ENSOLUM

January 30, 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: Site Summary Report and Closure Request
L C Kelly 17
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident No: nAPP2331720576

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Site Summary Report and Closure Request* associated with a produced water release at the L C Kelly 17 natural gas production well (Site, Figure 1). The Site is located on surface managed by the Bureau of Land Management (BLM) in Unit C, Section 3, Township 30 North, Range 12 West, San Juan County, New Mexico.

SITE BACKGROUND

On November 8, 2023, a Hilcorp operator discovered produced water fluid standing within the wood cribbing surrounding the Site below grade tank (BGT). Upon discovery, the well was shut-in pending repairs. Based on the tank production data, the release of produced water was determined to be 19.5 barrels (bbls), of which, 19 bbls were recovered from within the cribbing by a vacuum truck. After further inspection, a hole was discovered at the bottom of the BGT, likely due to corrosion. Hilcorp notified the New Mexico Oil Conservation Division (NMOCD) within 24 hours of discovery and submitted an initial *Form C-141 Release Notification* on November 21, 2023. NMOCD assigned the release incident number nAPP2331720576.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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).

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 hydrogeologic 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).

The closest significant watercourse is an unnamed dry wash located 540 feet southwest of the Site. The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake, and is approximately 540 feet

from a wetland (Figure 1). The nearest fresh-water well is New Mexico Office of the State Engineer (NMOSE) permitted well SJ-03447 (Appendix A), located approximately 4,500 feet south of the Site. The recorded depth to water on the NMOSE database is 80 feet below ground surface (bgs). The ground surface at well SJ-03447 is approximately 60 feet lower in elevation than the Site, therefore 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 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:

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

SITE ASSESSMENT ACTIVITIES

To assess potential soil impacts from the release, Hilcorp and Ensolum advanced one pothole, PH01, on January 9, 2024, directly adjacent to the source of the release using a backhoe. The NMOCD was notified at least two business days prior to commencing on-Site activities (Appendix B). Pothole PH01 was advanced to a depth of 7 feet bgs, with soil field screened for petroleum hydrocarbon staining, odors, and chloride crusting during advancement. Soil samples were field screened for the presence of organic vapors using a calibrated photoionization detector (PID) and chloride using Hach® QuanTab® test strips, with results noted on the field notes (attached as Appendix C).

Four soil samples were collected from pothole PH01 for laboratory analysis. Samples were collected directly into laboratory-provided jars, immediately placed on ice, and submitted to Eurofins Environment Testing (Eurofins) for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B, TPH-GRO, TPH-DRO, TPH-MRO following EPA Method 8015M/D, and chloride following EPA Method 300.0. Field indications of petroleum hydrocarbons and/or chloride, including staining, odors, elevated PID readings and/or chloride crusting, were not observed in any of the potholes during the work. Photographs taken during field activities are attached as Appendix D.

BTEX, TPH, and chloride were not detected above the NMOCD Table I Closure Criteria or reclamation requirement in any of the soil samples collected during the January 2024 assessment. Soil sample analytical results are summarized in Table 1 and Figure 2, with complete laboratory analytical reports attached as Appendix E.

CONCLUSIONS AND CLOSURE REQUEST

Based on the soil sampling activities and analytical results described above, petroleum hydrocarbon and/or chloride contaminants were not detected in any of the samples collected at the Site above the NMOCD Table I Closure Criteria or reclamation requirement. The Site appears to be absent of soil

impacts and waste-containing soil. As such, Site conditions appear to be protective of human health, the environment, and groundwater and Hilcorp respectfully requests closure for Incident Number nAPP2331720576.

