



1. Continue O&M & sampling as stated in report. 2. Submit next quarterly report by July 15, 2025.

April 15, 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: First Quarter 2025 – SVE System Update**

San Juan 28-6 #31  
Rio Arriba County, New Mexico  
Hilcorp Energy Company  
NMOCD Incident Number: NVF1816655680

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *First Quarter 2025 – SVE System Update* report summarizing the soil vapor extraction (SVE) system performance at the San Juan 28-6 #31 natural gas production well (Site) located in Unit M, Section 28, Township 28 North, Range 6 West in Rio Arriba County, New Mexico (Figure 1). Specifically, this report summarizes Site activities performed in January, February, and March of 2025 to the New Mexico Oil Conservation Division (NMOCD).

## SVE SYSTEM SPECIFICATIONS

The current SVE system consists of a three-phase, 3 horsepower (HP) Ametek Rotron Model EN656 regenerative blower capable of producing 100 standard cubic feet per minute (scfm) of flow and 50 inches of water column (IWC). In total, 19 SVE wells (SVE-1, SVE-2RS, SVE-2RD, SVE-3, SVE-4, SVE-5, SVE-6, SVE-7S, SVE-7D, SVE-8, SVE-9, SVE-10, SVE-11S, SVE-11D, SVE-12S, SVE-13S, SVE-13D, SVE-14S, and SVE-15) are installed at the Site at varying depth intervals in order to induce air flow through the impacted zones in the subsurface. Two additional deep zone SVE wells (SVE-12D and SVE-14D) were previously installed but are not currently connected to the SVE system. SVE well locations are presented on Figure 2. Additionally, the power for the SVE system was converted from generator to a permanent power drop on April 20, 2022. Specifically, the voltage capacity of the power drop at the Site was increased in order to run the SVE system and negate the need for a generator to power the system. This was determined to be necessary based on reliability issues with the generators used at the Site.

## FIRST QUARTER 2025 ACTIVITIES

During the first quarter of 2025, Ensolum and Hilcorp personnel performed bi-weekly operation and maintenance (O&M) visits to ensure the system was operating as designed and to perform any required maintenance. Field notes taken during O&M visits are presented in Appendix A. Between December 30, 2024 and March 30, 2025, the SVE system operated for an estimated 2,143 hours for a runtime efficiency of 99.2 percent (%). Table 1 presents the SVE system operational hours and percent runtime. Appendix B presents photographs of the runtime meter for calculating the first quarter runtime efficiency. During the first quarter of 2025, zones Leg A Deep, Leg A Shallow, and Leg B-1 were operating with 13 of the 19 wells operational.

A first quarter 2025 vapor sample was collected on February 11, 2025. The vapor sample was collected from the sample port located between the SVE piping manifold (collected from the total combined air flow from all active wells) and the SVE blower using a high vacuum air sampler. Prior to collection, the vapor sample was field screened with a photoionization detector (PID) for organic vapor monitoring (OVM). The vapor sample was collected directly into two 1-Liter Tedlar® bags and submitted to Eurofins Environment Testing, located in Albuquerque, New Mexico, for analysis of total volatile petroleum hydrocarbons (TVPH, also referred to 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 Processor Association (GPA) Method 2261. Table 2 presents a summary of analytical data collected during this and previous sampling events, with the full laboratory analytical report included as Appendix C.

Vapor sample data and measured stack flow rates are used to estimate total mass recovered and total emissions generated by the SVE system (Table 3). Based on these estimates, a total of 25,678 pounds (13 tons) of TVPH have been removed by the system to date.

## RECOMMENDATIONS

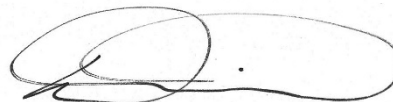
Bi-weekly O&M visits will continue to be performed by Ensolum and/or Hilcorp personnel to verify the SVE system is operating within normal working ranges (i.e., temperature, pressure, and vacuum). Deviations from regular operations will be noted on field logs and included in the following quarterly report. Hilcorp will continue operating the SVE until asymptotic mass removal rates are observed. At that time, an evaluation of residual petroleum hydrocarbons will be assessed and further recommendations for remedial actions, if any, will be provided to NMOCD.

