

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
404270868  
Receive Date:  
07/11/2025

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 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 &amp; GAS ONSHORE LP</u>	Operator No: <u>47120</u>	<b>Phone Numbers</b>
Address: <u>P O BOX 173779</u>		Phone: <u>(970) 515-1727</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80217-3779</u>		Mobile: <u>( )</u>
Contact Person: <u>Eve Bugarin</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 27567 Initial Form 27 Document #: 403305355

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: <u>LOCATION</u>	Facility ID: <u>310674</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>MEGAN H16-99HZ</u>	Latitude: <u>40.221687</u>	Longitude: <u>-104.677196</u>	
	** correct Lat/Long if needed: Latitude: <u>40.220815</u>	Longitude: <u>-104.677426</u>	
QtrQtr: <u>SWSW</u> Sec: <u>16</u> Twp: <u>3N</u> Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>			

Facility Type: <u>WELL</u>	Facility ID: _____	API #: <u>123-32747</u>	County Name: <u>WELD</u>
Facility Name: <u>UPRC H17-99HZ</u>	Latitude: <u>40.221461</u>	Longitude: <u>-104.677199</u>	
	** correct Lat/Long if needed: Latitude: _____	Longitude: _____	
QtrQtr: <u>SWSW</u> Sec: <u>16</u> Twp: <u>3N</u> Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>			

Facility Type: SPILL OR RELEASE Facility ID: 484373 API #: \_\_\_\_\_ County Name: WELD  
 Facility Name: UPRC H17-99HZ O SA Tank Battery Latitude: 40.220815 Longitude: -104.677426  
 \*\* correct Lat/Long if needed: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 QtrQtr: SWSW Sec: 16 Twp: 3N Range: 65W Meridian: 6 Sensitive Area? Yes

Facility Type: SPILL OR RELEASE Facility ID: 489842 API #: \_\_\_\_\_ County Name: WELD  
 Facility Name: UPRC H17-99HZ Wellhead Latitude: 40.221452 Longitude: -104.677227  
 \*\* correct Lat/Long if needed: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 QtrQtr: SWSW Sec: 16 Twp: 3N Range: 65W Meridian: 6 Sensitive Area? Yes

**SITE CONDITIONS**

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Agriculture  
 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**

Domestic water well: none  
 Surface water: none  
 Wetlands: none  
 Spring: none  
 Livestock: none  
 Occupied Building: none  
 High Priority Habitats: none

# 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
Yes	GROUNDWATER	TBD	Groundwater samples/laboratory analytical results
Yes	SOILS	TBD	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.

This form has been prepared to address the change of scope of work associated with the UPRC H17-99HZ O SA presented in the submitted Form 27 Supplemental Document #404165444, and provide prior notice of the remediation of the historical release that was discovered during reclamation activities at the former UPRC H17-99HZ wellhead. On March 24, 2025, soil samples (REC-B01@1', REC-B02@2', REC-B03@2', REC-B04@2', REC-B05@2', REC-B06@2', REC-B07@2', REC-B08@2', and REC-B09@2') were collected from the material showing signs of potential impacts based on field observations, and submitted for laboratory analysis of the full ECMC Table 915-1 analytical suite using standard ECMC approved methods appropriate for detecting the target analytes in Table 915-1. Analytical results received on April 10, 2025, indicate that the TPH, 1,3,5-TMBs, 1-,2-methylnaphthalene, naphthalene, arsenic, barium, lead, selenium, and/or pH concentrations exceeded the applicable ECMC Table 915-1 standards and/or background limits. As such, a Form 19-Initial Spill/Release Report ECMC Document No. 404161166 was submitted on April 11, 2025, and the ECMC issued Spill/Release Point ID 489842. Soil sample location and field screening data are presented in Table 1. The soil sample locations are illustrated on Figure 1.

## 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 March 24, 2025, samples were collected from the material showing signs of potential impacts based on field observations, and submitted for laboratory analysis of the full ECMC Table 915-1 analytical suite using standard ECMC-approved methods appropriate for detecting the target analytes in Table 915-1. Analytical results indicate that the TPH, 1,3,5-TMBs, 1-,2-methylnaphthalene, naphthalene, arsenic, barium, lead, selenium, and/or pH concentrations exceeded the applicable ECMC Table 915-1 standards and/or background limits. Site assessment activities are ongoing. Soil analytical results are summarized in Tables 2 through 5. The laboratory analytical reports are attached.

### Proposed Groundwater Sampling

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

Groundwater was encountered in the PWV excavation at approx. 32' bgs. On October 11, 2023, a groundwater sample was collected from the PWV excavation (GW-01) and submitted for laboratory analysis of BTEX, naphthalene, and TMBs by USEPA Method 8260D as approved in the Form 27-Initial (Document No. 403305355). Analytical results indicated that the benzene concentration in GW-01 exceeded the Table 915-1 standard as summarized in Table 6. Future groundwater samples will be submitted for the ECMC Table 915-1 groundwater analytical suite.

