

**REVIEWED** By NVelez at 11:17 am, Apr 15, 2025

1. Continue further actions as stated in report.

2. Submit next quarterly report by July 15, 2025.

April 10, 2025

Mr. Nelson Velez, Environmental Specialist – Advanced New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 1<sup>st</sup> Quarter 2025 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No. NVF1718155324

Dear Mr. Velez:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to document activities conducted during the 1<sup>st</sup> quarter of 2025 (1Q25) at the Fifield 5 No. 1 (Site). The Site is a plugged well site in northeast San Juan County, New Mexico (Figures 1 through 3).

# **Environmental Setting and Site Geology**

The area immediately surrounding the Site consists of sparse vegetative cover comprised primarily of scrub brush. Area topography consists of ridges divided by shallow valleys with intermittent streams that flow south into the San Juan River. The Site is situated east of an unnamed mesa, with an average Site elevation of approximately 5,786 feet (ft). The nearest waterway is an unnamed intermittent stream located approximately 1,350 ft west of the Site. The intermittent stream empties into the San Juan River, approximately 3.4 miles south of the Site.

According to the U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS), the Site soil consists of the Gypsiorthids-Badland-Stumble complex, with 5 to 30 percent slopes. The surface layer consists of sandy loam, underlain by lithic bedrock encountered between 16 to 20 inches below ground surface (bgs). Native salinity of the soil is very slightly saline to slightly saline (2.0 to 4.0 millimhos per centimeter (mmhos/cm)).



Timberwolf Project No. HEC-190009

# Site History

# Release Event

The Fifield 5 No. 1 well has been plugged and all surface equipment removed from the Site; however, Hilcorp's Hali Meador #005R is located immediately west of the Site and remains active. Historically, the Site has consisted of a wellhead, line heater, and separator with the associated below-grade tank (BGT) for produced water, sales meter, and tank battery comprised of one above-ground storage tank (AST) and one BGT. On approximately 06/01/17, removal and closure of the BGT revealed historical contamination beneath the BGT. All surface equipment was removed, and the well was plugged and abandoned.

# Investigation and Site Characterization

Initial assessment efforts were conducted by Rule Engineering, LLC (Rule), a subcontractor of ConocoPhillips Company (ConocoPhillips). Hilcorp acquired the property in 2017 and Rule conducted additional assessments in 2018. All findings by Rule Engineering are documented in Timberwolf's *Site Characterization and Remedial Action Plan*, dated February 28, 2019. The initial assessment identified the following constituents of concern (COCs): benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbons (TPH).

On March 20, 2019, additional borings were installed at the Site to delineate petroleum hydrocarbon impacts vertically and horizontally in soil. All findings are documented in Timberwolf's *Site Characterization Report and Remedial Action Plan*, dated June 14, 2019.

# Remediation – SVE System

In 2019, Hilcorp installed a soil vapor extraction (SVE) system to treat impacted soil related to historical pit tank releases. The SVE system is comprised of 18 SVE wells, 6 vent wells, and an SVE trailer (housing: control valves, flow and vacuum gauges, manifolds, fluid-air separator, automated controls, and a vacuum pump). The system remained inoperative while awaiting a power source.

In September 2021, Hilcorp installed a power source for the SVE system. The power source is a skidmounted gas-fired motor with a pulley and belt drive apparatus to transfer power to a vacuum pump. The new vacuum pump was plumbed into the existing SVE trailer; the automation system was bypassed so that all legs remained open.

Work conducted at this Site is documented in the following reports:

- Site Characterization and Remedial Action Plan, dated 02/28/19
- Site Characterization and Remedial Action Plan, dated 07/14/19
- Status Report 1<sup>st</sup> Quarter 2020, dated 09/20/21
- Status Report 2<sup>nd</sup> Quarter 2020, dated 09/27/21
- Status Report 3<sup>rd</sup> Quarter 2020, dated 09/27/21
- Status Report 4<sup>th</sup> Quarter 2020, dated 09/27/21
- *Status Report 1<sup>sr</sup> Quarter 2021*, dated 09/27/21



- *Status Report 2<sup>nd</sup> Quarter 2021,* dated 09/27/21
- *Status Report 3<sup>rd</sup> Quarter 2021,* dated 11/01/21
- Status Report 4<sup>th</sup> Quarter 2021, dated 01/29/22
- *Status Report 1<sup>sr</sup> Quarter 2022,* dated 04/15/22
- *Status Report 2<sup>nd</sup> Quarter 2022,* dated 07/14/22
- *Status Report 3<sup>rd</sup> Quarter 2022,* dated 10/14/22
- Status Report 4<sup>th</sup> Quarter 2022, dated 01/13/23
- *Status Report 1st Quarter 2023,* dated 04/14/23
- *Status Report 2<sup>nd</sup> Quarter 2023*, dated 07/13/23
- *Status Report 3<sup>rd</sup> Quarter 2023,* dated 10/11/23
- *Status Report* 4<sup>th</sup> Quarter 2023, dated 01/08/24
- Status Report 1<sup>st</sup> Quarter 2024, dated 04/11/24
- *Status Report 2<sup>nd</sup> Quarter 2024*, dated 07/09/24
- *Status Report 3<sup>rd</sup> Quarter 2024*, dated 10/07/24
- *Status Report 4th Quarter 2024*, dated 01/10/25

# **SVE System Operations**

The SVE system is equipped with four independent legs (i.e., Leg 1, Leg 2, Leg 3, and Leg 4). Leg 1 provides vacuum to the shallow wells and Legs 2, 3, and 4 provide vacuum extraction to the deep SVE wells. System automation was incorporated in April 2024; automation was activated on 04/19/24 and programmed to oscillate between Legs 1, 2, 3, and 4 every 6 hours for continuous 24-hr operations. The SVE wells were configured as shown in Figure 4. Programmed runtimes are presented in Table 1 below.

Leg	SVE Wells and Location	Scheduled Runtime
Leg 1	Shallow SVE Wells S1, S2, S3 and S4 Central and Western side of treatment zone	6 hours
Leg 2	Deep SVE Wells W1, W5, W6, and W7 Central and Western side of treatment zone	6 hours
Leg 3	Deep SVE Wells W8, W11, W12 and W13 Southern side of treatment zone	6 hours
Leg 4	Deep SVE Wells W3, W4, W9, W10, and W14 Eastern side of treatment zone	6 hours

Table 1. P	rogrammed	Runtimes	and Leg	Configurations
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SVE – soil vapor extraction

Shallow Well Screen Interval - 7 to 10 ft.

Deep Well Screen Interval – 25 to 35 ft.

Water and condensate are recovered with a moisture separator, which is fitted with a 1-inch PVC pipe to transfer recovered fluids to an open-top tank fitted with bird netting. No water and/or condensate were recovered during 1Q25 operation and maintenance (O&M) events and sampling period. SVE system runtime for 1Q25 is documented in Table 2 below.



Date	Hour Meter
12/20/2024	364
01/15/2025	983
01/28/2025	1,295
02/17/2025	1,777
02/24/2025	1,946
03/13/2025	2,350
03/29/2025	2,739
Total Runtime	2,375

Table 2.	System	Runtime -	1Q25
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System runtime between the last 4Q24 reading (12/20/24) and the latest 1Q25 reading (03/29/25) was 2,375 hours. The total hours available during this period was 2,377.8 hours; therefore, yielding a runtime percentage (%) of 99.9 for 3Q24. Cygnet telemetry data showed continuous operation throughout the quarter. However, frozen cubic feet per minute (CFM) gauges, due to in-situ condensation and cold weather, were documented during the following operation and maintenance events: 1/15/25, 1/28/25, 2/06/25 and 2/13/25. Photographs of relevant meter readings are documented in the attached Photographic Log.

