

May 29, 2024

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

Re: Updated Remediation Work Plan San Juan 30-6 Unit 31A Rio Arriba County, New Mexico Hilcorp Energy Company NMOCD Incident Number: nAPP2301160771

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Updated Remediation Work Plan* associated with a release discovered at the San Juan 30-6 Unit 31A natural gas production well pad (Site). The Site is located on private land in Unit F, Section 33, Township 30 North, Range 6 West in Rio Arriba County, New Mexico (Figure 1).

SITE BACKGROUND

On December 27, 2022, Hilcorp personnel discovered a release of 92 barrels (bbls) of condensate originating from corrosion holes on the "J Leg" piping of the oil dump line. The release volume was determined based on the operator's monthly tank gauging data. Fluids stayed within the secondary containment berm, but none were recovered. Upon discovery, the tank was immediately emptied. Hilcorp reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on December 28, 2022, and subsequently submitted a Form C-141, *Release Notification* to the NMOCD on January 11, 2023. The release was assigned NMOCD Incident Number nAPP2301160771.

SITE CLOSURE CRITERIA

Based on the information presented in the *Site Investigation Report and Remediation Work Plan*, dated June 21, 2023, and in accordance with Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) *Table I, Closure Criteria for Soils Impacted by a Release*, the following closure criteria should be applied to the Site:

- Chloride: 600 milligrams per kilogram (mg/kg)
- Total Petroleum Hydrocarbons (TPH) as a combination of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO): 100 mg/kg
- A combination of benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 mg/kg
- Benzene: 10 mg/kg

Page 2

Additionally, the NMOCD requires groundwater-quality standards be met as presented by the New Mexico Water Quality Control Commission (NMWQCC) and listed in 20.6.2.3103 NMAC. The following standards are presented for the chemicals of concern (COCs) in groundwater at the Site in micrograms per liter (μ g/L).

- Benzene: 5.0 µg/L
- Toluene: 1,000 µg/L
- Ethylbenzene: 700 µg/L
- Total Xylenes: 620 µg/L

In addition, NMWQCC standards state light non-aqueous phase liquids (LNAPLs) or phase-separated hydrocarbons (PSH), as referenced in this report, shall not be present floating on the groundwater table.

2023 SITE INVESTIGATION SUMMARY

To investigate potential impacts resulting from the release, Hilcorp retained Ensolum to perform delineation activities at the Site. Initial investigation efforts were conducted on January 23, 2023, using an excavator to advance three potholes (SS01, SS02, and SS03), as depicted on Figure 2. Based on the initial field screening and sampling results from these pothole locations, additional vertical and horizontal delineation with a drill rig was required. Drilling activities took place between May 9 and May 12, 2023, to advance a total of seven boreholes (BH01 through BH07) to depths up to 52 feet below ground surface (bgs). The boreholes did not encounter refusal or bedrock; however, groundwater was encountered in several borehole locations at depths ranging from approximately 38 feet to 42 feet bgs. Borehole locations are presented on Figure 2. Soil analytical data collected during the initial pothole and drilling activities are summarized in Table 1.

Due to the presence of groundwater at the Site, monitoring wells were subsequently installed in all seven boreholes (labeled MW01 through MW07) and were screened across the water table for groundwater assessment and monitoring. Additionally, boreholes BH01 and BH02 were completed with nested wells screened in the vadose zone at shallow depths to serve as soil vapor extraction (SVE) wells for potential treatment of shallow soil impacts. Well construction details are presented in Table 2.

On June 2, 2023, the monitoring wells were gauged and sampled to assess groundwater conditions. During the June 2023 sampling event, wells MW01, MW02, MW03, and MW04 contained measurable or trace volumes of PSH. Table 3 presents a summary of groundwater elevations and thickness of PSH measured at the Site. When PSH was present, a correction factor of 0.8 was applied to the elevation to account for the depression of the water column caused by the presence of overlying PSH. Monitoring well MW05 was dry during the June 2023 sampling event and therefore was not sampled. Wells with sufficient volumes of water to sample and without the presence of PSH (wells MW06 and MW07, as indicated on Table 3) were collected. A summary of groundwater analytical results from the June 2023 sampling event is presented in Table 4.

Based on the activities and analytical results summarized in the attached tables, impacted soil and groundwater resulting from the release discovered on December 27, 2022, had not been fully delineated. Additional details regarding the 2023 soil and groundwater investigation results are described in the *Site Investigation Report and Remediation Work Plan*, dated June 21, 2023.

JANUARY 2024 DUAL PHASE EXTRACTION PILOT TEST SUMMARY

Based on the initial Site investigation results and prior to conducting additional delineation efforts, Ensolum conducted a pilot study on October 20, 2023, to assess the potential use of dual-phase extraction (DPE) to recover PSH and remediate soil and groundwater at the Site. DPE is an in-situ technology used to remove various combinations of contaminated groundwater, PSH, and hydrocarbon



Page 3

vapor from the subsurface. The goal of DPE, in addition to recovering PSH, is to drawdown the groundwater table in order to expose submerged soil impacts and allow for the removal of volatile organic compounds (VOCs) and some semi-volatile organic compounds (SVOCs) from vadose zone soil through the application of vacuum to the subsurface (also known as SVE). When air is removed from the soil, contaminants are volatilized and withdrawn from the subsurface. Depending on contaminant concentrations in the emissions, the DPE system may emit exhaust directly to the atmosphere.

Results of the October 2023 pilot test indicated DPE was not a viable remediation technique at the Site using the current configuration of wells. Details describing the pilot test and results were submitted to the NMOCD in the *Dual Phase Extraction Pilot Test Summary*, dated January 17, 2024.

2024 DRILLING AND ADDITIONAL SITE INVESTIGATION ACTIVITIES

Based on the 2023 Site investigation activities and October 2023 DPE pilot test results, Hilcorp and Ensolum proceeded with additional drilling and delineation activities in January 2024. Ensolum submitted notice of sampling to the NMOCD at least 48 hours in advance of the work (Appendix A). Drilling activities took place between January 17 and 19, 2024, utilizing a Central Mining Equipment (CME) 75 hollow-stem auger drill rig operated by Enviro-Drill, Inc. with split-spoon sampling to advance a total of five boreholes (BH08 through BH12) to depths up to 55 feet bgs. The boreholes did not encounter refusal or bedrock. Borehole locations from the drilling event are presented on Figure 2. Photographs taken during delineation activities are included in Appendix B.

During the investigation, an Ensolum geologist logged soil lithology and inspected the soil for petroleum hydrocarbon staining and odors. Soil descriptions were noted on borehole logs and generally followed the Unified Soil Classification System (USCS), as specified in American Society for Testing and Materials (ASTM) method D2488. Soil samples were also field screened for the presence of organic vapors using a calibrated photoionization detector (PID), with results also noted on the borehole logs (Appendix C). In general, soil samples were collected from depth intervals indicating the greatest impacts based on field screening results and from the terminal depth of the borehole. Additional soil samples were collected from borehole BH12 to gain a better resolution of soil concentrations near the source area of the release. Soil samples were submitted to Eurofins Environment Testing (Eurofins) for analysis of BTEX following EPA Method 8021 and TPH-GRO, TPH-DRO, TPH-MRO following EPA Method 8015 M/D.

SOIL SAMPLE RESULTS

Soil composition at the Site generally consisted of silty/clayey sand containing lenses of silt and clay, underlain by silty clay and clay with varying quantities of fine-grained sand. Elevated PID values and field indications of petroleum hydrocarbons (including odors and/or staining) were only observed in borehole BH12 during the January 2024 drilling work. Concentrations of total BTEX and total TPH exceeding the NMOCD Table I Closure Criteria were detected at borehole BH12 between depths of 5 feet and 40 feet bgs. BTEX and TPH concentrations were compliant with applicable Closure Criteria in all samples collected from borings BH08 through BH11. Analytical laboratory results for delineation soil samples, including previously analyzed samples, are summarized in Table 1 and on Figure 2. Complete soil sample laboratory analytical reports are attached as Appendix D.

WELL INSTALLATION AND GROUNDWATER RESULTS

Groundwater was encountered during drilling in all boreholes at depths of approximately 42 feet to 48 feet bgs. Monitoring wells were installed in all five boreholes and were screened across the water table for groundwater assessment and monitoring. Wells were constructed using 2-inch Schedule 40 polyvinyl chloride (PVC) well screen and riser. Wells were completed with 15 feet of 0.010-inch slotted



Page 4

well screen across the water table. Well construction details are presented in Table 2. Well locations were surveyed with a handheld Global Positioning System (GPS) unit and Top of Casing (TOC) elevations were surveyed using a laser level to the nearest hundredth of a foot.

Initial groundwater conditions were assessed at the Site on June 2, 2023. Quarterly groundwater sampling began in December 2023 and samples were collected in December 2023, January 2024, and May 2024. Prior to sampling, depth to PSH and depth to groundwater were measured in all wells using an oil/water interface probe in order to calculate groundwater elevations and assess the inferred groundwater flow direction. During all sampling events, wells MW01, MW02, MW03, MW04, and MW12 contained measurable or trace volumes of PSH. When PSH was present, a correction factor of 0.8 was applied to the elevation to account for the depression of the water column caused by the presence of overlying PSH. Additionally, monitoring well MW05 has been dry during all sampling events and not sampled. As previously noted, the total depth of well MW05 is approximately 5 feet higher in elevation than indicated on the borehole log. It appears the borehole caved in as the augers were removed and the well screen was unable to be installed at the terminus of the borehole. Table 3 presents a summary of groundwater elevations and thickness of PSH measured at the Site. Potentiometric surface maps with calculated groundwater elevations and inferred groundwater flow direction are shown on Figures 3, 4, and 5.

New wells without the presence of PSH (as indicated on Table 3) were developed prior to sampling by surging and purging water within the well with a 2-inch disposable bailer. After development/purging, groundwater samples were collected using a disposable bailer. Samples from wells MW01, MW02, MW03, MW04, and MW12 were not sampled due to the presence of PSH in the well (Table 3). In addition, samples from MW05 were not collected because the well was dry during all sampling events. Groundwater samples for laboratory analysis were collected from wells MW06 through MW11, with groundwater sampling forms included as Appendix E. Groundwater samples were placed directly into laboratory-provided preserved vials and immediately placed on ice. Samples were submitted to Eurofins for analysis of BTEX following EPA Methods 8021 or 8260.

Analytical results from groundwater samples indicated benzene concentrations exceeded the NMWQCC standard in well MW06 during the December 2023, January 2024, and May 2024 sampling events. All other concentrations of BTEX constituents from analyzed samples from wells MW07, MW08, MW09, MW10, and MW11 were compliant with the applicable NMWQCC standards during all sampling events. A summary of groundwater analytical results is presented in Table 4 and on Figure 6. Complete laboratory analytical reports are attached in Appendix F.

UPDATED REMEDIATION WORK PLAN

Based on the soil sampling and groundwater analytical results and DPE pilot test results described above, Hilcorp proposes to excavate impacted soil at the Site in the approximate area shown on Figure 2. Vadose zone soil located above the groundwater table (up to depths of approximately 40 feet bgs in the impacted soil area) will be excavated and transported off-Site for treatment at a Hilcorp registered small landfarm (to be approved by the Bureau of Land Management (BLM) and NMOCD Permitting Group). Based on delineation results, approximately 5,000 cubic yards of impacted soil is present at the Site that will require excavation and treatment/disposal. Once field screening indicates impacted soil has been removed, 5-point composite confirmation soil samples will be collected from the excavation sidewalls. Because of the impacted groundwater present at the Site and the assumption that the excavation will be advanced until the groundwater table is exposed, excavation floor samples will not be collected.

Due to the large size of the excavation and with NMOCD approval, Hilcorp is requesting a variance to collect composite confirmation soil samples at a frequency of one sample for every 500 square feet from the sidewalls. At this rate and assuming the excavation area is approximately 60 feet by 60 feet by



Page 5

40 feet deep, 20 samples will be collected for laboratory analysis. Samples will be collected for analysis of BTEX and TPH constituents only during confirmation sampling, as recommended in the approved *Site Investigation Report and Remediation Work Plan,* dated June 21, 2023.

To address impacts to groundwater and soil located within the smear zone at the Site, an amendment will be applied to the open excavation and mixed into the water table and the top several feet of saturated soil below the water table. The amendment will consist of an activated carbon/bacteria/nutrient (e.g. BOS 200[®] or PetroFix[®]) and/or chemical oxidant (e.g. hydrogen peroxide or RegenOx[®]). These amendments will continue to remediate residual PSH and dissolved phase petroleum hydrocarbons that are present in and at the groundwater interface once source soil has been removed from the Site. Hilcorp and Ensolum will work with third-party vendors in order to identify the appropriate amendment and calculate amendment volumes based on Site-specific parameters. Once mixed into the subsurface, the excavation will be backfilled and recontoured to match pre-existing conditions at the Site.

Once the excavation is backfilled, new groundwater monitoring wells may be installed, if necessary, in the excavation area in order to continue monitoring groundwater conditions in the source area. Hilcorp will also continue to gauge for PSH and sample groundwater from Site wells for BTEX on a quarterly basis following completion of the excavation. Groundwater conditions, including the presence of PSH and BTEX concentrations, will be evaluated once one year of quarterly data have been collected after completion of the excavation, and the need for additional remedial actions will be reassessed at that time.

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

Sincerely,

Ensolum, LLC

Stuart Hyde, PG* Senior Managing Geologist shyde@ensolum.com (*licensed in TX & WA)

Daniel R. Moir, PG* Senior Managing Geologist dmoir@ensolum.com (*licensed in TX & WY)

Attachments:

- Figure 1: Site Receptor Map
- Figure 2: Delineation Soil Analytical Results
- Figure 3: Groundwater Potentiometric Surface Map (December 2023)
- Figure 4: Groundwater Potentiometric Surface Map (January 2024)
- Figure 5: Groundwater Potentiometric Surface Map (May 2024)
- Figure 6: Groundwater Analytical Results
- Table 1: Delineation Soil Sample Analytical Results
- Table 2: Well Construction Information
- Table 3: Groundwater Elevation Summary
- Table 4: Groundwater Analytical Results



Page 6

Appendix A: NMOCD Correspondence

Appendix B: Photographic Log

Appendix C: Field Borehole Logs

- Appendix D: Soil Sample Laboratory Analytical Reports
- Appendix E: Groundwater Sampling Forms
- Appendix F: Groundwater Sample Laboratory Analytical Reports





FIGURES

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Page 8 of 113



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Delineation Soil Analytical Results

San Juan 30-6 Unit 31A Hilcorp Energy Company

Unit F, Sec 33, T30N, R06W 36.77139, -107.47258 Rio Arriba County, New Mexico FIGURE

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ENSOLU

Environmental, Engineering and Hydrogeologic Consultants Μ

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





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



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

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Page 13 of 113



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



TABLES

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	TABLE 1												
				DELIN	EATION SOIL S	AMPLE ANA	LYTICAL RES	ULTS					
					San	Juan 30-6 31	Α						
					Hilcorp	Energy Com	pany						
Rio Arriba County, New Mexico													
Samula ID	Data	Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	TPH GRO	TPH DRO	TPH MRO	Total TPH	Chloride	
Sample ID	Date	(feet bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
NMOCD Closure	Criteria for Soils	Impacted by a	10	NE	NE	NF	50	NE	NE	NE	100	600	
	Release	-											
SS01 @15'	1/23/2023	15'	6.8	110	25	320	462	3,400	880	<480	4,280		
SS01 @29'	2/6/2023	29'	<0.12	0.60	<0.24	4.0	4.6	110	<9.6	<48	110	<60	
BH01 4-6	5/9/2023	4'-6'	0.72	24	6.8	110	142	1,700	440	<49	2,140	<60	
BH01 9-11	5/9/2023	9'-11'	3.0	76	21	340	440	3,900	580	<98	4,480	<60	
BH01 14-16	5/9/2023	14'-16'	4.4	68	15	220	307	3,100	200	<47	3,300	<60	
BH01 19-21	5/9/2023	19'-21'	1.26	15.6	3.25	50.5	70.6	605	77.2	<50.0	682	<20.0	
BH01 24-26	5/9/2023	24'-26'	1.47	25.0	5.11	81.4	113	1,020	259	<50.0	1,279	<20.0	
BH01 29-31	5/9/2023	29'-31'	0.391	5.02	1.09	17.4	23.9	266	109	<50.0	375	23.7	
BH01 34-36	5/9/2023	34'-36'	3.16	47.2	8.47	128	187	1,600	133	<50.0	1,733	<20.0	
BH01 39-41	5/9/2023	39'-41'	1.14	12.0	2.04	31.9	47.1	370	72.5	<50.0	443	<20.0	
BH01 44-46	5/9/2023	44'-46'	0.962	9.13	1.30	19.8	31.2	244	<25.0	<50.0	244	<20.0	
BH01 49-51	5/11/2023	49'-51'	2.1	31	5.0	77	115	960	10	<48	970	<60	
BH02 9-11	5/9/2023	9'-11'	<0.024	<0.048	0.057	0.11	0.167	23	<9.5	<48	23	<59	
BH02 29-31	5/9/2023	29'-31'	< 0.024	<0.048	<0.048	0.13	0.13	<4.8	<9.6	<48	<48	<59	
BH02 39-41	5/9/2023	39'-41'	1.3	11	1.7	25	39	290	32	<49	322	<60	
BH02 44-46	5/9/2023	44'-46'	< 0.024	0.12	< 0.049	0.35	0.47	<4.9	<9.5	<47	<47	<61	
BH03 4-6	5/10/2023	4'-6'	<0.024	<0.048	0.23	0.87	1.1	64	130	<49	194	<60	
BH03 19-21	5/10/2023	19'-21'	<0.023	<0.047	< 0.047	< 0.094	< 0.094	<4.7	<9.3	<47	<47	<60	
BH03 34-36	5/10/2023	34'-36'	<0.025	<0.050	< 0.050	<0.10	<0.10	<5.0	<9.9	<50	<50	<60	
BH03 39-41	5/10/2023	39'-41'	0.58	8.3	1.4	22	32	290	24	<46	314	<60	
BH03 44-46	5/10/2023	44'-46'	<0.023	<0.046	< 0.046	<0.092	<0.092	<4.6	<9.1	<45	<45	<60	
BH04 9-10	5/10/2023	9'-10'	<0.025	< 0.050	< 0.050	< 0.099	< 0.099	<5.0	<9.1	<46	<46	<61	
BH04 29-31	5/10/2023	29'-31'	<0.024	<0.049	< 0.049	< 0.097	< 0.097	<4.9	<9.4	<47	<47	<60	
BH04 34-36	5/10/2023	34'-36'	<0.023	< 0.047	< 0.047	<0.093	< 0.093	<4.7	<9.3	<46	<46	<60	
BH04 39-41	5/10/2023	39'-41'	0.17	3.4	0.71	11	15	150	<8.9	<45	150	<60	
BH04 44-46	5/10/2023	44'-46'	<0.024	<0.048	<0.048	< 0.096	< 0.096	<4.8	<8.6	<43	<43	<60	
BH05 24-26	5/10/2023	24'-26'	<0.025	< 0.050	< 0.050	<0.10	<0.10	<5.0	<10	<50	<50	68	
BH05 29-31	5/10/2023	29'-31'	< 0.024	0.28	0.074	0.99	1.3	14	<9.3	<46	14	<60	
BH05 34-36	5/10/2023	34'-36'	< 0.024	0.20	0.074	0.79	1.1	15	<9.6	<48	15	<61	
BH05 39-41	5/10/2023	39'-41'	0.12	1.6	0.35	4.0	6.1	69	<9.2	<46	69	<60	
BH05 44-46	5/10/2023	44'-46'	< 0.024	<0.048	<0.048	< 0.096	< 0.096	<4.8	<9.4	<47	<47	<60	
BH06 14-16	5/11/2023	14'-16'	< 0.023	< 0.046	<0.046	<0.092	< 0.092	<4.6	<9.3	<46	<46	<60	
BH06 34-36	5/11/2023	34'-36'	< 0.024	< 0.049	<0.049	< 0.097	< 0.097	<4.9	<9.9	<49	<49	<60	
BH06 39-41	5/11/2023	39'-41'	< 0.023	< 0.046	<0.046	< 0.093	< 0.093	<4.6	<9.9	<50	<50	<60	
BH06 44-46	5/11/2023	44'-46'	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.6	<48	<48	<60	



