Received by OCD: 10/7/2021 8:52:04 AM



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September 20, 2021

Mr. Cory Smith, Environmental Specialist New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 1st Quarter 2020 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No.: NVF1718155324

Dear Mr. Smith:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to document remedial activities conducted during the fourth quarter of 2019 (4Q19) and 1st quarter 2020 (1Q20) at the Fifield 5 No. 1 (Site). Activities conducted included the following:

- Installation of soil vapor extraction wells and vents
- Construction and installation of a soil vapor extraction system trailer.

Environmental Setting and Site Geology

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

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

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Site History

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

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

On 03/20/19, Timberwolf contracted with GEOMAT, Inc. of Farmington, New Mexico to install soil borings at the Site to delineate petroleum hydrocarbon impacts vertically and horizontally in soil. All findings are documented in the Timberwolf's *Site Characterization Report and Remedial Action Plan,* dated June 14, 2019.

SVE System Overview

To remediate impacted soil at the Site, Hilcorp installed a soil vapor extraction (SVE) system. The SVE system is comprised of 18 SVE wells, 6 vent wells, and a SVE trailer (Photographs No. 1-3). The power source was not included with the initial system installation. [Note: Hilcorp received an extension from the OCD with a revised start date of 01/03/2020.]

SVE Wells and Vents

SVE and vent wells at the Site include:

- 4 shallow SVE wells (i.e., S1 S4)
- 14 deep SVE wells (i.e., W1 W14)
- 6 deep SVE vents (i.e., V1 V5)

Each vent or SVE wells was constructed of 2-inch polyvinyl chloride (PVC) screened and blank pipe. The four shallow SVE wells were completed in unconsolidated soil with screened intervals from 7 to 10 feet (ft) bgs. Fourteen (14) deep SVE wells and six vents were completed within consolidated material with screened intervals from 25 ft to 35 ft bgs.

Each well and vent were completed with silica sand pack in the each anulus to approximately 1 ft above the screened interval. A 3-ft bentonite seal was installed above the sand pack; each bentonite seal was hydrated with approximately 8 gallons of water. The remainder of the anulus was sealed with a cement-bentonite grout. SVE wells and vents were installed between 10/24/19 and 10/29/19. A figure with the SVE well and vent locations is attached.



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SVE Trailer

The SVE trailer was constructed during October and November 2019 and was installed at the Site on 12/12/19. The SVE trailer is comprised of a regenerative blower, moisture separator and filter, sampling port, manifold with four legs, and 16 inlet ports comprised of 2-inch cam-lock fittings, gate valves, and vacuum gauges. Each leg accommodates four inlet ports and supports up to four SVE wells. SVE wells are connected to inlet ports with 2-inch PVC piping and vacuum hoses.

Each inlet port is equipped with a vacuum gauge capable of measuring the vacuum exerted on each SVE well and a gate valve to regulate vacuum and flow. Each leg is equipped with a flow meter and automated valve. The four legs converge into a 3-inch PVC trunk line to form the manifold. The trunk line is fitted with a sampling port and empties into a moisture separator. The moisture separator is equipped with a high-level shut-off and drain line to manage recovered water and condensate. Air exiting the moisture separator is filtered prior to entering a regenerative blower. Exhaust from the blower exits the trailer through a 2-inch steel pipe fitted with a rain cap.

The SVE trailer is equipped with a programmable automation panel to control valves for each manifold leg.

On 01/14/20, Timberwolf installed insulation and heat tape on the moisture separator and associated piping to prevent freezing.

Power Source

The proposed power source for the SVE trailer was a solar powered system. However, the volume and depth of impacted soil, coupled with the matrix porosity of subsurface media, required a larger than anticipated vacuum pump (i.e., approximately 20 amps of power). Therefore, a generator or comparable power source is required to power system.

Hilcorp is currently evaluating alternative options for power supply.

