

State of Colorado
Energy & Carbon Management Commission

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404213204
Receive Date:
06/11/2025

Report taken by:
Grace Rollins

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>		Phone: <u>(970) 515-1110</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80217-3779</u>		Mobile: <u>()</u>
Contact Person: <u>Macy Kiel</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 25776 Initial Form 27 Document #: 403218651

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>323285</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>BEEBE DRAW UPRR-63N65W 9NWNE</u>	Latitude: <u>40.245470</u>	Longitude: <u>-104.666020</u>	
** correct Lat/Long if needed: Latitude: <u>40.245711</u>		Longitude: <u>-104.665568</u>	
QtrQtr: <u>NWNE</u>	Sec: <u>9</u>	Twp: <u>3N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>483684</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Beebe Draw UPRR 31-9 O SA</u>	Latitude: <u>40.245711</u>	Longitude: <u>-104.665568</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWNE</u>	Sec: <u>9</u>	Twp: <u>3N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Milton Reservoir

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? Yes

Other Potential Receptors within 1/4 mile

Domestic water well: none
Surface water: none
Wetlands: none
Spring: none
Livestock: none
Occupied Building: none
High Priority Habitats: within Mule Deer Severe Winter Range and Bald Eagle Roost Site; within 1/4 mile of the boundary of Bald Eagle Active Nest Site Half 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	GROUNDWATER	TBD	Groundwater samples/laboratory analytical results
Yes	SOILS	78' (E-W) x 94' (N-S) x 30' bgs	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 Beebe Draw UPRR 31-9 O SA production facility on January 12, 2023. Groundwater was encountered during excavation activities at a depth of approximately 27' below ground surface (bgs). Visual inspection and field screening of soils at one separator, one meter house, one produced water vessel (PWV), and one above ground storage tank (AST) was conducted following removal activities and soil samples (SEP-B01@3", SEP-B02@3", PW-B01@5', PW-E01@3', AST-B01@3") were submitted for laboratory analysis to determine if a release occurred. Laboratory analytical results indicated that the naphthalene, 1,2,4-TMBs, 1,3,5-TMBs, pH, EC, 1-methylnaphthalene, 2-methylnaphthalene, arsenic, and/or cadmium concentrations for soil samples PW-B01@5', PW-E01@3', and SEP-B02@3" exceeded the applicable ECOMC Table 915-1 standards and background limits. As such, a Form 19 Initial/Supplemental Spill/Release Report (ECMC Document No.403290594) was submitted on January 13, 2023, and the ECMC issued Spill/Release Point ID 483684. Soil sample location and field screening data is presented in Table 1. The laboratory analytical reports are attached. The field notes and photographic log are provided as Attachment A.

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):

From 1/12/23 - 8/17/23, excavation activities were completed and samples were collected from the base of the excavation at 23' bgs and sidewalls of the current excavation extent at depths from 3' to 15' bgs. A test pit was dug from the base of the excavation to 30' bgs and groundwater was encountered at 27' bgs. One soil sample (PW-B04@30') was collected from the base of the test pit. Due to significant precipitation events, the excavation was backfilled due to safety concerns. Based on waste characterization results (PW-B01@5'), confirmation soil samples were submitted for laboratory analysis of toluene, total xylenes, TPH, naph., TMBs, PAHs, As, and Ba. Analytical results indicated that benzene, naph., TMBs, arsenic, and barium impacts remain in the samples collected from the base of the excavation and test pit within the excavation area. A site assessment will be completed to determine a remediation plan to address soil and groundwater exceeding Table 915-1 and background levels.

Proposed Groundwater Sampling

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

On 4/17/23 groundwater sample GW-01 was collected from the PWV test pit and submitted for analysis of BTEX, naph., and TMBs per the approved Form 27-Initial (Doc#403218651). Analytical results indicate that the BTEX, naph., and TMBs concentrations in sample GW-01 exceeded the applicable Table 915-1 standards. Monitoring wells will be installed at the site to determine the depth to groundwater, if soil impacts remain above the current water table, and extents of groundwater impacts. Samples will be collected from each monitoring well and submitted for the full ECOMC Table 915-1 groundwater analytical suite, as well as dissolved As and Ba. This information will be used to determine a remediation plan to address soil and groundwater exceeding Table 915-1 and background levels. Samples will be collected on a quarterly basis until 4 quarters of compliance with Table 915-1 or background levels is achieved.

