

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
404251641

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) 313-5582
City: DENVER State: CO Zip: 80202		Mobile: ( )
Contact Person: Jason Davidson	Email: jason.davidson@chevron.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 32833 Initial Form 27 Document #: 403606536

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 #: 123-27394	County Name: WELD
Facility Name: Bruntz G 16-23	Latitude: 40.308760	Longitude: -104.663730	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWSE	Sec: 16	Twp: 4N	Range: 65W Meridian: 6 Sensitive Area? Yes
Facility Type: SPILL OR RELEASE	Facility ID: 487465	API #: _____	County Name: WELD
Facility Name: Bruntz G16-23	Latitude: 40.308760	Longitude: -104.663704	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NESE	Sec: 16	Twp: 4N	Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487468 API #: County Name: WELD  
Facility Name: Bruntz G16-23 Latitude: 40.308804 Longitude: -104.663244  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487470 API #: County Name: WELD  
Facility Name: Bruntz G16-23 Latitude: 40.308914 Longitude: -104.662884  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487471 API #: County Name: WELD  
Facility Name: Bruntz G16-23 Latitude: 40.309221 Longitude: -104.662732  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 487476 API #: County Name: WELD  
Facility Name: Bruntz G16-23 Latitude: 40.308760 Longitude: -104.663704  
\*\* correct Lat/Long if needed: Latitude: Longitude:  
QtrQtr: NESE Sec: 16 Twp: 4N Range: 65W Meridian: 6 Sensitive Area? Yes

### SITE CONDITIONS

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

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

Riverine 0.07/0.18mi SW  
Freshwater Emergent Wetland 0.09/0.10/0.21mi NW, 0.12mi NE  
Apparent Pond 0.07mi W  
Residential 0.06mi NE  
Farm Structure 0.10/0.20/0.24mi NE

# 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
No	GROUNDWATER	Refer to Tables and Figures	Lab Analysis
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 ECMC Rule 911 a site investigation was conducted pertaining to the BRUNTZ G16-23 wellhead cut and cap and flowline removal. Approximately 1056' of flowline was fully removed. The wellhead was cut and capped per ECMC rules. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Soil samples were taken along the flowline 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.

## **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 ):

A grab soil sample was collected at the base of the excavation or the area showing the highest degree of impact during field screening activities at the wellhead excavation. Additionally, soil samples were field screened at the N-E-S-W sides of the wellhead. Soil samples were taken along the flowline 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. 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, and 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 ):

On March 27, 2025, groundwater was encountered during excavation activities in the vicinity of soil sample FL01-06 (Figure 4) at approximately 4 feet below ground surface. One groundwater sample was collected (GW01) and submitted for analysis of BTEXN, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, TDS, and chloride and sulfate anions.

If groundwater is encountered during further site investigation activities, grab groundwater samples 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 of the wellhead and flowline areas occurred during decommissioning activities. Field personnel field screened all disturbed areas using visual and olfactory senses to determine if laboratory confirmation sampling was required. A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, is attached to ECMC Document # 403848708.

The confirmation soil samples collected during wellhead cut and cap activities were determined to be outside of the required temperature preservation range when delivered to the laboratory. Re-sampling will be conducted at a later date and will be provided in a subsequent Supplemental Form 27 upon completion.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 12  
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 2.99  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 0

### Groundwater

Number of groundwater samples collected 1  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) 4  
Number of groundwater monitoring wells installed 0  
Number of groundwater samples exceeding 915-1 1

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  
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?

On June 24, 2024 two background soil samples were collected from one discrete location near the flowline (BKG01) and analyzed for pH, EC, SAR, boron and metals in soil per ECMC Table 915-1. Background soil samples were collected from depths of one foot and two feet below ground surface (ft bgs). Arsenic, barium, and selenium concentrations in background samples were observed to be above ECMC Table 915-1 standards.

On January 6, 2025, sixteen background soil samples were collected from five discrete locations near the flowline (BKG02-BKG06) and analyzed for pH, EC, SAR, boron and metals in soil per ECMC Table 915-1. Background soil samples were collected from depths ranging from 0-1 ft to 3-4 ft bgs. pH, SAR, arsenic, and barium were in exceedance of the applicable regulatory standards in native soil on site.

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?

Due to field constraints, the remedial excavation in the vicinity of soil sample FL01-06 was unable to be completed. Consequently, remedial excavation activities will be re-initiated at later date to remove the hydrocarbon impacts remaining in-situ at soil sample locations SS01-E and SS05-E.

## 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 January 9, 2025 and January 10, 2025, approximately 110 cubic yards of impacted material were removed from the excavations and transported to the Waste Management Buffalo Ridge Facility for disposal under Noble waste manifests.

Between March 26, 2025 and March 27, 2025, approximately 110 cubic yards of impacted material were removed from the excavations and transported to the Waste Management Buffalo Ridge Facility for disposal under Noble waste manifests.

The hydrocarbon impacts remaining in-situ at soil sample locations SS01-E and SS05-E will be removed via remedial excavation.

