1. Continue O&M & sampling as stated in report. 2. Submit next quarterly report by April 15, 2025.

ENSOLUM

January 9, 2025

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

Re: 2024 Fourth Quarter – Remediation System Operation and Monitoring Report
Hare 15
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident No: NRM2020945060

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *2024 Fourth Quarter - Remediation System Operation and Monitoring Report* summarizing remediation system performance during the fourth quarter of 2024 at the Hare 15 natural gas production well (Site, Figure 1) on land managed by the Bureau of Lan Management (BLM). The Site is located in Unit M, Section 3, Township 29 North, Range 10 West in San Juan County, New Mexico (Figure 1). The duration of operation and monitoring activities included in this report is for the period from September 30 through December 30, 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 *Dual-Phase Extraction (DPE) Pilot Test Report and Final Remediation Work Plan* prepared by Ensolum and submitted to the NMOCD in April 2023. Per the conditions of approval (COAs) issued by the NMOCD on May 19, 2023, this report includes the following information:

- A summary of remediation activities during the quarter;
- The system run time summary;
- 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.

As approved in the *Dual-Phase Extraction (DPE) Pilot Test Report and Final Remediation Work Plan,* groundwater sampling is being conducted semi-annually beginning in 2024. This quarterly remediation summary report also includes data and summaries from semi-annual groundwater sampling events conducted at the Site during every other reporting period.

REMEDIATION SYSTEM DESCRIPTION

The remediation system at the Site includes a DPE system which uses a rotary lobe positive displacement blower to apply vacuum to ten remediation wells (MW01, MW06, MW08, MW09, MW10, MW11, MW13, MW14, MW15, and MW16) that are connected to the blower via subsurface piping. The extracted air, petroleum vapors, and fluids enter a vapor/liquid separator

or “knockout” 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 phase separated hydrocarbons (PSH) and potentially dissolved phase impacted groundwater, is pumped to an aboveground storage tank for storage and off-site disposal. The system layout is depicted on Figure 2.

FOURTH QUARTER 2024 OPERATION AND MAINTENANCE

Field data measurements were collected from the system weekly throughout the fourth quarter of 2024 except for the month of November where only three Site visits were conducted. Regular operations and maintenance (O&M) activities have been performed throughout the fourth quarter of 2024. Field forms completed during O&M visits are presented in Appendix A.

Since startup on August 13, 2024, all Site DPE wells were operated in order to recover PSH, draw down the groundwater table, and induce air flow in impacted soil zones. Between September 30 and December 30, 2024, the DPE system operated for 2,036 hours for a runtime efficiency of 93 percent (%). Appendix B presents photographs of the runtime meter for calculating the fourth quarter 2024 runtime efficiency. Table 1 presents the SVE system operational hours and calculated percent runtime. Field measurements collected during O&M events are summarized in Table 2.

Vapor Recovery

Per the May 2023 COAs, influent vapor samples were collected from the DPE system bi-weekly (twice a month) throughout the fourth quarter of 2024. Influent vapor samples were collected on October 1, October 16, November 15, November 27, December 5, and December 30, 2024, using a high vacuum air sampling pump on the system inlet, after the manifold assembly, but prior to the liquid knockout tank. Samples were collected into 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) 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 laboratory analytical results are summarized in Table 3, with complete laboratory analytical reports attached as Appendix C. Graphs 1 and 2 also present oxygen and carbon dioxide levels over time, respectively. Per the May 2023 COAs, influent vapor samples will be collected bi-monthly (every other month) during the first quarter of 2025 and for the remainder of the first year of system operation.

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, 4,557 pounds (2.3 tons) of vapor phase TPH have been removed by the system to date. Please note that an error was identified in the Delta Hours calculation in the Table 4 submitted in the third quarter 2024 report and has since been corrected.

Liquid Recovery

Total liquid recovery volumes are measured using a totalizing flow metering device. During the initial O&M field visit in August of 2024, it was determined that a liquid totalizer was not installed between the transfer pump and storage tank by the fabricator. A totalizer was installed on August 20, 2024; therefore, liquid recovery totals presented in this, and future reports will not include data between August 13 and August 20, 2024.

Since totalizer installation on August 20, 2024, through December 30, 2024, approximately 38,398 gallons of liquid have been recovered. The impacted groundwater and recovered PSH are

emulsified and homogenously commingled enough during extraction that product thickness is unmeasurable in the liquid recovery tank. Therefore, the estimated volume of PSH recovered is not measurable and not reported. During December 2024, it was determined that the totalizer was no longer functioning correctly and was not recording accurate volumes. The totalizer will be repaired or replaced in the first quarter of 2025. Liquid recovery is summarized in Table 5.

GROUNDWATER MONITORING

Since September 2020, groundwater gauging and sampling activities have been conducted at the Site. This report summarizes the fourth quarter of 2024 semi-annual groundwater sampling activities and data collected during the monitoring event.

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 PSH 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. During the fourth quarter of 2024, PSH was detected in six monitoring wells (MW03, MW04A, MW07, MW13, MW15, and MW16). Potentiometric surface maps were drafted with groundwater elevations and PSH thickness measured during the fourth quarter 2024 quarterly monitoring event (Figure 3).

Groundwater Sampling Activities and Analytical Results

Groundwater samples were collected for laboratory analysis from monitoring wells containing sufficient water to sample and 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). A summary of groundwater analytical results is presented in Table 7. During the fourth quarter of 2024, benzene concentrations exceeded the New Mexico Water Quality Conservation Commission (NMWQCC) standards at four locations (MW22, MW20, MW26, and MW30). The groundwater analytical results from the fourth quarter of 2024 are depicted on Figure 4, with complete laboratory analytical reports attached as Appendix D.

PSH Recovery

Beginning in September of 2020, PSH was manually recovered from monitoring wells using a disposable bailer through the second quarter of 2024. During each PSH recovery event, the thickness of product within the well and total volume removed was recorded. Table 8 presents the total volume recovered from each well at the Site during these recovery events. Through the

second quarter of 2024, approximately 7.62 gallons of PSH were recovered manually from the Site. Manual PSH recovery no longer occurs at the Site while the DPE system is operational as PSH is being recovered from the extraction wells continuously during system operation.

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. Semi-annual groundwater sampling events will continue to be conducted in the second and fourth quarters of the year.

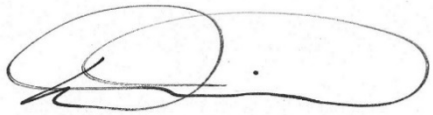
Reporting

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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Attachments:

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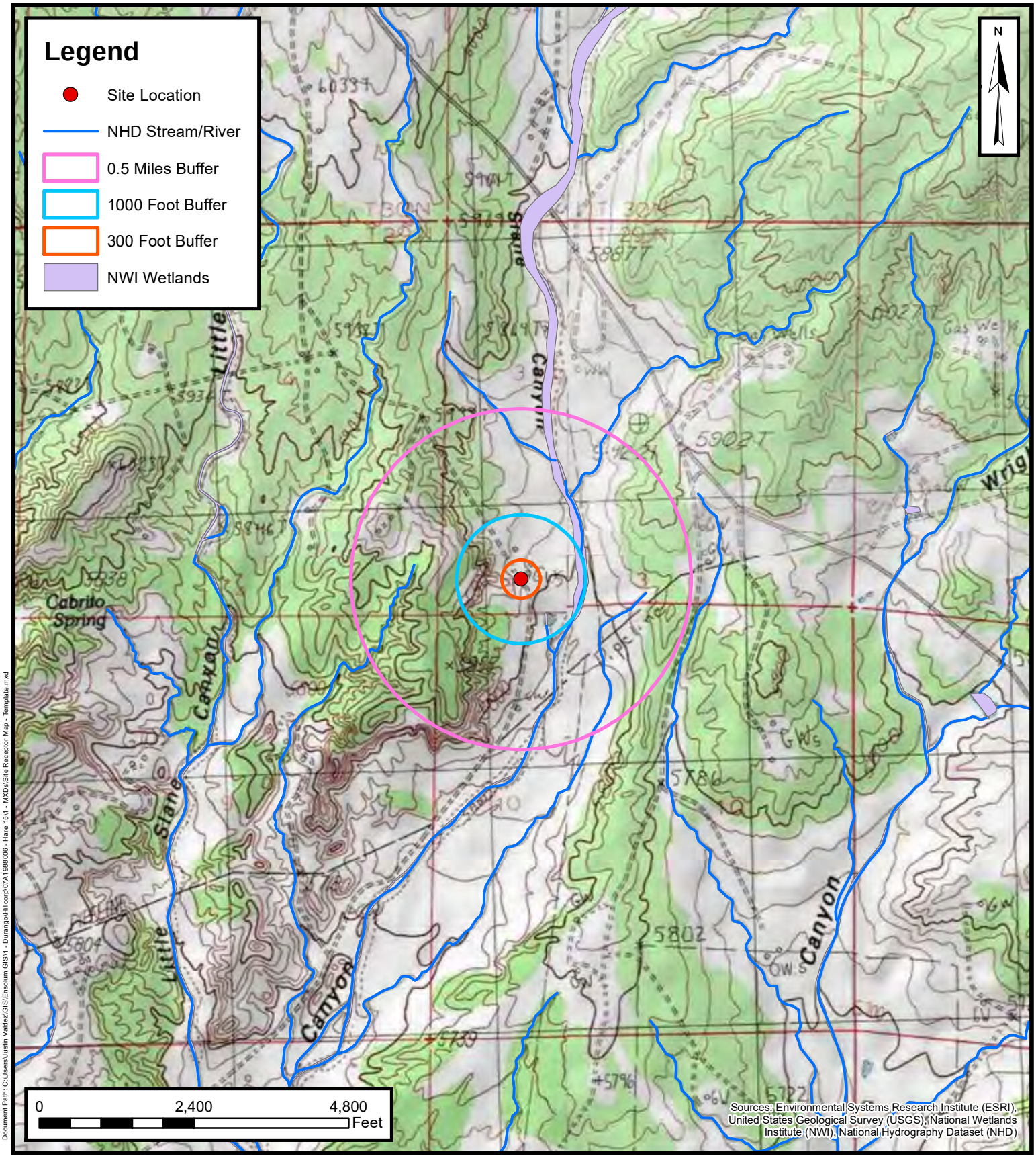
Figures



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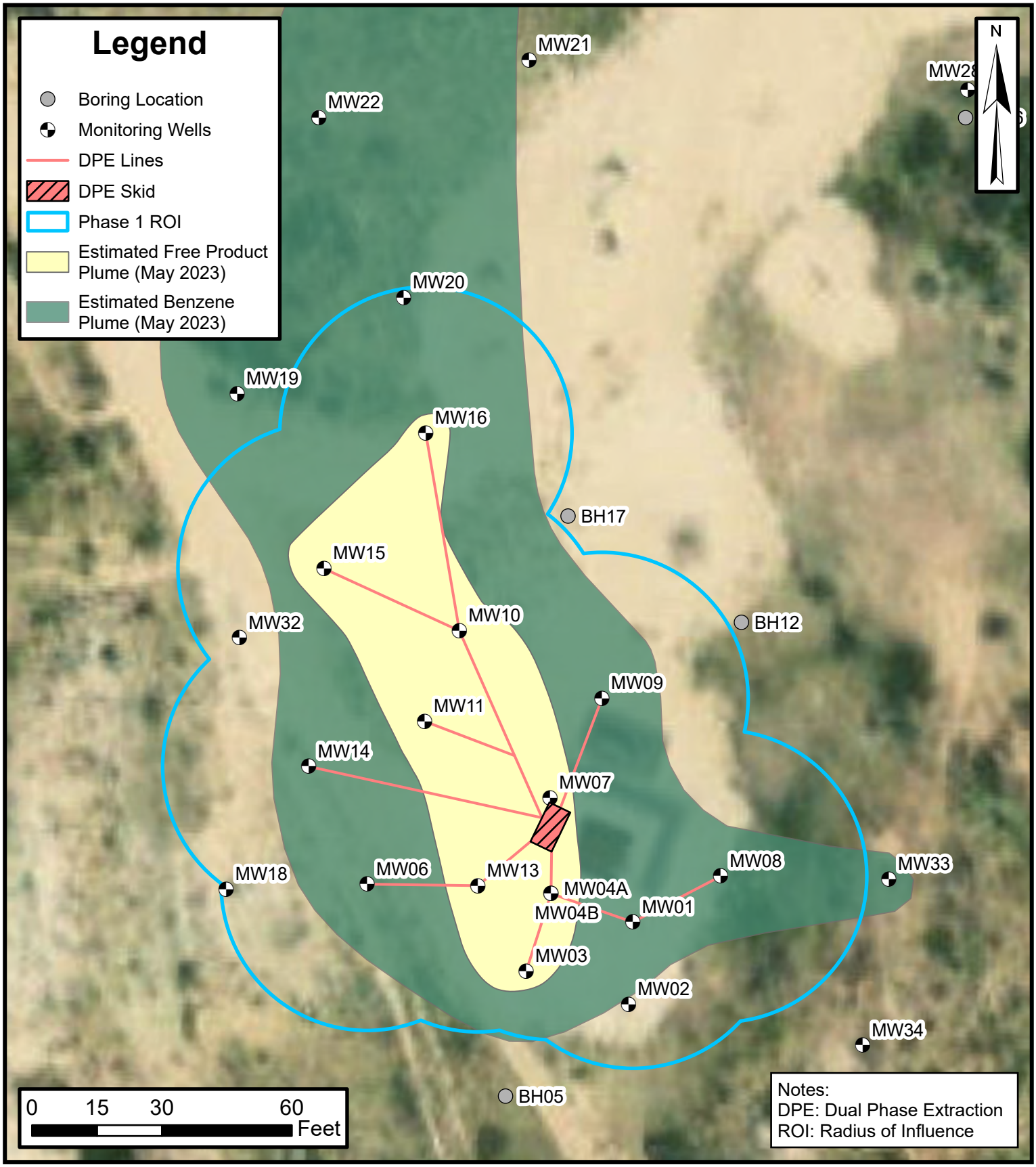
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Hare 15
Hilcorp Energy Company
36.749188, -107.877461
San Juan County, NM

PROJECT NUMBER: 07A1988006

FIGURE
1



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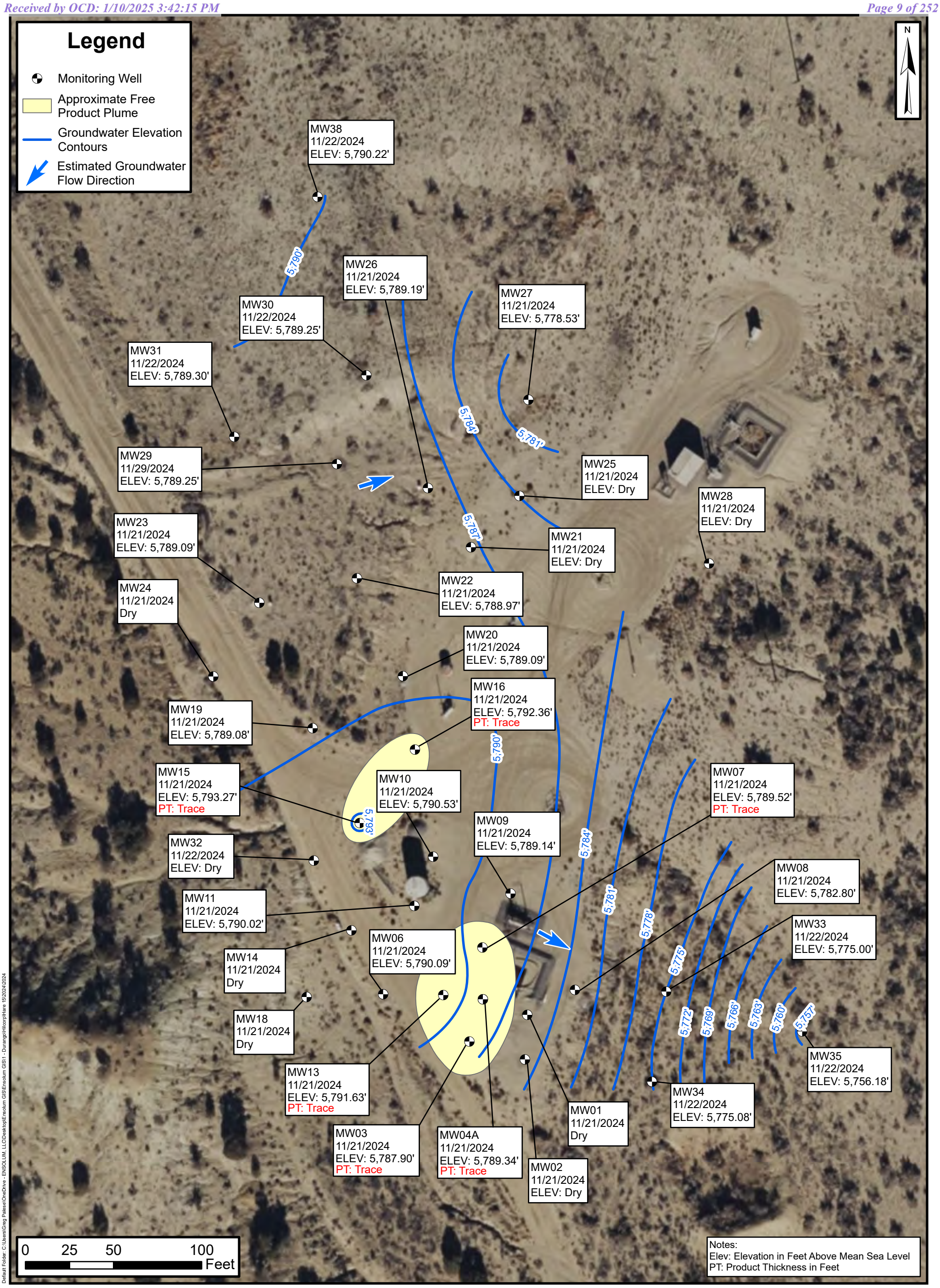
Dual Phase Extraction System

Hare 15
Hilcorp Energy Company
SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE
2

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft



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Groundwater Elevation Contours November 2024

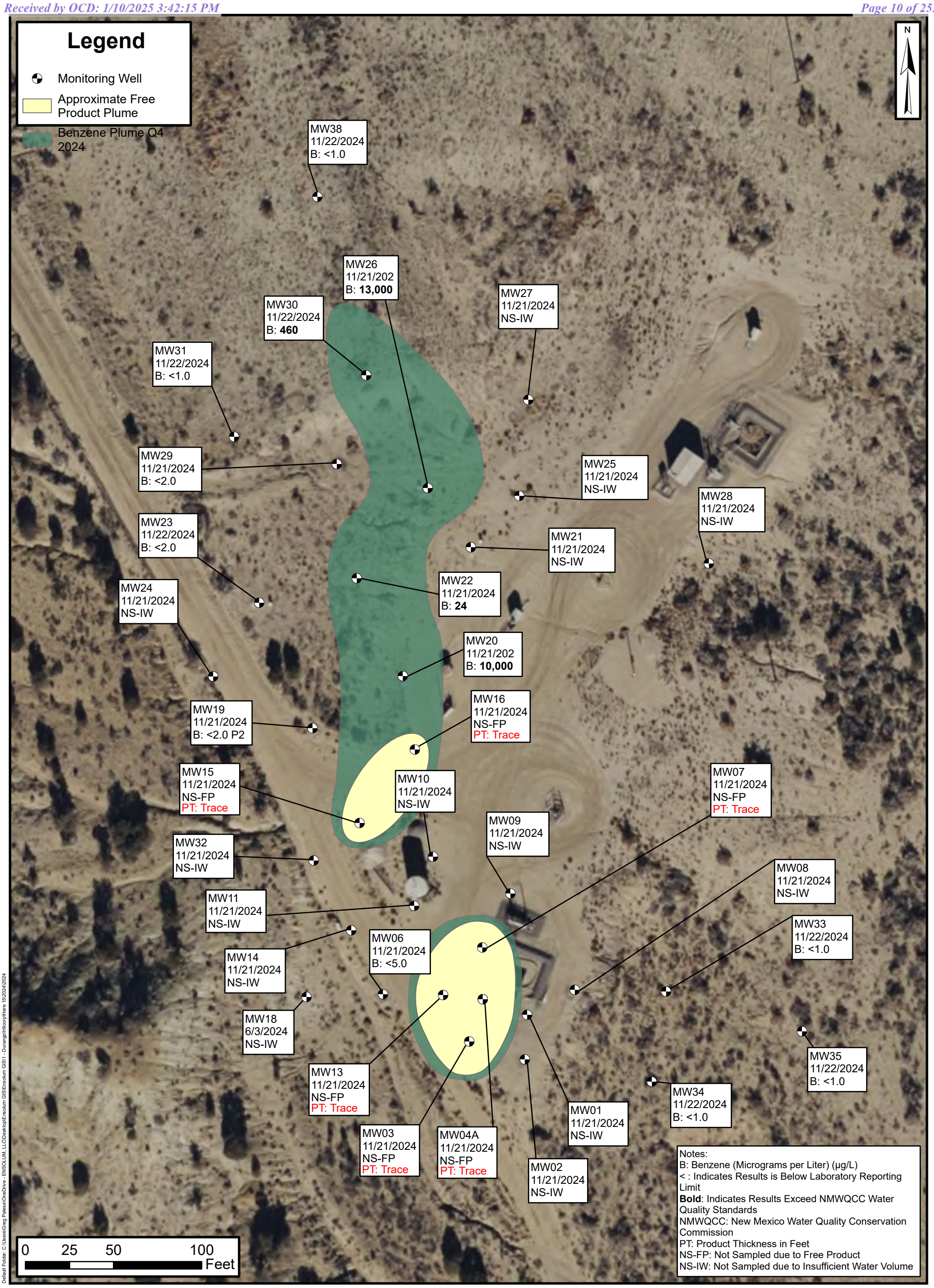
Hare 15
Hilcorp Energy Company

SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE

3

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft



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Groundwater Analytical Results November 2024

Hare 15
Hilcorp Energy Company

SW/SW, Sec 3, T29N, R10W
36.749188, -107.877461
San Juan County, New Mexico

FIGURE

4

Sources: Environmental Systems Research Institute (ESRI), Maxar, Microsoft

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Tables & Graphs

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TABLE 1
DUAL PHASE EXTRACTION SYSTEM RUNTIME CALCULATIONS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Date/Time of Reading	System Hour Runtime	Run Time (%)	Cumulative Run Time (%)	Notes
8/13/2024	4	START UP		
9/30/2024	1,014	36%	88%	
10/1/2024	1,031	72%	87%	
10/2/2024	1,056	102%	88%	
10/10/2024	1,247	100%	89%	
10/16/2024	1,391	100%	90%	
10/23/2024	NR	--	--	
11/6/2024	1,880	97%	92%	
11/14/2024	2,070	99%	93%	
11/27/2024	2,333	90%	92%	
12/5/2024	2,523	99%	92%	
12/11/2024	2,605	57%	90%	
12/18/2024	2,774	100%	91%	
12/30/2024	3,050	96%	91%	
	4th Qrt 24 Runtime%		93%	

Notes:

%: percent

Dashed line indicates quarter change

--: not applicable/not collected

NR: Not Recorded

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TABLE 2
DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

SVE Well ID	Date	PID (ppm)	Flow Rate (acfm)	Flow Rate (scfm)[1]	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
Influent, All Wells	8/13/2024	1,572	221	127	8.0	3.93	12.7	>5.0
	8/14/2024	1,915	221	127	8.0	3.93	16.5	3.52
	8/15/2024	1,372	259	142	9.0	4.42	20.4	0.96
	8/16/2024	1,277	247	139	8.5	4.17	20.4	0.94
	8/21/2024	1,838	247	120	11.5	5.65	20.1	0.94
	8/28/2024	2,020	259	136	10.0	4.91	20.9	0.00
	9/4/2024	495	300	157	10.0	4.91	20.4	0.34
	9/11/2024	691	300	157	10.0	4.91	20.9	0.34
	9/19/2024	1,004	300	149	11.0	5.40	20.2	0.26
	9/25/2024	421	300	149	11.0	5.40	18.8	0.26
	10/1/2024	435	300	169	8.5	4.17	--	--
	10/16/2024	389	325	204	6.0	2.95	19.8	0.22
	10/23/2024	--	--	--	--	--	--	--
	11/6/2024	129	250	144	8.0	3.93	20.9	0.08
	11/14/2024	--	360	202	8.5	4.17	--	--
	11/27/2024	378	280	139	11.0	5.40	19.9	--
	12/5/2024	276	280	143	10.5	5.16	20.9	0.03
	12/11/2024	184	300	153	10.5	5.16	--	--
	12/18/2024	169	220	112	10.5	5.16	20.8	0.14
	12/30/2024	281	275	129	12.0	5.89	20.9	0.19
MW01	8/13/2024	736	62	38	6.5	3.19	14.6	>5.00
	8/14/2024	1,515	60	39	5.0	2.46	18.5	1.78
	8/15/2024	2,298	68	44	5.0	2.46	20.4	0.64
	8/16/2024	1,454	64	42	5.0	2.46	20.4	0.60
	8/21/2024	1,270	76	42	9.0	4.42	20.6	0.36
	8/28/2024	2,601	70	43	6.5	3.19	20.1	0.72
	9/4/2024	344	45	29	5.0	2.46	20.4	0.20
	9/11/2024	211	45	30	4.5	2.21	20.8	0.24
	9/19/2024	201	28	18	6.0	2.95	20.2	0.22
	9/25/2024	92	50	31	6.0	2.95	19.0	0.18
	10/1/2024	326	66	41	6.0	2.95	--	--
	10/16/2024	41	54	35	5.0	2.46	19.9	0.16
	10/23/2024	66	--	--	7.0	3.44	21.4	0.02
	11/6/2024	6	48	29	6.5	3.19	20.9	0.13
	11/14/2024	64	70	41	7.5	3.68	20.9	0.08
	11/27/2024	6	50	30	7.0	3.44	20.9	0.11
	12/5/2024	59	55	35	6.0	2.95	20.8	0.20
	12/11/2024	4	75	44	7.5	3.68	20.9	0.04
	12/18/2024	31	55	30	9.0	4.42	20.9	0.07
	12/30/2024	39	70	41	7.5	3.68	20.9	0.06
MW06	8/13/2024	42	30	19	6.0	2.95	20.9	0.02
	8/14/2024	325	20	13	5.0	2.46	20.0	1.70
	8/15/2024	274	22	15	4.0	1.96	20.9	0.88
	8/16/2024	364	26	17	5.0	2.46	20.9	0.86
	8/21/2024	368	58	29	11.0	5.40	20.9	0.40
	8/28/2024	378	55	33	7.0	3.44	20.9	0.22
	9/4/2024	144	55	35	6.0	2.95	20.9	0.14
	9/11/2024	56	50	31	6.0	2.95	20.9	0.10
	9/19/2024	98	50	31	6.0	2.95	20.5	0.14
	9/25/2024	254	45	29	5.5	2.70	19.4	0.08
	10/1/2024	409	74	46	6.0	2.95	--	--
	10/16/2024	14	44	29	5.0	2.46	21.1	0.10
	10/23/2024	26	--	--	7.0	3.44	21.4	0.04
	11/6/2024	58	50	30	7.0	3.44	20.9	0.11
	11/14/2024	--	58	34	7.5	3.68	--	--
	11/27/2024	76	60	35	7.5	3.68	20.9	0.19
	12/5/2024	117	50	31	6.0	2.95	20.9	0.11
	12/18/2024	48	55	27	11.5	5.65	20.8	0.10
	12/11/2024	24	60	35	8.0	3.93	20.9	0.10
	12/30/2024	53	50	30	7.0	3.44	20.9	0.11
MW08	8/13/2024	16	28	18	6.0	2.95	17.9	4.58
	8/14/2024	403	30	20	5.0	2.46	19.7	1.62
	8/15/2024	346	32	21	5.0	2.46	20.9	0.74
	8/16/2024	436	38	25	5.0	2.46	20.9	0.48

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TABLE 2
DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

SVE Well ID	Date	PID (ppm)	Flow Rate (acfm)	Flow Rate (scfm)[1]	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
MW08	8/21/2024	110	38	21	9.0	4.42	20.9	0.42
	8/28/2024	37	30	18	7.5	3.68	20.9	0.24
	9/4/2024	35	30	18	7.5	3.68	20.4	0.14
	9/11/2024	69	30	18	7.5	3.68	20.9	0.12
	9/19/2024	57	25	15	7.5	3.68	20.5	0.16
	9/25/2024	28	40	25	6.0	2.95	19.5	0.10
	10/1/2024	79	14	9	5.0	2.46	--	--
	10/16/2024	7	14	9	6.0	2.95	20.0	0.18
	10/23/2024	6	--	--	6.5	3.19	21.4	0.08
	11/6/2024	5	25	15	7.0	3.44	20.2	0.90
	11/14/2024	3	22	13	7.5	3.68	20.9	0.12
	11/27/2024	8	25	15	7.5	3.68	20.9	0.70
	12/5/2024	52	25	14	8.0	3.93	20.8	0.35
	12/11/2024	27	20	16	0.0	0.00	20.9	0.03
	12/18/2024	45	30	17	8.5	4.17	20.9	0.05
	12/30/2024	73	--	--	7.5	3.68	20.8	0.06
MW09	8/13/2024	59	32	21	5.5	2.70	16.5	>5.00
	8/14/2024	373	34	23	4.5	2.21	19.4	3.06
	8/15/2024	283	74	50	4.0	1.96	20.4	1.58
	8/16/2024	619	50	34	4.0	1.96	20.6	1.16
	8/21/2024	162	58	33	8.0	3.93	20.9	0.48
	8/28/2024	85	50	31	6.0	2.95	20.9	0.40
	9/4/2024	87	60	38	5.5	2.70	20.4	0.24
	9/11/2024	50	40	25	6.0	2.95	20.9	0.24
	9/19/2024	53	60	38	6.0	2.95	20.2	0.26
	9/25/2024	52	60	40	4.5	2.21	19.3	0.18
	10/1/2024	57	100	65	5.0	2.46	--	--
	10/16/2024	15	30	20	5.0	2.46	20.0	0.24
	10/23/2024	24	--	--	6.0	2.95	21.9	0.08
	11/6/2024	6	60	37	6.5	3.19	20.9	0.16
	11/14/2024	11	100	59	7.5	3.68	20.9	0.20
	11/27/2024	12	75	46	6.5	3.19	20.9	0.13
	12/5/2024	90	60	35	8.0	3.93	20.9	0.27
	12/11/2024	124	75	44	7.5	3.68	20.9	0.04
	12/18/2024	115	75	42	8.5	4.17	20.9	0.15
	12/30/2024	289	80	47	7.5	3.68	20.9	0.19
MW10	8/13/2024	1,334	56	36	5.5	2.70	17.7	3.38
	8/14/2024	1,803	44	29	4.5	2.21	12.0	3.46
	8/15/2024	2,053	62	42	4.0	1.96	16.4	1.78
	8/16/2024	1,978	58	38	5.0	2.46	18.0	1.66
	8/21/2024	2,851	70	38	9.0	4.42	18.9	1.50
	8/28/2024	1,302	65	43	4.5	2.21	20.9	0.32
	9/4/2024	1,112	70	46	5.0	2.46	20.8	0.38
	9/11/2024	704	70	45	5.5	2.70	20.8	0.40
	9/19/2024	1,201	70	44	6.0	2.95	19.9	0.38
	9/25/2024	556	65	42	5.0	2.46	17.0	0.64
	10/1/2024	834	60	38	5.5	2.70	--	--
	10/16/2024	410	60	39	5.0	2.46	19.8	0.36
	10/23/2024	307	--	--	5.0	2.46	20.9	0.16
	11/6/2024	288	75	48	5.5	2.70	20.9	0.22
	11/14/2024	--	74	45	6.5	3.19	--	--
	11/27/2024	335	65	42	5.0	2.46	20.8	0.21
	12/5/2024	506	70	49	3.5	1.72	--	0.39
	12/11/2024	484	80	53	4.5	2.21	220.9	0.59
	12/18/2024	409	75	50	4.5	2.21	20.1	0.45
	12/30/2024	279	65	44	4.0	1.96	20.1	0.44
MW11	8/13/2024	1,751	44	26	7.0	3.44	10.3	>5.00
	8/14/2024	1,940	40	26	5.0	2.46	15.1	3.80
	8/15/2024	1,852	74	48	5.0	2.46	18.2	1.64
	8/16/2024	2,190	68	44	5.0	2.46	18.8	1.46
	8/21/2024	2,381	76	36	12.0	5.89	19.3	0.94
	8/28/2024	2,964	80	47	7.5	3.68	20.6	0.50
	9/4/2024	977	55	32	7.5	3.68	20.6	0.31
	9/11/2024	423	80	47	7.5	3.68	20.9	0.26

