

State of Colorado  
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
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Report taken by:

Kyle Waggoner

## 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 Phone: (970) 730-7281 Mobile: ( )
Address: 1099 18TH STREET SUITE 1500		
City: DENVER	State: CO Zip: 80202	
Contact Person: Dan Peterson	Email: Danpeterson@chevron.com	

## PROJECT, PURPOSE &amp; SITE INFORMATION

## PROJECT INFORMATION

Remediation Project #: 34097 Initial Form 27 Document #: 403691826

## 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: SPILL OR RELEASE	Facility ID: 483838	API #: _____	County Name: WELD
Facility Name: SLW Ranch	Latitude: 40.411457	Longitude: -104.502513	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESW	Sec: 12	Twp: 5N	Range: 64W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

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

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

## 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	Refer to ECMC Document # 403912469	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.

An excavation was initiated in the area of the spill to remove soil impacted with organic compounds above ECMC Table 915-1 Residential Soil Screening Levels (RSSLs). A total of six sampling events (2/6/2023, 2/7/2023, 2/9/2023, 3/20/2023, 3/29/2023 and 4/11/2023) were conducted to guide the removal of soils impacted with compounds above ECMC Table 915-1 RSSLs. A total of 7 cubic yards of impacted soil was removed from the spill area and transported off-site for disposal. A total of 14 confirmatory soil samples were collected from the perimeters and bases of the excavation extents, and submitted for laboratory analysis of ECMC Table 915-1 Organic Compounds in Soil, TPH, ECMC Table 915-1 Metals in Soil, pH, EC, SAR, and Boron.

**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 ):

**Proposed Groundwater Sampling**

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

**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 ):

Per the COA issued in the approved Initial Form 27 (Document No. 403691826), a produced water sample will be collected and analyzed for total recoverable metals for metals listed in Table 915-1. Additional background soil samples may be collected from on-pad soils that were unaffected by the release to provide a direct comparison to the arsenic results observed in the release area. This sampling event was conducted on February 19, 2025 and the analytical results are still pending at the time of this Form 27 submittal. The analytical results will be submitted on a subsequent form 27 as well as a Form 43 using Facility ID 447070, and Identification Number Spill ID 483838 per the above referenced COA.

## SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 14  
Number of soil samples exceeding 915-1 14  
Was the areal and vertical extent of soil contamination delineated? Yes  
Approximate areal extent (square feet) 100

### NA / ND

-- Highest concentration of TPH (mg/kg) 170  
-- Highest concentration of SAR 44.3  
BTEX > 915-1 Yes  
Vertical Extent > 915-1 (in feet) 3

### 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?

On March 16, 2023, ten background samples were collected from five discrete locations in native soil to the east of the tank battery. Background soil samples were analyzed for ECMC Table 915-1 metals, pH, EC, SAR, and boron.

☐ 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?

Per the COA issued in the approved Initial Form 27 (Document No. 403691826), a produced water sample will be collected and analyzed for total recoverable metals for metals listed in Table 915-1. Additional background soil samples may be collected from on-pad soils that were unaffected by the release to provide a direct comparison to the arsenic results observed in the release area. This sampling event was conducted on February 19, 2025 and the analytical results are still pending at the time of this Form 27 submittal. The analytical results will be submitted on a subsequent form 27 as well as a Form 43 using Facility ID 447070, and Identification Number Spill ID 483838 per the above referenced COA.

## 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 source was removed through a remedial excavation between February 6, 2023 and April 11, 2023. The results of the remedial excavation are attached to ECMC Document No. 403691826. Based on the remedial excavation results, all soil impacted with organic and inorganic compounds have been successfully removed. However, the final sidewall and base samples contain concentrations of arsenic above existing background data.

Per the COA issued in the approved Initial Form 27 (Document No. 403691826), a produced water sample will be collected and analyzed for total recoverable metals for metals listed in Table 915-1. Additional background soil samples may be collected from on-pad soils that were unaffected by the release to provide a direct comparison to the arsenic results observed in the release area. This sampling event was conducted on February 19, 2025 and the analytical results are still pending at the time of this Form 27 submittal. The analytical results will be submitted on a subsequent form 27 as well as a Form 43 using Facility ID 447070, and Identification Number Spill ID 483838 per the above referenced COA.

## 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.

**Soil Remediation Summary**☐ In Situ☒ Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

Yes \_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 9

\_\_\_\_\_ 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 spill response activities.

## REMEDATION 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 First Quarter 2025-Timeline 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 (policy MWZZ 316714) 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? Yes

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

NA

Volume of E&P Waste (solid) in cubic yards 9

E&P waste (solid) description Soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Republic Services Tower Road  
Landfill

Volume of E&P Waste (liquid) in barrels 0

E&P waste (liquid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

## REMEDATION COMPLETION REPORT

### REMEDATION 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?

Does the previous reply indicate consideration of background concentrations?

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 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. 02/06/2023

Proposed date of completion of Reclamation. 02/19/2026

## 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. 02/03/2023

Actual Spill or Release date, or date of discovery. 02/03/2023

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/06/2023

Proposed site investigation commencement. 02/19/2025

Proposed completion of site investigation. 02/19/2025

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 02/19/2025

Proposed date of completion of Remediation. 11/19/2025

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:

The implementation schedule has been updated due to the sampling of the produced water for Total Recoverable Metals, in accordance with the condition of approval on ECMC document number 403691826. This sampling event was conducted on February 19, 2025 and the analytical results are still pending at the time of this Form 27 submittal. Further site investigation activities will be proposed as necessary following the review of analytical results.

## OPERATOR COMMENT

This Form 27 is being submitted as a first quarter 2025 timeline update for the produced water sampling for the SLW Ranch B12-65-1HN tank battery.

Per the COA issued in the approved Initial Form 27 (Document No. 403691826), a produced water sample will be collected and analyzed for total recoverable metals for metals listed in Table 915-1. Additional background soil samples may be collected from on-pad soils that were unaffected by the release to provide a direct comparison to the arsenic results observed in the release area. This sampling event was conducted on February 19, 2025 and the analytical results are still pending at the time of this Form 27 submittal. The analytical results will be submitted on a subsequent form 27 as well as a Form 43 using Facility ID 447070, and Identification Number Spill ID 483838 per the above referenced COA. Further site investigation activities will be proposed as necessary following the review of analytical results.

Quarterly reporting will be conducted until closure criteria are met for this remediation project.

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

Signed: Mike Medina

Title: Environmental Consultant

Submit Date: 03/03/2025

Email: tas-chevron-2@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: Kyle Waggoner

Date: 03/05/2025

Remediation Project Number: 34097

## 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

404099580	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)