

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
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Receive Date:

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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: Max Moran	Email: DJRemediation_Forms@oxy.com	Phone: (720) 929-4307
		Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 40341 Initial Form 27 Document #: 404151988

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

Yes  Multiple Facilities

Facility Type: TANK BATTERY Facility ID: 487137 API #: \_\_\_\_\_ County Name: WELD

Facility Name: JOKER 1N1 1N2 1N3 26N1-9HZ TB Latitude: 40.061004 Longitude: -104.664425

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

QtrQtr: SWSE Sec: 9 Twp: 1N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 490793 API #: \_\_\_\_\_ County Name: WELD

Facility Name: Joker 1N1 1N2 1N3 26N1-9HZ Facility Latitude: 40.061085 Longitude: -104.664526

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

QtrQtr: SWSE Sec: 9 Twp: 1N Range: 65W Meridian: 6 Sensitive Area? Yes

## **SITE CONDITIONS**

General soil type - USCS Classifications SM

Most Sensitive Adjacent Land Use Occupied  
Building &  
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**

Triangle Reservoir No 1 710 feet (ft) northeast. Water well 730 ft southeast. County road 820 ft south. Occupied building 1060 ft southeast. An area with wetland characteristics is located approximately 620 ft northeast. Agriculture.

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             |  |
| <input checked="" type="checkbox"/> Oil            | <input type="checkbox"/> Tank Bottoms                |  |
| <input checked="" type="checkbox"/> Condensate     | <input type="checkbox"/> Pigging Waste               |  |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |  |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |  |
|  | <input type="checkbox"/> Pit Bottoms                 |  |
|  | <input type="checkbox"/> Other (as described by EPA) |  |

## 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.

Partial facility decommissioning activities were completed at the Joker 1N1 1N2 1N3 26N1-9HZ Facility on 6/9/2025. Groundwater was not encountered during decommissioning activities. Visual inspection and field screening of soil at six separators were conducted following removal activities. Soil samples (Sep01-INLET@0.5', Sep01-OUTLET@0.5', Sep02-INLET@0.5', Sep02-OUTLET@0.5', Sep03-INLET@0.5', Sep03-OUTLET@0.5', Sep04-INLET@0.5', Sep04-OUTLET@0.5', Sep05-INLET@0.5', Sep05-OUTLET@0.5', Sep06-INLET@0.5', and Sep06-OUTLET@0.5') were submitted for analysis of full list Table 915-1 constituents to determine if a release occurred. Initial laboratory analytical results indicated 1-methylnaphthalene, electrical conductivity (EC), sodium adsorption ratio (SAR), pH, arsenic, and selenium exceeding the Table 915-1 allowable levels and background levels are present at the Sep02-OUTLET, Sep04-INLET, Sep05-OUTLET, and Sep06-OUTLET locations. As such, a Form 19 Initial/Supplemental Spill/Release Report (Document No. 404245430) was submitted on 6/20/2025, and the ECMC issued Spill/Release Point ID 490793. The facility soil sample locations are depicted on Figure 1. The PID readings and soil sample results are summarized in Tables 1 and 2, respectively.

Excavation activities are pending and details will be provided in a subsequent Form 27 supplemental report.

## 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 6/9/2025, soil samples were collected from the former separators at a depth of 0.5 ft below ground surface (bgs). The samples were submitted for analysis of full list Table 915-1 constituents, using ECMC approved methods. Initial laboratory analytical results indicated 1-methylnaphthalene, EC, SAR, pH, arsenic, and selenium exceeding the Table 915-1 allowable levels and background levels are present at the Sep02-OUTLET, Sep04-INLET, Sep05-OUTLET, and Sep06-OUTLET locations. The laboratory report is attached. A photographic log is 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 ):

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 13  
Number of soil samples exceeding 915-1 13  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square feet) 50

### NA / ND

ND Highest concentration of TPH (mg/kg) \_\_\_\_\_  
-- Highest concentration of SAR 9.91  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 1

### Groundwater

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? No  
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 background soil samples (Native-BG01@0.5' through Native-BG04@0.5') were collected from the native material outside of the facility. Five background samples were also collected as part of the Bane 2N3 27N 2N2 28N1-9HZ decommissioning activities (Remediation No. 36198), located approximately 300 ft north and 400 ft south on the same pad, from similar depths (3' bgs), same land use, and NRCS soil type (Silt). The background soil samples were submitted for laboratory analysis of pH, EC, SAR, boron, and Table 915-1 metals, using ECMC-approved methods. Analytical results indicate that EC, SAR, pH, arsenic, barium, 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?

Excavation activities are pending 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 Sep02-OUTLET location will be removed and transported to a licensed disposal facility. Final disposal information will be provided upon completion of assessment activities. Disposal records will be kept on file and available upon request. The excavation areas will be backfilled and contoured 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.

Laboratory data indicate that 1-methylnaphthalene, EC, SAR and/or pH impacts exceeding the ECMC Table 915-1 allowable levels and background levels remain at the Sep02-OUTLET, Sep04-INLET, Sep05-OUTLET, and Sep06-OUTLET locations. Groundwater was not encountered during facility decommissioning activities. Excavation activities are pending and details will be provided 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.



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. 06/18/2025

Actual Spill or Release date, or date of discovery. 06/17/2025

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/09/2025

Proposed site investigation commencement. 06/09/2025

Proposed completion of site investigation. 05/08/2026

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 06/09/2025

Proposed date of completion of Remediation. 05/08/2026

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**

Verification sample results have been omitted from the summary table and figures due to updated ECMC instructions. All verification sample results are included in the attached laboratory analytical reports.

KMOG has included the verification sampling results from Sep04-INLET@0.5'-V for further assessment of the inorganic ECMC Table 915-1 exceedances (arsenic, selenium, and pH). The scientific justification for the inclusion of this verification sample is the absence of other release indicators and the anomalous initial results in the parent sample. Analytical results in the parent sample were non-detect for all Table 915-1 organic constituents.

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: Max Moran \_\_\_\_\_

Title: Environmental Advisor \_\_\_\_\_

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: 40341 \_\_\_\_\_

**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**

404499376	SOIL SAMPLE LOCATION MAP
404499392	PHOTO DOCUMENTATION
404499393	LABORATORY ANALYTICAL REPORT
404505741	LABORATORY ANALYTICAL REPORT
404508294	SOIL SAMPLE LOCATION MAP
404508298	ANALYTICAL DATA SUMMARY TABLE(S)

Total Attach: 6 Files

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

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)