

State of Colorado
Energy & Carbon Management Commission

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403874711
Receive Date:
08/23/2024
Report taken by:
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 ECMC 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: <u>NOBLE ENERGY INC</u> | Operator No: <u>100322</u> | Phone Numbers |
| Address: <u>1099 18TH STREET SUITE 1500</u> | | Phone: <u>(970) 730-7281</u> |
| City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u> | | Mobile: <u>()</u> |
| Contact Person: <u>Dan Peterson</u> | Email: <u>RBUEUF27@chevron.com</u> | |

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 29488 Initial Form 27 Document #: 403413359

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

Yes Multiple Facilities

| | | | |
|--|----------------------------|-------------------------------|---|
| Facility Type: <u>WELL</u> | Facility ID: _____ | API #: <u>123-18051</u> | County Name: <u>WELD</u> |
| Facility Name: <u>UPV 23-0214</u> | Latitude: <u>40.303030</u> | Longitude: <u>-104.514800</u> | |
| ** correct Lat/Long if needed: Latitude: _____ | | Longitude: _____ | |
| QtrQtr: <u>NWNE</u> | Sec: <u>23</u> | Twp: <u>4N</u> | Range: <u>64W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u> |
| Facility Type: <u>SPILL OR RELEASE</u> | Facility ID: <u>486083</u> | API #: _____ | County Name: <u>WELD</u> |
| Facility Name: <u>UPV 23-0214</u> | Latitude: <u>40.303030</u> | Longitude: <u>-104.514800</u> | |
| ** correct Lat/Long if needed: Latitude: _____ | | Longitude: _____ | |
| QtrQtr: <u>NWNE</u> | Sec: <u>23</u> | Twp: <u>4N</u> | Range: <u>64W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u> |

SITE CONDITIONS

General soil type - USCS Classifications SC

Most Sensitive Adjacent Land Use Crop 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? No

Other Potential Receptors within 1/4 mile

Freshwater Emergent Wetland 0.18mi NE, 0.09mi SE
Riverine 0.22mi SE
Pond 0.06mi SE
Residence 0.17mi NW, 0.11mi SW
Farm Structure 0.16/0.17/0.18/0.19mi NW, 0.07/0.08/0.13mi SW

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 checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | |
| <input checked="" 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 |
|--------------|----------------|------------------|-----------------------------|
| UNDETERMINED | GROUNDWATER | NA | Lab analysis if encountered |
| Yes | SOILS | TBD | 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.

Pursuant to ECMC Rule 911 a site investigation was conducted pertaining to the UPV 23-0214 wellhead cut and cap and flowline abandonment. The wellhead was cut and capped per ECMC rules. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Approximately 2060' of flowline was abandoned-in-place, as this flowline lies in a common trench with at least one other line.

Soil samples will be collected at any points of material change and/or hammer unions, directional changes, as well as at the bell holes on either side of a waterway. The ECMC will be updated in a supplemental Form 27 if a portion of the flowline is able to be removed. The Flowline Pre-Abandonment Notice Document number is included under Related Forms.

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):

Six (6) grab soil samples were collected at the wellhead excavation (5) and flowline terminus at the separator (1). Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Soil samples were analyzed by a certified laboratory for TPH (C6-C36), organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, and boron. Additionally, soil samples collected at the wellhead excavation were analyzed for waste characterization of ECMC Table 915-1 metals.

Soil samples will be collected along the flowline path at a minimum of every 250', including at any points of material change and/or hammer unions, or directional changes. Soil samples will be analyzed by a certified laboratory for the full extent of Table 915-1, including: TPH (C6-C36), organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, metals, and boron.

All samples collected were/will be analyzed by a certified laboratory using approved ECMC laboratory analysis methods.

Proposed Groundwater Sampling

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

If groundwater is encountered during the site investigation activities, a grab groundwater will be collected and analyzed for all organic and inorganic compounds per ECMC Table 915-1; this sample analysis includes, but is not limited to BTEX, naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB by EPA Method 8260, chloride and sulfate anions by EPA Method 300.0, and total dissolved solids (TDS) by Method SM 2540C. Additional monitoring will be proposed in a supplemental Form 27, as needed.