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

Sincerely,
Ensolum, LLC

Stuart Hyde, LG
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 Analytical Results

Table 1: Soil Sample Analytical Results

Appendix A: NMOSE Point of Diversion Summary
Appendix B: Agency Sampling Notification
Appendix C: Field Notes
Appendix D: Photographic Log
Appendix E: Laboratory Analytical Reports

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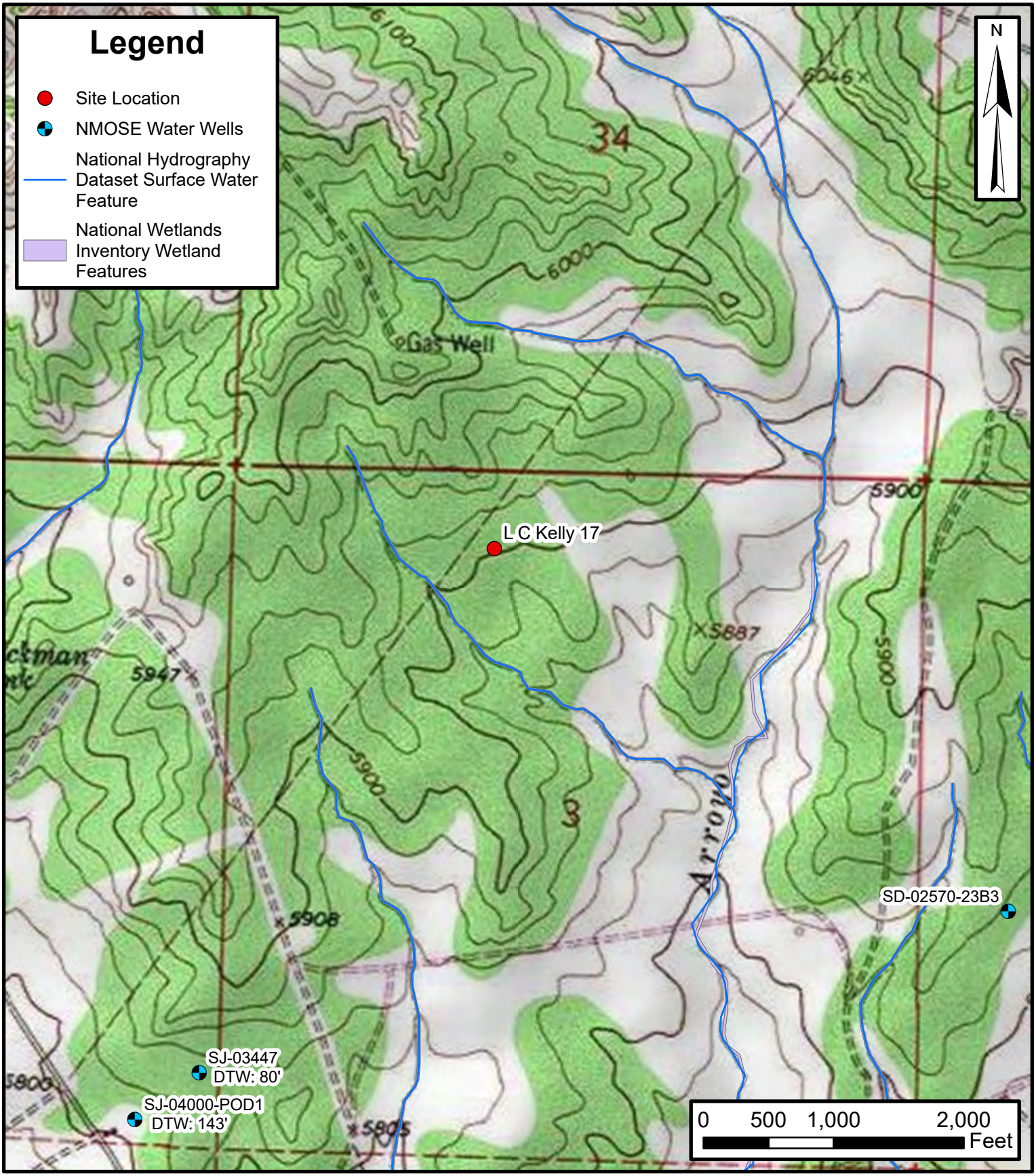
FIGURES



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Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

L C Kelly 17
Hilcorp Energy Company
36.846612, -108.087647
San Juan County, New Mexico

FIGURE
1

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Environmental, Engineering and Hydrogeologic Consultants

Soil Sample Analytical Results

L C Kelly 17
Hilcorp Energy Company
36.846612, -108.087647
San Juan County, New Mexico

FIGURE
2

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

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
L C Kelly 17
Hilcorp Energy Company
San Juan County, New Mexico

