

State of Colorado
Energy & Carbon Management Commission

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



Document Number:
404389655

Receive Date:

Report taken by:

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: KERR MCGEE OIL & GAS ONSHORE LP	Operator No: 47120	Phone Numbers
Address: P O BOX 173779		
City: DENVER	State: CO	Zip: 80217-3779
Contact Person: Erik Mickelson	Email: DJRemediation_Forms@oxy.com	Phone: (720) 929-4306
		Mobile: ()

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37209 Initial Form 27 Document #: 403897969

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: WELL	Facility ID: _____	API #: 123-21831	County Name: WELD
Facility Name: MCDONALD 2-4 A	Latitude: 40.260830	Longitude: -104.893800	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWNE	Sec: 4	Twp: 3N	Range: 67W
Meridian: 6	Sensitive Area? Yes		

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Crop land

Is domestic water well within 1/4 mile? No 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 wellhead.

The nearest building is located approximately 260 feet northwest of the wellhead

An area with wetland characteristics is located approximately 400 feet to the southwest of the wellhead.

Surface water is located approximately 400 feet to the southwest of the wellhead.

The wellhead is located within Bald Eagle Winter Night Roost Site, Mule Deer Migration Corridor, and Mule Deer Sever Winter Range designated high priority habitats and within ¼ mile of a Mule Deer Winter Concentration Area designated high priority habitat boundary.

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	SOILS	No impacts encountered	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.

Wellhead cut and cap operations were completed at the McDonald 2-4A wellhead on November 7, 2024. Groundwater was not encountered in the wellhead cut and cap excavation area. Visual inspection and field screening of soils around the wellhead and associated pumping equipment were conducted following cut and cap operations, and soil samples were submitted for laboratory analysis of the full Table 915-1 analytical suite. Removal of the flowline associated with this wellhead was conducted between November 7 and 11, 2024. The section of the flowline leading into the facility was left in place and changed from active to out-of-service due to the proximity of active flowlines. Four (4) soil samples were collected from the locations where the flowline risers were disconnected at the wellhead and separator, the significant directional change, and at the flowline status change location and were submitted for laboratory analysis of the full Table 915-1 analytical suite to determine if a release occurred. Laboratory analytical results indicated that constituent concentrations were in compliance with Table 915-1 standards and/or site-specific background levels (x 1.25 for metals), with the exception of pH in soil samples WH-B01@6' and FL-B18@4'. As such, two (2) verification soil samples (FL-B18@4'V and WH-B01@6'V) were collected on December 17, 2024, and January 14, 2025, respectively, to confirm the initial pH results. Analytical results for the verification soil samples were in compliance with Table 915-1 standards and/or site-specific background levels. On September 18, 2025, one soil sample was collected (FL-B10@4') and submitted for laboratory analysis of the full Table 915-1 analytical suite. Laboratory analytical results indicated that constituent concentrations in soil sample FL-B10@4' were in compliance with Table 915-1 standards and/or site-specific background levels (x 1.25 for metals).

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 November 7, 2024, and September 18, 2025, a total of eight (8) confirmation and verification soil samples were collected from the McDonald 2-4A wellhead and flowline excavation areas. The soil samples were submitted for laboratory analysis of the full Table 915-1 analytical suite, or for pH only to verify the initial results. Analytical results indicate that constituent concentrations in the final confirmation and/or verification soil samples were in compliance with ECOM Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). A topographic Site Location Map showing the geographic setting of the site is provided as Figure 1. The soil sample and field screening locations are illustrated on Figure 2. Soil sample location and field screening data are presented in Table 1. Soil analytical results are summarized in Tables 2 through 5.

Proposed Groundwater Sampling

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

Groundwater was not encountered during wellhead cut and cap, flowline removal, or verification soil sampling activities.

