



1001 17th Street
Suite 1600
Denver, CO 80202

Federal 5-14D P&A Proposal (05-045-13791)

Project Objective:

This project is to plug and abandon the Federal 5-14D well.

Procedure

1. Notify the BLM office and 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 paperwork 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 casing pressures as found, note in WellView.
4. Ensure a Bradenhead Test has already been completed and a Form 17 has been submitted. (test consists of using gauges to monitor production casing and tubing pressures, as surface casing (bradenhead) is opened and pressures are recorded at five-minute intervals for 30 minutes.).
5. MIRU workover unit. Kill well if necessary. ND wellhead, NU BOP.
6. Test and chart BOPs as per regulations.
7. Unland tubing, TOO H, and lay down all 2-3/8" tubing.
8. RU wireline and RIH with 4-1/2" 11.6# CIBP to ~4,978' (50' above top perf @ 5,028'). Set CIBP and ROH with wireline.
9. Perform 500 psi pressure test for 15 minutes. If not successful, notify production engineer.
10. TIH with 2 3/8" tubing to 4,978' (or CIBP depth). 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 4,828'. Pick up above the plug and circulate clean.
11. Tag cement plug @ 4,828'. Pump 9 ppg mud spacer (~9.0 bbls) from 4,828' to 4,245'.
12. TOO H with 2-3/8" tubing to 4,245'. Mix and pump cement plug of **50 sacks** of Class G neat cement to fill casing with 650' cement plug to cover the Williams Fork (4,245'), Ohio Creek (3,995'), and L Wasatch (3,795'). Estimated TOC at 3,595' (200' above L Wasatch). Pick up above plug and circulate clean.



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13. Tag cement plug @ 3,595'. Pump 9 ppg mud spacer (~10.2 bbls) from 3,595' to 2,936'. TOOH with tubing.
14. RU wireline. RIH with perf gun to 2,936' and perforate casing with 4 holes. ROH with wireline.
15. TIH with tubing to 2,936'. Bring pumps on and establish circulation through squeeze holes up the bradenhead annulus. Mix and pump balance plug of **57 sacks** of Class G neat cement in casing and annulus with 150' cement plug to cover Fort Union (2,936'). Estimated TOC at 2,786'. Pick up above plug and circulate clean.
16. Tag cement plug @ 2,786'. Pump 9 ppg mud spacer (~16.8 bbls) from 2,786' to 1,700'. TOOH with tubing.
17. RU wireline. RIH with perf gun to 1,700' and perforate casing with 4 holes. ROH with wireline.
18. TIH with tubing to 1,700'. Bring pumps on and establish circulation through squeeze holes up the bradenhead annulus. Mix and pump balance plug of **108 sacks** of Class G neat cement in casing and annulus with 317' cement plug to cover Wasatch G (1,700') and the surface casing shoe (1,533'). Estimated TOC at 1,383'. Pick up above plug and circulate clean.
19. Tag cement plug @ 1,383'. Ensure there is no bradenhead pressure before continuing. Pump 9 ppg mud spacer (~20.2 bbls) from 1,383' to 80'. TOOH with tubing.
20. RU wireline. RIH with perf guns to 80' and perforate casing with 4 holes. ROH with wireline.
21. TIH with tubing to 80'. Bring pumps on and establish circulation through squeeze holes up the bradenhead annulus. Mix and pump balance plug of **25 sacks** of Class G neat cement to surface in casing and annulus. Top off if necessary. TOOH with 2 3/8" tubing.
22. RDMO workover unit and ND BOP.
23. Wait at least 5 days (and no more than 90 days), before proceeding to next step.
24. Dig down around wellhead and cut off 4 feet below ground level. Top off with cement if needed.



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25. 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
Sec5 T8S R95W
Federal 5-14D 05-045-13791

26. Back fill hole and release equipment.



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API: 05-045-13791

Owner: FED/FED

Conductor Casing:
Hole Size: 16" OD, 15.25" ID, 65 lb/ft, H-40 set at 80'
20"

Surface Casing:
Hole Size: 8 5/8" OD, 8.10" ID, 24 lb/ft, J-55 set at 1533'
12 1/4"

Production Casing:
Hole Size: 4 1/2" OD, 4" ID, 11.6 lb/ft, I-80 set at 7,413'
7 7/8"

Production TOC: 3,600'

Perfs: 5,028' (top) -6,808' (bottom)

Notes: 2-3/8", 4.7lb/ft, J-55 tubing, EOT @ 6,539'

Formation Tops:

Rollins	6,861'
Williams Fork	4,245'
Ohio Creek	3,995'
Lower Wasatch	3,795'
Fort Union	2,936'
Wasatch G	1,700'

COGCC Field: Parachute

