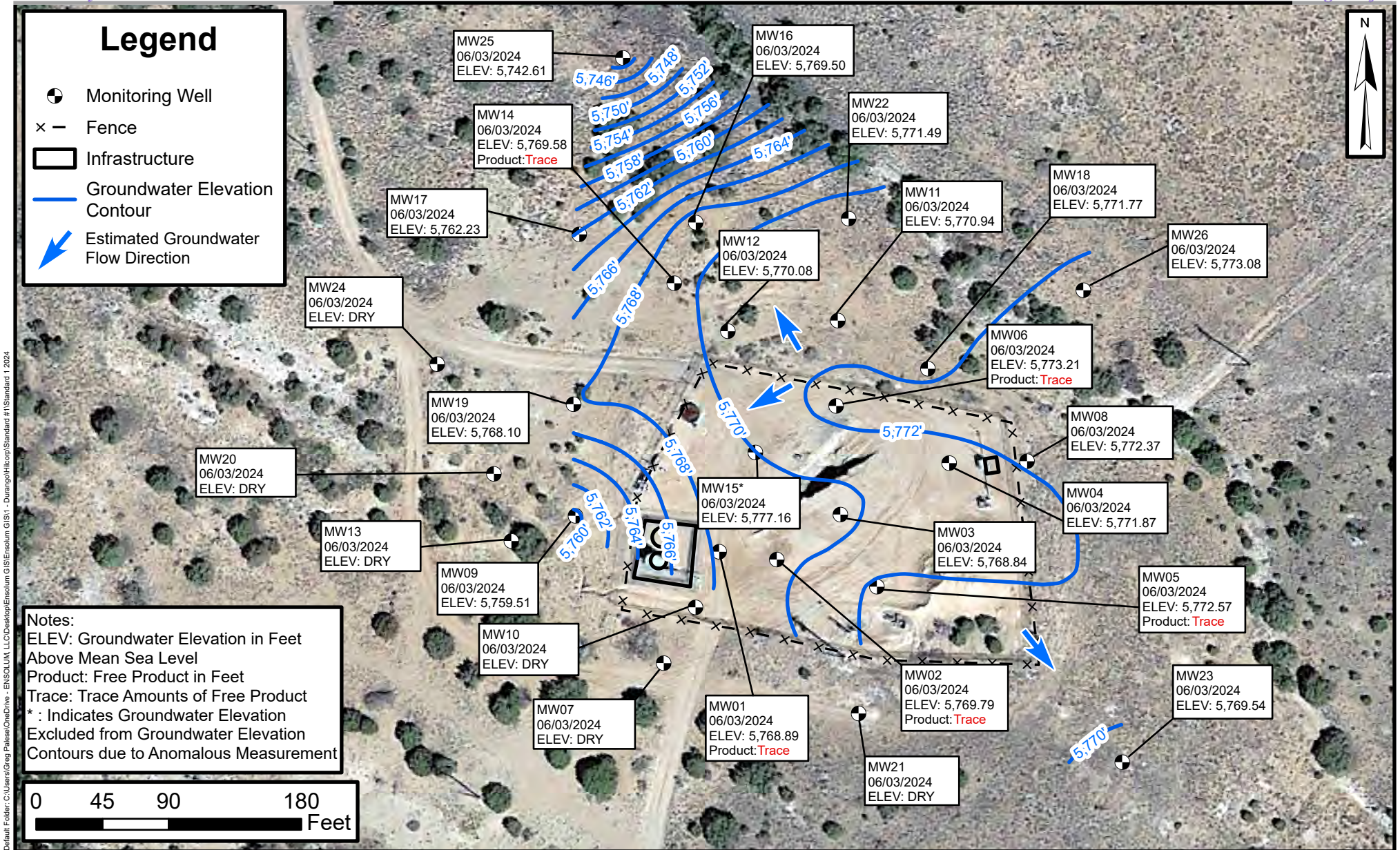
Site Features

Standard #1
Hilcorp Energy Company

36.75285, -108.099744
San Juan County, New Mexico

FIGURE
2



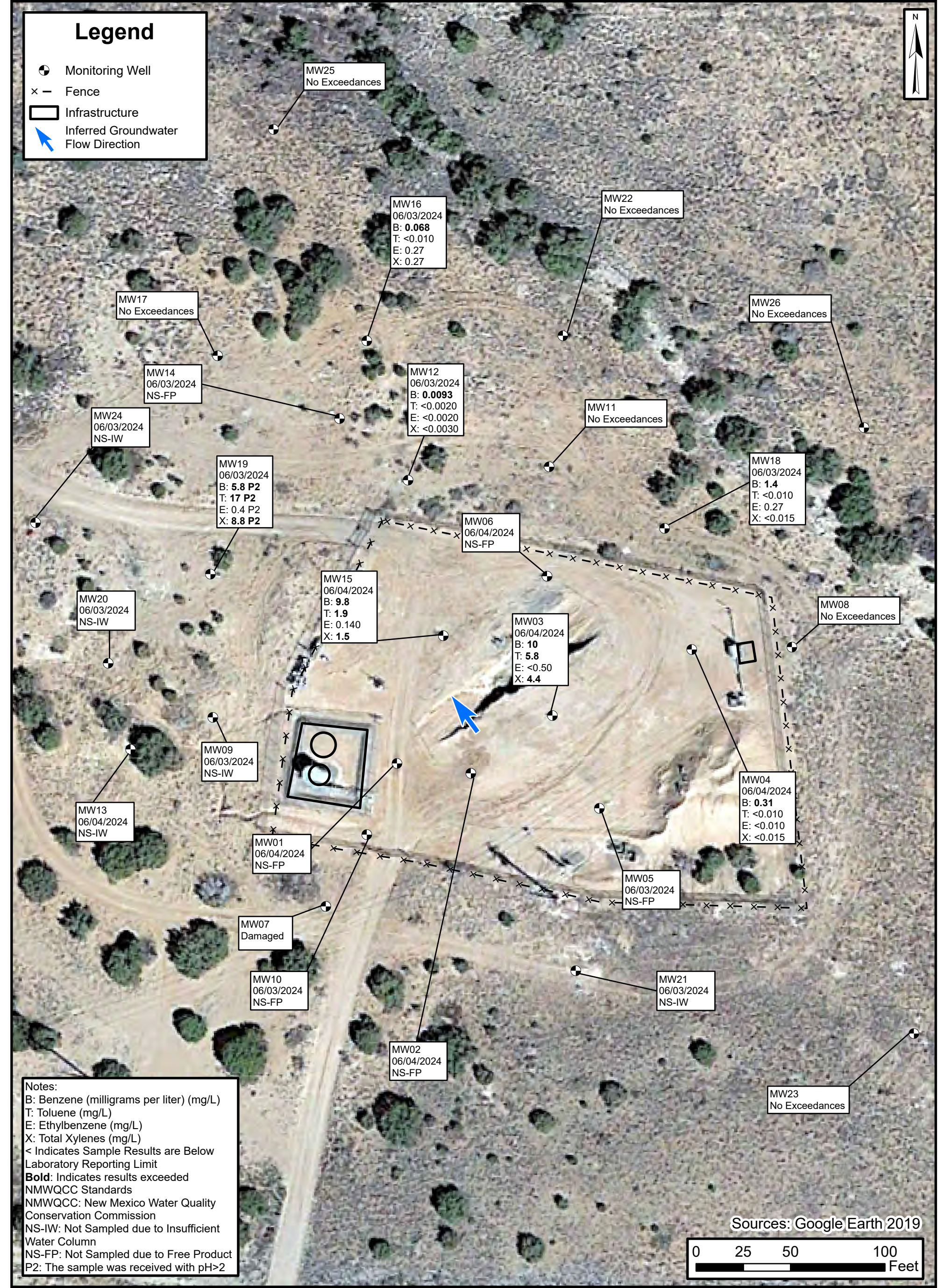


Groundwater Elevation Map - Q2 2024

Standard #1
 Hilcorp Energy Company
 36.75285, -108.099744
 San Juan County, New Mexico



FIGURE
4



June 2024 Groundwater Analytical Results



Standard #1
Hilcorp Energy Company
36.75285, -108.099744
San Juan County, New Mexico

FIGURE
5



Tables & Graphs



TABLE 1
DUAL PHASE EXTRACTION SYSTEM RUNTIME CALCULATIONS
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Date/Time of Reading	System Hour Runtime	Run Time (%)	Cumulative Run Time (%)	Notes
1/2/2024	4	START UP		
3/21/2024	1,876	99%	99%	
4/1/2024	2,109	88%	97%	
4/5/2024	2,201	96%	97%	
4/19/2024	2,537	100%	98%	
5/7/2024	2,969	100%	98%	
5/21/2024	3,310	102%	98%	
6/6/2024	3,661	91%	98%	
6/27/2024	4,167	100%	98%	

Notes:

%: percent

Dashed line indicates quarter change

--: not applicable/not collected



TABLE 2 DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico									
SVE Well ID	Date	PID (ppm)	Differential Pressure (IWC)	Flow Rate (acfm)	Flow Rate (scfm) ⁽¹⁾	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
Influent, All Wells	1/2/2024	198	4.50	742	534	2.5	1.23	20.9	0.06
	1/3/2024	69	4.50	742	534	2.5	1.23	20.9	0.02
	1/4/2024	467	2.50	553	398	2.5	1.23	16.6	4.99
	1/5/2024	416	2.50	553	216	15.0	7.37	19.8	1.34
	1/11/2024	993	1.75	463	187	14.5	7.12	--	--
	1/18/2024	234	2.00	495	220	13.0	6.39	--	--
	1/24/2024	521	2.50	553	260	12.0	5.89	--	--
	2/1/2024	397	3.25	630	379	7.0	3.44	--	--
	2/8/2024	350	3.00	606	348	8.0	3.93	--	--
	2/15/2024	401	3.00	606	340	8.5	4.17	--	--
	2/21/2024	400	3.00	606	340	8.5	4.17	20.0	0.38
	3/1/2024	662	2.25	525	267	10.5	5.16	--	--
	3/7/2024	525	2.25	525	271	10.3	5.03	20.9	0.30
	3/14/2024	763	2.50	553	282	10.5	5.16	20.9	0.28
	3/21/2024	568	2.50	553	282	10.5	5.16	--	--
	4/1/2024	517	2.50	553	282	10.5	5.16	--	--
	4/5/2024	547	2.50	553	289	10.0	4.91	20.0	0.16
	4/19/2024	364	2.25	525	292	8.7	4.27	20.6	0.14
	5/7/2024	337	2.25	525	247	12.0	5.89	20.7	0.15
	5/21/2024	284	2.25	525	240	12.5	6.14	20.9	0.11
	6/6/2024	247	2.25	525	233	13.0	6.39	20.7	0.13
	6/27/2024	369	2.25	525	226	13.5	6.63	20.7	0.13
MW01	1/2/2024	102	--	--	44.0	1.0	0.49	20.9	0.08
	1/3/2024	87	--	--	14.0	1.0	0.49	20.9	0.04
	1/4/2024	--	--	--	93.0	13.5	6.63	--	--
	1/5/2024	403	--	--	53.0	13.0	6.39	20.7	0.58
	1/11/2024	135	0.95	85.2	42.3	11.0	5.40	--	--
	1/18/2024	655	0.08	24.7	11.6	12.0	5.89	--	--
	1/24/2024	1394	0.55	64.8	32.2	11.0	5.40	20.2	0.52
	2/1/2024	468	0.54	64.2	41.2	5.5	2.70	--	--
	2/8/2024	436	--	--	--	7.0	3.44	19.8	0.78
	2/15/2024	413	0.20	39.1	23.5	7.0	3.44	19.8	0.44
	2/21/2024	543	0.20	39.1	23.5	7.0	3.44	20.0	0.40
	3/1/2024	353	0.28	46.3	25.4	9.0	4.42	20.5	0.44
	3/7/2024	431	0.51	62.4	34.3	9.0	4.42	20.9	0.36
	3/14/2024	409	0.19	38.1	20.9	9.0	4.42	20.9	0.38
	3/21/2024	398	0.49	61.2	33.6	9.0	4.42	20.9	0.36
	4/1/2024	523	0.61	68.3	38.4	8.5	4.17	--	--
	4/5/2024	496	0.42	56.7	31.8	8.5	4.17	19.8	0.28
	4/19/2024	450	0.31	48.7	27.7	8.3	4.05	19.4	0.32
	5/7/2024	611	0.64	69.9	43.2	6.4	3.14	19.5	0.34
	5/21/2024	645	0.77	76.7	42.6	8.8	4.30	19.5	0.31
	6/6/2024	387	1.83	118.3	68.8	7.8	3.81	19.8	0.30
	6/27/2024	604	--	--	--	8.0	3.93	19.5	0.28
MW02	1/2/2024	102	--	--	20.0	1.0	0.49	20.9	0.02
	1/3/2024	240	--	--	25.0	1.0	0.49	20.9	0.06
	1/4/2024	--	--	--	86.0	13.5	6.63	--	--
	1/5/2024	243	--	--	84.0	12.5	6.14	20.6	0.82
	1/11/2024	392	0.80	78.2	38.8	11.0	5.40	--	--
	1/18/2024	335	1.05	89.6	42.1	12.0	5.89	--	--
	1/24/2024	710	0.75	75.7	38.6	10.5	5.16	20.7	0.52
	2/1/2024	179	0.15	33.9	21.2	6.0	2.95	--	--
	2/8/2024	380	--	--	--	7.3	3.56	20.7	0.54
	2/15/2024	232	0.21	40.1	23.6	7.5	3.68	20.3	0.32
	2/21/2024	175	0.15	33.9	20.4	7.0	3.44	20.6	0.18
	3/1/2024	315	0.56	65.4	35.9	9.0	4.42	20.9	0.36
	3/7/2024	396	0.64	69.9	38.4	9.0	4.42	20.9	0.24
	3/14/2024	412	0.64	69.9	38.4	9.0	4.42	20.9	0.20
	3/21/2024	408	0.61	68.3	37.5	9.0	4.42	20.9	0.18
	4/1/2024	257	0.13	31.5	17.3	9.0	4.42	--	--
	4/5/2024	294	0.55	64.8	35.6	9.0	4.42	20.1	0.16
	4/19/2024	249	0.37	53.2	29.9	8.5	4.17	20.2	0.17
	5/7/2024	193	0.25	43.7	24.6	8.5	4.17	20.3	0.14
	5/21/2024	193	0.54	64.2	36.1	8.5	4.17	20.4	0.16
	6/6/2024	173	0.44	58.0	31.1	9.5	4.67	20.3	0.19
	6/27/2024	321	0.40	55.3	28.9	10.0	4.91	20.1	0.17
MW03	1/2/2024	139	--	--	45.0	1.0	0.49	20.9	0.14
	1/3/2024	240	--	--	25.0	1.0	0.49	20.9	0.06
	1/4/2024	--	--	--	37.0	13.0	6.39	--	--
	1/5/2024	332	--	--	18.0	12.0	5.89	18.9	1.56
	1/11/2024	187	1.30	99.7	44.3	13.0	6.39	--	--
	1/18/2024	452	1.11	92.1	36.1	15.0	7.37	--	--
	1/24/2024	1775	0.62	68.8	30.6	13.0	6.39	19.2	1.26
	2/1/2024	644	0.24	42.8	24.1	8.5	4.17	--	--



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SVE Well ID	Date	PID (ppm)	Differential Pressure (IWC)	Flow Rate (acfm)	Flow Rate (scfm) ⁽¹⁾	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
MW03	2/8/2024	325	--	--	--	9.5	4.67	19.0	1.30
	2/15/2024	235	0.23	41.9	21.9	10.0	4.91	20.3	0.28
	2/21/2024	498	--	--	--	--	--	19.1	0.72
	3/1/2024	404	0.13	31.5	14.8	12.0	5.89	19.7	1.04
	3/7/2024	721	0.41	56.0	27.1	11.5	5.65	20.2	0.66
	3/14/2024	687	0.35	51.7	25.0	11.5	5.65	20.4	0.44
	3/21/2024	627	0.36	52.5	25.4	11.5	5.65	20.3	0.45
	4/1/2024	433	0.45	58.6	28.3	11.5	5.65	--	--
	4/5/2024	511	0.71	73.7	36.6	11.0	5.40	19.3	0.39
	4/19/2024	433	0.23	41.9	20.8	11.0	5.40	19.4	0.38
	5/7/2024	671	0.65	70.5	39.6	8.5	4.17	19.9	0.34
	5/21/2024	444	0.28	46.3	25.1	9.3	4.54	19.6	0.35
	6/6/2024	438	0.43	57.3	31.1	9.3	4.54	19.4	0.36
	6/27/2024	420	0.18	37.1	19.4	10.0	4.91	19.5	0.38
MW06	1/2/2024	153	--	--	48.0	1.0	0.49	20.9	0.14
	1/3/2024	161	--	--	23.0	1.0	0.49	20.9	0.04
	1/4/2024	--	--	--	48.0	12.0	5.89	--	--
	1/5/2024	295	--	--	26.0	11.5	5.65	19.1	1.41
	1/11/2024	323	1.18	95.0	47.1	11.0	5.40	--	--
	1/18/2024	35	1.12	92.5	42.3	12.5	6.14	--	--
	1/24/2024	439	0.40	55.3	28.2	10.5	5.16	20.9	0.56
	2/1/2024	245	0.17	36.0	23.1	5.5	2.70	--	--
	2/8/2024	220	--	--	--	7.0	3.44	20.9	0.42
	2/15/2024	120	0.15	33.9	20.4	7.0	3.44	20.9	0.12
	2/21/2024	319	0.22	41.0	24.4	7.2	3.54	20.6	0.20
	3/1/2024	121	0.04	17.5	9.6	9.0	4.42	20.9	0.24
	3/7/2024	314	0.65	70.5	38.7	9.0	4.42	20.9	0.16
	3/14/2024	402	0.30	47.9	26.3	9.0	4.42	20.9	0.20
	3/21/2024	372	0.27	45.4	25.5	8.5	4.17	20.9	0.15
	4/1/2024	134	0.04	17.5	9.6	9.0	4.42	--	--
	4/5/2024	202	0.82	79.2	44.5	8.5	4.17	20.2	0.10
	4/19/2024	154	0.34	51.0	28.7	8.5	4.17	20.2	0.12
	5/7/2024	145	0.18	37.1	20.4	9.0	4.42	20.8	0.12
	5/21/2024	139	0.46	59.3	32.9	8.8	4.30	20.3	0.11
	6/6/2024	152	0.84	80.1	45.6	8.3	4.05	20.3	0.12
	6/27/2024	129	--	--	--	8.0	3.93	20.3	0.12
MW10	1/2/2024	104	--	--	44.0	1.0	0.49	20.9	0.08
	1/3/2024	92	--	--	16.0	1.0	0.49	20.9	0.02
	1/4/2024	--	--	--	85.0	14.0	6.88	--	--
	1/5/2024	147	--	--	69.0	13.5	6.63	20.9	0.36
	1/11/2024	59	0.88	82	43.9	9.5	4.67	--	--
	1/18/2024	256	0.77	77	35.1	12.5	6.14	--	--
	1/24/2024	7	0.62	69	34.2	11.0	5.40	20.9	0.00
	2/1/2024	435	0.21	40	26.2	5.0	2.46	--	--
	2/8/2024	381	--	--	--	7.0	3.44	20.9	0.32
	2/15/2024	205	0.05	20	11.8	7.0	3.44	20.6	0.18
	2/21/2024	204	0.03	15	9.1	7.0	3.44	20.7	0.16
	3/1/2024	91	0.12	30	16.6	9.0	4.42	20.9	0.12
	3/7/2024	60	0.34	51	28.0	9.0	4.42	20.9	0.18
	3/14/2024	75	0.57	66	36.2	9.0	4.42	20.9	0.16
	3/21/2024	77	0.48	61	33.2	9.0	4.42	20.9	0.13
	4/1/2024	280	0.00	0	0.0	9.0	4.42	--	--
	4/5/2024	321	0.69	73	39.9	9.0	4.42	20.4	0.13
	4/19/2024	297	0.17	36	20.3	8.5	4.17	20.5	0.14
	5/7/2024	242	0.12	30	17.0	8.5	4.17	20.6	0.13
	5/21/2024	234	0.06	21	12.0	8.5	4.17	20.7	0.13
	6/6/2024	196	0.04	17	9.5	9.3	4.54	20.8	0.16
	6/27/2024	302	0.22	41	21.4	10.0	4.91	20.8	0.15
MW15	1/2/2024	126	--	--	46.0	1.0	0.49	20.9	0.12
	1/3/2024	125	--	--	20.0	1.0	0.49	20.9	0.02
	1/4/2024	--	--	--	45.0	11.5	5.65	--	--
	1/5/2024	138	--	--	43.0	11.5	5.65	20.9	0.10
	1/11/2024	Frozen							
	1/18/2024	124	3.78	170.0	79.9	12.0	5.89	--	--
	1/24/2024	425	0.18	37.1	20.8	8.5	4.17	20.9	0.18
	2/1/2024	34	0.12	30.3	19.0	6.0	2.95	--	--
	2/8/2024	90	--	--	--	5.0	2.43	20.9	0.06
	2/15/2024	25	0.05	19.5	11.8	7.0	3.44	20.9	0.08
	2/21/2024	57	--	--	--	--	--	20.9	0.08
	3/1/2024	129	0.07	23.1	12.7	9.0	4.42	20.9	0.00
	3/7/2024	114	0.16	35.0	19.2	9.0	4.42	20.9	0.00
	3/14/2024	130	0.13	31.5	17.3	9.0	4.42	20.9	0.00
	3/21/2024	122	0.13	31.5	17.3	9.0	4.42	20.9	0.00
	4/1/2024	25	0.30	47.9	26.3	9.0	4.42	--	--



