

State of Colorado
Energy & Carbon Management Commission

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404577885
Receive Date:
03/13/2026

Report taken by:
Nick Cholas

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: NOBLE ENERGY INC	Operator No: 100322	Phone Numbers
Address: 1099 18TH STREET SUITE 1500		Phone: (970) 304-5000
City: DENVER State: CO Zip: 80202		Mobile: ()
Contact Person: Dan Peterson	Email: RBUEUF27@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 39085 Initial Form 27 Document #: 404061659

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: LOCATION	Facility ID: 319041	API #: _____	County Name: WELD
Facility Name: FRED ARENS-64N65W 11SESE	Latitude: 40.321400	Longitude: -104.623050	
** correct Lat/Long if needed: Latitude: 40.321112		Longitude: -104.622014	
QtrQtr: SESE	Sec: 11	Twp: 4N	Range: 65W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 491539	API #: _____	County Name: WELD
Facility Name: FRED ARENS-64N65W 11SESE	Latitude: 40.321064	Longitude: -104.621841	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESE	Sec: 11	Twp: 4N	Range: 65W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW _____

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? No _____

Other Potential Receptors within 1/4 mile

Riverine 0.13mi SW
Residential 0.03mi E, 0.13mi NE, 0.23mi N
Farm Structure 0.01/0.03mi E, 0.02/0.04/0.05/0.15/0.17/0.19mi NE, 0.21/0.24mi N



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 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 and field screening, if encountered
Yes	SOILS	Refer to tables and figures	Lab analysis and field screening

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 FRED ARENS T4N-R65W-S11 L01 facility and tank battery. The facility and tank battery were decommissioned per ECMC rules on 9/4/25-9/5/25. Grab soil samples were collected at the produced water vessels excavation, the oil-water separator, the emission control device, and the above ground oil tank. Additionally, soil samples were field screened at the N-E-S-W sidewalls of the produced water tank excavation.

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):

Five (5) grab confirmation soil samples were collected from the produced water vessel excavation, beneath the ground oil tank, at the risers for the dumphine of the separator, and at the emission control device. Soil samples will be analyzed by a certified laboratory for the full extent of Table 915-1, including but not limited to: TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons) organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, metals, and boron. All samples collected were 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, a grab groundwater will be collected and analyzed for all organic and inorganic compounds per ECMC Table 915-1.

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 at the tank battery area occurred during abandonment activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 5

-- Highest concentration of TPH (mg/kg) 0.814

Number of soil samples exceeding 915-1 2 -- Highest concentration of SAR 2.57

Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 Yes

Approximate areal extent (square feet) 200 Vertical Extent > 915-1 (in feet) 3

Groundwater

Number of groundwater samples collected 0 Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? Yes Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____ Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____ Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____ 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?

During initial decommissioning on 9/5/25, nine background soil sample were collected from three soil borings adjacent to the tank battery and analyzed for metals and inorganics in soil per ECMC Table 915-1. Background soil samples were collected from depths of 0.5 to 4 feet below ground surface (ft; bgs). The maximum background concentration for pH was observed to be 8.46. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, cadmium, chromium (VI), lead, and selenium were calculated to be 14.75 mg/kg, 317.5 mg/kg, 1.500 mg/kg, 0.300 mg/kg, 29.8 mg/kg, and 0.919 mg/kg respectively. The analyzed samples were within ECMC Table 915-1/maximum background limits except for arsenic at PWV01-SS03@3' (27.60 mg/kg).

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?

Based on the analytical results collected during decommissioning activities, the Benzene, 1,2,4-Trimethyl-Benzene, and 1,3,5-Trimethyl-Benzene exceedances observed at sample location FLARE01@0.5', and the arsenic exceedance observed at sample location PWV01-SS03@3' will be removed through remedial excavations and the impacted soil will be segregated for proper offsite disposal. The soil samples will be collected for full ECMC Table 915-1 analysis. Concurrently with the remedial excavations, additional background soil samples (5+) will be collected and submitted for ECMC Table 915-1 inorganic and metal analysis to determine if the arsenic exceedance at PWV01-SS03@3' is attributed to native soil conditions at the site. See figure attached to previously submitted form (Doc. #404455623), currently "In Process" on webforms, depicting the proposed remedial excavations and background sampling locations.

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.

The Benzene, 1,2,4-Trimethyl-Benzene, and 1,3,5-Trimethyl-Benzene exceedances observed at sample location FLARE01@0.5', and the arsenic exceedance observed at sample location PWV01-SS03@3' during decommissioning activities will be removed through remedial excavations and the impacted soil will be segregated for proper offsite disposal. The excavation size for sample location FLARE01@0.5' is anticipated to be 10 feet (ft) x 10ft x 2.5ft. The excavation size for sample location PWV01-SS03@3' is anticipated to be 5ft x 5ft x 5ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents.

