

State of Colorado
Oil and Gas Conservation Commission

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Document Number:
403328912
Receive Date:
03/02/2023

Report taken by:
John Heil

Site Investigation and Remediation Workplan (Initial 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 INFORMATION

Name of Operator: TEP ROCKY MOUNTAIN LLC	Operator No: 96850	Phone Numbers
Address: 1058 COUNTY ROAD 215		Phone: (970) 263-2760
City: PARACHUTE State: CO Zip: 81635		Mobile: (970) 623-4875
Contact Person: Michael Gardner	Email: mgardner@terraep.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 28278 Initial Form 27 Document #: 403328912

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: WELL	Facility ID: _____	API #: 045-11467	County Name: GARFIELD
Facility Name: FEDERAL RWF 433-17	Latitude: 39.522696	Longitude: -107.909553	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: NWSE	Sec: 17	Twp: 6S	Range: 94W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

General soil type - USCS Classifications OH Most Sensitive Adjacent Land Use Open range / grazing

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? No

Other Potential Receptors within 1/4 mile

Entrance to the West Garfield County Landfill is located approximately 2,800 feet due south of the subject well location.

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	No known impacts / none anticipated	Routine planned P&A of a 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 RWF 433-17 well (API #05-045-11467) is being performed due to a suspected leak in the production casing, and per a COA contained in the attached Form 4 (doc #403253161). The RFW 433-17 well will be plugged and abandoned per the procedures and specifications outlined in the attached Proposed Plugging Procedure (doc #2597949) and the approved Form 6 (doc #403328374). There are no soil, groundwater, or surface water impacts that are known to be associated with the operation of this well. Discrete soil samples will be collected from areas that would most likely be impacted from operations associated with the RWF 433-17 well. Samples will be collected from the well bore area and any related pipelines. 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.

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):

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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 known to exist, nor suspected 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 known to exist, nor suspected 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):

No alternative investigative actions are planned at this time.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 2

Number of soil samples exceeding 915-1 0

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

Approximate areal extent (square feet) 0

NA / ND

Highest concentration of TPH (mg/kg) _____

Highest concentration of SAR _____

BTEX > 915-1 _____

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) _____

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

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?

A background soil sample will be collected from an undisturbed area in close proximity to the RMV 89-17 well pad.

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

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

The RWF 433-17 well is to be plugged and abandoned per the procedures and specifications outlined in the attached Proposed Plugging Procedure (doc #2597949) and the approved Form 6 (doc #403328374). Any contaminated soils encountered during abandonment activities will be excavated using equipment that is deemed appropriate for site conditions (i.e., hydro-vac truck, mini-excavator, etc.). All underground utilities, pipelines, and infrastructure will be located and identified prior to initiating P&A 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.

The proposed plugging and abandonment of the RWF 433-17 well (API #05-045-11467) is being performed on a single well due to a suspected leak in the production casing (see COA provided in the attached Form 4 - doc #403253161). Impacts to soil, groundwater, or surface water resources are not known to exist at this time but will be investigated if encountered during the P&A procedure. 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 915-1 cleanup standards. Any waste materials found to exceed these cleanup standards will be delineated, remediated, and managed per COGCC Rule 905, Management of E&P Waste.

Soil Remediation Summary

In Situ

Ex Situ

- _____ Bioremediation (or enhanced bioremediation)
- _____ Chemical oxidation
- _____ Air sparge / Soil vapor extraction
- _____ Natural Attenuation
- _____ Other _____

- _____ 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: _____

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 RWF 433-17 well is to be plugged and abandoned per the procedures and specifications outlined in the attached Proposed Plugging Procedure (doc #2597949) and the Form 6 (doc #403328374). The RWF 433-17 well is located on an active well pad with other producing wells that will continue to operate after this single well has been P&A'd. Upon the successful completion of the P&A activities, the well cellar will be backfilled with clean fill as described in the abandonment procedures and covered with gravel / road base materials to match the surrounding surface of the well pad. Final reclamation of the entire well pad will not occur until all wells have been P&A'd and production at this location has ceased.

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. 01/10/2023

Actual Spill or Release date, or date of discovery. _____

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/20/2023

Proposed site investigation commencement. 03/23/2023

Proposed completion of site investigation. 03/24/2023

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

Per Rule 913.c.(9), TEP is providing notification and is requesting approval to proceed with the P&A activities planned for the RWF 433-17 well (API #05-045-11467) as described herein.

The proposed plugging and abandonment of the RWF 433-17 well (API #05-045-11467) is being performed on a single well due to a suspected leak in the production casing (see COA provided in the attached Form 4 - doc #403253161). Impacts to soil, groundwater, or surface water resources are not known to exist at this time but will be investigated if encountered during implementation of the P&A procedure. 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 915-1 cleanup standards. Sampling and analysis of impacted soils and groundwater will be conducted to determine the horizontal and vertical extent of contamination, and to determine if the contamination exceeds the cleanup concentrations found in COGCC Table 915-1, or WQCC Regulation 41 numeric and narrative groundwater standards and classifications. Any waste materials found to exceed these cleanup standards will be delineated, remediated, and managed per COGCC Rule 905, Management of E&P Waste.