TABLE 2 DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico									
SVE Well ID	Date	PID (ppm)	Differential Pressure (IWC)	Flow Rate (acfm)	Flow Rate (scfm) ⁽¹⁾	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
MW15	4/5/2024	34	0.23	41.9	23.6	8.5	4.17	20.4	0.00
	4/19/2024	73	0.03	15.1	8.5	8.5	4.17	20.6	0.00
	5/7/2024	50	0.24	42.8	24.1	8.5	4.17	20.8	0.00
	5/21/2024	23	0.24	42.8	24.1	8.5	4.17	20.5	0.00
	6/6/2024	269	0.00	0.0	0.0	9.0	4.42	20.3	0.17
	6/27/2024	169	0.52	63.0	33.8	9.5	4.67	20.4	0.02

Notes:
(1) Individual Well Flow Rates in scfm estimated based on rotometer readings from 1/2/24 to 1/5/24
IHG: inches of mercury
PID: photoionization detector
ppm: parts per million
acfm: actual cubic feet per minute
scfm: standard cubic feet per minute
%: percent
--: not measured



TABLE 3 DUAL PHASE EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico								
Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
1/2/2024	198	0.58	2.8	0.42	8.9	170	21.64	0.09
1/3/2024	69	0.21	1.2	0.24	5.0	69	21.71	0.06
1/4/2024	467	29	40	<5.0	18	3,400	17.40	4.80
1/5/2024	416	18	26	<5.0	8.7	2,300	20.83	1.26
1/12/2024 ⁽¹⁾	993	22	42	<5.0	56	6,500	20.53	1.49
1/18/2024	234	21	28	<5.0	10	2,700	21.30	0.42
1/24/2024	523	22	40	<5.0	30	4,400	21.19	0.57
2/8/2024	350	19	31	<5.0	34	2,200	21.33	0.51
2/21/2024	400	13	18	<2.0	18	2,900	19.74	0.40
3/7/2024	525	14	28	<5.0	36	2,100	21.91	0.30
3/21/2024	568	15	27	1.1	34	2,900	21.57	0.29
5/7/2024	337	5.2	9.2	<2.0	10	1,400	22.02	0.31

Notes:
GRO: gasoline range organics
µg/L: microgram per liter
PID: photoionization detector
ppm: parts per million
(1) PID reading is from 1/11/2024

TVPH: total volatile petroleum hydrocarbons
%: percent
--: not sampled



TABLE 4
DUAL PHASE EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS

Standard #1
Hilcorp Energy Company
San Juan County, New Mexico

Laboratory Analysis

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
1/2/2024	198	0.58	2.8	0.42	8.9	170
1/3/2024	69	0.21	1.2	0.24	5.0	69
1/4/2024	467	29	40	<5.0	18	3,400
1/5/2024	416	18	26	<5.0	8.7	2,300
1/12/2024 ⁽¹⁾	993	22	42	<5.0	56	6,500
1/18/2024	234	21	28	<5.0	10	2,700
1/24/2024	523	22	40	<5.0	30	4,400
2/8/2024	350	19	31	<5.0	34	2,200
2/21/2024	400	13	18	<2.0	18	2,900
3/7/2024	525	14	28	<5.0	36	2,100
3/21/2024	568	15	27	1.1	34	2,900
5/7/2024	337	5.2	9.2	<2.0	10	1,400
Average	423	15	24	3	22	2,587

Vapor Extraction Summary

Date	Flow Rate (scfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (lb/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
1/2/2024	534	0	0	0.0012	0.0056	0.0008	0.0178	0.34
1/3/2024	534	762,552	762,552	0.0008	0.0040	0.0007	0.0139	0.24
1/4/2024	398	1,347,612	585,060	0.0217	0.0307	0.0039	0.0171	2.58
1/5/2024	216	1,648,284	300,672	0.0190	0.0267	0.0040	0.0108	2.30
1/12/2024 ⁽¹⁾	187	3,569,148	1,920,864	0.0140	0.0238	0.0035	0.0226	3.08
1/18/2024	220	5,271,948	1,702,800	0.0177	0.0288	0.0041	0.0272	3.78
1/24/2024	260	7,487,148	2,215,200	0.0209	0.0331	0.0049	0.0194	3.45
2/8/2024	340	14,749,548	7,262,400	0.0261	0.0451	0.0064	0.0407	4.20
2/21/2024	340	21,055,188	6,305,640	0.0203	0.0312	0.0045	0.0331	3.24
3/7/2024	271	26,939,682	5,884,494	0.0137	0.0233	0.0035	0.0274	2.53
3/21/2024	282	32,540,202	5,600,520	0.01529	0.0290	0.00322	0.0369	2.64
5/7/2024	247	48,738,462	16,198,260	0.00933	0.0167	0.00143	0.0203	1.99
Average				0.0150	0.025	0.0034	0.024	2.53

Mass Recovery

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
1/2/2024	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1/3/2024	28	24	0.0	0.1	0.0	0.3	5.7	0.0
1/4/2024	53	25	0.5	0.8	0.1	0	63	0.03
1/5/2024	76	23	0.4	0.6	0.1	0.3	53	0.03
1/12/2024 ⁽¹⁾	247	171	2.4	4.1	0.6	4	527	0.26
1/18/2024	376	129	2.3	3.7	0.5	4	488	0.24
1/24/2024	518	142	3.0	4.7	0.7	2.8	490	0.25
2/8/2024	874	356	9.3	16	2.3	14	1,494	0.75
2/21/2024	1183	309	6.29	9.6	1.4	10	1,002	0.50
3/7/2024	1545	362	4.95	8.4	1.3	10	917	0.46
3/21/2024	1876	331	5.06	9.6	1.06	12.2	873	0.44
5/7/2024	2969	1,093	10.20	18.3	1.57	22.2	2,171	1.09
Total Mass Recovery to Date			44	76	10	80	8,085	4.0

Notes:

cf: cubic feet

cfm: cubic feet per minute

µg/L: micrograms per liter

lb/hr: pounds per hour

--: not sampled

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

Laboratory detection limit used to estimate mass removal

(1) PID reading and flow rate are from 1/11/2024



TABLE 5
LIQUID RECOVERY
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Date/Time	Hour Meter Reading	Flow Meter Reading (gal)	Gallons Recovered this Period	Cumulative Volume Recovered (gal)	Time Period (hr:min:sec)	Time Period (min)	Recovery Rate		Notes
							(gpm)	(gal/day)	
1/11/24 13:15	219	2,648	0	0	--	--	--	--	
1/18/24 14:05	376	8,518	5,870	5,870	168:50:00	10,130	0.58	834	
1/24/24 12:30	518	12,337	3,819	9,689	142:25:00	8,545	0.45	644	
2/1/24 11:00	707	14,170	1,834	11,522	190:30:00	11,430	0.16	231	
2/8/24 10:39	874	17,328	3,158	14,680	167:39:00	10,059	0.31	452	
2/15/24 10:40	1,040	21,029	3,701	18,381	168:01:00	10,081	0.37	529	
2/21/24 10:05	1,183	23,866	2,837	21,218	143:25:00	8,605	0.33	475	
3/1/24 13:20	1,399	28,034	4,168	25,385	219:15:00	13,155	0.32	456	
3/7/24 14:50	1,545	32,076	4,042	29,428	145:30:00	8,730	0.46	667	
3/14/24 13:05	1,710	36,362	4,286	33,713	166:15:00	9,975	0.43	619	
3/21/24 10:02	1,876	40,443	4,082	37,795	164:57:00	9,897	0.41	594	
4/1/24 13:00	--	--	--	--	--	--	--	--	
4/5/24 10:00	2,201	48,058	7,614	45,409	359:58:00	21,598	0.35	508	
4/19/24 10:44	2,537	55,292	7,234	52,643	336:44:00	20,204	0.36	516	
5/7/24 10:07	2,969	63,559	8,268	60,911	431:23:00	25,883	0.32	460	
5/21/24 16:22	3,310	69,749	6,190	67,101	342:15:00	20,535	0.30	434	
6/6/24 11:11	3,661	75,626	5,877	72,977	378:49:00	22,729	0.26	372	
6/27/24 13:30	4,167	84,339	8,714	81,691	506:19:00	30,379	0.29	413	

Notes:

bbl: barrel

ft: feet

gal: gallon

gal/day: gallon per day

gpm: gallon per minute

hr: hour

in: inch

min: minute

sec: second

Dashed line indicated quarter change

--: not applicable

Total Quantity of Liquid Removed:	81,691 Gal
	1,945 bbl



TABLE 6
GROUNDWATER ELEVATION
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW01	5,789.08	10/22/2018	20.80	20.97	0.17	5,768.25
		3/29/2019	20.69	21.35	0.66	5,768.26
		6/28/2019	20.70	21.44	0.74	5,768.23
		9/17/2019	20.64	20.83	0.19	5,768.40
		12/17/2019	20.50	20.89	0.39	5,768.50
		3/12/2020	20.49	20.76	0.27	5,768.54
		6/25/2020	20.39	20.65	0.26	5,768.64
		9/23/2020	20.19	20.46	0.27	5,768.84
		3/21/2021	20.11	20.20	0.09	5,768.95
		6/14/2021	Trace	20.18	Trace	5,768.90
		9/20/2021	--	19.62	--	5,769.46
		12/2/2021	Trace	19.50	Trace	5,769.58
		3/1/2022	Trace	19.62	Trace	5,769.46
		6/7/2022	Trace	19.39	Trace	5,769.69
		9/29/2022	19.08	19.10	0.02	5,770.00
		12/8/2022	19.05	19.12	0.07	5,770.02
		3/2/2023	18.91	18.93	0.02	5,770.17
		6/16/2023	18.80	18.90	0.10	5,770.26
		9/15/2023	--	18.55	--	5,770.53
		12/14/2023	--	--	--	--
MW02	5,789.36	3/27/2024	--	20.18	--	5,768.90
		6/3/2024	Trace	20.19	Trace	5,768.89
		10/22/2018	--	21.12	--	5,768.24
		3/29/2019	20.85	21.11	0.26	5,768.46
		6/28/2019	20.95	21.30	0.35	5,768.34
		9/17/2019	20.80	20.85	0.05	5,768.55
		12/17/2019	--	20.74	--	5,768.62
		3/12/2020	--	20.65	--	5,768.71
		6/25/2020	--	20.58	--	5,768.78
		9/23/2020	--	20.43	--	5,768.93
		3/31/2021	--	20.29	--	5,769.07
		6/14/2021	Trace	20.21	Trace	5,769.15
		9/20/2021	--	19.77	--	5,769.59
		12/3/2021	--	19.68	--	5,769.68
		3/1/2022	--	19.83	--	5,769.53
		6/7/2022	Trace	19.56	Trace	5,769.80
		9/29/2022	--	19.26	--	5,770.10
		12/8/2022	--	19.22	--	5,770.14
		3/2/2023	Trace	19.06	Trace	5,770.30
		6/16/2023	Trace	18.90	Trace	5,770.46
		9/15/2023	--	18.79	--	5,770.57
		12/14/2023	--	--	--	--
		3/27/2024	--	19.69	--	5,769.67
		6/3/2024	Trace	19.57	Trace	5,769.79



TABLE 6
GROUNDWATER ELEVATION
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW03	5,792.06	10/22/2018	--	DRY	--	DRY
		3/29/2019	--	30.90	--	5,761.16
		6/28/2019	--	32.14	--	5,759.92
		9/17/2019	--	27.32	--	5,764.74
		12/17/2019	--	23.75	--	5,768.31
		3/12/2020	--	23.40	--	5,768.66
		6/25/2020	--	23.25	--	5,768.81
		9/23/2020	--	23.08	--	5,768.98
		3/31/2021	--	22.81	--	5,769.25
		6/14/2021	--	22.61	--	5,769.45
		9/24/2021	22.24	22.25	0.01	5,769.82
		12/3/2021	--	22.17	--	5,769.89
		3/1/2022	--	22.30	--	5,769.76
		6/7/2022	--	22.04	--	5,770.02
		9/29/2022	--	21.71	--	5,770.35
		12/8/2022	--	21.69	--	5,770.37
		3/2/2023	--	21.46	--	5,770.60
		6/16/2023	--	21.29	--	5,770.77
		9/15/2023	--	21.20	--	5,770.86
		12/14/2023	--	--	--	--
MW04	5,792.35	3/27/2024	--	20.46	--	5,771.60
		6/3/2024	--	23.22	--	5,768.84
		10/22/2018	--	31.80	--	5,760.55
		3/29/2019	--	DRY	--	DRY
		6/28/2019	--	DRY	--	DRY
		9/17/2019	--	31.88	--	5,760.47
		12/17/2019	--	31.87	--	5,760.48
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	31.89	--	5,760.46
		9/23/2020	--	30.99	--	5,761.36
		3/31/2021	--	28.31	--	5,764.04
		6/14/2021	--	26.98	--	5,765.37
		9/24/2021	--	24.85	--	5,767.50
		12/3/2021	--	22.12	--	5,770.23
		3/1/2022	--	22.52	--	5,769.83
		6/7/2022	--	21.38	--	5,770.97
		9/29/2022	--	21.13	--	5,771.22
		12/8/2022	Trace	21.00	Trace	5,771.35
		3/2/2023	--	20.72	--	5,771.63
		6/16/2023	Trace	20.45	Trace	5,771.90
		9/15/2023	--	20.49	--	5,771.86
		12/14/2023	--	20.47	--	5,771.88
		3/27/2024	Trace	20.60	Trace	5,771.75
		6/3/2024	--	20.48	--	5,771.87



TABLE 6
GROUNDWATER ELEVATION
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW05	5,792.60	10/22/2018	--	28.39	--	5,764.21
		3/29/2019	--	24.65	--	5,767.95
		6/28/2019	--	24.53	--	5,768.07
		9/17/2019	--	21.41	--	5,771.19
		12/17/2019	--	21.25	--	5,771.35
		3/12/2020	--	21.10	--	5,771.50
		6/25/2020	--	21.13	--	5,771.47
		9/23/2020	--	20.93	--	5,771.67
		3/31/2021	--	20.76	--	5,771.84
		6/14/2021	--	20.61	--	5,771.99
		9/24/2021	--	20.37	--	5,772.23
		12/3/2021	--	20.41	--	5,772.19
		3/1/2022	--	20.58	--	5,772.02
		6/7/2022	Trace	20.24	Trace	5,772.36
		9/29/2022	Trace	20.02	Trace	5,772.58
		12/8/2022	Trace	19.97	Trace	5,772.63
		3/2/2023	Trace	19.82	Trace	5,772.78
		6/16/2023	Trace	19.63	Trace	5,772.97
		9/15/2023	--	19.61	--	5,772.99
		12/14/2023	--	19.61	--	5,772.99
		3/27/2024	Trace	20.12	Trace	5,772.48
		6/3/2024	Trace	20.03	Trace	5,772.57
MW06	5,792.31	10/22/2018	24.08	24.48	0.40	5,768.15
		3/29/2019	23.55	24.00	0.45	5,768.67
		6/28/2019	23.72	23.95	0.23	5,768.54
		9/17/2019	20.67	20.75	0.08	5,771.62
		12/17/2019	20.61	20.62	0.01	5,771.70
		3/12/2020	--	20.43	--	5,771.88
		6/25/2020	--	20.36	--	5,771.95
		9/23/2020	--	20.16	--	5,772.15
		3/31/2021	--	19.89	--	5,772.42
		6/14/2021	Trace	19.63	Trace	5,772.68
		9/24/2021	--	19.27	--	5,773.04
		12/3/2021	--	19.27	--	5,773.04
		3/1/2022	--	19.43	--	5,772.88
		6/7/2022	--	19.11	--	5,773.20
		9/29/2022	Trace	18.80	Trace	5,773.51
		12/8/2022	Trace	18.76	Trace	5,773.55
		3/2/2023	Trace	18.52	Trace	5,773.79
		6/16/2023	Trace	18.29	Trace	5,774.02
		9/15/2023	--	18.25	--	5,774.06
		12/14/2023	--	--	--	--
		3/27/2024	--	18.57	--	5,773.74
		6/3/2024	Trace	19.10	Trace	5,773.21



TABLE 6 GROUNDWATER ELEVATION Standard #1 Hilcorp Energy Company San Juan County, New Mexico						
Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW07	5,791.15	10/22/2018	--	DRY	--	DRY
		3/29/2019	--	DRY	--	DRY
		6/28/2019	--	DRY	--	DRY
		9/17/2019	--	DRY	--	DRY
		12/17/2019	--	DRY	--	DRY
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	DRY	--	DRY
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	DRY	--	DRY
		9/29/2022	--	21.80	--	5,769.35
		12/8/2022	--	22.56	--	5,768.59
		3/2/2023	--	22.32	--	5,768.83
		6/16/2023	--	21.42	--	5,769.73
		9/15/2023	--	DRY	--	DRY
		12/14/2023	--	--	--	--
		3/27/2024	--	--	--	--
		6/3/2024	--	DRY	--	DRY
MW08	5,792.42	10/22/2018	--	DRY	--	DRY
		3/29/2019	--	DRY	--	DRY
		6/28/2019	--	24.07	--	5,768.35
		9/17/2019	--	23.81	--	5,768.61
		12/17/2019	--	23.42	--	5,769.00
		3/12/2020	--	23.37	--	5,769.05
		6/25/2020	--	23.28	--	5,769.14
		9/23/2021	--	22.88	--	5,769.54
		3/31/2021	--	22.14	--	5,770.28
		6/14/2021	--	21.67	--	5,770.75
		9/24/2021	--	21.52	--	5,770.90
		12/2/2021	--	21.76	--	5,770.66
		3/1/2022	--	21.81	--	5,770.61
		6/7/2022	--	21.17	--	5,771.25
		9/29/2022	--	21.02	--	5,771.40
		12/8/2022	--	20.85	--	5,771.57
		3/2/2023	--	20.52	--	5,771.90
		6/16/2023	--	20.22	--	5,772.20
		9/14/2023	--	20.32	--	5,772.10
		12/14/2023	--	20.26	--	5,772.16
		3/27/2024	--	20.18	--	5,772.24
		6/3/2024	--	20.05	--	5,772.37