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**



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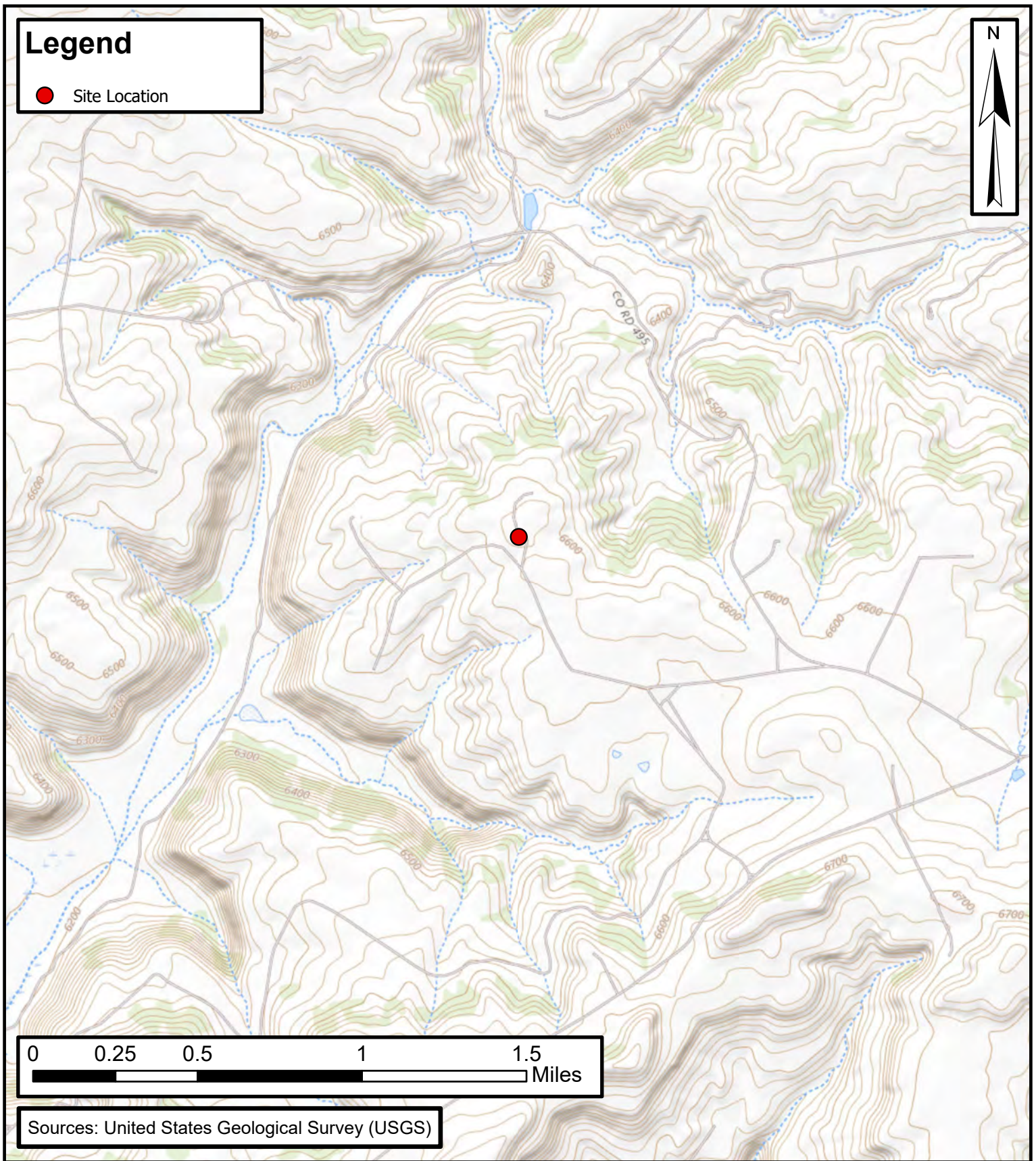
## Attachments:

Figure 1	Site Location Map
Figure 2	SVE System Configuration
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	Laboratory Analytical Reports



Figures





## Site Location Map

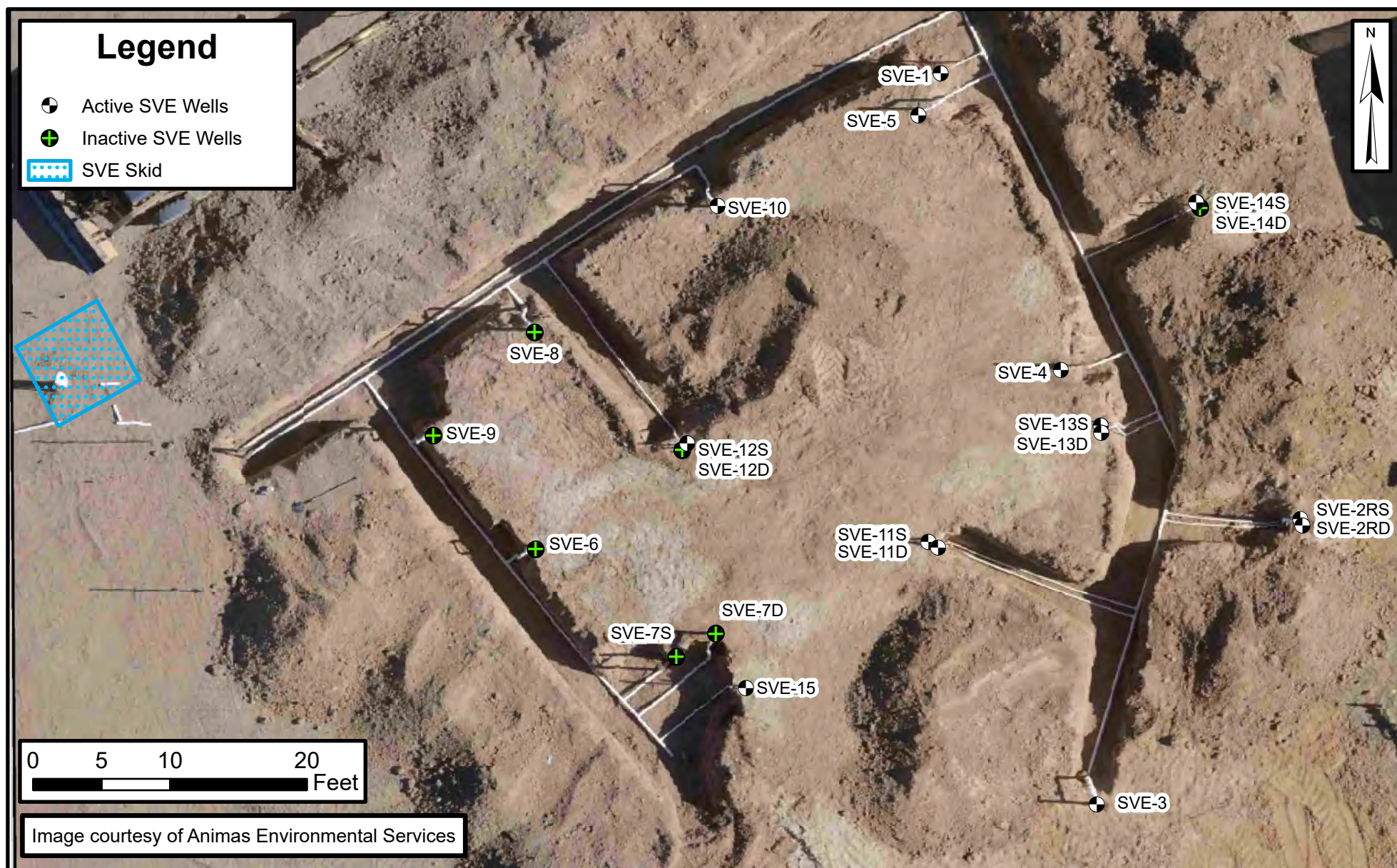
San Juan 28-6 #31  
Hilcorp Energy Company  
36.6277°N, -107.4781°W  
Rio Arriba County, NM

