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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAPP2331753209
District RP	
Facility ID	
Application ID	

I Release Notification

Responsible Party

Responsible Party Hilcorp Energy	OGRID 372171
Contact Name: Kate Kaufman	Contact Telephone: 346-237-2275
Contact email: kkaufman@hilcorp.com	Incident # *(assigned by OCD)* nAPP2331753209
Contact mailing address: 1111 Travis St. Houston, TX 77471	

Location of Release Source

Latitude 36.71249 Longitude -107.823695
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Snyder Gas Com B #1M	Site Type: Well Site
Date Release Discovered: 10/6/2023	API# *(if applicable)* 30-045-31889

Unit Letter	Section	Township	Range	County
F	19	029N	009W	San Juan

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* 4990 Road LLC)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 14.7	Volume Recovered (bbls)14.7
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Historical release discovered during the permanent removal of a below-grade tank (BGT). BGT closure sample results for TPH exceeded the closure criteria. Hilcorp conducted delineation operations and removed impacted soil to determine an estimated release volume. See attached closure summary.

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2331753209
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

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

This is a historic release and there was no active source at the time of discovery.

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

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

Printed Name: __Kate Kaufman_____ Title: __Environmental Specialist_____

Signature: Kathryn Kaufman _____ Date: __11/27/2023_____

email: __kkaufman@hilcorp.com_____ Telephone: _____346-237-2275_____

OCD Only

Received by: Shelly Wells_____ Date: 11/28/2023____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2331753209
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<50’ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2331753209
District RP	
Facility ID	
Application ID	

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

Printed Name: ____Kathryn H Kaufman_____ Title: ____Environmental Specialist_____

Signature:_____ Date: __11/27/2023_____

email: ___kkaufman@hilcorp.com_____ Telephone: __346-237-2275_____

OCD Only

Received by: Shelly Wells_____ Date: 11/28/2023_____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: ___Clara Cardoza_____ Title: ____Environmental Specialist_____

Signature: _____ Date: ___7/15/2019_____

email: __ccardoza@hilcorp.com_____ Telephone: ____505.564.0733_____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	NAPP2331753209
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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.

Printed Name: _Kathryn H. Kaufman_____ Title: _Environmental Specialist_____

Signature: _____ Date: ____11/27/2023_____

email: kkaufman@hilcorp.com_____ Telephone: _346-237-2275_____

OCD Only

Received by: _Shelly Wells_____ Date: 11/28/2023_____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Nelson Velez Date: 02/21/2024

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

Executive Summary – Incident #nAPP2331753209

Hilcorp removed a below ground tank (BGT) at the Snyder Gas Com B #1M wellsite (API 30-045-31889) on October 5, 2023. The closure sample results were above the BGT permit closure limits and above the NMOCD action criteria in NMAC 19.15.29 Table 1 for total petroleum hydrocarbons (TPH).

Five-point composite samples were collected on 10/5, 10/25, 11/2 and 11/9 to delineate the extent of impacts, removing potentially impacted soil between sampling events. Sample results are included at the end of this summary report. While delineating impacts, Hilcorp removed approximately 15 yds^3 of clean and potentially impacted soil from the excavation. Impacted material was hauled offsite for disposal.

Final analytical results from these sampling events were below NMOCD action criteria noted in NMAC 19.15.29 Table 1. The historic hydrocarbon release volume was estimated to be approximately 14.7 bbls. The release volume estimate is attached.

Scaled Site Map

Lat: 36.71249
Long: -107.823695

Snyder Gas Com B #1M Wellsite
API: 30-045-31889

Historic Release Area

N

Depth to groundwater determination.

Estimated depth to groundwater at the Snyder Gas Com B #1M wellsite is < 50'. Siting criteria is noted below for the Snyder Gas Com B #1N wellsite which is approximately 0.2 miles south of the subject wellsite.

Lodestar Services, Inc.
PO Box 4465, Durango, CO 81302

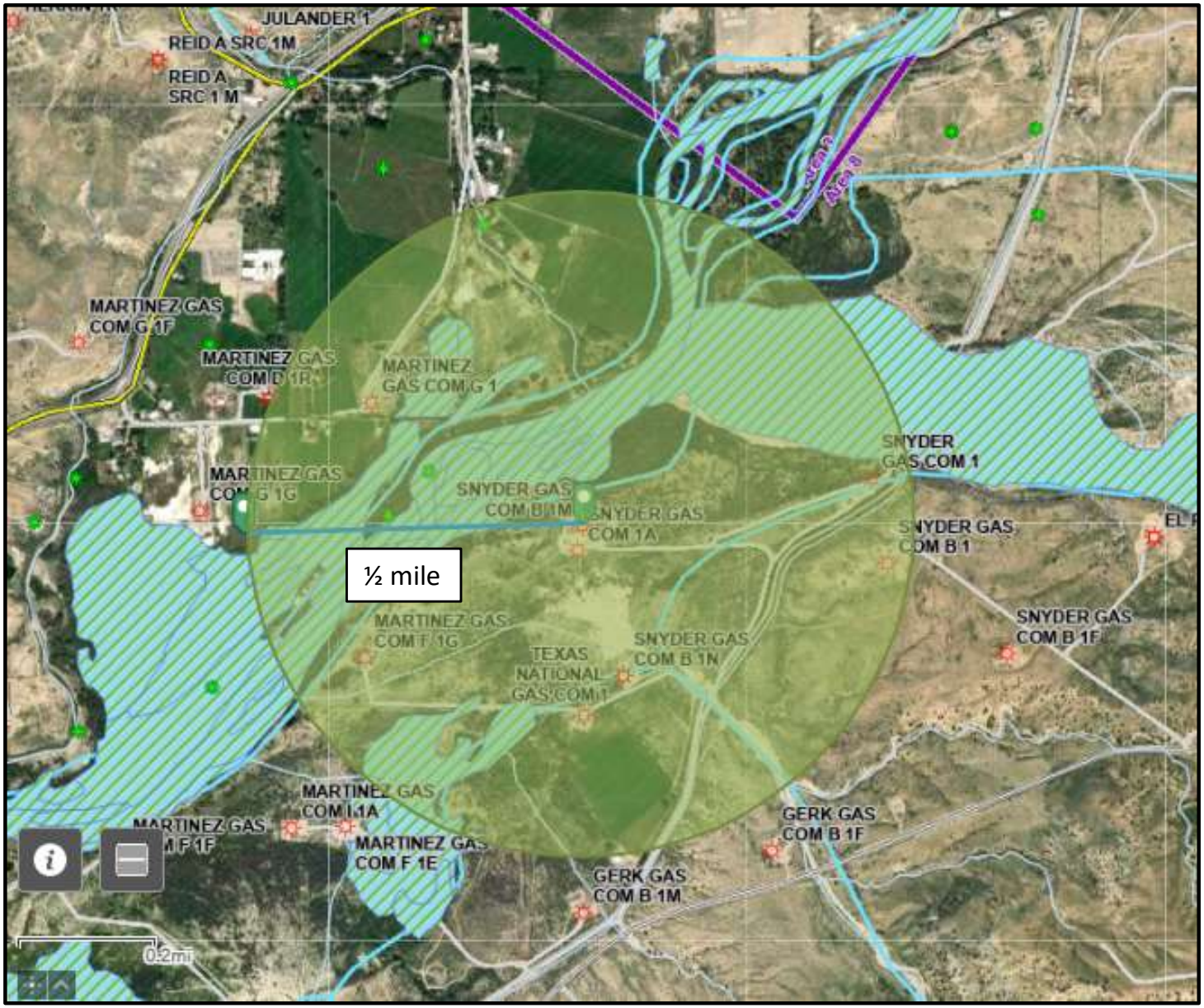
Pit Permit Siting Criteria Information Sheet

