

**REVIEWED**

By NVelez at 2:46 pm, Jul 21, 2025

**1. Continue with recommendations presented within this report. 2. Submit next quarterly report by October 15, 2025.**

July 14, 2025

**New Mexico Oil Conservation Division**

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

**Re: Second Quarter 2025 – SVE System Update**

Scott 4M  
San Juan County, New Mexico  
Hilcorp Energy Company  
NMOCD Incident Number: NCE2003650476

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Second Quarter 2025 – SVE System Update* report summarizing the soil vapor extraction (SVE) system performance at the Scott 4M natural gas production well (Site), located in Section 17, Township 31 North, and Range 10 West in San Juan County, New Mexico (Figure 1). The SVE system has operated since January 2021 to remediate subsurface soil impacts resulting from approximately 42 barrels (bbls) of natural gas condensate released from an aboveground storage tank. This report summarizes Site activities performed in April, May, and June of 2025.

**SVE SYSTEM SPECIFICATIONS**

An upgraded SVE system was installed at the Site at the end of September 2022 and consists of a 3-phase, 3.4 horsepower Republic Model KVHRC500 blower capable of producing a flow of 221 cubic feet per minute (cfm) and a vacuum of 76 inches of water column (IWC). The system is powered by a permanent power drop and is intended to run 24 hours per day. Seven SVE wells are currently present at the Site (SVE01 through SVE07, shown on Figure 2). SVE wells SVE01 through SVE03 are screened at depth intervals ranging from 25 feet to 45 feet below ground surface (bgs) in order to remediate deep soil impacts located at the Site. SVE wells SVE04 and SVE05 are screened at depth intervals ranging from 5 feet to 25 feet bgs in order to remediate shallow soil impacts at the Site. SVE wells SVE06 and SVE07 were installed at the Site in order to complete the pilot test conducted in 2021; however, these wells are not located in impacted areas and are not connected to the permanent SVE system.

**SECOND QUARTER 2025 ACTIVITIES**

During the second quarter of 2025, Ensolum and Hilcorp personnel performed bi-weekly operation and maintenance (O&M) visits to verify the system was operating as designed and to perform any required maintenance. During the first quarter of 2025, extraction was focused on SVE01, the well with the highest photoionization detector (PID) reading. Following receipt of the performance soil sampling analytical results, additional SVE wells were brought back online in the second quarter of 2025 and wells SVE01, SVE03, and SVE04 were operational throughout the quarter.



Between March 31 and June 30, 2025, the SVE system operated for 2,178.8 hours for a runtime efficiency of 100 percent (%). Photographs of the runtime meter for calculating the second quarter runtime efficiency are presented as Appendix B. The SVE system operational hours and calculated percent runtime are presented in Table 1.

A second quarter 2025 vapor sample was collected on May 27, 2025, from a sample port located between the SVE piping manifold and the SVE blower, using a high vacuum air sampler. Prior to collection, the vapor sample was field screened with a PID for organic vapor monitoring (OVM). The vapor sample was collected directly into two 1-Liter Tedlar® bags and submitted to Eurofins Environment Testing in Albuquerque, New Mexico for analysis of total volatile petroleum hydrocarbons [TVPH – also known as total petroleum hydrocarbons – gasoline range organics (TPH-GRO)] following United States Environmental Protection Agency (EPA) Method 8015D, volatile organic compounds (VOCs) following EPA Method 8260B, and fixed gas analysis of oxygen and carbon dioxide following Gas Processors Association (GPA) Method 2261. A summary of analytical data collected during this sampling event and historical sampling events is provided in Table 2, with the full laboratory analytical report included as Appendix C.

Vapor sample data and measured flow rates are used to estimate total mass recovered and total emissions generated by the SVE system (Table 3). Based on these estimates, 8,807 pounds (4.4 tons) of TVPH have been removed by the system to date.

## RECOMMENDATIONS

A decrease in overall system PID readings and associated mass removal rates have been observed since system startup, as is anticipated. As discussed in the *Fourth Quarter 2024 – SVE System Update*, adjustments were made to attempt to focus vacuum extraction on extraction well SVE01, the location with the highest PID reading; however, following adjustments, TVPH in the vapor sample only increased slightly and the overall mass removal rate decreased as a result of the drop in total system flow rate. Due to the low mass removal rate observed following system optimization attempts, confirmation soil sampling was conducted in March 2025 as described in the *First Quarter 2025 – SVE Update* report. Based on those results, system operation resumed, and adjustments were made to target the remaining impacted depth intervals at soil boring location BH09. The soil sample locations are depicted on Figure 3.

Possible upgrades are being discussed for the Site to increase the radius of influence (ROI) at extraction wells SVE01, SVE03, and SVE04 in order to accelerate soil remediation at BH09.

Bi-weekly O&M visits will continue to be performed by Ensolum and/or Hilcorp personnel to confirm the SVE system is operating within normal working ranges (i.e., temperature, pressure, and vacuum) until it is determined that SVE is no longer effective, at which point additional soil samples will be collected in accordance with the NMOCD approved workplan. Deviations from regular SVE system operations will be noted on field logs and included in the following quarterly report.



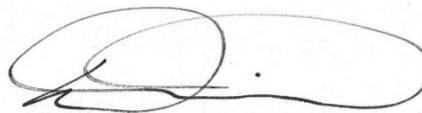
We appreciate the opportunity to provide this report to the NMOCD. If you should have any questions or comments regarding this report, please contact the undersigned.

