

# 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.

### OPERATOR INFORMATION

Name of Operator: DCP OPERATING COMPANY LP	Operator No: 4680	<b>Phone Numbers</b>
Address: 370 17TH STREET - SUITE 2500		Phone: (303) 605-1718
City: DENVER State: CO Zip: 80202		Mobile: (303) 619-3042
Contact Person: Steve Weathers	Email: swweathers@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: 1Q22 Soil Investigation and Groundwater Monitoring Summary

#### 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:

- ☒ 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
No	GROUNDWATER	See Figure 4	Laboratory Analysis
No	SOILS	15500 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 was remediated by excavation and offsite disposal, and details of that remediation were presented in an approved Form 27-S (#402929673). Details of the first quarter 2022 (1Q22) monitoring well installation and groundwater monitoring are presented in this Supplemental Form 27.

## 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 (#402742310), and 4Q21 soil excavation details were reported in a Form 27-S (#402929673). During the 1Q22, seven groundwater monitoring wells were installed and up to three soil samples were collected from each well during boring advancement. Samples were analyzed by Summit Scientific for Table 915-1 VOCs, 915-1 TPH, 1-methylnaphthalene, and 2-methylnaphthalene per the approved Form 27-I. All of the soil confirmation samples analyzed during monitoring well installation exhibited contaminant concentrations below the applicable Table 915-1 standards and/or the laboratory detection limit. Results of the 1Q22 soil investigation are presented on Tables 4 and 5 and illustrated on Figure 5, lab reports are included as Appendix A, and well construction logs are included as Appendix B.

### 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 during the initial investigation. All five of the original monitoring wells were removed during 4Q21 excavation activities, and seven new wells, illustrated on Figure 4, were installed during the 1Q22 on 1/5, 1/21, and 1/24/2022. Wells were gauged, developed, and sampled on 3/2/2022, and results are presented on Tables 1 and 2; a potentiometric surface map is presented on Figure 3; analytical results are presented on Figure 4; lab reports are included as Appendix A; and well construction logs are included as Appendix B. DCP proposes to continue groundwater monitoring on a quarterly basis until analytical results are below the COGCC standards for four consecutive quarterly monitoring events, at which time an NFA determination for the Site will be requested from the COGCC.

### 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 16

Number of soil samples exceeding 915-1 0

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

Approximate areal extent (square feet) 15500

### NA / ND

ND Highest concentration of TPH (mg/kg)

NA Highest concentration of SAR

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 0

### Groundwater

Number of groundwater samples collected 4

Was extent of groundwater contaminated delineated? Yes

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

Number of groundwater monitoring wells installed 7

Number of groundwater samples exceeding 915-1 0

ND Highest concentration of Benzene (µg/l)

ND Highest concentration of Toluene (µg/l)

ND Highest concentration of Ethylbenzene (µg/l)

ND 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?

No impacts to the soil or groundwater were observed during the 1Q22, and additional investigation is not anticipated at this time. 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.

## 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.

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. Further details of the source removal are presented in the approved Form 27-S #402929673.

## 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.

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. Further details of the source removal are presented in the approved Form 27-S #402929673. Seven monitoring wells were installed during the 1Q22 to replace wells that were removed during the excavation and to further characterize potential groundwater impacts. Ongoing groundwater monitoring is scheduled to be performed at the Site and will continue until a period of four consecutive 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.

## Soil Remediation Summary

☐ In Situ

☒ Ex Situ

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

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

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

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 12500

\_\_\_\_\_ 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

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.

Ongoing quarterly groundwater monitoring was performed during the 1Q22 at the Site at the seven monitoring well locations illustrated on the attached Figure 2. Groundwater monitoring activities include Site-wide groundwater gauging and sampling. Groundwater levels are measured to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations at the Site. Wells were gauged on 1/28/2022 and 3/2/2022, and groundwater samples were collected subsequent to well development on 3/2/2022 from four of the seven well locations using standard hand-bailing sampling methods and submitted to Origins Laboratory for Table 915-1 organics parameters. Three of the wells (MW01-R, MW07, and MW08) were dry during the 1Q22. Concentrations of Table 915-1 organic constituents were below the COGCC standards and/or the laboratory detection limits at all four well locations. Groundwater elevations are presented on Table 1 and illustrated on Figure 3. The laboratory results are presented on Table 2 and Figure 4, laboratory reports are included as Appendix A, and well construction logs for the newly installed monitoring well are included as Appendix B. 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 1Q22 Soil Investigation and Groundwater Monitoring 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 4Q21 excavation, site surfaces were backfilled with a landowner approved fill 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:

**OPERATOR COMMENT**

Groundwater and soil sampling were performed during the 1Q22 according to the site-specific sampling plan approved in the Form 27-I (#402742310). 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.

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

Signed: Steve Weathers

Title: Environmental Specialist

Submit Date:

Email: COGCCnotification@dcpmidsream.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: 18964

**COA Type****Description**

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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.

**Att Doc Num****Name**

403013307	ANALYTICAL RESULTS
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Total Attach: 1 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)