

Submit 1 Copy To Appropriate District Office  
 District I – (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
 District II – (575) 748-1283  
 811 S. First St., Artesia, NM 88210  
 District III – (505) 334-6178  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV – (505) 476-3460  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 Revised July 18, 2013

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-005-20161
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Cano Petro of New Mexico, Inc.		6. State Oil & Gas Lease No.
3. Address of Operator 801 Cherry Street Suite 3200 Unit 25 Fort Worth, TX 76102		7. Lease Name or Unit Agreement Name Cato San Andres Unit
4. Well Location Unit Letter <u>M</u> <u>660</u> feet from the <u>S</u> line and <u>660</u> feet from the <u>W</u> line Section <u>4</u> Township <u>08S</u> Range <u>30E</u> NMPM County <u>Chaves</u>		8. Well Number <u>010</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4049		9. OGRID Number 330485
		10. Pool name or Wildcat Cato; San Andres

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

**NOTICE OF INTENTION TO:**

PERFORM REMEDIAL WORK ☐ **PLUG AND ABANDON** ☒  
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
 DOWNHOLE COMMINGLE ☐  
 CLOSED-LOOP SYSTEM ☐  
 OTHER: ☐

**SUBSEQUENT REPORT OF:**

REMEDIAL WORK ☐ ALTERING CASING ☐  
 COMMENCE DRILLING OPNS. ☐ P AND A ☐  
 CASING/CEMENT JOB ☐  
 OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

NMOCD plans to plug this well in accordance with the attached procedure and any agreed modifications thereto.

ESTIMATED START DATE 9/1/21

**LPC Area Below ground marker send pics before backfilling hole**

**SEE ATTACHED CONDITIONS OF APPROVAL**

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Drake McCulloch

TITLE Authorized Representative

DATE 8/2/21

Type or print name Drake McCulloch

E-mail address: drake@dwsrigs.com

PHONE: 505 320 1180

**For State Use Only**

APPROVED BY: Kerry Fortner

TITLE Compliance Officer A

DATE 11/30/21

Conditions of Approval (if any):

## **Cano Petro/NMOCD OWP**

### **Plug And Abandonment Procedure**

#### **Cato San Andres Unit #010**

660' FSL & 660' FWL, Section 4, T8S, R30E

Chaves County, NM / API 30-005-20161

1. Hold pre-job safety meeting. Comply with all NMOCD, BLM safety and environmental regulations. Test rig anchors prior to moving in rig if not rigged to base beam.
2. Check casing, tubing, and Bradenhead pressures.
3. Remove existing piping on casing valve. RU blow lines from casing valves and begin blowing down casing pressure. Kill well as necessary. Ensure well is dead or on a vacuum.
4. ND wellhead and NU BOP. Function test BOP.
5. Un-set packer at 3,387'. TOOH with 2-3/8" tubing.
6. P/U 4-1/2" bit or casing scraper on 2-3/8" work string and round trip as deep as possible above top perforation at 3,100'.
7. P/U 4-1/2" CR, TIH and set CR at +/- 3,050'. Pressure test tubing to 1000 psi. Sting out of CR. Load hole, and pressure test casing to 800 psi. If casing does not test, then spot or tag subsequent plugs as appropriate. POOH w/ tubing.

8. RU wireline and run CBL with 500 psi on casing from CR at 3,050' to surface to identify TOC. Adjust plugs as necessary for new TOC. Email log copy to Brandon Powell at [Brandon.powell@state.nm.us](mailto:Brandon.powell@state.nm.us) upon completions of logging operations.
9. Rig up to pump cement down tubing. Pump water to establish rate down tubing.
10. Circulate wellbore with 9.5 ppg salt gel.

**NOTE: All Plugs Include 100% excess outside casing and 50% Excess inside casing**

11. Plug 1 (**San Andres Perforations and Formation Top 3,050'-2,730', 25 Sacks Class C Cement**)

Mix 25 sx Class C cement and spot a balanced plug inside casing to cover the San Andres perforations and formation top.

12. Plug 2 (**Yates and Rustler Formation Tops 1,595'-972', 150 Sacks Class C Cement(Squeeze 100 sx)**)

RIH and perforate squeeze holes at 1595'. Establish injection rate into perforations at 1595'. Mix 150 sx Class C cement. Squeeze 100 sx outside casing leaving 50 sx inside casing to cover the Yates and Rustler formation tops.

13. Plug 3 (**Surface Casing Shoe 367'-Surface, 115 Sacks Class C Cement**)

Attempt to pressure test the bradenhead annulus to 300 psi; note the volume to load. If BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 115 sx cement and spot a balanced plug from 367' to surface, circulate good cement out of casing valve. TOH and LD tubing. Shut well in and WOC. If BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 367' and the annulus from the squeeze holes to surface. Shut in well and WOC.