Sincerely,

**Ensolum, LLC**



Stuart Hyde, PG (licensed in TX, WA, & WY)  
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**Attachments:**

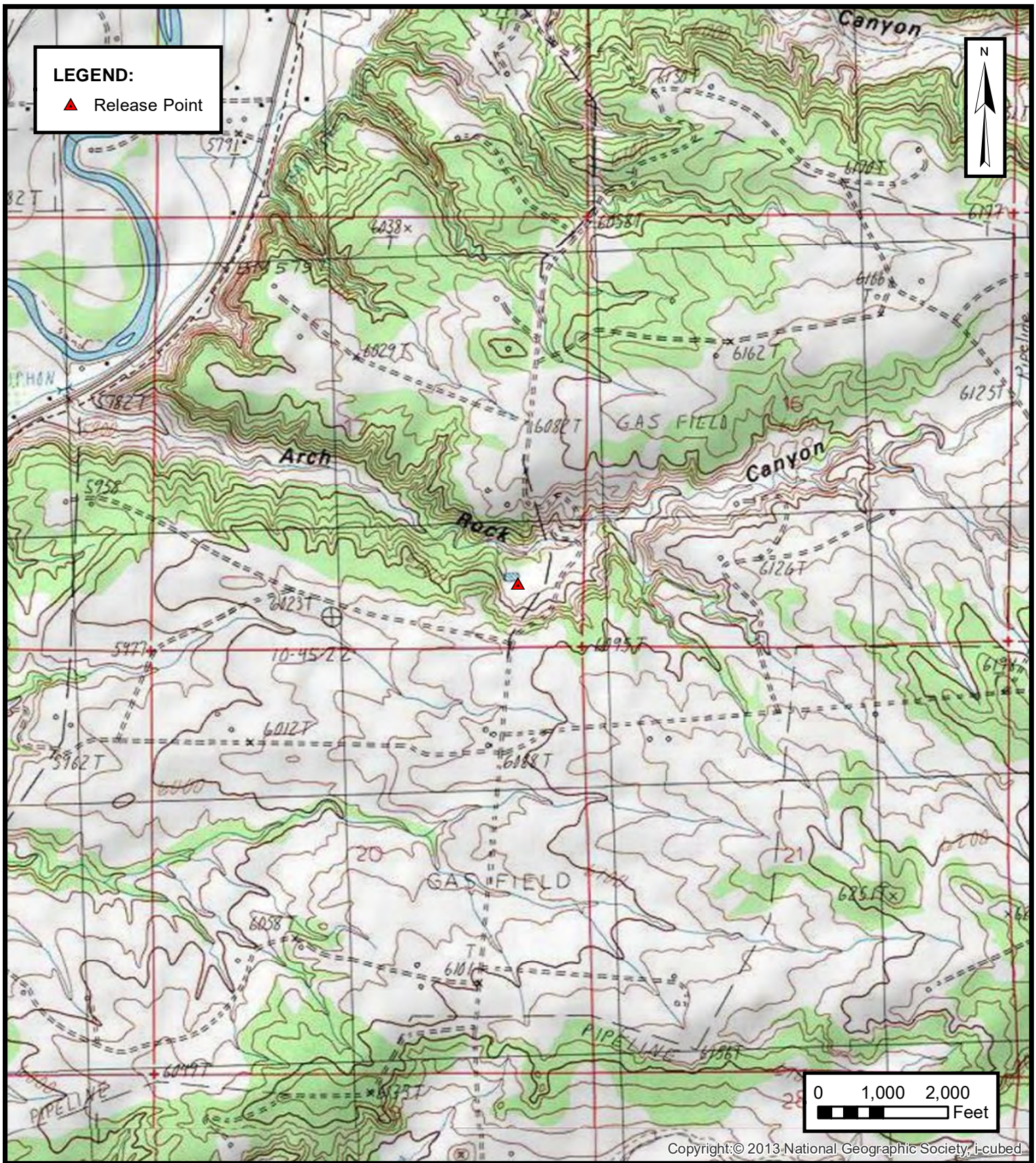
Figure 1	Site Location
Figure 2	SVE System Configuration
Figure 3	Performance Soil Sample Locations
Table 1	Soil Vapor Extraction System Runtime Calculations
Table 2	Soil Vapor Extraction System Air Analytical Results
Table 3	Soil Vapor Extraction System Mass Removal and Emissions
Appendix A	Field Notes
Appendix B	Project Photographs
Appendix C	Vapor Sample Laboratory Analytical Report





Figures





**ENSOLUM**  
Environmental & Hydrogeologic Consultants

#### SITE LOCATION

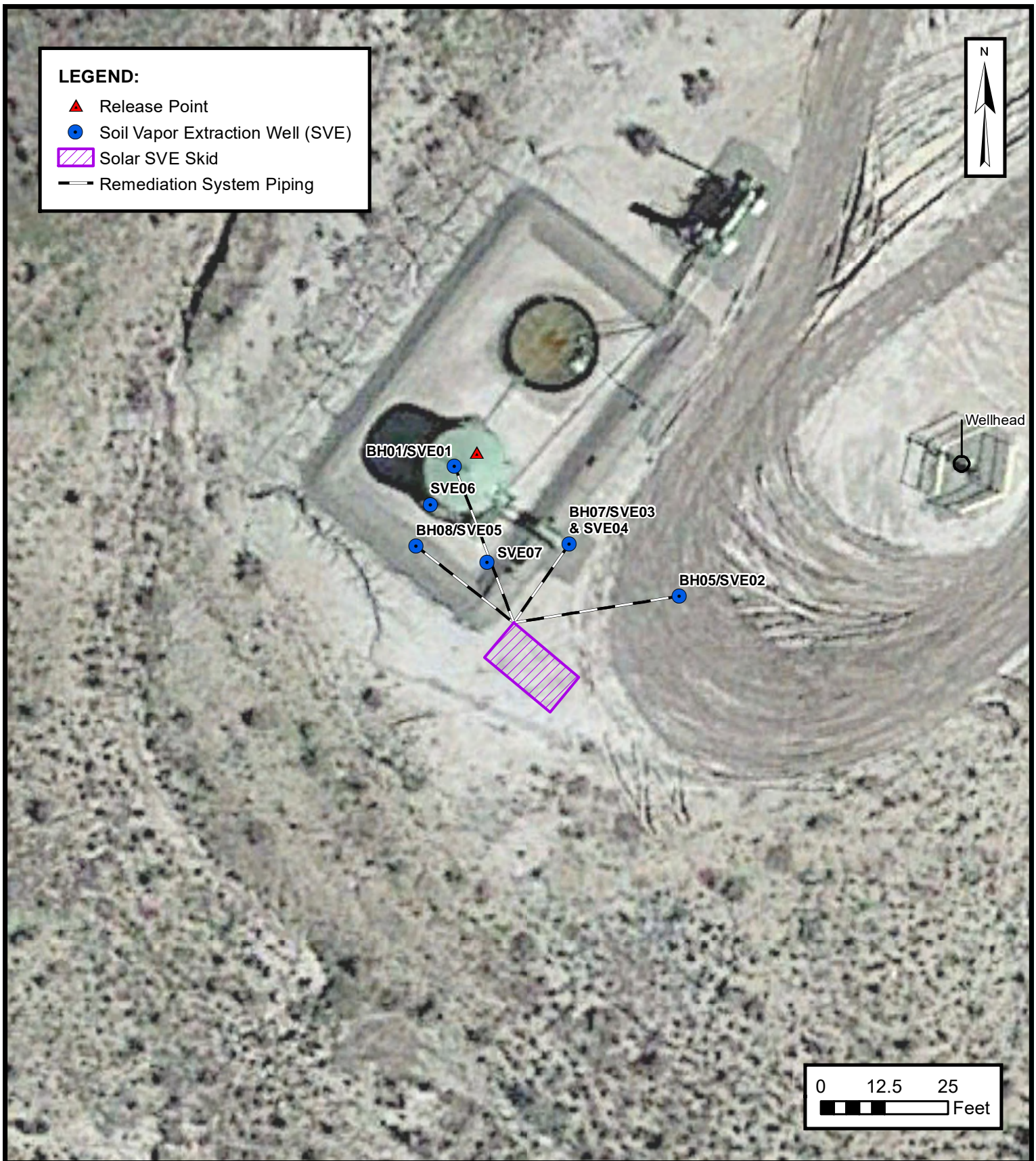
HILCORP ENERGY COMPANY  
SCOTT 4M  
SESE SEC 17 T31N R10W, San Juan County, New Mexico  
36.893345° N, 107.899185° W