During 1Q25, Hilcorp personnel conducted five (5) operational checks for the quarter; Timberwolf personnel conducted 2 operational checks. Additionally, two (2) maintenance events were conducted to perform the following activities:

- Legs 1, 3, and 4 frozen shut, thawed with torch 1/15/2025
- System frozen on arrival, restarted heater 1/28/2025
- Repair broken PVC manifold on Legs 1 and 2 2/06/2025
- Remove water and ice from Leg 1 vacuum lines 2/13/2025

A field log of O&M events and maintenance performed is provided in the attached Table A-1.

# Collection and Analysis of Quarterly Soil-Gas Sample

On 02/17/25, a composite soil-gas sample was collected from the SVE system's four Legs. A vacuum pump was connected to the SVE trailer's sampling port, which is situated downstream of the 4-leg manifold and upstream of the air-water separator. The sampling port valve was opened once the pump was activated to purge air within the tubing between the sampling port and Tedlar<sup>®</sup> bag. After purging, the Tedlar<sup>®</sup> bag valve was opened to collect the air sample.

The soil-gas sample (i.e., SVE-1) was transported to Eurofins Albuquerque, located in Albuquerque, New Mexico. Eurofins Albuquerque analyzed the sample for volatile organic compounds (VOCs) and subcontracted other gas analyses to Energy Laboratories in Billings, Montana. All sample transfers were conducted under proper chain-of-custody protocol.



The sample was analyzed for VOCs using EPA Method 8260B, Organic Compounds (GC) by GPA 2261-95, and Gasoline Range Organics by EPA Method 8015D. The laboratory report and chain-of-custody documents are attached.

Laboratory results of constituents that exceeded laboratory detection limits are presented in Table 3; analytical results of all constituents are presented in the attached Table A-2.

Constituents	SVE-1		
Volatile Organic Compounds (mg/m <sup>3</sup> )			
Benzene	2.2		
Ethylbenzene	1.3		
Isopropyl benzene	0.22		
N-Propyl benzene	0.24		
Toluene	15		
Total Xylenes	18		
1,2,4-Trimethylbenzene	1.1		
1,3,5-Trimethylbenzene	1.1		
Gasoline Range (mg/m³)			
TPH (GC-MS) Low Fraction (i.e., GRO)	650		
Gases (Mol %)			
Oxygen	21.42		
Carbon Dioxide	0.11		

# Table 3. Quarterly Soil-Gas Analysis – 02/17/25

mg/m<sup>3</sup> – milligrams per cubic meter, equivalent to ug/L

Mol % – mole percent

TPH – total petroleum hydrocarbons GRO – gasoline range organics

GC-MS – gas chromatography-mass spectrometry

# Mass Removal

Timberwolf used the laboratory results from the soil-gas analysis (as reported in Table 3), flow rates, and runtimes to calculate constituent mass removal. Mass removal of GRO, BTEX, and associated recovered volumes for 1Q25 are presented in Table 4 below.

Table 4. Mass Removal and Associated Volume – 1Q25

Constituent	Mass Removal (kg) <sup>1</sup>	Total Mass Removed (Ibs) <sup>2</sup>	Recovered Volume (bbl)
GRO	146.9	323.1	1.20
Benzene	0.50	1.09	0.00
Toluene	3.39	7.46	0.03
Ethylbenzene	0.29	0.65	0.00
Xylenes	4.07	8.95	0.03

<sup>1</sup> Calculation = minutes ran \* CFM \* Concentration (mg/m<sup>3</sup>) \* 1 M<sup>3</sup>/35.3147 ft<sup>3</sup> \*1 g/1000 mg \* 1 kg/1000 g



<sup>&</sup>lt;sup>2</sup> Calculation = [Mass Removal] \* 2.2 lbs/kg

GRO = from TPH (GC/MS) Low Fraction (i.e., gasoline range organics)

lbs - pounds

bbl – barrel

# kg – kilograms <u>Assumptions</u>:

- API Gravity = 52
- Concentrations of VOCs in soil-gas vapors have remained static throughout the quarter
- Runtime calculations based on hour meter readings from 12/20/24 to 03/29/25 and Cygnet telemetry data.

# **Summary**

System runtime during 1Q25 was 99.9 % based on hour meter reading between 12/20/24 and 3/29/25; Cygnet telemetry data showed continuous operation throughout the quarter. System maintenance included thawing CFM gauges and manifold hardware, resetting the heater, repairing broken PVC manifold for Legs 1 and 2, and removing water and ice from Leg 1 vacuum lines.

During 1Q25, no water and/or condensate were recovered during O&M events. Additionally, mass removal calculations indicated the following recovery during the quarter:

- 1.20 bbl of GRO
- 0.00 lbs of benzene
- 0.03 lbs of toluene
- 0.00 lbs of ethylbenzene
- 0.03 lbs of xylenes.

# Further Actions - 2<sup>nd</sup> Quarter 2025

During 2Q25, the following activities are planned for the Site:

- Conduct bi-weekly Site O&M to ensure proper system function and drain any water/condensate accumulation in the moisture separator as needed
- A Site visit by Timberwolf personnel to ensure system automation is functioning properly
- Collect a quarterly soil-gas sample for laboratory analysis
- Conduct a soil monitoring event to evaluate remediation status of subsurface soil
- Prepare a 2Q25 status report.

If you have any questions regarding this report, please call us at (979) 324-2139.

Sincerely, Timberwolf Environmental, LLC

Brandon Wiesinger Staff Scientist

Attachments: Figures Attached Tables

for that

Jim Foster President



> Photographic Log Laboratory Report and Chain-of-Custody Documents

cc: Mitch Killough, Hilcorp Energy Company



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Figures









**Attached Tables** 

# Table A-1. Operation and Maintenance EventsStatus Report - 1st Quarter 2025Fifield 5 No. 1 (OCD Incident No. NVF1718155324)San Juan County, New Mexico

Date	Hour Meter (hrs)	Water/Condenstate Recovered (gal)	Maintenance Performed	
01/15/25	983	0	<ul> <li>Met with Jim &amp; Chris of Timberwolf. Legs 1, 3, and 4 frozen shut, thawed with torch.</li> <li>Freezing likely due to fan being on (vented warm air from trailer).</li> </ul>	
01/28/25	1,295	0	System frozen on arrival, restarted heater.	
02/06/25		0	Brandon Sinclair with Hilcorp repaired Legs 1 and 2.	
02/13/25		0	Timberwolf personel removed water and ice from Leg 1 vacuum lines.	
02/17/25	1,777	0	Brandon Sinclair with Hilcorp performed SVE system O&M checks.	
02/24/25	1,946	0	Brandon Sinclair with Hilcorp performed SVE system O&M checks.	
03/13/25	2,350	0	Brandon Sinclair with Hilcorp performed SVE system O&M checks.	
03/29/25	2,739	0	Brandon Sinclair with Hilcorp performed SVE system O&M checks.	



