1. Continue with O & M schedule.
2. Submit next quarterly report by October 31, 2022.

ENSOLUM

July 8, 2022

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Second Quarter 2022 – SVE System Update
Sullivan GC D #1E
San Juan County, New Mexico
Hilcorp Energy Company
NMOCD Incident Number: NCS1518952648
Ensolum Project No. 07A1988029

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Second Quarter 2022 – SVE System Update* report summarizing the soil vapor extraction (SVE) system performance at the Sullivan GC D #1E natural gas production well (Site), located in Unit F of Section 26 of Township 29 North and Range 11 West in San Juan County, New Mexico (Figure 1). Specifically, this report summarizes Site activities performed in April, May, and June of 2022 to the New Mexico Oil Conservation Division (NMOCD).

SVE SYSTEM SPECIFICATIONS

The original SVE system was installed at the Site in April 2016 by XTO Energy, the previous Site owner, in response to a release originating from a broken fiberglass line used to transfer natural gas condensate. The original SVE system was purchased from Geotech Environmental Equipment, Inc. (Geotech) and operated successfully until the summer of 2018. Due to a broken SVE blower motor, the SVE system did not operate between 2018 and March of 2022; however, a rental SVE system was brought onto the Site and began operation on December 2, 2021. The blower motor from the original Geotech system was replaced on March 21, 2022 and the Geotech SVE system was put back into service.

The current Geotech SVE system is configured so that vacuum is being applied to wells PR-1, MW-01, MW-02, MW-05, and MW-06 (shown on Figure 2). The SVE system consists of a 3 horsepower Rotron Model EN656 regenerative blower capable of producing 212 standard cubic feet per minute (scfm) of flow and 73 inches of water column (IWC) vacuum. The layout of the SVE system and piping is shown on Figure 2.

SECOND QUARTER 2022 ACTIVITIES

During the second quarter of 2022, 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. Field notes taken during O&M visits are presented in Appendix A. During the second

quarter of 2022, all SVE wells (PR-1, MW-01, MW-02, MW-05, and MW-06) were operated in order to induce air flow in impacted soil within the source area. Between April 5 and June 17, 2022, the SVE system operated for 1,753.7 hours, for a runtime efficiency of 100 percent (%). Appendix B presents Photographs 1 and 2 of the runtime meter taken during the first and last field visits of the quarter. Table 1 presents the SVE system operational hours and percent runtime.

A second quarter emissions sample was collected from the SVE system on June 17, 2022 from a sample port located between the SVE piping manifold and the SVE blower using a high vacuum air sampler. Prior to collection, the emission sample was field screened with a photoionization detector (PID) for organic vapor monitoring (OVM). The emission sample was collected directly into two 1-Liter Tedlar® bags and submitted to Hall Environmental Analysis Laboratory (Hall), 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 (GPS) Method 2261. Table 2 presents a summary of analytical data collected during this sampling event and previous sampling events, with the full laboratory analytical report included in Appendix C.

Of note, the analytical data collected during the last two sampling events (March 16 and June 17, 2022) sampling event indicated substantially lower concentrations of VOCs and TVPH as compared to historical results. While conducting a Site visit on March 21, 2022, it was discovered that there was a broken pipe joint connecting SVE well MW-01 to the manifold. Since that time, the broken joint has been repaired. Additional system checks will be performed during the next Site visit to ensure that there are no other issues with the piping, joints, or other equipment associated with the System.

Emission 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, 88,968 pounds (44 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 emissions are observed. At that time, an evaluation of residual petroluem 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

Stuart Hyde, LG
Senior Geologist
(970) 903-1607
shyde@ensolum.com

Daniel R. Moir, PG
Senior Managing Geologist
(303) 887-2946
dmoir@ensolum.com

Attachments:

Figure 1	Site Location
Figure 2	SVE System Layout
Table 1	Soil Vapor Extraction System Runtime Calculations
Table 2	Soil Vapor Extraction System Emission 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

