Executive Summary – Incident #nAPP2402238689

Hilcorp operations personnel identified a release at the Howell G #2 wellsite (API 30-045-60190) on 1/7/2024. During weekly site visits, operator identified an oil stain in the gravel around the tank. Upon further investigation, it was found that the tank fire tube had frozen and failed, releasing approximately 21 bbls of oil and 12 bbls of produced water to the ground. No fluids were recovered. There was no immediate danger to the public and no fire occurred because of this release.

Samples were collected to delineate the extent of impacts on the pad. Based on delineation sample results, impacted soil was removed from the pad and transported offsite for disposal. Excavation area is shown in the field sample diagrams below.

Twenty-six 5-point composite samples were collected on February 22, February 26, March 1 and March 6, 2024. Analytical results from this sampling event were below NMOCD action criteria noted in NMAC 19.15.29 Table 1. Sample results are included at the end of this summary report.

Scaled Site Map

Lat: 36.83539
Long: -107.71921

Howell G #2 Wellsite
API: 30-045-60190

Depth to groundwater determination.

BGT Siting Criteria for Howell G #2; estimated depth to groundwater is approximately 216'.

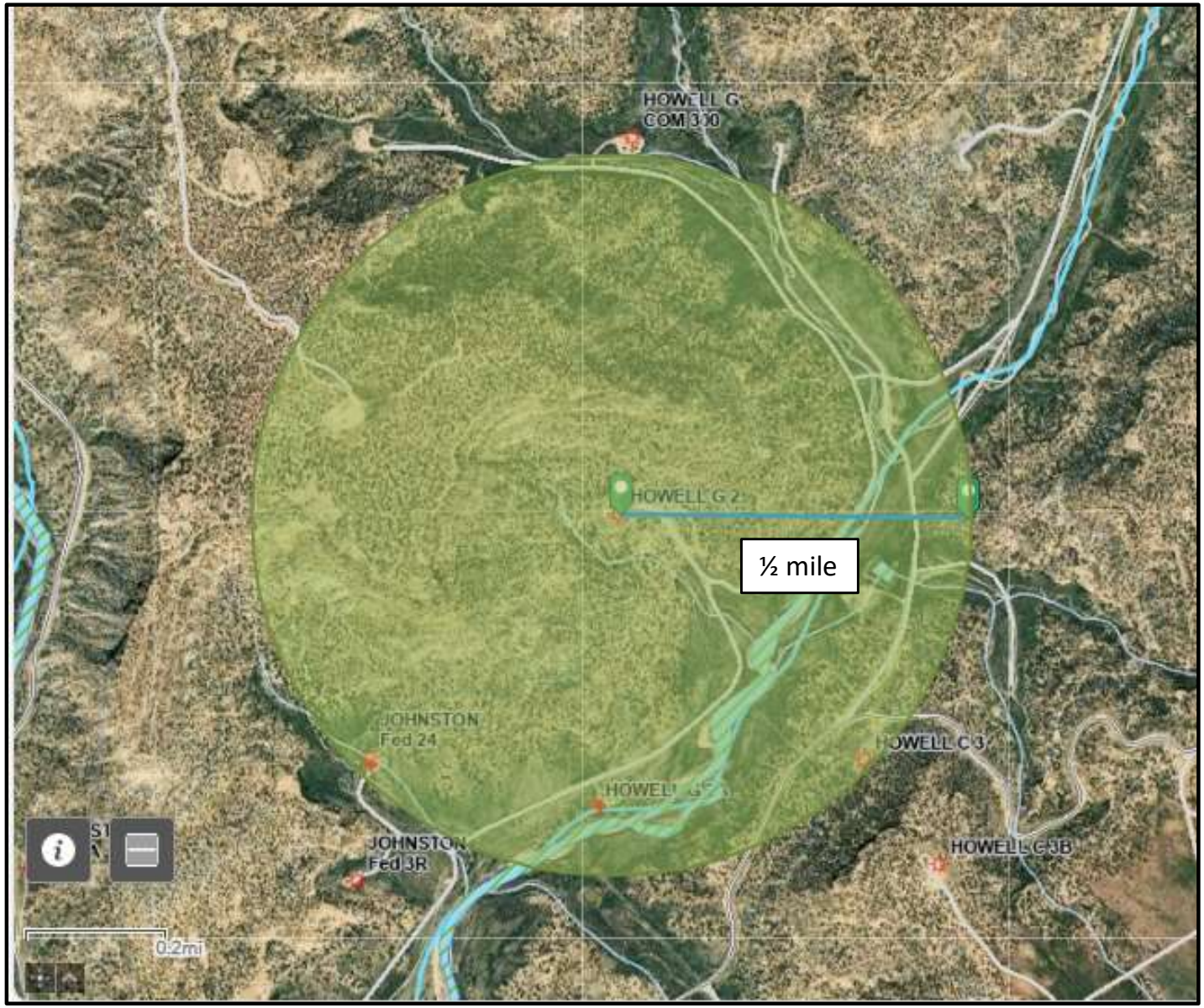
HOWELL G2

Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'HOWELL G 2', which is located at 36.83539 degrees North latitude and 107.71921 degrees West longitude. This location is located on the Archuleta 7.5' USGS topographic quadrangle. This location is in section 6 of Township 30 North Range 9 West of the Public Land Survey System (New Mexico Principal Meridian). This location is located in San Juan County, New Mexico. The nearest town is Turley, located 6.8 miles to the southwest. The nearest large town (population greater than 10,000) is Farmington, located 27.9 miles to the west (National Atlas). The nearest highway is State Highway 173, located 2.3 miles to the southeast. The location is on Private land and is 334 feet from the edge of the parcel as notated in the BLM land status layer updated January 2008. This location is in the Upper San Juan. Colorado. New Mexico, Sub-basin. This location is located 1861 meters or 6104 feet above sea level and receives 13 inches of rain each year. The vegetation at this location is classified as Inter-Mountain Basins Semi-Desert Grassland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 216 feet. This estimation is based on the data published on the New Mexico Engineer's iWaters Database website and water depth data from ConocoPhillips' cathodic wells. Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. The nearest stream is 267 feet to the south and is classified by the USGS as an intermittent stream. The nearest perennial stream is 1,251 feet to the southeast. The nearest water body is 1,699 feet to the east. It is classified by the USGS as an intermittent lake and is 0.3 acres in size. The nearest spring is 15,397 feet to the northwest. All stream, river, water body and spring information was determined as per the USGS Hydrographic Dataset (High Resolution), downloaded 3/2008. The nearest water well is 6,433 feet to the northeast. The nearest wetland is a 109.5 acre Ravine located 1,188 feet to the southeast. The slope at this location is 7 degrees to the southeast as calculated from USGS 30M National Elevation Dataset. This information is also discerned from the aerial and topographic map included. The surface geology at this location is NACIMIENTO FORMATION--Shale and sandstone with a Shale dominated formations of all ages substrate. The soil at this location is 'Rock outcrop-Travessilla-Weska complex, extremely steep' and is well drained and not hydric with severe erosion potential as taken from the NRCS SSURGO map unit, downloaded January 2008. The nearest underground mine is 13.1 miles to the northwest as indicated on the Mines, Mills and Quarries Map of New Mexico provided.

Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release



Note 1: Release point is within 300 ft of a continuously flowing watercourse or other significant water course.

Note 2: The lateral extents of the release point are not shown to be within 300 feet of a mapped wetland.

Distance to mapped water wells: mapped water wells are approximately 1.25 miles from the Howell G #2.

