ENSOLUM

October 31, 2025

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

Re: Remediation Work Plan
San Juan 28-6 #125
Rio Arriba County, New Mexico
Hilcorp Energy Company
NMOCD Incident Number: NRM2030132715

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Remediation Work Plan* for the San Juan 28-6 #125 natural gas production well pad (Site). The Site is located on private land in Unit H, Section 21, Township 28 North, Range 6 West in Rio Arriba County, New Mexico (Figure 1).

SITE BACKGROUND

On August 17, 2020, Hilcorp discovered historical petroleum-hydrocarbon impacts in soil during closure sampling of a below-grade tank (BGT). The release may have originated from a historical BGT and/or pit formerly located at the Site; however, the source and volume of the release is unknown. After discovery of the release, Hilcorp submitted a *Release Notification* Form C-141 to the New Mexico Oil Conservation Division (NMOCD) on October 22, 2020. NMOCD has assigned Incident Number NRM2030132715 to the Site.

SITE DELINEATION ACTIVITIES

After the discovery of the release, Hilcorp retained WSP USA, Inc. (WSP) to conduct a Site investigation to define the vertical and lateral extent of petroleum-hydrocarbon impacted soil. Drilling activities were performed on November 10 and 11, 2020, using a hollow-stem auger drilling rig. In total, nine borings (BH01 through BH09) were advanced during the November 2020 investigation to depths ranging from 37 feet to 55 feet below ground surface (bgs). During delineation activities, a geologist logged subsurface lithology and field screened soil samples for the presence of volatile organic compounds (VOCs) using a calibrated photoionization detector (PID). Samples collected during drilling were submitted to Hall Environmental Analysis Laboratory (Hall) for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) by United States Environmental Protection Agency (EPA) Method 8021, total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), TPH-motor oil range organics (MRO) by EPA Method 8015, and chloride by EPA Method 300.0.

Site characterization information was presented in WSP's *Site Characterization Report and Remediation Work Plan,* dated December 23, 2020. Based on the proximity of a significant

watercourse to the Site and in accordance with *Table I, Closure Criteria for Soils Impacted by a Release* of 19.15.29.12 of the New Mexico Administrative Code (NMAC), the following NMOCD Closure Criteria apply to the Site:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- TPH as GRO, DRO, and MRO: 100 mg/kg
- Chloride: 600 mg/kg

Analytical results indicated soil collected from borings BH01 through BH05 contained concentrations of TPH exceeding the NMOCD Table I Closure Criteria. Additionally, soil collected at 20 feet to 25 feet bgs from boring BH04 contained BTEX concentrations greater than the Closure Criteria. All other soil samples collected during the Site investigation contained concentrations of TPH and BTEX at concentrations either detected below the Table I Closure Criteria or were below laboratory detection limits. The soil analytical results, as compared to the NMOCD Closure Criteria, are summarized in Table 1. Additional details regarding the Site and the November 2020 investigation are included in WSP's *Site Characterization Report and Remediation Work Plan*.

On May 26 and 27, 2021, WSP continued delineating subsurface hydrocarbon impacts using an air rotary drilling rig with a rock coring bit to advance four new borings (BH10, BH10A, BH11, and BH12) to depths of 55 feet bgs (locations shown on Figure 2). During delineation activities, a geologist logged subsurface lithology and field screened soil samples in the same manner described above. Soil/rock descriptions and field screening results were noted in the soil boring logs attached as Appendix A. Soil samples were collected from all borings at 5-foot intervals where recovery yielded sufficient volumes for sampling. Soil samples were collected directly into laboratory-provided jars, immediately placed on ice, and submitted to Hall for laboratory analysis of TPH, BTEX, and chloride by the analytical methods described above. Because of the low recovery in boring BH10 at depths between 20 feet and 32 feet bgs and 40 feet and 48 feet bgs, a second boring, BH10A, was advanced approximately 5 feet adjacent to BH10 to assess the intervals lacking recovery. Based on field screening results from borings BH10/BH10A, borings BH11 and BH12 were advanced in downhill/downdip locations to the south and southeast (Figure 2).

According to the drilling logs documenting subsurface conditions observed during the Site investigations, lithology at the Site generally consists of unconsolidated sand with varying silt content from the ground surface to approximately 17 feet bgs. The sand is underlain by fine to coarse grained formation sandstone becoming increasingly silty with depth. The sandstone transitions to a dense, gray/purple siltstone at depths ranging from 25 feet to 48 feet bgs depending on the boring location. No indications of groundwater or saturated soil/rock were encountered in any borings advanced at the Site.

Laboratory analytical results indicated soil/rock collected from 20 feet to 25 feet bgs in boring BH11 contained concentrations of TPH exceeding the NMOCD Table I Closure Criteria. Concentrations of BTEX, TPH, and chloride in all other samples collected from BH10/BH10A, BH11, and BH12 were either detected below the Table I Closure Criteria or below laboratory detection limits. The soil analytical results are also summarized in Table 1, with complete laboratory analytical reports attached in Appendix B.

Petroleum-hydrocarbon impacted soil was delineated by WSP during the 2020 and 2021 delineation events. Impacted soil appears to be primarily located within the footprint of the well pad with a limited area of off-pad impacts near BH11 (approximate extent shown on Figure 3). Additionally, impacted soil is present between the ground surface in on-pad locations, vertically migrating in a bell shape due to mechanical dispersion of the release fluids to maximum depths

of approximately 35 feet bgs. Based on the analytical data and field-screening measurements, the source of the release appears to be near boring BH05, which displays the highest TPH concentrations and PID readings. Contaminants have migrated in all directions from the source, with preferential movement to the south/southeast of the release, potentially due to lithology changes and differences in sandstone permeabilities across the Site. Contaminants are confined to the shallow unconsolidated soils and formation sandstone present at the Site. Cross sections prepared for the Site are presented in Figures 4 and 5 and include Site lithology and the estimated area of soil impacts.

REMEDIATION WORK PLAN

Based on the soil sampling results described above, it is estimated impacts are present in unconsolidated soil at the Site between the ground surface up to depths of approximately 17 feet bgs. The bedrock also contains residual petroleum hydrocarbon impacts up to depths of approximately 35 feet bgs. Results also indicate the bulk of impacts are present in the unconsolidated sediment within and immediately surrounding the former secondary containment berm, with lower concentrations having migrated to the south and southeast of the containment at deeper intervals and into the formation bedrock.

Based on discussions with the landowner, Hilcorp is proposing to excavate and treat impacted unconsolidated soil to depths of up to approximately 18 feet bgs in the area shown on Figure 3. This area measures approximately 3,000 square feet and would remove approximately 1,500 cubic yards of impacted material for treatment. Based on drilling, field screening, and sampling data, impacts entrained at depth and in the formation bedrock at the Site are located in the area shown on Figure 3 and the cross sections presented on Figures 4 and 5. Because of the extensive surface disturbance and slope stability issues that would arise to remove impacts at these depths (including the area near BH11), these impacts will be left in place and allowed to attenuate through natural biological processes (further discussed below). Concentrations of petroleum hydrocarbon are also interpolated on the cross sections presented in Figure 4 and 5 and indicate a rapid decrease with depth.

Because of the areal extent of impacts, volume of impacted soil, and remote location of the Site, soil shredding has been chosen as the remediation technique to address impacted material at the Site. Soil shredding is an ex-situ and on-Site treatment of impacted soil through which impacted material is chemically treated using a chemical oxidant (hydrogen peroxide) applied to the soil/rock. Impacted material is excavated from the ground using standard construction techniques and placed onto a soil screening unit using a special shredding bucket. The impacted soil is conveyed by the screening unit and chemical treatment is applied simultaneously. The treated soil is then placed in discrete 100 cubic yard stockpiles and allowed to process for 24 to 48 hours in order for the oxidant to degrade the petroleum hydrocarbon contaminants in the soil. The stockpiles will be stored on-Site, and a berm will be constructed around the stockpile area in order to prevent run-off should a significant precipitation event occur. Additionally, the stockpiles will be placed in a manner to stay physically separated and will be labelled with a survey stake for identification.

Once treated, one 5-point composite sample will be collected for analysis from each 100 cubic yard stockpile. Individual aliquots for the 5-point composite samples will be collected using an excavator. The excavator will dig at least 2 feet into the stockpile on four sides to collect four aliquots and into the top of the stockpile at least 2 feet to collect the fifth aliquot for the composite sample. The aliquots will be placed into a resealable plastic bag and homogenizing the samples by thoroughly mixing. Samples will be submitted to the analytical laboratory using the handling procedures described above and will be analyzed for TPH, BTEX, and chloride constituents.

Any stockpiles exceeding the applicable Closure Criteria will be allowed to process for an additional 24 to 48 hours and then resampled using the sampling technique described above. If samples fail a second time, the stockpile will be retreated with hydrogen peroxide and allowed to process and sampled as described above. In the case that constituent concentrations cannot meet the applicable Closure Criteria, the failing stockpile(s) will be disposed off-Site at the Envirotech landfarm located in San Juan County, New Mexico.

In addition, as soil is removed from the excavation, the excavation sidewalls and floors will be field screened using a PID. Once field screening indicates impacted soil has been removed, 5-point composite samples will be collected from the sidewalls and floor of the excavation at a frequency of one sample per 200 square feet. The 5-point composite samples will be collected in the same manner described above. Samples will also be collected and submitted to the analytical laboratory using the techniques described above and will be analyzed for TPH, BTEX and chloride constituents.

LINER INSTALLATION AND BACKFILL

Once excavation sidewalls and stockpile samples indicate constituents are compliant with the applicable NMOCD Closure Criteria, a geosynthetic clay liner will be installed at the base of the excavation. Based on vadose zone leaching models evaluated for the Site (discussed below), significant vertical migration of contaminants is unlikely. However, at the request of the NMOCD, the liner will be installed as additional protection to prevent potential future migration of contaminants left in place below the excavation area. Once the liner is installed, the excavation will be backfilled using the treated soil and the Site will be recontoured to match pre-existing conditions. Additionally, at the time of well plugging and abandonment, Hilcorp will take additional measures to reduce surface/stormwater from infiltrating the soil within the excavation footprint during precipitation events by diverting water through surface grading that promotes runoff away from the excavation area and to lower lying areas. These actions will minimize/reduce the potential for pooling/ponding of water over the former excavation area.

SCHEDULE

Within 90 days of landowner, NMOCD, and BLM approval of this *Remediation Work Plan,* pending contractor availability, Hilcorp will complete the remediation work as described above. Hilcorp will notify all interested parties of any delays in this schedule.

VLEACH VADOSE ZONE LEACHING MODEL

TPH concentrations exceed the applicable NMOCD Closure Criteria in the top 35 feet of soil at the Site. Impacted soil will be excavated to depths ranging from 15 feet to 18 feet bgs surrounding sampling locations BH01 through BH05. Remaining TPH impacts above the Closure Criteria will range from 141 mg/kg to 2,080 mg/kg. VLEACH 2.2, a One-Dimensional Finite Difference Vadose Zone Leaching Model developed for the EPA, was run using Site-specific conditions to evaluate if remaining TPH in the soil and soil vapor have the potential to impact groundwater.

VLEACH is a risk assessment and screening tool that simulates vertical transport by advection in the liquid phase and by gaseous diffusion in the vapor phase (VLEACH 2.2 User's Manual, 1997). VLEACH is used to estimate how volatile and sorbed contaminants migrate vertically through unsaturated soil layers and potentially migrate to lower groundwater layers. Important assumptions of the VLEACH model include the following:

- *Instantaneous equilibrium between liquid, vapor and soil phases within each cell.*
- *Water movement modeled within the vadose zone is under steady state conditions.*
- *Liquid phase dispersion is not simulated.*

- *Degradation is not simulated in the model.*
- *Homogeneous soil conditions apply to each polygon.*
- *At depths greater than one meter volatilization to the atmosphere decreases significantly.*
- *Non-aqueous phase liquids or variable density conditions cannot be simulated.*

At the scale of this model, the most important assumption is the lack of degradation which results in an overprediction of the modeled concentrations with time. Additionally, the model assumes homogenous soil conditions of the vadose zone extending to the water table. This is also an overprediction since less permeable soil and rock materials are known to underly the area of soil impacts, further mitigating vertical migration. Overprediction yields a conservative risk estimate that may overstate predicted impacts. As TPH is readily degradable by biological processes, the modeled concentrations are likely overly conservative.

Analytical results for the Site report the majority of TPH as DRO. As DRO is a mixture of many compounds, the properties useful for modeling, including the organic-carbon partition coefficient, Henry's Law constant, water solubility, and free air diffusion coefficient, vary from the lower molecular weight compounds, C_{10}, to the higher molecular weight compounds C_{28}. The literature values for these properties were estimated to be equal to those of naphthalene since this chemical falls within the carbon range of typical DRO compounds.

TPH impacts were simulated in the model as two separate polygons to represent varying concentrations observed at the Site. Polygon 1 represents the excavated area encompassing sampling locations BH01 to BH05. The area of the polygon was modeled as 3,360 square feet extending to a depth of 100 feet bgs to represent the thickness of the vadose zone. The actual thickness of the vadose zone is likely 175 feet based on nearby water well measurements. Polygon 2 represents the downgradient area impacted by the release including sampling location BH11 that was not excavated. The downgradient polygon was simulated as 1,545 square feet also extending to a depth of 100 feet bgs.

The maximum TPH concentrations reported within each polygon were input as initial concentrations varying by depth. Since the top 15 to 18 feet of soil will be removed from Polygon 1, the initial concentration was input as 0 mg/kg in the top 15 feet of this polygon. Non-detect results were input as half the detection limit. Initial concentrations at depths greater than 55 feet bgs were input as 0 mg/kg since sampling results above 55 feet were non-detect for TPH and data were not available at these depths.

Review of the boring logs reported sand and sandstone as the dominant lithology at the Site. Soil parameters (dry bulk density, effective porosity, volumetric water content, and soil organic carbon content) representative of sand and sandstone were used to simulate the observed Site-specific lithology. A 30-year average precipitation rate for Rio Arriba County assuming an 80 percent evapotranspiration rate was input in the model as water recharge. The model was simulated for 500 years. Table 1 of Appendix C summarizes input parameters used to model Site-specific conditions in VLEACH and includes the rationale for the parameter selection.

The modeled output includes soil concentration profiles for both polygons after 100 and 500 years. Figures 1 and 2 of Appendix C illustrate the simulated TPH concentrations in Polygon 1 and Polygon 2, respectively, migrating vertically through the vadose zone 100 and 500 years after present day conditions. TPH concentrations in the intervals initially reporting the highest concentrations decrease with time, and the underlying depths generally increase in TPH concentration with time. Modeling results indicate TPH concentrations in Polygon 1 with the highest initial concentrations do not exceed the Closure Criteria of 100 mg/kg below 45 feet after 500 years of vadose zone migration. Similarly, simulated TPH concentrations from Polygon 2 suggest concentrations will not exceed the TPH Closure Criteria below 30 feet bgs after

500 years. The maximum concentration predicted at 100 feet bgs in the 500-year model simulation was 17.1 mg/kg, which is well below the Closure Criteria for TPH.

Given the historical nature of impacts and lack of significant migration below 35 feet bgs, in addition to the overly conservative modeling results presented above, the migration of TPH constituents to groundwater is unlikely to occur at the Site.

VARIANCE REQUEST

The Site characterization presented in WSP's *Site Characterization Report and Remediation Work Plan* indicated potential nearby receptors are not located within the radii presented in 19.15.29.11 and 12 NMAC, with the exception of a significant watercourse located 250 feet east of the Site and an unnamed spring located 630 feet southeast of the Site. Groundwater is not present at depths up to 55 feet bgs based on the initial delineation drilling activities conducted at the Site. Through excavation and treatment by soil shredding methods, gross impacted soil between ground surface and a depth of up to 18 feet bgs will be remediated and meet the most stringent NMOCD Table I Closure Criteria, eliminating potential risks to surface receptors through ingestion and/or inhalation. Additionally, migration of contaminants through surface water runoff and potential sheet flow into nearby significant watercourses would not be impacted by BTEX and TPH concentrations present in soil at depth.

Site lithology indicates formation sandstone was encountered in all borings at depths ranging from 10 feet to 17 feet bgs and less permeable shale encountered at depths ranging from 45 feet to 55 feet bgs. The vertical transport of the petroleum hydrocarbons through these formations would be dependent on applying enough head or flowing pressure to overcome the existing adsorption of the petroleum hydrocarbons to the soil. As the release is no longer occurring and historical in nature, the only driving mechanism that could increase vertical transport would be significant water infiltration. With little rainfall historically recorded in Rio Arriba County (approximately 11 inches per year) and depth to groundwater greater than 55 feet bgs at the Site (and likely greater than 100 feet based on the water well located 1,400 feet southeast), the potential of surface water infiltrating and transporting the petroleum hydrocarbon impacts to groundwater is unlikely. Lastly, petroleum hydrocarbons are organic matter and conducive for natural attenuation through adsorption, biodegradation, and volatilization in the unsaturated zone of the soil column. Over time, microbes will consume adsorbed hydrocarbons, thereby reducing petroleum hydrocarbon concentrations. At this time, the volume of soil with remaining impacts is estimated to be approximately 3,075 cubic yards with concentrations ranging from 141 mg/kg to 2,080 mg/kg.

The Site characterization and findings described above identify no current pathways for human or environmental exposure to contaminants of concern (COCs) at the Site. COC concentrations remaining at the Site within the bedrock formations, if left in place, are unlikely to pose a risk to fresh water, human health, or the environment and leaving them in place is equally protective of public health and the environment. Conservative inputs were used to model vertical contaminant transport through the vadose zone using VLEACH 2.2 modeling software. Results indicate petroleum hydrocarbon concentrations will attenuate quickly with depth and are unlikely to reach groundwater at elevated concentrations. Natural attenuation through adsorption, biodegradation, and volatilization will reduce BTEX and TPH concentrations over time and still achieve the objectives identified in 19.15.29 NMAC. As such, Hilcorp and Ensolum recommend leaving the impacted soil at the Site in place to naturally attenuate. This approach, although protective, would result in leaving impacted media in place exceeding NMOCD remediation action levels and, as such, require a variance in accordance with 19.15.29.14 NMAC.

The variance requirements also require a discussion of a need for a variance and a demonstration of how the variance will provide better or equal protection of public health, safety, and the environment. Equal or better protection of public health and the environment through natural

attenuation is documented in the evaluation of potential exposure pathways and nearby sensitive receptors presented above that concludes there is no current complete pathway for human or environmental exposure to the COCs. Conversely, those exposure pathways are significantly altered and effectually opened if alternative remediation techniques are applied at the Site (i.e., deep excavation or SVE remediation alternatives). These alternatives would bring the subsurface impacts to the surface as impacted soil and/or vapors that can expose humans and the environment to harmful chemicals. If left in place, contaminants will be degraded *in situ* by biological processes that will reduce the petroleum hydrocarbons to carbon dioxide and water.

