

State of New Mexico  
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham  
Governor

Sarah Cottrell Propst  
Cabinet Secretary

Todd E. Leahy, JD, PhD  
Deputy Secretary

Adrienne Sandoval, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 8/14/2019

Well information:

**30-039-21432 AXI APACHE O #013**

**HILCORP ENERGY COMPANY**

Application Type:

☒ P&A   ☐ Drilling/Casing Change   ☐ Location Change

☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

☐ Other:

Conditions of Approval:

- Notify NMOCD 24hrs prior to beginning operations.
- Extend Plug #1: 3,734'-3,145'. OCD Ojo Alamo top: 3,195'
- Extend Plug #2: 1,850'-1,460'. OCD Nacimiento top: 1,510'.

NMOCD Approved by Signature

9/25/19

Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. JIC122
2. Name of Operator HILCORP ENERGY COMPANY		6. If Indian, Allottee or Tribe Name JICARILLA APACHE
3a. Address 382 ROAD 3100 AZTEC, NM 87410		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 505-324-5161		8. Well Name and No. AXI APACHE O 13
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 4 T25N R4W NESE 1535FSL 805FEL 36.425528 N Lat, 107.251172 W Lon		9. API Well No. 30-039-21432-00-S1
		10. Field and Pool or Exploratory Area SOUTH BLANCO
		11. County or Parish, State RIO ARRIBA COUNTY, NM

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Hilcorp Energy Company requests permission to temporarily abandon the PC wellbore for future potential. If the wellbore MIT does not pass, then Hilcorp Energy Company requests approval to plug and abandon the wellbore. Attached is current wellbore schematic, proposed TA and P&A schematic with procedure and reclamation plan. Pre-onsite inspection conducted 8/14/19.

Notify NMOCD 24 hrs  
prior to beginning  
operations

NMOCD

SEP 14 2019

DISTRICT III

14. I hereby certify that the foregoing is true and correct. Electronic Submission #478154 verified by the BLM Well Information System For HILCORP ENERGY COMPANY, sent to the Rio Puerco Committed to AFMSS for processing by ALBERTA WETHINGTON on 08/19/2019 (19AMW0039SE)	
Name (Printed/Typed) ETTA TRUJILLO	Title OPERATIONS REGULATORY TECH SR
Signature (Electronic Submission)	Date 08/14/2019

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS	Title PETROLEUM ENGINEER	Date 09/10/2019
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Rio Puerco

