

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: Kraich, Adam Tel: (970) 420-0536
 COGCC contact: Email: adam.kraich@state.co.us

API Number 05-123-23092-00 Well Name: RICHTER Well Number: 44-27
 Location: QtrQtr: SESE Section: 27 Township: 7N Range: 64W 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: 40.539330 Longitude: -104.528360
 GPS Data: Date of Measurement: 07/27/2006 PDOP Reading: 2.0 GPS Instrument Operator's Name: H.L. Tracy
 Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____
 Casing to be pulled: Yes No Estimated Depth: 1900
 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	7144	7148			

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	583	325	583	0	VISU
1ST	7+7/8	4+1/2	10.5	7,281	155	7,281	6,452	CBL
S.C. 1.1				6,452	290	6,452	3,482	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7094 with 2 sacks cmt on top. CIBP #2: Depth 6795 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 255 sks cmt from 2025 ft. to 1600 ft. Plug Type: STUB PLUG Plug Tagged:
 Set 435 sks cmt from 800 ft. to 0 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 _____ 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:

Richter 44-27 (05-123-23092)/Plugging Procedure (Intent)
 Producing Formation: Codell: 7144'-7148'
 Upper Pierre Aquifer: 755'-1752'
 TD: 7309' PBTD: 7250'
 Surface Casing: 8 5/8" 24# @ 583' w/ 325 sxs
 Production Casing: 4 1/2" 10.5# @ 7281' w/ 445 sxs cmt (TOC @ 3485' - CBL).
 Tubing: 2 3/8" tubing set @ 7133' (4/8/2014).
 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 7094'. Top with 2 sxs 15.8#/gal CI G cement.
 5. TIH with CIBP. Set BP at 6795'. Top with 2 sxs 15.8#/gal CI G cement.
 6. TIH with casing cutter. Cut 4 1/2" casing at 1900'. Pull cut casing.
 7. TIH with tubing to 2025'. RU cementing company. Mix and pump 255 sxs 15.8#/gal CI G cement w/ 2% CaCl down tubing.
 8. Pick up tubing to 800'. Mix and pump 435 sxs 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: JEnifer Hakkarinen
 Title: Reg TEch Date: 4/4/2018 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 by _____
PROVEN, STEVE

COGCC Approved: _____

Date: 4/27/2018

CONDITIONS OF APPROVAL, IF ANY: _____

Expiration Date: 10/26/2018

COA Type

Description

	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) Prior to placing the 800' 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 533' 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.</p>
	<p>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>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.</p>

Attachment Check List

Att Doc Num

Name

401596581	FORM 6 INTENT SUBMITTED
401596593	WELLBORE DIAGRAM
401596594	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

User Group

Comment

Comment Date

Engineer	WBD for proposed plugging is mis-labeled as actual but has the correct information.	04/27/2018
Engineer	1) Deepest Water Well within 1 mile = 480'. 2) Fox Hills Bottom- N/A, per SB5.	04/26/2018
Well File Verification	Pass	04/11/2018

Total: 3 comment(s)