TABLE 6
GROUNDWATER ELEVATION
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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW09	5,786.16	10/22/2018	--	DRY	--	DRY
		3/29/2019	--	DRY	--	DRY
		6/28/2019	--	DRY	--	DRY
		9/17/2019	--	DRY	--	DRY
		12/17/2019	--	DRY	--	DRY
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	DRY	--	DRY
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	DRY	--	DRY
		9/29/2022	--	DRY	--	DRY
		12/8/2022	--	DRY	--	DRY
		3/2/2023	--	DRY	--	DRY
		6/16/2023	--	22.61	--	5,763.55
		9/15/2023	--	17.37	--	5,768.79
		12/15/2023	--	17.38	--	5,768.78
MW10	5,789.30	3/28/2024	--	24.74	--	5,761.42
		6/3/2024	--	26.65	--	5,759.51
		10/22/2018	--	32.26	--	5,757.04
		3/29/2019	21.73	22.04	0.31	5,767.51
		6/28/2019	21.55	21.94	0.39	5,767.67
		9/17/2019	21.23	21.55	0.32	5,768.01
		12/17/2019	20.88	21.71	0.83	5,768.25
		3/12/2020	20.81	21.68	0.87	5,768.32
		6/25/2020	20.75	21.43	0.68	5,768.41
		9/23/2020	20.51	21.03	0.52	5,768.69
		3/31/2021	20.42	20.63	0.21	5,768.84
		6/14/2021	Trace	20.71	Trace	5,768.59
		9/24/2021	--	19.92	--	5,769.38
		12/3/2021	--	19.80	--	5,769.50
		3/1/2022	--	19.95	--	5,769.35
		6/7/2022	Trace	19.70	Trace	5,769.60
		9/29/2022	Trace	19.43	Trace	5,769.87
		12/8/2022	Trace	19.40	Trace	5,769.90
		3/2/2023	Trace	19.27	Trace	5,770.03
		6/16/2023	Trace	19.11	Trace	5,770.19
		9/15/2023	--	19.00	--	5,770.30
		12/15/2023	--	--	--	--
		3/28/2024	--	24.62	--	5,764.68



TABLE 6 GROUNDWATER ELEVATION Standard #1 Hilcorp Energy Company San Juan County, New Mexico						
Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW10	5,789.30	6/3/2024	--	DRY	--	DRY
MW11	5,787.99	10/22/2018	--	19.89	--	5,768.10
		3/29/2019	--	19.63	--	5,768.36
		6/28/2019	--	19.37	--	5,768.62
		9/17/2019	--	19.31	--	5,768.68
		12/17/2019	--	19.17	--	5,768.82
		3/12/2020	--	18.91	--	5,769.08
		6/25/2020	--	18.85	--	5,769.14
		9/23/2020	--	18.71	--	5,769.28
		3/31/2021	--	18.40	--	5,769.59
		6/14/2021	--	18.06	--	5,769.93
		9/24/2021	--	17.72	--	5,770.27
		12/2/2021	--	17.79	--	5,770.20
		3/1/2022	--	17.90	--	5,770.09
		6/7/2022	--	17.55	--	5,770.44
		9/29/2022	--	17.27	--	5,770.72
		12/8/2022	--	17.19	--	5,770.80
		3/2/2023	--	16.97	--	5,771.02
		6/16/2023	--	16.74	--	5,771.25
		9/14/2023	--	16.75	--	5,771.24
		12/14/2023	--	16.68	--	5,771.31
MW12	5,789.57	3/28/2024	--	17.08	--	5,770.91
		6/3/2024	--	17.05	--	5,770.94
		10/22/2018	--	21.77	--	5,767.80
		3/29/2019	--	21.88	--	5,767.69
		6/28/2019	--	21.67	--	5,767.90
		9/17/2019	--	21.49	--	5,768.08
		12/17/2019	--	21.54	--	5,768.03
		3/12/2020	--	21.31	--	5,768.26
		6/25/2020	--	21.21	--	5,768.36
		9/23/2020	--	21.02	--	5,768.55
		3/31/2021	--	20.93	--	5,768.64
		6/14/2021	--	20.61	--	5,768.96
		9/24/2021	--	20.17	--	5,769.40
		12/2/2021	--	20.17	--	5,769.40
		3/1/2022	--	20.30	--	5,769.27
		6/7/2022	--	20.02	--	5,769.55
		9/29/2022	--	19.68	--	5,769.89
		12/8/2022	--	19.57	--	5,770.00
		3/2/2023	--	19.32	--	5,770.25
		6/16/2023	--	19.11	--	5,770.46
		9/14/2023	--	19.04	--	5,770.53
		12/14/2023	--	19.01	--	5,770.56



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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW12	5,789.57	3/28/2024	--	19.49	--	5,770.08
		6/3/2024	--	19.49	--	5,770.08
MW13	5,785.16	10/22/2018	--	DRY	--	DRY
		3/29/2019	--	DRY	--	DRY
		6/28/2019	--	DRY	--	DRY
		9/17/2019	--	DRY	--	DRY
		12/17/2019	--	DRY	--	DRY
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	DRY	--	DRY
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	DRY	--	DRY
		9/29/2022	--	DRY	--	DRY
		12/8/2022	--	DRY	--	DRY
		3/2/2023	--	DRY	--	DRY
		6/16/2023	--	DRY	--	DRY
		9/14/2023	--	DRY	--	DRY
		12/14/2023	--	DRY	--	DRY
MW14	5,785.46	3/28/2024	--	DRY	--	DRY
		6/3/2024	--	DRY	--	DRY
		10/22/2018	--	22.87	--	5,762.59
		3/29/2019	20.26	20.47	0.21	5,765.16
		6/28/2019	19.15	19.16	0.01	5,766.31
		9/17/2019	18.65	18.69	0.04	5,766.80
		12/17/2019	18.61	18.74	0.13	5,766.82
		3/12/2020	--	18.81	--	5,766.65
		6/25/2020	--	18.18	--	5,767.28
		9/23/2020	--	17.92	--	5,767.54
		3/31/2021	--	17.92	--	5,767.54
		6/14/2021	Trace	17.78	Trace	5,767.68
		9/24/2021	--	17.52	--	5,767.94
		12/3/2021	--	17.79	--	5,767.67
		3/1/2022	--	17.18	--	5,768.28
		6/7/2022	--	16.84	--	5,768.62
		9/29/2022	--	16.37	--	5,769.09
		12/8/2022	--	16.17	--	5,769.29
		3/2/2023	Trace	15.91	Trace	5,769.55
		6/16/2023	Trace	15.63	Trace	5,769.83
		9/14/2023	--	15.65	--	5,769.81



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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW14	5,785.46	12/14/2023	--	15.63	--	5,769.83
		3/28/2024	Trace	15.84	Trace	5,769.62
		6/3/2024	Trace	15.88	Trace	5,769.58
MW15	5,792.19	3/29/2019	--	DRY	--	DRY
		6/28/2019	--	35.95	--	5,756.24
		9/17/2019	--	33.22	--	5,758.97
		12/17/2019	--	31.61	--	5,760.58
		3/12/2020	--	31.42	--	5,760.77
		6/25/2020	--	30.41	--	5,761.78
		9/23/2020	--	27.42	--	5,764.77
		3/31/2021	--	27.8	--	5,764.39
		6/14/2021	--	29.18	--	5,763.01
		9/24/2021	--	26.69	--	5,765.50
		12/3/2021	--	26.82	--	5,765.37
		3/1/2022	--	26.57	--	5,765.62
		6/7/2022	--	26.49	--	5,765.70
		9/29/2022	--	25.95	--	5,766.24
		12/8/2022	--	26.21	--	5,765.98
		3/2/2023	--	25.95	--	5,766.24
		6/16/2023	--	25.08	--	5,767.11
		9/14/2023	--	25.97	--	5,766.22
		12/14/2023	--	--	--	--
		3/28/2024	--	21.03	--	5,771.16
		6/3/2024	--	15.03	--	5,777.16
MW16	5,786.54	3/29/2019	--	28.59	--	5,757.95
		6/28/2019	--	21.00	--	5,765.54
		9/17/2019	--	20.91	--	5,765.63
		12/17/2019	--	21.11	--	5,765.43
		3/12/2020	--	20.89	--	5,765.65
		6/25/2020	--	20.51	--	5,766.03
		9/23/2020	--	20.37	--	5,766.17
		3/31/2021	19.99	20.04	0.05	5,766.54
		6/14/2021	Trace	19.51	Trace	5,767.03
		9/24/2021	--	18.81	--	5,767.73
		12/2/2021	Trace	18.46	Trace	5,768.08
		3/1/2022	--	18.39	--	5,768.15
		6/7/2022	--	18.00	--	5,768.54
		9/29/2022	17.53	17.54	0.01	5,769.01
		12/8/2022	--	17.32	--	5,769.22
		3/2/2023	--	17.03	--	5,769.51
		6/16/2023	--	16.81	--	5,769.73
		9/14/2023	--	16.82	--	5,769.72
		12/15/2023	--	16.75	--	5,769.79



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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW16	MW16	3/28/2024	--	16.91	--	5,769.63
		6/3/2024	--	17.04	--	5,769.50
MW17	5,785.25	3/29/2019	--	DRY	--	DRY
		6/28/2019	--	DRY	--	DRY
		9/17/2019	--	30.24	--	5,755.01
		12/17/2019	--	DRY	--	DRY
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	30.24	--	5,755.01
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	30.21	--	5,755.04
		9/29/2022	--	30.22	--	5,755.03
		12/8/2022	--	28.68	--	5,756.57
		3/2/2023	--	25.58	--	5,759.67
		6/16/2023	--	22.13	--	5,763.12
		9/14/2023	--	20.78	--	5,764.47
		12/15/2023	--	21.68	--	5,763.57
		3/28/2024	--	22.38	--	5,762.87
		6/3/2024	--	23.02	--	5,762.23
MW18	5,789.34	3/29/2019	--	DRY	--	DRY
		6/28/2019	--	20.39	--	5,768.95
		9/17/2019	--	19.06	--	5,770.28
		12/17/2019	--	19.98	--	5,769.36
		3/12/2020	--	19.98	--	5,769.36
		6/25/2020	--	19.79	--	5,769.55
		9/23/2020	--	19.55	--	5,769.79
		3/31/2021	--	19.43	--	5,769.91
		6/14/2021	--	18.98	--	5,770.36
		9/24/2021	--	18.52	--	5,770.82
		12/2/2021	--	18.64	--	5,770.70
		3/1/2022	--	18.90	--	5,770.44
		6/7/2022	--	18.25	--	5,771.09
		9/29/2022	--	18.01	--	5,771.33
		12/8/2022	--	17.91	--	5,771.43
		3/2/2023	--	17.64	--	5,771.70
		6/16/2023	--	17.38	--	5,771.96
		9/14/2023	--	17.43	--	5,771.91
		12/14/2023	--	17.37	--	5,771.97
		3/27/2024	--	17.61	--	5,771.73



TABLE 6
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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW16	5,789.34	6/3/2024	--	17.57	--	5,771.77
MW19	5,786.48	3/29/2019	--	19.60	--	5,766.88
		6/28/2019	--	19.55	--	5,766.93
		9/17/2019	--	19.35	--	5,767.13
		12/17/2019	--	19.37	--	5,767.11
		3/12/2020	--	19.45	--	5,767.03
		6/25/2020	--	19.30	--	5,767.18
		9/23/2020	--	19.08	--	5,767.40
		3/31/2021	--	19.21	--	5,767.27
		6/14/2021	--	19.10	--	5,767.38
		9/24/2021	--	18.70	--	5,767.78
		12/2/2021	--	DRY	--	DRY
		3/1/2022	--	18.49	--	5,767.99
		6/7/2022	--	18.35	--	5,768.13
		9/29/2022	--	17.15	--	5,769.33
		12/8/2022	--	18.19	--	5,768.29
		3/2/2023	--	17.93	--	5,768.55
		6/16/2023	--	17.72	--	5,768.76
		9/14/2023	--	17.58	--	5,768.90
		12/15/2023	--	17.63	--	5,768.85
		3/28/2024	--	18.27	--	5,768.21
		6/3/2024	--	18.38	--	5,768.10
MW20	5,783.34	3/29/2019	--	29.61	--	5,753.73
		6/28/2019	--	30.00	--	5,753.34
		9/17/2019	--	30.21	--	5,753.13
		12/17/2019	--	30.15	--	5,753.19
		3/12/2020	--	30.30	--	5,753.04
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	30.24	--	5,753.10
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	DRY	--	DRY
		9/29/2022	--	DRY	--	DRY
		12/8/2022	--	30.25	--	5,753.09
		3/2/2023	--	DRY	--	DRY
		6/16/2023	--	30.25	--	5,753.09
		9/14/2023	--	DRY	--	DRY
		12/15/2023	--	DRY	--	DRY
		3/27/2024	--	DRY	--	DRY
		6/3/2024	--	DRY	--	DRY



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Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW21	5,800.30	3/29/2019	--	DRY	--	DRY
		6/28/2019	--	DRY	--	DRY
		9/17/2019	--	DRY	--	DRY
		12/17/2019	--	DRY	--	DRY
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	DRY	--	DRY
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	DRY	--	DRY
		9/29/2022	--	DRY	--	DRY
		12/8/2022	--	DRY	--	DRY
		3/2/2023	--	DRY	--	DRY
		6/16/2023	--	DRY	--	DRY
		9/14/2023	--	DRY	--	DRY
		12/15/2023	--	DRY	--	DRY
		3/27/2024	--	DRY	--	DRY
		6/3/2024	--	DRY	--	DRY
MW22	5,786.25	3/29/2019	--	22.56	--	5,763.69
		6/28/2019	--	17.62	--	5,768.63
		9/17/2019	--	17.54	--	5,768.71
		12/17/2019	--	17.35	--	5,768.90
		3/12/2020	--	17.10	--	5,769.15
		6/25/2020	--	17.04	--	5,769.21
		9/23/2020	--	16.85	--	5,769.40
		3/31/2021	--	16.43	--	5,769.82
		6/14/2021	--	16.10	--	5,770.15
		9/24/2021	--	15.74	--	5,770.51
		12/2/2021	--	15.84	--	5,770.41
		3/1/2022	--	15.95	--	5,770.30
		6/7/2022	--	15.53	--	5,770.72
		9/29/2022	--	15.25	--	5,771.00
		12/8/2022	--	15.16	--	5,771.09
		3/2/2023	--	14.90	--	5,771.35
		6/16/2023	--	14.68	--	5,771.57
		9/14/2023	--	14.97	--	5,771.28
		12/14/2023	--	14.64	--	5,771.61
		3/28/2024	--	14.77	--	5,771.48
		6/3/2024	--	14.76	--	5,771.49



TABLE 6
GROUNDWATER ELEVATION
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW23	5,804.80	6/28/2019	--	45.99	--	5,758.81
		9/17/2019	--	40.23	--	5,764.57
		12/17/2019	--	39.16	--	5,765.64
		3/12/2020	--	38.71	--	5,766.09
		6/25/2020	--	38.92	--	5,765.88
		9/23/2020	--	38.83	--	5,765.97
		3/31/2021	--	37.97	--	5,766.83
		6/14/2021	--	37.90	--	5,766.90
		9/24/2021	--	37.44	--	5,767.36
		12/3/2021	--	37.32	--	5,767.48
		3/1/2022	--	37.38	--	5,767.42
		6/7/2022	--	36.99	--	5,767.81
		9/29/2022	--	36.61	--	5,768.19
		12/8/2022	--	36.49	--	5,768.31
		3/2/2023	--	36.11	--	5,768.69
		6/16/2023	--	35.70	--	5,769.10
		9/15/2023	--	35.58	--	5,769.22
		12/14/2023	--	35.48	--	5,769.32
		3/27/2024	--	35.25	--	5,769.55
		6/3/2024	--	35.26	--	5,769.54
MW24	5,782.50	6/28/2019	--	DRY	--	DRY
		9/17/2019	--	DRY	--	DRY
		12/17/2019	--	DRY	--	DRY
		3/12/2020	--	DRY	--	DRY
		6/25/2020	--	DRY	--	DRY
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/2/2021	--	33.08	--	5,749.42
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	DRY	--	DRY
		9/29/2022	--	33.09	--	5,749.41
		12/8/2022	--	DRY	--	DRY
		3/2/2023	--	33.07	--	5,749.43
		6/16/2023	--	DRY	--	DRY
		9/15/2023	--	DRY	--	DRY
		12/14/2023	--	DRY	--	DRY
		3/27/2024	--	DRY	--	DRY
		6/3/2024	--	DRY	--	DRY



TABLE 6
GROUNDWATER ELEVATION
 Standard #1
 Hilcorp Energy Company
 San Juan County, New Mexico

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW25	5,775.65	6/28/2019	--	32.98	--	5,742.67
		9/17/2019	--	32.91	--	5,742.74
		12/17/2019	--	32.92	--	5,742.73
		3/12/2020	--	32.92	--	5,742.73
		6/25/2020	--	32.93	--	5,742.72
		9/23/2020	--	DRY	--	DRY
		3/31/2021	--	DRY	--	DRY
		6/14/2021	--	DRY	--	DRY
		9/24/2021	--	DRY	--	DRY
		12/1/2021	--	33.06	--	5,742.59
		3/1/2022	--	DRY	--	DRY
		6/7/2022	--	33.04	--	5,742.61
		9/29/2022	--	33.05	--	5,742.60
		12/8/2022	--	DRY	--	DRY
		3/2/2023	--	DRY	--	DRY
		6/16/2023	--	DRY	--	DRY
		9/15/2023	--	DRY	--	DRY
		12/14/2023	--	DRY	--	DRY
		3/27/2024	--	DRY	--	DRY
		3/27/2024	--	33.04	--	5,742.61
MW26	5,789.96	6/28/2019	--	19.71	--	5,770.25
		9/17/2019	--	19.64	--	5,770.32
		12/17/2019	--	19.41	--	5,770.55
		3/12/2020	--	19.29	--	5,770.67
		6/25/2020	--	19.29	--	5,770.67
		9/23/2020	--	19.28	--	5,770.68
		3/31/2021	--	18.64	--	5,771.32
		6/14/2021	--	18.30	--	5,771.66
		9/24/2021	--	18.32	--	5,771.64
		12/3/2021	--	18.55	--	5,771.41
		3/1/2022	--	18.50	--	5,771.46
		6/7/2022	--	17.86	--	5,772.10
		9/29/2022	--	17.81	--	5,772.15
		12/8/2022	--	17.65	--	5,772.31
		3/2/2023	--	17.30	--	5,772.66
		6/16/2023	--	17.04	--	5,772.92
		9/14/2023	--	17.20	--	5,772.76
		12/14/2023	--	17.12	--	5,772.84
		3/27/2024	--	16.98	--	5,772.98
		6/3/2024	--	16.88	--	5,773.08



TABLE 6 GROUNDWATER ELEVATION Standard #1 Hilcorp Energy Company San Juan County, New Mexico						
Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Product (feet BTOC)	Depth to Groundwater (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)

Notes:
AMSL: above mean sea level
BTOC: below top of casing
Trace: trace amounts of free product in well
--: not measured
A product density factor of 0.8 was used to account for the presence of free product



