District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2331717075
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Mitch Killough	Contact Telephone 713-757-5247
Contact email mkillough@hilcorp.com	Incident # nAPP2331717075
Contact mailing address 1111 Travis Street, Houston, Texas 77002	

Location of Release Source

Latitude 36.84576 Longitude -108.07138

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Zachry Com 1A	Site Type Well
Date Release Discovered: 10/30/2023 @ 03:30 pm (MT)	API# 30-045-23311

Unit Letter	Section	Township	Range	County
C	2	30N	12W	San Juan

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 15.66 bbls	Volume Recovered (bbls) 0 bbls
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
On 10/30/2023 at approx. 3:30 pm (MT), a Hilcorp operator discovered visibly-impacted pad material near the manway of a 210-bbl storage tank. After comparing the fluid level of the storage tank to the previous month's reported data, it was determined that 15.66 bbls of condensate had leaked out. No spilled fluids could be recovered from the ground surface. The 15.66-bbl spill is reportable to NMOCD and NM State Land Office (NM-SLO). The 210-bbl storage tank is scheduled to have the manway gasket replaced and re-inspected before placing back into service.

The spill amount was determined by operator's monthly tank gauging data.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2331717075
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

In the case of this release, the spilled fluids soaked vertically into the ground surface adjacent to the 210-bbl storage tank. If any free liquids could have been recovered, Hilcorp would have certainly done so.

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

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.

Printed Name: Mitch Killough Title: Environmental Specialist

Signature: _____ Date: 11/14/2023

email: mkillough@hilcorp.com Telephone: 713-757-5247

OCD Only

Received by: Shelly Wells Date: 11/14/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 285675
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	11/14/2023

State of New Mexico
Oil Conservation Division

Incident ID	napp2331717075
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	napp2331717075
District RP	
Facility ID	
Application ID	

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.

Printed Name: Mitch Killough Title: Environmental Specialist

Signature: _____ Date: 1/26/2024

email: mkillough@hilcorp.com Telephone: 713-757-5247

OCD Only

Received by: _____ Date: _____

Incident ID	napp2331717075
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Mitch Killough Title: Environmental Specialist

Signature: _____ Date: 1/26/2024

email: mkillough@hilcorp.com Telephone: 713-757-5247

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

ENSOLUM

January 26, 2024

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

Re: Remediation Work Plan
Zachry Com 1A
Hilcorp Energy Company
NMOCD Incident No: nAPP2331717075

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Remediation Work Plan* (Work Plan) for a release at the Zachry Com 1A natural gas production well (Site). The Site is located on State Trust Land (STL) managed by the New Mexico State Land Office (NMSLO) in Unit C, Section 2, Township 30 North, Range 12 West, San Juan County, New Mexico (Figure 1). This Work Plan includes a summary of delineation activities performed at the Site and the proposed remediation of impacted soil originating from the release of condensate.

SITE BACKGROUND

On October 30, 2023, Hilcorp discovered visibly impacted material near the manway of a 210 barrel (bbl) condensate aboveground storage tank (AST). After comparing the fluid level of the AST to the previous month's reported data, it was estimated 15.66 bbls of condensate was released from the AST and stayed within the bermed secondary containment. No released fluids were recovered at the time of discovery. The manway gasket was replaced and the tank inspected before placing the AST back into service. Hilcorp reported the release to the NMSLO and the New Mexico Oil Conservation Division (NMOCD) on a *Release Notification Form C-141* on November 14, 2023. The NMOCD has assigned the Site Incident Number nAPP2331717075.

SITE CHARACTERIZATION

The Site is located on STL in San Juan County, New Mexico. As part of the Site investigation, local geology/hydrogeology and nearby sensitive receptors were assessed in accordance with Title 19, Chapter 15, Part 29, Sections 11 and 12 (19.15.29.11 and 12) of the New Mexico Administrative Code (NMAC). This information is further discussed below.

GEOLOGY AND HYDROGEOLOGY

The Site is located within the Nacimiento Geologic Formation. In the report titled "Hydrogeology and Water Resources of San Juan Basin, New Mexico" (Stone, et. al., 1983), the Nacimiento Formation is characterized by interbedded black carbonaceous mudstones and white, coarse-grained sandstones, which ranges in thickness from 418 feet to 2,232 feet. The hydrogeologic properties of the Nacimiento Formation display variable properties dependent on location. Where sufficient yield is present, the primary use of water from this formation is for domestic and/or

livestock supply. The Nacimiento Formation is underlain by the Ojo Alamo sandstone (Stone et. al, 1983).

POTENTIAL SENSITIVE RECEPTORS

Potential nearby receptors were assessed through desktop reviews of United States Geological Survey (USGS) topographic maps, Federal Emergency Management Administration (FEMA) Geographic Information System (GIS) maps, New Mexico Office of the State Engineer (NMOSE) database, aerial photographs, and Site-specific observations.

