

State of Colorado
Energy & Carbon Management Commission

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404199577
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Report taken by:
RICK ALLISON

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: <u>KERR MCGEE OIL & GAS ONSHORE LP</u>	Operator No: <u>47120</u>	Phone Numbers
Address: <u>P O BOX 173779</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Phone: <u>(713) 350-4906</u>
	Zip: <u>80217-3779</u>	Mobile: <u>()</u>
Contact Person: <u>Ariana Ochoa</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 32949 Initial Form 27 Document #: 403577800

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>306064</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>KODAK-66N67W 34SWNE</u>	Latitude: <u>40.446550</u>	Longitude: <u>-104.875470</u>	
	** correct Lat/Long if needed: Latitude: <u>40.446479</u>	Longitude: <u>-104.875034</u>	
QtrQtr: <u>SWNE</u>	Sec: <u>34</u>	Twp: <u>6N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>488454</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Kodak Oil 34-13,14, 42 Facility</u>	Latitude: <u>40.446428</u>	Longitude: <u>-104.875068</u>	
	** correct Lat/Long if needed: Latitude: _____	Longitude: _____	
QtrQtr: <u>SWNE</u>	Sec: <u>34</u>	Twp: <u>6N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM

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? Yes

Other Potential Receptors within 1/4 mile

The nearest domestic water well is located approximately 380 feet to the northeast of the facility.
Surface water is located approximately 60 feet to the east of the facility.
A wetland is located approximately 1220 feet southeast of the facility.
The facility is located within a designated Bald Eagle Active Nest Site.

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	No impacts observed	Groundwater samples/laboratory analytical results
Yes	SOILS	TBD	Inspection/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.

Decommissioning activities were completed at the Kodak Oil 34-13, 14, 42 Production Facility from October 18 - 25, 2024. Groundwater was encountered in the PWV excavation at approximately 7' bgs. Visual inspection and field screening of soils at two separators, two produced water vessels (PWV), four aboveground storage tanks (AST), one meter house, one emissions control device (ECD), and three dump line potholes was conducted following removal activities and soil samples (AST-B05@3", AST-B06@3", AST-B07@3", AST-B08@3", PW-B01@6', PW-B02@6', PW-S01@3', PW-S02@3', SEP-B01@3", SEP-B02@3", SEP-B03@3", SEP-B04@3") were submitted for laboratory analysis to determine if a release occurred. Laboratory analytical results indicated that the naphthalene, 1-methylnaphthalene, 2-methylnaphthalene concentrations in soil sample PW-S01@3' and the nickel concentration in soil sample PW-B02@6' exceeded the applicable ECMC Table 915-1 standards. As such, a Form 19-Initial Spill/Release Report (Document No. 403978852) was submitted on November 1, 2024, and the ECMC assigned Spill/Release Point ID 488454.

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 November 22, 2024, Fourteen (14) confirmation soil samples were collected from the base and sidewalls of the PWV excavation extent at depths ranging from 3' - 8' (bgs). Based on the results for waste characterization soil samples PW-S01@3' and PW-B02@6', the confirmation soil samples (PW-N03@3', PW-N03@6', PW-E02@3', PW-E02@6', PW-E03@3', PW-E03@6', PW-S03@3', PW-S03@6', PW-W02@3', PW-W02@6', PW-W03@3', PW-W03@6', PW-B02@8', PW-B03@7') were submitted for laboratory analysis of the site-specific waste profile. Laboratory analytical results indicated that the selenium concentrations in soil samples PW-S03@6' and PW-B03@7' and the 1-methyl. concentration in soil sample PW-W03@6' exceeded ECMC Table 915-1 and/or background limits. Excavation and/or verification sampling to address remaining selenium and 1-methyl. impacts in the PWV excavation are currently on hold due to High Priority Habitat restrictions until July 31, 2025 and will be detailed in a forthcoming Form 27-Supplemental.

Proposed Groundwater Sampling

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

During remediation activities, groundwater was encountered within the excavation area at approximately 7 ft bgs. On November 22, 2024, groundwater sample (GW-01) was collected from the excavation area and submitted for laboratory analysis of the full ECMC Table 915-1 constituents in groundwater. Additionally, a background groundwater sample (GW-BG01@6') from the Kodak 34-42 wellhead (0.4mi S) with similar land use, soil type, and depth was utilized to calculate background limits. Laboratory analytical results indicated that the groundwater sample (GW-01) was compliant with ECMC Table 915-1 standards and/or background limits. The proposed groundwater monitoring well location map is attached.

