

State of Colorado
Oil and Gas Conservation Commission

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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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: DCP OPERATING COMPANY LP	Operator No: 4680	Phone Numbers
Address: 370 17TH STREET - SUITE 2500		Phone: (303) 6051718
City: DENVER State: CO Zip: 80202		Mobile: (303) 6193042
Contact Person: Steve Weathers	Email: swweathers@dcpmidstream.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION
Remediation Project #: 14576 Initial Form 27 Document #: 402209246

PURPOSE INFORMATION

<input type="checkbox"/> 901.e. Sensitive Area Determination	<input checked="" type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water
<input type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure	<input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.
<input type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation	<input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project
<input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste	<input type="checkbox"/> Rule 906.c.: Director request
<input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	<input type="checkbox"/> Other _____

SITE INFORMATION N Multiple Facilities (in accordance with Rule 909.c.)

Facility Type: SPILL OR RELEASE	Facility ID: 465242	API #: _____	County Name: WELD
Facility Name: South Booster 6" pipeline Release	Latitude: 40.036780	Longitude: -104.467359	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESW	Sec: 20	Twp: 1N	Range: 63W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

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

Is domestic water well within 1/4 mile? Yes 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

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	Refer to attached Figure 4 Table 2	Groundwater sampling and Lab 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 and completed remedial measures have previously been submitted to the COGCC in the Form 19 Initial (Document #402078486) dated June 18, 2019, Form 19 Supplemental (Document #402083619) dated June 21, 2019. A Form 27 Site Investigation and Remediation Work Plan (#402209246) was approved by COGCC on November 11, 2019. The COGCC issued a spill tracking facility ID #465242 and remediation project #14576 for the Site. During excavation activities, groundwater infiltrated the excavation at 12-feet below ground surface (bgs) and was sampled for BTEX constituents (Sample ID: GW01). Lab results confirmed groundwater was above COGCC standards for benzene, and that further groundwater investigation was required. The excavation was backfilled to existing grade and five monitoring wells were installed at the Site on August 8, 2019, to further evaluate groundwater conditions. Ongoing groundwater monitoring will be performed at the Site on a quarterly basis until a no further action (NFA) determination is approved by COGCC. Previous activities are summarized in subsequent Form 27 Supplemental (#402269224, 402356891, 402417644, 402484305 and 402546428) reports. Details of the First Quarter 2021 groundwater monitoring event are provided within this Form 27 submittal.

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):

As presented in the supplemental Form 19 (#402083619), soil samples collected from the sidewalls and base of the final excavation extents to confirm impacted soils had been removed. Soil samples were submitted to Origins Laboratory in Denver, CO for laboratory analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons gasoline range organics (TPH-GRO) and TPH diesel range organics (DRO). The analytical lab reports were included with Form 19S (#402083619) submittal. The COGCC issued spill tracking ID #465242 and remediation project #14576. Further soil sampling or investigation is not anticipated at the Site.

Proposed Groundwater Sampling

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

With landowner approval, DCP installed five groundwater monitoring wells at the Site to monitor dissolved phase total petroleum hydrocarbon impacts to groundwater. Ongoing quarterly groundwater monitoring is being performed at the Site at well locations illustrated on the attached Figure 2. Groundwater samples are being analyzed for BTEX, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene using USEPA Method 8260B. In addition, two wells were sampled for total dissolved solids (TDS), sulfate, and chloride per COGCC Rule 900 guidance. Analytical results from the 1Q21 sampling event are presented herein. Groundwater monitoring will continue on a quarterly basis until analytical results demonstrate concentrations below COGCC standards for four consecutive quarterly monitoring events, at which time a no further action (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 0
Number of soil samples exceeding 910-1 0
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 1200

NA / ND

NA Highest concentration of TPH (mg/kg) _____
NA Highest concentration of SAR _____
BTEX > 910-1 Yes
Vertical Extent > 910-1 (in feet) _____

Groundwater

Number of groundwater samples collected 5
Was extent of groundwater contaminated delineated? Yes
Depth to groundwater (below ground surface, in feet) 12'
Number of groundwater monitoring wells installed 5
Number of groundwater samples exceeding 910-1 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 910-1
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

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.

As previously reported in the Form 19S (#402083619) initial source remediation efforts, performed between June 17, 2019 and June 19, 2019, successfully removed approximately 410 cubic yards (CY) of impacted soils and 1-5 barrels of liquid for off-Site disposal. During excavation activities, groundwater infiltrated the excavation at 12-feet bgs and was sampled for BTEX constituents (Sample ID: GW01). Lab results confirmed groundwater was above COGCC standards for benzene, and that further groundwater investigation was required. The excavation was backfilled to existing grade and monitoring well installation activities were completed.

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.

