

# State of Colorado Oil and Gas Conservation Commission

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402941665

Receive Date:

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Report taken by:

BOB CHESSON

## 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.

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

### OPERATOR INFORMATION

Name of Operator: <u>BONANZA CREEK ENERGY OPERATING COMPANY LLC</u>	Operator No: <u>8960</u>	<b>Phone Numbers</b>
Address: <u>410 17TH STREET SUITE #1400</u>		Phone: <u>(720) 315-8934</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Mobile: <u>(970) 573-3163</u>
Contact Person: <u>Luke Kelly</u>	Email: <u>lkelly@civiresources.com</u>	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 22760 Initial Form 27 Document #: 402941665

#### 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: wellhead cut/cap and associated production facilities closure

#### SITE INFORMATION

Yes Multiple Facilities

Facility Type: <u>WELL</u>	Facility ID: <u></u>	API #: <u>123-32748</u>	County Name: <u>WELD</u>
Facility Name: <u>Antelope 13-17</u>	Latitude: <u>40.397860</u>	Longitude: <u>-104.353800</u>	
** correct Lat/Long if needed: Latitude: <u></u>		Longitude: <u></u>	
QtrQtr: <u>NWSW</u>	Sec: <u>17</u>	Twp: <u>5N</u>	Range: <u>62W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

  

Facility Type: <u>LOCATION</u>	Facility ID: <u>420920</u>	API #: <u></u>	County Name: <u>WELD</u>
Facility Name: <u>Antelope 13-17</u>	Latitude: <u>40.397860</u>	Longitude: <u>-104.353800</u>	
** correct Lat/Long if needed: Latitude: <u></u>		Longitude: <u></u>	
QtrQtr: <u>NWSW</u>	Sec: <u>17</u>	Twp: <u>5N</u>	Range: <u>62W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

Facility Type: WELL		Facility ID: _____		API #: 123-33020		County Name: WELD	
Facility Name: Antelope 12-17		Latitude: 40.397890		Longitude: -104.353840			
		** correct Lat/Long if needed: Latitude: _____		Longitude: _____			
QtrQtr: NWSW	Sec: 17	Twp: 5N	Range: 62W	Meridian: 6	Sensitive Area?	No	

Facility Type: WELL		Facility ID: _____		API #: 123-34906		County Name: WELD	
Facility Name: Antelope D-17		Latitude: 40.397810		Longitude: -104.353720			
		** correct Lat/Long if needed: Latitude: _____		Longitude: _____			
QtrQtr: NWSW	Sec: 17	Twp: 5N	Range: 62W	Meridian: 6	Sensitive Area?	No	

Facility Type: WELL		Facility ID: _____		API #: 123-34907		County Name: WELD	
Facility Name: Antelope H-17		Latitude: 40.397830		Longitude: -104.353760			
		** correct Lat/Long if needed: Latitude: _____		Longitude: _____			
QtrQtr: NWSW	Sec: 17	Twp: 5N	Range: 62W	Meridian: 6	Sensitive Area?	No	

Facility Type: FLOWLINE SYSTEM		Facility ID: 478703		API #: _____		County Name: WELD	
Facility Name: BCEI Flowline System		Latitude: 40.371670		Longitude: -104.396120			
		** correct Lat/Long if needed: Latitude: _____		Longitude: _____			
QtrQtr: SENE	Sec: 26	Twp: 5N	Range: 63W	Meridian: 6	Sensitive Area?	No	

## SITE CONDITIONS

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

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

No surface water within 1/4 of a mile.  
 The Monitoring Well (DWR Receipt 3663275D) approx 640-ft to the E is the nearest permitted water well. This well was never constructed. The planned construction depth was 1340-ft, no static water level recorded.  
 Groundwater less than 20 ft is not expected at the disturbance location.  
 This location is within ¼ mile of a HPH Pronghorn Winter Concentration Area.

