

FORM
6Rev
11/20State 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:

402552397

Date Received:

12/30/2020

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: 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: Peterson, Tom

Tel: (970) 370-1281

COGCC contact:

Email: tom.peterson@state.co.us

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

API Number 05-123-20279-00

Well Name: OLSON

Well Number: 13-29

Location: QtrQtr: NWSW Section: 29 Township: 4N Range: 67W 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: 40.282381

Longitude: -104.920841

GPS Data: GPS Quality Value: 2.2 Type of GPS Quality Value: PDOP Date of Measurement: 06/03/2014

Reason for Abandonment: ☐ Dry ☒ Production Sub-economic ☐ Mechanical Problems☐ OtherCasing to be pulled: ☒ Yes ☐ No Estimated Depth: 2500Fish 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
CODELL	7321	7331			

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	405	285	405	0	VISU
1ST	7+7/8	4+1/2	J-55	10.5	0	7513	150	7513	6556	CBL

Subsurface hazards include, but are not limited to, the following: overpressured zones, underpressured zones, major geologic faults, salt sections, H₂S at concentrations greater than or equal to 100 ppm.

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7271 with 2 sacks cmt on top. CIBP #2: Depth 6965 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 100 sks cmt from 2550 ft. to 2300 ft. Plug Type: STUB PLUG Plug Tagged: ☐
Set 100 sks cmt from 1540 ft. to 1340 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 221 sacks half in. half out surface casing from 605 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. 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:

Olson 13-29 (05-123-20279)/Plugging Procedure (Intent)
Producing Formation: Codell: 7321'-7331'
Upper Pierre Aquifer: 360'-1440'
TD: 7539' PBTD: 7479' (1/11/2002)
Surface Casing: 8 5/8" 24# @ 405' w/ 285 sxs cmt
Production Casing: 4 1/2" 10.5# @ 7513' w/ 150 sxs cmt (TOC @ 6556' - CBL)

Tubing: 2 3/8" tubing set @ 7309' (1/12/2002)

Proposed Procedure:

1. MIRU. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 7271'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Codell perms @ 7321')
4. TIH with CIBP. Set BP at 6965'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Niobrara @ 7015')
5. TIH with casing cutter. Cut 4.5" casing at 2500'. Pull cut casing.
6. TIH with tubing to 2550'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Courtesy plug from 2550'-2300')
7. 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 engineering before continuing operations
8. Pick up tubing to 1540'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Pierre coverage from 1540'-1340').
9. Pick up tubing to 605'. Mix and pump 221 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
10. 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

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: McFarland, Nick

Date: 1/6/2021

CONDITIONS OF APPROVAL, IF ANY:

Expiration Date: 7/5/2021

COA Type

Description

	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 1/6/2022 This NTO does not alter the deadlines for submission of, or compliance with any other Commission rule or Form.
	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.
	1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) After placing the shallowest hydrocarbon isolating plug (6965'), operator must wait a sufficient time 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. 3) Prior to placing the 1540' plug: verify that all fluid migration (liquid and gas) has been eliminated. If evidence of fluid migration or pressure remains, contact COGCC Engineer for an update to plugging orders. 4) After isolation has been verified, pump shoe plug at 605' and displace. If cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 355' or shallower and provide 10 sx plug at the surface. 5) Leave at least 100' of cement in the wellbore for each plug. 6) 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. 7) With the Form 6 SRA operator must provide written documentation which positively affirms each COA has been addressed.
	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. 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. If there is a need for sampling, contact COGCC engineering for verification of plugging procedure.

Attachment List

Att Doc Num

Name

402552397	FORM 6 INTENT SUBMITTED
402552399	WELLBORE DIAGRAM
402552400	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Most recent BH test 3/26/20 - 0 psi. Last produced 6/2020 SB5 Base of Fox Hills Aquifer: N/A Deepest water well within 1 mile: 590' # of wells: 15 Deepest water well within 1.5 miles: 590' # of wells: 43 Base of Upper Pierre: ~1330' - Offset Induction Log: 1174770 - 55' elevation difference. Production within one mile: JSND, CODL, NBRR	01/06/2021
Permit	Changed zone to CODL per operator email. Verified perf zone. Verified production reporting. Permitting review complete.	12/31/2020
Permit	Verified as-drilled GPS. Producing zone formation inconsistent with all records. Return to draft.	12/17/2020

Total: 3 comment(s)