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW01	10/22/2018	No sample collected due to presence of PSH			
	3/29/2019	No sample collected due to presence of PSH			
	6/28/2019	No sample collected due to presence of PSH			
	9/17/2019	No sample collected due to presence of PSH			
	12/17/2019	No sample collected due to presence of PSH			
	3/12/2020	No sample collected due to presence of PSH			
	6/25/2020	No sample collected due to presence of PSH			
	9/23/2020	No sample collected due to presence of PSH			
	3/21/2021	No sample collected due to presence of PSH			
	6/14/2021	No sample collected due to presence of PSH			
	9/20/2021	27	39	1.3	15
	12/2/2021	No sample collected due to presence of PSH			
	3/1/2022	No sample collected due to presence of PSH			
	6/7/2022	No sample collected due to presence of PSH			
	9/29/2022	No sample collected due to presence of PSH			
	12/8/2022	No sample collected due to presence of PSH			
	3/2/2023	No sample collected due to presence of PSH			
	6/16/2023	No sample collected due to presence of PSH			
	9/15/2023	NS	NS	NS	NS
	12/14/2023	NS	NS	NS	NS
MW02	3/27/2024	24	34	1.5	17
	6/4/2024	No sample collected due to presence of PSH			
	10/22/2018	14	7.1	1.2	12
	3/29/2019	No sample collected due to presence of PSH			
	6/28/2019	No sample collected due to presence of PSH			
	9/17/2019	No sample collected due to presence of PSH			
	12/17/2019	No sample collected due to presence of PSH			
	3/12/2020	17	8.2	1.8	15
	6/25/2020	19	18	2.3	21
	9/23/2020	17	16	2.8	25
	3/31/2021	16	12	2.0	20
	6/14/2021	No sample collected due to presence of PSH			
	9/20/2021	15	7.3	1.6	20
	12/3/2021	16	6.9	1.8	21
	3/1/2022	14	4.4	1.3	15
	6/7/2022	No sample collected due to presence of PSH			
	9/29/2022	16	2.6	1.6	16
	12/8/2022	16	2.5	1.9	18
	3/2/2023	No sample collected due to presence of PSH			
	6/16/2023	No sample collected due to presence of PSH			
MW03	9/15/2023	NS	NS	NS	NS
	12/14/2023	NS	NS	NS	NS
	3/27/2024	14	3.6	0.33	6.8
	6/4/2024	No sample collected due to presence of PSH			
	10/22/2018	Insufficient Water Volumes to Collect Sample			
	3/29/2019	21	0.110	0.27	11
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	12	0.25	0.22	6.9
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	15	<0.20	0.47	6.3
	6/25/2020	14	0.11	0.51	1.5
	9/23/2020	14	0.57	0.46	3.5
	3/31/2021	13	1.3	0.48	1.7
	6/14/2021	12	1.8	0.37	4.9
	9/23/2021	13	4.2	0.34	8.2
	12/3/2021	16	2.3	0.54	5.5
	3/1/2022	16	2.2	0.59	6.0
	6/7/2022	16	2.6	0.70	6.6
	9/29/2022	17	1.0	0.66	6.4
	12/8/2022	17	1.0	0.73	6.8
	3/2/2023	17	1.1	0.65	5.6
	6/16/2023	16	1.8	0.68	6.2
	9/15/2023	18	1.0	0.65	5.8
	12/14/2023	NS	NS	NS	NS



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW03	3/27/2024	9.2	5.5	<0.20	4.3
	6/4/2024	10	5.8	<0.50	4.4
MW04	10/22/2018	Insufficient Water Volumes to Collect Sample			
	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	1.1	<0.002	0.095	0.018
	6/14/2021	1.7	0.0035	0.11	0.020
	9/20/2021	0.83	0.045	0.051	0.14
	12/3/2021	1.3	<0.010	0.099	<0.020
	3/1/2022	0.91	<0.020	0.066	<0.040
	6/7/2022	0.24	<0.0010	<0.0010	<0.0020
	9/29/2022	1.5	<0.020	0.033	<0.030
	12/8/2022	No sample collected due to presence of PSH			
	3/2/2023	0.32	<0.008	<0.008	<0.016
	6/16/2023	No sample collected due to presence of PSH			
	9/15/2023	No sample collected due to presence of PSH			
	12/14/2023	No sample collected due to presence of PSH			
	3/27/2024	No sample collected due to presence of PSH			
	6/4/2024	0.31	<0.010	<0.010	<0.015
MW05	10/22/2018	Insufficient Water Volumes to Collect Sample			
	3/29/2019	10	0.88	0.45	2.9
	6/28/2019	5.9	0.16	0.20	1.4
	9/17/2019	5.0	0.77	0.11	3.1
	12/17/2019	5.4	0.14	0.15	2.6
	3/12/2020	4.4	0.13	0.18	1.0
	6/25/2020	5.0	0.17	0.087	0.70
	9/23/2020	3.9	1.1	0.26	4.2
	3/31/2021	2.5	6.0	0.73	15
	6/14/2021	4.4	1.8	0.55	18
	9/20/2021	3.5	4.0	0.80	20
	12/3/2021	3.6	3.5	0.72	19
	3/1/2022	2.9	0.81	0.62	13
	6/7/2022	No sample collected due to presence of PSH			
	9/29/2022	No sample collected due to presence of PSH			
	12/8/2022	No sample collected due to presence of PSH			
	3/2/2023	No sample collected due to presence of PSH			
	6/16/2023	No sample collected due to presence of PSH			
	9/15/2023	No sample collected due to presence of PSH			
	12/14/2023	No sample collected due to presence of PSH			
	3/27/2024	No sample collected due to presence of PSH			
	6/3/2024	No sample collected due to presence of PSH			
MW06	10/22/2018	No sample collected due to presence of PSH			
	3/29/2019	No sample collected due to presence of PSH			
	6/28/2019	No sample collected due to presence of PSH			
	9/17/2019	No sample collected due to presence of PSH			
	12/17/2019	No sample collected due to presence of PSH			
	3/12/2020	19	25	1.3	14
	6/25/2020	20	31	1.5	17
	9/23/2020	16	24	1.5	18
	3/31/2021	16	21	1.7	21
	9/24/2021	No sample collected due to presence of PSH			
	9/20/2021	14	19	1.3	16
	12/3/2021	13	19	1.3	17
	3/1/2022	13	20	1.3	18
	6/7/2022	11	15	1.1	16
	9/29/2022	No sample collected due to presence of PSH			
	12/8/2022	No sample collected due to presence of PSH			
	3/2/2023	No sample collected due to presence of PSH			
	6/16/2023	No sample collected due to presence of PSH			



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW06	9/15/2023	No sample collected due to presence of PSH			
	12/14/2023	NS	NS	NS	NS
	3/27/2024	2.9	3.1	0.59	8.7
	6/3/2024	No sample collected due to presence of PSH			
MW07	10/22/2018	Well Damaged, No Sample Collected			
	3/29/2019	Well Damaged, No Sample Collected			
	6/28/2019	Well Damaged, No Sample Collected			
	9/17/2019	Well Damaged, No Sample Collected			
	12/17/2019	Well Damaged, No Sample Collected			
	3/12/2020	Well Damaged, No Sample Collected			
	6/25/2020	Well Damaged, No Sample Collected			
	9/23/2020	Well Damaged, No Sample Collected			
	3/31/2021	Well Damaged, No Sample Collected			
	6/14/2021	Well Damaged, No Sample Collected			
	9/20/2021	Well Damaged, No Sample Collected			
	12/3/2021	Well Damaged, No Sample Collected			
	3/1/2022	Well Damaged, No Sample Collected			
	6/7/2022	Well Damaged, No Sample Collected			
	9/29/2022	Well Damaged, No Sample Collected			
	12/8/2022	Well Damaged, No Sample Collected			
	3/2/2023	Well Damaged, No Sample Collected			
	6/16/2023	Well Damaged, No Sample Collected			
	9/15/2023	Well Damaged, No Sample Collected			
	12/14/2023	Well Damaged, No Sample Collected			
	3/27/2024	Well Damaged, No Sample Collected			
	6/3/2027	Well Damaged, No Sample Collected			
MW08	10/22/2018	Insufficient Water Volumes to Collect Sample			
	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	<0.0010	<0.0010	<0.0010	<0.0020
	9/17/2019	<0.0010	<0.0010	<0.0010	<0.0020
	3/12/2020	<0.0010	<0.0010	<0.0010	0.0017
	6/25/2020	<0.0010	<0.0010	<0.0010	<0.0015
	9/23/2020	<0.0010	<0.0010	<0.0010	<0.0015
	3/31/2021	<0.0010	<0.0010	<0.0010	<0.0015
	6/14/2021	<0.0010	<0.0010	<0.0010	<0.0015
	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0020
	12/2/2021	<0.0010	<0.0010	<0.0010	<0.0020
	3/1/2022	<0.0010	<0.0010	<0.0010	<0.0020
	6/7/2022	<0.0010	<0.0010	<0.0010	<0.0020
	9/29/2022	<0.0010	<0.0010	<0.0010	<0.0015
	12/8/2022	<0.0010	<0.0010	<0.0010	<0.0015
	3/2/2023	<0.0010	<0.0010	<0.0010	<0.0020
	6/16/2023	<0.0010	<0.0010	<0.0010	<0.0020
	9/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	12/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	3/27/2024	<0.0010	<0.0010	<0.0010	<0.0015
	6/3/2024	<0.0010	<0.0010	<0.0010	<0.0015
MW09	10/22/2018	Insufficient Water Volumes to Collect Sample			
	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	Insufficient Water Volumes to Collect Sample			
	6/14/2021	Insufficient Water Volumes to Collect Sample			
	9/20/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	Insufficient Water Volumes to Collect Sample			
	3/1/2022	Insufficient Water Volumes to Collect Sample			
	6/7/2022	Insufficient Water Volumes to Collect Sample			
	9/29/2022	Insufficient Water Volumes to Collect Sample			
	12/8/2022	Insufficient Water Volumes to Collect Sample			
	3/2/2023	Insufficient Water Volumes to Collect Sample			



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW09	6/16/2023	0.021	0.027	0.0019	0.015
	9/15/2023	1.1	0.0036	0.078	1.4
	12/15/2023	1.1	<0.010	0.096	0.29
	3/28/2024	1.0	<0.010	0.087	<0.015
	6/3/2024	Insufficient Water Volumes to Collect Sample			
MW10	10/22/2018	22	21	1.6	13
	3/29/2019	No sample collected due to presence of PSH			
	6/28/2019	No sample collected due to presence of PSH			
	9/17/2019	No sample collected due to presence of PSH			
	12/17/2019	No sample collected due to presence of PSH			
	3/12/2020	No sample collected due to presence of PSH			
	6/25/2020	No sample collected due to presence of PSH			
	9/23/2020	No sample collected due to presence of PSH			
	3/31/2021	No sample collected due to presence of PSH			
	6/14/2021	No sample collected due to presence of PSH			
	9/23/2021	19	4.8	1.4	15
	12/3/2021	21	5.8	1.4	14
	3/1/2022	20	5.6	1.4	13
	6/7/2022	No sample collected due to presence of PSH			
	9/29/2022	No sample collected due to presence of PSH			
	12/8/2022	No sample collected due to presence of PSH			
	3/2/2023	No sample collected due to presence of PSH			
	6/16/2023	No sample collected due to presence of PSH			
	9/15/2023	No sample collected due to presence of PSH			
	12/14/2023	NS	NS	NS	NS
	3/27/2024	13	<0.5	1.4	7.8
	6/3/2024	Insufficient Water Volumes to Collect Sample			
MW11	10/22/2018	<0.0010	<0.0010	<0.0010	<0.0015
	3/29/2019	0.0036	<0.0010	<0.0010	<0.0015
	6/28/2019	<0.0010	<0.0010	<0.0010	<0.0015
	9/17/2019	<0.0010	<0.0010	<0.0010	<0.002
	12/17/2019	NS	NS	NS	NS
	3/12/2020	0.001	0.0011	<0.0010	0.0051
	6/25/2020	<0.0010	<0.0010	<0.0010	<0.0015
	9/23/2020	<0.0010	<0.0010	<0.0010	<0.0015
	3/31/2021	<0.0010	<0.0010	<0.0010	<0.0015
	6/14/2021	<0.0010	<0.0010	<0.0010	<0.0015
	9/23/2021	<0.0010	<0.0010	<0.0010	<0.002
	12/2/2021	<0.0010	<0.0010	<0.0010	<0.002
	3/1/2022	<0.0010	<0.0010	<0.0010	<0.002
	6/7/2022	<0.0010	<0.0010	<0.0010	<0.002
	9/29/2022	<0.0010	<0.0010	<0.0010	<0.0015
	12/8/2022	<0.0010	<0.0010	<0.0010	<0.0015
	3/2/2023	<0.0010	<0.0010	<0.0010	<0.0020
	6/16/2023	<0.0010	<0.0010	<0.0010	<0.0020
	9/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	12/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	3/28/2024	<0.0010	<0.0010	<0.0010	<0.0015
	6/3/2024	<0.0010	<0.0010	<0.0010	<0.0015
MW12	10/22/2018	2.4	3.8	1.1	5.0
	3/29/2019	0.87	0.018	1.2	1.5
	6/28/2019	0.81	0.055	1.0	0.50
	9/17/2019	0.92	0.12	1.1	0.41
	12/17/2019	0.94	0.034	0.46	0.24
	3/12/2020	1.6	0.360	0.48	0.55
	6/25/2020	0.71	0.220	<0.02	0.34
	9/23/2020	0.89	0.087	0.22	0.12
	3/31/2021	0.69	0.051	0.14	0.054
	6/14/2021	0.37	0.0052	0.072	0.012
	12/2/2021	NS	NS	NS	NS
	12/2/2021	0.37	<0.0050	0.110	<0.010
	3/1/2022	0.24	<0.0020	0.031	<0.0040
	6/7/2022	0.11	<0.0010	0.016	0.0030
	9/29/2022	0.046	<0.0050	0.014	<0.0075



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW12	12/8/2022	0.041	<0.020	<0.020	<0.030
	3/2/2023	0.043	0.0010	0.0036	0.0032
	6/16/2023	0.052	<0.0010	0.0057	0.0029
	9/14/2023	0.048	<0.0010	0.0056	<0.0020
	12/14/2023	0.0053	<0.0010	0.0011	<0.0020
	3/28/2024	0.036	<0.0010	<0.0010	<0.0015
	6/3/2024	0.0093	<0.0020	<0.0020	<0.0030
MW14	10/22/2018	13	26	1.1	10
	3/29/2019	No sample collected due to presence of PSH			
	6/28/2019	No sample collected due to presence of PSH			
	9/17/2019	No sample collected due to presence of PSH			
	12/17/2019	NS	NS	NS	NS
	3/12/2020	13	13	1.3	14
	6/25/2020	11	17	1.0	15
	9/23/2020	8.2	14	0.80	16
	3/31/2021	9.4	17	1.5	18
	6/14/2021	No sample collected due to presence of PSH			
	9/24/2021	7.1	9.2	0.80	14
	12/3/2021	6.5	7.6	1.2	15
	3/1/2022	5.3	5.7	1.2	14
	6/7/2022	No sample collected due to presence of PSH			
	9/29/2022	4.3	1.3	1.1	6.3
	12/8/2022	3.8	1.8	1.6	9.5
	3/2/2023	No sample collected due to presence of PSH			
	6/16/2023	No sample collected due to presence of PSH			
	9/15/2023	No sample collected due to presence of PSH			
	12/14/2023	No sample collected due to presence of PSH			
	3/28/2024	No sample collected due to presence of PSH			
	6/3/2024	No sample collected due to presence of PSH			
MW15	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	24	28	1.1	10
	9/17/2019	24	28	0.87	9.4
	12/17/2019	23	29	0.64	10
	3/12/2020	23	4.5	0.66	9.4
	6/25/2020	28	1.0	0.47	8.6
	9/23/2020	21	1.2	0.61	8.6
	3/31/2021	25	0.6	0.69	8.5
	6/14/2021	26	0.42	0.60	8.9
	9/23/2021	22	0.82	0.57	6.6
	12/3/2021	24	1.0	0.56	4.1
	3/1/2022	23	3.4	0.65	4.4
	6/7/2022	22	3.9	0.50	2.9
	9/29/2022	24	7.5	0.64	4.6
	12/8/2022	25	4.9	0.54	4.8
	3/2/2023	21	6.0	0.61	4.6
	6/16/2023	21	7.6	0.47	3.5
	9/14/2023	29	10	0.59	4.3
	12/14/2023	NS	NS	NS	NS
	3/27/2024	14	1.0	<0.5	1.8
	6/4/2024	9.8	1.9	0.140	1.5
MW16	3/29/2019	7.7	14	0.94	8.6
	6/28/2019	3.4	0.62	0.080	2.1
	9/17/2019	3.3	1.6	0.037	4.4
	12/17/2019	2.3	0.23	0.039	1.8
	3/12/2020	2.3	0.83	<0.050	3.8
	6/25/2020	2.1	0.34	0.051	3.3
	9/23/2020	1.4	0.23	0.075	3.6
	3/31/2021	No sample collected due to presence of PSH			
	6/14/2021	No sample collected due to presence of PSH			
	9/23/2021	0.32	0.62	0.71	17
	12/3/2021	No sample collected due to presence of PSH			
	3/1/2022	0.56	<0.020	0.43	6.4
	6/7/2022	0.29	<0.010	0.54	6.5
	9/29/2022	No sample collected due to presence of PSH			



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW16	12/8/2022	0.15	<0.050	0.38	2.1
	3/2/2023	0.11	<0.020	0.32	1.8
	6/16/2023	0.10	<0.050	0.34	1.1
	9/14/2023	0.13	<0.050	0.41	1.2
	12/15/2023	0.089	<0.020	0.38	0.49
	3/28/2024	0.077	<0.020	0.34	0.31
	6/3/2024	0.068	<0.010	0.27	0.27
MW17	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	Insufficient Water Volumes to Collect Sample			
	6/14/2021	Insufficient Water Volumes to Collect Sample			
	9/23/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	Insufficient Water Volumes to Collect Sample			
	3/1/2022	Insufficient Water Volumes to Collect Sample			
	6/7/2022	Insufficient Water Volumes to Collect Sample			
	9/29/2022	Insufficient Water Volumes to Collect Sample			
	12/8/2022	Insufficient Water Volumes to Collect Sample			
	3/2/2023	<0.002	<0.002	<0.002	<0.004
	6/16/2023	<0.0010	<0.0010	<0.0010	<0.0020
	9/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	12/15/2023	<0.0010	<0.0010	<0.0010	<0.0020
	3/27/2024	<0.0010	<0.0010	<0.0010	<0.0015
	6/3/2024	<0.0010	<0.0010	<0.0010	<0.0015
MW18	3/29/2019	No sample collected due to presence of PSH			
	6/28/2019	15	18	0.77	9.4
	9/17/2019	16	23	0.87	9.8
	12/17/2019	17	19	0.78	10
	3/12/2020	1.2	0.36	0.059	0.72
	6/25/2020	13	<0.2	0.56	6.0
	9/23/2020	8.4	<0.05	0.32	4.20
	3/31/2021	11.0	0.011	0.31	1.70
	6/14/2021	8.5	<.01	0.28	0.62
	9/24/2021	5.3	<0.050	0.37	<0.100
	12/2/2021	9.9	<0.0020	0.61	<0.0040
	3/1/2022	8.0	<0.008	0.45	<0.016
	6/7/2022	6.6	<0.010	0.38	<0.020
	9/29/2022	6.4	<0.020	0.35	<0.030
	12/8/2022	6.7	<0.050	0.36	<0.075
	3/2/2023	4.2	<0.020	0.19	<0.040
	6/16/2023	1.5	<0.020	0.052	<0.040
	9/14/2023	5.9	<0.050	0.28	<0.100
	12/14/2023	5.5	<0.020	0.33	<0.040
	3/27/2024	0.067	<0.020	0.15	<0.030
	6/3/2024	1.4	<0.010	0.27	<0.015
MW19	3/29/2019	14	10	0.93	6.2
	6/28/2019	13	0.230	0.90	4.9
	9/17/2019	17	0.44	1.1	5.8
	12/17/2019	11	0.88	0.76	3.4
	3/12/2020	10	1.60	0.76	2.4
	6/25/2020	16	5.40	0.95	3.4
	9/23/2020	12	4.10	0.73	2.8
	3/31/2021	16	8.5	1.1	4.7
	6/14/2021	15	10	1.0	5.1
	9/23/2021	14	9.9	1.1	4.8
	12/2/2021	15	10	1.1	5.2
	3/1/2022	13	9.6	1.1	5.2
	6/7/2022	12	10	1.1	5.4
	9/29/2022	13	12	1.1	6.2
	12/8/2022	12	14	1.3	7.8