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# Table A-2. Soil-Gas Analysis - 02/17/25 Status Report - 1st Quarter 2025 Fifield 5 No. 1 (OCD Incident No. NVF1718155324) San Juan County, New Mexico

Constituents	SVE-1			
Volatiles (µg/m³)				
Acetone	< 2,000			
Benzene	2,200			
Bromodichloromethane	< 200			
Bromoform	< 200			
Bromomethane	< 600			
Carbon disulfide	< 2,000			
Carbon tetrachloride	< 200			
Chlorobenzene	< 200			
Chloroethane	< 400			
Chloroform	< 200			
Chloromethane	< 600			
2-Chlorotoluene	< 200			
Dibromochloromethane	< 200			
1,2-Dibromoethane	< 200			
1,2-Dichlorobenzene	< 200			
1,3-Dichlorobenzene	< 200			
1,4-Dichlorobenzene	< 200			
1,2-Dichloroethane	< 200			
1,1-Dichloroethane	< 200			
1,1-Dichloroethene	< 200			
1,1-Dichloropropene	< 200			
cis-1,2-Dichloroethene (cis-1,2-DCE)	< 200			
trans-1,2-Dichloroethene (trans-1,2-DCE)	< 200			
1,2-Dichloropropane	< 400			
1,2-Dibromo-3-Chloropropane	< 400			
cis-1,3-Dichloropropene	< 200			
trans-1,3-Dichloropropene	< 200			
Ethylbenzene	1,300			
Trichlorofluoromethane	< 200			
Dichlorodifluoromethane	< 200			
Hexachloro-1,3-butadiene	< 200			
Isopropylbenzene	220			
Methylene Chloride	< 600			
n-Propylbenzene	240			
2-Butanone (MEK)	< 200			
4-Methyl-2-pentanone (MIBK)	< 2000			
Methyl-tert-butyl Ether (MTBE)	< 2,000			
Naphthalene	< 400			



# Table A-2. Soil-Gas Analysis - 02/17/25 Status Report - 1st Quarter 2025 Fifield 5 No. 1 (OCD Incident No. NVF1718155324) San Juan County, New Mexico

Constituents	SVE-1	
Styrene	< 200	
1,1,1,2-Tetrachloroethane	< 200	
1,1,2,2-Tetrachloroethane	< 400	
Toluene	15,000	
1,1,1-Trichloroethane	< 200	
1,1,2-Trichloroethane	< 100	
1,2,3- Trichloropropane	< 200	
1,2,4-Trichlorobenzene	< 200	
1,2,4-Trimethylbenzene	1,100	
1,3,5-Trimethylbenzene	1,100	
Vinyl chloride	< 200	
Total Xylenes	18,000	
Gasoline Range (µg/m³)		
Gasoline Range Organics (GRO)	650,000	
Gases (Mol %)		
Oxygen	21.42	
Carbon Dioxide	0.11	
Methane	< 0.01	

µg/m<sup>3</sup> – micrograms per cubic meter

Mol % - mole percent



Photographic Log



# PHOTOGRAPHIC LOG

Project No.:	HEC-190009		Client:	Hilcorp E	nergy Company
Project Name:	Fifield 5 No. 1		Site Location:	San Juar	n County, New Mexico
Task Description:	Status Report -	- 1st Quarter 2025	Date:	January -	– March, 2025
Photo No.: 1 Direction: N/A Comments: View of hour meter on 12/20/24.		DIRECTION 36 156 deg(T) 108	.74983°N         ACCU           3.01958°W         DAT	JRACY 4 m UM WGS84	
		GAS TACH &	HOURMETER LOURMETER	24-12-20 7:38-07:00	
Photo No.:		DIRECTION 36	.74986°N ACCL	JRACY 4 m	
2		100 deg(1) 100	2.01939 W DAT	UM WG384	
<b>Direction:</b> N/A			à.	1	
Comments: View of hour meter on 01/15/25.		Garme Select	Tiny- Tach Basa & HOURMETER	25-01-15	

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# PHOTOGRAPHIC LOG

Project No.:	HEC-190009	Client:	Hilcorp Energy Company
Project Name:	Fifield 5 No. 1	Site Location:	San Juan County, New Mexico
Bhoto No.:		Date.	January – March, 2025
3 Direction:		-	- Linnand -
N/A		A al	
<b>Comments:</b> Leg 1 - Broken manifold below gate valve due ot frozen moisture, (second from left). Line isolated by closing gate valve. Photo taken on 01/24/25. Repairs made on 02/06/25.			The second se
Photo No.:         4         Direction:         N/A         Comments:         Leg 2, crack in         PVC manifold         above far left gate         valve.         Photo Taken on         01/24/25.         Repairs made on         02/06/25.			

HEC-190009

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# PHOTOGRAPHIC LOG

Project No.:	HEC-190009		Client:	Hilcorp Energy Company
Project Name:	Fifield 5 No. 1		Site Location:	San Juan County, New Mexico
Task Description:	Status Report -	- 1st Quarter 2025	Date:	January – March, 2025
Photo No.: 5		DIRECTION 160 deg(T)	36.74985°N 4 108.01954°W	ACCURACY 4 m DATUM WGS84
Direction: N/A				
Comments: View of hour meter on 01/28/25.		Contraction SELECT Contraction SELECT Contraction SELECT	T T T T T T T T T T T T T T T T T T T	
Photo No.:		DIRECTION	10 36.74981°N	2025-01-28 0:27:24-07:00 ACCURACY 4 m
6 Direction:		138 deg(T)	108.01955°W	DATUM WGS84
Comments: View of hour meter on 02/17/25.		GASTAC	ct liny- Tach H & HOURMETER	2025-02-17 ::44:59-07:00

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# PHOTOGRAPHIC LOG





# PHOTOGRAPHIC LOG

Project No.:	HEC-190009	Client:	Hilcorp Energy Company
Project Name:	Fifield 5 No. 1	Site Location:	San Juan County, New Mexico
Task Description:	Status Report – 1st Quarter 2025	Date:	January – March, 2025
<b>Photo No.:</b> 9	DIRECTION 180 deg(T)	36.74980°N A 108.01960°W	CCURACY 4 m DATUM WGS84
Direction: N/A		#	
Comments: View of hour meter on 03/29/25.	GAS TA	ECT LINY-LACH BABBB CH & HOURMETER	2025-03-29 :16:58-06:00

HEC-190009

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Laboratory Report and Chain-of-Custody Documents

Received by OCD: 4/15/2025 9:32:00 AM



**Environment Testing** 

# **ANALYTICAL REPORT**

# **PREPARED FOR**

Attn: Mitch Killough Hilcorp Energy PO BOX 4700 Farmington, New Mexico 87499 Generated 3/6/2025 1:59:03 PM

# **JOB DESCRIPTION**

Fifield S #1

# **JOB NUMBER**

885-20086-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

See page two for job notes and contact information.

# **Eurofins Albuquerque**

**Job Notes** 

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Juhelle (parica

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Authorized for release by Michelle Garcia, Project Manager michelle.garcia@et.eurofinsus.com (505)345-3975

Laboratory Job ID: 885-20086-1

2 3

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# **Definitions/Glossary**

Client: Hilcorp Energy Project/Site: Fifield S #1 Job ID: 885-20086-1

Glossary		2
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
ф	Listed under the "D" column to designate that the result is reported on a dry weight basis	Δ
%R	Percent Recovery	
CFL	Contains Free Liquid	5
CFU	Colony Forming Unit	J
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	8
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	9
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

TNTC Too Numerous To Count

# **Case Narrative**

Job ID: 885-20086-1

# Job ID: 885-20086-1

# **Eurofins Albuquerque**

#### Job Narrative 885-20086-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these
  situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise
  specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The sample was received on 2/18/2025 7:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

#### Subcontract Work

Method Fixed Gases: This method was subcontracted to Energy Laboratories, Inc. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

#### Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 885-20086-1

#### Client: Hilcorp Energy Project/Site: Fifield S #1

**Client Sample ID: SVE-1** 

# Date Collected: 02/17/25 13:00

# Lab Sample ID: 885-20086-1

Matrix: Air

Date Received: 02/18/25 07:20 Sample Container: Tedlar Bag 1L

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	650		10	ug/L			02/21/25 15:22	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		52 - 172		-		02/21/25 15:22	2
Method: SW846 8260B - Volatile	e Organic Comp	ounds (GC	/MS)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.20	ug/L			02/21/25 15:22	2
1,1,1-Trichloroethane	ND		0.20	ug/L			02/21/25 15:22	2
1,1,2,2-Tetrachloroethane	ND		0.40	ug/L			02/21/25 15:22	2
1,1,2-Trichloroethane	ND		0.20	ug/L			02/21/25 15:22	2
1,1-Dichloroethane	ND		0.20	ug/L			02/21/25 15:22	2
1,1-Dichloroethene	ND		0.20	ug/L			02/21/25 15:22	2
1,1-Dichloropropene	ND		0.20	ug/L			02/21/25 15:22	2
1,2,3-Trichlorobenzene	ND		0.20	ug/L			02/21/25 15:22	2
1,2,3-Trichloropropane	ND		0.40	ug/L			02/21/25 15:22	2
1,2,4-Trichlorobenzene	ND		0.20	ug/L			02/21/25 15:22	2
1,2,4-Trimethylbenzene	1.1		0.20	ug/L			02/21/25 15:22	2
1,2-Dibromo-3-Chloropropane	ND		0.40	ug/L			02/21/25 15:22	2
1,2-Dibromoethane (EDB)	ND		0.20	ug/L			02/21/25 15:22	2
1,2-Dichlorobenzene	ND		0.20	ug/L			02/21/25 15:22	2
1,2-Dichloroethane (EDC)	ND		0.20	ug/L			02/21/25 15:22	2
1,2-Dichloropropane	ND		0.20	ug/L			02/21/25 15:22	2
1,3,5-Trimethylbenzene	1.1		0.20	ug/L			02/21/25 15:22	2
1,3-Dichlorobenzene	ND		0.20	ug/L			02/21/25 15:22	2
1,3-Dichloropropane	ND		0.20	ug/L			02/21/25 15:22	2
1,4-Dichlorobenzene	ND		0.20	ug/L			02/21/25 15:22	2
1-Methylnaphthalene	ND		0.80	ug/L			02/21/25 15:22	2
2,2-Dichloropropane	ND		0.40	ug/L			02/21/25 15:22	2
2-Butanone	ND		2.0	ug/L			02/21/25 15:22	2
2-Chlorotoluene	ND		0.20	ug/L			02/21/25 15:22	2
2-Hexanone	ND		2.0	ug/L			02/21/25 15:22	2
2-Methylnaphthalene	ND		0.80	ug/L			02/21/25 15:22	2
4-Chlorotoluene	ND		0.20	ug/L			02/21/25 15:22	2
4-Isopropyltoluene	ND		0.20	ug/L			02/21/25 15:22	2
4-Methyl-2-pentanone	ND		2.0	ug/L			02/21/25 15:22	2
Acetone	ND		2.0	ug/L			02/21/25 15:22	2
Benzene	2.2		0.20	ug/L			02/21/25 15:22	2
Bromobenzene	ND		0.20	ug/L			02/21/25 15:22	2
Bromodichloromethane	ND		0.20	ug/L			02/21/25 15:22	2
Dibromochloromethane	ND		0.20	ug/L			02/21/25 15:22	2
Bromoform	ND		0.20	ug/L			02/21/25 15:22	2
Bromomethane	ND		0.60	ug/L			02/21/25 15:22	2
Carbon disulfide	ND		2.0	ug/L			02/21/25 15:22	2
Carbon tetrachloride	ND		0.20	ug/L			02/21/25 15:22	2
Chlorobenzene	ND		0.20	ug/L			02/21/25 15:22	2
Chloroethane	ND		0.40	ug/L			02/21/25 15:22	2
Chloroform	ND		0.20	ua/L			02/21/25 15:22	2

Job ID: 885-20086-1

# Lab Sample ID: 885-20086-1

Matrix: Air

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Client Sample ID: SVE-1 Date Collected: 02/17/25 13:00 Date Received: 02/18/25 07:20 Sample Container: Tedlar Bag 1L

Client: Hilcorp Energy

Project/Site: Fifield S #1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		0.60	ug/L		· ·	02/21/25 15:22	2
cis-1,2-Dichloroethene	ND		0.20	ug/L			02/21/25 15:22	2
cis-1,3-Dichloropropene	ND		0.20	ug/L			02/21/25 15:22	2
Dibromomethane	ND		0.20	ug/L			02/21/25 15:22	2
Dichlorodifluoromethane	ND		0.20	ug/L			02/21/25 15:22	2
Ethylbenzene	1.3		0.20	ug/L			02/21/25 15:22	2
Hexachlorobutadiene	ND		0.20	ug/L			02/21/25 15:22	2
Isopropylbenzene	0.22		0.20	ug/L			02/21/25 15:22	2
Methyl-tert-butyl Ether (MTBE)	ND		0.20	ug/L			02/21/25 15:22	2
Methylene Chloride	ND		0.60	ug/L			02/21/25 15:22	2
n-Butylbenzene	ND		0.60	ug/L			02/21/25 15:22	2
N-Propylbenzene	0.24		0.20	ug/L			02/21/25 15:22	2
Naphthalene	ND		0.40	ug/L			02/21/25 15:22	2
sec-Butylbenzene	ND		0.20	ug/L			02/21/25 15:22	2
Styrene	ND		0.20	ug/L			02/21/25 15:22	2
tert-Butylbenzene	ND		0.20	ug/L			02/21/25 15:22	2
Tetrachloroethene (PCE)	ND		0.20	ug/L			02/21/25 15:22	2
Toluene	15		0.20	ug/L			02/21/25 15:22	2
trans-1,2-Dichloroethene	ND		0.20	ug/L			02/21/25 15:22	2
trans-1,3-Dichloropropene	ND		0.20	ug/L			02/21/25 15:22	2
Trichloroethene (TCE)	ND		0.20	ug/L			02/21/25 15:22	2
Trichlorofluoromethane	ND		0.20	ug/L			02/21/25 15:22	2
Vinyl chloride	ND		0.20	ug/L			02/21/25 15:22	2
Xylenes, Total	18		0.30	ug/L			02/21/25 15:22	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		-		02/21/25 15:22	2
Toluene-d8 (Surr)	117		70 - 130				02/21/25 15:22	2
4-Bromofluorobenzene (Surr)	108		70 - 130				02/21/25 15:22	2
Dibromofluoromethane (Surr)	99		70 - 130				02/21/25 15:22	2

**Released to Imaging: 4/15/2025 11:28:46 AM** 

# QC Sample Results

Job ID: 885-20086-1

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Client: Hilcorp Energy Project/Site: Fifield S #1

Method: 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Lab Sample ID: MB 885-21215/5 Matrix: Air										Cli	ent S	ample ID: Metho Prep Type: 1	d Blank <sup>-</sup> otal/NA
Analysis Batch: 21215													
		мв м	MB										
Analyte	Re	sult (	Qualifier		RL		Unit		D	Prepa	ared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]		ND			5.0		ug/L					02/21/25 12:06	1
		мв I	МВ										
Surrogate	%Recov	ery (	Qualifier	Lir	nits					Prepa	ared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		98		52	- 172				_			02/21/25 12:06	1
	4								Clie	nt Sa	mple	ID: Lab Control	Sample
Matrix: Air												Prep Type: 1	otal/NA
Analysis Batch: 21215													
				Spike		LCS	LCS					%Rec	
Analyte				Added		Result	Qualifier	Unit	I	D %	Rec	Limits	
Gasoline Range Organics [C6 -				500		536		ug/L					
C10]								-					
	LCS	LCS											
Surrogate	%Recovery	Qualif	fier	Limits									
4-Bromofluorobenzene (Surr)					_								

