FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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Report taken by: John Heil

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 INFORMATON

Name of Operator: QB ENERGY OPERATING LLC Operator No: 10844
Address: 1001 17TH STREET SUITE 1600
City: DENVER State: CO Zip: 80202
Contact Person: Blair Rollins Email: brollins@qb-energy.com

Phone Numbers
Phone: (970) 640-6919
Mobile: (970) 640-6919

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 36196 Initial Form 27 Document #: 403804499

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.
- [X] 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

Yes Multiple Facilities

Facility Type: PRODUCED WATER TRANSFER SYSTEM Facility ID: 477113 API #: County Name: GARFIELD
Facility Name: Mamm Creek Water System Latitude: 39.470419 Longitude: -107.715849
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: SESE Sec: 1 Twp: 7S Range: 93W Meridian: 6 Sensitive Area? No

Facility Type: TANK BATTERY Facility ID: 486170 API #: County Name: GARFIELD
Facility Name: Railsback Water Facility Latitude: 39.487561 Longitude: -107.690850
** correct Lat/Long if needed: Latitude: Longitude:
QtrQtr: NENW Sec: 32 Twp: 6S Range: 92W Meridian: 6 Sensitive Area? No

Facility Type: SPILL OR RELEASE Facility ID: 486172 API #: County Name: GARFIELD

Facility Name: Railsback Water Facility Release Latitude: 39.487655 Longitude: -107.690884

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 32 Twp: 6S Range: 92W Meridian: 6 Sensitive Area? No

Facility Type: LOCATION Facility ID: 486640 API #: County Name: GARFIELD

Facility Name: Railsback Water Facility Latitude: 39.487561 Longitude: -107.690850

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 32 Twp: 6S Range: 92W Meridian: 6 Sensitive Area? No

Facility Type: LOCATION Facility ID: 486641 API #: County Name: GARFIELD

Facility Name: Railsback Water Facility Latitude: 39.487561 Longitude: -107.690850

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 32 Twp: 6S Range: 92W Meridian: 6 Sensitive Area? No

Facility Type: LOCATION Facility ID: 486642 API #: County Name: GARFIELD

Facility Name: Railsback Water Facility Latitude: 39.487561 Longitude: -107.690850

** correct Lat/Long if needed: Latitude: Longitude:

QtrQtr: NENW Sec: 32 Twp: 6S Range: 92W Meridian: 6 Sensitive Area? No

SITE CONDITIONS

General soil type - USCS Classifications CL

Most Sensitive Adjacent Land Use Non Crop land

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

SITE INVESTIGATION PLAN

TYPE OF WASTE:

- [X] **E&P Waste**
  - [X] Produced Water
  - [ ] Oil
  - [X] Condensate
  - [ ] 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
Yes	SOILS	1000'x5'x5' Approximately	Visual inspection, field screening, analytical results

INITIAL ACTION SUMMARY

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

Caerus operations control center received a low-liquid level alarm on March 1st from the tank battery at the Railsback produced water offload facility. Upon inspection it was determined that a release of produced water and parafin occurred around the tank battery area of the facility. Emergency response procedures were implemented and proper notifications were completed. The release surfaced at and around the tank battery and flowed along the perimeter ditch and north along the ditch on the west side of CR 315. Recovery efforts were completed on March 1st to control and recover standing liquid using hydrovac truck equipment. Additional hydrovac cleaning activities were completed on March 2nd to ensure standing liquid or impacted soil was not inadvertently overlooked during the cleanup activity.

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):

Soil samples were collected from the point of release (POR) near the tank battery, both from surface and from advancement of one characterization soil boring. Soil samples also collected from the spill path as it traveled north paralleling CR 315. Details of site investigation including all field screening and analytical results are included in the attached report of work completed.

Proposed Groundwater Sampling

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

Proposed Surface Water Sampling

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

Out of an abundance of caution during initial spill response activities, surface water samples were collected from Mamm Creek (up and down gradient) and from two surface water / stormwater collection ponds. Sample results are included in the attached report of work completed.

Additional Investigative Actions

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

Additional impacted soil removal at the POR and along the spill path to take place in 2024.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil **NA / ND**

Number of soil samples collected 0 -- Highest concentration of TPH (mg/kg) 311

Number of soil samples exceeeding 915-1 10 -- Highest concentration of SAR 150

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

BTEX > 915-1 No

Approximate areal extent (square feet) 5000

Vertical Extent > 915-1 (in feet) 8

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?

Additional background soil samples will be collected in support of this project and reported on supplemental documentation to the ECMC.

☐ 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?

Additional impacted soil removal and background sample collection will be completed in Q1 and Q2 2025. Results of these activities will be provided to the ECMC on supplemental documentation.

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.

Impacted source soil was and will be excavated and/or hydro-excavated until ECMC standards have been achieved. Impacted soil will be staged on location for characterization, or hauled to Greenleaf Environmental Services for disposal depending on field screening and sampling results.

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.

Impacted source soil was and will be excavated and/or hydro-excavated until ECMC standards have been achieved. Impacted soil will be staged on location for characterization, or hauled to Greenleaf Environmental Services for disposal depending on field screening and sampling results. If additional remediation strategies are required, Caerus will submit a supplemental Form 27 with proposed actions.

Soil Remediation Summary

☐ **In Situ**

Bioremediation (or enhanced bioremediation)

Chemical oxidation

Air sparge / Soil vapor extraction

Natural Attenuation

Other

☒ **Ex Situ**

Yes Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) 1000

Name of Licensed Disposal Facility or ECMC Facility ID #

Yes Excavate and onsite remediation

No Land Treatment

No	Bioremediation (or enhanced bioremediation)	
No	Chemical oxidation	
Yes	Other	Staging and Table 915-1 sampling

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.

In the event that groundwater is encountered during release investigation, the CECMC will be notified and a representative sample will be collected for laboratory analysis.

REMEDIATION PROGRESS UPDATE

PERIODIC REPORTING

Approved Reporting Schedule:

[X] 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

[X] Other 2025 Q3 Remediation Progress Report

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.

Per Rule 705.b, and in line with guidance laid out in the SBAP, QB Energy has general liability insurance in the amount of $5M, and QB Energy has umbrella insurance, which sits over the general liability insurance in the amount of $65M. The umbrella and general liability insurance covers property damage, bodily injury to third parties, and sudden or accidental pollution under a combined $70M.

Operator anticipates the remaining cost for this project to be: $ 50000

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

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 working surface of the location will be active once cleanup is completed. The non working portions of the impacted surface will be reclaimed following ECMC 1000 series regulations.

Is the described reclamation complete? No

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. 03/01/2024

Actual Spill or Release date, or date of discovery. 03/01/2024

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 03/01/2024

Proposed site investigation commencement. 03/01/2024

Proposed completion of site investigation. 08/01/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/01/2024

Proposed date of completion of Remediation. 11/01/2025

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

QB Energy is providing this Form 27 to incorporate the abandonment of the tank battery, location (3 numbers, same facility), and the off-location flowline system. QB Energy will continue to assess the extent of contamination at the facility as well as assess the extent of contamination associated with the flowline system abandonment and will provide updates on supplemental documentation.

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

Signed: Blair Rollins Title: Environmental Specialist

Submit Date: 08/19/2025 Email: brollins@qb-energy.com

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: John Heil Date: 01/28/2026

Remediation Project Number: 36196

COA Type	Description
	Comply with all outstanding COAs.

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
404322176	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404322322	MAP
404521746	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)