

PLUG AND ABANDONMENT PROCEDURE

March 4, 2013

Jicarilla 30-03-34 #4

Cabresto Canyon; Tertiary

2066' FSL, 2018' FEL, Section 34, T30N, R3W, Rio Arriba County, NM

API 30-039-26733 / Long: _____ / Lat: _____

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 will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

1. This project requires a NMOCD C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
3. Rods: Yes _____, No X, Unknown _____.
Tubing: Yes X, No _____, Unknown _____, Size 2-3/8", Length 3304'.
Packer: Yes _____, No X, Unknown _____, Type _____.
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.

Plug #1 (Pictured Cliffs, Fruitland, Kirtland and Ojo Alamo tops, 3770' – 3223'): RIH with open ended tubing to 3770' or as deep as possible. Mix 74 sxs Class B cement (100' excess due to top of OA plug in lower Nacimiento perforations) and spot a plug to isolated the PC, Fruitland, Kirtland and Ojo Alamo tops. PUH and WOC. TIH and tag TOC at 3223' or higher. If tag is low spot additional cement as required. TOH.

4. **Plug #2 (Nacimiento perforations and top, 2597' – 2024'):** Round trip 4.5" gauge ring to 2597' or as deep as possible. TIH and set 4.5" CR at 2597'. Pressure test tubing to 1000#. Attempt to pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as appropriate. Mix 71 sxs Class B cement and spot a balanced plug inside casing above CR to isolate Nacimiento perforations and top. PUH.
5. **Plug #3 (8-5/8" Surface casing shoe, 307' - Surface):** Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 40 sxs cement and spot a balanced plug from 307' to surface, circulate good cement out casing valve. TOH and LD tubing. Shut well in and WOC. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 307' and the annulus from the squeeze holes to surface. Shut in well and WOC.
6. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location per BLM stipulations.

Jicarilla 30-03-34 #4

Current

Cabresto Canyon; Tertiary

2066' FSL & 2018' FEL, Section 34, T-30-N, R-3-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-26733

Today's Date: 3/4/13
Spud: 5/07/01
Comp: 7/12/01
Elevation: 7259' GI,
7271' KB

12-1/4" Hole

TOC @ Surface, circulated
per sundry report.

8-5/8" 24#, Casing set @ 257'
Cement with 150 sxs, circulated 10 bbls to
surface

Nacimiento @ 2074'

2-3/8" tubing at 3304'
(102 jts, with SN and 4' perf sub
with rods and pump)

Nacimiento Perforations:
2647' - 2667'

Lower Nacimiento Perforations:
3168' - 3234'

Ojo Alamo @ 3273'

Kirtland @ 3472'

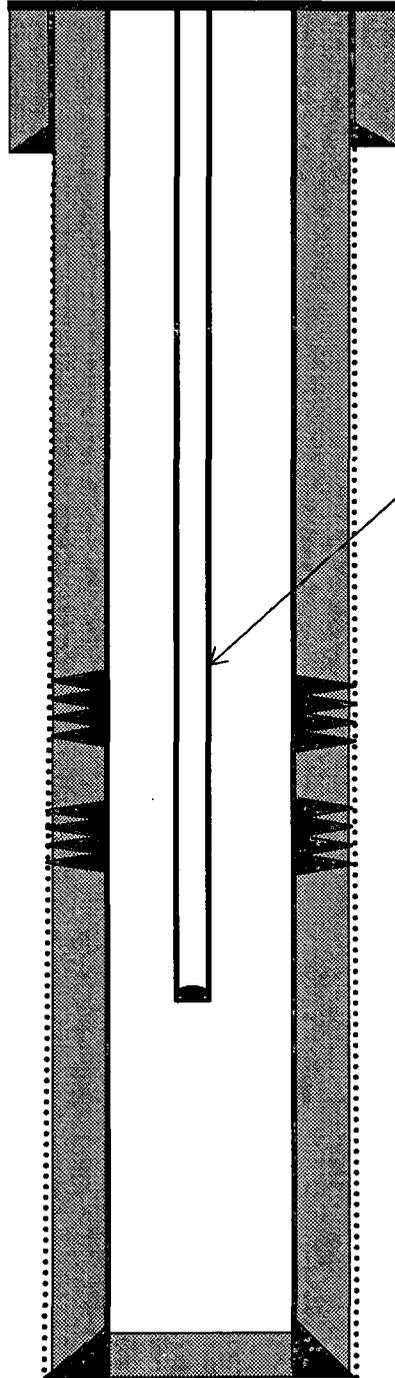
Fruitland @ 3625'

