

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: Montoya, John Tel: (970) 3974124
 Email: john.montoya@state.co.us

COGCC contact:

API Number 05-123-21565-00 Well Number: 12-2
 Well Name: HARKIS
 Location: QtrQtr: SWNW Section: 2 Township: 2N Range: 65W 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: 40.169383 Longitude: -104.637992
 GPS Data:
 Date of Measurement: 12/22/2009 PDOP Reading: 3.2 GPS Instrument Operator's Name: Cody Mattson
 Reason for Abandonment: Dry Production for Sub-economic Mechanical Problems
 Other _____
 Casing to be pulled: Yes No Estimated Depth: 1300
 Fish in Hole: Yes No If yes, explain details below
 Wellbore has Uncemented Casing leaks: Yes No If yes, explain details below
 Details: DV tool at 4,864'

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
J SAND	7588	7640			
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	901	371	901	0	CALC
1ST	7+7/8	4+1/2	11.6	7,904	275	7,904	6,340	CBL
			Stage Tool	4,864	280	4,870	3,470	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7530 with 70 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 70 sks cmt from 7530 ft. to 6500 ft. Plug Type: CASING Plug Tagged:
Set 70 sks cmt from 4910 ft. to 4020 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 _____ 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 240 sacks half in. half out surface casing from 1400 ft. to 690 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:

5. MIRU WO rig. Kill well as necessary w/ water containing biocide. ND WH, NU BOP.
6. Unseat and LD landing joint. PU w/ 2-3/8" tbg (4.7#, J-55) 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 (+/- 7,586').
8. MIRU wireline. PU gauge ring for 4-1/2" csg (11.6#) on wireline and RIH +/- 7,550'. POOH and LD gauge ring.
9. PU CIBP for 4-1/2" csg (11.6#) on wireline and RIH to 7,530'. Set CIBP in csg. POOH and LD setting tool. Pressure test CIBP to 1,000 psi for 15 min. RDMO wireline.
10. TIH w/ 2-3/8" tbg while hydrotesting to 3,000 psi. Tag CIBP and PU 5' from tag.
11. MIRU Cementing Services. Spot 70 sx (+/- 96) 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 7,530' to 6,500'.
12. PU to 6,000' and circulate tbg clean. PU to 4,910' while LD tbg.
13. Spot a balanced plug w/ 70 sx (+/- 80 cuft) of cmt (Class G, 0.4% CD-32, 0.4% ASA-301) mixed at 15.8 ppg and 1.15 cuft/sk from 4,910' to 4,020'. RDMO Cementing Services. NOTE: DV tool is at 4,864'.
14. PUH to 3,600' and circulate the tbg clean. WOC for 4 hrs.
15. TIH w/ 2-3/8" tbg and tag TOC. If TOC is deeper than 4,032' contact engineering for possible further cement work.
16. TOOH and SB +/- 1,400' of tbg, LD the remainder.
17. MIRU wireline. PU jet cutter on wireline and RIH to +/- 1,300'. Cut csg and circulate bottoms up. Continue to circulate to remove any gas in the wellbore. RDMO wireline.
18. ND BOP and tbg head. NU BOP on the surface csg w/ 4-1/2" pipe rams. Install 3,000 psi ball valves on the csg head outlets. Install a choke or a choke manifold on one of the outlets.
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.
21. TIH w/ 2-3/8" tbg to +/- 1,400', 100' inside the csg stub.
22. MIRU Cementing Services. Pump 10 bbls of SAPP (Sodium Acid Pyrophosphate) followed by 20 bbls of fresh water containing biocide. Spot 240 sx (+/- 319 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 1,400' to 1,300' stub plug in 4-1/2, 11.6# csg stub,
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1,300' to 901' in 8-1/2" OH (from closest caliper, plus 40% excess), and from 901' to 690' inside 8-5/8", 24# surface csg. RDMO Cementing Services.
23. PUH to 250' and circulate tbg clean. WOC for 4 hrs.
24. TIH w/ 2-3/8" tbg and tag TOC and if TOC is deeper than 701' contact engineer for possible further cement work. TOOH and LD 2-3/8" tbg.
25. 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.
26. RDMO WO rig.
27. 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.
28. Wellsite supervisor should turn all paper copies of cementing reports/invoices and logs into Joleen Kramer.
29. Have excavation contractor notify One-Call to clear for digging around wellhead and flowline removal.
30. Excavate hole around surface casing enough to allow welder to cut 8-5/8" casing minimum 5' below ground level.
31. Welder cut 8-5/8" casing minimum 5' below ground level.
32. MIRU ready cement mixer. Fill the last 80' inside the 8-5/8" prod. casing until 10' below surface. Use 4,500 psi compressive strength redi-mix cement (Sand and Cement only, no gravel) to finish filling surface casing to top of cut off.
33. Have welder spot weld on steel marker plate. (Note: marker shall be labeled with well name and number, legal location (¼ ¼ description) and API number.
34. Properly abandon flowlines as per rule 1103.
35. Have excavation contractor back fill hole with native material. Clean up location and have leveled to plant any vegetation required

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: 10/24/2014 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: 11/26/2014

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 5/25/2015

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 1400' plug: pump plug and displace, shut-in, WOC 4 hours and tag plug – must be 851' 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

<u>Att Doc Num</u>	<u>Name</u>
400716399	FORM 6 INTENT SUBMITTED
400716407	PROPOSED PLUGGING PROCEDURE
400716409	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Well Completion Report dated 10/03/2003.	11/3/2014 2:36:30 PM

Total: 1 comment(s)