Client:	XTO Energy
Project:	Pit Permits
Revised:	21-Nov-08
Prepared by:	Brooke Herb

API#:	3004534290	USPLSS:	T29N,R09W,S19K
Name:	SNYDER GAS COM B #1N	Lat/Long:	36.70924, -107.82308
Depth to groundwater:	< 50'	Geologic formation:	Nacimiento Formation
Distance to closest continuously flowing watercourse:	1804' S of San Juan River		
Distance to closest significant watercourse, lakebed, playa lake, or sinkhole:	268' W of secondary tributary of San Juan Rivaer; 495' NW of Hammond Irrigation Ditch; 2059' SW of Largo Canyon Wash	Soil Type:	Entisols
Permanent residence, school, hospital, institution or church within 300'	No		
		Annual Precipitation:	8.71 inches (Bloomfield)
Domestic fresh water well or spring within 500'	No	Precipitation Notes:	no significant precip events
Any other fresh water well or spring within 1000'	No		
Within incorporated municipal boundaries	No	Attached Documents:	Groundwater report and Data; FEMA Flood Zone Map
Within defined municipal fresh water well field	No		Aerial Photo, Topo Map, Mines Mills and Quarries Map
Wetland within 500'	No	Mining Activity:	3677' N of a Materials Pit
Within unstable area	No		
Within 100 year flood plain	Yes- FEMA Flood Zone 'A'		

Additional Notes:

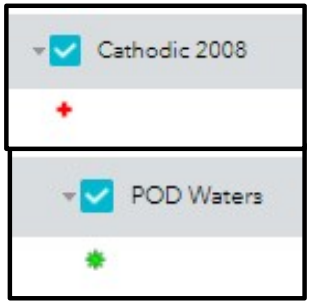
Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release



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 within 300 feet of a mapped wetland.

Distance to mapped water wells.



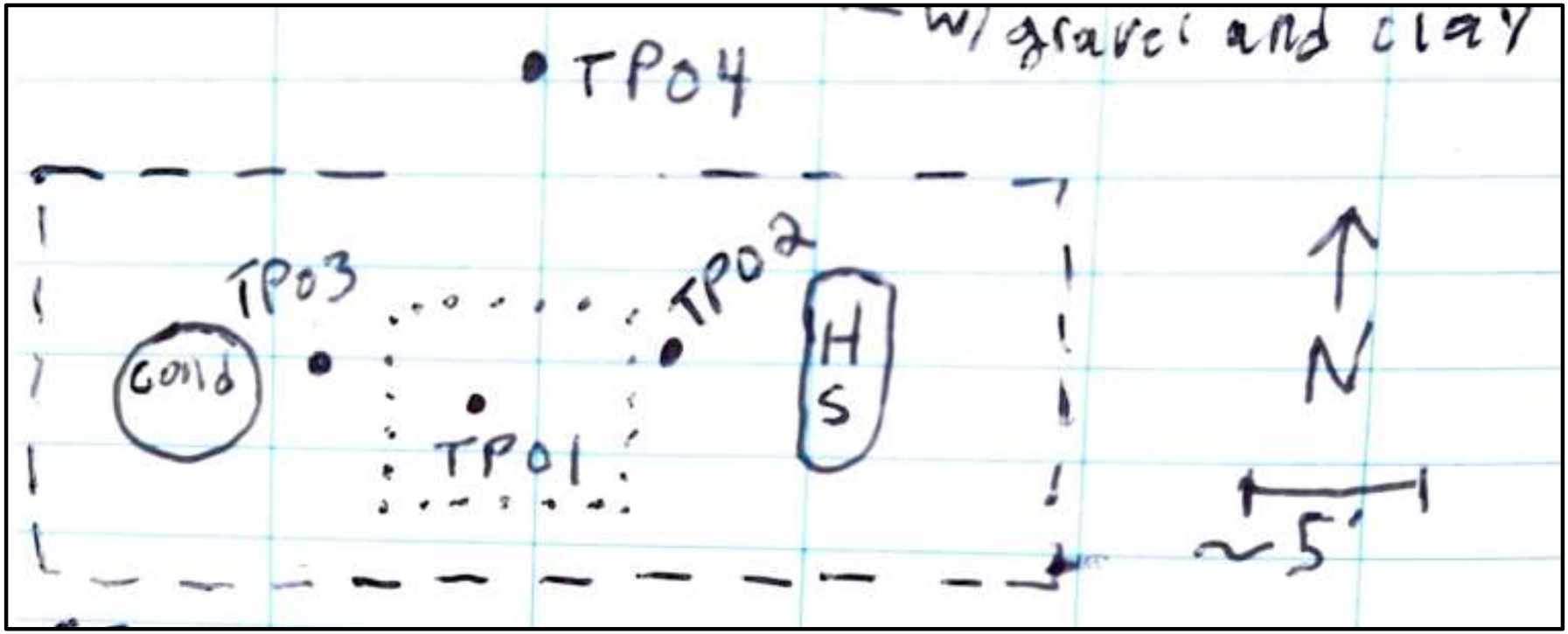
Note: The lateral extents of the release point are not shown to be within 500 ft of a spring or domestic freshwater well used by less than 5 households (or stock watering) or within 1,000 ft of any freshwater water well or spring.