Sample ID	Date	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	TPH GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Closure Criteria for Soils Impacted by a Release			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
PH01 @ 0.5'	1/9/2024	0.5	<0.025	<0.047	<0.047	<0.094	<0.094	<4.7	<8.6	<43	<8.6	<43	210
PH01 @ 3'	1/9/2024	3.0	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.0	<45	<9.0	<45	210
PH01 @ 5'	1/9/2024	5.0	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.0	<45	<9.0	<45	230
PH01 @ 7'	1/9/2024	7.0	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<8.8	<44	<8.8	<44	250

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)

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APPENDIX A

NMOSE Point of Diversion Summary

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well DANIEL HARRIS Owner's Well No. 1
Street or Post Office Address P.O. BOX 961
City and State FLORA VISTA, NM 87415

Well was drilled under Permit No. SJ 3447 and is located in the:

a. SE ¼ SE ¼ SE ¼ ¼ of Section 4 Township 30N Range 12W N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor HARGIS License No. WD-799

Address # 152 CR 3500 FLORAVISTA, NM 87415

Drilling Began 04-10-05 Completed 04-14-05 Type tools CABLE Size of hole 7" in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 120 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 80' ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
100	120	20'	COURSE BLUE SAND WATER	2

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
4 1/2	sch 80	PVC	0	12	20	-	80	120

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

2005 APR 28 PM 12 39
STATE ENGINEER OFFICE
ALBUQUERQUE, NEW MEXICO

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

4-28-2005 FOR USE OF STATE ENGINEER ONLY

Date Received

3117

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	10'	10'	BROWN SAND OVER BURDEN
10	50'	40'	BROWN SANDSTONE
40	100	60'	BLUE SANDY CLAY
100	120	201	COURSE BLUE WATER BEARING SAND

Section 7. REMARKS AND ADDITIONAL INFORMATION

CASE WELL WITH 4 1/2 CERTA LOCK SCH 80 WELL CASING, GRAVEL, PACK WITH 3/8 PEE GRAVEL

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the at described hole.

Driller

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APPENDIX B

Agency Sampling Notification

From: OCDOnline@state.nm.us
To: Stuart Hyde
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 300136
Date: Thursday, January 4, 2024 3:24:16 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#) nAPP2331720576.

The sampling event is expected to take place:

When: 01/09/2024 @ 13:00
Where: C-03-30N-12W 660 FNL 1965 FWL (36.8466148,-108.088295)

Additional Information: Ensolum will be sampling at the Site, Contact is Al Thomson, 970-317-9794

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: Coordinates: 36.846612, -108.087647

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

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APPENDIX C

Field Notes

78

Location LC Kelly 17 Date 1-9-24

Project / Client HEC

EC, truck, PID, Cl x4

11:30 on Site

remove fence and pot hole near BGT outside Cellar

Sample		PID	Cl
PH01 @	0.5'	0.2	0
PH01 @	3'	0.6	0
PH01 @	5'	0.4	0
PH01 @	7'	0.1	0

Dark red brown coarse sand trace silt to @ 4.8'

4.8'- 7' gray blue coarse Sandstone well cemented

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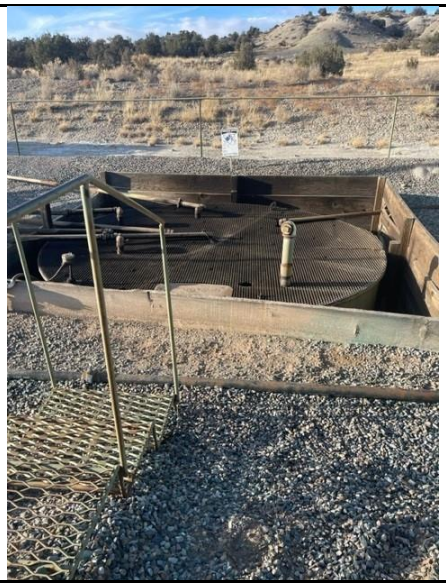
APPENDIX D

Photographic Log

PHOTOGRAPHIC LOG
L C Kelly 17
Hilcorp Energy Company

Photograph 1: 11/10/2023 View of the below grade tank and source after discovery of the release, looking north.	
Photograph 2: 1/9/2024 View looking into pothole PH01.	

