



November 20, 2023

New Mexico Oil Conservation Division

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

Re: Site Remediation Update Report

Seymour 6
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident No: nAPP2224144740

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Site Remediation Update* for a release at the Seymour 6 natural gas production well (Site). The Site is located on Federal land managed by the Bureau of Land Management (BLM) in rural San Juan County, New Mexico (Figure 1). This report includes a summary of remediation activities performed at the Site to remove impacted soil and vegetation originating from the overtopping of oil from a below grade tank (BGT). The Site is located in Unit M, Section 14, Township 31 North, Range 9 West, in rural San Juan County, New Mexico.

1.0 SITE BACKGROUND

On August 18, 2022, Hilcorp discovered a 20-barrel (bbl) release of oil at the Site. Significant precipitation at the Site caused a BGT to overflow into the secondary containment berm. A section of the earthen berm subsequently failed and released fluids outside of the containment and ultimately migrated off the facility pad into an adjacent dry wash. The volume released was determined by the operator's monthly tank gauging data. Upon discovery, Hilcorp immediately emptied the remaining fluids from the BGT and retained a vacuum truck to recover any possible standing fluids at the Site (approximately 2 bbls). On August 19, 2022, Hilcorp excavated approximately 55 cubic yards of visibly impacted soils from the original footprint of the well pad at the Site for disposal at a permitted facility.

Hilcorp reported the release to the New Mexico Oil Conservation Division (NMOCD) and the BLM within 24 hours of discovery of the release. Hilcorp submitted a *Major Undesirable Event Report* to the BLM on August 19, 2022 and submitted a Form C-141 to the NMOCD on August 29, 2022 and a revised Form C-141 on August 31, 2022 (an error was discovered in the initial Form C-141 submitted on August 29, 2022). The NMOCD has assigned the Site Incident Number nAPP2224144740.

Due to the nature of the release migrating over a large portion of the well pad and into an adjacent dry wash, as well as the need for a Cultural Resources Inventory and Threatened and Endangered Species Evaluation to be conducted for off-pad areas per the BLM, Hilcorp submitted a *Remediation Work Plan* (prepared by Ensolum, dated September 29, 2022) to the NMOCD and BLM for review and approval. Specifically, the *Remediation Work Plan* described the proposed

remediation and sampling activities and requested a variance for the frequency of excavation confirmation samples to be collected at the Site. The NMOCD and BLM approved the *Remediation Work Plan* and the NMOCD approved a variance for the frequency of excavation sampling on the well pad to be decreased from every 200 square feet to every 500 square feet for floor samples and from every 200 square feet to every 400 square feet for sidewall samples. Additionally, the NMOCD approved a sampling frequency of one sample per 100 linear feet for the collection of soil samples within the adjacent wash.

1.1 SITE CHARACTERIZATION AND CLOSURE CRITERIA

As part of the Site investigation, local geology/hydrogeology and nearby sensitive receptors (shown on Figure 2) were assessed in accordance with Title 19, Chapter 15, Part 29, Sections 11 and 12 (19.15.29.11 and 12) of the New Mexico Administrative Code (NMAC). Based on the information presented in Ensolum's *Remediation Work Plan* and in accordance with the *Table I, Closure Criteria for Soils Impacted by a Release* (19.15.29.12 of the NMAC), the following "Closure Criteria" are applied to the Site based on the proximity to a significant watercourse:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 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
- Chloride: 600 mg/kg

2.0 2022 SOIL SAMPLING ACTIVITIES

At the request of the BLM, Hilcorp conducted a *Cultural Resources Inventory* prior to conducting sampling work at the Site. Additionally, the BLM conducted an internal *Threatened and Endangered Species Evaluation* prior to the start of work to assess the presence of sensitive ecological receptors in the release pathway. No cultural resources or threatened and endangered species were discovered in the project area and the BLM approved the proposed work to be conducted within a 20-foot buffer area on either side of the dry wash.

After removing approximately 6 inches (0.5 feet) of soil from the well pad (conducted in August 2022 and based on petroleum hydrocarbon staining and odors), and once BLM approval was received for off-pad activities, Ensolum and Hilcorp personnel collected soil samples on December 8, 2022, to assess soil conditions both on the well pad and in the dry wash. Five-point composite soil samples were collected from the floor of the well pad excavation at a frequency of one sample per 500 square feet (samples SS01 through SS20). Due to the shallow nature of the excavation (0.5 feet in depth), shallow sidewall areas were incorporated into the composite floor samples. Additionally, 5-point composite samples were collected from the dry wash at a frequency of one sample for every 100 linear feet (samples WS01 through WS17). The entire release extent is shown on Figure 3, with specific sampling locations for the wash and well pad presented on Figures 4 and 5, respectively.

The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. All samples were submitted for analyses of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Analytical results indicated two samples collected within the wash (WS01 and WS10) exceeded the applicable Closure Criteria for TPH. Concentrations of TPH also exceeded the Closure Criteria in all on-pad soil samples with the exception of samples SS02 and SS17. Additionally, concentrations of chloride exceeded the Closure Criteria in only one on-pad sample, SS08. All other COCs analyzed during the December 8, 2022, sampling event were in compliance with the applicable NMOCD Table I Closure Criteria. Analytical results collected during the December 2022 sampling event are summarized in Table 1, with complete laboratory analytical reports attached as Appendix A.

3.0 JUNE 2023 ADDITIONAL WASH EXCAVATION AND DELINEATION SAMPLING

Based on the soil sampling results described above, Hilcorp conducted additional delineate efforts in on-pad areas on June 19, 2023 using a backhoe to assess the vertical extent of soil impacts at the Site. Specifically, sampling areas with the highest TPH results from the December 2022 sampling event were assessed during the pothole delineation effort. Potholes were advanced in the center of the respective sampling areas indicated on Table 2 and Figure 5. Results from the pothole delineation indicated COC concentrations were compliant with the NMOCD Closure Criteria at depths of 1-foot below ground surface (bgs) and greater and impacted soil was limited to shallow soil at the Site. Delineation soil sample analytical results collected during this event are summarized in Table 2, with complete laboratory analytical reports attached as Appendix A.

After delineation activities were completed, additional soil was removed from areas WS01 and WS10 located in the adjacent dry wash. Approximately 3 to 4 inches of soil was removed from these areas prior to resampling. Five-point composite samples were recollected from these areas at a frequency of one sample for every 100 linear feet and labeled WS01A and WS10A. Samples were handled in the manner described above and submitted to Hall for analysis of TPH, BTEX, and chloride. Analytical results indicated sample WS10A was in compliance with the NMOCD Closure Criteria; however, soil sample WS01A contained TPH concentrations continuing to exceed the Closure Criteria of 100 mg/kg. Prior to sampling, the NMOCD and the BLM were notified of the upcoming Site activities (Appendix B). Confirmation wash sample results collected during this event are summarized in Table 1, with complete laboratory analytical reports attached as Appendix A.

4.0 SEPTEMBER AND OCTOBER 2023 EXCAVATION AND CONFIRMATION SOIL SAMPLING

Once BLM approved the removal of on-pad equipment at the Site (Appendix B), Hilcorp conducted extensive soil removal activities on September 13, 2023, across the well pad and within the dry wash at area WS01. Based on the previous analytical results gathered from well pad samples SS01 through SS20, all sampling areas, except SS02 and SS20, required additional excavation to remove impacted soil. Approximately 3 to 4 inches of additional soil was removed in areas SS01 and SS03 through SS19. Five-point composite samples were recollected on September 13, 2023 from these areas and submitted to Hall for analysis of TPH, BTEX, and chloride.

Analytical results indicated TPH concentrations were greatly reduced and a majority of sampling areas were in compliance with NMOCD Closure Criteria; however, TPH concentrations exceeding the Closure Criteria were still present in soil in areas WS01, SS01, SS03, SS06, SS10, SS13, SS14, SS15, and SS19. As such, Hilcorp conducted additional soil removal on October 24, 2023 and Ensolum collected additional 5-point composite confirmation soil samples from these areas. As indicated by the data, all sampling areas were in compliance with the NMOCD Closure Criteria with the exception of areas SS03 and SS15. Analytical results collected during these events are summarized in Table 1, with complete laboratory analytical reports attached as Appendix A. Photographs taken during the sampling event are presented in Appendix C.

4.1 ASSESSMENT OF HISTORICAL IMPACTED SOIL

During the September 13, 2023 excavation work, stained soil was discovered at the northeast corner of area SS03 at a depth of 3 feet bgs that appeared to originate from a historical release. Discrete sample SS01d (shown on Figure 6) was collected at a depth of 3 feet from the stained soil in order to assess petroleum hydrocarbon concentrations resulting from a historical release. Analytical results indicated TPH concentrations exceeded the Closure Criteria in this sample. To further assess the origins of impacts found in SS01d, several delineation potholes were advanced on October 24, 2023, south of SS01d. Samples were collected from one pothole, PH02, and submitted for laboratory analysis of TPH, BTEX, and chloride at depths of 2.5 and 5 feet bgs. Results indicated elevated TPH concentrations exceeding Closure Criteria in both samples. Analytical results collected during these events are summarized in Table 2, with complete laboratory analytical reports attached as Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

Based on soil excavation activities and confirmation soil sampling, a majority of impacted soil resulting from the August 2022 release has been removed from the Site. Samples collected from the wash excavation (WS01 through WS17) were in compliance with NMOCD Table I Closure Criteria indicating all impacted soil within the wash has been successfully removed. Additionally, all confirmation samples collected from the well pad were in compliance with the applicable Closure Criteria with the exception of SS03 and SS15. Hilcorp recommends removing additional soil from these areas to address the limited volume of remaining impacts.

Based on the shallow nature of impacted soil resulting from the August 2022 release and the vertical separation between the shallow excavation and deeper impacts discovered at SS01d and PH02, it appears that Hilcorp encountered a historical release during the remediation efforts. Hilcorp recommends conducting additional delineation activities to assess the vertical and lateral extents of the historical impacts at the Site.

The proposed remediation and delineation activities will be completed within 120 days of BLM and NMOCD approval of this report and BLM approval of equipment removal required for the additional delineation work. Hilcorp will immediately inform the NMOCD of any alterations to this schedule due to third-party availability, equipment shortages, and/or weather delays. Hilcorp believes remedial actions completed to date and the proposed actions to address residual, historical impacts are protective of human health, the environment, and groundwater.

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

Sincerely,
Ensolum, LLC



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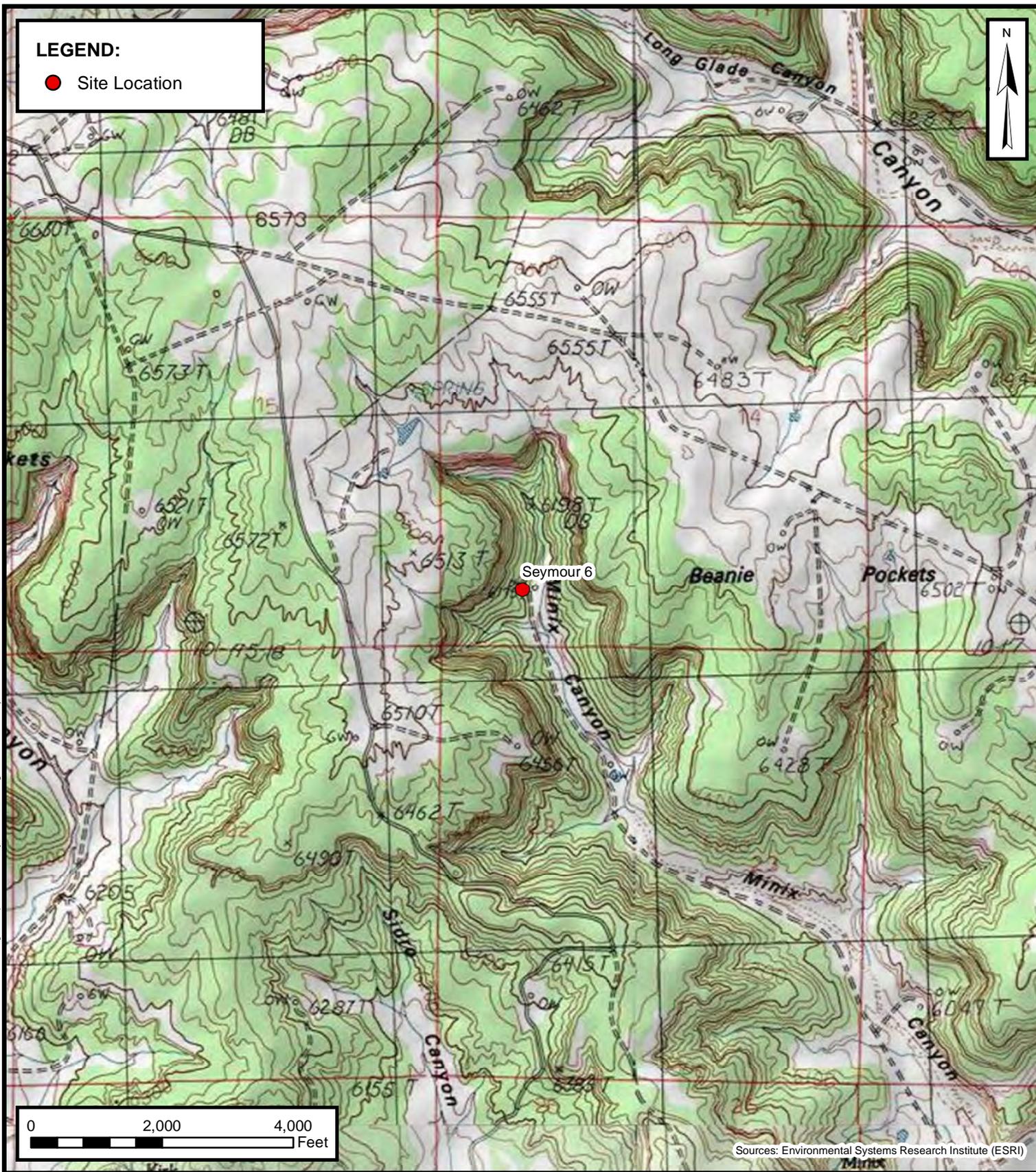
Attachments:

Figure 1:	Site Location Map
Figure 2:	Site Receptor Map
Figure 3:	Initial Release Extent
Figure 4:	Composite Soil Sample Locations – Wash
Figure 5:	Composite Soil Sample Locations – Well Pad
Figure 6:	Delineation Pothole Locations
Table 1:	Confirmation Soil Sample Analytical Results
Table 2:	Delineation Soil Sample Analytical Results
Appendix A:	Laboratory Analytical Reports
Appendix B:	Agency Correspondence
Appendix C:	Site Photographs



