

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
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Receive Date:  
\_\_\_\_\_

Report taken by:  
\_\_\_\_\_

Site Investigation and Remediation Workplan (Supplemental Form)

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. However, this shall not preclude the Operator from taking immediate action to protect public health or safety, the environment, wildlife, or livestock.

This Form 27 describes site conditions as currently understood by the Operator; approval of this Form 27 by COGCC is based on the site conditions accurately described herein; any changes in site conditions identified during or subsequent to the performance of the approved workplan may necessitate additional investigation or remediation which shall be described on a supplemental Form 27.

This Form 27 is intended to provide basic information regarding the proposed site investigation and remediation actions, but the workplan may be more fully described in attached documentation.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: <u>HILCORP ENERGY COMPANY</u>	Operator No: <u>10133</u>	<b>Phone Numbers</b>
Address: <u>P O BOX 61229</u>		
City: <u>HOUSTON</u>	State: <u>TX</u>	Zip: <u>77208</u>
Contact Person: <u>Matt Vicenik</u>	Email: <u>mvicenik@hilcorp.com</u>	
		Phone: <u>(713) 289-2951</u>
		Mobile: <u>(281) 772-4910</u>

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**

Remediation Project #: 7675 Initial Form 27 Document #: 2486055

**PURPOSE INFORMATION**

901.e. Sensitive Area Determination  909.c.(5), Rule 910.b.(4): Remediation of impacted ground water

909.c.(1), Rule 905: Pit or PW vessel closure  Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.

909.c.(2), Rule 906: Spill/Release Remediation  Rule 909.e.(2)B.: Closure of remediation project

909.c.(3), Rule 907.e.: Land treatment of oily waste  Rule 906.c.: Director request

909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure  Other LARGE VOLUME TANK COLLAPSE

**SITE INFORMATION** N Multiple Facilities ( in accordance with Rule 909.c. )

Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>041-06072</u>	County Name: <u>EL PASO</u>
Facility Name: <u>Myers 21-06CH</u>	Latitude: <u>38.865690</u>	Longitude: <u>-104.491510</u>	
	** correct Lat/Long if needed: Latitude: <u>38.865690</u>	Longitude: <u>-104.491510</u>	
QtrQtr: <u>Lot 3</u>	Sec: <u>6</u>	Twp: <u>14S</u>	Range: <u>63W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

**SITE CONDITIONS**

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use PASTURE

Is domestic water well within 1/4 mile? Yes Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? Yes

**Other Potential Receptors within 1/4 mile**

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- E&P Waste       Other E&P Waste       Non-E&P Waste
- Produced Water       Workover Fluids
- Oil       Tank Bottoms
- Condensate       Pigging Waste
- Drilling Fluids       Rig Wash
- Drill Cuttings       Spent Filters
- Pit Bottoms
- Other (as described by EPA) FRESH WATER

## DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
No	SOILS	=/- 2.3 acres	VISUAL OBSERVATION

## INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

AFTER RELEASE, WATER WAS ALLOWED TO EVAPORATE SO THAT SILT WAS EASIER TO WORK WITH

## PROPOSED SAMPLING PLAN

### Proposed Soil Sampling

Will soil samples be collected as part of this investigation? ( Number, type (grab/composite), analyses, and locations of samples ):

### Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

### Proposed Surface Water Sampling

Will surface water samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

## Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan ( summary ):

A Site Investigation & Remediation Work Plan (Form 27) was submitted and implemented by Hilcorp in 2013. Remediation work was completed by 4/12/13. Final site reclamation (including the area affected by this incident) is almost complete. Based on evidence of vegetation growth from final site reclamation activities, the silt accumulated was removed, area re-contoured and seeded. All aspects of the reclamation efforts of the washout area met the remediation plan objectives.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 0  
Number of soil samples exceeding 910-1 \_\_\_\_\_  
Was the areal and vertical extent of soil contamination delineated? \_\_\_\_\_  
Approximate areal extent (square feet) \_\_\_\_\_