## Method: 8260B - Volatile Organic Compounds (GC/MS)

#### Lab Sample ID: MB 885-21216/5 **Client Sample ID: Method Blank** Matrix: Air Prep Type: Total/NA Analysis Batch: 21216 MB MB Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed ND 0.10 02/21/25 12:06 1,1,1,2-Tetrachloroethane ug/L 1 1,1,1-Trichloroethane ND 0.10 ug/L 02/21/25 12:06 1 ND 1,1,2,2-Tetrachloroethane 0.20 ug/L 02/21/25 12:06 1 1,1,2-Trichloroethane ND 0.10 ug/L 02/21/25 12:06 1 ND 0.10 ug/L 1,1-Dichloroethane 02/21/25 12:06 1 1,1-Dichloroethene ND 0.10 ug/L 02/21/25 12:06 1 ND 0.10 ug/L 02/21/25 12:06 1,1-Dichloropropene 1 1,2,3-Trichlorobenzene ND 0.10 ug/L 02/21/25 12:06 1 1,2,3-Trichloropropane ND 0.20 ug/L 02/21/25 12:06 1 1,2,4-Trichlorobenzene ND 02/21/25 12:06 0.10 ug/L 1 ND 1,2,4-Trimethylbenzene 0.10 ug/L 02/21/25 12:06 1 1,2-Dibromo-3-Chloropropane ND 0.20 ug/L 02/21/25 12:06 1 1,2-Dibromoethane (EDB) ND 0.10 ug/L 02/21/25 12:06 1 ND 1,2-Dichlorobenzene 0.10 ug/L 02/21/25 12:06 1 1,2-Dichloroethane (EDC) ND 0.10 ug/L 02/21/25 12:06 1 ND 1,2-Dichloropropane 0.10 ug/L 02/21/25 12:06 1 1, 1

1,3,5-Trimethylbenzene	ND	0.10	ug/L	02/21/25 12:06
1,3-Dichlorobenzene	ND	0.10	ug/L	02/21/25 12:06
1,3-Dichloropropane	ND	0.10	ug/L	02/21/25 12:06
1,4-Dichlorobenzene	ND	0.10	ug/L	02/21/25 12:06
1-Methylnaphthalene	ND	0.40	ug/L	02/21/25 12:06
2,2-Dichloropropane	ND	0.20	ug/L	02/21/25 12:06
2-Butanone	ND	1.0	ug/L	02/21/25 12:06
2-Chlorotoluene	ND	0.10	ug/L	02/21/25 12:06
2-Hexanone	ND	1.0	ug/L	02/21/25 12:06

**Eurofins Albuquerque** 

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# **QC Sample Results**

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

# Lab Sample ID: MB 885-21216/5

Matrix: Air Analysis Batch: 21216

	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.40	ug/L			02/21/25 12:06	1
4-Chlorotoluene	ND		0.10	ug/L			02/21/25 12:06	1
4-Isopropyltoluene	ND		0.10	ug/L			02/21/25 12:06	1
4-Methyl-2-pentanone	ND		1.0	ug/L			02/21/25 12:06	1
Acetone	ND		1.0	ug/L			02/21/25 12:06	1
Benzene	ND		0.10	ug/L			02/21/25 12:06	1
Bromobenzene	ND		0.10	ug/L			02/21/25 12:06	1
Bromodichloromethane	ND		0.10	ug/L			02/21/25 12:06	1
Dibromochloromethane	ND		0.10	ug/L			02/21/25 12:06	1
Bromoform	ND		0.10	ug/L			02/21/25 12:06	1
Bromomethane	ND		0.30	ug/L			02/21/25 12:06	1
Carbon disulfide	ND		1.0	ug/L			02/21/25 12:06	1
Carbon tetrachloride	ND		0.10	ug/L			02/21/25 12:06	1
Chlorobenzene	ND		0.10	ug/L			02/21/25 12:06	1
Chloroethane	ND		0.20	ug/L			02/21/25 12:06	1
Chloroform	ND		0.10	ug/L			02/21/25 12:06	1
Chloromethane	ND		0.30	ug/L			02/21/25 12:06	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			02/21/25 12:06	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			02/21/25 12:06	1
Dibromomethane	ND		0.10	ug/L			02/21/25 12:06	1
Dichlorodifluoromethane	ND		0.10	ug/L			02/21/25 12:06	1
Ethylbenzene	ND		0.10	ug/L			02/21/25 12:06	1
Hexachlorobutadiene	ND		0.10	ug/L			02/21/25 12:06	1
Isopropylbenzene	ND		0.10	ug/L			02/21/25 12:06	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			02/21/25 12:06	1
Methylene Chloride	ND		0.30	ug/L			02/21/25 12:06	1
n-Butylbenzene	ND		0.30	ug/L			02/21/25 12:06	1
N-Propylbenzene	ND		0.10	ug/L			02/21/25 12:06	1
Naphthalene	ND		0.20	ug/L			02/21/25 12:06	1
sec-Butylbenzene	ND		0.10	ug/L			02/21/25 12:06	1
Styrene	ND		0.10	ug/L			02/21/25 12:06	1
tert-Butylbenzene	ND		0.10	ug/L			02/21/25 12:06	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			02/21/25 12:06	1
Toluene	ND		0.10	ug/L			02/21/25 12:06	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			02/21/25 12:06	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			02/21/25 12:06	1
Trichloroethene (TCE)	ND		0.10	ug/L			02/21/25 12:06	1
Trichlorofluoromethane	ND		0.10	ug/L			02/21/25 12:06	1
Vinyl chloride	ND		0.10	ug/L			02/21/25 12:06	1
Xylenes, Total	ND		0.15	ug/L			02/21/25 12:06	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		-		02/21/25 12:06	1
Toluene-d8 (Surr)	96		70 - 130				02/21/25 12:06	1
4-Bromofluorobenzene (Surr)	96		70 _ 130				02/21/25 12:06	1
Dibromofluoromethane (Surr)	104		70 - 130				02/21/25 12:06	1

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

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# **QC Sample Results**

Project/Site: Fifield S #1

# Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 885-21210 Matrix: Air	6/4						Client	Sample	D: Lab Control Sample Prep Type: Total/NA	
Analysis Batch: 21216			Spike	LCS	LCS		_		%Rec	5
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	0
1,1-Dichloroethene			20.1	18.5		ug/L		92	70 - 130	6
Benzene			20.1	20.3		ug/L		101	70 - 130	
Chlorobenzene			20.1	19.1		ug/L		95	70 - 130	
Toluene			20.2	19.2		ug/L		95	70 - 130	
Trichloroethene (TCE)			20.2	19.3		ug/L		96	70 - 130	8
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							9
1,2-Dichloroethane-d4 (Surr)	108		70 _ 130							
Toluene-d8 (Surr)	96		70 - 130							
4-Bromofluorobenzene (Surr)	96		70 - 130							
Dibromofluoromethane (Surr)	104		70 - 130							

Job ID: 885-20086-1

# **QC Association Summary**

Client: Hilcorp Energy Project/Site: Fifield S #1 Job ID: 885-20086-1

## Analysis Batch: 21215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20086-1	SVE-1	Total/NA	Air	8015M/D	
MB 885-21215/5	Method Blank	Total/NA	Air	8015M/D	
LCS 885-21215/4	Lab Control Sample	Total/NA	Air	8015M/D	

