

State of Colorado
Energy & Carbon Management Commission

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Report taken by:
Kyle Waggoner

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: SMITH ENERGY CORP	Operator No: 70385	Phone Numbers Phone: (303) 894-2100 Mobile: (303) 905-5341
Address: 12706 SHILOH RD		
City: GREELEY	State: CO	Zip: 80631
Contact Person: James Hix - East OWP EPS	Email: james.hix@state.co.us	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 26747 Initial Form 27 Document #: 403275652

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: UPRR-AMOCO 23-1-63-61N63W Wellhead/Tank Battery Decommissioning

SITE INFORMATION

No Multiple Facilities

Facility Type: LOCATION	Facility ID: 328412	API #: _____	County Name: WELD
Facility Name: UPRR-AMOCO 23-1-63-61N63W 23SWNW		Latitude: 40.038850	Longitude: -104.411857
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SWNW	Sec: 23	Twp: 1N	Range: 63W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications CL Most Sensitive Adjacent Land Use Cropland
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? No

Other Potential Receptors within 1/4 mile

Irrigation pond ~160 ft South; Single-family residential ~1,000 ft North, Groundwater is expected to lie at depths greater than 50 feet below ground surface (bgs).

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- E&P Waste
- Other E&P Waste
- Non-E&P Waste
- Produced Water
- Workover Fluids
- Oil
- Tank Bottoms
- 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
UNDETERMINED	SOILS	UNKNOWN	Visually, Field Screening, Analytical

INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

Smith Energy Corp. - UPRR-AMOCO 23-1-63-61N63W 23 SWNW Tank Battery and Flowline Decommissioning associated with Civitas Resources/Extraction Oil & Gas Inc. plugging and abandoning (PA) of the UPRR-AMOCO 23-1-63 #1 (OWP) well as part of a public project. This location is in the Energy and Carbon Management Commission (ECMC) (f.k.a. COGCC) Orphaned Well Program (OWP). The OWP oversaw the decommissioning of the related UPRR-AMOCO 23-1-63-61N63W 23SWNW Tank Battery.

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):

Grab soil samples will be collected as part of this investigation including beneath the former aboveground storage tank(s), partially buried produced water tank, separator, and along the length of the flowline. Soil samples will be submitted for analysis of full Table 915-1 parameters.

Proposed Groundwater Sampling

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

Groundwater samples are not expected to be collected as part of this investigation.

Proposed Surface Water Sampling

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

Surface water samples are not expected to be collected as part of this investigation.

Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan (summary):

No additional alternative investigation actions are expected to be conducted as part of this initial site investigation. If impacted soils are encountered additional actions will be evaluated.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 7
Number of soil samples exceeding 915-1 3
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet) 1500

NA / ND

-- Highest concentration of TPH (mg/kg) 1289
-- Highest concentration of SAR 5.3
BTEX > 915-1 No
Vertical Extent > 915-1 (in feet) 7

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?
A site-specific background soil sample, 328412_BK01 @3', was collected from an undisturbed area northeast of the vertical separator and the tank battery. The sample was submitted to an accredited environmental laboratory for analysis of Table 915-1 metals (As, Ba, Cd, Cu, Cr6+, Pb, Ni, Se, Ag, Zn) and soil suitability for reclamation parameters (pH, EC, SAR, hot-water soluble boron). The background soil pH was reported at 8.54 s.u.

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?
Further site investigation is required in the vicinity of the former produced water vault (Sample ID# 328412_PWV01_N01 @5'), to investigate the TPH concentration of 1289.4 mg/kg and pH of 8.57 s.u. Additional site-specific background soil samples will be collected as part of the further site investigation to assess the metals concentrations (As, Ba, Pb, Se) reported in the base of the UPRR-AMOCO 23-1-63 wellhead soil samples.

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.
If E&P waste impacted soils are encountered during facility decommissioning, the impacted soils will be excavated, temporarily stockpiled on location, and hauled to a commercial disposal facility.

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.

If E&P waste impacts are encountered during decommissioning, remediation of soil impacts will be evaluated. Impacted soils will be excavated, temporarily stockpiled on location, and hauled to a commercial disposal facility. Clean fill will be brought to the site to fill excavations.

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
_____ Natural Attenuation
_____ Other _____

_____ 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:

Quarterly Semi-Annually Annually Other Supplemental Form 27 - Closure Report

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.

The former SMITH ENERGY CORP - 70385 UPRR-AMOCO 23-1-63 1 (OWP) is in the ECMC Orphaned Well Program. The Operator's bond and/or other funds will be used to plug and abandon (PA) the well, decommission, remediate, and reclaim the oil and gas location.

Operator anticipates the remaining cost for this project to be: \$ _____

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 per 1000 Series Rules under a separate scope of work.

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. 10/27/2023

Actual Spill or Release date, or date of discovery. 04/13/2023

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 01/02/2023

Proposed site investigation commencement. 04/13/2023

Proposed completion of site investigation. 12/07/2023

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

The SMITH ENERGY CORP - 70385 UPRR- AMOCO 23-1-63 #1 (OWP) oil and gas well (API #05-123-15959) UPRR-AMOCO 23-1-63-61N63W 23SWNW (Location ID #328412) is in the ECMC Orphaned Well Program. The UPRR-AMOCO 23-1-63 #1 well was plugged and abandoned (PA) by Civitas Resources/Extraction Oil & Gas Inc. as part of a public project. The OWP oversaw the decommissioning of the remote tank battery. The depth to groundwater in the area is expected to be greater than 50 ft below ground surface (bgs) based on a review of DWR water well records. This supplemental Form 27 presents the results of the decommissioning activities. Soil samples at the former tank battery were collected on 04/13/2023 and 11/21/2023 from beneath the aboveground storage tank (AST) produced water vault (PWV), vertical separator, and on-location flowlines and adjacent meter shed where E&P Waste impacts were most likely to be encountered. Samples were collected from 3 ft to 5 ft bgs. Evidence of a historic release were observed beneath the former produced water vault where total petroleum hydrocarbons (TPH) were reported above the Table 915-1 soil screening level (SSL) of 500 mg/kg. Elevated pH readings were also reported in soil samples beneath the AST and PWV. A site-specific background sample was collected northeast of the tank battery/vertical separator.

A soil sample, WH-B01 @7', was collected on 12/07/2023 from the wellhead excavation base at 7 feet bgs. A composite sample was collected from the excavation spoil pile, SP-CS01, for waste characterization. Analytical results indicate that arsenic, barium, and lead were above Table 915-1 SSL. Additional site investigation and remediation are required to delineate the lateral and vertical extent of E&P Waste impacts near the produced water vault. Additional site-specific background soil samples are required to further assess Table 915-1 metals and soil suitability for reclamation parameters at the site. Site investigation and remediation will proceed under Remediation Project #26747.

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

Signed: James Hix

Title: East OWP EPS

Submit Date: 08/09/2024

Email: james.hix@state.co.us

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: Kyle Waggoner

Date: 11/06/2024

Remediation Project Number: 26747

COA Type**Description**

	OWP shall update the implementation schedule to reflect anticipated completion of the site investigation and remedial activities.
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**

403884500	FORM 27-SUPPLEMENTAL-SUBMITTED
403884636	SITE INVESTIGATION REPORT
403884639	SITE INVESTIGATION REPORT

Total Attach: 3 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)