

State of Colorado Oil and Gas Conservation Commission

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Report taken by:

PETER GINTAUTAS

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 | | |
| City: DENVER State: CO Zip: 80202 | | |
| Contact Person: Steve Weathers | Email: swweathers@dcpmidstream.com | |
| | | Phone: (303) 6051718 |
| | | Mobile: (303) 6193042 |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 14694

Initial Form 27 Document #: 402247877

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 checked="" 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 checked="" type="checkbox"/> Other 3Q 2020 groundwater progress report. |

SITE INFORMATION

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

| | | | |
|------------------------------------------|---------------------|------------------------|--------------------------------------------|
| Facility Type: SPILL OR RELEASE | Facility ID: 468979 | API #: | County Name: WELD |
| Facility Name: CR20 and Hwy 85 Release | Latitude: 40.130910 | Longitude: -104.806776 | |
| ** correct Lat/Long if needed: Latitude: | | Longitude: | |
| QtrQtr: SWSW | Sec: 17 | Twp: 2N | Range: 66W Meridian: 6 Sensitive Area? Yes |

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Irrigation ditch and agricultural land

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

Irrigation ditch, county road, crop land

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) TPH impacted soils

DESCRIPTION OF IMPACT

| Impacted? | Impacted Media | Extent of Impact | How Determined |
|-----------|----------------|------------------|-----------------------------|
| Yes | GROUNDWATER | 18 ft bgs | Groundwater Sampling |
| No | SOILS | 12 ft bgs | Soil excavation and borings |

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 been previously submitted to the COGCC in the Form 19 Initial with Supplemental (Document # 402226829) and the Form 27 Initial (Document # 402247877), approved December 2, 2019 and COGCC issued Remediation Project #14694 for the Site. Additional Site investigation activities and ongoing quarterly groundwater monitoring information has been provided to COGCC via approved eform 27 supplemental documents #402274677, #402315577 and #402423677. Continued investigation and remediation alternatives are described herein.

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):

Previously completed soil investigation activities were discussed in approved eform 27 documents and the Initial Action Summary. Based on COGCC comments DCP installed three additional borings and monitoring wells downgradient of BH02 and BH07 to establish the horizontal extent of impacts to the soil and groundwater at the Site in March 2020. However, during the 3Q monitoring event, BH10 was not found and presumed destroyed by landowner. Based on the previous soil investigations, DCP proposes to complete two additional soil borings, one near the former BH10 and one downgradient of BH10 to delineate horizontal impacts to the soil and the results will be presented to COGCC. Soil borings will be logged to evaluate geological conditions and identify potential impacts to the soil and groundwater at those locations. and submitted for laboratory analysis for BTEX and TPH-GRO/DRO.

Proposed Groundwater Sampling

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

Previous groundwater monitoring activities were described in approved Form 27S reports. DCP installed three additional borings and monitoring wells downgradient of BH02 and BH07 to establish the horizontal extent of impacts to groundwater in March 2020, which are illustrated on Figure 2. However, during the 3Q event observations, BH10 was not found and presumed destroyed by the landowner based on construction efforts and could not be sampled. Based on the 3Q20 groundwater results and historical observations, impacts are believed to remain in the soil and DCP does not propose or anticipate installing an additional groundwater monitoring well to replace BH10 at this time. However, if groundwater is observed or suspected of being impacted during soil borings described above, an attempt to collect a groundwater grab sample will be made. Details of the third quarter 2020 groundwater monitoring events are provided within this Form 27.

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? No
Approximate areal extent (square feet) 1000

NA / ND

NA Highest concentration of TPH (mg/kg)
NA Highest concentration of SAR
BTEX > 910-1 No
Vertical Extent > 910-1 (in feet) 19

Groundwater

Number of groundwater samples collected 8
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 13'
Number of groundwater monitoring wells installed 9
Number of groundwater samples exceeding 910-1 1

-- Highest concentration of Benzene (µg/l) 1.85
ND Highest concentration of Toluene (µg/l)
-- Highest concentration of Ethylbenzene (µg/l) 210
-- Highest concentration of Xylene (µg/l) 1400
NA Highest concentration of Methane (mg/l)

Surface Water

0 Number of surface water samples collected
 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?

During the initial July 2013 investigation, three soil borings were advanced to approximate 3-feet bgs in the agricultural field north of the irrigation ditch and excavation area. Soil analytical results reported all TPH and BTEX concentrations below laboratory detection limits and below applicable COGCC standards.

During the March 2020 investigation, two soil borings were advanced to 20 and 23-feet bgs in the agricultural field north of the irrigation ditch and excavation area and one boring was advanced west of the irrigation ditch. Soil analytical results reported BTEX concentrations below laboratory detection limits and below applicable COGCC standards, however, TPH concentrations in soil at BH09 (16-17 feet bgs) and BH10 (18-19 feet bgs) were above applicable COGCC standards. Groundwater results for these wells remain below the COGCC standard and continue to exhibit natural attenuation of other constituents that exhibited low level during previous events. However, during the 3Q event observations, BH09 was damaged and BH10 was not found and presumed destroyed by the landowner during fence construction activities. BH09 was able to be sampled and but BH10 could not be sampled. As mentioned above, DCP plans to delineate potential soil impacts around the BH10 area and continue quarterly groundwater monitoring activities at the eight existing monitoring well locations. The results will be presented to COGCC in a subsequent Form 27S progress report.