Data table of soil contaminant concentrations

Sample Name	Sample Date	Snyder Gas Com B #1M 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)
BGT Permit Closure Criteria < 50'		**600**	-	-	-	**100**	**10**	-	-	-	**50**
BGT Closure	10/05/23	ND	210	ND	940	1150	ND	ND	ND	ND	ND
TP01 8'	10/25/23	ND	22	ND	150	172	ND	ND	ND	ND	ND
TP01 9'	10/25/23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP02 8'	10/25/23	ND	100	ND	ND	100	ND	ND	ND	ND	ND
TP02 9'	10/25/23	ND	82	ND	ND	82	ND	ND	ND	ND	ND
TP03 8'	10/25/23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP03 9'	10/25/23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP04 8'	10/25/23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP04 9'	10/25/23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FS01	11/02/23	ND	260	12	1700	1972	ND	ND	ND	ND	ND
FS 01 B	11/09/23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Delineation samples were collected on 10/5, 10/25, 11/2 and 11/9 by Ensolum. Samples collected on 10/25 and 11/2 were to delineate the extent of the release. Potentially impacted material was removed between sampling events for disposal. The final sample FS-01B collected on 11/9/2023 was below NMOCD 19.15.29.12.D Table 1 closure criteria. FS-01B was a five-point composite incorporating the base and shallow sidewalls. See notes on next page.

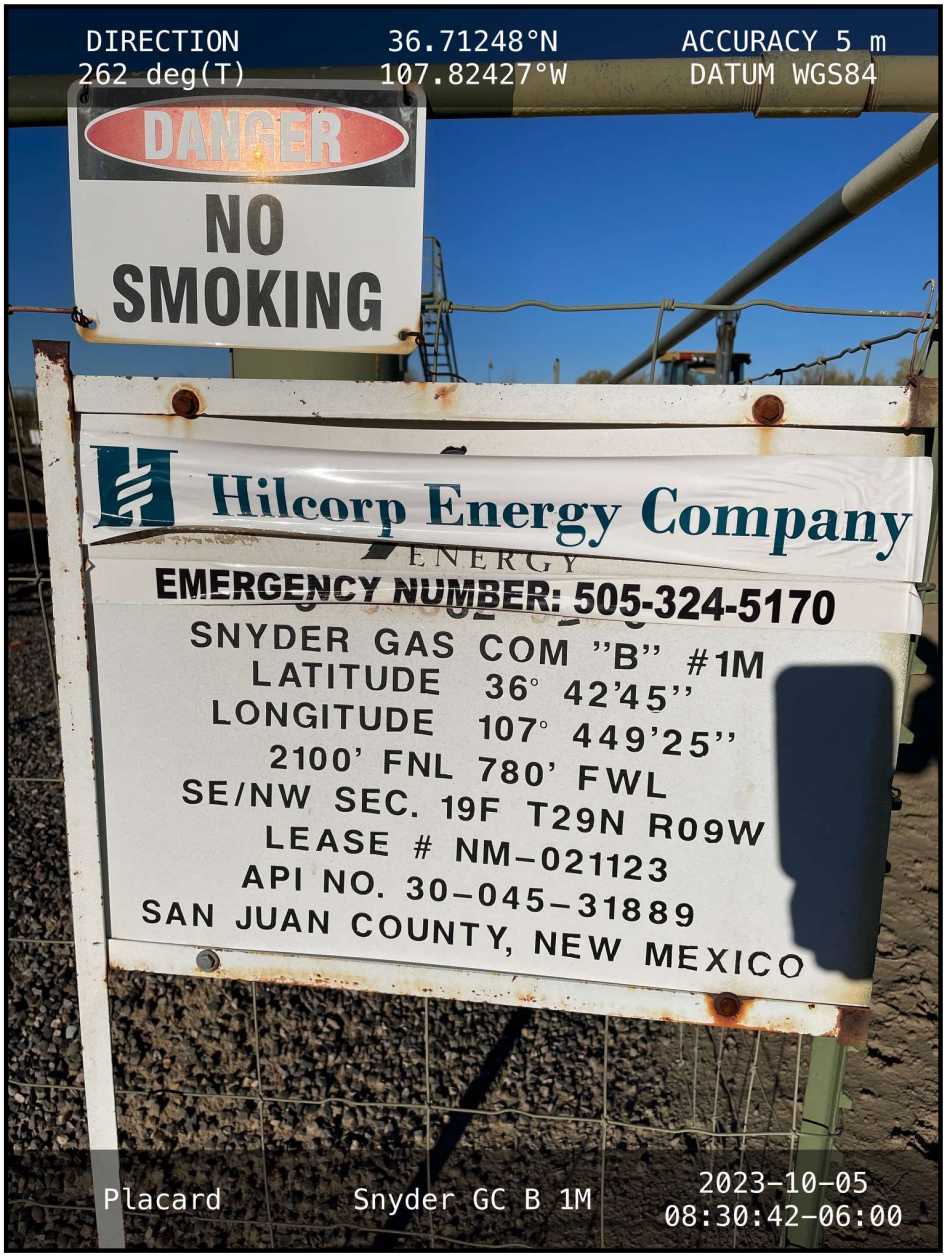
Field Sample Diagram



Delineation samples were collected on 10/5, 10/25, 11/2 and 11/9 by Ensolum. Samples collected on 10/25 and 11/2 were to delineate the extent of the release within and around the BGT excavation. Potentially impacted material was removed between sampling events for disposal. The final sample FS-01B collected on 11/9/2023 was below NMOCD 19.15.29.12.D Table 1 closure criteria. TP-01 isa floor sample.

