

# CHACO 2206-16A 221H API # 30-043-21148



## Location

SHL: 738' FNL 270' FEL Sec: 16 Twnshp: 22N Rge: 6W  
BHL: 363' FNL 291' FWL Sec: 16 Twnshp: 22N Rge: 6W

Lat: 36.14342  
Long: -107.46581

Spud Date: 7/23/2013  
Completion: 10/4/2013  
Gas Lift: 3/21/2017  
Rod Pump: 11/9/2018

wellbore update: 11/14/18 lg

| Tops            | MD    | TVD   |
|-----------------|-------|-------|
| Ojo Alamo       | 1291' | 1291' |
| Kirtland        | 1481' | 1481' |
| Pictured Cliffs | 1831' | 1830' |
| Lewis           | 1948' | 1946' |
| Chacra          | 2236' | 2230' |
| Cliff House     | 3343' | 3305' |
| Menefee         | 3393' | 3350' |
| Point Lookout   | 4184' | 4140' |
| Mancos          | 4305' | 4261' |
| Gallup          | 4695' | 4651' |

Land tubing @ 5226' w 161 jnts of 2-3/8", J-55, 4.7#

Tubing/Rod detail: PICK UP 5/RODS TAG AND SPACE OUT, LOAD TEST WITH RIG PUMP AND WITH STROKING PUMP, PRESSURED UP TO 450/PSI. GOOD/TEST AND PUMP ACTION, { ROD STRING, 1 1/4" X 26' CENTER SPRAY POLISH ROD, 4' 6' 8' X 7/8" PONY RODS, 50 X 7/8" RODS W/MOLDED GUIDES 4/PER, 144 X 3/4" RODS W/MOLDED GUIDES 4/PER, 8 X 7/8" RODS W/MOLDED GUIDES 4/PER, 26K SHEAR SUB, 2" X 1 1/4" X 12' X 14' RHBC PUMP W/NO TAP TOOL ON TOP, 1 1/4" X 12' STRAINER NIPPLE. } BLEED OFF AS MUCH WATER AS WE COULD TO AVOID ABOVE GROUND FREEZE IN PUMPING TEE, LEFT RODS 8" OFF TAG AND 131" TO TOP OF POLISH ROD

Lybrook Gallup:

Perfd stg: 4989'-5067', w/24, 0.32' holes.Frac'd  
w/202,320, 20/40 PSA sand

12 1/4"  
Hole

8 3/4"  
Hole

TD @ 10545'

PBTD @ 10464.

6 1/8"  
Hole

Surface: TD 12-1/4" SURF HOLE @ 430', RAN 10 JTS, 9-5/8", LT&C, 36#, J-55, CSG SET @ 420', FC @ 377' Press Test 1500#, Pump 10 Bbl FW Spacer, 260sx Class Cmt+2%CaCl+1/4#sk Poly-E Flake+5gwps ( 54.5 Bbl, 304cuft (15.8ppg,Yield=1.17 )Drop Plug & Disp W/ 29.5 Bbl FW,full returns,200# final press,Bump Plug 1000#,Held. 22 Bbl Cmt to

Intermediate: TD 8-3/4" @ 5755' RUN 131 JTS 7", 23# J-55, LT&C 8rd, CASING. LAND @ 5747' MD, (5391' TVD), FC @ 5697' MD. Press Test 5000#, 7000# N-2, 10 Bbl FW spacer, 40 Bbl Chem wash, 10 Bbl FW, Lead 595 sx 50/50 POZ+0.2%Versaset+0.15%Halad 766+1.5%Chem Foamer 760+6.8wgps ( 152.5 Bbl, 857cuft ) ( 13ppg, 1.44 Yield ) Tail 100sx 50/50 P +0.2%Versaset+0.15% Halad 766+5.7wgps ( 23Bbl, 29.7cuft ) ( 13.5ppg, 1.29 Yield ) Drop Plug & Displace W/ 225 Bbl OBM, full returns thru job, final press 848# ( slow rate to 2 BPM last 30 Bbl ) Bump Plug 1600#, check float, held. 72 Bbl cmt to pit, Plug Dn @ 20:31, 7/31 /13. Cap 100sx Class G+2%CaCl+5gwps ( 20.8 Bbl, 118cuft ) ( 15.8ppg, 1.18 Yield ) Pump 10 Bbl

Prod Liner: TD 6-1/8" LATERAL @ 10093' MD, 5317' TVD, 0330 HRS RUN 267 JTS 4-1/2" 11.6#, N-80, 8RD LT&C CASING. SET @ 10091' MD (5317' TVD), MARKER JTS @ 4863', 6593' AND 8324' MD. FC SET @ 10051' CMT AS FOLLOWS. TEST LINES @ 5000# H2O & 7000# N2 [ GOOD TEST ] 50 bbl 2% kcl, 10 bbl fw, 40 bbl tuned spacer [ yld=3.4 wt=11.ppg ] Cap cmt 70 sks, 81 cu ft, 14.5 bbl @ [ yld=1.16 wt=15.8 ppg ] premium cmt 0.1% halad-766. Lead foamed cmt 270 sks, 386 cu ft, 68.8 bbls @ [ wt=13ppg yld=1.43 ] 50/50 poz standard, 0.2% veraset, 0.2% halad-766, 1.5% chem- foamer 760, Tail cmt 100 sks, 50/50 poz premium, 0.2% veraset, 0.05% halad-766, 0.05% sa-1015, 130 cu ft, 23.2 bbls @ [ wt=13ppg yld=1.3 ] drop top plug & displace csg w/ 156 bbls 2% kcl, late pressure 824#, bump plug to 1500# floats held ok. good circ throughout job plug down @ 23:30 hrs 8/6/2013. [ EST TOC @ 4070' TMD ]