FIGURES





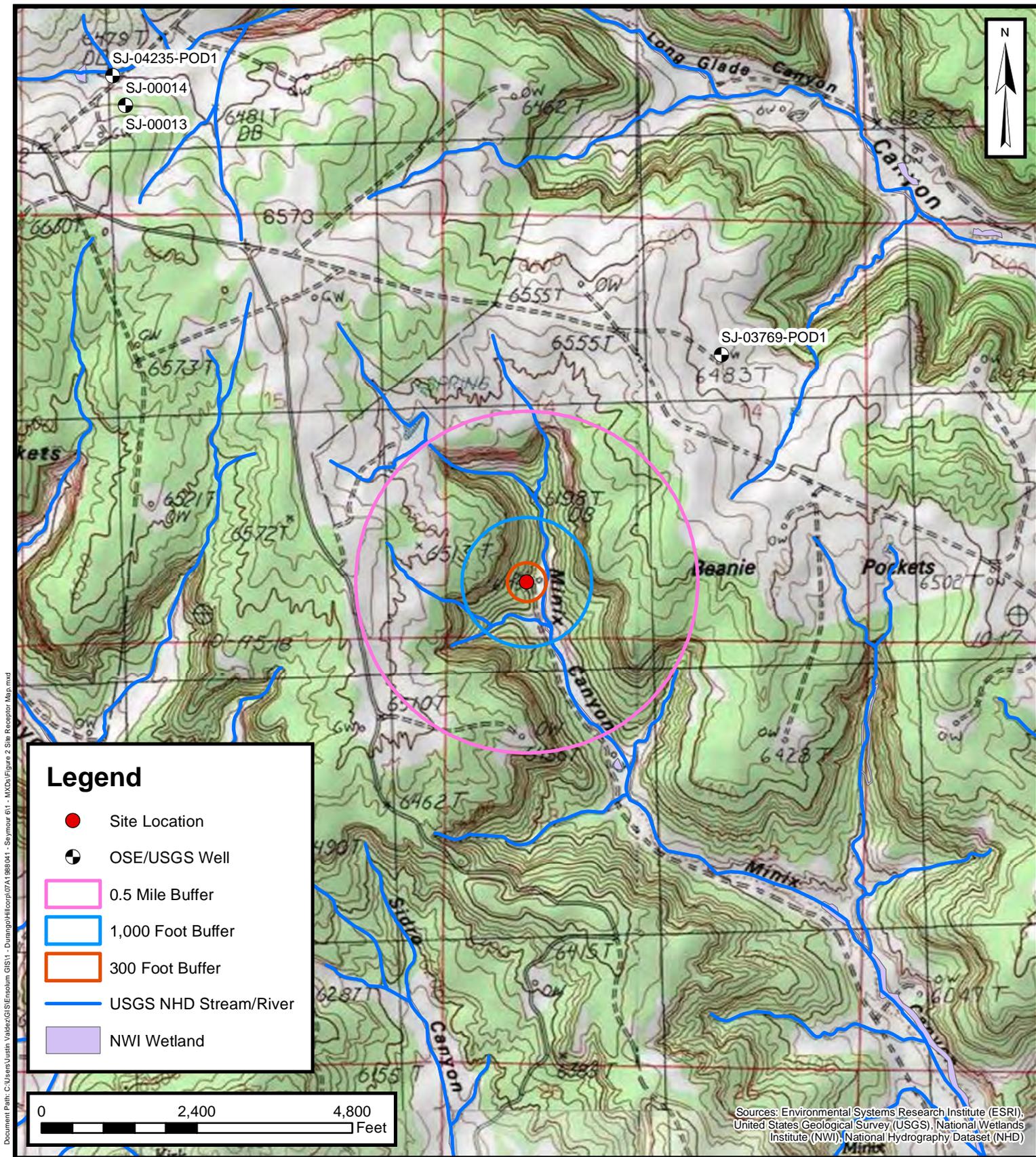
Document Path: C:\Users\lustin.Vale\GIS\ESRI\Map\1 - Durango\Hilcorp\07A 198041 - Seymour 61 - MXDs\Figure 1 Site Location Map.mxd



Site Location Map

Seymour 6
Hilcorp Energy Company
36.8929138, -107.7552261
San Juan County, NM

FIGURE
1



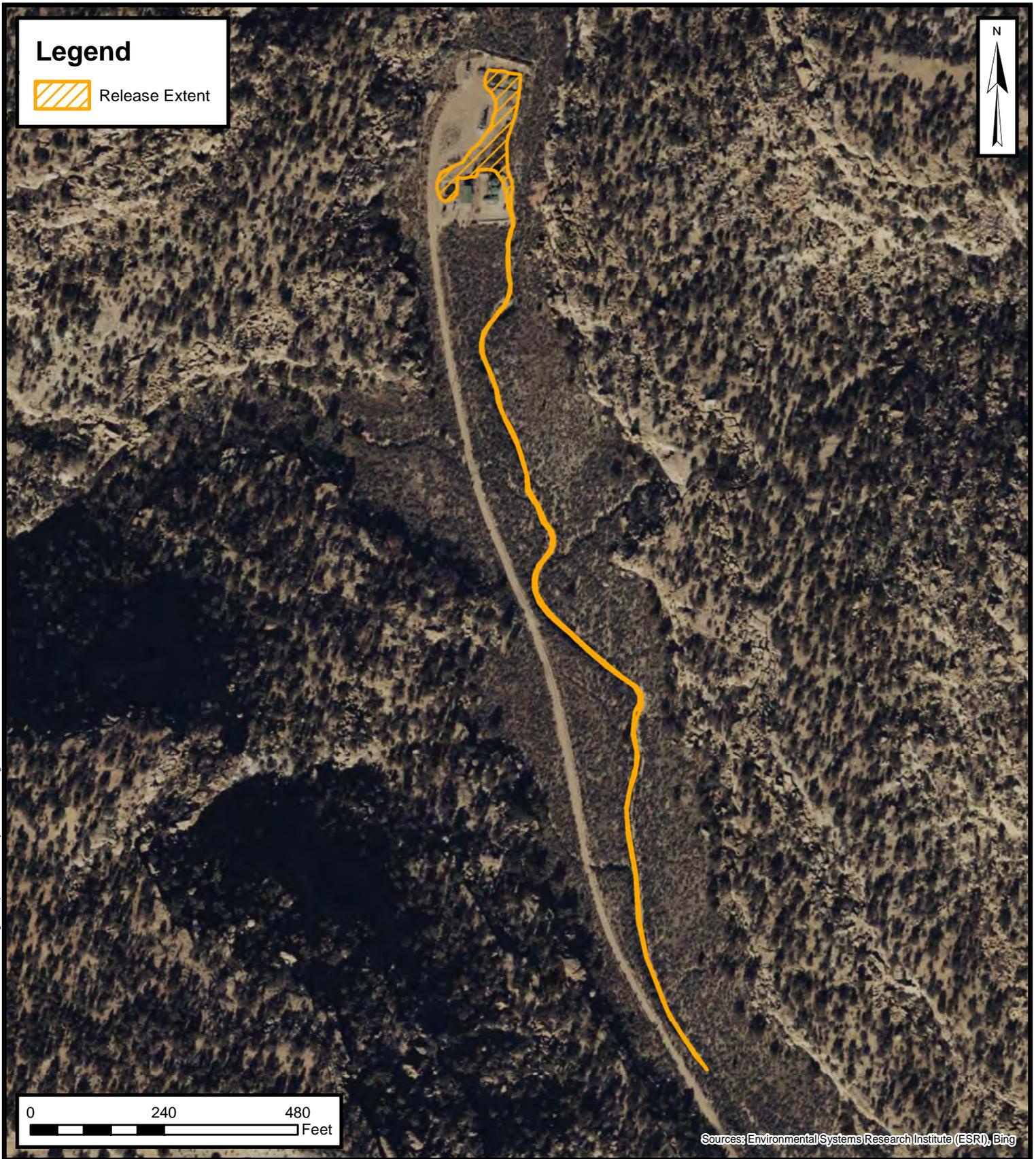
Document Path: C:\Users\lustin.Vahedi\GIS\Environment\GIS\ - Durango\Hilcorp\07A_988041 - Seymour 611 - MXDs\Figure 2_Site Receptor Map.mxd



Site Receptor Map

Seymour 6
Hilcorp Energy Company
36.8929138, -107.7552261
San Juan County, NM

FIGURE
2



Document Path: C:\Users\jvustin\Videos\GIS\ES\Volume GIS\1 - Durango\Hilcorp\07A_1988041 - Seymour 6\1 - MXD\Figure 3 Initial Release Extent.mxd



Initial Release Extent

Seymour 6
 Hilcorp Energy Company
 36.8929138, -107.7552261
 San Juan County, NM

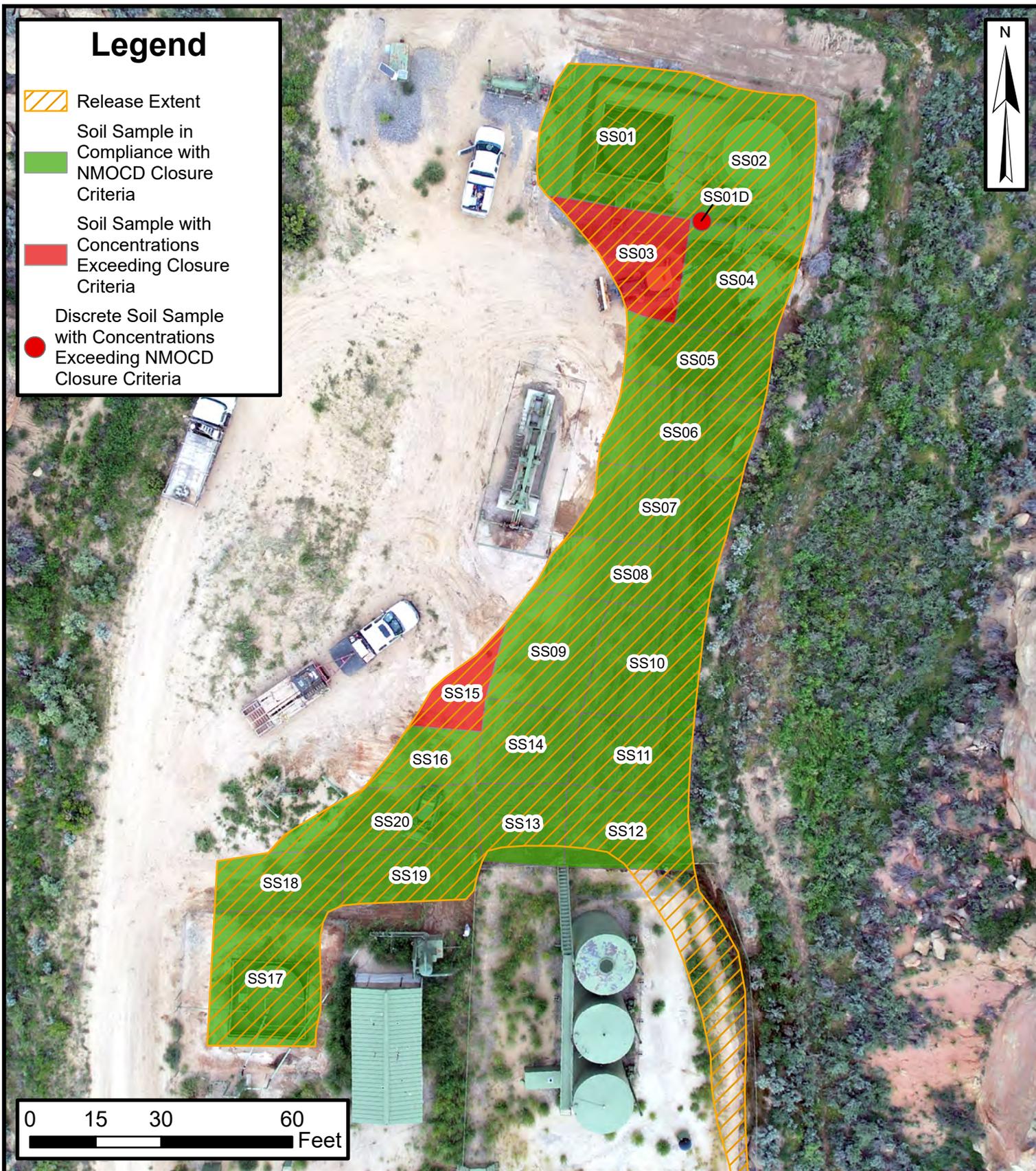
FIGURE
3



Composite Soil Sample Locations - Wash

Seymour 6
Hilcorp Energy Company
36.89291, -107.75523
San Juan County, New Mexico

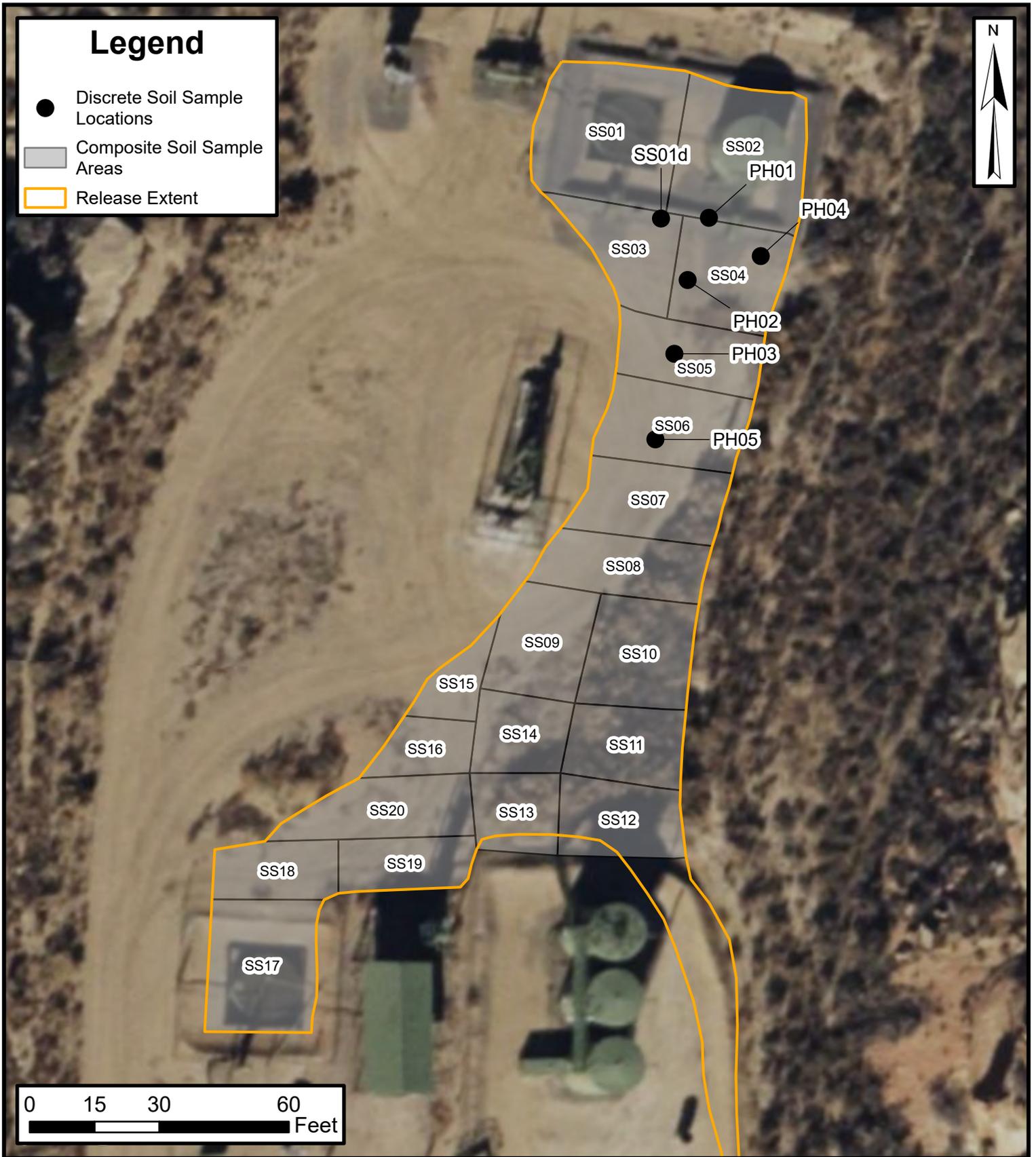
FIGURE 4



Composite Soil Sample Locations - Well Pad

Seymour 6
 Hilcorp Energy Company
 36.89291, -107.75523
 San Juan County, New Mexico

