

State of Colorado
Energy & Carbon Management Commission1120 Lincoln Street, Suite 801, Denver, Colorado 80203
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05/22/2025

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 INFORMATION

Name of Operator: QB ENERGY OPERATING LLC	Operator No: 10844	Phone Numbers
Address: 1001 17TH STREET SUITE 1600		Phone: (970) 640-6919
City: DENVER	State: CO	Zip: 80202
Contact Person: Blair Rollins	Email: brollins@qb-energy.com	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.
- ☒ 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: 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

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:

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> E&P Waste | <input type="checkbox"/> Other E&P Waste | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids | |
| <input type="checkbox"/> Oil | <input type="checkbox"/> Tank Bottoms | |
| <input checked="" 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 type="checkbox"/> Other (as described by EPA) | |

DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	650'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.

Refer to ECMC Document Numbers 403705986, 403714258, and 403804499 for initial actions taken in support of this project.

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):

Soil samples will be collected to determine the the vertical and horizontal extent of any contamination associated with this remediation project. QB Energy will provide results on supplemental documentation to the ECMC for review and approval.

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):

Additional investigation and sampling will be completed in support of this project to determine the vertical and horizontal extent of any contamination associated with the project.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected 19

Number of soil samples exceeding 915-1 14

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

Approximate areal extent (square feet) 5000

NA / ND

-- Highest concentration of TPH (mg/kg) 9.19

-- Highest concentration of SAR 150

BTEX > 915-1 Yes

Vertical Extent > 915-1 (in feet) 18

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?

Twelve (12) additional background samples were collected in the second quarter of 2025, eight (8) previous background samples were reported in previous forms, for a total of twenty (20).

☐ 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 delineation and excavation is needed at the POR. QB Energy will provide results of the ongoing site investigation via supplemental forms.

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.

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.

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:

☒ 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 2025 Q2 Status Update

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? Yes

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

None

Volume of E&P Waste (solid) in cubic yards 300

E&P waste (solid) description Hydrocarbon Impacted Soil

ECMC Disposal Facility ID #, if applicable:

Non-ECMC Disposal Facility: Greenleaf Environmental Services

Volume of E&P Waste (liquid) in barrels 0

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. 06/30/2024

REMEDIAL ACTION DATES

Proposed start date of Remediation. 03/01/2024

Proposed date of completion of Remediation. 05/01/2025

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

This form is being submitted to fulfill the quarterly reporting requirements for REM #36196 for the second quarter of 2025.

Impacted soil was removed from one (1) location along the spill path north of the POR. Analytical results show that the spill path excavation is now in compliance with Table 915-1 organic analytes.

Twelve (12) additional background samples were collected from the ditch along CR315 north and southeast of the Site. Analytical results have established new background levels for EC (16.17 mmhos/cm), SAR (139.74), and pH (10.14).

Elevated EC, SAR, and pH remain at six (6) previously sampled locations within the spill path excavation. Based on the location, field observations, organic analytical results for these samples, and the range of observed background values found within the immediate area, it is believed that the remaining EC (max 16.8 mmhos/cm), SAR (max 150), and pH (max 10.3) levels are representative of naturally occurring background levels.

Soil removed during the excavation of the spill path was staged on site in a stockpile parallel to the spill path. Stockpile composite samples were collected following the bulk of spill path excavation in the second quarter of 2024. Excavation in October of 2024 targeted inorganic exceedances, specifically EC, SAR, and pH. All but two of these targets were below present background levels. Excavation in April of 2025 targeted the last remaining TPH exceedance, and only a small amount of soil was removed before clearance was achieved. These events generated a small volume of soil relative to the overall stockpile, therefore, it is believed the composite samples collected from the stockpile in September of 2024 are still valid.

Please see the attached report of work completed and associated laboratory analytical reports for a complete summary of second quarter remediation activities.

Based on the information presented above and in the attached report of work completed, QB Energy is requesting the following:

- Consideration of Table 915-1 Footnote 1 to raise the threshold for EC to 16.8 mmhos/cm, raise the threshold for SAR to 150, and raise the threshold for pH to 10.3.
- Approval to use the stockpiled soil as backfill within the roadside ditch to begin reclamation of the remediated area.
- Approval to declare the off-site portion of the spill path remediation completed.

Pending approval of these requests, QB Energy will backfill the ditch, recontour, and re-seed with a landowner approved seed mix.

QB Energy is currently planning work to delineate the horizontal and vertical extent of impacts at the POR and will continue to report progress on a quarterly basis.

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

Signed: Blair Rollins

Title: EHS Specialist

Submit Date: 05/22/2025

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: 06/10/2025

Remediation Project Number: 36196

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

404212346	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404212920	ANALYTICAL RESULTS
404212921	ANALYTICAL RESULTS
404212922	ANALYTICAL RESULTS
404212923	ANALYTICAL RESULTS
404212926	ANALYTICAL RESULTS
404212927	ANALYTICAL RESULTS
404212932	ANALYTICAL RESULTS
404212942	REMEDIATION PROGRESS REPORT
404235102	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	ECMC approves the request to declare the off-site portion of the spill path remediation completed.	06/10/2025
Environmental	ECMC approves the request to use the stockpiled soil as backfill within the roadside ditch to begin reclamation of the remediated area.	06/10/2025
Environmental	ECMC approves the request to raise the threshold for EC to 16.8 mmhos/cm, raise the threshold for SAR to 150, and raise the threshold for pH to 10.3.	06/10/2025

Total: 3 comment(s)