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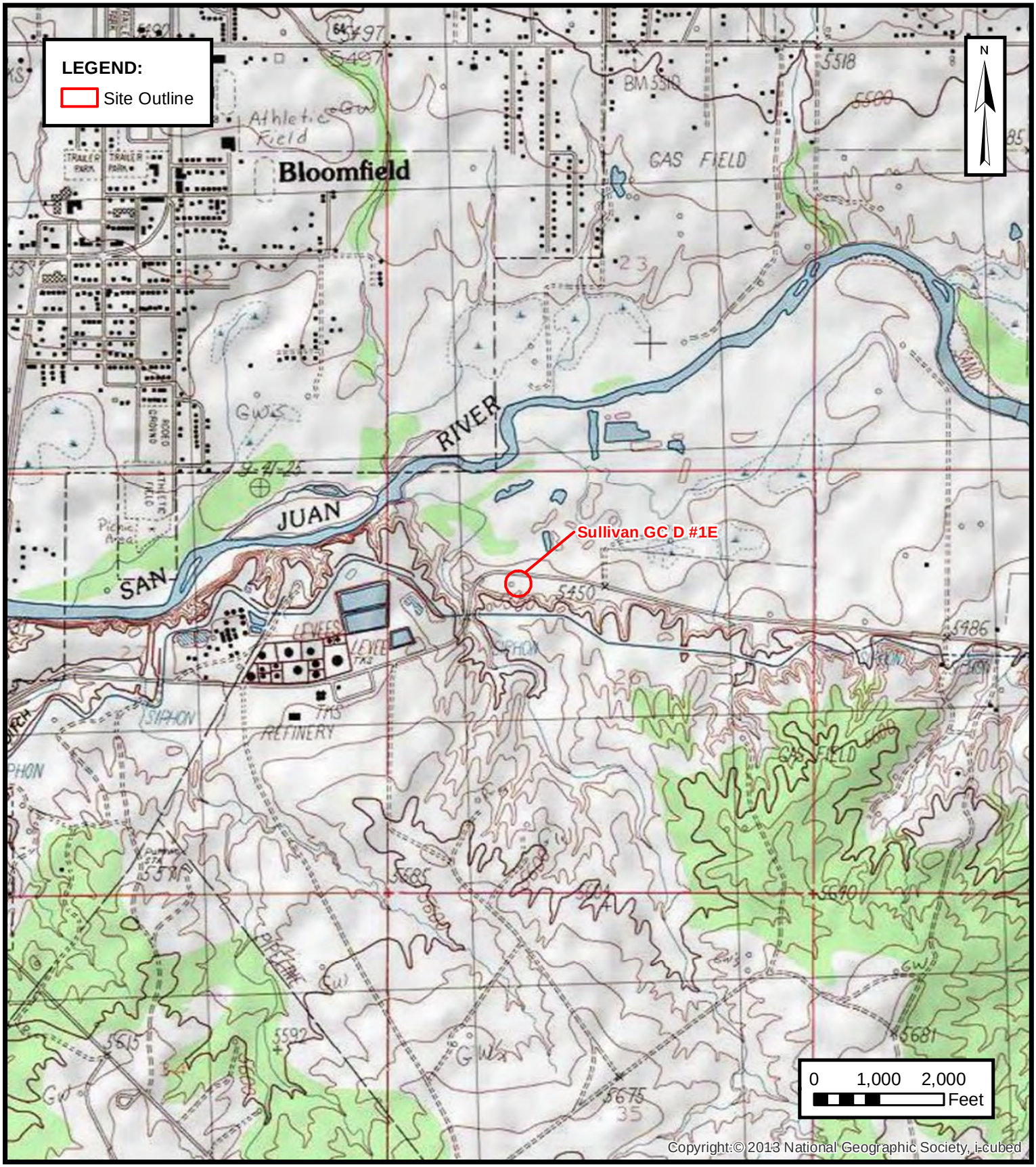
FIGURES