CLOSING

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

Ensolum, LLC

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Attachments:

Figure 1: Site Receptor Map
Figure 2: Delineation Soil Sample Locations
Figure 3: Proposed Excavation Area
Figure 4: Cross Section A-A' with Interpolated TPH Plume
Figure 5: Cross Section B-B' with Interpolated TPH Plume

Table 1: Delineation Soil Sample Analytical Results

Appendix A: Boring Logs
Appendix B: Laboratory Analytical Reports
Appendix C: VLEACH 2.2 Parameters and Outputs

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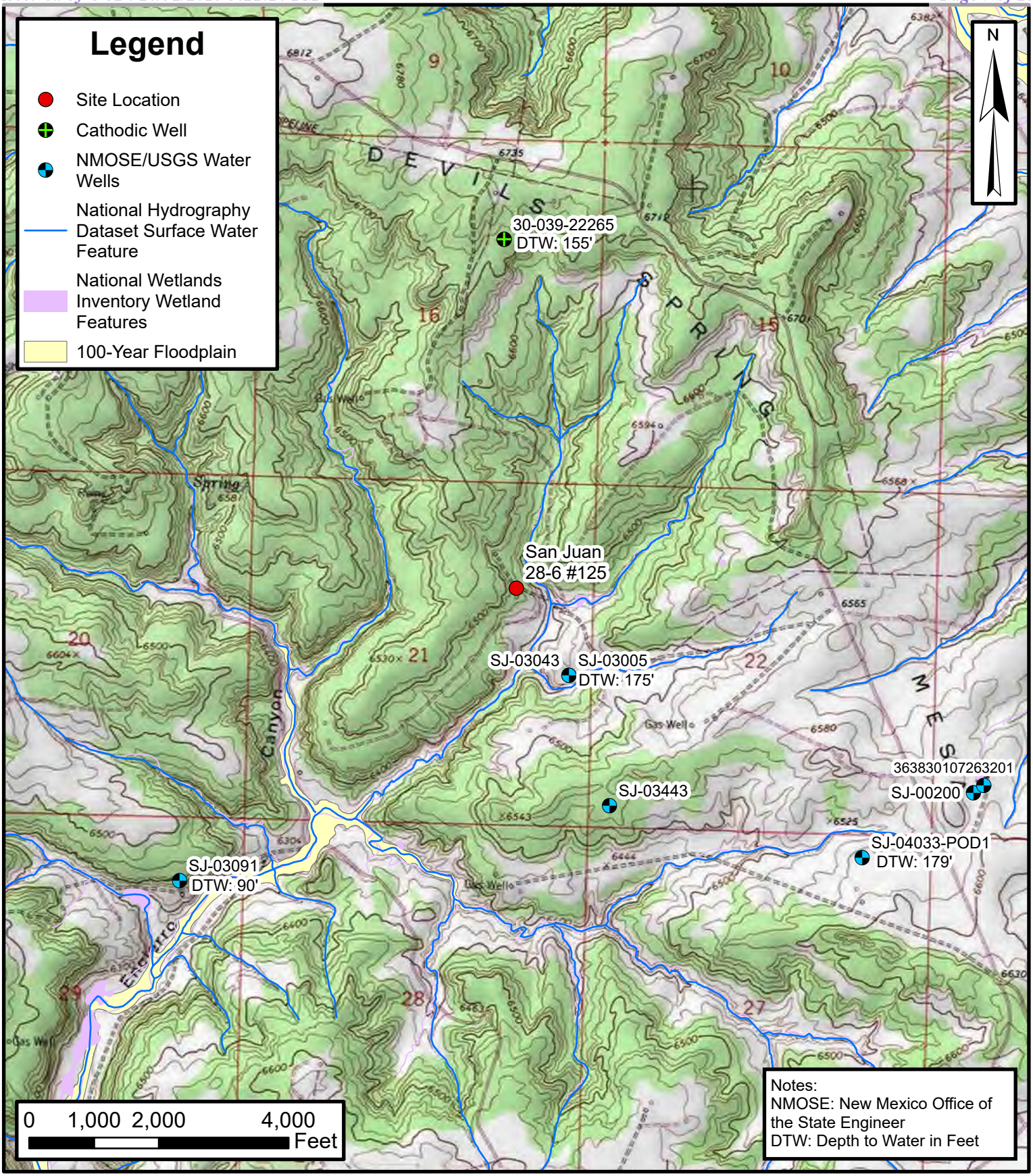
FIGURES



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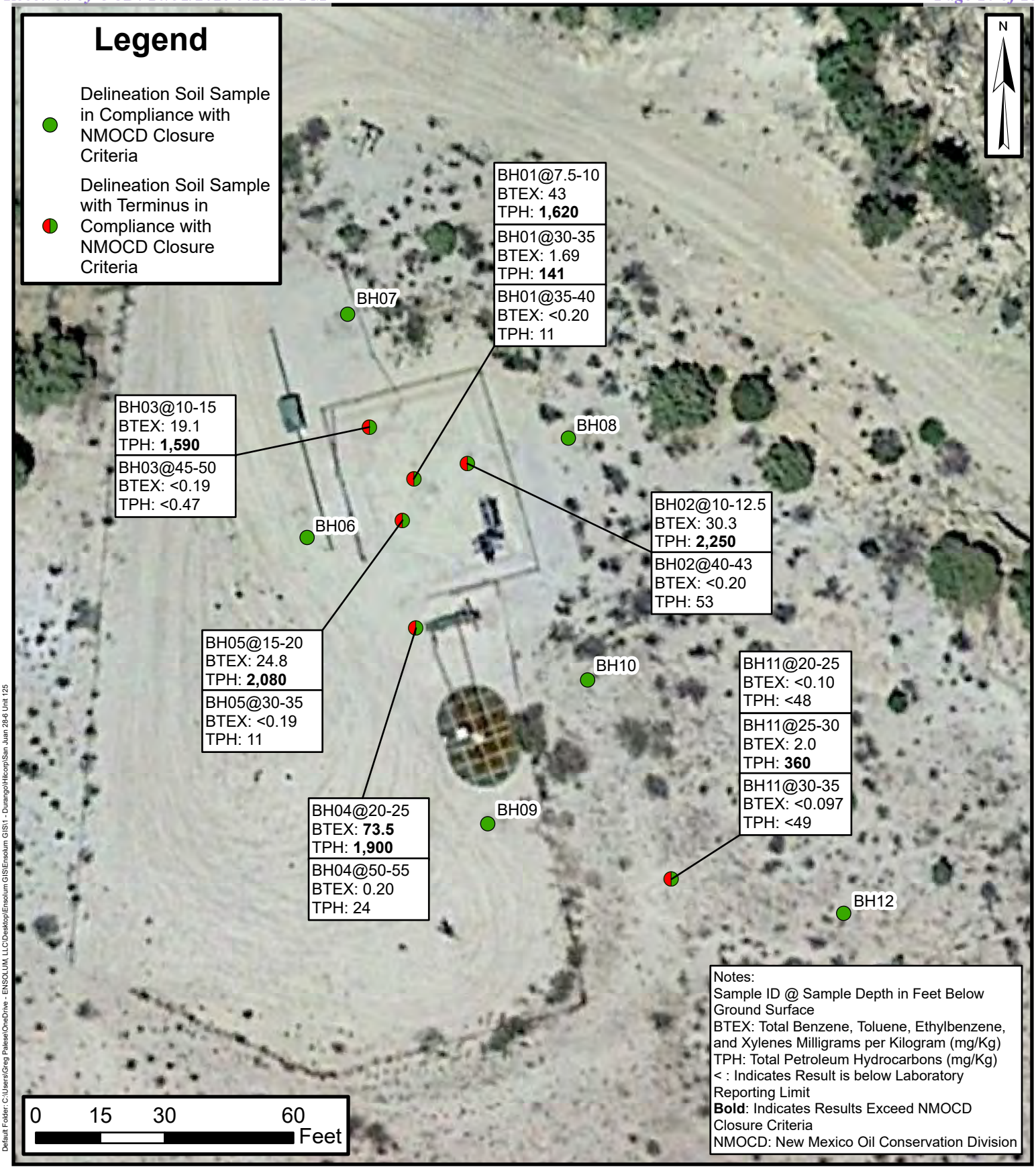
Site Receptor Map

San Juan 28-6 #125
Hilcorp Energy Company

36.6492233,-107.4675369
Rio Arriba County, New Mexico

FIGURE
1



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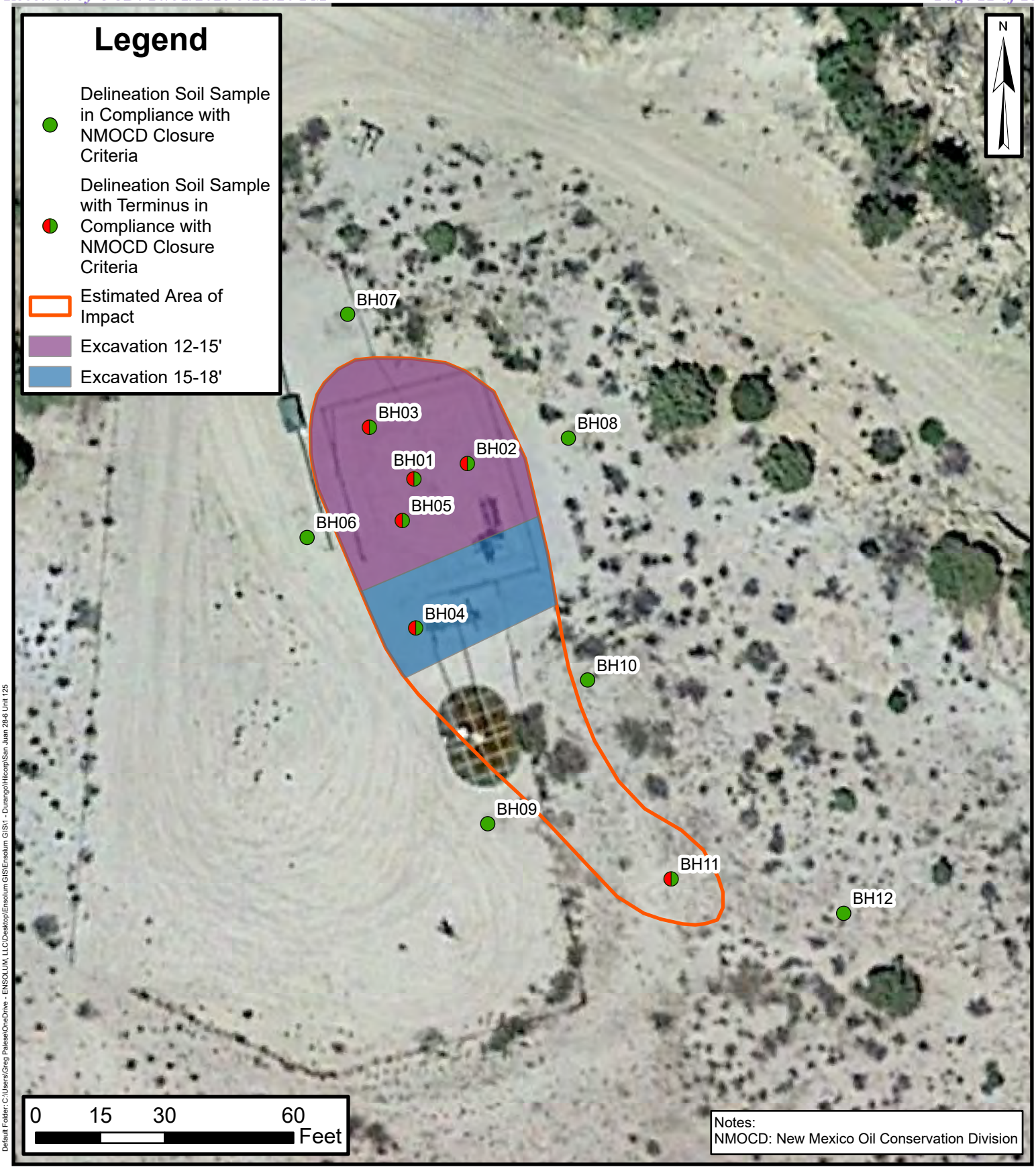
Delineation Soil Sample Locations

San Juan 28-6 #125
Hilcorp Energy Company

36.6492233,-107.4675369
Rio Arriba County, New Mexico

FIGURE
2

Sources: Google Earth (2022)



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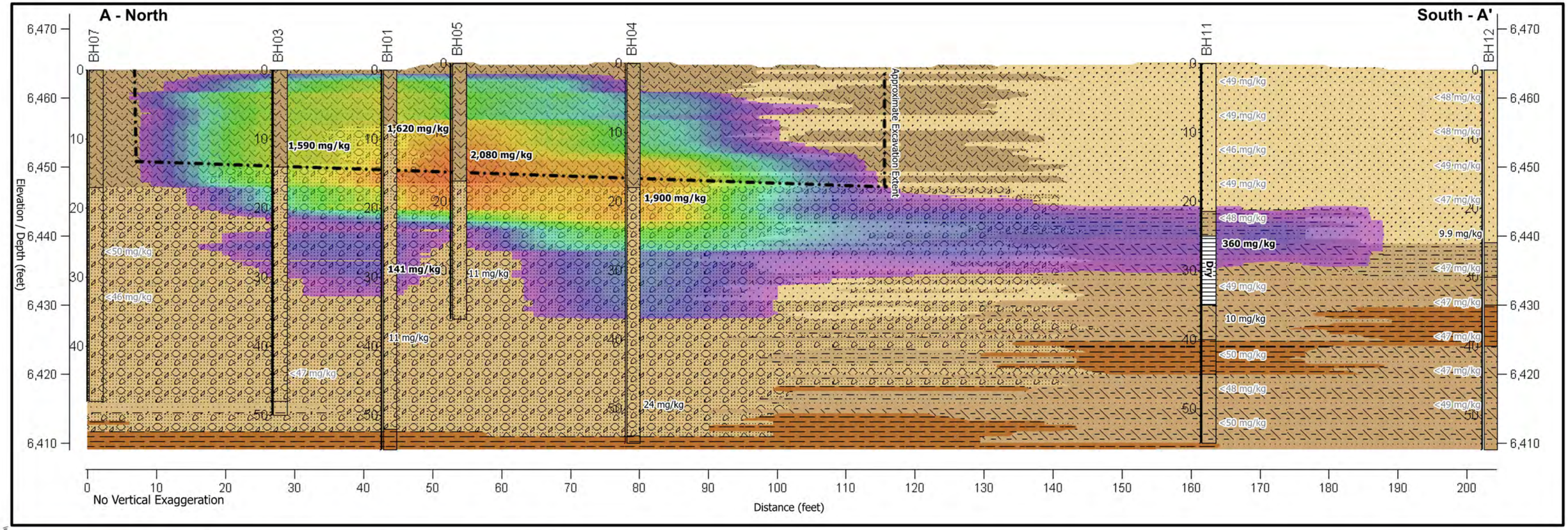
Proposed Excavation Area

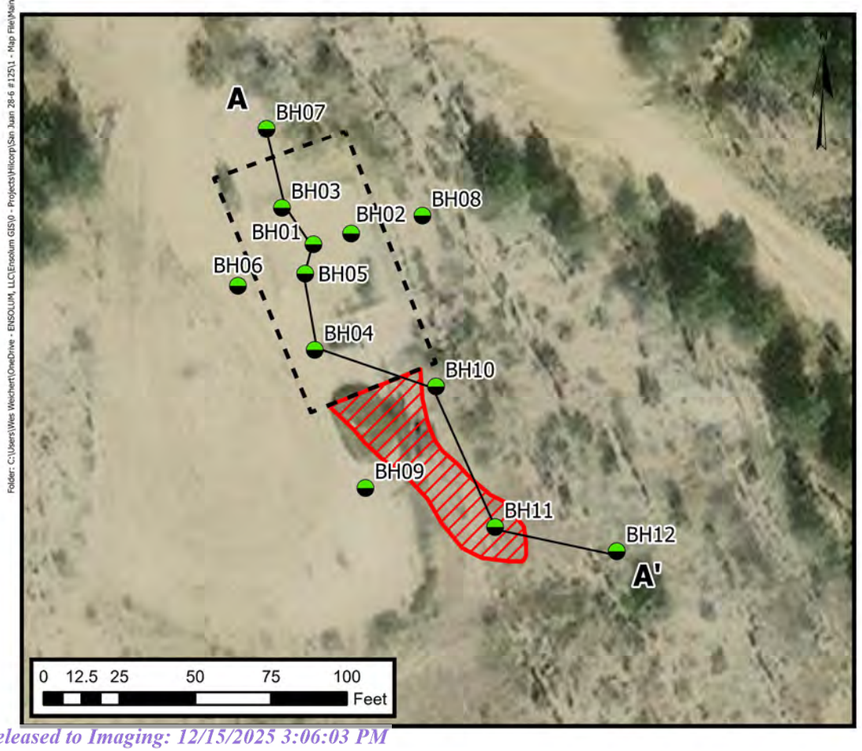
San Juan 28-6 #125
Hilcorp Energy Company

36.6492233,-107.4675369
Rio Arriba County, New Mexico

FIGURE
3

Sources: Google Earth (2022)





Legend

- Borehole Locations
- Cross Section Transect A-A'
- Proposed Excavation
- Impacted Soil to be Left in Place
- 141 mg/kg — Total Petroleum Hydrocarbon Concentration in milligrams per kilogram
- Screen Interval

Lithology

- Silt
- Silty Sand
- Poorly Graded Sand
- Silty Sand to Silt
- Silty Sandstone
- Sandstone
- Poorly Graded Sand to Silty Sand

Total Petroleum Hydrocarbon

- 2,500 mg/kg
- 2,000 mg/kg
- 1,500 mg/kg
- 1,000 mg/kg
- 100 mg/kg

Cross Section A-A' with Interpolated TPH Plume

Proposed Excavation Area
San Juan 28-6 #125
Hilcorp Energy Company
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FIGURE
4

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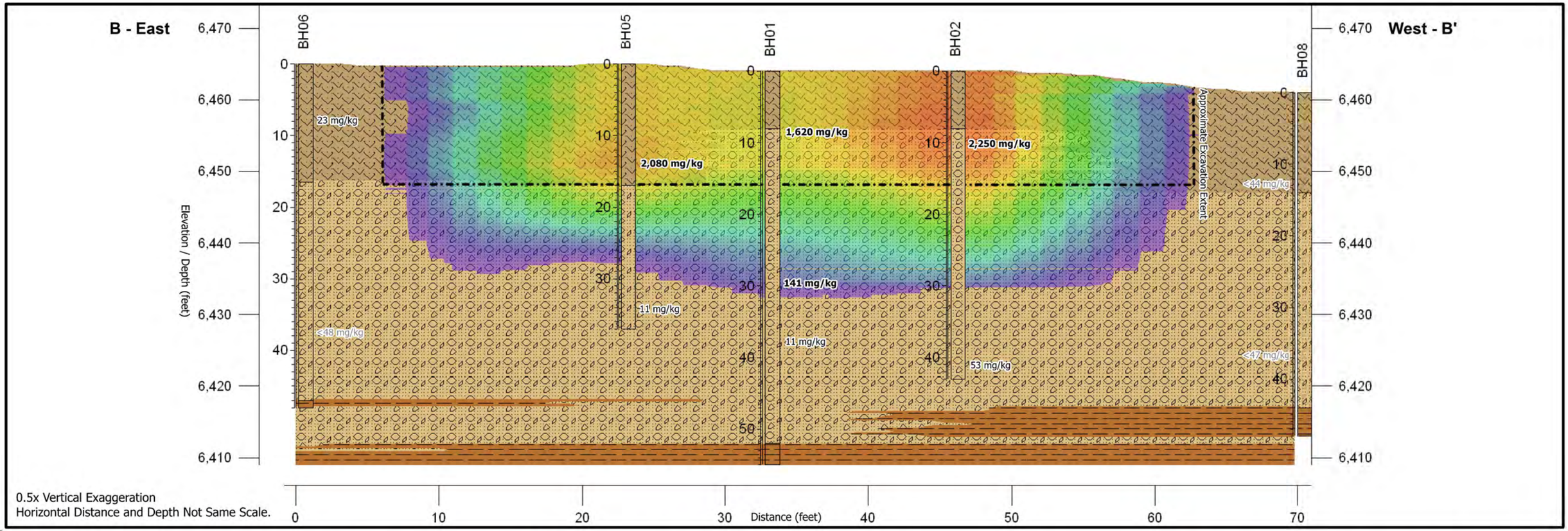

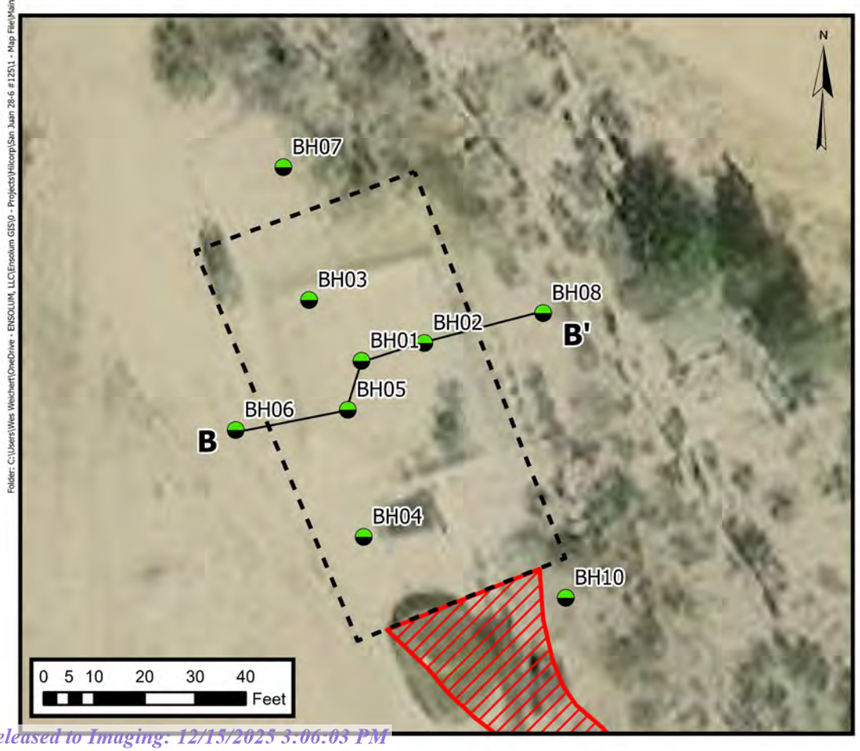

Legend

- Borehole Locations
- Cross Section Transect B-B'
- Impacted Soil to be Left in Place
- Proposed Excavation