TABLE 1													
				DELIN	EATION SOIL S	AMPLE ANA	LYTICAL RES	ULTS					
					San	Juan 30-6 31	Α						
					Hilcorp	Energy Com	pany						
Rio Arriba County, New Mexico													
Sample ID	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)	
NMOCD Closure	Criteria for Soils	Impacted by a	10	NE	NE	NE	50	NE	NE	NE	100	600	
	Release		10	INE	INE	INE	50	INE	INE	INE	100	000	
BH07 5-7	5/12/2023	5'-7'	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.4	<47	<47	<60	
BH07 20-22	5/12/2023	20'-22'	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.5	<47	<47	<60	
BH07 30-32	5/12/2023	30'-32'	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.4	<47	<47	<60	
BH07 40-42	5/12/2023	40'-42'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.5	<43	<43	<60	
BH07 50-52	5/12/2023	50'-52'	<0.024	<0.048	<0.048	< 0.096	< 0.096	<4.8	<9.8	<49	<49	<60	
BH08 29-31	1/17/2024	29'-31'	<0.025	<0.050	< 0.050	<0.10	<0.10	<5.0	<10	<50	<50		
BH08 54-56	1/17/2024	54'-56'	<0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.4	<47	<47		
BH09 49-51	1/17/2024	49'-51'	< 0.023	< 0.046	< 0.046	<0.092	< 0.092	<4.6	<9.5	<48	<48		
BH09 54-56	1/17/2024	54'-56'	<0.025	<0.049	< 0.049	<0.099	<0.099	<4.9	<9.8	<49	<49		
BH010 34-36	1/18/2024	34'-36'	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	20	<50	<50		
BH010 49-51	1/18/2024	49'-51'	<0.025	<0.049	< 0.049	<0.099	< 0.099	<4.9	<9.7	<49	<49		
BH011 44-46	1/18/2024	44'-46'	< 0.023	< 0.046	< 0.046	<0.093	< 0.093	<4.6	<9.1	<46	<46		
BH011 48-50	1/18/2024	48'-50'	< 0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.7	<48	<48		
BH12 5	1/19/2024	5'	0.47	26	6.0	110	142	1,600	100	<45	1,700		
BH12 10	1/19/2024	10'	0.78	45	9.0	150	205	2,100	17	<43	2,117		
BH12 15	1/19/2024	15'	0.59	0.41	0.097	1.6	2.7	15	<9.7	<49	15		
BH12 20	1/19/2024	20'	0.12	2.9	0.37	7.0	10	110	<9.7	<49	110		
BH12 25	1/19/2024	25'	<0.024	< 0.049	< 0.049	< 0.097	< 0.097	<4.9	<9.3	<47	<47		
BH12 30	1/19/2024	30'	<0.024	<0.048	<0.048	<0.096	< 0.096	<4.8	<9.8	<49	<49		
BH12 35	1/19/2024	35'	<0.025	< 0.049	< 0.049	<0.099	<0.099	<4.9	<9.5	<48	<48		
BH12 40	1/19/2024	40'	0.25	3.1	0.65	9.7	14	150	<9.2	<46	150		
BH12 45	1/19/2024	45'	0.090	0.81	0.10	1.7	2.7	26	<9.4	<47	26		
BH12 50	1/19/2024	50'	<0.025	< 0.050	< 0.050	<0.10	<0.10	<5.0	<9.1	<45	<45		

Notes:

bgs: Below ground surface

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes mg/kg: milligrams per kilogram

NE: Not Established

NMOCD: New Mexico Oil Conservation Division

': Feet

---: Not Analyzed

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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

Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release

TABLE 2WELL CONSTRUCTION INFORMATIONSan Juan 30-6 31AHilcorp Energy CompanyRio Arriba County, New Mexico										
Boring/Well IDImpacted Soil Interval (feet bgs)Well Screen Interval (feet bgs)Total Well Depth (feet BTOC)										
BH01 S	4 - 46	10 - 25	29.31							
BH01 D	4 - 46	29 - 49	51.06							
BH02 S	9 - 11	7 - 17	17.53							
BH02 D	29 - 41	30 - 45	44.90							
BH03	39 - 41	35 - 45	49.66							
BH04	39 - 41	35 - 45	47.19							
BH05	29 - 41	30 - 45	40.50							
BH06		35 - 45	47.50							
BH07		34 - 49	52.00							
MW08		40 - 55	54.39							
MW09		40 - 55	54.40							
MW10		35 - 50	48.20							
MW11		35 - 50	49.70							
MW12	4 - 42	35 - 50	48.95							

Notes:

bgs: Below ground surface

BTOC: Below top of well casing

ENSOLUM

	GROUNDWATER ELEVATION SUMMARY San Juan 30-6 31A Hilcrop Energy Company Rio Arriba County, New Mexico												
Well ID	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)						
			6/2/2023	42.67	40.62	2.05	6,272.21						
	0.040.04	F1 00	12/19/2023	42.75	41.02	1.73	6,271.87						
BHUID/IVIVVUI	0,313.24	51.06	1/31/2024	42.83	41.09	1.74	6,271.80						
			5/8/2024	42.81	41.03	1.78	6,271.85						
	6/2/2023 40.25 40.24 0.01 6,272.16												
			12/19/2023	40.64	40.51	0.13	6,271.86						
BH02D/MW02	6,312.40	44.90	1/31/2024	40.79	40.59	0.20	6,271.77						
			5/8/2024	40.73	40.53	0.20	6,271.83						
			6/2/2023	43.35	TRACE		6,272.26						
			12/19/2023	44.74	43.32	1.42	6,272.01						
BH03/MW03	6,315.61	46.66	1/31/2024	44.78	43.39	1.39	6,271.94						
			5/8/2024	44.75	43.32	1.43	6,272.00						
			6/2/2023	44.82	42.93	1.89	6.272.25						
BH04/MW04			12/19/2023	45.22	43.35	1.87	6.271.84						
	6,315.56	47.19	1/31/2024	45.25	43.40	1.85	6.271.79						
			5/8/2024	45.07	43.30	1.77	6,271.91						
			6/2/2023	DRY			DRY						
	6,313.93	40.50	12/19/2023	DRY			DRY						
BH05/MW05			1/31/2024	DRY			DRY						
			5/8/2024	DRY			DRY						
			6/2/2023	42.70			6,271.89						
	6,314.59	47.50	12/19/2023	43.01			6,271.58						
BHU6/IVIVVU6			1/31/2024	43.09			6,271.50						
			5/8/2024	43.02			6,271.57						
			6/2/2023	44.25			6,272.18						
	0.040.40	52.00	12/19/2023	44.52			6,271.91						
BH07/IVIVV07	0,310.43	52.00	1/31/2024	44.61			6,271.82						
			5/8/2024	44.55			6,271.88						
M/M/09	6 222 75	54.20	1/31/2024	51.23			6,271.52						
1010000	0,322.75	54.59	5/8/2024	51.31			6,271.44						
1000	0.004.00	54.40	1/31/2024	49.90			6,271.72						
MVV09	6,321.62	54.40	5/8/2024	49.82			6,271.80						
N.0.// C	0.040.00	10.00	1/31/2024	41.03			6,271.96						
MVV10	6,312.99	48.20	5/8/2024	40.98			6,272.01						
N/////	6212.2	40.70	1/31/2024	41.43			6,270.87						
	0312.3	49.70	5/8/2024	41.40			6,270.90						
N414/4-2	0.010.00	40.05	1/31/2024	41.04	40.92	0.12	6,271.74						
IVIVV12	0,312.08	48.95	5/8/2024	41.00	40.85	0.15	6,271.80						

Notes:

amsl: above mean sea level

BTOC: below top of casing

--: indicates no PSH measured

Groundwater elevation is adjusted using a density correction factor of 0.8 when product is present

	GRO	TAB UNDWATER AN San Juar Hilcorp Ener Rio Arriba Cour	LE 4 ALYTICAL RESI a 30-6 31A gy Company nty, New Mexico	ULTS								
Well ID	Sample Date	Benzene (µg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Total Xylenes (μg/L)							
NMWQCC	Standards	5	1,000	700	620							
	6/2/2023		No Sample Collec	cted, PSH Present								
	12/19/2023		No Sample Collect	cted, PSH Present								
BHUI/WWVUI	1/31/2024		No Sample Collect	cted, PSH Present								
	5/8/2024	No Sample Collected, PSH Present										
	6/2/2023		No Sample Collect	cted, PSH Present								
	12/19/2023	No Sample Collected, PSH Present										
BII02/WW02	1/31/2024	No Sample Collected, PSH Present										
	5/8/2024		No Sample Collec	cted, PSH Present								
	6/2/2023		No Sample Collec	cted, PSH Present								
BH03/MW03	12/19/2023	No Sample Collected, PSH Present										
	1/31/2024	No Sample Collected, PSH Present										
	5/8/2024		No Sample Collec	cted, PSH Present								
BH04/MW04	6/2/2023		No Sample Collec	cted, PSH Present								
	12/19/2023		No Sample Collec	cted, PSH Present								
51104/111104	1/31/2024		No Sample Collec	cted, PSH Present								
	5/8/2024	2024 No Sample Collected, PSH Present										
	6/2/2023	Well Dry										
BH05/MW05	12/19/2023	Well Dry										
Britter	1/31/2024	Well Dry										
	5/8/2024	Well Dry										
	6/2/2023	<2.0	<2.0	<2.0	<4.0							
BH06/MW06	12/19/2023	140	<2.0	21	51							
2	1/31/2024	140	<2.0	18	16							
	5/8/2024	140	<2.0	12	11							
	6/2/2023	<2.0	<2.0	<2.0	<4.0							
BH07/MW07	12/19/2023	<2.0	<2.0	<2.0	<4.0							
	1/31/2024	<2.0	<2.0	<2.0	<4.0							
	5/8/2024	<2.0	<2.0	<2.0	<4.0							
MW08	1/23/2024	<2.0	<2.0	<2.0	<4.0							
	5/8/2024	<1.0	<1.0	<1.0	<2.0							
MW09	1/23/2024	<1.0	<1.0	<1.0	<2.0							
	5/8/2024	<1.0	<1.0	<1.0	<2.0							
MW10	1/23/2024	<1.0	<1.0	<1.0	<2.0							
	5/8/2024	<1.0	<1.0	<1.0	<2.0							
MW11	1/23/2024	<1.0	<1.0	<1.0	<2.0							
	5/8/2024	<1.0	<1.0	<1.0	<2.0							
MW12	1/23/2024		No Sample Collec	ted, PSH Present								
	5/8/2024		No Sample Collec	cted, PSH Present								

E N S O L U M

Notes:

µg/L: Micrograms per liter

NMWQCC: New Mexico Water Quality Control Commission

PSH: Phase separated hydrocarbons

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

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



APPENDIX A

NMOCD Correspondence

From:	OCDOnline@state.nm.us
То:	Stuart Hyde
Subject:	The Oil Conservation Division (OCD) has accepted the application, Application ID: 300667
Date:	Sunday, January 7, 2024 8:07:59 AM

EXTERNAL EMAIL]

To whom it may concern (c/o Stuart Hyde for HILCORP ENERGY COMPANY),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2301160771.

The sampling event is expected to take place:

When: 01/17/2024 @ 09:00 **Where:** F-33-30N-06W 1770 FNL 1450 FWL (36.7715263,-107.4723434)

Additional Information: Site contact is Stuart Hyde, 970-903-1607

Sampling is being performed for delineation purposes. The stated sampling area is the total approximate area that we will be investigating and does not constitute the area of soil impacts

Additional Instructions: Site coordinates: 36.771811, -107.472659

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

• Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From:	OCDOnline@state.nm.us
То:	Stuart Hyde
Subject:	The Oil Conservation Division (OCD) has accepted the application, Application ID: 300668
Date:	Sunday, January 7, 2024 8:09:30 AM

EXTERNAL EMAIL]

To whom it may concern (c/o Stuart Hyde for HILCORP ENERGY COMPANY),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2301160771.

The sampling event is expected to take place:

When: 01/18/2024 @ 09:00 **Where:** F-33-30N-06W 1770 FNL 1450 FWL (36.7715263,-107.4723434)

Additional Information: Site contact is Stuart Hyde, 970-903-1607

Sampling is being performed for delineation purposes. The stated sampling area is the total approximate area that we will be investigating and does not constitute the area of soil impacts.

Additional Instructions: Site coordinates: 36.771811, -107.472659

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

• Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From:	OCDOnline@state.nm.us
To:	Stuart Hyde
Subject:	The Oil Conservation Division (OCD) has accepted the application, Application ID: 300669
Date:	Sunday, January 7, 2024 8:10:45 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Stuart Hyde for HILCORP ENERGY COMPANY),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2301160771.

The sampling event is expected to take place:

When: 01/19/2024 @ 09:00 **Where:** F-33-30N-06W 1770 FNL 1450 FWL (36.7715263,-107.4723434)

Additional Information: Site contact is Stuart Hyde, 970-903-1607

Sampling is being performed for delineation purposes. The stated sampling area is the total approximate area that we will be investigating and does not constitute the area of soil impacts.

Additional Instructions: Site coordinates: 36.771811, -107.472659

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

• Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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



APPENDIX B

Photographic Log

Released to Imaging: 7/30/2024 12:29:25 PM





APPENDIX C

Field Borehole Logs

Date S. Drilled Driller Logged	ampled: $1-b$ By: $\beta y are$: EDF By: $E_{-}C$	N S (17-34 n (EDZ arrol)	M	Project 1 Project 1 Project 1 Ground Top of C North Co West Co	Name: SJ 30-6 31A Location: RIO ARRIBA, NM Manager: STUART HYDE Surface Elevation: asing Elevation: poordinate:	BORING LOG NUMBER BHDS Project No.: Borehole Diameter: 3 Casing Diameter: 2'' Well Materials: PUC Surface Completion: Boring Method: H5A		
DEPTH (FEET)	SAMPLE INTERVAL	RECOVERY (%)	FID/PID READING (PPM)	BLOW COUNT	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPT	ION	BORING/WELL COMPLETION	
0 2 4		80	1.3	416/1,	SP	Very 10058, it fed bra fine sond, few Sills; DR, Non-conesive	vn, need - Y, non - Plassi		
8 10		80	1.3	415\$5	SP	SAA		$\left \left \right\rangle \right $	
12 14	- 3	40	1.8	25/26/ 25	ML	Med-dense, it brown, si Sand, plassic, cone	ilt, troice sive	3	
16 18 20	4	90	1.8	5616	ML	Loose, It brown, Si DRY, Pluseic, cohesive	ltγ Sand	5	
22 24	5	160	1.8	5/6/4	SP	Loose, It yellow brown, litole silo, non-plastic, DRV	Fine Sand noncohesive	\mathbb{Z}	
26 28 30	6	40	1.8	4/5/0	57	5.44		.5	
32 34	7	60	1.2	8/26/ 2Ç	NAL	Stiff, dark brown, cia Sand, cohesive, non-1 moist	"Y, trace Diastic	SR	
36 38 40	8	70	0.5		Aqc	SAA		××××××	
42	9	100	0-8		ALL	544			
46 48 50	10	100	0.4		CL	Soft, dork brown clay Sand, moise + web, med - Plasticity	Cohesive	WA	
	9	100	0.4	<u> </u>	CL	5 AA			

12:00

Date Sa Drilled Driller: Logged	mpled: [- By: Ryar EDL By: E.	N S (D L U	M	Client: H Project I Project I Ground Top of C North Co West Cod	EC Name: SJ 30-6 31A Location: RIO ARRIBA, NM Manager: STUART HYDE P Surface Elevation: asing Elevation: coordinate: bordinate:	BORING LOG NUMBER BHO9 roject No.: sorehole Diameter: & " asing Diameter: & " Vell Materials: pyc urface Completion: poring Method: H5 A	
DEPTH (FEET)	SAMPLE	RECOVERY (%)	FID/PID READING (PPM)	BLOW COUNT	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING/WELL COMPLETION
0 2 4		40	1.0	4/5/4	SP	1005e, It rad brown, Fine-i few silt, non cohesive	m eal scind	
6 8 10	2	50	1.8	<i>4</i> /5/5	SP	SAA		
12 14	3	50	2.7	4/4/4	58	S.A.A		
16 18 20	4	50	2.8	2/3/4	SĨ	louse, yenow brown, fo sa Some Silt, non cohosive	in (1	
22 24	5	50	2.8	3/16/21	CL	stift, brain, Glay Same Conesive, non - Plastic	d Y Clay , Moist	-
26 - 28 - 30 -	6	50	2.7	13/18/22	CL	5.4A		
32 34	7	70	3.6	10/15/15	SC NAL	It boundary chargey son, Vry Seiff, dik brown, Claw + Sand conesive non-place	c' eu C	
36 38 40	8	4 5	1.7	8/14/19	ÂÎ Î	SAA MCISE	-	
42	9	60	1.6	6/9/10	Rif	Stiff, dik brown, Sandy Co Moise Cohesive non - pice	iay istic	
46 48 50	10	70	5.2	5/5/4	CL SP	Soft drie brown Sandy an concesive, Plastic cres LOOSE, Fed brown, course S	iny	P
	į 1	80	1. 7	8/13/2 .	LL	Stiff drk brow clay fe conesive, plustic	ursand	.

