FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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Receive Date:
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 COGCC 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 INFORMATON

Name of Operator: TEP ROCKY MOUNTAIN LLC Operator No: 96850
Address: 1058 COUNTY ROAD 215
City: PARACHUTE State: CO Zip: 81635
Contact Person: Michael Gardner Email: mgardner@terraep.com

Phone Numbers
Phone: (970) 263-2760
Mobile: (970) 623-4875

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 27821 Initial Form 27 Document #: 403291848

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.
- [X] 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: WELL Facility ID: API #: 045-06612 County Name: GARFIELD
Facility Name: CLOUGH W-86-29 Latitude: 39.499429 Longitude: -107.907997
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SWNE Sec: 29 Twp: 6S Range: 94W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications: OH
Most Sensitive Adjacent Land Use: Grazing, open range
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

Williams Energy - Rulison Compressor station co-located at same location as the Clough W-86-29 well location (see attached photos). No residential structures or agricultural buildings are located within 1/4 mile of Clough W-86-29 well location.

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [X] **E&P Waste**
  - [ ] Produced Water
  - [ ] Oil
  - [ ] Condensate
  - [X] Drilling Fluids
  - [ ] Drill Cuttings
- [ ] **Other E&P Waste**
  - [ ] Workover Fluids
  - [ ] Tank Bottoms
  - [ ] Pigging Waste
  - [ ] Rig Wash
  - [ ] Spent Filters
  - [ ] Pit Bottoms
  - [ ] Other (as described by EPA) _____
- [ ] **Non-E&P Waste** _____

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
No	SOILS	No impacts known observed	Routine planned P&A of natural gas well

INITIAL ACTION SUMMARY

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

The proposed plugging and abandonment of the Clough W-86-29 well (API #05-045-06612-00) is not part of any emergency action. This is a routine, planned P&A operation. The Clough W-86-29 well will be plugged and abandoned per the procedures and specifications outlined in the attached Proposed Plugging Procedure (doc#403301038) and Form 6 (doc #403300839). There are no soil, groundwater, or surface water impacts that are know to be associated with the operation of the Clough W-86-29 well. Discrete soil samples will be collected from areas that would be most likely associated with the operation of the Clough W-86-29 well. The samples collected will fulfill the sampling requirements of Rule 913.b.(2), and also for closure of this facility as required by Rule 913.h.(1).A. The Clough W-86-29 well is physically located inside a secured equipment yard for the Williams Energy Rulison Compressor Station (see attached photos). There are no separators or liquid storage tanks associated with the Clough W-86-29 well.

PROPOSED SAMPLING PLAN

Proposed Soil Sampling

[X] Will soil samples be collected as part of this investigation? (Number, type (grab/composite), analyses, and locations of samples):

The proposed plugging and abandonment of the Clough W-86-29 well (API #05-045-06612-00) is not part of any emergency action. This is a routine, planned P&A operation. The Clough W-86-29 well will be plugged and abandoned per the procedures and specifications outlined in the attached Proposed Plugging Procedure (doc#403301038) and Form 6 (doc #403300839) . There are no soil, groundwater, or surface water impacts that are know to be associated with the operation of this well. Discrete soil samples will be collected from areas that would be most likely associated with the operation of the Clough W-86-29 well. The samples collected will fulfill the sampling requirements of Rule 913.b.(2), and also for closure of this facility as required by Rule 913.h.(1).A. Samples will be collected from the well bore area and any related pipelines.

Proposed Groundwater Sampling

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

Groundwater samples are not planned to be collected. Groundwater contamination is not know to exist, nor expected at this time. If groundwater contamination occurs or is encountered during P&A operations, COGCC staff will be notified / consulted, and appropriate samples will be collected and submitted to determine compliance with COGCC 915-1 cleanup standards.

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 planned to be collected. Surface water contamination is not know to exist, nor expected at this time. If surface water contamination occurs or is encountered during P&A operations, COGCC staff will be notified / consulted, and appropriate samples will be collected and submitted to determine compliance with COGCC 915-1 cleanup standards.

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: 1

Number of soil samples exceeeding 915-1: 0

Was the areal and vertical extent of soil contamination delineated?:

Approximate areal extent (square feet): 0

NA / ND

Highest concentration of TPH (mg/kg): 113.44

Highest concentration of SAR: 0.208

BTEX > 915-1: No

Vertical Extent > 915-1 (in feet): 0

Groundwater

Number of groundwater samples collected: 0

Was extent of groundwater contaminated delineated?: No

Depth to groundwater (below ground surface, in feet): 48

Number of groundwater monitoring wells installed: 0

Number of groundwater samples exceeding 915-1: 0

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

0 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?

