1001 17th Street
Suite 1600
Denver, CO 80202
4/9/2020

596-33C-18 (33C) P&A

API Number: 05-045-14736

Surface Casing: 9 5/8" OD, 8.921" ID, 36 lb/ft, J-55, set at 3,013'.

Production Casing: 4.5" OD, 4" ID, 11.6 lb/ft, P-110, set at 9,896'.
Internal Casing Patch 3,540'-4,535' (ID = 3.5")

Hole Size: 8 3/4"

TOC: 5,926'

Top of Mesa Verde: 6,623'

COGCC Field: Parachute

Type of P&A:

1) TA'd w/o adequate cement, contains bridge plug
2) Casing Plug for TOMV coverage
3) Stabilization Plug if 3,000' between plugs
4) Surface Shoe Balance Plug
5) Cement Top Off
6) Contains Internal Casing Patch

Internal Casing Patch inside of wellbore. Use of SPCC tubing will be needed

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Procedure

1. Notify the COGCC at least 48 hours before plugging operations commence. 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.

6. ND wellhead, NU BOP.

7. TIH w/ tubing to 9,745'. Pump 12 sacks of Class G neat cement (15.8 lb/gal., 1.15 cu-ft/sk.) Estimated TOC @ 9,595'(100' of coverage with 50' excess). TOOH w/ tubing to 6,623'.

8. Pump 39 sacks of Class G neat cement (15.8 lb/gal., 1.15 cu-ft/sk.) Estimated TOC @ 6,113'(510' of coverage). TOOH w/ tubing.

9. RU wireline and RIH w/ perf gun to 3,113'. Shoot 4 squeeze holes at 3,113'.

10. TIH w/ tubing, bring on rig pumps, and establish circulation through squeeze holes up bradenhead annulus.

11. RIH w/ tubing and pump 87 sacks of Class G neat cement (15.8 lb./gal, 1.15 cu-ft./sk.) cement into Perfs @ 3,113'. Puts 200' of coverage and 50' of excess cement above Perfs in Production Casing and Annulus @ 2,863'. POOH w/ tubing.
    ***COGCC is requiring 200' of coverage due to Internal Casing Patch**

12. RIH w/ wireline to 75' and shoot 4 squeeze holes.

13. TIH w/ tubing, bring on rig pumps, and establish circulation through squeeze holes up bradenhead annulus.

14. Pump 27 sacks of Class G neat cement (15.8 lb./gal, 1.15 cu-ft./sk.) cement into Perfs @ 75'. Puts 75' of cement to surface.

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15. TOOH and lay down all tubing. RDMO workover unit and ND BOP.

16. Dig down around wellhead and cut off 4 feet below ground level. Top off with cement if needed.

17. 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 33 T 5S R 96W 596-33C-18 05-045-14736

18. Back fill hole and release equipment. RDMO.

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MD (ftKB)	TVD (ftKB)	Incl (°)
24.0	24.0	0.1
75.1	75.1	0.4
76.1	76.1	0.4
140.1	140.1	0.4
2,862.9	2,806.0	10.7
2,876.3	2,819.2	10.7
2,878.3	2,821.1	10.7
2,943.2	2,885.0	10.4
2,944.9	2,886.6	10.4
3,009.2	2,949.9	9.9
3,011.2	2,951.9	9.9
3,112.9	3,052.3	8.2
3,113.8	3,053.2	8.2
3,540.0	3,477.6	3.7
4,535.1	4,471.7	2.0
5,923.9	5,859.2	1.8
6,112.9	6,048.1	2.7
6,623.0	6,557.7	3.5
6,966.5	6,899.8	6.7
6,987.2	6,920.3	6.8
7,214.9	7,146.2	6.6
8,509.8	8,439.6	2.1
8,530.5	8,460.2	2.1
9,595.1	9,523.9	3.3
9,745.1	9,673.6	3.8
9,754.9	9,683.4	3.8
9,765.9	9,694.4	3.8
9,788.1	9,716.4	3.9
9,809.7	9,738.0	3.9
9,810.7	9,739.0	3.9
9,852.7	9,780.9	4.0
9,868.1	9,796.3	4.0
9,873.0	9,801.2	4.0
9,874.3	9,802.5	4.0
9,876.3	9,804.5	4.0
9,894.7	9,822.8	4.0
9,896.7	9,823.8	4.0
9,911.1	9,839.2	4.0

Vertical schematic (actual)

SURFACE TOPOUT; Cement; 24.0-140.0 ftKB; 5/11/2008; Annular flow after cement job (Y/N): N

Conductor Cement; Cement; 24.0-140.0 ftKB; 4/1/2008

Conductor; 20 in; 53.00 lb/ft; K-55; 19.12 in; 24.0-140.0 ftKB; 116.00 ft

PRIM CMT 1ST STAGE; Cement; 140.0-3,011.0 ftKB; 5/11/2008; Annular flow after cement job (Y/N): N
Returns: No

Surface; 9 5/8 in; 36.00 lb/ft; J-55; 8.92 in; 24.0-3,011.0 ftKB; 2,987.03 ft

Des:Internal Casing Patch; Depth MD:3,540.0-4,535.0

Cement; Cement; 5,924.0-7,215.0 ftKB; 8/26/2008

Cement; Cement; 7,215.0-9,894.8 ftKB; 8/26/2008

PBTD; 9,755.0; 11/24/2017
Des:Bridge Plug - Permanent; Depth MD:9,755.0-9,756.0; Com:Make up 4.5" Owen 10k CIBP and Baker 10 Setting tool. RIH w/ Plug. Nearest Collar @ 9718' Set CIBP @ 9755' (30ft below top of Rollins @ 9725') Good Set.

Production Casing Cement; Cement; 9,894.8-9,895.8 ftKB; 8/26/2008; TOC 5924' (CBL 12/23/08)

Production 1; 4 1/2 in; 11.60 lb/ft; P-110; 4.00 in; 24.0-9,895.8 ftKB; 9,871.80 ft

Vertical schematic (proposed)

Surface Top Off; Proposed Cement; 24.0-75.0 ftKB; 6/1/2020; Pump 27 sacks of Class G neat cement (15.8 lb./gal, 1.15 cu-ft./sk.) cement into Perfs @ 75'. Puts 75' of cement to surface.

Perforated; 75.0-76.0; 6/1/2020

Cement Plug; Proposed Cement; 2,863.0-3,113.0 ftKB; 6/1/2020; RIH w/ tubing and pump 87 sacks of Class G neat cement (15.8 lb./gal, 1.15 cu-ft./sk.) cement into Perfs @ 3,113'. Puts 200' of coverage and 50' of excess cement above Perfs in Production Casing and Annulus @ 2,863'. POOH w/ tubing.

Perforated; 3,113.0-3,114.0; 6/1/2020

Top of Mesaverde Plug; Proposed Cement; 6,113.0-6,623.0 ftKB; Pump 39 sacks of Class G neat cement (15.8 lb/gal., 1.15 cu-ft/sk.) Estimated TOC @ 6,113'(510' of coverage). TOOH w/ tubing.

Cement Plug; Proposed Cement; 9,595.0-9,745.0 ftKB; TIH w/ tubing to 9,745'. Pump 12 sacks of Class G neat cement (15.8 lb/gal., 1.15 cu-ft/sk.) Estimated TOC @ 9,595'(100' of coverage with 50' excess). TOOH w/ tubing to 6,623'.

PBTD; 9,755.0; 11/24/2017