As previously reported in the Form 19S (#402083619), completed remediation efforts successfully removed impacted soils associated with the Site. Following backfilling of the excavation, five groundwater monitoring wells were installed at the locations illustrated on the attached Figure 2. First quarter 2021 groundwater monitoring was completed on February 10, 2021, and ongoing quarterly groundwater monitoring is scheduled to be performed at the Site and will continue until a period of four consecutive quarterly monitoring events have demonstrated that groundwater impacts are below COGCC Table 910-1 standards. At that time, NFA determination for the Site will be requested from the COGCC. Activities completed during the first quarter 2021 groundwater monitoring event are further described in the following Groundwater Monitoring section.

Soil Remediation Summary

In Situ

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

Ex Situ

- _____ Excavate and offsite disposal
- _____ 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
- Yes _____ 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.

Site-wide groundwater sampling is conducted on a quarterly basis at the five monitoring well locations illustrated on the attached Figure 2. During the 1Q21 monitoring event, performed on 2/10/2021, groundwater levels and samples were collected from all seven Site-wide well locations using standard hand-bailing sampling methods, and were submitted to Origins Laboratory Inc. (Origins) for analysis using USEPA method 8260B (BTEX, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and naphthalene). In addition, three samples were collected from wells located upgradient (MW01), within the release area (MW05) and downgradient (MW03) for comparison of the Table 915-constituents of total dissolved solids (TDS), chloride and sulfate to determine background levels. Concentrations ranged from 1,330 to 1,390 mg/L for TDS, 158 to 165 mg/L for chloride and 500 mg/L to 542 mg/L for sulfate and while sulfate was returned above the Table 915-1 standards, the reported concentrations for these parameters should be considered representative of the local groundwater conditions. Groundwater levels and converted elevations are summarized on Table 1 and a groundwater elevation contour map is attached as Figure 3. The 1Q21 laboratory analytical data is summarized in Tables 2 and 3 and illustrated on Figure 4 and the laboratory reports are attached.

Based on the 1Q21 results, DCP request to continue to comply with the Table 910-1 standards per Rule 915.f within the new Environmental Impact Prevention 900 Series. Ongoing monitoring will continue a quarterly basis until a period of four consecutive monitoring events have demonstrated that groundwater impacts are below the COGCC standards. At that time, an NFA determination for the Site will be requested from the COGCC.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Frequency: Quarterly Semi-Annually Annually Other _____

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 _____

Do all soils meet Table 910-1 standards? _____

Does the previous reply indicate consideration of background concentrations? _____

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? _____

Does Groundwater meet Table 910-1 standards? Yes _____

Is additional groundwater monitoring to be conducted? Yes _____

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.

The area where the excavation was located has been backfilled, compacted with clean material, and completed to existing grade. Following a NFA determination, monitoring wells will be removed and area will be re-graded per 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 approve the seed mix? _____

If NO, does the seed mix comply with local soil conservation district recommendations? _____

IMPLEMENTATION SCHEDULE

PRIOR DATES

Date of Surface Owner notification/consultation, if required. _____

Actual Spill or Release date, if known. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/17/2019

Date of commencement of Site Investigation. _____

Date of completion of Site Investigation. _____

REMEDIAL ACTION DATES

Date of commencement of Remediation. _____

Date of completion of Remediation. _____

SITE RECLAMATION DATES

Date of commencement of Reclamation. _____

Date of completion of Reclamation. _____

OPERATOR COMMENT

Based on the analytical data provided herein, DCP is requesting approval from the COGCC to submit groundwater samples for BTEX analysis per Table 910-1 (900 Series Rule 915.f), as was previously approved for Remediation #14576. DCP anticipates that this site will achieve closure criteria by January 15, 2022. With COGCC approval, DCP proposes that the groundwater monitoring activities will continue sampling for the organic parameters listed in Table 910-1 on a quarterly basis until NFA is approved. Form 27-Supplemental Updates will continue to be submitted to the COGCC on a quarterly basis.

Further and as described above, three groundwater samples were collected from a downgradient, source and upgradient well location for comparison of the Table 915-1 constituents of total dissolved solids (TDS), chloride, and sulfate. While sulfate was returned above the Table 915-1 standard at both well locations, the reported concentrations for sulfate, TDS and chloride appear to be representative of the natural groundwater conditions beneath the site and/or are not considered indicative of petroleum hydrocarbon impacts associated with midstream processes or the release. With COGCC approval, based on the initial results for the inorganic constituents during the first quarter 2021, DCP does not believe the inorganic parameters listed in Table 915 should be considered as constituents of concern for this Site and proposes to discontinue sampling of these analytes for all future groundwater monitoring events. DCP will comply with this interim Site-Specific Groundwater Sampling and Analysis Plan during each quarterly event with COGCC approval.

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@dcpmidstream.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: 14576

COA Type

Description

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

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

402630154	MONITORING REPORT
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Total Attach: 1 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)