

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Collin Metz

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) 7307281</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 Peterson</u>	Email: <u>rbueuf27@chevron.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 34243 Initial Form 27 Document #: 403528836

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>418880</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>WIEDEMAN 25-5</u>	Latitude: <u>40.433991</u>	Longitude: <u>-104.806920</u>	
** correct Lat/Long if needed: Latitude: <u>40.433398</u>		Longitude: <u>-104.807159</u>	
QtrQtr: <u>NENW</u>	Sec: <u>5</u>	Twp: <u>5N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487309</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Wiedeman 25-5</u>	Latitude: <u>40.432953</u>	Longitude: <u>-104.807129</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWNW</u>	Sec: <u>5</u>	Twp: <u>5N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487310</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Wiedeman 25-5</u>		Latitude: <u>40.433317</u>	Longitude: <u>-104.807186</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWNW</u>	Sec: <u>5</u>	Twp: <u>5N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487311</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Wiedeman 25-5</u>		Latitude: <u>40.433174</u>	Longitude: <u>-104.807176</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWNW</u>	Sec: <u>5</u>	Twp: <u>5N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487312</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Wiedeman 25-5</u>		Latitude: <u>40.433393</u>	Longitude: <u>-104.807200</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWNW</u>	Sec: <u>5</u>	Twp: <u>5N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

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

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

Palustrine 50ft/0.19/0.22mi W
 Riverine 70ft W
 Farming Structures 0.16/0.19/0.200.22mi S
 Residential Structures 0.21mi S

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
Yes	GROUNDWATER	NA	Lab analysis and Field Screening
Yes	SOILS	10'x10'x2' bgs	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 was conducted pursuant to ECMC Rule 911 at the WIEDEMANT5N-R66W-S5 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 beneath the 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):

Groundwater was encountered adjacent to the separator dump-line riser and a grab groundwater was 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. The ECMC Tank Battery Closure Checklists was utilized and filled out during the abandonment process and a photolog is included on Form 27.

Please note, no partially-buried produced water vessel was present at the time of decommissioning; therefore, no soil samples were collected. Based on a desktop review of this location, the produced water vessel was removed in 2021.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 10

-- Highest concentration of TPH (mg/kg) 58.9

Number of soil samples exceeding 915-1 8 -- Highest concentration of SAR 0.52
 Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 Yes
 Approximate areal extent (square feet) 500 Vertical Extent > 915-1 (in feet) 4

Groundwater

Number of groundwater samples collected 1 -- Highest concentration of Benzene (µg/l) 5
 Was extent of groundwater contaminated delineated? No -- Highest concentration of Toluene (µg/l) 1.9
 Depth to groundwater (below ground surface, in feet) 4 ND Highest concentration of Ethylbenzene (µg/l) _____
 Number of groundwater monitoring wells installed 0 -- Highest concentration of Xylene (µg/l) 9.8
 Number of groundwater samples exceeding 915-1 1 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?

Three (3) background soil samples were collected from one soil boring location (BKG01) adjacent to the tank battery at depths ranging between 0.5 feet and 4 feet bgs and were analyzed for metals in soil per ECMC Table 915-1, pH, SAR, and EC.

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 organic compound exceedances observed at AST04@0-6", DL01-01@3', SEP01-DL@4', SEP02-DL@3', & SEP02-DL@4' during decommissioning. Concurrently with the SSI, additional background samples will be collected to determine if pH, barium, and cadmium observed at this location are indicative of native soil conditions. Soil and groundwater samples will be collected and analyzed for the full Table 915-1 constituents list.

An additional soil sample will be collected adjacent to the former partially buried produced water vessel location, from proposed soil boring location SB09 at 2.5 feet.

All samples collected were analyzed by a certified laboratory using approved ECMC laboratory analysis methods. The SSI will be completed in accordance with the proposed implementation schedule, and the results of the SSI will be submitted on 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.

Organic compound exceedances recorded during initial decommissioning activities will be removed via mechanical excavation activities.

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.

Following the completion of the supplemental site investigation, source mass removal activities will be completed to remove remaining hydrocarbon impacted material. Confirmation soil samples will be collected from the base and sidewalls of each final excavation extent and submitted for laboratory analysis of the full ECMC Table 915-1 analytical suite.

Field activities and analytical results will be summarized in a subsequent supplemental 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.

Following source mass removal activities, monitoring wells will be installed within and surrounding the resulting excavation extents to monitor dissolved-phase organic compounds and to establish a point of compliance.

Does Groundwater meet Table 915-1 standards? _____

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. 05/10/2024

Proposed date of completion of Reclamation. 09/26/2026

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. 08/24/2023

Actual Spill or Release date, or date of discovery. 06/18/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/10/2024

Proposed site investigation commencement. 09/02/2025

Proposed completion of site investigation. 09/05/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 09/05/2025

Proposed date of completion of Remediation. 09/05/2026

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 supplemental site investigation is tentatively scheduled for September 2, 2025. Proposed completion of site investigation date is being 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

This Form 27 is being submitted as a fourth quarter 2024 timeline update for the Wiedeman 25-5 Tank Battery.

A SSI will be completed in accordance with the Site Investigation Report section of this Form 27, and proposed sampling plan previously submitted as an attachment to Form 27 document #403930473. The ECMC will be updated with the results of the supplemental site investigation on a subsequent Form 27. The SSI is tentatively scheduled for September 2, 2025.

Concurrent with delineation activities, additional background samples will be collected to determine if pH, barium, and cadmium observed at this location are indicative of native material conditions. The sampling plan was previously submitted with Form 27 document #403930473.

Quarterly reporting through a supplemental Form 27 will continue 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: Brock Nelson

Title: Environmental Consultant

Submit Date: 01/17/2025

Email: tas-chevron-5@tasman-geo.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: Collin Metz

Date: 03/27/2025

Remediation Project Number: 34243

COA Type

Description

	ECMC approves the proposed remediation work plan. However ECMC does not approve the proposed schedule. The Operator shall implement the proposed work plan upon approval of this Form 27, or propose a site specific timeline for implementation including reasons for specific dates selected.
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

404060855	FORM 27-SUPPLEMENTAL-SUBMITTED
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Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)