

# State of Colorado Oil and Gas Conservation Commission

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DE	ET	OE	ES
Document Number: <b>2148724</b>			
Date Received: <b>04/30/2014</b>			

## SUNDRY NOTICE

Submit a signed original. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full in Comments or provide as an attachment. Identify Well by API Number; identify Oil and Gas Location by Location ID Number; identify other Facility by Facility ID Number.

OGCC Operator Number: <u>69175</u>	Contact Name <u>Brandon Bruns</u>
Name of Operator: <u>PDC ENERGY INC</u>	Phone: <u>(303) 831-3971</u>
Address: <u>1775 SHERMAN STREET - STE 3000</u>	Fax: <u>(303) 860-5838</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80203</u>	Email: <u>brandon.bruns@pdce.com</u>
API Number : 05- <u>123</u> <u>13483</u> <u>00</u> OGCC Facility ID Number: <u>245688</u>	
Well/Facility Name: <u>LUNDVALL UP</u>	Well/Facility Number: <u>2-19</u>
Location QtrQtr: <u>NWNE</u> Section: <u>19</u> Township: <u>5N</u> Range: <u>66W</u> Meridian: <u>6</u>	
County: <u>WELD</u> Field Name: <u>WATTENBERG</u>	
Federal, Indian or State Lease Number: <u>67932</u>	

Complete the Attachment  
Checklist

OP OGCC

Survey Plat		
Directional Survey		
Srvc Eqpmt Diagram		
Technical Info Page		
Other		

## CHANGE OF LOCATION OR AS BUILT GPS REPORT

☐ Change of Location \* ☐ As-Built GPS Location Report ☐ As-Built GPS Location Report with Survey

\* Well location change requires new plat. A substantive surface location change may require new Form 2A.

**SURFACE LOCATION GPS DATA** Data must be provided for Change of Surface Location and As Built Reports.

Latitude \_\_\_\_\_ PDOP Reading \_\_\_\_\_ Date of Measurement \_\_\_\_\_  
Longitude \_\_\_\_\_ GPS Instrument Operator's Name \_\_\_\_\_

### LOCATION CHANGE (all measurements in Feet)

Well will be: \_\_\_\_\_ (Vertical, Directional, Horizontal)

Change of **Surface** Footage **From** Exterior Section Lines:

Change of **Surface** Footage **To** Exterior Section Lines:

Current **Surface** Location **From** QtrQtr NWNE Sec 19

New **Surface** Location **To** QtrQtr \_\_\_\_\_ Sec \_\_\_\_\_

Change of **Top of Productive Zone** Footage **From** Exterior Section Lines:

Change of **Top of Productive Zone** Footage **To** Exterior Section Lines:

Current **Top of Productive Zone** Location **From** Sec \_\_\_\_\_

New **Top of Productive Zone** Location **To** Sec \_\_\_\_\_

Change of **Bottomhole** Footage **From** Exterior Section Lines:

Change of **Bottomhole** Footage **To** Exterior Section Lines:

Current **Bottomhole** Location Sec \_\_\_\_\_ Twp \_\_\_\_\_

New **Bottomhole** Location Sec \_\_\_\_\_ Twp \_\_\_\_\_

Is location in High Density Area? \_\_\_\_\_

Distance, in feet, to nearest building \_\_\_\_\_, public road: \_\_\_\_\_, above ground utility: \_\_\_\_\_, railroad: \_\_\_\_\_,

property line: \_\_\_\_\_, lease line: \_\_\_\_\_, well in same formation: \_\_\_\_\_

Ground Elevation \_\_\_\_\_ feet Surface owner consultation date \_\_\_\_\_

FNL/FSL		FEL/FWL	
700	FNL	1810	FEL
Twp <u>5N</u>	Range <u>66W</u>	Meridian <u>6</u>	
Twp _____	Range _____	Meridian _____	
			**
Twp _____	Range _____		
Twp _____	Range _____		
			**

\*\* attach deviated drilling plan

CHANGE OR ADD OBJECTIVE FORMATION AND/OR SPACING UNIT				
Objective Formation	Formation Code	Spacing Order Number	Unit Acreage	Unit Configuration