PROJECT NUMBER: 07A1988016

#### FIGURE

1





### SVE SYSTEM CONFIGURATION

HILCORP ENERGY COMPANY  
SCOTT 4M  
SESE SEC 17 T31N R10W, San Juan County, New Mexico  
36.893345° N, 107.899185° W

PROJECT NUMBER: 07A1988016

FIGURE

2





Default Folder: C:\Users\Greg Palawa\OneDrive - ENSOLUM, LLC\Desktop\Ensolum GIS1 - Durango\Hilcorp\Scott 4M



## Performance Soil Sample Locations

Scott 4M  
Hilcorp Energy Company  
36.893345° N, 107.899185° W  
San Juan County, New Mexico

FIGURE  
**3**





Tables







**TABLE 1**  
**SOIL VAPOR EXTRACTION SYSTEM RUNTIME CALCULATIONS**

Scott 4M  
Hilcorp Energy Company  
San Juan County, New Mexico

Date	Total Operational Hours	Delta Hours	Days	Percent Runtime
3/31/2025	28,267	--	--	--
6/30/2025	30,446	2,178.8	91.0	100%





**TABLE 2**  
**SOIL VAPOR EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS**  
 Scott 4M  
 Hilcorp Energy Company  
 San Juan County, New Mexico

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
2/1/2021	118	85	240	10	64	18,000	--	--
9/7/2021	53	40	280	24	240	15,000	--	--
9/29/2021	316	210	1,800	240	2,200	85,000	--	--
12/2/2021	232	48	320	32	310	50,000	16.60%	1.03%
3/15/2022	402	38	430	63	660	18,000	20.80%	0.473%
6/16/2022	89	1.3	13	1.6	17	750	21.57%	0.15%
9/28/2022	476	9.6	120	19	220	5,900	20.73%	0.90%
12/12/2022	198	2.5	26	4.9	59	2,100	21.65%	0.27%
3/9/2023	274	1.0	19	4.0	50	1,500	21.64%	0.19%
6/22/2023	247	1.2	16	2.4	34	940	21.42%	0.29%
8/23/2023	186	1.0	12	2.0	29	930	21.49%	0.32%
11/27/2023	129	0.86	11	1.5	22	860	21.40%	0.22%
3/5/2024	57.5	<0.50	5.6	0.76	12	260	22.25%	0.10%
6/13/2024	88.7	0.67	8.0	1.1	18	490	21.78%	0.15%
9/18/2024	66.0	10	62	<5.0	69	270	22.10%	0.06%
11/26/2024	4.1	<0.10	0.11	<0.10	0.38	9.9	21.45%	0.05%
2/10/2025	42.5	<0.50	2.4	<0.50	3.8	120	20.59%	0.18%
5/27/2025	70.8	0.58	5.8	1.2	14	690	21.94%	0.21%

**Notes:**

GRO: gasoline range organics

µg/L: microgram per liter

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

?: percent

--: not sampled

Grey: Below laboratory reporting limit





**TABLE 3**  
**SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS**  
 Scott 4M  
 Hilcorp Energy Company  
 San Juan County, New Mexico

Laboratory Analysis						
Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
2/1/2021	118	85	240	10	64	18,000
9/7/2021	53	40	280	24	240	15,000
9/29/2021	316	210	1,800	240	2,200	85,000
12/2/2021	232	48	320	32	310	50,000
3/15/2022	402	38	430	63	660	18,000
6/16/2022	89	1.3	13	1.6	17	750
9/28/2022 (1)	476	9.6	120	19	220	5,900
12/12/2022 (2)	198	2.5	26	4.9	59	2,100
3/9/2023	274	1.0	19	4.0	50	1,500
6/22/2023	247	1.2	16	2.4	34	940
8/23/2023	186	1.0	12	2.0	29	930
11/27/2023	129	0.86	11	1.5	22	860
3/5/2024	57.5	0.50	5.6	0.76	12	260
6/13/2024	88.7	0.67	8.0	1.10	18	490
9/18/2024	66.0	10	62	5.0	69	270
11/26/2024	4.1	0.10	0.11	0.10	0.38	9.9
2/10/2025	42.5	0.50	2.4	0.50	3.8	120
5/27/2025	70.8	0.58	5.8	1.2	14	690
<b>Average</b>	169	25	187	23	223	11,157