141 mg/kg Total Petroleum Hydrocarbon Concentration in milligrams per kilogram

Lithology

- Silt
- Silty Sand
- Poorly Graded Sand
- Silty Sand to Silt
- Silty Sandstone
- Sandstone
- Poorly Graded Sand to Silty Sand

Total Petroleum Hydrocarbon

2,500 mg/kg
2,000 mg/kg
1,500 mg/kg
1,000 mg/kg
100 mg/kg

Cross Section B-B' with Interpolated TPH Plume

Proposed Excavation Area
San Juan 28-6 #125
Hilcorp Energy Company
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Rio Arriba County, New Mexico

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FIGURE 5

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TABLES

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TABLE 1
DELINEATION SOIL SAMPLE ANALYTICAL RESULTS
San Juan 28-6 #125
Hilcorp Energy Company
Rio Arriba County, New Mexico

Sample ID	Date	Depth (feet bgs)	PID (ppm)	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 Table I Closure Criteria				10	NE	NE	NE	50	NE	NE	NE	100	600
BH01	11/10/2020	7.5-10	1,588	<0.12	4.0	2.0	37	43	720	900	<490	**1,620**	<60
	11/11/2020	30-35	306	<0.023	0.32	0.074	1.3	1.69	72	69	<49	**141**	<59
	11/11/2020	35-40	280	<0.049	<0.098	<0.098	<0.20	<0.20	<9.8	11	<48	11	<60
BH02	11/10/2020	10-12.5	1,594	<0.048	1.2	1.1	28	30.3	550	1,700	<440	**2,250**	<60
	11/10/2020	40-43	104	<0.049	<0.098	<0.098	<0.20	<0.20	29	24	<50	53	<59
BH03	10/10/2020	10-15	758	<0.050	0.54	0.56	18	19.1	390	1,200	<490	**1,590**	<61
	11/10/2020	45-50	27.1	<0.047	<0.095	<0.095	<0.19	<0.19	9.7	<9.4	<47	<47	<60
BH04	11/10/2020	20-25	2,424	<0.12	8.6	2.9	62	**73.5**	1,300	1,600	<480	**1,900**	<59
	11/10/2020	50-55	124	<0.048	<0.095	<0.095	0.2	0.2	14	10	<45	24	<60
BH05	11/11/2020	15-20	3,363	<0.12	2.7	1.1	21	24.8	680	1,400	<490	**2,080**	<59
	11/11/2020	30-35	123	<0.048	<0.095	<0.095	<0.19	<0.19	<9.5	11	<44	11	<60
BH06	11/11/2020	5-10	307	<0.048	<0.096	<0.096	<0.19	<0.19	<9.6	23	<50	23	85
	11/11/2020	35-40	15.6	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.7	<48	<48	<60
BH07	11/11/2020	25-30	98.1	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<10	<50	<50	73
	11/11/2020	35-40	7.7	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<9.1	<46	<46	<60
BH08	11/11/2020	10-15	206	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<8.9	<44	<44	<60
	11/11/2020	35-40	7.4	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.4	<47	<47	<59
BH09	11/11/2020	15-20	30	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.3	<47	<47	<60
	11/11/2020	35-40	11.5	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.5	<48	<48	<60
BH10	5/26/2021	7-10	0.0	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	9.3	<46	9.3	80
	5/26/2021	10-15	0.0	<0.024	<0.047	<0.047	<0.094	<0.099	<4.7	<9.5	<47	<47	60
	5/26/2021	15-20	0.1	<0.025	<0.05	<0.05	<0.099	<0.099	<5.0	<9.7	<49.0	<49.0	<60
	5/26/2021	32-35	0.8	<0.025	<0.05	<0.05	<0.10	<0.10	<5.0	<9.4	<47.0	<47.0	62
	5/26/2021	35-40	0.1	<0.023	<0.046	<0.046	<0.092	'<0.092	<4.6	<8.5	<43.0	<43.0	<60
	5/26/2021	48-50	15.1	<0.021	<0.042	<0.042	<0.084	<0.084	<4.2	20	52	72	<60
	5/26/2021	50-55	0.3	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<8.3	<41	<41	<60
BH10A	5/26/2021	6-10	0.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<10.0	<50	<50	<60
	5/26/2021	10-15	0.0	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.7	<48	<48	<60
	5/26/2021	15-20	0.0	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<10	<50	<50	<60
	5/26/2021	24-25	0.6	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.5	<47	<47	<60
	5/26/2021	25-30	1.5	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.1	<46	<46	<60
	5/26/2021	30-35	37.2	<0.019	<0.038	<0.038	<0.075	<0.075	<3.8	<9.0	<45	<45	<60
	5/26/2021	35-40	0.4	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.6	<48	<48	<60
	5/26/2021	45	0.5	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.9	<50	<50	<59
	5/26/2021	45-50	0.1	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.1	<46	<46	<61
	5/26/2021	50-55	0.0	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.0	<45	<45	<60
BH11	5/27/2021	5	0.0	<0.023	<0.47	<0.47	<0.94	<0.94	<4.7	<9.9	<49	<49	66
	5/27/2021	5-10	0.0	<0.024	<0.48	<0.48	<0.97	<0.97	<4.8	<9.8	<49	<49	<60
	5/27/2021	10-15	0.0	<0.025	<0.50	<0.50	<0.1	<0.1	<5.0	<9.3	<46	<46	<60
	5/27/2021	15-20	0.0	<0.023	<0.047	<0.047	<0.094	<0.1	<4.7	<9.7	<49	<49	<61
	5/27/2021	20-25	1.4	<0.024	<0.048	<0.048	<0.096	<0.1	<4.8	<9.6	<48	<48	<60
	5/27/2021	25-30	585	<0.086	<0.17	<0.17	2.0	2.0	130	230	<45	**360**	<60
	5/27/2021	30-35	3.1	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.7	<49	<49	<60
	5/27/2021	35-40	0.0	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	10	<49	10	<60
	5/27/2021	40-45	0.0	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.7	<49	<50	<60
	5/27/2021	45-50	0.0	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.6	<48	<48	<59
	5/27/2021	50-55	0.0	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.9	<50	<50	<59
BH12	5/27/2021	7-10	0.0	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.6	<48	<48	<60
	5/27/2021	10-15	0.0	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.7	<48	<48	<60
	5/27/2021	15-20	0.0	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.9	<49	<49	<60
	5/27/2021	20-25	0.0	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.3	<47	<47	<60
	5/27/2021	25-30	0.0	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	9.9	<49	9.9	<60
	5/27/2021	30-35	0.0	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.5	<47	<47	<60
	5/27/2021	35-40	0.0	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.3	<47	<47	<60
	5/27/2021	40-45	0.0	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.3	<47	<47	<60
	5/27/2021	45-50	0.0	<0.025	<0.050	<0.050	<0.099	<0.099	<5.9	<9.5	<47	<47	<60
	5/27/2021	50-55	0.0	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.7	<49	<49	<60

Notes:

bgs: below ground surface
BTEX: benzene, toluene, ehtylbenzene, and total xylenes
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
PID: photoionization detector
ppm: parts per million
TPH-DRO: total petroleum hydrocarbons diesel range organics
TPH-GRO: total petroleum hydrocarbons gasoline range organics
TPH-MRO: total petroleum hydrocarbons motor oil range organics
<: indicates result is less than the stated laboratory reporting limit
***BOLD:** indicates sample concentration exceeding NMOCD Table I Closure Criteria*

ENSOLUM

APPENDIX A

Boring Logs

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH01	Project: SJ 28-6 Unit 125
e: 11/10/20	Project Number: TE017820022
ed By: E. Carroll	Drilled By: Mo-Te
ing Method: Hollow Stem Auger CME 75	Sampling Method: Split Spoon
Elevation: 6570	PID/Quantab
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips
Grout: Bentonite-Cement Slurry	
Casing Type: Schedule 40 PVC	Diameter: 2" Length: NA
Hole Diameter: 4"	Depth to Liquid: NA
Screen Type: Schedule 40 PVC Slot: 0.010"	Diameter: 2" Length: NA
Total Depth: ~~35'~~ 55'	Depth to Water: NA

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	m	2.3	N		0 1 2			SP-SM	moist, lt brown, sand, some silt	NO well
	m	110	Y		3 4 5			SP-SM	moist, gray, sand, few silt, HC stain (gray), HC odor	
	m	647	Y		6 7			SP-SM	SAA HC stain/odor	
	m	1586	N		8 9 10			SS	lt brown, coarse sand/stone HC odor	
	D	131	N		11 12			SS	SAA	
	D	127	N		13 14 15			SS	SAA	

Boring/Well #	BH01
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
		674			16			SS	lt brown sand some HC odor	
					17				Refusal w/ core barrel begin sampling cuttings	
					18					
		611			19			SS	SAA	
					20				HC odor	
					21					
					22					
					23					
		1,100			24			SS	SAA	
					25				HC odor	
					26					
					27					
					28					
					29					
		1,032			30			SS	SAA	
					31				HC odor	
					32					
					33					
					34					
		306			35			SS	SAA	
					36				Refusal @ 35'	
					37					

Boring/Well #	BH01
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					37				Re-drill BH01 for depth	
					38					
	D	280	N		39			SS	Dry lt brown, coarse, sandstone	
					40					
					41					
					42					
					43					
	D	34.6	N		44			SS	SAA	
					45					
					46					
					47					
	D	94.6	N		48			SS	SAA	
					49					
					50					
					51					
					52					
	D	67.1	N		53			Sh	Dry purple, shale	
					54					
					55					
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH02	Project: SJ 28-6 Unit 125
e: 11/10/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
Elevation: 6570	PID/Quantab
ling Method: Hollow Stem Auger	Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips
Grout: Bentonite-Cement Slurry	
Casing Type: Schedule 40 PVC	Diameter: 2" Length: NA
Hole Diameter: 4"	Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010" Diameter: 2" Length: NA
Total Depth: 43'	Depth to Water:

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	3.2	N		0 1 2			SP-SM	moist, lt brown, sand, some silt	No well
	M	3.4	N		3 4 5			SP-SM	moist, lt brown, sand, few silt	
	M	589	N		6 7			SP-SM	SAA Slight HC odor Sandstone @ 7'	
	M	1527	N		8 9 10			SS	moist coarse, lt gray brown Sandstone	
	D	1594	N	BH02 10-12.5 1240	11 12			SS	SAA	
	D	1503	N	~~BH02~~	13 14 15			SS	SAA	

Boring/Well #	BH02
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	1497	N		18			SS	Dry lt brown, Sandstone	
	D	671	N		24			SS	SAA	
	D	450	N		29			SS	SAA	
	D	243	N		34			SS	SAA	

Boring/Well #	BH02
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					37					
					38					
					39			SS	SAA	
	D	104	N		40					
					41					
					42					
					43				SAA	
					44			SS		
	D	43.2	N	BH02 40-43 1300	45					
					46				Refusal @ 45'	
					47					
					48					
					49					
					50					
					51					
					52					
					53					
					54					
					55					
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH03	Project: SJ 28-6 Unit 125
e: 11/10/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
Elevation: 6570	Boring Method: Hollow Stem Auger
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips
Casing Type: Schedule 40 PVC	Diameter: 2" Length:
Screen Type: Schedule 40 PVC	Slot: 0.010" Diameter: 2" Length:

PID/Quantab

Sampling Method: Split Spoon

Grout: Bentonite-Cement Slurry

Hole Diameter: 4"

Depth to Liquid: NA

Total Depth: 50'

Depth to Water: NA

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					No well
	M	2.2	N		1			SP-SM	moist lt brown sand some silt No stain/odor	
					2					
					3					
					4					
					5					
					6					
					7					
					8					
	M	27.1	N		9			SP-SM	SAA No stain/odor	
					10					
					11					
					12					
					13					
	M	758	N	BH03 10-15 1250	14			SS	moist lt brown Sand Stone	
					15					

Boring/Well #	BH03
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
					16					
					17					
					18			SS	Dry, lt brown, coarse, sandstone Slight odor	
	D	723	N		19					
					20					
					21					
					22					
					23					
	D	684	N		24			SS	SAA Slight odor	
					25					
					26					
					27					
					28					
	D	280	N		29			SS	SAA Slight odor	
					30					
					31					
					32					
					33					
	D	173	N		34			SS	SAA No odor	
					35					
					36					
					37					

Boring/Well #	BH03
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					37					
					38			SS	Dry, lt brown sandstone	
	D	214	N		39					
					40					
					41					
					42					
					43					
					44					
	D	119	N		45			SS	SAA	
					46					
					47					
					48					
	D	96	N	BH03 45-50 1410	49			SS/SH	Dry lt brown sand stone Purple shale @ 48'	
					50					
					51					
					52					
					53					
					54					
					55					
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH04	Project: SJ 28-6 Unit 125
e: 11/10/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
6570 / PID/Quantab	ling Method: Hollow Stem Auger / Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips / Grout: Bentonite-Cement Slurry
Casing Type: Schedule 40 PVC	Diameter: 2" Length: / Hole Diameter: 4" / Depth to Liquid: NA
Screen Type: Schedule 40 PVC	Slot: 0.010" Diameter: 2" Length: / Total Depth: 55' / Depth to Water: NA

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	M	120	N		0 1 2 3 4 5 6			SP-SM	moist lt brown sand some silt slight odor	
	M	1097	N		7 8 9 10 11 12			SP-SM	~~moist~~ SAA, Strong odor	
	D	1602	N		13 14 15			SP-SM	SAA, Strong odor	

Boring/Well #	BH04
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	1806	N		15 16 17 18 19 20 21			SS	Dry lt brown, Sandstone Strong odor	
	D	2424	N	BH04 20-25 1500	22 23 24 25 26 27			SS	SAA, Strong odor	
	D	1701	N		28 29 30 31 32 33			SS	SAA Strong odor	
	D	704	N		34 35 36 37			SS	SAA Slight odor	

Boring/Well #	BH04
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/10/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					37					
					38			SS	Dry lt brown Sand Stone	
	D	660	N		39					
					40					
					41					
					42					
					43					
					44			SS	SAA	
	D	550	N		45					
					46					
					47					
					48			SS	SAA	
	D	250	N		49					
					50					
					51					
					52					
					53					
				BH04 SOSS	54					
	D	124	N	1530	55			Sh	Dry Purple Shale	
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH05	Project: SJ 28-6 Unit 125
e: 11/11/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
Elevation: 6570	Drilling Method: Hollow Stem Auger
PID/Quantab	Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips
Grout: Bentonite-Cement Slurry	
Casing Type: Schedule 40 PVC	Diameter: 2" Length:
Hole Diameter:	Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010" Diameter: 2" Length:
Total Depth:	Depth to Water:

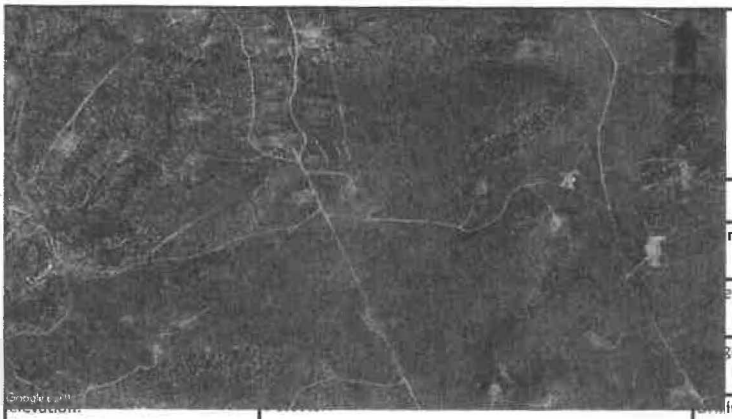
Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	m	419	N		0 1 2 3 4 5 6			SP-SM	moist, lt brown, Sand, some Silt, slight odor	
	m	2,000	~~N~~ Y gray		7 8 9 10 11 12 13			SP-SM	SAA Strong odor	
	m	2795	Y		14 15			SP-SM	SAA Strong odor	

Boring/Well #	BH05
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	m	3363	N	BH05 15-20 1040	15 16 17 18 19 20 21 22			SS	moist lt brown gray Sandstone Strong odor	
	D	743	N		23 24 25 26 27				Dry, lt brown gray, sandstone Slight odor	
	D	425	N		28 29 30 31 32				SAA, Slight odor	
	D	123	N	BH05 30-35 1100	33 34 35 36 37				SAA	

Boring/Well #	BH05
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	112	N		37			SS	DRY, lt gray brown, sandstone	
					38					
					39				Refusal @ 37'	
					40					
					41					
					42					
					43					
					44					
					45					
					46					
					47					
					48					
					49					
					50					
					51					
					52					
					53					
					54					
					55					
					56					
					57					
					58					
					59					



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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH06	Project: SJ 28-6 Unit 125
e: 11/11/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
6570 / PID/Quantab	ing Method: Hollow Stem Auger / Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips / Grout: Bentonite-Cement Slurry
Casing Type: Schedule 40 PVC	Diameter: 2" / Length: / Hole Diameter: / Depth to Liquid:
Screen Type: Schedule 40 PVC / Slot: 0.010"	Diameter: 2" / Length: / Total Depth: / Depth to Water:

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					N/O well
	m	1.0	N		1 2 3 4 5 6			SP-SM	moist, lt brown, sand some silt	
	m	307	N	BH06 5-10 1220	7 8 9 10 11 12			SP-SM	SAA Slight odor	
	m	288	N		13 14 15			SP-SM	SAA	

Boring/Well #	BH06
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					15					
					16					
					17			SS	Dry, lt brown, sandstone	
	D	271	N		18				slight ~~odor~~	
					19					
					20					
					21					
					22					
					23					
	D	~~327~~ 40.1	N		24			SS	SAA	
					25					
					26					
					27					
					28					
	D	87.2	N		29			SS	Dry, gray brown, coarse sandstone	
					30					
					31					
					32					
					33					
					34					
	P	13.9	N		35			SS	SAA	
					36					
					37					

Boring/Well #	BH06
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/7/11

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	15.6	N	BH06 3540 1240	37 38 39 40 41 42			SS	Dry, gray brown, Sandstone	
	D	10.6	N		43 44 45 46 47			SS	SAA	
	D	2.6	N		48 49 50 51 52 53 54 55 56 57 58 59			Sh	Dry, purple, Shale	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH07	Project: SJ 28-6 Unit 125
: 11/11/20	Project Number: TE017820022
ed By: E. Carroll	Drilled By: Mo-Te
6570 / PID/Quantab	ing Method: Hollow Stem Auger / Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips / Grout: Bentonite-Cement Slurry
Casing Type: Schedule 40 PVC	Diameter: 2" / Length: / Hole Diameter: / Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010" / Diameter: 2" / Length: / Total Depth: / Depth to Water:

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					NO well
	M	0.0	N		1			SP-SM	moist, lt brown, sand some silt	
					2					
					3					
					4					
					5					
					6					
					7					
	D	0.5	N		8			SP-SM	Dry, gray brown, Sandstone	
					9					
					10					
					11					
					12					
					13					
	D	6.0	N		14			SP-SM	SAA	
					15					

Boring/Well #	BH07
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	2.5	N		15–18			SS	Dry, lt brown sandstone	
	D	16.1	N		23–24			SS	SAA	
	D	98.1	N	BH07 25-30 1300	28–30			SS	SAA Slight odor	
	D	4.7	N		33–34				Dry, gray brown, Sandstone	

Boring/Well #	BH07
Project:	SJ 28-6 Unit 125
Project #	T6017820022
Date	11/11/2020

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	7.7	N	BH07 35-40 1325	37 38 39 40 41 42 43			SS	SAA NO Odor	
	D	2.5	N		44 45 46 47			SS	SAA	
	D	2.5	N		48 49 50 51 52 53 54 55 56 57 58 59			SS	SAA	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH08	Project: SJ 28-6 Unit 125
e: 11/11/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
6570 / PID/Quantab	ling Method: Hollow Stem Auger	Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips	Grout: Bentonite-Cement Slurry
Casing Type: Schedule 40 PVC	Diameter: 2" Length:	Hole Diameter:	Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010"	Diameter: 2" Length:	Total Depth:	Depth to Water:

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					NO well
					1					
			N		2			SP-SM	moist, lt brown, sand, some silt	
	M	26.3	[illegible]		3					
					4					
					5					
					6					
					7					
					8					
	M	61.0	N		9			SP-SM	SAA	
					10					
					11					
					12					
				BH08 10-15 1500	13				~~M~~ SAA	
	M	20.6	N		14			SS	gray sandstone @ 14'	
					15					