ENSOLUM

TABLE 2
DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

SVE Well ID	Date	PID (ppm)	Flow Rate (acfm)	Flow Rate (scfm)[1]	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
MW11	9/19/2024	1,999	60	36	7.0	3.44	20.5	0.28
	9/25/2024	461	70	44	6.0	2.95	17.3	0.46
	10/1/2024	592	100	63	6.0	2.95	--	--
	10/16/2024	229	58	37	5.5	2.70	19.8	0.28
	10/23/2024	179	--	--	7.5	3.68	20.9	0.18
	11/6/2024	170	50	30	7.0	3.44	20.9	0.19
	11/14/2024	--	56	32	8.0	3.93	--	--
	11/27/2024	142	60	35	7.5	3.68	20.8	0.19
	12/5/2024	386	80	52	5.0	2.46	20.5	0.32
	12/11/2024	130	80	44	9.0	4.42	20.9	0.41
	12/18/2024	172	80	40	11.0	5.40	20.7	0.34
	12/30/2024	152	50	29	8.0	3.93	20.9	0.22
MW13	8/13/2024	290	44	24	9.0	4.42	18.9	2.28
	8/14/2024	963	10	6	6.0	2.95	20.9	0.14
	8/15/2024	662	14	10	4.0	1.96	20.9	0.10
	8/16/2024	451	14	10	4.0	1.96	20.9	0.06
	8/21/2024	2,845	72	38	10.0	4.91	20.6	0.48
	8/28/2024	993	60	35	8.0	3.93	20.9	0.00
	9/4/2024	122	60	39	5.0	2.46	20.9	0.02
	9/11/2024	63	--	--	4.0	1.96	20.9	0.04
	9/19/2024	113	--	--	7.5	3.68	20.5	0.04
	9/25/2024	464	--	--	7.5	3.68	17.4	0.26
	10/1/2024	552	52	30	8.0	3.93	--	--
	10/16/2024	9	58	37	5.5	2.70	20.0	0.02
	10/23/2024	153	--	--	9.0	4.42	21.4	0.06
	11/6/2024	80	60	33	9.0	4.42	20.8	0.11
	11/14/2024	--	90		10.0	4.91	--	--
	11/27/2024	94	80	43	9.5	4.67	20.9	0.17
	12/5/2024	148	60	36	7.0	3.44	20.7	0.17
	12/11/2024	14	65	34	10.0	4.91	20.4	0.13
	12/18/2024	39	60	31	10.5	5.16	20.9	0.13
	12/30/2024	38	60	32	9.5	4.67	20.9	0.19
MW14	8/13/2024	379	42	25	7.0	3.44	14.8	>5.00
	8/14/2024	1,074	32	21	5.0	2.46	18.3	4.18
	8/15/2024	759	50	34	4.0	1.96	19.9	1.94
	8/16/2024	726	52	34	5.0	2.46	19.9	2.02
	8/21/2024	688	58	27	12.0	5.89	20.6	1.26
	8/28/2024	633	50	30	7.0	3.44	20.9	0.65
	9/4/2024	210	45	28	6.5	3.19	20.9	0.40
	9/11/2024	150	45	28	6.5	3.19	20.9	0.32
	9/19/2024	161	60	35	7.5	3.68	20.9	0.05
	9/25/2024	203	60	38	6.0	2.95	19.5	0.20
	10/1/2024	143	60	36	7.0	3.44	--	--
	10/16/2024	72	48	31	5.0	2.46	19.9	0.23
	10/23/2024	81	--	--	6.5	3.19	21.1	0.16
	11/6/2024	51	50	30	7.0	3.44	20.9	0.14
	11/14/2024	--	60	35	7.5	3.68	--	--
	11/27/2024	78	75	44	7.5	3.68	20.9	0.10
	12/5/2024	108	70	46	5.0	2.46	20.9	0.26
	12/11/2024	21	65	37	8.0	3.93	20.9	0.27
	12/18/2024	64	70	40	8.0	3.93	20.9	0.26
	12/30/2024	64	50	30	7.0	3.44	20.9	0.20
MW15	8/13/2024	379	70	42	7.0	3.44	12.0	>5.00
	8/14/2024	1,932	52	33	5.5	2.70	14.6	>5.00
	8/15/2024	1,677	58	36	6.0	2.95	16.9	4.26
	8/16/2024	1,262	44	29	5.0	2.46	17.7	3.82
	8/21/2024	1,555	70	35	11.0	5.40	18.9	2.52
	8/28/2024	1,865	55	33	7.0	3.44	20.9	0.76
	9/4/2024	975	55	33	7.0	3.44	20.7	0.72
	9/11/2024	555	60	35	7.5	3.68	20.8	0.54
	9/19/2024	602	70	41	7.5	3.68	19.9	0.50
	9/25/2024	393	60	38	6.0	2.95	18.2	0.62
	10/1/2024	386	70	43	6.5	3.19	--	--
	10/16/2024	220	62	41	5.0	2.46	19.9	0.39

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TABLE 2
DUAL PHASE EXTRACTION SYSTEM FIELD MEASUREMENTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

SVE Well ID	Date	PID (ppm)	Flow Rate (acfm)	Flow Rate (scfm)[1]	Vacuum (IHG)	Vacuum (psi)	Oxygen (%)	Carbon Dioxide (%)
MW15	10/23/2024	205	--	--	7.0	3.44	20.9	0.22
	11/6/2024	214	70	41	7.5	3.68	20.9	0.25
	11/14/2024	--	72	41	8.0	3.93	--	--
	11/27/2024	442	60	35	7.5	3.68	20.4	0.31
	12/5/2024	539	70	46	5.0	2.46	20.1	0.49
	12/11/2024	395	75	41	9.0	4.42	20.9	0.39
	12/18/2024	371	65	36	9.0	4.42	20.9	0.46
	12/30/2024	299	70	41	7.5	3.68	20.6	0.35
MW16	8/13/2024	1,796	14	8	7.0	3.44	13.5	>5.00
	8/14/2024	480	12	8	5.5	2.70	20.9	0.02
	8/15/2024	501	18	12	5.0	2.46	20.9	0.00
	8/16/2024	47	26	17	5.0	2.46	20.9	0.02
	8/21/2024	404	25	12	11.0	5.40	20.9	0.02
	8/28/2024	4,787	45	27	7.0	3.44	20.9	0.76
	9/4/2024	1,810	30	18	7.0	3.44	20.8	0.51
	9/11/2024	1,335	30	18	7.5	3.68	20.7	0.42
	9/19/2024	1,421	NM	NM	7.0	3.44	20.2	0.32
	9/25/2024	188	30	19	6.0	2.95	19.9	0.04
	10/1/2024	112	58	36	6.0	2.95	--	--
	10/16/2024	68	14	9	5.5	2.70	19.9	0.02
	10/23/2024	30	--	--	6.0	2.95	20.2	0.08
	11/6/2024	279	50	--	7.5	3.68	20.9	0.11
	11/14/2024	--	48		8.0	3.93	--	--
	11/27/2024	422	55	--	7.5	3.68	20.5	0.25
	12/5/2024	751	20	--	7.5	3.68	20.9	0.32
	12/11/2024	217	15		1.0	0.49	20.9	0.28
	12/18/2024	273	75	--	9.0	4.42	20.9	0.21
	12/30/2024	241	--	--	8.0	3.93	20.9	--

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

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TABLE 3
DUAL PHASE EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS
Hare 15
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 (%)
8/13/2024	1,572	310	240	36	530	45,000	12.01	7.68
8/14/2024	1,915	180	250	30	390	28,000	16.73	3.02
8/21/2024	1,838	54	280	37	480	18,000	20.46	0.95
8/28/2024	2,020	20	160	28	380	12,000	21.20	0.64
9/4/2024	495	14	100	14	190	6,600	21.57	0.33
9/19/2024	1,004	69	360	*<50*	590	3,700	21.78	0.28
10/1/2024	135	6.1	31	*<5.0*	56	64	21.47	0.40
10/16/2024	389	2.3	10	0.68	11	18	21.65	0.23
11/15/2024	--	1.3	1.9	*<0.50*	<0.75	440	19.33	0.19
11/27/2024	378	4.4	24.0	*<5.0*	78	2,100	22.01	0.16
12/5/2024	276	1.1	1.8	*<0.50*	0.92	440	21.80	0.16

Notes:

GRO: gasoline range organics
µg/L: microgram per liter
PID: photoionization detector
ppm: parts per million
TVPH: total volatile petroleum hydrocarbons
%: percent
--: not sampled
Grey: Result below laboratory reporting limit

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TABLE 4
DUAL PHASE EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS
Hare 15
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)
8/13/2024	1,572	310	240	36	530	45,000
8/14/2024	1,915	180	250	30	390	28,000
8/21/2024	1,838	54	280	37	480	18,000
8/28/2024	2,020	20	160	28	380	12,000
9/4/2024	495	14	100	14	190	6,600
9/19/2024	1,004	69	360	*<50*	590	3,700
10/1/2024	135	6.1	31	*<5.0*	56	64
10/16/2024	389	2.3	10	0.68	11	18
11/15/2024	--	1.3	1.9	*<0.50*	*<0.75*	440
11/27/2024	378	4.4	24.0	*<5.0*	78	2,100
12/5/2024	276	1.1	1.8	*<0.50*	0.92	440
Average	1,002	60	133	19	246	10,578

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)
8/13/2024	127	0	0	0.1472	0.1140	0.0171	0.2517	21.37
8/14/2024	127	150,114	150,114	0.0855	0.1187	0.0142	0.1852	13.30
8/21/2024	120	1,346,034	1,195,920	0.0242	0.1257	0.0166	0.2154	8.08
8/28/2024	136	2,681,010	1,334,976	0.0102	0.0814	0.0142	0.1933	6.10
9/4/2024	157	4,251,324	1,570,314	0.0082	0.0587	0.0082	0.1116	3.88
9/19/2024	149	7,457,208	3,205,884	0.0385	0.2006	0.0279	0.3288	2.06
10/1/2024	169	9,000,516	1,543,308	0.0039	0.0196	0.0032	0.0354	0.04
10/16/2024	204	13,408,140	4,407,624	0.0018	0.0075	0.0005	0.0084	0.01
11/15/2024[(1)]	202	21,629,136	8,220,996	0.0010	0.0014	0.0004	0.0006	0.33
11/27/2024	139	23,828,394	2,199,258	0.0023	0.0125	0.0026	0.0406	1.09
12/5/2024	143	25,460,310	1,631,916	0.0006	0.0010	0.0003	0.0005	0.24
			Average	0.0294	0.067	0.0096	0.125	5.14

Mass Recovery

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
8/13/2024	4	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8/14/2024	24	20	1.7	2.3	0.3	3.6	262.0	0.13
8/21/2024	190	166	4.0	20.9	2.8	35.8	1341.9	0.67
8/28/2024	354	164	1.7	13.3	2.3	31.6	998.6	0.50
9/4/2024	520	167	1.4	9.8	1.4	18.6	646.0	0.32
9/19/2024	879	359	13.8	71.9	10.0	117.9	739.4	0.37
10/1/2024	1,031	152	0.6	3.0	0.5	5.4	6.2	0.00
10/16/2024	1,391	360	0.6	2.7	0.2	3.0	4.9	0.00
11/15/2024	2,070	678	0.7	1.0	0.3	0.4	225.5	0.11
11/27/2024	2,333	264	0.6	3.3	0.7	10.7	287.9	0.14
12/5/2024	2,523	190	0.1	0.2	0.1	0.1	44.8	0.02
		Total Mass Recovery to Date	25	128	18	227	4,557	2.3

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
Grey: Laboratory reporting limit used to estimate mass removal
(1): Flow rate and hours from 11/14/24 applied to analytical data from 11/15/24

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TABLE 5
LIQUID RECOVERY
Hare 15
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)	
8/12/2024	System Startup								
8/20/2024	Totalizer Installed								
8/21/2024	189.7	--	--	--	--	--	--	--	
8/28/2024	352.6	4,680	4,680	4,680	168:45:00	10,125	0.46	666	
9/4/2024	520.3	9,057	4,378	9,057	168:25:00	10,105	0.43	624	
9/11/2024	687.4	13,093	4,035	13,093	153:30:00	9,210	0.44	631	
9/19/2024	878.9	17,197	4,105	17,197	192:00:00	11,520	0.36	513	
9/25/2024	970.3	20,511	3,313	20,511	157:58:00	9,478	0.35	503	
10/1/2024	1,031.1	22,652	2,142	22,652	130:02:00	7,802	0.27	395	
10/16/2024	1,391	23,665	1,013	23,665	360:00:00	21,600	0.05	68	
10/23/2024	NR	NR	NR	NR	168:00:00	10,080	NR	NR	
11/6/2024	1,880	32,212	8,546	32,212	336:00:00	20,160	0.42	610	
11/14/2024	2,070	35,998	3,786	35,998	192:00:00	11,520	0.33	473	
11/27/2024	2,333	38,388	6,176	38,388	312:00:00	18,720	0.33	475	
12/5/2024	2,523	38,388	0	38,388	192:00:00	11,520	0.00	0	
12/11/2024	2,605	38,398	10	38,398	144:00:00	8,640	0.00	2	
12/18/2024	2,774	38,398	0	38,398	168:00:00	10,080	0.00	0	
12/30/2024	3,050	38,398	0	38,398	288:00:00	17,280	0.00	0	

Notes:

**: totalizing meter installed on 8/16/2024*

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
NR: Not recorded

Total Quantity of Liquid Removed:	38,398	Gal
	914	bbl

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TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Well Number	Top of Casing Elevation (feet AMSL)	Total Depth (feet)	Date	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW01	5,817.82	27.60	9/22/2020	26.48	--	--	5,791.34
			10/2/2020	26.48	--	--	5,791.34
			10/7/2020	26.46	--	--	5,791.36
			2/17/2021	26.42	--	--	5,791.40
			9/27/2021	26.45	--	--	5,791.37
			1/7/2022	26.40	--	--	5,791.42
			4/22/2022	26.44	--	--	5,791.38
			9/8/2022	26.36	--	--	5,791.46
			12/9/2022	26.25	--	--	5,791.57
			3/9/2023	26.31	--	--	5,791.51
			5/2/2023	26.29	--	--	5,791.53
			8/30/2023	26.23	--	--	5,791.59
			11/30/2023	26.23	--	--	5,791.59
			2/15/2024	26.33	--	--	-26.33
			6/3/2024	26.32	--	--	-26.32
			11/21/2024	DRY	--	--	--
MW02	5,817.36	37.10	9/22/2020	DRY	--	--	--
			10/2/2020	37.02 (1)	--	--	--
			10/7/2020	DRY	--	--	--
			2/17/2021	37.09 (1)	--	--	--
			9/27/2021	DRY	--	--	--
			1/7/2022	DRY	--	--	--
			9/8/2022	DRY	--	--	--
			12/9/2022	DRY	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			6/3/2024	DRY	--	--	--
			11/21/2024	DRY	--	--	--
MW03	5,817.81	37.55	9/22/2020	27.85	27.14	0.71	-27.28
			10/2/2020	30.62	27.16	3.46	-27.85
			10/7/2020	29.90	27.14	2.76	-27.69
			2/17/2021	28.01	27.42	0.59	-27.54
			9/27/2021	27.45	27.31	0.14	-27.34
			11/24/2021	27.48	27.32	0.16	-27.35
			1/7/2022	27.42	27.31	0.11	-27.33
			4/22/2022	27.66	27.58	0.08	-27.60
			9/8/2022	27.45	27.35	0.10	-27.37
			12/9/2022	25.24	25.14	0.10	-25.16
			3/9/2023	27.14	27.05	0.09	-27.07
			5/2/2023	27.20	27.08	0.12	-27.10
			8/30/2023	27.16	--	--	-27.16
			11/30/2023	28.13	--	--	-28.13
			2/15/2024	27.13	27.10	0.03	-27.11
			6/3/2024	27.13	27.12	0.01	-27.12
			11/21/2024	27.63	Sheen	--	-27.63

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TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

MW04A	5,818.23	36.58	9/22/2020	27.58	27.56	0.02	-27.56
			10/2/2020	29.39	27.56	1.83	-27.93
			10/7/2020	28.08	27.57	0.51	-27.67
			2/17/2021	27.96	27.66	0.30	-27.72
			9/27/2021	28.15	27.90	0.25	-27.95
			11/24/2021	28.22	27.92	0.30	-27.98
			1/7/2022	28.04	27.85	0.19	-27.89
			4/22/2022	28.06	27.88	0.18	-27.92
			9/8/2022	27.89	27.77	0.12	-27.79
			12/9/2022	27.87	27.74	0.13	-27.77
			3/9/2023	27.81	27.75	0.06	-27.76
			5/2/2023	28.11	27.97	0.14	-28.00
			8/30/2023	27.91	--	--	-27.91
			11/30/2023	27.91	--	--	-27.91
			2/15/2024	27.96	27.93	0.03	-27.94
			6/3/2024	28.00	27.98	0.02	-27.98
			11/21/2024	28.89	Sheen	--	-28.89
MW04B	5,818.22	17.30	9/22/2020	DRY	--	--	--
			10/2/2020	DRY	--	--	--
			10/7/2020	DRY	--	--	--
			2/17/2021	DRY	--	--	--
			9/27/2021	DRY	--	--	--
			1/7/2022	DRY	--	--	--
			9/8/2022	DRY	--	--	--
			12/9/2022	DRY	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
MW06	5,818.28	32.30	9/22/2020	27.71	--	--	5,790.57
			10/2/2020	27.70	--	--	5,790.58
			10/7/2020	27.67	--	--	5,790.61
			2/17/2021	27.75	--	--	5,790.53
			9/27/2021	27.75	--	--	5,790.53
			1/7/2022	26.73	--	--	5,791.55
			9/8/2022	27.77	--	--	-27.77
			12/9/2022	27.75	--	--	-27.75
			3/9/2023	27.76	--	--	-27.76
			5/2/2023	27.79	--	--	-27.79
			8/30/2023	28.75	--	--	-28.75
			11/30/2023	27.74	--	--	-27.74
			2/16/2024	27.78	--	--	-27.78
			5/31/2024	27.86	--	--	-27.86
			11/21/2024	28.19	--	--	-28.19
MW07	5,818.64	30.45	9/22/2020	28.77	28.01	0.76	-28.16
			10/2/2020	28.52	28.03	0.49	-28.13
			10/7/2020	28.69	28.16	0.53	-28.27
			2/17/2021	28.33	Sheen	--	5,790.31
			9/27/2021	28.29	28.22	0.07	5,790.41
			11/24/2021	28.25	28.21	0.04	5,790.42
			1/7/2022	28.23	Sheen	--	5,790.41
			4/22/2022	28.52	28.17	0.35	5,790.40
			9/8/2022	28.40	Sheen	--	5,790.24
			12/9/2022	28.37	28.17	0.20	-28.21
			3/9/2023	28.46	Sheen	--	5,790.18
			5/2/2023	28.62	28.40	0.22	-28.44
			8/30/2023	28.37	--	--	5,790.27
			11/30/2023	28.37	--	--	-28.37

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

			2/15/2024	28.40	--	--	-28.40
MW07			5/31/2024	28.40	28.39	0.01	-28.39
			11/21/2024	29.12	Sheen	--	-29.12
			9/22/2020	DRY	--	--	--
			10/2/2020	DRY	--	--	--
			10/7/2020	DRY	--	--	--
			2/17/2021	36.72 (1)	--	--	--
			9/27/2021	36.89 (1)	--	--	--
			1/7/2022	DRY	--	--	--
			9/8/2022	36.80 (1)	--	--	--
MW08	5,817.40	37.27	12/9/2022	36.81(1)	--	--	--
			3/9/2023	36.75 (1)	--	--	--
			5/2/2023	36.85 (1)	--	--	--
			8/30/2023	36.98 (1)	--	--	--
			11/30/2023	37.18 (1)	--	--	--
			2/15/2024	35.87 (1)	--	--	--
			6/3/2024	35.83 (1)	--	--	--
			11/21/2024	34.60 (1)	--	--	--
			9/22/2020	28.10	--	--	5,790.51
			10/2/2020	30.71	--	--	5,787.90
			10/7/2020	29.72	--	--	5,788.89
			2/17/2021	28.15	--	--	5,790.46
			9/27/2021	28.17	--	--	5,790.44
			1/7/2022	28.22	--	--	5,790.39
			4/22/2022	28.20	--	--	5,790.41
MW09	5,818.61	32.30	9/8/2022	28.23	--	--	5,790.38
			12/9/2022	28.09	--	--	-28.09
			3/9/2023	28.08	--	--	-28.08
			5/2/2023	28.12	--	--	-28.12
			8/30/2023	27.97	--	--	-27.97
			11/30/2023	27.95	--	--	-27.95
			2/15/2024	28.05	--	--	-28.05
			6/3/2024	28.12	--	--	-28.12
			11/21/2024	29.47	--	--	-29.47
			9/22/2020	30.23	29.22	1.01	-29.42
			10/2/2020	29.74	29.29	0.45	-29.38
			10/7/2020	29.80	29.21	0.59	-29.33
			2/17/2021	30.23	29.49	0.74	-29.64
			9/27/2021	29.65	29.37	0.28	-29.43
			11/24/2022	29.60	29.39	0.21	-29.43
			1/7/2022	29.50	29.42	0.08	-29.44
			4/22/2022	29.55	--	--	5,790.18
MW10	5,819.73	32.60	9/8/2022	29.45	Sheen	--	-29.45
			12/9/2022	29.44	--	--	-29.44
			3/9/2023	29.46	Sheen	--	-29.46
			5/2/2023	29.40	Sheen	--	-29.40
			8/30/2023	29.47	--	--	-29.47
			11/30/2023	29.31	--	--	-29.31
			2/15/2024	29.56	--	--	-29.56
			6/3/2024	29.53	--	--	-29.53
			11/21/2024	29.20	--	--	-29.20

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

MW11	5,819.37	32.57	9/22/2020	29.01	--	--	5,790.36
			10/2/2020	29.02	--	--	5,790.35
			10/7/2020	28.91	--	--	5,790.46
			2/17/2021	29.00	--	--	5,790.37
			9/27/2021	28.97	--	--	5,790.40
			1/7/2022	28.98	--	--	5,790.39
			4/22/2022	28.99	--	--	5,790.38
			9/8/2022	29.01	--	--	5,790.36
			12/9/2022	28.98	--	--	-28.98
			3/9/2023	29.00	--	--	-29.00
			5/2/2023	29.01	29.00	0.01	-29.01
			8/30/2023	28.71	--	--	-28.71
			11/30/2023	28.70	--	--	-28.70
			2/15/2024	28.77	28.74	0.03	-28.77
			6/3/2024	28.78	--	--	-28.78
			11/21/2024	29.35	--	--	-29.35
MW13	5,818.06	32.60	9/22/2020	27.81	27.43	0.38	-27.51
			10/2/2020	27.80	27.44	0.36	-27.51
			10/7/2020	27.81	27.42	0.39	-27.50
			2/17/2021	27.79	27.64	0.15	-27.67
			9/27/2021	27.68	27.57	0.11	-27.59
			11/24/2021	27.70	27.57	0.13	-27.60
			1/7/2022	27.66	27.58	0.08	-27.60
			4/22/2022	27.70	27.58	0.12	-27.60
			9/8/2022	27.69	27.60	0.09	-27.62
			12/9/2022	27.66	27.58	0.08	-27.60
			3/9/2023	27.67	27.58	0.09	-27.60
			5/2/2023	27.75	27.59	0.16	-27.62
			8/30/2023	27.29	27.18	0.11	-27.20
			11/30/2023	27.32	--	--	-27.32
			2/15/2024	27.29	27.24	0.05	-27.25
			6/3/2024	27.30	27.29	0.01	-27.29
			11/21/2024	26.43	Sheen	--	-26.43
MW14	5,821.30	33.83	2/17/2021	33.78	--	--	5,787.52
			9/27/2021	30.94	--	--	5,790.36
			1/7/2022	30.99	--	--	5,790.31
			9/8/2022	30.96	--	--	5,790.34
			12/9/2022	30.91	--	--	-30.91
			3/9/2023	30.99	--	--	-30.99
			5/2/2023	31.60	--	--	-31.60
			8/30/2023	31.34	--	--	-31.34
			11/30/2023	30.79	--	--	-30.79
			2/16/2024	31.03	--	--	-31.03
			5/30/2024	32.90	--	--	-32.90
			11/21/2024	DRY	--	--	--
MW15	5,823.34	35.62	2/17/2021	33.27	33.11	0.16	-33.14
			9/27/2021	33.65	33.05	0.60	-33.17
			1/7/2022	33.44	33.33	0.11	-33.35
			4/22/2022	33.33	--	--	5,790.01
			9/8/2022	32.23	Sheen	--	-32.23
			12/9/2022	33.22	--	--	-33.22
			3/9/2023	33.21	Sheen	--	-33.21
			5/2/2023	33.25	Sheen	--	-33.25
			8/30/2023	33.75	--	--	-33.75
			11/30/2023	33.32	--	--	-33.32
			2/16/2024	33.42	--	--	-33.42
			6/3/2024	33.49	--	--	-33.49
			11/21/2024	30.07	Sheen	--	-30.07

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

MW16	5,821.55	37.05	2/17/2021	32.20	31.67	0.53	-31.78
			9/27/2021	31.71	31.18	0.53	-31.29
			1/7/2022	31.65	31.24	0.41	-31.32
			4/22/2022	31.56	31.19	0.37	-31.26
			9/8/2022	31.64	31.21	0.43	-31.30
			12/9/2022	31.64	31.25	0.39	-31.33
			3/9/2023	31.56	31.22	0.34	-31.29
			5/2/2023	31.62	31.25	0.37	-31.32
			8/30/2023	31.60	31.28	0.32	-31.34
			11/30/2023	31.28	--	--	-31.28
			2/15/2024	31.58	31.26	0.32	-31.32
			6/3/2024	31.31	--	--	-31.31
			11/21/2024	29.19	Sheen	--	-29.19
MW18	5,821.35	32.54	2/17/2021	DRY	--	--	--
			9/27/2021	DRY	--	--	--
			1/7/2022	DRY	--	--	--
			4/22/2022	DRY	--	--	--
			9/8/2022	DRY	--	--	--
			12/9/2022	31.86 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	32.10 (1)	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/16/2024	31.32 (1)	--	--	--
			6/3/2024	32.12 (1)	--	--	--
			11/21/2024	DRY	--	--	--
MW19	5,825.06	43.50	2/17/2021	34.93	--	--	5,790.13
			9/27/2021	34.93	--	--	5,790.13
			1/7/2021	34.93	--	--	5,790.13
			4/22/2022	34.88	--	--	5,790.18
			9/8/2022	34.93	--	--	5,790.13
			12/9/2022	34.94	--	--	-34.94
			3/9/2023	34.91	--	--	-34.91
			5/2/2023	34.96	--	--	-34.96
			8/30/2023	34.98	--	--	-34.98
			11/30/2023	34.93	--	--	-34.93
			2/16/2024	34.97	--	--	-34.97
			5/30/2024	34.98	--	--	-34.98
			11/21/2024	35.98	--	--	-35.98
MW20	5,820.60	40.13	2/17/2021	30.36	--	--	5,790.24
			9/27/2021	30.38	--	--	5,790.22
			1/7/2022	30.35	--	--	5,790.25
			4/22/2022	30.33	--	--	5,790.27
			9/8/2022	30.38	--	--	5,790.22
			12/9/2022	30.38	--	--	-30.38
			3/9/2023	30.35	--	--	-30.35
			5/2/2023	30.40	--	--	-30.40
			8/30/2023	30.42	--	--	-30.42
			11/30/2023	30.45	--	--	-30.45
			2/15/2024	30.38	--	--	-30.38
			5/31/2024	30.43	--	--	-30.43
			11/21/2024	31.51	--	--	-31.51

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

MW21	5,820.72	36.24	5/21/2021	35.88 (1)	--	--	--
			9/27/2021	36.19 (1)	--	--	--
			4/22/2022	36.17 (1)	--	--	--
			9/8/2022	36.16 (1)	--	--	--
			12/9/2022	DRY	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/31/2024	DRY	--	--	--
			11/21/2024	DRY	--	--	--
MW22	5,826.83	42.95	5/21/2021	36.78	--	--	5,790.05
			9/27/2021	36.81	--	--	5,790.02
			4/22/2022	36.72	--	--	5,790.11
			9/8/2022	36.79	--	--	5,790.04
			12/9/2022	36.81	--	--	-36.81
			3/9/2023	36.77	--	--	-36.77
			5/2/2023	36.84	--	--	-36.84
			8/30/2023	36.85	--	--	-36.85
			11/30/2023	36.88	--	--	-36.88
			2/15/2024	36.81	--	--	-36.81
			5/31/2024	36.86	--	--	-36.86
			11/21/2024	37.86	--	--	-37.86
MW23	5,829.60	44.78	5/21/2021	40.38	--	--	5,789.22
			9/27/2021	39.45	--	--	5,790.15
			4/22/2022	39.38	--	--	5,790.22
			9/8/2022	39.45	--	--	5,790.15
			12/9/2022	39.47	--	--	-39.47
			3/9/2023	39.43	--	--	-39.43
			5/2/2023	39.50	--	--	-39.50
			8/30/2023	39.33	--	--	-39.33
			11/30/2023	39.46	--	--	-39.46
			2/16/2024	39.49	--	--	-39.49
			5/30/2024	39.51	--	--	-39.51
			11/21/2024	40.51	--	--	-40.51
MW24	5,826.76	41.39	5/21/2021	36.35	--	--	5,790.41
			9/27/2021	36.40			5,790.36
			9/8/2022	36.36	--	--	5,790.40
			12/9/2022	36.41	--	--	-36.41
			3/9/2023	36.37	--	--	-36.37
			5/2/2023	36.42	--	--	-36.42
			8/30/2023	36.45	--	--	-36.45
			11/30/2023	36.38	--	--	-36.38
			2/16/2024	36.24	--	--	-36.24
			5/30/2024	36.43	--	--	-36.43
			11/21/2024	DRY	--	--	--
MW25	5,819.84	40.40	5/21/2021	40.02 (1)	--	--	--
			9/27/2021	DRY	--	--	--
			4/22/2022	40.30 (1)	--	--	--
			9/8/2022	40.25 (1)	--	--	--
			12/9/2022	40.26 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/30/2024	DRY	--	--	--

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

MW25			11/21/2024	DRY	--	--	--
MW26	5,822.35	40.52	5/21/2021	32.58	--	--	5,789.77
			9/27/2021	32.57	--	--	5,789.78
			4/22/2022	32.49	--	--	5,789.86
			9/8/2022	32.57	--	--	5,789.78
			12/9/2022	32.56	--	--	-32.56
			3/9/2023	32.52	--	--	-32.52
			5/2/2023	32.58	--	--	-32.58
			8/30/2023	32.70	--	--	-32.70
			11/30/2023	32.63	--	--	-32.63
			2/15/2024	32.58	--	--	-32.58
			5/31/2024	32.60	--	--	-32.60
			11/21/2024	33.16	--	--	-33.16
MW27	5,818.56	40.60	9/27/2021	40.46 (1)	--	--	--
			4/22/2022	39.48 (1)	--	--	--
			9/8/2022	39.95 (1)	--	--	--
			12/9/2022	39.96 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	39.90 (1)	--	--	--
			8/30/2023	40.01 (1)	--	--	--
			11/30/2023	40.03 (1)	--	--	--
			2/15/2024	39.98 (1)	--	--	--
			5/31/2024	39.93 (1)	--	--	--
			11/21/2024	40.03 (1)	--	--	--
MW28	5,815.12	40.61	9/27/2021	DRY	--	--	--
			4/22/2022	DRY	--	--	--
			9/8/2022	39.95 (1)	--	--	--
			12/9/2022	39.97 (1)	--	--	--
			3/9/2023	DRY	--	--	--
			5/2/2023	DRY	--	--	--
			8/30/2023	DRY	--	--	--
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/31/2024	DRY	--	--	--
			11/21/2024	DRY	--	--	--
MW29	5,829.68	48.10	9/27/2021	39.75	--	--	-39.75
			4/22/2022	39.66	--	--	-39.66
			9/8/2022	39.73	--	--	-39.73
			12/9/2022	39.74	--	--	-39.74
			3/9/2023	39.70	--	--	-39.70
			5/2/2023	39.75	--	--	-39.75
			8/30/2023	38.82	--	--	-38.82
			11/30/2023	39.76	--	--	-39.76
			2/15/2024	39.37	--	--	-39.37
			5/30/2024	39.78	--	--	-39.78
			11/21/2024	40.43	--	--	-40.43
MW30	5,834.72	54.74	9/8/2022	44.96	--	--	5,789.76
			12/9/2022	44.91	--	--	-44.91
			3/9/2023	44.89	--	--	-44.89
			5/2/2023	44.90	--	--	-44.90
			8/30/2023	44.98	--	--	-44.98
			11/30/2023	44.94	--	--	-44.94
			2/16/2024	44.94	--	--	-44.94
			5/30/2024	44.96	--	--	-44.96
			11/22/2024	45.47	--	--	-45.47

