

FORM
6Rev
12/05State 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:

400329690

Date Received:

09/24/2012

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: Jeff Glossa

Name of Operator: PDC ENERGY INC

Phone: (303) 831-3972

Address: 1775 SHERMAN STREET - STE 3000

Fax: (303) 860-5838

City: DENVER State: CO Zip: 80203

Email: Jeffrey.Glossa@PDCE.com

For "Intent" 24 hour notice required,

Name: HICKEY, MIKE

Tel: (970) 302-1024

COGCC contact:

Email: mike.hickey@state.co.us

API Number 05-123-09522-00

Well Name: ARMSTEAD

Well Number: 2

Location: QtrQtr: SWSW Section: 31 Township: 2N Range: 68W Meridian: 6

County: WELD

Federal, Indian or State Lease Number:

Field Name: SPINDLE

Field Number: 77900

☒ Notice of Intent to Abandon☐ Subsequent Report of Abandonment

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.089462

Longitude: -105.053209

GPS Data:

Date of Measurement: 07/26/2010

PDOP Reading: 1.5

GPS Instrument Operator's Name: Shantell Kling

Reason for Abandonment:

☐ Dry☒ Production for Sub-economic☐ Mechanical Problems☐ OtherCasing to be pulled: ☒ Yes☐ No

Estimated Depth: 3280

Fish in Hole: ☐ Yes☒ No

If yes, explain details below

Wellbore has Uncemented Casing leaks:

☒ Yes☐ No

If yes, explain details below

Details: Well failed MIT and has been SI since 10/2007

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
SHANNON	4814	4836			

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	595	325	595	0	CALC
1ST	7+7/8	4+1/2	11.6	4,925	325	4,925	3,280	CALC

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 4750 with 2 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 60 sks cmt from 3330 ft. to 3230 ft. Plug Type: STUB PLUG 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: ☐
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 300 sacks half in. half out surface casing from 800 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 Plugging Date: _____

*Wireline Contractor: _____ *Cementing Contractor: _____

Type of Cement and Additives Used: _____

Flowline/Pipeline has been abandoned per Rule 1103 ☐ Yes ☐ No *ATTACH JOB SUMMARY

Technical Detail/Comments:

Plugging Procedure
Shannon Formation

Well Name: Armstead 2 API No: 05-123-09522 GL Elevation: 4950'

Location: 690' FSL 600' FWL, Section 31, T2N, R68W Weld County, Colorado.

Existing Perforations: Shannon formation at 4814'-4836'

Plug back TD: 4925' for casing.

Casing Strings: 8 5/8" 24#/ft casing set at 595'. Cmt'd to surface w/ 325 sxs.
4 1/2" 11.5# casing set at 4925'. Cmt'd w/ 325 sxs. Est TOC @ 3280'

Tubing String:

Procedure:

1. MIRU wireline company.
2. RIH w/ CIBP, set @ 4750.
3. RIH w/ Dump bailer. Spot 2 sxs of cement on top of CIBP.
4. RIH W/ CBL, locate TOC
5. TIH w/ casing cutter, cut and pull casing.
6. TIH and set 50' plug at casing stub (est 3280').
7. Set cement plug 800' to Surface.
8. Set 10 sx cement at top of surface.
9. Cut off casing at depth specified by land owner. Weld on plate. Clean and restore location.

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

Signed: _____ Print Name: Jeff Glossa
Title: Sr Eng Tech Date: 9/24/2012 Email: Jeffrey.Glossa@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: HOLLINSHEAD, RYAN Date: 10/4/2012

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 4/3/2013

- 1) Provide 48 hour notice of MIRU to Mike Hickey at (970) 302-1024.
- 2) Provide an "As Plugged" wellbore diagram identifying the specific plugging completed.
- 3) Casing stub plug shall be pumped from a minimum of 50' below the stub to 50' above the stub. For this plug: pump plug and displace, shut in, WOC 4 hours and tag plug. If unable to pull casing contact COGCC for plugging modifications.
- 4) Properly abandon flowlines as per Rule 1103.
- 5) See plugging changes above.

Attachment Check List

Att Doc Num	Name
400329690	FORM 6 INTENT SUBMITTED
400329927	WELLBORE DIAGRAM
400329933	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
Permit	Well completion dated 1/19/1997.	9/25/2012 8:34:37 AM

Total: 1 comment(s)