

State of Colorado  
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
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Document Number:

403906084

Receive Date:

09/03/2024

Report taken by:

Krystal Heibel

## 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
Address: 12706 SHILOH RD		Phone: (303) 894-2100
City: GREELEY	State: CO	Zip: 80631
Contact Person: James Hix - East OWP EPS	Email: james.hix@state.co.us	Mobile: (303) 905-5341

## PROJECT, PURPOSE &amp; SITE INFORMATION

## PROJECT INFORMATION

Remediation Project #: 27607 Initial Form 27 Document #: 403281330

## 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

No Multiple Facilities

Facility Type: LOCATION	Facility ID: 319114	API #: _____	County Name: WELD
Facility Name: FARNIK-WELD COUNTY-67N59W 35NENE	Latitude: 40.536507	Longitude: -103.939107	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NENE	Sec: 35	Twp: 7N	Range: 59W Meridian: 6 Sensitive Area? Yes

## SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Rangeland

Is domestic water well within 1/4 mile? No 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

There are no DWR Permitted Water Wells plotted within 1/4-mile of the Location. DWR Water Well Permit #280553--A, Receipt #3639718B (DTW = 110-126 ft, Top of Perf Casing = 100 ft, SWL = 37 ft, TD = 140 ft, ~3385 ft SJ); Surface Water: Drainage to Wildcat Creek ~330 ft southwest. There are no NWI Mapped Wetlands w/in 1/4-mile of the Location. The Location is within CPW Mapped HPH: Mule Deer Severe Winter Range.

## 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.

This oil and gas Location is in the Colorado ECMC Orphaned Well Program (OWP). This initial Form 27 is submitted for site investigation activities performed during decommissioning of Oil and Gas Facilities.

### 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 from areas most likely to exhibit E&P Waste impacts. Soil samples will be submitted for analysis of full Table 915-1 including organic compounds (TPH ranges C6-C36; BTEX; 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Naphthalene, PAH) and inorganic compounds (metals, soil suitability for reclamation).

#### 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 investigative actions are expected to be conducted as part of this site investigation.

## SITE INVESTIGATION REPORT

### SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 10

Number of soil samples exceeding 915-1 5

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

Approximate areal extent (square feet) 12200

-- Highest concentration of TPH (mg/kg) 25650

-- Highest concentration of SAR 14.6

BTEX > 915-1 No

Vertical Extent > 915-1 (in feet) 6

#### 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, 319114\_BK01 @3', collected north-northeast of the location 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, and hot water soluble boron). The background soil sample result for pH was 8.64 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 to delineate the lateral and vertical extent of TPH impacts reported in soil sample 319114\_AST01\_B01 @2' (2582 mg/kg), 319114\_FL01\_01 @6' (1066 mg/kg), and 319114\_FP01\_B01 @2' (25650 mg/kg). Other reported impacts include 1,2,4-TMB (51.5 mg/kg), Naphthalene (3.31 mg/kg), and Arsenic (3.69 mg/kg). Soil suitability for reclamation parameter results for pH were reported at 8.64 and 9.63 s.u. and SAR was reported at 14.6 in soil sample 319114\_FP01\_B01 @2'.

### 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 impacts are encountered during decommissioning of Oil and Gas Facilities, approximately 10 cubic yards of 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 impacted soils are encountered approximately 10 cubic yards of the impacted soils will be excavated and removed. If the horizontal and vertical extent of the E&P Waste impacts cannot be defined or removed during this initial action, then additional site investigation and remediation will be performed at a later date under an approved supplemental Form 27. Site data will be evaluated and remediation technologies implemented to meet Table 915-1 soil residential screening levels, protection of groundwater screening levels, or Table 915-1 groundwater and WQCC Regulation 41 numeric and narrative levels as applicable to site conditions.

### Soil Remediation Summary

☐ In Situ

☐ Ex Situ

Bioremediation ( or enhanced bioremediation )

Excavate and offsite disposal

\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

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:

☐ Quarterly☐ Semi-Annually☐ Annually☒ Other

Supplemental Form 27 - Oil and Gas Facilities  
Decommissioning

#### ☐ 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 SMITH ENERGY CORP - 70385 FARNIK-WELD COUNTY 2X (OWP) oil and gas well (API #05-123-10708) FARNIK-WELD COUNTY-67N59W 35NENE (Location ID #319114) is in the ECMC Orphaned Well Program. The Operator's bond and/or other funding will be used to plug and abandon the well, investigate, remediate, and reclaim the site.

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.

This oil and gas location will be reclaimed in accordance with 1000 Series Rules. The reclamation plan will be performed under a separate scope of work. Final reclamation will be conducted per ECMC 1000 Series Rules and prioritized based on OWP ranking, project funding, and staff availability. The reclamation scope will include a plan to address and avoid any effect on reclamation from Table 915-1 inorganic and soil suitability for reclamation parameters.

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. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 02/06/2023

Proposed site investigation commencement. 10/27/2023

Proposed completion of site investigation. 11/08/2023

### 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 former SMITH ENERGY CORP. - 70385 FARNIK-WELD #2X (OWP) oil and gas well (API #05-123-10708) FARNIK-WELD COUNTY-67N59W 35NENE (Location ID #319114) is in the ECMC Orphaned Well Program. Depth to groundwater in the area is estimated at greater than 100 feet bgs. This supplemental Form 27 presents the results from the Site Investigation performed during the decommissioning of the related tank battery. Analytical results indicated that total petroleum hydrocarbons (TPH) were reported above the Table 915-1 soil screening level (SSL) of 500 mg/kg in soil samples collected from beneath the aboveground storage tank (AST) (2582 mg/kg) and flowline (1066 mg/kg). The highest TPH was 25650 mg/kg in sample 319114\_FP01\_B01 @2' collected from an unlined earthen pit. Results for 1,2,4-TMB, Naphthalene, and SAR also were reported above their respective Table 915-1 SSL in this sample. Results for pH were reported above the Table 915-1 upper limit in three soil samples. Additional site investigation and remediation are required and will proceed under Remediation Project #27807.

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: 09/03/2024

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: Krystal Heibel

Date: 10/31/2024

Remediation Project Number: 27607

**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**

403906084	FORM 27-SUPPLEMENTAL-SUBMITTED
403908700	SITE INVESTIGATION REPORT

Total Attach: 2 Files

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

Environmental	"Laboratory analytical results exceeded the ECMC Table 915-1 allowable concentrations for TPH, 1,2,4-TMB, naphthalene, SAR, pH, and arsenic. Weston recommends additional sampling and investigation to delineate the impacts observed at the former separator flowline connections, AST01 base location, and the former pit."	10/31/2024
Environmental	ECMC approves OWP's request for use of Residential SSLs based on the depth to groundwater and the local lithology suggesting a pathway to groundwater at this location is not likely.	10/31/2024

Total: 2 comment(s)