ENSOLUM

TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

MW31	5,834.88	53.55	9/8/2022	45.02	--	--	5,789.86
			12/9/2023	44.98	--	--	-44.98
			3/9/2023	44.94	--	--	-44.94
			5/2/2023	45.00	--	--	-45.00
			8/30/2023	45.05	--	--	-45.05
			11/30/2023	44.97	--	--	-44.97
			2/16/2024	45.00	--	--	-45.00
			5/30/2024	45.02	--	--	-45.02
			11/22/2024	45.58	--	--	-45.58
MW32	5,821.84	40.18	9/8/2022	40.04 (1)	--	--	--
			12/9/2022	34.75	--	--	-34.75
			3/9/2023	34.03	--	--	-34.03
			5/2/2023	36.45	--	--	-36.45
			8/30/2023	38.59	--	--	-38.59
			11/30/2023	DRY	--	--	--
			2/15/2024	DRY	--	--	--
			5/30/2024	DRY	--	--	--
			11/22/2024	DRY	--	--	--
MW33	5,808.24	47.87	9/8/2022	33.51	--	--	5,774.73
			12/9/2022	32.92	--	--	-32.92
			3/9/2023	32.75	--	--	-32.75
			5/2/2023	32.72	--	--	-32.72
			8/30/2023	33.52	--	--	-33.52
			11/30/2023	33.07	--	--	-33.07
			2/16/2024	32.79	--	--	-32.79
			5/31/2024	29.96	--	--	-29.96
			11/22/2024	33.24	--	--	-33.24
MW34	5,807.90	43.64	9/8/2022	33.00	--	--	5,774.90
			12/9/2022	32.47	--	--	-32.47
			3/9/2023	32.29	--	--	-32.29
			5/2/2023	32.29	--	--	-32.29
			8/30/2023	33.16	--	--	-33.16
			11/30/2023	32.71	--	--	-32.71
			2/16/2024	32.37	--	--	-32.37
			5/31/2024	32.62	--	--	-32.62
			11/22/2024	32.82	--	--	-32.82
MW35	5,803.64	53.75	9/8/2022	47.22	--	--	5,756.42
			12/9/2022	46.85	--	--	-46.85
			3/9/2023	46.80	--	--	-46.80
			5/2/2023	46.78	--	--	-46.78
			8/30/2023	47.33	--	--	-47.33
			11/30/2023	47.28	--	--	-47.28
			2/16/2024	47.17	--	--	-47.17
			5/31/2024	47.27	--	--	-47.27
			11/22/2024	47.46	--	--	-47.46
MW38	5,835.26	53.12	9/9/2022	45.54	--	--	5,789.72
			12/9/2022	45.54	--	--	-45.54
			3/9/2023	DRY	--	--	--
			5/2/2023	45.55	--	--	-45.55
			8/30/2023	45.62	--	--	-45.62
			11/30/2023	45.57	--	--	-45.57
			2/16/2024	45.56	--	--	-45.56
			5/30/2024	45.58	--	--	-45.58
			11/22/2024	45.04	--	--	-45.04

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TABLE 6
GROUNDWATER ELEVATION
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Notes:

(1): water measured in well is not indicative of the perched groundwater aquifer at the Site

AMSL: above mean sea level

BTOC: below top of casing

--: indicates no GWEL or PSH measured

When product is present, the groundwater elevation is corrected using an estimated density correction factor of 0.8

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TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW01	2/17/2021	Well Dry			
	9/28/2021	**1,200**	14	9.1	**9,900**
	9/8/2022	Well Dry			
	3/9/2023	**1,900**	<50	400	**7,500**
	5/3/2023	**1,800**	<50	380	**6,400**
	8/30/2023	**2,700**	<50	240	**8,300**
	11/30/2023	**2,600**	<50	290	**4,500**
	2/15/2024	**2,200**	<50	330	**3,100**
	6/3/2024	**1,700**	<50	220	**3,500**
	11/21/2024	Well Dry			
MW02	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	6/3/2024	Well Dry			
	11/21/2024	Well Dry			
MW03	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
	11/21/2024	**No Sample Collected, PSH Present**			
MW04A	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
	11/21/2024	**No Sample Collected, PSH Present**			
MW04B	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	6/3/2024	Well Dry			
	11/21/2024	Well Dry			

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TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW06	2/17/2021	**110**	7.7	27	48
	9/28/2021	**210**	<5.0	8.0	130
	9/9/2022	**160**	<5.0	<5.0	70
	3/9/2023	**110**	8.2	<5.0	32
	5/3/2023	**70**	<5.0	<5.0	<10
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	11/30/2023	**130**	<2.0	13	310
	2/16/2024	**7**	<5.0	<5.0	<7.5
	5/31/2024	**51**	<5.0	<5.0	7.7
	11/21/2024	<5.0	<5.0	<5.0	<7.5
MW07	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**4,400**	**10,000**	**1,400**	**32,000**
	5/31/2024	**No Sample Collected, PSH Present**			
	11/21/2024	**No Sample Collected, PSH Present**			
MW08	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	**20**	<5.0	13	<7.5
	6/3/2024	**74**	<2.0	58	35
	11/21/2024	Well Dry			
MW09	2/17/2021	**37**	<5.0	99	230
	9/28/2021	**140**	<5.0	200	280
	9/9/2022	**63**	<5.0	48	250
	3/9/2023	**60**	<5.0	180	270
	5/3/2023	**40**	<5.0	110	220
	8/31/2023	**26**	<5.0	100	200
	11/30/2023	**13**	<5.0	73	110
	2/15/2024	**13**	<5.0	68	90
	6/3/2024	**36**	<5.0	100	170
	11/21/2024	Insufficient volume to sample			

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TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW10	2/17/2021	No Sample Collected, PSH Present			
	9/28/2021	No Sample Collected, PSH Present			
	9/8/2022	No Sample Collected, PSH Present			
	3/9/2023	No Sample Collected, PSH Present			
	5/2/2023	No Sample Collected, PSH Present			
	2/15/2024	**6,900**	**15,000**	**1,500**	**28,000**
	6/3/2024	**6,400**	**13,000**	**1,600**	**29,000**
	11/21/2024	Insufficient volume to sample			
MW11	2/17/2021	**3,500**	**4,500**	320	**11,000**
	9/28/2021	**3,400**	**7,500**	650	**11,000**
	9/9/2022	**2,800**	**8,200**	630	**11,000**
	3/9/2023	**1,900**	**5,000**	320	**7,800**
	5/2/2023	No Sample Collected, PSH Present			
	8/30/2023	**2,900**	**8,600**	460	**14,000**
	11/30/2023	**1,900**	**2,100**	90	**11,000**
	2/15/2024	No Sample Collected, PSH Present			
	6/3/2024	**2,300**	**3,900**	290	**14,000**
		Insufficient volume to sample			
MW13	2/17/2021	No Sample Collected, PSH Present			
	9/28/2021	No Sample Collected, PSH Present			
	9/8/2022	No Sample Collected, PSH Present			
	3/9/2023	No Sample Collected, PSH Present			
	5/2/2023	No Sample Collected, PSH Present			
	2/15/2024	No Sample Collected, PSH Present			
	6/3/2024	No Sample Collected, PSH Present			
	11/21/2024	No Sample Collected, PSH Present			
MW14	2/17/2021	Well Dry			
	9/28/2021	**32**	5.2	8.2	120
	9/9/2022	**16**	33	13.0	250
	3/9/2023	**6.3**	10	<5.0	130
	5/3/2023	**9.0**	14	<5.0	130
	8/31/2023	**8.1**	11	<5.0	86
	11/30/2023	**21**	51	9	300
	2/16/2024	**12**	15	3	99
	5/30/2024	3.6	9.8	2	130
	11/21/2024	Well Dry			
MW15	2/17/2021	No Sample Collected, PSH Present			
	9/28/2021	No Sample Collected, PSH Present			
	9/8/2022	No Sample Collected, PSH Present			
	3/9/2023	No Sample Collected, PSH Present			
	5/2/2023	No Sample Collected, PSH Present			
	2/16/2024	**1,400**	**3,800**	**580**	**22,000**

ENSOLUM

TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW15	6/3/2024	**1,400**	**4,100**	**1,200**	**28,000**
	11/21/2024	**No Sample Collected, PSH Present**			
MW16	2/17/2021	**No Sample Collected, PSH Present**			
	9/28/2021	**No Sample Collected, PSH Present**			
	9/8/2022	**No Sample Collected, PSH Present**			
	3/9/2023	**No Sample Collected, PSH Present**			
	5/2/2023	**No Sample Collected, PSH Present**			
	2/15/2024	**No Sample Collected, PSH Present**			
	6/3/2024	**No Sample Collected, PSH Present**			
	11/21/2024	**No Sample Collected, PSH Present**			
MW18	2/17/2021	Well Dry			
	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	6/3/2024	Insufficient volume to sample			
	11/21/2024	Well Dry			
MW19	2/17/2021	**660**	390	520	**2,800**
	9/28/2021	**720**	140	**790**	**1,400**
	9/9/2022	**320**	150	670	**1,300**
	3/9/2023	**310**	74	600	**900**
	5/3/2023	**240**	38	530	**690**
	8/30/2023	**350**	130	680	**1,100**
	11/30/2023	**510**	280	630	**2,400**
	2/16/2024	**640**	310	640	**2,300**
	5/30/2024	**410**	260	530	**2,000**
	11/21/2024	<2.0 P2	<2.0 P2	<2.0 P2	<3.0 P2
MW20	2/17/2021	**12,000**	**15,000**	**1,100**	**10,000**
	9/28/2021	**11,000**	**12,000**	610	**5,100**
	9/9/2022	**11,000**	**14,000**	**1,200**	**9,500**
	3/9/2023	**11,000**	**15,000**	**1,100**	**10,000**
	5/3/2023	**12,000**	**15,000**	**1,100**	**10,000**
	8/30/2023	**13,000**	**20,000**	**1,200**	**13,000**
	12/4/2023	**12,000**	**18,000**	**1,200**	**12,000**
	2/15/2024	**12,000**	**14,000**	**1,200**	**11,000**
	5/31/2024	**14,000**	**19,000**	670	**13,000**
	11/21/2024	**10,000**	**8,100**	**800**	**6,300**

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TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW21	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/31/2024	Well Dry			
	11/21/2024	Well Dry			
MW22	9/28/2021	**2,000**	**1,500**	**890**	**3,000**
	9/9/2022	**640**	230	660	**1,300**
	3/9/2023	**650**	180	640	**880**
	5/2/2023	**610**	150	620	**700**
	8/30/2023	**710**	280	**770**	**750**
	12/4/2023	**620**	180	**740**	**780**
	2/15/2024	**920**	480	**770**	**1,200**
	5/31/2024	**560**	230	**860**	**690**
	11/21/2024	**24**	<5.0	110	<7.5
MW23	9/28/2021	<2.0	<2.0	<2.0	<3.0
	9/9/2022	<2.0	<2.0	<2.0	<4.0
	3/9/2023	<2.0	<2.0	<2.0	<4.0
	5/2/2023	<2.0	<2.0	<2.0	<4.0
	8/30/2023	<2.0	<2.0	<2.0	<4.0
	11/30/2023	<2.0	<2.0	<2.0	<3.0
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<2.0	<2.0	<2.0	<3.0
	11/22/2024	<2.0	<2.0	<2.0	<3.0
MW24	9/28/2021	<2.0	<2.0	<2.0	<3.0
	9/8/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	<1.0	<1.0	<1.0	<2.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	11/30/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<1.0	<1.0	<1.0	<1.5
	11/21/2024	Well Dry			
MW25	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/30/2024	Well Dry			
	11/21/2024	Well Dry			

ENSOLUM

TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW26	9/28/2021	**9,700**	**24,000**	**830**	**11,000**
	9/9/2022	**11,000**	**27,000**	**850**	**11,000**
	3/9/2023	**10,000**	**28,000**	**820**	**11,000**
	5/2/2023	**11,000**	**29,000**	**840**	**12,000**
	8/30/2023	**12,000**	**31,000**	**810**	**12,000**
	11/29/2023	**10,000**	**25,000**	**730**	**9,800**
	2/15/2024	**11,000**	**26,000**	**740**	**11,000**
	5/31/2024	**13,000**	**32,000**	**970**	**13,000**
	11/21/2024	**13,000**	**31,000**	**810**	**12,000**
MW27	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/31/2024	Insuffiecient volume to sample			
	11/21/2024	Insuffiecient volume to sample			
MW28	9/28/2021	Well Dry			
	9/8/2022	Well Dry			
	3/9/2023	Well Dry			
	5/2/2023	Well Dry			
	2/15/2024	Well Dry			
	5/31/2024	Well Dry			
	11/21/2024	Well Dry			
MW29	9/28/2021	**12**	5.9	17	34
	9/9/2022	4.1	3.9	34	7.9
	3/9/2023	<1.0	<1.0	50	2.3
	5/2/2023	<1.0	<1.0	30	<2.0
	8/30/2023	<1.0	<1.0	35	<2.0
	11/29/2023	3.0	3.2	45	8.8
	2/15/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<1.0	<1.0	45	<1.5
	11/21/2024	<2.0	<2.0	<2.0	<3.0
MW30	9/8/2022	**1,900**	**8,500**	**1,000**	**13,000**
	3/9/2023	**680**	**1,700**	**1,000**	**10,000**
	5/2/2023	**580**	990	**930**	**7,500**
	8/30/2023	**390**	190	**1,100**	**8,800**
	11/29/2023	**420**	150	**980**	**7,800**
	2/16/2024	**50**	<50	85	570
	5/30/2024	**760**	200	**1,200**	**9,600**
	11/22/2024	**460**	30	**990**	**5,400**

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TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		5	1,000	700	620
MW31	9/8/2022	<2.0	<2.0	<2.0	<4.0
	3/9/2023	<2.0	<2.0	<2.0	<4.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<2.0	<2.0	<2.0	<4.0
	11/29/2023	<2.0	<2.0	<2.0	<3.0
	2/16/2024	<2.0	<2.0	<2.0	<3.0
	5/30/2024	<1.0	<1.0	<1.0	<1.5
	11/22/2024	<1.0	<1.0	<1.0	<1.5
MW32	9/8/2022	Well Dry			
	3/9/2023	<2.0	<2.0	<2.0	<4.0
	5/3/2023	<1.0	<1.0	<1.0	<2.0
	8/31/2023	<2.0	<2.0	<2.0	<4.0
	2/15/2024	Well Dry			
	5/30/2024	Well Dry			
	11/21/2024	Well Dry			
MW33	9/8/2022	3.7	19	4.4	38
	3/9/2023	4.8	<1.0	1.7	<2.0
	5/2/2023	9.7	<1.0	1.8	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	12/4/2023	3.6	<1.0	<1.0	<1.5
	2/16/2024	2.1	<1.0	<1.0	<1.5
	5/31/2024	<1.0	<1.0	<1.0	<1.5
	11/22/2024	<1.0	<1.0	<1.0	<1.5
MW34	9/9/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	<1.0	<1.0	<1.0	<2.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	12/4/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<1.0	<1.0	<1.0	<1.5
	5/31/2024	<1.0	<1.0	<1.0	<1.5
	11/22/2024	<1.0	<1.0	<1.0	<1.5
MW35	9/9/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	<1.0	<1.0	<1.0	<2.0
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	12/4/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<1.0	<1.0	<1.0	<1.5
	5/31/2024	<1.0	<1.0	<1.0	<1.5
	11/22/2024	<1.0	<1.0	<1.0	<1.5

ENSOLUM

TABLE 7
GROUNDWATER ANALYTICAL RESULTS
Hare 15
Hilcorp Energy Company
San Juan County, New Mexico

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard		**5**	**1,000**	**700**	**620**
MW38	9/9/2022	<1.0	<1.0	<1.0	<2.0
	3/9/2023	Well Dry			
	5/2/2023	<1.0	<1.0	<1.0	<2.0
	8/30/2023	<1.0	<1.0	<1.0	<2.0
	11/29/2023	<1.0	<1.0	<1.0	<1.5
	2/16/2024	<1.0	<1.0	<1.0	<1.5
	5/30/2024	<1.0	<1.0	<1.0	<1.5
	11/22/2024	<1.0	<1.0	<1.0	<1.5

Notes:

µg/L: micrograms per liter

NMWQCC: New Mexico Water Quality Control Commision

PSH: phase separated hydrocarbons

***Bold** and highlighted: indicates value exceeds the NMWQCC Standard*

<: indicates result is less than the stated laboratory reporting limit

P2 : The sample was received with pH>2

ENSOLUM

TABLE 8
PSH RECOVERY SUMMARY
Hare 15
Hilcorp Energy Company
San Juan, New Mexico

Boring/Well Number	Date	Product Thickness (feet)	Product Recovered (ounces)
MW03	10/7/2020	2.76	128.00
	9/28/2021	0.14	1.75
	11/24/2021	0.16	1.00
	1/7/2022	0.11	2.00
	3/2/2022	0.07	19.00
	4/22/2022	0.08	24.00
	12/9/2022	0.10	2.00
	5/3/2023	0.12	2.00
	8/30/2023	---	21.00
	11/30/2023	---	8.50
	2/15/2024	0.03	7.00
	6/3/2024	0.01	<1
MW04A	9/30/2020	0.49	5.00
	10/2/2020	1.83	100.00
	10/7/2020	0.51	32.00
	9/28/2021	0.25	1.50
	11/24/2021	0.30	4.00
	1/7/2022	0.19	10.00
	3/2/2022	0.21	5.00
	4/22/2022	0.18	18.00
	12/9/2022	0.13	4.00
	5/3/2023	0.14	4.00
	8/30/2023	---	14.00
	11/30/2023	---	5.00
	2/15/2024	0.03	3.00
	6/3/2024	0.02	3.00
MW07	9/30/2020	0.67	32.00
	10/2/2020	0.49	5.00
	10/7/2020	0.53	16.00
	11/24/2021	0.04	0.50
	1/7/2022	Sheen	0.50
	3/2/2022	0.32	14.00
	4/22/2022	0.35	15.00
	12/9/2022	0.20	5.00
	5/3/2023	0.22	6.00
	8/30/2023	---	13.00
	11/30/2023	---	2.50
	5/31/2024	0.01	4.00

ENSOLUM

TABLE 8
PSH RECOVERY SUMMARY
Hare 15
Hilcorp Energy Company
San Juan, New Mexico

Boring/Well Number	Date	Product Thickness (feet)	Product Recovered (ounces)
MW10	9/30/2020	1.02	64.00
	10/2/2020	0.45	4.00
	10/7/2020	0.59	16.00
	9/28/2021	0.28	6.00
	11/24/2021	0.21	4.00
	1/7/2022	0.08	1.00
	3/2/2022	0.02	13.00
	4/22/2022	ND	8.50
	12/9/2022	ND	0.00
	5/3/2023	Sheen	0.00
	8/30/2023	---	<1.00
	11/30/2023	---	<1.00
MW12	9/30/2020	0.38	5.00
	10/2/2020	0.36	3.00
MW11	2/15/2024	0.03	<1
MW13	9/28/2021	0.11	0.50
	11/24/2021	0.13	1.00
	1/7/2022	0.08	1.00
	3/2/2022	0.15	1.50
	4/22/2022	0.12	1.00
	12/9/2022	0.08	2.00
	5/3/2023	0.16	3.00
	8/30/2023	0.11	13.00
	11/30/2023	---	5.00
	2/15/2024	0.05	1.50
	6/3/2024	0.01	<1
MW15	9/28/2021	0.60	26.00
	1/7/2022	0.11	7.00
	3/2/2022	ND	8.50
	4/22/2022	ND	17.00
	12/9/2022	ND	0.00
	5/3/2023	Sheen	0.00
	11/30/2023	---	1.50
MW16	9/28/2021	0.53	50.00
	1/7/2022	0.41	20.00
	3/2/2022	0.41	29.50
	4/22/2022	0.37	54.00
	12/9/2022	0.39	6.00
	5/3/2023	0.37	6.00
	11/30/2023	---	0.25
	2/15/2024	0.32	24.50
	6/3/2024	--*	33.00

ENSOLUM

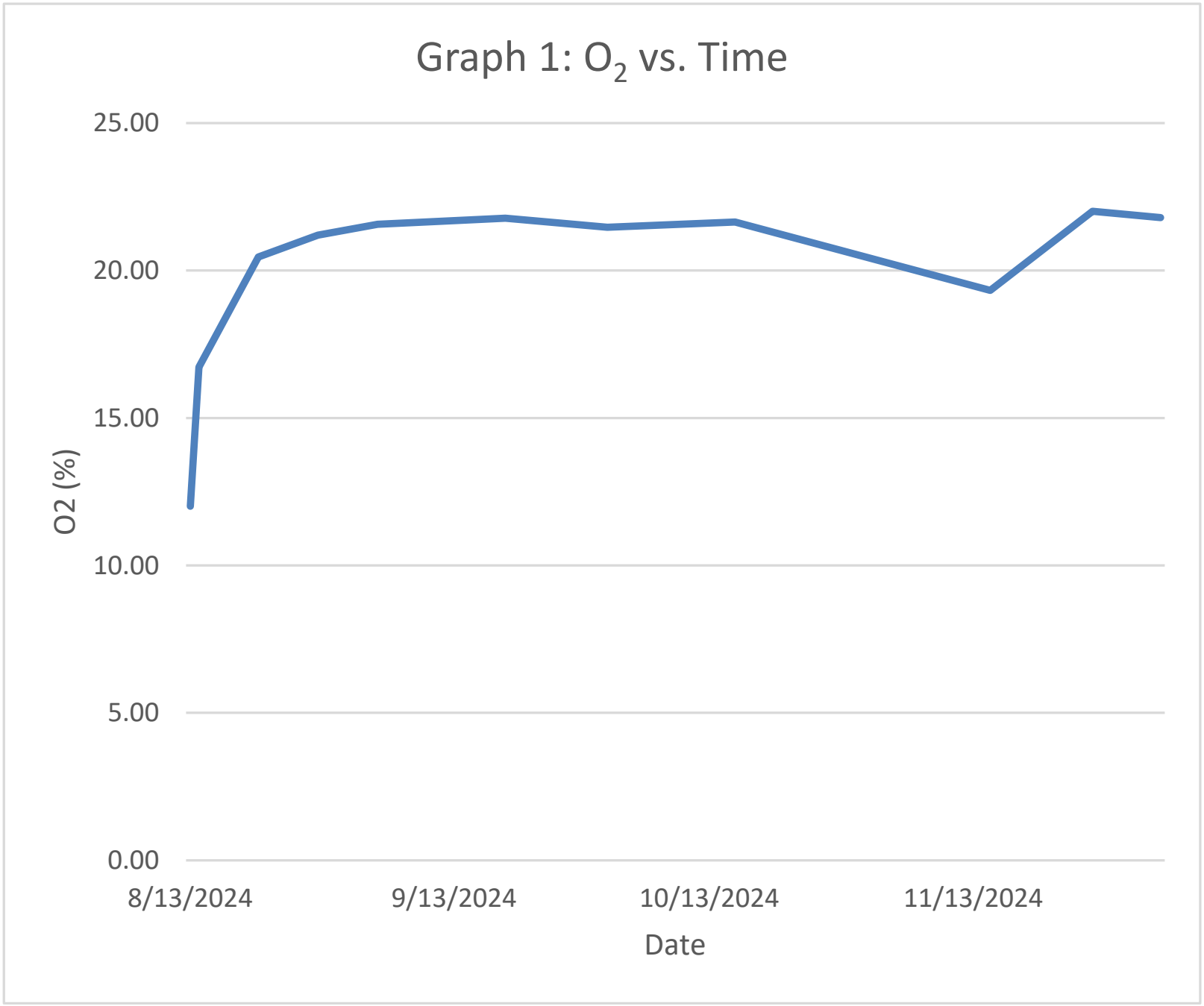
TABLE 8
PSH RECOVERY SUMMARY
Hare 15
Hilcorp Energy Company
San Juan, New Mexico

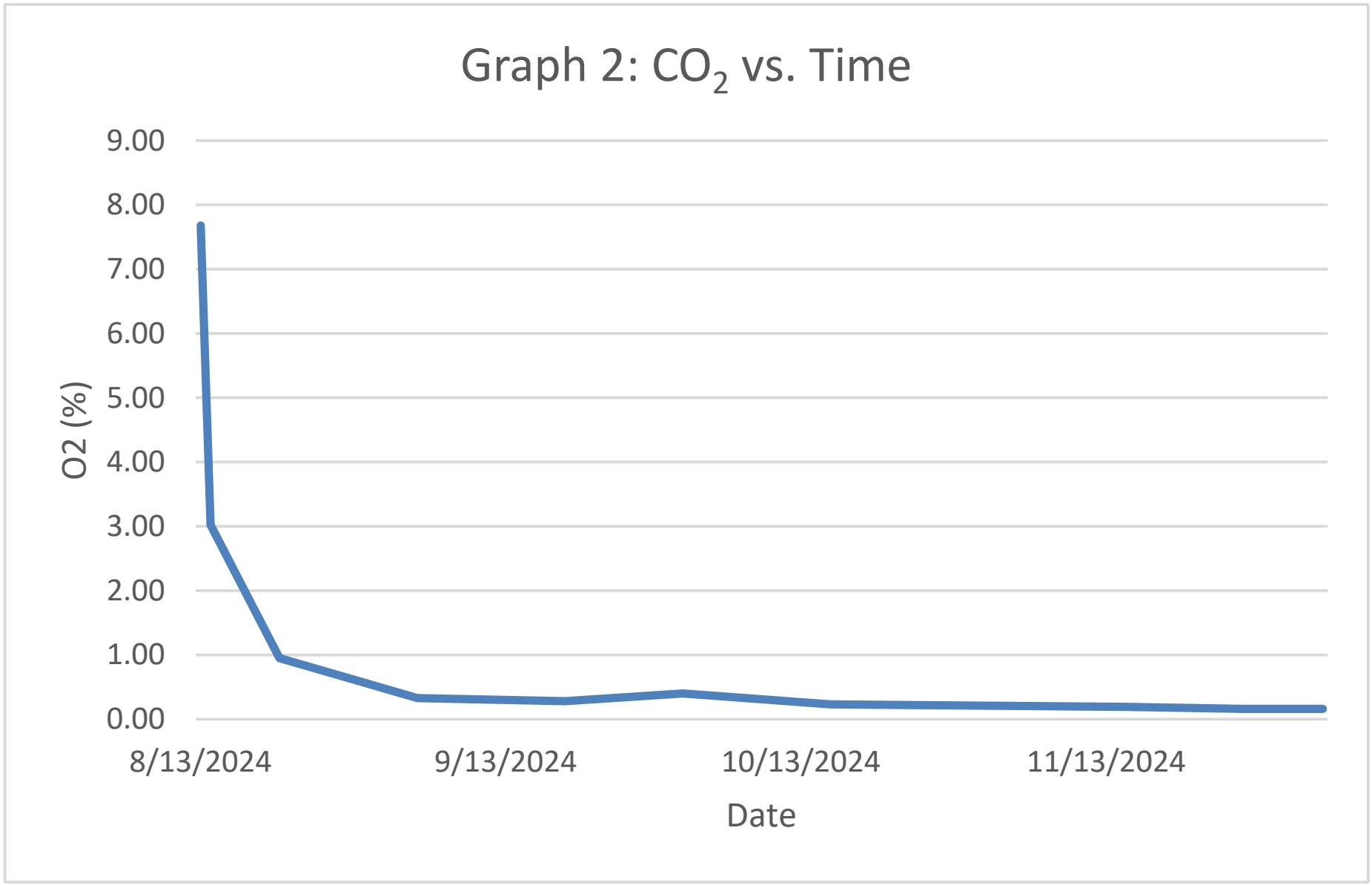
Boring/Well Number	Date	Product Thickness (feet)	Product Recovered (ounces)
	Total Recovered (gallons)		7.62

Notes:

ND: not detected

** : Product recovered during sampling but was not detected with probe.*





ENSOLUM

APPENDIX A

O&M Field Notes

Mare 15 — 10-1-24

HEC — Clear, sunny, 70s

DB Truck/tools, HVAS, PID

0930 - Onsite for cont'd O+M.
System running upon arrival, no leaks, noticeable hydrocarbon odor from exhaust, observable liquids in rotameters.

Readings @ 10.20
Blower Hrs - 1,031.1
T. Pump Hrs - 68.4
60 Hz ~18 Amps
Totalizer - 22597.33
Δ - 138.1 gal since 9-30 @ 17:10
Pre KO vac - 8.5 in Hg
Post " " - 7.5 in Hg
Fresh Air Bypass - open 2.5 rotations
Post Filter vac - 8.0 in Hg
Exhaust Temp - 160 °F
" Pressure - 0 in H_2O
" Flow - 0.45 in H_2O Diff Pressure
Ex. PID - 2,019 ppm ~300 SCFM

- Open well heads flex tubing to purge lines of liquids

cont'd →

Location Hare 15 Date 10-1-24

Project / Client

DB O&M cont'd

Manifold Readings @ 10:45

Well	Vac in "Hg	Flow SCFM	Liquids?
MW01	8.0	66	Minimal
06	7.5	74	Y
08	6.0	14	Y
09	7.5	~100	Y
10	7.0	60	Y
11	7.5	~100	Y
13	7.5	52	Y
14	9.5	60	Y
15	7.5	70	Minimal
16	6.0	58	N

Well head readings @ 15:00

Well	Vac	PID	O_2	CO_2	CH_4
01	6.0	326			
06	6.0	409			
* 08	5.0	79			
09	5.0	57			
10	5.5	834			
11	6.0	592			
13	8.0	552			
14	7.0	143			
15	6.5	386.			
16	6.0	112			

6 gas not working. O_2 sensor out.

* slightly open on cam lock to let air in.d

Location Hare 15 Date 10 1-24

Project / Client

DB O&M cont'd

1740 - Influent sample collected 10-1-24 air PID - 435 ppm

1741 - Float almost about to start T. Pump
Totalizer - 22,652.43
- T. Pump ran for approx. 5 min. and got to ~1/2 down sight tube before it stalled out & wasn't pumping water @ a efficient rate. Turned off system for a moment to drain KO tank. Turned system back on & opened fresh air bypass more.
~ 6.0 in Hg inlet vac.

1758 -
After emptying KO tank to Low float - Totalizer 22,681.24

1800 - Offsite

Location Flare 15 Date 10 2-24

Project / Client HEC

DB Truck/loads

0900- Onsite to check on system, running upon arrival.

-Check wye strainer, clean out minimal amount of scale

-Flush, clean out float stem tube. Floats are clean.

-Clean system trailer, check on oil drips from blower & motor.

-Need spare belts, grease, oil Look to replace float stem w/ lower HH to turn TP on earlier.

-TP stalled out halfway thru Float stem so lowered vac by opening ~~Br~~ bypass -@ 6.5 in Hg post KO vac

1135- TP total 22,743.57 gal
TP Hrs- 68.8 Blower- 1,055.6
40- Offsite

Location Hare 15 Date 10-10-24 57

Project / Client HEC Clear, sunny, breezy, 70s

DS Truck, 4ges, 6gas, IIVAS, PID

1015 - Onsite for O+M. System running.

Readings @ 11:00

Blower Hrs - 1,247.1

T. Pump Hrs - 69.5

Totalizer - 23,228.52 gal

Pre KO vac - 7.0 in Hg Δ - 484.95 gal since 10-2-24 @ 11:35

Post KO vac - 6.0 in Hg

Fresh Air Bypass - ~50% open

Post Filter Vac - 6.0 in Hg

Exhaust Temp - 130 °F

" Pressure - 8 in H_2O

" Flow - 0.55 in H_2O ⇒ 350 SCFM

" PID - 538 ppm

Manifold readings @ 11:25

Well	Vac	Flow	Liquids	Well	Vac	Flow	LP
01	6.0	75	Minimal	11	6.0	100	yes
06	6.0	65	yes	13	6.5	10	yes
08	5.0	10	Minimal	14	8.0	52	yes
09	6.0	~100	Yes	15	6.0	60	Yes
10	5.5	90	No	16	4.5	18	yes

cont'd →

58

Location Flare 15 Date 10-16-24

Project / Client HEC

DB O+M cont'd

Well	Vac in Hg	PID ppm	O_2 vol%	CO_2 vol%	CH_4 vol%
01	5.0	316	17.7	0.24	0.07
06	4.5	59	17.5	0.14	0.00
08	5.5	24	17.7	0.24	0.02
09	4.0	114	17.5	0.36	0.03
10	4.0	1,352	16.8	0.40	0.11
11	5.0	1,040	17.1	0.30	0.25
13	7.0	89	17.7	0.02	0.04
14	5.0	209	17.3	0.24	0.08
15	5.0	451	16.8	0.46	0.24
16	5.0	212	17.3	0.08	0.04
Influent		775	17.5	0.28	0.22

1345 - Turn off system to clean + check belts.

1600 - Replaced belts

- cleaned KO sight tube + floats
- cleaned wye strainer

1620 - Turn system back on

1715 - offsite

Location Hare 15 Date 10-16-24 by

Project / Client MEC Cloudy, breezy, 70s. Chance of rain

DB/AL Truck/tools, HVAS, PID, 6-gas

1300 - Onsite for O+M. Review HASP sign JSA.

System running upon arrival.

See O+M form for details.

- cleaned: wye strainer
  - float stem + tube
  - All rotameters

- System off @ 14:57
  - takes ~2 minutes for TP to drain from lowest float to just above tee + clear tube connection. + then about 5 gal to drain KO tank to outlet level so you can disconnect float tube assembly.

14:20 - Influent 10-16-24 collected
PID - 389.1
MW08 - need 13 to purge
16 lines when restart

16 05 - system back on.