<u>Objective Formation</u>	<u>Formation Code</u>	<u>Spacing Order Number</u>	<u>Unit Acreage</u>	<u>Unit Configuration</u>

**OTHER CHANGES**

☐ **REMOVE FROM SURFACE BOND**      Signed surface use agreement is a required attachment

☐ **CHANGE OF WELL, FACILITY OR OIL & GAS LOCATION NAME OR NUMBER**

From:      Name      LUNDVALL UP      Number      2-19      Effective Date: \_\_\_\_\_

To:      Name      \_\_\_\_\_      Number      \_\_\_\_\_

☐ **ABANDON PERMIT: Permit can only be abandoned if the permitted operation has NOT been conducted. Field inspection will be conducted to verify site status.**

☐ WELL: Abandon Application for Permit-to-Drill (Form2) – Well API Number \_\_\_\_\_ has not been drilled.

☐ PIT: Abandon Earthen Pit Permit (Form 15) – COGCC Pit Facility ID Number \_\_\_\_\_ has not been constructed (Permitted and constructed pit requires closure per Rule 905)

☐ CENTRALIZED E&P WASTE MANAGEMENT FACILITY: Abandon Centralized E&P Waste Management Facility Permit (Form 28) – Facility ID Number \_\_\_\_\_ has not been constructed (Constructed facility requires closure per Rule 908)

OIL & GAS LOCATION ID Number: \_\_\_\_\_

☐ Abandon Oil & Gas Location Assessment (Form 2A) – Location has not been constructed and site will not be used in the future.

☐ Keep Oil & Gas Location Assessment (Form 2A) active until expiration date. This site will be used in the future.

**Surface disturbance from Oil and Gas Operations must be reclaimed per Rule 1003 and Rule 1004.**

☐ **REQUEST FOR CONFIDENTIAL STATUS**

☐ **DIGITAL WELL LOG UPLOAD**

☐ **DOCUMENTS SUBMITTED**      Purpose of Submission: \_\_\_\_\_

## RECLAMATION

### INTERIM RECLAMATION

☐ Interim Reclamation will commence approximately \_\_\_\_\_  
Per Rule 1003.e.(3) operator shall submit Sundry Notice reporting interim reclamation is complete and site is ready for inspection when vegetation reaches 80% coverage.

☐ Interim reclamation complete, site ready for inspection.  
Per Rule 1003.e(3) describe interim reclamation procedure in Comments below or provide as an attachment and attach required location photographs.

**Field inspection will be conducted to document Rule 1003.e. compliance**

### FINAL RECLAMATION

☐ Final Reclamation will commence approximately \_\_\_\_\_  
Per Rule 1004.c.(4) operator shall submit Sundry Notice reporting final reclamation is complete and site is ready for inspection when vegetation reaches 80% coverage.

☐ Final reclamation complete, site ready for inspection. Per Rule 1004.c(4) describe final reclamation procedure in Comments below or provide as an attachment.

**Field inspection will be conducted to document Rule 1004.c. compliance**

Comments:

ENGINEERING AND ENVIRONMENTAL WORK

☐ NOTICE OF CONTINUED TEMPORARILY ABANDONED STATUS

Indicate why the well is temporarily abandoned and describe future plans for utilization in the COMMENTS box below or provide as an attachment, as required by Rule 319.b.(3).

Date well temporarily abandoned \_\_\_\_\_ Has Production Equipment been removed from site? \_\_\_\_\_

Mechanical Integrity Test (MIT) required if shut in longer than 2 years. Date of last MIT \_\_\_\_\_

☐ SPUD DATE: \_\_\_\_\_

TECHNICAL ENGINEERING AND ENVIRONMENTAL WORK

Details of work must be described in full in the COMMENTS below or provided as an attachment.

