

State of Colorado
Energy & Carbon Management Commission

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404395994
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10/22/2025

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 ECOM 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: <u>QB ENERGY OPERATING LLC</u>	Operator No: <u>10844</u>	Phone Numbers
Address: <u>1001 17TH STREET SUITE 1600</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Andy Verbonitz</u>	Email: <u>averbonitz@qb-energy.com</u>	Phone: <u>(970) 902-3598</u>
		Mobile: <u>(970) 902-3598</u>

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 43091 Initial Form 27 Document #: 404395994

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

No Multiple Facilities

Facility Type: <u>SPILL OR RELEASE</u>	Facility ID: <u>490984</u>	API #: _____	County Name: <u>GARFIELD</u>
Facility Name: <u>dump line</u>	Latitude: <u>39.485141</u>	Longitude: <u>-108.174745</u>	
	** correct Lat/Long if needed: Latitude: <u>39.485205</u>	Longitude: <u>-108.174483</u>	
QtrQtr: <u>NE NW</u>	Sec: <u>36</u>	Twp: <u>6S</u>	Range: <u>97W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use Non-crop land
 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

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 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	30ft x 20ft x 16ft	Field screening and laboratory analysis.

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 release was identified during routing pressure testing on July 24, 2024. The pad was immediately shut-in. Initial site investigation occurred on July 31, 2025. Please refer to ECMC Form 19 Initial #404293941 and Form 19 Supplemental #404305369 for complete 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):

Samples will be collected from near the point of release to characterize impacts. After impacted soil has been removed, representative soil samples will be collected from the sidewalls and base of the excavation to confirm compliance with Table 915-1.

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):

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

NA / ND

Number of soil samples collected 12 -- Highest concentration of TPH (mg/kg) 18783.07
 Number of soil samples exceeding 915-1 12 -- Highest concentration of SAR 21.84
 Was the areal and vertical extent of soil contamination delineated? No BTEX > 915-1 Yes
 Approximate areal extent (square feet) 500 Vertical Extent > 915-1 (in feet) 16

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?
 Two (2) background soil samples were collected from undisturbed native soil to the north and east of the Site.
- 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 excavation is required to remove impacted soil and determine the horizontal and vertical extent of impacts. Additional soil samples from the sidewalls and base of the excavation are required to confirm compliance with Table 915-1.

REMEDIAL ACTION PLAN

SOURCE REMOVAL SUMMARY

Describe how source is to be removed.
 Impacted soil identified by field screening and/or laboratory analysis will be excavated and held in a temporary stockpile on the working surface of the pad.

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 soil identified by field screening and/or laboratory analysis will be excavated and held in a temporary stockpile on the working surface of the pad. Representative soil samples will be collected from the sidewalls and base of the excavation to confirm compliance with Table 915-1. Representative composite sample(s) will be collected from the stockpile to determine compliance with Table 915-1. QB Energy will either request ECMC approval to utilize the stockpiled soil as backfill or remove the stockpiled soil to an independent off-site disposal facility.

Soil Remediation Summary

- In Situ**
 - _____ Bioremediation (or enhanced bioremediation)
 - _____ Chemical oxidation
 - _____ Air sparge / Soil vapor extraction
- Ex Situ**
 - _____ Excavate and offsite disposal
 - _____ If Yes: Estimated Volume (Cubic Yards) _____
 - _____ Name of Licensed Disposal Facility or ECMC 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.

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 Initial Form 27 for Spill/Release 490984

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: \$ 60000

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:

Excavated material was hauled to Greenleaf for disposal.

Volume of E&P Waste (solid) in cubic yards 10

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 20

E&P waste (liquid) description Hydrocarbon impacted Soil Slurry

ECMC Disposal Facility ID #, if applicable: _____

Non-ECMC Disposal Facility: Greenleaf Environmental Services

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 excavation associated with this remediation project will be restored to pre-release site conditions. QB Energy will monitor all areas affected by the release to ensure compliance with ECMC 1000 series regulations.