14. ND cementing valves and cut off wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and restore location per BLM stipulations.

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## Wellbore Diagram

Cato San Andres Unit #010

API #: 30-005-20161

Chaves County, New Mexico

### Plug 3

367 feet - Surface  
367 feet plug  
115 sacks of Class C Cement

### Plug 2

1595 feet - 972 feet  
623 feet plug  
150 sacks of Class C Cement  
100 sacks squeezed

### Plug 1

3050 feet - 2730 feet  
320 feet plug  
25 sacks of Class C Cement

### Perforations

3100 ft - 3140 ft  
3172 ft - 3200 ft  
3255 ft - 3273 ft  
3278 ft - 3280 ft  
3283 ft - 3289 ft

### Surface Casing

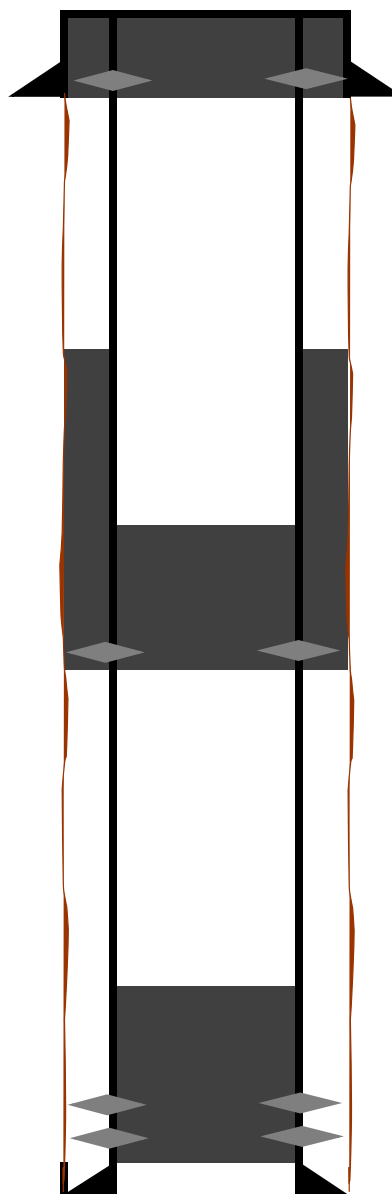
8.625" 24# @ 317 ft

### Formation

Anhy - 1100 ft  
Yates - 1510 ft  
San Andres - 2630 ft

### Production Casing

4.5" 9.5# @ 3387 ft



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Cato San Andres Unit #010

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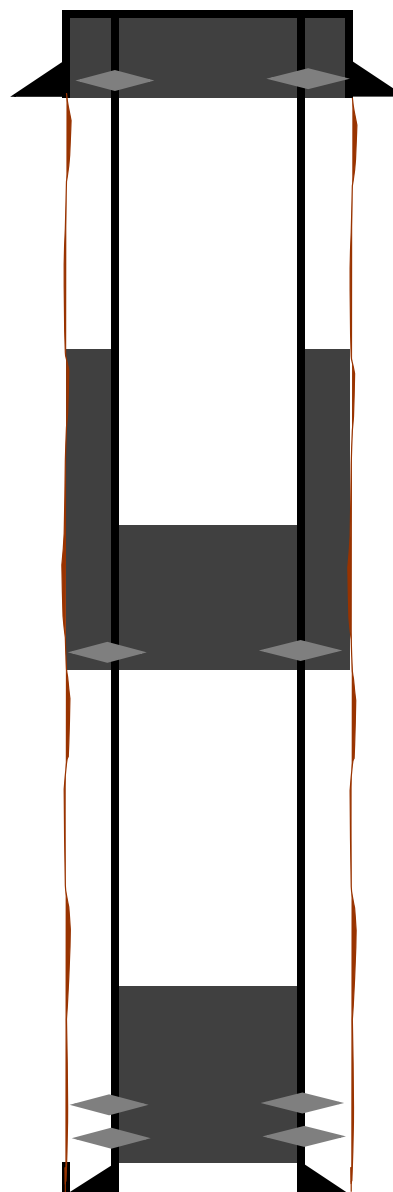
Anhy - 1100 ft

Yates - 1510 ft

San Andres - 2630 ft

### Production Casing

4.5" 9.5# @ 3387 ft



**CONDITIONS OF APPROVAL  
FOR PLUGGING AND ABANDONMENT  
OCD - Southern District**

The following is a guide or checklist in preparation of a plugging program, this is not all inclusive and care must be exercised in establishing special plugging programs in unique and unusual cases, Notify NMOCD District Office I (Hobbs) at **(575)-263-6633** at least 24 hours before beginning work. After MIRU rig will remain on well until it is plugged to surface. OCD is to be notified before rig down.