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 November 7, 2024, visual inspection & field screening of soils was conducted at four (4) sidewall locations within the cut and capped McDonald 2-4A wellhead excavation, four (4) locations at the ground surface adjacent to the excavation, and 14 pothole locations during flowline removal activities. 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 ECOM Operator Guidance document. On November 14, 2024, a soil gas survey was conducted at three (3) soil vapor points installed adjacent to the former wellhead following cut and cap operations. GEM 5000 field readings were non-detect for methane for the three (3) vapor points that were intact (SVP03-SVP05). The soil vapor screening results are summarized in Table 6. The laboratory analytical reports, field notes, and a photographic log are provided as attachments.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 8

Number of soil samples exceeding 915-1 2

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 0

NA / ND

-- Highest concentration of TPH (mg/kg) 60.7

-- Highest concentration of SAR 1.54

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 0

Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? Yes

Depth to groundwater (below ground surface, in feet)

Number of groundwater monitoring wells installed

Number of groundwater samples exceeding 915-1

Highest concentration of Benzene (µg/l)

Highest concentration of Toluene (µg/l)

Highest concentration of Ethylbenzene (µg/l)

Highest concentration of Xylene (µg/l)

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?

Nine (9) background soil samples were collected from undisturbed native material adjacent to the McDonald 2-4A wellhead, 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. Background soil sample locations are illustrated on Figure 2.

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.

Analytical results indicate that constituent concentrations in the six (6) confirmation soil samples and/or the two (2) subsequent verification soil samples were in compliance with the ECMC Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). As a result, no soils were removed during wellhead cut and cap and flowline removal activities. The excavation areas were subsequently backfilled and re-graded to match pre-existing conditions.

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.

Analytical results indicate that constituent concentrations in the six (6) confirmation soil samples and/or the two (2) subsequent verification soil samples were in compliance with the ECMC Table 915-1 standards and/or site-specific background levels (x 1.25 for metals). Hydrocarbon-impacted soil was not observed during field inspection and soil screening activities at the wellhead and flowline. Groundwater was not encountered during wellhead cut and cap, flowline removal or subsequent verification soil sampling activities. Based on the analytical and soil screening data presented herein, assessment is complete at McDonald 2-4A wellhead and flowline and no further activities are required. As such, Kerr-McGee is requesting a No Further Action (NFA) determination for this location.

Soil Remediation Summary

In Situ

Ex Situ

- _____ Bioremediation (or enhanced bioremediation)
- _____ Chemical oxidation
- _____ Air sparge / Soil vapor extraction
- _____ Natural Attenuation
- _____ Other _____

- _____ 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.

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? No

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 _____

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: _____

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

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.

Following the completion of remediation and site assessment activities, 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? Yes

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. 11/30/2025

Proposed date of completion of Reclamation. 11/30/2026

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. 08/21/2024

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 11/07/2024

Proposed site investigation commencement. 11/07/2024

Proposed completion of site investigation. 09/18/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. _____

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

In response to COAs on the previous Form 27 Supplemental Document No. 40413612, a soil sample (FL-B10@4') has been collected via hand auger from the former flowline directional change location and was submitted for laboratory analysis for the full Table 915 analytical suite.

The section of flowline located on the active associated facility has changed status from active to out of service and will be removed at the time of the decommissioning of the facility. The Form 44 (Document # 403906677) is included as an attachment. A Form 27 Initial will be submitted prior to the removal of this section of flowline.

Based on analytical data presented herein, Kerr-McGee is requesting an 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: Erik Mickelson

Title: Environmental Lead

Submit Date: _____

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: _____

Date: _____

Remediation Project Number: 37209

COA Type**Description**

COA Type	Description
0 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
404398174	SITE MAP
404398175	SOIL SAMPLE LOCATION MAP
404398176	SOIL SAMPLE LOCATION MAP
404398177	ANALYTICAL DATA SUMMARY TABLE(S)
404398178	PHOTO DOCUMENTATION
404398179	OTHER
404398180	LABORATORY ANALYTICAL REPORT
404398181	LABORATORY ANALYTICAL REPORT
404398182	LABORATORY ANALYTICAL REPORT
404398183	LABORATORY ANALYTICAL REPORT
404398184	LABORATORY ANALYTICAL REPORT

Total Attach: 11 Files

General Comments

User Group	Comment	Comment Date
Environmental	This Form appears good for closure as requested within the Form itself, however, under the Remediation Completion Report tab, the final closure request is toggled to 'No'. Operator to update as necessary.	05/04/2026

Total: 1 comment(s)