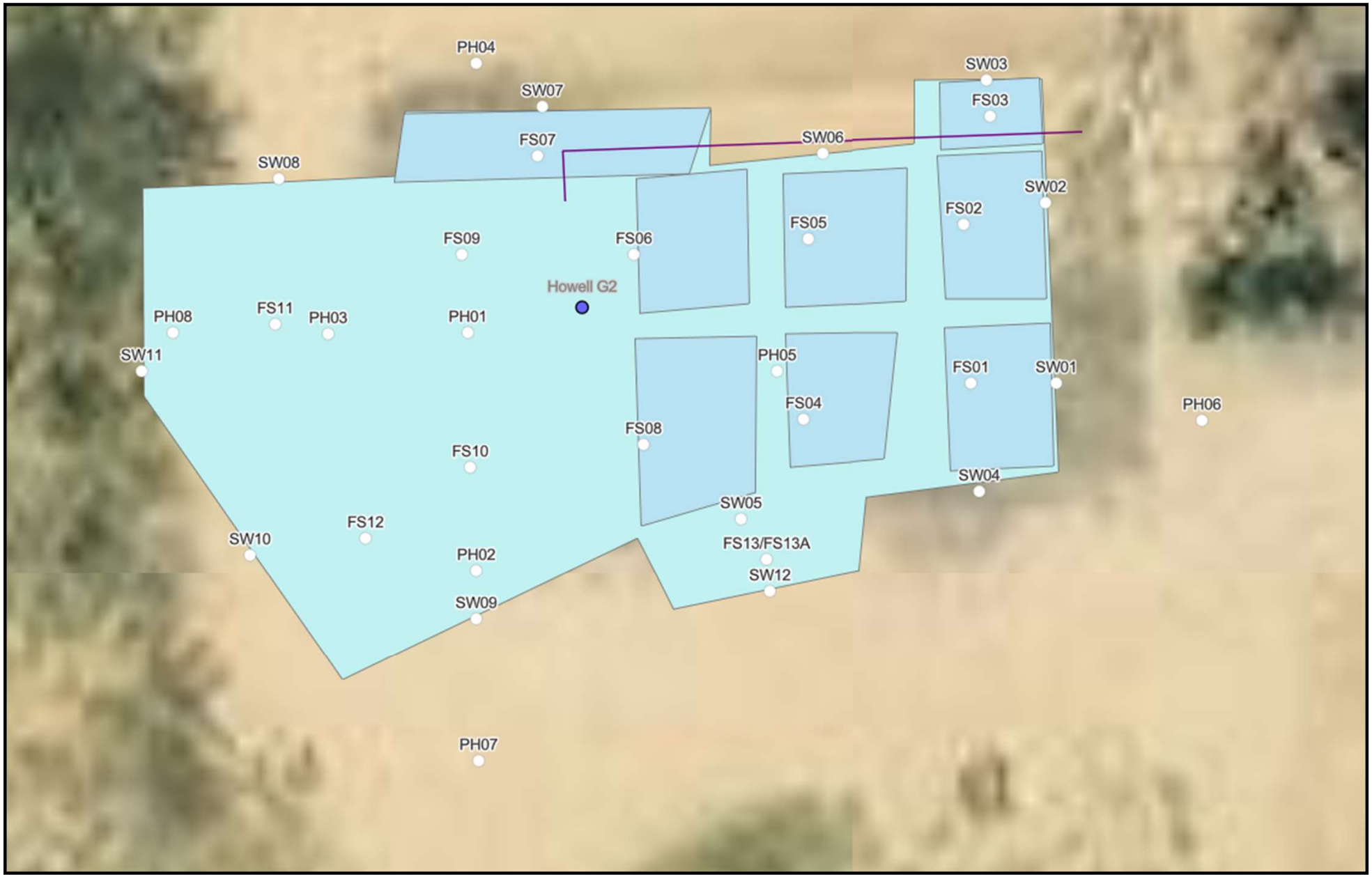
Note: The lateral extents of the release point are not shown to be within 500 ft of a spring or domestic freshwater well used by less than 5 households (or stock watering) or within 1,000 ft of any freshwater water well or spring.

Data table of soil contaminant concentrations

Sample Name	Sample Date	Howell G #2 Laboratory Results									
		Chloride (mg/kg)	TPH as DRO (mg/kg)	TPH as GRO (mg/kg)	TPH as MRO (mg/kg)	Total TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylene (mg/kg)	Total BTEX (mg/kg)
19.15.29 Table 1 Closure Criteria		**600**	-	-	-	**100**	**10**	-	-	-	**50**
FS01	2/22/2024	ND	36	ND	ND	36	ND	ND	ND	ND	ND
FS02	2/22/2024	ND	18	ND	ND	18	ND	ND	ND	ND	ND
FS03	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS04	2/22/2024	ND	14	ND	ND	14	ND	ND	ND	ND	ND
FS05	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS06	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS07	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS08	2/26/2024	ND	17	ND	ND	17	ND	ND	ND	ND	ND
FS09	2/26/2024	ND	23	ND	ND	23	ND	ND	ND	ND	ND
FS10	2/26/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS11	2/26/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS12	2/26/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW1	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW2	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW3	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW4	2/22/2024	ND	17	ND	ND	17	ND	ND	ND	ND	ND
SW5	2/22/2024	ND	260	ND	660	920	ND	ND	ND	ND	ND
SW6	2/22/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW7	2/23/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW8	2/23/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW9	2/26/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW10	2/26/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW11	2/26/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW12	3/1/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS13	3/1/2024	ND	97	ND	250	347	ND	ND	ND	ND	ND
FS13a	3/6/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

FS = Floor Sample
SW = Sidewall
Confirmation samples were collected on 2/22, 2/26, 3/1 and 3/6 by Ensolum personnel. Sidewall sample #5 was further excavated and shown to be clean at SW #12, as shown on the following site diagram. FS 13 and FS 13a are in the same location, 13a collected after impacted material was removed.