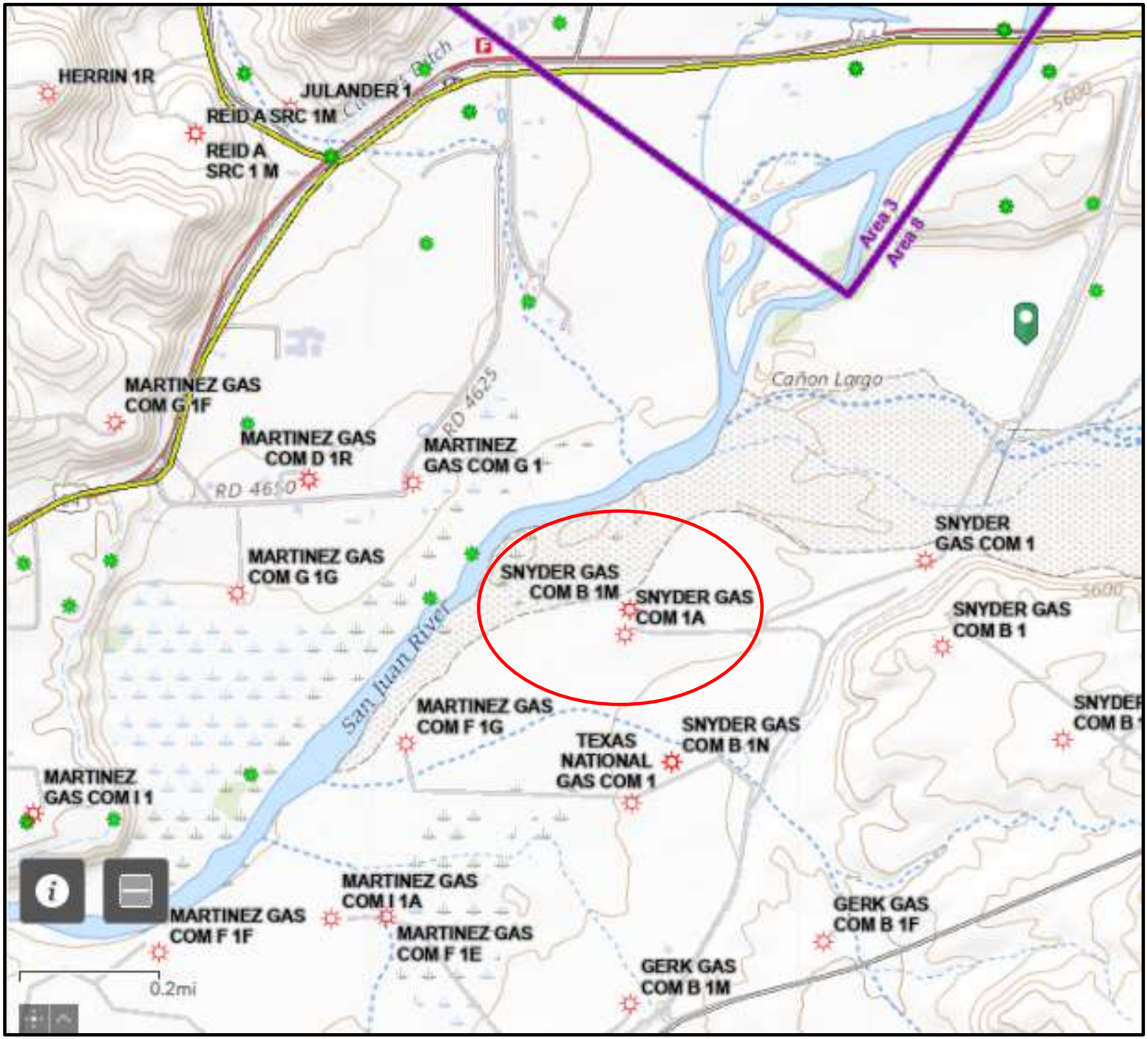
Total excavation area was approximately 160 sq. ft. and 1-2' deep. Due to the shallow nature of the excavation, sidewalls were incorporated into the base composite sample.

Sample Photos



Sample Photos

Topographic Map



N

ESTIMATED RELEASE VOLUME TOOL
SNYDER GC B 1M
HILCORP ENERGY COMPANY

This tool estimates a release volume based on the size and concentration of a dry excavation.

Instructions: Input the excavation parameters (dimensions) in red text, and the spreadsheet calculates a potential spill volume. Other parameters can be changed as appropriate.

Tool Inputs	
Soil Density	99.88473696 *lbs/ft³*
Crude Oil Density	7.093593783 *lbs/gal*

Excavation Parameters	
Average Hydrocarbon Concentration	1098.00 *mg/kg*
Length	10 *ft*
Width	16 *ft*
Depth	2.5 *ft*
Expansion Factor	0 %
Total Soil Volume	**15** ***yds³***

Choose the appropriate column for the released product

	Crude Oil/Condensate	Produced Water
Hydrocarbon Concentration (Percent)	1 %	99 %

CALCULATED SPILL VOLUME

Hydrocarbon Mass	44 *lbs*	44 *lbs*
Hydrocarbon (Release) Volume	618 *gal* **14.7** ***bbls***	6 *gal* **0** ***bbls***

Notes

% - percent	ft - feet	kg - kilograms	mg - milligrams
bbls - barrels	gal -gallons	lbs - pounds	yd - yard

Red values are variable and can be changed according to site specific information.

Analytical Data, Samples Collected 10/5, 10/25, 11/2 and 11/9.

See attached Lab Reports.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 18, 2023

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

RE: Snyder GC B 1M OrderNo.: 2310330

Dear Kate Kaufman:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/6/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2310330**
Date Reported: **10/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: Bottom Comp 7'
Project: Snyder GC B 1M
Collection Date: 10/5/2023 11:10:00 AM
Lab ID: 2310330-001 **Matrix:**
Received Date: 10/6/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	210	94		mg/Kg	10	10/11/2023 7:55:41 PM
Motor Oil Range Organics (MRO)	940	470		mg/Kg	10	10/11/2023 7:55:41 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 7:55:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2023 4:13:45 AM
Surr: BFB	93.1	15-244		%Rec	1	10/12/2023 4:13:45 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	10/12/2023 4:13:45 AM
Toluene	ND	0.050		mg/Kg	1	10/12/2023 4:13:45 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/12/2023 4:13:45 AM
Xylenes, Total	ND	0.099		mg/Kg	1	10/12/2023 4:13:45 AM
Surr: 4-Bromofluorobenzene	97.8	39.1-146		%Rec	1	10/12/2023 4:13:45 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	10/12/2023 4:52:55 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#: **2310330**

18-Oct-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **MB-78118**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **78118**	RunNo: **100419**
Prep Date: **10/12/2023**	Analysis Date: **10/12/2023**	SeqNo: **3679538** Units: **mg/Kg**

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

Sample ID: **LCS-78118**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **78118**	RunNo: **100419**
Prep Date: **10/12/2023**	Analysis Date: **10/12/2023**	SeqNo: **3679539** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2310330**

18-Oct-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **MB-78080** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **78080** RunNo: **100396**
Prep Date: **10/11/2023** Analysis Date: **10/11/2023** SeqNo: **3677210** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		115	69	147			

