

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
402869921

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

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

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: TAPROOT ROCKIES MIDSTREAM LLC	Operator No: 10718	Phone Numbers
Address: 555 17TH STREET SUITE 800		Phone: (701) 509-2063
City: DENVER	State: CO	Zip: 80202
Contact Person: Dave Brazeal	Email: dbrazeal@taprootep.com	Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: \_\_\_\_\_ Initial Form 27 Document #: 402869921

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: \_\_\_\_\_

SITE INFORMATION

No Multiple Facilities

Facility Type: PRODUCED WATER TRANSFER SYSTEM	Facility ID: 467382	API #: _____	County Name: _____
Facility Name: _____	Latitude: 40.655070	Longitude: -104.068450	
	** correct Lat/Long if needed: Latitude: 40.659160	Longitude: -104.049033	
QtrQtr: _____	Sec: _____	Twp: _____	Range: _____ Meridian: _____ Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Agricultural

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**

Domestic water well located to the north (permit# 43844) is not operation and has not been used for years per well owner.

**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	SOILS	<1000 Sq. Ft	Soil Analytical Results

**INITIAL ACTION SUMMARY**

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

The leak was discovered on the Bison Boomslang 14B well pad on 08/18/2021. It was determined to be from the Taproot Produced Water Transfer system. The system was shut down, isolated, and cleanup began. Most of the spill was contained on pad and within the retention pond built with the pad. A section of 6" Thermoflex 750 psi pipeline had buckled, and the thin spot created by the buckling failed at about 482 psig (well below the 750 psig rating). The piping had been in service since January of 2020. Taproot replaced all Thermoflex piping on this line with Flexsteel, and will no longer be using Thermoflex piping on any future lines.

**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 ):

Additional soil samples may be required as part of the Site Reclamation Plan

**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 ):

Taproot will develop a Site Reclamation Plan within 90 days of the submission of this Form 27 with the help of a reclamation specialist in accordance with COGCC guidance Rule 915b and the draft Reclamation Plan provided by the COGCC, to receive a NFA determination.

**SITE INVESTIGATION REPORT**

## **SAMPLE SUMMARY**

### **Soil**

Number of soil samples collected 23  
Number of soil samples exceeding 915-1 15  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 6900

### **NA / ND**

-- Highest concentration of TPH (mg/kg) 260  
-- Highest concentration of SAR 17.9  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 9

### **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 915-1         

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  
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?

One background sample was collected (BS1) from an area unaffected by the produced water release. The background sample indicated elevated Arsenic, barium, selenium, and pH in the soil.

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.

Limited exceedances of Table 915-1 are to be left in place in accordance with rule 915b, development of a comprehensive reclamation plan.

### **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.

A reclamation plan will be developed within 90 days from the submission of this Form 27 that satisfies COGCC 900 series rules, allowing for limited exceedances of Table 915-1 to be left in place. Closure and NFA determination will be reached with approval of the reclamation plan.

### **Soil Remediation Summary**

In Situ

Ex Situ

         No Bioremediation ( or enhanced bioremediation )          Excavate and offsite disposal  
         Chemical oxidation

No \_\_\_\_\_  
No \_\_\_\_\_ Air sparge / Soil vapor extraction  
No \_\_\_\_\_ Natural Attenuation  
Yes \_\_\_\_\_ Other soils will be left in place with the development of a reclamation plan \_\_\_\_\_

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  
No \_\_\_\_\_ 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.

# REMEDIATION PROGRESS UPDATE

## PERIODIC REPORTING

### Approved Reporting Schedule:

Quarterly     Semi-Annually     Annually     Other

One final report will be generated with the comprehensive reclamation plan attached.

### Request Alternative Reporting Schedule:

Semi-Annually     Annually     Other

Reclamation plan

### 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 Reclamation Plan

## 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.

A reclamation plan will be developed to meet the requirements of COGCC Guidance rule 915b. Closure and NFA determination will be reached with the approval of the reclamation plan.

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. 08/18/2021

Actual Spill or Release date, or date of discovery. 08/18/2021

### **SITE INVESTIGATION DATES**

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

Proposed site investigation commencement. 11/18/2021

Proposed completion of site investigation. 02/18/2022

### **REMEDIAL ACTION DATES**

Proposed start date of Remediation. 11/18/2021

Proposed date of completion of Remediation. 02/18/2022

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**

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

Signed: Dale Hunt

Title: VP of Engineering

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

Email: dhunt@taprootep.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: \_\_\_\_\_

### **COA Type**

### **Description**

<b><u>COA Type</u></b>	<b><u>Description</u></b>

## **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**

402869957	SOIL SAMPLE LOCATION MAP
402869960	SOIL SAMPLE LOCATION MAP
402869961	ANALYTICAL RESULTS
402869963	OTHER
402869965	SITE MAP

Total Attach: 5 Files

### **General Comments**

User Group

Comment

Comment Date

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

Total: 0 comment(s)