FIGURE

1

**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants





## SVE System Configuration

San Juan 28-6 #31  
Hilcorp Energy Company  
36.6277° N, -107.4781° W  
Rio Arriba County, New Mexico

FIGURE  
2



Tables



**TABLE 1**  
**SOIL VAPOR EXTRACTION SYSTEM RUNTIME CALCULATIONS**  
San Juan 28-6 #31  
Hilcorp Energy Company  
Rio Arriba County, New Mexico

Date	SVE Runtime Hours	Delta Hours	Days	% Runtime
12/30/2024	2,946	--	--	--
3/30/2025	5,089	2,143	90	99.2%



**TABLE 2**  
**SOIL VAPOR EXTRACTION SYSTEM AIR ANALYTICAL RESULTS**

San Juan 28-6 #31  
Hilcorp Energy Company  
Rio Arriba County, New Mexico

Date	Sample Identification	Operating SVE Zones	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
9/20/2021	Pilot Test	All Zones	1,287	720	1,600	15	320	250,000	17.87%	2.05%
9/28/2021	Influent A+B	All Zones	736	240	720	27	350	53,000	---	---
10/21/2021	Influent A+B	All Zones	615	60	170	6.7	74	13,000	---	---
11/5/2021	Leg A Deep	Leg A Deep	1,177	620	1,700	29	390	72,000	---	---
12/16/2021	Leg A Deep	Leg A Deep	1,398	470	950	11	190	96,000	21.00%	0.83%
12/16/2021	Leg A Shallow	Leg A Shallow	298	10	32	1.1	19	2,300	22.00%	0.12%
1/6/2022	Leg A Shallow	Leg A Shallow	283	12	34	1.2	15	2,500	22.13%	0.13%
1/6/2022	Leg B-1	Leg B-1	158	2.3	10	<0.50	6.7	1,100	21.97%	0.10%
3/24/2022	Influent All Wells	All Zones	604	48	92	1.2	19	6,300	22.10%	0.18%
6/13/2022	Influent All Wells	All Zones	414	30	89	<2.0	29	4,600	21.57%	0.25%
9/30/2022	Influent 9-30	All Zones	410	19	65	2.1	26	3,700	21.57%	0.28%
12/6/2022	SVE-1	All Zones	284	85	220	<5.0	58	22,000	21.69%	0.23%
3/8/2023	SVE-1	All Zones	381	13	54	<5.0	16	52	21.66%	0.19%
6/22/2023	SVE-1	All Zones	356	8.4	39	1.2	17	3,000	21.66%	0.20%
8/22/2023	SVE-1	All Zones	386	14	49	<5.0	17	2,800	21.68%	0.20%
11/22/2023	SVE-1	All Zones	396	14	56	<5.0	20	2,800	21.45%	0.19%
3/7/2024	SVE-1	All Zones	265	6.3	24	<5.0	8.6	1,300	21.93%	0.02%
6/15/2024	SVE-1	Leg A Shallow Leg A Deep Leg B-1	143	7.2	28	0.92	16	1,400	21.98%	0.20%
9/10/2024	SVE-1	Leg A Shallow Leg A Deep Leg B-1	263	57	220	5.2	97	1,200	21.69%	0.23%
11/27/2024	SVE-1	Leg A Shallow Leg A Deep Leg B-1	164	6.6	13	<5.0	<7.5	1,100	22.01%	0.16%
2/11/2025	SVE-1	Leg A Shallow Leg A Deep Leg B-1	208	<5.0	19	<5.0	<7.5	1,200	21.30%	0.14%

**Notes:**

GRO: gasoline range hydrocarbons

µg/L: microgram per liter

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

%: percent

--: not sampled/analyzed

<: gray indicates result less than the stated laboratory reporting limit (RL)





**TABLE 3**  
**SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS**  
San Juan 28-6 #31  
Hilcorp Energy Company  
Rio Arriba County, New Mexico

Laboratory Analysis						
Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
9/28/2021	736	240	720	27	350	53,000
10/21/2021	615	60	170	6.7	74	13,000
11/5/2021	1,177	620	1,700	29	390	72,000
12/16/2021	298	10	32	1.1	19	2,300
1/6/2022	158	2.3	10	0.50	6.7	1,100
3/24/2022	604	48	92	1.2	19	6,300
6/13/2022	414	30	89	2.0	29	4,600
9/30/2022 <sup>(1)</sup>	410	19	65	2.1	26	3,700
12/6/2022	284	85	220	5.0	58	22,000
3/8/2023	381	13	54	5.0	16	52
6/22/2023	356	8.4	39	1.2	17	3,000
8/22/2023	386	14	49	5.0	17	2,800
11/22/2023	396	14	56	5.0	20	2,800
3/7/2024	265	6.3	24	5.0	8.6	1,300
6/15/2024	143	7.2	28	0.92	16	1,400
9/10/2024	263	57	220	5.2	97	1,200
11/27/2024	164	6.6	13	5.0	7.5	1,100
2/11/2025	208	5.0	19	5.0	7.5	1,200
Average	403	69	200	6.2	65	10,714

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)
9/28/2021	60	17,280	17,280	0.054	0.16	0.0061	0.079	12
10/21/2021	50	1,648,680	1,631,400	0.028	0.083	0.0032	0.040	6.2
11/5/2021	8	1,864,392	215,712	0.010	0.028	0.00053	0.0069	1.3
12/16/2021	12	2,496,696	632,304	0.014	0.039	0.00068	0.0092	1.7
1/6/2022	32	3,352,056	855,360	0.00072	0.0025	0.000096	0.0015	0.20
3/24/2022	12	4,610,688	1,258,632	0.0011	0.0023	0.000038	0.00058	0.17
6/13/2022	61	11,659,482	7,048,794	0.0089	0.021	0.00037	0.0055	1.2
9/19/2022 <sup>(1)</sup>	52	18,819,882	7,160,400	0.0048	0.015	0.00040	0.0053	0.81
12/6/2022	55	24,971,082	6,151,200	0.011	0.029	0.00073	0.0086	2.6
3/8/2023	50	31,583,082	6,612,000	0.0092	0.026	0.00094	0.0069	2.1
6/22/2023	55	39,941,982	8,358,900	0.0022	0.0096	0.00064	0.0034	0.31
8/22/2023	60	45,183,582	5,241,600	0.0025	0.0099	0.00070	0.0038	0.65
11/22/2023	60	53,117,982	7,934,400	0.0031	0.012	0.0011	0.0042	0.63
3/7/2024	55	61,486,782	8,368,800	0.0021	0.008	0.0010	0.0029	0.42
6/15/2024	55	68,403,582	6,916,800	0.0014	0.005	0.0006	0.0025	0.28
9/10/2024	55	75,323,682	6,920,100	0.0066	0.026	0.0006	0.0116	0.27
11/27/2024	50	80,925,582	5,601,900	0.0059	0.022	0.0010	0.0098	0.22
2/11/2025	50	86,348,682	5,423,100	0.0011	0.003	0.0009	0.0014	0.22
Average				0.009	0.028	0.001	0.011	1.7

Mass Recovery								
Date	Total Operational Hours <sup>(2)</sup>	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
9/28/2021	5	5	0.26	0.78	0.029	0.4	57	0.029
10/21/2021	549	544	15	45	1.7	21.6	3,356	1.7
11/9/2021 <sup>(3)</sup>	998	449	4.6	13	0.24	3.1	571	0.29
12/16/2021	1,876	878	12	34	0.59	8.1	1,464	0.73
1/6/2022	2,322	446	0.32	1.1	0.043	0.7	91	0.045
3/24/2022	4,070	1,748	2.0	4.0	0.067	1.0	290	0.15
6/13/2022	5,996	1,926	17	40	0.70	11	2,395	1.2
9/19/2022 <sup>(1)</sup>	8,291	2,295	11	34	0.9	12	1,852	0.93
12/6/2022	10,155	1,864	20	55	1.4	16	4,927	2.5
3/8/2023	12,359	2,204	20	56	2	15	4,544	2.3
6/22/2023	14,892	2,533	5.6	24	1.6	8.6	795	0.40
8/22/2023	16,348	1,456	3.7	14	1.0	5.6	948	0.47
11/22/2023	18,552	2,204	6.9	26	2.5	9.1	1,385	0.69
3/7/2024	21,088	2,536	5.3	21	2.6	7.5	1,069	0.53
6/15/2024	23,184	2,096	2.9	11	1.3	5.3	582	0.29
9/10/2024 <sup>(4)</sup>	25,046	2,097	13.8	53	1.3	24.4	561	0.28
11/27/2024	26,913	1,867	11.1	41	1.8	18.2	402	0.20
2/11/2025	28,721	1,808	2.0	5	1.7	2.5	389	0.19
Total Mass Recovery to Date			154	479	21.5	170	25,678	13

Notes:

(1): an emissions air sample was recollected on 9/30/2022 due to air-collection errors during the 9/19/2022 site visit. Flow rates collected during the 9/19/2022 visit are used for emissions calculations

(2): total operational hours are a summation of runtime hours collected from several generators and blower runtime meters used since system startup

(3): runtime hours collected during a site visit on 11/9/2021

(4): runtime hours estimated based on hour meter readings between 6/25/2024 and 8/28/2024 when the meter was noted to be broken plus readings between when the new meter was installed on 8/29/2024 and 9/10/2024

cfm: cubic feet per minute

cf: cubic feet

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: Indicates result less than the stated laboratory reporting limit (RL); as such, RL used for calculating emissions.



# APPENDIX A

## Field Notes

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28-6 #31 SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 1-9  
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)	3186.4	1300
Pre K/O Vacuum (IWC)	-33	
Post K/O Vacuum (IWC)	37	
Pitot Tube 3" Flow (cfm)	30	
Leg A Rotameter (cfm)	23	
Leg B Rotameter (cfm)	27	
Inlet PID (ppm)	283.1	
Liquid in K/O Sight Tube (Y/N)		
K/O Liquid Drained (gallons)		

HOUSEKEEPING Check  
Inline Filter Clean \_\_\_\_\_  
Clean Wye Strainer \_\_\_\_\_

SVE SYSTEM - QUARTERLY SAMPLING

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

ZONES

Change in Well Operation:				
LEG A DEEP				
LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-2RD	20.8	1578		
SVE-3	20.9	792.2		
SVE-5	20.9	1919		
SVE-11D	20.7	1789		
SVE-13D	20.8	1888		

LEG A SHALLOW				
LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-1	18.71	1396		
SVE-2RS	20.8	814.6		
SVE-4	20.9	772.4		
SVE-11S	20.7	1505		
SVE-13S	20.7	1461		
SVE-14S	20.8	1755		

LEG B-1	LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
	SVE-7D	20.2	103.6		
	SVE-10	20.6	2177		
	SVE-12S				
	SVE-15				

LEG B-2	LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
	SVE-6				
	SVE-7S				
	SVE-8				
	SVE-9				

COMMENTS/OTHER MAINTENANCE:  
exh PID = 392.5



28-6 #31 SVE SYSTEM  
BIWEEKLY O&M FORMDATE: 1-22  
TIME ONSITE: \_\_\_\_\_O&M PERSONNEL: B Sinclair  
TIME OFFSITE: \_\_\_\_\_