The closest significant watercourse is an unnamed dry wash located 450 feet west-southwest of the Site, is defined by a bed and bank, and is a first order tributary to a dashed blue line on a USGS 7.5-minute quadrangle map. The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake, and greater than 300 feet from any wetland (Figure 1). The closest fresh-water well is NMOSE permitted well SJ-02643 (Appendix A), located approximately 3,290 feet south of the Site. The recorded depth to water on the NMOSE database is 140 feet below ground surface (bgs) with a total depth of 195 feet bgs. The well is approximately 120 feet lower in elevation than the Site, therefore depth to groundwater at the Site is estimated to be greater than 100 feet bgs.

No wellhead protection areas, springs, or domestic/stock wells are located within a ½-mile radius from the Site. The Site is not within a 100-year floodplain, overlying a subsurface mine, or located within an area underlain by unstable geology (area designated as low potential karst by the Bureau of Land Management (BLM)). Schools, hospitals, institutions, churches, and/or other occupied permanent residence or structures are not located within 300 feet of the Site.

SITE CLOSURE CRITERIA

Based on the information presented above and in accordance with the *Table I, Closure Criteria for Soils Impacted by a Release* (19.15.29.12 NMAC), the following Closure Criteria for constituents of concern (COCs) should be applied to the Site:

- Total Petroleum Hydrocarbons (TPH) as a combination of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO): 2,500 mg/kg
- A combination of TPH-GRO and TPH-DRO: 1,000 mg/kg
- Benzene: 10 mg/kg
- A combination of benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 mg/kg
- Chloride: 20,000 milligrams per kilogram (mg/kg)

DELINEATION AND SOIL SAMPLING ACTIVITIES

To assess potential impacts to soil at the Site, Ensolum conducted delineation activities from January 10 to January 12, 2023. Since the release remained on pad, an assessment of cultural properties had already been completed prior to the construction of the well pad and as such, the Cultural Properties Protection Rule (CPP) has been followed. No additional cultural resource surveys were completed in connection with this release.

Six borings (BH01 through BH06) were advanced using hollow stem auger drilling and sampling equipment at the locations shown on Figure 2. Because the drill rig could not access the west side of the AST, one near-surface soil sample (SS01) was also collected directly adjacent to the release source at the AST manway to assess soil directly impacted by the condensate. At least two business days prior to commencing work, Hilcorp provided the NMOCD with sampling

notifications for the delineation work, attached as Appendix B. During drilling, an Ensolum geologist logged lithology, inspected the soil for petroleum hydrocarbon staining and odors, and field screened for volatile organic compounds (VOCs) using a calibrated photoionization detector (PID), with results noted on field logs. , which are attached as Appendix C. Photographs taken during delineation activities are provided in Appendix D.

In general, soil samples were collected at depth intervals indicating the greatest impacts based on field screening results and from the terminal depth of each boring. Soil samples were collected directly into laboratory-provided jars and immediately placed on ice. Samples were submitted to Eurofins Environment Testing (Eurofins) for analysis of BTEX following Environmental Protection Agency (EPA) Method 8021B, TPH following EPA Method 8015M/D, and chloride following EPA Method 300.0.

Soil composition at the Site predominantly consisted of sand with silt and silty sand with occasional clay and gravel. Groundwater and/or saturated soil was not observed in any of the borings during drilling. Soil sample SS01, located near the release source, contained GRO+DRO and BTEX concentrations exceeding the NMOCD Closure Criteria at a depth of approximately 4 inches bgs. Concentrations of Site COCs were either not detected above laboratory reporting limits or were not detected above the applicable Closure Criteria in any other analyzed samples collected during the delineation activities. A summary of analytical results is summarized in Table 1 and presented on Figure 2. Complete laboratory reports are attached in Appendix E.

PROPOSED REMEDIAL ACTIONS

Based on the field screening and soil sampling results described above, it appears the lateral and vertical extent of impacted soil is limited to areas within the secondary containment berm. Active equipment limited access for the drill rig on the west side of the AST. Additionally, frozen ground prevented further vertical delineation using a hand auger in this area; however, borings BH01 and BH02 were located approximately 16 feet east and 20 feet north, respectively, of the source of the release and indicated fluids had not migrated significantly away from the AST. It is estimated impacted soil is present at the Site between the ground surface to a depth of approximately 4 feet bgs with an approximate areal extent of 750 square feet. Based on these estimates, approximately 111 cubic yards of impacted soil above the NMOCD Table I Closure Criteria are present at the Site.

Hilcorp proposes to excavate impacted soil resulting from the release at the Site to achieve NMOCD Table I Closure Criteria. Soil will be excavated and transported off-Site for disposal at the Envirotech Landfarm located in San Juan County, New Mexico. Following removal of the impacted soil, 5-point composite soil samples will be collected at least every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Soil samples will be submitted for laboratory analysis of TPH, BTEX, and chloride in the manner described above.

Hilcorp will complete the excavation and soil sampling activities within 90 days of the date of approval of this Work Plan by the NMOCD and NMSLO. A *Closure Request* will be submitted within 30 days of receipt of final laboratory analytical results.

REFERENCES

Stone, W., Lyford, F., Frenzel, P., Mizell, N., & Padgett, E. (1983). Hydrogeology and Water Resources of San Juan Basin, New Mexico. New Mexico Bureau of Mines & Mineral Resources.

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.

