TITLE

DATE

APPROVED BY:

### Cano Petro Inc./NMOCD OWP

## Plug And Abandonment End Of Well Report

### Cato San Andres Unit #002

2230' FNL & 1980' FEL, Section 3, T8S, R30E Chaves County, NM / API 30-005-20932

### **Work Summary:**

- 1/4/22 Made NMOCD P&A operations notifications at 9:00 AM MST.
- MOL and R/U P&A rig. Prepped location with backhoe. Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 240 psi. Bled down well. Removed horse's head in preparation to pull rods. Worked stuck sucker rod pump free. L/D polish rod, 1 8' 34" pony rod, 121- 34" sucker rods, 12 7/8" guided sucker rods, and sucker rod pump. Secured and shut-in well for the day.
- Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Bled down well. N/D wellhead, N/U BOP and function tested. Worked stuck tubing. Continued to work stuck tubing but could not get it to break loose. N/D BOP, N/U wellhead. R/D and move to Cato San Andres Unit #001.
- 1/12/22 MOL and R/U P&A rig. Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Bled down well. N/D wellhead, N/U BOP and function tested. Worked stuck tubing but could not get tubing to break free. R/U wireline services. RIH and jet cut tubing at 3,248'. Continued to work stuck tubing but still could not work it free. Pumped fresh water down tubing to attempt to circulate wellbore but could not establish circulation. The tubing has approximately 5' of travel up-ward. According to pipe stretch calculations the tubing would be stuck below TD of well. Secured and shut-in well for the day.

- 1/13/22
- Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Bled down well. Worked stuck tubing but had no luck working it free. Attempted to circulate down tubing with 20 bbls of fresh water but could not establish circulation. R/U wireline services. RIH and jet-cut tubing at 2,000'. L/D 63 joints of 2-3/8" tubing and a 15' joint of tubing. P/U casing scraper and work string and round tripped to 2,000'. P/U CR, TIH and set at 1,990'. R/U cementing services. Pumped plug #1 below CR at 1,990'. Squeezed 104 sx of cement below CR before wellbore locked up to account for wellbore capacity from 3,288'-1,990' cover the San Andres perforations and formation top. Stung out of CR and spotted 4 sx of cement on top of CR at 1,990'. TOOH with tubing. R/U wireline services. Ran CBL from 1,900' to surface. CBL results were sent to NMOCD office for review. Secured and shut-in well for the day.
- 1/14/22
- Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Bled down well. TIH and tagged plug #1 top at 1,927'. Pressure tested production casing to 500 psi in which it successfully held pressure. Pumped 9.5 ppg mud spacer from 1,927'-1,595'. TOOH with tubing. R/U wireline services. RIH and perforated squeeze holes at 1,595'. Successfully established injection rate into perforations at 1,595'. P/U CR, TIH and set at 1,198'. R/U cementing services. Pumped plug #2 from 1,595'-1,198' to cover the Yates formation top. R/U wireline services. RIH and perforated squeeze holes at 1,112'. Successfully established circulation down production casing through perforations at 1,112' and back around and out Bradenhead valve at surface. Secured and shut-in well for the day.
- 1/18/22
- Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Bled down well. R/U cementing services. Successfully established circulation down production casing through perforations at 1,112' and back around and out Bradenhead valve at surface. Successfully circulated cement down production casing through perforations at 1,112' and back around and out Bradenhead valve at surface. N/D BOP, N/U wellhead. R/D P&A rig. Secured and shut-in well for the day.
- 1/19/22
- Checked well pressures: Tubing: 0 psi, Casing: 0 psi, Bradenhead: 0 psi. Bled down well. Dug out wellhead with backhoe. Performed wellhead cut-off. Cement was at surface in 8-5/8" surface casing annulus. Ran weighted tally tape down 4 ½" production casing and tagged cement 18' down. Ran ¾" poly pipe down 4 ½" production casing and topped-off well with 2 sx of cement. Installed subsurface P&A marker per NMOCD regulations. Photographed the P&A marker in place and recorded its location via GPS coordinates. Back filled P&A marker. R/D and MOL.

### **Plug Summary:**

# Plug #1:(San Andres Perforations and Formation Top 3,288'-1,927', 108 Sacks Type III Cement(Squeezed 104 sx))

P/U CR, TIH and set at 1,990'. R/U cementing services. Pumped plug #1 below CR at 1,990'. Squeezed 104 sx of cement below CR before wellbore locked up to account for wellbore capacity from 3,288'-1,990' cover the San Andres perforations and formation top. Stung out of CR and spotted 4 sx of cement on top of CR at 1,990'. TIH and tagged plug #1 top at 1,927'.