FIGURE 5



Delineation Pothole Locations

Seymour 6
 Hilcorp Energy Company
 36.89291, -107.75523
 San Juan County, New Mexico

**FIGURE
6**



TABLES



TABLE 1
CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS
 Seymour 6
 Hilcorp Energy Company
 San Juan County, New Mexico

Sample Designation	Date	Depth (feet)	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 Release			10	NE	NE	NE	50	NE	NE	NE	100	600
Wash Composite Soil Samples												
WS04	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	1,000	590	1,590	<60
WS04A	6/19/2023	0.5	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	410	240	650	<60
WS04e	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	85	110	195	<60
WS01D	10/24/2023	1.0	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<10	<50	<50	<60
WS02	12/8/2022	0 - 0.25	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<14	<46	<46	<60
WS03	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<13	<44	<44	<59
WS04	12/8/2022	0 - 0.25	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<14	<47	<47	<59
WS05	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<14	<47	<47	<60
WS06	12/8/2022	0 - 0.25	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<14	<48	<48	<60
WS07	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<14	<48	<48	<60
WS08	12/8/2022	0 - 0.25	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<14	<48	<48	<61
WS09	12/8/2022	0 - 0.25	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<13	<45	<45	<59
WS10	12/8/2022	0 - 0.25	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	41	79	120	<60
WS10A	6/19/2023	0.5	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<8.6	<43	<43	<60
WS11	12/8/2022	0 - 0.25	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<15	<48	<48	<60
WS12	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<15	<50	<50	<60
WS13	12/8/2022	0 - 0.25	<0.024	<0.049	<0.049	<0.098	<0.098	>4.9	<14	<47	<47	<60
WS14	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<14	<47	<47	<60
WS15	12/8/2022	0 - 0.25	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<13	<43	<43	<60
WS16	12/8/2022	0 - 0.25	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<14	<46	<46	<60
WS17	12/8/2022	0 - 0.25	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<14	<46	<46	<60
Well Pad Composite Soil Samples												
SS04	12/8/2022	0 - 0.25	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	360	380	740	<60
SS04b	9/13/2023	0.5	<0.019	<0.038	<0.038	<0.075	<0.075	<3.8	35	75	110	<60
SS04b@1' (1)	9/13/2023	1.0	N/A	N/A	N/A	N/A	N/A	<4.8	<9.4	<47	<47	<60
SS04e	9/13/2023	1.5	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	59	88	147	<60
SS01E	10/24/2023	2.0	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	10	<49	10	<60
SS02	12/8/2022	0.5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	29	<49	29	<60
SS03	12/8/2022	0.5	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	390	330	720	<60
SS03e	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	140	340	480	<60
SS03D	10/24/2023	1.25	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	250	510	760	<60
SS04	12/8/2022	0.5	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<71	<240	<240	<60
SS04c	9/13/2023	0.75	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	26	<42	26	<60
SS05	12/8/2022	0.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	210	210	420	<60
SS05c	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	15	<46	15	<60



TABLE 1
CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS
 Seymour 6
 Hilcorp Energy Company
 San Juan County, New Mexico

Sample Designation	Date	Depth (feet)	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 Release			10	NE	NE	NE	50	NE	NE	NE	100	600
SS06	12/8/2022	0.5	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	2600	2400	5,000	76
SS06e	9/13/2023	0.75	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	55	51	106	<60
SS06D	10/24/2023	1.25	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	27	58	85	<60
SS07	12/8/2022	0.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	400	390	790	230
SS07c	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	32	56	88	130
SS08c	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	22	<48	22	260
SS09	12/8/2022	0.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	86	150	236	62
SS09c	9/13/2023	0.75	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	29	47	76	180
SS10e	9/13/2023	0.75	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	71	110	181	<60
SS10D	10/24/2023	1.25	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	18	<48	18	<60
SS11c	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	20	55	75	<60
SS12	12/8/2022	0.5	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	210	240	450	<59
SS13D	10/24/2023	3.5	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.0	<45	<45	<60
SS14e	9/13/2023	0.75	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	580	690	1,270	<60
SS14D	10/24/2023	1.25	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.5	<47	<47	<60
SS15	12/8/2022	0.5	<0.025	<0.050	<0.50	<0.10	<0.10	<5.0	55	93	148	<60
SS15e	9/13/2023	0.75	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	96	140	236	<60
SS15D	10/24/2023	0.75	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	37	160	197	<60
SS16	12/8/2022	0.5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	290	310	600	<60
SS16c	9/13/2023	0.75	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	13	<49	13	<60
SS17	12/8/2022	0.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	17	<50	17	<59
SS18	12/8/2022	0.5	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	290	310	600	<60
SS18c	9/13/2023	0.75	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	18	<47	18	<60
SS19	12/8/2022	0.5	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	64	83	147	<60
SS19D	10/24/2023	1.0	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	13	<49	13	<60
SS20c	9/13/2023	0.75	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	15	<47	15	<60

Notes:
 (1): Discrete delineation sample collected within composite area
 bgs: below ground surface
 BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
 mg/kg: milligrams per kilogram
 NE: Not Established
 NMOCD: New Mexico Oil Conservation Division
 GRO: Gasoline Range Organics
 DRO: Diesel Range Organics
 MRO: Motor Oil Range Organics
 TPH: Total Petroleum Hydrocarbon
 <: indicates result less than the stated laboratory reporting limit (RL)
 Concentrations in **bold** and shaded exceed the NMOCD Table I Closure Criteria for Soils Impacted by a Release
 Grey text indicates soil sample removed during excavation activities



TABLE 2
DELINEATION SOIL SAMPLE ANALYTICAL RESULTS
 Seymour 6
 Hilcorp Energy Company
 San Juan County, New Mexico

Sample Designation	Date	Depth (feet)	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)
NMOCDClosure Criteria for Soils Impacted by a Release			10	NE	NE	NE	50	NE	NE	NE	100	600
Well Pad Composite Soil Samples												
SS01d	9/13/2023	3.0	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	3,400	<490	3,400	<60
SS06A 1'	6/19/2023	1.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.7	<48	<48	<60
SS06A 3'	6/19/2023	3.0	<0.024	<0.048	0.048	0.097	0.097	<4.8	<9.9	<49	<49	<60
SS08A 1'	6/19/2023	1.0	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	15	<46	15	<60
SS08A 3'	6/19/2023	3.0	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<8.8	<44	<44	<60
SS10A 1'	6/19/2023	1.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<8.9	<45	<45	<60
SS10A 3'	6/19/2023	3.0	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.3	<47	<47	<60
SS11A 1'	6/19/2023	1.0	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.0	<45	<45	<60
SS11A 3'	6/19/2023	3.0	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	16	<45	16	<60
SS13 A 1'	6/19/2023	1.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<8.7	<43	<43	<60
SS13A 3'	6/19/2023	3.0	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	12	<45	12	140
SS14A 1'	6/19/2023	1.0	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.3	<46	<46	<60
SS14A 3'	6/19/2023	3.0	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.5	<48	<48	<60
PH02@2.5'	10/24/2023	2.5	<0.025	<0.049	<0.049	<0.099	<0.099	9.0	1,400	770	2,179	<60
PH02@5'	10/24/2023	5.0	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	230	400	630	<60

Notes:

bgs: below ground surface
 BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
 mg/kg: milligrams per kilogram
 NE: Not Established
 NMOCDC: New Mexico Oil Conservation Division
 GRO: Gasoline Range Organics

DRO: Diesel Range Organics
 MRO: Motor Oil Range Organics
 TPH: Total Petroleum Hydrocarbon
 <: indicates result less than the stated laboratory reporting limit (RL)
 Concentrations in **bold** and shaded exceed the NMOCDC Table I Closure Criteria for Soils Impacted by a Release



APPENDIX A

Laboratory Analytical Reports



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

June 30, 2023

Stuart Hyde

HILCORP ENERGY

PO Box 4700

Farmington, NM 87499

TEL: (505) 564-0733

FAX:

RE: Seymour 6

OrderNo.: 2306A11

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 15 sample(s) on 6/20/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS01A 1'

Project: Seymour 6

Collection Date: 6/19/2023 1:30:00 PM

Lab ID: 2306A11-001

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/22/2023 10:19:15 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/22/2023 10:19:15 PM
Surr: DNOP	122	69-147		%Rec	1	6/22/2023 10:19:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/23/2023 6:37:00 PM
Surr: BFB	105	15-244		%Rec	1	6/23/2023 6:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/26/2023 11:17:00 AM
Toluene	ND	0.050		mg/Kg	1	6/26/2023 11:17:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/26/2023 11:17:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/26/2023 11:17:00 AM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	6/26/2023 11:17:00 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 1:58:29 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS06A 1'

Project: Seymour 6

Collection Date: 6/19/2023 8:40:00 AM

Lab ID: 2306A11-002

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/22/2023 10:30:19 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/22/2023 10:30:19 PM
Surr: DNOP	124	69-147		%Rec	1	6/22/2023 10:30:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/23/2023 6:59:00 PM
Surr: BFB	104	15-244		%Rec	1	6/23/2023 6:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/26/2023 11:40:00 AM
Toluene	ND	0.048		mg/Kg	1	6/26/2023 11:40:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	6/26/2023 11:40:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	6/26/2023 11:40:00 AM
Surr: 4-Bromofluorobenzene	99.5	39.1-146		%Rec	1	6/26/2023 11:40:00 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 2:10:49 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS06A 3'

Project: Seymour 6

Collection Date: 6/19/2023 8:45:00 AM

Lab ID: 2306A11-003

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/22/2023 11:25:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/22/2023 11:25:23 PM
Surr: DNOP	114	69-147		%Rec	1	6/22/2023 11:25:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/22/2023 1:50:00 PM
Surr: BFB	103	15-244		%Rec	1	6/22/2023 1:50:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/22/2023 1:50:00 PM
Toluene	ND	0.048		mg/Kg	1	6/22/2023 1:50:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/22/2023 1:50:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/22/2023 1:50:00 PM
Surr: 4-Bromofluorobenzene	94.4	39.1-146		%Rec	1	6/22/2023 1:50:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 2:23:10 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS08A 1'

Project: Seymour 6

Collection Date: 6/19/2023 8:52:00 AM

Lab ID: 2306A11-004

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	15	9.3		mg/Kg	1	6/22/2023 11:36:22 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/22/2023 11:36:22 PM
Surr: DNOP	90.9	69-147		%Rec	1	6/22/2023 11:36:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/22/2023 2:12:00 PM
Surr: BFB	102	15-244		%Rec	1	6/22/2023 2:12:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 2:12:00 PM
Toluene	ND	0.050		mg/Kg	1	6/22/2023 2:12:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/22/2023 2:12:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/22/2023 2:12:00 PM
Surr: 4-Bromofluorobenzene	95.5	39.1-146		%Rec	1	6/22/2023 2:12:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 3:00:13 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS08A 3'

Project: Seymour 6

Collection Date: 6/19/2023 8:56:00 AM

Lab ID: 2306A11-005

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	6/22/2023 11:58:09 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/22/2023 11:58:09 PM
Surr: DNOP	95.1	69-147		%Rec	1	6/22/2023 11:58:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/22/2023 2:34:00 PM
Surr: BFB	108	15-244		%Rec	1	6/22/2023 2:34:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 2:34:00 PM
Toluene	ND	0.049		mg/Kg	1	6/22/2023 2:34:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/22/2023 2:34:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/22/2023 2:34:00 PM
Surr: 4-Bromofluorobenzene	99.3	39.1-146		%Rec	1	6/22/2023 2:34:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 3:12:34 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS10A 1'

Project: Seymour 6

Collection Date: 6/19/2023 12:30:00 PM

Lab ID: 2306A11-006

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	6/23/2023 12:09:09 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/23/2023 12:09:09 AM
Surr: DNOP	113	69-147		%Rec	1	6/23/2023 12:09:09 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/22/2023 2:57:00 PM
Surr: BFB	111	15-244		%Rec	1	6/22/2023 2:57:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/22/2023 2:57:00 PM
Toluene	ND	0.048		mg/Kg	1	6/22/2023 2:57:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/22/2023 2:57:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	6/22/2023 2:57:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	6/22/2023 2:57:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 3:24:55 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS10A 3'

Project: Seymour 6

Collection Date: 6/19/2023 12:35:00 PM

Lab ID: 2306A11-007

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/23/2023 12:20:05 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/23/2023 12:20:05 AM
Surr: DNOP	126	69-147		%Rec	1	6/23/2023 12:20:05 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/22/2023 3:20:00 PM
Surr: BFB	117	15-244		%Rec	1	6/22/2023 3:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 3:20:00 PM
Toluene	ND	0.049		mg/Kg	1	6/22/2023 3:20:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/22/2023 3:20:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/22/2023 3:20:00 PM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	6/22/2023 3:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 3:37:15 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS11A 1'

Project: Seymour 6

Collection Date: 6/19/2023 11:45:00 AM

Lab ID: 2306A11-008

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	6/23/2023 12:31:02 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/23/2023 12:31:02 AM
Surr: DNOP	98.3	69-147		%Rec	1	6/23/2023 12:31:02 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/22/2023 3:44:00 PM
Surr: BFB	118	15-244		%Rec	1	6/22/2023 3:44:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 3:44:00 PM
Toluene	ND	0.050		mg/Kg	1	6/22/2023 3:44:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/22/2023 3:44:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/22/2023 3:44:00 PM
Surr: 4-Bromofluorobenzene	109	39.1-146		%Rec	1	6/22/2023 3:44:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 4:14:17 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS11A 3'

Project: Seymour 6

Collection Date: 6/19/2023 11:49:00 AM

Lab ID: 2306A11-009

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	16	9.1		mg/Kg	1	6/23/2023 12:41:55 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/23/2023 12:41:55 AM
Surr: DNOP	88.3	69-147		%Rec	1	6/23/2023 12:41:55 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/22/2023 4:31:00 PM
Surr: BFB	117	15-244		%Rec	1	6/22/2023 4:31:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 4:31:00 PM
Toluene	ND	0.049		mg/Kg	1	6/22/2023 4:31:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/22/2023 4:31:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/22/2023 4:31:00 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	6/22/2023 4:31:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 4:26:38 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS13A 1'

Project: Seymour 6

Collection Date: 6/19/2023 12:20:00 PM

Lab ID: 2306A11-010

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	6/23/2023 12:52:54 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	6/23/2023 12:52:54 AM
Surr: DNOP	89.8	69-147		%Rec	1	6/23/2023 12:52:54 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/22/2023 4:55:00 PM
Surr: BFB	115	15-244		%Rec	1	6/22/2023 4:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/22/2023 4:55:00 PM
Toluene	ND	0.048		mg/Kg	1	6/22/2023 4:55:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/22/2023 4:55:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	6/22/2023 4:55:00 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	6/22/2023 4:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 4:38:58 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS13A 3'