Sincerely,
Ensolum, LLC

Stuart Hyde, PG
Senior Geologist
(970) 903-1607
shyde@ensolum.com

Daniel R. Moir, PG
Senior Managing Geologist
(303) 887-2946
dmoir@ensolum.com

Attachments:

Figure 1:	Site Receptor Map
Figure 2:	Soil Sample Results
Table 1:	Delineation Soil Sample Analytical Results
Appendix A:	NMOSE Point of Diversion Summary
Appendix B:	Agency Correspondence
Appendix C:	Boring Logs
Appendix D:	Photographic Log
Appendix E:	Laboratory Analytical Reports

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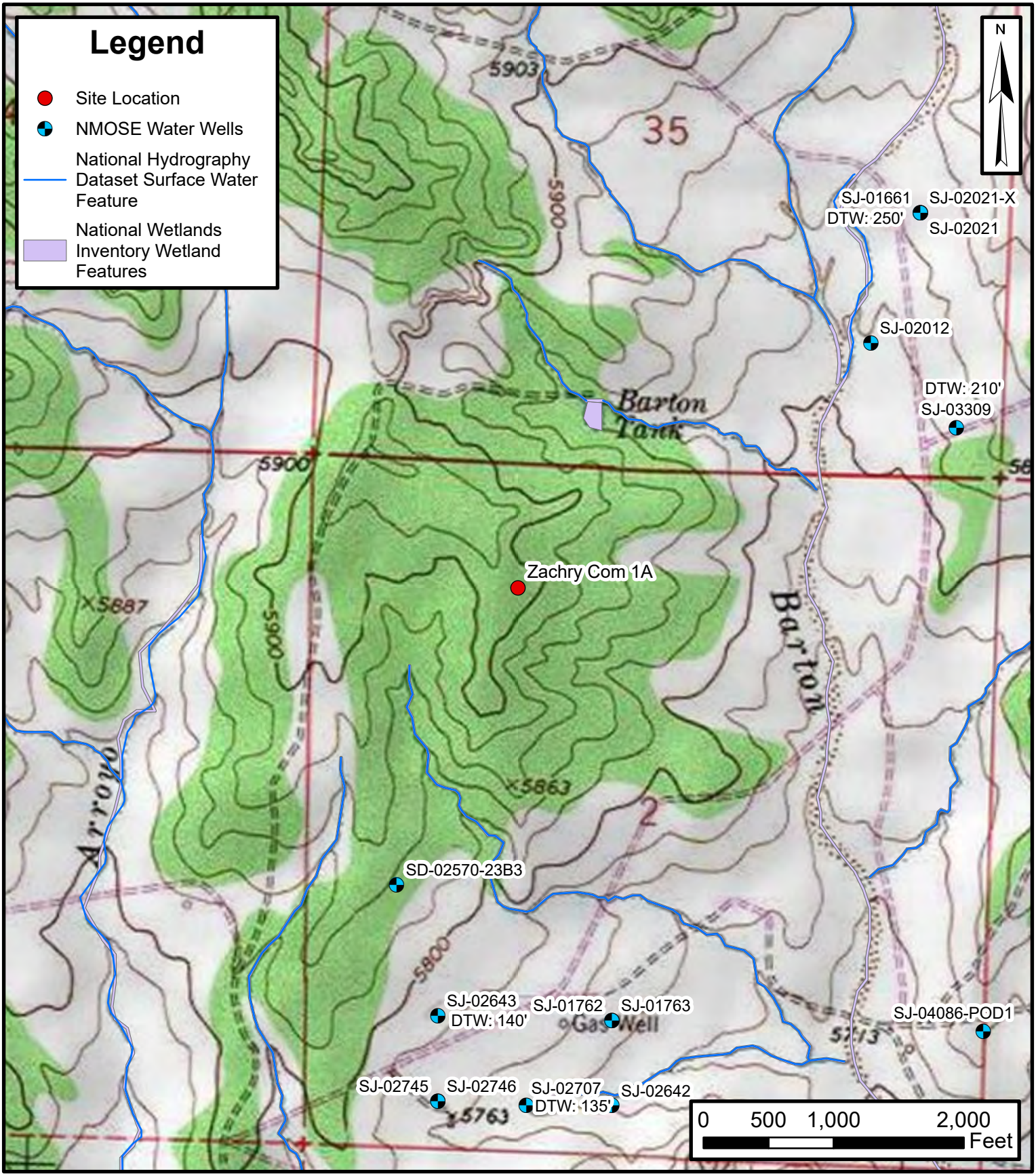
FIGURES



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Zachry Com 1A
Hilcorp Energy Company
36.845766, -108.071498
San Juan County, New Mexico

FIGURE
1

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Map

Zachry Com 1A
Hilcorp Energy Company
36.845766, -108.071498
San Juan County, New Mexico