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW19	3/2/2023	10	12	1.0	6.1
	6/16/2023	10	14	1.2	7.2
	9/14/2023	9.7	15	1.2	8.2
	12/14/2023	7.7	14	1.3	8.1
	3/28/2024	6.7	17	1.1	9.2
	6/3/2024	5.8 P2	17 P2	0.4 P2	8.8 P2
MW20	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	Insufficient Water Volumes to Collect Sample			
	6/14/2021	Insufficient Water Volumes to Collect Sample			
	9/23/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	Insufficient Water Volumes to Collect Sample			
	3/1/2022	Insufficient Water Volumes to Collect Sample			
	6/7/2022	Insufficient Water Volumes to Collect Sample			
	9/29/2022	Insufficient Water Volumes to Collect Sample			
	12/8/2022	Insufficient Water Volumes to Collect Sample			
	3/2/2023	Insufficient Water Volumes to Collect Sample			
	6/16/2023	Insufficient Water Volumes to Collect Sample			
	9/14/2023	Insufficient Water Volumes to Collect Sample			
	12/14/2023	Insufficient Water Volumes to Collect Sample			
	3/27/2024	Insufficient Water Volumes to Collect Sample			
	6/3/2024	Insufficient Water Volumes to Collect Sample			
MW21	3/29/2019	Insufficient Water Volumes to Collect Sample			
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	Insufficient Water Volumes to Collect Sample			
	6/14/2021	Insufficient Water Volumes to Collect Sample			
	9/23/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	Insufficient Water Volumes to Collect Sample			
	3/1/2022	Insufficient Water Volumes to Collect Sample			
	6/7/2022	Insufficient Water Volumes to Collect Sample			
	9/29/2022	Insufficient Water Volumes to Collect Sample			
	12/8/2022	Insufficient Water Volumes to Collect Sample			
	3/2/2023	Insufficient Water Volumes to Collect Sample			
	6/16/2023	Insufficient Water Volumes to Collect Sample			
	9/14/2023	Insufficient Water Volumes to Collect Sample			
	12/14/2023	Insufficient Water Volumes to Collect Sample			
	3/27/2024	Insufficient Water Volumes to Collect Sample			
	6/3/2024	Insufficient Water Volumes to Collect Sample			
MW22	3/29/2019	0.001	0.002	<0.001	0.002
	6/28/2019	<0.001	<0.001	<0.001	<0.002
	9/17/2019	<0.001	<0.001	<0.001	<0.002
	12/17/2019	NS	NS	NS	NS
	3/12/2020	0.0011	0.0012	<0.001	0.0067
	6/25/2020	<0.001	<0.001	<0.001	0.0032
	9/23/2020	<0.001	<0.001	<0.001	<0.0015
	3/31/2021	<0.001	<0.001	<0.001	<0.0015
	6/14/2021	<0.001	<0.001	<0.001	<0.0015
	9/23/2021	<0.001	<0.001	<0.001	<0.002
	12/2/2021	<0.001	<0.001	<0.001	<0.002
	3/1/2022	<0.001	<0.001	<0.001	<0.002
	6/7/2022	<0.001	<0.001	<0.001	<0.002
	9/29/2022	<0.001	<0.001	<0.001	<0.0015
	12/8/2022	<0.002	<0.002	<0.002	<0.003
	3/2/2023	<0.002	<0.002	<0.002	<0.004



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW22	6/16/2023	<0.0020	<0.0020	<0.0020	<0.0040
	9/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	12/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	3/28/2024	<0.0010	<0.0010	<0.0010	<0.0015
	6/3/2024	<0.0010	<0.0010	<0.0010	<0.0015
MW23	6/18/2019	<0.001	<0.001	<0.001	<0.002
	9/17/2019	<0.001	<0.001	<0.001	<0.002
	12/17/2019	NS	NS	NS	NS
	3/12/2020	<0.001	<0.001	<0.001	<0.0015
	6/25/2020	<0.001	<0.001	<0.001	<0.0015
	9/23/2020	<0.001	<0.001	<0.001	<0.0015
	3/31/2021	<0.001	<0.001	<0.001	<0.0015
	6/14/2021	<0.001	<0.001	<0.001	<0.0015
	9/23/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	<0.001	<0.001	<0.001	<0.002
	3/1/2022	<0.001	<0.001	<0.001	<0.002
	6/7/2022	<0.001	<0.001	<0.001	<0.002
	9/29/2022	<0.001	<0.001	<0.001	<0.0015
	12/8/2022	<0.002	<0.002	<0.002	<0.003
	3/2/2023	<0.002	<0.002	<0.002	<0.004
	6/16/2023	<0.0020	<0.0020	<0.0020	<0.0040
	9/15/2023	<0.001	<0.001	<0.001	<0.002
	12/14/2023	<0.001	<0.001	<0.001	<0.002
	3/27/2024	<0.001	<0.001	<0.001	<0.0015
	6/3/2024	<0.001	<0.001	<0.001	<0.0015
MW24	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	Insufficient Water Volumes to Collect Sample			
	6/14/2021	Insufficient Water Volumes to Collect Sample			
	9/23/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	Insufficient Water Volumes to Collect Sample			
	3/1/2022	Insufficient Water Volumes to Collect Sample			
	6/7/2022	Insufficient Water Volumes to Collect Sample			
	9/29/2022	Insufficient Water Volumes to Collect Sample			
	12/8/2022	Insufficient Water Volumes to Collect Sample			
	3/2/2023	Insufficient Water Volumes to Collect Sample			
	6/16/2023	Insufficient Water Volumes to Collect Sample			
	9/14/2023	Insufficient Water Volumes to Collect Sample			
MW25	12/14/2023	Insufficient Water Volumes to Collect Sample			
	3/27/2024	Insufficient Water Volumes to Collect Sample			
	6/3/2024	Insufficient Water Volumes to Collect Sample			
	6/28/2019	Insufficient Water Volumes to Collect Sample			
	9/17/2019	Insufficient Water Volumes to Collect Sample			
	12/17/2019	Insufficient Water Volumes to Collect Sample			
	3/12/2020	Insufficient Water Volumes to Collect Sample			
	6/25/2020	Insufficient Water Volumes to Collect Sample			
	9/23/2020	Insufficient Water Volumes to Collect Sample			
	3/31/2021	Insufficient Water Volumes to Collect Sample			
	6/14/2021	Insufficient Water Volumes to Collect Sample			
	9/23/2021	Insufficient Water Volumes to Collect Sample			
	12/3/2021	Insufficient Water Volumes to Collect Sample			
	3/1/2022	Insufficient Water Volumes to Collect Sample			
	6/7/2022	Insufficient Water Volumes to Collect Sample			
	9/29/2022	Insufficient Water Volumes to Collect Sample			
	12/8/2022	Insufficient Water Volumes to Collect Sample			
	3/2/2023	Insufficient Water Volumes to Collect Sample			
	6/16/2023	Insufficient Water Volumes to Collect Sample			
	9/14/2023	Insufficient Water Volumes to Collect Sample			
	12/14/2023	Insufficient Water Volumes to Collect Sample			
	3/27/2024	Insufficient Water Volumes to Collect Sample			



TABLE 7 GROUNDWATER ANALYTICAL RESULTS Standard #1 Hilcorp Energy Company San Juan County, New Mexico					
Monitoring Well	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMWQCC Standard		0.005	1.0	0.7	0.62
MW25	6/3/2024	Insufficient Water Volumes to Collect Sample			
MW26	6/18/2019	0.0052	<0.001	<0.001	<0.002
	9/17/2019	<0.001	<0.001	<0.001	<0.002
	12/17/2019	<0.001	<0.001	<0.001	<0.002
	3/12/2020	<0.001	<0.001	<0.001	<0.0015
	6/25/2020	<0.001	<0.001	<0.001	<0.0015
	9/23/2020	<0.001	<0.001	<0.001	<0.0015
	3/31/2021	<0.001	<0.001	<0.001	<0.0015
	6/14/2021	<0.001	<0.001	<0.001	<0.0015
	9/24/2021	<0.001	<0.001	<0.001	<0.002
	12/3/2021	<0.001	<0.001	<0.001	<0.002
	3/1/2022	<0.001	<0.001	<0.001	<0.002
	6/7/2022	<0.001	<0.001	<0.001	<0.002
	9/29/2022	<0.001	<0.001	<0.001	<0.0015
	12/8/2022	<0.001	<0.001	<0.001	<0.0015
	3/2/2023	<0.001	<0.001	<0.001	<0.002
	6/16/2023	<0.0010	<0.0010	<0.0010	<0.0020
	9/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	12/14/2023	<0.0010	<0.0010	<0.0010	<0.0020
	3/27/2024	<0.0010	<0.0010	<0.0010	<0.0015
	6/3/2024	<0.0010	<0.0010	<0.0010	<0.0015

Notes:

mg/L: milligrams per liter

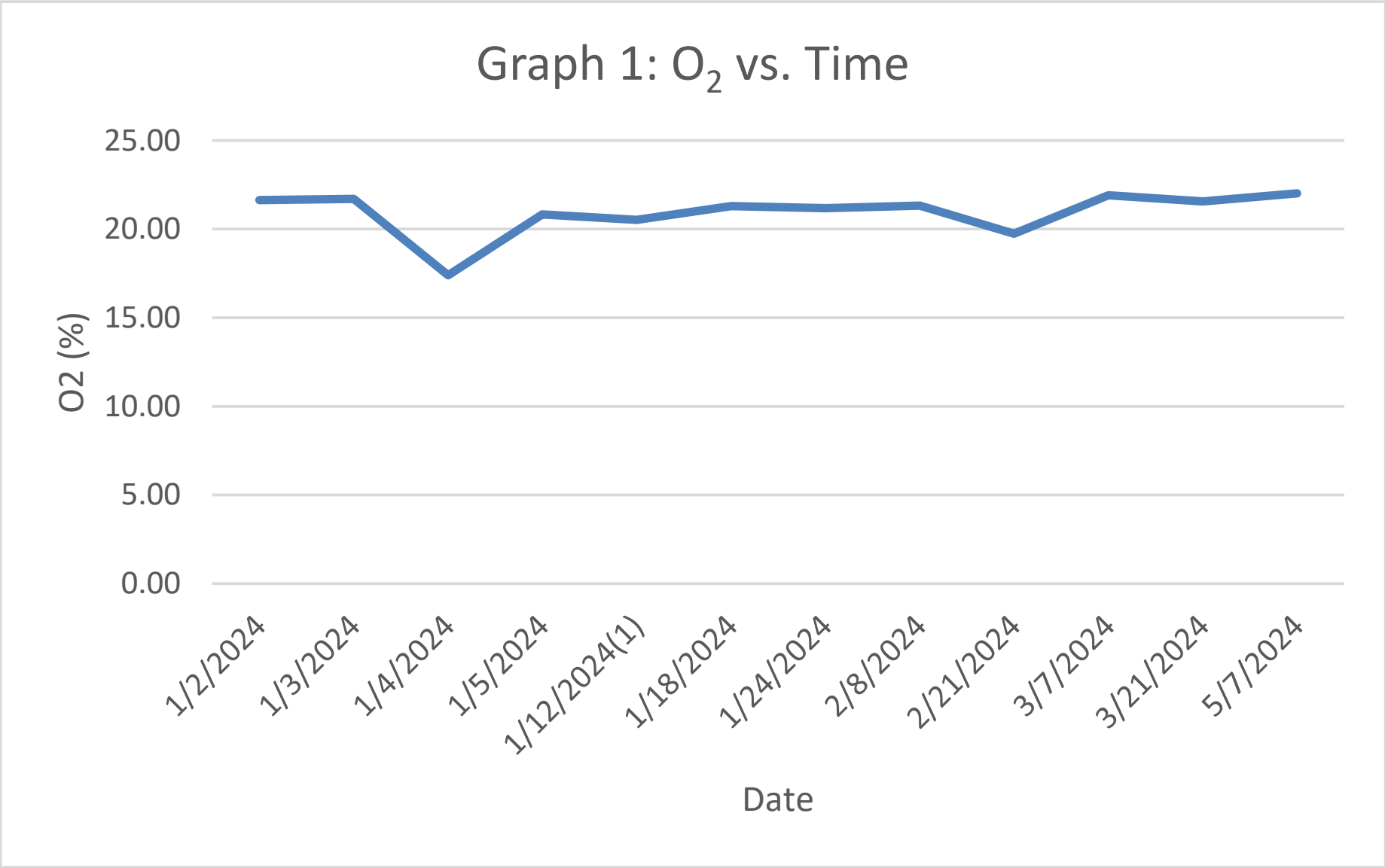
NMWQCC: New Mexico Water Quality Control Commission

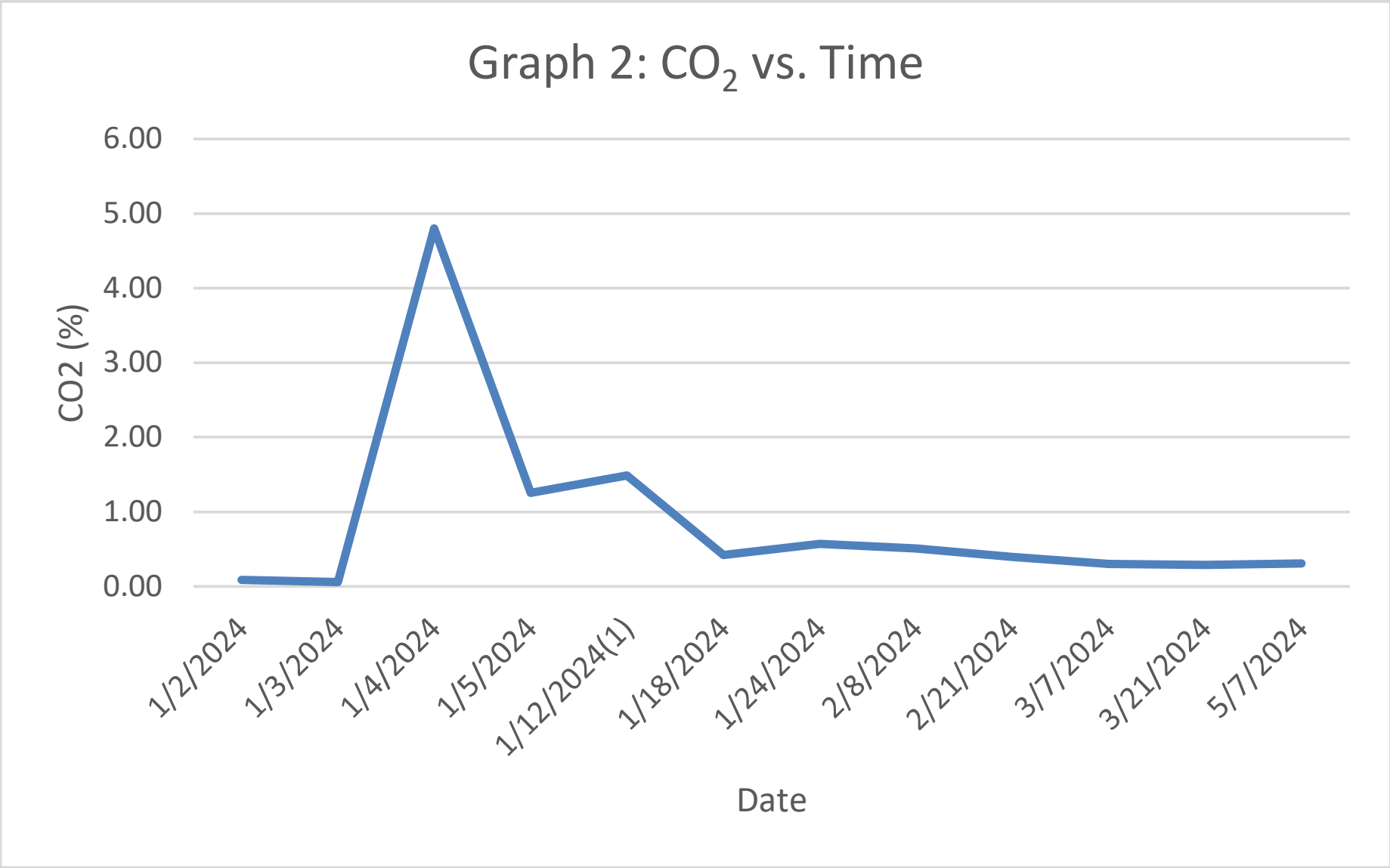
NS: not sampled

PSH: phase separated hydrocarbon

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

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







APPENDIX A

O&M Field Notes

Project / Client HEC

cloudy,

DB Truck/tools, HVAS, PLD, 6-gas sleeting 36°
1300 - Onsite for DBE system OAM only

No sampling today.

System was shut down 3-27 to 3-28
for quarterly GW sampling by Brandon.
System running upon arrival.

Details on OAM sheet

HEC pumper onsite.

Had to reintroduce flow to MW15.

Transfer pumped kicked on while I was
measuring vac on manifold and it sounded
like a banging noise coming from system.Observed transfer pump surging, w/
psi jumping up to 20-25 psi.After a few minutes, the surging stopped
and was ~10 psi, but still seemed
like it was draining slowly.

STANDARD 1A DPE SYSTEM
O&M FORMDATE: 4-1-24
TIME ONSITE: 13:00O&M PERSONNEL: BB
TIME OFFSITE: 1545

SVE SYSTEM - MONTHLY O&M

DPE ALARMS: None KO TANK HIGH LEVEL

NOTES

- Had to restart flow in MW15.

DPE SYSTEM	READING	TIME
Blower Hours (photo)		1345
Transfer Pump Hours (photo)		
Influent Vacuum Pre-KO (InHg)	10.5	
Fresh Air Bypass (% Open)	0	
Pre-Filter Vacuum (InHg)	12.25	
Post-Filter Vacuum (InHg)	10.5	
Differential Pressure (IWC)	2.5	
Exhaust Temperature (°F)	160	
Exhaust PID (ppm)	517	
Transfer Pump Pressure (PSI)	5	
Transfer Pump Totalizer (Gal) (photo)		

SVE SYSTEM SAMPLING

SAMPLE ID: NONE SAMPLE TIME:
 PID (ppm) 262 OXYGEN (%) CARBON DIOXIDE (%)
 Analytes: Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)

OPERATING WELLS

Change in Well Operation:

None

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (%)
MW01	107	523		
MW02	89	257		
MW03	113	433		
MW06	91	134		
MW10	98	280		
MW15	129	25		

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS (IWC)
MW01	8.5	Y	0.61
MW02	9.0	Y	0.13
MW03	11.5	Y	0.45
MW06	9.0	Y	0.04
MW10	9.0	Y	0.00
MW15	9.0	Y	0.30

COMMENTS/MAINTENANCE ISSUES

- Transfer pump surging when on, jumping up to 20-25 psi. Eventually it stopped surging, was below 10 psi. But still draining KO tank slowly. Some slight oily liquid carryover in post KO air filter. Filter also dirty on one side so rotated 180°.

