

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
404587869  
Receive Date:  
05/13/2026

Report taken by:  
Nick Cholas

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>PDC ENERGY INC</u>	Operator No: <u>69175</u>	Phone Numbers Phone: <u>(970) 304-5000</u> Mobile: <u>( )</u>
Address: <u>1099 18TH STREET SUITE 1500</u>		
City: <u>DENVER</u>	State: <u>CO</u>	Zip: <u>80202</u>
Contact Person: <u>Lauren Hoff</u>	Email: <u>rbueuf27@chevron.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 33221 Initial Form 27 Document #: 403601855

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>LOCATION</u>	Facility ID: <u>408094</u>	API #: _____	County Name: <u>WELD</u>
Facility Name: <u>GUSTAFSON-65N65W 32SWNE</u>	Latitude: <u>40.358270</u>	Longitude: <u>-104.684832</u>	
** correct Lat/Long if needed: Latitude: <u>40.358237</u>		Longitude: <u>-104.684673</u>	
QtrQtr: <u>SWNE</u>	Sec: <u>32</u>	Twp: <u>5N</u>	Range: <u>65W</u> Meridian: <u>6</u> Sensitive Area? <u>Yes</u>

SITE CONDITIONS

General soil type - USCS Classifications SM Most Sensitive Adjacent Land Use Residential  
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? Yes

**Other Potential Receptors within 1/4 mile**

Nearest Well: Irrigation - 278' SSW; Surface Water: Union Ditch - 157' NNE; Occupied Building: 671' SSW; Livestock: 470' WSW; FWS Wetlands: 81' S Riverine (R4SBCx); HPH Sensitive Wildlife Habitat: Rule 1202.d: 1,067' NNW - Mule Deer Severe Winter Range; 100-Year Floodplain 178' NNW of Tank Battery.

**SITE INVESTIGATION PLAN**

**TYPE OF WASTE:**

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

**DESCRIPTION OF IMPACT**

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	NA	Laboratory analysis and field screening, if encountered
Yes	SOILS	Refer to ECMC Document # 404370535	Laboratory analysis and field screening

**INITIAL ACTION SUMMARY**

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

In accordance with ECMC Rule 911, decommissioning of the Dickens F 32-07X, 17D production facility was conducted. The ground and sub-surfaces were visually inspected for hydrocarbon impacts during equipment decommissioning. In addition, on-site dump lines located between the separator and tank battery were removed by pulling from either end during decommissioning activities.

**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 ):

Grab soil samples were collected below and/or adjacent to applicable facility equipment, as defined in the Rule 911.a.(4) guidance document (9/20/21), for field screening purposes. Discrete soil samples were collected from the base of the produced water vessels' excavation (PWV01-B, PWV02-B, & PWV03-B) and excavation sidewall in areas most likely to be impacted and exhibiting the highest field screened VOC concentration (PWV02-S & PWV03S). Lab samples were also collected beneath the above ground tanks (AST01, AST02, & AST03) and beneath the separator risers for the dump line (SEP01-DL) and flowlines (SEP01-FL01 & SEP01-FL03). Soil samples were submitted for laboratory analysis of the full Table 915-1 analytical suite by ECMC approved methods.

**Proposed Groundwater Sampling**

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

If groundwater is encountered during decommissioning and/or abandonment activities, a grab sample will be collected as soon as practical. If contaminated soil is in contact with groundwater or if free product/hydrocarbon sheen are observed, the release will be reported in accordance with Rule 912.b. Groundwater samples will be submitted for laboratory analysis of BTEX, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene by EPA Method 8260, chloride and sulfate anions by EPA Method 300.0, and total dissolved solids (TDS) by Method SM 2540C.

**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 ):

A detailed summary of decommissioning activities, including field notes, site photos, figures, and laboratory analytical results, is attached to a previous Form 27 (ECMC Document #403841935).