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 referenced in the previously submitted Form 19 Initial with Supplemental (Document # 402226829) and Form 27 Initial (Document # 402247877), initial source remediation efforts successfully removed approximately 400 CY of impacted soils. Additionally, mobile vacuum enhanced fluid recovery (EFR) groundwater remediation efforts were conducted from the third quarter 2015 through the fourth quarter 2016 in which approximately 307 barrels of impacted groundwater were removed from the site. Ongoing groundwater monitoring has been performed at the Site on a quarterly basis through the third quarter 2020.

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 referenced in the previously submitted Form 19 Initial with Supplemental (Document # 402226829) and Form 27 Initial (Document # 402247877), initial source remediation efforts removed approximately 400 CY of impacted soils. Additionally, mobile vacuum enhanced fluid recovery (EFR) groundwater remediation efforts were conducted from the third quarter 2015 through the fourth quarter 2016 in which approximately 307 barrels of impacted groundwater were removed from the site. Ongoing groundwater monitoring has been performed at the Site on a quarterly basis through the third quarter 2020. Based on observations of low level concentrations of xylenes at BH03 and BH09, if warranted, DCP would evaluate an alternative remediation approach applicable to the Site with COGCC approval, which may include, but not limited to the potential use of EFR treatment methods in order to mitigate the impacted area beneath the surface.

Soil Remediation Summary

☐ In Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☒ Ex Situ

Yes _____ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) _____ 400

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

Yes _____ Other From 3Q-2015 through 4Q-2016 vac enhanced fluid recovery remediation was performed. GW monitoring.

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.

Quarterly groundwater monitoring was performed at the Site at the eight out of nine monitoring well locations illustrated on Figure 2 to assess the dissolved phase petroleum hydrocarbon impacts in groundwater. BH10 could not be located and presumed destroyed due to fence construction activities by the landowner. Quarterly monitoring reports will continue to be submitted to the COGCC via Form 27 for all future quarterly monitoring activities conducted at the Site. The third quarter 2020 groundwater monitoring activities were conducted on August 6, 2020 and included Site-wide groundwater gauging and sampling. Groundwater levels were measured to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations at the Site. Groundwater levels and converted elevations are summarized on Table 1 and a groundwater elevation contour map is attached as Figure3. Groundwater samples were collected from eight of the nine well locations using standard hand-bailing sampling methods and were submitted to Origins Laboratory Inc. (Origins) for BTEX analysis using USEPA method 8260B. Monitoring well location BH03 was reported with a total xylene concentration at the applicable COGCC standards during the 3Q 2020 monitoring event. All remaining monitoring wells exhibited concentrations below COGCC Table 910-1 standards. Third quarter laboratory analytical data is summarized in Table 2 and on Figure 4. Historical Site groundwater data is summarized in Table 3, and the laboratory analytical reports are attached. Ongoing groundwater monitoring will continue a quarterly basis until a period of four consecutive quarterly monitoring events have demonstrated that groundwater impacts are below COGCC Table 910-1 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? No _____

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.

Following completion of the initial July 2013 soil excavation activities, site surfaces were regraded to match existing conditions. Ground surfaces at the Site currently match surrounding areas and are fully vegetated with wild grasses like surfaces in adjacent areas. No further reclamation is proposed at this time. Final reclamation will be conducted following completion of groundwater monitoring requirements and eventual site closure.

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. 07/22/2013

Actual Spill or Release date, if known. 07/22/2013

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/22/2013

Date of commencement of Site Investigation. 07/22/2013

Date of completion of Site Investigation. 09/01/2015

REMEDIAL ACTION DATES

Date of commencement of Remediation. 07/22/2013

Date of completion of Remediation.

SITE RECLAMATION DATES

Date of commencement of Reclamation. 07/22/2013

Date of completion of Reclamation.

OPERATOR COMMENT

DCP was granted access by the landowner to the north and west of the monitoring network to install the three additional monitoring wells (Figure 2), however, BH10 was destroyed and if warranted further investigative or remedial activities will need to be discussed/approved with the landowner and COGCC. DCP will continue to perform quarterly groundwater monitoring and submit updates and quarterly reports to COGCC via eform 27.

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: 08/25/2020

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: PETER GINTAUTAS

Date: 08/26/2020

Remediation Project Number: 14694

COA Type

Description

| | |
|--|--|
| | |
|--|--|

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

| | |
|-----------|--------------------------------|
| 402474513 | FORM 27-SUPPLEMENTAL-SUBMITTED |
| 402474879 | MONITORING REPORT |

Total Attach: 2 Files

General Comments

User Group

Comment

Comment Date

| | | |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| | Submit reports of site investigation and progress of remediation including results of sampling and analysis at a minimum on a quarterly basis until remediation is closed. | 08/26/2020 |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

Total: 1 comment(s)