Howell G #2 Field Sample Diagram



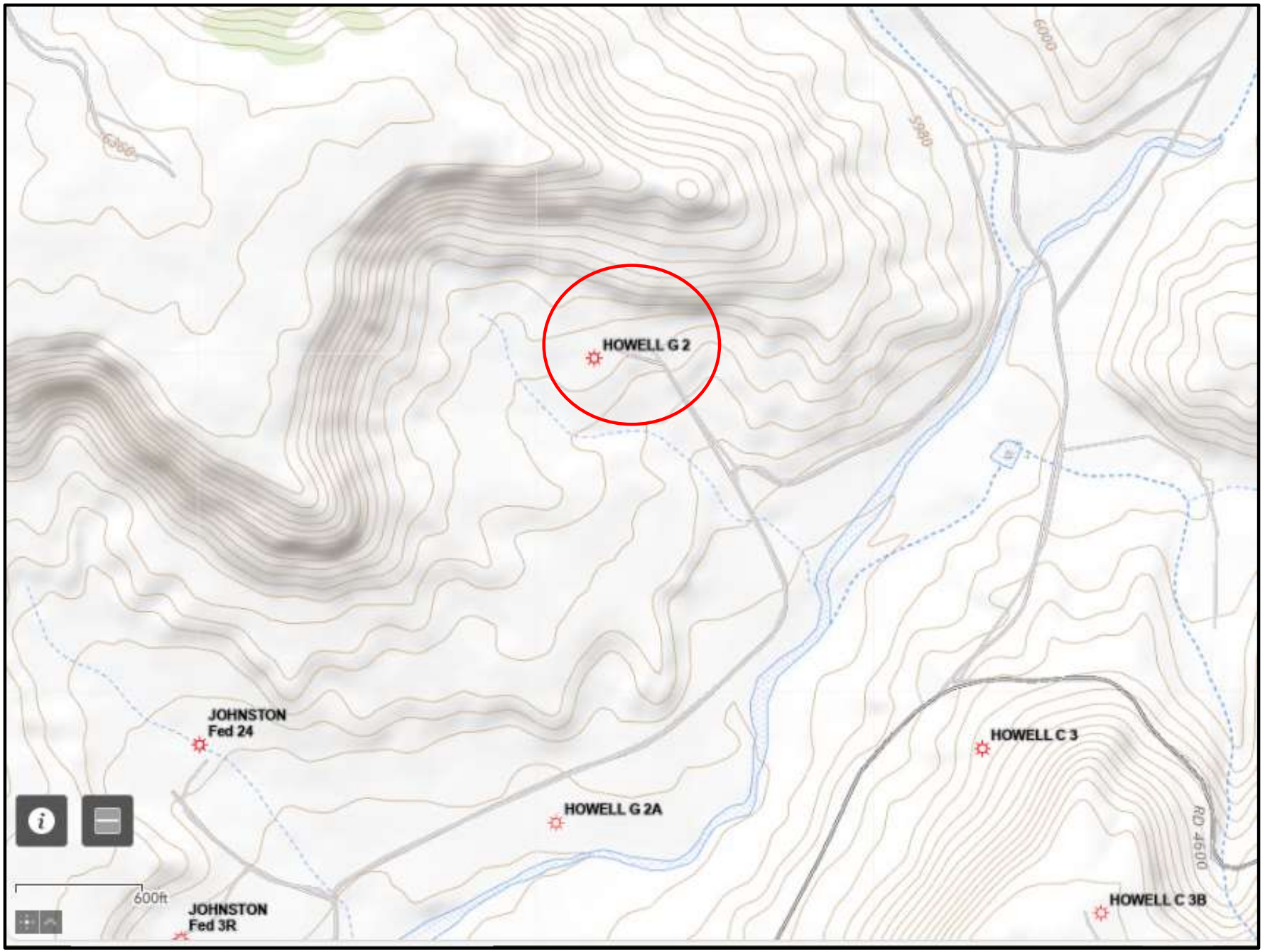
Sample Photos

Sample Photos

Sample Photos

Sample Photos

Topographic Map



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Analytical Data.

See attached Lab 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

March 01, 2024

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

RE: Howell G2 OrderNo.: 2402C28

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 7 sample(s) on 2/24/2024 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS01
Project: Howell G2
Collection Date: 2/22/2024 10:29:00 AM
Lab ID: 2402C28-001 **Matrix:** SOIL
Received Date: 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	36	9.3		mg/Kg	1	2/26/2024 1:23:01 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2024 1:23:01 PM
Surr: DNOP	89.8	61.2-134		%Rec	1	2/26/2024 1:23:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	2/26/2024 4:15:00 PM
Surr: BFB	107	15-244		%Rec	1	2/26/2024 4:15:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.021		mg/Kg	1	2/26/2024 4:15:00 PM
Toluene	ND	0.042		mg/Kg	1	2/26/2024 4:15:00 PM
Ethylbenzene	ND	0.042		mg/Kg	1	2/26/2024 4:15:00 PM
Xylenes, Total	ND	0.084		mg/Kg	1	2/26/2024 4:15:00 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	2/26/2024 4:15:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 7:56:17 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS02
Project: Howell G2
Collection Date: 2/22/2024 10:32:00 AM
Lab ID: 2402C28-002 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	2/26/2024 1:35:16 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2024 1:35:16 PM
Surr: DNOP	86.9	61.2-134		%Rec	1	2/26/2024 1:35:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	2/26/2024 4:37:00 PM
Surr: BFB	114	15-244		%Rec	1	2/26/2024 4:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.017		mg/Kg	1	2/26/2024 4:37:00 PM
Toluene	ND	0.034		mg/Kg	1	2/26/2024 4:37:00 PM
Ethylbenzene	ND	0.034		mg/Kg	1	2/26/2024 4:37:00 PM
Xylenes, Total	ND	0.068		mg/Kg	1	2/26/2024 4:37:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	2/26/2024 4:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 8:09:09 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS03
Project: Howell G2
Collection Date: 2/22/2024 10:36:00 AM
Lab ID: 2402C28-003 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2024 1:47:30 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2024 1:47:30 PM
Surr: DNOP	85.5	61.2-134		%Rec	1	2/26/2024 1:47:30 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/26/2024 5:21:00 PM
Surr: BFB	107	15-244		%Rec	1	2/26/2024 5:21:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.022		mg/Kg	1	2/26/2024 5:21:00 PM
Toluene	ND	0.044		mg/Kg	1	2/26/2024 5:21:00 PM
Ethylbenzene	ND	0.044		mg/Kg	1	2/26/2024 5:21:00 PM
Xylenes, Total	ND	0.089		mg/Kg	1	2/26/2024 5:21:00 PM
Surr: 4-Bromofluorobenzene	99.2	39.1-146		%Rec	1	2/26/2024 5:21:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 8:22:01 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	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.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS04
Project: Howell G2
Collection Date: 2/22/2024 1:01:00 PM
Lab ID: 2402C28-004 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	14	9.3		mg/Kg	1	2/26/2024 1:59:43 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2024 1:59:43 PM
Surr: DNOP	88.1	61.2-134		%Rec	1	2/26/2024 1:59:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	2/26/2024 5:43:00 PM
Surr: BFB	119	15-244		%Rec	1	2/26/2024 5:43:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.020		mg/Kg	1	2/26/2024 5:43:00 PM
Toluene	ND	0.040		mg/Kg	1	2/26/2024 5:43:00 PM
Ethylbenzene	ND	0.040		mg/Kg	1	2/26/2024 5:43:00 PM
Xylenes, Total	ND	0.080		mg/Kg	1	2/26/2024 5:43:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/26/2024 5:43:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 8:34:53 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS05
Project: Howell G2
Collection Date: 2/22/2024 1:08:00 PM
Lab ID: 2402C28-005 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2024 2:12:04 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2024 2:12:04 PM
Surr: DNOP	89.6	61.2-134		%Rec	1	2/26/2024 2:12:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	2/26/2024 6:05:00 PM
Surr: BFB	108	15-244		%Rec	1	2/26/2024 6:05:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.021		mg/Kg	1	2/26/2024 6:05:00 PM
Toluene	ND	0.043		mg/Kg	1	2/26/2024 6:05:00 PM
Ethylbenzene	ND	0.043		mg/Kg	1	2/26/2024 6:05:00 PM
Xylenes, Total	ND	0.086		mg/Kg	1	2/26/2024 6:05:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/26/2024 6:05:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 9:13:31 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS06
Project: Howell G2
Collection Date: 2/22/2024 2:41:00 PM
Lab ID: 2402C28-006 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2024 2:24:10 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2024 2:24:10 PM
Surr: DNOP	88.3	61.2-134		%Rec	1	2/26/2024 2:24:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	2/26/2024 6:26:00 PM
Surr: BFB	108	15-244		%Rec	1	2/26/2024 6:26:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.021		mg/Kg	1	2/26/2024 6:26:00 PM
Toluene	ND	0.042		mg/Kg	1	2/26/2024 6:26:00 PM
Ethylbenzene	ND	0.042		mg/Kg	1	2/26/2024 6:26:00 PM
Xylenes, Total	ND	0.084		mg/Kg	1	2/26/2024 6:26:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	2/26/2024 6:26:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 9:26:23 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS07
Project: Howell G2
Collection Date: 2/23/2024 1:45:00 PM
Lab ID: 2402C28-007 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/26/2024 2:36:45 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2024 2:36:45 PM
Surr: DNOP	96.5	61.2-134		%Rec	1	2/26/2024 2:36:45 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	2/26/2024 6:48:00 PM
Surr: BFB	106	15-244		%Rec	1	2/26/2024 6:48:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.018		mg/Kg	1	2/26/2024 6:48:00 PM
Toluene	ND	0.036		mg/Kg	1	2/26/2024 6:48:00 PM
Ethylbenzene	ND	0.036		mg/Kg	1	2/26/2024 6:48:00 PM
Xylenes, Total	ND	0.072		mg/Kg	1	2/26/2024 6:48:00 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	2/26/2024 6:48:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 9:39:16 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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#: **2402C28**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80640**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **80640**	RunNo: **103339**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822717** Units: **mg/Kg**

