

State of Colorado
Energy & Carbon Management Commission

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404237247
Receive Date:
07/22/2025
Report taken by:
Kari Brown

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: <u>KERR MCGEE OIL & GAS ONSHORE LP</u>	Operator No: <u>47120</u>	Phone Numbers
Address: <u>P O BOX 173779</u>		Phone: <u>(720) 929-4306</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80217-3779</u>		Mobile: <u>()</u>
Contact Person: <u>Erik Mickelson</u>	Email: <u>DJRemediation_Forms@oxy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 35960 Initial Form 27 Document #: 403789218

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>WELL</u>	Facility ID: _____	API #: <u>123-11242</u>	County Name: <u>WELD</u>
Facility Name: <u>MARTIN T. HART GAS UNIT E TRUE 1</u>	Latitude: <u>40.113720</u>	Longitude: <u>-104.882610</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>NWNW</u>	Sec: <u>27</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>LOCATION</u>	Facility ID: <u>319426</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>MARTIN T. HART GAS UNIT E TR-62N67W 27NWNW</u>	Latitude: <u>40.113720</u>	Longitude: <u>-104.882610</u>	
** correct Lat/Long if needed: Latitude: <u>40.113820</u>		Longitude: <u>-104.883500</u>	
QtrQtr: <u>NWNW</u>	Sec: <u>27</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487499</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Smith 6-27A, Hart Mar Facility</u>		Latitude: <u>40.113820</u>	Longitude: <u>-104.883500</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWNW</u>	Sec: <u>27</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487561</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Hart Martin E True 1 Wellhead</u>		Latitude: <u>40.113744</u>	Longitude: <u>-104.882749</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWNW</u>	Sec: <u>27</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>487897</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>Hart Martin E True 1 Wellhead</u>		Latitude: <u>40.113720</u>	Longitude: <u>-104.882610</u>
		** correct Lat/Long if needed: Latitude: _____	Longitude: _____
QtrQtr: <u>NWNW</u>	Sec: <u>27</u>	Twp: <u>2N</u>	Range: <u>67W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

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

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

Occupied buildings 330 feet (ft) north, 760 ft southwest. Livestock 220 ft south, 1,090 ft southwest, and 1,140 ft northwest. County Roads 990 ft west and 980 ft north. Agriculture. Groundwater at approximately 13.5 ft below ground surface (bgs).

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.

Wellhead cut & cap operations were completed at the Hart Martin E True 1 wellhead on 7/29/2024. Groundwater was encountered in the cut & cap excavation at 13.5 ft bgs. Visual inspection & field screening of soil around the wellhead & pumping equipment were conducted. A soil sample (B01@6') was submitted for analysis of full list Table 915-1 constituents. The flowline associated with the wellhead was removed on 7/29 & 7/30/2024. Samples were collected from where the flowline risers were disconnected from the wellhead (WH01-RISER@3') & the separator (SEP-RISER@4') & where a pothole had potential impact (FL02@6'). Results indicated that polycyclic aromatic hydrocarbon (PAH), pH, &/or Table 915-1 metals impacts exceeding the allowable levels or background levels were present at WH01-RISER & FL02. Form 19 Initial Spill Reports (Doc# 403872676 & 403908809) were submitted on 8/2 & 9/6/2024 & the ECMC issued Spill IDs 487561 & 487897.

Decommissioning activities were completed at the Smith 6-27A, Hart Mar facility on 7/30/2024. Groundwater was encountered during excavation activities at 14 ft bgs. Visual inspection & field screening of soil at one aboveground storage tank (AST), one produced water vessel (PWV), one meter house, three dumpline potholes, & one separator were conducted. Samples were submitted for analysis of full list Table 915-1 constituents to determine if a release occurred. Results indicated that PAH &/or pH impacts were present at the AST, dumpline pothole (FL01@6'), PWV base, & separator inlet. A Form 19 Initial Spill Report (Doc# 403872669) was submitted on 8/2/2024 & the ECMC issued Spill ID 487499.

On 3/6/2025, 3 soil samples (SS01@0.5', SS02@0.5', & SS03@0.5') were collected during reclamation activities & submitted for analysis of full list Table 915-1 constituents. Results indicated that total petroleum hydrocarbons (TPH), 1,2,4-&1,3,5 trimethylbenzene (TMB), PAH, pH, barium, cadmium, & lead impacts were present.

Excavation activities are ongoing.

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):

Between 10/8/2024 & 5/1/2025, excavation activities were conducted to address remaining soil impacts at the FL01, FL02, AST, wellhead riser, PWV, SS01-SS03 locations & 31 confirmation soil samples were collected from the base & sidewalls of the final excavation extents at depths ranging from 1 to 15 ft bgs & 3 to 12 ft bgs, respectively. The confirmation soil samples were submitted for analysis of the excavation specific waste profiles, including TPH, benzene, toluene, ethylbenzene, xylenes (BTEX), TMB, PAH, boron, electrical conductivity (EC), sodium adsorption ratio (SAR), pH, boron &/or select Table 915-1 metals using ECMC-approved methods. Analytical results indicated that all samples at the final FL01, FL02, AST, & wellhead riser excavation extents were within the ECMC Table 915-1 allowable levels or background levels x1.25 for Table 915-1 metals. Results indicate PAH, EC, & boron remain in the PWV & SS locations. Excavation activities are ongoing. The lab reports are attached.