**Company representative will be on location during plugging procedures.**

1. A notice of intent to plug and abandon a wellbore is required to be approved before plugging operations are conducted. A cement evaluation tool is required in order to ensure isolation of producing formations, protection of water and correlative rights. A cement bond log or other accepted cement evaluation tool is to be provided to the division for evaluation if one has not been previously run or if the well did not have cement circulated to surface during the original casing cementing job or subsequent cementing jobs. Insure all bradenheads have been exposed, identified and valves are operational prior to rig up.
2. Closed loop system is to be used for entire plugging operation. Upon completion, contents of steel pits are to be hauled to a permitted disposal location.
3. Trucking companies being used to haul oilfield waste fluids to a disposal - commercial or private- shall have an approved NMOCD C-133 permit. A copy of this permit shall be available in each truck used to haul waste products. It is the responsibility of the operator as well as the contractor, to verify that this permit is in place prior to performing work. Drivers shall be able to produce a copy upon request of an NMOCD Field inspector.
4. Filing a subsequent C-103 will serve as notification that the well has been plugged.
5. A final C-103 shall be filed (and a site inspection by NMOCD Inspector to determine if the location is satisfactorily cleaned, all equipment, electric poles and trash has been removed to Meet NMOCD standards) before bonding can be released.
6. If work has not begun within 1 Year of the approval of this procedure, an extension request must be file stating the reason the well has not been plugged.
7. Squeeze pressures are not to exceed 500 psi, unless approval is given by NMOCD.
8. Produced water will not be used during any part of the plugging operation.
9. Mud laden fluids must be placed between all cement plugs mixed at 25 sacks per 100 bbls of water.
10. All cement plugs will be a minimum of 100' in length or a minimum of 25 sacks of cement, whichever is greater. 50' of calculated cement excess required for inside casing plugs and 100% calculated cement excess required on outside casing plugs.
11. Class 'C' cement will be used above 7500 feet.
12. Class 'H' cement will be used below 7500 feet.
13. A cement plug is required to be set 50' above and 50' below, casing stubs, DV tools, attempted casing cut offs, cement tops outside casing, salt sections and anywhere the casing is perforated, these plugs require a 4 hour WOC and then will be tagged
14. All Casing Shoes Will Be Perforated 50' below shoe depth and Attempted to be Squeezed, cement needs to be 50' above and 50' Below Casing Shoe inside the Production Casing.
16. When setting the top out cement plug in production, intermediate and surface casing, wellbores should remain full at least 30 minutes after plugs are set
17. A CIBP is to be set within 100' of production perforations, capped with 100' of cement, WOC 4 hours and tag.
18. A CIBP with 35' of cement may be used in lieu of the 100' plug if set with a bailer. This plug will be placed within 100' of the top perforation, (WOC 4 hrs and tag).

19. No more than 3000' is allowed between cement plugs in cased hole and 2000' in open hole.
20. Some of the Formations to be isolated with cement plugs are: These plugs to be set to isolate formation tops
- A) Fusselman
  - B) Devonian
  - C) Morrow
  - D) Wolfcamp
  - E) Bone Springs
  - F) Delaware
  - G) Any salt sections
  - H) Abo
  - I) Glorieta
  - J) Yates.
  - K) Potash---(In the R-111-P Area (Potash Mine Area),  
A solid cement plug must be set across the salt section. Fluid used to mix the cement shall be saturated with the salts that are common to the section penetrated and in suitable proportions, not more than 3% calcium chloride (by weight of cement) will be considered the desired mixture whenever possible, WOC 4 hours and tag, this plug will be 50' below the bottom and 50' above the top of the Formation.
21. If cement does not exist behind casing strings at recommended formation depths, the casing can be cut and pulled with plugs set at recommended depths. If casing is not pulled, perforations will be shot and cement squeezed behind casing, WOC and tagged. These plugs will be set 50' below formation bottom to 50' above formation top inside the casing.