Boring/Well #	BH08
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	83.4	N		17			SS	Dry gray brown Sandstone	
	D	28.2	N		23			SS	SAA	
	D	35.7	N		28			SS	SAA	
	D	30.7	N		33			SS	SAA	

Boring/Well #	BH08
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/4/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					37					
				BH08 35-40 1520	38			SS	SAA	
	M	7.4	N		39					
					40					
					41					
					42					
					43					
	D				44			Sh	Dry purple Shale	
	M	6.9	N		45					
					46					
					47					
					48					
	D	2.3	N		49			Sh	SAA	
					50					
					51					
					52					
					53					
					54					
					55					
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

ng/Well Number: BH09	Project: SJ 28-6 Unit 125
e: 11/11/20	Project Number: TE017820022
ged By: E. Carroll	Drilled By: Mo-Te
Elevation: 6570	ling Method: Hollow Stem Auger
PID/Quantab	Sampling Method: Split Spoon
Gravel Pack: 10-20 Silica Sand	Seal: Hydrated Bentonite Chips
Grout: Bentonite-Cement Slurry	
Casing Type: Schedule 40 PVC	Diameter: 2" Length:
Hole Diameter: 4"	Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010"
Diameter: 2" Length:	Total Depth: 50'
Depth to Water:	

Qtab (ppm)	Moisture Content	Vapor (ppm)	HC Staining?/ Chlordie ppm	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					No well
					1					
					2					
	m	1.3	N		3			SP-SM	moist, lt brown Sand, some silt	
					4					
					5					
					6					
					7					
					8					
	m	3.2	N		9			SP-SM	SAA	
					10					
					11					
					12					
					13					
	m	10.4	N		14			SP-SM	SAA	
					15					

Boring/Well #	BH09
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/2020

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	D	30	N	BH09 15-20 1625	15					
					16					
					17			SS	Dry lt brown, Sandstone	
					18					
					19					
					20					
					21					
					22			SS		
	D	19.3	N		23				Dry gray brown, Sandstone	
					24					
					25					
					26					
					27					
					28			SS	SAA	
	D	18.4	N		29					
					30					
					31					
					32					
					33			SS	SAA	
	D	16.4	N		34					
					35					
					36					
					37					

Boring/Well #	BH09
Project:	SJ 28-6 Unit 125
Project #	TE017820022
Date	11/11/20

Qtab (ppm)	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
				BH09 35-46 1640	37					
					38			SS	Dry gray brown, Sandstone	
	D	11.5	N		39					
					40					
					41					
					42					
					43			SS	SA^	
	D	3.5	N		44					
					45					
					46					
					47			SH	Dry Purple Shale	
	D	2.6	N		48					
					49					
					50					
					51					
					52					
					53					
					54					
					55					
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH10	Project: San Juan 28-6 #125
Date: 5-26-21	Project Number: TE017821009
Logged By: Danny Burns	Drilled By: MO-TE Drilling
Elevation: 6,465	Detector: PID
Drilling Method: ~~Hollow Stem~~/Air Rotary	Sampling Method: Continuous
Gravel Pack: 10-20 Silica Sand (36-24')	Seal: Bentonite (24'-22')
Grout: Bentonite cement slurry (22-0')	
Casing Type: Schedule 40 PVC (25'-S.U)	Diameter: 2" Length: 30'
Hole Diameter: 5½"	Depth to Liquid: —
Screen Type: Schedule 40 PVC Slot: 0.010" (35'-25')	Diameter: 2" Length: 10'
Total Depth: 55'	Depth to Water: —

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				No Recovery 0-7'	SM
					1					
					2					
					3					
					4					
					5					
					6					
					7					
	Dry	0.0	No	BH10 @ 7'-10' 11:30	8			SP	Lt. gray + tan, med fn. Sand stone. (s.stn) Dense, consolidated. No stain/odor (s/o)	
					9					
					10					
					11					
					12				Tan, med. s.stn.	
	Dry	0.0	No	BH10 @ 10-15 11:35	13			SP	Dense. No s/o.	
					14					
					15					

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Boring/Well #	BH 10
Project:	San Juan 28-6 #125
Project #	TE017821009
Date	5-26-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.1	No	BH 10 @ 15-20 11:40	15–20			SP	Lt. brown/tan med.-med. coarse s. stn. Dense. No s/o.	
	Dry		No		20–25		No		No recovery from 20'-32' using air rotary. Softer material, cuttings blown out during coring. No observable moisture or staining or HC odors.	
	Dry		No		25–30		No			
	Dry		No		30–32		No			
	Dry	0.8	No	BH 10 @ 32-35 12:00	32–35			SP	32'-Recovery begins Lt. grayish brown med. s. stn. No s/o.	
					35–37					

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Boring/Well #	BH10
Project:	San Juan 28-6 #125
Project #	TE017821009
Date	5-26-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.1	No	BH10 @ 35-40 12:05	37 38 39 40			SM	Lt. gray, fn. silty sand. Dense. No s/o.	
	Dry		No		41 42 43 44 45				No recovery from 40'-48'. Still dry & no observable stain/odor/ moisture in coring cuttings.	
	Dry	15.1	No	BH10 @ 48-50 14:00	46 47 48 49 50			SM-ML	Gray & dark gray, v. fn. sandy silt & silt stn. w/ sand. Dense, but fissile. No s/o.	
	Dry	0.3	No	BH10 @ 50-55 1405	51 52 53 54 55			ML	Purple & dark gray silt w/ fn. sand. Dense, some consolidation. No s/o. Lt. gray silt stn. Dense, hard. No s/o.	
					56 57 58 59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH 10A	Project: San Juan 28-6 #125
Date: 5-25-21	Project Number: TE017821009
Logged By: Danny Burns	Drilled By: MO-TE Drilling
Elevation: 6,465	Detector: PID
Drilling Method: ~~Hollow Stem~~/Air Rotary	Sampling Method: Continuous
Gravel Pack: 10-20 Silica Sand	Seal: Bentonite
Grout: Bentonite 10'-0'	
Casing Type: Schedule 40 PVC	Diameter: 2" Length:
Hole Diameter: 5 1/2"	Depth to Liquid: —
Screen Type: Schedule 40 PVC	Slot: 0.010" Diameter: 2" Length:
Total Depth: 55'	Depth to Water: —

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology Remarks	Well Completion
					0				No recovery 0-6'	Back fill w/ cutting
					1				Now using air-mist rotary for enhanced recovery.	
					2				Approx < 40 gal clean water used. Recovery @ 6'	
					3					
					4					
					5					
					6					
	Dry	0.0	No	BH 10 @ 6-10 14:30	7			SP	Brown. med. #fn-med.	
					8				S. stn. Consol. # Dense	
					9				No s/o.	
					10					Grout top 10'
					11					
					12				Lt. brown - tan	
	Dry	0.0	No	BH 10 @ 10-15 14:35	13			SP	med s. stn.	
					14				Dense. No s/o.	
					15					

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Boring/Well #	BH10A
Project:	SJ 28-6 #125 [redacted]
Project #	TE01782 1009 [redacted]
Date	5-26-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	No	BH 10 @ 15-20 14:40	15 16 17 18 19 20			SP	tan med-coarse S. stn. No s/o	Back fill w/ cuttings
					21 22 23				No Recovery 20-23.5	
	Dry	0.6	No	15:00	24 25			SM	@24 Lt. gray & tan. fn. silty sand s. stn. V. Dense. No s/o	
					26 27				Lt gray silty fn. s. stn	
	Dry	1.5	No	15:05	28 29 30			SM/ML	& sandy silt stn. Dense. No s/o	
					31 32			SM/ML	Gray silty fn. sand. stn. V. Dense & gray sandy silt stn.	
	Dry	37.2	No	15:10	33 34 35				No stain. V. slt odor.	
					36 37					

SJ 28-6 #125

Boring Well #	BH10A
Project:	[redacted] SJ 28-6
Project #	[redacted] 125
Date	5-26-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					37				Gray fn. sandy silt stn.	
	Dry	0.4	No		38			SM	V. Dense.	
					39			ML	No s/o.	
				1545	40					
					41				No Recaver 40-44	
					42					
				BH10A @ 45' 1600	43					
	Dry	0.5	No		44				@45' Dark gray sandy silt. sltly cons. Dense No s/o	
					45					
					46					
					47			ML	Gray & purple mottled	
	Dry	0.1	No	BH10 @ 45-50 1605	48				sandy silt & silt stn.	
					49				Dense. Cons. No s/o	
					50					
					51					
				BH10 @ 50-55 1610	52			ML	SAA. silt & sandy	
	Dry	0.0	No		53				silt stn	
					54				Dense, Hard. No s/o	
					55					
					56					
					57					
					58					
					59					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH11		Project: San Juan 28-6 #125	
Date: 5-27-21		Project Number: TE017821009	
Logged By: Danny Burns		Drilled By: MO-TE Drilling	
Elevation: 6,465	Detector: PID	Drilling Method: ~~Hollow Stem~~ Air-Mist/Air Rotary	Sampling Method: Continuous
Gravel Pack: 10-20 Silica Sand (36-24')		Seal: Bentonite 24'-22'	Grout: Cement Bentonite (22-0')
Casing Type: Schedule 40 PVC (25'-SW)		Diameter: 2" Length: 30'	Hole Diameter: 5½" Depth to Liquid:
Screen Type: Schedule 40 PVC	Slot: 0.010" (35'-25')	Diameter: 2" Length: 10'	Total Depth: Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				No recovery from 0-4.5'	SL
					1					
					2					
					3					
					4					
	Dry	0.0	No	BH11 @5' 0533	5		X		Lt gray med-fn. s.stn. @5' Dense. No s/o.	
	Dry				6					
					7				Lt grayish brown + tan med s.stn. med. fn.	
	Dry	0.0	No		8			SP		
				BH11 @ 5-10 0535	9				Consol. + dense. No s/o.	
					10					
					11					
					12				Tan + H. brown med-course S. stn. Dense No s/o	
	Dry	0.0	No		13			SP		
				BH @ 10-15 0540	14					
					15					

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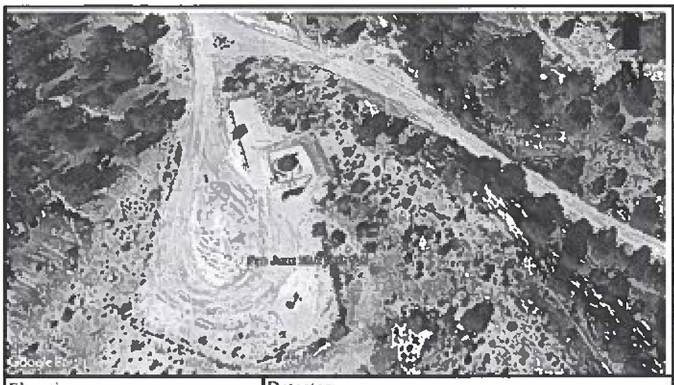
Boring/Well #	BH 11
Project:	[redacted] 28-6 125
Project #	[redacted]
Date	5-27-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks BH 11	Well Completion
	Dry	0.0	No	BH 11 @ 15-20 0845	15 16 17 18 19 20			SP	Tan, coarse S. stn. Consolidat. w/ oxidation. Dense No s/o	
	Dry	1.4	No	BH 11 @ 20-25 0900	21 22 23 24 25			SM	Lt gray, fn. silty s. stn. Dense, Hard. No s/o.	
	Dry	585	No	BH 11 @ 25-30 0905	26 27 28 29 30			SM ML	Lt gray. silty v. fn. s. stn. & sandy silt stn. Dense. V. Slt. oily odor.	
	Dry	3.1	No	BH 11 @ 30-35 09:10	31 32 33 34 35			SM ML	Gray fn. sandy silt stn. Dense. V. Hard. No s/o & gray silt w/ fn sand. No s/o	
					36 37					Cuttings

BH 11 @ SS 28-6 #125

Boring Well #	BH11
Project:	[redacted] 28-6 125
Project #	[redacted]
Date	5-27-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks BH 11	Well Completion
	Dry	0.0	No	BH 11 @ SS 40 09:15	37 38 39 40			SM/ ML	Gray. fn sandy silt stn. V. Hard. No s/o.	Cuttings
	Dry	0.0	No	BH 11 @ 40' -45. 0920	41 42 43 44 45			ML	Gray Fn. sandy silt stn. Dense, consold. No s/o Gray silt w/ sand. No s/o	
	Dry	0.0	No	BH 11 @ 45 -50 0925	46 47 48 49 50			SM ML	Gray & purple mottled silt stn. V. Hard & Dense. Consolidated No s/o.	
	Dry	0.0	No	BH 11 @ 50 -55 0930	51 52 53 54 55			SM ML	Gray & dark gray silt stn. Silty sand dense Dense, hard. No s/o	
					56 57 58 59					



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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH12		Project: San Juan 28-6 #125	
Date: 5-27-21		Project Number: TE017821009	
Logged By: Danny Burns		Drilled By: MO-TE Drilling	
Elevation: 6,465	Detector: PID	Drilling Method: ~~Hollow Stem~~/Air Rotary Air Mist	Sampling Method: Continuous
Gravel Pack: 10-20 Silica Sand ✓		Seal: Bentonite ✓	Grout: Bentonite ✓
Casing Type: Schedule 40 PVC		Diameter: 2" Length: ✓	Hole Diameter: 5½" Depth to Liquid: —
Screen Type: Schedule 40 PVC	Slot: 0.010"	Diameter: 2" Length: ✓	Total Depth: 55' Depth to Water: —

Penetration Resistance	Moisture Content	Vapor (ppm)	HC Staining?	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				No recovery from 0-7'	Cuttings backfill.
					1					
					2					
					3					
					4					
					5					
					6					
					7					
				BH12 7-10	8				Lt. gray brown + tan med. S. stn. Dense. No s/o.	
	Dry	0.0	No		9			SP		
				1030	10					
					11					
					12				Tan med.-coarse S. stn. No s/o. some oxid.	
					13			SP		
	Dry	0.0	No	BH 12 @ 10:15 10'-15'	14					
					15					

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Boring/Well #	BH12
Project:	San Juan 28-6 #125
Project #	TE017821009
Date	5-27-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	No	BH12 @ 15-20	15 16 17 18 19 20			SP	Tan, med to med coarse + coarse s. stn. No s/o	
	Dry	0.0	No	BH 12 @ 20-25	21 22 23 24 25			SP	Tan coarse s. stn. Dense. Hard. No s/o.	
	Dry	0.0	No	BH 12 @ 25-30	26 27 28 29 30			SM ML	Lt. gray + gray silty sand stn. + s. silty stn. Hard. No s/o	
	Dry	0.0	No	BH 12 @ 30-35	31 32 33 34 35			SM ML	Gray fn. Sandy silt. some unconsol. No s/o.	
					36 37					

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Boring/Well #	BH12
Project:	San Juan 28-6 #125
Project #	TE01782 1009
Date	5-27-21

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	No	BH 12 @ 35-40 1100	37 38 39 40			SM ML	Gray silt stn w/ fn sand. No s/o.	
	Dry	0.0	No	BH 12 @ 40-45 1105	41 42 43 44 45			SM ML	Gray + purple mottled siltstn. w/ fn sand No s/o.	
	Dry	0.0	No	BH 12 @ 45-50 1110	46 47 48 49 50			SM ML	Gray + dark gray silt stn. Dense + Hard No s/o	
	Dry	0.0	No	BH 12 @ 50-55 1115	51 52 53 54 55			SM ML	Gray silt stn w/ fn. sand Dense. No s/o.	
					56 57 58 59					

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ENSOLUM

APPENDIX B

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 13, 2020

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

RE: SJ 28 6 OrderNo.: 2011570

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/11/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2011570**
Date Reported: **11/13/2020**

CLIENT: HILCORP ENERGY
Client Sample ID: BH01 30'-35'
Project: SJ 28 6
Collection Date: 11/10/2020 11:30:00 AM
Lab ID: 2011570-001 **Matrix:** SOIL **Received Date:** 11/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	11/11/2020 11:17:27 AM	56362
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	72	4.6		mg/Kg	1	11/11/2020 11:39:42 AM	56342
Surr: BFB	104	70-130		%Rec	1	11/11/2020 11:39:42 AM	56342
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	69	9.8		mg/Kg	1	11/11/2020 11:44:59 AM	56359
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/11/2020 11:44:59 AM	56359
Surr: DNOP	90.9	30.4-154		%Rec	1	11/11/2020 11:44:59 AM	56359
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.023		mg/Kg	1	11/11/2020 11:39:42 AM	56342
Toluene	0.32	0.046		mg/Kg	1	11/11/2020 11:39:42 AM	56342
Ethylbenzene	0.074	0.046		mg/Kg	1	11/11/2020 11:39:42 AM	56342
Xylenes, Total	1.3	0.092		mg/Kg	1	11/11/2020 11:39:42 AM	56342
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	1	11/11/2020 11:39:42 AM	56342
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	11/11/2020 11:39:42 AM	56342
Surr: Dibromofluoromethane	104	70-130		%Rec	1	11/11/2020 11:39:42 AM	56342
Surr: Toluene-d8	97.7	70-130		%Rec	1	11/11/2020 11:39:42 AM	56342

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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011570**

13-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 6

Sample ID: **MB-56362**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **56362**	RunNo: **73265**
Prep Date: **11/11/2020**	Analysis Date: **11/11/2020**	SeqNo: **2579284** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56362**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **56362**	RunNo: **73265**
Prep Date: **11/11/2020**	Analysis Date: **11/11/2020**	SeqNo: **2579285** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011570**

13-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 6

Sample ID: **2011570-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BH01 30'-35'** Batch ID: **56359** RunNo: **73269**

Prep Date: **11/11/2020** Analysis Date: **11/11/2020** SeqNo: **2578937** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	10	49.80	68.65	120	15	184			
Surr: DNOP	4.6		4.980		92.6	30.4	154			

Sample ID: **2011570-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BH01 30'-35'** Batch ID: **56359** RunNo: **73269**

Prep Date: **11/11/2020** Analysis Date: **11/11/2020** SeqNo: **2578938** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	93	9.4	46.99	68.65	52.0	15	184	31.9	23.9	R
Surr: DNOP	3.9		4.699		83.8	30.4	154	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011570**
13-Nov-20

Client: HILCORP ENERGY
Project: SJ 28 6

Sample ID: **lcs-56342** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **56342** RunNo: **73274**
Prep Date: **11/10/2020** Analysis Date: **11/11/2020** SeqNo: **2578444** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	110	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.3	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.8	70	130			
Surr: Toluene-d8	0.46		0.5000		91.4	70	130			

Sample ID: **mb-56342** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **56342** RunNo: **73274**
Prep Date: **11/10/2020** Analysis Date: **11/11/2020** SeqNo: **2578445** 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: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.46		0.5000		91.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011570**

13-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 6

Sample ID: **mb-56342**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **56342**	RunNo: **73274**
Prep Date: **11/10/2020**	Analysis Date: **11/11/2020**	SeqNo: **2578463** 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	500		500.0		100	70	130			

Sample ID: **lcs-56342**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **56342**	RunNo: **73274**
Prep Date: **11/10/2020**	Analysis Date: **11/11/2020**	SeqNo: **2578464** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.2	70	130			
Surr: BFB	500		500.0		99.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
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Albuquerque, NM 87109
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Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **HILCORP ENERGY** Work Order Number: **2011570** RcptNo: **1**

Received By: **Desiree Dominguez** **11/11/2020 8:00:00 AM** DD

Completed By: **Emily Mocho** **11/11/2020 8:05:20 AM**

Reviewed By: DAD 11/11/20

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: JR 11/11/20

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.0	Good	Yes			

Chain-of-Custody Record

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

Turn-Around Time:
☐ Standard ☒ Rush Same Day
Project Name:
SJ 28-6
Project #:
Project Manager:
Stuart Hyde - LTE
Sampler: Ecarroll
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 4.0 -0.0 = 4.0 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011570	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)
11/10	1130	Soil	BH01 30'-35'	14 oz	Cool	001	X	X					X			

Analysis Request

Relinquished by:	Received by:	Via:	Date	Time
Eric Carroll	Chad Walk		11/10/2020	1727
Chad Walk	JD	Courier	11/11/20	8:00

Remarks:
Please cc: ecarroll@ltenv.com

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 25, 2020

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

RE: SJ 28 6 OrderNo.: 2011660

Dear Lindsay Dumas:

