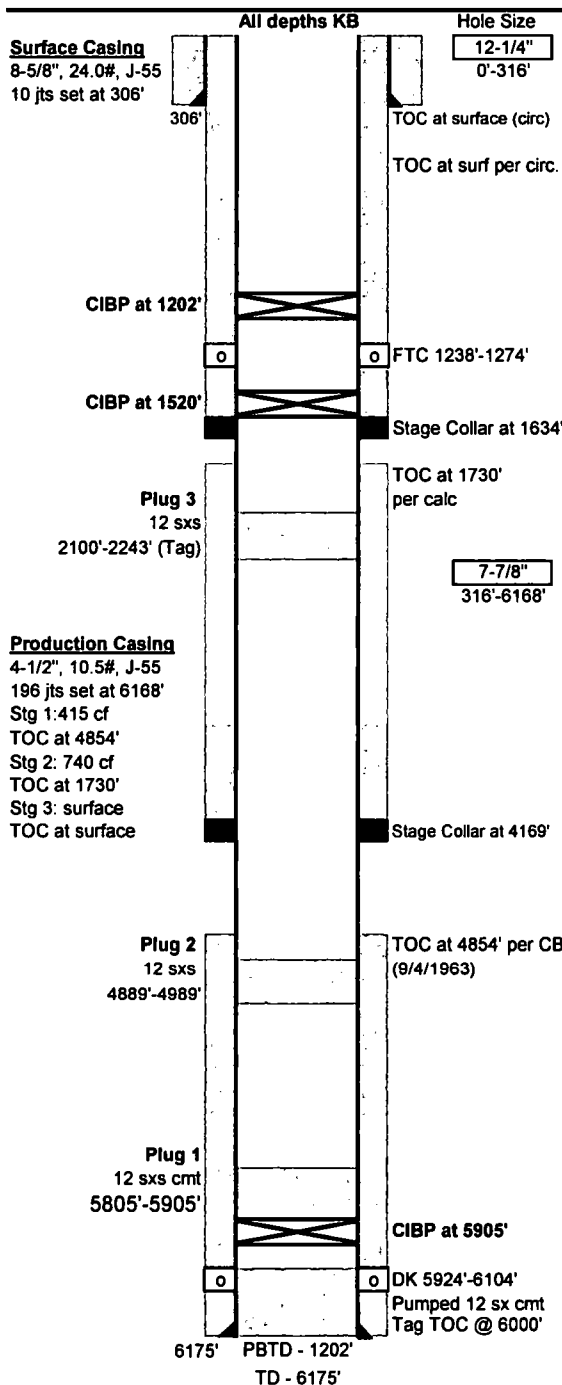




Wellbore Schematic

Well Name: Richardson 2
Location: P-11-T27N-R13W 890' FSL & 990' FEL
County: San Juan
API #: 30-045-06621
Co-ordinates: 36.5849495° -108.18293° NAD83
Elevations: GROUND: 5876'
KB: 5885'
Depths (KB): PBDT: 1202'
TD: 6175'

Date Prepared: 11/27/2018 CHR
Last Updated: 12/13/2019 Moss
Spud Date: 8/14/1963
Completion Date: 9/6/1963
Last Workover Date: 6/13/2019



Surface Casing: (08/16/1963)

Drilled a 12-1/4" surface hole to 316'. Set 10 jts 8-5/8", 24.0#, J-55 casing at 306'.
Cemented with 200 sxs regular cement; circulated cement to surface.

Production Casing: (09/16/1963)

Drilled a 7-7/8" production hole to 6175'. Set 196 jts 4-1/2", 10.5#, J-55 casing at 6168'.
Stage collars @ 4169' KB & 1634' KB
Stage 1 cmt w/ 320 cf 20% Diacel "D" Class C cmt + 12-1/2# gilsonite/sk
tailed w/ 95 cf Class C cmt + 2% CaCl₂. TOC at 4854 per CBL (9/4/1963)
Stage 2 cmt w/ 740 cf 20% Diacel "D" Class C cmt + 12-1/2# gilsonite/sk + 2% CaCl₂
TOC 1730' per calc (75% efficiency)
Stage 3 cmt w/ 585 cf 40% Diacel "D" Class C cmt + 12-1/2# gilsonite/sk + 4% CaCl₂
TOC at surface per circ.

Tubing: (10/11/2013)

Length (ft)

NA

Rods: (10/11/2013)

Length (ft)

NA

Pumping Unit:

NA

Perforations:

Dakota: (09/06/1963) (6072'-6104') 2SPF. Frac w/ 40,000 gal H₂O & 20,000# 20/40 sand
(5924'-28', 33'-38', 54'-60', 67'-71', 5974'-6002') 2 SPF. Frac w/ 61,740 gal H₂O,
10,000# 40/60 sand & 50,000# 20/40 sand.

Fruitland Coal: (7/23/2008) (1238'-46', 63'-1274') 76, 0.43" holes at 4 SPF.

Frac w/ 71,724 gal slickwater foam & 5,100# 40/70 sand & 80,100# 20/40 sand.

Formations:

Logs:

Ojo Alamo	9/4/1963 CBL (4700-PB)
Kirtland	8/26/1963 DENSILOG
Fruitland	8/26/1963 Induction
Pictured Cliffs	7/23/2008 RST/GR/CCL
Lewis	7/23/2008 CBL (Surf-1700)
Mesaverde	
Mancos	
Dakota	
Morrison	

Additional Notes:

(8/6/1996) Clean out to 6088'.
(10/17/2007) Clean out 6108'.
(7/22/2008) Attempted to plug DK perms w/ 12 sx cmt. TOC at 6000' per tag.
Set CIBP @ 5905'. Plug 1: 12 SX Class G 5800'-5900' (50% excess).
Plug 2: 12 sx Class G 4889'-4989' (50% excess). Plug 3: 12 sx Class G 2143'-2243'
(50% excess). Tag TOC @ 2100'. Set CIBP @ 1520'. Perf & Complete FC formation.
(7/6/2009) RTP.
(11/26/2010) RTP, replaced 3 tbg jts due to corrosion.
(5/18/2011) RTP, replaced 3 tbg jts due to either rod wear or corrosion. Jt #22 was very thin.
(7/5/2011) RTP, replaced 41 tbg joints.
(12/8/2011) RTP, replaced 2 rods due to pitting.
(5/2/2012) RTP rods parted
(10/15/2013) RTP: Pulled tubing pump, ran casing scraper + 3 joints, no tag.
Removed tubing pump and installed insert pump.
(6/13/2019) Ran 3-7/8" bit and string mill to 1228'. Set 4-1/2" CIBP at 1202'.
PT to 560 psi for 30 min, test was good. Did not run tbg.

**Well has a max deviation of 3/4 degree at 1865'.