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):

Visual inspection of the flowline area will occur during abandonment activities. Field personnel will field screen all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required. The ECMC Wellhead and Flowline Closure Checklists will be utilized and filled out during the abandonment process. A photolog will be submitted on the Subsequent Form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 8

Number of soil samples exceeding 915-1 5

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

Approximate areal extent (square feet) 48

NA / ND

-- Highest concentration of TPH (mg/kg) 2432

-- Highest concentration of SAR 3.02

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 7

Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? No

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

Number of groundwater monitoring wells installed _____

Number of groundwater samples exceeding 915-1 _____

_____ Highest concentration of Benzene (µg/l) _____

_____ Highest concentration of Toluene (µg/l) _____

_____ Highest concentration of Ethylbenzene (µg/l) _____

_____ Highest concentration of Xylene (µg/l) _____

_____ 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?

A background sample was collected for boron, pH, EC, and SAR analysis. A second background was collected for EC, SAR, pH, boron, and ECMC Table 915-1 metals analysis.

Additional backgrounds (5+) will be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare EC, SAR, pH, boron, and ECMC Table 915-1 metals, as needed.

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?

Soil samples will be collected to delineate/confirm the vertical and lateral extents of the impacts following source removal. Additional backgrounds (5+) will be collected from soil of native/similar lithologic material not impacted by oil and gas activity to further compare EC, SAR, pH, boron, and ECMC Table 915-1 metals, as needed.

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.

No current source was generated. Residual petroleum hydrocarbon impacts identified at the former wellhead will be removed through excavation. Noble proposes soil samples be collected for analysis of the full extent of Table 915-1, including: TPH (C6-C36), organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, metals, and boron. Soil samples will be collected to delineate/confirm the vertical and lateral extents of the impacts following source removal.

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.

Source excavation activities are tentatively scheduled to be started at the site by the fourth quarter of 2024, pending landowner consultation. NFA will be considered when soil and/or groundwater (if encountered) concentrations are in compliance with ECMC Table 915-1 standards.

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 ECMC 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
_____ 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.

If groundwater is encountered during remediation activities a grab groundwater will be collected and analyzed for all organic and inorganic compounds per ECMC Table 915-1; this sample analysis includes, but is not limited to BTEX, naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB by EPA Method 8260, chloride and sulfate anions by EPA Method 300.0, and total dissolved solids (TDS) by Method SM 2540C. Additional monitoring will be proposed in a supplemental Form 27, as needed.

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 Decommissioning Data

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 ECMC rules. Records are available on the ECMC's website.

Operator anticipates the remaining cost for this project to be: \$ 80000

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 ECMC 1000 Series Rules.

Is the described reclamation complete? Yes

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. 01/26/2024

Proposed date of completion of Reclamation. 10/31/2029

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. 05/25/2023

Actual Spill or Release date, or date of discovery. 02/07/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/26/2024

Proposed site investigation commencement. 06/25/2023

Proposed completion of site investigation. 12/31/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/01/2024

Proposed date of completion of Remediation. 12/31/2025

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:

Implementation schedule updated to reflect the schedule to complete the supplemental site investigation. The ECMC will be updated on a subsequent Form 27 with the results of the supplemental site investigation, or if the schedule is changed due to site access constraints.

OPERATOR COMMENT

The wellhead and initial flowline decommissioning assessments were completed at the UPV 23-0214 location in accordance with approved initial Form 27 Doc. # 403413359, included under related forms.

Per Form 27 Doc. # 403680650, soil samples will be collected along the flowline path at a minimum of every 250', including from the areas most likely to have been impacted during the operational life of flowline. Samples will be collected for full ECMC Table 915-1 analysis.

Petroleum hydrocarbon impacts identified at the wellhead will be removed through excavation.

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

Signed: Grace Congdon

Title: Environmental Consultant

Submit Date: 08/23/2024

Email: cvxeform@eagle-enviro.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: Kilian Collins

Date: 12/13/2024

Remediation Project Number: 29488

COA Type**Description**

| | |
|-------|---|
| | On the next form submittal Operator shall reattach all available site data with original laboratory reports included as separate attachments. Additionally, should the schedule to complete the remediation change, Operator shall submit a Supplemental Form 27 with an updated Implementation Schedule and sufficient reasoning at least 14 days in advance per Rule 913.d.(2). |
| 1 COA | |

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**

| | |
|-----------|--|
| 403874711 | INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL) |
| 403874759 | SITE INVESTIGATION REPORT |
| 404027471 | FORM 27-SUPPLEMENTAL-SUBMITTED |

Total Attach: 3 Files

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

| | | |
|---------------|---|------------|
| Environmental | In Source Removal Summary on Remedial Action Plan, Operator states "No current source was generated." Then proceeds to describe a source and a plan to remove it. | 12/12/2024 |
|---------------|---|------------|

Total: 1 comment(s)