Hall Environmental Analysis Laboratory received 19 sample(s) on 11/12/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH01 7.5'-10'
Project: SJ 28 6
Collection Date: 11/10/2020 11:10:00 AM
Lab ID: 2011660-001 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	900	98		mg/Kg	10	11/16/2020 11:48:11 PM
Motor Oil Range Organics (MRO)	ND	490	D	mg/Kg	10	11/16/2020 11:48:11 PM
Surr: DNOP	0	30.4-154	S	%Rec	10	11/16/2020 11:48:11 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 12:03:03 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.12		mg/Kg	5	11/16/2020 11:31:10 PM
Toluene	4.0	0.25		mg/Kg	5	11/16/2020 11:31:10 PM
Ethylbenzene	2.0	0.25		mg/Kg	5	11/16/2020 11:31:10 PM
Xylenes, Total	37	0.49		mg/Kg	5	11/16/2020 11:31:10 PM
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	5	11/16/2020 11:31:10 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	5	11/16/2020 11:31:10 PM
Surr: Dibromofluoromethane	112	70-130		%Rec	5	11/16/2020 11:31:10 PM
Surr: Toluene-d8	101	70-130		%Rec	5	11/16/2020 11:31:10 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	720	25		mg/Kg	5	11/16/2020 11:31:10 PM
Surr: BFB	118	70-130		%Rec	5	11/16/2020 11:31:10 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH02 10'-12.5'
Project: SJ 28 6
Collection Date: 11/10/2020 12:40:00 PM
Lab ID: 2011660-002 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	1700	89		mg/Kg	10	11/17/2020 12:11:34 AM
Motor Oil Range Organics (MRO)	ND	440	D	mg/Kg	10	11/17/2020 12:11:34 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	11/17/2020 12:11:34 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 12:40:16 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.048		mg/Kg	2	11/16/2020 4:52:14 PM
Toluene	1.2	0.097		mg/Kg	2	11/16/2020 4:52:14 PM
Ethylbenzene	1.1	0.097		mg/Kg	2	11/16/2020 4:52:14 PM
Xylenes, Total	28	0.48		mg/Kg	5	11/17/2020 1:53:41 AM
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	2	11/16/2020 4:52:14 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	2	11/16/2020 4:52:14 PM
Surr: Dibromofluoromethane	107	70-130		%Rec	2	11/16/2020 4:52:14 PM
Surr: Toluene-d8	99.8	70-130		%Rec	2	11/16/2020 4:52:14 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	550	9.7		mg/Kg	2	11/16/2020 4:52:14 PM
Surr: BFB	124	70-130		%Rec	2	11/16/2020 4:52:14 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH02 40'-43'
Project: SJ 28 6
Collection Date: 11/10/2020 1:00:00 PM
Lab ID: 2011660-003 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	24	9.9		mg/Kg	1	11/14/2020 3:31:46 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/14/2020 3:31:46 PM
Surr: DNOP	35.4	30.4-154		%Rec	1	11/14/2020 3:31:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	11/21/2020 1:17:29 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.049		mg/Kg	2	11/16/2020 5:20:35 PM
Toluene	ND	0.098		mg/Kg	2	11/16/2020 5:20:35 PM
Ethylbenzene	ND	0.098		mg/Kg	2	11/16/2020 5:20:35 PM
Xylenes, Total	ND	0.20		mg/Kg	2	11/16/2020 5:20:35 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	2	11/16/2020 5:20:35 PM
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	2	11/16/2020 5:20:35 PM
Surr: Dibromofluoromethane	104	70-130		%Rec	2	11/16/2020 5:20:35 PM
Surr: Toluene-d8	97.7	70-130		%Rec	2	11/16/2020 5:20:35 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	29	9.8		mg/Kg	2	11/16/2020 5:20:35 PM
Surr: BFB	111	70-130		%Rec	2	11/16/2020 5:20:35 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH03 10'-15'
Project: SJ 28 6
Collection Date: 11/10/2020 1:50:00 PM
Lab ID: 2011660-004 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	1200	97		mg/Kg	10	11/17/2020 12:34:57 AM
Motor Oil Range Organics (MRO)	ND	490	D	mg/Kg	10	11/17/2020 12:34:57 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	11/17/2020 12:34:57 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	61		mg/Kg	20	11/21/2020 1:29:54 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.050		mg/Kg	2	11/16/2020 5:49:11 PM
Toluene	0.54	0.099		mg/Kg	2	11/16/2020 5:49:11 PM
Ethylbenzene	0.56	0.099		mg/Kg	2	11/16/2020 5:49:11 PM
Xylenes, Total	18	0.20		mg/Kg	2	11/16/2020 5:49:11 PM
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	2	11/16/2020 5:49:11 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	2	11/16/2020 5:49:11 PM
Surr: Dibromofluoromethane	103	70-130		%Rec	2	11/16/2020 5:49:11 PM
Surr: Toluene-d8	97.4	70-130		%Rec	2	11/16/2020 5:49:11 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	390	9.9		mg/Kg	2	11/16/2020 5:49:11 PM
Surr: BFB	129	70-130		%Rec	2	11/16/2020 5:49:11 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH03 45'-50'
Project: SJ 28 6 **Collection Date:** 11/10/2020 2:10:00 PM
Lab ID: 2011660-005 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/14/2020 4:19:42 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/14/2020 4:19:42 PM
Surr: DNOP	16.9	30.4-154	S	%Rec	1	11/14/2020 4:19:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 1:42:18 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.047		mg/Kg	2	11/16/2020 6:17:34 PM
Toluene	ND	0.095		mg/Kg	2	11/16/2020 6:17:34 PM
Ethylbenzene	ND	0.095		mg/Kg	2	11/16/2020 6:17:34 PM
Xylenes, Total	ND	0.19		mg/Kg	2	11/16/2020 6:17:34 PM
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	2	11/16/2020 6:17:34 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	2	11/16/2020 6:17:34 PM
Surr: Dibromofluoromethane	108	70-130		%Rec	2	11/16/2020 6:17:34 PM
Surr: Toluene-d8	96.7	70-130		%Rec	2	11/16/2020 6:17:34 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	9.7	9.5		mg/Kg	2	11/16/2020 6:17:34 PM
Surr: BFB	109	70-130		%Rec	2	11/16/2020 6:17:34 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH04 20'-25'
Project: SJ 28 6
Collection Date: 11/10/2020 3:00:00 PM
Lab ID: 2011660-006 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	1600	97		mg/Kg	10	11/17/2020 12:58:17 AM
Motor Oil Range Organics (MRO)	ND	480	D	mg/Kg	10	11/17/2020 12:58:17 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	11/17/2020 12:58:17 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	11/21/2020 1:54:43 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.12		mg/Kg	5	11/16/2020 6:45:59 PM
Toluene	8.6	0.24		mg/Kg	5	11/16/2020 6:45:59 PM
Ethylbenzene	2.9	0.24		mg/Kg	5	11/16/2020 6:45:59 PM
Xylenes, Total	62	0.97		mg/Kg	10	11/17/2020 2:22:08 AM
Surr: 1,2-Dichloroethane-d4	116	70-130		%Rec	5	11/16/2020 6:45:59 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	11/16/2020 6:45:59 PM
Surr: Dibromofluoromethane	103	70-130		%Rec	5	11/16/2020 6:45:59 PM
Surr: Toluene-d8	94.3	70-130		%Rec	5	11/16/2020 6:45:59 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	1300	24		mg/Kg	5	11/16/2020 6:45:59 PM
Surr: BFB	123	70-130		%Rec	5	11/16/2020 6:45:59 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH04 50'-55'
Project: SJ 28 6
Collection Date: 11/10/2020 3:30:00 PM
Lab ID: 2011660-007 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	10	8.9		mg/Kg	1	11/14/2020 5:31:44 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/14/2020 5:31:44 PM
Surr: DNOP	6.21	30.4-154	S	%Rec	1	11/14/2020 5:31:44 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 2:31:57 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.048		mg/Kg	2	11/16/2020 7:14:30 PM
Toluene	ND	0.095		mg/Kg	2	11/16/2020 7:14:30 PM
Ethylbenzene	ND	0.095		mg/Kg	2	11/16/2020 7:14:30 PM
Xylenes, Total	0.20	0.19		mg/Kg	2	11/16/2020 7:14:30 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	2	11/16/2020 7:14:30 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	2	11/16/2020 7:14:30 PM
Surr: Dibromofluoromethane	108	70-130		%Rec	2	11/16/2020 7:14:30 PM
Surr: Toluene-d8	95.1	70-130		%Rec	2	11/16/2020 7:14:30 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	14	9.5		mg/Kg	2	11/16/2020 7:14:30 PM
Surr: BFB	108	70-130		%Rec	2	11/16/2020 7:14:30 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH01 35'-40'
Project: SJ 28 6
Collection Date: 11/11/2020 9:40:00 AM
Lab ID: 2011660-008 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	11	9.7		mg/Kg	1	11/14/2020 5:55:48 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/14/2020 5:55:48 PM
Surr: DNOP	6.24	30.4-154	S	%Rec	1	11/14/2020 5:55:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 2:44:23 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.049		mg/Kg	2	11/16/2020 7:43:02 PM
Toluene	ND	0.098		mg/Kg	2	11/16/2020 7:43:02 PM
Ethylbenzene	ND	0.098		mg/Kg	2	11/16/2020 7:43:02 PM
Xylenes, Total	ND	0.20		mg/Kg	2	11/16/2020 7:43:02 PM
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	2	11/16/2020 7:43:02 PM
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	2	11/16/2020 7:43:02 PM
Surr: Dibromofluoromethane	111	70-130		%Rec	2	11/16/2020 7:43:02 PM
Surr: Toluene-d8	96.4	70-130		%Rec	2	11/16/2020 7:43:02 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	9.8		mg/Kg	2	11/16/2020 7:43:02 PM
Surr: BFB	105	70-130		%Rec	2	11/16/2020 7:43:02 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH05 15'-20'
Project: SJ 28 6
Collection Date: 11/11/2020 10:40:00 AM
Lab ID: 2011660-009 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	1400	99		mg/Kg	10	11/17/2020 1:21:35 AM
Motor Oil Range Organics (MRO)	ND	490	D	mg/Kg	10	11/17/2020 1:21:35 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	11/17/2020 1:21:35 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	11/21/2020 2:56:48 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.12	D	mg/Kg	5	11/17/2020 1:06:21 PM
Toluene	2.7	0.24	D	mg/Kg	5	11/17/2020 1:06:21 PM
Ethylbenzene	1.1	0.24	D	mg/Kg	5	11/17/2020 1:06:21 PM
Xylenes, Total	21	0.48	D	mg/Kg	5	11/17/2020 1:06:21 PM
Surr: 1,2-Dichloroethane-d4	113	70-130	D	%Rec	5	11/17/2020 1:06:21 PM
Surr: 4-Bromofluorobenzene	105	70-130	D	%Rec	5	11/17/2020 1:06:21 PM
Surr: Dibromofluoromethane	109	70-130	D	%Rec	5	11/17/2020 1:06:21 PM
Surr: Toluene-d8	96.4	70-130	D	%Rec	5	11/17/2020 1:06:21 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	680	24		mg/Kg	5	11/17/2020 1:06:21 PM
Surr: BFB	116	70-130		%Rec	5	11/17/2020 1:06:21 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH05 30'-35'
Project: SJ 28 6
Collection Date: 11/11/2020 11:00:00 AM
Lab ID: 2011660-010 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	11	8.8		mg/Kg	1	11/14/2020 6:43:40 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/14/2020 6:43:40 PM
Surr: DNOP	0	30.4-154	S	%Rec	1	11/14/2020 6:43:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 3:09:13 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.048		mg/Kg	2	11/16/2020 8:40:08 PM
Toluene	ND	0.095		mg/Kg	2	11/16/2020 8:40:08 PM
Ethylbenzene	ND	0.095		mg/Kg	2	11/16/2020 8:40:08 PM
Xylenes, Total	ND	0.19		mg/Kg	2	11/16/2020 8:40:08 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	2	11/16/2020 8:40:08 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	2	11/16/2020 8:40:08 PM
Surr: Dibromofluoromethane	103	70-130		%Rec	2	11/16/2020 8:40:08 PM
Surr: Toluene-d8	94.0	70-130		%Rec	2	11/16/2020 8:40:08 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	9.5		mg/Kg	2	11/16/2020 8:40:08 PM
Surr: BFB	107	70-130		%Rec	2	11/16/2020 8:40:08 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH06 5'-10'
Project: SJ 28 6
Collection Date: 11/11/2020 12:20:00 PM
Lab ID: 2011660-011 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	23	10		mg/Kg	1	11/14/2020 7:07:44 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/14/2020 7:07:44 PM
Surr: DNOP	0	30.4-154	S	%Rec	1	11/14/2020 7:07:44 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	85	60		mg/Kg	20	11/21/2020 3:21:37 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.048		mg/Kg	2	11/16/2020 9:08:38 PM
Toluene	ND	0.096		mg/Kg	2	11/16/2020 9:08:38 PM
Ethylbenzene	ND	0.096		mg/Kg	2	11/16/2020 9:08:38 PM
Xylenes, Total	ND	0.19		mg/Kg	2	11/16/2020 9:08:38 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	2	11/16/2020 9:08:38 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	2	11/16/2020 9:08:38 PM
Surr: Dibromofluoromethane	103	70-130		%Rec	2	11/16/2020 9:08:38 PM
Surr: Toluene-d8	99.3	70-130		%Rec	2	11/16/2020 9:08:38 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	9.6		mg/Kg	2	11/16/2020 9:08:38 PM
Surr: BFB	109	70-130		%Rec	2	11/16/2020 9:08:38 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH06 35'-40'
Project: SJ 28 6
Collection Date: 11/11/2020 12:40:00 PM
Lab ID: 2011660-012 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/14/2020 7:31:43 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/14/2020 7:31:43 PM
Surr: DNOP	0	30.4-154	S	%Rec	1	11/14/2020 7:31:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 3:34:02 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.023		mg/Kg	1	11/16/2020 9:37:07 PM
Toluene	ND	0.047		mg/Kg	1	11/16/2020 9:37:07 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/16/2020 9:37:07 PM
Xylenes, Total	ND	0.093		mg/Kg	1	11/16/2020 9:37:07 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	11/16/2020 9:37:07 PM
Surr: 4-Bromofluorobenzene	98.2	70-130		%Rec	1	11/16/2020 9:37:07 PM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	11/16/2020 9:37:07 PM
Surr: Toluene-d8	98.5	70-130		%Rec	1	11/16/2020 9:37:07 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/16/2020 9:37:07 PM
Surr: BFB	101	70-130		%Rec	1	11/16/2020 9:37:07 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH07 25'-30'
Project: SJ 28 6
Collection Date: 11/11/2020 1:00:00 PM
Lab ID: 2011660-013 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/14/2020 7:55:27 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/14/2020 7:55:27 PM
Surr: DNOP	0	30.4-154	S	%Rec	1	11/14/2020 7:55:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	73	60		mg/Kg	20	11/21/2020 3:46:27 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	11/16/2020 10:05:42 PM
Toluene	ND	0.049		mg/Kg	1	11/16/2020 10:05:42 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/16/2020 10:05:42 PM
Xylenes, Total	ND	0.099		mg/Kg	1	11/16/2020 10:05:42 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/16/2020 10:05:42 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%Rec	1	11/16/2020 10:05:42 PM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	11/16/2020 10:05:42 PM
Surr: Toluene-d8	99.7	70-130		%Rec	1	11/16/2020 10:05:42 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/16/2020 10:05:42 PM
Surr: BFB	103	70-130		%Rec	1	11/16/2020 10:05:42 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH07 35'-40'
Project: SJ 28 6
Collection Date: 11/11/2020 1:25:00 PM
Lab ID: 2011660-014 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	11/14/2020 8:19:24 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/14/2020 8:19:24 PM
Surr: DNOP	0	30.4-154	S	%Rec	1	11/14/2020 8:19:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/21/2020 3:58:51 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.023		mg/Kg	1	11/16/2020 10:34:14 PM
Toluene	ND	0.046		mg/Kg	1	11/16/2020 10:34:14 PM
Ethylbenzene	ND	0.046		mg/Kg	1	11/16/2020 10:34:14 PM
Xylenes, Total	ND	0.093		mg/Kg	1	11/16/2020 10:34:14 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	11/16/2020 10:34:14 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	11/16/2020 10:34:14 PM
Surr: Dibromofluoromethane	111	70-130		%Rec	1	11/16/2020 10:34:14 PM
Surr: Toluene-d8	102	70-130		%Rec	1	11/16/2020 10:34:14 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/16/2020 10:34:14 PM
Surr: BFB	104	70-130		%Rec	1	11/16/2020 10:34:14 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH08 10'-15'
Project: SJ 28 6
Collection Date: 11/11/2020 3:00:00 PM
Lab ID: 2011660-015 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	11/14/2020 8:43:14 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	11/14/2020 8:43:14 PM
Surr: DNOP	0	30.4-154	S	%Rec	1	11/14/2020 8:43:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/23/2020 10:28:35 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.024		mg/Kg	1	11/16/2020 11:02:38 PM
Toluene	ND	0.049		mg/Kg	1	11/16/2020 11:02:38 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/16/2020 11:02:38 PM
Xylenes, Total	ND	0.098		mg/Kg	1	11/16/2020 11:02:38 PM
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	11/16/2020 11:02:38 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%Rec	1	11/16/2020 11:02:38 PM
Surr: Dibromofluoromethane	106	70-130		%Rec	1	11/16/2020 11:02:38 PM
Surr: Toluene-d8	97.2	70-130		%Rec	1	11/16/2020 11:02:38 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/16/2020 11:02:38 PM
Surr: BFB	103	70-130		%Rec	1	11/16/2020 11:02:38 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH08 35'-40'
Project: SJ 28 6
Collection Date: 11/11/2020 3:20:00 PM
Lab ID: 2011660-016 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	11/16/2020 11:12:44 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/16/2020 11:12:44 AM
Surr: DNOP	85.8	30.4-154		%Rec	1	11/16/2020 11:12:44 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/16/2020 5:48:35 PM
Surr: BFB	88.4	75.3-105		%Rec	1	11/16/2020 5:48:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	11/16/2020 5:48:35 PM
Toluene	ND	0.049		mg/Kg	1	11/16/2020 5:48:35 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/16/2020 5:48:35 PM
Xylenes, Total	ND	0.099		mg/Kg	1	11/16/2020 5:48:35 PM
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	11/16/2020 5:48:35 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	11/23/2020 11:05:48 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH09 15'-20'
Project: SJ 28 6
Collection Date: 11/11/2020 4:25:00 PM
Lab ID: 2011660-017 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/16/2020 12:24:49 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/16/2020 12:24:49 PM
Surr: DNOP	36.8	30.4-154		%Rec	1	11/16/2020 12:24:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/16/2020 6:58:52 PM
Surr: BFB	93.0	75.3-105		%Rec	1	11/16/2020 6:58:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	11/16/2020 6:58:52 PM
Toluene	ND	0.047		mg/Kg	1	11/16/2020 6:58:52 PM
Ethylbenzene	ND	0.047		mg/Kg	1	11/16/2020 6:58:52 PM
Xylenes, Total	ND	0.094		mg/Kg	1	11/16/2020 6:58:52 PM
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	11/16/2020 6:58:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/23/2020 11:43:01 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH09 35'-40'
Project: SJ 28 6
Collection Date: 11/11/2020 4:40:00 PM
Lab ID: 2011660-018 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/16/2020 12:48:47 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/16/2020 12:48:47 PM
Surr: DNOP	46.4	30.4-154		%Rec	1	11/16/2020 12:48:47 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/16/2020 8:09:15 PM
Surr: BFB	90.7	75.3-105		%Rec	1	11/16/2020 8:09:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	11/16/2020 8:09:15 PM
Toluene	ND	0.049		mg/Kg	1	11/16/2020 8:09:15 PM
Ethylbenzene	ND	0.049		mg/Kg	1	11/16/2020 8:09:15 PM
Xylenes, Total	ND	0.098		mg/Kg	1	11/16/2020 8:09:15 PM
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	11/16/2020 8:09:15 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/23/2020 11:55:25 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2011660**
Date Reported: **11/25/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH01 20'-25'
Project: SJ 28 6
Collection Date: 11/10/2020 11:20:00 AM
Lab ID: 2011660-019 **Matrix:** SOIL **Received Date:** 11/12/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	120	9.8		mg/Kg	1	11/16/2020 1:12:59 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/16/2020 1:12:59 PM
Surr: DNOP	57.3	30.4-154		%Rec	1	11/16/2020 1:12:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	11/16/2020 8:32:42 PM
Surr: BFB	112	75.3-105	S	%Rec	5	11/16/2020 8:32:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.12		mg/Kg	5	11/16/2020 8:32:42 PM
Toluene	ND	0.24		mg/Kg	5	11/16/2020 8:32:42 PM
Ethylbenzene	ND	0.24		mg/Kg	5	11/16/2020 8:32:42 PM
Xylenes, Total	ND	0.47		mg/Kg	5	11/16/2020 8:32:42 PM
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	5	11/16/2020 8:32:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	11/23/2020 12:32:39 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**