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70 55' GW 41'

	E N S O L U M Date Sampled: Drilled By: Driller: Logged By:						IEC Name: SJ 30-6 31A .ocation: RIO ARRIBA, NM Manager: STUART HYDE Surface Elevation: asing Elevation: bordinate: ordinate:	LOG NU D neter: ter: s: oletion: d:	UMBER		
	DEPTH (FEET)	DEPTH (FEET) SAMPLE INTERVAL RECOVERY (%) (%) (%) (%) (%) (PM) BLOW COUNT					GEOLOGIC DESCRIPTION	N	BORIN COMI	NG/WELI PLETION	
	0 2 4	1	30	1.5	¢17/7	5C	Loose, fn Sand, Some Si brown, dry, non conesive Plassic	1/E, 16 1 192 19		-	
9 1	6 8 10	2	70	2.6	3/4/4	SP	LODSE, med-fr Sand, few brown, moise, non cohes non Plastic	ive,		8	
	12 14 16	3	75	2.3	6/8/g	50	Med dense, fn Scin, few c brown, moise, non cone non plastic	lay/sile	-		
	18 20	- 4	90	2.8	7/8/9	SP SW	LOOSE, COURSE Sond, It E dry, non - cohesive, nor	n plastic			
	22 24	5	90	3.1	12/14/ 16	5w 102	SAA wet Stiff, Brk brown, ciny tew Moist non-cohesive	sond	0		PID = 3.2
	26 28 30	6	60	4.0	16/16/	ØL	SAN W interbeaded layer	sond	_		
10 15	32 34	7	75	7.9	12/14/14	Kai	Stiff, drk brown, clay, Sand, moist non-cohesi	few 30me Ve	***	XXXX	
	36 38 40	4	80	4.1	Hela	CL	Soft, dark brown, sandy moist to wet, low plastic,	CIGY Cohesive			
	42 44	9	80	2.2		5P	LOOSE, red brown, cours non-prussicleohesive, w	c, sand -ct			Saturated Sand PID = 1.9
10:40	46 48 50	10	90	1-8		CL	Stiff, dark brown, clay 1 Sand, moist, low plastic, c	little chesive			

.

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Date Sa Drilled Driller Logged	ampled: By: : By:	NS	OLU	M	Client: F Project I Project I Project M Ground Top of C North Co West Con	IEC BOR Name: SJ 30-6 31 A Location: RIO ARRIBA, NM <u>I</u> Manager: STUART HYDE Project Surface Elevation: Boreho asing Elevation: Casing pordinate: Well M ordinate: Surface Boring	BORING LOG NUMBEI BH// Project No.: Borehole Diametur: Casing Diameter: Well Materials: Surface Completion: Boring Method:		
DEPTH (FEET)	(FEET) SAMPLE INTERVAL RECOVERV (%) (%) (%) EID/PID READING (PPM)				GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION		
0 2 4		40	0.6	3/5/	SP	Loose, it brown, med-fn Sund, + Silt, Diy, non-conesive	e1v •		
6 8 10	+ 2	60	0.9	2/2/4	SP	SAA			
12 14	3	60	1.4	7/3/3	SP	med dense It brown, in sound, Some Silt, moist, non-cohesive	2		
16 18 20	14	70	1-1	7/2/3	57	Miloose, 16 brown, med-Frigan little silt, no maise non- conesive	d -		
22 24	5	75	1-1	5/7/9	57	med dense, drk brown, fn sand & Sill, moist, non conesive some clay			
26 28 30	G	70	1.4	8/9 _{/9}	SP	SAA			
32 34	7	70	1.5	7/9/10	СЬ	Stiff, drk brown, sand cloy, moise, non-conesive			
30 38 40	8	100	0.8	618/8	CL	Stiff, drk brown, clay, Some Silt, few sand, Moist, Chesive Med-plastic			
42 44	- 1	100	2.0	3/4/4	SP CL	Loosa, xellow brown course sand wet soft, brown, sandy clay			
48	10	100	1.4		-	medjum dv k blown clay, Gon Gill	e e		

7 D= 50' CW 2.431

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Ser.

EENSOLUM					Client: Project I Project I Project I	Name: Location: Manager: •	BORING LOG NUMBER BH12 Project No.:				
Date Sampled: Drilled By: Driller: Logged By:					Ground Top of C North Co West Co	Surface Elevation: asing Elevation: pordinate: prdinate:	Borehole Diameter: Casing Diameter: Well Materials: Surface Completion: Boring Method:				
DEPTH (FEET)	SAMPLE INTERVAL	RECOVERY (%)	FID/PID READING (PPM)	POTENTIO- BPOTENTIO- METRIC SURFACE	CEOLOGIC	GEOLOGIC DESCRIPTION			BORING/WELL COMPLETION		
2.4	1 1	20	7500	2/ 3/2	5P.	Lase, brown, sand, some moise, non conegive Strong odor	5.1t,				
6 8 10	2	10	149	3/4/3	5P	SAA					
12 14	3	90	164	3/3/4	SP	med dense, drkhrown, san some sile few clay non	nd .cyresile				
16 - 18 - 20 -	- 4	70	504	2/2/,	59	Loose, Yellow bin, En So Some Silt, non.com	ind resile	E			
22 24	5	70	262	3/4/4	512	med dense, it brown, Fr. Some silticity won.	concisive	•			
26 28 30	6	80	76.2		57	med dense, drk brown Clayey Sand Slight Odor	1	-			
32 34	7	100	207	12/14/14	EL	Stiff, duk brown, som	dy	XXX XX	*** *		
38 40	8	100 1505	1505	8/10/11	CL	SCFT, dik brown, Cloy, S Scine, conesive low prostic	ome ity	, 1. . 1.			
42	9	80	89.5	2/2/3	5P	Loose, coarsesand, wet	-				
40 48 50	W.	65	4.3	3/8/8	CL .	Stiff, It brown, Clay 50 Sand	mc .		111		

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APPENDIX D

Soil Sample Laboratory Analytical Reports

Released to Imaging: 7/30/2024 12:29:25 PM



Environment Testing

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

February 03, 2024

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

RE: SJ 30 6 31A

OrderNo.: 2401893

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 18 sample(s) on 1/23/2024 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

CLIENT: HILCORP ENERGY

Project: SJ 30 6 31A

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH08 @ 29-31 Collection Date: 1/17/2024 11:40:00 AM **Deceived Dete:** 1/22/2024 6:20:00 AM

Lab ID: 2401893-001	Matrix: SOIL	Received Date: 1/23/2024 6:30:00 AM					
Analyses	Result	RL Qu	RL Qual Units D		Date Analyzed		
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst: JKU		
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/26/2024 12:47:04 PM		
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/26/2024 12:47:04 PM		
Surr: DNOP	85.6	69-147	%Rec	1	1/26/2024 12:47:04 PM		
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: JJP		
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/26/2024 5:35:01 PM		
Surr: BFB	96.1	15-244	%Rec	1	1/26/2024 5:35:01 PM		
EPA METHOD 8021B: VOLATILES					Analyst: JJP		
Benzene	ND	0.025	mg/Kg	1	1/26/2024 5:35:01 PM		
Toluene	ND	0.050	mg/Kg	1	1/26/2024 5:35:01 PM		
Ethylbenzene	ND	0.050	mg/Kg	1	1/26/2024 5:35:01 PM		
Xylenes, Total	ND	0.10	mg/Kg	1	1/26/2024 5:35:01 PM		
Surr: 4-Bromofluorobenzene	87.4	39.1-146	%Rec	1	1/26/2024 5:35:01 PM		

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н

- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit % Recovery outside of standard limits. If undiluted results may be estimated. S

Analyte detected in the associated Method Blank в

- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

CLIENT: HILCORP ENERGY

Project:

Lab ID:

SJ 30 6 31A

2401893-002

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH08 @ 54-56 Collection Date: 1/17/2024 12:00:00 PM

Received Date: 1/23/2024 6:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: JKU
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	1/26/2024 1:47:08 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/26/2024 1:47:08 PM
Surr: DNOP	83.5	69-147	%Rec	1	1/26/2024 1:47:08 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	1/26/2024 5:58:47 PM
Surr: BFB	95.6	15-244	%Rec	1	1/26/2024 5:58:47 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	1/26/2024 5:58:47 PM
Toluene	ND	0.048	mg/Kg	1	1/26/2024 5:58:47 PM
Ethylbenzene	ND	0.048	mg/Kg	1	1/26/2024 5:58:47 PM
Xylenes, Total	ND	0.096	mg/Kg	1	1/26/2024 5:58:47 PM
Surr: 4-Bromofluorobenzene	86.3	39.1-146	%Rec	1	1/26/2024 5:58:47 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

CLIENT: HILCORP ENERGY

Project:

Lab ID:

SJ 30 6 31A

2401893-003

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH09 @ 49-51 Collection Date: 1/17/2024 2:30:00 PM

Received Date: 1/23/2024 6:30:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG				Analyst: JKU	
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/26/2024 1:59:07 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/26/2024 1:59:07 PM
Surr: DNOP	84.6	69-147	%Rec	1	1/26/2024 1:59:07 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	1/26/2024 6:22:28 PM
Surr: BFB	100	15-244	%Rec	1	1/26/2024 6:22:28 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.023	mg/Kg	1	1/26/2024 6:22:28 PM
Toluene	ND	0.046	mg/Kg	1	1/26/2024 6:22:28 PM
Ethylbenzene	ND	0.046	mg/Kg	1	1/26/2024 6:22:28 PM
Xylenes, Total	ND	0.092	mg/Kg	1	1/26/2024 6:22:28 PM
Surr: 4-Bromofluorobenzene	90.8	39.1-146	%Rec	1	1/26/2024 6:22:28 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*
Project: SJ 30 6 31A

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH09 @ 54-56 Collection Date: 1/17/2024 2:45:00 PM aired Data: 1/22/2024 6:20:00 AM ъ

Lab ID: 2401893-004	Matrix: SOIL	IL Received Date: 1/23/2024 6:30:00 AM					ix: SOIL Received Da		2024 6:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst: JKU				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	1/26/2024 2:11:11 PM				
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/26/2024 2:11:11 PM				
Surr: DNOP	84.7	69-147	%Rec	1	1/26/2024 2:11:11 PM				
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: JJP				
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/26/2024 6:46:09 PM				
Surr: BFB	96.5	15-244	%Rec	1	1/26/2024 6:46:09 PM				
EPA METHOD 8021B: VOLATILES					Analyst: JJP				
Benzene	ND	0.025	mg/Kg	1	1/26/2024 6:46:09 PM				
Toluene	ND	0.049	mg/Kg	1	1/26/2024 6:46:09 PM				
Ethylbenzene	ND	0.049	mg/Kg	1	1/26/2024 6:46:09 PM				
Xylenes, Total	ND	0.099	mg/Kg	1	1/26/2024 6:46:09 PM				
Surr: 4-Bromofluorobenzene	88.6	39.1-146	%Rec	1	1/26/2024 6:46:09 PM				

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

SJ 30 6 31A

Project:

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH10 @ 34-36 Collection Date: 1/18/2024 10:15:00 AM **Received Date:** 1/23/2024 6:30:00 AM

Lab ID: 2401893-005	Matrix: SOIL	Atrix: SOIL Received Date: 1/23/2024 6:30:00 AM				
Analyses	Result	RL Qu	al Units DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RAM	NGE ORGANICS			Analyst: JKU		
Diesel Range Organics (DRO)	20	10	mg/Kg 1	1/26/2024 2:23:09 PM		
Motor Oil Range Organics (MRO)	ND	50	mg/Kg 1	1/26/2024 2:23:09 PM		
Surr: DNOP	85.5	69-147	%Rec 1	1/26/2024 2:23:09 PM		
EPA METHOD 8015D: GASOLINE RA	NGE			Analyst: JJP		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg 1	1/26/2024 7:09:45 PM		
Surr: BFB	113	15-244	%Rec 1	1/26/2024 7:09:45 PM		
EPA METHOD 8021B: VOLATILES				Analyst: JJP		
Benzene	ND	0.025	mg/Kg 1	1/26/2024 7:09:45 PM		
Toluene	ND	0.049	mg/Kg 1	1/26/2024 7:09:45 PM		
Ethylbenzene	ND	0.049	mg/Kg 1	1/26/2024 7:09:45 PM		
Xylenes, Total	ND	0.098	mg/Kg 1	1/26/2024 7:09:45 PM		
Surr: 4-Bromofluorobenzene	89.0	39.1-146	%Rec 1	1/26/2024 7:09:45 PM		

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

Qualifiers:

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Project:

Lab ID:

SJ 30 6 31A

2401893-006

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH10 @ 49-51 Collection Date: 1/18/2024 10:40:00 AM Matrix: SOIL Received Date: 1/23/2024 6:30:00 AM

Result	RL Qu	al Units	DF	Date Analyzed
RGANICS				Analyst: JKU
ND	9.7	mg/Kg	1	1/26/2024 2:35:07 PM
ND	49	mg/Kg	1	1/26/2024 2:35:07 PM
86.6	69-147	%Rec	1	1/26/2024 2:35:07 PM
				Analyst: JJP
ND	4.9	mg/Kg	1	1/26/2024 7:57:17 PM
98.4	15-244	%Rec	1	1/26/2024 7:57:17 PM
				Analyst: JJP
ND	0.025	mg/Kg	1	1/26/2024 7:57:17 PM
ND	0.049	mg/Kg	1	1/26/2024 7:57:17 PM
ND	0.049	mg/Kg	1	1/26/2024 7:57:17 PM
ND	0.099	mg/Kg	1	1/26/2024 7:57:17 PM
89.9	39.1-146	%Rec	1	1/26/2024 7:57:17 PM
	Result RGANICS ND ND 86.6 ND 98.4 ND ND ND ND ND ND 89.9	Result RL Qu RGANICS ND 9.7 ND 49 86.6 69-147 ND 4.9 98.4 15-244 ND 0.025 ND 0.049 ND 0.049 ND 0.099 89.9 39.1-146	Result RL Qual Units RGANICS ND 9.7 mg/Kg ND 49 mg/Kg 86.6 69-147 %Rec ND 4.9 mg/Kg 98.4 15-244 %Rec ND 0.025 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.099 mg/Kg ND 0.099 mg/Kg 89.9 39.1-146 %Rec	Result RL Qual Units DF RGANICS ND 9.7 mg/Kg 1 ND 49 mg/Kg 1 86.6 69-147 %Rec 1 ND 4.9 mg/Kg 1 98.4 15-244 %Rec 1 ND 0.025 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.099 mg/Kg 1 ND 0.099 mg/Kg 1 89.9 39.1-146 %Rec 1

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

SJ 30 6 31A

2401893-007

Project:

Lab ID:

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH11 @ 44-46 Collection Date: 1/18/2024 2:00:00 PM Received Date: 1/23/2024 6:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: JKU
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	1/26/2024 2:47:04 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/26/2024 2:47:04 PM
Surr: DNOP	87.5	69-147	%Rec	1	1/26/2024 2:47:04 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	1/26/2024 8:21:16 PM
Surr: BFB	96.4	15-244	%Rec	1	1/26/2024 8:21:16 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.023	mg/Kg	1	1/26/2024 8:21:16 PM
Toluene	ND	0.046	mg/Kg	1	1/26/2024 8:21:16 PM
Ethylbenzene	ND	0.046	mg/Kg	1	1/26/2024 8:21:16 PM
Xylenes, Total	ND	0.093	mg/Kg	1	1/26/2024 8:21:16 PM
Surr: 4-Bromofluorobenzene	88.9	39.1-146	%Rec	1	1/26/2024 8:21:16 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

1/26/2024 8:44:53 PM

1/26/2024 8:44:53 PM

1/26/2024 8:44:53 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY Client Sample ID: BH11 @ 48-50 **Project:** SJ 30 6 31A Collection Date: 1/18/2024 2:15:00 PM Lab ID: 2401893-008 Matrix: SOIL Received Date: 1/23/2024 6:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JKU Diesel Range Organics (DRO) ND 9.7 1/26/2024 2:59:01 PM mg/Kg 1 mg/Kg Motor Oil Range Organics (MRO) ND 1 1/26/2024 2:59:01 PM 48 Surr: DNOP 87.9 %Rec 1 1/26/2024 2:59:01 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 1/26/2024 8:44:53 PM Surr: BFB 1 1/26/2024 8:44:53 PM 97.2 15-244 %Rec **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 1/26/2024 8:44:53 PM Toluene ND 0.048 mg/Kg 1 1/26/2024 8:44:53 PM

ND

ND

89.4

0.048

0.096

39.1-146

mg/Kg

mg/Kg

%Rec

1

1

1

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value J Analyte detected below quantitation limits
- J Analyte detected below quantitation limit
- P Sample pH Not In Range
- RL Reporting Limit

*

SJ 30 6 31A

Project:

Analytical Report Lab Order 2401893

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/3/2024

Client Sample ID: BH12 @5 Collection Date: 1/19/2024 10:46:00 AM Received Date: 1/23/2024 6:30:00 AM

Lab ID: 2401893-009	Matrix: SOIL	Received Date: 1/23/2024 6:30:00 AM				
Analyses	Result	RL (Qual Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE (ORGANICS				Analyst: JKU	
Diesel Range Organics (DRO)	100	9.0	mg/Kg	1	1/26/2024 3:10:56 PM	
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	1/26/2024 3:10:56 PM	
Surr: DNOP	87.9	69-147	%Rec	1	1/26/2024 3:10:56 PM	
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP	
Gasoline Range Organics (GRO)	1600	24	mg/Kg	5	1/26/2024 9:08:38 PM	
Surr: BFB	714	15-244	S %Rec	5	1/26/2024 9:08:38 PM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	0.47	0.12	mg/Kg	5	1/26/2024 9:08:38 PM	
Toluene	26	2.4	mg/Kg	50	1/29/2024 8:35:15 PM	
Ethylbenzene	6.0	0.24	mg/Kg	5	1/26/2024 9:08:38 PM	
Xylenes, Total	110	4.9	mg/Kg	50	1/29/2024 8:35:15 PM	
Surr: 4-Bromofluorobenzene	117	39.1-146	%Rec	5	1/26/2024 9:08:38 PM	

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Analytical Report Lab Order 2401893

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/3/2024 Client Sample ID: BH12 @10

Project:	SJ 30 6 31A	Collection Date: 1/19/2024 10:48:00 AM						
Lab ID:	2401893-010	Matrix: SOIL Received Date: 1/23/2024 6:30:00 AN						
Analyses		Result RL Qual Units DF		DF	Date Analyzed			
EPA ME	THOD 8015M/D: DIESEL RAM	IGE ORGANICS					Analyst: JKU	
Diesel R	ange Organics (DRO)	17	8.6		mg/Kg	1	1/26/2024 3:22:53 PM	
Motor O	il Range Organics (MRO)	ND	43		mg/Kg	1	1/26/2024 3:22:53 PM	
Surr:	DNOP	85.6	69-147		%Rec	1	1/26/2024 3:22:53 PM	
EPA ME	THOD 8015D: GASOLINE RA	NGE					Analyst: JJP	
Gasoline	e Range Organics (GRO)	2100	96		mg/Kg	20	1/29/2024 8:58:42 PM	
Surr:	BFB	335	15-244	S	%Rec	20	1/29/2024 8:58:42 PM	
EPA ME	THOD 8021B: VOLATILES						Analyst: JJP	
Benzene	9	0.78	0.024		mg/Kg	1	1/26/2024 9:32:13 PM	
Toluene		45	0.96		mg/Kg	20	1/29/2024 8:58:42 PM	
Ethylber	nzene	9.0	0.96		mg/Kg	20	1/29/2024 8:58:42 PM	
Xylenes,	, Total	150	1.9		mg/Kg	20	1/29/2024 8:58:42 PM	
Surr:	4-Bromofluorobenzene	99.1	39.1-146		%Rec	20	1/29/2024 8:58:42 PM	

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

SJ 30 6 31A

Project:

Analytical Report Lab Order 2401893

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/3/2024

Client Sample ID: BH12 @15 Collection Date: 1/19/2024 10:50:00 AM Received Date: 1/23/2024 6:30:00 AM

Lab ID: 2401893-011	Matrix: SOIL Received Date: 1/23/2024 6:30:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE (ORGANICS				Analyst: JKU
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/26/2024 3:34:53 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/26/2024 3:34:53 PM
Surr: DNOP	83.8	69-147	%Rec	1	1/26/2024 3:34:53 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	15	5.0	mg/Kg	1	1/29/2024 9:45:35 PM
Surr: BFB	109	15-244	%Rec	1	1/29/2024 9:45:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	0.59	0.025	mg/Kg	1	1/29/2024 9:45:35 PM
Toluene	0.41	0.050	mg/Kg	1	1/29/2024 9:45:35 PM
Ethylbenzene	0.097	0.050	mg/Kg	1	1/29/2024 9:45:35 PM
Xylenes, Total	1.6	0.10	mg/Kg	1	1/29/2024 9:45:35 PM
Surr: 4-Bromofluorobenzene	88.0	39.1-146	%Rec	1	1/29/2024 9:45:35 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

SJ 30 6 31A

Project:

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH12 @20 Collection Date: 1/19/2024 10:52:00 AM Received Date: 1/23/2024 6:30:00 AM

Lab ID: 2401893-012	Matrix: SOIL	Matrix: SOIL Received Date: 1/23/2024 6:30:00 AM				
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: JKU	
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/26/2024 3:46:47 PM	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/26/2024 3:46:47 PM	
Surr: DNOP	83.0	69-147	%Rec	1	1/26/2024 3:46:47 PM	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: JJP	
Gasoline Range Organics (GRO)	110	4.7	mg/Kg	1	1/26/2024 10:19:29 PM	
Surr: BFB	353	15-244	S %Rec	1	1/26/2024 10:19:29 PM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	0.12	0.024	mg/Kg	1	1/26/2024 10:19:29 PM	
Toluene	2.9	0.047	mg/Kg	1	1/26/2024 10:19:29 PM	
Ethylbenzene	0.37	0.047	mg/Kg	1	1/26/2024 10:19:29 PM	
Xylenes, Total	7.0	0.095	mg/Kg	1	1/26/2024 10:19:29 PM	
Surr: 4-Bromofluorobenzene	98.6	39.1-146	%Rec	1	1/26/2024 10:19:29 PM	

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

SJ 30 6 31A

2401893-013

Project:

Lab ID:

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH12@25 Collection Date: 1/19/2024 10:54:00 AM Received Date: 1/23/2024 6:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: JKU
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	1/26/2024 3:58:46 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/26/2024 3:58:46 PM
Surr: DNOP	85.2	69-147	%Rec	1	1/26/2024 3:58:46 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/30/2024 9:59:34 PM
Surr: BFB	107	15-244	%Rec	1	1/30/2024 9:59:34 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	1/30/2024 9:59:34 PM
Toluene	ND	0.049	mg/Kg	1	1/30/2024 9:59:34 PM
Ethylbenzene	ND	0.049	mg/Kg	1	1/30/2024 9:59:34 PM
Xylenes, Total	0.16	0.097	mg/Kg	1	1/30/2024 9:59:34 PM
Surr: 4-Bromofluorobenzene	86.6	39.1-146	%Rec	1	1/30/2024 9:59:34 PM

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY	Client Sample ID: BH12@30						
Project: SJ 30 6 31A	Collection Date: 1/19/2024 10:56:00 AM						
Lab ID: 2401893-014	Matrix: SOIL Received Date: 1/23/2024 6:30:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: JKU		
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	1/26/2024 4:10:41 PM		
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/26/2024 4:10:41 PM		
Surr: DNOP	83.3	69-147	%Rec	1	1/26/2024 4:10:41 PM		
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst: JJP		
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	1/26/2024 11:07:02 PM		
Surr: BFB	99.6	15-244	%Rec	1	1/26/2024 11:07:02 PM		
EPA METHOD 8021B: VOLATILES					Analyst: JJP		
Benzene	ND	0.024	mg/Kg	1	1/26/2024 11:07:02 PM		
Toluene	ND	0.048	mg/Kg	1	1/26/2024 11:07:02 PM		
Ethylbenzene	ND	0.048	mg/Kg	1	1/26/2024 11:07:02 PM		
Xylenes, Total	ND	0.096	mg/Kg	1	1/26/2024 11:07:02 PM		
Surr: 4-Bromofluorobenzene	84.9	39.1-146	%Rec	1	1/26/2024 11:07:02 PM		

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Analytical Report Lab Order 2401893

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/3/2024 Client Sample ID: BH12@35

CLIENT:	HILCORP ENERGY	Client Sample ID: BH12@35						
Project:	SJ 30 6 31A	Collection Date: 1/19/2024 10:58:00 AM						
Lab ID:	2401893-015	Matrix: SOIL	Rece	eived Date:	024 6:30:00 AM			
Analyses		Result	RL Qu	al Units	DF	Date Analyzed		
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: JKU		
Diesel Ra	ange Organics (DRO)	ND	9.5	mg/Kg	1	1/26/2024 4:22:37 PM		
Motor Oil	Range Organics (MRO)	ND	48	mg/Kg	1	1/26/2024 4:22:37 PM		
Surr: [DNOP	82.8	69-147	%Rec	1	1/26/2024 4:22:37 PM		
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: JJP		
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	1/26/2024 11:30:36 PM		
Surr: E	3FB	108	15-244	%Rec	1	1/26/2024 11:30:36 PM		
EPA ME	THOD 8021B: VOLATILES					Analyst: JJP		
Benzene		ND	0.025	mg/Kg	1	1/26/2024 11:30:36 PM		
Toluene		ND	0.049	mg/Kg	1	1/26/2024 11:30:36 PM		
Ethylben	zene	ND	0.049	mg/Kg	1	1/26/2024 11:30:36 PM		
Xylenes,	Total	0.10	0.099	mg/Kg	1	1/26/2024 11:30:36 PM		
Surr: 4	1-Bromofluorobenzene	87.3	39.1-146	%Rec	1	1/26/2024 11:30:36 PM		

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Project:

Lab ID:

SJ 30 6 31A

2401893-016

Analytical Report Lab Order 2401893

Date Reported: 2/3/2024

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH12@40 Collection Date: 1/19/2024 11:00:00 AM

Received Date: 1/23/2024 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: JKU
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/29/2024 1:24:18 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/29/2024 1:24:18 PM
Surr: DNOP	88.8	69-147		%Rec	1	1/29/2024 1:24:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	150	4.9		mg/Kg	1	1/27/2024 1:53:04 AM
Surr: BFB	415	15-244	S	%Rec	1	1/27/2024 1:53:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	0.25	0.024		mg/Kg	1	1/27/2024 1:53:04 AM
Toluene	3.1	0.049		mg/Kg	1	1/27/2024 1:53:04 AM
Ethylbenzene	0.65	0.049		mg/Kg	1	1/27/2024 1:53:04 AM
Xylenes, Total	9.7	0.097		mg/Kg	1	1/27/2024 1:53:04 AM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	1/27/2024 1:53:04 AM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Analytical Report Lab Order 2401893

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/3/2024 Client Sample ID: BH12@45 Collection Date: 1/19/2024 11:02:00 AM

Project:	SJ 30 6 31A		Colle	ction Date:	1/19/2	2024 11:02:00 AM
Lab ID:	2401893-017	Matrix: SOIL	Rece	eived Date:	1/23/2	2024 6:30:00 AM
Analyses		Result	RL Qu	al Units	DF	Date Analyzed
EPA ME	THOD 8015M/D: DIESEL F	ANGE ORGANICS				Analyst: JKU
Diesel R	ange Organics (DRO)	ND	9.4	mg/Kg	1	1/29/2024 1:36:25 PM
Motor O	il Range Organics (MRO)	ND	47	mg/Kg	1	1/29/2024 1:36:25 PM
Surr:	DNOP	88.8	69-147	%Rec	1	1/29/2024 1:36:25 PM
EPA ME	THOD 8015D: GASOLINE	RANGE				Analyst: JJP
Gasoline	e Range Organics (GRO)	26	4.6	mg/Kg	1	1/27/2024 3:03:56 AM
Surr:	BFB	129	15-244	%Rec	1	1/27/2024 3:03:56 AM
EPA ME	THOD 8021B: VOLATILES	;				Analyst: JJP
Benzene	9	0.090	0.023	mg/Kg	1	1/27/2024 3:03:56 AM
Toluene		0.81	0.046	mg/Kg	1	1/27/2024 3:03:56 AM
Ethylber	nzene	0.10	0.046	mg/Kg	1	1/27/2024 3:03:56 AM
Xylenes	, Total	1.7	0.092	mg/Kg	1	1/27/2024 3:03:56 AM
Surr:	4-Bromofluorobenzene	91.4	39.1-146	%Rec	1	1/27/2024 3:03:56 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

CLIENT: HILCORP ENERGY SJ 30 6 31A

2401893-018

Project:

Lab ID:

Analytical Report Lab Order 2401893

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/3/2024

Client Sample ID: BH12@50	
Collection Date: 1/19/2024 11:04:0	0 AM
Received Date: 1/23/2024 6:30:00	AM (

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst: JKU
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	1/29/2024 1:48:29 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	1/29/2024 1:48:29 PM
Surr: DNOP	87.7	69-147	%Rec	1	1/29/2024 1:48:29 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/27/2024 4:14:53 AM
Surr: BFB	98.5	15-244	%Rec	1	1/27/2024 4:14:53 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/27/2024 4:14:53 AM
Toluene	ND	0.050	mg/Kg	1	1/27/2024 4:14:53 AM
Ethylbenzene	ND	0.050	mg/Kg	1	1/27/2024 4:14:53 AM
Xylenes, Total	ND	0.10	mg/Kg	1	1/27/2024 4:14:53 AM
Surr: 4-Bromofluorobenzene	87.6	39.1-146	%Rec	1	1/27/2024 4:14:53 AM

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: HILCO	ORP ENERGY								
Project: SJ 30 e	5 31A								
Sample ID: MB-80100	SampType:	MBLK	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch ID: 8	80100	F	RunNo: 10	2721				
Prep Date: 1/25/2024	Analysis Date:	1/26/2024	S	SeqNo: 37	95517	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 1	0							
Motor Oil Range Organics (MRO)	ND 5	0							
Surr: DNOP	8.2	10.00		82.5	69	147			
Sample ID: LCS-80100	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 8	80100	F	RunNo: 10	2721				
Prep Date: 1/25/2024	Analysis Date:	1/26/2024	S	SeqNo: 37	95518	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42 1	0 50.00	0	83.8	61.9	130			
Surr: DNOP	4.4	5.000		88.7	69	147			
Sample ID: LCS-80109	SampType: L	CS	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch ID: 8	80109	F	RunNo: 10	02750				
Prep Date: 1/26/2024	Analysis Date:	1/29/2024	S	SeqNo: 37	96506	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52 1	0 50.00	0	105	61.9	130			
Surr: DNOP	4.6	5.000		91.8	69	147			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

Page 52 of 113

WO#:	2401893
	03-Feb-24

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	HILCORF SJ 30 6 31	P ENERG	Y								
Sample ID:	lcs-80094	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	1D: 80	094	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis D	ate: 1/	26/2024	S	SeqNo: 37	795559	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	28 2100	5.0	25.00 1000	0	111 214	70 15	130 244			
Sample ID:	lcs-80099	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	ID: 80	099	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis D	ate: 1/	27/2024	S	SeqNo: 37	795560	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	27	5.0	25.00	0	107	70	130			
Surr: BFB		2100		1000		210	15	244			
Sample ID:	mb-80094	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	ID: 80	094	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis D	ate: 1/	26/2024	S	SeqNo: 37	795561	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 990	5.0	1000		98.7	15	244			
Sample ID:	mb-80099	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	1D: 80	099	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis D	ate: 1/	27/2024	S	SeqNo: 37	795562	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		990		1000		99.4	15	244			
Sample ID:	2401893-016ams	SampT	уре: МS	6	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BH12@40	Batch	ID: 80	099	F	RunNo: 1(02745				
Prep Date:	1/25/2024	Analysis D	ate: 1/	30/2024	S	SeqNo: 37	796340	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	110	4.9	24.30	153.7	-196	70	130			S
Surr: BFB		3700		971.8		386	15	244			S
Sample ID:	2401893-016amsd	SampT	уре: МЗ	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BH12@40	Batch	1D: 80	099	F	RunNo: 10	02745				
Prep Date:	1/25/2024	Analysis D	ate: 1/	30/2024	S	SeqNo: 37	796341	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank В
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

Page 53 of 113

WO#:	2401893
	02 E 1 24

03-Feb-24

Client:	HILCORF	PENERG	Y									
Project:	SJ 30 6 31	A										
Sample ID:	2401893-016amsd	SampT	ype: MS	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Range			
Client ID:	BH12@40	Batch	ID: 80	099	F	RunNo: 1()2745					
Prep Date:	1/25/2024	Analysis D	ate: 1/	/30/2024	S	SeqNo: 37	796341	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	e Organics (GRO)	52	4.9	24.34	153.7	-417	70	130	74.3	20	RS	
Surr: BFB		2400		973.7		245	15	244	0	0	S	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