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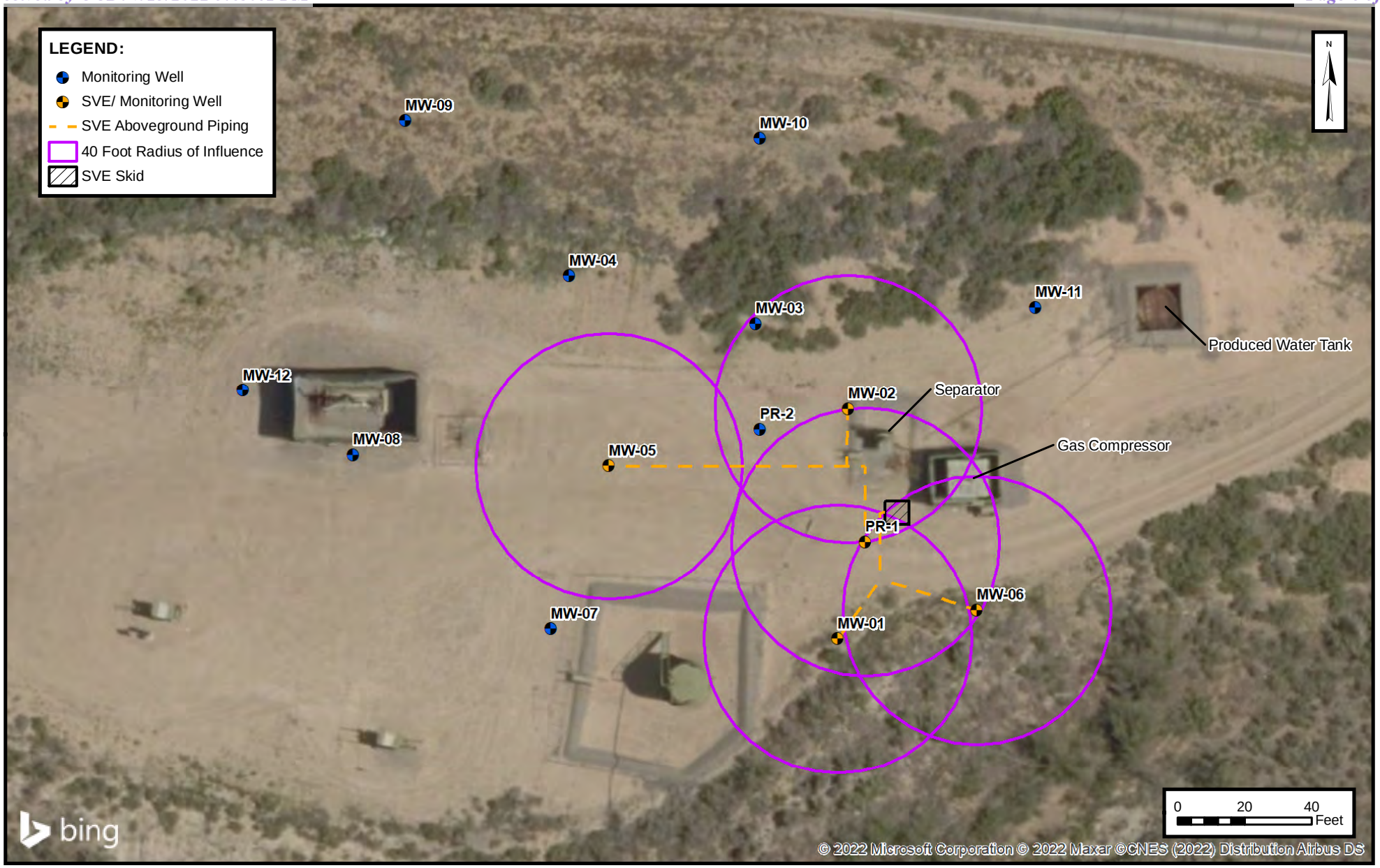
Environmental & Hydrogeologic Consultants

SITE LOCATION

HILLCORP ENERGY COMPANY
SULLIVAN GC D #1E
San Juan County, New Mexico
36.885855° N, 107.899525° W

PROJECT NUMBER: 07A1988029

FIGURE
1



ENSOLUM
Environmental & Hydrogeologic Consultants

SVE SYSTEM LAYOUT

HILCORP ENERGY COMPANY
SULLIVAN GC D #1E
San Juan County, New Mexico
36.885855° N, 107.899525° W

PROJECT NUMBER:07A1988029

FIGURE

2

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TABLES

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TABLE 1
SOIL VAPOR EXTRACTION SYSTEM RUNTIME CALCULATIONS
Hilcorp Energy Company - Sullivan GC D#1E
San Juan County, New Mexico

Ensolum Project No. 07A1988029

Permanent Geotech SVE Skid Runtime Operation

Date	Total Operational Hours	Delta Hours	Days	% Runtime
4/5/2022	359.4	--	--	--
6/17/2022	2,113.1	1,753.7	73	100%

ENSOLUM

TABLE 2
SOIL VAPOR EXTRACTION SYSTEM EMISSIONS ANALYTICAL RESULTS
Hilcorp Energy Company - Sullivan GC D#1E
San Juan County, New Mexico

Ensolum Project No. 07A1988029

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH/GRO (µg/L)	Oxygen (%)	Carbon Dioxide (%)
4/18/2016	--	840	1,900	87	840	140,000	--	--
4/20/2016	2,375	840	1,900	87	840	140,000	--	--
4/29/2017	3,520	280	1,000	64	630	65,000	--	--
8/11/2016	4,215	92	700	90	910	23,000	--	--
1/24/2018	2,837	46	140	<5.0	410	21,000	--	--
6/29/2018	3,000	63	210	<5.0	410	27,000	--	--
12/2/2021	741	15	<5.0	<5.0	99	33,000	--	--
3/16/2022 (1)	982	<0.10	<0.10	<0.10	1.1	64	19.4	1.23
6/17/2022	327	<0.10	<0.10	<0.10	0.25	10	21.5	0.29

Notes:

(1): piping to SVE well MW-01 was disconnected allowing fresh air to be pulled into the system and biasing analytical results low, issue was discovered March 21, 2022

GRO: gasoline range hydrocarbons

µg/L: microgram per liter

PID: photoionization detector

ppm: parts per million

TVPH: total volatile petroleum hydrocarbons

%: percent

--: not sampled

<0.037: gray indicates result less than the stated laboratory reporting limit (RL)

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TABLE 3
SOIL VAPOR EXTRACTION SYSTEM MASS REMOVAL AND EMISSIONS
Hilcorp Energy Company - Sullivan GC D #1E
San Juan County, New Mexico