INFLUENCE

WELL ID	VACUUM (IWC)
MW04	
MW07	

Location Sta #1 Date 4-5-24
Project / Cont HEC Partly cloudy

DB Truck HVACs, PID, 6-gas sunny, 50's

1000 - Onsite for DPE O+M

No sampling today

1145P/ASA

System running upon arrival.

Brandon Sinclair onsite for O+M training
1215 - offsite

See O+M for details.

Things to get: Tote

- blower oil, oil change materials
- funnel
- simple green
- muriatic acid
- cleaning brush
- Towels
- spare air filter
- shop vac.

Put in the Rain

STANDARD 1A DPE SYSTEM
O&M FORMDATE: 4-5-24
TIME ONSITE: 10:00O&M PERSONNEL: DB HBS
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

DPE ALARMS: NA KO TANK HIGH LEVELNOTES: VFD parameters

DPE SYSTEM	READING	TIME
Blower Hours (photo)	2201.3	10:20
Transfer Pump Hours (photo)	49.6	
Influent Vacuum Pre-KO (InHg)	10	
Fresh Air Bypass (% Open)	0	
Pre-Filter Vacuum (InHg)	12	
Post-Filter Vacuum (InHg)	10.5	
Differential Pressure (IWC)	2.5	
Exhaust Temperature (°F)	170	
Exhaust PID (ppm)	547	
Transfer Pump Pressure (PSI)	5	
Transfer Pump Totalizer (Gal) (photo)	48,057.6	

24.2 Amps 60.0 Hz
236.7V 0334 u

SVE SYSTEM SAMPLING

SAMPLE ID: No sample collected for lab analysis SAMPLE TIME: NA
 PID (ppm) 391 OXYGEN (%) 20.0 CARBON DIOXIDE (%) 1,600
 Analytes: Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)

OPERATING WELLS: All

Change in Well Operation:

None

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (PPM)
MW01	103	496	19.8	2840
MW02	87	294	20.1	1620
MW03	91	511	19.3	3860
MW06	90	202	20.2	1040
MW10	95	321	20.4	1340
MW15	90	34	20.4	40

1% LEL ppm ppm
 CH₄ CO H₂S
 2 1 0.5
 0 0 0.5
 2 0 0
 0 0 0.5
 0 0 0.5

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS (IWC)
MW01	8.5	Y	0.42
MW02	9.0	Y	0.55
MW03	11.0	Y	0.71
MW06	8.5	Y	0.82
MW10	9.0	Y	0.69
MW15	8.5	Y	0.23

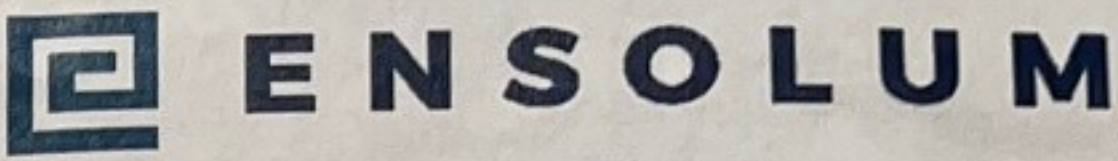
COMMENTS/MAINTENANCE ISSUES

- transfer pump still surges, but only for 5-10 sec before ~~catching~~ catching/stabilizing. Leaving it alone for now.

- Plan on oil change, inlet screen clean, KO tank cleanout + wye strainer clean next visit to show Brandon.

INFLUENCE

WELL ID	VACUUM (IWC)
MW04	0.0
MW07	0.87



STANDARD 1A DPE SYSTEM
O&M FORM

DATE: 4-19
TIME ONSITE: _____

O&M PERSONNEL: B Sinclair
TIME OFFSITE: _____

SVE SYSTEM - MONTHLY O&M

DPE ALARMS:

KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME
Blower Hours (photo)	2537.2	1044
Transfer Pump Hours (photo)	57.9	1044
Influent Vacuum Pre-KO (InHg)	8.7	
Fresh Air Bypass (% Open)	0	
Pre-Filter Vacuum (InHg)	11.75	
Post-Filter Vacuum (InHg)	10	
Differential Pressure (IWC)	2.25	
Exhaust Temperature (°F)	175	
Exhaust PID (ppm)	364.1	
Transfer Pump Pressure (PSI)	5	
Transfer Pump Totalizer (Gal) (photo)	55291.7	1045

NOTES

SVE SYSTEM SAMPLING

SAMPLE ID:

PID (ppm) 279.4

OXYGEN (%) 20.6

CARBON DIOXIDE (%) 1420

ANALYTES: Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)

OPERATING WELLS

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (PPM)
MW01	98.7	449.8	19.4	3220
MW02	84.3	249	20.2	1660
MW03	104.2	433.1	19.4	3820
MW06	87.5	154.3	20.2	1160
MW10	92.9	297	20.5	1380
MW15	108.5	73.4	20.6	120

LEL	PPM	PPM
CH4	H2S	CO
3	0.5	1
0	0	0
2	0.5	0
0	8.0	0
0	0.5	0
0	0.5	0

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS. (IWC)
MW01	8.25	Y	0.31
MW02	8.5	Y	0.37
MW03	11	Y	0.23
MW06	8.5	Y	0.34
MW10	8.5	Y	0.17
MW15	8.5	Y	0.03

COMMENTS/MAINTENANCE ISSUES

INFLUENCE

WELL ID	VACUUM (IWC)
MW04	
MW07	

Location Std #1Date 5-7-24Project / Client FLEC

DB

Truck/toxics, PLD, HUVAS

Breezy

Sunny. 60s

1000-Onsite to meet Brandon &
conduct DPE ATM.

System running upon arrival.

Brandon filling out ATM form and
has collected an air sample.

-cleaned out wye strainer. It was
pretty gunked up, mostly with scale
& plastic shavings from install.

Screen dimensions $1\frac{15}{16}"$ L $\times$ $1\frac{9}{16}"$ Diam.

-cleaned inlet screen on blower

-rotated Solberg inlet filter element
90° to cleaner section. Still getting
very slight amt. of carryover in filter
housing. Replace filter element in next qtr
or 6 months from now.

ATM cont'd →

Location

Std #1

Date

5-7-24²⁵

Project / Client

O&M cont'd

- changed blower gear oil.

@ 2,970.6 hrs.

- slight accumulation of build up on magnetic oil plug.

No significant metal shavings.

- Added ~1.2L of VS150 oil

- cleaned oil sight glass

Restart system @ 13:15.

Blower HRS - 2,970.6

Transfer Pump HRS - 68.1

Totalizer - 63,549.4 gal

After 1 cyle 63,610.3

~60.9 gal / ~~3.1~~ cycle

1420 - offsite

Bobin de la...



STANDARD 1A DPE SYSTEM
O&M FORM

DATE: 5-7
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

DPE ALARMS: KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME
Blower Hours (photo)	2968.7	1007
Transfer Pump Hours (photo)	68.1	
Influent Vacuum Pre-KO (InHg)	9.5	
Fresh Air Bypass (% Open)	0	
Pre-Filter Vacuum (InHg)	12	
Post-Filter Vacuum (InHg)	10	
Differential Pressure (IWC)	2.25	
Exhaust Temperature (°F)	173	
Exhaust PID (ppm)	337.4	
Transfer Pump Pressure (PSI)	6	
Transfer Pump Totalizer (Gal) (photo)	63559.4	

NOTES

SVE SYSTEM SAMPLING			
SAMPLE ID:	SAMPLE TIME: ppm		
PID (ppm)	195.4	OXYGEN (%)	20.7
Analytes:	CARBON DIOXIDE (ppm) 1460		
Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)			
OPERATING WELLS			

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (ppm)
MW01	98.6	611.2	19.5	3360
MW02	82.4	192.7	20.3	1440
MW03	102.6	670.9	19.9	3440
MW06	86.5	145.3	20.8	1160
MW10	91.8	242.1	20.6	1300
MW15	116.2	150.2	20.8	20

CH ₄ LEL	H ₂ S ppm	CO ppm
2	0.5	0
0	0.5	0
1	0.5	0
0	8.0	0
0	0.5	0
0	0.5	0

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS. (IWC)
MW01	6.4	Y	0.64
MW02	8.5	I	0.25
MW03	8.5	I	0.65
MW06	4.0	I	0.18
MW10	8.5	I	0.12
MW15	8.5	I	0.24

INFLUENCE	VACUUM (IWC)
WELL ID	0
MW04	
MW07	

COMMENTS/MAINTENANCE ISSUES

Oil changed
All filters cleaned
float stem tube cleaned



STANDARD 1A DPE SYSTEM
O&M FORM

DATE: 5-21
TIME ONSITE: _____

O&M PERSONNEL: B Sinclair
TIME OFFSITE: _____

SVE SYSTEM - MONTHLY O&M

DPE ALARMS: KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME
Blower Hours (photo)	3309.8	1622
Transfer Pump Hours (photo)	73.0	
Influent Vacuum Pre-KO (InHg)	10.5	
Fresh Air Bypass (% Open)	0	
Pre-Filter Vacuum (InHg)	12.5	
Post-Filter Vacuum (InHg)	10.5	
Differential Pressure (IWC)	2.25	
Exhaust Temperature (°F)	180	
Exhaust PID (ppm)	283.5	
Transfer Pump Pressure (PSI)	5.5	
Transfer Pump Totalizer (Gal) (photo)	69749.0	

NOTES

SVE SYSTEM SAMPLING

SAMPLE ID:				SAMPLE TIME:	
PID (ppm)	189.9	OXYGEN (%)	20.9	CARBON DIOXIDE (%)	1140
Analytes:	Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)				
OPERATING WELLS					

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (% ppm)
MW01	98.5	644.9	19.5	3100
MW02	84.6	192.8	20.4	1580
MW03	110.2	443.6	19.6	3460
MW06	88.4	138.7	20.3	1080
MW10	93.3	233.5	20.7	1320
MW15	112.7	22.8	20.5	20

CH ₄	H ₂ S	CO
LEL	ppm	ppm
1.0	0.5	0
0	0.5	0
2	0.5	0
0	7.5	0
0	0	0
0	0.5	0

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS. (IWC)
MW01	8.75	Y	0.77
MW02	8.5		0.54
MW03	9.25		0.28
MW06	8.75		0.46
MW10	8.5		0.06
MW15	8.5		0.24

COMMENTS/MAINTENANCE ISSUES

INFLUENCE

WELL ID	VACUUM (IWC)
MW04	0
MW07	0

28

Location Standard H1Date 6-4-24Project / Client HECEC, SC, TRUCK, WQM, PID, VAC

Sunny 80s

1000	ON site for GW	Monitoring
	& O&M	

Well	Time
------	------

MW03	1030
------	------

MW15	1050
------	------

MW04	
------	--

MW23	
------	--

System O&M

Turn blower on @ 11:07

Hours	3612.7	blower
-------	--------	--------

77.1	pump
------	------

Readings 11:40

pre-KO vac ~~to the~~ 125 IWC

pre filter vac 13 IHC

post filter vac 11 IHC

Flow diff press 1.5 IWC

Exh Temp 195 °F

discharge press 4.5 PSI

Totalizer 74733.5

Cont'd 

Location Cant'd Date _____

Project / Client _____

manifold		Readings	
well	Vac	Flow	
	Intg	Invc diff press	
01	7.5		
10	9.5		
02	9.0		
15	9.0		
06	7.5	Clogged pitot tube	
03	8.0	Clogged pitot tube	

SUE 03 & 06 pitot tubes need cleaned
holes in pipe blocked w/ scale

well head readings

01	632 ppm
02	230 ppm
03	596 ppm
04	184 ppm
10	324 ppm
15	320 ppm

Rite in the Rain



STANDARD 1A DPE SYSTEM
O&M FORM

DATE: 6-6
TIME ONSITE: _____

O&M PERSONNEL: B Sinclair
TIME OFFSITE: _____

SVE SYSTEM - MONTHLY O&M

DPE ALARMS: KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME
Blower Hours (photo)	3660.8	1111
Transfer Pump Hours (photo)	77.8	
Influent Vacuum Pre-KO (InHg)	10.75	
Fresh Air Bypass (% Open)	0	
Pre-Filter Vacuum (InHg)	13	
Post-Filter Vacuum (InHg)	11.5	
Differential Pressure (IWC)	2.25	
Exhaust Temperature (°F)	197.5	
Exhaust PID (ppm)	247.3	
Transfer Pump Pressure (PSI)	5.5	
Transfer Pump Totalizer (Gal) (photo)	75625.6	

NOTES

SVE SYSTEM SAMPLING			
SAMPLE ID:			
PID (ppm)	161.8	OXYGEN (%)	20.7
Analytes:	Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)		
OPERATING WELLS			

Change in Well Operation: _____

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (% ppm)
MW01	106.2	386.9	19.8	3000
MW02	89.4	173.3	20.3	1860
MW03	114.7	437.8	19.4	3560
MW06	95.6	152.4	20.3	1180
MW10	76.5	196.3	20.8	1600
MW15	135.4	269.4	20.3	1720

CH₄ LEL 0
H₂S ppm 1.0
CO ppm 0

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS. (IWC)
MW01	7.75	Y	-1.83
MW02	9.5	I	0.44
MW03	9.25	I	0.43
MW06	8.25	I	-0.84
MW10	9.25	I	0.04
MW15	9.0	I	0.00

COMMENTS/MAINTENANCE ISSUES

INFLUENCE	VACUUM (IWC)
WELL ID	
MW04	8
MW07	



**STANDARD 1A DPE SYSTEM
O&M FORM**

DATE: 6-27-24
TIME ONSITE: 1330

O&M PERSONNEL: D. Burns
TIME OFFSITE: 1500

SVE SYSTEM - MONTHLY O&M

DPE ALARMS: KO TANK HIGH LEVEL

NOTES

DPE SYSTEM	READING	TIME
Blower Hours (photo)	<u>4167.1</u>	
Transfer Pump Hours (photo)	<u>85.1</u>	
Influent Vacuum Pre-KO (InHg)	<u>10</u>	
Fresh Air Bypass (% Open)	<u>0</u>	
Pre-Filter Vacuum (InHg)	<u>13.5</u>	
Post-Filter Vacuum (InHg)	<u>12.0</u>	
Differential Pressure (IWC)	<u>2.25</u>	
Exhaust Temperature (°F)	<u>205</u>	
Exhaust PID (ppm)	<u>369</u>	
Transfer Pump Pressure (PSI)	<u>5</u>	
Transfer Pump Totalizer (Gall) (photo)	<u>84339.2</u>	

SVE SYSTEM SAMPLING

SAMPLE ID: NONE TODAY SAMPLE TIME: 1,310
 PID (ppm) 182 OXYGEN (%) 20.7 CARBON DIOXIDE (%) 1,310
 Analytes: Sample Bi-Monthly (every other month) for TVPH (8015), 8260 - Full List VOCs, Fixed Gas (CO2 AND O2)

OPERATING WELLS ALL ON

Change in Well Operation: NONE

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (%)	CARBON DIOXIDE (%)
MW01	<u>101.3</u>	<u>604</u>	<u>19.5</u>	<u>2,790</u>
MW02	<u>84.2</u>	<u>321</u>	<u>20.1</u>	<u>1,720</u>
MW03	<u>110.3</u>	<u>420</u>	<u>19.5</u>	<u>3,750</u>
MW06	<u>87.0</u>	<u>129</u>	<u>20.3</u>	<u>1,210</u>
MW10	<u>83.4</u>	<u>302</u>	<u>20.8</u>	<u>1,520</u>
MW15	<u>112.1</u>	<u>169</u>	<u>20.4</u>	<u>210</u>

MANIFOLD MEASUREMENTS

WELL ID	VACUUM (InHg)	SEE LIQUIDS? (YES/NO)	DIFF. PRESS. (IWC)
MW01	<u>8</u>	<u>YES</u>	<u>31.2 *</u>
MW02	<u>10</u>	<u>YES</u>	<u>0.4 *</u>
MW03	<u>10</u>	<u>X</u>	<u>0.18</u>
MW06	<u>8</u>	<u>X</u>	<u>6.14 *</u>
MW10	<u>10</u>	<u>YES</u>	<u>0.22</u>
MW15	<u>9.5</u>	<u>X</u>	<u>0.52</u>

COMMENTS/MAINTENANCE ISSUES

- clean pitot tubes w/ acid
 - see if we can remove scale in sight tubes
 - ball valves are seized replace w/ metal ball or gate valves?

INFLUENCE

WELL ID	VACUUM (IWC)
MW04	<u>0</u>
MW07	<u>0</u>

x = completely scaled up, can't see liquids
 * = pitot tubes clogged?



APPENDIX B

Project Photographs

PROJECT PHOTOGRAPHS
Standard #1
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1 Runtime meter taken on March 21, 2024 at 10:52 AM Hours = 1,875.9	
Photograph 2 Runtime meter taken on June 27, 2024 at 1:30 PM Hours = 4,167.1	

PROJECT PHOTOGRAPHS
Standard #1
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 3 Totalizer taken on March 21, 2024 at 10:52 AM Gallons = 40,443.4	
Photograph 4 Totalizer taken on June 27, 2024 at 1:30 PM Gallons = 84,339.2	



APPENDIX C

DPE Laboratory Analytical Reports



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mitch Killough
Hilcorp Energy
PO BOX 4700
Farmington, New Mexico 87499

Generated 5/29/2024 11:19:11 AM

JOB DESCRIPTION

Standard 1

JOB NUMBER

885-4081-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Generated
5/29/2024 11:19:11 AM

Client: Hilcorp Energy
Project/Site: Standard 1

Laboratory Job ID: 885-4081-1

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Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Standard 1

Job ID: 885-4081-1

Job ID: 885-4081-1Eurofins Albuquerque

Job Narrative
885-4081-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 5/8/2024 7:25 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

Subcontract Work

Method Fixed Gases: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Gasoline Range Organics

