FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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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: Macy Kiel

Phone Numbers
Phone: (970) 515-1110
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PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35218 Initial Form 27 Document #: 403771344

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.
- [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.
- [ ] Other:

SITE INFORMATION

Yes Multiple Facilities

Facility Type: WELL Facility ID: API #: 123-19996 County Name: WELD
Facility Name: HSR-NICHOLS 6-15A Latitude: 40.140010 Longitude: -104.653070
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SENW Sec: 15 Twp: 2N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 488261 API #: County Name: WELD
Facility Name: HSR-Nichols 6-15A Wellhead Latitude: 40.140010 Longitude: -104.653070
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SENW Sec: 15 Twp: 2N Range: 65W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Surface Water

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

Beebe Seep Canal 780 feet (ft) east. Water well 530 ft northeast. Occupied buildings 920 ft northeast and 1,040 ft southeast. Livestock 390 ft east and 790 ft northeast. Agriculture. An area with wetland characteristics is located 760 ft east.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

[X] **E&P Waste**	[ ] **Other E&P Waste**	[ ] **Non-E&P Waste**
[X] Produced Water	[ ] Workover Fluids	_____
[X] Oil	[ ] Tank Bottoms	
[X] 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	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.

Wellhead cut and cap operations were completed at the HSR-Nichols 6-15A wellhead on 8/30/2024. Groundwater was not encountered during wellhead cut and cap activities. Visual inspection and field screening of soil around the wellhead and associated pumping equipment were conducted following cut and cap operations, and a soil sample [B01(6-15A)@6'] was submitted for analysis of full Table 915-1 constituents, to determine if a release occurred. Initial results indicated that pH impacts exceeding the ECMC Table 915-1 allowable level and background level was present at the former wellhead. A verification sample was collected and confirmed the initial result. As such, a Form 19 Initial/Supplemental Spill/Release Report (Doc# 403949508) was submitted on 10/10/2024, and the ECMC issued Spill/Release Point ID 488261. The flowline associated with the wellhead was removed between 8/30 and 9/25/2024, and soil samples were collected from the locations where the flowline risers were disconnected from the wellhead [WH-RISER(6-15A)@3'] and from the separator [SEP01-RISER(6-15A)@6'] and from where the flowline changed directions [FL01(6-15A)@5', FL02(6-15A)@5', and FL05(6-15A,25-25A)@6']. The samples were submitted for analysis of full list Table 915-1 constituents to determine if a release occurred. Analytical results for all flowline samples were within the ECMC Table 915-1 allowable levels or background levels. Lab analytical results indicate that pH in exceedance of the Table 915-1 allowable level and background level was present at the B01(6-15A) location. Due to the absence of additional 915-1 organic detections or in-organic exceedances, when compared to background, the elevated pH at the B01(6-15A) location is considered de minimis and not an indication of a spill or release associated with E&P activities. The wellhead excavation and flowline are depicted on Figures 1 and 2. The PID readings and soil sample results are summarized in Tables 1 and 2. The Form 44 is attached.

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 August 30 and September 25, 2024, soil samples were collected from the base of the cut and cap excavation [B01(6-15A)@6'], from the locations where the flowline risers were disconnected from the wellhead [WH-RISER(6-15A)@3'] and from the separator [SEP01-RISER(6-15A)@6'], and from where the flowline changed directions [FL01(6-15A)@5', FL02(6-15A)@5', and FL05(6-15A,25-25A)@6']. The samples were submitted for laboratory analysis of full list Table 915-1 constituents using ECMC-approved methods. Analytical results indicated that pH impacts exceeding the ECMC Table 915-1 allowable level and background level was present at the former wellhead. Due to the absence of additional 915-1 organic detections or in-organic exceedances, when compared to background, the elevated pH at the B01(6-15A) location is considered de minimis and not an indication of a spill or release associated with E&P activities. 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 wellhead cut and cap or flowline removal operations.

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):

Between August 30 and September 24, 2024, visual inspection and field screening of soil were conducted at three sidewall locations within the cut and cap excavation area and seven flowline potholes. Based on the inspection and screening results, hydrocarbon-impacted soil was not observed at the screening locations, and no soil samples were submitted for laboratory analysis from these areas, in accordance with the ECMC Operator Guidance.

On September 5, 2024, a soil gas survey was conducted at five soil vapor points (SVP) installed adjacent to the former wellhead location following cut and cap operations. GEM 5000 field readings were non-detect for methane at all soil vapor points.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 12

Number of soil samples exceeeding 915-1: 10

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): ND

Highest concentration of SAR: --

BTEX > 915-1: 3.08

Vertical Extent > 915-1 (in feet): No

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?