SVE System Operations

Pending a power supply source, no operations have occurred to date. Runtimes, flow rates, runtime percentage and liquid recovery is documented in the table below:

Measurement	1Q20 Totals
Runtime (hours)	0
Runtime Percentage	0%
Average CFM	N/A
Recovered Liquids (gallons)	0
CEM – cubic feet per minute	

Table 1. System Runtime, Flow Rates, and Recovery – 1Q20

N/A - not applicable



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Further Actions - Second Quarter 2020

During 2Q20, the following activities are planned for the Site:

- Install generator (or alternative power source) and conduct system start up, including the initial soil-gas sampling and analysis
- Conduct regular O&M visits and prepare a 2Q20 quarterly report

If you have any questions regarding this report or need further assistance, please call us at 979-324-2139.

Sincerely, Timberwolf Environmental, LLC

-for-

Michael Morse Project Scientist

Attachments: Figures Photographic Log

cc: Kate Kaufman, Hilcorp Energy Company

for shot

Jim Foster President



Figures



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Photographic Log



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PHOTOGRAPHIC LOG

Project No.:	HEC-190009	Client:	Hilcorp Energy Company
Project Name:	Fifield 5 No. 1	Site Location:	San Juan County, New Mexico
Task Description:	4 th Quarter 2019 Report	Date:	4 th Quarter 2019
Photo No.: 1			
Direction: Northwest			
Comments: SVE wells and vents overview			
		The States	
Photo No.: 2			
Direction: East-Southeast			
Comments: SVE trailer, wells,			
and vents overview		SVE Trailer	
	Vent		Vent
			Well
	Perimeter		2 2
	Fence	21-	
	1	Weil	



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PHOTOGRAPHIC LOG

Project No.:	HEC-190009	Client:	Hilcorp Energy Company
Project Name:	Fifield 5 No. 1	Site Location:	San Juan County, New Mexico
Task Description:	4 th Quarter 2019 Report	Date:	4 th Quarter 2019
Photo No.: 3			
Direction: West			
Comments: SVE trailer, wells, and vents overview			

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September 27, 2021

Mr. Cory Smith, Environmental Specialist New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 2nd Quarter 2020 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No.: NVF1718155324

Dear Mr. Smith:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to document remedial activities conducted during the 2nd quarter 2020 (2Q20) at the Fifield 5 No. 1 (Site). The Site is a plugged well site and is located in northeast San Juan County, New Mexico (Figures 1 through 3).

In 2019, Hilcorp installed a SVE system to treat soil impacted from pit tank release. The SVE system is comprised of 18 SVE wells, 6 vent wells, and a SVE trailer. Hilcorp planned to use natural gas from the adjacent Hali Meador #005 well to fuel a generator to power the SVE system; however, divergent mineral ownership between the Fifield 5 No. 1 and Hali Meador #005 precluded this option.

Due to no available power source, no SVE operations have occurred to date. Runtimes, flow rates, runtime percentage, and liquid recovery is documented in the table below:

Measured Parameter	2Q20 Totals
Runtime (hours)	0
Runtime Percentage	0%
Average CFM	N/A
Recovered Liquids (gallons)	0

Table 1. System Runtime, Flow Rates, and Recovery – 2Q20

% - percentage CFM – cubic feet per minute

N/A – not applicable

Hilcorp is planning to install an alternator on the Hali Meador #005 compressor and a direct current (DC) power inverter to power the SVE system.

Timberwolf Project No. HEC-190009

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HEC-190009 September 27, 2021 Page 2

If you have any questions regarding this report or need further assistance, please call us at 979-324-2139.

Sincerely, Timberwolf Environmental, LLC

-for-

Michael Morse Project Scientist

Ju Shat

Jim Foster President

cc: Kate Kaufman, Hilcorp Energy Company



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September 27, 2021

Mr. Cory Smith, Environmental Specialist New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 3rd Quarter 2020 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No.: NVF1718155324

Dear Mr. Smith:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to document remedial activities conducted during the 3rd quarter 2020 (3Q20) at the Fifield 5 No. 1 (Site). The Site is a plugged well site located in northeast San Juan County, New Mexico (Figures 1 through 3).

