FORM 27 Rev 5/22

State of Colorado
Energy & Carbon Management Commission

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Report taken by: Kari Brown

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: PDC ENERGY INC Operator No: 69175
Address: 1099 18TH STREET SUITE 1500
City: DENVER State: CO Zip: 80202
Contact Person: Karen Olson Email: karen.olson@chevron.com

Phone Numbers
Phone: (303) 860-5800
Mobile: ( )

PROJECT, PURPOSE & SITE INFORMATION

PROJECT INFORMATION

Remediation Project #: 37775 Initial Form 27 Document #: 403979743

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.
- [X] 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: LOCATION Facility ID: 330879 API #: County Name: WELD
Facility Name: SUCCO-62N66W 20SESW Latitude: 40.117658 Longitude: -104.801760
** correct Lat/Long if needed: Latitude: 40.117866 Longitude: -104.794151
QtrQtr: SESW Sec: 20 Twp: 2N Range: 66W Meridian: 6 Sensitive Area? Yes

SITE CONDITIONS

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

Other Potential Receptors within 1/4 mile

Residential Water Well (DWR Permit # 5431) 0.25 miles W
Freshwater Pond 0.22 Miles NW, 0.25 Miles NW
Residential Structure 0.24 Miles W, 0.16 Miles SW, 0.18 Miles SE,
Farm Structure 0.23 Miles NW

SITE INVESTIGATION PLAN

TYPE OF WASTE:

[X] **E&P Waste**	[ ] **Other E&P Waste**	[ ] **Non-E&P Waste**
[X] Produced Water	[ ] Workover Fluids	_____
[X] 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

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	GROUNDWATER	NA	Lab Analysis and Field screening, if encountered
Yes	SOILS	Refer to Tables and Figures	Lab 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.

Per ECMC request, a site investigation was conducted at the former PDC Legacy - Succo 44-20 Tank Battery location. The former tank battery was decommissioned on January 24, 2017. Following receipt of analytical results collected by a third party operator for tank battery decommissioning activities adjacent to the former location, it was determined that potential hydrocarbon impacts were recorded at the ground surface in the vicinity of the former Succo 44-20 separator location.

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):

One soil boring (BH01) was advanced at the former background soil sample location (background@surface) to approximately 5 feet below ground surface (bgs). In addition, four soil borings (BH02-BH05) were advanced in cardinal directions to delineate the horizontal and vertical extents of potential hydrocarbon impacts. In addition, one soil sample was collected from each soil boring from the interval that exhibited the highest volatile organic compound (VOC) concentration that was measured during the investigation using a photoionization detector (PID). All soil samples were analyzed by a certified laboratory for the full extent of Table 915-1, including but not limited to: TPH (C6-C36), organic compounds in soil per ECMC Table 915-1, and EC, SAR, pH, metals, and boron.

Proposed Groundwater Sampling

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

If groundwater is encountered during the site investigation a grab groundwater will be collected and analyzed for all organic and inorganic compounds per ECMC Table 915-1; this sample analysis includes, but is not limited to BTEX, naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB 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 visual inspection was conducted during the site investigation to record and document the surface conditions at the former tank battery area.

SITE INVESTIGATION REPORT

SAMPLE SUMMARY

Soil

Number of soil samples collected: 11
Number of soil samples exceeeding 915-1: 7
Was the areal and vertical extent of soil contamination delineated? No
Approximate areal extent (square feet): 700

NA / ND

ND — Highest concentration of TPH (mg/kg):
-- — Highest concentration of SAR: 0.868
BTEX > 915-1: No
Vertical Extent > 915-1 (in feet): 3

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?

On 1/6/2025, fifteen background samples were collected from five discrete soil borings (BKG01-BKG05) adjacent to the third party sample location background@surface 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 0 to 5 feet below ground surface (ft. bgs). The maximum background concentrations for pH and EC were calculated to be 9.40 and 0.786 mmhos/cm, respectively. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, cadmium, lead, and selenium were calculated to be 6.55 mg/kg, 231 mg/kg, 1.03 mg/kg, 32.9 mg/kg, and 0.338 mg/kg, respectively. All pH, arsenic, and barium concentrations observed during decommissioning and supplemental site investigation (SSI) activities were below background levels.

☐ 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 background samples will be collected along the ditch to determine if benzo(a)anthracene, cadmium, lead, and selenium are attributed to native soil conditions at the site or potential clearing or burning along the ditch. Background samples will be collected and analyzed for Soil suitability, metal, and PAH.

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.

No hydrocarbon impacted material has been generated at this time.

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.