Vapor Extraction Summary								
Date	Flow Rate (cfm)	Total System Flow (cf)	Delta Flow (cf)	Benzene (lb/hr)	Toluene (lb/hr)	Ethylbenzene (lb/hr)	Total Xylenes (lb/hr)	TVPH (lb/hr)
2/1/2021	22	1,980	1,980	0.0070	0.020	0.00082	0.0053	1.5
9/7/2021	22	2,841,168	2,839,188	0.0051	0.021	0.0014	0.013	1.4
9/29/2021	10	2,979,528	138,360	0.0047	0.039	0.0049	0.046	1.9
12/2/2021	3.5	3,106,158	126,630	0.00169	0.0139	0.00178	0.0164	0.88
3/15/2022	8.0	3,519,486	413,328	0.00129	0.0112	0.00142	0.0145	1.02
6/16/2022	14	4,412,322	892,836	0.00103	0.0116	0.00169	0.0177	0.49
9/9/2022 (1)	12	5,218,146	805,824	0.00024	0.0030	0.00046	0.0053	0.15
12/10/2022 (2)	46	10,939,074	5,720,928	0.00104	0.0126	0.00206	0.0240	0.69
3/9/2023	31	14,846,376	3,907,302	0.00020	0.0026	0.00052	0.0063	0.21
6/22/2023 (3)	36	20,301,024	5,454,648	0.00015	0.0024	0.00043	0.0057	0.16
8/23/2023 (4)	38	23,648,084	3,347,060	0.00015	0.0020	0.00031	0.0044	0.13
11/27/2023	50	30,561,884	6,913,800	0.00017	0.0022	0.00033	0.0048	0.17
3/5/2024	35	35,557,364	4,995,480	0.00009	0.0011	0.00015	0.0022	0.07
6/13/2024	38	41,019,788	5,462,424	0.00008	0.0010	0.00013	0.0021	0.05
9/18/2024	40	46,603,628	5,583,840	0.00080	0.0052	0.00046	0.0065	0.06
11/26/2024	20	48,586,988	1,983,360	0.00038	0.0023	0.00019	0.0026	0.01
2/10/2025	10	49,653,068	1,066,080	0.00001	0.0000	0.00001	0.0001	0.00
5/27/2025	10	51,205,688	1,552,620	0.00002	0.0002	0.00003	0.0003	0.02
<b>Average</b>				0.0013	0.008	0.0010	0.010	0.49

Mass Recovery								
Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
2/1/2021	1.5	1.5	0.010	0.030	0.0012	0.0079	2.2	0.0011
9/7/2021	2,152	2,151	11	46	3.0	27	2,920	1.5
9/29/2021	2,383	231	1.1	9.0	1.1	11	431	0.22
12/2/2021	2,986	603	1.0	8.4	1.1	9.9	533	0.27
3/15/2022	3,847	861	1.1	9.7	1.2	12	876	0.44
6/16/2022	4,910	1,063	1.1	12.3	1.8	19	522	0.26
9/9/2022 (1)	6,029	1,119	0.3	3.3	0.5	6.0	167	0.08
12/10/2022 (2)	8,102	2,073	2.2	26	4.3	50	1,426	0.71
3/9/2023	10,203	2,101	0.43	5.5	1.1	13	438	0.22
6/22/2023	12,728	2,525	0.37	6.0	1.1	14	415	0.21
8/23/2023	14,209	1,481	0.23	2.9	0.46	6.6	195	0.10
11/27/2023	16,514	2,305	0.40	5.0	0.75	11	386	0.19
3/5/2024	18,892	2,379	0.21	2.6	0.35	5.3	174	0.087
6/13/2024	21,288	2,396	0.20	2.3	0.32	5.1	128	0.064
9/18/2024	23,615	2,327	1.9	12	1.1	15	132	0.066
11/26/2024	25,268	1,653	0.6	3.8	0.3	4.3	17	0.009
2/10/2025	27,044	1,777	0.0	0.1	0.0	0.1	4	0.002
5/27/2025	29,632	2,588	0.1	0.4	0.1	0.9	39	0.020
<b>Total Mass Recovery to Date</b>			22	155	19	210	8,807	4.4

**Notes:**

- (1): SVE system hours and flow rates were collected during operation and maintenance visit on 9/9/2022  
 (2): PID measurement, SVE system hours, and flow rates were collected during operation and maintenance visit on 12/10/2022  
 (3): SVE system rotameter was malfunctioning during site visit on 6/22/2023. Flow rate was estimated based on the average flow recorded during site visits between 4/13/2023 and 6/7/2023.  
 (4): SVE system rotameter was oscillating during third quarter 2023 site visits. Flow rate was estimated based on average historical flow for the current system
- cf: cubic feet  
 cfm: cubic feet per minute  
 µg/L: micrograms per liter  
 lb/hr: pounds per hour  
 -: not sampled  
 PID: photoionization detector  
 ppm: parts per million  
 TVPH: total volatile petroleum hydrocarbons  
 gray: laboratory reporting limit used for calculating emissions





# APPENDIX A

## Field Notes

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SCOTT 4M SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 7-17  
TIME ONSITE: \_\_\_\_\_

O&M PERSONNEL: B Sinclair  
TIME OFFSITE: \_\_\_\_\_

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: \_\_\_\_\_ KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	28669.7	1108
Post K/O Vacuum (IWC)	-74	
Inlet Rotameter Flow (scfm)	5	
Inlet PID	34.5	
Exhaust PID	16.2	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)		

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	SAMPLE TIME:
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01	45.3	47.1		
<del>SVE02</del>				
<del>SVE03</del>				
<del>SVE04</del>				
<del>SVE05</del>				
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:



SCOTT 4M SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 4/29/25  
TIME ONSITE: \_\_\_\_\_  
O&M PERSONNEL: Aaron L  
TIME OFFSITE: \_\_\_\_\_

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: \_\_\_\_\_ KO TANK HIGH LEVEL

SVE SYSTEM		READING	TIME	TIMER SETTINGS	
Blower Hours (take photo)		28963.4	1445	Month	Timer Setting
Voltage In		48.55 345.6		January	
Amperage In		72		February	
Voltage Out				March	
Amperage Out				April	
KiloWatts				May	
KiloWatt-Hours		Closed Open		June	
Solar Controller Status				July	
Pre K/O Vacuum (IWC)		56.0 54.8		August	
Inlet Rotameter Flow (cfm)		13 12		September	
Inlet PID (ppm)		1.6 7.7		October	
Exhaust PID (ppm)		1.7 6.4		November	
Solar Panel Angle				December	
K/O Tank Drum Level		0			
K/O Liquid Drained (gallons)		0			
Timer Setting					

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: \_\_\_\_\_ SAMPLE TIME: \_\_\_\_\_  
Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)