#### Analysis Batch: 21216

Lab Sample ID	Client Sample ID		Matrix	Method	Prep Batch
MB 885-21216/5	Method Blank	Total/NA Total/NA	Air	8260B 8260B	
LCS 885-21216/4	Lab Control Sample	Total/NA	Air	8260B	

**Eurofins Albuquerque** 

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Matrix: Air

# Lab Chronicle

Client: Hilcorp Energy Project/Site: Fifield S #1

# Client Sample ID: SVE-1 Date Collected: 02/17/25 13:00

Date Received: 02/18/25 07:20

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015M/D		2	21215	СМ	EET ALB	02/21/25 15:22
Total/NA	Analysis	8260B		2	21216	СМ	EET ALB	02/21/25 15:22

#### Laboratory References:

= , 1120 South 27th Street, Billings, MT 59101, TEL (406)252-6325

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

**Eurofins Albuquerque** 

# Job ID: 885-20086-1

Lab Sample ID: 885-20086-1

Accreditation/Certification Summary

Client: Hilcorp Energy Project/Site: Fifield S #1

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

prity	Progr	am	Identification Number	Expiration Date
Mexico	State		NM9425, NM0901	02-26-25
I he following analytes	are included in this report, bu	it the laboratory is not certif	ied by the governing authority. This list	t may include analytes
Applysis Method	Drop Mothod	Motrix	Analyta	
8015M/D			Gasoline Range Organics	[C6 - C10]
8260B		Air	1 1 1 2-Tetrachloroethane	[00 - 0 10]
8260B		Air	1 1 1-Trichloroethane	
8260B		Air	1 1 2 2-Tetrachloroethane	
8260B		Δir	1 1 2-Trichloroethane	
8260B		Air	1 1-Dichloroethane	
8260B		Air	1 1-Dichloroethene	
8260B		Air	1 1-Dichloropropene	
8260B		Air	1 2 3-Trichlorobenzene	
8260B		Air	1.2.3-Trichloropropane	
8260B		Air	1.2.4-Trichlorobenzene	
8260B		Air	1.2.4-Trimethylbenzene	
8260B		Air	1.2-Dibromo-3-Chloroprop	ane
8260B		Air	1.2-Dibromoethane (EDB)	
8260B		Air	1,2-Dichlorobenzene	
8260B		Air	1,2-Dichloroethane (EDC)	
8260B		Air	1,2-Dichloropropane	
8260B		Air	1,3,5-Trimethylbenzene	
8260B		Air	1,3-Dichlorobenzene	
8260B		Air	1,3-Dichloropropane	
8260B		Air	1,4-Dichlorobenzene	
8260B		Air	1-Methylnaphthalene	
8260B		Air	2,2-Dichloropropane	
8260B		Air	2-Butanone	
8260B		Air	2-Chlorotoluene	
8260B		Air	2-Hexanone	
8260B		Air	2-Methylnaphthalene	
8260B		Air	4-Chlorotoluene	
8260B		Air	4-Isopropyltoluene	
8260B		Air	4-Methyl-2-pentanone	
8260B		Air	Acetone	
8260B		Air	Benzene	
8260B		Air	Bromobenzene	
8260B		Air	Bromodichloromethane	
8260B		Air	Bromoform	
8260B		Air	Bromomethane	
8260B		Air	Carbon disulfide	
8260B		Air	Carbon tetrachloride	
8260B		Air	Chlorobenzene	
8260B		Air	Chloroethane	
8260B		Air	Chloroform	
8260B		Air	Chloromethane	
8260B		Air	cis-1,2-Dichloroethene	
8260B		Air	cis-1,3-Dichloropropene	
8260B		Air	Dibromochloromethane	

Job ID: 885-20086-1

# Accreditation/Certification Summary

Client: Hilcorp Energy Project/Site: Fifield S #1

# Laboratory: Eurofins Albuquerque (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

rity	Pro	gram	Identification Number	Expiration Date
The following analytes	are included in this report,	but the laboratory is not certif	ied by the governing authority. This li	st may include analytes
for which the agency do	oes not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte	
8260B		Air	Dibromomethane	
8260B		Air	Dichlorodifluoromethane	
8260B		Air	Ethylbenzene	
8260B		Air	Hexachlorobutadiene	
8260B		Air	Isopropylbenzene	
8260B		Air	Methylene Chloride	
8260B		Air	Methyl-tert-butyl Ether (M	TBE)
8260B		Air	Naphthalene	
8260B		Air	n-Butylbenzene	
8260B		Air	N-Propylbenzene	
8260B		Air	sec-Butylbenzene	
8260B		Air	Styrene	
8260B		Air	tert-Butylbenzene	
8260B		Air	Tetrachloroethene (PCE)	
8260B		Air	Toluene	
8260B		Air	trans-1,2-Dichloroethene	
8260B		Air	trans-1,3-Dichloropropene	e
8260B		Air	Trichloroethene (TCE)	
8260B		Air	Trichlorofluoromethane	
8260B		Air	Vinyl chloride	
8260B		Air	Xylenes, Total	
n	NE	LAP	NM100001	02-25-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015M/D		Air	Gasoline Range Organics [C6 - C10]
8260B		Air	1,1,1,2-Tetrachloroethane
8260B		Air	1,1,1-Trichloroethane
8260B		Air	1,1,2,2-Tetrachloroethane
8260B		Air	1,1,2-Trichloroethane
8260B		Air	1,1-Dichloroethane
8260B		Air	1,1-Dichloroethene
8260B		Air	1,1-Dichloropropene
8260B		Air	1,2,3-Trichlorobenzene
8260B		Air	1,2,3-Trichloropropane
8260B		Air	1,2,4-Trichlorobenzene
8260B		Air	1,2,4-Trimethylbenzene
8260B		Air	1,2-Dibromo-3-Chloropropane
8260B		Air	1,2-Dibromoethane (EDB)
8260B		Air	1,2-Dichlorobenzene
8260B		Air	1,2-Dichloroethane (EDC)
8260B		Air	1,2-Dichloropropane
8260B		Air	1,3,5-Trimethylbenzene
8260B		Air	1,3-Dichlorobenzene
8260B		Air	1,3-Dichloropropane
8260B		Air	1,4-Dichlorobenzene

Job ID: 885-20086-1

# **Accreditation/Certification Summary**

Client: Hilcorp Energy Project/Site: Fifield S #1 Job ID: 885-20086-1

# Laboratory: Eurofins Albuquerque (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

y	Progr	am	Identification Number Expiration Date
he following analytes a br which the agency do	are included in this report, bues not offer certification.	ut the laboratory is not certi	fied by the governing authority. This list may include analytes
nalysis Method	Prep Method	Matrix	Analyte
260B		Air	1-Methylnaphthalene
260B		Air	2,2-Dichloropropane
260B		Air	2-Butanone
260B		Air	2-Chlorotoluene
260B		Air	2-Hexanone
260B		Air	2-Methylnaphthalene
260B		Air	4-Chlorotoluene
260B		Air	4-Isopropyltoluene
260B		Air	4-Methyl-2-pentanone
260B		Air	Acetone
260B		Air	Benzene
260B		Air	Bromobenzene
260B		Air	Bromodichloromethane
260B		Air	Bromoform
260B		Air	Bromomethane
260B		Air	Carbon disulfide
260B		Air	Carbon tetrachloride
260B		Air	Chlorobenzene
260B		Air	Chloroethane
260B		Air	Chloroform
260B		Air	Chloromethane
260B		Air	cis-1,2-Dichloroethene
260B		Air	cis-1,3-Dichloropropene
260B		Air	Dibromochloromethane
260B		Air	Dibromomethane
260B		Air	Dichlorodifluoromethane
260B		Air	Ethylbenzene
260B		Air	Hexachlorobutadiene
260B		Air	Isopropylbenzene
260B		Air	Methylene Chloride
260B		Air	Methyl-tert-butyl Ether (MTBE)
260B		Air	Naphthalene
260B		Air	n-Butylbenzene
260B		Air	N-Propylbenzene
260B		Air	sec-Butylbenzene
260B		Air	Styrene
260B		Air	tert-Butylbenzene
260B		Air	Tetrachloroethene (PCE)
260B		Air	Toluene
260B		Air	trans-1,2-Dichloroethene
260B		Air	trans-1,3-Dichloropropene
260B		Air	Trichloroethene (TCE)
260B		Air	Trichlorofluoromethane
0000		Δir	Vinyl chloride
260B		7 40	Viriyi onionae



