

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
402828656

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.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

OPERATOR INFORMATION

|  |                              |                       |
|--|------------------------------|-----------------------|
| Name of Operator: HUNTER RIDGE ENERGY SERVICES LLC | Operator No: 10442           | Phone Numbers         |
| Address: 370 17TH STREET #1700                     |                              |                       |
| City: DENVER                                       | State: CO                    | Zip: 80202            |
| Contact Person: Paul Buck                          | Email: paul.buck@ovintiv.com |                       |
|  |                              | Phone: (720) 876-3513 |
|  |                              | Mobile: ( )           |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 9748 Initial Form 27 Document #: 2526557

PURPOSE INFORMATION

- Rule 913.c.(1): Pit or Cuttings Trench closure.
- Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- Rule 913.c.(3): Remediation of Spill and Releases pursuant to Rule 912.
- Rule 913.c.(4): Land treatment of Oily Waste pursuant to Rule 905.e.
- Rule 913.c.(5): Closure of Centralized E&P Waste Management Facilities pursuant to Rule 907.h.
- Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.
- Rule 913.c.(7): Investigation and remediation of natural gas in soil or Groundwater.
- Rule 913.c.(8): When requested by the Director due to any potential risk to soil, Groundwater, or surface water.
- Rule 913.c.(9): Decommissioning of Oil and Gas Facilities.
- Rule 913.g: Changes of Operator.
- Rule 915.b: Request to leave elevated inorganics in situ.
- Other: Monthly Update

SITE INFORMATION

No Multiple Facilities

|   |                     |  |  |
|---|---------------------|--|--|
| Facility Type: SPILL OR RELEASE           | Facility ID: 446199 | API #: _____                                   | County Name: GARFIELD                      |
| Facility Name: SPILL/RELEASE POINT 446199 |                     | Latitude: 39.679430                            | Longitude: -108.147890                     |
|   |                     | ** correct Lat/Long if needed: Latitude: _____ | Longitude: _____                           |
| QtrQtr: NENE                              | Sec: 27             | Twp: 4S  | Range: 96W Meridian: 6 Sensitive Area? Yes |

SITE CONDITIONS

General soil type - USCS Classifications GC Most Sensitive Adjacent Land Use RANGELAND

Is domestic water well within 1/4 mile? No 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**

COGCC MAP SERVICE THERE IS (1) SURFACE WATER RECEPTORS & NO WATER WELLS WITHIN 1/4 MILE OF THE PAD. Based on the installation of the Water Treatment Plant just N of the Rio Blanco/ Garfield County Border, the extent of the project area has increased. However, the Site Conditions specific to the questions above remain the same.

**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)

**DESCRIPTION OF IMPACT**

| Impacted? | Impacted Media | Extent of Impact      | How Determined      |
|-----------|----------------|-----------------------|---------------------|
| Yes       | GROUNDWATER    | see site map attached | Sample and analysis |
| Yes       | SOILS          | see site map attached | Sample and analysis |
| Yes       | SURFACE WATER  | see site map attached | sample and analysis |

**INITIAL ACTION SUMMARY**

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

Refer to Form 19 - 401064094 & 401068217.

**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 ):

Monthly Update Only. No soil sampling.

**Proposed Groundwater Sampling**

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

Monthly Update Only. No groundwater sampling proposed.

**Proposed Surface Water Sampling**

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

Monthly Update Only. No surface water sampling proposed

**Additional Investigative Actions**

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

Monthly Update Only. No additional actions discussed.