### NA / ND

NA Highest concentration of TPH (mg/kg) \_\_\_\_\_  
NA Highest concentration of SAR \_\_\_\_\_  
BTEX > 910-1 \_\_\_\_\_  
Vertical Extent > 910-1 (in feet) \_\_\_\_\_

### Groundwater

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) \_\_\_\_\_  
Number of groundwater monitoring wells installed \_\_\_\_\_  
Number of groundwater samples exceeding 910-1 \_\_\_\_\_

NA Highest concentration of Benzene (µg/l) \_\_\_\_\_  
NA Highest concentration of Toluene (µg/l) \_\_\_\_\_  
NA Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_  
NA Highest concentration of Xylene (µg/l) \_\_\_\_\_  
NA Highest concentration of Methane (mg/l) \_\_\_\_\_

### Surface Water

0 Number of surface water samples collected  
\_\_\_\_\_ Number of surface water samples exceeding 910-1  
If surface water is impacted, other agency notification may be required.

## OTHER INVESTIGATION INFORMATION

Were impacts to adjacent property or offsite impacts identified?

Were background samples collected as part of this site investigation?

Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) \_\_\_\_\_ Volume of liquid waste (barrels) \_\_\_\_\_

Is further site investigation required?

# REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? No \_\_\_\_\_

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

NA Silt stockpiled onsite and redistributed during re-contouring of pad area. Debris was hauled offsite to local dump.

## REMEDICATION SUMMARY

Describe how remediation of existing impacts to soil and groundwater is to be accomplished (i.e. summarize remedial action plan). Provide a brief narrative description including: technical justification, schedule for implementation, estimated time to attain NFA status, plus plans and specifications for the selected remedial action technology.

- 1) MOVED IN RECLAMATION EQUIPMENT FOR REMOVAL OF DRAINAGE SILT
- 2) A PADDLE WHEEL SCRAPER WAS USED FOR AREAS WITH DEEPER THAN 2" SILT ACCUMULATION. LIGHT HARROWING AND HAND RAKING WAS UTILIZED TO RECOVER SILT IN ALL OTHER AREAS. RECOVERED SILT WAS STOCKPILED ON LOCATION AND REDISTRIBUTED AS VISUALLY NEEDED UPON WASHOUT AREA. TWO DEPOSITS OF SILT ARE ON LOCATION, EAST SIDE OF AREA OS +/- 1.2 ACRES, THE SOUTH SIDE +/- 1.1 ACRE.
- 3) ENTIRE WASHOUT AREA HAS BEEN INSPECTED AND CLEARED OF EXCESS DEBRIS AND TRASH CAUSED BY BOTH DRILLING AND FRESHWATER SPILL.
- 4) WASHOUT AREA HAS BEEN RESTORED TO NATURAL CONTOUR
- 5) WASHOUT AREA HAS BEEN RESEED PER THE MIX DESIGNATED BY EL PASO COUNTY AND WEED-FREE STRAW WAS INCORPORATED FOR EROSION CONTROL MEASURES.
- 6) RECLAMATION AREA WAS MONITORED UNTIL ALL ASPECTS OF THE RECLAMATION OBJECTIVES AND STANDARDS HAD BEEN MET.

## Soil Remediation Summary

### In Situ

- \_\_\_\_\_ Bioremediation ( or enhanced bioremediation )
- \_\_\_\_\_ Chemical oxidation
- \_\_\_\_\_ Air sparge / Soil vapor extraction
- \_\_\_\_\_ Natural Attenuation
- \_\_\_\_\_ Other \_\_\_\_\_

### Ex Situ

- \_\_\_\_\_ Excavate and offsite disposal
- \_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_
- \_\_\_\_\_ Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_
- \_\_\_\_\_ Excavate and onsite remediation
- \_\_\_\_\_ Land Treatment
- \_\_\_\_\_ Bioremediation (or enhanced bioremediation)
- \_\_\_\_\_ Chemical oxidation
- \_\_\_\_\_ Other \_\_\_\_\_

## Groundwater Remediation Summary

- \_\_\_\_\_ Bioremediation ( or enhanced bioremediation )
- \_\_\_\_\_ Chemical oxidation
- \_\_\_\_\_ Air sparge / Soil vapor extraction
- \_\_\_\_\_ Natural Attenuation
- \_\_\_\_\_ Other \_\_\_\_\_

## GROUNDWATER MONITORING

If groundwater has been impacted, describe proposed monitoring plan, including # of wells or sample points, monitoring schedule, analytical methods, points of compliance. Attach a groundwater monitoring location diagram.

