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401750775

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08/31/2018

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: _____ Tel: _____

COGCC contact: Email: _____

API Number 05-123-22981-00

Well Name: LEFFLER Well Number: 5

Location: QtrQtr: NENE Section: 27 Township: 6N Range: 66W Meridian: 6

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

Field Name: BRACEWELL Field Number: 7487

Notice of Intent to Abandon Subsequent Report of Abandonment

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.463080 Longitude: -104.758470

GPS Data:
Date of Measurement: 08/23/2007 PDOP Reading: 5.2 GPS Instrument Operator's Name: FRANK HOLUBEC

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

Casing 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	7144	7162	07/31/2018	B PLUG CEMENT TOP	6788
NIOBRARA	6838	7054	07/31/2018	B PLUG CEMENT TOP	6788

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	383	270	383	0	VISU
1ST	7+7/8	4+1/2	11.6	7,414	690	7,417	550	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6788 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 40 sks cmt from 1608 ft. to 1003 ft. Plug Type: CASING Plug Tagged:
 Set 45 sks cmt from 600 ft. to 0 ft. Plug Type: CASING 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 125 ft. with 25 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: 07/31/2018
 of _____
 *Wireline Contractor: Ranger *Cementing Contractor: C&J
 Type of Cement and Additives Used: 15.8 PPG CL G NEAT
 Flowline/Pipeline has been abandoned per Rule 1105 Yes No *ATTACH JOB SUMMARY

Technical Detail/Comments:

Leffler 5 (05-123-22981)/Plugging Procedure
 Producing Formation: Niobrara: 6838'-7054' Codell: 7144'-7162'
 Upper Pierre Aquifer: 424'-1420'
 TD: 7417' PBTD: 7355'
 Surface Casing: 8 5/8" 24# @ 383' w/ 270 sxs
 Production Casing: 4 1/2" 11.6# @ 7417' w/ 690 sxs cmt (TOC @ 146' - CBL).
 Tubing: 2 3/8" tubing set @ 7124' (4/19/2007).
 Procedure:
 1. MIRU pulling unit. Pull 2 3/8" tubing.
 2. RU wireline company.
 3. TIH with CIBP. Set BP at 6788'. Top with 2 sxs 15.8#/gal CI G cement.
 4. TIH with tubing to 1608'. RU cementing company. Mix and pump 40 sxs 15.8#/gal CI G cement down tubing (Pierre coverage from 1003'-1600').
 5. TIH with perforation gun. Shoot 2 holes for annular squeeze at 125' @ 1 SPF or preferred.
 6. TIH with tubing to 600'. RU cementing company. Mix and pump 45 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface. TOOH with tubing.
 7. Close off casing returns. Hook up cement line to cement flange and pump 25 sxs 15.8#/gal CI G cement downhole and squeeze through perforations at 135' into annular space. 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: Jenifer Hakkarinen
 Title: REg TEch Date: 8/31/2018 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: Jacobson, Eric

Date: 1/4/2019

CONDITIONS OF APPROVAL, IF ANY:

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

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401750775	FORM 6 SUBSEQUENT SUBMITTED
401750780	WELLBORE DIAGRAM
401750789	CEMENT JOB SUMMARY

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Requested CBL during plugging. Log to confirm squeeze holes; no record kept.	12/28/2018

Total: 1 comment(s)