OPERATING WELLS

Change in Well Operation: \_\_\_\_\_

LOCATION	VACUUM (IWC)	VELOCITY (fpm)	PID HEADSPACE (PPM)	ADJUSTMENTS
Un SVE01	56.3		22.1	ON
Un SVE02				OFF
SVE03	57.4		26.2	OFF - Turned ON
SVE04	56.9		29.2	OFF - Turned ON
Un SVE05				OFF
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:

Post K/O VAC - ~82 in H<sub>2</sub>O



Location Scott #4MDate 5/8/25Project / Client Hilcorp

RH, 65°, Sunny

12:30 - RH on Site for O+M

- System running on arrival
- Calibrate PID w/ 100ppm Isobutylene

SVE 01, 03, 04 open  
02 & 05 closed

Hours = 29,175.5 @ 12:50

		SCFM	open
	Vac (post K/O)	Flow	PID
Inlet	84 in H <sub>2</sub> O	<10	52.0
Exhaust	-	-	32.8

	Vac	PID
SVE 01	-	110
03	-	28.1
04	-	42.7

1:50 - RH FF S:k

RH



SCOTT 4M SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 5-27  
TIME ONSITE: \_\_\_\_\_

O&M PERSONNEL: B Sinclair  
TIME OFFSITE: \_\_\_\_\_

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: \_\_\_\_\_ KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	29632.1	1324
Post K/O Vacuum (IWC)	8.4	
Inlet Rotameter Flow (scfm)	10	
Inlet PID	70.8	
Exhaust PID	58.2	
Solar Panel Angle		
K/O Tank Drum Level		
K/O Liquid Drained (gallons)		

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	SVE-1	SAMPLE TIME:	1320
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)		
OPERATING WELLS			

Change in Well Operation:				
LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01	49.2	132.5		
<del>SVE02</del>				
SVE03	50.3	39.6		
SVE04	50.0	32.4		
<del>SVE05</del>				
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:



SCOTT 4M SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 6-16  
TIME ONSITE:

O&M PERSONNEL: B Sinclair  
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	30111.3	1233
Pre K/O Vacuum (IWC)	-8.3	
Inlet Rotameter Flow (cfm)	15	
Inlet PID	72.3	
Exhaust PID	60.5	
K/O Tank Drum Level		
K/O Liquid Drained (gallons)		
Timer Setting		

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	SAMPLE TIME:
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01	49.2	141.4		
SVE02				
SVE03	50.4	41.8		
SVE04	50.2	35.6		
SVE05				
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:



SCOTT 4M SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 6-30

TIME ONSITE:

O&M PERSONNEL: B Sinclair

TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS:

KO TANK HIGH LEVEL

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	30445.8	1103
Post Pre K/O Vacuum (IWC)	-84	
Inlet Rotameter Flow (cfm)	1.6	
Inlet PID	65.7	
Exhaust PID	51.2	
K/O Tank Drum Level		
K/O Liquid Drained (gallons)		
Timer Setting		

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	SAMPLE TIME:
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	

Change in Well Operation:

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
SVE01	99.9	127.7		
<del>SVE02</del>				
SVE03	50.5	37.9		
SVE04	50.3	34.2		
<del>SVE05</del>				
SVE06 (OBSERVATION WELL)				
SVE07 (OBSERVATION WELL)				

COMMENTS/OTHER MAINTENANCE:





## APPENDIX B

### Project Photographs



**PROJECT PHOTOGRAPHS**  
Scott 4M  
San Juan County, New Mexico  
Hilcorp Energy Company

<p><b>Photograph 1</b></p> <p>Runtime meter taken on March 31, 2025 at 2:21 PM Hours = 28,267.0</p>	
<p><b>Photograph 2</b></p> <p>Runtime meter taken on June 30, 2025 at 11:03 AM Hours = 30,445.8</p>	





## APPENDIX C

# Vapor Sample Laboratory Analytical Reports

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mitch Killough  
Hilcorp Energy  
PO BOX 4700  
Farmington, New Mexico 87499

Generated 6/10/2025 6:13:22 PM

## JOB DESCRIPTION

Scott 4M

## JOB NUMBER

885-25594-1

Eurofins Albuquerque  
4901 Hawkins NE  
Albuquerque NM 87109



# 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



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Authorized for release by  
Michelle Garcia, Project Manager  
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(505)345-3975



Client: Hilcorp Energy  
Project/Site: Scott 4M

Laboratory Job ID: 885-25594-1

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Definitions/Glossary

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
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)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
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

Client: Hilcorp Energy  
Project: Scott 4M

Job ID: 885-25594-1

**Job ID: 885-25594-1**

**Eurofins Albuquerque**

### Job Narrative 885-25594-1

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 5/28/2025 7:50 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 20.0°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.

#### GC/MS VOA

Method 8260B: The continuing calibration verification (CCV) associated with batch 885-27695 recovered above the upper control limit for 2,2-Dichloropropane and Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

#### Gasoline Range Organics

Method 8015D\_GRO: Surrogate recovery for the following sample was outside control limits: SVE-1 (885-25594-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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## Client Sample Results