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

A



HILCORP ENERGY COMPANY  
AXI APACHE O 13  
TA or P&A NOI

JOB PROCEDURES

1. Hold pre-job safety meeting. Verify cathodic is off. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.
2. Check casing, tubing, and bradenhead pressures and record them in WellView. If there is pressure on the BH, contact Operations Engineer.
3. MIRU service rig and associated equipment; NU and test BOP.
4. TOOH w/ tubing set @ **3,772'**.
5. RU W/L. RIH and set **2-7/8"** CIBP @ **3,734'** to isolate Pictured Cliffs Perforations.
6. Perform Mechanical Integrity Test (MIT) by pressure testing the **2-7/8"** casing above the plug set @ **3,734'** to **560 psig** for 30 minutes on a 2 hour chart with a 1,000 lb spring.
7. IF the MIT Passes, shut in well, and RDMO workover rig. **IF MIT fails, proceed to P&A procedure starting with Step #8.**
8. All cement volumes use **100% excess for a casing-open hole annulus and a minimum of 50' excess for inside casing or a casing-casing annulus**. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class G.
9. Load the **2-7/8"** casing w/ 2% KCL to surface. RU WL and **run CBL** from plug set @ **3,734'** to surface. Adjust plugs as necessary for new TOC. Email log copy to BLM and NMOCD. The following P&A procedure assumes **TOC @ 2,750'** (in 2-7/8" x Open Hole Annulus). Plug setting depths are subject to change depending on the results of the CBL.
10. TIH w/ tubing/work string to **+/- 3,734'**.
11. **Plug #1: PICTURED CLIFFS PERFORATIONS, PRODUCTION CASING SHOE, FRUITLAND, KIRTLAND, AND OJO ALAMO FORMATION TOPS (3,220' - 3,734', 20 Sacks of Class G Cement Total):**  
Pump a balanced cement plug leaving **+/- 514'** of cement within the **2-7/8"** casing (20 sacks (**200' excess**) of Class G cement with an estimated **TOC @ +/- 3,220'** and an estimated **BOC @ +/- 3,734'**)
12. TOOH w/ tubing/work string. RU WL and perforate squeeze holes @ **+/- 1,850'**. Establish injection rate into squeeze holes. RIH w/ **2-7/8" CICR** and set CICR @ **+/- 1,800'**.
13. **Plug #2: NACIMIENTO FORMATION TOP (1,750' - 1,850', 55 Sacks of Class G Cement Total):**  
Pump a cement squeeze leaving **+/- 100'** of cement within the **2-7/8" x Open Hole** annulus (50 sacks (100% excess) of Class G cement with an estimated **TOC @ +/- 1,750'** and an estimated **BOC @ +/- 1,850'**), pump a **+/- 50'** cement plug beneath the **2-7/8" CICR** (2 sacks of Class G cement with an estimated **TOC @ +/- 1,800'** and an estimated **BOC @ +/- 1,850'**). Sting out of retainer, pump **+/- 50'** balanced cement plug (3 sacks (50' excess) of Class G cement with an estimated **TOC @ +/- 1,750'** and an estimated **BOC @ +/- 1,800'**).
14. TOOH w/ tubing/work string. RU WL and perforate squeeze holes @ **+/- 556'**. TOOH and RD WL. Establish circulation out BH w/ water. Circulate BH clean.
15. **Plug #3: SURFACE PLUG (0' - 556'), 178 Sacks of Class G Cement Total):**  
Pump a cement squeeze leaving **+/- 50'** of cement within the **2-7/8" x Open Hole** annulus and **+/- 506'** of cement within the **2-7/8" x 8-5/8"** casing-casing annulus (13 sacks (100% excess) of Class G cement within the 2-7/8" x Open Hole annulus and 148 sacks (50' excess) of Class G cement within the 2-7/8" x 8-5/8" casing-casing annulus with an estimated **TOC @ +/- 0'** and an estimated **BOC @ +/- 556'**), **circulate til cement returns out BH valve**, pump a **+/- 556'** cement plug in the **2-7/8" casing** (17 sacks (50' excess) of Class G cement with an estimated **TOC @ +/- 0'** and an estimated **BOC @ +/- 556'**).
16. ND BOP, cut off casing below casing flange. Top off cement in surface casing annulus, if needed. Install a P&A marker with cement to comply with regulations. Rig down, move off location, cut off anchors, and restore location.



