

State of Colorado
Energy & Carbon Management Commission

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404394198
Receive Date:
10/27/2025

Report taken by:
RICK ALLISON

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) 304-5000</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 #: 35726 Initial Form 27 Document #: 403748270

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>302633</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>DILLARD 10-44</u>	Latitude: <u>40.582250</u>	Longitude: <u>-104.528480</u>	
** correct Lat/Long if needed: Latitude: <u>40.582305</u>		Longitude: <u>-104.526276</u>	
QtrQtr: <u>SESE</u>	Sec: <u>10</u>	Twp: <u>7N</u>	Range: <u>64W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>488901</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Dillard 10-44</u>	Latitude: <u>40.582466</u>	Longitude: <u>-104.526246</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>10</u>	Twp: <u>7N</u>	Range: <u>64W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: SPILL OR RELEASE Facility ID: 489071 API #: _____ County Name: WELD
 Facility Name: DILLARD 10-44 Latitude: 40.582529 Longitude: -104.526344
 ** correct Lat/Long if needed: Latitude: _____ Longitude: _____
 QtrQtr: SESE Sec: 10 Twp: 7N Range: 64W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SC 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

Other Potential Receptors within 1/4 mile

Pronghorn Winter Concentration Area (1202.d)
 Riverine 355ft SW, Stream/River 365ft SW, Lake/Pond 340ft SW, 0.10mi S, 0.16mi NW
 Oil & Gas Structure 0.25 NE
 Active PD Colony within 660ft

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
UNDETERMINED	GROUNDWATER	NA	Lab Analysis and Field Screening, if encountered
Yes	SOILS	Refer to Tables and Figures	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 ECOM Rule 911 at the Dillard 10-44 Facility and Tank Battery location. On 12/20/2024, the tank battery was decommissioned in accordance with ECOM rules. Laboratory soil samples were collected from the partially-buried produced water vessel excavation base (PVW01-B@4') and N, W, S, & E sidewalls (PVW01-N@2.5' to PVW01-S@2.5') and from the above ground storage tank (AST) excavation base (AST01-B@4') and N, W, S, & E sidewalls (AST01-N@2.5' to AST01-S@2.5'). Lab samples were also collected beneath the separator risers at the dump line (SEP01-DL@3') and at the flowline (SEP01-FL@3'). A field screening sample was collected beneath the flare location (FLARE01@0-6"). An additional laboratory sample was collected (WC01@0-6") from an area of surface soils exhibiting hydrocarbon odor. Due to these field indicators (odor and PID: 26.7 ppm), sample WC01@0-6" was reported as a potential historic release.

Sampling deviated from the sampling plan proposed in Initial Form 27 # 403748270; a surface sample was unable to be taken and additional locations were sampled beneath the AST due to necessity for excavation to retrieve and remove an oil dump line. Additional sample WC01@0-6" was collected from an area exhibiting hydrocarbon odor located southwest of the AST. Infrastructure present at the facility upon arrival included the AST, produced water vessel, separator, and flare. Any other infrastructure marked on the proposed sampling plan was removed prior to decommissioning and not sampled.

Sample locations WC01, AST01-E, PVW01-B, & PVW01-E exhibited concentrations of Table 915-1 organic compounds in excess of regulatory standards. The releases were reported to the ECOM in Form 19 # 404058352 (Spill ID # 489071) and Form 19 # 404039362 (Spill ID # 488901). Groundwater was not encountered during decommissioning.

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):

All sampling was conducted in accordance to the Initial Action Summary of this Form 27. 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, 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):

If groundwater is encountered during the site investigation a groundwater will be 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 disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required. A detailed summary of the tank battery decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, were attached to a previous Form 27 (ECMC Document # 404039219).

A summary of flowline decommissioning activities was submitted under Remediation # 35728 (Dillard 10-44 Wellhead/Flowline, API # 123-29510) on Supplemental Form 27 # 404039214.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 17

Number of soil samples exceeding 915-1 0

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 0

NA / ND

ND Highest concentration of TPH (mg/kg) _____

-- Highest concentration of SAR 22.4

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 6

Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? Yes

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?