FIGURE
2

Sources: Environmental Systems Research Institute (ESRI), Google Earth

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TABLES

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TABLE 1
DELINEATION SOIL SAMPLE ANALYTICAL RESULTS
Zachary Com 1A
Hilcorp Energy Company
San Juan 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)	TPH GRO+DRO (mg/kg	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Closure Criteria for Soils Impacted by a Release			NE	**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
BH01 4-6	1/10/2024	4-6	33.5	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.5	<47	<14.3	<47	<60
BH01 24-26	1/10/2024	24-26	3.4	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<14.7	<49	<60
BH02 9-11	1/10/2024	9-11	272	<0.024	<0.049	<0.049	0.099	0.099	<4.9	15	<50	15	15	<60
BH02 24-26	1/10/2024	24-26	6.9	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.3	<46	<14.2	<46	<60
BH03 14-16	1/10/2024	14-16	42.6	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	18	<47	18	18	<60
BH03 24-26	1/10/2024	24-26	8.5	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	12	<48	12	12	<60
BH04 4-6	1/10/2024	4-6	8.2	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.7	<49	<14.5	<49	82
BH04 24-26	1/10/2024	24-26	1.6	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.7	<49	<14.5	<49	<60
BH05 4-6	1/10/2024	4-6	1.4	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<10	<50	<14.8	<50	<60
BH05 19-21	1/10/2024	19-21	0.7	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.7	<49	<14.5	<49	<60
BH06 4-6	1/11/2024	4-6	10.4	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	220	120	220	340	1,200
BH06 24-26	1/11/2024	24-26	2.0	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.9	<50	<14.9	<50	<60
SS01	1/11/2024	0-0.5	1,947	<0.023	2.9	4.5	56	**63**	880	330	<49	**1,210**	1,210	<60

Notes:

bgs: below ground surface
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
mg/kg: milligrams per kilogram
NE: Not Established
NMOCD: New Mexico Oil Conservation Division
': feet
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
MRO: Motor Oil/Lube Oil Range Organics
TPH: Total Petroleum Hydrocarbon
<: indicates result less than the stated laboratory reporting limit (RL)
*Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release*

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APPENDIX A

NMOSE Point of Diversion Summary

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	SJ 02643	2	3	3	02	30N	12W	225928	4081166*

Driller License:	847	**Driller Company:**	SAVAGE, BOB		
Driller Name:	SAVAGE, BOB				
Drill Start Date:	07/10/1995	**Drill Finish Date:**	07/25/1995	**Plug Date:**	
Log File Date:	08/21/1996	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	2 GPM
Casing Size:	4.50	**Depth Well:**	195 feet	**Depth Water:**	140 feet

Water Bearing Stratifications:	Top	Bottom	Description
	155	157	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	156	195

***UTM location was derived from PLSS - see Help**

ENSOLUM

APPENDIX B

Agency Correspondence

From: OCDOnline@state.nm.us
To: Stuart Hyde
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 300142
Date: Thursday, January 4, 2024 3:27:41 PM

[**EXTERNAL EMAIL**]

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

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2331717075.

The sampling event is expected to take place:

When: 01/10/2024 @ 09:00
Where: C-02-30N-12W 990 FNL 1630 FWL (36.845768,-108.0713806)

Additional Information: Site contact is Reece Hanson, 970-210-9803

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

Additional Instructions: Site Coordinates: 36.845833, -108.071678

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

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

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

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

From: OCDOnline@state.nm.us
To: Stuart Hyde
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 300144
Date: Thursday, January 4, 2024 3:28:47 PM

[**EXTERNAL EMAIL**]

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

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2331717075.

The sampling event is expected to take place:

When: 01/11/2024 @ 09:00
Where: C-02-30N-12W 990 FNL 1630 FWL (36.845768,-108.0713806)

Additional Information: Site contact is Reece Hanson, 970-210-9803

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

Additional Instructions: Site Coordinates: 36.845833, -108.071678

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

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

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

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

From: OCDOnline@state.nm.us
To: Stuart Hyde
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 301484
Date: Tuesday, January 9, 2024 9:37:16 AM

[**EXTERNAL EMAIL**]

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

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2331717075.

The sampling event is expected to take place:

When: 01/12/2024 @ 09:00
Where: C-02-30N-12W 990 FNL 1630 FWL (36.845768,-108.0713806)

Additional Information: Site contact is Reece Hanson, 970-210-9803
Sampling is being performed for delineation purposes. The stated sampling area is the total approximate area that we will be investigating and does not constitute the area of soil impacts.

Additional Instructions: Site Coordinates: 36.845833, -108.071678

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

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

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

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

ENSOLUM

APPENDIX C

Boring Logs

ENSOLUM

Client: Hilcorp
Project Name: Zachary Com 1A
Project Location:
Project Manager: S Hyde

BOREHOLE ID: BH01
Date: 1/10/24

Project No.:
Drilling Company: Enviro-Drill
Driller: Ryan
Drilling Equip:
Logged By: RH

Borehole Diameter:
Casing Diameter:
Well Materials: Backfill
Surface Completion:
Drilling Method:

Ground Surface Elevation:
Top of Casing Elevation:
Latitude:
Longitude:
Total Depth: 25'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–5		23-50 for 3	90	33.5	slt		SAND w/ SILT: 5-6': light tan - fine - med sand w/ some silt 6-5: brown to med tan v. fine to medium sand w/ silt 2" gray stained stringer in middle	
6–10		33-50 for 4	100	11.5	slt		SAND W/ SILT: 10-11': fine - med sand w/ some silt SAA SILT W/ SAND + CLAY: 9-10' mostly brown-gray silt w/ some clay + fine sand	
11–15		50 for 6	75	5.5	dry		14-15: SAA: Mostly same as 10-11' interval w/ some fines 15-16: SAND/SAND STONE: light gray fine to med sand mod. sorted, some consolidated pieces	
16–20		50 for 5	50	4.2	dry		Sandstone SAA	
21–25		26-50 for 6	90	3.4	slt		Transitions to - SILTY SAND - med gray silt w/ v. fine-fine sand - no odor somewhat consolidated from compaction	