# REMEDIATION PROGRESS UPDATE

## PERIODIC REPORTING

Frequency:  Quarterly  Semi-Annually  Annually  Other \_\_\_\_\_

Report Type:  Groundwater Monitoring  Land Treatment Progress Report  O&M Report

Other \_\_\_\_\_

## WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? No

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_

E&P waste (solid) description \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_

E&P waste (liquid) description \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: \_\_\_\_\_

## REMEDIATION COMPLETION REPORT

### REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

Do all soils meet Table 910-1 standards? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? \_\_\_\_\_

Does Groundwater meet Table 910-1 standards? Yes

Is additional groundwater monitoring to be conducted? \_\_\_\_\_

# RECLAMATION PLAN

## RECLAMATION PLANNING

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing.

- 1) MOVE IN RECLAMATION EQUIPMENT FOR REMOVAL OF DRAINAGE SILT
- 2) A PADDLE WHEEL SCRAPER WILL BE USED FOR AREAS WITH DEEPER THAN 2" SILT ACCUMULATION. LIGHT HARROWING AND HAND RAKING WILL BE UTILIZED TO RECOVER SILT IN ALL OTHER AREAS. RECOVERED SILT WILL BE STOCKPILED ON LOCATION AND REDISTRIBUTED AS VISUALLY NEEDED UPON WASHOUT AREA. TWO DEPOSITS OF SILT ARE ON LOCATION, EAST SIDE OF AREA OS +/- 1.2 ACRES, THE SOUTH SIDE +/- 1.1 ACRE.
- 3) ENTIRE WASHOUT AREA WILL BE INSPECTED AND CLEARED OF EXCESS DEBRIS AND TRASH CAUSED BY BOTH DRILLING AND FRESHWATER SPILL.
- 4) WASHOUT AREA WILL BE RESTORED TO NATURAL CONTOUR
- 5) WASHOUT AREA WILL BE RESEED PER THE MIX DESIGNATED BY EL PASO COUNTY OR A COMPARABLE MIX AND WEED-FREE STRAW WILL BE INCORPORATED FOR EROSION CONTROL MEASURES.
- 6) RECLAMATION AREA WILL BE MONITORED FOR THE NEXT 12 OR UNTIL ALL ASPECTS OF THE RECLAMATION OBJECTIVES AND STANDARDS HAVE BEEN MET.

Is the described reclamation complete? Yes \_\_\_\_\_

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

Interim?  Final?

Did the Surface Owner approve the seed mix? \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. 12/16/2012

Actual Spill or Release date, if known. 12/16/2012

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). \_\_\_\_\_

Date of commencement of Site Investigation. 12/17/2012

Date of completion of Site Investigation. 02/06/2013

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 03/25/2013

Date of completion of Remediation. 04/12/2013

### SITE RECLAMATION DATES

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

**OPERATOR COMMENT**

The location is in final reclamation and there are no lasting impacts from the water spill due to current vegetation growth.

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: Matt Vicenik \_\_\_\_\_

Title: Director - EH&S \_\_\_\_\_

Submit Date: \_\_\_\_\_

Email: mvicenik@hilcorp.com \_\_\_\_\_

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_

Date: \_\_\_\_\_

Remediation Project Number: 7675 \_\_\_\_\_

**COA Type****Description**

COA Type	Description

**Attachment Check List**

Upon approval, the approved Form 27 and all listed attachments will be indexed to the Remediation Project file. Only the approved Form 27 will also be indexed to the related Facilities.

**Att Doc Num****Name**

Att Doc Num	Name

Total Attach: 0 Files

**General Comments****User Group****Comment****Comment Date**

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)