

State of Colorado
Energy & Carbon Management Commission

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Document Number:
403967289
Receive Date:
02/19/2025

Report taken by:
Kari Brown

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>KERR MCGEE OIL & GAS ONSHORE LP</u>	Operator No: <u>47120</u>	Phone Numbers
Address: <u>P O BOX 173779</u>		Phone: <u>(832) 814-7792</u>
City: <u>DENVER</u> State: <u>CO</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 #: 33965 Initial Form 27 Document #: 403655082

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>TANK BATTERY</u>	Facility ID: <u>336513</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>EVERIST-62N68W 10NWSE</u>	Latitude: <u>40.152333</u>	Longitude: <u>-104.984456</u>	
	** correct Lat/Long if needed: Latitude: <u>40.152221</u>	Longitude: <u>-104.984771</u>	
QtrQtr: <u>NWSE</u> Sec: <u>10</u> Twp: <u>2N</u> Range: <u>68W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>			

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487303</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Camenisch 34-10 J FAC Hist. Release</u>	Latitude: <u>40.152221</u>	Longitude: <u>-104.984771</u>	
	** correct Lat/Long if needed: Latitude: _____	Longitude: _____	
QtrQtr: <u>NWSE</u> Sec: <u>10</u> Twp: <u>2N</u> Range: <u>68W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>			

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Non-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

Multiple buildings and livestock holding pens are located within ¼ mile of the facility.
A building is located approximately 520 feet northwest of the facility.
The nearest domestic water well is located approximately 1300 feet to the northeast of the facility.
Surface water is located approximately 290 feet to the south of the facility.
An area with wetland characteristics is located approximately 210 feet to the west of the facility.

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
No	GROUNDWATER	Impacts not encountered	Inspection/groundwater samples/laboratory analytical results
Yes	SOILS	See attached data	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.

On June 25 and September 5, 2024, facility decommissioning activities were conducted at the Camenisch 34-10 J Production Facility location. Visual inspection and field screening of soils was conducted following tank battery decommissioning activities, and nine (9) confirmation soil samples were collected from the former separator (SEP), above-ground storage tanks (AST), enclosed combustion device (ECD), and partially-buried produced water vessel (PWV) locations and submitted for laboratory analysis of the full Table 915-1 analytical suite using standard ECMC approved methods. Laboratory analytical results indicated that BTEX, TPH, TMB, various PAHs and metals concentrations in soil samples AST1-B01@3", AST2-B01@3", ECD-B01@3", and PW-N01@2' and the pH in soil samples PW-N01@2' and SEP-B01@3' exceeded ECMC Table 915-1 standards. As such, a Form 19-Initial/Supplemental Spill/Release Report (Document No. 403837260) was submitted on June 27, 2024, and the ECMC issues Spill/Release Point ID 487303. The remaining analytical results for the soil samples collected during facility decommissioning activities were in compliance with the applicable ECMC Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Tables 2 through 5. The soil sample and field screening locations are illustrated on Figures 2 and 3.

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 September 5, 2024, excavation activities were conducted to address the soil impacts at the AST, PWV, and ECD locations. Based on analytical results of samples AST1-B01@3", AST2-B01@3", ECD-B01@3", and PW-N01@2', a waste characterization profile was created and confirmation soil samples collected from the excavation areas were submitted for laboratory analysis of BTEX, TPH, TMBs, PAHs, pH, and metals (As, Ba, Cd, Cu, Pb, Ni, Se, and Zn). Analytical results indicate that concentrations in the soil samples collected from the base and sidewalls of the final excavation extents were in compliance with ECMC Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). Based on the pH exceedance in in soil sample SEP-B01@3' a verification soil sample (SEP-B01@3'V) was collected on October 11, 2024. Analytical results indicate that the pH concentration for verification soil sample SEP-B01@3'V was in compliance with the ECMC Table 915-1 standards.

Proposed Groundwater Sampling

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

On September 5, 2024, groundwater was encountered in the PWV excavation area at approximately 5-feet bgs. On September 5, 2024, groundwater sample PW-GW01 was collected and submitted for laboratory analysis of BTEX, naphthalene, 1,2,4- and 1,3,5-trimethylbenzene, by USEPA Method 8260 as well as total dissolved solids (TDS), chloride, and sulfate. Analytical results indicated that constituent concentrations in groundwater sample PW-GW01 were in compliance with ECMC Table 915-1 standards and/or site-specific background standards (x 1.25 for TDS, chloride, and sulfate). The groundwater water sample location is illustrated on Figure 3. Groundwater analytical results are summarized in Table 6. Based on analytical data and field observations presented herein, groundwater does not appear to have come into contact with impacted soils.

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 June 25, 2024, visual inspection and field screening of soils was conducted at 3 sidewall locations within the PWV removal excavation, 1 location at the former meter houses (MH), and 1 location at each of the 6 former ASTs. Based on the inspection and screening results, hydrocarbon-impacted soil was not observed at the soil screening locations, and no soil samples were submitted for laboratory analysis from these areas in accordance with the ECMC Operator Guidance for Oil & Gas Facility Closure document. The laboratory analytical reports are provided as Attachment A. The field notes and a photographic log are provided as Attachment B.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 27
Number of soil samples exceeding 915-1 7
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 2300

NA / ND

-- Highest concentration of TPH (mg/kg) 50340
-- Highest concentration of SAR 9.51
BTEX > 915-1 Yes
Vertical Extent > 915-1 (in feet) 2

Groundwater

Number of groundwater samples collected 1
Was extent of groundwater contaminated delineated? Yes
Depth to groundwater (below ground surface, in feet) 5
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?