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

GC/MS VOA

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

Eurofins Albuquerque

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Client Sample ID: SVE-1

Lab Sample ID: 885-4081-1

Date Collected: 05/07/24 10:15

Matrix: Air

Date Received: 05/08/24 07:25

Sample Container: Tedlar Bag 1L

Method: SW846 8015D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	1400		100	ug/L			05/17/24 13:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		52 - 172		05/17/24 13:41	20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0	ug/L			05/17/24 13:41	20
1,1,1-Trichloroethane	ND		2.0	ug/L			05/17/24 13:41	20
1,1,2,2-Tetrachloroethane	ND		4.0	ug/L			05/17/24 13:41	20
1,1,2-Trichloroethane	ND		2.0	ug/L			05/17/24 13:41	20
1,1-Dichloroethane	ND		2.0	ug/L			05/17/24 13:41	20
1,1-Dichloroethene	ND		2.0	ug/L			05/17/24 13:41	20
1,1-Dichloropropene	ND		2.0	ug/L			05/17/24 13:41	20
1,2,3-Trichlorobenzene	ND		2.0	ug/L			05/17/24 13:41	20
1,2,3-Trichloropropane	ND		4.0	ug/L			05/17/24 13:41	20
1,2,4-Trichlorobenzene	ND		2.0	ug/L			05/17/24 13:41	20
1,2,4-Trimethylbenzene	ND		2.0	ug/L			05/17/24 13:41	20
1,2-Dibromo-3-Chloropropane	ND		4.0	ug/L			05/17/24 13:41	20
1,2-Dibromoethane (EDB)	ND		2.0	ug/L			05/17/24 13:41	20
1,2-Dichlorobenzene	ND		2.0	ug/L			05/17/24 13:41	20
1,2-Dichloroethane (EDC)	ND		2.0	ug/L			05/17/24 13:41	20
1,2-Dichloropropane	ND		2.0	ug/L			05/17/24 13:41	20
1,3,5-Trimethylbenzene	ND		2.0	ug/L			05/17/24 13:41	20
1,3-Dichlorobenzene	ND		2.0	ug/L			05/17/24 13:41	20
1,3-Dichloropropane	ND		2.0	ug/L			05/17/24 13:41	20
1,4-Dichlorobenzene	ND		2.0	ug/L			05/17/24 13:41	20
1-Methylnaphthalene	ND		8.0	ug/L			05/17/24 13:41	20
2,2-Dichloropropane	ND		4.0	ug/L			05/17/24 13:41	20
2-Butanone	ND		20	ug/L			05/17/24 13:41	20
2-Chlorotoluene	ND		2.0	ug/L			05/17/24 13:41	20
2-Hexanone	ND		20	ug/L			05/17/24 13:41	20
2-Methylnaphthalene	ND		8.0	ug/L			05/17/24 13:41	20
4-Chlorotoluene	ND		2.0	ug/L			05/17/24 13:41	20
4-Isopropyltoluene	ND		2.0	ug/L			05/17/24 13:41	20
4-Methyl-2-pentanone	ND		20	ug/L			05/17/24 13:41	20
Acetone	ND		20	ug/L			05/17/24 13:41	20
Benzene	5.2		2.0	ug/L			05/17/24 13:41	20
Bromobenzene	ND		2.0	ug/L			05/17/24 13:41	20
Bromodichloromethane	ND		2.0	ug/L			05/17/24 13:41	20
Dibromochloromethane	ND		2.0	ug/L			05/17/24 13:41	20
Bromoform	ND		2.0	ug/L			05/17/24 13:41	20
Bromomethane	ND		6.0	ug/L			05/17/24 13:41	20
Carbon disulfide	ND		20	ug/L			05/17/24 13:41	20
Carbon tetrachloride	ND		2.0	ug/L			05/17/24 13:41	20
Chlorobenzene	ND		2.0	ug/L			05/17/24 13:41	20
Chloroethane	ND		4.0	ug/L			05/17/24 13:41	20
Chloroform	ND		2.0	ug/L			05/17/24 13:41	20

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Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Client Sample ID: SVE-1
Date Collected: 05/07/24 10:15
Date Received: 05/08/24 07:25
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-4081-1
Matrix: Air

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloromethane	ND		6.0	ug/L			05/17/24 13:41	20	
cis-1,2-Dichloroethene	ND		2.0	ug/L			05/17/24 13:41	20	
cis-1,3-Dichloropropene	ND		2.0	ug/L			05/17/24 13:41	20	
Dibromomethane	ND		2.0	ug/L			05/17/24 13:41	20	
Dichlorodifluoromethane	ND		2.0	ug/L			05/17/24 13:41	20	
Ethylbenzene	ND		2.0	ug/L			05/17/24 13:41	20	
Hexachlorobutadiene	ND		2.0	ug/L			05/17/24 13:41	20	
Isopropylbenzene	ND		2.0	ug/L			05/17/24 13:41	20	
Methyl-tert-butyl Ether (MTBE)	ND		2.0	ug/L			05/17/24 13:41	20	
Methylene Chloride	ND		6.0	ug/L			05/17/24 13:41	20	
n-Butylbenzene	ND		6.0	ug/L			05/17/24 13:41	20	
N-Propylbenzene	ND		2.0	ug/L			05/17/24 13:41	20	
Naphthalene	ND		4.0	ug/L			05/17/24 13:41	20	
sec-Butylbenzene	ND		2.0	ug/L			05/17/24 13:41	20	
Styrene	ND		2.0	ug/L			05/17/24 13:41	20	
tert-Butylbenzene	ND		2.0	ug/L			05/17/24 13:41	20	
Tetrachloroethene (PCE)	ND		2.0	ug/L			05/17/24 13:41	20	
Toluene	9.2		2.0	ug/L			05/17/24 13:41	20	
trans-1,2-Dichloroethene	ND		2.0	ug/L			05/17/24 13:41	20	
trans-1,3-Dichloropropene	ND		2.0	ug/L			05/17/24 13:41	20	
Trichloroethene (TCE)	ND		2.0	ug/L			05/17/24 13:41	20	
Trichlorofluoromethane	ND		2.0	ug/L			05/17/24 13:41	20	
Vinyl chloride	ND		2.0	ug/L			05/17/24 13:41	20	
Xylenes, Total	10		3.0	ug/L			05/17/24 13:41	20	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	89		70 - 130				05/17/24 13:41	20	
Toluene-d8 (Surr)	113		70 - 130				05/17/24 13:41	20	
4-Bromofluorobenzene (Surr)	118		70 - 130				05/17/24 13:41	20	
Dibromofluoromethane (Surr)	84		70 - 130				05/17/24 13:41	20	

QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Method: 8015D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Lab Sample ID: MB 885-5269/3

Matrix: Air

Analysis Batch: 5269

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	ug/L			05/17/24 13:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	11	S1-	52 - 172				05/17/24 13:16	1

Lab Sample ID: LCS 885-5269/2

Matrix: Air

Analysis Batch: 5269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	500	524		ug/L		105	
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	102		52 - 172				

Lab Sample ID: 885-4081-1 DU

Matrix: Air

Analysis Batch: 5269

Client Sample ID: SVE-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Gasoline Range Organics [C6 - C10]	1400		1440		ug/L		1	20
Surrogate	DU %Recovery	DU Qualifier	Limits					
4-Bromofluorobenzene (Surr)	100		52 - 172					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-5268/3

Matrix: Air

Analysis Batch: 5268

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			05/17/24 13:16	1
1,1,1-Trichloroethane	ND		1.0	ug/L			05/17/24 13:16	1
1,1,2,2-Tetrachloroethane	ND		2.0	ug/L			05/17/24 13:16	1
1,1,2-Trichloroethane	ND		1.0	ug/L			05/17/24 13:16	1
1,1-Dichloroethane	ND		1.0	ug/L			05/17/24 13:16	1
1,1-Dichloroethene	ND		1.0	ug/L			05/17/24 13:16	1
1,1-Dichloropropene	ND		1.0	ug/L			05/17/24 13:16	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			05/17/24 13:16	1
1,2,3-Trichloropropane	ND		2.0	ug/L			05/17/24 13:16	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			05/17/24 13:16	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
1,2-Dibromo-3-Chloropropane	ND		2.0	ug/L			05/17/24 13:16	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			05/17/24 13:16	1
1,2-Dichlorobenzene	ND		1.0	ug/L			05/17/24 13:16	1

Eurofins Albuquerque

QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

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

Lab Sample ID: MB 885-5268/3

Matrix: Air

Analysis Batch: 5268

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2-Dichloroethane (EDC)	ND		1.0	ug/L			05/17/24 13:16	1
1,2-Dichloropropane	ND		1.0	ug/L			05/17/24 13:16	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
1,3-Dichlorobenzene	ND		1.0	ug/L			05/17/24 13:16	1
1,3-Dichloropropane	ND		1.0	ug/L			05/17/24 13:16	1
1,4-Dichlorobenzene	ND		1.0	ug/L			05/17/24 13:16	1
1-Methylnaphthalene	ND		4.0	ug/L			05/17/24 13:16	1
2,2-Dichloropropane	ND		2.0	ug/L			05/17/24 13:16	1
2-Butanone	ND		10	ug/L			05/17/24 13:16	1
2-Chlorotoluene	ND		1.0	ug/L			05/17/24 13:16	1
2-Hexanone	ND		10	ug/L			05/17/24 13:16	1
2-Methylnaphthalene	ND		4.0	ug/L			05/17/24 13:16	1
4-Chlorotoluene	ND		1.0	ug/L			05/17/24 13:16	1
4-Isopropyltoluene	ND		1.0	ug/L			05/17/24 13:16	1
4-Methyl-2-pentanone	ND		10	ug/L			05/17/24 13:16	1
Acetone	ND		10	ug/L			05/17/24 13:16	1
Benzene	ND		1.0	ug/L			05/17/24 13:16	1
Bromobenzene	ND		1.0	ug/L			05/17/24 13:16	1
Bromodichloromethane	ND		1.0	ug/L			05/17/24 13:16	1
Dibromochloromethane	ND		1.0	ug/L			05/17/24 13:16	1
Bromoform	ND		1.0	ug/L			05/17/24 13:16	1
Bromomethane	ND		3.0	ug/L			05/17/24 13:16	1
Carbon disulfide	ND		10	ug/L			05/17/24 13:16	1
Carbon tetrachloride	ND		1.0	ug/L			05/17/24 13:16	1
Chlorobenzene	ND		1.0	ug/L			05/17/24 13:16	1
Chloroethane	ND		2.0	ug/L			05/17/24 13:16	1
Chloroform	ND		1.0	ug/L			05/17/24 13:16	1
Chloromethane	ND		3.0	ug/L			05/17/24 13:16	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			05/17/24 13:16	1
cis-1,3-Dichloropropene	ND		1.0	ug/L			05/17/24 13:16	1
Dibromomethane	ND		1.0	ug/L			05/17/24 13:16	1
Dichlorodifluoromethane	ND		1.0	ug/L			05/17/24 13:16	1
Ethylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
Hexachlorobutadiene	ND		1.0	ug/L			05/17/24 13:16	1
Isopropylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0	ug/L			05/17/24 13:16	1
Methylene Chloride	ND		3.0	ug/L			05/17/24 13:16	1
n-Butylbenzene	ND		3.0	ug/L			05/17/24 13:16	1
N-Propylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
Naphthalene	ND		2.0	ug/L			05/17/24 13:16	1
sec-Butylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
Styrene	ND		1.0	ug/L			05/17/24 13:16	1
tert-Butylbenzene	ND		1.0	ug/L			05/17/24 13:16	1
Tetrachloroethene (PCE)	ND		1.0	ug/L			05/17/24 13:16	1
Toluene	ND		1.0	ug/L			05/17/24 13:16	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			05/17/24 13:16	1
trans-1,3-Dichloropropene	ND		1.0	ug/L			05/17/24 13:16	1
Trichloroethene (TCE)	ND		1.0	ug/L			05/17/24 13:16	1
Trichlorofluoromethane	ND		1.0	ug/L			05/17/24 13:16	1

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QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

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

Lab Sample ID: MB 885-5268/3

Matrix: Air

Analysis Batch: 5268

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Vinyl chloride	ND		1.0	ug/L			05/17/24 13:16	1
Xylenes, Total	ND		1.5	ug/L			05/17/24 13:16	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				05/17/24 13:16	1
Toluene-d8 (Surr)	97		70 - 130				05/17/24 13:16	1
4-Bromofluorobenzene (Surr)	112		70 - 130				05/17/24 13:16	1
Dibromofluoromethane (Surr)	90		70 - 130				05/17/24 13:16	1

Lab Sample ID: LCS 885-5268/2

Matrix: Air

Analysis Batch: 5268

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,1-Dichloroethene	20.1	17.5		ug/L		87	
Benzene	20.1	18.0		ug/L		89	
Chlorobenzene	20.1	19.5		ug/L		97	
Toluene	20.2	19.6		ug/L		97	
Trichloroethene (TCE)	20.2	16.7		ug/L		83	
Surrogate		LCS	LCS				
		%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)		98					
Toluene-d8 (Surr)		97					
4-Bromofluorobenzene (Surr)		114					
Dibromofluoromethane (Surr)		87					

Lab Sample ID: 885-4081-1 DU

Matrix: Air

Analysis Batch: 5268

Client Sample ID: SVE-1

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier		Qualifier				Limit
1,1,1,2-Tetrachloroethane	ND		ND		ug/L		NC	20
1,1,1-Trichloroethane	ND		ND		ug/L		NC	20
1,1,2,2-Tetrachloroethane	ND		ND		ug/L		NC	20
1,1,2-Trichloroethane	ND		ND		ug/L		NC	20
1,1-Dichloroethane	ND		ND		ug/L		NC	20
1,1-Dichloroethene	ND		ND		ug/L		NC	20
1,1-Dichloropropene	ND		ND		ug/L		NC	20
1,2,3-Trichlorobenzene	ND		ND		ug/L		NC	20
1,2,3-Trichloropropane	ND		ND		ug/L		NC	20
1,2,4-Trichlorobenzene	ND		ND		ug/L		NC	20
1,2,4-Trimethylbenzene	ND		ND		ug/L		NC	20
1,2-Dibromo-3-Chloropropane	ND		ND		ug/L		NC	20
1,2-Dibromoethane (EDB)	ND		ND		ug/L		NC	20
1,2-Dichlorobenzene	ND		ND		ug/L		NC	20
1,2-Dichloroethane (EDC)	ND		ND		ug/L		NC	20
1,2-Dichloropropane	ND		ND		ug/L		NC	20
1,3,5-Trimethylbenzene	ND		ND		ug/L		NC	20

Eurofins Albuquerque

QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

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

Lab Sample ID: 885-4081-1 DU

Matrix: Air

Analysis Batch: 5268

Client Sample ID: SVE-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
1,3-Dichlorobenzene	ND		ND		ug/L		NC	20
1,3-Dichloropropane	ND		ND		ug/L		NC	20
1,4-Dichlorobenzene	ND		ND		ug/L		NC	20
1-Methylnaphthalene	ND		ND		ug/L		NC	20
2,2-Dichloropropane	ND		ND		ug/L		NC	20
2-Butanone	ND		ND		ug/L		NC	20
2-Chlorotoluene	ND		ND		ug/L		NC	20
2-Hexanone	ND		ND		ug/L		NC	20
2-Methylnaphthalene	ND		ND		ug/L		NC	20
4-Chlorotoluene	ND		ND		ug/L		NC	20
4-Isopropyltoluene	ND		ND		ug/L		NC	20
4-Methyl-2-pentanone	ND		ND		ug/L		NC	20
Acetone	ND		ND		ug/L		NC	20
Benzene	5.2		5.26		ug/L		0.4	20
Bromobenzene	ND		ND		ug/L		NC	20
Bromodichloromethane	ND		ND		ug/L		NC	20
Dibromochloromethane	ND		ND		ug/L		NC	20
Bromoform	ND		ND		ug/L		NC	20
Bromomethane	ND		ND		ug/L		NC	20
Carbon disulfide	ND		ND		ug/L		NC	20
Carbon tetrachloride	ND		ND		ug/L		NC	20
Chlorobenzene	ND		ND		ug/L		NC	20
Chloroethane	ND		ND		ug/L		NC	20
Chloroform	ND		ND		ug/L		NC	20
Chloromethane	ND		ND		ug/L		NC	20
cis-1,2-Dichloroethene	ND		ND		ug/L		NC	20
cis-1,3-Dichloropropene	ND		ND		ug/L		NC	20
Dibromomethane	ND		ND		ug/L		NC	20
Dichlorodifluoromethane	ND		ND		ug/L		NC	20
Ethylbenzene	ND		ND		ug/L		NC	20
Hexachlorobutadiene	ND		ND		ug/L		NC	20
Isopropylbenzene	ND		ND		ug/L		NC	20
Methyl-tert-butyl Ether (MTBE)	ND		ND		ug/L		NC	20
Methylene Chloride	ND		ND		ug/L		NC	20
n-Butylbenzene	ND		ND		ug/L		NC	20
N-Propylbenzene	ND		ND		ug/L		NC	20
Naphthalene	ND		ND		ug/L		NC	20
sec-Butylbenzene	ND		ND		ug/L		NC	20
Styrene	ND		ND		ug/L		NC	20
tert-Butylbenzene	ND		ND		ug/L		NC	20
Tetrachloroethene (PCE)	ND		ND		ug/L		NC	20
Toluene	9.2		9.46		ug/L		3	20
trans-1,2-Dichloroethene	ND		ND		ug/L		NC	20
trans-1,3-Dichloropropene	ND		ND		ug/L		NC	20
Trichloroethene (TCE)	ND		ND		ug/L		NC	20
Trichlorofluoromethane	ND		ND		ug/L		NC	20
Vinyl chloride	ND		ND		ug/L		NC	20
Xylenes, Total	10		10.4		ug/L		1	20

Eurofins Albuquerque

QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

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

Lab Sample ID: 885-4081-1 DU
Matrix: Air
Analysis Batch: 5268

Client Sample ID: SVE-1
Prep Type: Total/NA

	DU	DU	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 130
Toluene-d8 (Surr)	115		70 - 130
4-Bromofluorobenzene (Surr)	118		70 - 130
Dibromofluoromethane (Surr)	84		70 - 130

QC Association Summary

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

GC/MS VOA

Analysis Batch: 5268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4081-1	SVE-1	Total/NA	Air	8260B	
MB 885-5268/3	Method Blank	Total/NA	Air	8260B	
LCS 885-5268/2	Lab Control Sample	Total/NA	Air	8260B	
885-4081-1 DU	SVE-1	Total/NA	Air	8260B	

Analysis Batch: 5269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4081-1	SVE-1	Total/NA	Air	8015D	
MB 885-5269/3	Method Blank	Total/NA	Air	8015D	
LCS 885-5269/2	Lab Control Sample	Total/NA	Air	8015D	
885-4081-1 DU	SVE-1	Total/NA	Air	8015D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Client Sample ID: SVE-1
Date Collected: 05/07/24 10:15
Date Received: 05/08/24 07:25

Lab Sample ID: 885-4081-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015D		20	5269	CM	EET ALB	05/17/24 13:41
Total/NA	Analysis	8260B		20	5268	CM	EET ALB	05/17/24 13:41

Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

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

Analysis Method	Prep Method	Matrix	Analyte
8015D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Standard 1

Job ID: 885-4081-1

Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Air	1-Methylnaphthalene
8260B		Air	2,2-Dichloropropane
8260B		Air	2-Butanone
8260B		Air	2-Chlorotoluene
8260B		Air	2-Hexanone
8260B		Air	2-Methylnaphthalene
8260B		Air	4-Chlorotoluene
8260B		Air	4-Isopropyltoluene
8260B		Air	4-Methyl-2-pentanone
8260B		Air	Acetone
8260B		Air	Benzene
8260B		Air	Bromobenzene
8260B		Air	Bromodichloromethane
8260B		Air	Bromoform
8260B		Air	Bromomethane
8260B		Air	Carbon disulfide
8260B		Air	Carbon tetrachloride
8260B		Air	Chlorobenzene
8260B		Air	Chloroethane
8260B		Air	Chloroform
8260B		Air	Chloromethane
8260B		Air	cis-1,2-Dichloroethene
8260B		Air	cis-1,3-Dichloropropene
8260B		Air	Dibromochloromethane
8260B		Air	Dibromomethane
8260B		Air	Dichlorodifluoromethane
8260B		Air	Ethylbenzene
8260B		Air	Hexachlorobutadiene
8260B		Air	Isopropylbenzene
8260B		Air	Methylene Chloride
8260B		Air	Methyl-tert-butyl Ether (MTBE)
8260B		Air	Naphthalene
8260B		Air	n-Butylbenzene
8260B		Air	N-Propylbenzene
8260B		Air	sec-Butylbenzene
8260B		Air	Styrene
8260B		Air	tert-Butylbenzene
8260B		Air	Tetrachloroethene (PCE)
8260B		Air	Toluene
8260B		Air	trans-1,2-Dichloroethene
8260B		Air	trans-1,3-Dichloropropene
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Eurofins Albuquerque



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ANALYTICAL SUMMARY REPORT

May 17, 2024

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B24050917 Quote ID: B15626

Project Name: Standard 1, 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 5/9/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24050917-001	SVE-1 (885-4081-1)	05/07/24 10:15	05/09/24	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:



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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

LABORATORY ANALYTICAL REPORT
Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Standard 1, 88501698
Lab ID: B24050917-001
Client Sample ID: SVE-1 (885-4081-1)

Report Date: 05/17/24
Collection Date: 05/07/24 10:15
Date Received: 05/09/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	22.02	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Nitrogen	77.62	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Carbon Dioxide	0.31	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Hexanes plus	0.05	Mol %		0.01		GPA 2261-95	05/10/24 11:02 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
Hexanes plus	0.021	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
GPM Total	0.021	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
GPM Pentanes plus	0.021	gpm		0.001		GPA 2261-95	05/10/24 11:02 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	2			1		GPA 2261-95	05/10/24 11:02 / jrj
Net BTU per cu ft @ std cond. (LHV)	2			1		GPA 2261-95	05/10/24 11:02 / jrj
Pseudo-critical Pressure, psia	547			1		GPA 2261-95	05/10/24 11:02 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-95	05/10/24 11:02 / jrj
Specific Gravity @ 60/60F	1.00			0.001		D3588-81	05/10/24 11:02 / jrj
Air, %	100.61			0.01		GPA 2261-95	05/10/24 11:02 / jrj
- The analysis was not corrected for air.							

