

Document Number:  
401166336

Date Received:  
12/13/2016

**WELL ABANDONMENT REPORT**

This form is to be submitted as an Intent to Abandon whenever an abandonment is planned on a borehole. After the abandonment is complete, this form shall again be submitted as a Subsequent Report of the actual work completed. The approved intent shall be valid for six months after the approval date, after that period, a new intent will be required. Attachments required with the Intent to Abandon are wellbore diagrams of the current configuration and the proposed configuration with plugs set.

A Subsequent Report of Abandonment shall indicate the actual work completed. Attachments required with a Subsequent Report are a wellbore diagram showing plugs that were set and casing remaining in the hole, the job summaries from all plugging contractors used, including wireline and cementing (third party verification) and any logs that may have been run during abandonment.

OGCC Operator Number: 69175 Contact Name: Kelsi Welch

Name of Operator: PDC ENERGY INC Phone: (303) 831-3974

Address: 1775 SHERMAN STREET - STE 3000 Fax: \_\_\_\_\_

City: DENVER State: CO Zip: 80203 Email: kelsi.welch@pdce.com

**For "Intent" 24 hour notice required,** Name: Peterson, Tom Tel: (303) 815-9641

**COGCC contact:** Email: tom.peterson@state.co.us

API Number 05-123-12053-00

Well Name: NYGREN Well Number: 19-2

Location: QtrQtr: SWSW Section: 19 Township: 4N Range: 67W Meridian: 6

County: WELD Federal, Indian or State Lease Number: 65508

Field Name: WATTENBERG Field Number: 90750

Notice of Intent to Abandon       Subsequent Report of Abandonment

*Only Complete the Following Background Information for Intent to Abandon*

Latitude: 40.293640 Longitude: -104.939390

GPS Data:  
Date of Measurement: 11/16/2007 PDOP Reading: 2.8 GPS Instrument Operator's Name: Holly L. Tracy

Reason for Abandonment:  Dry  Production Sub-economic  Mechanical Problems  
 Other \_\_\_\_\_

Casing to be pulled:  Yes  No Estimated Depth: \_\_\_\_\_

Fish in Hole:  Yes  No If yes, explain details below

Wellbore has Uncemented Casing leaks:  Yes  No If yes, explain details below

Details: \_\_\_\_\_

**Current and Previously Abandoned Zones**

| Formation        | Perf. Top | Perf. Btm | Abandoned Date | Method of Isolation | Plug Depth |
|------------------|-----------|-----------|----------------|---------------------|------------|
| CODELL           | 7352      | 7366      |                |                     |            |
| NIOBRARA         | 7056      | 7147      |                |                     |            |
| Total: 2 zone(s) |           |           |                |                     |            |

**Casing History**

| Casing Type | Size of Hole | Size of Casing | Weight Per Foot | Setting Depth | Sacks Cement | Cement Bot | Cement Top | Status |
|-------------|--------------|----------------|-----------------|---------------|--------------|------------|------------|--------|
| SURF        | 12+1/4       | 8+5/8          | 24              | 348           | 280          | 348        | 0          | VISU   |
| 1ST         | 7+7/8        | 4+1/2          | 11.6            | 7,448         | 300          | 7,448      | 6,485      | CBL    |
| S.C. 1.1    |              |                |                 | 2,379         | 100          | 2,379      | 2,202      | CBL    |
| S.C. 1.2    |              |                |                 | 3,051         | 100          | 3,042      | 2,912      | CBL    |
| S.C. 1.3    |              |                |                 | 537           | 190          | 537        | 20         | CALC   |

### Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7302 with 2 sacks cmt on top. CIBP #2: Depth 7006 with 2 sacks cmt on top.  
 CIBP #3: Depth \_\_\_\_\_ with \_\_\_\_\_ sacks cmt on top. CIBP #4: Depth \_\_\_\_\_ with \_\_\_\_\_ sacks cmt on top.  
 CIBP #5: Depth \_\_\_\_\_ with \_\_\_\_\_ sacks cmt on top.

NOTE: Two(2) sacks cement required on all CIBPs.

Set 40 sks cmt from 2800 ft. to 3300 ft. Plug Type: CASING Plug Tagged:   
 Set 40 sks cmt from 2100 ft. to 2600 ft. Plug Type: CASING Plug Tagged:   
 Set 45 sks cmt from 540 ft. to 0 ft. Plug Type: CASING Plug Tagged:   
 Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:   
 Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:

Perforate and squeeze at \_\_\_\_\_ ft. with \_\_\_\_\_ sacks. Leave at least 100 ft. in casing \_\_\_\_\_ CICR Depth  
 Perforate and squeeze at \_\_\_\_\_ ft. with \_\_\_\_\_ sacks. Leave at least 100 ft. in casing \_\_\_\_\_ CICR Depth  
 Perforate and squeeze at \_\_\_\_\_ ft. with \_\_\_\_\_ sacks. Leave at least 100 ft. in casing \_\_\_\_\_ CICR Depth  
 (Cast Iron Cement Retainer Depth)

Set \_\_\_\_\_ sacks half in. half out surface casing from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Tagged:   
 Set \_\_\_\_\_ sacks at surface  
 Cut four feet below ground level, weld on plate Above Ground Dry-Hole Marker:  Yes  No  
 Set \_\_\_\_\_ sacks in rat hole Set \_\_\_\_\_ sacks in mouse hole

### Additional Plugging Information for Subsequent Report Only

Casing Recovered: \_\_\_\_\_ ft. of \_\_\_\_\_ inch casing Plugging Date: \_\_\_\_\_  
 \*Wireline Contractor: \_\_\_\_\_ \*Cementing Contractor: \_\_\_\_\_  
 Type of Cement and Additives Used: \_\_\_\_\_  
 Flowline/Pipeline has been abandoned per Rule 1103  Yes  No \*ATTACH JOB SUMMARY

Technical Detail/Comments:

Nygren 19-2 (05-123-12053)/Plugging Procedure (Intent)  
 Producing Formation: Codell 7352'-7366' Niobrara 7056'-7147'  
 TD: 7450' PBDT: 7396'  
 Surface Casing: 8 5/8" 24# @ 348' w/ 280 sxs  
 Production Casing: 4 1/2" 11.6# @ 7448' w/300 sxs cmt (TOC 6485' – CBL)  
 Holes in casing from 3020'-3051' were squeezed with 100 sxs  
 Holes in casing from 2314'-2379' were squeezed with 100 sxs  
 Performed annular fill from 20'-500' with 190 sxs

Tubing: 2 3/8" tubing set at 7335'. (12/1/2010) NOTE: Arrowset 3 packer at 4575'.

**Proposed Procedure:**

1. MIRU RU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set CIBP at 7302'. Top with 2 sxs 15.8#/gal CI G cement.
4. TIH with CIBP. Set CIBP at 7006'. Top with 2 sxs 15.8#/gal CI G cement.
5. TIH with tubing to 3300'. Mix and pump 40 sxs of 15.8#/gal CI G cement down tubing.
6. Reset tubing to 2600'. Mix and pump 40 sxs of 15.8#/gal CI G cement down tubing.
7. Run cement bond log from 1000' to surface to verify annular cement coverage. If annulus shows no cement coverage from 500' to surface notify Denver office.
8. TIH with tubing to 540'. Mix and pump 45 sxs of 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
9. Cut surface casing 6' below ground level and weld on cap.

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

Signed: \_\_\_\_\_ Print Name: Kelsi Welch  
 Title: Production Tech Date: 12/13/2016 Email: kelsi.welch@pdce.com

Based on the information provided herein, this Well Abandonment Report (Form 6) complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: JENKINS, STEVE Date: 12/29/2016

**CONDITIONS OF APPROVAL, IF ANY:** \_\_\_\_\_ Expiration Date: 6/28/2017

| <u>COA Type</u> | <u>Description</u>  |
|-----------------|---|
|                 | 1) Provide 48 hour notice of plugging MIRU via electronic Form 42.<br>2) For the 540' plug: pump plug and displace. If surface casing plug is not circulated to surface then tag plug – must be at 298' or shallower and provide 10 sx plug at the surface. Leave at least 100' of cement in the casing for each plug.<br>3) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete.<br>4) Prior to starting plugging operations a Bradenhead test shall be performed. If the beginning pressure is greater than 25 psi, or if pressure remains at the conclusion of the test, or if any liquids were present contact COGCC Engineering for sampling requirements. The Form 17 shall be submitted within 10 days of the test. |

**Attachment Check List**

| <u>Att Doc Num</u> | <u>Name</u>             |
|--------------------|-------------------------|
| 401166336          | FORM 6 INTENT SUBMITTED |
| 401166353          | WELLBORE DIAGRAM        |
| 401166354          | WELLBORE DIAGRAM        |

Total Attach: 3 Files

**General Comments**

| <u>User Group</u> | <u>Comment</u>                          | <u>Comment Date</u> |
|-------------------|---|---------------------|
| Public Room       | Document verification complete 12/14/16 | 12/14/2016          |

Total: 1 comment(s)