TD @ 25' - leave augers in then pull + backfill

ENSOLUM

Client: Hilcorp
Project Name: Zachary Com 1A
Project Location:
Project Manager: S Hyde

BOREHOLE ID: BH02
Date: 1/10/24

Project No.:
Drilling Company: Enviro-Drill
Driller: Ryan
Drilling Equip:
Logged By: RH

Borehole Diameter:
Casing Diameter:
Well Materials: Backfill
Surface Completion:
Drilling Method:

Ground Surface Elevation:
Top of Casing Elevation:
Latitude:
Longitude:
Total Depth: 25'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–5		25-50 for 6	100	87.6	slt		SILTY SAND: Tan - fine - med. Sand w/ some silt, NO S/O	
5–10		50 for 5	60	272	slt		SAND: light gray to tan fine - med sand mod. sorted No S/O - slough above SAA	
10–15		25-50 for 3	60	20.1	dry		SAA: sand varies from unconsolidated to compacted w/ SS chunks No S/O	
15–20		33-50 for 6	80	20.3	dry		19-20 - SAA 20-21 - unconsolidate but slt compacted fine to coarse poorly sorted sand w/ some fines/stringers No S/O	
20–25		22-50 for 6	100	6.9	dry		looks similar to same interval in BH01 red. gray, compacted silt w/ V. fine - fine sand No S/O	

ENSOLUM

Client: Hilcorp
Project Name: Zachary Com 1A
Project Location:
Project Manager: S Hyde

BOREHOLE ID: 3Ht03
Date: 1/10/23

Project No.:
Drilling Company: Enviro-Drill
Driller: Ryan
Drilling Equip:
Logged By: RH

Borehole Diameter:
Casing Diameter:
Well Materials: Backfill
Surface Completion:
Drilling Method:

Ground Surface Elevation:
Top of Casing Elevation:
Latitude:
Longitude:
Total Depth: 25'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–5		50 For 5	50	24.1	Slt		SILTY SAND: some fines @ top of interval, unconsolidated fine-med. sand w/ silt tan to med gray	
5–10		50 for 5	60	32	Slight		Sands w/ some silt @ Bottom of Interval Silty Sands w/ some Clays @ top	
10–15		50 for 5	60	42.6	Slt		Light Gray to tan Fine to med. Sands Silty Sands on upper part of Interval	
15–20		40-30 For 5	95	3.3	dry		SAND: white to light gray, tan fine to med. Sand, Compacted more silty @ top of interval white inclusions	
20–25		35-50 For 4	90	8.5	Dry		SILT - gray - compacted silt w/ some fine sand & black mica No F/O	

TD @ 25'

ENSOLUM

Client: HVI Corp
Project Name: Zachary Com 1A
Project Location:
Project Manager: S Hyde

BOREHOLE ID: BH04
Date: 1/16/24

Project No.:
Drilling Company: Enviro-Drill
Driller: Ryan
Drilling Equip:
Logged By: RH

Borehole Diameter:
Casing Diameter:
Well Materials: Backfill
Surface Completion:
Drilling Method:

Ground Surface Elevation:
Top of Casing Elevation:
Latitude:
Longitude:
Total Depth: 25'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–5		50 for 4"	60	8.2	Slt		SAND w/ SILT: Tan Fine-med sand w/ silt poorly sorted Bottom 4" = SAND: compacted white to light gray sand fine-med. No S/O	
6–10		25-50 for 1	40	1.8	Dry		Grey Sand w/ Silt Fin-MED well Compacted Powdery	
11–15		50 for 2	60	4.9	Dry		SAA	
16–20		50 for 3	40	1.4	Dry		light Grey to white med Sand w/ Silt Poorly Sorted	
21–25		38-50 for 5	70	1.6	Dry		Upper-SAA Lower-Silt Grey w Some fine sands very Compacted	

TD @ 25'

ENSOLUM

Client: Hilcorp		BOREHOLE ID: BH05
Project Name: Zachry Com 1A		
Project Location:		Date: 1/10/24
Project Manager: S Hyde		
Project No.:	Borehole Diameter:	Ground Surface Elevation:
Drilling Company: Enviro-Drill	Casing Diameter: Backfill	Top of Casing Elevation:
Driller: Ryan	Well Materials:	Latitude:
Drilling Equip:	Surface Completion:	Longitude:
Logged By: RH	Drilling Method:	Total Depth: 20'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–5		50 for 6	40	1.4	Slight		Tan w/ some Grey M-fine Sand w/ Silts Poorly Sorted No S/O	
6–10		50 for 4	20	0.6	Dry		Grey to tan fine-med Sand w/ some Silts very well compacted No S/O	
11–15		50 for 6	50	1.0	Dry		light gray compacted sand fine-med grained crumbly No S/O	
16–20		50 for 5	40	0.7	Dry		upper SAA Lower - Tan to grey Silt w/ fine sands No S/O	
21–25							TD @ 20'	

