

State of Colorado
Energy & Carbon Management Commission

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404077139
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01/31/2025

Report taken by:
Chris Sanchez

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 ECOM 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>WESTERN OPERATING COMPANY</u>	Operator No: <u>95620</u>	Phone Numbers
Address: <u>1165 DELAWARE STREET #200</u>	Phone: <u>(303) 893-2438</u>	
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80204</u>	Mobile: <u>()</u>	
Contact Person: <u>Steve James</u>	Email: <u>steve@westernoperating.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 34392 Initial Form 27 Document #: 403372535

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>324792</u>	API #: _____	County Name: <u>KIOWA</u>
Facility Name: <u>PYLES, BERTHA-619S45W 10NESW</u>	Latitude: <u>38.416972</u>	Longitude: <u>-102.448024</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>10</u>	Twp: <u>19S</u>	Range: <u>45W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>483705</u>	API #: _____	County Name: <u>KIOWA</u>
Facility Name: <u>Bertha Pyles #2 & 3 Tank Battery</u>	Latitude: <u>38.416868</u>	Longitude: <u>-102.448000</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>10</u>	Twp: <u>19S</u>	Range: <u>45W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Agricultural Field

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? No

Other Potential Receptors within 1/4 mile

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	SOILS	6,500 square feet	Visual Observation

INITIAL ACTION SUMMARY

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

On January 15, 2023 at 8:21am a pumper reported that the production tanks were overflowing and the containment area was full. The two wells were shut in. Weber Water Service (vac truck) was called at 8:22am and removed approximately 390 bbls of water from the production tanks, 90 bbls water from within containment and 40 bbls oil from within containment. The recovered water was transported to the Wear SWD and the oil was placed back into production tank 291336. On 1/16/23, approximately 190 bbls of oil was removed from the containment area using a vac truck.

January 17, 2023: The berms were cleaned using a hot oil truck and fresh water.

In total, approximately 149 bbls of oil was recovered from within the containment area and was placed into production tank 291336 and 40 bbls oil was recovered from the containment area and placed into the reclaim tank.

The release was caused when the shut off valve on the free water knock failed and plugged the water dump line.

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):

On March 31, 2023 and March 28, 2024, seven confirmation soil samples and five background samples were collected following hydrovac and scraping activities were completed within the containment area. The soil samples were submitted to the analytical laboratory to be analyzed for full list ECMC Table 915-1 analytes. Based on the soil analytical results additional soil excavation is needed within the berm area followed by additional confirmation sampling. The Analytical data is summarized in the attached Table 1, and a soil sample location map is provided as Figure 1.

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 12
Number of soil samples exceeding 915-1 7
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 3500

NA / ND

-- Highest concentration of TPH (mg/kg) 8170
-- Highest concentration of SAR 19.4
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 1

Groundwater

Number of groundwater samples collected 0
Was extent of groundwater contaminated delineated? No
Depth to groundwater (below ground surface, in feet) 30
Number of groundwater monitoring wells installed _____
Number of groundwater samples exceeding 915-1 _____

NA Highest concentration of Benzene (µg/l) _____
NA Highest concentration of Toluene (µg/l) _____
NA Highest concentration of Ethylbenzene (µg/l) _____
NA 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?

A total of five background soil samples were collected and analyzed for full list ECMC Table 915-1 analytes. Additionally background samples from remediation numbers 20712, 37449, and 34392 were used to evaluate native metals and soil suitability concentrations versus concentrations observed within the release area.

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?

Additional soil confirmation soil samples will be collected following excavation of additional material from within the berm area and reported in a subsequent Form 27. Soil samples will be analyzed for ECMC Full List 915-1 analytes.

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.

The liquids in the containment area were removed using a vac truck and the impacted soil within the containment areas was excavated by a vac truck or scraped.

REMEDIAL ACTION 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.

Excavation of the surface soil within the containment area was completed in March 2023. Additional excavation of potentially impacted soil will be completed within the containment area followed by additional confirmation soil sampling. Soil samples will be analyzed for ECMC full list 915-1 analytes.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Yes Excavate and offsite disposal

_____ Chemical oxidation

If Yes: Estimated Volume (Cubic Yards) 35

Air sparge / Soil vapor extraction
 Natural Attenuation
 Other _____

Name of Licensed Disposal Facility or ECMC 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.

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.

Western Operating has \$7,000,000 in liability insurance and is currently adequately bonded.

Operator anticipates the remaining cost for this project to be: \$ 15000

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:

Impacted Soil

Volume of E&P Waste (solid) in cubic yards _____ 35

E&P waste (solid) description _____ Impacted Soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____ Buffalo Ridge in Keensburg, CO

Volume of E&P Waste (liquid) in barrels _____ 460

E&P waste (liquid) description _____ Produced Water

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____ Wear SWD

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.

The area of the release is entirely on the working pad surface and will remain on pad surface after interim reclamation has been conducted, final reclamation will be conducted following completion and approval of a site investigation and remediation work plan.

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. 01/16/2023

Actual Spill or Release date, or date of discovery. 01/15/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/15/2023

Proposed site investigation commencement. 01/15/2023

Proposed completion of site investigation. 05/31/2023

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/15/2023

Proposed date of completion of Remediation. 06/30/2025

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:

OPERATOR COMMENT

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

Signed: Steve James

Title: President

Submit Date: 01/31/2025

Email: steve@westernoperating.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: Chris Sanchez

Date: 02/04/2025

Remediation Project Number: 34392

COA Type**Description**

	Background sampling locations should be sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, and should be obtained from similar depths and soil horizons or lithologic materials for comparison to confirmation soil samples.
	Operator shall continue quarterly reporting until the site investigation is complete and Full Table 915-1 standards are met within the remediation area
	Operator shall adhere to Protection of Groundwater Soil Screening Levels
	The impacted soil will be segregated for proper offsite disposal and the lateral and vertical extent of impacts shall be determined with appropriate confirmation soil sampling. Additional sampling is needed to fully delineate impacted soils Samples shall be collected for Full Table 915-1 Contaminants of Concern
	If groundwater is encountered, the Operator shall sample for Inorganic Parameters (total dissolved solids, sulfate, chloride) in addition to the Organic Compounds
5 COAs	

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**

404077139	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404077164	SOIL SAMPLE LOCATION MAP
404077168	ANALYTICAL RESULTS
404081355	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 4 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)