16 20 - Offsite

Rain in the Rain

ENSOLUM

HARE 15 DPE SYSTEM
O&M FORM

DATE 10-16-24
TIME ONSITE 1300
O&M PERSONNEL DB/AL
TIME OFFSITE

system running - yes

DPE ALARMS: KO TANK HIGH LEVEL @ 60 Hz ; 15.7 Amps

DPE SYSTEM	READING	TIME
Blower Hours (take photo)	1341.2	1345
Transfer Pump Hours	70.2	
KO Pre-Filter Vacuum (inHg)	6.0	
Post-filter Vacuum (inHg)	5.85	
Differential Pressure (IWC)	NA	
Exhaust Temperature	160°F	
Transfer Pump Pressure	E-mailed to office gauge broke	
Transfer Pump Totalizer	25665.35	gallons

Pre shoir bypass -
Post air filter vac -
Exhaust pressure - 00
" " flow Δpressure - 0.50
↳ scfm → 325
Exhaust PID - 380.0

SVE SYSTEM SAMPLING

SAMPLE ID: Influent 10/16/24 SAMPLE TIME: 1420
PID (ppm) 389.1 OXYGEN (%) 19.8 CARBON DIOXIDE (%) 0.22
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)

CH4 - 0.05 vol %
CH4 - 3% LEL

OPERATING WELLS

Change in Well Operation: Started @ 1340

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	DIFF PRESSURE (IWC)	PID HEADSPACE (PPM)	OXYGEN (%) vol %	CARBON DIOXIDE (%) vol %	vol % CH4
MW01	5.0	5.0	40.9	19.9	0.16	0.02
MW06	5.0		13.8	21.1	0.10	0.02
MW08	6.0	6.0	6.9	20.0	0.18	0.02
MW09	5.0		15.2	20.0	0.24	0.02
MW10	4.0		409.8	19.8	0.36	0.15
MW11	5.5		224.1	19.9	0.28	0.09
MW13	3.0	3.0	8.8	20.0	0.02	0.02
MW14	5.0		71.8	19.9	0.25	0.05
MW15	5.0		220.1	19.9	0.39	0.10
MW16	5.5		68.0	19.9	0.02	0.02

Influent

Y/N Liquids

MANIFOLD MEASUREMENTS Time.

WELL ID	VACUUM (IHg)	FLOW (CFM)
MW01	6.5	54
MW06	6.5	44
MW08	5.5	14
MW09	5.0	30
MW10	6.0	60
MW11	6.5	58
MW13	7.5	28
MW14	8.5	48
MW15	6.5	62
MW16	5.5	14

COMMENTS/MAINTENANCE ISSUES

Eagle 2 - Oxy sensor offset by 3.3 vol %
Cleaned out Y strainer
- stem + float
- rotameters

Project / Client O+M Hilcorp Agaval Date 10/23/24

Truck/tools, 4gas; Eagle 2, PID, HVAC

0830 Travel to Farmington, service/wash mac
0930
Travel to GBR P/U Eagle 2
1015 Onsite & Have I5 SYSTEM RUNNING
JSA, PPE, Calibrate
1045 Start O&M
Clean tubes, Y strainer, KO tank, Well conn
flush line, adjust motor belt
Attempt to fix power handle connecti
Shut system down, KO tank/tube
Well tubes are pretty clean, alot of liquid

Well	VAC in.Hg	PID ppm	Oxy vol%	CO_2 vol%	CH_4 %LEL
MW01	7.0	66.1	21.4	0.02	0
06	7.0	26.1	21.4	0.04	1
08	6.5	5.5	21.4	0.08	1
09	6.0	23.8	21.9	0.08	1
10	5.0	306.8	20.9	0.16	3
11	7.5	178.9	20.9	0.18	1
13	9.0	152.8	21.4	0.06	1
14	6.5	81.3	21.1	0.16	1
15	7.0	204.8	20.9	0.22	2
16	6.0	29.6	20.2	0.08	1

Location ~~Hare~~ N. Blanch/Aztec Date 11/6/24

Project / Client Hare 15 O+M, Hilcorp

Truck

0900 Prep equipment, load truck

0930 Travel to Hare 15

Readings @ 1130

Blower Hours - 1880.1

Transfer Pump Hours - 86.5

VFD Hz - 60.0 Amps - 18.8

Pre KO Vac - 8.0

Post KO Vac - 7.5

Fresh Air Bypass - Open 3 turns

Post Filter Vac - 9.0

Exhaust Temp - 140°F

Pressure - 0.0

Flow - 250 scfm

Exhaust PID: 202.1

CH_4	0	CO	0
Oxy	20.9	CO_2	1880
H_2S	0.0	CH_4	0

Influent PID: 129.2

CH_4	0	CO	0
Oxy	20.9	CO_2	840

1969

System Running, Tank @ 9" depth

- MW08 - 0/zero VAC @ Well, ICE in the Icem MW 08: 16:09

Well	VAC	PID	Oxy	CO_2 ppm	CH_4
MW01	6.5	6.3	20.9	1260	0
06	7.0	57.9	20.9	1080	0
08	7.0	4.9	20.2	9020	0
09	6.5	5.5	20.9	1600	0
10	5.5	288.3	20.9	280	0
11	7.0	170.2	20.9	1940	0
13	9.0	79.9	20.8	1080	0
14	7.0	51.4	20.9	1440	0
15	7.5	213.5	20.9	2430	0
16	7.5	279.1	20.9	1140	0

Liquids

Readings @ 1450

Well	VAC	Flow	Liquids
MW 01	7.0	48	Yes
06	7.5	50	Yes
08	5.0	25	Yes
09	7.5	60	Yes
10	8.0	75	Yes - sediment
11	2.0	50	Yes
13	9.5	60	Yes
14	9.5	50	Yes
15	7.5	70	Yes
16	7.0	50	Yes

Totalizer 32211.70

Offsite @ 1600

SRe 1715

ENSOLUM

HARE 15 DPE SYSTEM
O&M FORM

DATE: 11-14-24
TIME ONSITE: 0915

O&M PERSONNEL: DB
TIME OFFSITE:

System Running Upon Arrival (Y/N)? Yes
DPE ALARMS: NA KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME
Blower Hours (take photo)	2,069.5	1000
Transfer Pump Hours	95.9	
Pre-Filter Vacuum (InHg)	8.5	
Post-Filter Vacuum (InHg)	7.5	
Differential Pressure (IWC)		
Exhaust Temperature	160	
Transfer Pump Pressure	0	
Transfer Pump Totalizer	35,997.93	

KO

Motor Running	60 Hz	19.7 Amps
Fresh Air Bypass Percent Open?		
Vacuum Relief Valve Pulling? Y/N	N	
Post Air Filter Vacuum (InHg)	9.0	
Exhaust Pressure (IWC)	0	
Exhaust Flow Diff. Pressure (IWC)	0.35	
Exhaust Flow on Chart (SCFM)	~360	
Exhaust PID (ppm)	774	

SVE SYSTEM SAMPLING

SAMPLE ID:
SAMPLE TIME:
PID (ppm)
OXYGEN (%)
CARBON DIOXIDE (%)
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)

OPERATING WELLS

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (vol %)	CARBON DIOXIDE (vol %)	CH4 (vol %)
MW01	7.5	64.1	20.9	0.08	0.02
MW06	7.5				
MW08	7.5	3.4	20.9	0.12	0.02
MW09	7.5	11.1	20.9	0.20	0.01
MW10	6.5				
MW11	8.0				
MW13	10.0				
MW14	7.5				
MW15	8.0				
MW16	8.0				

MANIFOLD MEASUREMENTS

WELL ID (Liquids Y/N?)	VACUUM (IHg)	FLOW (CFM)
MW01	8.0	70
MW06	8.0	58
MW08	7.0	22
MW09	8.5	100 +
MW10	8.0	74
MW11	*3.0	56
MW13	9.5	90
MW14	10.0	60
MW15	8.0	72
MW16	7.0	48

COMMENTS/MAINTENANCE ISSUES

Should Put a 0-50 SCFM rotameter on MW08

ENSOLUM

HARE 15 DPE SYSTEM
O&M FORM

DATE: 11/27/24
TIME ONSITE: 1355
O&M PERSONNEL: Aaron L
TIME OFFSITE: 1545

System Running Upon Arrival (Y/N)? Y
DPE ALARMS: KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME			
Blower Hours (take photo)	2333.2	1408	Motor Running	60.0 Hz	19.7 Amps
Transfer Pump Hours	105.6		Fresh Air Bypass Percent Open?	2 ½ turn open	
Pre-KO Vacuum (InHg)	11		Vacuum Relief Valve Pulling? Y/N		
Post-KO Vacuum (InHg)	10		Post Air Filter Vacuum (InHg)	9	
Differential Pressure (IWC)			Exhaust Pressure (IWC)	0	
Exhaust Temperature	160°F		Exhaust Flow Diff. Pressure (IWC)	~~280~~	~~SCFM~~
Transfer Pump Pressure			Exhaust Flow on Chart (SCFM)	280	
Transfer Pump Totalizer	38387.70	1420	Exhaust PID (ppm)	512.2	

SVE SYSTEM SAMPLING

SAMPLE ID: Influent 112724 SAMPLE TIME: ~~1445~~ 1450
PID (ppm) 378.2 OXYGEN (%) 19.9 CARBON DIOXIDE (%)
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)
OPERATING WELLS

Change in Well Operation:

WELLHEAD MEASUREMENTS @ 1405

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (vol %)	CARBON DIOXIDE ~~(vol %)~~ PPM	CH4 (vol %)
MW01	7.0	6.3	20.1	1120	0
MW06	7.5	75.9	20.9	1900	0
MW08	7.5	7.5	20.9	7010	0
MW09	6.5	12.2	20.1	1260	0
MW10	5.0	334.8	20.8	2122	0
MW11	7.5	142.1	20.8	1900	0
MW13	9.5	94.1	20.9	1740	0
MW14	7.5	77.9	20.9	1040	0
MW15	7.5	441.7	20.4	3100	0
MW16	7.5	422.1	20.5	2485	0

MANIFOLD MEASUREMENTS @1415

WELL ID (Liquids Y/N?)	VACUUM (IHg)	FLOW (CFM)
MW01 Y	8.5	50
MW06 Y	9.5	60
MW08 Y	7.5	25
MW09	9.0	75 ~
MW10	8.0	65
MW11 Y	NA, Gauge not reading	60
MW13 Y	9.0	80
MW14	11	75
MW15	9.0	60
MW16	7.5	55

COMMENTS/MAINTENANCE ISSUES

29 inch @ BGT

- flushed line

- Flushed line

ENSOLUM

HARE 15 DPE SYSTEM
O&M FORM

DATE: 12/5/24
TIME ONSITE: 1115

O&M PERSONNEL: Aaron L
TIME OFFSITE: 1520

System Running Upon Arrival (Y/N)?
DPE ALARMS: KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME
Blower Hours (take photo)	2523.4	1220
Transfer Pump Hours	110.1	
~~Pre-~~KO Vacuum (InHg)	10.5	
Post-Filter Vacuum (InHg)	9.5	
Differential Pressure (IWC)		
Exhaust Temperature	170°F	
Transfer Pump Pressure		
Transfer Pump Totalizer	38387.70	

Motor Running	59.52 Hz	19.6 Amps
Fresh Air Bypass Percent Open?		
Vacuum Relief Valve Pulling? Y/N		
Post ~~Air Filter~~ KO Vacuum (InHg)	10.0	
Exhaust Pressure (IWC)		
Exhaust Flow Diff. Pressure (IWC)	~~280~~	
Exhaust Flow on Chart (SCFM)	280	
Exhaust PID (ppm)	401.1	

SVE SYSTEM SAMPLING

SAMPLE ID: InPluent12524
SAMPLE TIME: 1400
PID (ppm) 275.8
OXYGEN (%) 20.9
CARBON DIOXIDE (%) 260 ppm
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)
OPERATING WELLS

Change in Well Operation:

1130

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (vol %)	CARBON DIOXIDE (~~vol %~~) PPM	CH4 (~~vol %~~) %LEL
MW01	6.0	59.1	20.8	1960	0.0
MW06	6.0	116.7	20.9	1060	0.0
MW08	8.0	52.3	20.8	3520	0.0
MW09	~8.0	89.7	20.9	2650	0.5
MW10	3.5	505.6		3850	~~0~~ 4
MW11	5.0	385.6	20.5	3240	~~0~~ 2
MW13	7.0	147.6	20.7	1740	0.0
MW14	5.6	107.9	20.9	2640	0.0
MW15	5.0	538.8	20.1	4880	2
MW16	7.5	751.0	20.9	3230	~~5~~ 6

MANIFOLD MEASUREMENTS 1230

WELL ID (Liquids Y/N?)	VACUUM (IHg)	FLOW (CFM)
MW01	9.5	55
MW06	10.0	50
MW08	8.0	25
MW09 Y	10.5	~60
MW10 Y	9.5	70
MW11	11.5	80
MW13	9.5	60
MW14 Y	~~12.0~~ 12.5	70
MW15	10.0	70
MW16	9.0	20

COMMENTS/MAINTENANCE ISSUES

Cleaned KO/Stem x2 BGT-21.5M
Flushed well liner,
More debris came through and distort stem tube more, Cleaned stem tube again
-Replaced Vac Gauge Y-strainer pretty clean

SOLUM

HARE 15 DPE SYSTEM
O&M FORM

DATE: 12/11/24
TIME ONSITE: 1000

O&M PERSONNEL: Kyle L
TIME OFFSITE: 1700

System Running Upon Arrival (Y/N)?
DPE ALARMS: KO TANK HIGH LEVEL

DPE SYSTEM	READING	TIME			
Blower Hours (take photo)	2605.2	1120	Motor Running	59.52 Hz	~20 Amps
Transfer Pump Hours	113.4		Fresh Air Bypass Percent Open?	2 ½ open	
~~Pre-Filter~~ KO Vacuum (InHg)	10.5		Vacuum Relief Valve Pulling? Y/N		
~~Post-Filter~~ KO Vacuum (InHg)	11.0		Post Air Filter Vacuum (InHg)	8.0	
Differential Pressure (IWC)			Exhaust Pressure (IWC)	0	
Exhaust Temperature	150°F		Exhaust Flow Diff. Pressure (IWC)		
Transfer Pump Pressure			Exhaust Flow on Chart (SCFM)	300	
Transfer Pump Totalizer	38397.70		Exhaust PID (ppm)	358.9	1645

SVE SYSTEM SAMPLING

SAMPLE ID: SAMPLE TIME: 1642
PID (ppm): 184.4 OXYGEN (%): CARBON DIOXIDE (%):
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)
OPERATING WELLS:

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (vol %)	CARBON DIOXIDE ~~(vol %)~~ PPM	CH4 (vol %)
MW01	7.5	3.9	20.9	420	0
MW06	8.0	23.9	20.9	1020	0
MW08	0.0/ ~~10.8~~ 8.0	26.8	20.9	340	0
MW09	7.5	123.6	20.9	400	0
MW10	4.5	484.1	20.9	5880	0
MW11	9.0	130.4	20.9	4080	0
MW13	10.0	13.7	20.4	1300	0
MW14	8.0	21.3	20.9	2680	0
MW15	9.0	394.7	20.9	3920	0
MW16	1.0/ 9.0	217.1	20.9	2820	0

MANIFOLD MEASUREMENTS

WELL ID (Liquids Y/N?)	VACUUM (IWC)	FLOW (CFM)
MW01	~~6.0~~ 10.0	75
MW06	11.0	60
MW08	9.0	20
MW09	11.0	75
MW10	10.5	80
MW11	12.5	80
MW12	10.0	65
MW14	13.0	65
MW15	11.0	75
MW16	9.5	15

1 of Fluid

1 of Fluid

COMMENTS/MAINTENANCE ISSUES

ENSOLUM

HARE 15 DPE SYSTEM O&M FORM

DATE: 12/18/24
TIME ONSITE: 1125

O&M PERSONNEL: Aaron L
TIME OFFSITE: 1330

DPE ALARMS: System Running Upon Arrival (Y/N)? KO TANK HIGH LEVEL 1/8 Full

DPE SYSTEM	READING	TIME
Blower Hours (take photo)	2773.6	
Transfer Pump Hours	~~38297.70~~ 119.4	
Pre-Filter Vacuum (InHg) KO	10.5	
Post-Filter Vacuum (InHg) KO	10.0	
Differential Pressure (IWC)		
Exhaust Temperature	175°F	
Transfer Pump Pressure		
Transfer Pump Totalizer	38397.70	

Motor Running Yes	59.52 Hz	20.7 Amps
Fresh Air Bypass Percent Open?	2½ open	
Vacuum Relief Valve Pulling? Y (N)		
Post Air Filter Vacuum (InHg)	10.0	
Exhaust Pressure (IWC)	0.5	
Exhaust Flow Diff. Pressure (IWC)		
Exhaust Flow on Chart (SCFM)	220	
Exhaust PID (ppm)	308.3	

SVE SYSTEM SAMPLING

SAMPLE ID:
SAMPLE TIME:
PID (ppm): 109.2
OXYGEN (%): 20.8
CARBON DIOXIDE (PPM): 1420
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)

OPERATING WELLS

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (vol %)	CARBON DIOXIDE (PPM)	CH4 (LEL vol %)
MW01	9.0	31.2	20.9	680	0
MW06	11.5	48.4	20.8	1020	0
MW08	~~8.5~~ 8.5	44.8	20.9	520	0
MW09	8.5	114.7	26.9	1540	0
MW10	4.5	408.8	20.1	4520	3
MW11	11.0	172.1	20.7	3380	0
MW13	10.5	39.1	20.9	1260	0
MW14	8.0	64.3	20.9	2580	0
MW15	9.0	371.1	20.9	4640	3
MW16	9.0	272.8	20.9	2140	1

MANIFOLD MEASUREMENTS 1205

WELL ID (Liquids Y/N?)	VACUUM (IHg)	FLOW (CFM)
MW01 Y	9.5	55
MW06 Y	10.5	55
MW08 Y	8.5	30
MW09 Some	10.0	75
MW10 Y	9.5	75
MW11 Y	11.0	80
MW13 Y	10.0	60
MW14 Y	12.5	70
MW15 Y	10.0	65
MW16 NO	9.0	75

A lot of Fluid

COMMENTS/MAINTENANCE ISSUES

BGT 11.5" in @ 1215

Cleaned Y strainer & Flem tube

ENSOLUM

HARE 15 DPE SYSTEM
O&M FORM

DATE: 12/30/24
TIME ONSITE: 1100

O&M PERSONNEL: Agrawl
TIME OFFSITE: 1510

System Running Upon Arrival (Y/N)?
DPE ALARMS: KO TANK HIGH LEVEL

21 3/8" BGT

DPE SYSTEM	READING	TIME				
Blower Hours (take photo)	3049.5		Motor Running	59.52 Hz	18.9 Amps	
Transfer Pump Hours	126.2		Fresh Air Bypass Percent Open?	45		
Pre-Filter Vacuum (InHg) KO	12.0		Vacuum Relief Valve Pulling? Y/N			
Post-Filter Vacuum (InHg)	12.0		Post Air Filter Vacuum (InHg)	11.5		
Differential Pressure (IWC)			Exhaust Pressure (IWC)			
Exhaust Temperature	155F		Exhaust Flow Diff. Pressure (IWC)			
Transfer Pump Pressure			Exhaust Flow on Chart (SCFM)	275		
Transfer Pump Totalizer	38387.60		Exhaust PID (ppm)	3420		

SVE SYSTEM SAMPLING

SAMPLE ID: SAMPLE TIME:
PID (ppm) 281.1 OXYGEN (%) 20.9 CARBON DIOXIDE (%) 1880
Analytes: Sample Weekly through 9/12/24, biweekly through 11/12/24, bimonthly through 8/12/25 for TVPH (8015), BTEX (8260), Fixed Gas (CO2 AND O2)
OPERATING WELLS

Change in Well Operation:

WELLHEAD MEASUREMENTS

WELL ID	VACUUM (IWC)	PID HEADSPACE (PPM)	OXYGEN (vol %)	CARBON DIOXIDE (vol %)	CH4 (vol %)
MW01	7.5	39.1	20.9	620	0
MW06	7.0	53.2	20.9	1080	0
MW08	7.5	72.5	20.8	620	0
MW09	7.5	288.8	20.9	1880	0
MW10	4.0	279.1	20.1	4440	i
MW11	8.0	152.2	20.9	2180	0
MW13	9.5	38.4	20.9	1880	0
MW14	7.0	63.7	20.9	2020	0
MW15	7.5	299.1	20.6	3500	0
MW16	8.0	240.7	20.9	Fluid in Tubing	Bump i

MANIFOLD MEASUREMENTS

WELL ID (Liquids Y/N?)	VACUUM (IHg)	FLOW (CFM)	
MW01 Y	12.0	70	
MW06 Y	11.5	50	
MW08 Y	13.5	NA	A lot
MW09 Y	11.5	80	
MW10 Y	12.0	65	sediment
MW11 Y	11.0	50	
MW13 Y	11.0	60	
MW14 Y	9.5	50	
MW15 Y	12.0	70	
MW16 Y	13.0	NA	Foamy

COMMENTS/MAINTENANCE ISSUES

Cleaned stem tube
· Y strainer

MW 08
10
16

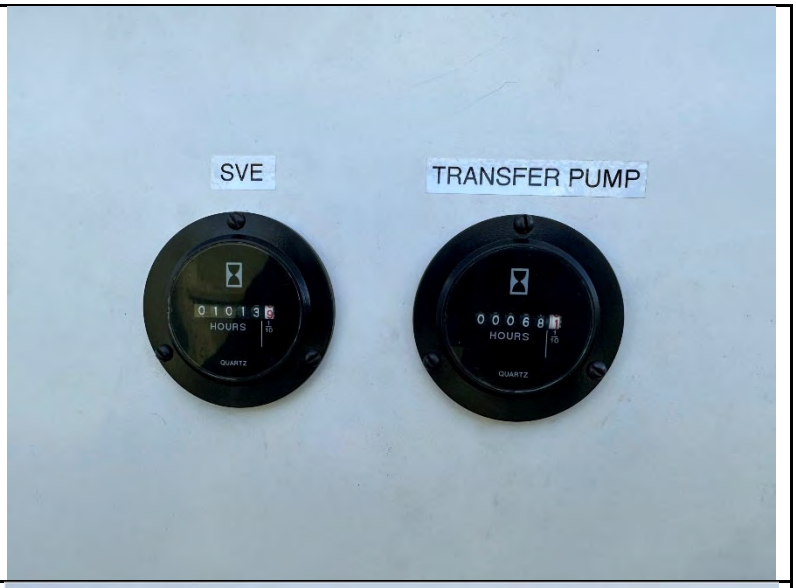
Alot of fluid in lines
Flushed well lines, twice.

ENSOLUM

APPENDIX B

Project Photographs

PROJECT PHOTOGRAPHS
Hare 15
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1 Runtime meter taken on September 30, 2024 at 5:05 PM Hours = 1,013.6	
Photograph 2 Runtime meter taken on December 30, 2024 at 11:00 PM Hours = 3,049.5	

Ensolum, LLC | Environmental & Hydrogeologic Consultants
Durango, Colorado | info@ensolum.com

PROJECT PHOTOGRAPHS
Hare 15
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 3 Totalizer taken on September 30, 2024 at 5:05 PM Gallons = 22,453.54	
Photograph 4 Runtime meter taken on December 30, 2024 at 11:00 PM Gallons = 38,387.70	

ENSOLUM

APPENDIX C

DPE Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/10/2024 5:25:00 PM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-12298-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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
10/10/2024 5:25:00 PM

Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-12298-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Hare 15

Job ID: 885-12298-1

Job ID: 885-12298-1 Eurofins Albuquerque

Job Narrative
885-12298-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 9/21/2024 7:55 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 0.6°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.

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

Client Sample ID: Influent 09192024

Lab Sample ID: 885-12298-1

Date Collected: 09/19/24 13:45
Matrix: Air
Date Received: 09/21/24 07:55
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	3700		250		ug/L			10/02/24 15:32	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*52 - 172*		*10/02/24 15:32*	*50*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		50		ug/L			10/02/24 15:33	50
1,1,1-Trichloroethane	ND		50		ug/L			10/02/24 15:33	50
1,1,2,2-Tetrachloroethane	ND		100		ug/L			10/02/24 15:33	50
1,1,2-Trichloroethane	ND		50		ug/L			10/02/24 15:33	50
1,1-Dichloroethane	ND		50		ug/L			10/02/24 15:33	50
1,1-Dichloroethene	ND		50		ug/L			10/02/24 15:33	50
1,1-Dichloropropene	ND		50		ug/L			10/02/24 15:33	50
1,2,3-Trichlorobenzene	ND		50		ug/L			10/02/24 15:33	50
1,2,3-Trichloropropane	ND		100		ug/L			10/02/24 15:33	50
1,2,4-Trichlorobenzene	ND		50		ug/L			10/02/24 15:33	50
1,2,4-Trimethylbenzene	90		50		ug/L			10/02/24 15:33	50
1,2-Dibromo-3-Chloropropane	ND		100		ug/L			10/02/24 15:33	50
1,2-Dibromoethane (EDB)	ND		50		ug/L			10/02/24 15:33	50
1,2-Dichlorobenzene	ND		50		ug/L			10/02/24 15:33	50
1,2-Dichloroethane (EDC)	ND		50		ug/L			10/02/24 15:33	50
1,2-Dichloropropane	ND		50		ug/L			10/02/24 15:33	50
1,3,5-Trimethylbenzene	87		50		ug/L			10/02/24 15:33	50
1,3-Dichlorobenzene	ND		50		ug/L			10/02/24 15:33	50
1,3-Dichloropropane	ND		50		ug/L			10/02/24 15:33	50
1,4-Dichlorobenzene	ND		50		ug/L			10/02/24 15:33	50
1-Methylnaphthalene	ND		200		ug/L			10/02/24 15:33	50
2,2-Dichloropropane	ND		100		ug/L			10/02/24 15:33	50
2-Butanone	ND		500		ug/L			10/02/24 15:33	50
2-Chlorotoluene	ND		50		ug/L			10/02/24 15:33	50
2-Hexanone	ND		500		ug/L			10/02/24 15:33	50
2-Methylnaphthalene	ND		200		ug/L			10/02/24 15:33	50
4-Chlorotoluene	ND		50		ug/L			10/02/24 15:33	50
4-Isopropyltoluene	ND		50		ug/L			10/02/24 15:33	50
4-Methyl-2-pentanone	ND		500		ug/L			10/02/24 15:33	50
Acetone	ND		500		ug/L			10/02/24 15:33	50
Benzene	69		50		ug/L			10/02/24 15:33	50
Bromobenzene	ND		50		ug/L			10/02/24 15:33	50
Bromodichloromethane	ND		50		ug/L			10/02/24 15:33	50
Dibromochloromethane	ND		50		ug/L			10/02/24 15:33	50
Bromoform	ND		50		ug/L			10/02/24 15:33	50
Bromomethane	ND		150		ug/L			10/02/24 15:33	50
Carbon disulfide	ND		500		ug/L			10/02/24 15:33	50
Carbon tetrachloride	ND		50		ug/L			10/02/24 15:33	50
Chlorobenzene	ND		50		ug/L			10/02/24 15:33	50
Chloroethane	ND		100		ug/L			10/02/24 15:33	50
Chloroform	ND		50		ug/L			10/02/24 15:33	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

Client Sample ID: Influent 09192024
Date Collected: 09/19/24 13:45
Date Received: 09/21/24 07:55
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-12298-1
Matrix: Air

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		150		ug/L			10/02/24 15:33	50
cis-1,2-Dichloroethene	ND		50		ug/L			10/02/24 15:33	50
cis-1,3-Dichloropropene	ND		50		ug/L			10/02/24 15:33	50
Dibromomethane	ND		50		ug/L			10/02/24 15:33	50
Dichlorodifluoromethane	ND		50		ug/L			10/02/24 15:33	50
Ethylbenzene	ND		50		ug/L			10/02/24 15:33	50
Hexachlorobutadiene	ND		50		ug/L			10/02/24 15:33	50
Isopropylbenzene	ND		50		ug/L			10/02/24 15:33	50
Methyl-tert-butyl Ether (MTBE)	ND		50		ug/L			10/02/24 15:33	50
Methylene Chloride	ND		150		ug/L			10/02/24 15:33	50
n-Butylbenzene	ND		150		ug/L			10/02/24 15:33	50
N-Propylbenzene	ND		50		ug/L			10/02/24 15:33	50
Naphthalene	ND		100		ug/L			10/02/24 15:33	50
sec-Butylbenzene	ND		50		ug/L			10/02/24 15:33	50
Styrene	ND		50		ug/L			10/02/24 15:33	50
tert-Butylbenzene	ND		50		ug/L			10/02/24 15:33	50
Tetrachloroethene (PCE)	ND		50		ug/L			10/02/24 15:33	50
Toluene	**360**		50		ug/L			10/02/24 15:33	50
trans-1,2-Dichloroethene	ND		50		ug/L			10/02/24 15:33	50
trans-1,3-Dichloropropene	ND		50		ug/L			10/02/24 15:33	50
Trichloroethene (TCE)	ND		50		ug/L			10/02/24 15:33	50
Trichlorofluoromethane	ND		50		ug/L			10/02/24 15:33	50
Vinyl chloride	ND		50		ug/L			10/02/24 15:33	50
Xylenes, Total	**590**		75		ug/L			10/02/24 15:33	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*76*		*70 - 130*		*10/02/24 15:33*	*50*
Toluene-d8 (Surr)	*117*		*70 - 130*		*10/02/24 15:33*	*50*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*10/02/24 15:33*	*50*
Dibromofluoromethane (Surr)	*89*		*70 - 130*		*10/02/24 15:33*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

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

Lab Sample ID: MB 885-13549/4
Matrix: Air
Analysis Batch: 13549

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			10/02/24 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*52 - 172*		*10/02/24 11:28*	*1*

Lab Sample ID: LCS 885-13549/3
Matrix: Air
Analysis Batch: 13549

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]			4250	4100		ug/L		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*52 - 172*

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

Lab Sample ID: MB 885-13499/1005
Matrix: Air
Analysis Batch: 13499

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			10/02/24 13:30	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/02/24 13:30	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/02/24 13:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/02/24 13:30	1
1,1-Dichloroethane	ND		1.0		ug/L			10/02/24 13:30	1
1,1-Dichloroethene	ND		1.0		ug/L			10/02/24 13:30	1
1,1-Dichloropropene	ND		1.0		ug/L			10/02/24 13:30	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/02/24 13:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			10/02/24 13:30	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dichloropropane	ND		1.0		ug/L			10/02/24 13:30	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,3-Dichloropropane	ND		1.0		ug/L			10/02/24 13:30	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1-Methylnaphthalene	ND		4.0		ug/L			10/02/24 13:30	1
2,2-Dichloropropane	ND		2.0		ug/L			10/02/24 13:30	1
2-Butanone	ND		10		ug/L			10/02/24 13:30	1
2-Chlorotoluene	ND		1.0		ug/L			10/02/24 13:30	1
2-Hexanone	ND		10		ug/L			10/02/24 13:30	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

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

Lab Sample ID: MB 885-13499/1005
Matrix: Air
Analysis Batch: 13499

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.0		ug/L			10/02/24 13:30	1
4-Chlorotoluene	ND		1.0		ug/L			10/02/24 13:30	1
4-Isopropyltoluene	ND		1.0		ug/L			10/02/24 13:30	1
4-Methyl-2-pentanone	ND		10		ug/L			10/02/24 13:30	1
Acetone	ND		10		ug/L			10/02/24 13:30	1
Benzene	ND		1.0		ug/L			10/02/24 13:30	1
Bromobenzene	ND		1.0		ug/L			10/02/24 13:30	1
Bromodichloromethane	ND		1.0		ug/L			10/02/24 13:30	1
Dibromochloromethane	ND		1.0		ug/L			10/02/24 13:30	1
Bromoform	ND		1.0		ug/L			10/02/24 13:30	1
Bromomethane	ND		3.0		ug/L			10/02/24 13:30	1
Carbon disulfide	ND		10		ug/L			10/02/24 13:30	1
Carbon tetrachloride	ND		1.0		ug/L			10/02/24 13:30	1
Chlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
Chloroethane	ND		2.0		ug/L			10/02/24 13:30	1
Chloroform	ND		1.0		ug/L			10/02/24 13:30	1
Chloromethane	ND		3.0		ug/L			10/02/24 13:30	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/02/24 13:30	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			10/02/24 13:30	1
Dibromomethane	ND		1.0		ug/L			10/02/24 13:30	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/02/24 13:30	1
Ethylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Hexachlorobutadiene	ND		1.0		ug/L			10/02/24 13:30	1
Isopropylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			10/02/24 13:30	1
Methylene Chloride	ND		3.0		ug/L			10/02/24 13:30	1
n-Butylbenzene	ND		3.0		ug/L			10/02/24 13:30	1
N-Propylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Naphthalene	ND		2.0		ug/L			10/02/24 13:30	1
sec-Butylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Styrene	ND		1.0		ug/L			10/02/24 13:30	1
tert-Butylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			10/02/24 13:30	1
Toluene	ND		1.0		ug/L			10/02/24 13:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/02/24 13:30	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			10/02/24 13:30	1
Trichloroethene (TCE)	ND		1.0		ug/L			10/02/24 13:30	1
Trichlorofluoromethane	ND		1.0		ug/L			10/02/24 13:30	1
Vinyl chloride	ND		1.0		ug/L			10/02/24 13:30	1
Xylenes, Total	ND		1.5		ug/L			10/02/24 13:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*10/02/24 13:30*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*10/02/24 13:30*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*10/02/24 13:30*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*10/02/24 13:30*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