Ensolum Project No. 07A1988029

Flow and Laboratory Analysis

Date	PID (ppm)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TVPH (µg/L)
4/18/2016	--	840	1,900	87	840	140,000
4/20/2016	2,375	840	1,900	87	840	140,000
4/29/2017	3,520	280	1,000	64	630	65,000
8/11/2016	4,215	92	700	90	910	23,000
1/24/2018	2,837	46	140	*5.0*	410	21,000
6/29/2018	3,000	63	210	*5.0*	410	27,000
12/2/2021	741	15	*5.0*	*5.0*	99	33,000
3/16/2022 (1)	982	*0.10*	*0.10*	*0.10*	1.1	64
6/17/2022	327	*0.10*	*0.10*	*0.10*	0.25	10
Average	2,250	242	651	38	460	49,897

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)
4/18/2016	90	0	0	0.28	0.64	0.029	0.28	47
4/20/2016	109	313,920	313,920	0.34	0.77	0.035	0.34	57
4/29/2017	90	1,480,320	1,166,400	0.19	0.49	0.025	0.25	35
8/11/2016	70	6,923,520	5,443,200	0.049	0.22	0.020	0.20	12
1/24/2018	60	--	--	0.015	0.094	0.011	0.15	4.9
6/29/2018	41	53,246,160	46,322,640	0.0084	0.027	0.001	0.063	3.7
12/2/2021	**Rental SVE System Startup**							
12/2/2021	49	53,246,160	0	0	0	0	0	0
3/16/2022 (1)	49	60,581,754	7,335,594	0.0014	0.00047	0.00047	0.0092	3.0
6/17/2022	80	70,724,634	10,142,880	0.000030	0.000030	0.000030	0.0002	0.0111
			Average	0.099	0.250	0.014	0.144	17.987

Flow and Laboratory Analysis

Date	Total SVE System Hours	Delta Hours	Benzene (pounds)	Toluene (pounds)	Ethylbenzene (pounds)	Total Xylenes (pounds)	TVPH (pounds)	TVPH (tons)
4/18/2016	0	0	0.0	0.0	0.0	0.0	0.0	0.0
4/20/2016	48	48	16	37	1.7	16	2,740	1.4
4/29/2017	264	216	41	105	5.5	53	7,452	3.7
8/11/2016	1,560	1,296	63	288	26	261	14,929	7.5
1/24/2018	--	--	--	--	--	--	--	--
6/29/2018	16,848	15,288	128	410	12	961	56,264	28
12/2/2021	**Rental SVE System Startup**							
12/2/2021	968	0	0.0	0.0	0.0	0.0	0.0	0.0
3/16/2022 (1)	3,463	2,495	3.5	1.2	1.2	23	7,559	3.8
3/21/2022 (2)	0	0	0.0	0.0	0.0	0.0	0.0	0.0
6/17/2022	2,113	2,113	0.063	0.063	0.063	0.43	23	0.012
		Total Mass Recovery to Date	252	842	46	1,316	88,968	44

Notes:

(1): piping to SVE well MW-01 was disconnected allowing fresh air to be pulled into the system and biasing analytical results low, issue was discovered March 21, 2022

(12: new SVE blower and runtime meter installed at the Site on March 21, 2022

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

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APPENDIX A

Field Notes

SULLIVAN GC D#1E SVE SYSTEM ~~(RENTAL UNIT)~~ old blower
BIWEEKLY O&M FORM

DATE: 4/5/22
TIME ONSITE: 1115

O&M PERSONNEL: Reece Hmpn
TIME OFFSITE: 1410

SVE SYSTEM - MONTHLY O&M

SVE ALARMS (check if applicable)	
	HIGH/LOW VACUUM
	KO TANK HIGH LEVEL
	HIGH EXHAUST TEMPERATURE

Product Skimmer
Hours (take photo) _____
Volume in bbl _____
Volume removed _____
Volume removed to date _____

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	359.4	1136
Pre K/O Vacuum (IWC)	32	
Post K/O Vacuum (IWC)	32	
Total Flow (cfm)	65	
Zone 1/ Leg A Flow (scfm)		
Inlet PID	400.2	
Exhaust Post GAC PID	72.1	
Liquid in K/O Sight Tube (Y/N)	condensation (N)	
K/O Liquid Drained (gallons)		

HOUSEKEEPING Check

Inline Filter Clean	
Clean tank level alarm on skimmer	

Green tank – gauge = just over 3/4 full → 38"
vac: -26 in H_2O

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:
Zone 1/ Leg A

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	ADJUSTMENTS
MW-01		126.8	
MW-02		268.6	
MW-05		1180	
MW-06		188	
~~BH~~ PR-1		274.9	

~~274.9~~

Product Recovery

Well

LOCATION	Product thickness	Product removed from Sock (volume and color)	Volume removed total (gal or oz?)	Replace Sock? (Y/N0

COMMENTS/OTHER MAINTENANCE:

SULLIVAN GC D#1E SVE SYSTEM ~~(RENTAL UNIT)~~
BIWEEKLY O&M FORM

DATE: 4-20-22
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: (check if applicable)

	HIGH/LOW VACUUM
	KO TANK HIGH LEVEL
	HIGH EXHAUST TEMPERATURE

Product Skimmer
Hours **(take photo)**
Volume in bbl
Volume removed
Volume removed to date

HOUSEKEEPING

	Check
Inline Filter Clean	
Clean tank level alarm on skimmer	

SVE SYSTEM

	READING	TIME
Blower Hours **(take photo)**	129.3	1692
Pre K/O Vacuum (IWC)	31	
Post K/O Vacuum (IWC)	31	
Total Flow (cfm)	73	
Zone 1/ Leg A Flow (scfm)		
Inlet PID	396	
Exhaust Post GAC PID	700	
Liquid in K/O Sight Tube (Y/N)	N	
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

ZONES

Change in Well Operation:
Zone 1/ Leg A

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
MW-01		112		
MW-02		147		
MW-05		1332		
MW-06		214		
PR-2				

Product Recovery

Well

LOCATION	Product thickness	Product removed from Sock (volume and color)	Volume removed total (gal or oz?)	Replace Sock? (Y/N0

COMMENTS/OTHER MAINTENANCE:
PR-1: 254 ppm

SULLIVAN GC D#1E SVE SYSTEM (RENTAL UNIT)
BIWEEKLY O&M FORM

DATE: 5/5/22 O&M PERSONNEL: Reece Hansen
TIME ONSITE: 1305 TIME OFFSITE: 1350

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: (check if applicable)		
		HIGH/LOW VACUUM
		KO TANK HIGH LEVEL
		HIGH EXHAUST TEMPERATURE

Product Skimmer
Hours **(take photo)**
Volume in bbl
Volume removed
Volume removed to date
Green tank Gauge; < 1/8 Full
Vac: -24 inH2O

HOUSEKEEPING

	Check
Inline Filter Clean	—
Clean tank level alarm on skimmer	—

SVE SYSTEM	READING	TIME
Blower Hours **(take photo)**	1080.7	1307
Pre K/O Vacuum (IWC)	30	
Post K/O Vacuum (IWC)	31	
Total Flow (cfm)	80	
Zone 1/ Leg A Flow (scfm)	—	
Inlet PID	398	
Exhaust Post GAC PID	355	
Liquid in K/O Sight Tube (Y/N)	N	
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	MW-01, 02, 05, 06, PR-1

ZONES

Change in Well Operation: —

Zone 1/ Leg A

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	ADJUSTMENTS
MW-01		57	
MW-02		116	
MW-05		750	
MW-06		113	
~~PR-2~~ PR-1		172	

Product Recovery

Well

LOCATION	Product thickness	Product removed from Sock (volume and color)	Volume removed total (gal or oz?)	Replace Sock? (Y/N0

COMMENTS/OTHER MAINTENANCE:
Exhaust Stack needs maintenance — Bring T-post pounder + 2 - 6" hose clamps

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SULLIVAN GC D#1E SVE SYSTEM (RENTAL UNIT)
BIWEEKLY O&M FORM

DATE: 5-19-22
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: (check if applicable)		
		HIGH/LOW VACUUM
		KO TANK HIGH LEVEL
		HIGH EXHAUST TEMPERATURE

Product Skimmer

Hours **(take photo)**	
Volume in bbl	
Volume removed	
Volume removed to date	

SVE SYSTEM	READING	TIME
Blower Hours **(take photo)**	1419.5	1551
Pre K/O Vacuum (IWC)	30	
Post K/O Vacuum (IWC)	31	
Total Flow (cfm)	77	
Zone 1/ Leg A Flow (scfm)		
Inlet PID	281	
Exhaust Post GAC PID	4.75	
Liquid in K/O Sight Tube (Y/N)	N	
K/O Liquid Drained (gallons)	0	

HOUSEKEEPING

	Check
Inline Filter Clean	
Clean tank level alarm on skimmer	

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	**SAMPLE TIME:**
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)
OPERATING WELLS	PR-1, MW-01, MW-02, MW-05, MW-06

ZONES

Change in Well Operation:

Zone 1/ Leg A

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
MW-01		97.9		
MW-02		117		
MW-05		873		
MW-06		178		
PR-2				

Product Recovery

Well

LOCATION	Product thickness	Product removed from Sock (volume and color)	Volume removed total (gal or oz?)	Replace Sock? (Y/N0

COMMENTS/OTHER MAINTENANCE:

PR-1: 188
Replaced MW-05 well cap

SULLIVAN GC D#1E SVE SYSTEM (RENTAL UNIT)
BIWEEKLY O&M FORM

DATE: 6-9
TIME ONSITE:

O&M PERSONNEL: B Sinclair
TIME OFFSITE:

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: (check if applicable)

	HIGH/LOW VACUUM
	KO TANK HIGH LEVEL
	HIGH EXHAUST TEMPERATURE

Product Skimmer

Hours **(take photo)**	
Volume in bbl	
Volume removed	
Volume removed to date	

SVE SYSTEM

	READING	TIME
Blower Hours **(take photo)**	1920.1	1308
Pre K/O Vacuum (IWC)	30	
Post K/O Vacuum (IWC)	31	
Total Flow (cfm)	75	
Zone 1/ Leg A Flow (scfm)		
Inlet PID	222	
Exhaust Post GAC PID	390	
Liquid in K/O Sight Tube (Y/N)	N	
K/O Liquid Drained (gallons)	0	

HOUSEKEEPING Check

Inline Filter Clean	
Clean tank level alarm on skimmer	

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:

Zone 1/ Leg A

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	FLOW (CFM)	ADJUSTMENTS
MW-01		18.1		
MW-02		66.2		
MW-05		245		
MW-06		44.5		
PR# 1		129		

Product Recovery

Well

LOCATION	Product thickness	Product removed from Sock (volume and color)	Volume removed total (gal or oz?)	Replace Sock? (Y/N0

COMMENTS/OTHER MAINTENANCE:

SULLIVAN GC D#1E SVE SYSTEM (RENTAL UNIT)
BIWEEKLY O&M FORM

DATE: 6-17-22
TIME ONSITE: 1315

O&M PERSONNEL: D. Burns
TIME OFFSITE: 1430

SVE SYSTEM - MONTHLY O&M

SVE ALARMS: (check if applicable)		
		HIGH/LOW VACUUM
		KO TANK HIGH LEVEL
		HIGH EXHAUST TEMPERATURE

Product Skimmer

Hours (take photo)	NA
Volume in bbl	
Volume removed	
Volume removed to date	

SVE SYSTEM	READING	TIME
Blower Hours (take photo)	2113.1	1230
Pre K/O Vacuum (IWC)	30	
Post K/O Vacuum (IWC)	30	
Total Flow (cfm)	80	
~~Zone 1/ Leg A Flow (s~~cfm)		
Inlet PID	327	
Exhaust ~~Post GAC~~ PID	530	
Liquid in K/O Sight Tube (Y/N)	NO	
K/O Liquid Drained (gallons)	0	

HOUSEKEEPING Check

Inline Filter Clean	
Clean tank level alarm on skimmer	

Green KO Tank vac 24

SVE SYSTEM - QUARTERLY SAMPLING

SAMPLE ID:	Influent 06-17-22	SAMPLE TIME:	1400 PID-316ppm
Analytes:	TVPH (8015), VOCs (8260), Fixed Gas (CO/CO2/O2)		
OPERATING WELLS	All		

ZONES

Change in Well Operation:

Zone 1/ Leg A

LOCATION	VACUUM (IWC)	PID HEADSPACE (PPM)	ADJUSTMENTS
MW-01	10.0	69	
MW-02	10.9	75	
MW-05	9.8	656	
MW-06	9.5	151	
~~PR-2~~ PR1	10.5	170	

Product Recovery

Well

LOCATION	Product thickness	Product removed from Sock (volume and color)	Volume removed total (gal or oz?)	Replace Sock? (Y/N0

COMMENTS/OTHER MAINTENANCE:

Site needs general house keeping.
Bring trash bag/can next time.

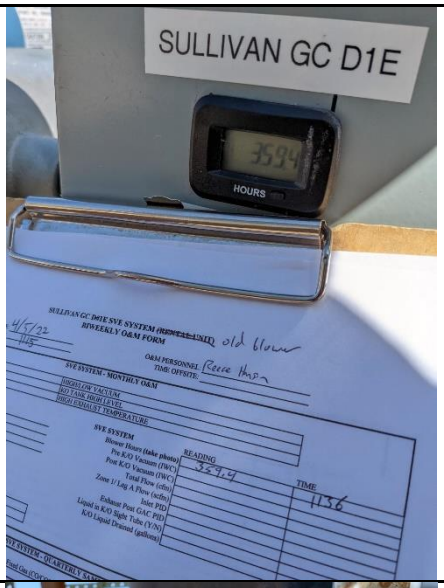
No PR today.

