

FORM

6

Rev
11/20

State of Colorado

Energy & Carbon Management Commission

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



DE ET OE ES

Document Number:

403547463

Date Received:

10/02/2023

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: Valerie Danson

Name of Operator: PDC ENERGY INC

Phone: (970) 506-9272

Address: 1099 18TH STREET SUITE 1500

Fax:

City: DENVER State: CO Zip: 80202

Email: regulatory@pdce.com

For "Intent" 24 hour notice required,

Name: Revas, Robbie

Tel: (720) 661-7242

COGCC contact:

Email: robbie.revas@state.co.us

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

API Number 05-123-21330-00

Well Name: MDM

Well Number: 33-14

Location: QtrQtr: NWSE Section: 14 Township: 2N Range: 68W 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: 40.137160

Longitude: -104.968523

GPS Data: GPS Quality Value: 1.6 Type of GPS Quality Value: PDOP Date of Measurement: 05/30/2014

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
J SAND	7874	7902			

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	J55	24	0	589	415	596	0	VISU
1ST	7+7/8	4+1/2	J55	11.6	0	7991	550	7991	3418	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7824 with 2 sacks cmt on top. CIBP #2: Depth 7110 with 2 sacks cmt on top.
CIBP #3: Depth 4730 with 2 sacks cmt on top. CIBP #4: Depth 4150 with 2 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 1420 ft. to 1220 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 366 sacks half in. half out surface casing from 789 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

Surface Plug Setting Date: _____ Cut and Cap Date: _____ Number of Days from Setting Surface Plug to Capping or Sealing the Well: _____

*Wireline Contractor: _____

*Cementing Contractor: _____

Type of Cement and Additives Used: _____

Flowline/Pipeline has been abandoned per Rule 1105 ☐ Yes ☐ No

Technical Detail/Comments:

MDM 33-14 (05-123-21330) / Plugging Procedure (Intent)
Producing Formation: J-Sand: 7874'-7902'

Upper Pierre Aquifer: 400'-1320'

Deepest Water Well: 300' Base of Fox Hills: 212'
TD: 8000' PBD: 7902.41' (9/8/2016)
Surface Casing: 8 5/8" 24# @ 589' w/ 415 sxs cmt
Production Casing: 4 1/2" 11.6# @ 7991' w/ 550 sxs (TOC @ 3418' – CBL)

Tubing: 2 3/8" 4.7# tubing @ 7859.3' (9/9/2016)

Proposed Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 7824'. Top with 2 sxs 15.8#/gal CI G cement. (Top of J-Sand perms @ 7874')
4. TIH with CIBP. Set BP at 7110'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Niobrara @ 7160')
5. TIH with CIBP. Set BP at 4730'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Shannon @ 4780')
6. TIH with CIBP. Set BP at 4150'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Sussex @ 4200')
7. TIH with casing cutter. Cut 4 1/2" casing @ 2500'. Pull cut casing.
8. TIH with tubing to 2550'. RU cementing company. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Stub Plug from 2550'-2300')
9. 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.
10. TIH with tubing to 1420'. Mix and pump 100 sx 15.8#/gal CI G cement down tubing. (Pierre coverage from 1420'-1220')
11. Pick up tubing to 789'. Mix and pump 366 sx 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
12. Well casing cut and capped per COGCC guidelines at a depth as not to interfere with soil cultivation.

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: Valerie Danson
Title: Reg Analyst Date: 10/2/2023 Email: valerie.danson@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: Haverkamp, Curtis Date: 10/17/2023

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 4/16/2024

COA Type	Description
	<p>Consistent with Rule 911.a, a Form 27 must be approved prior to cut and cap, conducting flowline abandonment, or removing production equipment. Allow 30 days for Director review of the Form 27; include the Form 27 document number on the Form 44 for offsite flowline abandonment (if applicable) and on the Form 6 Subsequent.</p> <p>Properly abandon flowlines per Rule 1105. If flowlines will be abandoned in place, include with the Form 27: pressure test results conducted in the prior 12 months as well as identification of any document numbers for a ECMC Spill/Release Report, Form 19, associated with the abandoned line.</p>
	<p>1) Provide electronic Form 42 Notice of MIRU 2 business days ahead of operations and electronic Form 42 Notice of Plugging Operations 48 hours prior to mobilizing for plugging operations. These are two separate notifications, required by Rules 405.e and 405.l.</p> <p>2) Prior to placing cement above the base of the Upper Pierre (approximately 1315') : verify that all fluid (liquid and gas) migration has been eliminated. If evidence of fluid migration or pressure remains, contact ECMC Engineer for an update to plugging orders.</p> <p>3) Pump surface casing shoe plug only after isolation has been verified. If surface casing cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 539' or shallower and provide a minimum of 10 sx plug at the surface.</p> <p>4) Leave at least 100' of cement in the wellbore for each plug without mechanical isolation.</p> <p>5) After cut and prior to cap, verify isolation by either a 15 minute bubble test or 15 minute optical gas imaging recording. If there is indication of flow contact ECMC Engineering. Provide a statement on the 6SRA which method was used and what was observed. Retain records of final isolation test for 5 years.</p> <p>6) With the Form 6 SRA operator must provide written documentation which positively affirms each COA listed above has been addressed.</p>
	<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 ECMC within three (3) months of collecting the samples.</p> <p>If there is a need for sampling, contact ECMC engineering for verification of plugging procedure.</p>
	<p>Due to the proximity to a mapped wetland, operator will use secondary containment for all tanks and other liquid containers. Operator will implement stormwater BMPs and erosion control measures to prevent sediment and stormwater runoff from entering the wetlands.</p>
4 COAs	

Attachment List

Att Doc Num	Name
403547463	FORM 6 INTENT SUBMITTED
403547532	WELLBORE DIAGRAM
403547534	WELLBORE DIAGRAM
403547536	GYRO SURVEY

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	DWR base of Fox Hills: 212' Deepest water well within 1 mile: 300' Base of Upper Pierre estimated: 1315' Bradenhead history: 0 psig	10/17/2023
OGLA	OGLA review complete. Well is not in a HPH.	10/09/2023
Permit	Confirmed as-drilled well location. No other forms in process. Production reporting up-to-date. Confirmed productive interval docnum: 401371175. Reviewed WBDs. Pass.	10/03/2023

Total: 3 comment(s)