Twelve (12) background soil samples were collected from undisturbed native material adjacent to the Camenisch 34-10 J Facility, at comparable depths and soil composition to the confirmation soil samples. The background soil samples were submitted for laboratory analysis of Table 915-1 metals and the Soil Suitability for Reclamation Parameters, using standard ECMC-approved methods appropriate for detecting the target analytes in Table 915-1. Analytical results for the background soil samples are presented in Tables 4 and 5.

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?

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.

On September 5, 2024, approximately 330 cubic yards of impacted material were excavated from the production facility excavation areas and transported to the Front Range Landfill in Erie, Colorado, for disposal.

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.

Laboratory analytical results indicate that constituent concentrations in the final confirmation soil samples and/or verification soil samples collected during facility decommissioning activities and subsequent over excavation activities were in compliance with ECMC Table 915-1 standards, and/or site specific background levels (x 1.25 for metals). Based on the analytical and soil screening data presented herein, assessment is complete at this site and no further activities are required. As such, Kerr-McGee is requesting a No Further Action (NFA) determination for this location.

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) _____ 330
_____ 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 September 5, 2024, groundwater was encountered within the base of the PWV excavation at a depth of 5 feet bgs during over-excavation activities associated with soil sample PW-N01@2'. The majority of impacted soils on site were observed at 3 inches bgs adjacent to the ASTs. The greatest depth of impacted soil observed on site was low levels of benzene (0.00312 mg/kg) at soil sample PW-N01@2' collected at 2 feet bgs. However, the PWV base soil sample (PW-B01@ 4') was in compliance with ECMC Table 915-1 standards. Based on the presence of groundwater observed at 5 feet bgs within the PWV excavation during over-excavation activities, a supplemental soil sample (PW-B01-01@5') was collected to confirm the absence of organic impacts in soil in contact with groundwater. Analytical results indicated that organic constituents were not detected in soil sample PW-B01-01@5'. Additionally, a groundwater sample (PW-GW01) was collected from the base of the PWV excavation and analytical results indicated that organic constituents were not detected in groundwater sample PW-GW01 and that inorganic constituents were in compliance with ECMC Table 915-1 standards and/or site-specific background standards (x 1.25 for TDS, chloride, and sulfate).

Based on analytical data and field observations presented herein, groundwater does not appear to have come into contact with impacted soils. As such, Kerr-McGee is requesting a No Further Action (NFA) determination for this location.

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 NFA Request _____

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.

KMOG has sufficient insurance and bonding to fully address the anticipated costs of Remediation, including the remaining estimated costs for this project. KMOG currently has over 40 million in bonds with the Energy and Carbon Management Commission. The cost for remediation is a preliminary estimate only, costs may change upwards or downward based on site-specific information. KMOG makes no representation or guarantees as to the accuracy of the preliminary estimate.

Operator anticipates the remaining cost for this project to be: \$ 0 _____

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:

NA

Volume of E&P Waste (solid) in cubic yards _____ 330

E&P waste (solid) description Impacted Soil

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Font Range Landfill - Erie, Colorado

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? Yes

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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Does Groundwater meet Table 915-1 standards? Yes

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. Timeliness of reclamation initiation and completion will be subject to NFA, surface owner discretion and land use, and suitable ground conditions which allow for execution of surface reclamation activities so as to not cause unwarranted damages.

Is the described reclamation complete? No

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? Yes

If YES, does the seed mix comply with local soil conservation district recommendations? Yes

Did the local soil conservation district provide the seed mix? No

SITE RECLAMATION DATES

Proposed date of commencement of Reclamation. 02/01/2025

Proposed date of completion of Reclamation. 06/01/2025

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. 12/20/2023

Actual Spill or Release date, or date of discovery. 06/26/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/29/2024

Proposed site investigation commencement. 06/25/2024

Proposed completion of site investigation. 11/20/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/25/2024

Proposed date of completion of Remediation. 11/20/2024

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

Based on analytical data presented herein, Kerr-McGee is requesting a NFA determination for this location.

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: 02/19/2025

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: Jason Kosola

Date: 07/29/2025

Remediation Project Number: 33965

COA Type**Description**

1 COA	<p>NO FURTHER ACTION Based on the information presented, it appears that no further action is necessary at this time and the ECMC approves the closure request. However, if future conditions at the site indicate contaminant concentrations in soils exceeding ECMC standards or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required. The surface area disturbed by the remediation activity shall be reclaimed in accordance with the 1000 Series Reclamation Rules. For locations with active ongoing oil and gas operations, comply with Rule 1003 interim reclamation requirements and for locations that will no longer have active oil and gas operations, comply with Rule 1004 Final Reclamation requirements.</p>
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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**

403967289	FORM 27-SUPPLEMENTAL-SUBMITTED
404099614	SITE MAP
404099615	SOIL SAMPLE LOCATION MAP
404099616	SOIL SAMPLE LOCATION MAP
404099617	ANALYTICAL RESULTS
404099618	PHOTO DOCUMENTATION
404099619	PHOTO DOCUMENTATION
404099724	ANALYTICAL RESULTS
404099725	ANALYTICAL RESULTS
404099726	ANALYTICAL RESULTS
404099727	ANALYTICAL RESULTS

Total Attach: 11 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)