Sample ID: **LCS-78080** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **78080** RunNo: **100396**
Prep Date: **10/11/2023** Analysis Date: **10/11/2023** SeqNo: **3677211** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	69	147			

Sample ID: **MB-78083** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **78083** RunNo: **100396**
Prep Date: **10/11/2023** Analysis Date: **10/11/2023** SeqNo: **3677212** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		116	69	147			

Sample ID: **LCS-78083** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **78083** RunNo: **100396**
Prep Date: **10/11/2023** Analysis Date: **10/11/2023** SeqNo: **3677213** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		99.4	69	147			

Sample ID: **MB-78093** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **78093** RunNo: **100396**
Prep Date: **10/11/2023** Analysis Date: **10/11/2023** SeqNo: **3677886** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	69	147			

Sample ID: **LCS-78093** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **78093** RunNo: **100396**
Prep Date: **10/11/2023** Analysis Date: **10/11/2023** SeqNo: **3677887** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	61.9	130			
Surr: DNOP	4.7		5.000		93.4	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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#: **2310330**

18-Oct-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **lcs-78066**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **78066**	RunNo: **100376**
Prep Date: **10/10/2023**	Analysis Date: **10/11/2023**	SeqNo: **3677483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.9	70	130			
Surr: BFB	2000		1000		200	15	244			

Sample ID: **mb-78066**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **78066**	RunNo: **100376**
Prep Date: **10/10/2023**	Analysis Date: **10/11/2023**	SeqNo: **3677484** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.1	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#: **2310330**

18-Oct-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **LCS-78066**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **78066**	RunNo: **100376**
Prep Date: **10/10/2023**	Analysis Date: **10/11/2023**	SeqNo: **3677563** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	70	130			
Toluene	1.0	0.050	1.000	0	104	70	130			
Ethylbenzene	1.0	0.050	1.000	0	105	70	130			
Xylenes, Total	3.2	0.10	3.000	0	105	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	39.1	146			

Sample ID: **mb-78066**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **78066**	RunNo: **100376**
Prep Date: **10/10/2023**	Analysis Date: **10/11/2023**	SeqNo: **3677564** 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	0.99		1.000		98.7	39.1	146			

Qualifiers:

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

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2310330 RcptNo: 1

Received By: Juan Rojas 10/6/2023 7:35:00 AM

Completed By: Cheyenne Cason 10/6/2023 9:18:17 AM

Reviewed By: 10-6-23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (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: YM 10/6/23

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	0.9	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Hilcorp

Mailing Address:

Phone #:

email or Fax#: brandon.sinclair@hilcorp.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5day

Project Name: Snyder GC B 1M

Project #:

Project Manager: Kate Kaufman

Sampler: Brandon Sinclair

On Ice: ~~☐ Yes~~ ☐ No

# of Coolers: 1 Yeti

Cooler Temp(Including CF): 0.8+0.1=0.9 (°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. 2310330	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)
10-5	1110	soil	Bottom Comp 7'	4 oz jar	cool	01	✓	✓					✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10-5	1537				10/5/23	1537
10/5/23	1756			courier	10/6/23	7:35

Remarks:

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

November 06, 2023

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

RE: Snyder GC B 1M OrderNo.: 2310C90

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 8 sample(s) on 10/27/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP01@8'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 9:10:00 AM
Lab ID: 2310C90-001 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	22	9.2		mg/Kg	1	10/27/2023 7:43:02 PM
Motor Oil Range Organics (MRO)	150	46		mg/Kg	1	10/27/2023 7:43:02 PM
Surr: DNOP	104	69-147		%Rec	1	10/27/2023 7:43:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 11:08:54 AM
Surr: BFB	92.4	15-244		%Rec	1	10/30/2023 11:08:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	10/30/2023 11:08:54 AM
Toluene	ND	0.048		mg/Kg	1	10/30/2023 11:08:54 AM
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 11:08:54 AM
Xylenes, Total	ND	0.097		mg/Kg	1	10/30/2023 11:08:54 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/30/2023 11:08:54 AM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	ND	60		mg/Kg	20	10/27/2023 5:01:47 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP01@9'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 9:15:00 AM
Lab ID: 2310C90-002 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 8:24:10 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 8:24:10 PM
Surr: DNOP	113	69-147		%Rec	1	10/27/2023 8:24:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 11:32:23 AM
Surr: BFB	95.7	15-244		%Rec	1	10/30/2023 11:32:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	10/30/2023 11:32:23 AM
Toluene	ND	0.049		mg/Kg	1	10/30/2023 11:32:23 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 11:32:23 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 11:32:23 AM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	10/30/2023 11:32:23 AM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	ND	60		mg/Kg	20	10/27/2023 5:14:08 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP02@8'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 9:40:00 AM
Lab ID: 2310C90-003 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 8:35:00 PM
Motor Oil Range Organics (MRO)	100	49		mg/Kg	1	10/27/2023 8:35:00 PM
Surr: DNOP	124	69-147		%Rec	1	10/27/2023 8:35:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/30/2023 11:55:47 AM
Surr: BFB	94.0	15-244		%Rec	1	10/30/2023 11:55:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	10/30/2023 11:55:47 AM
Toluene	ND	0.049		mg/Kg	1	10/30/2023 11:55:47 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/30/2023 11:55:47 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/30/2023 11:55:47 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 11:55:47 AM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	ND	60		mg/Kg	20	10/27/2023 5:26:29 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP02@9'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 9:45:00 AM
Lab ID: 2310C90-004 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/30/2023 4:01:59 PM
Motor Oil Range Organics (MRO)	82	46		mg/Kg	1	10/30/2023 4:01:59 PM
Surr: DNOP	113	69-147		%Rec	1	10/30/2023 4:01:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/30/2023 12:19:19 PM
Surr: BFB	92.5	15-244		%Rec	1	10/30/2023 12:19:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	10/30/2023 12:19:19 PM
Toluene	ND	0.048		mg/Kg	1	10/30/2023 12:19:19 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/30/2023 12:19:19 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/30/2023 12:19:19 PM
Surr: 4-Bromofluorobenzene	99.7	39.1-146		%Rec	1	10/30/2023 12:19:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	ND	60		mg/Kg	20	10/27/2023 5:38:50 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP03@8'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 10:15:00 AM
Lab ID: 2310C90-005 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	10/27/2023 8:56:37 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/27/2023 8:56:37 PM
Surr: DNOP	110	69-147		%Rec	1	10/27/2023 8:56:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/30/2023 12:42:48 PM
Surr: BFB	96.1	15-244		%Rec	1	10/30/2023 12:42:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	10/30/2023 12:42:48 PM
Toluene	ND	0.047		mg/Kg	1	10/30/2023 12:42:48 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/30/2023 12:42:48 PM
Xylenes, Total	ND	0.093		mg/Kg	1	10/30/2023 12:42:48 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/30/2023 12:42:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	ND	59		mg/Kg	20	10/27/2023 5:51:11 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP03@9'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 10:20:00 AM
Lab ID: 2310C90-006 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/27/2023 9:07:26 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2023 9:07:26 PM
Surr: DNOP	98.1	69-147		%Rec	1	10/27/2023 9:07:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/30/2023 1:06:13 PM
Surr: BFB	95.3	15-244		%Rec	1	10/30/2023 1:06:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	10/30/2023 1:06:13 PM
Toluene	ND	0.046		mg/Kg	1	10/30/2023 1:06:13 PM
Ethylbenzene	ND	0.046		mg/Kg	1	10/30/2023 1:06:13 PM
Xylenes, Total	ND	0.092		mg/Kg	1	10/30/2023 1:06:13 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	10/30/2023 1:06:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	10/28/2023 12:36:38 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP04@8'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 10:40:00 AM
Lab ID: 2310C90-007 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2023 9:18:16 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 9:18:16 PM
Surr: DNOP	104	69-147		%Rec	1	10/27/2023 9:18:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/30/2023 1:29:37 PM
Surr: BFB	94.0	15-244		%Rec	1	10/30/2023 1:29:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	10/30/2023 1:29:37 PM
Toluene	ND	0.047		mg/Kg	1	10/30/2023 1:29:37 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/30/2023 1:29:37 PM
Xylenes, Total	ND	0.094		mg/Kg	1	10/30/2023 1:29:37 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 1:29:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	10/28/2023 12:49:02 PM