## SVE SYSTEM - MONTHLY O&amp;M

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

## SVE SYSTEM

	READING	TIME
Blower Hours (take photo)	<u>3983.3</u>	<u>1132</u>
Pre K/O Vacuum (IWC)	<u>-33</u>	
Post K/O Vacuum (IWC)	<u>-27</u>	
Pitot Tube 3" Flow (cfm)	<u>50</u>	
Leg A Rotameter (cfm)	<u>23</u>	
Leg B Rotameter (cfm)	<u>29</u>	
Inlet PID (ppm)	<u>398.9</u>	
Liquid in K/O Sight Tube (Y/N)		
K/O Liquid Drained (gallons)		

## HOUSEKEEPING Check

Inline Filter Clean \_\_\_\_\_  
Clean Wye Strainer \_\_\_\_\_

## SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: \_\_\_\_\_ SAMPLE TIME: \_\_\_\_\_

Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)

OPERATING WELLS

## ZONES

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

## LEG A DEEP

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-2RD	<u>20.7</u>	<u>1323</u>		
SVE-3	<u>20.8</u>	<u>722.8</u>		
SVE-5	<u>20.6</u>	<u>18.06</u>		
SVE-11D	<u>20.8</u>	<u>1611</u>		
SVE-13D	<u>20.8</u>	<u>1955</u>		

## LEG A SHALLOW

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-1	<u>18.21</u>	<u>845.8</u>		
SVE-2RS	<u>20.7</u>	<u>1183</u>		
SVE-4	<u>20.5</u>	<u>1422</u>		
SVE-11S	<u>20.8</u>	<u>1302</u>		
SVE-13S	<u>20.6</u>	<u>1610</u>		
SVE-14S	<u>20.6</u>	<u>2319</u>		

## LEG B-1

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-7D		<u>70.1</u>		
SVE-10	<u>19.67</u>	<u>2036</u>		
SVE-12S	<u>20.7</u>			
SVE-15				

## LEG B-2

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-6				
SVE-7S				
SVE-8				
SVE-9				

COMMENTS/OTHER MAINTENANCE:

exh PID = 489.3



28-6 #31 SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 2-11  
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)	3962.9	1325
Pre K/O Vacuum (IWC)	-3.5	
Post K/O Vacuum (IWC)	-2.9	
Pitot Tube 3" Flow (cfm)	50	
Leg A Rotameter (cfm)	24	
Leg B Rotameter (cfm)	30	
Inlet PID (ppm)	208.3	
Liquid in K/O Sight Tube (Y/N)		
K/O Liquid Drained (gallons)		

HOUSEKEEPING Check

Inline Filter Clean \_\_\_\_\_  
Clean Wye Strainer \_\_\_\_\_

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: SVE-1 SAMPLE TIME: 1330  
Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)

OPERATING WELLS

ZONES

Change in Well Operation:

LEG A DEEP

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-2RD	20.8	129.5		
SVE-3	20.8	658.9		
SVE-5	20.7	974		
SVE-11D	20.8	1537		
SVE-13D	20.8	1603		

LEG A SHALLOW

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-1	18.32	774.8		
SVE-2RS	20.8	1322		
SVE-4	20.6	1141		
SVE-11S	20.7	1215		
SVE-13S	20.8	1708		
SVE-14S	20.8	1984		

LEG B-1

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-7D				
SVE-10	19.81	100.8		
SVE-12S	20.8	1263		
SVE-15				

LEG B-2

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-6				
SVE-7S				
SVE-8				
SVE-9				

COMMENTS/OTHER MAINTENANCE:



28-6 #31 SVE SYSTEM  
BIWEEKLY O&M FORM

DATE: 2-27  
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)	4345.9	1230
Pre K/O Vacuum (IWC)	-34	
Post K/O Vacuum (IWC)	-28	
Pitot Tube 3" Flow (cfm)	50	
Leg A Rotameter (cfm)	22	
Leg B Rotameter (cfm)	29	
Inlet PID (ppm)	244.8	
Liquid in K/O Sight Tube (Y/N)		
K/O Liquid Drained (gallons)		

HOUSEKEEPING Check

Inline Filter Clean \_\_\_\_\_  
Clean Wye Strainer \_\_\_\_\_

SVE SYSTEM - QUARTERLY SAMPLING

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

ZONES

Change in Well Operation:  
LEG A DEEP

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-2RD	21.8	1200		
SVE-3	21.8	533.3		
SVE-5	21.9	1314		
SVE-11D	21.8	1614		
SVE-13D	21.8	1874		

LEG A SHALLOW

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-1	19.87	550.8		
SVE-2RS	21.9	1644		
SVE-4	21.8	632.1		
SVE-11S	21.7	1341		
SVE-13S	21.8	1830		
SVE-14S	21.9	1314		

LEG B-1

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-7D				
SVE-10	20.7	168.7		
SVE-12S	21.1	1164		
SVE-15				

LEG B-2

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-6				
SVE-7S				
SVE-8				
SVE-9				

COMMENTS/OTHER MAINTENANCE:



28-6 #31 SVE SYSTEM  
BIWEEKLY O&M FORMDATE: 3-17  
TIME ONSITE: \_\_\_\_\_O&M PERSONNEL: B Sinclair  
TIME OFFSITE: \_\_\_\_\_

## SVE SYSTEM - MONTHLY O&amp;M

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

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	4775.6	1215
Pre K/O Vacuum (IWC)	-34	
Post K/O Vacuum (IWC)	-28	
Pitot Tube 3" Flow (cfm)	50	
Leg A Rotameter (cfm)	22	
Leg B Rotameter (cfm)	27	
Inlet PID (ppm)	289.2	
Liquid in K/O Sight Tube (Y/N)		
K/O Liquid Drained (gallons)		

