

Document Number:  
402910964

Date Received:

**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: Valerie Danson  
 Name of Operator: PDC ENERGY INC Phone: (970) 506-9272  
 Address: 1775 SHERMAN STREET - STE 3000 Fax: \_\_\_\_\_  
 City: DENVER State: CO Zip: 80203 Email: valerie.danson@pdce.com

**For "Intent" 24 hour notice required,** Name: Peterson, Tom Tel: (970) 370-1281  
**COGCC contact:** Email: tom.peterson@state.co.us

Type of Well Abandonment Report:  Notice of Intent to Abandon  Subsequent Report of Abandonment

API Number 05-123-15975-00  
 Well Name: STROH Well Number: 24-22  
 Location: QtrQtr: NWNW Section: 24 Township: 4N Range: 67W Meridian: 6  
 County: WELD Federal, Indian or State Lease Number: 66715  
 Field Name: WATTENBERG Field Number: 90750

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

Latitude: 40.302500 Longitude: -104.846944  
 GPS Data: GPS Quality Value: 2.4 Type of GPS Quality Value: \_\_\_\_\_ Date of Measurement: 06/23/2010

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

Casing to be pulled:  Yes  No Estimated Depth: 2500  
 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
NIOBRARA-CODELL	6986	7320			

Total: 1 zone(s)

**Casing History**

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top	Status
SURF	12+1/4	8+5/8	J55	24	0	343	200	370	0	VISU
1ST	7+7/8	4+1/2	J55	12.6	0	7459	150	7459	6720	CBL
S.C. 1.1						5600	460	5600	4320	CBL

## Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6936 with 2 sacks cmt on top. CIBP #2: Depth 4674 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 100 sks cmt from 2550 ft. to 2300 ft. Plug Type: STUB PLUG Plug Tagged:   
 Set 100 sks cmt from 1440 ft. to 1240 ft. Plug Type: OPEN HOLE 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 \_\_\_\_\_ 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 315 sacks half in. half out surface casing from 570 ft. to 0 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 Number of Days from Setting Surface Plug to Capping or Sealing the Well: \_\_\_\_\_  
 Surface Plug Setting Date: \_\_\_\_\_ Cut and Cap Date: \_\_\_\_\_  
 \*Wireline Contractor: \_\_\_\_\_ \*Cementing Contractor: \_\_\_\_\_  
 Type of Cement and Additives Used: \_\_\_\_\_  
 Flowline/Pipeline has been abandoned per Rule 1105  Yes  No

#### Technical Detail/Comments:

Stroh 24-22 (05-123-15975) / Plugging Procedure (Intent)  
 Producing Formations: Niobrara/Codell: 6986'-7320'

Upper Pierre Aquifer: 370'-1340'

Deepest Water Well: 45' Base of Fox Hills: 195'  
 TD: 7500' PBTD: 7417' (4/12/2010)  
 Surface Casing: 8 5/8" 24# @ 343' w/ 200 sxs cmt  
 Production Casing: 4 1/2" 12.6# @ 7459' w/ 150 sxs (TOC @ 6720' - CBL)  
 Annular Fill @ 5600' w/ 460 sxs (TOC @ 4320' - CBL)

Tubing: 2 3/8" 4.7# set @ 7297.03' (10/9/2015)

#### Proposed Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 6936'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Nio perms @ 6986')
4. TIH with CIBP. Set BP at 4674'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Shannon @ 4724')
5. TIH with casing cutter. Cut 4 1/2" casing @ 2500'. Pull cut casing.
6. TIH with tubing to 2550'. RU cementing company. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Stub Plug Coverage from 2550'-2300')
7. Wait a sufficient time to confirm static conditions. If at any time after placing this plug there is evidence of pressure or fluid migration, contact engineering before continuing operations.
8. TIH with tubing to 1440'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Pierre Coverage from 1440'-1240')
9. Pick up with tubing to 570'. Mix and pump 315 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
10. Well casing cut and capped per COGCC guidelines at a depth as not to interfere with soil cultivation.

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

Signed: \_\_\_\_\_ Print Name: Valerie Danson  
Title: Reg Analyst Date: \_\_\_\_\_ Email: valerie.danson@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: \_\_\_\_\_ Date: \_\_\_\_\_

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

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

**Attachment List**

<u>Att Doc Num</u>	<u>Name</u>
402910982	WELLBORE DIAGRAM
402910983	WELLBORE DIAGRAM

Total Attach: 2 Files

**General Comments**

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)