## SITE INVESTIGATION PLAN

### TYPE OF WASTE:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> E&P Waste                         | <input type="checkbox"/> Other E&P Waste | <input checked="" type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water                    | <input type="checkbox"/> Workover Fluids | No waste has been generated to date               |
| <input type="checkbox"/> Oil                               | <input type="checkbox"/> Tank Bottoms    |   |
| <input type="checkbox"/> Condensate                        | <input type="checkbox"/> Pigging Waste   |   |
| <input type="checkbox"/> Drilling Fluids                   | <input type="checkbox"/> Rig Wash        |   |
| <input type="checkbox"/> Drill Cuttings                    | <input type="checkbox"/> Spent Filters   |   |
|  | <input type="checkbox"/> Pit Bottoms     |   |
| <input type="checkbox"/> Other (as described by EPA) _____ |  |   |

### DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	N/A	Laboratory Analytical

### INITIAL ACTION SUMMARY

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

A site investigation will be conducted pursuant to COGCC rule 911 at the Antelope 13-17 (420920) oil and gas location pertaining to the cut/cap of the Antelope 13-17 wellhead (05-123-32748), Antelope D-17 wellhead (05-123-34906), Antelope 12-17 wellhead (05-123-33020), and Antelope H-17 (05-123-34907). On-location flowlines and off-location gas line will be abandoned. See site map exhibit for details.

### 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 confirmation soil samples will be collected from beneath the above ground oil tank, water vaults, separator, wellhead, and flowline start/end points. A grab confirmation soil sample will be collected from beneath the produced water vault as well as from the side wall that indicated the highest field screening levels. Soil samples will be analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per COGCC Table 915-1, metals, and EC, SAR, pH, and boron. All samples collected will be analyzed by a certified laboratory using approved COGCC laboratory analysis methods.

#### Proposed Groundwater Sampling

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

If groundwater is encountered during the site investigation a grab groundwater sample will be collected and analyzed for all organic compounds per COGCC Table 915-1.

#### 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 ):

Visual inspection of the location will occur during abandonment activities. Field personnel will field screen all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required. The COGCC Flowline Closure, Tank Battery Closure, and Wellhead Closure Checklists will be utilized and filled out during the abandonment process. A photolog will be submitted on the Subsequent Form 27.

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

#### Soil

Number of soil samples collected \_\_\_\_\_ 0

Number of soil samples exceeding 915-1 \_\_\_\_\_

#### NA / ND

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

\_\_\_\_\_ 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) \_\_\_\_\_

#### Groundwater

Number of groundwater samples collected \_\_\_\_\_ 0

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

Was extent of groundwater contaminated delineated? No \_\_\_\_\_

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

Depth to groundwater (below ground surface, in feet) \_\_\_\_\_

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

Number of groundwater monitoring wells installed \_\_\_\_\_

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

Number of groundwater samples exceeding 915-1 \_\_\_\_\_

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

#### Surface Water

0 Number of surface water samples collected

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?

## REMEDIAL ACTION PLAN

### SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

N/A

### REMEDIAL ACTION 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.

N/A

### Soil Remediation Summary

☐ In Situ

☐ Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Excavate and onsite remediation

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ 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**

#### **Approved Reporting Schedule:**

☐ Quarterly

☐ Semi-Annually

☐ Annually

☒ Other Closure Report

#### ☐ 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: \_\_\_\_\_

# 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.

Reclamation will be in accordance with COGCC 1000 Series Rules.

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 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. 02/07/2022

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

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 04/13/2022

Proposed site investigation commencement. \_\_\_\_\_

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

### **REMEDIAL ACTION DATES**

Proposed start date of Remediation. \_\_\_\_\_

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:

**OPERATOR COMMENT**

This Form 27 Intent is submitted prior to decommissioning multiple related assets:

- Decommission of the Antelope 13-17 facility (420920)
  - Cut/cap of the Antelope 13-17 well (05-123-32748)
  - Cut/cap of the Antelope D-17 well (05-123-34906)
  - Cut/cap of the Antelope 12-17 well (05-123-33020)
  - Cut/cap of the Antelope H-17 (05-123-34907)
  - Abandonment of all on-location flowlines (including all wellhead lines)
  - Abandonment of off-location ANT 13-17/3/GP Line
- See attached Site Map for details.

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

Signed: ` Stephany Olsen \_\_\_\_\_

Title: Sr. Regulatory Analyst \_\_\_\_\_

Submit Date: ` 04/07/2022 \_\_\_\_\_

Email: regulatory@civiresources.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: BOB CHESSON \_\_\_\_\_

Date: 04/08/2022 \_\_\_\_\_

Remediation Project Number: 22760 \_\_\_\_\_

**Condition of Approval****COA Type****Description**

0 COA	

**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**

402941665	FORM 27-INITIAL-SUBMITTED
403008628	SITE MAP

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)