In 2019, Hilcorp installed a SVE system to treat soil impacted from pit tank release. The SVE system is comprised of 18 SVE wells, 6 vent wells, and a SVE trailer. In 2Q20, Hilcorp made plans to power the SVE system with an alternator powered by the Hali Meador #005 compressor, located immediately adjacent to the Site. The current plan is to set a propane tank and electrical generator to power the SVE system.

Due to no available power source, no SVE operations have occurred to date. Runtimes, flow rates, runtime percentage, and liquid recovery is documented in the table below:

Measured Parameter	3Q20 Totals
Runtime (hours)	0
Runtime Percentage	0%
Average CFM	N/A
Recovered Liquids (gallons)	0

Table 1. System Runtime, Flow Rates, and Recovery – 3Q20

% - percentage CFM – cubic feet per minute N/A – not applicable

Hilcorp plans to install a propane tank and electrical generator to power the SVE system.

HEC-190009 September 27, 2021 Page 2

If you have any questions regarding this report or need further assistance, please call us at 979-324-2139.

Sincerely, Timberwolf Environmental, LLC

-for-

Michael Morse Project Scientist

Ju Shat

Jim Foster President

cc: Kate Kaufman, Hilcorp Energy Company



Figures









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September 27, 2021

Mr. Cory Smith, Environmental Specialist New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 4th Quarter 2020 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No.: NVF1718155324

Dear Mr. Smith:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to document remedial activities conducted during the 4th quarter 2020 (4Q20) at the Fifield 5 No. 1 (Site). The Site is a plugged well site located in northeast San Juan County, New Mexico (Figures 1 through 3).

In 2019, Hilcorp installed a SVE system to treat soil impacted from pit tank release. The SVE system is comprised of 18 SVE wells, 6 vent wells, and a SVE trailer. In 3Q20, Hilcorp made plans to power the SVE system by setting a propane tank and electrical generator; however, no further work has been done at the Site.

Due to no power source, no SVE operations have occurred to date. Runtimes, flow rates, runtime percentage, and liquid recovery is documented in the table below:

Measured Parameter	4Q20 Totals
Runtime (hours)	0
Runtime Percentage	0%
Average CFM	N/A
Recovered Liquids (gallons)	0

Table 1. System Runtime, Flow Rates, and Recovery – 4Q20

% - percentage

CFM – cubic feet per minute N/A – not applicable

HEC-190009 September 27, 2021 Page 2

If you have any questions regarding this report or need further assistance, please call us at 979-324-2139.

Sincerely, Timberwolf Environmental, LLC

-for-

Michael Morse Project Scientist

for Shot

Jim Foster President

cc: Kate Kaufman, Hilcorp Energy Company



Figures









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NV

September 27, 2021

Mr. Cory Smith, Environmental Specialist New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 1st Quarter 2021 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No.: NVF1718155324

Dear Mr. Smith:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to document remedial activities conducted during the 1st quarter 2021 (1Q21) at the Fifield 5 No. 1 (Site). The Site is a plugged well site located in northeast San Juan County, New Mexico (Figures 1 through 3).

In 2019, Hilcorp installed a SVE system to treat soil impacted from pit tank release. The SVE system is comprised of 18 SVE wells, 6 vent wells, and a SVE trailer. However, no power supply has been furnished for the Site.

Due to no power source, no SVE operations have occurred to date. Runtimes, flow rates, runtime percentage, and liquid recovery is documented in the table below:

Measured Parameter	1Q21 Totals
Runtime (hours)	0
Runtime Percentage	0%
Average CFM	N/A
Recovered Liquids (gallons)	0

Table 1. System Runtime, Flow Rates, and Recovery – 1Q21

% - percentage CFM – cubic feet per minute N/A – not applicable

HEC-190009 September 27, 2021 Page 2

If you have any questions regarding this report or need further assistance, please call us at 979-324-2139.