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

Lab Sample ID: MB 885-13499/5
Matrix: Air
Analysis Batch: 13499

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			10/02/24 13:30	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/02/24 13:30	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/02/24 13:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/02/24 13:30	1
1,1-Dichloroethane	ND		1.0		ug/L			10/02/24 13:30	1
1,1-Dichloroethene	ND		1.0		ug/L			10/02/24 13:30	1
1,1-Dichloropropene	ND		1.0		ug/L			10/02/24 13:30	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/02/24 13:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			10/02/24 13:30	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			10/02/24 13:30	1
1,2-Dichloropropane	ND		1.0		ug/L			10/02/24 13:30	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1,3-Dichloropropane	ND		1.0		ug/L			10/02/24 13:30	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
1-Methylnaphthalene	ND		4.0		ug/L			10/02/24 13:30	1
2,2-Dichloropropane	ND		2.0		ug/L			10/02/24 13:30	1
2-Butanone	ND		10		ug/L			10/02/24 13:30	1
2-Chlorotoluene	ND		1.0		ug/L			10/02/24 13:30	1
2-Hexanone	ND		10		ug/L			10/02/24 13:30	1
2-Methylnaphthalene	ND		4.0		ug/L			10/02/24 13:30	1
4-Chlorotoluene	ND		1.0		ug/L			10/02/24 13:30	1
4-Isopropyltoluene	ND		1.0		ug/L			10/02/24 13:30	1
4-Methyl-2-pentanone	ND		10		ug/L			10/02/24 13:30	1
Acetone	ND		10		ug/L			10/02/24 13:30	1
Benzene	ND		1.0		ug/L			10/02/24 13:30	1
Bromobenzene	ND		1.0		ug/L			10/02/24 13:30	1
Bromodichloromethane	ND		1.0		ug/L			10/02/24 13:30	1
Dibromochloromethane	ND		1.0		ug/L			10/02/24 13:30	1
Bromoform	ND		1.0		ug/L			10/02/24 13:30	1
Bromomethane	ND		3.0		ug/L			10/02/24 13:30	1
Carbon disulfide	ND		10		ug/L			10/02/24 13:30	1
Carbon tetrachloride	ND		1.0		ug/L			10/02/24 13:30	1
Chlorobenzene	ND		1.0		ug/L			10/02/24 13:30	1
Chloroethane	ND		2.0		ug/L			10/02/24 13:30	1
Chloroform	ND		1.0		ug/L			10/02/24 13:30	1
Chloromethane	ND		3.0		ug/L			10/02/24 13:30	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/02/24 13:30	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			10/02/24 13:30	1
Dibromomethane	ND		1.0		ug/L			10/02/24 13:30	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/02/24 13:30	1
Ethylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Hexachlorobutadiene	ND		1.0		ug/L			10/02/24 13:30	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

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

Lab Sample ID: MB 885-13499/5
Matrix: Air
Analysis Batch: 13499

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			10/02/24 13:30	1
Methylene Chloride	ND		3.0		ug/L			10/02/24 13:30	1
n-Butylbenzene	ND		3.0		ug/L			10/02/24 13:30	1
N-Propylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Naphthalene	ND		2.0		ug/L			10/02/24 13:30	1
sec-Butylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Styrene	ND		1.0		ug/L			10/02/24 13:30	1
tert-Butylbenzene	ND		1.0		ug/L			10/02/24 13:30	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			10/02/24 13:30	1
Toluene	ND		1.0		ug/L			10/02/24 13:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/02/24 13:30	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			10/02/24 13:30	1
Trichloroethene (TCE)	ND		1.0		ug/L			10/02/24 13:30	1
Trichlorofluoromethane	ND		1.0		ug/L			10/02/24 13:30	1
Vinyl chloride	ND		1.0		ug/L			10/02/24 13:30	1
Xylenes, Total	ND		1.5		ug/L			10/02/24 13:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*10/02/24 13:30*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*10/02/24 13:30*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*10/02/24 13:30*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*10/02/24 13:30*	*1*

Lab Sample ID: LCS 885-13499/4
Matrix: Air
Analysis Batch: 13499

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	21.2		ug/L		105	70 - 130		
Benzene			20.1	23.0		ug/L		114	70 - 130		
Chlorobenzene			20.1	20.5		ug/L		102	70 - 130		
Toluene			20.2	20.9		ug/L		104	70 - 130		
Trichloroethene (TCE)			20.2	21.1		ug/L		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

GC/MS VOA

Analysis Batch: 13499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12298-1	Influent 09192024	Total/NA	Air	8260B	
MB 885-13499/1005	Method Blank	Total/NA	Air	8260B	
MB 885-13499/5	Method Blank	Total/NA	Air	8260B	
LCS 885-13499/4	Lab Control Sample	Total/NA	Air	8260B	

Analysis Batch: 13549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12298-1	Influent 09192024	Total/NA	Air	8015M/D	
MB 885-13549/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-13549/3	Lab Control Sample	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

Client Sample ID: Influent 09192024
Date Collected: 09/19/24 13:45
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12298-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	13549	CM	EET ALB	10/02/24 15:32
Total/NA	Analysis	8260B		50	13499	CM	EET ALB	10/02/24 15:33

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: Hare 15

Job ID: 885-12298-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-12298-1

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

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ANALYTICAL SUMMARY REPORT

September 27, 2024

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

Work Order: B24092167 Quote ID: B15626
Project Name: Hare 15, 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 9/24/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24092167-001	Influent 09192024 (885-12298-1)	09/19/24 13:45	09/24/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Hare 15, 88501698
Lab ID: B24092167-001
Client Sample ID: Influent 09192024 (885-12298-1)

Report Date: 09/27/24
Collection Date: 09/19/24 13:45
DateReceived: 09/24/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.78	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Nitrogen	77.86	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Carbon Dioxide	0.28	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Hexanes plus	0.08	Mol %		0.01		GPA 2261-95	09/25/24 09:51 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
Hexanes plus	0.034	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
GPM Total	0.034	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
GPM Pentanes plus	0.034	gpm		0.001		GPA 2261-95	09/25/24 09:51 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	4			1		GPA 2261-95	09/25/24 09:51 / jrj
Net BTU per cu ft @ std cond. (LHV)	4			1		GPA 2261-95	09/25/24 09:51 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	09/25/24 09:51 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-95	09/25/24 09:51 / jrj
Specific Gravity @ 60/60F	1.00			0.001		D3588-81	09/25/24 09:51 / jrj
Air, %	99.54			0.01		GPA 2261-95	09/25/24 09:51 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	09/25/24 09:51 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental **Work Order:** B24092167 **Report Date:** 09/27/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R429509
Lab ID: **B24092171-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_240925A				09/25/24 01:07
Oxygen		18.9	Mol %	0.01				0.5	20	
Nitrogen		78.5	Mol %	0.01				0.1	20	
Carbon Dioxide		2.52	Mol %	0.01				1.2	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		0.11	Mol %	0.01				8.7	20	
Lab ID: **LCS092524**	11	Laboratory Control Sample				Run: GCNGA-B_240925A				09/25/24 02:45
Oxygen		0.65	Mol %	0.01	130	70	130			
Nitrogen		6.12	Mol %	0.01	102	70	130			
Carbon Dioxide		0.98	Mol %	0.01	99	70	130			
Methane		75.0	Mol %	0.01	100	70	130			
Ethane		5.99	Mol %	0.01	100	70	130			
Propane		5.02	Mol %	0.01	102	70	130			
Isobutane		1.40	Mol %	0.01	70	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.01	Mol %	0.01	101	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.79	Mol %	0.01	99	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24092167

Login completed by: Danielle N. Harris
Date Received: 9/24/2024
Reviewed by: mstephens
Received by: SAY
Reviewed Date: 9/25/2024
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:	21.5°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Garcia, Michelle	Carrier Tracking No(s):	COC No: 885-2088.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-12298-1
Address: 1120 South 27th Street, ,	Due Date Requested: 9/30/2024	Analysis Requested		Preservation Codes: -
City: Billings	TAT Requested (days):			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #:			
Email:	WO #:			
Project Name: Hare 15	Project #: 88501698			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 09192024 (885-12298-1)	9/19/24	13:45 Mountain	G	Air			X	1	See Attached Instructions
									B240921167

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	9/23/24 1330				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 09-24-24 0955	Company ELT-Billings

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

Ver: 05/06/2024

Chain-of-Custody Record

Client: Hilcorp
Attn: Mitch Killough
Mailing Address:
Phone #:
email or Fax#: mkillough@hilcorp.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 10 Day TAT
☑ Standard ☐ Rush
Project Name: Hare 15
Project #: ~~Stuart Hyde~~
Project Manager: Stuart Hyde
Sampler: AL
On Ice: ☑ Yes ☐ No
# of Coolers: 1 Jog:
Cooler Temp(including CF): 0.3+0.3=0.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871
Tel. 505-345-3975 Fax 505-345-4107
885-12298 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D GRO / DRO / MRO	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas CO_2 + O_2
9/19/24	1345	Air	Influent 09192024	2-Tedlar	—	1		X						X		1	X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/19/24	1515	Aaron Lamerson	Chantz Walk		9/19/24	1515
9/20/24	1720	Chantz Walk	[signature]	courier	9/24/24	7:55

Remarks: Shyde
cc: dburns rhanson @ensolum.com ecarroll

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-12298-1

Login Number: 12298 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/17/2024 2:26:30 PM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-13072-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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
10/17/2024 2:26:30 PM

Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-13072-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Hare 15

Job ID: 885-13072-1

Job ID: 885-13072-1 Eurofins Albuquerque

Job Narrative
885-13072-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 10/3/2024 6:20 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 18.0°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
Method 8260B: The continuing calibration verification (CCV) associated with batch 885-14193 recovered outside acceptance criteria, low biased, for Bromomethane and Iodomethane. Since the associated samples were non-detect and/or not reported for the analytes, the data are reported.

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

Client Sample ID: Influent 10-1-24

Lab Sample ID: 885-13072-1
Matrix: Air
Date Collected: 10/01/24 17:40
Date Received: 10/03/24 06:20
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	64		5.0		ug/L			10/13/24 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*52 - 172*		*10/13/24 18:05*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			10/13/24 18:05	50
1,1,1-Trichloroethane	ND		5.0		ug/L			10/13/24 18:05	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			10/13/24 18:05	50
1,1,2-Trichloroethane	ND		5.0		ug/L			10/13/24 18:05	50
1,1-Dichloroethane	ND		5.0		ug/L			10/13/24 18:05	50
1,1-Dichloroethene	ND		5.0		ug/L			10/13/24 18:05	50
1,1-Dichloropropene	ND		5.0		ug/L			10/13/24 18:05	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			10/13/24 18:05	50
1,2,3-Trichloropropane	ND		10		ug/L			10/13/24 18:05	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/13/24 18:05	50
1,2,4-Trimethylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			10/13/24 18:05	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			10/13/24 18:05	50
1,2-Dichlorobenzene	ND		5.0		ug/L			10/13/24 18:05	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			10/13/24 18:05	50
1,2-Dichloropropane	ND		5.0		ug/L			10/13/24 18:05	50
1,3,5-Trimethylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
1,3-Dichlorobenzene	ND		5.0		ug/L			10/13/24 18:05	50
1,3-Dichloropropane	ND		5.0		ug/L			10/13/24 18:05	50
1,4-Dichlorobenzene	ND		5.0		ug/L			10/13/24 18:05	50
1-Methylnaphthalene	ND		20		ug/L			10/13/24 18:05	50
2,2-Dichloropropane	ND		10		ug/L			10/13/24 18:05	50
2-Butanone	ND		50		ug/L			10/13/24 18:05	50
2-Chlorotoluene	ND		5.0		ug/L			10/13/24 18:05	50
2-Hexanone	ND		50		ug/L			10/13/24 18:05	50
2-Methylnaphthalene	ND		20		ug/L			10/13/24 18:05	50
4-Chlorotoluene	ND		5.0		ug/L			10/13/24 18:05	50
4-Isopropyltoluene	ND		5.0		ug/L			10/13/24 18:05	50
4-Methyl-2-pentanone	ND		50		ug/L			10/13/24 18:05	50
Acetone	ND		50		ug/L			10/13/24 18:05	50
Benzene	6.1		5.0		ug/L			10/13/24 18:05	50
Bromobenzene	ND		5.0		ug/L			10/13/24 18:05	50
Bromodichloromethane	ND		5.0		ug/L			10/13/24 18:05	50
Dibromochloromethane	ND		5.0		ug/L			10/13/24 18:05	50
Bromoform	ND		5.0		ug/L			10/13/24 18:05	50
Bromomethane	ND		15		ug/L			10/13/24 18:05	50
Carbon disulfide	ND		50		ug/L			10/13/24 18:05	50
Carbon tetrachloride	ND		5.0		ug/L			10/13/24 18:05	50
Chlorobenzene	ND		5.0		ug/L			10/13/24 18:05	50
Chloroethane	ND		10		ug/L			10/13/24 18:05	50
Chloroform	ND		5.0		ug/L			10/13/24 18:05	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

Client Sample ID: Influent 10-1-24

Lab Sample ID: 885-13072-1

Date Collected: 10/01/24 17:40
Matrix: Air
Date Received: 10/03/24 06:20
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			10/13/24 18:05	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/13/24 18:05	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/13/24 18:05	50
Dibromomethane	ND		5.0		ug/L			10/13/24 18:05	50
Dichlorodifluoromethane	ND		5.0		ug/L			10/13/24 18:05	50
Ethylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
Hexachlorobutadiene	ND		5.0		ug/L			10/13/24 18:05	50
Isopropylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			10/13/24 18:05	50
Methylene Chloride	ND		15		ug/L			10/13/24 18:05	50
n-Butylbenzene	ND		15		ug/L			10/13/24 18:05	50
N-Propylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
Naphthalene	ND		10		ug/L			10/13/24 18:05	50
sec-Butylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
Styrene	ND		5.0		ug/L			10/13/24 18:05	50
tert-Butylbenzene	ND		5.0		ug/L			10/13/24 18:05	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			10/13/24 18:05	50
Toluene	**31**		5.0		ug/L			10/13/24 18:05	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/13/24 18:05	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/13/24 18:05	50
Trichloroethene (TCE)	ND		5.0		ug/L			10/13/24 18:05	50
Trichlorofluoromethane	ND		5.0		ug/L			10/13/24 18:05	50
Vinyl chloride	ND		5.0		ug/L			10/13/24 18:05	50
Xylenes, Total	**56**		7.5		ug/L			10/13/24 18:05	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*10/13/24 18:05*	*50*
Toluene-d8 (Surr)	*125*		*70 - 130*		*10/13/24 18:05*	*50*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*10/13/24 18:05*	*50*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*10/13/24 18:05*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

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

Lab Sample ID: MB 885-14247/4
Matrix: Air
Analysis Batch: 14247

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			10/13/24 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*52 - 172*		*10/13/24 16:52*	*1*

Lab Sample ID: LCS 885-14247/3
Matrix: Air
Analysis Batch: 14247

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]			4250	4850		ug/L		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*52 - 172*

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

Lab Sample ID: MB 885-14193/1006
Matrix: Air
Analysis Batch: 14193

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			10/13/24 16:52	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/13/24 16:52	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/13/24 16:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/13/24 16:52	1
1,1-Dichloroethane	ND		1.0		ug/L			10/13/24 16:52	1
1,1-Dichloroethene	ND		1.0		ug/L			10/13/24 16:52	1
1,1-Dichloropropene	ND		1.0		ug/L			10/13/24 16:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/24 16:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			10/13/24 16:52	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dichloropropane	ND		1.0		ug/L			10/13/24 16:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,3-Dichloropropane	ND		1.0		ug/L			10/13/24 16:52	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1-Methylnaphthalene	ND		4.0		ug/L			10/13/24 16:52	1
2,2-Dichloropropane	ND		2.0		ug/L			10/13/24 16:52	1
2-Butanone	ND		10		ug/L			10/13/24 16:52	1
2-Chlorotoluene	ND		1.0		ug/L			10/13/24 16:52	1
2-Hexanone	ND		10		ug/L			10/13/24 16:52	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

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

Lab Sample ID: MB 885-14193/1006
Matrix: Air
Analysis Batch: 14193

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.0		ug/L			10/13/24 16:52	1
4-Chlorotoluene	ND		1.0		ug/L			10/13/24 16:52	1
4-Isopropyltoluene	ND		1.0		ug/L			10/13/24 16:52	1
4-Methyl-2-pentanone	ND		10		ug/L			10/13/24 16:52	1
Acetone	ND		10		ug/L			10/13/24 16:52	1
Benzene	ND		1.0		ug/L			10/13/24 16:52	1
Bromobenzene	ND		1.0		ug/L			10/13/24 16:52	1
Bromodichloromethane	ND		1.0		ug/L			10/13/24 16:52	1
Dibromochloromethane	ND		1.0		ug/L			10/13/24 16:52	1
Bromoform	ND		1.0		ug/L			10/13/24 16:52	1
Bromomethane	ND		3.0		ug/L			10/13/24 16:52	1
Carbon disulfide	ND		10		ug/L			10/13/24 16:52	1
Carbon tetrachloride	ND		1.0		ug/L			10/13/24 16:52	1
Chlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
Chloroethane	ND		2.0		ug/L			10/13/24 16:52	1
Chloroform	ND		1.0		ug/L			10/13/24 16:52	1
Chloromethane	ND		3.0		ug/L			10/13/24 16:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/13/24 16:52	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			10/13/24 16:52	1
Dibromomethane	ND		1.0		ug/L			10/13/24 16:52	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/24 16:52	1
Ethylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Hexachlorobutadiene	ND		1.0		ug/L			10/13/24 16:52	1
Isopropylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			10/13/24 16:52	1
Methylene Chloride	ND		3.0		ug/L			10/13/24 16:52	1
n-Butylbenzene	ND		3.0		ug/L			10/13/24 16:52	1
N-Propylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Naphthalene	ND		2.0		ug/L			10/13/24 16:52	1
sec-Butylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Styrene	ND		1.0		ug/L			10/13/24 16:52	1
tert-Butylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			10/13/24 16:52	1
Toluene	ND		1.0		ug/L			10/13/24 16:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/13/24 16:52	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			10/13/24 16:52	1
Trichloroethene (TCE)	ND		1.0		ug/L			10/13/24 16:52	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/24 16:52	1
Vinyl chloride	ND		1.0		ug/L			10/13/24 16:52	1
Xylenes, Total	ND		1.5		ug/L			10/13/24 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*10/13/24 16:52*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/13/24 16:52*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*10/13/24 16:52*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/13/24 16:52*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

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

Lab Sample ID: MB 885-14193/6
Matrix: Air
Analysis Batch: 14193

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			10/13/24 16:52	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/13/24 16:52	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/13/24 16:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/13/24 16:52	1
1,1-Dichloroethane	ND		1.0		ug/L			10/13/24 16:52	1
1,1-Dichloroethene	ND		1.0		ug/L			10/13/24 16:52	1
1,1-Dichloropropene	ND		1.0		ug/L			10/13/24 16:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/24 16:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			10/13/24 16:52	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			10/13/24 16:52	1
1,2-Dichloropropane	ND		1.0		ug/L			10/13/24 16:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1,3-Dichloropropane	ND		1.0		ug/L			10/13/24 16:52	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
1-Methylnaphthalene	ND		4.0		ug/L			10/13/24 16:52	1
2,2-Dichloropropane	ND		2.0		ug/L			10/13/24 16:52	1
2-Butanone	ND		10		ug/L			10/13/24 16:52	1
2-Chlorotoluene	ND		1.0		ug/L			10/13/24 16:52	1
2-Hexanone	ND		10		ug/L			10/13/24 16:52	1
2-Methylnaphthalene	ND		4.0		ug/L			10/13/24 16:52	1
4-Chlorotoluene	ND		1.0		ug/L			10/13/24 16:52	1
4-Isopropyltoluene	ND		1.0		ug/L			10/13/24 16:52	1
4-Methyl-2-pentanone	ND		10		ug/L			10/13/24 16:52	1
Acetone	ND		10		ug/L			10/13/24 16:52	1
Benzene	ND		1.0		ug/L			10/13/24 16:52	1
Bromobenzene	ND		1.0		ug/L			10/13/24 16:52	1
Bromodichloromethane	ND		1.0		ug/L			10/13/24 16:52	1
Dibromochloromethane	ND		1.0		ug/L			10/13/24 16:52	1
Bromoform	ND		1.0		ug/L			10/13/24 16:52	1
Bromomethane	ND		3.0		ug/L			10/13/24 16:52	1
Carbon disulfide	ND		10		ug/L			10/13/24 16:52	1
Carbon tetrachloride	ND		1.0		ug/L			10/13/24 16:52	1
Chlorobenzene	ND		1.0		ug/L			10/13/24 16:52	1
Chloroethane	ND		2.0		ug/L			10/13/24 16:52	1
Chloroform	ND		1.0		ug/L			10/13/24 16:52	1
Chloromethane	ND		3.0		ug/L			10/13/24 16:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/13/24 16:52	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			10/13/24 16:52	1
Dibromomethane	ND		1.0		ug/L			10/13/24 16:52	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/24 16:52	1
Ethylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Hexachlorobutadiene	ND		1.0		ug/L			10/13/24 16:52	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

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

Lab Sample ID: MB 885-14193/6
Matrix: Air
Analysis Batch: 14193

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			10/13/24 16:52	1
Methylene Chloride	ND		3.0		ug/L			10/13/24 16:52	1
n-Butylbenzene	ND		3.0		ug/L			10/13/24 16:52	1
N-Propylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Naphthalene	ND		2.0		ug/L			10/13/24 16:52	1
sec-Butylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Styrene	ND		1.0		ug/L			10/13/24 16:52	1
tert-Butylbenzene	ND		1.0		ug/L			10/13/24 16:52	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			10/13/24 16:52	1
Toluene	ND		1.0		ug/L			10/13/24 16:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/13/24 16:52	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			10/13/24 16:52	1
Trichloroethene (TCE)	ND		1.0		ug/L			10/13/24 16:52	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/24 16:52	1
Vinyl chloride	ND		1.0		ug/L			10/13/24 16:52	1
Xylenes, Total	ND		1.5		ug/L			10/13/24 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*10/13/24 16:52*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*10/13/24 16:52*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*10/13/24 16:52*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/13/24 16:52*	*1*

Lab Sample ID: LCS 885-14193/5
Matrix: Air
Analysis Batch: 14193

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	21.2		ug/L		106	70 - 130		
Benzene			20.1	23.1		ug/L		115	70 - 130		
Chlorobenzene			20.1	21.1		ug/L		105	70 - 130		
Toluene			20.2	21.3		ug/L		106	70 - 130		
Trichloroethene (TCE)			20.2	21.3		ug/L		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

GC/MS VOA

Analysis Batch: 14193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13072-1	Influent 10-1-24	Total/NA	Air	8260B	
MB 885-14193/1006	Method Blank	Total/NA	Air	8260B	
MB 885-14193/6	Method Blank	Total/NA	Air	8260B	
LCS 885-14193/5	Lab Control Sample	Total/NA	Air	8260B	

Analysis Batch: 14247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13072-1	Influent 10-1-24	Total/NA	Air	8015M/D	
MB 885-14247/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-14247/3	Lab Control Sample	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

Client Sample ID: Influent 10-1-24

Date Collected: 10/01/24 17:40
Date Received: 10/03/24 06:20

Lab Sample ID: 885-13072-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		1	14247	CM	EET ALB	10/13/24 18:05
Total/NA	Analysis	8260B		50	14193	CM	EET ALB	10/13/24 18:05

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: Hare 15

Job ID: 885-13072-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13072-1

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

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ANALYTICAL SUMMARY REPORT

October 10, 2024

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

Work Order: B24100502 Quote ID: B15626
Project Name: 88501698, Hare 15

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 10/4/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24100502-001	Influent 10-1-24 (885-13072-1)	10/01/24 17:40	10/04/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: 88501698, Hare 15
Lab ID: B24100502-001
Client Sample ID: Influent 10-1-24 (885-13072-1)

Report Date: 10/10/24
Collection Date: 10/01/24 17:40
DateReceived: 10/04/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.47	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Nitrogen	78.06	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Carbon Dioxide	0.40	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Hexanes plus	0.07	Mol %		0.01		GPA 2261-95	10/07/24 12:32 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
Hexanes plus	0.029	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
GPM Total	0.029	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
GPM Pentanes plus	0.029	gpm		0.001		GPA 2261-95	10/07/24 12:32 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	3			1		GPA 2261-95	10/07/24 12:32 / jrj
Net BTU per cu ft @ std cond. (LHV)	3			1		GPA 2261-95	10/07/24 12:32 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	10/07/24 12:32 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-95	10/07/24 12:32 / jrj
Specific Gravity @ 60/60F	1.00			0.001		D3588-81	10/07/24 12:32 / jrj
Air, %	98.10			0.01		GPA 2261-95	10/07/24 12:32 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	10/07/24 12:32 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24100502 **Report Date:** 10/10/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R430162
Lab ID: **B24100524-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_241007A				10/07/24 11:42
Oxygen		21.4	Mol %	0.01				0.3	20	
Nitrogen		78.2	Mol %	0.01				0.1	20	
Carbon Dioxide		0.44	Mol %	0.01				2.3	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		<0.01	Mol %	0.01					20	
Lab ID: **LCS100724**	11	Laboratory Control Sample				Run: GCNGA-B_241007A				10/07/24 02:22
Oxygen		0.63	Mol %	0.01	126	70	130			
Nitrogen		6.15	Mol %	0.01	102	70	130			
Carbon Dioxide		1.00	Mol %	0.01	101	70	130			
Methane		74.8	Mol %	0.01	100	70	130			
Ethane		6.01	Mol %	0.01	100	70	130			
Propane		5.00	Mol %	0.01	101	70	130			
Isobutane		1.64	Mol %	0.01	82	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.01	Mol %	0.01	101	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.79	Mol %	0.01	99	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24100502

Login completed by: Crystal M. Jones
Date Received: 10/4/2024
Reviewed by: cindy
Received by: CMJ
Reviewed Date: 10/4/2024
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:	13.2°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Garcia, Michelle	Carrier Tracking No(s):	COC No: 885-2242.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-13072-1
Address: 1120 South 27th Street,	Due Date Requested: 10/10/2024	Analysis Requested		Preservation Codes: -
City: Billings	TAT Requested (days):			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #:			
Email:	WO #:			
Project Name: Hare 15	Project #: 88501698			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 10-1-24 (885-13072-1)	10/1/24	17:40 Mountain	G	Air			X	1	See Attached Instructions
									B24100502

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/3/24 0925				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Crystal Jones	Date/Time: 10/4/24 0950	Company ELT

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

Ver: 05/06/2024

ICOC No:
885-2242

Containers

Count	Container Type	Preservative
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

Chain-of-Custody Record

Client: Hilcorp Energy Co
Attn: Mitch Killough
Mailing Address:

Phone #:
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: HARE 15
Project #:
Project Manager: Stuart Hyde
Sampler: D. Burns
On Ice: ☐ Yes ☒ No
# of Coolers: 1
Cooler Temp(including CF): 18.1 - 0.1 = ~~18.0~~ 18.0 (°C)

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

885-13072 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas O_2+CO_2
10-1-2024	17:40	Air	Influent 10-1-24	2-Tedlar	—	1		X						X			X

Date	Time	Relinquished by	Received by	Via	Date	Time
10-2-2024	16:05	[signature]	[signature]		10/2/24	1605
10/2/24	1745	[signature]	~~Received by~~	~~courier~~	10/3/24	6:20

Remarks: cc: shyde, ecarroll, dhencmann, hmishriki @ensolum.com

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-13072-1

Login Number: 13072 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/7/2024 3:38:15 PM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-13869-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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

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Authorized for release by
Michelle Garcia, Project Manager
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(505)345-3975

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-13869-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Hare 15

Job ID: 885-13869-1

Job ID: 885-13869-1 Eurofins Albuquerque

Job Narrative
885-13869-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 10/17/2024 6:32 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 4.0°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
Method 8260B: The continuing calibration verification (CCV) associated with batch 885-14693 recovered outside acceptance criteria, low biased, for Bromomethane. The CCV meets 8260B criteria. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

Client Sample ID: Influent 10-16-24

Lab Sample ID: 885-13869-1

Date Collected: 10/16/24 14:20
Matrix: Air
Date Received: 10/17/24 06:32
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	18		5.0		ug/L			10/21/24 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*52 - 172*		*10/21/24 14:07*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/22/24 12:15	5
1,1,1-Trichloroethane	ND		0.50		ug/L			10/22/24 12:15	5
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			10/22/24 12:15	5
1,1,2-Trichloroethane	ND		0.50		ug/L			10/22/24 12:15	5
1,1-Dichloroethane	ND		0.50		ug/L			10/22/24 12:15	5
1,1-Dichloroethene	ND		0.50		ug/L			10/22/24 12:15	5
1,1-Dichloropropene	ND		0.50		ug/L			10/22/24 12:15	5
1,2,3-Trichlorobenzene	ND		0.50		ug/L			10/22/24 12:15	5
1,2,3-Trichloropropane	ND		1.0		ug/L			10/22/24 12:15	5
1,2,4-Trichlorobenzene	ND		0.50		ug/L			10/22/24 12:15	5
1,2,4-Trimethylbenzene	0.57		0.50		ug/L			10/22/24 12:15	5
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			10/22/24 12:15	5
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			10/22/24 12:15	5
1,2-Dichlorobenzene	ND		0.50		ug/L			10/22/24 12:15	5
1,2-Dichloroethane (EDC)	ND		0.50		ug/L			10/22/24 12:15	5
1,2-Dichloropropane	ND		0.50		ug/L			10/22/24 12:15	5
1,3,5-Trimethylbenzene	0.75		0.50		ug/L			10/22/24 12:15	5
1,3-Dichlorobenzene	ND		0.50		ug/L			10/22/24 12:15	5
1,3-Dichloropropane	ND		0.50		ug/L			10/22/24 12:15	5
1,4-Dichlorobenzene	ND		0.50		ug/L			10/22/24 12:15	5
1-Methylnaphthalene	ND		2.0		ug/L			10/22/24 12:15	5
2,2-Dichloropropane	ND		1.0		ug/L			10/22/24 12:15	5
2-Butanone	ND		5.0		ug/L			10/22/24 12:15	5
2-Chlorotoluene	ND		0.50		ug/L			10/22/24 12:15	5
2-Hexanone	ND		5.0		ug/L			10/22/24 12:15	5
2-Methylnaphthalene	ND		2.0		ug/L			10/22/24 12:15	5
4-Chlorotoluene	ND		0.50		ug/L			10/22/24 12:15	5
4-Isopropyltoluene	ND		0.50		ug/L			10/22/24 12:15	5
4-Methyl-2-pentanone	ND		5.0		ug/L			10/22/24 12:15	5
Acetone	ND		5.0		ug/L			10/22/24 12:15	5
Benzene	2.3		0.50		ug/L			10/22/24 12:15	5
Bromobenzene	ND		0.50		ug/L			10/22/24 12:15	5
Bromodichloromethane	ND		0.50		ug/L			10/22/24 12:15	5
Dibromochloromethane	ND		0.50		ug/L			10/22/24 12:15	5
Bromoform	ND		0.50		ug/L			10/22/24 12:15	5
Bromomethane	ND		1.5		ug/L			10/22/24 12:15	5
Carbon disulfide	ND		5.0		ug/L			10/22/24 12:15	5
Carbon tetrachloride	ND		0.50		ug/L			10/22/24 12:15	5
Chlorobenzene	ND		0.50		ug/L			10/22/24 12:15	5
Chloroethane	ND		1.0		ug/L			10/22/24 12:15	5
Chloroform	ND		0.50		ug/L			10/22/24 12:15	5

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

Client Sample ID: Influent 10-16-24
Date Collected: 10/16/24 14:20
Date Received: 10/17/24 06:32
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-13869-1
Matrix: Air

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.5		ug/L			10/22/24 12:15	5
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/22/24 12:15	5
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/22/24 12:15	5
Dibromomethane	ND		0.50		ug/L			10/22/24 12:15	5
Dichlorodifluoromethane	ND		0.50		ug/L			10/22/24 12:15	5
Ethylbenzene	**0.68**		0.50		ug/L			10/22/24 12:15	5
Hexachlorobutadiene	ND		0.50		ug/L			10/22/24 12:15	5
Isopropylbenzene	ND		0.50		ug/L			10/22/24 12:15	5
Methyl-tert-butyl Ether (MTBE)	ND		0.50		ug/L			10/22/24 12:15	5
Methylene Chloride	ND		1.5		ug/L			10/22/24 12:15	5
n-Butylbenzene	ND		1.5		ug/L			10/22/24 12:15	5
N-Propylbenzene	ND		0.50		ug/L			10/22/24 12:15	5
Naphthalene	ND		1.0		ug/L			10/22/24 12:15	5
sec-Butylbenzene	ND		0.50		ug/L			10/22/24 12:15	5
Styrene	ND		0.50		ug/L			10/22/24 12:15	5
tert-Butylbenzene	ND		0.50		ug/L			10/22/24 12:15	5
Tetrachloroethene (PCE)	ND		0.50		ug/L			10/22/24 12:15	5
Toluene	**9.8**		0.50		ug/L			10/22/24 12:15	5
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/22/24 12:15	5
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/22/24 12:15	5
Trichloroethene (TCE)	ND		0.50		ug/L			10/22/24 12:15	5
Trichlorofluoromethane	ND		0.50		ug/L			10/22/24 12:15	5
Vinyl chloride	ND		0.50		ug/L			10/22/24 12:15	5
Xylenes, Total	**11**		0.75		ug/L			10/22/24 12:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*10/22/24 12:15*	*5*
Toluene-d8 (Surr)	*120*		*70 - 130*		*10/22/24 12:15*	*5*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/22/24 12:15*	*5*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*10/22/24 12:15*	*5*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

