

# State of Colorado Oil and Gas Conservation Commission

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Document Number:

401349666

Receive Date:

07/21/2017

Report taken by:

Jason Kosola

## Site Investigation and Remediation Workplan (Initial 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: CHURCHILL ENERGY INC	Operator No: 16910	<b>Phone Numbers</b> Phone: (303) 840-7000 Mobile: (303) 618-5025
Address: 8177 SOUTH NORFOLK STREET		
City: ENGLEWOOD	State: CO Zip: 80112	
Contact Person: Gary Kluksdahl	Email: gary.kluksdahl@comcast.net	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 10302

Initial Form 27 Document #: 401349666

#### PURPOSE INFORMATION

- |  |  |
|--|--|
| <input type="checkbox"/> 901.e. Sensitive Area Determination                                       | <input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water                   |
| <input checked="" type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure                  | <input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b. |
| <input checked="" type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation                 | <input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project                                  |
| <input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste                      | <input type="checkbox"/> Rule 906.c.: Director request   |
| <input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure | <input type="checkbox"/> Other _____   |

#### SITE INFORMATION

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

Facility Type: UIC DISPOSAL	Facility ID: 150405	API #: _____	County Name: LINCOLN
Facility Name: CHAMPLIN LIMON 1-19		Latitude: 39.249654	Longitude: -103.712509
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: NWSW	Sec: 19	Twp: 9S	Range: 56W Meridian: 6 Sensitive Area? Yes

#### SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use Cattle pasture

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

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

Sand & Dirt carried off location by wind & rainwater

☒ Oil

☐ Tank Bottoms

☐ Condensate

☐ Pigging Waste

☐ Drilling Fluids

☐ Rig Wash

☐ Drill Cuttings

☐ Spent Filters

☐ Pit Bottoms

☐ Other (as described by EPA)

### DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	Probable chlorides in soil	visual
Yes	VEGETATION	No growth in spill paths	visual

### INITIAL ACTION SUMMARY

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

Oily dirt has been removed from around water tanks inside containment area on 6/27/17

### 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 ):

Grab samples per attached Map#1 (13 total)

#### 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 ):

# 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? No \_\_\_\_\_

Approximate areal extent (square feet) \_\_\_\_\_

### NA / ND

\_\_\_\_\_ Highest concentration of TPH (mg/kg) \_\_\_\_\_

\_\_\_\_\_ 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 \_\_\_\_\_ 0

Number of groundwater samples exceeding 910-1 \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Benzene (µg/l) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Toluene (µg/l) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Ethylbenzene (µg/l) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Xylene (µg/l) \_\_\_\_\_

\_\_\_\_\_ Highest concentration of Methane (mg/l) \_\_\_\_\_

### Surface Water

\_\_\_\_\_ 0 Number of surface water samples collected

\_\_\_\_\_ 0 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?

Samples to be taken upon approval of Remediation Plan

# REMEDIAL ACTION PLAN

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Source is wind and rain moving material off location downslope. Operator proposes to install crushed rock berm across edge of location on east side to mitigate further soil removal.

## 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.

Fall 2017 After sampling and analysis, Operator proposes to disc or plow affected area and scarify with manure and/or straw to hold ground. Native seed per SCS will be drilled into affected area. Spring 2018 Operator will review progress with seed growth and soil holding, repeating operation as required.

## Soil Remediation Summary

☒ **In Situ**

Yes Bioremediation ( or enhanced bioremediation )

No Chemical oxidation

No Air sparge / Soil vapor extraction

No Natural Attenuation

Yes Other mix with organic material  
(manure, straw)

☐ **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

No Land Treatment

No 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.

## REMEDATION 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: \_\_\_\_\_

## 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.

Disc/plow operations will conform to existing slop and grade. Seed mixture to be approved by SCS and Surface Owner. Noxious weeds will be controlled by herbicide.