☐ NOTICE OF INTENT \_\_\_\_\_ Approximate Start Date \_\_\_\_\_

☒ REPORT OF WORK DONE \_\_\_\_\_ Date Work Completed 09/27/2013

- ☐ Intent to Recomplete (Form 2 also required)
- ☐ Request to Vent or Flare
- ☐ E&P Waste Mangement Plan
- ☐ Change Drilling Plan
- ☐ Repair Well
- ☐ Beneficial Reuse of E&P Waste
- ☐ Gross Interval Change
- ☐ Rule 502 variance requested. Must provide detailed info regarding request.
- ☒ Other Remediation Complete
- ☐ Status Update/Change of Remediation Plans for Spills and Releases

COMMENTS:

Between March 20, 2013 and March 22, 2013, PDC conducted excavation activities at the Lundvall 2-19 (API # 05-123-13483, COGC Spill Tracking # 2145966, COGCC Remediation # 7953) tank battery located in the NWNE Quarter of Section 19, Township 5 North, Range 66 West, as illustrated on Figure 1. Approximately 340 cubic yards of impacted soil were removed and transported to the Waste Management Facility in Ault, Colorado under PDC waste manifests. Analytical results from excavation activities indicated petroleum hydrocarbon impacts were present in soil sample SS02 collected at 12 feet below ground surface (bgs) at concentrations above COGCC Table 910-1 soil standards. Soil sample locations from excavation activities are illustrated on Figure 2. Prior to backfilling, chemical oxidant (chemox) mixing activities were conducted at the base of the excavation area (between 13-15 feet bgs) to address residual impacted material. On March 25, 2013, a subsequent soil sample (SS09) was collected adjacent to SS02 from the treated depth and exhibited elevated benzene and total petroleum hydrocarbon (TPH) concentrations. An immediate decrease in constituent concentrations was not expected as chemox persists within the soil matrix. Following a 6-month period where continued oxidation occurred of impacted soil within the treatment zone, two boreholes (BH01 and BH02) were installed on September 27, 2013 to confirm remedial activities successfully mitigated residual impacts. Soil samples were collected from each borehole at a composite depth of 13 to 15 feet bgs which coincided with previously detected soil impacts. Soil analytical results indicated constituent concentrations were below COGCC regulatory standards at both borehole locations. Soil analytical data is summarized in Table 1 and the soil boring locations relative to the excavation area are illustrated on Figure 3. Based on the soil analytical results from the confirmation soil samples collected within the treatment zone, PDC is requesting a No Further Action determination from the COGCC. Groundwater was not impacted as a result of this release.

CASING AND CEMENTING CHANGES

Casing Type	Size	Of	/	Hole	Size	Of	/	Casing	Wt/Ft	Csg/LinTop	Setting Depth	Sacks of Cement	Cement Bottom	Cement Top

H2S REPORTING

Data Fields in this section are intended to document Sample and Location Data associated with the collection of a Gas Sample that is submitted for Laboratory Analysis.

Gas Analysis Report must be attached.

H2S Concentration: \_\_\_\_\_ in ppm (parts per million) Date of Measurement or Sample Collection \_\_\_\_\_

Description of Sample Point:

Absolute Open Flow Potential \_\_\_\_\_ in CFPD (cubic feet per day)

Description of Release Potential and Duration (If flow is not open to the atmosphere, identify the duration in which the container or pipeline would likely be opened for servicing operations.):

Distance to nearest occupied residence, school, church, park, school bus stop, place of business, or other areas where the public could reasonably be expected to frequent: \_\_\_\_\_

Distance to nearest Federal, State, County, or municipal road or highway owned and principally maintained for public use: \_\_\_\_\_

COMMENTS:

**Best Management Practices**

**No BMP/COA Type**

**Description**

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**Operator Comments:**

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

Signed: \_\_\_\_\_ Print Name: Brandon Bruns  
Title: EHS Professional Email: brandon.bruns@pdce.com Date: 12/11/2013

Based on the information provided herein, this Sundry Notice (Form 4) complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: ALLISON, RICK Date: 5/15/2014

**CONDITIONS OF APPROVAL, IF ANY:****COA Type****Description**

	The request for No Further Action is not approved. Soil sample locations BH01 and BH02 do not coincide with the area of previously impacted areas at SS02 and SS09. A confirmation soil sample must be collected from the area of impact and remediation. Specifically, collect confirmation soil samples from the March 2013 soil sample locations SS02 and SS09.
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**General Comments****User Group****Comment****Comment Date**

Permit	Remediation for spill and releases.	5/7/2014 9:23:41 AM
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Total: 1 comment(s)

**Attachment Check List****Att Doc Num****Name**

2148724	FORM 4 SUBMITTED
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Total Attach: 1 Files