Lab Sample ID: MB 885-14686/4
Matrix: Air
Analysis Batch: 14686

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			10/21/24 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*52 - 172*		*10/21/24 13:42*	*1*

Lab Sample ID: LCS 885-14686/3
Matrix: Air
Analysis Batch: 14686

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]			4250	4970		ug/L		117	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*52 - 172*

Lab Sample ID: 885-13869-1 DU
Matrix: Air
Analysis Batch: 14686

Client Sample ID: Influent 10-16-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	18			19.3		ug/L				7	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*74*		*52 - 172*

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

Lab Sample ID: MB 885-14693/1006
Matrix: Air
Analysis Batch: 14693

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		0.10		ug/L			10/22/24 11:50	1
1,1,1-Trichloroethane	ND		0.10		ug/L			10/22/24 11:50	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			10/22/24 11:50	1
1,1,2-Trichloroethane	ND		0.10		ug/L			10/22/24 11:50	1
1,1-Dichloroethane	ND		0.10		ug/L			10/22/24 11:50	1
1,1-Dichloroethene	ND		0.10		ug/L			10/22/24 11:50	1
1,1-Dichloropropene	ND		0.10		ug/L			10/22/24 11:50	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			10/22/24 11:50	1
1,2,3-Trichloropropane	ND		0.20		ug/L			10/22/24 11:50	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			10/22/24 11:50	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			10/22/24 11:50	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			10/22/24 11:50	1
1,2-Dichlorobenzene	ND		0.10		ug/L			10/22/24 11:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

Lab Sample ID: MB 885-14693/1006
Matrix: Air
Analysis Batch: 14693

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			10/22/24 11:50	1
1,2-Dichloropropane	ND		0.10		ug/L			10/22/24 11:50	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
1,3-Dichlorobenzene	ND		0.10		ug/L			10/22/24 11:50	1
1,3-Dichloropropane	ND		0.10		ug/L			10/22/24 11:50	1
1,4-Dichlorobenzene	ND		0.10		ug/L			10/22/24 11:50	1
1-Methylnaphthalene	ND		0.40		ug/L			10/22/24 11:50	1
2,2-Dichloropropane	ND		0.20		ug/L			10/22/24 11:50	1
2-Butanone	ND		1.0		ug/L			10/22/24 11:50	1
2-Chlorotoluene	ND		0.10		ug/L			10/22/24 11:50	1
2-Hexanone	ND		1.0		ug/L			10/22/24 11:50	1
2-Methylnaphthalene	ND		0.40		ug/L			10/22/24 11:50	1
4-Chlorotoluene	ND		0.10		ug/L			10/22/24 11:50	1
4-Isopropyltoluene	ND		0.10		ug/L			10/22/24 11:50	1
4-Methyl-2-pentanone	ND		1.0		ug/L			10/22/24 11:50	1
Acetone	ND		1.0		ug/L			10/22/24 11:50	1
Benzene	ND		0.10		ug/L			10/22/24 11:50	1
Bromobenzene	ND		0.10		ug/L			10/22/24 11:50	1
Bromodichloromethane	ND		0.10		ug/L			10/22/24 11:50	1
Dibromochloromethane	ND		0.10		ug/L			10/22/24 11:50	1
Bromoform	ND		0.10		ug/L			10/22/24 11:50	1
Bromomethane	ND		0.30		ug/L			10/22/24 11:50	1
Carbon disulfide	ND		1.0		ug/L			10/22/24 11:50	1
Carbon tetrachloride	ND		0.10		ug/L			10/22/24 11:50	1
Chlorobenzene	ND		0.10		ug/L			10/22/24 11:50	1
Chloroethane	ND		0.20		ug/L			10/22/24 11:50	1
Chloroform	ND		0.10		ug/L			10/22/24 11:50	1
Chloromethane	ND		0.30		ug/L			10/22/24 11:50	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			10/22/24 11:50	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			10/22/24 11:50	1
Dibromomethane	ND		0.10		ug/L			10/22/24 11:50	1
Dichlorodifluoromethane	ND		0.10		ug/L			10/22/24 11:50	1
Ethylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
Hexachlorobutadiene	ND		0.10		ug/L			10/22/24 11:50	1
Isopropylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			10/22/24 11:50	1
Methylene Chloride	ND		0.30		ug/L			10/22/24 11:50	1
n-Butylbenzene	ND		0.30		ug/L			10/22/24 11:50	1
N-Propylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
Naphthalene	ND		0.20		ug/L			10/22/24 11:50	1
sec-Butylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
Styrene	ND		0.10		ug/L			10/22/24 11:50	1
tert-Butylbenzene	ND		0.10		ug/L			10/22/24 11:50	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			10/22/24 11:50	1
Toluene	ND		0.10		ug/L			10/22/24 11:50	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			10/22/24 11:50	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			10/22/24 11:50	1
Trichloroethene (TCE)	ND		0.10		ug/L			10/22/24 11:50	1
Trichlorofluoromethane	ND		0.10		ug/L			10/22/24 11:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

Lab Sample ID: MB 885-14693/1006
Matrix: Air
Analysis Batch: 14693

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.10		ug/L			10/22/24 11:50	1
Xylenes, Total	ND		0.15		ug/L			10/22/24 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*10/22/24 11:50*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/22/24 11:50*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*10/22/24 11:50*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*10/22/24 11:50*	*1*

Lab Sample ID: MB 885-14693/6
Matrix: Air
Analysis Batch: 14693

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			10/22/24 11:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/22/24 11:50	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/22/24 11:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/22/24 11:50	1
1,1-Dichloroethane	ND		1.0		ug/L			10/22/24 11:50	1
1,1-Dichloroethene	ND		1.0		ug/L			10/22/24 11:50	1
1,1-Dichloropropene	ND		1.0		ug/L			10/22/24 11:50	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/22/24 11:50	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/22/24 11:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/22/24 11:50	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			10/22/24 11:50	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			10/22/24 11:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/22/24 11:50	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			10/22/24 11:50	1
1,2-Dichloropropane	ND		1.0		ug/L			10/22/24 11:50	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/22/24 11:50	1
1,3-Dichloropropane	ND		1.0		ug/L			10/22/24 11:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/22/24 11:50	1
1-Methylnaphthalene	ND		4.0		ug/L			10/22/24 11:50	1
2,2-Dichloropropane	ND		2.0		ug/L			10/22/24 11:50	1
2-Butanone	ND		10		ug/L			10/22/24 11:50	1
2-Chlorotoluene	ND		1.0		ug/L			10/22/24 11:50	1
2-Hexanone	ND		10		ug/L			10/22/24 11:50	1
2-Methylnaphthalene	ND		4.0		ug/L			10/22/24 11:50	1
4-Chlorotoluene	ND		1.0		ug/L			10/22/24 11:50	1
4-Isopropyltoluene	ND		1.0		ug/L			10/22/24 11:50	1
4-Methyl-2-pentanone	ND		10		ug/L			10/22/24 11:50	1
Acetone	ND		10		ug/L			10/22/24 11:50	1
Benzene	ND		1.0		ug/L			10/22/24 11:50	1
Bromobenzene	ND		1.0		ug/L			10/22/24 11:50	1
Bromodichloromethane	ND		1.0		ug/L			10/22/24 11:50	1
Dibromochloromethane	ND		1.0		ug/L			10/22/24 11:50	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

Lab Sample ID: MB 885-14693/6
Matrix: Air
Analysis Batch: 14693

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0		ug/L			10/22/24 11:50	1
Bromomethane	ND		3.0		ug/L			10/22/24 11:50	1
Carbon disulfide	ND		10		ug/L			10/22/24 11:50	1
Carbon tetrachloride	ND		1.0		ug/L			10/22/24 11:50	1
Chlorobenzene	ND		1.0		ug/L			10/22/24 11:50	1
Chloroethane	ND		2.0		ug/L			10/22/24 11:50	1
Chloroform	ND		1.0		ug/L			10/22/24 11:50	1
Chloromethane	ND		3.0		ug/L			10/22/24 11:50	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/22/24 11:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			10/22/24 11:50	1
Dibromomethane	ND		1.0		ug/L			10/22/24 11:50	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/22/24 11:50	1
Ethylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
Hexachlorobutadiene	ND		1.0		ug/L			10/22/24 11:50	1
Isopropylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			10/22/24 11:50	1
Methylene Chloride	ND		3.0		ug/L			10/22/24 11:50	1
n-Butylbenzene	ND		3.0		ug/L			10/22/24 11:50	1
N-Propylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
Naphthalene	ND		2.0		ug/L			10/22/24 11:50	1
sec-Butylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
Styrene	ND		1.0		ug/L			10/22/24 11:50	1
tert-Butylbenzene	ND		1.0		ug/L			10/22/24 11:50	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			10/22/24 11:50	1
Toluene	ND		1.0		ug/L			10/22/24 11:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/22/24 11:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			10/22/24 11:50	1
Trichloroethene (TCE)	ND		1.0		ug/L			10/22/24 11:50	1
Trichlorofluoromethane	ND		1.0		ug/L			10/22/24 11:50	1
Vinyl chloride	ND		1.0		ug/L			10/22/24 11:50	1
Xylenes, Total	ND		1.5		ug/L			10/22/24 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*10/22/24 11:50*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/22/24 11:50*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*10/22/24 11:50*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*10/22/24 11:50*	*1*

Lab Sample ID: LCS 885-14693/5
Matrix: Air
Analysis Batch: 14693

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	19.4		ug/L		97	70 - 130		
Benzene			20.1	21.1		ug/L		105	70 - 130		
Chlorobenzene			20.1	20.8		ug/L		104	70 - 130		
Toluene			20.2	20.1		ug/L		99	70 - 130		
Trichloroethene (TCE)			20.2	19.7		ug/L		97	70 - 130		

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

Lab Sample ID: LCS 885-14693/5
Matrix: Air
Analysis Batch: 14693

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	92		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130

Lab Sample ID: 885-13869-1 DU
Matrix: Air
Analysis Batch: 14693

Client Sample ID: Influent 10-16-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD 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	0.57			0.609		ug/L				6	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	0.75			0.735		ug/L				2	20
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	2.3			2.24		ug/L				3	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

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

Lab Sample ID: 885-13869-1 DU
Matrix: Air
Analysis Batch: 14693

Client Sample ID: Influent 10-16-24
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
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	0.68			0.683		ug/L				1	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	9.8			9.55		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	11			11.4		ug/L				0.4	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*120*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

GC/MS VOA

Analysis Batch: 14686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13869-1	Influent 10-16-24	Total/NA	Air	8015M/D	
MB 885-14686/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-14686/3	Lab Control Sample	Total/NA	Air	8015M/D	
885-13869-1 DU	Influent 10-16-24	Total/NA	Air	8015M/D	

Analysis Batch: 14693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13869-1	Influent 10-16-24	Total/NA	Air	8260B	
MB 885-14693/1006	Method Blank	Total/NA	Air	8260B	
MB 885-14693/6	Method Blank	Total/NA	Air	8260B	
LCS 885-14693/5	Lab Control Sample	Total/NA	Air	8260B	
885-13869-1 DU	Influent 10-16-24	Total/NA	Air	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

Client Sample ID: Influent 10-16-24
Date Collected: 10/16/24 14:20
Date Received: 10/17/24 06:32

Lab Sample ID: 885-13869-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		1	14686	CM	EET ALB	10/21/24 14:07
Total/NA	Analysis	8260B		5	14693	CM	EET ALB	10/22/24 12:15

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: Hare 15

Job ID: 885-13869-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-13869-1

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

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ANALYTICAL SUMMARY REPORT

October 24, 2024

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

Work Order: B24101807 Quote ID: B15626
Project Name: Hare 15, 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 10/22/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24101807-001	Influent 10-16-24 (885-13869-1)	10/16/24 14:20	10/22/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Hare 15, 88501698
Lab ID: B24101807-001
Client Sample ID: Influent 10-16-24 (885-13869-1)

Report Date: 10/24/24
Collection Date: 10/16/24 14:20
DateReceived: 10/22/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.65	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Nitrogen	78.08	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Carbon Dioxide	0.23	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Methane	0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Hexanes plus	0.03	Mol %		0.01		GPA 2261-95	10/23/24 09:56 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
Hexanes plus	0.013	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
GPM Total	0.013	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
GPM Pentanes plus	0.013	gpm		0.001		GPA 2261-95	10/23/24 09:56 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	2			1		GPA 2261-95	10/23/24 09:56 / jrj
Net BTU per cu ft @ std cond. (LHV)	1			1		GPA 2261-95	10/23/24 09:56 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-95	10/23/24 09:56 / jrj
Pseudo-critical Temperature, deg R	239			1		GPA 2261-95	10/23/24 09:56 / jrj
Specific Gravity @ 60/60F	0.999			0.001		D3588-81	10/23/24 09:56 / jrj
Air, %	98.91			0.01		GPA 2261-95	10/23/24 09:56 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	10/23/24 09:56 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24101807 **Report Date:** 10/24/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**										Batch: R431095
Lab ID: **B24101807-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_241023A			10/23/24 10:45	
Oxygen		21.5	Mol %	0.01				0.9	20	
Nitrogen		78.3	Mol %	0.01				0.3	20	
Carbon Dioxide		0.23	Mol %	0.01				0.0	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		0.03	Mol %	0.01				0.0	20	
Lab ID: **LCS102324**	11	Laboratory Control Sample				Run: GCNGA-B_241023A			10/23/24 12:24	
Oxygen		0.62	Mol %	0.01	124	70	130			
Nitrogen		6.04	Mol %	0.01	101	70	130			
Carbon Dioxide		0.98	Mol %	0.01	99	70	130			
Methane		74.8	Mol %	0.01	100	70	130			
Ethane		6.00	Mol %	0.01	100	70	130			
Propane		5.05	Mol %	0.01	102	70	130			
Isobutane		1.68	Mol %	0.01	84	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24101807

Login completed by: Lyndsi E. LeProwse
Date Received: 10/22/2024
Reviewed by: gmccartney
Received by: LEL
Reviewed Date: 10/23/2024
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:	16.4°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Garcia, Michelle	Carrier Tracking No(s): N/A	COC No: 885-2461.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-13869-1
Address: 1120 South 27th Street, ,	Due Date Requested: 10/24/2024			
City: Billings	TAT Requested (days): N/A			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Hare 15	Project #: 88501698			
Site: N/A	SSOW#: N/A			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 10-16-24 (885-13869-1)	10/16/24	14:20 Mountain	G	Air			X	1	See Attached Instructions
									B24101807

Preservation Codes: -

Other: N/A

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

Possible Hazard Identification
Unconfirmed

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

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time: 10/21/24 1400	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				Received by:	Date/Time: 10/22/24 10:05	Company

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

Ver: 10/10/2024

ICOC No:
885-2461

Containers

Count	Container Type	Preservative
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

Chain-of-Custody Record

Client: Hilcorp

Attn: Mitch Killough

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: Hare 15

Project #:

Project Manager: Stuart Hyde

Sampler: DB/AL

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 4.1 -0.1 =4.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABO

www.hallenvironmental.com

885-13869 COC

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas Orsat
10-16-2024	14:20	Air	Influent 10-16-24	2-Tedlar	—			X						X			X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10-16 2024	16:45					
10/14/24	1721			courier	10/17/24	6:32

Remarks: CC: shyde hmishriki dburns ecarroll @ensolum.com

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-13869-1

Login Number: 13869 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/4/2024 4:17:47 PM Revision 1

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-15455-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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

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Revision 1

Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-15455-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Hare 15

Job ID: 885-15455-1

Job ID: 885-15455-1 Eurofins Albuquerque

Job Narrative
885-15455-1

REVISION

The report being provided is a revision of the original report sent on 11/26/2024. The report (revision 1) is being revised due to The GRO dilution has been updated.

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 11/16/2024 6:20 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 3.1°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.

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

Client Sample ID: Influent 111524

Lab Sample ID: 885-15455-1
Matrix: Air
Date Collected: 11/15/24 09:30
Date Received: 11/16/24 06:20
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**440**		25		ug/L			11/20/24 14:17	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*52 - 172*		*11/20/24 14:17*	*5*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			11/20/24 14:17	5
1,1,1-Trichloroethane	ND		0.50		ug/L			11/20/24 14:17	5
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			11/20/24 14:17	5
1,1,2-Trichloroethane	ND		0.50		ug/L			11/20/24 14:17	5
1,1-Dichloroethane	ND		0.50		ug/L			11/20/24 14:17	5
1,1-Dichloroethene	ND		0.50		ug/L			11/20/24 14:17	5
1,1-Dichloropropene	ND		0.50		ug/L			11/20/24 14:17	5
1,2,3-Trichlorobenzene	ND		0.50		ug/L			11/20/24 14:17	5
1,2,3-Trichloropropane	ND		1.0		ug/L			11/20/24 14:17	5
1,2,4-Trichlorobenzene	ND		0.50		ug/L			11/20/24 14:17	5
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			11/20/24 14:17	5
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			11/20/24 14:17	5
1,2-Dichlorobenzene	ND		0.50		ug/L			11/20/24 14:17	5
1,2-Dichloroethane (EDC)	ND		0.50		ug/L			11/20/24 14:17	5
1,2-Dichloropropane	ND		0.50		ug/L			11/20/24 14:17	5
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
1,3-Dichlorobenzene	ND		0.50		ug/L			11/20/24 14:17	5
1,3-Dichloropropane	ND		0.50		ug/L			11/20/24 14:17	5
1,4-Dichlorobenzene	ND		0.50		ug/L			11/20/24 14:17	5
1-Methylnaphthalene	ND		2.0		ug/L			11/20/24 14:17	5
2,2-Dichloropropane	ND		1.0		ug/L			11/20/24 14:17	5
2-Butanone	ND		5.0		ug/L			11/20/24 14:17	5
2-Chlorotoluene	ND		0.50		ug/L			11/20/24 14:17	5
2-Hexanone	ND		5.0		ug/L			11/20/24 14:17	5
2-Methylnaphthalene	ND		2.0		ug/L			11/20/24 14:17	5
4-Chlorotoluene	ND		0.50		ug/L			11/20/24 14:17	5
4-Isopropyltoluene	ND		0.50		ug/L			11/20/24 14:17	5
4-Methyl-2-pentanone	ND		5.0		ug/L			11/20/24 14:17	5
Acetone	ND		5.0		ug/L			11/20/24 14:17	5
Benzene	**1.3**		0.50		ug/L			11/20/24 14:17	5
Bromobenzene	ND		0.50		ug/L			11/20/24 14:17	5
Bromodichloromethane	ND		0.50		ug/L			11/20/24 14:17	5
Dibromochloromethane	ND		0.50		ug/L			11/20/24 14:17	5
Bromoform	ND		0.50		ug/L			11/20/24 14:17	5
Bromomethane	ND		1.5		ug/L			11/20/24 14:17	5
Carbon disulfide	ND		5.0		ug/L			11/20/24 14:17	5
Carbon tetrachloride	ND		0.50		ug/L			11/20/24 14:17	5
Chlorobenzene	ND		0.50		ug/L			11/20/24 14:17	5
Chloroethane	ND		1.0		ug/L			11/20/24 14:17	5
Chloroform	ND		0.50		ug/L			11/20/24 14:17	5

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

Client Sample ID: Influent 111524

Lab Sample ID: 885-15455-1
Matrix: Air
Date Collected: 11/15/24 09:30
Date Received: 11/16/24 06:20
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.5		ug/L			11/20/24 14:17	5
cis-1,2-Dichloroethene	ND		0.50		ug/L			11/20/24 14:17	5
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/20/24 14:17	5
Dibromomethane	ND		0.50		ug/L			11/20/24 14:17	5
Dichlorodifluoromethane	ND		0.50		ug/L			11/20/24 14:17	5
Ethylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
Hexachlorobutadiene	ND		0.50		ug/L			11/20/24 14:17	5
Isopropylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
Methyl-tert-butyl Ether (MTBE)	ND		0.50		ug/L			11/20/24 14:17	5
Methylene Chloride	ND		1.5		ug/L			11/20/24 14:17	5
n-Butylbenzene	ND		1.5		ug/L			11/20/24 14:17	5
N-Propylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
Naphthalene	ND		1.0		ug/L			11/20/24 14:17	5
sec-Butylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
Styrene	ND		0.50		ug/L			11/20/24 14:17	5
tert-Butylbenzene	ND		0.50		ug/L			11/20/24 14:17	5
Tetrachloroethene (PCE)	ND		0.50		ug/L			11/20/24 14:17	5
Toluene	**1.9**		0.50		ug/L			11/20/24 14:17	5
trans-1,2-Dichloroethene	ND		0.50		ug/L			11/20/24 14:17	5
trans-1,3-Dichloropropene	ND		0.50		ug/L			11/20/24 14:17	5
Trichloroethene (TCE)	ND		0.50		ug/L			11/20/24 14:17	5
Trichlorofluoromethane	ND		0.50		ug/L			11/20/24 14:17	5
Vinyl chloride	ND		0.50		ug/L			11/20/24 14:17	5
Xylenes, Total	ND		0.75		ug/L			11/20/24 14:17	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*		*11/20/24 14:17*	*5*
Toluene-d8 (Surr)	*113*		*70 - 130*		*11/20/24 14:17*	*5*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/20/24 14:17*	*5*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*11/20/24 14:17*	*5*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

Lab Sample ID: MB 885-16400/4
Matrix: Air
Analysis Batch: 16400

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			11/20/24 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*52 - 172*		*11/20/24 13:28*	*1*

Lab Sample ID: LCS 885-16400/3
Matrix: Air
Analysis Batch: 16400

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]			4250	4710		ug/L		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*52 - 172*

Lab Sample ID: 885-15455-1 DU
Matrix: Air
Analysis Batch: 16400

Client Sample ID: Influent 111524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	440			367		ug/L				18	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*67*		*52 - 172*

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

Lab Sample ID: MB 885-16277/1005
Matrix: Air
Analysis Batch: 16277

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		0.10		ug/L			11/20/24 13:28	1
1,1,1-Trichloroethane	ND		0.10		ug/L			11/20/24 13:28	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			11/20/24 13:28	1
1,1,2-Trichloroethane	ND		0.10		ug/L			11/20/24 13:28	1
1,1-Dichloroethane	ND		0.10		ug/L			11/20/24 13:28	1
1,1-Dichloroethene	ND		0.10		ug/L			11/20/24 13:28	1
1,1-Dichloropropene	ND		0.10		ug/L			11/20/24 13:28	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			11/20/24 13:28	1
1,2,3-Trichloropropane	ND		0.20		ug/L			11/20/24 13:28	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			11/20/24 13:28	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			11/20/24 13:28	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			11/20/24 13:28	1
1,2-Dichlorobenzene	ND		0.10		ug/L			11/20/24 13:28	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

Lab Sample ID: MB 885-16277/1005
Matrix: Air
Analysis Batch: 16277

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			11/20/24 13:28	1
1,2-Dichloropropane	ND		0.10		ug/L			11/20/24 13:28	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
1,3-Dichlorobenzene	ND		0.10		ug/L			11/20/24 13:28	1
1,3-Dichloropropane	ND		0.10		ug/L			11/20/24 13:28	1
1,4-Dichlorobenzene	ND		0.10		ug/L			11/20/24 13:28	1
1-Methylnaphthalene	ND		0.40		ug/L			11/20/24 13:28	1
2,2-Dichloropropane	ND		0.20		ug/L			11/20/24 13:28	1
2-Butanone	ND		1.0		ug/L			11/20/24 13:28	1
2-Chlorotoluene	ND		0.10		ug/L			11/20/24 13:28	1
2-Hexanone	ND		1.0		ug/L			11/20/24 13:28	1
2-Methylnaphthalene	ND		0.40		ug/L			11/20/24 13:28	1
4-Chlorotoluene	ND		0.10		ug/L			11/20/24 13:28	1
4-Isopropyltoluene	ND		0.10		ug/L			11/20/24 13:28	1
4-Methyl-2-pentanone	ND		1.0		ug/L			11/20/24 13:28	1
Acetone	ND		1.0		ug/L			11/20/24 13:28	1
Benzene	ND		0.10		ug/L			11/20/24 13:28	1
Bromobenzene	ND		0.10		ug/L			11/20/24 13:28	1
Bromodichloromethane	ND		0.10		ug/L			11/20/24 13:28	1
Dibromochloromethane	ND		0.10		ug/L			11/20/24 13:28	1
Bromoform	ND		0.10		ug/L			11/20/24 13:28	1
Bromomethane	ND		0.30		ug/L			11/20/24 13:28	1
Carbon disulfide	ND		1.0		ug/L			11/20/24 13:28	1
Carbon tetrachloride	ND		0.10		ug/L			11/20/24 13:28	1
Chlorobenzene	ND		0.10		ug/L			11/20/24 13:28	1
Chloroethane	ND		0.20		ug/L			11/20/24 13:28	1
Chloroform	ND		0.10		ug/L			11/20/24 13:28	1
Chloromethane	ND		0.30		ug/L			11/20/24 13:28	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			11/20/24 13:28	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			11/20/24 13:28	1
Dibromomethane	ND		0.10		ug/L			11/20/24 13:28	1
Dichlorodifluoromethane	ND		0.10		ug/L			11/20/24 13:28	1
Ethylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
Hexachlorobutadiene	ND		0.10		ug/L			11/20/24 13:28	1
Isopropylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			11/20/24 13:28	1
Methylene Chloride	ND		0.30		ug/L			11/20/24 13:28	1
n-Butylbenzene	ND		0.30		ug/L			11/20/24 13:28	1
N-Propylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
Naphthalene	ND		0.20		ug/L			11/20/24 13:28	1
sec-Butylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
Styrene	ND		0.10		ug/L			11/20/24 13:28	1
tert-Butylbenzene	ND		0.10		ug/L			11/20/24 13:28	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			11/20/24 13:28	1
Toluene	ND		0.10		ug/L			11/20/24 13:28	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			11/20/24 13:28	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			11/20/24 13:28	1
Trichloroethene (TCE)	ND		0.10		ug/L			11/20/24 13:28	1
Trichlorofluoromethane	ND		0.10		ug/L			11/20/24 13:28	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

Lab Sample ID: MB 885-16277/1005
Matrix: Air
Analysis Batch: 16277

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.10		ug/L			11/20/24 13:28	1
Xylenes, Total	ND		0.15		ug/L			11/20/24 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/20/24 13:28*	*1*
Toluene-d8 (Surr)	*115*		*70 - 130*		*11/20/24 13:28*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/20/24 13:28*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*11/20/24 13:28*	*1*

Lab Sample ID: MB 885-16277/5
Matrix: Air
Analysis Batch: 16277

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			11/20/24 13:28	1
1,1,1-Trichloroethane	ND		1.0		ug/L			11/20/24 13:28	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/20/24 13:28	1
1,1,2-Trichloroethane	ND		1.0		ug/L			11/20/24 13:28	1
1,1-Dichloroethane	ND		1.0		ug/L			11/20/24 13:28	1
1,1-Dichloroethene	ND		1.0		ug/L			11/20/24 13:28	1
1,1-Dichloropropene	ND		1.0		ug/L			11/20/24 13:28	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			11/20/24 13:28	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/20/24 13:28	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			11/20/24 13:28	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			11/20/24 13:28	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			11/20/24 13:28	1
1,2-Dichlorobenzene	ND		1.0		ug/L			11/20/24 13:28	1
1,2-Dichloroethane (EDC)	ND		1.0		ug/L			11/20/24 13:28	1
1,2-Dichloropropane	ND		1.0		ug/L			11/20/24 13:28	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
1,3-Dichlorobenzene	ND		1.0		ug/L			11/20/24 13:28	1
1,3-Dichloropropane	ND		1.0		ug/L			11/20/24 13:28	1
1,4-Dichlorobenzene	ND		1.0		ug/L			11/20/24 13:28	1
1-Methylnaphthalene	ND		4.0		ug/L			11/20/24 13:28	1
2,2-Dichloropropane	ND		2.0		ug/L			11/20/24 13:28	1
2-Butanone	ND		10		ug/L			11/20/24 13:28	1
2-Chlorotoluene	ND		1.0		ug/L			11/20/24 13:28	1
2-Hexanone	ND		10		ug/L			11/20/24 13:28	1
2-Methylnaphthalene	ND		4.0		ug/L			11/20/24 13:28	1
4-Chlorotoluene	ND		1.0		ug/L			11/20/24 13:28	1
4-Isopropyltoluene	ND		1.0		ug/L			11/20/24 13:28	1
4-Methyl-2-pentanone	ND		10		ug/L			11/20/24 13:28	1
Acetone	ND		10		ug/L			11/20/24 13:28	1
Benzene	ND		1.0		ug/L			11/20/24 13:28	1
Bromobenzene	ND		1.0		ug/L			11/20/24 13:28	1
Bromodichloromethane	ND		1.0		ug/L			11/20/24 13:28	1
Dibromochloromethane	ND		1.0		ug/L			11/20/24 13:28	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

Lab Sample ID: MB 885-16277/5
Matrix: Air
Analysis Batch: 16277

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0		ug/L			11/20/24 13:28	1
Bromomethane	ND		3.0		ug/L			11/20/24 13:28	1
Carbon disulfide	ND		10		ug/L			11/20/24 13:28	1
Carbon tetrachloride	ND		1.0		ug/L			11/20/24 13:28	1
Chlorobenzene	ND		1.0		ug/L			11/20/24 13:28	1
Chloroethane	ND		2.0		ug/L			11/20/24 13:28	1
Chloroform	ND		1.0		ug/L			11/20/24 13:28	1
Chloromethane	ND		3.0		ug/L			11/20/24 13:28	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			11/20/24 13:28	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			11/20/24 13:28	1
Dibromomethane	ND		1.0		ug/L			11/20/24 13:28	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/20/24 13:28	1
Ethylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
Hexachlorobutadiene	ND		1.0		ug/L			11/20/24 13:28	1
Isopropylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
Methyl-tert-butyl Ether (MTBE)	ND		1.0		ug/L			11/20/24 13:28	1
Methylene Chloride	ND		3.0		ug/L			11/20/24 13:28	1
n-Butylbenzene	ND		3.0		ug/L			11/20/24 13:28	1
N-Propylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
Naphthalene	ND		2.0		ug/L			11/20/24 13:28	1
sec-Butylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
Styrene	ND		1.0		ug/L			11/20/24 13:28	1
tert-Butylbenzene	ND		1.0		ug/L			11/20/24 13:28	1
Tetrachloroethene (PCE)	ND		1.0		ug/L			11/20/24 13:28	1
Toluene	ND		1.0		ug/L			11/20/24 13:28	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			11/20/24 13:28	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			11/20/24 13:28	1
Trichloroethene (TCE)	ND		1.0		ug/L			11/20/24 13:28	1
Trichlorofluoromethane	ND		1.0		ug/L			11/20/24 13:28	1
Vinyl chloride	ND		1.0		ug/L			11/20/24 13:28	1
Xylenes, Total	ND		1.5		ug/L			11/20/24 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/20/24 13:28*	*1*
Toluene-d8 (Surr)	*115*		*70 - 130*		*11/20/24 13:28*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/20/24 13:28*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*11/20/24 13:28*	*1*

Lab Sample ID: LCS 885-16277/4
Matrix: Air
Analysis Batch: 16277

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	18.7		ug/L		93	70 - 130		
Benzene			20.1	19.7		ug/L		98	70 - 130		
Chlorobenzene			20.1	20.0		ug/L		100	70 - 130		
Toluene			20.2	19.6		ug/L		97	70 - 130		
Trichloroethene (TCE)			20.2	18.3		ug/L		91	70 - 130		

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

Lab Sample ID: LCS 885-16277/4
Matrix: Air
Analysis Batch: 16277

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

Lab Sample ID: 885-15455-1 DU
Matrix: Air
Analysis Batch: 16277

Client Sample ID: Influent 111524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD 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
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	1.3			1.27		ug/L				0	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

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

Lab Sample ID: 885-15455-1 DU
Matrix: Air
Analysis Batch: 16277

Client Sample ID: Influent 111524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
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	1.9			1.73		ug/L				7	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	ND			ND		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

GC/MS VOA

Analysis Batch: 16277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15455-1	Influent 111524	Total/NA	Air	8260B	
MB 885-16277/1005	Method Blank	Total/NA	Air	8260B	
MB 885-16277/5	Method Blank	Total/NA	Air	8260B	
LCS 885-16277/4	Lab Control Sample	Total/NA	Air	8260B	
885-15455-1 DU	Influent 111524	Total/NA	Air	8260B	

Analysis Batch: 16400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15455-1	Influent 111524	Total/NA	Air	8015M/D	
MB 885-16400/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-16400/3	Lab Control Sample	Total/NA	Air	8015M/D	
885-15455-1 DU	Influent 111524	Total/NA	Air	8015M/D	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

Client Sample ID: Influent 111524
Date Collected: 11/15/24 09:30
Date Received: 11/16/24 06:20

Lab Sample ID: 885-15455-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		5	16400	CM	EET ALB	11/20/24 14:17
Total/NA	Analysis	8260B		5	16277	CM	EET ALB	11/20/24 14:17

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: Hare 15

Job ID: 885-15455-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15455-1

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

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ANALYTICAL SUMMARY REPORT

November 25, 2024

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

Work Order: B24111343 Quote ID: B15626
Project Name: Hare 15 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 11/19/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24111343-001	Influent 111524 (885-15455-1)	11/15/24 9:30	11/19/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Hare 15 88501698
Lab ID: B24111343-001
Client Sample ID: Influent 111524 (885-15455-1)

Report Date: 11/25/24
Collection Date: 11/15/24 09:30
DateReceived: 11/19/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	19.33	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Nitrogen	80.47	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Carbon Dioxide	0.19	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Hexanes plus	0.01	Mol %		0.01		GPA 2261-13	11/20/24 11:45 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
Hexanes plus	0.004	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
GPM Total	0.004	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
GPM Pentanes plus	0.004	gpm		0.001		GPA 2261-13	11/20/24 11:45 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	ND			1		GPA 2261-13	11/20/24 11:45 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND			1		GPA 2261-13	11/20/24 11:45 / jrj
Pseudo-critical Pressure, psia	540			1		GPA 2261-13	11/20/24 11:45 / jrj
Pseudo-critical Temperature, deg R	238			1		GPA 2261-13	11/20/24 11:45 / jrj
Specific Gravity @ 60/60F	0.995			0.001		D3588-81	11/20/24 11:45 / jrj
Air, %	88.33			0.01		GPA 2261-13	11/20/24 11:45 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	11/20/24 11:45 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24111343 **Report Date:** 11/25/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-13**										Batch: R432776
Lab ID: **B24111344-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_241120A				11/20/24 10:56
Oxygen		19.1	Mol %	0.01				0.1	20	
Nitrogen		80.4	Mol %	0.01				0	20	
Carbon Dioxide		0.54	Mol %	0.01				0.0	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		0.01	Mol %	0.01				0.0	20	
Lab ID: **LCS112024**	11	Laboratory Control Sample				Run: GCNGA-B_241120A				11/20/24 01:30
Oxygen		0.63	Mol %	0.01	126	70	130			
Nitrogen		6.29	Mol %	0.01	105	70	130			
Carbon Dioxide		0.98	Mol %	0.01	99	70	130			
Methane		74.4	Mol %	0.01	100	70	130			
Ethane		6.02	Mol %	0.01	100	70	130			
Propane		5.04	Mol %	0.01	102	70	130			
Isobutane		1.72	Mol %	0.01	86	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.09	Mol %	0.01	109	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24111343

Login completed by: Danielle N. Harris
Date Received: 11/19/2024

Reviewed by: lleprowse
Received by: SAY

Reviewed Date: 11/20/2024
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:	10.4°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES
Trust our People. Trust our Data.
www.energylab.com
Billings, MT 406.252.6325 • Casper, WY 307.235.0515
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Garcia, Michelle	Carrier Tracking No(s): N/A	COC No: 885-2844.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-15455-1
Address: 1120 South 27th Street, ,	Due Date Requested: 11/25/2024			
City: Billings	TAT Requested (days): N/A			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Hare 15	Project #: 88501698			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 111524 (885-15455-1)	11/15/24	09:30 Mountain	G	Air			X	1	See Attached Instructions
									B24111343

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

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/18/24 15:37	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Sierra Young	Date/Time: 11-19-24 1020	Company ELI-B
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks		

Ver: 10/10/2024

ICOC No:
885-2844

Containers

Count	Container Type	Preservative
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

Chain-of-Custody Record

Client: Hilcorp

Attn Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
10. Day TAT
☒ Standard ☐ Rush

Project Name:
Hare 15

Project #:

Project Manager:
Stuart Hyde

Sampler: Aaron Lemmon

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 3.2 - 0.1 = 3.1 (°C)

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

885-15455 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas CO_2 + O_2
11/15/24	930	Air	Influent 111524	2 - Tedlar	—			X						X			X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
11/15/24	1515					
11/15/24	1730			courier	11/16/24	6:20

Remarks:
shyde
CC: dburns rharson @ enssolum.com
ecarroll

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-15455-1

Login Number: 15455 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Proctor, Nancy

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mitch Killough
Hilcorp Energy
PO BOX 4700
Farmington, New Mexico 87499
Generated 12/13/2024 1:45:40 PM

JOB DESCRIPTION

Influent 112724

JOB NUMBER

885-16142-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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
12/13/2024 1:45:40 PM

Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Influent 112724

Laboratory Job ID: 885-16142-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Influent 112724

Job ID: 885-16142-1

Job ID: 885-16142-1 Eurofins Albuquerque

Job Narrative
885-16142-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 12/3/2024 6:35 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 3.0°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.