Project: Seymour 6

Collection Date: 6/19/2023 12:22:00 PM

Lab ID: 2306A11-011

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	12	9.0		mg/Kg	1	6/23/2023 1:14:48 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/23/2023 1:14:48 AM
Surr: DNOP	100	69-147		%Rec	1	6/23/2023 1:14:48 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/22/2023 5:18:00 PM
Surr: BFB	110	15-244		%Rec	1	6/22/2023 5:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 5:18:00 PM
Toluene	ND	0.049		mg/Kg	1	6/22/2023 5:18:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/22/2023 5:18:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/22/2023 5:18:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	6/22/2023 5:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	140	60		mg/Kg	20	6/23/2023 4:51:19 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS14A 1'

Project: Seymour 6

Collection Date: 6/19/2023 12:02:00 PM

Lab ID: 2306A11-012

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/23/2023 1:25:46 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/23/2023 1:25:46 AM
Surr: DNOP	115	69-147		%Rec	1	6/23/2023 1:25:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/22/2023 5:41:00 PM
Surr: BFB	104	15-244		%Rec	1	6/22/2023 5:41:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 5:41:00 PM
Toluene	ND	0.049		mg/Kg	1	6/22/2023 5:41:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/22/2023 5:41:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/22/2023 5:41:00 PM
Surr: 4-Bromofluorobenzene	95.3	39.1-146		%Rec	1	6/22/2023 5:41:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 5:03:39 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS14A 3'

Project: Seymour 6

Collection Date: 6/19/2023 12:06:00 PM

Lab ID: 2306A11-013

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/23/2023 1:36:42 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/23/2023 1:36:42 AM
Surr: DNOP	95.5	69-147		%Rec	1	6/23/2023 1:36:42 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/22/2023 6:04:00 PM
Surr: BFB	102	15-244		%Rec	1	6/22/2023 6:04:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 6:04:00 PM
Toluene	ND	0.049		mg/Kg	1	6/22/2023 6:04:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/22/2023 6:04:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/22/2023 6:04:00 PM
Surr: 4-Bromofluorobenzene	92.9	39.1-146		%Rec	1	6/22/2023 6:04:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 5:16:00 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: WS01A

Project: Seymour 6

Collection Date: 6/19/2023 12:50:00 PM

Lab ID: 2306A11-014

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	410	9.3		mg/Kg	1	6/23/2023 1:47:37 AM
Motor Oil Range Organics (MRO)	240	46		mg/Kg	1	6/23/2023 1:47:37 AM
Surr: DNOP	109	69-147		%Rec	1	6/23/2023 1:47:37 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/22/2023 6:26:00 PM
Surr: BFB	97.2	15-244		%Rec	1	6/22/2023 6:26:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/22/2023 6:26:00 PM
Toluene	ND	0.050		mg/Kg	1	6/22/2023 6:26:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/22/2023 6:26:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/22/2023 6:26:00 PM
Surr: 4-Bromofluorobenzene	89.0	39.1-146		%Rec	1	6/22/2023 6:26:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/23/2023 5:28:21 PM

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

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

Analytical Report

Lab Order **2306A11**

Date Reported: **6/30/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: WS10A

Project: Seymour 6

Collection Date: 6/19/2023 10:30:00 AM

Lab ID: 2306A11-015

Matrix: SOIL

Received Date: 6/20/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	6/23/2023 2:09:29 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	6/23/2023 2:09:29 AM
Surr: DNOP	97.0	69-147		%Rec	1	6/23/2023 2:09:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/22/2023 6:49:00 PM
Surr: BFB	98.9	15-244		%Rec	1	6/22/2023 6:49:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/22/2023 6:49:00 PM
Toluene	ND	0.048		mg/Kg	1	6/22/2023 6:49:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/22/2023 6:49:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	6/22/2023 6:49:00 PM
Surr: 4-Bromofluorobenzene	90.2	39.1-146		%Rec	1	6/22/2023 6:49:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	6/24/2023 6:36:42 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A11

30-Jun-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-75808	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 75808	RunNo: 97685								
Prep Date: 6/23/2023	Analysis Date: 6/23/2023	SeqNo: 3552695	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-75808	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 75808	RunNo: 97685								
Prep Date: 6/23/2023	Analysis Date: 6/23/2023	SeqNo: 3552697	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.0	90	110			

Sample ID: MB-75816	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 75816	RunNo: 97707								
Prep Date: 6/24/2023	Analysis Date: 6/24/2023	SeqNo: 3553436	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-75816	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 75816	RunNo: 97707								
Prep Date: 6/24/2023	Analysis Date: 6/24/2023	SeqNo: 3553437	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.8	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A11

30-Jun-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: 2306A11-015AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: WS10A	Batch ID: 75766	RunNo: 97639								
Prep Date: 6/21/2023	Analysis Date: 6/23/2023	SeqNo: 3551888	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	9.0	44.88	0	74.5	54.2	135			
Surr: DNOP	4.0		4.488		88.1	69	147			

Sample ID: 2306A11-015AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: WS10A	Batch ID: 75766	RunNo: 97639								
Prep Date: 6/21/2023	Analysis Date: 6/23/2023	SeqNo: 3551889	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	9.8	49.21	0	71.6	54.2	135	5.18	29.2	
Surr: DNOP	4.6		4.921		92.6	69	147	0	0	

Sample ID: LCS-75757	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 75757	RunNo: 97639								
Prep Date: 6/21/2023	Analysis Date: 6/22/2023	SeqNo: 3551920	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	61.9	130			
Surr: DNOP	6.1		5.000		123	69	147			

Sample ID: LCS-75766	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 75766	RunNo: 97639								
Prep Date: 6/21/2023	Analysis Date: 6/22/2023	SeqNo: 3551921	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.5	61.9	130			
Surr: DNOP	5.3		5.000		105	69	147			

Sample ID: MB-75757	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 75757	RunNo: 97639								
Prep Date: 6/21/2023	Analysis Date: 6/22/2023	SeqNo: 3551923	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		126	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A11

30-Jun-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-75766	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 75766	RunNo: 97639								
Prep Date: 6/21/2023	Analysis Date: 6/22/2023	SeqNo: 3551924	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	69	147			

Sample ID: LCS-75819	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 75819	RunNo: 97703								
Prep Date: 6/26/2023	Analysis Date: 6/26/2023	SeqNo: 3553956	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.5	69	147			

Sample ID: MB-75819	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 75819	RunNo: 97703								
Prep Date: 6/26/2023	Analysis Date: 6/26/2023	SeqNo: 3553958	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		88.4	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A11

30-Jun-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-75760	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 75760	RunNo: 97645								
Prep Date: 6/21/2023	Analysis Date: 6/22/2023	SeqNo: 3550631	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	70	130			
Surr: BFB	2100		1000		213	15	244			

Sample ID: mb-75760	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 75760	RunNo: 97645								
Prep Date: 6/21/2023	Analysis Date: 6/22/2023	SeqNo: 3550632	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		100	15	244			

Sample ID: ics-75744	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 75744	RunNo: 97695								
Prep Date: 6/20/2023	Analysis Date: 6/23/2023	SeqNo: 3553027	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	70	130			
Surr: BFB	2100		1000		210	15	244			

Sample ID: mb-75744	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 75744	RunNo: 97695								
Prep Date: 6/20/2023	Analysis Date: 6/23/2023	SeqNo: 3553028	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	15	244			

Sample ID: ics-75811	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 75811	RunNo: 97706								
Prep Date: 6/23/2023	Analysis Date: 6/26/2023	SeqNo: 3554080	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2100		1000		207	15	244			

Sample ID: mb-75811	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 75811	RunNo: 97706								
Prep Date: 6/23/2023	Analysis Date: 6/26/2023	SeqNo: 3554081	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		95.9	15	244			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A11

30-Jun-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-75760	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 75760		RunNo: 97645							
Prep Date: 6/21/2023	Analysis Date: 6/22/2023		SeqNo: 3550637		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.5	70	130			
Toluene	0.95	0.050	1.000	0	95.3	70	130			
Ethylbenzene	0.96	0.050	1.000	0	95.6	70	130			
Xylenes, Total	2.9	0.10	3.000	0	95.2	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	39.1	146			

Sample ID: mb-75760	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 75760		RunNo: 97645							
Prep Date: 6/21/2023	Analysis Date: 6/22/2023		SeqNo: 3550638		Units: mg/Kg					
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-Bromofluorobenzene	0.94		1.000		94.0	39.1	146			

Sample ID: ics-75744	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 75744		RunNo: 97695							
Prep Date: 6/20/2023	Analysis Date: 6/23/2023		SeqNo: 3553046		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.5	70	130			
Toluene	0.94	0.050	1.000	0	94.1	70	130			
Ethylbenzene	0.95	0.050	1.000	0	95.2	70	130			
Xylenes, Total	2.9	0.10	3.000	0	95.3	70	130			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	39.1	146			

Sample ID: mb-75744	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 75744		RunNo: 97695							
Prep Date: 6/20/2023	Analysis Date: 6/23/2023		SeqNo: 3553047		Units: mg/Kg					
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-Bromofluorobenzene	0.95		1.000		94.9	39.1	146			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A11

30-Jun-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-75811	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 75811	RunNo: 97706								
Prep Date: 6/23/2023	Analysis Date: 6/26/2023	SeqNo: 3554125	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	39.1	146			

Sample ID: mb-75811	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 75811	RunNo: 97706								
Prep Date: 6/23/2023	Analysis Date: 6/26/2023	SeqNo: 3554126	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		92.9	39.1	146			

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



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

Sample Log-In Check List

Client Name: HILCORP ENERGY

Work Order Number: 2306A11

RcptNo: 1

Received By: Juan Rojas 6/20/2023 7:20:00 AM

[Signature]

Completed By: Desiree Dominguez 6/20/2023 8:49:49 AM

[Signature]

Reviewed By: [Signature] 6/20/23

Chain of Custody

1. Is Chain of Custody complete? Yes [] No [x] Not Present []

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes [x] No [] NA []

4. Were all samples received at a temperature of >0° C to 6.0°C Yes [x] No [] NA []

5. Sample(s) in proper container(s)? Yes [x] No []

6. Sufficient sample volume for indicated test(s)? Yes [x] No []

7. Are samples (except VOA and ONG) properly preserved? Yes [x] No []

8. Was preservative added to bottles? Yes [] No [x] NA []

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [x]

10. Were any sample containers received broken? Yes [] No [x]

11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes [x] No []

12. Are matrices correctly identified on Chain of Custody? Yes [x] No []

13. Is it clear what analyses were requested? Yes [x] No []

14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes [x] No []

of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: SCM 06/20/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes [] No [] NA [x]

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

16. Additional remarks: Mailing address, phone number and Email not provided on COC. - DAD 6/20/23

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.7, Good, Not Present, Morty, [], []

Chain-of-Custody Record

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
6/19	13:30	SOIL	SS01A 1'	1x4oz	COOL	-001
	8:40		SS06A 1'			-002
	8:45		SS06A 3'			-003
	8:52		SS08A 1'			-004
	8:56		SS08A 3'			-005
	12:30		SS10A 1'			-006
	12:35		SS10A 3'			-007
	11:45		SS11A 1'			-008
	11:49		SS11A 3'			-009
	12:20		SS13A 1'			-010
	12:22		SS13A 3'			-011

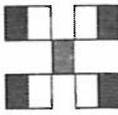
Date: 6-19 Time: 15:18 Relinquished by: Zach Myers
 Date: 6/19/23 Time: 1816 Relinquished by: [Signature]

Turn-Around Time: 5-day
 Standard Rush
 Project Name: Seymour 6
 Project #:

Project Manager: Stuart Hyde
shyde@ensolum.com
 Sampler: Zach Myers
 On Ice: Yes No
 # of Coolers: 1 HEAL No. 2306A11
 Cooler Temp (including CF): 0.9-0.2=0.7 (°C)

Analysis Request	Remarks
BTEX / MTBE / TMB's (8021)	↘
TPH:8015D(GRO / DRO / MRO)	↘
8081 Pesticides/8082 PCB's	↘
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
(Cl), F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	↘
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Received by: [Signature] Date: 6/19/23 Time: 1518
 Received by: [Signature] Date: 6/20/23 Time: 7:20



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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Website: www.hallenvironmental.com

September 27, 2023

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

RE: Seymour 6

OrderNo.: 2309743

Dear Mitch Killough:

Hall Environmental Analysis Laboratory received 23 sample(s) on 9/14/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS01b

Project: Seymour 6

Collection Date: 9/13/2023 9:30:00 AM

Lab ID: 2309743-001

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	35	9.9		mg/Kg	1	9/14/2023 12:25:43 PM
Motor Oil Range Organics (MRO)	75	49		mg/Kg	1	9/14/2023 12:25:43 PM
Surr: DNOP	106	69-147		%Rec	1	9/14/2023 12:25:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/14/2023 11:02:00 AM
Surr: BFB	99.4	15-244		%Rec	1	9/14/2023 11:02:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.019		mg/Kg	1	9/14/2023 11:02:00 AM
Toluene	ND	0.038		mg/Kg	1	9/14/2023 11:02:00 AM
Ethylbenzene	ND	0.038		mg/Kg	1	9/14/2023 11:02:00 AM
Xylenes, Total	ND	0.075		mg/Kg	1	9/14/2023 11:02:00 AM
Surr: 4-Bromofluorobenzene	86.6	39.1-146		%Rec	1	9/14/2023 11:02:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/14/2023 12:00:19 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS01b@1'

Project: Seymour 6

Collection Date: 9/13/2023 9:40:00 AM

Lab ID: 2309743-002

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/25/2023 7:13:06 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/25/2023 7:13:06 PM
Surr: DNOP	127	69-147		%Rec	1	9/25/2023 7:13:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/25/2023 5:41:00 PM
Surr: BFB	98.5	15-244		%Rec	1	9/25/2023 5:41:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/23/2023 6:05:54 AM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS01c

Project: Seymour 6

Collection Date: 9/13/2023 1:37:00 PM

Lab ID: 2309743-004

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	59	9.5		mg/Kg	1	9/18/2023 11:14:18 AM
Motor Oil Range Organics (MRO)	88	47		mg/Kg	1	9/18/2023 11:14:18 AM
Surr: DNOP	101	69-147		%Rec	1	9/18/2023 11:14:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/16/2023 3:43:00 AM
Surr: BFB	98.3	15-244		%Rec	1	9/16/2023 3:43:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/16/2023 3:43:00 AM
Toluene	ND	0.049		mg/Kg	1	9/16/2023 3:43:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/16/2023 3:43:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/16/2023 3:43:00 AM
Surr: 4-Bromofluorobenzene	89.5	39.1-146		%Rec	1	9/16/2023 3:43:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 12:05:41 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS01d

