FORM 27 Rev 5/22

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: 404261598
Receive Date: 07/10/2025
Report taken by: Laurel Anderson

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 INFORMATON

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator No: 47120
Address: P O BOX 173779
City: DENVER State: CO Zip: 80217-3779
Contact Person: Ariana Ochoa Email: DJRemediation_Forms@oxy.com

Phone Numbers
Phone: (713) 350-4906
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 29482 Initial Form 27 Document #: 403413817

PURPOSE INFORMATION

- [ ] Rule 913.c.(1): Pit or Cuttings Trench closure.
- [X] Rule 913.c.(2): Buried or partially buried vessel closure, which will be by removal.
- [X] 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.
- [X] 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.
- [X] Other: Request Director's Approval of reduced list of contaminants of concern

SITE INFORMATION

Yes Multiple Facilities

Facility Type: TANK BATTERY Facility ID: 488806 API #: County Name: WELD
Facility Name: Megan H 16-18,20,21 Facility Latitude: 40.229169 Longitude: -104.670724
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 16 Twp: 3N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 490634 API #: County Name: WELD
Facility Name: Megan H 16-18,20,21 Facility Latitude: 40.229191 Longitude: -104.670846
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 16 Twp: 3N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 490694 API #: County Name: WELD

Facility Name: Megan H 16-18, 20, 21 Facility Latitude: 40.229484 Longitude: -104.670832

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 16 Twp: 3N Range: 65W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications: SM

Most Sensitive Adjacent Land Use: Bald Eagle Roost Site HPH

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

The site is located within a ¼ mile of the boundary of a Bald Eagle Roost Site High Priority Habitat (HPH) area. No other potential receptors were identified within a ¼ mile radius of the site.

DENIED

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [X] **E&P Waste**
- [X] Produced Water
- [X] Oil
- [X] Condensate
- [ ] Drilling Fluids
- [ ] Drill Cuttings
- [ ] **Other E&P Waste**
- [ ] Workover Fluids
- [ ] Tank Bottoms
- [ ] Pigging Waste
- [ ] Rig Wash
- [ ] Spent Filters
- [ ] Pit Bottoms
- [ ] Other (as described by EPA)
- [ ] **Non-E&P Waste**

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	TBD	Groundwater Samples/Laboratory Analytical Results
Yes	SOILS	TBD	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 Megan H 16-18,20,21 Facility on 4/30 & 5/1/2025. Groundwater was not encountered in the facility excavations. Visual inspection & field screening of soil at two aboveground storage tanks (ASTs), one produce water vessel (PWV), three separators, three meter houses, & one emission control device (ECD) were conducted following removal activities. Soil samples (AST01@0.5', AST02@0.5', PWV-B01@4', PWV-E01@2', SEP01-INLET@3', SEP01-OUTLET@4', SEP02-INLET@3', SEP02-OUTLET@4', SEP03-INLET@3', & SEP03-OUTLET@3') were submitted for analysis of full list Table 915-1 constituents including benzene, toluene, ethylbenzene (BTEX), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene (TMBs), naphthalene, total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), pH, electrical conductivity (EC), sodium adsorption ratio (SAR), boron, & Table 915-1 metals to determine if a release occurred. Initial laboratory analytical results indicated that pH & hexavalent chromium exceeding the Table 915-1 allowable levels & background levels are present at the AST01, SEP02-INLET, & SEP03-INLET locations. A verification sample was collected concurrently with the initial sample, but in separate laboratory provided bottles to confirm the initial results for the AST01 location. Final analytical results confirmed that pH impacts exceeding the Table 915-1 allowable level & background level are present at the AST01 location. As such, Form 19 Initial Spill Reports (Doc #s 404220725 & 404224027) were submitted on 5/30 & 6/02/2025 & the ECMC issued Spill IDs 490634 & 490694. Additional verification samples will be collected & analyzed for hexavalent chromium only to confirm the initial results for the SEP02-INLET & SEP03-INLET locations. The facility is depicted on Figure 1. The PID readings & soil sample results are summarized in Tables 1 & 2.

Assessment activities are ongoing & will be summarized in a subsequent Form 27 Supplemental report.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

Between 4/30 & 5/1/2025, soil samples were collected from the former ASTs, PWV, & separators at depths ranging from 0.5 ft below ground surface (bgs) to 4 ft bgs. The samples were submitted for analysis of full list Table 915-1 constituents, using ECMC-approved methods. Initial analytical results indicated that pH & hexavalent chromium exceeding the Table 915-1 allowable levels & background levels are present at the AST01, SEP02-INLET, & SEP03-INLET locations. A verification sample was collected concurrently with the initial sample, but in separate laboratory provided bottles to confirm the initial results for the AST01 location. Final analytical results confirmed that pH impacts exceeding the Table 915-1 allowable level & background level are present at the AST01 location. Additional verification samples will be collected & analyzed for hexavalent chromium only to confirm the initial results for the SEP02-INLET & SEP03-INLET locations. The laboratory reports 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 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):

On 4/30 and 5/1/2025, visual inspections and field screening of soil were conducted at the hatch, loadout, and/or base of each AST, three sidewalls of the PWV excavation, one ECD, and three meter house locations. 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 ECMC Operator Guidance for Oil & Gas Facility Closure document. A photographic log is attached.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected	20	NA / ND	
Number of soil samples exceeeding 915-1	12	ND	Highest concentration of TPH (mg/kg)
Was the areal and vertical extent of soil contamination delineated?	No	--	Highest concentration of SAR 3.17
Approximate areal extent (square feet)	294	BTEX > 915-1	No
		Vertical Extent > 915-1 (in feet)	4

Groundwater

Number of groundwater samples collected	0		Highest concentration of Benzene (µg/l)
Was extent of groundwater contaminated delineated?	No		Highest concentration of Toluene (µg/l)
Depth to groundwater (below ground surface, in feet)			Highest concentration of Ethylbenzene (µg/l)
Number of groundwater monitoring wells installed			Highest concentration of Xylene (µg/l)
Number of groundwater samples exceeding 915-1			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?