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 January 12, 2023, visual inspections and field screening of soils was conducted at 3 sidewall locations within the PWV excavation, the former meter house, and beneath the former AST. 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 ECOMC Operator Guidance for Oil & Gas Facility Closure document.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 98

Number of soil samples exceeding 915-1 98

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

Approximate areal extent (square feet) 7332

NA / ND

-- Highest concentration of TPH (mg/kg) 962.8

-- Highest concentration of SAR 3.31

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 30

Groundwater

Number of groundwater samples collected 1

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet) 27

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 915-1 1

-- Highest concentration of Benzene (µg/l) 13600

-- Highest concentration of Toluene (µg/l) 1320

-- Highest concentration of Ethylbenzene (µg/l) 59900

-- Highest concentration of Xylene (µg/l) 99200

NA Highest concentration of Methane (mg/l) 0

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?

Background soil samples PW-BG04 - PW-BG07 were collected from native non-impacted material (Vona loamy sand) adjacent to the Beebe Draw UPRR 31-9 O SA facility at depths ranging from 10' to 15' bgs. Background soil samples WH-BG01@3' - WH-BG02@3' and WH-BG01@6' - WH-BG02@6' from the Beebe Draw UPRR 31-9 wellhead, located 135' W, collected from similar soil type (Vona loamy sand), depth, and same land use have been included. 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 the target analytes in Table 915-1. Analytical results for the background soil samples are presented in Table 3 and 5. Background sample locations are presented in Figure 2 and 3. Additional background samples will be collected and submitted for laboratory analysis of the Soil Suitability for Reclamation Parameter and Table 915-1 Metals.

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 site assessment will be completed to determine a remediation plan to address soil and groundwater exceeding Table 915-1 and background levels. Monitoring wells will be installed at the site to determine the depth to groundwater, if soil impacts remain above the current groundwater table, and extents of groundwater impacts. Soil samples will be collected from depths exhibiting the highest PID readings or from the depth interval adjacent to the saturated zone and submitted for laboratory analysis of toluene, total xylenes, TPH, naph., TMBs, PAHs, arsenic, and barium based on waste characterization results (PW-B01@5'). To determine the extents of groundwater impacts, groundwater samples will be collected from each monitoring well and submitted for the full ECMC Table 915-1 groundwater analytical suite, as well as dissolved arsenic and dissolved barium. Based on this site assessment, KMOG will propose a remediation and groundwater monitoring plan in a subsequent Form 27 Supplemental Site Investigation and Remediation Workplan.

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.

Between January 12, 2023, through August 17, 2023, approximately 1,570 cubic yards of impacted material were excavated and transported to the Front Range Landfill in Erie, Colorado for disposal; approximately 3,690 cubic yards of impacted material were excavated and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado for disposal, and approximately 3,220 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for recycling. Laboratory analytical results indicate that benzene, naph., TMBs, arsenic, and barium impacts remain in the excavation area. However, the remaining impacts will be left in-place due to the presence of groundwater within the excavation and will be addressed through quarterly groundwater monitoring. The excavation areas will be backfilled and contoured to match pre-existing conditions.

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.

Prior to backfilling, approximately 770 pounds of COGACpH® activated carbon were added to the groundwater within the excavation area, to mitigate remaining hydrocarbon impacts in groundwater. A site assessment will be completed to determine a remediation plan to address soil and groundwater exceeding Table 915-1 and background levels. Monitoring wells will be installed at the site to determine the depth to groundwater, if soil impacts remain above the current groundwater table, and extents of groundwater impacts. Soil samples will be collected from depths exhibiting the highest PID readings or from the depth interval adjacent to the saturated zone and submitted for laboratory analysis of toluene, total xylenes, TPH, naph., TMBs, PAHs, arsenic, and barium based on waste characterization results (PW-B01@5). To determine the extents of groundwater impacts, groundwater samples will be collected from each monitoring well and submitted for the full ECMC Table 915-1 groundwater analytical suite, as well as dissolved arsenic and dissolved barium. Based on this site assessment, KMOG will propose a remediation and groundwater monitoring plan in a subsequent Form 27 Supplemental Site Investigation and Remediation Workplan. Estimated time to attain NFA is TBD based on the groundwater concentrations, the extent of impacted groundwater, and the efficacy of the selected remedial technologies.

