

State of Colorado  
Oil and Gas Conservation Commission

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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.

Report taken by:

OPERATOR INFORMATION

Name of Operator: DCP OPERATING COMPANY LP	Operator No: 4680	<b>Phone Numbers</b>
Address: 370 17TH STREET - SUITE 2500		Phone: (970) 378-6373
City: DENVER State: CO Zip: 80202		Mobile: (970) 939-0329
Contact Person: Chandler Cole	Email: cecole@dcpmidstream.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 18964 Initial Form 27 Document #: 402742310

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: Remediation Summary Report

SITE INFORMATION

No Multiple Facilities

Facility Type: GAS GATHERING PIPELINE SYSTEM	Facility ID: 480204	API #: _____	County Name: WELD
Facility Name: Parmlee #1	Latitude: 40.254977	Longitude: -104.266078	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENE	Sec: 1	Twp: 3N	Range: 62W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications SP 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? No

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

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# SITE INVESTIGATION PLAN

## **TYPE OF WASTE:**

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste  | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water        | <input type="checkbox"/> Workover Fluids             |  |
| <input type="checkbox"/> Oil                   | <input type="checkbox"/> Tank Bottoms                |  |
| <input checked="" 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
Yes	GROUNDWATER	2 monitoring well locations	Laboratory Analysis
Yes	SOILS	8000 sq ft	Laboratory 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.

Initial actions have previously been submitted to the COGCC in the Form 19 Initial (Document #402726017) and Form 27 Initial (Document #402742310). The COGCC issued a spill tracking facility ID # 480204 and a remediation project #18964 for the Site. During routine inspections, DCP personnel observed distressed vegetation at the project location and on June 9, 2021; DCP initiated site investigation activities with a third-party environmental consultant using direct push drilling equipment with continuous core sampling methods. During the initial investigation, five soil borings and groundwater monitoring wells were installed and based on laboratory results, both soil and groundwater samples collected had impacts above the COGCC standards. During the fourth quarter 2021, impacted soil at Parmlee #1 was remediated by excavation and offsite disposal based on the approved Supplemental Form 27 work plan (#402833357). Details of that remediation effort are provided in this Supplemental Form 27 report.

## **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 ):

The results of the initial soil investigation during monitoring well installation were presented in the Form 27-I (Document #402742310). During the 4Q21 remediation, the extents of the soil excavation were determined by field screening, visual observation, and laboratory confirmation sampling. One laboratory confirmation sample was collected for approximately each 20 linear feet of sidewall and one base confirmation sample for approximately each 400 square feet of excavation area. Based on the initial investigation results and approval of the 27-I, soil confirmation samples were analyzed for Table 915-1 VOCs, TPH, and 1-/2-methylnaphthalene per the approved site-specific sampling and analysis plan (SAP). The excavation has been fully delineated and backfilled. Seven monitoring wells were installed during the first quarter 2022 on 1/15, 1/21, and 1/24/2022, and soil data from those installation events will be provided in a subsequent Form 27-S.

### **Proposed Groundwater Sampling**

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

As presented in previous COGCC documents, five monitoring wells were installed at the site. All five of the original monitoring wells were removed during excavation activities, and seven new wells, illustrated on Figure 4, were installed during the first quarter 2022 on 1/15, 1/21, and 1/24/2022. Wells will be developed and sampled during the 1Q22, and wells will continue to be sampled for Table 915-1 organics on a quarterly basis until concentrations are observed below COGCC standards for four consecutive quarters, at which time an NFA closure request will be requested.

### **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 ):

This report is being provided as a summary of the excavation that was performed during the 4Q21. With COGCC approval, DCP proposes quarterly groundwater monitoring of newly installed groundwater monitoring wells, and results of those sampling events will be provided in quarterly reports until criteria for site closure have been achieved.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 81

Number of soil samples exceeding 915-1 5

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 15500

### NA / ND

-- Highest concentration of TPH (mg/kg) 354

NA Highest concentration of SAR           

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 34

### Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet) 30'

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 915-1 0

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?