WO#: 2401893 03-Feb-24

Client:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

HILCORP ENERGY

Project:	SJ 30	6 31A									
Sample ID:	LCS-80094	Samp	Гуре: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID:	LCSS	Batc	h ID: 800	094	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis [Date: 1/:	26/2024	S	SeqNo: 37	795615	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.025	1.000	0	93.1	70	130			
Toluene		0.93	0.050	1.000	0	92.8	70	130			
Ethylbenzene		0.95	0.050	1.000	0	94.5	70	130			
Xylenes, Total		2.9	0.10	3.000	0	95.3	70	130			
Surr: 4-Bror	nofluorobenzene	0.93		1.000		92.8	39.1	146			
Sample ID:	LCS-80099	Samp	Гуре: LC	s	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID:	LCSS	Batc	h ID: 80()99	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis [Date: 1/2	27/2024	S	SeqNo: 37	795616	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.025	1.000	0	91.5	70	130			
Toluene		0.92	0.050	1.000	0	91.8	70	130			
Ethylbenzene		0.93	0.050	1.000	0	92.5	70	130			
Xylenes, Total		2.8	0.10	3.000	0	93.4	70	130			
Surr: 4-Bror	nofluorobenzene	0.89		1.000		89.0	39.1	146			
Sample ID:	mb-80094	Samp	SampType: MBLK TestCode: EPA Method 8021B: Volatiles								
Client ID:	PBS	Batc	h ID: 800)94	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis [Date: 1/2	26/2024	S	SeqNo: 37	795617	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bror	nofluorobenzene	0.90		1.000		89.9	39.1	146			
Sample ID:	mb-80099	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID:	PBS	Batc	h ID: 800)99	F	RunNo: 1(02722				
Prep Date:	1/25/2024	Analysis [Date: 1/:	27/2024	S	SeqNo: 37	795618	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Bror	nofluorobenzene	0.89		1.000		88.9	39.1	146			

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

5 % Recovery outside of standard limits. If undifilited results may be estimated

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WO#: 2401893

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Client:

Project:

Client ID:

Prep Date:

Analvte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Client ID:

Prep Date:

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Sample ID: 2401893-017ams

Surr: 4-Bromofluorobenzene

Surr: 4-Bromofluorobenzene

Sample ID: 2401893-017amsd

BH12@45

1/25/2024

BH12@45

1/25/2024

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Result

0.98

1.6

1.0

4.4

0.87

Result

0.65

1.2

0.80

3.1

0.80

SampType: MS

Batch ID: 80099

Analysis Date: 1/27/2024

PQL

0.023

0.046

0.046

0.093

SampType: MSD

Batch ID: 80099

Analysis Date: 1/30/2024

PQL

0.023

0.046

0.046

0.092

SPK value

0.9268

0.9268

0.9268

2.780

0.9268

SPK value

0.9174

0.9174

0.9174

2.752

0.9174

SPK Ref Val

0.09050

0.8066

0.1040

1.741

SPK Ref Val

0.09050

0.8066

0.1040

1.741

HILCORP ENERGY

SJ 30 6 31A

240
03-Fe

RPDLimit

RPDLimit

20

20

20

20

0

03-Feb-24

Qual

Qual

RS

RS R

RS

Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL
- Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- в Analyte detected in the associated Method Blank

TestCode: EPA Method 8021B: Volatiles

LowLimit

70

70

70

70

39.1

TestCode: EPA Method 8021B: Volatiles

LowLimit

70

70

70

70

39.1

Units: mg/Kg

130

130

130

130

146

Units: mg/Kg

130

130

130

130

146

HighLimit

%RPD

%RPD

40.9

28.6

27.4

34.7

0

HighLimit

RunNo: 102722

SeqNo: 3795643

%REC

96.3

89.3

102

96.1

94.3

RunNo: 102745

SeqNo: 3796400

%REC

60.9

45.6

75.5

49.7

87.4

- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Sample pH Not In Range Р
- RL Reporting Limit

1893

Page 56 of 113

Page 57 of 113

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

Sample Log-In Check List

Client Name:	HILCORP E	NERGY	Work	Order Numbe	er: 240	1893			RcptNo:	
Received By:	Tracy Case	arrubias	1/23/20	24 6:30:00 A	м					
Completed By:	Tracy Cas	arrubiae	1/23/20	24 7·28·22 ▲	M					
Deviewed Du	M 1-2	3.71	1120120	24 1.20.22 A						
Reviewed By:	10 10	5.64								
Chain of Cust	odv									
1. Is Chain of Cust	stody compl	ete?			Yes		No	\checkmark	Not Present	
2. How was the s	ample delive	ered?			<u>Cou</u>	rier				
login										
3. Was an attemp	ot made to c	ool the sampl	es?		Yes	\checkmark	No		NA	
4. Were all sampl	es received	at a temperat	ure of >0° C	to 6.0°C	Yes	\checkmark	No		NA 🗌	
5 Sample(s) in n	roper contai	ner(s)?			Ves		No			
o. Oumpic(s) in p	roper contai				103					
6. Sufficient samp	le volume fo	or indicated te	st(s)?		Yes	\checkmark	No			
7. Are samples (e	xcept VOA a	and ONG) pro	perly preserve	∋d?	Yes	\checkmark	No			
8. Was preservati	ve added to	bottles?			Yes		No	\checkmark	NA 🗌	
9. Received at lea	ist 1 vial with	n headspace <	<1/4" for AQ V	/OA?	Yes		No		NA 🗹	
10. Were any sam	ple containe	rs received bi	oken?		Yes		No		<i>II</i> . C	
								_	# of preserved bottles checked	
11. Does paperwor	k match bot	tle labels?			Yes	\checkmark	No		for pH: $(<2 \text{ or } >$	12 (inless noted)
(Note discrepant)	ricles on cha	lin of custouy) tified on Chair	of Custody?		Yes		No		Adjusted?	in amodo notody
3 Is it clear what	analyses we	ere requested	?		Yes	\checkmark	No			[]
14.Were all holdin	g times able	to be met?			Yes	\checkmark	No		Checked by:	L [123/24
(If no, notify cu	stomer for a	uthorization.)								
Special Handli	ng (if app	licable)								
15. Was client not	ified of all di	screpancies v	vith this order	?	Yes		No		NA 🗹	
Person N	Notified:			Date:	1					
By Whor	n: j			Via:	eM	ail 🗌	Phone	Fax	In Person	
Regardir	ng: 🔰									
Client In	structions:	Mailing addre	ss and phone	number are	missina	on CO	C - TMC 1/2	23/24		
16. Additional ren	narks:									
17. Cooler Inform	nation									
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal D	ate	Signed E	Зу		
1	2.1	Good	Yes	Morty						

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X	4:45		BH09 @ 54-56			CON				_			_			
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Released to	hecessary	V, samples su	ibmitted to Hall Environmental may be suit	peontracted to other	accredited laborato	ries. This serves as notice of this	-possibility.	Any sub	contracte	d data wil	be clear	y notated	d on the ar	nalytical re	sport.	

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APPENDIX E

Groundwater Sampling Forms

	Groun	ndwater Sample Col	lection For	m	_	
p Pro	roject Nam ject Numbe	e: <u>San Juan 30-6 Un 31A</u> rr: <u>07A1988062</u>		P	roject Location Sampler:	San Juan County, New Mexico Zach Myers
8	Sample [[Sample Date Laboratory Analyses	D: <u>BHO6</u> e: <u>12/19/2023</u> y: <u>Hall Environmental</u> s: <u>BTEX</u>		Sh	Matrix: Sample Time: ipping Method:	Groundwater 325 Drop-Off w/ Courier
Dep	oth to Water Time	43.01		Total De	Depth of Well: pth to Product:	47.50
Vol. of Wat Method Method o	ter to Purge: of Purging: f Sampling:	Bailer 3x 40mL VOA		(height of w	rater column * 0.1631	for 2" well or 0.6524 for 4" well) * 3 well vols
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us or ms)	Comments
Bog	l		7.07	12.8	5.49	brown-silty no steen us oda-
1315	.5	1.5	7,54	11.7	5.51	SAA
1319	*5	2.0	7.69	11,2	5.58	sAA
1322	.2	2.2	7.73	(1.1	5.57	SAA
Comments:						
Describe I)eviations f	from SOP:	_			
Signature:	2.	hh			Date:	12-19.23

	Groun	ndwater Sample Col	lection For						
Dep Vol. of Wat Method	Project Nam oject Numbe Sample Date Laboratory Analyses oth to Water Time er to Purges of Purging: f Sampling:	e: San Juan 30-6 Un 31A r: $07A1988062$ e: $BH07$ e: $12/19/2023$ r: Hall Environmental s: BTEX : 44.52 : 1330 : $3,65$ Bailer 3x 40mL VOA		P Sh Total De (height of w	roject Location: Sampler: Matrix: Sample Time: ipping Method: Depth of Well: epth to Product:	San Juan County, New Mexico Zach Myers Groundwater 1400 Drop-Off w/ Courier 52.00			
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (₮) <	Conductivity (us or ms)	Comments			
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1343		2	7.82 11.8 4.14 SAA						
1350		3	7.78	11.7	5.01	SAA			
1358	<u> </u>	3.65	779	11.5	5.16	SAA			
						-			
Comments:		6							
Describe I	Deviations f	from SOP:	-						
Signature		M			Date:	12-19-22			

	Groundw	vater Sample Collec	tion Form				
Project Project San La Depth	eet Name: Number: ample ID: uple Date: aboratory: Analyses: to Water: Time:	5) 30-6 MW06 1-31-24 Hall BTEX 43.09 1250	31A	Pro Shi Total De	oject Location: Sampler: Matrix: Sample Time: pping Method: Depth of Well: pth to Product:	Son Juan (usuly NM Groundwater 1308 Drop off y/cours 47.50	
Vol. of Water Method of Method of S	to Purge: f Purging: Sampling:	2.15		(beight of wa	iter column * 0.1631 fi	or 2" well or 0.6524 for 4" well) * 3 well vols	
Time 1255 1360 1304 1306 	Vol. Removed 1 0.5 0.5 0.15	Total Vol. Removed (gallons)	pH (std. units) <u>6.98</u> <u>7.41</u> <u>7.67</u> <u>7.67</u>	Temp. (P)C 12.1 11.3 11.2 10.9	Conductivity (us or 16) 3.70 3.85 4.24 4.13	Comments b.v.m/s.lty, no stem, no c SAA SAA SAA 	de
Comments:	eviations f	from SOP: -					
Signature:	7	hL		_	Date	1-31-24	

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		Groundw	vater Sample Collec	tion Form				
	Pro Projec	ject Name: ct Number: Sample ID:	5.) 30.6 MW07	31 A	Pr	oject Location: Sampler: Matrix:	Sun Jom County NW Zuch Mycz	_
	Sa I	mple Date: .aboratory: Analyses:	H.I. H.I. BIEX		Shi	Sample Time: ipping Method:	1340, lnp off w/ course	-
	Dept	h to Water: Time:	1315		Total De	Depth of Well: pth to Product:	52.00	-
Vol.	of Wate Method lethod of	er to Purge: of Purging: f Sampling:	3.6 installed boil 3x VOA	v	(beight of wa	ater column * 0.1631 f	or 2" well or 0.6524 for 4" well) * 3 well vols	-
	Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp.	Conductivity (us or ms)	Comments	
	320 326	1	1	7.49 7.60	12.2	4.17 4.64	bour/silty ro steen ,	o odu
	337	0.6	3.6	7.69	11.4	5.09 4.98	SAA	
Сол	nments:	/						_
								_
De	scribe I	Deviations l	from SOP:					_
Sig	nature:	7	M			Date	: 1-31-24	_

	Ground	vater Sample Colle	ection Form	2	EN	SOLUM
P Pro S Dep	Project Name: ject Number: Sample ID: Sample Date: Laboratory: Analyses: pth to Water: Time:	San Juan 30-6-31A 07A1988062 MW-08 1/23/2024 Eurofins Albuquerque BTEX \$ 1. 19		_ Pr 	roject Location: Sampler: Matrix: Sample Time: ipping Method: Depth of Well: pth to Product:	San Juan 30-6-31A RH/PA Groundwater U·, Y Hand Delivery \$4.39
Vol. of Wa Method	ater to Purge: d of Purging: of Sampling:	1.57 20 Bailer Bailer	1	(height o	f water column * 0.163	1 for 2" well or 0.6524 for 4" well) * 3 well vols
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp.	Conductivity (us or ()	Comments
1034	0,5	0.15	6.16	12.7	5.63	Mostly clear No sheen adur
1036	0.25	.5	7.05	12.9	5.46	slf. murky ton No 5/0
1039	0.5	1.0	7.37	13.2	5.40	SAA
1041	0.5	1.5	7.47	[3.3	5.40	SAA
1042	0.5	2.0	7.61	13.3	5.39	ma silty SHA
omments:	G oud	recharge				
Describe I	Deviations fro	om SOP:			Date:	1/23/24

	Ground	vater Sample Colle	ection Form	1	EN	SOLUM
P Pro S Dep	Project Name: ject Number: Sample ID: Sample Date: Laboratory: Analyses: pth to Water: Time:	San Juan 30-6-31A 07A1988062 MWDD9 1/23/2024 Eurofins Albuquerque BTEX 49.86	;	- P 	Project Location Sampler Matrix Sample Time hipping Method Depth of Well: epth to Product:	San Juan 30-6-31A RH/PA Groundwater 11:22 Hand Delivery 59.40
Vol. of Wa Method Method o	ater to Purge: d of Purging: of Sampling:	2.22 Barler Barler		(height o	of water column * 0.163	I for 2" well or 0.6524 for 4" well) * 3 well vols
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us or ms)	Comments
/://	0.5	0.5	6.6	12.5	5.71	SILTY Brown N Scan/600
11.13	6.5	1.0	7.18	13.2	5.74	
(1:13	0.5	15	7.33	13.3	5.75	Ý
11:20 0.5 2.0 7.53 13.3 5.75						
				e		
Comments:	re-cl	arged u/ a	clear:sl	h we	ter fa	Samp ling
Describe I	Deviations fr	om SOP:	cll Be	igin to	bai	Dorg @ Zgal
Signature:	_fik				Date: _	1/23/24

	Groundw	vater Sample Colle	ction Form	2	ENS	SOLUM		
Project Name: San Juan 30-6-31A Project Number: 07A1988062 Sample ID: M&ID Sample Date: 1/23/2024 Laboratory: Eurofins Albuquerque Analyses: BTEX				Project Location: San Juan 30-6-31A Sampler: RH/PA Matrix: Groundwater Sample Time: 1200 Shipping Method: Hand Delivery				
Dep	oth to Water: Time:	41.03		Total De	Depth of Well: pth to Product:	48.20		
Vol. of Wa Method Method o	ter to Purge: l of Purging: of Sampling:	3.5 Baller Buller		(height of	water column * 0.163	l for 2" well or 0.6524 for 4" well) * 3 well vols		
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us o ms)	Comments		
11.45	1.0	1.0	6.12	12.0	5.25	Brown Sitty No oder/Seen		
[1:5]	1.0	2.0	7.21	12.8	5.26	SAA		
11:55	0.5	2.5	7.56	12.8	5.28	SAA		
11:57	0.5	3.0	7.66	12.8	5.27	Sight less Silty SAA		
11:58	05	35	7.69	12.7	5.28	SAA		
				B		· · · ·		
		÷ * * *				· · · · · · · · · · · · · · · · · · ·		
			1					
						,		
Comments:								
Describe l	Deviations fr	rom SOP:			-			
Signature:								

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Groundwater Sample Collection Form									
Pr Proj S Dep	roject Name: ect Number: Sample ID: ample Date: Laboratory: Analyses: oth to Water: Time:	San Juan 30-6-31A 07A1988062 MWII 1/23/2024 Eurofins Albuquerque BTEX UI.36 (Z:15		Project Location: San Juan 30-6-31A Sampler: RH/PA Matrix: Groundwater Sample Time: 1235 Shipping Method: Hand Delivery Total Depth of Well: 49.70 Depth to Product:					
Vol. of Wa Method Method o	ter to Purge: l of Purging: of Sampling:	4.08 Buller Baller		(height of	water column * 0.1631	for 2" well or 0.6524 for 4" well) * 3 well vols			
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivity (us or ms)	Comments			
12:18	1.0	0.]	6.34	12.5	4.78	Brown Silty NO SO			
12:21	1.0	2.0	7.18	12.8	4.75	SAA			
12:24	1.0	3.0	7.57	13.1	4.75	SAA			
12:30	1.0	4.0	7.73	3.1	4.75				
		1. * 0							
Comments:									
Describe Deviations from SOP:									
Signature	Signature:								

	Groundy	vater Sample Colle	ection Forn		EN	S C	L	UM
Pr Proj	roject Name: ect Number:	Project Location: San Juan 30-6-31A Sampler: PA						
S	Sample ID: Sample Date: Laboratory: Analyses:	Matrix: Groundwater Sample Time: 1335 Shipping Method: Hand Delivery						
Dep Vol. of Wa	oth to Water: Time:	<u>9392</u> <u>1320</u> 9.2 aut		Total De	Depth of Well: pth to Product:	<u> </u>	50	
Method Method of	of Purging: of Sampling:	Bailer Grab		(height of w	vater column • 0.1631	for 2" well or	0.6524 for 4	weil) ^a 5 weil ton
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)		Comme	its LOS/
	1.0	1.0	6.98	57.6	5.25	first	buller Silty	Brown
	0.5	1.5	6.96	56.4	5.24	51	Nose	bour
	0.5	2.0	6.97	56.5	5.12	ARC T	1.0	and the
	0.25	2.25	6.97	56.8	5.09		V	41
					Altonia da	S. James		
					b			X
			a tizz	i interest of the				1. in.
			٠		· K.J.		k	
					and the second s	de.		
				3. Stand				and the second
omments:	/							
Describe D	eviations fro	om SOP:	/				10	
Signature: _	PA				Date:	5/0	\$ /20	1