**SITE INVESTIGATION REPORT**

## **SAMPLE SUMMARY**

| <b>Soil</b>  |   | <b>NA / ND</b> |  |
|--|---|----------------|--|
| Number of soil samples collected   | 0   |                | Highest concentration of TPH (mg/kg)           |
| Number of soil samples exceeding 915-1                                   |   |                | Highest concentration of SAR                   |
| Was the areal and vertical extent of soil contamination delineated?      |   |                | BTEX > 915-1                                   |
| Approximate areal extent (square feet)                                   |   |                | Vertical Extent > 915-1 (in feet)              |
| <b>Groundwater</b>   |   |                |  |
| Number of groundwater samples collected                                  | 0   | --             | Highest concentration of Benzene (µg/l) 0      |
| Was extent of groundwater contaminated delineated?                       | Yes   | --             | Highest concentration of Toluene (µg/l) 0      |
| Depth to groundwater (below ground surface, in feet)                     | 0'  | --             | Highest concentration of Ethylbenzene (µg/l) 0 |
| Number of groundwater monitoring wells installed                         | 0   | --             | Highest concentration of Xylene (µg/l) 0       |
| Number of groundwater samples exceeding 915-1                            | 0   | NA             | Highest concentration of Methane (mg/l)        |
| <b>Surface Water</b>   |   |                |  |
| 4  | Number of surface water samples collected       |                |  |
| 0  | Number of surface water samples exceeding 915-1 |                |  |
| 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?  
Monthly Update only. Further investigation discussed in quarterly updates

## **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.

Free product is removed via vac truck from all monitoring wells with greater than 1 inch of free product

### **REMEDIATION 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.

Monthly Update only. Remediation Summary included in quarterly report.

### **Soil Remediation Summary**

In Situ  Ex Situ  
No \_\_\_\_\_ Bioremediation ( or enhanced bioremediation ) \_\_\_\_\_ Excavate and offsite disposal \_\_\_\_\_

No  Chemical oxidation  
Yes  Air sparge / Soil vapor extraction  
No  Natural Attenuation  
No  Other \_\_\_\_\_

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**

No  Bioremediation ( or enhanced bioremediation )  
No  Chemical oxidation  
Yes  Air sparge / Soil vapor extraction  
No  Natural Attenuation  
No  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.

Ovintiv continues to monitor groundwater through the monitoring well system.

**REMEDIATION PROGRESS UPDATE**

**PERIODIC REPORTING**

**Approved Reporting Schedule:**

Quarterly  Semi-Annually  Annually  Other

**Request Alternative Reporting Schedule:**

Semi-Annually  Annually  Other

Rule 913.e:

After initial approval of a Form 27, the Operator will provide quarterly update reports in a Supplemental Form 27 to document progress of site investigation and remediation, unless an alternative reporting schedule has been requested by the Operator and approved by the Director. The Director may request a more frequent reporting schedule based on site-specific conditions.

**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? \_\_\_\_\_

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

If YES:

Compliant with Rule 913.h.(1).

Compliant with Rule 913.h.(2).

Compliant with Rule 913.h.(3).

Do all soils meet Table 915-1 standards? \_\_\_\_\_

Does the previous reply indicate consideration of background concentrations? \_\_\_\_\_

Does Groundwater meet Table 915-1 standards? \_\_\_\_\_

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

Operator shall comply with the COGCC 1000-Series Reclamation Requirements for all impacted and disturbed areas.

## 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.

TBD

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

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

Interim

Final

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

If YES, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

Did the local soil conservation district provide the seed mix? \_\_\_\_\_

### SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. \_\_\_\_\_

Proposed date of completion of Reclamation. \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. \_\_\_\_\_

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

### SITE INVESTIGATION DATES

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

Proposed site investigation commencement. 06/27/2016

Proposed completion of site investigation. \_\_\_\_\_

**REMEDIAL ACTION DATES**

Proposed start date of Remediation. 06/27/2016

Proposed date of completion of Remediation.

Per Rule 913.d.(2): Any change from the approved implementation schedule will be requested at least 14 days in advance, and the Operator may not make the change without the Director's approval.

Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

[Empty text box for basis of change]

**OPERATOR COMMENT**

[Empty text box for operator comment]

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

Signed: Paul Buck

Title: Senior Air Compliance Spe

Submit Date:

Email: paul.buck@ovintiv.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: 9748

**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**

|           |                |
|-----------|----------------|
| 402828657 | CORRESPONDENCE |
|-----------|----------------|

Total Attach: 1 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

|  |  |                     |
|--|--|---------------------|
|  |  | Stamp Upon Approval |
|--|--|---------------------|

Total: 0 comment(s)