



1001 17th Street
Suite 1600
Denver, CO 80202
January 6, 2020

Contacts

Position	Name	Phone Number
Engineer	Drew Laviage	713-240-8988
Pumper	Aaron Tuck	720-788-8693
Foreman	Paul Hacking	970-712-8386
Lead	Chad Tompkins	970-618-8913

Emergency Contact Information:

For immediate emergencies call 911.

Caerus Emergency Hotline
(866) 580-9382

Grand Valley Fire Department
(970) 285-9119
124 Stone Quarry Road
Parachute, CO 81635

Grand River Hospital District
(970) 625-1510
501 Airport Road
Rifle, CO 81650

Procedure

1. Notify COGCC at least 48 hours before plugging operations commence with a Form 42. Ensure proper ground disturbance forms have been completed, one call for utility identification has been done and proper paper work is on location.
2. Hold a pre-job safety meeting. Discuss all aspects of the procedure with any involved personnel. Identify and address any safety concerns before the job begins.
3. Record all tubing and casing pressures as found, note in WellView.
4. Perform Bradenhead Test using a Form 17. With gauges monitoring production and tubing pressures, open surface casing (bradenhead) valve. Record pressures at five minute intervals for 30 minutes. Record all pressures and complete Form 17. Return completed Form 17 to Production Engineer.
5. MIRU workover unit. Kill well. ND wellhead, NU BOP.
6. Test and chart BOPs as per regulations. PU and remove tubing hanger.



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7. TOOH with 2 3/8" tubing while scanning (per pertinent data sheet). Visually inspect pins and collars for corrosion or scale and report tubing condition in WellView. Lay down and replace any compromised joints of tubing. Note any scale, corrosion, and condition of tubing in WellView.
8. RUWL and RIH with 4 1/2" 11.6# CIBP to 7,950', 50' above top perf at 8,000'. Set CIBP and ROH with wireline.
9. Perform 500 psi pressure test for 15 minutes. If test is not successful, please notify Production Engineer.
10. TIH with 2 3/8" tubing to 7,950'. Mix and pump cement plug of 12 sacks of Class G neat cement (15.8 lb/gal, 1.15 cu-ft/sx) on top of CIBP. Estimated TOC at 7,800' (150' cement cap).
11. TOOH to 6,851'. Mix and pump cement plug of 25 sacks of Class G neat cement to fill casing with 326' cement plug to cover Ohio Creek (6,851') and Williams Fork (6,675'). Estimated TOC at 6,525' (326' above Ohio Creek and 150' above Williams Fork).
12. TOOH to 5,981'. Mix and pump cement plug of 12 sacks of Class G neat cement to fill casing with 150' cement plug to cover Fort Union (5,981'). Estimated TOC at 5,831'. TOOH with 2 3/8" tubing.
13. RUWL and RIH with 4 1/2" 11.6# CIBP to 5,300'. Set CIBP and ROH with wireline.
14. Perform 500 psi pressure test for 15 minutes. If test is not successful, please notify Production Engineer.
15. If test is not successful, RIH with 2 3/8" 11.6# retrievable packer and 2 3/8" tubing, set packer at 4,910'.
16. Perform 500 psi pressure test down casing/tubing annulus to test casing above 4,910'. If successful, pressure test to 500 psi down tubing to test casing from 5,300'-4,910'. If unsuccessful, continue to hole hunt up casing. Notify Production Engineer with results. If P&A is needed, continue with the following steps.
17. If P&A is needed, continue with the following steps.
18. Unset packer and TOOH with 2 3/8" tubing string.
19. RU wireline. RIH with perf gun to 2,507' (approx. 50' below surface casing shoe at 2,457') and perforate casing with 4 holes. ROH with wireline.
20. TIH with 2 3/8" tubing to 5,300'. Mix and pump cement plug of 12 sacks of Class G neat cement (15.8 lb/gal, 1.15 cu-ft/sx) on top of CIBP. Estimated TOC at 5,150' (150' cement cap).
21. TOOH with 2 3/8" tubing to 2,507'. Mix and pump balance plug of 133 sacks of Class G neat cement (15.8 lb/gal, 1.15 cu-ft/sx) to fill casing and annulus with 150' cement. Estimated TOC at 2,407' (approx. 100' above surface casing shoe).
22. Rack back enough tubing stands to ensure tubing string is out of cement plug. Break circulation and pump enough water to ensure there is no cement in or around tubing string. Wait for Surface Casing Shoe Cement Plug to set up (approx. 4 hours).



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23. RIH and tag Surface Casing Shoe Cement Plug. Record tag depth in WellView. If tag depth is not at approx. 2,407', please notify Production Engineer before proceeding.
24. RU wireline. RIH with perf gun to 75' and perforate casing with 4 holes. ROH with wireline.
25. TIH with tubing to 75'. Mix and pump balance plug of 27 sacks of Class G neat cement to surface in casing and annulus. Top off cement if necessary.
26. RDMO workover unit and ND BOP.
27. Dig down around wellhead and cut off 4 feet below ground level. Top off with cement if needed.
28. Weld information plate to casing stub with ¼" weep hole, take GPS readings of well information plate for regulatory agencies. Inscribe information plate with:

Caerus Oil and Gas LLC
Sec 2 T4S R97W Double Willow Unit 8607A G02 497 05-103-10473

29. Back fill hole and release equipment. RDMO

Wellbore Schematic (to Step 14)