### **DRY HOLE MARKER REQUIREMENTS**

The operator shall mark the exact location of the plugged and abandoned well with a steel marker not less than four inches in diameter, 3' below ground level with a plate of at least ¼" welded to the top of the casing and the dry hole marker welded on the plate with the following information welded on the dry hole marker:

1. Operator name
2. Lease and Well Number
3. API Number
4. Unit letter
5. Quarter Section (feet from the North, South, East or West)
6. Section, Township and Range
7. Plugging Date
8. County

### **SPECIAL CASES -----AGRICULTURE OR PRARIE CHICKEN BREEDING AREAS**

In these areas, a below ground marker is required with all pertinent information mentioned above on a plate, set 3' below ground level, a picture of the plate will be supplied to NMOCD for record, the exact location of the marker (longitude and latitude by GPS) will be provided to NMOCD (We typically require a current survey to verify the GPS)

### **SITE REMEDIATION DUE WITHIN ONE YEAR OF WELL PLUGGING COMPLETION**



## **Cano Petro/NMOCD OWP**

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6. P/U 4-1/2" bit or casing scraper on 2-3/8" work string and round trip as deep as possible above top perforation at 3,100'.
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12. **Plug 2 (Yates and Rustler Formation Tops 1,595'-972', 150 Sacks Class C Cement(Squeeze 100 sx))**

RIH and perforate squeeze holes at 1595'. Establish injection rate into perforations at 1595'. Mix 150 sx Class C cement. Squeeze 100 sx outside casing leaving 50 sx inside casing to cover the Yates and Rustler formation tops.

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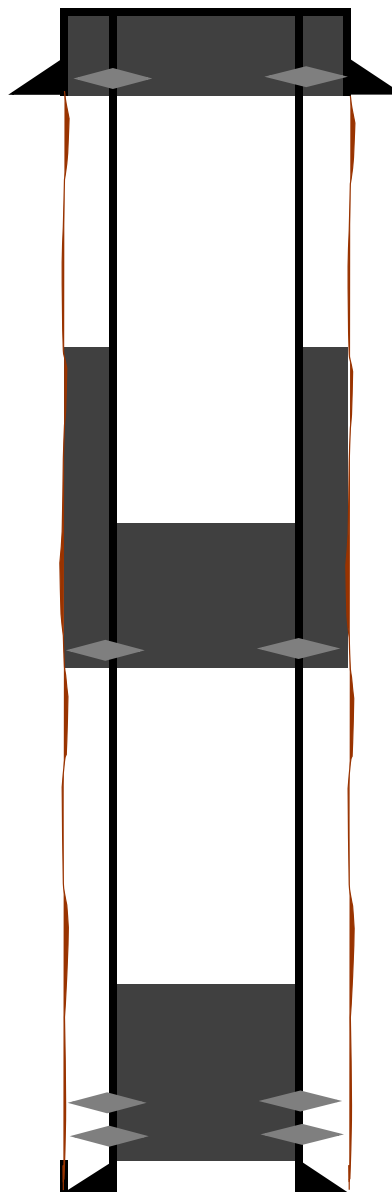
8.625" 24# @ 317 ft

### Formation

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### Production Casing

4.5" 9.5# @ 3387 ft



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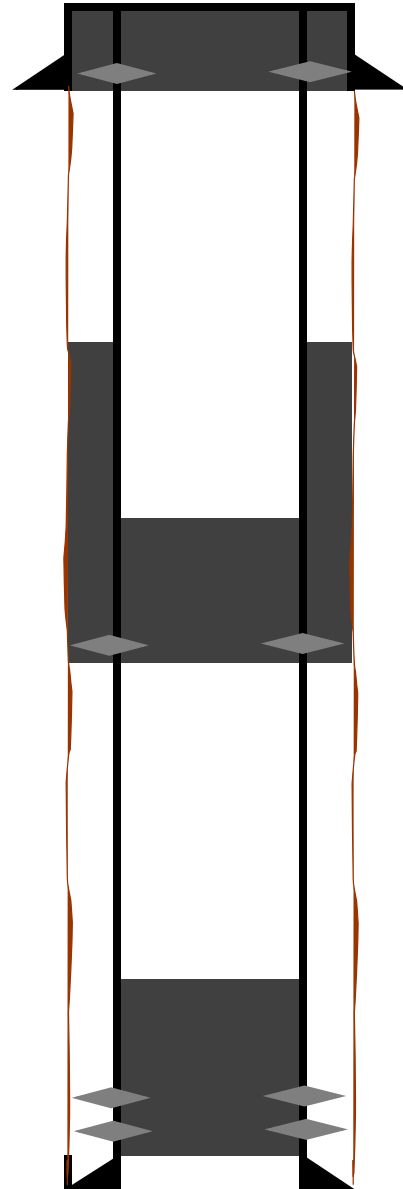
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### Production Casing

4.5" 9.5# @ 3387 ft





**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
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**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 41480

**CONDITIONS**

Operator: J.A. Drake Well Service Inc. 607 W Pinon Farmington, NM 87401	OGRID: 330485
	Action Number: 41480
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

**CONDITIONS**

Created By	Condition	Condition Date
kfortner	See attached conditions of approval	11/30/2021