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	Groundw	vater Sample Collec	tion Form	2	EN :	SOLUM		
Project Name: San Juan 30-6-31A Project Number: 07A1988062 Sample ID: MW07 Sample Date: 5/8/2024 Laboratory: Eurofins Albuquerque Analyses: BTEX				Project Location: San Juan 30-6-31A Sampler: PA Matrix: Groundwater Sample Time: 15 15 Shipping Method: Hand Delivery				
Vol. of Wa Method Method	ter to Purge: of Purging: of Sampling:	3.6gul Bailer Grab		Total I Dep (height of w	Depth of Well: oth to Product:	52.00		
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms))	Comments		
	1.0	1	7.25	57.4	5.10			
	1.0	2	6.99	560)	5.06			
	1.0	3	7.13	55.g	4.99	2-8		
	05	35	7.05	560	4.92	Contraction of the second		
	0.25	3.75	7.07	55.8	4.90			
_	0,25	RA						
					n here a			
				140				
						-		
			5. *		e .			
Comments				a	<i>a</i>			
Describe	Deviations f	rom SOP:						
Signature	:f	A		- 81	Date	5/8/24		

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	Ground	water Sample Collec	ction Form	2	ENS	SOLUM		
P Proj S Dep	roject Name: ject Number: Sample ID: Sample Date: Laboratory: Analyses: oth to Water: Time:	$\frac{\text{San Juan 30-6-31A}}{\text{O7A 1988062}}$ $\frac{MWO8}{5/8/2024}$ Eurofins Albuquerque BTEX $\frac{51.13}{1130}$	2	Project Location: San Juan 30-6-31A Sampler: PA Matrix: Groundwater Sample Time: J20 Shipping Method: Hand Delivery Total Depth of Well: 54.39 Depth to Product:				
Vol. of Wat Method Method o	ter to Purge: of Purging: of Sampling:	<u> -6 ga </u> Bailer Grab		(height of w	ater column * 0.1631 f	or 2" well or 0.6524 for 4" well) * 3 well vols		
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments		
	0.25	0.25	6.21	61.1	5,48	Some Silts		
1. (CT)-	0,25	0.5	6.70	58.1	5.39	SAA		
	0.25	0.75	6.83	57.2	5.44	SAA		
	0.25	1.6	9.4	57.0	5,42			
	0.5	1.5	6.97	56.4	5.41			
	0.25	1.75	6,99	56.1	5.39			
	0.2	1.95	7.00	55.8	5.42			
						the Chip		
					.47	1		
omments:	/				4	ings.		
Describe I	Deviations fi	rom SOP:						
Signature: Date: 5824								

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	Grounds	vater Sample Colle	ction Form		EN	SOI	. U M	
Project Name: San Juan 30-6-31A Project Number: 07A1988062 Sample ID: MWO Q Sample Date: 5/8/2024 Laboratory: Eurofins Albuquerque Analyses: BTEX Depth to Water: 49,82				Project Location: San Juan 30-6-31A Sampler: PA Matrix: Groundwater Sample Time: 1230 Shipping Method: Hand Delivery				
Vol. of Wa Method Method o	Time: ter to Purge: of Purging: of Sampling:	1210 2.25 ghl Bailer Grab		De (height of w	nter column * 0.1631	for 2" well or 0.6524	for 4* well) * 3 well vols	
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments		
	0.5	0.5	6.66	56.9	6.57	NO S/C SILty	Brown	
	0.5	1.0	6.93	56.1	5.90	SK	A	
	0.5	1.5	7.03	56.0	5.88		P.o.	
	0.5	2.0	7.05	56.2	5.88		The su	
	6,25	2.25	7.09	56.3	5.88		Ast of	
			ł	5	n -	2 2	- b	
					a the second			
			1.1			a ka		
		, SA					- 24	
Comments				*		1 1 1		
	l Devietione f	rom SOB:	n			4 %. 1 %.	1	
Describe	Deviations fi		\nearrow			-16	hu	
Signature:	U				Date:	>/8	169	

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A MARCE
P Proj	roject Name: ject Number:	San Juan 30-6-31A 07A1988062		Pr	oject Location: Sampler:	San Juan 30-6-31A PA
5	Sample ID: Sample Date: Laboratory: Analyses:	5/8/2024 Eurofins Albuquerque BTEX	9	Shi	Matrix: Sample Time: pping Method:	Groundwater 305 Hand Delivery
Dep	oth to Water: Time:	40.98		Total De	Depth of Well: pth to Product:	48.20
. of Wa Method lethod o	ter to Purge: l of Purging: of Sampling:	<u>3.5</u> gan Bailer Grab	a	(height of v	vater column * 0.1631 f	or 2" well or 0.6524 for 4" well) * 3 well ve
Гіте	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us orms)	Comments
2	1.0	1.0	7.3	57.0	5.22	NO SIO Some Silts Ba
	1.0	2.0	7.0	56.2	5.29	SAA
	1.0	3.0	7.03	563	5.25	
4	0.5	3.5	7.02	55.9	5.28	
d		ы а) ^{та}	en stille		And the second second	
		and the second s	Bell	1		
	1			Stand		
		14/1 /	122			
1			la la	h.	S.C.	
. 2		All Control	 1 2 1 			
nments	/				σ	

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	Groundw	vater Sample Colle	ction Forn		EN	SOLUM
Pr Proj S Dep	roject Name: ect Number: Sample ID: ample Date: Laboratory: Analyses: oth to Water: Time:	San Juan 30-6-31A 07A1988062 MWW 5/8/2024 Eurofins Albuquerque BTEX 41.40 13 50	8	_ Pr 	roject Location: Sampler: Matrix: Sample Time: ipping Method: Depth of Well: epth to Product:	San Juan 30-6-31A PA Groundwater 1910 Hand Delivery 49.70
Vol. of Wa Method Method c	ter to Purge: of Purging: of Sampling:	4.0 Bailer Grab		(height of t	water column * 0.1631 f	for 2" well or 0.6524 for 4" well) * 3 well vols
Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Comments
-	1.6	70-1.0	7.00	576	4.80	NO S/O Brity Booma
	1.0	2.0	6.95	56.4	4.79	SAA
	1.0	3.0	6.98	567	4.78	ig in
	1.0	4.0	6.96	56.5	4.75	- V-
				6 (m ⁻¹ 4)6	- Arce	
			e Se	2		
Comments:						
Describe D	eviations fro	om SOP:				1.2.
Signature:	RF			-	Date:	5/8/24



APPENDIX F

Groundwater Sample Laboratory Analytical Reports

Released to Imaging: 7/30/2024 12:29:25 PM



Environment Testing

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

December 29, 2023

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

RE: San Juan 30 6 UN 31A

OrderNo.: 2312C49

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 2 sample(s) on 12/21/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 2312C49

Date Reported: 12/29/2023

CLIENT: HILCORP ENERGY		Client Sa	ample ID:	: BH06	
Project: San Juan 30 6 UN 31A		Collect	ion Date:	: 12/19/	/2023 1:25:00 PM
Lab ID: 2312C49-001	Matrix: AQUEOUS	Recei	ved Date:	: 12/21/	/2023 6:40:00 AM
Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	140	2.0	µg/L	2	12/27/2023 4:04:20 PM
Toluene	ND	2.0	µg/L	2	12/27/2023 4:04:20 PM
Ethylbenzene	21	2.0	µg/L	2	12/27/2023 4:04:20 PM
Xylenes, Total	51	4.0	µg/L	2	12/27/2023 4:04:20 PM
Surr: 4-Bromofluorobenzene	95.2	52.4-148	%Rec	2	12/27/2023 4:04:20 PM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 2312C49

Date Reported: 12/29/2023

CLIENT: HILCORP ENERGY		Clie	nt Sai	nple ID:	: BH07	
Project: San Juan 30 6 UN 31A		Co	ollecti	on Date:	: 12/19/	/2023 2:00:00 PM
Lab ID: 2312C49-002	Matrix: AQUEOUS	R	leceiv	ed Date:	: 12/21	/2023 6:40:00 AM
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	2.0	D	µg/L	2	12/27/2023 4:28:02 PM
Toluene	ND	2.0	D	µg/L	2	12/27/2023 4:28:02 PM
Ethylbenzene	ND	2.0	D	µg/L	2	12/27/2023 4:28:02 PM
Xylenes, Total	ND	4.0	D	µg/L	2	12/27/2023 4:28:02 PM
Surr: 4-Bromofluorobenzene	93.5	52.4-148	D	%Rec	2	12/27/2023 4:28:02 PM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н

- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Client:

Project:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

HILCORP ENERGY

San Juan 30 6 UN 31A

Released to	Imaging:	7/30/2024	12:29:25 1	PM

Sample ID: 100ng btex lcs	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	es		
Client ID: LCSW	Batcl	n ID: BA	102084	F	RunNo: 1(02084				
Prep Date:	Analysis E	Date: 12	/27/2023	S	SeqNo: 37	768109	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.0	70	130			
Toluene	18	1.0	20.00	0	92.4	70	130			
Ethylbenzene	19	1.0	20.00	0	93.4	70	130			
Xylenes, Total	56	2.0	60.00	0	93.5	70	130			
Surr: 4-Bromofluorobenzene	19		20.00		95.1	52.4	148			
Sample ID: mb	SampT	уре: МВ	LK	Tes	tCode: EF	PA Method	8021B: Volati	es		
Sample ID: mb Client ID: PBW	Samp1 Batcl	ype: MB	6LK 102084	Tes F	tCode: EF RunNo: 10	PA Method)2084	8021B: Volatil	les		
Sample ID: mb Client ID: PBW Prep Date:	SampT Batcl Analysis [⁻ ype: MB n ID: BA Date: 12	8LK 102084 /27/2023	Tes F	tCode: EF RunNo: 10 SeqNo: 37	PA Method 02084 768110	8021B: Volatil Units: μg/L	les		
Sample ID: mb Client ID: PBW Prep Date: Analyte	SampT Batcl Analysis I Result	Type: MB n ID: BA Date: 12 PQL	6LK 102084 /27/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 02084 768110 LowLimit	8021Β: Volati l Units: μ g/L HighLimit	l es %RPD	RPDLimit	Qual
Sample ID: mb Client ID: PBW Prep Date: Analyte Benzene	SampT Batcl Analysis I Result ND	⁻ ype: MB n ID: BA Date: 12 PQL 1.0	SLK 102084 /27/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 02084 768110 LowLimit	8021B: Volatil Units: μg/L HighLimit	l es %RPD	RPDLimit	Qual
Sample ID: mb Client ID: PBW Prep Date: Analyte Benzene Toluene	SampT Batcl Analysis I Result ND ND	Type: MB n ID: BA Date: 12 PQL 1.0 1.0	SLK 102084 /27/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 1(SeqNo: 37 %REC	PA Method 02084 768110 LowLimit	8021B: Volatil Units: μg/L HighLimit	les %RPD	RPDLimit	Qual
Sample ID: mb Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene	Samp Batcl Analysis I Result ND ND ND	Type: MB n ID: BA Date: 12 PQL 1.0 1.0 1.0	SLK 102084 /27/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 1(SeqNo: 37 %REC	PA Method 02084 768110 LowLimit	8021Β: Volatil Units: μ g/L HighLimit	%RPD	RPDLimit	Qual
Sample ID: mb Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	SampT Batcl Analysis I Result ND ND ND ND	Type: MB n ID: BA Date: 12 PQL 1.0 1.0 1.0 2.0	SLK 102084 /27/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 1(SeqNo: 37 %REC	PA Method 02084 768110 LowLimit	8021Β: Volatil Units: μ g/L HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

WO#: 2312C49 29-Dec-23

eu	rofi	ns

Page 80 of 113

Eurofins Environment Testing South Environment Testin 4901 Hawkins NE

Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Central, LLC

Sample Log-In Check List

Client Name: HILCORP EI	VERGY Work Order N	umber: 2312C49		RcptNo: 1
Received By: Tracy Casa	rrubias 12/21/2023 6:40):00 AM		
Completed By: Tracy Casa	rrubias_ 12/21/2023 11:1	15:34 AM		
Reviewed By: SCM	2/21/23			
Chain of Custody			_	_
1. Is Chain of Custody comple	te?	Yes 🗌	No 🗹	Not Present
2. How was the sample delive	red?	<u>Courier</u>		
<u>Log In</u>		_		
Was an attempt made to co	ol the samples?	Yes 🗹	No	NA
4. Were all samples received a	t a temperature of >0° C to 6.0°C	Yes 🗹	No 🗌	
5. Sample(s) in proper contain	er(s)?	Yes 🗹	No 🗌	
5. Sufficient sample volume for	indicated test(s)?	Yes 🗹	No 🗌	
7. Are samples (except VOA a	nd ONG) properly preserved?	Yes 🗹	No 🗌	
Was preservative added to I	oottles?	Yes	No 🗹	NA 🗌
9. Received at least 1 vial with	headspace <1/4" for AQ VOA?	Yes 🗹	No 🗌	
0. Were any sample container	s received broken?	Yes	No 🗹	# of preserved
1. Does paperwork match bottl (Note discrepancies on chai	e labels? n of custody)	Yes 🗹	No 🗌	bottles checked for pH: (<2 or >12 unless noted)
2. Are matrices correctly identi	fied on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?
3. Is it clear what analyses wer	e requested?	Yes 🗹	No	An 12/21/2
 Were all holding times able (If no, notify customer for au 	to be met? thorization.)	Yes ⊻	No 🗌	Checked by: port of 21 2
pecial Handling (if appl	icable)			
5. Was client notified of all dis	crepancies with this order?	Yes	No 🗌	NA 🗹
Person Notified:	D	late:		
By Whom:	V	'ia: 🗌 eMail 🗌 P	hone 🗌 Fax	In Person
Regarding:				
Client Instructions:	Mailing address.phone number and	Email/Fax are missin	a on COC- TM	C 12/21/23
16. Additional remarks:				
7. Cooler Information				
Cooler No Temp °C	Condition Seal Intact Seal N	lo Seal Date	Signed By	

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	If necessary, samples submitted to Hall Environmental may be-subcontracted to other accreation taboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	Time: Relinquished by:	Received by:	Via:Coune	- Date Time [2/21/23 6:40		N N	Z C)	, 							

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Environment Testing

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

January 30, 2024

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

RE: San Juan 30 6 31A

OrderNo.: 2401944

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 4 sample(s) on 1/24/2024 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

Analytical Report
Lab Order 2401944

1/25/2024 12:37:41 AM

1/25/2024 12:37:41 AM

1/25/2024 12:37:41 AM

Hall Environmental Analysis Laboratory, Inc.

Lab Order 2401944

Date Reported:	1/30/2024

CLIENT: H	HILCORP ENERGY		Clie	ent Sar	nple ID	: MW0	8
Project: S	San Juan 30 6 31A		С	ollecti	on Date	: 1/23/2	2024 10:45:00 AM
Lab ID: 2	2401944-001	Matrix: GROUNDWA	. 1	Receiv	ed Date	: 1/24/2	2024 7:15:00 AM
Analyses		Result	RL	Qual	Units	DF	Date Analyzed
EPA METH	OD 8021B: VOLATILES						Analyst: JJP
Benzene		ND	2.0) D	µg/L	2	1/25/2024 12:37:41 AM
Toluene		ND	2.0	D	µg/L	2	1/25/2024 12:37:41 AM

ND

ND

83.3

2.0

4.0 D

52.4-148

D

D

µg/L

µg/L

%Rec

2

2

2

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range RL Reporting Limit
- RL R

Page 1 of 5

Surr: 4-Bromofluorobenzene

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 2401944

Date Reported: 1/30/2024

1/25/2024 1:01:44 AM

CLIENT: HILCORP ENERGY		Client S	Sample ID	: MW0	9
Project: San Juan 30 6 31A		Collec	ction Date	: 1/23/2	024 11:22:00 AM
Lab ID: 2401944-002	Matrix: GROUND	WA Rece	ived Date	: 1/24/2	024 7:15:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	1.0	µg/L	1	1/25/2024 1:01:44 AM
Toluene	ND	1.0	µg/L	1	1/25/2024 1:01:44 AM
Ethylbenzene	ND	1.0	µg/L	1	1/25/2024 1:01:44 AM
Xylenes, Total	ND	2.0	µg/L	1	1/25/2024 1:01:44 AM

86.4

52.4-148

%Rec

1

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н

- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 2 of 5

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Surr: 4-Bromofluorobenzene

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 2401944

Date Reported: 1/30/2024

1/24/2024 5:05:48 PM

CLIENT: HILCORP ENERGY		Client S	ample ID	: MW10)
Project: San Juan 30 6 31A		Collec	tion Date	: 1/23/2	024 12:00:00 PM
Lab ID: 2401944-003	Matrix: GROUND	WA Rece	ived Date	: 1/24/2	024 7:15:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	1.0	µg/L	1	1/24/2024 5:05:48 PM
Toluene	ND	1.0	µg/L	1	1/24/2024 5:05:48 PM
Ethylbenzene	ND	1.0	µg/L	1	1/24/2024 5:05:48 PM
Xylenes, Total	ND	2.0	µg/L	1	1/24/2024 5:05:48 PM

83.3

52.4-148

%Rec

1

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

- D н
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range Reporting Limit
- RL

Page 3 of 5

Xylenes, Total

Surr: 4-Bromofluorobenzene

Hall Environmental Analysis Laboratory, Inc.