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

Sample ID: **LCS-80640**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **80640**	RunNo: **103339**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822718** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2402C28**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80622**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80622**	RunNo: **103335**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822456** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.2		10.00		82.1	61.2	134			

Sample ID: **LCS-80622**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80622**	RunNo: **103335**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822457** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.6	59.7	135			
Surr: DNOP	4.0		5.000		80.9	61.2	134			

Sample ID: **2402C28-007AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **FS07**	Batch ID: **80622**	RunNo: **103335**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	9.1	45.29	0	76.2	43.7	136			
Surr: DNOP	4.1		4.529		91.3	61.2	134			

Sample ID: **2402C28-007AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **FS07**	Batch ID: **80622**	RunNo: **103335**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	9.4	46.82	0	70.1	43.7	136	5.09	31.3	
Surr: DNOP	4.1		4.682		88.6	61.2	134	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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#: **2402C28**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3822975** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	70	130			
Surr: BFB	2300		1000		229	15	244			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3822976** 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	1200		1000		117	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#: **2402C28**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **BS103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3823030** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.5	70	130			
Toluene	0.97	0.050	1.000	0	96.8	70	130			
Ethylbenzene	1.0	0.050	1.000	0	101	70	130			
Xylenes, Total	3.1	0.10	3.000	0	102	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	39.1	146			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **BS103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3823031** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	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.		

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: 2402C28 RcptNo: 1

Received By: Juan Rojas 2/24/2024 7:00:00 AM

Completed By: Juan Rojas 2/24/2024 7:32:34 AM

Reviewed By: CM 2/26/24

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: JM 2/24/24

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:

Client missing mailing address, phone number, and email address on COC. JR 2/24/24

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp attn: kkaufman@hilcorp.com

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 2/27
☐ Standard ☑ Rush Next Day

Project Name: Howell G2

Project #:

Project Manager: Stuart Hyde
shyde@ensolum.com

Sampler: Zach Myers

On Ice: ☑ Yes ☐ No

# of Coolers: 1 40ml

Cooler Temp (including CF): 0.2+0.2=0.4 (°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. 2402128	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
2/22/24	1029	soil	FS01	1x4oz jar	cool	-001	X	X					X			
	1032		FS02			-002										
	1036		FS03			-003										
	1301		FS04			-004										
	1308		FS05			-005										
	1441		FS06			-006										
2/23/24	1345		FS07			-007										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
2/23/24	1541				2/23/24	1541
2/23/24	1800				2/24/24	7:00

Remarks: cc: zmyers@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.

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

March 06, 2024

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

RE: Howell G2 OrderNo.: 2402C68

Dear Stuart Hyde:

Eurofins Environment Testing South Central, LLC received 8 sample(s) on 2/27/2024 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS08
Project: Howell G2
Collection Date: 2/26/2024 12:20:00 PM
Lab ID: 2402C68-001
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	17	9.7		mg/Kg	1	2/27/2024 11:37:14 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/27/2024 11:37:14 AM
Surr: DNOP	86.6	61.2-134		%Rec	1	2/27/2024 11:37:14 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	2/27/2024 11:35:58 AM
Surr: BFB	98.8	15-244		%Rec	1	2/27/2024 11:35:58 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/27/2024 11:35:58 AM
Toluene	ND	0.051		mg/Kg	1	2/27/2024 11:35:58 AM
Ethylbenzene	ND	0.051		mg/Kg	1	2/27/2024 11:35:58 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/27/2024 11:35:58 AM
Surr: 4-Bromofluorobenzene	93.0	39.1-146		%Rec	1	2/27/2024 11:35:58 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 7:18:26 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.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS09
Project: Howell G2
Collection Date: 2/26/2024 12:24:00 PM
Lab ID: 2402C68-002
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	23	9.7		mg/Kg	1	2/27/2024 11:49:19 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/27/2024 11:49:19 AM
Surr: DNOP	90.9	61.2-134		%Rec	1	2/27/2024 11:49:19 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/27/2024 11:59:40 AM
Surr: BFB	107	15-244		%Rec	1	2/27/2024 11:59:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.019		mg/Kg	1	2/27/2024 11:59:40 AM
Toluene	ND	0.037		mg/Kg	1	2/27/2024 11:59:40 AM
Ethylbenzene	ND	0.037		mg/Kg	1	2/27/2024 11:59:40 AM
Xylenes, Total	ND	0.075		mg/Kg	1	2/27/2024 11:59:40 AM
Surr: 4-Bromofluorobenzene	93.8	39.1-146		%Rec	1	2/27/2024 11:59:40 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 7:55:27 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.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS10
Project: Howell G2
Collection Date: 2/26/2024 12:27:00 PM
Lab ID: 2402C68-003
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/27/2024 12:01:23 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2024 12:01:23 PM
Surr: DNOP	87.0	61.2-134		%Rec	1	2/27/2024 12:01:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/27/2024 12:23:27 PM
Surr: BFB	99.5	15-244		%Rec	1	2/27/2024 12:23:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.021		mg/Kg	1	2/27/2024 12:23:27 PM
Toluene	ND	0.041		mg/Kg	1	2/27/2024 12:23:27 PM
Ethylbenzene	ND	0.041		mg/Kg	1	2/27/2024 12:23:27 PM
Xylenes, Total	ND	0.083		mg/Kg	1	2/27/2024 12:23:27 PM
Surr: 4-Bromofluorobenzene	91.5	39.1-146		%Rec	1	2/27/2024 12:23:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 8:57:10 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS11
Project: Howell G2
Collection Date: 2/26/2024 12:30:00 PM
Lab ID: 2402C68-004
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/27/2024 12:13:29 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2024 12:13:29 PM
Surr: DNOP	89.2	61.2-134		%Rec	1	2/27/2024 12:13:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	2/27/2024 12:47:10 PM
Surr: BFB	99.5	15-244		%Rec	1	2/27/2024 12:47:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.022		mg/Kg	1	2/27/2024 12:47:10 PM
Toluene	ND	0.045		mg/Kg	1	2/27/2024 12:47:10 PM
Ethylbenzene	ND	0.045		mg/Kg	1	2/27/2024 12:47:10 PM
Xylenes, Total	ND	0.089		mg/Kg	1	2/27/2024 12:47:10 PM
Surr: 4-Bromofluorobenzene	92.0	39.1-146		%Rec	1	2/27/2024 12:47:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 9:09:30 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.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS12
Project: Howell G2
Collection Date: 2/26/2024 12:34:00 PM
Lab ID: 2402C68-005
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/27/2024 12:25:34 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2024 12:25:34 PM
Surr: DNOP	86.9	61.2-134		%Rec	1	2/27/2024 12:25:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	2/27/2024 1:10:54 PM
Surr: BFB	97.6	15-244		%Rec	1	2/27/2024 1:10:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/27/2024 1:10:54 PM
Toluene	ND	0.045		mg/Kg	1	2/27/2024 1:10:54 PM
Ethylbenzene	ND	0.045		mg/Kg	1	2/27/2024 1:10:54 PM
Xylenes, Total	ND	0.090		mg/Kg	1	2/27/2024 1:10:54 PM
Surr: 4-Bromofluorobenzene	92.7	39.1-146		%Rec	1	2/27/2024 1:10:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 9:21:51 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.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW09
Project: Howell G2
Collection Date: 2/26/2024 12:39:00 PM
Lab ID: 2402C68-006
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/27/2024 12:37:41 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/27/2024 12:37:41 PM
Surr: DNOP	86.3	61.2-134		%Rec	1	2/27/2024 12:37:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/27/2024 1:34:44 PM
Surr: BFB	97.1	15-244		%Rec	1	2/27/2024 1:34:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.019		mg/Kg	1	2/27/2024 1:34:44 PM
Toluene	ND	0.037		mg/Kg	1	2/27/2024 1:34:44 PM
Ethylbenzene	ND	0.037		mg/Kg	1	2/27/2024 1:34:44 PM
Xylenes, Total	ND	0.075		mg/Kg	1	2/27/2024 1:34:44 PM
Surr: 4-Bromofluorobenzene	91.9	39.1-146		%Rec	1	2/27/2024 1:34:44 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 9:34:13 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.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW10
Project: Howell G2
Collection Date: 2/26/2024 12:44:00 PM
Lab ID: 2402C68-007
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/27/2024 12:49:48 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2024 12:49:48 PM
Surr: DNOP	87.7	61.2-134		%Rec	1	2/27/2024 12:49:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	2/27/2024 1:58:36 PM
Surr: BFB	97.4	15-244		%Rec	1	2/27/2024 1:58:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.022		mg/Kg	1	2/27/2024 1:58:36 PM
Toluene	ND	0.043		mg/Kg	1	2/27/2024 1:58:36 PM
Ethylbenzene	ND	0.043		mg/Kg	1	2/27/2024 1:58:36 PM
Xylenes, Total	ND	0.086		mg/Kg	1	2/27/2024 1:58:36 PM
Surr: 4-Bromofluorobenzene	92.0	39.1-146		%Rec	1	2/27/2024 1:58:36 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 9:46:33 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW11
Project: Howell G2
Collection Date: 2/26/2024 12:49:00 PM
Lab ID: 2402C68-008
Matrix: MEOH (SOIL)
Received Date: 2/27/2024 6:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/27/2024 1:01:55 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/27/2024 1:01:55 PM
Surr: DNOP	92.8	61.2-134		%Rec	1	2/27/2024 1:01:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/27/2024 2:22:32 PM
Surr: BFB	95.7	15-244		%Rec	1	2/27/2024 2:22:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.018		mg/Kg	1	2/27/2024 2:22:32 PM
Toluene	ND	0.037		mg/Kg	1	2/27/2024 2:22:32 PM
Ethylbenzene	ND	0.037		mg/Kg	1	2/27/2024 2:22:32 PM
Xylenes, Total	ND	0.074		mg/Kg	1	2/27/2024 2:22:32 PM
Surr: 4-Bromofluorobenzene	91.5	39.1-146		%Rec	1	2/27/2024 2:22:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/27/2024 9:58:55 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical 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#: **2402C68**