Three (3) background soil samples were collected from an undisturbed area located around the Clough W-86-29 well location.

☐ 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?

REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? Yes

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The Clough W-86-29 well is to be plugged and abandoned per the details and procedures described in the attached Proposed Plugging Procedure (doc#403301038) and Form 6 (doc #403300839). Any contaminated soils encountered during abandonment activities will excavated using the appropriate type of equipment deemed appropriate for site conditions (i.e., hydro-vac truck, mini-excavator, etc.). All underground utilities, pipeline, and infrastructure will be located and identified prior to initiating P&A activities.

Update 8/3/23: No impacts exceeding COGCC Table 915-1 observed, therefore no source to be removed.

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.

This is a routine P&A operation being performed for a single well. No impacts to soil, groundwater, or surface water resources are known or anticipated. However, should any contamination (related to the oil and gas operations associated with this specific well location) be encountered while performing P&A activities, the impacted media will be immediately assessed for compliance with COGCC Table 915-1 cleanup standards. Any waste materials found to exceed these cleanup standards will be managed per COGCC Rule 905, Management of E&P Waste.

Update 8/3/23: No impacts exceeding COGCC Table 915-1 observed, therefore no remediation necessary.

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 COGCC 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

☐ **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.

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

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:

Volume of E&P Waste (liquid) in barrels

E&P waste (liquid) description

COGCC Disposal Facility ID #, if applicable:

Non-COGCC Disposal Facility:

REMEDIATION COMPLETION REPORT

REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes

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? Yes

Does the previous reply indicate consideration of background concentrations? Yes

Does Groundwater meet Table 915-1 standards? Yes

Is additional groundwater monitoring to be conducted?

Operator shall comply with the COGCC 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 Clough W-86-29 well will be abandoned per the proposed plugging procedure described / outline in the attached Proposed Plugging Procedure (doc#403301038) and Form 6 (doc #403300839). The Clough W-86-29 well is physically located inside a secured equipment yard associated with the Williams Energy Rulison Compressor Station (see attached photos). There are no separators or liquid storage tanks associated with the Clough W-86-29 well. The well cellar will be backfilled with clean fill and covered with gravel / road base materials to match the surrounding surface of the equipment yard. Final reclamation of the entire disturbed area will not occur until the gas compressor station is de-commissioned and the area is reclaimed by Williams Energy at some point in the future.

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. 10/03/2022

Actual Spill or Release date, or date of discovery.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/06/2023

Proposed site investigation commencement. 03/08/2023

Proposed completion of site investigation. 03/10/2023

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

Please forward onto John Heil

This Supplemental Form 27 is being submitted to provide P&A closure documentation for the Clough W-86-29 well (API 05-045-06612).

P&A operations were conducted in accordance with the Proposed Plugging Procedure (Doc# 403301038). Soils around the wellhead were hydro-excavated to a depth of ~3 feet below ground surface where the wellhead was cut and capped. Field screening of the soils was conducted using a PID unit on the side walls near the surface (~1ft bgs), the middle (~2ft bgs) and the bottom (~3ft bgs). Additionally, screenings were collected on the bottom of the hydro-excavated area at a depth of ~3 feet below ground surface. Results of the field screening indicated negative hydrocarbon concentrations with results ranging from 20.1 to 33.5 ppm.

A single confirmation soil sample was collected adjacent to the wellhead at a depth of ~3 feet below ground surface and analyzed for full COGCC Table 915-1. Results confirmation soils do not exceed COGCC Table 915-1 thresholds, with the exception to arsenic which is below background levels.

TEP is requesting relief to the exceeding arsenic value in accordance with Table 915-1 footnote #1 and #11, and no further action (NFA) be provided for REM# 27821.

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

Signed: Kris Rowe Title: TEP Env.

Submit Date: Email: Krowe@terraep.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: Date:

Remediation Project Number: 27821

COA Type	Description
0 COA	

Attachment Check 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
403486169	ANALYTICAL RESULTS
403486170	ANALYTICAL RESULTS
403486171	OTHER
403486173	ANALYTICAL RESULTS
403486217	SOIL SAMPLE LOCATION MAP
403486218	PHOTO DOCUMENTATION

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)