

State of Colorado
Energy & Carbon Management Commission

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

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 20768 Initial Form 27 Document #: 402864799

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: 483386	API #: _____	County Name: WELD
Facility Name: BAKER ST B 36-11,12,13,14 CLYNCKE		Latitude: 40.348893	Longitude: -104.502264
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESW	Sec: 36	Twp: 5N	Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SW 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

Residential 0.09/0.12/0.13/0.18/0.2mi N
Riverine 0.24mi W, 0.17mi NE
Farm Structures 0.25mi N
No other potential receptors are located within ¼ mile of the site
Above distances are approximations

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
No	GROUNDWATER	Refer to Tables and Figures	Lab analysis and Field Screening
Yes	SOILS	25'x18'x6.5' deep	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 COGCC Rule 911 at the BAKER CLYNCKE ST T5N-R64W-S36 L01 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 separator(s). Additionally, soil samples were collected at any points of material change and/or hammer unions, directional changes, as well as at the bell holes on either side of a waterway, where applicable. Soil samples were analyzed by a certified laboratory for TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons), organic compounds in soil per COGCC Table 915-1, and EC, SAR, pH, and boron. All samples collected were analyzed by a certified laboratory using approved COGCC 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.

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 of the tank battery area occurred during abandonment activities. Field personnel screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling is required.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 37
Number of soil samples exceeding 915-1 32
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 450

NA / ND

-- Highest concentration of TPH (mg/kg) 2400
-- Highest concentration of SAR 3.16
BTEX > 915-1 Yes
Vertical Extent > 915-1 (in feet) 9

Groundwater

Number of groundwater samples collected 10
Was extent of groundwater contaminated delineated? Yes
Depth to groundwater (below ground surface, in feet) 10
Number of groundwater monitoring wells installed 5
Number of groundwater samples exceeding 915-1 0

ND Highest concentration of Benzene (µg/l) _____
ND Highest concentration of Toluene (µg/l) _____
ND Highest concentration of Ethylbenzene (µg/l) _____
ND Highest concentration of Xylene (µg/l) _____
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?

One background soil sample (BKG01@1') was collected from an area not impacted by oil and gas development and analyzed for pH.

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?

The analytical results from several soil samples were not attributable to native soil conditions based on the results of background soil sampling. These samples will be recollected from the former excavation sidewalls at nine feet (N03, N05, S01, and E02) and 10 feet bgs (B06). Confirmation soil sampling is tentatively scheduled to be completed on 8/29/2025.
Quarterly reporting will continue for the location until data indicates no further action is warranted

REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? Yes

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Impacted soil was removed from the release area by excavation. The impacted soil was be disposed of at an approved landfill as non-hazardous waste in accordance with Rules 905 and 906. Copies of the waste manifests are available upon request.

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.

The source was excavated and confirmation soil samples were collected and analyzed for the full Table 915 suite. Approximately 1900 cubic yards of impacted soil were removed and transported to the landfill. The soil data are illustrated and summarized in the tables and figures attached to Supplemental Form 27 Document # 403815054.

The analytical results from several soil samples were not attributable to native soil conditions based on the results of background soil sampling. These samples will be recollected from the former excavation sidewalls at nine feet (N03, N05, S01, and E02) and 10 feet bgs (B06).

Groundwater was encountered during the excavation of impacted soil, and seven groundwater samples were collected for analysis of Table 915 organic constituents in groundwater (BTEX, 1,2,4 Trimethylbenzene, 1,3,5 Trimethylbenzene, and Naphthalene). One excavation groundwater sample (GW07) exceeded the 915-1 standard for 1,2,4 TMB (200 ug/L) from a sample collected on 10/27/2023.

Confirmation soil sampling is tentatively scheduled to be completed on 8/29/2025. The estimated date of completion of remediation is contingent on the results of confirmation soil sampling.

Five groundwater monitoring wells (MW-1 through MW-5) have been installed at the site. Groundwater will be sampled quarterly and analyzed for ECMC Table 915-1 organic constituents, inorganic constituents, and dissolved arsenic, barium, lead, and selenium.

NFA will be requested when remediation criteria have been met and four consecutive quarters of groundwater sampling have been completed and reported at the location with concentrations of Table 915 constituents below regulatory limits. As needed, soil and/or groundwater remediation plans will be developed and submitted to ECMC in a supplemental Form 27.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

Yes _____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____ 1900

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ Natural Attenuation

No _____ 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

Yes _____ 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.

Five monitoring wells (MW-1 through MW-5) will be sampled on a quarterly basis to monitor (natural) attenuation. Groundwater monitoring wells were sampled and submitted to a laboratory for analysis of Table 915-1 groundwater constituents: Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Naphthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Chloride ion, Sulfate ion, Total Dissolved Solids (TDS), and dissolved metals: arsenic, barium, lead, and selenium.