Page 38 of 47 10

# ANALYTICAL SUMMARY REPORT

February 25, 2025

Eurofins TestAmerica - Albuquerque 4901 Hawkins St NE Ste D Albuquerque, NM 87109-4372

Quote ID: B15626 Work Order: B25021057

Project Name: Fifield 5 #1 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Eurofins TestAmerica - Albuquerque on 2/21/2025 for analysis.

Lab ID	Client Sample ID	Collect Date Receive Date	Matrix	Test
B25021057-001	SVE-1 (885-20086-1)	02/17/25 13:00 02/21/25	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond,/1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 So. 27th Street, Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



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# LABORATORY ANALYTICAL REPORT

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Prepared by Billings, MT Branch

**Client:** Eurofins TestAmerica - Albuquerque Report Date: 02/25/25 Project: Fifield 5 #1 88501698 Collection Date: 02/17/25 13:00 Lab ID: B25021057-001 DateReceived: 02/21/25 Client Sample ID: SVE-1 (885-20086-1) Matrix: Air

					MCL/			
Analyses	Result	Units	Qualifiers	RL	QCL	Method	Analysis Date / By	
GAS CHROMATOGRAPHY ANALYSIS								
	21 42	Mol %		0.01		GPA 2261-13	02/24/25 10·23 / iri	
Nitrogen	78.46	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Carbon Dioxide	0.11	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Methane	<0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Ethane	< 0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Propane	< 0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Isobutane	< 0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
n-Butane	< 0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Isopentane	< 0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
n-Pentane	< 0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Hexanes plus	0.01	Mol %		0.01		GPA 2261-13	02/24/25 10:23 / jrj	
Propane	< 0.001	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
Hexanes plus	0.004	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
GPM Total	0.004	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
GPM Pentanes plus	0.004	gpm		0.001		GPA 2261-13	02/24/25 10:23 / jrj	
CALCULATED PROPERTIES								
Gross BTU per cu ft @ Std Cond. (HHV)	ND			1		GPA 2261-13	02/24/25 10:23 / jrj	
Net BTU per cu ft @ std cond. (LHV)	ND			1		GPA 2261-13	02/24/25 10:23 / jrj	
Pseudo-critical Pressure, psia	544			1		GPA 2261-13	02/24/25 10:23 / jrj	
Pseudo-critical Temperature, deg R	239			1		GPA 2261-13	02/24/25 10:23 / jrj	
Specific Gravity @ 60/60F	0.998			0.001		D3588-81	02/24/25 10:23 / jrj	
Air, %	97.88			0.01		GPA 2261-13	02/24/25 10:23 / jrj	
The enclosion and encoded for the								

- The analysis was not corrected for air.

#### COMMENTS

02/24/25 10:23 / jrj

- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior.

- GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions.

- To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825.

- Standard conditions: 60 F & 14.73 psi on a dry basis.

Report Definitions: RL - Analyte Reporting Limit QCL - Quality Control Limit



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Result

21.5

78.4

0.11

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

< 0.01

0.01

11 Laboratory Control Sample

0.62

6.09

0.99

76.0

6.11

5.04

1.93

2.00

0.51

0.51

0.21

12 Sample Duplicate

Count

Billings, MT 406.252.6325 • Casper, WY 307.235.0515 Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

# **QA/QC Summary Report**

Prepared by Billings, MT Branch

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

0.01

126

103

99

99

101

101

97

100

102

102

102

RL %REC Low Limit High Limit

Run: GC7890\_250224A

Run: GC7890\_250224A

130

130

130

130

130

130

130

130

130

130

130

70

70

70

70

70

70

70

70

70

70

70

Units

Mol %

Work Order: B25021057

GPA 2261-13

B25021057-001ADUP

Analyte

Method: Lab ID:

Oxygen

Nitrogen

Methane

Ethane

Propane

Isobutane

n-Butane

Isopentane

n-Pentane

Lab ID:

Oxygen

Nitrogen

Methane

Ethane

Propane

Isobutane

n-Butane

Isopentane

n-Pentane

Hexanes plus

Hexanes plus

Carbon Dioxide

LCS022425

Carbon Dioxide

Hydrogen Sulfide

Report Date: 02/25/25

0.4

0.1

0.0

0.0

**RPD RPDLimit** 

5
8
9
10

Page 40 of 47

Qual

Batch: R437178

02/24/25 11:11

20

20

20

20

20

20

20

20

20

20

20

20

02/24/25 13:10

Qualifiers: RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



ENERGY

Work	Order	Receipt	Checklist

Eurofins TestAmerica - Albuquerque

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# B25021057

Login completed by:	Kyelie L. Pflock		Date R	eceived: 2/21/2025
Reviewed by:	dharris		Rec	eived by: CMJ
Reviewed Date:	2/24/2025		Carri	er name: FedEx NDA
Shipping container/cooler in g	ood condition?	Yes 🗸	No 🗌	Not Present
Custody seals intact on all shi	pping container(s)/cooler(s)?	Yes	No 🗌	Not Present
Custody seals intact on all sar	mple bottles?	Yes	No 🗌	Not Present 🗹
Chain of custody present?		Yes 🗹	No 🗌	
Chain of custody signed when	n relinquished and received?	Yes 🗹	No 🗌	
Chain of custody agrees with	sample labels?	Yes 🗸	No 🗌	
Samples in proper container/b	oottle?	Yes 🗹	No 🗌	
Sample containers intact?		Yes 🗹	No 🗌	
Sufficient sample volume for in	ndicated test?	Yes 🗹	No 🗌	
All samples received within ho (Exclude analyses that are cor such as pH, DO, Res CI, Sulf	olding time? nsidered field parameters ite, Ferrous Iron, etc.)	Yes 🗹	No 🗌	
Temp Blank received in all shi	ipping container(s)/cooler(s)?	Yes	No 🗹	Not Applicable
Container/Temp Blank temper	ature:	9.6°C No Ice		
Containers requiring zero head bubble that is <6mm (1/4").	dspace have no headspace or	Yes	No 🗌	No VOA vials submitted
Water - pH acceptable upon re	eceipt?	Yes 🗌	No 🗌	Not Applicable 🗹

# **Standard Reporting Procedures:**

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

# **Contact and Corrective Action Comments:**

None



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# Laboratory Certifications and Accreditations

