



C WATKINS 12 - Re-Entry Well Program

Well: C WATKINS 12
 API: 05-123- 13614

Well Details:

Production Casing Size	4-1/2"11.6#	Surface Casing Size	8-5/8" 24#
Production Casing Effective Depth	6845', Cut at 5878'	Surface Casing Depth	448'
Niobrara Top	6470'	Existing CIBP with 2sks of Cement	6404'
A Sand Top	2268'	Fox Hills	284'
Top Perf	6475'	Nearby Water Well	107'

Summary of Program

Scope is to drillout cement and establish A Sand and surface casing shoe isolation.

Well History:
 Bridge plug was set at 6404' with 2sks of cement for Nio isolation.
 CBL shows cement isolation at 5945' behind production casing.
 Casing was cut and pulled at 5878'.
 SC Shoe plug mentions 35 sks half in and out was pumped out of surface pipe, hand written note mentions no plug was set half in and out per P&A orders.
 Plug was set inside 8-5/8" casing at 300'-187' and 10 sks pumped on top of surface casing.

Proposed Method:	Re-Enter and P&A
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Re-Entry Procedure

Notes

- A. Check Form 6 for State COAs (e.g. Form 17 and Gyro).
- B. Offline: Pressure Test BOPE 250-300 psi Low/ 2000 psi High (5 minutes each)

Procedure

- 1 N/U flange adapter if necessary. MIRU. Conduct pre-job safety meeting.
- 2 Complete a Form 17 Bradenhead Test. Note: per COA sampling is also required if initial BH pressure is greater than 25 psi, if liquids are present, or any pressure at end of test. Notify Engineer if sample is taken.
- 3 Kill well with 8.3 ppg fresh water and circulate hole clean (if possible). Consult Engineer if unable to kill well with FW.
- 4 Verify well is static. Flow check well for 15 minutes. N/U BOP: pipe rams and blind rams. Adapter may be needed from WH to BOP.
- 5 Pressure test BOP connection to 250-300 psi low/2000 psi high for 5 minutes each. Bleed pressure.
- 6 RU Power swivel
- 7 MU Drillout BHA (bit, bit sub, drill collars, tubing) and RIH to TOC and RIH and drill out to 2268' (A Sand depth)
- 8 Circulate 2X bottoms up
- 9 RIH w/ workstring to 2248' (20' above A Sand)
- 10 Establish Circulation.
- 11 If there is pressure on the well Gas Tight cement may be used. Contact Engineer.
- 12 Pump 10bbbls Chemical Wash followed by 120 sks of cement, plug from 2248'-1948'. Displace with fresh water to balance plug.

OH Plug	Len (ft)	OD (in)	ID (in)	ft ³ /ft	(ft ³)	(ft ³ /sk)	Cmt(sk)	Near Ssk
	300	9.000		0.442	133	1.15	115	120
*Assume 9in. OH							TOTAL:	120

13 POOH w/ workstring to 1800' and reverse circulate until clean returns observed.
 14 POOH w/ workstring.

15 RIH with workstring to 648' and pump 220 sacks of cement to surface.

Cement Plug								
Len (ft)	OD (in)	ID (in)		ft ³ /ft	(ft ³)	(ft ³ /sk)	Cmt(sk)	Near 5sk
200	9.000		-	0.442	88	1.15	77	80
448	8.097			0.358	160	1.15	139	140

*Assume 9in. OH

220

16 Top off cement if needed. Cement needs to be approx. 10' from surface.
 17 ND BOP.
 18 RDMO.