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

Client Sample ID: SVE-1

Lab Sample ID: 885-25594-1

Date Collected: 05/27/25 13:20

Matrix: Air

Date Received: 05/28/25 07:50

Sample Container: Tedlar Bag 1L

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			06/05/25 17:35	5
1,1,1-Trichloroethane	ND		0.50	ug/L			06/05/25 17:35	5
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			06/05/25 17:35	5
1,1,2-Trichloroethane	ND		0.50	ug/L			06/05/25 17:35	5
1,1-Dichloroethane	ND		0.50	ug/L			06/05/25 17:35	5
1,1-Dichloroethene	ND		0.50	ug/L			06/05/25 17:35	5
1,1-Dichloropropene	ND		0.50	ug/L			06/05/25 17:35	5
1,2,3-Trichlorobenzene	ND		0.50	ug/L			06/05/25 17:35	5
1,2,3-Trichloropropane	ND		1.0	ug/L			06/05/25 17:35	5
1,2,4-Trichlorobenzene	ND		0.50	ug/L			06/05/25 17:35	5
1,2,4-Trimethylbenzene	1.8		0.50	ug/L			06/05/25 17:35	5
1,2-Dibromo-3-Chloropropane	ND		1.0	ug/L			06/05/25 17:35	5
1,2-Dibromoethane (EDB)	ND		0.50	ug/L			06/05/25 17:35	5
1,2-Dichlorobenzene	ND		0.50	ug/L			06/05/25 17:35	5
1,2-Dichloroethane (EDC)	ND		0.50	ug/L			06/05/25 17:35	5
1,2-Dichloropropane	ND		0.50	ug/L			06/05/25 17:35	5
1,3,5-Trimethylbenzene	1.8		0.50	ug/L			06/05/25 17:35	5
1,3-Dichlorobenzene	ND		0.50	ug/L			06/05/25 17:35	5
1,3-Dichloropropane	ND		0.50	ug/L			06/05/25 17:35	5
1,4-Dichlorobenzene	ND		0.50	ug/L			06/05/25 17:35	5
1-Methylnaphthalene	ND		2.0	ug/L			06/05/25 17:35	5
2,2-Dichloropropane	ND		1.0	ug/L			06/05/25 17:35	5
2-Butanone	ND		5.0	ug/L			06/05/25 17:35	5
2-Chlorotoluene	ND		0.50	ug/L			06/05/25 17:35	5
2-Hexanone	ND		5.0	ug/L			06/05/25 17:35	5
2-Methylnaphthalene	ND		2.0	ug/L			06/05/25 17:35	5
4-Chlorotoluene	ND		0.50	ug/L			06/05/25 17:35	5
4-Isopropyltoluene	ND		0.50	ug/L			06/05/25 17:35	5
4-Methyl-2-pentanone	ND		5.0	ug/L			06/05/25 17:35	5
Acetone	ND		5.0	ug/L			06/05/25 17:35	5
Benzene	0.58		0.50	ug/L			06/05/25 17:35	5
Bromobenzene	ND		0.50	ug/L			06/05/25 17:35	5
Bromodichloromethane	ND		0.50	ug/L			06/05/25 17:35	5
Dibromochloromethane	ND		0.50	ug/L			06/05/25 17:35	5
Bromoform	ND		0.50	ug/L			06/05/25 17:35	5
Bromomethane	ND		1.5	ug/L			06/05/25 17:35	5
Carbon disulfide	ND		5.0	ug/L			06/05/25 17:35	5
Carbon tetrachloride	ND		0.50	ug/L			06/05/25 17:35	5
Chlorobenzene	ND		0.50	ug/L			06/05/25 17:35	5
Chloroethane	ND		1.0	ug/L			06/05/25 17:35	5
Chloroform	ND		0.50	ug/L			06/05/25 17:35	5
Chloromethane	ND		1.5	ug/L			06/05/25 17:35	5
cis-1,2-Dichloroethene	ND		0.50	ug/L			06/05/25 17:35	5
cis-1,3-Dichloropropene	ND		0.50	ug/L			06/05/25 17:35	5
Dibromomethane	ND		0.50	ug/L			06/05/25 17:35	5
Dichlorodifluoromethane	ND		0.50	ug/L			06/05/25 17:35	5
Ethylbenzene	1.2		0.50	ug/L			06/05/25 17:35	5
Hexachlorobutadiene	ND		0.50	ug/L			06/05/25 17:35	5

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## Client Sample Results

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

Client Sample ID: SVE-1

Lab Sample ID: 885-25594-1

Date Collected: 05/27/25 13:20

Matrix: Air

Date Received: 05/28/25 07:50

Sample Container: Tedlar Bag 1L

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	ug/L			06/05/25 17:35	5
Methyl-tert-butyl Ether (MTBE)	ND		0.50	ug/L			06/05/25 17:35	5
Methylene Chloride	ND		1.5	ug/L			06/05/25 17:35	5
n-Butylbenzene	ND		1.5	ug/L			06/05/25 17:35	5
N-Propylbenzene	0.51		0.50	ug/L			06/05/25 17:35	5
Naphthalene	ND		1.0	ug/L			06/05/25 17:35	5
sec-Butylbenzene	ND		0.50	ug/L			06/05/25 17:35	5
Styrene	ND		0.50	ug/L			06/05/25 17:35	5
tert-Butylbenzene	ND		0.50	ug/L			06/05/25 17:35	5
Tetrachloroethene (PCE)	ND		0.50	ug/L			06/05/25 17:35	5
Toluene	5.8		0.50	ug/L			06/05/25 17:35	5
trans-1,2-Dichloroethene	ND		0.50	ug/L			06/05/25 17:35	5
trans-1,3-Dichloropropene	ND		0.50	ug/L			06/05/25 17:35	5
Trichloroethene (TCE)	ND		0.50	ug/L			06/05/25 17:35	5
Trichlorofluoromethane	ND		0.50	ug/L			06/05/25 17:35	5
Vinyl chloride	ND		0.50	ug/L			06/05/25 17:35	5
Xylenes, Total	14		0.75	ug/L			06/05/25 17:35	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		06/05/25 17:35	5
Toluene-d8 (Surr)	101		70 - 130		06/05/25 17:35	5
4-Bromofluorobenzene (Surr)	96		70 - 130		06/05/25 17:35	5
Dibromofluoromethane (Surr)	84		70 - 130		06/05/25 17:35	5

## Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	690		25	ug/L			06/09/25 14:03	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	166	S1+	15 - 150		06/09/25 14:03	5