NA

Soil Remediation Summary

☐ **In Situ**

_____ Bioremediation (or enhanced bioremediation)

_____ Chemical oxidation

_____ Air sparge / Soil vapor extraction

_____ Natural Attenuation

_____ Other _____

☐ **Ex Situ**

_____ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) _____

Name of Licensed Disposal Facility or ECMC Facility ID # _____

_____ 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.

Groundwater was not encountered during initial decommissioning or site assessment activities.

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 Supplemental Site Investigation Summary and Proposed Background Sampling

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 15 requirements of Rule 705.b. Operator does not anticipate making an insurance claim for this project.

- Further soil investigation/delineation is required

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? 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.

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?

[X] 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. 01/06/2025

Proposed date of completion of Reclamation. 11/04/2026

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.

SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 10/28/2024

Proposed site investigation commencement. 05/04/2025

Proposed completion of site investigation. 11/04/2025

REMEDIAL ACTION DATES

Proposed start date of Remediation. 11/04/2025

Proposed date of completion of Remediation. 05/04/2026

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.

[X] Change from approved implementation schedule per Rule 913.d.(2).

Basis for change in implementation schedule:

The implementation schedule has been changed due to the site investigation at the Succo 44-20 tank battery and necessity for supplemental site investigation activities adjacent to the separator. The proposed site investigation will be completed following the approval of this form.

OPERATOR COMMENT

This 2Q25 Supplemental Form 27 is being submitted to include the independent site investigation results at the former Succo 44-20 Tank Battery location.

The former tank battery was decommissioned on January 24, 2017. Conformation soil sample were collected, the data was presented, and a no further action for the former Succo 44-20 Tank battery was granted on 2/24/2017 (Rem# 10056, Doc# 401216820).

Following receipt of analytical results collected by a third party operator for tank battery decommissioning activities adjacent to the former location. Third party operator analytical data suggested potential hydrocarbon impacts at the ground surface in the vicinity of the former Succo 44-20 separator location. Per ECMC request, an independent site investigation was conducted at the former PDC Legacy - Succo 44-20 Tank Battery Location.

On November 5, 2024, Entrada Consulting collected a confirmation soil sample (background@surface) to confirm the presence of hydrocarbon impacts. Analytical results indicated that soil sample background@surface exhibited benzo(a)anthracene, arsenic, barium, cadmium, and lead concentrations in exceedance of Table 915-1 standards.

On January 6, 2025, a supplemental site investigation was completed by Tasman, Inc. to delineate impacted media, during which 5 soil boring were advanced. BH01 was advanced at the same location as waste characterization sample background@surface to vertically delineate impacts identified at that location. BH02-BH05 were advanced to horizontally delineate impacts identified at background@surface. Analytical results indicated soil samples BH01@0-6", BH03@0-6", and BH05@0-6" exhibited benzo(a)anthracene, cadmium, lead, and selenium concentrations in exceedance of the regulatory standards.

On 1/6/2025, fifteen background samples were collected from five discrete soil borings (BKG01-BKG05) adjacent to the former Succo 44-20 separator location 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 0 to 5 feet below ground surface (ft. bgs). The maximum background concentrations for pH and EC were calculated to be 9.40 and 0.786 mmhos/cm, respectively. The maximum background concentrations with a 1.25x multiplier applied for arsenic, barium, cadmium, lead, and selenium were calculated to be 6.55 mg/kg, 231 mg/kg, 1.03 mg/kg, 32.9 mg/kg, and 0.338 mg/kg, respectively. All pH, arsenic, and barium concentrations observed during the independent site investigation activities were below background levels.

Historical satellite photography of the site shows that the vegetation on both sides of the ditch that runs south of the site has been periodically cleared or burned. The cleared or burned area coincides with the location of exceedances at soil samples BH01@0-6", BH03@0-6", and BH05@0-6", additional background samples will be collected along the ditch to determine if benzo(a)anthracene, cadmium, lead, and selenium are attributed to native soil conditions at the site or potential clearing or burning along the ditch. Background samples will be collected and analyzed for Soil suitability, metal, and PAH.

Quarterly reporting will be conducted until closure criteria are achieved for the project. The results of the background sampling will be submitted on a subsequent Form 27.

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

Signed: Karen Olson Title: Remediation Advisor

Submit Date: 05/12/2025 Email: tas-chevron-1@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: Kari Brown Date: 02/11/2026

Remediation Project Number: 37775

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
404174167	INVESTIGATION/REMEDIATION WORKPLAN (SUPPLEMENTAL)
404196865	ANALYTICAL DATA SUMMARY TABLE(S)
404196868	ANALYTICAL RESULTS
404197250	ANALYTICAL RESULTS
404197256	ANALYTICAL DATA SUMMARY TABLE(S)
404197277	SOIL SAMPLE LOCATION MAP
404541404	FORM 27-SUPPLEMENTAL-SUBMITTED

Total Attach: 7 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)