## Plug #2:(Yates and Rustler Formation Tops 1,595'-1,198', 150 Sacks Type III Cement(Squeezed 125 sx)

RIH and perforated squeeze holes at 1,595'. Successfully established injection rate into perforations at 1,595'. P/U CR, TIH and set at 1,198'. R/U cementing services. Pumped plug #2 from 1,595'-1,198' to cover the Yates formation top.

# Plug #3: (Rustler Formation Top and Surface Casing Shoe 1,112'-Surface, 384 Sacks Type III Cement(2 sx for Top-Off))

RIH and perforated squeeze holes at 1,112'. Successfully established circulation down production casing through perforations at 1,112' and back around and out Bradenhead valve at surface. Successfully circulated cement down production casing through perforations at 1,112' and back around and out Bradenhead valve at surface. N/D BOP, N/U wellhead. Dug out wellhead with backhoe. Performed wellhead cut-off. Cement was at surface in 8-5/8" surface casing annulus. Ran weighted tally tape down 4 ½" production casing and tagged cement 18' down. Ran ¾" poly pipe down 4 ½" production casing and topped-off well with 2 sx of cement. Installed subsurface P&A marker per NMOCD regulations. Photographed the P&A marker in place and recorded its location via GPS coordinates. Back filled P&A marker. R/D and MOL.

## **Wellbore Diagram**

Cato San Andres Unit #002 API #: 30-005-20932 Chaves County, New Mexico

### Plug 3

1112 feet - Surface 1112 feet plug 384 sacks of Type III 2 sacks for top-off

### Plug 2

1595 feet - 1198 feet 397 feet plug 150 sacks of Type III 125 sacks squeezed

### Plug 1

3288 feet - 1927 feet 1361 feet plug 108 sacks of Type III 104 sacks squeezed

### **Perforations**

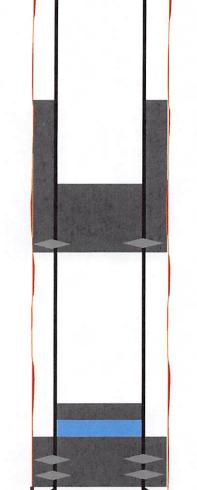
3288 ft - 3364 ft 3372 ft - 3394 ft

### Surface Casing

8.625" 24# @ 1062 ft

Formation Anhy - 1010 ft Yates - 1550 ft

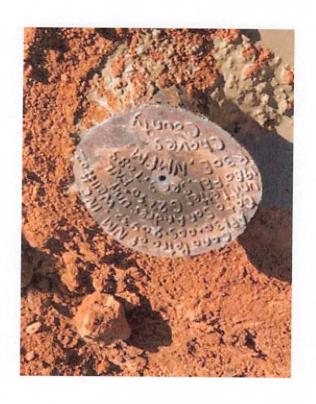
Yates - 1550 ft San Andres - 2985 ft

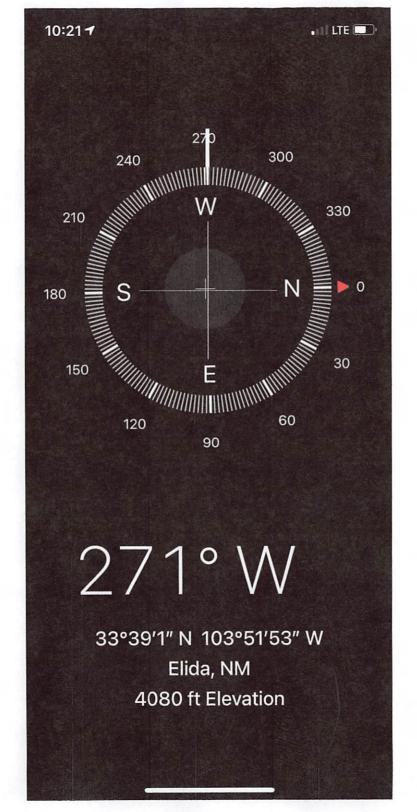


Retainer @ 1990 ft

Production Casing 4.5" 10.5# @ 3445 ft







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CONDITIONS

Action 383884

### **CONDITIONS**

Operator:	OGRID:
CANO PETRO OF NEW MEXICO, INC.	248802
801 Cherry Street Fort Worth, TX 76102	Action Number: 383884
	Action Type: [C-103] Sub. Plugging (C-103P)

#### CONDITIONS

Created By		Condition Date
samuel.romero	Operator must submit a C-103Q within one year from plugging date in order for OCD to perform a site inspection.	10/2/2024