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## QC Sample Results

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

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

Lab Sample ID: MB 885-27695/5

Matrix: Air

Analysis Batch: 27695

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.10	ug/L			06/05/25 15:32	1
1,1,1-Trichloroethane	ND		0.10	ug/L			06/05/25 15:32	1
1,1,2,2-Tetrachloroethane	ND		0.20	ug/L			06/05/25 15:32	1
1,1,2-Trichloroethane	ND		0.10	ug/L			06/05/25 15:32	1
1,1-Dichloroethane	ND		0.10	ug/L			06/05/25 15:32	1
1,1-Dichloroethene	ND		0.10	ug/L			06/05/25 15:32	1
1,1-Dichloropropene	ND		0.10	ug/L			06/05/25 15:32	1
1,2,3-Trichlorobenzene	ND		0.10	ug/L			06/05/25 15:32	1
1,2,3-Trichloropropane	ND		0.20	ug/L			06/05/25 15:32	1
1,2,4-Trichlorobenzene	ND		0.10	ug/L			06/05/25 15:32	1
1,2,4-Trimethylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
1,2-Dibromo-3-Chloropropane	ND		0.20	ug/L			06/05/25 15:32	1
1,2-Dibromoethane (EDB)	ND		0.10	ug/L			06/05/25 15:32	1
1,2-Dichlorobenzene	ND		0.10	ug/L			06/05/25 15:32	1
1,2-Dichloroethane (EDC)	ND		0.10	ug/L			06/05/25 15:32	1
1,2-Dichloropropane	ND		0.10	ug/L			06/05/25 15:32	1
1,3,5-Trimethylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
1,3-Dichlorobenzene	ND		0.10	ug/L			06/05/25 15:32	1
1,3-Dichloropropane	ND		0.10	ug/L			06/05/25 15:32	1
1,4-Dichlorobenzene	ND		0.10	ug/L			06/05/25 15:32	1
1-Methylnaphthalene	ND		0.40	ug/L			06/05/25 15:32	1
2,2-Dichloropropane	ND		0.20	ug/L			06/05/25 15:32	1
2-Butanone	ND		1.0	ug/L			06/05/25 15:32	1
2-Chlorotoluene	ND		0.10	ug/L			06/05/25 15:32	1
2-Hexanone	ND		1.0	ug/L			06/05/25 15:32	1
2-Methylnaphthalene	ND		0.40	ug/L			06/05/25 15:32	1
4-Chlorotoluene	ND		0.10	ug/L			06/05/25 15:32	1
4-Isopropyltoluene	ND		0.10	ug/L			06/05/25 15:32	1
4-Methyl-2-pentanone	ND		1.0	ug/L			06/05/25 15:32	1
Acetone	ND		1.0	ug/L			06/05/25 15:32	1
Benzene	ND		0.10	ug/L			06/05/25 15:32	1
Bromobenzene	ND		0.10	ug/L			06/05/25 15:32	1
Bromodichloromethane	ND		0.10	ug/L			06/05/25 15:32	1
Dibromochloromethane	ND		0.10	ug/L			06/05/25 15:32	1
Bromoform	ND		0.10	ug/L			06/05/25 15:32	1
Bromomethane	ND		0.30	ug/L			06/05/25 15:32	1
Carbon disulfide	ND		1.0	ug/L			06/05/25 15:32	1
Carbon tetrachloride	ND		0.10	ug/L			06/05/25 15:32	1
Chlorobenzene	ND		0.10	ug/L			06/05/25 15:32	1
Chloroethane	ND		0.20	ug/L			06/05/25 15:32	1
Chloroform	ND		0.10	ug/L			06/05/25 15:32	1
Chloromethane	ND		0.30	ug/L			06/05/25 15:32	1
cis-1,2-Dichloroethene	ND		0.10	ug/L			06/05/25 15:32	1
cis-1,3-Dichloropropene	ND		0.10	ug/L			06/05/25 15:32	1
Dibromomethane	ND		0.10	ug/L			06/05/25 15:32	1
Dichlorodifluoromethane	ND		0.10	ug/L			06/05/25 15:32	1
Ethylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
Hexachlorobutadiene	ND		0.10	ug/L			06/05/25 15:32	1

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## QC Sample Results

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

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

Lab Sample ID: MB 885-27695/5

Matrix: Air

Analysis Batch: 27695

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Isopropylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
Methyl-tert-butyl Ether (MTBE)	ND		0.10	ug/L			06/05/25 15:32	1
Methylene Chloride	ND		0.30	ug/L			06/05/25 15:32	1
n-Butylbenzene	ND		0.30	ug/L			06/05/25 15:32	1
N-Propylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
Naphthalene	ND		0.20	ug/L			06/05/25 15:32	1
sec-Butylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
Styrene	ND		0.10	ug/L			06/05/25 15:32	1
tert-Butylbenzene	ND		0.10	ug/L			06/05/25 15:32	1
Tetrachloroethene (PCE)	ND		0.10	ug/L			06/05/25 15:32	1
Toluene	ND		0.10	ug/L			06/05/25 15:32	1
trans-1,2-Dichloroethene	ND		0.10	ug/L			06/05/25 15:32	1
trans-1,3-Dichloropropene	ND		0.10	ug/L			06/05/25 15:32	1
Trichloroethene (TCE)	ND		0.10	ug/L			06/05/25 15:32	1
Trichlorofluoromethane	ND		0.10	ug/L			06/05/25 15:32	1
Vinyl chloride	ND		0.10	ug/L			06/05/25 15:32	1
Xylenes, Total	ND		0.15	ug/L			06/05/25 15:32	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		06/05/25 15:32	1
Toluene-d8 (Surr)	83		70 - 130		06/05/25 15:32	1
4-Bromofluorobenzene (Surr)	73		70 - 130		06/05/25 15:32	1
Dibromofluoromethane (Surr)	105		70 - 130		06/05/25 15:32	1

Lab Sample ID: LCS 885-27695/4

Matrix: Air

Analysis Batch: 27695

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.0	21.4		ug/L		107	70 - 130
Benzene	20.0	22.4		ug/L		112	70 - 130
Chlorobenzene	20.0	20.7		ug/L		104	70 - 130
Toluene	20.0	19.5		ug/L		98	70 - 130
Trichloroethene (TCE)	20.0	20.0		ug/L		100	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
Toluene-d8 (Surr)	80		70 - 130
4-Bromofluorobenzene (Surr)	74		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130

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QC Sample Results

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-27866/6					Client Sample ID: Method Blank				
Matrix: Air					Prep Type: Total/NA				
Analysis Batch: 27866									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		5.0	ug/L			06/09/25 12:15	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	105		15 - 150				06/09/25 12:15	1	

Lab Sample ID: LCS 885-27866/4					Client Sample ID: Lab Control Sample				
Matrix: Air					Prep Type: Total/NA				
Analysis Batch: 27866									
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]			50.0	54.5		ug/L		109	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	210		15 - 150						



QC Association Summary

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

GC/MS VOA

Analysis Batch: 27695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25594-1	SVE-1	Total/NA	Air	8260B	
MB 885-27695/5	Method Blank	Total/NA	Air	8260B	
LCS 885-27695/4	Lab Control Sample	Total/NA	Air	8260B	

