

## Raith L 15-3

## P&amp;A

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. Spot a minimum of 15 jts of 2-3/8" J-55 tbg.
7. 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).
8. TOOH and SB 2-3/8" tbg.
9. PU scraper for 4-1/2" (10.5#, K-55) on 2-3/8" tbg and TIH to +/- 7,750'. TOOH and SB 2-3/8" tbg.
10. MIRU Wireline. PU CIBP for 4-1/2" (10.5#, K-55) csg on wireline and RIH to 7,724'. Set CIBP 7,724' and dump 2 sx of cement on top of the CIBP. POOH Wireline.
11. PU CCL-CBL on wireline and RIH to 7,720'. Log to surface and POOH and LD CCL-CBL. Notify Engineer of log results for possible change of cementing plans or CIBP/CICR depths.
12. Pressure test CIBP to 500 psi for 15 min. NOTE: csg squeeze at 1,600'.
13. PU and RIH on wireline two 1' perf guns (3-1/8", 3 spf, "Big Hole" 0.6" EHD, 7" penetration, 120° phasing, 2' net, 6 total holes) to 7,400'. Perf bottom squeeze holes at 7,400' then PUH to 6,670' and perf top squeeze holes in 4-1/2" prod csg. POOH and LD perf guns. RDMO wireline. NOTE: bottom squeeze hole depth may change based on cmt top from CBL.
14. PU CICR for 4-1/2" 10.5# K-55 csg on 2-3/8" tbg and TIH set CICR at +/- 6,700' (+/- 216 jts) while hydrotesting each joint to +/- 3000 psi.
15. MIRU Cementing Services. Establish circulation w/ fresh water containing biocide and record the rate and pressure. Mix and pump 215 sx of cmt (50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52) mixed at 13.5 ppg and 1.71 cuft/sk. Under displace by 3 bbls of cmt, sting out of CICR and dump cmt on CICR. Planned cement is from 7,400' to 6,670' in 9" OH (plus 20% excess) & from 7,400' to 6,570' in 4-1/2", 10.5# csg. RDMO Cementing Services.
16. PUH to +/- 5,850 (+/- 12 jts) and circulate to clean. TOOH and SB 140 jts and LD remainder.
17. MIRU Wireline. PU and RIH on wireline two 1' perf guns (3-1/8", 3 spf, "Big Hole" 0.6" EHD, 7" penetration, 120° phasing, 2' net, 6 total holes) to 4,620'. Perf bottom squeeze holes at 4,620' then PUH to 4,220' and perf top squeeze holes in 4-1/2" prod csg. POOH and LD perf guns. RDMO wireline.
18. PU CICR for 4-1/2" csg (10.5#, K-55) on 2-3/8" tbg. TIH and set at +/- 4,250' (+/- 137 jts). NOTE: Do not set the CICR in a collar, reference CCL-CBL run in step 11. Contact the engineer with any questions.
19. MIRU Cementing Services. Pump 5 bbls of fresh water, 20 bbls of metalillicite, and 5 bbls of fresh water followed with 180 sx 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 4,620' to 4,220' in 9" OH (plus 20% excess) & from 4,620' to 4,120' in 4-1/2", 10.5# csg. RDMO Cementing Services.

20. PUH to +/- 3,400 (+/- 23 jts) and circulate to clean tbg. TOOH and SB 36 jts of tbg and LD remainder.
21. MIRU Wireline. PU CIBP for 4-1/2" csg (10.5#) on wireline. RIH and set at +/- 1,700'. POOH and LD setting tool (No pressure test due to squeeze holes). NOTE: Do not set the CICR in a collar, reference CCL-CBL run in step 11. Contact the engineer with any questions. RDMO Wireline.
22. TIH w/ 2-3/8" tbg and tag CIBP (+/- 55 jts).
23. MIRU Cementing Services. Spot 90 sx of cmt (Type III and CaCl<sub>2</sub> as deemed necessary) mixed at 14.8 ppg at 1.33 cuft/sk. Planned cement is from 1,700' to 330' in 4-1/2" csg. RDMO Cementing Services.
24. PU to 100' (+/- 51 jts) and circulate tbg and hole clean. TOOH and LD tbg.
25. MIRU wireline. PU CIBP for 4-1/2" csg (10.5#) on wireline and RIH 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](mailto: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.
36. Submit Form 6 to COGCC. Provide "As Plugged" wellbore diagram identifying the specific plugging completed.

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