ENSOLUM

Client: HEC
Project Name: Zachry Com 1A
Project Location:
Project Manager: S. Hyde

BOREHOLE ID: BH 06
Date: 1/11/24

Project No.:
Drilling Company: Enviro Drill
Driller: Ryan
Drilling Equip:
Logged By: RH

Borehole Diameter:
Casing Diameter:
Well Materials:
Surface Completion:
Drilling Method:

Ground Surface Elevation:
Top of Casing Elevation:
Latitude:
Longitude:
Total Depth:

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0–5		4 for 3	40	10.4	WET		Tan - Medium - fine Sands w/ Silt Grey/Black Staining Black liner material @ 5' "old" Smelling grey stained Soil from 5-10'	
5–10		50 for 6	40	7.8	SAT		Compacted + Unconsolidated f-m Sand w/ some Silt light grey to tan NO S/O	
10–15		50 for 6	40	3.2	DRY		Grey/White Med Sands w/ Some Silt poorly Sorted w/ Some ¼ Gravel sized Clasts NO S/O	
15–20		50 for 6	50	1.0	DRY		light Grey to Tan Sand f-m w/ Some clasts Black Carbonaceous Layer 1cm NO S/O	
20–25		27 50 for 5	40	2.0	DRY		upper ¼ SAA Lower ¾ Grey Compacted Silt w/ Some V. fine Sands & Black Mica NO S/O	

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ENSOLUM

APPENDIX D

Photographic Log

ENSOLUM

Photographic Log
Hilcorp Energy Company
Zachry Com 1A
San Juan County, New Mexico

Photograph: 1 Date: 1/10/2024
Description: BH01
View: West

Photograph: 2 Date: 1/10/2024
Description: BH02
View: West

Photograph: 3 Date: 1/10/2024
Description: BH03
View: Southeast

Photograph: 4 Date: 1/10/2024
Description: BH04
View: Northwest

ENSOLUM

Photographic Log
Hilcorp Energy Company
Zachry Com 1A
San Juan County, New Mexico

Photograph: 5 Date: 1/11/2024
Description: Location of soil sample "SS01"
View: Southeast

