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State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax 894-2109



FOR OGCC USE ONLY

**RECEIVED**  
 JAN 04 2016  
**COGCC**

OGCC Employee:

Spill  Complaint  
 Inspection  NOAV

Tracking No:

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

Spill or Release  Plug & Abandon  Central Facility Closure  Site/Facility Closure  Other (describe): Produced Water Vessel Closure

**GENERAL INFORMATION**

|  |  |   |  |
|--|--|---|--|
| OGCC Operator Number: <u>69175</u>   |  | Contact Name and Telephone                                    |  |
| Name of Operator: <u>PDC Energy, Inc.</u>  |  | Name: <u>Randall Ferguson</u>                                 |  |
| Address: <u>1775 Sherman Street, Suite 3000</u>  |  | No: <u>(303) 860-5800</u>                                     |  |
| City: <u>Denver</u>  | State: <u>CO</u> Zip: <u>80203</u>                   | Fax: <u>(303) 860-5838</u>                                    |  |
| API/Facility No: _____   | County: <u>Refer to Site-Specific Closure Report</u> | Facility Number: <u>Refer to Site-Specific Closure Report</u> |  |
| Facility Name: <u>Refer to Site-Specific Closure Report</u>                              | Well Name: _____                                     | Well Number: _____  |  |
| Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>Refer to Site-Specific Closure Report</u> |  | Latitude: _____ Longitude: _____                              |  |

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): N/A

Site Conditions: Is location within a sensitive area (according to Rule 901e)?  Y  N If yes, attach evaluation. \*\* Please see 'Potential Receptors' section below.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Varies by Location

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Varies by Location per USDA NRCA Soil Survey

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Varies by Location

Description of Impact (if previously provided, refer to that form or document):

|  |   |  |
|--|---|--|
| Impacted Media (check):                | Extent of Impact:                             | How Determined:  |
| <input type="checkbox"/> Soils         | <u>No Impacts Encountered</u>                 | <u>Excavation and Soil Sampling</u>                        |
| <input type="checkbox"/> Vegetation    | <u>No Impacts Encountered (if applicable)</u> | <u>Excavation and Groundwater Sampling (if applicable)</u> |
| <input type="checkbox"/> Groundwater   |   |  |
| <input type="checkbox"/> Surface water |   |  |

**REMEDIATION WORKPLAN**

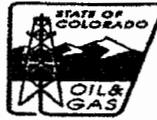
Describe initial action taken (if previously provided, refer to that form or document):  
 As required by COGCC Rule 905.b, a soil sample will be collected when buried or partially buried produced water vessels are removed from service. One soil sample will be collected below the removed water vessel and submitted for laboratory analysis of identified Table 910-1 chemicals-of-concern (COCs) which include benzene, toluene, ethylbenzene, and total xylenes (BTEX), naphthalene, total petroleum hydrocarbons (TPH) - gasoline range organics (GRO), TPH - diesel range organics (DRO), electrical conductivity (EC) and pH. The soil sample will be analyzed for sodium adsorption ratio (SAR) should initial EC concentrations exceed Table 910-1 soil standards. Excavation sidewalls will be field screened for volatile organic compound (VOC) concentrations using a photoionization detector (PID). Should elevated PID readings be observed on the excavation sidewalls, soil samples will be collected and analyzed for the above-referenced organic and inorganic compounds. If shallow groundwater is encountered during the produced water vessel removal, a groundwater sample will be collected and submitted for laboratory analysis of BTEX.

Describe how source is to be removed:  
 Any soil impacted above COGCC Table 910-1 standards will be removed from the excavation area. Impacted soil in exceedance of Table 910-1 standards for only EC, pH, or SAR will not be removed below the root zone (established at 3 feet below ground surface, per COGCC guidance). If a reportable release is discovered, a Form 19 - Spill/Release Report will be submitted. If there is no reportable release, a produced water vessel closure report will be submitted via a Form 4 - Sundry Notice that references this blanket Form 27.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:  
 Impacted soil will be transported to a licensed disposal facility under PDC waste manifests. Impacted groundwater will be transported to a licensed injection facility.

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Tracking Number: 1761433
Name of Operator: PDC Energy, Inc.
OGCC Operator No: 69175
Received Date: 1/4/16
Well Name & No:
Facility Name & No.:

REMEDIATION WORKPLAN (CONT.)

OGCC Employee: John Axelson

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):
In the event groundwater impacts in exceedance of COGCC Table 910-1 standards are detected, a site-specific groundwater monitoring plan will be submitted under a site-specific Form 27 for COGCC approval.

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. Use additional sheet for description if required.
Following excavation activities, the location will be backfilled, compacted, and re-contoured to match pre-existing conditions. If the facility is decommissioned, the location will be reclaimed in accordance with COGCC Rule 1004.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.
Is further site investigation required? [ ] Y [ ] N If yes, describe:
N/A

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):
Impacted soil will be transported to a licensed disposal facility under PDC waste manifests. Impacted groundwater will be transported to a licensed injection facility.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: Date Site Investigation Completed: Remediation Plan Submitted:
Remediation Start Date: Anticipated Completion Date: Actual Completion Date:

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

Print Name: Randall Ferguson

Signed: [Signature] Title: EHS Senior Compliance Specialist Date: 1/4/2016

OGCC Approved: [Signature] Title: EPS Date: 1/4/16