

**State of Colorado**  
**Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
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DE	ET	OE	ES
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**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: 69175 Contact Name Randall Ferguson  
 Name of Operator: PDC ENERGY INC Phone: (303) 860-5800  
 Address: 1775 SHERMAN STREET - STE 3000 ATTN: JEFF GLOSSA Fax: (303) 860-5838  
 City: DENVER State: CO Zip: 80203 Email: \_\_\_\_\_

Complete the Attachment  
Checklist

OP OGCC

API Number : 05- 045 16215 00 OGCC Facility ID Number: 296916  
 Well/Facility Name: PUCKET Well/Facility Number: 23C-24D  
 Location QtrQtr: NWSE Section: 24 Township: 6S Range: 97W Meridian: 6  
 County: GARFIELD Field Name: GRAND VALLEY  
 Federal, Indian or State Lease Number: \_\_\_\_\_

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  Sec

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  Range

New **Bottomhole Location** Sec  Twp  Range

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	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Twp <input type="text"/>	Range <input type="text"/>	Meridian <input type="text"/>	<input type="text"/>
Twp <input type="text"/>	Range <input type="text"/>	Meridian <input type="text"/>	<input type="text"/>
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\*\* attach deviated drilling plan



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 \_\_\_\_\_

<input type="checkbox"/> Intent to Recomplete (Form 2 also required)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Mangement Plan
<input type="checkbox"/> Change Drilling Plan	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Change	<input type="checkbox"/> Rule 502 variance requested. Must provide detailed info regarding request.	
<input checked="" type="checkbox"/> Other <u>Background</u>	<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases	

COMMENTS:

**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

<u>No BMP/COA Type</u>	<u>Description</u>

Operator Comments:

INITIAL RESPONSE ACTIONS:

A RELEASE WAS REPORTED TO PDC ENERGY (PDC) ON NOVEMBER 7, 2010. THE INCIDENT TRACKING NUMBER IS 2522622. WATER BEING USED FOR FRACING OPERATIONS WAS RELEASED DURING WATER TRANSFER PROCEDURES. ONE OF THE ONSITE BAKER TANKS WAS NOT GAUGED PRIOR TO WATER TRANSFER, WHICH RESULTED IN THE BAKER TANK OVERFLOWING. THE HOSE CONNECTION CONNECTIONS TO THE BAKER TANKS WERE SECURED, STOPPING THE RELEASE. ALL RELEASED FLUIDS WERE CONTAINED TO THE WELL PAD. HRL COMPLIANCE SOLUTIONS, INC. (HCSI) WAS CONTRACTED AND A SITE INVESTIGATION WAS INITIATED ON NOVEMBER 8, 2010.

FRAC WATER RELEASE INVESTIGATION:

A SERIES OF BORINGS WERE INSTALLED WITHIN THE IMPACTED AREA BY USE OF A HAND AUGER. A PETROFLAG WAS UTILIZED TO FIELD SCREEN THE IMPACTED SOIL. FIELD SCREEN READINGS WERE ELEVATED. THE ESTIMATED IMPACTED AREA WAS APPX 3350 SQ FT. THE IMPACTED AREA COULD NOT BE FULLY CHARACTERIZED AT DEPTH DUE TO BAKER TANKS OVER THE SPILL AREA.

HCSI PERSONNEL WERE ONSITE TO CONDUCT FURTHER INVESTIGATION ON JULY 19, 2011. A GEOPROBE/DRILL RIG WAS UTILIZED TO DRILL A TOTAL OF 13 BOREHOLES WITHIN THE ESTIMATED IMPACTED AREA. FIELD SCREEN READINGS WERE COLLECTED AT ONE FOOT INTERVALS TO A DEPTH OF 5 FEET BELOW THE GROUND SURFACE. A PID AND PETROFLAG WERE UTILIZED TO COLLECT THE FIELD SCREENS. FIELD SCREEN READINGS WERE BELOW COGCC TABLE 910-1 STANDARDS FROM EACH OF THE BOREHOLE LOCATIONS. A CONFIRMATION SOIL SAMPLE WAS COLLECTED FROM EACH BORING AND ANALYZED FOR TABLE 910-1 PARAMETERS.