In compliance with Rule 915.e.(2).B, discrete confirmation soil samples will be collected from areas most likely impacted from operation of the RWF 433-17 well (i.e., from around the well bore casing and any associated flowlines/piping, and equipment). These samples will fulfill the sampling requirements of Rule 913.b.(2), and also for closure of this facility as required by Rule 913.h.

TEP is requesting an expedited approval of this request. The current deadline to have this well plugged is 4/13/23 per the associated Form 4 COA (doc #403253161).

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

Signed: Michael Gardner

Title: TEP Environmental Lead

Submit Date: 03/02/2023

Email: mgardner@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: John Heil

Date: 03/24/2023

Remediation Project Number: 28278

COA Type

Description

	Per Rule 911.b and Rule 913.f, if a Spill or Release is discovered during closure operations, a Spill or Release report shall be submitted on a Form 19, pursuant to Rule 912.
	Form 42 not found in well file for online flowline abandonment. Comply with COGCC Rule 1105 flowline abandonment requirements, including notification and verification requirements.
	All risers associated with the well/facility, including both flowline and gathering line risers must be removed per 1004 Rules.
	Reseeding with species consistent with the adjacent plant community is encouraged. The Operator will use a seed mixture requested by the surface owner. In the absence of an agreement between the operator and the affected surface owner as to what seed mix should be used, the operator shall consult with a representative of the local soil conservation district to determine the proper seed mix to use in revegetating the disturbed area. A Bureau of Land Management approved seed mix specific to the ecological site would also be acceptable.
	Final Reclamation shall comply with the COGCC 1000 Series Rules. Consult COGCC Reclamation Specialist regarding interim and/or final reclamation.
	Collect sample(s) from comparable, nearby non-impacted native soil for purposes of establishing background soil conditions including pH, electrical conductivity (EC) and sodium adsorption ratio (SAR), per Rule 915.e.(2).D.

	<p>If a well has a bradenhead pressure greater than 25 PSI measured at the time of the test then a sample of both the production and bradenhead gas (if sufficient volume to analyze) shall be collected and submitted for laboratory analysis of the gas composition and stable isotopes. The compositional analysis should include hydrogen, argon, oxygen, carbon dioxide, nitrogen, methane (C1), ethane (C2), ethene, propane (nC3), isobutane (iC4), butane (nC4), isopentane (iC5), pentane (nC5), hexanes +, specific gravity and British Thermal Units (BTU). The stable isotope analysis should include delta DC1, delta 13C1, delta 13C2, delta 13C3, delta 13iC4, delta 13nC4, delta 13iC5 (if possible), delta 13nC5 (if possible), and delta 13C of CO2 (if possible). The analytical results shall be submitted to the COGCC via Form 43 (Analytical Sample Submittal Form).</p> <p>Gas sample containers should be filled in accordance with container manufacturer or laboratory recommendations; purging multiple container volumes may not be feasible due to limited gas volumes.</p> <p>If water is encountered in the bradenhead during testing then samples (if sufficient quantity to analyze) should be collected and submitted for the laboratory analysis of major anions (chloride, carbonate, bicarbonate, and sulfate), cations (sodium, potassium, calcium, and magnesium) total dissolved solids (TDS), BTEX, DRO, GRO, and dissolved gasses (RSK 175). If there is a limited amount of water available then anions, cations and BTEX should be given first priority. Data from bradenhead water samples shall be submitted to the COGCC via Form 43.</p> <p>Please refer to Appendix A of the COGCC Operator Instructions for Bradenhead Testing and Reporting for more information regarding testing and sampling protocol. The operator shall provide notice to Environmental Supervisor Alex Fischer at alex.fischer@state.co.us or 303-894-2100 X 5138 and COGCC Engineer Craig Burger at craig.burger@state.co.us or 970-319-4194, a minimum of 72 hours prior to conducting field operations. Bradenhead testing and sample collection (if applicable). If samples are collected, copies of all final laboratory analytical results shall be provided to the COGCC within three (3) months of collecting the samples.</p>
7 COAs	

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.

<u>Att Doc Num</u>	<u>Name</u>
403328912	FORM 27-INITIAL-SUBMITTED
403335684	OTHER
403335763	OTHER
403335768	SOIL SAMPLE LOCATION MAP
403335796	OTHER

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	Form 4 Doc #403253161 contains the following comment: "BH test indicates communication."	03/24/2023
Environmental	Form 4 Doc #403253161 contains the following COA: "This sundry to conduct bradenhead as well as plugging diagnostic evaluations and/or repair or plug by 4/13/2023"	03/24/2023
Environmental	FED/FED Rule 1202.d Density Habitats Mule Deer Severe Winter Range Rule 1202.d Density Habitats Mule Deer Winter Concentration Area	03/07/2023

Total: 3 comment(s)