25-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 6

Sample ID: **MB-56579** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **56579** RunNo: **73522**
Prep Date: **11/20/2020** Analysis Date: **11/20/2020** SeqNo: **2589359** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56579** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **56579** RunNo: **73522**
Prep Date: **11/20/2020** Analysis Date: **11/20/2020** SeqNo: **2589360** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Sample ID: **MB-56598** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **56598** RunNo: **73569**
Prep Date: **11/23/2020** Analysis Date: **11/23/2020** SeqNo: **2591764** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-56598** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **56598** RunNo: **73569**
Prep Date: **11/23/2020** Analysis Date: **11/23/2020** SeqNo: **2591765** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**
25-Nov-20

Client: HILCORP ENERGY
Project: SJ 28 6

Sample ID: **MB-56422**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **56422**	RunNo: **73324**
Prep Date: **11/13/2020**	Analysis Date: **11/14/2020**	SeqNo: **2582777** 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	0		10.00		0	30.4	154			S

Sample ID: **LCS-56422**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **56422**	RunNo: **73324**
Prep Date: **11/13/2020**	Analysis Date: **11/14/2020**	SeqNo: **2582779** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.2	70	130			
Surr: DNOP	0		5.000		0	30.4	154			S

Sample ID: **2011660-016AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH08 35'-40'**	Batch ID: **56443**	RunNo: **73387**
Prep Date: **11/14/2020**	Analysis Date: **11/16/2020**	SeqNo: **2583954** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.7	48.31	0	89.1	15	184			
Surr: DNOP	2.7		4.831		55.9	30.4	154			

Sample ID: **2011660-016AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH08 35'-40'**	Batch ID: **56443**	RunNo: **73387**
Prep Date: **11/14/2020**	Analysis Date: **11/16/2020**	SeqNo: **2583955** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.8	49.21	0	88.6	15	184	1.26	23.9	
Surr: DNOP	2.3		4.921		46.8	30.4	154	0	0	

Sample ID: **MB-56443**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **56443**	RunNo: **73387**
Prep Date: **11/14/2020**	Analysis Date: **11/16/2020**	SeqNo: **2583956** 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	9.5		10.00		94.9	30.4	154			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**
25-Nov-20

Client: HILCORP ENERGY
Project: SJ 28 6

Sample ID: **LCS-56443** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **56443** RunNo: **73387**
Prep Date: **11/14/2020** Analysis Date: **11/16/2020** SeqNo: **2583958** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	70	130			
Surr: DNOP	5.0		5.000		100	30.4	154			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**

25-Nov-20

Client: HILCORP ENERGY

Project: SJ 28 6

Sample ID: **mb-56432**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **56432**	RunNo: **73394**
Prep Date: **11/13/2020**	Analysis Date: **11/16/2020**	SeqNo: **2584198** 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	890		1000		89.3	75.3	105			

Sample ID: **lcs-56432**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **56432**	RunNo: **73394**
Prep Date: **11/13/2020**	Analysis Date: **11/16/2020**	SeqNo: **2584199** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.9	72.5	106			
Surr: BFB	1000		1000		99.6	75.3	105			

Sample ID: **2011660-016ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH08 35'-40'**	Batch ID: **56432**	RunNo: **73394**
Prep Date: **11/13/2020**	Analysis Date: **11/16/2020**	SeqNo: **2584201** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.27	0	86.7	61.3	114			
Surr: BFB	980		970.9		101	75.3	105			

Sample ID: **2011660-016amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH08 35'-40'**	Batch ID: **56432**	RunNo: **73394**
Prep Date: **11/13/2020**	Analysis Date: **11/16/2020**	SeqNo: **2584202** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.61	0	93.6	61.3	114	9.09	20	
Surr: BFB	1000		984.3		102	75.3	105	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**
25-Nov-20

Client: HILCORP ENERGY
Project: SJ 28 6

Sample ID: **mb-56432** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **56432** RunNo: **73394**
Prep Date: **11/13/2020** Analysis Date: **11/16/2020** SeqNo: **2584243** 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	0.97		1.000		96.7	80	120			

Sample ID: **LCS-56432** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **56432** RunNo: **73394**
Prep Date: **11/13/2020** Analysis Date: **11/16/2020** SeqNo: **2584244** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.7	80	120			
Toluene	0.98	0.050	1.000	0	98.0	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Sample ID: **2011660-017ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH09 15'-20'** Batch ID: **56432** RunNo: **73394**
Prep Date: **11/13/2020** Analysis Date: **11/16/2020** SeqNo: **2584247** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.024	0.9728	0	87.7	76.3	120			
Toluene	0.93	0.049	0.9728	0.009756	94.1	78.5	120			
Ethylbenzene	0.93	0.049	0.9728	0	96.1	78.1	124			
Xylenes, Total	2.8	0.097	2.918	0	96.6	79.3	125			
Surr: 4-Bromofluorobenzene	0.98		0.9728		101	80	120			

Sample ID: **2011660-017amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH09 15'-20'** Batch ID: **56432** RunNo: **73394**
Prep Date: **11/13/2020** Analysis Date: **11/16/2020** SeqNo: **2584248** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.024	0.9625	0	92.5	76.3	120	4.25	20	
Toluene	0.94	0.048	0.9625	0.009756	97.0	78.5	120	1.88	20	
Ethylbenzene	0.94	0.048	0.9625	0	98.1	78.1	124	1.05	20	
Xylenes, Total	2.8	0.096	2.887	0	98.5	79.3	125	0.928	20	
Surr: 4-Bromofluorobenzene	0.98		0.9625		102	80	120	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**
25-Nov-20

Client: HILCORP ENERGY
Project: SJ 28 6

Sample ID: **lcs-56419** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **56419** RunNo: **73381**
Prep Date: **11/12/2020** Analysis Date: **11/15/2020** SeqNo: **2583807** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.3	0.10	3.000	0	110	80	120			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.7	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.47		0.5000		93.7	70	130			

Sample ID: **mb-56419** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **56419** RunNo: **73381**
Prep Date: **11/12/2020** Analysis Date: **11/15/2020** SeqNo: **2583808** 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: 1,2-Dichloroethane-d4	0.55		0.5000		109	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.48		0.5000		95.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2011660**
25-Nov-20

Client: HILCORP ENERGY
Project: SJ 28 6

Sample ID: **lcs-56419**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **56419**	RunNo: **73381**
Prep Date: **11/12/2020**	Analysis Date: **11/15/2020**	SeqNo: **2583842** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.3	70	130			
Surr: BFB	500		500.0		99.5	70	130			

Sample ID: **mb-56419**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **56419**	RunNo: **73381**
Prep Date: **11/12/2020**	Analysis Date: **11/15/2020**	SeqNo: **2583843** 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	510		500.0		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2011660 RcptNo: 1

Received By: **Cheyenne Cason** 11/12/2020 8:00:00 AM

Completed By: **Erin Melendrez** 11/12/2020 9:56:13 AM

Reviewed By: ENM 11/12/20

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: SPA 11.12.20

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good				

Chain-of-Custody Record

Client: Hilcorp

Lindsay Dumas

Mailing Address:

Phone #:

email or Fax#: ldumas@hilcorp.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: SJ 28-6

Project #: Stuart Hyde

Project Manager:

Sampler: E. Carroll

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.9-0.2=3.7

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2011606O	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride Cl⁻				Air Bubbles (Y or N)
11/10	1110	soil	BH01 2.5'-10'	1 4oz	cool	-001	X		X									X				
	1240		BH02 10'-12.5'			-002																
	1305		BH02 40'-43'			-003																
	1350		BH03 10'-15'			-004																
	1410		BH03 45'-50'			-005																
	1500		BH04 20'-25'			-006																
	1530		BH04 50'-55'			-007																
11/11	0940		BH01 35'-40'			-008																
	1040		BH05 15'-20'			-~~010~~ 009 ENH 11/12/20																
	1100		BH05 30'-35'			-010																
	1220		BH06 5'-10'			-011																
	1240		BH06 35'-40'			-012																

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/11	1625			11/11/2020	1825
11/11/2020	1850			11/12/20	0800

Remarks: Seal on cold

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

Chain-of-Custody Record

Client: Hilcorp

Lindsay Dumas

Mailing Address:

Phone #:

email or Fax#: ldumas@hilcorp.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: SJ 26-8

Project #:

Project Manager: Stuart Hyde

Sampler: E. Carroll

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.9-0.2=3.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 2011	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride				Air Bubbles (Y or N)
11/11	1300	soil	BH07 25'-30'	4oz Jar	Cool	-013	X		X									X				
	1325		BH07 35'-40'			-014																
	1500		BH08 10'-15'			-015																
	1520		BH08 35'-40'			-016																
	1605		BH09 15'-20			-017																
	1640		BH09 35-40			-018																
11/11/20	1120		BH01 20'-25'			-019	X		X									X				
10 ENM 11/12/20			ENM 11/12/20 per	sample																		

Date: 11/11 Time: 1825 Relinquished by:

Received by: Date 11/11/2020 Time 1825

Date: 11/11/20 Time: 1850 Relinquished by:

Received by: Date 11/12/20 Time 0820

Remarks: Seal on cooler Unc 11/12=

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 02, 2021

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

RE: San Juan 28-6 125 OrderNo.: 2105C04

Dear Lindsay Dumas:

Hall Environmental Analysis Laboratory received 38 sample(s) on 5/28/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10 @ 7-10'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 11:30:00 AM
Lab ID: 2105C04-001 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	9.3	9.1		mg/Kg	1	5/29/2021 4:58:38 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/29/2021 4:58:38 PM
Surr: DNOP	91.2	70-130		%Rec	1	5/29/2021 4:58:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 12:18:00 PM
Surr: BFB	82.8	70-130		%Rec	1	5/29/2021 12:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 12:18:00 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2021 12:18:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 12:18:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2021 12:18:00 PM
Surr: 4-Bromofluorobenzene	79.1	70-130		%Rec	1	5/29/2021 12:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	80	60		mg/Kg	20	5/29/2021 4:41:08 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10 @ 10-15'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 11:35:00 AM
Lab ID: 2105C04-002 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/29/2021 5:41:23 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/29/2021 5:41:23 PM
Surr: DNOP	103	70-130		%Rec	1	5/29/2021 5:41:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2021 1:18:00 PM
Surr: BFB	91.6	70-130		%Rec	1	5/29/2021 1:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 1:18:00 PM
Toluene	ND	0.047		mg/Kg	1	5/29/2021 1:18:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2021 1:18:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2021 1:18:00 PM
Surr: 4-Bromofluorobenzene	85.2	70-130		%Rec	1	5/29/2021 1:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	60	60		mg/Kg	20	5/29/2021 5:18:23 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10 @ 15-20'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 11:40:00 AM
Lab ID: 2105C04-003 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/29/2021 5:55:32 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2021 5:55:32 PM
Surr: DNOP	89.6	70-130		%Rec	1	5/29/2021 5:55:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 2:18:00 PM
Surr: BFB	82.7	70-130		%Rec	1	5/29/2021 2:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 2:18:00 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2021 2:18:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 2:18:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2021 2:18:00 PM
Surr: 4-Bromofluorobenzene	80.4	70-130		%Rec	1	5/29/2021 2:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 5:55:38 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10 @ 32-35'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 12:00:00 PM
Lab ID: 2105C04-004 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/29/2021 6:09:34 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/29/2021 6:09:34 PM
Surr: DNOP	90.3	70-130		%Rec	1	5/29/2021 6:09:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 2:37:00 PM
Surr: BFB	85.4	70-130		%Rec	1	5/29/2021 2:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 2:37:00 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2021 2:37:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 2:37:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2021 2:37:00 PM
Surr: 4-Bromofluorobenzene	82.7	70-130		%Rec	1	5/29/2021 2:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	62	60		mg/Kg	20	5/29/2021 6:08:03 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10 @ 35-40'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 12:05:00 PM
Lab ID: 2105C04-005 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	5/29/2021 6:23:35 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	5/29/2021 6:23:35 PM
Surr: DNOP	92.1	70-130		%Rec	1	5/29/2021 6:23:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2021 2:57:00 PM
Surr: BFB	86.0	70-130		%Rec	1	5/29/2021 2:57:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	5/29/2021 2:57:00 PM
Toluene	ND	0.046		mg/Kg	1	5/29/2021 2:57:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2021 2:57:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	5/29/2021 2:57:00 PM
Surr: 4-Bromofluorobenzene	83.2	70-130		%Rec	1	5/29/2021 2:57:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:20:27 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH10 @ 48-50'
Project: San Juan 28-6 125 **Collection Date:** 5/26/2021 2:00:00 PM
Lab ID: 2105C04-006 **Matrix:** MEOH (SOIL) **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	20	9.5		mg/Kg	1	5/28/2021 10:27:40 AM
Motor Oil Range Organics (MRO)	52	47		mg/Kg	1	5/28/2021 10:27:40 AM
Surr: DNOP	101	70-130		%Rec	1	5/28/2021 10:27:40 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	5/28/2021 11:07:06 AM
Surr: BFB	100	70-130		%Rec	1	5/28/2021 11:07:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.021		mg/Kg	1	5/28/2021 11:07:06 AM
Toluene	ND	0.042		mg/Kg	1	5/28/2021 11:07:06 AM
Ethylbenzene	ND	0.042		mg/Kg	1	5/28/2021 11:07:06 AM
Xylenes, Total	ND	0.084		mg/Kg	1	5/28/2021 11:07:06 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	5/28/2021 11:07:06 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/28/2021 9:27:07 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10 @ 50-55'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 2:05:00 PM
Lab ID: 2105C04-007 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.3		mg/Kg	1	5/29/2021 6:37:28 PM
Motor Oil Range Organics (MRO)	ND	41		mg/Kg	1	5/29/2021 6:37:28 PM
Surr: DNOP	88.8	70-130		%Rec	1	5/29/2021 6:37:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2021 3:17:00 PM
Surr: BFB	86.2	70-130		%Rec	1	5/29/2021 3:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	5/29/2021 3:17:00 PM
Toluene	ND	0.046		mg/Kg	1	5/29/2021 3:17:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2021 3:17:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	5/29/2021 3:17:00 PM
Surr: 4-Bromofluorobenzene	82.4	70-130		%Rec	1	5/29/2021 3:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:32:52 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 6-10'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 2:30:00 PM
Lab ID: 2105C04-008 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2021 6:51:15 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2021 6:51:15 PM
Surr: DNOP	90.6	70-130		%Rec	1	5/29/2021 6:51:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 3:37:00 PM
Surr: BFB	85.0	70-130		%Rec	1	5/29/2021 3:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 3:37:00 PM
Toluene	ND	0.048		mg/Kg	1	5/29/2021 3:37:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 3:37:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2021 3:37:00 PM
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	5/29/2021 3:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 10:49:55 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 10-15'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 2:35:00 PM
Lab ID: 2105C04-009 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/29/2021 7:04:55 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/29/2021 7:04:55 PM
Surr: DNOP	93.0	70-130		%Rec	1	5/29/2021 7:04:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 3:57:00 PM
Surr: BFB	88.4	70-130		%Rec	1	5/29/2021 3:57:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 3:57:00 PM
Toluene	ND	0.049		mg/Kg	1	5/29/2021 3:57:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 3:57:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 3:57:00 PM
Surr: 4-Bromofluorobenzene	83.5	70-130		%Rec	1	5/29/2021 3:57:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 11:02:20 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 15-20'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 2:40:00 PM
Lab ID: 2105C04-010 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2021 7:18:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2021 7:18:34 PM
Surr: DNOP	104	70-130		%Rec	1	5/29/2021 7:18:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2021 4:17:00 PM
Surr: BFB	88.2	70-130		%Rec	1	5/29/2021 4:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 4:17:00 PM
Toluene	ND	0.047		mg/Kg	1	5/29/2021 4:17:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2021 4:17:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2021 4:17:00 PM
Surr: 4-Bromofluorobenzene	84.2	70-130		%Rec	1	5/29/2021 4:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 11:14:44 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 24-25'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 3:00:00 PM
Lab ID: 2105C04-011 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/29/2021 7:32:08 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/29/2021 7:32:08 PM
Surr: DNOP	89.8	70-130		%Rec	1	5/29/2021 7:32:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 4:37:00 PM
Surr: BFB	90.3	70-130		%Rec	1	5/29/2021 4:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 4:37:00 PM
Toluene	ND	0.049		mg/Kg	1	5/29/2021 4:37:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 4:37:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 4:37:00 PM
Surr: 4-Bromofluorobenzene	85.7	70-130		%Rec	1	5/29/2021 4:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 11:27:08 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 25-30'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 3:05:00 PM
Lab ID: 2105C04-012 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/29/2021 7:45:38 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/29/2021 7:45:38 PM
Surr: DNOP	93.6	70-130		%Rec	1	5/29/2021 7:45:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 5:37:00 PM
Surr: BFB	86.0	70-130		%Rec	1	5/29/2021 5:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 5:37:00 PM
Toluene	ND	0.049		mg/Kg	1	5/29/2021 5:37:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 5:37:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 5:37:00 PM
Surr: 4-Bromofluorobenzene	81.8	70-130		%Rec	1	5/29/2021 5:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 11:39:32 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH10A @ 30-35'
Project: San Juan 28-6 125 **Collection Date:** 5/26/2021 3:10:00 PM
Lab ID: 2105C04-013 **Matrix:** MEOH (SOIL) **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	5/28/2021 10:40:45 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/28/2021 10:40:45 AM
Surr: DNOP	94.7	70-130		%Rec	1	5/28/2021 10:40:45 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/28/2021 11:30:33 AM
Surr: BFB	102	70-130		%Rec	1	5/28/2021 11:30:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.019		mg/Kg	1	5/28/2021 11:30:33 AM
Toluene	ND	0.038		mg/Kg	1	5/28/2021 11:30:33 AM
Ethylbenzene	ND	0.038		mg/Kg	1	5/28/2021 11:30:33 AM
Xylenes, Total	ND	0.075		mg/Kg	1	5/28/2021 11:30:33 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	5/28/2021 11:30:33 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/28/2021 9:39:32 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 35-40'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 3:15:00 PM
Lab ID: 2105C04-014 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/29/2021 7:59:04 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/29/2021 7:59:04 PM
Surr: DNOP	93.0	70-130		%Rec	1	5/29/2021 7:59:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 5:56:00 PM
Surr: BFB	83.1	70-130		%Rec	1	5/29/2021 5:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 5:56:00 PM
Toluene	ND	0.048		mg/Kg	1	5/29/2021 5:56:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 5:56:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 5:56:00 PM
Surr: 4-Bromofluorobenzene	81.1	70-130		%Rec	1	5/29/2021 5:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 11:51:57 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 45'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 4:00:00 PM
Lab ID: 2105C04-015 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2021 8:12:03 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2021 8:12:03 PM
Surr: DNOP	92.0	70-130		%Rec	1	5/29/2021 8:12:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 6:16:00 PM
Surr: BFB	85.3	70-130		%Rec	1	5/29/2021 6:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 6:16:00 PM
Toluene	ND	0.049		mg/Kg	1	5/29/2021 6:16:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 6:16:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 6:16:00 PM
Surr: 4-Bromofluorobenzene	81.1	70-130		%Rec	1	5/29/2021 6:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	5/29/2021 12:04:21 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 45-50'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 4:05:00 PM
Lab ID: 2105C04-016 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/29/2021 8:24:37 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/29/2021 8:24:37 PM
Surr: DNOP	96.2	70-130		%Rec	1	5/29/2021 8:24:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 6:36:00 PM
Surr: BFB	85.0	70-130		%Rec	1	5/29/2021 6:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 6:36:00 PM
Toluene	ND	0.048		mg/Kg	1	5/29/2021 6:36:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 6:36:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2021 6:36:00 PM
Surr: 4-Bromofluorobenzene	82.4	70-130		%Rec	1	5/29/2021 6:36:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	61		mg/Kg	20	5/29/2021 12:16:46 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH10A @ 50-55'
Project: San Juan 28-6 125
Collection Date: 5/26/2021 4:10:00 PM
Lab ID: 2105C04-017 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	5/29/2021 8:37:19 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/29/2021 8:37:19 PM
Surr: DNOP	93.8	70-130		%Rec	1	5/29/2021 8:37:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 6:56:00 PM
Surr: BFB	86.8	70-130		%Rec	1	5/29/2021 6:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 6:56:00 PM
Toluene	ND	0.048		mg/Kg	1	5/29/2021 6:56:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 6:56:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2021 6:56:00 PM
Surr: 4-Bromofluorobenzene	83.5	70-130		%Rec	1	5/29/2021 6:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 12:29:10 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 5'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 8:30:00 AM
Lab ID: 2105C04-018 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2021 8:50:05 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2021 8:50:05 PM
Surr: DNOP	96.5	70-130		%Rec	1	5/29/2021 8:50:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2021 7:16:00 PM
Surr: BFB	89.3	70-130		%Rec	1	5/29/2021 7:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	5/29/2021 7:16:00 PM
Toluene	ND	0.047		mg/Kg	1	5/29/2021 7:16:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2021 7:16:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2021 7:16:00 PM
Surr: 4-Bromofluorobenzene	85.4	70-130		%Rec	1	5/29/2021 7:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	66	60		mg/Kg	20	5/29/2021 12:41:34 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 5-10'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 8:35:00 AM
Lab ID: 2105C04-019 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/29/2021 9:02:48 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2021 9:02:48 PM
Surr: DNOP	94.8	70-130		%Rec	1	5/29/2021 9:02:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 7:36:00 PM
Surr: BFB	88.6	70-130		%Rec	1	5/29/2021 7:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 7:36:00 PM
Toluene	ND	0.048		mg/Kg	1	5/29/2021 7:36:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 7:36:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 7:36:00 PM
Surr: 4-Bromofluorobenzene	85.6	70-130		%Rec	1	5/29/2021 7:36:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 1:18:47 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 10-15'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 8:40:00 AM
Lab ID: 2105C04-020 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/29/2021 9:15:32 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/29/2021 9:15:32 PM
Surr: DNOP	96.0	70-130		%Rec	1	5/29/2021 9:15:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 7:56:00 PM
Surr: BFB	88.1	70-130		%Rec	1	5/29/2021 7:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 7:56:00 PM
Toluene	ND	0.050		mg/Kg	1	5/29/2021 7:56:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 7:56:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2021 7:56:00 PM
Surr: 4-Bromofluorobenzene	84.5	70-130		%Rec	1	5/29/2021 7:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 1:31:11 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 15-20'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 8:45:00 AM
Lab ID: 2105C04-021 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/29/2021 9:28:18 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2021 9:28:18 PM
Surr: DNOP	96.3	70-130		%Rec	1	5/29/2021 9:28:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2021 8:16:00 PM
Surr: BFB	85.4	70-130		%Rec	1	5/29/2021 8:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	5/29/2021 8:16:00 PM
Toluene	ND	0.047		mg/Kg	1	5/29/2021 8:16:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2021 8:16:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2021 8:16:00 PM
Surr: 4-Bromofluorobenzene	82.5	70-130		%Rec	1	5/29/2021 8:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	61		mg/Kg	20	5/29/2021 1:43:35 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 20-25'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 9:00:00 AM
Lab ID: 2105C04-022 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/29/2021 9:42:05 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/29/2021 9:42:05 PM
Surr: DNOP	97.1	70-130		%Rec	1	5/29/2021 9:42:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 8:36:00 PM
Surr: BFB	89.4	70-130		%Rec	1	5/29/2021 8:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 8:36:00 PM
Toluene	ND	0.048		mg/Kg	1	5/29/2021 8:36:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 8:36:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2021 8:36:00 PM
Surr: 4-Bromofluorobenzene	83.1	70-130		%Rec	1	5/29/2021 8:36:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 1:56:00 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH11 @ 25-30'
Project: San Juan 28-6 125 **Collection Date:** 5/27/2021 9:05:00 AM
Lab ID: 2105C04-023 **Matrix:** MEOH (SOIL) **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	230	9.0		mg/Kg	1	5/28/2021 10:14:43 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/28/2021 10:14:43 AM
Surr: DNOP	96.9	70-130		%Rec	1	5/28/2021 10:14:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	130	17		mg/Kg	5	5/28/2021 11:54:12 AM
Surr: BFB	189	70-130	S	%Rec	5	5/28/2021 11:54:12 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.086		mg/Kg	5	5/28/2021 11:54:12 AM
Toluene	ND	0.17		mg/Kg	5	5/28/2021 11:54:12 AM
Ethylbenzene	ND	0.17		mg/Kg	5	5/28/2021 11:54:12 AM
Xylenes, Total	2.0	0.34		mg/Kg	5	5/28/2021 11:54:12 AM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	5	5/28/2021 11:54:12 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/28/2021 9:51:56 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 30-35'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 9:10:00 AM
Lab ID: 2105C04-024 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/1/2021 12:15:38 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/1/2021 12:15:38 PM
Surr: DNOP	91.8	70-130		%Rec	1	6/1/2021 12:15:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 10:55:00 PM
Surr: BFB	89.9	70-130		%Rec	1	5/29/2021 10:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/29/2021 10:55:00 PM
Toluene	ND	0.049		mg/Kg	1	5/29/2021 10:55:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 10:55:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 10:55:00 PM
Surr: 4-Bromofluorobenzene	86.4	70-130		%Rec	1	5/29/2021 10:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 2:58:02 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 35-40'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 9:15:00 AM
Lab ID: 2105C04-025 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	10	9.9		mg/Kg	1	6/1/2021 12:28:36 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/1/2021 12:28:36 PM
Surr: DNOP	99.9	70-130		%Rec	1	6/1/2021 12:28:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 11:55:00 PM
Surr: BFB	92.0	70-130		%Rec	1	5/29/2021 11:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/29/2021 11:55:00 PM
Toluene	ND	0.049		mg/Kg	1	5/29/2021 11:55:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 11:55:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 11:55:00 PM
Surr: 4-Bromofluorobenzene	84.9	70-130		%Rec	1	5/29/2021 11:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 4:00:04 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 40-45'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 9:20:00 AM
Lab ID: 2105C04-026 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/1/2021 12:41:39 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/1/2021 12:41:39 PM
Surr: DNOP	94.1	70-130		%Rec	1	6/1/2021 12:41:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/30/2021 12:55:00 AM
Surr: BFB	91.3	70-130		%Rec	1	5/30/2021 12:55:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/30/2021 12:55:00 AM
Toluene	ND	0.050		mg/Kg	1	5/30/2021 12:55:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/30/2021 12:55:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/30/2021 12:55:00 AM
Surr: 4-Bromofluorobenzene	86.8	70-130		%Rec	1	5/30/2021 12:55:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 4:37:17 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 45-50'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 9:25:00 AM
Lab ID: 2105C04-027 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/1/2021 12:54:42 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/1/2021 12:54:42 PM
Surr: DNOP	94.5	70-130		%Rec	1	6/1/2021 12:54:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/30/2021 1:15:00 AM
Surr: BFB	85.9	70-130		%Rec	1	5/30/2021 1:15:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/30/2021 1:15:00 AM
Toluene	ND	0.050		mg/Kg	1	5/30/2021 1:15:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/30/2021 1:15:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2021 1:15:00 AM
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	5/30/2021 1:15:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	5/29/2021 4:49:42 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH11 @ 50-55'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 9:30:00 AM
Lab ID: 2105C04-028 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/1/2021 1:07:43 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/1/2021 1:07:43 PM
Surr: DNOP	102	70-130		%Rec	1	6/1/2021 1:07:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 1:34:00 AM
Surr: BFB	86.7	70-130		%Rec	1	5/30/2021 1:34:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 1:34:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 1:34:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 1:34:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2021 1:34:00 AM
Surr: 4-Bromofluorobenzene	84.8	70-130		%Rec	1	5/30/2021 1:34:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	59		mg/Kg	20	5/29/2021 5:02:06 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 7-10'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 10:30:00 AM
Lab ID: 2105C04-029 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/1/2021 1:20:58 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/1/2021 1:20:58 PM
Surr: DNOP	96.9	70-130		%Rec	1	6/1/2021 1:20:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/30/2021 1:54:00 AM
Surr: BFB	90.8	70-130		%Rec	1	5/30/2021 1:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/30/2021 1:54:00 AM
Toluene	ND	0.050		mg/Kg	1	5/30/2021 1:54:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/30/2021 1:54:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/30/2021 1:54:00 AM
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	1	5/30/2021 1:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 5:14:30 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 10-15'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 10:35:00 AM
Lab ID: 2105C04-030 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/1/2021 1:34:06 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/1/2021 1:34:06 PM
Surr: DNOP	100	70-130		%Rec	1	6/1/2021 1:34:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2021 2:14:00 AM
Surr: BFB	91.6	70-130		%Rec	1	5/30/2021 2:14:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 2:14:00 AM
Toluene	ND	0.048		mg/Kg	1	5/30/2021 2:14:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2021 2:14:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	5/30/2021 2:14:00 AM
Surr: 4-Bromofluorobenzene	88.6	70-130		%Rec	1	5/30/2021 2:14:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 5:26:54 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 15-20'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 10:40:00 AM
Lab ID: 2105C04-031 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/1/2021 1:47:07 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/1/2021 1:47:07 PM
Surr: DNOP	111	70-130		%Rec	1	6/1/2021 1:47:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 2:34:00 AM
Surr: BFB	91.5	70-130		%Rec	1	5/30/2021 2:34:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/30/2021 2:34:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 2:34:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 2:34:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2021 2:34:00 AM
Surr: 4-Bromofluorobenzene	88.2	70-130		%Rec	1	5/30/2021 2:34:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:04:08 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 20-25'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 10:45:00 AM
Lab ID: 2105C04-032 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/1/2021 2:00:18 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/1/2021 2:00:18 PM
Surr: DNOP	94.1	70-130		%Rec	1	6/1/2021 2:00:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 2:54:00 AM
Surr: BFB	92.9	70-130		%Rec	1	5/30/2021 2:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 2:54:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 2:54:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 2:54:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2021 2:54:00 AM
Surr: 4-Bromofluorobenzene	87.7	70-130		%Rec	1	5/30/2021 2:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:16:33 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 25-30'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 10:50:00 AM
Lab ID: 2105C04-033 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	9.9	9.7		mg/Kg	1	6/1/2021 2:13:11 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/1/2021 2:13:11 PM
Surr: DNOP	91.5	70-130		%Rec	1	6/1/2021 2:13:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 3:14:00 AM
Surr: BFB	91.1	70-130		%Rec	1	5/30/2021 3:14:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 3:14:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 3:14:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 3:14:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2021 3:14:00 AM
Surr: 4-Bromofluorobenzene	86.5	70-130		%Rec	1	5/30/2021 3:14:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:28:57 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 30-35'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 10:55:00 AM
Lab ID: 2105C04-034 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/1/2021 11:30:03 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/1/2021 11:30:03 PM
Surr: DNOP	97.0	70-130		%Rec	1	6/1/2021 11:30:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/30/2021 4:34:00 AM
Surr: BFB	87.0	70-130		%Rec	1	5/30/2021 4:34:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 4:34:00 AM
Toluene	ND	0.048		mg/Kg	1	5/30/2021 4:34:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	5/30/2021 4:34:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2021 4:34:00 AM
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	5/30/2021 4:34:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:41:22 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 35-40'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 11:00:00 AM
Lab ID: 2105C04-035 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/2/2021 12:00:10 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/2/2021 12:00:10 AM
Surr: DNOP	103	70-130		%Rec	1	6/2/2021 12:00:10 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 4:54:00 AM
Surr: BFB	86.5	70-130		%Rec	1	5/30/2021 4:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 4:54:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 4:54:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 4:54:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2021 4:54:00 AM
Surr: 4-Bromofluorobenzene	85.2	70-130		%Rec	1	5/30/2021 4:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 6:53:47 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 40-45'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 11:05:00 AM
Lab ID: 2105C04-036 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/2/2021 12:10:10 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/2/2021 12:10:10 AM
Surr: DNOP	107	70-130		%Rec	1	6/2/2021 12:10:10 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 5:14:00 AM
Surr: BFB	89.5	70-130		%Rec	1	5/30/2021 5:14:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 5:14:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 5:14:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 5:14:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/30/2021 5:14:00 AM
Surr: 4-Bromofluorobenzene	86.4	70-130		%Rec	1	5/30/2021 5:14:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 7:06:12 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 45-50'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 11:10:00 AM
Lab ID: 2105C04-037 **Matrix:** SOIL **Received Date:** 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/2/2021 12:20:06 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/2/2021 12:20:06 AM
Surr: DNOP	107	70-130		%Rec	1	6/2/2021 12:20:06 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/30/2021 5:34:00 AM
Surr: BFB	91.5	70-130		%Rec	1	5/30/2021 5:34:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	5/30/2021 5:34:00 AM
Toluene	ND	0.050		mg/Kg	1	5/30/2021 5:34:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/30/2021 5:34:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/30/2021 5:34:00 AM
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	5/30/2021 5:34:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 7:18:37 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	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2105C04**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH12 @ 50-55'
Project: San Juan 28-6 125
Collection Date: 5/27/2021 11:15:00 AM
Lab ID: 2105C04-038 **Matrix:** SOIL
Received Date: 5/28/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/2/2021 12:30:00 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/2/2021 12:30:00 AM
Surr: DNOP	105	70-130		%Rec	1	6/2/2021 12:30:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/30/2021 5:54:00 AM
Surr: BFB	91.6	70-130		%Rec	1	5/30/2021 5:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	5/30/2021 5:54:00 AM
Toluene	ND	0.049		mg/Kg	1	5/30/2021 5:54:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/30/2021 5:54:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	5/30/2021 5:54:00 AM
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	5/30/2021 5:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **VP**
Chloride	ND	60		mg/Kg	20	5/29/2021 7:31:01 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **MB-60325** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **60325** RunNo: **77726**
Prep Date: **5/28/2021** Analysis Date: **5/28/2021** SeqNo: **2760678** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60325** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **60325** RunNo: **77726**
Prep Date: **5/28/2021** Analysis Date: **5/28/2021** SeqNo: **2760679** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.2	90	110			

Sample ID: **MB-60340** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **60340** RunNo: **77726**
Prep Date: **5/28/2021** Analysis Date: **5/29/2021** SeqNo: **2760770** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60340** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **60340** RunNo: **77726**
Prep Date: **5/28/2021** Analysis Date: **5/29/2021** SeqNo: **2760771** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID: **MB-60344** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **60344** RunNo: **78758**
Prep Date: **5/29/2021** Analysis Date: **5/29/2021** SeqNo: **2761004** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60344** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **60344** RunNo: **78758**
Prep Date: **5/29/2021** Analysis Date: **5/29/2021** SeqNo: **2761005** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **MB-60324**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **60324**	RunNo: **77730**
Prep Date: **5/28/2021**	Analysis Date: **5/28/2021**	SeqNo: **2758930** 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	9.7		10.00		97.0	70	130			

Sample ID: **LCS-60324**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **60324**	RunNo: **77730**
Prep Date: **5/28/2021**	Analysis Date: **5/28/2021**	SeqNo: **2758931** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	73.3	68.9	141			
Surr: DNOP	4.3		5.000		85.9	70	130			

Sample ID: **MB-60337**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **60337**	RunNo: **78763**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761538** 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	9.1		10.00		91.5	70	130			

Sample ID: **LCS-60337**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **60337**	RunNo: **78763**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761541** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.4	68.9	141			
Surr: DNOP	4.3		5.000		86.1	70	130			

Sample ID: **2105C04-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH10 @ 7-10'**	Batch ID: **60337**	RunNo: **78763**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761568** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.3	46.69	9.310	73.8	15	184			
Surr: DNOP	4.2		4.669		89.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **2105C04-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **BH10 @ 7-10'**	Batch ID: **60337**	RunNo: **78763**							
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761569**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.6	47.94	9.310	78.0	15	184	6.52	23.9	
Surr: DNOP	4.3		4.794		89.9	70	130	0	0	

Sample ID: **MB-60348**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **60348**	RunNo: **78773**							
Prep Date: **5/29/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762223**	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	70	130			

Sample ID: **LCS-60348**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **60348**	RunNo: **78773**							
Prep Date: **5/29/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762236**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.3	68.9	141			
Surr: DNOP	4.4		5.000		88.0	70	130			

Sample ID: **2105C04-034AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **BH12 @ 30-35'**	Batch ID: **60349**	RunNo: **78780**							
Prep Date: **5/29/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762890**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.6	48.03	0	101	15	184			
Surr: DNOP	5.1		4.803		107	70	130			

Sample ID: **2105C04-034AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **BH12 @ 30-35'**	Batch ID: **60349**	RunNo: **78780**							
Prep Date: **5/29/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762891**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.9	49.55	0	90.7	15	184	7.76	23.9	
Surr: DNOP	4.9		4.955		98.9	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **LCS-60349**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **60349**	RunNo: **78780**
Prep Date: **5/29/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762912** 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	104	68.9	141			
Surr: DNOP	5.7		5.000		114	70	130			

Sample ID: **MB-60349**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **60349**	RunNo: **78780**
Prep Date: **5/29/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762914** 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		112	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **B77742**	RunNo: **77742**							
Prep Date:	Analysis Date: **5/28/2021**	SeqNo: **2761096**	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	70	130			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **B77742**	RunNo: **77742**							
Prep Date:	Analysis Date: **5/28/2021**	SeqNo: **2761097**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	78.6	131			
Surr: BFB	1100		1000		113	70	130			

Sample ID: **LCS-60335**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **60335**	RunNo: **78774**							
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761860**	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	92.5	78.6	131			
Surr: BFB	990		1000		98.8	70	130			

Sample ID: **MB-60335**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **60335**	RunNo: **78774**							
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761861**	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	850		1000		84.9	70	130			

Sample ID: **2105C04-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **BH10 @ 7-10'**	Batch ID: **60335**	RunNo: **78774**							
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761863**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.99	0	88.7	61.3	114			
Surr: BFB	910		959.7		94.8	70	130			

Sample ID: **2105C04-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **BH10 @ 7-10'**	Batch ID: **60335**	RunNo: **78774**							
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761864**	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **2105C04-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH10 @ 7-10'**	Batch ID: **60335**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761864** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.93	0	93.5	61.3	114	9.03	20	
Surr: BFB	970		997.0		97.2	70	130	0	0	

Sample ID: **LCS-60339**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761884** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.8	78.6	131			
Surr: BFB	990		1000		98.8	70	130			

Sample ID: **MB-60339**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761885** 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	870		1000		86.6	70	130			

Sample ID: **2105C04-024ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH11 @ 30-35'**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761887** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.44	0	84.9	61.3	114			
Surr: BFB	960		977.5		97.9	70	130			

Sample ID: **2105C04-024amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH11 @ 30-35'**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761888** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.93	0	87.2	61.3	114	4.58	20	
Surr: BFB	990		997.0		99.5	70	130	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **D77742**	RunNo: **77742**
Prep Date:	Analysis Date: **5/28/2021**	SeqNo: **2761136** 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		101	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **D77742**	RunNo: **77742**
Prep Date:	Analysis Date: **5/28/2021**	SeqNo: **2761137** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.9	80	120			
Toluene	1.0	0.050	1.000	0	99.6	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.5	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Sample ID: **2105C04-006AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH10 @ 48-50'**	Batch ID: **D77742**	RunNo: **77742**
Prep Date:	Analysis Date: **5/29/2021**	SeqNo: **2761142** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.021	0.8354	0	96.2	76.3	120			
Toluene	0.83	0.042	0.8354	0	99.6	78.5	120			
Ethylbenzene	0.83	0.042	0.8354	0	99.3	78.1	124			
Xylenes, Total	2.5	0.084	2.506	0	100	79.3	125			
Surr: 4-Bromofluorobenzene	0.85		0.8354		102	70	130			

Sample ID: **2105C04-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH10 @ 48-50'**	Batch ID: **D77742**	RunNo: **77742**
Prep Date:	Analysis Date: **5/29/2021**	SeqNo: **2761143** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.021	0.8354	0	95.8	76.3	120	0.354	20	
Toluene	0.82	0.042	0.8354	0	98.6	78.5	120	0.959	20	
Ethylbenzene	0.82	0.042	0.8354	0	98.1	78.1	124	1.16	20	
Xylenes, Total	2.5	0.084	2.506	0	98.2	79.3	125	1.78	20	
Surr: 4-Bromofluorobenzene	0.86		0.8354		103	70	130	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **LCS-60335**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **60335**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761927** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.9	80	120			
Toluene	0.86	0.050	1.000	0	86.4	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.0	80	120			
Xylenes, Total	2.6	0.10	3.000	0	87.0	80	120			
Surr: 4-Bromofluorobenzene	0.80		1.000		79.9	70	130			

Sample ID: **MB-60335**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **60335**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761928** 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	0.80		1.000		80.3	70	130			

Sample ID: **2105C04-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH10 @ 10-15'**	Batch ID: **60335**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761932** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9891	0	96.8	76.3	120			
Toluene	0.95	0.049	0.9891	0	96.5	78.5	120			
Ethylbenzene	0.98	0.049	0.9891	0	99.4	78.1	124			
Xylenes, Total	2.9	0.099	2.967	0	97.5	79.3	125			
Surr: 4-Bromofluorobenzene	0.80		0.9891		81.3	70	130			

Sample ID: **2105C04-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH10 @ 10-15'**	Batch ID: **60335**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9862	0	95.5	76.3	120	1.64	20	
Toluene	0.94	0.049	0.9862	0	95.2	78.5	120	1.66	20	
Ethylbenzene	0.97	0.049	0.9862	0	98.0	78.1	124	1.71	20	
Xylenes, Total	2.8	0.099	2.959	0	96.0	79.3	125	1.91	20	
Surr: 4-Bromofluorobenzene	0.79		0.9862		79.7	70	130	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105C04**
02-Jun-21

Client: HILCORP ENERGY
Project: San Juan 28-6 125

Sample ID: **LCS-60339**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761956** 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	80	120			
Toluene	0.91	0.050	1.000	0	91.4	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.7	80	120			
Surr: 4-Bromofluorobenzene	0.85		1.000		85.4	70	130			

Sample ID: **MB-60339**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/29/2021**	SeqNo: **2761957** 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	0.83		1.000		83.0	70	130			

Sample ID: **2105C04-025ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH11 @ 35-40'**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/30/2021**	SeqNo: **2761960** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9756	0	92.2	76.3	120			
Toluene	0.90	0.049	0.9756	0	92.3	78.5	120			
Ethylbenzene	0.93	0.049	0.9756	0	95.0	78.1	124			
Xylenes, Total	2.7	0.098	2.927	0	93.1	79.3	125			
Surr: 4-Bromofluorobenzene	0.81		0.9756		82.7	70	130			

Sample ID: **2105C04-025amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH11 @ 35-40'**	Batch ID: **60339**	RunNo: **78774**
Prep Date: **5/28/2021**	Analysis Date: **5/30/2021**	SeqNo: **2761961** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9872	0	90.2	76.3	120	0.974	20	
Toluene	0.88	0.049	0.9872	0	89.6	78.5	120	1.76	20	
Ethylbenzene	0.91	0.049	0.9872	0	92.6	78.1	124	1.30	20	
Xylenes, Total	2.7	0.099	2.962	0	91.1	79.3	125	1.07	20	
Surr: 4-Bromofluorobenzene	0.85		0.9872		85.9	70	130	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Hilcorp Energy** Work Order Number: **2105C04** RcptNo: 1

Received By: **Juan Rojas** **5/28/2021 7:10:00 AM**

Completed By: **Cheyenne Cason** **5/28/2021 7:51:32 AM**

Reviewed By: JR 5/28/21
Same day: SGL 5/28/21

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 ☑

10

# of preserved bottles checked for pH: 5.28.21 (<2 or >12 unless noted)

Adjusted?

