

FORM
6
Rev
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



| | | | |
|-------------------------------|----|----|----|
| DE | ET | OE | ES |
| Document Number: 402579880 | | | |
| 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: <u>69175</u> | Contact Name: <u>Jenifer Hakkarinen</u> |
| Name of Operator: <u>PDC ENERGY INC</u> | Phone: <u>(303) 8605800</u> |
| Address: <u>1775 SHERMAN STREET - STE 3000</u> | Fax: _____ |
| City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80203</u> | Email: <u>JENifer.Hakkarinen@pdce.com</u> |
| For "Intent" 24 hour notice required, Name: <u>Santistevan, Brittani</u> Tel: <u>(720) 471-1110</u> | |
| COGCC contact: Email: <u>brittani.santistevan@state.co.us</u> | |

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

| | |
|---|--------------------------|
| API Number: <u>05-123-13490-00</u> | Well Number: <u>2-31</u> |
| Well Name: <u>MOSSBERG UP</u> | |
| Location: QtrQtr: <u>NWNE</u> Section: <u>31</u> Township: <u>5N</u> Range: <u>66W</u> Meridian: <u>6</u> | |
| County: <u>WELD</u> Federal, Indian or State Lease Number: <u>67948</u> | |
| Field Name: <u>WATTENBERG</u> Field Number: <u>90750</u> | |

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.361111 Longitude: -104.820278

GPS Data: GPS Quality Value: 2.4 Type of GPS Quality Value: PDOP Date of Measurement: 07/21/2010

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

Casing to be pulled: Yes No Estimated Depth: 2500

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 |
|-----------------|-----------|-----------|----------------|---------------------|------------|
| NIOBRARA-CODELL | 7033 | 7370 | | | |

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 | 338 | 215 | 338 | 0 | VISU |
| 1ST | 7+7/8 | 4+1/2 | J-55 | 15.1 | 0 | 7525 | 230 | 7525 | 6350 | CBL |

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6983 with _____ 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 100 sks cmt from 2550 ft. to 2300 ft. Plug Type: STUB PLUG Plug Tagged:
 Set 100 sks cmt from 1550 ft. to 1350 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 206 sacks half in. half out surface casing from 550 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:

Mossberg Up 2-31 (05-123-13490)/Plugging Procedure (Intent)
 Producing Formation: Nio/Codell: 7033'-7370'
 Upper Pierre Aquifer: 450'-1450'
 TD: 7525' PBTD: 7404' (2/4/2008)
 Surface Casing: 8 5/8" 24# @ 338' w/ 215 sxs cmt
 Production Casing: 4 1/2" 15.1# @ 7525' w/ 230 sxs cmt (TOC @ 6350' - CBL)

Other In Hole: N/A

Tubing: 2 3/8" tubing set @ 7322.7' (2/6/2008)

Proposed Procedure:

1. MIRU. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 6983'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Nio/Codell Perfs @ 7033')
4. TIH with casing cutter. Cut 4 1/2" casing @ 2500'. Pull cut casing.
5. TIH with tubing to 2550'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Courtesy plug from 2550'-2300')
6. 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
7. Pick up tubing to 1550'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Pierre coverage from 1550'-1350')
8. Pick up tubing to 550'. Mix and pump 206 sxs 15.8#/gal CI G cement down tubing. 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

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: 1/26/2021

CONDITIONS OF APPROVAL, IF ANY:

Expiration Date: 7/25/2021

| COA Type | Description |
|-----------------|---|
| | <p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Prior to placing the 550' 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 288' 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 (1550'), 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> |
| | Reported "as drilled" GPS data is inaccurate. Submit accurate "as drilled" GPS data on Subsequent Report of Abandonment. GPS data must meet the requirements of Rule 215. |

Attachment List

| Att Doc Num | Name |
|--------------------|-------------------------|
| 402579880 | FORM 6 INTENT SUBMITTED |
| 402579883 | WELLBORE DIAGRAM |
| 402579884 | 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 = 440'. 2) Fox Hills Bottom- N/A, per SB5. | 01/26/2021 |
| 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 1/26/2022. This NTO does not alter the deadlines for submission of, or compliance with any other Commission rule or Form. | 01/26/2021 |
| Permit | As-drilled GPS inaccurate. COA placed. Verified perf zones. Verified production reporting. Permitting review complete. | 01/22/2021 |

Total: 3 comment(s)