

State of Colorado  
Oil and Gas Conservation Commission

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Document Number:  
402590471  
Receive Date:  
02/03/2021  
Report taken by:  
ALEX FISCHER

Site Investigation and Remediation Workplan (Initial 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 COGCC 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.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: COLORADO OIL & GAS CONSERVATION COMMISSION	Operator No: 5	Phone Numbers
Address: 1120 LINCOLN ST SUITE 801		Phone: (970) 846-5097
City: DENVER State: CO Zip: 80203		Mobile: ( )
Contact Person: Kristopher Neidel	Email: Kris.Neidel@state.co.us	

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**  
Remediation Project #: 16622 Initial Form 27 Document #: 402590471

**PURPOSE INFORMATION**

<input type="checkbox"/> 901.e. Sensitive Area Determination	<input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water
<input type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure	<input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.
<input type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation	<input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project
<input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste	<input type="checkbox"/> Rule 906.c.: Director request
<input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	<input checked="" type="checkbox"/> Other COGCC rule 912(c).1 This form is being submitted to document the closure of spill 445224.

**SITE INFORMATION** N Multiple Facilities ( in accordance with Rule 909.c. )

Facility Type: SPILL OR RELEASE	Facility ID: 445224	API #:	County Name: MOFFAT
Facility Name: SPILL/RELEASE POINT	Latitude: 40.485311	Longitude: -107.600575	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: SESE	Sec: 9	Twp: 6N	Range: 91W Meridian: 6 Sensitive Area? Yes

**SITE CONDITIONS**

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use livestock, river, wildlife

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? Yes

**Other Potential Receptors within 1/4 mile**

Yampa river is within a 1/4mile from the spill location.

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> E&P Waste       | <input checked="" type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water  | <input type="checkbox"/> Workover Fluids                        | _____                                  |
| <input type="checkbox"/> Oil             | <input type="checkbox"/> Tank Bottoms                           | _____                                  |
| <input 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 checked="" type="checkbox"/> Other (as described by EPA) | contaminated soil _____                |

## DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	not yet determined	Lab analytical

## INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

Soil was characterized at the area of highest impact. The results showed; TPH concentrations of 10,075mg/kg, BTEX was ND, PAH and metals were below table 910-1 with exception of Arsenic. Arsenic concentrations were consistent with background Arsenic concentrations.

## 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 minimum of 5 soil samples will be collected from the ditch identified in the attached documents and analyzed for COGCC table 910-1. The intent of sampling is to determine if any impact remains, depth of impact and lateral extent.

### Proposed Groundwater Sampling

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

### 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 ):

Per COGCC SB181 guidance document, Please consider this a request to complete this spill under COGCC table 910-1. Per attached documents, please consider this a request for reducing the analyte list to BTEX, TPH and Inorganics.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 0  
Number of soil samples exceeding 910-1 \_\_\_\_\_  
Was the areal and vertical extent of soil contamination delineated? \_\_\_\_\_  
Approximate areal extent (square feet) \_\_\_\_\_

### NA / ND

\_\_\_\_\_ Highest concentration of TPH (mg/kg) \_\_\_\_\_  
\_\_\_\_\_ Highest concentration of SAR \_\_\_\_\_  
\_\_\_\_\_ BTEX > 910-1 \_\_\_\_\_  
\_\_\_\_\_ Vertical Extent > 910-1 (in feet) \_\_\_\_\_

### Groundwater

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
Depth to groundwater (below ground surface, in feet) \_\_\_\_\_  
Number of groundwater monitoring wells installed \_\_\_\_\_  
Number of groundwater samples exceeding 910-1 \_\_\_\_\_

\_\_\_\_\_ 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 910-1  
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?

Arsenic concentrations were consistent with background Arsenic concentrations.

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?

A minimum of 5 soil samples will be collected from the ditch identified in the attached documents and analyzed for COGCC table 910-1. The intent of sampling is to determine if any impact remains, depth of impact and lateral extent. If results of sampling show soils concentrations exceeding COGCC standards, soil will be removed and disposed of as E&P waste, an appropriate number of samples will be collected at the extent of excavation.

# REMEDIAL ACTION PLAN

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

If results of sampling show soils concentrations exceeding COGCC standards, soil will be removed and disposed of as E&P waste, an appropriate number of samples will be collected at the extent of excavation.

## 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.

Soil will be removed and disposed of as E&P waste. After crews are mobilized, time to closure will be 2 months.

## Soil Remediation Summary

### In Situ

- Bioremediation ( or enhanced bioremediation )
- Chemical oxidation
- Air sparge / Soil vapor extraction
- Natural Attenuation
- Other \_\_\_\_\_

### Ex Situ

- Excavate and offsite disposal
- If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_
- Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_
- Excavate and onsite remediation
- Land Treatment
- Bioremediation (or enhanced bioremediation)
- Chemical oxidation
- Other \_\_\_\_\_

## Groundwater Remediation Summary

- No Bioremediation ( or enhanced bioremediation )
- No Chemical oxidation
- No Air sparge / Soil vapor extraction
- No 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.

# REMEDIATION PROGRESS UPDATE

## PERIODIC REPORTING

Frequency:  Quarterly  Semi-Annually  Annually  Other \_\_\_\_\_

Report Type:  Groundwater Monitoring  Land Treatment Progress Report  O&M Report

Other \_\_\_\_\_

## WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? \_\_\_\_\_

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 \_\_\_\_\_

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

Non-COGCC Disposal Facility: \_\_\_\_\_

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

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

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

Non-COGCC Disposal Facility: \_\_\_\_\_

## 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 COGCC 1000 Series Rules.

Is the described reclamation complete? \_\_\_\_\_

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

Interim?  Final?

Did the Surface Owner approve the seed mix? \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. \_\_\_\_\_

Actual Spill or Release date, if known. 03/30/2016

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/01/2021

Date of commencement of Site Investigation. \_\_\_\_\_

Date of completion of Site Investigation. \_\_\_\_\_

### REMEDIAL ACTION DATES

Date of commencement of Remediation. \_\_\_\_\_

Date of completion of Remediation. \_\_\_\_\_

### SITE RECLAMATION DATES

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

**OPERATOR COMMENT**

This document is requesting to proceed under COGCC table 910-1. This document is requesting to reduce sample analyte list to BTEX, TPH and Inorganics per previous characterization provided here.

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

Signed: Kristopher Neidel

Title: EPS staff

Submit Date: 02/03/2021

Email: Kris.Neidel@state.co.us

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: ALEX FISCHER

Date: 02/09/2021

Remediation Project Number: 16622

**COA Type****Description**

	Submit a supplemental F19, requesting closure of the Spill and proceeding under a remediation number.
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**Attachment Check 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**

402590471	FORM 27-INITIAL-SUBMITTED
402590552	ANALYTICAL RESULTS
402590791	ANALYTICAL RESULTS
402590803	MAP
402590808	MAP

Total Attach: 5 Files

**General Comments****User Group****Comment****Comment Date**

Environmental	The reduced analyte suite to BTEX, TPH-D, TPH-G, and inorganics is granted. Remediation under Table 910-1 is allowed if the Spill is remediated prior to January 15, 2022.	02/09/2021
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Total: 1 comment(s)