	Agency	Number	
	Alaska	17-023	
	California	3087	
	Colorado	MT00005	
	Department of Defense (DoD)/ISO17025	ADE-2588	
Billings, MT	Florida (Primary NELAP)	E87668	
2	Idaho	MT00005	
d	Louisiana	05079	
ANAB	Montana	CERT0044	
ANSI National Accreditation Board	Nebraska	NE-OS-13-04	
TESTING LABORATORY	Nevada	NV-C24-00250	
ACCRE	North Dakota	R-007	
Salas In Conto	National Radon Proficiency	109383-RMP	
TNI	Oregon	4184	
BORATOR	South Dakota	ARSD 74:04:07	
	Texas	TX-C24-00302	
	US EPA Region VIII	Reciprocal	
	USDA Soil Permit	P330-20-00170	
	Washington	C1039	
	Alaska	20-006	
	California	3021	
	Colorado	WY00002	
	Florida (Primary NELAP)	E87641	
	Idaho	WY00002	
Caspor W/V	Louisiana	05083	
cusper, wr	Montana	CERT0002	
SUS ACCREDIA	Nebraska	NE-OS-08-04	
TNI	Nevada	NV-C24-00245	
19BORATORI	North Dakota	R-125	
	Oregon	WY200001	
	South Dakota	WY00002	
	Texas	T104704181-23-21	
	US EPA Region VIII	WY00002	
	USNRC License	49-26846-01	
	Washington	C1012	
Gillette, WY	US EPA Region VIII	WY00006	
	Colorado	MT00945	
Helena, MT	Montana	CERT0079	
	Nevada	NV-C24-00119	
	US EPA Region VIII	Reciprocal	
	USDA Soil Permit	P330-20-00090	

Current certificates are available at www.energylab.com website:

Eurofins Albuquerque 1901 Hawkins NE Albuquerque, NM 87109 Phone: 505-345-3975 Fax: 505-345-4107	Cha	in of C	ustod	y Rec	ord							the contract of the contract o	Irofins	Environment Testing
Client Information (Sub Contract I ab)	Sampler: N/A			Lab PM: Garcia, Mi	chelle				arrier Trac	cking No(s	101	COC N 885-3	lo: 1915.1	
Filent Contact: Filent Contact: A file file file file file file file file	Phone: N/A			E-Mail: michelle.g	arcia@et.	eurofinsu	s.com	07 -	tate of Ori Jew Mex	gin: ico		Page: Page	1 of 1	
Company: Energy Laboratories, Inc.				Accre	AP - Oreg	quired (See on; State	note): - New N	exico				Job #: 885-2	0086-1	
tadress: 1120 South 27th Street, 22	Due Date Requested: 2/25/2025					1	Analysi	s Requ	lested			Prese	rvation Code	:8
2Hy 3illings	TAT Requested (days):	N/A												
state, Zip: MT, 59101	2													
Phone: [F] 406-252-6325(Tel)	HO#:			(0)										
Email:	WO#			s of A	səsi							SJ		
Project Name: F	Project # 88501698			eY) el	sed Ga							onisin		
site:	SSOW#: N/A			dwes	IJ /(Sas							of co		
	Sar Samula Date	San Ty nple (C=c	ple Mat pe (wew comp, oewas	New Market	sed bexif) BUS							Total Number	Special Ins	tructions/Note:
Sample Identification - Ciretit ID (Law ID)			servation Co	de: X	5							X		
SVE-1 (885-20086-1)	2/17/25 Mou	:00 ntain	A 2	L	×							1 See A	Vitached Instru	25021057
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Note: Since laboratory accreditations are subject to change, Eurofins Environment laboratory does not currently maintain accreditation in the State of Origin listed abc accreditation status should be brought to Eurofins Environment Testing South Cen	t Testing South Central, LL ove for analysis/tests/matri ntral, LLC attention immedia	C places the o x being analyz ately. If all requ	wnership of mel ed, the samples uested accredit	hod, analyte & must be ship tions are curr	k accreditati ped back to ent to date,	on compliat the Eurofin return the s	s Environn signed Cha	our subcon nent Testir in of Cust	g South C dy attestir	atories. Th entral, LLC ng to said o	is sample laborator ompliance	shipment is for / or other instri to Eurofins Er	rwarded under o uctions will be p nvironment Tes	chain-of-custody. If the rovided. Any changes to ting South Central, LLC.
Possible Hazard Identification				S	ample Di	sposal (	A fee m	ay be as	sessed sposal B	if sampl v I ah	es are r	Archive For	ger than 1 n	nonth) Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable F	tank: 2		S	pecial Ins	tructions/	QC Req	uiremen						
Empty Kit Relinquished by:	Date			Time					Meth	od of Ship	nent:			
Relinquished by: A. M. With	Date/Time 11 h	1400	Compar	, A	Received	1 by:				Dat	a/Time:			Company
Relinquished by	Date/Time:	-	Compar	A.	Received	d by:				Dat	a/Time:			Company
Relinquished by:	Date/Time:		Compar	y.	Receive	1 by:	to the		thei	Coat	2121	52	0%)(	Company
Custody Seals Intact: Custody Seal No.:					Coller	emperature	(s) <sup>6</sup> C and	Other Re	marks;					
					6									Ver: 10/10/2024
								I						

0	2
z	6
0	3
0	Ś
Q	88

Containers <u>Count</u> Ted

<u>Container Type</u> Tedlar Bag 1L

<u>Preservative</u> None

# Subcontract Method Instructions

ample IDs   Meth	po	Method Description	Method Comments	
SUBC	CONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases	



5
8
9
10
11

Received by C	<b>)CD: 4</b> /	15/202	<del>5 9:</del>	<del>32:00 Al</del>	M			T	Γ		- 1	 1	1 1	1		2age 45	of 4	7
	885-20086 COC																report.	
	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107 Apalveis Populosi		PO4, SO PO4, SO PCB's	0 / DRG 3/8082 I 0 4.1) 0 402, 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9 0(GR 1-VO 1-VO 1-VO 1-VO 1-VO 1-VO 1-VO 1-VO	17PH:80151 8081 Ресті 2081 Ресті 3260 (VOV 8260 (VOV 8260 (VOV 7015 (Sem 7015 (Sem 70) (Sem 7015 (Sem 70)								narks: 7/		bility. Any sub-contracted data will be clearly notated on the analytical r	3 4 5 6 7 8 9 10 11
Turn-Around Time: La Standard Droised Monoci	Froject Name:	Project #:	Droiset Manager.	71 year manager.	Exampler: Brandon Site clair	# of Coolers: 1 The Figure 1	Cooler uremplmatiding cerves 5,0,+0, 1,-2, 2,0, (10) X Container Preservative HEAL No EU	2 Tedlar							Received by: Via: Date Time Rei	Treceived by: Via: Werker Jaco 11me 7:20	contracted to other accredited laboratories. This serves as notice of this poss	
Chain-of-Custody Record	Mailing Address:	Dhone #:	email or Fax#.h	QA/QC Package:	Accreditation:	EDD (Type)  EDD (Type)	Date Time Matrix Sample Name	2-17 1300 a ir 5 VE-1							2/12/25/15/1 Burndow By:	Mr/25/1806/ Mr. the Dalle <	If necessary, samples submitted to Hall Environmental may be subc	

.

# Login Sample Receipt Checklist

Client: Hilcorp Energy

# Login Number: 20086

List Number: 1 Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 885-20086-1

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Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	452118
	Action Type:
	[REPORT] Alternative Remediation Report (C-141AR)

CONDITIO	ONS CONSIGNATION OF CONSIGNATICON OF CONSIG	
Created By	Condition	Condition Date
nvelez	SVE reviewed: 1. Continue further actions as stated in report. 2. Submit next quarterly report by July 15, 2025.	4/15/2025

CONDITIONS

Action 452118