

State of Colorado
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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Document Number:

404045819

Receive Date:

01/30/2025

Report taken by:

Abdul Elnajdi

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) 730-7281
City: DENVER	State: CO	Zip: 80202
Contact Person: Dan Peterson	Email: RBUEUF27@chevron.com	Mobile: ()

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 12140 Initial Form 27 Document #: 401842011

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: 455000	API #: _____	County Name: WELD
Facility Name: Wells Ranch AE32	Latitude: 40.444000	Longitude: -104.355200	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNW	Sec: 32	Twp: 6N	Range: 6W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

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

Is domestic water well within 1/4 mile? No Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? Yes

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	GROUNDWATER	TBD	Laboratory Analytical
Yes	SOILS	50' X 50' X 20' bgs	Laboratory Analytical

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

During production at the Wells Ranch AE30 tank battery, an unintentional release occurred from a produced water dumphine. The site was shut in.

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):

Twenty five soil samples were collected during the initial and subsequent site assessments of this location. The soil samples were analyzed by a certified laboratory for TPH-DRO, TPH-GRO, BTEX, and Naphthalene by EPA Methods 8015 and 8260B.

Proposed Groundwater Sampling

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

Five groundwater samples were collected from existing SVE wells. Groundwater samples were submitted for analysis of BTEX, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene.

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 25
Number of soil samples exceeding 915-1 14
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 2500

NA / ND

-- Highest concentration of TPH (mg/kg) 11610
NA Highest concentration of SAR
BTEX > 915-1 Yes
Vertical Extent > 915-1 (in feet) 20

Groundwater

Number of groundwater samples collected 143
Was extent of groundwater contaminated delineated? Yes
Depth to groundwater (below ground surface, in feet) 15
Number of groundwater monitoring wells installed 18
Number of groundwater samples exceeding 915-1 55

-- Highest concentration of Benzene (µg/l) 14600
-- Highest concentration of Toluene (µg/l) 3710
-- Highest concentration of Ethylbenzene (µg/l) 523
-- Highest concentration of Xylene (µg/l) 1660
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?

☐ 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?

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 area has been delineated vertically and laterally through an environmental site assessment. The source area was initially treated in place using Soil Vapor Extraction (SVE) technology, until groundwater was observed in the SVE wells. TFR/vapor recovery activities will be utilized to address residual petroleum hydrocarbon impacts at the site.

REMEDIAL ACTION 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.

An SVE system was installed and was operational at the site to address impacted soil above ECMC Table 915-1 standards through 1Q21. Air samples were collected and analyzed for GBTEX by EPA Method TO15M GC/MS to determine the mass reduction and system performance. Groundwater infiltrated the SVE wells (now utilized as monitoring wells) as of March 2021, and the SVE system was shutdown to evaluate changing subsurface conditions at the site. Residual soil and groundwater impacts will be addressed by TFR and vapor recovery activities. Confirmation soil samples will be collected prior to a no further action request to ensure compliance with ECMC standards. A no further action recommendation will be considered when soil and groundwater concentrations at the site are in compliance with ECMC Table 915-1 regulatory limits.

Soil Remediation Summary

☒ In Situ

☒ Ex Situ

<u>No</u> Bioremediation (or enhanced bioremediation)	<u>Yes</u> Excavate and offsite disposal
<u>No</u> Chemical oxidation	If Yes: Estimated Volume (Cubic Yards) <u>75</u>
<u>Yes</u> Air sparge / Soil vapor extraction	Name of Licensed Disposal Facility or ECMC Facility ID # _____
<u>Yes</u> Natural Attenuation	<u>No</u> Excavate and onsite remediation
<u>No</u> Other _____	_____ Land Treatment
	_____ Bioremediation (or enhanced bioremediation)
	_____ Chemical oxidation
	_____ Other _____

Groundwater Remediation Summary

<u>No</u> Bioremediation (or enhanced bioremediation)
<u>No</u> Chemical oxidation
<u>No</u> Air sparge / Soil vapor extraction
<u>Yes</u> Natural Attenuation
<u>No</u> 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.

Eighteen monitoring wells have been installed at the site and will be monitored on a quarterly basis. Some wells are dry, which is consistent with previous field observations (upwards of 2 years needed to generate water). Current subsurface conditions are not consistent with historical or regional observations, and require further monitoring. Groundwater is observed as high as 11 feet bgs, and is not measured in adjacent monitoring wells installed to 35 feet bgs. Groundwater samples will be collected from monitoring wells on a quarterly basis and analyzed for BTEX, naphthalene, 1,2,4-TMB, and 1,3,5-TMB, and inorganic compounds per ECMC Table 915-1.

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 (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: \$ 75000

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:

No beneficial use

Volume of E&P Waste (solid) in cubic yards 0

E&P waste (solid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

Volume of E&P Waste (liquid) in barrels 100

E&P waste (liquid) description Hydro-Excavated Slurry

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Republic Landfill

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? No

Is additional groundwater monitoring to be conducted? Yes

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? No

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. 05/09/2018

Proposed date of completion of Reclamation. 10/31/2032

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. 05/10/2018

Actual Spill or Release date, or date of discovery. 05/10/2018

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 05/09/2018

Proposed site investigation commencement. 05/09/2018

Proposed completion of site investigation. 07/10/2019

REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/13/2020

Proposed date of completion of Remediation. 12/31/2026

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:

OPERATOR COMMENT

This form serves as a quarterly update. The Q4 2024 analytical data and all prior data submitted are currently undergoing a thorough verification check. The Q4 2024 analytical data will be summarized in a groundwater monitoring report in the next quarterly update.

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

Signed: Caitlin Tillema

Title: Environmental Consultant

Submit Date: 01/30/2025

Email: cvxform27@erm.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: 12140

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

404045819	FORM 27 DENIED
404093131	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 2 Files

General Comments

User Group

Comment

Comment Date

Environmental	ECMC has denied this form as the Operator has provided no substantial and verifiable information as to how the documentation was verified, who verified the information, and how the conclusion that 'Laboratory data is reflective of field conditions' was determined. ECMC will not approve any future forms until all of this information has been provided and verified.	02/13/2025
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Total: 1 comment(s)