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

Qualifiers:

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

Analytical Report
Lab Order **2310C90**
Date Reported: **11/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: TP04@9'
Project: Snyder GC B 1M
Collection Date: 10/25/2023 10:43:00 AM
Lab ID: 2310C90-008 **Matrix:** SOIL **Received Date:** 10/27/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/27/2023 9:29:06 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2023 9:29:06 PM
Surr: DNOP	102	69-147		%Rec	1	10/27/2023 9:29:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/30/2023 1:53:01 PM
Surr: BFB	94.4	15-244		%Rec	1	10/30/2023 1:53:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	10/30/2023 1:53:01 PM
Toluene	ND	0.047		mg/Kg	1	10/30/2023 1:53:01 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/30/2023 1:53:01 PM
Xylenes, Total	ND	0.093		mg/Kg	1	10/30/2023 1:53:01 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/30/2023 1:53:01 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	10/28/2023 1:01:26 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.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C90**

06-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **MB-78426**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **78426**	RunNo: **100786**
Prep Date: **10/27/2023**	Analysis Date: **10/27/2023**	SeqNo: **3697349** Units: **mg/Kg**

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

Sample ID: **LCS-78426**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **78426**	RunNo: **100786**
Prep Date: **10/27/2023**	Analysis Date: **10/27/2023**	SeqNo: **3697350** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.3	90	110			

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#: **2310C90**

06-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **LCS-78420**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78420**	RunNo: **100779**
Prep Date: **10/27/2023**	Analysis Date: **10/27/2023**	SeqNo: **3697664** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	91.0	61.9	130			
Surr: DNOP	5.9		5.000		118	69	147			

Sample ID: **MB-78420**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78420**	RunNo: **100779**
Prep Date: **10/27/2023**	Analysis Date: **10/27/2023**	SeqNo: **3697666** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	69	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2310C90**

06-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **lcs-78414**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698447** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.9	70	130			
Surr: BFB	1900		1000		188	15	244			

Sample ID: **mb-78414**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698671** 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	930		1000		93.4	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#: **2310C90**

06-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **LCS-78414**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698449** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.2	70	130			
Toluene	0.93	0.050	1.000	0	93.1	70	130			
Ethylbenzene	0.94	0.050	1.000	0	94.2	70	130			
Xylenes, Total	2.8	0.10	3.000	0	94.2	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Sample ID: **mb-78414**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **78414**	RunNo: **100815**
Prep Date: **10/27/2023**	Analysis Date: **10/30/2023**	SeqNo: **3698674** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Qualifiers:

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

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2310C90 RcptNo: 1

Received By: Cheyenne Cason 10/27/2023 7:30:00 AM

Completed By: Desiree Dominguez 10/27/2023 8:28:42 AM

Reviewed By: SCM 10/26/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (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 10/27/23

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 requested 24 hour rush upon arrival. -DAD 10/27/23

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Yes	Morty		
2	2.4	Good	Yes	Morty		

Chain-of-Custody Record

Client: Hilcorp
Kate Kaufman

Mailing Address:

Phone #:

email or Fax#: kkaufman@hilcorp

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
5 day SEE
☒ Standard ☐ Rush Remarks

Project Name:
Snyder GC B#1M

Project #:

Project Manager:
Stuart Hyde
ShydeConsolum

Sampler: Al Thomson
On Ice: ☑ Yes ☐ No Monty
# of Coolers: 2 4.4 - 0.2 = 4.2
Cooler Temp(including CF): 2.6 - 0.2 = 2.4 (°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. 2310C90	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)
10/25	0910	Soil	TP01@8'	1 4oz	Cool	-001	X	X					X			
	0915		TP01@9'			-002	X	X					X			
	0940		TP02@8'			-003	X	X					X			
	0945		TP02@9'			-004	X	X					X			
	1015		TP03@8'			-005	X	X					X			
	1020		TP03@9'			-006	X	X					X			
	1040		TP04@8'			-007	X	X					X			
	1043		TP04@9'			-008	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/25/23	1245				10/24/23	1245
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/24/23	1824				10/27/23	0730

Remarks: Per Kate Kaufman update TAT to 24hrs. -DAD 10/27/23
NO MeOH kits

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.

Andy Freeman

From: Kate Kaufman <kkaufman@hilcorp.com>
Sent: Thursday, October 26, 2023 2:54 PM
To: Andy Freeman; Stuart Hyde
Subject: Samples for the Snyder GC B #1M

Importance: High

Good afternoon Andy –

Ensolum submitted samples for the Snyder Gas Com B #1M yesterday (maybe arriving today). They were on a standard TAT. Can I request a rush TAT for those samples?