06-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80665**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **80665**	RunNo: **103345**							
Prep Date: **2/27/2024**	Analysis Date: **2/27/2024**	SeqNo: **3824031**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80665**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **80665**	RunNo: **103345**							
Prep Date: **2/27/2024**	Analysis Date: **2/27/2024**	SeqNo: **3824032**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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#: **2402C68**

06-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80650**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80650**	RunNo: **103351**
Prep Date: **2/27/2024**	Analysis Date: **2/27/2024**	SeqNo: **3823081** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		91.2	61.2	134			

Sample ID: **LCS-80650**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80650**	RunNo: **103351**
Prep Date: **2/27/2024**	Analysis Date: **2/27/2024**	SeqNo: **3823082** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	59.7	135			
Surr: DNOP	4.4		5.000		88.2	61.2	134			

Sample ID: **MB-80645**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80645**	RunNo: **103351**
Prep Date: **2/26/2024**	Analysis Date: **2/27/2024**	SeqNo: **3823708** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		89.9	61.2	134			

Sample ID: **LCS-80645**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80645**	RunNo: **103351**
Prep Date: **2/26/2024**	Analysis Date: **2/27/2024**	SeqNo: **3823709** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.8	61.2	134			

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#: **2402C68**

06-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS103338**	RunNo: **103338**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822670** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	2100		1000		208	15	244			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS103338**	RunNo: **103338**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822671** 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	980		1000		98.3	15	244			

Sample ID: **2402C68-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FS08**	Batch ID: **GS103338**	RunNo: **103338**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.1	25.43	0	98.9	70	130			
Surr: BFB	2200		1017		212	15	244			

Sample ID: **2402C68-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FS08**	Batch ID: **GS103338**	RunNo: **103338**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3824293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.1	25.43	0	98.0	70	130	0.934	20	
Surr: BFB	2200		1017		213	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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#: **2402C68**

06-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R103338**	RunNo: **103338**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822674** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.8	70	130			
Toluene	0.97	0.050	1.000	0	97.1	70	130			
Ethylbenzene	0.98	0.050	1.000	0	98.3	70	130			
Xylenes, Total	3.0	0.10	3.000	0	98.9	70	130			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	39.1	146			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R103338**	RunNo: **103338**
Prep Date:	Analysis Date: **2/27/2024**	SeqNo: **3822675** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	39.1	146			

Sample ID: **2402C68-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FS09**	Batch ID: **R103338**	RunNo: **103380**
Prep Date:	Analysis Date: **2/28/2024**	SeqNo: **3825805** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.64	0.019	0.7479	0	86.1	70	130			
Toluene	0.67	0.037	0.7479	0	89.2	70	130			
Ethylbenzene	0.68	0.037	0.7479	0	91.1	70	130			
Xylenes, Total	2.1	0.075	2.244	0	91.9	70	130			
Surr: 4-Bromofluorobenzene	0.72		0.7479		96.2	39.1	146			

Sample ID: **2402C68-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FS09**	Batch ID: **R103338**	RunNo: **103380**
Prep Date:	Analysis Date: **2/28/2024**	SeqNo: **3825806** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.019	0.7479	0	88.7	70	130	3.01	20	
Toluene	0.68	0.037	0.7479	0	90.6	70	130	1.60	20	
Ethylbenzene	0.69	0.037	0.7479	0	92.9	70	130	1.95	20	
Xylenes, Total	2.1	0.075	2.244	0	94.4	70	130	2.72	20	
Surr: 4-Bromofluorobenzene	0.75		0.7479		100	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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

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: **2402C68** RcptNo: **1**

Received By: **Tracy Casarrubias** **2/27/2024 6:35:00 AM**

Completed By: **Tracy Casarrubias** **2/27/2024 6:54:30 AM**

Reviewed By: TMC 2/27/24

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: TMC 2/27/24

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:

Mailing address,phone number and Email/Fax are missing on COC- TMC 2/27/24

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp : attn Kate Kaufman
kkaufman@hilcorp.com
Mailing Address:

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

Turn-Around Time:
☐ Standard ☑ Rush next-day
Project Name: Howell G2
Project #:
Project Manager: Stuart Hyde
shyde@ensolum.com
Sampler: Zach Myers
On Ice: ☑ Yes ☐ No 4 oz jar
# of Coolers: 1
Cooler Temp(including CF): 5.4-0.1=5.3 (°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. 2402C68	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
2-26	1220	soil	FS08	4oz jar	cool	001	X	X					X			
	1224		FS09			002										
	1227		FS10			003										
	1230		FS11			004										
	1234		FS12			005										
	1239		SW04			006										
	1244		SW10			007										
	1249		SW11			008										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
2/26/24	1425	Zach Myers	[illegible]		2/26/24	1425
2/26/24	1717	[illegible]	[illegible]	Courier	2/27/24	6:35

Remarks:
cc: zmyers@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.

