

FORM
6Rev
05/18

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



DE ET OE ES

Document Number:

401732173

Date Received:

08/13/2018

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: Evins, Bret

Tel: (970) 420-6699

COGCC contact:

Email: bret.evins@state.co.us

API Number 05-123-25911-00

Well Name: WELLS RANCH

Well Number: 10B

Location: QtrQtr: SESW Section: 10 Township: 5N Range: 63W 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: 40.409920

Longitude: -104.427360

GPS Data:

Date of Measurement: 09/02/2008

PDOP Reading: 2.0

GPS Instrument Operator's Name: HOLLY L. TRACY

Reason for Abandonment:

☐ Dry☒ Production Sub-economic☐ Mechanical Problems☐ OtherCasing 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	6653	6659			
NIOBRARA	6386	6492			

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	452	320	452	0	VISU
1ST	7+7/8	4+1/2	10.5	7,423	335	7,423	5,630	CBL
			Stage Tool	4,439	415	4,439	280	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6336 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 <u>50</u> sks cmt from <u>4690</u> ft. to <u>4075</u> ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input type="checkbox"/>
Set <u>40</u> sks cmt from <u>1800</u> ft. to <u>1300</u> ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input type="checkbox"/>
Set <u>66</u> sks cmt from <u>652</u> ft. to <u>0</u> ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input type="checkbox"/>
Set _____ sks cmt from _____ ft. to _____ ft.	Plug Type: _____	Plug Tagged: <input type="checkbox"/>
Set _____ sks cmt from _____ ft. to _____ ft.	Plug Type: _____	Plug Tagged: <input type="checkbox"/>

Perforate and squeeze at 270 ft. with 70 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 1105 ☐ Yes ☐ No *ATTACH JOB SUMMARY

Technical Detail/Comments:

Wells Ranch 10B (05-123-25911)/Plugging Procedure (Intent)
Producing Formation: Codell: 6653'-6659' Niobrara: 6386'-6492'
Upper Pierre Aquifer: 420'-1525'

TD: 7640' PBTD: 7385'

Surface Casing: 8 5/8" 24# @452' w/ 320 sxs cmt

Production Casing: 4 1/2" 10.5# @ 7423.4' w/ 335 sxs cmt (TOC @ 5630' - CBL).

DV Tool @ 4440' w/ 415 sxs cmt (TOC @ 280' - CBL).

Tubing: 2 3/8" tubing set @ 6643.9' (11/24/2008).

Proposed Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.

2. RU wireline company.

3. TIH with CIBP. Set BP at 6336'. Top with 2 sxs 15.8#/gal CI G cement.

4. TIH with tubing to 4690'. RU cementing company. Mix and pump 40 sxs 15.8#/gal CI G cement down tubing. (DV tool coverage from 4690'-4190').

5. Pickup tubing to 1800'. Mix and pump 40 sxs 15.8#/gal CI G cement down tubing. (Pierre coverage from 1800'-1300'). TOOH with tubing.

6. TIH with perforation gun. Shoot 2 holes for annular squeeze at 270' @ 1 SPF or preferred.

7. TIH tubing to 652'. Mix and pump 55 sxs 15.8#/gal CL G cement down tubing. Cement should circulate to surface. TOOH with tubing.

8. Close off casing returns. Hook up cement line to cement flange and pump 70 sxs 15.8#/gal CI G cement downhole and squeeze through perforation at 270' into annular space. 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: 8/13/2018 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.

COGCC Approved: Wolfe, Stephen Date: 9/7/2018

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 3/6/2019

COA Type	Description
	<p>Venting</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>Bradenhead Testing</p> <ul style="list-style-type: none"> • Prior to the start of plugging operations, a bradenhead test shall be performed and reported if there has not been a reported bradenhead test within the 60 days immediately preceding the start of plugging operations. • If any of the following conditions exist then sampling of all fluids is required and sampling methods shall comply with Operator Guidance – Bradenhead Testing and Reporting Instructions, Appendix A: Liquid and Gas Sampling as found on the COGCC website, cogcc.state.co.us. <ol style="list-style-type: none"> 1) The initial pressure measurement on the bradenhead is greater than 25 psi, prior to blowing down any liquid or gas from the bradenhead valve, or 2) Pressure remains at the conclusion of the test, or 3) Any liquids are present anytime during the test. If so, then stop the test as soon as liquids are present and sample before resuming the test. • Form 17 Bradenhead Test Report shall be submitted within 10 days of the test. • 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>Plugging</p> <ul style="list-style-type: none"> • Provide 48 hour notice of plugging MIRU via electronic Form 42. • Plugs and squeezes will be placed as stated in the plugging procedure of the approved NOI unless revised by COA or prior approval from COGCC is obtained. • If there is any pressure/fluids on the surface casing during the pre-plugging bradenhead test operator must contact COGCC Engineer for revised plugging orders prior to proceeding with operations. • Set CIBP w/ 2 sx at 6336', test casing, note on Form 6 SRA. • Tag cement plugs if circulation is not maintained during pumping and displacement to depth. • Check for fluid migration or shut-in pressure on the well prior to pumping any plug (open hole, annular or casing) that isolates deepest aquifer or the surface casing shoe (whichever is deeper). Contact COGCC Engineer for revised plugging orders if well is not static at this time, prior to continuing with plugging operations. • Place a 50' plug (minimum) at the surface, both inside the inner most casing and in all annular spaces. All other cement plugs, without mechanical isolation, shall have at least 100' of cement left in the casing. • Properly abandon on-location 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.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401732173	FORM 6 INTENT SUBMITTED
401732176	WELLBORE DIAGRAM
401732177	WELLBORE DIAGRAM
401732179	GYRO SURVEY

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	SB5 NA L-FH WW 400' 29(2mi)	09/07/2018
Permit	Passed permit review	08/17/2018
Well File Verification	Pass	08/15/2018

Total: 3 comment(s)