Proposed Groundwater Sampling

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

On October 9, 2024, a groundwater sample (GW-WH01-RISER-B01@14') was collected from the wellhead excavation. The groundwater sample was submitted for analysis of full list Table 915-1 constituents in groundwater. Background groundwater samples (GW-NATIVE-BG12@14 and GW-NATIVE-BG15@14') were collected for analysis of Table 915-1 inorganic constituents in groundwater. Based on the laboratory analytical results groundwater concentrations were in compliance with ECMC Table 915-1 allowable levels or background levels for all requested analytes. No organic constituents were detected above the laboratory reporting limits. The groundwater sample locations and background groundwater sample locations are depicted on Figures 1 and 4. The groundwater sample analytical results are summarized in Table 3.

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 July 29 and July 30, 2024, visual inspections and field screening of soil were conducted at four sidewall locations within the cut and cap excavation area, four locations at the ground surface adjacent to the wellhead excavation, four flowline potholes, the hatch and footprint of the AST, three sidewalls of the PWV excavation, and three dumpline potholes. Based on the inspection and screening results, impacted soil was not observed at the soil screening locations and no soil samples were submitted for analysis from these areas. A photographic log is attached.

On August 9, 2024, a soil gas survey was conducted at four soil vapor points (SVPs) installed adjacent to the former wellhead location following cut and cap operations. One additional SVP was blocked and could not be screened. GEM 5000 field readings were all non-detect for methane at all soil vapor points. The soil vapor point locations are illustrated on Figure 1. The soil vapor field form is included as an attachment.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 63

Number of soil samples exceeding 915-1 58

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

Approximate areal extent (square feet) 2308

Groundwater

Number of groundwater samples collected 1

NA / ND

-- Highest concentration of TPH (mg/kg) 475

-- Highest concentration of SAR 17.3

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 15

ND Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No
 Depth to groundwater (below ground surface, in feet) 14
 Number of groundwater monitoring wells installed 0
 Number of groundwater samples exceeding 915-1 0

ND Highest concentration of Toluene (µg/l) _____
 ND Highest concentration of Ethylbenzene (µg/l) _____
 ND Highest concentration of Xylene (µg/l) _____
 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?

Thirty-three background soil samples (NATIVE-BG01@3' through NATIVE-BG11@3', NATIVE-BG01@6' through NATIVE-BG11@6', NATIVE-BG12@10' through NATIVE-BG15@10', NATIVE-BG12@13' through NATIVE-BG15@13', and NATIVE-BG16@0.5' through NATIVE-BG18@0.5') were collected from the native material outside of the wellhead cut and cap and facility excavations. The samples were submitted for laboratory analysis of pH, EC, SAR, boron, and Table 915-1 metals, using ECMC-approved methods. Laboratory analytical results indicate that EC, SAR, pH, boron, arsenic, barium, lead, and selenium are naturally high in the native soil. The background soil sample laboratory analytical results are summarized in Table 2. The background soil samples are depicted on Figure 4.

Two background groundwater samples were collected for analysis of Table 915-1 inorganic constituents in groundwater. The background groundwater sample results are summarized in Table 3. The background groundwater locations are depicted on Figure 4.

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 at the PWV and SS locations are ongoing and will be summarized 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 FL01, FL02, AST, PWV, wellhead riser, and SS 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 PAH, EC, and boron impacts exceeding the ECMC Table 915-1 allowable levels remain in the PWV and SS excavation areas. Groundwater was encountered at approximately 13.5 ft bgs. Analytical results indicate that groundwater concentrations were in compliance with ECMC Table 915-1 allowable levels for all requested analytes. No organic constituents were detected above the laboratory reporting limits. Excavation activities at the PWV and SS locations are pending and will be summarized in a subsequent Form 27 Supplemental report.

Soil Remediation Summary

In Situ

Ex Situ

_____ Bioremediation (or enhanced bioremediation)

_____ Excavate and offsite disposal

_____ Chemical oxidation

_____ If Yes: Estimated Volume (Cubic Yards) _____

_____ Air sparge / Soil vapor extraction

_____ Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ 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.

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. 09/05/2024

Actual Spill or Release date, or date of discovery. 09/04/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/29/2024

Proposed site investigation commencement. 07/29/2024

Proposed completion of site investigation. 12/12/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/29/2024

Proposed date of completion of Remediation. 12/12/2025

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

Per the conditions of approval issued by the ECMC for Document No. 404040132.

COA #1: The waste disposal manifests have been submitted with this Form 27 submittal.

COA #2: KMOG will re-collect all final confirmation samples and submit for analysis of full list Table 915-1 constituents

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

Signed: Erik Mickelson

Title: Environmental Lead

Submit Date: 07/22/2025

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: Kari Brown

Date: 03/12/2026

Remediation Project Number: 35960

COA Type**Description**

	Operator shall provide all waste disposal information in the relevant sections on the next supplemental Form 27.
	Operator shall collect groundwater samples from all excavations in which groundwater has been observed and submit for full Table 915-1 analysis.
2 COAs	

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**

404237247	INVESTIGATION/REMEDATION WORKPLAN (SUPPLEMENTAL)
404237301	ANALYTICAL DATA SUMMARY TABLE(S)
404237334	PHOTO DOCUMENTATION
404237338	LABORATORY ANALYTICAL REPORT
404237339	LABORATORY ANALYTICAL REPORT
404237340	LABORATORY ANALYTICAL REPORT
404237478	SOIL SAMPLE LOCATION MAP
404237479	SOIL SAMPLE LOCATION MAP
404238573	SOIL SAMPLE LOCATION MAP
404238575	SOIL SAMPLE LOCATION MAP
404289054	DISPOSAL MANIFESTS
404577155	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 12 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)