

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:
404171146
Receive Date:
06/11/2025

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 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 Phone: <u>(713) 350-4906</u> Mobile: <u>()</u>
Address: <u>P O BOX 173779</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80217-3779</u>
Contact Person: <u>Ariana Ochoa</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 39349 Initial Form 27 Document #: 404073585

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: <u>TANK BATTERY</u>	Facility ID: <u>475868</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Henrickson Federal TB</u>	Latitude: <u>40.237360</u>	Longitude: <u>-104.822346</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NESW</u>	Sec: <u>7</u>	Twp: <u>3N</u>	Range: <u>66W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Commercial & Occupied Buildings

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

US Hwy 360 feet (ft) east. Railroad 630 ft east. Commercial buildings 720 ft southeast and 1250 ft south. Water well 880 ft east. Ponds 940 ft and 1140 ft northeast. Livestock 1070 ft southeast. Occupied buildings 1100 ft south. Agriculture.

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	N/A	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.

Partial decommissioning activities were completed at the Henrickson Fed 18HZ Facility on March 28, 2025. Groundwater was not encountered during facility decommissioning activities. Visual inspection and field screening of soil at three separators were conducted after decommissioning activities. Soil samples (SEP01-INLET@0.5', SEP01-OUTLET@0.5', SEP02-INLET@0.5', SEP02-OUTLET@0.5', SEP03-INLET@0.5', and SEP03-OUTLET@0.5') were submitted for laboratory analysis of full list Table 915-1 constituents, to determine if a release occurred. Initial laboratory analytical results indicated that pH, arsenic, cadmium, and selenium exceeding the Table 915-1 allowable levels and background levels were present at the SEP01-INLET and SEP03-INLET locations. Verification samples were collected at both locations to confirm the initial results. Final analytical results confirmed that pH exceeding the Table 915-1 allowable level and background level are present at the SEP01-INLET location. Due to the absence of additional 915-1 organic detections and inorganic exceedances, when compared to background, the elevated pH at the SEP01-INLET is considered de minimis and not an indication of a spill or release associated with E&P activities. Analytical results indicated the soil was in compliance with Table 915-1 levels or within site-specific backgrounds at all other sample locations. The facility is depicted on Figure 1. The PID readings and soil sample results are summarized in Tables 1 and 2, respectively.

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 3/28/2025, soil samples were collected from three separators at a depth of 0.5 ft bgs. The samples were submitted for analysis of full list Table 915-1 constituents, using ECMC-approved methods. Initial results indicated that pH, arsenic, cadmium, and selenium exceeding the Table 915-1 allowable levels and background levels were present at the SEP01-INLET and SEP03-INLET locations. Verification samples were collected and confirmed that pH exceeding the Table 915-1 allowable level and background level are present at the SEP01-INLET location. Due to the absence of additional 915-1 organic detections and inorganic exceedances, when compared to background, the elevated pH at the SEP01-INLET is considered de minimis and not an indication of a spill or release associated with E&P activities. Analytical results indicated the soil was in compliance with Table 915-1 levels or within background levels at all other sample locations. The laboratory report and photo log are attached.

Proposed Groundwater Sampling

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

Groundwater was not encountered during partial facility decommissioning 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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 12
Number of soil samples exceeding 915-1 11
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 2.44
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?

Four native background soil samples (NATIVE-BG01@0.5' through NATIVE-BG04@0.5'), were collected from native material outside of the facility excavation. Eight background samples were also collected as part of the HSR-MJ Farms 13-7A wellhead cut and cap activities (Remediation No. 32024), located approximately 1,820 ft southwest, from similar depth (3' bgs), and NCRS soil type (Loam). The soil samples were collected and submitted for laboratory analysis of electrical conductivity (EC), sodium adsorption ratio (SAR), pH, boron, and Table 915-1 metals, using ECOMC approved methods. Analytical results indicate that SAR, pH, arsenic, barium, cadmium, lead, and selenium are naturally high in the native soil. The background soil sample analytical results are summarized in Table 2. The background soil sample locations are illustrated on Figures 1 and 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.

Due to the absence of additional 915-1 organic detections and inorganic exceedances, when compared to background, the elevated pH at the SEP01-INLET is considered de minimis and not an indication of a spill or release associated with E&P activities. Laboratory data indicate that all other soil samples collected during partial facility decommissioning activities were within the ECOMC Table 915-1 allowable levels and background levels; therefore, no soil was removed from the site during decommissioning activities. The excavation areas were backfilled and contoured to match pre-existing conditions.

REMEDIAL ACTION 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.

Due to the absence of additional 915-1 organic detections and inorganic exceedances, when compared to background, the elevated pH at the SEP01-INLET is considered de minimis & not an indication of a spill or release associated with E&P activities. Laboratory data indicate that all other soil samples collected during partial facility decommissioning activities were within the ECMC Table 915-1 allowable levels or within background levels. Groundwater was not encountered during partial facility decommissioning activities. Based on the analytical and soil screening data presented herein, assessment is complete at this site and no further activities are required. As such, KMOG 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.

REMEDATION 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 Status 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: _____

REMEDATION COMPLETION REPORT

REMEDATION 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. 05/16/2025

Proposed date of completion of Reclamation. 05/16/2026

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. 01/18/2025

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/28/2025

Proposed site investigation commencement. 03/28/2025

Proposed completion of site investigation. 03/28/2025

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

Based on analytical and soil screening data provided herein, assessment is complete and 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: Ariana Ochoa

Title: Sr. HSE Advisor

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: Taylor Robinson

Date: 09/16/2025

Remediation Project Number: 39349

COA Type**Description**

	<p>Based on the information presented, it appears the elevated pH sample from the separator area appears to be de minimis in quantity or within the range of background pH and there is no indication of a spill or release; therefore, elevated pH may not be associated with E&P activities. It appears that no further remedial action is necessary at this time and the ECMC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding ECMC standards or background levels or if groundwater is found to be impacted, then further investigation and/or remediation activities may be required.</p> <p>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>
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**

404171146	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404183825	PHOTO DOCUMENTATION
404199715	ANALYTICAL DATA SUMMARY TABLE(S)
404199725	LABORATORY ANALYTICAL REPORT
404199726	LABORATORY ANALYTICAL REPORT
404199727	LABORATORY ANALYTICAL REPORT
404200050	SOIL SAMPLE LOCATION MAP
404201612	SOIL SAMPLE LOCATION MAP
404356442	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 9 Files

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

		Stamp Upon Approval
--	--	---------------------

Total: 0 comment(s)