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

Volume of solid waste (cubic yards) 12500

Volume of liquid waste (barrels) 0

Is further site investigation required?

Seven monitoring wells were installed during the first quarter 2022 on 1/15, 1/21, and 1/24/2022, and the boreholes were sampled at up to three locations including the terminal depth, top of water table, and highest PID reading. Details of the well installation, including soil sampling results and monitoring well construction logs, will be presented in a subsequent Form 27-S. With COGCC approval, groundwater at each monitoring well will be sampled on a quarterly basis until a period of four consecutive quarters exhibit concentrations below COGCC Table 915-1 standards, at which time an NFA closure request will be submitted.

## 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.

Based on the initial investigation and inspections, DCP was unaware of a potential release on the gathering line that had been previously shut-in and inspected the area due to distressed vegetation. During excavation and inspection of the gathering line, a pinhole leak was discovered in the line and the damaged portion of the line was removed and replaced for potential future use. During the 4Q21 remediation, the extents of the soil excavation were determined by field screening, visual observation, and laboratory confirmation sampling. One laboratory confirmation sample was collected for approximately each 20 linear feet of sidewall and one base confirmation sample for approximately each 400 square feet of excavation area. Approximately 12,500 cubic yards (cy) of impacted soils were removed from the excavation covering approximately 15,500 square feet with a base between 33 to 34 feet below ground surface (ft bgs). Impacted soil was transported to the Waste Management Buffalo Ridge facility, and documentation can be provided upon request. Soil confirmation locations are presented on Figure 3 and laboratory results are presented on Tables 1 and 2.

## 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.

Based on the initial investigation and inspections, DCP was unaware of a potential release on the gathering line that had been previously shut-in and inspected the area due to distressed vegetation. During excavation and inspection of the gathering line, a pinhole leak was discovered in the line and the damaged portion of the line was removed and replaced for potential future use. During the 4Q21 remediation, the extents of the soil excavation were determined by field screening, visual observation, and laboratory confirmation sampling. One laboratory confirmation sample based on the approved SAP was collected for approximately each 20 linear feet of sidewall and one base confirmation sample for approximately each 400 square feet of excavation area. Approximately 12,500 cubic yards (cy) of impacted soils were removed from the excavation covering approximately 15,500 square feet and transported to the Waste Management Buffalo Ridge facility, and documentation can be provided upon request. The excavation has been backfilled with clean imported material and overburden and compacted to original grade. Upon closure of the site, the area will be reseeded to match the native grasses in the area.

**Soil Remediation Summary**

In Situ

Ex Situ

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

Yes \_\_\_\_\_ Excavate and offsite disposal  
 If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 12500  
 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  
 Yes \_\_\_\_\_ 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.

All five existing groundwater monitoring wells were removed during the 4Q21 excavation, and no groundwater monitoring occurred during this period. Seven additional monitoring wells installed during the first quarter 2022 are presented on Figure 4. The new monitoring wells will be developed and sampled during the 1Q22, and ongoing groundwater monitoring will continue on a quarterly basis until a period of four consecutive quarterly monitoring events have demonstrated that groundwater impacts are below COGCC Table 915-1 standards. At that time, a no further action (NFA) determination for the Site will be requested from the COGCC.

# 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 4Q21 Soil Remediation Summary \_\_\_\_\_

## WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? Yes

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

None

Volume of E&P Waste (solid) in cubic yards 12500

E&P waste (solid) description Impacted soil

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

Non-COGCC Disposal Facility: Waste Management - Buffalo Ridge Landfill

Volume of E&P Waste (liquid) in barrels 0

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.

Following the completion of the initial investigation and excavation activities, site surfaces have been backfilled with a landowner approved fill and native overburden material and regraded to match existing conditions. Final reclamation will be conducted following completion of groundwater monitoring requirements, source remediation, no further action determination, and eventual site closure per COGCC and landowner approval.

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. 07/22/2021

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

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/09/2021

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

Proposed completion of site investigation. 12/31/2022

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 10/25/2021

Proposed date of completion of Remediation. 12/31/2022

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:

