

Document Number:  
401479489

Date Received:  
12/07/2017

**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: Jenifer Hakkarinen

Name of Operator: PDC ENERGY INC Phone: (303) 8605800

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

City: DENVER State: CO Zip: 80203 Email: Jenifer.hakkarinen@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 05-123-20659-00

Well Name: FICKEL Well Number: 41-21

Location: QtrQtr: NENE Section: 21 Township: 4N Range: 67W Meridian: 6

County: WELD Federal, Indian or State Lease Number: \_\_\_\_\_

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: 40.304140 Longitude: -104.888110

GPS Data:  
Date of Measurement: 07/15/2010 PDOP Reading: 1.6 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: 615

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	7275	7285			

Total: 1 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	401	280	401	0	VISU
1ST	7+7/8	4+1/2	10.5	7,441	200	7,441	6,440	CBL

## Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7225 with 2 sacks cmt on top. CIBP #2: Depth 6905 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 330 sks cmt from 665 ft. to 0 ft. Plug Type: STUB PLUG Plug Tagged:   
Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:   
Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ 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 4950 ft. with 195 sacks. Leave at least 100 ft. in casing 4565 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. \_\_\_\_\_ inch casing Plugging Date: \_\_\_\_\_  
of \_\_\_\_\_

\*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:

Fickel 41-21 (05-123-20659)/Plugging Procedure (Intent)  
Producing Formation (Perforations): Codell: 7275'-7285'  
TD: 7480' PBTB: 7429'  
Surface Casing: 8 5/8" 24# @ 401' w/ 280 sxs  
Production Casing: 4 1/2" 10.5# @ 7441' w/ 200 sxs cmt (TOC @ 6440' - CBL).

Tubing: 2 3/8" tubing set @ 7266' (4/4/2002).

Proposed Procedure:

1. Run gyro survey.
2. MIRU pulling unit. Pull 2 3/8" tubing.
3. RU wireline company.
4. TIH with CIBP. Set BP at 7225'. Top with 2 sxs 15.8#/gal CI G cement.
5. TIH with CIBP. Set BP at 6905'. Top with 2 sxs 15.8#/gal CI G cement.
6. Shoot lower squeeze holes at 4950'. Shoot upper squeeze holes at 4550'.
7. Set CICR at 4565'. Sting in and pump 195 sxs 15.8#/gal CI G cement. Sting out and pump 10 sxs on top of CICR.
8. TIH with casing cutter. Cut 4 1/2" casing at 615'. Pull cut casing.
9. TIH with tubing to 665'. RU cementing company. Mix and pump 330 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
10. Cut surface casing 6' below ground level and weld on cap.  
If there is bradenhead pressure:
  1. Run gyro survey.
  2. MIRU pulling unit. Pull 2 3/8" tubing.
  3. RU wireline company.
  4. TIH with CIBP. Set BP at 7225'. Top with 2 sxs 15.8#/gal CI G cement.
  5. TIH with CIBP. Set BP at 6905'. Top with 2 sxs 15.8#/gal CI G cement.
  6. Shoot lower squeeze holes at 4950'. Shoot upper squeeze holes at 4550'.
  7. Set CICR at 4565'. Sting in and pump 195 sxs 15.8#/gal CI G cement. Sting out and pump 10 sxs on top of CICR.
  8. TIH with casing cutter. Cut 4 1/2" casing at 1500'. Pull cut casing.
  9. TIH with tubing to 1550'. RU cementing company. Mix and pump 75 sxs 15.8#/gal CI G cement down tubing. Wait 8 hours or overnight. Check to see if there is any bradenhead pressure or fluid flow after stub plug is set. If there is, contact COGCC for further guidance. If there is not, move on to step 8.
  10. TIH with tubing to 615'. RU cementing company. Mix and pump 450 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
  11. 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: Jenifer Hakkarinen  
Title: Reg Tech Date: 12/7/2017 Email: Jenifer.Hakkarinen@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: 1/11/2018

**CONDITIONS OF APPROVAL, IF ANY:** \_\_\_\_\_

Expiration Date: 7/10/2018

<b>COA Type</b>	<b>Description</b>
	1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) Prior to placing the 665' plug: verify that all fluid migration (liquid or gas) has been eliminated. If evidence of fluid migration or pressure remains, contact COGCC Engineer for an update to plugging orders. 3) After isolation has been verified, pump plug and displace. If cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 351' or shallower and provide 10 sx plug at the surface. Leave at least 100' of cement in the casing for each plug. 4) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment is complete.
	Operator shall implement measures to control unnecessary and excessive venting, to protect the health and safety of the public, and to ensure that vapors and odors from well plugging operations do not constitute a nuisance or hazard to public welfare.
	Prior to starting plugging operations a Bradenhead test shall be performed. 1) If, before opening the Bradenhead valve, the beginning pressure is greater than 25 psi, sampling is required. 2) If pressure remains at the conclusion of the test, or if any liquids were present during the test, sampling is required. 3) If sampling is required contact COGCC engineering for an confirmation of plugging requirements prior to placing any plugs. Sampling shall comply with Operator Guidance - Bradenhead Testing and Reporting Instructions. The Form 17 shall be submitted within 10 days of the test.

### Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
401479489	FORM 6 INTENT SUBMITTED
401479546	WELLBORE DIAGRAM
401479547	WELLBORE DIAGRAM

Total Attach: 3 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Engineer	1) Deepest Water Well within 1.5 miles = 380'. 2) Fox Hills Bottom- N/A, per SB5.	01/11/2018
Public Room	Document verification complete 12/26/17	12/26/2017

Total: 2 comment(s)