Project: Seymour 6

Collection Date: 9/13/2023 1:52:00 PM

Lab ID: 2309743-005

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	3400	98		mg/Kg	10	9/18/2023 1:53:57 PM
Motor Oil Range Organics (MRO)	ND	490	D	mg/Kg	10	9/18/2023 1:53:57 PM
Surr: DNOP	0	69-147	S	%Rec	10	9/18/2023 1:53:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/16/2023 4:04:00 AM
Surr: BFB	99.1	15-244		%Rec	1	9/16/2023 4:04:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/16/2023 4:04:00 AM
Toluene	ND	0.047		mg/Kg	1	9/16/2023 4:04:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	9/16/2023 4:04:00 AM
Xylenes, Total	ND	0.094		mg/Kg	1	9/16/2023 4:04:00 AM
Surr: 4-Bromofluorobenzene	89.5	39.1-146		%Rec	1	9/16/2023 4:04:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 12:42:55 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS03c

Project: Seymour 6

Collection Date: 9/13/2023 3:47:00 PM

Lab ID: 2309743-006

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	140	9.4		mg/Kg	1	9/18/2023 2:04:48 PM
Motor Oil Range Organics (MRO)	340	47		mg/Kg	1	9/18/2023 2:04:48 PM
Surr: DNOP	105	69-147		%Rec	1	9/18/2023 2:04:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 4:26:00 AM
Surr: BFB	95.3	15-244		%Rec	1	9/16/2023 4:26:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/16/2023 4:26:00 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 4:26:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 4:26:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 4:26:00 AM
Surr: 4-Bromofluorobenzene	88.5	39.1-146		%Rec	1	9/16/2023 4:26:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 12:55:19 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS04c

Project: Seymour 6

Collection Date: 9/13/2023 2:00:00 PM

Lab ID: 2309743-007

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	26	8.4		mg/Kg	1	9/18/2023 2:45:22 PM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	9/18/2023 2:45:22 PM
Surr: DNOP	118	69-147		%Rec	1	9/18/2023 2:45:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/16/2023 4:48:00 AM
Surr: BFB	94.8	15-244		%Rec	1	9/16/2023 4:48:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/16/2023 4:48:00 AM
Toluene	ND	0.050		mg/Kg	1	9/16/2023 4:48:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/16/2023 4:48:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/16/2023 4:48:00 AM
Surr: 4-Bromofluorobenzene	87.6	39.1-146		%Rec	1	9/16/2023 4:48:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 1:07:43 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS05c

Project: Seymour 6

Collection Date: 9/13/2023 2:08:00 PM

Lab ID: 2309743-008

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	15	9.3		mg/Kg	1	9/15/2023 7:59:51 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/15/2023 7:59:51 PM
Surr: DNOP	82.4	69-147		%Rec	1	9/15/2023 7:59:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 2:16:17 AM
Surr: BFB	92.2	15-244		%Rec	1	9/16/2023 2:16:17 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 2:16:17 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 2:16:17 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 2:16:17 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 2:16:17 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/16/2023 2:16:17 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 1:20:08 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS06c

Project: Seymour 6

Collection Date: 9/13/2023 2:15:00 PM

Lab ID: 2309743-009

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	55	9.9		mg/Kg	1	9/15/2023 8:32:09 PM
Motor Oil Range Organics (MRO)	51	49		mg/Kg	1	9/15/2023 8:32:09 PM
Surr: DNOP	96.4	69-147		%Rec	1	9/15/2023 8:32:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/16/2023 3:50:01 AM
Surr: BFB	97.5	15-244		%Rec	1	9/16/2023 3:50:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/16/2023 3:50:01 AM
Toluene	ND	0.050		mg/Kg	1	9/16/2023 3:50:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/16/2023 3:50:01 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/16/2023 3:50:01 AM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	9/16/2023 3:50:01 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 1:57:21 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS07c

Project: Seymour 6

Collection Date: 9/13/2023 2:23:00 PM

Lab ID: 2309743-010

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	32	9.6		mg/Kg	1	9/15/2023 2:47:32 PM
Motor Oil Range Organics (MRO)	56	48		mg/Kg	1	9/15/2023 2:47:32 PM
Surr: DNOP	102	69-147		%Rec	1	9/15/2023 2:47:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 5:00:31 AM
Surr: BFB	92.0	15-244		%Rec	1	9/16/2023 5:00:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 5:00:31 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 5:00:31 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 5:00:31 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 5:00:31 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/16/2023 5:00:31 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	130	60		mg/Kg	20	9/20/2023 2:09:46 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS08c

Project: Seymour 6

Collection Date: 9/13/2023 2:33:00 PM

Lab ID: 2309743-011

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	22	9.5		mg/Kg	1	9/15/2023 8:53:38 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/15/2023 8:53:38 PM
Surr: DNOP	98.6	69-147		%Rec	1	9/15/2023 8:53:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 5:23:53 AM
Surr: BFB	98.0	15-244		%Rec	1	9/16/2023 5:23:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 5:23:53 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 5:23:53 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 5:23:53 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 5:23:53 AM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	9/16/2023 5:23:53 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	260	60		mg/Kg	20	9/20/2023 2:22:11 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS09c

Project: Seymour 6

Collection Date: 9/13/2023 2:38:00 PM

Lab ID: 2309743-012

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	29	9.2		mg/Kg	1	9/15/2023 9:04:27 PM
Motor Oil Range Organics (MRO)	47	46		mg/Kg	1	9/15/2023 9:04:27 PM
Surr: DNOP	99.1	69-147		%Rec	1	9/15/2023 9:04:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/16/2023 5:47:23 AM
Surr: BFB	96.0	15-244		%Rec	1	9/16/2023 5:47:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/16/2023 5:47:23 AM
Toluene	ND	0.049		mg/Kg	1	9/16/2023 5:47:23 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/16/2023 5:47:23 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/16/2023 5:47:23 AM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/16/2023 5:47:23 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	180	60		mg/Kg	20	9/20/2023 2:59:25 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS10c

Project: Seymour 6

Collection Date: 9/13/2023 2:44:00 PM

Lab ID: 2309743-013

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	71	9.6		mg/Kg	1	9/15/2023 9:15:15 PM
Motor Oil Range Organics (MRO)	110	48		mg/Kg	1	9/15/2023 9:15:15 PM
Surr: DNOP	99.6	69-147		%Rec	1	9/15/2023 9:15:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/16/2023 6:10:54 AM
Surr: BFB	94.8	15-244		%Rec	1	9/16/2023 6:10:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 6:10:54 AM
Toluene	ND	0.049		mg/Kg	1	9/16/2023 6:10:54 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/16/2023 6:10:54 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/16/2023 6:10:54 AM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/16/2023 6:10:54 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 3:11:50 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS11c

Project: Seymour 6

Collection Date: 9/13/2023 2:59:00 PM

Lab ID: 2309743-014

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	20	9.9		mg/Kg	1	9/15/2023 9:25:59 PM
Motor Oil Range Organics (MRO)	55	50		mg/Kg	1	9/15/2023 9:25:59 PM
Surr: DNOP	103	69-147		%Rec	1	9/15/2023 9:25:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 6:34:16 AM
Surr: BFB	94.2	15-244		%Rec	1	9/16/2023 6:34:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 6:34:16 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 6:34:16 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 6:34:16 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 6:34:16 AM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/16/2023 6:34:16 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 3:24:14 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS12c

Project: Seymour 6

Collection Date: 9/13/2023 3:04:00 PM

Lab ID: 2309743-015

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	14	9.5		mg/Kg	1	9/15/2023 9:36:45 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/15/2023 9:36:45 PM
Surr: DNOP	99.4	69-147		%Rec	1	9/15/2023 9:36:45 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 6:57:51 AM
Surr: BFB	96.0	15-244		%Rec	1	9/16/2023 6:57:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 6:57:51 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 6:57:51 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 6:57:51 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 6:57:51 AM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/16/2023 6:57:51 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 3:36:39 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS13c

Project: Seymour 6

Collection Date: 9/13/2023 3:43:00 PM

Lab ID: 2309743-016

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	330	9.8		mg/Kg	1	9/15/2023 9:47:28 PM
Motor Oil Range Organics (MRO)	410	49		mg/Kg	1	9/15/2023 9:47:28 PM
Surr: DNOP	103	69-147		%Rec	1	9/15/2023 9:47:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 7:21:18 AM
Surr: BFB	94.9	15-244		%Rec	1	9/16/2023 7:21:18 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 7:21:18 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 7:21:18 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 7:21:18 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 7:21:18 AM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/16/2023 7:21:18 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 3:49:03 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS14c

Project: Seymour 6

Collection Date: 9/13/2023 4:08:00 PM

Lab ID: 2309743-017

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	580	9.2		mg/Kg	1	9/15/2023 9:58:11 PM
Motor Oil Range Organics (MRO)	690	46		mg/Kg	1	9/15/2023 9:58:11 PM
Surr: DNOP	103	69-147		%Rec	1	9/15/2023 9:58:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/16/2023 7:44:46 AM
Surr: BFB	96.0	15-244		%Rec	1	9/16/2023 7:44:46 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/16/2023 7:44:46 AM
Toluene	ND	0.049		mg/Kg	1	9/16/2023 7:44:46 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/16/2023 7:44:46 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/16/2023 7:44:46 AM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	9/16/2023 7:44:46 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 4:26:17 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS15c

Project: Seymour 6

Collection Date: 9/13/2023 3:11:00 PM

Lab ID: 2309743-018

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	96	9.6		mg/Kg	1	9/15/2023 10:39:04 PM
Motor Oil Range Organics (MRO)	140	48		mg/Kg	1	9/15/2023 10:39:04 PM
Surr: DNOP	105	69-147		%Rec	1	9/15/2023 10:39:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/16/2023 8:08:17 AM
Surr: BFB	97.1	15-244		%Rec	1	9/16/2023 8:08:17 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/16/2023 8:08:17 AM
Toluene	ND	0.050		mg/Kg	1	9/16/2023 8:08:17 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/16/2023 8:08:17 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/16/2023 8:08:17 AM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	9/16/2023 8:08:17 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 4:38:42 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS16c

Project: Seymour 6

Collection Date: 9/13/2023 3:19:00 PM

Lab ID: 2309743-019

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	13	9.9		mg/Kg	1	9/15/2023 10:49:49 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/15/2023 10:49:49 PM
Surr: DNOP	99.1	69-147		%Rec	1	9/15/2023 10:49:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/16/2023 9:18:30 AM
Surr: BFB	98.5	15-244		%Rec	1	9/16/2023 9:18:30 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/16/2023 9:18:30 AM
Toluene	ND	0.050		mg/Kg	1	9/16/2023 9:18:30 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/16/2023 9:18:30 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/16/2023 9:18:30 AM
Surr: 4-Bromofluorobenzene	110	39.1-146		%Rec	1	9/16/2023 9:18:30 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 4:51:06 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS18c

Project: Seymour 6

Collection Date: 9/13/2023 3:24:00 PM

Lab ID: 2309743-020

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	18	9.4		mg/Kg	1	9/15/2023 11:00:34 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/15/2023 11:00:34 PM
Surr: DNOP	104	69-147		%Rec	1	9/15/2023 11:00:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/16/2023 9:41:58 AM
Surr: BFB	97.9	15-244		%Rec	1	9/16/2023 9:41:58 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 9:41:58 AM
Toluene	ND	0.049		mg/Kg	1	9/16/2023 9:41:58 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/16/2023 9:41:58 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/16/2023 9:41:58 AM
Surr: 4-Bromofluorobenzene	109	39.1-146		%Rec	1	9/16/2023 9:41:58 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 5:03:31 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS19c

Project: Seymour 6

Collection Date: 9/13/2023 3:30:00 PM

Lab ID: 2309743-021

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	30	9.4		mg/Kg	1	9/15/2023 11:11:21 PM
Motor Oil Range Organics (MRO)	82	47		mg/Kg	1	9/15/2023 11:11:21 PM
Surr: DNOP	104	69-147		%Rec	1	9/15/2023 11:11:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 10:05:37 AM
Surr: BFB	97.4	15-244		%Rec	1	9/16/2023 10:05:37 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 10:05:37 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 10:05:37 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 10:05:37 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/16/2023 10:05:37 AM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	9/16/2023 10:05:37 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 5:15:55 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS20c

Project: Seymour 6

Collection Date: 9/13/2023 3:34:00 PM

Lab ID: 2309743-022

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	15	9.5		mg/Kg	1	9/15/2023 11:22:07 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/15/2023 11:22:07 PM
Surr: DNOP	106	69-147		%Rec	1	9/15/2023 11:22:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 10:29:13 AM
Surr: BFB	97.9	15-244		%Rec	1	9/16/2023 10:29:13 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 10:29:13 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 10:29:13 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 10:29:13 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/16/2023 10:29:13 AM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	9/16/2023 10:29:13 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 5:28:19 PM

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

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

Analytical Report

Lab Order **2309743**

Date Reported: **9/27/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: WS01c

Project: Seymour 6

Collection Date: 9/13/2023 2:52:00 PM

Lab ID: 2309743-023

Matrix: SOIL

Received Date: 9/14/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	85	9.4		mg/Kg	1	9/15/2023 11:32:52 PM
Motor Oil Range Organics (MRO)	110	47		mg/Kg	1	9/15/2023 11:32:52 PM
Surr: DNOP	106	69-147		%Rec	1	9/15/2023 11:32:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2023 10:52:50 AM
Surr: BFB	94.5	15-244		%Rec	1	9/16/2023 10:52:50 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/16/2023 10:52:50 AM
Toluene	ND	0.048		mg/Kg	1	9/16/2023 10:52:50 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2023 10:52:50 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/16/2023 10:52:50 AM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/16/2023 10:52:50 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 2:59:31 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-77520	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 77520	RunNo: 99702								
Prep Date: 9/14/2023	Analysis Date: 9/14/2023	SeqNo: 3644918	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77520	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 77520	RunNo: 99702								
Prep Date: 9/14/2023	Analysis Date: 9/14/2023	SeqNo: 3644919	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	90	110			

Sample ID: MB-77642	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 77642	RunNo: 99854								
Prep Date: 9/20/2023	Analysis Date: 9/20/2023	SeqNo: 3651989	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77642	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 77642	RunNo: 99854								
Prep Date: 9/20/2023	Analysis Date: 9/20/2023	SeqNo: 3651990	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.3	90	110			

Sample ID: MB-77635	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 77635	RunNo: 99855								
Prep Date: 9/20/2023	Analysis Date: 9/20/2023	SeqNo: 3652477	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77635	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 77635	RunNo: 99855								
Prep Date: 9/20/2023	Analysis Date: 9/20/2023	SeqNo: 3652478	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-77706	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 77706	RunNo: 99939								
Prep Date: 9/22/2023	Analysis Date: 9/23/2023	SeqNo: 3655035	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77706	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 77706	RunNo: 99939								
Prep Date: 9/22/2023	Analysis Date: 9/23/2023	SeqNo: 3655036	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-77516	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77516	RunNo: 99700								
Prep Date: 9/14/2023	Analysis Date: 9/14/2023	SeqNo: 3642929	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.3	69	147			

Sample ID: LCS-77516	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77516	RunNo: 99700								
Prep Date: 9/14/2023	Analysis Date: 9/14/2023	SeqNo: 3642930	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.9	61.9	130			
Surr: DNOP	4.0		5.000		79.3	69	147			

Sample ID: 2309743-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SS01b	Batch ID: 77516	RunNo: 99700								
Prep Date: 9/14/2023	Analysis Date: 9/14/2023	SeqNo: 3642932	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	94	9.0	45.21	34.63	132	54.2	135			
Surr: DNOP	4.7		4.521		105	69	147			