A total of 6 background soil samples were collected from 2 discrete locations (BKG01, BKG02) near the Dillard 10-44 facility, and an additional 24 background samples were collected at the associated Dillard 10-44 flowline (REM # 35728) from 6 discrete locations (BKG01, BKG02, and BKG05). All background soil samples were collected from depths of approximately 0.5 ft to 9 ft bgs and were analyzed for metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. The maximum background concentrations for pH, EC, and SAR were observed to be 8.74, 13.4 mmhos/cm, and 22.8, respectively. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and selenium were calculated to be 20.1 mg/kg, 228 mg/kg, and 1.18 mg/kg respectively. All soil samples collected during initial decommissioning and remedial excavation activities were in compliance with ECMC Table 915-1 standards and/or within the range of site-specific background levels (1.25x for metals).

Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards) 580 Volume of liquid waste (barrels) 0

Is further site investigation required?

Based on the information presented herein, no additional site investigation activities are required at this time.

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.

Between 08/15/25 - 08/19/25, a remedial excavation was conducted to remove the impacted soil at the former Dillard 10-44 Facility produced water vessel (PWV01-E@2.5', PWV01-B@4') location. Six confirmation soil samples (PWV01-SS01 - PWV01-SS06) were collected from the sidewalls of the excavation from approximately 3 feet below ground surface (ft bgs), and two confirmation soil samples (PWV01-FS01, PWV01-FS02) were collected from the base of the excavation at approximately 6 ft. bgs. The final extent of the excavation was approximately 20 ft by 28.5 ft by 6 ft bgs. Approximately 280 cubic yards of impacted soil was removed and transported off site for disposal under Operator waste manifests to the Buffalo Ridge Landfill.

Between 08/20/25 - 08/25/25, a subsequent remedial excavation was conducted to remove the impacted soil at the former Dillard 10-44 Facility above ground storage tank (AST01-E@2.5', WC01@0-6"). Seven confirmation soil samples (AST01-SS01 - AST01-SS07) were collected from the sidewalls of the excavation from approximately 3 ft bgs, and two confirmation soil samples (AST01-FS01, AST01-FS02) were collected from the base of the excavation from approximately 6 ft. bgs. The final excavation was approximately 28 ft by 28 ft by 6 ft bgs. Approximately 300 cubic yards of impacted soil was removed and transported off site for disposal under Operator waste manifests to the Buffalo Ridge Landfill.

Groundwater was not encountered during the remedial excavation activities conducted and laboratory analytical results from both remedial excavations indicate that all Table 915-1 constituents have been remediated to be within ECMC Table 915-1 standards and/or within the range of site-specific background levels (1.25x for metals).

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.

Laboratory analytical results from both remedial excavations indicate that all Table 915-1 constituents have been remediated to be within ECMC Table 915-1 standards. Analytical results for the background soil samples collected from adjacent to the tank battery and from the associated Dillard 10-44 Wellhead/Flowline, (API # 123-29510, Remediation # 35728) submitted on Supplemental Form 27 # 404039214, and to this Form 27 submittal indicate that all pH, EC, SAR, arsenic, barium and selenium concentrations encountered during decommissioning and excavation activities are indicative of native material conditions. As such, Operator is requesting another quarter to provide a thorough quality control review of the site data collected to date. The next Form 27 submission will provide the results of this review prior to submitting a No Further Action (NFA) Request for this location. No further remedial action is required at this time at the Dillard 10-44 Tank Battery.

Soil Remediation Summary

In Situ

Ex Situ

 Bioremediation (or enhanced bioremediation)

 Yes Excavate and offsite disposal

 Chemical oxidation

 If Yes: Estimated Volume (Cubic Yards) 580

 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 tank battery decommissioning and remedial excavation 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 Supplemental Source Mass Removal Report _____

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: \$ 0 _____

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 _____ 580

E&P waste (solid) description Hydrocarbon Impacted Soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Buffalo Ridge 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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

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. 12/20/2024

Proposed date of completion of Reclamation. 10/23/2026

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. 12/20/2024

Actual Spill or Release date, or date of discovery. 12/23/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 12/20/2024

Proposed site investigation commencement. 08/15/2025

Proposed completion of site investigation. 08/25/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 12/20/2024

Proposed date of completion of Remediation. 08/25/2025

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 was updated due to the completion of the remedial excavation activities at the Dillard 10-44 Tank Battery. The Operator is requesting another quarter to provide a thorough quality control review of the site data collected to date. The next Form 27 submission will provide the results of this review prior to submitting a No Further Action (NFA) Request.