**HILCORP ENERGY COMPANY**  
**AXI APACHE O 13**  
 TA or P&A NOI

**AXI APACHE O 13 - CURRENT WELLBORE SCHEMATIC**

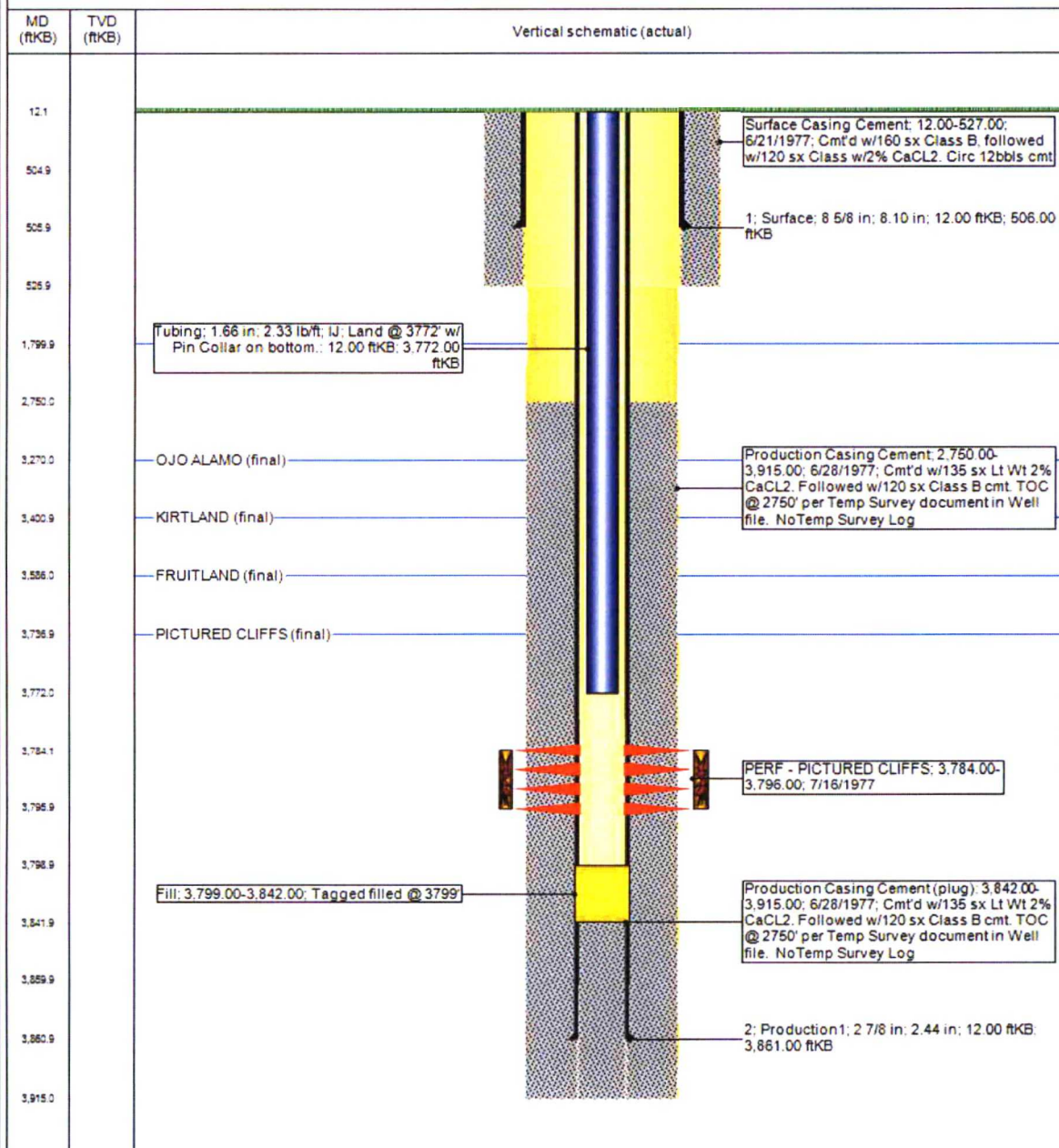


**Current Schematic - Version 3**

**Well Name: AXI APACHE O #13**

API Well: 3003921432	Surface Legal Location: 004-025N-004W-I	Field Name: PC	Route: 1415	State/Province: NEW MEXICO	Well Configuration Type: Vertical
Ground Elevation (ft): 7,273.00	Original KB RT Elevation (ft): 7,285.00	KB-Ground Distance (ft): 12.00	KB-Casing Flange Distance (ft):	KB-Tubing Hanger Distance (ft):	