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) _____ 8480
_____ Air sparge / Soil vapor extraction	_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____ 149007
_____ Natural Attenuation	_____ Excavate and onsite remediation
_____ Other _____	_____ 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

_____ Yes _____ Natural Attenuation

_____ Yes _____ Other _____ Activated Carbon Adsorption

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 at the site to determine the depth to groundwater, if soil impacts remain above the current groundwater table, and extents of groundwater impacts. To determine the extents of groundwater impacts, one groundwater sample will be collected from each monitoring well and submitted for the full ECMC Table 915-1 groundwater analytical suite, as well as dissolved arsenic and barium. This information will be used to determine a remediation plan to address soil and groundwater exceeding Table 915-1 and background levels. Groundwater samples will be collected on a quarterly basis until four quarters of compliance with Table 915-1 or background levels is achieved.

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.

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 Colorado Oil and Gas Conservation 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: \$ 25000 _____

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:

Approximately 3,220 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for recycling.

Volume of E&P Waste (solid) in cubic yards _____ 8480

E&P waste (solid) description Impacted Soil

ECMC Disposal Facility ID #, if applicable: _____ 149007

Non-ECMC Disposal Facility: Front Range Landfill in Erie, Buffalo Ridge Landfill in Keenesburg

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? 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 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. 09/27/2022

Actual Spill or Release date, or date of discovery. 01/13/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/12/2023

Proposed site investigation commencement. 01/12/2023

Proposed completion of site investigation. 06/30/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 01/13/2023

Proposed date of completion of Remediation. 06/30/2026

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

Monitoring well installation activities are scheduled for May 19-28, 2025, and will be summarized in a forthcoming Form 27-Supplemental update. Attachments that were included on a previously denied Form 27-Supplemental (Document #403947435) have been attached. Additionally, in response to the Environmental Comment on the denied form, all laboratory analytical reports have been reissued from the issuing lab as secured documents. A thorough review of the attached data has been conducted, and no discrepancies were found.

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

Signed: Macy Kiel

Title: Environmental Engineer

Submit Date: 06/11/2025

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: Grace Rollins

Date: 03/19/2026

Remediation Project Number: 25776

COA Type**Description**

	More recent forms, Documents # 404339459 and 404455197, have been submitted. The COAs/comments on those forms take precedence.
	Previous Form 27 Document # 404046835 was approved by ECMC subsequent to the submission of the subject Form. All COAs from that Form remain applicable.
2 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**

404213204	FORM 27-SUPPLEMENTAL-SUBMITTED
404213303	PHOTO DOCUMENTATION
404213305	SOIL SAMPLE LOCATION MAP
404213307	SOIL SAMPLE LOCATION MAP
404213308	SOIL SAMPLE LOCATION MAP
404213771	LABORATORY ANALYTICAL REPORT
404213774	LABORATORY ANALYTICAL REPORT
404213776	LABORATORY ANALYTICAL REPORT
404213780	LABORATORY ANALYTICAL REPORT
404213782	LABORATORY ANALYTICAL REPORT
404213784	LABORATORY ANALYTICAL REPORT
404213785	LABORATORY ANALYTICAL REPORT
404213835	ANALYTICAL DATA SUMMARY TABLE(S)

Total Attach: 13 Files

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

Environmental	Operator states: "Monitoring well installation activities are scheduled for May 19-28, 2025, and will be summarized in a forthcoming Form 27-Supplemental update." The subject Form was submitted on 6/11/2025.	03/10/2026
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Total: 1 comment(s)