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APPENDIX E

Laboratory Analytical Reports

eurofins | Environment Testing

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

January 26, 2024

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

RE: LC Kelly 17 OrderNo.: 2401376

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 4 sample(s) on 1/10/2024 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2401376**
Date Reported: **1/26/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: PH01 @ 0.5'
Project: LC Kelly 17
Collection Date: 1/9/2024 12:00:00 PM
Lab ID: 2401376-001 **Matrix:** SOIL **Received Date:** 1/10/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	1/12/2024 12:14:02 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	1/12/2024 12:14:02 PM
Surr: DNOP	101	69-147		%Rec	1	1/12/2024 12:14:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/15/2024 7:45:00 PM
Surr: BFB	104	15-244		%Rec	1	1/15/2024 7:45:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	1/15/2024 7:45:00 PM
Toluene	ND	0.047		mg/Kg	1	1/15/2024 7:45:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	1/15/2024 7:45:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	1/15/2024 7:45:00 PM
Surr: 4-Bromofluorobenzene	95.1	39.1-146		%Rec	1	1/15/2024 7:45:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	210	59		mg/Kg	20	1/12/2024 7:24:42 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2401376**
Date Reported: **1/26/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: PH01 @ 3'
Project: LC Kelly 17
Collection Date: 1/9/2024 12:10:00 PM
Lab ID: 2401376-002 **Matrix:** SOIL **Received Date:** 1/10/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	1/12/2024 12:24:33 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/12/2024 12:24:33 PM
Surr: DNOP	97.1	69-147		%Rec	1	1/12/2024 12:24:33 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/15/2024 8:07:00 PM
Surr: BFB	103	15-244		%Rec	1	1/15/2024 8:07:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	1/15/2024 8:07:00 PM
Toluene	ND	0.049		mg/Kg	1	1/15/2024 8:07:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	1/15/2024 8:07:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	1/15/2024 8:07:00 PM
Surr: 4-Bromofluorobenzene	94.9	39.1-146		%Rec	1	1/15/2024 8:07:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	210	59		mg/Kg	20	1/12/2024 7:37:07 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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 **2401376**
Date Reported: **1/26/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: PH01 @ 5'
Project: LC Kelly 17
Collection Date: 1/9/2024 12:20:00 PM
Lab ID: 2401376-003 **Matrix:** SOIL **Received Date:** 1/10/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	1/12/2024 12:35:07 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/12/2024 12:35:07 PM
Surr: DNOP	98.2	69-147		%Rec	1	1/12/2024 12:35:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/15/2024 8:29:00 PM
Surr: BFB	102	15-244		%Rec	1	1/15/2024 8:29:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	1/15/2024 8:29:00 PM
Toluene	ND	0.047		mg/Kg	1	1/15/2024 8:29:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	1/15/2024 8:29:00 PM
Xylenes, Total	ND	0.093		mg/Kg	1	1/15/2024 8:29:00 PM
Surr: 4-Bromofluorobenzene	94.9	39.1-146		%Rec	1	1/15/2024 8:29:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	230	60		mg/Kg	20	1/12/2024 7:49:32 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 **2401376**
Date Reported: **1/26/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: PH01 @ 7'
Project: LC Kelly 17
Collection Date: 1/9/2024 12:30:00 PM
Lab ID: 2401376-004 **Matrix:** SOIL **Received Date:** 1/10/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	1/17/2024 11:34:14 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	1/17/2024 11:34:14 AM
Surr: DNOP	96.5	69-147		%Rec	1	1/17/2024 11:34:14 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/16/2024 8:08:43 PM
Surr: BFB	94.3	15-244		%Rec	1	1/16/2024 8:08:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	1/16/2024 8:08:43 PM
Toluene	ND	0.047		mg/Kg	1	1/16/2024 8:08:43 PM
Ethylbenzene	ND	0.047		mg/Kg	1	1/16/2024 8:08:43 PM
Xylenes, Total	ND	0.093		mg/Kg	1	1/16/2024 8:08:43 PM
Surr: 4-Bromofluorobenzene	85.8	39.1-146		%Rec	1	1/16/2024 8:08:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	250	60		mg/Kg	20	1/16/2024 5:46:13 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2401376**

