

State of Colorado
Energy & Carbon Management Commission

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404597854

Receive Date:

Report taken by:

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: Erica Zuniga	Email: rbueuf27@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 8440 Initial Form 27 Document #: 2148980

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: LOCATION	Facility ID: 376820	API #: _____	County Name: ADAMS
Facility Name: FRI-61S67W 18CSE	Latitude: 39.960989	Longitude: -104.926653	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: CSE	Sec: 18	Twp: 1S	Range: 67W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications CL Most Sensitive Adjacent Land Use CROP LAND

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

SURFACE WATER 640' E, WATER WELL 836' N.

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	~53,500 SQUARE FEET	Laboratory Analytical
Yes	SOILS	~367,500 CUBIC FEET	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.

Site Assessment was performed following a complaint to the COGCC (complaint number: 200387963) to confirm impacts. SEE FORM 19, ECMC DOCUMENT #2147193.

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):

Soil samples were collected as part of the site investigation and analyzed for TPH-GRO, TPH-DRO, Naphthalene, and BTEX.

Proposed Groundwater Sampling

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

Groundwater samples were collected as part of the site investigation and analyzed for BTEX. Groundwater monitoring will be continued on a quarterly basis. Point of compliance has been achieved at the location.

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 33
Number of soil samples exceeding 915-1 6
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 52000

NA / ND

-- Highest concentration of TPH (mg/kg) 1859
NA Highest concentration of SAR
BTEX > 915-1 Yes
Vertical Extent > 915-1 (in feet) 53

Groundwater

Number of groundwater samples collected 25
Was extent of groundwater contaminated delineated? Yes
Depth to groundwater (below ground surface, in feet) 23
Number of groundwater monitoring wells installed 10
Number of groundwater samples exceeding 915-1 9

-- Highest concentration of Benzene (µg/l) 58.2
-- Highest concentration of Toluene (µg/l) 20.5
-- Highest concentration of Ethylbenzene (µg/l) 341
-- Highest concentration of Xylene (µg/l) 929
NA Highest concentration of Methane (mg/l)

Surface Water

0 Number of surface water samples collected
0 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.

Source removal is being addressed by LNAPL recovery wells, total fluid extraction wells, and soil vapor extraction.

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.

LNAPL recovery wells were installed and are operational. Additional total fluid recovery pumps have also been installed and are operational.

Soil Remediation Summary

In Situ

Ex Situ

 No Bioremediation (or enhanced bioremediation) Excavate and offsite disposal

No Chemical oxidation
 Yes Air sparge / Soil vapor extraction
 Yes Natural Attenuation
 No Other _____

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

No Bioremediation (or enhanced bioremediation)
 No Chemical oxidation
 Yes Air sparge / Soil vapor extraction
 Yes Natural Attenuation
 Yes Other LNAPL Recovery Wells/Total Fluid Recovery _____

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.

Monitoring wells SB05, SB07 through SB10, SB13 through SB17R, SB19 through SB25R2, SB27R through SB33, and SB37 will continue to be sampled on a quarterly basis and analyzed for BTEX, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, total dissolved solids (TDS), chloride and sulfate anions. Monitoring wells with measurable LNAPL will not be sampled. Per the approved Supplemental Form 27 (Document No. 403680189), monitoring wells BH04R and BH39R were removed from the monitoring well network following the fourth quarter 2023 event and subsequently abandoned on April 5, 2024.

Refer to the attached Monitoring Report for additional details regarding the groundwater monitoring and remediation activities completed at the site during the fourth quarter 2025.

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 _____

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: \$ 500000

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:

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 35440

E&P waste (liquid) description E&P liquid waste derived from total fluid and LNAPL recovery

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: NGL

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.

Final 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. 04/21/2014

Proposed date of completion of Reclamation. _____

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. 11/04/2013

Actual Spill or Release date, or date of discovery. 11/04/2013

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/04/2013

Proposed site investigation commencement. 11/04/2013

Proposed completion of site investigation. 04/21/2014

REMEDIAL ACTION DATES

Proposed start date of Remediation. 11/12/2013

Proposed date of completion of Remediation. 12/31/2035

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 Supplemental Form 27 is being submitted to summarize quarterly groundwater monitoring activities, remediation activities, and analytical results collected during the fourth quarter 2025 at the Fri 2-18 (Rem #8440) location.

Monitoring wells SB05, SB07 through SB10, SB13 through SB17R, SB19 through SB25R2, SB27R through SB33, and SB37 will continue to be sampled on a quarterly basis and analyzed for BTEX, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, total dissolved solids (TDS), chloride and sulfate anions. Refer to the attached Monitoring Report for additional details regarding the groundwater monitoring and remediation activities completed at the site during the fourth quarter 2025.

The first quarter 2026 groundwater monitoring event was completed in February 2026, and the results will be submitted in a subsequent Form 27.

Pursuant to ECMC Rule 913.e., quarterly reporting will continue until closure criteria are achieved.

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

Signed: Allan Engelhardt

Title: Environmental Consultant

Submit Date: _____

Email: tas-chevron-3@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: _____

Date: _____

Remediation Project Number: 8440

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

404597902	LABORATORY ANALYTICAL REPORT
404598007	LABORATORY ANALYTICAL REPORT
404598009	LABORATORY ANALYTICAL REPORT
404606975	LABORATORY ANALYTICAL REPORT
404606976	MONITORING REPORT

Total Attach: 5 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)