Please confirm and let me know if you have any questions.

Thanks!
Kate

Kate Kaufman | Senior Environmental Specialist | Hilcorp Energy Company
O: 346-237-2275 | C: 907-244-8292 | kkaufman@hilcorp.com
1111 Travis St. | Houston | TX | 77002

24hr per Andy
DD3 10/27/23

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

November 13, 2023

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

RE: Snyder GC B1M OrderNo.: 2311161

Dear Kate Kaufman:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 11/3/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2311161**
Date Reported: **11/13/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: FS01
Project: Snyder GC B1M
Collection Date: 11/2/2023 11:20:00 AM
Lab ID: 2311161-001 **Matrix:** SOIL **Received Date:** 11/3/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	260	91		mg/Kg	10	11/3/2023 10:42:08 AM
Motor Oil Range Organics (MRO)	1700	450		mg/Kg	10	11/3/2023 10:42:08 AM
Surr: DNOP	0	69-147	S	%Rec	10	11/3/2023 10:42:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	12	3.0		mg/Kg	1	11/3/2023 11:09:00 AM
Surr: BFB	241	15-244		%Rec	1	11/3/2023 11:09:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.015		mg/Kg	1	11/3/2023 11:09:00 AM
Toluene	ND	0.030		mg/Kg	1	11/3/2023 11:09:00 AM
Ethylbenzene	ND	0.030		mg/Kg	1	11/3/2023 11:09:00 AM
Xylenes, Total	0.068	0.061		mg/Kg	1	11/3/2023 11:09:00 AM
Surr: 4-Bromofluorobenzene	110	39.1-146		%Rec	1	11/3/2023 11:09:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	ND	60		mg/Kg	20	11/3/2023 10:11:50 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical 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#: **2311161**

13-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B1M

Sample ID: **MB-78551**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **78551**	RunNo: **100947**
Prep Date: **11/3/2023**	Analysis Date: **11/3/2023**	SeqNo: **3705446** Units: **mg/Kg**

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

Sample ID: **LCS-78551**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **78551**	RunNo: **100947**
Prep Date: **11/3/2023**	Analysis Date: **11/3/2023**	SeqNo: **3705447** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	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#: **2311161**

13-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B1M

Sample ID: **LCS-78534**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78534**	RunNo: **100940**
Prep Date: **11/2/2023**	Analysis Date: **11/3/2023**	SeqNo: **3704561** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		111	69	147			

Sample ID: **LCS-78548**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78548**	RunNo: **100940**
Prep Date: **11/3/2023**	Analysis Date: **11/3/2023**	SeqNo: **3704562** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	61.9	130			
Surr: DNOP	5.6		5.000		113	69	147			

Sample ID: **MB-78534**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78534**	RunNo: **100940**
Prep Date: **11/2/2023**	Analysis Date: **11/3/2023**	SeqNo: **3704563** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.0	69	147			

Sample ID: **MB-78548**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78548**	RunNo: **100940**
Prep Date: **11/3/2023**	Analysis Date: **11/3/2023**	SeqNo: **3704564** 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	9.9		10.00		98.8	69	147			

Sample ID: **LCS-78541**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78541**	RunNo: **100940**
Prep Date: **11/2/2023**	Analysis Date: **11/3/2023**	SeqNo: **3705011** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		5.000		174	69	147			S

Sample ID: **LCS-78561**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78561**	RunNo: **100940**
Prep Date: **11/3/2023**	Analysis Date: **11/4/2023**	SeqNo: **3705013** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		111	69	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311161**

13-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B1M

Sample ID: **MB-78541**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78541**	RunNo: **100940**
Prep Date: **11/2/2023**	Analysis Date: **11/3/2023**	SeqNo: **3705015** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	14		10.00		140	69	147			

Sample ID: **MB-78561**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78561**	RunNo: **100940**
Prep Date: **11/3/2023**	Analysis Date: **11/4/2023**	SeqNo: **3705017** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.2	69	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311161**

13-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B1M

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3704570** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.6	70	130			
Surr: BFB	2300		1000		232	15	244			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3704571** 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		105	15	244			

Sample ID: **2311161-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FS01**	Batch ID: **GS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3705067** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	3.0	15.16	12.35	102	70	130			
Surr: BFB	2200		606.4		362	15	244			S

Sample ID: **2311161-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FS01**	Batch ID: **GS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3705068** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	3.0	15.16	12.35	92.2	70	130	5.51	20	
Surr: BFB	2100		606.4		349	15	244	0	0	S

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#: **2311161**

13-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B1M

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **BS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3704573** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	85.8	70	130			
Toluene	0.86	0.050	1.000	0	85.9	70	130			
Ethylbenzene	0.88	0.050	1.000	0	88.0	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.5	70	130			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	39.1	146			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **BS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3704574** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	39.1	146			

Sample ID: **2311161-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FS01**	Batch ID: **BS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3705024** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.50	0.015	0.6064	0	82.3	70	130			
Toluene	0.50	0.030	0.6064	0	82.1	70	130			
Ethylbenzene	0.52	0.030	0.6064	0.006749	84.9	70	130			
Xylenes, Total	1.6	0.061	1.819	0.06827	83.7	70	130			
Surr: 4-Bromofluorobenzene	0.67		0.6064		110	39.1	146			

Sample ID: **2311161-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FS01**	Batch ID: **BS100941**	RunNo: **100941**
Prep Date:	Analysis Date: **11/3/2023**	SeqNo: **3705025** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.50	0.015	0.6064	0	82.2	70	130	0.109	20	
Toluene	0.50	0.030	0.6064	0	82.0	70	130	0.175	20	
Ethylbenzene	0.52	0.030	0.6064	0.006749	84.7	70	130	0.314	20	
Xylenes, Total	1.6	0.061	1.819	0.06827	83.8	70	130	0.0838	20	
Surr: 4-Bromofluorobenzene	0.66		0.6064		108	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: 2311161 | RcptNo: 1

Received By: Tracy Casarrubias 11/3/2023 7:55:00 AM

Completed By: Tracy Casarrubias 11/3/2023 8:20:36 AM

Reviewed By: TM 11/3/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (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: SCM 11/3/23

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: Mailing address, phone number, and Email/Fax are missing on COC- TMC 11/3/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	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~~ 5 day ☒ Rush Same Day