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 5  
Number of soil samples exceeding 915-1 0  
Was the areal and vertical extent of soil contamination delineated? No  
Approximate areal extent (square feet) 0

### NA / ND

ND Highest concentration of TPH (mg/kg) \_\_\_\_\_  
-- Highest concentration of SAR 1.86  
BTEX > 915-1 No  
Vertical Extent > 915-1 (in feet) 0

### 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  
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?

On 04/12/2024, three background soil samples were collected from one discrete location (BKG01) at depths ranging between 1 to 5 feet below ground surface (ft bgs) adjacent to the tank battery and analyzed for metals in soil per ECMC Table 915-1 and pH. On 05/30/2025 and 08/15/2025, forty-two background soil samples were collected from fourteen discrete locations (BKG01-BKG14) and analyzed for metals in soil per ECMC Table 915-1, pH, SAR, EC, and boron. Background soil samples were collected from depths ranging between 1 and 10 ft bgs. BKG13 and BKG14 were excluded from background calculations due to proximity to historic oil and gas operations, and BKG01 collected on 04/12/2024 is excluded from pH comparison due to analysis beyond holding times. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, cadmium, chromium, lead, and selenium were calculated to be 5.26 mg/kg, 226 mg/kg, 0.38 mg/kg, 0.94 mg/kg, 24.4 mg/kg, and 0.35 mg/kg respectively.

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 supplemental site investigation activities are required to vertically and horizontally delineate elevated pH concentrations at the former separator risers (SEP01-FL01@3', SEP01-FL03@3', and SEP01-DL@5'). Concurrently with the SSI, additional background soil samples will be collected from native material to determine if pH, barium, cadmium, and lead can be attributed to native conditions. Proposed soil boring location maps are attached to this Form 27. The SSI will be conducted in accordance with the implementation schedule provide herein and results will be submitted on a subsequent Form 27.

## 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.

A total of approximately 9 cubic yards of suspected impacted material were removed from beneath the produced water vessel excavation (PWV03) and transported for off-site disposal at the Waste Management Landfill in Ault, Colorado under signed PDC waste manifests.

## 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.

A supplemental site investigation (SSI) was conducted on 05/30/2025 to delineate pH concentrations exceeding ECMC Table 915-1 Limits observed at sample locations AST01 @ 1', PWV01-B@5', and PWV02-B@5' during initial decommissioning activities. During the SSI, five soil borings were advanced to 10 feet below ground surface (ft bgs). Soil boring BH01 was advanced adjacent to the aforementioned source points to vertically delineate pH at that location. Borings BH02-BH05 were advanced surrounding BH01 to vertically and laterally delineate pH. Soil samples were collected and analyzed for full ECMC Table 915-1 suite. Lead exceedances observed at sample locations AST01 @ 1' and AST02 @ 1', and pH exceedances observed at AST01 @ 1', PWV01-B@5', and PWV02-B@5' were successfully delineated during the May 2025 SSI.

On 08/15/2025, soil borings AST01R, AST02R, BH05R, and SEP01-FL03R were advanced to further investigate elevated metals concentrations at AST01 @ 1', AST02 @ 1', BH05 @ 1-2', BH05 @ 4.5-5.5', and SEP01-FL03 @ 3', respectively. Lead concentrations observed at AST01 @ 1' and AST02 @ 1' remain delineated. Soil sample SEP01-FL03R @ 3-4' vertically delineated the elevated cadmium observed during decommissioning at SEP01-FL03 @ 3'. The elevated cadmium concentration observed at BH05 @ 1-2' and barium at BH05 @ 4.5-5.5', are vertically delineated by soil sample BH05 @ 9-10'. Remaining metals concentrations in exceedance of ECMC Table 915-1 Limits for metals in soil at the Dickens F 32-07X, 17D tank battery were below 1.25x the maximum background concentrations.

Additional supplemental site investigation activities are required to vertically and horizontally delineate elevated pH concentrations at the former separator risers (SEP01-FL01 @ 3', SEP01-FL03 @ 3', and SEP01-DL @ 5').

**Soil Remediation Summary**

<input type="checkbox"/> In Situ	<input checked="" type="checkbox"/> Ex Situ
_____ Bioremediation ( or enhanced bioremediation )	Yes _____ Excavate and offsite disposal
_____ Chemical oxidation	_____ If Yes: Estimated Volume (Cubic Yards) _____ 9
_____ 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 was not encountered during decommissioning or supplemental site investigation activities.