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

March 01, 2024

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

RE: Howell G2 OrderNo.: 2402C27

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 8 sample(s) on 2/24/2024 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW01
Project: Howell G2
Collection Date: 2/22/2024 10:06:00 AM
Lab ID: 2402C27-001 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/26/2024 11:20:54 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2024 11:20:54 AM
Surr: DNOP	83.3	61.2-134		%Rec	1	2/26/2024 11:20:54 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	2/26/2024 11:53:00 AM
Surr: BFB	112	15-244		%Rec	1	2/26/2024 11:53:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.020		mg/Kg	1	2/26/2024 11:53:00 AM
Toluene	ND	0.040		mg/Kg	1	2/26/2024 11:53:00 AM
Ethylbenzene	ND	0.040		mg/Kg	1	2/26/2024 11:53:00 AM
Xylenes, Total	ND	0.081		mg/Kg	1	2/26/2024 11:53:00 AM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	2/26/2024 11:53:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 4:56:02 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW02
Project: Howell G2
Collection Date: 2/22/2024 10:09:00 AM
Lab ID: 2402C27-002 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2024 11:33:10 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2024 11:33:10 AM
Surr: DNOP	86.0	61.2-134		%Rec	1	2/26/2024 11:33:10 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/26/2024 12:58:00 PM
Surr: BFB	110	15-244		%Rec	1	2/26/2024 12:58:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.022		mg/Kg	1	2/26/2024 12:58:00 PM
Toluene	ND	0.044		mg/Kg	1	2/26/2024 12:58:00 PM
Ethylbenzene	ND	0.044		mg/Kg	1	2/26/2024 12:58:00 PM
Xylenes, Total	ND	0.087		mg/Kg	1	2/26/2024 12:58:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	2/26/2024 12:58:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 5:34:39 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW03
Project: Howell G2
Collection Date: 2/22/2024 10:14:00 AM
Lab ID: 2402C27-003 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/26/2024 11:45:23 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/26/2024 11:45:23 AM
Surr: DNOP	86.7	61.2-134		%Rec	1	2/26/2024 11:45:23 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	2/26/2024 2:04:00 PM
Surr: BFB	111	15-244		%Rec	1	2/26/2024 2:04:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.021		mg/Kg	1	2/26/2024 2:04:00 PM
Toluene	ND	0.042		mg/Kg	1	2/26/2024 2:04:00 PM
Ethylbenzene	ND	0.042		mg/Kg	1	2/26/2024 2:04:00 PM
Xylenes, Total	ND	0.085		mg/Kg	1	2/26/2024 2:04:00 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	2/26/2024 2:04:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 6:39:05 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW04
Project: Howell G2
Collection Date: 2/22/2024 10:20:00 AM
Lab ID: 2402C27-004 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	17	9.3		mg/Kg	1	2/26/2024 11:57:29 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2024 11:57:29 AM
Surr: DNOP	89.7	61.2-134		%Rec	1	2/26/2024 11:57:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2024 2:26:00 PM
Surr: BFB	112	15-244		%Rec	1	2/26/2024 2:26:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	2/26/2024 2:26:00 PM
Toluene	ND	0.049		mg/Kg	1	2/26/2024 2:26:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2024 2:26:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/26/2024 2:26:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	2/26/2024 2:26:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 6:51:57 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW05
Project: Howell G2
Collection Date: 2/22/2024 12:52:00 AM
Lab ID: 2402C27-005 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	260	9.4		mg/Kg	1	2/26/2024 12:09:41 PM
Motor Oil Range Organics (MRO)	660	47		mg/Kg	1	2/26/2024 12:09:41 PM
Surr: DNOP	82.0	61.2-134		%Rec	1	2/26/2024 12:09:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2024 2:48:00 PM
Surr: BFB	110	15-244		%Rec	1	2/26/2024 2:48:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	2/26/2024 2:48:00 PM
Toluene	ND	0.048		mg/Kg	1	2/26/2024 2:48:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2024 2:48:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2024 2:48:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	2/26/2024 2:48:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 7:04:49 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW06
Project: Howell G2
Collection Date: 2/22/2024 12:57:00 AM
Lab ID: 2402C27-006 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 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	2/26/2024 12:34:04 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2024 12:34:04 PM
Surr: DNOP	88.9	61.2-134		%Rec	1	2/26/2024 12:34:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/26/2024 3:09:00 PM
Surr: BFB	118	15-244		%Rec	1	2/26/2024 3:09:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.021		mg/Kg	1	2/26/2024 3:09:00 PM
Toluene	ND	0.041		mg/Kg	1	2/26/2024 3:09:00 PM
Ethylbenzene	ND	0.041		mg/Kg	1	2/26/2024 3:09:00 PM
Xylenes, Total	0.15	0.082		mg/Kg	1	2/26/2024 3:09:00 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	2/26/2024 3:09:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 7:17:41 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW07
Project: Howell G2
Collection Date: 2/23/2024 1:40:00 PM
Lab ID: 2402C27-007 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 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	2/26/2024 12:46:12 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2024 12:46:12 PM
Surr: DNOP	89.0	61.2-134		%Rec	1	2/26/2024 12:46:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	2/26/2024 3:31:00 PM
Surr: BFB	109	15-244		%Rec	1	2/26/2024 3:31:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.019		mg/Kg	1	2/26/2024 3:31:00 PM
Toluene	ND	0.039		mg/Kg	1	2/26/2024 3:31:00 PM
Ethylbenzene	ND	0.039		mg/Kg	1	2/26/2024 3:31:00 PM
Xylenes, Total	ND	0.077		mg/Kg	1	2/26/2024 3:31:00 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	2/26/2024 3:31:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 7:30:33 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW08
Project: Howell G2
Collection Date: 2/23/2024 2:00:00 PM
Lab ID: 2402C27-008 **Matrix:** SOIL **Received Date:** 2/24/2024 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2024 12:58:28 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2024 12:58:28 PM
Surr: DNOP	87.2	61.2-134		%Rec	1	2/26/2024 12:58:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/26/2024 3:53:00 PM
Surr: BFB	109	15-244		%Rec	1	2/26/2024 3:53:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.022		mg/Kg	1	2/26/2024 3:53:00 PM
Toluene	ND	0.044		mg/Kg	1	2/26/2024 3:53:00 PM
Ethylbenzene	ND	0.044		mg/Kg	1	2/26/2024 3:53:00 PM
Xylenes, Total	ND	0.088		mg/Kg	1	2/26/2024 3:53:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/26/2024 3:53:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	2/26/2024 7:43:25 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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#: **2402C27**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80640**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **80640**	RunNo: **103339**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822717** Units: **mg/Kg**

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

Sample ID: **LCS-80640**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **80640**	RunNo: **103339**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822718** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2402C27**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80622**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80622**	RunNo: **103335**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822456** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.2		10.00		82.1	61.2	134			

Sample ID: **LCS-80622**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80622**	RunNo: **103335**
Prep Date: **2/26/2024**	Analysis Date: **2/26/2024**	SeqNo: **3822457** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.6	59.7	135			
Surr: DNOP	4.0		5.000		80.9	61.2	134			

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#: **2402C27**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3822975** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	70	130			
Surr: BFB	2300		1000		229	15	244			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3822976** 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	1200		1000		117	15	244			

Sample ID: **2402c27-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SW01**	Batch ID: **R103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3822978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.0	20.18	0	91.2	70	130			
Surr: BFB	1800		807.1		222	15	244			

Sample ID: **2402c27-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SW01**	Batch ID: **R103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3822979** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.0	20.18	0	92.3	70	130	1.18	20	
Surr: BFB	1800		807.1		228	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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#: **2402C27**

01-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **BS103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3823030** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.5	70	130			
Toluene	0.97	0.050	1.000	0	96.8	70	130			
Ethylbenzene	1.0	0.050	1.000	0	101	70	130			
Xylenes, Total	3.1	0.10	3.000	0	102	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	39.1	146			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **BS103349**	RunNo: **103349**
Prep Date:	Analysis Date: **2/26/2024**	SeqNo: **3823031** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	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.		

