DPG Bird Farm 12-01H5

P&A Procedure

Engineer: Sarah McDonnell (832-247-2575)

Authored 3/13/17

LOCATION:

Qtr/Qtr:	NENE	Section:	12	Township:	5N	Range:	65W
Footages:	727	FNL	&	557	FEL		
COUNTY:	WELD		STATE:	CO		API #:	05-123-18251

WELL DATA:

Surface Csg:	7", 17#, H-40 @ 458'	KB Elevation	4,612
Surface Cmt:	160 sx	GL Elevation	4,602
Long St Csg:	3-1/2", B-70, 7.7# @ 7,014'	TD:	7,020
Long St Cmt:	100 sx	PBTD:	7,005
Long St Date:	5/20/1994		

Plug Back (Sand or CIBP):	***Cement plug @ 7,005 (5/20/1994)***		
Perforation Interval (1):	Niobrara Perforations: 6,608' - 6,728'		
Perforation Interval (2):	Codell Perforations: 6,892' - 6,905'		
Perforation Interval (3):			
Tubing:	2-1/16", J-55, 3.25# @ 6,870'	Rods:	
Pump:			
Misc.:			

PRODUCTION STATUS: SI

COMMENTS: Uneconomic to do STEM/ WBI work; no CBL

PROCEDURE:

1) Perform Form 17 if not done already. If the beginning pressure is greater than 25 psi, any pressure remains at the conclusion of the test, or if liquids were present; call COGCC engineer for sampling requirements. Submit form 17 within 10

2) MIRU Workover rig, pump & tank.

3) Blow down well and roll hole with fresh water, if possible.

4) ND WH, NU BOP.

5) POOH and LD tbg.

6) RU WL. RIH w/ CIBP on WL and set @ 6,558'.

7) Dump bail 2 sx of Class G Neat cement on top of CIBP.

8) Load hole with fluid and pressure test CIBP to 1000 psi with rig pumps. Hold for 15 minutes. Test will be considered successful if lose less than 100 psi. If test is unsuccessful, contact engineer.

9) Run CBL from 6500' to surface. Send CBL to engineer and call to discuss: Sarah McDonnell - 832-247-2575

10) Ensure TOC is higher than 6,389' for Nio coverage. If TOC higher than 6,389, proceed to step 11. If TOC lower than 6,389', proceed to step 10b.

10b) RIH w/ 1' perforating gun and shoot 4-6 spf 10' above top of uphole cement.
10c) RIH w/ CICR on WL. Set CICR 100' above perforations.
10d) POOH w/ WL.
10e) RIH w/ workstring and sting into CICR.
10f) Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test is considered successful if lose less than 50 psi. If pressure test fails, contact engineer.
10g) Establish injection rate.
10h) Pump 10 bbls Mud Flush (or similar spacer) followed by 90 sx of cement.

Length (ft)	OD (in)	ID (in)	Volume Factor (bbl/ft)	Volume (bbls)	Volume (ft^3)	Yield (ft^3/sk)	**Cement (sx)**
200	10.000	3.500	0.0852	17	96	1.15	83
100	3.068	0.000	0.0091	1	5	1.15	4
						TOTAL	**88**

*Calculations assume 10" open hole.

10i) Place 2 bbls (10 sx) of cement on top of CICR. Allow to fall on CICR as pulling out.
10j) POOH w/ workstring.

11) Confirm TOC lower than 2,270' using CBL.

12) RIH w/ 1' perforating gun and shoot 4-6 spf @ 2,270'.

13) RIH w/ CICR on WL and set @ 2,170' (100' above perforations).

14) POOH w/ WL.

15) RIH w/ workstring and sting into CICR.

16) Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test is considered successful if lose less than 50 psi. If pressure test fails, contact engineer.

17) Establish injection rate.

18) Pump 10 bbls Mud Flush (or similar spacer) followed by 215 sx of cement.

Length (ft)	OD (in)	ID (in)	Volume Factor (bbl/ft)	Volume (bbls)	Volume (ft^3)	Yield (ft^3/sk)	**Cement (sx)**
500	10.000	3.500	0.0852	43	239	1.15	208
100	3.068	0.000	0.0091	1	5	1.15	4
						TOTAL	**213**

*Calculations assume 10" open hole.

19) Displace cement with 4 bbls fresh water (2 bbls short of workstring volume).

Tubing ID	Length (ft)	Disp. Factor (BBL/ft)	Disp (BBL)	**Disp -2BBL**
1.75	2170	0.00297	6	**4**

20) Unsting from CICR.

21) Place 2 bbls (10 sx) of cement on top of CICR. Allow to fall on CICR as pulling out.

22) POOH w/ workstring.

23) RIH w/ WL and cut production casing at 658' (200' below surface shoe or deepest water well).

24) Circulate a MINIMUM of 2 bottoms up volumes (61 bbls) or until well is free of oil, gas, or any large cuttings.

Length (ft)	OD (in)	ID (in)	bbl/ft	Volume (bbls)	**2x Disp (bbl)**
458	6.538	3.500	0.0296	14	27
2	12.250	3.500	0.1339	0	1
198	10.000	3.500	0.0852	17	34
				TOTAL:	**61**

25) Perform flow check for 5 minutes to ensure well is static and record current fluid weight in Wellview.

26) Unland production casing.

27) POOH and LD production casing filling pipe every 6 joints.

28) RIH w/ workstring to 708' (50' inside of casing).

29) Establish circulation.

30) Pump 10 bbls Mud Flush (or similar spacer) followed by 190 sx of cement. TOC should be at surface

Length (ft)	OD (in)	ID (in)	Volume Factor (bbl/ft)	Volume (bbls)	Volume (ft^3)	Yield (ft^3/sk)	**Cement (sx)**
458	6.538	0	0.0415	19	107	1.15	93
2	12.25	0	0.1458	0	2	1.15	1
198	10	0	0.0971	19	108	1.15	94
50	3.068	0	0.0091	0	3	1.15	2
						TOTAL	**190**

31) POOH w/ workstring. Top off cement if needed. Cement needs to be ~10’ from surface.

32) ND BOP. Top off cement as needed.

33) RDMO.