

PLUG AND ABANDONMENT PROCEDURE

July 2, 2003

Florance #1

NE, S20, T27N, R1W

Rio Arriba County, New Mexico

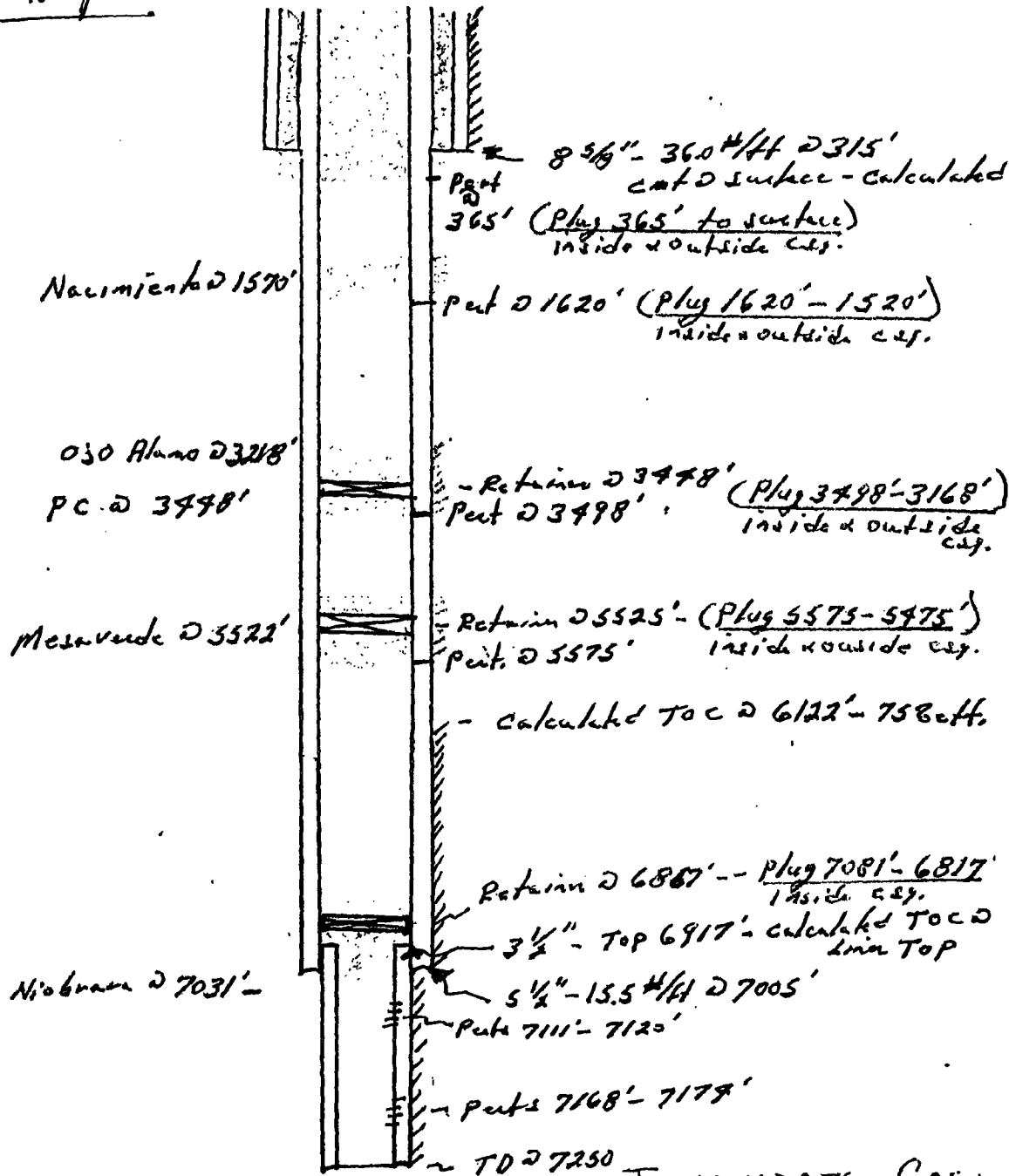
API: 30-039-20172

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement is ASTM Type II, mixed at 15.6ppg with a yield of 1.18 cf/sx.

