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401565995

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03/07/2018

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 05-123-23029-00 Well Number: 23-22

Well Name: KOHLHOFF

Location: QtrQtr: NESW Section: 22 Township: 7N Range: 64W Meridian: 6

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

Field Name: WATTENBERG Field Number: 90750

Notice of Intent to Abandon Subsequent Report of Abandonment

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.556390 Longitude: -104.538690

GPS Data:
Date of Measurement: 12/04/2006 PDOP Reading: 3.6 GPS Instrument Operator's Name: Holly L. Tracy

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 | 7126 | 7134 | 02/15/2018 | B PLUG CEMENT TOP | 7026 |

Total: 1 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 | 411 | 230 | 411 | 0 | VISU |
| 1ST | 7+7/8 | 4+1/2 | 10.5 | 7,320 | 485 | 7,320 | 2,706 | CBL |
| S.C. 1.1 | | | | 646 | 200 | 646 | 0 | CBL |

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7026 with 2 sacks cmt on top. CIBP #2: Depth 6778 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 20 sks cmt from 2929 ft. to 2672 ft. Plug Type: CASING Plug Tagged:
 Set 75 sks cmt from 665 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 650 ft. with 56 sacks. Leave at least 100 ft. in casing 665 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 10 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: 02/15/2018
 of _____
 *Wireline Contractor: _____ *Cementing Contractor: _____
 Type of Cement and Additives Used: 15.8#/gal CL G cement
 Flowline/Pipeline has been abandoned per Rule 1105 Yes No *ATTACH JOB SUMMARY

Technical Detail/Comments:

Kohlhoff 23-22 (05-123-23029)/Plugging Procedure
 Producing Formation (Perforations): Codell: 7126'-7134'
 TD: 7356' PBTD: 7305'
 Surface Casing: 8 5/8" 24# @ 411' w/ 230 sxs
 Production Casing: 4 1/2" 10.5# @ 7320' w/ 485 sxs cmt (TOC @ 2706' - CBL). Existing annular fill cement w/ 200 sxs cmt (Surface - 646': CBL).
 Tubing: 2 3/8" tubing set @ 7233' (12/2/2015).
 Procedure:
 1. Run gyro survey.
 2. MIRU pulling unit. Pull 2 3/8" tubing.
 3. RU wireline company.
 4. TIH with CIBP. Set BP at 7026'. Top with 2 sxs 15.8#/gal CI G cement.
 5. TIH with CIBP. Set BP at 6778'. Top with 2 sxs 15.8#/gal CI G cement.
 6. TIH with tubing to 2929'. Mix and pump 20 sxs 15.8#/gal CI G cement to 2672'.
 7. Shoot lower squeeze holes at 750'. Shoot upper squeeze holes at 650'. Unable to establish circulation after several attempts. Mixed and pumped pill of SAPP to attempt to break possible bridge. Still unable to establish circulation through squeeze holes.
 8. Set packer at 665'. Sting in and pump 75 sxs 15.8#/gal CI G cement. Sting out release packer.
 9. TIH with cement retainer set at 665'. Sting into retainer and pump 75 sxs of 15.8#/gal CI G cement. sting out of retainer.
 10. Mix and pump 56 sxs 15.8#/gal CI G cement to surface. Squeeze additional 10 sxs 15.8#/gal CI G cement into upper squeeze holes.
 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

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: 10/15/2018

CONDITIONS OF APPROVAL, IF ANY:

COA Type

Description

| | |
|--|--|
| | |
|--|--|

Attachment Check List

Att Doc Num

Name

| | |
|-----------|-----------------------------|
| 401565995 | FORM 6 SUBSEQUENT SUBMITTED |
| 401566011 | GYRO SURVEY |
| 401566021 | CEMENT JOB SUMMARY |
| 401566037 | WELLBORE DIAGRAM |

Total Attach: 4 Files

General Comments

User Group

Comment

Comment Date

| | | |
|--|--|---------------------|
| | | Stamp Upon Approval |
|--|--|---------------------|

Total: 0 comment(s)