Sample ID: 2309743-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SS01b	Batch ID: 77516	RunNo: 99700								
Prep Date: 9/14/2023	Analysis Date: 9/14/2023	SeqNo: 3642933	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	87	9.0	44.76	34.63	117	54.2	135	7.92	29.2	
Surr: DNOP	4.8		4.476		108	69	147	0	0	

Sample ID: LCS-77533	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77533	RunNo: 99724								
Prep Date: 9/15/2023	Analysis Date: 9/15/2023	SeqNo: 3644512	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.2	61.9	130			
Surr: DNOP	4.8		5.000		95.9	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-77533	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77533	RunNo: 99724								
Prep Date: 9/15/2023	Analysis Date: 9/15/2023	SeqNo: 3644513	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	69	147			

Sample ID: MB-77529	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77529	RunNo: 99724								
Prep Date: 9/14/2023	Analysis Date: 9/15/2023	SeqNo: 3644759	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		119	69	147			

Sample ID: LCS-77529	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77529	RunNo: 99724								
Prep Date: 9/14/2023	Analysis Date: 9/15/2023	SeqNo: 3645014	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.1	61.9	130			
Surr: DNOP	4.9		5.000		97.5	69	147			

Sample ID: 2309743-008AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SS05c	Batch ID: 77533	RunNo: 99724								
Prep Date: 9/15/2023	Analysis Date: 9/15/2023	SeqNo: 3646352	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	49.80	15.13	82.2	54.2	135			
Surr: DNOP	4.4		4.980		89.2	69	147			

Sample ID: 2309743-008AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SS05c	Batch ID: 77533	RunNo: 99724								
Prep Date: 9/15/2023	Analysis Date: 9/15/2023	SeqNo: 3646353	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	9.7	48.54	15.13	101	54.2	135	13.6	29.2	
Surr: DNOP	4.7		4.854		97.7	69	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-77712	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77712	RunNo: 99951								
Prep Date: 9/22/2023	Analysis Date: 9/25/2023	SeqNo: 3656252	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	69	147			

Sample ID: LCS-77712	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77712	RunNo: 99951								
Prep Date: 9/22/2023	Analysis Date: 9/25/2023	SeqNo: 3656257	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	61.9	130			
Surr: DNOP	5.3		5.000		106	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: G99696		RunNo: 99696							
Prep Date:	Analysis Date: 9/14/2023		SeqNo: 3642725		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.0	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: G99696		RunNo: 99696							
Prep Date:	Analysis Date: 9/14/2023		SeqNo: 3642726		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	15	244			

Sample ID: 2309743-001ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SS01b	Batch ID: G99696		RunNo: 99696							
Prep Date:	Analysis Date: 9/14/2023		SeqNo: 3642728		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	18.82	0	96.8	70	130			
Surr: BFB	1600		753.0		217	15	244			

Sample ID: 2309743-001amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: SS01b	Batch ID: G99696		RunNo: 99696							
Prep Date:	Analysis Date: 9/14/2023		SeqNo: 3642729		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	18.82	0	97.3	70	130	0.536	20	
Surr: BFB	1600		753.0		218	15	244	0	0	

Sample ID: lcs-77523	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 77523		RunNo: 99729							
Prep Date: 9/14/2023	Analysis Date: 9/16/2023		SeqNo: 3645789		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	70	130			
Surr: BFB	2000		1000		203	15	244			

Sample ID: mb-77523	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 77523		RunNo: 99729							
Prep Date: 9/14/2023	Analysis Date: 9/16/2023		SeqNo: 3645791		Units: mg/Kg					
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
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: mb-77523	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77523	RunNo: 99729								
Prep Date: 9/14/2023	Analysis Date: 9/16/2023	SeqNo: 3645791	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.3	15	244			

Sample ID: 2309743-008ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SS05c	Batch ID: 77523	RunNo: 99729								
Prep Date: 9/14/2023	Analysis Date: 9/16/2023	SeqNo: 3645822	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	23.88	0	95.0	70	130			
Surr: BFB	2000		955.1		208	15	244			

Sample ID: 2309743-008amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SS05c	Batch ID: 77523	RunNo: 99729								
Prep Date: 9/14/2023	Analysis Date: 9/16/2023	SeqNo: 3645823	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	24.22	0	91.6	70	130	2.16	20	
Surr: BFB	2000		969.0		205	15	244	0	0	

Sample ID: lcs-77519	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 77519	RunNo: 99730								
Prep Date: 9/14/2023	Analysis Date: 9/15/2023	SeqNo: 3645977	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	70	130			
Surr: BFB	2100		1000		213	15	244			

Sample ID: mb-77519	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77519	RunNo: 99730								
Prep Date: 9/14/2023	Analysis Date: 9/15/2023	SeqNo: 3645978	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.9	15	244			

Sample ID: lcs-77709	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 77709	RunNo: 99959								
Prep Date: 9/22/2023	Analysis Date: 9/25/2023	SeqNo: 3656340	Units: mg/Kg							
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
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-77709	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 77709	RunNo: 99959								
Prep Date: 9/22/2023	Analysis Date: 9/25/2023	SeqNo: 3656340	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.6	70	130			
Surr: BFB	2100		1000		207	15	244			

Sample ID: mb-77709	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77709	RunNo: 99959								
Prep Date: 9/22/2023	Analysis Date: 9/25/2023	SeqNo: 3656341	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		107	15	244			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: R99696	RunNo: 99696								
Prep Date:	Analysis Date: 9/14/2023	SeqNo: 3642720			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.2	70	130			
Toluene	0.90	0.050	1.000	0	90.5	70	130			
Ethylbenzene	0.93	0.050	1.000	0	92.7	70	130			
Xylenes, Total	2.8	0.10	3.000	0	92.8	70	130			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.1	39.1	146			

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: R99696	RunNo: 99696								
Prep Date:	Analysis Date: 9/14/2023	SeqNo: 3642721			Units: mg/Kg					
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-Bromofluorobenzene	0.91		1.000		90.7	39.1	146			

Sample ID: 2309743-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SS01b	Batch ID: R99696	RunNo: 99696								
Prep Date:	Analysis Date: 9/14/2023	SeqNo: 3642723			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.019	0.7530	0	87.3	70	130			
Toluene	0.67	0.038	0.7530	0	88.4	70	130			
Ethylbenzene	0.68	0.038	0.7530	0	90.6	70	130			
Xylenes, Total	2.0	0.075	2.259	0	90.5	70	130			
Surr: 4-Bromofluorobenzene	0.66		0.7530		88.1	39.1	146			

Sample ID: 2309743-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SS01b	Batch ID: R99696	RunNo: 99696								
Prep Date:	Analysis Date: 9/14/2023	SeqNo: 3642724			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.019	0.7530	0	86.7	70	130	0.678	20	
Toluene	0.66	0.038	0.7530	0	87.5	70	130	0.968	20	
Ethylbenzene	0.67	0.038	0.7530	0	89.4	70	130	1.31	20	
Xylenes, Total	2.0	0.075	2.259	0	89.2	70	130	1.48	20	
Surr: 4-Bromofluorobenzene	0.65		0.7530		86.2	39.1	146	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: LCS-77523	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77523		RunNo: 99729							
Prep Date: 9/14/2023	Analysis Date: 9/16/2023		SeqNo: 3645870		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.4	70	130			
Toluene	0.97	0.050	1.000	0	97.1	70	130			
Ethylbenzene	0.97	0.050	1.000	0	97.2	70	130			
Xylenes, Total	2.9	0.10	3.000	0	97.4	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	39.1	146			

Sample ID: mb-77523	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77523		RunNo: 99729							
Prep Date: 9/14/2023	Analysis Date: 9/16/2023		SeqNo: 3645872		Units: mg/Kg					
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-Bromofluorobenzene	1.0		1.000		105	39.1	146			

Sample ID: 2309743-009ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: SS06c	Batch ID: 77523		RunNo: 99729							
Prep Date: 9/14/2023	Analysis Date: 9/16/2023		SeqNo: 3645896		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9862	0	106	70	130			
Toluene	1.1	0.049	0.9862	0	107	70	130			
Ethylbenzene	1.1	0.049	0.9862	0	106	70	130			
Xylenes, Total	3.2	0.099	2.959	0	107	70	130			
Surr: 4-Bromofluorobenzene	1.1		0.9862		107	39.1	146			

Sample ID: 2309743-009amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: SS06c	Batch ID: 77523		RunNo: 99729							
Prep Date: 9/14/2023	Analysis Date: 9/16/2023		SeqNo: 3645897		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9891	0	96.0	70	130	9.56	20	
Toluene	0.96	0.049	0.9891	0	96.6	70	130	9.91	20	
Ethylbenzene	0.96	0.049	0.9891	0	97.5	70	130	8.47	20	
Xylenes, Total	2.9	0.099	2.967	0	97.9	70	130	8.20	20	
Surr: 4-Bromofluorobenzene	1.1		0.9891		106	39.1	146	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309743

27-Sep-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-77519	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77519		RunNo: 99730							
Prep Date: 9/14/2023	Analysis Date: 9/15/2023		SeqNo: 3646017		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.1	70	130			
Toluene	0.93	0.050	1.000	0	92.9	70	130			
Ethylbenzene	0.95	0.050	1.000	0	94.9	70	130			
Xylenes, Total	2.9	0.10	3.000	0	95.3	70	130			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	39.1	146			

Sample ID: mb-77519	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77519		RunNo: 99730							
Prep Date: 9/14/2023	Analysis Date: 9/15/2023		SeqNo: 3646018		Units: mg/Kg					
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-Bromofluorobenzene	0.89		1.000		89.1	39.1	146			

Sample ID: ics-77709	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77709		RunNo: 99959							
Prep Date: 9/22/2023	Analysis Date: 9/25/2023		SeqNo: 3656373		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		90.8	39.1	146			

Sample ID: mb-77709	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77709		RunNo: 99959							
Prep Date: 9/22/2023	Analysis Date: 9/25/2023		SeqNo: 3656374		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	39.1	146			

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



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

Sample Log-In Check List

Client Name: **HILCORP ENERGY** Work Order Number: **2309743** RcptNo: **1**

Received By: **Tracy Casarrubias** 9/14/2023 6:30:00 AM
Completed By: **Tracy Casarrubias** 9/14/2023 7:02:06 AM
Reviewed By: *JM 9-14-23*

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes No NA

4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA

5. Sample(s) in proper container(s)? Yes No

6. Sufficient sample volume for indicated test(s)? Yes No

7. Are samples (except VOA and ONG) properly preserved? Yes No

8. Was preservative added to bottles? Yes No NA

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA

10. Were any sample containers received broken? Yes No

11. Does paperwork match bottle labels? Yes No

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes No

13. Is it clear what analyses were requested? Yes No

14. Were all holding times able to be met? Yes No

(If no, notify customer for authorization.)

of preserved bottles checked for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *SCM 9/14/23*

Special Handling (if applicable)

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

Person Notified: Mitch k. Date: 9/14

By Whom: Tracy C. Via: eMail Phone Fax In Person

Regarding: Name discrepancy - Sent Email, let him know we will proceed w/oc unless told otherwise - tmc 9/14

Client Instructions: Mailing address, phone number and Email/Fax are missing on COC- TMC 9/14/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes	Morty		

Proceeding with COC per MK. TMC 9/14/23

Chain-of-Custody Record

Client: Hilcorp / Mitch Killough
 mkillohugh@hilcorp.com
 Mailing Address:

Turn-Around Time: 5-day
 Standard Rush SS01b only
 Project Name: Seymour 6

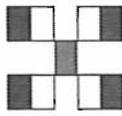
Project #:

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

Project Manager:
Stuart Hyde
shyde@ensolum.com
 Sampler: Zach Myers
 On Ice: Yes No No morty
 # of Coolers: 1

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
9/23/23	9:30	soil	SS01b	4oz jar cool		7309743
	940		SS01b@1'			001
	943		SS01b@3'			002
	1337		SS01c			003
	1352		SS01d			004
	1547		SS01e SS03c			005
	1400		SS04c			006
	1408		SS05c			007
	1415		SS06c			008
	1423		SS07c			009
	1433		SS08c SS08c			010
	1438		SS09c			011
						012

Cooler Temp (including CP): 0.9 - 0 = 0.9 (°C)
 Container Type and #
 Preservative Type
 HEAL No.
 Received by: Zach Myers Date: 9/13/23 Time: 1741
 Relinquished by: Stuart Hyde Date: 9/13/23 Time: 1807



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request	
<input checked="" type="checkbox"/> TPH:8015D(GRO / DRO / MRO)	
<input checked="" type="checkbox"/> BTEX / MTBE / TMBs (8021)	
<input type="checkbox"/> 8081 Pesticides/8082 PCB's	
<input type="checkbox"/> EDB (Method 504.1)	
<input type="checkbox"/> PAHs by 8310 or 8270SIMS	
<input type="checkbox"/> RCRA 8 Metals	
<input type="checkbox"/> (C) F, Br, NO ₂ , NO _x , PO ₄ , SO ₄	
<input type="checkbox"/> 8260 (VOA)	
<input type="checkbox"/> 8270 (Semi-VOA)	
<input type="checkbox"/> Total Coliform (Present/Absent)	

Remarks: rush SS01b, hold SS01b@1', SS01b@3'
 CC: Zach Myers@ensolum.com

Chain-of-Custody Record

Client: Hilcorp / Mitch Killough
 Mailing Address: mkillough@hilcorp.com

Turn-Around Time: 5-day
 Standard Rush
 Project Name: Seymour 6

Project #: _____
 Project Manager: Stuart Hyde
shyde@onsolum.com
 Sampler: Zach Myers

On Ice: Yes No marty
 # of Coolers: _____
 Cooler Temp (including CF): 0.9 - 0 - 0.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
9/13/23	1444	SB1	SS10C	4oz jar	cool	2309743
	1459		SS11C			013
	1504		SS12C			014
	1543		SS13C			015
	1608		SS14C			016
	1511		SS15C			013
	15A		SS16C			018
	1524		SS18C			019
	1530		SS19C			020
	1534		SS20C			021
	1452		WS01C			022
						023

Relinquished by: [Signature] Date: 9/13/23 Time: 1741
 Relinquished by: [Signature] Date: 9/13/23 Time: 1807

Received by: [Signature] Date: 9/13/23 Time: 1741
 Received by: [Signature] Date: 9/14/23 Time: 6:30

Remarks: W: Zmyers@onsolum.com

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request	
<input checked="" type="checkbox"/> BTEX / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)
<input checked="" type="checkbox"/> 8081 Pesticides/8082 PCB's	EDB (Method 504.1)
PAHs by 8310 or 8270SIMS	RCRA 8 Metals
	(Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄)
	8260 (VOA)
	8270 (Semi-VOA)
	Total Coliform (Present/Absent)



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

November 03, 2023

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

RE: Seymour 6

OrderNo.: 2310B59

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 9 sample(s) on 10/25/2023 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,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: WS01D

Project: Seymor 6

Collection Date: 10/24/2023 11:10:00 AM

Lab ID: 2310B59-001

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/27/2023 2:18:35 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/27/2023 2:18:35 PM
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 2:18:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/31/2023 1:06:00 AM
Surr: BFB	101	15-244		%Rec	1	10/31/2023 1:06:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.023		mg/Kg	1	10/31/2023 1:06:00 AM
Toluene	ND	0.046		mg/Kg	1	10/31/2023 1:06:00 AM
Ethylbenzene	ND	0.046		mg/Kg	1	10/31/2023 1:06:00 AM
Xylenes, Total	ND	0.092		mg/Kg	1	10/31/2023 1:06:00 AM
Surr: 4-Bromofluorobenzene	85.2	39.1-146		%Rec	1	10/31/2023 1:06:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 1:44:10 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS01E