### REMEDICATION 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.

Between January 9, 2025 and January 10, 2025, a total of twenty-five (25) soil samples were collected from the base and sidewalls of five remedial excavations along the former flowline at depths ranging between approximately 1 ft to 4 ft bgs and submitted for laboratory analysis of the full Table 915-1 analytical suite.

Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil sample locations aside from SS01-A, SS02-A, SS05-B, SS05-D, SS01-E, and SS05-E. In addition, EC and/or SAR concentrations were in exceedance of the ECMC standard and background concentrations in 4 soil sample locations. The remaining constituent concentrations were in compliance with ECMC standards or within background concentrations for samples collected from the final excavation extents.

Based on the results of the January 2025 remedial excavations, excavation activities were re-initiated on March 26 and 27, 2025, to remove the hydrocarbon impacts remaining in-situ at soil sample locations SS01-A and SS02-A (Excavation A), SS05-B (Excavation B), SS05-D (Excavation D), and SS01-E and SS05-E (Excavation E). Groundwater was encountered within Excavation E at approximately 4 ft bgs.

12 soil samples were collected from the base and sidewalls of Excavations A, B, and D (Figures 1-3), and submitted for laboratory analysis of the full ECMC Table 915-1 suite. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil samples. Additionally, all inorganic and metals concentrations were in compliance with the applicable ECMC regulatory standards or within background levels.

Due to field constraints, the excavation at Excavation E was unable to be completed. Consequently, remedial excavation activities will be re-initiated at later date to remove the hydrocarbon impacts remaining in-situ at soil sample locations SS01-E and SS05-E.

### Soil Remediation Summary

<input type="checkbox"/> In Situ	<input checked="" type="checkbox"/> Ex Situ
_____ Bioremediation ( or enhanced bioremediation )	Yes _____ Excavate and offsite disposal
_____ Chemical oxidation	_____ If Yes: Estimated Volume (Cubic Yards) _____ 220
_____ 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.

On March 27, 2025, groundwater was encountered within Excavation E (Figure 4) at approximately 4 ft bgs. One groundwater sample was collected (GW01) and submitted for analysis of BTEXN, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, TDS, and chloride and sulfate anions. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards. The sulfate anion concentration was above ECMC regulatory standards. Following the completion of excavation activities, a monitoring well network will be installed and sampled on a quarterly basis until closure criteria are achieved.

# 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 Remedial Excavation Summary

## 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? 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  220

E&P waste (solid) description  Hydrocarbon impacted soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:  Waste Management Buffalo Ridge

Volume of E&P Waste (liquid) in barrels  0

E&P waste (liquid) description

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility:

# 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?

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. 05/14/2024

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. 11/15/2023

Actual Spill or Release date, or date of discovery. 07/09/2024

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 06/24/2024

Proposed site investigation commencement. 07/03/2025

Proposed completion of site investigation. 12/31/2025

### **REMEDIAL ACTION DATES**

Proposed start date of Remediation. 12/31/2025

Proposed date of completion of Remediation. 06/30/2026

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:

The implementation schedule has been updated to the necessity for additional remedial excavation activities at the site. The remedial excavation will be completed during the fourth quarter of 2025.

**OPERATOR COMMENT**

This Supplemental Form 27 is being submitted to summarize the March 2025 remedial excavation activities at the Bruntz G16-23 flowline location.

A summary of January 2025 remedial excavation activities was included on ECMC Document Number 404145165, which is in-process and pending approval at the time of this submittal.

Based on the results of the January 2025 remedial excavations, excavation activities were re-initiated on March 26 and 27, 2025, to remove the hydrocarbon impacts remaining in-situ at soil sample locations SS01-A and SS02-A (Excavation A), SS05-B (Excavation B), SS05-D (Excavation D), and SS01-E and SS05-E (Excavation E).

A total of twelve soil samples were collected from the base and sidewalls of Excavations A, B, and D, and submitted for laboratory analysis of the full ECMC Table 915-1 suite. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards in all soil samples. Additionally, all inorganic and metals concentrations were in compliance with the applicable ECMC regulatory standards or within background levels.

Groundwater was encountered within Excavation E (Figure 4) at approximately 4 ft bgs. One groundwater sample was collected (GW01) and submitted for analysis of BTEXN, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, TDS, and chloride and sulfate anions. Analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC regulatory standards. The sulfate anion concentration was above ECMC regulatory standards. Following the completion of excavation activities, a monitoring well network will be installed and sampled on a quarterly basis until closure criteria are achieved.

Due to field constraints, the remedial excavation at Excavation E was unable to be completed. Consequently, remedial excavation activities will be re-initiated at later date to remove the hydrocarbon impacts remaining in-situ at soil sample locations SS01-E and SS05-E.

Pursuant to Rule 913.e, Supplemental Form 27s will be submitted on a quarterly schedule to provide updates and progress of the remediation until closure criteria is met.

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

Signed: Jimmy Webster

Title: Environmental Consultant

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

Email: jwebster@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: 32833

**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**

404251982	LABORATORY ANALYTICAL REPORT
404251983	LABORATORY ANALYTICAL REPORT
404263444	SITE INVESTIGATION REPORT

Total Attach: 3 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

		Stamp Upon Approval
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Total: 0 comment(s)