Analytical Report Lab Order 2401944

1/24/2024 5:29:31 PM

1/24/2024 5:29:31 PM

Date Reported: 1/30/2024

CLIENT: HILCORP ENERGY		Client Sa	ample ID	: MW1	1
Project: San Juan 30 6 31A		Collect	tion Date	: 1/23/2	2024 12:35:00 PM
Lab ID: 2401944-004	Matrix: GROUNDWA	A Receiv	ved Date	: 1/24/2	2024 7:15:00 AM
Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	1.0	µg/L	1	1/24/2024 5:29:31 PM
Toluene	ND	1.0	µg/L	1	1/24/2024 5:29:31 PM
Ethylbenzene	ND	1.0	µg/L	1	1/24/2024 5:29:31 PM

ND

85.2

2.0

52.4-148

µg/L

%Rec

1

1

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н

- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 4 of 5

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*

Client:

Project:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

HILCORP ENERGY

San Juan 30 6 31A

Sample ID:	2401944-001ams	Samp	Туре: МS	i	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	MW08	Batc	h ID: BW	/102647	F	RunNo: 1(02647				
Prep Date:		Analysis I	Date: 1/2	25/2024	Ş	SeqNo: 37	792812	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		35	2.0	40.00	0.4000	86.1	70	130			D
Toluene		35	2.0	40.00	0	88.4	70	130			D
Ethylbenzene		36	2.0	40.00	0	89.3	70	130			D
Xylenes, Total		110	4.0	120.0	0.6920	88.8	70	130			D
Surr: 4-Bron	nofluorobenzene	36		40.00		89.0	52.4	148			D
Sample ID:	2401944-001amsd	Samp	Type: MS	D	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	MW08	Batc	h ID: BW	/102647	F	RunNo: 1(02647				
Prep Date:		Analysis I	Date: 1/2	25/2024	5	SeqNo: 37	792813	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		34	2.0	40.00	0.4000	83.1	70	130	3.45	20	D
Toluene		34	2.0	40.00	0	85.4	70	130	3.48	20	D
Ethylbenzene		35	2.0	40.00	0	86.6	70	130	3.08	20	D
Xylenes, Total		110	4.0	120.0	0.6920	87.6	70	130	1.31	20	D
Surr: 4-Bron	nofluorobenzene	35		40.00		87.6	52.4	148	0	0	D
Sample ID:	100ng btex lcs	Samp	Туре: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Sample ID: Client ID:	100ng btex lcs LCSW	Samp ⁻ Batc	Type: LC h ID: BW	S /102647	Tes F	tCode: EF RunNo: 1 (PA Method 02647	8021B: Volati	les		
Sample ID: Client ID: Prep Date:	100ng btex Ics LCSW	Samp ⁻ Batc Analysis I	Type: LC h ID: BW Date: 1/ 2	S /102647 24/2024	Tes F	stCode: EF RunNo: 10 SeqNo: 37	PA Method 02647 792819	8021Β: Volati Units: μg/L	les		
Sample ID: Client ID: Prep Date: Analyte	100ng btex Ics LCSW	Samp Batc Analysis I Result	Type: LC h ID: BW Date: 1/ 2 PQL	S /102647 24/2024 SPK value	Tes F SPK Ref Val	stCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 02647 792819 LowLimit	8021Β: Volati Units: μg/L HighLimit	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene	100ng btex lcs LCSW	Samp Batc Analysis I Result 18	Type: LC h ID: BW Date: 1/2 PQL 1.0	S /102647 24/2024 SPK value 20.00	Tes F SPK Ref Val 0	atCode: EF RunNo: 10 SeqNo: 37 %REC 90.9	PA Method 02647 792819 LowLimit 70	8021Β: Volati Units: μg/L HighLimit 130	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	100ng btex lcs LCSW	Samp Batc Analysis I Result 18 18	Type: LC h ID: BW Date: 1/ PQL 1.0 1.0	S /102647 24/2024 SPK value 20.00 20.00	Tes F SPK Ref Val 0 0	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2	PA Method 02647 792819 LowLimit 70 70	8021B: Volati Units: μg/L HighLimit 130 130	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	100ng btex lcs LCSW	Samp Batc Analysis I Result 18 18 18	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0	S 24/2024 SPK value 20.00 20.00 20.00	Tes F SPK Ref Val 0 0 0 0	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2 92.2	PA Method D2647 792819 LowLimit 70 70 70 70	8021Β: Volati Units: μg/L HighLimit 130 130 130	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	100ng btex lcs LCSW	Samp Batc Analysis I Result 18 18 18 18 56	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0	S 24/2024 SPK value 20.00 20.00 20.00 60.00	Tes F SPK Ref Val 0 0 0 0 0	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2 92.2 92.8	PA Method D2647 792819 LowLimit 70 70 70 70 70	8021B: Volati Units: μg/L HighLimit 130 130 130 130	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	100ng btex lcs LCSW	Samp Batc Analysis I Result 18 18 18 18 56 18	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 2.0	S 24/2024 SPK value 20.00 20.00 20.00 60.00 20.00	Tes F SPK Ref Val 0 0 0 0 0	etCode: EF RunNo: 10 SeqNo: 37 <u>%REC</u> 90.9 91.2 92.2 92.8 91.2	PA Method 22647 792819 LowLimit 70 70 70 70 70 70 70 52.4	8021B: Volati Units: µg/L HighLimit 130 130 130 130 148	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	100ng btex lcs LCSW	Samp Batc Analysis I Result 18 18 18 56 18 56 18	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME	S 24/2024 29K value 20.00 20.00 20.00 60.00 20.00 80.K	Tes SPK Ref Val 0 0 0 0 0 Tes	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2 92.2 92.8 91.2 91.2	PA Method 22647 792819 LowLimit 70 70 70 70 70 52.4 PA Method	8021B: Volati Units: µg/L HighLimit 130 130 130 130 148 8021B: Volati	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID:	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 56 18 Samp Batc	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME h ID: BW	S 24/2024 29/2024 20.00 20.00 20.00 60.00 20.00 60.00 20.00	Tes F SPK Ref Val 0 0 0 0 Tes F	stCode: EF RunNo: 10 SeqNo: 37 90.9 91.2 92.2 92.8 91.2 91.2 92.8 91.2 92.8 91.2 92.8 91.2	PA Method 22647 792819 LowLimit 70 70 70 70 70 70 70 70 70 70	8021B: Volati Units: µg/L HighLimit 130 130 130 130 148 8021B: Volati	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date:	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 56 18 Samp Batc Analysis I	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME h ID: BW Date: 1/2	S 24/2024 29/X value 20.00 20.00 20.00 60.00 20.00 50LK 20/2024	Tes SPK Ref Val 0 0 0 0 0 Tes F	etCode: EF RunNo: 10 SeqNo: 37 90.9 91.2 92.2 92.8 91.2 etCode: EF RunNo: 10 SeqNo: 37	PA Method 22647 792819 LowLimit 70 70 70 70 70 70 70 70 70 70	8021B: Volati Units: μg/L HighLimit 130 130 130 130 148 8021B: Volati Units: μg/L	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 56 18 56 18 Samp Batc Analysis I Result	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME h ID: BW Date: 1/2 PQL	S 24/2024 24/2024 20.00 20.00 20.00 60.00 20.00 5LK 7102647 24/2024 SPK value	Tes F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2 92.2 92.8 91.2 92.8 91.2 stCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method D2647 792819 LowLimit 70 70 70 70 52.4 PA Method D2647 792820 LowLimit	8021B: Volati Units: μg/L HighLimit 130 130 130 130 148 8021B: Volati Units: μg/L HighLimit	les %RPD les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 18 56 18 56 18 Samp Batc Analysis I Result ND	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME h ID: BW Date: 1/2 PQL 1.0	S 24/2024 SPK value 20.00 20.00 20.00 60.00 20.00 60.00 20.00 5LK 24/2024 SPK value	Tes SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2 92.2 92.8 91.2 etCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 22647 792819 LowLimit 70 70 70 70 52.4 PA Method 22647 792820 LowLimit	8021B: Volati Units: μg/L HighLimit 130 130 130 130 148 8021B: Volati Units: μg/L HighLimit	les %RPD les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 18 56 18 56 18 Samp Batc Analysis I Result ND ND	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME h ID: BW Date: 1/2 PQL 1.0 1.0	S 24/2024 SPK value 20.00 20.00 20.00 60.00 20.00 60.00 20.00 5LK 24/2024 SPK value	Tes SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	etCode: EF RunNo: 10 SeqNo: 37 %REC 90.9 91.2 92.2 92.8 91.2 etCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 22647 792819 LowLimit 70 70 70 70 52.4 PA Method 22647 792820 LowLimit	8021B: Volati Units: μg/L HighLimit 130 130 130 130 148 8021B: Volati Units: μg/L HighLimit	les %RPD les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 56 18 56 18 Samp Batc Analysis I Result ND ND ND ND	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0 Type: ME h ID: BW Date: 1/2 PQL 1.0 1.0 1.0	S 24/2024 SPK value 20.00 20.00 20.00 60.00 20.00 60.00 20.00 60.00 20.00 50.00 20.00 80.00 20.00	Tes SPK Ref Val 0 0 0 0 Tes SPK Ref Val	etCode: EF RunNo: 10 SeqNo: 37 90.9 91.2 92.2 92.8 91.2 etCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 22647 792819 LowLimit 70 70 70 70 70 52.4 PA Method 22647 792820 LowLimit	8021B: Volati Units: μg/L HighLimit 130 130 130 130 148 8021B: Volati Units: μg/L HighLimit	les %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	100ng btex lcs LCSW nofluorobenzene mb PBW	Samp Batc Analysis I Result 18 18 18 56 18 Samp Batc Analysis I Result ND ND ND ND ND	Type: LC h ID: BW Date: 1/2 PQL 1.0 1.0 2.0 Type: ME h ID: BW Date: 1/2 PQL 1.0 1.0 1.0 2.0	S 24/2024 27/2024 20.00 20.00 20.00 20.00 60.00 20.00 5LK 20.00 20.0	Tes SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	etCode: EF RunNo: 10 SeqNo: 37 90.9 91.2 92.2 92.8 91.2 etCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 2647 792819 LowLimit 70 70 70 70 52.4 PA Method 2647 792820 LowLimit	8021B: Volati Units: μg/L HighLimit 130 130 130 148 8021B: Volati Units: μg/L HighLimit	les %RPD les %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 5

WO#: 2401944

30-Jan-24

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Page 88 of 113

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

Sample Log-In Check List

W 603	ne. www.nunenvironmeniai.			
Client Name: Hilcorp Energy Work Ord	er Number: 2401944		RcptNo: 1	
Received By: Tracy Casarrubias 1/24/2024 7	:15:00 AM			
Completed By: Tracy Casarrubias 1/24/2024 8	:42:34 AM			
Reviewed By: 7~ 124 24				
Chain of Custody	_	_	_	
1. Is Chain of Custody complete?	Yes	No 🗹	Not Present	
2. How was the sample delivered?	Courier			
Log In				
Was an attempt made to cool the samples?	Yes 💌			
4. Were all samples received at a temperature of >0° C to 6.	0°C Yes 🗹	No 🗌		
5. Sample(s) in proper container(s)?	Yes 🗹	No 🗌		
6. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ONG) properly preserved?	Yes 🔽	No 🗌		
8. Was preservative added to bottles?	Yes 🗋	No 🗹	NA 🗌	
9. Received at least 1 vial with headspace <1/4" for AQ VOA	Yes 🗹	No 🗌		
10. Were any sample containers received broken?	Yes	No 🗹	# of preserved	
11.Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗌	for pH: (<2 pr >12 unless note	ed)
2. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?	r
[3] Is it clear what analyses were requested?	Yes 🔽	No 🗌	RIM I	241
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No	Checked by JUVI 1	<u> </u>
<u>Special Handling (if applicable)</u>				
15. Was client notified of all discrepancies with this order?	Yes	No 🗌	NA 🔽	
Person Notified:	Date:			
By Whom:	Via: 🗌 eMail 🗌 P	hone 🗌 Fax	In Person	
Regarding:				
Client Instructions: Mailing address and phone num	ber are missing on COC-	TMC 1/24/24		
16. Additional remarks:				
17. <u>Cooler Information</u> Cooler No Temp °C Condition Seal Intact Se	al No Seal Date	Signed By		
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Chain-of-Custody Record	Turn-Around	Time: 1/5	75/24			I				RC	<b>N</b> N	1EI	E	AL	
Client: 1+: Core	□ Standard	🕅 Rush Ne	Xt Day			A	A	XS	IS	4	BO	R	6	RY	
Atta: Kate Karpon	Project Name					ž	w.ha	llenvii	onmo	ental.	ШO				
Mailing Address:	san Je	1×1 30-6	なろいみ	4	901 H	awkins	ШN	- Albu	rauer	que, Ì	<b>VM 87</b>	109			
	Project #:			Ч	el. 50	5-345	3975	Ш.	ax 5(	5-34	5-4107	2			
Phone #:								Analy	sis R	edue:	st				
email or Fax#: KKar Franc OK: 1 corp. U	کم Project Mane	ger: start	1tule	(L) (O)				*O5		(tue	(2116				
QA/QC Package:	lion)	-	· →	208) <del>2</del> 7M \ O	PCB's	50050		PO4, §							
Accreditation:	Sampler: ¹ 7¢ On Ice	M Las Son M	Pek Andry Sa	0 \ DB	2808\a	(1.40		ʻ ^z ON		Preser					
	# of Coolers:		finh	ਤ9) ਤਬ	səpi	g pc	slate	⁸ ON	(	ο Δ		5	-		
	Cooler Temp	(including CF): 1. 4 - 0.	1= 1.3 (°C)	TM TM	estic	letpo	9W 8	3r, 1	AO/	iməč	0.110				
	Container	Preservative	HEAL No.		9 180	N) 80		I 'H ,I	<b>\)</b> 097	2) 072 2) leto					
Date Time Matrix Sample Name	I ype and #	I ype	101744	8	8	ы Э	Я	0	8	1	1	t		_	
1412 10:45 CW 11.000	3 VoA	( ) of )	001	<						-					
60mw 22:11			200	X			_						-	_	
11:00 MM 10			C03	$\times$		2									
1 1235 V MUL	ł	*	004	X			-			-		1	-		
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Date: Time: Relinquished by:	Received by:	Via:	Date Time	Remar	ks:	4	- <u>S</u> - S	pole	2	Ś	24	5	ت	5	
Date: Time: Relinquished by:	Received by:	Via:COUNCY	Date Time		ר ע	-	50	200	5		-				
If necessary, samples submitted to Hall Environmental may	y be subcontracted to other	accredited laboratories. Th	his serves as notice of this	s possibility	. Any su	b-contra	cted da	a will be	clearly	notated	on the a	nalytica	I report.		

Released to Imaging: 7/30/2024 12:29:25 PM



Environment Testing

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

February 14, 2024 Mitch Killough HILCORP ENERGY PO Box 4700 Farmington, NM 87499 TEL: (505) 564-0733 FAX:

RE: San Juan 30 6 31A

OrderNo.: 2402012

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 2 sample(s) on 2/1/2024 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

**Analytical Report** Lab Order 2402012

Date Reported: 2/14/2024

CLIENT: HILCORP ENERGY		Client Sa	ample ID:	: MW0	6
<b>Project:</b> San Juan 30 6 31A		Collect	tion Date:	: 1/31/2	2024 1:08:00 PM
Lab ID: 2402012-001	Matrix: AQUEOUS	Recei	ved Date:	2/1/20	024 6:55:00 AM
Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	140	2.0	µg/L	2	2/6/2024 5:47:45 PM
Toluene	ND	2.0	µg/L	2	2/6/2024 5:47:45 PM
Ethylbenzene	18	2.0	µg/L	2	2/6/2024 5:47:45 PM
Xylenes, Total	16	4.0	µg/L	2	2/6/2024 5:47:45 PM
Surr: 4-Bromofluorobenzene	93.2	52.4-148	%Rec	2	2/6/2024 5:47:45 PM

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

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- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

*

Hall Environmental Analysis Laboratory, Inc.