Client Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

Client Sample ID: #31 Influent 112724

Lab Sample ID: 885-16142-1

Date Collected: 11/27/24 12:25
Matrix: Air
Date Received: 12/03/24 06:35
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1100		250		ug/L			12/04/24 17:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*52 - 172*		*12/04/24 17:20*	*50*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/04/24 17:20	50
1,1,1-Trichloroethane	ND		5.0		ug/L			12/04/24 17:20	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			12/04/24 17:20	50
1,1,2-Trichloroethane	ND		5.0		ug/L			12/04/24 17:20	50
1,1-Dichloroethane	ND		5.0		ug/L			12/04/24 17:20	50
1,1-Dichloroethene	ND		5.0		ug/L			12/04/24 17:20	50
1,1-Dichloropropene	ND		5.0		ug/L			12/04/24 17:20	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			12/04/24 17:20	50
1,2,3-Trichloropropane	ND		10		ug/L			12/04/24 17:20	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			12/04/24 17:20	50
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/04/24 17:20	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			12/04/24 17:20	50
1,2-Dichlorobenzene	ND		5.0		ug/L			12/04/24 17:20	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			12/04/24 17:20	50
1,2-Dichloropropane	ND		5.0		ug/L			12/04/24 17:20	50
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
1,3-Dichlorobenzene	ND		5.0		ug/L			12/04/24 17:20	50
1,3-Dichloropropane	ND		5.0		ug/L			12/04/24 17:20	50
1,4-Dichlorobenzene	ND		5.0		ug/L			12/04/24 17:20	50
1-Methylnaphthalene	ND		20		ug/L			12/04/24 17:20	50
2,2-Dichloropropane	ND		10		ug/L			12/04/24 17:20	50
2-Butanone	ND		50		ug/L			12/04/24 17:20	50
2-Chlorotoluene	ND		5.0		ug/L			12/04/24 17:20	50
2-Hexanone	ND		50		ug/L			12/04/24 17:20	50
2-Methylnaphthalene	ND		20		ug/L			12/04/24 17:20	50
4-Chlorotoluene	ND		5.0		ug/L			12/04/24 17:20	50
4-Isopropyltoluene	ND		5.0		ug/L			12/04/24 17:20	50
4-Methyl-2-pentanone	ND		50		ug/L			12/04/24 17:20	50
Acetone	ND		50		ug/L			12/04/24 17:20	50
Benzene	6.6		2.5		ug/L			12/04/24 17:20	50
Bromobenzene	ND		5.0		ug/L			12/04/24 17:20	50
Bromodichloromethane	ND		5.0		ug/L			12/04/24 17:20	50
Dibromochloromethane	ND		5.0		ug/L			12/04/24 17:20	50
Bromoform	ND		5.0		ug/L			12/04/24 17:20	50
Bromomethane	ND		15		ug/L			12/04/24 17:20	50
Carbon disulfide	ND		50		ug/L			12/04/24 17:20	50
Carbon tetrachloride	ND		5.0		ug/L			12/04/24 17:20	50
Chlorobenzene	ND		5.0		ug/L			12/04/24 17:20	50
Chloroethane	ND		10		ug/L			12/04/24 17:20	50
Chloroform	ND		5.0		ug/L			12/04/24 17:20	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

Client Sample ID: #31 Influent 112724
Date Collected: 11/27/24 12:25
Date Received: 12/03/24 06:35
Sample Container: Tedlar Bag 1L

Lab Sample ID: 885-16142-1
Matrix: Air

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			12/04/24 17:20	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			12/04/24 17:20	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/04/24 17:20	50
Dibromomethane	ND		5.0		ug/L			12/04/24 17:20	50
Dichlorodifluoromethane	ND		5.0		ug/L			12/04/24 17:20	50
Ethylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
Hexachlorobutadiene	ND		5.0		ug/L			12/04/24 17:20	50
Isopropylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			12/04/24 17:20	50
Methylene Chloride	ND		15		ug/L			12/04/24 17:20	50
n-Butylbenzene	ND		15		ug/L			12/04/24 17:20	50
N-Propylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
Naphthalene	ND		10		ug/L			12/04/24 17:20	50
sec-Butylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
Styrene	ND		5.0		ug/L			12/04/24 17:20	50
tert-Butylbenzene	ND		5.0		ug/L			12/04/24 17:20	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			12/04/24 17:20	50
Toluene	**13**		5.0		ug/L			12/04/24 17:20	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/04/24 17:20	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/04/24 17:20	50
Trichloroethene (TCE)	ND		5.0		ug/L			12/04/24 17:20	50
Trichlorofluoromethane	ND		5.0		ug/L			12/04/24 17:20	50
Vinyl chloride	ND		5.0		ug/L			12/04/24 17:20	50
Xylenes, Total	ND		7.5		ug/L			12/04/24 17:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*12/04/24 17:20*	*50*
Toluene-d8 (Surr)	*109*		*70 - 130*		*12/04/24 17:20*	*50*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*12/04/24 17:20*	*50*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*12/04/24 17:20*	*50*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

Client Sample ID: Influent 112724

Lab Sample ID: 885-16142-2

Date Collected: 11/27/24 14:50
Matrix: Air
Date Received: 12/03/24 06:35
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	2100		250		ug/L			12/04/24 17:48	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*52 - 172*		*12/04/24 17:48*	*50*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			12/04/24 17:48	50
1,1,1-Trichloroethane	ND		5.0		ug/L			12/04/24 17:48	50
1,1,2,2-Tetrachloroethane	ND		10		ug/L			12/04/24 17:48	50
1,1,2-Trichloroethane	ND		5.0		ug/L			12/04/24 17:48	50
1,1-Dichloroethane	ND		5.0		ug/L			12/04/24 17:48	50
1,1-Dichloroethene	ND		5.0		ug/L			12/04/24 17:48	50
1,1-Dichloropropene	ND		5.0		ug/L			12/04/24 17:48	50
1,2,3-Trichlorobenzene	ND		5.0		ug/L			12/04/24 17:48	50
1,2,3-Trichloropropane	ND		10		ug/L			12/04/24 17:48	50
1,2,4-Trichlorobenzene	ND		5.0		ug/L			12/04/24 17:48	50
1,2,4-Trimethylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/04/24 17:48	50
1,2-Dibromoethane (EDB)	ND		5.0		ug/L			12/04/24 17:48	50
1,2-Dichlorobenzene	ND		5.0		ug/L			12/04/24 17:48	50
1,2-Dichloroethane (EDC)	ND		5.0		ug/L			12/04/24 17:48	50
1,2-Dichloropropane	ND		5.0		ug/L			12/04/24 17:48	50
1,3,5-Trimethylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
1,3-Dichlorobenzene	ND		5.0		ug/L			12/04/24 17:48	50
1,3-Dichloropropane	ND		5.0		ug/L			12/04/24 17:48	50
1,4-Dichlorobenzene	ND		5.0		ug/L			12/04/24 17:48	50
1-Methylnaphthalene	ND		20		ug/L			12/04/24 17:48	50
2,2-Dichloropropane	ND		10		ug/L			12/04/24 17:48	50
2-Butanone	ND		50		ug/L			12/04/24 17:48	50
2-Chlorotoluene	ND		5.0		ug/L			12/04/24 17:48	50
2-Hexanone	ND		50		ug/L			12/04/24 17:48	50
2-Methylnaphthalene	ND		20		ug/L			12/04/24 17:48	50
4-Chlorotoluene	ND		5.0		ug/L			12/04/24 17:48	50
4-Isopropyltoluene	ND		5.0		ug/L			12/04/24 17:48	50
4-Methyl-2-pentanone	ND		50		ug/L			12/04/24 17:48	50
Acetone	ND		50		ug/L			12/04/24 17:48	50
Benzene	4.4		2.5		ug/L			12/04/24 17:48	50
Bromobenzene	ND		5.0		ug/L			12/04/24 17:48	50
Bromodichloromethane	ND		5.0		ug/L			12/04/24 17:48	50
Dibromochloromethane	ND		5.0		ug/L			12/04/24 17:48	50
Bromoform	ND		5.0		ug/L			12/04/24 17:48	50
Bromomethane	ND		15		ug/L			12/04/24 17:48	50
Carbon disulfide	ND		50		ug/L			12/04/24 17:48	50
Carbon tetrachloride	ND		5.0		ug/L			12/04/24 17:48	50
Chlorobenzene	ND		5.0		ug/L			12/04/24 17:48	50
Chloroethane	ND		10		ug/L			12/04/24 17:48	50
Chloroform	ND		5.0		ug/L			12/04/24 17:48	50

Client Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

Client Sample ID: Influent 112724

Lab Sample ID: 885-16142-2

Date Collected: 11/27/24 14:50
Matrix: Air
Date Received: 12/03/24 06:35
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		15		ug/L			12/04/24 17:48	50
cis-1,2-Dichloroethene	ND		5.0		ug/L			12/04/24 17:48	50
cis-1,3-Dichloropropene	ND		5.0		ug/L			12/04/24 17:48	50
Dibromomethane	ND		5.0		ug/L			12/04/24 17:48	50
Dichlorodifluoromethane	ND		5.0		ug/L			12/04/24 17:48	50
Ethylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
Hexachlorobutadiene	ND		5.0		ug/L			12/04/24 17:48	50
Isopropylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
Methyl-tert-butyl Ether (MTBE)	ND		5.0		ug/L			12/04/24 17:48	50
Methylene Chloride	ND		15		ug/L			12/04/24 17:48	50
n-Butylbenzene	ND		15		ug/L			12/04/24 17:48	50
N-Propylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
Naphthalene	ND		10		ug/L			12/04/24 17:48	50
sec-Butylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
Styrene	ND		5.0		ug/L			12/04/24 17:48	50
tert-Butylbenzene	ND		5.0		ug/L			12/04/24 17:48	50
Tetrachloroethene (PCE)	ND		5.0		ug/L			12/04/24 17:48	50
Toluene	**24**		5.0		ug/L			12/04/24 17:48	50
trans-1,2-Dichloroethene	ND		5.0		ug/L			12/04/24 17:48	50
trans-1,3-Dichloropropene	ND		5.0		ug/L			12/04/24 17:48	50
Trichloroethene (TCE)	ND		5.0		ug/L			12/04/24 17:48	50
Trichlorofluoromethane	ND		5.0		ug/L			12/04/24 17:48	50
Vinyl chloride	ND		5.0		ug/L			12/04/24 17:48	50
Xylenes, Total	**78**		7.5		ug/L			12/04/24 17:48	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*12/04/24 17:48*	*50*
Toluene-d8 (Surr)	*111*		*70 - 130*		*12/04/24 17:48*	*50*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*12/04/24 17:48*	*50*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*12/04/24 17:48*	*50*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

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

Lab Sample ID: MB 885-16996/5
Matrix: Air
Analysis Batch: 16996

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		ug/L			12/04/24 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*52 - 172*		*12/04/24 14:03*	*1*

Lab Sample ID: LCS 885-16996/4
Matrix: Air
Analysis Batch: 16996

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 (GRO)-C6-C10			500	495		ug/L		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*52 - 172*

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

Lab Sample ID: MB 885-17048/4
Matrix: Air
Analysis Batch: 17048

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		0.10		ug/L			12/04/24 14:03	1
1,1,1-Trichloroethane	ND		0.10		ug/L			12/04/24 14:03	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			12/04/24 14:03	1
1,1,2-Trichloroethane	ND		0.10		ug/L			12/04/24 14:03	1
1,1-Dichloroethane	ND		0.10		ug/L			12/04/24 14:03	1
1,1-Dichloroethene	ND		0.10		ug/L			12/04/24 14:03	1
1,1-Dichloropropene	ND		0.10		ug/L			12/04/24 14:03	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			12/04/24 14:03	1
1,2,3-Trichloropropane	ND		0.20		ug/L			12/04/24 14:03	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			12/04/24 14:03	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			12/04/24 14:03	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			12/04/24 14:03	1
1,2-Dichlorobenzene	ND		0.10		ug/L			12/04/24 14:03	1
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			12/04/24 14:03	1
1,2-Dichloropropane	ND		0.10		ug/L			12/04/24 14:03	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
1,3-Dichlorobenzene	ND		0.10		ug/L			12/04/24 14:03	1
1,3-Dichloropropane	ND		0.10		ug/L			12/04/24 14:03	1
1,4-Dichlorobenzene	ND		0.10		ug/L			12/04/24 14:03	1
1-Methylnaphthalene	ND		0.40		ug/L			12/04/24 14:03	1
2,2-Dichloropropane	ND		0.20		ug/L			12/04/24 14:03	1
2-Butanone	ND		1.0		ug/L			12/04/24 14:03	1
2-Chlorotoluene	ND		0.10		ug/L			12/04/24 14:03	1
2-Hexanone	ND		1.0		ug/L			12/04/24 14:03	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

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

Lab Sample ID: MB 885-17048/4
Matrix: Air
Analysis Batch: 17048

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.40		ug/L			12/04/24 14:03	1
4-Chlorotoluene	ND		0.10		ug/L			12/04/24 14:03	1
4-Isopropyltoluene	ND		0.10		ug/L			12/04/24 14:03	1
4-Methyl-2-pentanone	ND		1.0		ug/L			12/04/24 14:03	1
Acetone	ND		1.0		ug/L			12/04/24 14:03	1
Benzene	ND		0.10		ug/L			12/04/24 14:03	1
Bromobenzene	ND		0.10		ug/L			12/04/24 14:03	1
Bromodichloromethane	ND		0.10		ug/L			12/04/24 14:03	1
Dibromochloromethane	ND		0.10		ug/L			12/04/24 14:03	1
Bromoform	ND		0.10		ug/L			12/04/24 14:03	1
Bromomethane	ND		0.30		ug/L			12/04/24 14:03	1
Carbon disulfide	ND		1.0		ug/L			12/04/24 14:03	1
Carbon tetrachloride	ND		0.10		ug/L			12/04/24 14:03	1
Chlorobenzene	ND		0.10		ug/L			12/04/24 14:03	1
Chloroethane	ND		0.20		ug/L			12/04/24 14:03	1
Chloroform	ND		0.10		ug/L			12/04/24 14:03	1
Chloromethane	ND		0.30		ug/L			12/04/24 14:03	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			12/04/24 14:03	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			12/04/24 14:03	1
Dibromomethane	ND		0.10		ug/L			12/04/24 14:03	1
Dichlorodifluoromethane	ND		0.10		ug/L			12/04/24 14:03	1
Ethylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
Hexachlorobutadiene	ND		0.10		ug/L			12/04/24 14:03	1
Isopropylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			12/04/24 14:03	1
Methylene Chloride	ND		0.30		ug/L			12/04/24 14:03	1
n-Butylbenzene	ND		0.30		ug/L			12/04/24 14:03	1
N-Propylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
Naphthalene	ND		0.20		ug/L			12/04/24 14:03	1
sec-Butylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
Styrene	ND		0.10		ug/L			12/04/24 14:03	1
tert-Butylbenzene	ND		0.10		ug/L			12/04/24 14:03	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			12/04/24 14:03	1
Toluene	ND		0.10		ug/L			12/04/24 14:03	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			12/04/24 14:03	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			12/04/24 14:03	1
Trichloroethene (TCE)	ND		0.10		ug/L			12/04/24 14:03	1
Trichlorofluoromethane	ND		0.10		ug/L			12/04/24 14:03	1
Vinyl chloride	ND		0.10		ug/L			12/04/24 14:03	1
Xylenes, Total	ND		0.15		ug/L			12/04/24 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*12/04/24 14:03*	*1*
Toluene-d8 (Surr)	*110*		*70 - 130*		*12/04/24 14:03*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*12/04/24 14:03*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*12/04/24 14:03*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

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

Lab Sample ID: LCS 885-17048/3
Matrix: Air
Analysis Batch: 17048

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	20.2		ug/L		100	70 - 130		
Benzene			20.1	21.6		ug/L		108	70 - 130		
Chlorobenzene			20.1	21.0		ug/L		105	70 - 130		
Toluene			20.2	20.7		ug/L		103	70 - 130		
Trichloroethene (TCE)			20.2	19.4		ug/L		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*

QC Association Summary

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

GC/MS VOA

Analysis Batch: 16996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16142-1	#31 Influent 112724	Total/NA	Air	8015M/D	
885-16142-2	Influent 112724	Total/NA	Air	8015M/D	
MB 885-16996/5	Method Blank	Total/NA	Air	8015M/D	
LCS 885-16996/4	Lab Control Sample	Total/NA	Air	8015M/D	

Analysis Batch: 17048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16142-1	#31 Influent 112724	Total/NA	Air	8260B	
885-16142-2	Influent 112724	Total/NA	Air	8260B	
MB 885-17048/4	Method Blank	Total/NA	Air	8260B	
LCS 885-17048/3	Lab Control Sample	Total/NA	Air	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

Client Sample ID: #31 Influent 112724

Lab Sample ID: 885-16142-1

Date Collected: 11/27/24 12:25
Matrix: Air
Date Received: 12/03/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	16996	RA	EET ALB	12/04/24 17:20
Total/NA	Analysis	8260B		50	17048	RA	EET ALB	12/04/24 17:20

Client Sample ID: Influent 112724

Lab Sample ID: 885-16142-2

Date Collected: 11/27/24 14:50
Matrix: Air
Date Received: 12/03/24 06:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	16996	RA	EET ALB	12/04/24 17:48
Total/NA	Analysis	8260B		50	17048	RA	EET ALB	12/04/24 17:48

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: Influent 112724

Job ID: 885-16142-1

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
8015M/D		Air	Gasoline Range Organics (GRO)-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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

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	02-25-25

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
8015M/D		Air	Gasoline Range Organics (GRO)-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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Influent 112724

Job ID: 885-16142-1

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

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ANALYTICAL SUMMARY REPORT

December 10, 2024

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

Work Order: B24120342 Quote ID: B15626

Project Name: Influent 112724, 88500531

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/4/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24120342-001	Influent 112724 (885-16142-2)	11/27/24 14:50	12/04/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Influent 112724, 88500531
Lab ID: B24120342-001
Client Sample ID: Influent 112724 (885-16142-2)

Report Date: 12/10/24
Collection Date: 11/27/24 14:50
DateReceived: 12/04/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	22.05	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Nitrogen	77.75	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Carbon Dioxide	0.18	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Hexanes plus	0.02	Mol %		0.01		GPA 2261-13	12/06/24 11:05 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
Hexanes plus	0.008	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
GPM Total	0.008	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
GPM Pentanes plus	0.008	gpm		0.001		GPA 2261-13	12/06/24 11:05 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	1			1		GPA 2261-13	12/06/24 11:05 / jrj
Net BTU per cu ft @ std cond. (LHV)	1			1		GPA 2261-13	12/06/24 11:05 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-13	12/06/24 11:05 / jrj
Pseudo-critical Temperature, deg R	239			1		GPA 2261-13	12/06/24 11:05 / jrj
Specific Gravity @ 60/60F	0.999			0.001		D3588-81	12/06/24 11:05 / jrj
Air, %	100.74			0.01		GPA 2261-13	12/06/24 11:05 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	12/06/24 11:05 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24120342 **Report Date:** 12/10/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-13**										Batch: R433616
Lab ID: **B24120342-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_241206A				12/06/24 11:54
Oxygen		22.1	Mol %	0.01				0.1	20	
Nitrogen		77.7	Mol %	0.01				0	20	
Carbon Dioxide		0.18	Mol %	0.01				0.0	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		0.02	Mol %	0.01				0.0	20	
Lab ID: **LCS120624**	11	Laboratory Control Sample				Run: GCNGA-B_241206A				12/06/24 13:35
Oxygen		0.60	Mol %	0.01	120	70	130			
Nitrogen		6.21	Mol %	0.01	103	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		74.5	Mol %	0.01	100	70	130			
Ethane		6.05	Mol %	0.01	101	70	130			
Propane		5.04	Mol %	0.01	102	70	130			
Isobutane		1.79	Mol %	0.01	89	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.01	Mol %	0.01	101	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24120342

Login completed by: Lyndsi E. LeProwse
Date Received: 12/4/2024

Reviewed by: darcy
Received by: KLP

Reviewed Date: 12/6/2024
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:	14.3°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

A chain of custody was received via email from Steven McQuiston on 12/4/24 @ 1623. LEL 12/05/24

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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Garcia, Michelle	Carrier Tracking No(s): N/A	COC No: 885-3037.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-16142-1
Address: 1120 South 27th Street,	Due Date Requested: 12/10/2024			
City: Billings	TAT Requested (days): N/A			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Influent 112724	Project #: 88500531			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 112724 (885-16142-2)	11/27/24	14:50 Mountain	G	Air			X	1	B24120342

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

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Amelia Peterson	Date/Time: 12-04-24 0423	Company

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

Ver: 10/10/2024

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ANALYTICAL SUMMARY REPORT

December 10, 2024

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

Work Order: B24120535 Quote ID: B15626

Project Name: Influent 112724, 88500531

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/6/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24120535-001	#31 Influent 112724 (885-16142-1)	11/27/24 12:25	12/06/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Influent 112724, 88500531
Lab ID: B24120535-001
Client Sample ID: #31 Influent 112724 (885-16142-1)

Report Date: 12/10/24
Collection Date: 11/27/24 12:25
DateReceived: 12/06/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	22.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Nitrogen	77.78	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Carbon Dioxide	0.16	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Ethane	0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Propane	0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Hexanes plus	0.03	Mol %		0.01		GPA 2261-13	12/06/24 14:24 / jrj
Propane	0.003	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
Hexanes plus	0.013	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
GPM Total	0.015	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
GPM Pentanes plus	0.013	gpm		0.001		GPA 2261-13	12/06/24 14:24 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	2			1		GPA 2261-13	12/06/24 14:24 / jrj
Net BTU per cu ft @ std cond. (LHV)	2			1		GPA 2261-13	12/06/24 14:24 / jrj
Pseudo-critical Pressure, psia	546			1		GPA 2261-13	12/06/24 14:24 / jrj
Pseudo-critical Temperature, deg R	240			1		GPA 2261-13	12/06/24 14:24 / jrj
Specific Gravity @ 60/60F	0.999			0.001		D3588-81	12/06/24 14:24 / jrj
Air, %	100.55			0.01		GPA 2261-13	12/06/24 14:24 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	12/06/24 14:24 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24120535 **Report Date:** 12/10/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-13										Batch: R433616
Lab ID: B24120342-001ADUP	12	Sample Duplicate				Run: GCNGA-B_241206A				12/06/24 11:54
Oxygen		22.1	Mol %	0.01				0.1	20	
Nitrogen		77.7	Mol %	0.01				0	20	
Carbon Dioxide		0.18	Mol %	0.01				0.0	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		0.02	Mol %	0.01				0.0	20	
Lab ID: LCS120624	11	Laboratory Control Sample				Run: GCNGA-B_241206A				12/06/24 13:35
Oxygen		0.60	Mol %	0.01	120	70	130			
Nitrogen		6.21	Mol %	0.01	103	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		74.5	Mol %	0.01	100	70	130			
Ethane		6.05	Mol %	0.01	101	70	130			
Propane		5.04	Mol %	0.01	102	70	130			
Isobutane		1.79	Mol %	0.01	89	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.01	Mol %	0.01	101	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.80	Mol %	0.01	100	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Billings, MT 406.252.6325 • Casper, WY 307.235.0515
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Work Order Receipt Checklist

Hall Environmental

B24120535

Login completed by: Lyndsi E. LeProwse
Date Received: 12/6/2024
Reviewed by: dharris
Received by: DNH
Reviewed Date: 12/9/2024
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:	13.1°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Garcia, Michelle	Carrier Tracking No(s): N/A	COC No: 885-3052.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-16142-1
Address: 1120 South 27th Street, ,	Due Date Requested: 12/10/2024			
City: Billings	TAT Requested (days): N/A			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Influent 112724	Project #: 88500531			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
#31 Influent 112724 (885-16142-1)	11/27/24	12:25 Mountain	G	Air			X	1	B24120535

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		12/5/24 15:54				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	12/6/24 1025	

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

Ver: 10/10/2024

Chain-of-Custody Record

Client: Hilcorp

Attn: Mitch Kullough

Mailing Address:

Phone #:

email or Fax#: mkullough@hilcorp.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

10 day TAT

☑ Standard ☐ Rush

Project Name:

Project #:

Project Manager:

Stuart Hyde

Sampler: AL

On Ice: ☐ Yes ~~☐ No~~

# of Coolers: 1 Log:

Cooler Temp(Including CF): 2.8+0.2=3.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORA

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

885-16142 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gas CO_2 + O_2					
11/27/24	1225	Air	#31 Influent 112724	2-Tedlar	—	1		X						X			X					
11/27/24	1480	Air	Influent 112724	2-Tedlar	—	2		X						X			X					

Date	Time	Relinquished by	Received by:	Via:	Date	Time
11/27/24	1600				11/27/24	1600
12/2/24	1740				12/3/24	6.35

Remarks: cc: shyde dburns rhuson ecarroll @ensolum.com

to other accredited laboratories 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: 885-16142-1

Login Number: 16142 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/24/2024 11:24:19 AM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-16444-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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
12/24/2024 11:24:19 AM

Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-16444-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

Glossary

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

Case Narrative

Client: Hilcorp Energy
Project: Hare 15

Job ID: 885-16444-1

Job ID: 885-16444-1 Eurofins Albuquerque

Job Narrative
885-16444-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 12/6/2024 6:35 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 2.9°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
Method 8260B: The continuing calibration verification (CCV) associated with batch 885-17948 recovered outside acceptance criteria, low biased, for Bromomethane. CCV meets 8260B criteria. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

Client Sample ID: Influent 12524

Lab Sample ID: 885-16444-1
Matrix: Air
Date Collected: 12/05/24 14:00
Date Received: 12/06/24 06:35
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	**440**		25		ug/L			12/16/24 16:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*52 - 172*		*12/16/24 16:45*	*5*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/16/24 16:45	5
1,1,1-Trichloroethane	ND		0.50		ug/L			12/16/24 16:45	5
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/16/24 16:45	5
1,1,2-Trichloroethane	ND		0.50		ug/L			12/16/24 16:45	5
1,1-Dichloroethane	ND		0.50		ug/L			12/16/24 16:45	5
1,1-Dichloroethene	ND		0.50		ug/L			12/16/24 16:45	5
1,1-Dichloropropene	ND		0.50		ug/L			12/16/24 16:45	5
1,2,3-Trichlorobenzene	ND		0.50		ug/L			12/16/24 16:45	5
1,2,3-Trichloropropane	ND		1.0		ug/L			12/16/24 16:45	5
1,2,4-Trichlorobenzene	ND		0.50		ug/L			12/16/24 16:45	5
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/16/24 16:45	5
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			12/16/24 16:45	5
1,2-Dichlorobenzene	ND		0.50		ug/L			12/16/24 16:45	5
1,2-Dichloroethane (EDC)	ND		0.50		ug/L			12/16/24 16:45	5
1,2-Dichloropropane	ND		0.50		ug/L			12/16/24 16:45	5
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
1,3-Dichlorobenzene	ND		0.50		ug/L			12/16/24 16:45	5
1,3-Dichloropropane	ND		0.50		ug/L			12/16/24 16:45	5
1,4-Dichlorobenzene	ND		0.50		ug/L			12/16/24 16:45	5
1-Methylnaphthalene	ND		2.0		ug/L			12/16/24 16:45	5
2,2-Dichloropropane	ND		1.0		ug/L			12/16/24 16:45	5
2-Butanone	ND		5.0		ug/L			12/16/24 16:45	5
2-Chlorotoluene	ND		0.50		ug/L			12/16/24 16:45	5
2-Hexanone	ND		5.0		ug/L			12/16/24 16:45	5
2-Methylnaphthalene	ND		2.0		ug/L			12/16/24 16:45	5
4-Chlorotoluene	ND		0.50		ug/L			12/16/24 16:45	5
4-Isopropyltoluene	ND		0.50		ug/L			12/16/24 16:45	5
4-Methyl-2-pentanone	ND		5.0		ug/L			12/16/24 16:45	5
Acetone	ND		5.0		ug/L			12/16/24 16:45	5
Benzene	**1.1**		0.50		ug/L			12/16/24 16:45	5
Bromobenzene	ND		0.50		ug/L			12/16/24 16:45	5
Bromodichloromethane	ND		0.50		ug/L			12/16/24 16:45	5
Dibromochloromethane	ND		0.50		ug/L			12/16/24 16:45	5
Bromoform	ND		0.50		ug/L			12/16/24 16:45	5
Bromomethane	ND		1.5		ug/L			12/16/24 16:45	5
Carbon disulfide	ND		5.0		ug/L			12/16/24 16:45	5
Carbon tetrachloride	ND		0.50		ug/L			12/16/24 16:45	5
Chlorobenzene	ND		0.50		ug/L			12/16/24 16:45	5
Chloroethane	ND		1.0		ug/L			12/16/24 16:45	5
Chloroform	ND		0.50		ug/L			12/16/24 16:45	5

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

Client Sample ID: Influent 12524

Lab Sample ID: 885-16444-1
Matrix: Air
Date Collected: 12/05/24 14:00
Date Received: 12/06/24 06:35
Sample Container: Tedlar Bag 1L

