

State of Colorado Oil and Gas Conservation Commission

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Document Number:

402952738

Receive Date:

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.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

OPERATOR INFORMATION

| | | |
|---|--------------------------|---|
| Name of Operator: GREAT WESTERN OPERATING COMPANY LLC | Operator No: 10110 | Phone Numbers Phone: (720) 595-2132 Mobile: () |
| Address: 1001 17TH STREET #2000 | | |
| City: DENVER | State: CO Zip: 80202 | |
| Contact Person: Jason Davidson | Email: jdavidson@gwp.com | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 17320 Initial Form 27 Document #: 402630180

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: LOCATION | Facility ID: 454115 | API #: _____ | County Name: WELD |
| Facility Name: SCHNEIDER HD NORTH PAD | Latitude: 40.324003 | Longitude: -104.826894 | |
| ** correct Lat/Long if needed: Latitude: 40.324308 | | Longitude: -104.826389 | |
| QtrQtr: NWSW | Sec: 7 | Twp: 4N | Range: 66W Meridian: 6 Sensitive Area? Yes |

SITE CONDITIONS

General soil type - USCS Classifications GW 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? Yes

Other Potential Receptors within 1/4 mile

A residential property is in place approximately 900 feet to the northwest.

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 | Not impacted | Confirmation Sampling |
| No | SOILS | Excavated for Offsite Disposal | Excavation/Site Investigation/Confirmation Soil Sampling |

INITIAL ACTION SUMMARY

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

Surface soil staining and oil were observed adjacent to the ground valve at the Schneider HD 11-179HXX wellhead during routine maintenance at the facility. The release, of unknown volume, was discovered on 2/8/21 (Spill Release Point ID 479338). A limited pothole excavation investigation was conducted on 2/16-17/21. One pothole was excavated to 16 feet below ground surface (bgs) at the Schneider HD 11-179HXX wellhead to define the vertical extent of potentially impacted soil. Three discrete soil samples were collected from the pothole at 10.5 feet, 14 feet, and 16 feet bgs for laboratory analysis. In addition, one background soil sample was collected from 8 feet bgs approximately 60 feet northwest of the pothole. The samples were collected and analyzed pursuant to COGCC Rule 915 for contaminants of concern listed in Table 915-1, following the general sample collection guidance in Rule 915.e.(2). Groundwater was not encountered. Gypsum was placed at the bottom of the pothole prior to backfilling with clean fill to promote biodegradation of residual petroleum in the soil and potential groundwater. On 2/8/21 and 2/16/21, approximately 20 cubic yards of hydrocarbon impacted soil was excavated utilizing hydrovac equipment for offsite disposal at the Pawnee Waste Landfill in Grover, Colorado in accordance with Rules 905 and 906.

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):

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 0

Number of soil samples exceeding 915-1

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

Approximate areal extent (square feet)

NA / ND

NA Highest concentration of TPH (mg/kg)

NA Highest concentration of SAR

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet)

Groundwater

Number of groundwater samples collected 5

Was extent of groundwater contaminated delineated? Yes

Depth to groundwater (below ground surface, in feet) 17'

Number of groundwater monitoring wells installed 5

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

 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) 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.

On 2/8/21 and 2/16/21, approximately 20 cubic yards of hydrocarbon impacted soil was excavated utilizing hydrovac equipment for offsite disposal at the Pawnee Waste Landfill in Grover, Colorado.

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.

Please refer to the Initial Action Summary Section under the Site Investigation Plan Tab of this Form 27.

Soil Remediation Summary

☐ In Situ

☒ Ex Situ

 Bioremediation (or enhanced bioremediation)

 Yes Excavate and offsite disposal

_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ Natural Attenuation
_____ Other _____

If Yes: Estimated Volume (Cubic Yards) _____ 20

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

Yes _____ Bioremediation (or enhanced bioremediation)
_____ Chemical oxidation
_____ Air sparge / Soil vapor extraction
_____ 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.

On December 28, 2021, groundwater samples from all 5 wells were collected and delivered to Origins for BTEX, naphthalene, 1,2,4 trimethylbenzene, and 1,3,5 trimethylbenzene analysis. Concentrations of BTEX, naphthalene, 1,2,4 trimethylbenzene, 1,3,5 trimethylbenzene, were not reported at or above laboratory detection limits in any the samples collected from all 5 wells. Groundwater was encountered in the monitoring wells from 16.99 feet to 17.53 feet below the top of casing in each well and was calculated to flow to the east/southeast across the Site. Please refer to the attached Groundwater Data Submittal for a detailed summary of the December 28, 2021 groundwater sampling activities conducted at the Site.

The December 28, 2021 quarterly sampling event was the fourth consecutive quarter of groundwater analytical results below COGCC Table 915-1 concentration levels for BTEX, naphthalene, 1,2,3 trimethylbenzene, and 1,3,5 trimethylbenzene. Great Western requests no further action for Remediation Project #17320.

Following approval of closure, the 5 monitoring wells will be abandoned in accordance with State standards.

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

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:

Not applicable

Volume of E&P Waste (solid) in cubic yards 20

E&P waste (solid) description Hydrocarbon impacted soil

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility: Pawnee Waste Landfill in Grover, CO

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? Yes

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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Does Groundwater meet Table 915-1 standards? Yes

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.

The remediation activities were associated with a release adjacent to the Schneider HD 11-179HNX wellhead that is currently in production on the active facility. The Site will be reclaimed in accordance with COGCC 1000 Series Rules during facility closure activities. Currently, Great Western has no plans to close the facility.

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. 02/08/2021

Actual Spill or Release date, or date of discovery. 02/08/2021

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/16/2021

Proposed site investigation commencement. 03/23/2021

Proposed completion of site investigation. 03/27/2021

REMEDIAL ACTION DATES

Proposed start date of Remediation. 02/08/2021

Proposed date of completion of Remediation. 02/16/2021

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

Please refer to the attached Operator Comments Document.

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

Signed: ` Jason Davidson

Title: Senior EHS Specialist

Submit Date: `

Email: jdavidson@gwp.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: 17320

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**

| | |
|-----------|----------------------------|
| 402952741 | REMEDATION PROGRESS REPORT |
|-----------|----------------------------|

Total Attach: 1 Files

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

| | | |
|--|--|---------------------|
| | | Stamp Upon Approval |
|--|--|---------------------|

Total: 0 comment(s)