FORM 6 Rev 12/05

State 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: 400713770

Date Received: 10/21/2014

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: 47120 Contact Name: CHERYL LIGHT

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Phone: (720) 929-6461

Address: P O BOX 173779 Fax: (720) 929-7461

City: DENVER State: CO Zip: 80217- Email: CHERYL.LIGHT@ANADARKO.COM

For "Intent" 24 hour notice required, COGCC contact: Name: Carlile, Craig Tel: (970) 629-8279 Email: craig.carlile@state.co.us

API Number 05-123-16249-00

Well Name: OPATRIL Well Number: 12-16L

Location: QtrQtr: SESE Section: 12 Township: 3N Range: 67W Meridian: 6

County: WELD Federal, Indian or State Lease Number: 63469

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: 40.233070 Longitude: -104.832640

GPS Data:

Date of Measurement: 07/10/2007 PDOP Reading: 2.7 GPS Instrument Operator's Name: Paul Tappy

Reason for Abandonment: ☐ Dry ☒ Production for Sub-economic ☐ Mechanical Problems

☐ Other

Casing to be pulled: ☒ Yes ☐ No Estimated Depth: 990

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	7303	7316			
NIOBRARA	7025	7177			

Total: 2 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	23	510	150	510	0	VISU
1ST	7+7/8	4+1/2	11.6	7,405	175	7,405	6,630	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6970 with 25 sacks cmt on top. CIPB #2: Depth 80 with 25 sacks cmt on top.

CIBP #3: Depth _____ with _____ sacks cmt on top. CIPB #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 25 sks cmt from 6970 ft. to 6590 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: ☐

Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐

Perforate and squeeze at 4500 ft. with 320 sacks. Leave at least 100 ft. in casing 4060 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 400 sacks half in. half out surface casing from 1090 ft. to 310 ft. Plug Tagged: ☒

Set 25 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:

2. MIRU slickline services and pressure bomb services. Pull bumper spring, tag bottom and run pressure bomb survey from surface to 7150' making gradient stops every 1000'. Forward pressure bomb results to Evans Engineering. RDMO pressure bomb services. MIRU VES and run gyro stopping every 100' from tagged depth to surface. Forward survey results to Sabrina Frantz. RDMO slickline services and VES.
3. Prepare location for base beam equipped rig. Install perimeter fence as needed.
4. Check and record Bradenhead pressure. If Bradenhead valve is not accessible, re-plumb so that valve is above GL.
5. MIRU, kill as necessary using clean fresh water with biocide. NDWH. NUBOP. Unseat landing jt, LD.
6. Notify cementers to be on call. Provide volumes listed below:
6.1 Niobrara plug: 25 sx (35 cu-ft) "G" w/silica flour, 0.4% CD-32, 0.4 ASA-301 and R-3 to achieve 2:30 pump time. Mix at 15.8 ppg and 1.38 cu-ft/sk. Cement volume based on 380' in 4 ½" casing.
6.2 Sussex suicide: 280 sx (322 cu-ft) "G" w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301, mixed at 15.8 ppg and 1.15 cu-ft/sk. Cement volume based on 410' in 4 ½" casing and 410' in an 11" OH with 20% excess. Caliper on file.
6.3 Foxhills plug: 400 sx (532 cu-ft) Type III w/cello flake and CaCl2 as necessary, mixed at 14.8 ppg and 1.33 cu-ft/sk. Cement volume based on 100' in 4 ½" casing, 480' in an 11" OH with 40% excess, and 200' in 8 5/8" casing. Nearest caliper reading at 4300'.
7. TOOH 228 joints of 2 3/8" tubing landed at 7295'. Stand back.
8. MIRU WL. RIH gauge ring for 4 ½" 11.6# casing to 7010'. POOH.
9. PU 4 ½" 11.6# CIBP and RIH w/WL. Set at +/-6970' to abandon Niobrara and Codell perfs. PT to 1000 psi.
10. RIH with 2 3/8" tubing to +/- 6970'. Hydrotest tubing to 3000 psi while RIH.
11. RU cementers. Pump Niobrara plug: 25 sx (35 cu-ft) "G" w/silica flour, 0.4% CD-32, 0.4 ASA-301 and R-3 to achieve 2:30 pump time. Mix at 15.8 ppg and 1.38 cu-ft/sk. Plug to cover 6970'-6590'.
12. PUH to ~6300'. Circulate with water containing biocide to displace cement and clear tubing.
13. RU WL. PU 3 1/8" perf guns with 3 spf, 120 degree phasing, 0.42" EHD and RIH w/WL. Shoot 1' of squeeze holes at 4440' and 4230. RD WL.
14. PU and RIH w/CICR and 2 3/8" tubing, set CICR at ~4260'.
15. RU cementers. Precede cement with 5 bbl water containing biocide, 20 bbl sodium metasilicate and another 5 bbl water spacer.
16. Pump Sussex suicide: 270 sx (311 cu-ft) "G" w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301, mixed at 15.8 ppg and 1.15 cu-ft/sk to place cement between perfs from 4440' to 4230'. Under displace and sting out of CICR to leave 3 bbls (~200') on top of retainer. Cement volume based on 11" OH with 20% excess. Nearest caliper reading at 4300'.
17. PUH to ~3500'. Circulate with water containing biocide to displace cement and clear tubing. RD cementers.
18. P&SB 1090', LD remainder.
19. RU WL. Shoot off 4 ½" casing at or below 990'. RD WL. Circulate casing with water containing biocide to remove any gas.
20. NDBOP, NDTH.
21. Install BOP on casing head with 4 ½" pipe rams.
22. TOOH 4 ½" casing, LD.
23. RIH with 2 3/8" tubing to 1090' inside 4 ½" casing.
24. RU cementers. Precede cement with 10 bbl SAPP and a minimum 20 bbl fresh water spacer. Pump Foxhills plug: 400 sx (532 cu-ft) Type III w/ cello flake and CaCl2 as necessary, mixed at 14.8 ppg and 1.33 cu-ft/sk. Plug to cover 1090'-990' in 4 ½" casing, 990'-510' in 11" OH with 40% excess, and 510'-310' in 8 5/8" casing. Nearest caliper reading was at 4300'.
25. PUH to 100' and circulate with water and biocide to displace cement and clear tubing.
26. WOC per cement company recommendation. Tag cement at or above 310'. If not, consult with Evans Engineering.
27. RU WL. RIH 8 5/8" 23# CIBP to 80'. Set and pressure test to 1000 psi for 15 minutes. If tests, RDMO WL and WO rig.
28. Instruct cementing and wireline contractors to email copies of all job logs/jobs summaries.

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

Signed: _____ Print Name: CHERYL LIGHT

Title: SR. REGULATORY ANALYST Date: 10/21/2014 Email: DJREGULATORY@ANADARKO.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: SCHLAGENHAUF, MARK Date: 11/21/2014

CONDITIONS OF APPROVAL, IF ANY: Expiration Date: 5/20/2015

COA Type	Description
	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU. 2) If unable to pull casing contact COGCC for plugging modifications. 3) For 1090' plug: pump plug and displace, shut-in, WOC 4 hours and tag plug – must be 460' or shallower. 4) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete. 5) Please submit gyro survey data with Form 6 (s) Subsequent Report of Abandonment.

Attachment Check List

Att Doc Num	Name
400713770	FORM 6 INTENT SUBMITTED
400713771	WELLBORE DIAGRAM
400713772	PROPOSED PLUGGING PROCEDURE

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
Permit	Well Completion Report dated 1/27/1993 & 6/23/1993.	10/29/2014 3:31:48 PM

Total: 1 comment(s)