26-Jan-24

Client: HILCORP ENERGY

Project: LC Kelly 17

Sample ID: **MB-79881**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **79881**	RunNo: **102429**
Prep Date: **1/12/2024**	Analysis Date: **1/12/2024**	SeqNo: **3783634** Units: **mg/Kg**

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

Sample ID: **LCS-79881**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **79881**	RunNo: **102429**
Prep Date: **1/12/2024**	Analysis Date: **1/12/2024**	SeqNo: **3783635** 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-79934**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **79934**	RunNo: **102464**
Prep Date: **1/16/2024**	Analysis Date: **1/16/2024**	SeqNo: **3785219** Units: **mg/Kg**

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

Sample ID: **LCS-79934**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **79934**	RunNo: **102464**
Prep Date: **1/16/2024**	Analysis Date: **1/16/2024**	SeqNo: **3785220** 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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2401376**

26-Jan-24

Client: HILCORP ENERGY

Project: LC Kelly 17

Sample ID: **LCS-79870**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **79870**	RunNo: **102425**
Prep Date: **1/11/2024**	Analysis Date: **1/12/2024**	SeqNo: **3783328** 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	101	61.9	130			
Surr: DNOP	5.0		5.000		100	69	147			

Sample ID: **MB-79870**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **79870**	RunNo: **102425**
Prep Date: **1/11/2024**	Analysis Date: **1/12/2024**	SeqNo: **3783329** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		118	69	147			

Sample ID: **LCS-79929**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **79929**	RunNo: **102489**
Prep Date: **1/16/2024**	Analysis Date: **1/17/2024**	SeqNo: **3785941** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	109	61.9	130			
Surr: DNOP	5.6		5.000		112	69	147			

Sample ID: **MB-79929**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **79929**	RunNo: **102514**
Prep Date: **1/16/2024**	Analysis Date: **1/17/2024**	SeqNo: **3786824** 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	14		10.00		136	69	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2401376**

26-Jan-24

Client: HILCORP ENERGY

Project: LC Kelly 17

Sample ID: **lcs-79854** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **79854** RunNo: **102434**

Prep Date: **1/11/2024** Analysis Date: **1/15/2024** SeqNo: **3783765** 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	88.8	70	130			
Surr: BFB	2200		1000		225	15	244			

Sample ID: **mb-79854** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **79854** RunNo: **102434**

Prep Date: **1/11/2024** Analysis Date: **1/15/2024** SeqNo: **3783767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	15	244			

Sample ID: **lcs-79912** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **79912** RunNo: **102463**

Prep Date: **1/15/2024** Analysis Date: **1/16/2024** SeqNo: **3784946** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.6	70	130			
Surr: BFB	2100		1000		206	15	244			

Sample ID: **mb-79912** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **79912** RunNo: **102463**

Prep Date: **1/15/2024** Analysis Date: **1/16/2024** SeqNo: **3784947** 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	960		1000		95.6	15	244			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2401376**

26-Jan-24

Client: HILCORP ENERGY

Project: LC Kelly 17

Sample ID: **lcs-79854**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **79854**	RunNo: **102434**
Prep Date: **1/11/2024**	Analysis Date: **1/15/2024**	SeqNo: **3783766** 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	87.6	70	130			
Toluene	0.88	0.050	1.000	0	88.1	70	130			
Ethylbenzene	0.90	0.050	1.000	0	89.7	70	130			
Xylenes, Total	2.7	0.10	3.000	0	89.8	70	130			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	39.1	146			

Sample ID: **mb-79854**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **79854**	RunNo: **102434**
Prep Date: **1/11/2024**	Analysis Date: **1/15/2024**	SeqNo: **3783768** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	39.1	146			

Sample ID: **LCS-79912**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **79912**	RunNo: **102463**
Prep Date: **1/15/2024**	Analysis Date: **1/16/2024**	SeqNo: **3784959** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.5	70	130			
Toluene	0.81	0.050	1.000	0	80.7	70	130			
Ethylbenzene	0.83	0.050	1.000	0	82.8	70	130			
Xylenes, Total	2.5	0.10	3.000	0	83.2	70	130			
Surr: 4-Bromofluorobenzene	0.91		1.000		90.8	39.1	146			