Second quarter 2025 groundwater sampling was completed at the location on May 13, 2025. Five monitoring wells (MW-1 to MW-5) were sampled and submitted to PACE Analytical Laboratory for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB by EPA Method 8260B, semi volatile organic compounds by EPA Method 8270E-SIM, chloride ion & sulfate ion by EPA Method 9056A, total dissolved solids (TDS) by EPA Method 2540 C-2011 and dissolved metals (arsenic, barium, lead, and selenium) by EPA Method 6020B.

The laboratory analytical results indicate that Table 915-1 dissolved phase organic constituents were compliant with their respective standards in all wells sampled. Further, the laboratory analytical results indicate that Table 915-1 inorganic constituents were compliant with their respective standards and/or calculated background concentrations in all wells sampled. The groundwater analytical data are summarized in Tables 1 and 2. The site location is illustrated on Figure 1, monitoring well locations are illustrated on Figure 2, groundwater elevations are illustrated on Figure 3, and groundwater chemistry is illustrated on Figure 4.

See the operator comments for details of the Q1 2025 groundwater sampling.

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 Q12025 and Q22025 GWMRs

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 MWZZ 316714 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:

No beneficial use

Volume of E&P Waste (solid) in cubic yards 1900

E&P waste (solid) description Hydrocarbon impacted soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: N. Weld Landfill, Ault, CO

Volume of E&P Waste (liquid) in barrels 1100

E&P waste (liquid) description Hydrocarbon impacted groundwater

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: NGL C6

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. 11/23/2022

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

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. 09/08/2021

Actual Spill or Release date, or date of discovery. 12/06/2022

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/23/2022

Proposed site investigation commencement. 11/25/2021

Proposed completion of site investigation. 06/14/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/14/2023

Proposed date of completion of Remediation. 12/31/2025

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:

Due to laboratory data being reported out of hold in Q1 2025, at least one additional quarter of groundwater data is needed. Confirmation soil sampling is tentatively scheduled to be completed on 8/29/2025. The estimated date of completion of remediation is contingent on the results of confirmation soil sampling.

OPERATOR COMMENT

This form updates the ECMC with data collected during the Q1 and Q2 2025 groundwater sampling events at the BAKER ST B 36-11,12,13,14 CLYNCKE (Baker Clyncke) location, which were completed on February 5, 2025, and May 13, 2025, respectively.

First quarter 2025 groundwater sampling was completed at the location on February 5, 2025. Five monitoring wells (MW-1 to MW-5) were sampled and submitted to Summit Scientific Laboratory for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB by EPA Method 8260B, chloride ion & sulfate ion by EPA Method 300.0, total dissolved solids (TDS) by EPA Method 2540C and dissolved metals (arsenic, barium, lead and selenium) by EPA Method 200.8.

The laboratory analytical results indicate that Table 915-1 dissolved phase organic constituents were compliant with their respective standards in all wells sampled. Further, the laboratory analytical results indicate that Table 915-1 inorganic constituents (TDS, chloride, and sulfate) were reported outside of hold. The groundwater analytical data are summarized in Tables 1 and 2. The site location is illustrated on Figure 1, monitoring well locations are illustrated on Figure 2, groundwater elevations are illustrated on Figure 3, and groundwater chemistry is illustrated on Figure 4.

Operator was informed by the laboratory that the sample holding times were exceeded for various Table 915-1 constituents. Because not all analytes would be outside of holding times, the lab ran the samples for the full Table 915-1 suite. The full laboratory report (Report) is being transmitted to ECMC for transparency. The Report's case narrative identifies which constituents were run outside of the required holding times. The Report's note column also identifies the impacted constituents. Operator will not be relying on any results associated with a constituent that was outside of the required holding time. Operator will be collecting replacement samples and will be submitting them for analysis. The Method 300.0 Anions analyses (chloride and sulfate) and SM2540C analyses (TDS) were analyzed outside of allotted holding times due to delays at Summit Scientific for the Q1 2025 groundwater samples collected on February 5, 2025.

Replacement groundwater samples were collected during the scheduled Q2 2025 groundwater sampling event on May 13, 2025. The results of the Q2 2025 groundwater sampling data are described in the Remedial Action Plan groundwater section.

Excavation confirmation resampling is tentatively scheduled for August 29, 2025.

The estimated date for completion of remediation has been updated in the Implementation Schedule section due to inorganic compounds being out of hold in Q1 2025. The updated date is also contingent on the analytical results from excavation confirmation resampling.

Pursuant to Rule 913.e, quarterly reporting will continue for the location until data indicates no further action is warranted.

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

Signed: Chris Lattes

Title: Consultant

Submit Date: _____

Email: chrisl@fremontenv.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: 20768

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

404289544	LABORATORY ANALYTICAL REPORT
404289789	LABORATORY ANALYTICAL REPORT
404294399	MONITORING REPORT
404294402	MONITORING REPORT

Total Attach: 4 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)