Pictured Cliffs @ 3720'

7-7/8" Hole

5.5" 15.5#, Casing @ 3978'
Cement with 950 sxs
TOC @ surface, circulated 45 bbls per
sundry

3978' TD
3937' PBSD



Jicarilla 30-03-34 #4

Proposed P&A

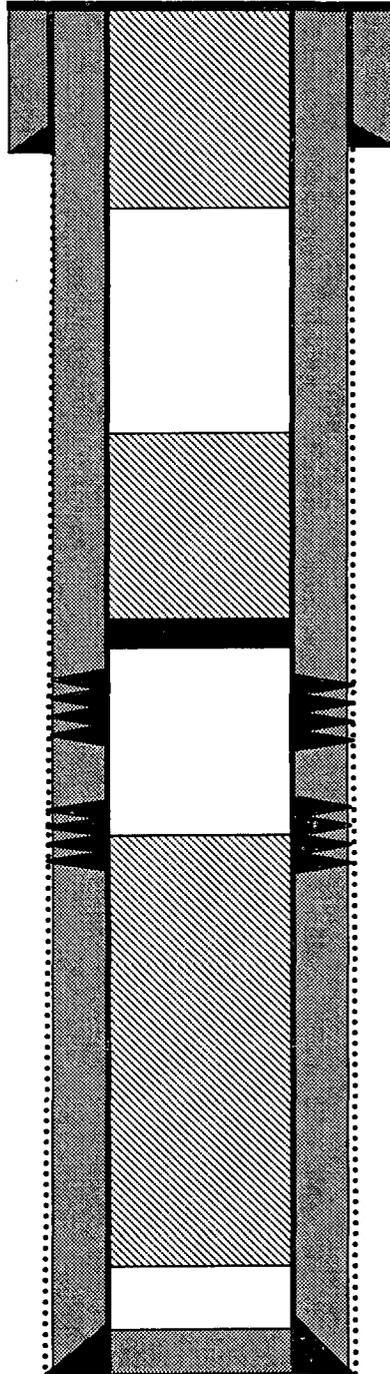
Cabresto Canyon; Tertiary

2066' FSL & 2018' FEL, Section 34, T-30-N, R-3-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-26733

Today's Date: 3/4/13
Spud: 5/07/01
Comp: 7/12/01
Elevation: 7259' GI
7271' KB

12-1/4" Hole



TOC @ Surface, circulated per sundry report.

8-5/8" 24#, Casing set @ 257' Cement with 150 sxs, circulated 10 bbls to surface

Plug #3: 307' - 0'
Class B cement, 40 sxs

Nacimiento @ 2074'

Plug #2: 2597' - 2024'
Class B cement, 71 sxs

Set CR @ 2597'

Nacimiento Perforations:
2647' - 2667'

Lower Nacimiento Perforations:
3168' - 3234'

Ojo Alamo @ 3273'

Plug #1: 3770' - 3223'
Class B cement, 74 sxs

Kirtland @ 3472'

Fruitland @ 3625'

Pictured Cliffs @ 3720'

7-7/8" Hole

5.5" 15.5#, Casing @ 3978'
Cement with 950 sxs
TOC @ surface, circulated 45 bbls per sundry

3978' TD
3937' PBD

The Jicarilla Apache Nation requires 45 days to evaluate this well beginning from February 22, 2013 in order to determine if they would like to assume ownership of the well. If the Jicarilla Apache Nation has not contacted your office before the end of the 45 days you may proceed with plugging operations.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: 4 Jicarilla 30-03-34

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The following modifications to your plugging program are to be made:
 - a) You are required to have H2S monitoring equipment and personnel on location during plugging operations.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.