Vertical, Original Hole, 8/2/2019 6:19:21 AM





HILCORP ENERGY COMPANY  
AXI APACHE O 13  
TA or P&A NOI

AXI APACHE O 13 - PROPOSED TA WELLBORE SCHEMATIC

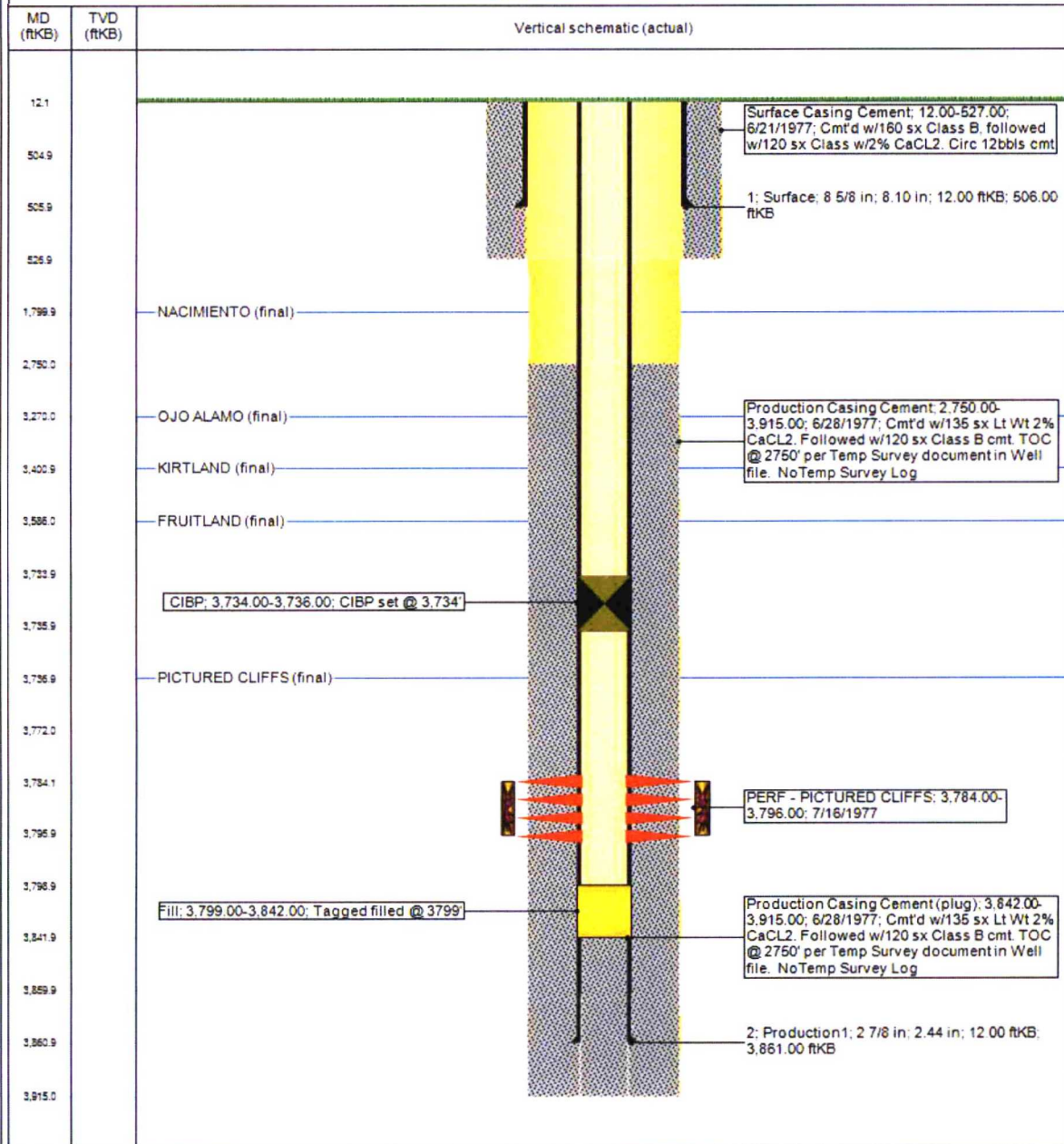


Current Schematic - Version 3

Well Name: AXI APACHE O #13

API / UWI 3003921432	Surface Legal Location 004-025N-004W-1	Field Name PC	Route 1415	State/Province NEW MEXICO	Well Configuration Type Vertical
Ground Elevation (ft) 7,273.00	Original KB RT Elevation (ft) 7,285.00	KB-Ground Distance (ft) 12.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	

