PLUG AND ABANDON PROCEDURE

WELL NAME: KORTUM 7 **DATE:** 4/17/2019

LOCATION:

Qtr/Qtr: NENE Section: 21 Township: 1S Range: 67W

COUNTY: ADAMS STATE: CO API #: 05-001-06190

ENGINEER: Hunter Dunham

(Please notify Engineer of any major changes prior to work)

7 Day Notice Sent:

Do not start operations until:

Notice Expires:

OBJECTIVE: Plug and abandon orphan well

WELL DATA:

Surface Csg:	8 5/8" 24# @ 110'	KB Elevation:	5165'
Surface Cmt:	100SX	GL Elevation:	5155'
Long St Csg:	4 1/2" 10.5# @ 5250'	MD:	5254'
Long St Cmt:	150SX	PBTD:	5250'
Long St Date:	10/15/1975		

Plug Info (1)	CIBP at 5000' w/2sx cement
Plug Info (2)	Balanced plug 2000' - 2500' (195 sx)
Plug Info (3)	Surface plug 0' - 1400' (590sx)
Plug Info (4)	

Tubing: Rods:

Pump:

Misc.: ***Base of Upper Pierre Aquifer 2243'; Deepest Water Well 1200'; Base of Fox Hills 1030'***

WELL STATUS: Shut-in

COMMENTS:

PROCEDURE:

1 Prior to the beginning of plugging operations be sure that a Form 17 has been completed.
2 MIRU workover rig, pump, and tank.
3 Blow down well and roll hole with fresh water, if possible.
4 ND WH, NU BOP.
5 POOH and stand back tbg.
6 MIRU WL and run RBL from 5000' to surface.
7 RIH w/ CIBP and set @ 5,000'
8 Dump bail 2 sx of Class G Neat cement w/ silica on top of CIBP. TOC @ 4,973'
9 Load hole with fluid and pressure test CIBP to 1,000 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
10 RIH w/ WL and cut production casing at 2,500'
11 Circulate a MINIMUM of 2 bottoms up volumes (342.7 bbls) or until well is free of oil, gas, or any large cuttings. If returns are not seen within 30 bbls SD and call rig engineer. Run RBL if needed.
12 Perform flow check for 5 minutes to ensure well is static and record current fluid weight in daily report.
13 Unland production casing.
14 POOH and LD production casing filling pipe every 6 joints.
15 RIH w/ workstring to 2,500' (top of casing cut).
16 Establish circulation.
17 Pump 10 bbls Mud Flush (or similar spacer) followed by 195 sx of 15.8 Class G Neat cement as a balanced plug. TOC @ 2,000'.

Interval Start	Interval End	Length (ft)	Vol. Factor (ft^3/f	Volume (ft^3)	Yield (ft^3/sk)	Cement (sxs)
2500	2000	500	0.4418	221	1.15	192

18 POOH w/ workstring.
19 Perform flow check for 5 minutes to ensure well is static and record current fluid weight in daily report record.
20 RIH w/ Workstring to 1400'. (200' below aquifer)
21 Establish circulation.
22 Pump 10 bbls Mud Flush (or similar spacer) followed by 590 sx of 15.8 Class G Neat cement as a balanced plug. TOC @ Surface.

Interval Start	Interval End	Length (ft)	Vol. Factor (ft^3/f	Volume (ft^3)	Yield (ft^3/sk)	Cement (sxs)
1400	100	1300	0.3382	440	1.15	459
100	0	100	0.3576	36	1.15	31
						490
					20% Excess	**590**

23 POOH workstring. Top off cement as needed. Cement needs to be ~10' from surface.
24 ND BOP.
25 RDMO.