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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: 2402C27 RcptNo: 1

Received By: Juan Rojas 2/24/2024 7:00:00 AM

Completed By: Juan Rojas 2/24/2024 7:21:00 AM

Reviewed By: CMC 2/26/24

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 2/24/24

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:

Client missing mailing address, phone number and email address on COC. JR 2/24/24

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.5	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp : attn Kate Kaufman
kkaufman@hilcorp.com

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush Next Day 2/27

Project Name:
Howell G2

Project #:

Project Manager:
Stuart Hyde shyde@ensdum.com

Sampler: Zach Myers

On Ice: ☑ Yes ☐ No

# of Coolers: 1 Yes

Cooler Temp(including CF): 0.3+0.2=0.5 (°C)

HEAL No. 2402C27

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
2/22/24	1006	Soil	SW01	1x4oz jar	cool	-001	X	X					X			
	1009		SW02			-002										
	1014		SW03			-003										
	1020		SW04			-004										
	1252		SW05			-005										
	1257		SW06			-006										
2/23/24	1340		SW07			-007										
	1400		SW08			-008										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
2/23/24	1541				2/23/24	1541
2/23/24	1800			courier	2/23/24	7:00

Remarks: cc:zmyers@ensdum.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.

jw 2/24/24

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

Analysis Request

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

March 11, 2024

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

RE: Howell G2 OrderNo.: 2403055

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 2 sample(s) on 3/2/2024 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: SW12
Project: Howell G2
Collection Date: 3/1/2024 9:30:00 AM
Lab ID: 2403055-001
Matrix: MEOH (SOIL)
Received Date: 3/2/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	3/4/2024 2:19:49 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/4/2024 2:19:49 PM
Surr: DNOP	109	61.2-134		%Rec	1	3/4/2024 2:19:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/4/2024 3:38:22 PM
Surr: BFB	112	15-244		%Rec	1	3/4/2024 3:38:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.020		mg/Kg	1	3/4/2024 3:38:22 PM
Toluene	ND	0.041		mg/Kg	1	3/4/2024 3:38:22 PM
Ethylbenzene	ND	0.041		mg/Kg	1	3/4/2024 3:38:22 PM
Xylenes, Total	ND	0.082		mg/Kg	1	3/4/2024 3:38:22 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	3/4/2024 3:38:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	61		mg/Kg	20	3/4/2024 3:59:23 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS13
Project: Howell G2
Collection Date: 3/1/2024 9:40:00 AM
Lab ID: 2403055-002
Matrix: MEOH (SOIL)
Received Date: 3/2/2024 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	97	9.1		mg/Kg	1	3/4/2024 2:32:02 PM
Motor Oil Range Organics (MRO)	250	45		mg/Kg	1	3/4/2024 2:32:02 PM
Surr: DNOP	118	61.2-134		%Rec	1	3/4/2024 2:32:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	3/4/2024 4:02:07 PM
Surr: BFB	111	15-244		%Rec	1	3/4/2024 4:02:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.021		mg/Kg	1	3/4/2024 4:02:07 PM
Toluene	ND	0.042		mg/Kg	1	3/4/2024 4:02:07 PM
Ethylbenzene	ND	0.042		mg/Kg	1	3/4/2024 4:02:07 PM
Xylenes, Total	ND	0.083		mg/Kg	1	3/4/2024 4:02:07 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	3/4/2024 4:02:07 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	3/4/2024 4:14:32 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.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2403055**

11-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80760**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **80760**	RunNo: **103490**
Prep Date: **3/4/2024**	Analysis Date: **3/4/2024**	SeqNo: **3830650** Units: **mg/Kg**

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

Sample ID: **LCS-80760**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **80760**	RunNo: **103490**
Prep Date: **3/4/2024**	Analysis Date: **3/4/2024**	SeqNo: **3830651** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	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#: **2403055**

11-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **MB-80764**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80764**	RunNo: **103485**
Prep Date: **3/4/2024**	Analysis Date: **3/4/2024**	SeqNo: **3829766** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	61.2	134			

Sample ID: **LCS-80764**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80764**	RunNo: **103485**
Prep Date: **3/4/2024**	Analysis Date: **3/4/2024**	SeqNo: **3829767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.2	59.7	135			
Surr: DNOP	5.3		5.000		106	61.2	134			

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#: **2403055**

11-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3829762** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	70	130			
Surr: BFB	2300		1000		225	15	244			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3829763** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		107	15	244			

Sample ID: **2403055-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SW12**	Batch ID: **GS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3830440** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.1	20.43	0	121	70	130			
Surr: BFB	2200		817.0		267	15	244			S

Sample ID: **2403055-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SW12**	Batch ID: **GS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3830441** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.1	20.43	0	102	70	130	17.3	20	
Surr: BFB	1800		817.0		225	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of 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#: **2403055**

11-Mar-24

Client: HILCORP ENERGY

Project: Howell G2

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **BS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3829783** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	39.1	146			

Sample ID: **2403055-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FS13**	Batch ID: **BS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3830442** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.021	0.8306	0	80.8	70	130			
Toluene	0.70	0.042	0.8306	0	84.0	70	130			
Ethylbenzene	0.72	0.042	0.8306	0	86.9	70	130			
Xylenes, Total	2.2	0.083	2.492	0.01503	87.3	70	130			
Surr: 4-Bromofluorobenzene	0.84		0.8306		101	39.1	146			

Sample ID: **2403055-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FS13**	Batch ID: **BS103486**	RunNo: **103486**
Prep Date:	Analysis Date: **3/4/2024**	SeqNo: **3830443** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.021	0.8306	0	78.2	70	130	3.24	20	
Toluene	0.68	0.042	0.8306	0	82.3	70	130	2.05	20	
Ethylbenzene	0.71	0.042	0.8306	0	85.6	70	130	1.53	20	
Xylenes, Total	2.2	0.083	2.492	0.01503	86.2	70	130	1.20	20	
Surr: 4-Bromofluorobenzene	0.85		0.8306		102	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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

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: **2403055** RcptNo: 1

Received By: **Cheyenne Cason** **3/2/2024 8:00:00 AM** CM

Completed By: **Cheyenne Cason** **3/2/2024 8:27:04 AM** CM

Reviewed By: DAD 3/2/24

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: CM 3/2/24 CM 3/2/24

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	0.0	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp Energy Company

Attn: KKaufman@hilcorp.com

Mailing Address: Kate Kaufman

Phone #:

email or Fax#: KKaufman@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: next-day
☐ Standard ☑ Rush

Project Name: Howell G2

Project #:

Project Manager: S. Hyde

Sampler: Al Thomson

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(Including CF): 0.1 - 0.1 = 0.0 (°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. 2403055	BTEX / ~~MTBE / TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	~~Cl, F, Br, NO_3, NO_2, PO_4, SO_4~~	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3-1	9:30	Soil	SW12	1x 4oz	Cool	001	X	X					X			
3-1	9:40	Soil	FS13	1x 4oz	Cool	002	X	X					X			

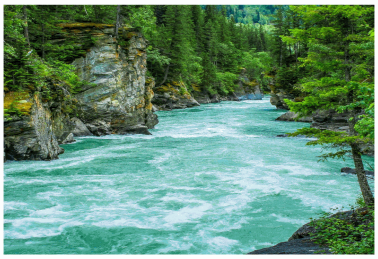
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
3-1	1100	Al Thomson	Chantel Walker		3/1/24	1100
3/1/24	1720	Chantel Walker	CMC	courier	3/2/24	0800

Remarks: Please CC:
shyde@ensolum.com
athomson@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.