Project: Seymor 6

Collection Date: 10/24/2023 11:15:00 AM

Lab ID: 2310B59-002

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	10	9.8		mg/Kg	1	10/27/2023 2:29:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/27/2023 2:29:23 PM
Surr: DNOP	106	69-147		%Rec	1	10/27/2023 2:29:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/31/2023 1:28:00 AM
Surr: BFB	103	15-244		%Rec	1	10/31/2023 1:28:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/31/2023 1:28:00 AM
Toluene	ND	0.049		mg/Kg	1	10/31/2023 1:28:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/31/2023 1:28:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	10/31/2023 1:28:00 AM
Surr: 4-Bromofluorobenzene	85.4	39.1-146		%Rec	1	10/31/2023 1:28:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 1:56:35 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS03D

Project: Seymor 6

Collection Date: 10/24/2023 11:43:00 AM

Lab ID: 2310B59-003

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	250	89		mg/Kg	10	10/27/2023 11:47:00 AM
Motor Oil Range Organics (MRO)	510	440		mg/Kg	10	10/27/2023 11:47:00 AM
Surr: DNOP	0	69-147	S	%Rec	10	10/27/2023 11:47:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/31/2023 1:49:00 AM
Surr: BFB	97.1	15-244		%Rec	1	10/31/2023 1:49:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/31/2023 1:49:00 AM
Toluene	ND	0.047		mg/Kg	1	10/31/2023 1:49:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/31/2023 1:49:00 AM
Xylenes, Total	ND	0.095		mg/Kg	1	10/31/2023 1:49:00 AM
Surr: 4-Bromofluorobenzene	83.5	39.1-146		%Rec	1	10/31/2023 1:49:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 2:08:59 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS06D

Project: Seymor 6

Collection Date: 10/24/2023 12:10:00 PM

Lab ID: 2310B59-004

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	27	9.4		mg/Kg	1	10/27/2023 2:40:15 PM
Motor Oil Range Organics (MRO)	58	47		mg/Kg	1	10/27/2023 2:40:15 PM
Surr: DNOP	101	69-147		%Rec	1	10/27/2023 2:40:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/31/2023 2:11:00 AM
Surr: BFB	101	15-244		%Rec	1	10/31/2023 2:11:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.023		mg/Kg	1	10/31/2023 2:11:00 AM
Toluene	ND	0.047		mg/Kg	1	10/31/2023 2:11:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/31/2023 2:11:00 AM
Xylenes, Total	ND	0.093		mg/Kg	1	10/31/2023 2:11:00 AM
Surr: 4-Bromofluorobenzene	84.8	39.1-146		%Rec	1	10/31/2023 2:11:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 2:21:24 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS10D

Project: Seymor 6

Collection Date: 10/24/2023 12:40:00 PM

Lab ID: 2310B59-005

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	18	9.6		mg/Kg	1	10/27/2023 3:02:59 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 3:02:59 PM
Surr: DNOP	107	69-147		%Rec	1	10/27/2023 3:02:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/31/2023 2:33:00 AM
Surr: BFB	106	15-244		%Rec	1	10/31/2023 2:33:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/31/2023 2:33:00 AM
Toluene	ND	0.050		mg/Kg	1	10/31/2023 2:33:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/31/2023 2:33:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/31/2023 2:33:00 AM
Surr: 4-Bromofluorobenzene	85.3	39.1-146		%Rec	1	10/31/2023 2:33:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 2:33:48 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS15D

Project: Seymor 6

Collection Date: 10/24/2023 12:45:00 PM

Lab ID: 2310B59-006

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	37	9.0		mg/Kg	1	10/27/2023 3:13:48 PM
Motor Oil Range Organics (MRO)	160	45		mg/Kg	1	10/27/2023 3:13:48 PM
Surr: DNOP	92.1	69-147		%Rec	1	10/27/2023 3:13:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/31/2023 2:54:00 AM
Surr: BFB	98.5	15-244		%Rec	1	10/31/2023 2:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.023		mg/Kg	1	10/31/2023 2:54:00 AM
Toluene	ND	0.046		mg/Kg	1	10/31/2023 2:54:00 AM
Ethylbenzene	ND	0.046		mg/Kg	1	10/31/2023 2:54:00 AM
Xylenes, Total	ND	0.093		mg/Kg	1	10/31/2023 2:54:00 AM
Surr: 4-Bromofluorobenzene	85.4	39.1-146		%Rec	1	10/31/2023 2:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 3:11:01 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS13D

Project: Seymour 6

Collection Date: 10/24/2023 1:45:00 PM

Lab ID: 2310B59-007

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	10/27/2023 3:35:16 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	10/27/2023 3:35:16 PM
Surr: DNOP	112	69-147		%Rec	1	10/27/2023 3:35:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/31/2023 3:16:00 AM
Surr: BFB	98.8	15-244		%Rec	1	10/31/2023 3:16:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/31/2023 3:16:00 AM
Toluene	ND	0.050		mg/Kg	1	10/31/2023 3:16:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/31/2023 3:16:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	10/31/2023 3:16:00 AM
Surr: 4-Bromofluorobenzene	85.6	39.1-146		%Rec	1	10/31/2023 3:16:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 3:23:26 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS14D

Project: Seymour 6

Collection Date: 10/24/2023 1:50:00 PM

Lab ID: 2310B59-008

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/27/2023 3:46:04 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 3:46:04 PM
Surr: DNOP	118	69-147		%Rec	1	10/27/2023 3:46:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/31/2023 3:37:00 AM
Surr: BFB	100	15-244		%Rec	1	10/31/2023 3:37:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/31/2023 3:37:00 AM
Toluene	ND	0.048		mg/Kg	1	10/31/2023 3:37:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	10/31/2023 3:37:00 AM
Xylenes, Total	ND	0.095		mg/Kg	1	10/31/2023 3:37:00 AM
Surr: 4-Bromofluorobenzene	86.6	39.1-146		%Rec	1	10/31/2023 3:37:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 3:35:51 AM

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

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

Analytical Report

Lab Order **2310B59**

Date Reported: **11/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: SS19D

Project: Seymour 6

Collection Date: 10/24/2023 2:02:00 PM

Lab ID: 2310B59-009

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	10/31/2023 10:07:20 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/31/2023 10:07:20 AM
Surr: DNOP	101	69-147		%Rec	1	10/31/2023 10:07:20 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/31/2023 8:10:00 PM
Surr: BFB	105	15-244		%Rec	1	10/31/2023 8:10:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/31/2023 8:10:00 PM
Toluene	ND	0.048		mg/Kg	1	10/31/2023 8:10:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/31/2023 8:10:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/31/2023 8:10:00 PM
Surr: 4-Bromofluorobenzene	89.5	39.1-146		%Rec	1	10/31/2023 8:10:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/31/2023 3:48:15 AM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B59

03-Nov-23

Client: HILCORP ENERGY

Project: Seymor 6

Sample ID: MB-78458	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 78458	RunNo: 100821								
Prep Date: 10/30/2023	Analysis Date: 10/31/2023	SeqNo: 3699509	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-78458	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 78458	RunNo: 100821								
Prep Date: 10/30/2023	Analysis Date: 10/31/2023	SeqNo: 3699510	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B59

03-Nov-23

Client: HILCORP ENERGY

Project: Seymor 6

Sample ID: LCS-78400	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78400	RunNo: 100779								
Prep Date: 10/26/2023	Analysis Date: 10/27/2023	SeqNo: 3697663	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	61.9	130			
Surr: DNOP	7.3		5.000		146	69	147			

Sample ID: MB-78400	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78400	RunNo: 100779								
Prep Date: 10/26/2023	Analysis Date: 10/27/2023	SeqNo: 3697665	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		120	69	147			

Sample ID: LCS-78449	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78449	RunNo: 100863								
Prep Date: 10/30/2023	Analysis Date: 10/31/2023	SeqNo: 3700786	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	117	61.9	130			
Surr: DNOP	7.4		5.000		148	69	147			S

Sample ID: MB-78449	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78449	RunNo: 100863								
Prep Date: 10/30/2023	Analysis Date: 10/31/2023	SeqNo: 3700789	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		115	69	147			

Sample ID: LCS-78476	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78476	RunNo: 100868								
Prep Date: 10/31/2023	Analysis Date: 11/1/2023	SeqNo: 3701935	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.0		5.000		120	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B59

03-Nov-23

Client: HILCORP ENERGY

Project: Seymor 6

Sample ID: MB-78476	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78476	RunNo: 100868								
Prep Date: 10/31/2023	Analysis Date: 11/1/2023	SeqNo: 3701938	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		119	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B59

03-Nov-23

Client: HILCORP ENERGY

Project: Seymor 6

Sample ID: ics-78367	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 78367		RunNo: 100829							
Prep Date: 10/25/2023	Analysis Date: 10/30/2023		SeqNo: 3699748		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.3	70	130			
Surr: BFB	2300		1000		228	15	244			

Sample ID: mb-78367	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 78367		RunNo: 100829							
Prep Date: 10/25/2023	Analysis Date: 10/30/2023		SeqNo: 3699749		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	15	244			

Sample ID: ics-78421	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 78421		RunNo: 100865							
Prep Date: 10/27/2023	Analysis Date: 10/31/2023		SeqNo: 3700821		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	70	130			
Surr: BFB	2200		1000		221	15	244			

Sample ID: mb-78421	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 78421		RunNo: 100865							
Prep Date: 10/27/2023	Analysis Date: 10/31/2023		SeqNo: 3700822		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	15	244			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B59

03-Nov-23

Client: HILCORP ENERGY

Project: Seymor 6

Sample ID: ics-78367	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 78367		RunNo: 100829							
Prep Date: 10/25/2023	Analysis Date: 10/30/2023		SeqNo: 3699713		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.0	70	130			
Toluene	0.86	0.050	1.000	0	85.7	70	130			
Ethylbenzene	0.87	0.050	1.000	0	87.3	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.5	70	130			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.7	39.1	146			

Sample ID: mb-78367	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 78367		RunNo: 100829							
Prep Date: 10/25/2023	Analysis Date: 10/30/2023		SeqNo: 3699714		Units: mg/Kg					
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-Bromofluorobenzene	0.90		1.000		89.9	39.1	146			

Sample ID: ics-78421	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 78421		RunNo: 100865							
Prep Date: 10/27/2023	Analysis Date: 10/31/2023		SeqNo: 3700798		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.4	70	130			
Toluene	0.81	0.050	1.000	0	81.2	70	130			
Ethylbenzene	0.84	0.050	1.000	0	83.6	70	130			
Xylenes, Total	2.5	0.10	3.000	0	82.9	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	39.1	146			

Sample ID: mb-78421	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 78421		RunNo: 100865							
Prep Date: 10/27/2023	Analysis Date: 10/31/2023		SeqNo: 3700799		Units: mg/Kg					
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-Bromofluorobenzene	0.94		1.000		94.2	39.1	146			

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



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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2310B59 RcptNo: 1

Received By: Tracy Casarrubias 10/25/2023 7:10:00 AM
Completed By: Tracy Casarrubias 10/25/2023 8:17:16 AM
Reviewed By: [Signature] 10-25-23

Chain of Custody

- 1. Is Chain of Custody complete? Yes [] No [x] Not Present []
2. How was the sample delivered? Courier

Log In

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

of preserved bottles checked for pH:
Adjusted?
Checked by: [Signature] 10/25/23

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [x]

Person Notified: [] Date: []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: Mailing address, phone number and Email/Fax are missing on COC- TMC 10/25/23

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 4.9, Good, Yes, Yogi, [], []

Chain-of-Custody Record

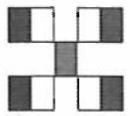
Client: H: Carl
 Attn: Mitch Killough
 Mailing Address: _____
 Phone #: _____
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: AZ Compliance NELAC Other
 EDD (Type) _____

Turn-Around Time: 5-day
 Standard Rush
 Project Name: Seymour 6
 Project #: _____

Project Manager: Stuart Hyde
 Sampler: Reece Hanson
 On Ice: Yes No Yogi
 # of Coolers: 1
 Cooler Temp (including CP): 4.9 - 0 = 4.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
12/12/23	11:10	Soil	WS01D	1,402	Cool	2310B59
	11:15		SS01E			002
	11:43		SS03D			003
	12:10		SS06D			004
	12:40		SS10D			005
	12:45		SS15D			006
	13:45		SS13D			007
	13:50		SS14D			008
	14:02		SS19D			009

Date: 12/12/23 Time: 1634 Relinquished by: [Signature]
 Date: 10/24/23 Time: 1730 Relinquished by: [Signature]
 Received by: [Signature] Date: 10/24/23 Time: 1634
 Received by: [Signature] Date: 10/25/23 Time: 7:10



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

Analysis Request

<input checked="" type="checkbox"/> BTEX / MTBE / TMB's (8021)	
<input checked="" type="checkbox"/> TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCBs	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
<input checked="" type="checkbox"/> Cl ⁻ , F ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: cc: shyde @ensolum.com
chanon



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

November 02, 2023

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

RE: Seymour 6

OrderNo.: 2310B60

Dear Stuart Hyde:

Eurofins Environment Testing South Central, LLC received 2 sample(s) on 10/25/2023 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,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2310B60

Date Reported: 11/2/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: PH02@2.5'

Project: Seymour 6

Collection Date: 10/24/2023 3:10:00 PM

Lab ID: 2310B60-001

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	1400	95		mg/Kg	10	10/31/2023 9:46:24 AM
Motor Oil Range Organics (MRO)	770	480		mg/Kg	10	10/31/2023 9:46:24 AM
Surr: DNOP	0	69-147	S	%Rec	10	10/31/2023 9:46:24 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	9.0	4.9		mg/Kg	1	10/31/2023 3:06:00 PM
Surr: BFB	193	15-244		%Rec	1	10/31/2023 3:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/31/2023 3:06:00 PM
Toluene	ND	0.049		mg/Kg	1	10/31/2023 3:06:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/31/2023 3:06:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/31/2023 3:06:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	10/31/2023 3:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	10/31/2023 1:12:57 PM

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

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

Analytical Report

Lab Order **2310B60**

Date Reported: **11/2/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY

Client Sample ID: PH02@5'

Project: Seymour 6

Collection Date: 10/24/2023 3:12:00 PM

Lab ID: 2310B60-002

Matrix: SOIL

Received Date: 10/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	230	9.4		mg/Kg	1	11/1/2023 10:03:28 AM
Motor Oil Range Organics (MRO)	400	47		mg/Kg	1	11/1/2023 10:03:28 AM
Surr: DNOP	101	69-147		%Rec	1	11/1/2023 10:03:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/31/2023 3:27:00 PM
Surr: BFB	103	15-244		%Rec	1	10/31/2023 3:27:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/31/2023 3:27:00 PM
Toluene	ND	0.050		mg/Kg	1	10/31/2023 3:27:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/31/2023 3:27:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/31/2023 3:27:00 PM
Surr: 4-Bromofluorobenzene	88.1	39.1-146		%Rec	1	10/31/2023 3:27:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	10/31/2023 1:25:21 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B60