Photograph: 6 Date: 1/11/2024
Description: BH06
View: Northwest

ENSOLUM

APPENDIX E

Laboratory Analytical Reports

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH01 4-6
Project: Zachary Com 1A
Collection Date: 1/10/2024 11:40:00 AM
Lab ID: 2401494-001 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	1/17/2024 2:36:29 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/17/2024 2:36:29 PM
Surr: DNOP	110	69-147		%Rec	1	1/17/2024 2:36:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/17/2024 3:16:13 AM
Surr: BFB	93.9	15-244		%Rec	1	1/17/2024 3:16:13 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/17/2024 3:16:13 AM
Toluene	ND	0.048		mg/Kg	1	1/17/2024 3:16:13 AM
Ethylbenzene	ND	0.048		mg/Kg	1	1/17/2024 3:16:13 AM
Xylenes, Total	ND	0.095		mg/Kg	1	1/17/2024 3:16:13 AM
Surr: 4-Bromofluorobenzene	85.9	39.1-146		%Rec	1	1/17/2024 3:16:13 AM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	1/17/2024 1:18:26 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH01 24-26
Project: Zachary Com 1A
Collection Date: 1/10/2024 11:47:00 AM
Lab ID: 2401494-002 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/18/2024 5:06:40 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/18/2024 5:06:40 PM
Surr: DNOP	118	69-147		%Rec	1	1/18/2024 5:06:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/18/2024 6:37:22 PM
Surr: BFB	94.5	15-244		%Rec	1	1/18/2024 6:37:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	1/18/2024 6:37:22 PM
Toluene	ND	0.049		mg/Kg	1	1/18/2024 6:37:22 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/18/2024 6:37:22 PM
Xylenes, Total	ND	0.098		mg/Kg	1	1/18/2024 6:37:22 PM
Surr: 4-Bromofluorobenzene	86.2	39.1-146		%Rec	1	1/18/2024 6:37:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 12:47:12 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH02 9-11
Project: Zachary Com 1A
Collection Date: 1/10/2024 11:52:00 AM
Lab ID: 2401494-003 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	15	9.9		mg/Kg	1	1/18/2024 5:38:26 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/18/2024 5:38:26 PM
Surr: DNOP	106	69-147		%Rec	1	1/18/2024 5:38:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/18/2024 7:48:27 PM
Surr: BFB	108	15-244		%Rec	1	1/18/2024 7:48:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 7:48:27 PM
Toluene	ND	0.049		mg/Kg	1	1/18/2024 7:48:27 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/18/2024 7:48:27 PM
Xylenes, Total	0.099	0.098		mg/Kg	1	1/18/2024 7:48:27 PM
Surr: 4-Bromofluorobenzene	87.2	39.1-146		%Rec	1	1/18/2024 7:48:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 1:02:21 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH02 24-26
Project: Zachary Com 1A
Collection Date: 1/10/2024 11:58:00 AM
Lab ID: 2401494-004 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/18/2024 5:49:01 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/18/2024 5:49:01 PM
Surr: DNOP	114	69-147		%Rec	1	1/18/2024 5:49:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/18/2024 8:59:24 PM
Surr: BFB	98.9	15-244		%Rec	1	1/18/2024 8:59:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	1/18/2024 8:59:24 PM
Toluene	ND	0.049		mg/Kg	1	1/18/2024 8:59:24 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/18/2024 8:59:24 PM
Xylenes, Total	ND	0.098		mg/Kg	1	1/18/2024 8:59:24 PM
Surr: 4-Bromofluorobenzene	90.6	39.1-146		%Rec	1	1/18/2024 8:59:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 1:17:30 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH03 14-16
Project: Zachary Com 1A
Collection Date: 1/10/2024 12:50:00 PM
Lab ID: 2401494-005 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	1/18/2024 5:59:36 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/18/2024 5:59:36 PM
Surr: DNOP	104	69-147		%Rec	1	1/18/2024 5:59:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/18/2024 9:22:55 PM
Surr: BFB	93.4	15-244		%Rec	1	1/18/2024 9:22:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 9:22:55 PM
Toluene	ND	0.048		mg/Kg	1	1/18/2024 9:22:55 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/18/2024 9:22:55 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/18/2024 9:22:55 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	1/18/2024 9:22:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 2:02:58 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH03 24-26
Project: Zachary Com 1A
Collection Date: 1/10/2024 12:52:00 PM
Lab ID: 2401494-006 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	12	9.7		mg/Kg	1	1/18/2024 6:10:11 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/18/2024 6:10:11 PM
Surr: DNOP	112	69-147		%Rec	1	1/18/2024 6:10:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/18/2024 9:46:32 PM
Surr: BFB	94.2	15-244		%Rec	1	1/18/2024 9:46:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	1/18/2024 9:46:32 PM
Toluene	ND	0.046		mg/Kg	1	1/18/2024 9:46:32 PM
Ethylbenzene	ND	0.046		mg/Kg	1	1/18/2024 9:46:32 PM
Xylenes, Total	ND	0.092		mg/Kg	1	1/18/2024 9:46:32 PM
Surr: 4-Bromofluorobenzene	85.8	39.1-146		%Rec	1	1/18/2024 9:46:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 2:18:07 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH04 4-6
Project: Zachary Com 1A
Collection Date: 1/10/2024 1:53:00 PM
Lab ID: 2401494-007 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/18/2024 6:20:46 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/18/2024 6:20:46 PM
Surr: DNOP	108	69-147		%Rec	1	1/18/2024 6:20:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/18/2024 10:10:24 PM
Surr: BFB	94.4	15-244		%Rec	1	1/18/2024 10:10:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 10:10:24 PM
Toluene	ND	0.048		mg/Kg	1	1/18/2024 10:10:24 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/18/2024 10:10:24 PM
Xylenes, Total	ND	0.096		mg/Kg	1	1/18/2024 10:10:24 PM
Surr: 4-Bromofluorobenzene	86.2	39.1-146		%Rec	1	1/18/2024 10:10:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	82	60		mg/Kg	20	1/18/2024 2:33:16 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH04 24-26
Project: Zachary Com 1A
Collection Date: 1/10/2024 2:00:00 PM
Lab ID: 2401494-008 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/18/2024 6:31:21 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/18/2024 6:31:21 PM
Surr: DNOP	113	69-147		%Rec	1	1/18/2024 6:31:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/18/2024 10:34:17 PM
Surr: BFB	93.8	15-244		%Rec	1	1/18/2024 10:34:17 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 10:34:17 PM
Toluene	ND	0.048		mg/Kg	1	1/18/2024 10:34:17 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/18/2024 10:34:17 PM
Xylenes, Total	ND	0.095		mg/Kg	1	1/18/2024 10:34:17 PM
Surr: 4-Bromofluorobenzene	86.2	39.1-146		%Rec	1	1/18/2024 10:34:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 2:48:25 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH05 4-6
Project: Zachary Com 1A
Collection Date: 1/10/2024 2:30:00 PM
Lab ID: 2401494-009 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/18/2024 6:52:23 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/18/2024 6:52:23 PM
Surr: DNOP	112	69-147		%Rec	1	1/18/2024 6:52:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/18/2024 10:57:46 PM
Surr: BFB	91.7	15-244		%Rec	1	1/18/2024 10:57:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 10:57:46 PM
Toluene	ND	0.048		mg/Kg	1	1/18/2024 10:57:46 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/18/2024 10:57:46 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/18/2024 10:57:46 PM
Surr: 4-Bromofluorobenzene	84.8	39.1-146		%Rec	1	1/18/2024 10:57:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 3:03:34 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH05 19-21
Project: Zachary Com 1A **Collection Date:** 1/10/2024 2:35:00 PM
Lab ID: 2401494-010 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/18/2024 7:02:59 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/18/2024 7:02:59 PM
Surr: DNOP	119	69-147		%Rec	1	1/18/2024 7:02:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/18/2024 11:21:15 PM
Surr: BFB	93.5	15-244		%Rec	1	1/18/2024 11:21:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 11:21:15 PM
Toluene	ND	0.048		mg/Kg	1	1/18/2024 11:21:15 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/18/2024 11:21:15 PM
Xylenes, Total	ND	0.095		mg/Kg	1	1/18/2024 11:21:15 PM
Surr: 4-Bromofluorobenzene	86.4	39.1-146		%Rec	1	1/18/2024 11:21:15 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 3:18:44 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: BH06 4-6
Project: Zachary Com 1A
Collection Date: 1/11/2024 10:21:00 AM
Lab ID: 2401494-011 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	220	9.5		mg/Kg	1	1/18/2024 7:13:43 PM
Motor Oil Range Organics (MRO)	120	47		mg/Kg	1	1/18/2024 7:13:43 PM
Surr: DNOP	116	69-147		%Rec	1	1/18/2024 7:13:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/18/2024 11:44:49 PM
Surr: BFB	104	15-244		%Rec	1	1/18/2024 11:44:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	1/18/2024 11:44:49 PM
Toluene	ND	0.048		mg/Kg	1	1/18/2024 11:44:49 PM
Ethylbenzene	ND	0.048		mg/Kg	1	1/18/2024 11:44:49 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/18/2024 11:44:49 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	1/18/2024 11:44:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	1200	60		mg/Kg	20	1/18/2024 3:33:54 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** BH06 24-26
Project: Zachary Com 1A **Collection Date:** 1/11/2024 10:22:00 AM
Lab ID: 2401494-012 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/18/2024 7:53:56 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/18/2024 7:53:56 PM
Surr: DNOP	103	69-147		%Rec	1	1/18/2024 7:53:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/19/2024 12:32:01 AM
Surr: BFB	91.2	15-244		%Rec	1	1/19/2024 12:32:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	1/19/2024 12:32:01 AM
Toluene	ND	0.050		mg/Kg	1	1/19/2024 12:32:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/19/2024 12:32:01 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/19/2024 12:32:01 AM
Surr: 4-Bromofluorobenzene	83.9	39.1-146		%Rec	1	1/19/2024 12:32:01 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	1/18/2024 3:49:04 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401494**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SS01
Project: Zachary Com 1A
Collection Date: 1/11/2024 10:15:00 AM
Lab ID: 2401494-013 **Matrix:** SOIL **Received Date:** 1/12/2024 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	330	9.7		mg/Kg	1	1/23/2024 12:55:33 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/23/2024 12:55:33 PM
Surr: DNOP	107	69-147		%Rec	1	1/23/2024 12:55:33 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	880	46		mg/Kg	10	1/24/2024 12:34:16 AM
Surr: BFB	665	15-244	S	%Rec	10	1/24/2024 12:34:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.23		mg/Kg	10	1/24/2024 12:34:16 AM
Toluene	2.9	0.46		mg/Kg	10	1/24/2024 12:34:16 AM
Ethylbenzene	4.5	0.46		mg/Kg	10	1/24/2024 12:34:16 AM
Xylenes, Total	56	0.92		mg/Kg	10	1/24/2024 12:34:16 AM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	10	1/24/2024 12:34:16 AM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	1/23/2024 12:01:45 PM