HOUSEKEEPING Check  
Inline Filter Clean \_\_\_\_\_  
Clean Wye Strainer \_\_\_\_\_

## SVE SYSTEM - QUARTERLY SAMPLING

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

## ZONES

Change in Well Operation:  
LEG A DEEP

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-2RD	21.6	707.2		
SVE-3	21.6	613.6		
SVE-5	21.6	1399		
SVE-11D	21.6	1571		
SVE-13D	21.7	1319		

## LEG A SHALLOW

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-1	19.82	514.4		
SVE-2RS	21.5	583.2		
SVE-4	21.7	1182		
SVE-11S	21.5	1383		
SVE-13S	21.6	1413		
SVE-14S	21.6	1368		

## LEG B-1

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-7D				
SVE-10	20.6	128.2		
SVE-12S	21.3	1672		
SVE-15				

## LEG B-2

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-6				
SVE-7S				
SVE-8				
SVE-9				

COMMENTS/OTHER MAINTENANCE:



28-6 #31 SVE SYSTEM  
BIWEEKLY O&M FORMDATE: 3-30  
TIME ONSITE: \_\_\_\_\_O&M PERSONNEL: B Sinclair  
TIME OFFSITE: \_\_\_\_\_

## SVE SYSTEM - MONTHLY O&amp;M

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

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	<u>5089.1</u>	<u>1349</u>
Pre K/O Vacuum (IWC)	<u>-32</u>	
Post K/O Vacuum (IWC)	<u>-27</u>	
Pitot Tube 3" Flow (cfm)	<u>50</u>	
Leg A Rotameter (cfm)	<u>21</u>	
Leg B Rotameter (cfm)	<u>29</u>	
Inlet PID (ppm)	<u>237.3</u>	
Liquid in K/O Sight Tube (Y/N)		
K/O Liquid Drained (gallons)		

## HOUSEKEEPING Check

Inline Filter Clean \_\_\_\_\_  
Clean Wye Strainer \_\_\_\_\_

## SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID: \_\_\_\_\_ SAMPLE TIME: \_\_\_\_\_

Analytes: TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)

OPERATING WELLS

## ZONES

Change in Well Operation:

## LEG A DEEP

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-2RD	<u>21.7</u>	<u>1013</u>		
SVE-3	<u>21.8</u>	<u>588.3</u>		
SVE-5	<u>21.8</u>	<u>477.6</u>		
SVE-11D	<u>21.7</u>	<u>1481.9</u>		
SVE-13D	<u>21.8</u>	<u>1510</u>		

## LEG A SHALLOW

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-1	<u>19.83</u>	<u>648.9</u>		
SVE-2RS	<u>21.8</u>	<u>625.2</u>		
SVE-4	<u>21.9</u>	<u>1274</u>		
SVE-11S	<u>21.7</u>	<u>1063</u>		
SVE-13S	<u>21.8</u>	<u>1516</u>		
SVE-14S	<u>21.8</u>	<u>1708</u>		

## LEG B-1

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-7D				
SVE-10	<u>20.8</u>	<u>145.5</u>		
SVE-12S	<u>21.5</u>	<u>1655</u>		
SVE-15				

## LEG B-2

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	VELOCITY (FPM)	ADJUSTMENTS
SVE-6				
SVE-7S				
SVE-8				
SVE-9				

COMMENTS/OTHER MAINTENANCE:







## APPENDIX B

### Project Photographs



PROJECT PHOTOGRAPHS  
San Juan 28-6 #31  
Rio Arriba County, New Mexico  
Hilcorp Energy Company

<p><b>Photograph 1</b></p> <p>Runtime meter taken on December 30, 2024 at 12:50 PM Hours = 2,946.3</p>	
<p><b>Photograph 2</b></p> <p>Runtime meter taken on March 30, 2024 at 1:44 PM Hours = 5,089.1</p>	



## APPENDIX C

### Laboratory Analytical Reports

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Samantha Grabert  
Hilcorp Energy  
PO BOX 4700  
Farmington, New Mexico 87499

Generated 3/7/2025 3:18:48 PM

## JOB DESCRIPTION

SJ 28 6 Unit 31

## JOB NUMBER

885-19889-1

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



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

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Laboratory Job ID: 885-19889-1

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## Definitions/Glossary

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

## 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: SJ 28 6 Unit 31

Job ID: 885-19889-1

**Job ID: 885-19889-1**

**Eurofins Albuquerque**

### Job Narrative 885-19889-1

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 2/13/2025 6:30 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 9.1°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.