Is the described reclamation complete? No

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. \_\_\_\_\_

Actual Spill or Release date, if known. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/27/2017

Date of commencement of Site Investigation. 06/21/2017

Date of completion of Site Investigation. \_\_\_\_\_

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 09/30/2017

Date of completion of Remediation. \_\_\_\_\_

### SITE RECLAMATION DATES

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

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

**OPERATOR COMMENT**

This is an initial submittal with the largest portion of the work yet to be completed.

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

Signed: Gary Kluksdahl

Title: President

Submit Date: 07/21/2017

Email: gary.kluksdahl@comcast.net

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: Jason Kosola

Date: 07/28/2017

Remediation Project Number: 10302

**COA Type****Description**

	9) COGCC staff will perform a final inspection to verify that the closure criteria have been satisfied after receiving the closure request.
	8) The operator shall obtain written approval from the Land Owner accepting final reclamation prior to closure of this project. The written approval shall be submitted with the final closure request after closure criteria has been satisfied and all stormwater management controls have been removed.
	7) The reclamation project shall meet closure criteria when all affected areas have a uniform vegetative cover that reflects pre-disturbance area forbs, shrubs and grasses with total percent plant cover of at least eighty percent (80%) of pre-disturbance levels, excluding noxious weeds.
	6) All required work to complete the planned reclamation shall be performed no later than October 31, 2017.
	5) If the location is currently used for cattle grazing or will be used during the project, the operator is required to install fencing as needed to protect the reclamation area from damage until vegetation can be established.
	4) Control noxious weeds throughout the reclamation process. Weed control measures shall be performed in compliance with the Colorado Noxious Weed Act C.R.S. 35-5.5-115.
	3) Comply with COGCC Rule 1002.f. Stormwater Management throughout the duration of the project. a. Perform and document stormwater inspections after any storm event that results in runoff. b. Verify that stormwater controls are properly maintained or replaced as needed throughout the duration of the project.
	2) Submit an annual report documenting reclamation work performed and status of vegetation no later than October 31st each year with the following information: a. Total volume of any amendments or fertilizer applied and the application rate per acre; b. Seed mixture and application rate; c. Site photographs depicting the completion of the work including erosion controls and seeding; d. Site photographs depicting the condition of the vegetation during the growing season; e. Future plans for additional amendments and seeding as needed based on success of the seeding performed in Fall 2017.

	<p>1) Operator shall close produced water pit and concrete skim vault. Operator shall remove and properly dispose of produced water pit liner and concrete vault. All oily waste shall be properly treated or disposed in accordance with Rule 907.e.</p> <p>Following the removal of any oily waste or other E&amp;P waste from the produced water pit and concrete skim vault, a minimum of five confirmation soil samples -one from the bottom and one from each sidewall shall be collected from both the produced water pit and concrete vault excavation. All soils shall be analyzed for Total Petroleum Hydrocarbons (Diesel Range Organics and Gasoline Range Organics), Benzene, Toluene, Ethylbenzene, Total Xylenes, Electrical Conductivity, pH, and Sodium Adsorption Ratio to verify compliance with Table 910-1 parameters. The soil sampling results must be submitted for prior approval before backfilling the pit and vault excavation. Operator must submit a summary table comparing soil confirmation sample results to Table 910-1 Standards, accurate GPS coordinates for the pit and vault, a sample location diagram indicating the dimensions of the pit &amp; vault and final excavation dimensions, as well as and the full laboratory analytical report, at minimum.</p> <p>If pits are necessary for production, operator shall submit Form 15 Pit Report to update the existing pit facility or a Form 15 Pit Permit for any new pit to be constructed.</p>
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### **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.

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
401349666	INVESTIGATION/REMEDATION WORKPLAN (INITIAL)
401349672	MAP
401349673	SITE MAP
401357773	FORM 27-INITIAL-SUBMITTED

Total Attach: 4 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
		Stamp Upon Approval

Total: 0 comment(s)