Project Name: Snyder GC B1M

Project #:

Project Manager: Stuart Hyde

Sampler: Zach Myers

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 1.3-0 = 1.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2311161	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
11/2/23	1120	soil	FS01	4oz jar	cool	001	✓	✓					✓			

Analysis Request

Relinquished by:	Received by:	Via:	Date	Time
Date: 11/2/23 Time: 1230				
Date: 11/2/23 Time: 1719		Via: courier	11/3/23	7:55

Remarks: cc: zmyers@onsdm.com

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

November 17, 2023

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

RE: Snyder GC B 1M OrderNo.: 2311559

Dear Mitch Killough:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 11/10/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2311559**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY **Client Sample ID:** FS 01 B
Project: Snyder GC B 1M **Collection Date:** 11/9/2023 10:00:00 AM
Lab ID: 2311559-001 **Matrix:** MEOH (SOIL) **Received Date:** 11/10/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/10/2023 10:35:12 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/10/2023 10:35:12 AM
Surr: DNOP	125	69-147		%Rec	1	11/10/2023 10:35:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	11/10/2023 11:44:00 AM
Surr: BFB	104	15-244		%Rec	1	11/10/2023 11:44:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.017		mg/Kg	1	11/10/2023 11:44:00 AM
Toluene	ND	0.033		mg/Kg	1	11/10/2023 11:44:00 AM
Ethylbenzene	ND	0.033		mg/Kg	1	11/10/2023 11:44:00 AM
Xylenes, Total	ND	0.067		mg/Kg	1	11/10/2023 11:44:00 AM
Surr: 4-Bromofluorobenzene	99.2	39.1-146		%Rec	1	11/10/2023 11:44:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	11/13/2023 7:27:41 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical 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#: **2311559**

17-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **LCS-78715**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **78715**	RunNo: **101137**
Prep Date: **11/13/2023**	Analysis Date: **11/13/2023**	SeqNo: **3714749** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	90	110			

Sample ID: **MB-78715**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **78715**	RunNo: **101137**
Prep Date: **11/13/2023**	Analysis Date: **11/13/2023**	SeqNo: **3714750** Units: **mg/Kg**

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

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#: **2311559**

17-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **LCS-78699**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78699**	RunNo: **101089**
Prep Date: **11/10/2023**	Analysis Date: **11/10/2023**	SeqNo: **3711624** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.7	61.9	130			
Surr: DNOP	4.7		5.000		93.4	69	147			

Sample ID: **MB-78699**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78699**	RunNo: **101089**
Prep Date: **11/10/2023**	Analysis Date: **11/10/2023**	SeqNo: **3711626** 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	9.6		10.00		96.3	69	147			

Sample ID: **LCS-78701**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **78701**	RunNo: **101089**
Prep Date: **11/10/2023**	Analysis Date: **11/11/2023**	SeqNo: **3713386** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.9	69	147			

Sample ID: **MB-78701**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **78701**	RunNo: **101089**
Prep Date: **11/10/2023**	Analysis Date: **11/11/2023**	SeqNo: **3713388** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	69	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2311559**

17-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3712131** 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	93.2	70	130			
Surr: BFB	2200		1000		222	15	244			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3712132** 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		106	15	244			

Sample ID: **2311559-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FS 01 B**	Batch ID: **R101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3713259** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	3.3	16.75	0	87.4	70	130			
Surr: BFB	1500		669.8		219	15	244			

Sample ID: **2311559-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FS 01 B**	Batch ID: **R101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3713260** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	3.3	16.75	0	83.0	70	130	5.12	20	
Surr: BFB	1400		669.8		210	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#: **2311559**

17-Nov-23

Client: HILCORP ENERGY

Project: Snyder GC B 1M

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **BS101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3712135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	70	130			
Toluene	0.97	0.050	1.000	0	97.4	70	130			
Ethylbenzene	1.0	0.050	1.000	0	99.9	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.5	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **BS101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3712136** 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	0.99		1.000		98.8	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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: 2311559 RcptNo: 1

Received By: Juan Rojas 11/10/2023 7:00:00 AM

Completed By: Tracy Casarrubias 11/10/2023 7:27:44 AM

Reviewed By: CJR 11-10-23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (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 11/10/23

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: Mailing address,phone number, and Email/Fax are missng on COC- TMC 11/10/23

16. Additional remarks:

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 Energy Co.

Attn: Kate Kaufman & Mitch Killough

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: SAME DAY

☐ Standard ☒ Rush

Project Name: Snyder GC B#1M

Project #:

Project Manager: Stuart Hyde

Sampler: Danny Burns

On Ice: ☒ Yes ☐ No

# of Coolers: 1 YOGI

Cooler Temp(including CF): 0.3+0.1=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.	(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)	Chloride
11-9	1000	soil	FS 01 B	1-4oz	cool	2311559-001	X	X									X

Date: 11-9-2023 Time: 1318 Relinquished by:

Received by: Via: Date Time

Date: 11/9/23 Time: 1806 Relinquished by:

Received by: Via: courier Date Time 11/10/23 7:00

Remarks:

Kate Kaufman

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Friday, November 17, 2023 2:17 PM
To: Kate Kaufman
Subject: Re: [EXTERNAL] Snyder Gas Com B #1M BGT Closure (Incident ID nAPP2331753209).

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon Kate,

Thank you for the correspondence. OCD accepts the oversight acknowledgement and will forgo any enforcement toward its intended effect.

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

Regards,

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

From: Kate Kaufman <kkaufman@hilcorp.com>
Sent: Friday, November 17, 2023 1:00 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: [EXTERNAL] Snyder Gas Com B #1M BGT Closure (Incident ID nAPP2331753209).

Good afternoon Nelson,

I am reaching out regarding closure reporting for a historic release discovered during BGT removal operations. We closed the Snyder Gas Com B #1M BGT, delineated and ultimately remediated a historic release via dig and haul. The final closure samples were collected on 11/9. Due to an administrative oversight, Hilcorp neglected to provide the 72

hour notice required by NMOCD regulations. I apologize for this error and would like to request a waiver for the closure sampling notification.

Please let me know if you have any questions or require additional information.
Thank you,
Kate

Kate Kaufman | Senior Environmental Specialist | Hilcorp Energy Company
O: 346-237-2275 | C: 907-244-8292 | kkaufman@hilcorp.com
1111 Travis St. | Houston | TX | 77002

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

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

CONDITIONS

Action 288565

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 288565
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	2/21/2024