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. 07/24/2025

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 07/31/2025

Proposed site investigation commencement. _____

Proposed completion of site investigation. _____

REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/31/2025

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

This form is being submitted to establish a remediation project number to document ongoing work in response to Spill/Release #490984 and to report the results of site investigation activities from July 31 to September 12, 2025. Please see the attached site investigation report and associated laboratory analytical reports for complete details.

The DWR database lists two (2) completed water wells within 1 mile of the Site (Permits 271289 and 271290). Based on the depth to water reported in these two wells, groundwater at the Site is estimated to be at least 250 feet below the pad surface. QB Energy requests approval to proceed under Table 915-1 Residential Soil Screening Levels (RSSLs) for this remediation.

Initial site investigation was carried out on July 31, 2025. The point of release (POR) was identified and one (1) release characterization sample was collected.

Excavation to remove impacted soil was begun on August 15, 2025. Five (5) confirmation samples were collected from the sidewalls and base of the excavation.

A second area of impacts 7 feet north of the POR was field screened and sampled on August 20, 2025. One (1) characterization sample was collected.

Excavation to delineate the vertical extent of impacts was carried out on September 12, 2025. Locations POR01 and BASE01 (see Figure 1 in the attached report) were clear for all Table 915-1 analytes at 16 ft-bgs. Location POR02 reported Total TPH (mainly DRO) and arsenic exceedances at 16 ft-bgs.

The concentration of arsenic in all samples was above the Table 915-1 RSSL limit (max 20.27 mg/kg). A search of QB Energy's background soil database identified four (4) samples within 1 mile of the Site with arsenic concentrations ranging from 25.2 mg/kg to 53.0 mg/kg.

Based on the information presented above and in the attached site investigation report, QB Energy is requesting the following:

- 1.) Approval to proceed under Table 915-1 RSSL concentrations based on the available groundwater information.
- 2.) Consideration of Table 915-1 Footnote 1 with regard to arsenic concentrations and the Director's approval to raise the threshold for arsenic to 53 mg/kg.
- 3.) Approval of a reduced analyte suite consisting of TPH-DRO and SAR only for all future soil samples.

QB Energy is in the process of scheduling work to delineate and remove remaining impacted soil and collected confirmation soil samples. Progress will be reported on a subsequent form.

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

Signed: Andy Verbonitz

Title: EHS Specialist

Submit Date: 10/22/2025

Email: averbonitz@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: 11/17/2025

Remediation Project Number: 43091

COA Type

Description

	ECMC denies the request for a reduced analyte suite consisting of TPH-DRO and SAR only. Attached lab report doc 404398843 reports dilution factors of 10 for 1,3,5-trimethylbenzene and GRO. Operator shall analyze samples for 1,3,5-trimethylbenzene, TPH-GRO, TPH-DRO and SAR.
	ECMC denies the request to raise the threshold for arsenic to 53 mg/kg. 2025-09-12 soil samples were collected at a depth of 16 feet. Background samples were collected at depths ranging from 1-2 feet. Background samples shall be collected at similar depth and soil types as confirmation samples.
	ECMC approves the request to proceed under Table 915-1 RSSL concentrations.

3 COAs

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

404395994	INVESTIGATION/REMEDATION WORKPLAN (INITIAL)
404398839	LABORATORY ANALYTICAL REPORT
404398840	LABORATORY ANALYTICAL REPORT
404398841	LABORATORY ANALYTICAL REPORT
404398842	LABORATORY ANALYTICAL REPORT

404398843	LABORATORY ANALYTICAL REPORT
404399363	LABORATORY ANALYTICAL REPORT
404399364	LABORATORY ANALYTICAL REPORT
404399365	LABORATORY ANALYTICAL REPORT
404400171	SITE INVESTIGATION REPORT
404438697	FORM 27-INITIAL-SUBMITTED

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)