Checked by:

Same days: JR 5/28/21

11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Yes			
2	2.2	Good	Yes			
3	2.8	Good	Yes			

Chain-of-Custody Record

Client: Hilcorp Energy Co.
Attn: Lindsay Dumas
Mailing Address:

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

Turn-Around Time: Results by
☐ Standard ☒ Rush EOD 6-2-21
Project Name: San Juan 28-6 #125
Project #:
Project Manager: WSP-Stuart Hyde
Sampler: Danny Burns
On Ice: ☒ Yes ☐ No
# of Coolers: 3
Cooler Temp(including CF): 4.3-0.1=4.2 (°C)
2.3-0.1=2.2
2.9-0.1=2.8

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2105C04	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)
5-26-21	1130	soil	BH10 @ 7'-10'	1-4oz	cool	001	X	X					X			
	1135		BH10 @ 10'-15'			002										
	1140		BH10 @ 15'-20'			003										
	1200		BH10 @ 32'-35'			004										
	1205		BH10 @ 35'-40'			005										
☆	1400		BH10 @ 48'-50'			006										
	1405		BH10 @ 50'-55'			007										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5-27-21	1545				5/27/21	1545
5/27/21	1813			courier	5/28/21	7:10

Remarks: ☆=same day T-A-T for BH10@48'-50'
15% bulk discount on this project.
cc: Devin Hencmann, Stuart Hyde.

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

Chain-of-Custody Record

Client: Hilcorp

Attn: Lindsay Dumas

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: EOD

☐ Standard ☒ Rush 6-2-21

Project Name: San Juan 28-6 #125

Project #:

Project Manager: WSP-Stuart Hyde

Sampler: Danny Burns

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): 4.3-0.1=4.2 (°C)
2.5-0.1=2.4
2.9-0.1=2.8

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2105C04	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)
5-26-21	1430	soil	BH10A @ 6'-10'	1-4oz	cool	008	X	X					X			
	1435		BH10A @ 10'-15'			009										
	1440		BH10A @ 15'-20'			010										
	1500		BH10A @ 24'-25'			012 011										
	1505		BH10A @ 25'-30'			012										
☆	1510		BH10A @ 30'-35'			013										
	1515		BH10A @ 35'-40'			014										
	1600		BH10A @ 45'			015										
	1605		BH10A @ 45'-50'			016										
	1610		BH10A @ 50'-55'			017										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5-27-21	1545				5/27/21	1545
5/27/21	1813			courier	5/28/21	7:10

Remarks: ☆ = same day rush T-A-T BH10A@30'-35'
15% bulk discount
cc: Devin Hencmann, Stuart Hyde.

Chain-of-Custody Record

Client: Hilcorp

Attn: Lindsay Dumas

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: EOD 6-2-21
☐ Standard ☒ Rush

Project Name: San Juan 28-6 #125

Project #:

Project Manager: WSP-Stuart Hyde

Sampler: Danny Burns

On Ice: ~~☐~~ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): 4.3-0.1=4.2 (°C)
2.3-0.1=2.2
2.9-0.1=2.8

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / 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)
5-27-21	0830	soil	BH11@5'	1-4oz	cool	21050018	X	X					X			
	0835		BH11@5'-10'			019										
	0840		BH11@10'-15'			020										
	0845		BH11@15'-20'			021										
	0900		BH11@20'-25'			022										
☆	0905		BH11@25'-30'			023										
	0910		BH11@30'-35'			024										
	0915		BH11@35'-40'			025										
	0920		BH11@40'-45'			026										
	0925		BH11@45'-50'			027										
	0930	✓	BH11@50'-55'			028										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5-27-21	1545		Chris Walls		5/27/21	1545
5/27/21	1813	Christine Walters		courier	5/28/21	7:10

Remarks: ☆=same day rush for BH11@25'-30'
15% bulk discount
cc: Devin Hencmann, Stuart Hyde

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

Chain-of-Custody Record

Client: Hilcorp

Attn: Lindsay Dumas

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: EOD
☐ Standard ☒ Rush 6-2-21

Project Name: San Juan 28-6 #125

Project #:

Project Manager: WSP-Stuart Hyde

Sampler: Danny Burns

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): 4.3-0.1=4.2 (°C)
2.3-0.1=2.2
2.9-0.1=2.8

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2105C04	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)
5-27-21	1030	soil	BH12 @7'-10'	1-4oz	cool	029	X	X					X			
	1035		BH12 @10'-15'			030										
	1040		BH12 @15'-20'			031										
	1045		BH12 @20'-25'			032										
	1050		BH12 @25'-30'			033										
	1055		BH12 @30'-35'			034										
	1100		BH12 @35'-40'			035										
	1105		BH12 @40'-45'			036										
	1110		BH12 @45'-50'			037										
	1115		BH12 @50'-55'			038										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
5-27-21	1545		Chris Walls		5/27/21	1545
5/27/21	1813	Chris Walls		courier	5/28/21	7:10

Remarks: 15% Bulk discount
cc: Devin Hencmann
Stuart Hyde.

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

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APPENDIX C

VLEACH 2.2 Parameters and Outputs

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TABLE 1
VLEACH INPUT PARAMETERS
SAN JUAN 28-6 #125
Hilcorp Energy Company
Rio Arriba County, New Mexico

Input Parameter	Value	Units	Rationale
Chemical Parameters			
Organic Carbon Distribution Coefficient	1,300	mL/g	Used chemical property for naphthalene - Fetter, 1988
Henry's Law Constant	0.0516	dimensionless	Used chemical property for naphthalene - VLEACH model chemical specific value
Water Solubility	31.7	mg/L	Used chemical property for naphthalene - Fetter, 1988
Free Air Diffusion Coefficient	7.4	m^2/day	Used chemical property for naphthalene - Caldwell, 1984
Polygon 1 Parameters			
Area of Polygon	3,360	ft^2	Size of BH01 through BH05 excavated area
Vertical Dell Dimension	1	feet	Model default
Number of cells	100	dimensionless	Depth to groundwater greater than 100 feet
Height of Polygon	100	feet	Depth to groundwater greater than 100 feet
Polygon 2 Parameters			
Area of Polygon	1,545	ft^2	Estimated size of BH11 release area
Vertical Dell Dimension	1	feet	Model default
Number of cells	100	dimensionless	Depth to groundwater greater than 100 feet
Height of Polygon	100	feet	Depth to groundwater greater than 100 feet
Soil Parameters			
Dry Bulk Density	2.65	g/cm^3	Value for quartz sandstone, Fetter, 1988
Effective Porosity	0.3	dimensionless	Within range of effective porosity for sand, effective porosity equals specific yield under unconfined aquifer conditions - Johnson, 1967
Volumetric Water Content	0.3	dimensionless	Model default for sand
Soil Organic Carbon Content	0.0057	dimensionless	Value for river sand - Domenico and Schwartz, 1990
Boundary Conditions			
Recharge Rate	0.23	ft/year	20% of average precipitation rate for Rio Arriba County from 1991 to 2020 - usatoday.com, 10/2025
Concentration of Recharge Water	0	mg/L	Precipitation does not contain total petroleum hydrocarbons
Upper Boundary Vapor Condition	0	mg/L	Contaminant concentration in the atmosphere above the soil surface
Lower Boundary Vapor Condition	0	mg/L	Contaminant concentration in the groundwater at the base of the vadose zone
Simulation Parameters			
Simulation Time	500	years	Model default
Time Step	100	years	Model default
Output Time Interval	100	years	Model default
Profile Time Interval	250	years	Model default

Notes:

mL/g: milliliters per gram

mg/L: milligrams per liter

m^2/day: meter squared per day

ft^2: square feet

g/cm^3: grams per cubic centimeter

Caldwell, L. Diffusion Coefficient of Naphthalene in Air and Hydrogen. *J. Chem. Eng. Data* 1984, 29, 60-62.

Domenico, P.A., and Schwartz, F.W. Physical and Chemical Hydrogeology. John Wiley and Sons, Inc., New York, New York, 824 pp. 1990.

Fetter, C.W. Applied Hydrogeology. Merril Publishing Company, Columbus, Ohio, 592 pp. 1988.

Johnson, A.I. Specific Yield-Compilation of Specific Yields for Various Materials. U.S. Geol. Survey Water Supply Paper 1662-D, 74 pp. 1967.

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Figure 1
Soil Concentration Profile
Polygon 1 - BH01-BH05
San Juan 28-6 #125

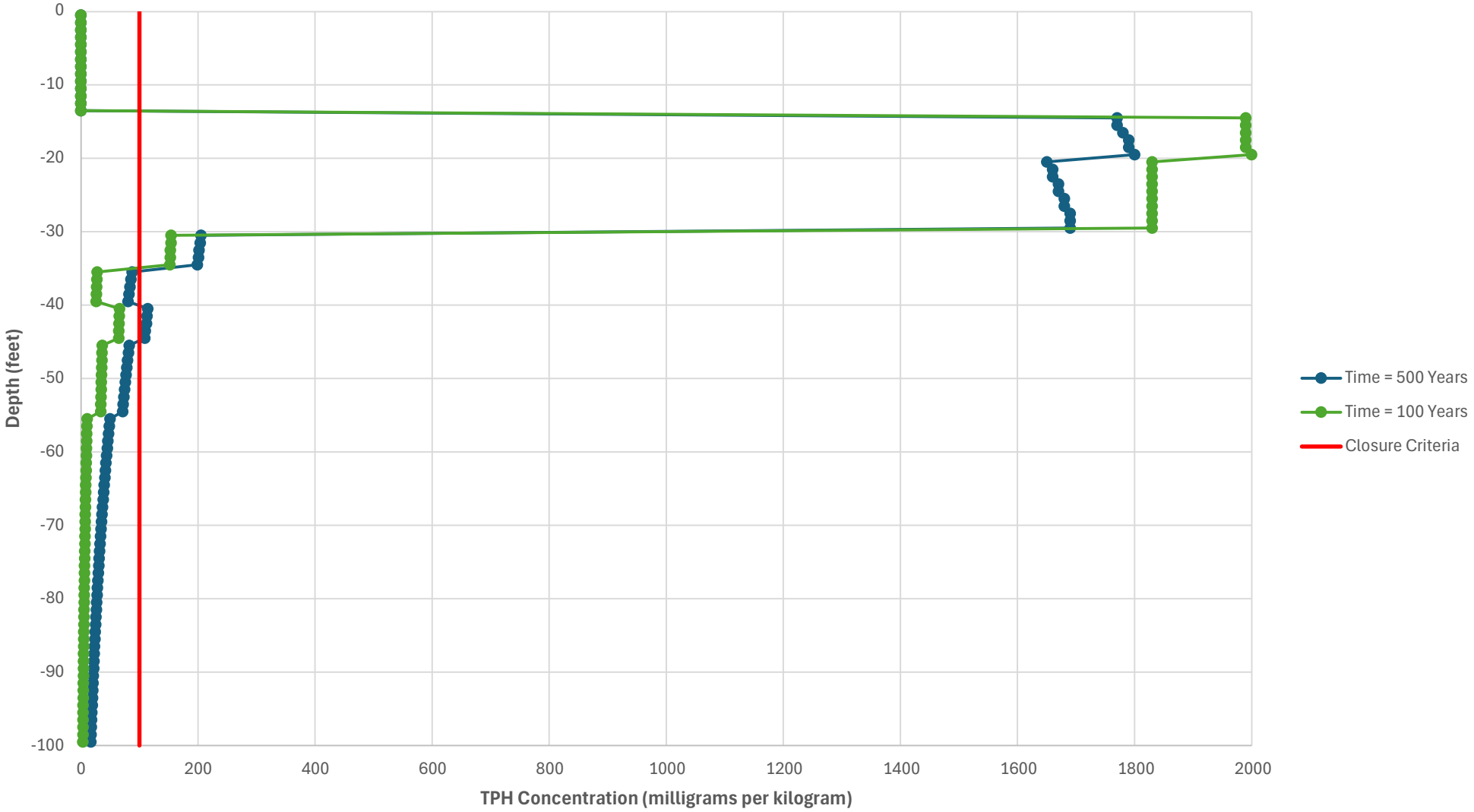

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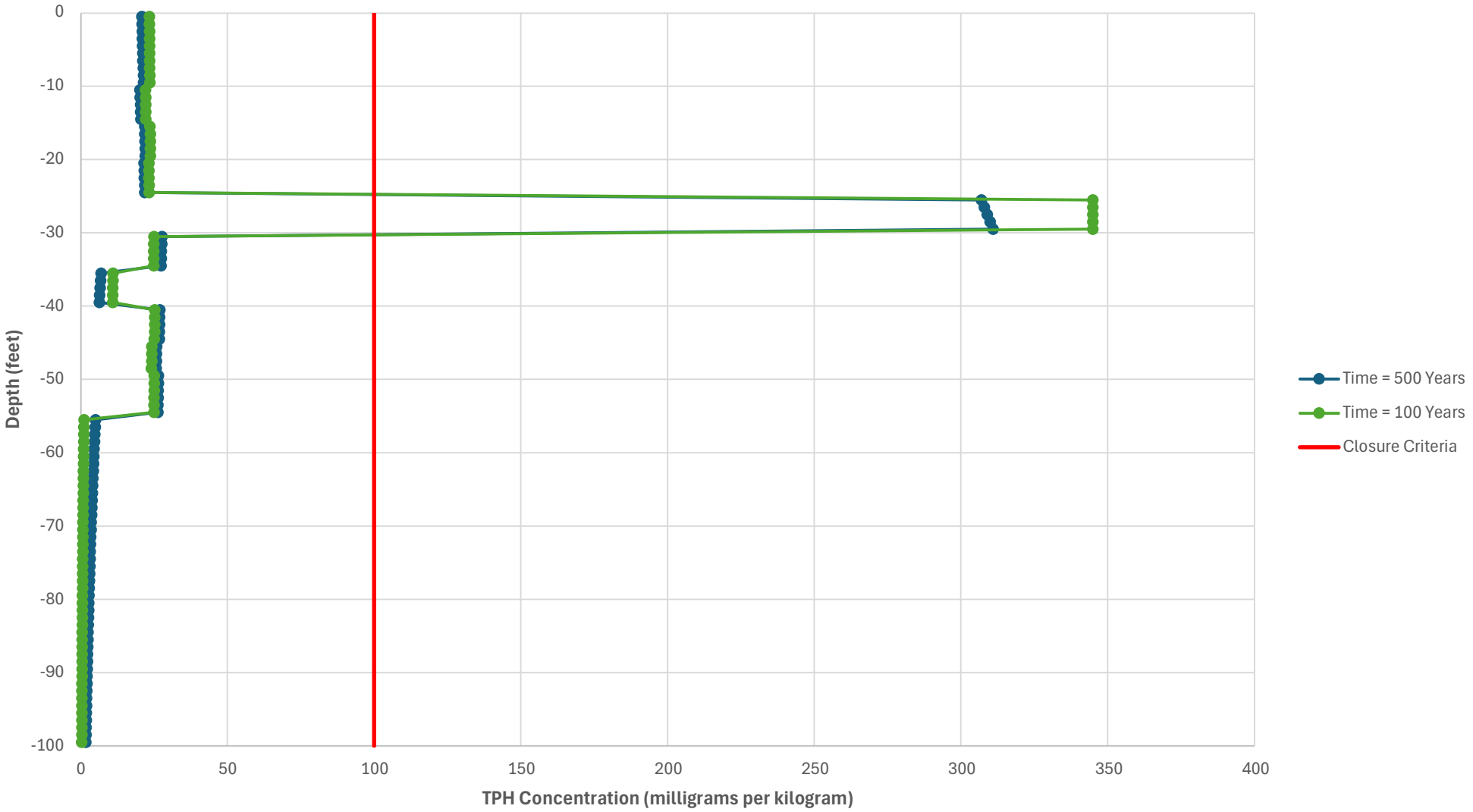
Figure 2
Soil Concentration Profile
Polygon 2 - BH11
San Juan 28-6 #125



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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nRM2030132715**
Incident Name	**NRM2030132715 SAN JUAN 28 6 UNIT #125 @ 30-039-20060**
Incident Type	**Release Other**
Incident Status	**Remediation Plan Approved**
Incident Well	**[30-039-20060] SAN JUAN 28 6 UNIT #125**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SAN JUAN 28 6 UNIT #125
Date Release Discovered	08/17/2020
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Release Other
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	Cause: Other | Other (Specify) | Other (Specify) | Released: 0 BBL (Unknown Released Amount) | Recovered: 0 BBL | Lost: 0 BBL.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 10/31/2025

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 100 and 200 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 500 and 1000 (ft.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 500 and 1000 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Between 500 and 1000 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission		Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Have the lateral and vertical extents of contamination been fully delineated		Yes
Was this release entirely contained within a lined containment area		No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	80
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	2250
GRO+DRO	(EPA SW-846 Method 8015M)	2250
BTEX	(EPA SW-846 Method 8021B or 8260B)	8.6
Benzene	(EPA SW-846 Method 8021B or 8260B)	73.5
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
On what estimated date will the remediation commence		11/11/2020
On what date will (or did) the final sampling or liner inspection occur		11/11/2020
On what date will (or was) the remediation complete(d)		05/27/2021
What is the estimated surface area (in square feet) that will be reclaimed		0
What is the estimated volume (in cubic yards) that will be reclaimed		0
What is the estimated surface area (in square feet) that will be remediated		2800
What is the estimated volume (in cubic yards) that will be remediated		3075
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.		

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	fSC00000000048 ENVIROTECH
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	No
OR is the **off-site** disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	Yes
Other Non-listed Remedial Process. Please specify	geosynthetic clay liner will be installed at the base of the excavation
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 10/31/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	*{Unavailable.}*

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 522227
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
csmith	Per the Approved Plan Hilcorp will complete remediation and submit a remediation/reclamation report no later than March 31, 2026	12/15/2025
csmith	Hilcorp Will Provide OCD, BLM and the Landowner at least 7 business days prior notice prior to starting remediation	12/15/2025
csmith	Hilcorp will submit form C-141N Sampling Notice for each confirmation closure sampling event to include sampling treated stockpiles.	12/15/2025