Report to:

Stuart Hyde



5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

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Practical Solutions for a Better Tomorrow

Analytical Report

Ensolum, LLC

Project Name:	Howell G #2
Work Order:	E403048
Job Number:	23003-C-0001
Received:	3/6/2024

Revision: 0

Report Reviewed By:

Draft
Walter Hinchman
Laboratory Director
3/6/24

Date Reported: 3/6/24

Stuart Hyde
3122 National Parks Hwy
Carlsbad, NM 88220

Project Name: Howell G #2
Workorder: E403048
Date Received: 3/6/2024 9:56:00AM

Stuart Hyde,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/6/2024 9:56:00AM, under the Project Name: Howell G #2.

The analytical test results summarized in this report with the Project Name: Howell G #2 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

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Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Ensolum, LLC	Project Name:	Howell G #2	**Reported:**
3122 National Parks Hwy	Project Number:	23003-C-0001	
Carlsbad NM, 88220	Project Manager:	Stuart Hyde	03/06/24 16:32

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS13A	E403048-01A	Soil	03/06/24	03/06/24	Glass Jar, 4 oz.

Sample Data

Ensolum, LLC	Project Name:	Howell G #2	
3122 National Parks Hwy	Project Number:	23003-C-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Stuart Hyde	3/6/2024 4:32:59PM

FS13A

E403048-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG			Batch: 2410063
Benzene	ND	0.0250	1	03/06/24	03/06/24	
Ethylbenzene	ND	0.0250	1	03/06/24	03/06/24	
Toluene	ND	0.0250	1	03/06/24	03/06/24	
o-Xylene	ND	0.0250	1	03/06/24	03/06/24	
p,m-Xylene	ND	0.0500	1	03/06/24	03/06/24	
Total Xylenes	ND	0.0250	1	03/06/24	03/06/24	
Surrogate: 4-Bromochlorobenzene-PID		*95.3 %*	*70-130*	*03/06/24*	*03/06/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG			Batch: 2410063
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/06/24	03/06/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*87.2 %*	*70-130*	*03/06/24*	*03/06/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2410067
Diesel Range Organics (C10-C28)	ND	25.0	1	03/06/24	03/06/24	
Oil Range Organics (C28-C36)	ND	50.0	1	03/06/24	03/06/24	
Surrogate: n-Nonane		*103 %*	*50-200*	*03/06/24*	*03/06/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2410065
Chloride	ND	20.0	1	03/06/24	03/06/24	

QC Summary Data

Ensolum, LLC	Project Name:	Howell G #2	**Reported:**
3122 National Parks Hwy	Project Number:	23003-C-0001	
Carlsbad NM, 88220	Project Manager:	Stuart Hyde	3/6/2024 4:32:59PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2410065-BLK1)									Prepared: 03/06/24 Analyzed: 03/06/24
Chloride	ND	20.0							
LCS (2410065-BS1)									Prepared: 03/06/24 Analyzed: 03/06/24
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2410065-MS1)				**Source: E403043-04**					Prepared: 03/06/24 Analyzed: 03/06/24
Chloride	811	20.0	250	488	129	80-120			M2
Matrix Spike Dup (2410065-MSD1)				**Source: E403043-04**					Prepared: 03/06/24 Analyzed: 03/06/24
Chloride	677	20.0	250	488	75.7	80-120	18.0	20	M2

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Ensolum, LLC	Project Name:	Howell G #2	
3122 National Parks Hwy	Project Number:	23003-C-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Stuart Hyde	03/06/24 16:32

M2	Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

CHAIN OF CUSTODY RECORD

16227

Client:	Project Name / Location:
Ensolum, LLC.	Howell G #2
Email results to: Shyde@ensolum.com cdaponti@ensolum.com	Sampler Name: Chad Hfont
Client Phone No.: 970-903-1607	Client No.: 23003-C-0001

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	Preservative Ice	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
FS13A	3/6/24	830	E403048-01	1 4oz soil			✓	✓	✓								✓				✓	✓

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3/6/24	956	Jen Zaa	3/6/24	9:54
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix
Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

100% RUSH same Day

Temp -8.9°c AP 3/6/24
sample on Ice

envirotech
Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

Envirotech Analytical Laboratory

Printed: 3/6/2024 11:10:36AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	03/06/24 10:04	Work Order ID:	E403048
Phone:	(575) 988-0055	Date Logged In:	03/06/24 10:04	Logged In By:	Angelina Pineda
Email:	shyde@ensolum.com	Due Date:	03/06/24 17:00 (0 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Chad Ponti
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	No
8. If yes, was cooler received in good condition?	NA
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	No
13. If no visible ice, record the temperature. Actual sample temperature: 8.9°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

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

QUESTIONS

Action 333707

QUESTIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 333707
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2402238689**
Incident Name	**NAPP2402238689 HOWELL G #2 @ 30-045-60190**
Incident Type	**Release Other**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-045-60190] HOWELL G #002**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Howell G #2
Date Release Discovered	01/17/2024
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Tank (Any) | Crude Oil | Released: 21 BBL | Recovered: 0 BBL | Lost: 21 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Tank (Any) | Produced Water | Released: 12 BBL | Recovered: 0 BBL | Lost: 12 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*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: 333707
	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	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Kate Kaufman Title: Sr Environmental Specialist Email: kkaufman@hilcorp.com Date: 01/22/2024

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 333707
	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	Attached Document
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 200 and 300 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
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	Greater than 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)	0
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	36
GRO+DRO (EPA SW-846 Method 8015M)	36
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	02/22/2024
On what date will (or did) the final sampling or liner inspection occur	02/22/2024
On what date will (or was) the remediation complete(d)	03/06/2024
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	2300
What is the estimated volume (in cubic yards) that will be remediated	150
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: 333707
	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.)	Yes
Which OCD approved facility will be used for **off-site** disposal	ENVIROTECH [fSC00000000048]
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: Kate Kaufman Title: Sr Environmental Specialist Email: kkaufman@hilcorp.com Date: 04/16/2024
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: 333707
	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

District I
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 333707
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**320301**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**03/06/2024**
What was the (estimated) number of samples that were to be gathered	**1**
What was the sampling surface area in square feet	**200**

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	2300
What was the total volume (cubic yards) remediated	150
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	2300
What was the total volume (in cubic yards) reclaimed	150
Summarize any additional remediation activities not included by answers (above)	Site remediation was achieved via dig and haul of impacted soil for offsite disposal.

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: Kate Kaufman Title: Sr Environmental Specialist Email: kkaufman@hilcorp.com Date: 04/16/2024

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QUESTIONS (continued)

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 333707
	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 333707

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 333707
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	5/13/2024