

Document Number:  
402284254

Date Received:  
01/13/2020

**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

API Number 05-123-15976-00 Well Name: STROH Well Number: 24-21

Location: QtrQtr: NENW Section: 24 Township: 4N Range: 67W Meridian: 6

County: WELD Federal, Indian or State Lease Number: 66716

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: 40.302500 Longitude: -104.841111

GPS Data:  
Date of Measurement: 06/24/2010 PDOP Reading: 1.9 GPS Instrument Operator's Name: Shantell Kling

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

Casing to be pulled:  Yes  No Estimated Depth: 3000

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	7260	7270			
NIOBRARA	6938	7145			
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	347	200	347	0	VISU
1ST	7+7/8	4+1/2	12.6	7,395	160	7,395	6,555	CBL

## Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6888 with 2 sacks cmt on top. CIBP #2: Depth \_\_\_\_\_ with \_\_\_\_\_ 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 80 sks cmt from 3050 ft. to 2800 ft. Plug Type: STUB PLUG Plug Tagged:   
 Set 80 sks cmt from 1390 ft. to 1190 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 187 sacks half in. half out surface casing from 600 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. \_\_\_\_\_ inch casing Cut and Cap Date: \_\_\_\_\_  
 of \_\_\_\_\_  
 \*Wireline Contractor: \_\_\_\_\_ \*Cementing Contractor: \_\_\_\_\_  
 Type of Cement and Additives Used: \_\_\_\_\_  
 Flowline/Pipeline has been abandoned per Rule 1105  Yes  No \*ATTACH JOB SUMMARY

Technical Detail/Comments:

Stroh 24-21 (05-123-15976)/Plugging Procedure (Intent)  
 Producing Formation: Niobrara/Codell: 6938'-7270'  
 Upper Pierre Aquifer: 320'-1290'  
 TD: 7400' PBTD: 7400' (9/30/2015)  
 Surface Casing: 8 5/8" 24# @ 347' w/ 200 sxs  
 Production Casing: 4 1/2" 12.6# @ 7395' w/ 160 sx cmt (TOC @ 6555' - CBL)

Tubing: 2 3/8" tubing set @ 7252' (9/30/2015)  
 Proposed Procedure:  
 1. MIRU pulling unit. Pull 2 3/8" tubing.  
 2. RU wireline company.  
 3. TIH with CIBP. Set BP at 6888'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Nio perfs @ 6938')  
 4. TIH with casing cutter. Cut 4 1/2" casing at 2500'. Pull cut casing.  
 5. TIH with tubing to 2550'. RU cementing company. Mix and pump 80 sxs 15.8#/gal CI G cement down tubing.  
 6. TIH with tubing to 1390'. Mix and pump 80 sxs 15.8#/gal CI G cement down tubing (Pierre coverage from 1390'-1190').  
 7. Pick up tubing to 600'. Mix and pump 187 sxs 15.8#/gal CI G cement down tubing (Pierre coverage from 600'-surface). Cement should circulate to surface.  
 8. 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: Valerie Danson  
 Title: Reg Tech Date: 1/13/2020 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: 1/21/2020

**CONDITIONS OF APPROVAL, IF ANY:**

Expiration Date: 7/20/2020

<b>COA Type</b>	<b>Description</b>
	<p>Venting 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.</p>
	<p>Bradenhead Testing Prior to starting plugging operations a bradenhead test shall be performed if there has not been a reported bradenhead test within the 60 days immediately preceding the start of plugging operations. 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.</p> <p>The Form 17 shall be submitted within 10 days of the test. Sampling shall comply with Operator Guidance - Bradenhead Testing and Reporting Instructions. If samples are collected, copies of all final laboratory analytical results shall be provided to the COGCC within three (3) months of collecting the samples.</p> <p>If there is a need for sampling, contact COGCC engineering for verification of plugging procedure.</p>
	<p>Plugging 1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) Properly abandon flowlines as per Rule 1105. File electronic Form 42 once abandonment complete. Within 30 days of an operator completing abandonment requirements for an off-location flowline or crude oil transfer line the operator must submit a Flowline Report, Form 44. 3) Plugs and squeezes will be placed as stated in the Plugging Procedure section of the approved NOIA unless revised by COA or prior approval from COGCC is obtained. 4) The wellbore must be static prior to placing cement plugs which are to be a minimum of 100' in length for all but surface plugs. Mechanical isolation requires a 25' cement plug, minimum. 5) Place a 50' plug (minimum) at the surface, both inside the inner most casing and in all annular spaces. Confirm cement to surface in all strings during cut and cap. 6) With the Form 6 SRA operator must provide written documentation which positively affirms each COA has been addressed. 7) Contact area inspector prior to commencing plugging operations. 8) Move the casing cut to 3000'. Pump XXX sx stub plug from 3050-2800'. Tag required if circulation is not maintained while pumping plug and displacing to depth. 9) Place 80 sx open hole plug at 1390-1190', WOC and tag. 10) Due to a history of bradenhead pressure as reported on the pre-plugging Form 17, wait 8 hours after pumping plug at 1350-1150', in order to assure that there is no pressure or flow before proceeding with plugging procedure, additional plugs may be necessary to shut off pressure or flow prior to isolating the surface shoe. Contact COGCC Area Engineer if well is not static prior to placing any subsequent plugs. 11) After placing the shallowest hydrocarbon isolating plug (3050-2800'), operator must wait a sufficient time on all subsequent plugs to confirm static conditions. If at any time after placing this plug there is evidence of pressure or of fluid migration, contact COGCC engineering before continuing operations. 12) Assure that wellbore is static prior to pumping 187 sx combined shoe/surface plug from 600-0'. Tag required if cement does not circulate to surface and remain there.</p>

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
402284254	FORM 6 INTENT SUBMITTED
402284265	WELLBORE DIAGRAM
402284266	WELLBORE DIAGRAM

Total Attach: 3 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	SB5Laramie-Fox Hills 4615 4754 89.6 130 -9 21.50 E NNT L-FH + 50 =130 + 50 = 180' WW + Elev + 50 =198 + 4745 - 4750 + 50 = 243' Logs9/11/92 UPA base 1290'	01/17/2020
	-Confirmed as-drilled well location. -No other forms in process. -Production reporting up-to-date. -Confirmed productive interval, docnum: 157040. -Reviewed WBDs. -Pass.	01/15/2020

Total: 2 comment(s)