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.

Based on the analytical results collected during decommissioning activities, the Benzene, 1,2,4-Trimethyl-Benzene, and 1,3,5-Trimethyl-Benzene exceedances observed at sample location FLARE01@0.5', and the arsenic exceedance observed at sample location PWV01-SS03@3' will be removed through remedial excavations and the impacted soil will be segregated for proper offsite disposal. The soil samples will be collected for full ECMC Table 915-1 analysis. Concurrently with the remedial excavations, additional background soil samples (5+) will be collected and submitted for ECMC Table 915-1 inorganic and metal analysis to determine if the arsenic exceedance at PWV01-SS03@3' is attributed to native soil conditions at the site. See figure attached to previously submitted form (Doc. #404455623), currently "In Process" on webforms, depicting the proposed remedial excavations and background sampling locations.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____

_____ Air sparge / Soil vapor extraction

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

_____ Natural Attenuation

_____ Excavate and onsite remediation

_____ Other _____

_____ 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.

Groundwater was not encountered during initial decommissioning activities.

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 Quarterly Update

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 (policies MWZZ316714 and MWZX316724) and financial assurance in compliance with ECMC rules. Records are available on the ECMC's website. The cost for remediation is an estimate only, costs may change upwards or downward based on site-specific information. Noble makes no representation or guarantees as to the accuracy of the estimate.

Operator anticipates the remaining cost for this project to be: \$ 50000

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 reseeded 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. 09/04/2025

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. 01/14/2025

Actual Spill or Release date, or date of discovery. 09/04/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/04/2025

Proposed site investigation commencement. 06/30/2026

Proposed completion of site investigation. 06/30/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/30/2026

Proposed date of completion of Remediation. 09/30/2026

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:

The implementation schedule has been updated to reflect the completed decommissioning and the necessity for SSMR at the former FRED ARENS-64N65W 11SESE tank battery and facility. The proposed remedial excavation is tentatively scheduled to be completed by the end of 2Q 2026.

OPERATOR COMMENT

This form has been submitted to provide a 1Q 2026 update for the FRED ARENS-64N65W 11SESE (REM #39085), as well as to propose both supplemental mass source removal (SMSR) and supplemental investigation. The previously submitted remediation workplan (Doc. #404455623) is currently "In Process" on Web Forms. No work has been completed since the previous form submittal.

Montrose is currently working with Noble to conduct remedial excavations to remove the Benzene, 1,2,4-Trimethyl-Benzene, and 1,3,5-TrimethylBenzene exceedances observed at sample location FLARE01@0.5', and the arsenic exceedance observed at sample location PWV01-SS03@3'. The impacted soil will be segregated for proper offsite disposal. The soil samples will be collected for full ECMC Table 915-1 analysis. Concurrently with the remedial excavations, additional background soil samples (5+) will be collected and submitted for ECMC Table 915-1 inorganic and metal analysis to determine if the arsenic exceedance at PWV01-SS03@3' is attributed to native soil conditions at the site. See figure attached to previously submitted form (Doc. #404455623), currently "In Process" on webforms, depicting the proposed remedial excavations and background sampling locations.

Pursuant to Rule 913.e., Quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The results of the proposed SSI will be reported within a subsequent Form 27.

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

Signed: Scott Williamson

Title: Environmental Consultant

Submit Date: 03/13/2026

Email: NorthernColoradoPM@montrose-env.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: 39085

COA Type

Description

0 COA	
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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

404577885	FORM 27-SUPPLEMENTAL-SUBMITTED
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Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

Environmental	<p>ECMC has denied this form without technical review as Operator has provided no analytical or site investigation data showing progress of remediation of impacts documented at this location.</p> <p>Per Rule 912.a.(1-2): Operators will investigate, clean up, and document impacts resulting from Spills and Releases as soon as the impacts are discovered. Operator shall not delay execution of remedial or investigative actions while waiting for ECMC approval and may request expedited review if necessary.</p> <p>Operator shall conduct work in compliance with approved workplans and the 900 Series Rules. Operator shall provide a replacement form documenting investigation and clean up of these impacts; if a form providing this information is in process no replacement Form is due. If Operator is requesting a schedule change under Rule 913.d.(2) Operator shall attach adequate justification for the request. All ongoing/unaddressed comments/COAs from previous Forms remain applicable.</p>	03/17/2026
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Total: 1 comment(s)