

State of Colorado
Energy & Carbon Management Commission

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Kilian Collins

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 ECOM 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: NOBLE ENERGY INC Operator No: 100322 Phone Numbers
Address: 1099 18TH STREET SUITE 1500 Phone: (970) 730-7281
City: DENVER State: CO Zip: 80202 Mobile: ()
Contact Person: Dan Peterson Email: rbueuf27@chevron.com

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 24344 Initial Form 27 Document #: 403122886

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: TANK BATTERY Facility ID: 482511 API #: County Name: WELD
Facility Name: Farr T4N-R64-WS18 L01 482511 Latitude: 40.310498 Longitude: -104.598343
** correct Lat/Long if needed: Latitude: 40.310689 Longitude: -104.597994
QtrQtr: NWSW Sec: 18 Twp: 4N Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW Most Sensitive Adjacent Land Use Range Land
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

Freshwater Emergent Wetlands 0.01mi N, 0.01mi E
OG Facility 0.2mi S
HWY 0.21mi W

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 |
|-----------|----------------|------------------|----------------|
| Yes | SOILS | Unknown | 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.

A site investigation was conducted pursuant to COGCC Rule 911 at the FARR T4N-R64W-S18 L01 Tank Battery location.

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):

Grab confirmation soil samples were collected from the produced water vessel(s) excavation, beneath the ground oil tank(s), and at the separator(s). Soil samples were analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per COGCC Table 915-1, and EC, SAR, pH, and boron. All samples collected were analyzed by a certified laboratory using approved COGCC laboratory analysis methods.

Proposed Groundwater Sampling

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

Groundwater was not encountered during the facility's decommissioning.

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):

AVO

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 3

-- Highest concentration of TPH (mg/kg) 56

Number of soil samples exceeding 915-1 2

-- Highest concentration of SAR 1.68

Was the areal and vertical extent of soil contamination delineated? No

BTEX > 915-1 No

Approximate areal extent (square feet) 200

Vertical Extent > 915-1 (in feet) 4

Groundwater

Number of groundwater samples collected 0

ND Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No

ND Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____

ND Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____

ND Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____

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) _____

Volume of liquid waste (barrels) _____

Is further site investigation required?

Borings will be advanced at and adjacent to the former AST and PWV locations to determine the magnitude and extent of residual soil impacts. Soil collected during the investigation will be analyzed by a certified laboratory for contaminants of concern TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), PAHs, and pH characterized during decommission activities at the site.

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.

Excavation

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.

An excavation extent encompassing the former wellhead flowline riser will be determined by the lab analysis results from the proposed site investigation. Confirmation soil samples will be collected and analyzed for PAH only per the approved amended SAP (see related forms) from the excavation sidewalls and floor to demonstrate the previously mentioned contaminants of concern have been removed. NFA status is estimated to be attained within 90 days of receipt of the final lab results.

Soil Remediation Summary

In Situ

Ex Situ

____ Bioremediation (or enhanced bioremediation)

Yes Excavate and offsite disposal

____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) 50

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

Name of Licensed Disposal Facility or ECMC Facility ID # _____ 0

_____ 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

_____ 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.

NA

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

Quarterly Semi-Annually Annually Other _____

Request Alternative Reporting Schedule:

Semi-Annually Annually Other within 90 days of receipt of final laboratory analysis

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 Supplemental Form 27 _____

Adequacy of Operator's General Liability Insurance and Financial Assurance

Describe the adequacy of the Operator's general liability insurance and Financial Assurance to fully address the anticipated costs of Remediation, including the estimated remaining cost for this project (below).

If this information has been provided on a Form 27 within the last 12 months, provide the Document Number of that form.

Noble intends to directly address the costs of remediation at the locations as part of our asset retirement obligation process and operations. Noble has general liability insurance (policy MWZZ 316714) and financial assurance in compliance with COGCC rules. Records are available on the COGCC's website.

Operator anticipates the remaining cost for this project to be: \$ 33000 _____

WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? No _____

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 _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

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

E&P waste (liquid) description _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC 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? No _____

Does the previous reply indicate consideration of background concentrations? _____

Does Groundwater meet Table 915-1 standards? Yes _____

Is additional groundwater monitoring to be conducted? _____

Operator shall comply with the ECMC 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.

Reclamation will be in accordance with COGCC 1000 Series Rules.

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. 12/31/2024

Proposed date of completion of Reclamation. 12/31/2027

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. 06/23/2022

Actual Spill or Release date, or date of discovery. 12/21/2022

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 10/11/2022

Proposed site investigation commencement. 08/15/2022

Proposed completion of site investigation. 06/30/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/30/2023

Proposed date of completion of Remediation. 12/31/2024

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:

Excavation is pending crew availability.

OPERATOR COMMENT

Operator proposes to consolidate future remediation reporting to the related Farr T4N-R64-WS18 L01 482511 (Facility), Rem. # 24344.

This form serves as a timeline update. Pending location, landowner approval, and crew availability, the operator will complete the excavation as outlined in this proposed Site Remedial Action workplan. Supplemental Form 27s will be prepared and submitted on a quarterly schedule to provide updates and progress of the remediation until closure criteria has been achieved.

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

Signed: Ethan Black

Title: Consultant

Submit Date: 06/06/2024

Email: ethanb@fremontenv.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with ECMC Rules and applicable orders and is hereby approved.

ECMC Approved: _____

Date: _____

Remediation Project Number: 24344

COA Type**Description**

| | |
|--------|--|
| | On resubmittal, Operator provide a schedule to comply with Rules 912.a.(1) and 912.a.(2). Additionally, Operator shall maintain a quarterly reporting schedule to return to and comply with Rules 913.d and 913.e. |
| | Operator discovered spill on 12/21/22 and no remedial action has been taken as of submittal of this form, 533 days. The most recent submittal on this project was from 5/2/23 and stated that remediation would be completed 2/2/24. Operator is in violation of Rules 912.a.(1), 912.a.(2), 913.d, and 913.e. |
| | Operator requests to consolidate reporting to REM 24344, this is REM 24344. Operator shall clarify that request on resubmittal. |
| 3 COAs | |

ATTACHMENT 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**

| | |
|-----------|--------------------------------|
| 403815288 | FORM 27 DENIED |
| 403815307 | OTHER |
| 403887503 | FORM 27-SUPPLEMENTAL-SUBMITTED |

Total Attach: 3 Files

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

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

Total: 0 comment(s)