ANALYTICAL RESULTS WERE BELOW COGCC TABLE 910-1 STANDARDS FOR HYDROCARBONS AND METALS IN SOIL. WITH THE EXCEPTION OF ARSENIC, IT WAS DETERMINED THAT NATURAL ATTENUATION HAD REDUCED THE HYDROCARBON LEVELS TO BELOW TABLE 910-1 STANDARDS FOR SOILS BEFORE A REMEDIATION PLAN COULD BE IMPLEMENTED.

ALL ASSOCIATED DOCUMENTS WILL BE FILED FOR FUTURE REFERENCE. THE ANALYTICAL REPORTS WILL INCLUDE QA/QC SECTIONS TO CONFIRM THE SAMPLES WERE HANDLED IN ACCORDANCE WITH PROPER LABORATORY PROTOCOL.

BASED ON ANALYTICAL DATA, SOILS FORMERLY IMPACTED WITH HYDROCARBONS HAVE SUCCESSFULLY BEEN TREATED BY NATURAL ATTENUATION.

ARSENIC:

THIS COGCC FORM 4 IS ALSO BEING USED TO SUBMIT ANALYTICAL RESULTS FOR ARSENIC AT THE PUCKETT 23C-24D WELL PAD AS WELL AS BACKGROUND ARSENIC CONCENTRATIONS, IN ACCORDANCE WITH FOOTNOTE 1 TO THE TABLE 910-1. THE TREATMENT AREA ARSENIC CONCENTRATION IS BELOW THE BACKGROUND ARSENIC LEVELS.

THE REQUEST IS BASED ON THE ARSENIC ANALYTICAL RESULTS BELOW:

PUCKETT 23C-24D CONFIRMATION SAMPLE 1: 20 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 2: 27 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 3: 6.2 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 4: 47 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 5: 10 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 6: 12 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 7: 28 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 8: 19 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 9: 15 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 10: 11 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 10: 22 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 12: 24 MG/KG

PUCKETT 23C-24D CONFIRMATION SAMPLE 13: 25 MG/KG

AVERAGE: 20.5 MG/KG

THREE GRAB SAMPLES WERE COLLECTED FROM NEARBY NON-IMPACTED, NATIVE SOIL FROM THE SURFACE TO 8 INCHES BELOW TO ESTABLISH BACKGROUND ARSENIC CONCENTRATIONS. REFER TO THE ATTACHED MAP FOR SAMPLE LOCATIONS.

PUCKETT 23C-24D BACKGROUND SAMPLE 1: 21 MG/KG

PUCKETT 23C-24D BACKGROUND SAMPLE 2: 28 MG/KG

PUCKETT 23C-24D BACKGROUND SAMPLE 3: 44 MG/KG

AVERAGE: 31 MG/KG

BASED ON THE ANALYTICAL RESULTS FROM THE IMPACTED AREA AND THE NATIVE SOIL SAMPLES, PDC IS REQUESTING THAT A VARIANCE BE APPROVED FOR THE IMPACTED SOIL WITH RESPECT TO ARSENIC. IF FURTHER ANALYTICAL DOCUMENTATION IS DESIRED, PLEASE MAKE A REQUEST TO PDC FOR LAB GENERATED ANALYTICAL

REPORTS.

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

Signed: \_\_\_\_\_ Print Name: \_\_\_\_\_

Title: \_\_\_\_\_ Email: \_\_\_\_\_ Date: \_\_\_\_\_

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

COGCC Approved: \_\_\_\_\_ Date: 4/24/2015

**CONDITIONS OF APPROVAL, IF ANY:**

**COA Type**

**Description**

<b><u>COA Type</u></b>	<b><u>Description</u></b>

**General Comments**

**User Group**

**Comment**

**Comment Date**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>

Total: 0 comment(s)

**Attachment Check List**

**Att Doc Num**

**Name**

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

Total Attach: 0 Files