

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



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403127398
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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: CAERUS PICEANCE LLC	Operator No: 10456	Phone Numbers
Address: 1001 17TH STREET #1600		Phone: (970) 778-2314
City: DENVER State: CO Zip: 80202		Mobile: (970) 778-2314
Contact Person: Jake Janicek	Email: jjanicek@caerusoilandgas.com	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 25280 Initial Form 27 Document #: 403127398

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: Decommissioning of production well U S A-PICEANCE CREEK F24-6G and associated production equipment.

SITE INFORMATION

Yes Multiple Facilities

Facility Type: PIT	Facility ID: 117128	API #: _____	County Name: RIO BLANCO
Facility Name: PICEANCE CREEK UNIT F24-6G	Latitude: 39.900692	Longitude: -108.212034	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESW	Sec: 6	Twp: 2S	Range: 96W Meridian: 6 Sensitive Area? Yes

Facility Type: PIT	Facility ID: 117150	API #: _____	County Name: RIO BLANCO
Facility Name: PICEANCE CREEK UNIT 24-6	Latitude: 39.900692	Longitude: -108.212034	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESW	Sec: 6	Twp: 2S	Range: 96W Meridian: 6 Sensitive Area? Yes

Facility Type: WELL	Facility ID: _____	API #: 103-07542	County Name: RIO BLANCO
Facility Name: U S A-PICEANCE CREEK F24-6G	Latitude: 39.901460	Longitude: -108.212810	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESW	Sec: 6	Twp: 2S	Range: 96W Meridian: 6 Sensitive Area? Yes

Facility Type: LOCATION	Facility ID: 314914	API #: _____	County Name: RIO BLANCO
Facility Name: U S A-PICEANCE CREEK-62S96W 6SESW	Latitude: 39.901522	Longitude: -108.212834	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: SESW	Sec: 6	Twp: 2S	Range: 96W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

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

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

NA

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- | | | |
|--|--|--|
| <input type="checkbox"/> E&P Waste | <input checked="" type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | _____ |
| <input type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input 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 checked="" type="checkbox"/> Other (as described by EPA) _____ No waste associated with this project has been identified. | |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
No	SOILS	None	Field Investigation/Laboratory 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.

On June 30, 2022, two soil confirmation samples were collected in preparation of the planned decommissioning of production well U S A-PICEANCE CREEK F24-6G and associated production equipment (separator) per COGCC Rule 913.c.(9). One confirmation soil sample was collected immediately adjacent to the wellhead and the second sample was collected directly beneath the separator. Please see the attached report of work completed (ROWC) for additional investigative sampling details.

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):

Proposed Groundwater Sampling

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

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):

Three separate pits, one unknown pit type in the northwest corner of the location, one production pit (Facility ID 117150) in the northeast corner, and one production pit (Facility ID 117128) in the southwest corner of the location were assessed on 8/23/2022. Assessment results will be presented in a future Form 27.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 6

Number of soil samples exceeding 915-1 6

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

NA / ND

ND Highest concentration of TPH (mg/kg)

-- Highest concentration of SAR 4.4

BTEX > 915-1 No

Approximate areal extent (square feet) 75

Vertical Extent > 915-1 (in feet) 0

Groundwater

Number of groundwater samples collected 0

Highest concentration of Benzene (µg/l) _____

Was extent of groundwater contaminated delineated? No

Highest concentration of Toluene (µg/l) _____

Depth to groundwater (below ground surface, in feet) _____

Highest concentration of Ethylbenzene (µg/l) _____

Number of groundwater monitoring wells installed _____

Highest concentration of Xylene (µg/l) _____

Number of groundwater samples exceeding 915-1 _____

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?

Following COGCC Rule 915.e.(2).D, background soil samples were collected in support of this investigation and are included in the attached ROWC.

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.

There is no source. The purpose of the form submittal is to present sampling data associated with the decommissioning of the U S A-PICEANCE CREEK F24-6G production well and associated production equipment (separator). These samples were collected in order to comply with COGCC Rule 913.c.(9). The samples were collected prior to activities associated with the facility decommissioning and well plugging and abandonment.

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.

Currently, remediation is not necessary on this project.

Laboratory analytical results indicate arsenic concentrations were exceeded by all 6 soil samples with COGCC Table 915-1 Residential Soil Screening Level Concentrations (RSSLC) ranging from 2.98 milligram per kilogram (mg/kg) in soil sample 20220630-F24-6G(BG-SW)@2.5-3' to 9.22 mg/kg in soil sample 20220630-F24-6G(POC-WH)@10'.

In order to address the elevated arsenic concentrations of the two confirmation soil samples and four background soil samples, Caerus request the Director per COGCC Table 915-1 footnote 11 the exceedances be considered within 1.25X the arsenic concentration observed in background soil sample BACKGROUND AS (2) collected on October 5, 2012 from nearby pad location PCU 296-6B (COGCC Location ID: 413466). The geographical distance between the two locations is 2,276 feet and can be referenced in Figure 3 of the attached ROWC.

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 COGCC Facility ID # _____

_____ Natural Attenuation
_____ Other _____

_____ 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.

If groundwater is observed during investigation activities, a representative sample will be collected and submitted for COGCC Table 915-1.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

Quarterly Semi-Annually Annually Other 2Q Status Update

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 Oil and Gas Facility Decommissioning Notification per
COGCC Rule 911.a.(4) and 913.c.(9).

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.

Until Caerus submits a Financial Assurance Plan required by Rule 702, due September 15, 2022, the bond covering the remediation of this well/location will be covered under 20130021.

Operator anticipates the remaining cost for this project to be: \$ 0

WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? No

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.

Any disturbances associated with the facility decommissioning will be returned to grade with suitable material pursuant to the 1000 Series 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. _____

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

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 06/30/2022

Proposed site investigation commencement. 06/30/2022

Proposed completion of site investigation. 08/23/2022

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

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

Signed: Dustin Held

Title: Sr. Consultant, Geologist

Submit Date: 08/25/2022

Email: dustin.held@wsp.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: 10/04/2022

Remediation Project Number: 25280

Condition of Approval**COA Type****Description**

	Operator shall comply with Rule 909.c for the proposed pit closures.
	Operator shall comply with Rule 911.a.(1) and obtain the Director's approval of the Form 27 prior to conducting any investigation or closure operations.
	Per Rule 911.c.(3).A, if an Operator discovers a Spill or Release during closure operations, the Operator will report the Spill or Release on a Form 19, Spill/Release Report, pursuant to Rule 912.
3 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.

Att Doc Num**Name**

403127398	FORM 27-INITIAL-SUBMITTED
403131218	SITE INVESTIGATION REPORT

Total Attach: 2 Files

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

		Stamp Upon Approval
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Total: 0 comment(s)