

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

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



DE	ET	OE	ES
Document Number: <b>200429788</b>			
Date Received: <b>06/08/2012</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: 69175 Contact Name Ed Winters  
 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 16103 00 OGCC Facility ID Number: 296698  
 Well/Facility Name: PUCKETT Well/Facility Number: 21A-24D  
 Location QtrQtr: NWNW 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"/>	
Twp <input type="text"/>	Range <input type="text"/>	Meridian <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 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:

<b><u>Best Management Practices</u></b>		
<b><u>No</u></b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>

Operator Comments:

INITIAL RESPONSE ACTION

A RELEASE WAS REPORTED TO PDC ENERGY (PDC) ON JULY 24, 2011. DURING ROUTINE OPERATIONS, A WATER TRUCK BACKED INTO A MANIFOLD, BREAKING A SIX (6) INCH HOLE IN THE MANIFOLD. THE RELEASED FLUID WAS WATER BEING USED DURING FRACING OPERATIONS. APPX TEN (10) BBLs OF FLUID WAS RELEASED ONTO THE WELL PAD. VALVES ON THE MANIFOLD WERE CLOSED, STOPPING THE FLOW OF FLUID. THE BROKEN SECTION OF PIPE WAS REPLACED. NONE OF THE FLUID WAS RECOVERED.

ALL RELEASED FLUID WAS CONTAINED TO THE WELL PAD AND NO WATERS OR WILDLIFE WERE IMPACTED. THE FULL EXTENT OF THE RELEASE COULD NOT BE FULLY DETERMINED AT THE TIME OF THE RELEASE DUE TO FRAC TANKS LOCATED OVER THE SPILL AREA. A SITE INVESTIGATION WAS INITIATED ON JULY 24, 2011. THE INCIDENT TRACKING NUMBER IS 2215677.

IMPACTED SOIL INVESTIGATION

ONSITE FIELD MEASUREMENTS AND FIELD SCREENS WERE UTILIZED TO DETERMINE THE EXTENT OF THE IMPACTS AROUND AND BETWEEN THE FRAC TANKS LOCATED OVER THE SPILL AREA. A HAND AUGER AND SHOVEL WERE UTILIZED TO COLLECT FIELD SCREENS FROM THE ACCESSABLE IMPACTED SOIL. ELEVATED FIELD SCREENS WERE OBSERVED FROM THE GROUND SURFACE TO TWO (2) FEET BELOW THE GROUND SURFACE. BASED ON FIELD MEASUREMENTS, AN ESTIMATED ELEVEN (11) YARDS OF SOIL WAS IMPACTED BY THE RELEASE. THE RELEASE COULD NOT BE FULLY CHARACTERIZED AT DEPTH DUE TO THE FRAC TANKS LOCATED OVER THE SPILL AREA. A FULL SITE CHARACTERIZATION WAS TO BE CONDUCTED UPON REMOVAL OF THE TANKS.

FURTHER SITE CHARACTERIZATION WAS CONDUCTED ON SEPTEMBER 28, 2011 AFTER THE FRAC TANKS HAD BEEN REMOVED FROM THE LOCATION. A SERIES OF SOIL BORINGS WERE HAND AUGERED WITHIN AND AROUND THE IMPACTED AREA. FIELD SCREENS WERE COLLECTED FROM EACH OF THE SOIL BORINGS. DURING THE SITE CHARACTERIZATION, FIELD SCREEN READINGS WERE BELOW COGCC TABLE 910-1 STANDARDS. A CONFIRMATION SOIL SAMPLE WAS COLLECTED AND ANALYZED FOR COGCC TABLE 910-1 PARAMETERS.

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

IMPLEMENTED.

ARSENIC

THIS REQUEST IS IN ACCORDANCE WITH FOOTNOTE 1 OF TABLE 910-1 WHICH INDICATES CONSIDERATION WILL BE GIVEN TO BACKGROUND ARSENIC LEVELS IN NATIVE SOIL AND GROUNDWATER. DURING CONFIRMATION SAMPLING, THE ANALYTICAL RESULTS INDICATED HIGHER LEVELS OF ARSENIC FROM THE SPILL AREA, AT DEPTH, THAN THE BACKGROUND SAMPLES COLLECTED AT THE SURFACE. PDC WOULD LIKE TO REQUEST A VARIANCE IN REGARDS TO ARSENIC LEVELS ON THE PAD SURFACE WITHIN THE IMPACTED AREA. BELOW ARE THE ANALYTICAL RESULTS FOR ARSENIC FOR REVIEW AND APPROVAL TO PROCEED WITH CLOSURE ACTIVITIES.

PUCKETT 21A-24D CONFIRMATION SAMPLE 1: 11 MG/KG

THREE (3) GRAB SAMPLES WERE COLLECTED FROM NEARBY NON-IMPACTED, NATIVE SOIL FROM THE SURFACE TO EIGHT (8) INCHES BELOW TO ESTABLISH THE BACKGROUND ARSENIC CONCENTRATIONS.

PUCKETT 21A-24D BACKGROUND ARSENIC 1: 6.9 MG/KG

PUCKETT 21A-24D BACKGROUND ARSENIC 2: 6.5 MG/KG

PUCKETT 21A-24D BACKGROUND ARSENIC 3: 6.0 MG/KG

AN ADDITIONAL BACKGROUND SAMPLE WAS COLLECTED AND ANALYZED FOR SAR, EC, AND PH. SAR LEVELS COLLECTED FROM THE IMPACTED AREA ON THE PAD SURFACE EXCEEDED TABLE 910-1 STANDARDS AS NOTED BELOW

PUCKETT 21A-24D CONFIRMATION SAR: 29.2

PUCKETT 21A-24D BACKGROUND SAR 0.7

IT IS ANTICIPATED THAT THE SAR LEVELS ON THE PAD WILL NATURALLY ATTENUATE OVER TIME THROUGH NATURAL PRECIPITATION AND GEOCHEMICAL EVENTS. WHEN THE PAD IS SCHEDULED FOR FINAL CLOSURE AND RECLAMATION, THE SAR LEVELS WILL BE ADDRESSED.

ANALYTICAL RESULTS ARE ATTACHED.

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: 4/16/2015

**CONDITIONS OF APPROVAL, IF ANY:**

**COA Type**

**Description**

COA Type	Description

### General Comments

User Group

Comment

Comment Date

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

Total: 0 comment(s)

### Attachment Check List

Att Doc Num

Name

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

Total Attach: 0 Files