

FORM
6Rev
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:

400710357

Date Received:

10/16/2014

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,

Name: Carlile, Craig

Tel: (970) 629-8279

COGCC contact:

Email: craig.carlile@state.co.us

API Number 05-123-23845-00

Well Name: LUDWIG

Well Number: 22-1

Location: QtrQtr: SENW Section: 1 Township: 3N Range: 66W 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: 40.255470

Longitude: -104.727250

GPS Data:

Date of Measurement: 07/31/2006

PDOP Reading: 2.1

GPS Instrument Operator's Name: CHRIS FISHER

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

Estimated Depth: 1180

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	7432	7447			
NIOBRARA	7149	7310			

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	24	631	280	631	0	CALC
1ST	7+7/8	4+1/2	11.6	7,581	420	7,596	3,200	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7090 with 30 sacks cmt on top. CIBP #2: Depth 80 with 25 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 30 sks cmt from 4730 ft. to 4330 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 _____ 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 270 sacks half in. half out surface casing from 1280 ft. to 430 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. Pull bumper spring and tag bottom. MIRU VES and run GYRO from 7,398' (SN) to surface. RDMO VES and slickline services.
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 WO rig. Kill well as necessary w/ water containing biocide. ND WH, NU BOP.
6. Unseat and LD landing joint by PU w/ 2-3/8" tbg (4.7#, J-55, 8rd EUE) to break any sand bridges. Do not exceed the safety tensile load of 57,384 lbs (80% of upset yield strength).
7. TOOH and SB 2-3/8" tbg.
8. MIRU Wireline. PU gauge ring for 4.5" (11.6#, I-80, LTC) csg on wireline. RIH to 7,100'. POOH and LD gauge ring.
9. PU CIBP for 4.5" csg (11.6#, I-80, LTC). RIH and set CIBP at 7,090' (Note: Collars are at 7,100' & 7,056'). POOH and LD the setting tool. Pressure test CIBP to 1000 psi for 15 min. RDMO Wireline.
10. TIH 2-3/8" tbg and tag the CIBP (at +/- 7,090') while hydrotesting each stand to +/- 3000 psi. Pick up 5' from the tag.
11. MIRU Cementing Services. Spot 30 sx (+/- 41 cuft) of cmt (Class G w/ 20% silica flour, 0.4% CD-32, 0.4% ASA-301, and R-3 to achieve 2:30 pump time) mixed at 15.8 ppg and 1.38 cuft/sk from 7,090' to 6,730' on top of CIBP.
12. PUH w/ 2-3/8" tbg to +/- 6,000' (+/- 22 jts) and circulate tbg clean. PUH to +/- 4,730' while LD tbg.
13. Spot a balanced plug from 4,730' to 4,330' in the 4-1/2" csg (11.6#, I-80, LTC) with 30 sx (+/- 35 cuft) of cmt (Class G, 0.4% CD-32, 0.4% ASA-301) mixed at 15.8 ppg and 1.15 cuft/sk. RDMO Cementing Services.
14. PUH to +/- 3,700 (+/- 34 jts) and circulate to clean tbg. WOC for 4 hrs.
15. TIH w/ 2-3/8" tbg to tag TOC at +/- 4,330'. If TOC is deeper than 4,330' contact the Engineer for possible further cement work.
16. TOOH and SB +/- 1,300' of tbg and LD remainder.
17. MIRU wireline. PU a jet cutter on wireline and RIH to +/- 1,180' to cut 4-1/2" csg. Cut csg and circulate bottoms up. Continue to circulate to remove any gas from the wellbore. RDMO wireline.
18. ND BOP and tubing head. NU BOP on surface csg head w/ 4-1/2" pipe rams. Install 3,000 psi ball valves on both csg head outlets. Install choke or choke manifold on one outlet.
19. TOOH and LD 4-1/2" csg. If unable to pull csg, contact the Engineer and notify the COGCC.
20. Remove the 4-1/2" pipe rams and install 2-3/8" pipe rams on the BOP.
21. TIH w/ 2-3/8" tbg to +/- 1,280'.
22. MIRU Cementing Services. Pump 10 bbls of SAPP (Sodium Acid Pyrophosphate) followed by 20 bbls of fresh water containing biocide. Spot 270 sx (+/- 360 cuft) of cmt (Type III w/ cello flake and CaCl₂ as deemed necessary) mixed at 14.8 ppg at 1.33 cuft/sk. Planned cement is from 1,280' to 1,180' stub plug in 4-1/2", 11.6# csg stub, 1,180' to 631' in 9.5" OH (plus 20% excess), and from 631' to 430' inside 8-5/8", 24# surface csg. PUH to 250' and circulate tbg clean. RDMO Cementing Services. WOC for 4 hrs.
23. TIH w/ 2-3/8" tbg and tag TOC and if TOC is deeper than 430' contact engineer for possible further cement work. TOOH and LD 2-3/8" tbg.
24. MIRU wireline. PU CIBP on wireline for 8-5/8" (24#) csg and TIH to +/- 80'. Set CIBP and test to 1000 psi for 15 min. POOH and LD wireline. RDMO wireline.
25. RDMO WO rig.
26. NOTE: Instruct cementing & wireline contractors to email copies of all job logs/job summaries & invoices to rscDJVendors@anadarko.com within 24 hours of the completion of the job.
27. Wellsite supervisor should turn all paper copies of cementing reports/invoices and logs into Joleen Kramer.
28. Have excavation contractor notify One-Call to clear for digging around wellhead and flowline removal.
29. Excavate hole around surface casing enough to allow welder to cut 8-5/8" casing minimum 5' below ground level.
30. Welder cut 8-5/8" casing minimum 5' below ground level.
31. MIRU ready cement mixer. Fill the last 80' inside the 8-5/8" prod. casing until 10' bel

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: 10/16/2014 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: 11/12/2014

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 5/11/2015

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 1280' plug: pump plug and displace, shut-in, WOC 4 hours and tag plug – must be 581' 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**

400710357	FORM 6 INTENT SUBMITTED
400710360	PROPOSED PLUGGING PROCEDURE
400710361	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

User Group**Comment****Comment Date**

Permit	Added NB perms 7149' - 7310' per operator.	10/24/2014 11:49:58 AM
Permit	ON HOLD: requesting perf information for the Niobrara.	10/23/2014 2:27:29 PM
Permit	Well Completion Report dated 1/10/2007.	10/23/2014 2:27:28 PM

Total: 3 comment(s)