

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Taylor Robinson

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 Phone: (720) 929-4306 Mobile: ()
Address: P O BOX 173779		
City: DENVER	State: CO	Zip: 80217-3779
Contact Person: Erik Mickelson	Email: Erik_Mickelson@oxy.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 31890 Initial Form 27 Document #: 403512631

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: LOCATION	Facility ID: 329343	API #: _____	County Name: WELD
Facility Name: HSR-WEIS-63N67W 21SWNW	Latitude: 40.213490	Longitude: -104.902700	
	** correct Lat/Long if needed: Latitude: 40.213272	Longitude: -104.902475	
QtrQtr: SWNW	Sec: 21	Twp: 3N	Range: 67W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Non-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

Surface water is located approximately 270 feet west of the facility.
A wetland is located approximately 350 feet west of the facility.
The facility is located within a designated high-priority habitat.

DENIED

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.

In accordance with the remediation workplan (Rem #38129, Doc #404019399) approved on December 9th, 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of Kerr-McGee Onshore Oil & Gas LP (KMOG). The pH result in sample AST-B01R@3" was altered by a third-party from 8.62 to 8.22. The SAR result in sample AST-B01@3" was altered by a third-party from 6.55 to 5.55. The original SAR result of 6.55 for AST-B01@3" was within background values based on BG-02@3'. In response, one verification sample (AST-B01RRS@1.5) and four background samples (BG01@1.5, BG02@1.5, BG03@1.5, and BG04@1.5) were collected on December 20, 2024. Due to the addition of backfill after the initial sampling, the resamples were collected at a depth of 1.5 ft instead of 0.25 ft to match the original depth. The analytical result of pH for resample AST-B01RRS@1.5 was 8.52. The analytical result of the resample AST-B01RRS@1.5 is within the site-specific background value based on background sample WH-BG04@4' collected from nearby site HSR-LOWES 6-21A (Remediation No. 20318). As such, KMOG is requesting No Further Action for Remediation Project Number 31890.

The analytical data altered by a third-party without the knowledge of and beyond the reasonable control of KMOG can be found in Form 27 Document No. 403650598. The original unaltered lab report and the reassessment analytical results are attached. The original sample results and the reassessment sample results are provided in Table 1. A topographic Site Location Map is provided as Figure 1. The reassessment sample locations are provided on Figure 2.

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):

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 1
Was the areal and vertical extent of soil contamination delineated? Yes
Approximate areal extent (square feet) 0

NA / ND

ND Highest concentration of TPH (mg/kg) _____
-- Highest concentration of SAR 5.55
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?

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.

Please refer to the past submitted Form 27 Document No. 403650598.

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.

In accordance with the remediation workplan (Rem #38129, Doc #404019399) approved on December 9th, 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of Kerr-McGee Onshore Oil & Gas LP (KMOG). The pH result in sample AST-B01R@3" was altered by a third-party from 8.62 to 8.22. The SAR result in sample AST-B01@3" was altered by a third-party from 6.55 to 5.55. The original SAR result of 6.55 for AST-B01@3" was within background values based on BG-02@3'. In response, one verification sample (AST-B01RRS@1.5) and four background samples (BG01@1.5, BG02@1.5, BG03@1.5, and BG04@1.5) were collected on December 20, 2024. Due to the addition of backfill after the initial sampling, the resamples were collected at a depth of 1.5 ft instead of 0.25 ft to match the original depth. The analytical result of pH for resample AST-B01RRS@1.5 was 8.52. The analytical result of the resample AST-B01RRS@1.5 is within the site-specific background value based on background sample WH-BG04@4' collected from nearby site HSR-LOWES 6-21A (Remediation No. 20318). As such, KMOG is requesting No Further Action for Remediation Project Number 31890.