Sincerely, Timberwolf Environmental, LLC

-for-

Michael Morse Project Scientist

for Shat

Jim Foster President

cc: Kate Kaufman, Hilcorp Energy Company



Figures











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NV

September 27, 2021

Mr. Cory Smith, Environmental Specialist New Mexico Oil Conservation Division – District 3 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Status Report – 2nd Quarter 2021 Fifield 5 No. 1 (SE ¼, SW ¼, Sec. 5, T29N, R11W) Hilcorp Energy Company San Juan County, New Mexico OCD Incident No.: NVF1718155324

Dear Mr. Smith:

On behalf of Hilcorp Energy Company (Hilcorp), Timberwolf Environmental, LLC (Timberwolf) presents this report to status report of activities conducted during the 2nd quarter 2021 (2Q21) at the Fifield 5 No. 1 (Site). The Site is a plugged well site located in northeast San Juan County, New Mexico (Figures 1 through 3).

In 2019, Hilcorp installed a SVE system to treat soil impacted from pit tank release. The SVE system is comprised of 18 SVE wells, 6 vent wells, and a SVE trailer. However, no power supply has been furnished for the Site.

Due to no power source, no SVE operations have occurred to date. Runtimes, flow rates, runtime percentage, and liquid recovery is documented in the table below:

Measured Parameter	2Q21 Totals
Runtime (hours)	0
Runtime Percentage	0%
Average CFM	N/A
Recovered Liquids (gallons)	0

Table 1. System Runtime, Flow Rates, and Recovery – 2Q21

% - percentage CFM – cubic feet per minute N/A – not applicable

HEC-190009 September 27, 2021 Page 2

If you have any questions regarding this report or need further assistance, please call us at 979-324-2139.

Sincerely, Timberwolf Environmental, LLC

-for-

Michael Morse Project Scientist

for Shat

Jim Foster President

cc: Kate Kaufman, Hilcorp Energy Company



Figures











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NV

Kate Kaufman Hilcorp Energy Company 1111 Travis Street Houston, TX 77002 (346) 237-2275 kkaufman@hilcorp.com

October 6, 2021

Ms. Emily Hernandez Bureau Chief, Environmental New Mexico Oil Conservation Division New Mexico Energy, Minerals, and Natural Resources Department 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

Re: Compliance Plan Fifield 5 #1 San Juan County, New Mexico OCD Incident No. NVF1718155324

Dear Ms. Hernandez:

Hilcorp Energy Company (Hilcorp) presents this overview plan to bring the Fifield 5 #1 remediation site into compliance in accordance with the Site Characterization Report and Remedial Action Plan dated February 28, 2019 and New Mexico Oil Conservation Division (NMOCD) Notice of Violation dated September 1. 2021.

- Quarterly reports for 2020 and the first half of 2021 have been submitted to NMOCD via the ePermitting System.
- A fuel gas line, gas powered engine and blower were installed on the SVE skid to enable system start-up on October 1, 2021, and the system is currently operational.
- System runtime will be monitored real-time by Operations and Environmental personnel utilizing computer-based telemetry. Real time monitoring and trouble alarms will ensure system down time is kept to a minimum, better enabling Hilcorp to meet run-time requirements.
- Hilcorp personnel will complete semi-monthly operations and maintenance site visits to further ensure run-time requirements are met and to collect system data as needed.

Further information on system performance will be provided in the third quarter 2021 status report.

Please contact me at 346-237-2275 or <u>kkaufman@hilcorp.com</u> if you have any questions or require additional information.

Sincerely,

Kathyrstkaufma

Kathryn Kaufman Environmental Specialist

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 54618

CONDITIONS		
Operator:	OGRID:	
HILCORP ENERGY COMPANY	372171	
1111 Travis Street	Action Number:	
Houston, TX 77002	54618	
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)	

CONDITIONS

Created	Condition	Condition
By		Date
nvelez	Accepted for the record. See App ID 125737 for most updated status.	9/23/2022