Eurofins Albuquerque



## Client Sample Results

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

Client Sample ID: SVE-1

Lab Sample ID: 885-19889-1

Date Collected: 02/11/25 13:30

Matrix: Air

Date Received: 02/13/25 06:30

Sample Container: Tedlar Bag 1L

## Method: SW846 8015M/D - Nonhalogenated Organics using GC/MS -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	1200		250	ug/L			02/21/25 14:58	50
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		52 - 172				02/21/25 14:58	50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	ug/L			02/21/25 14:58	50
1,1,1-Trichloroethane	ND		5.0	ug/L			02/21/25 14:58	50
1,1,2,2-Tetrachloroethane	ND		10	ug/L			02/21/25 14:58	50
1,1,2-Trichloroethane	ND		5.0	ug/L			02/21/25 14:58	50
1,1-Dichloroethane	ND		5.0	ug/L			02/21/25 14:58	50
1,1-Dichloroethene	ND		5.0	ug/L			02/21/25 14:58	50
1,1-Dichloropropene	ND		5.0	ug/L			02/21/25 14:58	50
1,2,3-Trichlorobenzene	ND		5.0	ug/L			02/21/25 14:58	50
1,2,3-Trichloropropane	ND		10	ug/L			02/21/25 14:58	50
1,2,4-Trichlorobenzene	ND		5.0	ug/L			02/21/25 14:58	50
1,2,4-Trimethylbenzene	ND		5.0	ug/L			02/21/25 14:58	50
1,2-Dibromo-3-Chloropropane	ND		10	ug/L			02/21/25 14:58	50
1,2-Dibromoethane (EDB)	ND		5.0	ug/L			02/21/25 14:58	50
1,2-Dichlorobenzene	ND		5.0	ug/L			02/21/25 14:58	50
1,2-Dichloroethane (EDC)	ND		5.0	ug/L			02/21/25 14:58	50
1,2-Dichloropropane	ND		5.0	ug/L			02/21/25 14:58	50
1,3,5-Trimethylbenzene	ND		5.0	ug/L			02/21/25 14:58	50
1,3-Dichlorobenzene	ND		5.0	ug/L			02/21/25 14:58	50
1,3-Dichloropropane	ND		5.0	ug/L			02/21/25 14:58	50
1,4-Dichlorobenzene	ND		5.0	ug/L			02/21/25 14:58	50
1-Methylnaphthalene	ND		20	ug/L			02/21/25 14:58	50
2,2-Dichloropropane	ND		10	ug/L			02/21/25 14:58	50
2-Butanone	ND		50	ug/L			02/21/25 14:58	50
2-Chlorotoluene	ND		5.0	ug/L			02/21/25 14:58	50
2-Hexanone	ND		50	ug/L			02/21/25 14:58	50
2-Methylnaphthalene	ND		20	ug/L			02/21/25 14:58	50
4-Chlorotoluene	ND		5.0	ug/L			02/21/25 14:58	50
4-Isopropyltoluene	ND		5.0	ug/L			02/21/25 14:58	50
4-Methyl-2-pentanone	ND		50	ug/L			02/21/25 14:58	50
Acetone	ND		50	ug/L			02/21/25 14:58	50
Benzene	ND		5.0	ug/L			02/21/25 14:58	50
Bromobenzene	ND		5.0	ug/L			02/21/25 14:58	50
Bromodichloromethane	ND		5.0	ug/L			02/21/25 14:58	50
Dibromochloromethane	ND		5.0	ug/L			02/21/25 14:58	50
Bromoform	ND		5.0	ug/L			02/21/25 14:58	50
Bromomethane	ND		15	ug/L			02/21/25 14:58	50
Carbon disulfide	ND		50	ug/L			02/21/25 14:58	50
Carbon tetrachloride	ND		5.0	ug/L			02/21/25 14:58	50
Chlorobenzene	ND		5.0	ug/L			02/21/25 14:58	50
Chloroethane	ND		10	ug/L			02/21/25 14:58	50
Chloroform	ND		5.0	ug/L			02/21/25 14:58	50

Eurofins Albuquerque

Client Sample Results

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

Client Sample ID: SVE-1

Lab Sample ID: 885-19889-1

Date Collected: 02/11/25 13:30

Matrix: Air

Date Received: 02/13/25 06:30

Sample Container: Tedlar Bag 1L

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloromethane	ND		15	ug/L			02/21/25 14:58	50	
cis-1,2-Dichloroethene	ND		5.0	ug/L			02/21/25 14:58	50	
cis-1,3-Dichloropropene	ND		5.0	ug/L			02/21/25 14:58	50	
Dibromomethane	ND		5.0	ug/L			02/21/25 14:58	50	
Dichlorodifluoromethane	ND		5.0	ug/L			02/21/25 14:58	50	
Ethylbenzene	ND		5.0	ug/L			02/21/25 14:58	50	
Hexachlorobutadiene	ND		5.0	ug/L			02/21/25 14:58	50	
Isopropylbenzene	ND		5.0	ug/L			02/21/25 14:58	50	
Methyl-tert-butyl Ether (MTBE)	ND		5.0	ug/L			02/21/25 14:58	50	
Methylene Chloride	ND		15	ug/L			02/21/25 14:58	50	
n-Butylbenzene	ND		15	ug/L			02/21/25 14:58	50	
N-Propylbenzene	ND		5.0	ug/L			02/21/25 14:58	50	
Naphthalene	ND		10	ug/L			02/21/25 14:58	50	
sec-Butylbenzene	ND		5.0	ug/L			02/21/25 14:58	50	
Styrene	ND		5.0	ug/L			02/21/25 14:58	50	
tert-Butylbenzene	ND		5.0	ug/L			02/21/25 14:58	50	
Tetrachloroethene (PCE)	ND		5.0	ug/L			02/21/25 14:58	50	
Toluene	19		5.0	ug/L			02/21/25 14:58	50	
trans-1,2-Dichloroethene	ND		5.0	ug/L			02/21/25 14:58	50	
trans-1,3-Dichloropropene	ND		5.0	ug/L			02/21/25 14:58	50	
Trichloroethene (TCE)	ND		5.0	ug/L			02/21/25 14:58	50	
Trichlorofluoromethane	ND		5.0	ug/L			02/21/25 14:58	50	
Vinyl chloride	ND		5.0	ug/L			02/21/25 14:58	50	
Xylenes, Total	ND		7.5	ug/L			02/21/25 14:58	50	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	77		70 - 130				02/21/25 14:58	50	
Toluene-d8 (Surr)	107		70 - 130				02/21/25 14:58	50	
4-Bromofluorobenzene (Surr)	90		70 - 130				02/21/25 14:58	50	
Dibromofluoromethane (Surr)	91		70 - 130				02/21/25 14:58	50	

## QC Sample Results

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

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

Lab Sample ID: MB 885-21215/5

Matrix: Air

Analysis Batch: 21215

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	ug/L			02/21/25 12:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		52 - 172				02/21/25 12:06	1

Lab Sample ID: LCS 885-21215/4

Matrix: Air

Analysis Batch: 21215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	500	536		ug/L			
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)							

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

Lab Sample ID: MB 885-21216/5

Matrix: Air

Analysis Batch: 21216

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

Eurofins Albuquerque

## QC Sample Results

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

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

Lab Sample ID: MB 885-21216/5

Matrix: Air

Analysis Batch: 21216

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB 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

