

# State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403260630

Receive Date:

12/19/2022

Report taken by:

Kari Brown

## 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.

Closure request is not available for an Initial Site Investigation and Remediation Workplan.

### OPERATOR INFORMATION

Name of Operator: <u>ANADARKO WATTENBERG OIL COMPLEX LLC</u>	Operator No: <u>10600</u>	<b>Phone Numbers</b>
Address: <u>1099 18TH STREET #1800</u>		Phone: <u>(970) 515-1604</u>
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202-1918</u>
Contact Person: <u>Chad Gililand</u>	Email: <u>Chad.Gililand@westernmidstream.com</u>	Mobile: <u>( )</u>

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 27173 Initial Form 27 Document #: 403260630

#### 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: <u>CRUDE OIL TRANSFER LINE</u>	Facility ID: <u>477032</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>16470</u>	Latitude: <u>40.055543</u>	Longitude: <u>-104.991419</u>	
** correct Lat/Long if needed: Latitude: _____ Longitude: _____			
QtrQtr: <u>NENW</u>	Sec: <u>15</u>	Twp: <u>1N</u>	Range: <u>68W</u>
Meridian: <u>6</u>	Sensitive Area? <u>Yes</u>		

#### SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Surface Water

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

## 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
Yes	GROUNDWATER	TBD	Groundwater Samples/Laboratory Analytical Results
Yes	SOILS	TBD	Soil Samples/Laboratory Analytical Results

### INITIAL ACTION SUMMARY

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

This form has been prepared to summarize ongoing assessment activities conducted at the 16-14-841-12" Launcher. Assessment activities began on October 18, 2022. Soil assessment activities are being conducted in accordance with COGCC Rule 911.a. A photo log is attached.

On September 2, 2022, a small containment overflowed on the location. At least 1 barrel of condensate was released. The release was reported to the COGCC in the Form 19 Initial dated September 2, 2022 (Document No. 403155450). The release has been controlled. Excavation activities are ongoing.

### 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 ):

Between October 18 and December 7, 2022, soil samples were collected from the excavation (Figure 1). The samples were field screened for total volatile organic compounds using a photoionization detector (PID). Based on PID readings, select soil samples were submitted for analysis of the COGCC Table 915-1 organic parameters. Soil suitability for reclamation parameters and metals were not analyzed due to the refined nature of the product that was released. Excavation activities are ongoing. The PID readings and soil sample results are summarized in Table 1 and Table 2, respectively, and the laboratory reports are attached.

#### Proposed Groundwater Sampling

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

On December 7, 2022, one groundwater sample was collected from the excavation and submitted for Table 915-1 organic parameters. Based on the laboratory analytical results, groundwater sample GW01 exceeded the COGCC Table 915-1 allowable level for benzene. The excavation groundwater sample location is depicted on Figure 1. The groundwater sample analytical results are summarized in Table 3.

#### 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 ):

Between November 7 and December 1, 2022, ten hand auger soil borings were advanced outside of the excavation footprint in order to delineate the impacts. Based on PID readings, select soil samples were submitted for analysis. Delineation activities are ongoing. The soil boring locations are depicted on Figure 2. The PID readings and soil sample results are summarized in Table 1 and Table 2, respectively, and the laboratory reports are attached.

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 40

Number of soil samples exceeding 915-1 4

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 15180

### NA / ND

-- Highest concentration of TPH (mg/kg) 1

NA Highest concentration of SAR

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 17

### Groundwater

Number of groundwater samples collected 1

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet) 14

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 915-1 1

-- Highest concentration of Benzene (µg/l) 166

-- Highest concentration of Toluene (µg/l) 103

-- Highest concentration of Ethylbenzene (µg/l) 5.99

-- Highest concentration of Xylene (µg/l) 111

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?

☐ 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?

Excavation activities are ongoing. Monitoring wells will be installed after excavation activities are complete to delineate the extent of the dissolved-phase impacts. The monitoring well installation scope of work will be provided in a subsequent Form 27 supplemental report.

## REMEDIAL ACTION PLAN

### SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Impacted soils will be removed and transported to a licensed disposal facility. Disposal records will be kept on file and available upon request.

Excavation activities are ongoing. Monitoring wells will be installed after excavation activities are complete to delineate the extent of the dissolved-phase impacts. The monitoring well installation scope of work will be provided in a subsequent Form 27 supplemental report.

### 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.

Impacted soils will be removed and transported to a licensed disposal facility. Disposal records will be kept on file and available upon request.

Excavation activities are ongoing. Monitoring wells will be installed after excavation activities are complete to delineate the extent of the dissolved-phase impacts. The monitoring well installation scope of work will be provided in a subsequent Form 27 supplemental report.

### 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**

\_\_\_\_\_ 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.

Monitoring wells will be installed after excavation activities are complete to delineate the extent of the dissolved-phase impacts. The monitoring well installation scope of work will be provided in a subsequent Form 27 supplemental report.

## 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

### 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.

AWOC maintains a blanket bond in accordance with the COGCC's Financial Assurance Rules. The anticipated project cost indicated below is an estimate of the annualized cost of remediation. The actual cost may vary.

Operator anticipates the remaining cost for this project to be: \$ 25000

### 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.

The site will be reclaimed in accordance with COGCC 1000 Series Reclamation 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 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. \_\_\_\_\_

Proposed date of completion of Reclamation. \_\_\_\_\_

## 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. 09/02/2022

Actual Spill or Release date, or date of discovery. 09/02/2022

## SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 09/02/2022

Proposed site investigation commencement. 09/02/2022

Proposed completion of site investigation. \_\_\_\_\_

## REMEDIAL ACTION DATES

Proposed start date of Remediation. 09/02/2022

Proposed date of completion of Remediation. \_\_\_\_\_

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:

**OPERATOR COMMENT**

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

Signed: Chad Gililland

Title: HSSE Advisor

Submit Date: 12/19/2022

Email: Chad.Gililland@westernmidstream.com

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: Kari Brown

Date: 01/31/2023

Remediation Project Number: 27173

**COA Type****Description**

	In accordance with Rule 913.e.(3), Operator will adopt a quarterly reporting schedule. COGCC selected Quarterly under Remediation Progress Update.
1 COA	

**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**

403260630	FORM 27-INITIAL-SUBMITTED
403260982	PHOTO DOCUMENTATION
403263340	SOIL SAMPLE LOCATION MAP
403263341	SOIL SAMPLE LOCATION MAP
403263342	ANALYTICAL RESULTS

Total Attach: 5 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)