

State of Colorado
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
404230219
Receive Date:
06/10/2025

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 Phone: <u>(970) 730-7281</u> Mobile: <u>()</u>
Address: <u>1099 18TH STREET SUITE 1500</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Dan Petersen</u>	Email: <u>danpeterson@chevron.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 30092 Initial Form 27 Document #: 403423252

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>LOCATION</u>	Facility ID: <u>317755</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>STATE (ACCO-TERRA ET.AL.)-63N63W 20CSW</u>	Latitude: <u>40.207178</u>	Longitude: <u>-104.466340</u>	
** correct Lat/Long if needed: Latitude: <u>40.206577</u>		Longitude: <u>-104.466710</u>	
QtrQtr: <u>CSW</u>	Sec: <u>20</u>	Twp: <u>3N</u>	Range: <u>63W</u> Meridian: <u>6</u> Sensitive Area? <input type="checkbox"/> Yes
Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>489231</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>State (ACCO-TERRA Et-A1)-63N63W 20</u>	Latitude: <u>40.206788</u>	Longitude: <u>-104.466657</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SWSW</u>	Sec: <u>20</u>	Twp: <u>3N</u>	Range: <u>63W</u> Meridian: <u>6</u> Sensitive Area? <input type="checkbox"/> Yes

SITE CONDITIONS

General soil type - USCS Classifications SW _____

Most Sensitive Adjacent Land Use Rangeland _____

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

Pronghorn Winter Concentration Area
Intermittent Riverine 0.09mi SW, 0.39mi NE; emergent wetland 0.30mi SW
FEE/STATE Related Facility ID #317755
National Wetlands Inventory: Riverine approximately 540 ft west of location and 2205 ft east of wellhead.
Freshwater emergent approximately 1450 ft southwest of location
HPH: Pronghorn Winter Concentration approximately 3150 ft north of location.
Facility ID #469881 3" Multiphase Carbon Steel

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	Refer to Tables and Figures	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.

A site investigation will be conducted pursuant to ECMC Rule 911 at the SPIKE ST T3N-R63W-S20 L01 Facility and 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 risers for the flowline(s) and dumpline(s) of any separator(s). Soil samples were 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 sample will be collected and analyzed for all organic compounds and inorganic parameters 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 decommissioning activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required. The ECMC Tank Battery and Produced Water Vessel Closure Checklists were utilized and filled out during the decommissioning process. A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results is attached to this form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 5

-- Highest concentration of TPH (mg/kg) 6579

Number of soil samples exceeding 915-1

-- Highest concentration of SAR 0.331

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

BTEX > 915-1 Yes

Approximate areal extent (square feet) 300

Vertical Extent > 915-1 (in feet) 4

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?

Three background soil sample were collected near the Tank Battery and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. The maximum background concentration for pH was 8.42. The maximum background concentrations with a 1.25x multiplier applied for arsenic was observed to be 2.14 mg/kg. Additional background soil samples (3+) 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.

 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?

A Supplemental Site Investigation (SSI) will be completed to vertically and horizontally delineate the pH exceedances observed at soil samples AST01@0-6" and SEP01-FL@2.5; samples collected will be submitted for Full Table 915-1. A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal. Concurrently with the remedial excavation, background soil samples (3+) will be collected and analyzed for metals and inorganics in soil per ECMC Table 915-1. An SSI and remedial excavation map is attached to doc #404129860 which is currently "In-Process" on webforms. Sample results will be reported in a subsequent Form 27.

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.

A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal.

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.

Analytical results from wellhead and flowline decommissioning activities indicated that pH (AST01@0-6" and SEP01-FL@2.5) exceeded applicable standards. A Supplemental Site Investigation (SSI) will be completed to vertically and horizontally delineate the pH exceedances observed at soil samples AST01@0-6" and SEP01-FL@2.5; samples collected will be submitted for Full Table 915-1. A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal. Concurrently with the remedial excavation, background soil samples (3+) will be collected and analyzed for metals and inorganics in soil per ECMC Table 915-1. An SSI and remedial excavation map is attached to doc #404129860 which is currently "In-Process" on webforms. Sample results will be reported in a subsequent Form 27.

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.

Groundwater was not encountered during tank battery 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 Decommissioning Sample Summary, Supplemental Source Mass Removal, SSI Proposal

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 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. 12/18/2024

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. 05/11/2023

Actual Spill or Release date, or date of discovery. 12/18/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/18/2024

Proposed site investigation commencement. 03/31/2025

Proposed completion of site investigation. 12/31/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/31/2025

Proposed date of completion of Remediation. 06/30/2026

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 changed due to the decommissioning of the former State (Acco-Terra et al) 63N63W tank battery and necessity for additional supplemental site investigation (SSI) activities adjacent to the tank battery. The proposed SSI will be completed following the approval of this form.

OPERATOR COMMENT

This form has been submitted to provide a 2Q 2025 update for the State (Acco-Terra et al) 63N63W tank battery (REM #30092). The tank battery decommissioning sampling was completed on 12/18/2024 by Tasman. Five samples were collected; elevated exceedances of pH were observed. The site investigation and analytical results are attached to this form. The 1Q 2025 update Doc #404129860 is currently "In-Process" on webforms. No work has been completed since previous quarterly update.

A Supplemental Site Investigation (SSI) will be completed to vertically and horizontally delineate the pH exceedances observed at soil samples AST01@0-6" and SEP01-FL@2.5; samples collected will be submitted for Full Table 915-1. A remedial excavation is proposed to remove the organic exceedances at soil sample PWV01-W@2.5'. The excavation size is anticipated to be 20 feet (ft) x 10ft x 4ft. Remedial excavation confirmation soil samples will be collected and analyzed for full ECMC Table 915-1 constituents. The impacted soil will be segregated for proper offsite disposal. Concurrently with the remedial excavation, background soil samples (3+) will be collected and analyzed for metals and inorganics in soil per ECMC Table 915-1. An SSI and remedial excavation map is attached to doc #404129860 which is currently "In-Process" on webforms.

Based on currently available data, this project is not affected by data integrity irregularities and is not associated with Operator's data integrity review process and its Rule 525.e. Voluntary Disclosure. As part of its data integrity review process, Operator requested the lab protect the laboratory analytical report from subsequent unauthorized modification by anyone outside the lab, which resulted in the lab reissuing the original report with additional protections (Reissued Report). The Reissued Report was received directly from the lab on March 31, 2025, which includes the application of a Digital ID/Verified Certification (lock) to support reissuance. The metadata associated with this Reissued Report also includes the lab representative's name, the date and time the laboratory reissued the report, and an explanation for the report reissuance. The Reissued Reports are attached to this submission.

In the event additional responsive information is received or discovered that would suggest this project should be incorporated into the ongoing data integrity review process associated with Operator's Rule 525.e. Voluntary Disclosure, Operator will update and/or amend the statements in this submission and provide any new or revised data or other information.

Pursuant to Rule 913.e., Quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The results of the supplemental site investigation and remedial excavation will be submitted on 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: 06/10/2025

Email: scottwilliamson@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: Kilian Collins

Date: 01/27/2026

Remediation Project Number: 30092

COA Type

Description

0 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
404230219	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404231297	ANALYTICAL RESULTS
404233325	OTHER
404233326	ANALYTICAL DATA SUMMARY TABLE(S)
404520901	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)