# REMEDATION 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 Supplemental Site Investigation Proposal

## 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.

Operator does not have site-specific financial assurance for this project; however, Operator has inactive well, blanket, and surface bonding including Surety IDs 106077122, 106473808, and 106473820, as well as commercial general liability and/or umbrella/excess insurance meeting the requirements of Rule 705.b. Operator does not anticipate making an insurance claim for this project.

- Facility and infrastructure were decommissioned and the location will be reclaimed in accordance with the ECMC 1000 Series.
- Further delineation of pH exceedances are required.
- A detailed reclamation plan for pH to remain in-situ will be attached to a subsequent Form 27.

Costs included herein are estimates only and may change over time based on numerous factors. Accordingly, Operator makes no guarantees as to the accuracy of such cost estimates, thus providing an estimate for the next year below.

Operator anticipates the remaining cost for this project to be: \$ 15000

## 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:

No beneficial use

Volume of E&P Waste (solid) in cubic yards 9

E&P waste (solid) description Hydrocarbon Impacted Soils

ECMC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-ECMC Disposal Facility: Ault Waste Management Landfill

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

E&P waste (liquid) description \_\_\_\_\_

ECMC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-ECMC Disposal Facility: \_\_\_\_\_

# REMEDATION COMPLETION REPORT

## REMEDATION 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.

Reclamation will be in accordance with ECMC 1000 Series Rules.

Is the described reclamation complete?  Yes \_\_\_\_\_

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. 04/10/2024

Proposed date of completion of Reclamation. 06/30/2027

## 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. 09/28/2023

Actual Spill or Release date, or date of discovery. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 04/10/2024

Proposed site investigation commencement. 07/15/2026

Proposed completion of site investigation. 07/15/2026

### REMEDIAL ACTION DATES

Proposed start date of Remediation. 07/15/2026

Proposed date of completion of Remediation. 01/15/2027

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:

The implementation schedule has been updated to reflect the necessity to complete additional supplemental site investigation (SSI) activities at and adjacent to the former Dickens F 32-07X, 17D Tank Battery location. The SSI is tentatively scheduled to commence on 07/15/2026.

**OPERATOR COMMENT**

This Form 27 is being submitted to proposed additional supplemental site investigation (SSI) activities at the Dickens F 32-07X, 17D Tank Battery location (REM # 33221).

Concentrations of pH for soil samples BKG01@1', BKG01@3', and BKG01@5' have been excluded from background consideration due to analysis of pH beyond holding times.

Additional supplemental site investigation activities are required to vertically and horizontally delineate elevated pH concentrations at the former separator risers (SEP01-FL01@3', SEP01-FL03@3', and SEP01-DL@5'). Concurrently with the SSI, additional background soil samples will be collected to determine if pH, barium, cadmium, and lead can be attributed to native conditions. The proposed soil boring location map is attached to this Form 27. The SSI will be conducted in accordance with the implementation schedule provide herein and results will be submitted on a subsequent Form 27. The SSI is tentatively scheduled to commence on 07/15/2026. Upon successful delineated of elevated pH concentrations at the former separators, a reclamation plan for in-situ pH concentrations above ECMC Table 915-1 standards will be included on a subsequent Form 27.

Pursuant to Rule 913.e, quarterly reporting will be conducted until closure criteria are achieved for the remediation project.

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

Signed: Loren Bohannon

Title: Environmental Consultant

Submit Date: 05/13/2026

Email: tas-chevron-3@tasman-geo.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: 05/14/2026

Remediation Project Number: 33221

**COA Type**

**Description**

0 COA	
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**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**

404587869	FORM 27-SUPPLEMENTAL-SUBMITTED
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Total Attach: 1 Files

**General Comments**

**User Group**

**Comment**

**Comment Date**

Environmental	ECMC has processed this form as an update without technical review; no data was attached thus approval of this form does not imply any agreement with comments on completion of site investigation or alteration of site plan. All ongoing/unaddressed comments/COAs from previous Forms remain applicable. Operator shall not delay execution of remedial or investigative actions while waiting for ECMC approval and may request expedited review if necessary.	05/14/2026
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Total: 1 comment(s)