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

Qualifiers:

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

District I
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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 308381

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 308381
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2331717075**
Incident Name	**NAPP2331717075 ZACHRY COM 1A @ 30-045-23311**
Incident Type	**Oil Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-045-23311] ZACHRY COM #001A**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	ZACHRY COM 1A
Date Release Discovered	10/30/2023
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
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	*Not answered.*
Condensate Released (bbls) Details	Cause: Equipment Failure | Tank (Any) | Condensate | Released: 16 BBL | Recovered: 0 BBL | Lost: 16 BBL.
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
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: 308381
	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	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
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: 01/26/2024

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 308381
	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 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
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 300 and 500 (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	Between ½ and 1 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 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 1000 (ft.) and ½ (mi.)
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)	1200
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1210
GRO+DRO (EPA SW-846 Method 8015M)	1210
BTEX (EPA SW-846 Method 8021B or 8260B)	63
Benzene (EPA SW-846 Method 8021B or 8260B)	0
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	04/01/2024
On what date will (or did) the final sampling or liner inspection occur	01/10/2024
On what date will (or was) the remediation complete(d)	05/01/2024
What is the estimated surface area (in square feet) that will be reclaimed	750
What is the estimated volume (in cubic yards) that will be reclaimed	111
What is the estimated surface area (in square feet) that will be remediated	750
What is the estimated volume (in cubic yards) that will be remediated	111
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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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 308381
	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	ENVIROTECH LANDFARM #2 [fEEM0112336756]
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	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
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: 01/26/2024
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: 308381
	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: 308381
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**301484**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/12/2024**
What was the (estimated) number of samples that were to be gathered	**18**
What was the sampling surface area in square feet	**30000**

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

Action 308381

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 308381
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation Plan is approved as written. Please provide site characterization supporting documentation within the final remediation closure report (e.g. lakebed, playa lake, subsurface mines, floodplains). Hilcorp has 90-days (July 1, 2024) to submit to OCD its appropriate or final remediation closure report.	4/1/2024