1. Set steel pit. Comply with all NMOC, BLM, and BMG safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line and blow down well; kill with water as necessary.
2. ND wellhead and NU BOP. Test BOP.
3. TOH and tally 2-3/8" tubing, total 6850'. Visually inspect and if necessary LD tubing and PU workstring. Round-trip 5-1/2" gauge ring to 6900'.
4. *Niobrara
T/7031'
OK*
Plug #1 (Niobrara Top, 5-1/2" Shoe, and 3-1/2" Liner Top: 7061' - 6817'): TIH and set 5-1/2" cement retainer at 6867'. Load casing with water and circulate casing clean. Pressure test casing to 500 psi. Mix 27 sxs type II cement, squeeze 12 sxs below retainer and spot 10 sxs above the retainer to isolate the Niobrara perforations and cover the 5-1/2" shoe and 3-1/2" liner top. POOH.
5. *MV-Top 2
5522'
OK*
Plug #2 (Mesaverde Top: 5575' - 5475'): GIH and perforate 3 HSC squeeze holes at 5575'. If casing pressure tested, establish injection rate into perforations. TIH and set 5-1/2" cement retainer at 5525'. Establish injection rate below retainer. Mix 47 sxs type II cement, squeeze 30 sxs outside 5-1/2" casing and leave 17 sxs inside casing to cover the Mesaverde top. TOOH.
6. *PC-Top 2
3270'
Ojo Alamo - 3218*
Plug #3 (Pictured Cliffs, Fruitland, Kirtland, and Ojo Alamo Tops: 3270' - 2740'): GIH and perforate 3 HSC squeeze holes at 3270'. If casing pressure tested, establish injection rate into perforations. TIH and set 5-1/2" cement retainer at 3220'. Establish injection rate below retainer. Mix 234 sxs type II cement, squeeze 162 sxs outside 5-1/2" casing and leave 69 sxs inside casing to cover the Pictured Cliffs, Fruitland, Kirtland, and Ojo Alamo tops. TOOH. (165 f/3 - 180 sxs)
7. *Nacimiento
Top 2 1570'
OK*
Plug #4 (Nacimiento Top: 1620' - 1520'): GIH and perforate 3 HSC squeeze holes at 1620'. If casing pressure tested, establish injection rate into perforations. TIH open ended with 2-3/8" tubing to 1620'. Mix 47 sxs type II cement, spot a balanced plug from 1620' - 1174'. POH and LD 5 joints 2-3/8" tubing. Close pipe rams and squeeze 30 sxs outside 5-1/2" casing and leave 17 sxs inside casing to cover the Nacimiento top. POOH and LD remaining tubing.
8. *OK*
Plug #5 (8-5/8" casing shoe and surface, 365' - Surface): GIH and tag TOC. Perforate 3 squeeze holes at 365'. Establish circulation out the bradenhead with water and circulate clean. Mix and pump approximately 107 sxs cement down the 5-1/2" casing to circulate good cement out bradenhead. Shut well in and WOC.
9. ND BOP and cut off casing below surface. Install P&A marker with cement to comply with regulations. RD, move off location, cut off anchors and restore location.

WELL NAME Florance #1 30-039-20172
 SEC, TWN, RNG. 20-27N-1W

NOTICE of INTENT to P+ A



SURFACE CASING

SIZE HOLE _____"
 SIZE CASING _____"
 Annular Volume _____ ft³/ft.
 Cement _____ SK
 Volume _____ ft³

INTERMEDIATE CASING

SIZE HOLE _____
 SIZE CASING _____
 Annular Volume _____
 Cement _____
 Volume _____