One background soil sample (TB-BG01@0.5') was collected from the soil used to construct the tank battery. Eight background soil samples (NATIVE-BG13@3' - NATIVE-BG16@3' & NATIVE-BG13@6' - NATVE-BG16@6') were collected from the native material outside of the facility excavations. Twenty-four background samples were also collected as part of the Megan H 16-03 wellhead cut & cap activities (Rem # 27839), located approximately 580 ft north, from similar depths (3' & 6' bgs), & NCRS soil type (Loamy Sand). Background soil samples were submitted for analysis of pH, EC, SAR, boron, & Table 915-1 metals using ECMC-approved methods. Analytical results indicate that arsenic is naturally high in the soil used to construct the tank battery & SAR, pH, arsenic, barium, cadmium, hexavalent chromium, lead, & 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 & 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?

Assessment activities are ongoing and details will be provided in a subsequent Form 27 supplemental report.

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.

Impacted soil from the excavations will be removed and transported to a licensed disposal facility. Final disposal information will be provided upon completion of assessment activities. Disposal records are kept on file and available upon request. 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.

Laboratory data indicate that pH exceeding the ECMC Table 915-1 allowable level and background level remain in the AST01 excavation area. Initial analytical results indicate that hexavalent chromium exceeding the Table 915-1 allowable levels and background levels are present at the SEP02-INLET and SEP03-INLET locations. Additional verification samples will be collected and analyzed for hexavalent chromium only to confirm the initial results. Groundwater was not encountered during facility decommissioning activities. Assessment activities are ongoing and will be summarized in a subsequent Form 27 Supplemental report.

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ **Ex Situ**

_____ 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:

[X] 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 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: $ 17000

WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation?

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? 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. 05/30/2024

Actual Spill or Release date, or date of discovery. 05/27/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/30/2025

Proposed site investigation commencement. 04/30/2025

Proposed completion of site investigation. 01/09/2026

REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/30/2025

Proposed date of completion of Remediation. 01/09/2026

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

deleted 01/29/2026 Per Rule 915.e.(2).C, discrete grab samples (AST01@0.5', SEP02-INLET@3', and SEP03-OUTLET@3') was collected from the most impacted material available in the source area on 4/30/2025. The laboratory report and results summary table are attached. Based on these results, KMOG requests approval to amend confirmation sampling and analysis to only include hydrocarbon and metal analytes detected above laboratory reporting limits and reclamation parameters exceeding Table 915-1 allowable levels, specifically: pH, arsenic, and barium for AST01; boron, arsenic, barium, and hexavalent chromium for SEP02-INLET and SEP03-INLET.

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: 07/10/2025 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: Date:

Remediation Project Number: 29482

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
404261598	FORM 27-SUPPLEMENTAL-SUBMITTED
404262006	SOIL SAMPLE LOCATION MAP
404262033	LABORATORY ANALYTICAL REPORT
404262040	LABORATORY ANALYTICAL REPORT
404262041	LABORATORY ANALYTICAL REPORT
404269717	SOIL SAMPLE LOCATION MAP
404269718	ANALYTICAL DATA SUMMARY TABLE(S)
404269727	PHOTO DOCUMENTATION
404269759	LABORATORY ANALYTICAL REPORT
404269765	LABORATORY ANALYTICAL REPORT

Total Attach: 10 Files

General Comments

User Group	Comment	Comment Date
Environmental	ECMC has denied this form without technical review for the following reasons: -Multiple background samples presented were collected on former working pad surfaces and/or adjacent to oil and gas infrastructure. -It is unclear where soil samples were collected in relation to the secondary containment liner. -ECMC does not approve Operator's reduction request. On the replacement Supplemental Form 27 Operator shall include the following: -A figure depicting the location of all oil and gas facilities (and indicate the status: removed/abandoned in place/active) in relation to background soil sample locations. -Additionally, Operator shall ensure background soil samples have been/are obtained from: 1) Locations sufficiently away from impacted area(s) and oil and gas activities to reflect native conditions, 2) Similar depths and soil horizons or lithologic materials as the confirmation soil samples, 3) Locations with similar land use (current and historic) as the confirmation soil samples, 4) Locations with similar hydrologic conditions. If for any reason the background samples do not meet the above criteria, then these samples shall be omitted from the site specific background determination calculations. -Operator shall clarify where soil samples were collected from in relation to the secondary containment liner (above/below the liner). Additionally, Operator shall include photos documenting the soil conditions beneath the liner. During facility decommissioning soil samples should be submitted from beneath the secondary containment liner to confirm liner integrity or documenting the location of a Spill/Release requiring a Form 19. If necessary, Operator will perform and submit appropriate field screening to, aid in characterization of material under the liner. If no release is apparent based on liner condition, observations, and field screening, an adequate number of soil samples will be collected from the beneath the former equipment to verify compliance with Table 915-1 cleanup concentrations for soils.	01/29/2026

Total: 1 comment(s)