Vertical, Original Hole, 10/2/2019



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Report Printed: 8/2/2019



HILCORP ENERGY COMPANY  
AXI APACHE O 13

## AXI APACHE O 13 - PROPOSED P&amp;A WELLBORE SCHEMATIC

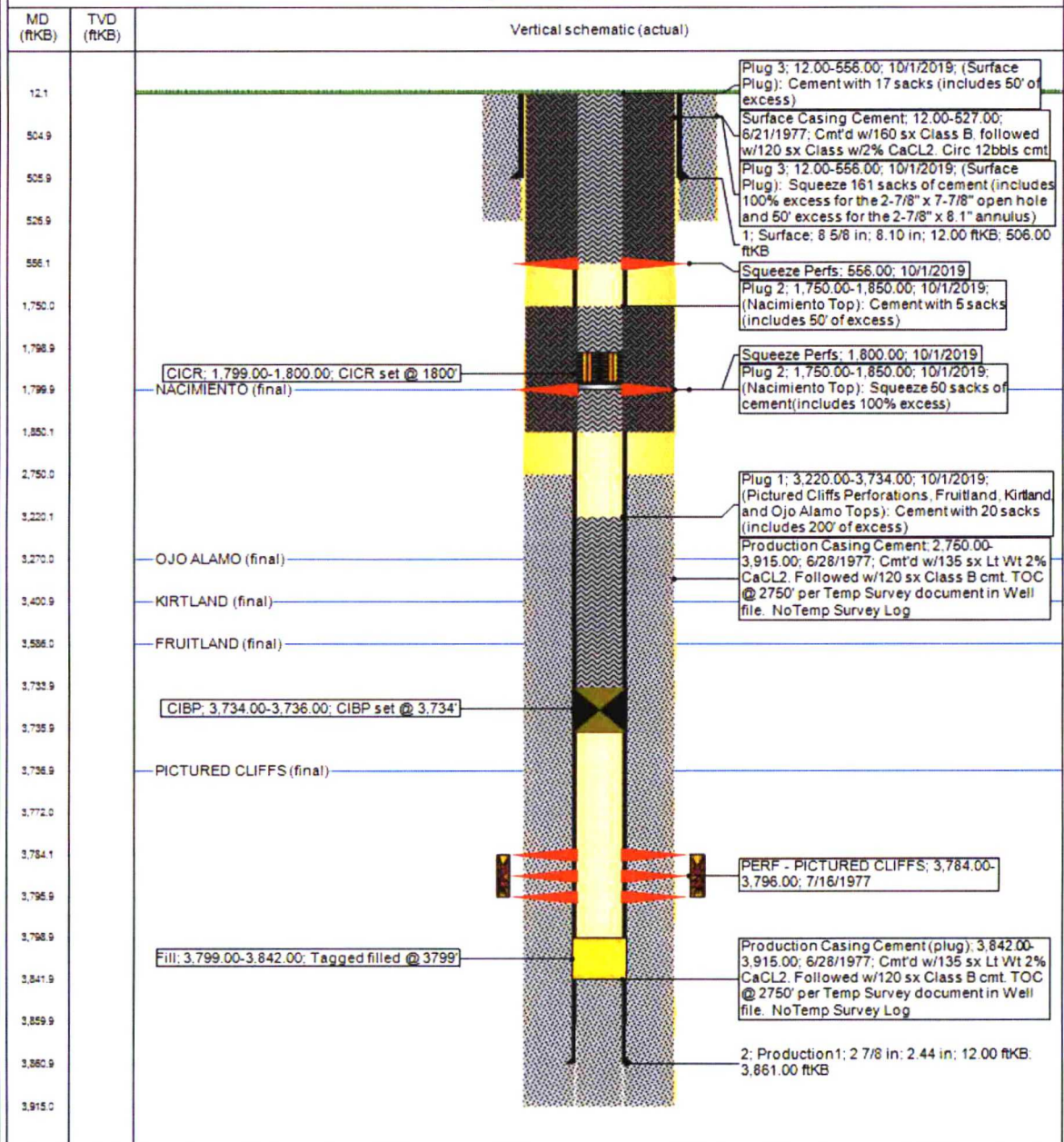


## Current Schematic - Version 3

Well Name: AXI APACHE O #13

API / UWI 3003921432	Surface Legal Location 004-025N-004W-I	Field Name PC	Route 1415	State/Province NEW MEXICO	Well Configuration Type Vertical
Ground Elevation (ft) 7,273.00	Original KB RT Elevation (ft) 7,285.00	KB-Ground Distance (ft) 12.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	

## Vertical, Original Hole, 10/2/2019



**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: AXI Apache O 13

API: 30-039-21432

**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. Submit electronic copy of the CBL for verification to the following addresses: [jkillins@blm.gov](mailto:jkillins@blm.gov) and [Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us) . Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Please review the Genereal Requirements document to ensure volumes meet required excess inside and outside casing.

**GENERAL REQUIREMENTS FOR  
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES  
FARMINGTON FIELD OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

**4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.**

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. **If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.**

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H<sub>2</sub>S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.