ENSOLUM

APPENDIX B

Project Photographs

PROJECT PHOTOGRAPHS
Sullivan GC D #1E
San Juan County, New Mexico
Hilcorp Energy Company

Photograph 1 Runtime meter taken on April 5, 2022 at 11:36 AM Hours = 359.4	
Photograph 2 Runtime meter taken on June 17, 2022 at 12:30 PM Hours = 2113.1	

Ensolum, LLC | Environmental & Hydrogeologic Consultants
Durango, Colorado | info@ensolum.com

ENSOLUM

APPENDIX C

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 30, 2022

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

RE: Sullivan GC D1E OrderNo.: 2206991

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/18/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2206991**
Date Reported: **6/30/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: Influent 06-17-22
Project: Sullivan GC D1E
Collection Date: 6/17/2022 2:00:00 PM
Lab ID: 2206991-001 **Matrix:** AIR
Received Date: 6/18/2022 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	10	5.0		µg/L	1	6/21/2022 10:06:12 AM
Surr: BFB	126	15-380		%Rec	1	6/21/2022 10:06:12 AM
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Toluene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Ethylbenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2,4-Trimethylbenzene	0.14	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,3,5-Trimethylbenzene	0.12	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Naphthalene	ND	0.20		µg/L	1	6/21/2022 1:55:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	6/21/2022 1:55:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	6/21/2022 1:55:00 PM
Acetone	ND	1.0		µg/L	1	6/21/2022 1:55:00 PM
Bromobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Bromoform	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Bromomethane	ND	0.20		µg/L	1	6/21/2022 1:55:00 PM
2-Butanone	ND	1.0		µg/L	1	6/21/2022 1:55:00 PM
Carbon disulfide	ND	1.0		µg/L	1	6/21/2022 1:55:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Chlorobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Chloroethane	ND	0.20		µg/L	1	6/21/2022 1:55:00 PM
Chloroform	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Chloromethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	6/21/2022 1:55:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Dibromomethane	ND	0.20		µg/L	1	6/21/2022 1:55:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2206991**
Date Reported: **6/30/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: HILCORP ENERGY
Client Sample ID: Influent 06-17-22
Project: Sullivan GC D1E
Collection Date: 6/17/2022 2:00:00 PM
Lab ID: 2206991-001 **Matrix:** AIR
Received Date: 6/18/2022 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **CCM**
1,2-Dichloropropane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1-Dichloropropene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
2-Hexanone	ND	1.0		µg/L	1	6/21/2022 1:55:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	6/21/2022 1:55:00 PM
Methylene chloride	ND	0.30		µg/L	1	6/21/2022 1:55:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	6/21/2022 1:55:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Styrene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	6/21/2022 1:55:00 PM
Vinyl chloride	ND	0.10		µg/L	1	6/21/2022 1:55:00 PM
Xylenes, Total	0.25	0.15		µg/L	1	6/21/2022 1:55:00 PM
Surr: Dibromofluoromethane	102	70-130		%Rec	1	6/21/2022 1:55:00 PM
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%Rec	1	6/21/2022 1:55:00 PM
Surr: Toluene-d8	86.5	70-130		%Rec	1	6/21/2022 1:55:00 PM
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	6/21/2022 1:55:00 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

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ANALYTICAL SUMMARY REPORT

June 29, 2022

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: G22060376
Project Name: 2206991

Energy Laboratories Inc. Gillette WY received the following 1 sample for Hall Environmental on 6/21/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G22060376-001	2206991-001B; Influent 06-17-22	06/17/22 14:00	06/21/22	Gas	Air Correction Calculations Analysis Corrections 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., 400 W. Boxelder Rd., Gillette, WY 82718, 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.

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

Report Approved By:

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CLIENT: Hall Environmental
Project: 2206991
Work Order: G22060376

Report Date: 06/29/22

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

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LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

Client: Hall Environmental
Project: 2206991
Client Sample ID: 2206991-001B; Influent 06-17-22
Location:
Lab ID: G22060376-001

Report Date: 06/29/22
Collection Date: 06/17/22 14:00
Date Received: 06/21/22
Sampled By: Not Provided

Analyses	Result	Units	Qualifier	Method	Analysis Date / By
GAS CHROMATOGRAPHIC ANALYSIS REPORT					
Oxygen	21.54	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Nitrogen	77.99	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Carbon Dioxide	0.29	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Hydrogen Sulfide	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Methane	0.03	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Ethane	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Propane	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Isobutane	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
n-Butane	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Isopentane	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
n-Pentane	<0.01	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
Hexanes plus	0.15	Mol %		GPA 2261-	06/27/22 10:15 / eli-b
GPM @ STD COND/1000 CU.FT., MOISTURE FREE GAS					
Propane	< 0.001	gpm		GPA 2261-	06/27/22 10:15 / eli-b
Isobutane	< 0.001	gpm		GPA 2261-	06/27/22 10:15 / eli-b
n-Butane	< 0.001	gpm		GPA 2261-	06/27/22 10:15 / eli-b
Isopentane	< 0.001	gpm		GPA 2261-	06/27/22 10:15 / eli-b
n-Pentane	< 0.001	gpm		GPA 2261-	06/27/22 10:15 / eli-b
Hexanes plus	0.063	gpm		GPA 2261-	06/27/22 10:15 / eli-b
GPM Total	0.063	gpm		GPA 2261-	06/27/22 10:15 / eli-b
GPM Pentanes plus	0.063	gpm		GPA 2261-	06/27/22 10:15 / eli-b
CALCULATED PROPERTIES					
Gross BTU per cu ft @ Std Cond. (HHV	7			GPA 2261-	06/27/22 10:15 / eli-b
Net BTU per cu ft @ std cond. (LHV)	7			GPA 2261-	06/27/22 10:15 / eli-b
Pseudo-critical Pressure, psia	546			GPA 2261-	06/27/22 10:15 / eli-b
Pseudo-critical Temperature, deg R	240			GPA 2261-	06/27/22 10:15 / eli-b
PHYSICAL PROPERTIES-CALCULATED					
Specific Gravity @ 60/60F	1.00			D3588-81	06/27/22 10:15 / eli-b
COMMENTS					
-				-	06/27/22 10:15 / eli-b