Surrogate	MB %Recovery	MB 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

Eurofins Albuquerque

QC Sample Results

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

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

Lab Sample ID: LCS 885-21216/4				Client Sample ID: Lab Control Sample			
Matrix: Air				Prep Type: Total/NA			
Analysis Batch: 21216							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	20.1	18.5		ug/L		92	70 - 130
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
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
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				



QC Association Summary

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

GC/MS VOA

Analysis Batch: 21215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-19889-1	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	Prep Type	Matrix	Method	Prep Batch
885-19889-1	SVE-1	Total/NA	Air	8260B	
MB 885-21216/5	Method Blank	Total/NA	Air	8260B	
LCS 885-21216/4	Lab Control Sample	Total/NA	Air	8260B	

Lab Chronicle

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

Client Sample ID: SVE-1  
Date Collected: 02/11/25 13:30  
Date Received: 02/13/25 06:30

Lab Sample ID: 885-19889-1  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015M/D		50	21215	CM	EET ALB	02/21/25 14:58
Total/NA	Analysis	8260B		50	21216	CM	EET ALB	02/21/25 14:58

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: SJ 28 6 Unit 31

Job ID: 885-19889-1

## 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	02-26-25

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
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: SJ 28 6 Unit 31

Job ID: 885-19889-1

## 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	02-25-25

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

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Hilcorp Energy  
Project/Site: SJ 28 6 Unit 31

Job ID: 885-19889-1

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



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## ANALYTICAL SUMMARY REPORT

February 19, 2025

Eurofins TestAmerica - Albuquerque

4901 Hawkins St NE Ste D

Albuquerque, NM 87109-4372

Work Order: B25020795

Quote ID: B15626

Project Name: SJ 28 6 Unit 31 - 88501698

Energy Laboratories Inc Billings MT received the following 1 sample for Eurofins TestAmerica - Albuquerque on 2/14/2025 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B25020795-001	SVE-1 (885-19889-1)	02/11/25 13:30	02/14/25	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:** SJ 28 6 Unit 31 - 88501698  
**Lab ID:** B25020795-001  
**Client Sample ID:** SVE-1 (885-19889-1)

**Report Date:** 02/19/25  
**Collection Date:** 02/11/25 13:30  
**Date Received:** 02/14/25  
**Matrix:** Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>GAS CHROMATOGRAPHY ANALYSIS REPORT</b>							
Oxygen	21.30	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Nitrogen	78.54	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Carbon Dioxide	0.14	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Hexanes plus	0.02	Mol %		0.01		GPA 2261-13	02/18/25 10:19 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
Hexanes plus	0.008	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
GPM Total	0.008	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj
GPM Pentanes plus	0.008	gpm		0.001		GPA 2261-13	02/18/25 10:19 / jrj

### CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	1		1		GPA 2261-13	02/18/25 10:19 / jrj
Net BTU per cu ft @ std cond. (LHV)	1		1		GPA 2261-13	02/18/25 10:19 / jrj
Pseudo-critical Pressure, psia	544		1		GPA 2261-13	02/18/25 10:19 / jrj
Pseudo-critical Temperature, deg R	239		1		GPA 2261-13	02/18/25 10:19 / jrj
Specific Gravity @ 60/60F	0.998		0.001		D3588-81	02/18/25 10:19 / jrj
Air, %	97.33		0.01		GPA 2261-13	02/18/25 10:19 / jrj

- The analysis was not corrected for air.

### COMMENTS

-						02/18/25 10:19 / 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: B25020795

Report Date: 02/19/25

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: GPA 2261-13</b>								Batch: R436946		
<b>Lab ID: B25020797-001ADUP</b>	12 Sample Duplicate				Run: GC7890_250218A				02/18/25 12:54	
Oxygen		21.1	Mol %	0.01				2.1	20	
Nitrogen		78.2	Mol %	0.01				0.6	20	
Carbon Dioxide		0.73	Mol %	0.01				1.4	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		0.04	Mol %	0.01				0.0	20	
<b>Lab ID: LCS021825</b>								Run: GC7890_250218A		
11 Laboratory Control Sample								02/18/25 14:43		
Oxygen		0.63	Mol %	0.01	126	70	130			
Nitrogen		5.75	Mol %	0.01	96	70	130			
Carbon Dioxide		1.03	Mol %	0.01	104	70	130			
Methane		74.9	Mol %	0.01	100	70	130			
Ethane		6.04	Mol %	0.01	101	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.84	Mol %	0.01	92	70	130			
n-Butane		2.00	Mol %	0.01	100	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.01	Mol %	0.01	101	70	130			
Hexanes plus		0.80	Mol %	0.01	100	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

B25020795

Login completed by: Kylie L. Pflock

Date Received: 2/14/2025

Reviewed by: dharris

Received by: KLP

Reviewed Date: 2/18/2025

Carrier name: FedEx NDA

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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:	2.4°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:

The cooler was received with a custody seal intact but was not signed or dated. KLP 02/14/25



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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



**eurolins** | Environment Testing

Ver: 10/10/2024

ICOC No:  
885-3884

**Containers**

<u>Count</u>	<u>Container Type</u>	<u>Preservative</u>
1	Tedlar Bag 1L	None

**Subcontract Method Instructions**

Sample IDs	Method	Method Description	Method Comments
1	SUBCONTRACT	SUB (Fixed Gases)/ Fixed Gases	Fixed Gases

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12



## Login Sample Receipt Checklist

Client: Hilcorp Energy

Job Number: 885-19889-1

Login Number: 19889

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	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.	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 452020

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 452020
	Action Type: [REPORT] Alternative Remediation Report (C-141AR)

CONDITIONS

Created By	Condition	Condition Date
nvez	1. Continue O&M & sampling as stated in report. 2. Submit next quarterly report by July 15, 2025.	4/16/2025