OPERATOR COMMENT

This Form 27 is being submitted to include the remedial excavation results for the Dillard 10-44 (REM # 35726) Facility location. A comprehensive data packet summarizing the remedial excavation activities are attached to this Form 27, and a detailed summary of the remedial excavation activities is presented in the Remedial Action Plan sections and below.

Between 08/15/25 - 08/19/25, a remedial excavation was conducted to remove the impacted soil at the former Dillard 10-44 Facility produced water vessel (PWV01-E@2.5', PWV01-B@4') location. Six confirmation soil samples (PWV01-SS01 - PWV01-SS06) were collected from the sidewalls of the excavation from approximately 3 feet below ground surface (ft bgs), and two confirmation soil samples (PWV01-FS01, PWV01-FS02) were collected from the base of the excavation at approximately 6 ft. bgs. The final extent of the excavation was approximately 20 ft by 28.5 ft by 6 ft bgs. Approximately 280 cubic yards of impacted soil was removed and transported off site for disposal under Operator waste manifests to the Buffalo Ridge Landfill.

Between 08/20/25 - 08/25/25, a subsequent remedial excavation was conducted to remove the impacted soil at the former Dillard 10-44 Facility above ground storage tank (AST01-E@2.5', WC01@0-6"). Seven confirmation soil samples (AST01-SS01 - AST01-SS07) were collected from the sidewalls of the excavation from approximately 3 ft bgs, and two confirmation soil samples (AST01-FS01, AST01-FS02) were collected from the base of the excavation from approximately 6 ft. bgs. The final excavation was approximately 28 ft by 28 ft by 6 ft bgs. Approximately 300 cubic yards of impacted soil was removed and transported off site for disposal under Operator waste manifests to the Buffalo Ridge Landfill. Groundwater was not encountered during the remedial excavation activities conducted

A total of 6 background soil samples were collected from 2 discrete locations (BKG01, BKG02) near the Dillard 10-44 facility, and an additional 24 background samples were collected at the associated Dillard 10-44 flowline (REM # 35728) from 6 discrete locations (BKG01, BKG02, and BKG02 - BKG05). All background soil samples were collected from depths of approximately 0.5 ft to 9 ft bgs and were analyzed for metals in soil per ECMC Table 915-1, pH, EC, SAR, and boron. The maximum background concentrations for pH, EC, and SAR were observed to be 8.74, 13.4 mmhos/cm, and 22.8, respectively. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, and selenium were calculated to be 20.1 mg/kg, 228 mg/kg, and 1.18 mg/kg respectively. Analytical results for the background soil samples collected from adjacent to the tank battery and from the nearby associated Dillard 10-44 Wellhead/Flowline, (API # 123-29510, Remediation # 35728) submitted on Supplemental Form 27 # 404039214, and to this Form 27 submittal indicate that all pH, EC, SAR, arsenic, barium and selenium concentrations encountered during decommissioning and excavation activities are within 1.25x of the maximum background concentrations and are indicative of native material conditions.

As such, the Operator is requesting another quarter to provide a thorough quality control review of the site data collected to date. The next Form 27 submission will provide the results of this review prior to submitting a No Further Action (NFA) Request for this location.

No further remedial action is required at this time at the Dillard 10-44 Tank Battery. Pursuant to Rule 913.e., quarterly reporting will be conducted until closure criteria are achieved for the remediation project.

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

Signed: Eric Vonde

Title: Environmental Consultant

Submit Date: 10/27/2025

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: RICK ALLISON

Date: 05/05/2026

Remediation Project Number: 35726

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
404394198	FORM 27-SUPPLEMENTAL-SUBMITTED
404402439	LABORATORY ANALYTICAL REPORT
404402440	LABORATORY ANALYTICAL REPORT
404402443	REMEDATION PROGRESS REPORT
404402445	LABORATORY ANALYTICAL REPORT
404402446	LABORATORY ANALYTICAL REPORT

404402447	LABORATORY ANALYTICAL REPORT
404402448	LABORATORY ANALYTICAL REPORT
404402449	LABORATORY ANALYTICAL REPORT
404402451	LABORATORY ANALYTICAL REPORT

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)