



## Weber PMK16-06

### *P&A Procedure*

Engineer: Ben Zapp, PE (303.241.1273)

6 February 2017

#### **Well Info:**

Qtr/Qtr:	SENW	Section:	16	Township:	4N	Range:	66W
Footages:	1820 FNL		&		1980 FWL		
COUNTY:	WELD	STATE:	CO	API #:	05-123-14046		

Surface Csg:	8.625" 24# @ 313' KB	KB Elevation:	4746'
Surface Cmt:	165 sx	GL Elevation:	4733'
Long St Csg:	4.5" 15.1# @ 7414' KB	TD:	7422' KB
Long St Cmt:	245 sx	PBTD:	7344' KB
Long St Date:	11/25/1988		

Plug Back (Sand or CIBP):	FILL	
Perforation Interval (1):	Niobrara Perforations: 6944-7269' KB	
Perforation Interval (2):	Codell Perforations: 7254-7269' KB	
Perforation Interval (3):		
Tubing:	2.375" 4.7# J-55 @ 7236' KB	Rods:
Pump:		
Misc.:	Sussex (4151' to 4460')	

#### **Procedure:**

- 1) MIRU workover rig, pump, and tank.
- 2) Blow down well and roll hole with fresh water, if possible.
- 3) ND WH, NU BOP.
- 4) POOH and LD tbg.
- 5) RIH w/ CIBP on wireline and set @ 6,894'
- 6) Dump bail 2 sx of Class G Neat cement on top of CIBP.
- 7) Load hole with fluid and pressure test CIBP to 1000 psi with rig pumps. Hold for 15 minutes.  
Test considered successful if <100 psi drop observed. If test is unsuccessful, contact engineer.
- 8) RIH w/ 1' perforating gun and shoot 4-6 spf @ 4560' (100' below Sussex base @ 4460')
- 9) RIH w/ CICR on workstring and set @ 4460' (100' above perforations).
- 10) Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test considered successful if <50 psi drop observed. If pressure test fails, contact engineer.
- 11) Establish injection rate.

- 12) Pump 10 bbls Mud Flush (or similar spacer) followed by 195 sx of cement (15.8ppg Enhanced PlugCem) – calculated TOC @ 4051' (100' above top of Sussex)

Length (ft)	OD (in)	ID (in)	ft <sup>3</sup> /ft	Volume (ft <sup>3</sup> )	Yield (ft <sup>3</sup> /sk)	Cement (sk)	Nearest 5sk
510	10	4.50	0.435	222	1.209	183	185
100	3.826	0.00	0.080	8	1.209	7	10
						TOTAL:	195

- 13) Displace cement with 15 bbls fresh water.

Tubing ID	Length (ft)	Disp. Factor (BBL/ft)	Disp (BBL)	Disp -2BBL
1.995	4460	0.00387	17	15

- 14) Unsting from CICR.

- 15) Place remaining 2 bbls of cement on top of CICR. Allow to fall on CICR as pulling out.

- 16) POOH w/ workstring.

- 17) RIH w/ 1' perforating gun and shoot 4-6 spf @ 2500'.

- 18) RIH w/ CICR on workstring and set @ 2,400' (100' above perforations).

- 19) Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test considered successful if <50 psi drop observed. If pressure test fails, contact engineer.

- 20) Establish injection rate.

- 21) Pump 10 bbls Mud Flush (or similar spacer) followed by 200 sx of cement (15.8ppg G Neat)

Length (ft)	OD (in)	ID (in)	ft <sup>3</sup> /ft	Volume (ft <sup>3</sup> )	Yield (ft <sup>3</sup> /sk)	Cement (sk)	Nearest 5sk
500	10	4.50	0.435	217	1.150	189	190
100	3.826	0.00	0.080	8	1.150	7	10
						TOTAL:	200

- 22) Displace cement with 7 bbls fresh water.

Tubing ID	Length (ft)	Disp. Factor (BBL/ft)	Disp (BBL)	Disp -2BBL
1.995	2400	0.00387	9	7

- 23) Unsting from CICR.

- 24) Place remaining 2 bbls of cement on top of CICR. Allow to fall on CICR as pulling out.

- 25) POOH w/ workstring.

- 26) RIH w/ WL and cut production casing at 542'. (200' below surface shoe)

- 27) Circulate a MINIMUM of 2 bottoms up volumes from surface casing cut (64 bbls) or until well is free of oil, gas, or any large cuttings.

Length (ft)	OD (in)	ID (in)	BBL/ft	Disp (BBL)	2x Disp (BBL)
313	8.097	4.50	0.0440	14	28
7	12.25	4.50	0.1261	1	2
222	10.00	4.50	0.0775	17	34
				TOTAL:	64

- 28) Perform flow check for 5 min to ensure well is static. Record current fluid weight in WellView.
- 29) Unland production casing.
- 30) POOH and LD production casing filling pipe every 6 joints.
- 31) RIH w/ workstring to 542' (top of casing).
- 32) Establish circulation.
- 33) Pump 10 bbls Mud Flush (or similar spacer) followed by 205sx 15.8ppg Enhanced PlugCem cement as a balanced plug. TOC @ surface.

Length (ft)	OD (in)	ID (in)	ft <sup>3</sup> /ft	Vol (ft <sup>3</sup> )	Yield (ft <sup>3</sup> /sk)	Cmt (sk)	Nearest 5sk
313	8.097	0.00	0.358	112	1.209	93	95
7	12.25	0.00	0.818	6	1.209	5	5
222	10.00	0.00	0.545	121	1.209	100	105
						TOTAL:	205

- 34) POOH w/ workstring. Top off cement if needed. Cement needs to be ~10' from surface.
- 35) ND BOP. Top off cement as needed.
- 36) RDMO.

