

FORM
6Rev
11/20

State of Colorado Oil and Gas Conservation Commission

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



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Document Number:

402579206

Date Received:

01/20/2021

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: Santistevan, Brittani

Tel: (720) 471-1110

COGCC contact:

Email: brittani.santistevan@state.co.us

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

API Number 05-123-24594-00

Well Name: GROVES

Well Number: 44-34

Location: QtrQtr: SESE Section: 34 Township: 7N Range: 65W Meridian: 6

County: WELD

Federal, Indian or State Lease Number:

Field Name: WATTENBERG

Field Number: 90750

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.524530

Longitude: -104.641420

GPS Data: GPS Quality Value: 2.8 Type of GPS Quality Value: PDOP Date of Measurement: 01/22/2007

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 belowWellbore 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	6870	7160			

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	J-55	24	0	677	480	677	0	VISU
1ST	7+7/8	4+1/2	J-55	10.5	0	7331	725	7331	225	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6820 with 2 sacks cmt on top. CIPB #2: Depth 3730 with 2 sacks cmt on top.
 CIBP #3: Depth 2500 with 2 sacks cmt on top. CIPB #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>31</u> sks cmt from <u>1560</u> ft. to <u>1160</u> ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input type="checkbox"/>
Set <u>68</u> sks cmt from <u>877</u> ft. to <u>0</u> ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input checked="" 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"/>
Set _____ sks cmt from _____ ft. to _____ ft.	Plug Type: _____	Plug Tagged: <input type="checkbox"/>

Perforate and squeeze at 200 ft. with 41 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. 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:

Groves 44-34 (05-123-24594)/Plugging Procedure (Intent)
 Producing Formation: Niobrara/Codell: 6870'-7160'
 Water Well (1-mile): 332'
 Upper Pierre Aquifer: 380'-1360'
 TD: 7352' PBD: 7314' (2/6/2007)
 Surface Casing: 8 5/8" 24# @ 677' w/ 480 sx cmt
 Production Casing: 4 1/2" 10.5# @ 7331' w/ 725 sx cmt (CBL)

Tubing: 2 3/8" tubing set @ 7138' (2/6/2007)

Proposed Procedure:

1. MIRU.
2. Pull tubing.
3. RU wireline.
4. RIH with CIBP. Set BP at 6820'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Niobrara @ 6856')
5. RIH with CIBP. Set BP at 3730'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Parkman @ 3780')
6. RIH with CIBP. Set BP at 2500'. Top with 2 sxs 15.8#/gal CI G cement.
7. RIH with perf gun. Shoot squeeze holes @ 200'.
8. TIH with tubing to 1560'. RU cementing company. Mix and pump 31 sxs 15.8#/gal CI G cement down tubing (Pierre coverage 1160'-1560').
9. PU tubing to 877'. Mix and pump 68 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface. LD tubing.
10. Close off casing returns. Hook up cement line to cement flange and pump 41 sxs 15.8#/gal CI G cement downhole and squeeze through perforations into annular space. Cement should circulate to surface.
11. 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: 1/20/2021 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: JENKINS, STEVE Date: 1/25/2021

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 7/24/2021

COA Type	Description
	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Prior to placing the 877' 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.</p> <p>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 627' or shallower and provide 10 sx plug at the surface.</p> <p>4) Leave at least 100' of cement in the wellbore for each plug.</p> <p>5) Properly abandon flowlines per Rule 1105. File electronic Form 42 once abandonment of on-location flowlines is complete. Within 90 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.</p> <p>6) With the Form 6 SRA operator must provide written documentation which positively affirms each COA has been addressed.</p> <p>7) After placing the shallowest hydrocarbon isolating plug (1560'), operator must 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 COGCC engineering before continuing operations.</p>
	Operator shall implement measures to control venting, to protect health and safety, and to ensure that vapors and odors from well plugging operations do not constitute a nuisance or hazard to public welfare.
	<p>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.</p> <p>1) If, before opening the Bradenhead valve, the beginning pressure is greater than 25 psi, sampling is required.</p> <p>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>

Attachment List

Att Doc Num	Name
402579206	FORM 6 INTENT SUBMITTED
402579225	WELLBORE DIAGRAM
402579226	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	1) Deepest Water Well within 1 mile = 332'. 2) Fox Hills Bottom- N/A, per SB5.	01/25/2021
Engineer	In accordance with the Notice to Operators (NTO): Timing for COGCC Forms adopted on 05/01/2020, this Form 6 Notice of Intent to Abandon is valid for 12 months from the date of approval expiring on 1/25/2022. This NTO does not alter the deadlines for submission of, or compliance with any other Commission rule or Form.	01/25/2021
Permit	Verified as-drilled GPS. Verified perf zones. Verified production reporting. Permitting review complete.	01/22/2021

Total: 3 comment(s)