WORKOVER PROCEDURE

WELL NAME: Bruce 17-34 **DATE:** 3/6/2017

LOCATION:

Qtr/Qtr: SESW Section: 17 Township: 6N Range: 64W

Footages: 699 FSL & 1796 FWL

COUNTY: WELD STATE: CO API #: 05-123-21642

ENGINEER: Brian Ulmer

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

7 Day Notice Sent:

Do not start operations until:

Notice Expires:

OBJECTIVE: P&A

WELL DATA:

Surface Csg:	8-5/8", 24# @ 363'	KB Elevation:	4,750
Surface Cmt:	200 sx	GL Elevation:	4,740
Long St Csg:	4-1/2", 11.6# @ 7,135'	TD:	7,140
Long St Cmt:	340 sx + 175 sx	PBTD:	7,098
Long St Date:	9/3/2003		

Plug Back (Sand or CIBP): Sand - Tag @ 7098'

Perforation Interval (1): Niobrara Perforations: 6806' - 6824'

Perforation Interval (2): Codell Perforations: 6959' - 6972'

Perforation Interval (3):

Tubing: 2 3/8" @ 6,934' Rods:

Pump:

Misc.:

PRODUCTION STATUS: STEM SI

COMMENTS: Base of Fox Hills - 399'. Deepest water well within 1 mi - 675'.

PROCEDURE:

1) Ensure Form 17 has been performed.
2) MIRU Workover rig, pump & tank.
3) ND WH, NU BOP.
4) POOH with 2 3/8' tubing.
5) Blow down well, if possible.
6) RIH w/ wireline and set CIBP @ 6756'.
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) RIH with wireline and perforate casing at 2500' with 1' perf gun 4-6 spf.
10) RIH w/ workstring and CICR and set a CICR at 2400'
11) 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.
12) Establish injection rate
13) Pump 10 bbls mud flush. Pump 210 sacks class G neat cement (1.15 cuft/sack). Plug should extend from 2000' to 2500' in annulus and 10 sacks on top of CICR.

- assume 4-1/2" OD production casing and 10" open hole
- add 10 sacks to volume to place on top of CICR.

14) Displace cement with 7.2 bbls fresh water.
    - underdisplace 2 bbls short of workstring volume to top of CICR to place 2 bbls (10 sacks) on top of CICR.
    - assuming 2-3/8" 4.7 ppf workstring

15) Unsting from CICR

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

17) POOH w/ workstring.

18) RIH w/ wireline and cut production casing at 825'.

19) Circulate a MINIMUM of 2 bottoms up volumes (103 bbls) or until well is free of oil, gas and any large cuttings

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

21) Unland production casing

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

23) RIH w/ workstring to 875’ (top of casing).

24) Establish circulation.

25) Pump 10 bbls Mud Flush (or similar spacer) followed by 345 sacks of class G neat cement as a balanced plug. TOC should be at surface.

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

27) ND BOP. Top off cement as needed.

28) Clean up location. Reclaim location. RDMO.

NOBLE ENERGY INC.

Bruce 17-34
SESW 17-6N-64W
699 FSL & 1796 FWL
WELD COUNTY, CO
Wattenberg
CURRENT WELLBORE SCHEMATIC
with PROPOSED P&A
3/6/2017

API: 05-123-21642
COGCC #

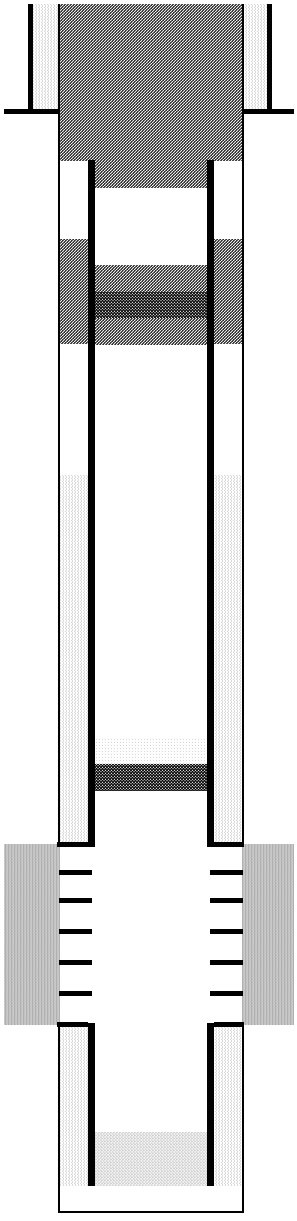
GL Elev: 4,740
KB Elev: 4,750

Spud Date: 8/29/2003

Surface Casing :
8-5/8", 24# @ 363'
Cement: 200 sx
TOC: Surface

TOC @ 3216'

Production Casing :
4-1/2", 11.6# @ 7,135'
Cement: 340 sx + 175 sx
TD: 7140



Cut surface casing off 6'-8' below surface.

Pump 345 sx shoe plug
Cut csg @ 825'

Pump 200 sx plug thru CICR & 10 sx above CICR
Set CICR @ 2400'
Perforate csg @ 2500'

CIBP @ 6,756' w/ 2 sx cement on top

Niobrara Perforations: 6806' - 6824'

Codell Perforations: 6959' - 6972'

TD: 7,140