**Analytical Report** Lab Order 2402012

Date Reported: 2/14/2024

CLIENT: HILCORP ENERGY		Clier	nt Sar	nple ID:	MW0	7
<b>Project:</b> San Juan 30 6 31A		Co	llectio	on Date:	1/31/2	024 1:40:00 PM
Lab ID: 2402012-002	Matrix: AQUEOUS	R	eceiv	ed Date:	2/1/20	24 6:55:00 AM
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	2.0	D	µg/L	2	2/6/2024 6:11:39 PM
Toluene	ND	2.0	D	µg/L	2	2/6/2024 6:11:39 PM
Ethylbenzene	ND	2.0	D	µg/L	2	2/6/2024 6:11:39 PM
Xylenes, Total	ND	4.0	D	µg/L	2	2/6/2024 6:11:39 PM
Surr: 4-Bromofluorobenzene	89.7	52.4-148	D	%Rec	2	2/6/2024 6:11:39 PM

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

**Qualifiers:** 

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Client: H Project: S	HILCORP ENERC San Juan 30 6 31A	θY								
Sample ID: mb	Samp	Туре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Volatil	es		
Client ID: PBW	Bato	h ID: BA	102890	F	RunNo: 1	02890				
Prep Date:	Analysis I	Date: 2/	6/2024	S	SeqNo: 3	801983	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenz	ene 17		20.00		84.8	52.4	148			

#### **Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank В
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

2402012

14-Feb-24

WO#:

Page 4 of 6

Page 94 of 113

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

## Sample Log-In Check List

	Number: 2402012		RcptNo: 1
Received By: Tracy Casarrubias 2/1/2024 6:55	:00 AM		
Completed By: Tracy Casarrubias 2/1/2024 9:04	:24 AM		
Reviewed By: M 2-1-24			
0			
Chain of Custody			
1. Is Chain of Custody complete?	Yes 🗌	No 🗹	Not Present
2. How was the sample delivered?	Courier		
<u>Log In</u>			
3. Was an attempt made to cool the samples?	Yes 🗹	Νο	NA 🗌
4. Were all samples received at a temperature of $>0^{\circ}$ C to 6.0°	C Yes	No 🗹	
5 Sampla(s) in proper container(a)?	Samples not	Frozen	
<ul> <li>Sample(s) in proper container(s)?</li> </ul>	ies 💌		
6. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌	
7. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌	
8. Was preservative added to bottles?	Yes	No 🗹	NA 🗌
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes 🔽	No 🗌	na 🗌
0. Were any sample containers received broken?	Yes	No 🗹	# of proceed
		_	bottles checked
1. Does paperwork match bottle labels?	Yes 🗹	No 🗌	for pH:
(Note discrepancies on chain of custody)	Vee M		Adjusted?
2. Are mainces conectly identified on Chain of Custody?	Yes V		
4 Were all holding times able to be met?	Yes V		Checked by: 71 21124
(If no, notify customer for authorization.)			
pecial Handling (if applicable)			
15. Was client notified of all discrepancies with this order?	Yes 🖂	No 📖	NA M
Person Notified:	Date:		
By Whom:	Via: 🗌 eMail 🗌 F	hone 🗌 Fax	
Regarding:			
Client Instructions:			
16. Additional remarks:			
17. Cooler Information			
	No Seal Date	Signed By	
Cooler No Temp °C Condition Seal Intact Seal			

Received by OCD: 5/30/2024 1:25:50 PM		Page 95 of 113
Chain-of-Custody Record	Turn-Around Time:	
Client: Hilarp attn: Kate Kayman	🗹 Standard 🛛 Rush	ANALYSIS LABORATORY
KKautmand hilcorp.com	Project Name:	www.hallenvironmental.com
Mailing Address:	TAN JURN JURN TO THE	4901 Hawkins NE - Albuquerque, NM 87109
	Project #:	Tel. 505-345-3975 Fax 505-345-4107
Phone #:		Analysis Kequest
email or Fax#:	Project Manager: Stuck Hyde	SO¢ SO¢
QA/QC Package:	shyde ensel un com	05IM5 PCB' PO4, PO4,
Accreditation:	Sampler: Zach Wye >	28082 1025 1025 1025 1025 1025 1025 1025 102
DINELAC Dother	On Ice: DYes On Uco	
	Cooler Temp(instuding CF): - 0.3 - 0.1 0.8 (°C)	<ul> <li>MT</li> <li>atic</li> <li>atic</li> <li>atic</li> <li>atic</li> <li>atic</li> <li>atic</li> <li>atic</li> </ul>
-	Container Preservative HEAL No.	2715×7
Date Time Matrix Sample Name		
C WILL MAR SOCIATION		
1 min and official		
Date: Time: Relinquished by:	Repeived by: Via: Date Time	Remarks: LC: ZWNY RVE CONSOLUM. CUM
Date: Time: Relinquished by:	Repeived by: Via: COUNTLY Date Time	
13124 11 201 / JUNOS MUNIC	the second	is nossibility. Any sub-contracted data will be clearly notated on the analytical report.

ממה B TIERY If necessary, samples submitted to Hall Environmental Released to Imaging: 730/2024 12:29:25 PM

Received by OCD: 5/30/2024 1:25:50 PM



**Environment Testing** 

# **ANALYTICAL REPORT**

# **PREPARED FOR**

Attn: Kate Kaufman Hilcorp Energy PO BOX 4700 Farmington, New Mexico 87499 Generated 5/24/2024 11:20:56 AM

# **JOB DESCRIPTION**

San Juan 30-6 31A

# **JOB NUMBER**

885-4277-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

See page two for job notos 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

Authorized for release by

(505)345-3975

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Generated 5/24/2024 11:20:56 AM

Released to Imaging: 7/30/2024 12:29:25 PM

Laboratory Job ID: 885-4277-1

2 3

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
QC Sample Results	12
QC Association Summary	13
Lab Chronicle	14
Certification Summary	15
Chain of Custody	16
Receipt Checklists	17

## **Definitions/Glossary**

Client: Hilcorp Energy Project/Site: San Juan 30-6 31A Job ID: 885-4277-1

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	6
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)	3
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	9
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	

Eurofins Albuquerque

**Case Narrative** 

Job ID: 885-4277-1

Client: Hilcorp Energy Project: San Juan 30-6 31A

Job ID: 885-4277-1

### **Eurofins Albuquerque**

#### Job Narrative 885-4277-1

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

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

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

#### Receipt

The samples were received on 5/10/2024 7:45 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 4.9°C.

#### GC VOA

Method 8021B: The following sample was diluted due to the nature of the sample matrix: MW06 (885-4277-1). 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.

Page 100 of 113

Eurofins Albuquerque

Job ID: 885-4277-1

# Project/Site: San Juan 30-6 31A

Client: Hilcorp Energy

### **Client Sample ID: MW06** Date Collected: 05/08/24 13:35

Date Received: 05/10/24 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	140		2.0	ug/L			05/13/24 22:45	2
Ethylbenzene	12		2.0	ug/L			05/13/24 22:45	2
Toluene	ND		2.0	ug/L			05/13/24 22:45	2
Xylenes, Total	11		4.0	ug/L			05/13/24 22:45	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		43 - 158		-		05/13/24 22:45	2

**Eurofins Albuquerque** 

Lab Sample ID: 885-4277-1 Matrix: Water 5

Job ID: 885-4277-1

Matrix: Water

Lab Sample ID: 885-4277-2

## Project/Site: San Juan 30-6 31A Client Sample ID: MW07

Client: Hilcorp Energy

Date Collected: 05/08/24 15:15

Date Received: 05/10/24 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			05/14/24 00:19	2
Ethylbenzene	ND		2.0	ug/L			05/14/24 00:19	2
Toluene	ND		2.0	ug/L			05/14/24 00:19	2
Xylenes, Total	ND		4.0	ug/L			05/14/24 00:19	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		43 - 158		-		05/14/24 00:19	2

**Eurofins Albuquerque** 

Released to Imaging: 7/30/2024 12:29:25 PM

Job ID: 885-4277-1

Matrix: Water

Lab Sample ID: 885-4277-3

# Project/Site: San Juan 30-6 31A

Client: Hilcorp Energy

### Client Sample ID: MW08 Date Collected: 05/08/24 12:05

Date Received: 05/10/24 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	5
Benzene	ND		1.0	ug/L			05/14/24 00:42	1	
Ethylbenzene	ND		1.0	ug/L			05/14/24 00:42	1	
Toluene	ND		1.0	ug/L			05/14/24 00:42	1	
Xylenes, Total	ND		2.0	ug/L			05/14/24 00:42	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	o
4-Bromofluorobenzene (Surr)	96		43 - 158		-		05/14/24 00:42	1	

Eurofins Albuquerque

Job ID: 885-4277-1

Matrix: Water

Lab Sample ID: 885-4277-4

# Project/Site: San Juan 30-6 31A

Client: Hilcorp Energy

### Client Sample ID: MW09 Date Collected: 05/08/24 12:30

Date Received: 05/10/24 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			05/14/24 01:06	1
Ethylbenzene	ND		1.0	ug/L			05/14/24 01:06	1
Toluene	ND		1.0	ug/L			05/14/24 01:06	1
Xylenes, Total	ND		2.0	ug/L			05/14/24 01:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		43 - 158		-		05/14/24 01:06	1

Eurofins Albuquerque

Job ID: 885-4277-1

Matrix: Water

Lab Sample ID: 885-4277-5

## Project/Site: San Juan 30-6 31A Client Sample ID: MW10

Client: Hilcorp Energy

# Date Collected: 05/08/24 13:05

Date Received: 05/10/24 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			05/14/24 01:29	1
Ethylbenzene	ND		1.0	ug/L			05/14/24 01:29	1
Toluene	ND		1.0	ug/L			05/14/24 01:29	1
Xylenes, Total	ND		2.0	ug/L			05/14/24 01:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		43 - 158		-		05/14/24 01:29	1

Eurofins Albuquerque

Job ID: 885-4277-1

Matrix: Water

Lab Sample ID: 885-4277-6

# Project/Site: San Juan 30-6 31A

Client: Hilcorp Energy

### Client Sample ID: MW11 Date Collected: 05/08/24 14:10

Date Received: 05/10/24 07:45

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			05/14/24 01:53	1
Ethylbenzene	ND		1.0	ug/L			05/14/24 01:53	1
Toluene	ND		1.0	ug/L			05/14/24 01:53	1
Xylenes, Total	ND		2.0	ug/L			05/14/24 01:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		43 - 158		-		05/14/24 01:53	1

Eurofins Albuquerque

## **QC Sample Results**

Page 107 of 113

Job ID: 885-4277-1

Client: Hilcorp Energy Project/Site: San Juan 30-6 31A

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-4925/37 Matrix: Water			Client Sample ID: M Prep T					Sample ID: Metho Prep Type: ⁻	Vethod Blank ype: Total/NA			
Analysis Batch: 4925												
		ΜВ	МВ									
Analyte	Re	sult	Qualifier	RL		Unit			Р	repared	Analyzed	Dil Fac
Benzene		ND		1.0		ug/L					05/13/24 11:48	1
Ethylbenzene		ND		1.0		ug/L					05/13/24 11:48	1
Toluene		ND		1.0		ug/L					05/13/24 11:48	1
Xylenes, Total		ND		2.0		ug/L					05/13/24 11:48	1
		ΜВ	МВ									
Surrogate	%Recov	/ery	Qualifier	Limits					Р	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		96		43 - 158				-			05/13/24 11:48	1
_												
Lab Sample ID: MB 885-4925/38										Client S	Sample ID: Metho	od Blank
Matrix: Water											Prep Type:	Total/NA
Analysis Batch: 4925												
	_	MB	MB					-	_	-	<b>.</b>	<b>-</b>
Analyte	Re	sult	Qualifier			Unit		_ <u>D</u> _	Р	repared	Analyzed	Dil Fac
Benzene		ND		1.0		ug/L					05/13/24 23:55	1
Ethylbenzene		ND		1.0		ug/L					05/13/24 23:55	1
Toluene		ND		1.0		ug/L					05/13/24 23:55	1
Xylenes, Total		ND		2.0		ug/L					05/13/24 23:55	1
		ΜВ	МВ									
Surrogate	%Recov	/ery	Qualifier	Limits					Р	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		91		43 - 158				-			05/13/24 23:55	1
Lab Sample ID: LCS 995 4025/25									iont	Samel	D. Lab Control	Sample
Lab Sample ID. LCS 003-4925/3: Matrix: Wator	,							U	ient	Sample		Sample
Mainix. Walti Analysis Ratch: 4925											Fich type:	ισται/ΙΝΑ
Analysis Dalth. 4323				Snike	1.00	1.05					%Rec	
Analyte					Rocult	Qualifier	Unit		р	%Rec	/inec	
Benzene				20.0	18.7				_	03	70 - 130	
Ethylhenzene				20.0	10.7		ug/L			93 Q1	70 130	
				20.0	10.3		ug/L			91	70 130	
				20.0	10.0		uy/L			90	70 - 150	
	LCS	LCS										
Surrogate	%Recovery	Qua	lifier	Limits								
4-Bromofluorobenzene (Surr)	97			43 - 158								
- Lab Sample ID: LCS 885-4925/36								CI	ient	Sample	D: Lab Control	Sample
Matrix: Water	•								ient	Sample	Pren Tyne [.]	Total/NA
Analysis Batch: 4925											i ich ikhe.	
- and yord Battern Hoke				Spike	LCS	LCS					%Rec	
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits	
Benzene				20.0	17.7		ug/L		_	89	70 - 130	
Ethylbenzene				20.0	17.2		ug/L			86	70 - 130	
Toluene				20.0	16.8		ug/L			84	70 - 130	
							5					
	LCS	LCS										
Surrogate	%Recovery	Qual	lifier	Limits								

96

4-Bromofluorobenzene (Surr)

43 - 158

**Eurofins Albuquerque** 

## **QC** Association Summary

Client: Hilcorp Energy Project/Site: San Juan 30-6 31A Job ID: 885-4277-1

Page 108 of 113

## GC VOA

### Analysis Batch: 4925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch				
885-4277-1	MW06	Total/NA	Water	8021B					
885-4277-2	MW07	Total/NA	Water	8021B					
885-4277-3	MW08	Total/NA	Water	8021B					
885-4277-4	MW09	Total/NA	Water	8021B					
885-4277-5	MW10	Total/NA	Water	8021B					
885-4277-6	MW11	Total/NA	Water	8021B					
MB 885-4925/37	Method Blank	Total/NA	Water	8021B					
MB 885-4925/38	Method Blank	Total/NA	Water	8021B					
LCS 885-4925/35	Lab Control Sample	Total/NA	Water	8021B					
LCS 885-4925/36	Lab Control Sample	Total/NA	Water	8021B					
				Lab Chro	nicie				
---------------------------------------	--------------------------	--------	-----	----------	--------	---------	---------	----------------	------------------
Client: Hilcorp E Project/Site: Sa	Energy n Juan 30-6 31	A						Jc	b ID: 885-4277-1
Client Sampl	le ID: MW06							Lab Sample	D: 885-4277-1
Date Collected:	: 05/08/24 13:3	5							Matrix: Water
Date Received:	05/10/24 07:45	5							
Г	Batch	Batch		Dilution	Batch			Prenared	
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8021B		2	4925	JP	EET ALB	05/13/24 22:45	
Client Sampl	le ID: MW07							Lab Sample	D: 885-4277-2
Date Collected:	: 05/08/24 15:1	5							Matrix: Water
Date Received:	05/10/24 07:4	5							
Γ	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8021B		2	4925	JP	EETALB	05/14/24 00:19	
Client Sampl	le ID: MW08							Lab Sample	D: 885-4277-3
Date Collected:	: 05/08/24 12:0	5							Matrix: Water
Date Received:	05/10/24 07:4	5							
	Batch	Batch		Dilution	Batch			Prepared	
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8021B		1	4925	JP	EET ALB	05/14/24 00:42	
<b>Client Sample</b>	le ID: MW09							Lab Sample	D: 885-4277-4
Date Collected:	: 05/08/24 12:3	D							Matrix: Water
Date Received:	05/10/24 07:4	5							
	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8021B		1	4925	JP	EET ALB	05/14/24 01:06	
<b>Client Sampl</b>	le ID: MW10							Lab Sample	D: 885-4277-5
Date Collected:	: 05/08/24 13:0	5							Matrix: Water
Date Received:	05/10/24 07:4	5							
	Batch	Batch		Dilution	Batch			Prepared	
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8021B		1	4925	JP	EET ALB	05/14/24 01:29	
<b>Client Sample</b>	le ID: MW11							Lab Sample	D: 885-4277-6
Date Collected:	: 05/08/24 14:10	D							Matrix: Water
Date Received:	05/10/24 07:4	5							
Γ	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Analysis	8021B			4925	JP	EET ALB	05/14/24 01:53	

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Laboratory References:

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

Accreditation/Certification Summary

Client: Hilcorp Energy Project/Site: San Juan 30-6 31A

## Laboratory: Eurofins Albuquerque

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

uthority	Progra	m	Identification Number	Expiration Date
lew Mexico	State		NM9425, NM0901	02-26-25
The following analytes	are included in this report, but	t the laboratory is not certif	ied by the governing authority. This lis	st may include analyte
for which the agency d	bes not offer certification.	Matrix	A	
Analysis Method		Matrix	Analyte	
8021B		Water	Benzene	
8021B		Water	Ethylbenzene	
8021B		Water	Toluene	
8021B		Water	Xylenes, Total	

Job ID: 885-4277-1

Eurofins Albuquerque

Received by OCD: 5/30/2024	1:25:50 PM		Page 111 of 113
R85-4277 109			nalytical report.
RONN ABO Ital.com Je, NM 87 -345-410	(form (Present/Absent)		Ev Sol
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<b>ISI</b> Nviro Albuq Fax	01, F, BI, 103, 102, FO4, 504		
L L L L L L L L L L L L L L L L L L L	RCRA 8 Metals		G data wi
N N N N N N N N N N N N N N N N N N N	PAHs by 8310 or 8270SIMS		
A A lawki	EDB (Method 504.1)		C C
el. 50	8081 Pesticides/8082 PCB's		
4 ⊢			sibility.
	BTEX MTBE / TMB's (8021)		
A	olum.com 511010 404	- C W Z N -	5/8/24 1800 Date Time 5/10/247/45 s. This serves as notice of t
I Time:	ager: Hyde Type Type	HCA/Lool	Via: Via: CUN'47 accredited laboratorie
Turn-Around A Standard Project Nam Project #:	Project Man Stan Sampler: On Ice: # of Coolers Cooler Temp Container Type and #	V V V V V V V V V V V V V V V V V V V	Received by: Becontracted to other
Listody Record	Chan hi Lung Low Level 4 (Full Validation) mpliance Sample Name	MWOG Fowm Powm NWIN NWIN	ed by: A N Oule mitted to Hall Environmental may be so
- of-CL	Az Co	e de la companya de l	Relinquish
Chain HEC AHn: AHn:	or Fax#: Package. Iitation: AC Time	1335 1515 1230 1230 1230 1710	ITIME:
Client: Mailing	email Accrec Date Date ED ate	ge 16 of 17	5/24/2024

11

Job Number: 885-4277-1

List Source: Eurofins Albuquerque

# Login Sample Receipt Checklist

Client: Hilcorp Energy

### Login Number: 4277 List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Action 349483

CONDITIONS					
Operator:	OGRID:				
HILCORP ENERGY COMPANY	372171				
1111 Travis Street	Action Number:				
Houston, TX 77002	349483				
	Action Type:				
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)				

CONDITIONS

Created By	Condition	Condition Date
nvelez	Updated remediation plan is approved and must meet the following conditions; 1. Sampling frequency is required to meet 200 square feet per one (1) five (5)- point composite sample and to be applied to the sidewalls only. 2. Hilcorp may proceed to remediate soil &/or groundwater with an amendment of hydrogen perioxide. If used, Hilcorp must provide documentation on its application and verify the timeframe between the initiation of the application and the follow up sampling conducted. 3. If any other amendment is planned on being used, pre-approval by OCD prior to implementing must be granted by supplying, at a minimum, a material data sheet and references to any case studies.	7/30/2024