

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
404213380

Receive Date:

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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	<b>Phone Numbers</b>
Address: 1099 18TH STREET SUITE 1500		Phone: (970) 939-1929
City: DENVER State: CO Zip: 80202		Mobile: (970) 939-1929
Contact Person: Jason Davidson	Email: jason.davidson@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 21240 Initial Form 27 Document #: 402883385

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: WELL	Facility ID: _____	API #: 123-30500	County Name: WELD
Facility Name: DOLL F 23-20D	Latitude: 40.386515	Longitude: -104.632901	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 23	Twp: 5N	Range: 65W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 484036	API #: _____	County Name: WELD
Facility Name: Doll F 23-20	Latitude: 40.385458	Longitude: -104.633072	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SENW	Sec: 23	Twp: 5N	Range: 65W 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**

Latham Ditch is located 0.05mi N; an unnamed irrigation ditch is located 0.15mi E.  
Residential structures are located 0.19/0.22/0.23/0.24mi NE, and 0.22/0.15mi S.  
Silos are located 0.18mi NE.  
Farm structures are located 0.23mi N, 0.19/0.25mi W.  
Division of Water Resources (DWR) well permit number 25387-A is located 0.16mi SW, DWR permit number 274758 is located .21mi NE, DWR permit number 25457 is located 0.25mi S.

# SITE INVESTIGATION PLAN

## **TYPE OF WASTE:**

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             | _____                                  |
| <input checked="" type="checkbox"/> Oil            | <input type="checkbox"/> Tank Bottoms                |  |
| <input checked="" type="checkbox"/> Condensate     | <input type="checkbox"/> Pigging Waste               |  |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |  |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |  |
|  | <input type="checkbox"/> Pit Bottoms                 |  |
|  | <input type="checkbox"/> 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.

Pursuant to Energy & Carbon Management Commission (ECMC) Rule 911, site investigations were conducted pertaining to the DOLL F #23-20D wellhead cut and cap and flowline removal. On February 25, 2022, initial wellhead characterization sampling was completed on the same day as the wellhead cut and cap. Five soil samples were collected from the wellhead excavation: one from each sidewall and one from the base. Sidewall samples were characterized by field screening, and the base sample was analyzed for ECMC Table 915-1 organic constituents, boron, electric conductivity (EC), sodium adsorption ratio (SAR), and pH.

On March 7, 2023, initial flowline characterization sampling was completed. Four samples were collected along the flowline trench and characterized by field screening; two of the four samples were submitted for analysis of all Table 915-1 constituents. One background sample was collected and analyzed for all Table 915-1 metals except hexavalent chromium.

See the Site Investigation Report included with Form 27 Document 404015137 for assessment details.

## **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 ):

Additional soil samples will be collected as needed to delineate the extent of soil impacts identified by initial investigation activities. Soil samples will be submitted for analysis of all Table 915-1 soil constituents of concern. Background samples may be collected to characterize native levels of inorganic constituents and metals at the Location.

### **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 grab groundwater sample will be collected and analyzed for all organic and inorganic compounds per 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 wellhead and flowline area occurred during abandonment activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required.

# SITE INVESTIGATION REPORT

## **SAMPLE SUMMARY**

### **Soil**

Number of soil samples collected 3  
Number of soil samples exceeding 915-1 2  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square feet) 150

### **NA / ND**

ND Highest concentration of TPH (mg/kg) \_\_\_\_\_  
-- Highest concentration of SAR 3.18  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 3

### **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?

On March 7, 2023, one background sample was collected and analyzed for all Table 915-1 metals except hexavalent chromium. See the Site Investigation Report included with Form 27 Document 404015137 for assessment details.

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?

As part of Chevron's data integrity review for projects associated with Eagle Environmental, all point of compliance samples will be recollected in accordance with the approved Form 27 investigation plan and analyzed for full Table 915-1. Additional supplemental site investigation (SSI) activities will be conducted to delineate the extent of potential soil impacts identified by initial flowline investigation activities. Soil samples will be collected and analyzed for all Table 915-1 constituents. Additional background samples will be collected and analyzed for all Table 915-1 inorganics.

## **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.

Noble is in the process of determining the extent of impacts associated with the project. Once impacts are delineated, Noble will prepare a remediation plan to remove the source material within the investigation area.

### **REMEDATION 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.

On February 25, 2022, initial wellhead characterization sampling was completed on the same day as the wellhead cut and cap. Five soil samples were collected from the wellhead excavation: one from each sidewall and one from the base. Sidewall samples were characterized by field screening, and the base sample was analyzed for Table 915-1 organic constituents, boron, EC, SAR, and pH. Analytical results of the wellhead excavation sample did not indicate levels of organic constituents in exceedance of Table 915-1 Protection of Groundwater Soil Screening Levels (PGSSLs) or inorganic constituents in exceedance of Table 915-1 soil suitability for reclamation constituents (SSRs).

On March 7, 2023, initial flowline characterization sampling was completed. Four samples were collected along the flowline trench and characterized by field screening; two of the four samples were submitted for analysis of all Table 915-1 constituents. Analytical results of flowline samples indicated levels of organic constituents and metals in exceedance of PGSSLs. One background sample was collected and analyzed for all Table 915-1 metals except hexavalent chromium. Analytical results of the background sample indicated exceedances of arsenic and barium.

See the Site Investigation Report included with Form 27 Document 404015137 for assessment details.

**Soil Remediation Summary**

In Situ

Ex Situ

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

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

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

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

\_\_\_\_\_ 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 site investigation 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 Quarterly Update and SSIP

## 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: \$ 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:

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

E&P waste (solid) description \_\_\_\_\_

ECMC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-ECMC Disposal Facility: \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_

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. 02/25/2022

Proposed date of completion of Reclamation. 10/31/2026

## 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. 10/07/2021

Actual Spill or Release date, or date of discovery. 03/16/2023

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 02/25/2022

Proposed site investigation commencement. 02/25/2022

Proposed completion of site investigation. 07/31/2025

### **REMEDIAL ACTION DATES**

Proposed start date of Remediation. 07/31/2025

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:

The implementation schedule has been changed due to the decommissioning of the DOLL F #23-20D wellhead and flowline and necessity for supplemental site investigation activities adjacent to the wellhead and flowline.

**OPERATOR COMMENT**

This form has been submitted to provide a quarterly update and supplemental site investigation proposal (SSIP) for the DOLL F #23-20D (Remediation Project 21240). No work was conducted during the first quarter of 2025.

Pursuant to Rule 913.e., quarterly reporting will be conducted until closure criteria are achieved for the remediation project. The proposed SSI will be completed in accordance with the proposed implementation schedule, and the results will be submitted in a subsequent Form 27.

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

Signed: Amanda Baca

Title: Project Scientist

Submit Date: \_\_\_\_\_

Email: amanda.baca@confluence-cc.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: 21240

<u>COA Type</u>	<u>Description</u>
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.

<u>Att Doc Num</u>	<u>Name</u>
404214765	SOIL SAMPLE LOCATION MAP

Total Attach: 1 Files

**General Comments**

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

Total: 0 comment(s)