Eight background soil samples (NATIVE-BG01@3' through NATIVE-BG04@3' and NATIVE-BG01@6' through NATIVE-BG04@6') were collected from the native material outside of the wellhead excavation area. Eight additional background soil samples were also collected as part of the Thomason 3-15 wellhead decommissioning activities (Rem# 35222), located approximately 1370 ft north, from similar depths (3' and 6' bgs), and NCRS soil type (sand). Background soil samples were submitted for laboratory analysis of pH, electrical conductivity (EC), sodium adsorption ratio (SAR), boron, and Table 915-1 metals using ECMC-approved methods. Analytical results indicate that pH, arsenic, barium, copper, 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 3.

☐ 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.

Laboratory data indicate that soil samples collected during wellhead cut and cap and flowline removal activities were within the ECMC Table 915-1 allowable levels or within 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.

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 soil samples collected during wellhead cut and cap and flowline removal activities were within the ECMC Table 915-1 allowable levels or within background levels. Laboratory analytical results indicate that pH in exceedance of the Table 915-1 allowable level and background level was present at the B01(6-15A) location. Due to the absence of additional 915-1 organic detections or in-organic exceedances, when compared to background, the elevated pH at the B01(6-15A) location is considered de minimis and not an indication of a spill or release associated with E&P activities. Groundwater was not encountered during wellhead cut and cap and flowline removal 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**

_____ 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

[X] 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:

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

If YES:

[X] 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 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. 06/13/2025

Proposed date of completion of Reclamation. 06/13/2026

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. 10/08/2024

Actual Spill or Release date, or date of discovery. 10/08/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/30/2024

Proposed site investigation commencement. 08/30/2024

Proposed completion of site investigation. 09/25/2024

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:

OPERATOR COMMENT

Based on the 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: Macy Kiel

Title: HSE Advisor

Submit Date: 06/17/2025

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: Laurel Anderson

Date: 10/15/2025

Remediation Project Number: 35218

COA Type	Description
	Operator states: "Lab analytical results indicate that pH in exceedance of the Table 915-1 allowable level and background level was present at the B01(6-15A) location. Due to the absence of additional 915-1 organic detections or in-organic exceedances, when compared to background, the elevated pH at the B01(6-15A) location is considered de minimis and not an indication of a spill or release associated with E&P activities." Soil samples collected during cut and cap of the wellhead and removal of the associated off-location flowline exhibit exceedances of Table 915-1; background samples presented are invalid. Based on these limitations, neither the Operator nor ECMC can definitively determine if the exceedances are indicative of a release. However, due to the absence of Table 915-1 organic contaminants of concern ECMC agrees the inorganic exceedances may not be associated with E&P activities and in this instance has approved this closure request. ECMC noted the following issues with the data presented herein: 1) Background samples collected under this Remediation Project (REM #35218) were collected from areas on the former working pad surface and are not representative of background conditions. 2) Background sample NATIVE-BG02@6' does not appear to be representative of native background conditions. NATIVE-BG02@6' was collected on the former working pad surface in close proximity to the wellhead. Laboratory analytical data indicates concentrations of multiple metals exceeded Table 915-1 Protection of Groundwater Soil Screening Levels and were multiple orders of magnitude higher than concentrations in all other soil samples presented. 3) No additional investigation/data was initiated/provided to further characterize the metal concentrations and determine their source. 4) Background samples from Remediation Project #35222 are invalid for this location as they were collected within a separate NRCS soil type and are over 1300' away. 5) The pH of soil samples collected from the wellhead excavation exceeded the allowable level for Table 915-1 soil suitability for reclamation and background samples presented. Operator has indicated pH in soil samples collected exceed the Table 915-1 allowable level but are within analytical variability of background-- ECMC does not approve this reasoning. In the future ECMC will not approve closure requests without the following: -Proper characterization of impacts to soil (and groundwater as applicable); -Full definition of the vertical and lateral extent of impacts over Protection of Groundwater Soil Screening Level Concentrations through collection and laboratory analysis of an appropriate number of soil samples (Note: Laboratory analysis of complete Table 915-1 Contaminants of Concern is required until Operator has submitted sufficient characterization data to request and receive Director Approval of reduced list of contaminants of concern.); -Valid background samples obtained 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. ECMC has approved this 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. This no further action determination is limited to environmental remediation. Operator is required to comply with ECMC 1100 Series Rules for Flowline Regulations for all Flowline Abandonment activities and ECMC 400 Series Rules for Wellhead Plugging and Abandonment. 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.
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
404227814	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404236831	SOIL SAMPLE LOCATION MAP
404236847	ANALYTICAL DATA SUMMARY TABLE(S)
404236848	PHOTO DOCUMENTATION
404236849	OTHER
404236850	CORRESPONDENCE
404236864	LABORATORY ANALYTICAL REPORT
404236868	LABORATORY ANALYTICAL REPORT
404236869	LABORATORY ANALYTICAL REPORT
404236870	LABORATORY ANALYTICAL REPORT
404237377	SOIL SAMPLE LOCATION MAP
404237685	LABORATORY ANALYTICAL REPORT
404392403	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 13 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)