- 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

Client: Hall Environmental **Work Order:** G22060376 **Report Date:** 06/28/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **GPA 2261-95**								Batch: R383813	
Lab ID: **B22062144-001ADUP**	Sample Duplicate				Run: GCNGA-B_220627A			06/27/22 09:47	
Oxygen	21.1	Mol %	0.01				0.1	20	
Nitrogen	78.2	Mol %	0.01				0	20	
Carbon Dioxide	0.74	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	<0.01	Mol %	0.01					20	
Lab ID: **B22062161-002ADUP**	Sample Duplicate				Run: GCNGA-B_220627A			06/27/22 11:37	
Oxygen	21.2	Mol %	0.01				0.1	20	
Nitrogen	77.5	Mol %	0.01				0	20	
Carbon Dioxide	0.39	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				67	20	R
n-Butane	0.02	Mol %	0.01				40	20	R
Isopentane	0.04	Mol %	0.01				22	20	R
n-Pentane	0.05	Mol %	0.01				18	20	
Hexanes plus	0.75	Mol %	0.01				5.5	20	
Lab ID: **LCS062722**	Laboratory Control Sample				Run: GCNGA-B_220627A			06/27/22 14:44	
Oxygen	0.59	Mol %	0.01	118	70	130			
Nitrogen	6.07	Mol %	0.01	101	70	130			
Carbon Dioxide	1.00	Mol %	0.01	101	70	130			
Methane	74.3	Mol %	0.01	99	70	130			
Ethane	6.09	Mol %	0.01	101	70	130			
Propane	5.08	Mol %	0.01	103	70	130			
Isobutane	2.01	Mol %	0.01	100	70	130			
n-Butane	2.01	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	0.78	Mol %	0.01	98	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

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Work Order Receipt Checklist

Hall Environmental

G22060376

Login completed by: Jill S. Jeffress
Date Received: 6/21/2022

Reviewed by: Chantel S. Johnson
Received by: jsj

Reviewed Date: 6/23/2022
Carrier name: FedEx

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

Standard Reporting Procedures:

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

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

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

Contact and Corrective Action Comments:

None

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

SUB CONTRATOR: Energy Labs-Gillette	COMPANY: Energy Laboratories	PHONE: (866) 686-7175	FAX:
ADDRESS: 400 W Boxelder Rd		ACCOUNT #:	EMAIL:
CITY, STATE, ZIP: Gillette, WY 82718			

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2206991-001B	Influent 06-17-22	TEDLAR	Air	6/17/2022 2:00:00 PM	1	Natural Gas O2, CO2 **5 Day TAT**

6220603%

SPECIAL INSTRUCTIONS / COMMENTS:

Relinquished By: cme	Date: 6/20/2022	Time: 2:02 PM	Received By: JM J	Date: 6/21/22	Time: 1034
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☐ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples ____ ℃ Attempt to Cool ? ____
Comments: ____

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: HILCORP ENERGY Work Order Number: 2206991 RcptNo: 1

Received By: Isaiah Ortiz 6/18/2022 9:50:00 AM I-OX

Completed By: Isaiah Ortiz 6/18/2022 10:33:05 AM I-OX

Reviewed By: 02/18/2022

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

IO 6/18/22

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Chain-of-Custody Record

Client: Hilcorp
Kate Kaufman

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
5 Day
☒ Standard ☐ Rush

Project Name:
Sullivan GC DIE

Project #:

Project Manager:
Stuart Hyde

Sampler: Danny Burns

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 4.8°C ±0 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2206991
6-17	1400	Air	Influent 06-17-22	2-Tedlar	No	001

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Full VOCs 8260	Fixed Gas CO_2 O_2
	X									X	X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6-17-22	1505				6/17/22	1505
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/17/22	1900			Courier	6/18/22	0950

Remarks:
cc: dhencmann@ensolum.com
dburns@ensolum.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

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

CONDITIONS

Action 125249

CONDITIONS

Operator:	OGRID:
HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	372171
	Action Number: 125249
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. Continue with O & M schedule. 2. Submit next quarterly report by October 31, 2022.	9/20/2022