The analytical data altered by a third-party without the knowledge of and beyond the reasonable control of KMOG can be found in Form 27 Document No. 403650598. The original unaltered lab report and the reassessment analytical results are attached. The original sample results and the reassessment sample results are provided in Table 1. A topographic Site Location Map is provided as Figure 1. The reassessment sample locations are provided on Figure 2.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____

_____ 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.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

Quarterly Semi-Annually Annually Other Final Report

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 Colorado 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.

The site has been reclaimed in accordance with ECMC 1000 Series Reclamation Rules.

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. 10/31/2024

Proposed date of completion of Reclamation. 11/30/2024

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. 07/12/2023

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 10/17/2023

Proposed site investigation commencement. 10/17/2023

Proposed completion of site investigation. 12/20/2024

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:

In December 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of KMOG.

OPERATOR COMMENT

In accordance with the remediation workplan (Rem #38129, Doc #404019399) approved on December 9th, 2024, reassessment activities were conducted in response to the submittal of analytical data that was altered by a third-party contractor without the knowledge and beyond the reasonable control of Kerr-McGee Onshore Oil & Gas LP (KMOG). The pH result in sample AST-B01R@3" was altered by a third-party from 8.62 to 8.22. The SAR result in sample AST-B01@3" was altered by a third-party from 6.55 to 5.55. The original SAR result of 6.55 for AST-B01@3" was within background values based on BG-02@3'. In response, one verification sample (AST-B01RRS@1.5) and four background samples (BG01@1.5, BG02@1.5, BG03@1.5, and BG04@1.5) were collected on December 20, 2024. Due to the addition of backfill after the initial sampling, the resamples were collected at a depth of 1.5 ft instead of 0.25 ft to match the original depth. The analytical result of pH for resample AST-B01RRS@1.5 was 8.52. The analytical result of the resample AST-B01RRS@1.5 is within the site-specific background value based on background sample WH-BG04@4' collected from nearby site HSR-LOWES 6-21A (Remediation No. 20318). As such, KMOG is requesting No Further Action for Remediation Project Number 31890.

A lab report, figure, and analytical table altered by a third-party without the knowledge of and beyond the reasonable control of KMOG were originally submitted to the ECMC in Form 27 Document No. 403650598 submitted on 01/12/2024; the following are replacements attached to this form. An original locked version of lab report Y311431 and Y310453 is attached to this form as a replacement to the lab report attached to Form 27 Doc No. 403650598 (Attachment Doc No. 403652545). The analytical table attached to this form replaces Table 5 attached to Form 27 Doc No. 403650598 (Attachment Doc No. 403652549). The figure attached to this form replaces Figure 2 attached to Form 27 Doc No. 403650598 (Attachment Doc No. 403652548).

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: 06/25/2025

Email: Erik_Mickelson@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: 31890

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

404076183	FORM 27 DENIED
404088165	SITE MAP
404088168	SOIL SAMPLE LOCATION MAP
404088175	OTHER
404109437	LABORATORY ANALYTICAL REPORT
404109439	LABORATORY ANALYTICAL REPORT
404109442	LABORATORY ANALYTICAL REPORT
404253774	LABORATORY ANALYTICAL REPORT
404253794	ANALYTICAL DATA SUMMARY TABLE(S)
404253796	SOIL SAMPLE LOCATION MAP
404255392	ANALYTICAL DATA SUMMARY TABLE(S)
404255442	SOIL SAMPLE LOCATION MAP
404295956	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 13 Files