COMMENTS

-
-
- 05/10/24 11:02 / jrj
- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.
 - GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.
 - To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.
 - Standard conditions: 60 F & 14.73 psi on a dry basis

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



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 Gillette, WY **307.686.7175** • Helena, MT **406.442.0711**

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B24050917

Report Date: 05/17/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95										Batch: R421170
Lab ID: LCS051024	11	Laboratory Control Sample				Run: GCNGA-B_240510A			05/10/24 01:57	
Oxygen		0.62	Mol %	0.01	124	70	130			
Nitrogen		6.18	Mol %	0.01	103	70	130			
Carbon Dioxide		1.04	Mol %	0.01	105	70	130			
Methane		74.8	Mol %	0.01	100	70	130			
Ethane		6.04	Mol %	0.01	101	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.48	Mol %	0.01	74	70	130			
n-Butane		2.01	Mol %	0.01	100	70	130			
Isopentane		0.98	Mol %	0.01	98	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			
Lab ID: B24050917-001ADUP	12	Sample Duplicate				Run: GCNGA-B_240510A			05/10/24 11:51	
Oxygen		21.9	Mol %	0.01				0.4	20	
Nitrogen		77.7	Mol %	0.01				0.1	20	
Carbon Dioxide		0.30	Mol %	0.01				3.3	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.05	Mol %	0.01				0.0	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Work Order Receipt Checklist

Hall Environmental

B24050917

Login completed by: Crystal M. Jones

Date Received: 5/9/2024

Reviewed by: jmillier

Received by: CMJ

Reviewed Date: 5/15/2024

Carrier name: FedEx NDA

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☒	Not Applicable ☐
Container/Temp Blank temperature:	20.2°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-3444

Chain of Custody Record



Environment Testing

[illegible]

Ver: 06/08/2021

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Preservative
None

ICOC No:
885-615

Containers
Count
1

Container Type
Tedlar Bag 1L



4901 Hawkins NE - Albuquerque, NM 87109

385-4081 COC

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks:

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
5/7/24	1636	42 Lind	CU1636		5/7/24	1634
5/7/24	1636	42 Lind	CU1636		5/8/24	7:25

This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Hilcorp Energy

Job Number: 885-4081-1

SDG Number:

Login Number: 4081

List Number: 1

Creator: Proctor, Nancy

List Source: Eurofins Albuquerque

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



APPENDIX D

Groundwater Laboratory Analytical Reports



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mitch Killough
Hilcorp Energy
PO BOX 4700
Farmington, New Mexico 87499

Generated 6/13/2024 2:58:48 PM

JOB DESCRIPTION

Standard

JOB NUMBER

885-5587-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
6/13/2024 2:58:48 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Standard

Laboratory Job ID: 885-5587-1

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Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
P2	The sample was received with pH>2

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Standard

Job ID: 885-5587-1

Job ID: 885-5587-1Eurofins Albuquerque

Job Narrative
885-5587-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 6/5/2024 6:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

GC/MS VOA

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

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Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW03
Date Collected: 06/04/24 10:30
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	10000		500	ug/L			06/12/24 03:59	500	
Ethylbenzene	ND		500	ug/L			06/12/24 03:59	500	
Toluene	5800		500	ug/L			06/12/24 03:59	500	
Xylenes, Total	4400		750	ug/L			06/12/24 03:59	500	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				06/12/24 03:59	500	
4-Bromofluorobenzene (Surr)	114		70 - 130				06/12/24 03:59	500	
Dibromofluoromethane (Surr)	92		70 - 130				06/12/24 03:59	500	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 03:59	500	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW04
Date Collected: 06/04/24 11:40
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	310		10	ug/L			06/12/24 04:23	10	
Ethylbenzene	ND		10	ug/L			06/12/24 04:23	10	
Toluene	ND		10	ug/L			06/12/24 04:23	10	
Xylenes, Total	ND		15	ug/L			06/12/24 04:23	10	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/12/24 04:23	10	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/12/24 04:23	10	
Dibromofluoromethane (Surr)	92		70 - 130				06/12/24 04:23	10	
Toluene-d8 (Surr)	91		70 - 130				06/12/24 04:23	10	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW08
Date Collected: 06/03/24 13:25
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/12/24 05:12	1	
Ethylbenzene	ND		1.0	ug/L			06/12/24 05:12	1	
Toluene	ND		1.0	ug/L			06/12/24 05:12	1	
Xylenes, Total	ND		1.5	ug/L			06/12/24 05:12	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				06/12/24 05:12	1	
4-Bromofluorobenzene (Surr)	107		70 - 130				06/12/24 05:12	1	
Dibromofluoromethane (Surr)	93		70 - 130				06/12/24 05:12	1	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 05:12	1	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW11
Date Collected: 06/03/24 12:50
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/12/24 05:37	1	
Ethylbenzene	ND		1.0	ug/L			06/12/24 05:37	1	
Toluene	ND		1.0	ug/L			06/12/24 05:37	1	
Xylenes, Total	ND		1.5	ug/L			06/12/24 05:37	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/12/24 05:37	1	
4-Bromofluorobenzene (Surr)	108		70 - 130				06/12/24 05:37	1	
Dibromofluoromethane (Surr)	94		70 - 130				06/12/24 05:37	1	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 05:37	1	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW12
Date Collected: 06/03/24 14:00
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	9.3		2.0	ug/L			06/12/24 06:02	2	
Ethylbenzene	ND		2.0	ug/L			06/12/24 06:02	2	
Toluene	ND		2.0	ug/L			06/12/24 06:02	2	
Xylenes, Total	ND		3.0	ug/L			06/12/24 06:02	2	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				06/12/24 06:02	2	
4-Bromofluorobenzene (Surr)	113		70 - 130				06/12/24 06:02	2	
Dibromofluoromethane (Surr)	92		70 - 130				06/12/24 06:02	2	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 06:02	2	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW15
Date Collected: 06/04/24 10:50
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	9800		500	ug/L			06/12/24 06:26	500	
Ethylbenzene	140		50	ug/L			06/12/24 06:51	50	
Toluene	1900		50	ug/L			06/12/24 06:51	50	
Xylenes, Total	1500		75	ug/L			06/12/24 06:51	50	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/12/24 06:26	500	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/12/24 06:51	50	
4-Bromofluorobenzene (Surr)	114		70 - 130				06/12/24 06:26	500	
4-Bromofluorobenzene (Surr)	113		70 - 130				06/12/24 06:51	50	
Dibromofluoromethane (Surr)	91		70 - 130				06/12/24 06:26	500	
Dibromofluoromethane (Surr)	89		70 - 130				06/12/24 06:51	50	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 06:26	500	
Toluene-d8 (Surr)	92		70 - 130				06/12/24 06:51	50	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW16
Date Collected: 06/03/24 14:45
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	68		10	ug/L			06/12/24 07:40	10	
Ethylbenzene	270		10	ug/L			06/12/24 07:40	10	
Toluene	ND		10	ug/L			06/12/24 07:40	10	
Xylenes, Total	270		15	ug/L			06/12/24 07:40	10	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/12/24 07:15	100	
1,2-Dichloroethane-d4 (Surr)	86		70 - 130				06/12/24 07:40	10	
4-Bromofluorobenzene (Surr)	108		70 - 130				06/12/24 07:15	100	
4-Bromofluorobenzene (Surr)	117		70 - 130				06/12/24 07:40	10	
Dibromofluoromethane (Surr)	89		70 - 130				06/12/24 07:15	100	
Dibromofluoromethane (Surr)	87		70 - 130				06/12/24 07:40	10	
Toluene-d8 (Surr)	92		70 - 130				06/12/24 07:15	100	
Toluene-d8 (Surr)	107		70 - 130				06/12/24 07:40	10	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW17
Date Collected: 06/03/24 14:25
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/12/24 15:28	1	
Ethylbenzene	ND		1.0	ug/L			06/12/24 15:28	1	
Toluene	ND		1.0	ug/L			06/12/24 15:28	1	
Xylenes, Total	ND		1.5	ug/L			06/12/24 15:28	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/12/24 15:28	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/12/24 15:28	1	
Dibromofluoromethane (Surr)	90		70 - 130				06/12/24 15:28	1	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 15:28	1	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW18
Date Collected: 06/03/24 13:00
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-9
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	1400		100	ug/L			06/12/24 08:53	100	
Ethylbenzene	270		10	ug/L			06/12/24 09:18	10	
Toluene	ND		10	ug/L			06/12/24 09:18	10	
Xylenes, Total	ND		15	ug/L			06/12/24 09:18	10	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				06/12/24 08:53	100	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				06/12/24 09:18	10	
4-Bromofluorobenzene (Surr)	112		70 - 130				06/12/24 08:53	100	
4-Bromofluorobenzene (Surr)	113		70 - 130				06/12/24 09:18	10	
Dibromofluoromethane (Surr)	93		70 - 130				06/12/24 08:53	100	
Dibromofluoromethane (Surr)	88		70 - 130				06/12/24 09:18	10	
Toluene-d8 (Surr)	90		70 - 130				06/12/24 08:53	100	
Toluene-d8 (Surr)	92		70 - 130				06/12/24 09:18	10	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW19
Date Collected: 06/03/24 14:55
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-10
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	5800	P2	200	ug/L			06/12/24 09:43	200	
Ethylbenzene	400	P2	200	ug/L			06/12/24 09:43	200	
Toluene	17000	P2	200	ug/L			06/12/24 09:43	200	
Xylenes, Total	8800	P2	300	ug/L			06/12/24 09:43	200	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93	P2	70 - 130				06/12/24 09:43	200	
4-Bromofluorobenzene (Surr)	113	P2	70 - 130				06/12/24 09:43	200	
Dibromofluoromethane (Surr)	88	P2	70 - 130				06/12/24 09:43	200	
Toluene-d8 (Surr)	92	P2	70 - 130				06/12/24 09:43	200	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW22

Lab Sample ID: 885-5587-11

Date Collected: 06/03/24 13:10

Matrix: Water

Date Received: 06/05/24 06:30

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/12/24 10:32	1	
Ethylbenzene	ND		1.0	ug/L			06/12/24 10:32	1	
Toluene	ND		1.0	ug/L			06/12/24 10:32	1	
Xylenes, Total	ND		1.5	ug/L			06/12/24 10:32	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				06/12/24 10:32	1	
4-Bromofluorobenzene (Surr)	110		70 - 130				06/12/24 10:32	1	
Dibromofluoromethane (Surr)	90		70 - 130				06/12/24 10:32	1	
Toluene-d8 (Surr)	89		70 - 130				06/12/24 10:32	1	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW23
Date Collected: 06/04/24 13:00
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-12
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	P2	1.0	ug/L			06/12/24 10:57	1	
Ethylbenzene	ND	P2	1.0	ug/L			06/12/24 10:57	1	
Toluene	ND	P2	1.0	ug/L			06/12/24 10:57	1	
Xylenes, Total	ND	P2	1.5	ug/L			06/12/24 10:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	97	P2	70 - 130				06/12/24 10:57	1	
4-Bromofluorobenzene (Surr)	109	P2	70 - 130				06/12/24 10:57	1	
Dibromofluoromethane (Surr)	93	P2	70 - 130				06/12/24 10:57	1	
Toluene-d8 (Surr)	89	P2	70 - 130				06/12/24 10:57	1	

Client Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW26
Date Collected: 06/03/24 13:45
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-13
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/12/24 11:21	1	
Ethylbenzene	ND		1.0	ug/L			06/12/24 11:21	1	
Toluene	ND		1.0	ug/L			06/12/24 11:21	1	
Xylenes, Total	ND		1.5	ug/L			06/12/24 11:21	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/12/24 11:21	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/12/24 11:21	1	
Dibromofluoromethane (Surr)	93		70 - 130				06/12/24 11:21	1	
Toluene-d8 (Surr)	88		70 - 130				06/12/24 11:21	1	

QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-6579/3

Matrix: Water

Analysis Batch: 6579

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/12/24 00:18	1
Ethylbenzene	ND		1.0	ug/L			06/12/24 00:18	1
Toluene	ND		1.0	ug/L			06/12/24 00:18	1
Xylenes, Total	ND		1.5	ug/L			06/12/24 00:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		06/12/24 00:18	1
4-Bromofluorobenzene (Surr)	110		70 - 130		06/12/24 00:18	1
Dibromofluoromethane (Surr)	92		70 - 130		06/12/24 00:18	1
Toluene-d8 (Surr)	90		70 - 130		06/12/24 00:18	1

Lab Sample ID: LCS 885-6579/2

Matrix: Water

Analysis Batch: 6579

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	21.5		ug/L		107	70 - 130
Toluene	20.2	20.8		ug/L		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	90		70 - 130
Toluene-d8 (Surr)	91		70 - 130

Lab Sample ID: MB 885-6640/3

Matrix: Water

Analysis Batch: 6640

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/12/24 12:59	1
Ethylbenzene	ND		1.0	ug/L			06/12/24 12:59	1
Toluene	ND		1.0	ug/L			06/12/24 12:59	1
Xylenes, Total	ND		1.5	ug/L			06/12/24 12:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/12/24 12:59	1
4-Bromofluorobenzene (Surr)	109		70 - 130		06/12/24 12:59	1
Dibromofluoromethane (Surr)	92		70 - 130		06/12/24 12:59	1
Toluene-d8 (Surr)	89		70 - 130		06/12/24 12:59	1

Lab Sample ID: LCS 885-6640/2

Matrix: Water

Analysis Batch: 6640

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	20.5		ug/L		102	70 - 130
Toluene	20.2	19.2		ug/L		95	70 - 130

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QC Sample Results

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

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

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	92		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130
Toluene-d8 (Surr)	89		70 - 130

QC Association Summary

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

GC/MS VOA

Analysis Batch: 6579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5587-1	MW03	Total/NA	Water	8260B	
885-5587-2	MW04	Total/NA	Water	8260B	
885-5587-3	MW08	Total/NA	Water	8260B	
885-5587-4	MW11	Total/NA	Water	8260B	
885-5587-5	MW12	Total/NA	Water	8260B	
885-5587-6	MW15	Total/NA	Water	8260B	
885-5587-6	MW15	Total/NA	Water	8260B	
885-5587-7	MW16	Total/NA	Water	8260B	
885-5587-7	MW16	Total/NA	Water	8260B	
885-5587-9	MW18	Total/NA	Water	8260B	
885-5587-9	MW18	Total/NA	Water	8260B	
885-5587-10	MW19	Total/NA	Water	8260B	
885-5587-11	MW22	Total/NA	Water	8260B	
885-5587-12	MW23	Total/NA	Water	8260B	
885-5587-13	MW26	Total/NA	Water	8260B	
MB 885-6579/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6579/2	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 6640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5587-8	MW17	Total/NA	Water	8260B	
MB 885-6640/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6640/2	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW03
Date Collected: 06/04/24 10:30
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	6579	CM	EET ALB	06/12/24 03:59

Client Sample ID: MW04
Date Collected: 06/04/24 11:40
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		10	6579	CM	EET ALB	06/12/24 04:23

Client Sample ID: MW08
Date Collected: 06/03/24 13:25
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6579	CM	EET ALB	06/12/24 05:12

Client Sample ID: MW11
Date Collected: 06/03/24 12:50
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6579	CM	EET ALB	06/12/24 05:37

Client Sample ID: MW12
Date Collected: 06/03/24 14:00
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6579	CM	EET ALB	06/12/24 06:02

Client Sample ID: MW15
Date Collected: 06/04/24 10:50
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	6579	CM	EET ALB	06/12/24 06:26
Total/NA	Analysis	8260B		50	6579	CM	EET ALB	06/12/24 06:51

Client Sample ID: MW16
Date Collected: 06/03/24 14:45
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		100	6579	CM	EET ALB	06/12/24 07:15
Total/NA	Analysis	8260B		10	6579	CM	EET ALB	06/12/24 07:40

Eurofins Albuquerque

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Standard

Job ID: 885-5587-1

Client Sample ID: MW17
Date Collected: 06/03/24 14:25
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6640	CM	EET ALB	06/12/24 15:28

Client Sample ID: MW18
Date Collected: 06/03/24 13:00
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		100	6579	CM	EET ALB	06/12/24 08:53
Total/NA	Analysis	8260B		10	6579	CM	EET ALB	06/12/24 09:18

Client Sample ID: MW19
Date Collected: 06/03/24 14:55
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		200	6579	CM	EET ALB	06/12/24 09:43

Client Sample ID: MW22
Date Collected: 06/03/24 13:10
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6579	CM	EET ALB	06/12/24 10:32

Client Sample ID: MW23
Date Collected: 06/04/24 13:00
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6579	CM	EET ALB	06/12/24 10:57

Client Sample ID: MW26
Date Collected: 06/03/24 13:45
Date Received: 06/05/24 06:30

Lab Sample ID: 885-5587-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6579	CM	EET ALB	06/12/24 11:21

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Standard

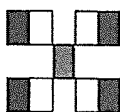
Job ID: 885-5587-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	Benzene
8260B		Water	Ethylbenzene
8260B		Water	Toluene
8260B		Water	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25

2 of 2



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Chain-of-Custody Record

Chain-of-Custody Record									
Client: <u>Hilcorp</u>		Turn-Around Time: ☒ Standard ☐ Rush							
Mailing Address: <u>Mitch Killough</u>		Project Name: <u>Standard</u>							
Phone #: _____		Project #: _____							
email or Fax#: <u>MKillough@hilcorp.com</u>		Project Manager: <u>Stuart Hyde - Ensolum</u>							
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)		Sampler: <u>E. Carroll S. Carter</u>							
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other _____		On Ice: ☒ Yes ☐ No							
☐ EDD (Type) _____		# of Coolers: <u>1</u> <u>4092</u>							
Date		Time		Matrix		Sample Name		Cooler Temp (including CF): <u>37.0-3.7</u> (°C)	
<u>6-3</u>	<u>1345</u>	<u>CU</u>	<u>MW 26</u>					Container Type and #	HEAL No.
								<u>300A</u>	<u>13</u>
Date	Time	Relinquished by:		Received by:		Via:		Date	Time
<u>6-4</u>	<u>1328</u>	<u>GP</u>		<u>AW</u>		<u>AW</u>		<u>6/4/24</u>	<u>1328</u>
Date	Time	Relinquished by:		Received by:		Via:		Date	Time
<u>6/4/24</u>	<u>1330</u>	<u>Christine Waaler</u>		<u>AW</u>		<u>AW</u>		<u>6/5/24</u>	<u>6:30</u>

Login Sample Receipt Checklist

Client: Hilcorp Energy

Job Number: 885-5587-1

Login Number: 5587

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

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

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 363133

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 363133
	Action Type: [REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
nvez	1. Continue O&M schedule as stated in report. 2. Submit next quarterly report by October 15, 2024.	8/2/2024