### 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 85

Number of soil samples exceeding 915-1 85

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 4000

### NA / ND

-- Highest concentration of TPH (mg/kg) 6500

-- Highest concentration of SAR 5.35

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 35

### Groundwater

Number of groundwater samples collected 1

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet) 32

Number of groundwater monitoring wells installed 0

Number of groundwater samples exceeding 915-1 1

-- Highest concentration of Benzene (µg/l) 16.6

-- Highest concentration of Toluene (µg/l) 3.64

-- Highest concentration of Ethylbenzene (µg/l) 6.78

-- Highest concentration of Xylene (µg/l) 84.5

NA 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?

Background soil samples WH-BG01 - WH-BG04 were collected from native non-impacted material (Vona loamy sand) nearby the former UPRC H17-99HZ wellhead at depths ranging from 3'-6' bgs. Background soil samples from the former Megan H 16-12 JI wellhead (located approximately 900' NW) have been included (collected from similar soil type (Olney loamy sand), depths, and from the same land use (grassland)). The background soil samples were submitted for laboratory analysis of the Soil Suitability for Reclamation and/or ECOM Table 915-1 Metals using standard methods appropriate for detecting the target analytes in Table 915-1. Analytical results for the background soil samples are presented in Tables 3 and 5. The background 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?

Additional assessment and/or excavation activities are ongoing to address the remaining soil impacts encountered during reclamation activities.

Groundwater monitoring wells will be installed at the site to fully define the extent and magnitude of the remaining soil impacts. A background groundwater sample will be collected and submitted for laboratory analysis of TDS, sulfate ions, and chloride ions to establish background levels.

## 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.

Between April 28, 2023 through May 17, 2024, approximately 2,350 cubic yards of impacted material were excavated from the former PWV excavation area and transported to the Buffalo Ridge Landfill, located in Keenesburg, Colorado for disposal; approximately 1,990 cubic yards of impacted material were excavated and transported to the Kerr-McGee Land Treatment Facility in Weld County, Colorado for recycling. Final analytical results indicate that the soil samples collected from the final PWV and separator excavation extents were in compliance with Table 915-1 standards and/or background limits. The excavation areas will be backfilled and contoured to match pre-existing conditions.

Additional assessment and/or excavation activities are ongoing to address the remaining soil impacts encountered during reclamation activities.

### 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.

Final analytical results indicate that the soil samples collected from the final PWV and separator excavation extents were in compliance with Table 915-1 standards and/or background limits. Groundwater monitoring wells will be installed at the site to fully define the extent and magnitude of the remaining groundwater impacts. Estimated time to attain NFA is TBD based on the groundwater concentrations, the extent of impacted groundwater, and the efficacy of the selected remedial technologies.

Additional assessment and/or excavation activities are ongoing to address the remaining soil impacts encountered during reclamation activities.

### Soil Remediation Summary

In Situ

Ex Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

Yes \_\_\_\_\_ Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 4340

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Name of Licensed Disposal Facility or ECMC Facility ID # \_\_\_\_\_ 149007

\_\_\_\_\_ 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.

Groundwater monitoring wells will be installed at the site to fully define the extent and magnitude of the remaining groundwater impacts. Based on the remaining benzene groundwater impacts in the wellhead excavation area, the temporary groundwater monitoring wells will be sampled on a quarterly basis and submitted for laboratory analysis of the ECMC Table 915-1 groundwater analytical suite. A groundwater monitoring location figure illustrating the locations of the surveyed temporary monitoring wells will be provided in a Form 27-Supplemental update.



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 Remediation 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. 01/17/2023

Actual Spill or Release date, or date of discovery. 04/10/2023

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/18/2023

Proposed site investigation commencement. 04/18/2023

Proposed completion of site investigation. 12/31/2026

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 04/10/2023

Proposed date of completion of Remediation. 12/31/2026

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**

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

Signed: Eve Bugarin

Title: Eng. Staff Environmental

Submit Date: 07/11/2025

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: Laurel Anderson

Date: 07/14/2025

Remediation Project Number: 27567

**COA Type****Description**

	All unaddressed and/ongoing COAs, CAs and comments from previously approved and/or denied forms, and field inspection reports remain applicable; The subject Form was submitted prior to ECMC Review and approval of Form 27s Doc #404165444. COAs applied to Doc #404165444 remain applicable.
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**

404270868	FORM 27-SUPPLEMENTAL-SUBMITTED
404270976	PHOTO DOCUMENTATION
404270978	ANALYTICAL DATA SUMMARY TABLE(S)
404276193	SOIL SAMPLE LOCATION MAP
404276195	SOIL SAMPLE LOCATION MAP
404276196	LABORATORY ANALYTICAL REPORT
404276197	LABORATORY ANALYTICAL REPORT
404276198	LABORATORY ANALYTICAL REPORT

Total Attach: 8 Files

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

Environmental	Operator will submit a Form 19 Supplemental Report for the purpose of requesting closure of Spill/Release ID 489842 as will proceed under the subject Remediation Project (REM 27567).	07/14/2025
Environmental	ECMC corrected the subject form to include selection of Rule 913.c.(6): Remediation of impacted Groundwater pursuant to Rule 915.e.(3).D, and the contaminant concentrations in Table 915-1.	07/14/2025

Total: 2 comment(s)