Sample ID: **mb-79912**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **79912**	RunNo: **102463**
Prep Date: **1/15/2024**	Analysis Date: **1/16/2024**	SeqNo: **3784960** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.1	39.1	146			

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.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2401376**

26-Jan-24

Client: HILCORP ENERGY

Project: LC Kelly 17

Sample ID: **2401376-004ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PH01 @ 7'**	Batch ID: **79912**	RunNo: **102463**
Prep Date: **1/15/2024**	Analysis Date: **1/17/2024**	SeqNo: **3785348** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.023	0.9251	0	89.3	70	130			
Toluene	0.85	0.046	0.9251	0	91.5	70	130			
Ethylbenzene	0.87	0.046	0.9251	0	94.1	70	130			
Xylenes, Total	2.6	0.093	2.775	0	94.4	70	130			
Surr: 4-Bromofluorobenzene	0.81		0.9251		87.3	39.1	146			

Sample ID: **2401376-004amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PH01 @ 7'**	Batch ID: **79912**	RunNo: **102463**
Prep Date: **1/15/2024**	Analysis Date: **1/17/2024**	SeqNo: **3785349** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.023	0.9234	0	91.4	70	130	2.07	20	
Toluene	0.86	0.046	0.9234	0	93.5	70	130	1.96	20	
Ethylbenzene	0.89	0.046	0.9234	0	96.0	70	130	1.82	20	
Xylenes, Total	2.7	0.092	2.770	0	96.8	70	130	2.37	20	
Surr: 4-Bromofluorobenzene	0.80		0.9234		86.8	39.1	146	0	0	

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.		

eurofins | Environment Testing

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

Sample Log-In Check List

Client Name: **HILCORP ENERGY** Work Order Number: **2401376** RcptNo: **1**

Received By: **Juan Rojas** **1/10/2024 7:30:00 AM**

Completed By: **Cheyenne Cason** **1/10/2024 9:34:12 AM**

Reviewed By: JR 1/10/24

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 1/10/24

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	0.1	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Hilcorp

Mitch Killough

Mailing Address:

Phone #:

email or Fax#: mkillough@hilcorp.com

QA/QC Package:

☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: LC Kelly 17

Project #:

Project Manager: Stuart Hyde - Ensolum

Sampler: E. Carroll

On Ice: ☒ Yes ☐ No

# of Coolers: 1 Yoyi

Cooler Temp (Including CF): 0.2-0.1=0.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2401376	BTEX / MTBE / TMBs (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)	Chloride
1-9-24	12:00	Soil	PH01 @ 0.5'	1 4oz	Cool	001	X	X									X
↓	1210	↓	PH01 @ 3'	↓	↓	002	X	X									X
↓	1220	↓	PH01 @ 5'	↓	↓	003	X	X									X
↓	1230	↓	PH01 @ 7'	↓	↓	004	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1-9-24	1330			Courier	1/10/24	7:30
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time

Remarks:

CC: ecarroll@ensolum.com

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

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

QUESTIONS

Action 310185

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 310185
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2331720576**
Incident Name	**NAPP2331720576 L C KELLY 17 @ 30-045-31625**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-045-31625] L C KELLY #017**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	L C KELLY 17
Date Release Discovered	11/08/2023
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water 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	Cause: Equipment Failure | Tank (Any) | Produced Water | Released: 20 BBL | Recovered: 19 BBL | Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
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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State of New Mexico
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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 310185
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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: 01/31/2024

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State of New Mexico
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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 310185
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (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 1 and 5 (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)	250
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
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	01/09/2024
On what date will (or did) the final sampling or liner inspection occur	01/09/2024
On what date will (or was) the remediation complete(d)	01/09/2024
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	0
What is the estimated volume (in cubic yards) that will be remediated	0
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: 310185
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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.)	*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)	Yes
Other Non-listed Remedial Process. Please specify	No remediation needed
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: 01/31/2024

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)

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	Action Number: 310185
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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)

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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**300136**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/09/2024**
What was the (estimated) number of samples that were to be gathered	**10**
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	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	NA

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 01/31/2024

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QUESTIONS (continued)

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	Action Number: 310185
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 310185

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	None	4/8/2024