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):

On October 18 - 25, 2024, visual inspection and field screening of soils was conducted at 3 sidewalls in each PWV excavation, beneath four former ASTs, one ECD, one meter house, and three dump line potholes. Based on the inspection and screening results, hydrocarbon-impacted soils were not observed at the soil screening locations. As a result, no soil samples were submitted for laboratory analysis from these areas in accordance with the ECMC Operator Guidance for Oil & Gas Facility Closure document.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 26

Number of soil samples exceeding 915-1 26

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

Approximate areal extent (square feet) 684

NA / ND

-- Highest concentration of TPH (mg/kg) 235.4

-- Highest concentration of SAR 3.31

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 8

Groundwater

Number of groundwater samples collected 1

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet) 7

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 915-1 0

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

 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?

Background soil samples PW-BG01@3" - PW-BG04@3", PW-BG01@3'-PW-BG04@3', PW-BG01@6' - PW-BG04@6', were collected from native non-impacted material nearby at the tank battery. Additionally, background soil samples from the Kodak 34-11 wellhead (0.25mi NE) with similar land use (rangeland), soil type (loam), and depth (3'-6') were utilized to calculate background limits. The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation Parameters and Table 915-1 metals using standard methods appropriate for detecting target analytes in Table 915-1.

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 and/or verification sampling to address remaining selenium and 1-methyl. impacts in the PWV excavation are currently on hold due to High Priority Habitat restrictions until July 31, 2025 and subsequent assessment activities will be detailed in a forthcoming Form 27-Supplemental.

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.

Excavation and/or verification sampling to address remaining selenium and 1-methyl. impacts in the PWV excavation are currently on hold due to High Priority Habitat restrictions until July 31, 2025 and subsequent assessment activities will be detailed in a forthcoming Form 27-Supplemental.

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.

Excavation and/or verification sampling to address remaining selenium and 1-methyl. impacts in the PWV excavation are currently on hold due to High Priority Habitat restrictions until July 31, 2025 and subsequent assessment activities will be detailed in a forthcoming Form 27-Supplemental.

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 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.

A total of five (5) monitoring wells will be installed at the site as presented in Figure 5 and monitoring well locations will be installed within the spill/release area, up-gradient, down-gradient, and cross-gradient to characterize groundwater. Monitoring wells will be sampled on a quarterly basis and analyzed for Full Table 915-1 constituents (BTEX, 1,2,4-TMB, 1,3,5-TMB, total dissolved solids (TDS), sulfate, and chloride) for a minimum of four quarters. Groundwater data will be compared to the Table 915-1 criteria and local background concentrations as determined by the most upgradient monitoring well.

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 site will be reclaimed in accordance with ECMC 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. 10/11/2023

Actual Spill or Release date, or date of discovery. 10/31/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 10/18/2024

Proposed site investigation commencement. 10/18/2024

Proposed completion of site investigation. 12/31/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 11/01/2024

Proposed date of completion of Remediation. 12/31/2026

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:

OPERATOR COMMENT

No additional assessment and/or remediation activities have been conducted at this site since the previous Form 27-Supplemental was submitted (Doc. No. 404024838). As such, no additional screening or sampling results are provided in this document. However, the proposed groundwater monitoring well location map is attached. Excavation and/or verification sampling to address remaining selenium and 1-methyl. impacts in the PWV excavation are currently on hold due to High Priority Habitat restrictions until July 31, 2025 and will be detailed in a forthcoming Form 27-Supplemental.

Per COA on previous submittal (Doc. No. 404024838), five groundwater monitoring wells will be installed to evaluate the extent of groundwater impacts. Groundwater samples will be submitted for laboratory analysis of the full ECMC Table 915-1 constituents in groundwater.

During initial decommissioning activities at the production facility, PID field screenings (AST-B01@3" - AST-B04@3") were performed at the perimeter of the AST footprints to assess if there were indications of impacts above the liner. Following PID field screenings, the liner was cut and soil samples were collected below the AST at the center of the AST footprints (AST-B05@3" - AST-B08@3") and submitted for laboratory analysis to address potential soil impacts beneath the liner. Given that soil impacts were confirmed, confirmation soil samples were collected and submitted for a site specific waste profile that was generated from the initial failing samples. Per the COA on previous submittal (Doc. No. 404024838), additional confirmation soil samples will be collected from the excavation extent and submitted for laboratory analysis of the full ECMC Table 915-1 until sufficient characterization data has been approved by the Director.

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

Signed: Ariana Ochoa

Title: Sr. HSE Advisor

Submit Date: 07/07/2025

Email: DJRemediation_Forms@oxy.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: RICK ALLISON

Date: 07/24/2025

Remediation Project Number: 32949

COA Type**Description**

	The proposed monitoring well network may not be sufficient to determine background concentrations of TDS, chloride and sulfate in groundwater. Operator shall ensure background groundwater data is collected upgradient of the oil and gas facility.
1 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.

Att Doc Num**Name**

404199577	FORM 27-SUPPLEMENTAL-SUBMITTED
404201507	SOIL SAMPLE LOCATION MAP

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)