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.5		ug/L			12/16/24 16:45	5
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/16/24 16:45	5
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/16/24 16:45	5
Dibromomethane	ND		0.50		ug/L			12/16/24 16:45	5
Dichlorodifluoromethane	ND		0.50		ug/L			12/16/24 16:45	5
Ethylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
Hexachlorobutadiene	ND		0.50		ug/L			12/16/24 16:45	5
Isopropylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
Methyl-tert-butyl Ether (MTBE)	ND		0.50		ug/L			12/16/24 16:45	5
Methylene Chloride	ND		1.5		ug/L			12/16/24 16:45	5
n-Butylbenzene	ND		1.5		ug/L			12/16/24 16:45	5
N-Propylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
Naphthalene	ND		1.0		ug/L			12/16/24 16:45	5
sec-Butylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
Styrene	ND		0.50		ug/L			12/16/24 16:45	5
tert-Butylbenzene	ND		0.50		ug/L			12/16/24 16:45	5
Tetrachloroethene (PCE)	ND		0.50		ug/L			12/16/24 16:45	5
Toluene	**1.8**		0.50		ug/L			12/16/24 16:45	5
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/16/24 16:45	5
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/16/24 16:45	5
Trichloroethene (TCE)	ND		0.50		ug/L			12/16/24 16:45	5
Trichlorofluoromethane	ND		0.50		ug/L			12/16/24 16:45	5
Vinyl chloride	ND		0.50		ug/L			12/16/24 16:45	5
Xylenes, Total	**0.92**		0.75		ug/L			12/16/24 16:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*12/16/24 16:45*	*5*
Toluene-d8 (Surr)	*109*		*70 - 130*		*12/16/24 16:45*	*5*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*12/16/24 16:45*	*5*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*12/16/24 16:45*	*5*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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

Lab Sample ID: MB 885-17818/4
Matrix: Air
Analysis Batch: 17818

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			12/16/24 11:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*52 - 172*		*12/16/24 11:51*	*1*

Lab Sample ID: LCS 885-17818/3
Matrix: Air
Analysis Batch: 17818

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	532		ug/L		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*52 - 172*

Lab Sample ID: 885-16444-1 DU
Matrix: Air
Analysis Batch: 17818

Client Sample ID: Influent 12524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	440			428		ug/L				3	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*52 - 172*

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

Lab Sample ID: MB 885-17948/13
Matrix: Air
Analysis Batch: 17948

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		0.10		ug/L			12/16/24 16:21	1
1,1,1-Trichloroethane	ND		0.10		ug/L			12/16/24 16:21	1
1,1,2,2-Tetrachloroethane	ND		0.20		ug/L			12/16/24 16:21	1
1,1,2-Trichloroethane	ND		0.10		ug/L			12/16/24 16:21	1
1,1-Dichloroethane	ND		0.10		ug/L			12/16/24 16:21	1
1,1-Dichloroethene	ND		0.10		ug/L			12/16/24 16:21	1
1,1-Dichloropropene	ND		0.10		ug/L			12/16/24 16:21	1
1,2,3-Trichlorobenzene	ND		0.10		ug/L			12/16/24 16:21	1
1,2,3-Trichloropropane	ND		0.20		ug/L			12/16/24 16:21	1
1,2,4-Trichlorobenzene	ND		0.10		ug/L			12/16/24 16:21	1
1,2,4-Trimethylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
1,2-Dibromo-3-Chloropropane	ND		0.20		ug/L			12/16/24 16:21	1
1,2-Dibromoethane (EDB)	ND		0.10		ug/L			12/16/24 16:21	1
1,2-Dichlorobenzene	ND		0.10		ug/L			12/16/24 16:21	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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

Lab Sample ID: MB 885-17948/13
Matrix: Air
Analysis Batch: 17948

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND		0.10		ug/L			12/16/24 16:21	1
1,2-Dichloropropane	ND		0.10		ug/L			12/16/24 16:21	1
1,3,5-Trimethylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
1,3-Dichlorobenzene	ND		0.10		ug/L			12/16/24 16:21	1
1,3-Dichloropropane	ND		0.10		ug/L			12/16/24 16:21	1
1,4-Dichlorobenzene	ND		0.10		ug/L			12/16/24 16:21	1
1-Methylnaphthalene	ND		0.40		ug/L			12/16/24 16:21	1
2,2-Dichloropropane	ND		0.20		ug/L			12/16/24 16:21	1
2-Butanone	ND		1.0		ug/L			12/16/24 16:21	1
2-Chlorotoluene	ND		0.10		ug/L			12/16/24 16:21	1
2-Hexanone	ND		1.0		ug/L			12/16/24 16:21	1
2-Methylnaphthalene	ND		0.40		ug/L			12/16/24 16:21	1
4-Chlorotoluene	ND		0.10		ug/L			12/16/24 16:21	1
4-Isopropyltoluene	ND		0.10		ug/L			12/16/24 16:21	1
4-Methyl-2-pentanone	ND		1.0		ug/L			12/16/24 16:21	1
Acetone	ND		1.0		ug/L			12/16/24 16:21	1
Benzene	ND		0.10		ug/L			12/16/24 16:21	1
Bromobenzene	ND		0.10		ug/L			12/16/24 16:21	1
Bromodichloromethane	ND		0.10		ug/L			12/16/24 16:21	1
Dibromochloromethane	ND		0.10		ug/L			12/16/24 16:21	1
Bromoform	ND		0.10		ug/L			12/16/24 16:21	1
Bromomethane	ND		0.30		ug/L			12/16/24 16:21	1
Carbon disulfide	ND		1.0		ug/L			12/16/24 16:21	1
Carbon tetrachloride	ND		0.10		ug/L			12/16/24 16:21	1
Chlorobenzene	ND		0.10		ug/L			12/16/24 16:21	1
Chloroethane	ND		0.20		ug/L			12/16/24 16:21	1
Chloroform	ND		0.10		ug/L			12/16/24 16:21	1
Chloromethane	ND		0.30		ug/L			12/16/24 16:21	1
cis-1,2-Dichloroethene	ND		0.10		ug/L			12/16/24 16:21	1
cis-1,3-Dichloropropene	ND		0.10		ug/L			12/16/24 16:21	1
Dibromomethane	ND		0.10		ug/L			12/16/24 16:21	1
Dichlorodifluoromethane	ND		0.10		ug/L			12/16/24 16:21	1
Ethylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
Hexachlorobutadiene	ND		0.10		ug/L			12/16/24 16:21	1
Isopropylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10		ug/L			12/16/24 16:21	1
Methylene Chloride	ND		0.30		ug/L			12/16/24 16:21	1
n-Butylbenzene	ND		0.30		ug/L			12/16/24 16:21	1
N-Propylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
Naphthalene	ND		0.20		ug/L			12/16/24 16:21	1
sec-Butylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
Styrene	ND		0.10		ug/L			12/16/24 16:21	1
tert-Butylbenzene	ND		0.10		ug/L			12/16/24 16:21	1
Tetrachloroethene (PCE)	ND		0.10		ug/L			12/16/24 16:21	1
Toluene	ND		0.10		ug/L			12/16/24 16:21	1
trans-1,2-Dichloroethene	ND		0.10		ug/L			12/16/24 16:21	1
trans-1,3-Dichloropropene	ND		0.10		ug/L			12/16/24 16:21	1
Trichloroethene (TCE)	ND		0.10		ug/L			12/16/24 16:21	1
Trichlorofluoromethane	ND		0.10		ug/L			12/16/24 16:21	1

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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

Lab Sample ID: MB 885-17948/13
Matrix: Air
Analysis Batch: 17948

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.10		ug/L			12/16/24 16:21	1
Xylenes, Total	ND		0.15		ug/L			12/16/24 16:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*12/16/24 16:21*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*12/16/24 16:21*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*12/16/24 16:21*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*12/16/24 16:21*	*1*

Lab Sample ID: LCS 885-17948/12
Matrix: Air
Analysis Batch: 17948

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			20.1	19.0		ug/L		94	70 - 130		
Benzene			20.1	21.1		ug/L		105	70 - 130		
Chlorobenzene			20.1	19.7		ug/L		98	70 - 130		
Toluene			20.2	19.7		ug/L		98	70 - 130		
Trichloroethene (TCE)			20.2	18.5		ug/L		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*

Lab Sample ID: 885-16444-1 DU
Matrix: Air
Analysis Batch: 17948

Client Sample ID: Influent 12524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD 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

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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

Lab Sample ID: 885-16444-1 DU
Matrix: Air
Analysis Batch: 17948

Client Sample ID: Influent 12524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	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	1.1			1.07		ug/L				3	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	1.8			1.68		ug/L				5	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	0.92			0.845		ug/L				8	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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

Lab Sample ID: 885-16444-1 DU
Matrix: Air
Analysis Batch: 17948

Client Sample ID: Influent 12524
Prep Type: Total/NA

Surrogate	DU %Recovery	DU Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

GC/MS VOA

Analysis Batch: 17818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16444-1	Influent 12524	Total/NA	Air	8015M/D	
MB 885-17818/4	Method Blank	Total/NA	Air	8015M/D	
LCS 885-17818/3	Lab Control Sample	Total/NA	Air	8015M/D	
885-16444-1 DU	Influent 12524	Total/NA	Air	8015M/D	

Analysis Batch: 17948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-16444-1	Influent 12524	Total/NA	Air	8260B	
MB 885-17948/13	Method Blank	Total/NA	Air	8260B	
LCS 885-17948/12	Lab Control Sample	Total/NA	Air	8260B	
885-16444-1 DU	Influent 12524	Total/NA	Air	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

Client Sample ID: Influent 12524

Date Collected: 12/05/24 14:00
Date Received: 12/06/24 06:35

Lab Sample ID: 885-16444-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		5	17818	CM	EET ALB	12/16/24 16:45
Total/NA	Analysis	8260B		5	17948	CM	EET ALB	12/16/24 16:45

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: Hare 15

Job ID: 885-16444-1

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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	02-25-25

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
8015M/D		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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-16444-1

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

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ANALYTICAL SUMMARY REPORT

December 13, 2024

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

Work Order: B24120686 Quote ID: B15626

Project Name: 88501698, Hare 15

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/10/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B24120686-001	Influent 12524 (885-16444-1)	12/05/24 14:00	12/10/24	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 So. 27th Street, 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.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

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

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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: 88501698, Hare 15
Lab ID: B24120686-001
Client Sample ID: Influent 12524 (885-16444-1)

Report Date: 12/13/24
Collection Date: 12/05/24 14:00
DateReceived: 12/10/24
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.80	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Nitrogen	78.03	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Carbon Dioxide	0.16	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Hexanes plus	0.01	Mol %		0.01		GPA 2261-13	12/12/24 10:03 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
Hexanes plus	0.004	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
GPM Total	0.004	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
GPM Pentanes plus	0.004	gpm		0.001		GPA 2261-13	12/12/24 10:03 / jrj
CALCULATED PROPERTIES							
Gross BTU per cu ft @ Std Cond. (HHV)	ND			1		GPA 2261-13	12/12/24 10:03 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND			1		GPA 2261-13	12/12/24 10:03 / jrj
Pseudo-critical Pressure, psia	545			1		GPA 2261-13	12/12/24 10:03 / jrj
Pseudo-critical Temperature, deg R	239			1		GPA 2261-13	12/12/24 10:03 / jrj
Specific Gravity @ 60/60F	0.999			0.001		D3588-81	12/12/24 10:03 / jrj
Air, %	99.62			0.01		GPA 2261-13	12/12/24 10:03 / jrj
- The analysis was not corrected for air.							
COMMENTS							
-						-	12/12/24 10:03 / 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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QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B24120686 **Report Date:** 12/13/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-13**									Batch: R433886	
Lab ID: **B24120686-001ADUP**	12	Sample Duplicate				Run: GCNGA-B_241212A			12/12/24 10:52	
Oxygen		21.0	Mol %	0.01				4.0	20	
Nitrogen		78.9	Mol %	0.01				1.1	20	
Carbon Dioxide		0.16	Mol %	0.01				0.0	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		0.01	Mol %	0.01				0.0	20	
Lab ID: **LCS121224**	11	Laboratory Control Sample				Run: GCNGA-B_241212A			12/12/24 12:50	
Oxygen		0.61	Mol %	0.01	122	70	130			
Nitrogen		5.92	Mol %	0.01	99	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		74.9	Mol %	0.01	100	70	130			
Ethane		6.03	Mol %	0.01	100	70	130			
Propane		5.03	Mol %	0.01	102	70	130			
Isobutane		1.70	Mol %	0.01	85	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.03	Mol %	0.01	103	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.79	Mol %	0.01	99	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist

Hall Environmental

B24120686

Login completed by: Crystal M. Jones
Date Received: 12/10/2024
Reviewed by: lcadreau
Received by: CMJ
Reviewed Date: 12/11/2024
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:	15.2°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.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

None

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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque, NM 87109
Phone: 505-345-3975 Fax: 505-345-4107

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Garcia, Michelle	Carrier Tracking No(s): N/A	COC No: 885-3073.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: michelle.garcia@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Energy Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon; State - New Mexico		Job #: 885-16444-1
Address: 1120 South 27th Street,	Due Date Requested: 12/13/2024			Preservation Codes: -
City: Billings	TAT Requested (days): N/A			
State, Zip: MT, 59101				
Phone: 406-252-6325(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			Other: N/A
Project Name: Hare 15	Project #: 88501698			
Site: N/A	SSOW#: N/A			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Fixed Gases)/ Fixed Gases	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Influent 12524 (885-16444-1)	12/5/24	14:00 Mountain	G	Air			X	1	See Attached Instructions
									B2412068 6

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time: 12/9/24	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: Crystal Jones	Date/Time: 12/10/24 0955	Company EAT

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

ICOC No:
885-3073

Containers

Count	Container Type	Preservative
1	Tedlar Bag 1L	None

Subcontract Method Instructions

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

Chain-of-Custody Record

Client: Hilcorp
Attn: Mitch Killough
Mailing Address:

Phone #:
email or Fax#: mkillough@hilcorp.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
10-Day TAT
☒ Standard ☐ Rush
Project Name: Hare 15
Project #:
Project Manager: Stuart Hyde
Sampler: Aaron C
On Ice: ☐ Yes ~~☐ No~~
# of Coolers: 1 409:
Cooler Temp(Including CF): 2.0+0.1=2.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107
885-16444 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA) Full List	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Fixed Gases CO_2 & O_2				
12/5/24	1400	Air	Influent 12524	2-Tedlar	—			X						X			X				

Date	Time:	Relinquished by	Received by:	Via:	Date	Time
12/5/24	1545	Aaron			12/5/24	1545
Date: 12/5/24	Time: 1732	Relinquished by	Received by:	Via:	Date 12/6/24	Time 6:53

Remarks: shyde
cc: dburns rhanson ecarroll @ ensolum.com

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-16444-1

Login Number: 16444 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

ENSOLUM

APPENDIX D

Groundwater Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/3/2024 4:49:28 PM

JOB DESCRIPTION

Hare 15

JOB NUMBER

885-15897-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

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
12/3/2024 4:49:28 PM

Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

Client: Hilcorp Energy
Project/Site: Hare 15

Laboratory Job ID: 885-15897-1

Table of Contents

Definitions/Glossary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

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.
☼	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: Hare 15

Job ID: 885-15897-1

Job ID: 885-15897-1 Eurofins Albuquerque

Job Narrative
885-15897-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 11/26/2024 6:45 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 1.1°C.

Receipt Exceptions
For samples 2,3,&6, the preservative was listed as HCL but the VOAs arrived unpreserved.
With those being unpreserved, samples were now received with less than 48hr hold time remaining.

MW-19 (885-15897-2), MW-20 (885-15897-3) and MW-26 (885-15897-6)

GC/MS VOA
Method 8260B: The following samples were diluted due to the nature of the sample matrix: MW-06 (885-15897-1), MW-23 (885-15897-5) and MW-29 (885-15897-7) at 5.0, 2.0 and 2.0. Elevated reporting limits (RLs) are provided.

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

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-06

Date Collected: 11/21/24 13:00
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0		ug/L			11/27/24 02:05	5
Ethylbenzene	ND		5.0		ug/L			11/27/24 02:05	5
Toluene	ND		5.0		ug/L			11/27/24 02:05	5
Xylenes, Total	ND		7.5		ug/L			11/27/24 02:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*11/27/24 02:05*	*5*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*11/27/24 02:05*	*5*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*11/27/24 02:05*	*5*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/27/24 02:05*	*5*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-19

Date Collected: 11/21/24 15:45
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-2

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	P2	2.0		ug/L			12/02/24 17:24	2
Ethylbenzene	ND	P2	2.0		ug/L			12/02/24 17:24	2
Toluene	ND	P2	2.0		ug/L			12/02/24 17:24	2
Xylenes, Total	ND	P2	3.0		ug/L			12/02/24 17:24	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*	*P2*	*70 - 130*		*12/02/24 17:24*	*2*
4-Bromofluorobenzene (Surr)	*96*	*P2*	*70 - 130*		*12/02/24 17:24*	*2*
Dibromofluoromethane (Surr)	*107*	*P2*	*70 - 130*		*12/02/24 17:24*	*2*
Toluene-d8 (Surr)	*97*	*P2*	*70 - 130*		*12/02/24 17:24*	*2*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-20

Date Collected: 11/21/24 15:00
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-3

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			11/27/24 02:54	500
Ethylbenzene	800		500		ug/L			11/27/24 02:54	500
Toluene	8100		500		ug/L			11/27/24 02:54	500
Xylenes, Total	6300		750		ug/L			11/27/24 02:54	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*11/27/24 02:54*	*500*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/27/24 02:54*	*500*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/27/24 02:54*	*500*
Toluene-d8 (Surr)	*91*		*70 - 130*		*11/27/24 02:54*	*500*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-22

Date Collected: 11/21/24 17:20
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-4

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**24**		5.0		ug/L			12/02/24 17:48	5
Ethylbenzene	**110**		5.0		ug/L			12/02/24 17:48	5
Toluene	ND		5.0		ug/L			12/02/24 17:48	5
Xylenes, Total	ND		7.5		ug/L			12/02/24 17:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*12/02/24 17:48*	*5*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*12/02/24 17:48*	*5*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*12/02/24 17:48*	*5*
Toluene-d8 (Surr)	*103*		*70 - 130*		*12/02/24 17:48*	*5*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-23
Date Collected: 11/22/24 12:50
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-5
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/27/24 03:43	2
Ethylbenzene	ND		2.0		ug/L			11/27/24 03:43	2
Toluene	ND		2.0		ug/L			11/27/24 03:43	2
Xylenes, Total	ND		3.0		ug/L			11/27/24 03:43	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*11/27/24 03:43*	*2*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*11/27/24 03:43*	*2*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*11/27/24 03:43*	*2*
Toluene-d8 (Surr)	*93*		*70 - 130*		*11/27/24 03:43*	*2*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-26

Date Collected: 11/21/24 16:15
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-6

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13000		500		ug/L			11/27/24 04:08	500
Ethylbenzene	810		500		ug/L			11/27/24 04:08	500
Toluene	31000		500		ug/L			11/27/24 04:08	500
Xylenes, Total	12000		750		ug/L			11/27/24 04:08	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*11/27/24 04:08*	*500*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*11/27/24 04:08*	*500*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/27/24 04:08*	*500*
Toluene-d8 (Surr)	*93*		*70 - 130*		*11/27/24 04:08*	*500*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-29

Date Collected: 11/21/24 16:45
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-7

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/27/24 04:32	2
Ethylbenzene	ND		2.0		ug/L			11/27/24 04:32	2
Toluene	ND		2.0		ug/L			11/27/24 04:32	2
Xylenes, Total	ND		3.0		ug/L			11/27/24 04:32	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*11/27/24 04:32*	*2*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*11/27/24 04:32*	*2*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*11/27/24 04:32*	*2*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/27/24 04:32*	*2*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-30

Date Collected: 11/22/24 11:30
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-8

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	460		5.0		ug/L			11/27/24 04:57	5
Ethylbenzene	990		50		ug/L			11/27/24 14:37	50
Toluene	30		5.0		ug/L			11/27/24 04:57	5
Xylenes, Total	5400		75		ug/L			11/27/24 14:37	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/27/24 04:57*	*5*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/27/24 14:37*	*50*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*11/27/24 04:57*	*5*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*11/27/24 14:37*	*50*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*11/27/24 04:57*	*5*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*11/27/24 14:37*	*50*
Toluene-d8 (Surr)	*113*		*70 - 130*		*11/27/24 04:57*	*5*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/27/24 14:37*	*50*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-31

Date Collected: 11/22/24 12:15
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-9

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			11/27/24 00:03	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 00:03	1
Toluene	ND		1.0		ug/L			11/27/24 00:03	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*11/27/24 00:03*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*11/27/24 00:03*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*11/27/24 00:03*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/27/24 00:03*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-33
Date Collected: 11/22/24 15:50
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-10
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			11/27/24 00:28	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 00:28	1
Toluene	ND		1.0		ug/L			11/27/24 00:28	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*11/27/24 00:28*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*11/27/24 00:28*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*11/27/24 00:28*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/27/24 00:28*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-34
Date Collected: 11/22/24 15:00
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-11
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			11/27/24 00:52	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 00:52	1
Toluene	ND		1.0		ug/L			11/27/24 00:52	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*11/27/24 00:52*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*11/27/24 00:52*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*11/27/24 00:52*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/27/24 00:52*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-35
Date Collected: 11/22/24 14:00
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-12
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			11/27/24 01:16	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 01:16	1
Toluene	ND		1.0		ug/L			11/27/24 01:16	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*11/27/24 01:16*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*11/27/24 01:16*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*11/27/24 01:16*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*11/27/24 01:16*	*1*

Client Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-38
Date Collected: 11/22/24 11:00
Date Received: 11/26/24 06:45

Lab Sample ID: 885-15897-13
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			11/27/24 01:41	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 01:41	1
Toluene	ND		1.0		ug/L			11/27/24 01:41	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 130*		*11/27/24 01:41*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*11/27/24 01:41*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*11/27/24 01:41*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*11/27/24 01:41*	*1*

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

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

Lab Sample ID: MB 885-16626/35
Matrix: Water
Analysis Batch: 16626

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			11/26/24 23:39	1
Ethylbenzene	ND		1.0		ug/L			11/26/24 23:39	1
Toluene	ND		1.0		ug/L			11/26/24 23:39	1
Xylenes, Total	ND		1.5		ug/L			11/26/24 23:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*11/26/24 23:39*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*11/26/24 23:39*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*11/26/24 23:39*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*11/26/24 23:39*	*1*

Lab Sample ID: LCS 885-16626/34
Matrix: Water
Analysis Batch: 16626

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	23.6		ug/L		117	70 - 130		
Toluene			20.2	20.0		ug/L		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*

Lab Sample ID: 885-15897-9 MS
Matrix: Water
Analysis Batch: 16626

Client Sample ID: MW-31
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		20.1	23.6		ug/L		117	70 - 130		
Toluene	ND		20.2	19.7		ug/L		98	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Lab Sample ID: 885-15897-9 MSD
Matrix: Water
Analysis Batch: 16626

Client Sample ID: MW-31
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	22.8		ug/L		114	70 - 130	3	20
Toluene	ND		20.2	19.0		ug/L		94	70 - 130	4	20

QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

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

Lab Sample ID: 885-15897-9 MSD
Matrix: Water
Analysis Batch: 16626

Client Sample ID: MW-31
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		70 - 130
4-Bromofluorobenzene (Surr)	91		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
Toluene-d8 (Surr)	92		70 - 130

Lab Sample ID: MB 885-16752/6
Matrix: Water
Analysis Batch: 16752

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			11/27/24 12:59	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 12:59	1
Toluene	ND		1.0		ug/L			11/27/24 12:59	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 12:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		11/27/24 12:59	1
4-Bromofluorobenzene (Surr)	89		70 - 130		11/27/24 12:59	1
Dibromofluoromethane (Surr)	106		70 - 130		11/27/24 12:59	1
Toluene-d8 (Surr)	94		70 - 130		11/27/24 12:59	1

Lab Sample ID: STOBLK 885-16752/9
Matrix: Water
Analysis Batch: 16752

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

Analyte	STOBLK Result	STOBLK Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			11/27/24 14:12	1
Ethylbenzene	ND		1.0		ug/L			11/27/24 14:12	1
Toluene	ND		1.0		ug/L			11/27/24 14:12	1
Xylenes, Total	ND		1.5		ug/L			11/27/24 14:12	1

Surrogate	STOBLK %Recovery	STOBLK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		11/27/24 14:12	1
4-Bromofluorobenzene (Surr)	91		70 - 130		11/27/24 14:12	1
Dibromofluoromethane (Surr)	109		70 - 130		11/27/24 14:12	1
Toluene-d8 (Surr)	92		70 - 130		11/27/24 14:12	1

Lab Sample ID: LCS 885-16752/5
Matrix: Water
Analysis Batch: 16752

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	22.7		ug/L		113	70 - 130		
Toluene			20.2	19.6		ug/L		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130

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QC Sample Results

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

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

Lab Sample ID: LCS 885-16752/5
Matrix: Water
Analysis Batch: 16752

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Lab Sample ID: MB 885-16833/11
Matrix: Water
Analysis Batch: 16833

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			12/02/24 16:35	1
Ethylbenzene	ND		1.0		ug/L			12/02/24 16:35	1
Toluene	ND		1.0		ug/L			12/02/24 16:35	1
Xylenes, Total	ND		1.5		ug/L			12/02/24 16:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		12/02/24 16:35	1
4-Bromofluorobenzene (Surr)	93		70 - 130		12/02/24 16:35	1
Dibromofluoromethane (Surr)	106		70 - 130		12/02/24 16:35	1
Toluene-d8 (Surr)	97		70 - 130		12/02/24 16:35	1

Lab Sample ID: LCS 885-16833/10
Matrix: Water
Analysis Batch: 16833

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	23.8		ug/L		119	70 - 130		
Toluene			20.2	20.7		ug/L		102	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130
Dibromofluoromethane (Surr)	109		70 - 130
Toluene-d8 (Surr)	97		70 - 130

QC Association Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

GC/MS VOA

Analysis Batch: 16626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15897-1	MW-06	Total/NA	Water	8260B	
885-15897-3	MW-20	Total/NA	Water	8260B	
885-15897-5	MW-23	Total/NA	Water	8260B	
885-15897-6	MW-26	Total/NA	Water	8260B	
885-15897-7	MW-29	Total/NA	Water	8260B	
885-15897-8	MW-30	Total/NA	Water	8260B	
885-15897-9	MW-31	Total/NA	Water	8260B	
885-15897-10	MW-33	Total/NA	Water	8260B	
885-15897-11	MW-34	Total/NA	Water	8260B	
885-15897-12	MW-35	Total/NA	Water	8260B	
885-15897-13	MW-38	Total/NA	Water	8260B	
MB 885-16626/35	Method Blank	Total/NA	Water	8260B	
LCS 885-16626/34	Lab Control Sample	Total/NA	Water	8260B	
885-15897-9 MS	MW-31	Total/NA	Water	8260B	
885-15897-9 MSD	MW-31	Total/NA	Water	8260B	

Analysis Batch: 16752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15897-8	MW-30	Total/NA	Water	8260B	
MB 885-16752/6	Method Blank	Total/NA	Water	8260B	
STOBLK 885-16752/9	Method Blank	Total/NA	Water	8260B	
LCS 885-16752/5	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 16833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15897-2	MW-19	Total/NA	Water	8260B	
885-15897-4	MW-22	Total/NA	Water	8260B	
MB 885-16833/11	Method Blank	Total/NA	Water	8260B	
LCS 885-16833/10	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-06
Lab Sample ID: 885-15897-1
Date Collected: 11/21/24 13:00
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	16626	CM	EET ALB	11/27/24 02:05

Client Sample ID: MW-19
Lab Sample ID: 885-15897-2
Date Collected: 11/21/24 15:45
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	16833	CM	EET ALB	12/02/24 17:24

Client Sample ID: MW-20
Lab Sample ID: 885-15897-3
Date Collected: 11/21/24 15:00
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	16626	CM	EET ALB	11/27/24 02:54

Client Sample ID: MW-22
Lab Sample ID: 885-15897-4
Date Collected: 11/21/24 17:20
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	16833	CM	EET ALB	12/02/24 17:48

Client Sample ID: MW-23
Lab Sample ID: 885-15897-5
Date Collected: 11/22/24 12:50
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	16626	CM	EET ALB	11/27/24 03:43

Client Sample ID: MW-26
Lab Sample ID: 885-15897-6
Date Collected: 11/21/24 16:15
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		500	16626	CM	EET ALB	11/27/24 04:08

Client Sample ID: MW-29
Lab Sample ID: 885-15897-7
Date Collected: 11/21/24 16:45
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	16626	CM	EET ALB	11/27/24 04:32

Lab Chronicle

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

Client Sample ID: MW-30
Lab Sample ID: 885-15897-8
Date Collected: 11/22/24 11:30
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	16626	CM	EET ALB	11/27/24 04:57
Total/NA	Analysis	8260B		50	16752	CM	EET ALB	11/27/24 14:37

Client Sample ID: MW-31
Lab Sample ID: 885-15897-9
Date Collected: 11/22/24 12:15
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	16626	CM	EET ALB	11/27/24 00:03

Client Sample ID: MW-33
Lab Sample ID: 885-15897-10
Date Collected: 11/22/24 15:50
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	16626	CM	EET ALB	11/27/24 00:28

Client Sample ID: MW-34
Lab Sample ID: 885-15897-11
Date Collected: 11/22/24 15:00
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	16626	CM	EET ALB	11/27/24 00:52

Client Sample ID: MW-35
Lab Sample ID: 885-15897-12
Date Collected: 11/22/24 14:00
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	16626	CM	EET ALB	11/27/24 01:16

Client Sample ID: MW-38
Lab Sample ID: 885-15897-13
Date Collected: 11/22/24 11:00
Matrix: Water
Date Received: 11/26/24 06:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	16626	CM	EET ALB	11/27/24 01:41

Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy
Project/Site: Hare 15

Job ID: 885-15897-1

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

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

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

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name: Hare 15

Project #:

Project Manager: Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No 409

# of Coolers: 1

Cooler Temp(including CF): 1.1 ±0 = 1.1 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 8710

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

885-15897 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX Method 8260	
~~—~~	~~—~~	~~Water~~	~~MW-01~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
11-21	1300	Water	MW-06	(3) 40ml VOA	HCL	1	X	
~~—~~	~~—~~	~~Water~~	~~MW-08~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
~~—~~	~~—~~	~~Water~~	~~MW-09~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
~~—~~	~~—~~	~~Water~~	~~MW-10~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
~~—~~	~~—~~	~~Water~~	~~MW-11~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
~~—~~	~~—~~	~~Water~~	~~MW-14~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
~~—~~	~~—~~	~~Water~~	~~MW-15~~	~~(3) 40ml VOA~~	~~HCL~~	~~—~~	X	~~—~~
11-21	1545	Water	MW-19	(3) 40ml VOA	HCL	2	X	
11-21	1500	Water	MW-20	(3) 40ml VOA	HCL	3	X	
11-21	1720	Water	MW-22	(3) 40ml VOA	HCL	4	X	
11-22	1250	Water	MW-23	(3) 40ml VOA	HCL	5	X	

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
11/25/24	1602				11/25/24	1602
11/25/24	1724			Courier	11/26/24	0:45

Remarks: Special Pricing See Andy

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

Chain-of-Custody Record

Client: Hilcorp Farmington NM

Mailing Address: 382 Road 3100 Aztec, NM 87410

Billing Address: PO Box 61529 Houston, TX 77208

Phone #: 505-486-9543

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

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

Hare 15

Project #:

Project Manager:

Mitch Killough

Sampler: Brandon Sinclair

On Ice: ☑ Yes ☐ No 4pg

# of Coolers: 1

Cooler Temp(including CF): 1.1 +0 = 1.1 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX Method 8260	
~~11-21~~	~~1615~~	~~Water~~	~~MW-24~~	~~(3) 40ml VOA~~	~~HCL~~		~~X~~	~~2~~
11-21	1615	Water	MW-26	(3) 40ml VOA	HCL	6	X	
11-21	1645	Water	MW-29	(3) 40ml VOA	HCL	7	X	
11-22	1130	Water	MW-30	(3) 40ml VOA	HCL	8	X	
11-22	1215	Water	MW-31	(3) 40ml VOA	HCL	9	X	
11-22	1550	Water	MW-33	(3) 40ml VOA	HCL	10	X	
11-22	1500	Water	MW-34	(3) 40ml VOA	HCL	11	X	
11-22	1400	Water	MW-35	(3) 40ml VOA	HCL	12	X	
~~11-22~~	~~1400~~	~~Water~~	~~MW-36~~	~~(3) 40ml VOA~~	~~HCL~~		~~X~~	~~2~~
~~11-22~~	~~1100~~	~~Water~~	~~MW-37~~	~~(3) 40ml VOA~~	~~HCL~~		~~X~~	~~2~~
11-22	1100	Water	MW-38	(3) 40ml VOA	HCL	13	X	

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
11/25/21	1602				11/25/21	1602
11/25/21	1724			courier	11/24/21	6:45

Remarks: Special Pricing See Andy

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

Login Sample Receipt Checklist

Client: Hilcorp Energy Job Number: 885-15897-1

Login Number: 15897 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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.	False	Refer to Job Narrative for details.
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	

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 419625
	Action Type: [REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
nvelez	SVE reviewed - 1. Continue O&M & sampling as stated in report. 2. Submit next quarterly report by April 15, 2025.	1/16/2025