GC VOA

Analysis Batch: 27866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25594-1	SVE-1	Total/NA	Air	8015D	
MB 885-27866/6	Method Blank	Total/NA	Air	8015D	
LCS 885-27866/4	Lab Control Sample	Total/NA	Air	8015D	



Lab Chronicle

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

**Client Sample ID: SVE-1**  
**Date Collected: 05/27/25 13:20**  
**Date Received: 05/28/25 07:50**

**Lab Sample ID: 885-25594-1**  
**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	27695	CM	EET ALB	06/05/25 17:35
Total/NA	Analysis	8015D		5	27866	JP	EET ALB	06/09/25 14:03

**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



## Accreditation/Certification Summary

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

## Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26

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
8015D		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
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

Eurofins Albuquerque



## Accreditation/Certification Summary

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

## Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
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
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 (MTBE)
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
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26

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
8015D		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

Eurofins Albuquerque



## Accreditation/Certification Summary

Client: Hilcorp Energy  
Project/Site: Scott 4M

Job ID: 885-25594-1

## Laboratory: Eurofins Albuquerque (Continued)

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

Authority	Program	Identification Number	Expiration Date
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
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
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 (MTBE)
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
8260B		Air	Trichloroethene (TCE)
8260B		Air	Trichlorofluoromethane
8260B		Air	Vinyl chloride
8260B		Air	Xylenes, Total

Eurofins Albuquerque





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## ANALYTICAL SUMMARY REPORT

June 04, 2025

Eurofins TestAmerica - Albuquerque

4901 Hawkins St NE Ste D

Albuquerque, NM 87109-4372

Work Order: B25052308

Quote ID: B15626

Project Name: Scott 4M 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Eurofins TestAmerica - Albuquerque on 5/29/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B25052308-001	SVE-1 (885-25594-1)	05/27/25 13:20	05/29/25	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

Prepared by Billings, MT Branch

**Client:** Eurofins TestAmerica - Albuquerque  
**Project:** Scott 4M 88501698  
**Lab ID:** B25052308-001  
**Client Sample ID:** SVE-1 (885-25594-1)

**Report Date:** 06/04/25  
**Collection Date:** 05/27/25 13:20  
**Date Received:** 05/29/25  
**Matrix:** Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>GAS CHROMATOGRAPHY ANALYSIS REPORT</b>							
Oxygen	21.94	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Nitrogen	77.59	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Carbon Dioxide	0.21	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Methane	0.21	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Ethane	0.02	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Propane	0.01	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Hexanes plus	0.02	Mol %		0.01		GPA 2261-13	06/03/25 12:26 / jrj
Propane	0.003	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
Hexanes plus	0.008	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
GPM Total	0.011	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj
GPM Pentanes plus	0.008	gpm		0.001		GPA 2261-13	06/03/25 12:26 / jrj

### CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	4	1	GPA 2261-13	06/03/25 12:26 / jrj
Net BTU per cu ft @ std cond. (LHV)	3	1	GPA 2261-13	06/03/25 12:26 / jrj
Pseudo-critical Pressure, psia	547	1	GPA 2261-13	06/03/25 12:26 / jrj
Pseudo-critical Temperature, deg R	240	1	GPA 2261-13	06/03/25 12:26 / jrj

Specific Gravity @ 60/60F	0.999	0.001	D3588-81	06/03/25 12:26 / jrj
Air, %	100.24	0.01	GPA 2261-13	06/03/25 12:26 / jrj

- The analysis was not corrected for air.

### COMMENTS

-	-	06/03/25 12:26 / 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

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)





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## QA/QC Summary Report

Prepared by Billings, MT Branch

Work Order: B25052308

Report Date: 06/04/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: GPA 2261-13</b>									Batch: R443490	
<b>Lab ID: B25052307-001ADUP</b>	12 Sample Duplicate				Run: GC7890_250603A				06/03/25 11:37	
Oxygen		21.8	Mol %	0.01				1.7	20	
Nitrogen		78.0	Mol %	0.01				0.5	20	
Carbon Dioxide		0.17	Mol %	0.01				0.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		0.01	Mol %	0.01				0.0	20	
<b>Lab ID: LCS060325</b>	11 Laboratory Control Sample				Run: GC7890_250603A				06/03/25 14:54	
Oxygen		0.64	Mol %	0.01	130	70	130			
Nitrogen		6.20	Mol %	0.01	105	70	130			
Carbon Dioxide		0.98	Mol %	0.01	98	70	130			
Methane		76.1	Mol %	0.01	100	70	130			
Ethane		6.07	Mol %	0.01	100	70	130			
Propane		5.11	Mol %	0.01	102	70	130			
Isobutane		1.61	Mol %	0.01	81	70	130			
n-Butane		2.07	Mol %	0.01	104	70	130			
Isopentane		0.51	Mol %	0.01	102	70	130			
n-Pentane		0.53	Mol %	0.01	106	70	130			
Hexanes plus		0.21	Mol %	0.01	102	70	130			

### Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)





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## Work Order Receipt Checklist

Eurofins TestAmerica - Albuquerque

B25052308

Login completed by: Danielle N. Harris

Date Received: 5/29/2025

Reviewed by: gmccartney

Received by: ET

Reviewed Date: 5/31/2025

Carrier name: FedEx Ground

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	21.0°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

### 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

Current certificates are available at [www.energylab.com](http://www.energylab.com) website:

	Agency	Number
<b>Billings, MT</b>   	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
<b>Casper, WY</b>  	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	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
<b>Gillette, WY</b>	US EPA Region VIII	WY00006
<b>Helena, MT</b>	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090



 **eurofins** | Environment Testing

Ver: 10/10/2024



885-25594 COC



## Login Sample Receipt Checklist

Client: Hilcorp Energy

Job Number: 885-25594-1

Login Number: 25594

List Source: Eurofins Albuquerque

List Number: 1

Creator: Dominguez, Desiree

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
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.	False	Thermal preservation not required.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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

Action 485020

CONDITIONS

Operator:  HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID:  372171
	Action Number:  485020
	Action Type:  [REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
nvez	1. Continue with recommendations presented within this report. 2. Submit next quarterly report by October 15, 2025.	7/21/2025