General Comments

User Group

Comment

Comment Date

Environmental	If Operator requests to use off-location background samples, Operator shall provide a NRCS map showing all sample points, the distance from the site that the background samples were taken, soil type, and a confirmation of the same land use. Operator shall also provide original laboratory analytical reports.	05/30/2025
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Environmental	<p>Operator states: "The pH result in sample AST-B01R@3" was altered by a third-party from 8.62 to 8.22. The SAR result in sample AST-B01@3" was altered by a third-party from 6.55 to 5.55. The original SAR result of 6.55 for AST-B01@3" was within background values based on BG-02@3'. In response, one verification sample (AST-B01RRS@1.5) and four background samples (BG01@1.5, BG02@1.5, BG03@1.5, and BG04@1.5) were collected on December 20, 2024. Due to the addition of backfill after the initial sampling, the resamples were collected at a depth of 1.5 ft instead of 0.25 ft to match the original depth. The analytical result of pH for resample AST-B01RRS@1.5 was 8.52. The analytical result of the resample AST-B01RRS@1.5 is within the site-specific background value based on background sample WH-BG04@4' collected from nearby site HSR-LOWES 6-21A (Remediation No. 20318). As such, KMOG is requesting No Further Action for Remediation Project Number 31890."</p> <p>ECMC does not approve Operator's request for No Further Action and has denied the subject Form for the following reasons:</p> <ul style="list-style-type: none"> -A pH of 8.62 for soil sample AST-B01R@3" is indicative of a spill/release and requires confirmation sampling for complete Table 915-1 contaminants of concern. This sample has not been analyzed for full Table 915-1 list of constituents to date. Additionally, soil sample AST-B01R@3" appears to be a rerun, which is only valid for metals, not soil suitability, which renders both the altered pH sample and the EC result of 0.205 from 10/17/23, not valid. -Per Rule 915.e.(2)A. If soil contamination is suspected or known to exist as a result of Spills or Releases or E&P Waste management, Operators will collect and analyze representative samples of soil pursuant to this Rule 915.e.(2). -Operator shall collect a confirmation sample for complete Table 915-1 contaminants of concern and provide ECMC Area EPS and ECMC Environmental Data Group Supervisor, Arthur Koepsell, 72-hour notice via email prior to sampling. -Operator shall provide grading plans/invoices/or other supporting documentation to illustrate how the resample depth was determined. -Operator shall provide a description of the source of material used for ""backfill"" and describe the depth, area and approximate total volume of ""backfill"" used for final reclamation. -If topsoil has been imported, then it shall meet the agronomic soil analysis outlined in the Rule 915.b. - Soil Suitability for Reclamation Guidance Document." -Operator shall submit a replacement Form 27 Supplemental for this Remediation Project proposing additional site investigation to properly characterize the vertical and lateral extent of the historic release. Background samples near the historic release cannot be approved until impacts have been properly characterized and delineated. Operator shall obtain background samples from locations sufficiently away from the impacted area to reflect conditions not impacted by oil and gas activity, from similar depths, and soil types/horizons or lithologic materials for comparison to confirmation soil samples. 	04/14/2025
Environmental	<p>"This form was reviewed by the following ECMC personnel prior to denial: Area Environmental Protection Specialist Area Supervisor Environmental Data Group Supervisor"</p>	04/14/2025
Environmental	<p>ECMC Staff accepts the information as provided in this form. By reviewing this form, ECMC Staff does not determine fault for any alleged wrongful actions. As provided by Rule 201.b., Operators must ensure compliance with ECMC Rules by all consultants, contractors, and subcontractors.</p>	04/14/2025
Environmental	<p>The subject Form (Doc #404067474) was submitted with errors. Operator has answered 'Yes' to the questions listed under the 'PROPOSED SAMPLING PLAN' section, but has not populated each textbox with the respective sampling plans.</p>	04/14/2025
Environmental	<p>"Per COA on Form 27i Doc #404019399: ""When reporting the analytical results for the Remediation Projects described in this Form 27 Initial, Operator will identify and highlight in text, tables, and figures the previously altered data and include unaltered original lab reports, as well as document the resampling results.""</p> <p>Operator has not provided annotated/highlighted versions of text/tables/figures previously provided under this remediation project.</p> <p>Per COA on Form 27i Doc #404019399: ""ECMC reserves the right to require additional site investigation and remediation based on its review of site specific data for any of the listed projects as necessary to satisfy the requirements of Rule 913 and 915.""</p>	04/14/2025

Total: 6 comment(s)