02-Nov-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: MB-78466	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 78466	RunNo: 100869								
Prep Date: 10/31/2023	Analysis Date: 10/31/2023	SeqNo: 3701184	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-78466	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 78466	RunNo: 100869								
Prep Date: 10/31/2023	Analysis Date: 10/31/2023	SeqNo: 3701185	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B60

02-Nov-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: LCS-78449	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78449	RunNo: 100863								
Prep Date: 10/30/2023	Analysis Date: 10/31/2023	SeqNo: 3700786	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	117	61.9	130			
Surr: DNOP	7.4		5.000		148	69	147			S

Sample ID: MB-78449	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78449	RunNo: 100863								
Prep Date: 10/30/2023	Analysis Date: 10/31/2023	SeqNo: 3700789	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		115	69	147			

Sample ID: LCS-78476	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78476	RunNo: 100868								
Prep Date: 10/31/2023	Analysis Date: 11/1/2023	SeqNo: 3701935	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.0		5.000		120	69	147			

Sample ID: MB-78476	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78476	RunNo: 100868								
Prep Date: 10/31/2023	Analysis Date: 11/1/2023	SeqNo: 3701938	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		119	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 Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B60

02-Nov-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-78421	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 78421	RunNo: 100865								
Prep Date: 10/27/2023	Analysis Date: 10/31/2023	SeqNo: 3700821	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	70	130			
Surr: BFB	2200		1000		221	15	244			

Sample ID: mb-78421	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 78421	RunNo: 100865								
Prep Date: 10/27/2023	Analysis Date: 10/31/2023	SeqNo: 3700822	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	15	244			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310B60

02-Nov-23

Client: HILCORP ENERGY

Project: Seymour 6

Sample ID: ics-78421	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 78421		RunNo: 100865							
Prep Date: 10/27/2023	Analysis Date: 10/31/2023		SeqNo: 3700798		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.4	70	130			
Toluene	0.81	0.050	1.000	0	81.2	70	130			
Ethylbenzene	0.84	0.050	1.000	0	83.6	70	130			
Xylenes, Total	2.5	0.10	3.000	0	82.9	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	39.1	146			

Sample ID: mb-78421	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 78421		RunNo: 100865							
Prep Date: 10/27/2023	Analysis Date: 10/31/2023		SeqNo: 3700799		Units: mg/Kg					
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-Bromofluorobenzene	0.94		1.000		94.2	39.1	146			

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



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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2310B60 RcptNo: 1

Received By: Tracy Casarrubias 10/25/2023 7:10:00 AM

Completed By: Tracy Casarrubias 10/25/2023 8:24:44 AM

Reviewed By: [Signature] 10-25-23

Chain of Custody

1. Is Chain of Custody complete? Yes [] No [x] Not Present []

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes [x] No [] NA []

4. Were all samples received at a temperature of >0° C to 6.0°C Yes [x] No [] NA []

5. Sample(s) in proper container(s)? Yes [x] No []

6. Sufficient sample volume for indicated test(s)? Yes [x] No []

7. Are samples (except VOA and ONG) properly preserved? Yes [x] No []

8. Was preservative added to bottles? Yes [] No [x] NA []

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [x]

10. Were any sample containers received broken? Yes [] No [x]

11. Does paperwork match bottle labels? Yes [x] No []

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes [x] No []

13. Is it clear what analyses were requested? Yes [x] No []

14. Were all holding times able to be met? Yes [x] No []

(If no, notify customer for authorization.)

of preserved bottles checked for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: [Signature] 10/25/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes [] No [] NA [x]

Person Notified: [] Date: []

By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []

Regarding: []

Client Instructions: Mailing address, phone number and Email/Fax are missing on COC- TMC 10/25/23

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 4.9, Good, Yes, Yogi, ,

Chain-of-Custody Record

Client: Hilcorp
 Attn: Mitch Killough
 Mailing Address: _____

Turn-Around Time:
 Standard Rush
 Project Name:
Seymour 6

Project #: _____

Project Manager: Stuart Hyde

Sampler: Reece Hanson
 On Ice: Yes No 400g
 # of Coolers: 1

Cooler Temp (including CF): 4.9-4.9 (°C)

Container Type and #	Preservative Type	HEAL No.
<u>1,402 ↓</u>	<u>cool</u>	<u>2310B00</u>
<u>↓</u>	<u>↓</u>	<u>001</u>
		<u>002</u>

Date	Time	Matrix	Sample Name
<u>10/24/23</u>	<u>1510</u>	<u>Soil</u>	<u>P1402 @ 2.5'</u>
<u>↓</u>	<u>1512</u>	<u>↓</u>	<u>P1402 @ 5'</u>

Analysis Request

8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(G, F, B, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Received by: Chad Was Date: 10/24/23 Time: 1634
 Received by: Courier Date: 10/25/23 Time: 7:10

Remarks:
cc: shyle @ ensolum.com
Reece Hanson



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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



APPENDIX B

Agency Correspondence

From: [Velez, Nelson, EMNRD](#)
To: [Stuart Hyde](#); [Adeloye, Abiodun A](#)
Cc: [Mitch Killough](#); [Bobby Spearman](#); [Devin Hencmann](#); [Eric Carroll](#); [Bratcher, Michael, EMNRD](#)
Subject: Re: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification
Date: Tuesday, October 17, 2023 7:07:44 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[Outlook-wwwvphdi.png](#)

[**EXTERNAL EMAIL**]

Good morning Stuart,

Thank you for the notice.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>



From: Stuart Hyde <shyde@ensolum.com>
Sent: Monday, October 16, 2023 3:47 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Adeloye, Abiodun A <aadeloye@blm.gov>
Cc: Mitch Killough <mkillough@hilcorp.com>; Bobby Spearman <bspearman@hilcorp.com>; Devin Hencmann <dhencmann@ensolum.com>; Eric Carroll <ecarroll@ensolum.com>

Subject: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

On behalf of Hilcorp Energy Company, Ensolum is submitting this sampling notification for the Seymour 6 site to be conducted on Thursday October 19 at 8 AM. The site is located at coordinates 36.8929138, -107.7552261. Please reach out with any questions. Thanks.



Stuart Hyde, LG

Senior Geologist

970-903-1607

Ensolum, LLC

in f 

From: [Velez, Nelson, EMNRD](#)
To: [Adeloye, Abiodun A](#); [Stuart Hyde](#)
Cc: [Devin Hencmann](#); bspearman@hilcorp.com; [Mitch Killough](#); [Zach Myers](#)
Subject: Re: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification
Date: Friday, September 8, 2023 10:32:25 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[Outlook-0qphiu0r.png](#)

[**EXTERNAL EMAIL**]

Stuart,

Thank you for the notice. If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrn.gov
<http://www.emnrn.state.nm.us/OCD/>



From: Adeloye, Abiodun A <aadeloye@blm.gov>
Sent: Friday, September 8, 2023 10:28 AM
To: Stuart Hyde <shyde@ensolum.com>; Velez, Nelson, EMNRD <Nelson.Velez@emnrn.nm.gov>
Cc: Devin Hencmann <dhencmann@ensolum.com>; bspearman@hilcorp.com
<bspearman@hilcorp.com>; Mitch Killough <mkillough@hilcorp.com>; Zach Myers
<zmyers@ensolum.com>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

Thank you, Stuart. Hilcorp can proceed with the sampling if the BLM representative is not present at

the scheduled time. Please notify the BLM immediately if the schedule changed.
Thank you.

Abiodun Adeloje (Emmanuel)
Natural Resources Specialist (NRS)
6251 College Blvd., Suite A
Farmington, NM 87402
Office: 505-564-7665
Mobile: 505-635-0984

From: Stuart Hyde <shyde@ensolum.com>
Sent: Friday, September 8, 2023 10:13 AM
To: Adeloje, Abiodun A <aadeloje@blm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Devin Hencmann <dhencmann@ensolum.com>; bspearman@hilcorp.com; Mitch Killough <mkillough@hilcorp.com>; Zach Myers <zmyers@ensolum.com>
Subject: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

On behalf of Hilcorp Energy Company, Ensolum is submitting this sampling notification for the Seymour 6 site on Wednesday September 13 starting at 9 AM. The site is located at coordinates 36.8929138, -107.7552261. Please reach out with any questions. Thanks.



Stuart Hyde, LG
Senior Geologist
970-903-1607
Ensolum, LLC
in f 

Mitch Killough

From: Adeloje, Abiodun A <aadeloje@blm.gov>
Sent: Friday, September 8, 2023 11:15 AM
To: Mitch Killough
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

Mitch, thank you so much. Hilcorp can proceed with work. Please include this email conversation with your final report. Let me know if you have any questions.

Abiodun Adeloje (Emmanuel)
Natural Resources Specialist (NRS)
6251 College Blvd., Suite A
Farmington, NM 87402
Office: 505-564-7665
Mobile: 505-635-0984

From: Mitch Killough <mkillough@hilcorp.com>
Sent: Friday, September 8, 2023 8:29 AM
To: Adeloje, Abiodun A <aadeloje@blm.gov>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

Emmanuel,

FYI, the sundry submittal (SR, Other) is attached for the Seymour 6.

Thanks.

Mitch Killough
Hilcorp Energy Company
713-757-5247 (Office)
281-851-2338 (Mobile)

From: Adeloje, Abiodun A <aadeloje@blm.gov>
Sent: Thursday, September 7, 2023 12:31 PM
To: Mitch Killough <mkillough@hilcorp.com>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

Sounds good, thanks!

Abiodun Adeloje (Emmanuel)
Natural Resources Specialist (NRS)
6251 College Blvd., Suite A
Farmington, NM 87402

Office: 505-564-7665
Mobile: 505-635-0984

From: Mitch Killough <mkillough@hilcorp.com>
Sent: Thursday, September 7, 2023 11:11 AM
To: Adeloje, Abiodun A <aadeloje@blm.gov>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

Will do. I'll get this one in by tomorrow to your attention.

Mitch Killough
Hilcorp Energy Company
713-757-5247 (Office)
281-851-2338 (Mobile)

From: Adeloje, Abiodun A <aadeloje@blm.gov>
Sent: Thursday, September 7, 2023 9:08 AM
To: Mitch Killough <mkillough@hilcorp.com>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

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Hi, Mitch, yes please. The Sundry would type would be a SR one, and it would be accepted for a record purpose. This would cover the Hilcorp Energy if any of the BLM inspector shows up and ask if the BLM is or has authorized the work. Thank you.

Abiodun Adeloje (Emmanuel)
Natural Resources Specialist (NRS)
6251 College Blvd., Suite A
Farmington, NM 87402
Office: 505-564-7665
Mobile: 505-635-0984

From: Mitch Killough <mkillough@hilcorp.com>
Sent: Thursday, September 7, 2023 7:38 AM
To: Adeloje, Abiodun A <aadeloje@blm.gov>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

Good morning Emmanuel. I am emailing you in regards to the on-going soil remedial work at the Seymour 6. The current sundry approval is under Sundry ID 2711349 (also attached). At this time, we are preparing to conduct additional excavation efforts on the pad, but we will have to move the below-grade tank (BGT) (refer to the attached pics) in order to excavate underneath it. This will also involve temporarily moving the tank aside (and containment wall) and disconnecting from flowlines. Once the excavation is complete, we will reset the containment, BGT, and re-connect in the exact same location. The BGT is on the pad.

At this time, we have already cleared T&E and cultural for the pad and adjacent stream segment. Before we move the BGT though, do you want this proposed action to be submitted via sundry for approval or are we already clear to do work on the pad?

Thanks.

Mitch Killough
Hilcorp Energy Company
713-757-5247 (Office)
281-851-2338 (Mobile)

From: Adeloze, Abiodun A <aadeloye@blm.gov>
Sent: Thursday, June 15, 2023 8:10 AM
To: Stuart Hyde <shyde@ensolum.com>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Devin Hencmann <dhencmann@ensolum.com>; Bobby Spearman <bspearman@hilcorp.com>; Mitch Killough <mkillough@hilcorp.com>
Subject: RE: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

Hi, Stuart, Hilcorp can proceed with sampling if the BLM representative is not present on the date and time for the sampling. Please notify BLM immediately if anything changed.
Thank you.

Abiodun Adeloze (Emmanuel)
Natural Resources Specialist (NRS)
6251 College Blvd., Suite A
Farmington, NM 87402
Office: 505-564-7665
Mobile: 505-635-0984

From: Stuart Hyde <shyde@ensolum.com>
Sent: Wednesday, June 14, 2023 4:17 PM
To: Adeloze, Abiodun A <aadeloye@blm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Devin Hencmann <dhencmann@ensolum.com>; bspearman@hilcorp.com; Mitch Killough <mkillough@hilcorp.com>
Subject: [EXTERNAL] nAPP2224144740 - Seymour 6 Sampling Notification

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On behalf of Hilcorp Energy Company, Ensolum is submitting this sampling notification for the Seymour 6 site on Monday June 19, 2023, starting at 9 AM. The site is located at coordinates 36.8929138, -107.7552261. Please reach out with any questions. Thanks.



Stuart Hyde, LG
Senior Geologist
970-903-1607
Ensolum, LLC
in f 

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From: [Stuart Hyde](#)
To: [Adeloye, Abiodun A](#); [Velez, Nelson, EMNRD](#)
Cc: [Devin Hencmann](#); bspearman@hilcorp.com; [Mitch Killough](#)
Subject: nAPP2224144740 - Seymour 6 Sampling Notification
Date: Wednesday, June 14, 2023 4:17:00 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

On behalf of Hilcorp Energy Company, Ensolum is submitting this sampling notification for the Seymour 6 site on Monday June 19, 2023, starting at 9 AM. The site is located at coordinates 36.8929138, -107.7552261. Please reach out with any questions. Thanks.



Stuart Hyde, LG

Senior Geologist

970-903-1607

Ensolum, LLC

in f 



APPENDIX C

Site Photographs

SITE PHOTOGRAPHS
Seymour 6
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1

View looking north at the impacted area on the well pad. Photo taken December 8, 2022.



Photograph 2

View looking east at the eastern edge of the Seymour 6 well pad. Photo taken December 8, 2022.



SITE PHOTOGRAPHS
Seymour 6
San Juan County, New Mexico
Hilcorp Energy Company

<p>Photograph 3</p> <p>View looking south where release entered the dry wash. Photo taken December 8, 2022.</p>	
<p>Photograph 4</p> <p>Impacted vegetation within the wash. Photo taken December 8, 2022.</p>	

SITE PHOTOGRAPHS
Seymour 6
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 5

View looking west around sampling area SS01 where release occurred. Photo taken September 13, 2023.



Photograph 6

View of area WS01 looking north where the release flowed off of the well pad and into the adjacent wash. Photo taken September 13, 2023.



SITE PHOTOGRAPHS
Seymour 6
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 7

View of well pad looking south after soils were removed to a depth of 0.5 feet. Photo taken September 13, 2023.



Photograph 8

View looking north of potholes being advanced to delineate historical impacts discovered during shallow-soil excavation work. Photo taken October 24, 2023.



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 287204

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 287204
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	Remediation update approved. Further delineation and remediation will be carried out in areas of SS03, SS15, SS01D and PH02. Since Hilcorp is requesting 120 days to complete this work, remediation closure report is due to OCD by 6/25/2024.	2/26/2024