

**State of Colorado**  
**Energy & Carbon Management Commission**

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Document Number:  
404162951

Receive Date:  
\_\_\_\_\_

Report taken by:  
\_\_\_\_\_

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

**PROJECT, PURPOSE & SITE INFORMATION**

**PROJECT INFORMATION**

Remediation Project #: 23856 Initial Form 27 Document #: 403056775

**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>481668</u>	API #: _____	County Name: <u>GARFIELD</u>
Facility Name: <u>P26W Spill</u>	Latitude: <u>39.410515</u>	Longitude: <u>-107.734642</u>	
** correct Lat/Long if needed: Latitude: _____		Longitude: _____	
QtrQtr: <u>SESE</u>	Sec: <u>26</u>	Twps: <u>7S</u>	Range: <u>93W</u> Meridian: <u>6</u> Sensitive Area? <u>No</u>

**SITE CONDITIONS**

General soil type - USCS Classifications GC Most Sensitive Adjacent Land Use Non-cropland rangeland

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:

- X E&P Waste
Other E&P Waste
Non-E&P Waste
Produced Water
Workover Fluids
Oil
Tank Bottoms
X Condensate
Pigging Waste
Drilling Fluids
Rig Wash
Drill Cuttings
Spent Filters
Pit Bottoms
Other (as described by EPA)

DESCRIPTION OF IMPACT

Table with 4 columns: Impacted?, Impacted Media, Extent of Impact, How Determined. Row 1: UNDETERMINED, SOILS, To be determined, Soil sampling 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.

On February 21, 2022, an unknown volume of comingled fluid was released into the lined secondary containment due to a valve failure during transport truck offloading operations.

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 ):

Additional soil samples will be collected to delineate the horizontal extent of soil impacts. Organic soil impacts have been delineated vertically.

Proposed Groundwater Sampling

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

Groundwater is not anticipated to be encountered. If groundwater is encountered during site investigation, QB will attempt to collect a sample for characterization.

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**

Number of soil samples collected 5  
Number of soil samples exceeding 915-1 5  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square feet) 200

**NA / ND**

-- Highest concentration of TPH (mg/kg) 606.4  
-- Highest concentration of SAR 9.89  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 9

**Groundwater**

Number of groundwater samples collected 0  
Was extent of groundwater contaminated delineated? Yes  
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  
\_\_\_\_\_ 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?

\_\_\_\_\_

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?

See Proposed Soil Sampling and the attached ROWC.

**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.

QB is in the process of determining the extent of impacts associated with the project. Once impacts are delineated, QB will prepare a remediation plan to remove the source material within the release area.

**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.

On June 20, 2024, initial sampling was conducted to determine if impacts from the release were present within the soil beneath the liner. Three potholes were advanced at an angle on the southeast corner of the tank battery containment to depths of 4 to 5 feet below ground surface (bgs). Hand tools were used to collect soil from the terminus of each pothole beneath the tank containment liner. One soil sample was collected from each pothole. Analytical results of the soil samples indicated compliance with Table 915-1 Residential Soil Screening Levels (RSSLs) except for total petroleum hydrocarbons (TPH), sodium adsorption ratio (SAR), pH, and arsenic.

On July 18, 2024, Form 27 Document 403850138 was submitted to present results of the initial site investigation to the ECMC, request comparison of analytical results to RSSLs, and to request a reduced analyte suite of TPH, SAR, pH, arsenic, and hexavalent chromium. The ECMC approved the form and associated requests on August 7, 2024.

On October 17, 2024, vertical delineation soil samples were collected from beneath the pit liner, north of SB01-SB03. Prior to sampling, a small hole was made in the pit liner to access soil within the tank battery containment. One surface soil sample was collected via hand tools before a pothole was advanced with a hand auger to a total depth of 9 feet bgs. One soil sample was collected from the terminus of the pothole. Analytical results of soil samples indicate compliance with RSSLs except for SAR, pH, and arsenic. See the attached ROWC for details.

**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 ECMC Facility ID # \_\_\_\_\_

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Excavate and onsite remediation

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ 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.

Groundwater is not anticipated to be encountered. If groundwater is encountered during site investigation, QB will attempt to collect a sample for characterization.



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 spill occurred within the secondary containment on the active working surface of the pad. Any disturbance will be returned to the active working surface of the well pad for continued operation. When the site is decommissioned at a later date, it will be reclaimed in accordance with 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. 02/21/2022

Actual Spill or Release date, or date of discovery. 02/21/2022

### **SITE INVESTIGATION DATES**

Date of Initial Actions described in Site Investigation Plan (start date). 06/20/2024

Proposed site investigation commencement. 06/20/2024

Proposed completion of site investigation. 08/01/2025

### **REMEDIAL ACTION DATES**

Proposed start date of Remediation. 05/01/2025

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 request change of operator from #10456 to #10844.

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: \_\_\_\_\_

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: \_\_\_\_\_

Date: \_\_\_\_\_

Remediation Project Number: 23856

**COA Type**

**Description**

<u>COA Type</u>	<u>Description</u>
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**

<u>Att Doc Num</u>	<u>Name</u>

Total Attach: 0 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

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

Total: 0 comment(s)