

Document Number:  
400701897

Date Received:  
10/06/2014

**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: REBECCA HEIM

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Phone: (720) 929-6361

Address: P O BOX 173779 Fax: (720) 929-7361

City: DENVER State: CO Zip: 80217- Email: REBECCA.HEIM@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 05-123-14633-00

Well Name: HSR-M CHRISTINE Well Number: 2-22

Location: QtrQtr: NWNE Section: 22 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: 40.215980 Longitude: -104.760480

GPS Data:  
Date of Measurement: 01/10/2006 PDOP Reading: 2.7 GPS Instrument Operator's Name: Steve Fisher

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

Casing to be pulled:  Yes  No Estimated Depth: 1190

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	7306	7347			
NIOBRARA	7109	7174			

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	615	400	615	0	VISU
1ST	7+7/8	4+1/2	11.6	7,473	180	7,473	6,386	CBL

## Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7030 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 \_\_\_\_\_ 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:   
Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:

Perforate and squeeze at 4560 ft. with 180 sacks. Leave at least 100 ft. in casing 4150 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 370 sacks half in. half out surface casing from 1290 ft. to 410 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:

M Christine 2-22 (SEE ATTACHED PROCEDURE)  
PLUG AND ABANDON PROCEDURE

1. Provide 48 hr notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.). Call IOC (970-506-5980) at least 24 hr prior to rig move. Request they catch and remove plunger, isolate production equipment and remove any automation prior to rig MIRU.
2. MIRU slickline services. Pull bumper spring and tag bottom. RDMO 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. PU the 2-3/8" tbg (4.7#, J-55, 8rd EUE) to break any sand bridges. Release the Arrow-Set packer (at 6,400'). Do not exceed the safety tensile load of 57,384 lbs (80% of upset yield strength).
7. TOOH. SB +/- 7,050' of tbg, LD the remainder.
8. PU scraper on 2-3/8" tbg and TIH to +/- 7,040'. TOOH, SB tbg, and LD the scraper.
9. MIRU Wireline. PU CIBP for 4.5" csg (11.6#, M-75, LTC). RIH and set CIBP at 7,030' (Note: Collars are at 7,004', 7,048', & 7,092'). 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 +/- 7,030') while hydrotesting each stand to +/- 3000 psi.
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 7,030' to 6,700' on top of CIBP.
12. PUH w/ 2-3/8" tbg to +/- 6,000' (+/- 22 jts) and circulate tbg clean. POOH, SB +/- 4,180' of tbg, LD remainder.
13. MIRU Wireline. PU and RIH two 1' perf guns (3-1/8", 3 spf, "Big Hole" 0.6" EHD, 7" penetration, 120o phasing, 2' net, 6 total holes) to 4,560'. Perf bottom squeeze holes at 4,560' then PUH to 4,150' and perf top squeeze holes in 4-1/2" prod csg. POOH and LD perf guns. RDMO wireline.
14. PU CICR for 4-1/2" csg (11.6#, M-75, I-70) on 2-3/8" tbg and set at +/- 4,180'.
15. MIRU Cementing Services. Pump 5 bbls of fresh water, 20 bbls of metalilicate, and 5 bbls of fresh water followed with 180 sx (+/- 207 cuft) of cmt (Class G w/ 0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301) mixed at 15.8 ppg and 1.15 cuft/sk. Under displace by 3bbls of cement, sting out of CICR and dump cmt on CICR. Planned cement is from 4,560' to 4,150' in 9" OH (plus 20% excess) & from 4,560' to 4,050' in 4-1/2", 11.6# csg. PUH to +/- 3,350' (+/- 22 jts) and circulate to clean tbg. TOOH and SB +/- 1,300' of tbg and LD remainder. RDMO Cementing Services.
16. MIRU wireline. PU a jet cutter and RIH to +/- 1,190' to cut 4-1/2" csg. Cut csg and circulate bottoms up. Continue to circulate to remove any gas from the wellbore. RDMO wireline.
17. ND BOP and tbg head. NU BOP of the surface csg head w/ 4-1/2" pipe rams. Install 3,000 psi rated ball valves on both surface csg outlets. Install a choke or a choke manifold on one of the outlets.
18. TOOH and LD 4-1/2" csg.
19. Remove the 4-1/2" pipe rams and install 2-3/8" pipe rams on the BOP.
20. TIH w/ 2-3/8" tbg to +/- 1,290'.
21. MIRU Cementing Services. Pump 10 bbls of SAPP (Sodium Acid Pyrophosphate) followed by 20 bbls of fresh water containing biocide. Spot 370 sx (+/- 492 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 1,290' to 1,190' stub plug in 4-1/2", 11.6# csg stub, 1,190' to 615' in 9" OH (plus 60% excess), and from 615' to 410' inside 8-5/8", 24# surface csg. PUH to 250' and circulate tbg clean. RDMO Cementing Services. WOC for 4 hrs.
22. TIH w/ 2-3/8" tbg and tag TOC and if TOC is deeper than 410' contact engineer for possible further cement work. TOOH and LD 2-3/8" tbg.
23. 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

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: 10/6/2014 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: 10/30/2014

**CONDITIONS OF APPROVAL, IF ANY:** \_\_\_\_\_ Expiration Date: 4/29/2015

**COA Type**

**Description**

COA Type	Description
	<ol style="list-style-type: none"><li>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.</li><li>2) If unable to pull casing contact COGCC for plugging modifications.</li><li>3) For 1290' plug: pump plug and displace, shut-in, WOC 4 hours and tag plug – must be 565' or shallower.</li><li>4) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete.</li><li>5) Please submit gyro survey data with Form 6 (s) Subsequent Report of Abandonment.</li></ol>

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400701897	FORM 6 INTENT SUBMITTED
400701905	PROPOSED PLUGGING PROCEDURE
400701911	WELLBORE DIAGRAM

Total Attach: 3 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Well Completion Report dated 12/24/1990 & 10/15/1993.	10/20/2014 2:02:16 PM

Total: 1 comment(s)